



Utility Committee Meeting

AGENDA

April 6, 2010

I. **CALL TO ORDER**

II. **MATTERS BEFORE COMMITTEE**

1. [Discussion / Approval - EGC Spec Book](#)
2. [Discussion / Approval - Internet Acceptable Use Policies](#)

III. **ADJOURN**



Utility Committee Meeting

AGENDA

April 6, 2010

Item:

Discussion / Approval - EGC Spec Book

Department:

Additional Information:

Financial Impact:

Budgeted Item:

Recommendation / Request:

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

Attachments / click to download

 [EGC Spec Book](#)



CONSTRUCTION ASSEMBLY SPECIFICATIONS

for

12.5/7.2 kV

Distribution Systems

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FOR
ELECTRIC CITIES OF GEORGIA
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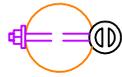
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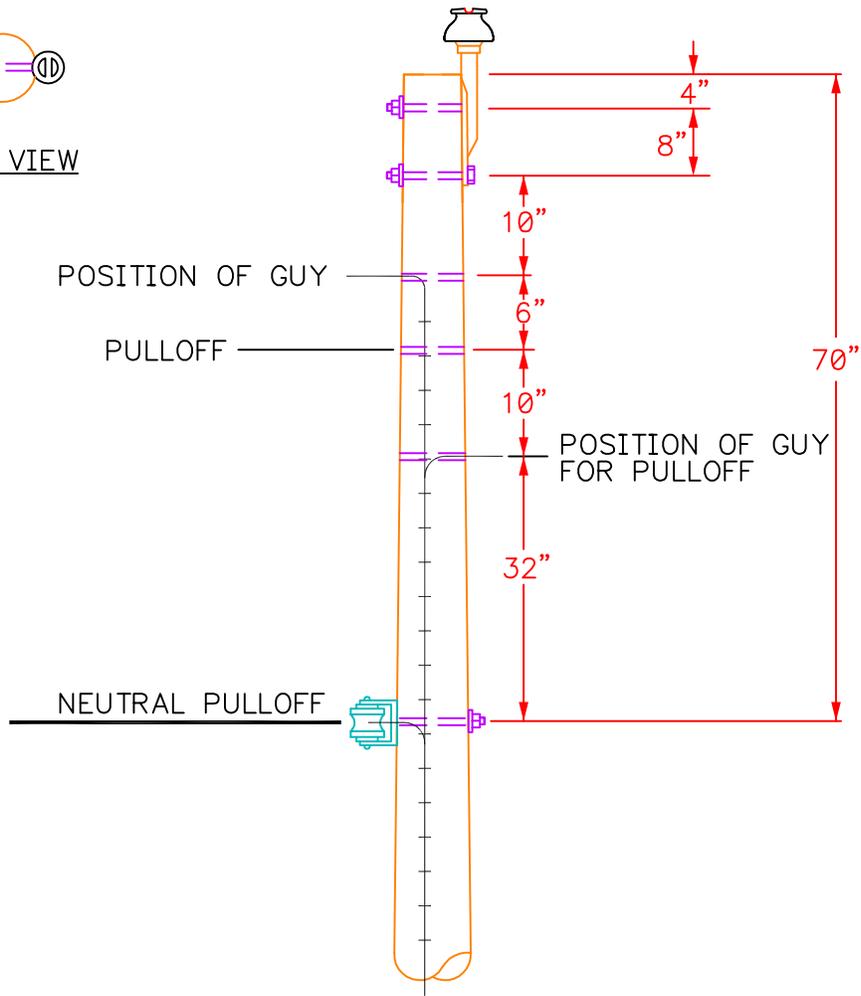
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TOP VIEW



0° - 6° LINE ANGLE

STANDARD CONFIGURATION, STRAIGHT LINE CONSTRUCTION

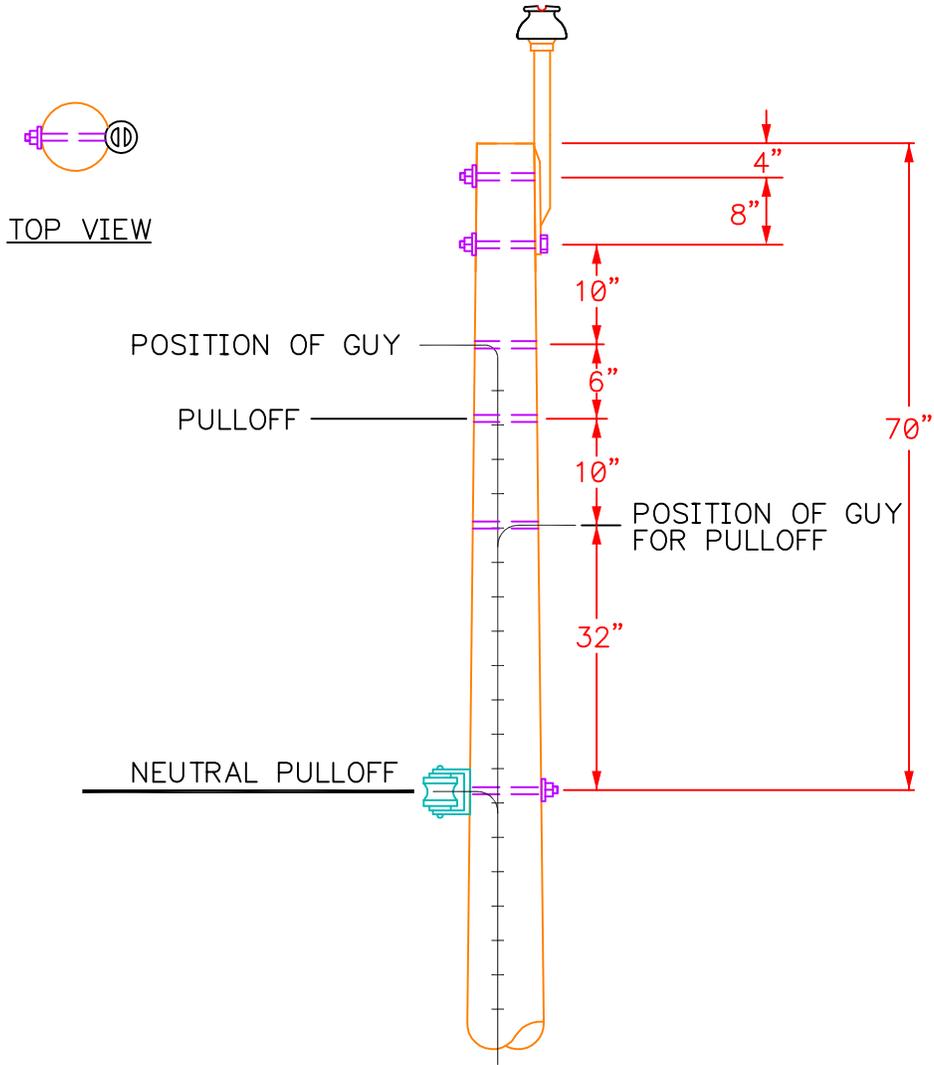
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

REVISIONS AUGUST, 2002

A1



0° - 6° LINE ANGLE

STANDARD CONFIGURATION,
STRAIGHT LINE CONSTRUCTION

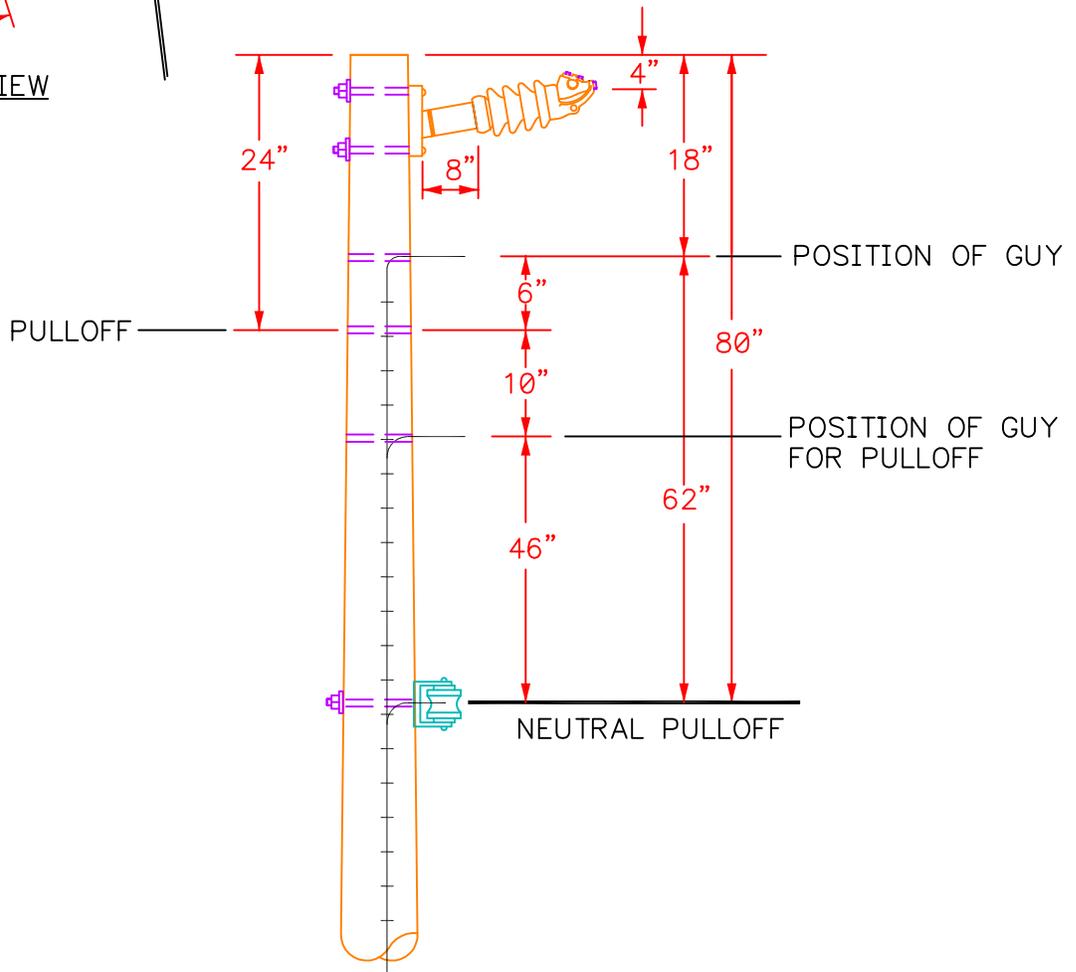
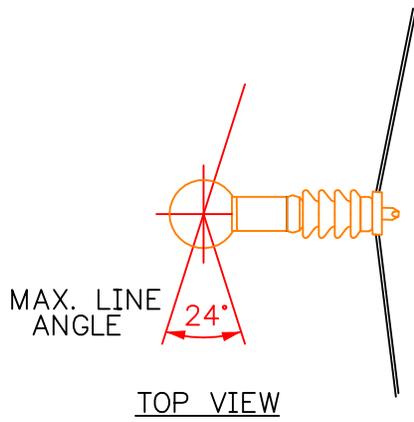
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

A1F



0° - 6° LINE ANGLE TIE TYPE
6° - 24° LINE ANGLE CLAMP TYPE

**STANDARD CONFIGURATION,
 STRAIGHT LINE TO MEDUIM ANGLE CONSTRUCTION**

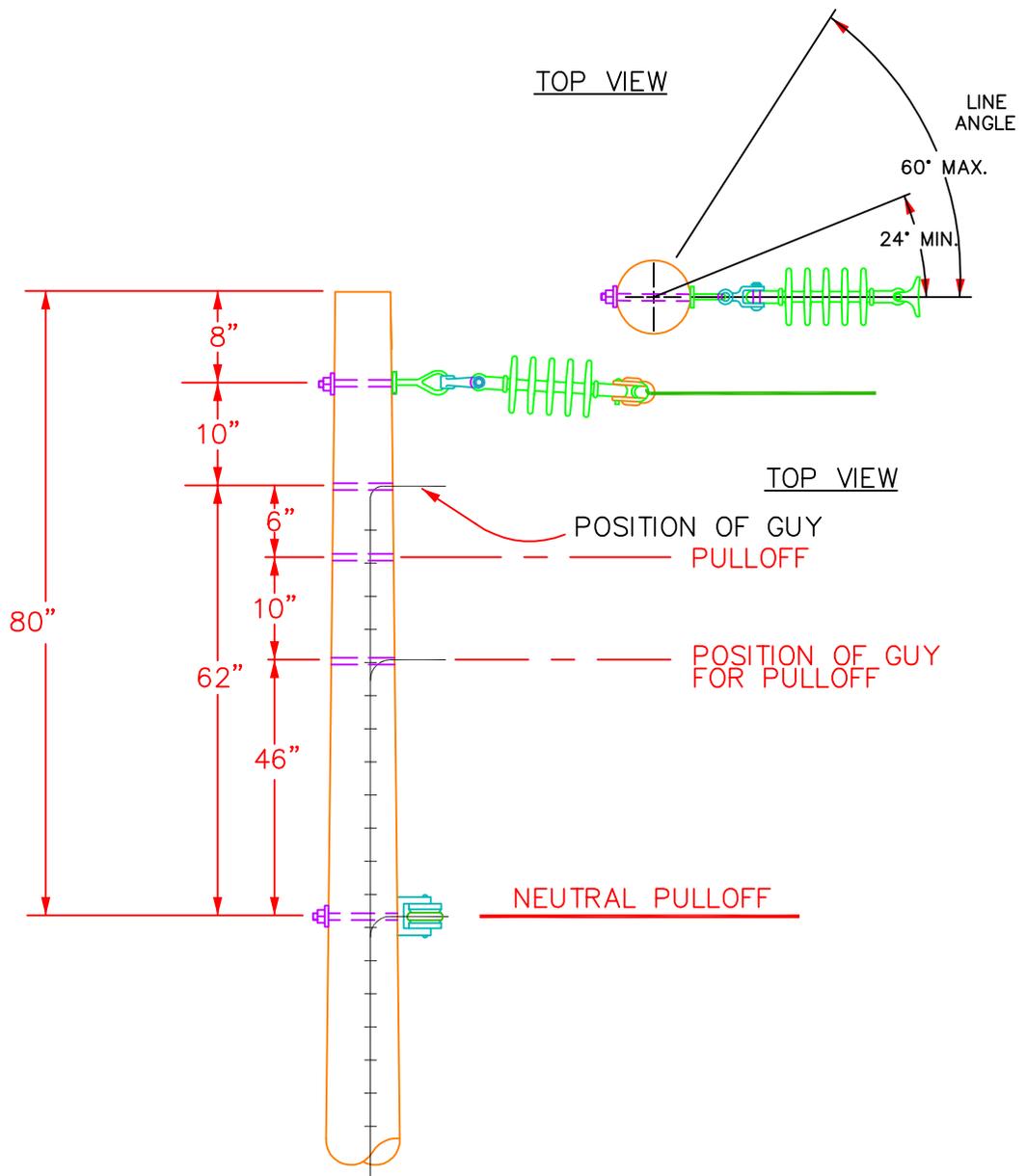
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

A2V



24° - 60° LINE ANGLE

STANDARD CONFIGURATION,
VERTICAL SUSPENSION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



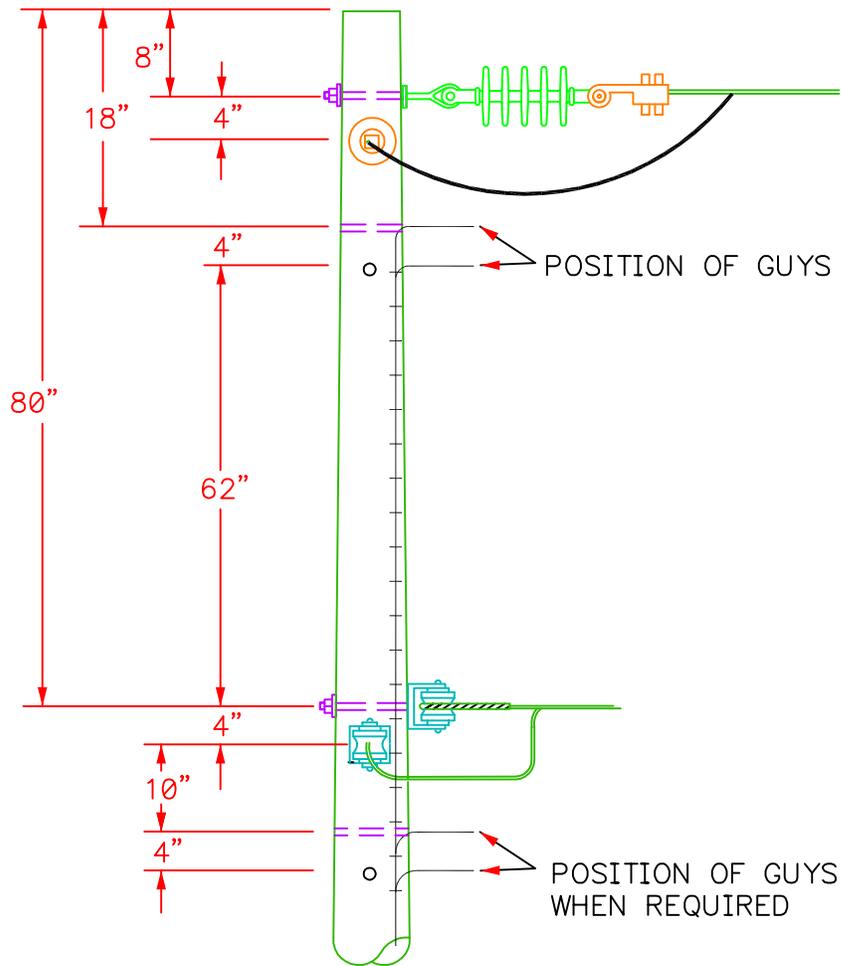
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JANUARY, 2007

DATE: OCTOBER, 1992

A3

TOP VIEW

GUYS



STANDARD CONFIGURATION, DOUBLE DEADEND ANGLE

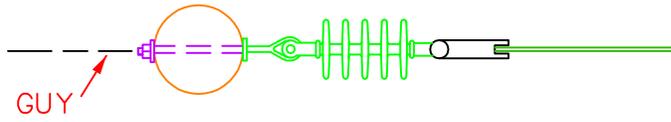
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



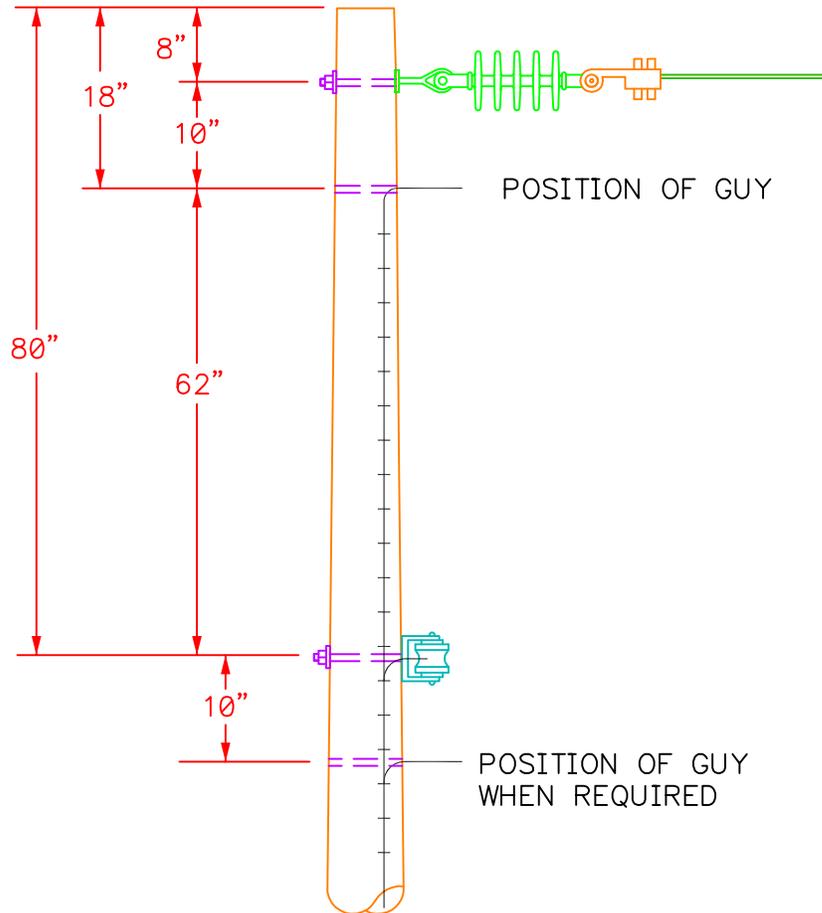
DATE: OCTOBER, 1992

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JANUARY, 2007

A4



TOP VIEW



STANDARD CONFIGURATION, DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

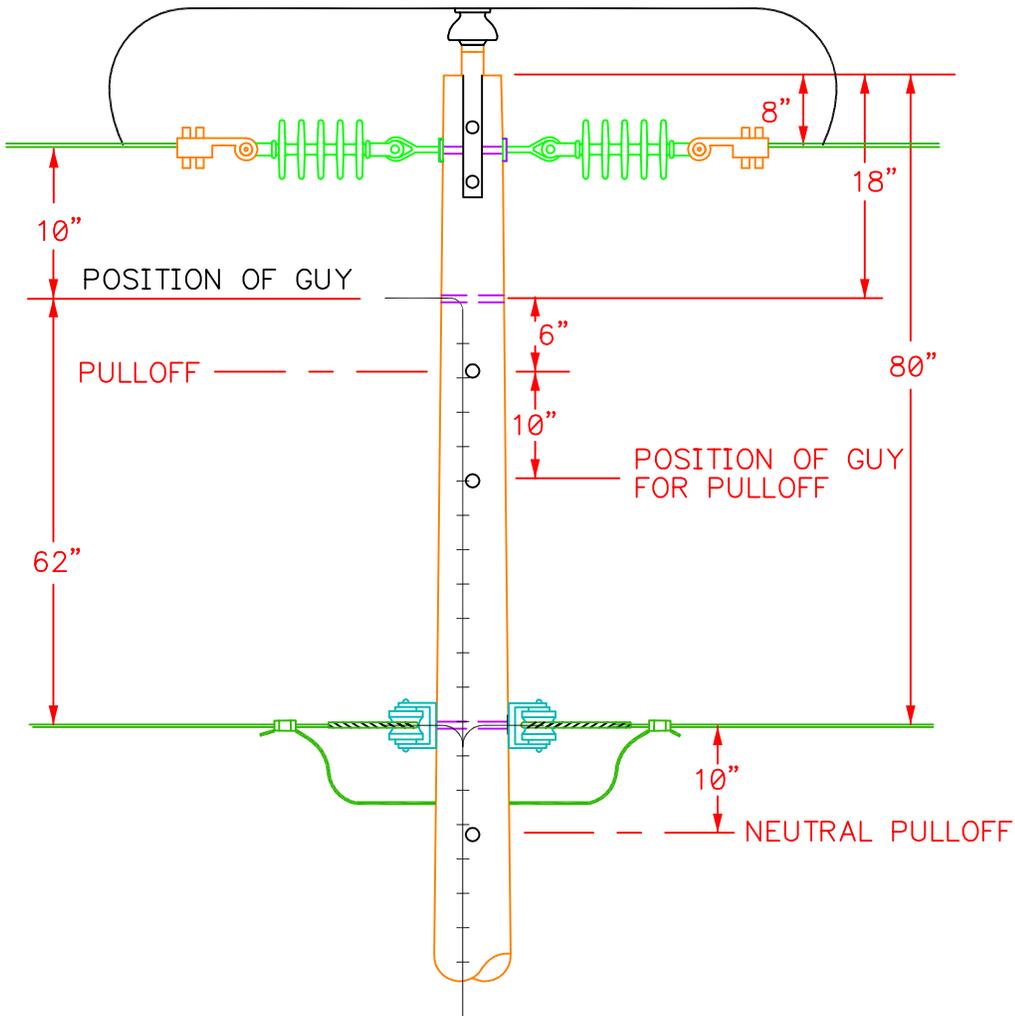


DATE: OCTOBER, 1992

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A5



STANDARD CONFIGURATION, DOUBLE DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

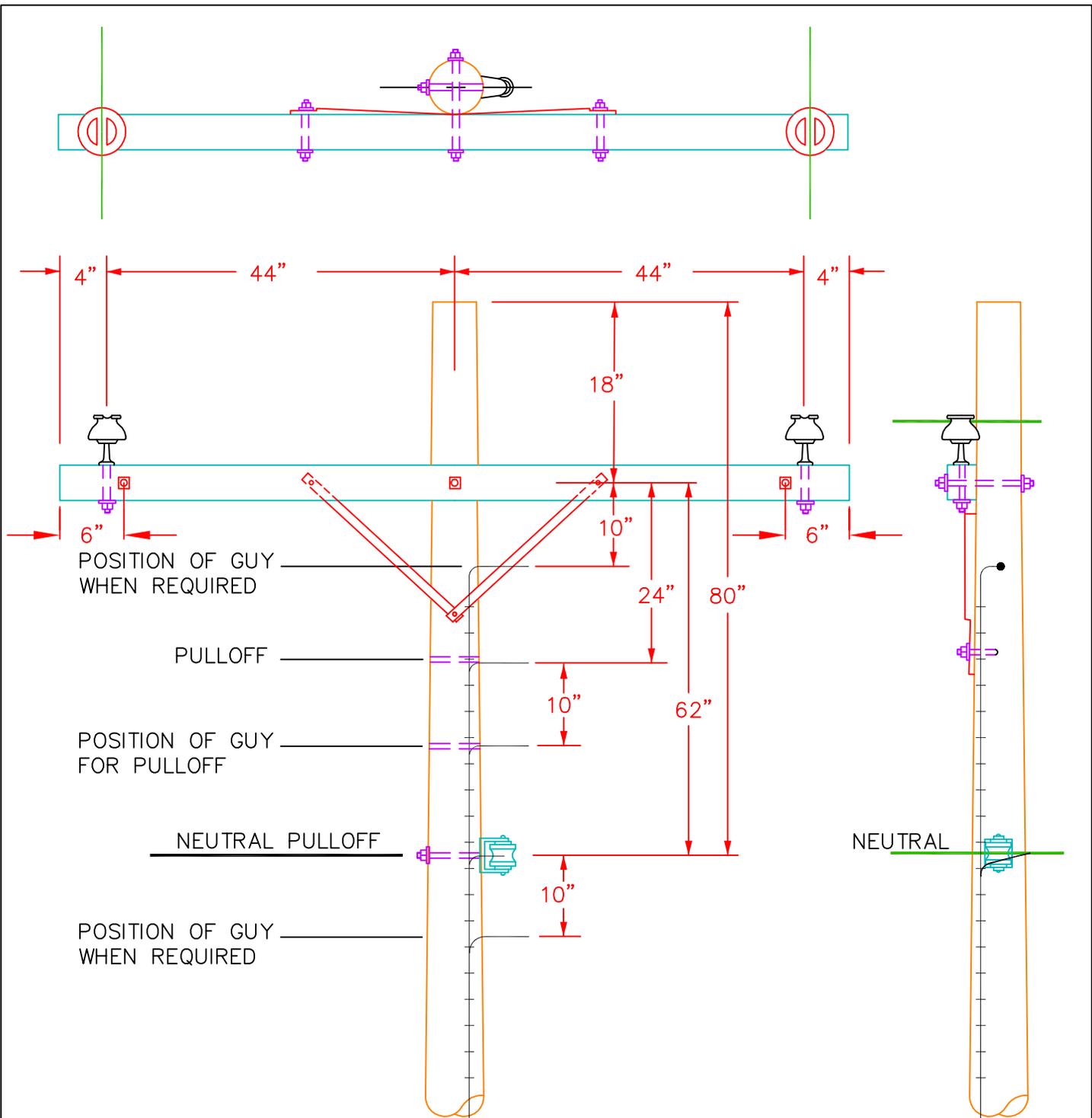
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JANUARY, 2007

A6

TWO PHASE O.H.

ELECTRIC CITIES



0° - 6° LINE ANGLE

STRAIGHT LINE,
CROSSARM CONSTRUCTION, SINGLE ARM SUPPORT

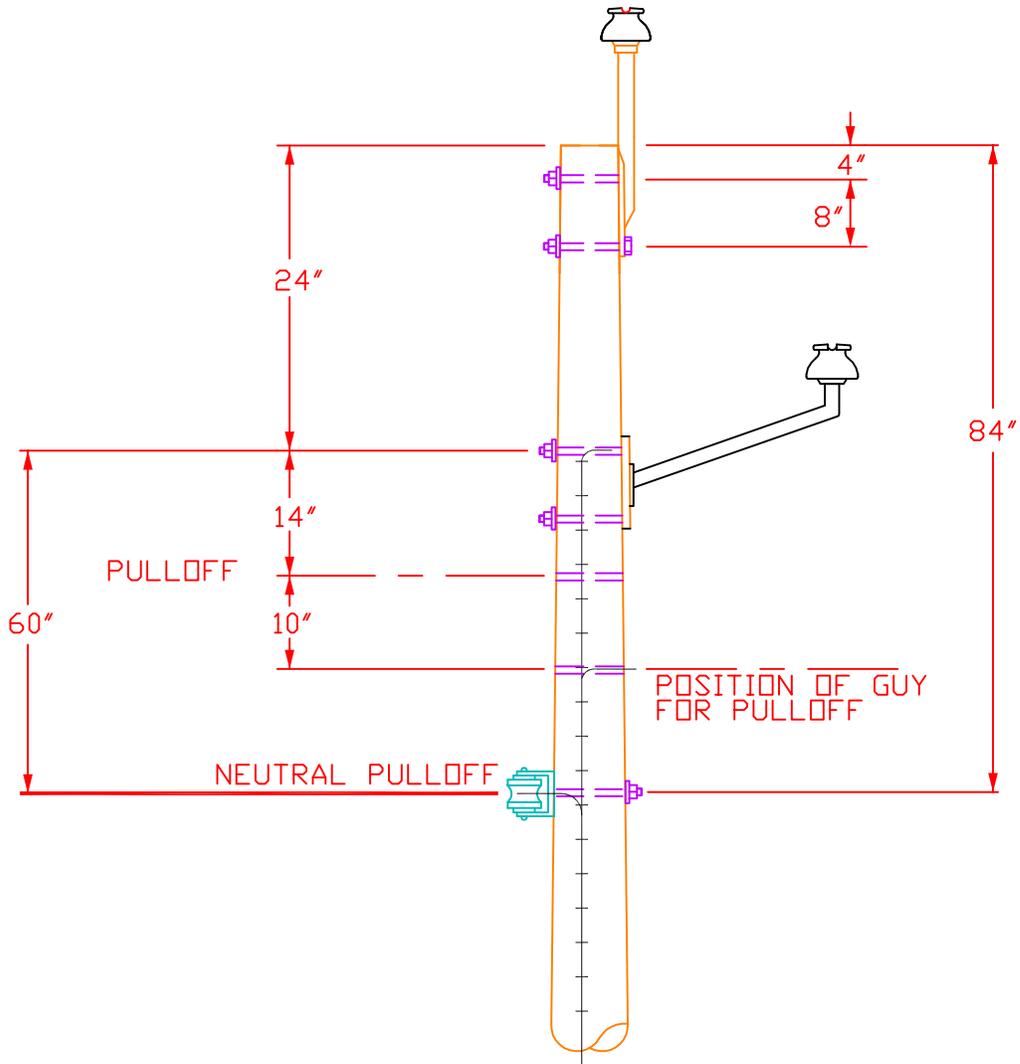
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



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DATE: OCTOBER, 1992

B1



0° - 6° LINE ANGLE

STANDARD CONFIGURATION,
STRAIGHT LINE CONSTRUCTION

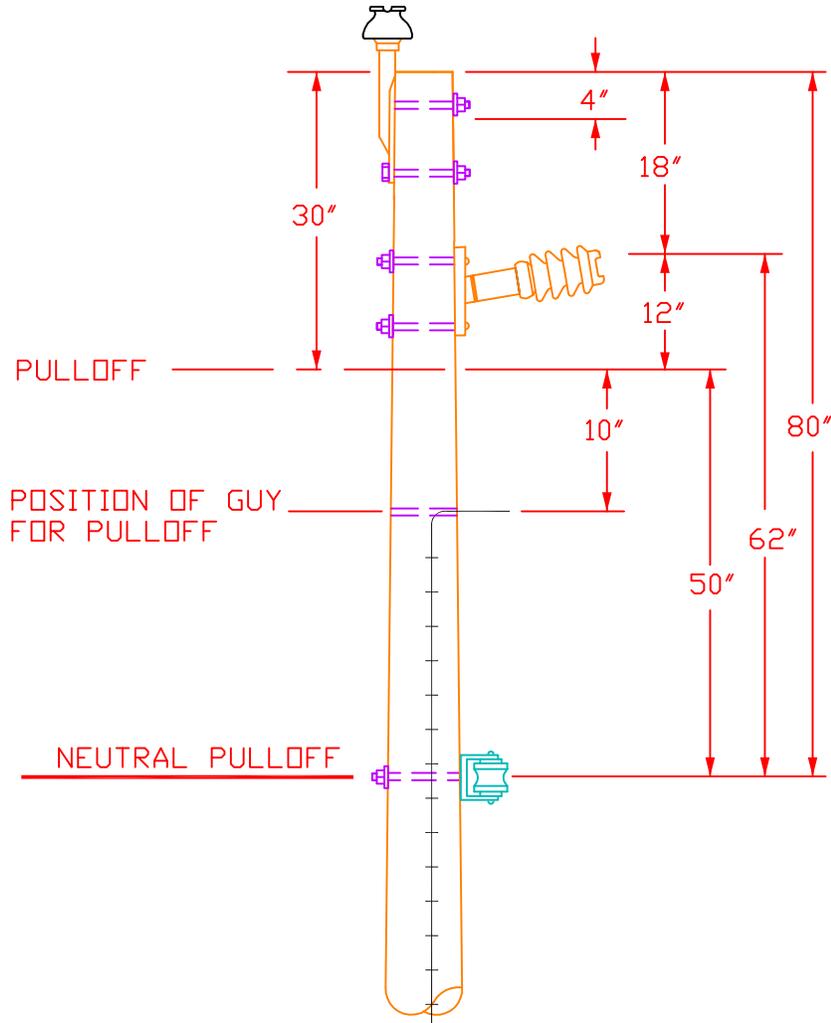
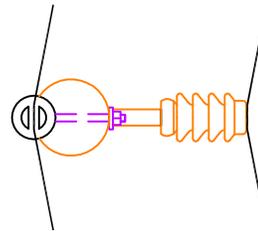
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



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DATE: OCTOBER, 1992

B1F



0° - 6° LINE ANGLE

STANDARD CONFIGURATION,
STRAIGHT LINE CONSTRUCTION

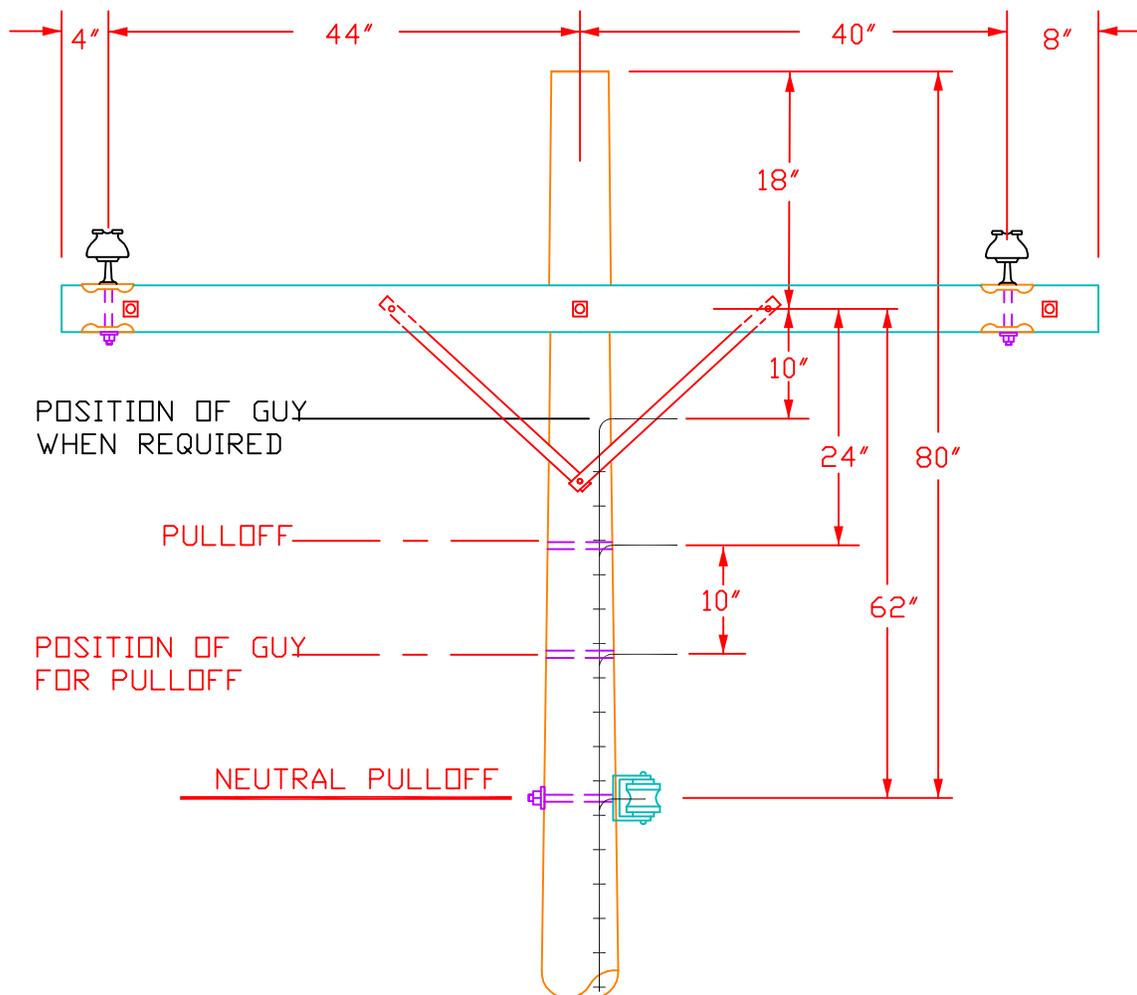
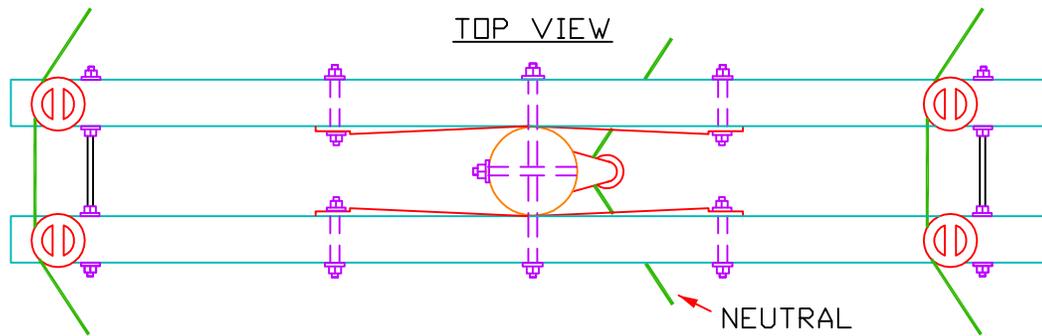
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



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DATE: OCTOBER, 1992

B1P



6° - 24° LINE ANGLE

**STANDARD CONFIGURATION,
MEDIUM ANGLE, CROSSARM CONSTRUCTION**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



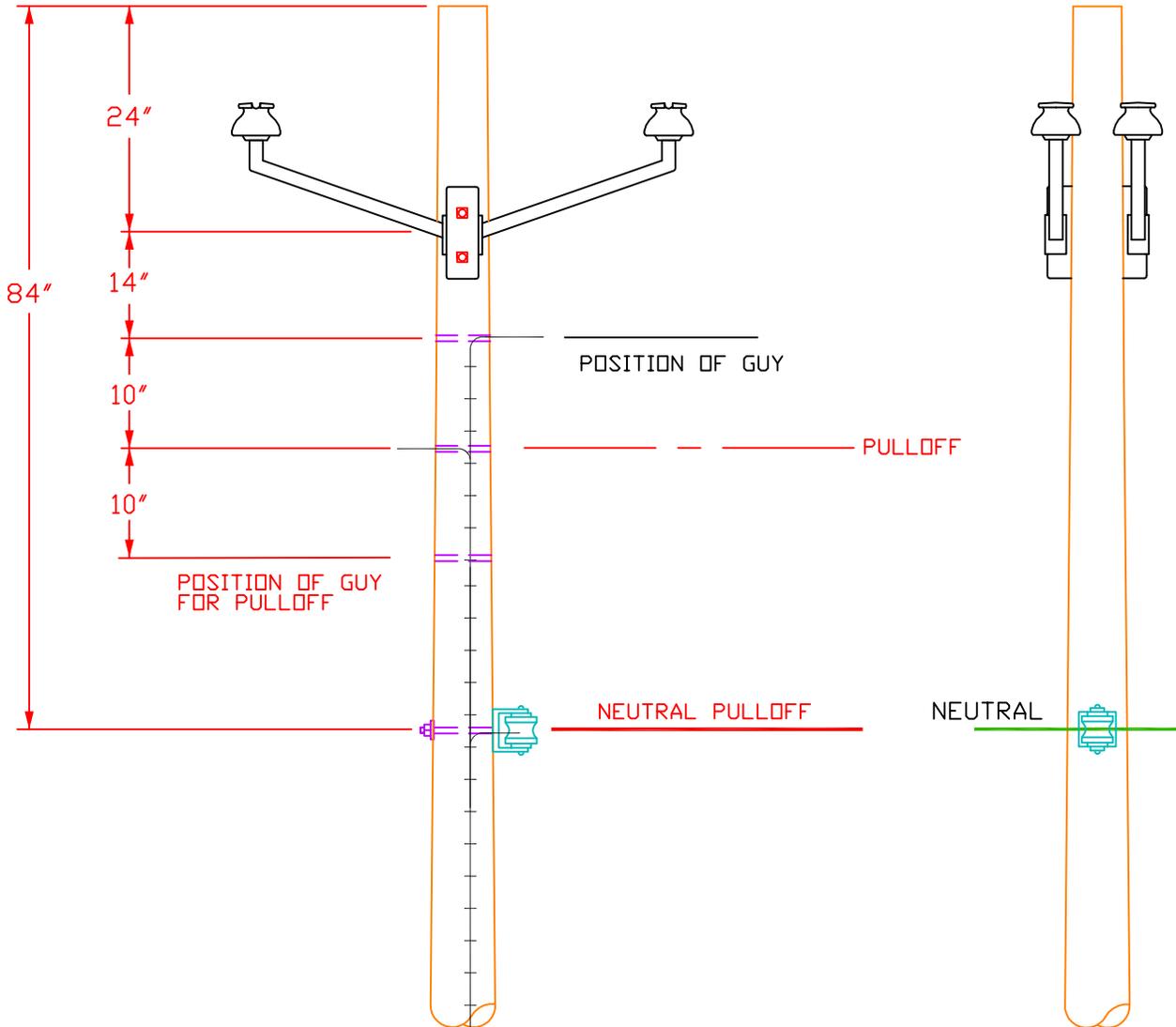
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DATE: OCTOBER, 1992

B2

FRONT VIEW

SIDE VIEW



6° - 24° LINE ANGLE

STANDARD CONFIGURATION,
MEDIUM ANGLE CONSTRUCTION

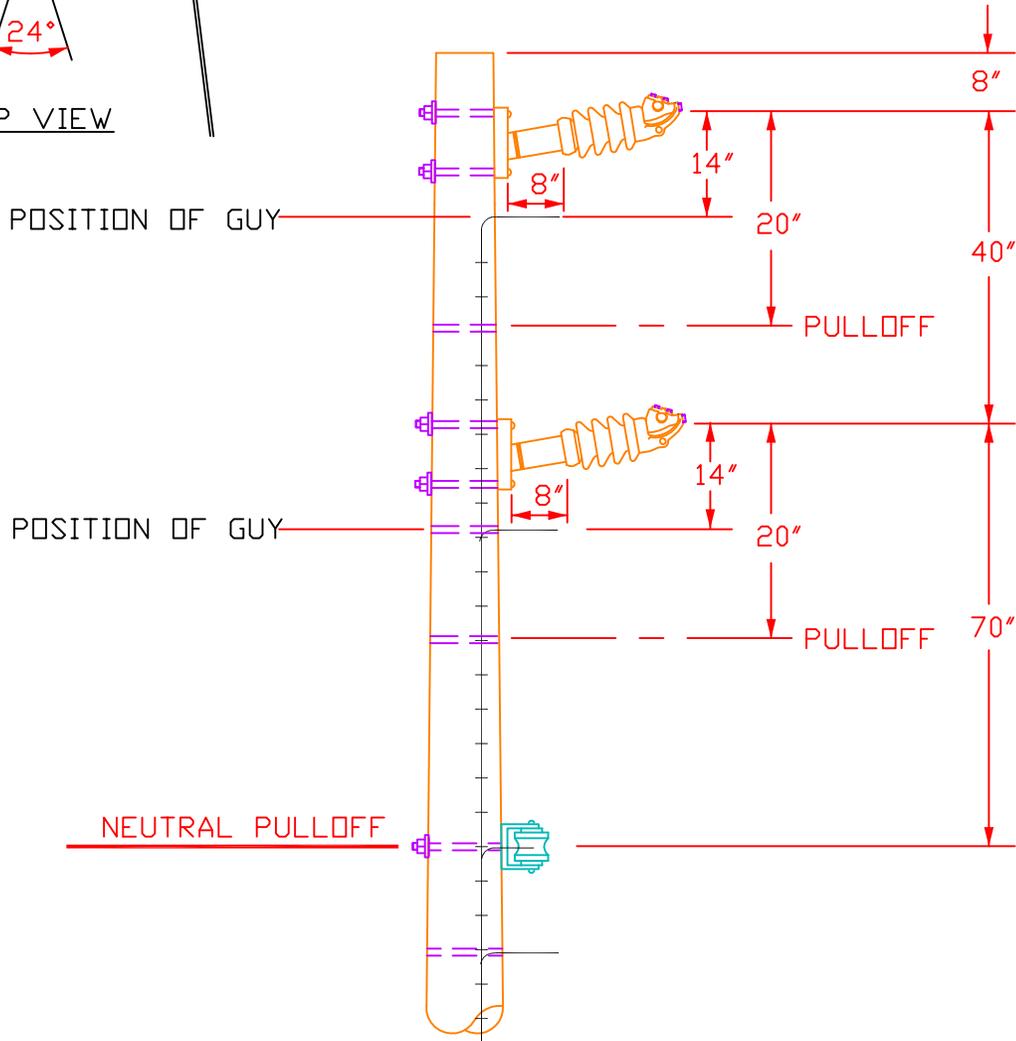
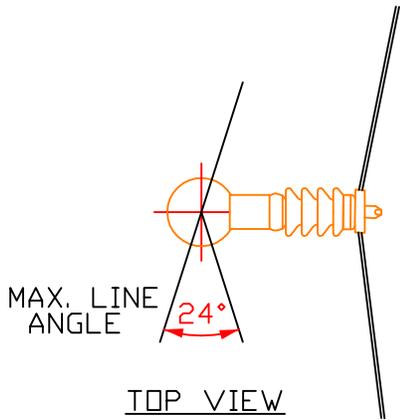
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



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DATE: OCTOBER, 1992

B2F



0° - 6° LINE ANGLE TIE TYPE
6° - 24° LINE ANGLE CLAMP TYPE

**STANDARD CONFIGURATION, VERTICAL STRAIGHT
 LINE TO MEDIUM ANGLE CONSTRUCTION**

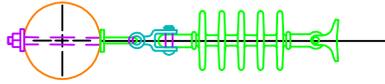
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



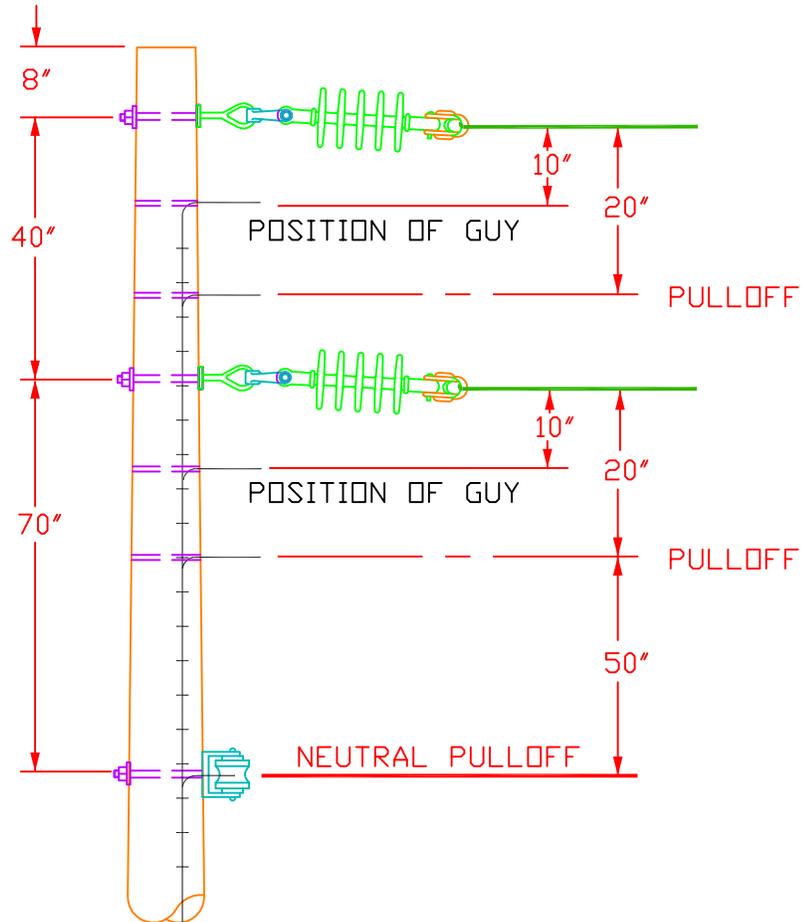
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DATE: OCTOBER, 1992

B2V



TOP VIEW



24° - 60° LINE ANGLE

STANDARD CONFIGURATION, VERTICAL SUSPENSION

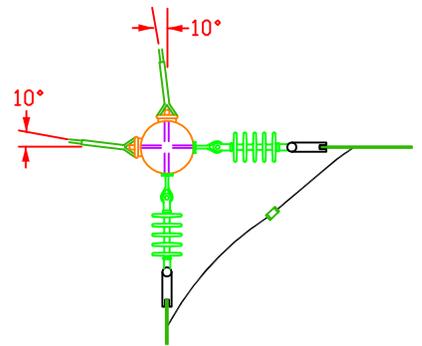
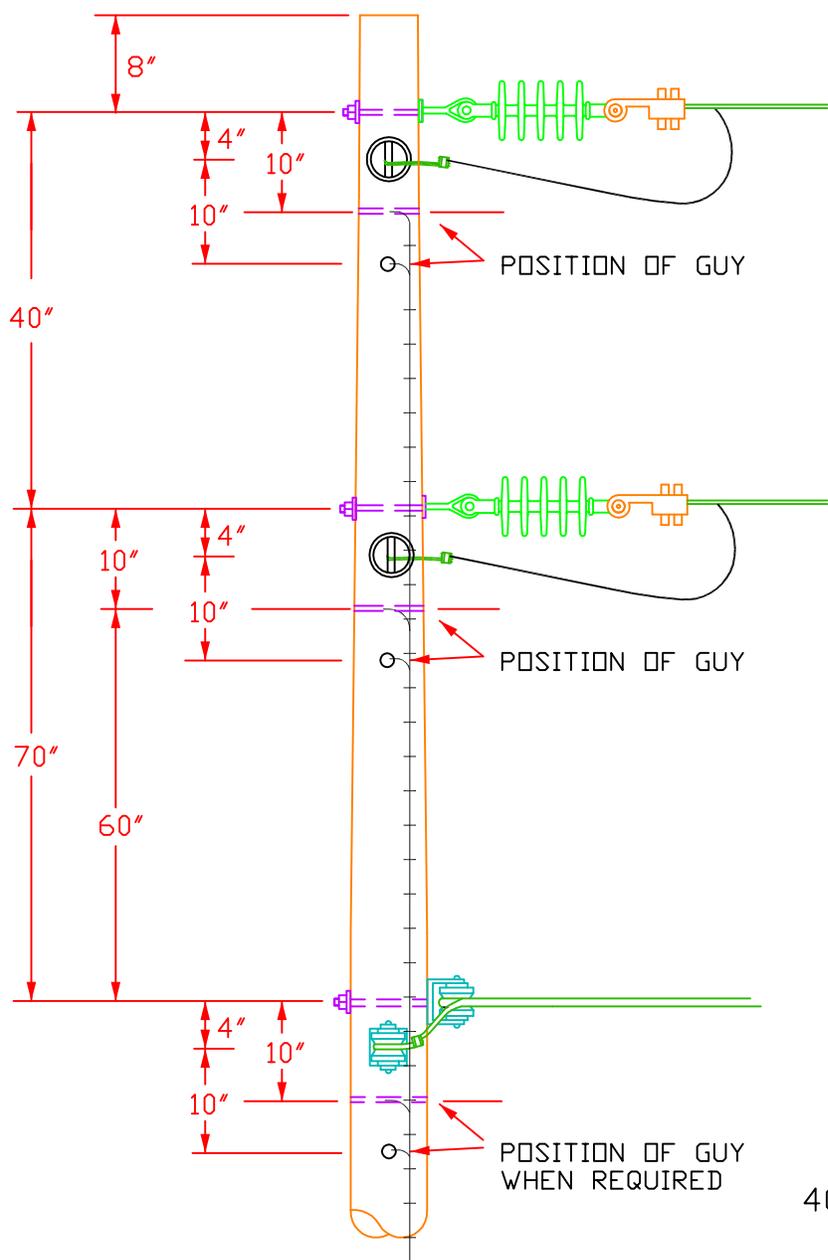
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

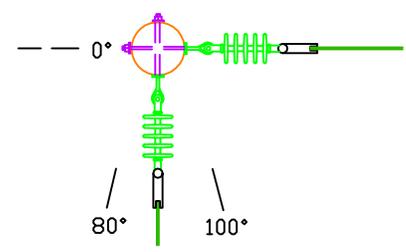
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JANUARY, 2007

B3

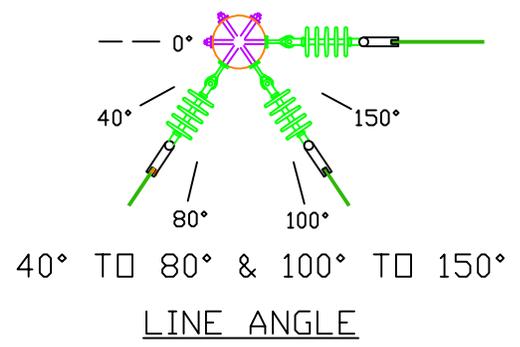


TOP VIEW

NOTE:
LOCATE ANCHOR 10° OUTSIDE
OF LINE ANGLE.



80° TO 100°
LINE ANGLE



40° TO 80° & 100° TO 150°
LINE ANGLE

USE BOTTOM GUY POSITION ON WIRE SIZES LARGER THAN 1/0 ACSR

**STANDARD CONFIGURATION,
VERTICAL CONSTRUCTION, DOUBLE DEADEND ANGLE**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



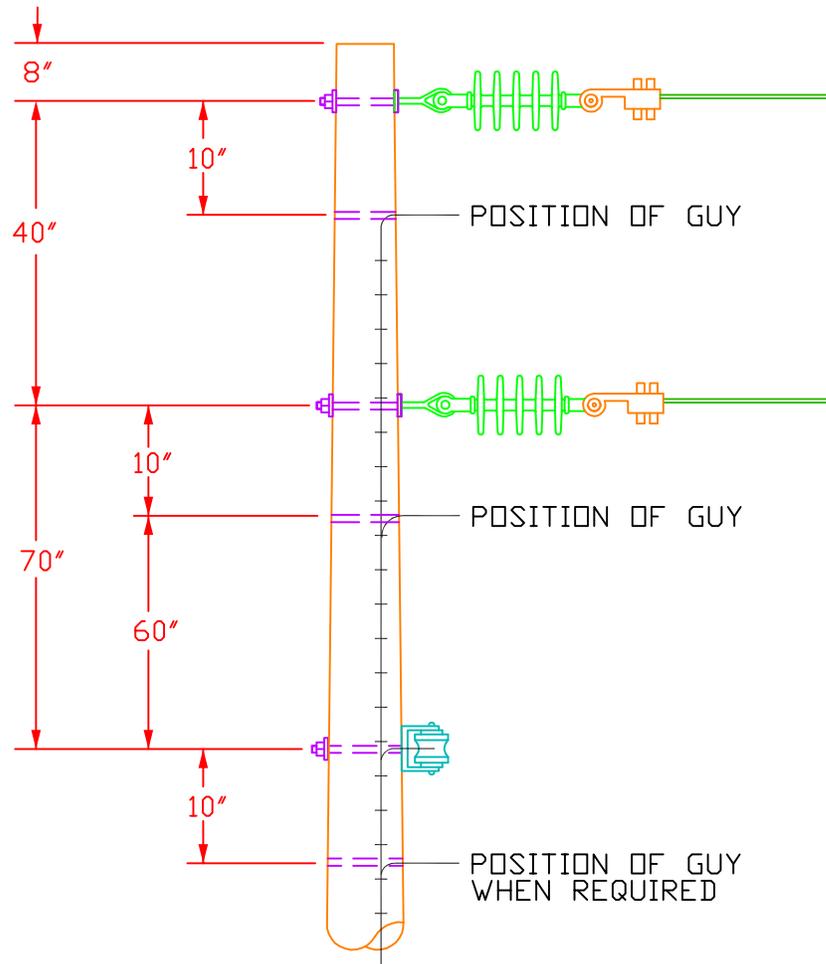
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JANUARY, 2007

B4

DATE: OCTOBER, 1992



TOP VIEW



VERTICAL CONSTRUCTION, DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

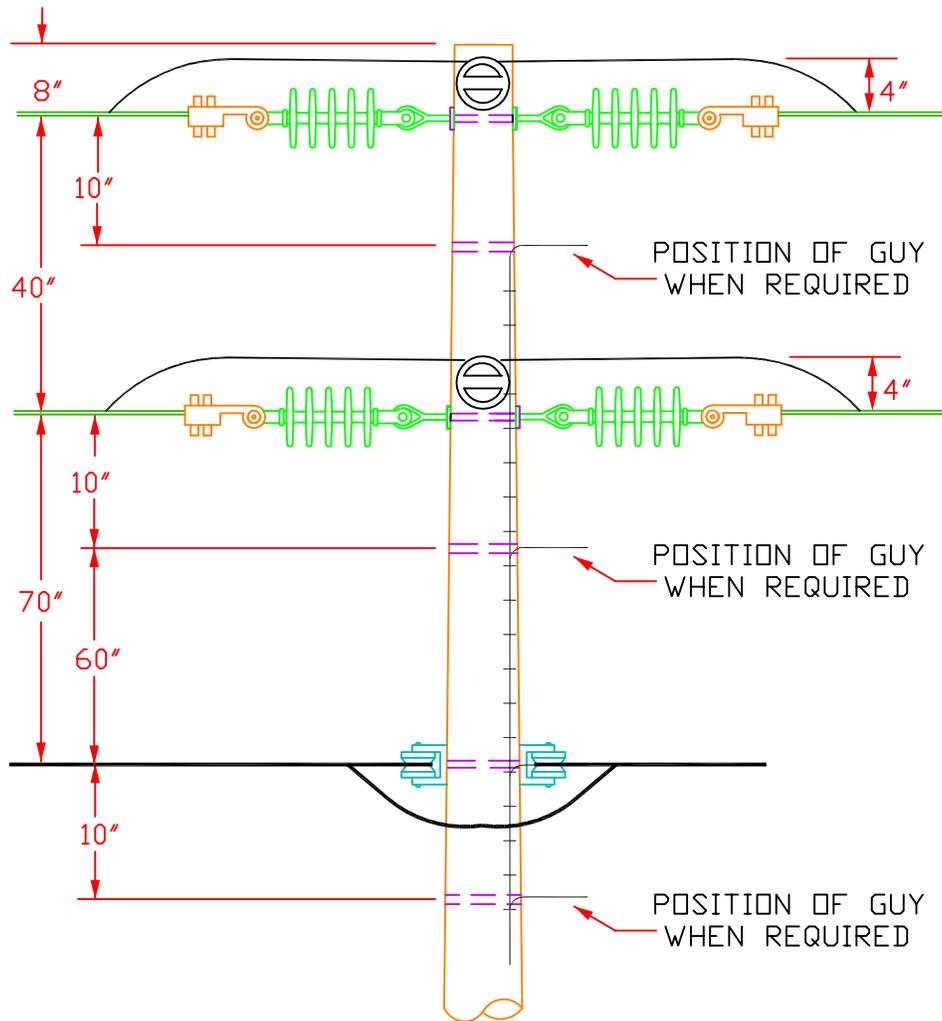


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JANUARY, 2007

DATE: OCTOBER, 1992

B5



VERTICAL CONSTRUCTION, DOUBLE DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

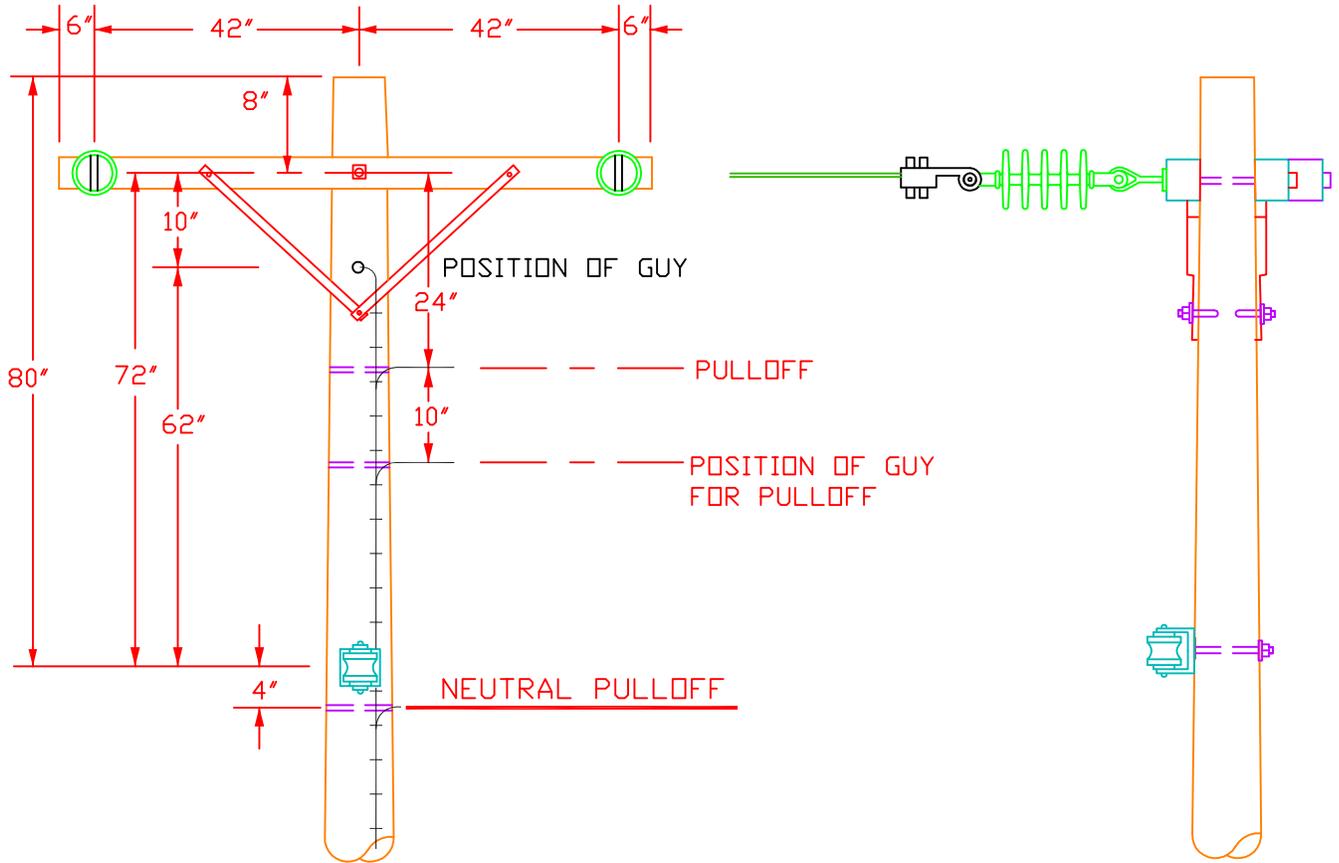
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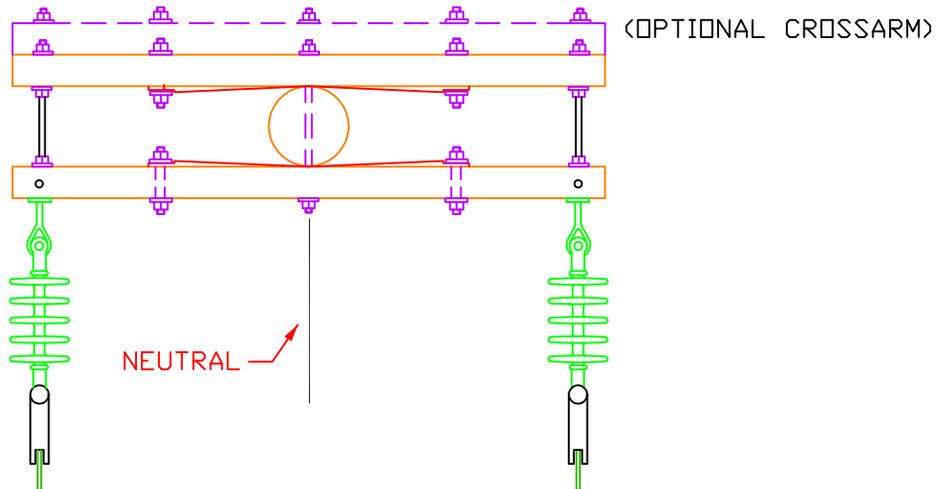
B6

FRONT VIEW

SIDE VIEW



TOP VIEW



**CROSSARM CONSTRUCTION,
DEADEND ON ARMS**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

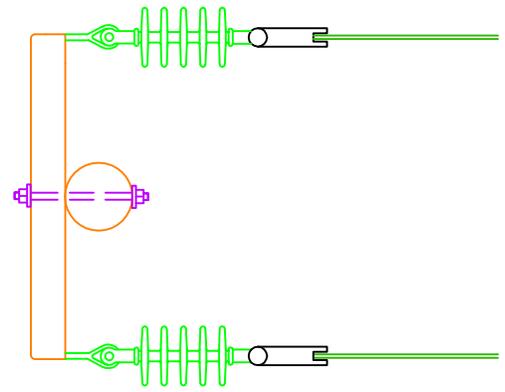


DATE: OCTOBER, 1992

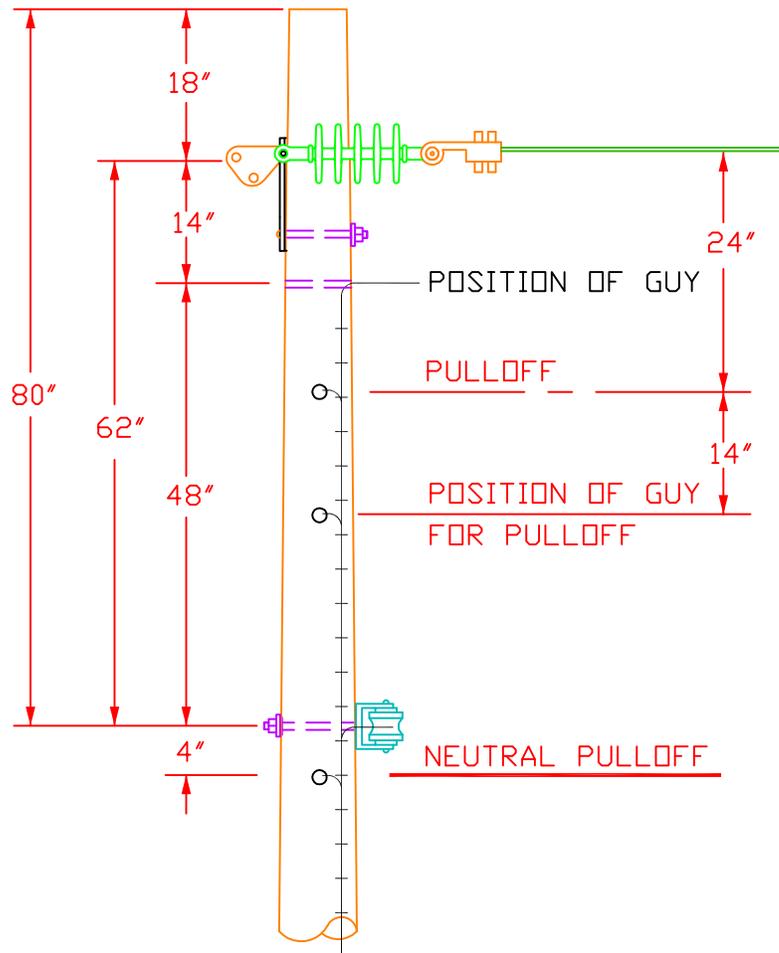
REVISIONS JULY, 2002

JANUARY, 2007

B7



TOP VIEW



STANDARD CONFIGURATION, HORIZONTAL DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



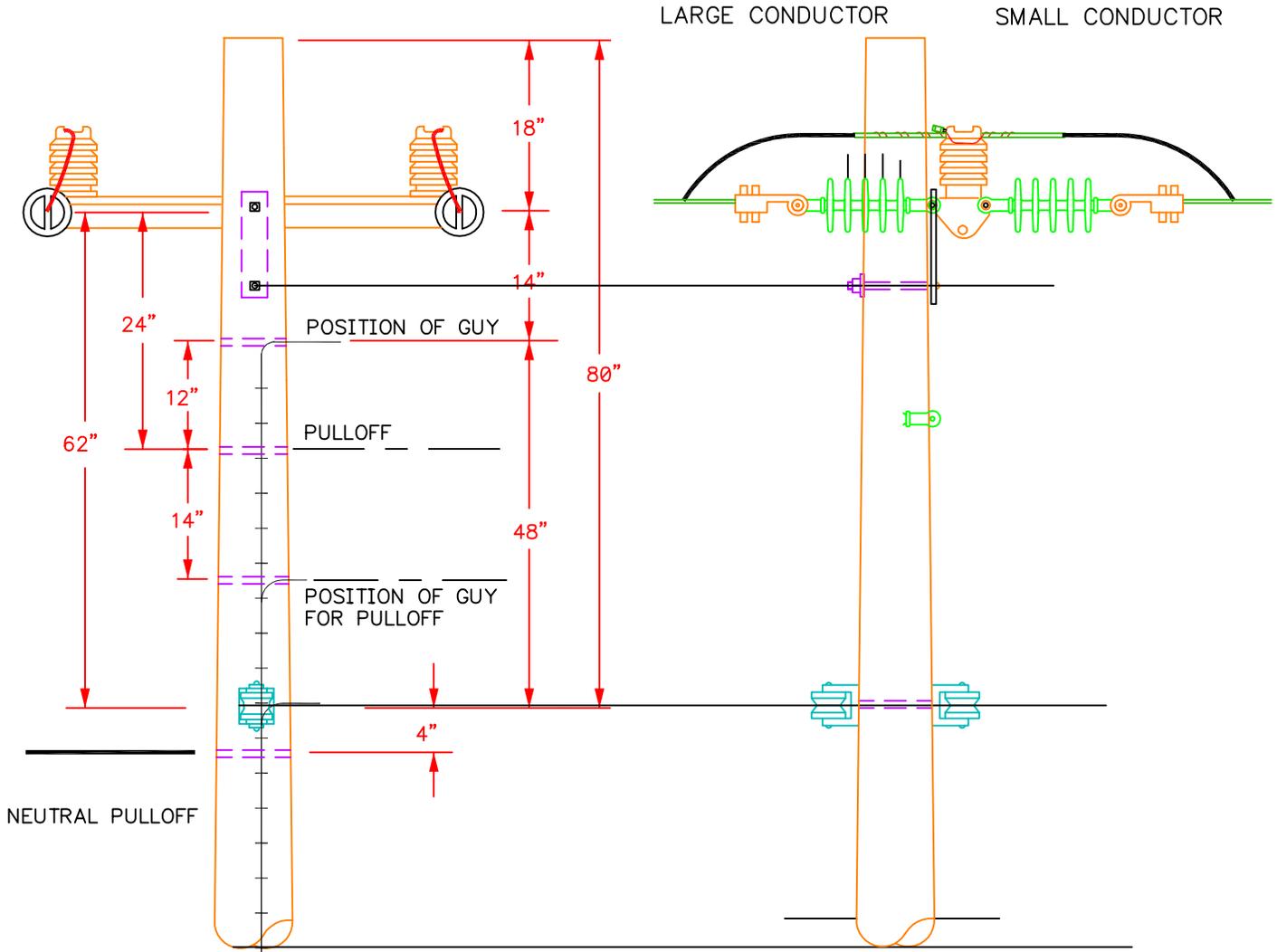
DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

B7S

FRONT VIEW

SIDE VIEW



0° - 24° LINE ANGLE

**STANDARD CONFIGURATION,
HORIZONTAL DOUBLE DEADEND, WIRE SIZE CHANGE**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



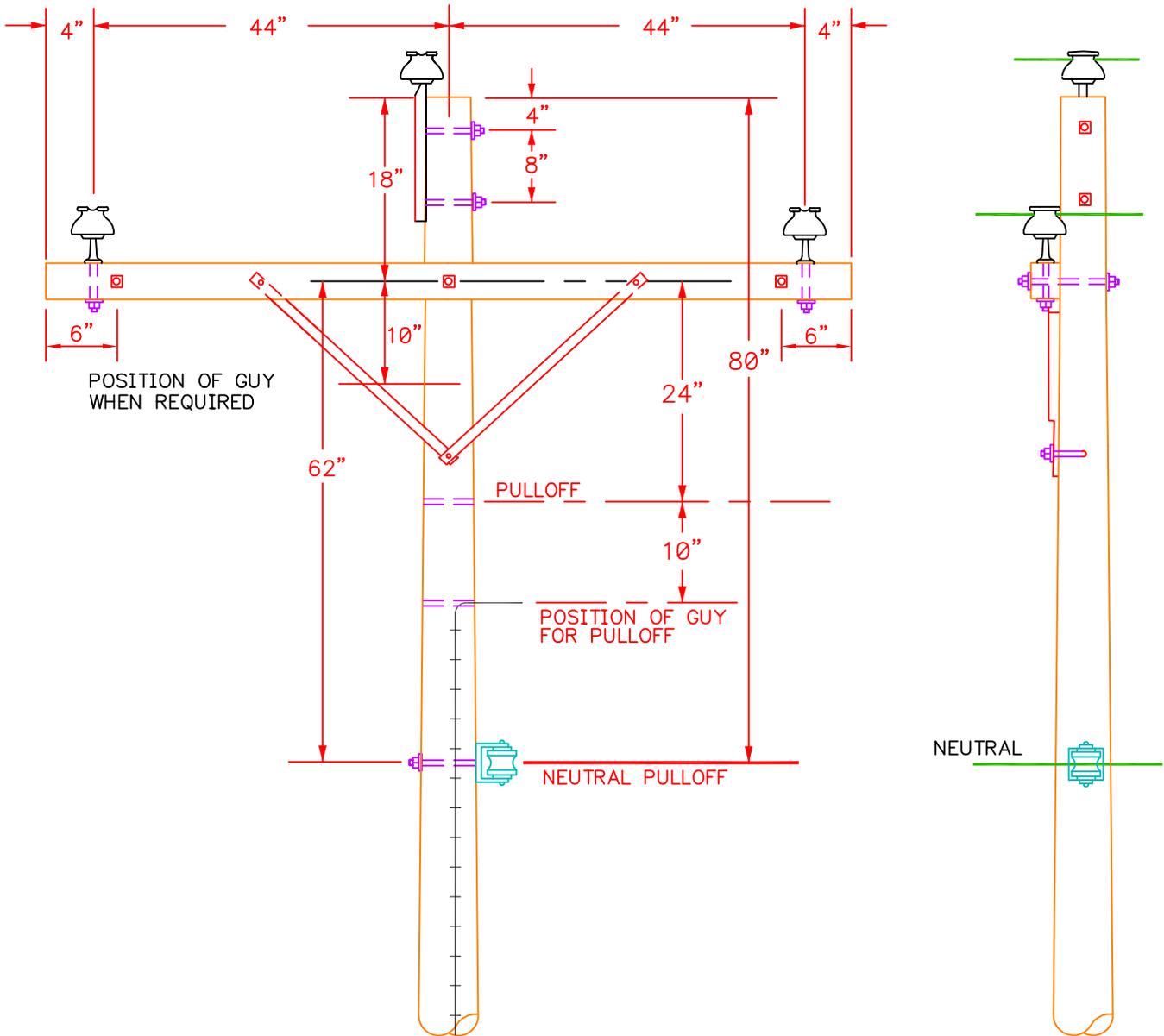
REVISIONS JULY, 2002
JANUARY, 2007

B8S

DATE: OCTOBER, 1992

THREE PHASE O.H.

ELECTRIC CITIES



0° - 6° LINE ANGLE TIE TYPE

**STANDARD CONFIGURATION, STRAIGHT LINE
CROSSARM CONSTRUCTION, SINGLE ARM SUPPORT**

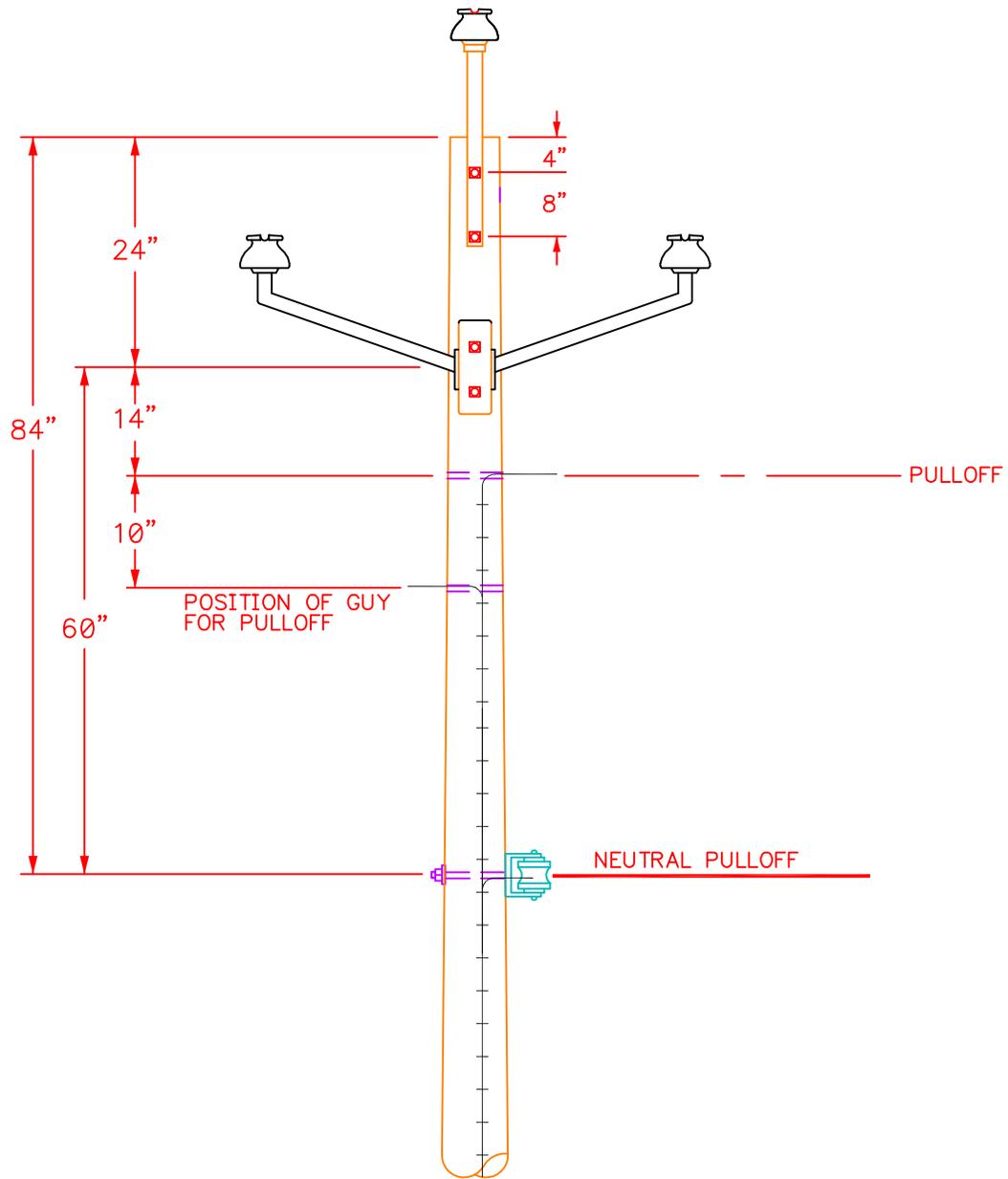
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C1



0° - 6° LINE ANGLE

STANDARD CONFIGURATION,
STRAIGHT LINE CONSTRUCTION

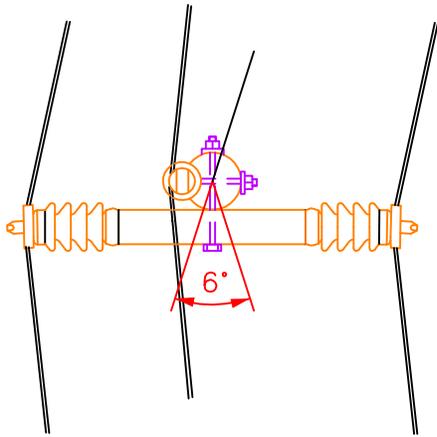
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



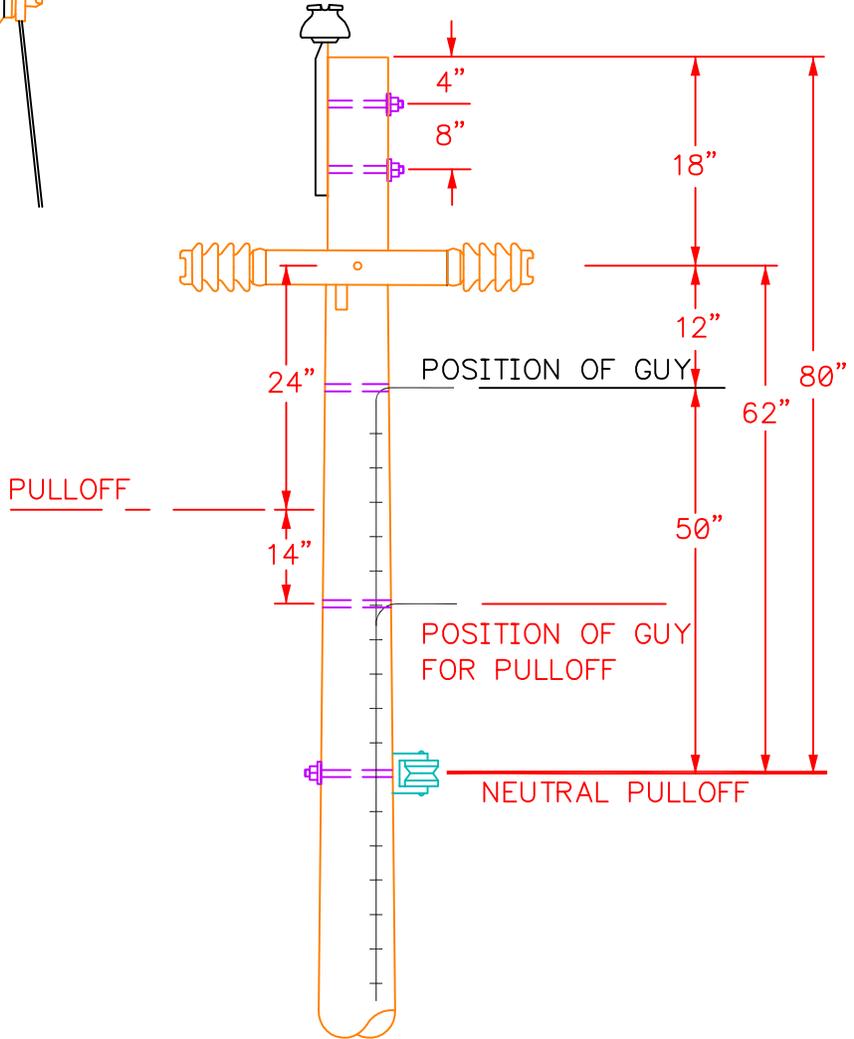
REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C1F



TOP VIEW



0° - 6° LINE ANGLE

**STANDARD CONFIGURATION,
STRAIGHT LINE CONSTRUCTION**

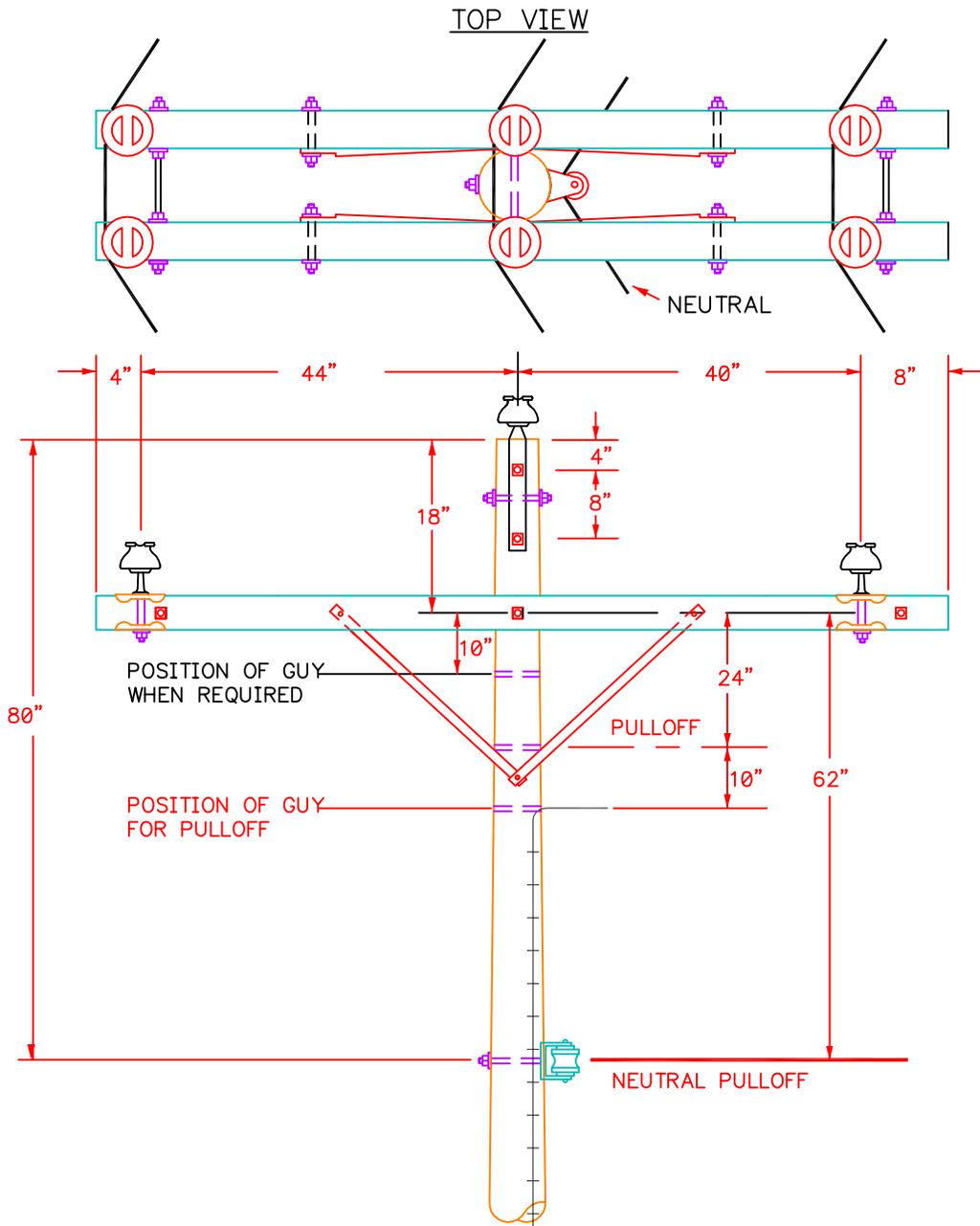
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C1PS



6° - 24° LINE ANGLE

STANDARD CONFIGURATION,
MEDIUM ANGLE, CROSSARM CONSTRUCTION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



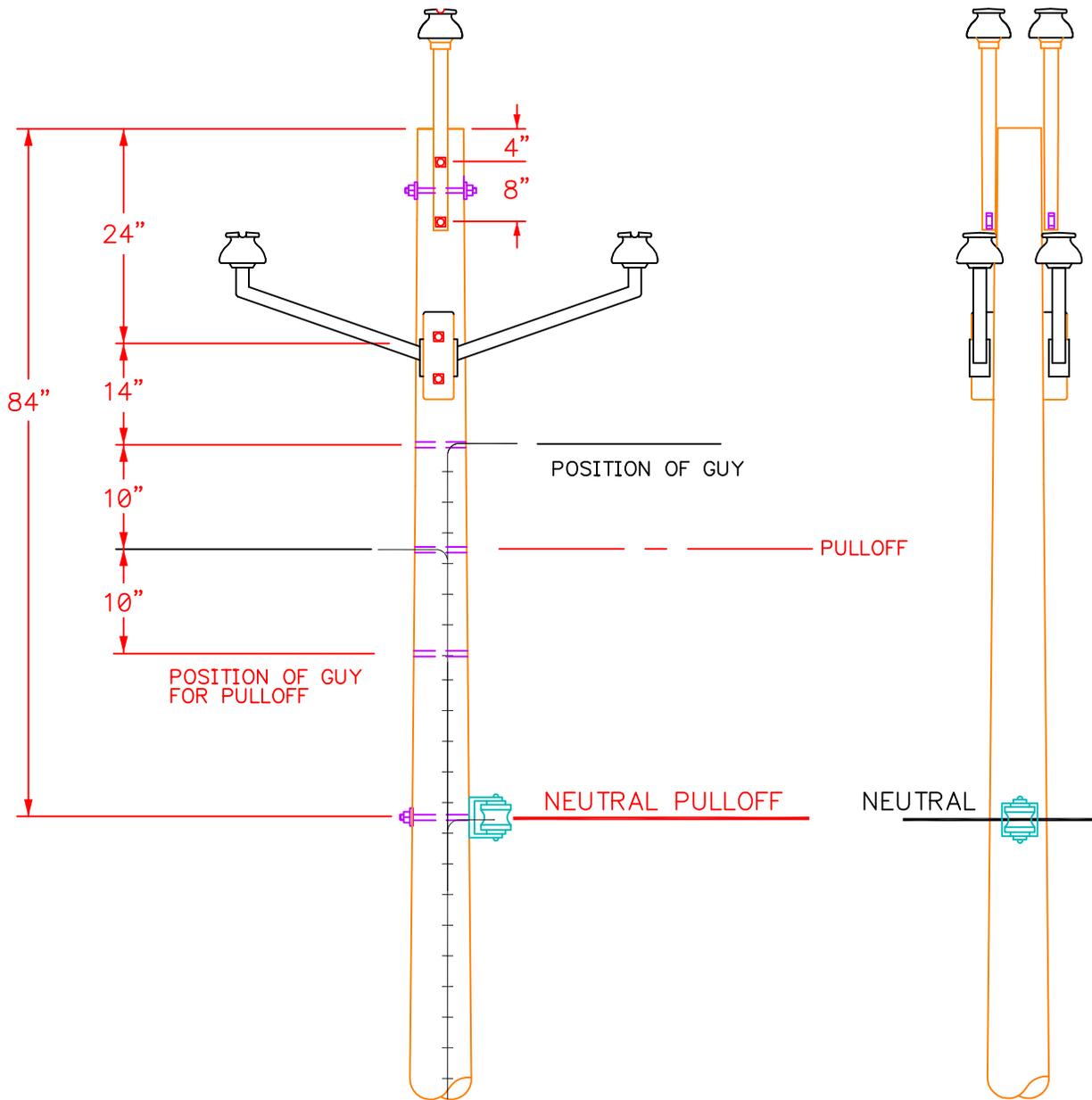
REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C2

FRONT VIEW

SIDE VIEW



6° - 24° LINE ANGLE

**STANDARD CONFIGURATION,
MEDIUM ANGLE CONSTRUCTION**

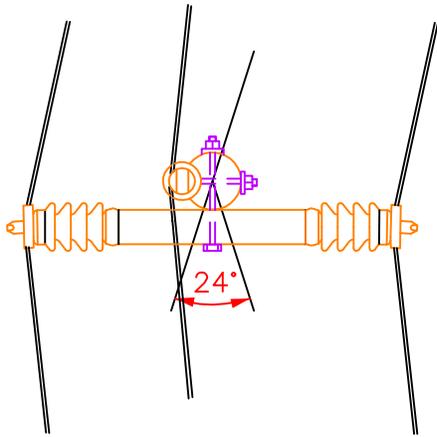
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



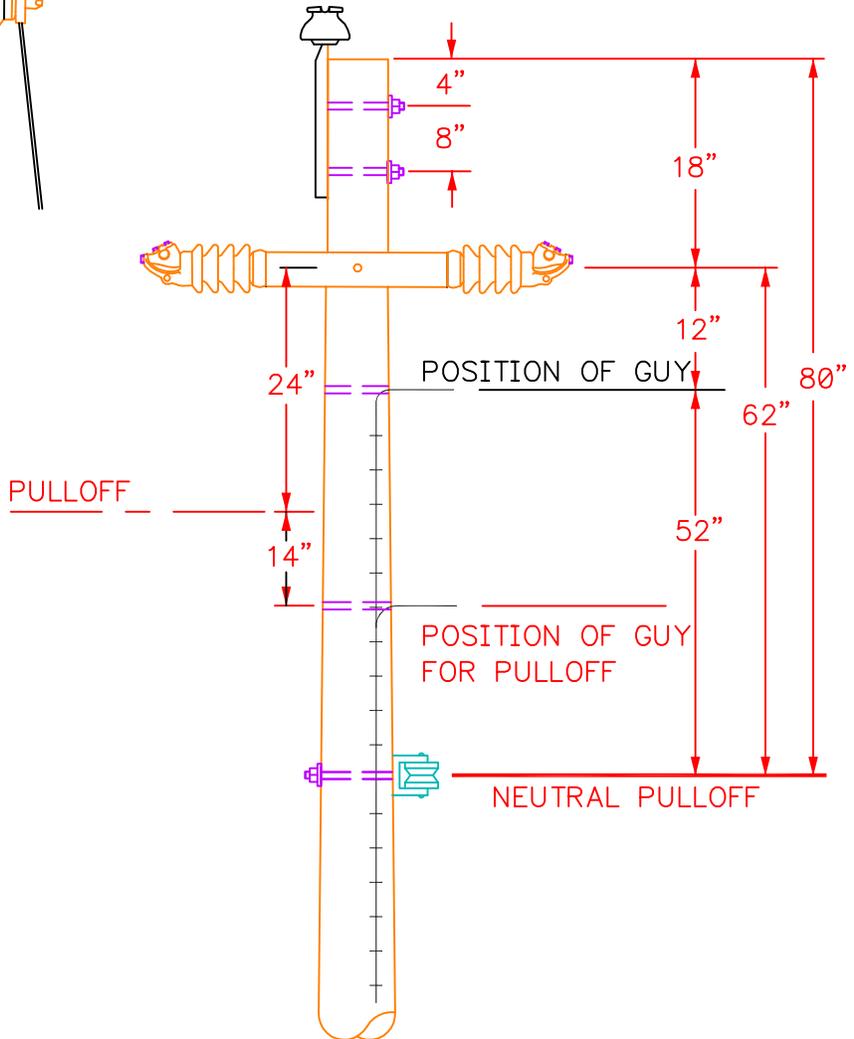
REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C2F



TOP VIEW



6° - 10° LINE ANGLE ABOVE 1/0 ACSR
6° - 24° LINE ANGLE THROUGH 1/0 ACSR

**STANDARD CONFIGURATION,
 MEDIUM ANGLE CONSTRUCTION**

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"

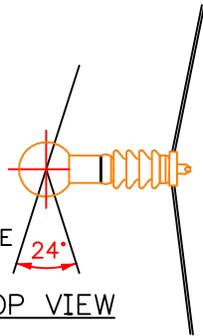


DATE: OCTOBER, 1992

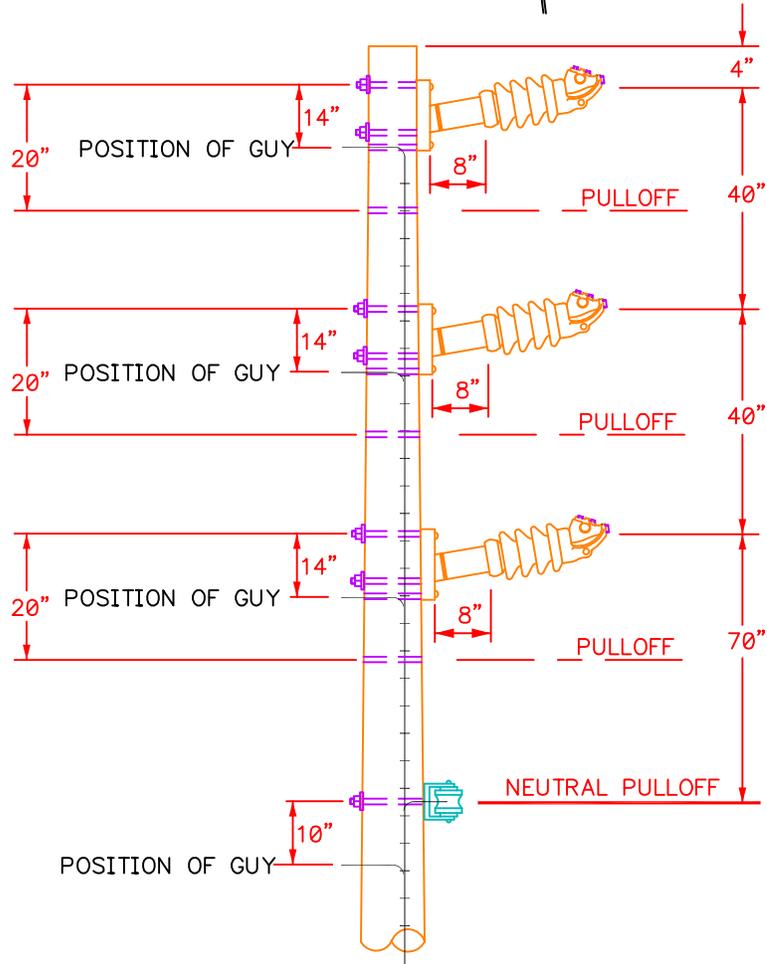
REVISIONS JULY, 2002
JANUARY, 2006

C2PS

MAX. LINE ANGLE



TOP VIEW



0° - 6° LINE ANGLE TIE TYPE

6° - 24° LINE ANGLE CLAMP TYPE

USE ALL 4 GUY POSITIONS ON WIRE SIZES LARGER THAN 1/0 ACSR

**STANDARD CONFIGURATION, VERTICAL STRAIGHT
LINE TO MEDIUM ANGLE CONSTRUCTION**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

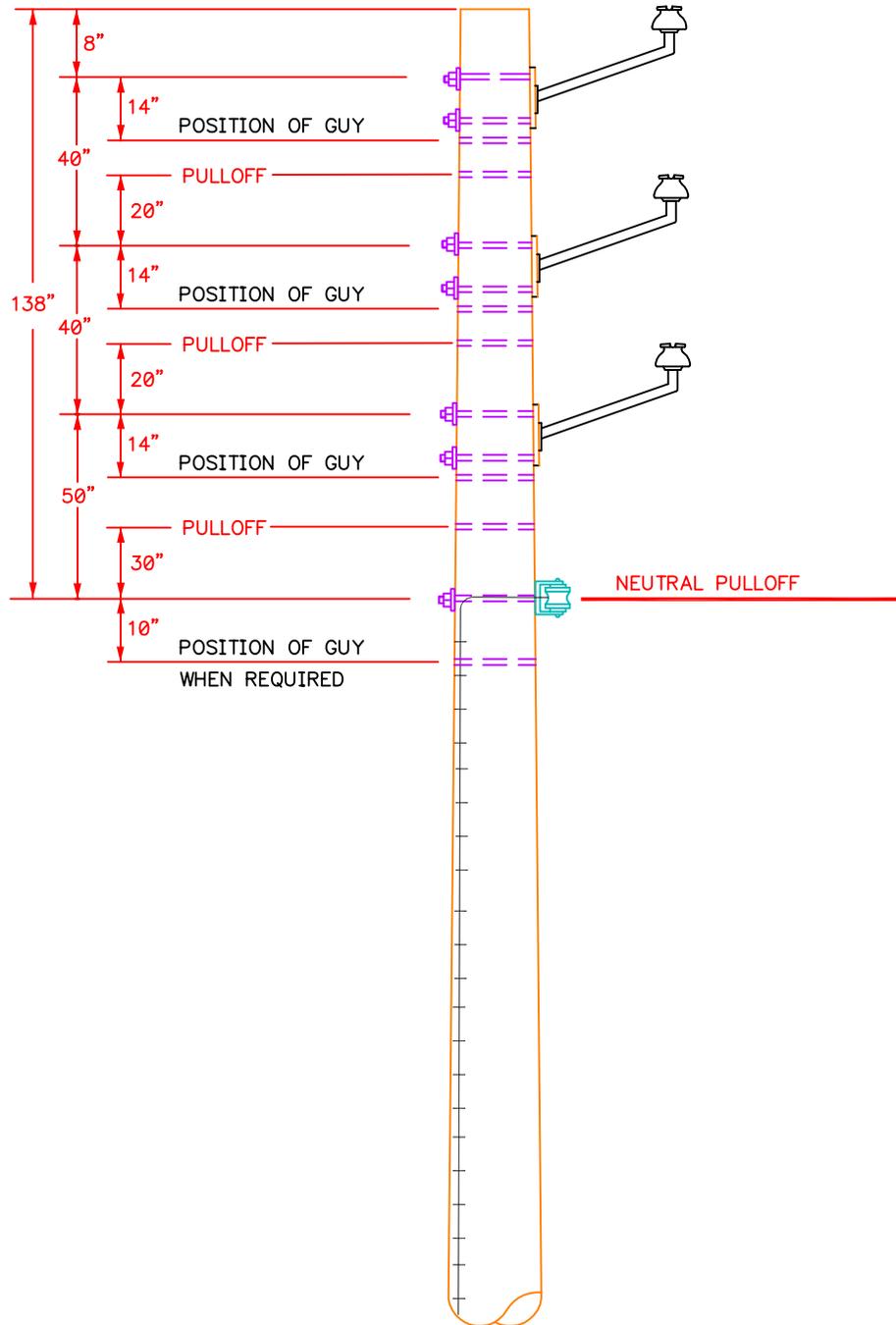


REVISIONS JULY, 2002

JANUARY, 2006

DATE: OCTOBER, 1992

C2V



0° - 10° LINE ANGLE ABOVE 1/0 ACSR
0° - 20° LINE ANGLE THROUGH 1/0 ACSR
STANDARD CONFIGURATION,
STRAIGHT LINE TO MEDIUM ANGLE CONSTRUCTION

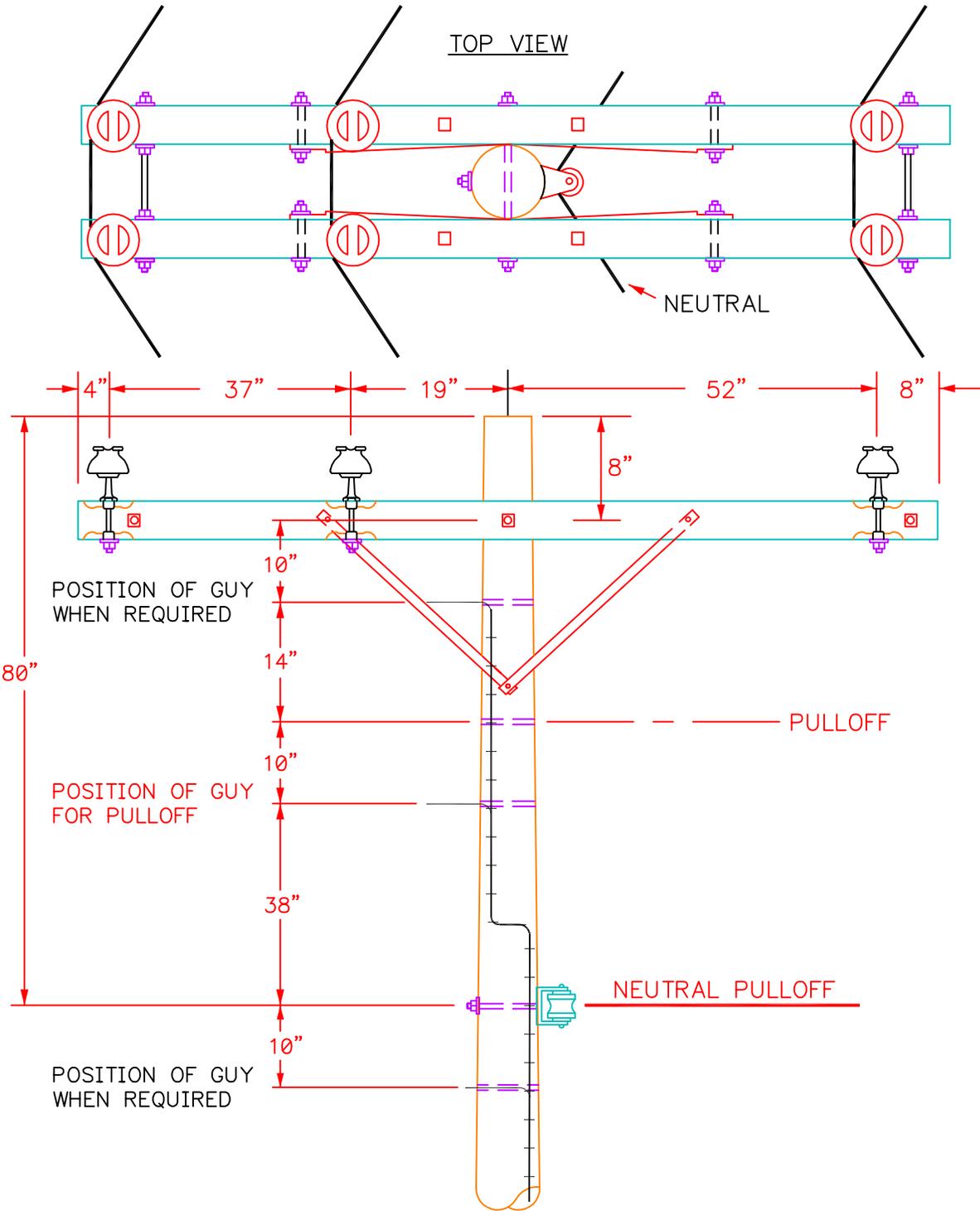
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

C2VF

DATE: OCTOBER, 1992



6° - 24° LINE ANGLE

ALTERNATE CONFIGURATION,
MEDIUM ANGLE, CROSSARM CONSTRUCTION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"

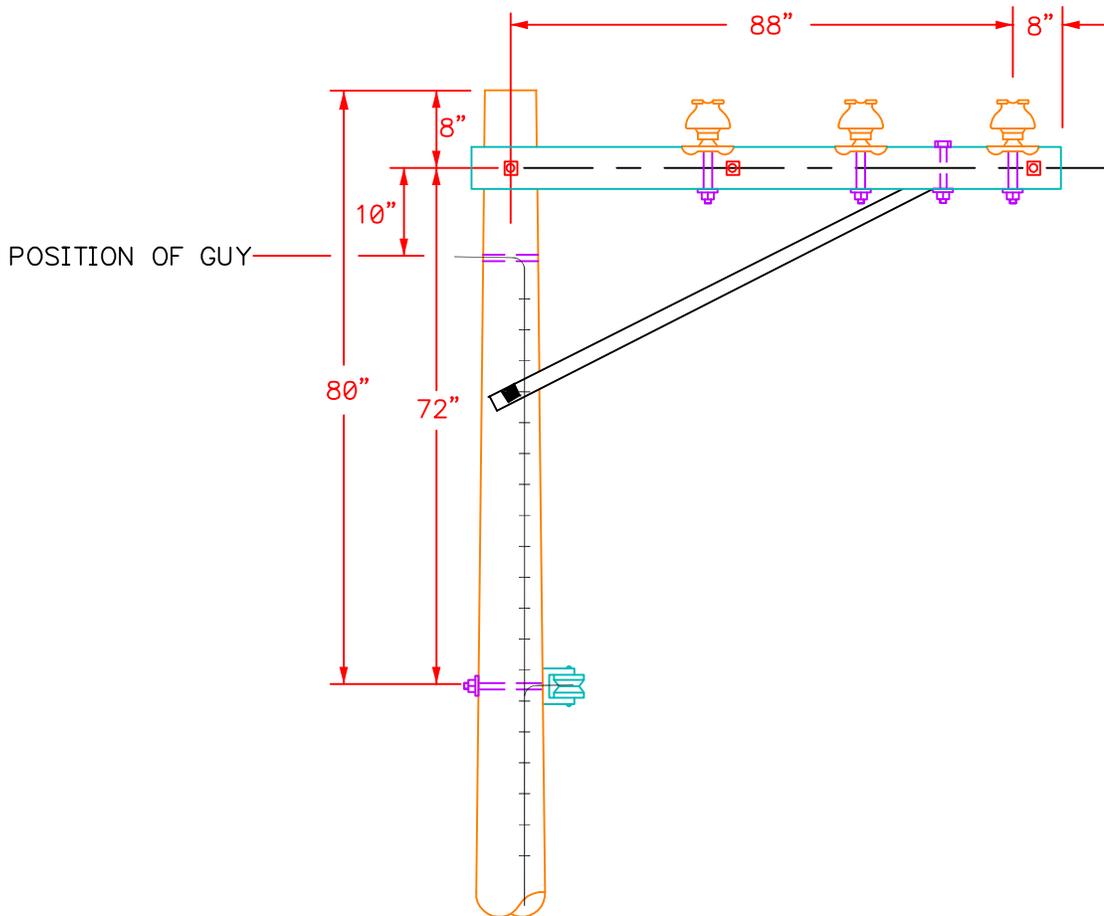
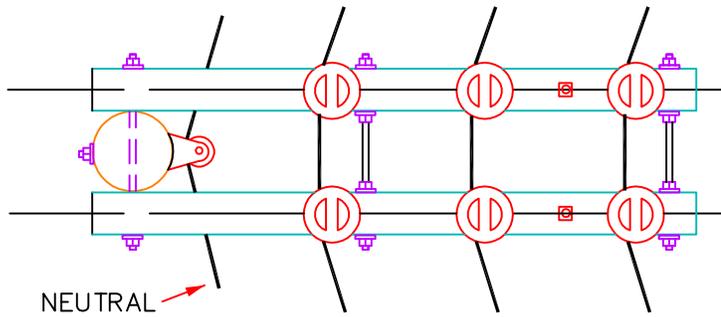


REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C2-1

TOP VIEW



0° - 10° LINE ANGLE THROUGH 1/0 ACSR
0° - 8° LINE ANGLE ABOVE 1/0 ACSR
N/A - 750 AAC

ALLEY ARM CONSTRUCTION

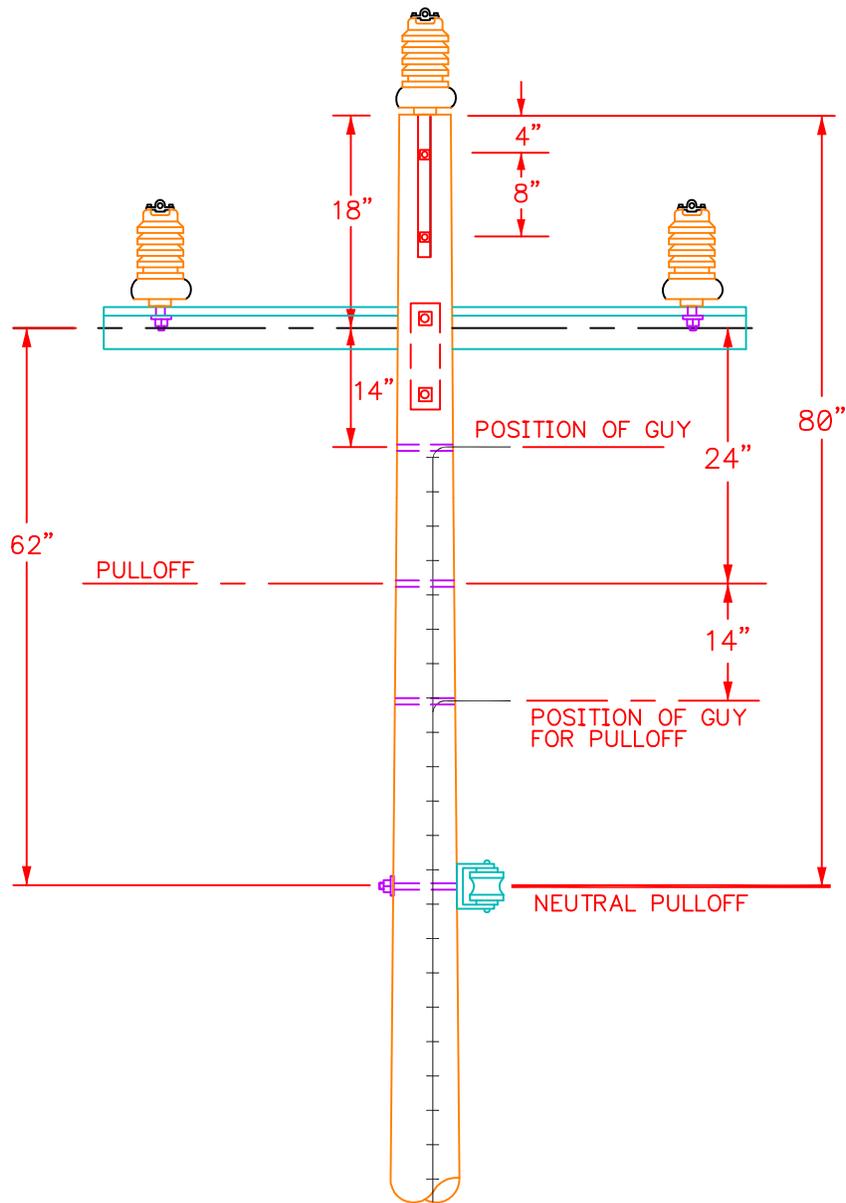
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

C2-2A



0° - 10° LINE ANGLE THROUGH 1/0 ACSR
0° - 20° LINE ANGLE ABOVE 1/0 ACSR

STEEL ARM,
MEDIUM ANGLE CONSTRUCTION

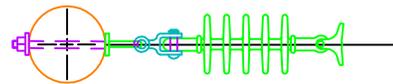
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



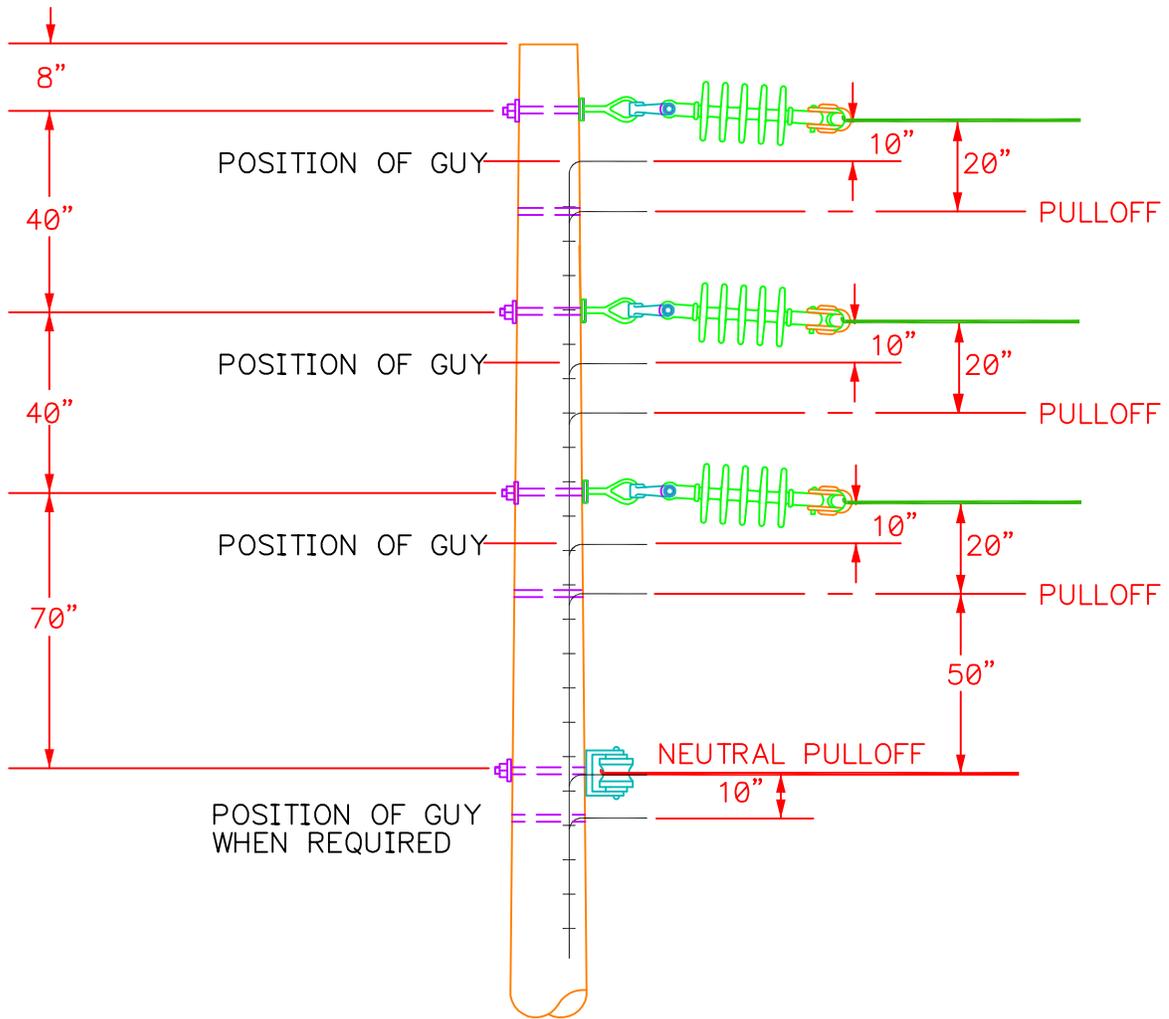
REVISIONS JULY, 2002

DATE: OCTOBER, 1992

C2-2S



TOP VIEW



24° - 60° LINE ANGLE
USE ALL 4 GUY POSITIONS ON WIRE SIZES LARGER THAN 1/0 ACSR
STANDARD CONFIGURATION,
VERTICAL SUSPENSION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"

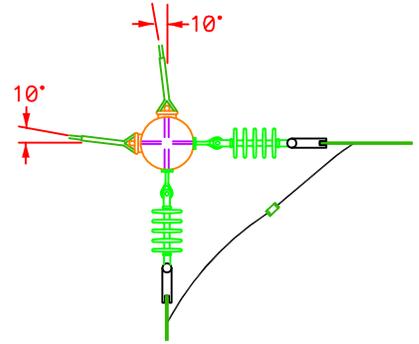
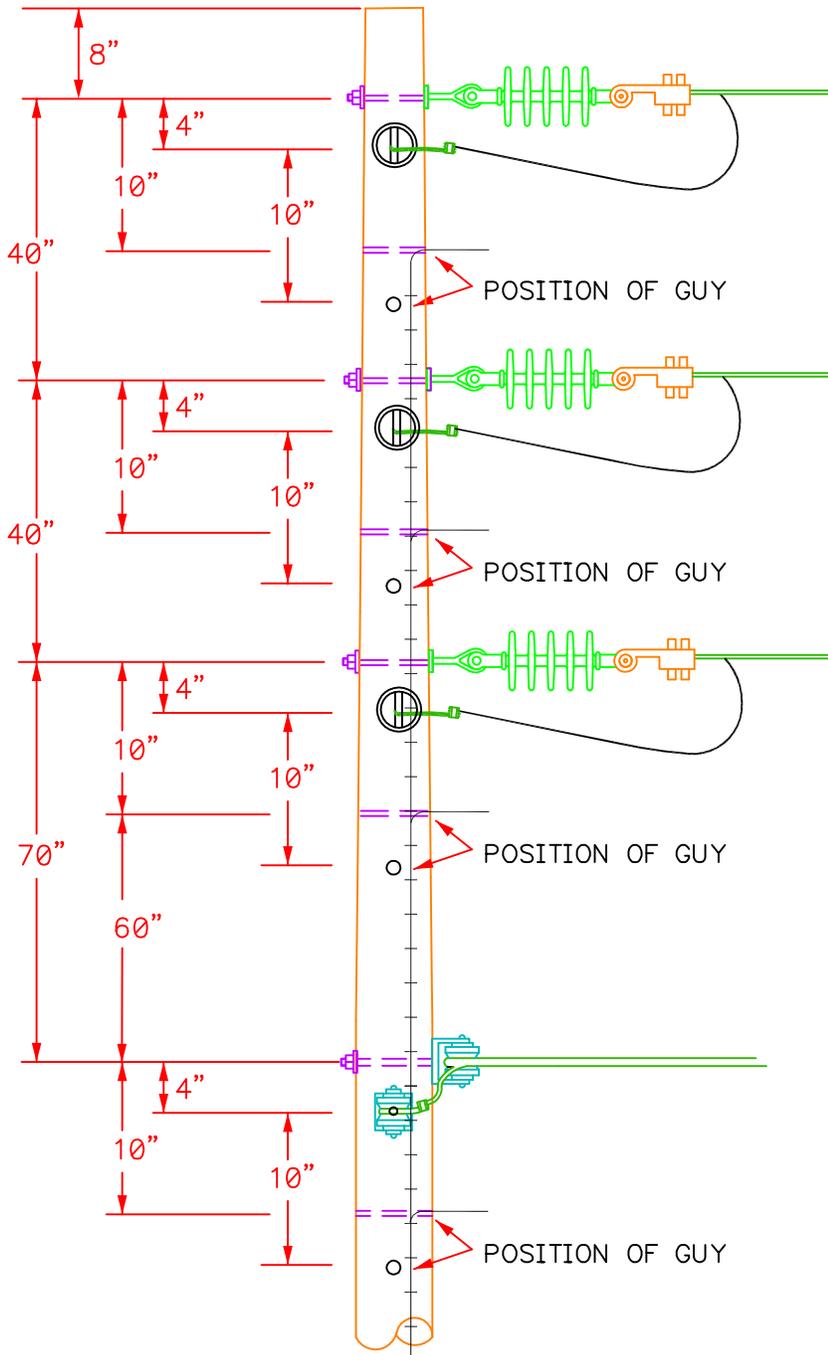


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

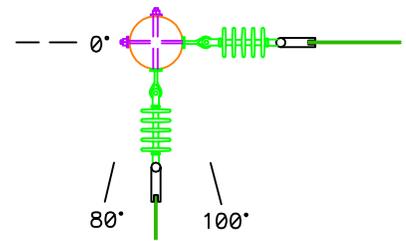
JANUARY, 2007

C3

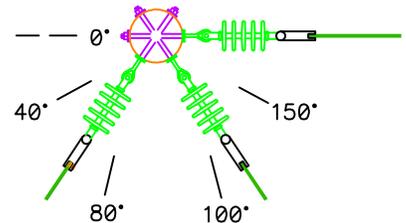


TOP VIEW

NOTE:
LOCATE ANCHOR 10° OUTSIDE
OF LINE ANGLE.



80° TO 100°
LINE ANGLE



40° TO 80° & 100° TO 150°
LINE ANGLE

**USE ALL 4 GUY POSITIONS ON WIRE SIZES LARGER THAN 1/0 ACSR
STANDARD CONFIGURATION, VERTICAL
CONSTRUCTION, DOUBLE DEADEND ANGLE**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

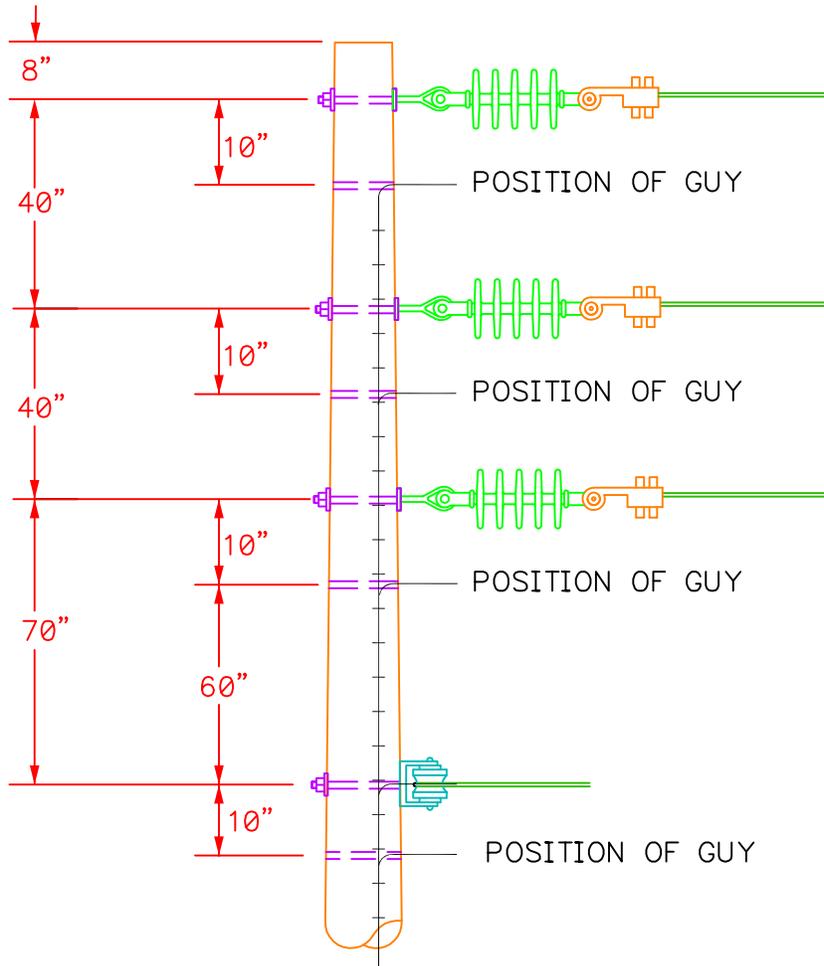
REVISIONS JULY, 2002

JANUARY, 2007

C4



TOP VIEW



USE ALL 4 GUY POSITIONS ON WIRE SIZES LARGER THAN 1/0 ACSR

VERTICAL CONSTRUCTION, DEADEND

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

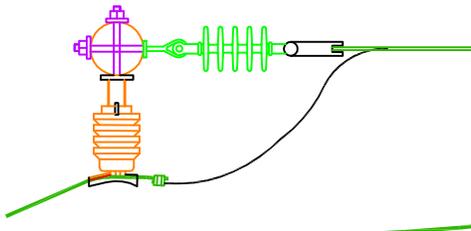


REVISIONS JULY, 2002

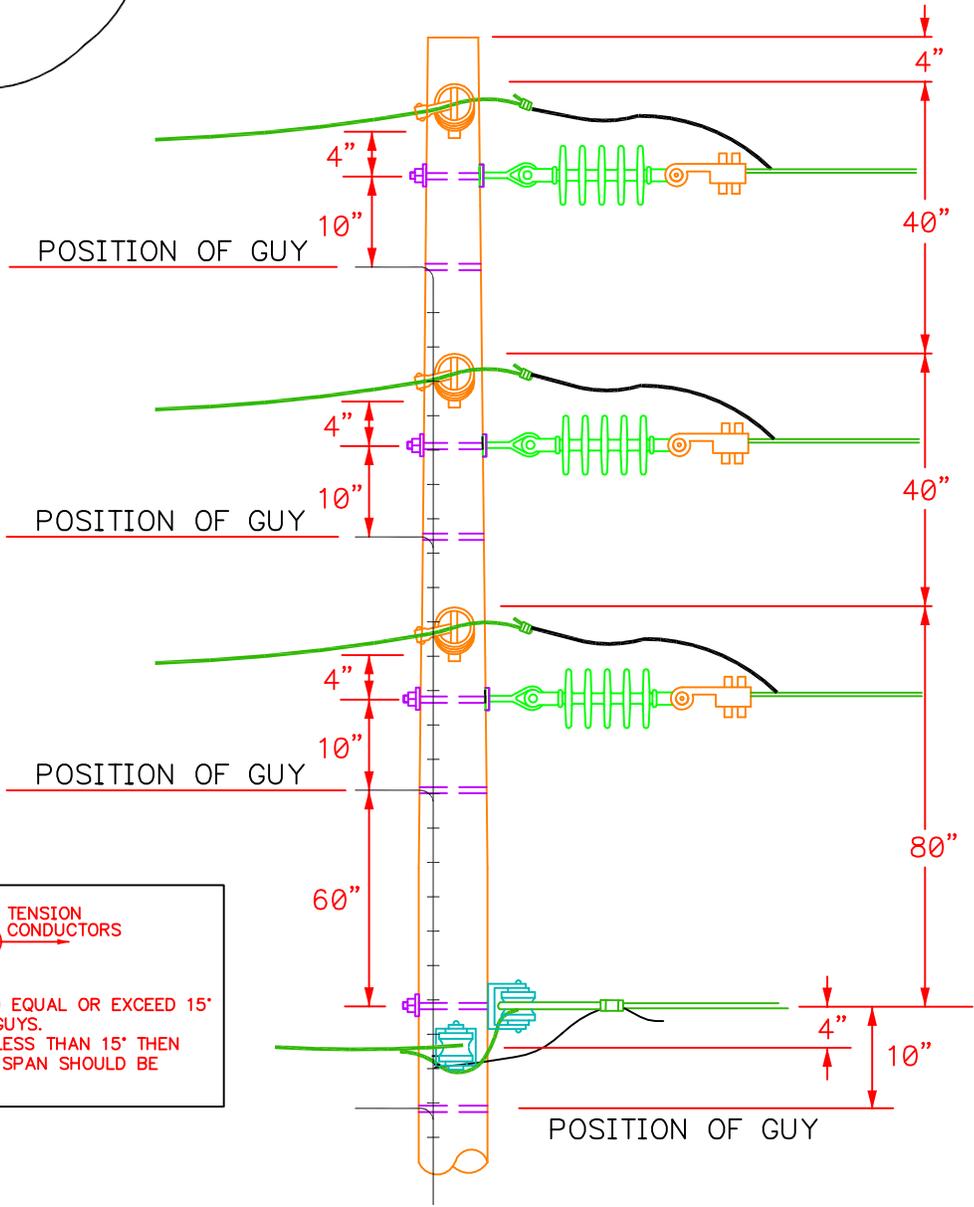
JANUARY, 2007

DATE: OCTOBER, 1992

C5



TOP VIEW



1. LINE ANGLE SHOULD EQUAL OR EXCEED 15° TO CLEAR ANCHOR GUYS.

2. IF LINE ANGLE IS LESS THAN 15° THEN HORIZONTAL SLACK SPAN SHOULD BE USED.

- NOTES - GENERAL:
1. SLACK SPAN LENGTH SHOULD BE AS SHORT AS POSSIBLE.
 2. SLACK SPAN CONDUCTOR SHOULD BE HAND TENSIONED TO AVOID PULLING OVER THE MAIN LINE POLE.
 3. DO NOT USE HORIZONTAL CONSTRUCTION ON ONE POLE AND VERTICAL CONSTRUCTION ON THE OTHER.
 4. THREE PHASE LINE CUTOUTS SHOULD NOT BE INSTALLED ON THESE POLES.

SLACK SPAN, VERTICAL CONSTRUCTION

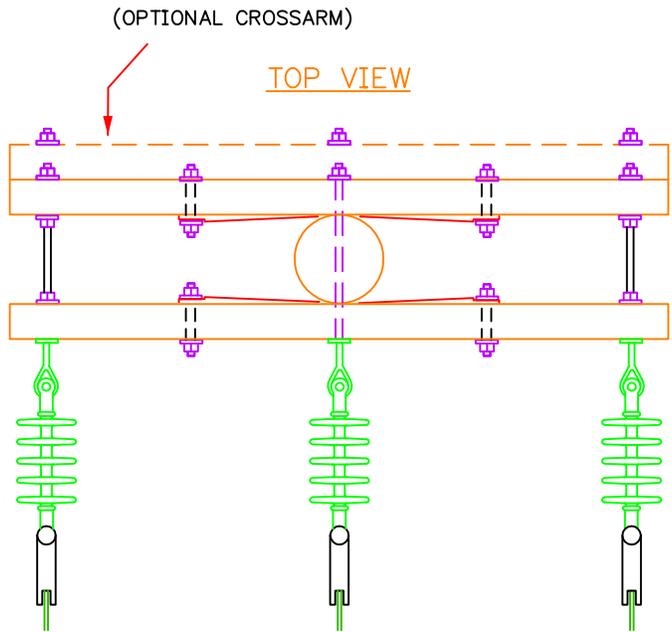
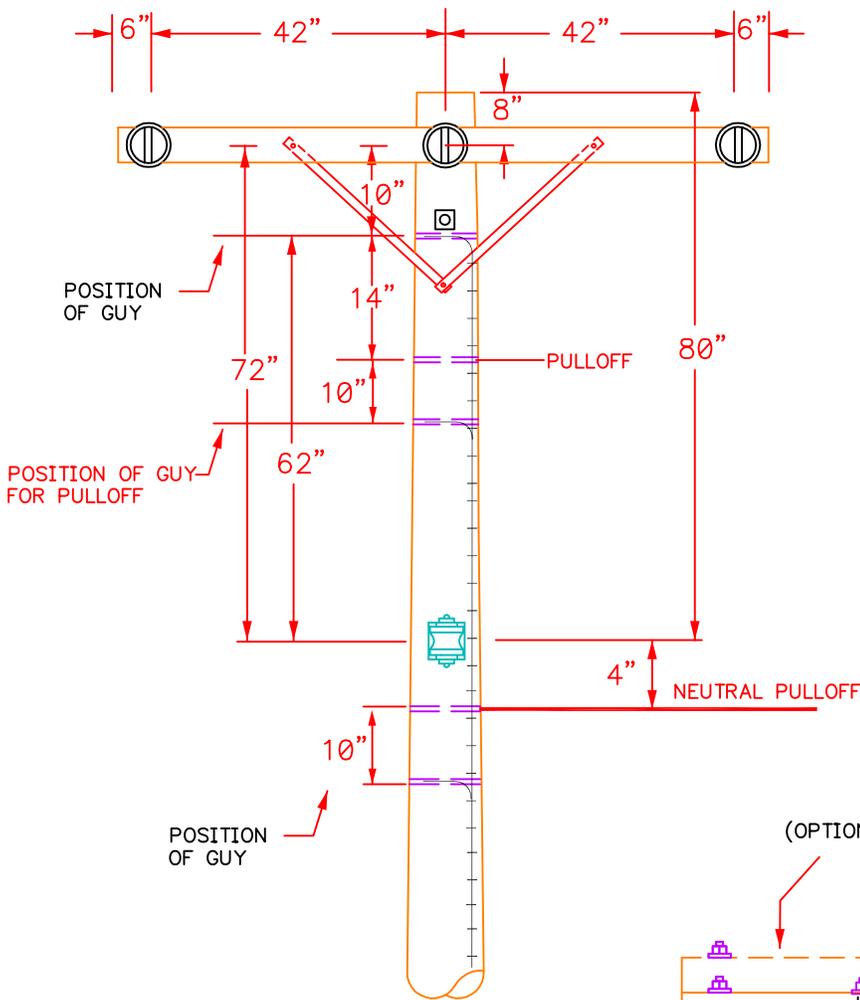
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
JANUARY, 2007

C6SS

DATE: OCTOBER, 1992



CROSSARM CONSTRUCTION, DEADEND ON ARMS

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

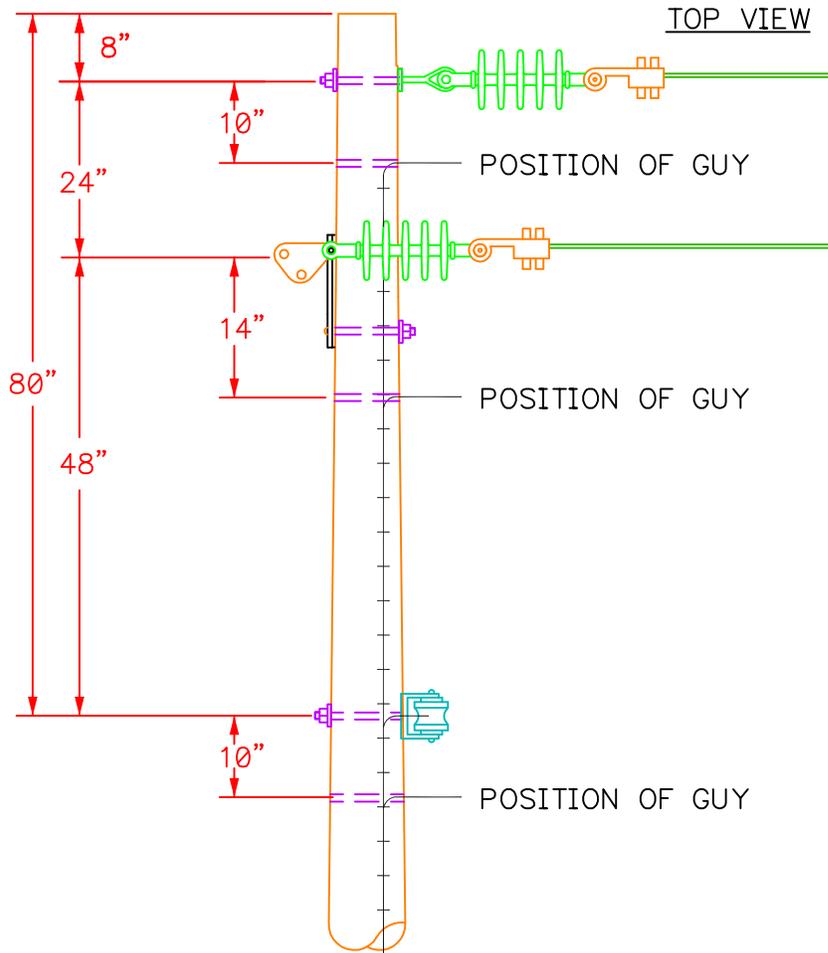
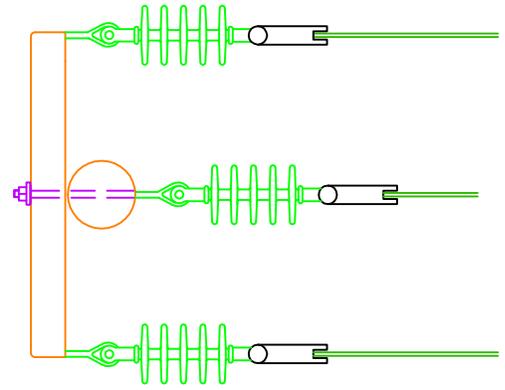


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2007

C7



USE BOTTOM GUY ON WIRE SIZES LARGER THAN 1/0 ACSR
NOTE: NOT RECOMMENDED FOR THREE PHASE PULLOFF
STANDARD CONFIGURATION,
HORIZONTAL DEADEND

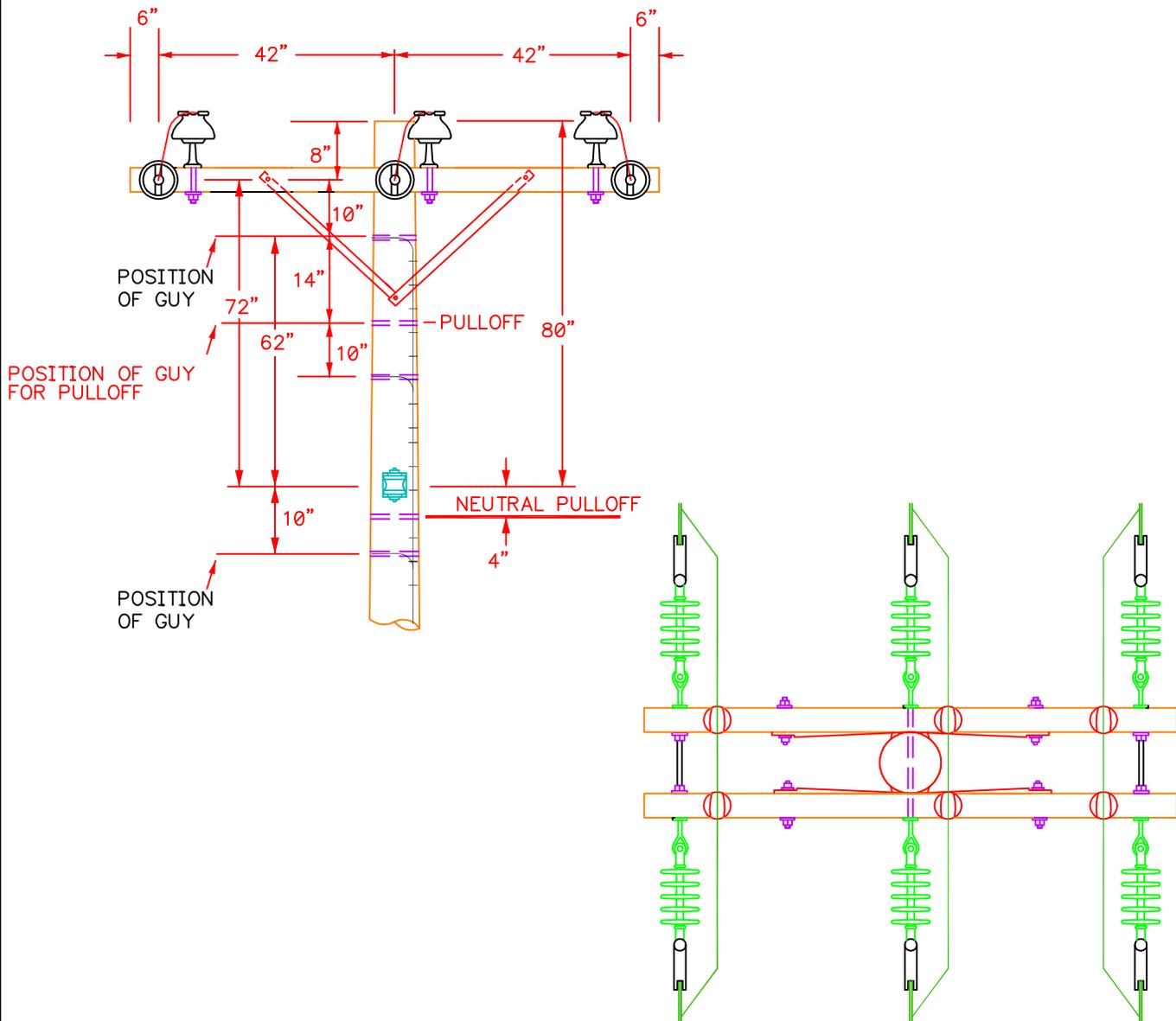
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



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 JANUARY, 2007

DATE: OCTOBER, 1992

C7S



TOP VIEW

0° - 24° LINE ANGLE

CROSSARM CONSTRUCTION,
HORIZONTAL DOUBLE DEADEND

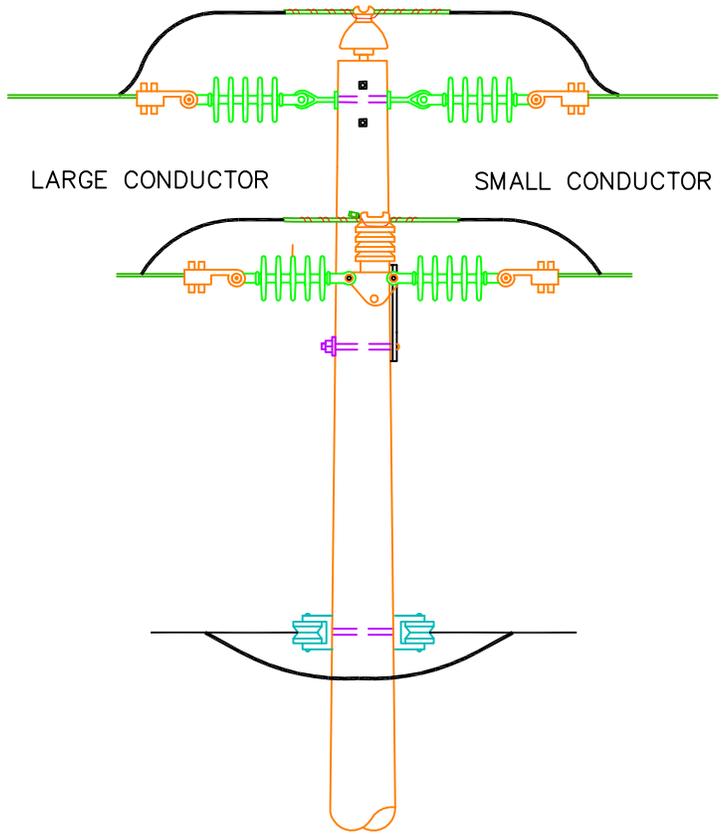
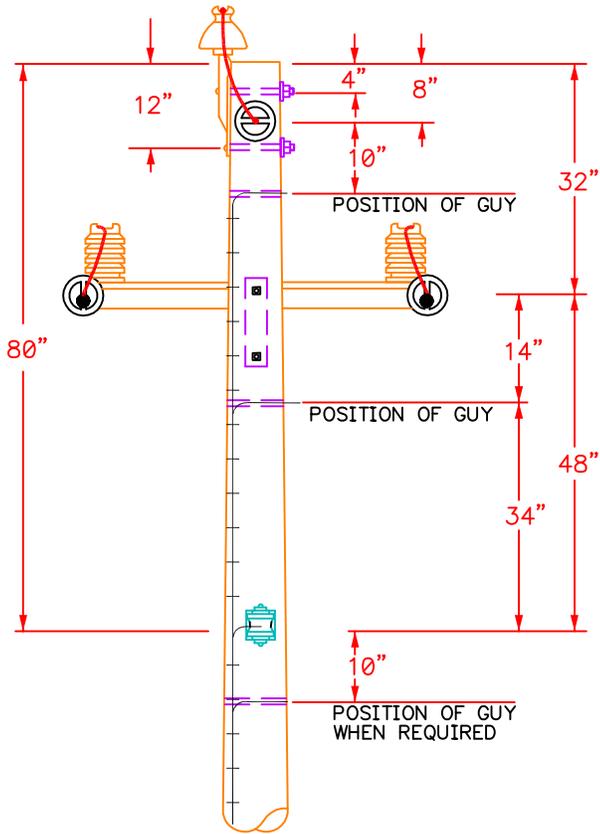
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
JANUARY, 2007

DATE: OCTOBER, 1992

C8



NOTE:

1. LEAVE DOWN GUYS OFF IF WIRE SIZE REMAINS THE SAME.
2. NOT RECOMMENDED FOR THREE PHASE PULLOFFS.

0° - 24° LINE ANGLE

**STANDARD CONFIGURATION,
HORIZONTAL DOUBLE DEADEND WIRE SIZE CHANGE**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

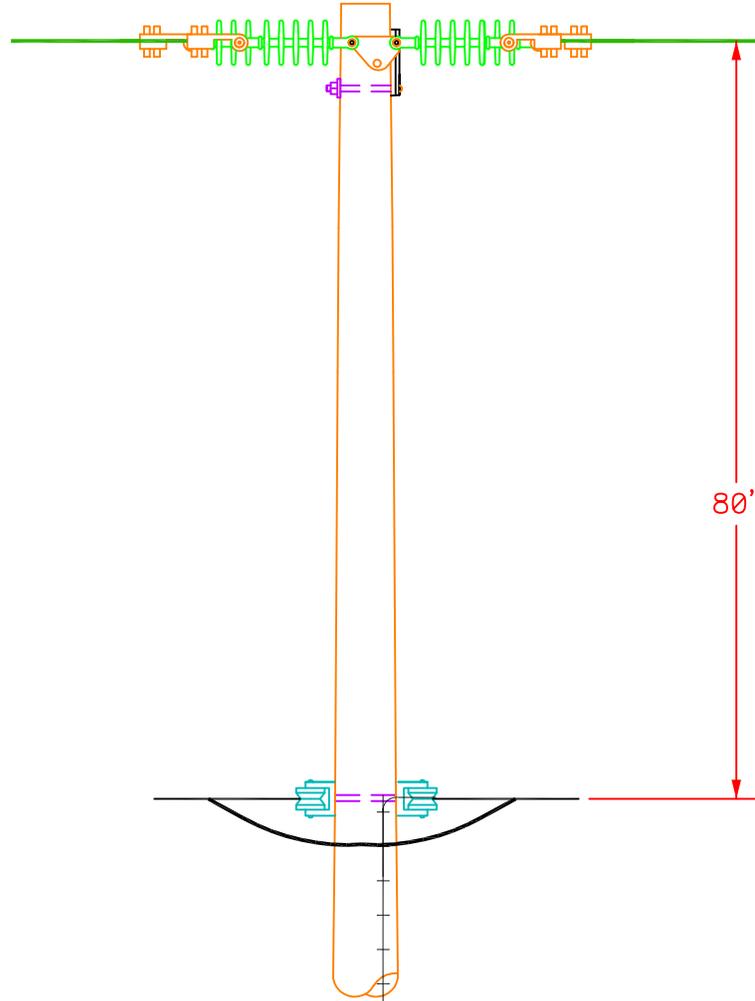


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2006

C8S



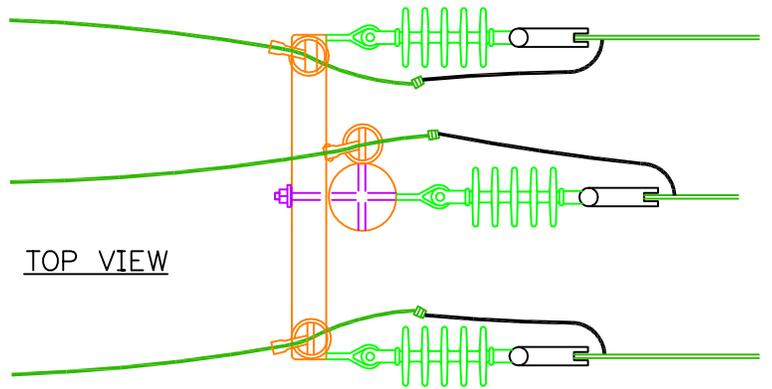
HORIZONTAL DOUBLE DEADEND



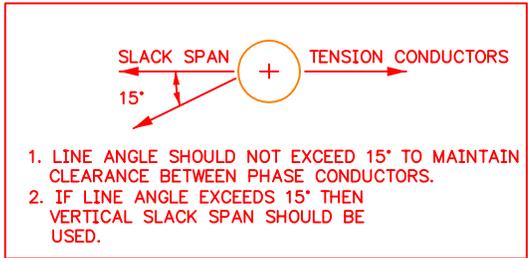
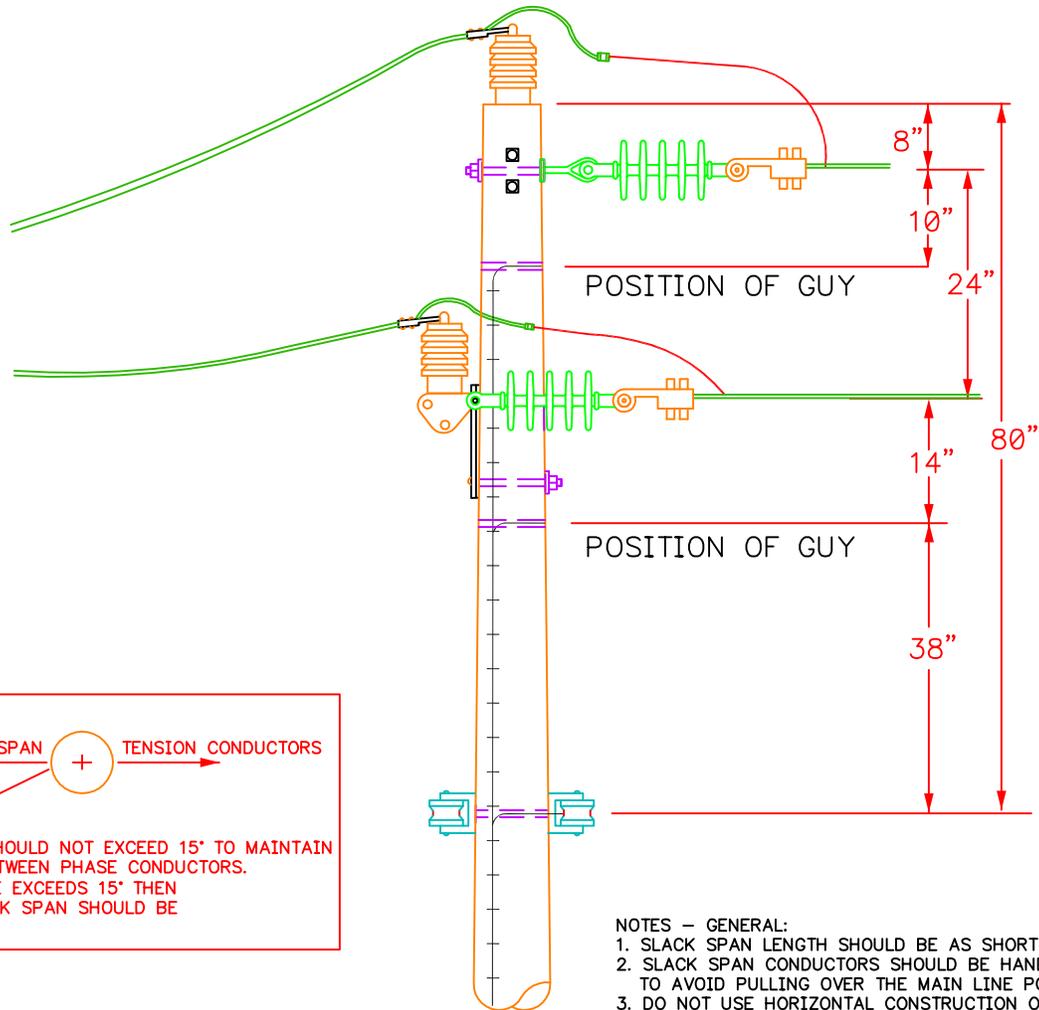
DATE: JANUARY, 2007

REVISIONS _____

C8SH



TOP VIEW



- NOTES – GENERAL:
1. SLACK SPAN LENGTH SHOULD BE AS SHORT AS POSSIBLE.
 2. SLACK SPAN CONDUCTORS SHOULD BE HAND TENSIONED TO AVOID PULLING OVER THE MAIN LINE POLE.
 3. DO NOT USE HORIZONTAL CONSTRUCTION ON ONE POLE AND VERTICAL CONSTRUCTION ON THE OTHER.
 4. THREE PHASE LINE CUTOUTS SHOULD NOT BE INSTALLED ON THESE POLES.

SLACK SPAN, HORIZONTAL DOUBLE DEADEND CONSTRUCTION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



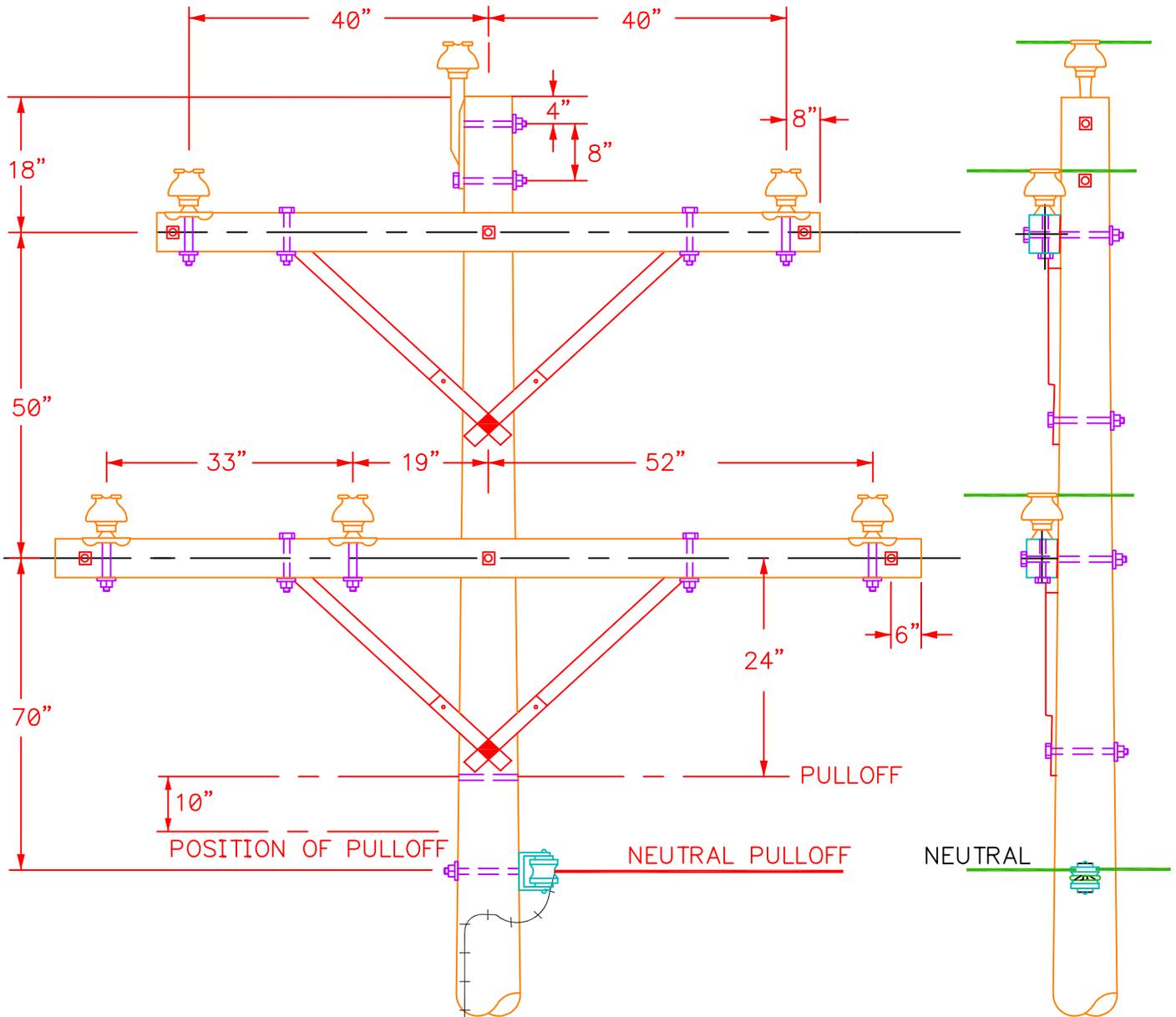
REVISIONS JULY, 2002
 JANUARY, 2007

C8SS

DATE: OCTOBER, 1992

DOUBLE CIRCUIT O.H.

ELECTRIC CITIES



0° - 6° LINE ANGLE

**DOUBLE CIRCUIT,
STRAIGHT LINE CONSTRUCTION**

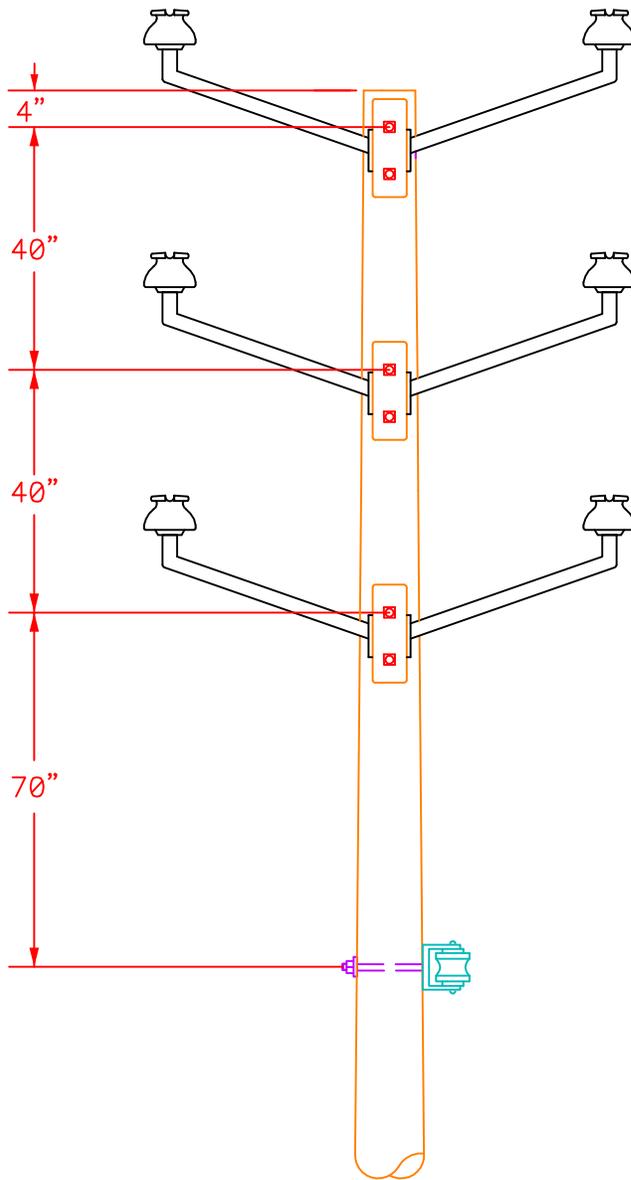
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

DC-C1



0° - 6° LINE ANGLE

**ALTERNATE CONFIGURATION,
NARROW PROFILE, DOUBLE CIRCUIT**

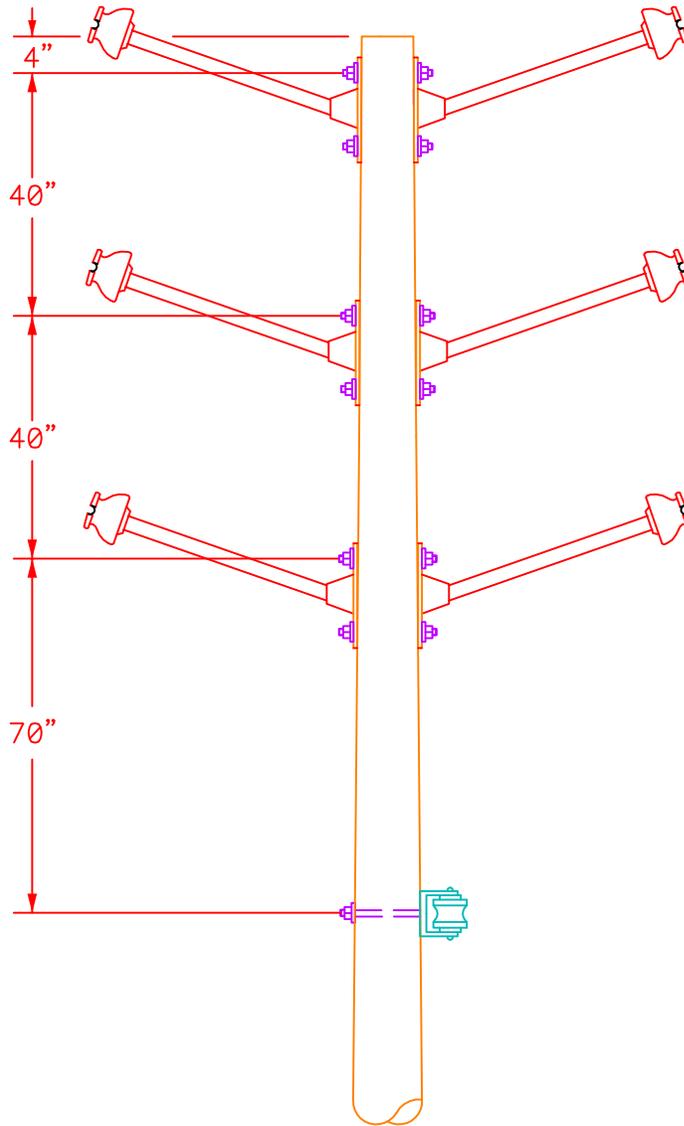
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: JULY, 2002

DC-C1F



0° - 6° LINE ANGLE

ALTERNATE CONFIGURATION,
NARROW PROFILE, DOUBLE CIRCUIT

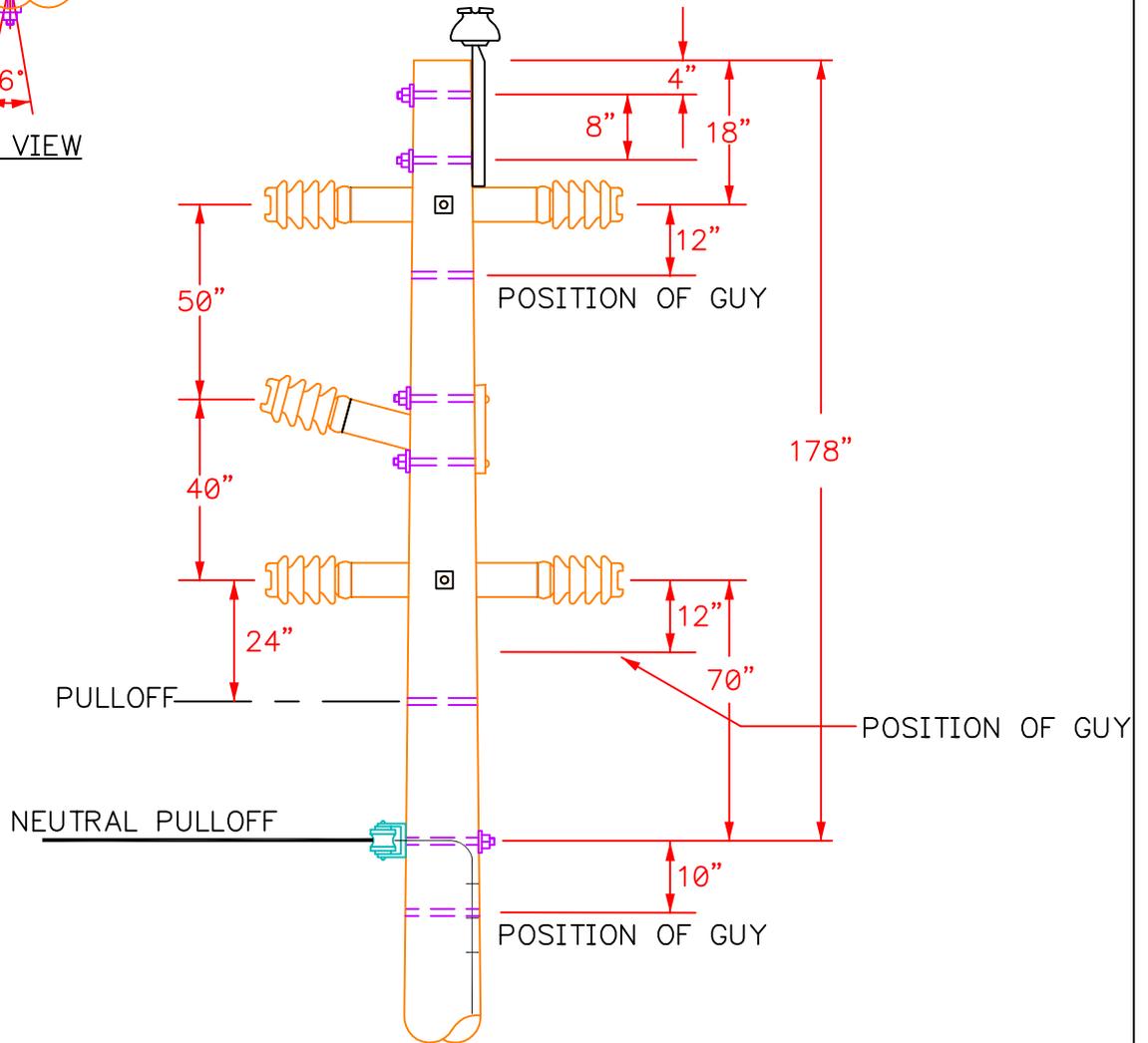
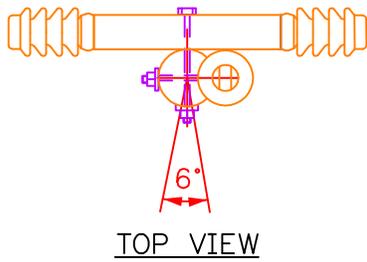
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: JULY, 2002

DC-C1F1



**0° - 6° LINE ANGLE
PULLOFF ONLY RECOMMENDED FOR BOTTOM CIRCUIT**

**DOUBLE CIRCUIT CONSTRUCTION,
STRAIGHT LINE**

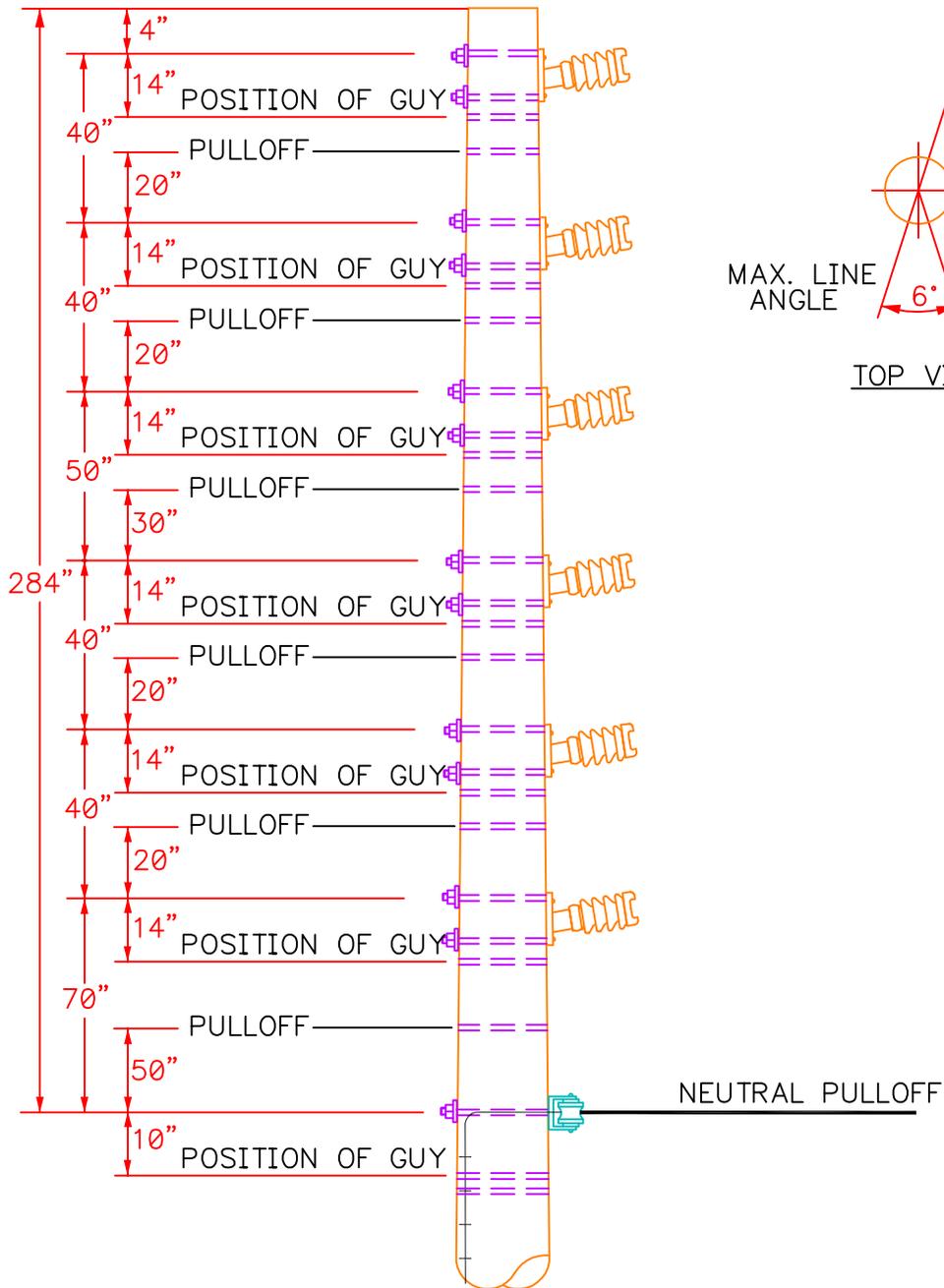
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

DC-C1PS



0° - 6° LINE ANGLE

**STANDARD CONFIGURATION,
DOUBLE CIRCUIT STRAIGHT LINE
VERTICAL CONSTRUCTION**

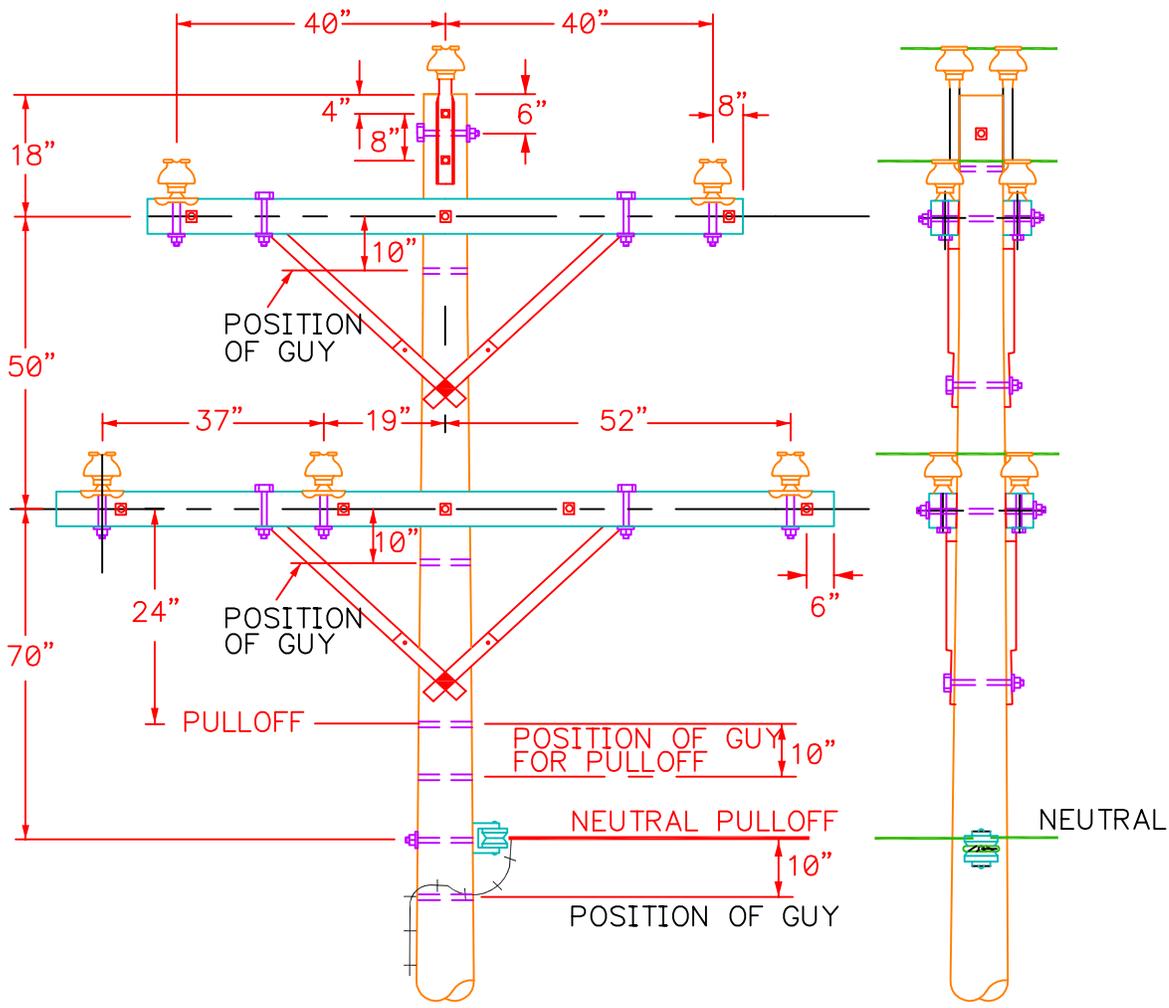
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
JANUARY, 2006

DC-C1V

DATE: OCTOBER, 1992



0° - 10° LINE ANGLE ABOVE 1/0 ACSR
0° - 20° LINE ANGLE THROUGH 1/0 ACSR

DOUBLE CIRCUIT, CROSSARM CONSTRUCTION,
DOUBLE ARM SUPPORT

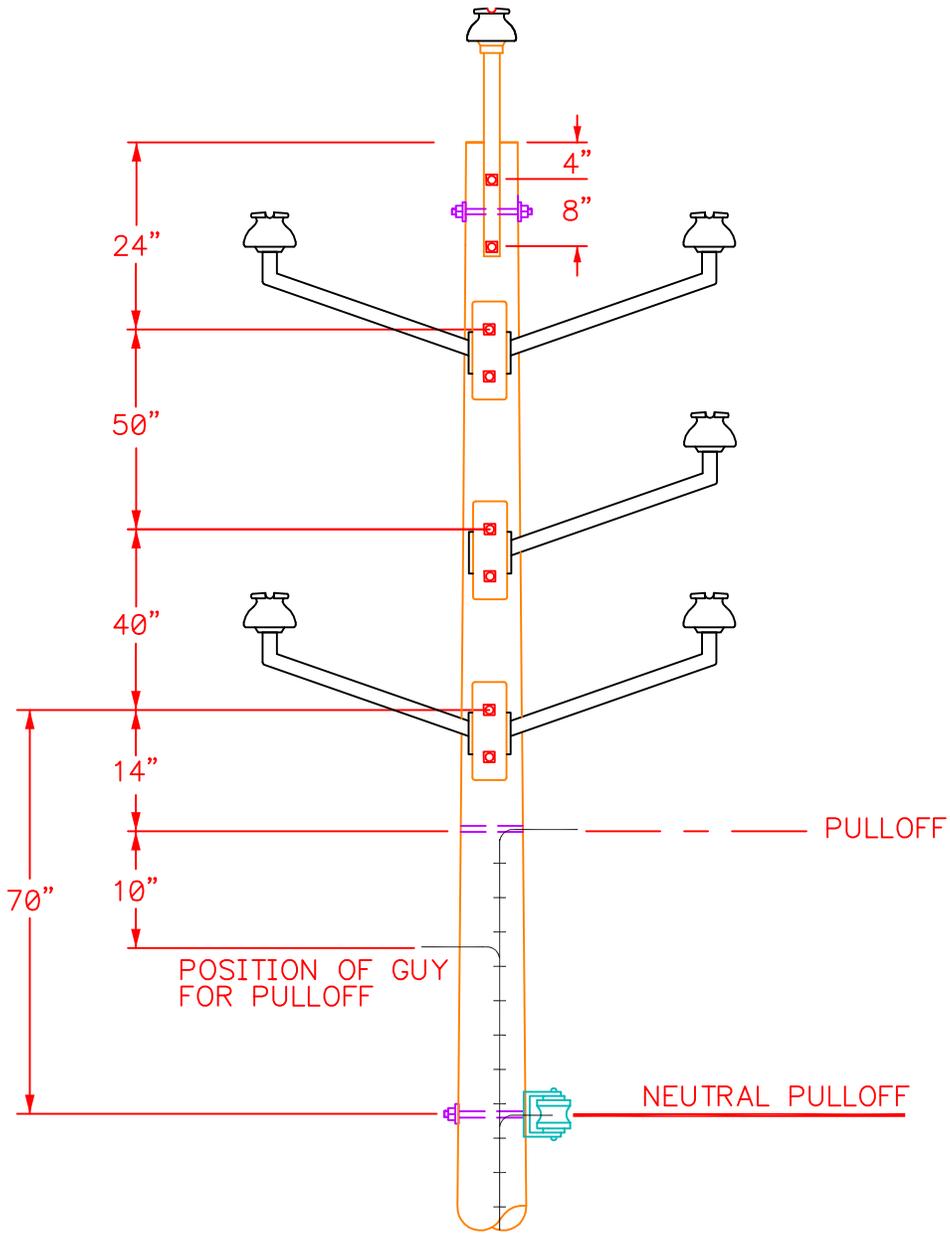
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

DC-C2



6° - 24° LINE ANGLE

DOUBLE CIRCUIT,
MEDIUM ANGLE CONSTRUCTION

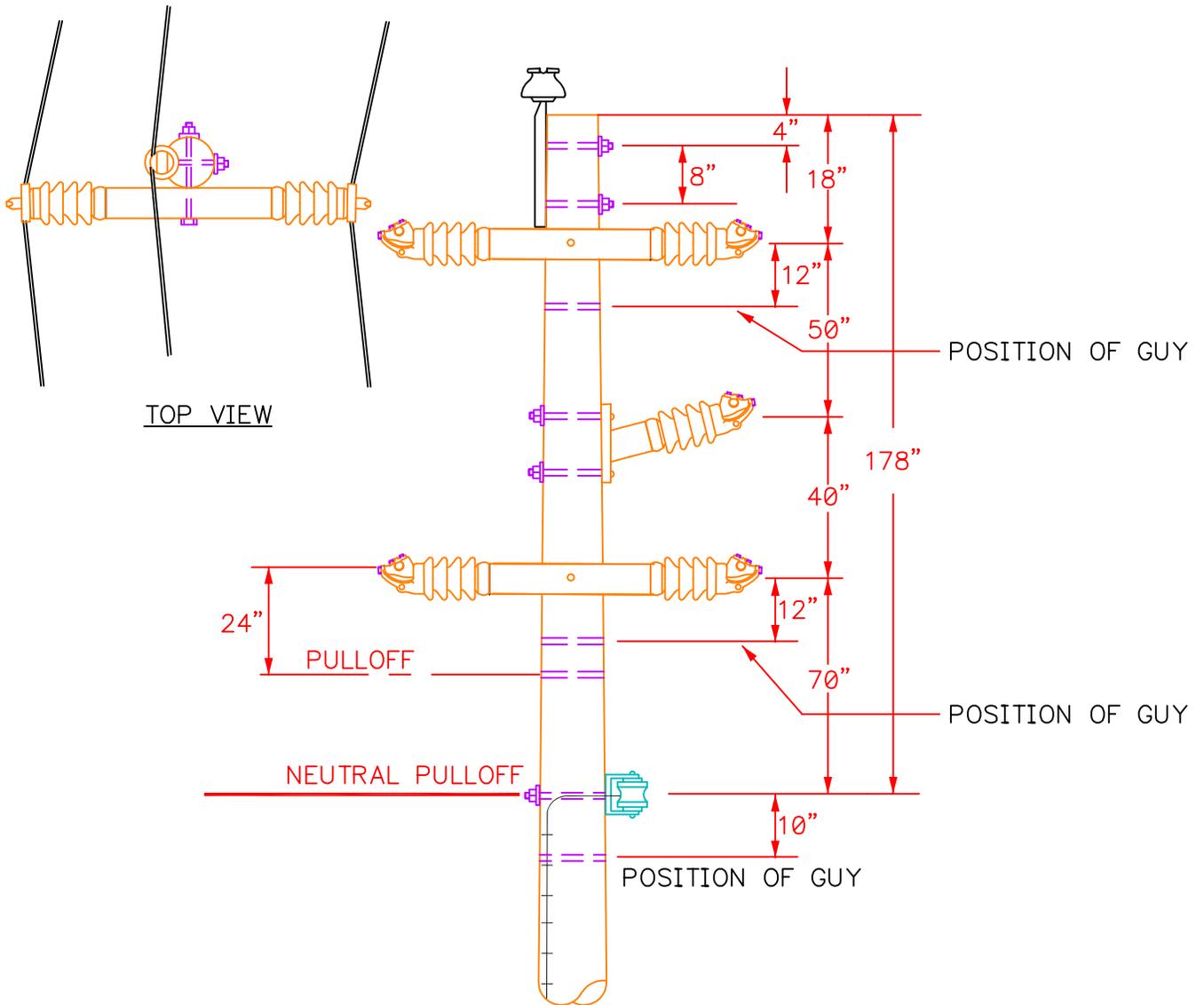
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DC-C2F

DATE: JULY, 2002



0° - 10° ANGLE ABOVE 1/0 ACSR
0° - 20° ANGLE THROUGH 1/0 ACSR
NOTE: PULLOFF RECOMMENDED FOR BOTTOM CIRCUIT ONLY

DOUBLE CIRCUIT CONSTRUCTION,
MEDIUM ANGLE CONSTRUCTION

NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"

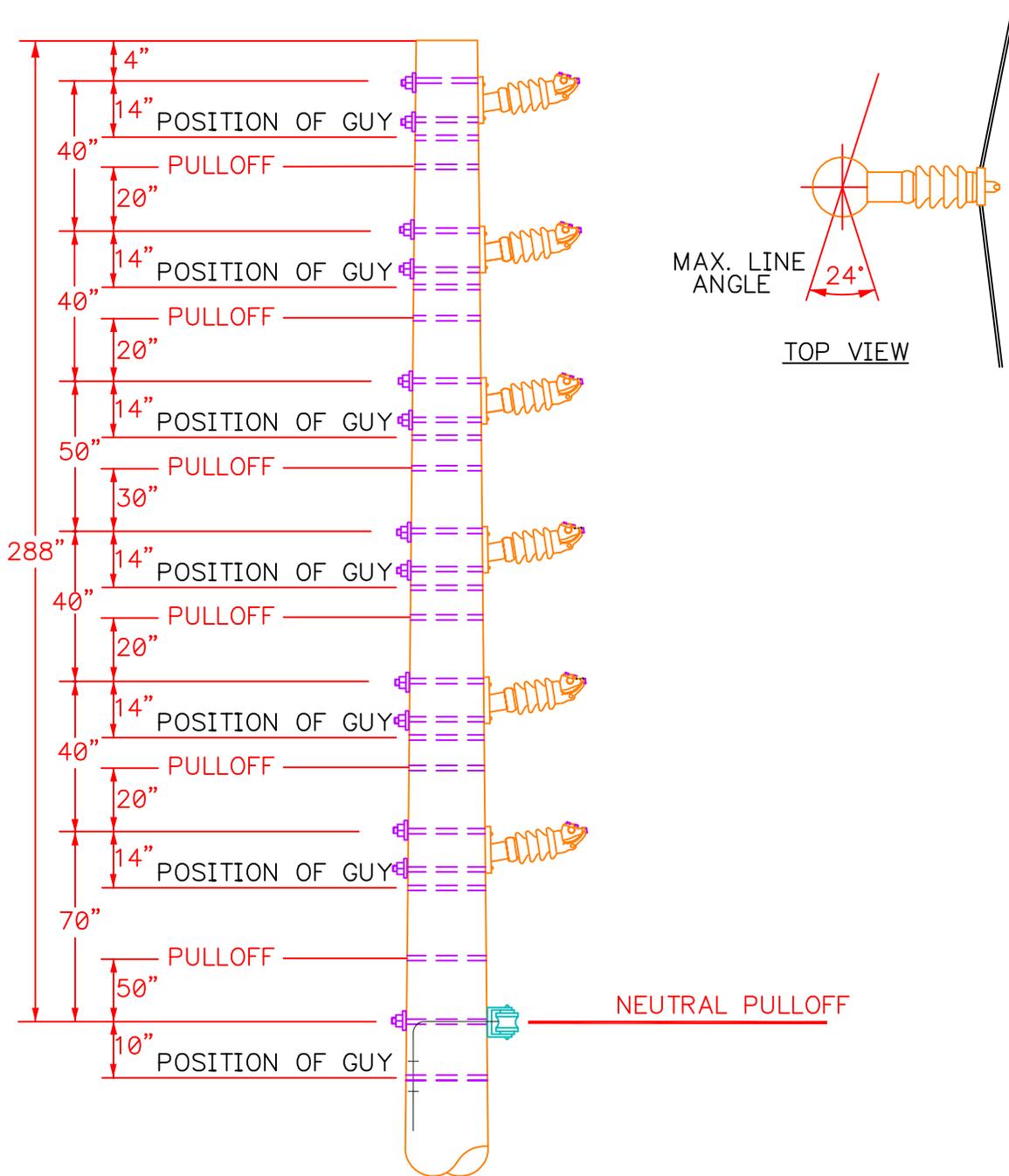


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2006

DC-C2PS



6°-24° LINE ANGLE

STANDARD CONFIGURATION, DOUBLE CIRCUIT MEDIUM ANGLE VERTICAL CONSTRUCTION

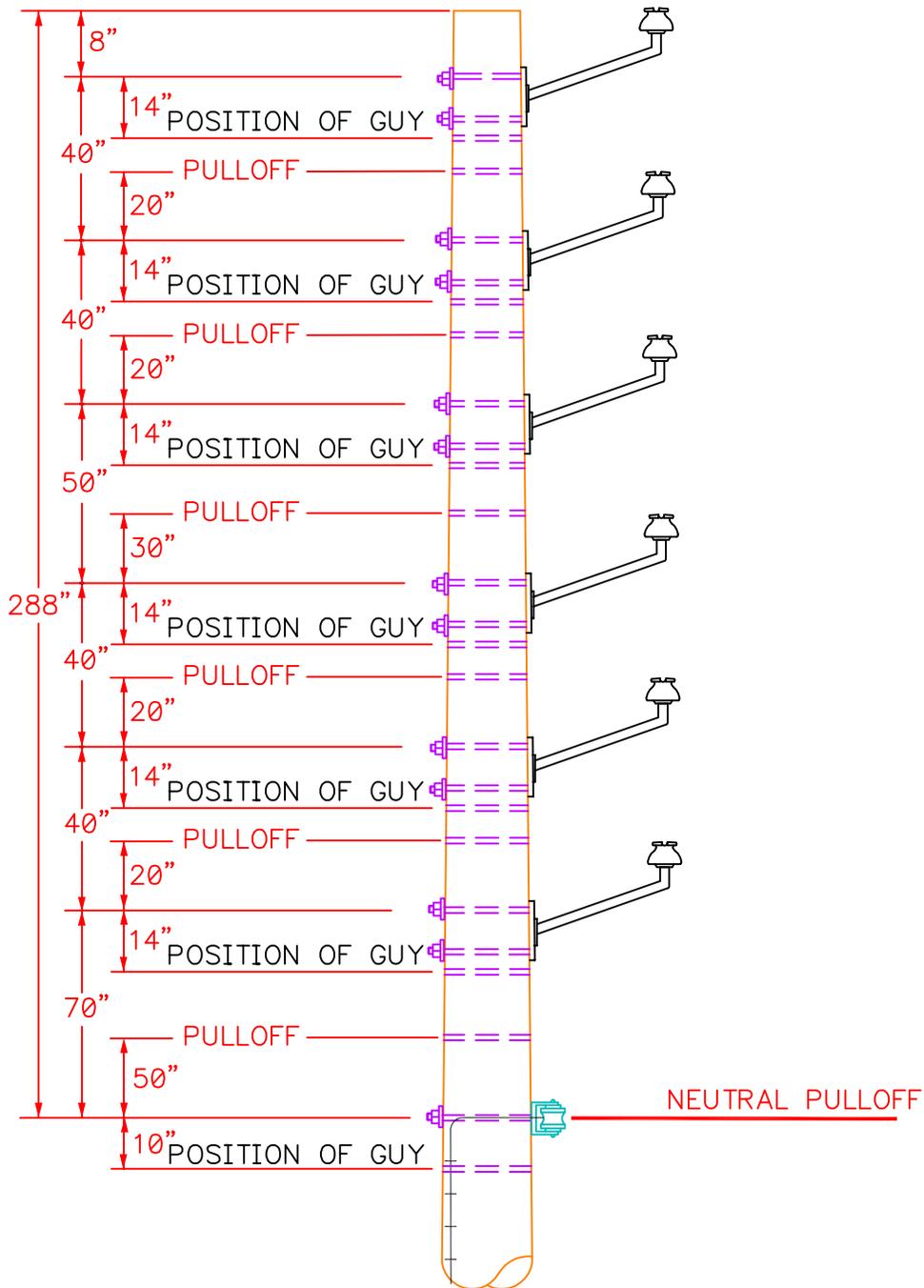
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
JANUARY, 2006

DATE: OCTOBER, 1992

DC-C2V



0° - 10° LINE ANGLE ABOVE 1/0 ACSR
0° - 20° LINE ANGLE THROUGH 1/0 ACSR

**STANDARD CONFIGURATION, STRAIGHT LINE
 TO MEDIUM ANGLE VERTICAL CONSTRUCTION**

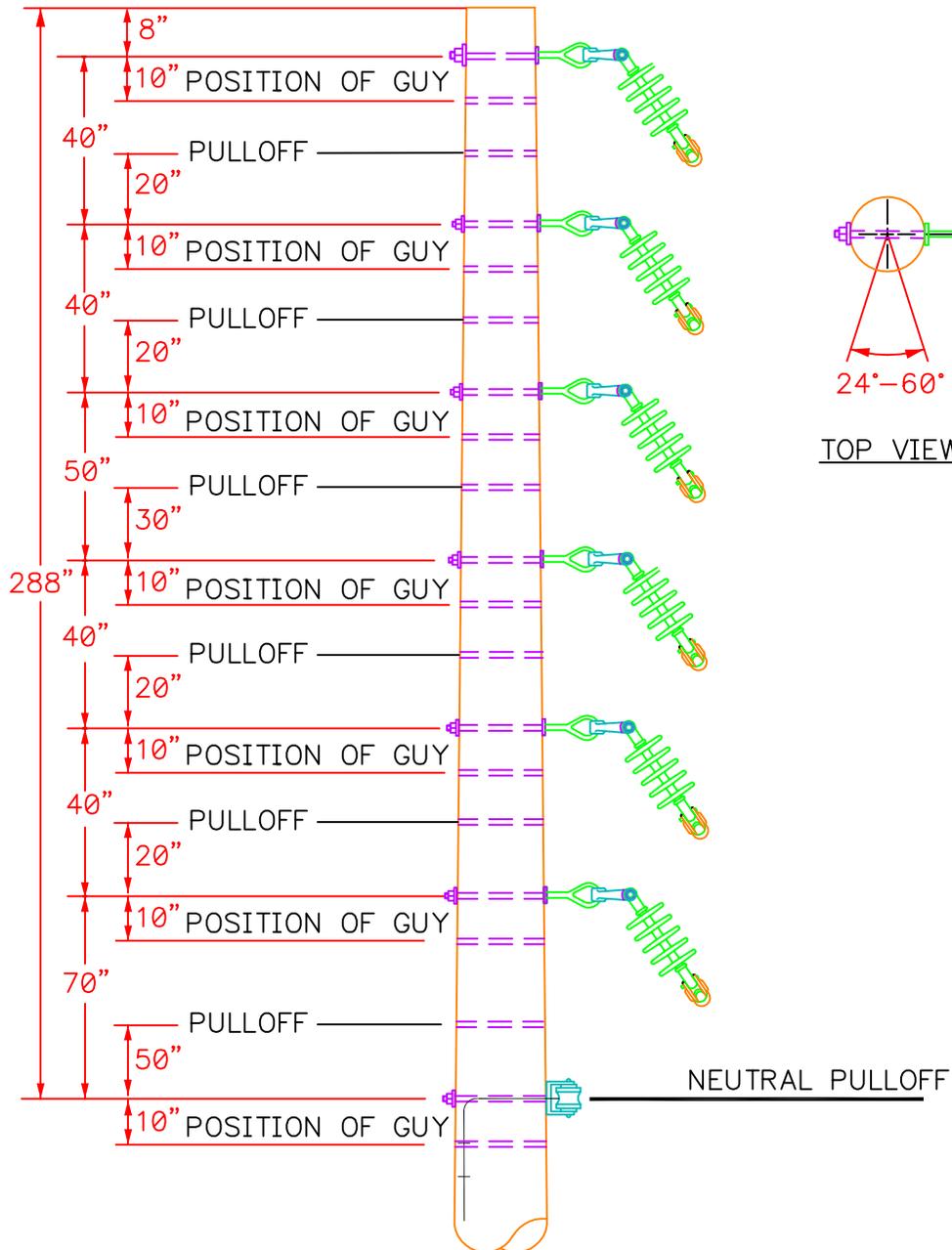
NOTE:
 MINIMUM DISTANCE FROM LOWEST
 PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

DC-C2VF



24° - 60° LINE ANGLE

**STANDARD CONFIGURATION, DOUBLE CIRCUIT,
VERTICAL SUSPENSION INSULATOR**

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"

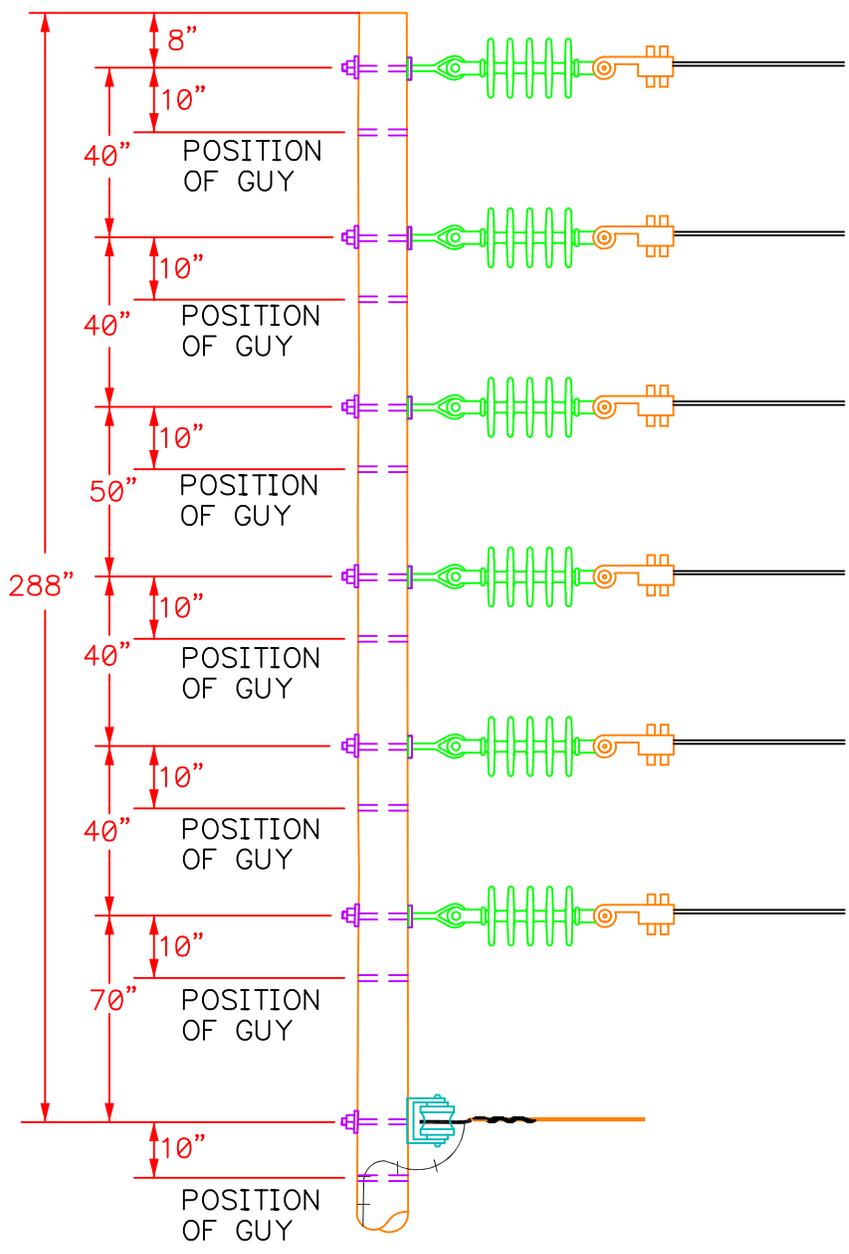


REVISIONS JULY, 2002

JANUARY, 2007

DATE: OCTOBER, 1992

DC-C3



DEADEND, DOUBLE CIRCUIT VERTICAL CONSTRUCTION

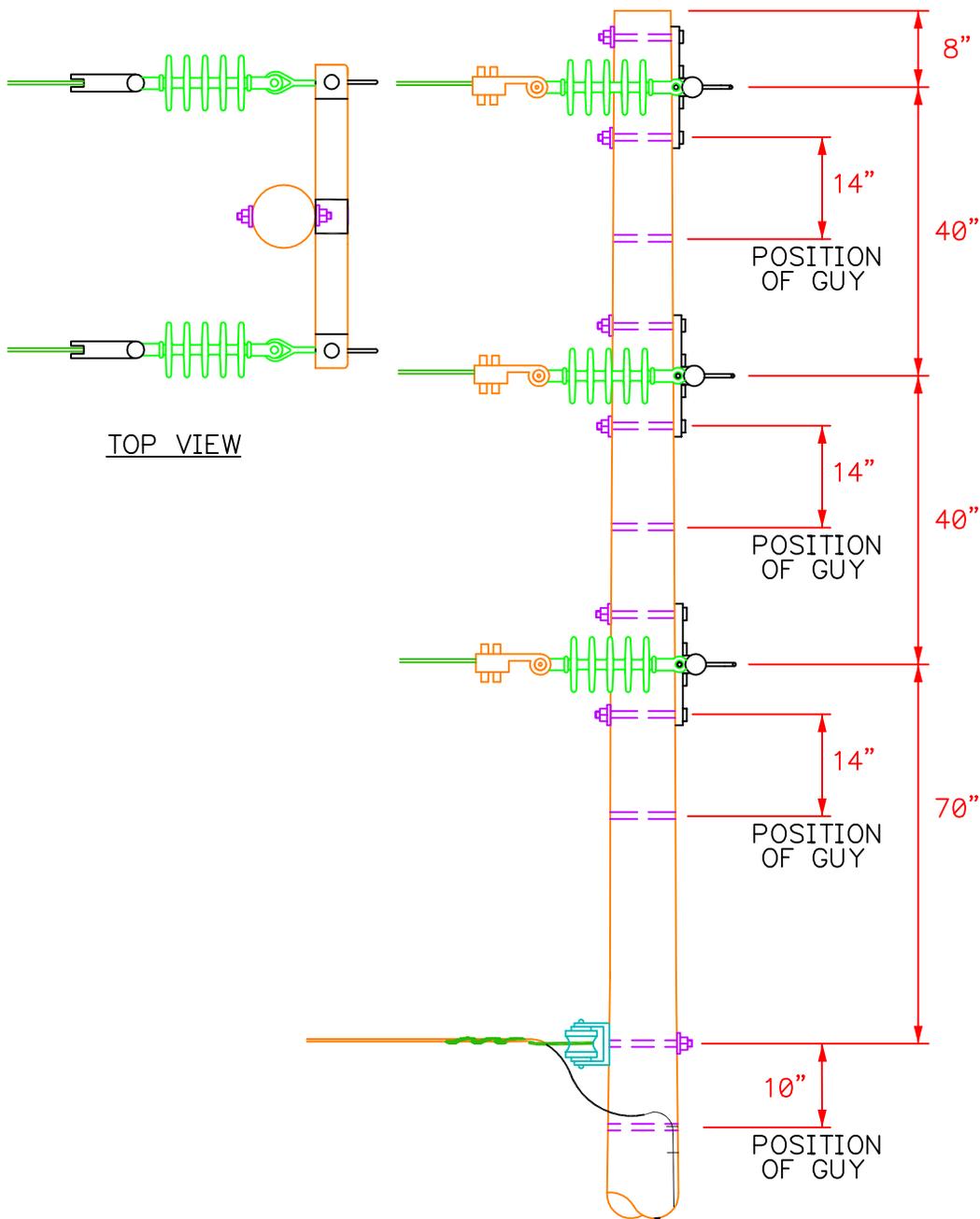
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
JANUARY, 2007

DC-C5

DATE: OCTOBER, 1992



ALTERNATE CONFIGURATION, NARROW PROFILE, DOUBLE CIRCUIT, DEADEND CONSTRUCTION

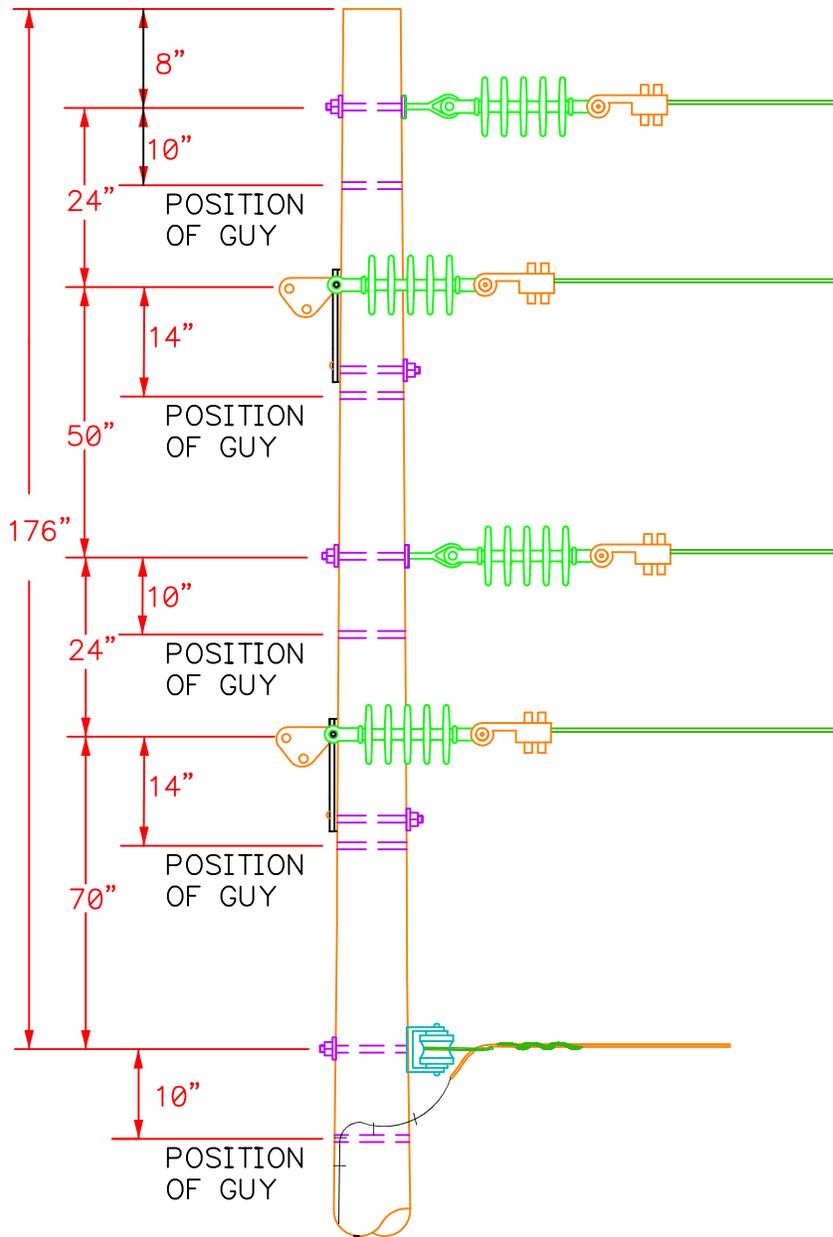
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

DC-C7F



HORIZONTAL DEADEND DOUBLE CIRCUIT CONSTRUCTION

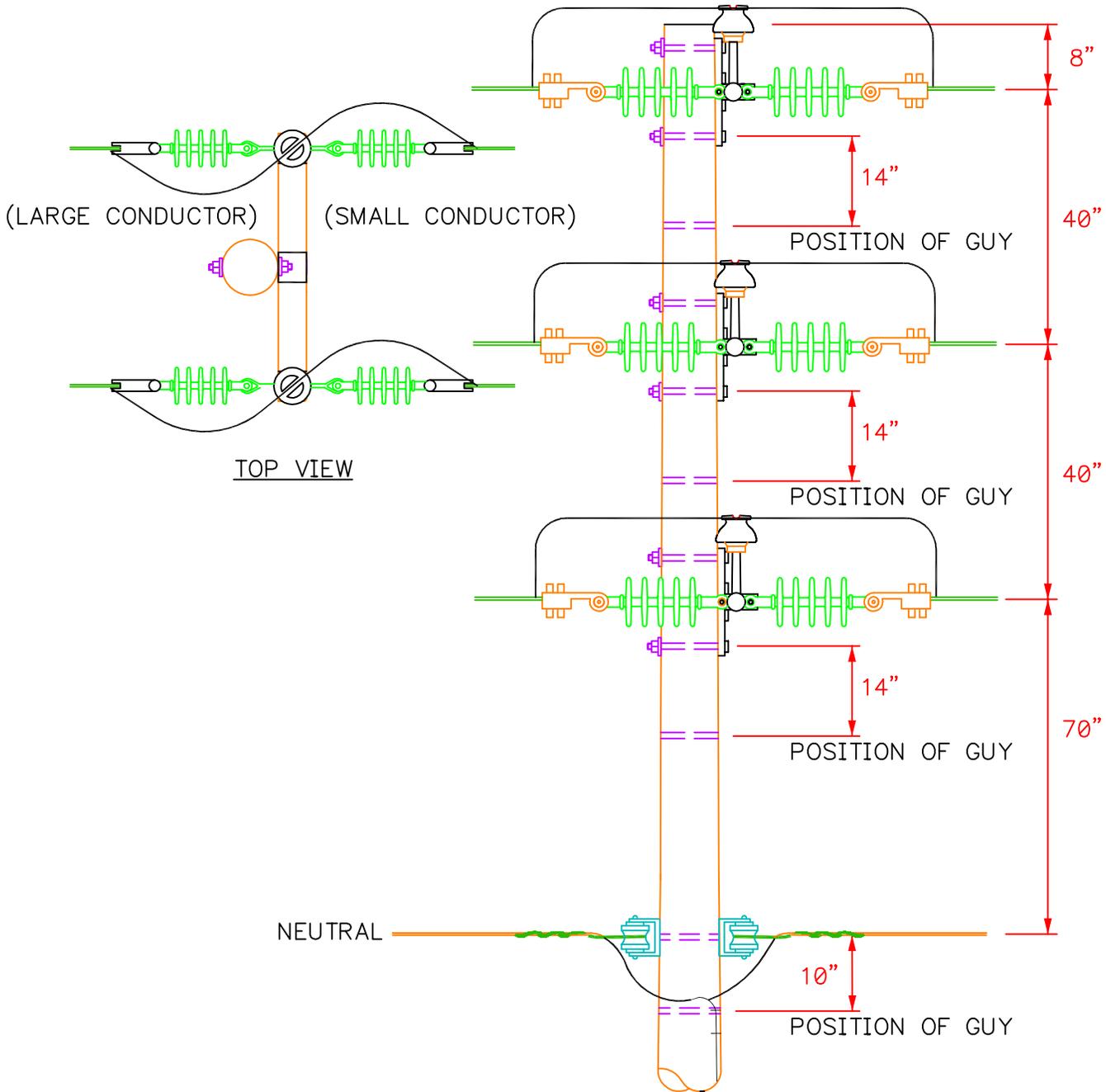
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



REVISIONS JULY, 2002
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DC-C7S

DATE: OCTOBER, 1992



NARROW PROFILE, DOUBLE CIRCUIT DOUBLE DEADEND CONSTRUCTION

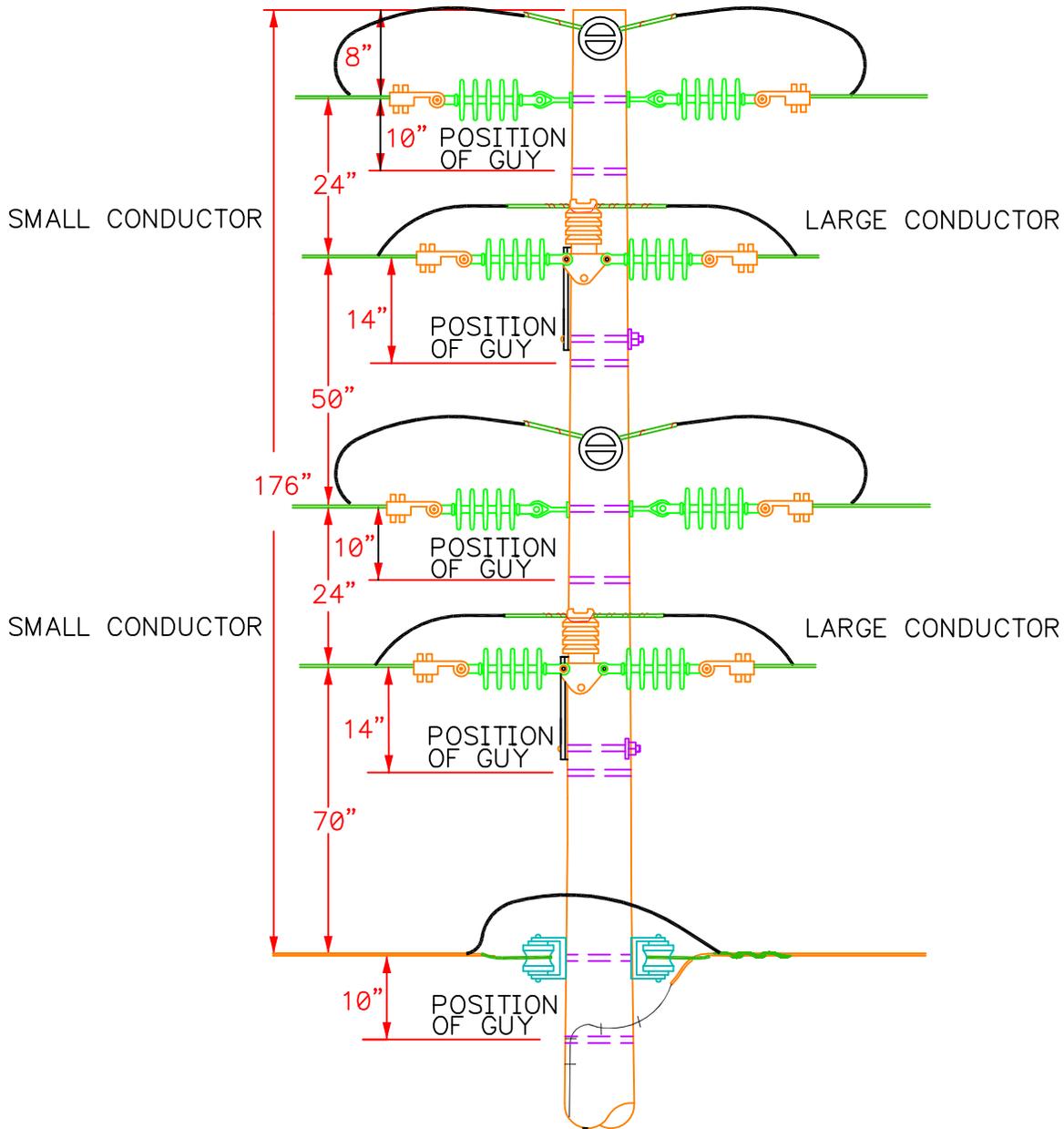
NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

DC-C8F



HORIZONTAL DOUBLE DEADEND DOUBLE CIRCUIT CONSTRUCTION

NOTE:
MINIMUM DISTANCE FROM LOWEST
PRIMARY TO NEUTRAL POSITION IS 36"



DATE: OCTOBER, 1992

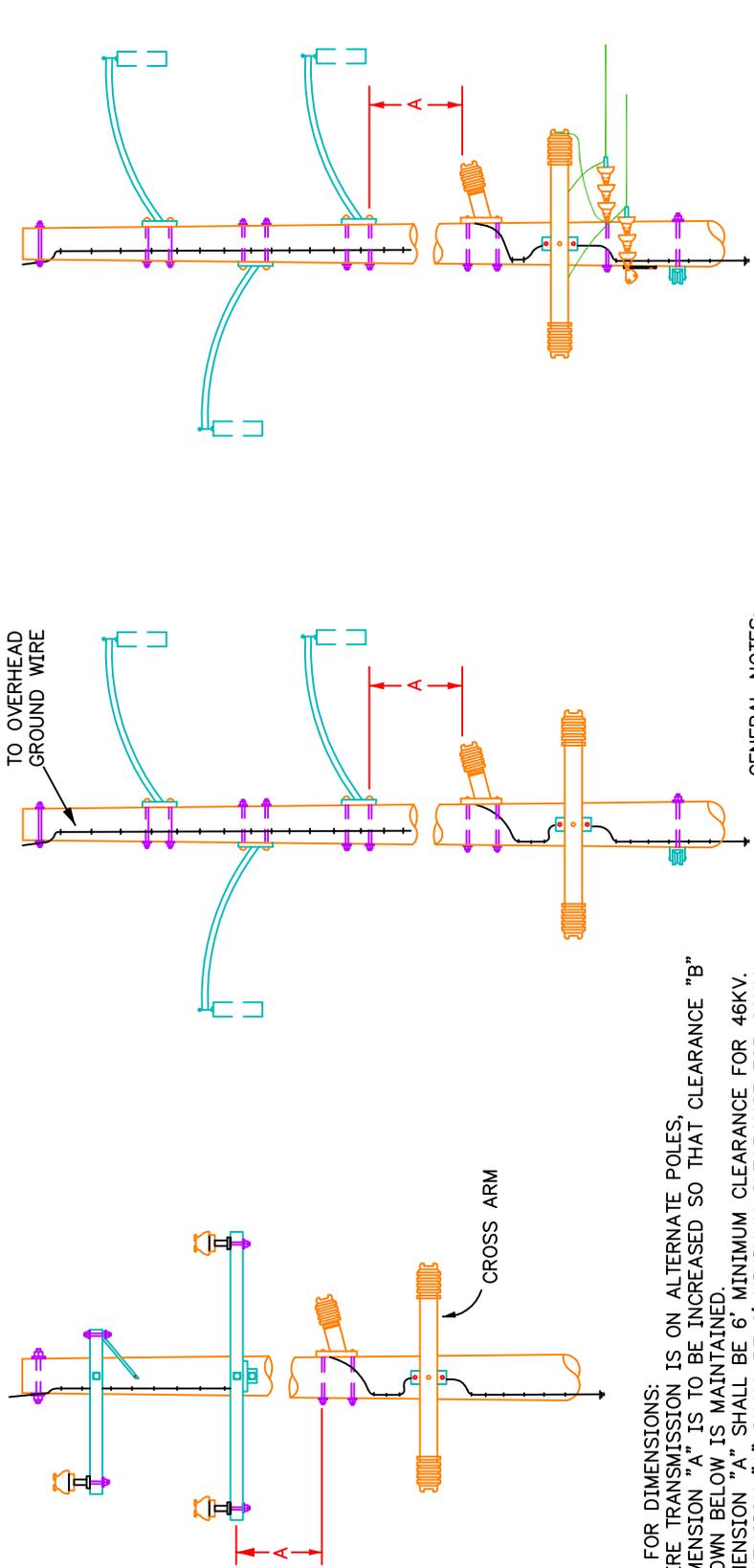
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DC-C8S

JOINT USE & CLEARANCES

ELECTRIC CITIES

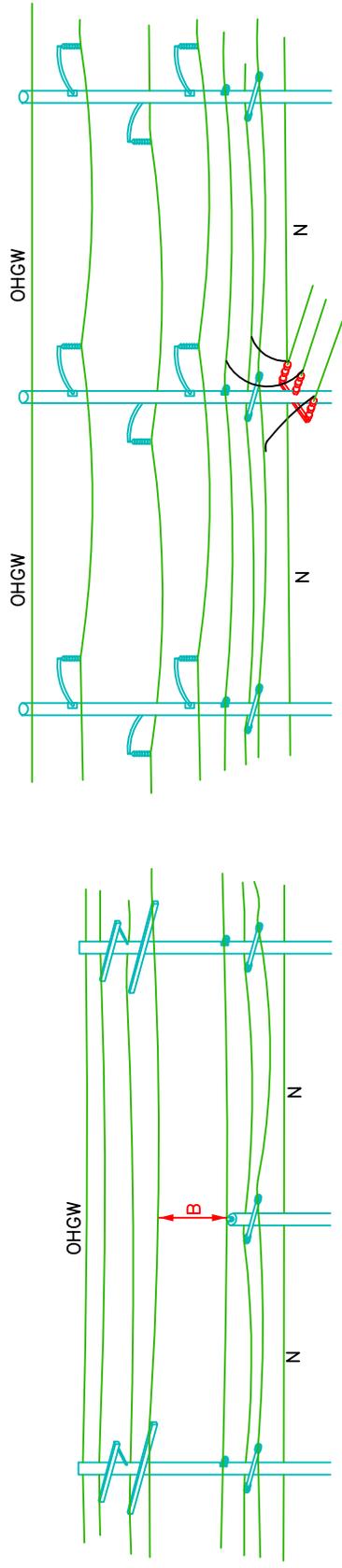


NOTES FOR DIMENSIONS:

1. WHERE TRANSMISSION IS ON ALTERNATE POLES, DIMENSION "A" IS TO BE INCREASED SO THAT CLEARANCE "B" SHOWN BELOW IS MAINTAINED.
2. DIMENSION "A" SHALL BE 6' MINIMUM CLEARANCE FOR 46KV. DIMENSION "A" SHALL BE 6' MINIMUM CLEARANCE FOR 69KV. DIMENSION "A" SHALL BE 10' MINIMUM CLEARANCE FOR 115KV & 230KV.
3. DIMENSION "B" SHALL BE 11' MINIMUM CLEARANCE AT 120° FAHR. FOR 115KV AND BELOW. DIMENSION "B" SHALL BE 13' MINIMUM CLEARANCE AT 120° FAHR. FOR 230KV.

GENERAL NOTES:

1. ALL HARDWARE SHALL BE BONDED TO TRANSMISSION GROUND.
2. BOND NEUTRAL TO TRANSMISSION GROUND. DO NOT INSTALL ADDITIONAL GROUND LEAD.



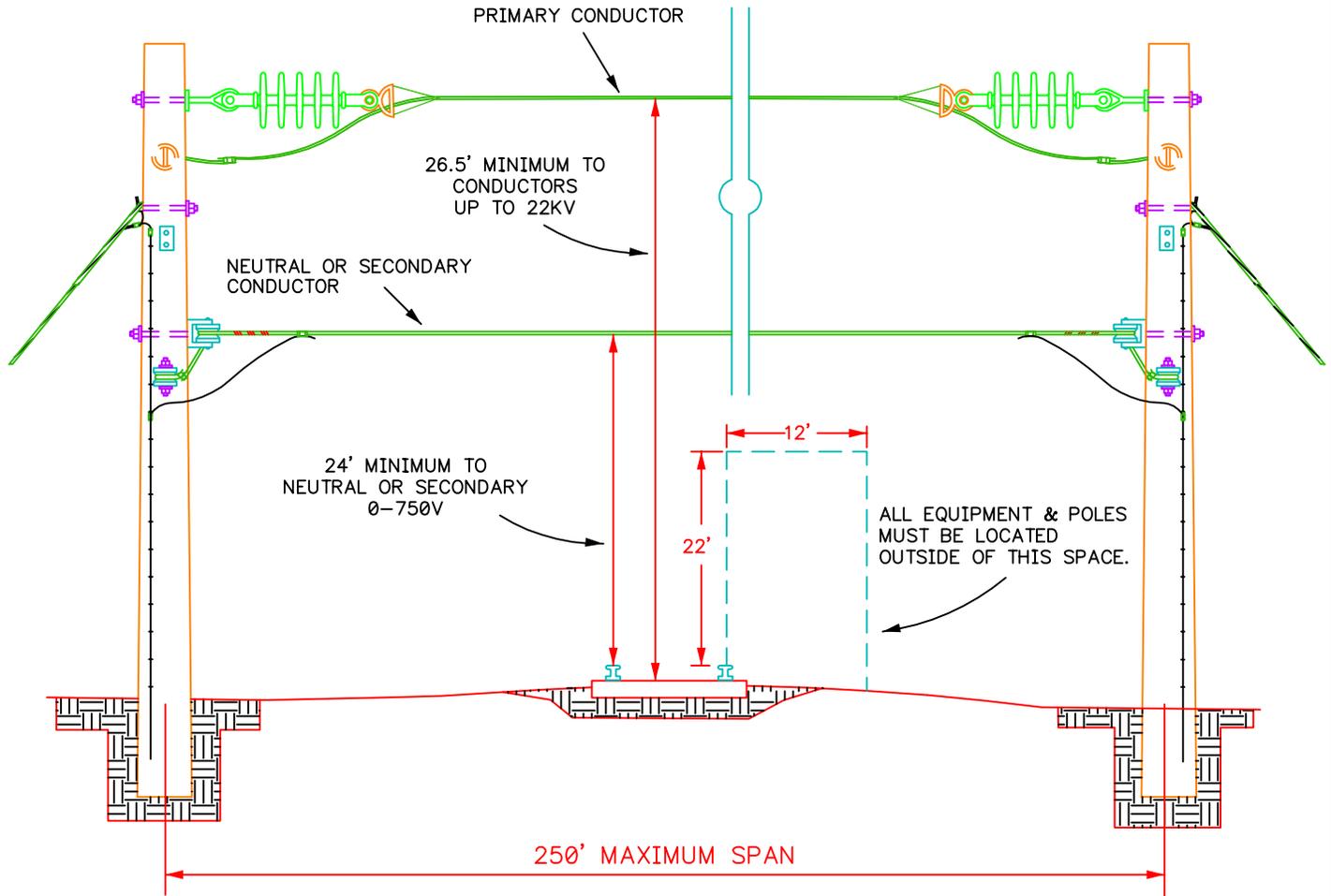
JOINT TRANSMISSION & DISTRIBUTION



DATE: OCTOBER, 1992

REVISIONS JULY, 2001
JANUARY, 2007

JU&C1



1. IF SPAN LENGTH EXCEEDS 250 FEET, CONDUCTOR CLEARANCE IS TO BE INCREASED 0.3 FEET FOR EACH 10 FEET SPAN LENGTH IN EXCESS OF THE 250 FEET.
2. CROSSINGS SHOULD BE MADE ON A COMMON SUPPORT STRUCTURE WHERE PRACTICAL. COOPERATION BETWEEN THE PARTIES CONCERNED SHALL PREVAIL PROPER CLEARANCES.
3. EXCEPTIONS TO 12' HORIZONTAL SIDE CLEARANCE:
 - (a) A CLEARANCE OF NOT LESS THAN 8 FEET MAY BE ALLOWED WHERE NECESSARY IF THE SUPPORTING STRUCTURE IS NOT THE CONTROLLING OBSTRUCTION, PROVIDED SUFFICIENT SPACE FOR A DRIVEWAY IS LEFT WHERE CARS ARE LOADED.
 - (b) WHERE NECESSARY TO PROVIDE SAFE OPERATING CONDITIONS WHICH REQUIRE AN UNINTERRUPTED VIEW OF SIGNALS, SIGNS, ETC. ALONG TRACKS THE PARTIES CONCERNED SHALL COOPERATE IN LOCATING STRUCTURES TO PROVIDE THE NECESSARY CLEARANCE.
 - (c) AT INDUSTRIAL SIDINGS, A CLEARANCE OF NOT LESS THAN 8 FEET SHALL BE PERMITTED, PROVIDED SUFFICIENT SPACE IS LEFT WHERE CARS CAN BE LOADED OR UNLOADED.

RAILROAD CROSSING CONSTRUCTION CLEARANCES



DATE: OCTOBER, 1992

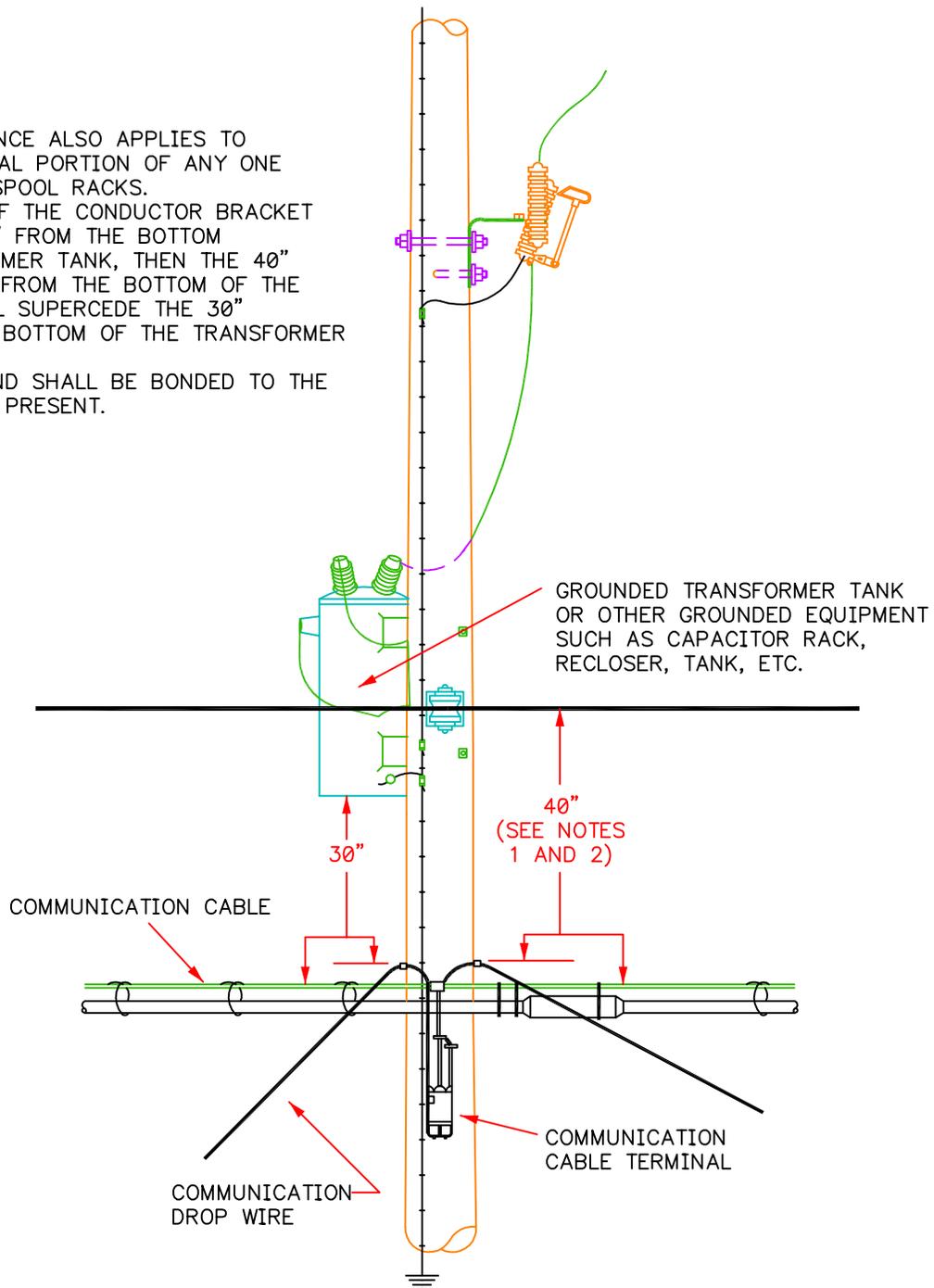
REVISIONS JULY, 2001

JANUARY, 2007

JU&C2

NOTES:

1. THIS 40" CLEARANCE ALSO APPLIES TO THE CLOSEST METAL PORTION OF ANY ONE SPOOL OR FOUR SPOOL RACKS.
2. IF THE BOTTOM OF THE CONDUCTOR BRACKET IS LESS THAN 10" FROM THE BOTTOM OF THE TRANSFORMER TANK, THEN THE 40" REQUIRED SPACE FROM THE BOTTOM OF THE CONDUCTOR SHALL SUPERCEDE THE 30" SPACE FROM THE BOTTOM OF THE TRANSFORMER TANK.
3. MESSENGER STRAND SHALL BE BONDED TO THE POLE GROUND, IF PRESENT.



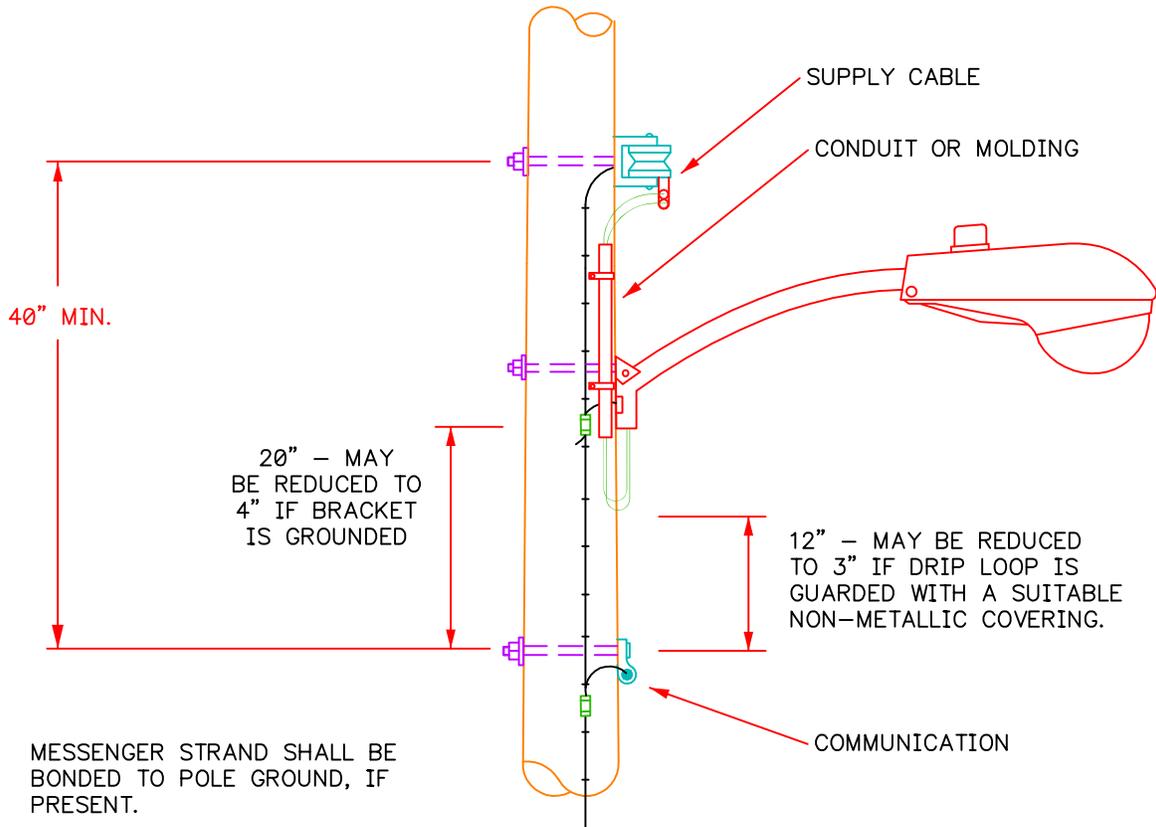
TRANSFORMER POLE



REVISIONS JULY, 2001

DATE: OCTOBER, 1992

JU&C3



NOTES:

- 1.) LIGHT FIXTURE SHOWN IS SYMBOLIC ONLY. CLEARANCES SHOWN ARE APPLICABLE TO ANY TYPE FIXTURE USED.
- 2.) LOWEST PART OF LUMINAIRE SHALL BE NOT LESS THAN 15' OVER ROADS, STREETS, PARKING LOTS, OR ALLEYS.

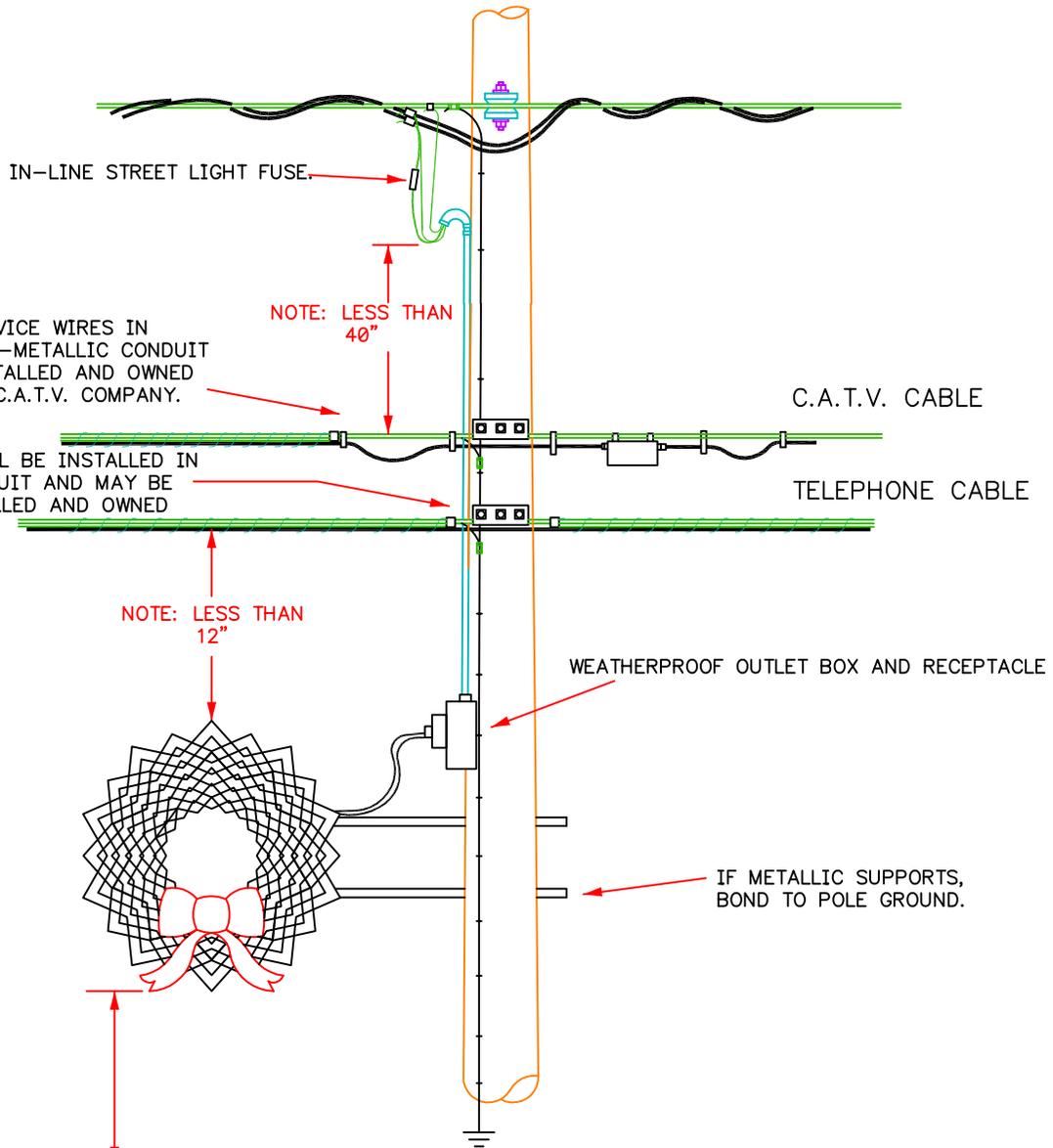
C.A.T.V., TELEPHONE, OTHER SEPARATION FROM LUMINAIRES



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JU&C4



SERVICE WIRES SHALL BE INSTALLED IN NON-METALLIC CONDUIT AND MAY BE PERMANENTLY INSTALLED AND OWNED BY THE CITY.

LOWEST PART OF DECORATION SHALL BE NOT LESS THAN 15' OVER ROADS, STREETS, PARKING LOTS, OR ALLEYS AND 11' WHEN OVER AREAS SUBJECTED TO PEDESTRIANS OR RESTRICTED TRAFFIC ONLY.

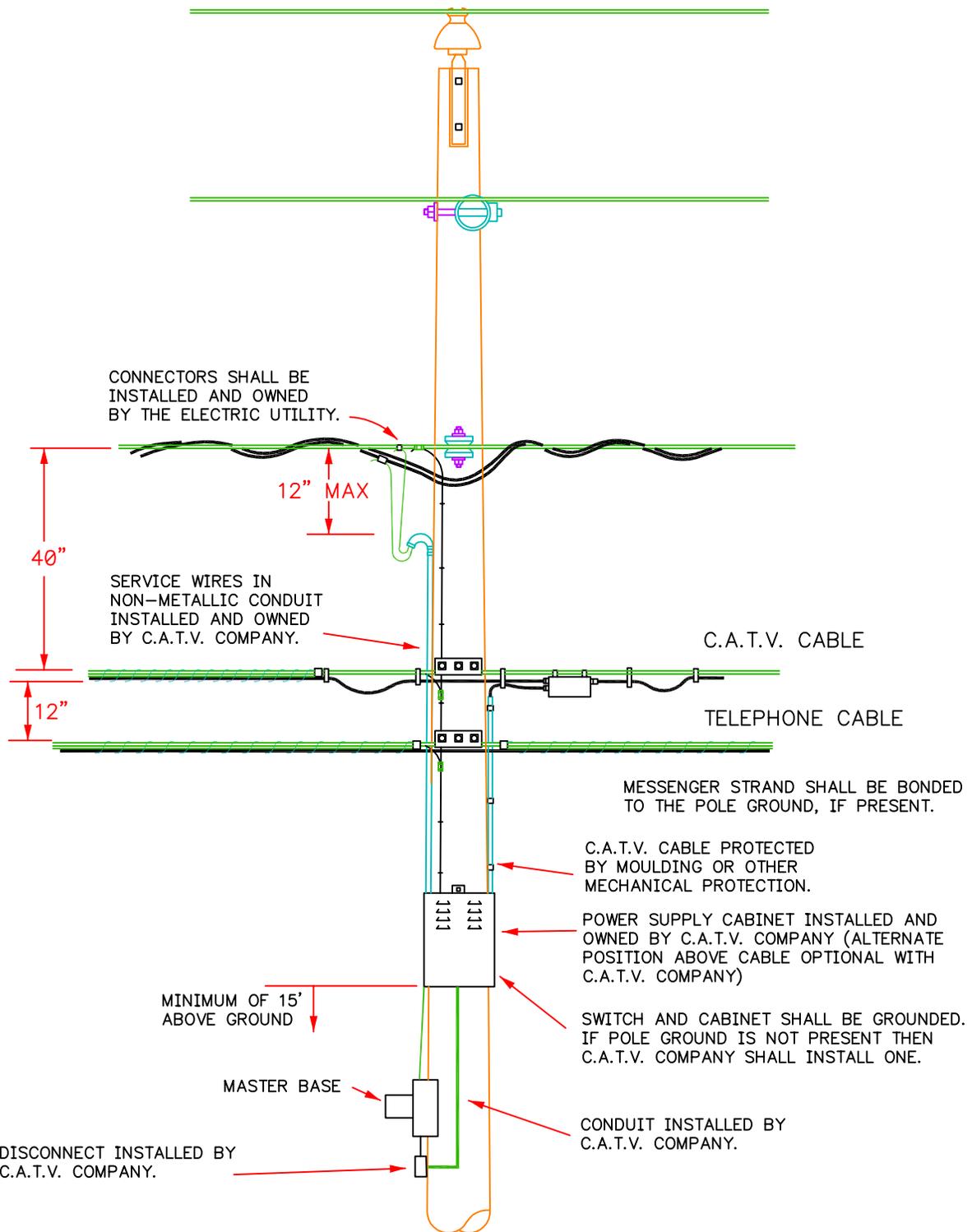
DECORATIVE ATTACHMENT INSTALLATION



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

JU&C5



COMMUNICATION/SIGNAL TYPE ATTACHMENT C.A.T.V. POWER SUPPLY INSTALLATION



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

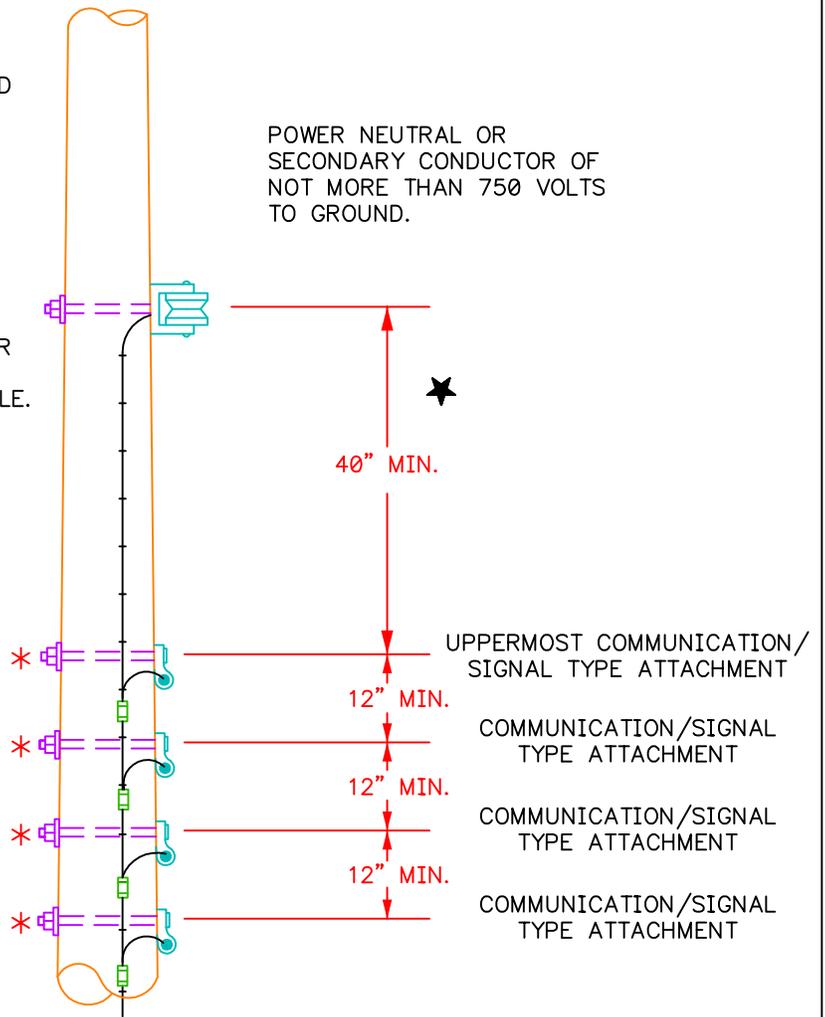
JU&C6

***COMMUNICATION/SIGNAL TYPE ATTACHMENT**

- TELEPHONE CABLE
- C.A.T.V. CABLE
- ALARM CABLE (FIRE, POLICE, WATER TOWER LEVEL, ETC.)
- TRAFFIC SIGNAL CONTROL CABLE
- TELEGRAPH CABLE
- PUBLIC OR PRIVATE COMMUNICATION CABLE

NOTES:

- 1.) WHEN C.A.T.V. AND TELEPHONE ARE ATTACHED TO POLE, C.A.T.V.'S PREFERRED POSITION IS ABOVE TELEPHONE (12" MIN.). IF OTHER COMMUNICATION/SIGNAL TYPE CABLES ARE ATTACHED TO POLE WITH C.A.T.V. AND/OR TELEPHONE, THEIR POSITION SHALL BE MUTUALLY AGREED UPON.
- 2.) 12" MIN. SPACING SHOULD BE MAINTAINED BETWEEN CABLES. C.A.T.V. AND TELEPHONE DROPS CAN BE LESS THAN 12" FROM OTHER CABLES. DROPS SHALL BE 40" BELOW POWER NEUTRAL OR SECONDARY AT POLE.
- 3.) ALL CABLES SHALL BE ON SAME SIDE OF POLE.
- 4.) MESSENGER STRAND SHALL BE BONDED TO POLE GROUND, IF PRESENT.



★ FOR SUPPLY NEUTRAL ONLY, THIS MAY BE REDUCED TO 30".

MULTIPLE COMMUNICATION/SIGNAL TYPE ATTACHMENT



REVISIONS JULY, 2001

JU&C7

DATE: OCTOBER, 1992

VOLTAGES ARE PHASE TO GROUND FOR EFFECTIVELY GROUNDED CIRCUITS

NATURE OF SURFACE UNDERNEATH WIRES, CONDUCTORS, OR CABLES	INSULATED COMMUNICATION CONDUCTORS AND CABLE; MESSENGERS; GROUNDED GUYS; SYSTEM NEUTRAL (IN FEET)	DUPLEX, TRIPLEX, & QUADRAPLEX CABLE WITH GROUNDED GUYS; GROUNDED NEUTRAL 0 – 750 VOLTS (IN FEET)	OPEN WIRE SECONDARY CONDUCTORS 0 – 750 VOLTS (IN FEET)	OPEN WIRE CONDUCTORS OVER 750 VOLTS TO 22KV (IN FEET)
WHERE WIRES, CONDUCTORS, OR CABLE CROSS OVER OR OVERHANG				
1. TRACK RAILS OF RAILROADS.	23.5	24	24.5	26.5
2. ROADS, STREETS, AND OTHER AREAS SUBJECT TO TRUCK TRAFFIC. (SEE NOTE 9.)	15.5	16	16.5	18.5
3. DRIVEWAYS, PARKING LOTS, AND ALLEYS	15.5 (SEE NOTES 1 AND 6)	16 (SEE NOTES 1 AND 6)	16.5 (SEE NOTE 1)	18.5
4. OTHER LAND TRAVERSED BY VEHICLES SUCH AS CULTIVATED, GRAZING, FOREST, ORCHARD, ETC.	15.5	16	16.5	18.5
5. SPACES OR WAYS SUBJECT TO PEDESTRIAN OR RESTRICTED TRAFFIC ONLY. (SEE NOTE 3.)	9.5	12 (SEE NOTE 2)	12.5 (SEE NOTE 1)	14.5
6. WATER AREAS NOT SUITABLE FOR SAILBOATS OR WHERE SAILBOATS ARE PROHIBITED. (SEE NOTE 12.)	14	14.5	15	17
7. A) WATER AREAS (NOT REGULATED BY CORPUS OF ENGR.) SUITABLE FOR SAILBOATS, INCLUDING LAKES, PONDS, RESERVOIRS, TIDAL WATERS, RIVERS, STREAMS, AND CANALS WITH AN UNOBSTRUCTED SURFACES AREA OF: A. LESS THAN 20 ACRES B. 20 TO 200 ACRES C. 200 TO 2000 ACRES D. OVER 2000 ACRES (SEE NOTES 12, 13, & 14.)	17.5 25.5 31.5 37.5	18 26 32 38	18.5 26.5 32.5 38.5	20.5 28.5 34.5 40.5
7. B) WATER AREAS REGULATED BY CORPUS OF ENGINEERS (SEE NOTE 7)	52	55	55	55
8. PUBLIC OR PRIVATE LAND AND WATER AREAS POSTED FOR RIGGING OR LAUNCHING SAILBOATS.	CLEARANCE ABOVE GROUND SHALL BE 5 FEET GREATER THAN IN 7. ABOVE, FOR THE TYPE OF WATER AREAS SERVED BY THE LAUNCHING SITE.			
WHERE WIRES, CONDUCTOR, OR CABLES RUN ALONG AND WITHIN THE LIMITS OF HIGHWAY OR OTHER ROAD RIGHT-OF-WAY BUT DO NOT OVERHANG THE ROADWAY				
9. ROADS, STREET, OR ALLEYS	15.5 (SEE NOTES 6 AND 10)	15.5 (SEE NOTES 6)	16.5	18.5
10. ROADS IN RURAL DISTRICTS WHERE IT IS UNLIKELY THAT VEHICLES WILL BE CROSSING UNDER THE LINE.	15.5 (SEE NOTES 4 AND 5)	14.0 (SEE NOTES 4)	14.5 (SEE NOTES 4)	16.5

*ALWAYS REFER TO THE LATEST NESC
(REFERENCE NESC RULE 232, 2007 EDITION, FOR ADDITIONAL INFORMATION)

**VERTICAL CLEARANCES OF WIRES,
CONDUCTORS, AND CABLES ABOVE GROUND,
ROADWAYS, RAILS, OR WATER**



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

TABLE 1

FOOTNOTES TABLE 1:

1. Where the height of a building or other installation does not permit service drops to meet these values, the clearances over residential driveways only may be reduced to the following:

	<u>FEET:</u>
a. Service drops limited to 300 V to ground	12.5
b. Service drip loops limited to 300 V to ground	10.5
c. Service limited to 150 V to ground	12.0
d. Drip loops only of service limited to 150 V to ground	10.0

2. Where the height of a building or other installation does not permit service drops to meet these values, the clearances may be reduced to the following:

	<u>FEET:</u>
a. Service drops, including drip loops, limited to 300 V to ground	10.5
b. Service drops, including drip loops, limited to 150 V to ground	10.0

3. Spaces and ways subject to pedestrians or restricted traffic only are those areas where equestrians, vehicles, or other mobile units, exceeding 8ft. in height, are prohibited by regulation or permanent terrain configurations or are otherwise not normally encountered or reasonably anticipated.

4. Where a supply or communication line along a road is located relative to fences, ditches, embankments, etc., so that the ground under the line would not be expected to be traveled except by pedestrians, the clearance may be reduced to the following values:

	<u>FEET:</u>
a. Insulated communications cables, neutrals, guys, and multiplex supply cables limited to 150 V to ground	9.5
b. Multiplex supply cables limited to 300 V to ground	12.5

5. This clearance may be reduced to 13 ft. for communication conductors and guys.

6. Where this construction crosses over or runs along alleys, driveways, or parking lots, this clearance may be reduced to 15 ft.

7. For controlled impoundments, the surface area and corresponding clearances shall be based upon the design high water level. For other waters, the service area shall be that enclosed by its annual high water mark, and clearances shall be based on the normal flood level. The clearance over rivers, streams, and canals shall be based upon the largest surface area of any 1 mi. long segment, which includes the crossing. The clearance over a canal, river, or stream normally used to provide access for sailboats to a larger body of water shall be the same as that required for the larger body of water.

9. For the purpose of this rule, trucks are defined as any vehicle exceeding 8 ft. in height. Areas not subject to truck traffic are areas where truck traffic is not normally encountered or not reasonably anticipated.

10. Communication cables and conductors may have a clearance of 15 ft. where poles are back of curbs or other deterrents to vehicular traffic.

Note: Footnote 8 and 11 were intentionally omitted

FOOTNOTES TABLE 1: (cont'd)

12. Where the U.S. Army Corps of Engineers, or the state or the surrogate thereof has issued a crossing permit, clearance of that permit shall govern.
13. For controlled impoundments, the surface area and corresponding clearance shall be based upon the design high water level. For other waters, the surface area shall be that enclosed by its annual high water mark, and clearances shall be based upon the largest surface area of any one mile long segment that includes the crossing. The clearance of a canal, river or stream normally used to provide access for sailboats to a larger body of water shall be the same as required for the larger body of water.
14. Where an over water obstruction restricts vessel height to less than the following:

Surface Area (Acres)	Reference Vessel Height (Feet)
less than 20	16
20 to 200	24
200 to 2000	30
over 2000	36

The required clearances may be reduced by the difference between the reference vessel height given above and the over water obstruction height, except that the reduced clearance shall not be less than that required for the surface area on the line crossing side of the obstruction.

The vertical clearance shall be maintained with the conductor at final sag and at the following condition whichever results in the greater vertical sag:

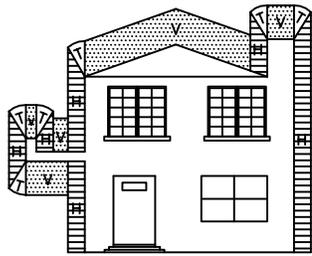
1. 32° F, no wind, with radial thickness of ice of 1/4 inch for medium loading and no ice for light loading.

Or

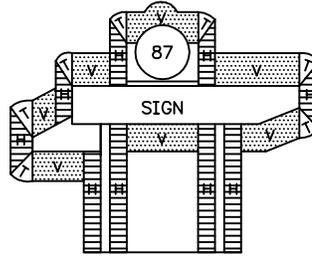
2. The maximum conductor for which the line is designed to operate, if greater than 120° F.(120° F for all neutrals)

Note:

All clearances shown are design clearances under specified conditions, not measured clearances under ambient conditions.



H - HORIZONTAL CLEARANCE
T - TRANSITIONAL = VERTICAL (ARC)



V - VERTICAL CLEARANCE

VOLTAGES ARE PHASE TO GROUND FOR EFFECTIVELY GROUNDED CIRCUITS

CLEARANCE FROM:	INSULATED COMMUNICATION CONDUCTORS AND CABLES; MESSAGERS; GROUNDED GUYS; NEUTRAL CONDUCTORS (IN FEET)	MULTIPLEX SUPPLY CABLE 0 - 750 VOLTS (IN FEET)	OPEN WIRE CONDUCTORS 0 - 750 VOLTS (IN FEET)	UNGUARDED RIGID LIVE PARTS, OVER 750 VOLTS TO 22 KILOVOLTS (IN FEET)	OPEN WIRE CONDUCTORS OVER 750 VOLTS TO 22 KILOVOLT (IN FEET)
1. BUILDINGS					
A. HORIZONTAL (1) TO WALLS, PROJECTIONS, AND GUARDED WINDOWS.	4.5 (SEE NOTE 6)	5.0 (SEE NOTE 1)	5.5 (SEE NOTE 1 & 8)	7.0 (SEE NOTE 1)	7.5 (SEE NOTE 1,9,&10)
(2) TO UNGUARDED WINDOWS. (SEE NOTE 7)	4.5	5.0	5.5 (SEE NOTE 1 & 8)	7.0	7.5 (SEE NOTE 9 & 10)
(3) TO BALCONIES AND AREA ACCESSIBLE TO PEDESTRIANS. (SEE NOTE 3)	4.5	5.0	5.5 (SEE NOTE 8)	7.0	7.5 (SEE NOTE 9 & 10)
B. VERTICAL					
(1) OVER OR UNDER ROOF OR PROJECTIONS NOT READILY ACCESSIBLE TO PEDESTRIANS. (SEE NOTE 3)	3.0	3.5	10.5	12.0	12.5
(2) OVER OR UNDER BALCONIES AND ROOFS READILY ACCESSIBLE TO PEDESTRIANS. (SEE NOTE 3)	10.5	11.0	11.5	13.0	13.5
(3) OVER ROOFS ACCESSIBLE TO VEHICLES, BUT NOT SUBJECT TO TRUCK TRAFFIC. (SEE NOTE 5)	10.5	11.0	11.5	13.0	13.5
(4) OVER ROOFS ACCESSIBLE TO TRUCK TRAFFIC. (SEE NOTE 5)	15.5	16.0	16.5	18.0	18.5
2. SIGNS, CHIMNEYS, BILLBOARDS, RADIO AND TELEVISION ANTENNAS, TANKS, AND OTHER INSTALLATIONS NOT CLASSIFIED AS BUILDINGS OR BRIDGES.	4.5	5.0	5.5	7.0	7.5
A. HORIZONTAL; (SEE NOTE 4)					
(1) READILY ACCESSIBLE					
(2) NOT READILY ACCESSIBLE	3.0	3.5	5.5 (SEE NOTES 1 & 8)	7.0	7.5 (SEE NOTE 1,9,&10)
B. VERTICAL					
(1) OVER OR UNDER CATWALKS AND OTHER SURFACES UPON WHICH PERSONNEL WALK.	10.5	11.0	11.5	13.0	13.5
(2) OVER OR UNDER OTHER PORTIONS OF SUCH INSTALLATIONS.	3.0	3.5	6.0 (SEE NOTE 1)	7.5	8.0

*ALWAYS REFER TO THE LATEST NESC
(REFERENCE NESC RULE 232, 2007 EDITION, FOR ADDITIONAL INFORMATION)

CLEARANCES OF WIRES, CABLES, AND UNGUARDED RIGID LIVE PARTS ADJACENT BUT NOT ATTACHED TO BUILDINGS AND OTHER INSTALLATIONS EXCEPT BRIDGES



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TABLE 2

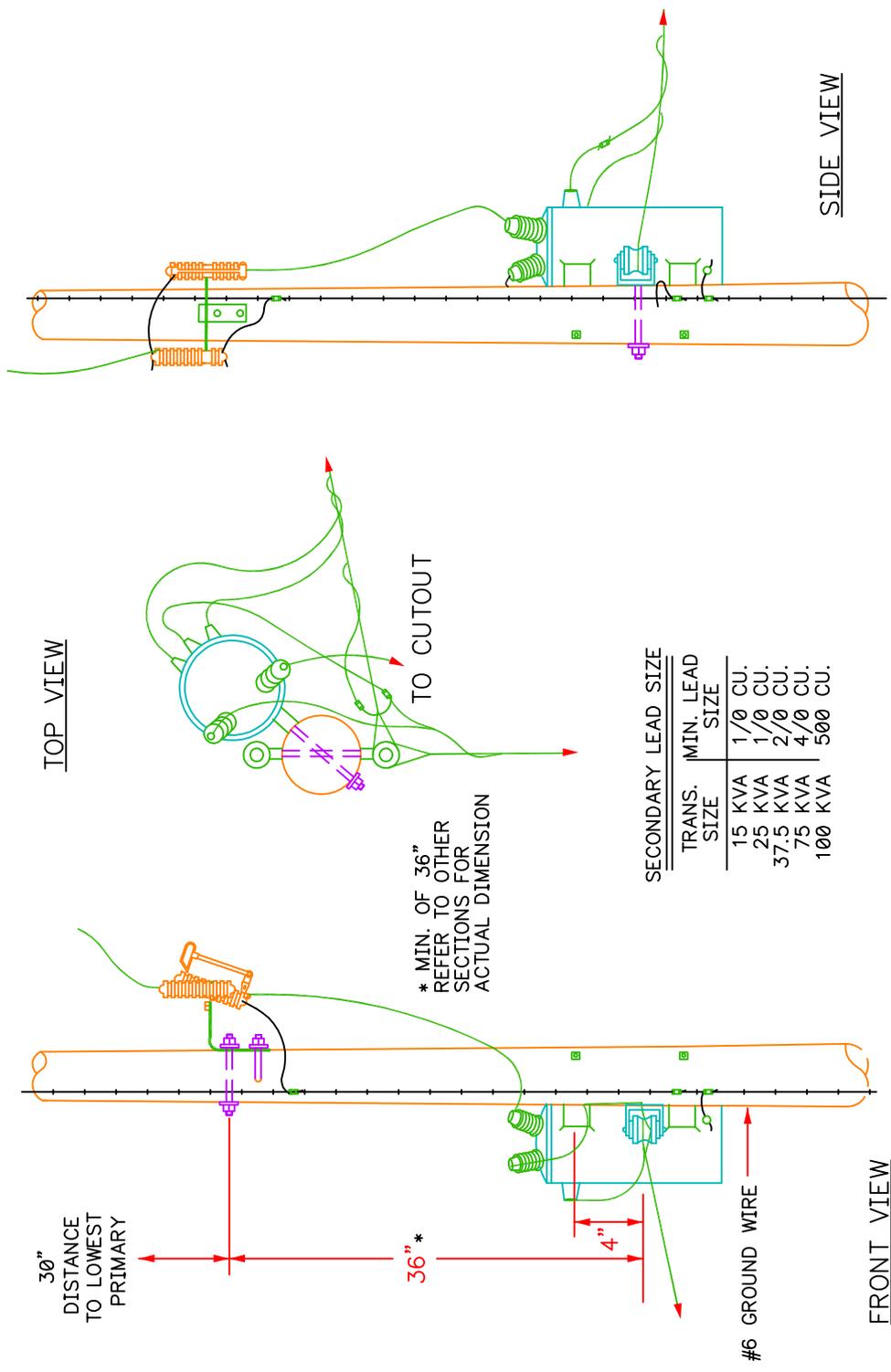
FOOTNOTES TABLE 2:

1. Where a building, sign, chimney, antenna, tank, or other installation does not require maintenance such as painting, washing, changing of sign letters, or other operations which would require persons to work or pass between supply conductors or unguarded rigid live parts and structures, the clearance may be reduced by 2 ft.
3. A roof, balcony, or area is considered readily accessible to pedestrians if the means of access is through a doorway, ramp, window, stairway, or permanently mounted ladder. A permanently mounted ladder is not considered a means of access if its bottom rung is 8 ft. or more from the ground or other permanently installed accessible surface.
4. The required clearances shall be to the closest approach of motorized signs or moving portions of installations.
5. For the purpose of this rule, trucks are defined as any vehicle exceeding 8 ft. in height.
6. This clearance may be reduced to 3 in. for the grounded portions of the guys.
7. Windows not designed to open may have the clearance permitted for the walls and projections.
8. The horizontal clearance shall not be less than 3.5' plus the displacement of the conductor by a 6 lb/ft² wind at 60° F, final sag.
9. The horizontal clearance shall not be less than 4.5' plus the displacement of the conductor by a 6 lb/ft² wind at 60° F, final sag.
10. Where available space will not permit this value, the clearance may be reduced to 7.0 ft. for conductors limited to 8.7 KV to ground.

Note: Footnote 2 was intentionally omitted.

OVERHEAD TRANSFORMERS

ELECTRIC CITIES



- NOTES:
1. CONNECT TRANSFORMER SECONDARY NEUTRAL LEAD TO SYSTEM AND LEAVE APPROXIMATELY 12 INCH TAIL FOR SERVICE NEUTRAL CONNECTIONS.
 2. IF SECONDARY IS TO EXTEND IN LINE, EXTEND PRIMARY WIRE TO ELIMINATE CONFLICT BETWEEN SECONDARY AND ANCHOR GUY. IF IT IS NOT DESIRABLE TO EXTEND PRIMARY, INSTALL SPAN GUY TO NEXT POLE.
 3. AVOID PLACING CUTOFF DIRECTLY ABOVE TRANSFORMER.
 4. USE WILDLIFE GUARDS AND COVERED RISER WIRE.

SINGLE TRANSFORMER INSTALLATION, DEADEND POLE



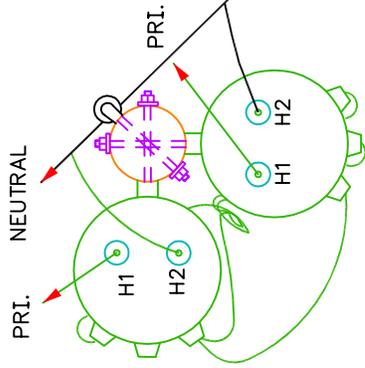
DATE: OCTOBER, 1992

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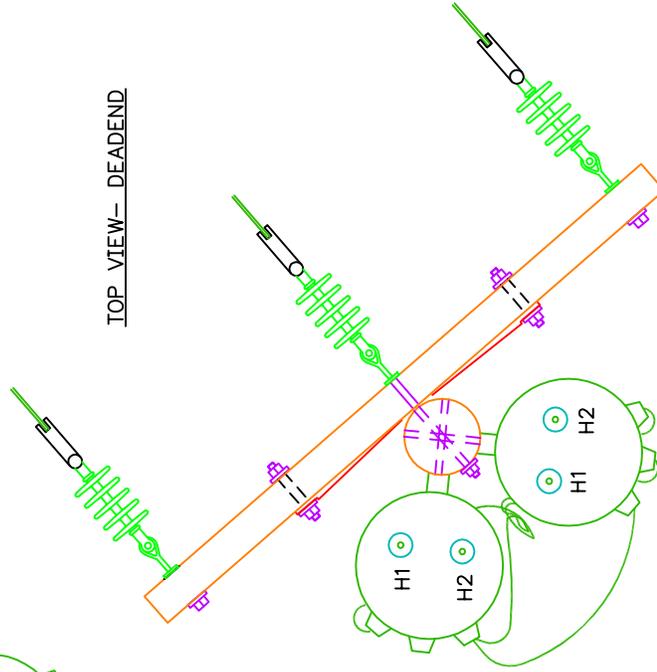
30" DISTANCE TO LOWEST PRIMARY

TOP VIEW— TANGENT



* MIN. OF 54"—
REFER TO OTHER
SECTIONS FOR
ACTUAL DIMENSION

TOP VIEW— DEADEND



SECONDARY LEAD SIZE

TRANS. SIZE	MIN. LEAD SIZE
15 KVA	1/0 CU.
25 KVA	1/0 CU.
37.5 KVA	2/0 CU.
75 KVA	4/0 CU.
100 KVA	500 CU.

NOTES:

1. CONNECT TRANSFORMER SECONDARY NEUTRAL LEAD TO SYSTEM AND LEAVE APPROXIMATELY 12 INCH TAIL FOR SERVICE NEUTRAL CONNECTIONS.
2. USE WILDLIFE GUARDS AND COVERED RISER WIRE.
3. AVOID PLACING CUTOUT DIRECTLY ABOVE TRANSFORMER.

TWO TRANSFORMERS, CLUSTER MOUNTED OPEN WYE- OPEN DELTA

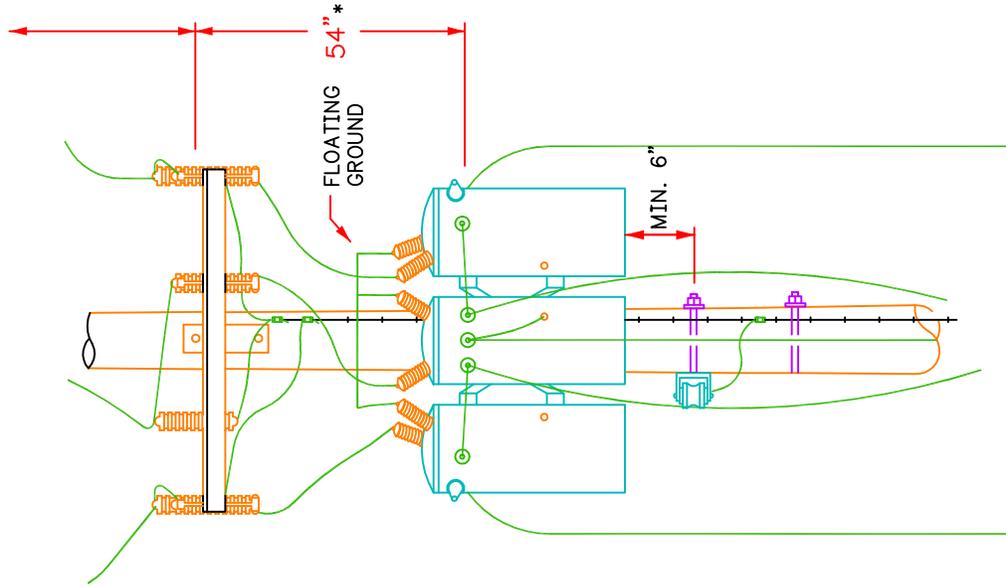


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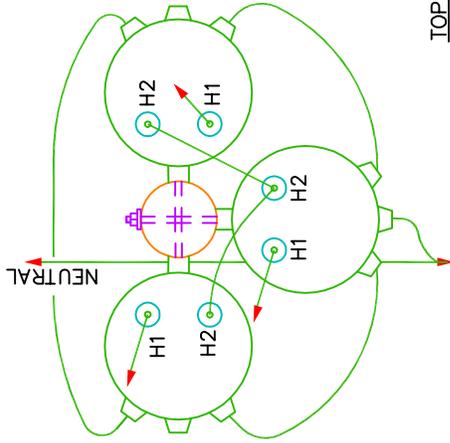
G210

30" DISTANCE TO LOWEST PRIMARY

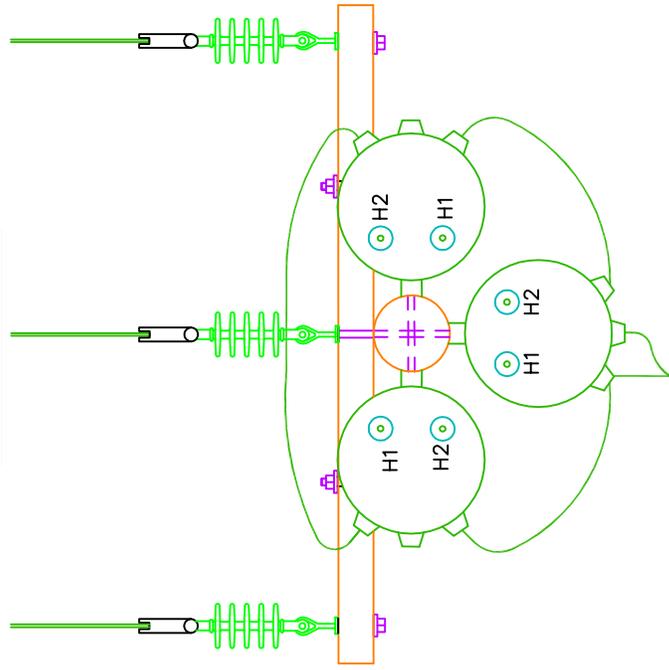


* MIN. OF 54" REFER TO OTHER SECTIONS FOR ACTUAL DIMENSION

TOP VIEW - TANGENT



TOP VIEW - DEADEND



SECONDARY LEAD SIZE

TRANS. SIZE	MIN. LEAD SIZE
15 KVA	1/0 CU.
25 KVA	1/0 CU.
37.5 KVA	2/0 CU.
75 KVA	4/0 CU.
100 KVA	500 CU.

- NOTES:
1. AVOID PLACING CUTOUPS DIRECTLY ABOVE TRANSFORMERS.
 2. USE WILDLIFE GUARDS AND COVERED RISER WIRE.

THREE TRANSFORMERS, CLUSTER MOUNTED CLOSED DELTA

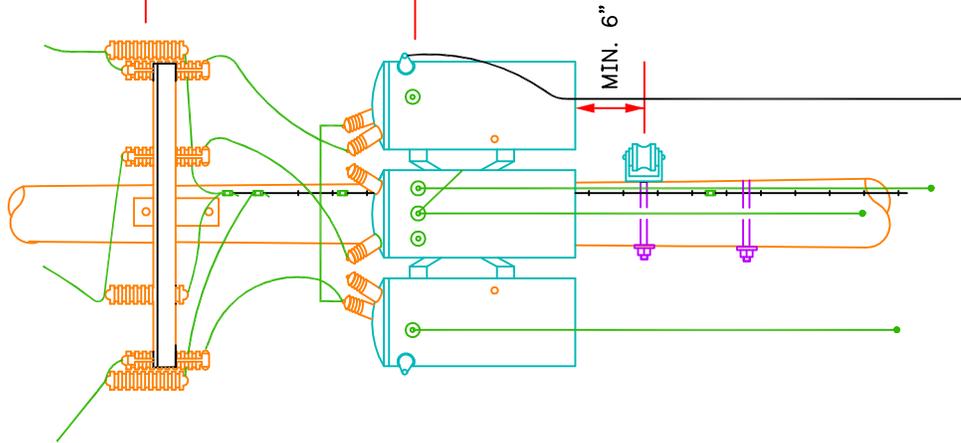


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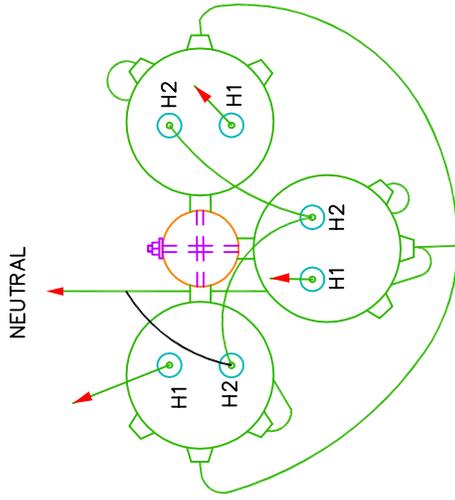
30" DISTANCE TO LOWEST PRIMARY



54"*

* MIN. OF 54"
REFER TO OTHER
SECTIONS FOR
ACTUAL DIMENSION

IOP_VIEW



SECONDARY LEAD SIZE

TRANS. SIZE	MIN. LEAD SIZE
15 KVA	1/0 CU.
25 KVA	1/0 CU.
37.5 KVA	2/0 CU.
75 KVA	4/0 CU.
100 KVA	500 CU.

NOTES:

1. AVOID PLACING CUTOUPS DIRECTLY ABOVE TRANSFORMERS.
2. USE WILDLIFE GUARDS AND COVERED RISER WIRE.

THREE TRANSFORMERS, CLUSTER MOUNTED 4-WIRE GROUNDED WYE- GROUNDED WYE



DATE: OCTOBER, 1992

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G312

FUSE CHART FOR OVERHEAD TRANSFORMERS AND CAPACITORS OPERATING ON A 12470/7200 VOLT WYE SYSTEM

USE SPECIFIC FUSE TYPES TO BE SELECTED TO BE COMPATIBLE WITH OVERALL SYSTEM PROTECTION PLAN

TRANSFORMER KVA	FULL LOAD AMPS	FUSE TYPE "KS" SIZE	FUSE TYPE "QA" SIZE	FUSE TYPE "T" SIZE	FUSE TYPE "N" SIZE	FUSE TYPE "K" SIZE
10	1.39	2	2	2	3	2
15	2.08	3	5	3	5	3
25	3.47	5	7	6	5	6
37.5	5.21	7	10	8	7	8
50	6.94	10	15	10	10	10
75	10.42	15	20	15	15	15
100	13.89	20	30	20	20	20
167	23.19	30	50	30	30	30

CAPACITOR KVAR IN BANK	FULL LOAD AMPS	FUSE TYPE "KS" SIZE	FUSE TYPE "QA" SIZE	FUSE TYPE "T" SIZE	FUSE TYPE "N" SIZE	FUSE TYPE "K" SIZE
150	6.94	10	15	10	10	10
300	13.89	15	20	15	15	15
450	20.83	20	30	20	20	20
600	27.78	25	40	25	25	25
900	41.67	40	60	40	40	40
1200	55.56	50	45	50	50	50
1350	62.50	65	100	65	65	65
1800	83.33	80	125	80	80	80



DATE: JANUARY, 2007

REVISIONS _____

R1

SECONDARY LEAD CHART

TRANSFORMER SIZE (KVA)	SECONDARY VOLTAGE				
	120/240	120/208Y	480 Delta	277/480 Y	120/240 Delta
10	#1/0 Cu	#1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu
15	#1/0 Cu	#4/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu
25	#1/0 Cu	#4/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu
37.5	#1/0 Cu	#350 Al #1/0 Cu	#1/0 Al #1/0 Cu	#1/0 Al #1/0 Cu	#350 Al #1/0 Cu
50	#4/0 Cu	#350 Al #4/0 Cu	#4/0 Al #1/0 Cu	#4/0 Al #1/0 Cu	#4/0 Al #1/0 Cu
75	#4/0 Cu	#750 Al	#4/0 Al #1/0 Cu	#4/0 Al #1/0 Cu	#750 Al
100	#500 Cu	#750 Al	#350 Al #4/0 Cu	#350 Al #4/0 Cu	#750 Al
167	#1000 Cu	(2) #750 Al	#750 Al	#750 Al	(2) #750 Al
250	(2) #1000 Al	*	(2) #350 Al	(2) #350 Al	(2) #750 Al
333	*	*	(2) #750 Al	(2) #750 Al	*
500	*	*			*

*— Leads should be sized case to case. Most transformers 75 kVA and larger have spade terminals for paralleling conductors



DATE: JANUARY, 2008

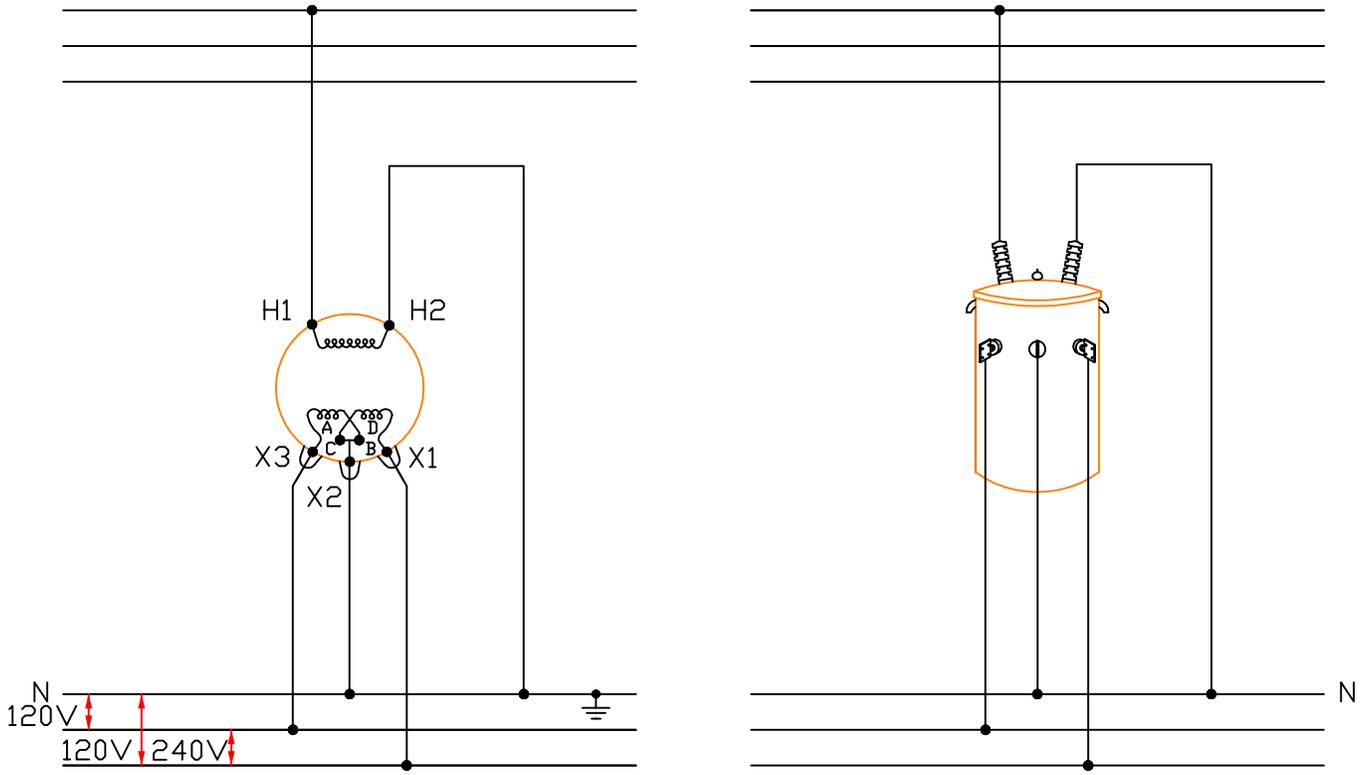
REVISIONS _____

R2

OVERHEAD TRANSFORMERS

INFORMATION SECTION

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

**(ADDITIVE POLARITY)
PRIMARY WINDING CONNECTED PHASE TO GROUND**

**SINGLE PHASE
CONNECTION**

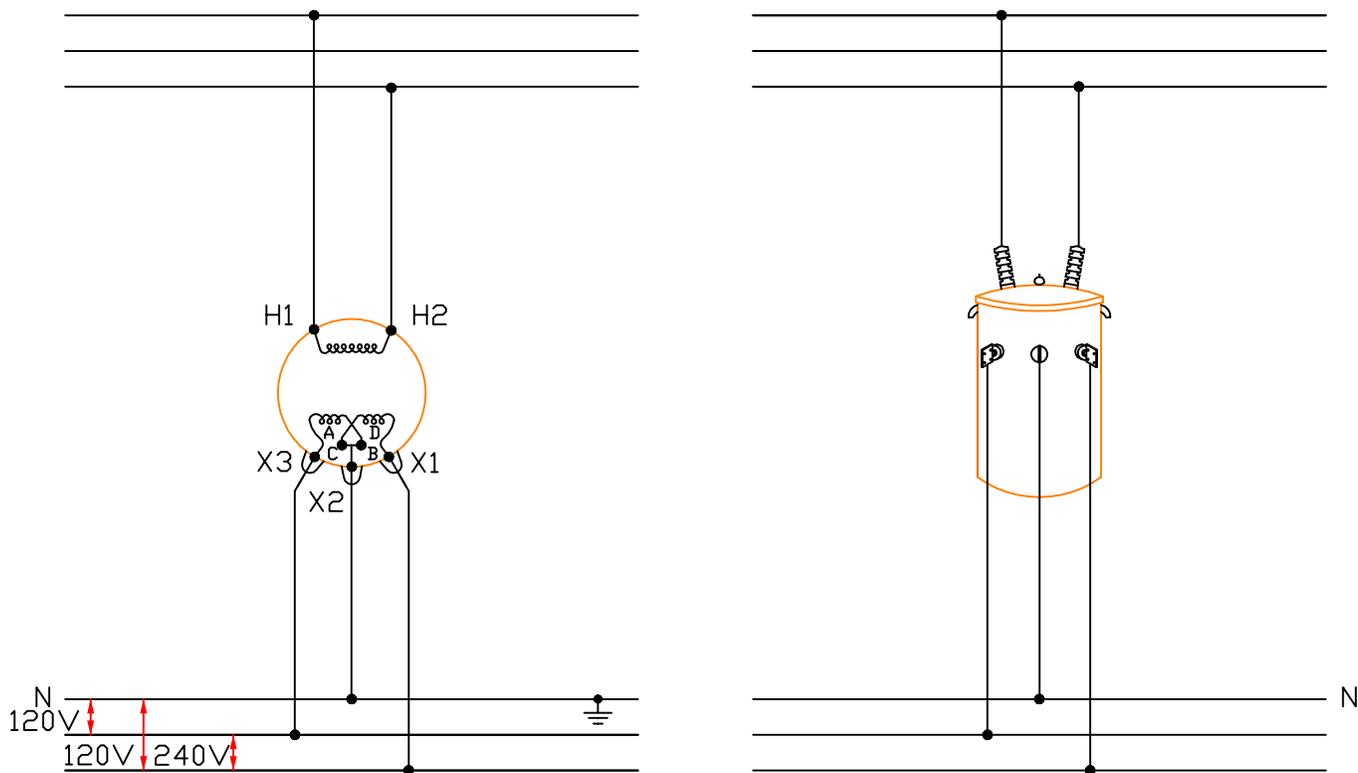


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

TC1

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

**(ADDITIVE POLARITY)
PRIMARY WINDING CONNECTED PHASE TO PHASE**

**SINGLE PHASE
CONNECTION**

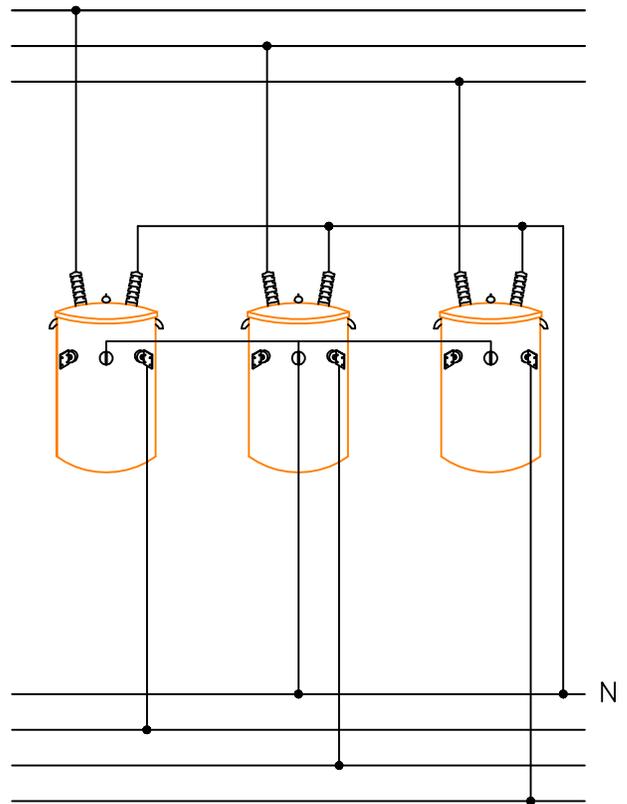
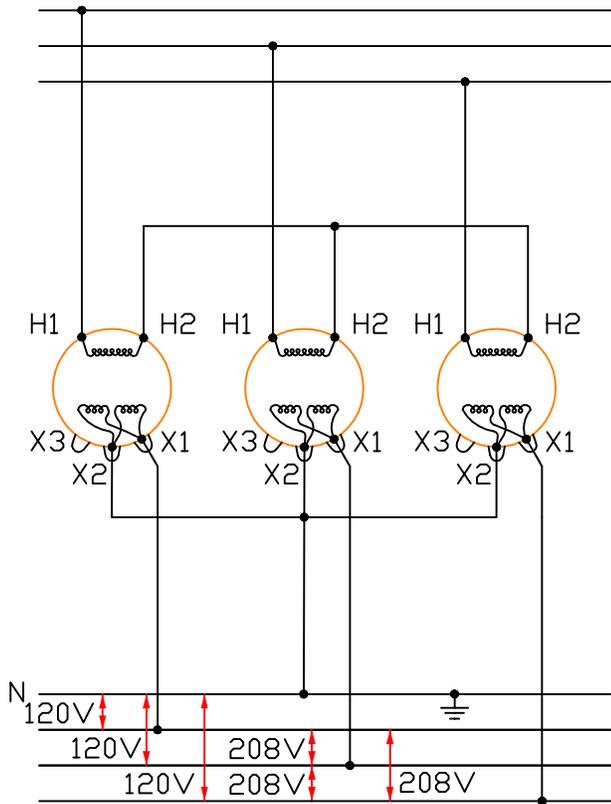


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

TC2

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

TREE PHASE WYE - WYE
CONNECTION

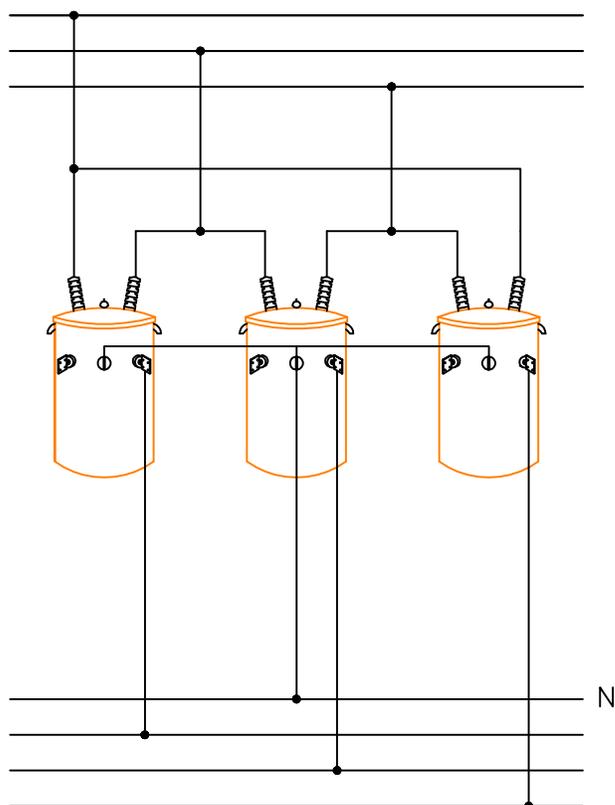
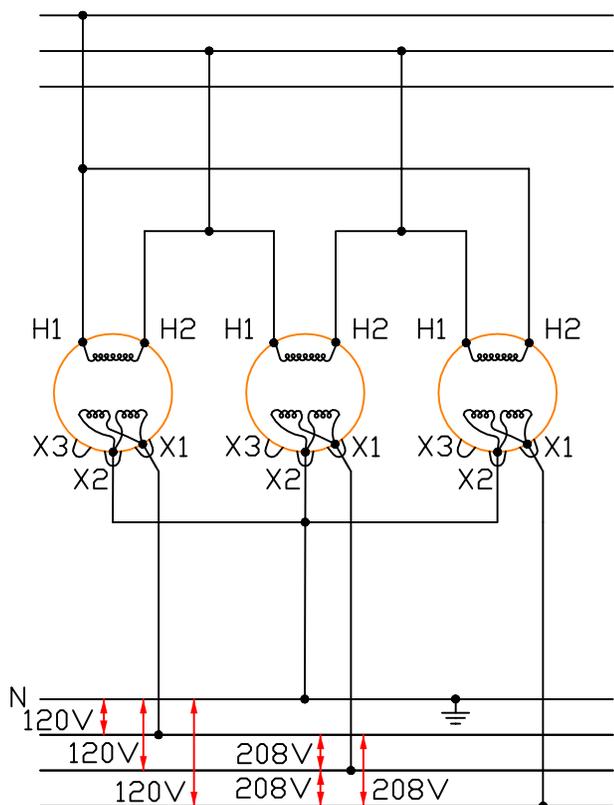


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

TC3

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

TREE PHASE DELTA - WYE CONNECTION

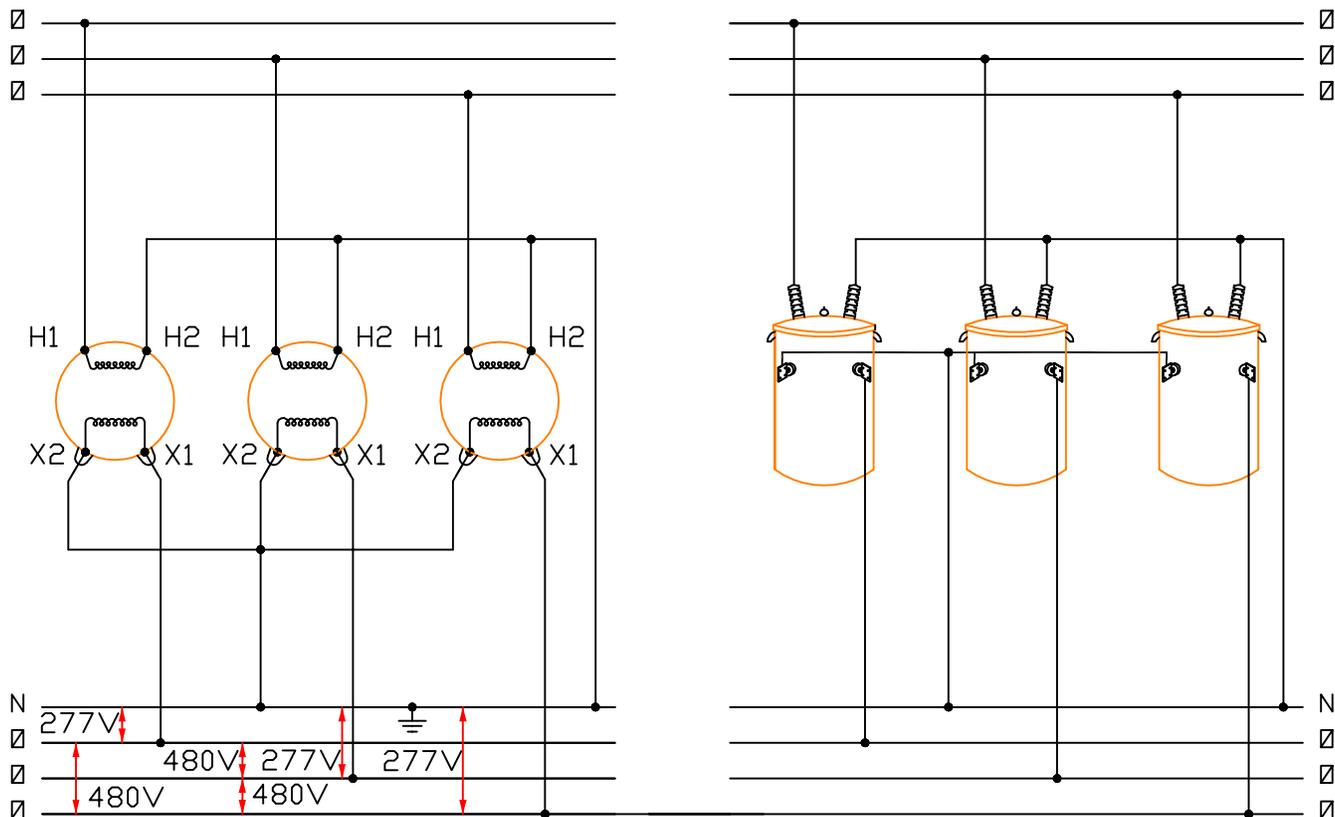


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

TC4

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE 4-WIRE 277/480 VOLT
WYE CONNECTION

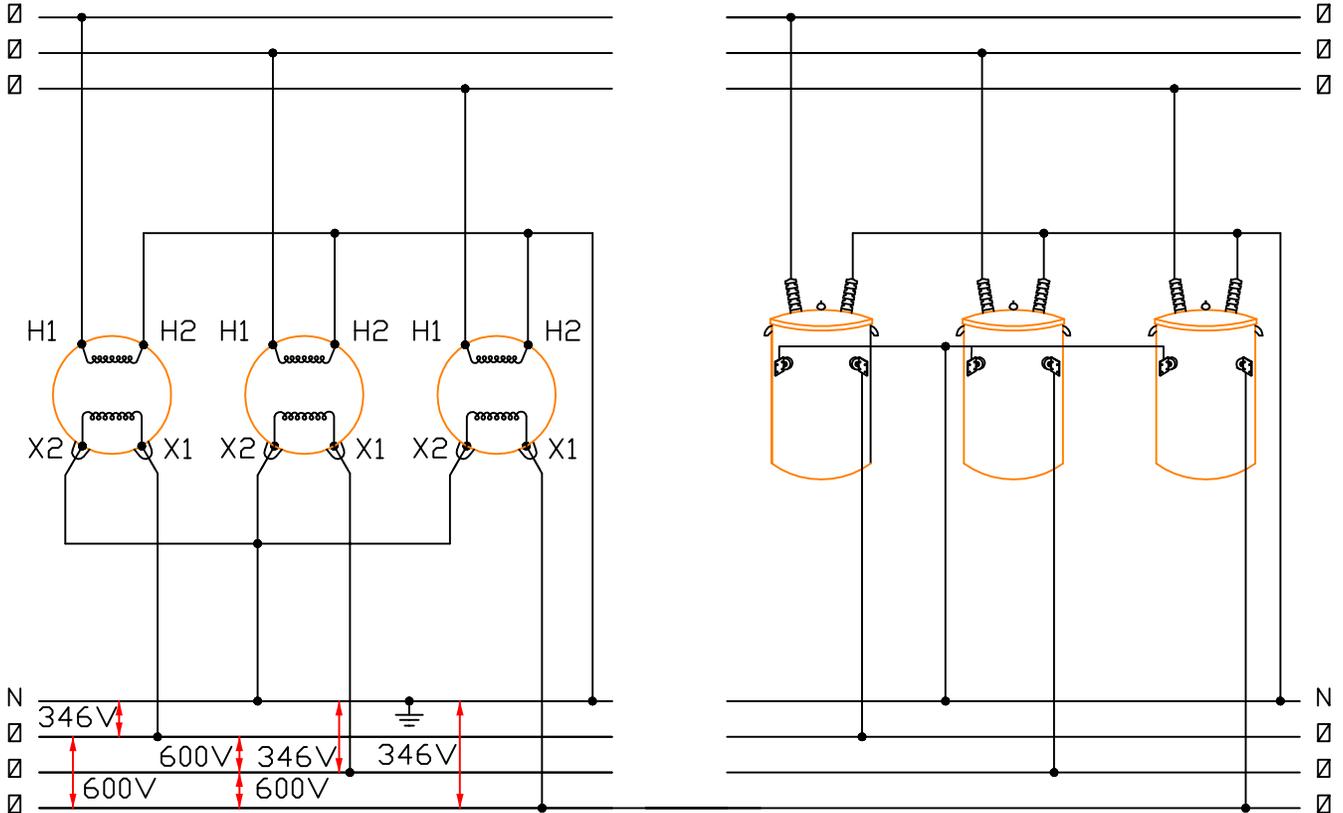


DATE: OCTOBER, 2001

REVISIONS JULY, 2001

TC5

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE 4-WIRE 346/600 VOLT
WYE CONNECTION

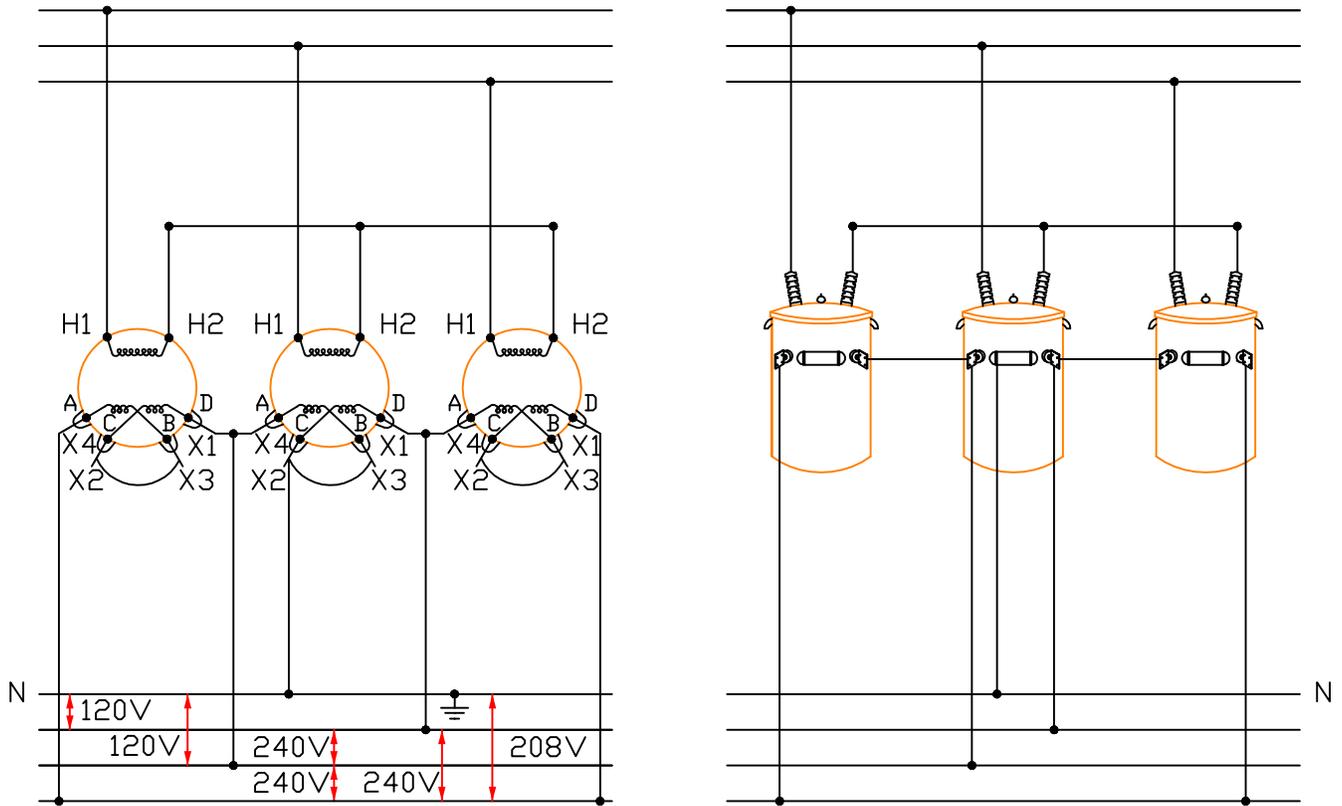


DATE: OCTOBER, 2001

REVISIONS JULY, 2001

TC6

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE WYE - DELTA
CONNECTION

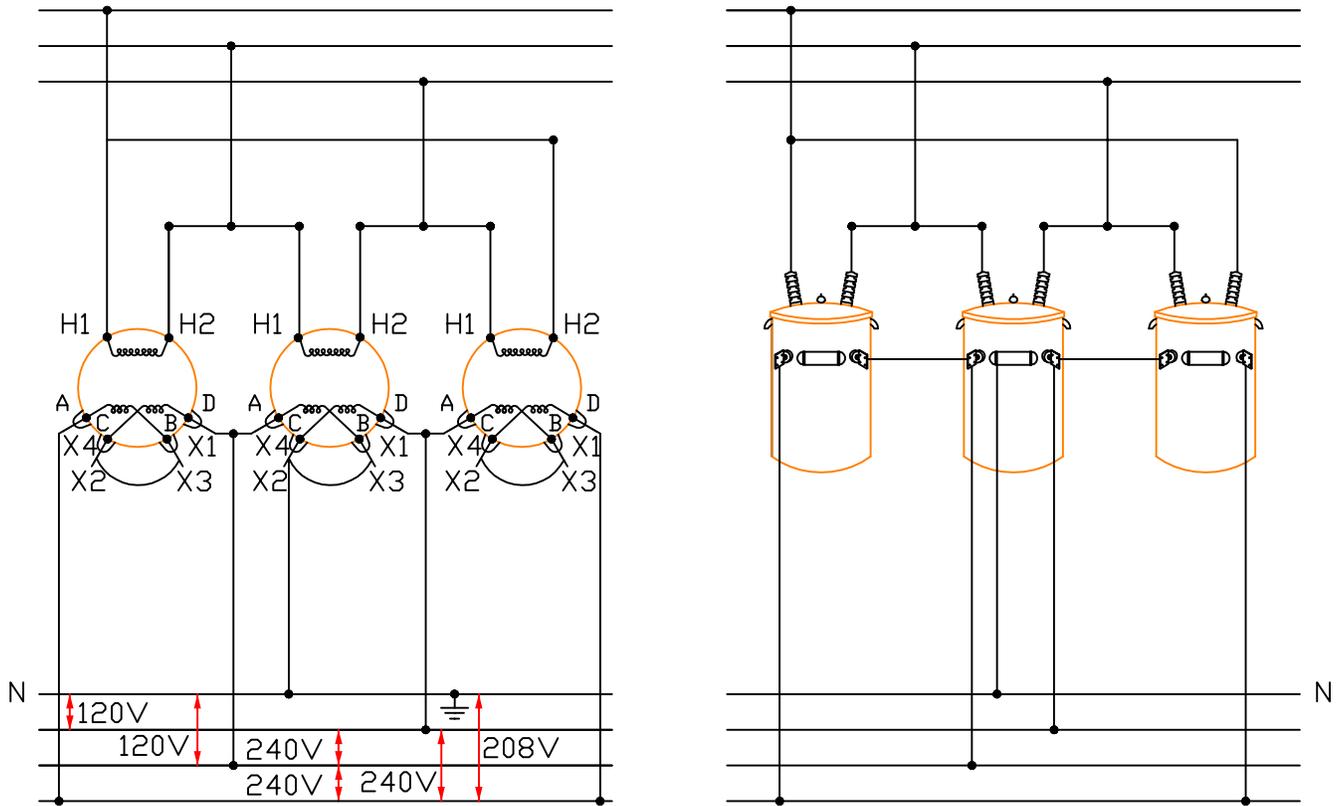


DATE: OCTOBER, 2001

REVISIONS JULY, 2002

TC7

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE DELTA - DELTA CONNECTION

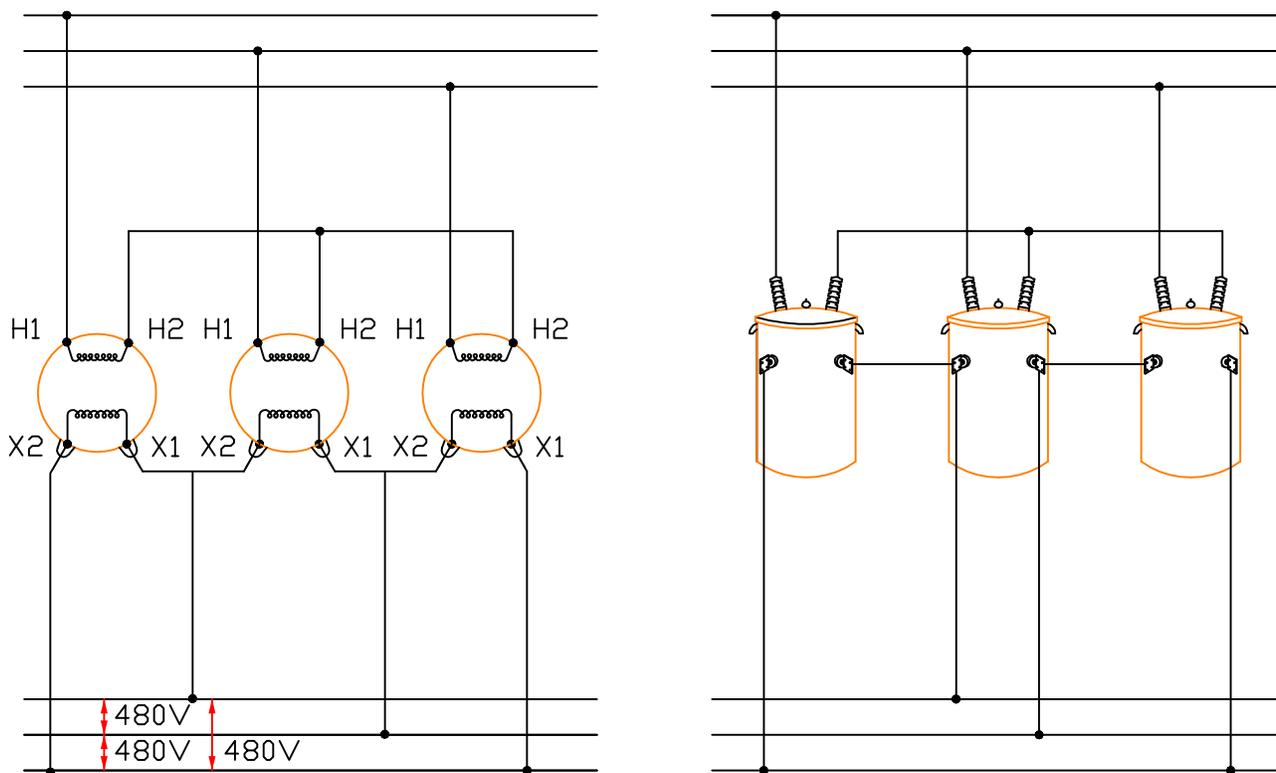


DATE: OCTOBER, 2001

REVISIONS JULY, 2002

TC8

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE 3-WIRE 480 VOLT
DELTA CONNECTION

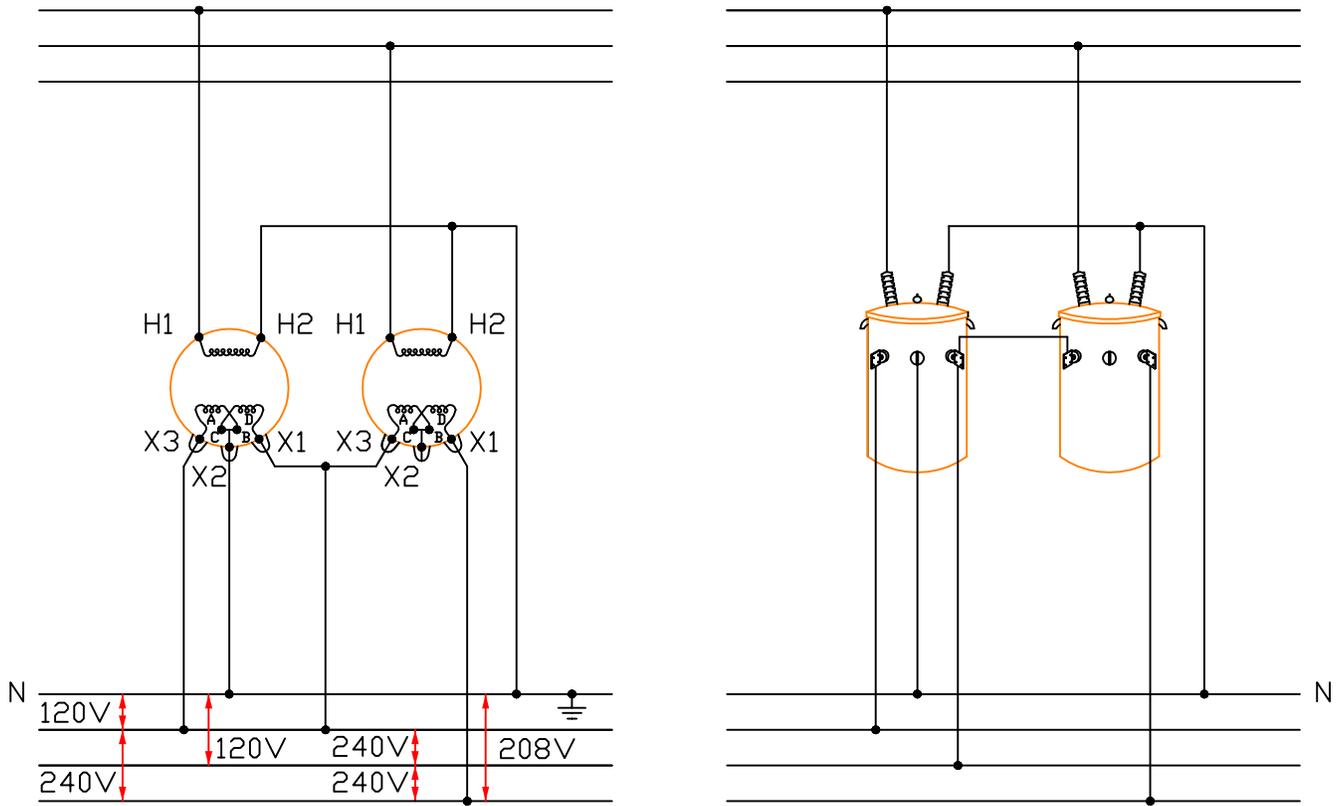


DATE: OCTOBER, 2001

REVISIONS JULY, 2001

TC9

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE OPEN WYE- OPEN DELTA CONNECTION

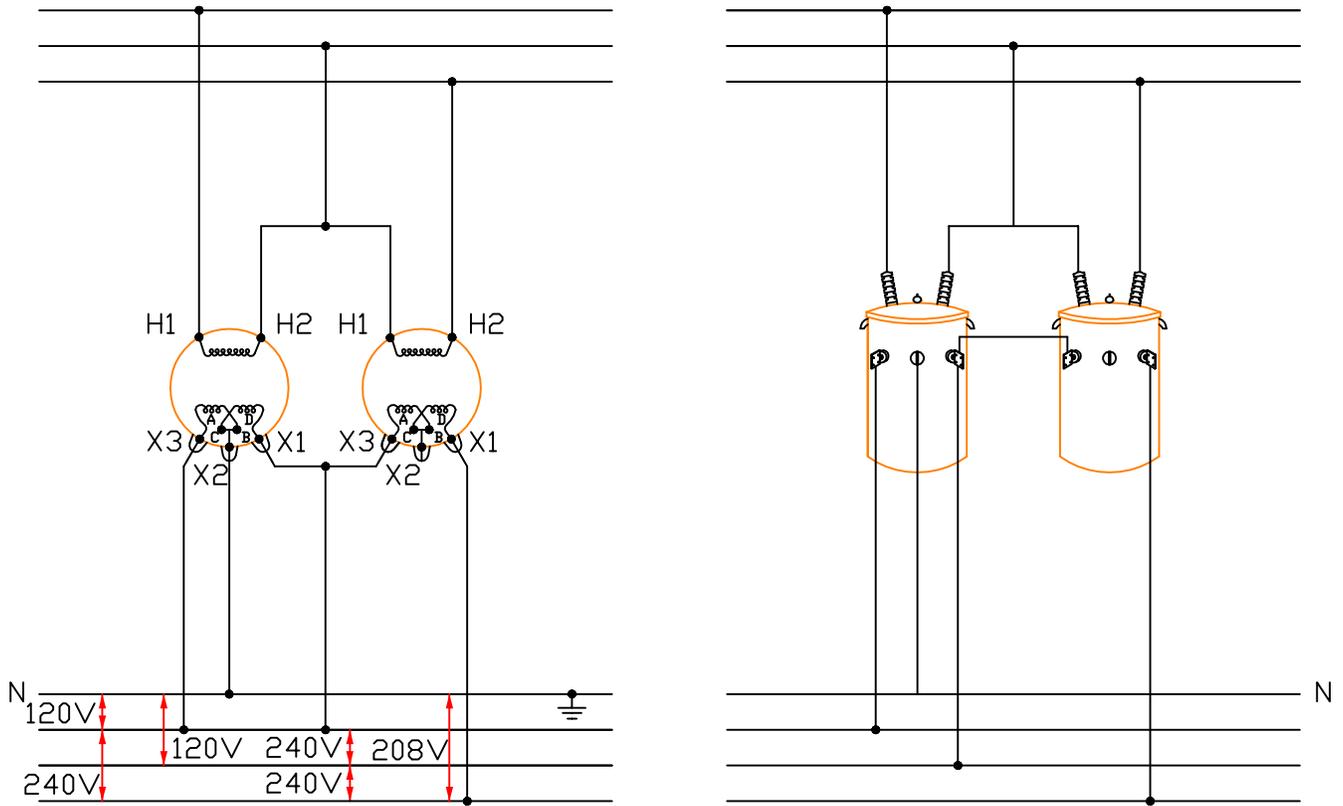


DATE: OCTOBER, 2001

REVISIONS JULY, 2001

TC10

PRIMARY CONDUCTORS



SECONDARY CONDUCTORS

(ADDITIVE POLARITY)

THREE PHASE OPEN DELTA - OPEN DELTA CONNECTION



DATE: OCTOBER, 2001

REVISIONS JULY, 2001

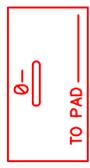
TC11

UNDERGROUND

ELECTRIC CITIES

CABLE TAGS

PRIMARY TAGS

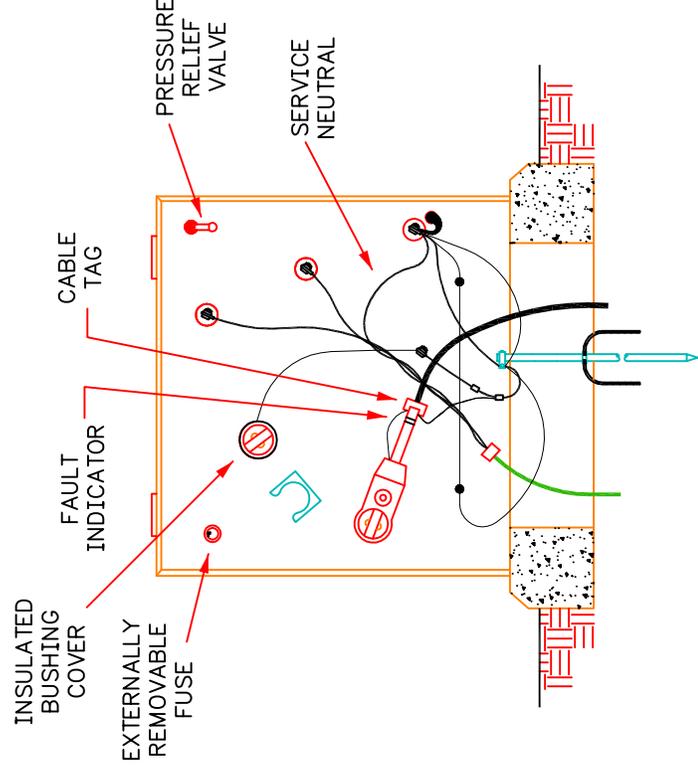


SERVICE TAGS

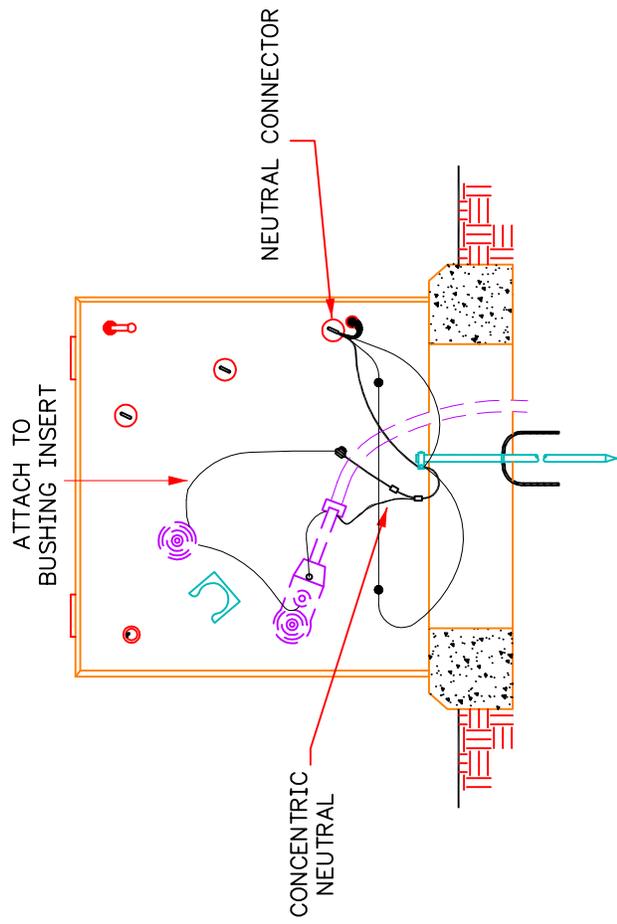


NOTES:

- 1.) THE INSULATED CAP MUST BE CONNECTED TO GROUND.
- 2.) GROUND RESISTANCE SHOULD BE MEASURED AND REDUCED TO 25 OHMS, IF POSSIBLE.
- 3.) LEAVE CABLE CONCENTRIC NEUTRAL LONG ENOUGH TO ALLOW ELBOW SWITCHING.
- 4.) CONNECT BUSHINGS TO TANK GROUND WITH ONE (1) STRAND OF CONCENTRIC NEUTRAL.
- 5.) USE JOINT COMPOUND ON ALL ALUMINUM FLAT TO FLAT CONNECTIONS.



PRIMARY & SECONDARY CONNECTION DETAILS



GROUNDING & NEUTRAL CONNECTION DETAILS

SINGLE PHASE PADMOUNTED TRANSFORMER CONNECTION DETAILS, RADIAL FEED



REVISIONS JULY, 2002

DATE: OCTOBER, 1992

UG6

CABLE TAGS

PRIMARY TAGS

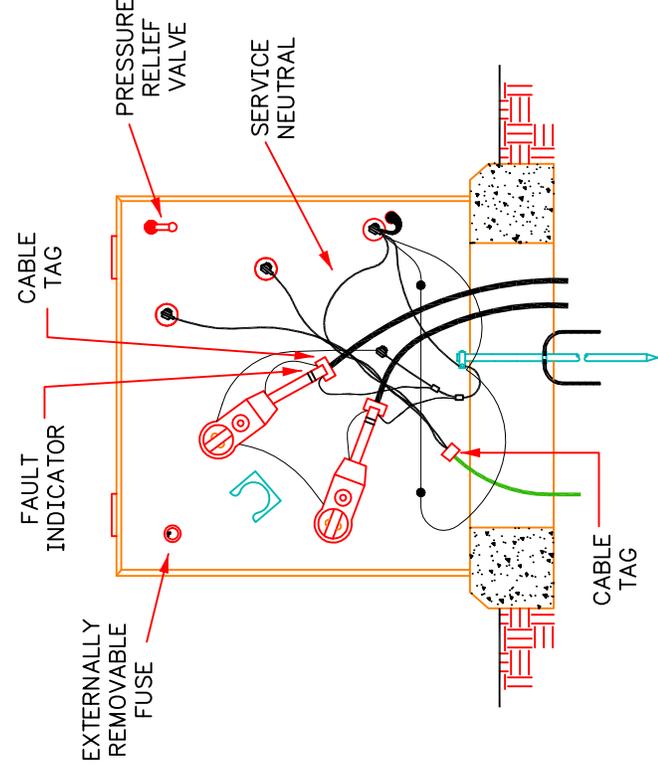


SERVICE TAGS

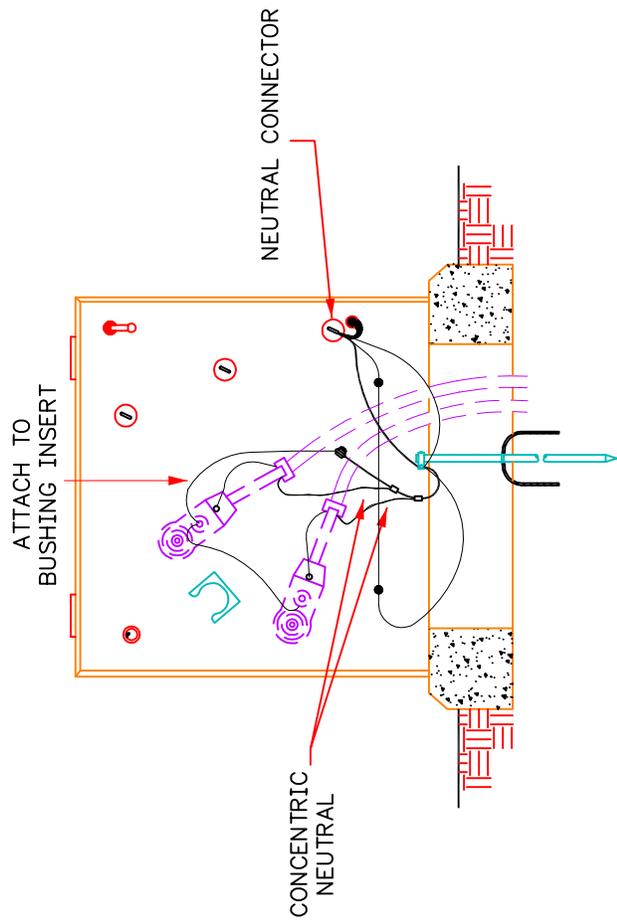


NOTES:

- 1.) IF TRANSFORMER IS A NORMAL OPEN POINT, THE INSULATED BUSHING CAP MUST BE CONNECTED TO GROUND.
- 2.) GROUND RESISTANCE SHOULD BE MEASURED AND REDUCED TO 25 OHMS, IF POSSIBLE.
- 3.) LEAVE CABLE CONCENTRIC NEUTRAL LONG ENOUGH TO ALLOW ELBOW SWITCHING.
- 4.) GROUND RESIST BUSHINGS TANK GROUND WITH ONE (1) STRAND OF CONCENTRIC NEUTRAL.
- 5.) USE JOINT COMPOUND ON ALL ALUMINUM FLAT TO FLAT CONNECTIONS.
- 6.) USE LIGHTNING ARRESTER IF USED AS AN OPEN POINT.



PRIMARY & SECONDARY CONNECTION DETAILS



GROUNDING & NEUTRAL CONNECTION DETAILS

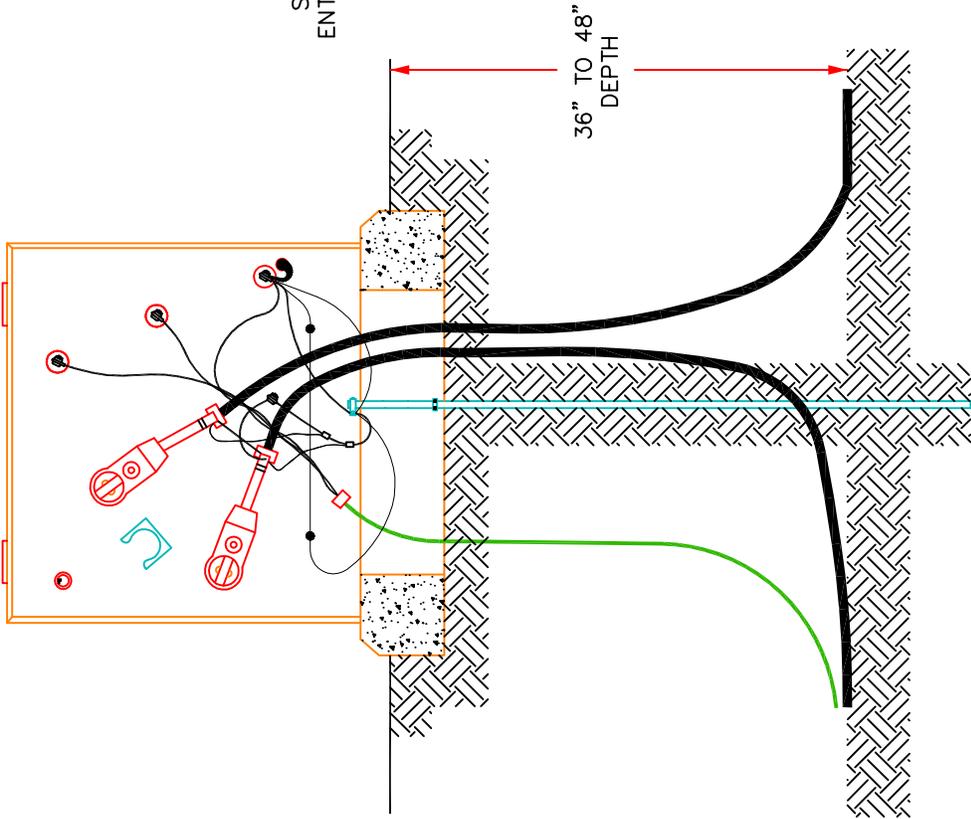
SINGLE PHASE PADMOUNTED TRANSFORMER CONNECTION DETAILS, LOOP FEED



REVISIONS JULY, 2002

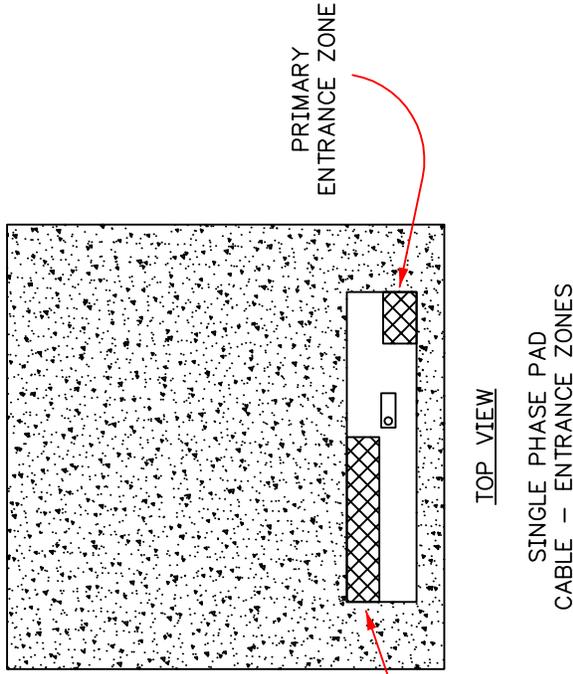
DATE: OCTOBER, 1992

UG7



FRONT VIEW

CABLE ARRANGEMENT IN
SINGLE PHASE LOOP FEED
PADMOUNTED TRANSFORMER



TOP VIEW

SINGLE PHASE PAD
CABLE - ENTRANCE ZONES

NOTE:
IF PAD IS NOT LOCATED OVER MAIN PRIMARY TRENCH,
CABLE SHOULD STILL ENTER PAD TO ACCOMMODATE
ARRANGEMENT SHOWN IN FRONT VIEW

UNDERGROUND CABLE ENTRANCED ARRANGEMENT FOR SINGLE PHASE PADMOUNTED TRANSFORMER

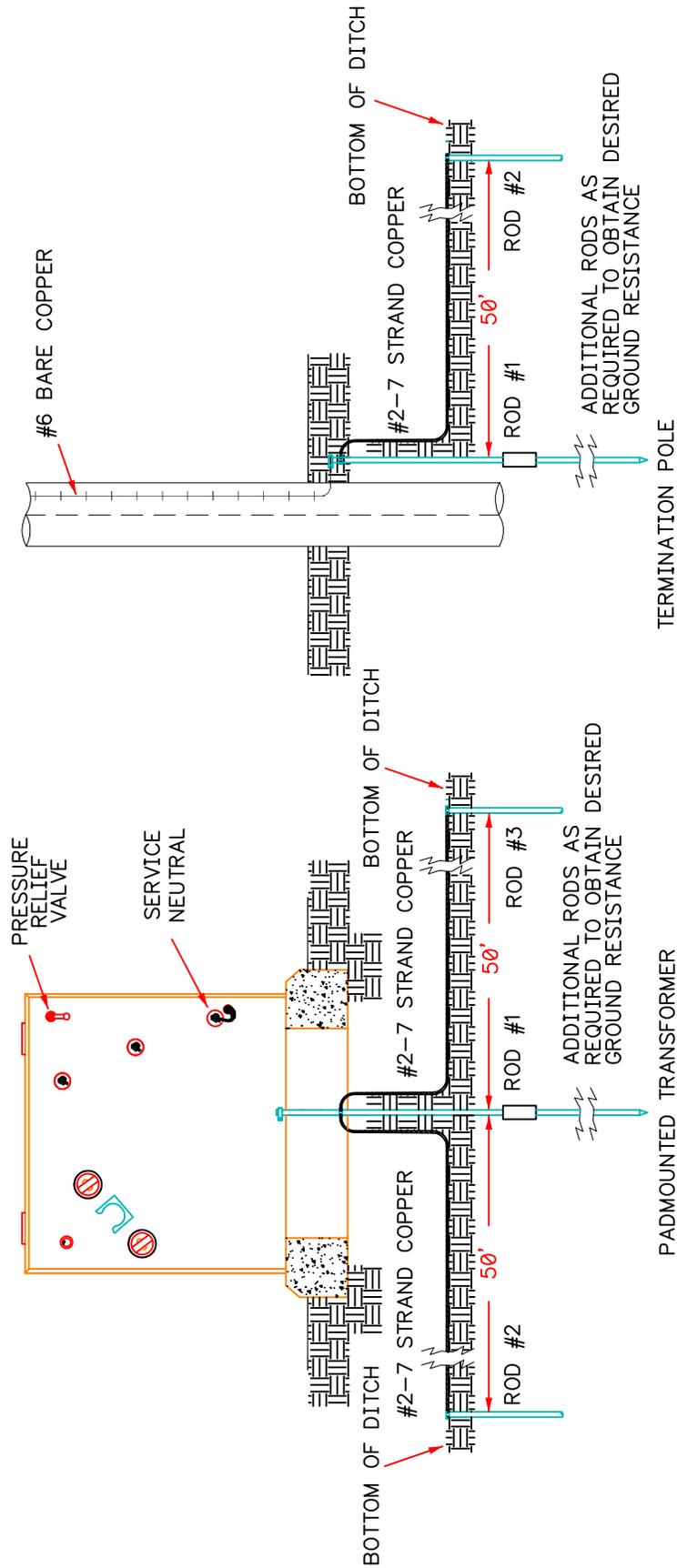


DATE: OCTOBER, 1992

REVISIONS JULY, 2001

UG8-1

- NOTES:
 1.) #2-7 STRAND COPPER TO BE PLACED IN DITCH WITH PRIMARY CABLE.
 2.) GROUND RESISTANCE SHOULD BE MEASURED AND REDUCED TO 25 OHMS, IF POSSIBLE.



GROUNDING DETAILS FOR PADMOUNTED TRANSFORMERS

SIGN TO BE INSTALLED ON INTERIOR OF TRANSFORMER ONLY.

⚠ DANGER



HAZARDOUS VOLTAGE, WILL SHOCK, BURN, OR CAUSE DEATH

KEEP OUT IF OPEN OR UNLOCKED

IMMEDIATELY CALL ELECTRIC POWER AND LIGHT COMPANY

CALL
ELECTRIC UTILITY

RECOMMENDED THAT PADMOUNTED TRANSFORMER LOCATION NUMBERS BE CONSECUTIVE FROM THE POTHEAD POLE ON A RADIAL FEED AND FROM ONE OF THE TWO POTHEAD POLES ON A LOOP FEED.

SIGN TO BE INSTALLED ABOVE PADMOUNTED LOCATION NUMBER

NOTICE

DO NOT PLANT TREES/SHRUBBERY OR PLACE OBSTRUCTIONS WITHIN 10 FEET OF THIS SIDE OF CABINET.

PLACE CABLE TAGS BELOW CABLE CONCENTRIC NEUTRAL TERMINATIONS

TRANSFORMER NUMBER

2719183

PHASE NUMBER

NOTICE

26
03

WARNING

CAUTION
ELECTRICAL EQUIPMENT

WARNING

IF FOUND UNLOCKED CALL
ELECTRIC UTILITY

USE TRANSFORMER LOCK

SECURITY BOLT MUST BE SECURELY TIGHTENED WHEN TRANSFORMER IS LOCKED.

SINGLE PHASE TRANSFORMER IDENTIFICATION MARKING DETAILS

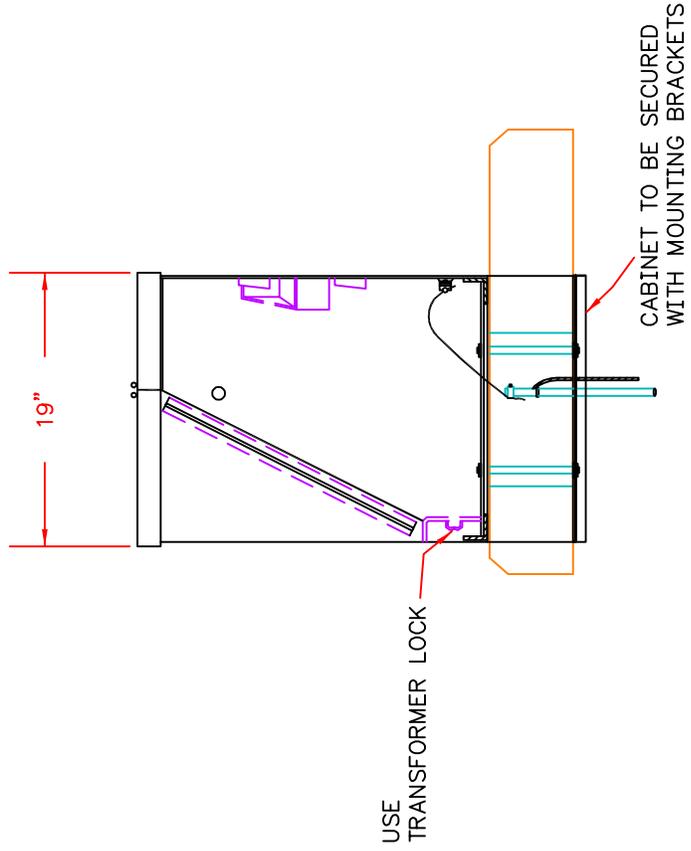
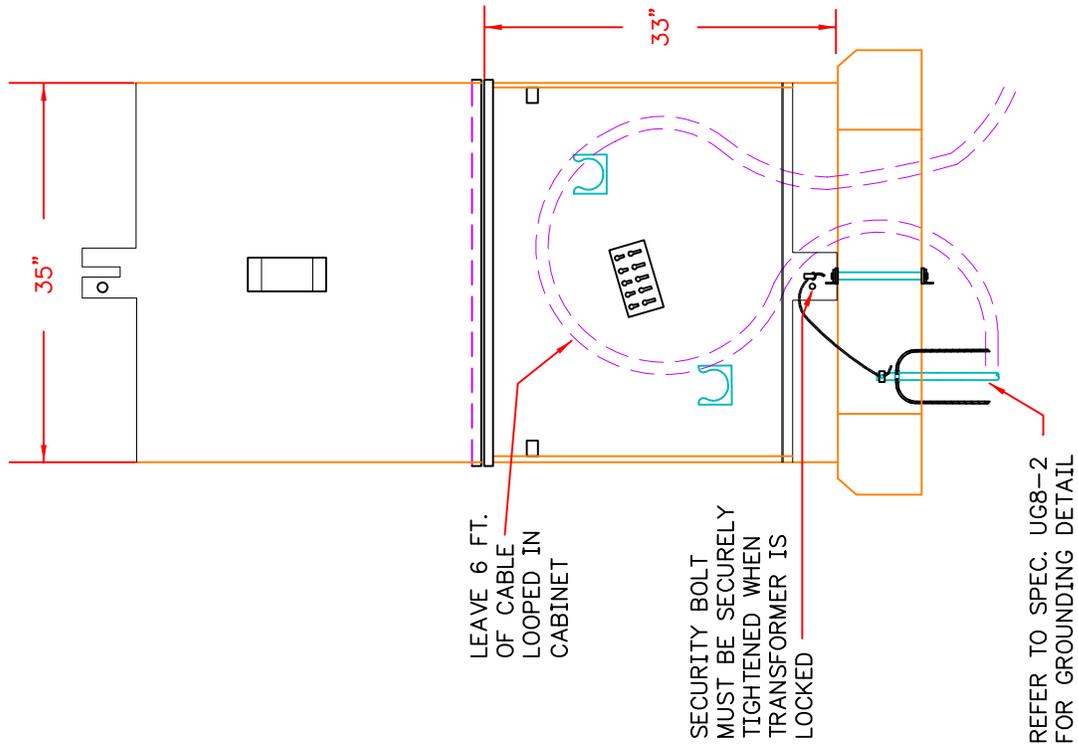


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UG8-3

- NOTES:
- 1.) REFER TO SPEC. UG8-3 FOR MARKING IDENTIFICATION.
 - 2.) SEE SPEC UG8-1 FOR CORRECT LOCATION OF CABLES.
 - 3.) FOR USE WITH STANDARD 1Ø TRANSFORMER PAD.



SINGLE PHASE TERMINATING CABINET



DATE: OCTOBER, 1992

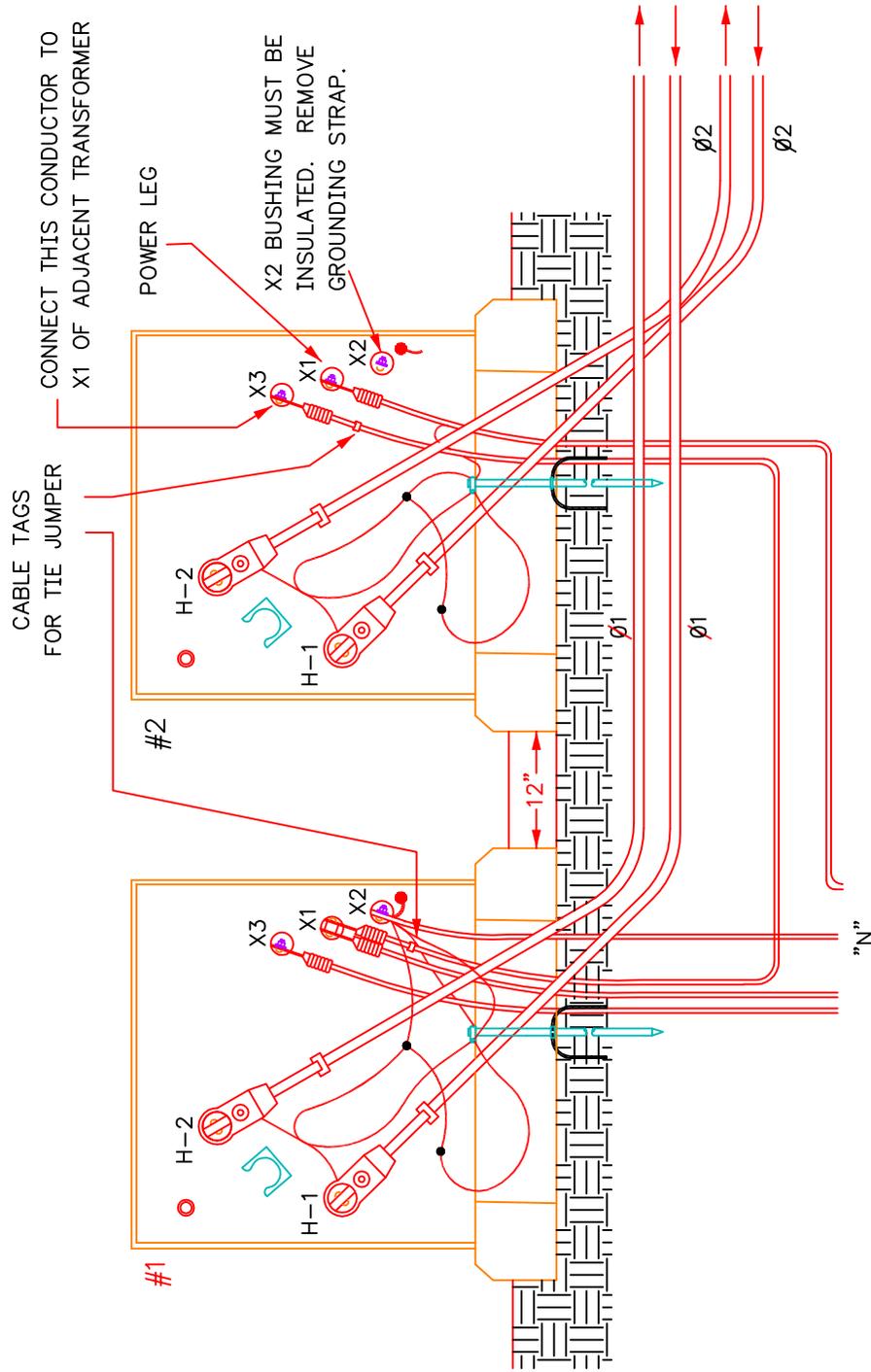
REVISIONS JULY, 2002

UG8-4

- NOTES:
1. THE TIE JUMPER SHOULD BE CLEARLY MARKED.
 2. CONCENTRIC NEUTRAL AND BARE COPPER NEUTRAL TO BE LOOPED AND RUN ALONG BOTTOM EDGE OF TRANSFORMER #1.
 3. CASE GROUND BOTH TRANSFORMERS.
 4. GROUND ONLY TRANSFORMER #1 NEUTRAL LUG (X2).
 5. REFER TO IDENTIFICATION AND MARKING DETAILS SHEET.

CABLE TAGS

TIE JUMPER
DO NOT REMOVE



120/240

DIAGRAM FOR THREE PHASE OPEN DELTA PADMOUNTED BANK



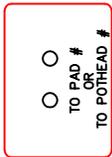
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

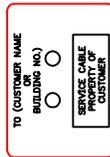
UG9

CABLE TAGS

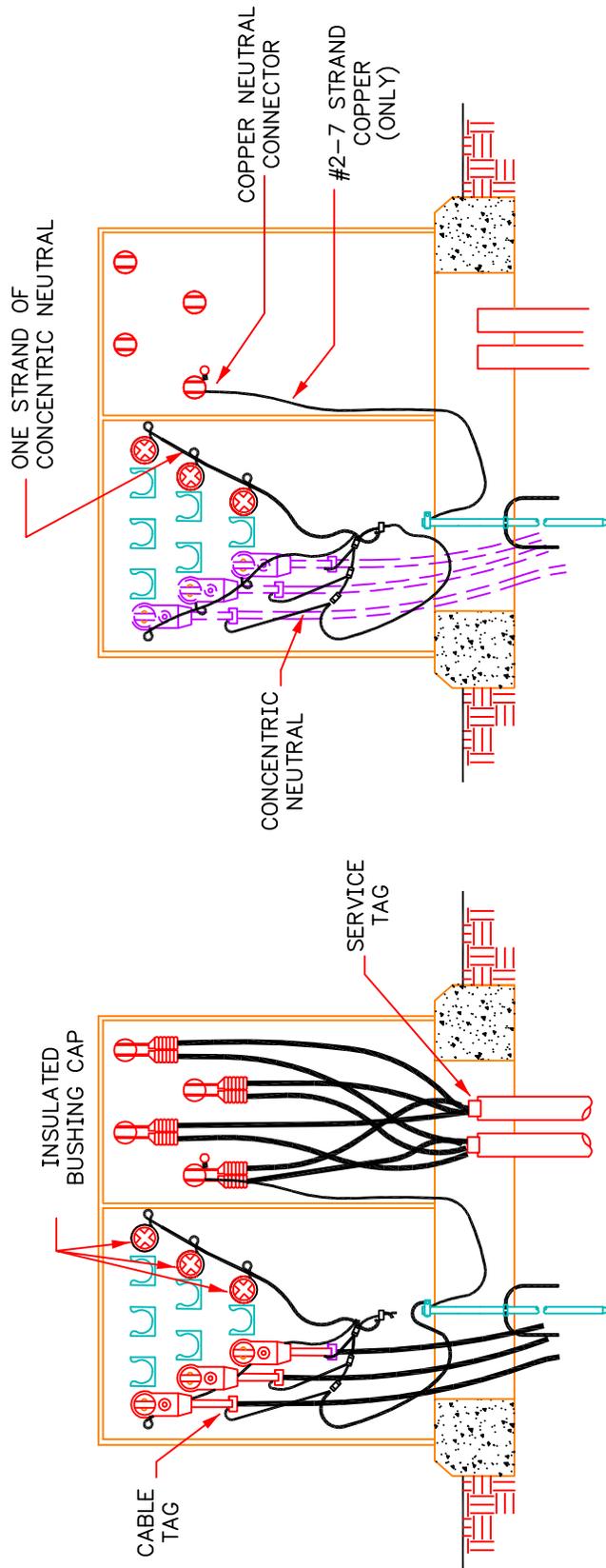
PRIMARY TAGS



SERVICE TAGS



- NOTES:
- 1.) GROUND ALL BUSHING CAPS AND BUSHING INSERTS WITH ONE STRAND OF CONCENTRIC NEUTRAL WIRE ATTACHED TO GROUNDING EYES.
 - 2.) ATTACH CORRECT SERVICE TAG TO SERVICE CONDUCTORS NEAR CONDUIT.
 - 3.) USE JOINT COMPOUND ON ALL ALUMINUM FLAT CONNECTIONS.
 - 4.) GROUND RESISTANCE SHOULD BE MEASURED AND REDUCED TO 25 OHMS, IF POSSIBLE.
 - 5.) LEAVE CABLE CONCENTRIC NEUTRAL LONG ENOUGH TO ALLOW ELBOW SWITCHING.
 - 6.) USE OF LIGHTNING ARRESTERS RECOMMENDED.



REFER TO DISTRIBUTION SPECIFICATION UG8-2 FOR GROUND DETAIL.

CABLE CONNECTION

GROUNDING & NEUTRAL CONNECTION

THREE PHASE PADMOUNTED TRANSFORMER RADIAL FEED



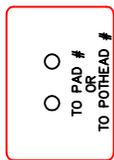
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

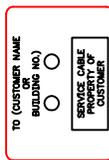
UG12

CABLE TAGS

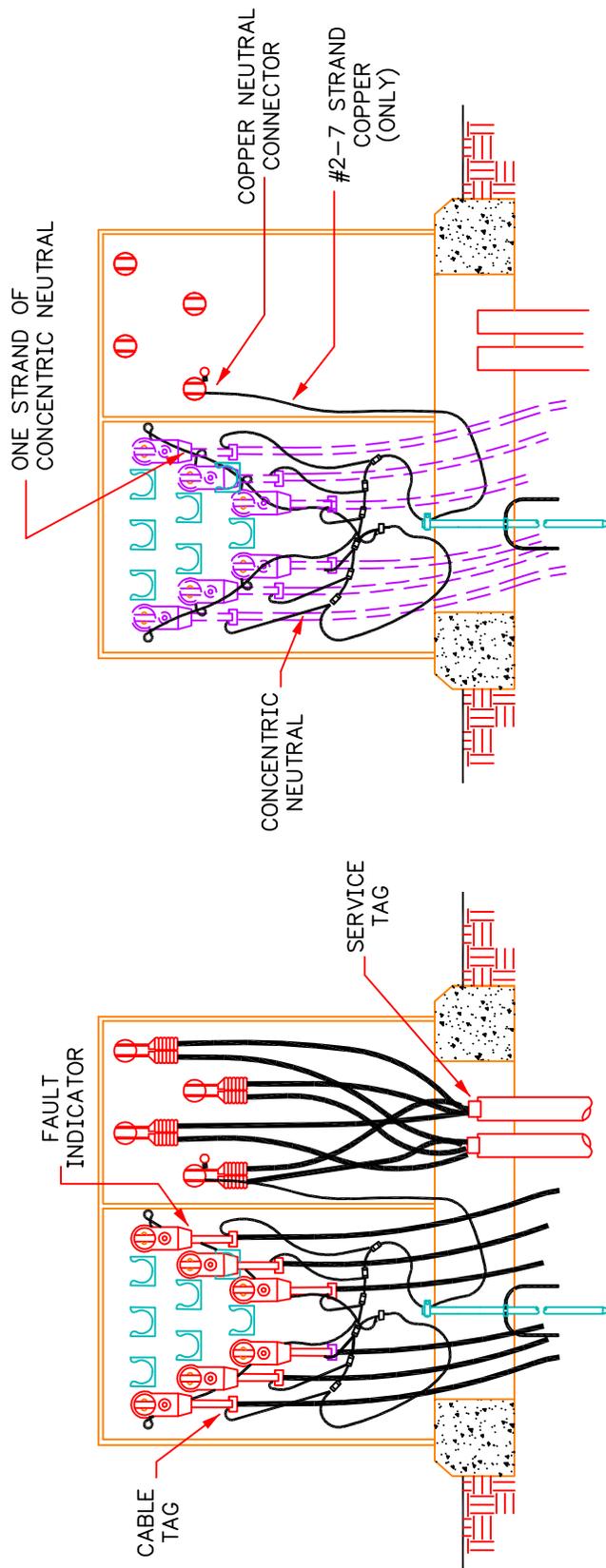
PRIMARY TAGS



SERVICE TAGS



- NOTES:
- 1.) IF TRANSFORMER IS NORMAL OPEN POINT, THE INSULATED BUSHING CAPS MUST BE CONNECTED TO GROUND.
 - 2.) GROUND RESISTANCE SHOULD BE MEASURED AND REDUCED TO 25 OHMS, IF POSSIBLE.
 - 3.) LEAVE CABLE CONCENTRIC NEUTRAL LONG ENOUGH TO ALLOW ELBOW SWITCHING.
 - 4.) CONNECT BUSHINGS TO TANK GROUND WITH ONE (1) STRAND OF CONCENTRIC NEUTRAL.
 - 5.) USE JOINT COMPOUND ON ALL ALUMINUM FLAT CONNECTIONS.
 - 6.) ATTACH CORRECT SERVICE TAG TO SERVICE CONDUCTORS NEAR CONDUIT.



SOURCE LOAD

REFER TO DISTRIBUTION SPECIFICATION UG8-2 FOR GROUND DETAIL.

CABLE CONNECTION

GROUNDING & NEUTRAL CONNECTION

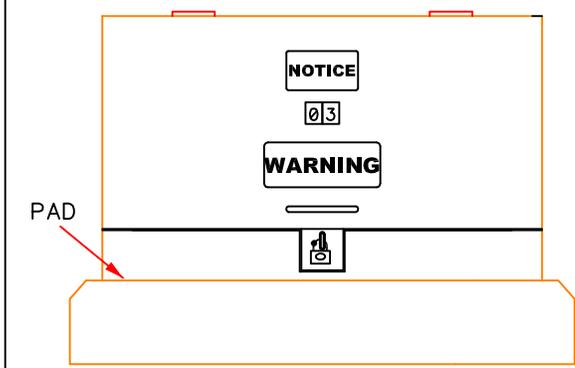
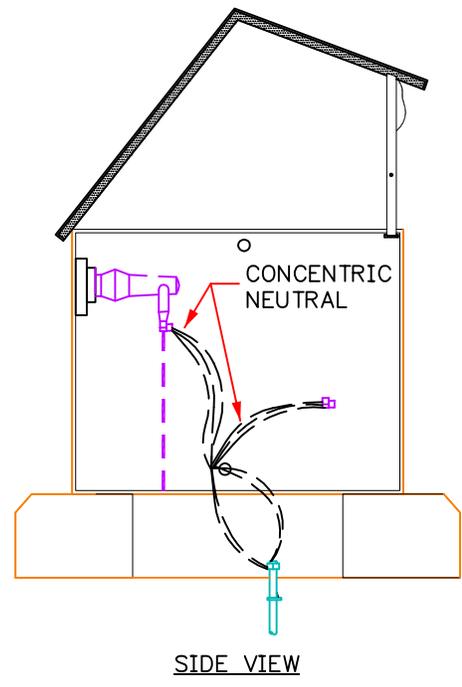
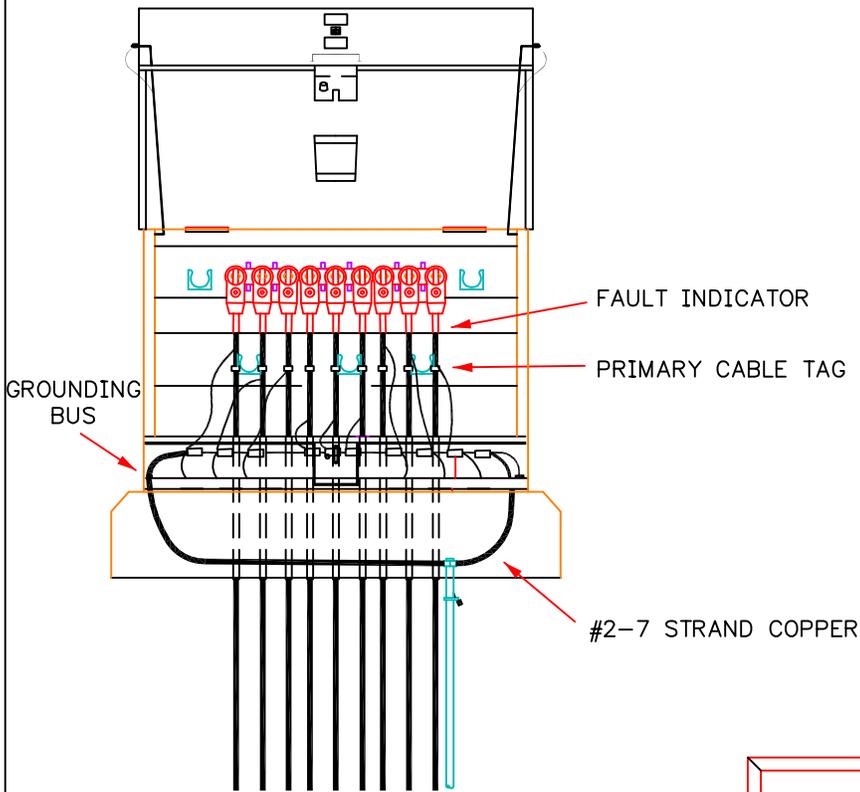
THREE PHASE PADMOUNTED TRANSFORMER LOOP FEED



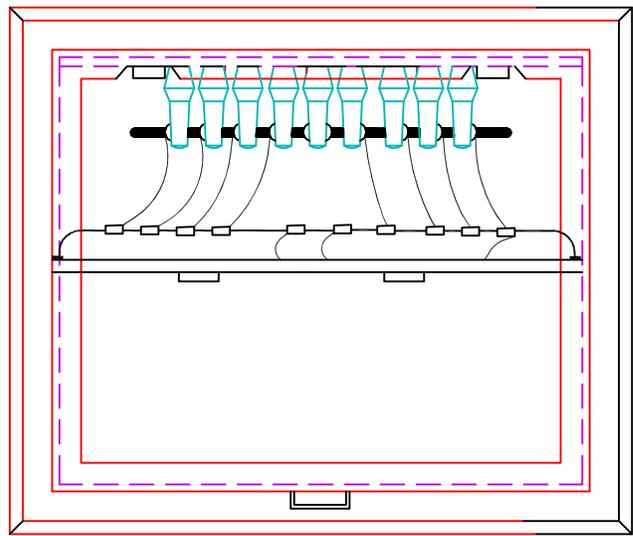
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UG13



VAULT



TOP VIEW

- NOTES:
- 1.) FOR USE WITH THREE PHASE TERMINATING CABINET PAD OR GROUND SLEEVE
 - 2.) REFER TO SPEC. UG8-2 FOR GROUND DETAIL.
 - 3.) CABINET TO BE BOLTED TO CONCRETE PAD IF USED.

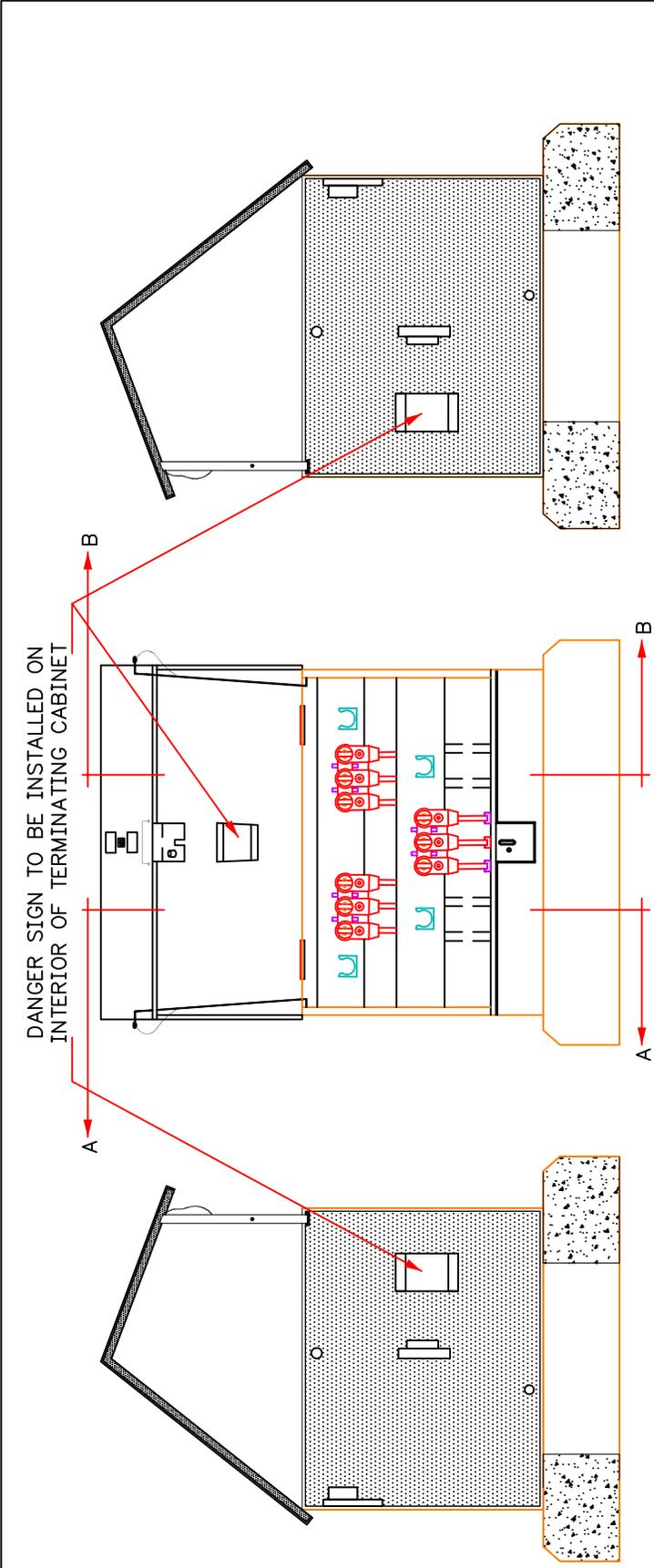
THREE PHASE TERMINATING CABINET



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UG14



RIGHT INSIDE VIEW
SECTION B-B

LEFT INSIDE VIEW
SECTION A-A

OPEN FRONT VIEW

CAUTION
ELECTRICAL EQUIPMENT
WARNING
IF FOUND UNLOCKED CALL
ELECTRIC UTILITY

⚠ DANGER

HAZARDOUS VOLTAGE,
WILL SHOCK, BURN,
OR CAUSE DEATH
KEEP OUT
IF OPEN OR UNLOCKED
IMMEDIATELY CALL
ELECTRIC POWER
AND LIGHT COMPANY
CALL
ELECTRIC UTILITY

NOTICE
DO NOT PLANT TREES/SHRUBBERY OR
PLACE OBSTRUCTIONS WITHIN 10 FEET
OF THIS SIDE OF CABINET.

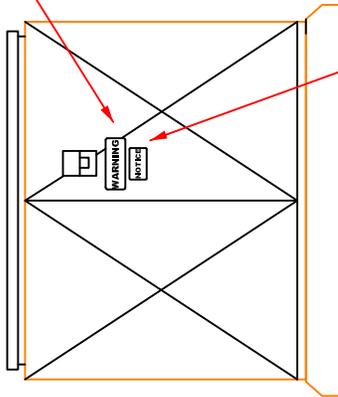
SECURITY BOLT MUST BE
SECURELY TIGHTENED
WHEN TRANSFORMER
IS LOCKED.

THREE PHASE TERMINATING CABINET IDENTIFICATION MARKING DETAILS

SIGN TO BE INSTALLED
NEAR HANDLE LOCATION

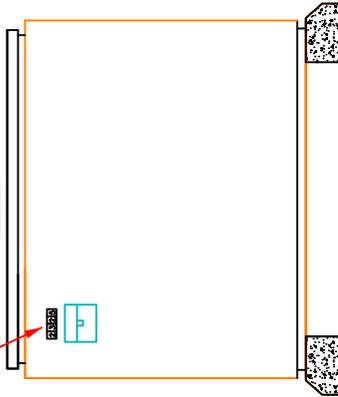


PLACE EXTERIOR SIGNS ON FRONT
AND REAR DOORS.



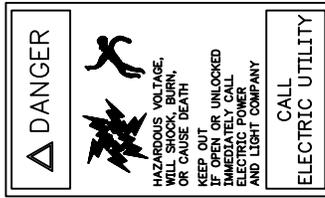
FRONT VIEW

SWITCH NUMBER
600 AMP GANG SWITCH
2325



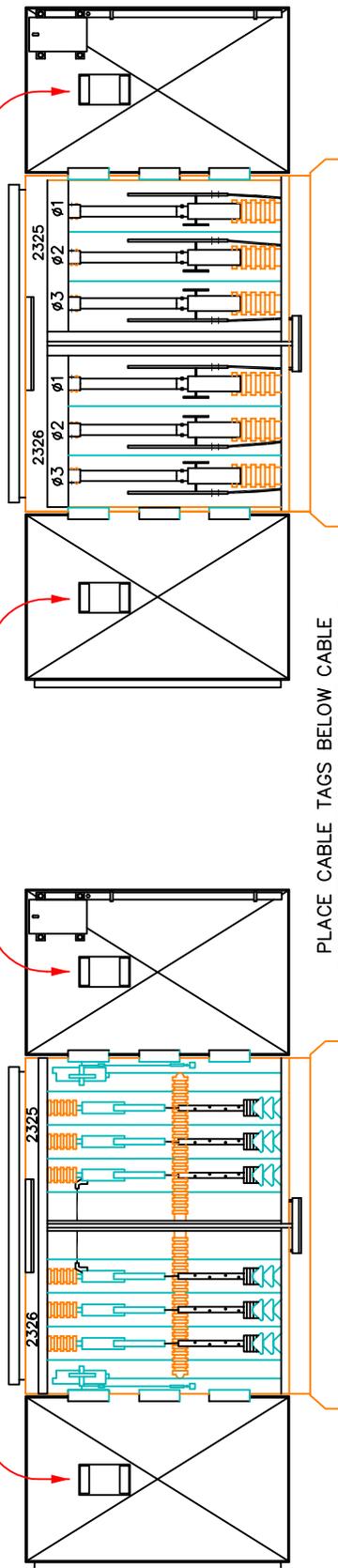
SIDE VIEW

SIGN TO BE INSTALLED
ON INTERIOR OF SWITCHING CUBICLE
(ONE ON EACH INSIDE DOOR)



NOTICE

DO NOT PLANT TREES/SHRUBBERY OR
PLACE OBSTRUCTIONS WITHIN 10 FEET
OF THIS SIDE OF CABINET.

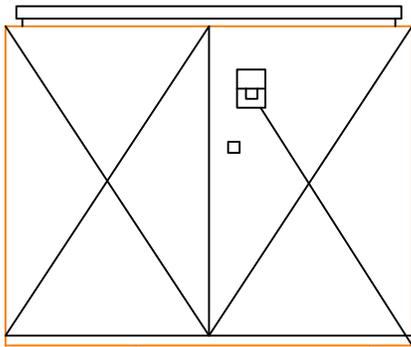


OPEN 600 AMP VIEW

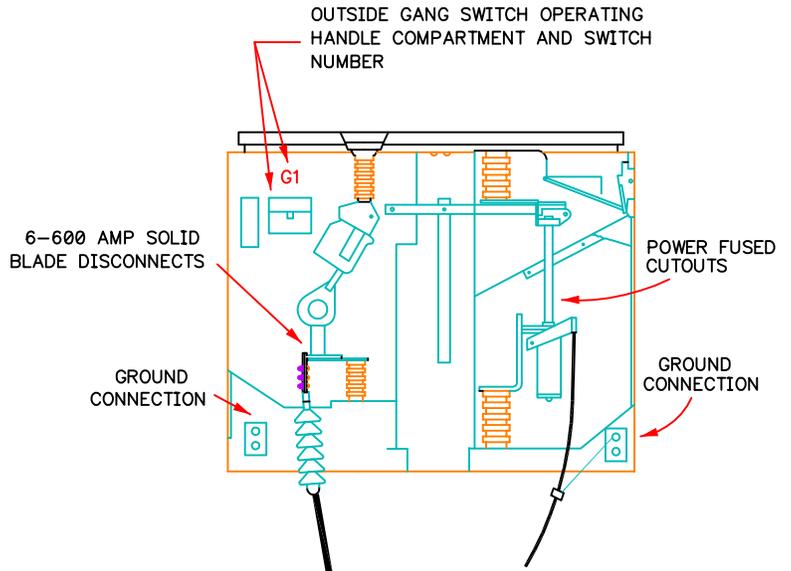
PLACE CABLE TAGS BELOW CABLE
CONCENTRIC NEUTRAL TERMINATIONS

OPEN 200 AMP VIEW

SWITCHING CUBICLE IDENTIFICATION MARKING DETAILS

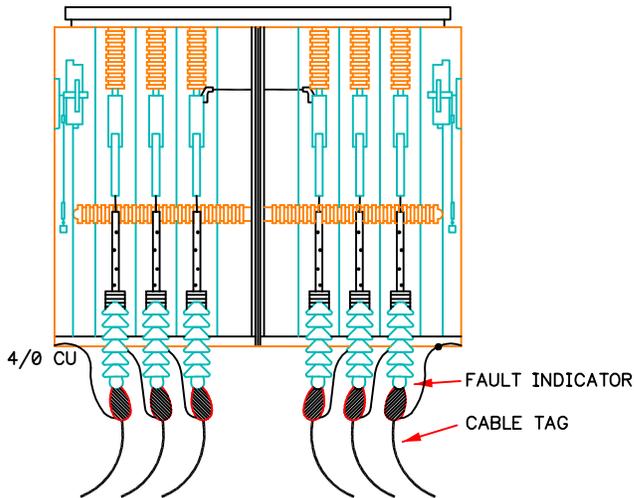


CLOSED VIEW

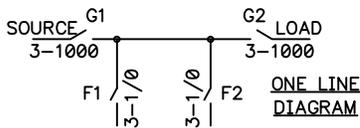
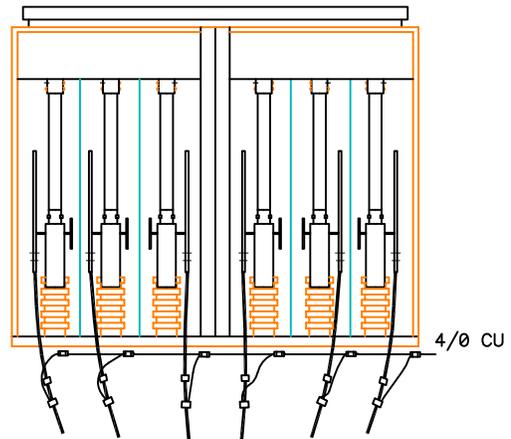


OPEN SIDE VIEW

OPEN 600 AMP VIEW
(DOORS REMOVED FOR CLARITY)

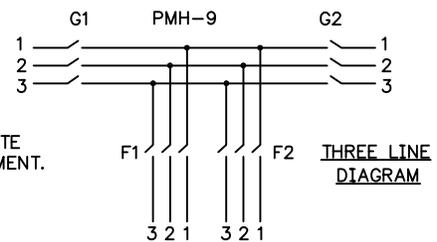


OPEN FUSED VIEW
(DOORS REMOVED FOR CLARITY)



ONE LINE DIAGRAM

NOTE: FOR GANG OPERATED SWITCHING CUBICLES EACH GANG SWITCH NUMBER SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE APPROPRIATE OPERATING HANDLE COMPARTMENT.



THREE LINE DIAGRAM

NOTE:
CAN BE USED WITH VAULT (PREFERRED) OR GROUND SLEEVE.

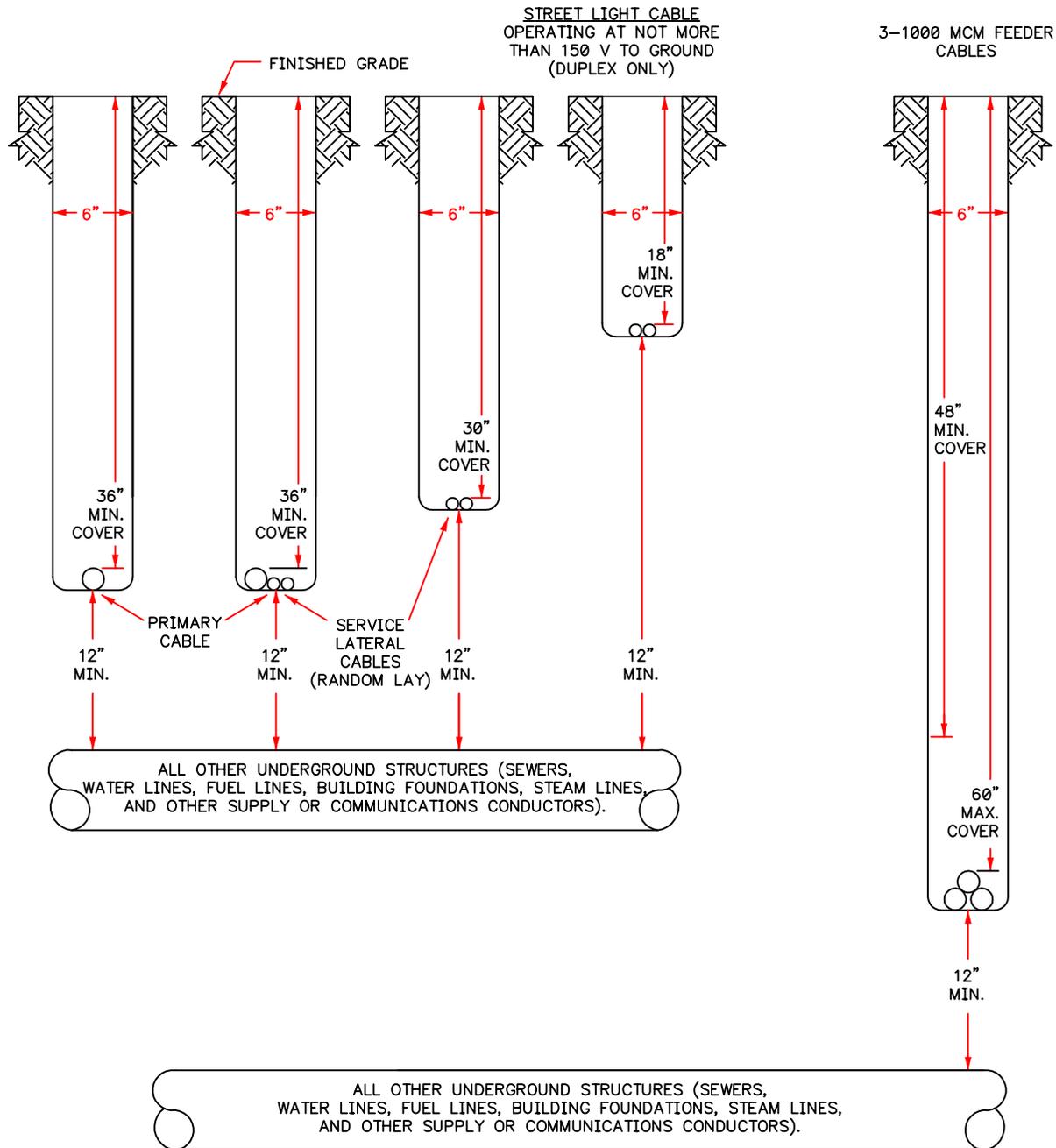
PADMOUNTED SWITCHING CUBICLE FOR 15 KV THREE PHASE PRIMARY GANG - OPERATED 600 AMP DISCONNECTS WITH FUSED TAPS



REVISIONS JULY, 2002

UG16

DATE: OCTOBER, 1992



NOTES:

1. 12" ADJACENT TO 1000 MCM CABLES WILL BE TAMPED TO 95% COMPACTION.
2. RUNS OF 1000 MCM CABLE FED FROM DIFFERENT CIRCUIT BREAKERS SHOULD BE INSTALLED IN SEPARATE TRENCHES.
3. 12" MIN. CLEARANCE APPLIES TO BOTH VERTICAL AND HORIZONTAL DIRECTIONS.

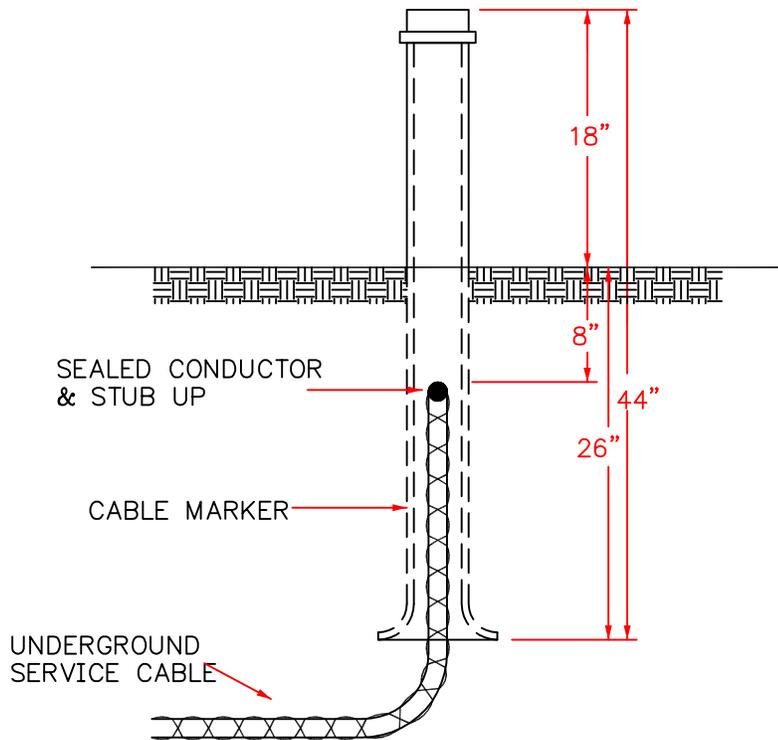
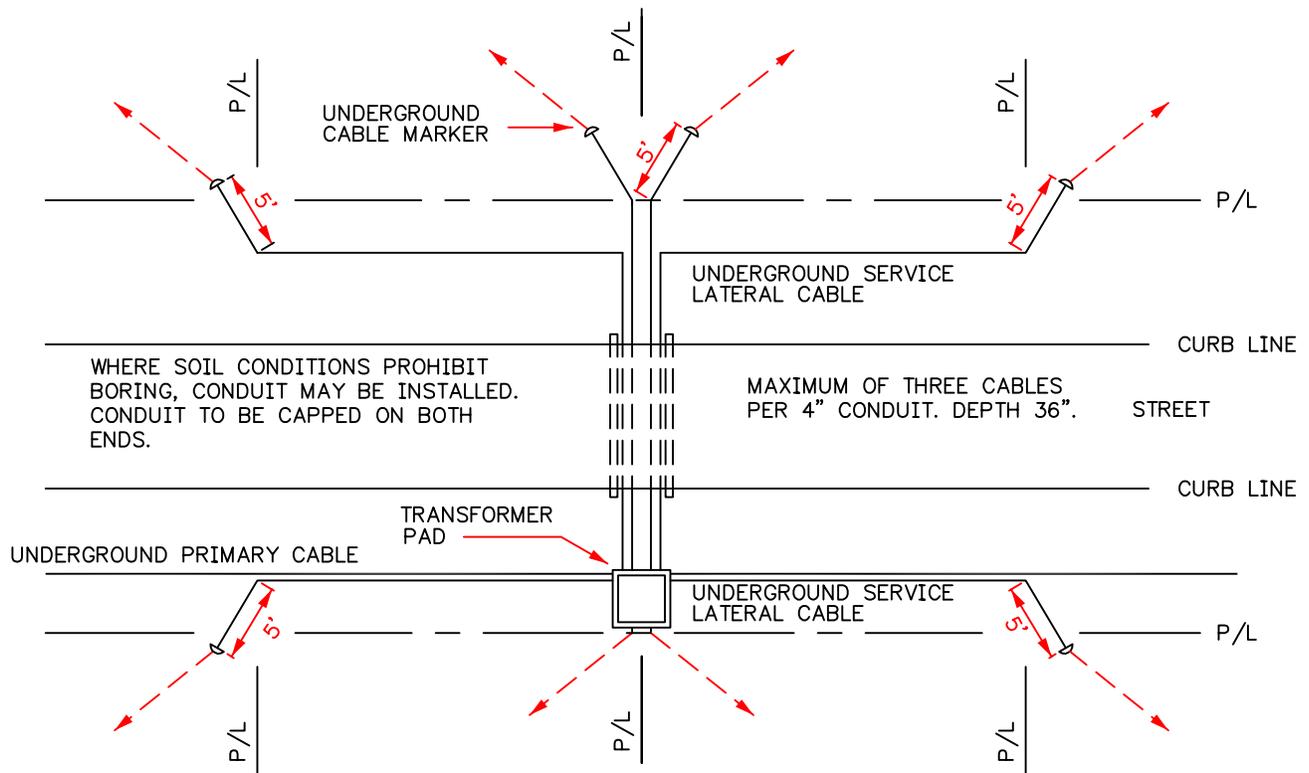
UNDERGROUND CABLE LAY IN TRENCH



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM1-1



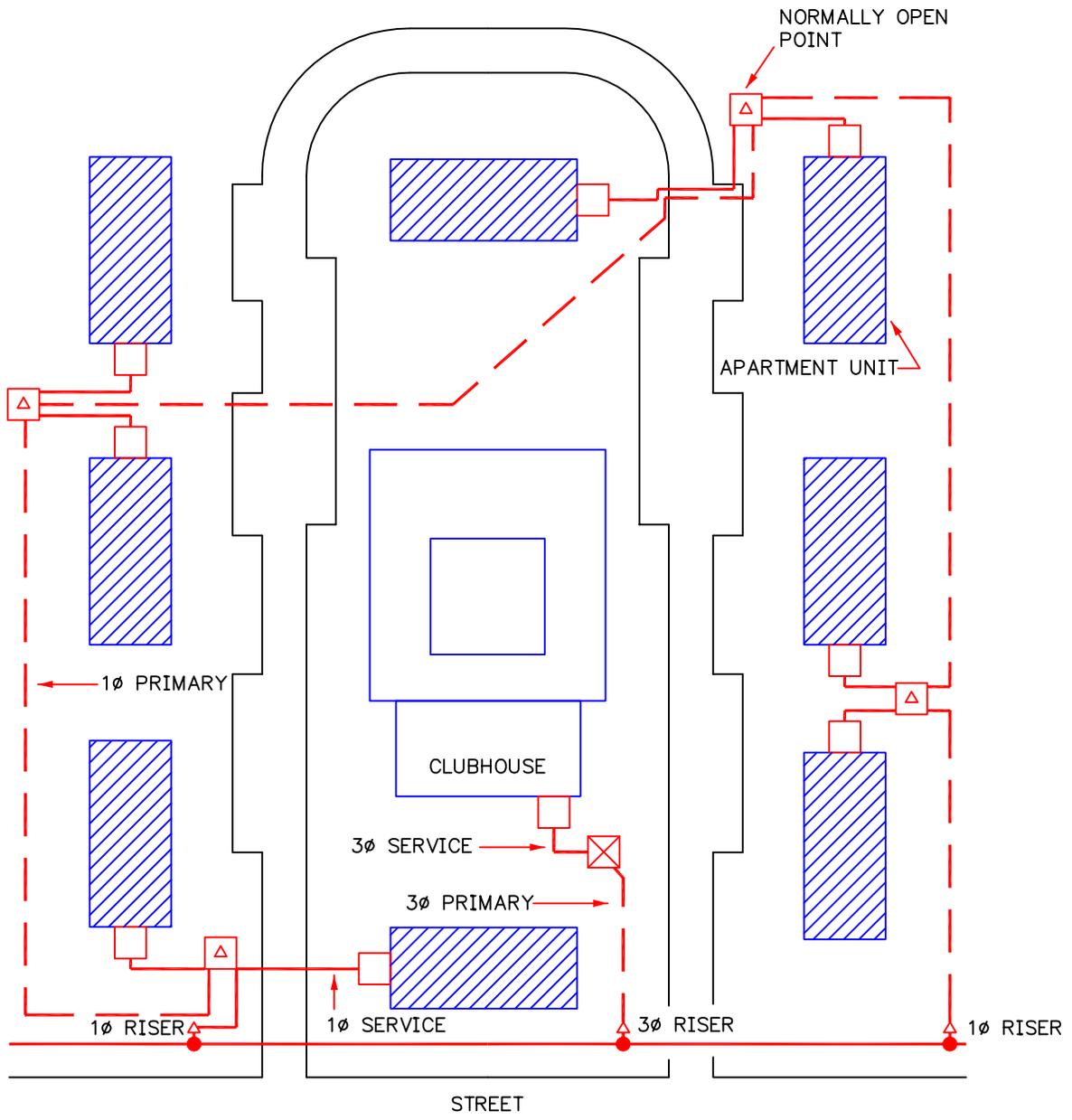
TYPICAL LAYOUT AND UNDERGROUND CABLE MARKER



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM1-2



- △ TRANSFORMER SINGLE PHASE
- ⊗ TRANSFORMER THREE PHASE
- METER LOCATION

UNDERGROUND SERVICE TO TYPICAL APARTMENT COMPLEX



DATE: OCTOBER, 1992

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UM1-3

6" PVC VENTED RISER SHIELD

2" OR 4" PVC RISER SHIELD

NOTE: USE (1/4" X 2-1/2") LAG SCREWS WITH ROUND WASHERS IN ALL HOLES OF RISER SHIELD.

RISER SHIELD

INSTALLATION SCHEDULE	
SIZE SHIELD	MAX. NO. OF CABLES ACCEPTABLE
2"	1-1/0 PRIMARY
	2-1/0 SECONDARY
	1-4/0 SECONDARY
	1-4/0 SECONDARY
4"	3-1/0 PRIMARY
	4-1/0 SECONDARY
	3-4/0 SECONDARY
	2-4/0 SECONDARY
6"	6-4/0 SECONDARY
	3-1000 MCM PRIMARY

BACKING PLATE REQUIRED BELOW THIS POINT

BACKING PLATE REQUIRED BELOW THIS POINT

STRAPS

VENTILATION BOOT - VENT 6" ABOVE FINAL GRADE.

24" SECTION OF 5" SHIELD

36" RADIUS SWEEP ELBOW

36" MIN. CABLE

POLE RISER SHIELD INSTALLATION

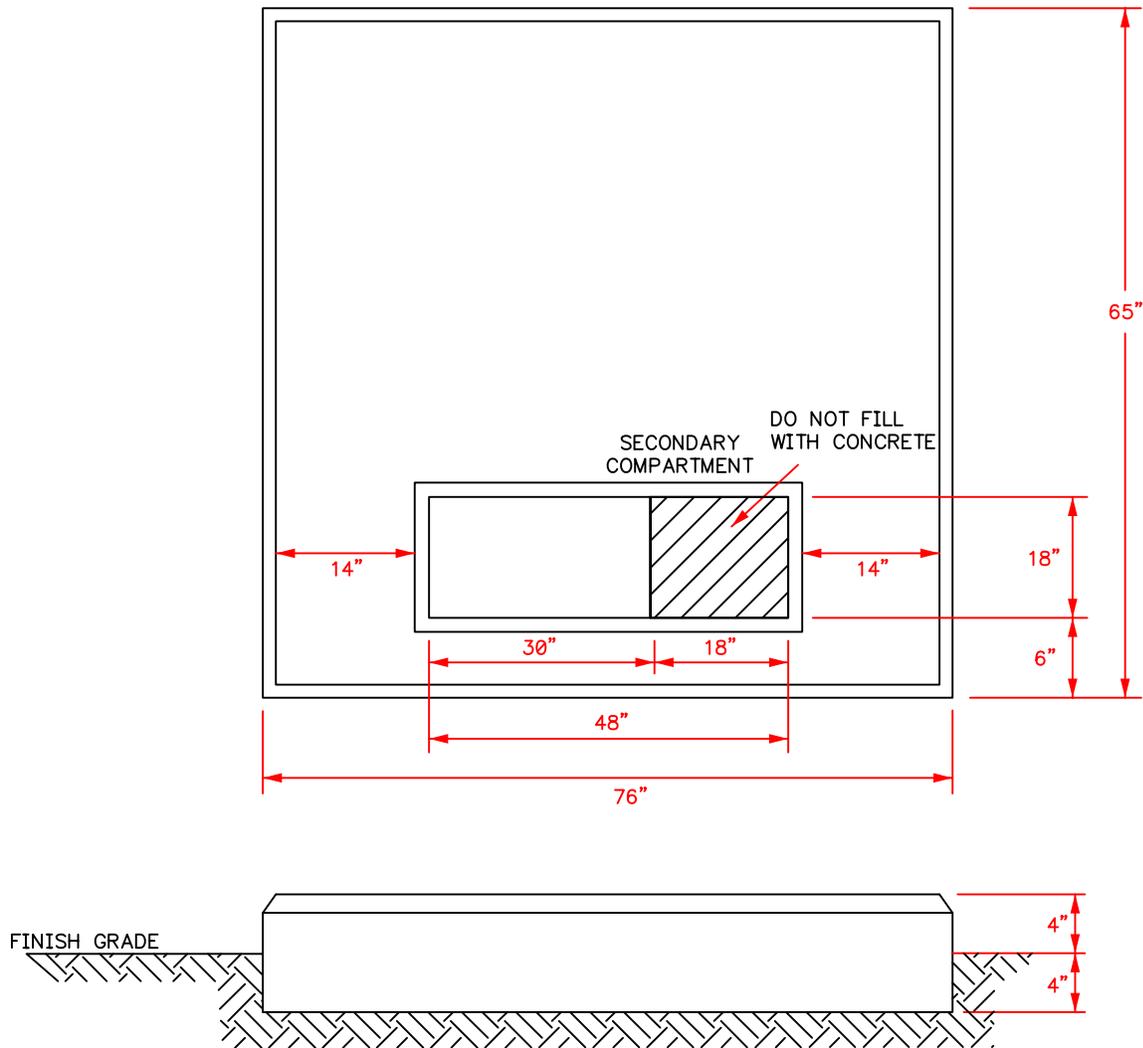


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JANUARY, 2007

DATE: OCTOBER, 1992

UM1-4



NOTES:

1. SERVICE DUCT SHALL BE LOCATED IN THE EXTREME RIGHT SIDE OF THE SECONDARY COMPARTMENT.
2. THE PAD SHALL HAVE A MINIMUM CLEARANCE OF 10' FROM ALL BUILDINGS TO PROVIDE SUFFICIENT COOLING. A MINIMUM CLEARANCE OF 3' SHALL BE MAINTAINED FROM ALL OBSTRUCTIONS.
3. REINFORCE WITH #4 BARS WITH A 12"X12" GRID 4" BELOW TOP OF PAD.
4. CONCRETE SHALL HAVE A MINIMUM ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 POUNDS. PAD SHALL BE CURED NOT LESS THAN 72 HOURS.

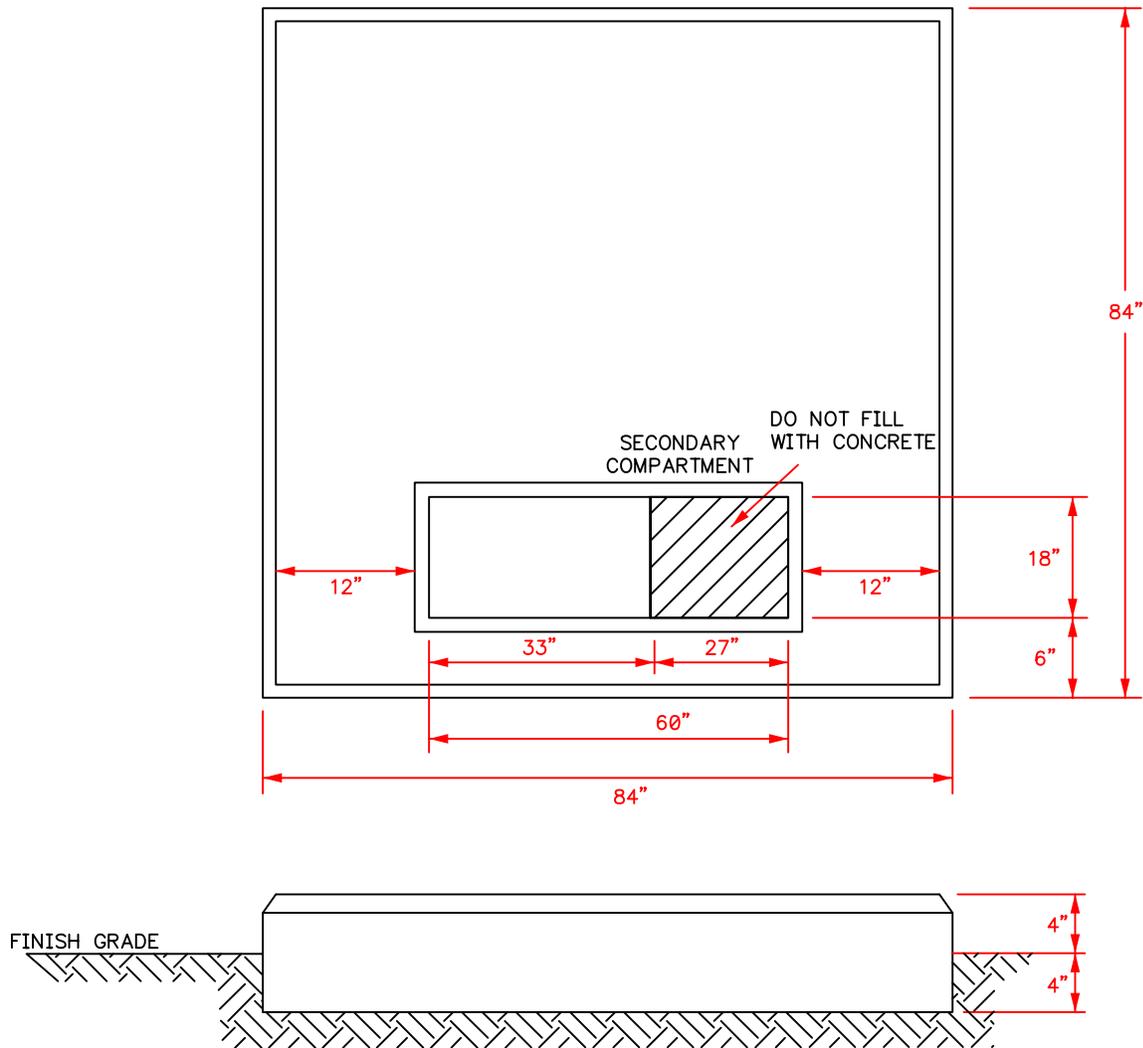
STANDARD PAD FOR 75 - 1000 KVA RADIAL OR LOOP FEED PADMOUNTED TRANSFORMER



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM1-5



NOTES:

1. SERVICE DUCT SHALL BE LOCATED IN THE EXTREME RIGHT SIDE OF THE SECONDARY COMPARTMENT.
2. THE PAD SHALL HAVE A MINIMUM CLEARANCE OF 10' FROM ALL BUILDINGS TO PROVIDE SUFFICIENT COOLING. A MINIMUM CLEARANCE OF 3' SHALL BE MAINTAINED FROM ALL OBSTRUCTIONS.
3. REINFORCE WITH #4 BARS WITH A 12"X12" GRID 4" BELOW TOP OF PAD.
4. CONCRETE SHALL HAVE A MINIMUM ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 POUNDS. PAD SHALL BE CURED NOT LESS THAN 72 HOURS.

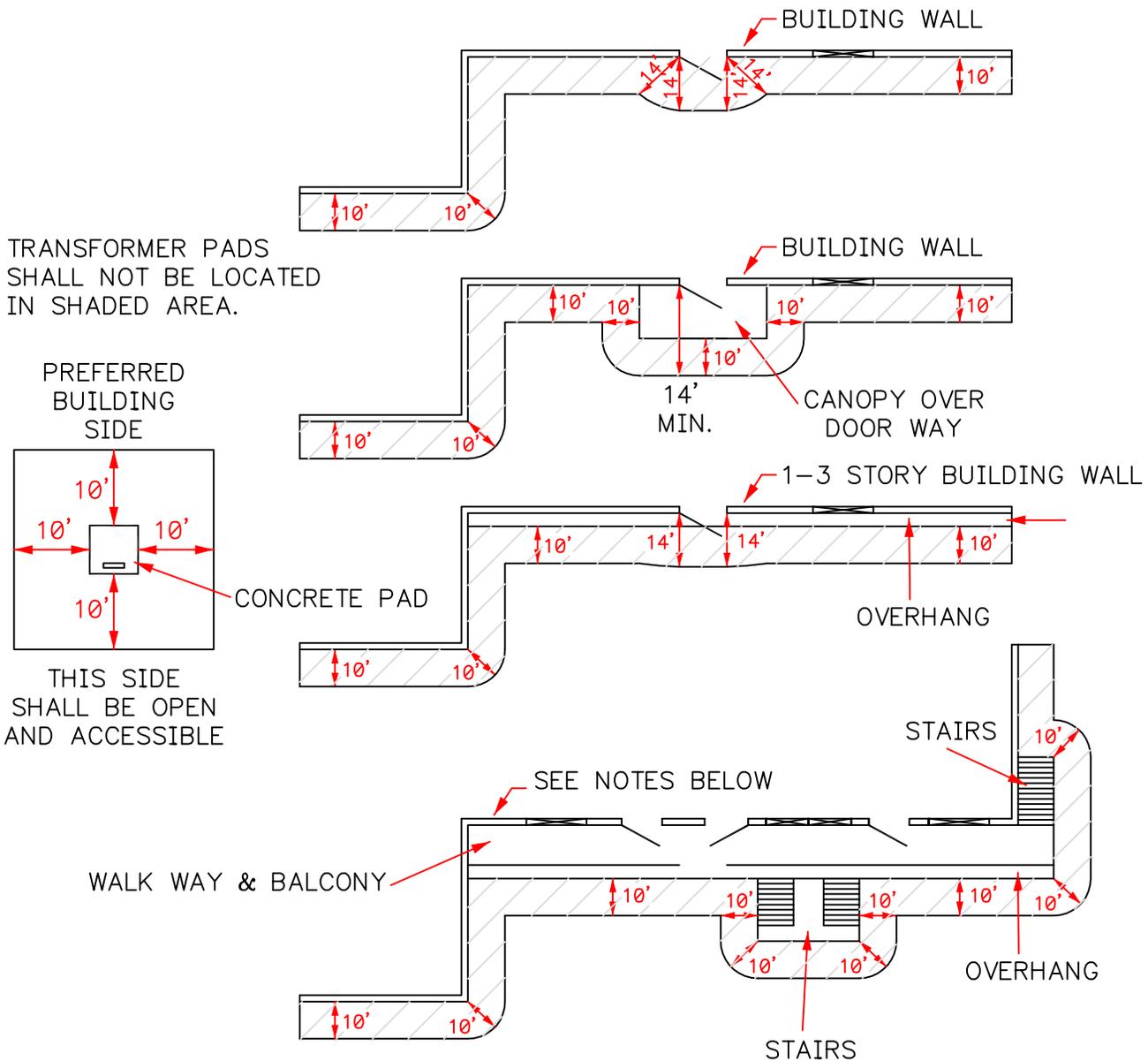
STANDARD PAD FOR 1000 - 2500 KVA RADIAL OR LOOP FEED PADMOUNTED TRANSFORMER



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM1-6



NOTES:

1. THE STANDARD PAD LOCATION SHALL BE 10 FEET FROM THE BUILDING WALL.
2. EDGE OF PAD SHALL BE NO LESS THAN 14 FEET FROM DOORWAY.
3. EDGE OF PAD SHALL BE NO LESS THAN 10 FEET FROM WINDOWS OR OTHER OPENINGS.
4. IF THE BUILDING HAS AN OVERHANG AND IS 3 OR LESS FLOORS IN HEIGHT ABOVE THE GROUND, THE 10 FEET CLEARANCE IS MEASURED FROM A POINT BELOW THE EDGE OF THE OVERHANG.
5. IF THE BUILDING HAS AN OVERHANG AND IS 4 OR MORE FLOORS IN HEIGHT ABOVE THE GROUND, THE 10 FEET CLEARANCE MAY BE MEASURED FROM THE BUILDING WALL.
6. FIRE ESCAPES, OUTSIDE STAIRS, AND COVERED WALK WAYS ATTACHED TO OR BETWEEN BUILDINGS SHALL BE CONSIDERED AS PART OF THE BUILDING.
7. ALWAYS MAINTAIN 10 FEET OF CLEARANCE IN FRONT OF THE PAD.

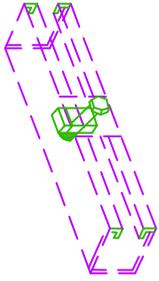
TRANSFORMER CLEARANCE FROM BUILDINGS



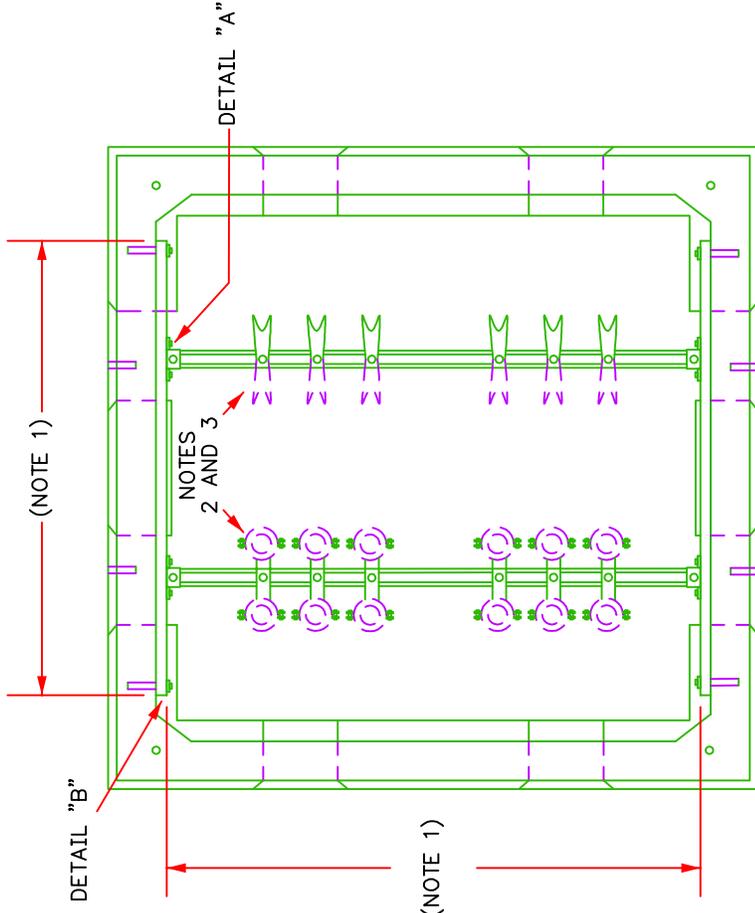
DATE: OCTOBER, 1992

REVISIONS JULY, 2001

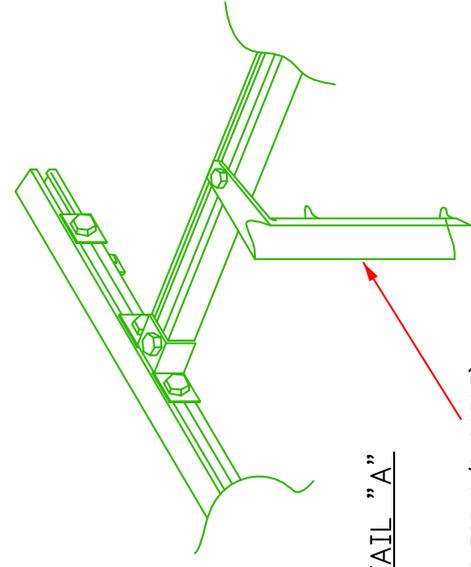
UM1-7



SPRING NUT ASSEMBLY DETAIL

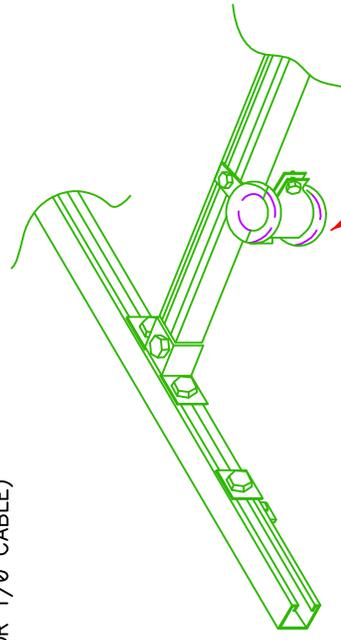


TOP VIEW



DETAIL "A"

(USE FOR 1/0 CABLE)



DETAIL "B"

(USE FOR 1000MCM CABLE)

- NOTES:
1. DIMENSION MAY VARY- CUT TO FIT.
 2. BRACKETS CAN BE INSTALLED ON EITHER SIDE OF STRUT TO LINE UP WITH CABLE.
 3. CABLE GUIDES AND STRUTS SHOULD BE POSITIONED TO VERTICALLY ALIGN WITH TERMINATING PADS.

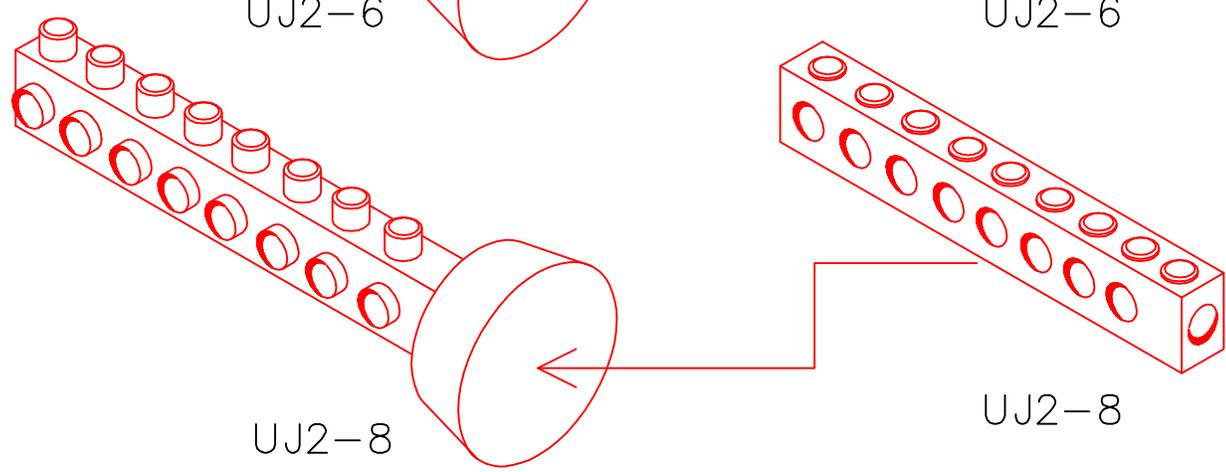
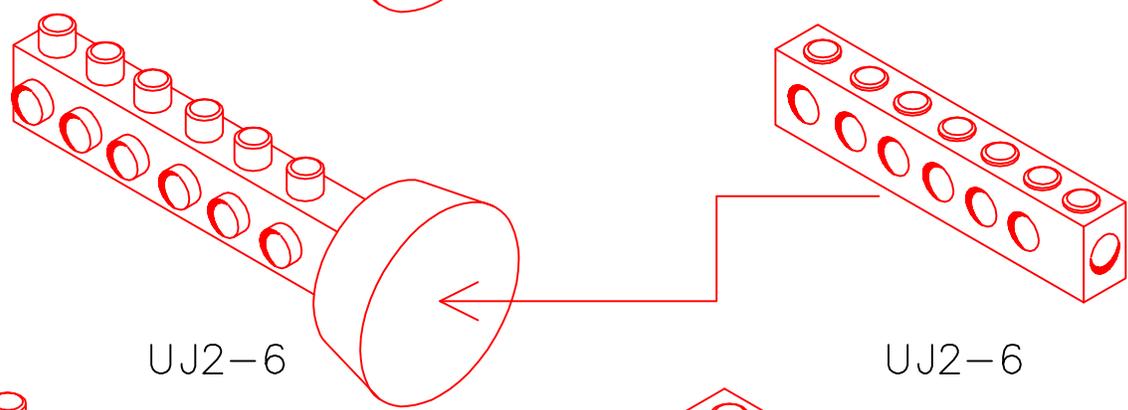
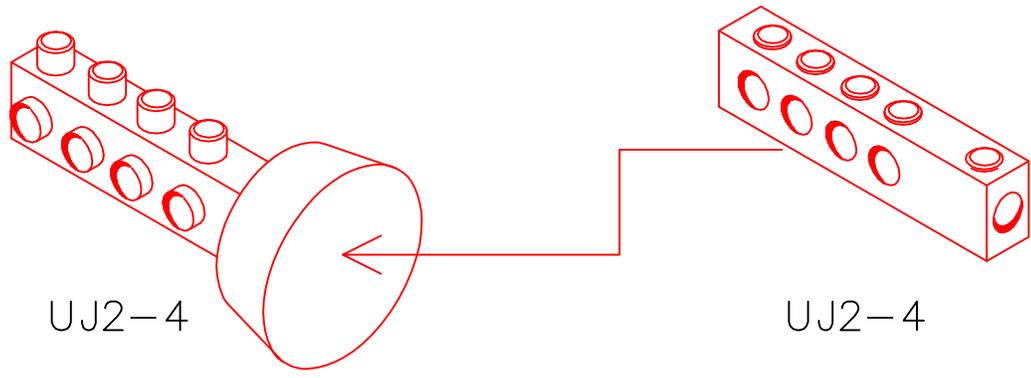
CABLE GUIDES FOR METER & SWITCHING CUBICLE VAULT



DATE: JULY, 2001

REVISIONS JULY, 2002

UM1-8



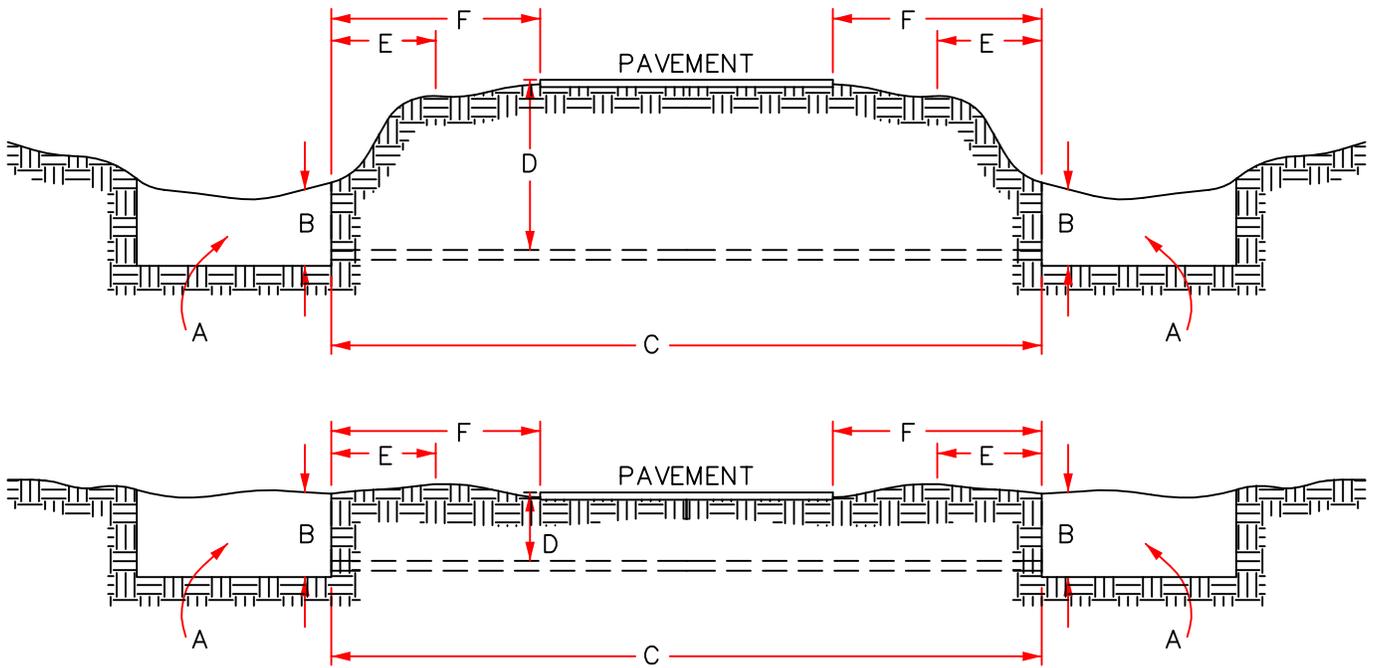
UJ2-4 THRU UJ2-8
TRANSFORMER SECONDARY CONNECTOR
BARS



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM1-9



I. CONDUIT SHALL BE USED WHEN:

1. EXPANDED OPENING IS LARGER THAN 6".
2. BORING MACHINE IS USED WHICH REMOVES DIRT AS IT BORES.
3. WHEN FIELD CONDITIONS EXIST THAT MAKE CONDUIT APPLICABLE.

NOTE: CONDUIT MAY BE PVC MATERIAL.

II. DIMENSIONS

- A. PIT FOR MACHINE INSTALLATION EQUIPMENT.
- B. 3' MINIMUM – 5' MAXIMUM.
- C. FOR ACCURACY, 50' MAXIMUM LENGTH IS RECOMMENDED.
(SEE DIMENSIONS E & F)
- D. MINIMUM 4'.
- E. SHALL NOT BE LESS THAN "D".
- F. MINIMUM 10' FROM PAVEMENT OR PAVED SHOULDER.

- NOTE: 1. ON CONVENTIONAL HIGHWAYS (IF CONDUIT IS REQUIRED), CONDUIT SHALL BE INSTALLED ON THE FIELD SIDE OF DITCH OR CURB.
2. ON INTERSTATES AND FREEWAYS (IF CONDUIT IS REQUIRED), CONDUIT SHALL BE ON FIELD SIDE OF FENCE UNDER FRONTAGE ROADS, AND ON FIELD SIDE OF DITCH ON FRONTAGE ROADS.
3. ABOVE DIMENSIONS APPLY TO INSTALLATIONS WITH OR WITHOUT CONDUITS.
4. OPENING SHOULD BE SIZED AS CLOSE AS POSSIBLE TO CONDUCTOR SIZE.

UNDERGROUND HIGHWAY CROSSINGS



DATE: OCTOBER, 1992

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UM1-10

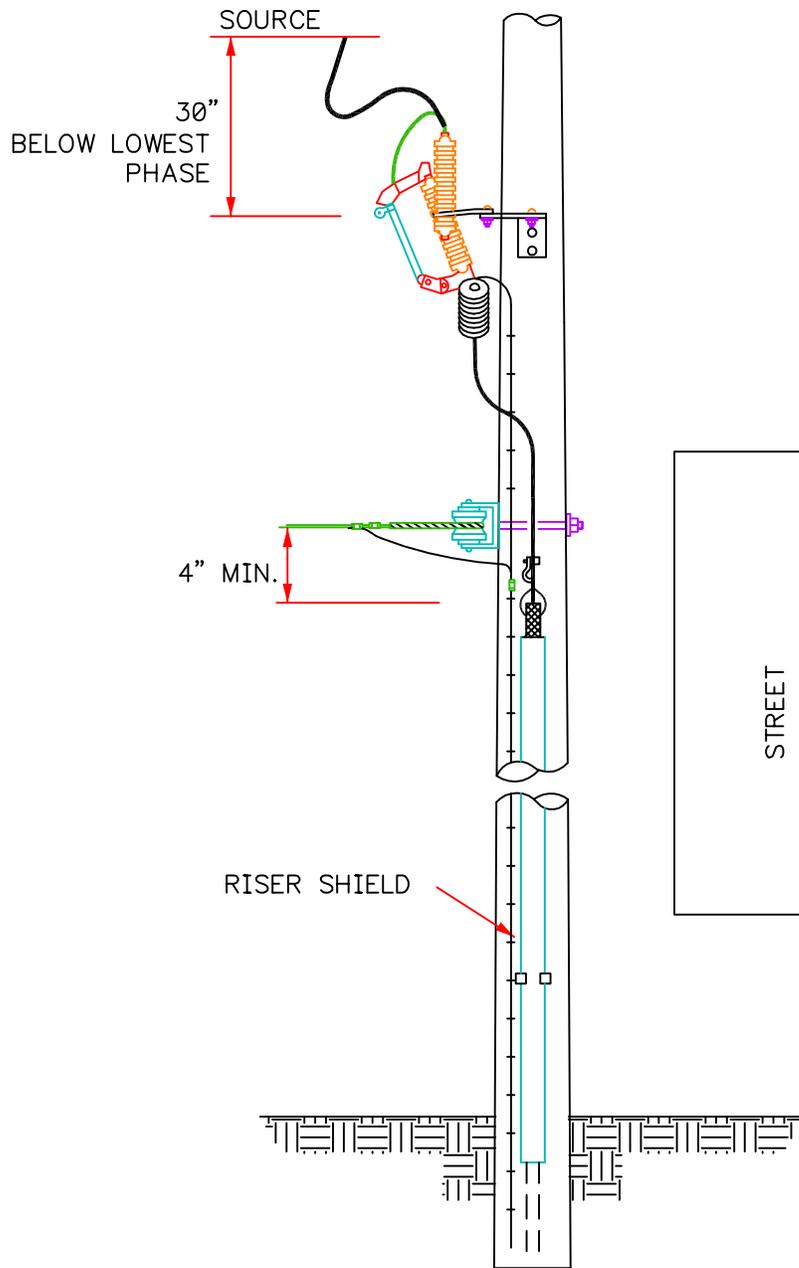
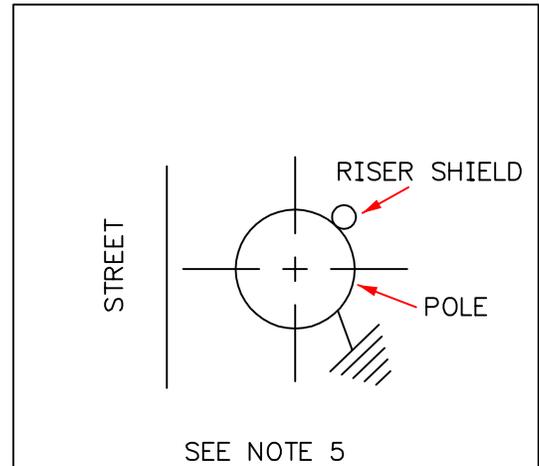


FIGURE 1



NOTES:

1. TOTAL ARRESTER LEAD LENGTH MUST BE KEPT AS SHORT AS POSSIBLE.
2. NO BENDS PERMITTED WITHIN 6" OF TERMINATION.
3. ALLOW MINIMUM CABLE SLACK OF 24" AT BOTTOM OF RISER.
4. DO NOT USE CUTOUT TO ESTABLISH NORMAL OPEN POINT.
5. INSTALL RISER SHIELD IN QUADRANT OF POLE AWAY FROM TRAFFIC FLOW (SEE FIGURE 1).

SINGLE PHASE OVERHEAD TO UNDERGROUND TERMINATION



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2007

UM2

NOTES:

1. TOTAL ARRESTER LEAD LENGTH MUST BE KEPT AS SHORT AS POSSIBLE.
2. NO BENDS PERMITTED WITHIN 6" TERMINATION.
3. ALLOW MINIMUM CABLE SLACK OF 24" AT BOTTOM OF RISER.
4. DO NOT USE CUTOUT TO ESTABLISH NORMAL OPEN POINT.
5. INSTALL RISER SHIELD IN QUADRANT OF POLE AWAY FROM TRAFFIC FLOW (SEE FIGURE 1).
6. IF VERTICAL CONSTRUCTION, CENTER CUTOUT GOES TO BOTTOM PHASE.

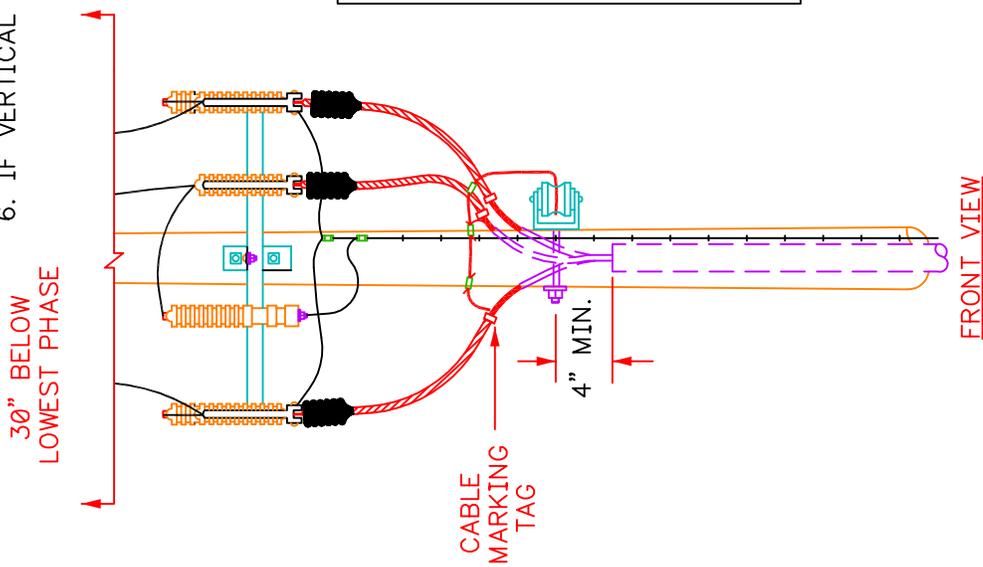
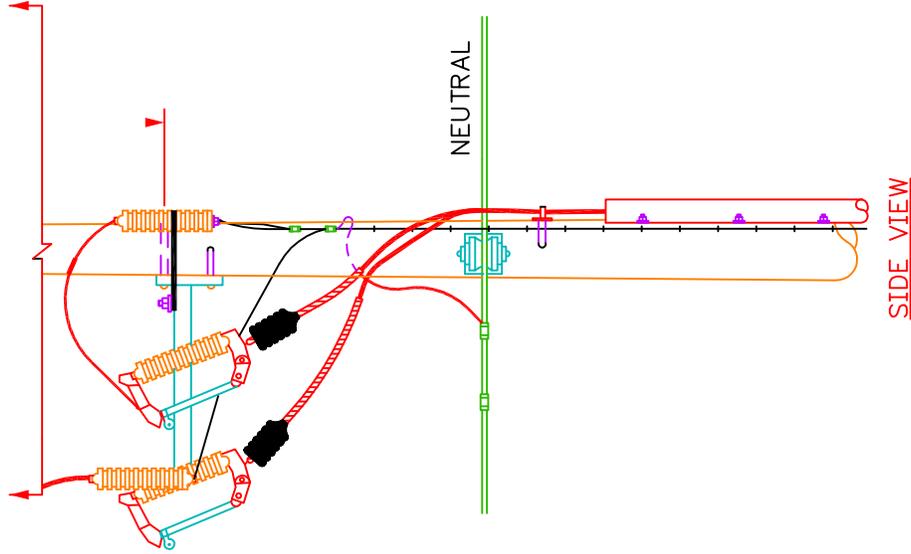
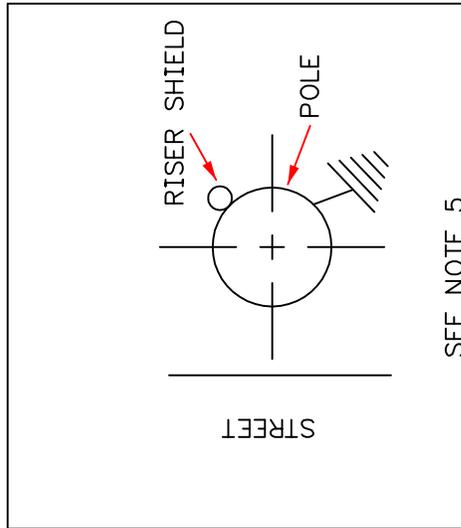


FIGURE 1



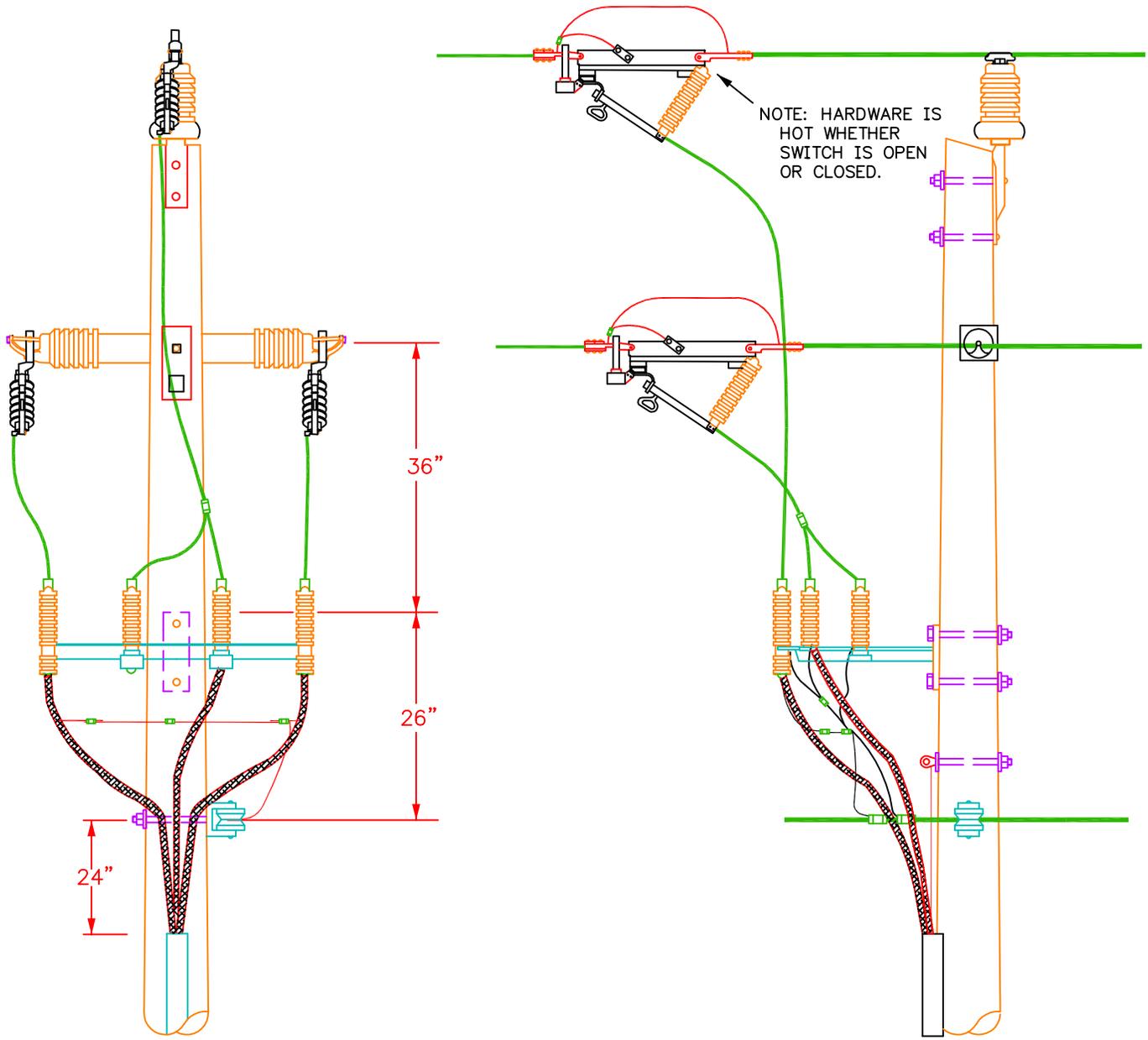
THREE PHASE, OVERHEAD TO UNDERGROUND TERMINATION



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM2-5A



NOTE:
MATERIAL FOR POLE AND OVERHEAD PRIMARY
NOT INCLUDED IN MATERIAL LIST.

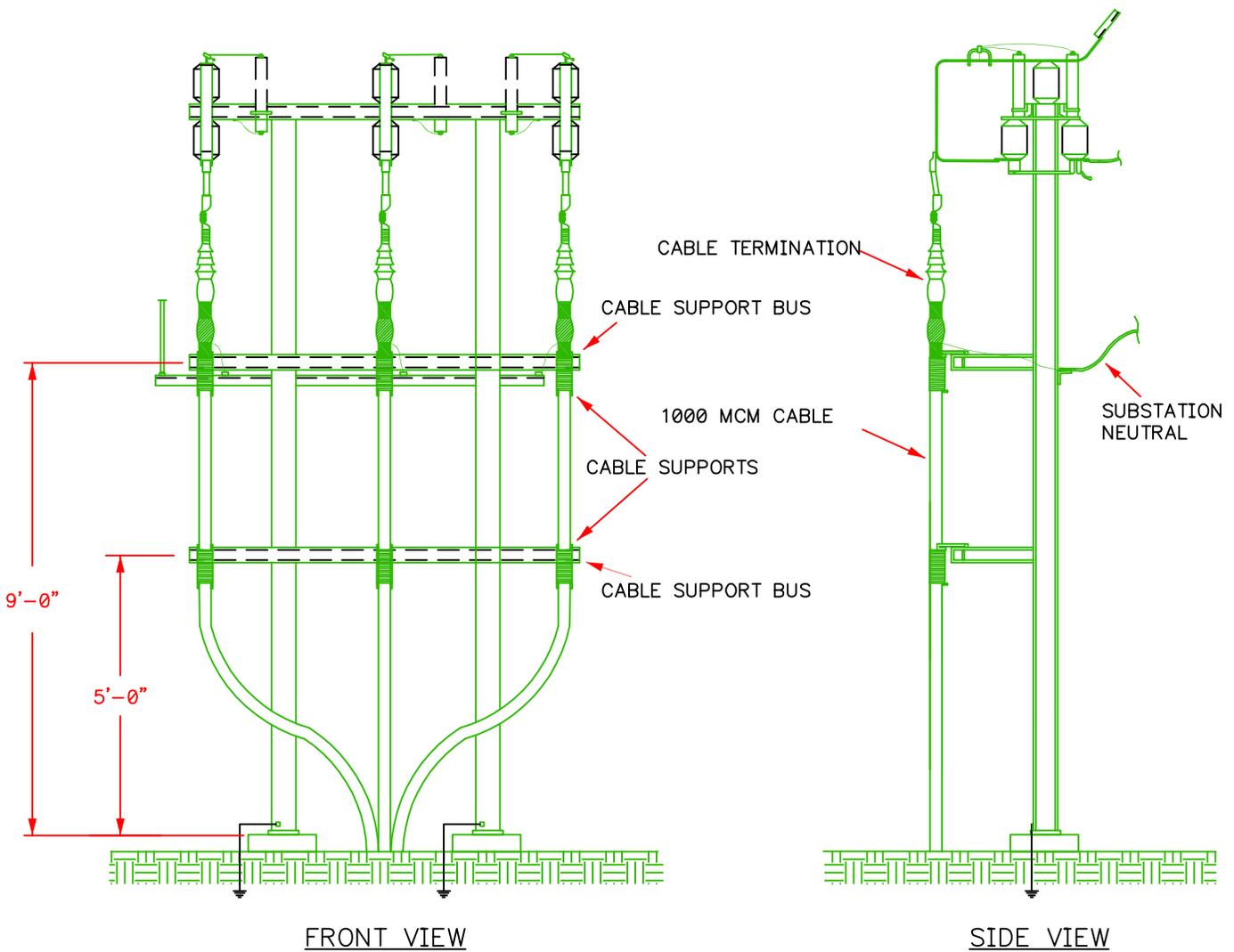
THREE PHASE, OVERHEAD TO UNDERGROUND FEEDER TERMINATION



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

UM2-7A



NOTES:

1. CABLE SHALL BE BURIED 48 TO 60 INCHES.

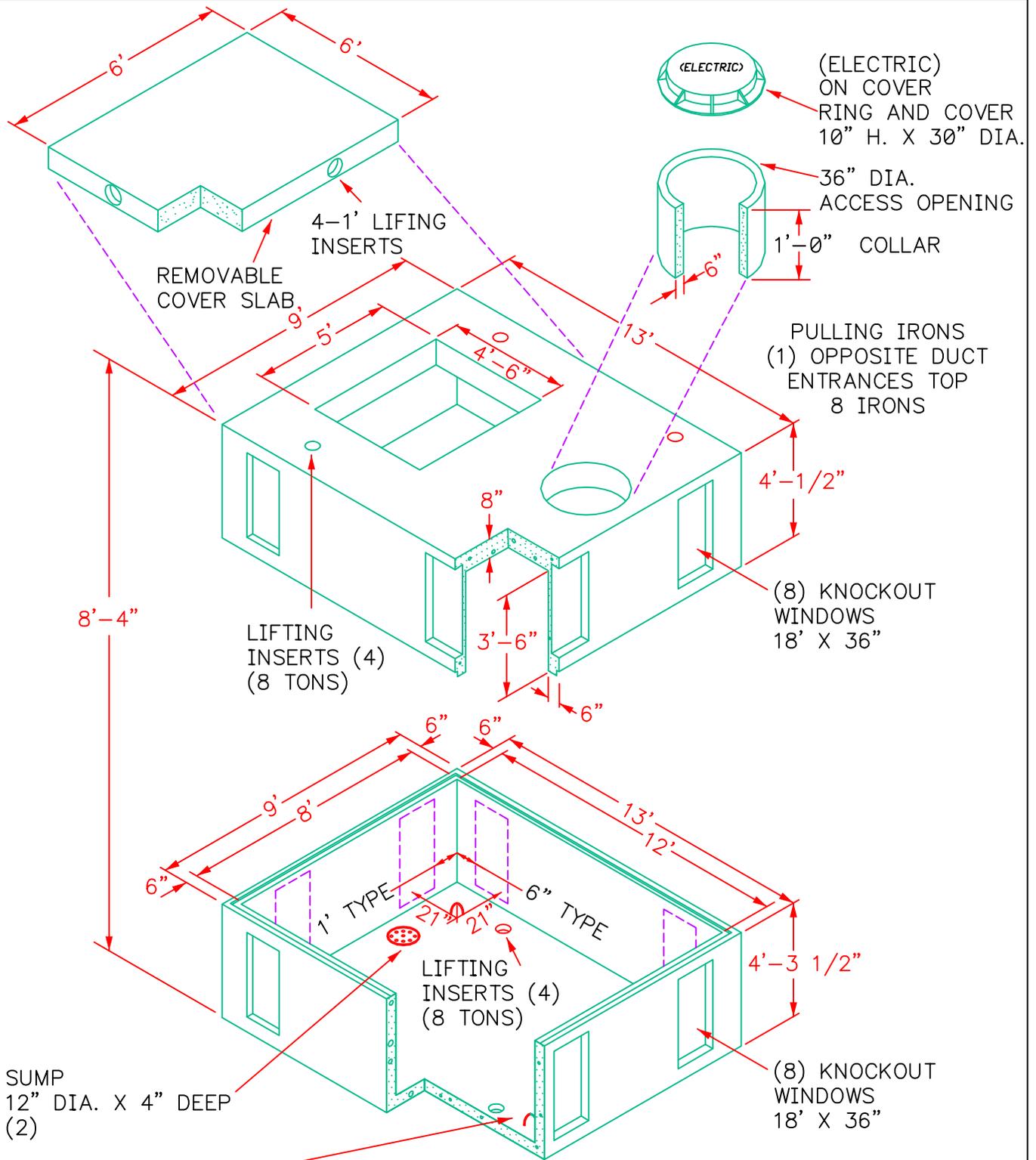
UNDERGROUND SUBSTATION EXIT FEEDER CABLE



DATE: JULY, 2001

REVISIONS JULY, 2002

UM3



CONCRETE VAULT
8' X 12' X 7'

PULLING IRONS
 BOTTOM
 AS SHOWN
 4 IRONS - TYP.

SUMP
 12" DIA. X 4" DEEP
 (2)

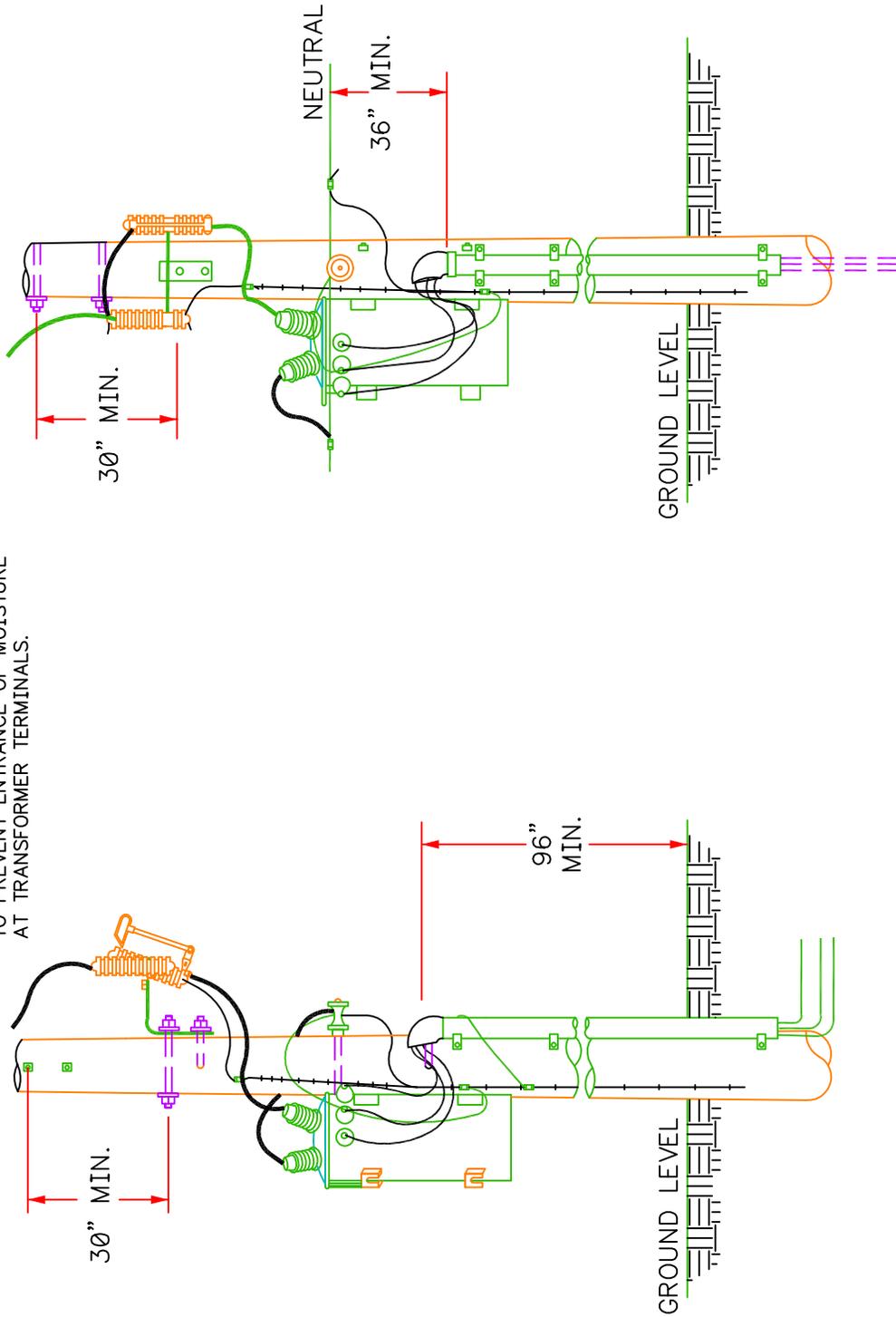


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 JANUARY, 2007

DATE: OCTOBER, 1992

UM3-16-12

NOTE:
DRESS OR SEAL SECONDARY CABLES
TO PREVENT ENTRANCE OF MOISTURE
AT TRANSFORMER TERMINALS.



SERVICE INSTALLATION FROM OVERHEAD TRANSFORMER POLE

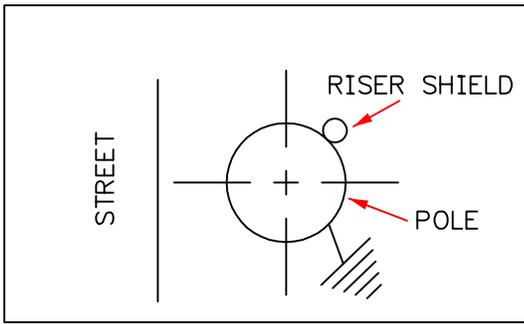


DATE: OCTOBER, 1992

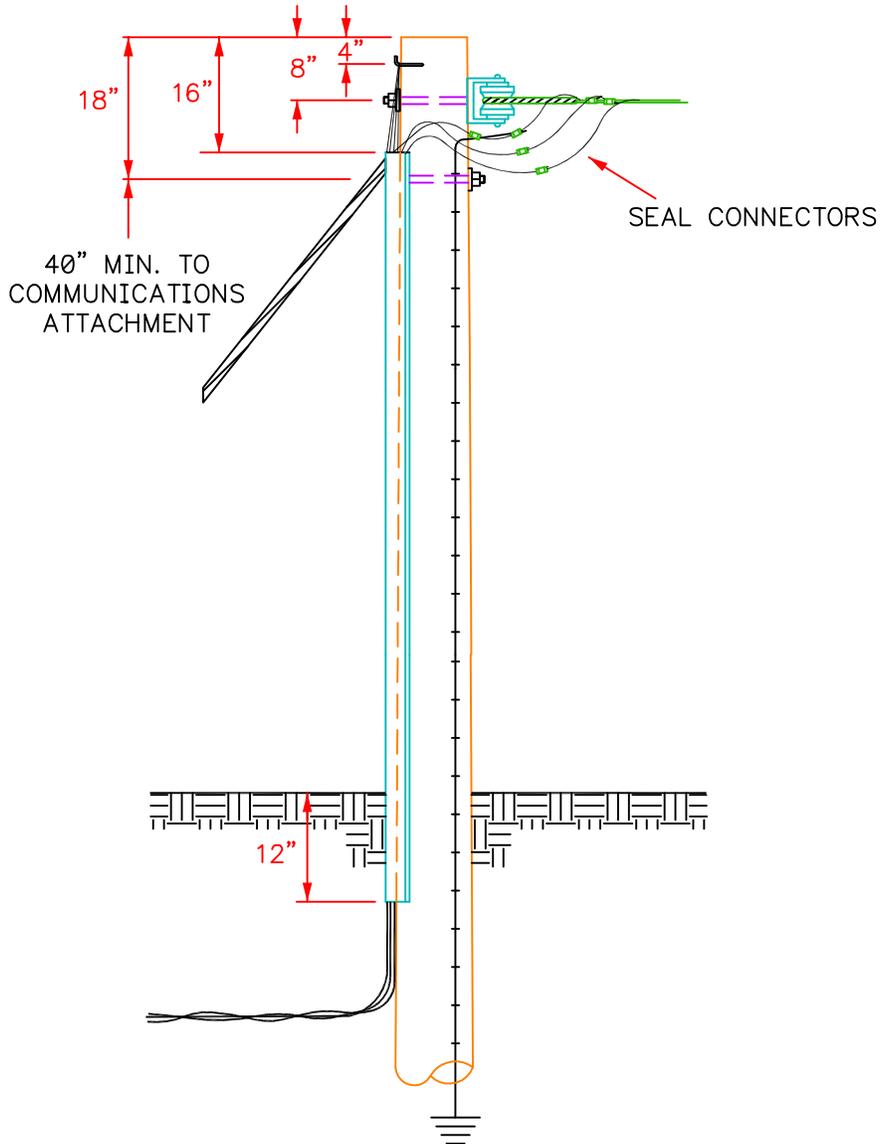
REVISIONS JULY, 2002

UM5

FIGURE 1



PLACE POLE GROUND AND RISER SHIELD ON BACK OF POLE ON OPPOSITE QUARTERS WITH RISER SHIELD AWAY FROM TRAFFIC (SEE FIGURE 1).



TYPICAL UNDERGROUND SERVICE INSTALLATION FROM OVERHEAD SERVICE POLE

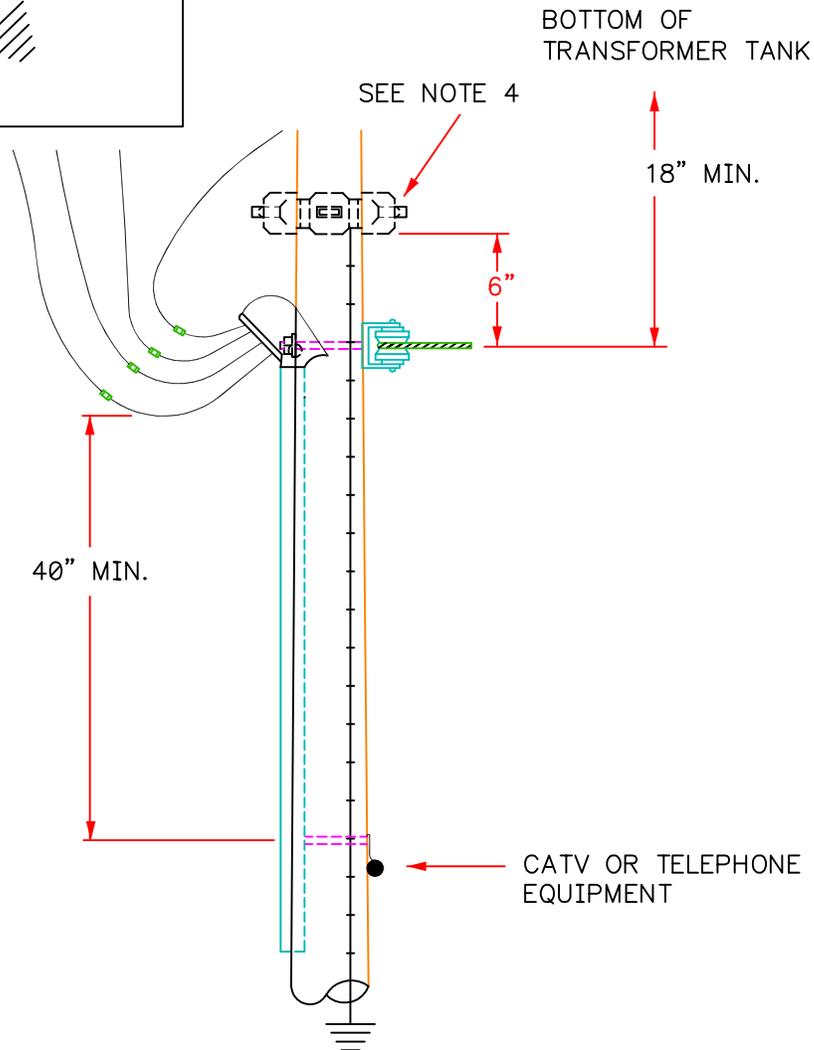
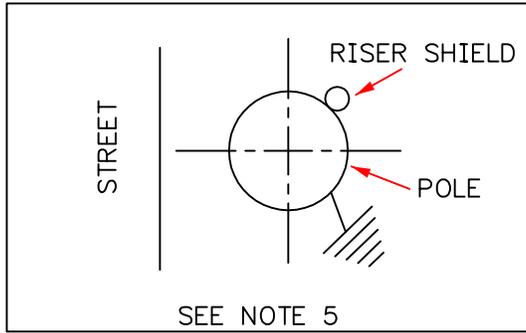


DATE: OCTOBER, 1992

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UM5-1

FIGURE 1



NOTES:

1. NEUTRAL PLACED A MIN. OF 18" BELOW BOTTOM OF TRANSFORMER TANK.
2. WEATHERHEAD PLACED AT NEUTRAL LEVEL.
3. MAINTAIN 40" BETWEEN DRIP LOOP AND COMMUNICATION COMPANIES.
4. IF CTS ARE REQUIRED, PLACE 6" ABOVE NEUTRAL.
5. CUSTOMER MUST FURNISH AND INSTALL RIGID NON-METALLIC CONDUIT WITH WEATHERHEAD ON QUADRANT OF POLE AWAY FROM TRAFFIC (SEE FIGURE 1).

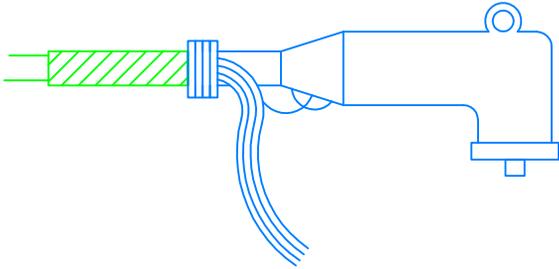
TYPICAL CUSTOMER THREE PHASE UNDERGROUND SERVICE FROM OVERHEAD TRANSFORMER POLE



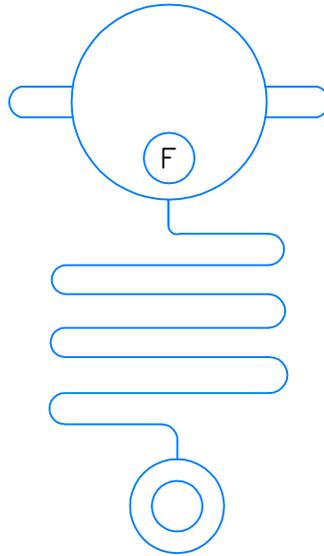
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

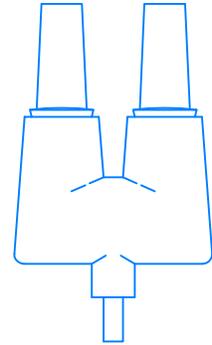
UM5-2



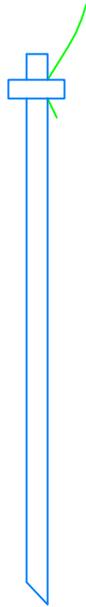
200 AMP
LOAD BREAK ELBOW
UM6-1



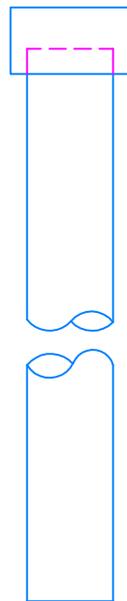
FAULT INDICATOR
UM6-4



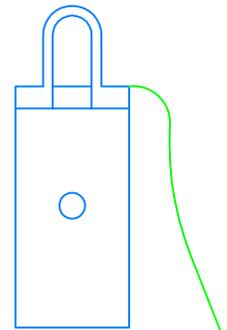
FEED THROUGH
LOAD BREAK INSERT
UM6-5



GROUND ROD
UM6-6



STUB UP
UM6-9-2



200 AMP
INSULATED
PROTECTIVE CAP
UM6-10

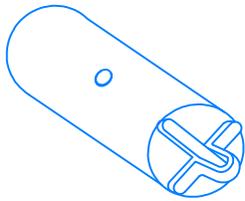
MISCELLANEOUS ASSEMBLIES
UNDERGROUND CABLE



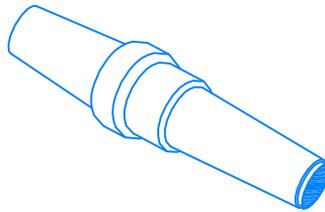
DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

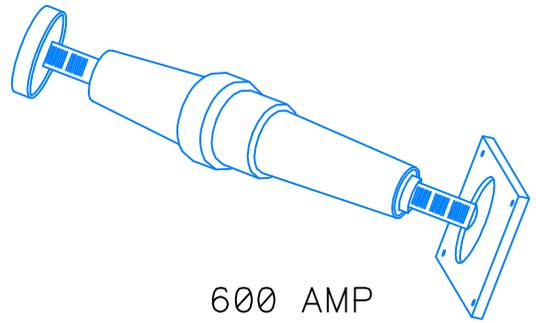
UM6,1



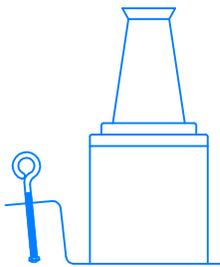
600 AMP
INSULATED
PROTECTIVE CAP
UM6-11



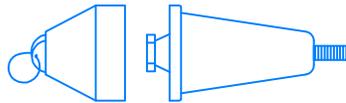
200 AMP
LOAD BREAK
INSERT
UM6-13



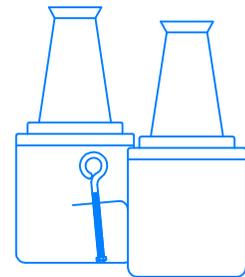
600 AMP
DEADBREAK
INSERT
UM6-14



200 AMP
STAND-OFF
INSULATOR
UM6-15



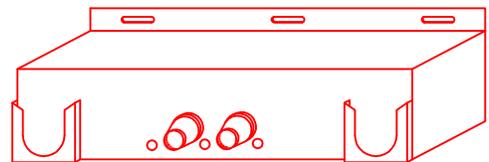
INSULATING PLUG
600 AMP CONNECTOR
UM6-17



200 AMP
STAND-OFF
INSULATOR
FEED THROUGH
UM6-19



200 AMP
TWO POINT
JUNCTION
UM6-20



600 AMP
TWO POINT
JUNCTION
UM6-20-A

MISCELLANEOUS ASSEMBLIES

UNDERGROUND CABLE



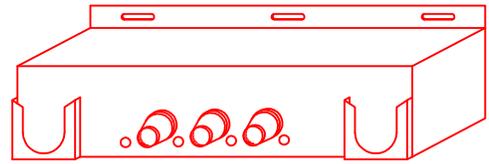
DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

UM6,2



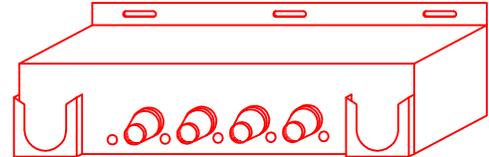
200 AMP
THREE POINT
JUNCTION
UM6-21



600 AMP
THREE POINT
JUNCTION
UM6-21-A



200 AMP
FOUR POINT
JUNCTION
UM6-22



600 AMP
FOUR POINT
JUNCTION
UM6-22-A



NOTE:

APPLICATION RUNS
FOR 1320 RUNS
PER NESC CODE
SET ARTICAL: 0907C

JACKETED CABLE
GROUNDING KITS
UM6-39

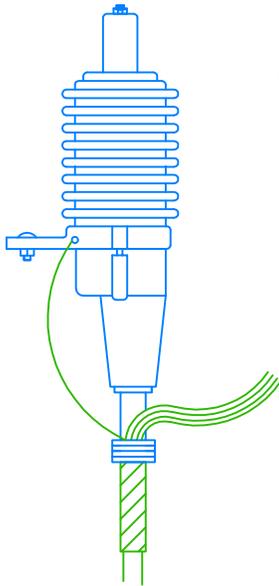
MISCELLANEOUS ASSEMBLIES UNDERGROUND CABLE



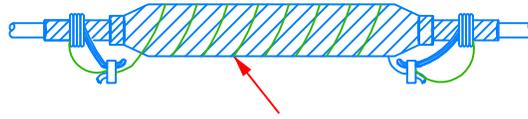
DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

UM6,3



OUTDOOR
TERMINATION
UM6-24

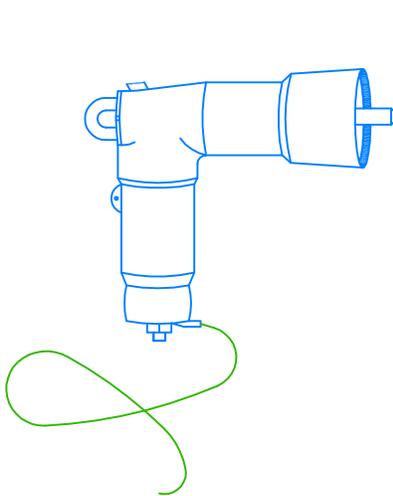


OR EQUIVALENT EXTENSION
CONCENTRIC NEUTRAL

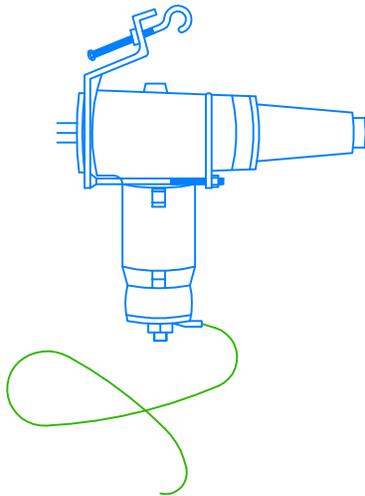
IN LINE
PRIMARY
SPLICE
UM6-28



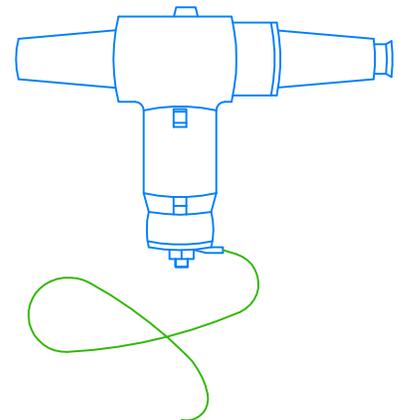
600 VOLT
BOOT OR
SLEEVE-INSULATED
UM6-32



ELBOW
SURGE
ARRESTER
UM6-34



PARKING
STANDING
ARRESTER
UM6-37



BUSHING
ARRESTER
UM6-38

MISCELLANEOUS ASSEMBLIES
UNDERGROUND CABLE



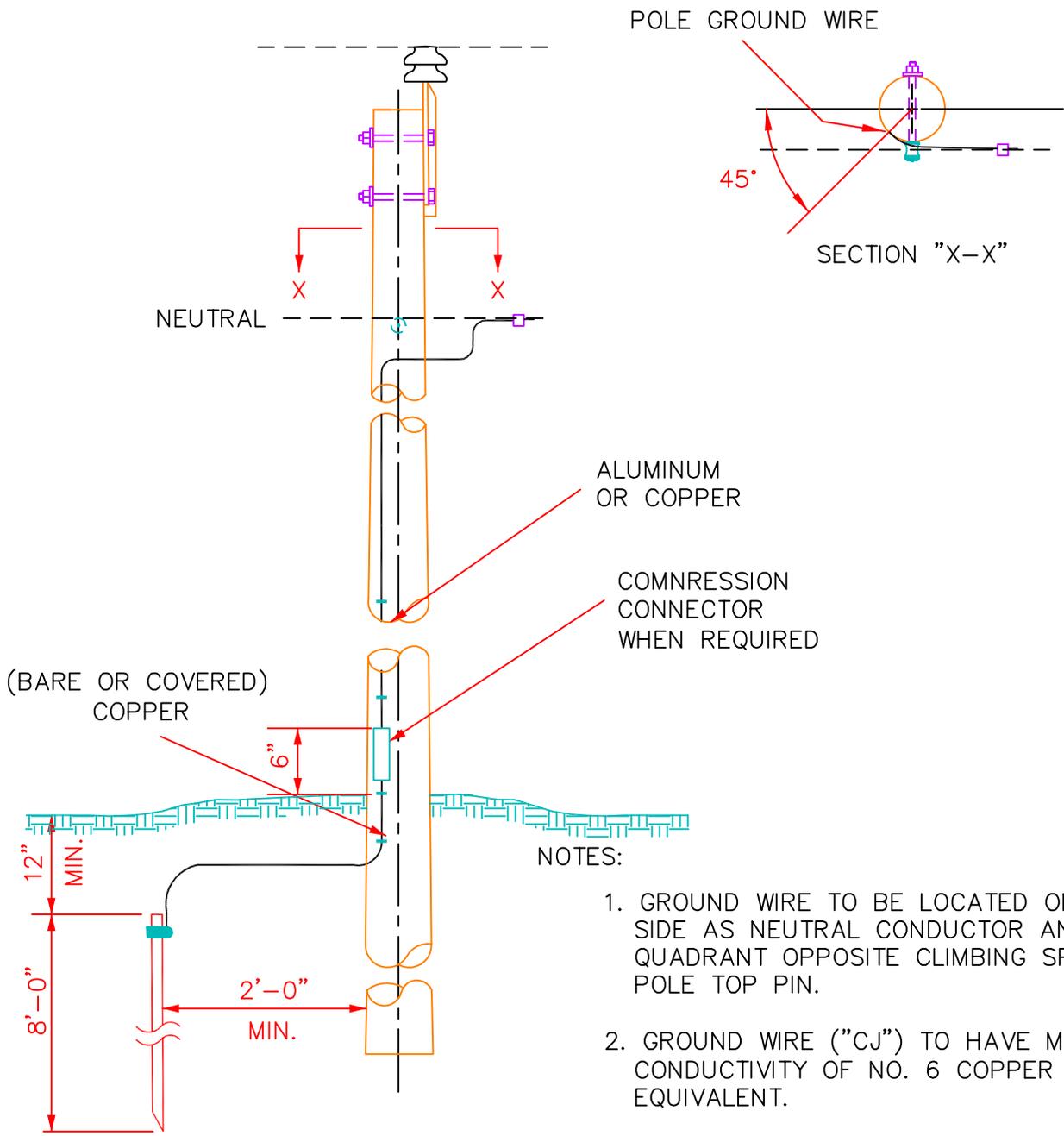
DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

UM6,4

SECTIONALIZING

ELECTRIC CITIES



NOTES:

1. GROUND WIRE TO BE LOCATED ON SAME SIDE AS NEUTRAL CONDUCTOR AND IN QUADRANT OPPOSITE CLIMBING SPACE OR POLE TOP PIN.
2. GROUND WIRE ("CJ") TO HAVE MINIMUM CONDUCTIVITY OF NO. 6 COPPER OR EQUIVALENT.
3. USE COPPER PLATED GROUND ROD AND COPPER GROUND WIRE AND STAPLES, OR USE GALVANIZED STEEL GROUND ROD, STAPLES AND SOFT ANNEALED IRON, 3-STRAND, 5/16" GROUND WIRE WITH CLASS C GALVANIZING.

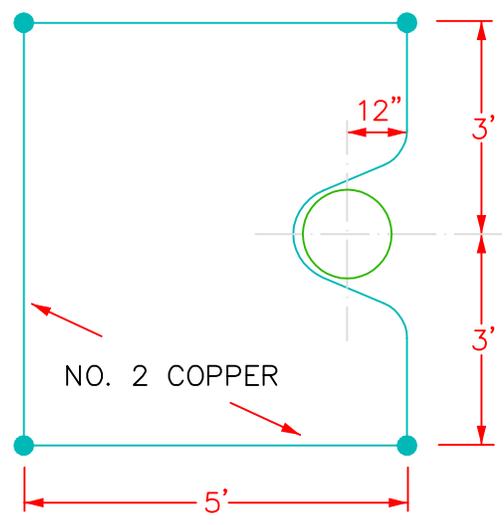
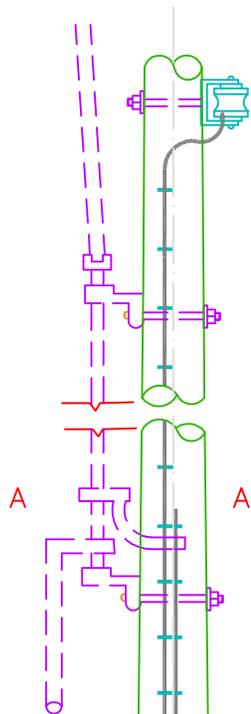
GROUNDING ASSEMBLY GROUND ROD TYPE



DATE: JUNE 27, 2008

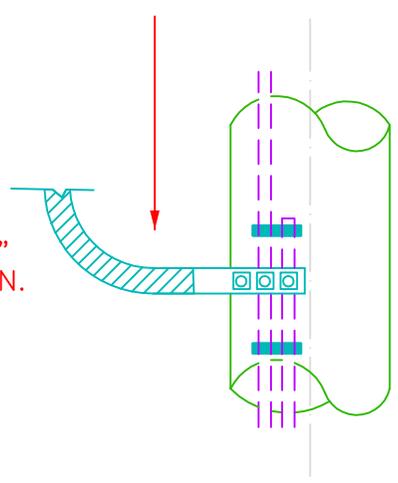
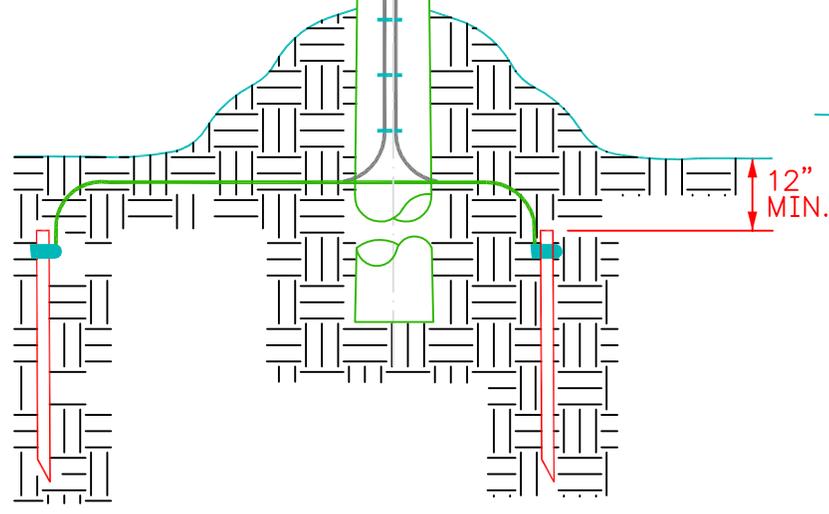
REVISIONS _____

**ADDITION
M2**



SECTION X-X
DETAIL OF GROUND GRID

CLAMP AND BRAID TO BE
FURNISHED WITH CONTROLS.



DETAIL OF SECTION A-A

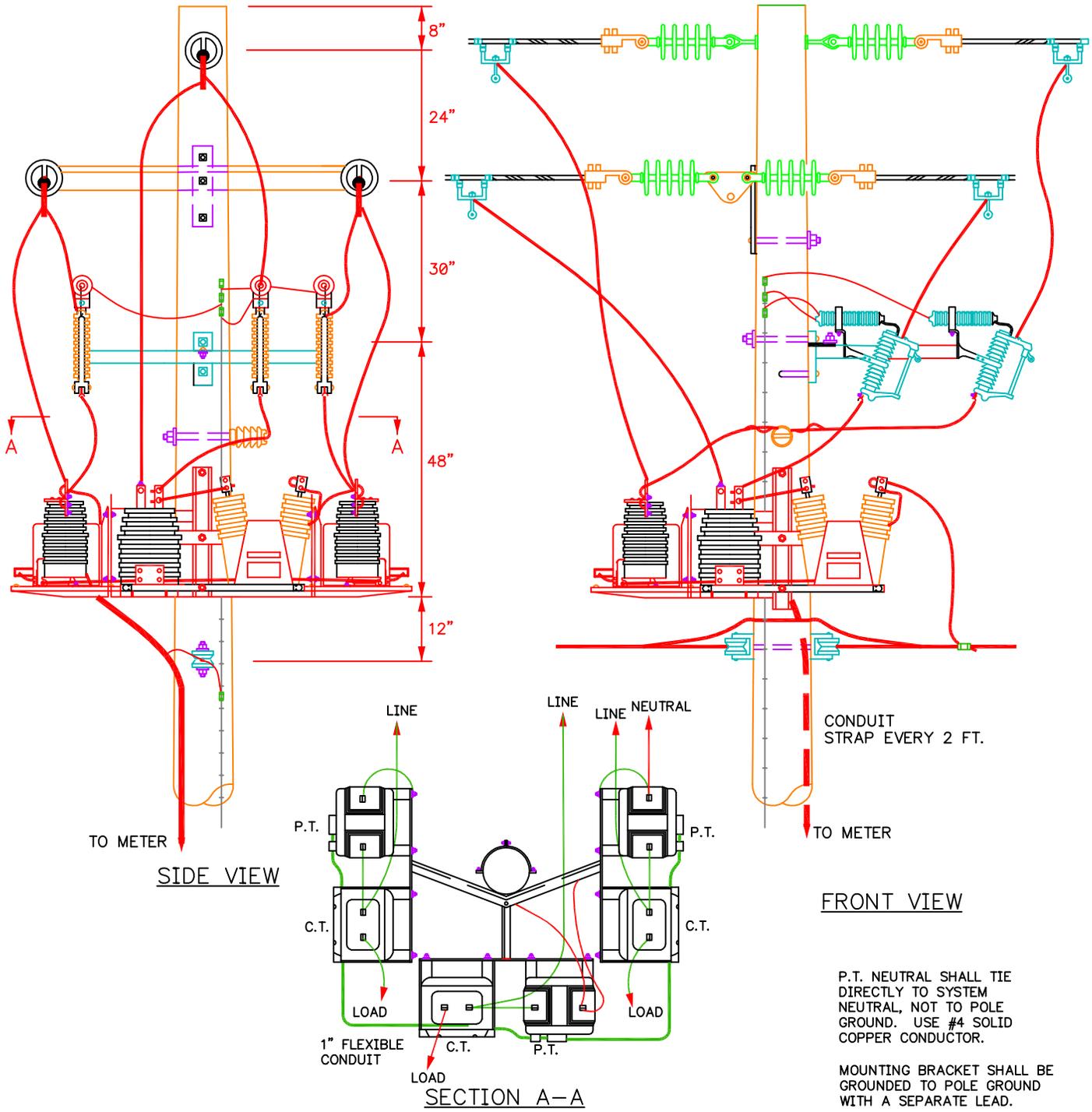
GROUNDING ASSEMBLY FOR AIR BREAK SWITCH



DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

M2-15



OVERHEAD TO OVERHEAD THREE PHASE PRIMARY METERING

P.T. NEUTRAL SHALL TIE DIRECTLY TO SYSTEM NEUTRAL, NOT TO POLE GROUND. USE #4 SOLID COPPER CONDUCTOR.

MOUNTING BRACKET SHALL BE GROUNDED TO POLE GROUND WITH A SEPARATE LEAD.

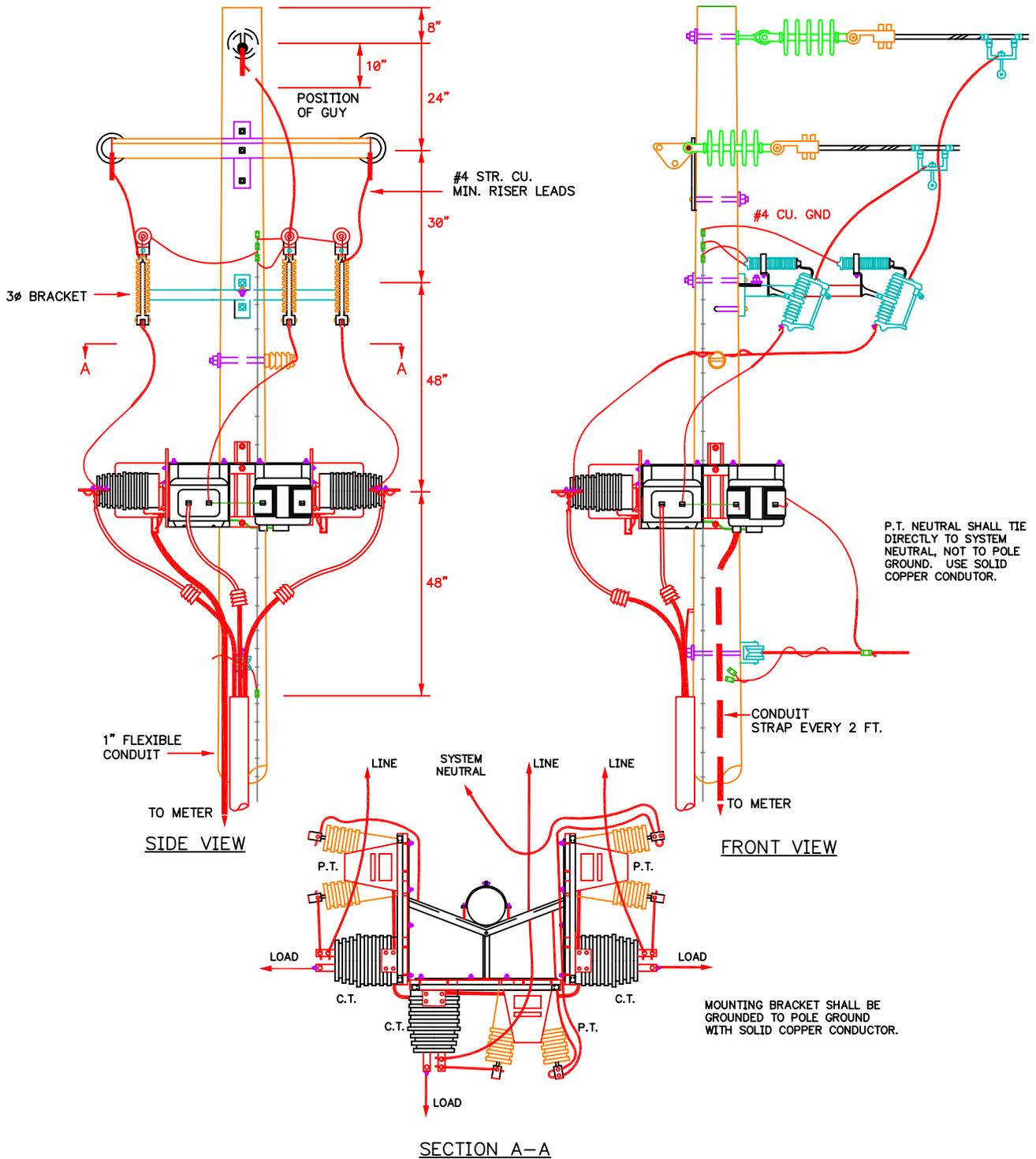
CONNECT P.T. PRIMARY NEUTRAL DIRECTLY TO SYSTEM NEUTRAL, NOT TO POLE GROUND.



DATE: JANUARY, 2007

REVISIONS	_____
_____	_____
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M8-22-30



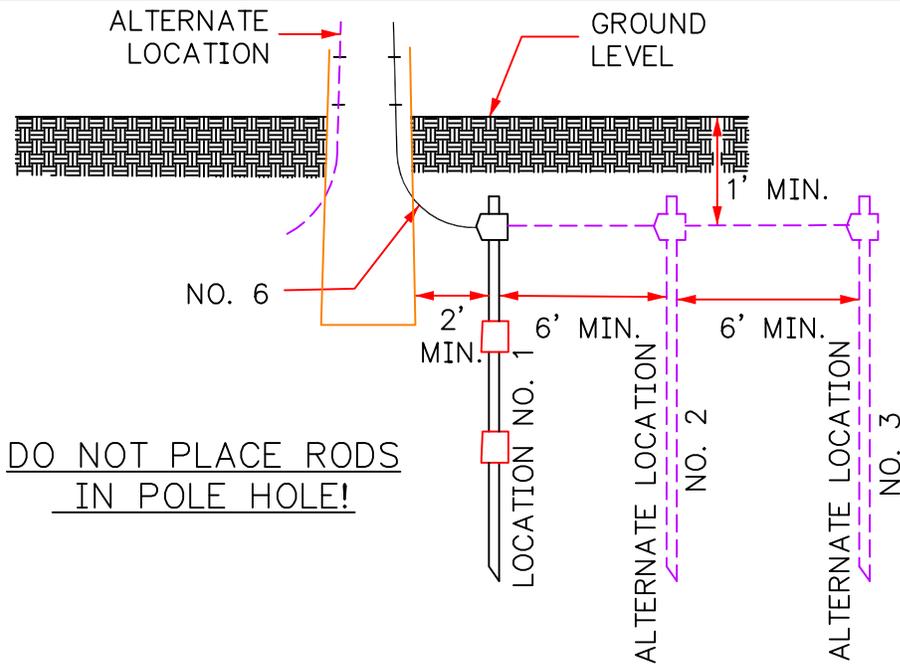
OVERHEAD TO UNDERGROUND THREE PHASE PRIMARY METERING



DATE: JANUARY, 2007

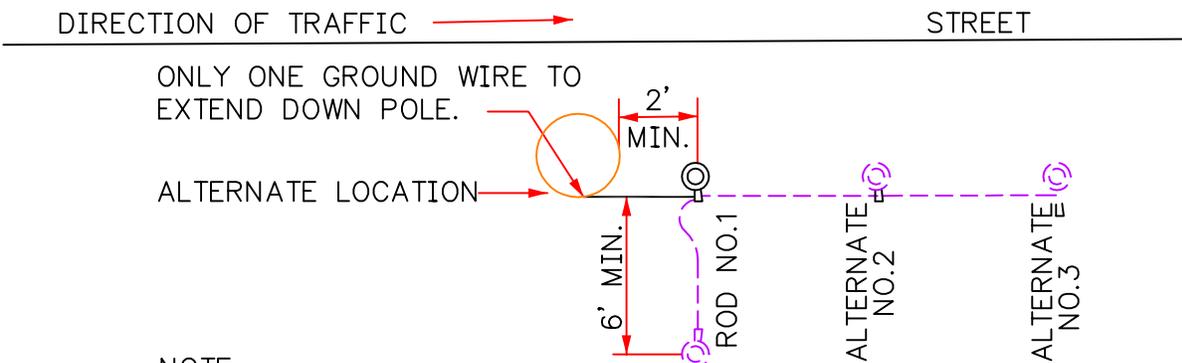
REVISIONS _____

M8-22-35



NOTE:

1. GROUND RESISTANCE (MEGGER READING) SHOULD BE 25 OHMS OR LESS AT POLES WHICH SUPPORT EQUIPMENT REQUIRING LIGHTNING ARRESTERS.
2. EQUIPMENT POLES SHOULD HAVE A MINIMUM OF 3 RODS EITHER DRIVEN AT LOCATION NO. 1 OR ONE ROD IN THREE LOCATIONS.
3. ALL OTHER POLES SHOULD HAVE AT LEAST ONE GROUND ROD.



NOTE:

- IF DRIVEWAY OR OTHER OBSTRUCTIONS INTERFERE WITH THE GROUND ROD LOCATION AS SHOWN, THE GROUND LEAD DOWN THE POLE MAY BE PLACED AT ALTERNATE LOCATION.
- IN CASES WHERE TELEPHONE CABLE IS IN PLACE ON FIELD SIDE OF POLE, INSTALL GROUND ON ROAD SIDE QUADRANT AWAY FROM FLOW OF TRAFFIC.

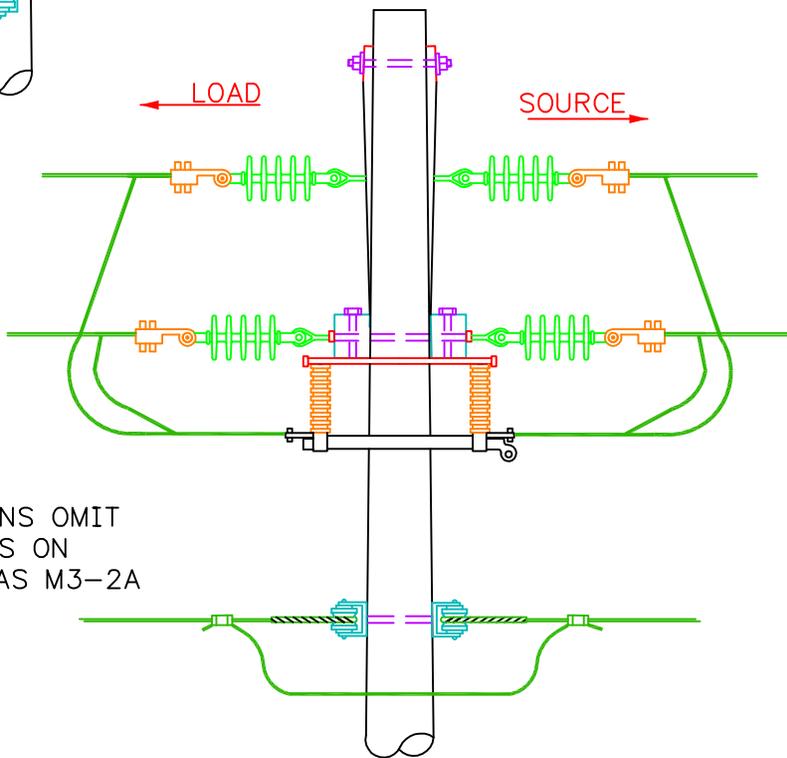
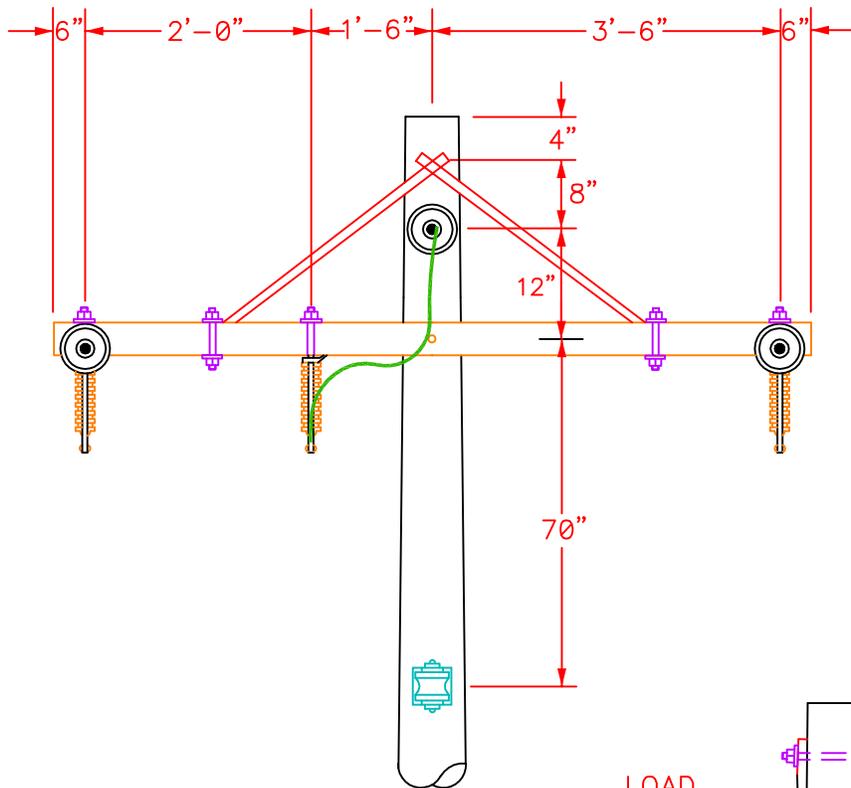
UTILITY POLE **GROUND ROD(S) LOCATION**



DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

M2



NOTE:
 FOR TWO PHASE INSTALLATIONS OMIT
 SWITCHES AND RELATED ITEMS ON
 CENTER PHASE. DESIGNATE AS M3-2A

SECTIONALIZING DISCONNECT SWITCHES



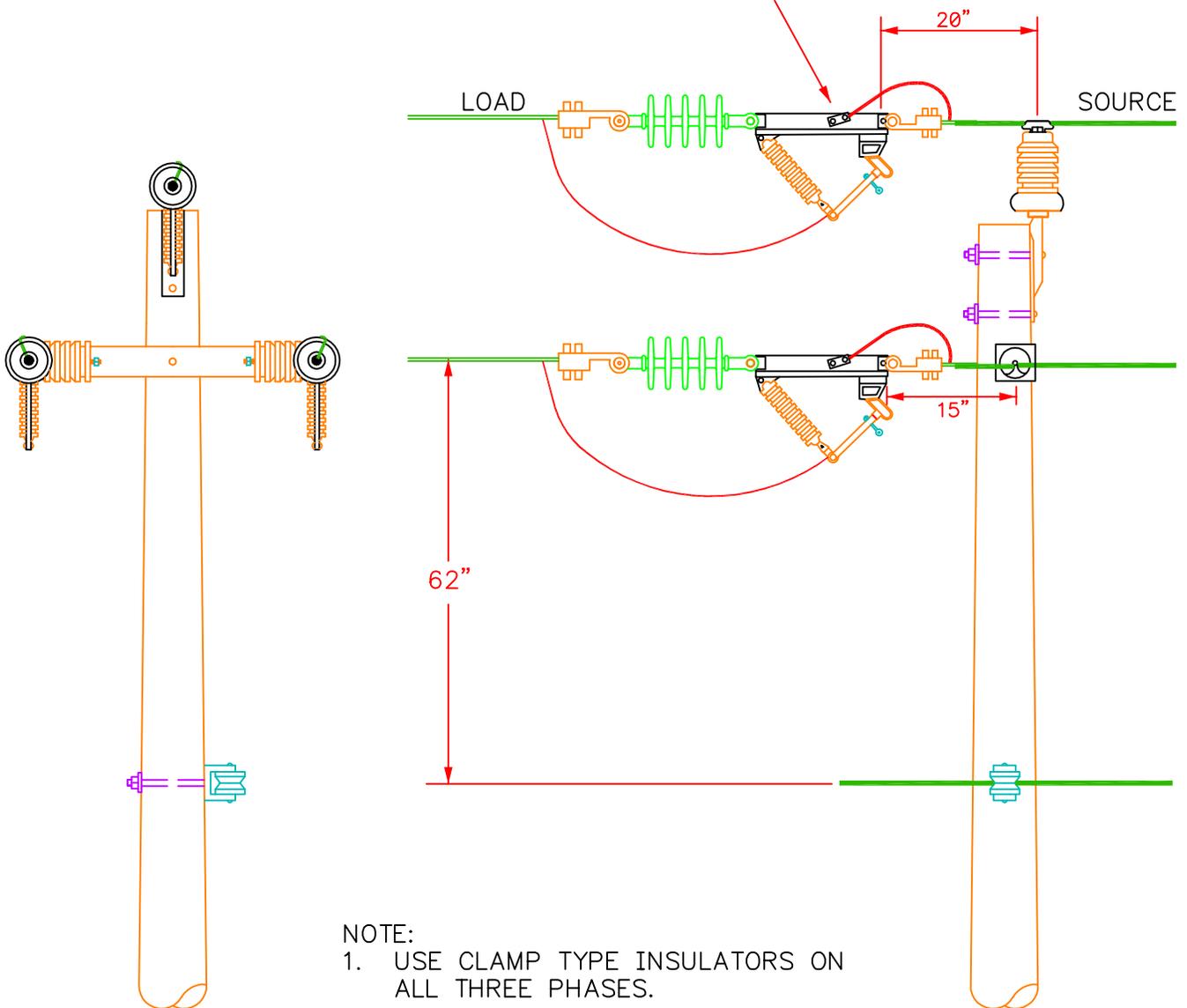
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2007

M3-2A, M3-3A

HARDWARE HOT WHETHER SWITCHES ARE OPEN OR CLOSED



FRONT VIEW

SIDE VIEW

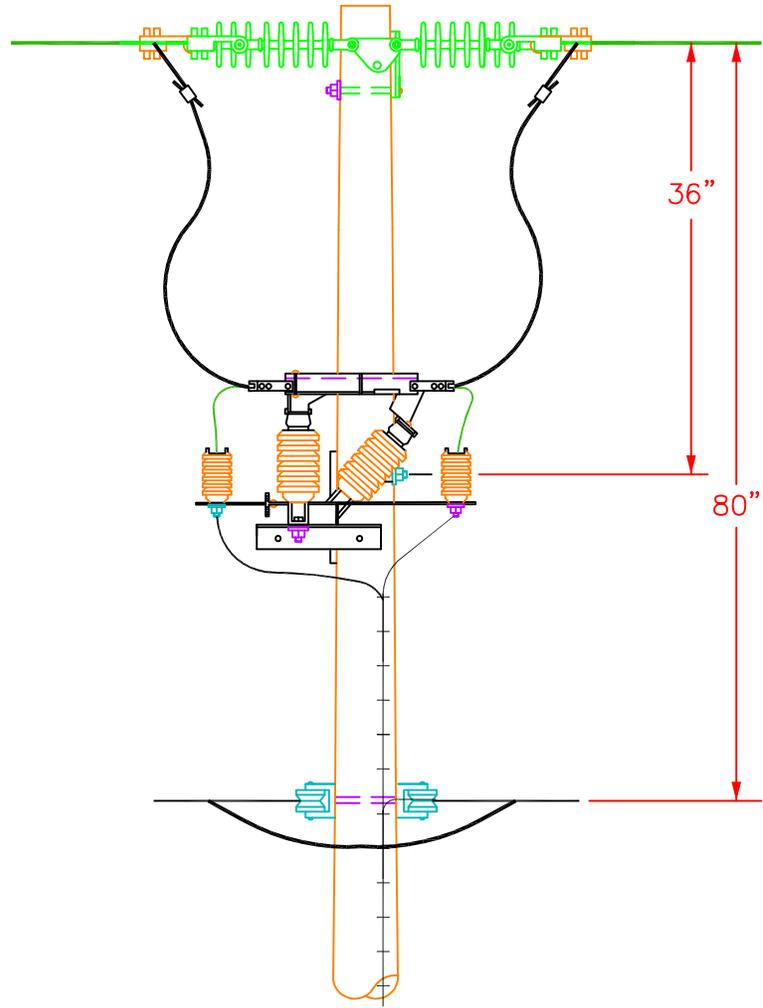
SECTIONALIZING IN-LINE SWITCHES



REVISIONS JULY, 2002
 JANUARY, 2007

M3-3S

DATE: _____



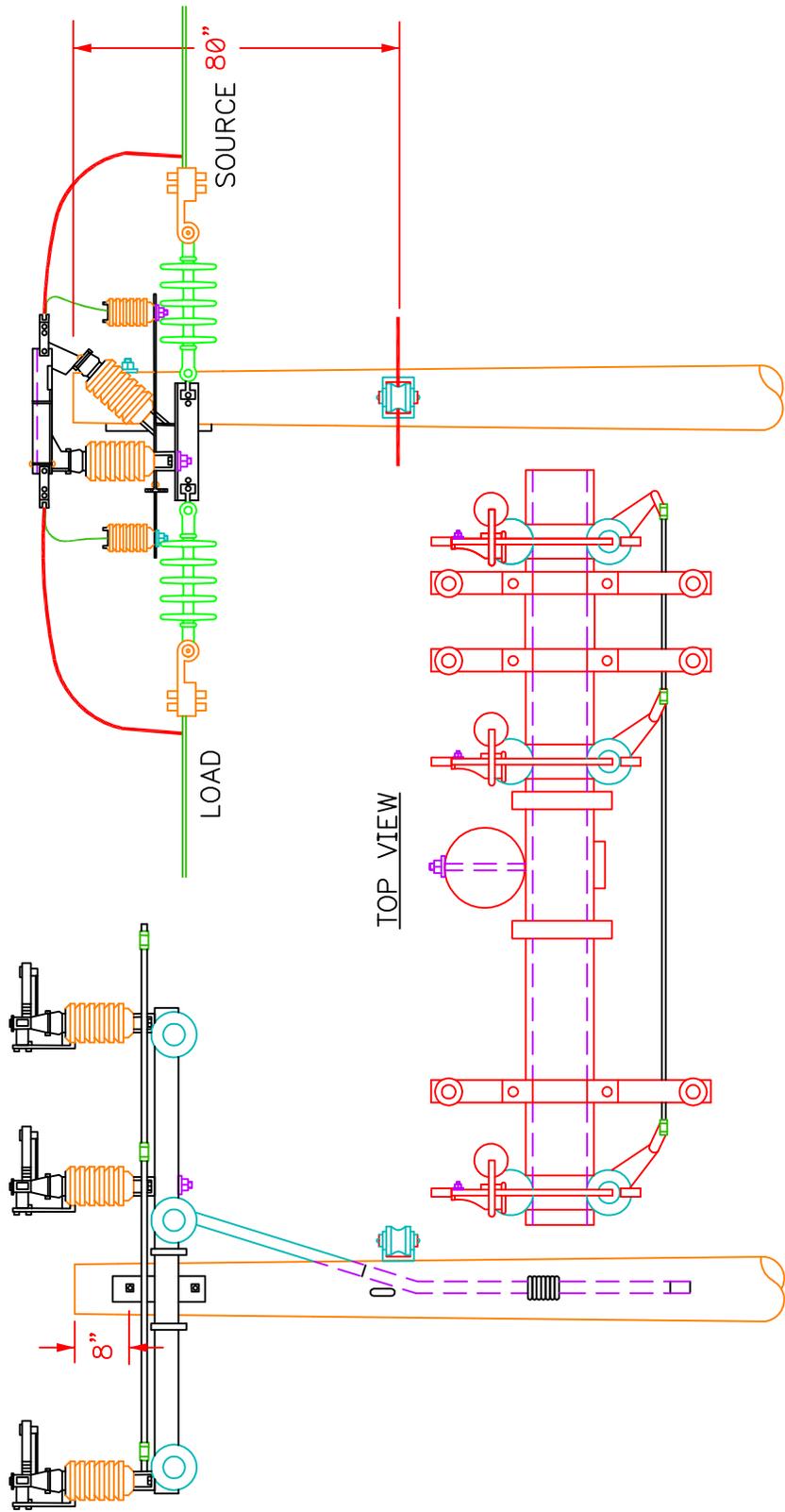
M3-15 ALTERNATE
HORIZONTAL DOUBLE DEADEND



DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

M3-15 ALTERNATE



SIDE VIEW

TOP VIEW

FRONT VIEW

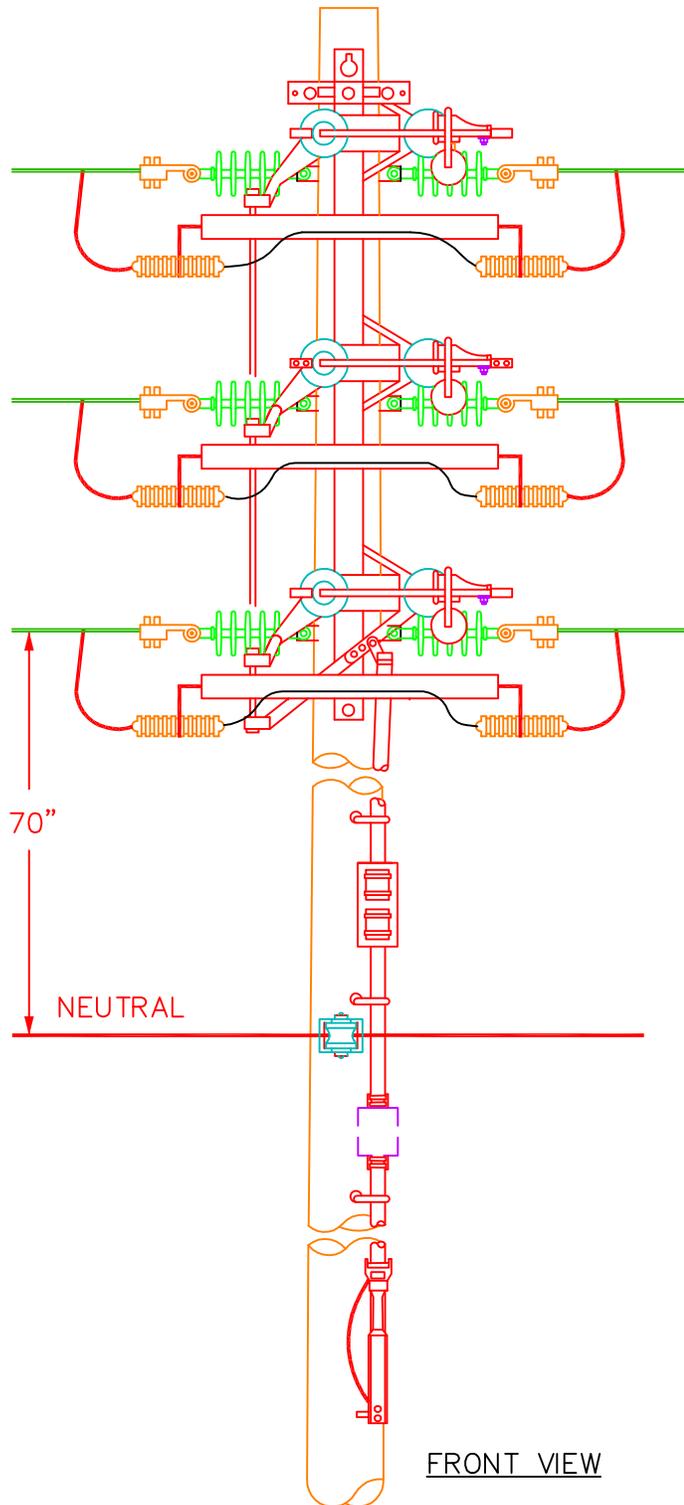
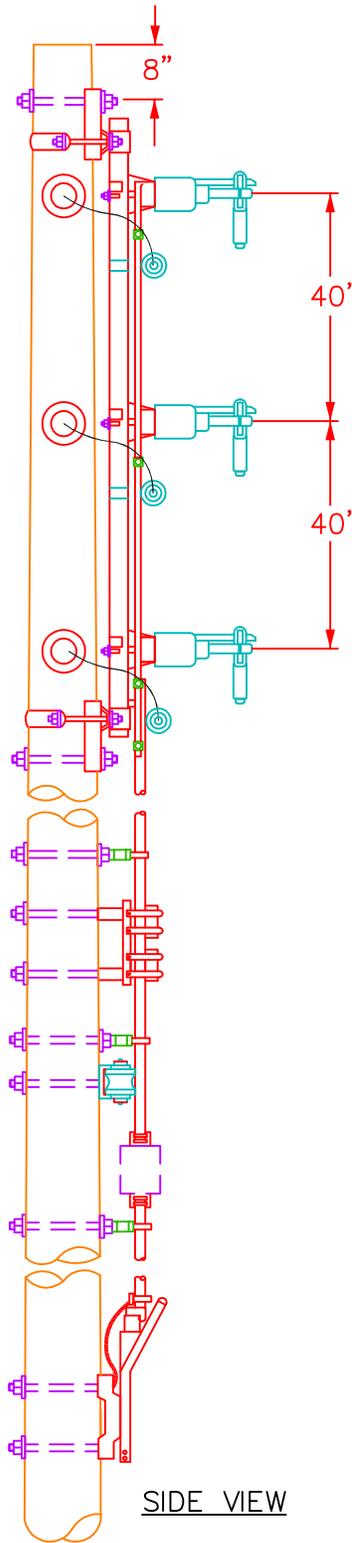
GANG OPERATED HORIZONTAL SWITCH



DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

M3-15



GANG OPERATED VERTICAL SWITCH

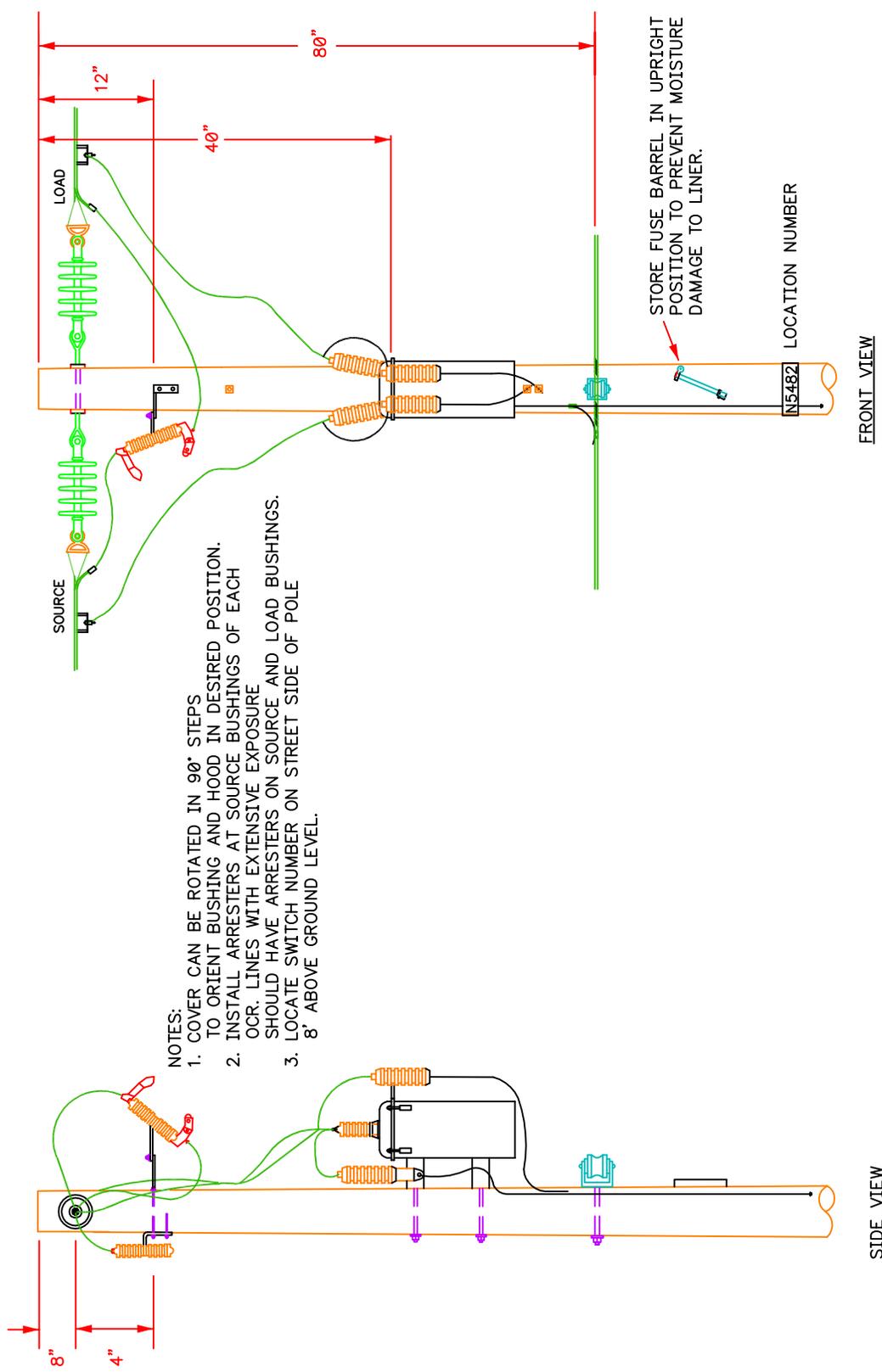


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

JANUARY, 2007

M3-15V



- NOTES:
1. COVER CAN BE ROTATED IN 90° STEPS TO ORIENT BUSHING AND HOOD IN DESIRED POSITION.
 2. INSTALL ARRESTERS AT SOURCE BUSHINGS OF EACH OCR. LINES WITH EXTENSIVE EXPOSURE SHOULD HAVE ARRESTERS ON SOURCE AND LOAD BUSHINGS.
 3. LOCATE SWITCH NUMBER ON STREET SIDE OF POLE 8' ABOVE GROUND LEVEL.

STORE FUSE BARREL IN UPRIGHT POSITION TO PREVENT MOISTURE DAMAGE TO LINER.

LOCATION NUMBER

FRONT VIEW

SIDE VIEW

SINGLE PHASE INSTALLATION

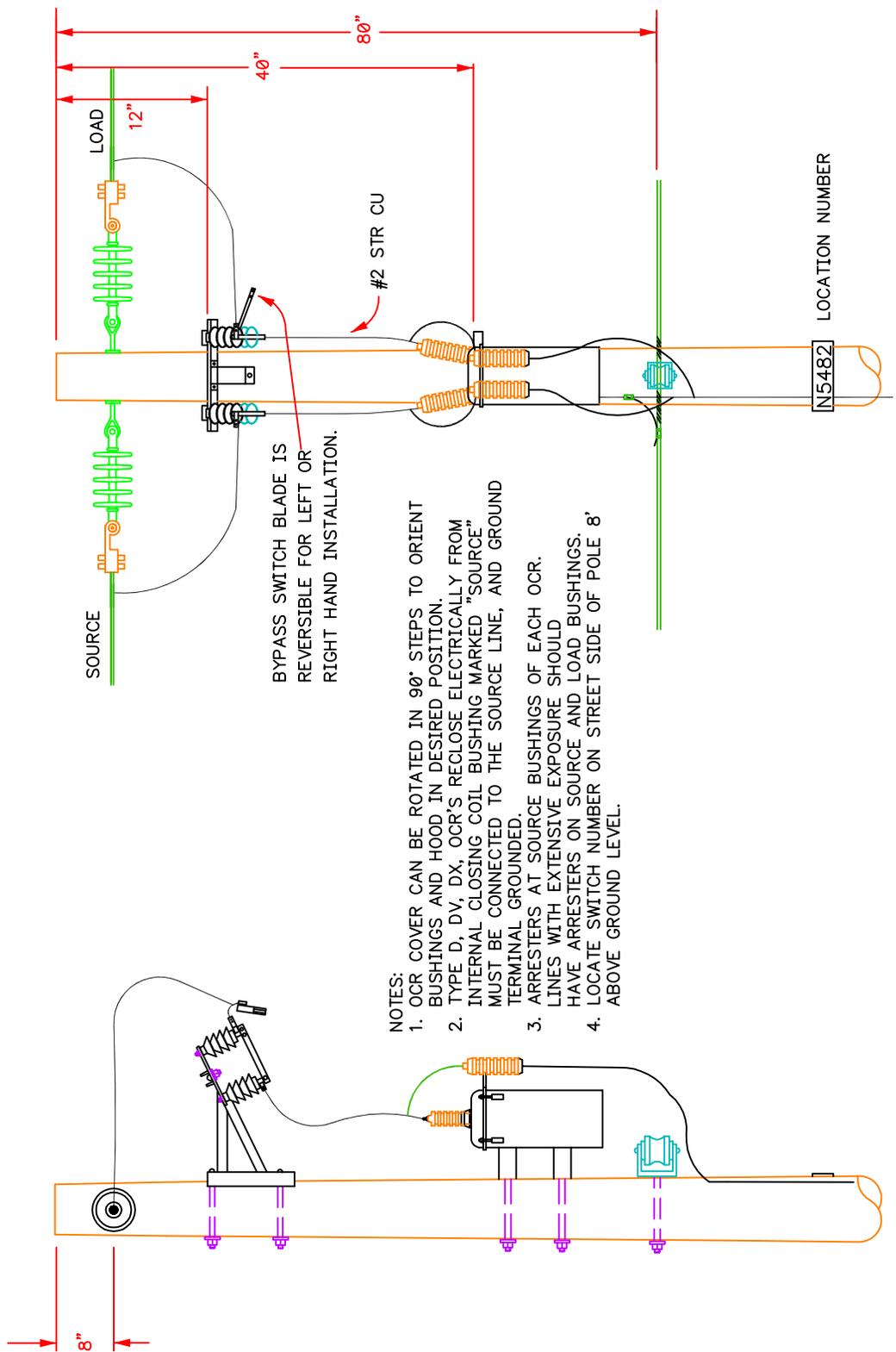
OIL CIRCUIT RECLOSER LIGHT DUTY (TYPE "H")



DATE: OCTOBER, 1992

REVISIONS JULY, 2001
JANUARY, 2007

M3-23



BYPASS SWITCH BLADE IS REVERSIBLE FOR LEFT OR RIGHT HAND INSTALLATION.

- NOTES:
1. OCR COVER CAN BE ROTATED IN 90° STEPS TO ORIENT BUSHINGS AND HOOD IN DESIRED POSITION.
 2. TYPE D, DV, DX, OCR'S RECLOSE ELECTRICALLY FROM INTERNAL CLOSING COIL BUSHING MARKED "SOURCE" MUST BE CONNECTED TO THE SOURCE LINE, AND GROUND TERMINAL GROUNDED.
 3. ARRESTERS AT SOURCE BUSHINGS OF EACH OCR. LINES WITH EXTENSIVE EXPOSURE SHOULD HAVE ARRESTERS ON SOURCE AND LOAD BUSHINGS.
 4. LOCATE SWITCH NUMBER ON STREET SIDE OF POLE 8' ABOVE GROUND LEVEL.

FRONT VIEW

SINGLE PHASE INSTALLATION

SIDE VIEW

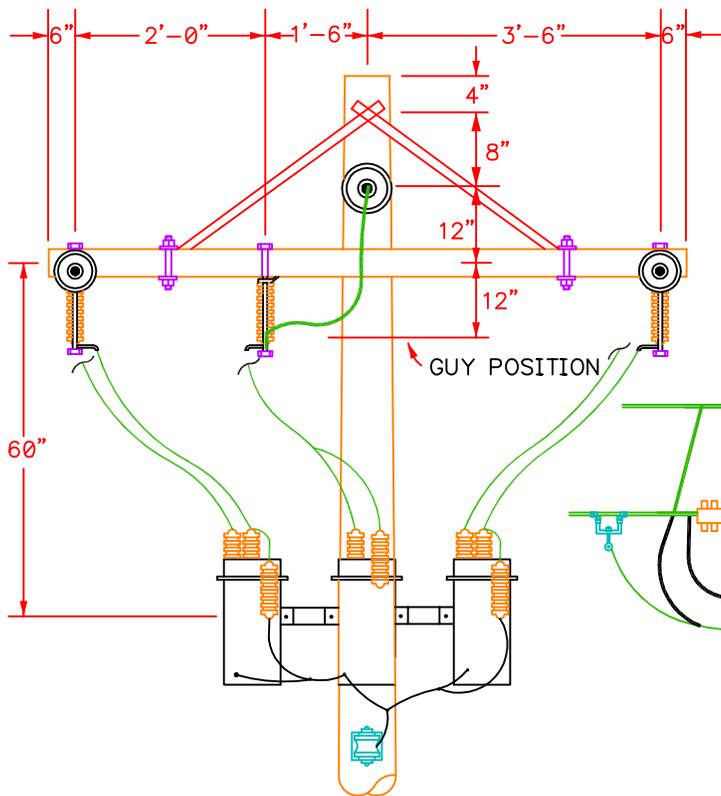
OIL CIRCUIT RECLOSER HEAVY DUTY



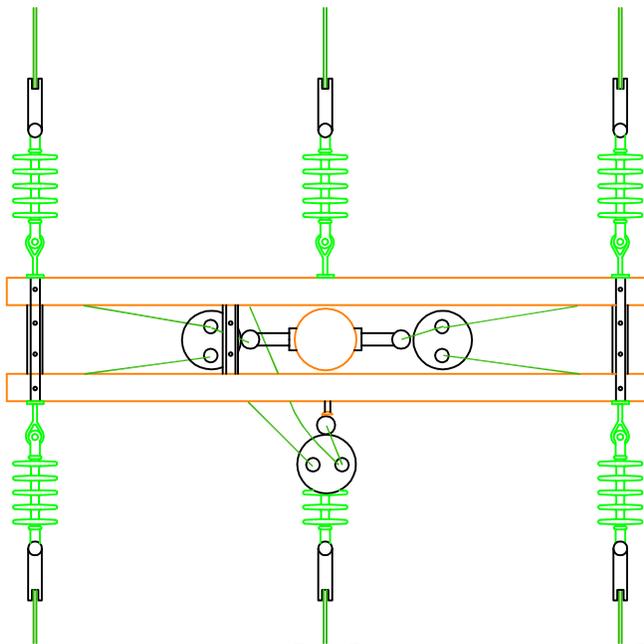
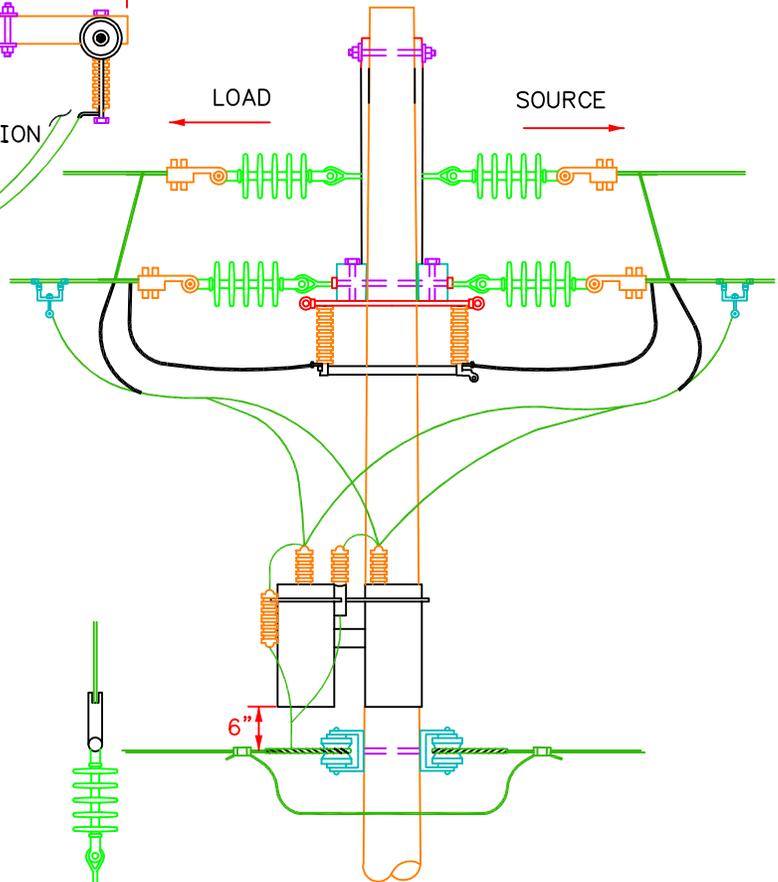
DATE: OCTOBER, 1992

REVISIONS JULY, 2001
JANUARY, 2007

M3-23A



BYPASS SWITCH BLADES ARE REVERSIBLE FOR RIGHT/LEFT HANDED INSTALLATION.



NOTE:
 FOR TWO PHASE INSTALLATIONS OMIT RECLOSER AND RELATED ITEMS ON CENTER PHASE. DESIGNATE AS M3-24A
 COVER CAN BE ROTATED IN 90° STEPS TO ORIENT BUSHING AND HOOD IN DESIRED POSITION.

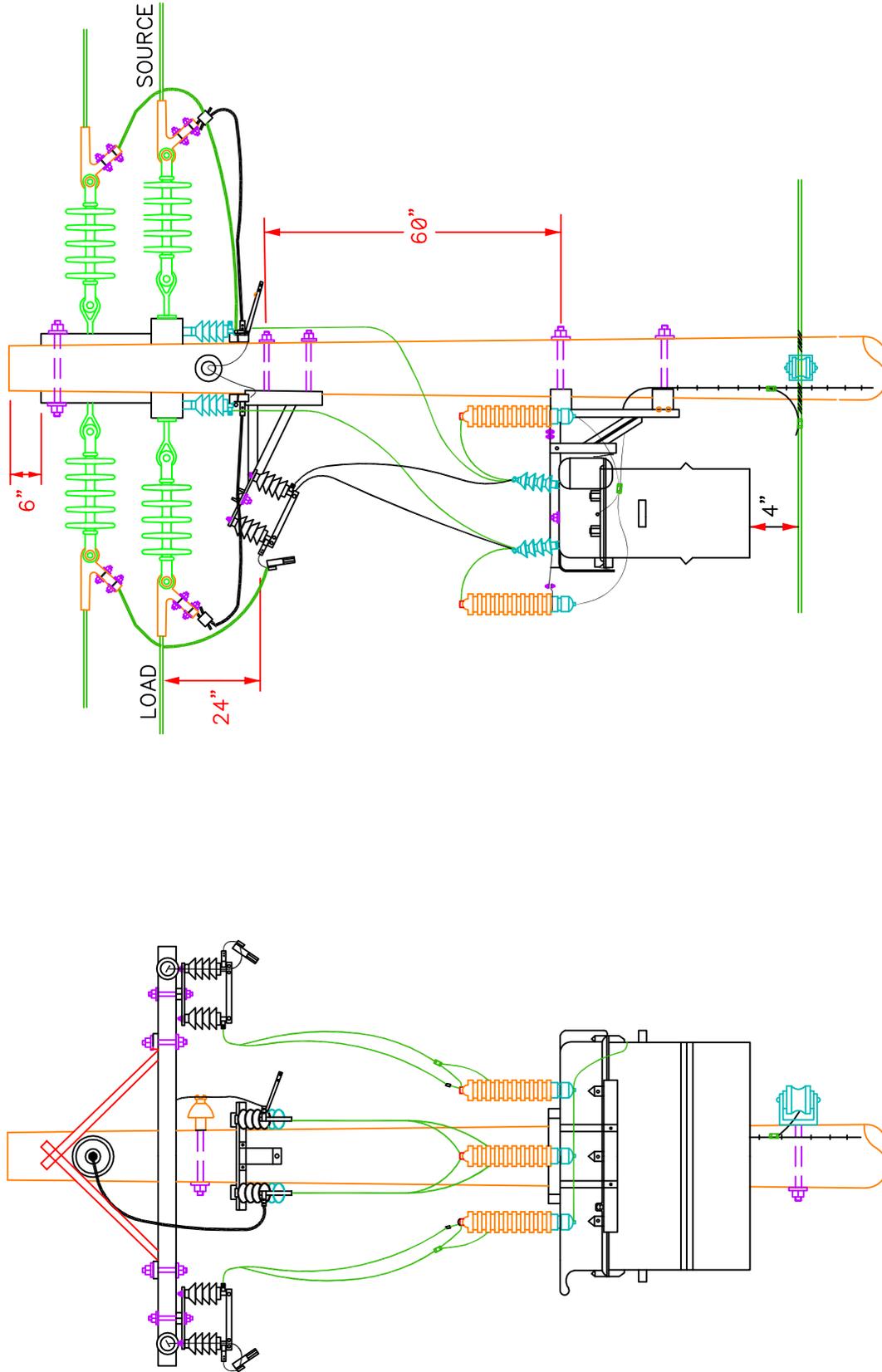
TWO OR THREE SECTIONALIZING OIL CIRCUIT RECLOSERS WITH BY-PASS SWITCHES



DATE: OCTOBER, 1992

REVISIONS JULY, 2001
JANUARY, 2007

M3-24A, M3-25A



SIDE VIEW

FRONT VIEW

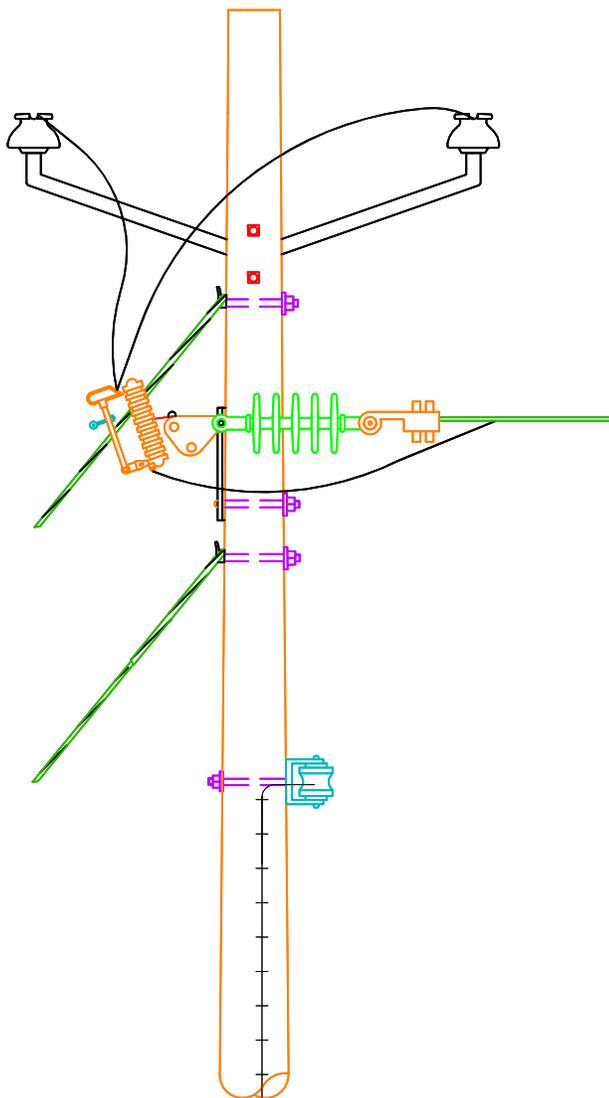
OIL CIRCUIT RECLOSER, THREE PHASE WITH BY-PASS SWITCHES



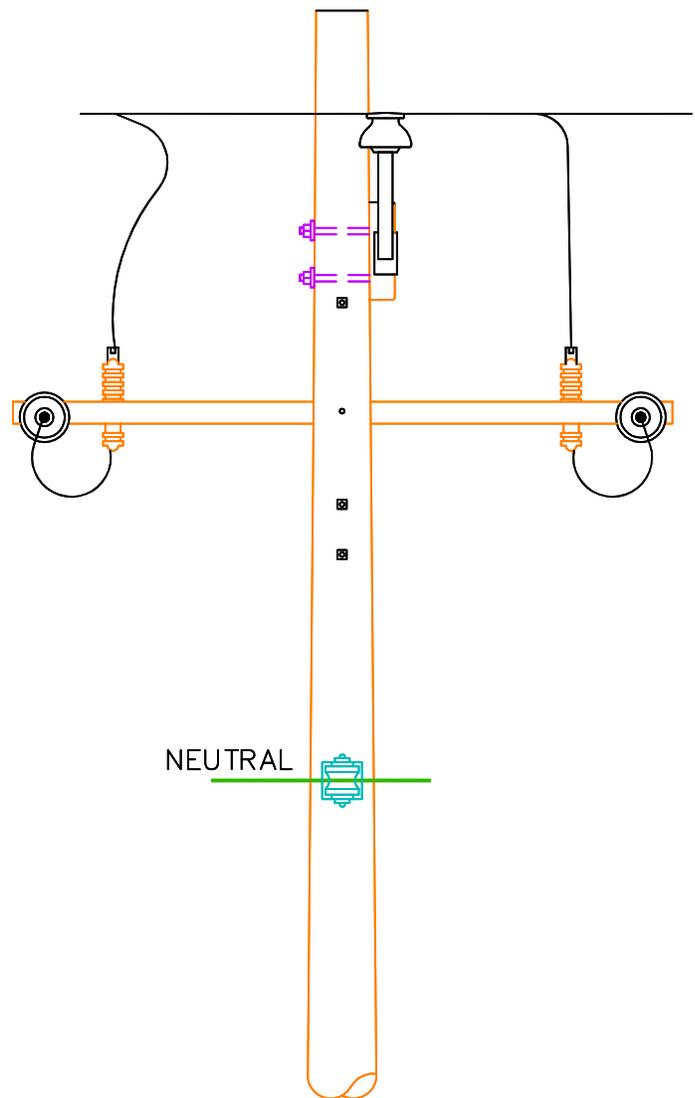
DATE: OCTOBER, 1992

REVISIONS JULY, 2001
JANUARY, 2007

M3-30



FRONT VIEW



SIDE VIEW

NOTES:

- 1.) MOUNT CUTOUTS ON PULLOFF ARM.
- 2.) PULLOFF ARM SHOULD BE 78" MINIMUM.
- 3.) TRANSFORMER AND U.D. TERMINATIONS SHOULD NOT BE INSTALLED ON THE POLES.

SECTIONALIZING - TWO PHASE FUSE
PRIMARY LINE PULL OFF

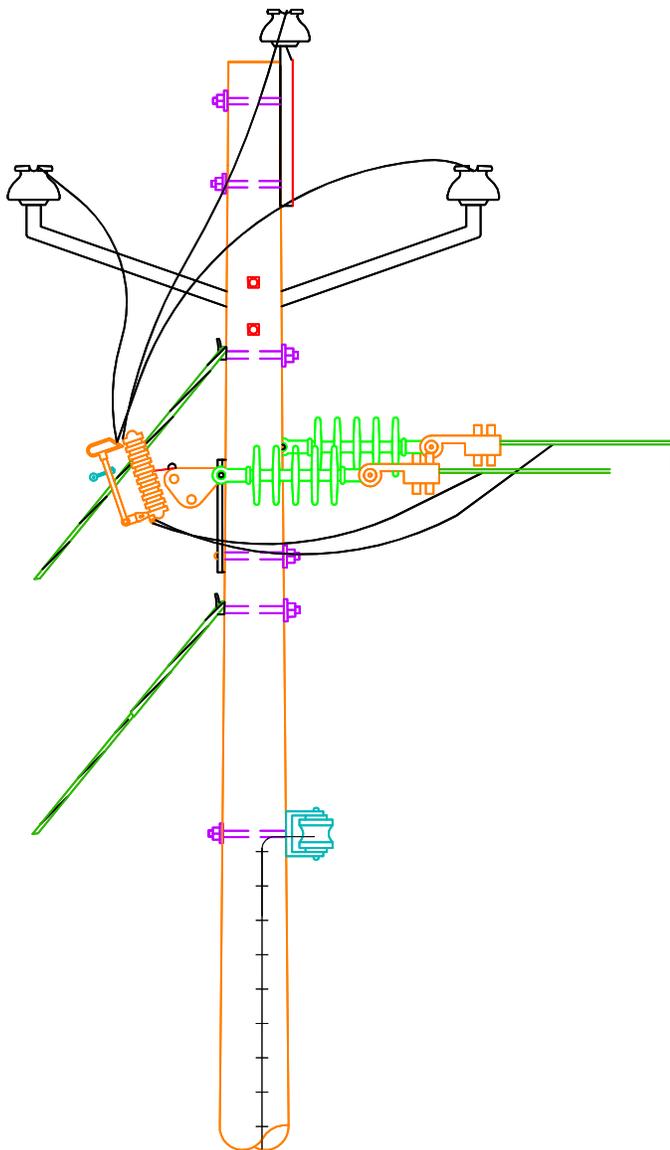


DATE: OCTOBER, 1992

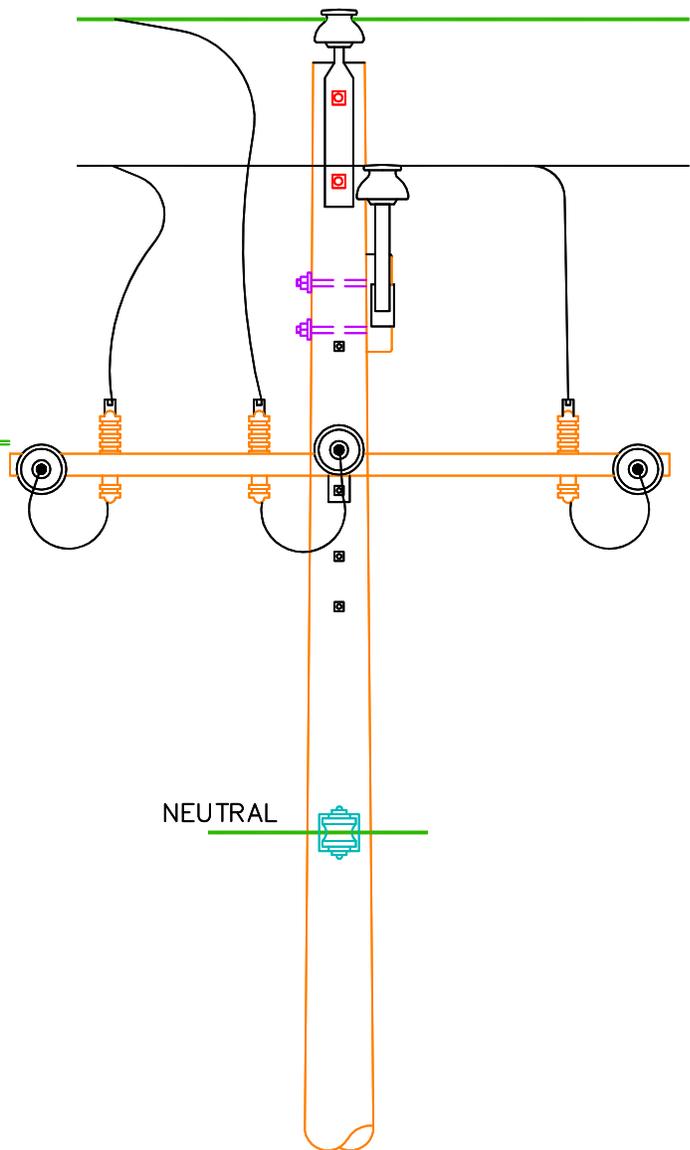
REVISIONS JULY, 2002

JANUARY, 2007

M5-10-2



FRONT VIEW



SIDE VIEW

NOTES:

- 1.) MOUNT CUTOUTS ON PULLOFF ARM.
- 2.) PULLOFF ARM SHOULD BE 78" MINIMUM.
- 3.) TRANSFORMER AND U.D. TERMINATIONS SHOULD NOT BE INSTALLED ON THE POLES.

SECTIONALIZING - FUSED, THREE PHASE
PRIMARY LINE PULL OFF

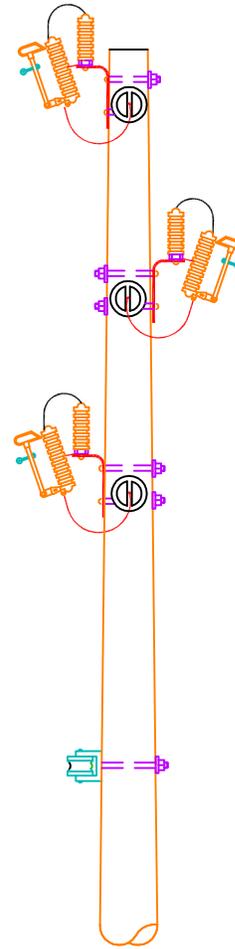
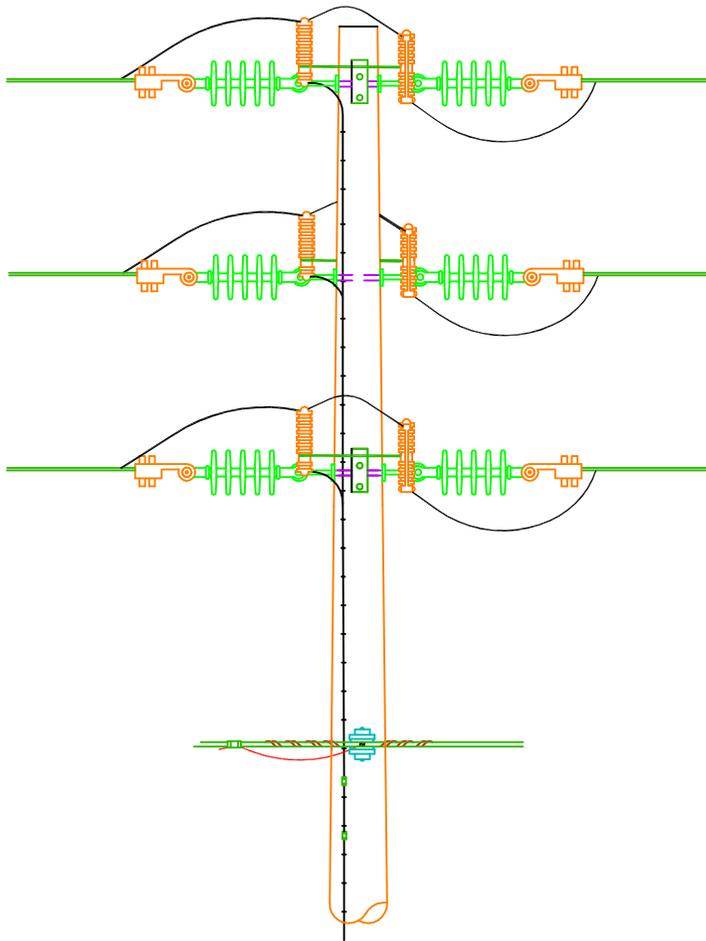


DATE: OCTOBER, 1992

REVISIONS JULY, 2001

JANUARY, 2007

M5-10-3



NOTES:

- 1.) USE INSULATORS OF APPROPRIATE CLASS FOR THE REQUIRED VOLTAGE.
- 2.) THE DRAWING SHOWS PROVISIONS FOR INSTALLING ARRESTERS.
- 3.) TRANSFORMER AND UD TERMINATIONS SHOULD NOT BE INSTALLED ON THESE POLES.
- 4.) IF ARRESTERS ARE NOT USED, THE CENTER T BRACKET CAN BE ROTATED TO THE SAME SIDE OF THE POLE AS OTHER BRACKETS. IN THIS POSITION, THE CUTOUTS MUST BE STAGGERED TO PREVENT CUTOUTS FROM DISCHARGING ON EACH OTHER.

SECTIONALIZING - FUSED, THREE PHASE VERTICAL PRIMARY

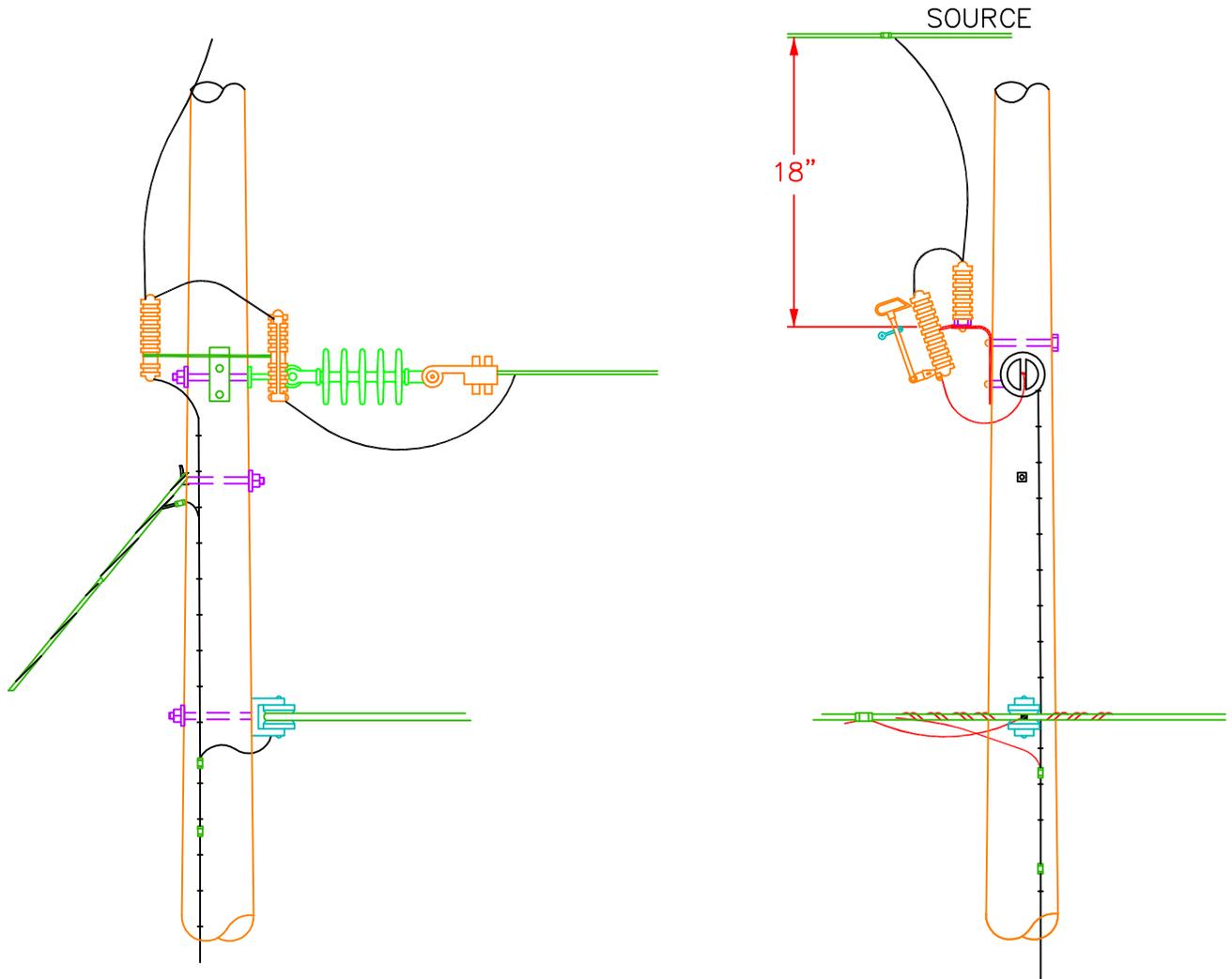


DATE: OCTOBER, 1992

REVISIONS JULY, 2001

JANUARY, 2007

M5-10-3V



NOTE:
 IF PRIMARY IS ON WOOD ARM MOUNT CUTOUT ON WOOD ARM. COMMON 100 A CUTOUT.

SECTIONALIZING-FUSED, SINGLE PHASE PRIMARY LINE PULL OFF



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

JANUARY, 2007

M5-10

WIRE CHARACTERISTICS FOR COPPER, ACSR AND AAC CONDUCTOR

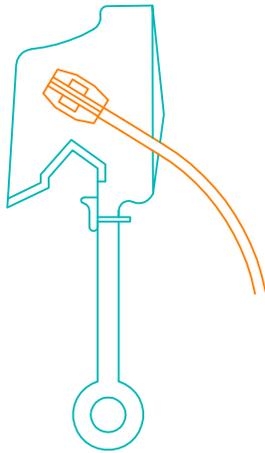
	AMPS	TENSILE STRENGTH	WEIGHT PER 1000 FT.	NO STRANDS	CIRCULAR MILS
COPPER (BARE)					
500 MCM HD	810	22,510	1,544	37	500,000
350 MCM HD	650	15,590	1,081	19	350,000
4/0	480	9,154	653	7	211,600
1/0	310	4,750	325	7	105,500
#2	230	3,050	205	7	66,370
#4 SOLID	170	1,938	126	1	41,740
#6 SOLID	120	1,280	79	1	26,250
ACSR					
795 COOT	884	19,710	884	36	795,000
397.5 MCM	576	9,940	432	18	397,500
336.4 MCM	519	8,680	365	18	336,400
4/0	357	8,350	291	6	211,600
3/0	315	6,620	230	6	167,800
2/0	276	5,310	183	6	133,100
1/0	242	4,380	146	6	105,500
#2	184	2,850	91	6	66,370
#4	140	1,860	58	6	41,740
AAC					
795 MCM LILAC	879	14,300	746	61	795,000
750 MCM CATTAIL	847	13,500	847	61	750,000
500 MCM ZINNA	658	8,760	469	19	500,000



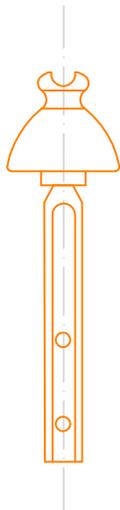
DATE: JANUARY, 2007

REVISIONS _____

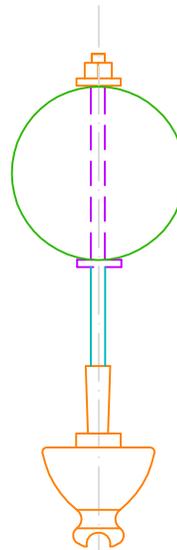
M5,1



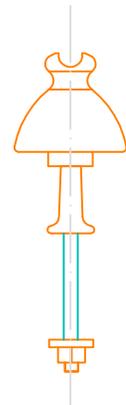
M5-1



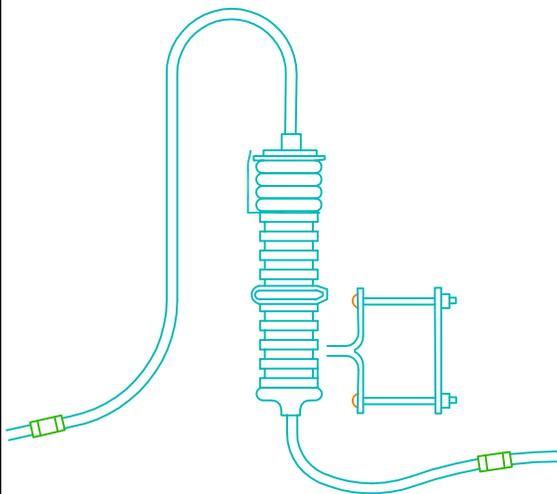
M5-2



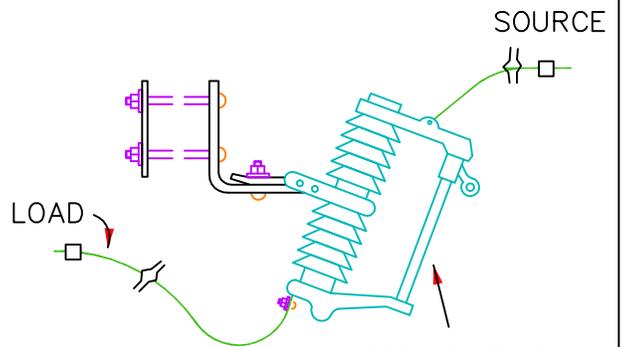
M5-4



M5-5



M5-6



SOURCE
LOAD
SPECIFY THIS UNIT TO BE FURNISHED WITH SOLID BLADE. FOR SPEC. M5-9A

M5-9



M5-7

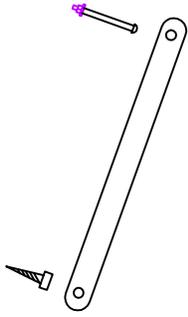
MISCELLANEOUS PRIMARY ASSMBLIES



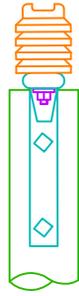
DATE: JANUARY, 2007

REVISIONS _____

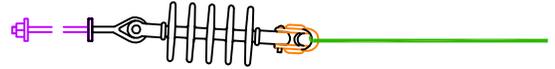
M5,2



M5-11



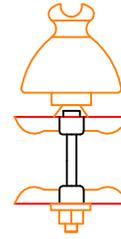
M5-18



M5-20



M5-23



M5-24

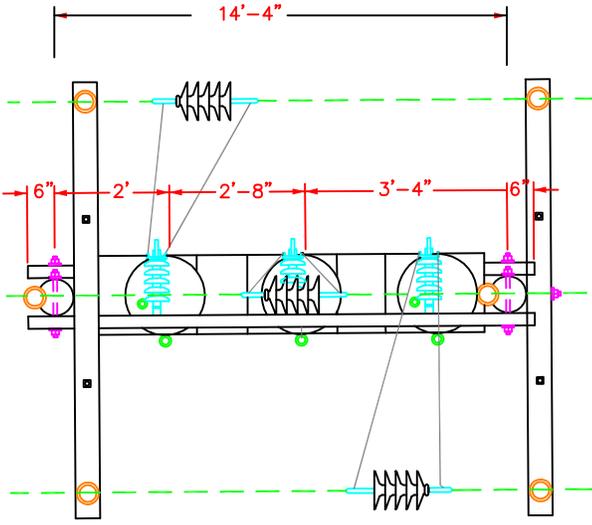
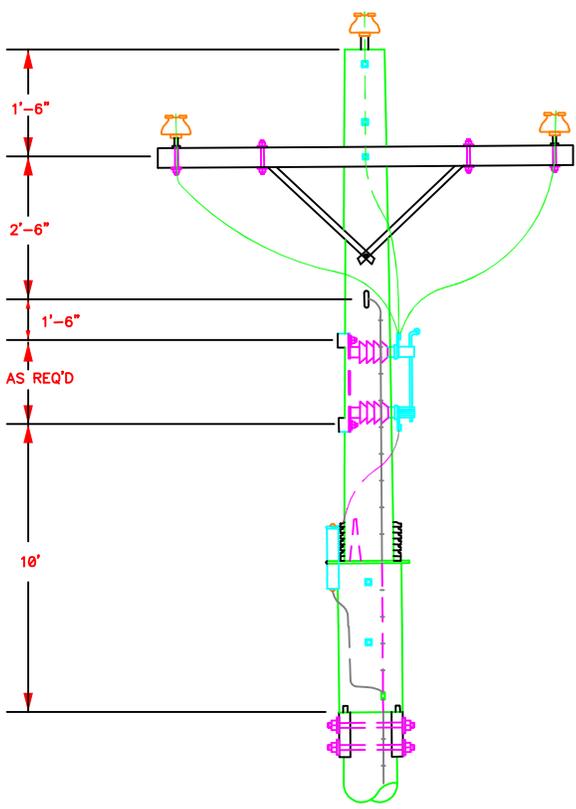
MISCELLANEOUS PRIMARY
ASSMBLIES



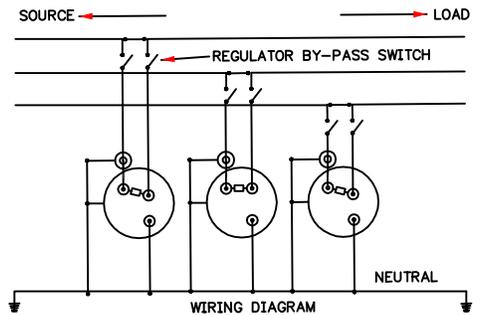
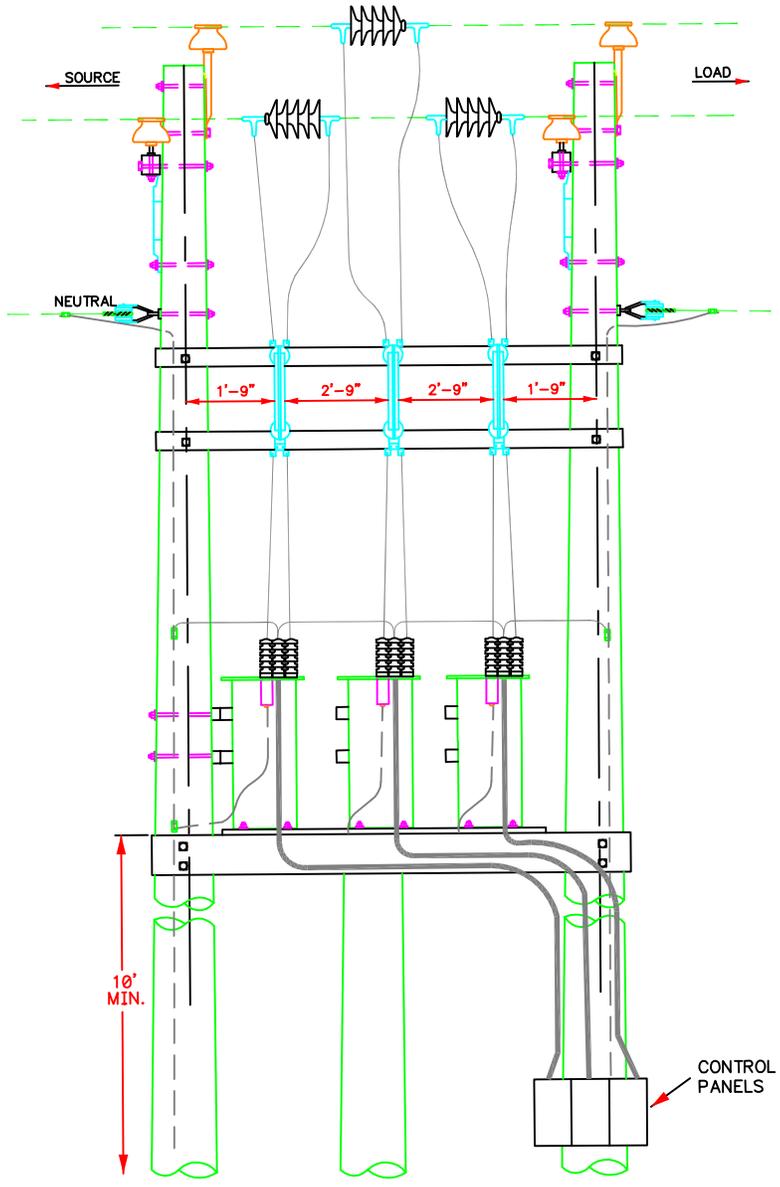
DATE: JANUARY, 2007

REVISIONS _____

M5,3



PLAN



WIRING DIAGRAM

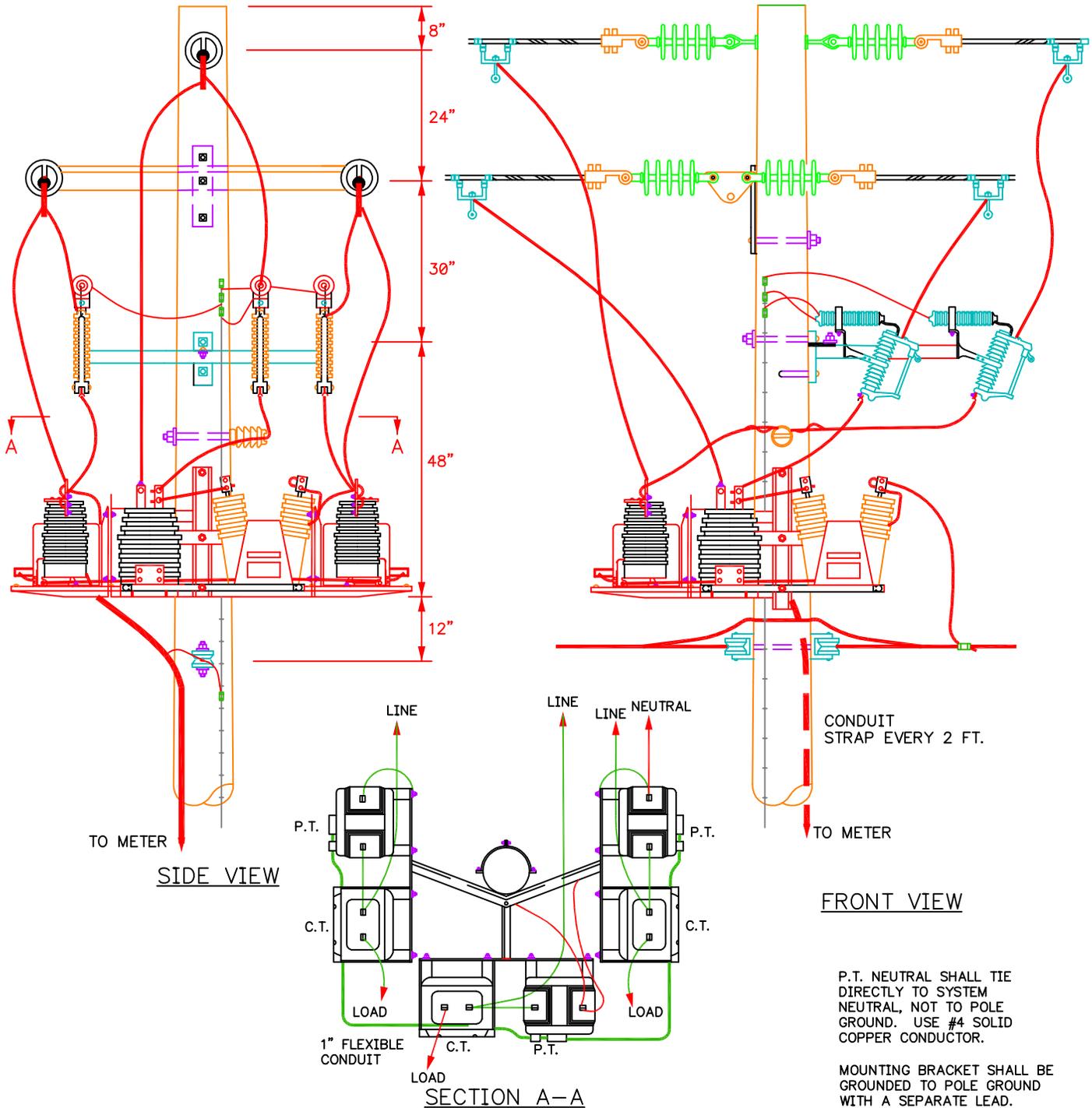
THREE VOLTAGE REGULATORS PLATFORM MOUNTED



DATE: JANUARY, 2007

REVISIONS _____

M7-13



CONDUIT STRAP EVERY 2 FT.

FRONT VIEW

P.T. NEUTRAL SHALL TIE DIRECTLY TO SYSTEM NEUTRAL, NOT TO POLE GROUND. USE #4 SOLID COPPER CONDUCTOR.

MOUNTING BRACKET SHALL BE GROUNDED TO POLE GROUND WITH A SEPARATE LEAD.

CONNECT P.T. PRIMARY NEUTRAL DIRECTLY TO SYSTEM NEUTRAL, NOT TO POLE GROUND.

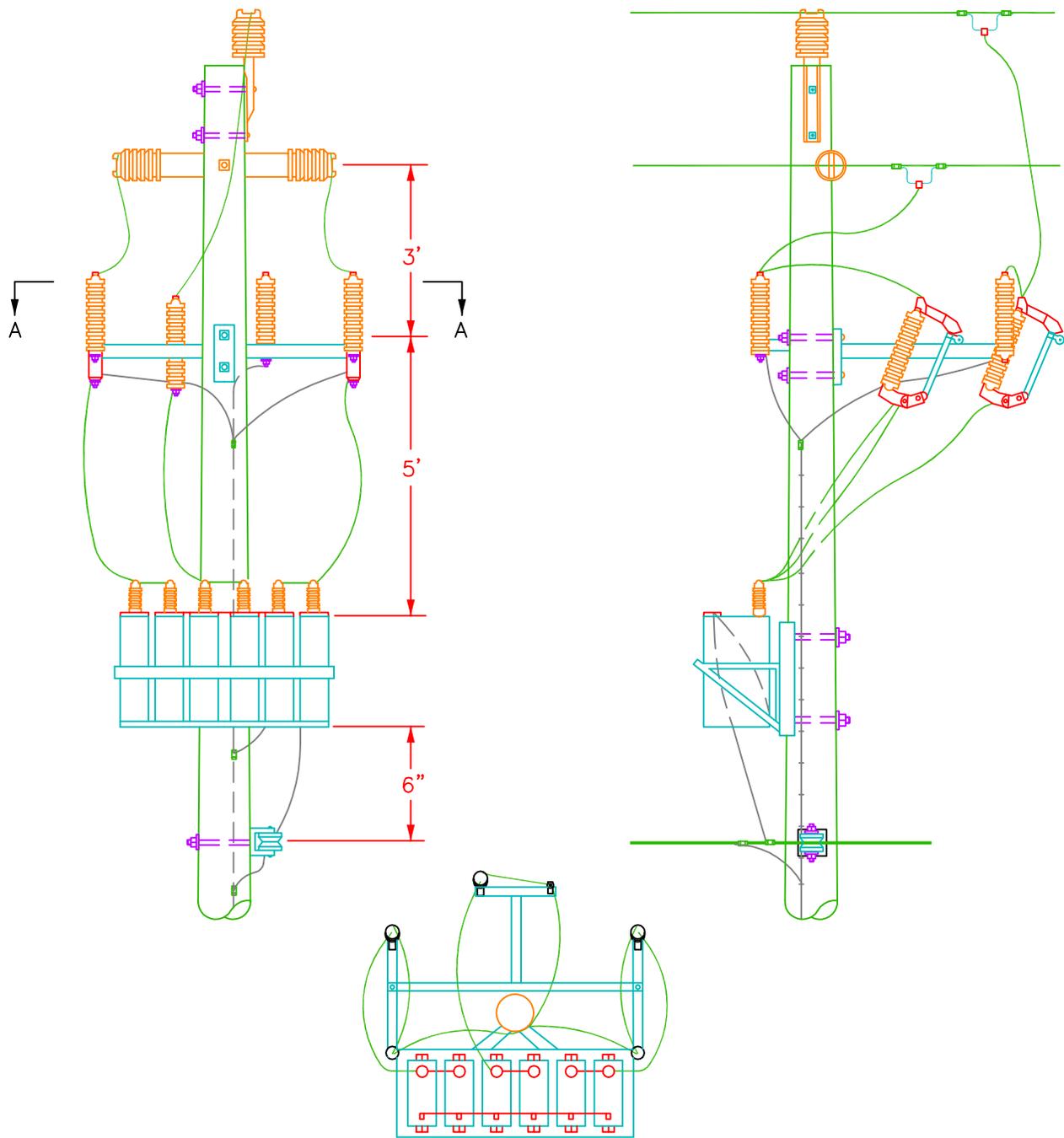
OVERHEAD TO OVERHEAD THREE PHASE PRIMARY METERING



DATE: JANUARY, 2007

REVISIONS	_____
_____	_____
_____	_____

M8-22-30



SECTION
A-A

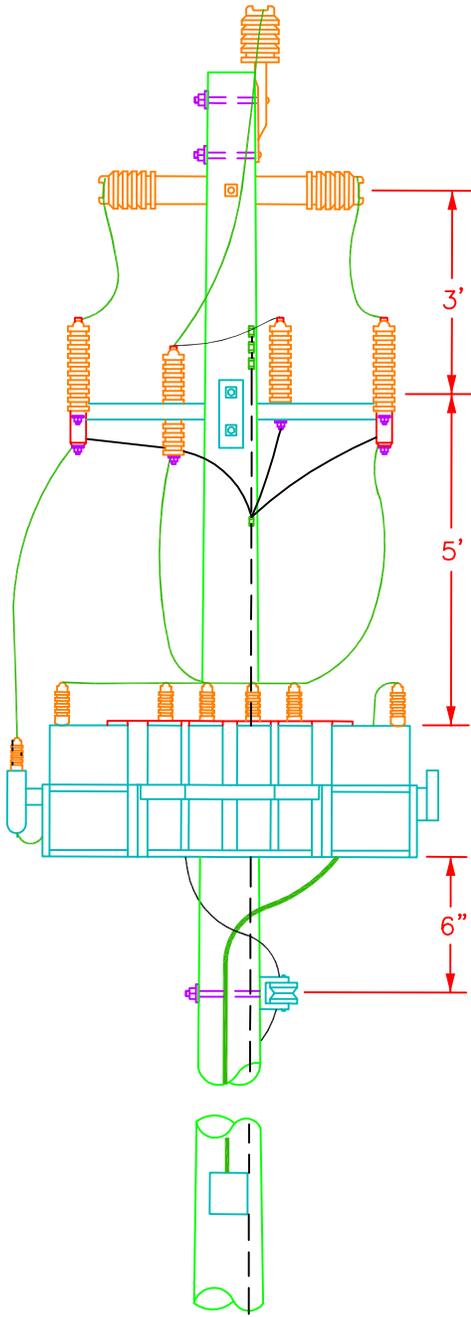
POLE MOUNTED FIXED SHUNT CAPACITOR INSTALLATION



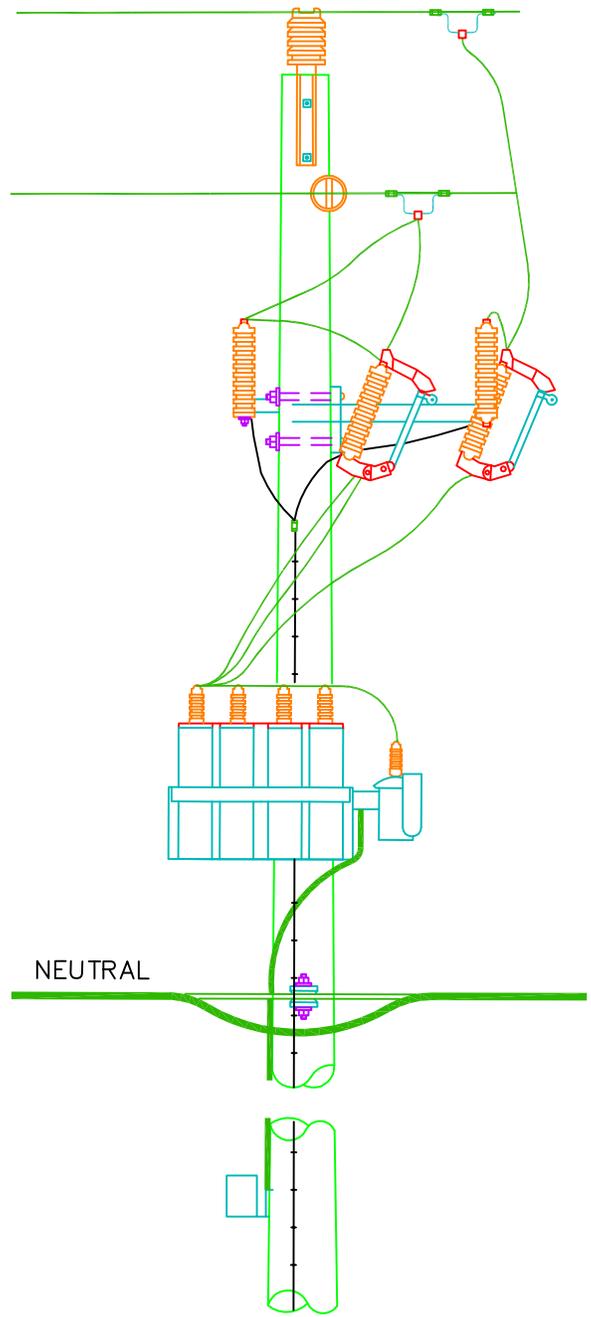
DATE: OCTOBER, 1992

REVISIONS JANUARY, 2007

M9-13-M2



FRONT VIEW



SIDE VIEW

POLE MOUNTED SWITCH SHUNT CAPACITOR INSTALLATION



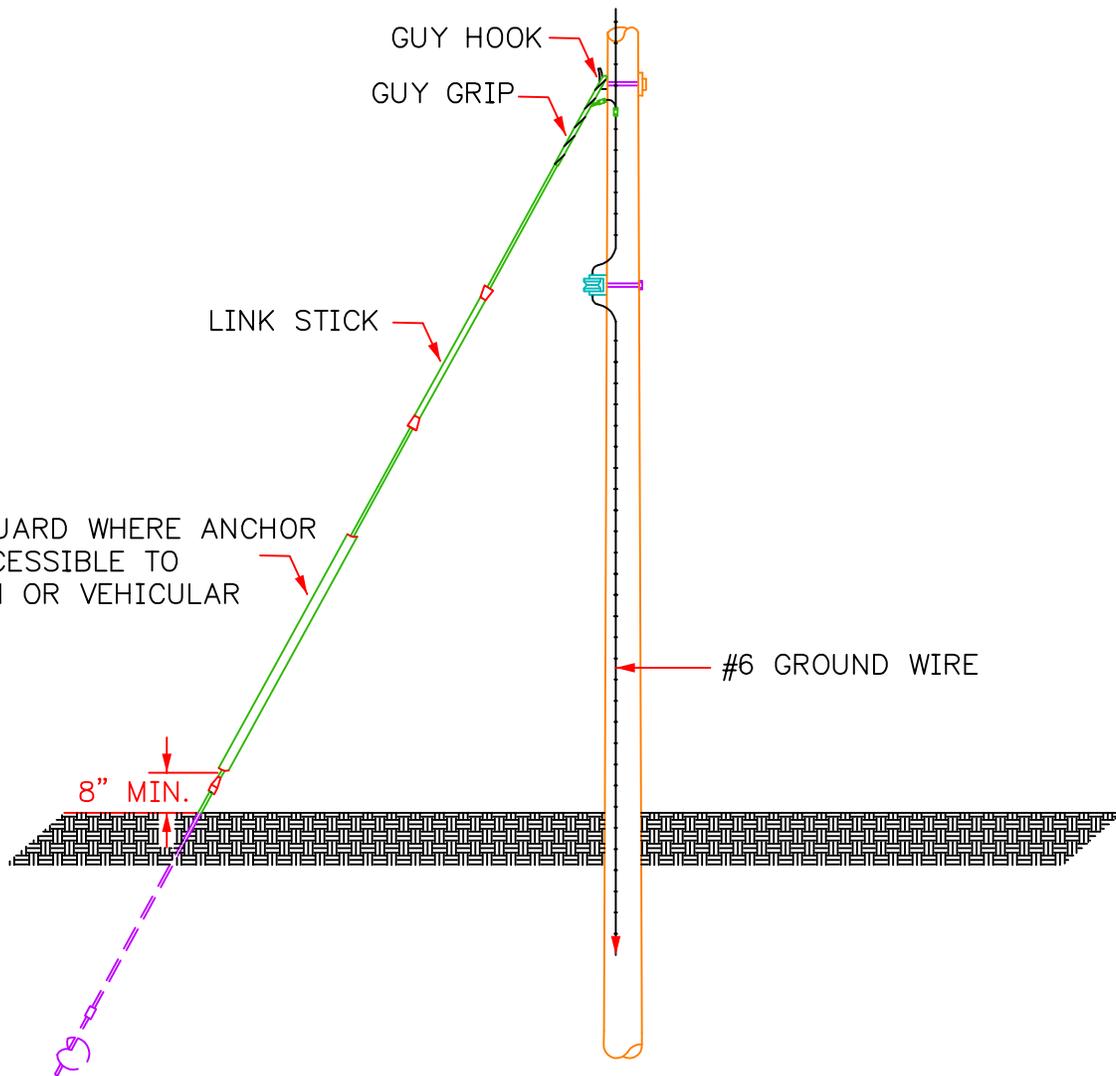
DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

M9-13S

GUYING

ELECTRIC CITIES



ANCHOR GUY DETAIL

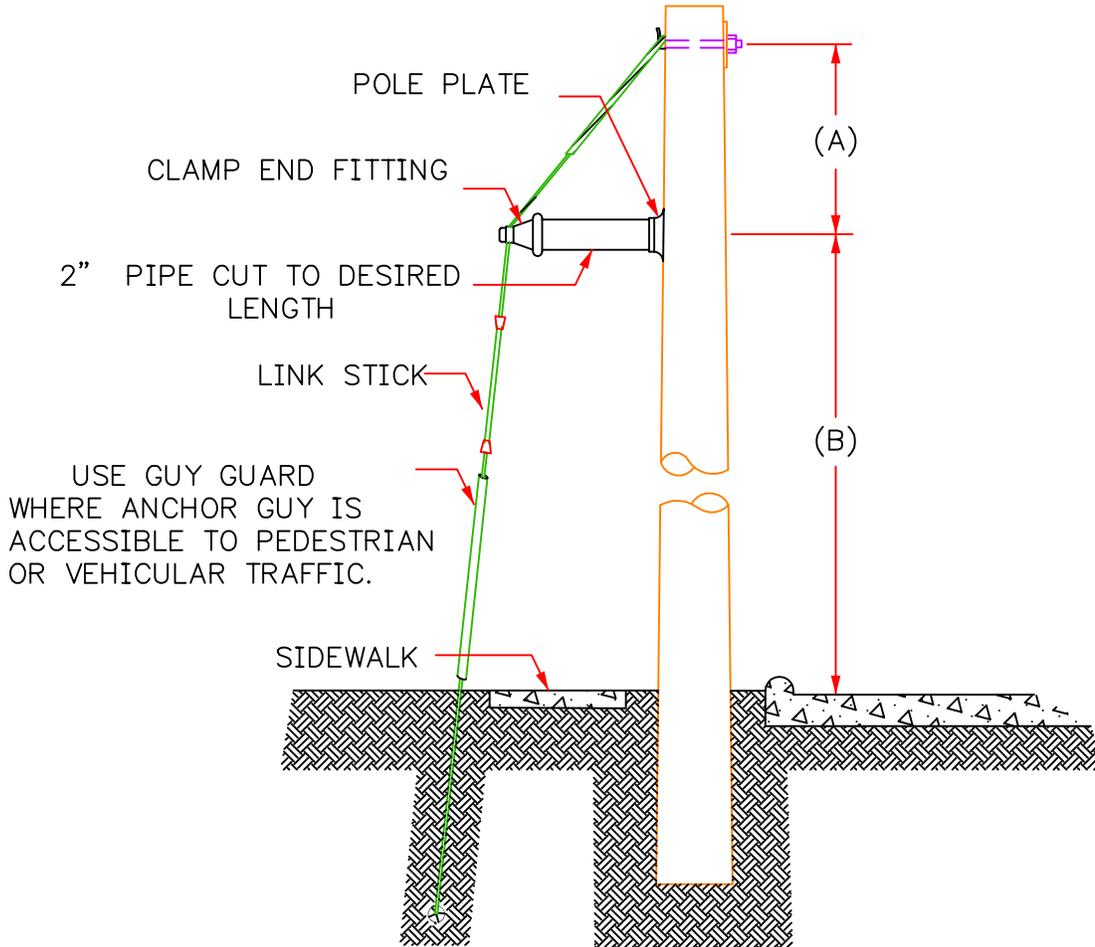


DATE: OCTOBER, 1992

REVISIONS JULY, 2002

E1

NOTE:
 DIMENSION A – TO BE 1/3 OF
 THE HEIGHT OF THE ANCHOR
 ATTACHMENT ABOVE THE
 GROUND.
 DIMENSION B – TO BE 18' MIN.



USE GUY GUARD
 WHERE ANCHOR GUY IS
 ACCESSIBLE TO PEDESTRIAN
 OR VEHICULAR TRAFFIC.

TO BE USED ONLY WHEN VERTICAL
 CLEARANCE UNDER GUY IS NECESSARY

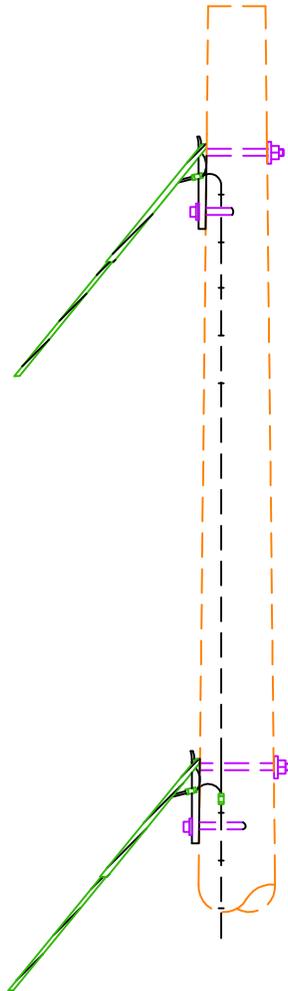
SIDEWALK GUY



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

E1-S



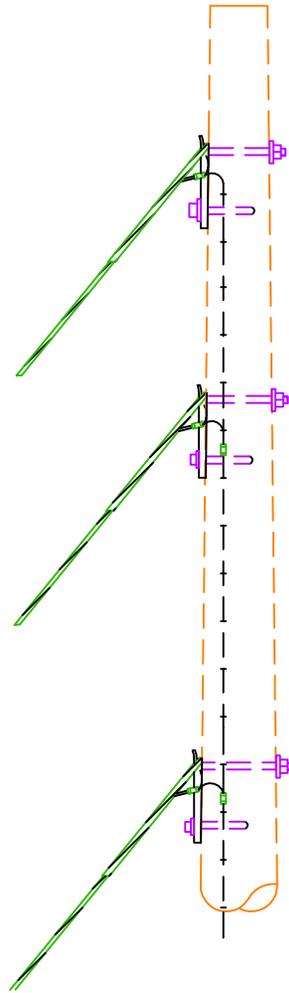
DOUBLE DOWN GUY



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

E6



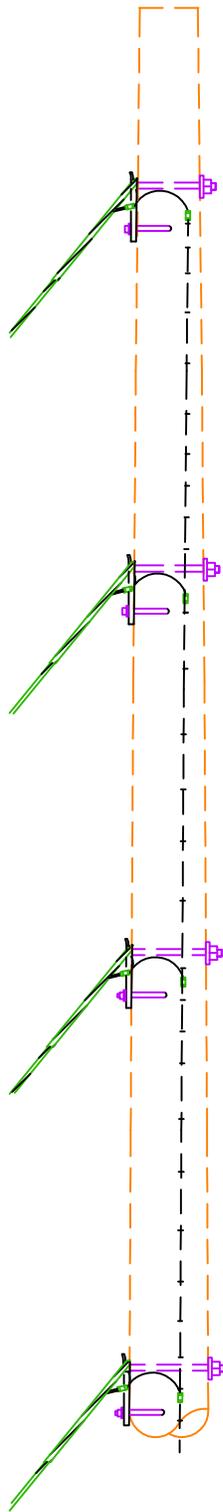
THREE DOWN GUYS



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

E7



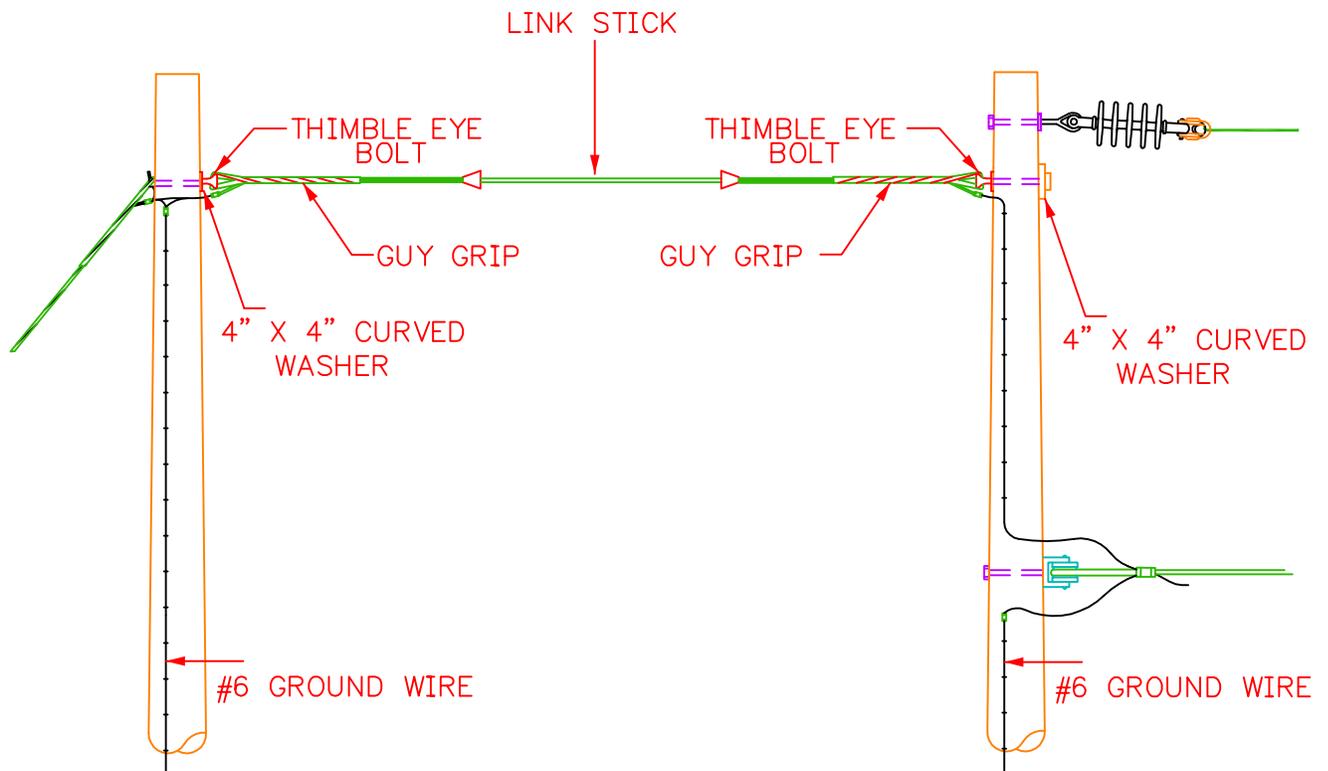
FOUR DOWN GUYS



DATE: OCTOBER, 1992

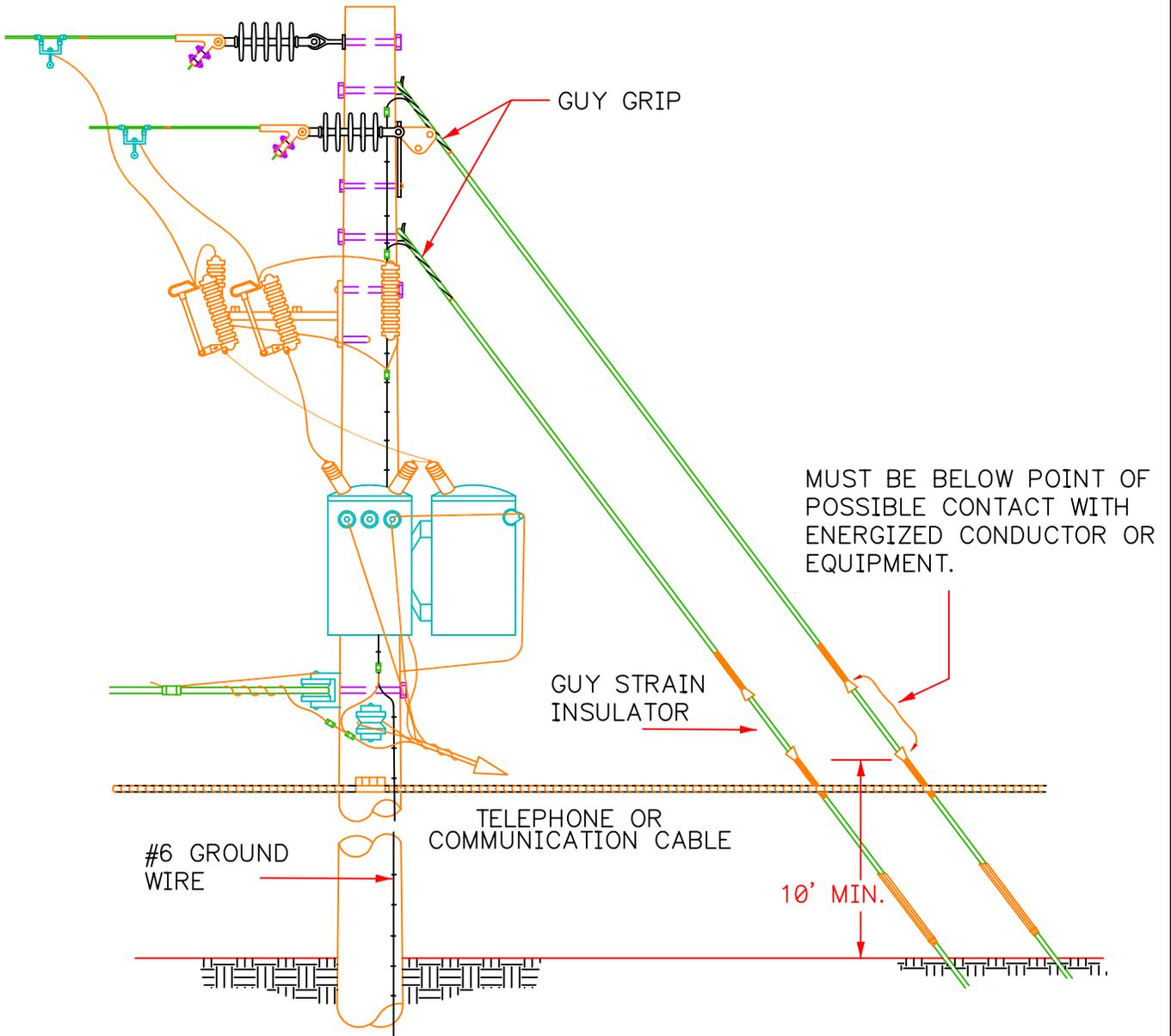
REVISIONS JULY, 2001

E8



NOTE:
 CONNECT ALL STRANDS OF GUY WIRE
 TO GROUND OR NEUTRAL.

DETAIL SPAN GUY



NOTE:
 FIBERGLASS LINK SHOULD BE INSTALLED BELOW ENERGIZED AREA,
 BUT ABOVE PEDESTRIAN REACH. (MIN. 10' ABOVE GROUND)

GUY STRAIN INSULATOR INSTALLATION

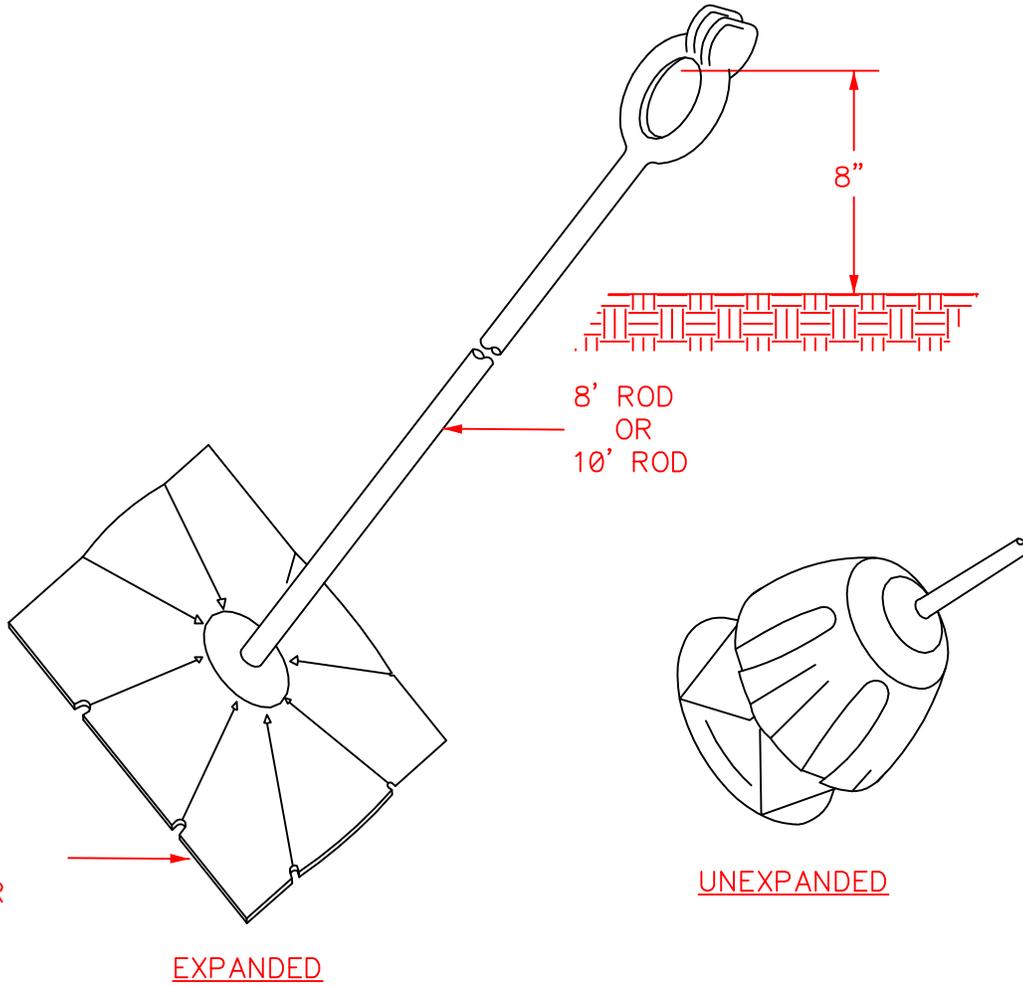


DATE: OCTOBER, 1992

REVISIONS JULY, 2002
JANUARY, 2007

E10

8" ANCHOR
OR
10" ANCHOR



INSTALLATION OF EXPANDING ANCHOR



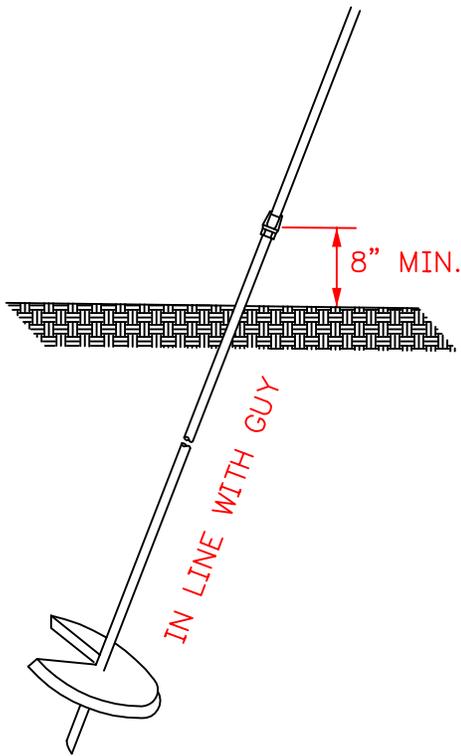
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

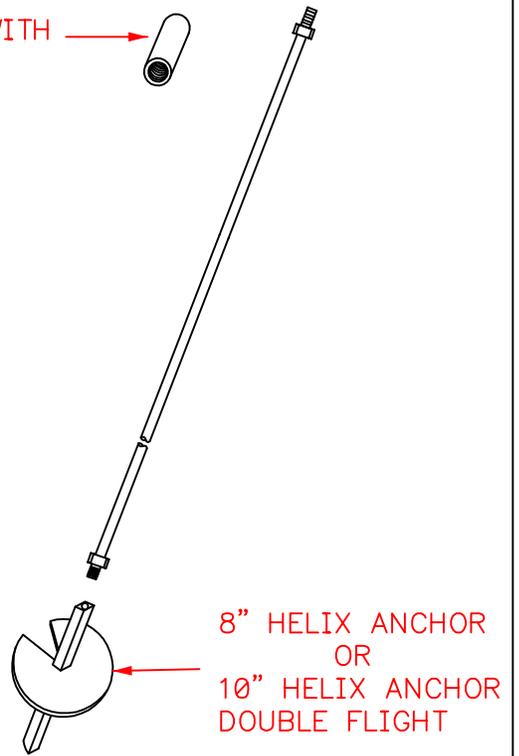
F1-E

ANCHOR ROD WITH MINIMUM TWIN EYE NUT. 

ANCHOR ROD EXTENSION WITH COUPLING. 



INSTALLATION



DETAIL

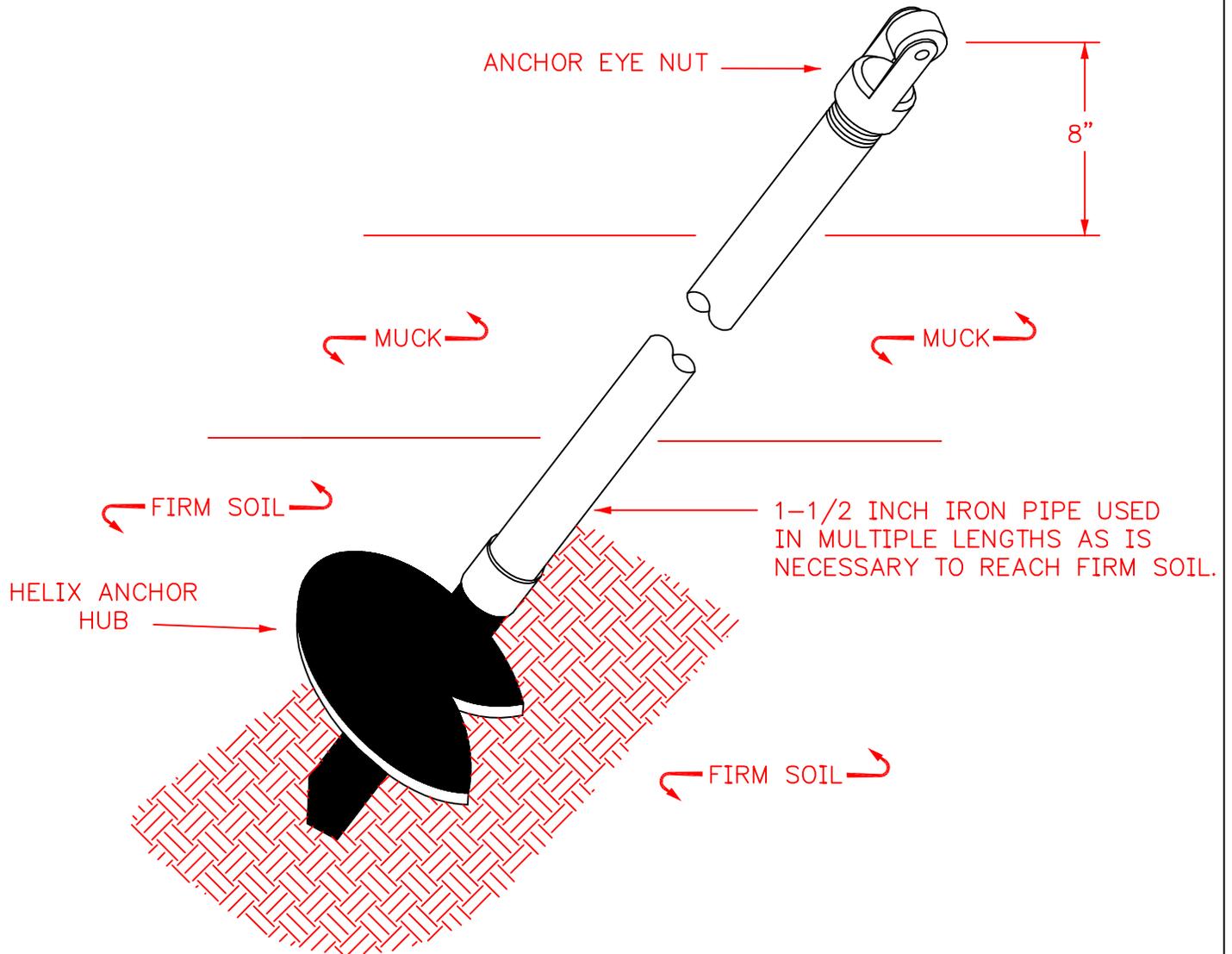
INSTALLATION OF SCREW ANCHOR



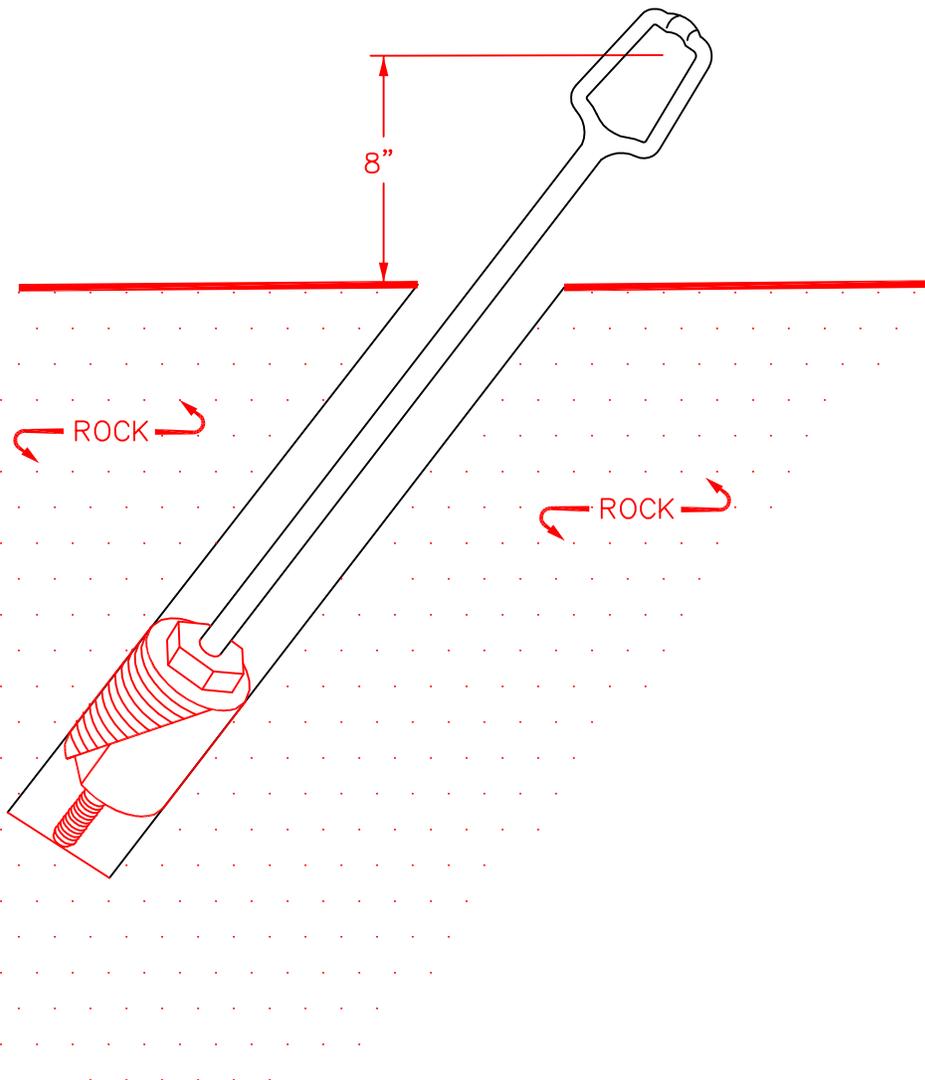
DATE: OCTOBER, 1992

REVISIONS JULY, 2002

F1-S



INSTALLATION OF SWAMP ANCHOR



INSTALLATION OF ROCK ANCHOR



DATE: OCTOBER, 1992

REVISIONS JULY, 2002

F5

TYPE ANCHORS (MATERIAL NO.)

SOIL CLASS NO.	SOIL CLASSIFICATION	8" EXPANDING	8" SCREW	11 5/16" SCREW	8" SQUARE	10" SWAMP ANCHOR	ROCK ANCHOR 3/4" DIA. ROD
CLASS 1	ROCK	23,000	23,000	23,000	23,000	*	23,000
CLASS 2	HARDPAN: VERY DENSE SAND: SANDSTONE	23,000	23,000	23,000	23,000	*	*
CLASS 3	HARDCLAY: DENSE SAND: BROKEN BED ROCK	23,000	18,000	23,000	18,000	*	*
CLASS 4	CLAPAN: MEDIUM DENSE SAND: SANDY GRAVEL	20,000	14,000	20,000	14,000	*	*
CLASS 5	VERY STIFF CLAY: MEDIUM SAND	16,000	10,000	16,000	*	*	*
CLASS 6	STIFF-VERY STIFF CLAY: MEDIUM FINE TO COARSE SAND	12,000	6,000	12,000	*	*	*
CLASS 7	LOOSE FINE SAND	10,000	6,000	10,000	*	*	*
CLASS 8	SWAMP AND MARSHES	*	*	*	*	9,000	*

* NOT PRACTICAL TO INSTALL IN THIS CLASS SOIL.
NOTE 3/4" ROD HAS AN ULTIMATE STRENGTH OF 23,000 LBS.

**ANCHORING APPLICATION
GUIDE**



DATE: OCTOBER, 1992

REVISIONS JULY, 2001

F6



Utility Committee Meeting

AGENDA

April 6, 2010

Item:

Discussion / Approval - Internet Acceptable Use Policies

Department:

Additional Information:

Financial Impact:

Budgeted Item:

Recommendation / Request:

Viewing Attachments Requires Adobe Acrobat. [Click here](#) to download.

Attachments / click to download

- [High Speed Residential Policy](#)
- [High Speed Business Service Policy](#)
- [City of Monroe Internal IT Policy](#)

THE CITY OF MONROE ACCEPTABLE USE POLICY FOR RESIDENTIAL HIGH-SPEED INTERNET SERVICES

Contents

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Why is The City of Monroe providing this Policy to me?

The City of Monroe's goal is to provide its customers with the best cable Internet service possible. In order to help accomplish this, The City of Monroe has adopted this Acceptable Use Policy (the "Policy"). This Policy outlines acceptable use of The City of Monroe High-Speed Internet service (the "Service").

What obligations do I have under this Policy?

All The City of Monroe High-Speed Internet customers and all others who use the Service (the "customer," "user," "you," or "your") must comply with this Policy. Your failure to comply with this Policy could result in the suspension or termination of your Service account. If you do not agree to comply with this Policy, you must immediately stop all use of the Service and notify The City of Monroe so that it can close your account.

How will I know when The City of Monroe changes this Policy and how do I report violations of it?

The City of Monroe may revise this Policy from time to time by posting a new version on the Web site at <http://www.monroega.gov> or any successor URL(s) (Web site"). The City of Monroe will use reasonable efforts to make customers aware of any changes to this Policy, which may include sending e-mail announcements or posting information on the City's Web site. Revised versions of this Policy are effective immediately upon posting. Accordingly, customers of The City of Monroe High-Speed Internet Service should read any City of Monroe emails they receive and regularly visit [monroega.gov](http://www.monroega.gov) and review this Policy to ensure that their activities conform to the most recent version.

I. Prohibited Uses and Activities

What uses and activities does The City of Monroe prohibit?

In general, the Policy prohibits uses and activities involving the Service that are illegal, infringe the rights of others, or interfere with or diminish the use and enjoyment of the Service by others. For example, these prohibited uses and activities include, but are not limited to, using the

Service, Customer Equipment, or The City of Monroe Equipment, either individually or in combination with one another, to:

Conduct and information restrictions

- undertake or accomplish any unlawful purpose. This includes, but is not limited to, posting, storing, transmitting or disseminating information, data or material which is libelous, obscene, unlawful, threatening or defamatory, or which infringes the intellectual property rights of any person or entity, or which in any way constitutes or encourages conduct that would constitute a criminal offense, or otherwise violate any local, state, federal, or non-U.S. law, order, or regulation;
- post, store, send, transmit, or disseminate any information or material which a reasonable person could deem to be unlawful;
- upload, post, publish, transmit, reproduce, create derivative works of, or distribute in any way information, software or other material obtained through the Service or otherwise that is protected by copyright or other proprietary right, without obtaining any required permission of the owner;
- transmit unsolicited bulk or commercial messages commonly known as “spam;”
- send very large numbers of copies of the same or substantially similar messages, empty messages, or messages which contain no substantive content, or send very large messages or files that disrupts a server, account, blog, newsgroup, chat, or similar service;
- initiate, perpetuate, or in any way participate in any pyramid or other illegal scheme;
- participate in the collection of very large numbers of e-mail addresses, screen names, or other identifiers of others (without their prior consent), a practice sometimes known as spidering or harvesting, or participate in the use of software (including “spyware”) designed to facilitate this activity;
- collect responses from unsolicited bulk messages;
- falsify, alter, or remove message headers;
- falsify references to The City of Monroe or its network, by name or other identifier, in messages;
- impersonate any person or entity, engage in sender address falsification, forge anyone else's digital or manual signature, or perform any other similar fraudulent activity (for example, “phishing”);
- violate the rules, regulations, terms of service, or policies applicable to any network, server, computer database, service, application, system, or Web site that you access or use;

Technical restrictions

- access any other person's computer or computer system, network, software, or data without his or her knowledge and consent; breach the security of another user or system; or attempt to circumvent the user authentication or security of any host, network, or account. This includes, but is not limited to, accessing data not intended for you, logging into or making use of a server or account you are not expressly authorized to access, or probing the security of other hosts, networks, or accounts without express permission to do so;

- use or distribute tools or devices designed or used for compromising security or whose use is otherwise unauthorized, such as password guessing programs, decoders, password gatherers, keystroke loggers, analyzers, cracking tools, packet sniffers, encryption circumvention devices, or Trojan Horse programs. Unauthorized port scanning is strictly prohibited;
- copy, distribute, or sublicense any proprietary software provided in connection with the Service by The City of Monroe or any third party, except that you may make one copy of each software program for back-up purposes only;
- distribute programs that make unauthorized changes to software (cracks);
- use or run dedicated, stand-alone equipment or servers from the Premises that provide network content or any other services to anyone outside of your Premises local area network (“Premises LAN”), also commonly referred to as public services or servers. Examples of prohibited equipment and servers include, but are not limited to, e-mail, Web hosting, file sharing, and proxy services and servers;
- use or run programs from the Premises that provide network content or any other services to anyone outside of your Premises LAN, except for personal and non-commercial residential use;
- service, alter, modify, or tamper with The City of Monroe Equipment or Service or permit any other person to do the same who is not authorized by The City of Monroe;

Network and usage restrictions

- restrict, inhibit, or otherwise interfere with the ability of any other person, regardless of intent, purpose or knowledge, to use or enjoy the Service (except for tools for safety and security functions such as parental controls, for example), including, without limitation, posting or transmitting any information or software which contains a worm, virus, or other harmful feature, or generating levels of traffic sufficient to impede others' ability to use, send, or retrieve information;
- restrict, inhibit, interfere with, or otherwise disrupt or cause a performance degradation, regardless of intent, purpose or knowledge, to the Service or any The City of Monroe (or The City of Monroe supplier) host, server, backbone network, node or service, or otherwise cause a performance degradation to any The City of Monroe (or The City of Monroe supplier) facilities used to deliver the Service;
- resell the Service or otherwise make available to anyone outside the Premises the ability to use the Service (for example, through wi-fi or other methods of networking), in whole or in part, directly or indirectly. The Service is for personal and non-commercial residential use only and you agree not to use the Service for operation as an Internet service provider or for any business enterprise or purpose (whether or not for profit);
- connect The City of Monroe Equipment to any computer outside of your Premises;
- interfere with computer networking or telecommunications service to any user, host or network, including, without limitation, denial of service attacks, flooding of a network, overloading a service, improper seizing and abusing operator privileges, and attempts to “crash” a host; and
- accessing and using the Service with anything other than a dynamic Internet Protocol (“IP”) address that adheres to the dynamic host configuration protocol (“DHCP”). You may not configure the Service or any related equipment to access or use a static IP

address or use any protocol other than DHCP unless you are subject to a Service plan that expressly permits you to do so.

II. Customer Conduct and Features of the Service

What obligations do I have under this Policy?

In addition to being responsible for your own compliance with this Policy, you are also responsible for any use or misuse of the Service that violates this Policy, even if it was committed by a friend, family member, or guest with access to your Service account. Therefore, you must take steps to ensure that others do not use your account to gain unauthorized access to the Service by, for example, strictly maintaining the confidentiality of your Service login and password. In all cases, you are solely responsible for the security of any device you choose to connect to the Service, including any data stored or shared on that device. The City of Monroe recommends against enabling file or printer sharing unless you do so in strict compliance with all security recommendations and features provided by The City of Monroe and the manufacturer of the applicable file or printer sharing devices. Any files or devices you choose to make available for shared access on a home LAN, for example, should be protected with a strong password or as otherwise appropriate.

It is also your responsibility to secure the Customer Equipment and any other Premises equipment or programs not provided by The City of Monroe that connect to the Service from external threats such as viruses, spam, bot nets, and other methods of intrusion.

How does The City of Monroe address inappropriate content and transmissions?

The City of Monroe reserves the right to refuse to transmit or post, and to remove or block, any information or materials, in whole or in part, that it, in its sole discretion, deems to be in violation of Sections I or II of this Policy, or otherwise harmful to The City of Monroe's network or customers using the Service, regardless of whether this material or its dissemination is unlawful so long as it violates this Policy. Neither The City of Monroe nor any of its affiliates, suppliers, or agents have any obligation to monitor transmissions or postings (including, but not limited to, e-mail, file transfer, blog, newsgroup, and instant message transmissions as well as materials available on the Personal Web Pages and Online Storage features) made on the Service. However, The City of Monroe and its affiliates, suppliers, and agents have the right to monitor these transmissions and postings from time to time for violations of this Policy and to disclose, block, or remove them in accordance with this Policy, the Subscriber Agreement, and applicable law.

What requirements apply to electronic mail?

The Service may not be used to communicate or distribute e-mail or other forms of communications in violation of Section I of this Policy.

The City of Monroe is not responsible for deleting or forwarding any e-mail sent to the wrong e-mail address by you or by someone else trying to send e-mail to you. The City of Monroe is also

not responsible for forwarding e-mail sent to any account that has been suspended or terminated. This e-mail will be returned to the sender, ignored, deleted, or stored temporarily at The City of Monroe's sole discretion. In the event that The City of Monroe believes in its sole discretion that any subscriber name, account name, or e-mail address (collectively, an "identifier") on the Service may be used for, or is being used for, any misleading, fraudulent, or other improper or illegal purpose, The City of Monroe (i) reserves the right to block access to and prevent the use of any of these identifiers and (ii) may at any time require any customer to change his or her identifier. In addition, The City of Monroe may at any time reserve any identifiers on the Service for The City of Monroe's own purposes. In the event that a Service account is terminated for any reason, all e-mail associated with that account (and any secondary accounts) will be permanently deleted as well.

What requirements apply to instant, video, and audio messages?

Each user is responsible for the contents of his or her instant, video, and audio messages and the consequences of any of these messages. The City of Monroe assumes no responsibility for the timeliness, mis-delivery, deletion, or failure to store these messages. In the event that a Service account is terminated for any reason, all instant, video, and audio messages associated with that account (and any secondary accounts) will be permanently deleted as well.

III. Network Management and Limitations on Data Consumption

Why does The City of Monroe manage its network?

The City of Monroe manages its network with one goal: to deliver the best possible broadband Internet experience to all of its customers. High-speed bandwidth and network resources are not unlimited. Managing the network is essential as The City of Monroe works to promote the use and enjoyment of the Internet by all of its customers. The company uses reasonable network management practices that are consistent with industry standards. The City of Monroe tries to use tools and technologies that are minimally intrusive and, in its independent judgment guided by industry experience, among the best in class. Of course, the company's network management practices will change and evolve along with the uses of the Internet and the challenges and threats on the Internet.

The need to engage in network management is not limited to The City of Monroe. In fact, all large Internet service providers manage their networks. Many of them use the same or similar tools that The City of Monroe does. If the company didn't manage its network, its customers would be subject to the negative effects of spam, viruses, security attacks, network congestion, and other risks and degradations of service. By engaging in responsible network management including enforcement of this Policy, The City of Monroe can deliver the best possible broadband Internet experience to all of its customers.

How does The City of Monroe manage its network?

The City of Monroe uses various tools and techniques to manage its network, deliver the Service, and ensure compliance with this Policy and the Subscriber Agreement. These tools and techniques are dynamic, like the network and its usage, and can and do change frequently. For example, these network management activities may include (i) identifying spam and preventing its delivery to customer e-mail accounts, (ii) detecting malicious Internet traffic and preventing the distribution of viruses or other harmful code or content, (iii) temporarily lowering the priority of traffic for users who are the top contributors to current network congestion, and (iv) using other tools and techniques that The City of Monroe may be required to implement in order to meet its goal of delivering the best possible broadband Internet experience to all of its customers.

Are there restrictions on data consumption that apply to the Service?

The Service is for personal and non-commercial residential use only. Therefore, The City of Monroe reserves the right to suspend or terminate Service accounts where data consumption is not characteristic of a typical residential user of the Service as determined by the company in its sole discretion. The City of Monroe has established a monthly data consumption threshold per The City of Monroe High-Speed Internet account of 250 Gigabytes (“GB”). Use of the Service in excess of 250GB per month is excessive use and is a violation of the Policy. Common activities that may cause excessive data consumption in violation of this Policy include, but are not limited to, numerous or continuous bulk transfers of files and other high capacity traffic using (i) file transfer protocol (“FTP”), (ii) peer-to-peer applications, and (iii) newsgroups. You must also ensure that your use of the Service does not restrict, inhibit, interfere with, or degrade any other person's use of the Service, nor represent (as determined by The City of Monroe in its sole discretion) an overly large burden on the network. In addition, you must ensure that your use of the Service does not limit or interfere with The City of Monroe's ability to deliver and monitor the Service or any part of its network.

If you use the Service in violation of the restrictions referenced above, that is a violation of this Policy. In these cases, The City of Monroe may, in its sole discretion, suspend or terminate your Service account or request that you subscribe to a version of the Service (such as a commercial grade Internet service, if appropriate) if you wish to continue to use the Service at higher data consumption levels. The City of Monroe may also provide versions of the Service with different speed and data consumption limitations, among other characteristics, subject to applicable Service plans. The City of Monroe's determination of the data consumption for Service accounts is final.

IV. Violation of this Acceptable Use Policy

What happens if you violate this Policy?

The City of Monroe reserves the right immediately to suspend or terminate your Service account and terminate the Subscriber Agreement if you violate the terms of this Policy or the Subscriber Agreement.

How does The City of Monroe enforce this Policy?

The City of Monroe does not routinely monitor the activity of individual Service accounts for violations of this Policy, except for determining aggregate data consumption in connection with the data consumption provisions of this Policy. However, in the company's efforts to promote good citizenship within the Internet community, it will respond appropriately if it becomes aware of inappropriate use of the Service. The City of Monroe has no obligation to monitor the Service and/or the network. However, The City of Monroe and its suppliers reserve the right at any time to monitor bandwidth, usage, transmissions, and content in order to, among other things, operate the Service; identify violations of this Policy; and/or protect the network, the Service and The City of Monroe users.

The City of Monroe prefers to inform customers of inappropriate activities and give them a reasonable period of time in which to take corrective action. The City of Monroe also prefers to have customers directly resolve any disputes or disagreements they may have with others, whether customers or not, without The City of Monroe's intervention. However, if the Service is used in a way that The City of Monroe or its suppliers, in their sole discretion, believe violates this Policy, The City of Monroe or its suppliers may take any responsive actions they deem appropriate under the circumstances with or without notice. These actions include, but are not limited to, temporary or permanent removal of content, cancellation of newsgroup posts, filtering of Internet transmissions, and the immediate suspension or termination of all or any portion of the Service (including but not limited to newsgroups). Neither The City of Monroe nor its affiliates, suppliers, or agents will have any liability for any of these responsive actions. These actions are not The City of Monroe's exclusive remedies and The City of Monroe may take any other legal or technical actions it deems appropriate with or without notice.

The City of Monroe reserves the right to investigate suspected violations of this Policy, including the gathering of information from the user or users involved and the complaining party, if any, and examination of material on The City of Monroe's servers and network. During an investigation, The City of Monroe may suspend the account or accounts involved and/or remove or block material that potentially violates this Policy. You expressly authorize and consent to The City of Monroe and its suppliers cooperating with (i) law enforcement authorities in the investigation of suspected legal violations, and (ii) and system administrators at other Internet service providers or other network or computing facilities in order to enforce this Policy. Upon termination of your Service account, The City of Monroe is authorized to delete any files, programs, data, e-mail and other messages associated with your account (and any secondary accounts).

The failure of The City of Monroe or its suppliers to enforce this Policy, for whatever reason, shall not be construed as a waiver of any right to do so at any time. You agree that if any portion of this Policy is held invalid or unenforceable, that portion will be construed consistent with applicable law as nearly as possible, and the remaining portions will remain in full force and effect.

You agree to indemnify, defend and hold harmless The City of Monroe and its affiliates, suppliers, and agents against all claims and expenses (including reasonable attorney fees) resulting from any violation of this Policy. Your indemnification will survive any termination of the Subscriber Agreement.

V. Copyright and Digital Millennium Copyright Act Requirements

What is The City of Monroe's DMCA policy?

The City of Monroe is committed to complying with U.S. copyright and related laws, and requires all customers and users of the Service to comply with these laws. Accordingly, you may not store any material or content on, or disseminate any material or content over, the Service (or any part of the Service) in any manner that constitutes an infringement of third party intellectual property rights, including rights granted by U.S. copyright law. Owners of copyrighted works who believe that their rights under U.S. copyright law have been infringed may take advantage of certain provisions of the Digital Millennium Copyright Act of 1998 (the "DMCA") to report alleged infringements. It is The City of Monroe's policy in accordance with the DMCA and other applicable laws to reserve the right to terminate the Service provided to any customer or user who is either found to infringe third party copyright or other intellectual property rights, including repeat infringers, or who The City of Monroe, in its sole discretion, believes is infringing these rights. First offence will result in a three day suspension of service. Second offence seven days, and third will result in termination of service. The City of Monroe may terminate the Service at any time with or without notice for any affected customer or user.

How do copyright owners report alleged infringements to The City of Monroe?

Copyright owners may report alleged infringements of their works that are stored on the Service or the Personal Web Features by sending The City of Monroe's authorized agent a notification of claimed infringement that satisfies the requirements of the DMCA. Upon The City of Monroe's receipt of a satisfactory notice of claimed infringement for these works, The City of Monroe will respond expeditiously to either directly or indirectly (i) remove the allegedly infringing work(s) stored on the Service or the Personal Web Features or (ii) disable access to the work(s). The City of Monroe will also notify the affected customer or user of the Service of the removal or disabling of access to the work(s).

Copyright owners may send The City of Monroe a notification of claimed infringement to report alleged infringements of their works to:

Brian Thompson
The City of Monroe
215 N Broad St.
Monroe, GA, 30655
Phone: 770-266-5345
Fax: 770-266-5347
Email: bkthompson@monroega.gov

Copyright owners may use their own notification of claimed infringement form that satisfies the requirements of Section 512(c)(3) of the U.S. Copyright Act. Under the DMCA, anyone who knowingly makes misrepresentations regarding alleged copyright infringement may be liable to The City of Monroe, the alleged infringer, and the affected copyright owner for any damages incurred in connection with the removal, blocking, or replacement of allegedly infringing material.

What can customers do if they receive a notification of alleged infringement?

If you receive a notification of alleged infringement as described above, and you believe in good faith that the allegedly infringing works have been removed or blocked by mistake or misidentification, then you may send a counter notification to The City of Monroe. Upon The City of Monroe's receipt of a counter notification that satisfies the requirements of DMCA, The City of Monroe will provide a copy of the counter notification to the person who sent the original notification of claimed infringement and will follow the DMCA's procedures with respect to a received counter notification. In all events, you expressly agree that The City of Monroe will not be a party to any disputes or lawsuits regarding alleged copyright infringement.

If a notification of claimed infringement has been filed against you, you can file a counter notification with The City of Monroe's designated agent using the contact information shown above. All counter notifications must satisfy the requirements of Section 512(g)(3) of the U.S. Copyright Act.

THE CITY OF MONROE ACCEPTABLE USE POLICY FOR BUSINESS SERVICES HIGH-SPEED INTERNET

Contents

- I. Prohibited Uses and Activities
- II. Customer Conduct and Features of the Service
- III. Network Management and Limitations on Data Consumption
- IV. Violation of this Acceptable Use Policy
- V. Copyright and Digital Millennium Copyright Act Requirements

Why is The City of Monroe providing this Policy to my business?

The City of Monroe's goal is to provide its customers with the best commercial cable Internet service possible. In order to help accomplish this, the City of Monroe has adopted this Acceptable Use Policy (the "Policy"). This Policy outlines acceptable use of Business Services The City of Monroe High-Speed Internet service (the "Service").

What obligations does my business have under this Policy?

All The City of Monroe High-Speed Internet customers and all others who use the Service (the "customer," "user," "you," or "your") must comply with this Policy. Your business' failure to comply with this Policy could result in the suspension or termination of its Service account. In these cases, termination or other charges may apply. If your business do not agree to comply with this Policy, it must immediately stop all use of the Service and notify The City of Monroe so that it can close your business' account.

How will my business know when The City of Monroe changes this Policy and how will it report violations of this Policy?

The City of Monroe may revise this Policy from time to time. For a copy of this document, please call 770-267-3429. The City of Monroe will use reasonable efforts to make customers aware of any changes to this Policy, which may include sending e-mail announcements or posting information on The City of Monroe Business Services Web site. Revised versions of this Policy are effective immediately upon posting. Accordingly, customers of the Service should read any The City of Monroe announcements they receive and regularly visit The City of Monroe Web site and review this Policy to ensure that their activities conform to the most recent version.

I. Prohibited Uses and Activities

What uses and activities does The City of Monroe prohibit?

In general, the Policy prohibits uses and activities involving the Service that are illegal, infringe the rights of others, or interfere with or diminish the use and enjoyment of the Service by others. For example, these prohibited uses and activities include, but are not limited to, using the Service, Customer-Provided Equipment, or The City of Monroe Equipment, either individually or in combination with one another, to:

Conduct and information restrictions

- undertake or accomplish any unlawful purpose. This includes, but is not limited to, posting, storing, transmitting or disseminating information, data or material which is libelous, obscene, unlawful, threatening or defamatory, or which infringes the intellectual property rights of any person or entity, or which in any way constitutes or encourages conduct that would constitute a criminal offense, or otherwise violate any local, state, federal, or non-U.S. law, order, or regulation;
- post, store, send, transmit, or disseminate any information or material which a reasonable person could deem to be unlawful;
- upload, post, publish, transmit, reproduce, create derivative works of, or distribute in any way information, software or other material obtained through the Service or otherwise that is protected by copyright or other proprietary right, without obtaining any required permission of the owner;
- transmit unsolicited bulk or commercial messages commonly known as "spam";
- send very large numbers of copies of the same or substantially similar messages, empty messages, or messages which contain no substantive content, or send very large messages or files that disrupts a server, account, blog, newsgroup, chat, or similar service;
- initiate, perpetuate, or in any way participate in any pyramid or other illegal scheme;
- participate in the collection of very large numbers of e-mail addresses, screen names, or other identifiers of others (without their prior consent), a practice sometimes known as spidering or harvesting, or participate in the use of software (including "spyware") designed to facilitate this activity;
- collect responses from unsolicited bulk messages;
- use IRC (Internet Relay Chat) or other chat services or tools to flood chats, establish more than two (2) concurrent chat connections per device at any time, or use unattended clones, bots, or other automated programs to engage in chats;
- falsify, alter, or remove message headers;
- falsify references to The City of Monroe or its network, by name or other identifier, in messages;
- impersonate any person or entity, engage in sender address falsification, forge anyone else's digital or manual signature, or perform any other similar fraudulent activity (for example, "phishing");
- violate the rules, regulations, terms of service, or policies applicable to any network, server, computer database, service, application, system, or Web site that you access or use;

Technical restrictions

- access any other person's computer or computer system, network, software, or data without his or her knowledge and consent; breach the security of another user or system; or attempt to circumvent the user authentication or security of any host, network, or account. This includes, but is not limited to, accessing data not intended for your business, logging into or making use of a server or account your business is not expressly authorized to access, or probing the security of other hosts, networks, or accounts without express permission to do so;
- use or distribute tools or devices designed or used for compromising security or whose use is otherwise unauthorized, such as password guessing programs, decoders, password gatherers, keystroke loggers, analyzers, cracking tools, packet sniffers, encryption circumvention devices, or Trojan Horse programs. Unauthorized port scanning is strictly prohibited;
- copy, distribute, or sublicense any proprietary software provided in connection with the Service by The City of Monroe or any third party, except that your business may make one copy of each software program for back-up purposes only;
- distribute programs that make unauthorized changes to software (cracks);
- service, alter, modify, or tamper with The City of Monroe Equipment or Service or permit any other person to do the same who is not authorized by The City of Monroe;

Network and usage restrictions

- restrict, inhibit, or otherwise interfere with the ability of any other person, regardless of intent, purpose or knowledge, to use or enjoy the Service (except for tools for safety and security functions or tools implementing authorized internal business policies), including, without limitation, posting or transmitting any information or software which contains a worm, virus, or other harmful feature, or generating levels of traffic sufficient to impede others' ability to use, send, or retrieve information;
- restrict, inhibit, interfere with, or otherwise disrupt or cause a performance degradation, regardless of intent, purpose or knowledge, to the Service or any The City of Monroe (or The City of Monroe supplier) host, server, backbone network, node or service, or otherwise cause a performance degradation to any The City of Monroe (or The City of Monroe supplier) facilities used to deliver the Service;
- make the Service available to anyone other than your business or your business' authorized employees, contractors, or users (i.e. members of the public, customers of an establishment, hotel or motel guests and patrons, or persons in a residence hall or apartment building) unless done with The City of Monroe's written approval in accordance with an applicable Business Services Agreement;
- resell the Service or otherwise make available to anyone outside the Service Location(s) the ability to use the Service (for example, through wi-fi or other methods of networking), in whole or in part, directly or indirectly, unless expressly permitted by the applicable Business Services Agreement;
- connect The City of Monroe Equipment to any computer outside of your business' Service Location(s);

- interfere with computer networking or telecommunications service to any user, host or network, including, without limitation, denial of service attacks, flooding of a network, overloading a service, improper seizing and abusing operator privileges, and attempts to "crash" a host;
- interfere with The City of Monroe's ability to control or block ports for safety and security purposes and as part of its overall network management;
- interfere with The City of Monroe's use and control of its domain name server ("DNS") used in connection with the Service; and
- accessing and using the Service with anything other than a dynamic Internet Protocol ("IP") address that adheres to the dynamic host configuration protocol ("DHCP"). Your business may not configure the Service or any related equipment to access or use a static IP address or use any protocol other than DHCP unless expressly permitted by the applicable Business Services Agreement.

II. Customer Conduct and Features of the Service

What obligations does my business have under this Policy?

In addition to being responsible for its own compliance with this Policy, your business is also responsible for any use or misuse of the Service that violates this Policy, even if it was committed by an employee, contractor, customer, or guest with access to your business' Service account. Therefore, your business must take steps to ensure that others do not use your business' account to gain unauthorized access to the Service by, for example, strictly maintaining the confidentiality of all Service logins and passwords. In all cases, your business is solely responsible for the security of any device it chooses to connect to the Service, including any data stored or shared on that device.

It is also your business' responsibility to secure the Customer-Provided Equipment and any other Service Location(s) equipment or programs not provided by The City of Monroe that connect to the Service from external threats such as viruses, spam, bot nets, and other methods of intrusion.

How does The City of Monroe address inappropriate content and transmissions?

The City of Monroe reserves the right to refuse to transmit or post, and to remove or block, any information or materials, in whole or in part, that it, in its sole discretion, deems to be in violation of Sections I or II of this Policy, or otherwise harmful to The City of Monroe's network or customers using the Service, regardless of whether this material or its dissemination is unlawful so long as it violates this Policy. Neither The City of Monroe nor any of its affiliates, suppliers, or agents have any obligation to monitor transmissions or postings (including, but not limited to, e-mail, file transfer, blog, newsgroup, and instant message transmissions as well as materials available on online storage features such as websites and servers) made on the Service. However, The City of Monroe and its affiliates, suppliers, and agents have the right to monitor these transmissions and postings from time to time for violations of this Policy and to disclose, block, or remove them in accordance with this Policy, the Business Services Agreement, and applicable law.

What requirements apply to electronic mail?

The Service may not be used to communicate or distribute e-mail or other forms of communications in violation of Section I in this Policy. As described below in Section III of this Policy, The City of Monroe uses reasonable network management tools and techniques to protect customers from receiving spam and from sending spam (often without their knowledge over an infected computer).

The City of Monroe is not responsible for deleting or forwarding any e-mail sent to the wrong e-mail address(es) by your business or by someone else trying to send e-mail to your business or its employees, contractors, or users. The City of Monroe is also not responsible for forwarding e-mail sent to any account that has been suspended or terminated. This e-mail will be returned to the sender, ignored, deleted, or stored temporarily at The City of Monroe's sole discretion. In the event that The City of Monroe believes in its sole discretion that any subscriber name, account name, or e-mail address (collectively, an "identifier") on the Service may be used for, or is being used for, any misleading, fraudulent, or other improper or illegal purpose, The City of Monroe (i) reserves the right to block access to and prevent the use of any of these identifiers and (ii) may at any time require any customer to change his or her identifier. In addition, The City of Monroe may at any time reserve any identifiers on the Service for The City of Monroe's own purposes. In the event that a Service account is terminated for any reason, all e-mail associated with that account (and any secondary accounts) will be permanently deleted as well.

The City of Monroe helps protect its customers from viruses and other unwanted content and programs included in e-mails. The City of Monroe's e-mail servers and other systems employ various virus detection and prevention tools that it updates frequently to respond to the latest threats on the Internet. These tools will automatically remove viruses and other unwanted material from e-mails whenever possible. This applies both to e-mails your business sends as well as to e-mails your business receives. The City of Monroe's systems also may scan all incoming and outgoing e-mail traffic over the Service using automated tools applying recognized and commonly used techniques for identifying and blocking spam and other unwanted or harmful code or content.

What requirements apply to instant, video, and audio messages?

Each user is responsible for the contents of his or her instant, video, and audio messages and the consequences of any of these messages. The City of Monroe assumes no responsibility for the timeliness, mis-delivery, deletion, or failure to store these messages. In the event that a Service account is terminated for any reason, all instant, video, and audio messages associated with that account (and any secondary accounts) will be permanently deleted as well.

What requirements apply to my business' Service account Internet reputation?

The City of Monroe provides the Service for use in your business. Most everything your business does using the Service will be directly attributable to it and affect its reputation. However, because The City of Monroe provides the systems to deliver the Service, there are some things that your business can do using the Service that are directly attributable to The City of Monroe and affect its reputation. Most obviously, if your business uses the Service to send spam (or what spam reporting services or recipients classify as spam) or uses the Web Hosting Services for an improper purpose such as phishing, these activities may affect The City of Monroe's reputation

because of its ownership of the IP addresses associated with the Service. Of course, these activities also violate this Policy.

The City of Monroe reserves the right to suspend or terminate Service accounts when your business' use of the Service or any of its features, such as Web Hosting Services, negatively impacts The City of Monroe's reputation as determined in its sole discretion. For example, any use of the Service or its features that results in your business' Service account, or any associated The City of Monroe information, being listed on, for example, spam reporting web sites such as Spamhaus, SBL, ROKSO, TrendMicro Maps, or SenderScore Blocklist, or anti-phishing or anti-spyware services, may result in The City of Monroe suspending or terminating your business' Service account. In these situations, The City of Monroe prefers to work directly with your business to address the problems causing the harm to The City of Monroe's reputation so that they do not happen again.

III. Network Management and Limitations on Data Consumption

Why does The City of Monroe manage its network?

The City of Monroe manages its network with one goal: to deliver the best possible broadband Internet experience to all of its customers. High-speed bandwidth and network resources are not unlimited. Managing the network is essential as The City of Monroe works to promote the use and enjoyment of the Internet by all of its customers. The company uses reasonable network management practices that are consistent with industry standards. The City of Monroe tries to use tools and technologies that are minimally intrusive and, in its independent judgment guided by industry experience, among the best in class. Of course, the company's network management practices will change and evolve along with the uses of the Internet and the challenges and threats on the Internet.

The need to engage in network management is not limited to The City of Monroe. In fact, all large Internet service providers manage their networks. Many of them use the same or similar tools that The City of Monroe does. If the company didn't manage its network, its customers would be subject to the negative effects of spam, viruses, security attacks, network congestion, and other risks and degradations of service. By engaging in responsible network management including enforcement of this Policy, The City of Monroe can deliver the best possible broadband Internet experience to all of its customers.

How does The City of Monroe manage its network?

The City of Monroe uses various tools and techniques to manage its network, deliver the Service, and ensure compliance with this Policy and the Business Services Agreement. These tools and techniques are dynamic, like the network and its usage, and can and do change frequently. For example, these network management activities may include (i) identifying spam and preventing its delivery to customer e-mail accounts, (ii) detecting malicious Internet traffic and preventing the distribution of viruses or other harmful code or content, (iii) temporarily lowering the priority of traffic for users who are the top contributors to current network congestion, and (iv) using other tools and techniques that The City of Monroe may be required to implement in order to meet its goal of delivering the best possible broadband Internet experience to all of its customers.

Are there restrictions on data consumption that apply to the Service?

The Service is for commercial use only in a small, medium, or large business as determined by the applicable Business Services Agreement. Therefore, The City of Monroe reserves the right to suspend or terminate Service accounts where data consumption is not characteristic of a typical commercial user of the Service as determined by the company in its sole discretion, or where it exceeds published data consumption limitations. Common activities that may cause excessive data consumption in violation of this Policy include, but are not limited to, numerous or continuous bulk transfers of files and other high capacity traffic using (i) file transfer protocol (“FTP”), (ii) peer-to-peer applications, and (iii) newsgroups. Your business must also ensure that its use of the Service does not restrict, inhibit, interfere with, or degrade any other person’s use of the Service, nor represent (as determined by The City of Monroe in its sole discretion) an overly large burden on the network. In addition, your business must ensure that its use of the Service does not limit or interfere with The City of Monroe’s ability to deliver and monitor the Service or any part of its network.

If your business uses the Service in violation of the restrictions referenced above, that is a violation of this Policy. In these cases, The City of Monroe may, in its sole discretion, suspend or terminate your business’ Service account or request that it subscribe to a different version of the Service if it wishes to continue to use the Service at higher data consumption levels. The City of Monroe may also provide versions of the Service with different speed and data consumption limitations, among other characteristics, subject to applicable Business Services Agreements. The City of Monroe’s determination of the data consumption for Service accounts is final.

IV. Violation of this Acceptable Use Policy

What happens if your business violates this Policy?

The City of Monroe reserves the right immediately to suspend or terminate your business’ Service account and terminate the Business Services Agreement if it violates the terms of this Policy or the Business Services Agreement.

How does The City of Monroe enforce this Policy?

The City of Monroe does not routinely monitor the activity of individual Service accounts for violations of this Policy, except for determining aggregate data consumption in connection with the data consumption provisions of this Policy. However, in the company’s efforts to promote good citizenship within the Internet community, it will respond appropriately if it becomes aware of inappropriate use of the Service. The City of Monroe has no obligation to monitor the Service and/or the network. However, The City of Monroe and its suppliers reserve the right at any time to monitor bandwidth, usage, transmissions, and content in order to, among other things, operate the Service; identify violations of this Policy; and/or protect the network, the Service and The City of Monroe users.

The City of Monroe prefers to inform customers of inappropriate activities and give them a reasonable period of time in which to take corrective action. The City of Monroe also prefers to have customers directly resolve any disputes or disagreements they may have with others, whether customers or not, without The City of Monroe’s intervention. However, if the Service is used in a way that The City of Monroe or its suppliers, in their sole discretion, believe violates

this Policy, The City of Monroe or its suppliers may take any responsive actions they deem appropriate under the circumstances with or without notice. These actions include, but are not limited to, temporary or permanent removal of content, cancellation of newsgroup posts, filtering of Internet transmissions, and the immediate suspension or termination of all or any portion of the Service (including but not limited to newsgroups). Neither The City of Monroe nor its affiliates, suppliers, or agents will have any liability for any of these responsive actions. These actions are not The City of Monroe's exclusive remedies and The City of Monroe may take any other legal or technical actions it deems appropriate with or without notice.

The City of Monroe reserves the right to investigate suspected violations of this Policy, including the gathering of information from the user or users involved and the complaining party, if any, and examination of material on The City of Monroe's servers and network. During an investigation, The City of Monroe may suspend the account or accounts involved and/or remove or block material that potentially violates this Policy. Your business expressly authorizes and consents to The City of Monroe and its suppliers cooperating with (i) law enforcement authorities in the investigation of suspected legal violations, and (ii) and system administrators at other Internet service providers or other network or computing facilities in order to enforce this Policy. Upon termination of your business' Service account, The City of Monroe is authorized to delete any files, programs, data, e-mail and other messages associated with your business' account (and any secondary accounts).

The failure of The City of Monroe or its suppliers to enforce this Policy, for whatever reason, shall not be construed as a waiver of any right to do so at any time. Your business agrees that if any portion of this Policy is held invalid or unenforceable, that portion will be construed consistent with applicable law as nearly as possible, and the remaining portions will remain in full force and effect.

Your business agrees to indemnify, defend and hold harmless The City of Monroe and its affiliates, suppliers, and agents against all claims and expenses (including reasonable attorney fees) resulting from any violation of this Policy. Your business' indemnification will survive any termination of the Business Services Agreement.

V. Copyright and Digital Millennium Copyright Act Requirements

What is The City of Monroe's DMCA policy?

The City of Monroe is committed to complying with U.S. copyright and related laws, and requires all customers and users of the Service to comply with these laws. Accordingly, your business may not store any material or content on, or disseminate any material or content over, the Service (or any part of the Service) in any manner that constitutes an infringement of third party intellectual property rights, including rights granted by U.S. copyright law. Owners of copyrighted works who believe that their rights under U.S. copyright law have been infringed may take advantage of certain provisions of the Digital Millennium Copyright Act of 1998 (the "DMCA") to report alleged infringements. The City of Monroe may terminate the Service at any time with or without notice for any affected customer or user.

The City of Monroe's policy in accordance with the DMCA and other applicable laws to reserve the right to terminate the Service provided to any customer or user who is either found to infringe third party copyright or other intellectual property rights, including repeat infringers, or who The City of Monroe, in its sole discretion, believes is infringing these rights. First offence will result in a three day suspension of service. Second offence seven days, and third will result in termination of service. The City of Monroe may terminate the Service at any time with or without notice for any affected customer or user.

How do copyright owners report alleged infringements to The City of Monroe?

Copyright owners may report alleged infringements of their works that are stored on the Service or the Web Hosting Services by sending The City of Monroe's authorized agent a notification of claimed infringement that satisfies the requirements of the DMCA. Upon The City of Monroe's receipt of a satisfactory notice of claimed infringement for these works, The City of Monroe will respond expeditiously to either directly or indirectly (i) remove the allegedly infringing work(s) stored on the Service or the Web Hosting Services or (ii) disable access to the work(s). The City of Monroe will also notify the affected customer or user of the Service of the removal or disabling of access to the work(s).

Copyright owners may use their own notification of claimed infringement form that satisfies the requirements of Section 512(c)(3) of the U.S. Copyright Act. Under the DMCA, anyone who knowingly makes misrepresentations regarding alleged copyright infringement may be liable to The City of Monroe, the alleged infringer, and the affected copyright owner for any damages incurred in connection with the removal, blocking, or replacement of allegedly infringing material.

What can customers do if they receive a notification of alleged infringement?

If your business receives a notification of alleged infringement as described above, and it believes in good faith that the allegedly infringing works have been removed or blocked by mistake or misidentification, then your business may send a counter notification to The City of Monroe. Upon The City of Monroe's receipt of a counter notification that satisfies the requirements of DMCA, The City of Monroe will provide a copy of the counter notification to the person who sent the original notification of claimed infringement and will follow the DMCA's procedures with respect to a received counter notification. In all events, your business expressly agrees that The City of Monroe will not be a party to any disputes or lawsuits regarding alleged copyright infringement.

If a notification of claimed infringement has been filed against your business, it can file a counter notification with The City of Monroe's designated agent using the contact information shown above. All counter notifications must satisfy the requirements of Section 512(g)(3) of the U.S. Copyright Act.

City of Monroe, Georgia

Information Technology Policy

I. Section 1: Information Security

A. Overview: Information Security policies aim to preserve:

1. **Confidentiality** - Access to Data shall be confined to those with appropriate authority.
2. **Integrity** – Information shall be complete and accurate. All systems, assets and networks shall operate correctly, according to specification.
3. **Availability** - Information shall be available and delivered to the right person, at the time when it is needed.

B. Purpose: The aim of this section is to establish and maintain the security and confidentiality of information, information systems, applications and networks owned or held by City of Monroe by:

1. Ensuring that all members of staff are aware of and fully comply with the relevant legislation as described in this and other policies.
2. Describing the principals of security and explaining how they shall be implemented in the organization.
3. Introducing a consistent approach to security, ensuring that all members of staff fully understand their own responsibilities.
4. Creating and maintaining within the organization a level of awareness of the need for Information Security as an integral part of the day to day business.
5. Protecting information assets under the control of the organization.

C. Scope: This section applies to all information, information systems, networks, applications, locations and users of the City of Monroe or supplied under contract to it. This policy applies to all equipment that is owned or leased by the City of Monroe.

D. Responsibilities for Information Security

1. Ultimate responsibility for information security rests with the Chief Executive of City of Monroe, but on a day-to-day basis the Network Administrator shall be responsible for managing and implementing the policy and related procedures.
2. Supervisors are responsible for ensuring that their permanent and temporary staff and contractors are aware of:

- a. The information security policies applicable in their work areas
 - b. Their personal responsibilities for information security
 - c. How to access advice on information security matters
3. All staff shall comply with information security procedures including the maintenance of data confidentiality and data integrity. Failure to do so may result in disciplinary action.
 4. The Information Technology Policy shall be maintained, reviewed and updated by the Network Administrator. This review shall take place annually.
 5. Supervisors shall be individually responsible for the security of their physical environments where information is processed or stored.
 6. Each member of staff shall be responsible for the operational security of the information systems they use.
 7. Each system user shall comply with the security requirements that are currently in force, and shall also ensure that the confidentiality, integrity and availability of the information they use is maintained to the highest standard.
 8. Agreements with external contractors that allow access to the organization's information systems shall be in operation before access is allowed. These agreements shall ensure that the staff or sub-contractors of the external organization shall comply with all appropriate security policies.

E. Information Security Awareness Training

1. Information security awareness training shall be included in the staff induction process.
2. An ongoing awareness program shall be established and maintained by the Network Administrator in order to ensure that staff awareness is refreshed and updated as necessary.

F. Security Control of Assets

1. Each IT asset, (hardware, software, application or data) shall have a named custodian who shall be responsible for the information security of that asset (i.e., if you are assigned a specific piece of equipment/software, you are responsible for it). All assets not so designated shall be the responsibility of the Network Administrator

G. Access Controls: Only authorized personnel who have a justified and approved business need shall be given access to restricted areas containing information systems or stored data.

- H. User Access Controls:** Access to information shall be restricted to authorized users who have a bona-fide business need to access the information unless otherwise provided for by law.
- I. Computer Access Control:** Access to computer facilities shall be restricted to authorized users who have business need to use the facilities.
- J. Application Access Control:** Access to data, system utilities and program source libraries shall be controlled and restricted to those authorized users who have a legitimate business need (i.e., systems or database administrators). Authorization to use an application shall depend on the availability of a license from the supplier.
- K. Equipment Security:** In order to minimize loss of, or damage to, all assets, equipment shall be physically protected from threats and environmental hazards.
- L. Computer and Network Procedures:** Management of computers and networks shall be controlled through standard documented policy and procedures that have been authorized by the Mayor and/or City Council.
- M. Information Security Events and Weaknesses:** All information security events and suspected weaknesses are to be reported to the Network Administrator. All information security events shall be investigated to establish their cause and impacts with a view to avoiding similar events.
- N. Protection from Malicious Software:** The organization shall use software countermeasures and management procedures to protect itself against the threat of malicious software. All staff shall be expected to co-operate fully with this policy. Users shall not install software on the organization's property without permission from the Network Administrator. Users breaching this requirement may be subject to disciplinary action.
- O. System Change Control:** Changes to information systems, applications or networks shall be reviewed and approved by the Network Administrator.
- P. Intellectual Property Rights:** The organization shall ensure that all information products are properly licensed and approved by the Network Administrator. Users shall not install software on the organization's property without permission from the Network Administrator.

II. Section 2: Acceptable Use

A. Overview

1. Internet/Intranet/Extranet-related systems, including but not limited to computer equipment, software, operating systems, storage media, network accounts providing electronic mail, WWW browsing, and FTP; are the property of the City

of Monroe. These systems are to be used for business purposes in serving the interests of the government, and of our citizens in the course of normal operations.

2. Effective security and efficient operation is a team effort involving the participation and support of every City of Monroe employee and affiliate who deals with information and/or information systems. It is the responsibility of every computer user to know these guidelines, and to conduct their activities accordingly.

B. Purpose: The purpose of this policy is to outline the acceptable use of computer equipment and systems at the City of Monroe. These rules are in place to protect the employee and the City of Monroe. Inappropriate use exposes the City of Monroe to risks including virus attacks, compromise of network systems and services, and legal issues.

C. Scope: This section applies to employees, contractors, consultants, temporaries, and other workers at the City of Monroe, including all personnel affiliated with third parties. This policy applies to all equipment that is owned or leased by the City of Monroe.

D. General Use and Ownership

1. While the City of Monroe's network administration desires to provide a reasonable level of privacy, users should be aware that the data they create on the government systems remains the property of the City of Monroe. Because of the need to protect the City of Monroe's network, and the availability of information to the public under the Open Records Act, we cannot guarantee the confidentiality of information stored on any network device belonging to the City of Monroe.
2. Employees are responsible for exercising good judgment regarding the reasonableness of personal use. Individual departments are responsible for creating guidelines concerning personal use of Internet/Intranet/Extranet systems. In the absence of such policies, employees should be guided by departmental policies on personal use, and if there is any uncertainty, employees should consult their supervisor or manager.
3. Any information that users consider sensitive or vulnerable should be encrypted.
4. For security and network maintenance purposes, authorized individuals within the City of Monroe may monitor equipment, systems and network traffic at any time.
5. The City of Monroe reserves the right to audit networks and systems on a periodic basis to ensure compliance with this policy.

E. Security and Proprietary Information

1. Keep passwords secure and do not share accounts. Authorized users are responsible for the security of their passwords and accounts.
2. All PCs, laptops and workstations are secured with a password-protected screensaver with the automatic activation feature set at 15 minutes or less, or by logging-off (control-alt-delete for Win2K+ users) when left unattended.
3. Because information contained on portable computers is especially vulnerable, special care should be exercised.
4. Postings by employees from a City of Monroe email address to newsgroups should contain a disclaimer stating that the opinions expressed are strictly their own and not those of the City of Monroe, unless posting is in the course of business duties.
5. All hosts used by the employee that are connected to the City of Monroe Internet/Intranet/Extranet, whether owned by the employee or the City of Monroe, shall be continually executing approved virus-scanning software with a current virus database unless overridden by departmental or group policy.
6. Employees must use extreme caution when opening e-mail attachments received from unknown senders, which may contain viruses, e-mail bombs, or Trojan horse code.

F. Unacceptable Use

1. The following activities are, in general, prohibited. Employees may be exempted from these restrictions during the course of their legitimate job responsibilities (e.g., systems administration staff may have a need to disable the network access of a host if that host is disrupting production services).
2. Under no circumstances is an employee of the City of Monroe authorized to engage in any activity that is illegal under local, state, federal or international law while utilizing the City of Monroe-owned resources.
3. The lists contained herein below are by no means exhaustive, but attempt to provide a framework for activities which fall into the category of unacceptable use.

G. System and Network Activities

1. The following activities are strictly prohibited unless required by the scope of your assigned job duties:
 - a. Violations of the rights of any person or company protected by copyright, trade secret, patent or other intellectual property, or similar laws or

regulations, including, but not limited to, the installation or distribution of "pirated" or other software products that are not appropriately licensed for use by the City of Monroe.

- b.** Unauthorized copying of copyrighted material including, but not limited to, digitization and distribution of photographs from magazines, books or other copyrighted sources, copyrighted music, and the installation of any copyrighted software for which the City of Monroe or the end user does not have an active license is strictly prohibited.
- c.** Exporting software, technical information, encryption software or technology, in violation of international or regional export control laws, is illegal. The appropriate management should be consulted prior to export of any material that is in question.
- d.** Introduction of malicious programs into the network or server (e.g., viruses, worms, Trojan horses, e-mail bombs, etc.).
- e.** Revealing your account password to others or allowing use of your account by others. This includes family and other household members when work is being done from home.
- f.** Using a the City of Monroe computing asset to actively engage in procuring or transmitting material that is in violation of sexual harassment or hostile workplace laws.
- g.** Making fraudulent offers of products, items, or services originating from any City of Monroe account.
- h.** Making statements about warranty, expressly or implied, unless it is a part of normal job duties.
- i.** Effecting security breaches or disruptions of network communication. Security breaches include, but are not limited to, accessing data of which the employee is not an intended recipient or logging into a server or account that the employee is not expressly authorized to access, unless these duties are within the scope of regular duties. For purposes of this section, "disruption" includes, but is not limited to, network sniffing, pinged floods, packet spoofing, denial of service, and forged routing information for malicious purposes.
- j.** Port scanning or security scanning is expressly prohibited unless prior notification to the Network Administrator is made.
- k.** Executing any form of network monitoring which will intercept data not intended for the employee's host, unless this activity is a part of the employee's normal job/duty.

- l. Circumventing user authentication or security of any host, network or account.
- m. Interfering with or denying service to any user other than the employee's host (for example, denial of service attack).
- n. Using any program/script/command, or sending messages of any kind, with the intent to interfere with, or disable, a user's terminal session, via any means, locally or via the Internet/Intranet/Extranet.
- o. Providing information about, or lists of, the City of Monroe employees to parties outside the City of Monroe.

H. General Internet Policy

1. Internet Use Limited to City Business: The City's Internet capabilities may be used for City business purposes only. The term "Internet" means the electronic information system of that name which connects smaller groups of linked computer networks. The term "City's Internet Capabilities" means any and all access to the Internet obtained through City sponsorship, ownership, or financial contribution, or by any employee or officer as a representative or agent of the City. The term "City business purposes" means the official work of City government undertaken for public benefit. Limited occasional personal use is acceptable.. Unacceptable sites or uses include, but are not limited to the following:
 - a. Pornographic sites and access to pornographic materials.
 - b. Use of the City Internet to harass employees, vendors, customers, and others.
 - c. Use of the City Internet for partisan political purposes.
 - d. Unauthorized transfer of copyrighted materials utilizing City Internet capabilities.
 - e. Any site that charges a fee (unless there has been prior written approval of justified City expense item by supervisor).
2. Employees may be provided with access to the Internet to assist them in performing their jobs. Use of the Internet, however, must be tempered with common sense and good judgment. To that end, employees' use of the internet shall not in any way interfere with their job performance; therefore, employees shall not waste time on the Internet.
3. Duty not to waste computer resources. Employees must not deliberately perform acts that waste computer resources or unfairly monopolize resources to the exclusion of others. These acts include, but are not limited to, sending

mass mailings or chain letters, spending excessive amounts of time on the Internet, playing games, engaging in online chat groups, printing multiple copies of documents, or otherwise creating unnecessary network traffic.

4. If you abuse your privilege to use the Internet, it will be taken away from you. In addition, you may be subject to disciplinary action, including possible termination, and civil and criminal liability.
5. Disclaimer of liability for use of Internet. The City of Monroe is not responsible for material viewed or downloaded by users from the Internet. Users are cautioned that many internet pages include offensive, sexually explicit, and inappropriate material. In general, it is difficult to avoid at least some contact with this material while using the Internet. Even innocuous search requests may lead to sites with highly offensive content. In addition, having an email address on the Internet may lead to receipt of unsolicited email containing offensive content. Users accessing the Internet do so at their own risk. No expectation of privacy. The computers and computer accounts given to employees are to assist them in performance of their jobs. Employees should not have an expectation of privacy in anything they create, store, send, or receive on the computer system. The computer system belongs to the City and may only be used for business purposes.
6. Monitoring computer usage. The City has the right, but not the duty, to monitor any and all of the aspects of its computer system, including, but not limited to, monitoring sites visited by employees on the Internet, monitoring chat groups and news groups, reviewing material downloaded or uploaded by users to the Internet, and reviewing email sent and received by users.
7. Blocking of inappropriate content. The City may use software to identify inappropriate or sexually explicit Internet sites. Such sites may be blocked from access by City networks. In the event you nonetheless encounter inappropriate or sexually explicit material while browsing on the Internet, immediately disconnect from the site, regardless of whether the site was subject to company blocking software.
8. Prohibited activities. Material that is fraudulent, harassing, embarrassing, sexually explicit, profane, obscene, intimidating, defamatory, or otherwise unlawful, inappropriate, offensive (including offensive material concerning sex, race, color, national origin, religion, age, disability, or other characteristic protected by law), or violative of the City of Monroe's equal employment opportunity policy and its policies against sexual or other harassment may not be downloaded from the Internet or displayed or stored in the City's computers. Employees encountering or receiving this kind of material should immediately report the incident to their supervisors.

9. The City of Monroe's equal employment opportunity policy and its policies against sexual or other harassment apply fully to the use of the Internet and any violation of those policies is grounds for discipline up to and including discharge.
10. Illegal copying. Employees may not illegally copy material protected under copyright law or make that material available to others for copying. You are responsible for complying with copyright law and applicable licenses that may apply to software, files, graphics, documents, messages, and other material you wish to copy or download. You may not agree to a license or download any material for which a registration fee is charged without first obtaining the express written permission of your supervisor.
11. Accessing the Internet. To ensure security and to avoid the spread of viruses, employees accessing the Internet through a computer attached to the City's network must do so through an approved Internet firewall. Accessing the Internet directly by modem is strictly prohibited unless the computer you are using is not connected to the City's network.
12. Virus detection. Files obtained from sources outside the City, including disks brought from home; files downloaded from the Internet, newgroups, bulletin boards, or other online services; files attached to e-mail; and files provided by customers or vendors may contain dangerous computer viruses that may damage the City's computer network. Employees should never download files from the Internet, accept e-mail attachments from outsiders, or use disks from sources outside of the City of Monroe, without first scanning the material with City-approved virus checking software. If you suspect that a virus has been introduced into the City's network, notify your supervisor immediately.
13. Sending unsolicited e-mail (spamming). Without the express permission of their supervisors, employees may not send unsolicited e-mail to persons with whom they do not have a prior relationship.
14. Amendments and revisions. This policy may be amended or revised from time to time as the need arises. Users will be provided with copies of all amendments and revisions.
15. Violations of this policy will be taken seriously and may result in disciplinary action, including possible termination, and civil and criminal liability.
16. Use of the Internet via the City of Monroe computer system constitutes consent by the user to all of the terms and conditions of this policy.

I. Email and Communications Activities

1. Unless otherwise stated, all directives below apply to use of city government provided email accounts.

2. Limited occasional use of personal email accounts is acceptable during business hours and using city resources. However, the email system shall not be used for:
 - a. Sending unsolicited email messages, including the sending of "junk mail" or other advertising material to individuals who did not specifically request such material (email spam).
 - b. Any form of harassment via email, whether through language, frequency, or size of messages.
 - c. Unauthorized use, or forging, of email header information.
 - d. Solicitation of email for any other email address, other than that of the poster's account, with the intent to harass or to collect replies.
 - e. Creating or forwarding "chain letters", "Ponzi" or other "pyramid" schemes of any type.
 - f. Use of unsolicited email originating from within the City of Monroe's networks of other Internet/Intranet/Extranet service providers on behalf of, or to advertise, any service hosted by the City of Monroe or connected via the City of Monroe's network.
 - g. Posting the same or similar non-business-related messages to large numbers of Usenet newsgroups (newsgroup spam).
3. No expectation of privacy. The email accounts given to employees are to assist them in the performance of their jobs. Employees have no right of personal privacy in any matter stored in, created, received, or sent over the City of Monroe's email system.
4. The City of Monroe, in its discretion as owner of the email system, reserves and may exercise the right to monitor, access, retrieve and delete any matter stored in, created, received, or sent over the email system, for any reason and without the permission of any employee.
5. Even if employees use a password to access the email system, the confidentiality of any message stored in, created, received, or sent from the City of Monroe email system still cannot be assured. Use of passwords or other security measures does not in any way diminish the City of Monroe's rights to access materials on its system, or create any privacy rights of employees in the messages and files on the system. Any password used by employees must be revealed to the City of Monroe as email files may need to be accessed by the company in an employee's absence.
6. The City of Monroe's policies against sexual or other harassment apply fully to the email system, and any violation of those policies is grounds for discipline up

to and including discharge. Therefore, no email messages should be created, sent, or received if they contain intimidating, hostile, or offensive material concerning race, color, religion, sex, age, national origin, disability or any other classification protected by law.

7. The email system may not be used to solicit for religious or political causes, commercial enterprises, outside organizations, or other non-job related solicitations.
8. Management approval is required before anyone can post any information on commercial online systems or the Internet. Any approved material that is posted should obtain all proper copyright and trademark notices. Absent prior approval from the City of Monroe to act as an official representative of the City of Monroe, employees posting information must include a disclaimer in that information stating, "Views expressed by the author do not necessarily represent those of the City of Monroe."
9. Employees are reminded to be courteous to other users of the system and always to conduct themselves in a professional manner. Emails are sometimes misdirected or forwarded and may be viewed by persons other than the intended recipient. Users should write email communications with no less care, judgment and responsibility than they would use for letters or internal memoranda written on City of Monroe letterhead.
10. Because email records and computer files may be subject to discovery in litigation, the City of Monroe employees are expected to avoid making statements in email or computer files that would not reflect favorably on the employee or the City of Monroe if disclosed in a litigation or otherwise.
11. Any employee who discovers misuse of the email system should immediately contact their supervisor.
12. Violations of the City of Monroe's email policy may result in disciplinary action up to and including discharge.
13. The City of Monroe reserves the right to modify this policy at any time, with or without notice.

J. Blogging and Social Networking

1. Blogging and Social Networking by employees, whether using the City of Monroe's property and systems or personal computer systems attached to the city network, is also subject to the terms and restrictions set forth in this Policy. Limited and occasional use of the City of Monroe's systems to engage in blogging and social networking is acceptable, provided that it is done in a professional and responsible manner, does not otherwise violate the City of Monroe's policy, is not detrimental to the City of Monroe's best interests, and

does not interfere with an employee's regular work duties. Blogging and social networking from the City of Monroe's systems is also subject to monitoring.

2. The City of Monroe's Confidential Information policy also applies to blogging. As such, Employees are prohibited from revealing any City of Monroe confidential information.
3. Employees shall not engage in any blogging or social networking that may harm or tarnish the image, reputation and/or goodwill of the City of Monroe and/or any of its employees. Employees are also prohibited from making any discriminatory, disparaging, defamatory or harassing comments when blogging and social networking or otherwise engaging in any conduct prohibited by the City of Monroe's Non-Discrimination and Anti-Harassment policy.
4. Employees may also not attribute personal statements, opinions or beliefs to the City of Monroe when engaged in blogging or social networking. If an employee is expressing his or her beliefs and/or opinions in blogs, the employee may not, expressly or implicitly, represent themselves as an employee or representative of the City of Monroe. Employees assume any and all risk associated with blogging and/or social networking.
5. Apart from following all laws pertaining to the handling and disclosure of copyrighted or export controlled materials, the City of Monroe's trademarks, logos and any other the City of Monroe intellectual property may also not be used in connection with any blogging or social networking activity.

K. Definitions

1. Blogging – Writing a blog. A blog (short for weblog) is a personal online journal that is frequently updated and intended for general public consumption.
2. Spam – Unauthorized and/or unsolicited electronic mass mailings.
3. Social Networking – Membership and participation in a social structure made of nodes (which are generally individuals or organizations) that are tied by one or more specific types of interdependency, such as values, visions, ideas, financial exchange, friendship, sexual relationships, kinship, dislike, conflict or trade. (i.e.: MySpace, Facebook, Twitter, Ebay).

L. Voice Mail Policy

1. Every City of Monroe employee is responsible for using the Voice Mail system properly and in accordance with this policy. Any questions about this policy should be addressed to your supervisor.
2. The Voice Mail system is the property of the City of Monroe. It has been provided by the City of Monroe for use in conducting official business. All

communications and information transmitted by, received from, or stored in this system are official records and property of the City of Monroe.

3. Employees have no right of personal privacy in any matter stored in, created, received, or sent over the City of Monroe Voice Mail system.
4. The City of Monroe, in its discretion as owner of the Voice Mail system, reserves and may exercise the right to monitor, access, retrieve, and delete any matter stored in, created, received, or sent over the Voice Mail system, for any reason without the permission of any employee and without notice.
5. Even if employees use a password to access the Voice Mail system, the confidentiality of any message stored in, created, received, or sent from the City of Monroe Voice Mail system still cannot be assured. Use of passwords or other security measures does not in any way diminish the City of Monroe's rights to access materials on its system, or create any privacy rights of employees in the messages and files on the system. The City of Monroe may request employee's passwords as Voice Mail messages may need to be accessed by the City in an employee's absence.
6. Even though the City of Monroe reserves the right to retrieve and read any Voice Mail messages, those messages should still be treated as confidential by other employees and accessed only by the intended recipient.
7. The City of Monroe's policies against sexual or other harassment apply fully to the Voice Mail system, and any violation of those policies is grounds for discipline up to and including discharge. Therefore, no Voice Mail messages should be created, sent, or received if they contain intimidating, hostile, or offensive material concerning race, color, religion, sex, age, national origin, disability or any other classification protected by law.
8. The Voice Mail system may not be used to solicit for religious or political causes, commercial enterprises, outside organizations, or other non-job related solicitations.
9. Employees are reminded to be courteous to other users of the system and always to conduct themselves in a professional manner. Voice Mails are sometimes misdirected or forwarded and may be heard by persons other than the intended recipient. Users should create Voice Mail communications with no less care, judgment and responsibility than they would use for letters or internal memoranda written on City of Monroe letterhead.
10. Employees should also use professional and courteous greetings on their Voice Mail boxes so as to properly represent the City of Monroe to outside callers.

11. Because Voice Mail records and messages may be subject to discovery in litigation, City of Monroe employees are expected to avoid making statements in Voice Mail that would not reflect favorably on the employee or the City of Monroe if disclosed in a litigation or otherwise.
12. Any employee who discovers misuse of the Voice Mail system should immediately contact your supervisor.
13. Violations of the City of Monroe's Voice Mail policy may result in disciplinary action up to and including discharge.
14. The City of Monroe reserves the right to modify this policy at any time, with or without notice.

City of Monroe, Georgia
Employee Statement of Policy Acceptance

I, the undersigned, hereby acknowledge receipt of the Information Technology Policy. I understand that I am expected to read and abide by said policies as a result of my employment by the City of Monroe, Georgia.

_____ Employee Signature

_____ Witness

_____ Date

City of Monroe, Georgia

Intellectual Property Rights Statement Agreement

Definition: Intellectual properties (IP) are legal property rights over creations of the mind, both artistic and commercial, and the corresponding fields of law. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; ideas, discoveries and inventions; and words, phrases, symbols, and designs. Common types of intellectual property include copyrights, trademarks, patents, industrial design rights and trade secrets.

Intellectual property rights are a bundle of exclusive rights over creations of the mind, both artistic and commercial. The former is covered by copyright laws, which protect creative works, such as books, movies, music, paintings, photographs, and software, and gives the copyright holder exclusive right to control reproduction or adaptation of such works for a certain period of time.

The second category is collectively known as "industrial properties", as they are typically created and used for industrial or commercial purposes. A patent may be granted for a new, useful, and non-obvious invention and gives the patent holder a right to prevent others from practicing the invention without a license from the inventor for a certain period of time. A trademark is a distinctive sign which is used to prevent confusion among products in the marketplace.

An industrial design right protects the form of appearance, style or design of an industrial object from infringement. A trade secret is an item of non-public information concerning the commercial practices or proprietary knowledge of a business. Public disclosure of trade secrets may sometimes be illegal.

The term *intellectual property* denotes the specific legal rights described above, and not the intellectual work itself.

Policy: It shall be the policy of the City of Monroe, Georgia that all employees agree in writing that they will not use previous employers or clients intellectual property in a manner or degree which would violate Federal, State, or Local laws during the official discharge of their associated duties with the City of Monroe.

_____ Employee Signature

_____ Date

_____ Witness