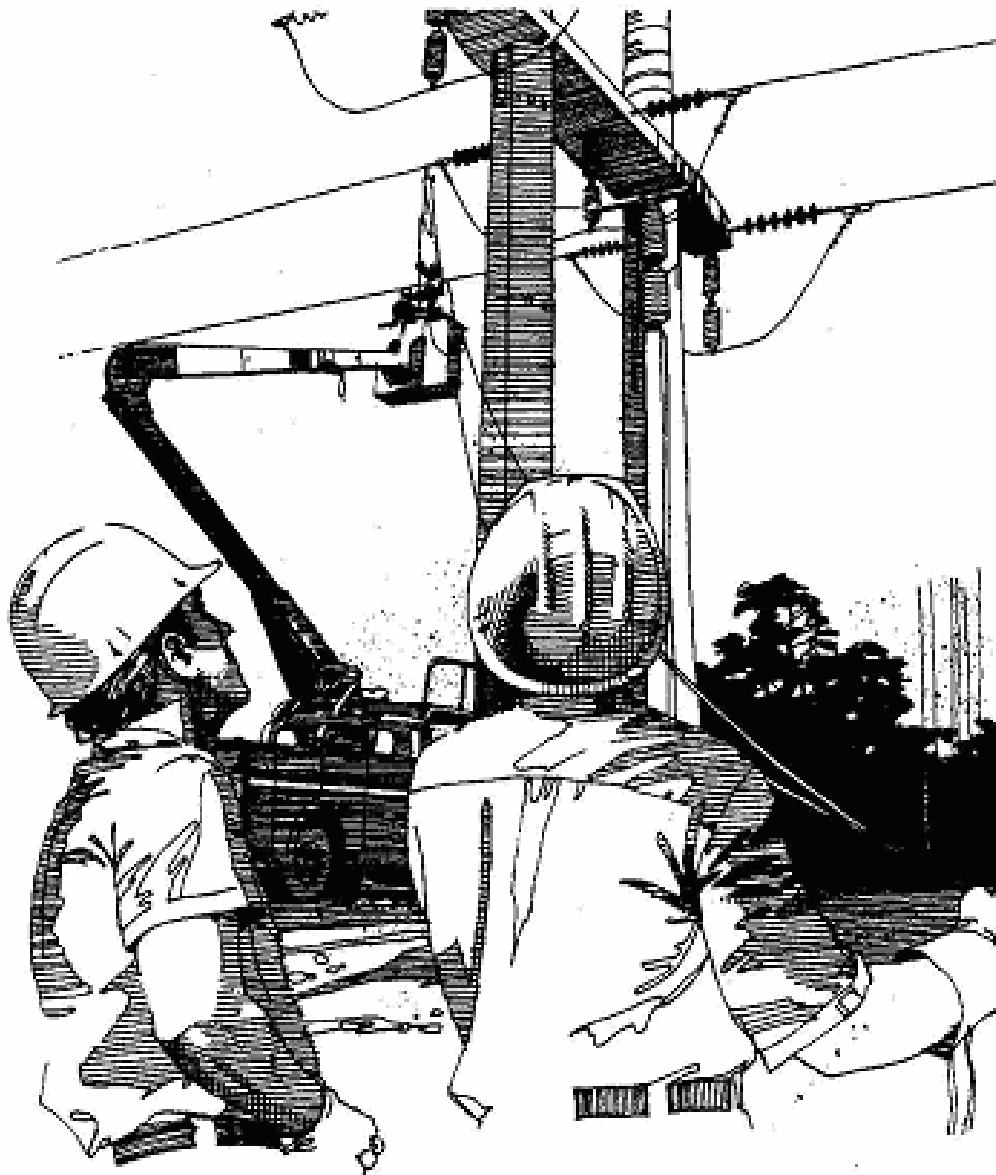


SPECIFICATIONS AND DRAWINGS

14.4 / 24.9 KV

LINE CONSTRUCTION UNITS

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



UPDATED: MAY 2007

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**WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE
SPECIFICATIONS AND DRAWING
FOR
14.2/24.9 KV OVERHEAD DISTRIBUTION LINE
CONSTRUCTION**

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14.4/24.9 KV Overhead Distribution Specifications

This set of Specifications and Drawings is intended to be used as Withlacoochee River Electric Cooperative's(WREC) company standard for all overhead 14.4/24.9 KV distribution line construction. All overhead construction from the release dated of this document shall conform to the enclosed standards.

If it is necessary to expand a specification to include items and/or construction techniques that make it safer, the existing Construction Unit(CU) standards will be modified or new CU's will be created to improve the standards. The goal of this standard is to make it safer for our line crews to build, and maintain our current distribution and transmission system. The responsibility for updating or adding CU's to the standard will be overseen by the Engineering and Technical Services department and the Standards Committee.

The goal for this specification is to make it a "living" document that can be expanded or reduced to make it safer for all of us at WREC. The Engineering department can be contacted. The Engineer office can be contacted at 1-352-567-5133.



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TABLE OF CONTENTS

GENERAL SECTION:

This Section contains the current REA Bulletin 1728F-800 on Assembly Unit Numbers and the Standard Format.

FRAMING GUIDE:

This section contains the current specifications for the assembly of one, two and three phase Overhead lines. It also covers double circuits, guy assemblies, slack span assemblies, and primary taps.

A-SERIES:

This section covers the current Overhead single phase Assembly Units.

B-SERIES:

This section covers the current Overhead two phase Assembly Units.

C-SERIES:

This section covers the current Overhead three phase Assembly Units.

D-SERIES:

This section covers the current Overhead double circuit three phase Assembly Units.

E-SERIES:

This section covers the current Overhead Guy single phase Assembly Units.

F-SERIES:

This section covers the current Overhead Distribution Line Anchor Assembly Units.

FO-SERIES:

This section covers the current Overhead Distribution Line Fiber Optic Attachment Assembly Units.

G-SERIES:

This section covers the current Overhead Distribution Line Transformer Assembly Units and their respective Wiring Diagrams.

H-SERIES:

This section covers the current Overhead Distribution Line Grounding Assembly Units.

M-SERIES:

This section covers the current Overhead Distribution Line Miscellaneous Assembly Units.

P-SERIES:

This section covers the current Overhead Distribution Line Protection Assembly Units.

Q-SERIES:

This section covers the current Overhead Distribution Line Primary and Secondary Metering Assembly Units and their respective Wiring Diagrams.

R-SERIES:

This section covers the current Overhead Distribution Line Oil Circuit Recloser Assembly Units.

S-SERIES:

This section covers the current Overhead Distribution Line Miscellaneous Assembly Units.

Y-SERIES:

This section covers the current Overhead Distribution Line Voltage Regulator Assembly Units and their respective Wiring Diagrams.

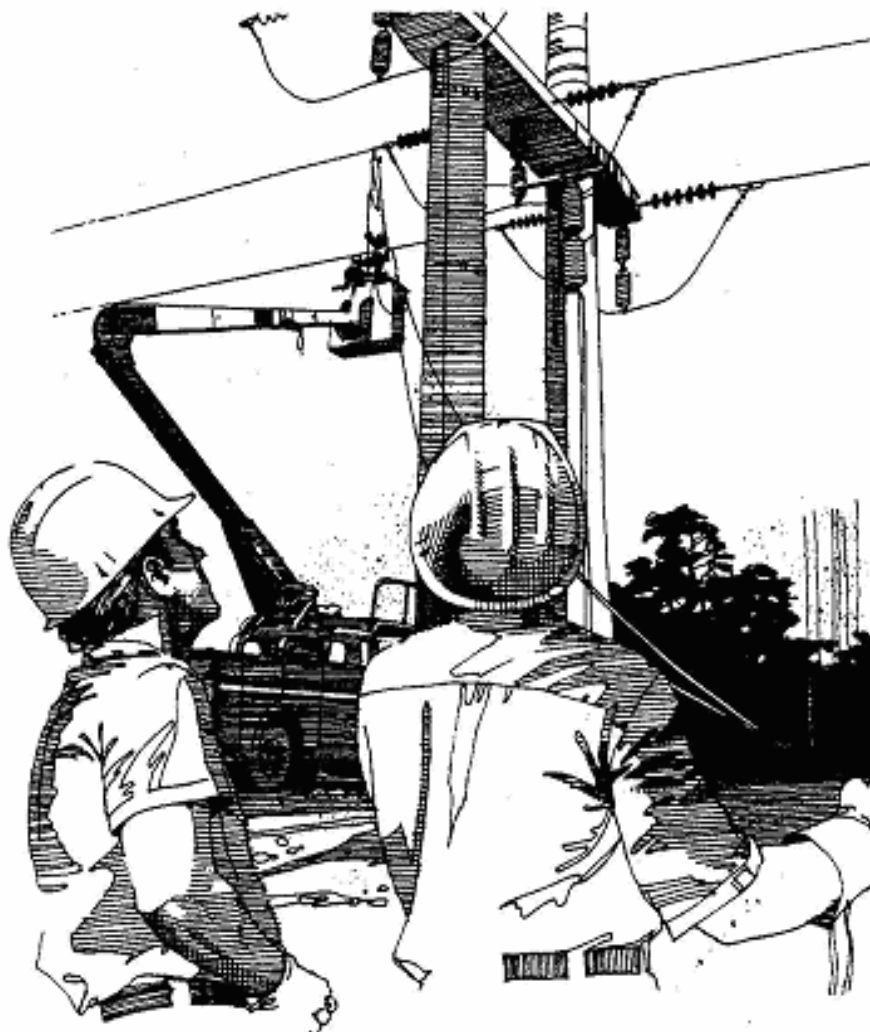
APPENDIX:

This section general contains information on Overhead Construction Units.

CONSTRUCTION UNITS

GENERAL SECTION REA BULLETIN 1728F-800

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Utilities Service

BULLETIN 1728F-800

SUBJECT: Assembly Unit Numbers and Standard Format

TO: RUS Electric Borrowers and RUS Electric Staff

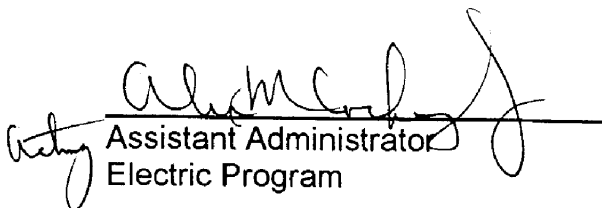
EFFECTIVE DATE: Date of Approval

EXPIRATION DATE: Indefinite

OFFICE OF PRIMARY INTEREST: Distribution Branch, Electric Staff Division

FILING INSTRUCTIONS: This is a new bulletin. File with 7 CFR 1728. This bulletin can be accessed via the Internet on the RUS website at <http://www.usda.gov/rus>.

PURPOSE: This bulletin explains and documents the Rural Utilities Service (RUS) construction assembly unit numbering scheme and a new, updated, numbering format used in RUS Bulletin 1728F-803, "Specifications and Drawings for 24.9/14.4 kV Line Construction." This bulletin further explains the meanings of the characters in the numbers assigned by the RUS to its construction assembly units. Presently, this new numbering format is only used in RUS Bulletin 1728F-803.


Assistant Administrator
Electric Program

12/16/98
Date

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ABBREVIATIONS

$L_1N_1 - N_2$	A symbolic representation of the REA historic format for numbering assembly units
$L_1N_1 . N_2$	A symbolic representation of the new format used for numbering assembly units in RUS Bulletin 1728F-803
L_1	A symbol (letter) in the identification number of an assembly unit which represents a <u>category</u> of assembly units
N_1	A symbol (number) in the identification number of an assembly unit which represents a <u>subcategory</u> of assembly units
N_2	A symbol (number) in the identification number of an assembly unit which represents the <u>identification number</u> of an assembly unit
REA	Rural Electrification Administration
RUS	Rural Utilities Service

ASSEMBLY UNIT NUMBERS AND STANDARD FORMAT

1. CONSTRUCTION ASSEMBLY UNITS, DRAWINGS, NUMBERS, AND MATERIAL: Early on in the electric program, the Rural Utilities Service, formerly the Rural Electrification Administration (REA), established a universal system of defining and numbering standard construction assembly units for engineering, construction, and accounting purposes. In the electric program, an assembly unit is defined as a group of materials, specifically arranged, that fulfills a specific function in the operation of an electric supply line.

1.1 The RUS maintains sets of drawings in which each drawing is the official graphic representation of a RUS standard construction assembly unit. The drawings show the configuration, dimensions, and materials used in the construction of the various RUS standard assemblies. Some drawings show assembly details and instructional notes.

1.2 Each assembly is given a unique “number” designation, which is a combination of letters and numbers. The assembly unit number is shown in the title block of the drawing of the assembly. If more than one assembly are depicted on a drawing, then each assembly number is usually shown in the drawing title block.

1.3 The drawings list and identify, with a short description and an alphabetical designation, each piece of material required to construct each assembly unit. The alphabetical designations refer to items, with the same alphabetical designation, found in RUS Informational Publication 202-1, “List of Materials Acceptable for Use on Systems of RUS Electrification Borrowers.”

2. CATEGORIES AND SUBCATEGORIES OF ASSEMBLY UNITS: Each construction assembly unit fulfills a specific functional purpose in the construction and operation of an electric supply line. For example, several assembly units are designed to support a single-phase primary conductor and a neutral conductor. These assembly units are grouped together into one *category* and designated as “A” pole-top assembly units. Similarly, all of the assembly units required for guying structures are grouped together into one category and designated as “E” assembly units.

2.1 Table 1 in the Appendix shows and compares the historical REA categories of distribution line assembly units and the new categories created during the recent update of Bulletin 1728F-803. All of the new designated categories are defined with a single, capitalized letter. The older designated categories use a single letter (such as “F”) or the combination of a single letter and a number (such as “M2”) to define a category. In the latter case, two characters are used

to define categories so that several different types (categories) of assemblies are not all grouped together in the “M” (miscellaneous) category.

2.2 Pole-top assemblies are construction assembly units that support primary conductors and their associated neutral conductor. The four categories of pole-top assembly units are: single-phase, two-phase, three-phase, and double-circuit. These categories are defined with the capital letters “A” through “D”, respectively. Each of these categories is divided into *subcategories*. An ordinal number, which follows the category alphabetical character in the assembly number, is used to define each subcategory. Each subcategory number designates the range of line angles for which the group of pole-top assemblies within that subcategory is designed. Each of the four pole-top categories has the same line angle subcategories with the same identifying ordinal number. Table 2 in the Appendix shows the subcategory description (line angles), the historical REA numeral designation for each subcategory, and the new RUS numeral designation for each subcategory of the RUS pole-top assembly units.

2.3 In the revised RUS Bulletin 1728F-803, the number of assembly unit categories, designated by single letters, was increased as shown in Table 1 of the Appendix. Additionally, each new category was assigned new subcategories similar to the existing subcategories of assembly units “A” through “D”. A complete list of these new subcategory assignments, their assigned number designation, and the meaning of the new designations are shown in Table 3 in the Appendix.

3. HISTORICAL NUMBERING FORMAT FOR ASSEMBLY UNITS: The historical basic standard format for numbering assembly units is of the form:

$$L_1N_1 - N_2$$

Where:

L_1 = a letter = Category of the assembly, (See Table 1);

N_1 = a number = Subcategory of the assembly, (See Table 2); and,

N_2 = a number = Assembly Identification Number

3.1 Only the pole-top assembly units and miscellaneous units (“M”) have subcategory numbers (“ N_1 ”). Each assembly unit is assigned a unique *assembly identification number* (“ N_2 ”) to differentiate it from the other assembly units with the same category letter. If there is only one assembly unit in the series, the dash (“-”) and the subcategory number (“ N_1 ”) are generally not used. This general rule is not always applied consistently.

3.2 Prefix letters and/or suffix letters are added to the basic numbering format when applicable. Each prefix letter denotes a specific meaning and is explained in detail in Section 4.2. Suffixes are explained in Section 4.3.

3.3 In summary, the historical format for numbering assembly units is varied. The format may be as simple as a category number plus an assembly identification number, such as "A2." Conversely, the assembly unit number may contain a category letter, a subcategory number, an assembly unit identification number, a prefix, and a suffix such as shown in the following specific example:

VC4 – 1L

Where:

- V** = Prefix (implies 24.4/14.4 kV construction);
- C** = Category (implies 3-phase primary, pole-top assembly);
- 4** = Subcategory (implies large angle, suspension insulators);
- 1** = Drawing Identification number; and,
- L** = Suffix (implies assembly to be used with large conductors).

Occasionally, the established rules explained above may vary.

4. NUMBERING FORMAT FOR ASSEMBLY UNITS IN BULLETIN 1728F-803, NUMBER PREFIXES, AND NUMBER SUFFIXES: In Bulletin 1728F-803, each assembly unit is also assigned a number using the same basic format as the historical REA numbering system. Symbolically, the newer format is:

L₁N₁ . N₂

Where:

- L₁** = a letter = Category of the assembly, (See Table 1);
- N₁** = a number = Subcategory of the assembly, (See Table 2); and,
- N₂** = a number = Assembly Identification Number

4.1 The categories, subcategories, and assembly identification numbers are similar to those used in the historical numbering system and are explained above and in the tables in the Appendix. Note that the dash ("-") has been replaced with a period ("."). The period is used to distinguish the new numbering scheme from the historical REA numbering system.

4.2 In both the historical and the new numbering systems, the assembly unit number may be preceded by a letter *prefix*. These prefixes denote either the voltage or type of use for which the assembly unit is designed. A complete list of all of the number prefixes used by RUS is shown in Table 4 of the Appendix.

4.3 Likewise, assembly unit numbers may be immediately followed by one or more alphabetic *suffixes*. Each letter suffix denotes a meaning. As a rule, an assembly unit number with a suffix means the assembly unit is a slight variation of the assembly unit with the same number without a suffix. The list of suffixes was expanded and each alphabetic suffix was assigned a specific meaning. Table 5 in the Appendix lists the historical and new suffixes and their denoted meanings.

4.4 Two new special numbering conventions were also established. First, identification numbers (“N₂”) that start with the number zero (“0”) denote that the assembly unit is less than a whole standard RUS assembly unit. Thus, for accounting purposes, an assembly unit whose identification number begins with the number zero is less than a whole retirement unit. Secondly, the identification numbers (“N₂”) for anchors (“F” assembly units) are generally one one-thousandth (1/1,000) of the anchor’s designated maximum holding power. For instance, the expanding anchor numbered “F1.8” has a maximum holding power of 8,000 pounds.

4.5 In summary, the format of all of the assembly unit numbers in RUS Bulletin 1728F-803 are in the same format as shown below. Many of the numbers do not contain a prefix nor a suffix. The standard format shown below has been expanded to show the proper placement of a prefix (“P”) and suffixes (“S₁” and “S₂”). Prefixes and suffixes are only added to assembly unit numbers when applicable as explained above.

PL₁N₁ . N₂S₁S₂

An example of a typical assembly unit number in RUS Bulletin 1728F-803 is: “**VC4.1L**”. This same example is shown above in Section 3.3. The only difference in the newer format is that the dash (“-”) has been replaced with a period (“.”). The meanings of the characters in this particular example are the same.

4.6 All of the numbering rules and conventions, and the meanings of the characters within the assembly unit numbers are documented within this bulletin. RUS endeavors to keep assembly unit numbers short, uniform, understandable, meaningful, and in a standard format. Thus, the identification numbers (“N₂”) should not be more than two digits, and the number of suffixes should not be more than three characters (letters).

TABLE 1**CATEGORIES OF CONSTRUCTION ASSEMBLY UNITS**

CATEGORY DESCRIPTION (Function of Assembly Unit)	NEW DESIGNATION (RUS 1728F-803)	HISTORICAL REA DESIGNATION
Single-Phase Primary and Neutral Conductor Support	A	A
Two-Phase Primary and Neutral Conductor Support	B	B
Three-Phase Primary and Neutral Conductor Support	C	C
Double Circuit Primary and Neutral Conductor Support	D	DC
Guys	E	E
Anchors	F	F
Transformers	G	G
Grounds	H	M2
Secondaries	J	J
Services	K	K, M8,M24
Tying Guides	L	M40 – M43
Miscellaneous	M	M,R
Neutrals	N	-
Protection (Line, Pole)	P	M2
Metering	Q	M8
Reclosers	R	M3
Sectionalizing	S	M3, M5
Wood (Poles, Crossarms)	W	M5, M19, M20
Voltage Alterations (Regulators)	Y	M7

TABLE 2**SUBCATEGORIES (TYPES) OF POLE-TOP ASSEMBLY UNITS ****** (Defined as Categories "A" through "D")**

SUBCATEGORY DESCRIPTION (Type or Applicable Angles)	NEW DESIGNATION (RUS 1728F-803)	HISTORICAL REA DESIGNATION
Tangent; Small Angles ** Single Pin or Post-type Insulators	1	1,9
Small Line Angles ** Double Pin or Post-type Insulators	2	1,2,9
Large Line Angles ** Suspension-type Insulators	3	3
Large Line Angles ** Double Deadends Suspension-type Insulators	4	4
Single Deadends (Taps) Suspension-type Insulators	5	5,7
Double Deadends (Tangent) Suspension-type Insulators	6	6,8

** NOTE: Allowable line angles are usually defined and limited as shown on the notes and the design parameters of the drawings of each pole-top assembly unit.

TABLE 3

SUBCATEGORIES (TYPES) OF ASSEMBLY UNITS
(RUS BULLETIN 1728F-803)

CATEGORY (DESCRIPTION)	SUBCATEGORY DESIGNATION	DESIGNATION MEANING
E (Guys)	1	Through Bolt Type
	2	Through Bolt Type – Heavy Duty
	3	Wrapped Type
	4	Pole Band Type
	5	Miscellaneous Unit
F (Anchors)	1	Expanding Type
	2	Screw Type – (Power Installed)
	3	Plate Type
	4	Service Type
	5	Rock Type
	6	Swamp Type – (Power Installed)
G (Transformers)	1	Single-Phase Installation
	2	Two-Phase Installation
	3	Three-Phase Installation
H (Grounds)	1	Ground Rod Type
	2	Trench Type
	3	Ground Rod Type for Switches
	4	Platform Type for Switches
J (Secondaries)	1	Tangent, Small Angle
	2	Large Angle
	3	Deadends
	4	Miscellaneous
K (Services)	1	Pole Mounted
	2	Wall (House) Mounted
	3	Mast Type
	4	Service Drop (Guides)
L (Tying Guides)	1	Primary Conductors
	2	Neutral Conductors
	3	Secondary Conductors
	4	Service Drop Conductors

TABLE 3 (Cont.)

SUBCATEGORIES (TYPES) OF ASSEMBLY UNITS
(RUS BULLETIN 1728F-803)

CATEGORY (DESCRIPTION)	SUBCATEGORY DESIGNATION	DESIGNATION MEANING
M (Miscellaneous)	1	Rights-of-Ways
	2	Trees
N (Neutrals)	1	Tangent, Small Angle
	2	Small Angle
	3	Large Angle
	5	Single Deadend
	6	Double Deadends
P (Protection)	1	Line (Arresters)
	2	Pole
Q (Metering)	1	Single-Phase (Secondary)
	3	Three-Phase (Secondary)
	4	Primary (Three-Phase)
R (Reclosers)	1	One (Single-Phase)
	3	Three (Three-Phase)
S (Sectionalizing)	1	Cutouts
	2	Switches
W (Wood Material)	1	Poles
	2	Crossarms
	3	Braces
Y (Voltage Alteration)	1	Voltage Regulators
	2	Autotransformers
	3	Capacitors

TABLE 4

STANDARD ASSEMBLY UNIT NUMBER “PREFIXES”

PREFIX	DESIGNATED MEANING
T	Transmission Line Construction
U	Underground Distribution (URD)
V	24.9/14.4 kV Line Construction
Z	34.5/19.9 kV Line Construction

NOTE: No prefix implies 12.47/7.2 kV distribution construction.

TABLE 5**STANDARD ASSEMBLY UNIT NUMBER “SUFFIXES”**

SUFFIX	NEW DESIGNATED MEANING (RUS 1728F-803)	HISTORICAL REA DESIGNATED MEANING
A	(Not Used)	Slight variation of design or materials
B	(Not Used)	Slight variation of design or materials
C	(Not Used)	Cabled Conductors (Secondary Voltages)
G	Guide Drawing (No Materials)	Guide Drawing (No Materials)
L	Large Conductors (See Note 1)	Large Conductors (See Note 1)
P	Use of post type insulators	Use of post type insulators
E	<i>Extra Large Conductors (Future) (See Note 2)</i>	<i>(Not Used)</i>
N	<i>Narrow Profile Construction (Future)</i>	<i>(Not Used)</i>

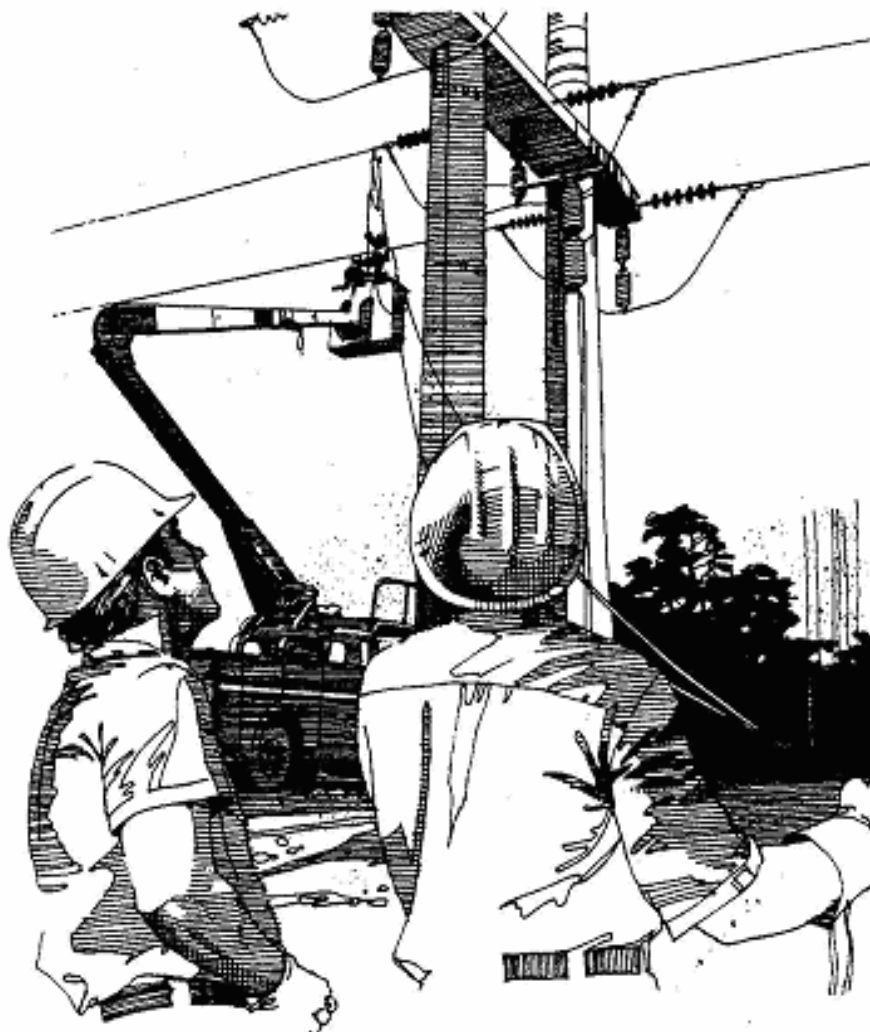
Note 1: Large conductors (#2/0 through 336.4 kcmil ACSR) have a breaking strength of 4,500 through 10,000 lbs.

Note 2: Extra large conductors (larger than 336.4 kcmil ACSR) have a breaking strength greater than 10,000 lbs.

CONSTRUCTION UNITS

FRAMING GUIDE PRIMARY POLE TOP ASSEMBLY UNITS

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ELECTRIC COOPERATIVE, INC.



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FRAMING GUIDE PRIMARY POLE TOP ASSEMBLY UNITS

DRAWING	DESCRIPTION	C.U. NO.
FRAMEGID1	14.4/24.9 KV PRIMARY, 1 - PHASE, 0 TO 30 DEGREE ANGLE, DOUBLE PRIMARY SUPPORT	VA2
FRAMEGID1	14.4/24.9 KV PRIMARY, 1 - PHASE, 30 TO 60 DEGREE ANGLE	VA3
FRAMEGID1	14.4/24.9 KV PRIMARY, 1 - PHASE, 60 TO 90 DEGREE ANGLE	VA4
FRAMEGID1	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	VA5
FRAMEGID2	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND	VA6
FRAMEGID2	14.4/24.9 KV PRIMARY, CONVERSION, 1- PHASE TO 2- PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	VA2.NP.3
FRAMEGID3	14.4/24.9 KV PRIMARY, 2 - PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	VB2.NP
FRAMEGID3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE , 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	VB2.NP.3
FRAMEGID4	14.4/24.9 KV PRIMARY, 2 - PHASE, , 5 TO 30 DEGREE ANGLE, VERITCAL CONSTRUCTION	VB2.V
FRAMEGID4	14.4/24.9 KV PRIMARY, 2 - PHASE, 30 TO 60 DEGREE ANGLE, VERITCAL CONSTRUCTION	VB3
FRAMEGID4	14.4/24.9 KV PRIMARY, 2 - PHASE, 30 TO 60 DEGREE ANGLE, VERITCAL CONSTRUCTION	VB4
FRAMEGID4	14.4/24.9 KV PRIMARY, 2 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	VB5
FRAMEGID5	14.4/24.9 KV PRIMARY, 2 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	VB6
FRAMEGID5	14.4/24.9 KV PRIMARY, 3 - PHASE , 5 TO 30 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE	VC2.HN

FRAMING GUIDE PRIMARY POLE TOP ASSEMBLY UNITS

DRAWING	DESCRIPTION	C.U. NO.
FRAMEGID6	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERITCAL CONSTRUCTION	VC2.V
FRAMEGID6	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION	VC3
FRAMEGID6	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	VC4
FRAMEGID6	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	CV5
FRAMEGID7	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	VC6
FRAMEGID7	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERITCAL CONSTRUCTION	VD2.V
FRAMEGID8	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	VD3
FRAMEGID8	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	VD4
FRAMEGID8	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	VD3.TP
FRAMEGID8	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	VD4.TP
FRAMEGID9	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, VERTICAL CONSTRUCTION	VD5
FRAMEGID9	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, TWO POLES, SINGLE DEADEND, VERTICAL CONSTRUCTION	VD5.TP
FRAMEGID10	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, VERTICAL CONSTRUCTION	VD6
FRAMEGID10	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, TWO POLES, DOUBLE DEADEND, VERTICAL CONSTRUCTION	VD6.TP



FRAMING GUIDE PRIMARY POLE TOP ASSEMBLY UNITS

DRAWING	DESCRIPTION	C.U. NO.
FRAMEGID11	DOUBLE DOWN GUY, ONE ANCHOR, NUMBER 1 & 2 POLES	E1, E9
FRAMEGID11	DOUBLE DOWN GUY, SIDEWALK GUY BETWEEN PHASES, SINGLE CIRCUIT, ONE ANCHOR, NUMBER 1 & 2 POLES	E9, E16
FRAMEGID11	SINGLE DOWN GUY, NARROW PROFILE, ONE ANCHOR, NUMBER 1 & 2 POLES	E9
FRAMEGID11	DOUBLE DOWN GUY, SIDEWALK GUY BETWEEN PHASES, DOUBLE CIRCUIT, ONE ANCHOR, NUMBER 1 & 2 POLES	E9, E16
FRAMEGID12	DOUBLE DOWN GUY, ONE ANCHOR, NUMBER 3 POLES	E9
FRAMEGID12	TRIPLE DOWN GUY, TWO ANCHOR, NUMBER 3 POLES	E9
FRAMEGID12	QUADRUPLE DOWN GUY, TWO ANCHOR, NUMBER 3 POLES	E9
FRAMEGID12	QUADRUPLE DOWN GUY, THREE ANCHOR, NUMBER 3 POLES	E9
FRAMEGID13	DOUBLE DOWN GUY, ONE ANCHOR, NUMBER 4 POLES	E9
FRAMEGID13	TRIPLE DOWN GUY, TWO ANCHOR, NUMBER 4 POLES	E9
FRAMEGID13	QUADRUPLE DOWN GUY, TWO ANCHOR, NUMBER 4 POLES	E9
FRAMEGID13	QUADRUPLE DOWN GUY, THREE ANCHOR, NUMBER 4 POLES	E9
FRAMEGID14	DOUBLE DOWN GUY, ONE ANCHOR, NUMBER 5 POLES	E9
FRAMEGID14	TRIPLE DOWN GUY, TWO ANCHOR, NUMBER 5 POLES	E9
FRAMEGID14	QUADRUPLE DOWN GUY, TWO ANCHOR, NUMBER 5 POLES	E9
FRAMEGID14	QUADRUPLE DOWN GUY, THREE ANCHOR, NUMBER 5 POLES	E9
FRAMEGID15	SLACK SPAN AND PRIMARY TAP POLE QUADRANTS	
FRAMEGID15	PRIMARY TAP, TANGENT POLE, MULTI-PHASE ASSEMBLY, QUADRANTS B & C	



FRAMING GUIDE PRIMARY POLE TOP ASSEMBLY UNITS

DRAWING	DESCRIPTION	C.U. NO.
FRAMEGID15	SINGLE SLACK SPAN, TANGENT POLE, MULTI-PHASE ASSEMBLY	
FRAMEGID15	PRIMARY TAP, TANGENT POLE, MULTI-PHASE ASSEMBLY, QUADRANTS A & D	
FRAMEGID15	SINGLE SLACK SPAN, DEADEND POLE, MULTI-PHASE ASSEMBLY	
FRAMEGID15	PRIMARY TAP, DEADEND POLE, MULTI-PHASE ASSEMBLY	
FRAMEGID16	DOUBLE DOWN GUY, ONE ANCHOR, SINGLE TRANSFORMER ON TANGENT POLE, WITH FIBERGLASS GUY LINKS	
FRAMEGID16	DOUBLE DOWN GUY, ONE ANCHOR, SINGLE TRANSFORMER ON DEADEND POLE, WITH FIBERGLASS GUY LINKS	





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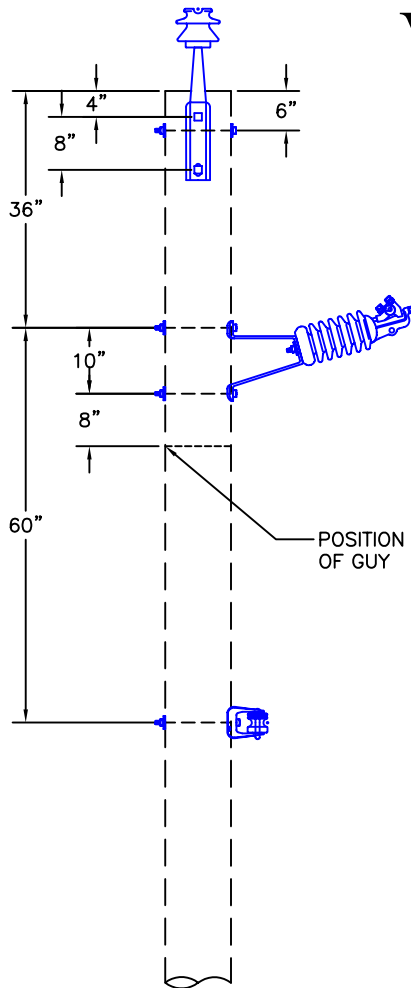
ISSUE#: REV 2
FRAMEGID1

ISSUE#: REV 1

FRAMEGID2

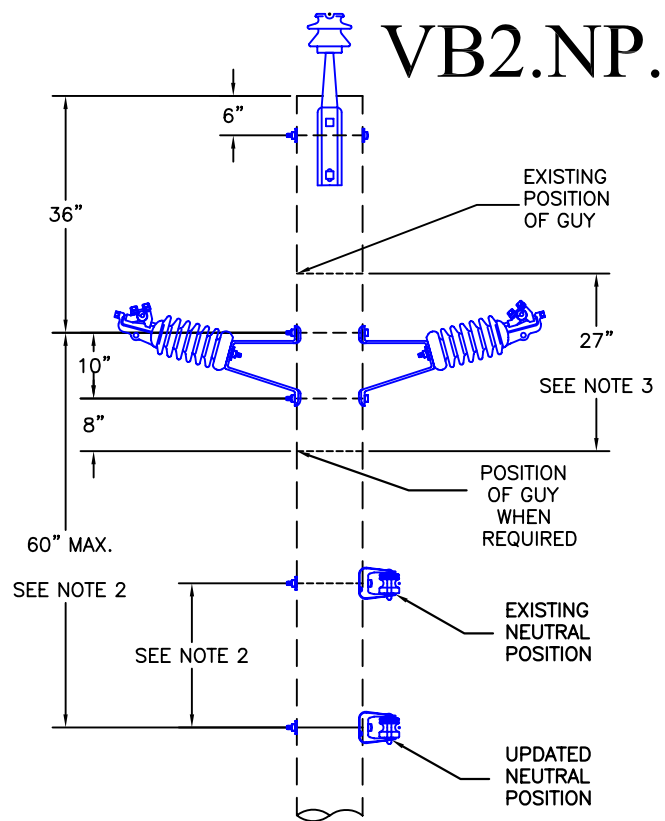


VB2.NP

**NOTE**

TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.

VB2.NP.3



THIS CONSTRUCTION TO BE USED ONLY FOR CONVERSION OF EXISTING SINGLE PHASE TO THREE PHASE.

NOTE

- 1) TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.
- 2) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE PROPER PHASE TO NEUTRAL SPACING. MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.
- 3) THE EXISTING GUY WILL NEED TO BE LOWERED 27".

DRAWINGS ARE NOT TO SCALE

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

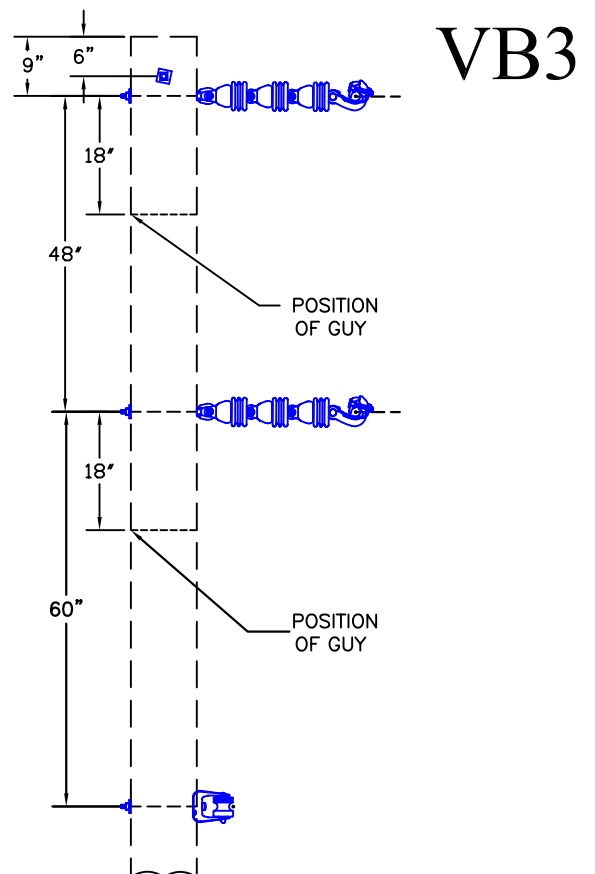
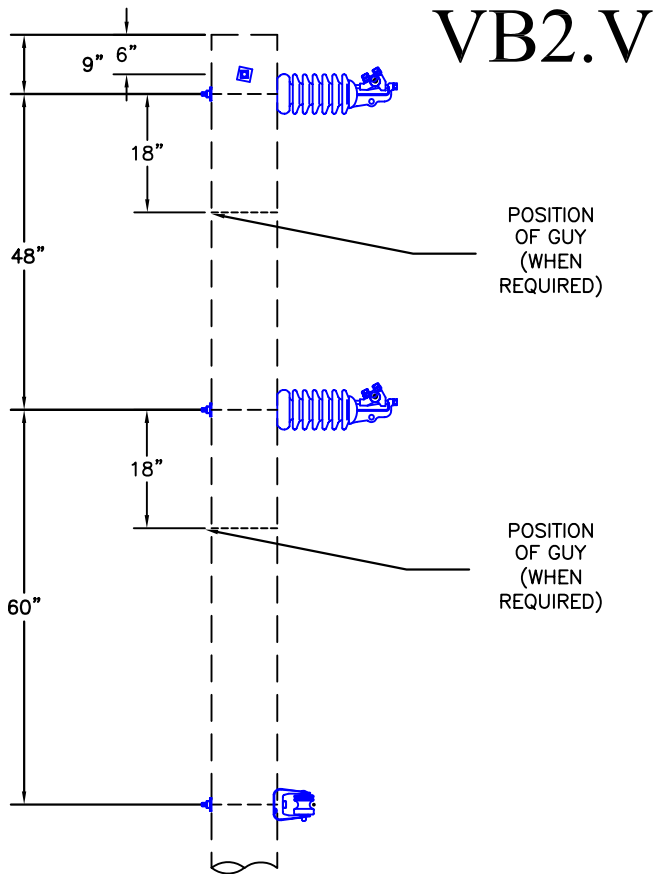
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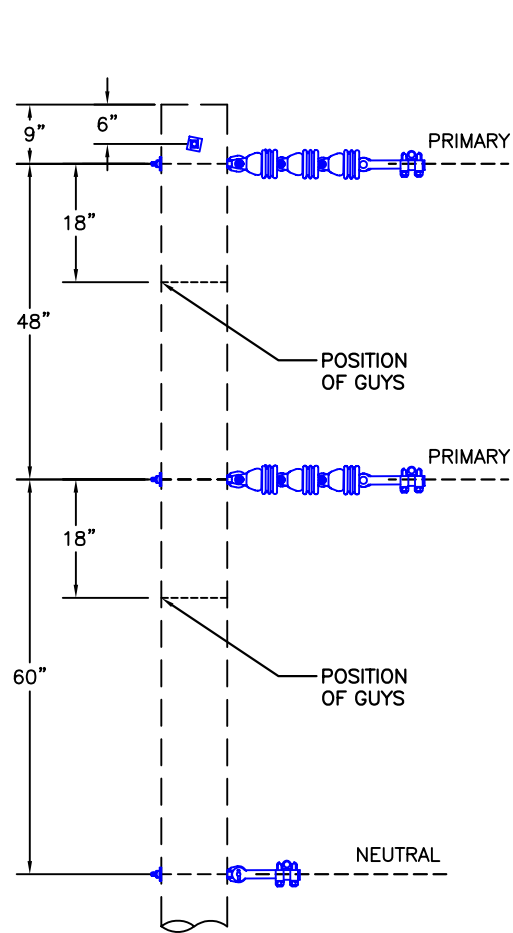
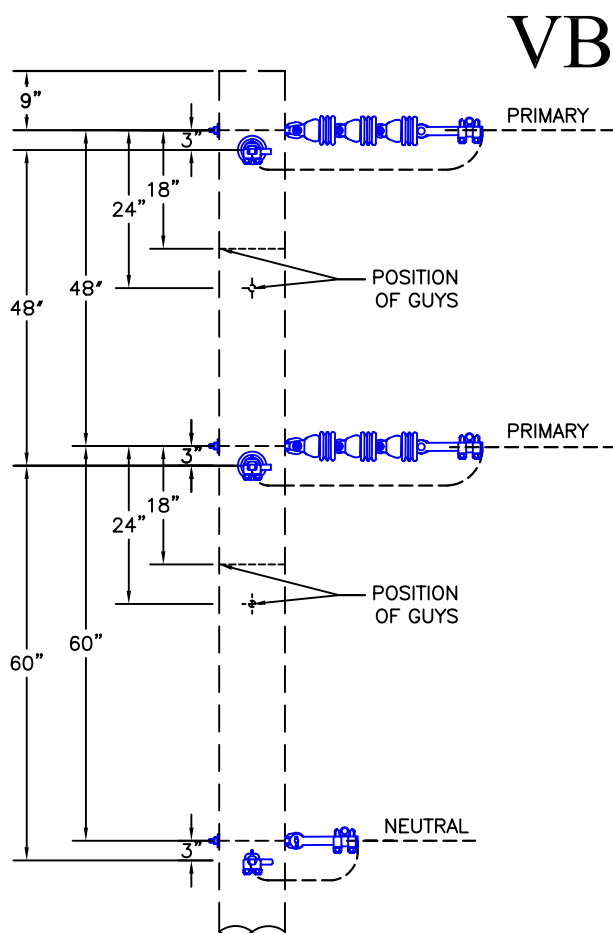
14.4/24.9 KV,
FRAMING GUIDE

ISSUE#: REV 1

FRAMEGID3

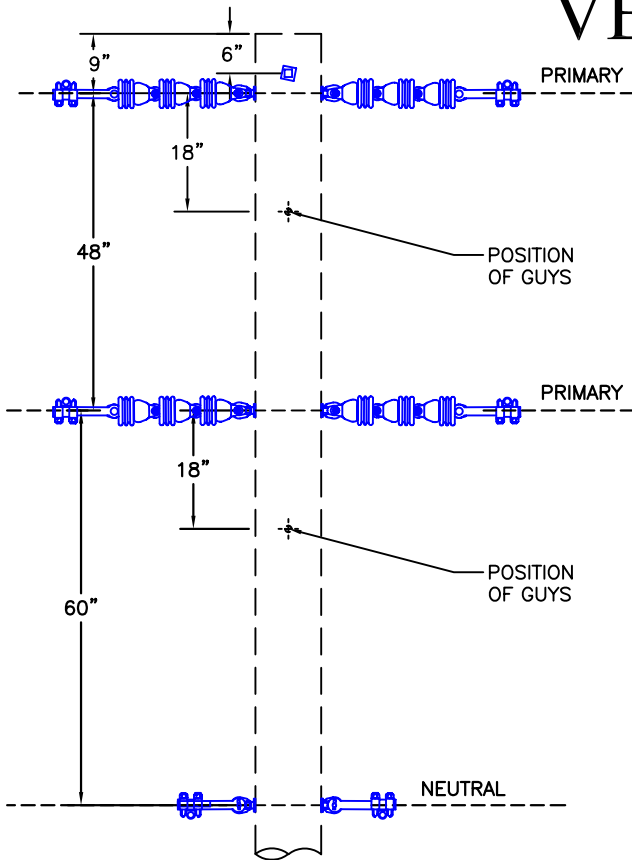


DRAWINGS ARE NOT TO SCALE



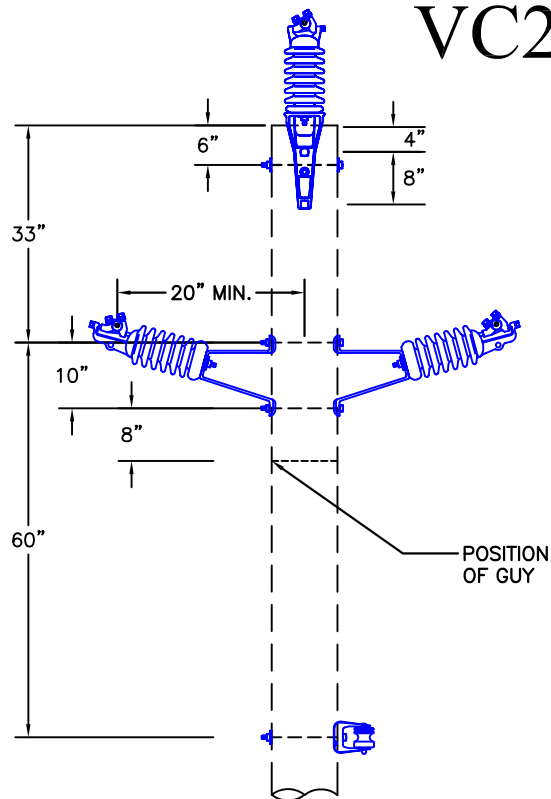


VB6



DRAWINGS ARE NOT TO SCALE

VC2.HN



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

Old CU:

DWG Name: FRAMEGID5.DWG

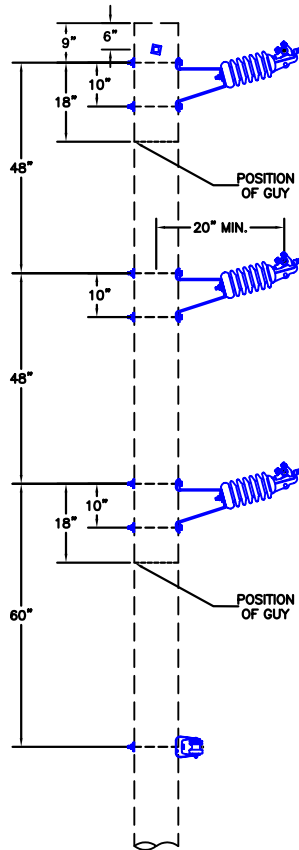
14.4/24.9 KV,
FRAMING GUIDE

ISSUE#: REV 1

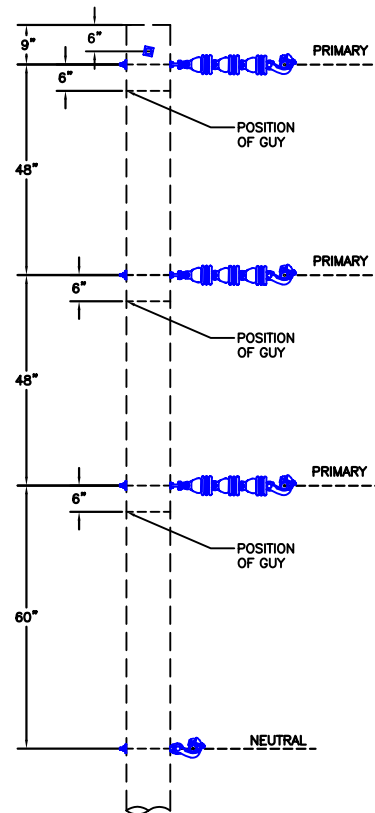
FRAMEGID5



VC2.V

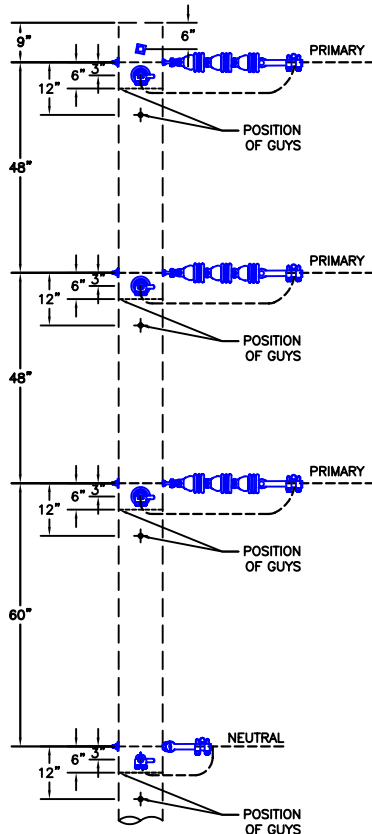


VC3

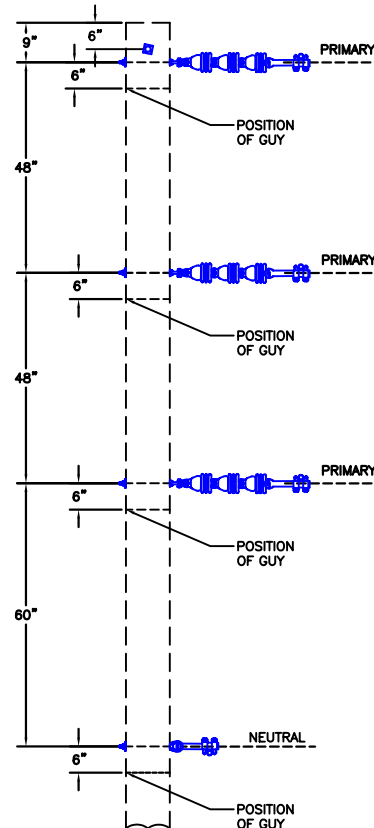


DRAWINGS ARE NOT TO SCALE

VC4



VC5



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

Old CU:

DWG Name: FRAMEGID6.DWG

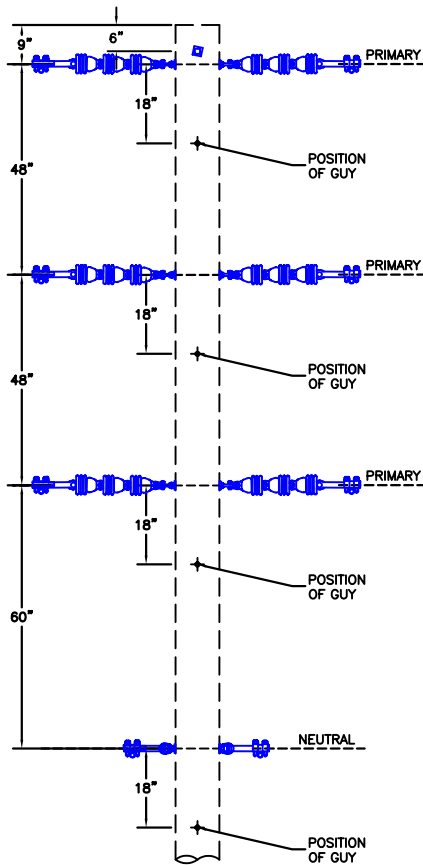
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FRAMING GUIDE

ISSUE#: REV 1

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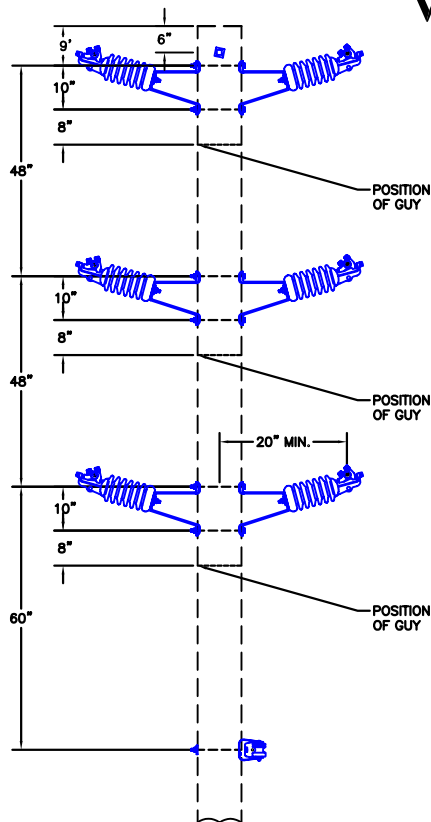


VC6



DRAWINGS ARE NOT TO SCALE

VD2.V



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

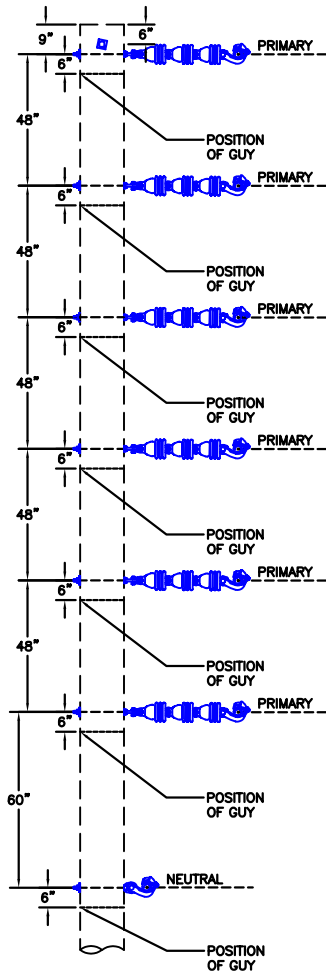
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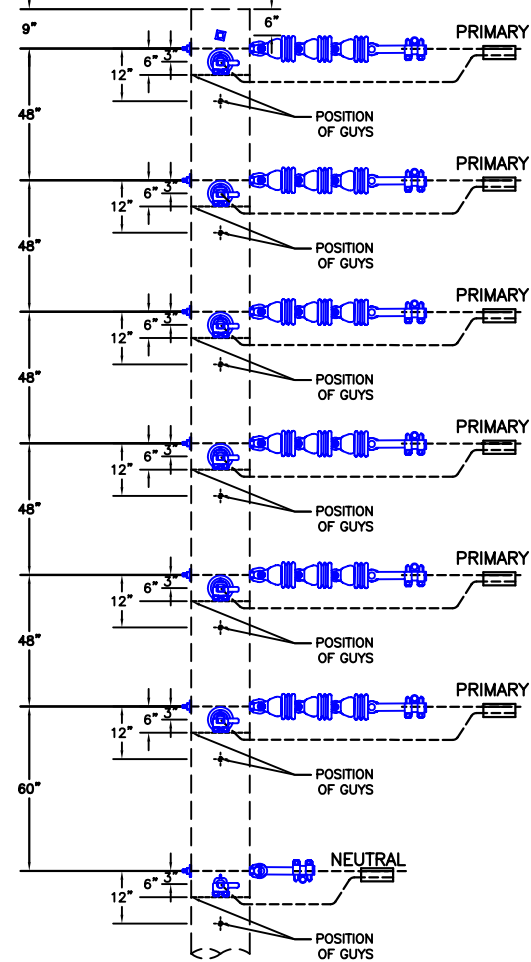
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FRAMING GUIDE

ISSUE#: REV 1

FRAMEGID7

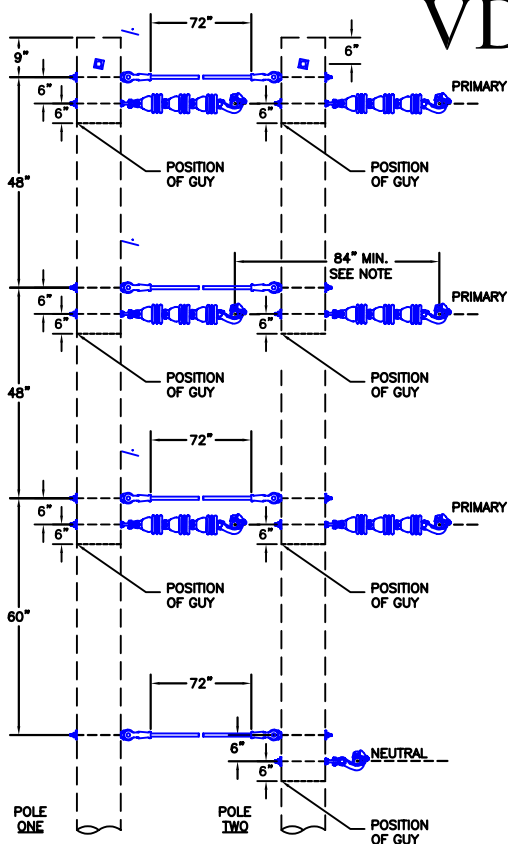


VD3

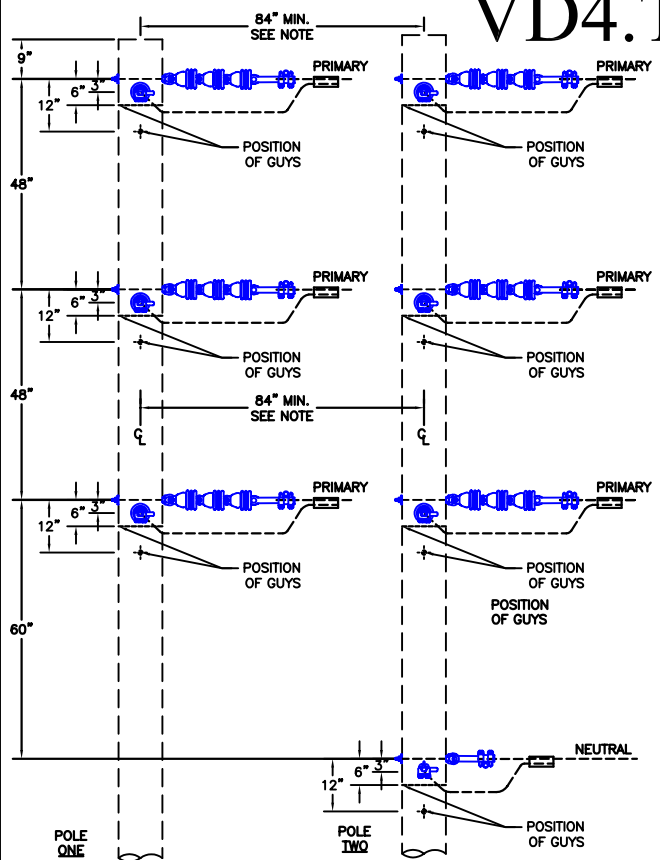


VD4

DRAWINGS ARE NOT TO SCALE



VD3.TP



VD4.TP

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

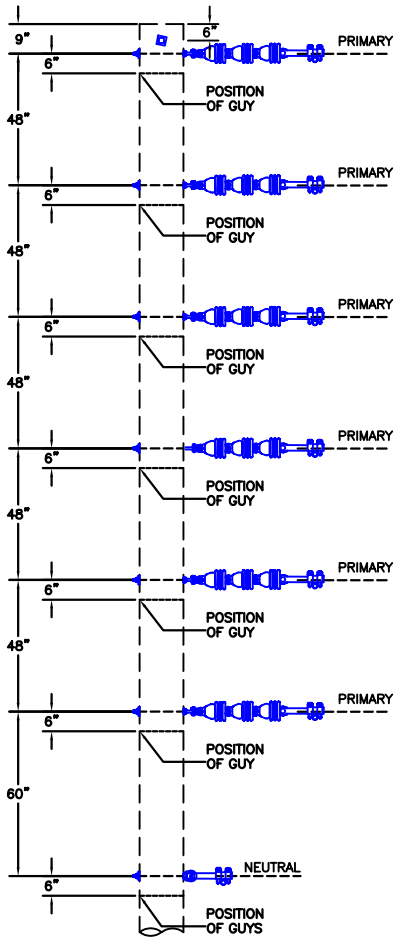
Old CU:

DWG Name: FRAMEGID8.DWG

14.4/24.9 KV,
FRAMING GUIDE

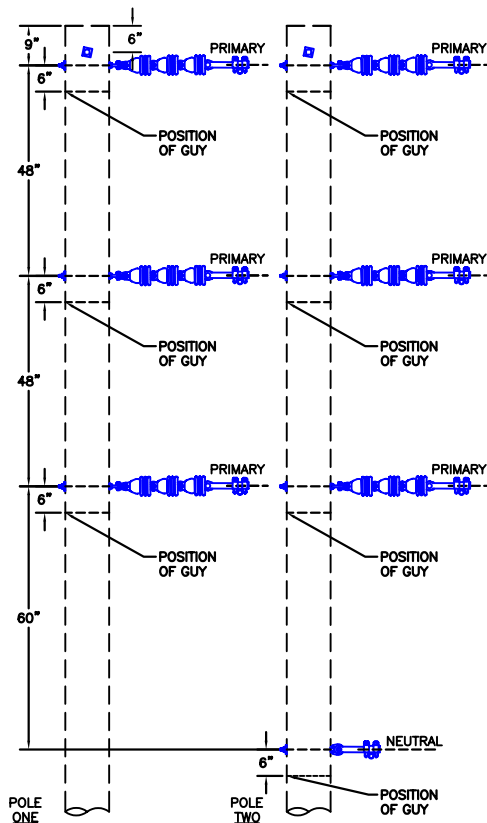
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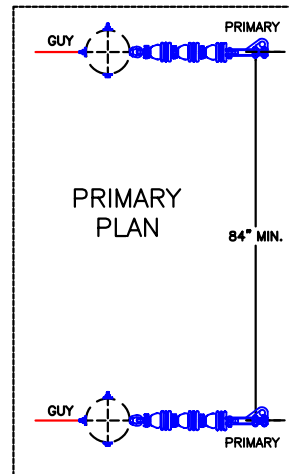


VD5

DRAWINGS ARE NOT TO SCALE



VD5.TP



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

Old CU:

DWG Name: FRAMEGID9.DWG

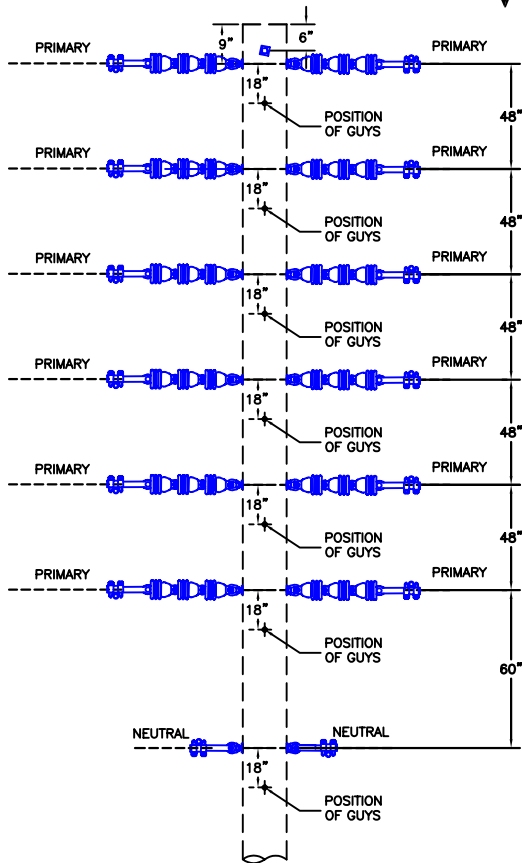
14.4/24.9 KV,
FRAMING GUIDE

ISSUE#: REV 1

FRAMEGID9

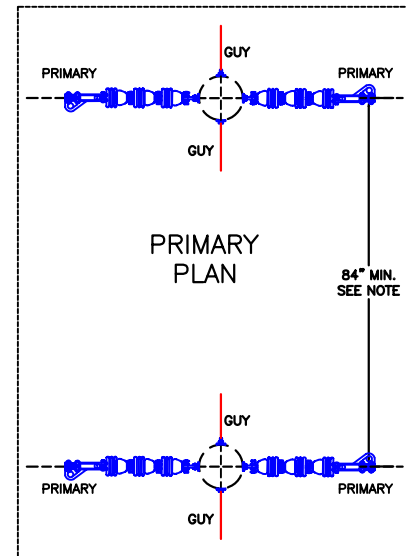
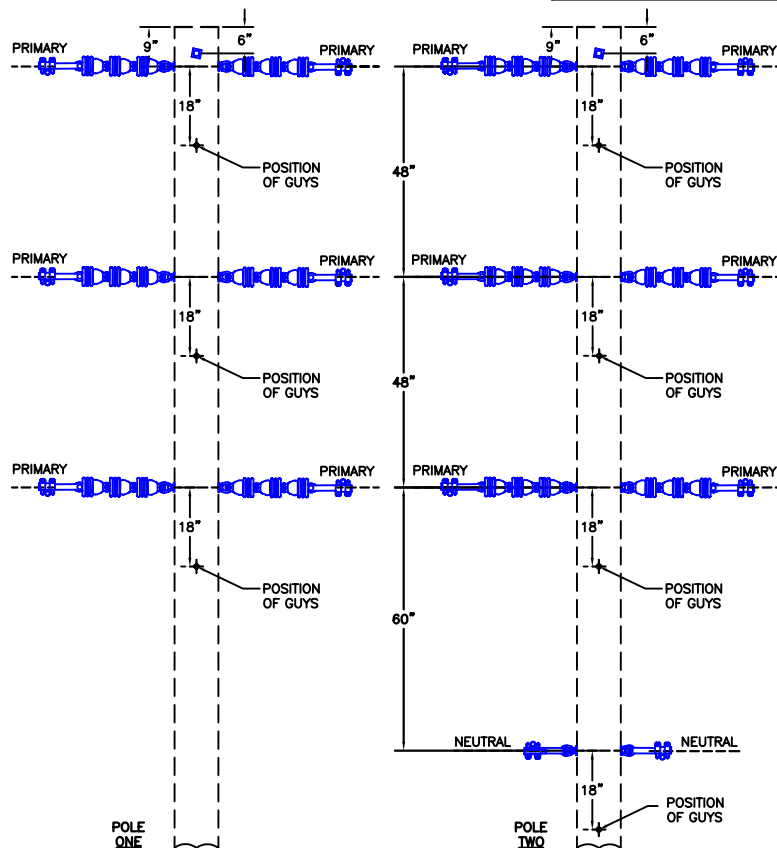


VD6



DRAWINGS ARE NOT TO SCALE

VD6.TP



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

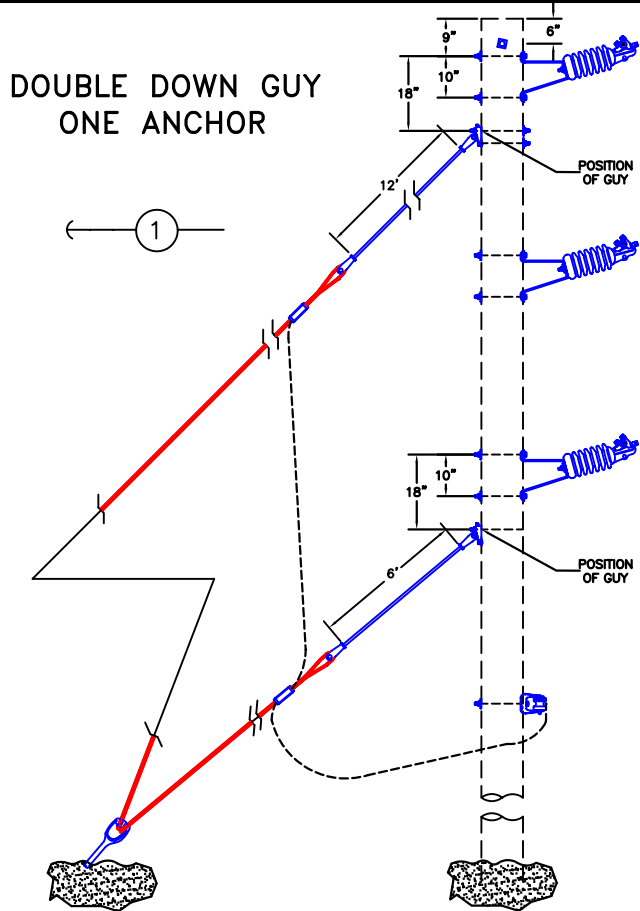
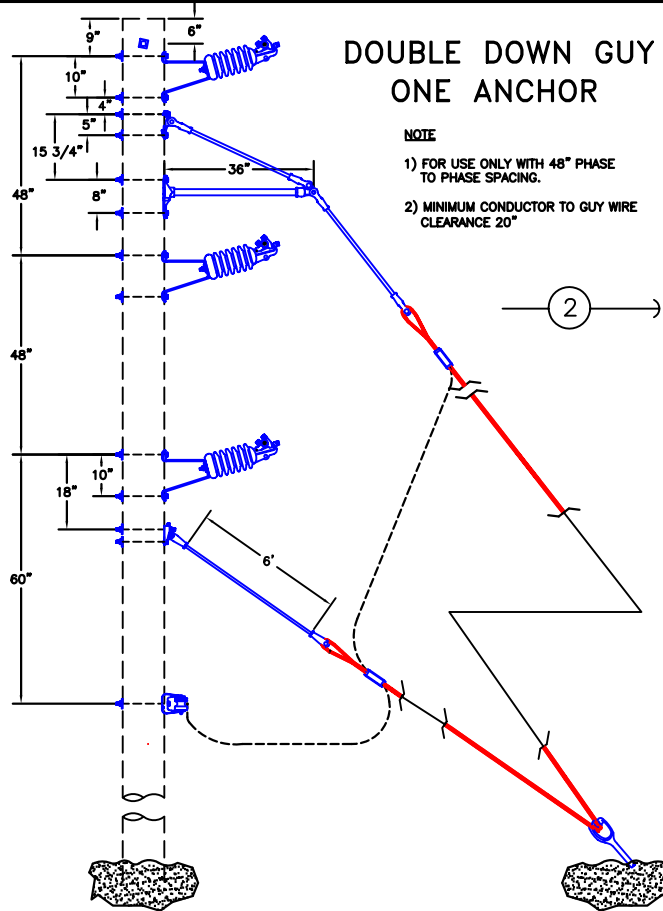
Old CU:

DWG Name: FRAMEGID10.DWG

14.4/24.9 KV,
FRAMING GUIDE

ISSUE#: REV 1

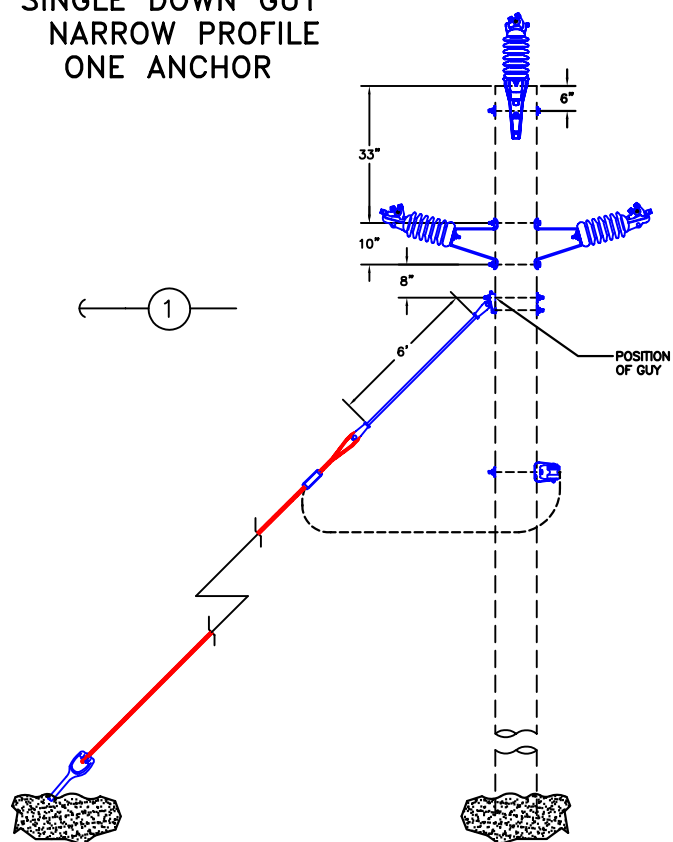
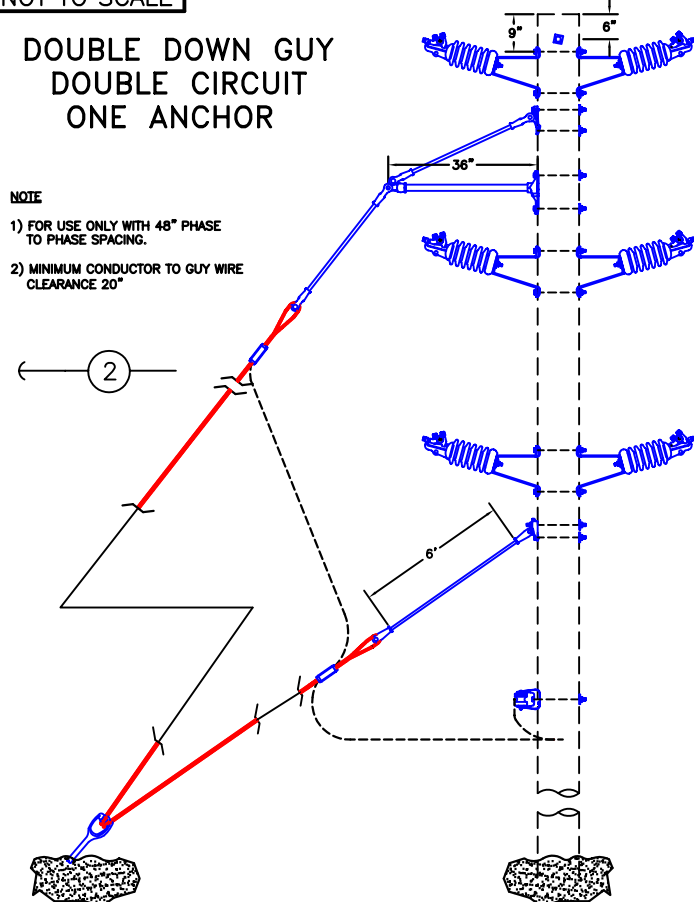
FRAMEGID10

DOUBLE DOWN GUY
ONE ANCHORDOUBLE DOWN GUY
ONE ANCHOR

NOTE

- 1) FOR USE ONLY WITH 48" PHASE TO PHASE SPACING.
- 2) MINIMUM CONDUCTOR TO GUY WIRE CLEARANCE 20"

DRAWINGS ARE NOT TO SCALE

SINGLE DOWN GUY
NARROW PROFILE
ONE ANCHORDOUBLE DOWN GUY
DOUBLE CIRCUIT
ONE ANCHOR

NOTE

- 1) FOR USE ONLY WITH 48" PHASE TO PHASE SPACING.
- 2) MINIMUM CONDUCTOR TO GUY WIRE CLEARANCE 20"

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 7, 2003

Old CU: FRAMEGID5

DWG Name: FRAMEGID11.DWG

14.4/24.9 KV, FRAMING GUIDE,
"1 & 2 POLES"

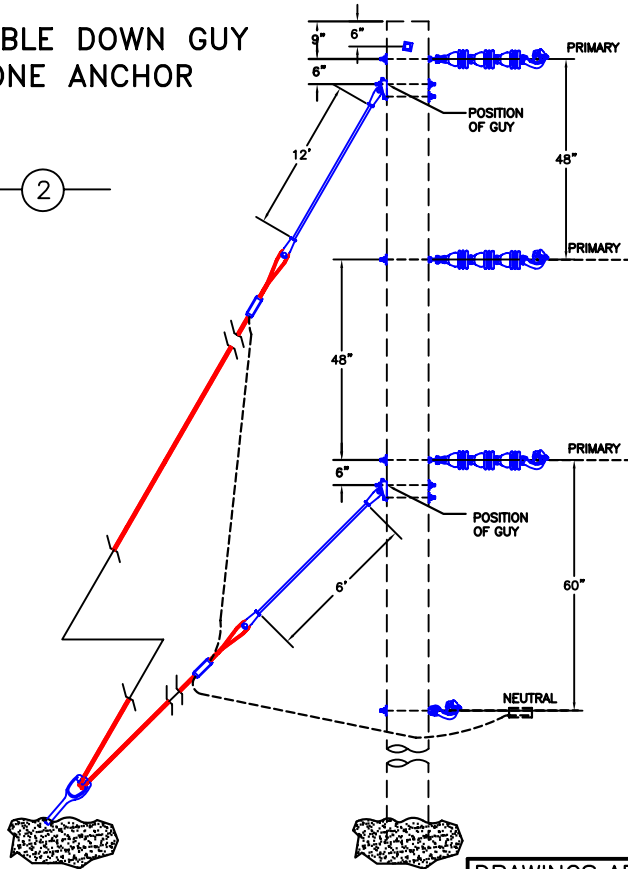
ISSUE#: REV 1

FRAMEGID11



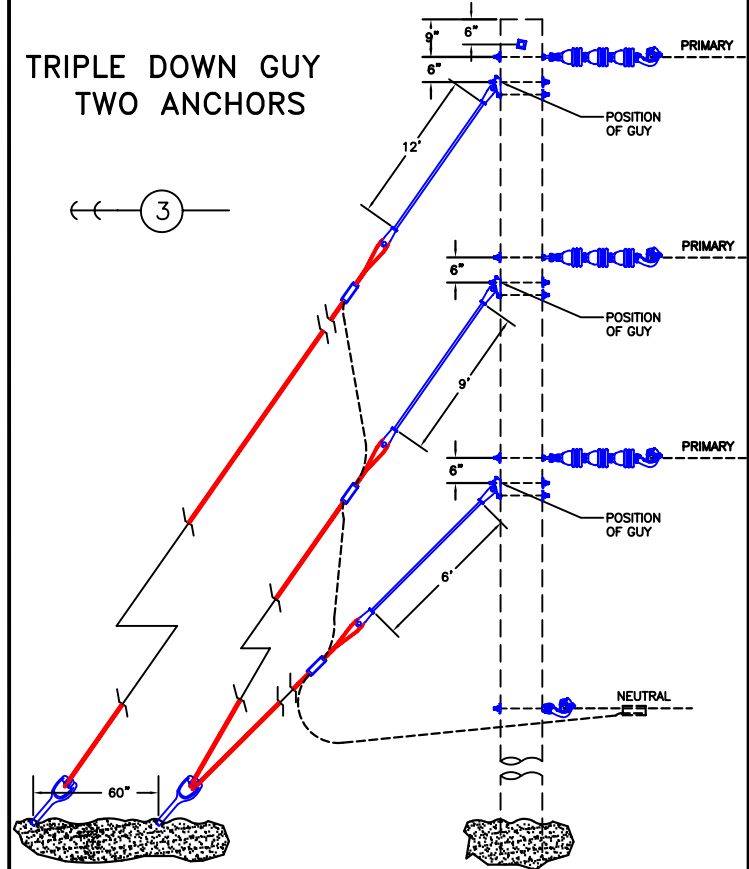
DOUBLE DOWN GUY ONE ANCHOR

← (2) →



TRIPLE DOWN GUY TWO ANCHORS

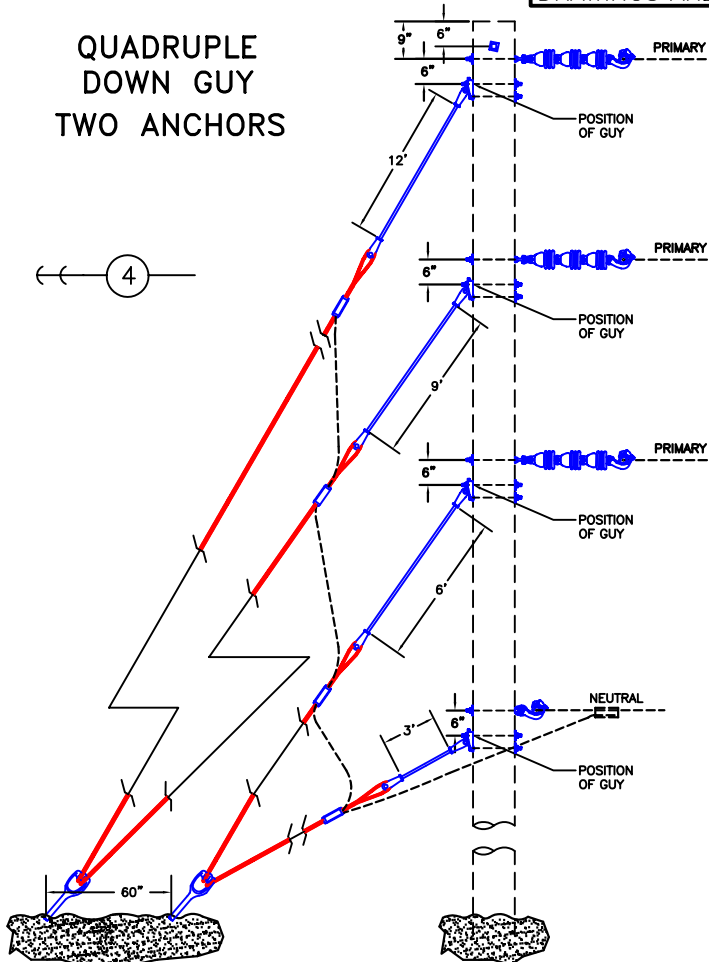
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DRAWINGS ARE NOT TO SCALE

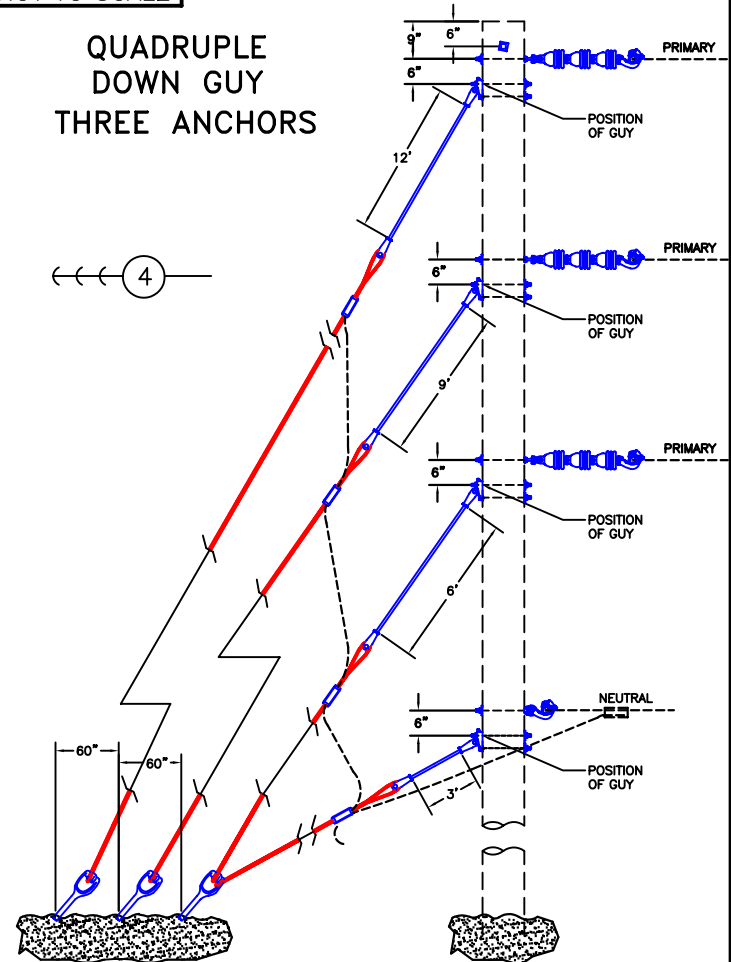
QUADRUPLE DOWN GUY TWO ANCHORS

← (4) →



QUADRUPLE DOWN GUY THREE ANCHORS

← (4) →



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 11, 2003

Old CU: FRAMEGID6

DWG Name: FRAMEGID12.DWG

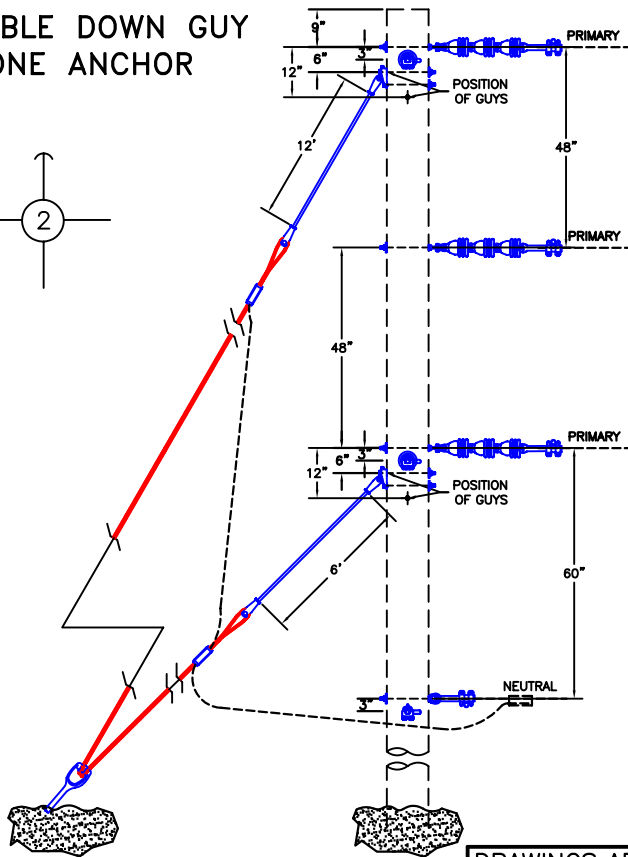
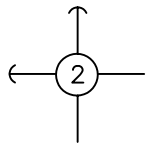
14.4/24.9 KV, FRAMING GUIDE,
"3 POLES"

ISSUE#: REV 1

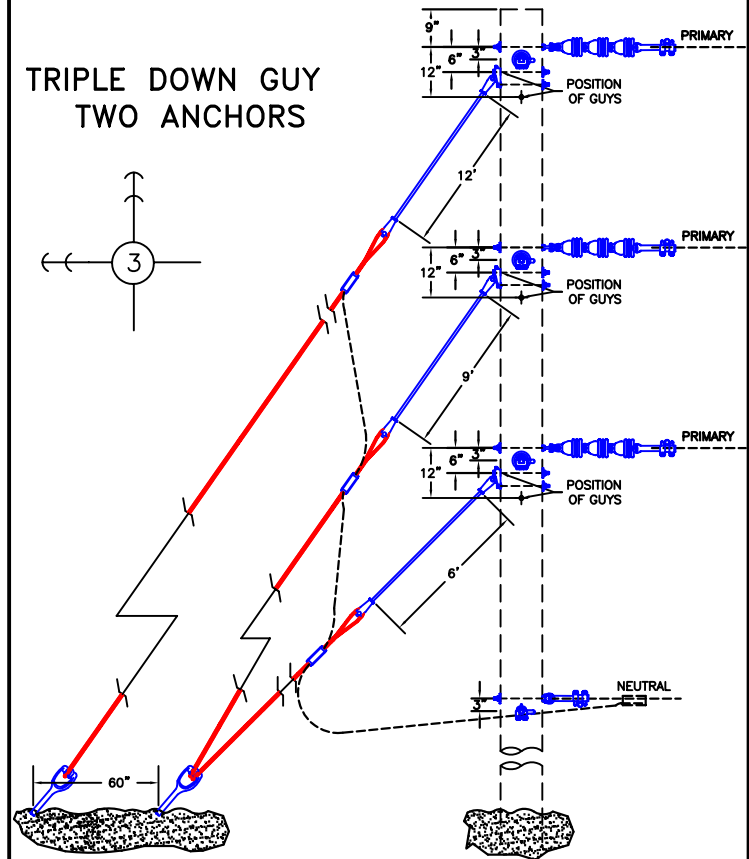
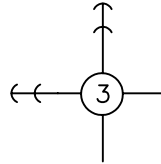
FRAMEGID12



DOUBLE DOWN GUY ONE ANCHOR

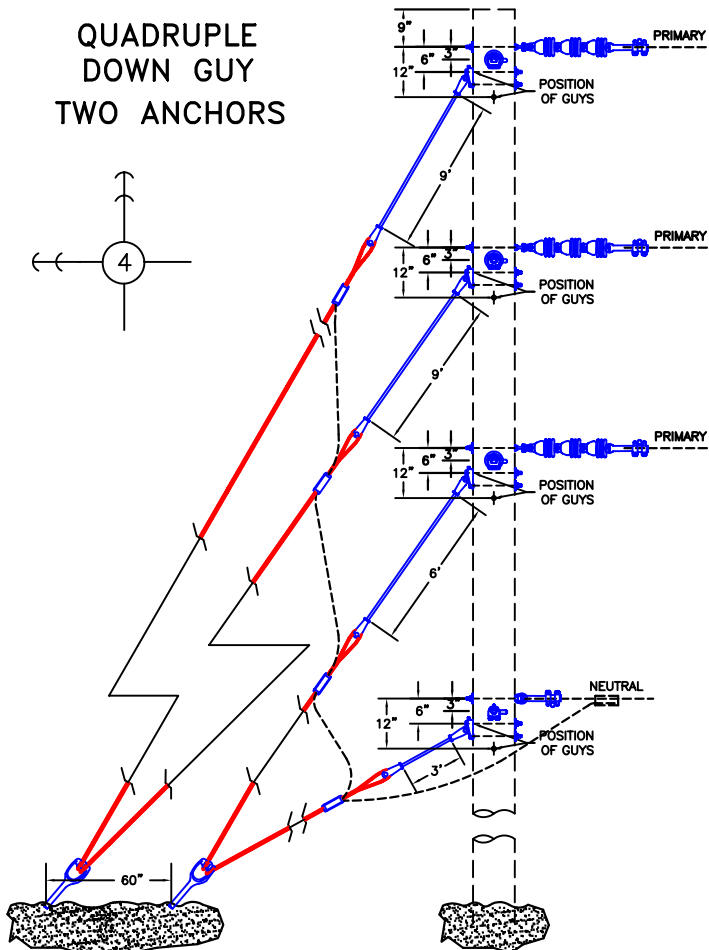
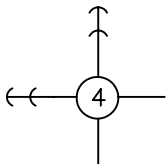


TRIPLE DOWN GUY TWO ANCHORS

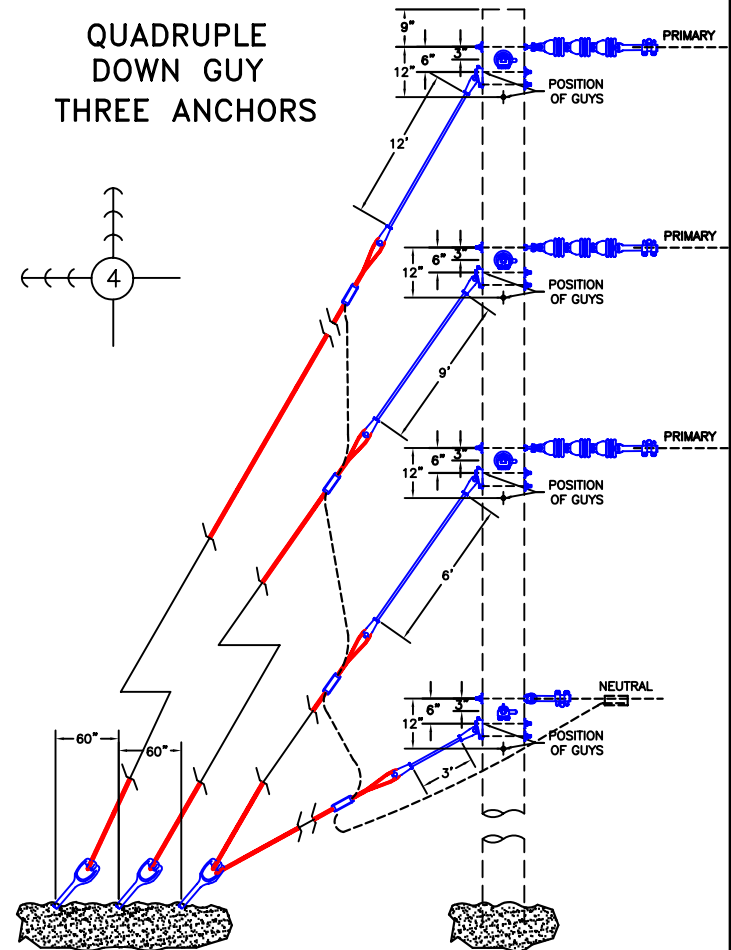
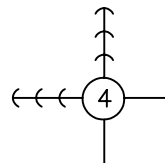


DRAWINGS ARE NOT TO SCALE

QUADRUPLE DOWN GUY TWO ANCHORS



QUADRUPLE DOWN GUY THREE ANCHORS



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 11, 2003

Old CU: FRAMEGID7

DWG Name: FRAMEGID13.DWG

14.4/24.9 KV, FRAMING GUIDE,
"4 POLES"

ISSUE#: REV 1

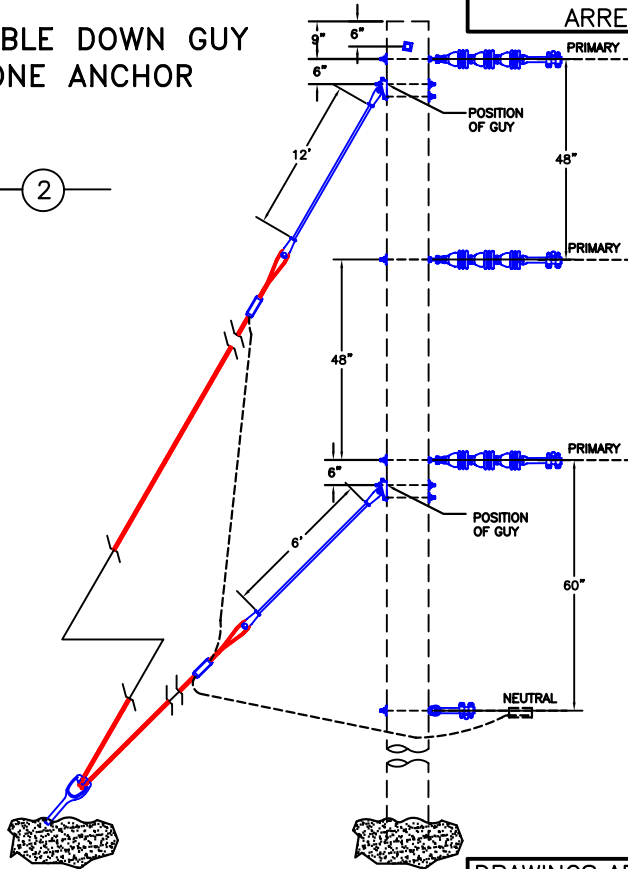
FRAMEGID13



NOTE: ALL 5-POLES SHALL HAVE LIGHTING ARRESTORS INSTALLED PER PHASE

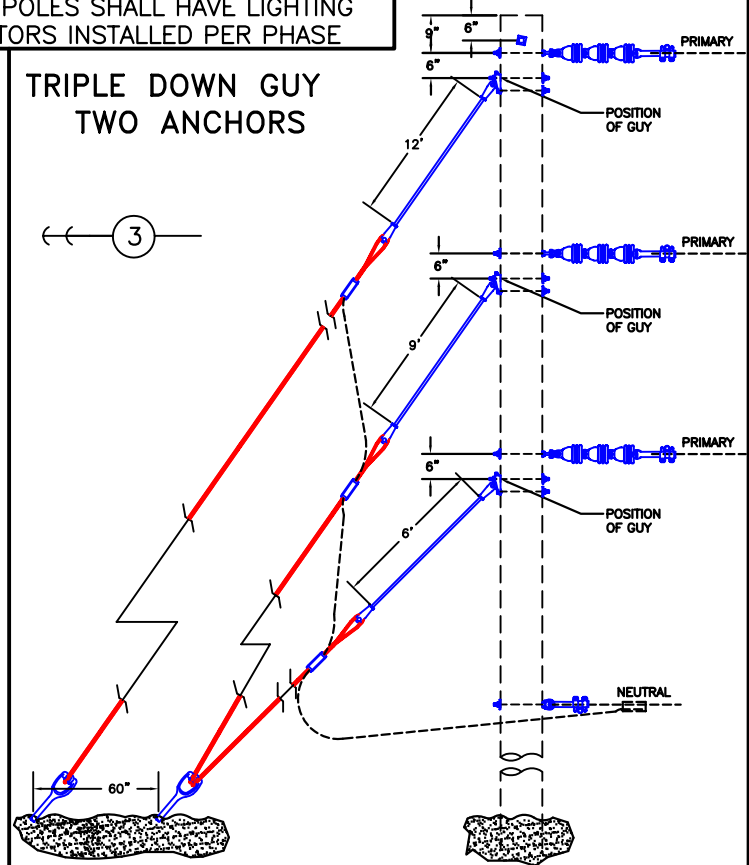
DOUBLE DOWN GUY ONE ANCHOR

②



TRIPLE DOWN GUY TWO ANCHORS

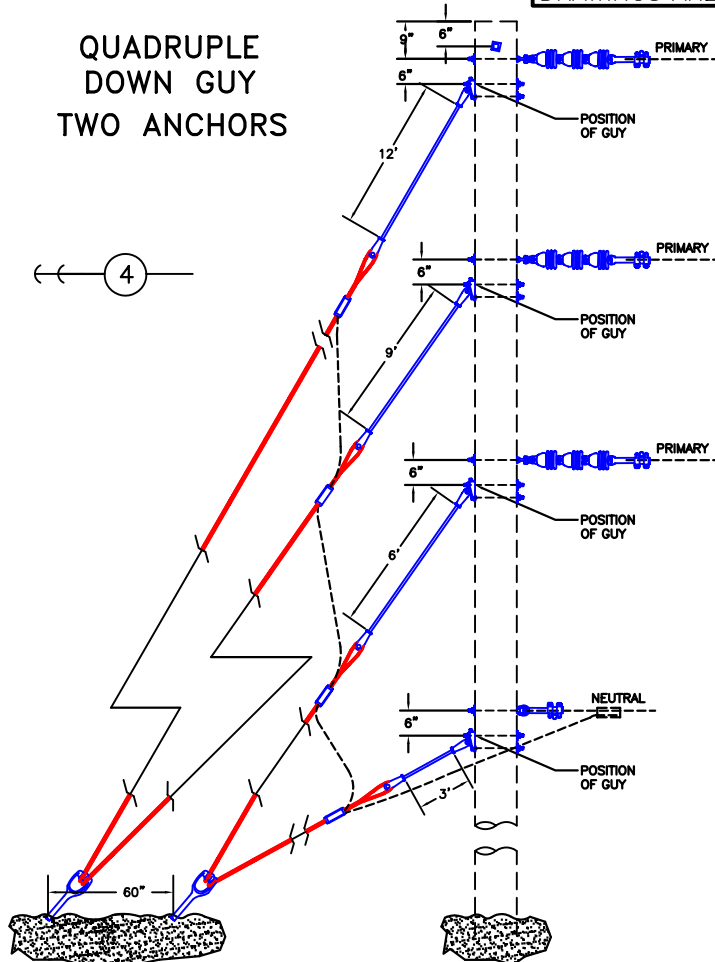
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DRAWINGS ARE NOT TO SCALE

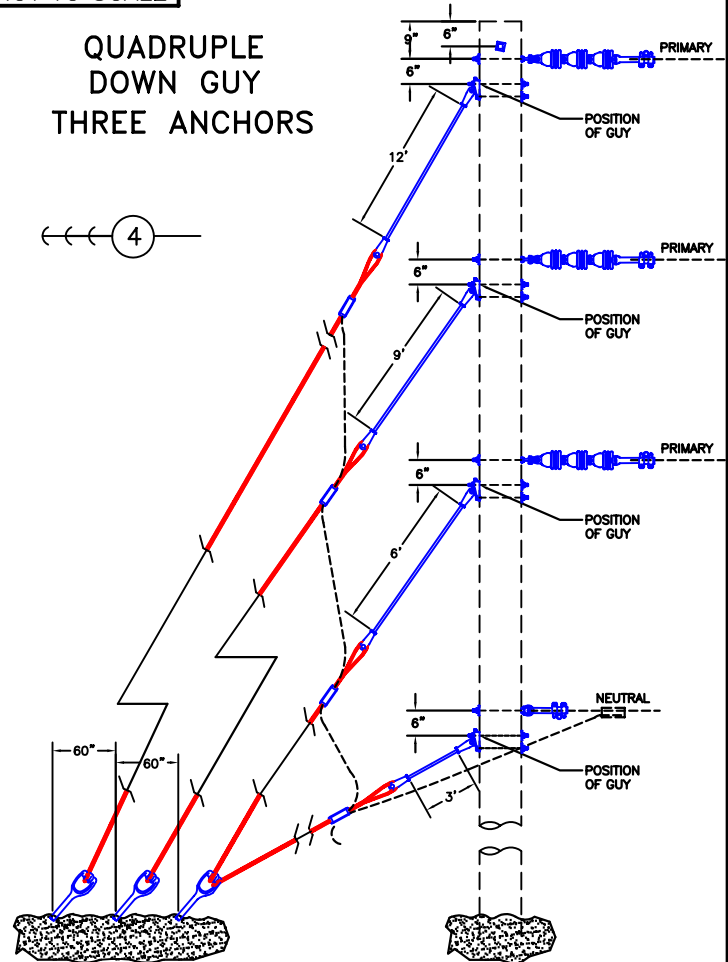
QUADRUPLE DOWN GUY TWO ANCHORS

④



QUADRUPLE DOWN GUY THREE ANCHORS

④



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: MARCH 11, 2003

Old CU: FRAMEGID8

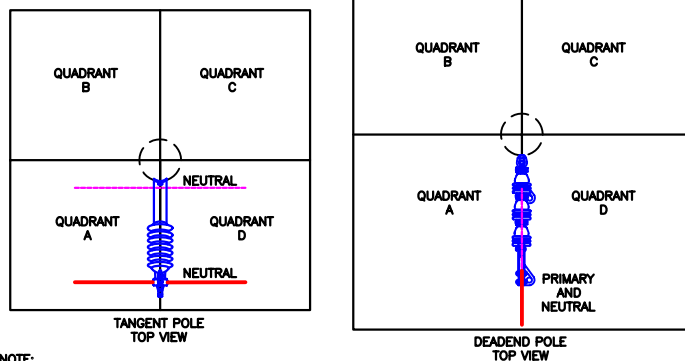
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14.4/24.9 KV, FRAMING GUIDE,
"5 POLES"

ISSUE#: REV 1

FRAMEGID14

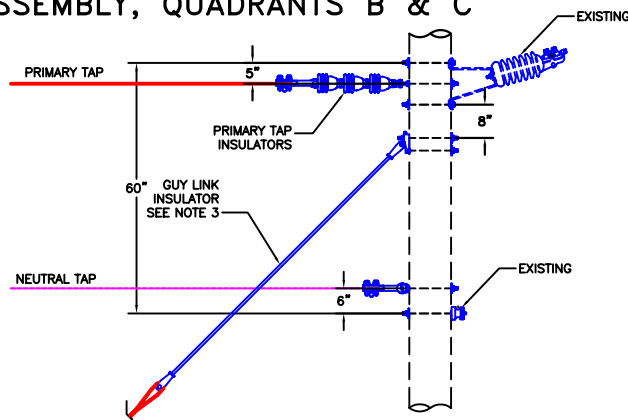
SLACK SPAN AND PRIMARY TAP POLE QUADRANTS



NOTE:

- 1) INSTALL SLACK SPAN INSULATOR(S) OR PRIMARY TAP(S) ON TANGENT POLES, IN A QUADRANT(B or C) ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL, IF POSSIBLE. IF THE SLACK SPAN INSULATOR(S) OR PRIMARY TAP(S) NEED TO BE POSITIONED ON THE SAME SIDE OF THE POLE AS THE PRIMARY NEUTRAL (QUADRANTS A or D), SEE THIS FRAMING GUIDE FOR ASSEMBLY INFORMATION.
- 2) INSTALL SLACK SPAN INSULATOR(S) OR PRIMARY TAP(S) ON DEADEND POLES, IN A QUADRANT(B or C) ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL CONNECTION POINT, IF POSSIBLE. IF THE SLACK SPAN INSULATOR(S) OR PRIMARY TAP(S) NEED TO BE POSITIONED ON THE SAME SIDE OF THE POLE AS THE PRIMARY NEUTRAL CONNECTION POINT (QUADRANTS A or D), SEE THIS FRAMING GUIDE FOR ASSEMBLY INFORMATION.

PRIMARY TAP, TANGENT POLE, MULTI-PHASE ASSEMBLY, QUADRANTS B & C

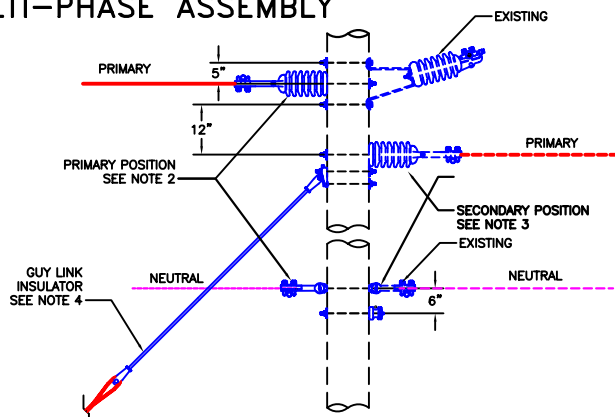


NOTES:

- 1) THIS GUIDE DEPICTS A SINGLE PHASE TAP ASSEMBLY, THE SAME DIMENSIONS AT THE PRIMARY TAP'S INSULATORS CAN BE USED FOR 2# AND 3# ASSEMBLIES.
- 2) THIS PRIMARY TAP ASSEMBLY CAN ONLY BE USED WHEN ATTACHED IN THE REAR QUADRANTS B or C OF THE POLE.
- 3) IF POLE HAS EXISTING OR REQUIRES THE USE OF GUYS, USE A GUY LINK INSULATOR OF THE PROPER LENGTH, TO INSURE THE GUY WIRE CAN NOT TOUCH ANY OF THE PRIMARY PHASES.

DRAWINGS ARE NOT TO SCALE

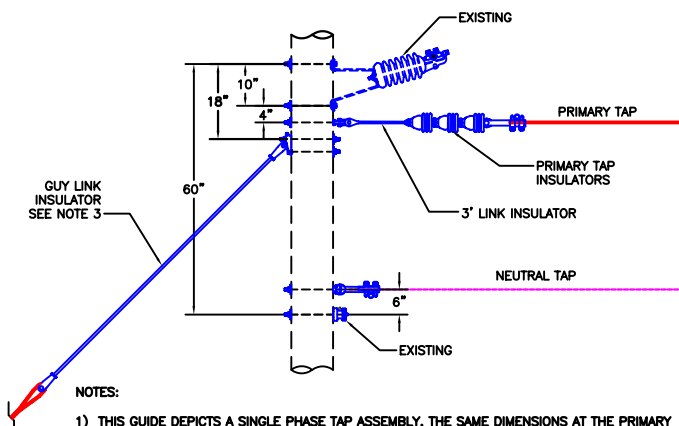
SINGLE SLACK SPAN, TANGENT POLE MULTI-PHASE ASSEMBLY



NOTES:

- 1) THIS GUIDE DEPICTS A SINGLE PHASE SLACK SPAN ASSEMBLY, THE SAME DIMENSIONS AT THE PRIMARY INSULATOR(S) CAN BE USED FOR 2# AND 3# ASSEMBLIES.
- 2) SLACK SPAN INSULATOR PRIMARY POSITION IN QUADRANTS B or C.
- 3) SLACK SPAN INSULATOR SECONDARY POSITION IN QUADRANTS A or D.
- 4) IF THE POLE HAS EXISTING OR REQUIRES THE USE OF GUYS, USE A GUY LINK INSULATOR OF THE PROPER LENGTH, TO INSURE THE GUY WIRE CAN NOT TOUCH ANY OF THE PRIMARY PHASES.

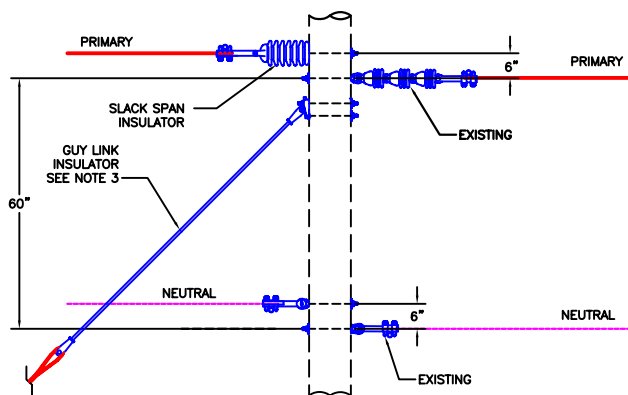
PRIMARY TAP, TANGENT POLE, MULTI-PHASE ASSEMBLY, QUADRANTS A & D



NOTES:

- 1) THIS GUIDE DEPICTS A SINGLE PHASE TAP ASSEMBLY, THE SAME DIMENSIONS AT THE PRIMARY TAP'S INSULATORS CAN BE USED FOR 2# AND 3# ASSEMBLIES.
- 2) THIS PRIMARY TAP ASSEMBLY CAN ONLY BE USED WHEN ATTACHED IN THE FRONT QUADRANTS A or D OF THE POLE.
- 3) IF THE POLE HAS EXISTING OR REQUIRES THE USE OF GUYS, USE A GUY LINK INSULATOR OF THE PROPER LENGTH, TO INSURE THE GUY WIRE CAN NOT TOUCH ANY OF THE PRIMARY PHASES.

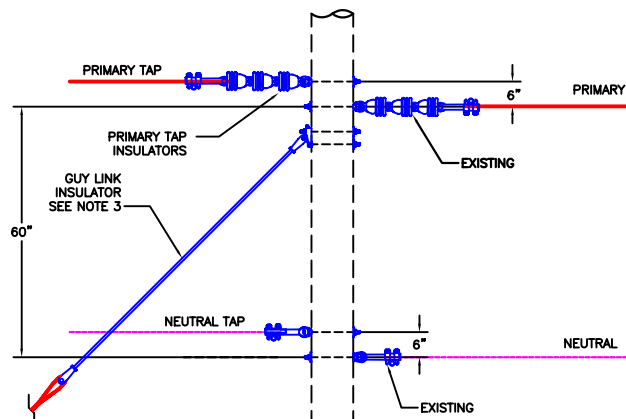
SINGLE SLACK SPAN, DEADEND POLE MULTI-PHASE ASSEMBLY



NOTES:

- 1) THIS GUIDE DEPICTS A SINGLE PHASE SLACK SPAN ASSEMBLY, THE SAME DIMENSIONS AT THE PRIMARY INSULATOR(S) CAN BE USED FOR 2# AND 3# ASSEMBLIES.
- 2) SLACK SPAN INSULATOR CAN BE USED IN ANY QUADRANT AROUND THE POLE IF NECESSARY.
- 3) IF THE POLE HAS EXISTING OR REQUIRES THE USE OF GUYS, USE A GUY LINK OF THE PROPER LENGTH TO INSURE THE GUY WIRE CAN NOT TOUCH ANY OF THE PRIMARY PHASES.

PRIMARY TAP, DEADEND POLE MULTI-PHASE ASSEMBLY



NOTES:

- 1) THIS GUIDE DEPICTS A SINGLE PHASE TAP ASSEMBLY, THE SAME DIMENSIONS AT THE PRIMARY TAP'S INSULATOR(S) CAN BE USED FOR 2# AND 3# ASSEMBLIES.
- 2) PRIMARY TAP INSULATOR(S) CAN BE USED IN ANY QUADRANT AROUND THE POLE IF NECESSARY.
- 3) IF THE POLE HAS EXISTING OR REQUIRES THE USE OF GUYS, USE A GUY LINK OF THE PROPER LENGTH TO INSURE THE GUY WIRE CAN NOT TOUCH ANY OF THE PRIMARY PHASES.

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: JULY 23, 2003

Old CU:

DWG Name: FRAMEGID15.DWG

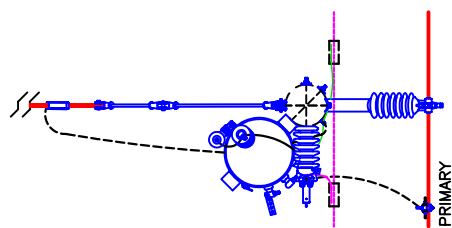
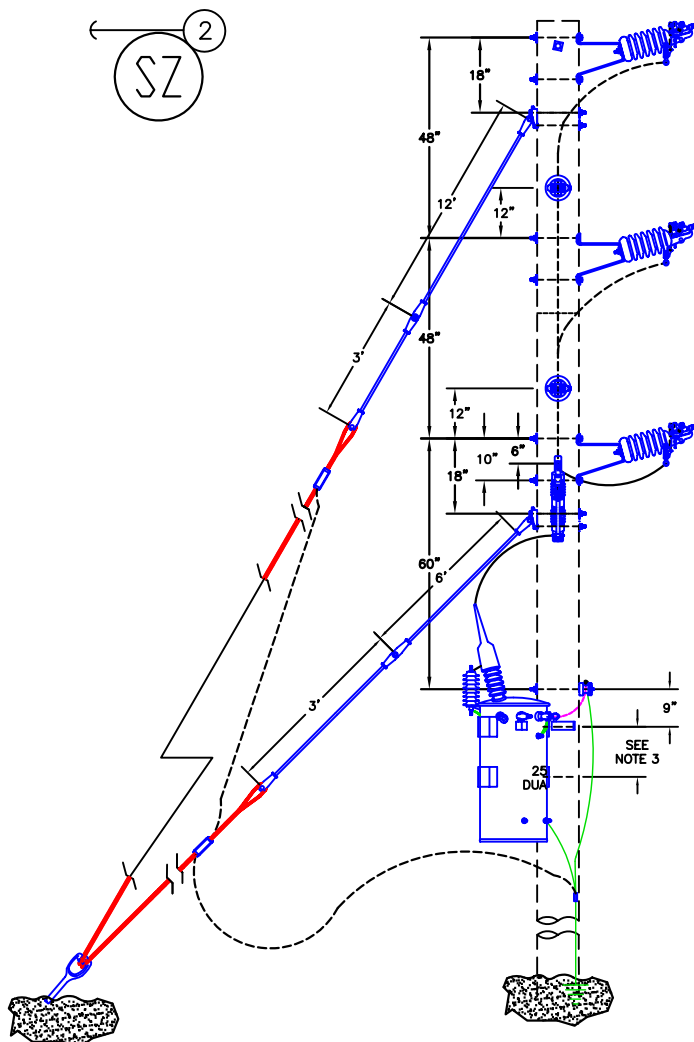
14.4/24.9 KV, FRAMING GUIDE,
PRIMARY SLACK SPANS AND
PRIMARY TAPS

ISSUE#: REV 2

FRAMEGID15



TANGENT POLE DOUBLE DOWN GUY ONE ANCHOR

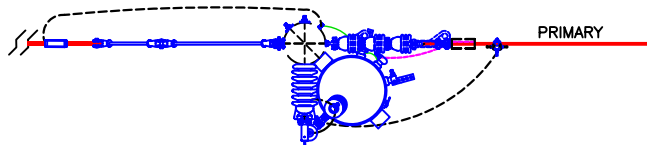
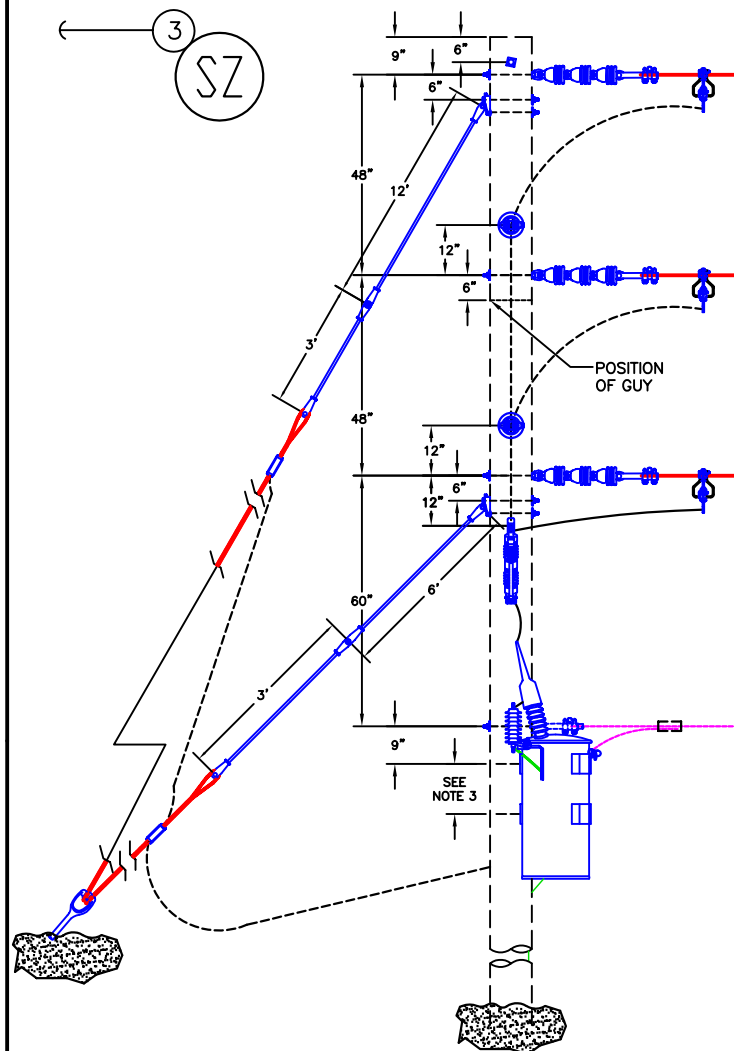


PRIMARY VIEW

NOTE:

- 1) INSTALL TRANSFORMER ON TANGENT POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL.
- 2) THE GUY LINKS SHOULD BE POSITIONED AS SHOWN IN THIS FRAMING GUIDE TO INSURE MAXIMUM CLEARANCE BETWEEN THE TRANSFORMER PRIMARY AND THE GUY WIRE.
- 3) SPACING DEPENDANT UPON THE TRANSFORMERS KVA RATING AND PHYSICAL SIZE.

DEADEND POLE DOUBLE DOWN GUY ONE ANCHOR



PRIMARY VIEW

NOTE:

- 1) INSTALL TRANSFORMER ON TANGENT POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL.
- 2) THE GUY LINKS SHOULD BE POSITIONED AS SHOWN IN THIS FRAMING GUIDE TO INSURE MAXIMUM CLEARANCE BETWEEN THE TRANSFORMER PRIMARY AND THE GUY WIRE.
- 3) SPACING DEPENDANT UPON THE TRANSFORMER'S KVA RATING AND PHYSICAL SIZE.

Drawn By: DEM

Date Drawn: MARCH 2004

Approved By: WHP

Date Updated: MARCH 24, 2003

Old CU:

DWG Name: FRAMEGID16.DWG

14.4/24.9 KV, FRAMING GUIDE, SINGLE
TRANSFORMER ON TANGENT OR DEADEND
POLES, WITH FIBERGLASS GUY LINKS.

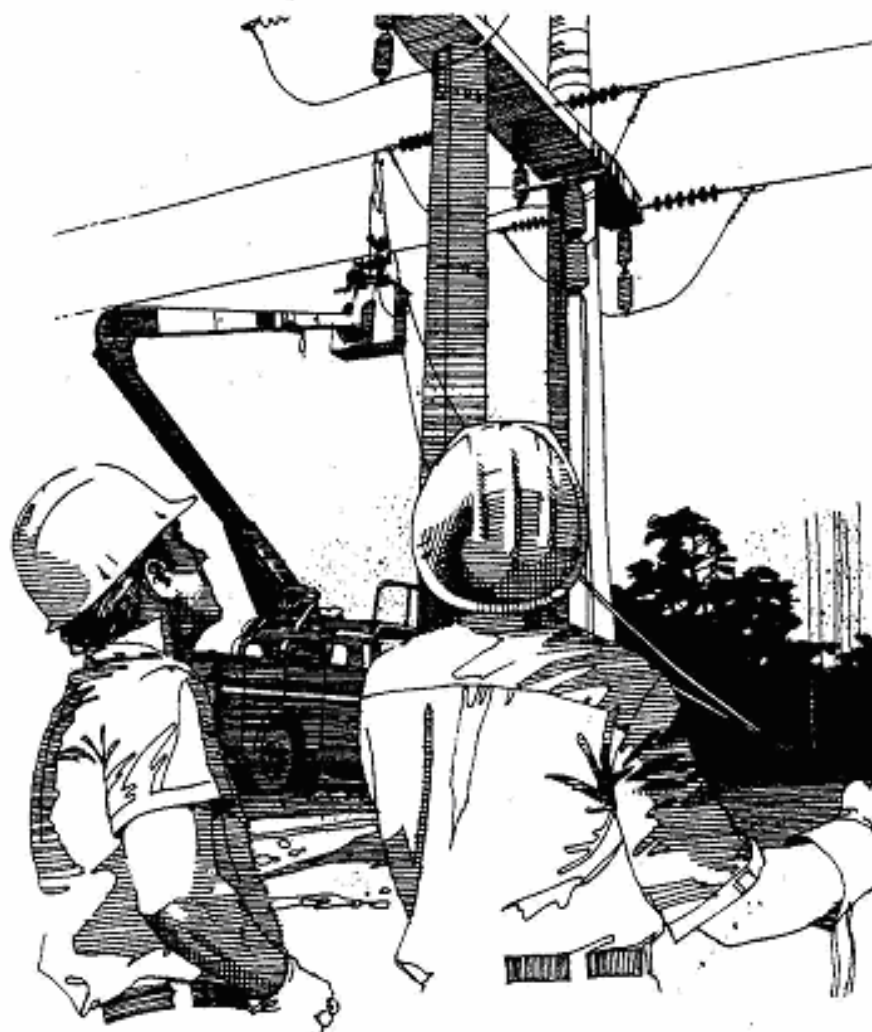
ISSUE#: REV 1

FRAMEGID16

CONSTRUCTION UNITS

INDEX A: SINGLE-PHASE, PRIMARY POLE
TOP ASSEMBLY UNITS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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SINGLE-PHASE PRIMARY POLE TOP ASSEMBLY UNITS

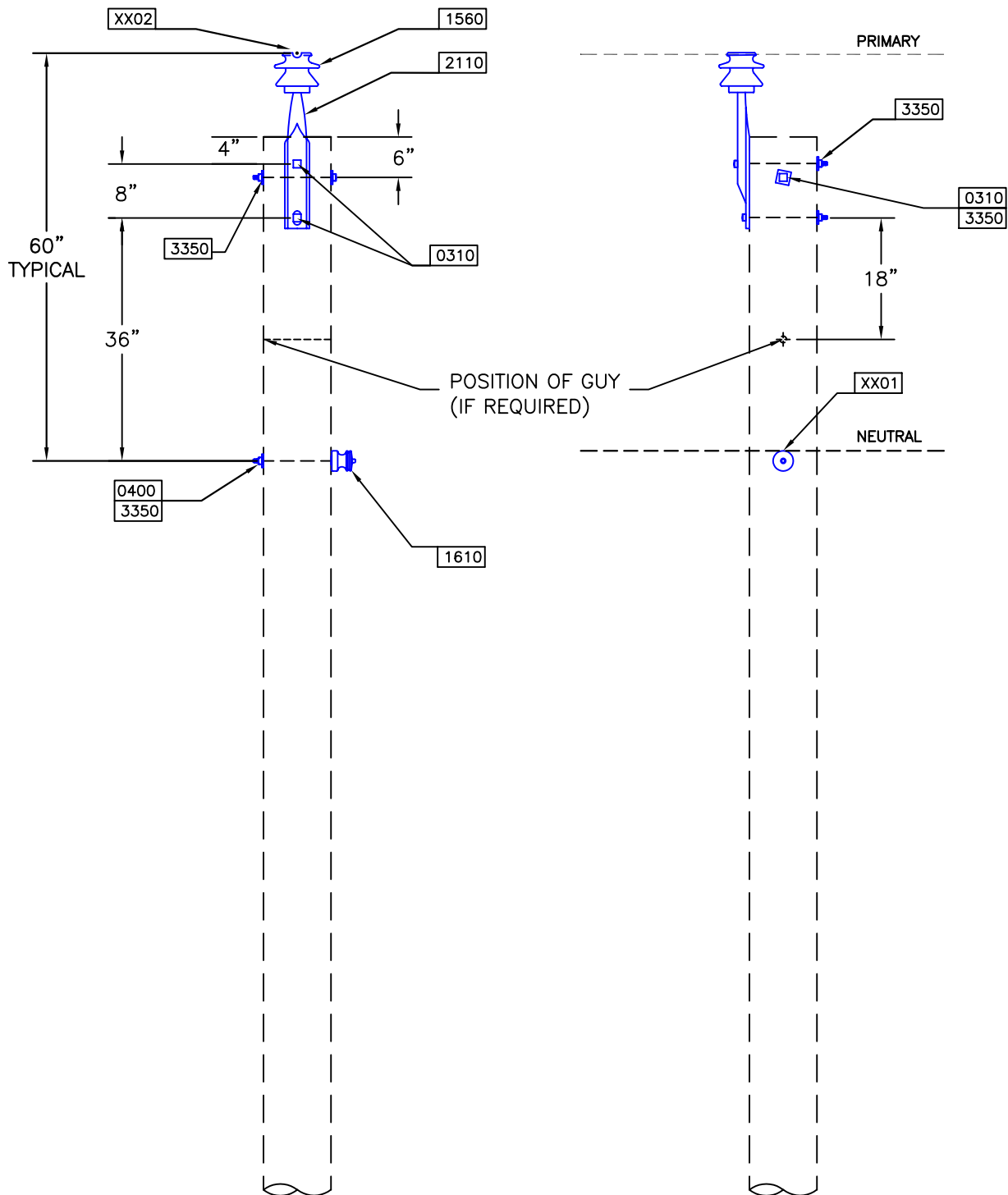
C.U. NO.	DESCRIPTION	PAGE NO.
VA1.1	14.4/24.9 KV PRIMARY, 1 - PHASE, 0 TO 5 DEGREE ANGLE, SINGLE PRIMARY SUPPORT	1 - 2
VA1.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 2 - PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	3 - 4
VA2.1	14.4/24.9 KV PRIMARY, 1 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE PRIMARY SUPPORT	5 - 6
VA2.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1- PHASE TO 2- PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	7 - 8
VA3.2	14.4/24.9 KV PRIMARY, 1 - PHASE, 30 TO 60 DEGREE ANGLE	9 - 10
VA4.2	14.4/24.9 KV PRIMARY, 1 - PHASE, 60 TO 90 DEGREE ANGLE	11 - 12
VA5.1	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND	13 - 14
VA5.11	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	15 - 16
VA5.21	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	17 - 18
VA5.3	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	19 - 20
VA5.31	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP, WITH FIBERGLASS LINK	21 - 22
VA5.5	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	23 - 24
VA6.2	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND	25 - 26
VA7	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, CROSSARM CONSTRUCTION	27 - 28
VA8	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND, CROSSARM CONSTRUCTION	29 - 30
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WREC CONSTRUCTION UNIT UPDATE TABLE

SINGLE PHASE PRIMARY POLE TOP ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VA1	VA1.1	VA1.1	14.4/24.9 KV PRIMARY, 1 - PHASE, 0 TO 5 DEGREE ANGLE, SINGLE PRIMARY SUPPORT	07/23/01	10/21/02
--	VA1.NP.3	VA1.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 2-PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	02/28/03
VA2	VA2.1	VA2.1	14.4/24.9 KV PRIMARY, 1 - PHASE, 0 TO 30 DEGREE ANGLE, DOUBLE PRIMARY SUPPORT	07/23/01	12/12/02
--	VA2.NP.3	VA2.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 2- PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	02/28/03
VA3	VA3.2	VA3.2	14.4/24.9 KV PRIMARY, 1 - PHASE, 30 TO 60 DEGREE ANGLE	07/23/01	10/23/02
VA4	VA4.2	VA4.2	14.4/24.9 KV PRIMARY, 1 - PHASE, 60 TO 90 DEGREE ANGLE	07/23/01	12/12/02
VA5	VA5.1	VA5.1	14.4/24.9 KV PRIMARY, 1 - PHASE, 60 TO 90 DEGREE ANGLE	07/23/01	10/24/02
VA5-1	--	VA5.11	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	--	12/13/02
VA5-2	--	VA5.21	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	--	10/27/02
VA5-3	--	VA5.3	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	--	12/16/02
VA5-2A	--	VA5.31	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	--	12/13/02
VA5-4	VA5.5	VA5.5	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	07/23/01	10/30/02
VA6	VA6.2	VA6.2	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND	07/23/01	10/30/02
VA7	VA5.21	VA7	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, CROSSARM CONSTRUCTION	07/23/01	10/31/02
VA8	VA6.21	VA8	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND, CROSSARM CONSTRUCTION	07/23/01	12/16/02
VA9	VA2.21	VA9	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE SUPPORTS, CROSSARM CONSTRUCTION	07/23/01	12/16/02





NOTE:

IF A GUY IS NEEDED, USE CONSTRUCTION UNIT(S) E9.1.3 OR E9.2.3.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: MARCH 2006
Approved By: WHP	Date Updated: JUNE 15, 2005
Old CU: VA1	DWG Name: VA1-1.DWG

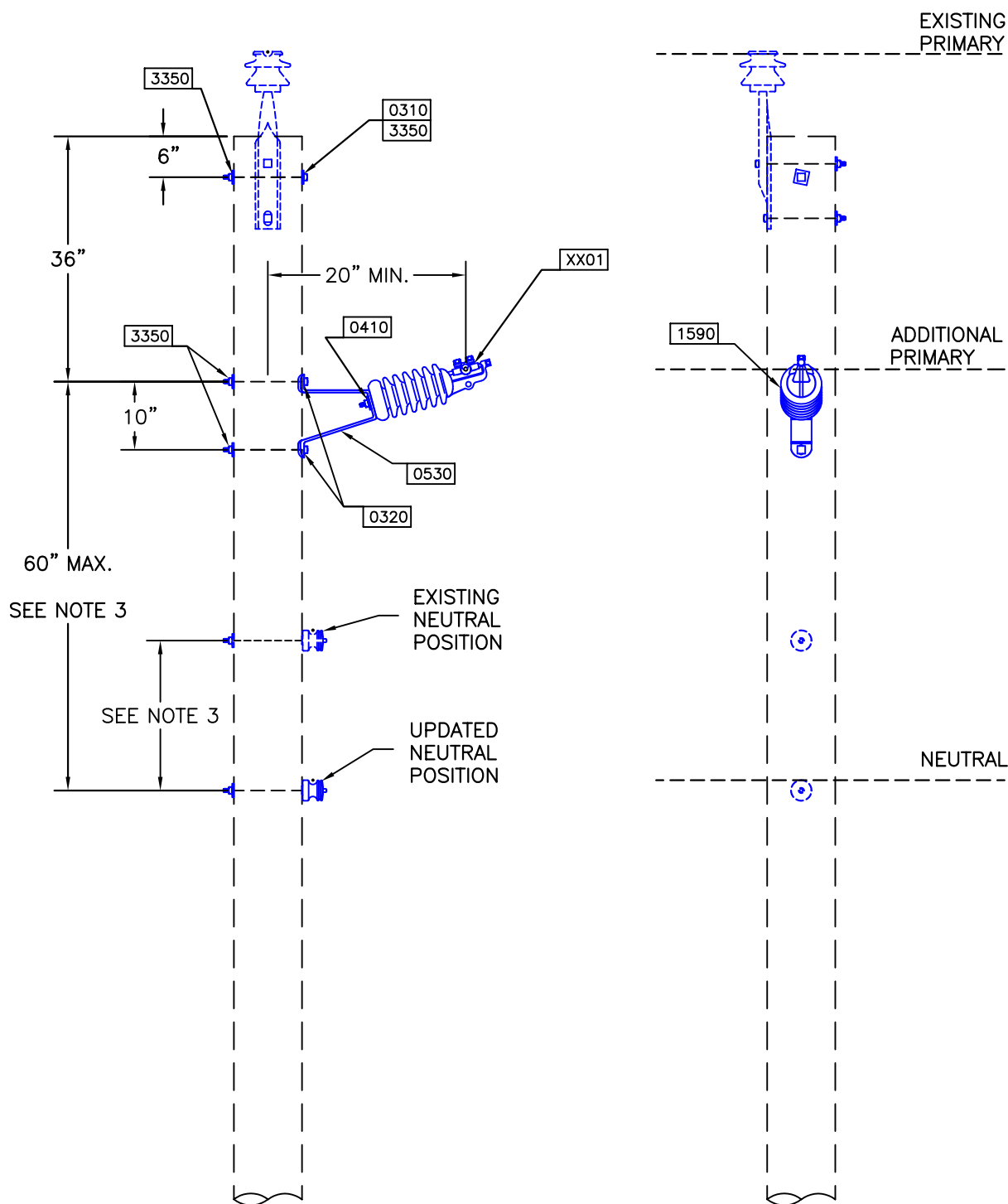
14.4 / 24.9 KV PRIMARY, 1Ø, 0- TO 5- ANGLE,
SINGLE PRIMARY SUPPORT

ISSUE#: REV 3

VA1.1

CONSTRUCTION UNIT:	VA1.1	AUTOCAD FILE:	VA1-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, 0 TO 5 DEGREE ANGLE, SINGLE PRIMARY SUPPORT		PDF FILE: VA1-1.PDF
		PDF SPEC.:	VA1-1_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	5
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0400	1	BOLT, S U 5/8" X 12"		
1560	1	INSULATOR, PIN TYPE 25 KV		
1610	1	INSULATOR, SPOOL 3"		
2110	1	PIN, POLE TOP 1 3/8" STRAIGHT		
3350	5	WASHER, SQUARE		
XX01	8	TIE WIRE (NEUTRAL)	N	19
XX02	8	TIE WIRE (PRIMARY)	W	19



NOTE

- 1) THIS CONSTRUCTION TO BE USED ONLY FOR CONVERSION OF EXISTING SINGLE PHASE TO TWO PHASE.
- 2) TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.
- 3) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE PROPER PHASE TO NEUTRAL SPACING. MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: JAN. 2002

Approved By: WHP

Date Updated: FEB 28, 2003

Old CU:

DWG Name: VA1-NP-3.DWG

14.4/24.9 KV PRIMARY, CONVERSION, 1Ø TO 2Ø,
0- TO 5- ANGLE, LIGHT CONSTRUCTION -
NARROW PROFILE

ISSUE#: REV 1

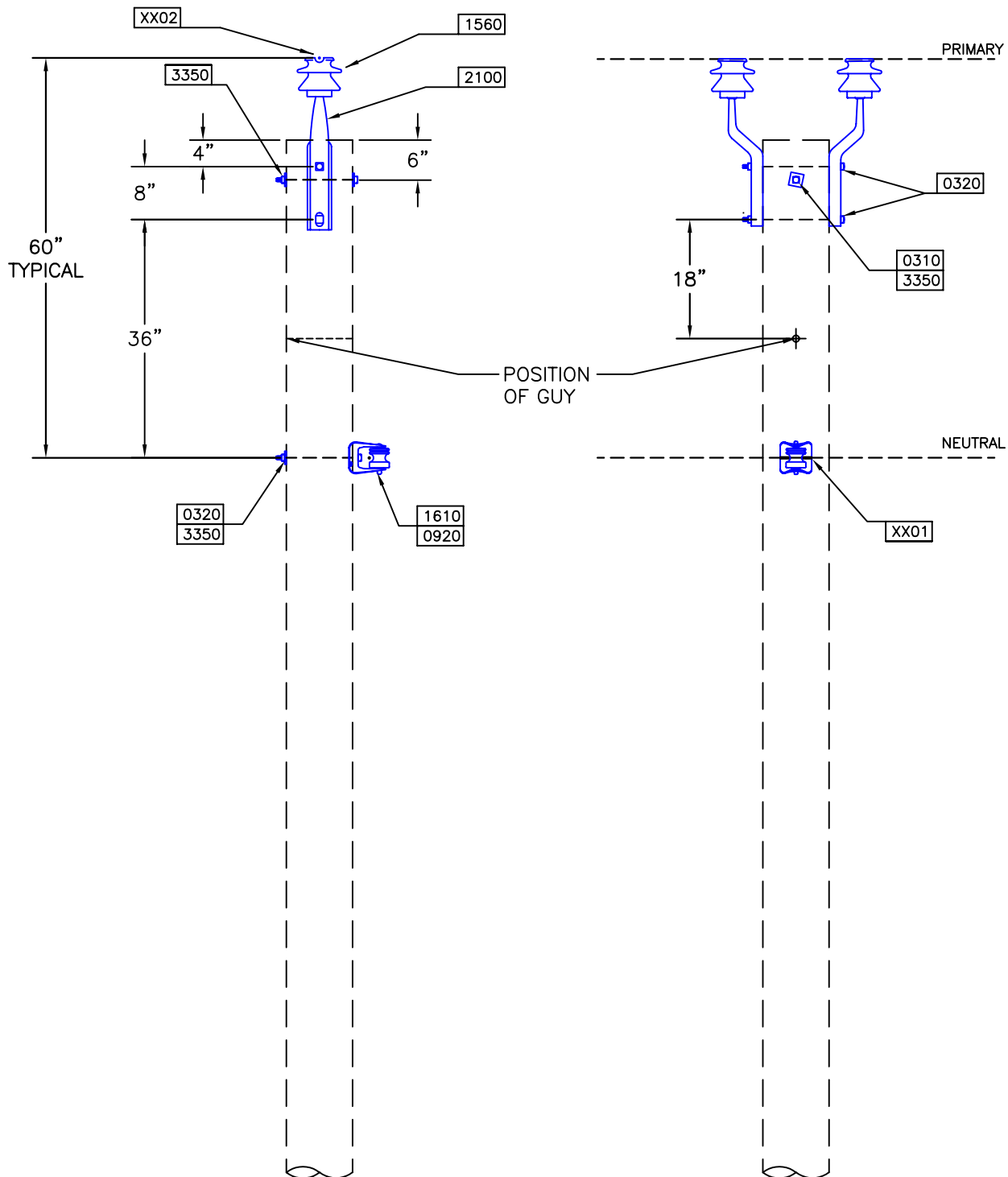
VA1.NP.3

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	1	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	1	BRACKET, INSULATOR MOUNT		
1590	1	INSULATOR, POST TYP HORIZONTAL		
3350	4	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT (PRIMARY)	W	7



NOTE:

IF A GUY IS NEEDED, USE CONSTRUCTION UNIT(S) E9.1.3 OR E9.2.3.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: MARCH 2006

Approved By: WHP

Date Updated: JUNE 15, 2005

Old CU: VA2

DWG Name: VA2-1.DWG

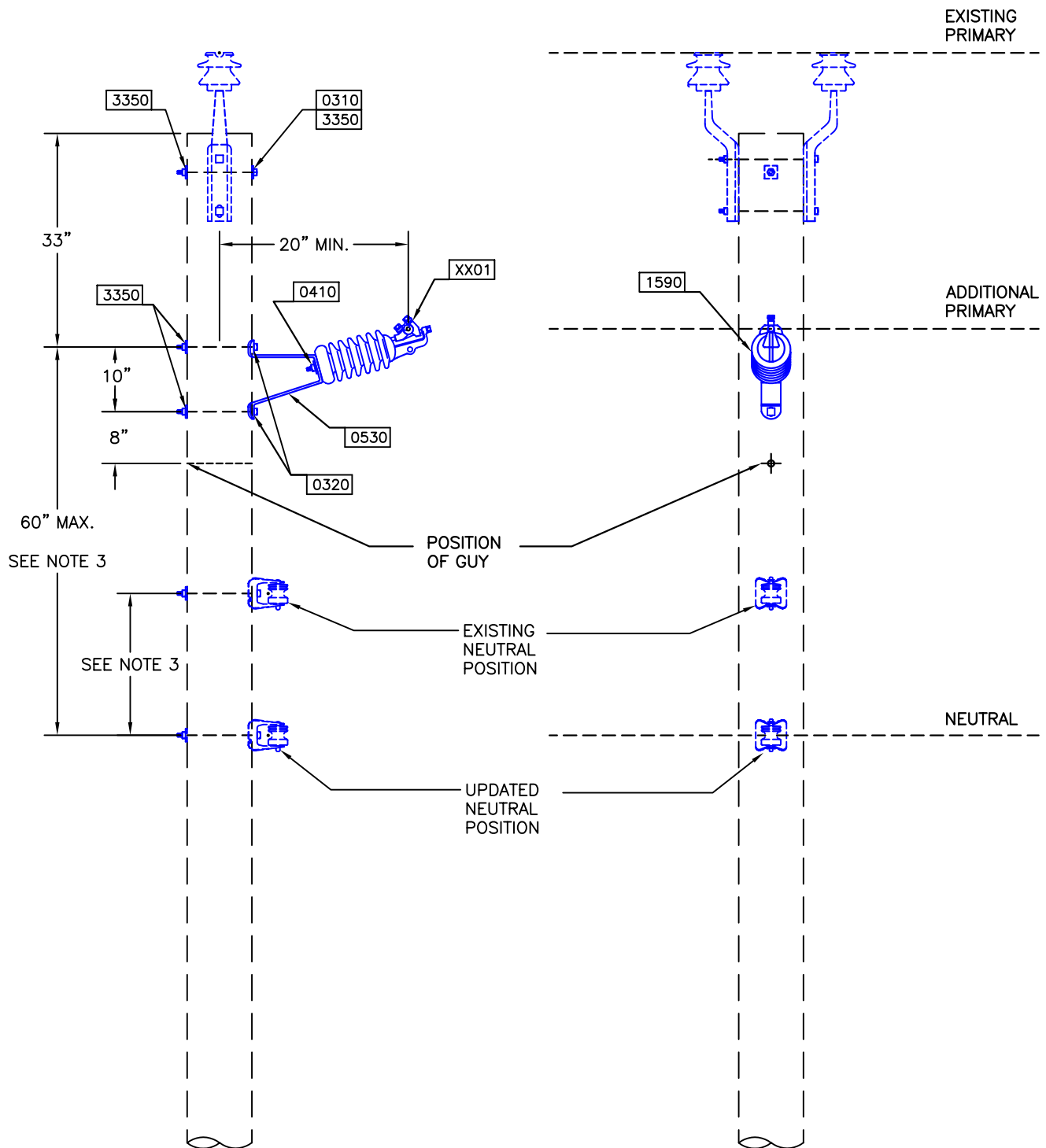
14.4/24.9 KV PRIMARY, 1Ø, 5- TO 30- ANGLE,
DOUBLE PRIMARY SUPPORT

ISSUE#: REV 3

VA2.1

CONSTRUCTION UNIT:	VA2.1	AUTOCAD FILE:	VA2-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE PRIMARY SUPPORT		PDF FILE: VA2-1.PDF
		PDF SPEC.:	VA2-1_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	3	BOLT, MACHINE 5/8" X 12"		
0920	1	CLEVIS, SECONDARY DE J 10		
1560	2	INSULATOR, PIN TYPE 25 KV		
1610	1	INSULATOR, SPOOL 3"		
2100	2	PIN, POLE TOP 1 3/8" OFFSET		
3350	3	WASHER, SQUARE		
XX01	12	TIE WIRE (NEUTRAL)	N	19
XX02	12	TIE WIRE (PRIMARY)	W	19



NOTE

- 1) THIS CONSTRUCTION TO BE USED ONLY FOR CONVERSION OF EXISTING SINGLE PHASE TO TWO PHASE.
- 2) TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.
- 3) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE PROPER PHASE TO NEUTRAL SPACING. MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: JAN. 2002

Approved By: WHP

Date Updated: FEB. 28, 2003

Old CU:

DWG Name: VA2-NP-3.DWG

14.4/24.9 KV PRIMARY, CONVERSION 1 ϕ TO 2 ϕ ,
5' TO 30' ANGLE, LIGHT CONSTRUCTION,
NARROW PROFILE

ISSUE#: REV 1

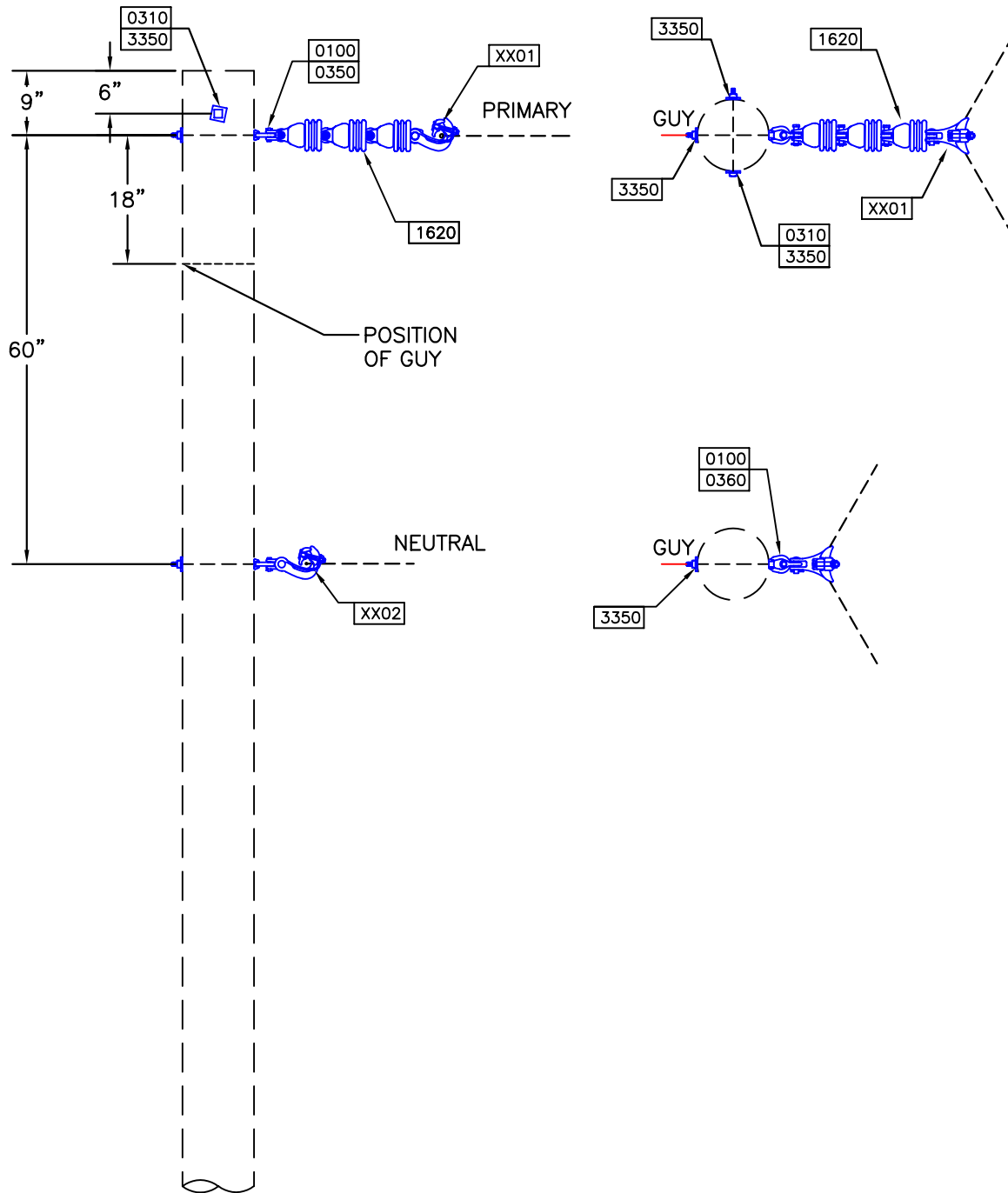
VA2.NP.3

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	1	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	1	BRACKET, INSULATOR MOUNT		
1590	1	INSULATOR, POST TYP HORIZONTAL		
3350	4	WASHER, SQUARE		
XX01	1	CLAMP, ANGLE (PRIMARY)	W	8



DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: JAN. 2002

Approved By: WHP

Date Updated: OCT. 23, 2002

Old CU: VA3

DWG Name: VA3-2.DWG

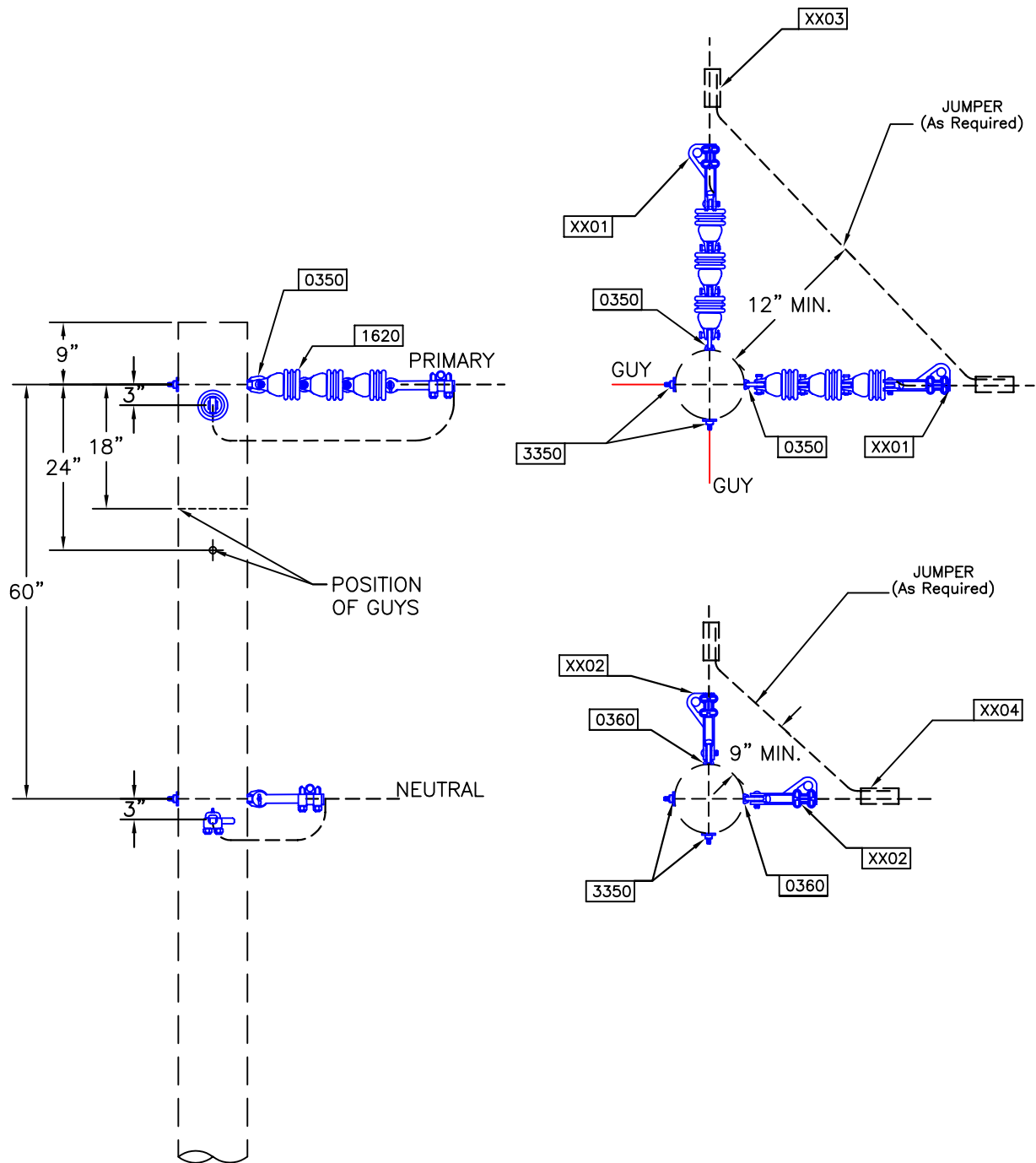
14.4/24.9 KV PRIMARY, 1 Ø
30° TO 60° ANGLE

ISSUE#: REV 1

VA3.2

CONSTRUCTION UNIT:	VA3.2	AUTOCAD FILE:	VA3-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, 30 TO 60 DEGREE ANGLE	PDF FILE:	VA3-2.PDF
		PDF SPEC.:	VA3-2_SPEC.PDF
ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	2	ANCHOR, SHACKLE		
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	3	INSULATOR, SUSP 4 1/4"		
3350	4	WASHER, SQUARE		
XX01	1	CLAMP, ANGLE SUSP. (PRIMARY)	W	3
XX02	1	CLAMP, ANGLE SUSP. (NEUTRAL)	N	3



DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: JAN. 2002
Approved By: WHP	Date Updated: DEC. 12, 2002
Old CU: VA4	DWG Name: VA4-2.DWG

14.4/24.9 KV PRIMARY, 1Ø,
60- TO 90- ANGLE

ISSUE#: REV 1

VA4.2

CONSTRUCTION UNIT:	VA4.2	AUTOCAD FILE:	VA4-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, 60 TO 90 DEGREE ANGLE		PDF FILE: VA4-2.PDF
		PDF SPEC.:	VA4-2_SPEC.PDF
ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

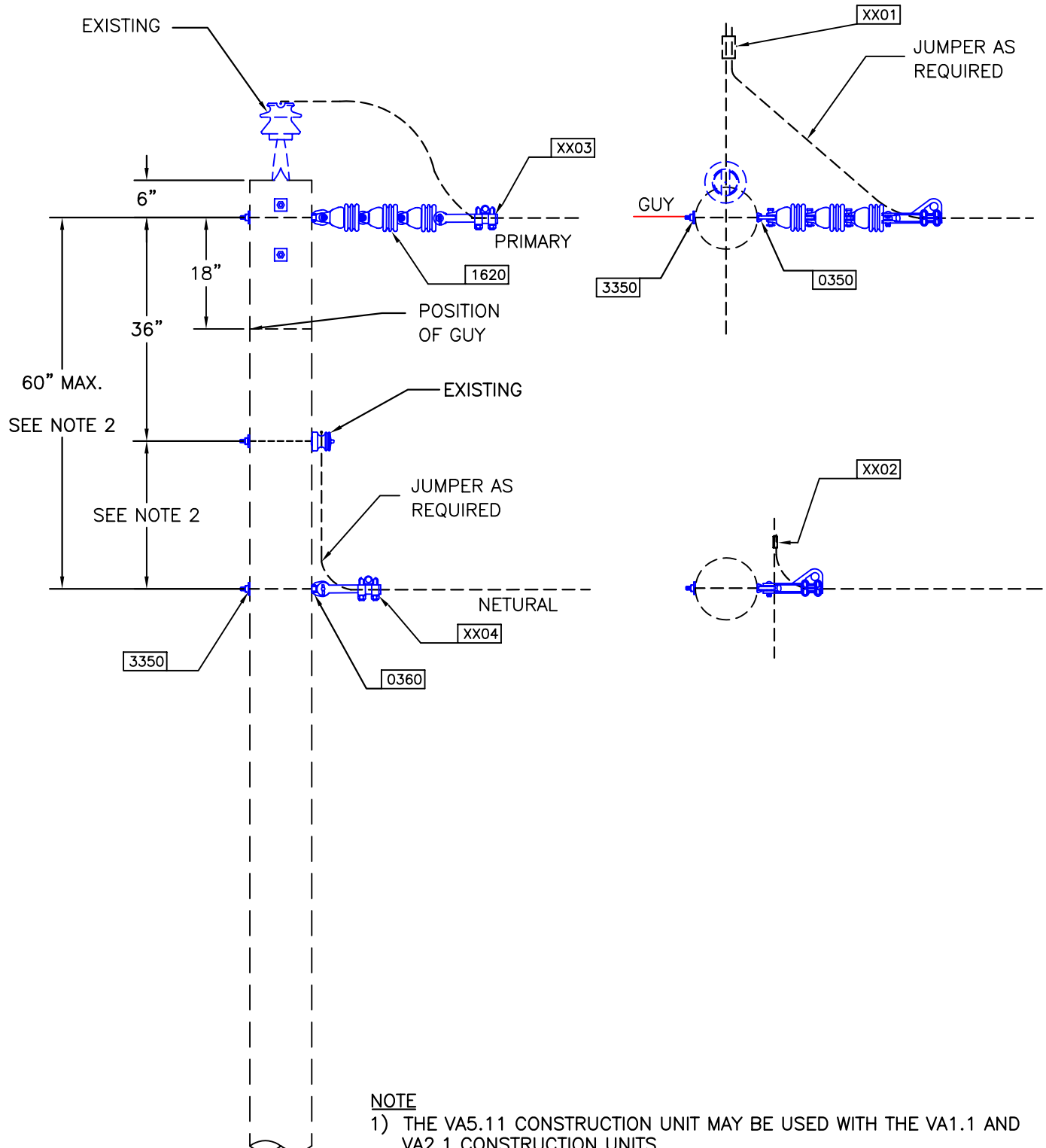
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	2	BOLT, OVAL EYE 5/8" X 12"		
1620	6	INSULATOR, SUSP 4 1/4"		
3350	4	WASHER, SQUARE		
XX01	2	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4
XX03	3	CONNECTOR (PRIMARY)	WC	5
XX04	2	CONNECTOR (NEUTRAL)	NX	5



Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1Ø SINGLE DEADEND	ISSUE#: REV 1
Approved By: WHP	Date Updated: OCT. 24, 2002		VA5.1
Old CU: VA5	DWG Name: VA5-1.DWG		

CONSTRUCTION UNIT:	VA5.1	AUTOCAD FILE:	VA5-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND	PDF FILE:	VA5-1.PDF
		PDF SPEC.:	VA5-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	3	INSULATOR, SUSP 4 1/4"		
3350	2	WASHER, SQUARE		
XX01	1	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4

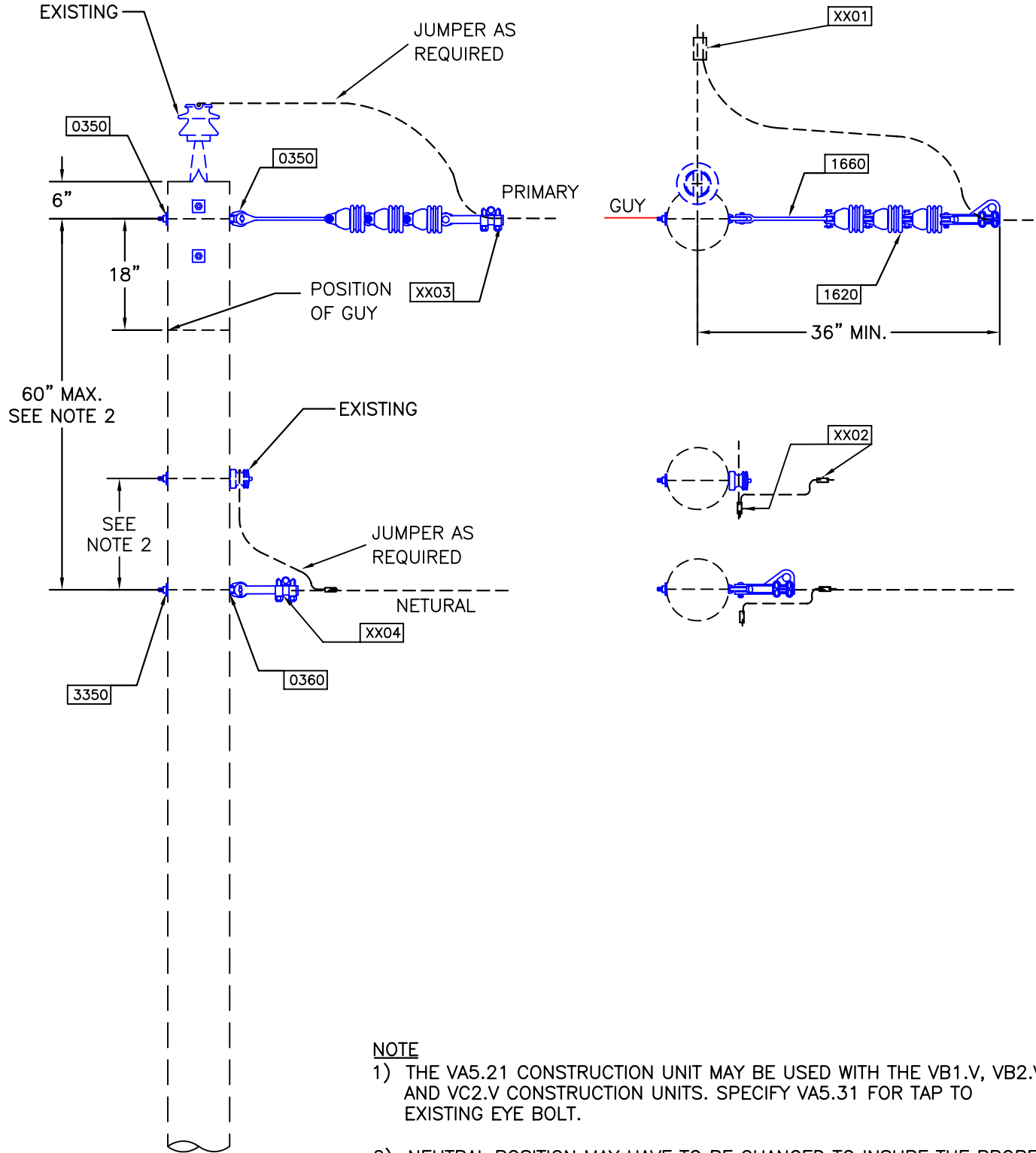


DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1Ø, SINGLE DEADEND, TAP	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 13, 2002		VA5.11
Old CU: VA5-1	DWG Name: VA5-11.DWG		

CONSTRUCTION UNIT:	VA5.11	AUTOCAD FILE:	VA5-11.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP	PDF FILE:	VA5-11.PDF
		PDF SPEC.:	VA5.11_SPEC.PDF
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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	3	INSULATOR, SUSP 4 1/4"		
3350	2	WASHER, SQUARE		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	1	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4



DRAWING NOT TO SCALE

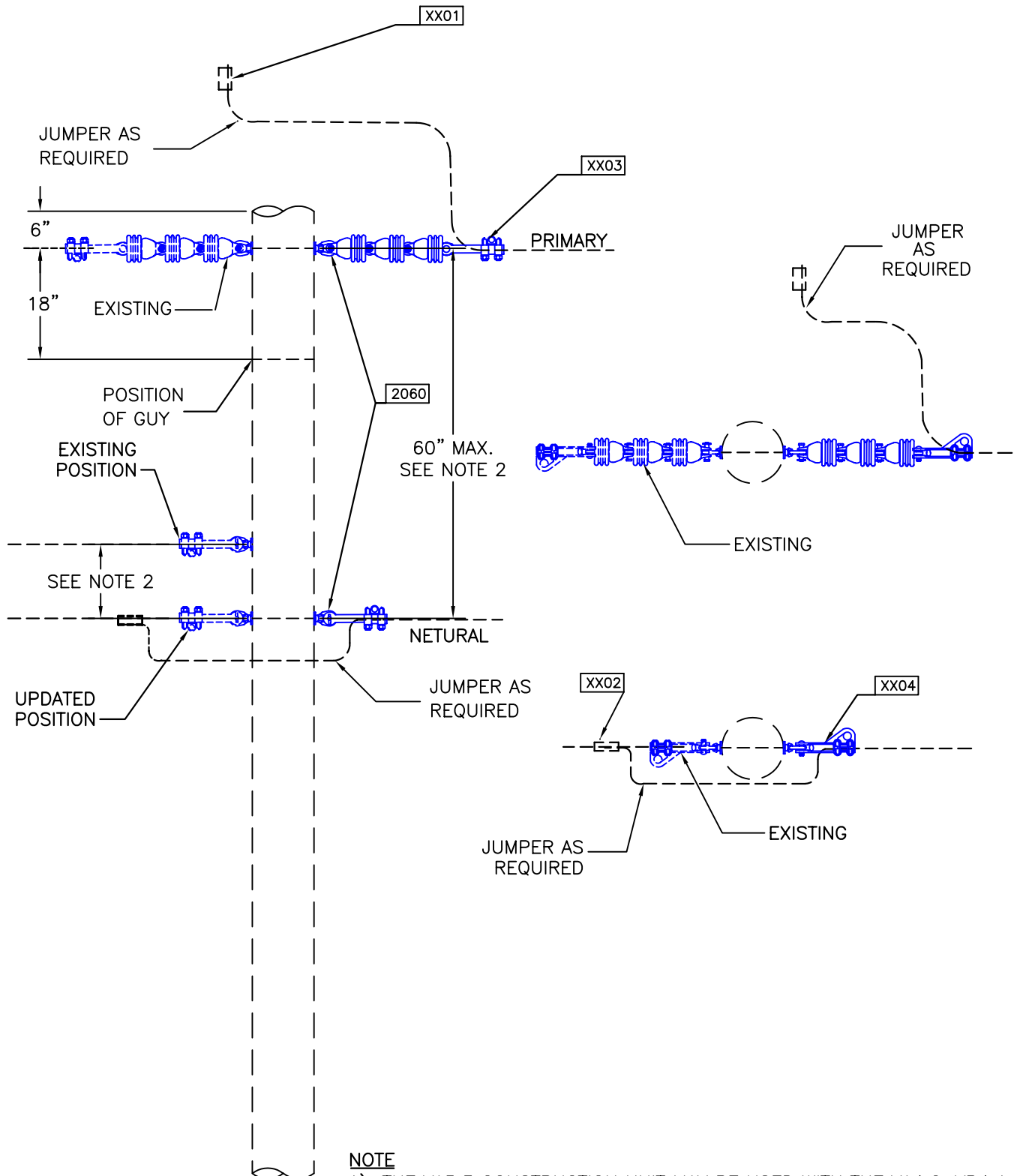
Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1 ϕ , SINGLE DEADEND, TAP	ISSUE#: REV 1
Approved By: WHP	Date Updated: OCT. 27, 2002		VA5.21
Old CU: VA5-2	DWG Name: VA5-21.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	3	INSULATOR, SUSP 4 1/4"		
1660	1	LINK, FIBERGLASS		
3350	2	WASHER, SQUARE		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	1	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

- 1) THE VA5.3 CONSTRUCTION UNIT MAY BE USED WITH THE VA4.2, VB4.1 AND VC4.1 CONSTRUCTION UNITS.
- 2) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE THE PROPER PHASE TO NEUTRAL SPACING. THE MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1 ϕ , SINGLE DEADEND, TAP	ISSUE#: REV 1 VA5.3
Approved By: WHP	Date Updated: DEC. 16, 2002		
Old CU: VA5-3	DWG Name: VA5-3.DWG		

CONSTRUCTION UNIT:	VA5.3	AUTOCAD FILE:	VA5-3.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP		PDF FILE: VA5-3.PDF
		PDF SPEC.:	VA5-3_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1620	3	INSULATOR, SUSP 4 1/4"		
2060	2	NUT, OVAL EYE 5/8"		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	1	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4



- 1) THE VA5.31 CONSTRUCTION UNIT MAY BE USED WITH THE VB1.V, VB2.V AND VC2.V AND CONSTRUCTION UNITS. SPECIFY FOR TAP TO AN EXISTING EYE BOLT.
- 2) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE THE PROPER PHASE TO NEUTRAL SPACING. THE MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

VA5.31

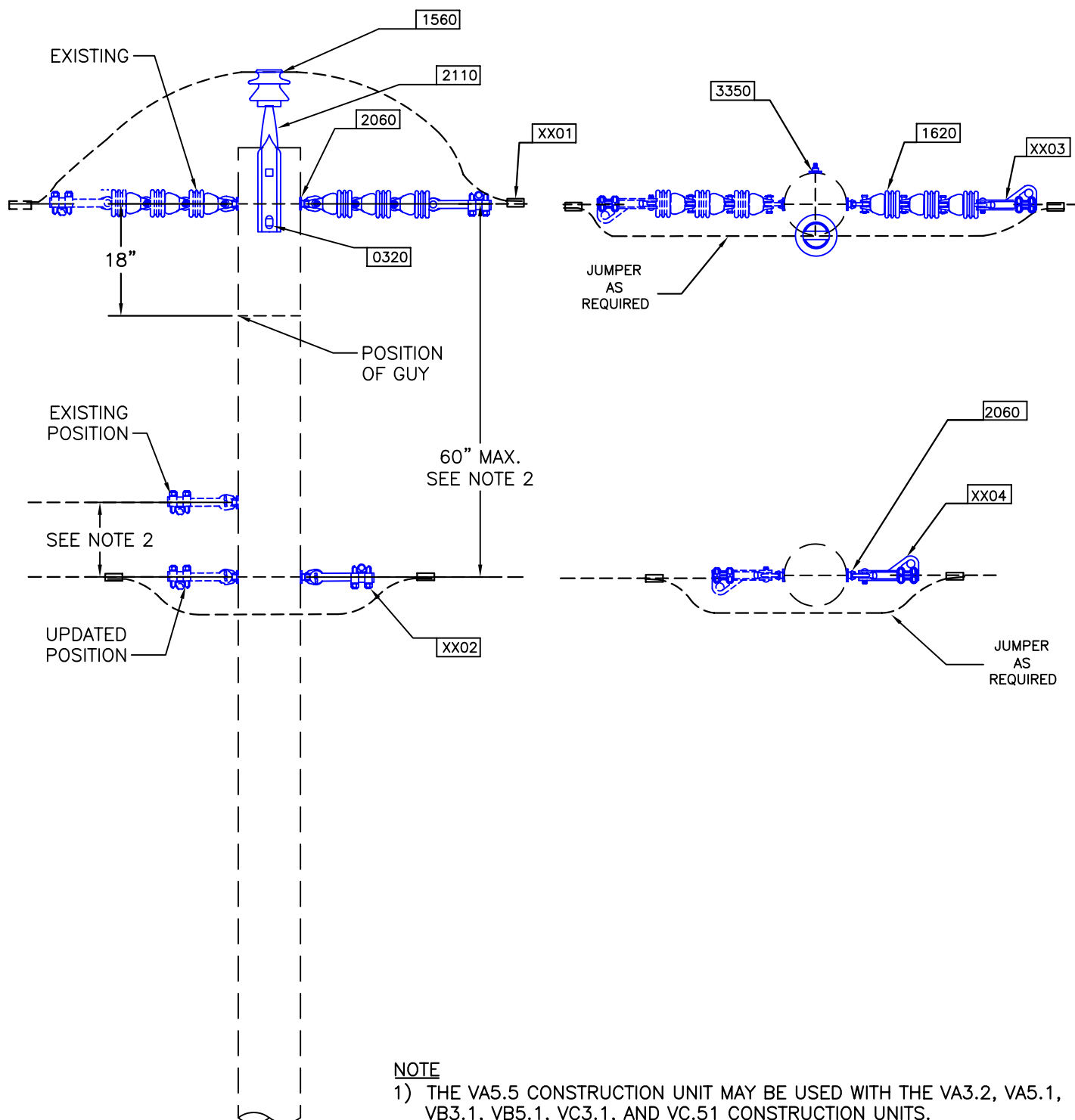
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DESCRIPTION: **PDF FILE:**

PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1620	3	INSULATOR, SUSP 4 1/4"		
1660	1	LINK, FIBERGLASS		
2060	2	NUT, OVAL EYE 5/8"		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	1	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4



DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: OCT. 30, 2002
Old CU: VA5-4	DWG Name: VA5-5.DWG

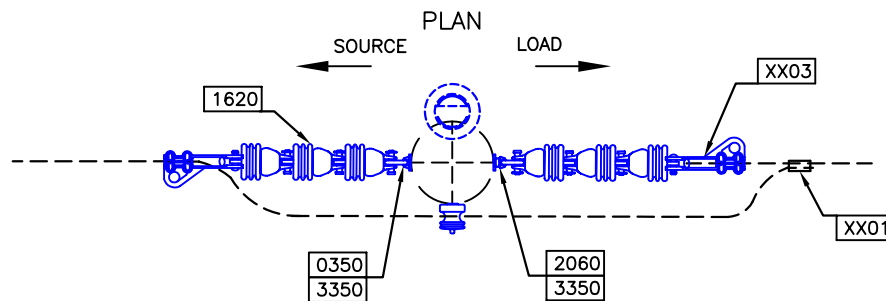
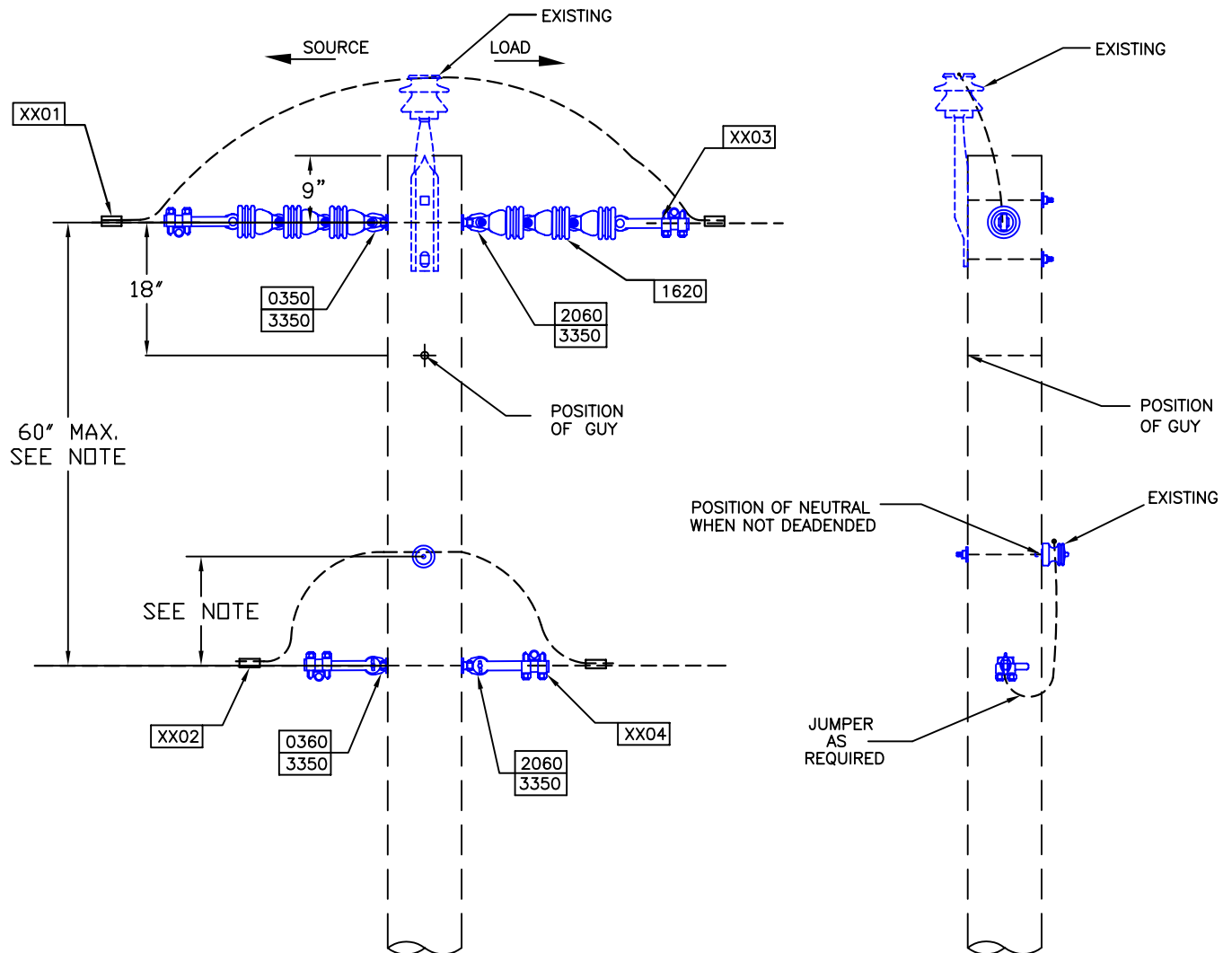
14.4/24.9 KV PRIMARY, 1 ϕ ,
SINGLE DEADEND, TAP

ISSUE#: REV 1

VA5.5

CONSTRUCTION UNIT:	VA5.5	AUTOCAD FILE:	VA5-5.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, SINGLE DEADEND, TAP		PDF FILE: VA5-5.PDF
		PDF SPEC.:	VA5-5_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	2	BOLT, MACHINE 5/8" X 10"		
1560	1	INSULATOR, PIN TYPE 25 KV		
1620	3	INSULATOR, SUSP 4 1/4"		
2060	2	NUT, OVAL EYE 5/8"		
2110	1	PIN, POLE TOP 1 3/8" STRAIGHT		
3350	2	WASHER, SQUARE		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	1	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE THE PROPER PHASE TO NEUTRAL SPACING. THE MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

DRAWING NOT TO SCALE

Drawn By: WIC

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: OCT. 30, 2002

Old CU: VA6

DWG Name: VA6-2.DWG

14.4/24.9 KV PRIMARY, 1 ϕ ,
DOUBLE DEADEND

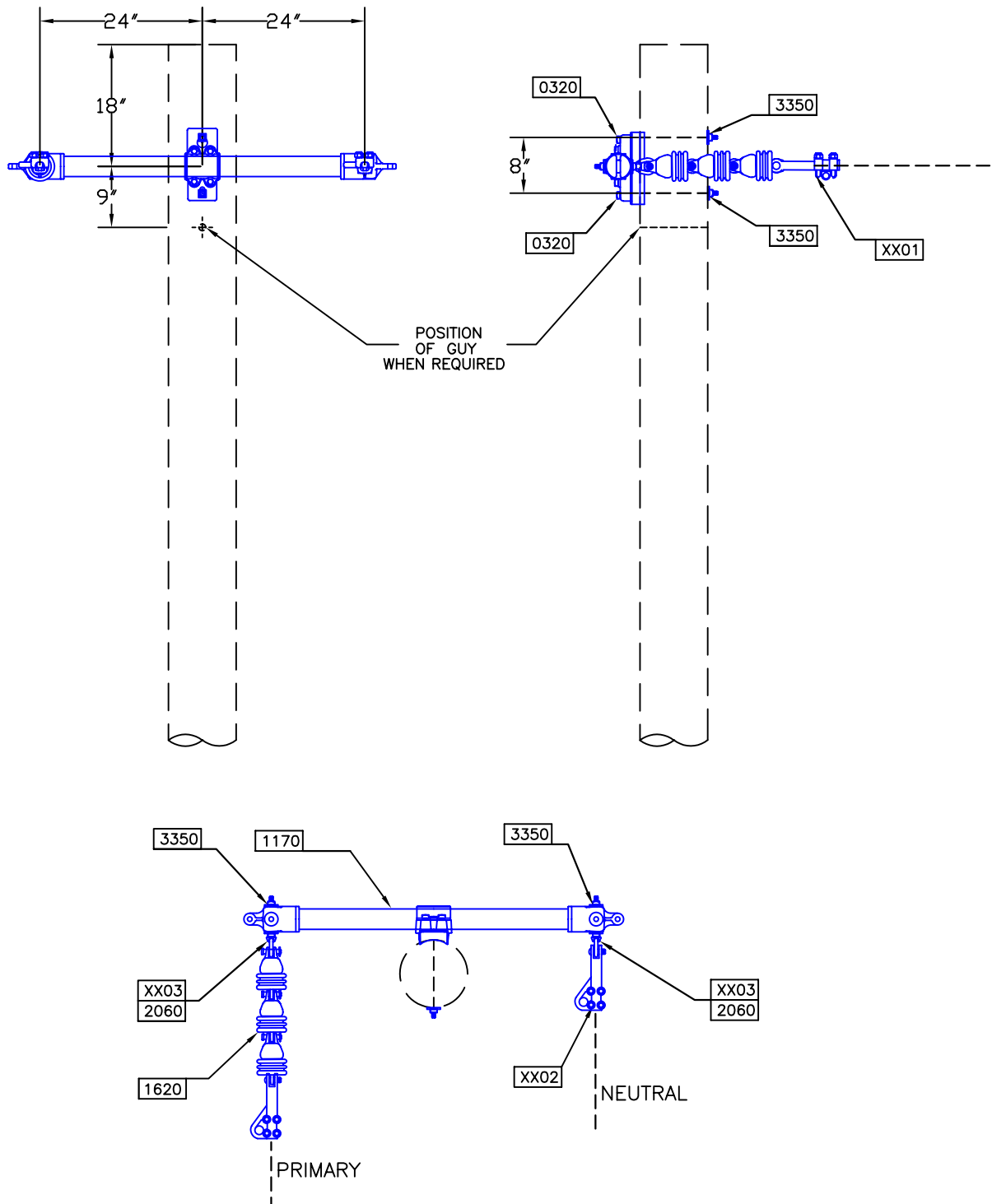
ISSUE#: REV 1

VA6.2

CONSTRUCTION UNIT:	VA6.2	AUTOCAD FILE:	VA6-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND	PDF FILE:	VA6-2.PDF
		PDF SPEC.:	VA6-2_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	6	INSULATOR, SUSP 4 1/4"		
2060	2	NUT, OVAL EYE 5/8"		
3350	4	WASHER, SQUARE		
XX01	2	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	2	CLAMP, DEADEND (PRIMARY)	W	4
XX04	2	CLAMP, DEADEND (NEUTRAL)	N	4

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DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: OCT. 31, 2002
Old CU: VA7	DWG Name: VA7.DWG

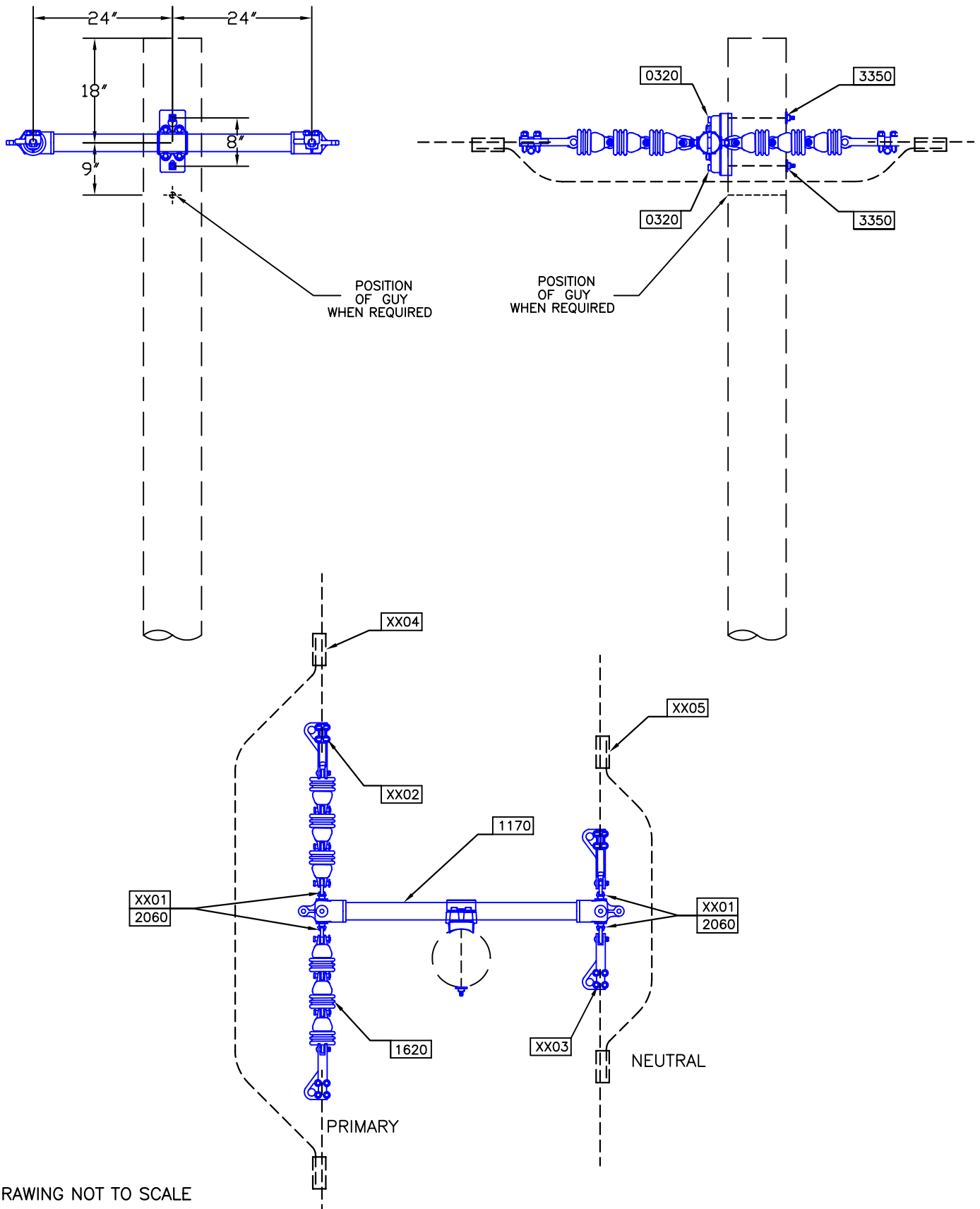
14.4/24.9 KV PRIMARY, 1Ø, SINGLE DEADEND,
CROSSARM CONSTRUCTION

ISSUE#: REV 1

VA7

CONSTRUCTION UNIT:	VA7	AUTOCAD FILE:	VA7-DWG
DESCRIPTION:	14.4/24.9 KN PRIMARY, 1 - PHASE, SINGLE DEADEND, CROSSARM CONSTRUCTION		PDF FILE: VA7.PDF
		PDF SPEC.:	VA7_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

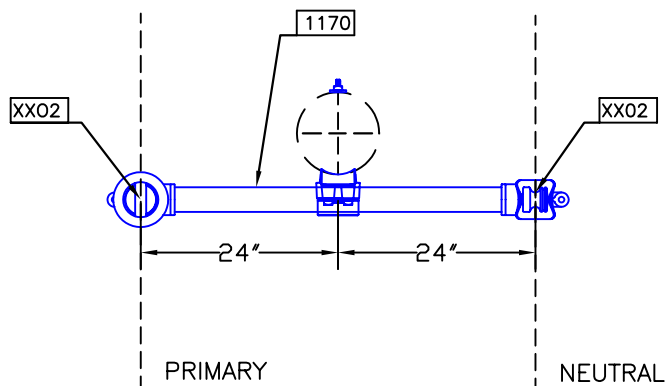
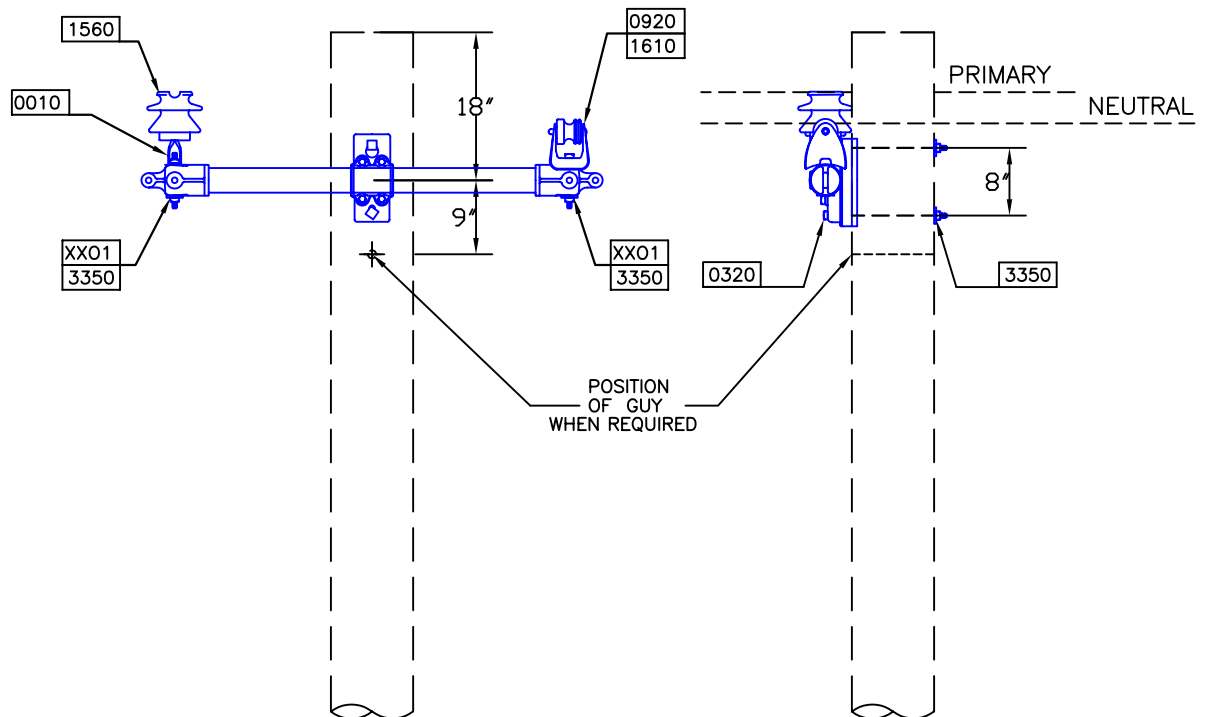
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1170	1	CROSS ARM FIBERGLASS		
1620	3	INSULATOR, SUSP 4 1/4"		
3350	2	WASHER, SQUARE		
XX01	1	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4
XX03	2	ALL THREAD, MACHINE 5/8" X REQ	P	



Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1Ø, DOUBLE DEADEND, CROSSARM CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 16, 2002		VA8
Old CU: VA8	DWG Name: VA8.DWG		

CONSTRUCTION UNIT:	VA8	AUTOCAD FILE:	VA8.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1 - PHASE, DOUBLE DEADEND, CROSSARM CONSTRUCTION		PDF FILE: VA8.PDF
		PDF SPEC.:	VA8_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1170	1	CROSS ARM FIBERGLASS		
1620	6	INSULATOR, SUSP 4 1/4"		
2060	4	NUT, OVAL EYE 5/8"		
3350	2	WASHER, SQUARE		
XX01	2	ALL THREAD, MACHINE 5/8" X REQ	P	
XX02	2	CLAMP, DEADEND (PRIMARY)	W	4
XX03	2	CLAMP, DEADEND (NEUTRAL)	N	4
XX04	2	CONNECTOR (PRIMARY)	WC	5
XX05	2	CONNECTOR (NEUTRAL)	NX	5



DRAWING NOT TO SCALE

Drawn By: DEM

Date Drawn: NOV. 1, 2002

Approved By: WHP

Date Updated: DEC. 16, 2002

Old CU: VA9

DWG Name: VA9.DWG

14.4/24.9 KV PRIMARY, 1Ø, DOUBLE SUPPORTS,
CROSSARM CONSTRUCTION

ISSUE#: REV 1

VA9

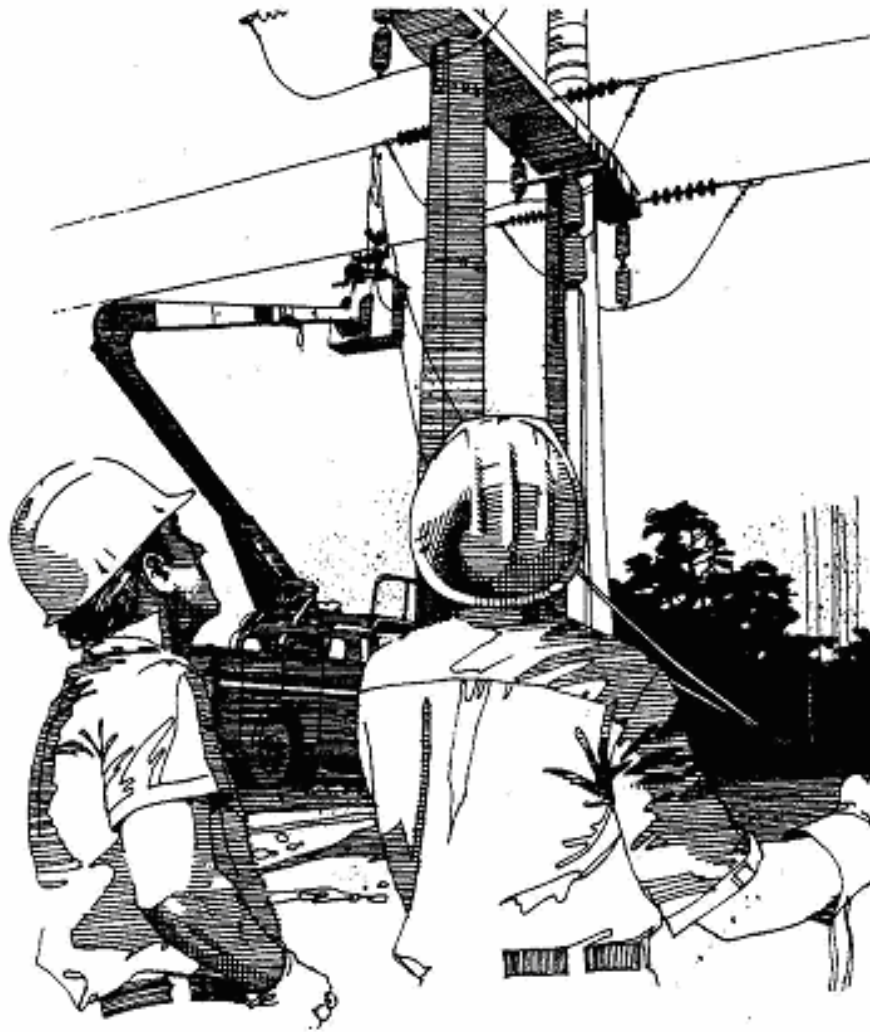
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		PDF SPEC.:	VA9_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0010	2	ADAPTER, INSULATOR		
0320	2	BOLT, MACHINE 5/8" X 12"		
0920	1	CLEVIS, SECONDARY DE J 10		
1170	1	CROSS ARM FIBERGLASS		
1560	1	INSULATOR, PIN TYPE 25 KV		
1610	1	INSULATOR, SPOOL 3"		
3350	2	WASHER, SQUARE		
XX01	2	ALL THREAD, MACHINE 5/8" X REQ	P	
XX02	8	TIE WIRE (PRIMARY)	W	19

CONSTRUCTION UNITS

INDEX B: TWO-PHASE, PRIMARY POLE TOP ASSEMBLY UNITS.

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ELECTRIC COOPERATIVE, INC.



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TWO-PHASE PRIMARY POLE TOP ASSEMBLY UNITS

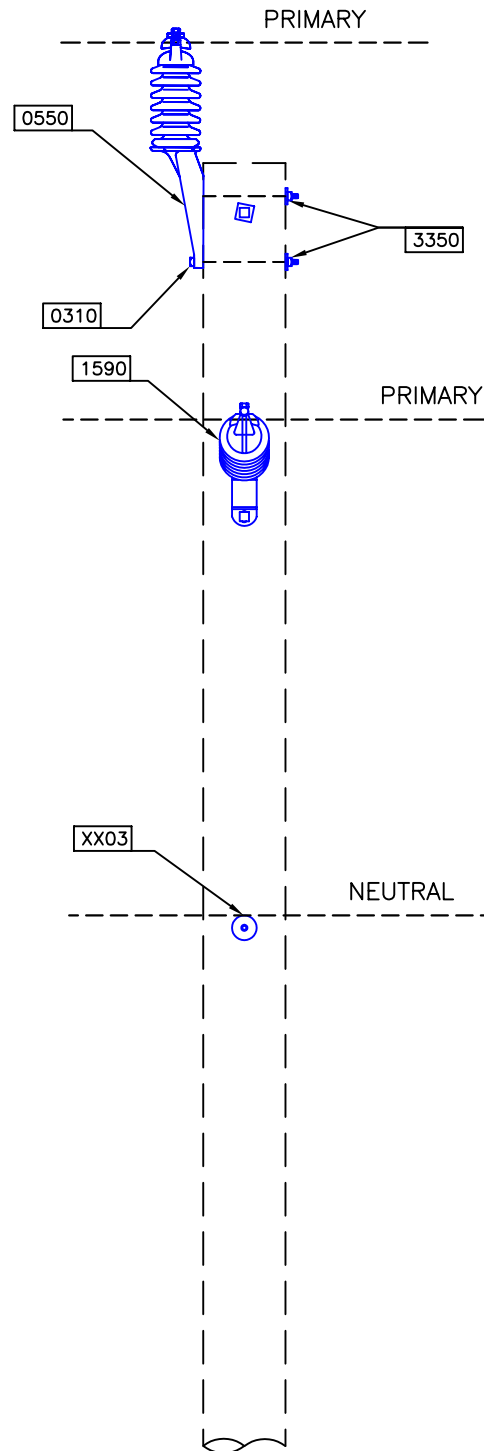
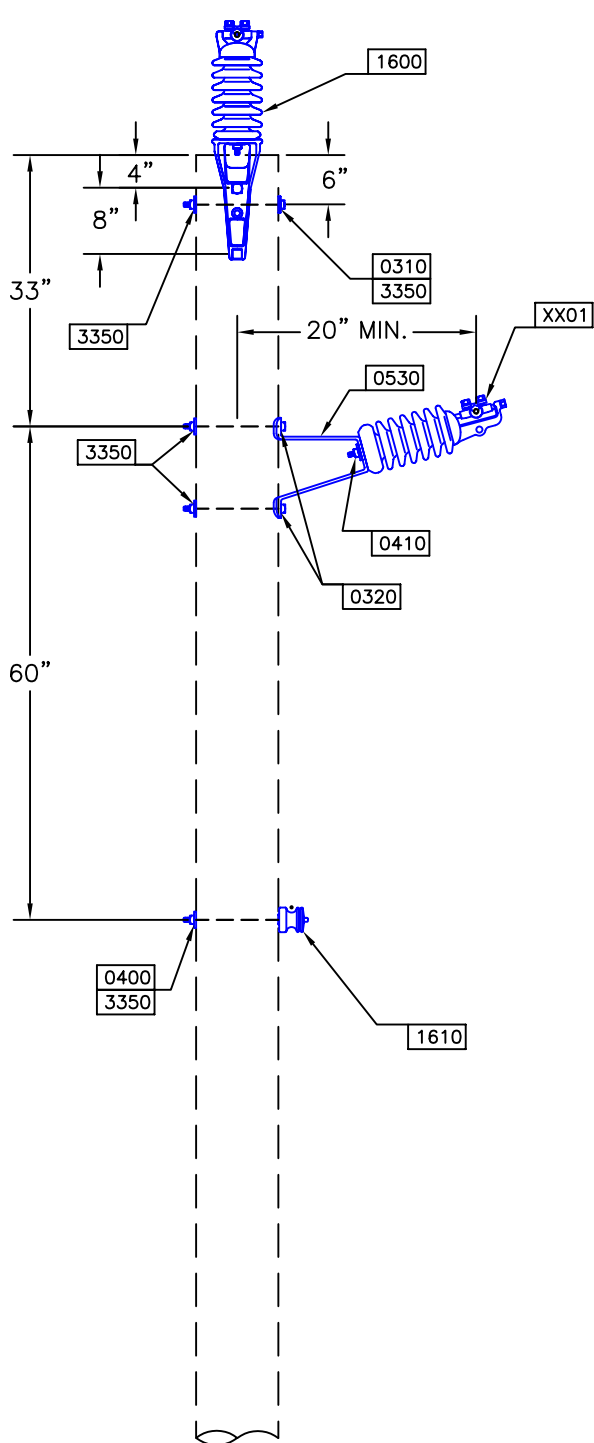
C.U. NO.	DESCRIPTION	PAGE NO.
VB1.NP	14.4/24.9 KV PRIMARY, 2 - PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	1 - 2
VB1.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	3 - 4
VB1.V	14.4/24.9 KV PRIMARY, 2 – PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	5 - 6
VB2.NP	14.4/24.9 KV PRIMARY, 2 – PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	7 - 8
VB2.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	9 – 10
VB2.V	14.4/24.9 KV PRIMARY, 2 – PHASE, , 5 TO 30 DEGREE ANGLE, VERITCAL CONSTRUCTION	11 – 12
VB3.1	14.4/24.9 KV PRIMARY, 2 – PHASE, 30 TO 60 DEGREE ANGLE, VERITCAL CONSTRUCTION	13 – 14
VB4.1	14.4/24.9 KV PRIMARY, 2 – PHASE, 60 TO 90 DEGREE ANGLE, VERITCAL CONSTRUCTION	15 – 16
VB5.1	14.4/24.9 KV PRIMARY, 2 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	17 – 18
VB6.1	14.4/24.9 KV PRIMARY, 2 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	19 – 20



WREC CONSTRUCTION UNIT UPDATE TABLE

TWO - PHASE PRIMARY POLE TOP ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	VB1.NP	VB1-NP	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE , 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	3/04/03
--	VB1.NP.3	VB1.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE , 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	03/04/03
VB1-V	VB1.V	VB1.V	14.4/24.9 KV PRIMARY, 2 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/18/02
--	VB2.NP	VB2.NP	14.4/24.9 KV PRIMARY, 2 - PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	03/04/03
--	VB2.NP.3	VB2.NP.3	14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE , 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	--	03/03/03
VB2-V	VB2.V	VB2.V	14.4/24.9 KV PRIMARY, 2 - PHASE, , 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/20/02
VB3	VB3.1	VB3.1	14.4/24.9 KV PRIMARY, 2 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/20/02
VB4	VB4.1	VB4.1	14.4/24.9 KV PRIMARY, 2 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/20/02
VB5	VB5.1	VB5.1	14.4/24.9 KV PRIMARY, 2 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	10/29/02
VB6	VB6.1	VB6.1	14.4/24.9 KV PRIMARY, 2 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	10/29/02



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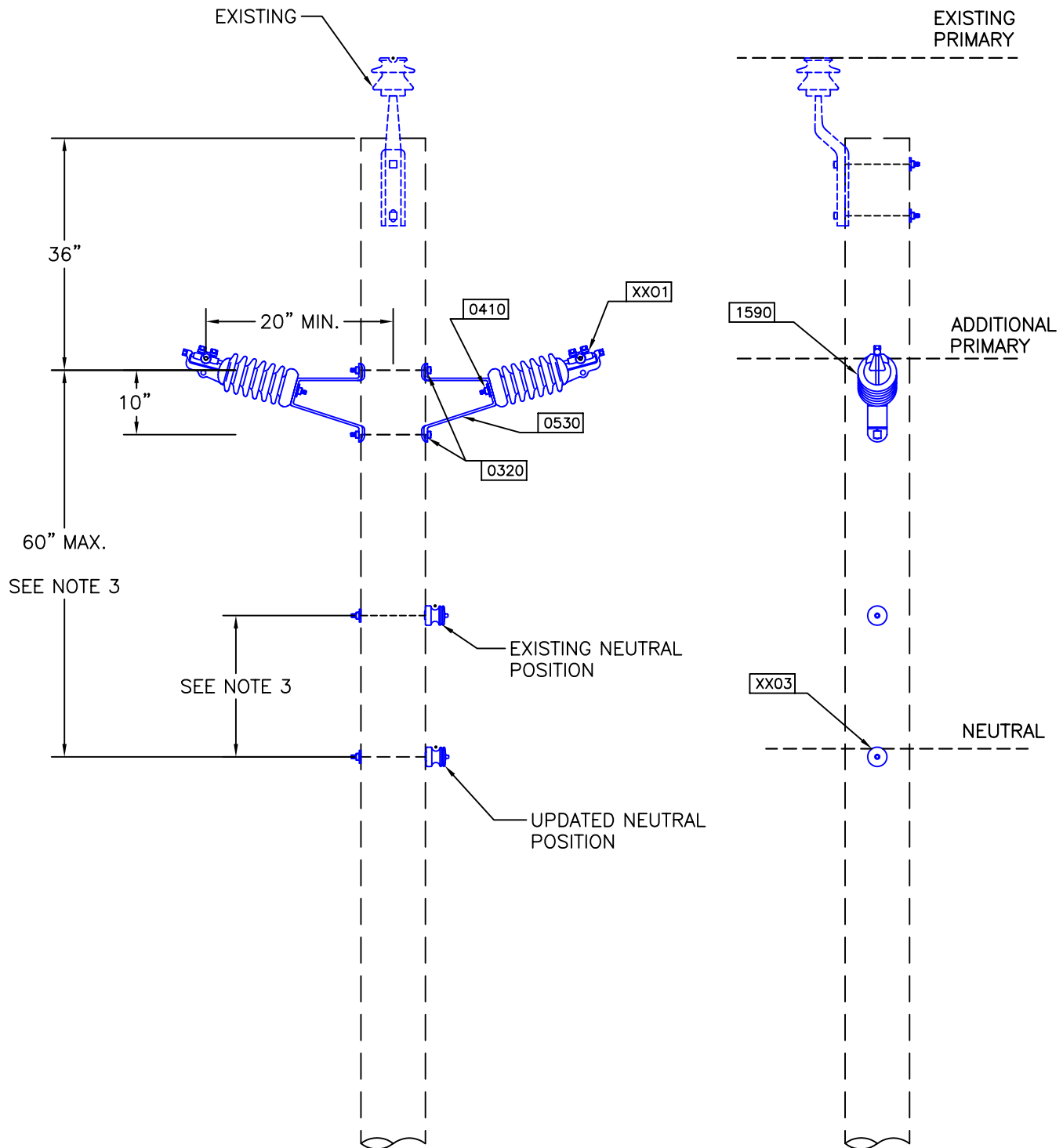
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Approved By: WHP	Date Updated: MARCH 4, 2003		VB1.NP
Old CU:	DWG Name: VB1-NP.DWG		

CONSTRUCTION UNIT: VB1.NP **AUTOCAD FILE:** VB1-NP.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 2 - PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE **PDF FILE:** VB1-NP.PDF **PDF SPEC.:** VB1-NP_SPEC.PDF

ANGLE FROM: 0 **ANGLE TO:** 5 **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0400	1	BOLT, S U 5/8" X 12"		
0410	2	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	1	BRACKET, INSULATOR MOUNT		
0550	1	BRACKET, POLE TOP		
1590	1	INSULATOR, POST TYP HORIZONTAL		
1600	1	INSULATOR, POST TYPE VERTICAL		
1610	1	INSULATOR, SPOOL 3"		
3350	7	WASHER, SQUARE		
XX01	2	CLAMP, TANGENT (PRIMARY)	W	7
XX02	4	TIE WIRE (NEUTRAL)	N	19



NOTE

- 1) THIS CONSTRUCTION TO BE USED ONLY FOR CONVERSION OF EXISTING SINGLE PHASE TO THREE PHASE.
- 2) TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.
- 3) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE PROPER PHASE TO NEUTRAL SPACING. MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

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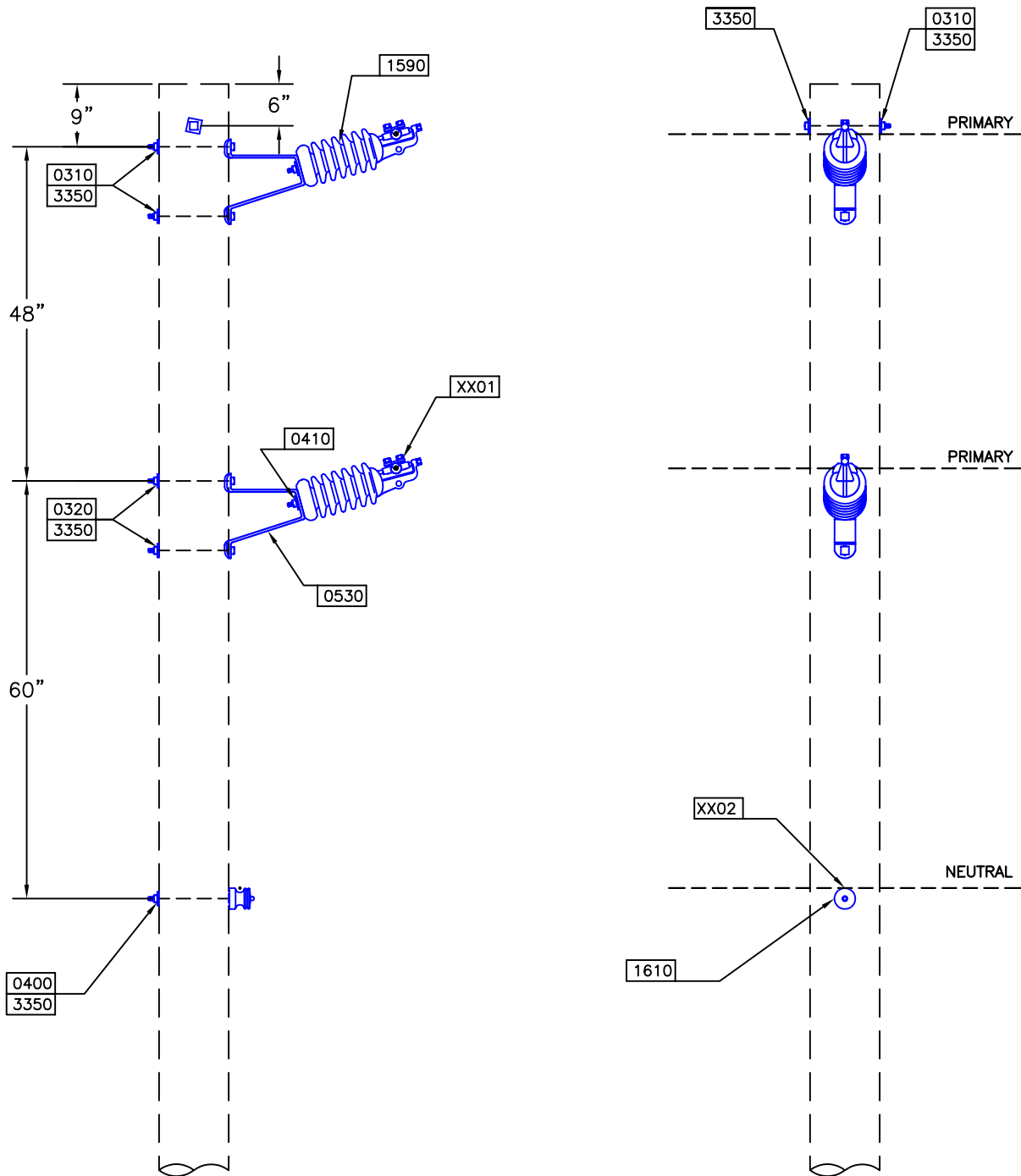
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Approved By: WHP	Date Updated: DEC. 17, 2002		
Old CU:	DWG Name: VB1-NP-3.DWG		

CONSTRUCTION UNIT: VB1.NP.3 **AUTOCAD FILE:** VB1-NP-3.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE, 0 TO 5 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE **PDF FILE:** VB1-NP-3.PDF **PDF SPEC.:** VB1-NP-3_SPEC.PDF

ANGLE FROM: 0 **ANGLE TO:** 5 **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	2	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	2	BRACKET, INSULATOR MOUNT		
1590	2	INSULATOR, POST TYP HORIZONTAL		
XX01	2	CLAMP, TANGENT (PRIMARY)	W	7



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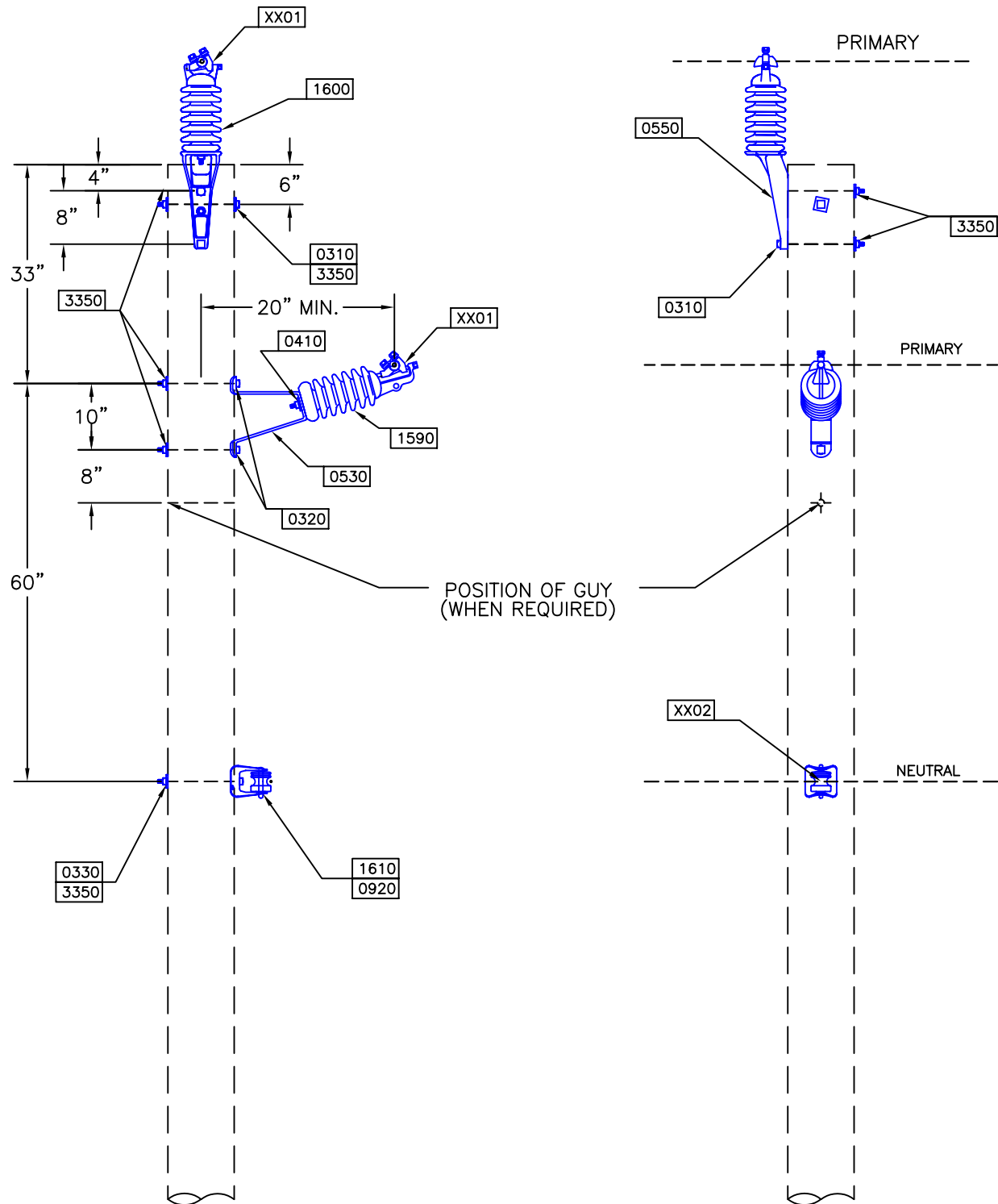
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JUNE. 17, 2004
Old CU: VB1-V	DWG Name: VB1-V.DWG

14.4/24.9 KV PRIMARY, 2Ø, 0- TO 5- ANGLE,
VERTICAL CONSTRUCTION

ISSUE#: REV 2
VB1.V

CONSTRUCTION UNIT:	VB1.V	AUTOCAD FILE:	VB1-V.DWG
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		PDF SPEC.:	VB1-V_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	5
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8"X 3/4"X 12"		
0400	1	BOLT, S U 5/8" X 12"		
0530	2	BRACKET, INSULATOR MOUNT		
1590	2	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
3350	7	WASHER, SQUARE		
XX01	2	CLAMP, TANGENT (PRIMARY)	W	7
XX02	4	TIE WIRE (NEUTRAL)	N	19

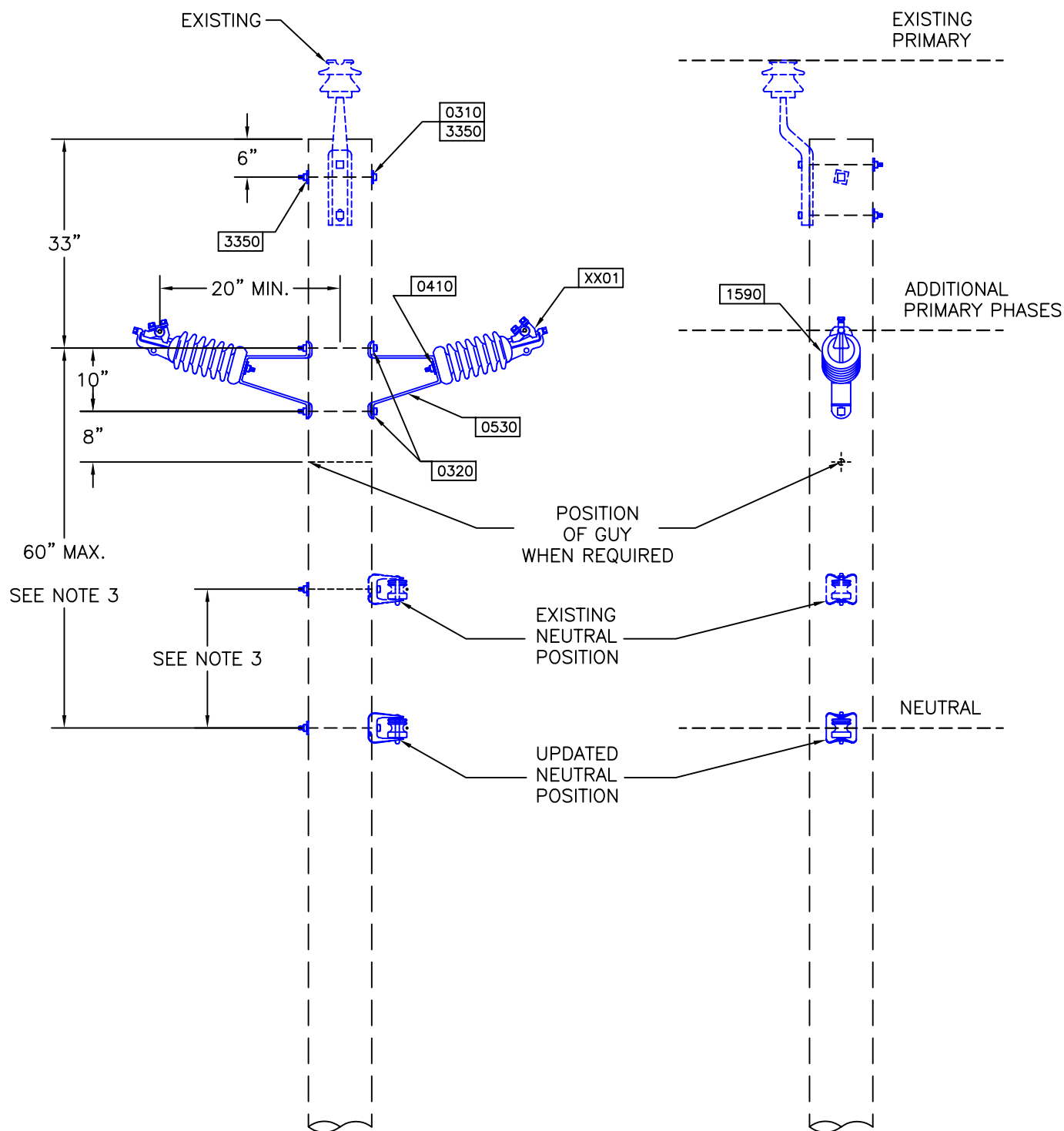


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Drawn By: DEM	Date Drawn: MARCH 4, 2003	14.4/24.9 KV PRIMARY, 2Ø, 5- TO 30- ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE	ISSUE#: REV 1
Approved By: WHP	Date Updated: MARCH 4, 2003		VB2.NP
Old CU:	DWG Name: VB2-NP.DWG		

CONSTRUCTION UNIT:	VB2.NP	AUTOCAD FILE:	VB2-NP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE		PDF FILE: VB2-NP.PDF
		PDF SPEC.:	VB2-NP_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0330	1	BOLT, MACHINE 5/8" X 14"		
0410	2	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	1	BRACKET, INSULATOR MOUNT		
0550	1	BRACKET, POLE TOP		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	1	INSULATOR, POST TYP HORIZONTAL		
1600	1	INSULATOR, POST TYPE VERTICAL		
1610	1	INSULATOR, SPOOL 3"		
3350	7	WASHER, SQUARE		
XX01	1	CLAMP, ANGLE (PRIMARY)	W	8
XX02	4	TIE WIRE (NEUTRAL)	N	19
XX03	4	CONNECTOR (PRIMARY)	WC	5



NOTE

- 1) THIS CONSTRUCTION TO BE USED ONLY FOR CONVERSION OF EXISTING SINGLE PHASE TO THREE PHASE.
- 2) TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.
- 3) NEUTRAL POSITION MAY HAVE TO BE CHANGED TO INSURE PROPER PHASE TO NEUTRAL SPACING. MINIMUM PHASE TO NEUTRAL SPACING IS 48". THE VERTICAL CLEARANCE SHOULD BE COMPLIANT WITH NESC SPECIFICATION 230.E1 AND 232.B1.

DRAWING NOT TO SCALE

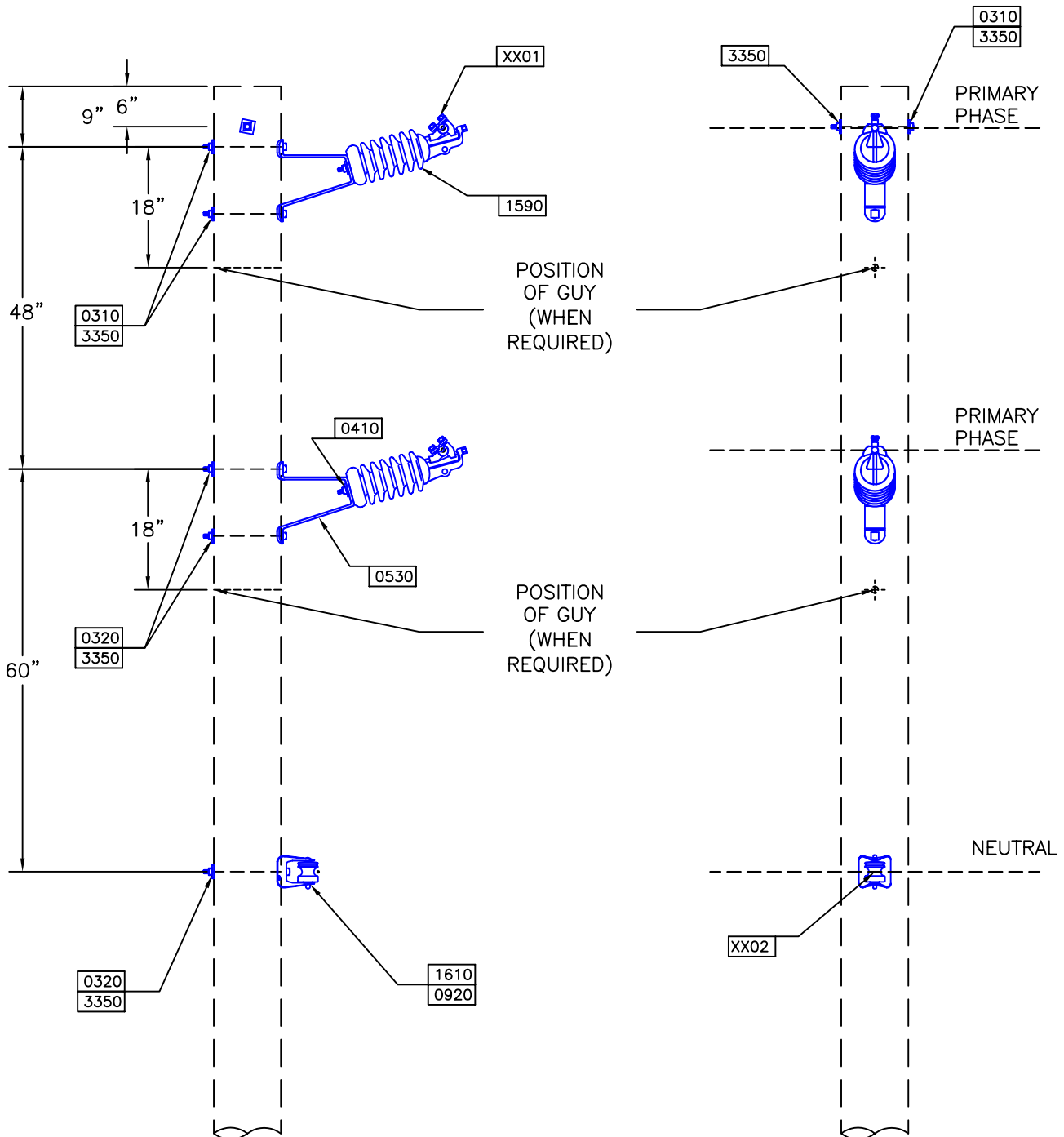
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Approved By: WHP	Date Updated: MARCH 4, 2003		
Old CU:	DWG Name: VB2-NP-3.DWG		

CONSTRUCTION UNIT: VB2.NP.3 **AUTOCAD FILE:** VB2-NP-3.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, CONVERSION, 1 - PHASE TO 3 - PHASE, 5 TO 30 DEGREE ANGLE, LIGHT CONSTRUCTION, NARROW PROFILE **PDF FILE:** VB2-NP-3.PDF **PDF SPEC.:** VB2-NP-3_SPEC.PDF

ANGLE FROM: 5 **ANGLE TO:** 30 **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	2	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	2	BRACKET, INSULATOR MOUNT		
1590	2	INSULATOR, POST TYP HORIZONTAL		
XX01	2	CLAMP, ANGLE (PRIMARY)	W	8



NOTE

TO BE USED ONLY WITH 2/0 ALUMINUM CONDUCTOR OR SMALLER.

DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 2Ø, 5- TO 30- ANGLE, VERTICAL CONSTRUCTION	ISSUE#: REV 2
Approved By: WHP	Date Updated: JUNE 17, 2004		
Old CU: VB2-V	DWG Name: VB2-V.DWG		VB2.V

CONSTRUCTION UNIT:	VB2.V	AUTOCAD FILE:	VB2-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	PDF FILE:	VB2-V.PDF
		PDF SPEC.:	VB2-V_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
RETIREMENT:		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	3	BOLT, MACHINE 5/8" X 12"		
0410	2	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	2	BRACKET, INSULATOR MOUNT		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	2	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
3350	7	WASHER, SQUARE		
XX01	2	CLAMP, ANGLE (PRIMARY)	W	8
XX02	4	TIE WIRE (NEUTRAL)	N	19

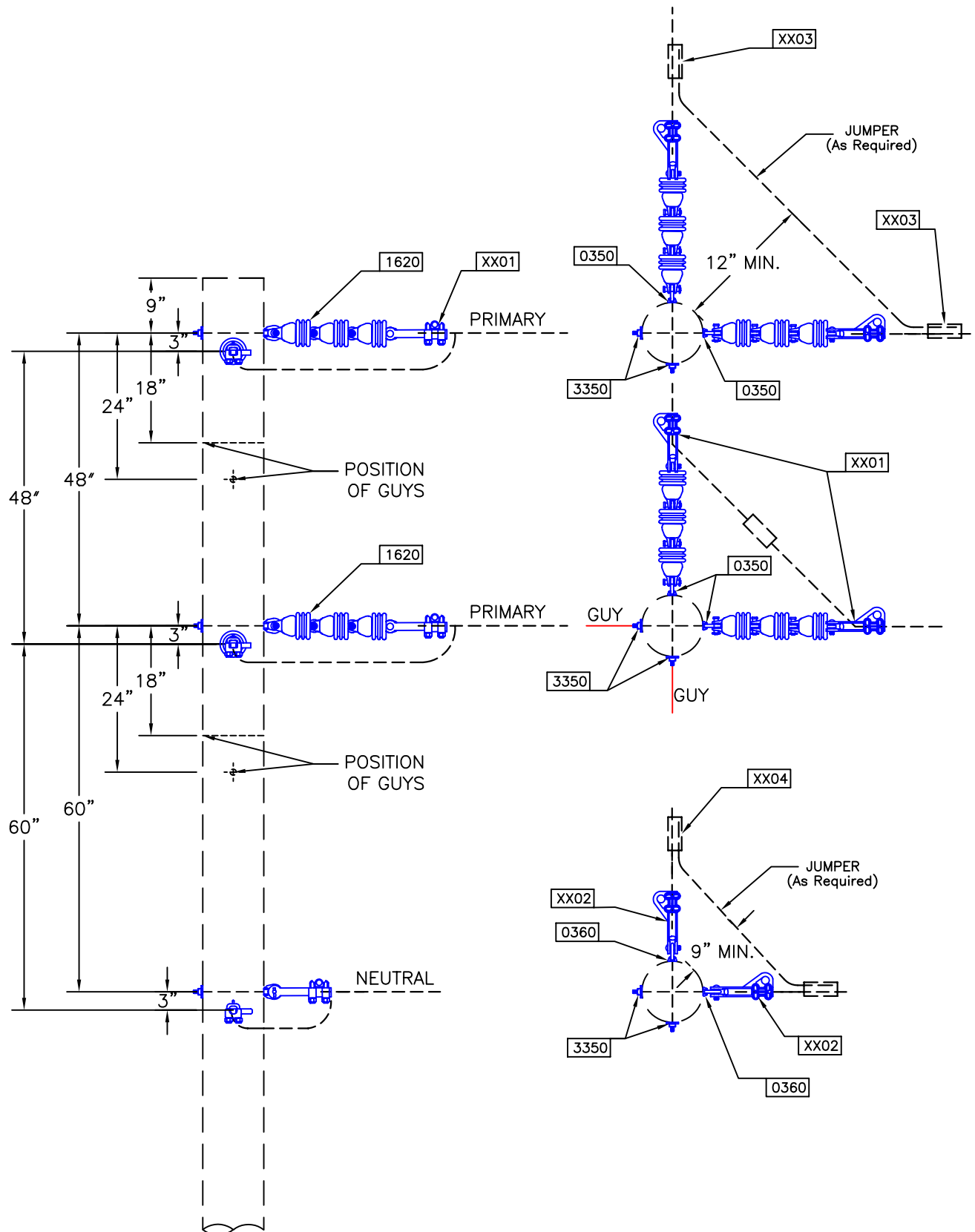


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Approved By: WHP	Date Updated: DEC. 17, 2002		VB3.1
Old CU: VB3	DWG Name: VB3-1.DWG		

CONSTRUCTION UNIT:	VB3.1	AUTOCAD FILE:	VB3-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION		PDF FILE: VB3-1.PDF
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ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	3	ANCHOR, SHACKLE		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	6	INSULATOR, SUSP 4 1/4"		
3350	5	WASHER, SQUARE		
XX01	2	CLAMP, ANGLE SUSP. (PRIMARY)	W	3
XX02	1	CLAMP, ANGLE SUSP. (PRIMARY)	N	3

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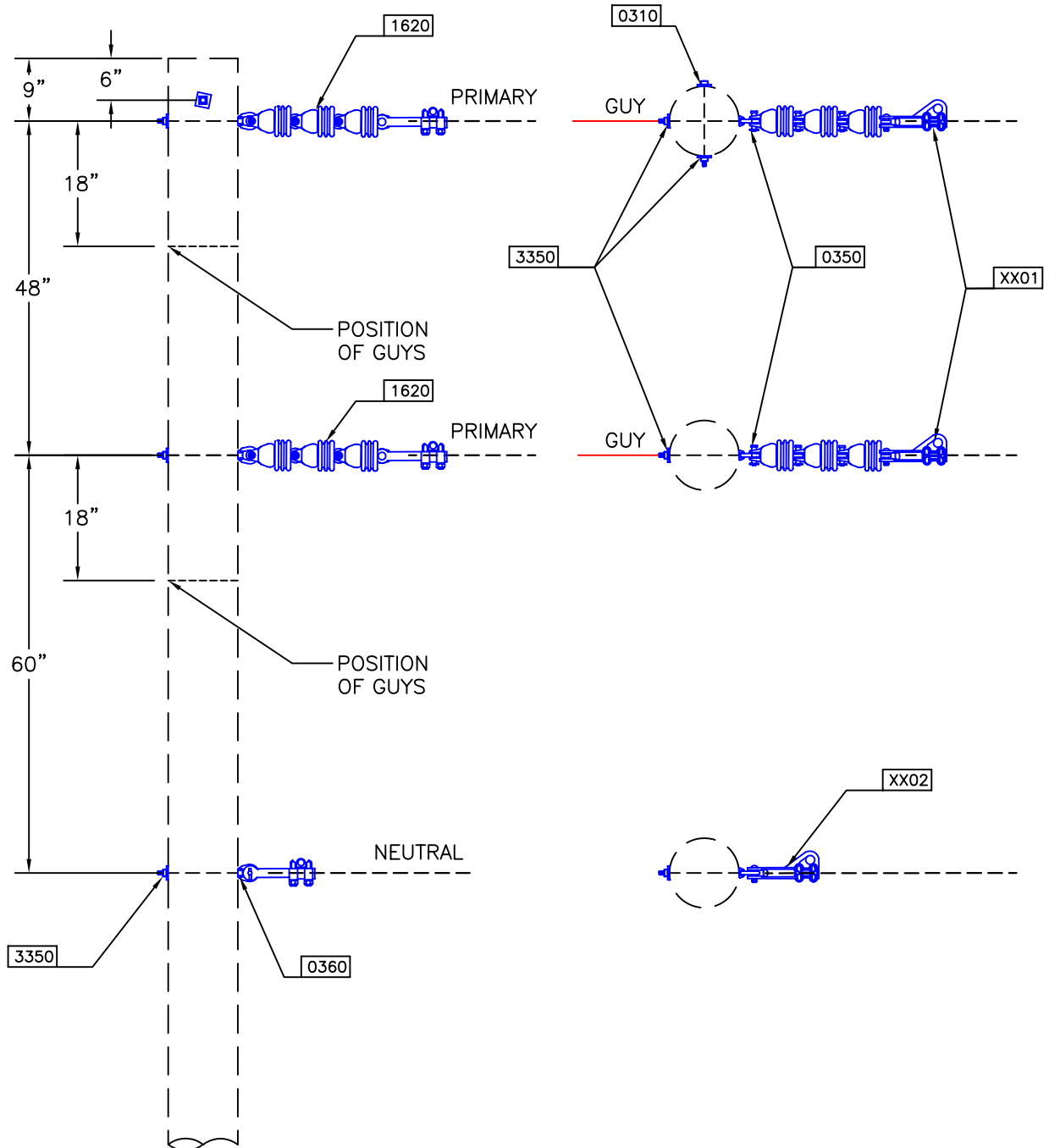


DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 2Ø, 60- TO 90- ANGLE, VERTICAL CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 17, 2002		VB4.1
Old CU: VB4	DWG Name: VB4-1.DWG		

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DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION		PDF FILE: VB4-1.PDF
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ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	2	BOLT, OVAL EYE 5/8" X 12"		
1620	12	INSULATOR, SUSP 4 1/4"		
3350	6	WASHER, SQUARE		
XX01	4	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4
XX03	4	CONNECTOR (PRIMARY)	WC	5
XX04	2	CONNECTOR (NEUTRAL)	NX	5



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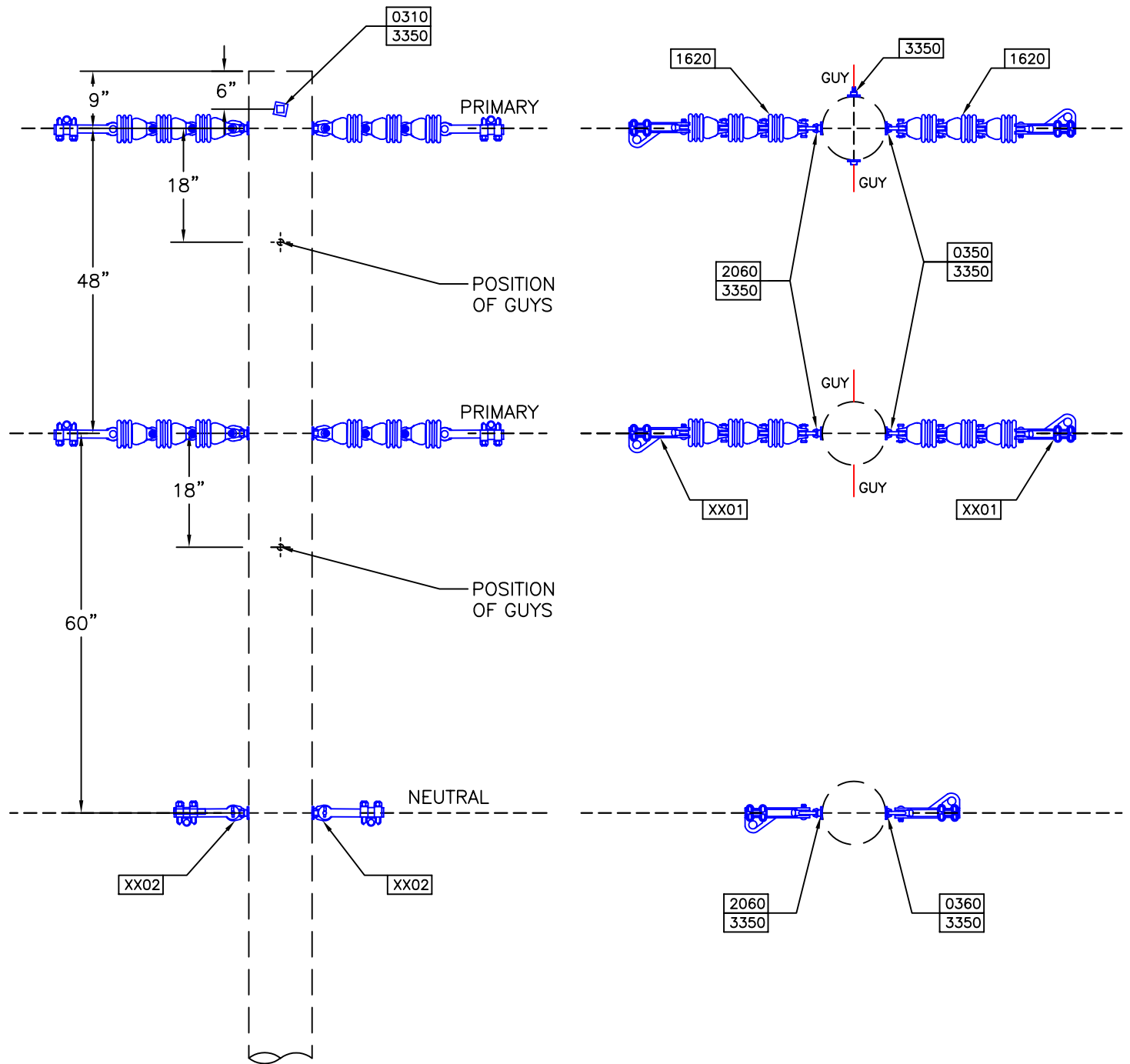
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Approved By: WHP	Date Updated: DEC. 17, 2002
Old CU: VB5	DWG Name: VB5-1.DWG

14.4/24.9 KV PRIMARY, 2Ø
SINGLE DEADEND, VERTICAL CONSTRUCTION

ISSUE#: REV 1
VB5.1

CONSTRUCTION UNIT:	VB5.1	AUTOCAD FILE:	VB5-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION		PDF FILE:
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	6	INSULATOR, SUSP 4 1/4"		
3350	5	WASHER, SQUARE		
XX01	2	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4



DRAWING NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 2Ø, DOUBLE DEADEND, VERTICAL CONSTRUCTION	ISSUE#: REV 1 VB6.1
Approved By: WHP	Date Updated: NOV. 20, 2002		
Old CU: VB6	DWG Name: VB6-1.DWG		

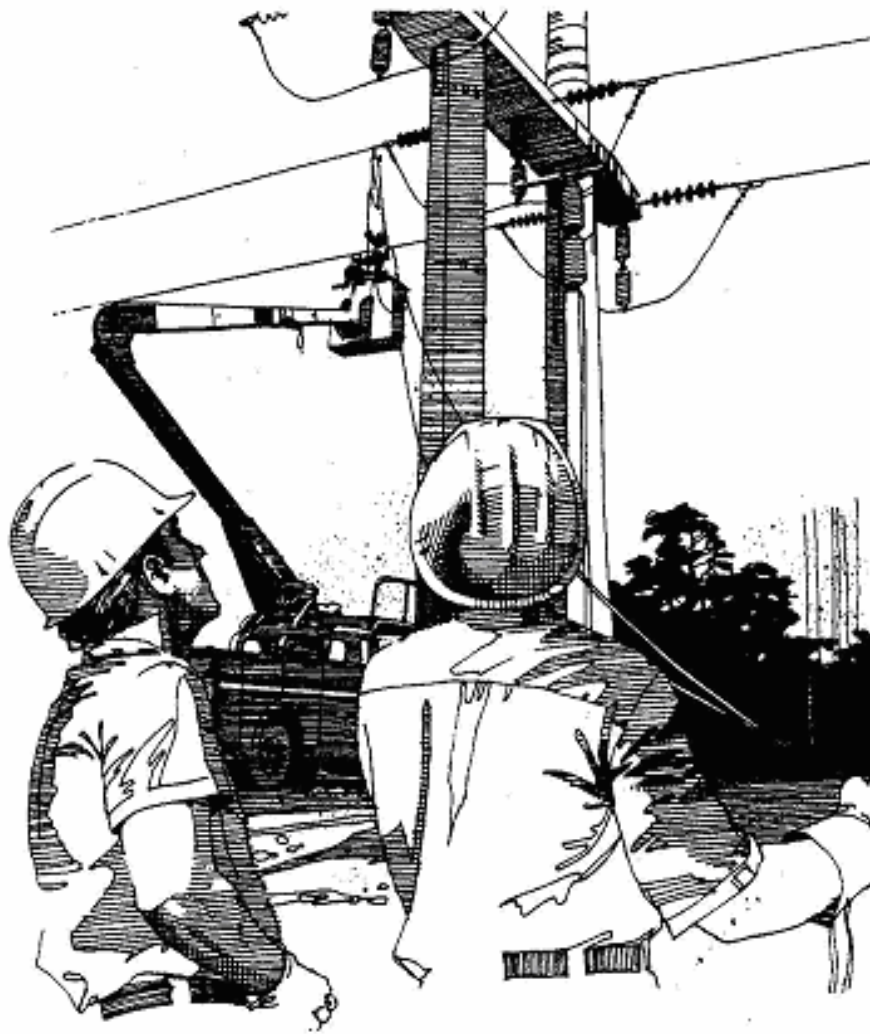
CONSTRUCTION UNIT:	VB6.1	AUTOCAD FILE:	VB6-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	PDF FILE:	VB6-1.PDF
		PDF SPEC.:	VB6-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	12	INSULATOR, SUSP 4 1/4"		
2060	3	NUT, OVAL EYE 5/8"		
3350	8	WASHER, SQUARE		
XX01	4	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4

CONSTRUCTION UNITS

INDEX C: THREE-PHASE, PRIMARY POLE
TOP ASSEMBLY UNITS.

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ELECTRIC COOPERATIVE, INC.



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THREE-PHASE PRIMARY POLE TOP ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VC1.HN	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE	1 - 2
VC1.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	3 - 4
VC1.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	5 - 6
VC2.HN	14.4/24.9 KV PRIMARY, 3 - PHASE , 5 TO 30 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE	7 - 8
VC2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERITCAL CONSTRUCTION	9 – 10
VC2.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERITCAL CONSTRUCTION, CONCRETE POLE	11 - 12
VC3.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION	13 - 14
VC3.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	15 - 16
VC4.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	17 - 18
VC4.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	19 - 20
VC5.1	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	21 – 22
VC5.C	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE	23 – 24
VC6.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	25 – 26
VC6.C	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE	27 - 28

THREE-PHASE PRIMARY POLE TOP ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VC7FG	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION	29 – 30
VC9.1FG	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE LINE ARM, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION	31 - 32



WREC CONSTRUCTION UNIT UPDATE TABLE

THREE - PHASE PRIMARY POLE TOP ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VC1-HN	VC1.HN	VC1.HN	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE	07/23/01	11/27/02
VC1-V	VC1.V	VC1.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/25/02
VC1-V-C	VC1.V.C	VC1.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	07/23/01	11/25/02
VC2-HN	VC2.HN	VC2.HN	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE	07/23/01	12/02/02
VC2-V	VC2.V	VC2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/25/02
--	--	VC2.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	--	11/25/02
VC3	VC3.1	VC3.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	11/20/02
--	--	VC3.-C	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	--	12/04/02
VC4	VC4.1	VC4.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	07/23/01	12/27/02
--	--	VC4.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	--	12/05/02
VC5	VC5.1	VC5.1	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	12/09/02
--	--	VC5-C	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE	--	12/09/02
VC6	VC6.1	VC6.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	12/10/02
--	--	VC6.C	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE	--	12/10/02

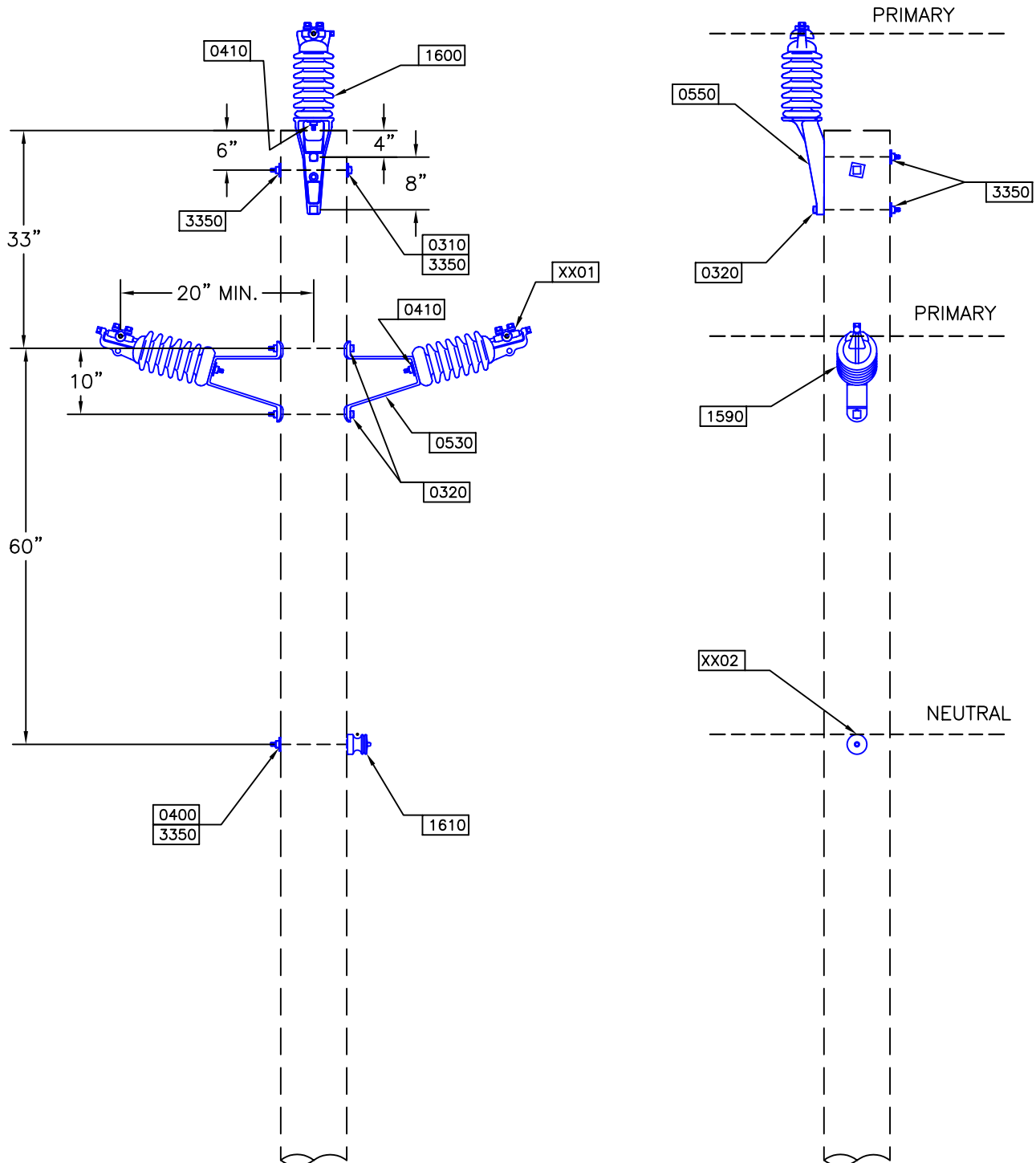


WREC CONSTRUCTION UNIT UPDATE TABLE

THREE - PHASE PRIMARY POLE TOP ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRITPION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VC7	VC5.51	VC7FG	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTIION	07/23/01	12/29/02
VC9-1	VC1.41	VC9.1FG	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE LINE ARM, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION	07/23/01	12/29/02





DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: NOV. 27, 2002
Old CU: VC1-HN	DWG Name: VC1-HN.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , 0- TO 5- ANGLE,
HEAVY CONSTRUCTION, NARROW PROFILE

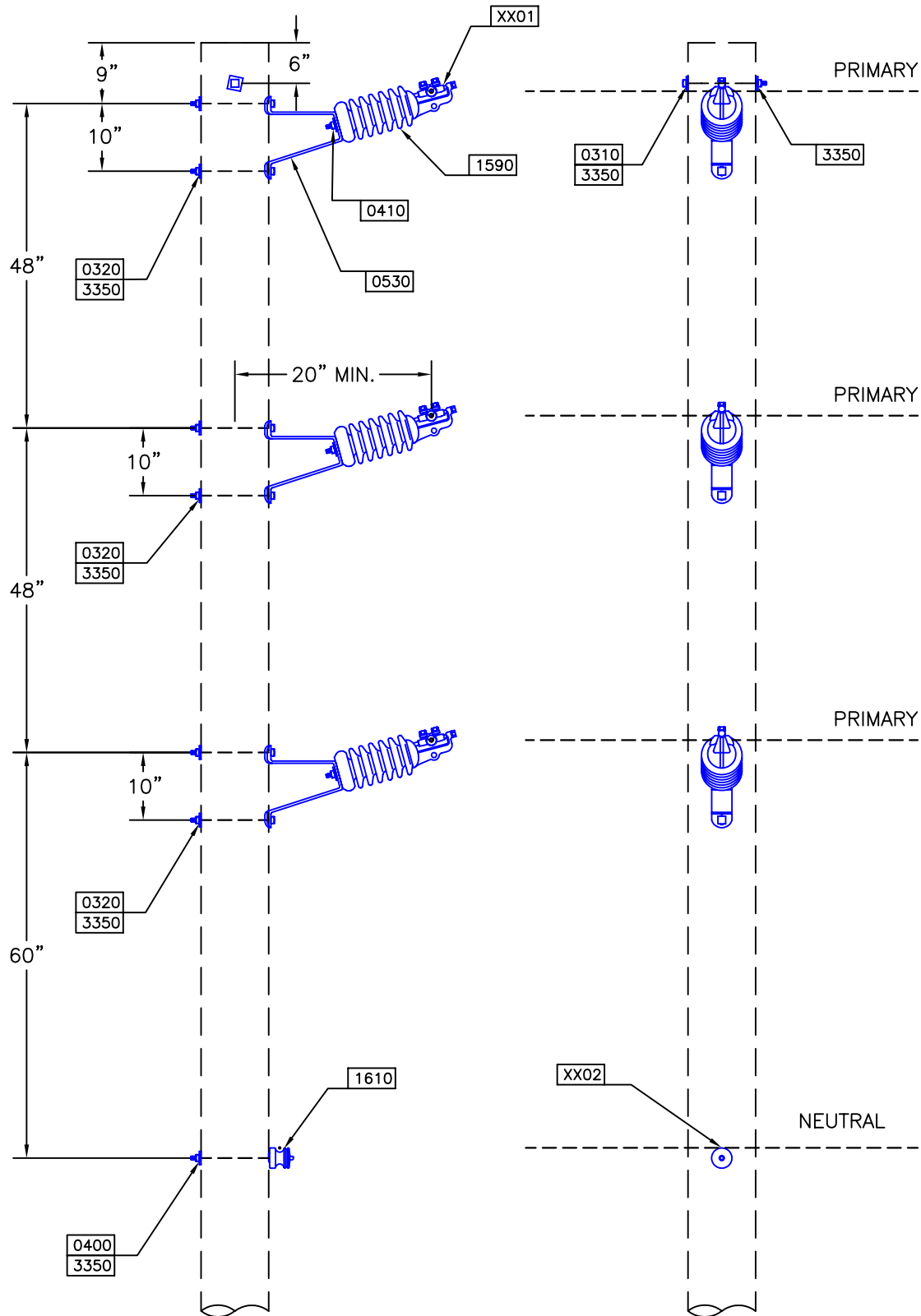
ISSUE#: REV 1
VC1.HN

CONSTRUCTION UNIT: VC1.HN **AUTOCAD FILE:** VC1-HN.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, HEAVY CONSTRUCTION, NARROW PROFILE **PDF FILE:** VC1-HN.PDF **PDF SPEC.:** VC1-HN_SPEC.PDF

ANGLE FROM: 0 **ANGLE TO:** 5 **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	4	BOLT, MACHINE 5/8" X 12"		
0400	1	BOLT, S U 5/8" X 12"		
0410	3	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	2	BRACKET, INSULATOR MOUNT		
0550	1	BRACKET, POLE TOP		
1590	2	INSULATOR, POST TYP HORIZONTAL		
1600	1	INSULATOR, POST TYPE VERTICAL		
1610	1	INSULATOR, SPOOL 3"		
3350	5	WASHER, SQUARE		
XX01	3	CLAMP, TANGENT (PRIMARY)	W	7
XX02	4	TIE WIRE (NEUTRAL)	N	19



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: APRIL 24, 2006
Old CU: VC1-V	DWG Name: VC1-V.DWG

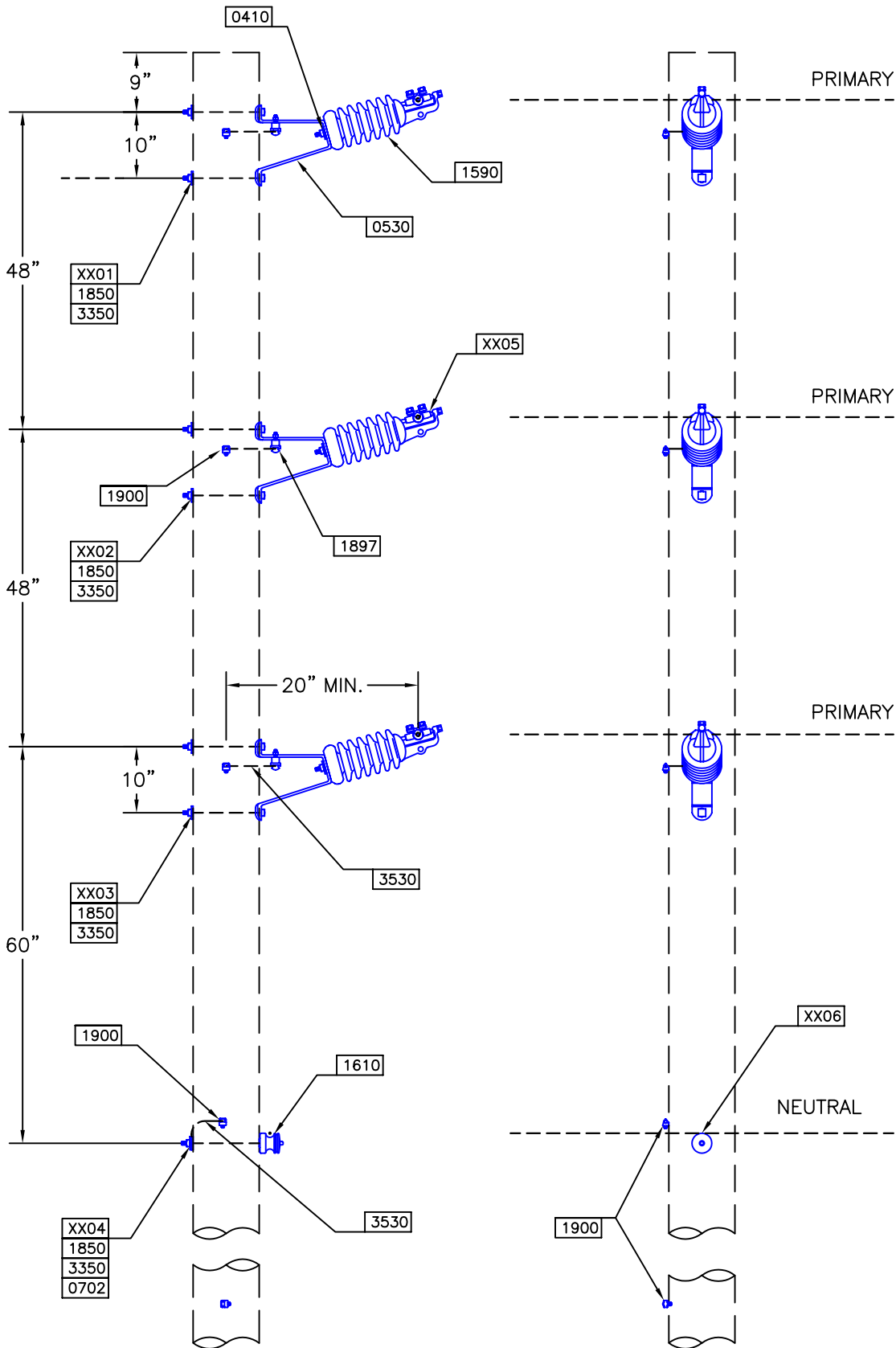
14.4/24.9 KV PRIMARY, 3 ϕ , 0- TO 5- ANGLE,
VERTICAL CONSTRUCTION

ISSUE#: REV 2
VC1.V

CONSTRUCTION UNIT:	VC1.V	AUTOCAD FILE:	VC1-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3 - PHASE; 0 TO 5 DEGREE ANGLE; VERTICAL CONSTRUCTION	PDF FILE:	VC1-V.PDF
		PDF SPEC.:	VC1-V_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0310	1	BOLT; MACHINE 5/8 X 10		
0320	6	BOLT; MACHINE 5/8 X 12		
0400	1	BOLT; S U 5/8 X 12		
0410	3	BOLT; STUD 5/8X 3/4X 1 3/4		
0530	3	BRACKET; INSULATOR MOUNT		
1590	3	INSULATOR; POST TYP HORIZONTAL		
1610	1	INSULATOR; SPOOL 3		
3350	9	WASHER; SQUARE		
XX01	3	CLAMP; TANGENT (PRIMARY)	W	7
XX02	8	TIE WIRE (NEUTRAL)	N	19

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NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

DRAWING IS NOT TO SCALE

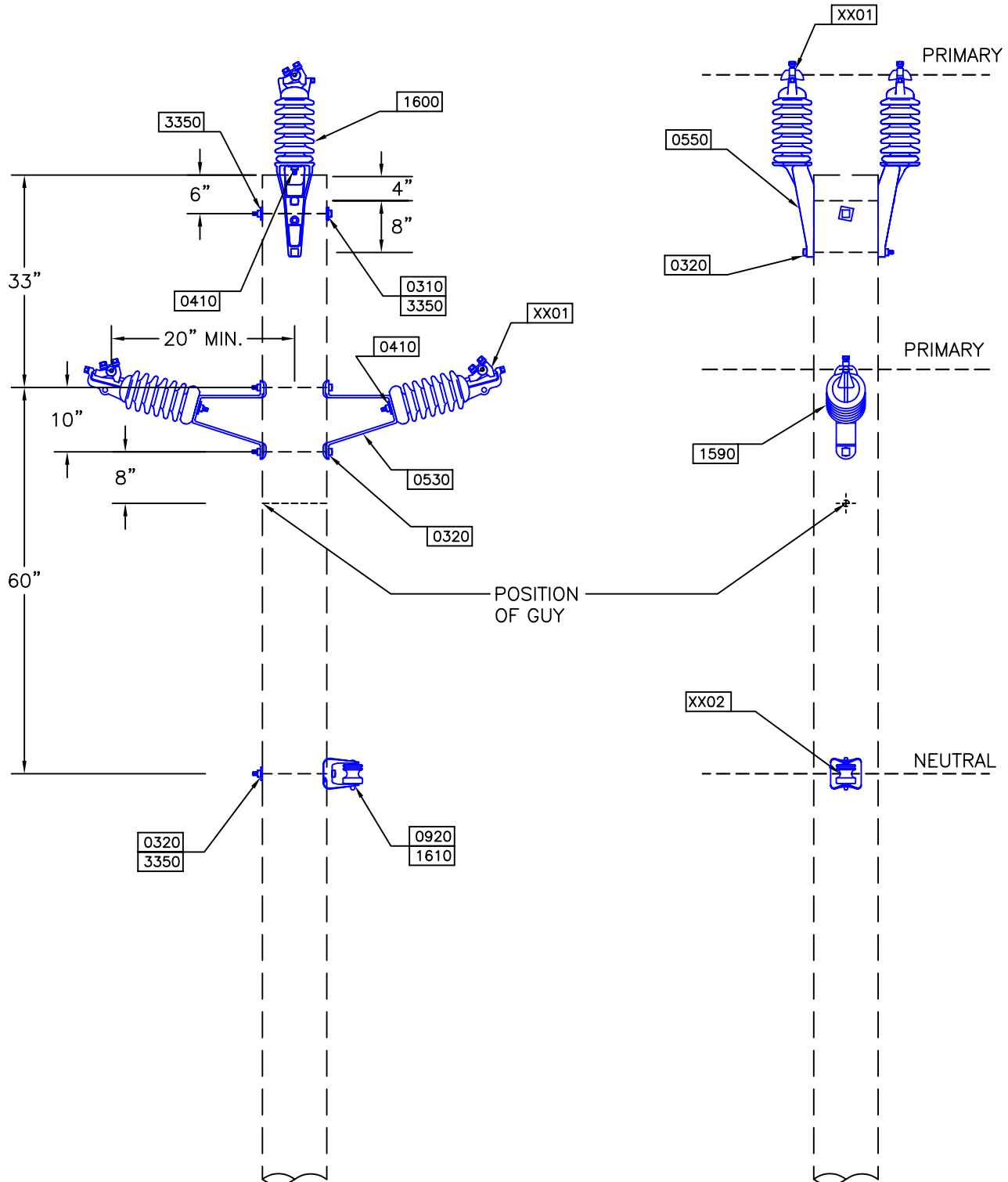
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Approved By: WHP	Date Updated: NOV. 25, 2002
Old CU: VC1-V-C	DWG Name: VC1-V-C.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , 0- TO 5- ANGLE,
VERTICAL CONSTRUCTION, CONCRETE POLE

ISSUE#: REV 1
VC1.V.C

CONSTRUCTION UNIT:	VC1.V.C	AUTOCAD FILE:	VC1-V-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	PDF FILE:	VC1-V-C.PDF
		PDF SPEC.:	VC1-V-C_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	5
RETIREMENT:		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	3	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	3	BRACKET, INSULATOR MOUNT		
0702	1	CLAMP, GRD WIRE 5/8"		
1590	3	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
1850	7	LOCKNUT 5/8"		
1897	3	LUG, TAP BRONZE 1/2" X 3 1/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	7	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	40
XX02	2	BOLT, MACHINE 5/8" X REQ. LENG	P	41
XX03	2	BOLT, MACHINE 5/8" X REQ. LENG	P	42
XX04	1	BOLT, S U O R D A	P	43
XX05	3	CLAMP, TANGENT (PRIMARY)	W	7
XX06	4	TIE WIRE (NEUTRAL)	N	19
XX07	1	SQUEEZON, #4 CU TO NEUTRAL	N	13



DRAWING IS NOT TO SCALE

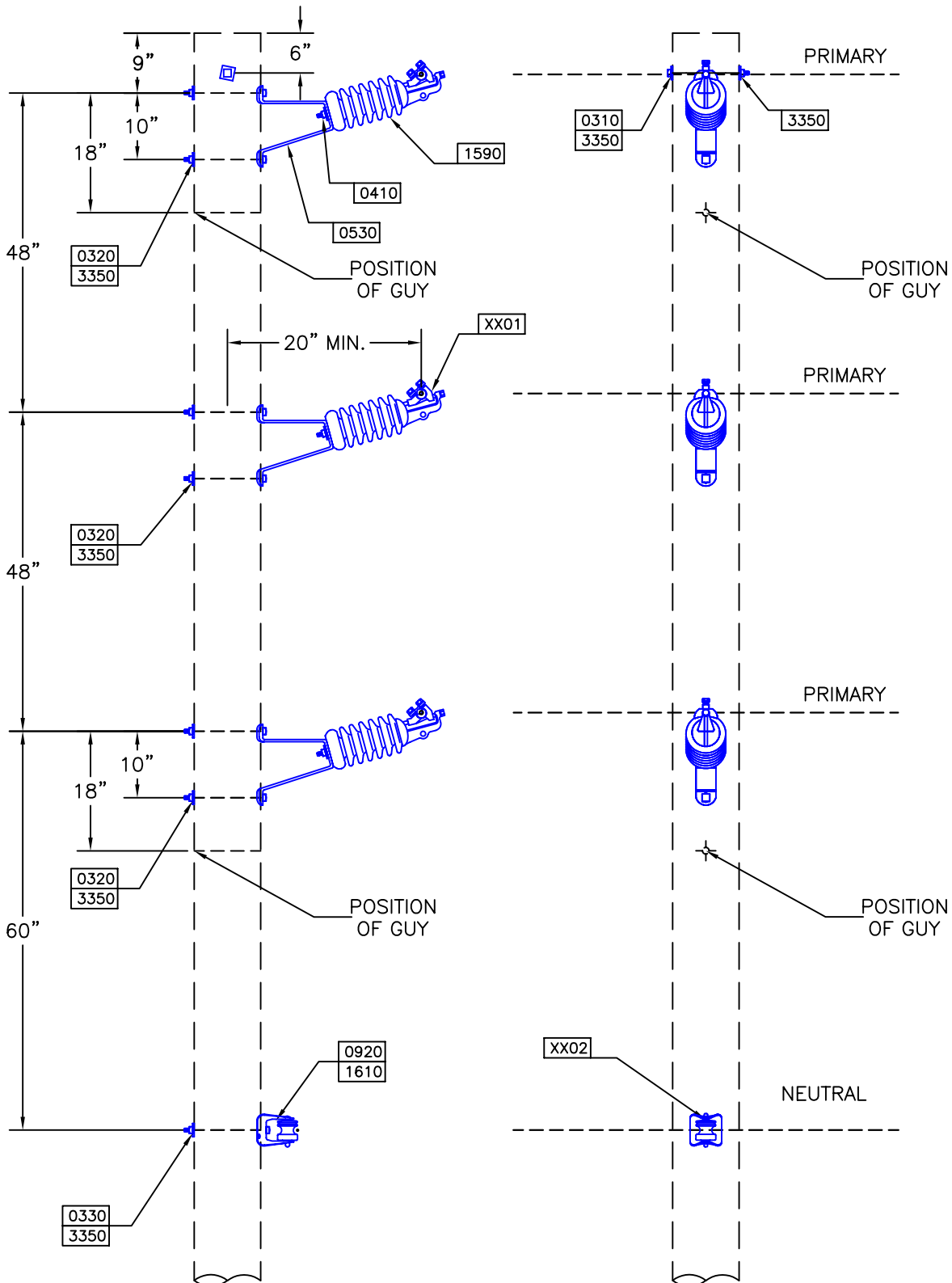
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Approved By: WHP	Date Updated: DEC. 2, 2002
Old CU: VC2-HN	DWG Name: VC2-HN.DWG

14.4/24.9 KV PRIMARY, 30, 5- TO 30- ANGLE,
HEAVY CONSTRUCTION, NARROW PROFILE

ISSUE#: REV 1
VC2.HN

CONSTRUCTION UNIT:	VC2.HN	AUTOCAD FILE:	VC2-HN.DWG
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		PDF SPEC.:	VC2-HN_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
RETIREMENT:		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	5	BOLT, MACHINE 5/8" X 12"		
0410	4	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	2	BRACKET, INSULATOR MOUNT		
0550	2	BRACKET, POLE TOP		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	2	INSULATOR, POST TYP HORIZONTAL		
1600	2	INSULATOR, POST TYPE VERTICAL		
1610	1	INSULATOR, SPOOL 3"		
3350	3	WASHER, SQUARE		
XX01	4	CLAMP, ANGLE (PRIMARY)	W	8
XX02	4	TIE WIRE (NEUTRAL)	N	19



DRAWING IS NOT TO SCALE

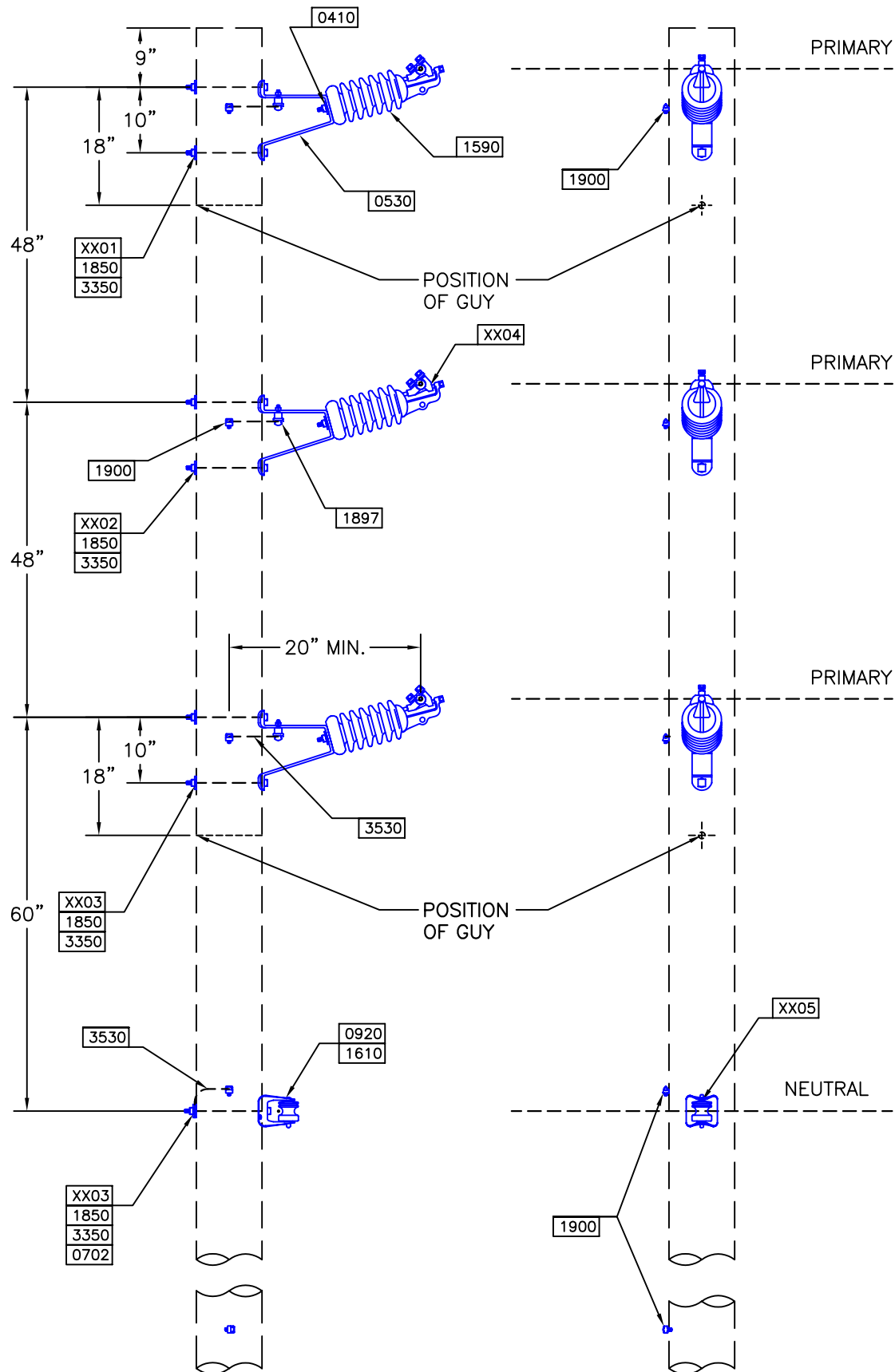
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Approved By: WHP	Date Updated: APRIL 24, 2006
Old CU: VC2-V	DWG Name: VC2-V.DWG

14.4/24.9 KV PRIMARY, 30, 5- TO 30- ANGLE,
VERTICAL CONSTRUCTION

ISSUE#: REV 2
VC2.V

CONSTRUCTION UNIT:	VC2.V	AUTOCAD FILE:	VC2-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3 - PHASE; 5 TO 30 DEGREE ANGLE; VERTICAL CONSTRUCTION	PDF FILE:	VC2-V.PDF
		PDF SPEC.:	VC2-V_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0310	1	BOLT; MACHINE 5/8 X 10		
0320	6	BOLT; MACHINE 5/8 X 12		
0330	1	BOLT; MACHINE 5/8 X 14		
0410	3	BOLT; STUD 5/8X 3/4X 1 3/4		
0530	3	BRACKET; INSULATOR MOUNT		
0920	1	CLEVIS; SECONDARY DE J 10		
1590	3	INSULATOR; POST TYP HORIZONTAL		
1610	1	INSULATOR; SPOOL 3		
3350	9	WASHER; SQUARE		
XX01	3	CLAMP; ANGLE (PRIMARY)	W	8
XX02	4	TIE WIRE (NEUTRAL)	N	19



NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: NOV. 25, 2002
Old CU: VC2-V-C	DWG Name: VC2-V-C.DWG

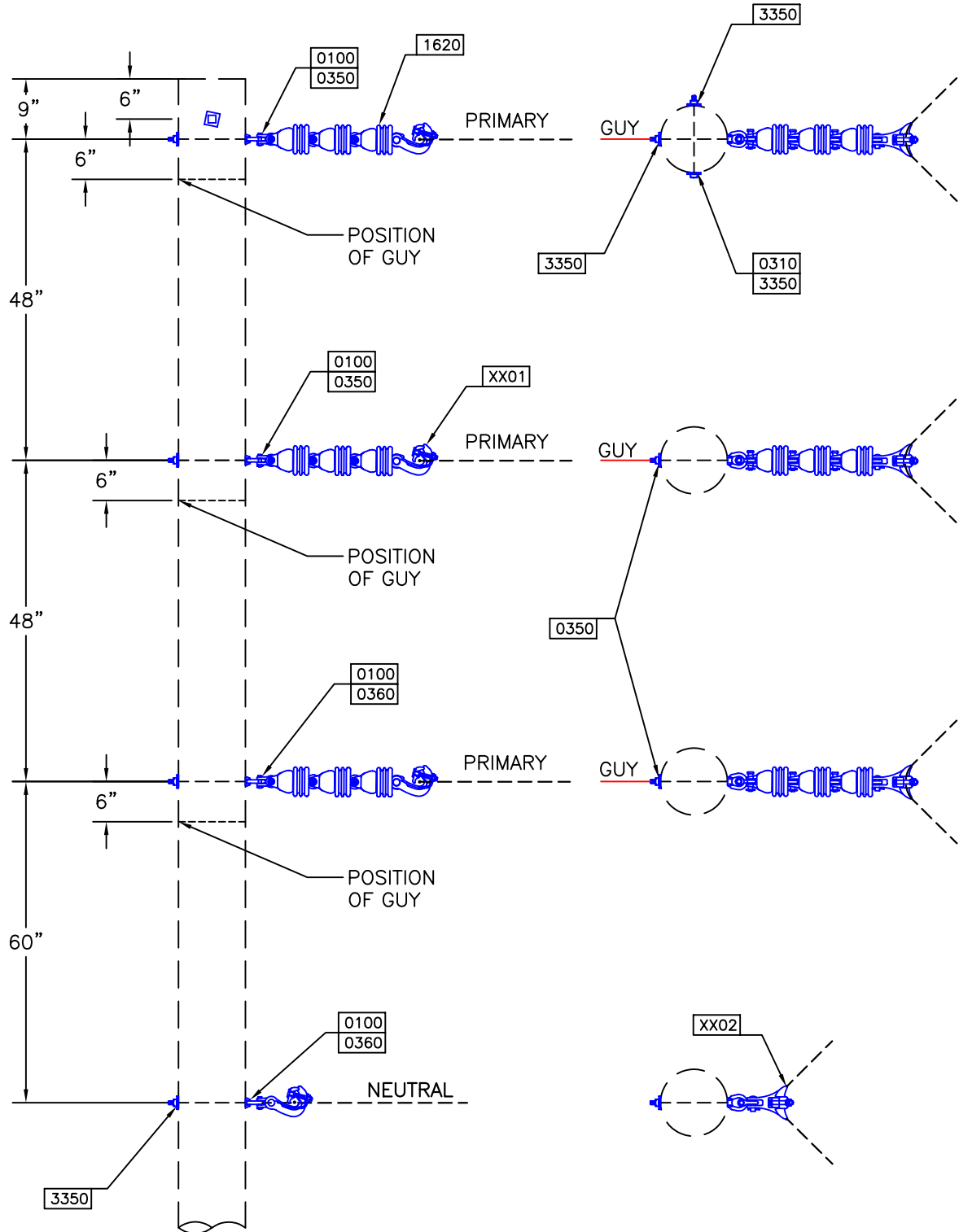
14.4/24.9 KV PRIMARY, 3Ø, 5- TO 30- ANGLE,
VERTICAL CONSTRUCTION, CONCRETE POLE

ISSUE#: REV 1
VC2.V.C

CONSTRUCTION UNIT:	VC2.V.C	AUTOCAD FILE:	VC2-V-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE		PDF FILE: VC2-V-C.PDF
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ANGLE FROM:	5	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	3	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	3	BRACKET, INSULATOR MOUNT		
0702	1	CLAMP, GRD WIRE 5/8"		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	3	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
1850	7	LOCKNUT 5/8"		
1897	3	LUG, TAP BRONZE 1/2" X 3 1/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	7	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	40
XX02	2	BOLT, MACHINE 5/8" X REQ. LENG	P	41
XX03	3	BOLT, MACHINE 5/8" X REQ. LENG	P	42
XX04	3	CLAMP, ANGLE (PRIMARY)	W	8
XX05	4	TIE WIRE (NEUTRAL)	N	19
XX06	1	SQUEEZON, #4 CU TO NEUTRAL	N	13

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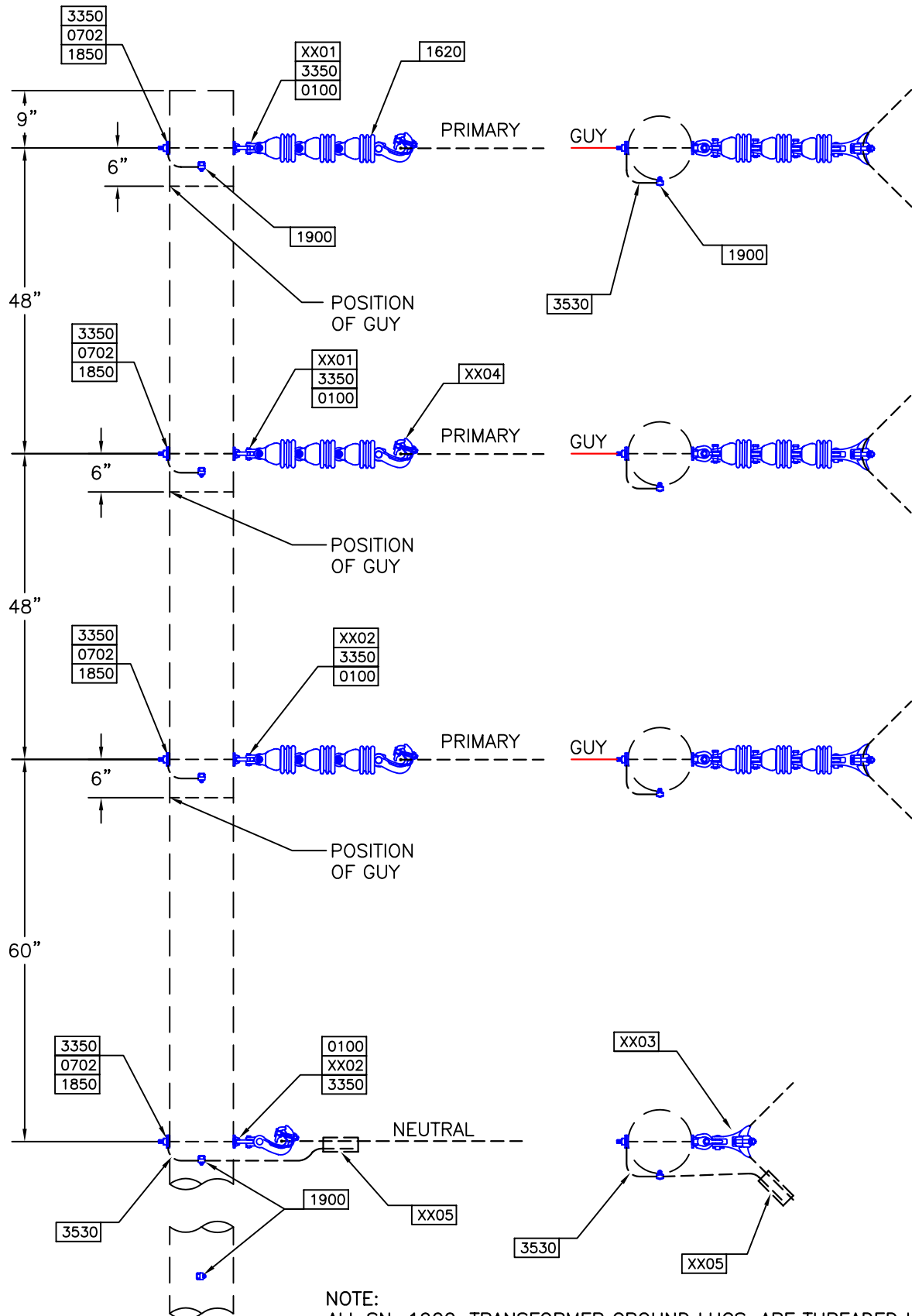
DRAWING IS NOT TO SCALE

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Approved By: WHP	Date Updated: NOV. 20, 2002		VC3.1
Old CU: VC3	DWG Name: VC3-1.DWG		

CONSTRUCTION UNIT:	VC3.1	AUTOCAD FILE:	VC3-1.DWG
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ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	4	ANCHOR, SHACKLE		
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	2	BOLT, OVAL EYE 5/8" X 12"		
1620	9	INSULATOR, SUSP 4 1/4"		
3350	6	WASHER, SQUARE		
XX01	3	CLAMP, ANGLE SUSP. (PRIMARY)	W	3
XX02	1	CLAMP, ANGLE SUSP. (NEUTRAL)	N	3

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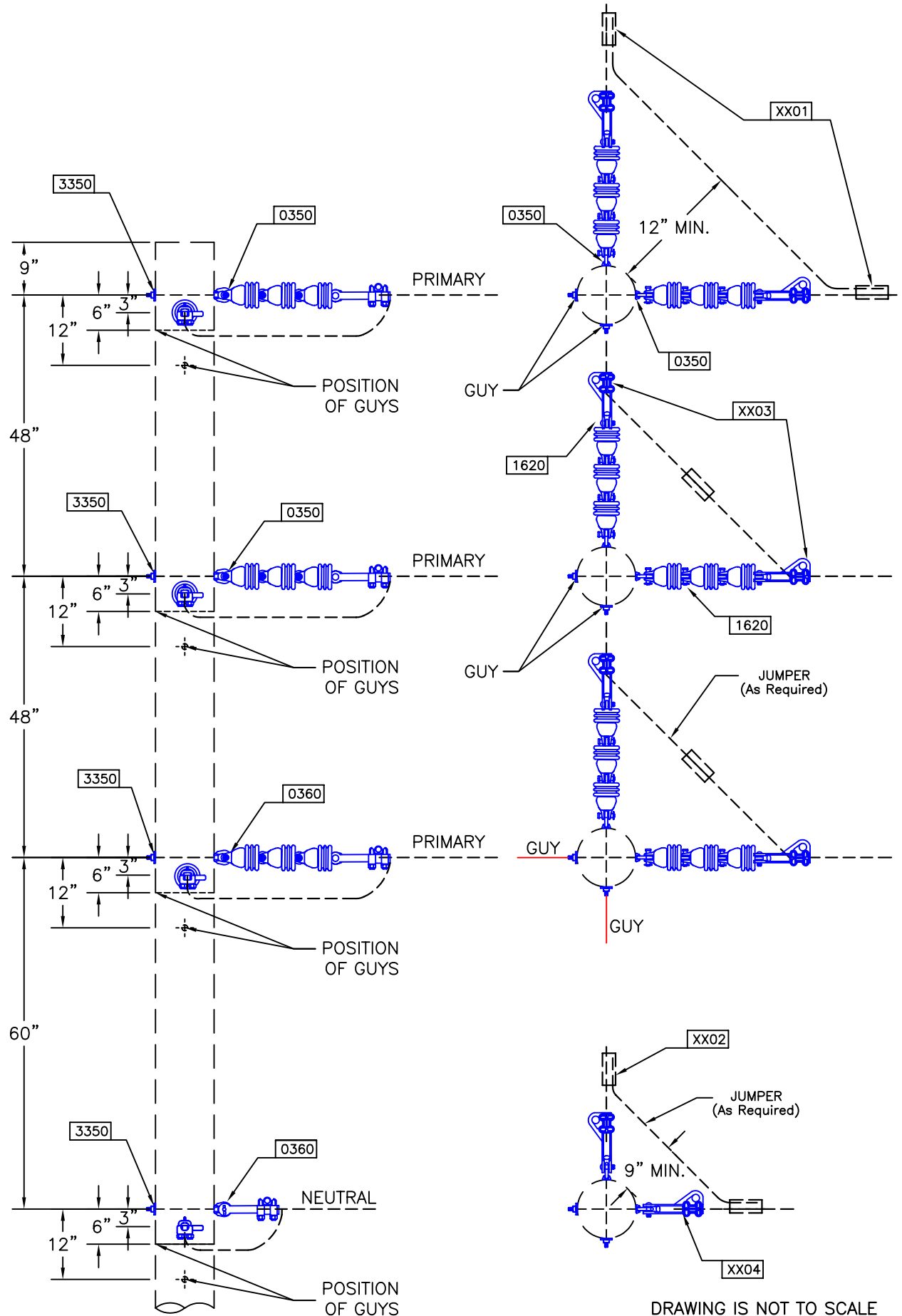
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Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3 ϕ , 30- TO 60- ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE	ISSUE#: REV 1 VC3.C
Approved By: WHP	Date Updated: DEC. 4, 2002		
Old CU: VC3-C	DWG Name: VC3-C.DWG		

CONSTRUCTION UNIT:	VC3.C	AUTOCAD FILE:	VC3-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE		PDF FILE: VC3-C.PDF
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ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	4	ANCHOR, SHACKLE		
0702	4	CLAMP, GRD WIRE 5/8"		
1620	9	INSULATOR, SUSP 4 1/4"		
1850	4	LOCKNUT 5/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	8	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	2	BOLT, OVALEYE 5/8" X REQ. LENG	P	44
XX02	2	BOLT, OVALEYE 5/8" X REQ. LENG	P	45
XX03	1	CLAMP, ANGLE SUSP. (NEUTRAL)	N	3
XX04	3	CLAMP, ANGLE SUSP. (PRIMARY)	W	3
XX05	1	SQUEEZON, #4 CU TO NEUTRAL	N	13

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Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3Ø, 60- TO 90- ANGLE, VERTICAL CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 27, 2002		VC4.1
Old CU: VC4	DWG Name: VC4-1.DWG		

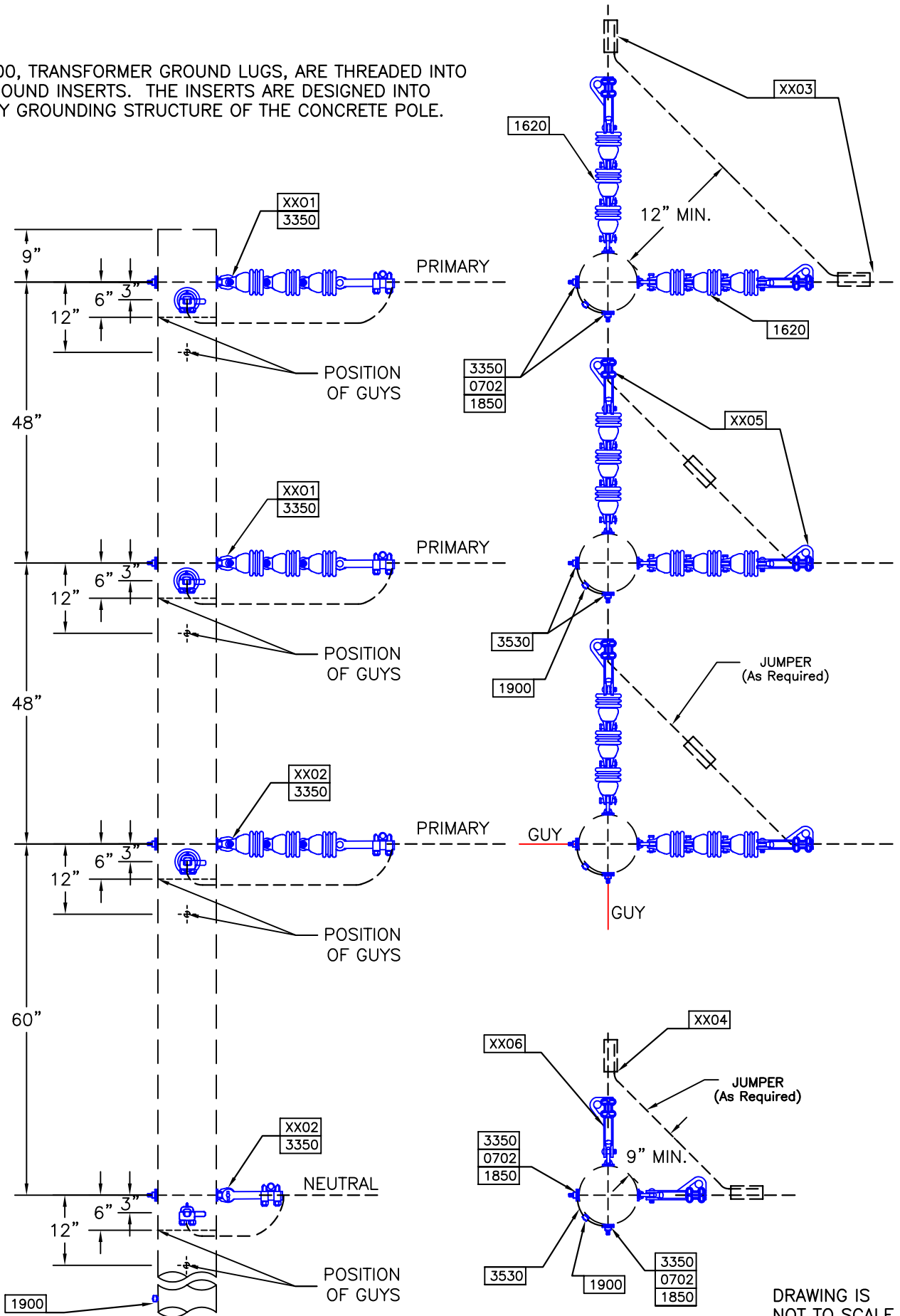
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		PDF SPEC.:	VC4-1_SPEC.PDF
ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	4	BOLT, OVAL EYE 5/8" X 12"		
1620	18	INSULATOR, SUSP 4 1/4"		
3350	8	WASHER, SQUARE		
XX01	6	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	6	CLAMP, DEADEND (PRIMARY)	W	4
XX04	2	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE:

ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.



DRAWING IS
NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 5, 2002
Old CU: VC4-C	DWG Name: VC4-C.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , 60- TO 90- ANGLE,
VERTICAL CONSTRUCTION, CONCRETE POLE

ISSUE#: REV 1
VC4.C

CONSTRUCTION UNIT:	VC4.C	AUTOCAD FILE:	VC4-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION, CONCRETE POLE		PDF FILE: VC4-C.PDF
		PDF SPEC.:	VC4-C_SPEC.PDF
ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

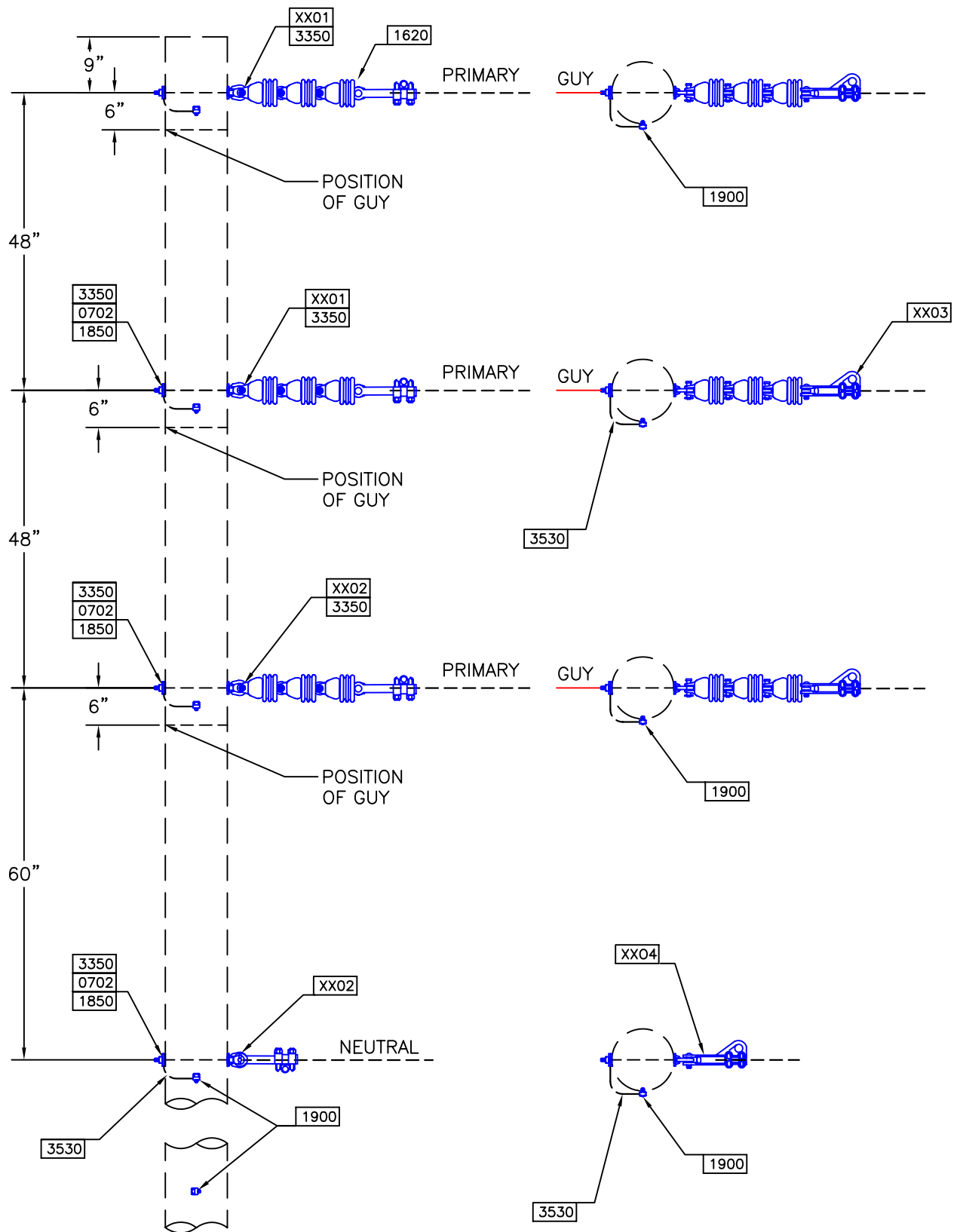
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0702	8	CLAMP, GRD WIRE 5/8"		
1620	18	INSULATOR, SUSP 4 1/4"		
1850	8	LOCKNUT 5/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	16	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	4	BOLT, OVALEYE 5/8" X REQ. LENG	P	44
XX02	4	BOLT, OVALEYE 5/8" X REQ. LENG	P	45
XX03	6	CONNECTOR (PRIMARY)	WC	5
XX04	2	CONNECTOR (NEUTRAL)	NX	5
XX05	6	CLAMP, DEADEND (PRIMARY)	W	4
XX06	2	CLAMP, DEADEND (NEUTRAL)	N	4
XX07	1	SQUEEZON, #4 CU TO NEUTRAL	N	13



Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3Ø, SINGLE DEADEND, VERTICAL CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 9, 2002		VC5.1
Old CU: VC5	DWG Name: VC5-1.DWG		

CONSTRUCTION UNIT:	VC5.1	AUTOCAD FILE:	VC5-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION	PDF FILE:	VC5-1.PDF
		PDF SPEC.:	VC5-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	2	BOLT, OVAL EYE 5/8" X 12"		
1620	9	INSULATOR, SUSP 4 1/4"		
3350	6	WASHER, SQUARE		
XX01	3	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

DRAWING IS NOT TO SCALE

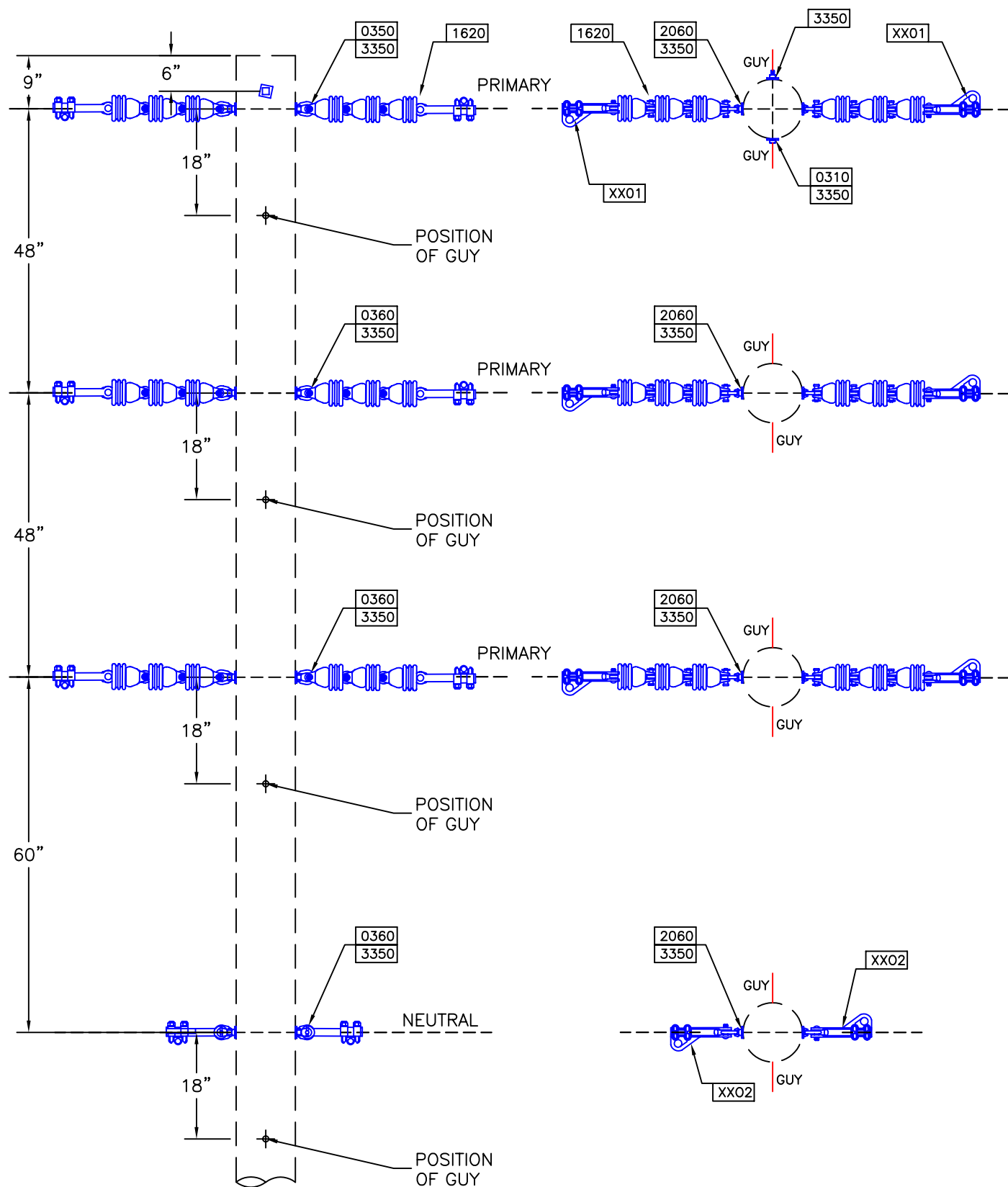
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 9, 2002
Old CU: VC5-C	DWG Name: VC5-C.DWG

14.4/24.9 KV PRIMARY, 3Ø, SINGLE DEADEND,
VERTICAL CONSTRUCTION, CONCRETE POLE

ISSUE#: REV 1
VC5.C

CONSTRUCTION UNIT:	VC5.C	AUTOCAD FILE:	VC5-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE		PDF FILE: VC5-C.PDF
		PDF SPEC.:	VC5-C_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0702	4	CLAMP, GRD WIRE 5/8"		
1620	9	INSULATOR, SUSP 4 1/4"		
1850	4	LOCKNUT 5/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	8	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	2	BOLT, OVALEYE 5/8" X REQ. LENG	P	44
XX02	2	BOLT, OVALEYE 5/8" X REQ. LENG	P	45
XX03	3	CLAMP, DEADEND (PRIMARY)	W	4
XX04	1	CLAMP, DEADEND (NEUTRAL)	N	4
XX05	1	SQUEEZON, #4 CU TO NEUTRAL	N	13

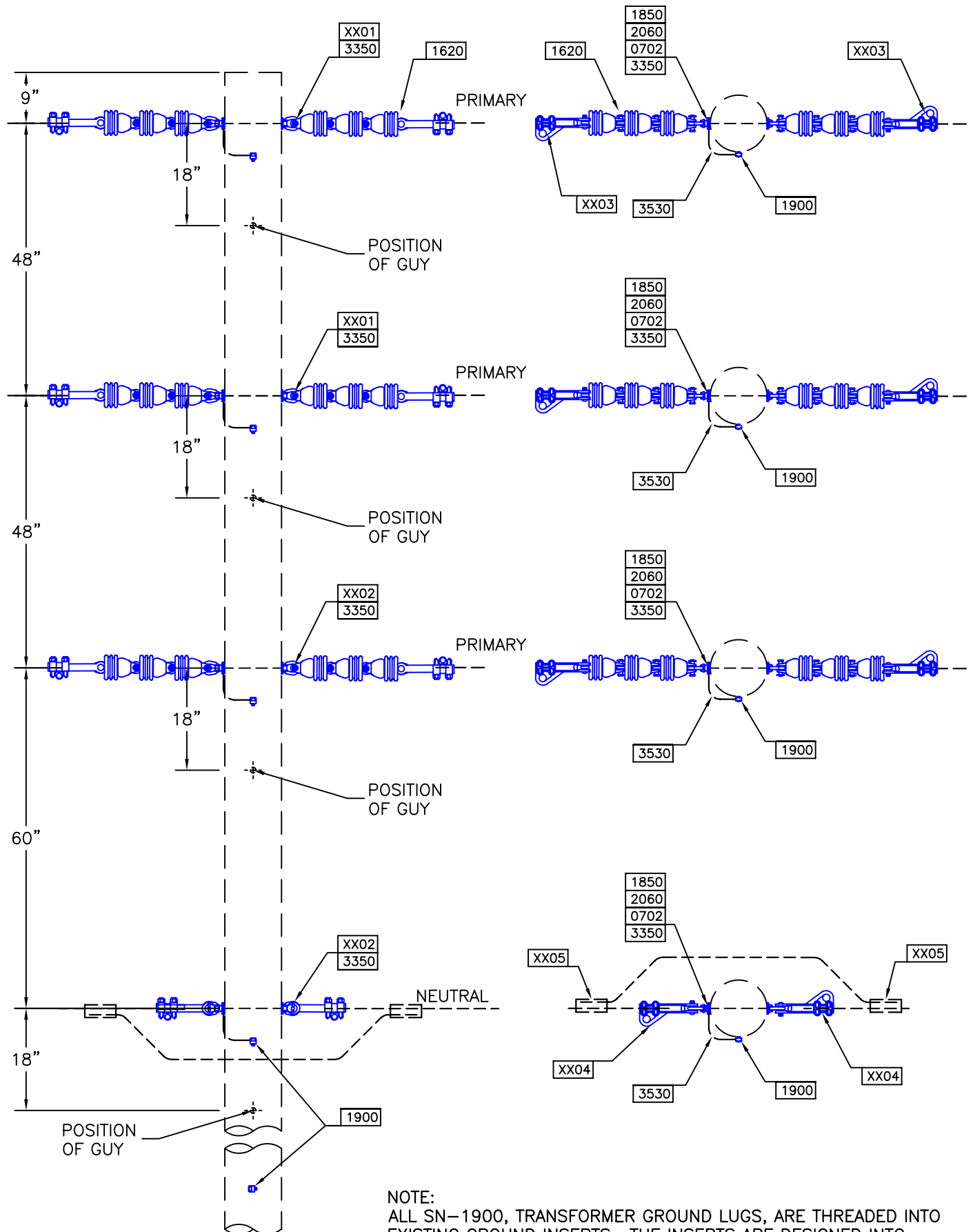


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3Ø, DOUBLE DEADEND, VERTICAL CONSTRUCTION	ISSUE#: REV 1 VC6.1
Approved By: WHP	Date Updated: DEC. 10, 2002		
Old CU: VC6	DWG Name: VC6-1.DWG		

CONSTRUCTION UNIT:	VC6.1	AUTOCAD FILE:	VC6-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION		PDF FILE: VC6-1.PDF
		PDF SPEC.:	VC6-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	1	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
1620	18	INSULATOR, SUSP 4 1/4"		
2060	4	NUT, OVAL EYE 5/8"		
3350	10	WASHER, SQUARE		
XX01	6	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4



DRAWING IS NOT TO SCALE

NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

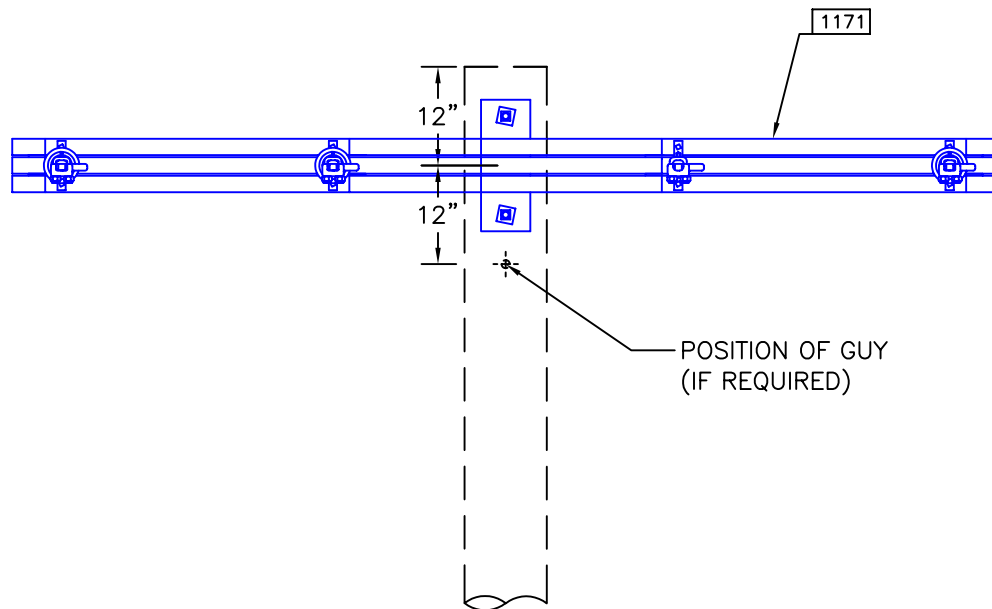
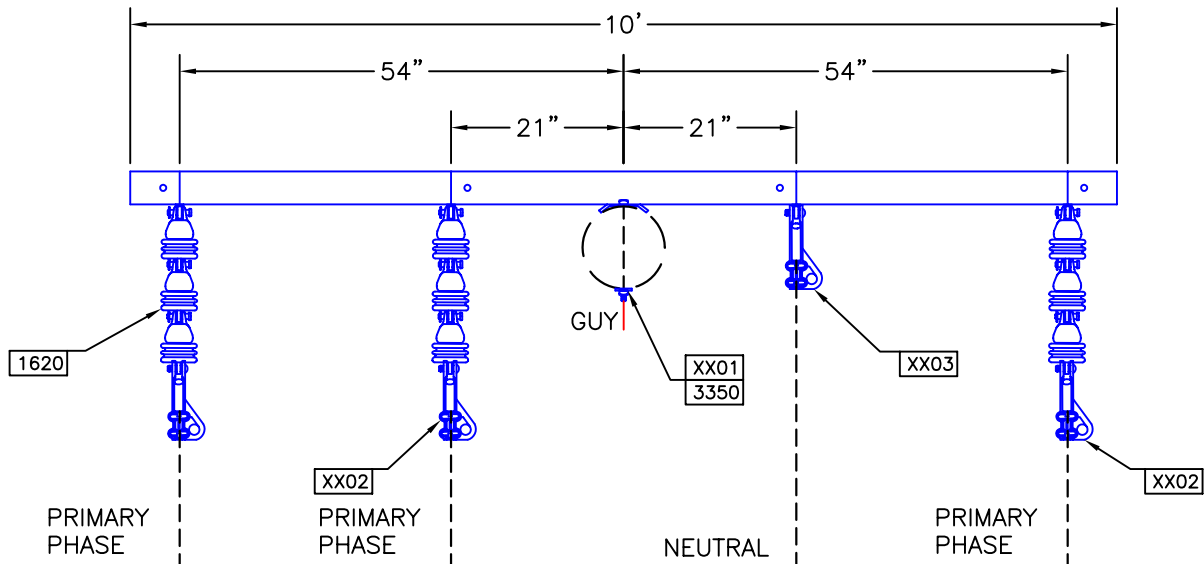
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 10, 2002
Old CU: VC6-C	DWG Name: VC6-C.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , DOUBLE DEADEND,
VERTICAL CONSTRUCTION, CONCRETE POLE

ISSUE#: REV 1
VC6.C

CONSTRUCTION UNIT:	VC6.C	AUTOCAD FILE:	VC6-C.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE DEADEND, VERTICAL CONSTRUCTION, CONCRETE POLE		PDF FILE: VC6-C.PDF
		PDF SPEC.:	VC6-C_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0702	4	CLAMP, GRD WIRE 5/8"		
1620	18	INSULATOR, SUSP 4 1/4"		
1850	8	LOCKNUT 5/8"		
1900	5	LUG, TRANSFORMER GROUND		
2060	4	NUT, OVAL EYE 5/8"		
3350	8	WASHER, SQUARE		
3530	20	WIRE, CU BSD 4		
XX01	4	BOLT, OVALEYE 5/8" X REQ. LENG	P	44
XX02	4	BOLT, OVALEYE 5/8" X REQ. LENG	P	45
XX03	6	CLAMP, DEADEND (PRIMARY)	W	4
XX04	2	CLAMP, DEADEND (NEUTRAL)	N	4
XX05	2	CONNECTOR (NEUTRAL)	NX	5
XX06	1	SQUEEZON, #4 CU TO NEUTRAL	N	13

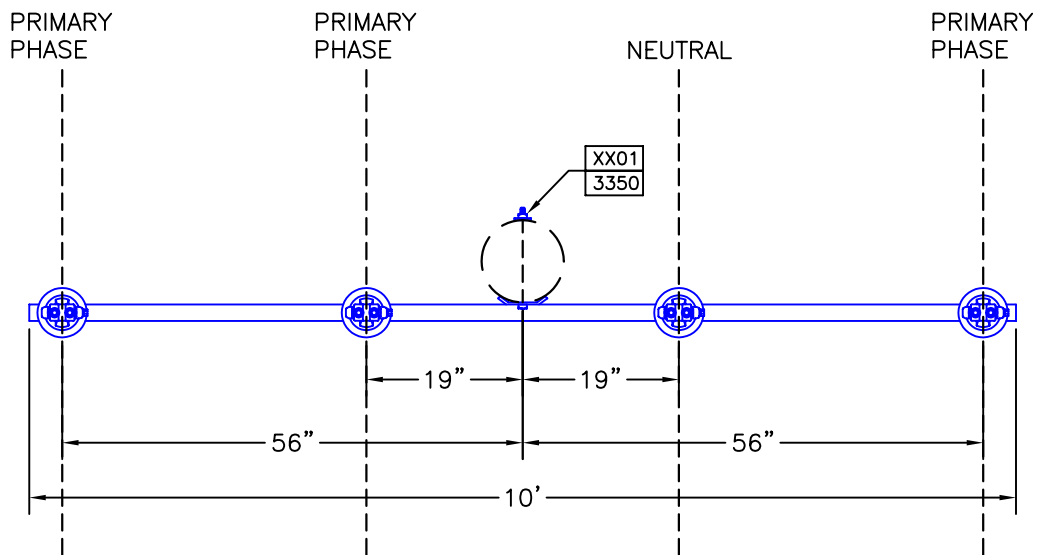
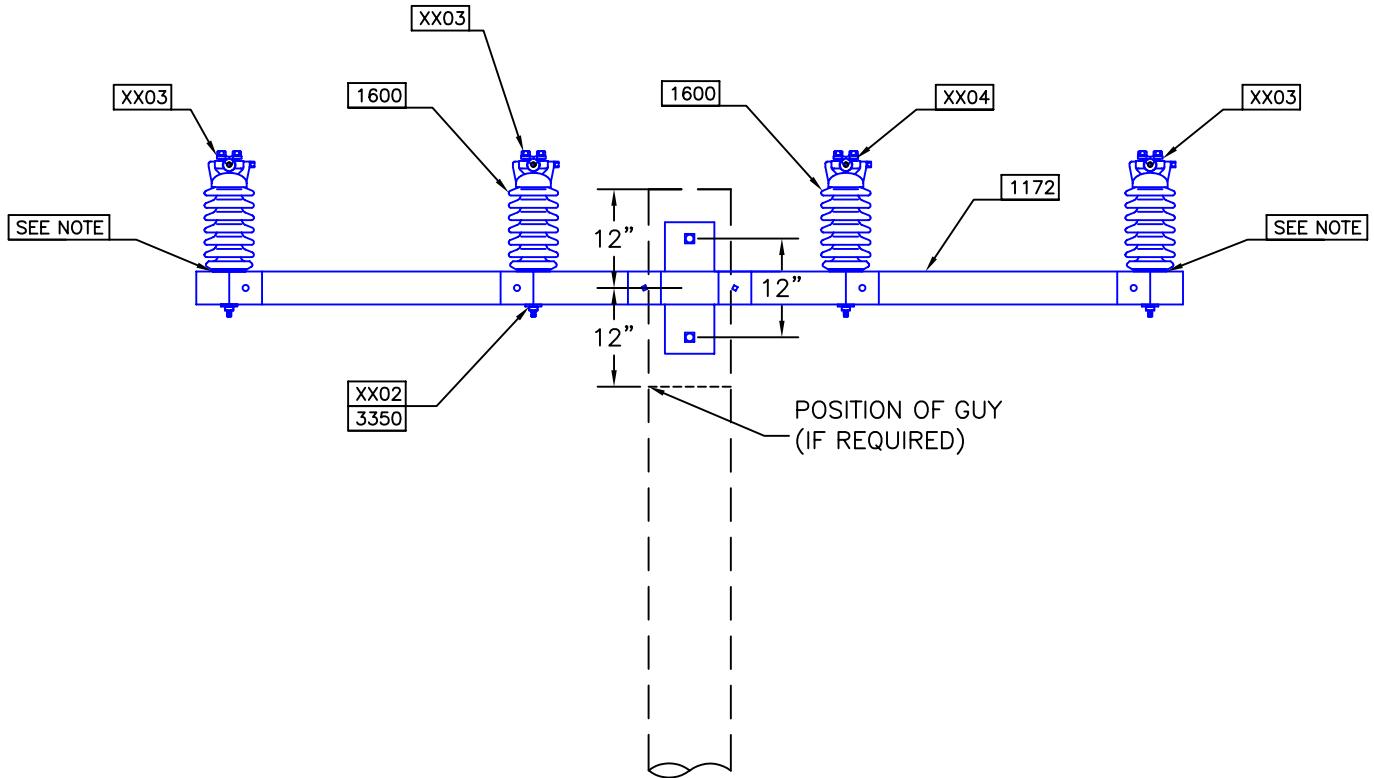


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3 ϕ , SINGLE DEADEND, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: NOV. 20, 2002		VC7FG
Old CU: VC7	DWG Name: VC7FG.DWG		

CONSTRUCTION UNIT:	VC7FG	AUTOCAD FILE:	VC7FG.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, SINGLE DEADEND, 10' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION		PDF FILE: VC7FG.PDF
		PDF SPEC.:	VC7FG_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1171	1	CROSS ARM FIBERGLASS 10' DE		
1620	9	INSULATOR, SUSP 4 1/4"		
3350	2	WASHER, SQUARE		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	2
XX02	3	CLAMP, DEADEND (PRIMARY)	W	4
XX03	1	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

4 - 4" SQUARE GALVANIZED STEEL WASHERS TO BE SUPPLIED WITH EACH CROSSARM.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3Ø, 0- TO 5- ANGLE, SINGLE LINE ARM, 10 ' FIBERGLASS CROSSARM, CROSSARM CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: NOV. 20, 2002		VC9.1FG
Old CU: VC9-1FG	DWG Name: VC9-1FG.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

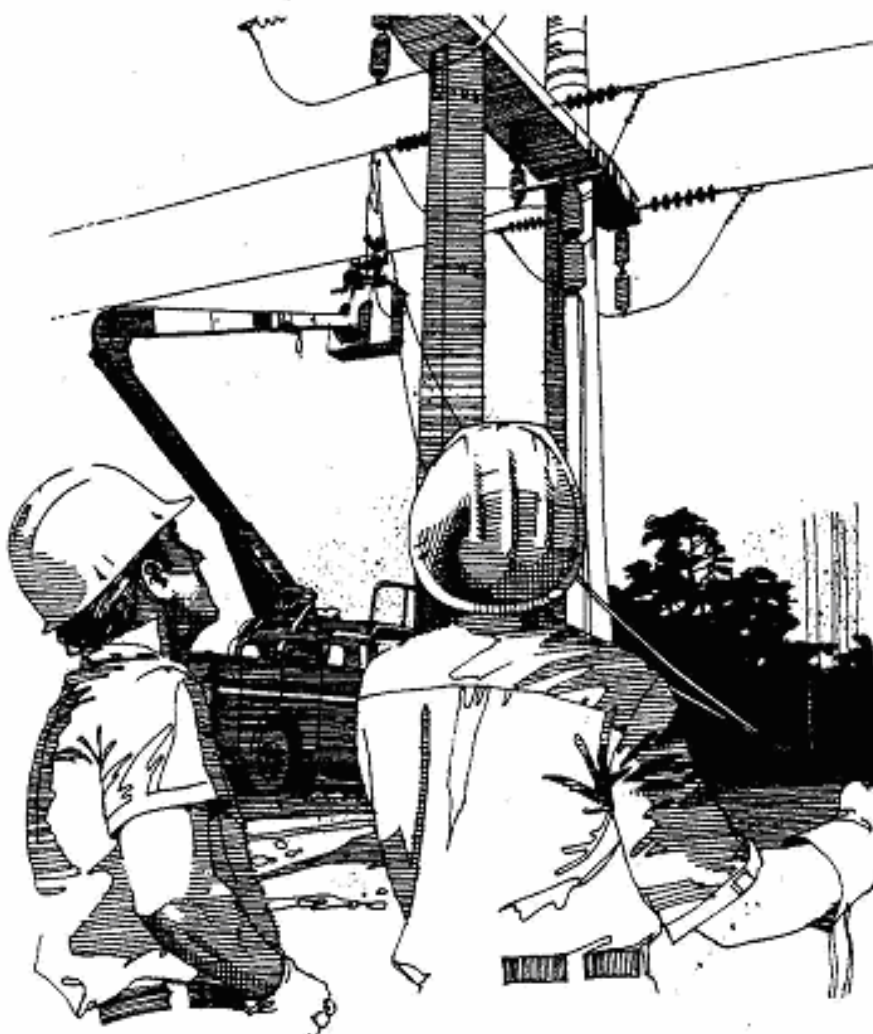
ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1172	1	CROSS ARM FIBERGLASS 10'TANGNT		
1600	4	INSULATOR, POST TYPE VERTICAL		
3350	6	WASHER, SQUARE		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	2
XX02	4	ALL THREAD, MACHINE 5/8" X REQ	P	
XX03	3	CLAMP, TANGENT (PRIMARY)	W	7
XX04	1	CLAMP, TANGENT (NEUTRAL)	N	7

CONSTRUCTION UNITS

INDEX D: THREE-PHASE, DOUBLE CIRCUIT,
PRIMARY POLE TOP ASSEMBLY UNITS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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THREE-PHASE PRIMARY, DOUBLE CIRCUIT, POLE TOP ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VD1.NP.1	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	1 - 2
VD1.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	3 - 4
VD1.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION, CONCRETE POLE	5 - 6
VD2.NP.1	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	7 - 8
VD2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	9 - 10
VD2.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION, CONCRETE POLE	11 - 12
VD3.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	13 - 14
VD3.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	15 - 16
VD4.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	17 - 18
VD4.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	19 - 20
VD5.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, VERTICAL CONSTRUCTION	21 - 22
VD5.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	23 - 24
VD6.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, VERTICAL CONSTRUCTION	25 - 26
VD6.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	27 - 28

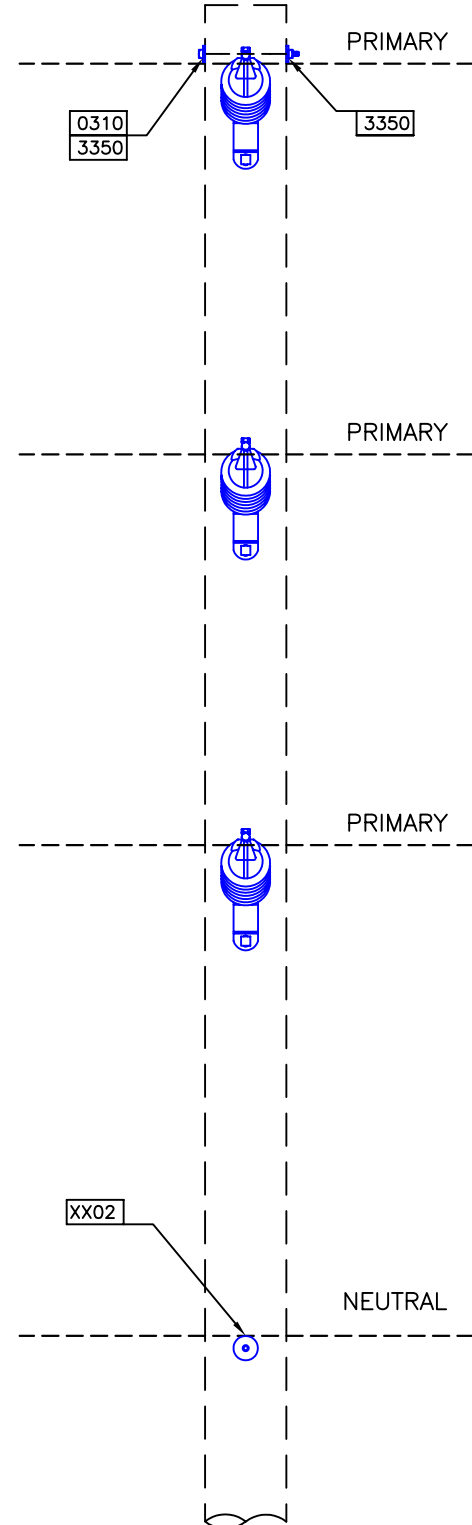
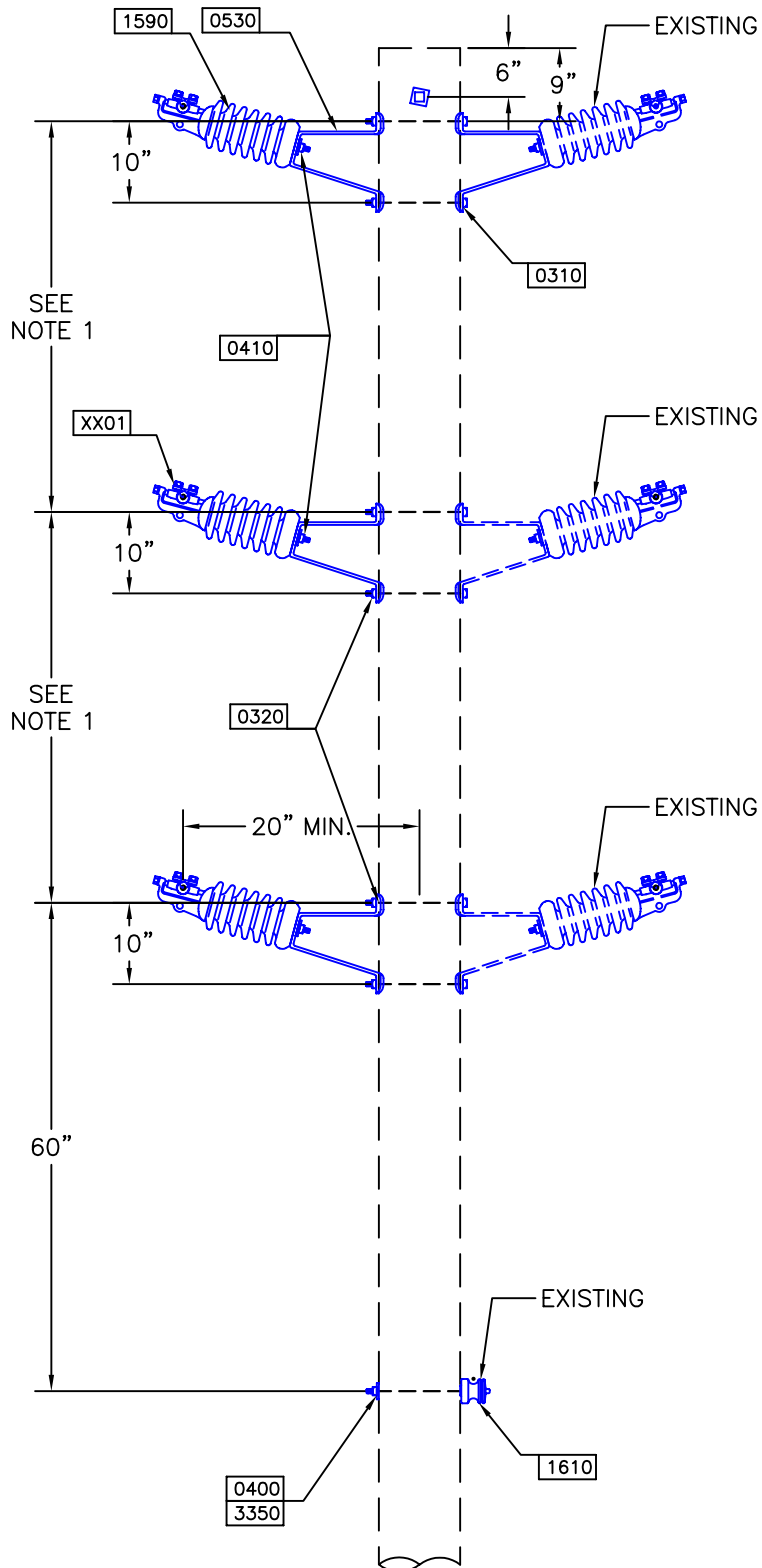


WREC CONSTRUCTION UNIT UPDATE TABLE

THREE - PHASE PRIMARY, DOUBLE CIRCUIT, POLE TOP ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	VD1.NP.1	VD1.NP.1	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, 0 TO 5 DEGREE ANGLE, VERTICAL CONSTRUCTION	--	7/14/03
VDC1-V	VD1.V	VD1.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	07/23/01	12/18/02
VDC1-V-C	VD1.V.C	VD1.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION, CONCRETE POLE	07/23/01	02/03/03
--	VD2.NP.1	VD2.NP.1	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	--	7/14/03
VDC2-V	VD2.V	VD2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	07/23/01	12/18/02
VDC2-V-C	VD2.V.C	VD2.V.C	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION, CONCRETE POLE	07/23/01	02/03/03
VDC3	VD3.1	VD3.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	07/23/01	01/28/03
VDC3-TP	VD3.TP	VD3.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	07/23/01	01/29/03
VDC4	VD4.1	VD4.1	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION	07/23/01	01/28/03
VDC4-TP	VD4.TP	VD4.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	07/23/01	01/29/03
VDC5	VD5.1	VD5.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	12/18/02
VDC5-TP	VD5.TP	VD5.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	07/23/01	12/18/02
VDC6	VD6.1	VD6.1	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, VERTICAL CONSTRUCTION	07/23/01	01/29/03
VDC6-TP	VD6.TP	VD6.TP	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	07/23/01	02/03/03





NOTE:

- 1) SPACING BETWEEN EACH PHASE SHOULD MATCH THE EXISTING PHASE. SPACING SHOULD BE 48" FOR SINGLE CIRCUIT LINES BUILT AFTER JANUARY 1, 2003. OTHERWISE THE SPACING SHOULD BE 36" BETWEEN THE PHASES.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY, 14, 2003
Old CU:	DWG Name: VD1-NP-1.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , CONVERSION,
SINGLE TO DOUBLE CIRCUIT, 0- TO 5- ANGLE,
VERTICAL CONSTRUCTION

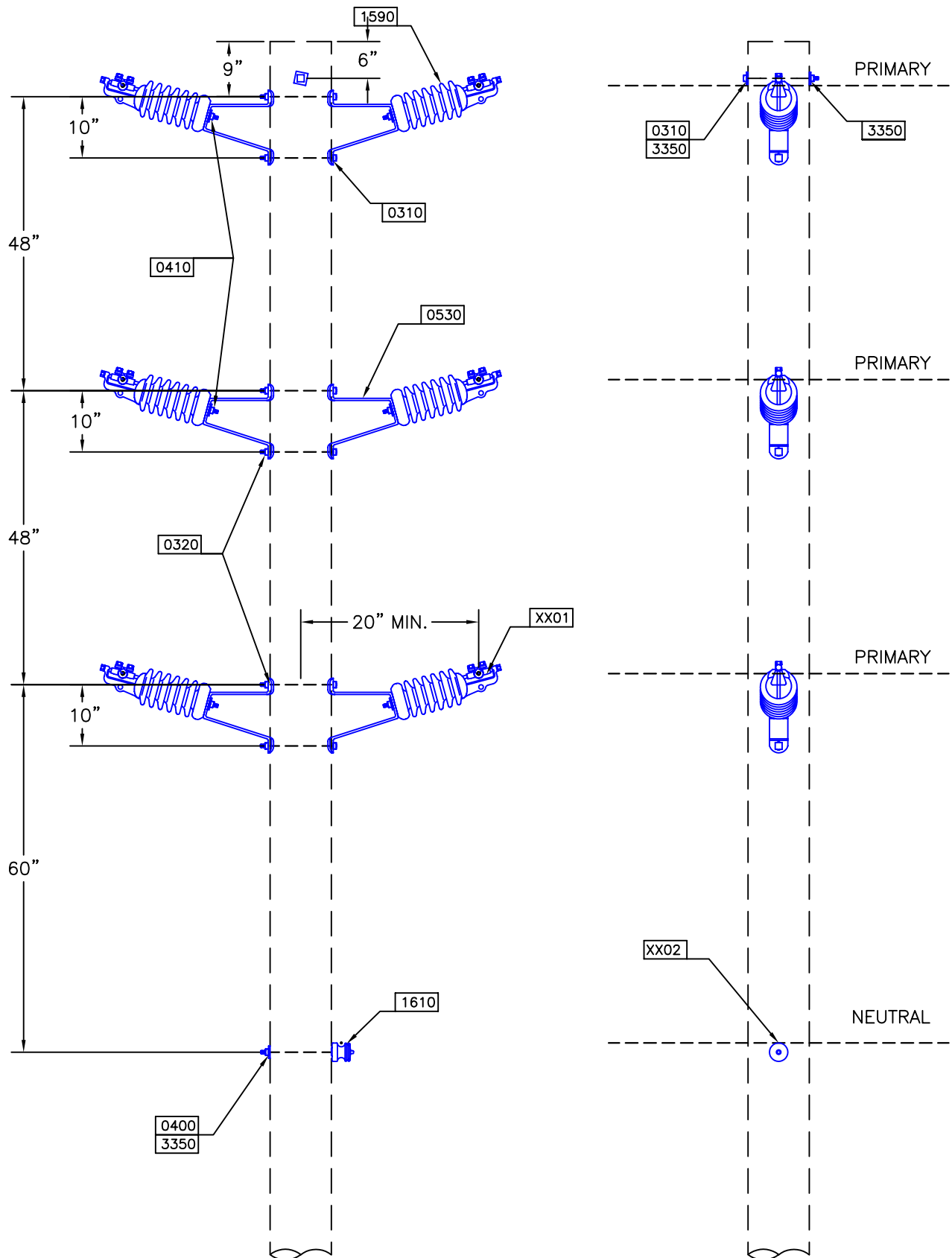
ISSUE#: REV 1
VD1.NP.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	3	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	3	BRACKET, INSULATOR MOUNT		
1590	3	INSULATOR, POST TYP HORIZONTAL		
XX01	3	CLAMP, TANGENT (PRIMARY)	W	7



DRAWING IS NOT TO SCALE

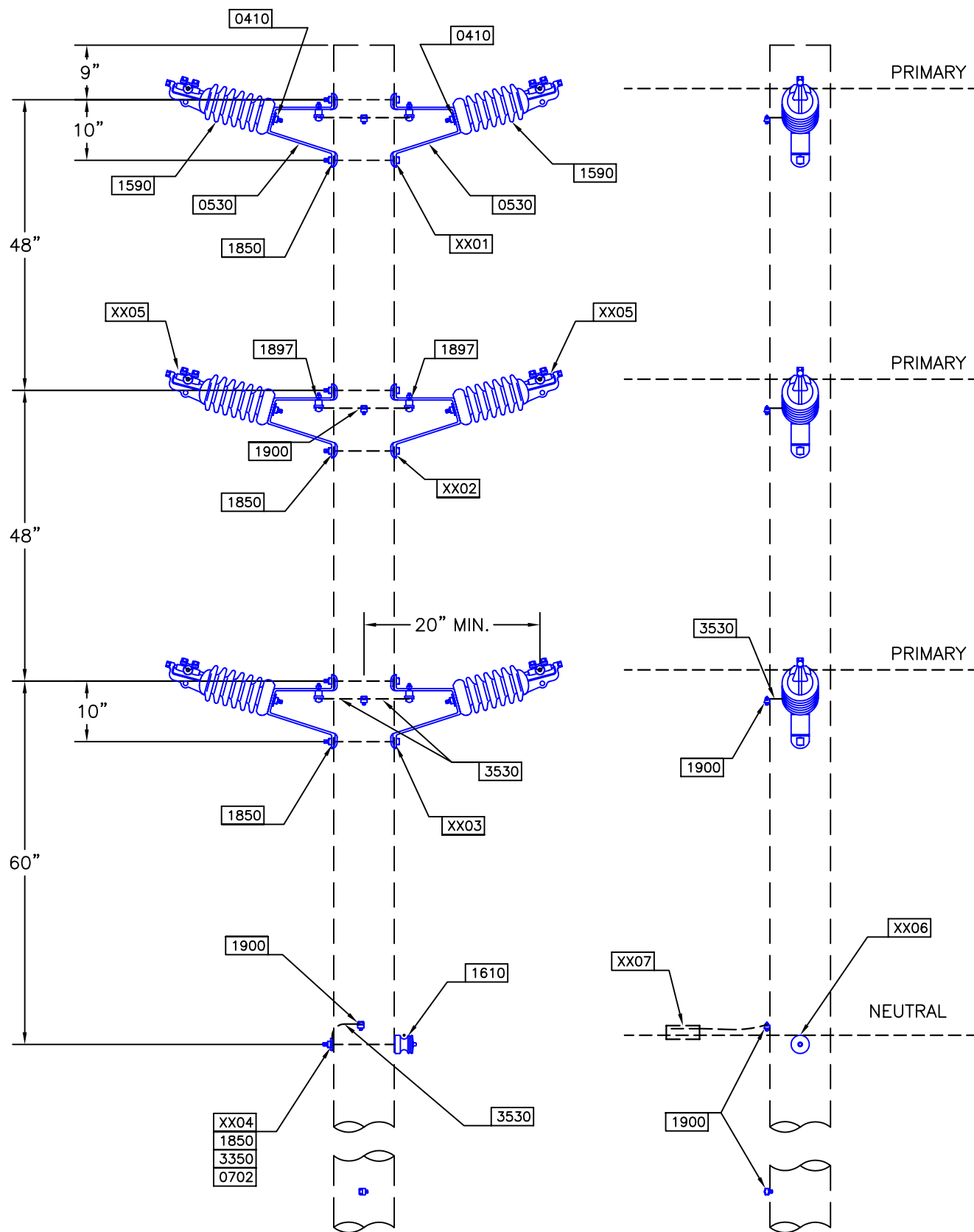
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 18, 2002
Old CU: VDC1-V	DWG Name: VD1-V.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , 0- TO 5- ANGLE,
DOUBLE CIRCUIT, VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD1.V

CONSTRUCTION UNIT:	VD1.V	AUTOCAD FILE:	VD1-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 0 TO 5 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION		PDF FILE: VD1-V.PDF
		PDF SPEC.:	VD1-V_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	5
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	4	BOLT, MACHINE 5/8" X 12"		
0400	1	BOLT, S U 5/8" X 12"		
0410	6	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	6	BRACKET, INSULATOR MOUNT		
1590	6	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
3350	3	WASHER, SQUARE		
XX01	6	CLAMP, TANGENT (PRIMARY)	W	7
XX02	4	TIE WIRE (NEUTRAL)	N	19



NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 3, 2003
Old CU: VDC1-V-C	DWG Name: VD1-V-C.DWG

14.4/24.9 KV PRIMARY, 3Ø, 0- TO 5- ANGLE,
DOUBLE CIRCUIT, VERTICAL CONSTRUCTION,
CONCRETE POLE

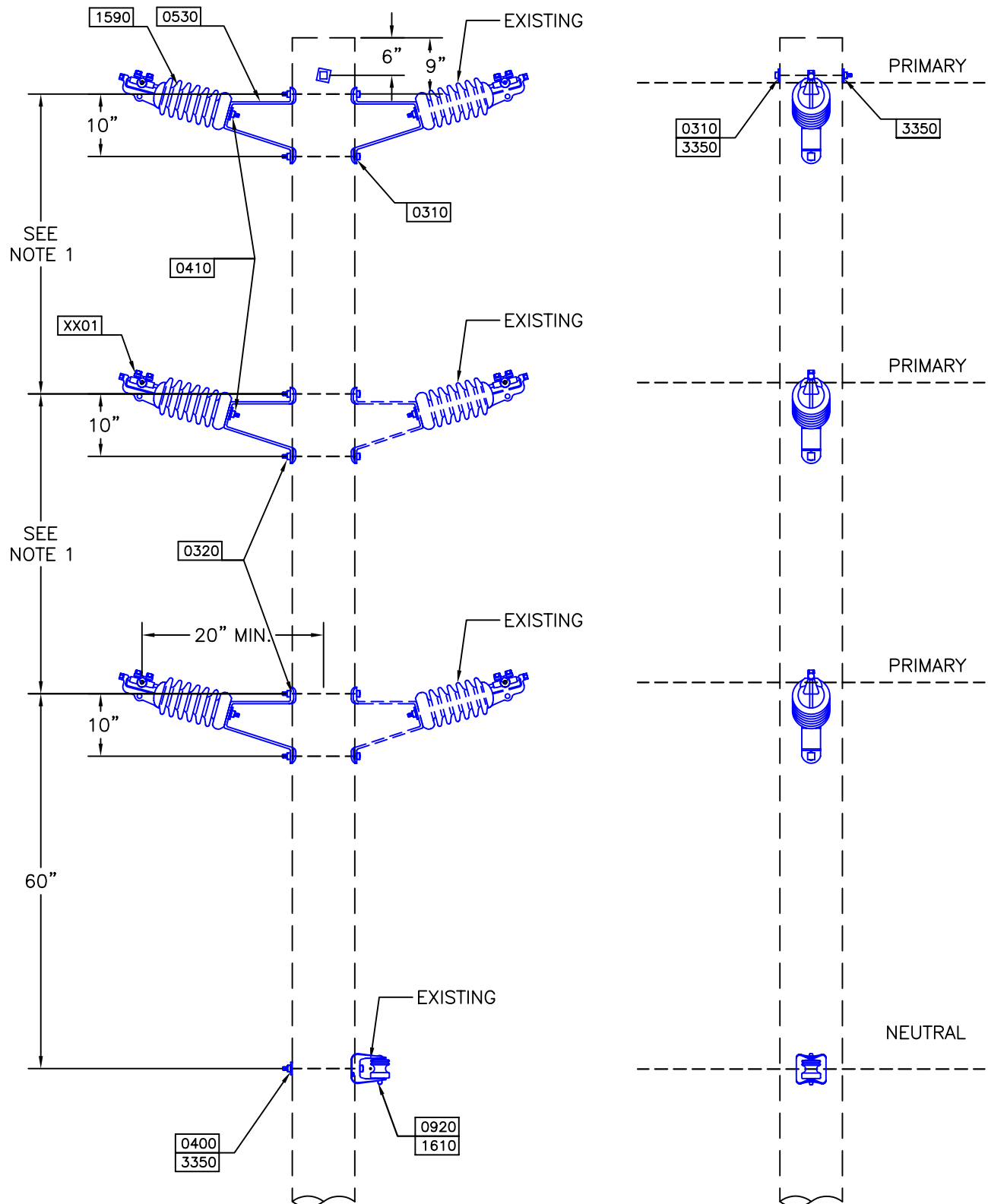
ISSUE#: REV 1
VD1.V.C

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	6	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	6	BRACKET, INSULATOR MOUNT		
0702	1	CLAMP, GRD WIRE 5/8"		
1590	6	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
1850	7	LOCKNUT 5/8"		
1897	6	LUG, TAP BRONZE 1/2" X 3 1/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	1	WASHER, SQUARE		
3530	20	WIRE, CU BSD 4		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	40
XX02	2	BOLT, MACHINE 5/8" X REQ. LENG	P	41
XX03	2	BOLT, MACHINE 5/8" X REQ. LENG	P	42
XX04	1	BOLT, S U O R D A 5/8" X REQ.	P	43
XX05	6	CLAMP, TANGENT (PRIMARY)	W	7
XX05	4	TIE WIRE (NEUTRAL)	N	19
XX07	1	SQUEEZON, #4 CU TO NEUTRAL	N	13



NOTE:

- 1) SPACING BETWEEN EACH PHASE SHOULD MATCH THE EXISTING PHASE. SPACING SHOULD BE 48" FOR SINGLE CIRCUIT LINES BUILT AFTER JANUARY 1, 2003. OTHERWISE THE SPACING SHOULD BE 36" BETWEEN THE PHASES.

DRAWING IS NOT TO SCALE

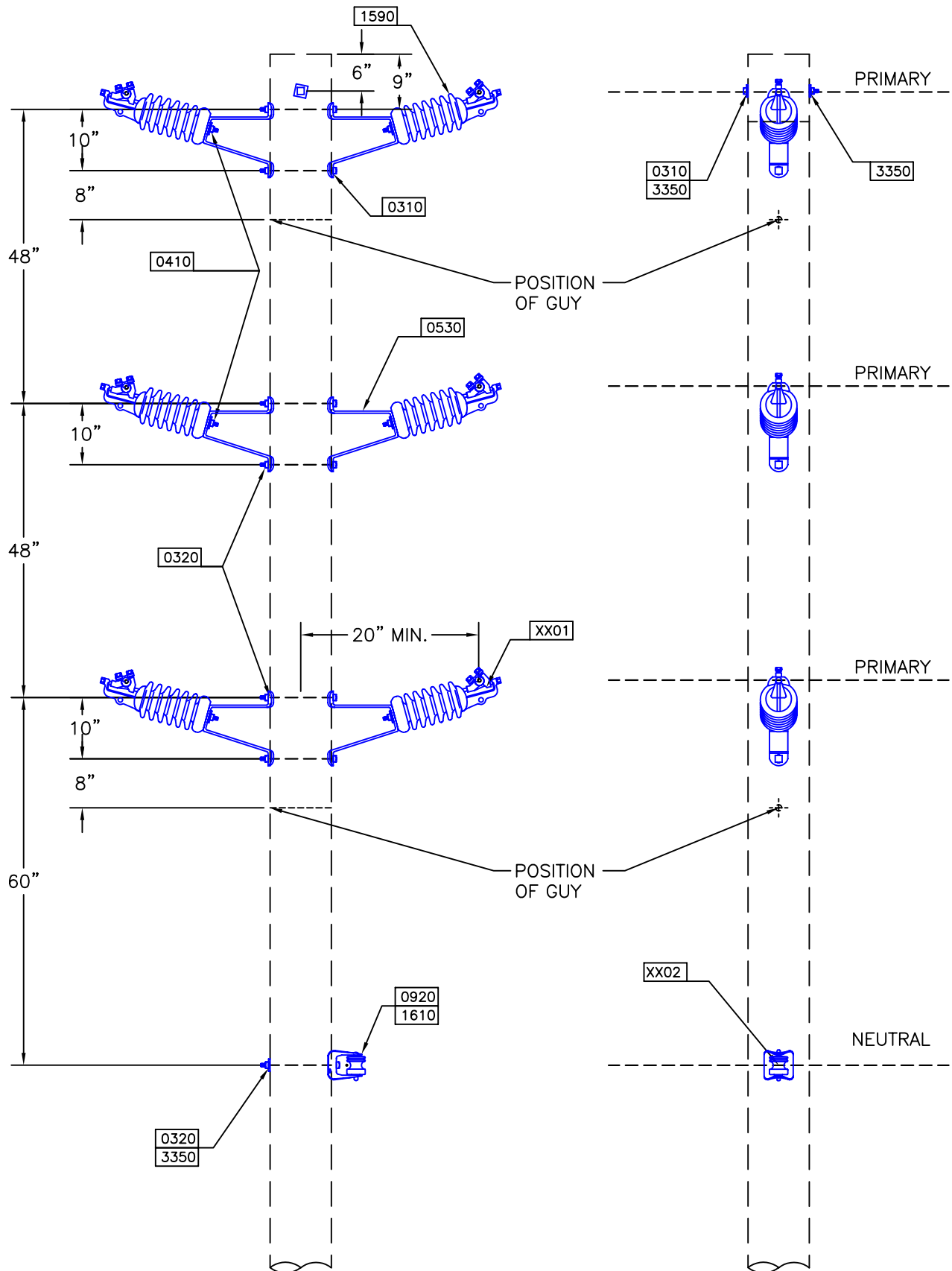
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY, 14, 2003
Old CU:	DWG Name: VD1-NP-1.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , CONVERSION,
SINGLE TO DOUBLE CIRCUIT, 5- TO 30- ANGLE,
VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD2.NP.1

CONSTRUCTION UNIT:	VD2.NP.1	AUTOCAD FILE:	VD2-NP-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, 5 TO 30 DEGREE ANGLE, VERTICAL CONSTRUCTION	PDF FILE:	VD2-NP-1.PDF
		PDF SPEC.:	VD2-NP-1_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	3	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	3	BRACKET, INSULATOR MOUNT		
1590	3	INSULATOR, POST TYP HORIZONTAL		
XX01	3	CLAMP, ANGLE (PRIMARY)	W	8



DRAWING IS NOT TO SCALE

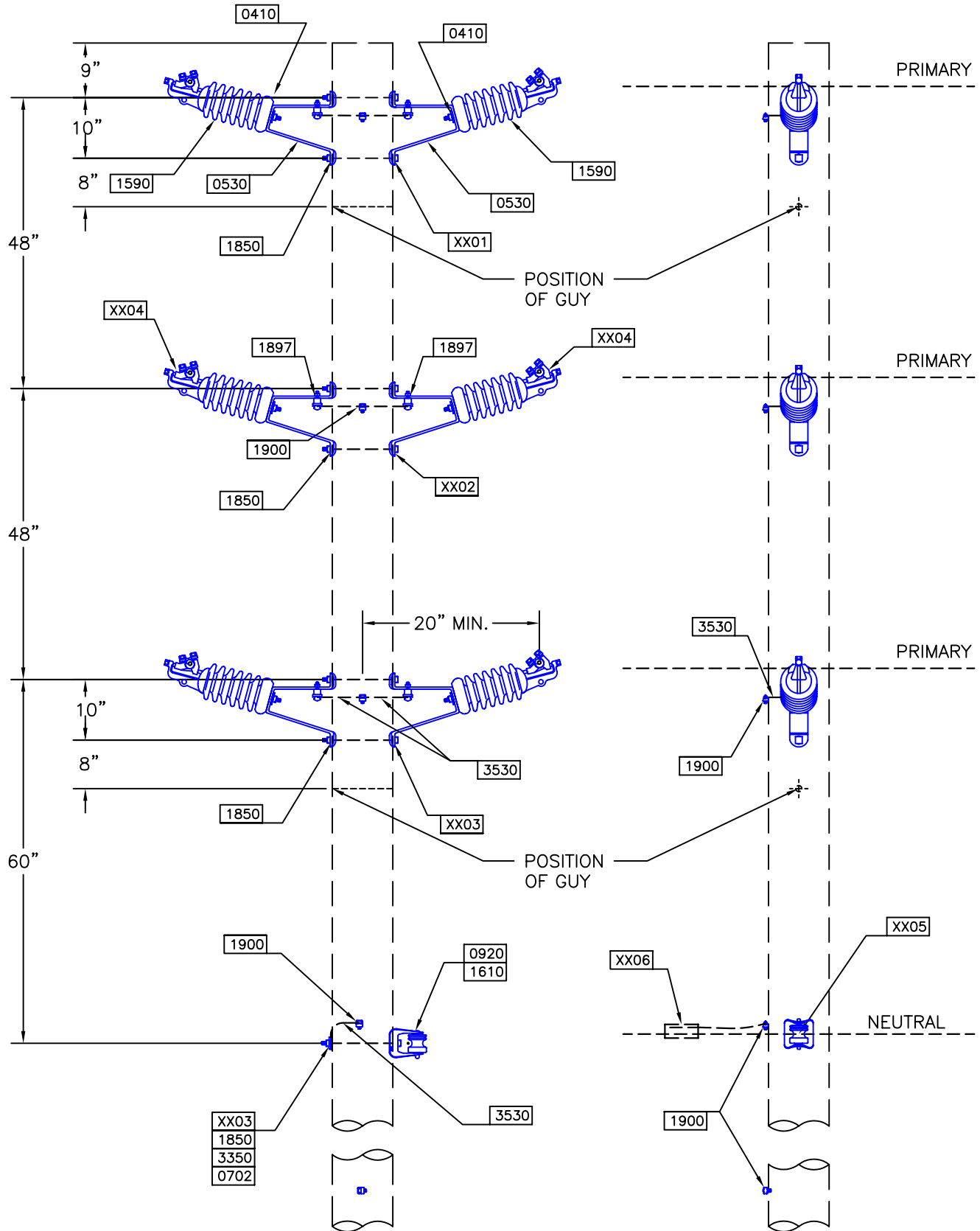
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 18, 2002
Old CU: VDC2-V	DWG Name: VD2-V.DWG

14.4/24.9 KV PRIMARY, 30, 5- TO 30- ANGLE,
DOUBLE CIRCUIT, VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD2.V

CONSTRUCTION UNIT:	VD2.V	AUTOCAD FILE:	VD2-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION		PDF FILE: VD2-V.PDF
		PDF SPEC.:	VD2-V_SPEC.PDF
ANGLE FROM:	5	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	3	BOLT, MACHINE 5/8" X 10"		
0320	5	BOLT, MACHINE 5/8" X 12"		
0410	6	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	6	BRACKET, INSULATOR MOUNT		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	6	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
3350	3	WASHER, SQUARE		
XX01	6	CLAMP, ANGLE (PRIMARY)	W	8
XX02	4	TIE WIRE (NEUTRAL)	N	19



NOTE:
ALL SN-1900, TRANSFORMER GROUND LUGS, ARE THREADED INTO EXISTING GROUND INSERTS. THE INSERTS ARE DESIGNED INTO THE PRIMARY GROUNDING STRUCTURE OF THE CONCRETE POLE.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 3, 2003
Old CU: VDC2-V-C	DWG Name: VD2-V-C.DWG

14.4/24.9 KV PRIMARY, 3Ø, 5- TO 30- ANGLE,
DOUBLE CIRCUIT, VERTICAL CONSTRUCTION,
CONCRETE POLE

ISSUE#: REV 1
VD2.V.C

CONSTRUCTION UNIT: VD2.V.C**AUTOCAD FILE:** VD2-V-C.DWG**DESCRIPTION:** 14.4/24.9 KV PRIMARY, 3 - PHASE, 5 TO 30
DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL
CONSTRUCTION, CONCRETE POLE**PDF FILE:** VD2-V-C.PDF**PDF SPEC.:** VD2-V-C_SPEC.PDF**ANGLE FROM:** 5**ANGLE TO:** 30**RETIREMENT:****NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0410	6	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	6	BRACKET, INSULATOR MOUNT		
0702	1	CLAMP, GRD WIRE 5/8"		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	6	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
1850	7	LOCKNUT 5/8"		
1897	6	LUG, TAP BRONZE 1/2" X 3 1/8"		
1900	5	LUG, TRANSFORMER GROUND		
3350	1	WASHER, SQUARE		
3530	20	WIRE, CU BSD 4		
XX01	2	BOLT, MACHINE 5/8" X REQ. LENG	P	40
XX02	2	BOLT, MACHINE 5/8" X REQ. LENG	P	41
XX03	3	BOLT, MACHINE 5/8" X REQ. LENG	P	42
XX04	6	CLAMP, ANGLE (PRIMARY)	W	8
XX05	4	TIE WIRE (NEUTRAL)	N	19
XX06	1	SQUEEZON, #4 CU TO NEUTRAL	N	13

Diagram illustrating the cable layout for a bridge deck cross-section. The deck height is 48". The cables are labeled as follows:

- Top cable: 0100, 0350
- Second cable: 0100, 0350
- Third cable: 0100, 0360
- Fourth cable: 0100, 0360
- Fifth cable: 0100, 0370
- Bottom cable: 0100, 0370

The cables are positioned 6" from the deck edge. The bottom cable is labeled "NEUTRAL". The distance between the top and bottom cables is 60".

CONSTRUCTION UNIT:	VD3.1	AUTOCAD FILE:	VD3-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION		PDF FILE: VD3-1.PDF
		PDF SPEC.:	VD3-1_SPEC.PDF
ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	7	ANCHOR, SHACKLE		
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
0370	2	BOLT, OVAL EYE 5/8" X 14"		
1620	18	INSULATOR, SUSP 4 1/4"		
3350	9	WASHER, SQUARE		
XX01	6	CLAMP, ANGLE SUSP. (PRIMARY)	W	9
XX02	1	CLAMP, ANGLE SUSP. (NEUTRAL)	N	9

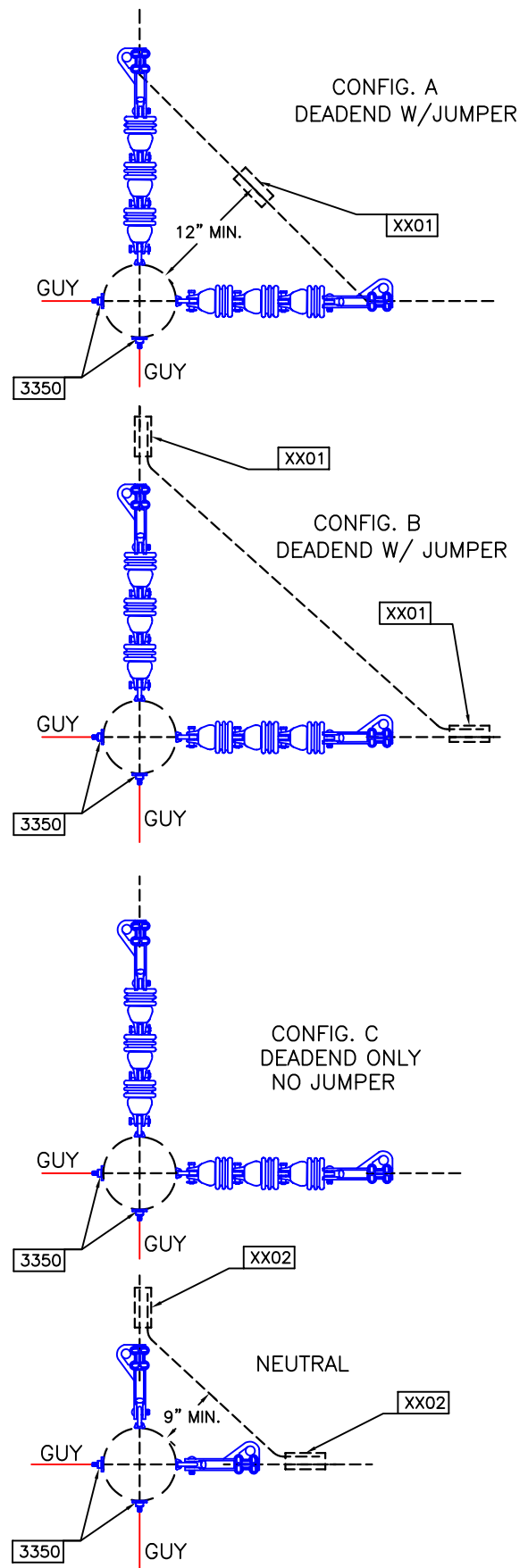
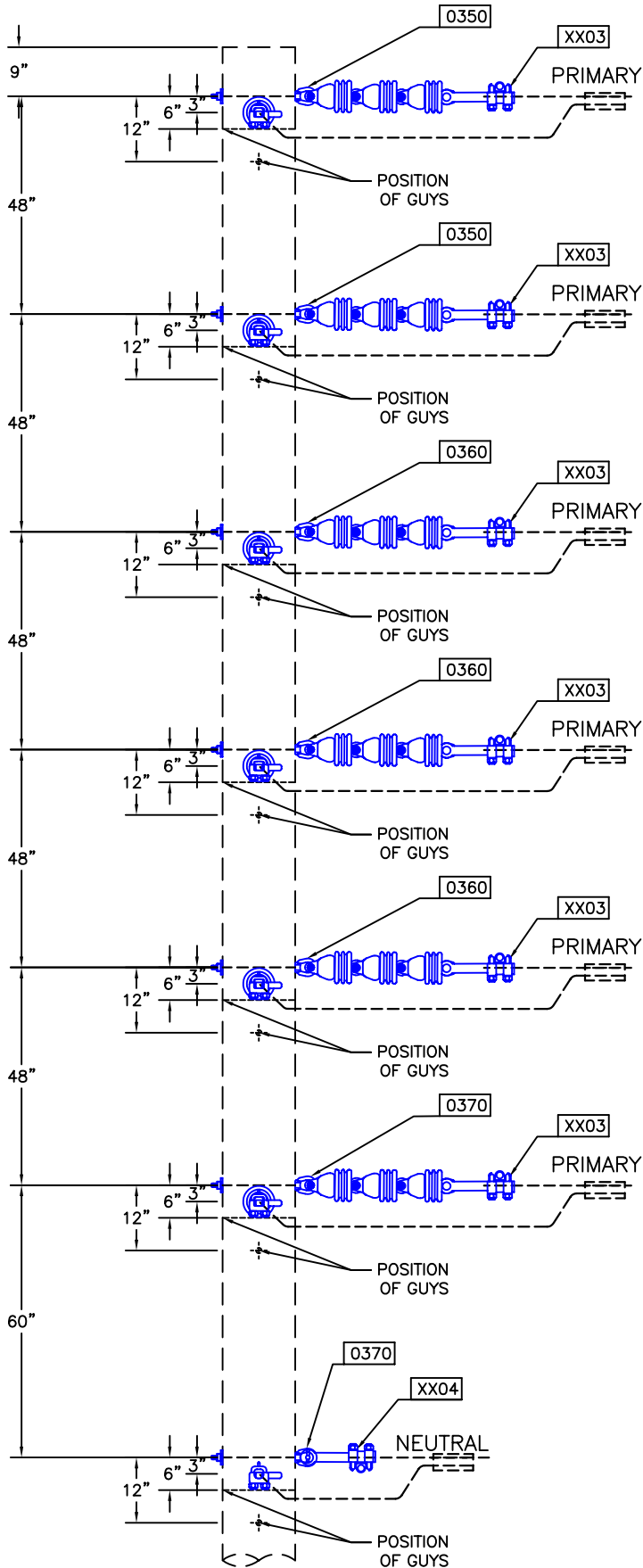


- 1) A MINIMUM DISTANCE OF 84" IS MAINTAINED BETWEEN A PHASE ON POLE ONE AND THE SAME PHASE ON THE POLE TWO.
- 2) A 72" GUY STRAIN INSULATOR (SN-1530) WILL BE USED BETWEEN POLES.

ISSUE#: REV 1
VD3.TP

CONSTRUCTION UNIT:	VD3.TP	AUTOCAD FILE:	VD3-TP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 30 TO 60 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	PDF FILE:	VD3-TP.PDF
		PDF SPEC.:	VD3-TP_SPEC.PDF
ANGLE FROM:	30	ANGLE TO:	60
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	7	ANCHOR, SHACKLE		
0310	2	BOLT, MACHINE 5/8" X 10"		
0350	8	BOLT, OVAL EYE 5/8" X 10"		
0360	7	BOLT, OVAL EYE 5/8" X 12"		
1530	4	INSULATOR, GUY WIRE 6'		
1620	18	INSULATOR, SUSP 4 1/4"		
3350	19	WASHER, SQUARE		
XX01	6	CLAMP, ANGLE SUSP. (PRIMARY)	W	9
XX02	1	CLAMP, ANGLE SUSP. (NEUTRAL)	N	9



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 28, 2003
Old CU: VDC4	DWG Name: VD4-1.DWG

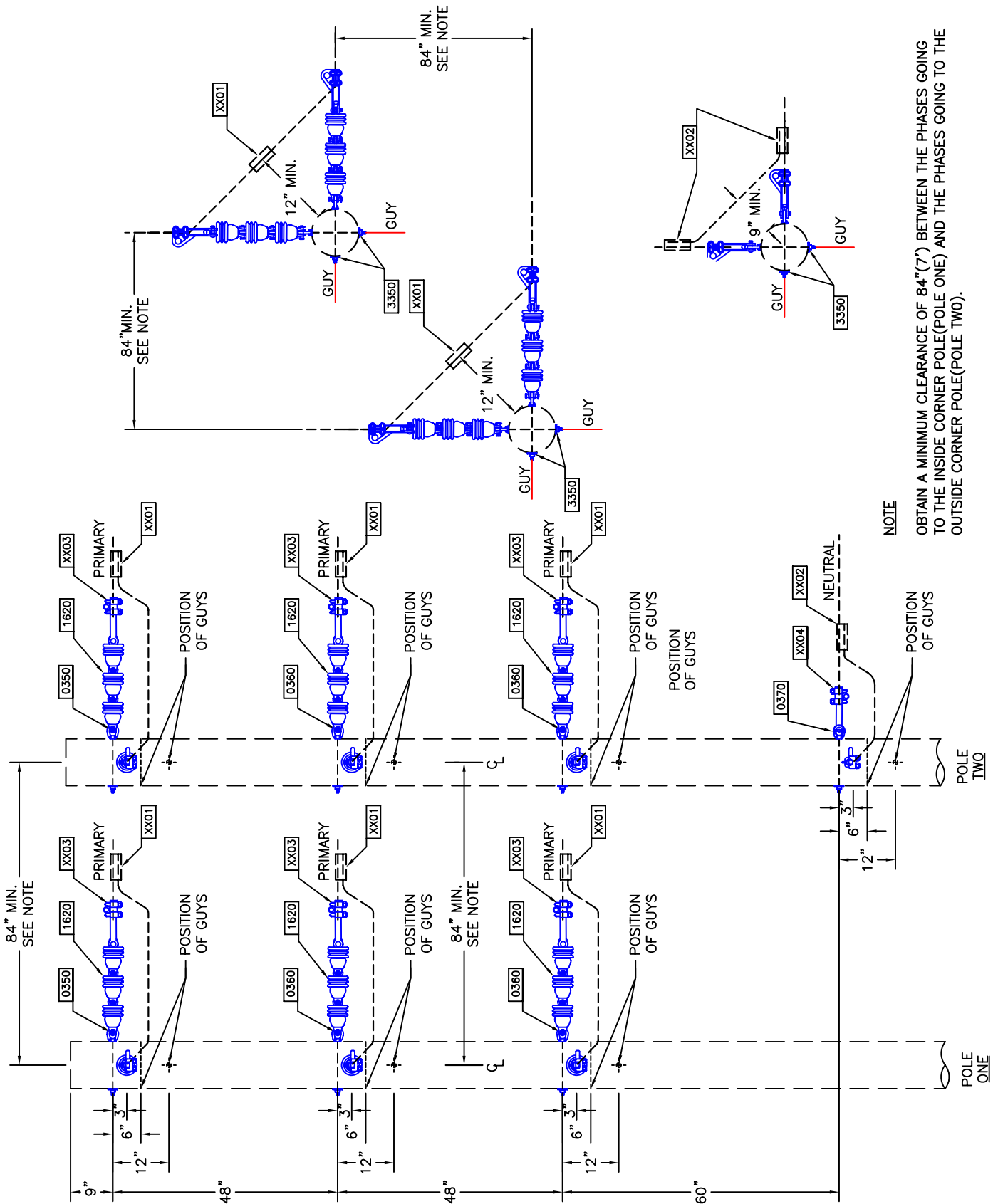
14.4/24.9 KV PRIMARY, 3 ϕ , 60- TO 90- ANGLE,
DOUBLE CIRCUIT, VERTICAL CONSTRUCTION

ISSUE#: REV 1

VD4.1

CONSTRUCTION UNIT:	VD4.1	AUTOCAD FILE:	VD4-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, VERTICAL CONSTRUCTION		PDF FILE: VD4-1.PDF
		PDF SPEC.:	VD4-1_SPEC.PDF
ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	6	BOLT, OVAL EYE 5/8" X 12"		
0370	4	BOLT, OVAL EYE 5/8" X 14"		
1620	36	INSULATOR, SUSP 4 1/4"		
3350	14	WASHER, SQUARE		
XX01	12	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	12	CLAMP, DEADEND (PRIMARY)	W	4
XX04	2	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

OBTAIN A MINIMUM CLEARANCE OF 84\"(7') BETWEEN THE PHASES GOING TO THE INSIDE CORNER POLE(POLE ONE) AND THE PHASES GOING TO THE OUTSIDE CORNER POLE(POLE TWO).

DRAWING IS NOT TO SCALE

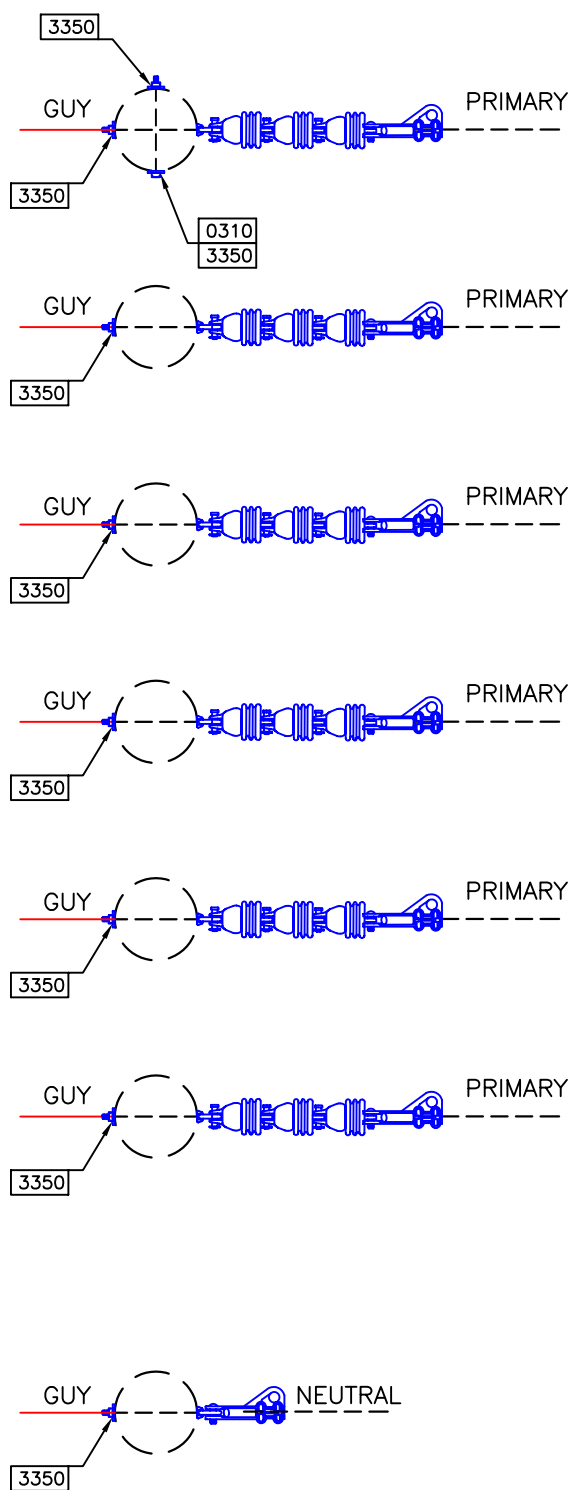
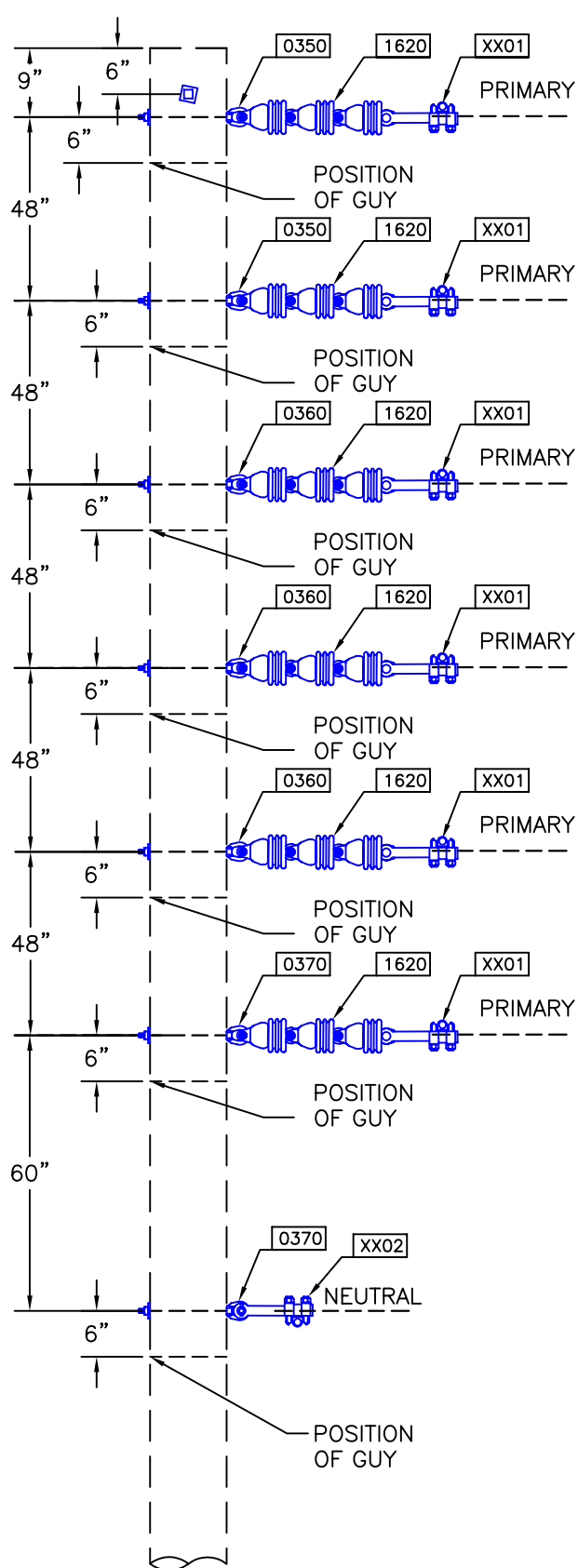
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 29, 2003
Old CU: VDC4-TP	DWG Name: VD4-TP.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , 60- TO 90- ANGLE,
DOUBLE CIRCUIT, TWO POLES,
VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD4.TP

CONSTRUCTION UNIT:	VD4.TP	AUTOCAD FILE:	VD-TP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, 60 TO 90 DEGREE ANGLE, DOUBLE CIRCUIT, TWO POLES, VERTICAL CONSTRUCTION	PDF FILE:	VD4-TP.PDF
		PDF SPEC.:	VD4-TP_SPEC.PDF
ANGLE FROM:	60	ANGLE TO:	90
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	10	BOLT, OVAL EYE 5/8" X 12"		
1620	36	INSULATOR, SUSP 4 1/4"		
3350	14	WASHER, SQUARE		
XX01	6	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	12	CLAMP, DEADEND (PRIMARY)	W	4
XX04	2	CLAMP, DEADEND (NEUTRAL)	N	4



DRAWING IS NOT TO SCALE

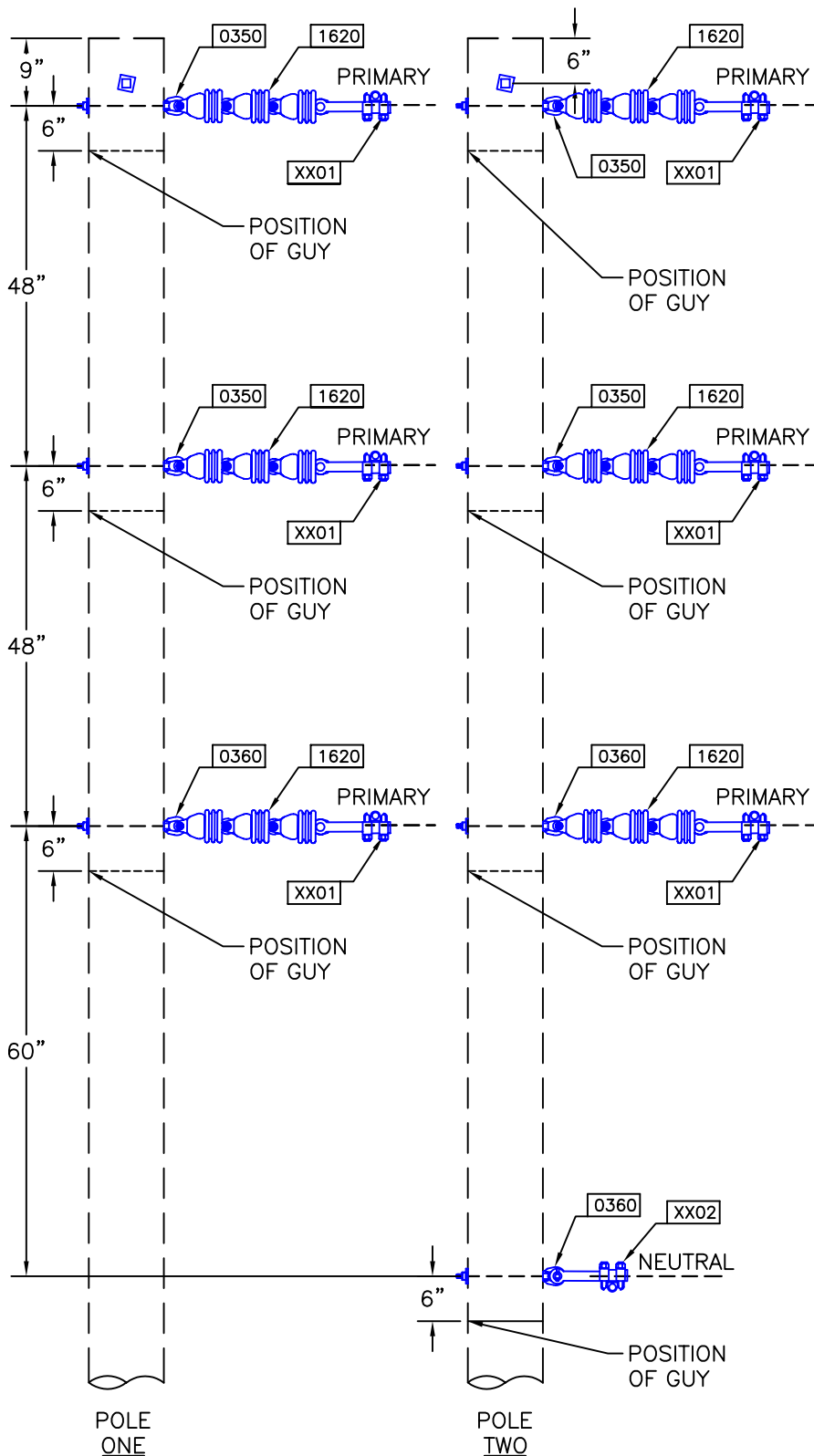
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 18, 2002
Old CU: VDC5	DWG Name: VD5-1.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , DOUBLE CIRCUIT,
SINGLE DEADEND, VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD5.1

CONSTRUCTION UNIT:	VD5.1	AUTOCAD FILE:	VD5-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, VERTICAL CONSTRUCTION	PDF FILE:	VD5-1.PDF
		PDF SPEC.:	VD5-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

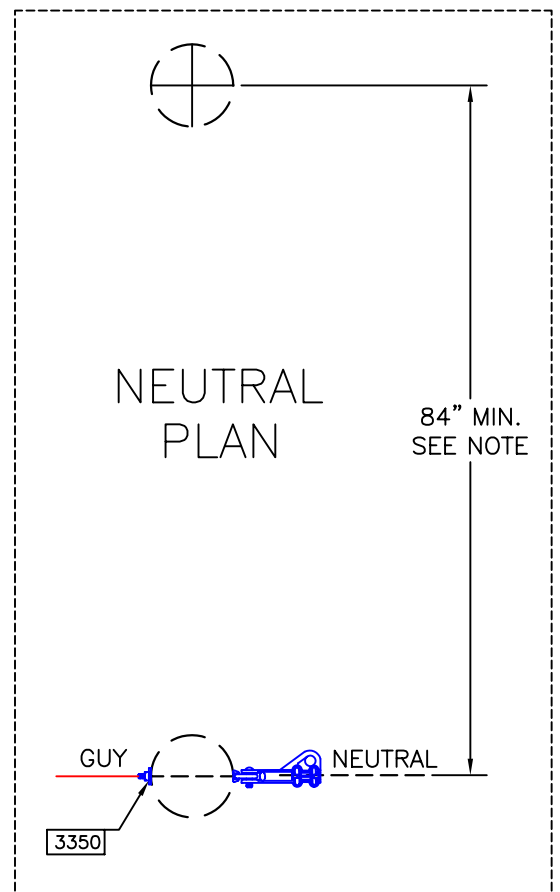
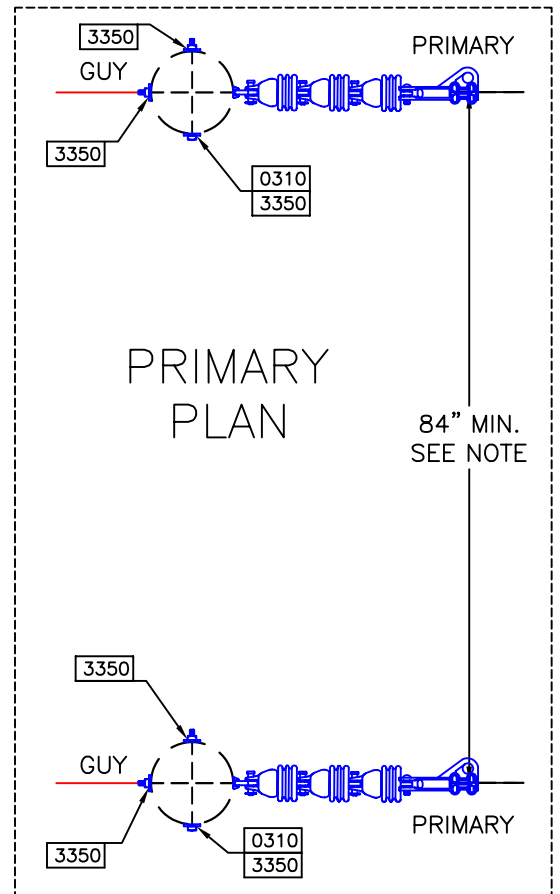
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
0370	2	BOLT, OVAL EYE 5/8" X 14"		
1620	18	INSULATOR, SUSP 4 1/4"		
3350	9	WASHER, SQUARE		
XX01	6	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

OBTAIN A MINIMUM CLEARANCE OF 84"(7') BETWEEN THE PHASES GOING TO THE FIRST POLE AND THOSE GOING TO THE SECOND POLE.

DRAWING IS NOT TO SCALE



Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: DEC. 18, 2002
Old CU: VDC5-TP	DWG Name: VD5-TP.DWG

14.4/24.9 KV PRIMARY, 3Ø, DOUBLE CIRCUIT,
TWO POLES, SINGLE DEADEND,
VERTICAL CONSTRUCTION

ISSUE#: REV 1
VD5.TP

CONSTRUCTION UNIT:	VD5.TP	AUTOCAD FILE:	VD5-TP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, SINGLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	PDF FILE:	VD5-TP.PDF
		PDF SPEC.:	VD5-TP_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

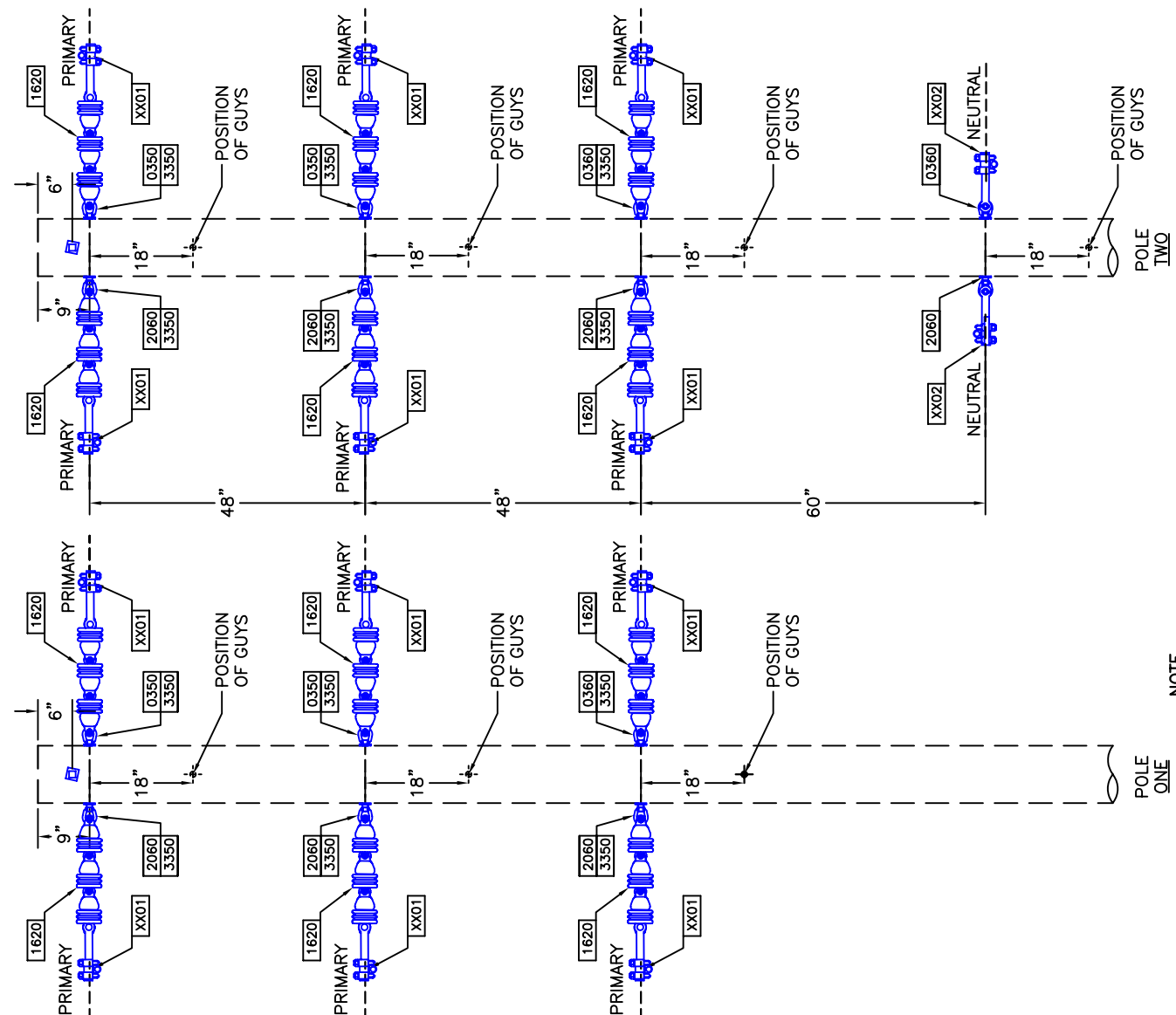
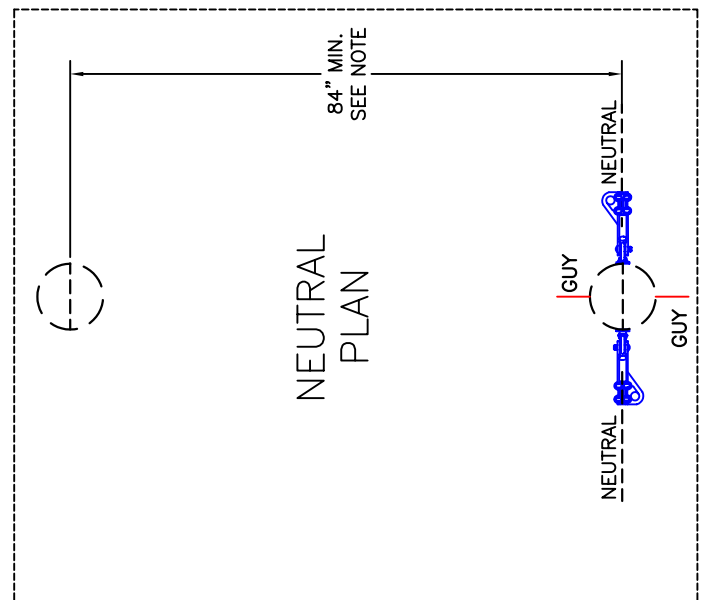
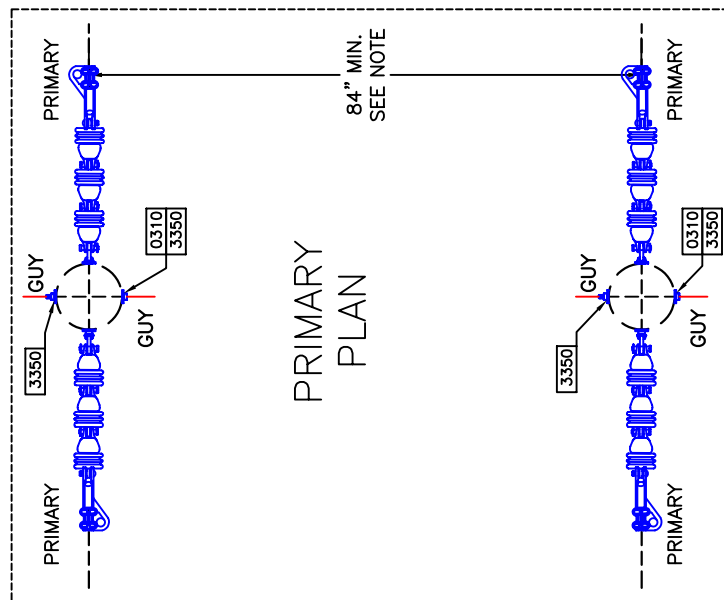
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	2	BOLT, MACHINE 5/8" X 10"		
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
1620	18	INSULATOR, SUSP 4 1/4"		
3350	11	WASHER, SQUARE		
XX01	6	CLAMP, DEADEND (PRIMARY)	W	4
XX02	1	CLAMP, DEADEND (NEUTRAL)	N	4



**14.4/24.9 KV PRIMARY, 3 ϕ , DOUBLE CIRCUIT,
DOUBLE DEADEND, VERTICAL CONSTRUCTION**

CONSTRUCTION UNIT:	VD6.1	AUTOCAD FILE:	VD6-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, VERTICAL CONSTRUCTION	PDF FILE:	VD6-1.PDF
		PDF SPEC.:	VD6-1_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0350	2	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
0370	2	BOLT, OVAL EYE 5/8" X 14"		
1620	36	INSULATOR, SUSP 4 1/4"		
2060	7	NUT, OVAL EYE 5/8"		
3350	16	WASHER, SQUARE		
XX01	12	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4



NOTE

OBTAIN A MINIMUM CLEARANCE OF 84"(7') BETWEEN THE PHASES GOING TO THE FIRST POLE AND THOSE GOING TO THE SECOND POLE.

DRAWING IS NOT TO SCALE

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: FEB. 03, 2003

Old CU: VDC6-TP

DWG Name: VD6-TP.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , DOUBLE CIRCUIT,
TWO POLES, DOUBLE DEADEND,
VERTICAL CONSTRUCTION

ISSUE#: REV 1

VD6.TP

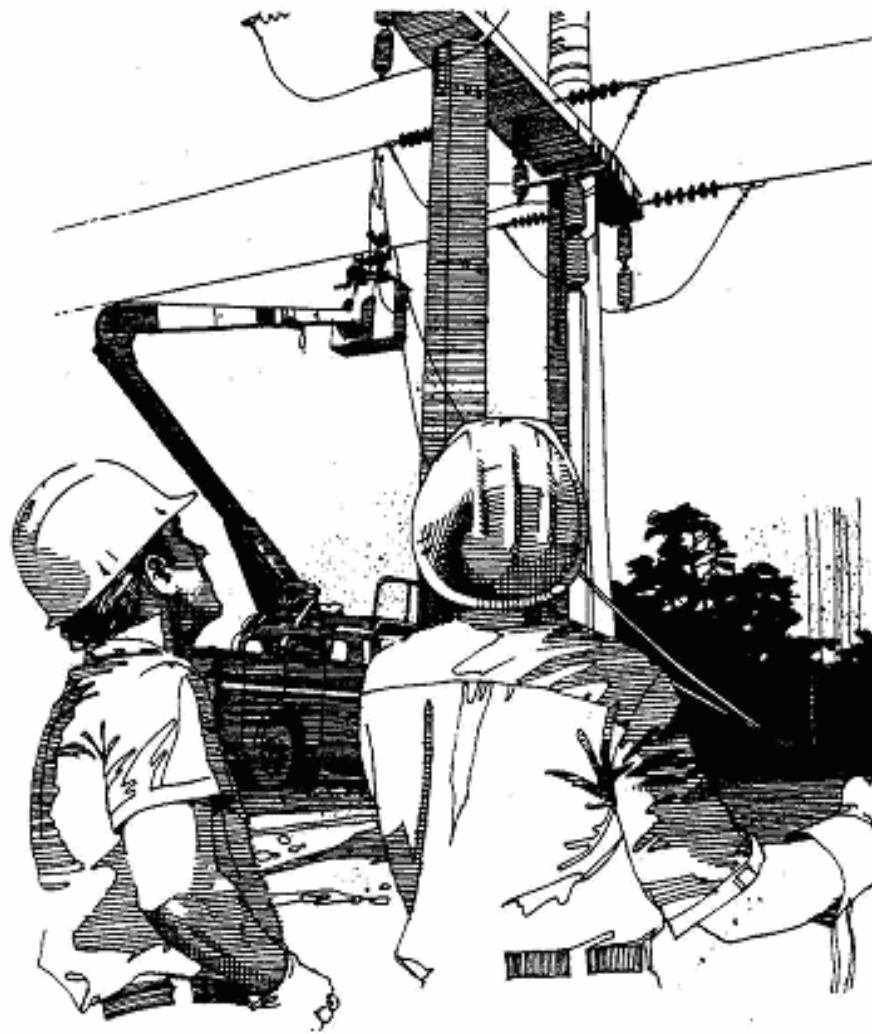
CONSTRUCTION UNIT:	VD6.TP	AUTOCAD FILE:	VD6-TP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3 - PHASE, DOUBLE CIRCUIT, DOUBLE DEADEND, TWO POLES, VERTICAL CONSTRUCTION	PDF FILE:	VD6-TP.PDF
		PDF SPEC.:	VD6-TP_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	2	BOLT, MACHINE 5/8" X 10"		
0350	4	BOLT, OVAL EYE 5/8" X 10"		
0360	3	BOLT, OVAL EYE 5/8" X 12"		
1620	36	INSULATOR, SUSP 4 1/4"		
2060	7	NUT, OVAL EYE 5/8"		
3350	18	WASHER, SQUARE		
XX01	12	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CLAMP, DEADEND (NEUTRAL)	N	4

CONSTRUCTION UNITS

INDEX E: GUY ASSEMBLY UNITS

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GUY ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
E1.02	14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	1 – 2
E1.03	14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	3 – 4
E1.2	14.4/24.9 KV, SINGLE DOWN GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	5 – 6
E1.3	14.4/24.9 KV, SINGLE DOWN GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	7 – 8
E3.10	14.4/24.9 KV, GUY GUARD	9 - 10
E9.1	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/12 GUY WIRE	11 - 12
E9.1.6	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/12 GUY WIRE	13 - 14
E9.1.9	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 3' AND 6' GUY INSULATORS, 7/12 GUY WIRE	15 - 16
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E9.1.15	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 12' AND 3' GUY INSULATORS, 7/12 GUY WIRE	19 - 20
E9.2	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/10 GUY WIRE	21 - 22
E9.2.6	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/10 GUY WIRE	23 - 24
E9.2.9	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 3' AND 6' GUY INSULATORS, 7/10 GUY WIRE	25 - 26
E9.2.12	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 12', 7/10 GUY WIRE	27 - 28
E9.2.15	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/10 GUY WIRE	29 - 30

GUY ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
E10.1	14.4/24.9 KV, INSULATED, OVERHEAD GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	31 - 32
E10.2	14.4/24.9 KV, INSULATED, OVERHEAD GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	33 - 34
E15.1	14.4/24.9 KV, SIDEWALK GUY ATTACHMENT, 7/10 GUY WIRE	35 - 36
E16.1	14.4/24.9 KV, INSULATED, DOWN GUY, USING 36" SIDEWALK GUY ASSEMBLY, 7/12 GUY WIRE, VERTICAL CONSTRUCTION	37 - 38
E16.2	14.4/24.9 KV, INSULATED, DOWN GUY, USING 36" SIDEWALK GUY ASSEMBLY, 7/10 GUY WIRE, VERTICAL CONSTRUCTION	39 - 40
E18.1	14.4/24.9 KV, SINGLE POLE, PUSH BRACE OR GUY	41 - 42

WREC CONSTRUCTION UNIT UPDATE TABLE

GUY ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
E2-1	E1.02	E1.02	14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	--	12/19/02
E2-2	E1.03	E1.03	14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	--	12/20/02
E1-1	E1.2	E1.2	14.4/24.9 KV, SINGLE DOWN GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	--	12/20/02
E1-2	E1.3	E1.3	14.4/24.9 KV, SINGLE DOWN GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	--	12/26/02
E3-10	E3.10	E3.10	14.4/24.9 KV, GUY GUARD	--	12/26/02
E9-1	E9.1	E9.1	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/12 GUY WIRE	--	01/05/03
--	E9.1.6	E9.1.6	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/12 GUY WIRE	--	05/23/03
--	E9.1.9	E9.1.9	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 3' AND 6' GUY INSULATORS, 7/12 GUY WIRE	--	03/16/05
--	E9.1.12	E9.1.12	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 12', 7/12 GUY WIRE	--	03/23/05
--	E9.1.15	E9.1.15	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 12' AND 3' GUY INSULATORS, 7/12 GUY WIRE	--	03/31/05
E9-2	E9.2	E9.2	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/10 GUY WIRE	--	01/05/03
--	E9.2.6	E9.2.6	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/10 GUY WIRE	--	05/23/03
--	E9.2.9	E9.2.9	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 3' AND 6' GUY INSULATORS, 7/10 GUY WIRE	--	03/16/05
--	E9.2.12	E9.2.12	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 12', 7/10 GUY WIRE	--	03/23/05
--	E9.2.15	E9.2.15	14.4/24.9 KV PRIMARY, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 12' AND 3' GUY INSULATORS, 7/12 GUY WIRE	--	03/31/05



WREC CONSTRUCTION UNIT UPDATE TABLE

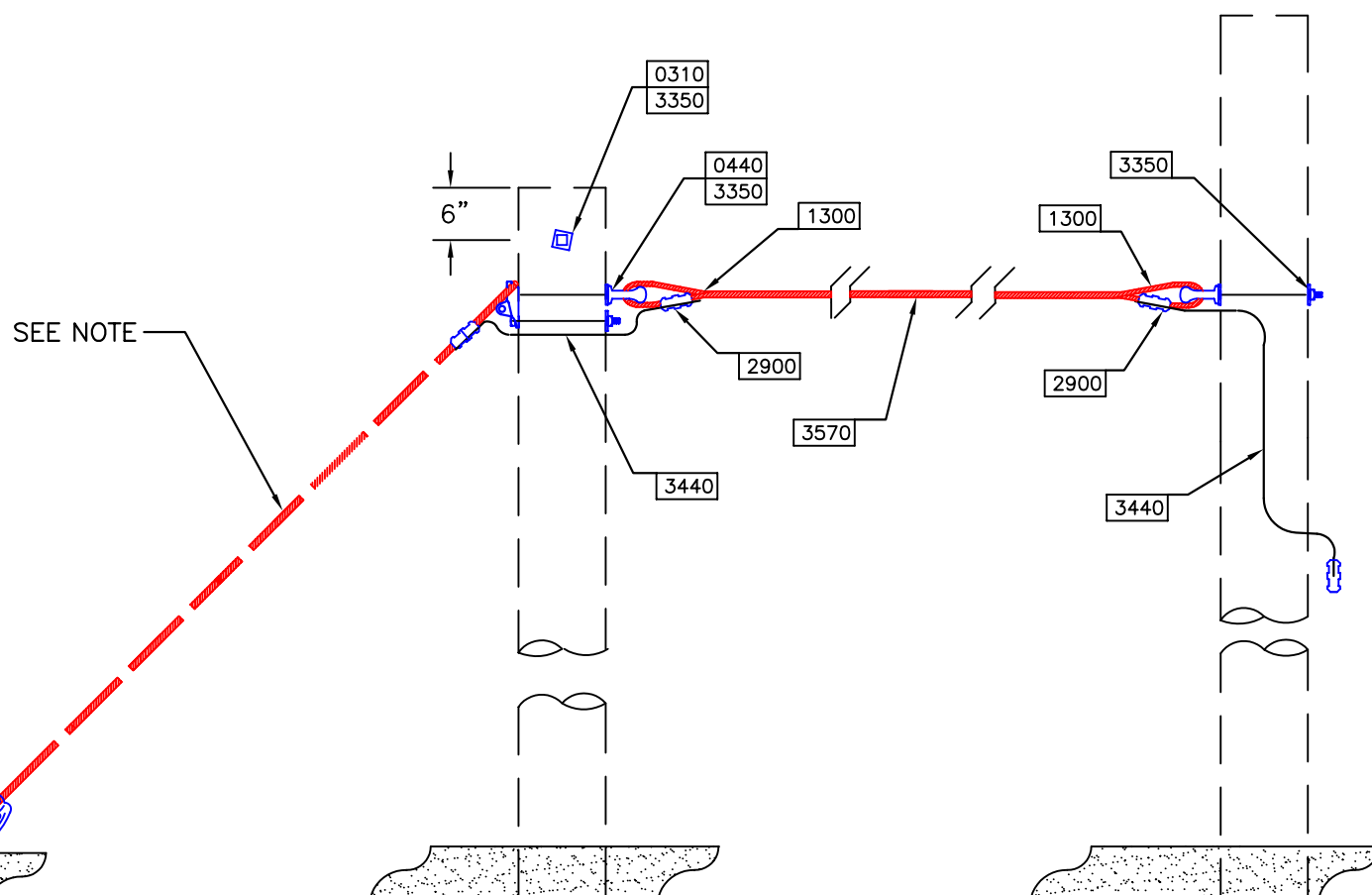
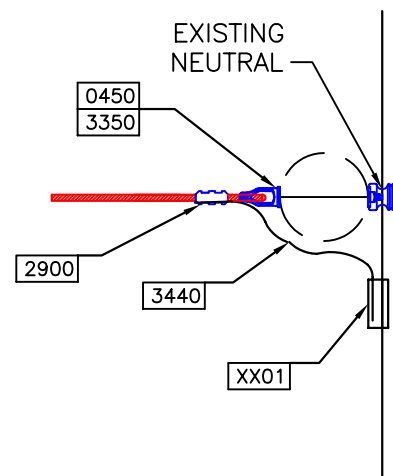
GUY ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
E10-1	E10.1	E10.1	14.4/24.9 KV PRIMARY, INSULATED, OVERHEAD GUY, POLE BANDTYPE, 7/12 GUY WIRE	--	01/06/03
E10-2	E10.2	E10.2	14.4/24.9 KV PRIMARY, INSULATED, OVERHEAD GUY, POLE BANDTYPE, 7/10 GUY WIRE	--	01/06/03
E15	E15.1	E15.1	14.4/24.9 KV PRIMARY, SIDEWALK ATTACHMENT, 7/10 GUY WIRE	07/23/01	11/20/02
--	E16.1	E16.1	14.4/24.9 KV, INSULATED, DOWN GUY, USING 36" SIDEWALK GUY ASSEMBLY, 7/12 GUY WIRE, VERTICAL CONSTRUCTION	--	01/22/03
--	E16.2	E16.2	14.4/24.9 KV, INSULATED, DOWN GUY, USING 36" SIDEWALK GUY ASSEMBLY, 7/10 GUY WIRE, VERTICAL CONSTRUCTION	--	01/22/03
E18	E18.1	E18.1	14.4/24.9 KV PRIMARY, SINGLE POLE, PUSH BRACE OR GUY	07/23/01	01/29/03



**NOTE**

- 1) SPECIFY ONE E1._ UNIT FOR EACH GUY USED ON A MULTIPLE GUY STRUCTURE AND REFER TO THE MULTIPLE DOWN GUY FRAMING GUIDE.
- 2) IF A STUB POLE IS TO BE FRAMED WITH POLE BANDS, CALL FOR GUY ATTACHEMENT.



DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 10/31/2008

Old CU: E2-1 DWG Name: E1-02.DWG

**14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH
BOLT TYPE, 7/12 GUY WIRE****REV# : 002****E1.02**

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **E1.02**

AUTOCAD FILE: **E1-02.DWG**

DESCRIPTION: **14.4/24.9 KV; SINGLE OVERHEAD GUY;
THROUGH BOLT TYPE; 7/12 GUY WIRE**

PDF FILE: **E1-02.PDF**

PDF SPEC.: **E1-02_SPEC.PDF**

ANGLE FROM:

ANGLE TO:

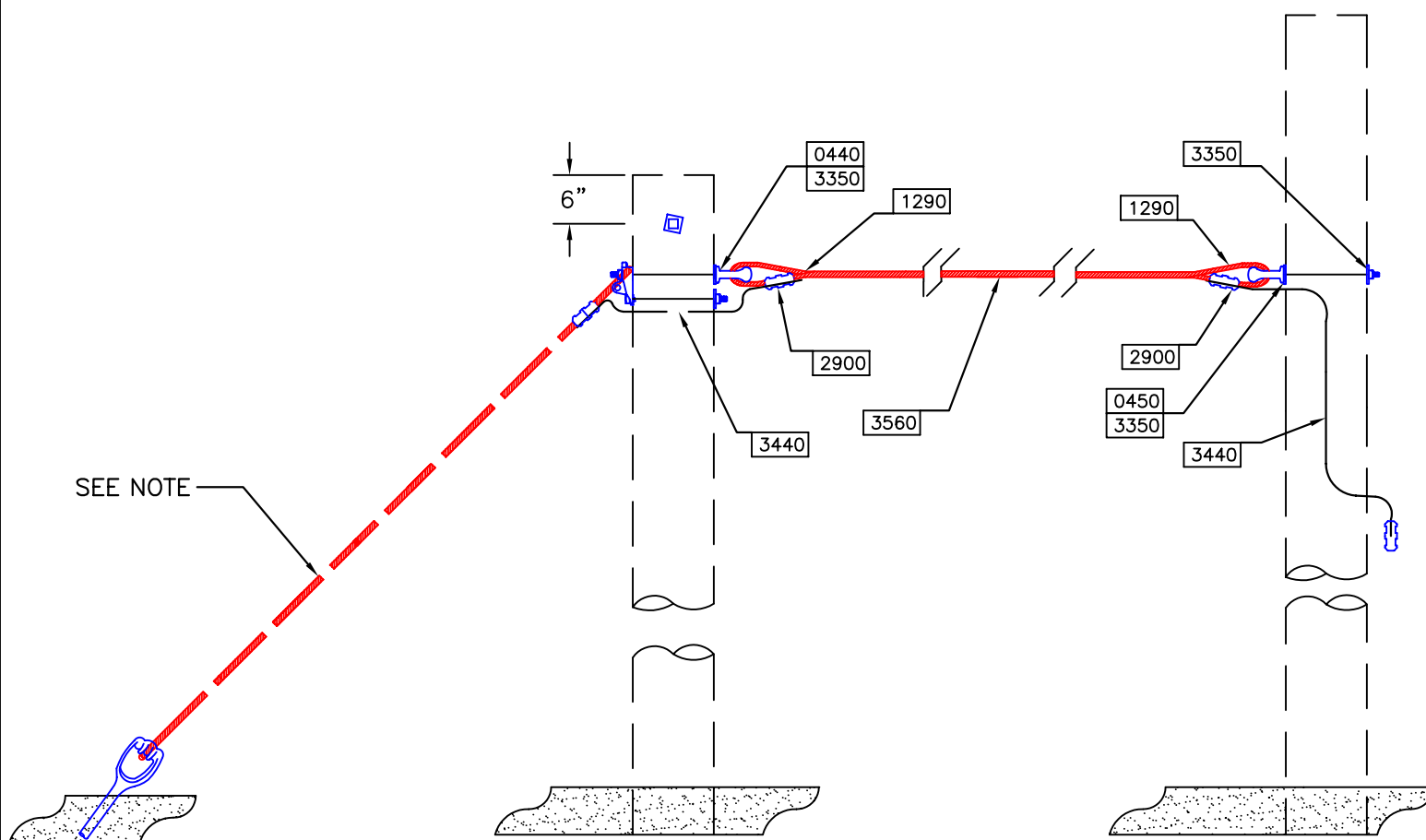
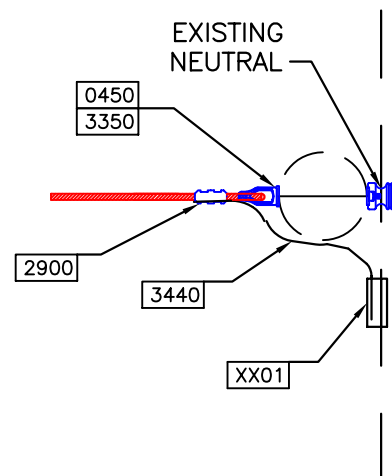
RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0310	1	BOLT; MACHINE 5/8" X 10"		
0440	1	BOLT; THIMBLE EYE 5/8" X 10"		
0450	1	BOLT; THIMBLE EYE 5/8" X 12"		
1300	2	DEAD END; GUY GRIP 7/12		
2900	2	SQUEEZON; AL #2-#2 506-82		
3350	6	WASHER; SQUARE		
3440	5	WIRE; AL GROUND 4		
3570		WIRE; GUY 7/12		
XX01	1	CONNECTOR	N	10

NOTE

- 1) SPECIFY ONE E1.____ UNIT FOR EACH GUY USED ON A MULTIPLE GUY STRUCTURE AND REFER TO THE MULTIPLE DOWN GUY FRAMING GUIDE.
- 2) IF A STUB POLE IS TO BE FRAMED WITH POLE BANDS, CALL FOR GUY ATTACHEMENT



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/30/20087
Old CU: --	DWG Name: E1-03.DWG

14.4/24.9 KV, SINGLE OVERHEAD GUY, THROUGH
BOLT TYPE, 7/10 GUY WIRE

REV# : 002
E1.03

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **E1.03**

AUTOCAD FILE: **E1-03.DWG**

DESCRIPTION: **14.4/24.9 KV; SINGLE OVERHEAD GUY;
THROUGH BOLT TYPE; 7/10 GUY WIRE**

PDF FILE: **E1-03.PDF**

PDF SPEC.: **E1-03_SPEC.PDF**

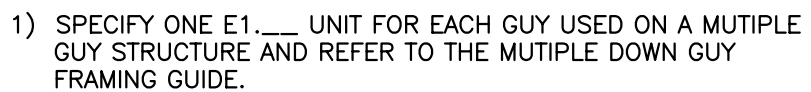
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
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0440	1	BOLT; THIMBLE EYE 5/8" X 10"		
0450	1	BOLT; THIMBLE EYE 5/8" X 12"		
1290	2	DEAD END; GUY GRIP 7/10		
2900	2	SQUEEZON; AL #2-#2 506-82		
3350	6	WASHER; SQUARE		
3440	5	WIRE; AL GROUND 4		
3560		WIRE; GUY 7/10		
XX01	1	CONNECTOR	N	10



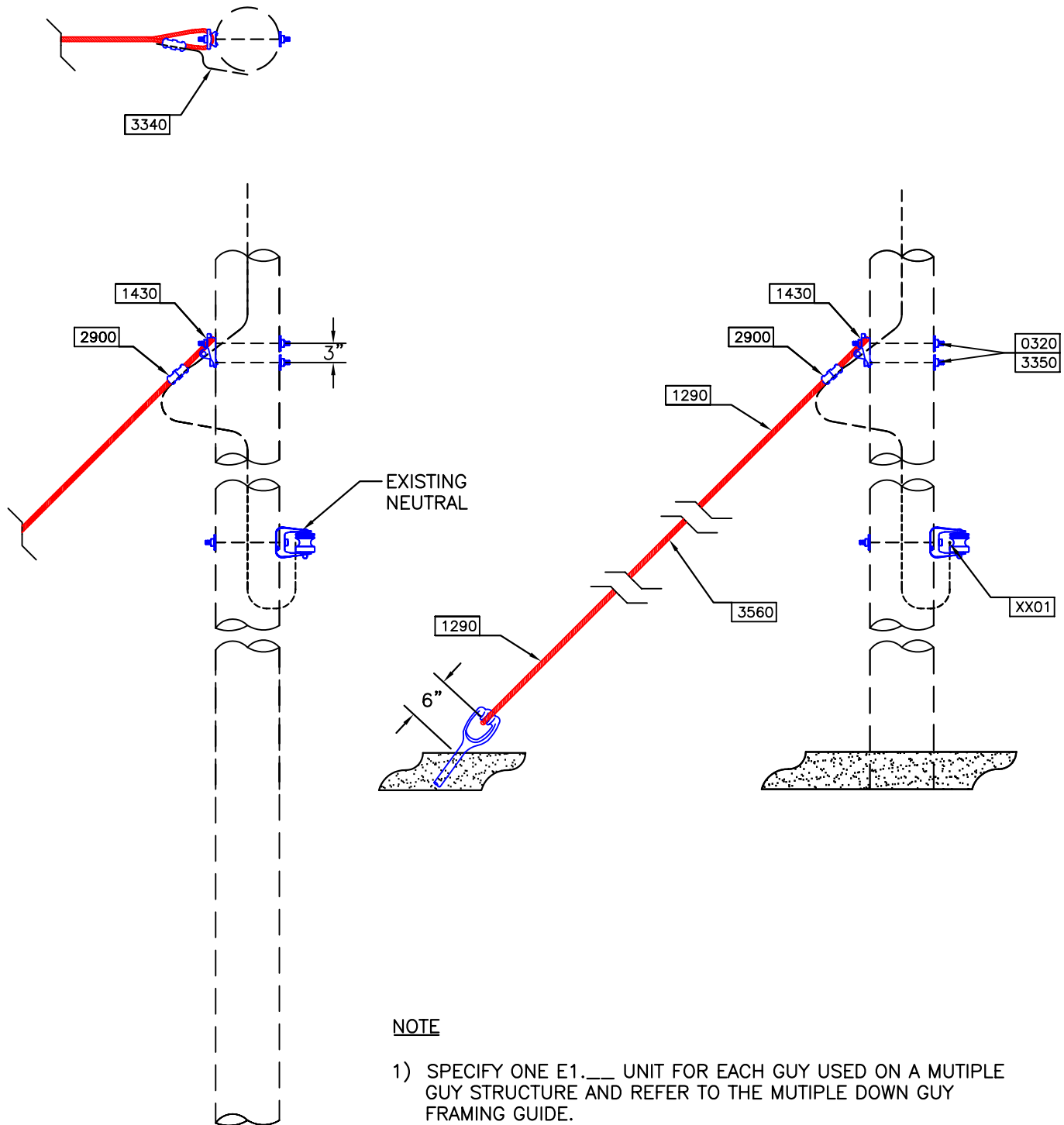
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Approved By: WHP	Date Updated: DEC. 20, 2002		E1.2
Old CU: E1-1	DWG Name: E1-2.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

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PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	2	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV, SINGLE DOWN GUY, THROUGH BOLT TYPE, 7/10 GUY WIRE	ISSUE#: REV 1 E1.3
Approved By: WHP	Date Updated: DEC. 26, 2002		
Old CU: E1-2	DWG Name: E1-3.DWG		

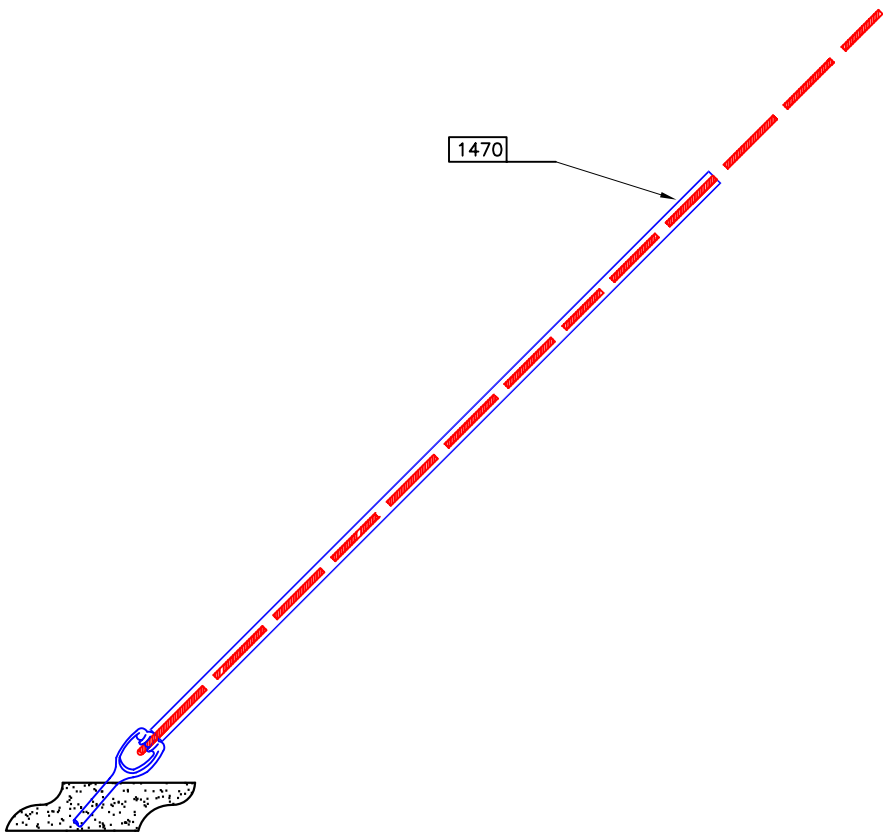
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10

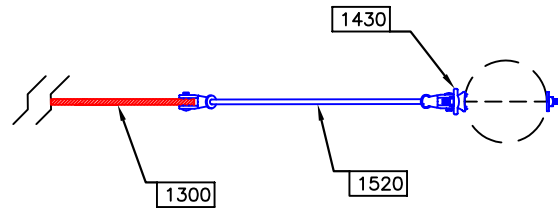


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV GUY GUARD	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 26, 2002		E3.10
Old CU: E3-10	DWG Name: E3-10.DWG		

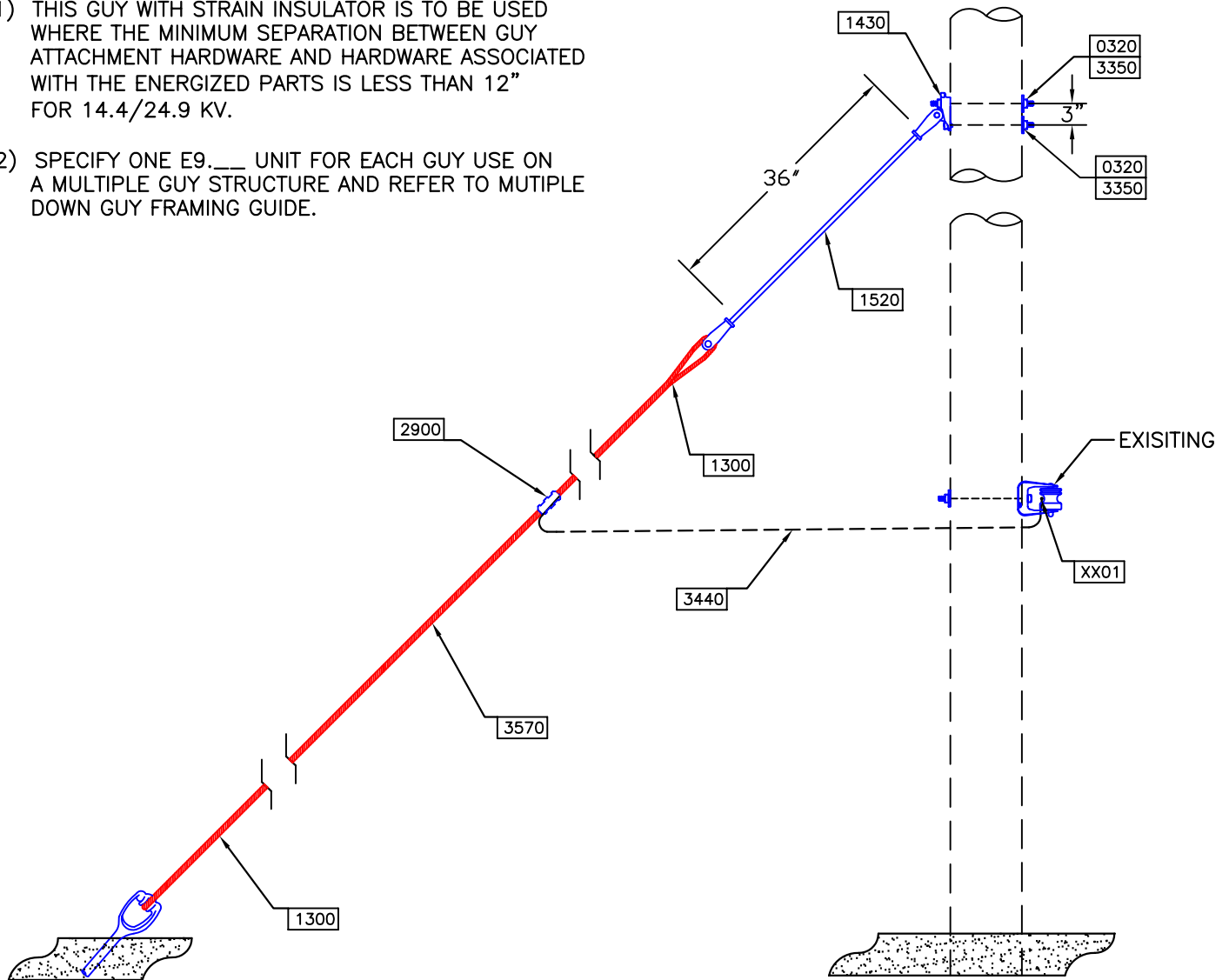
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		PDF SPEC.:	E3-10_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1470	1	GUY GUARD, PLASTIC PG5518		



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/12 GUY WIRE	ISSUE#: REV 1
Approved By: WHP	Date Updated: JAN. 5, 2003		E9.1
Old CU: E9-1	DWG Name: E9-1.DWG		

CONSTRUCTION UNIT:	E9.1	AUTOCAD FILE:	E9-1.DWG
DESCRIPTION:	14.4/24/9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/12 GUY WIRE		PDF FILE: E9-1.PDF
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10

ISSUE#: REV 1
E9.1.6

CONSTRUCTION UNIT: **AUTOCAD FILE:**

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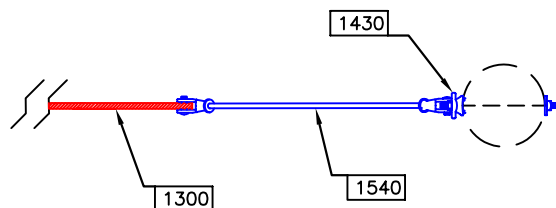
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1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10

ISSUE#: REV 1

E9.1.9

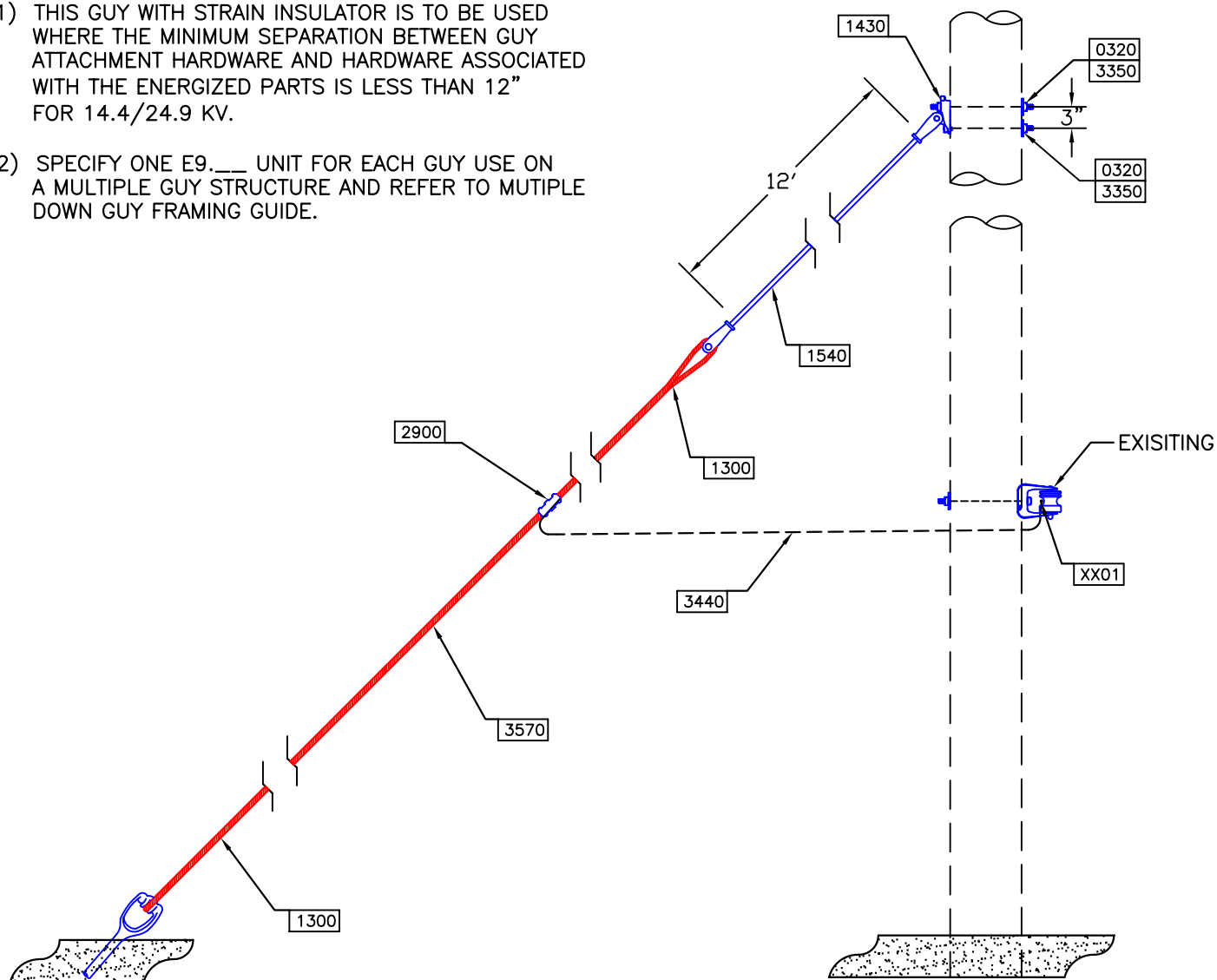
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		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
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1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON; AL #2-#2 506-82		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

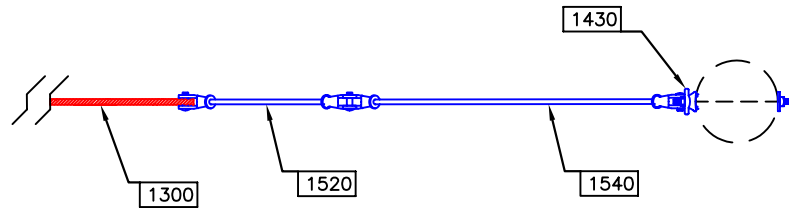
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Approved By: WHP	Date Updated: MARCH 23, 2005		E9.1.12
Old CU:	DWG Name: E9-1-12.DWG		

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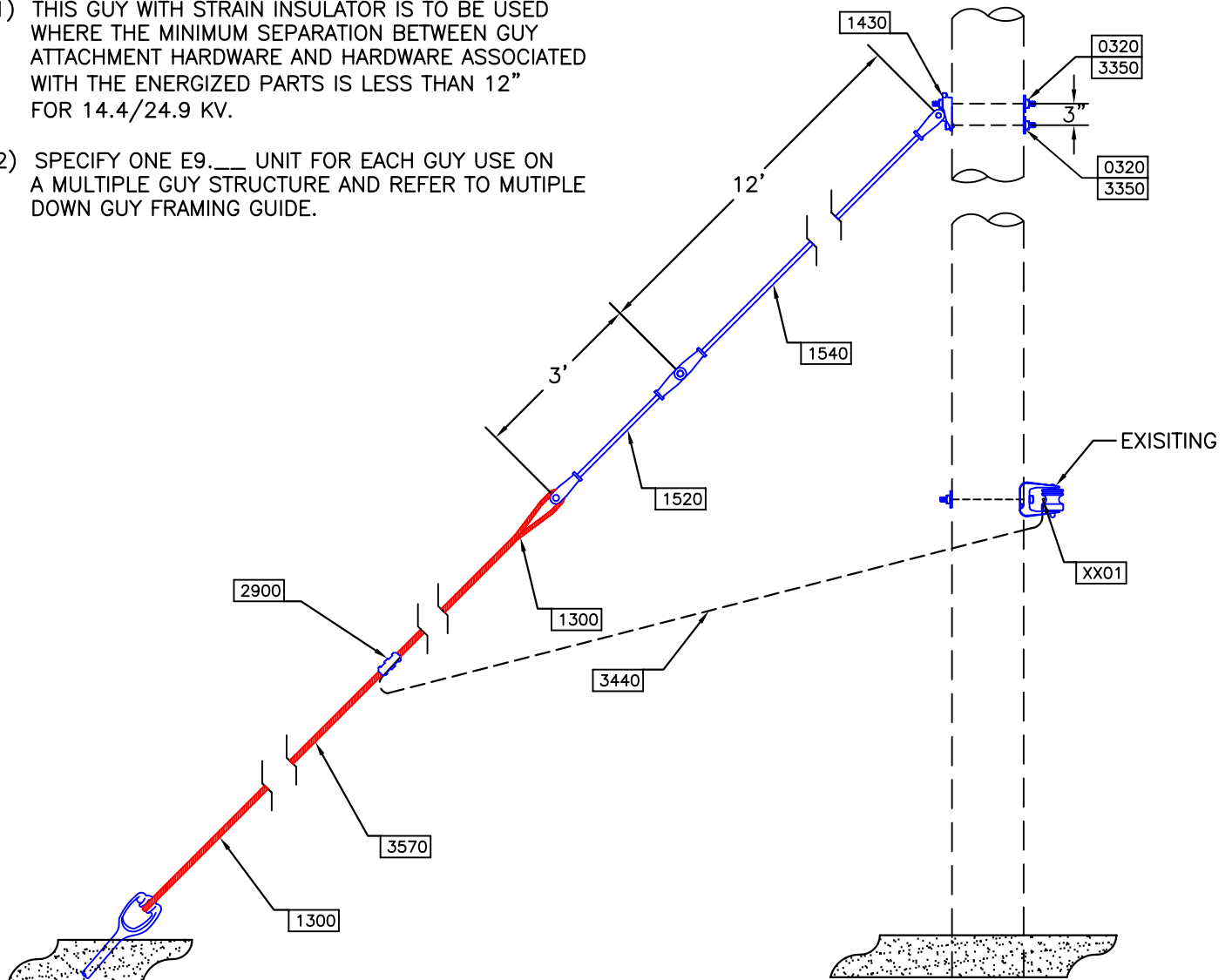
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
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1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1540	1	INSULATOR, GUY WIRE 12'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

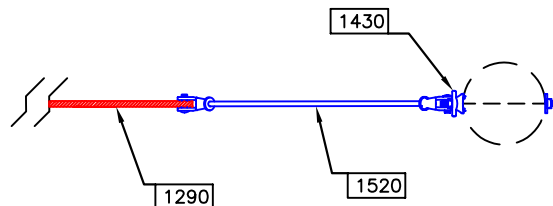
Drawn By: DEM	Date Drawn: MARCH 2005	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 12' and 3' GUY INSULATORS, 7/12 GUY WIRE	ISSUE#: REV 1
Approved By: WHP	Date Updated: MARCH 31, 2005		E9.1.15
Old CU: NEW	DWG Name: E9-1-15.DWG		

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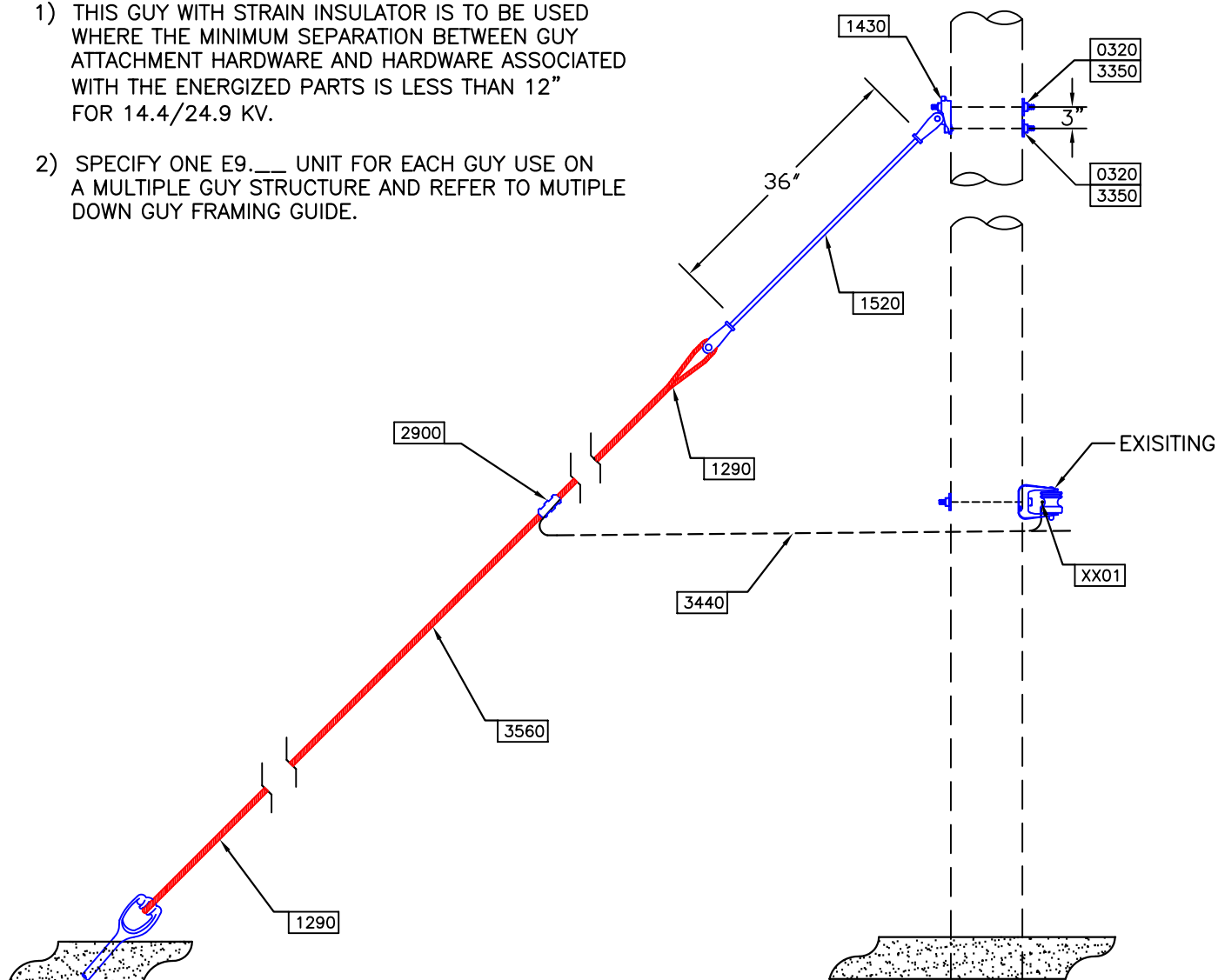
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1300	2	DEAD END, GUY GRIP 7/12		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
1540	1	INSULATOR, GUY WIRE 12'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 3', 7/10 GUY WIRE	ISSUE#: REV 1
Approved By: WHP	Date Updated: JAN. 5, 2003		E9.2
Old CU: E9-2	DWG Name: E9-2.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10

DRAWING IS NOT TO SCALE

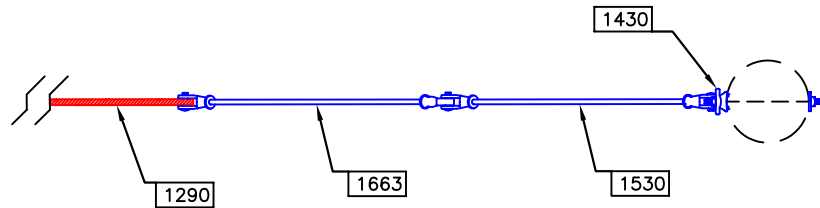
Drawn By: DEM	Date Drawn: MAY 2003	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 6', 7/10 GUY WIRE	ISSUE#: REV 1
Approved By: WHP	Date Updated: MAY 23, 2003		E9.2.6
Old CU:	DWG Name: E9-2-6.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

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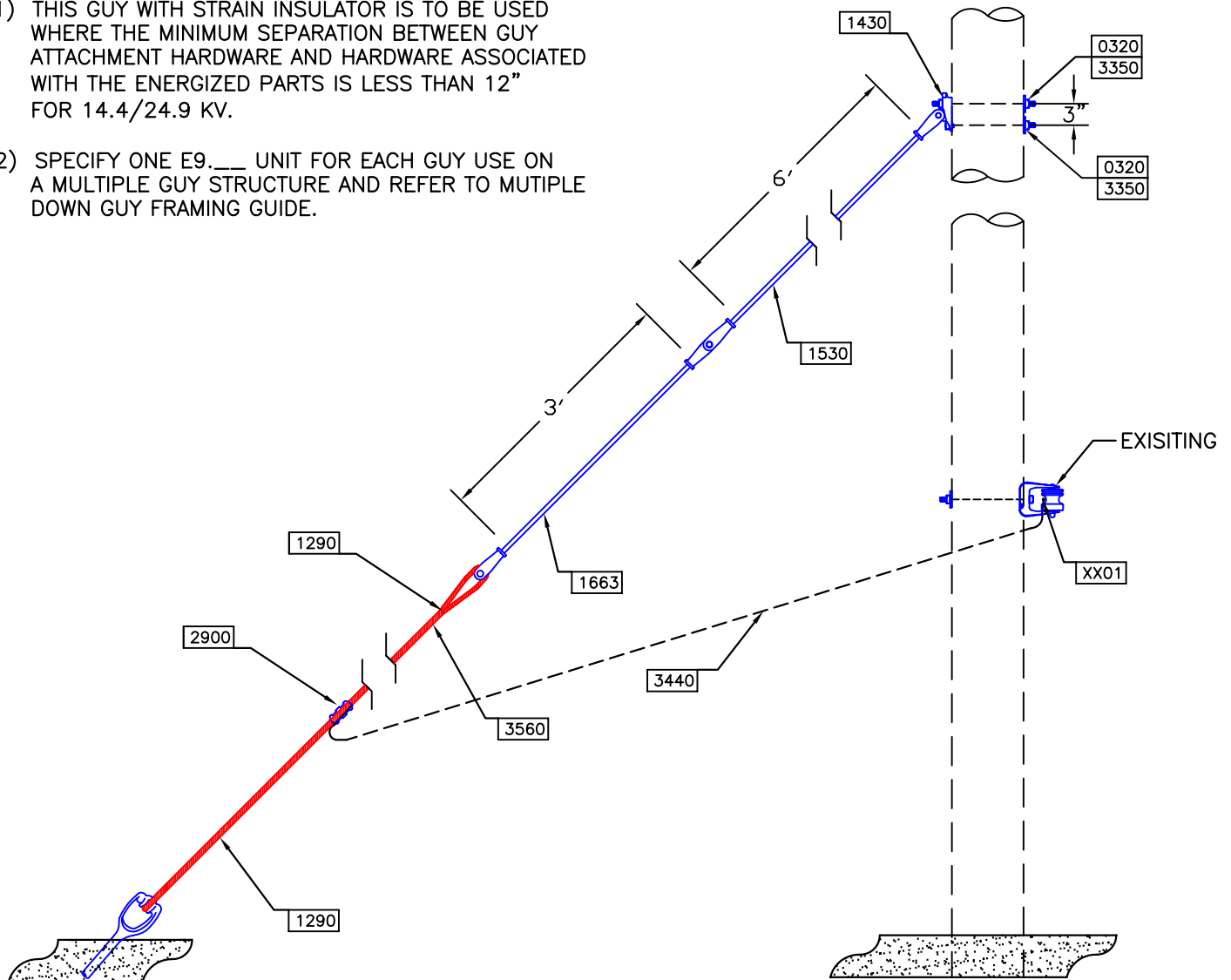
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0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.

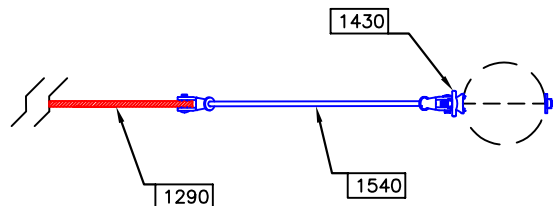


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: MARCH 2004	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATORS 3' and 6', 7/10 GUY WIRE	ISSUE#: REV 1
Approved By: WHP	Date Updated: MARCH 16, 2003		E9.2.9
Old CU:	DWG Name: E9-2-9.DWG		

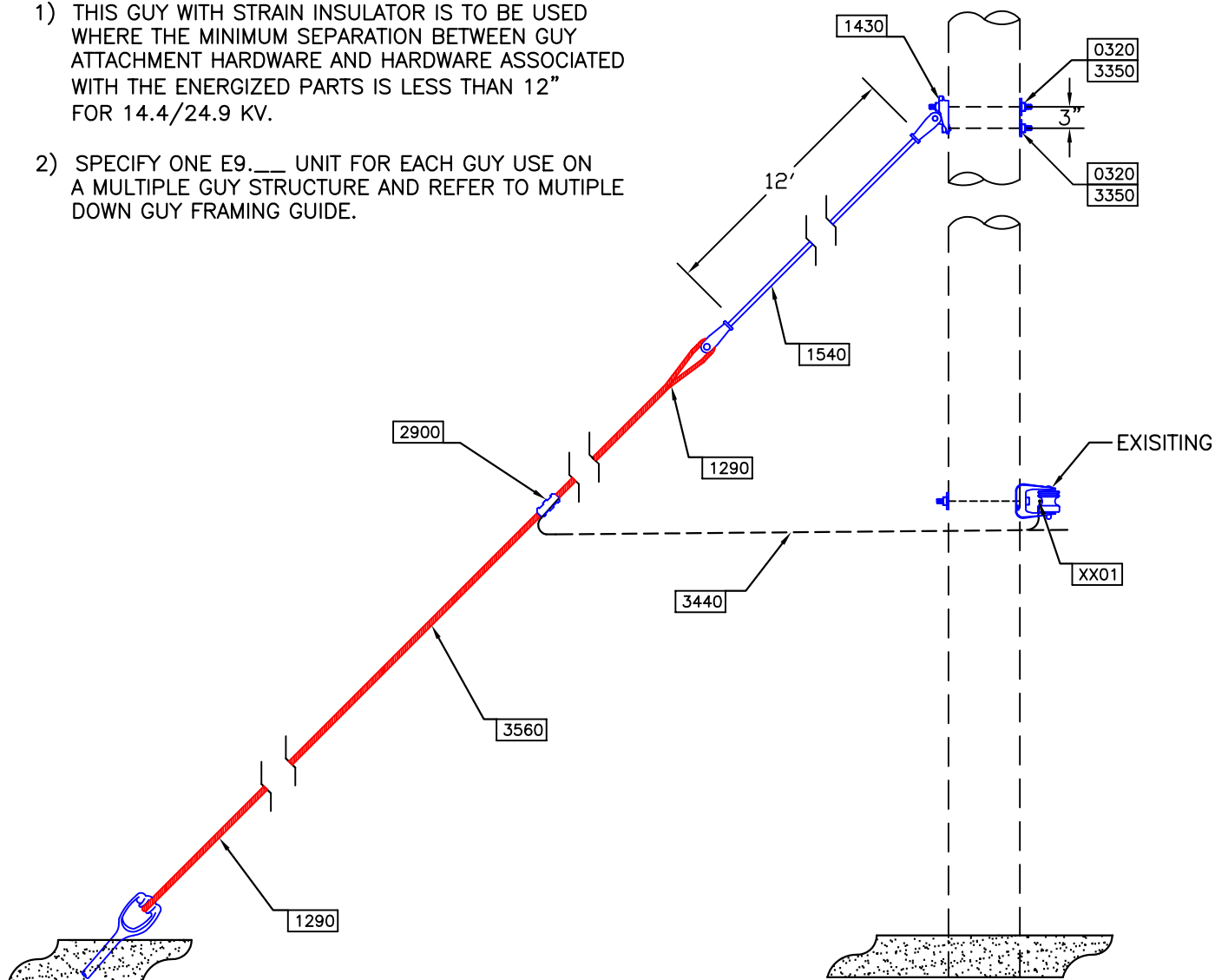
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		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

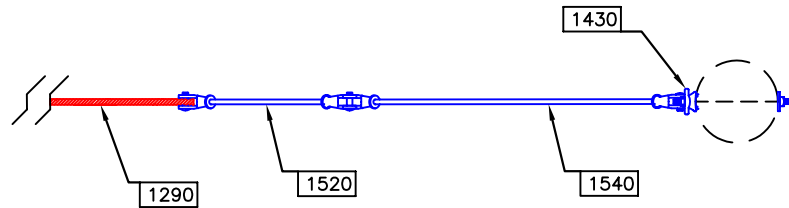
Drawn By: DEM	Date Drawn: MAY 2003	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, GUY INSULATOR 12', 7/10 GUY WIRE	ISSUE#: REV 2
Approved By: WHP	Date Updated: MARCH 23, 2005		E9.2.12
Old CU:	DWG Name: E9-2-12.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

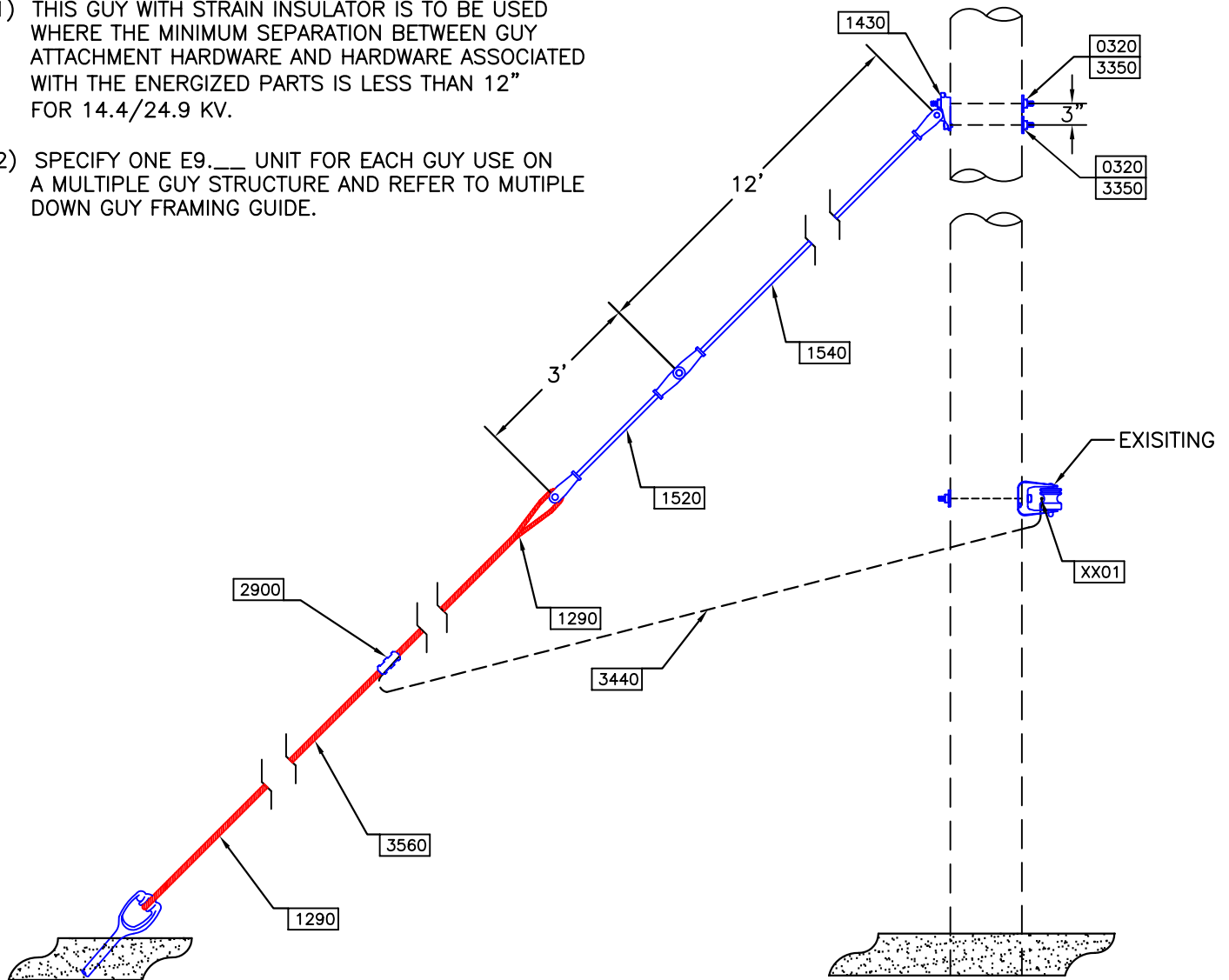
ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1540	1	INSULATOR, GUY WIRE 12'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENT HARDWARE AND HARDWARE ASSOCIATED WITH THE ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E9.____ UNIT FOR EACH GUY USE ON A MULTIPLE GUY STRUCTURE AND REFER TO MULTIPLE DOWN GUY FRAMING GUIDE.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: MARCH 2005	14.4/24.9 KV, INSULATED, SINGLE DOWN GUY, THROUGH BOLT TYPE, 12' and 3' GUY INSULATORS, 7/10 GUY WIRE	ISSUE#: REV 1 E9.2.15
Approved By: WHP	Date Updated: MARCH 31, 2005		
Old CU: NEW	DWG Name: E9-2-15.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

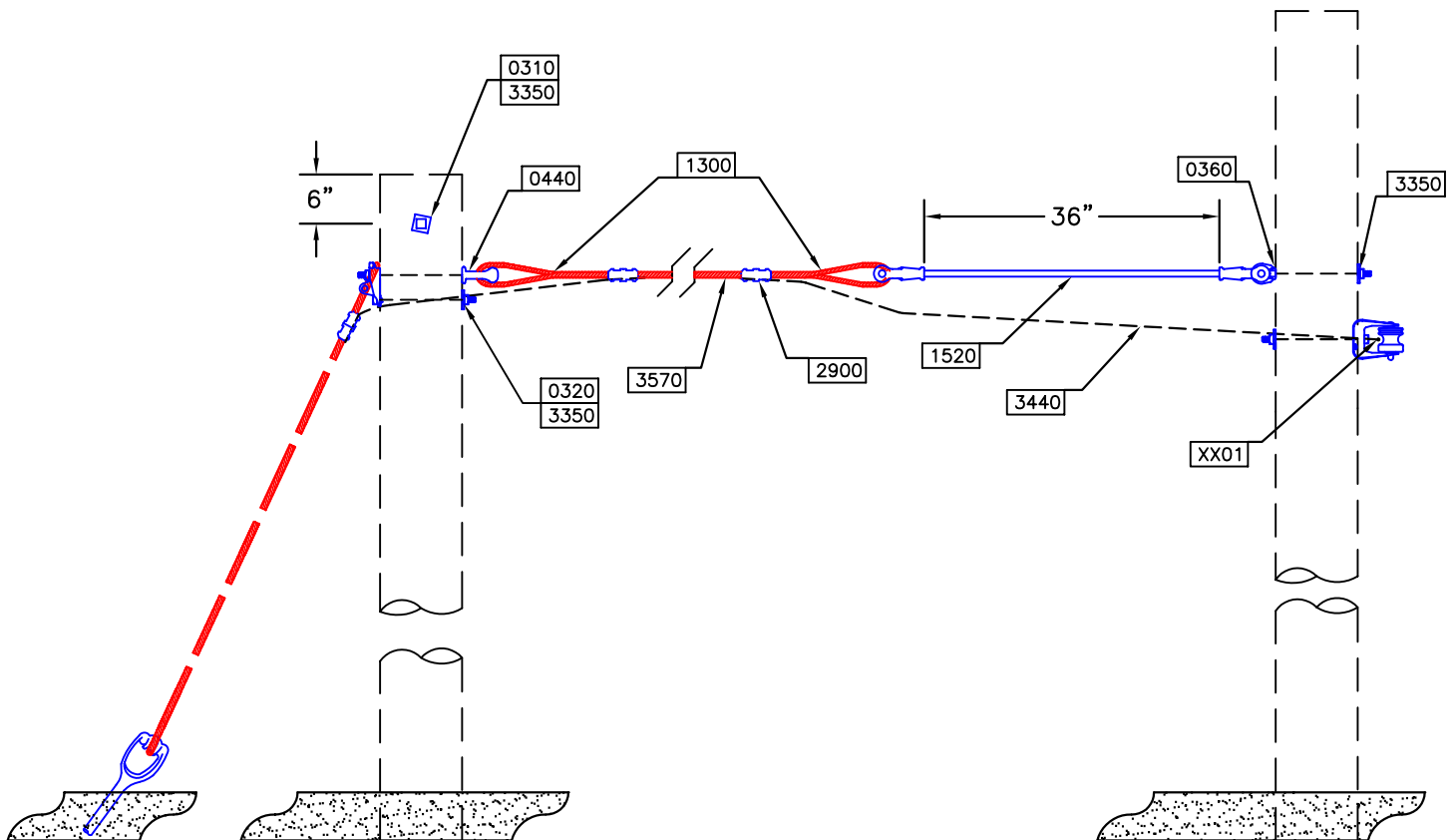
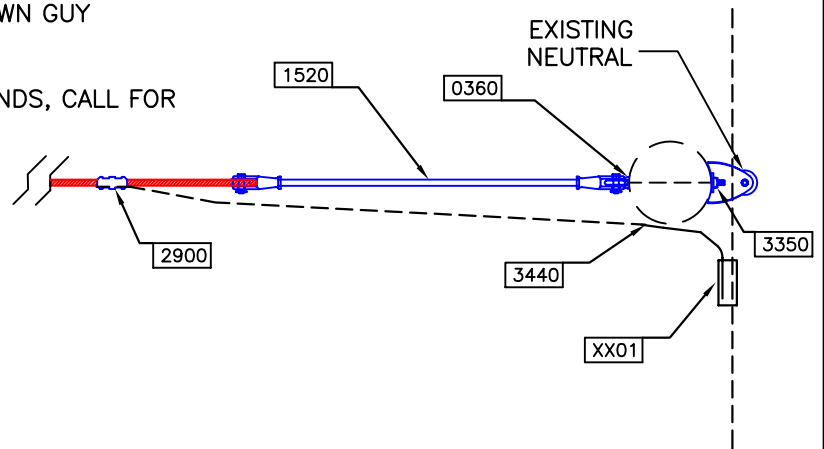
ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1520	1	INSULATOR, GUY WIRE 3'		
1540	1	INSULATOR, GUY WIRE 12'		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENTS HARDWARE AND HARDWARE ASSOCIATED WITH ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E10.____ UNIT FOR EACH GUY USED ON A MULTIPLE GUY STRUCTURE AND REFER TO THE MULTIPLE DOWN GUY FRAMING GUIDE.
- 3) IF A STUB POLE IS TO BE FRAMED WITH POLE BANDS, CALL FOR GUY ATTACHMENT.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 6, 2003
Old CU: E10-1	DWG Name: E10-1.DWG

14.4/24.9 KV, INSULATED, OVERHEAD GUY,
THROUGH BOLT TYPE, 7/12 GUY WIRE

ISSUE#: REV 1
E10.1

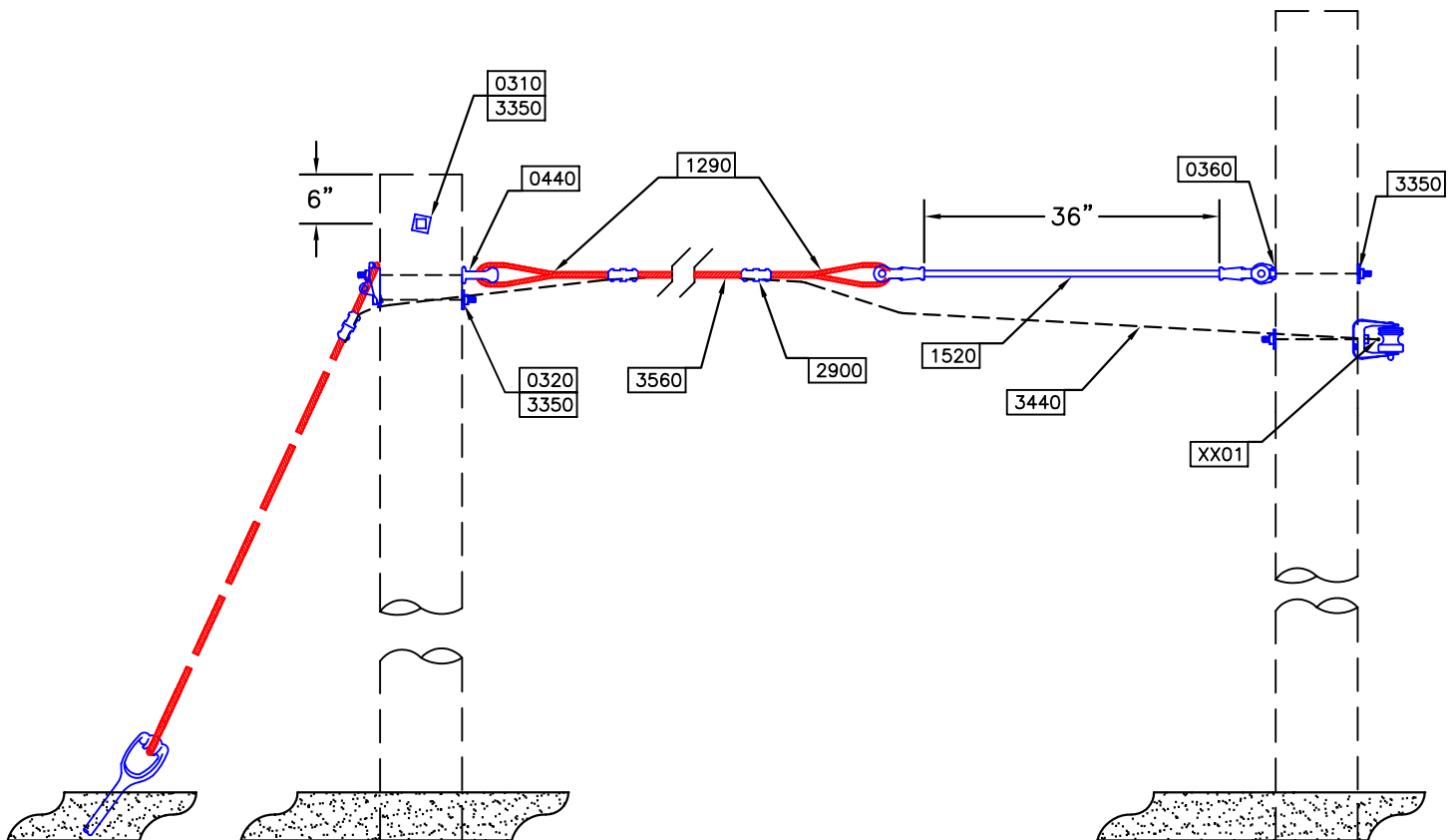
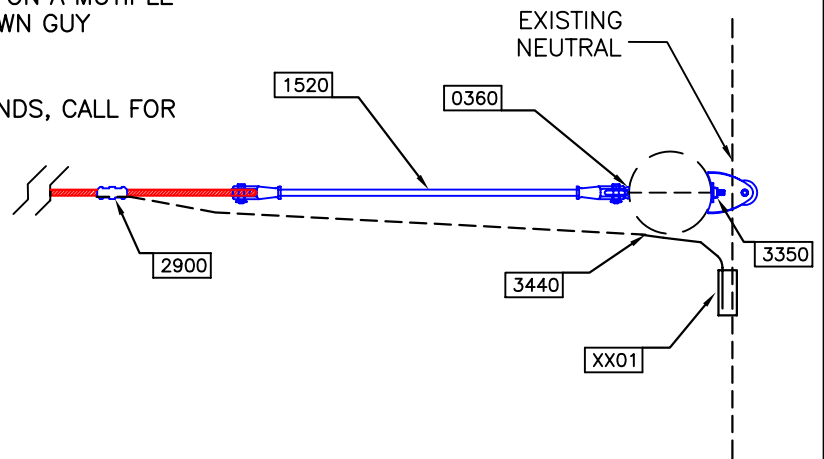
CONSTRUCTION UNIT:	E10.1	AUTOCAD FILE:	E10-1.DWG
DESCRIPTION:	14.4/24.9 KV, INSLUATED, OVERHEAD GUY, THROUGH BOLT TYPE, 7/12 GUY WIRE	PDF FILE:	E10-1.PDF
		PDF SPEC.:	E10-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	1	BOLT, MACHINE 5/8" X 12"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
0440	1	BOLT, THIMBLE EYE 5/8" X 10"		
1300	2	DEAD END, GUY GRIP 7/12		
1520	1	INSULATOR, GUY WIRE 3'		
2900	1	SQUEEZON, AL #2-#2		
3350	4	WASHER, SQUARE		
3440	10	WIRE, AL GROUND 4		
3570	8888	WIRE, GUY 7/12		
XX01	1	CONNECTOR	N	10



NOTE

- 1) THIS GUY WITH STRAIN INSULATOR IS TO BE USED WHERE THE MINIMUM SEPARATION BETWEEN GUY ATTACHMENTS HARDWARE AND HARDWARE ASSOCIATED WITH ENERGIZED PARTS IS LESS THAN 12" FOR 14.4/24.9 KV.
- 2) SPECIFY ONE E10.____ UNIT FOR EACH GUY USED ON A MULTIPLE GUY STRUCTURE AND REFER TO THE MULTIPLE DOWN GUY FRAMING GUIDE.
- 3) IF A STUB POLE IS TO BE FRAMED WITH POLE BANDS, CALL FOR GUY ATTACHMENT.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 6, 2003
Old CU: E10-2	DWG Name: E10-2.DWG

14.4/24.9 KV, INSULATED, OVERHEAD GUY,
THROUGH BOLT TYPE, 7/10 GUY WIRE

ISSUE#: REV 1
E10.2

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

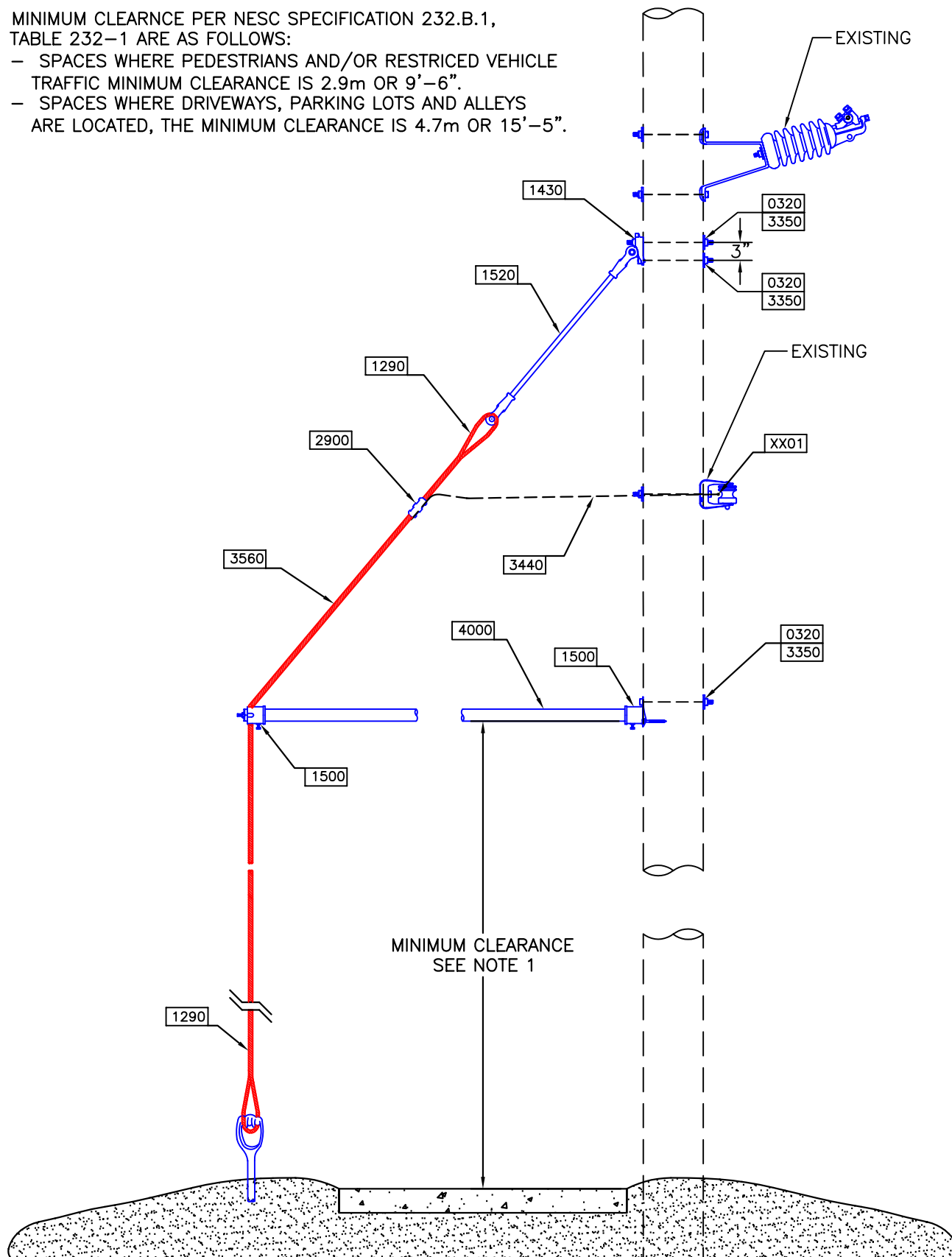
ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	1	BOLT, MACHINE 5/8" X 12"		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1520	1	INSULATOR, GUY WIRE 3'		
2900	1	SQUEEZON, AL #2-#2		
3350	4	WASHER, SQUARE		
3440	10	WIRE, AL GROUND 4		
3560	8888	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE:

- 1) MINIMUM CLEARANCE PER NESC SPECIFICATION 232.B.1, TABLE 232-1 ARE AS FOLLOWS:
- SPACES WHERE PEDESTRIANS AND/OR RESTRICTED VEHICLE TRAFFIC MINIMUM CLEARANCE IS 2.9m OR 9'-6".
 - SPACES WHERE DRIVEWAYS, PARKING LOTS AND ALLEYS ARE LOCATED, THE MINIMUM CLEARANCE IS 4.7m OR 15'-5".



DRAWING IS NOT TO SCALE

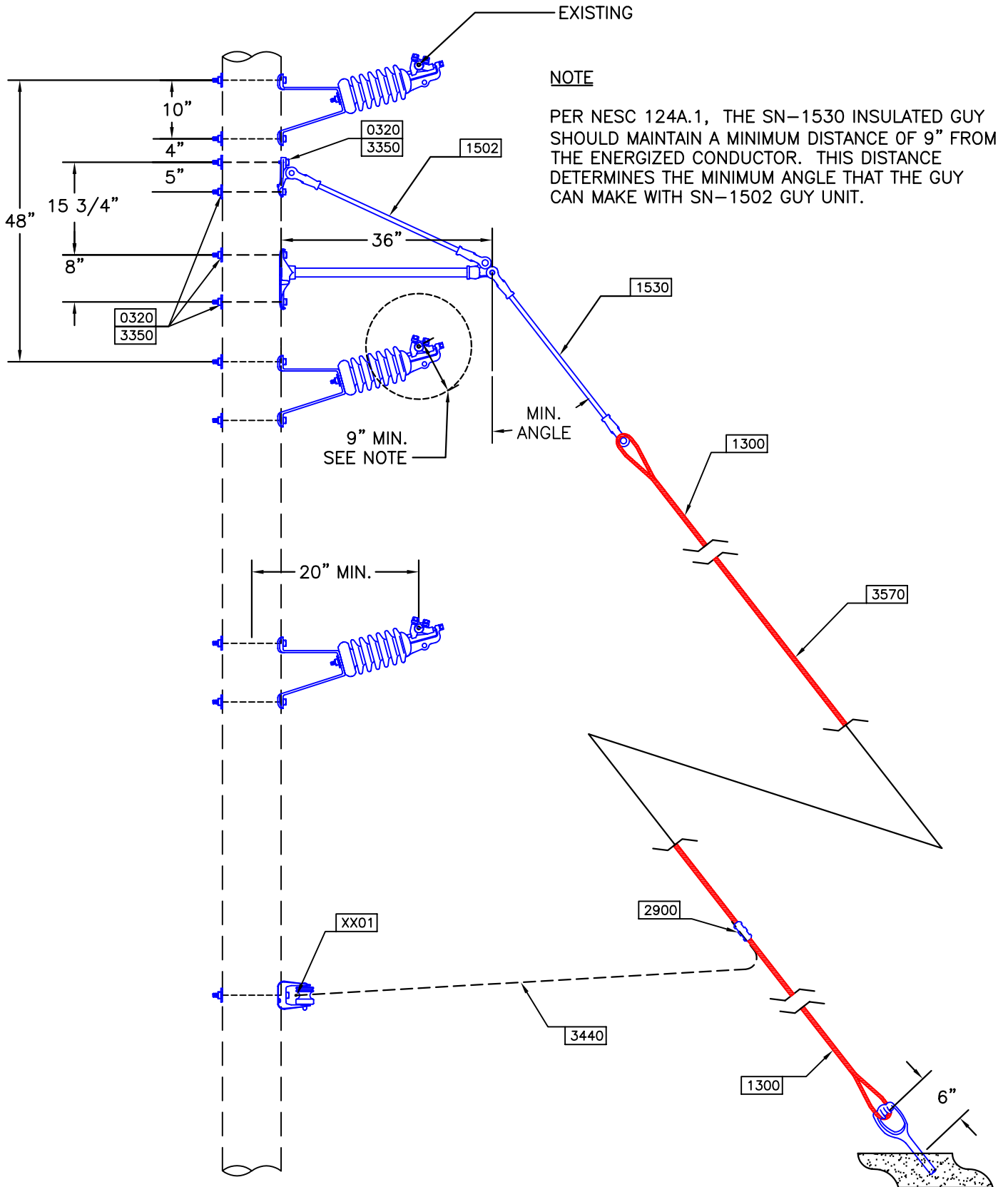
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: NOV. 20, 2002
Old CU: E15	DWG Name: E15-1.DWG

14.4/24.9 KV, SIDEWALK GUY ATTACHMENT,
7/10 GUY WIRE

ISSUE#: REV 1
E15.1

CONSTRUCTION UNIT:	E15.1	AUTOCAD FILE:	E15-1.DWG
DESCRIPTION:	14.4/24.9 KV, SIDEWALK GUY ATTACHMENT, 7/10 GUY WIRE		PDF FILE: E15-1.PDF
		PDF SPEC.:	E15-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	3	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
1500	1	GUY UNIT, SDWLK SWG (2 PART)		
1520	1	INSULATOR, GUY WIRE 3'		
2430	2	SCREW, LAG 1/2" X 4"		
2900	1	SQUEEZON, AL #2-#2		
3350	3	WASHER, SQUARE		
3440	6	WIRE, AL GROUND 4		
3560	40	WIRE, GUY 7/10		
4000	5	CONDUIT, GALV 2"		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 22, 2003
Old CU:	DWG Name: E16-1.DWG

14.4/24.9 KV, INSULATED, DOWN GUY, USING
36" FIBERGLASS SIDEWALK GUY ASSEMBLY,
VERTICAL CONSTRUCTION, 7/12 GUY WIRE

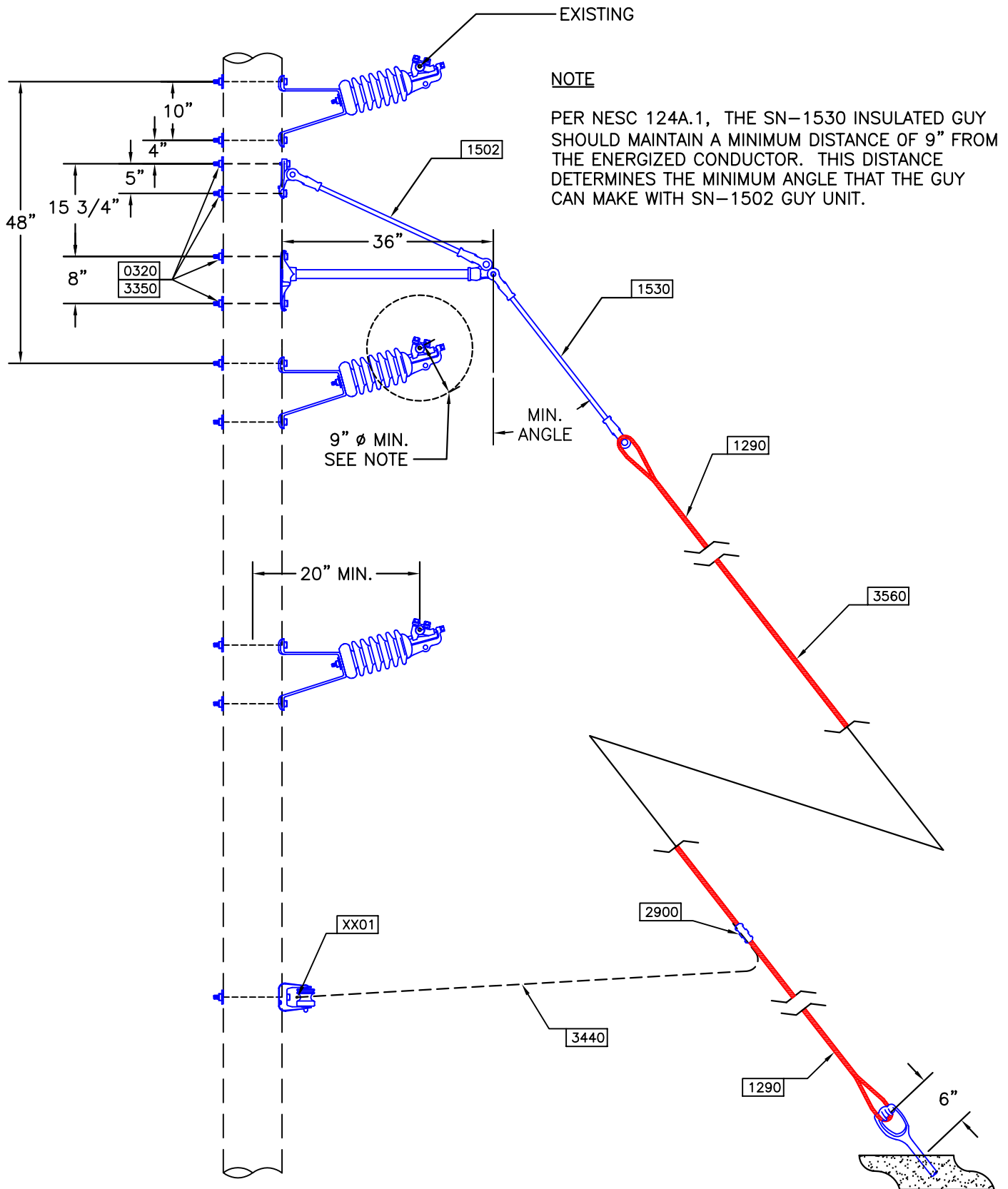
ISSUE#: REV 1
E16.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:** **PDF SPEC.:**

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	4	BOLT, MACHINE 5/8" X 12"		
1300	2	DEAD END, GUY GRIP 7/12		
1502	1	GUY UNIT, SDWLK 36" W/ARMS		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	4	WASHER, SQUARE		
3440	10	WIRE, AL GROUND 4		
3570	9999	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 22, 2003
Old CU:	DWG Name: E16-2.DWG

14.4/24.9 KV, INSULATED, DOWN GUY, USING
36" FIBERGLASS SIDEWALK GUY ASSEMBLY,
VERTICAL CONSTRUCTION, 7/10 GUY WIRE

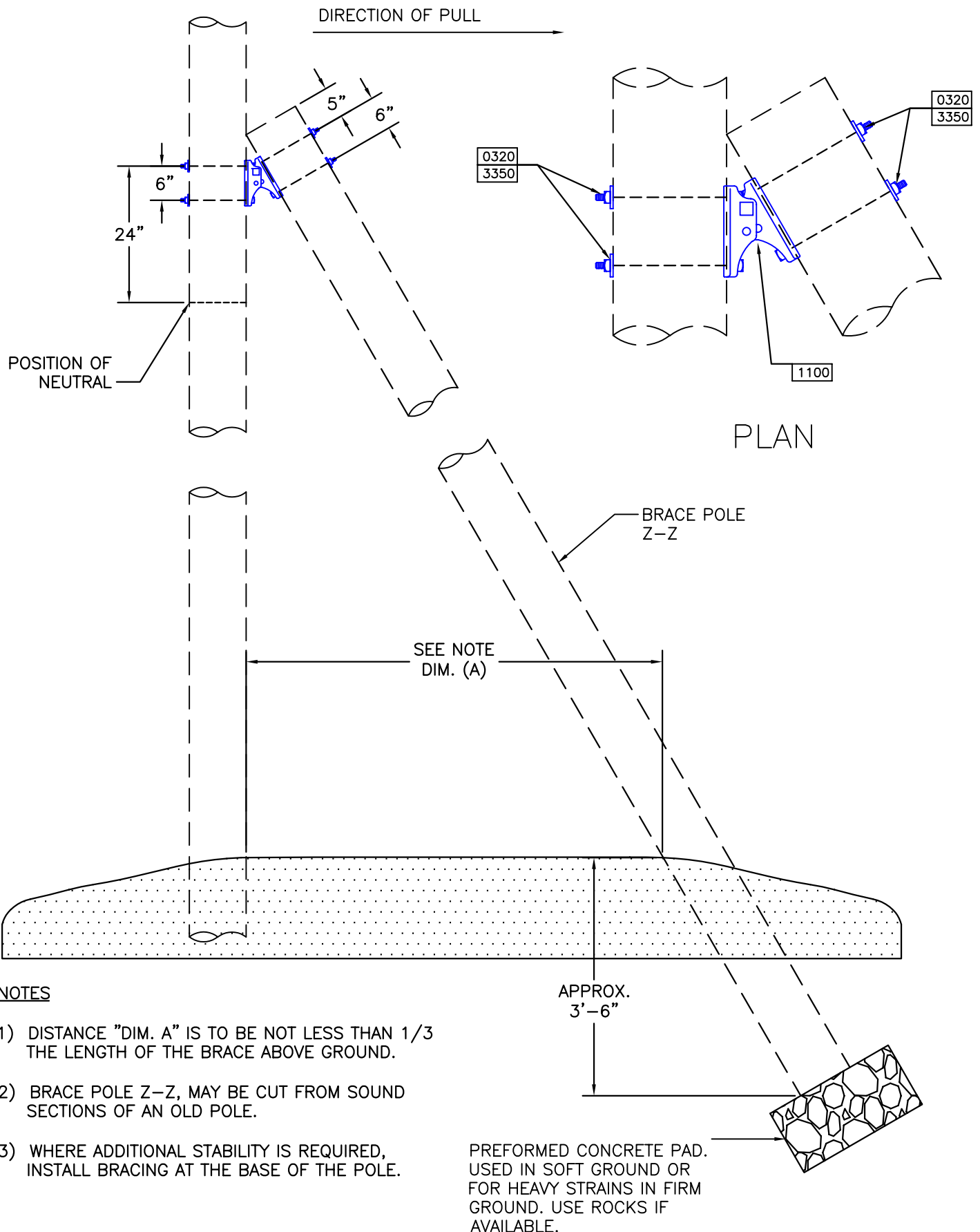
ISSUE#: REV 1
E16.2

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	4	BOLT, MACHINE 5/8" X 12"		
1290	1	DEAD END, GUY GRIP 7/10		
1502	1	GUY UNIT, SDWLK 36" W/ARMS		
1530	1	INSULATOR, GUY WIRE 6'		
2900	1	SQUEEZON, AL #2-#2		
3350	4	WASHER, SQUARE		
3440	10	WIRE, AL GROUND 4		
3560	9999	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JAN. 24, 2003
Old CU: E18	DWG Name: E18-1.DWG

14.4/24.9 KV,
SINGLE POLE,
PUSH BRACE OR GUY

ISSUE#: REV 1
E18.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

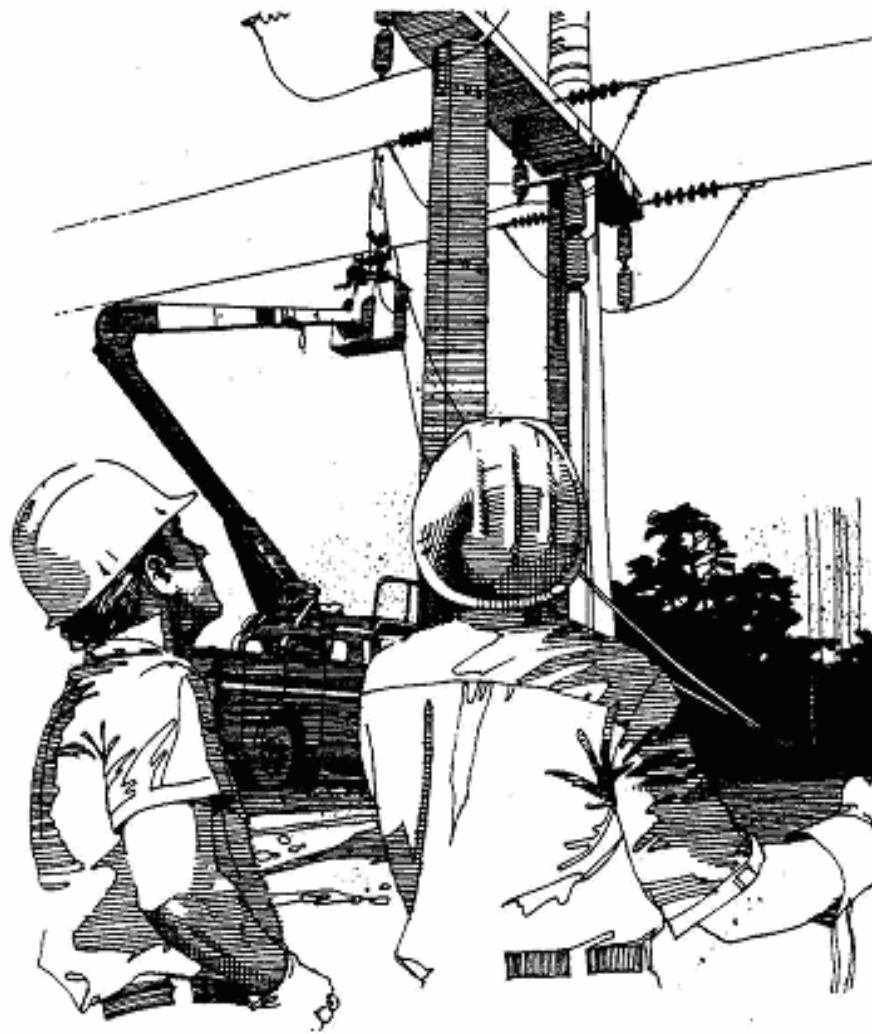
ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	4	BOLT, MACHINE 5/8" X 12"		
1100	1	CONNECTOR, PUSH BRACE		
3350	4	WASHER, SQUARE		

CONSTRUCTION UNITS

INDEX F: ANCHOR ASSEMBLY UNITS

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ANCHOR ASSEMBLY UNITS

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F2.6	14.4/24.9 KV, 8" SCREW ANCHOR	3 - 4
F2.8	14.4/24.9 KV, 10" SCREW ANCHOR	5 - 6
F2.10	14.4/24.9 KV, 15" SCREW ANCHOR	7 - 8
F2.82	14.4/24.9 KV, 10" SCREW ANCHOR, DOUBLE HELIX	9 - 10

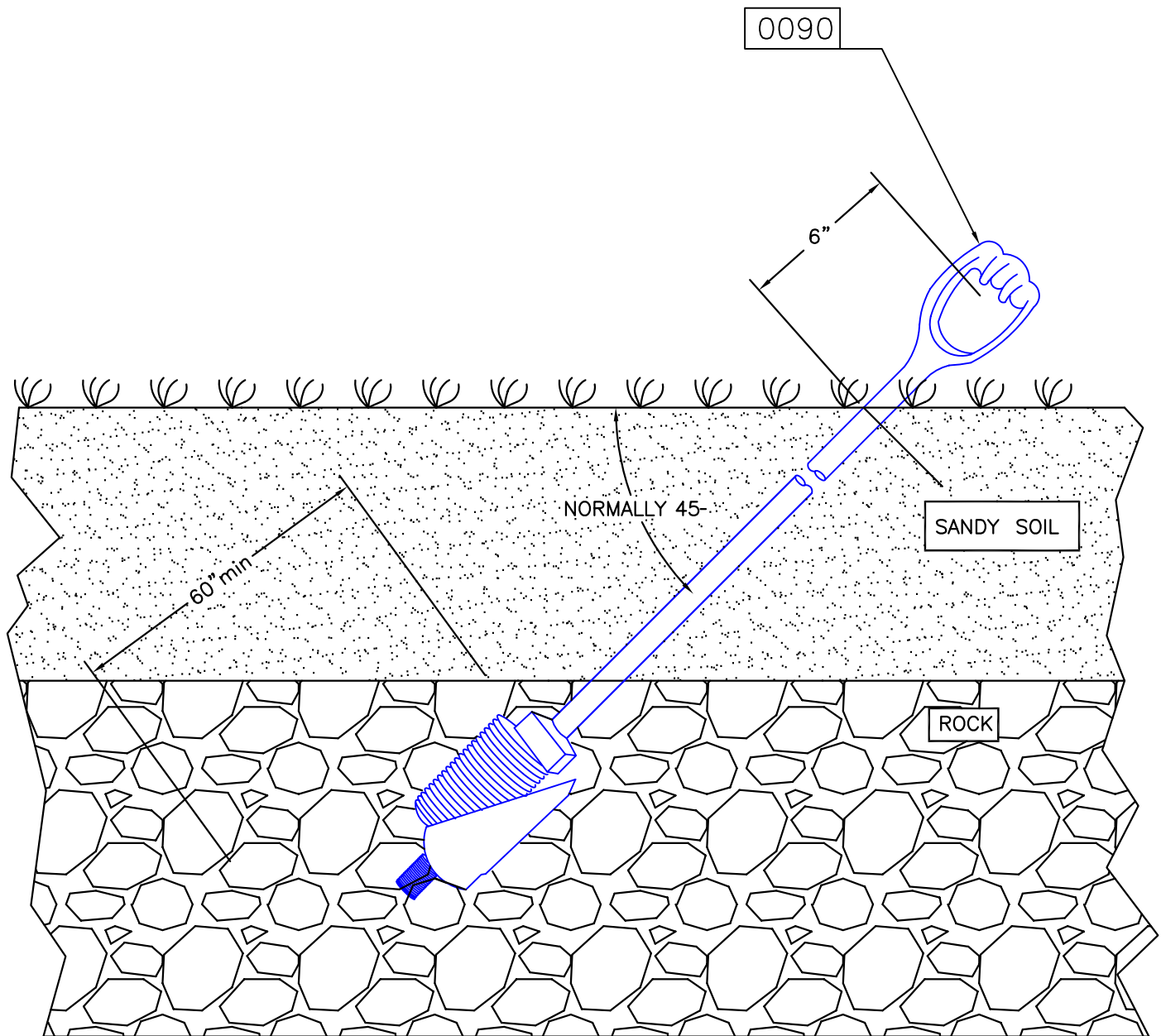
WREC CONSTRUCTION UNIT UPDATE TABLE

ANCHOR ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
F2-1	F2.1	F2.1	14.4/24.9 KV, ROCK ANCHOR	07/23/01	2/05/03
F1-2	F2.6	F2.6	14.4/24.9 KV, 8" SCREW ANCHOR	07/23/01	2/05/03
F1-3	F2.8	F2.8	14.4/24.9 KV, 10" SCREW ANCHOR	07/23/01	2/05/03
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--	--	F2.82	14.4/24.9 KV, 10" SCREW ANCHOR , DOUBLE HELIX	--	2/05/03



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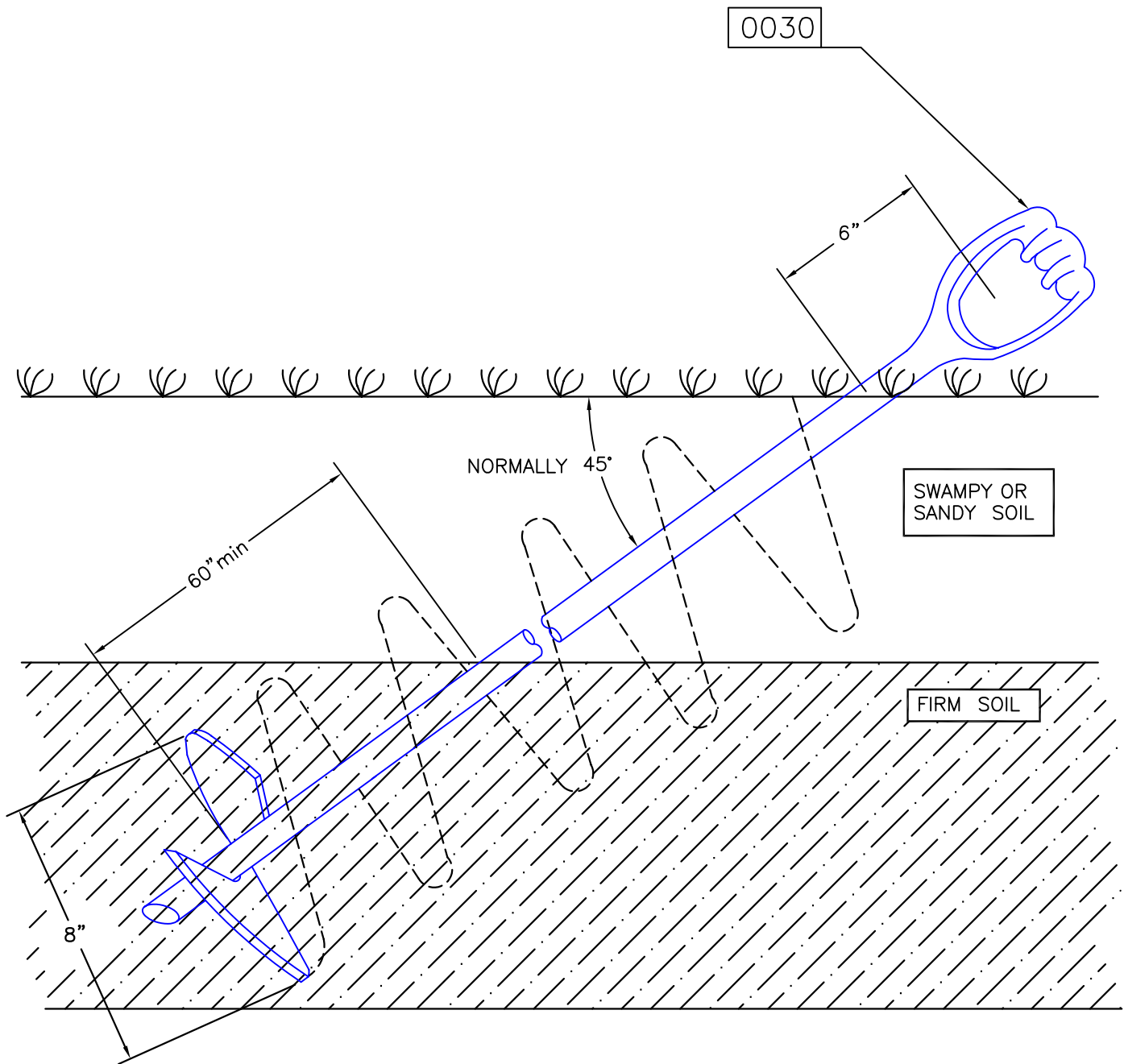


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV, ROCK ANCHOR	ISSUE#: REV 1
Approved By: WHP	Date Updated: NOV. 20, 2002		F2.1
Old CU: F2-1	DWG Name: F2-1.DWG		

CONSTRUCTION UNIT:	F2.1	AUTOCAD FILE:	F2-1.DWG
DESCRIPTION:	14.4/24.9 KV, ROCK ANCHOR	PDF FILE:	F2-1.PDF
		PDF SPEC.:	F2-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0090	1	ANCHOR, ROCK 53" X 2 3/8"		

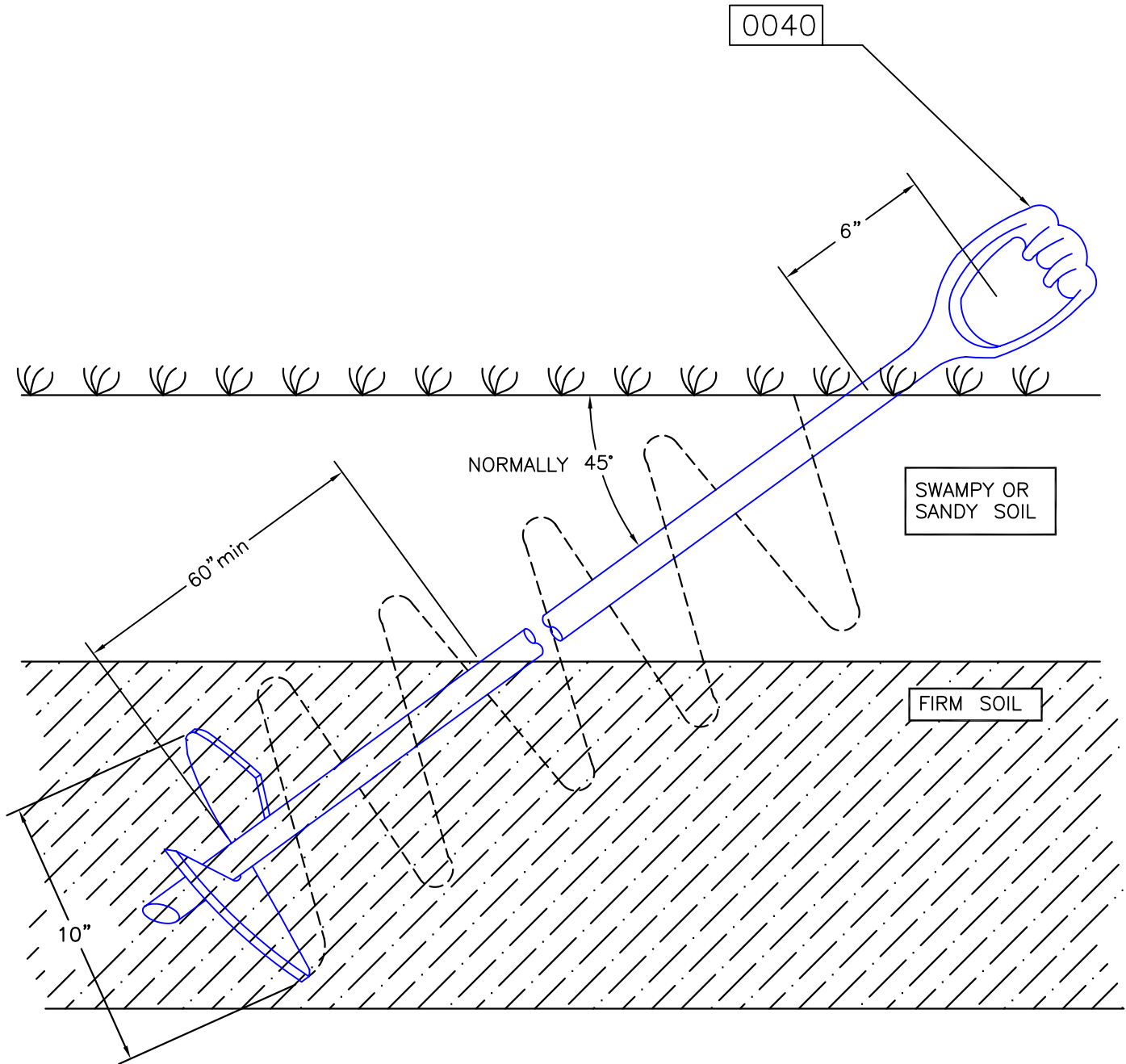


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV, 8" SCREW ANCHOR	ISSUE#: REV 1
Approved By: WHP	Date Updated: FEB. 5, 2003		F2.6
Old CU: F1-2	DWG Name: F2-6.DWG		

CONSTRUCTION UNIT:	F2.6	AUTOCAD FILE:	F2-6.DWG
DESCRIPTION:	14.4/24.9 KV, 8" SCREW ANCHOR	PDF FILE:	F2-6.PDF
		PDF SPEC.:	F2-6_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0030	1	ANCHOR 8"		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 5, 2003
Old CU: F1-3	DWG Name: F2-8.DWG

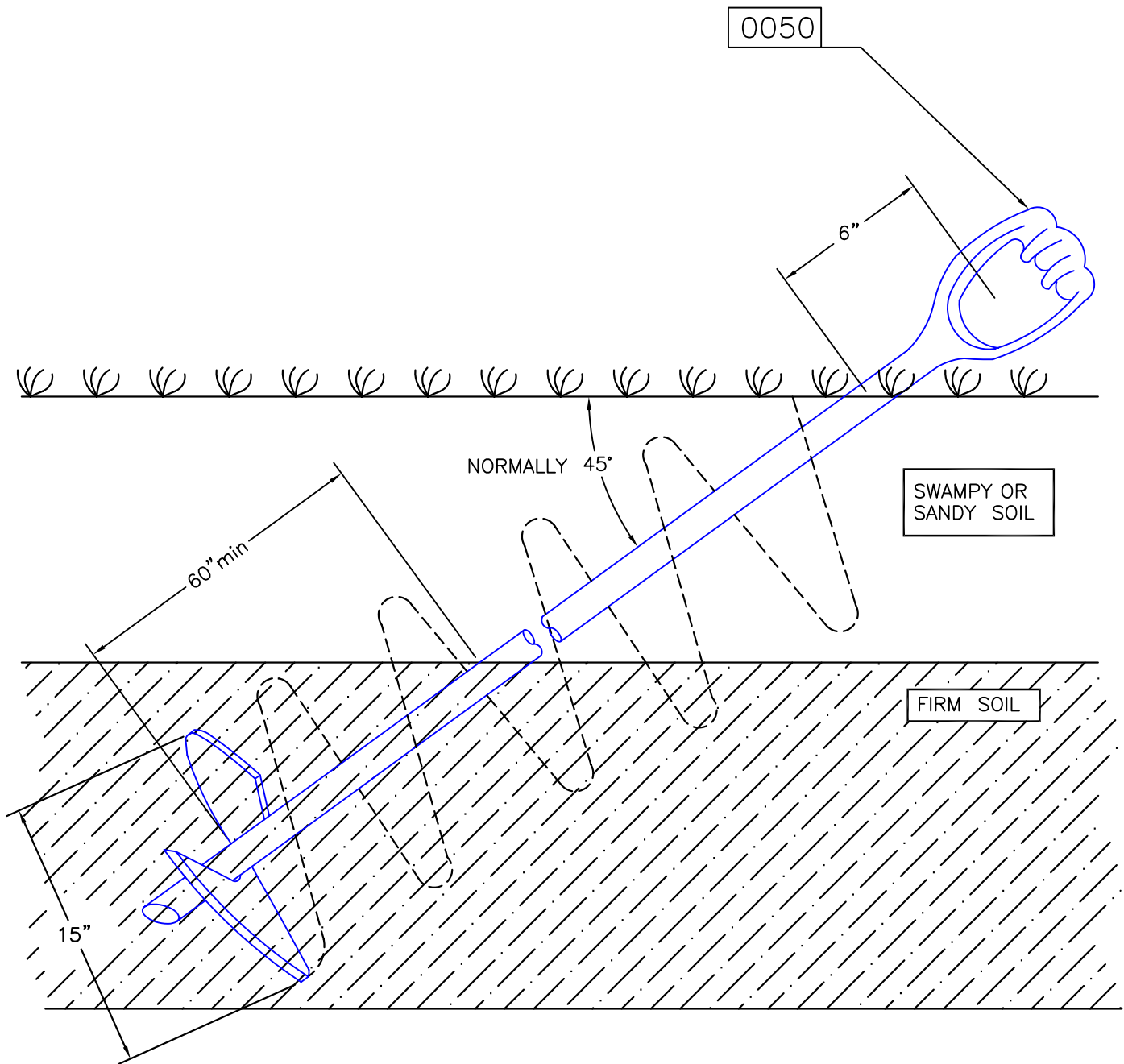
14.4/24.9 KV, 10" SCREW ANCHOR

ISSUE#: REV 1

F2.8

CONSTRUCTION UNIT:	F2.8	AUTOCAD FILE:	F2-8.DWG
DESCRIPTION:	14.4/24.9 KV, 10" SCREW ANCHOR	PDF FILE:	F2-8.PDF
		PDF SPEC.:	F2-8_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0040	1	ANCHOR 10"		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 5, 2003
Old CU: F1-4	DWG Name: F2-10.DWG

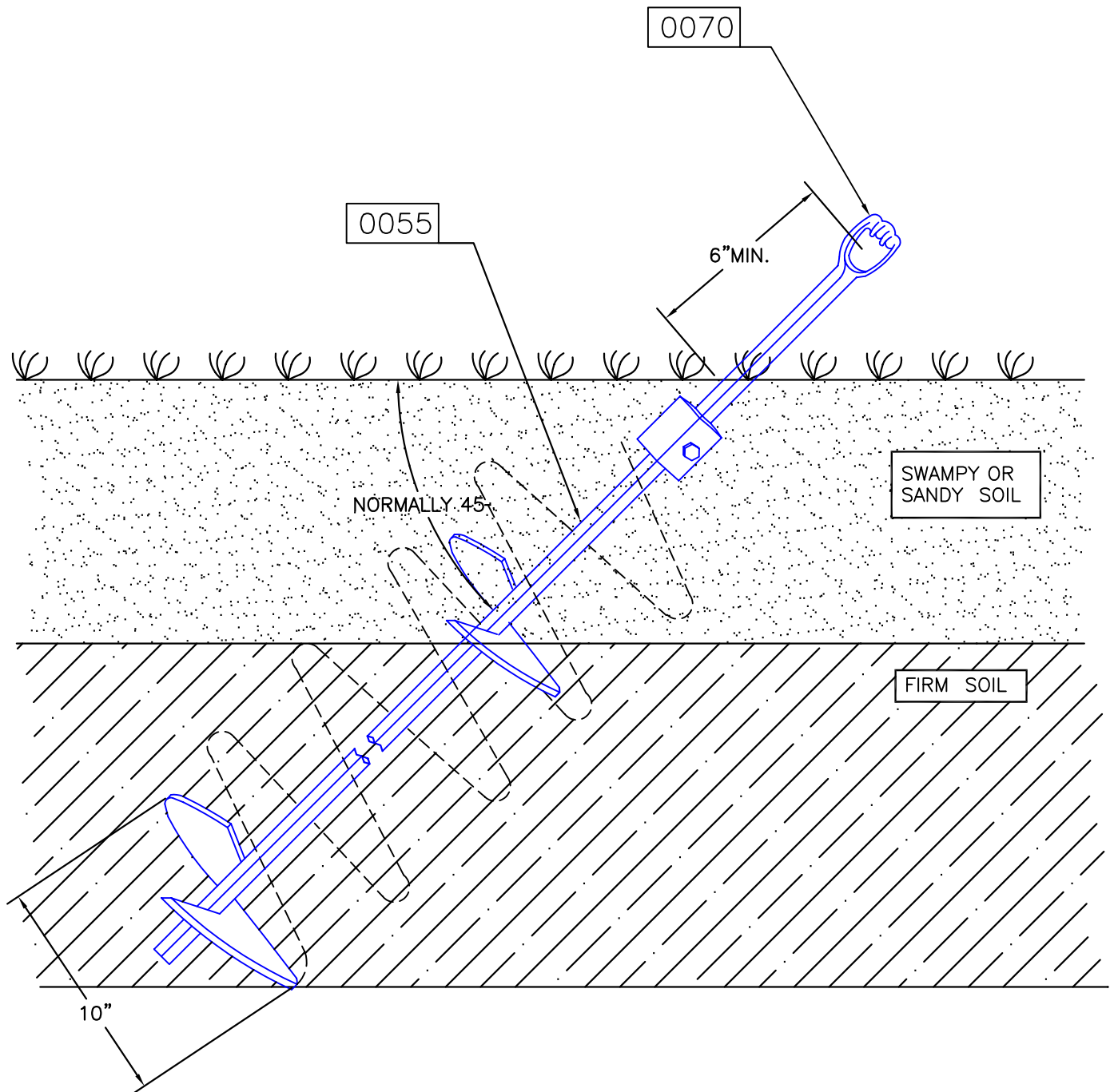
14.4/24.9 KV, 15" SCREW ANCHOR

ISSUE#: REV 1

F2.10

CONSTRUCTION UNIT:	F2.10	AUTOCAD FILE:	F2-10.DWG
DESCRIPTION:	14.4/24.9 KV, 15" SCREW ANCHOR	PDF FILE:	F2-10.PDF
		PDF SPEC.:	F2-10_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0050	1	ANCHOR 15"		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 5, 2003
Old CU:	DWG Name: F2-82.DWG

14.4/24.9 KV, 10" SCREW ANCHOR,
DOUBLE HELIX

ISSUE#: REV 1
F2.82

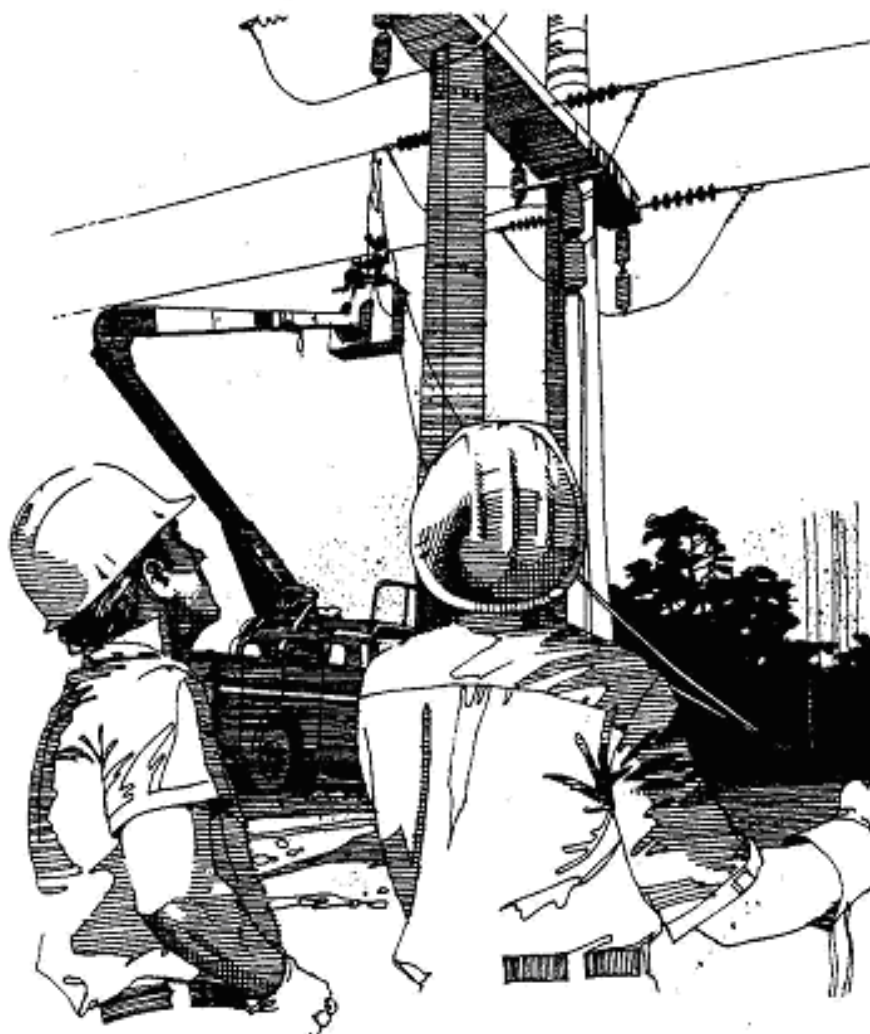
CONSTRUCTION UNIT:	F2.82	AUTOCAD FILE:	F2-82.DWG
DESCRIPTION:	14.4/24.9 KV ,10" SCREW ANCHOR, DOUBLE HELIX	PDF FILE:	F2-82.PDF
		PDF SPEC.:	F2-82_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0055	1	ANCHOR, DBL HELIX 10" W/NUT		
0070	1	ANCHOR, EXTENSION FOR #0047		

CONSTRUCTION UNITS

INDEX FO: FIBER OPTIC ATTACHMENT ASSEMBLY UNITS

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Updated: 5/4/2009

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NOTES

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NOTES

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FIBER OPTIC ATTACHMENT, ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
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FO.A1.C	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION, CONCRETE POLE	15 - 16
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FIBER OPTIC ATTACHMENT, ASSEMBLY UNITS

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FO.96FIBER	FIBER OPTIC CABLE 96 FIBERS	35 - 36
FO.B1	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	37 - 38
FO.B1.C	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION, CONCRETE POLE	39 - 40
FO.B1.SO	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 20 DEGREE ANGLE, TANGENT WITH STAND OFF BRACKET , VERTICAL CONSTRUCTION	41 - 42
FO.B1.T	TRANSMISSION POLE; FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	42 - 44
FO.B2	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION	45 – 46
FO.B2.C	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION, CONCRETE POLE	47 – 48

FIBER OPTIC ATTACHMENT, ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
FO.B4	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 10 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	49 - 50
FO.B5	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, SINGLE DEADEND, VERTICAL CONSTRUCTION	51 - 52
FO.B5.T	TRANSMISSION POLE; FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; SINGLE DEADEND, VERTICAL CONSTRUCTION	53 - 54
FO.B6	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, SINGLE DOUBLE DEADEND, VERTICAL CONSTRUCTION	55 - 56
FO.B6.S	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, SINGLE DOUBLE DEADEND, FIBER OPTIC SPACK SPAN, VERTICAL CONSTRUCTION	57 - 58
FO.M45	FIBER OPTIC ATTACHMENT, 48 OR 96 FIBER CABLES, SPLICE TRAY CABINET, VERTICAL CONSTRUCTION	59 - 60
FO.SO	FIBER OPTIC ATTACHMENT, STANDOFF BRACKET	61 - 62



WREC CONSTRUCTION UNIT UPDATE TABLE

FIBER OPTIC ATTACHMENT, ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
FO-E1-1	--	FO.E1.1	FIBER OPTIC ATTACHMENT, SINGLE DOWN GUY, 7/12 GUY WIRE	--	2/07/02
FO-E1-2	--	FO.E1.2	FIBER OPTIC ATTACHMENT, SINGLE DOWN GUY, 7/10 GUY WIRE	--	2/07/02
FO-E3-10	--	FO.E3.10	FIBER OPTIC ATTACHMENT, GUY GUARD	--	2/07/02
FO-F1-2	--	FO.F1.2	FIBER OPTIC ATTACHMENT, 8" SCREW ANCHOR	--	2/05/02
FO-F1-3	--	FO.F1.3	FIBER OPTIC ATTACHMENT, 10" SCREW ANCHOR	--	2/05/02
--	--	FO.48FIBER	FIBER OPTIC CABLE, 48 FIBERS	--	4/22/09
FO-A1	--	FO.A1	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	--	2/06/02
FO-A1-C	--	FO.A1.C	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION, CONCRETE POLE	--	2/06/02
FO-A1-SO	--	FO.A1.SO	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, 0 TO 20 DEGREE ANGLE, TANGENT WITH STAND OFF BRACKET, VERTICAL CONSTRUCTION	--	2/06/02
--	--	FO.A1.T	TRANSMISSION POLE, FIBER OPTIC ATTACHMENT, 48 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.A2	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.A2.C	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION, CONCRETE POLE	--	4/22/09
FO-A4	--	FO.A4	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, 10 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	--	2/06/02
FO-A5	--	FO.A5	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, SINGLE DEADEND, VERTICAL CONSTRUCTION	--	2/06/02
--	--	FO.A5.T	TRANSMISSION POLE, FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, SINGLE DEADEND, VERTICAL CONSTRUCTION	--	4/22/09
FO-A6	--	FO.A6	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	--	9/12/08
--	--	FO.A6.S	FIBER OPTIC ATTACHMENT, 48 FIBER CABLE, DOUBLE DEADEND, FIBER OPTIC SLACK SPAN, VERTICAL CONSTRUCTION	--	2/06/02

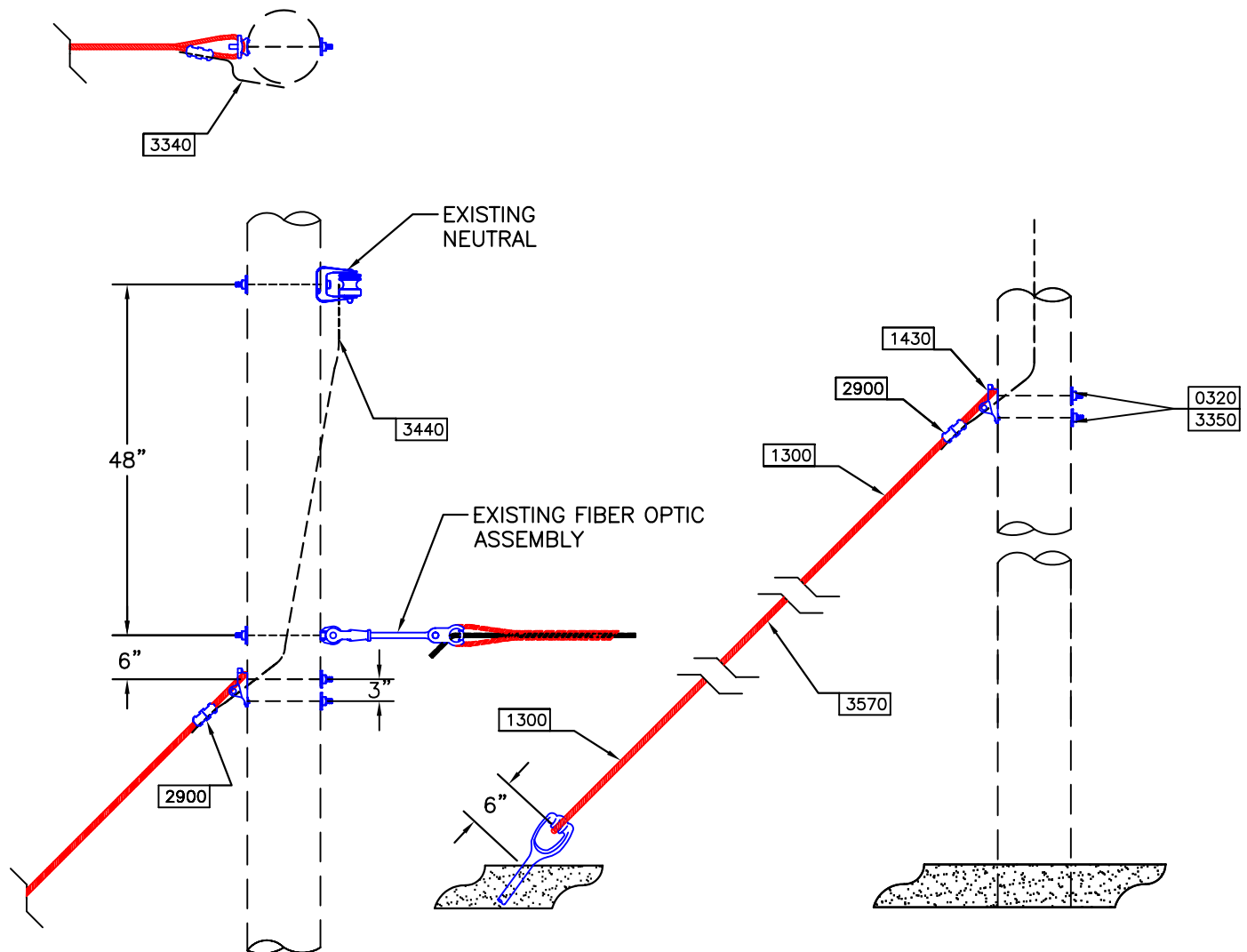


WREC CONSTRUCTION UNIT UPDATE TABLE

FIBER OPTIC ATTACHMENT, ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	--	FO.B1	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B1.C	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION, CONCRETE POLE	--	4/22/09
--	--	FO.B1.SO	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, 0 TO 20 DEGREE ANGLE, TANGENT WITH STAND OFF BRACKET, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B1.T	TRANSMISSION POLE, FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TANGENT, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B2	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B2.C	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, 0 TO 10 DEGREE ANGLE, TWO TANGENTS, VERTICAL CONSTRUCTION, CONCRETE POLE	--	4/22/09
--	--	FO.B4	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, 10 TO 90 DEGREE ANGLE, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B5	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, SINGLE DEADEND, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B5.T	TRANSMISSION POLE, FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, SINGLE DEADEND, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B6	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, DOUBLE DEADEND, VERTICAL CONSTRUCTION	--	4/22/09
--	--	FO.B6.S	FIBER OPTIC ATTACHMENT, 96 FIBER CABLE, DOUBLE DEADEND, FIBER OPTIC SLACK SPAN, VERTICAL CONSTRUCTION	--	4/22/09
FO-M45	--	FO.M45	FIBER OPTIC ATTACHMENT, 48 OR 96 FIBER CABLE, SPLICE TRAY CABINET, VERTICAL CONSTRUCTION	--	2/06/02





NOTE

- 1) SPECIFY ONE E1.____ UNIT FOR EACH GUY USED ON A MUTIPLE GUY STRUCTURE AND REFER TO THE MUTIPLE DOWN GUY FRAMING GUIDE.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 07, 2003
Old CU: FO-E1-1	DWG Name: FO-E1-1.DWG

FIBER OPTIC ATTACHMENT,
SINGLE DOWN GUY,
7/12 GUY WIRE

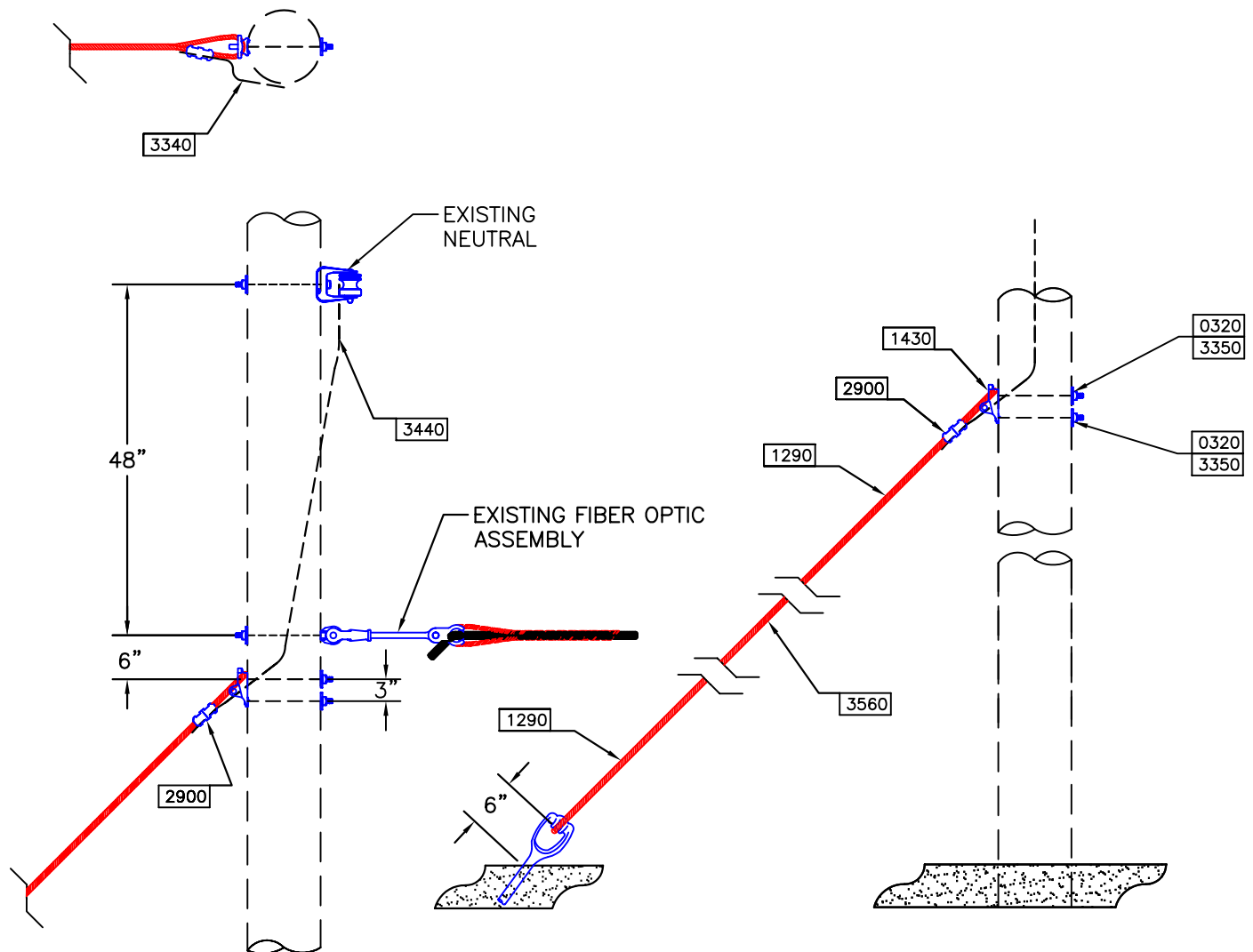
ISSUE#: REV 1
FO.E1.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1300	2	DEAD END, GUY GRIP 7/12		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	2	WIRE, AL GROUND 4		
3570	35	WIRE, GUY 7/12		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTE

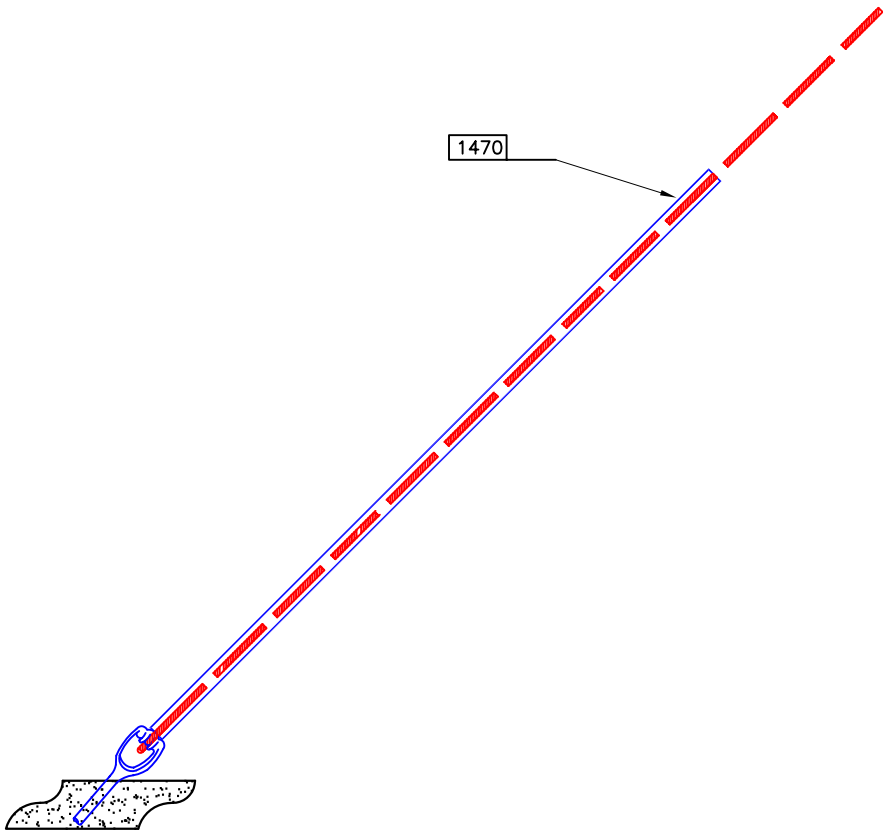
- 1) SPECIFY ONE E1.____ UNIT FOR EACH GUY USED ON A MUTIPLE GUY STRUCTURE AND REFER TO THE MUTIPLE DOWN GUY FRAMING GUIDE.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	FIBER OPTIC ATTACHMENT, SINGLE DOWN GUY, 7/10 GUY WIRE	ISSUE#: REV 2
Approved By: WHP	Date Updated: JUNE 07, 2004		FO.E1.2
Old CU: FO-E1-2	DWG Name: FO-E1-2.DWG		

CONSTRUCTION UNIT:	FO.E1.2	AUTOCAD FILE:	FO-E1-2.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT, SINGLE DOWN GUY, 7/10 GUY WIRE	PDF FILE:	FO-E1-2.PDF
		PDF SPEC.:	FO-E1-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1290	2	DEAD END, GUY GRIP 7/10		
1430	1	GUY ATTACHMENT 3/4" W/EYE		
2900	1	SQUEEZON, AL #2-#2		
3350	2	WASHER, SQUARE		
3440	5	WIRE, AL GROUND 4		
3560	35	WIRE, GUY 7/10		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10

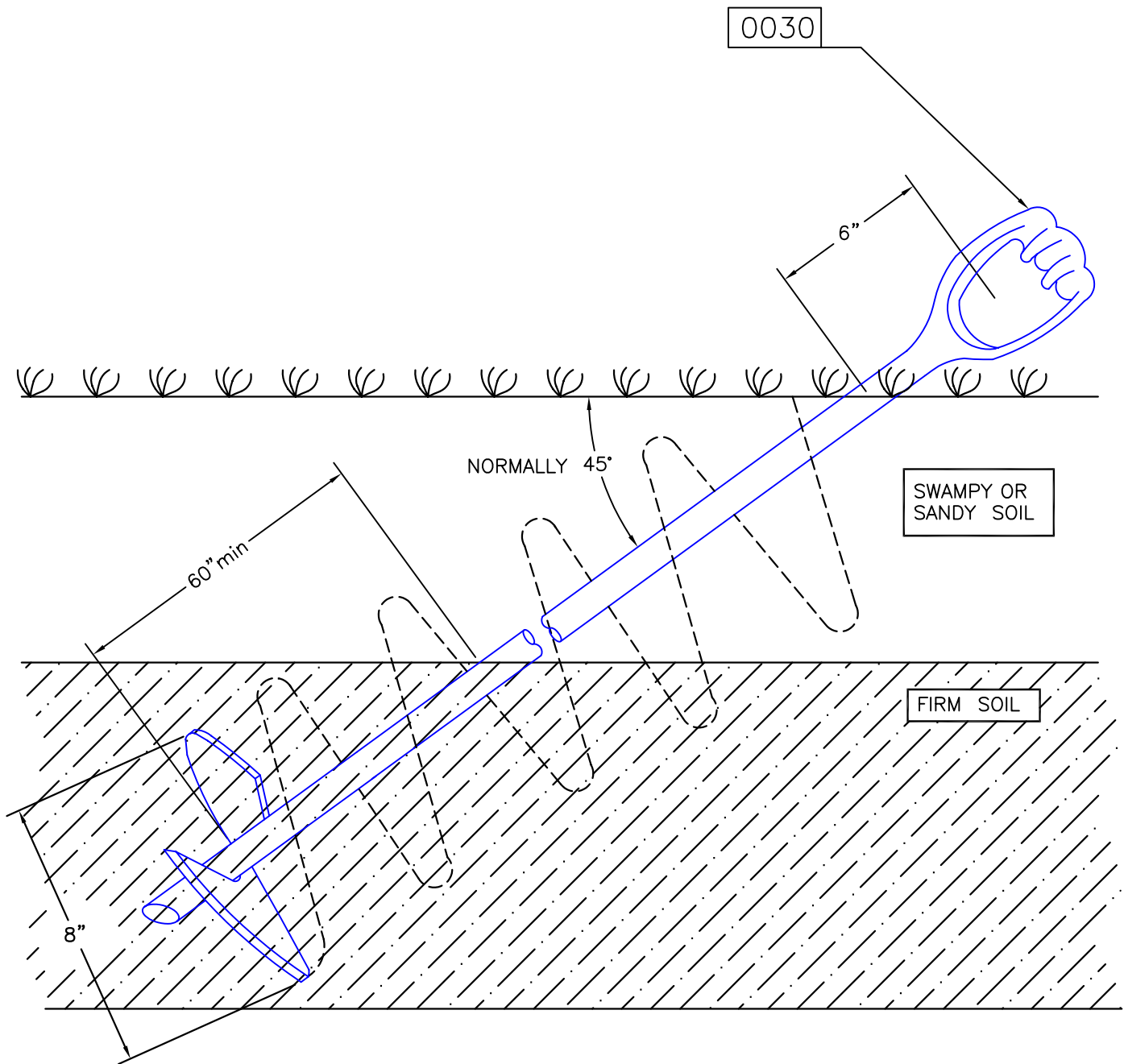


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	FIBER OPTIC ATTACHMENT, GUY GUARD	ISSUE#: REV 1
Approved By: WHP	Date Updated: DEC. 26, 2002		FO.E3.10
Old CU: FO-E3-10	DWG Name: FO-E3-10.DWG		

CONSTRUCTION UNIT:	FO.E3.10	AUTOCAD FILE:	FO-E3-10.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT, GUY GUARD	PDF FILE:	FO-E3-10.PDF
		PDF SPEC.:	FO-E3-10_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1470	1	GUY GUARD, PLASTIC PG5518		



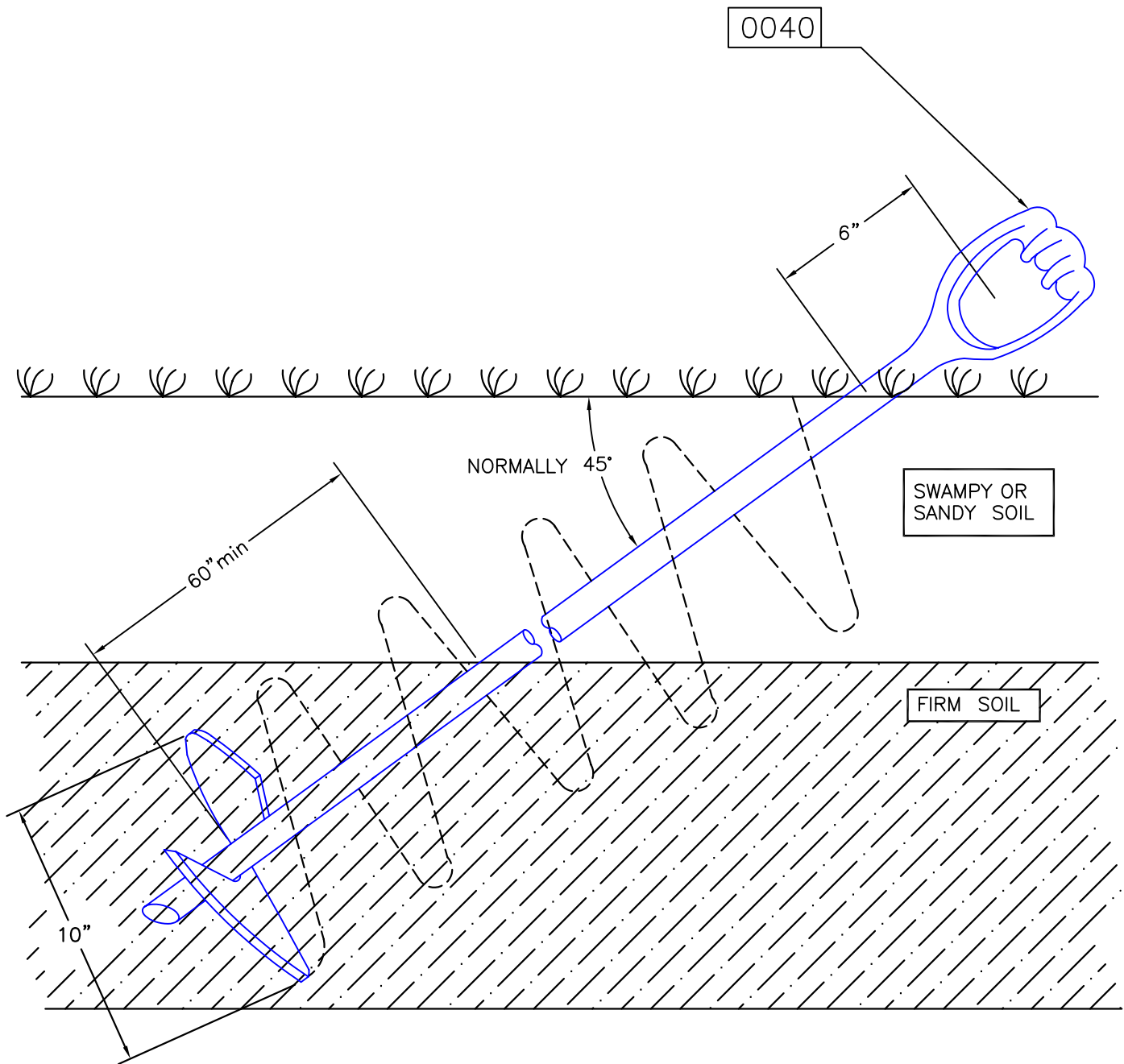
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 5, 2003
Old CU: FO-F1-2	DWG Name: FO-F1-2.DWG

FIBER OPTIC ATTACHMENT,
8" SCREW ANCHOR

ISSUE#: REV 1
FO.F1.2

CONSTRUCTION UNIT:	FO.F1.2	AUTOCAD FILE:	FO-F1-2.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT, 8" SCREW ANCHOR	PDF FILE:	FO-F1-2.PDF
		PDF SPEC.:	FO-F1-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0030	1	ANCHOR 8"		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: FEB. 5, 2003
Old CU: FO-F1-3	DWG Name: FO-F1-3.DWG

FIBER OPTIC ATTACHMENT,
10" SCREW ANCHOR

ISSUE#: REV 1
FO.F1.3

CONSTRUCTION UNIT:	FO.F1.3	AUTOCAD FILE:	FO-F1-3.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT, 10" SCREW ANCHOR	PDF FILE:	FO-F1-3.PDF
		PDF SPEC.:	FO-F1-3_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

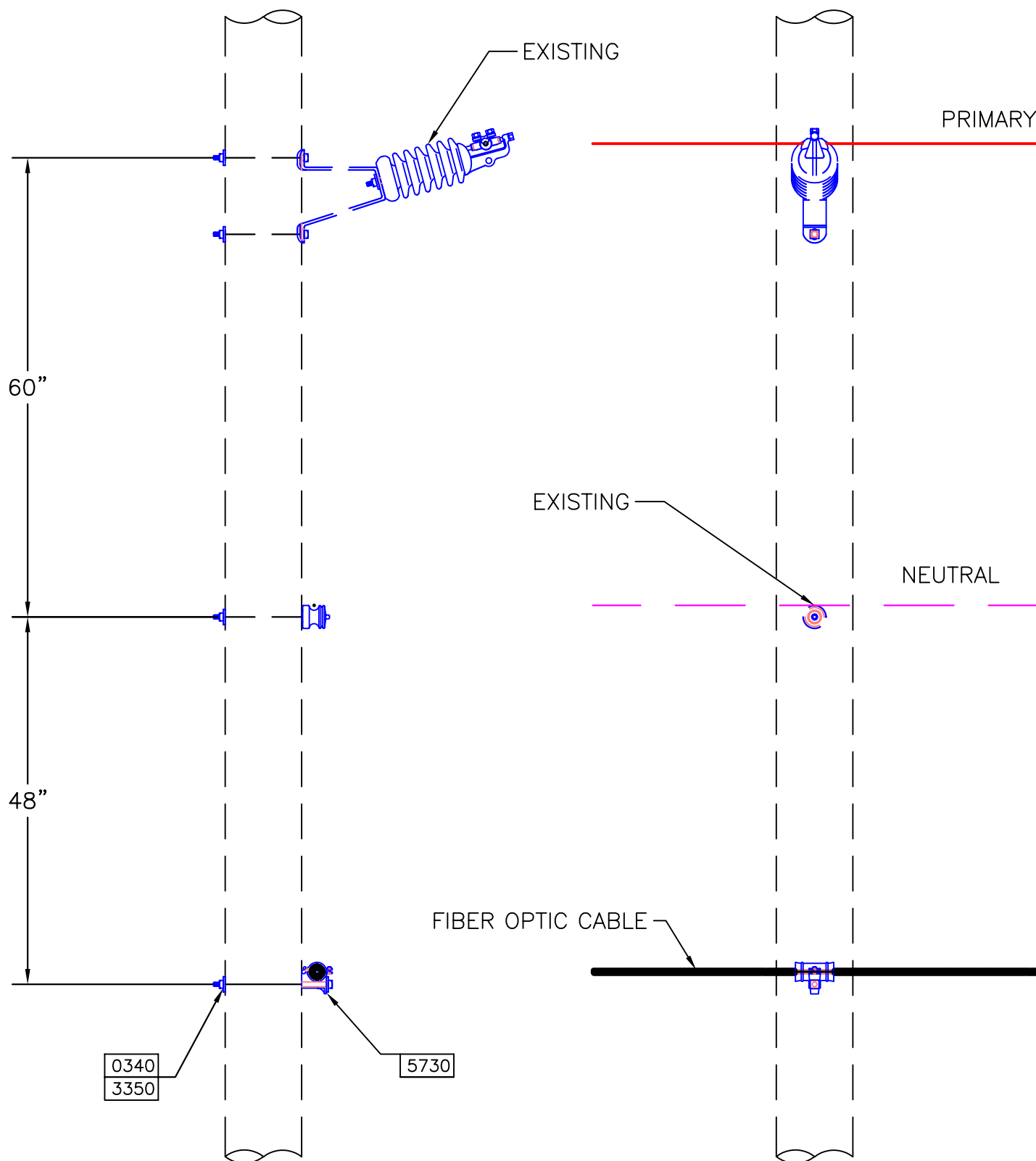
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0040	1	ANCHOR 10"		

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5770	7777	CABLE; FIBER OPTIC 48FIBER		

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DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 4/21/2009

Old CU: FO-A1 DWG Name: FO-A1.DWG

FIBER OPTIC ATTACHMENT; 48 FIBER CABLE;
0 TO 10 DEG ANGLE; TANGENT;
VERTICAL CONSTRUCTION

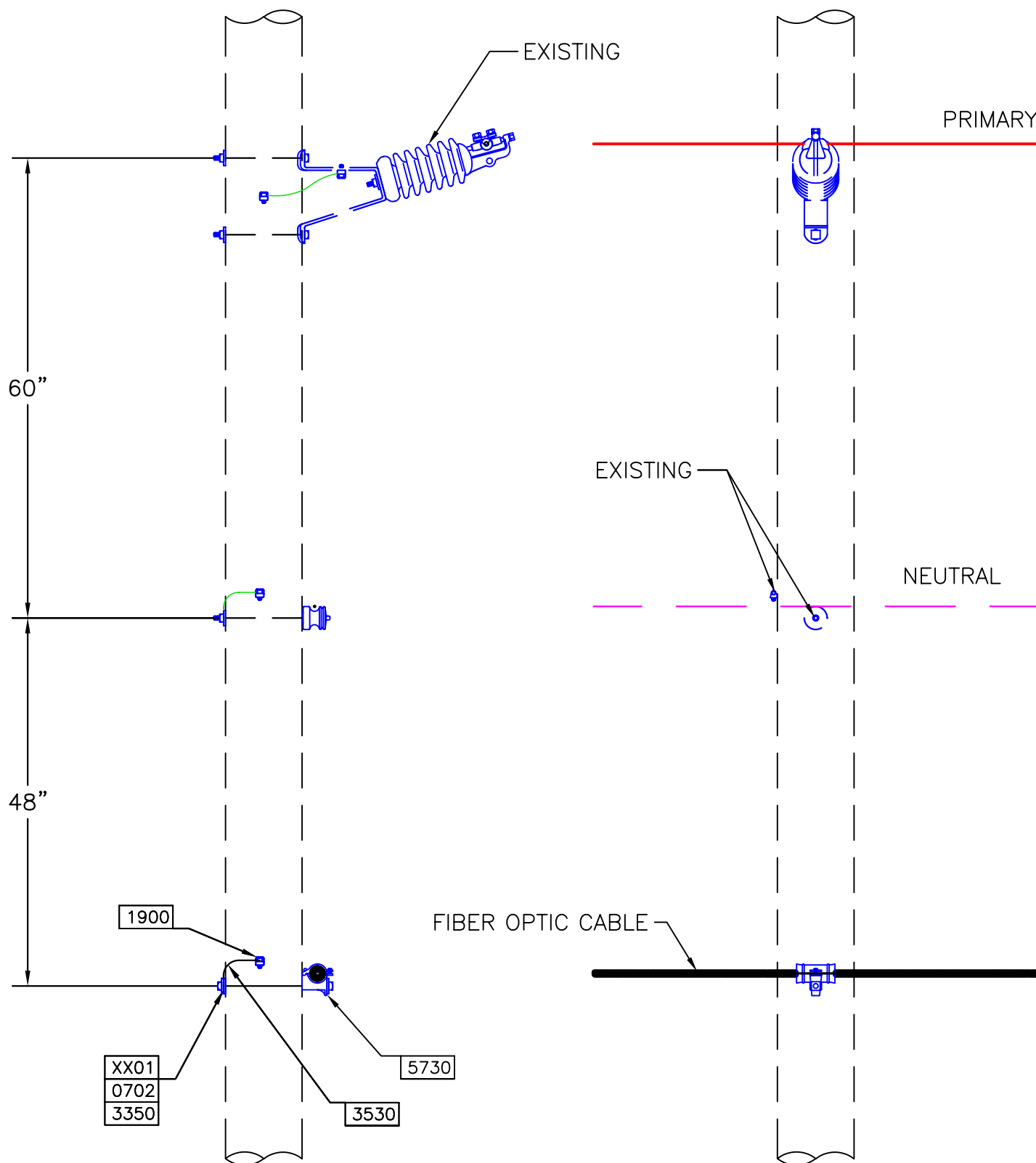
REV# : 002

F0.A1

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0340	1	BOLT; MACHINE 5/8" X 16"		
3350	1	WASHER; SQUARE		
5730	1	ATTACHMENT; TANGENT LIMIT TENS		



Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 4/22/2009

Old CU: FO-A1 DWG Name: FO-A1-C.DWG

FIBER OPTIC ATTACHMENT; 48 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT;
VERTICAL CONSTRUCTION; CONCRETE POLE

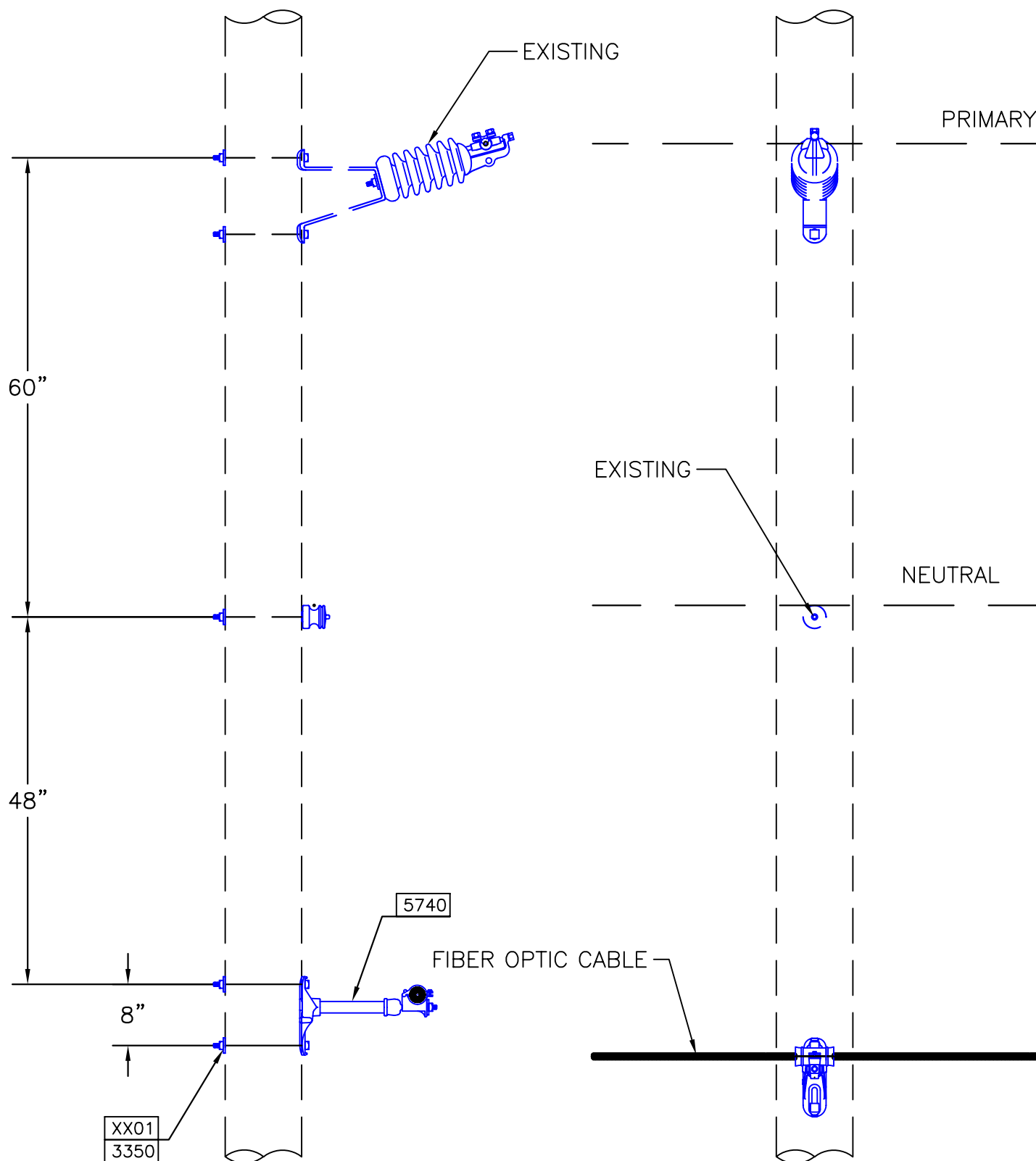
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F0.A1.C

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	FO.A1.C	AUTOCAD FILE:	FO-A1-C.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT; 48 FIBER CABLE: 0 TO 10 DEGREE ANGLE; TANGENT; VERTICAL CONSTRUCTION; CONCRETE POLE	PDF FILE:	FO-A1-C.PDF
		PDF SPEC.:	FO-A1-C_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	10
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0702	1	CLAMP; GRD WIRE 5/8"		
1900	1	LUG; TRANSFORMER GROUND		
3350	2	WASHER; SQUARE		
3530	2	WIRE; CU BSD 4		
5730	1	ATTACHMENT; TANGENT LIMIT TENS		
XX01	1	BOLT; MACHINE 5/8" X REQ. LENG	P	2



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 4/22/2009
Old CU: F0-A1-SO	DWG Name: F0-A1-SO.DWG

FIBER OPTIC ATTACHMENT; 48 FIBER CABLE;
0 TO 20 DEG ANGLE; TANGENT WITH STAND-OFF
BRACKET; VERTICAL CONSTRUCTION;

REV# : 002

F0.A1.SO

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **FO.A1.SO**

AUTOCAD FILE: **FO-A1-SO.DWG**

DESCRIPTION: **FIBER OPTIC ATTACHMENT; 48 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT; WITH
STANDOFF BRACKET; VERTICAL
CONSTRUCTION**

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PDF SPEC.: **FO-A1-SO_SPEC.PDF**

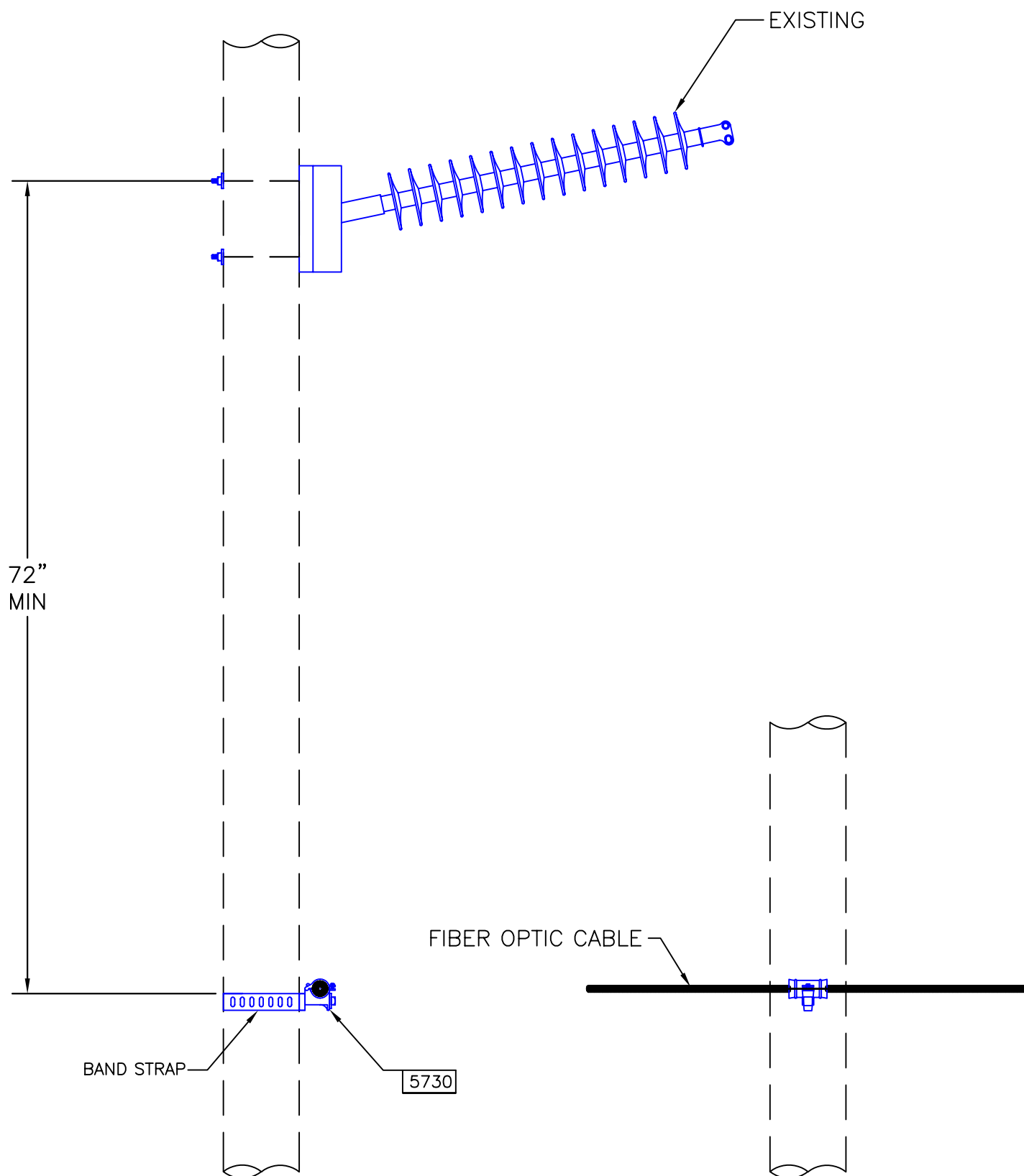
ANGLE FROM: **0**

ANGLE TO: **20**

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
3350	2	WASHER; SQUARE		
5740	1	BRACKET; STAND OFF KIT 18" FIBER O		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 4/21/2009
Old CU: —	DWG Name: F0-A1.T.DWG

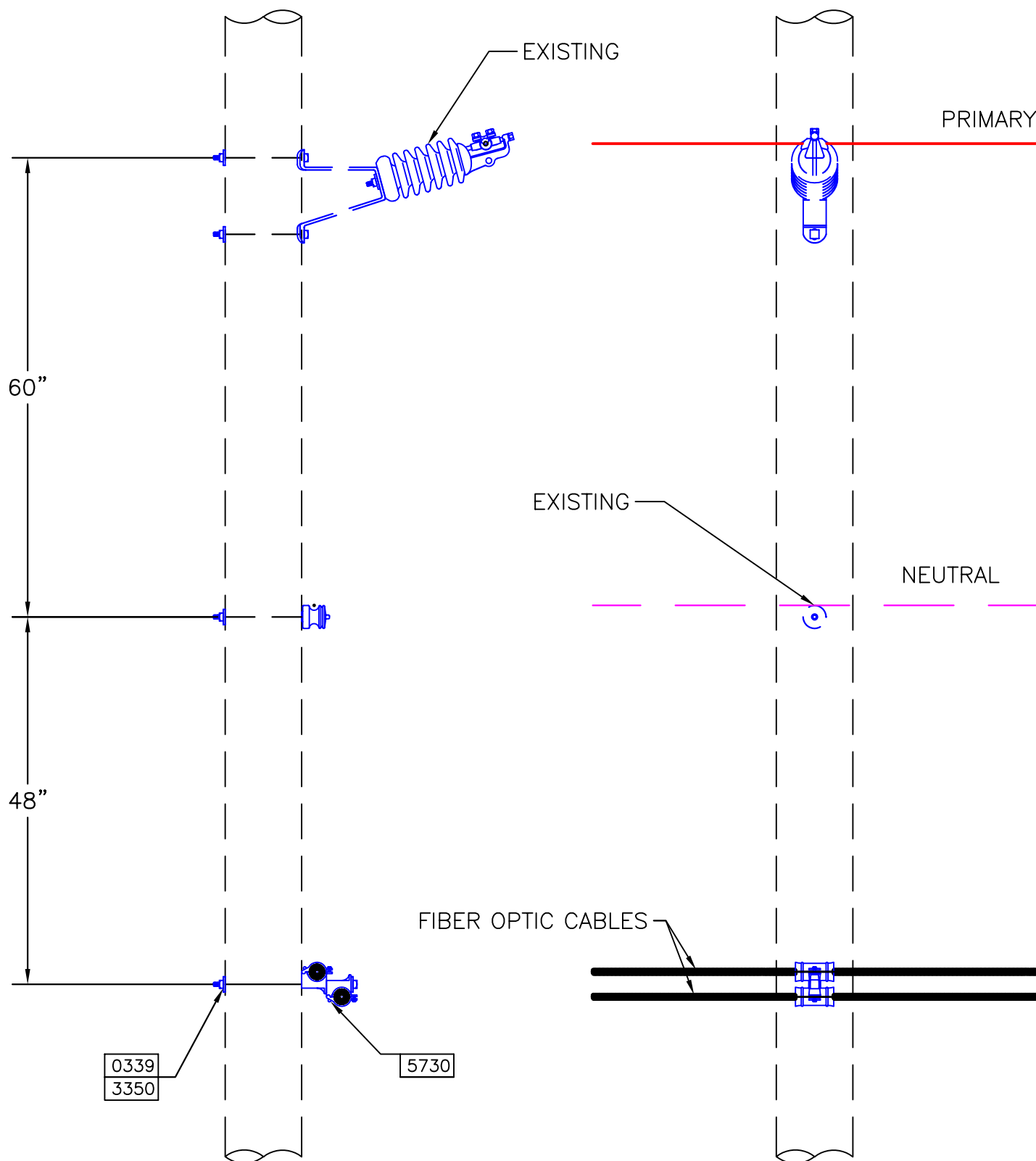
TRANSMISSION POLE; FIBER OPTIC ATTACHMENT;
48 FIBER CABLE; 0 TO 10 DEG ANGLE;
TANGENT; VERTICAL CONSTRUCTION

REV# : 001
F0.A1.T

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5730	1	ATTACHMENT; TANGENT LIMIT TENS		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: 4/22/2009
Old CU: FO-A1	DWG Name: FO-A2.DWG

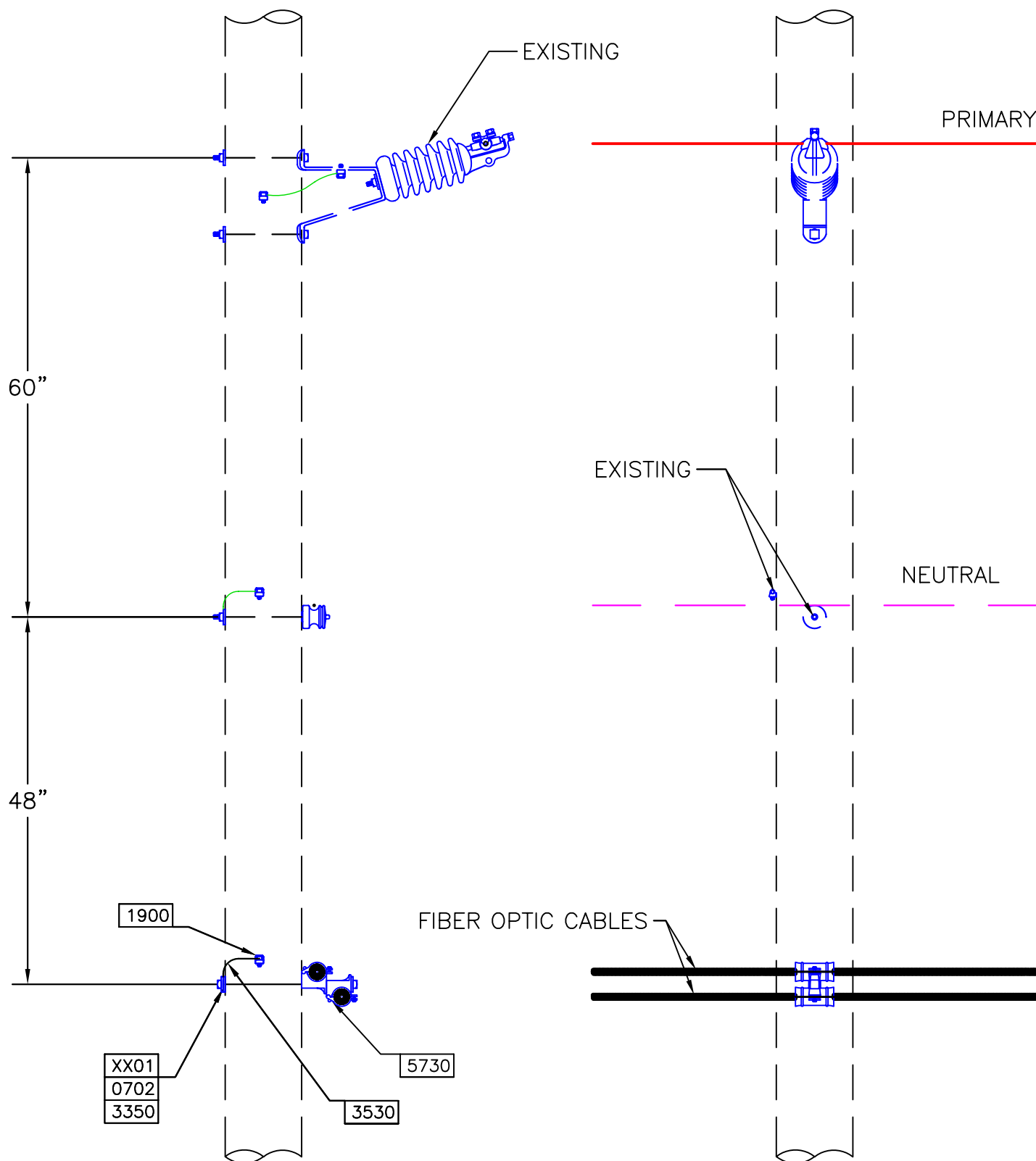
FIBER OPTIC ATTACHMENT; 48 FIBER CABLE;
0 TO 10 DEG ANGLE; TWO TANGENTS;
VERTICAL CONSTRUCTION

REV# : 000
FO.A2

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A2"/>	AUTOCAD FILE:	<input type="text" value="FO-A2.DWG"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0339	1	BOLT; MACHINE 5/8" X 18"		
3350	1	WASHER; SQUARE		
5730	2	ATTACHMENT; TANGENT LIMIT TENS		



Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: F0-A1	DWG Name: F0-A2-C.DWG

FIBER OPTIC ATTACHMENTS; 48 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT; VERTICAL
CONSTRUCTION; CONCRETE POLE

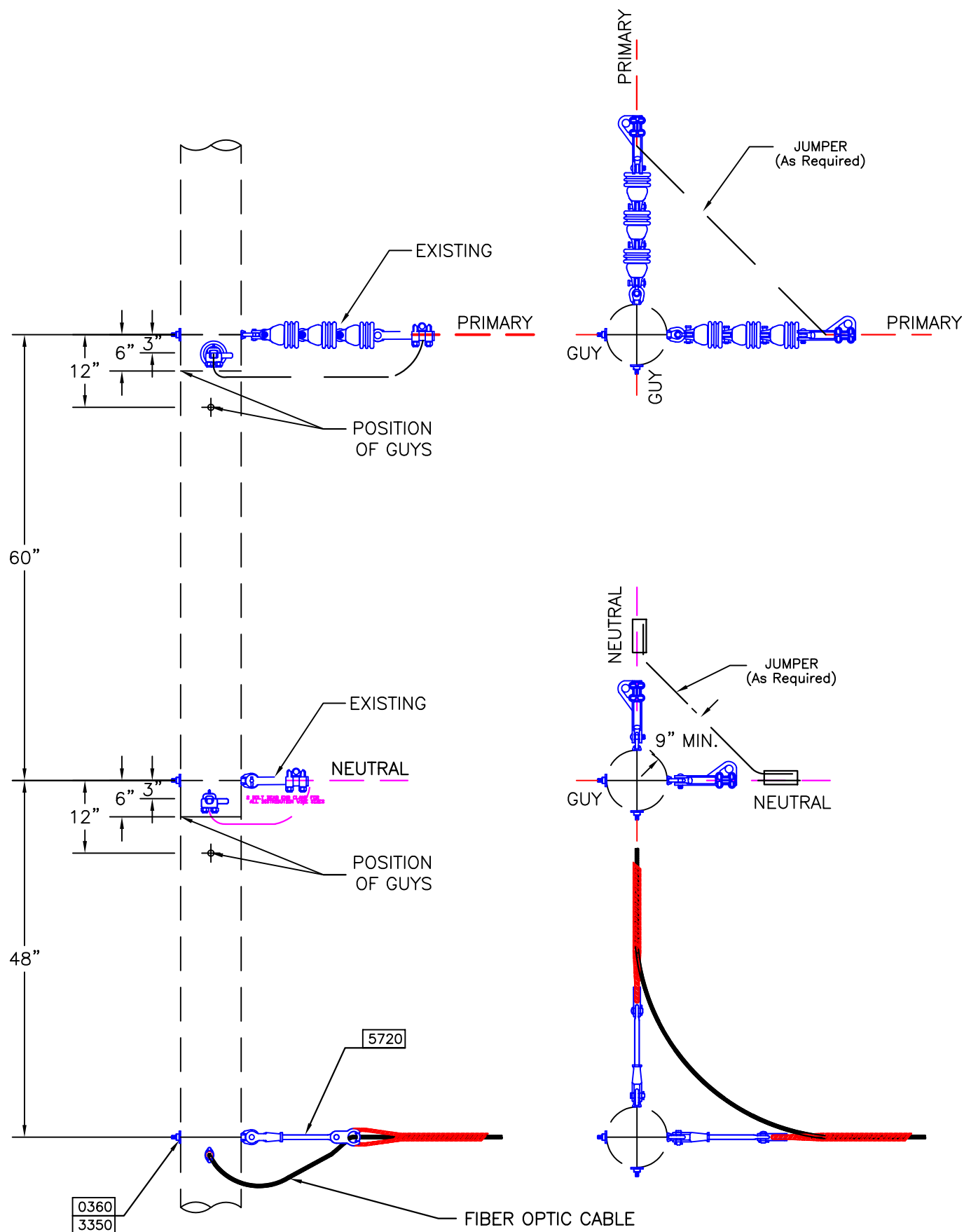
REV# : 000

F0.A2.C

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	FO.A2.C	AUTOCAD FILE:	FO-A2-C.DWG
DESCRIPTION:	FIBER OPTIC ATTACHMENT;48 FIBER CABLE; 0 TO 10 DEGREE ANGLE; TWO TANGENTS; VERTICAL CONSTRUCTION; CONCRETE POLE	PDF FILE:	FO-A2-C.PDF
		PDF SPEC.:	FO-A2-C_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	10
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0702	1	CLAMP; GRD WIRE 5/8"		
1900	1	LUG; TRANSFORMER GROUND		
3350	2	WASHER; SQUARE		
3530	2	WIRE; CU BSD 4		
5730	2	ATTACHMENT; TANGENT LIMIT TENS		
XX01	1	BOLT; MACHINE 5/8" X REQ. LENG	P	2



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 4/22/2009
Old CU: FO-A4	DWG Name: FO-A4.DWG

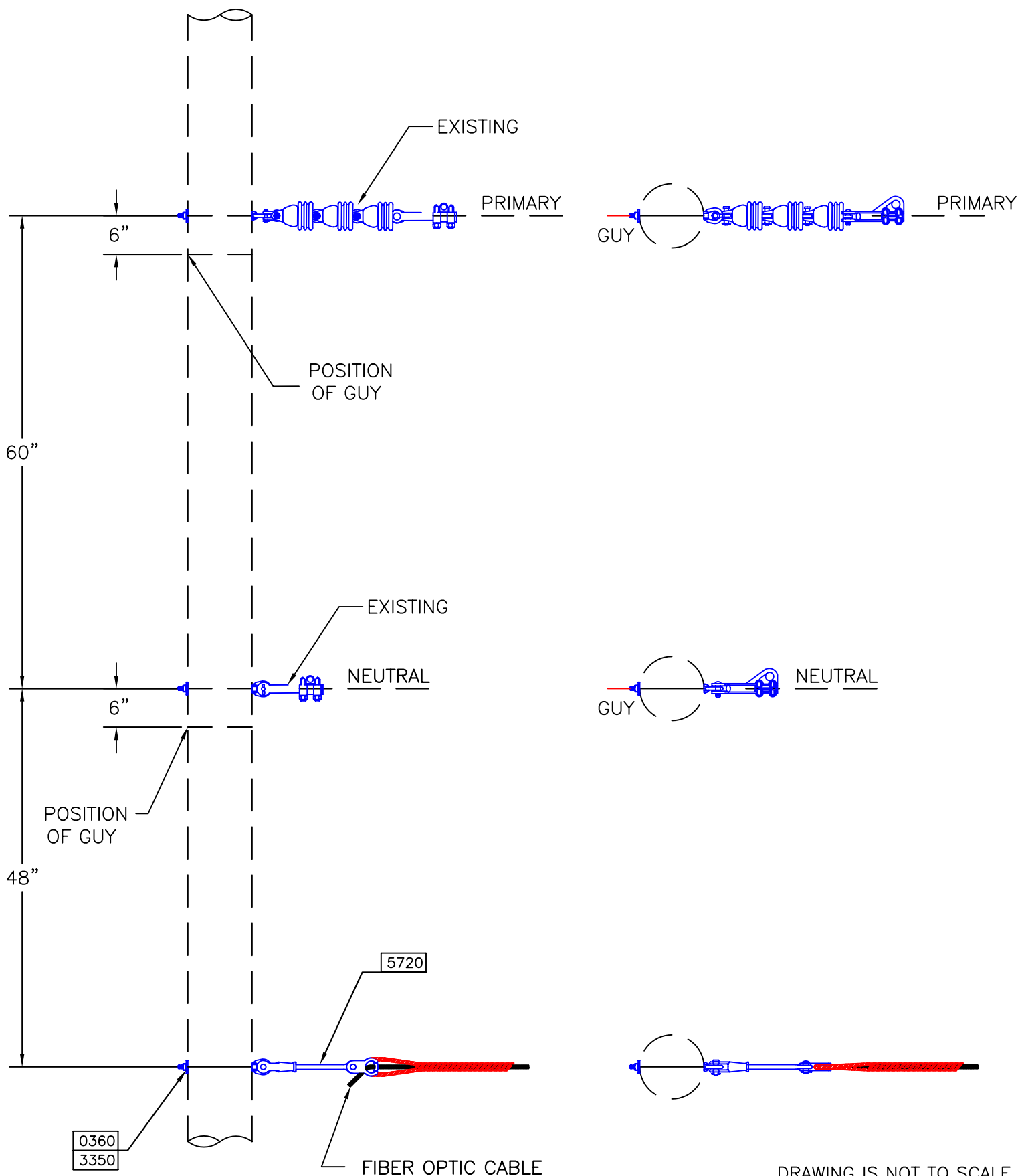
FIBER OPTIC ATTACHMENTS; 48 FIBER CABLE;
10 TO 90 DEGREE;
VERTICAL CONSTRUCTION

REV# : 002
FO.A4

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A4"/>	AUTOCAD FILE:	<input type="text" value="FO-A4.DWG"/>
DESCRIPTION:	<input type="text" value="FIBER OPTIC ATTACHMENT; 48 FIBER CABLE; 10 TO 90 DEGREE ANGLE; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="FO-A4.PDF"/>
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ANGLE FROM:	<input type="text" value="10"/>	ANGLE TO:	<input type="text" value="90"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	2	BOLT; OVAL EYE 5/8" X 12"		
3350	2	WASHER; SQUARE		
5720	2	ATTACHMENT; DEAD END FIBER OP		



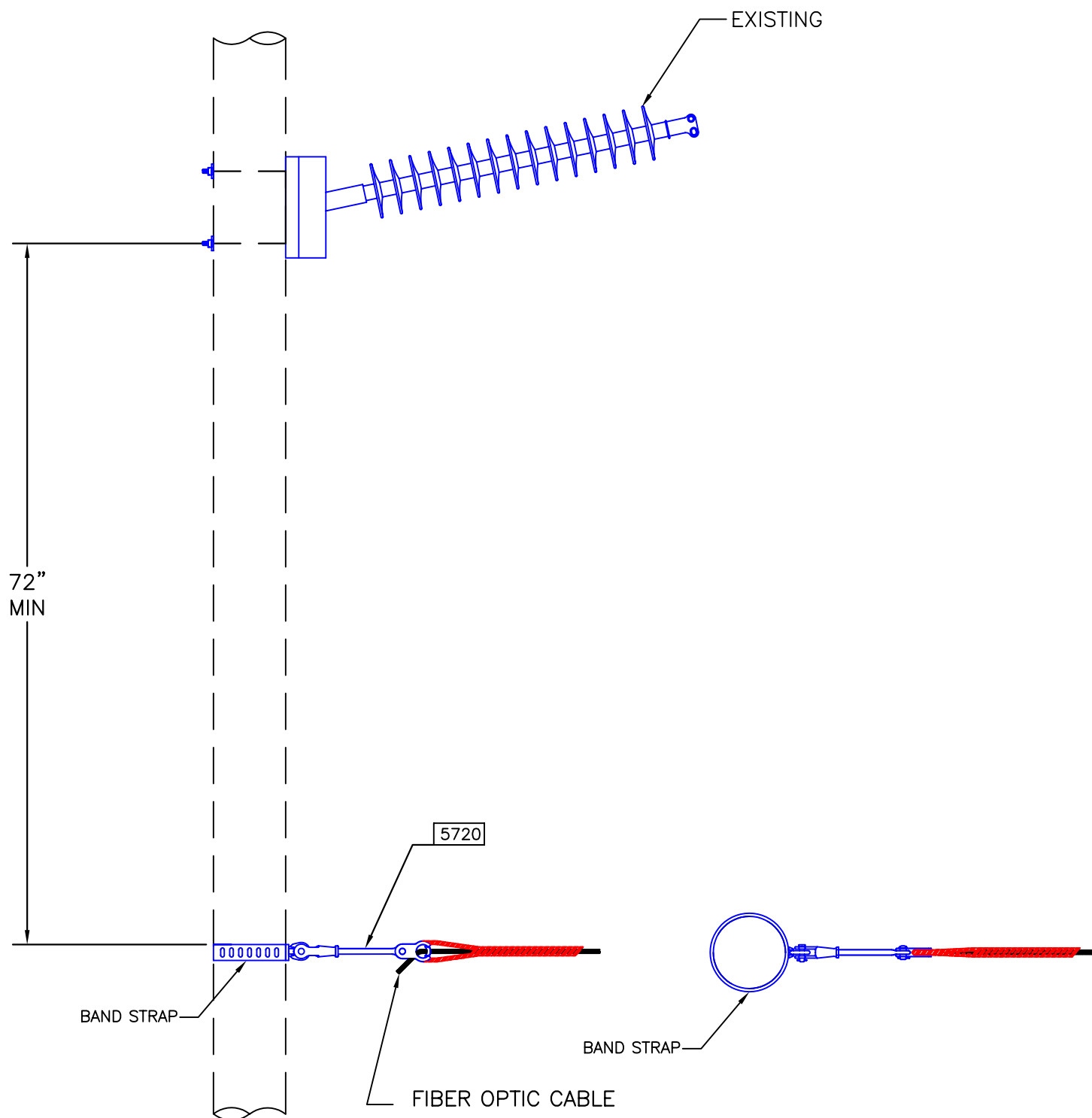
DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	FIBER OPTIC ATTACHMENTS; 48 FIBER CABLE; SINGLE DEAD-END; VERTICAL CONSTRUCTION	REV# : 002
Approved By: WHP	Date Updated: 4/22/2009		FO.A5
Old CU: FO-A5	DWG Name: FO-A5.DWG		

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A5"/>	AUTOCAD FILE:	<input type="text" value="FO-A5.DWG"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	1	BOLT; OVAL EYE 5/8" X 12"		
3350	1	WASHER; SQUARE		
5720	1	ATTACHMENT; DEAD END FIBER OP		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 9/12/2008
Approved By: WHP	Date Updated: 4/22/2009
Old CU: -	DWG Name: F0-A5-T.DWG

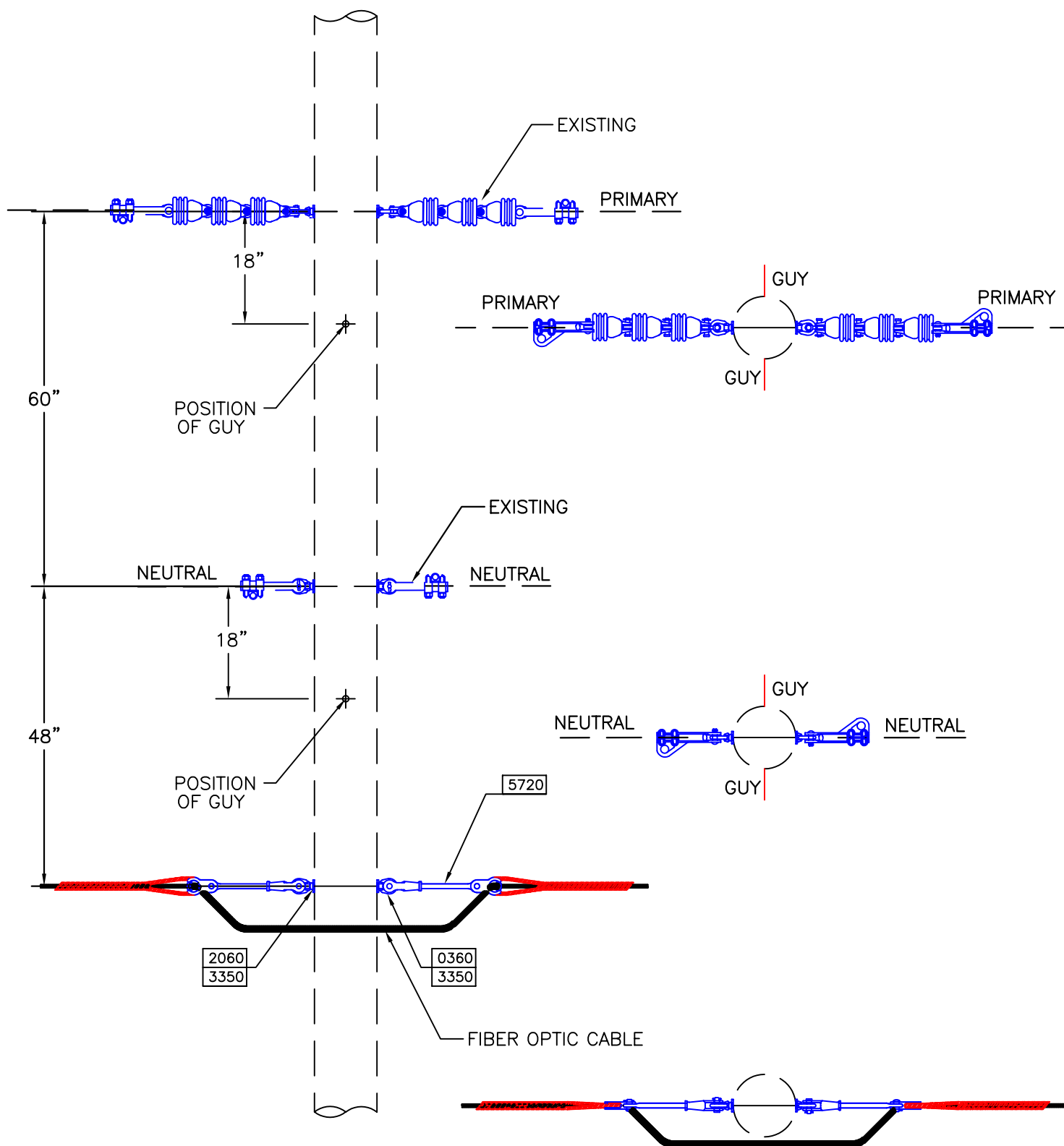
TRANSMISSION POLE; FIBER OPTIC ATTACHMENTS;
48 FIBER CABLE; SINGLE DEAD-END;
VERTICAL CONSTRUCTION

REV# : 002
F0.A5.T

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A5.T"/>	AUTOCAD FILE:	<input type="text" value="FO-A5-T.DWG"/>
DESCRIPTION:	<input type="text" value="TRANSMISSION POLE; FIBER OPTIC ATTACHMENT; 48 FIBER CABLE; SINGLE DEADEND; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="FO-A5-T.PDF"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5720	1	ATTACHMENT; DEAD END FIBER OP		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 4/22/2009
Old CU: FO-A6	DWG Name: FO-A6.DWG

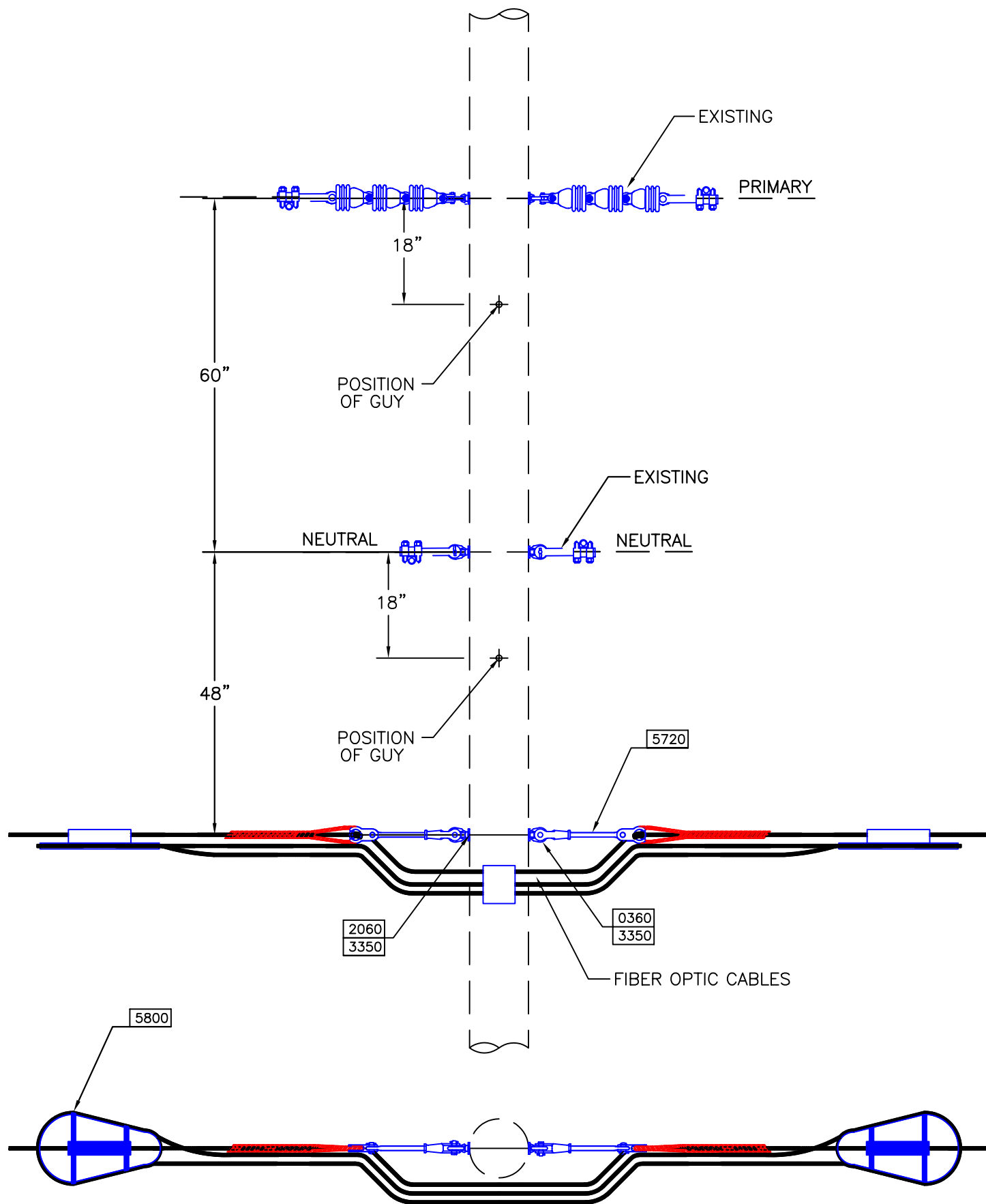
FIBER OPTIC ATTACHMENTS; 48 FIBER CABLE;
DOUBLE DEAD-END;
VERTICAL CONSTRUCTION

REV# : 002
FO.A6

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A6"/>	AUTOCAD FILE:	<input type="text" value="FO-A6.DWG"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	1	BOLT; OVAL EYE 5/8" X 12"		
2060	1	NUT; OVAL EYE 5/8"		
3350	2	WASHER; SQUARE		
5720	2	ATTACHMENT; DEAD END FIBER OP		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 5/2/2009
Approved By: WHP	Date Updated: -
Old CU: F0-A6	DWG Name: F0-A6-S.DWG

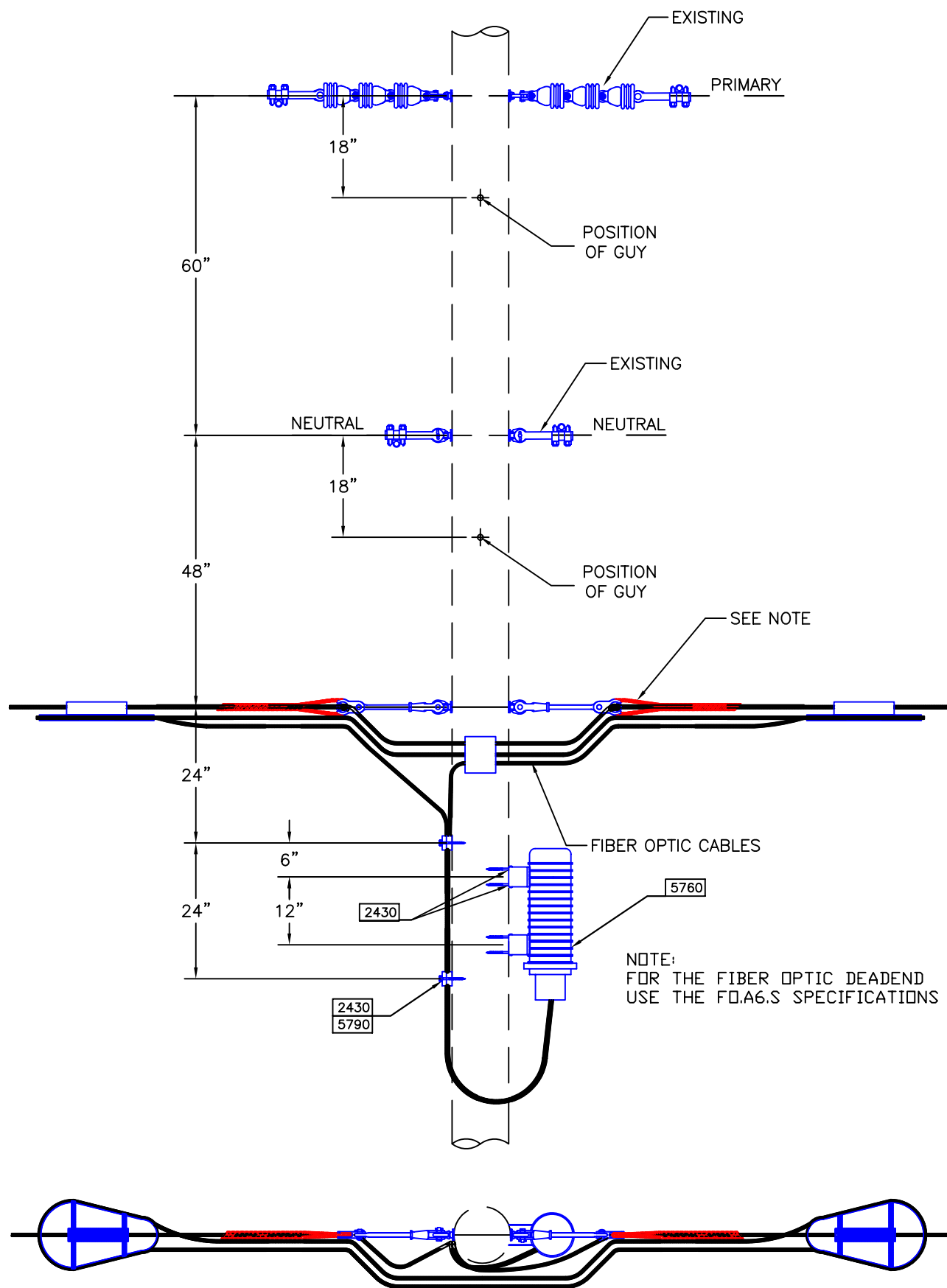
FIBER OPTIC ATTACHMENTS; 48 FIBER CABLE;
DOUBLE DEADEND; FIBER SLACK SPAN;
VERTICAL CONSTRUCTION

REV# : 000
F0.A6.S

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.A6.S"/>	AUTOCAD FILE:	<input type="text" value="FO-A6-S.DWG"/>
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		PDF SPEC.:	<input type="text" value="FO-A6-S_SPEC.PDF"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	2	BOLT; OVAL EYE 5/8" X 12"		
2060	1	NUT; OVAL EYE 5/8"		
3350	2	WASHER; SQUARE		
5720	2	ATTACHMENT; DEAD END FIBER OP		
5800	1	IN-SPAN STORAGE 'NM' CABLE		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: MAY 14, 2009
Approved By: WHP	Date Updated: -
Old CU: -	DWG Name: FO-M48.DWG

FIBER OPTIC ATTACHMENT;
SPLICE TRAY CABINET, 48 FIBER CABLE,
VERTICAL CONSTRUCTION

REV# : 000
FO.M48

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.M48"/>	AUTOCAD FILE:	<input type="text" value="FO-M48.DWG"/>
DESCRIPTION:	<input type="text" value="FIBER OPTIC ATTACHMENT; SPLICE TRAY CABINET; 48 FIBER CABLE; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="FO-M48.PDF"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
2430	6	SCREW; LAG 1/2" X 4"		
5760	1	CABINET; SPLICE 2 TRAY W/MT BK		
5790	2	DOWN LEAD CUSHION		

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:

FO.96FIBER

AUTOCAD FILE:

N-A

DESCRIPTION:

FIBER OPTIC CABLE 96 FIBERS

PDF FILE:

N-A

PDF SPEC.:

N-A

ANGLE FROM:

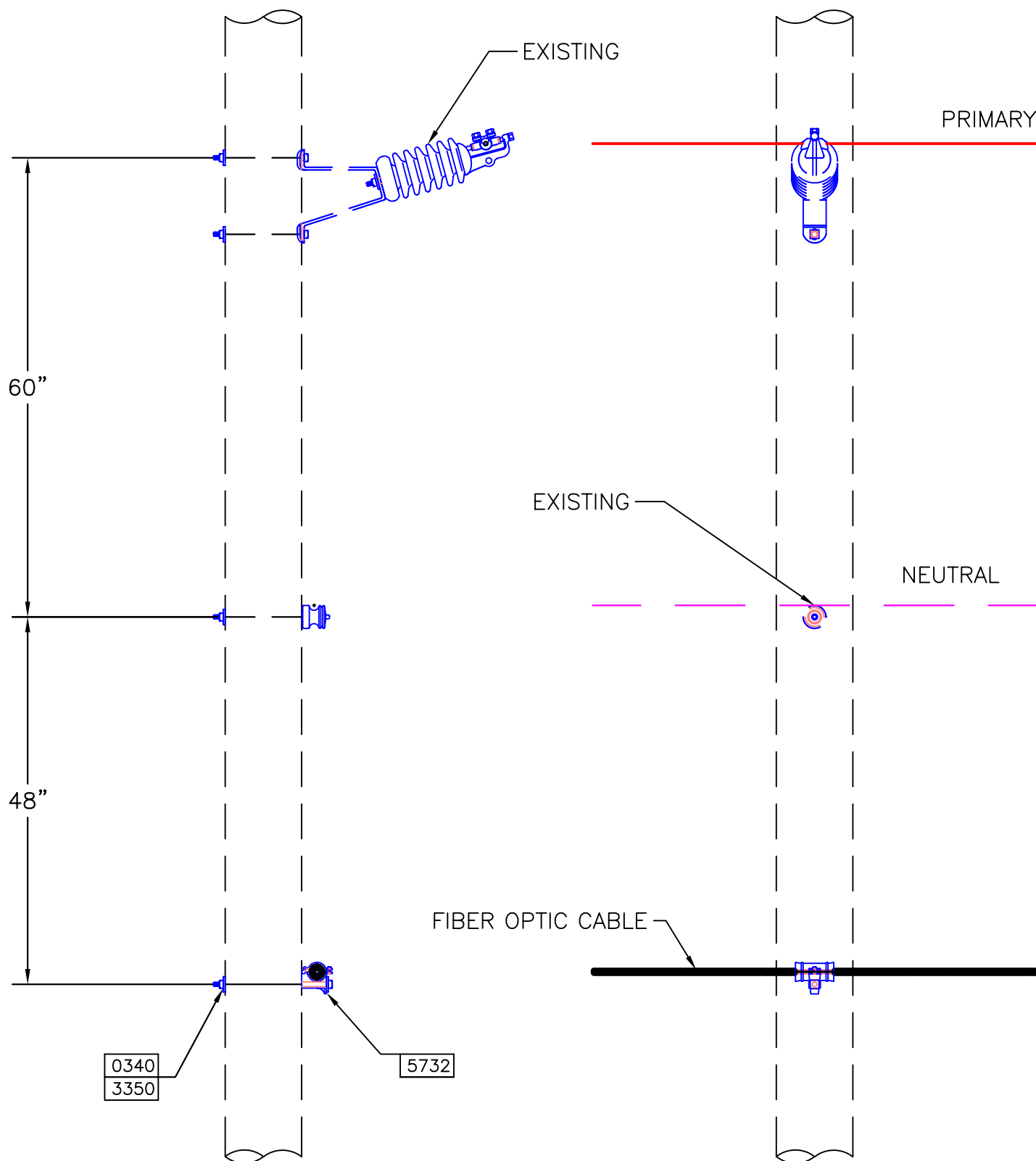
ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5772	7777	CABLE; FIBER OPTIC 96FIBER		0

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DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: 4/22/2009

Approved By: WHP Date Updated: -

Old CU: F0-A1 DWG Name: F0-B1.DWG

FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
0 TO 10 DEG ANGLE; TANGENT;
VERTICAL CONSTRUCTION

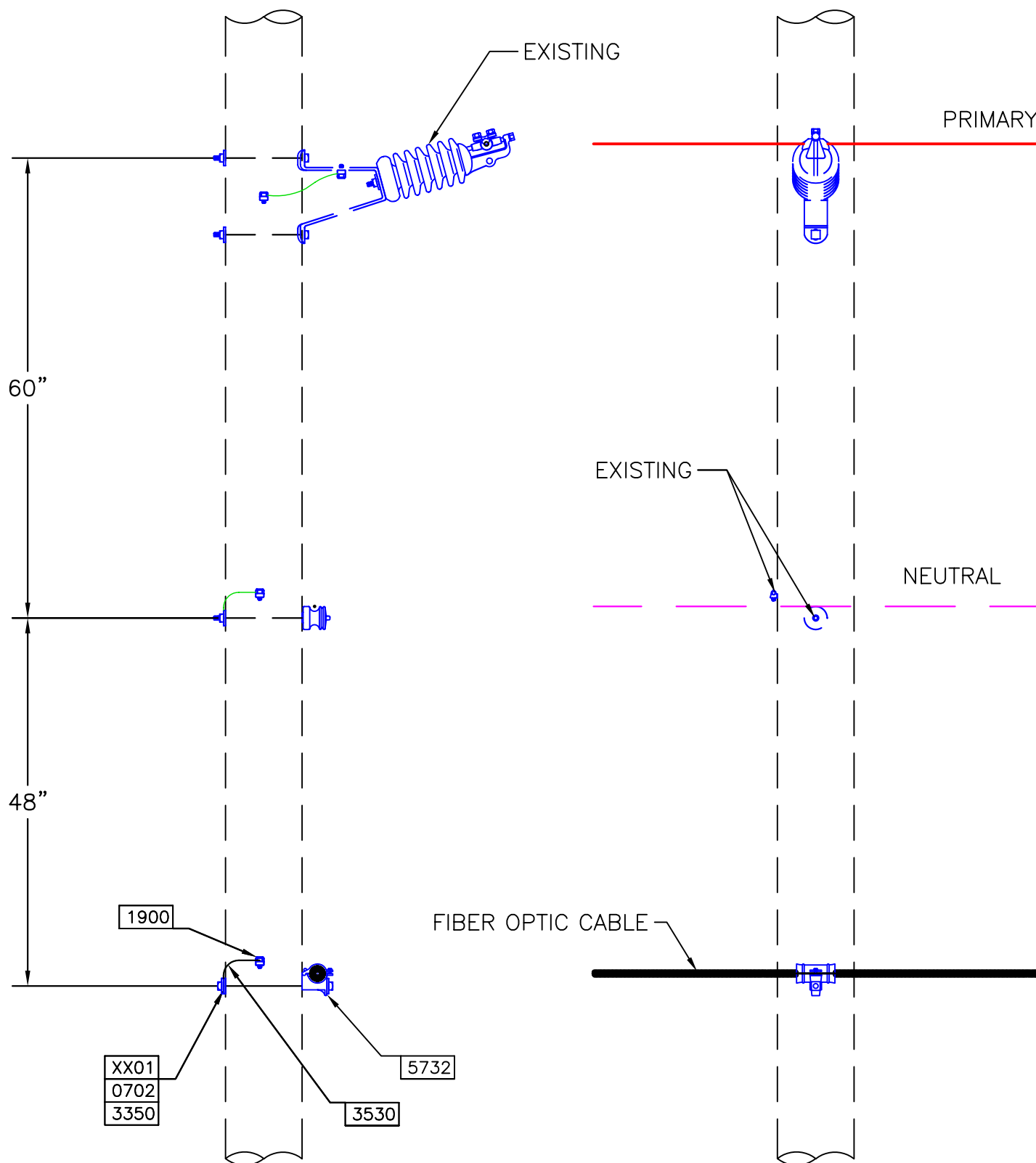
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F0.B1

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0340	1	BOLT; MACHINE 5/8" X 16"		
3350	1	WASHER; SQUARE		
5732	1	ATTACHMENT; TANGENT 96CT ADSS		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: F0-A1	DWG Name: F0-B1-C.DWG

FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT;
VERTICAL CONSTRUCTION; CONCRETE POLE

REV# : 000
F0.B1.C

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **FO.B1.C**

AUTOCAD FILE: **FO-B1-C.DWG**

DESCRIPTION: **FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT;
VERTICAL CONSTRUCTION; CONCRETE POLE**

PDF FILE: **FO-B1-C.PDF**

PDF SPEC.: **FO-B1-C_SPEC.PDF**

ANGLE FROM: **0**

ANGLE TO: **10**

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0702	1	CLAMP; GRD WIRE 5/8"		
1900	1	LUG; TRANSFORMER GROUND		
3350	2	WASHER; SQUARE		
3530	2	WIRE; CU BSD 4		
5732	1	ATTACHMENT; TANGENT 96CT ADSS		
XX01	1	BOLT; MACHINE 5/8" X REQ. LENG	P	2

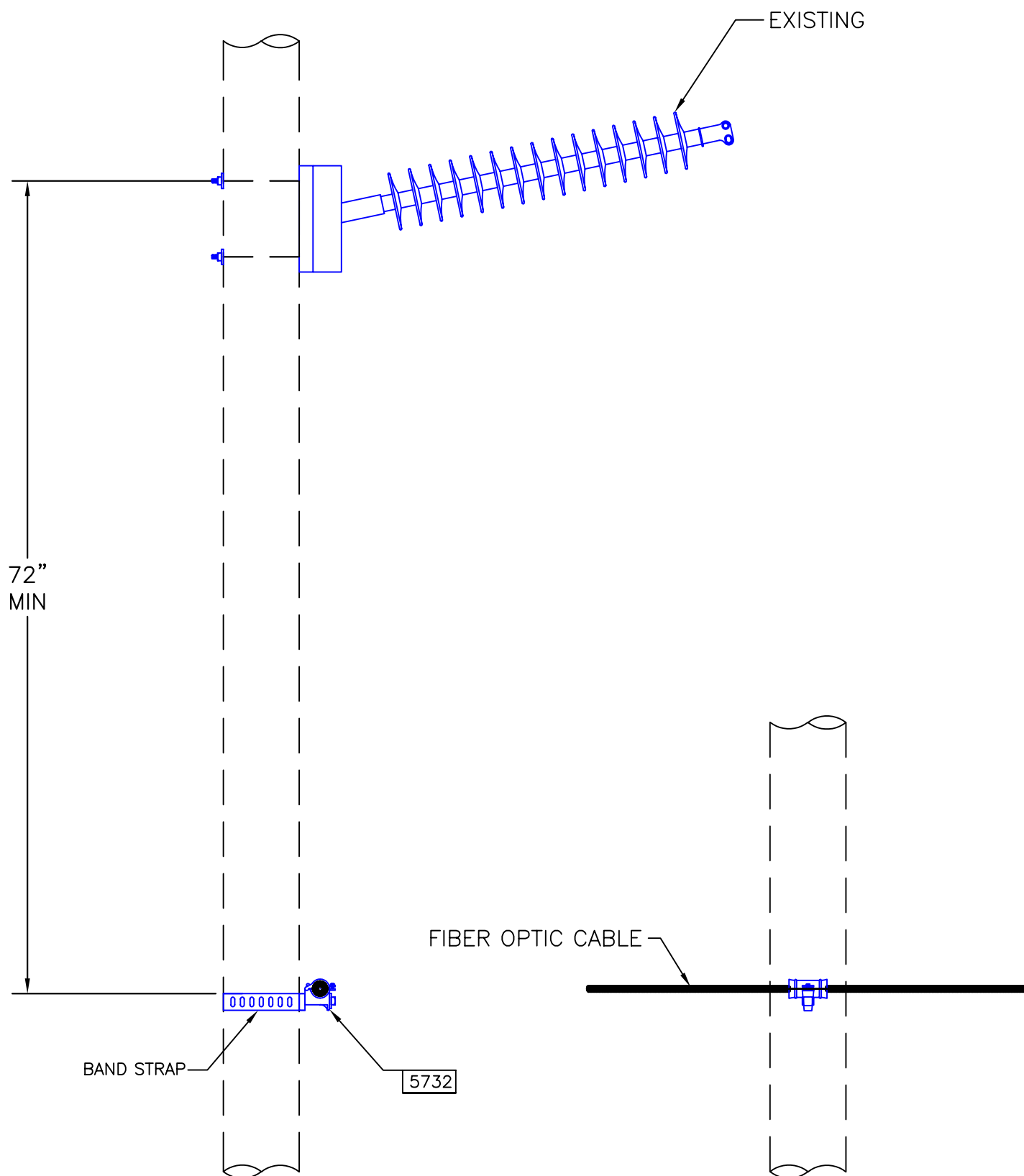


Drawn By: DEM	Date Drawn: 4/22/2009	FIBER OPTIC ATTACHMENT; 96 FIBER CABLE; 0 TO 20 DEG ANGLE; TANGENT WITH STAND-OFF BRACKET; VERTICAL CONSTRUCTION;	REV# : 000
Approved By: WHP	Date Updated: -		F0.B1.S0
Old CU: F0-A1-S0	DWG Name: F0-B1-S0.DWG		

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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DESCRIPTION:	<input type="text" value="FIBER OPTIC ATTACHMENT; 96 FIBER CABLE; 0 TO 10 DEGREE ANGLE; TANGENT; WITH STANDOFF BRACKET; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="FO-B1-SO.PDF"/>
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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
3350	2	WASHER; SQUARE		
5742	1	BRACKET; STAND OFF KIT 96CT		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: -	DWG Name: F0-B1.T.DWG

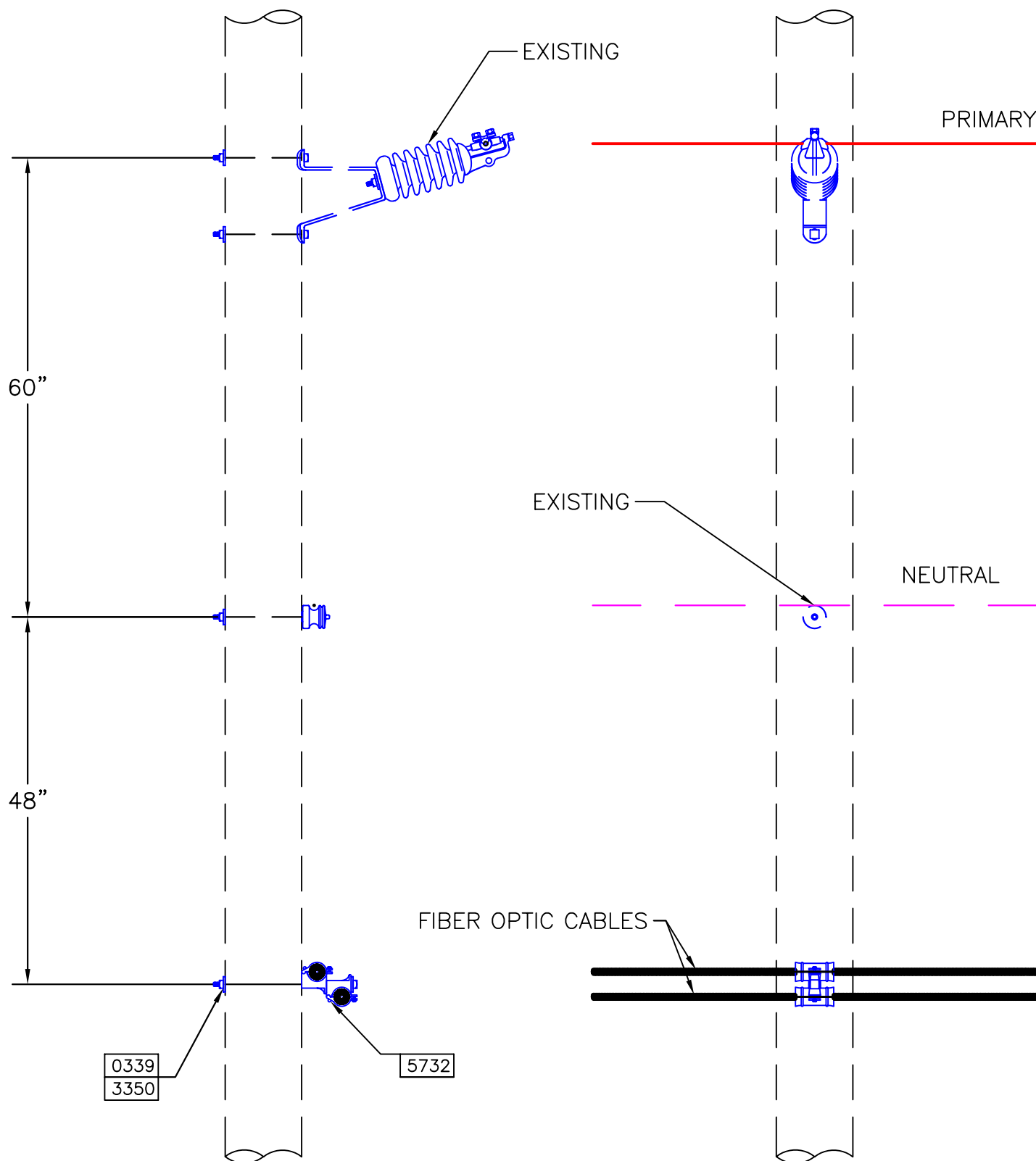
TRANSMISSION POLE; FIBER OPTIC ATTACHMENT;
96 FIBER CABLE; 0 TO 10 DEG ANGLE;
TANGENT; VERTICAL CONSTRUCTION

REV# : 000
F0.B1.T

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.B1.T"/>	AUTOCAD FILE:	<input type="text" value="FO-B1-T.DWG"/>
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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5732	1	ATTACHMENT; TANGENT 96CT ADSS		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: -	DWG Name: F0-B2.DWG

FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
0 TO 10 DEG ANGLE; TWO TANGENTS;
VERTICAL CONSTRUCTION

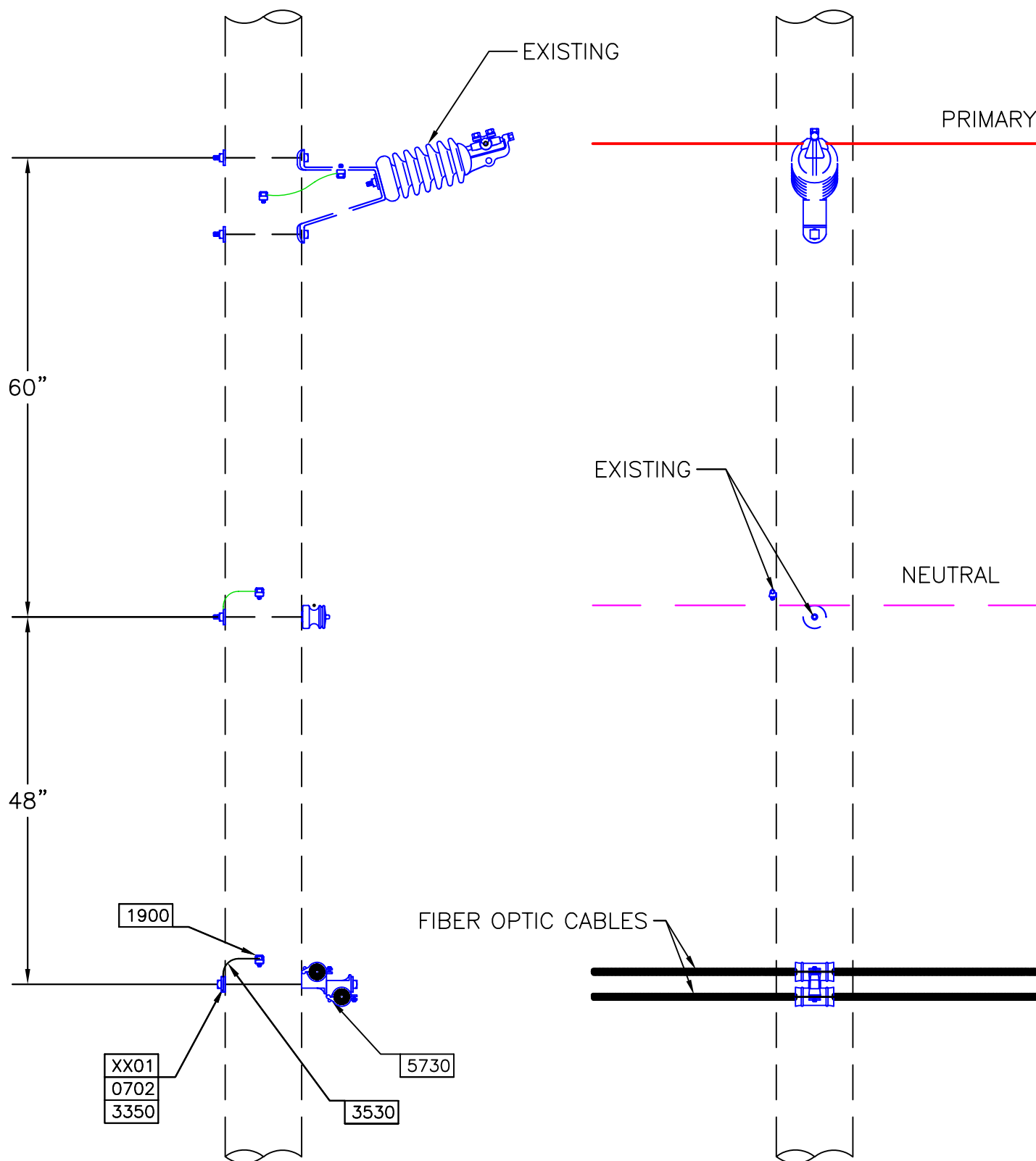
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F0.B2

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0339	1	BOLT; MACHINE 5/8" X 18"		
3350	1	WASHER; SQUARE		
5732	2	ATTACHMENT; TANGENT 96CT ADSS		



Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: F0-A1	DWG Name: F0-B2-C.DWG

FIBER OPTIC ATTACHMENTS; 96 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TANGENT; VERTICAL
CONSTRUCTION; CONCRETE POLE

REV# : 000

F0.B2.C

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **FO.B2.C**

AUTOCAD FILE: **FO-B2-C.DWG**

DESCRIPTION: **FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
0 TO 10 DEGREE ANGLE; TWO TANGENTS;
VERTICAL CONSTRUCTION; CONCRETE POLE**

PDF FILE: **FO-B2-C.PDF**

PDF SPEC.: **FO-B2-C_SPEC.PDF**

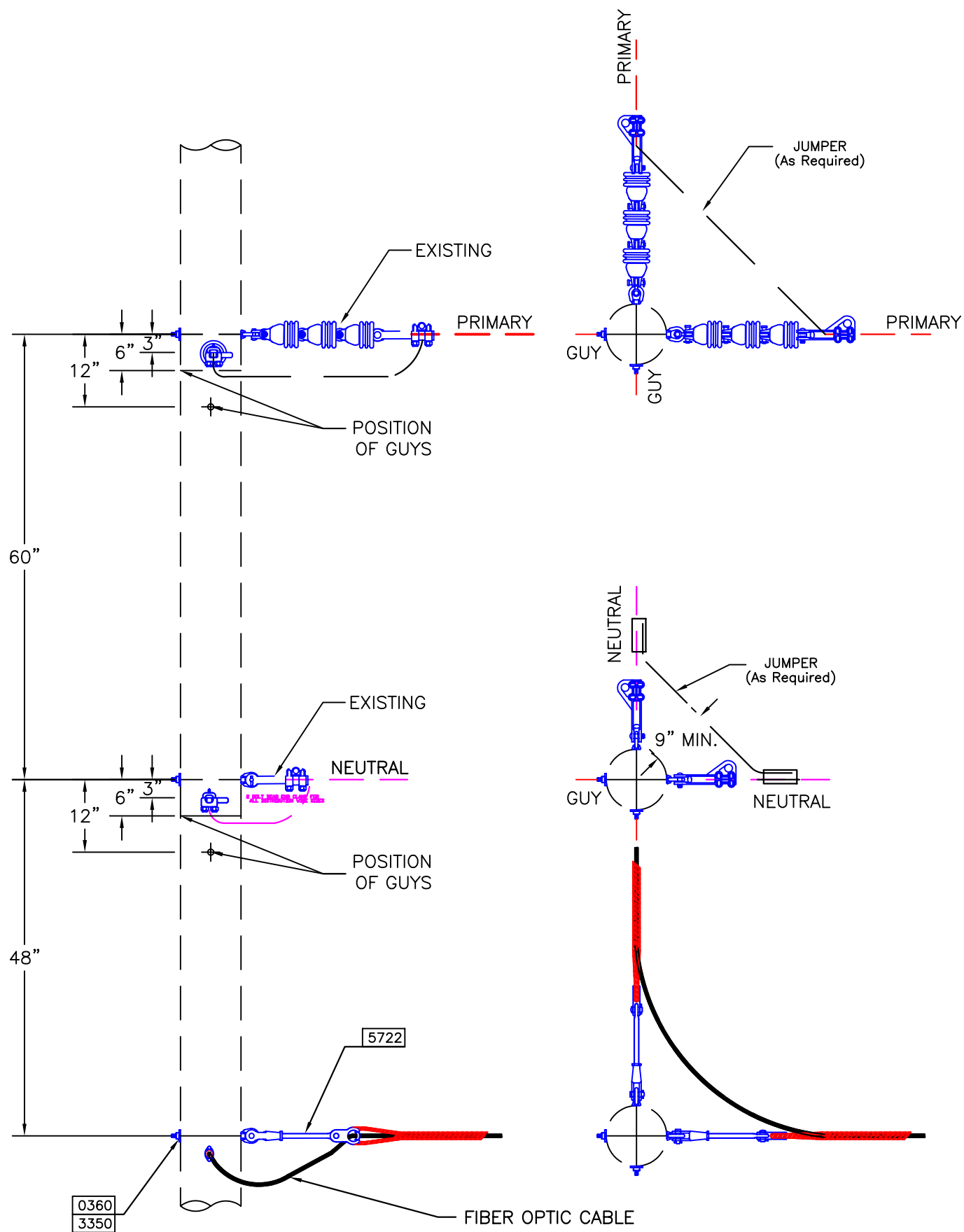
ANGLE FROM: **0**

ANGLE TO: **10**

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0702	1	CLAMP; GRD WIRE 5/8"		
1900	1	LUG; TRANSFORMER GROUND		
3350	2	WASHER; SQUARE		
3530	2	WIRE; CU BSD 4		
5732	2	ATTACHMENT; TANGENT 96CT ADSS		
XX01	1	BOLT; MACHINE 5/8" X REQ. LENG	P	2



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 4/22/2009
Approved By: WHP	Date Updated: -
Old CU: FO-A4	DWG Name: FO-B4.DWG

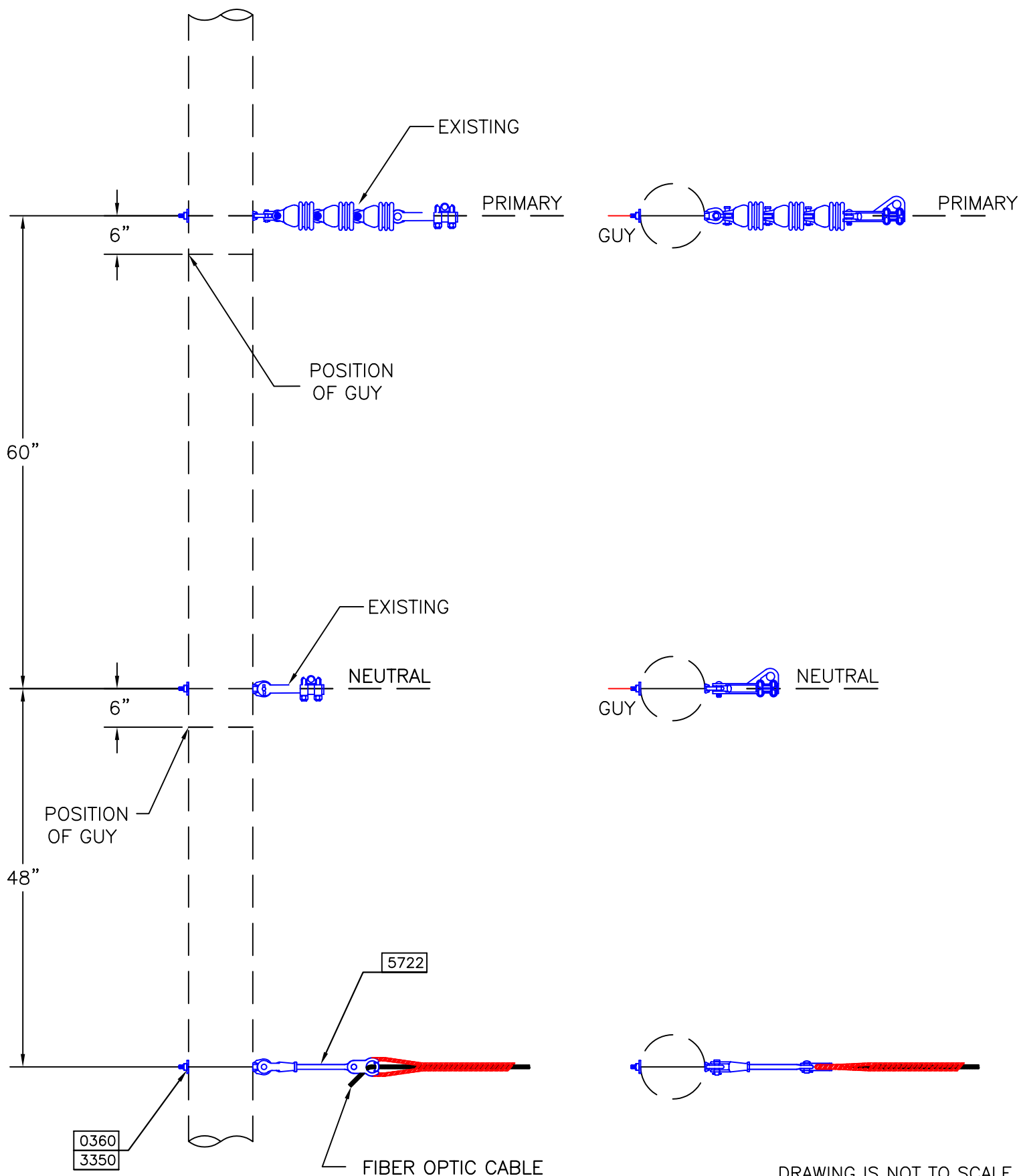
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10 TO 90 DEGREE;
VERTICAL CONSTRUCTION

REV# : 000
F0.B4

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	2	BOLT; OVAL EYE 5/8" X 12"		
3350	2	WASHER; SQUARE		
5722	2	ATTACHMENT, DEAD END FOR 96CT		



Drawn By: DEM Date Drawn: 4/22/2009

Approved By: WHP Date Updated: -

Old CU: FO-A5 DWG Name: FO-B5.DWG

FIBER OPTIC ATTACHMENTS; 96 FIBER CABLE;
SINGLE DEAD-END;
VERTICAL CONSTRUCTION

REV# : 000

F0.B5

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.B5"/>	AUTOCAD FILE:	<input type="text" value="FO-B5.DWG"/>
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	1	BOLT; OVAL EYE 5/8" X 12"		
3350	1	WASHER; SQUARE		
5722	1	ATTACHMENT, DEAD END FOR 96CT		

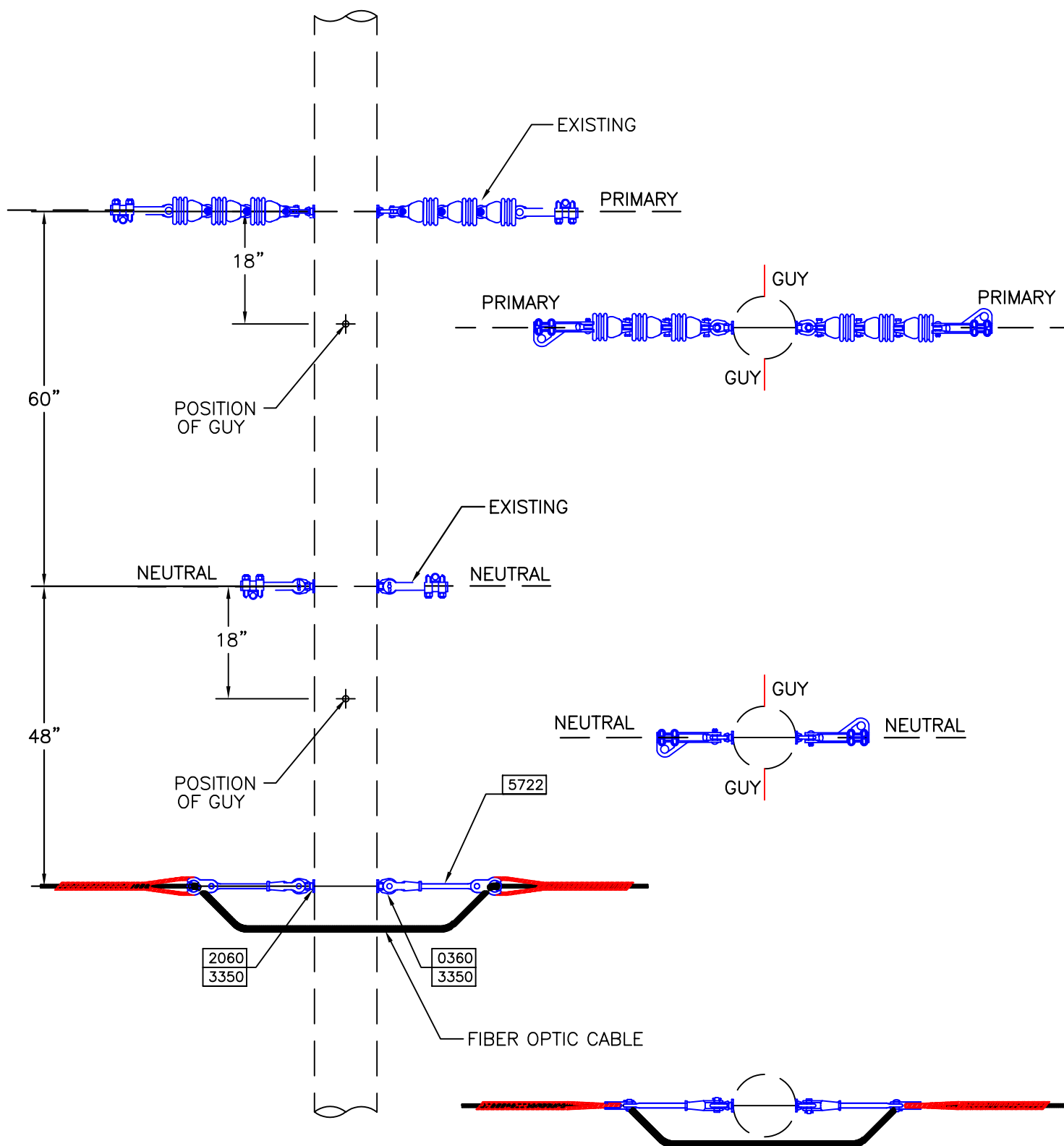


Drawn By: DEM	Date Drawn: 4/22/2009	TRANSMISSION POLE; FIBER OPTIC ATTACHMENTS; 96 FIBER CABLE; SINGLE DEAD-END; VERTICAL CONSTRUCTION	REV# : 000
Approved By: WHP	Date Updated: -		F0.B5.T
Old CU: -	DWG Name: F0-B5-T.DWG		

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.B5.T"/>	AUTOCAD FILE:	<input type="text" value="FO-B5-T.DWG"/>
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ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
5722	1	ATTACHMENT, DEAD END FOR 96CT		



DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: 4/22/2009

Approved By: WHP Date Updated: -

Old CU: F0-A6 DWG Name: F0-B6.DWG

FIBER OPTIC ATTACHMENTS; 96 FIBER CABLE;
DOUBLE DEAD-END;
VERTICAL CONSTRUCTION

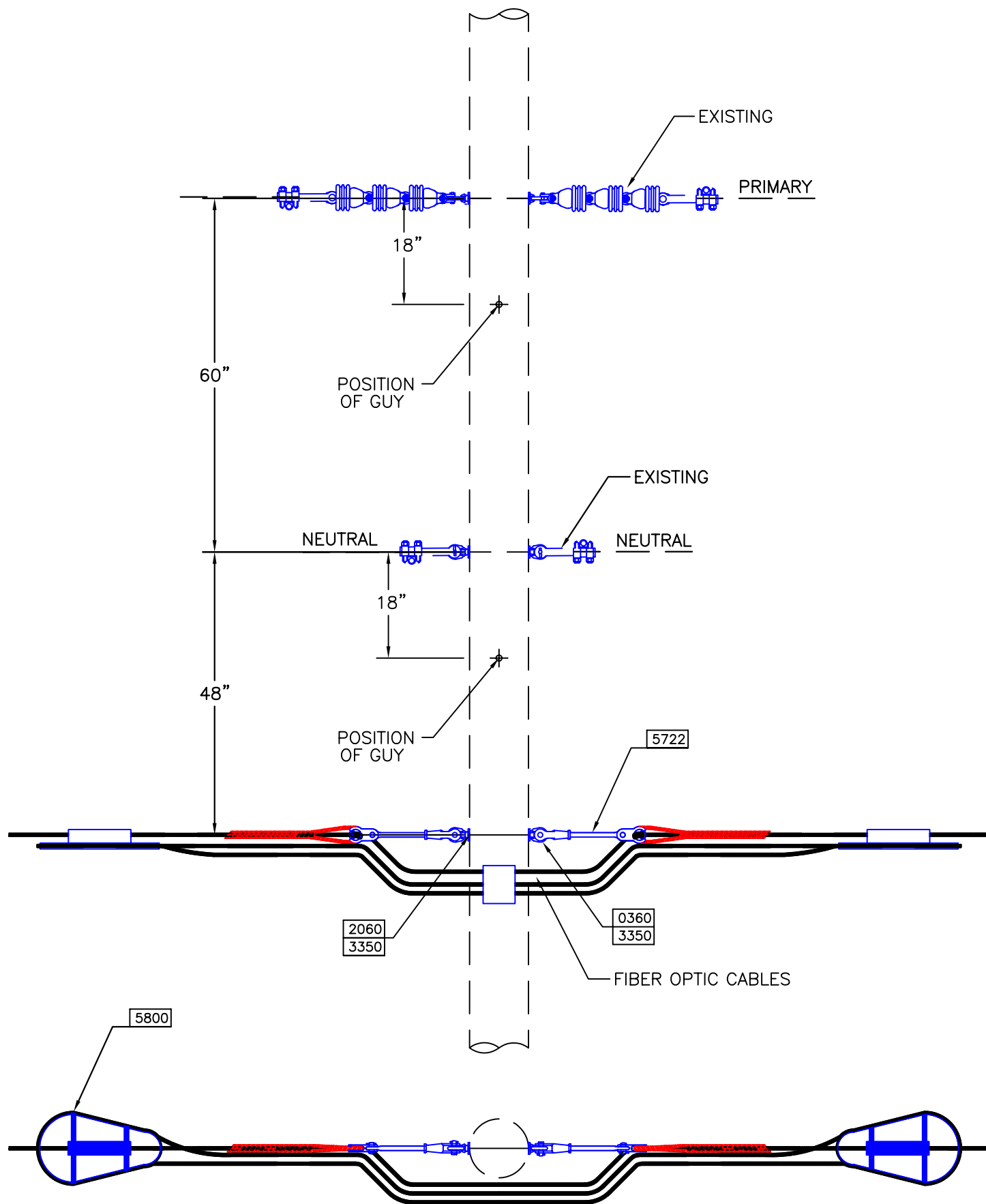
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F0.B6

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	1	BOLT; OVAL EYE 5/8" X 12"		
2060	1	NUT; OVAL EYE 5/8"		
3350	2	WASHER; SQUARE		
5722	2	ATTACHMENT, DEAD END FOR 96CT		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 5/2/2009
Approved By: WHP	Date Updated: -
Old CU: F0-A6	DWG Name: F0-B6-S.DWG

FIBER OPTIC ATTACHMENTS; 96 FIBER CABLE;
DOUBLE DEADEND; FIBER SLACK SPAN;
VERTICAL CONSTRUCTION

REV# : 000
F0.B6.S

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **FO.B6.S**

AUTOCAD FILE: **FO-B6-S.DWG**

DESCRIPTION: **FIBER OPTIC ATTACHMENT; 96 FIBER CABLE;
DOUBLE DEADEND; FIBER OPTIC SLACK
SPAN; VERTICAL CONSTRUCTION**

PDF FILE: **FO-B6-S.PDF**

PDF SPEC.: **FO-B6-S_SPEC.PDF**

ANGLE FROM:

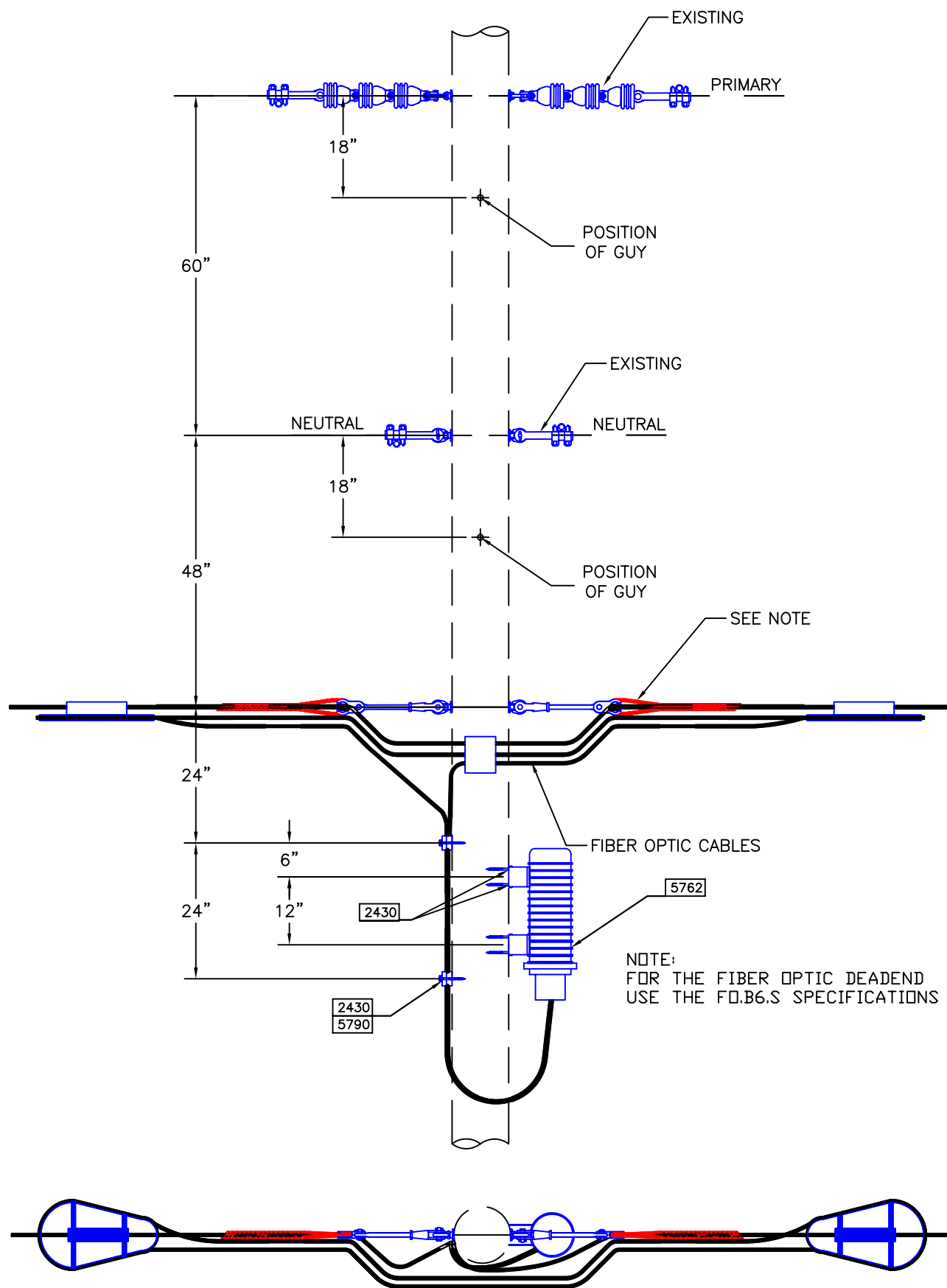
ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0360	2	BOLT; OVAL EYE 5/8" X 12"		
2060	1	NUT; OVAL EYE 5/8"		
3350	2	WASHER; SQUARE		
5722	2	ATTACHMENT, DEAD END FOR 96CT		
5800	1	IN-SPAN STORAGE 'NM' CABLE		





DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: MAY 14, 2009

Approved By: WHP Date Updated: -

Old CU: - DWG Name: F0-M96.DWG

FIBER OPTIC ATTACHMENT;
SPLICE TRAY CABINET, 96 FIBER CABLE,
VERTICAL CONSTRUCTION

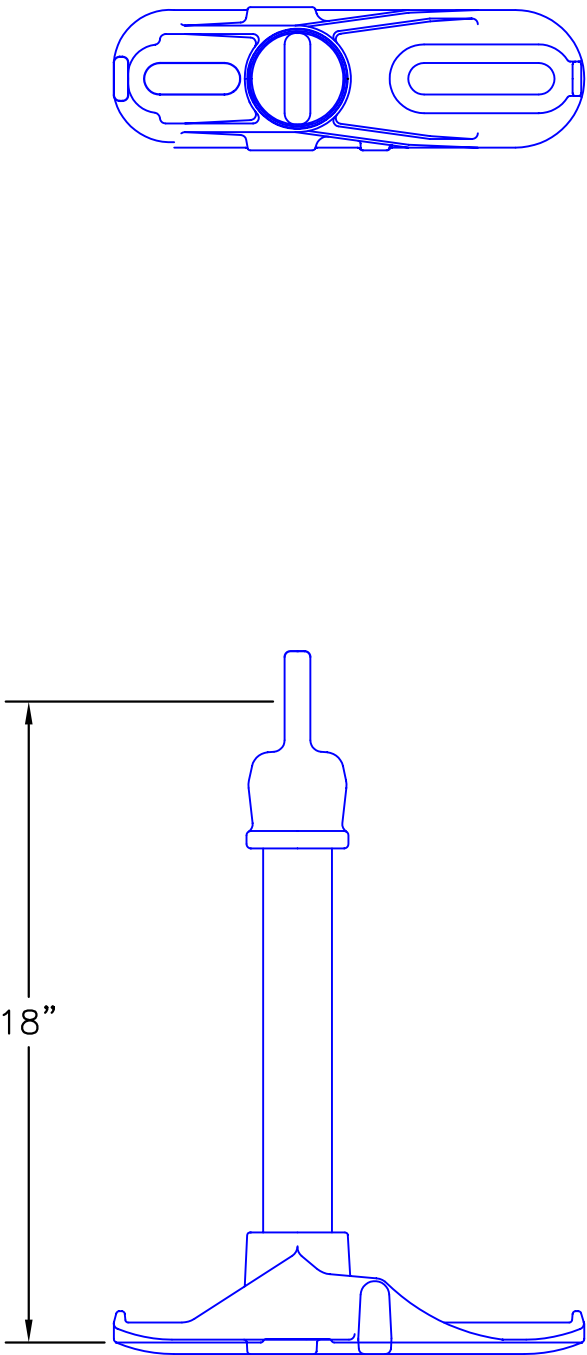
REV# : 000

F0.M96

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="FO.M96"/>	AUTOCAD FILE:	<input type="text" value="FO-M96.DWG"/>
DESCRIPTION:	<input type="text" value="FIBER OPTIC ATTACHMENT; SPLICE TRAY CABINET; 96 FIBER CABLE; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="FO-M96.PDF"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
2430	6	SCREW; LAG 1/2" X 4"		
5762	1	CABINET; SPLICE ENCL KIT 4TRAY		
5790	2	DOWN LEAD CUSHION		



Drawn By: DEM	Date Drawn: JANUARY 2002	FIBER OPTIC, STAND OFF BRACKET	ISSUE#: REV 1
	Date Updated: FEB. 07, 2003		
	DWG Name: FO-SO.DWG		
Approved By: WHP	FO.S0		
Old CU: FO-SO			

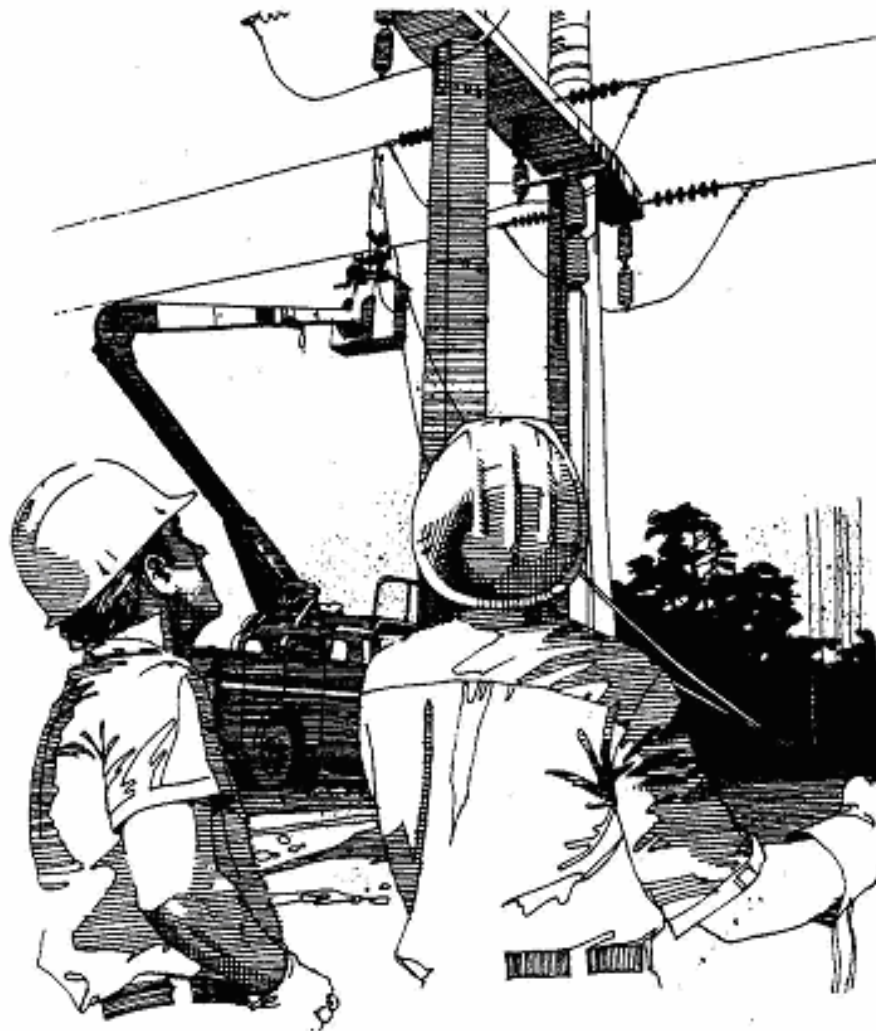
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
5740	1	BRACKET, STAND OFF 18" FIBER O		

CONSTRUCTION UNITS

INDEX G: TRANSFORMER ASSEMBLY UNITS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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TRANSFORMER ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VG1.2	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 1-PHASE TANGENT POLE, VERTICAL CONSTRUCTION	1 - 2
VG1.3	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 1- PHASE DEADEND POLE, VERTICAL CONSTRUCTION	3 - 4
VG1.36	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3 - PHASE TANGENT POLE , VERTICAL CONSTRUCTION	5 - 6
VG1.5	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3 - PHASE TANGENT POLE , WITH FUSE CUTOUT, VERTICAL CONSTRUCTION	7 - 8
VG1.6	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3 - PHASE DEADEND POLE, WITH FUSE CUTOUT, VERTICAL CONSTRUCTION	9 - 10
VG2.1.V	14.4/24.9 KV PRIMARY, 3-PHASE, TWO TRANSFORMERS, CLUSTER MOUNTED, OPEN WYE – OPEN DELTA, 1 – PHASE AND 3 – PHASE 120/240 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	11 - 12
VG2.11.V	14.4/24.9 KV PRIMARY, 3-PHASE, TWO TRANSFORMERS, CLUSTER MOUNTED, OPEN WYE – OPEN DELTA, 1 – PHASE AND 3 – PHASE 120/240 VOLT LOADS, DEADEND POLE	12 - 13
VG3.1.V	14.4/24.9 KV PRIMARY, 3 – PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CENTER TAP GROUNDED DELTA, 120/240 VOLT LOADS, WITH CUTOUT FUSES, DEADEND POLE	13 - 14
VG3.11.V	14.4/24.9 KV PRIMARY, 3 – PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT, 3 – PHASE LOADS, WITH CUTOUT FUSES, DEADEND POLE	15 - 16
VG3.12.V	14.4/24.9 KV PRIMARY, 3 – PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, WITH CUTOUT FUSES, DEADEND POLE	17 - 18

C.U. NO.	DESCRIPTION	PAGE NO.
VG3.14.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CENTER TAP GROUNDED DELTA, 120/240 VOLT LOADS, DEADEND POLE	19 - 20
VG3.15.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT, 3 – PHASE LOADS, DEADEND POLE	21 - 22
VG3.16.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, DEADEND POLE	23 - 24
VG3.2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CENTER TAP GROUNDED DELTA, 120/240 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	25 - 26
VG3.21.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT, 3 – PHASE LOADS, WITH CUTOUT FUSES, TANGENT POLE	27 - 28
VG3.22.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	29 – 30



WREC CONSTRUCTION UNIT UPDATE TABLE

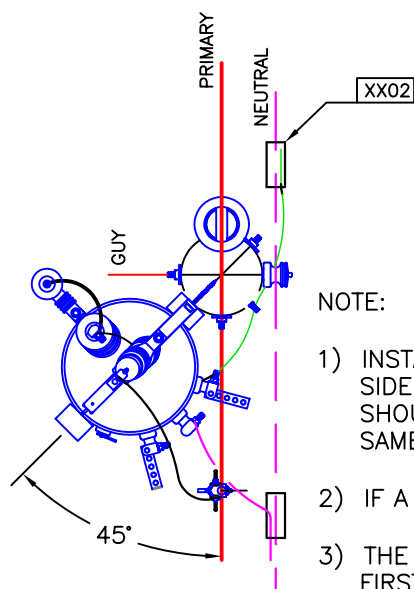
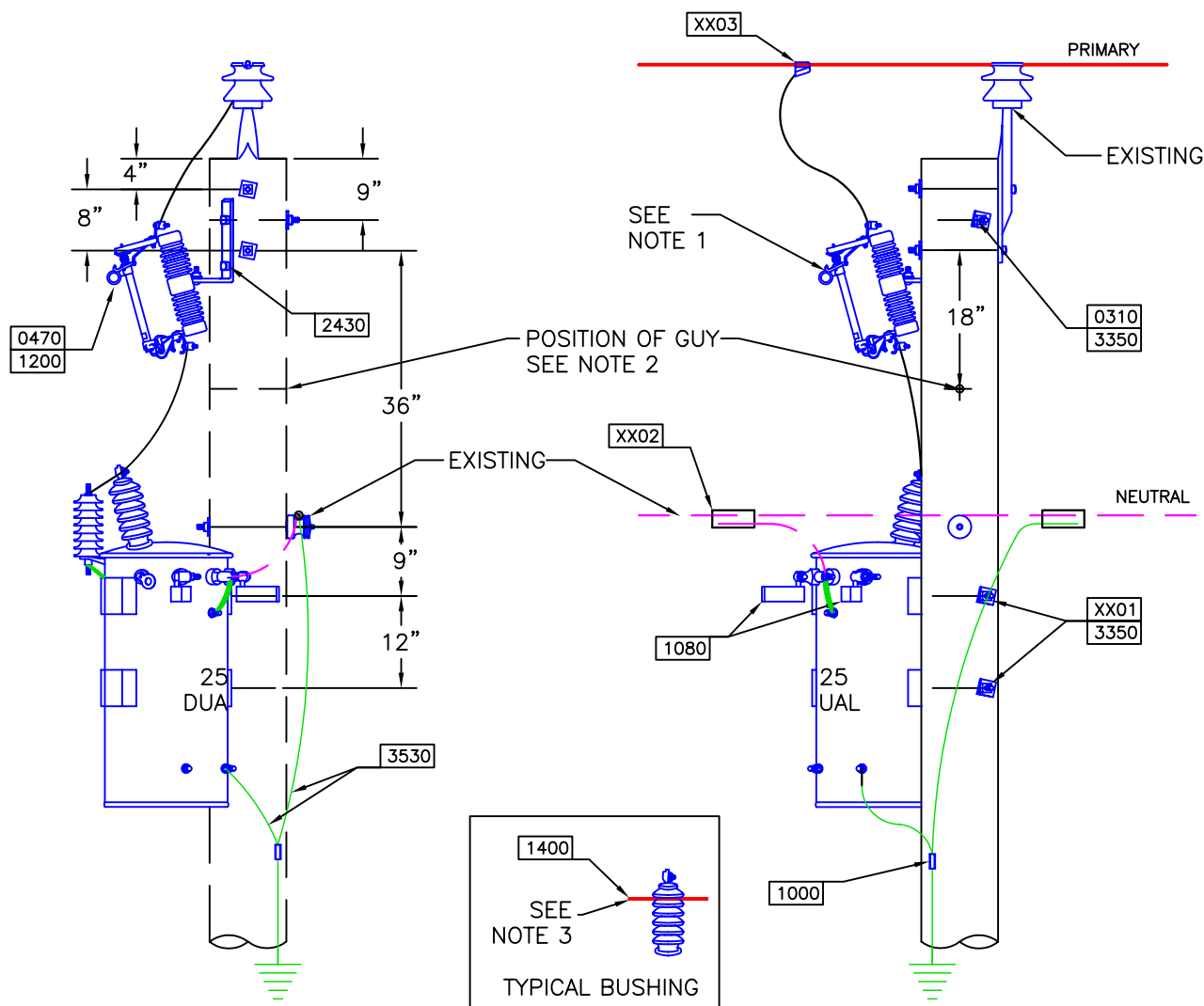
TRANSFORMER ASSEMBLY UNITS

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VG105	VG1.2	VG1.2	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT SINGLE-PHASE TANGENT POLE, VERTICAL CONSTRUCTION	07/23/01	4/15/03
VG106	VG1.3	VG1.3	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT SINGLE-PHASE TANGENT POLE, VERTICAL CONSTRUCTION	07/23/01	4/28//03
VG136	VG1.36	VG1.36	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3 - PHASE TANGENT POLE, VERTICAL CONSTRUCTION	07/23/01	4/29/03
--	VG1.5	VG1.5	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3-PHASE TANGENT POLE, WITH FUSE CUTOUT, VERTICAL CONSTRUCTION	--	5/20/03
--	VG1.6	VG1.6	14.4/24.9 KV PRIMARY, 1 – PHASE, CSP TRANSFORMER, AT 3-PHASE DEADEND POLE, WITH FUSE CUTOUT, VERTICAL CONSTRUCTION	--	5/21/03
VG210-V	VG2.1.V	VG2.1.V	14.4/24.9 KV PRIMARY, 3-PHASE, TWO TRANSFORMERS, CLUSTER MOUNTED, OPEN WYE – OPEN DELTA, 1 – PHASE AND 3 – PHASE 120/240 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	07/23/01	5/22/03
	VG2.11.V	VG2.11.V	14.4/24.9 KV PRIMARY, 3-PHASE, TWO TRANSFORMERS, CLUSTER MOUNTED, OPEN WYE – OPEN DELTA, 1 – PHASE AND 3 – PHASE 120/240 VOLT LOADS, DEADEND POLE	--	6/16/05
VG310-V	VG3.1.V	VG3.1.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CENTER TAP GROUNDED DELTA, 120/240 VOLT LOADS, WITH CUTOUT FUSES, DEADEND POLE	07/23/01	5/28/03
VG311-V	VG3.11.V	VG3.11.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT 3 – PHASE LOADS, WITH CUTOUT FUSES, DEADEND POLE	07/23/01	5/28/03
VG312-V, VG313-V	VG3.12.V	VG3.12.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, WITH CUTOUT FUSES, DEADEND POLE	07/23/01	5/28/03



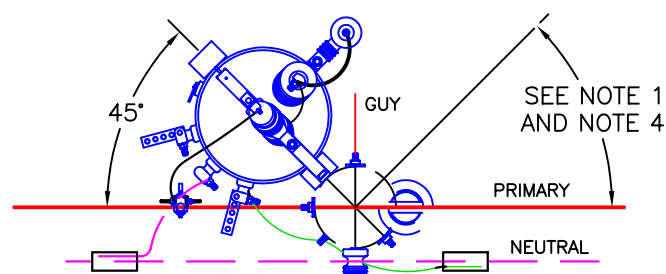
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--	VG3.15.V	VG3.15.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT 3 – PHASE LOADS, DEADEND POLE	--	6/17/05
--	VG3.16.V	VG3.16.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, DEADEND POLE	--	6/17/05
--	VG3.2.V	VG3.2.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CENTER TAP GROUNDED DELTA, 120/240 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	--	4/15/03
--	VG3.21.V	VG3.21.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED WYE – CORNER GROUNDED DELTA, 240 AND 480 VOLT 3 – PHASE LOADS, WITH CUTOUT FUSES, TANGENT POLE	--	4/28//03
--	VG3.22.V	VG3.22.V	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE – GROUNDED WYE, FOR 120/208 AND 277/480 VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE	--	4/29/03





NOTE:

- 1) INSTALL TRANSFORMER ON TANGENT POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL. FUSE CUTOUT SHOULD ALSO BE IN THE SAME QUADRANT AS THE TRANSFORMER.
- 2) IF A GUY IS NEEDED, USE CONSTRUCTION UNIT(S) E9.1.6 OR E9.2.6.
- 3) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) A 25 KV TRANSFORMER IS SHOWN, A 15 KV, 25 KV, OR 50 KV TRANSFORMER MAY BE USED WITH THIS CONSTRUCTION UNIT.



DRAWING IS NOT TO SCALE

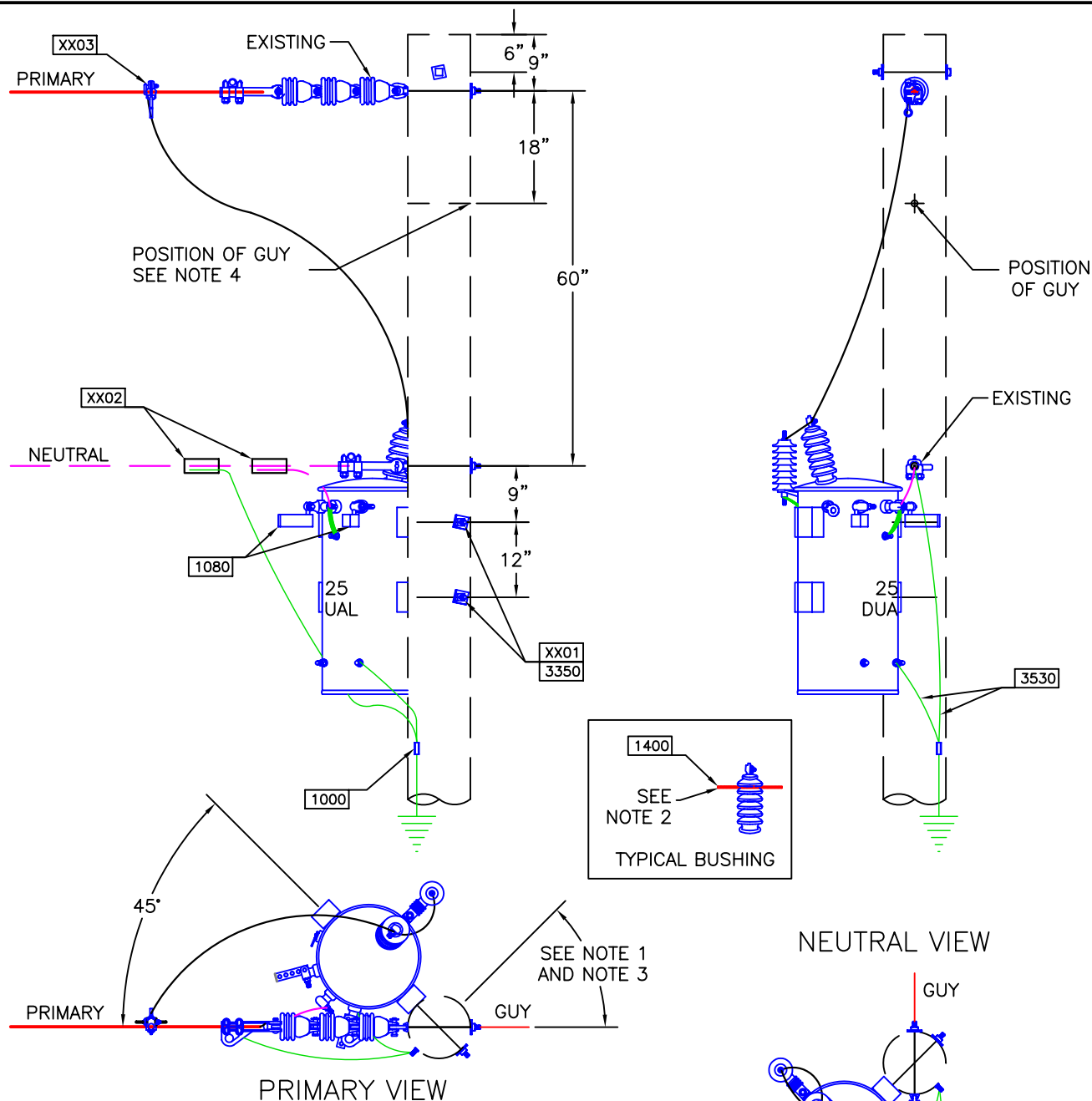
Drawn By: DEM	Date Drawn: APRIL 2003
Approved By: WHP	Date Updated: 10/09/2008
Old CU: VG105	DWG Name: VG1-2.DWG

**14.4/24.9 KV PRIMARY, 1Ø, CSP TRANSFORMER,
AT A 1Ø TANGENT POLE, WITH FUSE CUTOUTS,
VERTICAL CONSTRUCTION**

**REV# : 003
VG1.2**

CONSTRUCTION UNIT:	VG1.2	AUTOCAD FILE:	VG1-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 1-PHASE CSP TRANSFORMER; AT 1-PHASE TANGENT; VERTICAL CONSTRUCTION	PDF FILE:	VG1-2.PDF
		PDF SPEC.:	VG1-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	1

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1000	1	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1400	1	GUARD; BIRD & SQUIRREL		
3350	2	WASHER; SQUARE		
3530	21	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX02	2	CONNECTOR (NEUTRAL)	N	13
XX03	1	CONNECTOR (PRIMARY); AMPACT	W	17



SPECIAL NOTE:
THIS ASSEMBLY SHOULD HAVE A FUSE CUTOUT INSTALLED AT A MAXIMUM DISTANCE OF NO MORE THAN TWO SPANS FROM THE TRANSFORMER ASSEMBLY. USE CONSTRUCTION UNIT VS1.14.V TO INSTALL THE FUSE CUTOUT.

NOTE:

- 1) INSTALL TRANSFORMER ON DEAD END POLES SO THAT THE SECONDARY BUSHINGS ARE ADJACENT TO AND FACE THE PRIMARY NEUTRAL.
- 2) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE THE FIRST RING OF THE PRIMARY BUSHING.
- 3) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 4) IF GUY IS NEEDED. USE CONSTRUCTION UNITS E9.1.9 OR E9.2.9.
- 5) A 25 KV TRANSFORMER IS SHOWN, A 15 KV, 25 KV, OR 50 KV TRANSFORMER MAY BE USED WITH THIS CONSTRUCTION UNIT.

DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 10/09/2008

Old CU: VG106 DWG Name: VG1-2.DWG

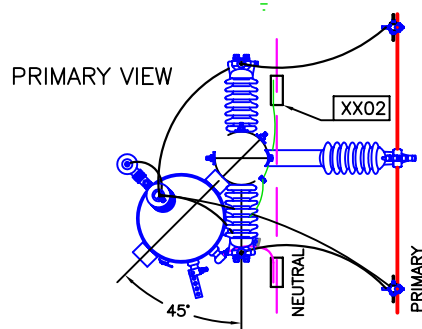
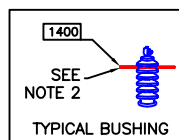
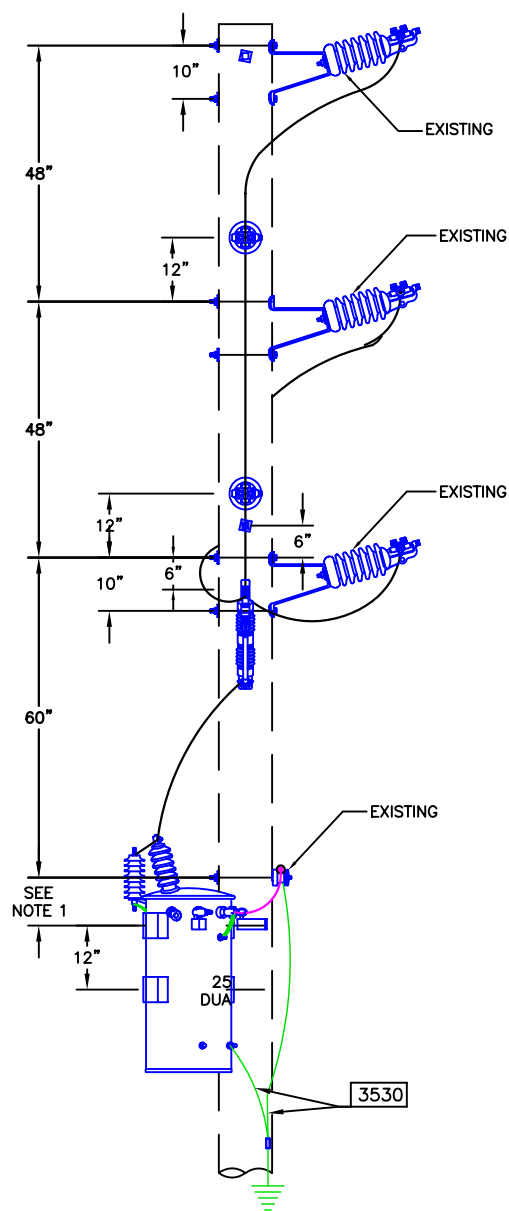
**14.4/24.9 KV PRIMARY, 1 ϕ , CSP TRANSFORMER,
AT A 1 ϕ DEADEND POLE, VERTICAL CONSTRUCTION**

REV# : 003

VG1.3

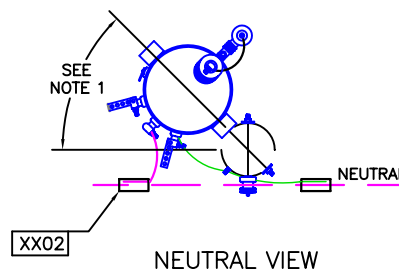
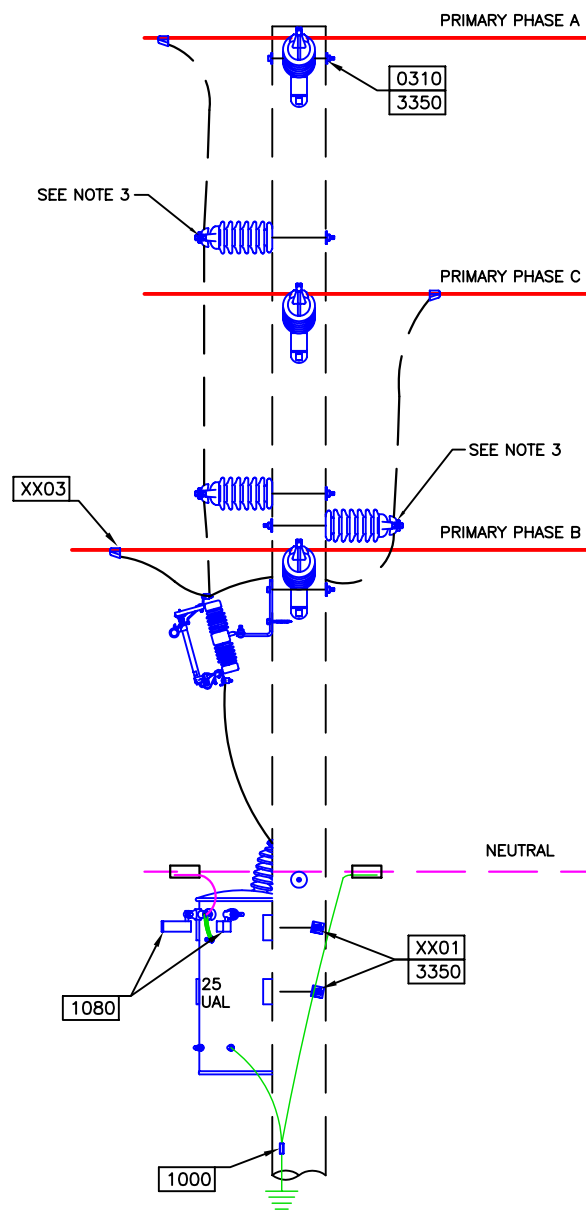
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		PDF SPEC.:	VG1-3_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	1

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1000	1	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1400	1	GUARD; BIRD & SQUIRREL		
3350	2	WASHER; SQUARE		
3530	21	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX02	2	CONNECTOR (NEUTRAL)	N	13
XX03	1	CONNECTOR (PRIMARY); HOT LINE AL	W	15



NOTE:

- 1) INSTALL TRANSFORMER ON TANGENT POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE FUSE CUTOUT ASSEMBLY AND INSULATOR SHOULD BE IN THE SAME QUADREANT AS THE TRANSFORMER. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATOR SHOULD BE USED, WITH THE PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES.
 - IF CONNECTING TO PHASE A USE TWO SN-1600 25 KV INSULATORS AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE C USE ONE SN-1600 25 KV INSULATOR AND TANGENT CLAMP, TO CONTAIN THE JUMPER.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) A 25 KV TRANSFORMER IS SHOWN, A 10 KV, 15 KV, 25 KV, OR 50 KV TRANSFORMER MAY BE USED WITH THIS CONSTRUCTION UNIT.



DRAWING IS NOT TO SCALE

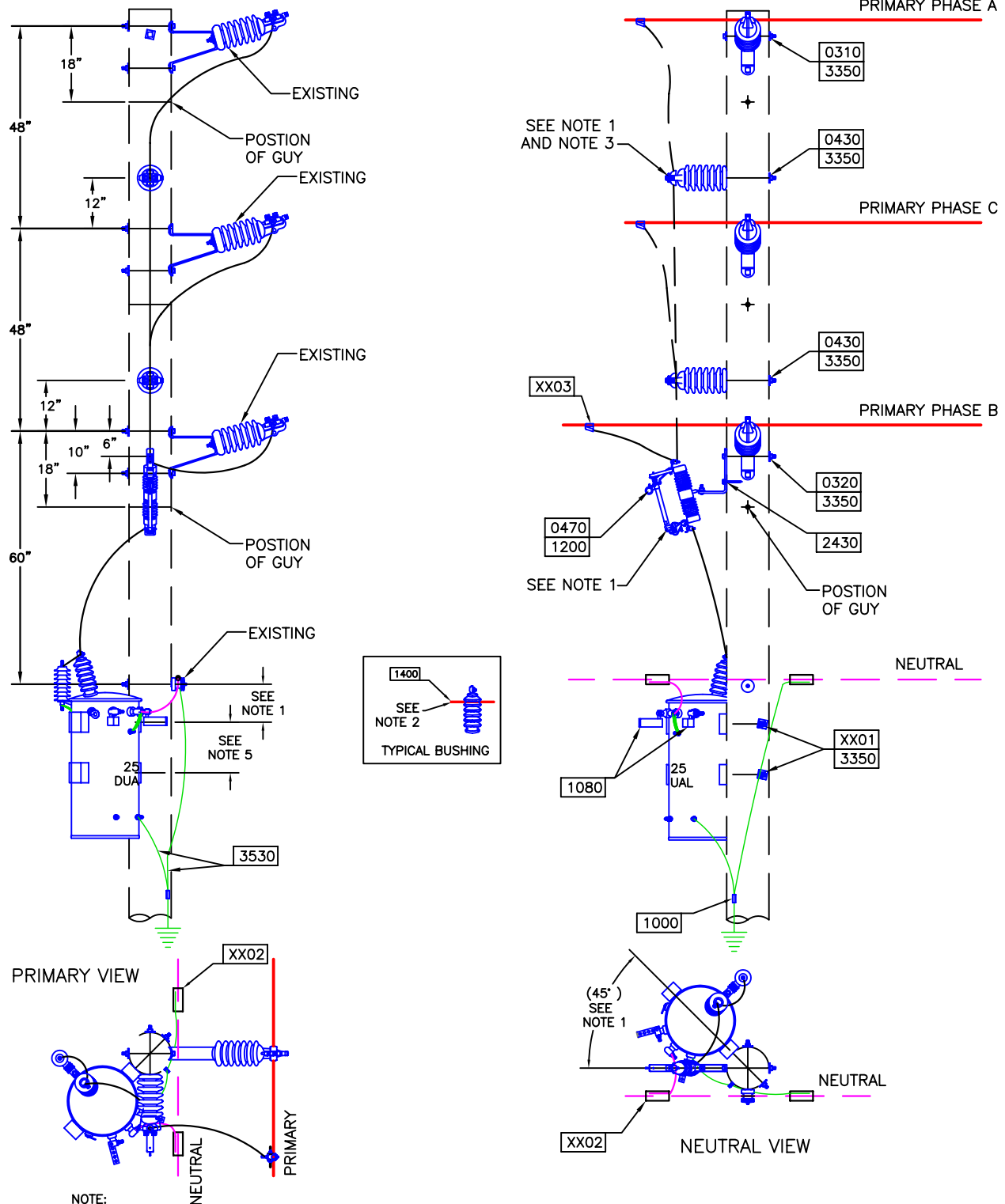
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Approved By: WHP	Date Updated: 10/09/2008
Old CU: VG136	DWG Name: VG1-36.DWG

14.4/24.9 KV PRIMARY, 1Ø, CSP TRANSFORMER,
AT A 3Ø TANGENT POLE, WITH FUSE CUTOUT,
VERTICAL CONSTRUCTION

REV# : 003
VG1.36

CONSTRUCTION UNIT:	VG1.36	AUTOCAD FILE:	VG1-36.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 1-PHASE CSP TRANSFORMER; AT 3-PHASE TANGENT; VERTICAL CONSTRUCTION	PDF FILE:	VG1-36.PDF
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1000	1	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1400	1	GUARD; BIRD & SQUIRREL		
3350	3	WASHER; SQUARE		
3530	21	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX02	2	CONNECTOR (NEUTRAL)	N	13
XX03	1	CONNECTOR (PRIMARY); AMPACT	W	17



DRAWING IS NOT TO SCALE

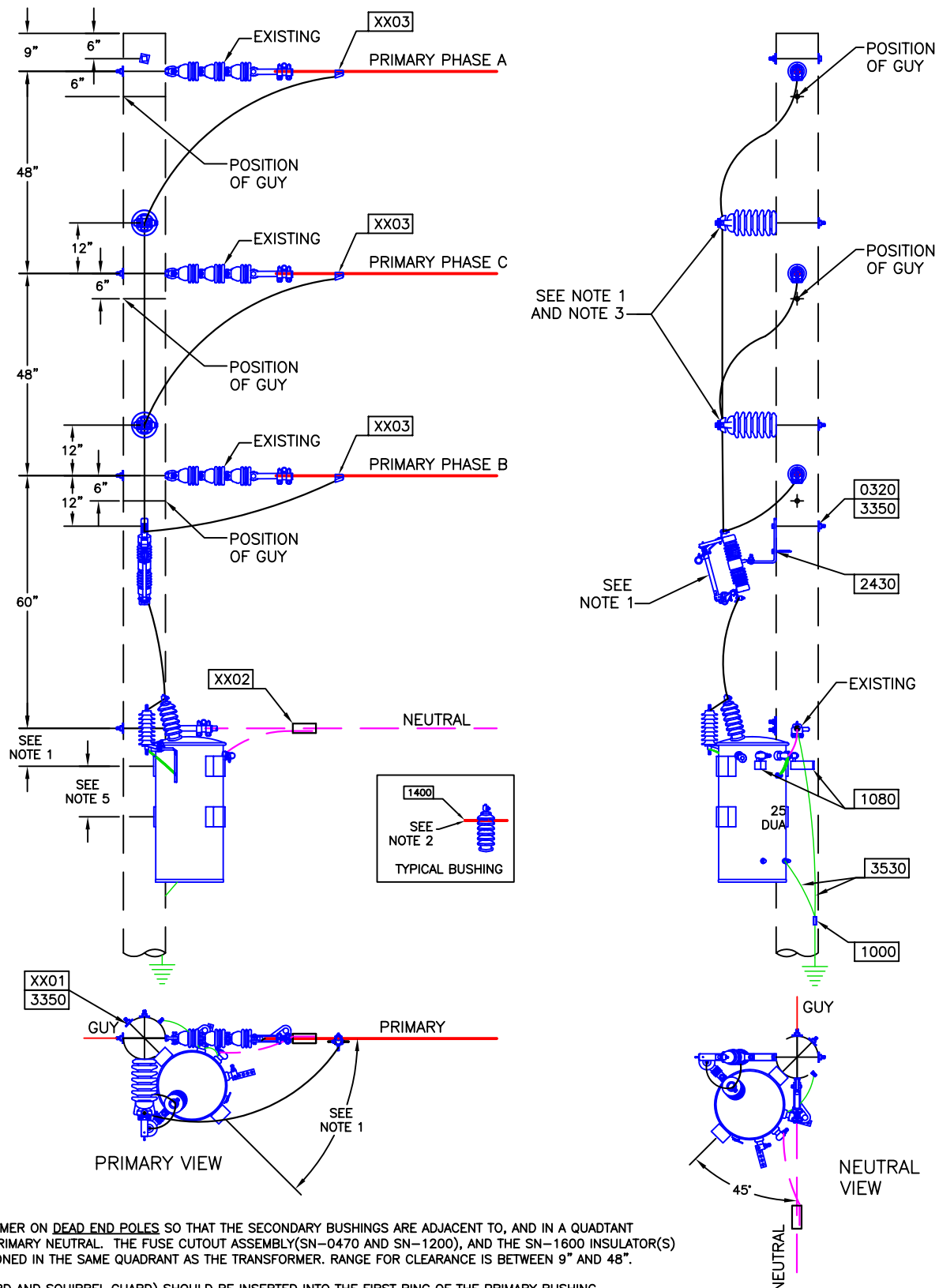
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Approved By: WHP	Date Updated: 10/09/2008
Old CU: new	DWG Name: VG1-5.DWG

14.4/24.9 KV PRIMARY, 1Ø, CSP TRANSFORMER,
AT A 3Ø TANGENT POLE, WITH FUSE CUTOFFS,
VERTICAL CONSTRUCTION

REV# : 003
VG1.5

CONSTRUCTION UNIT:	VG1.5	AUTOCAD FILE:	VG1-5.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 1-PHASE CSP TRANSFORMER; AT 3-PHASE TANGENT; WITH FUSE CUTOUT; VERTICAL CONSTRUCTION	PDF FILE:	VG1-5.PDF
		PDF SPEC.:	VG1-5_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	1

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0470	1	BRACKET; ARRESTER MOUNT LARGE		
1000	1	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1200	1	CUTOUT; FUSED OH 100 AMP		
1400	1	GUARD; BIRD & SQUIRREL		
2430	1	SCREW; LAG 1/2" X 4"		
3350	3	WASHER; SQUARE		
3530	21	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX02	2	CONNECTOR (NEUTRAL)	N	13
XX03	1	CONNECTOR (PRIMARY); AMPACT	W	17



NOTE:

- 1) INSTALL TRANSFORMER ON DEAD END POLES SO THAT THE SECONDARY BUSHINGS ARE ADJACENT TO, AND IN A QUADRANT THAT FACES THE PRIMARY NEUTRAL. THE FUSE CUTOFF ASSEMBLY(SN-0470 AND SN-1200), AND THE SN-1600 INSULATOR(S) SHOULD BE POSITIONED IN THE SAME QUADRANT AS THE TRANSFORMER. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATOR SHOULD BE USED, WITH THE PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES.
 - IF CONNECTING TO PHASE A USE TWO SN-1600 INSULATORS AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE C USE ONE SN-1600 INSULATOR AND TANGENT CLAMP, TO CONTAIN THE JUMPER.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) THE DIMENSION IS 12" FOR 10 KV, 15 KV, 25 KV, OR 50 KV TRANSFORMERS. THE DIMENSION IS 24" FOR 75 KV AND 100 KV TRANSFORMERS. THE CONSTRUCTION UNIT IS SHOWN WITH A 25 KV TRANSFORMER.

DRAWING IS NOT TO SCALE

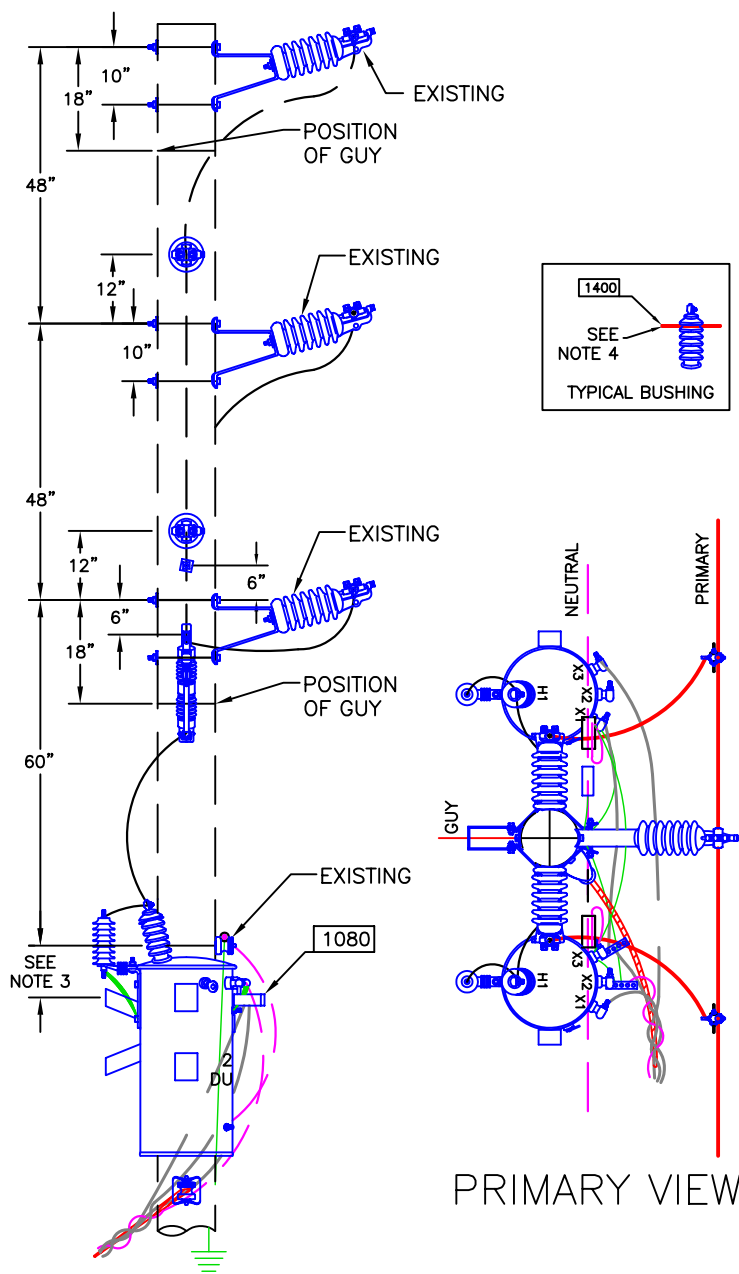
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Approved By: WHP	Date Updated: 10/09/2008
Old CU: NEW	DWG Name: VG1-6.DWG

14.4/24.9 KV PRIMARY, 1Ø, CSP TRANSFORMER,
AT A 3Ø DEADEND POLE, WITH FUSE CUTOFFS,
VERTICAL CONSTRUCTION

REV# : 003
VG1.6

CONSTRUCTION UNIT:	VG1.6	AUTOCAD FILE:	VG1-6.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 1-PHASE CSP TRANSFORMER; AT 3-PHASE DEADEND; WITH FUSE CUTOUT; VERTICAL CONSTRUCTION		PDF FILE: VG1-6.PDF
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		NO. TRANS:	1

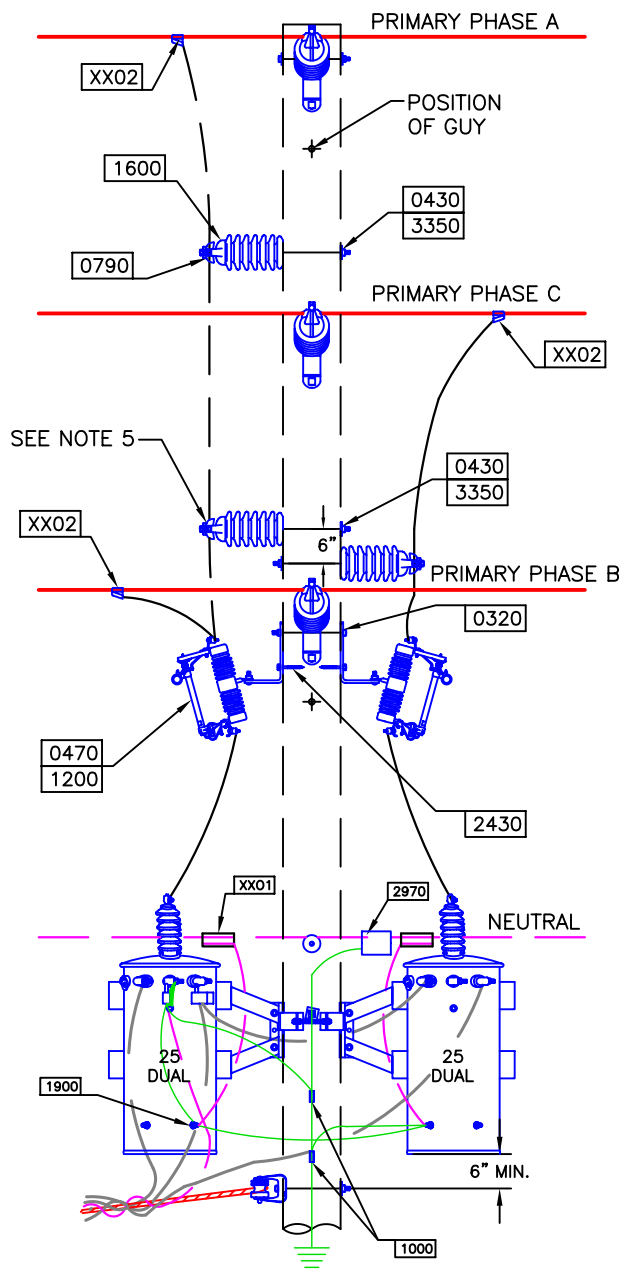
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0470	1	BRACKET; ARRESTER MOUNT LARGE		
1000	1	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1200	1	CUTOUT; FUSED OH 100 AMP		
1400	1	GUARD; BIRD & SQUIRREL		
2430	1	SCREW; LAG 1/2" X 4"		
3350	3	WASHER; SQUARE		
3530	21	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX02	2	CONNECTOR (NEUTRAL)	N	13
XX03	1	CONNECTOR (PRIMARY); AMPACT	W	17



PRIMARY VIEW

NOTES:

- 1) INSTALL TRANSFORMER ON TANGENT POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL. SEE GUIDE G1.1G FOR TRANSFORMER QUADRANT INFORMATION.
- 2) THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS.
- 3) SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION ON THE SN-480 AND SN-481 CLUSTER MOUNT BRACKETS. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 4) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 5) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATOR(S) SHOULD BE IN THE SAME QUADRANT(S) AS THE TRANSFORMER(S).
- 6) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS. SEE WIRING DIAGRAM G2.1.G OR G2.1.1G FOR CONNECTION POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION.
- 7) TWO 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.

NEUTRAL VIEW
30- ANGULAR DISPLACEMENT

DRAWING IS NOT TO SCALE

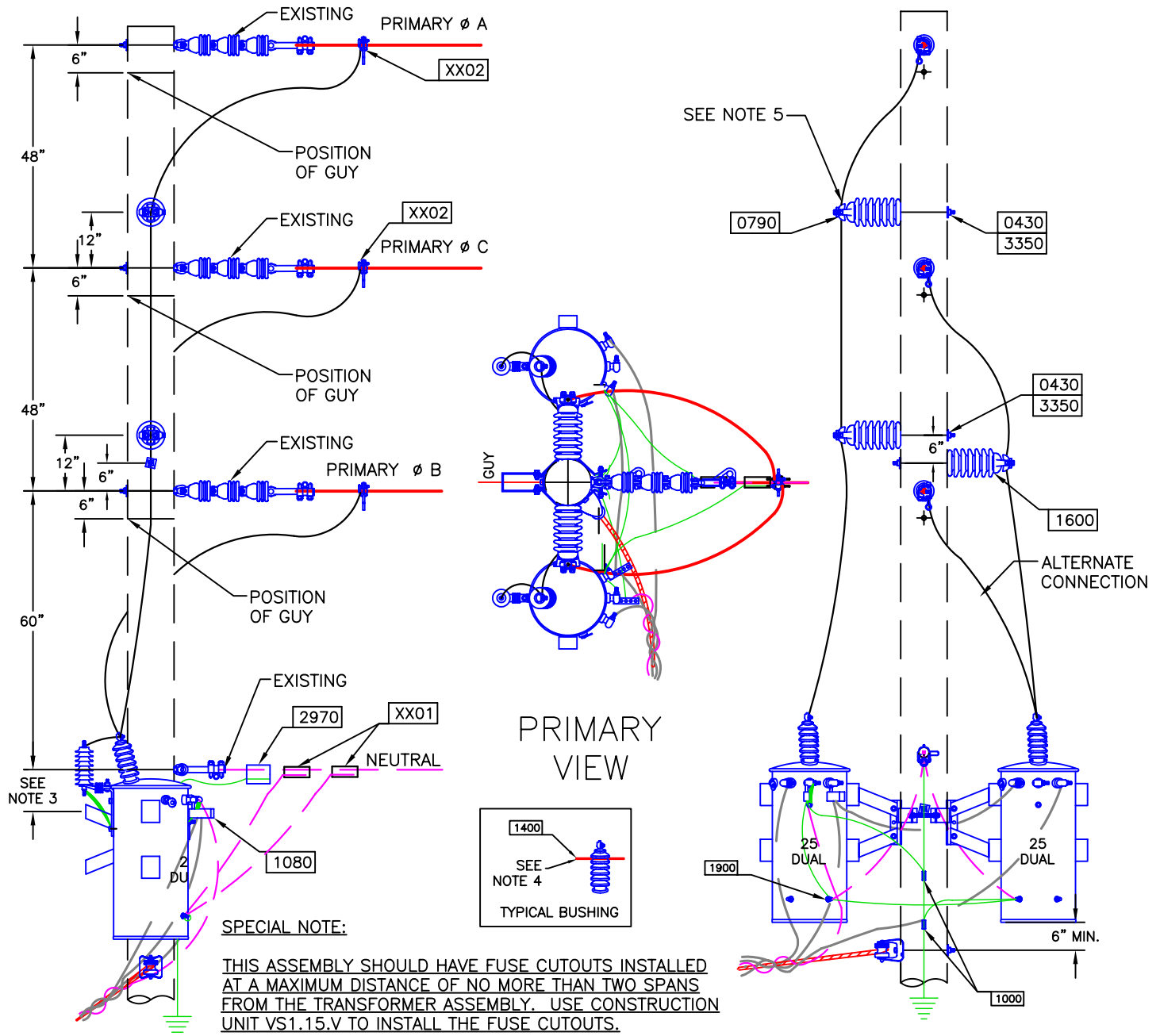
Drawn By: DEM	Date Drawn: 1/20/2002
Approved By: WHP	Date Updated: 10/06/08
Old CU: VG210-V	DWG Name: VG2-1-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, TWO TRANSFORMERS,
CLUSTER MOUNT, OPEN WYE – OPEN DELTA, 1Ø
AND 3Ø 120/240 VOLT LOADS, WITH CUTOUT
FUSES, TANGENT POLE

REV# : 004
VG2.1.V

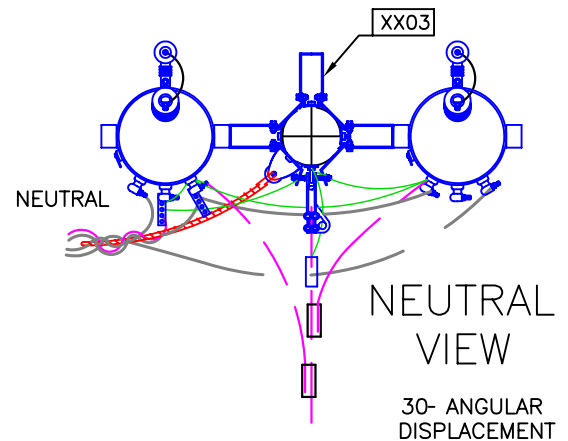
CONSTRUCTION UNIT:	VG2.1.V	AUTOCAD FILE:	VG2-1-V.DWG
DESCRIPTION:	14.4/24.9 KV; 3-PHASE TWO TRANSFORMERS;CLUSTER MOUNTED; OPEN WYE - OPEN DELTA; 1-PHASE AND 3-PHASE 120/240 VOLT POWER LOADS; TANGENT	PDF FILE:	VG2-1-V.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	2

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	1	BOLT; STUD 5/8"X 3/4"X 12"		
0470	2	BRACKET; ARRESTER MOUNT LARGE		
0790	1	CLAMP; INS WIRE #2 - 4/0		
1000	2	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1200	2	CUTOUT; FUSED OH 100 AMP		
1400	2	GUARD; BIRD & SQUIRREL		
1600	1	INSULATOR; POST TYPE VERTICAL		
1900	2	LUG; TRANSFORMER GROUND		
2430	2	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	2	WASHER; SQUARE		
3530	30	WIRE; CU BSD 4		
XX01	2	CONNECTOR (NEUTRAL)	N	13
XX02	2	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



GENERAL NOTES:

- 1) INSTALL TRANSFORMER ON DEADEND POLES IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL. SEE GUIDE G1.1G FOR TRANSFORMER QUADRANT INFORMATION.
- 2) THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS.
- 3) SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION ON THE SN-480 AND SN-481 CLUSTER MOUNT BRACKETS. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 4) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 5) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATOR(S) SHOULD BE IN THE SAME QUADRANT(S) AS THE TRANSFORMER(S).
- 6) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS. SEE WIRING DIAGRAM G2.1G OR G2.1.1G FOR CONNECTION POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION.
- 7) TWO 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.



DRAWING IS NOT TO SCALE

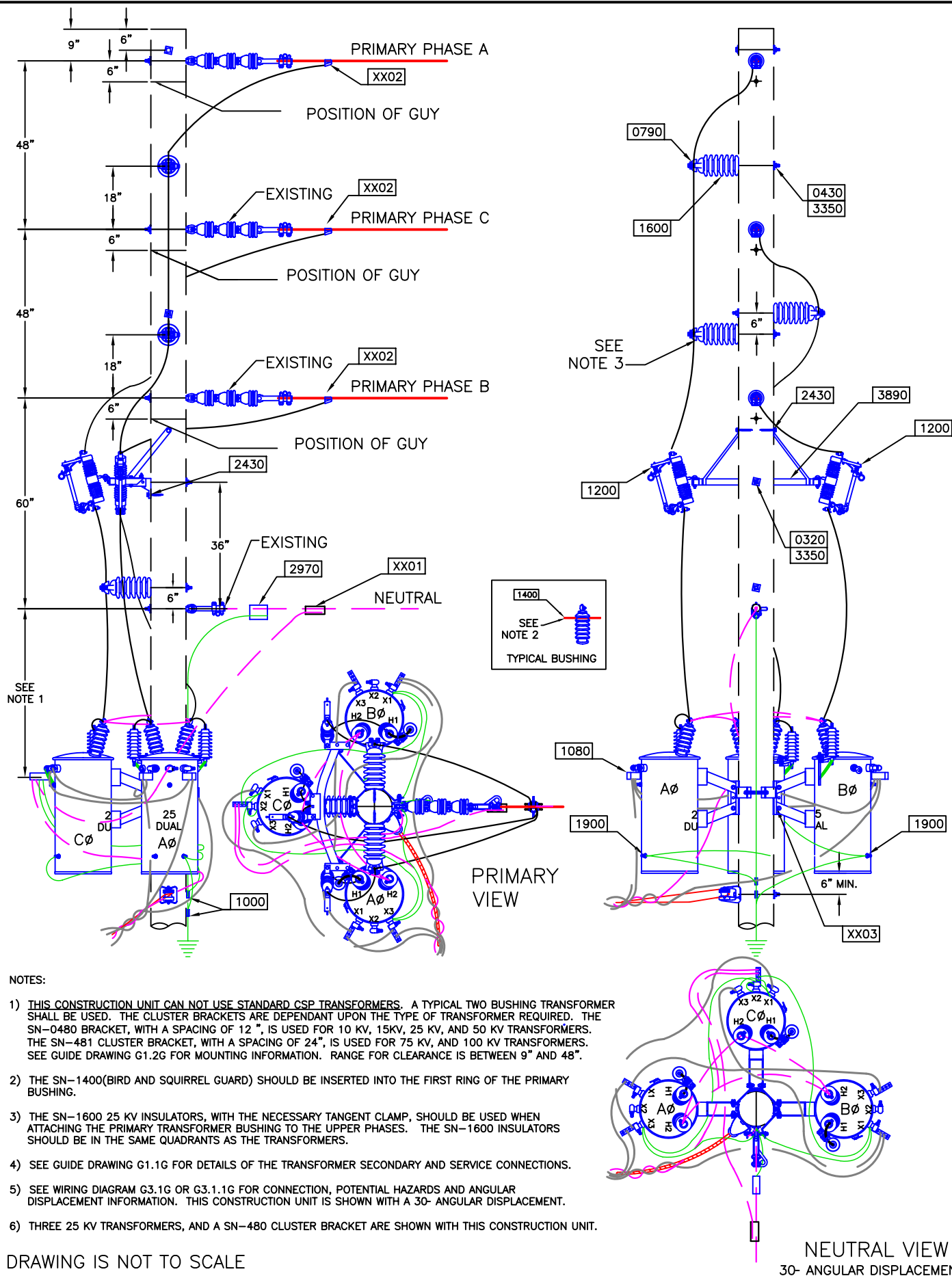
Drawn By: DEM	Date Drawn: 01/20/2002
Approved By: WHP	Date Updated: 10/06/2008
Old CU: NEW	DWG Name: VG2-11-V.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , TWO TRANSFORMERS,
CLUSTER MOUNT, OPEN WYE-OPEN DELTA, 1 ϕ AND
3 ϕ 120/240 VOLT LOADS, DEADEND POLE

REV# : 002
VG2.11.V

CONSTRUCTION UNIT:	VG2.11.V	AUTOCAD FILE:	VG2-11-V.DWG
DESCRIPTION:	14.4/24.9 KV; 3-PHASE TWO TRANSFORMERS;CLUSTER MOUNTED; OPEN WYE - OPEN DELTA; 1-PHASE AND 3-PHASE 120/240 VOLT POWER LOADS; DEADEND	PDF FILE:	VG2-11-V.PDF
		PDF SPEC.:	VG2-11-V_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	2

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0430	1	BOLT; STUD 5/8"X 3/4"X 12"		
0790	1	CLAMP; INS WIRE #2 - 4/0		
1000	2	CONNECTOR; CU #4		
1080	2	CONNECTOR; PTT4-250		
1400	2	GUARD; BIRD & SQUIRREL		
1600	1	INSULATOR; POST TYPE VERTICAL		
1900	2	LUG; TRANSFORMER GROUND		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	1	WASHER; SQUARE		
3530	30	WIRE; CU BSD 4		
XX01	2	CONNECTOR (NEUTRAL)	N	13
XX02	2	CONNECTOR (PRIMARY); HOT LINE AL	W	15
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/06/2008
Old CU: VG310-V	DWG Name: VG3-1-V.DWG

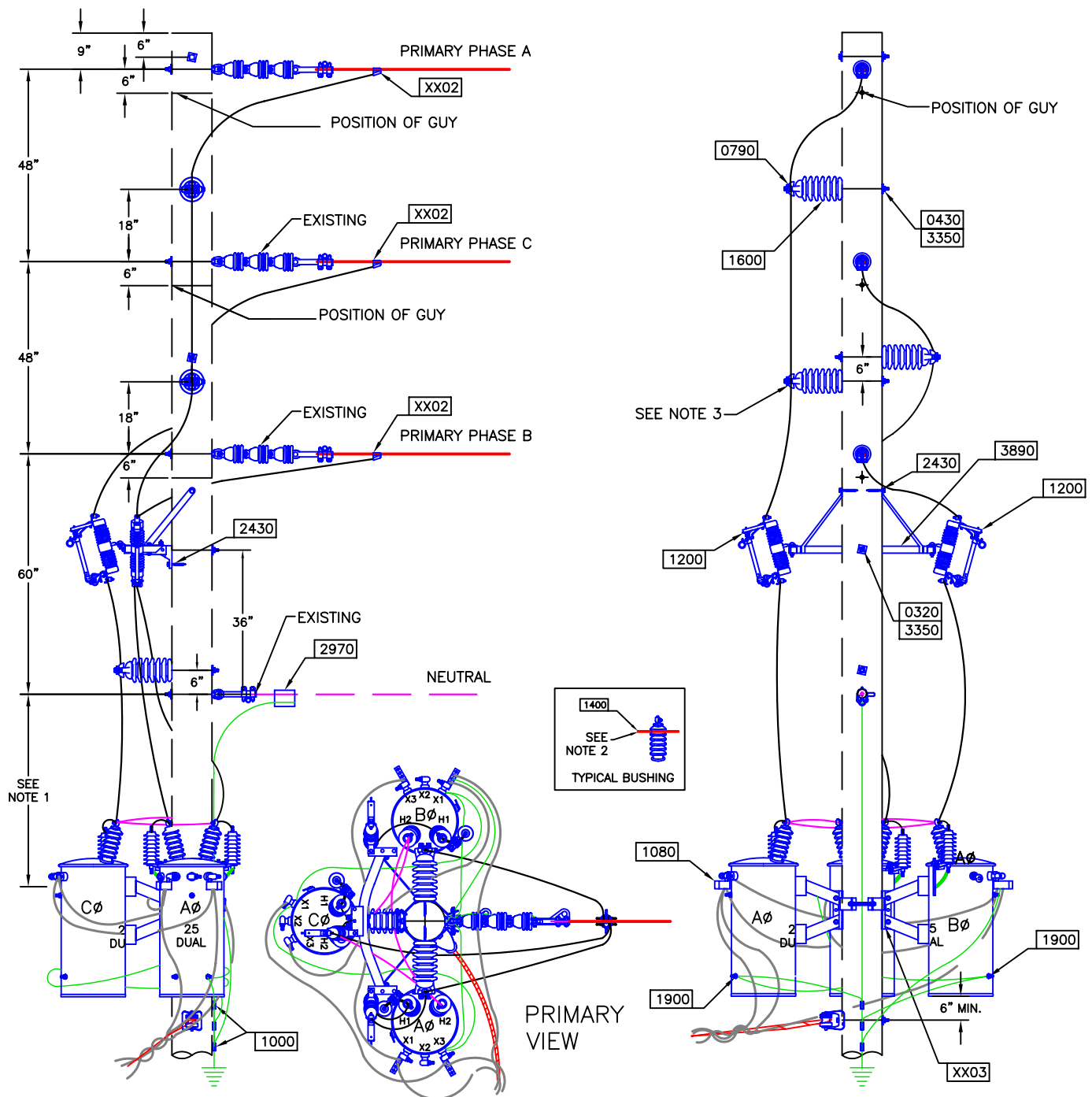
14.4/24.9 KV PRIMARY, 30, THREE TRANSFORMERS,
CLUSTER MOUNT, UNGROUNDED WYE-CENTERTAP
GROUNDED DELTA, 120/240 LOADS, WITH CUTOUT
FUSES, DEADEND POLE

REV# : 003

VG3.1.V

CONSTRUCTION UNIT:	VG3.1.V	AUTOCAD FILE:	VG3-1-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY;3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; UNGROUNDED WYE - CENTER-TAP GROUNDED DELTA 120/240 VOLT LOADS;	PDF FILE:	VG3-1-V.PDF
		PDF SPEC.:	VG3-1-V-SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	3	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	5	CONNECTOR; PTT4-250		
1200	3	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	3	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



NOTES:

- 1) THIS CONSTRUCTION UNIT CAN NOT USE STANDARD CSP TRANSFORMERS. A TYPICAL TWO BUSHING TRANSFORMER SHALL ONLY BE USED. THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400(BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.2G OR G3.2.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT.

DRAWING IS NOT TO SCALE

NEUTRAL VIEW
30- ANGULAR DISPLACEMENT

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 10/6/2008

Old CU: VG311-V DWG Name: VG3-11-V.DWG

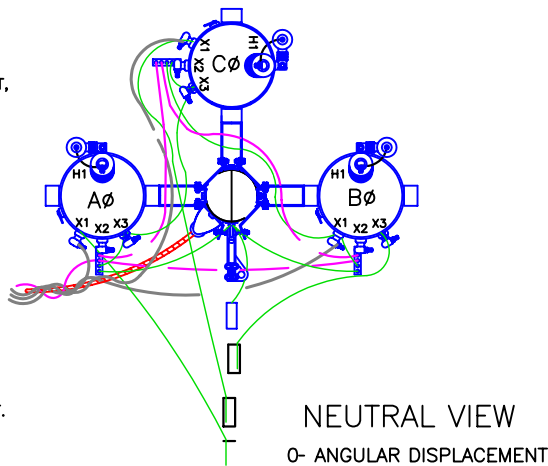
**14.4/24.9 KV PRIMARY, 30, THREE TRANSFORMERS,
CLUSTER MOUNT, UNGROUNDED WYE-CORNER
GROUNDED DELTA, 240 & 480 VOLT, 30 LOADS, WITH
CUTOUT FUSES, DEADEND POLE**

REV# : 003

VG3.11.V

CONSTRUCTION UNIT:	VG3.11.V	AUTOCAD FILE:	VG3-11-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT UNGROUNDED WYE - CORNER GROUNDED DELTA; 240 AND 280 VOLT; 3-PHASE LOADS;	PDF FILE:	VG3-11-V.PDF
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		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	3	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	4	CONNECTOR; PTT4-250		
1200	3	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	3	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51

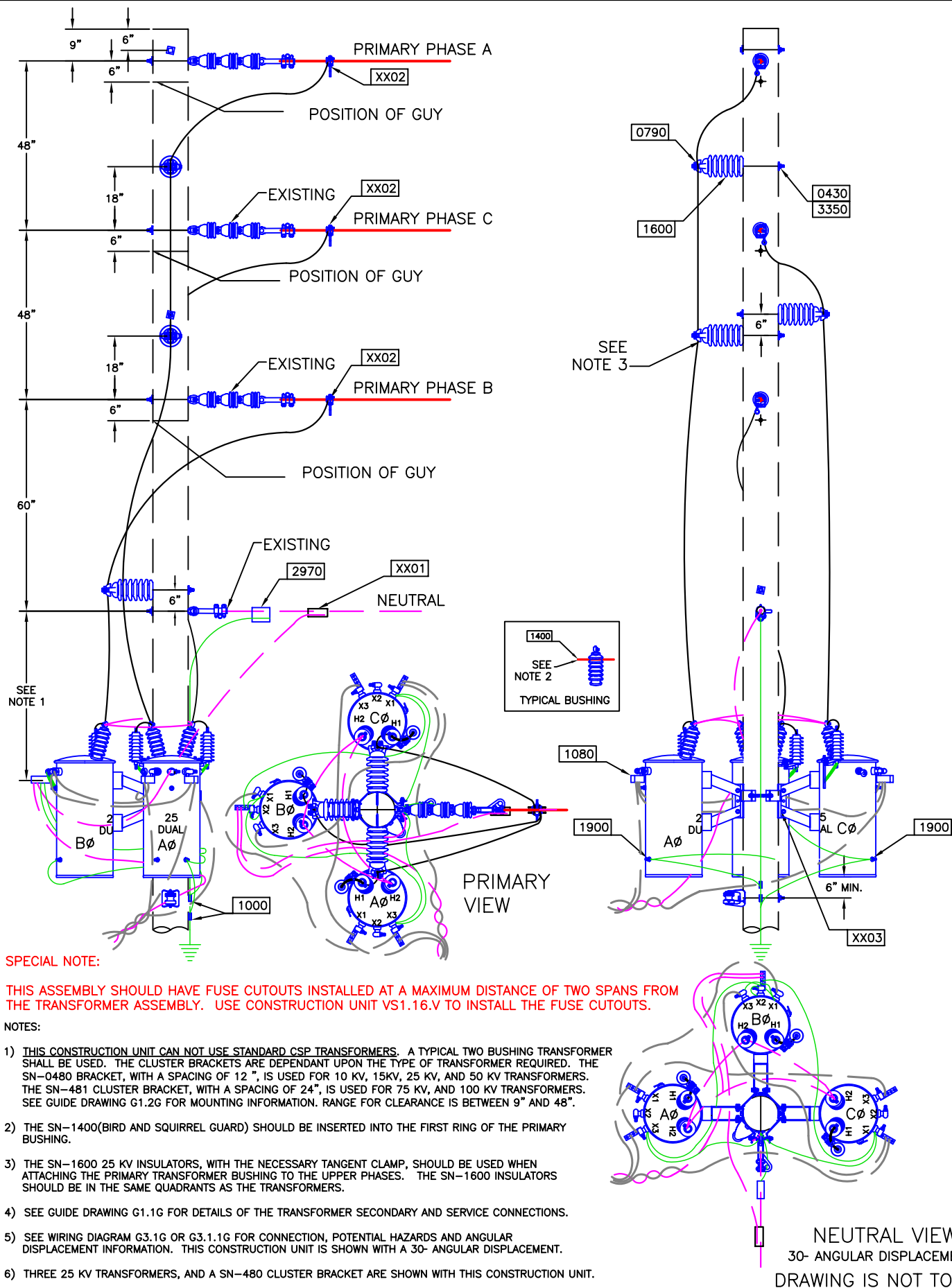


0- ANGULAR DISPLACEMENT

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3Ø, THREE TRANSFORMERS, CLUSTER MOUNT, GROUNDED WYE—GROUNDED WYE, 120/208 AND 277/480 VOLT LOADS, WITH CUTOUT FUSES, DEADEND POLE	REV# : 003
Approved By: WHP	Date Updated: 10/6/2005		VG3.12.V
Old CU: VG312-V	DWG Name: VG3-12-V.DWG		

CONSTRUCTION UNIT:	VG3.12.V	AUTOCAD FILE:	VG3.12-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY;3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; GROUNDED WYE - GROUNDED WYE; 120/208 AND 277/480 VOLT LOADS; WITH CUTOUT	PDF FILE:	VG3.12-V.PDF
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ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
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		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	3	CONNECTOR; PTT4-250		
1200	3	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	3	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



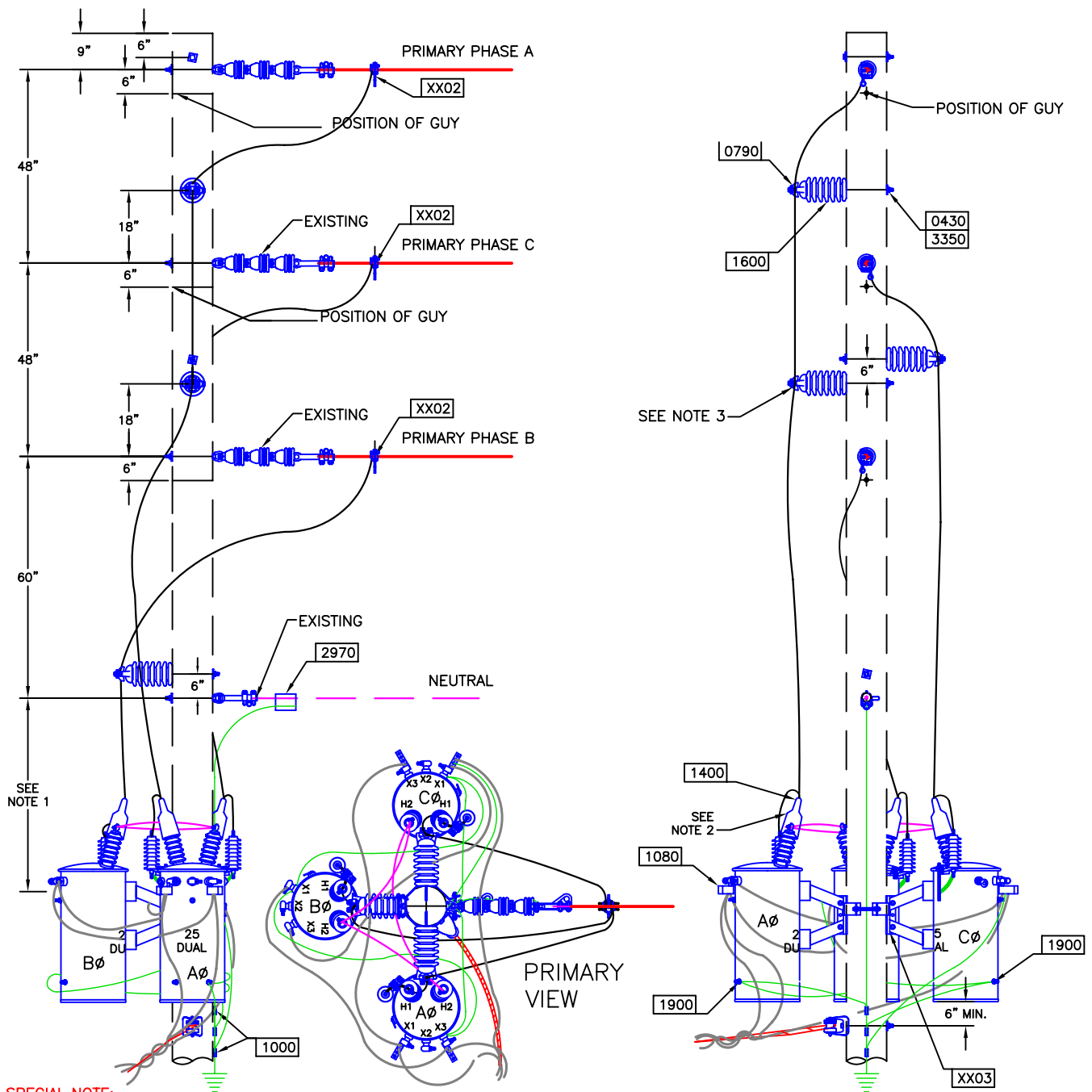
Drawn By: DEM	Date Drawn: MAY 2005
Approved By: WHP	Date Updated: 10/06/08
Old CU: NEW	DWG Name: VG3-14-V.DWG

14.4/24.9 KV PRIMARY, 30, THREE TRANSFORMERS,
CLUSTER MOUNT, UNGROUNDED WYE-CENTER TAP
GROUNDED DELTA, 120/240 VOLT LOADS, WITH
CUTOUT FUSES, DEADEND POLE

REV# : 003
VG3.14.V

CONSTRUCTION UNIT:	VG3.14.V	AUTOCAD FILE:	VG3-14-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY;3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; UNGROUNDED WYE - CENTER-TAP GROUNDED DELTA 120/240 VOLT LOADS;	PDF FILE:	VG3-14-V.PDF
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	5	CONNECTOR; PTT4-250		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); HOT LINE AL	W	15
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51

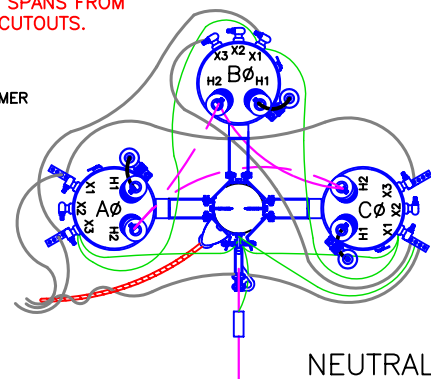
**SPECIAL NOTE:**

THIS ASSEMBLY SHOULD HAVE FUSE CUTOUTS INSTALLED AT A MAXIMUM DISTANCE OF TWO SPANS FROM THE TRANSFORMER ASSEMBLY. USE CONSTRUCTION UNIT VS1.16.V TO INSTALL THE FUSE CUTOUTS.

NOTES:

- 1) THIS CONSTRUCTION UNIT CAN NOT USE STANDARD CSP TRANSFORMERS. A TYPICAL TWO BUSHING TRANSFORMER SHALL ONLY BE USED. THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. MAXIMUM DISTANCE FOR CLEARANCE IS 48".
- 2) THE SN-1400(BIRD AND SQUIRREL GUARD) SHOULD BE POSITIONED ONLY OVER THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.2G OR G3.2.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT.

DRAWING IS NOT TO SCALE



NEUTRAL VIEW
30- ANGULAR DISPLACEMENT

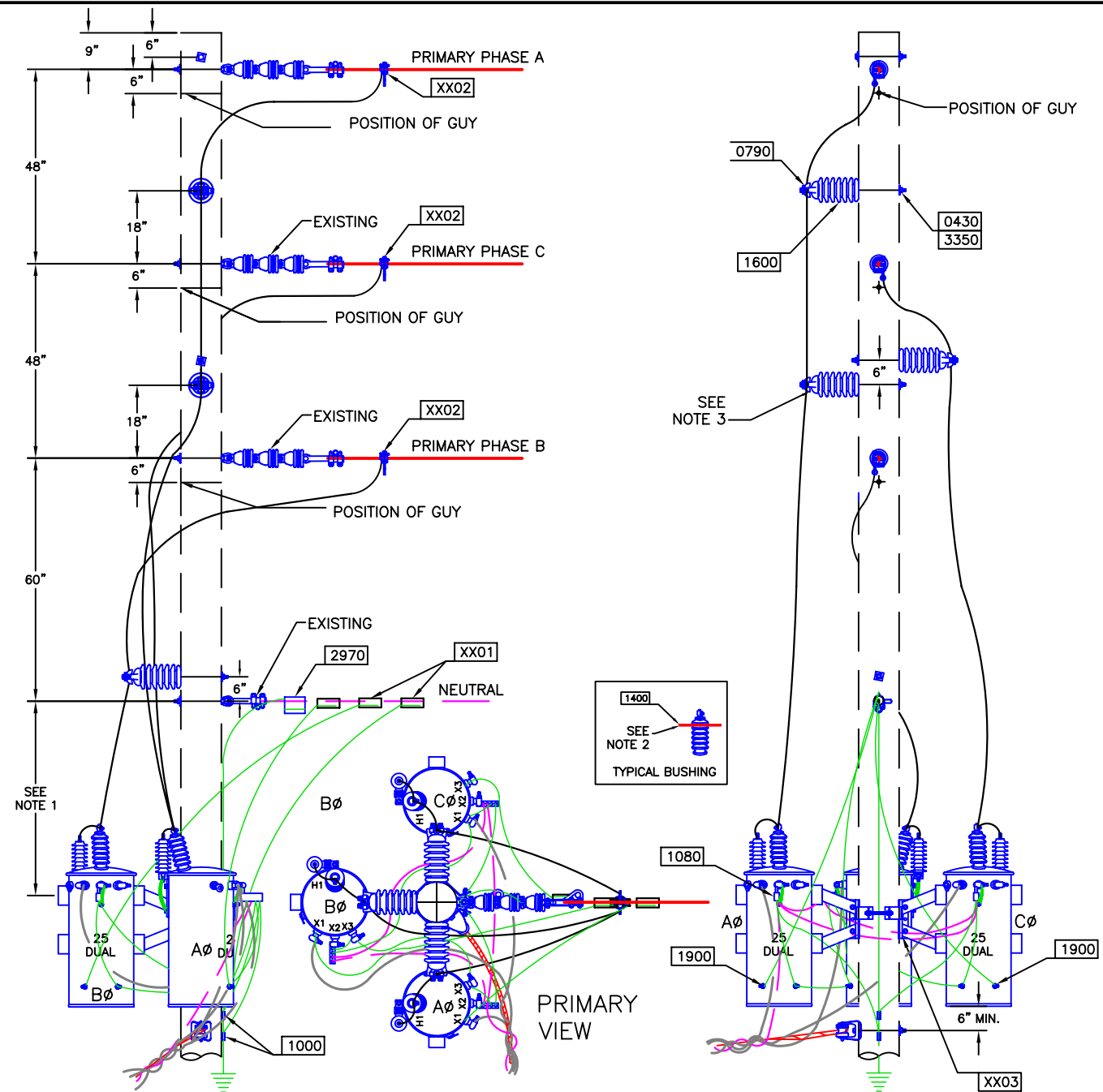
Drawn By: DEM	Date Drawn: MAY 2005
Approved By: WHP	Date Updated: 10/06/2008
Old CU: NEW	DWG Name: VG3-15-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE TRANSFORMERS,
CLUSTER MOUNT, UNGROUNDED WYE-CORNER
GROUNDED DELTA, 240 AND 480 V VOLT,
3Ø LOADS, DEADEND POLE

REV# : 003
VG3.15.V

CONSTRUCTION UNIT:	VG3.15.V	AUTOCAD FILE:	VG3-15-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT UNGROUND WYE - CORNER GROUNDED DELTA; 240 & 280 VOLT; 3-PHASE LOADS;	PDF FILE:	VG3-15-V.PDF
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		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	4	CONNECTOR; PTT4-250		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	4	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); HOT LINE AL	W	15
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51

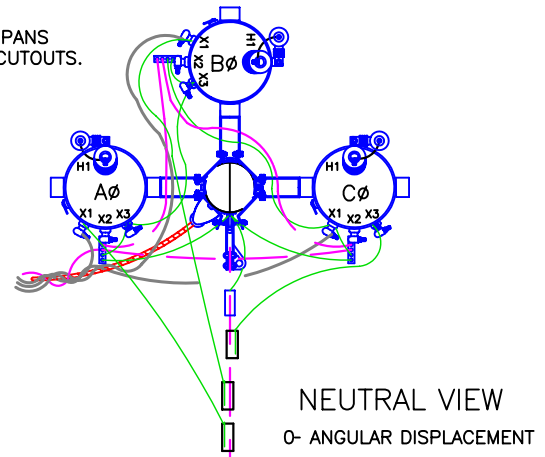
**SPECIAL NOTE:**

THIS ASSEMBLY SHOULD HAVE FUSE CUTOUTS INSTALLED AT A MAXIMUM DISTANCE OF TWO SPANS FROM THE TRANSFORMER ASSEMBLY. USE CONSTRUCTION UNIT VS1.16.V TO INSTALL FUSE CUTOUTS.

NOTES:

- 1) THE CLUSTER BRACKET IS DEPENDANT UPON THE TRANSFORMER REQUIRED. THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.3G OR G3.3.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. RECONNECT THE INTERNAL WINDINGS OF THE SECONDARY AS SHOWN IN THE WIRING DIAGRAM. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30° ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT.

DRAWING IS NOT TO SCALE



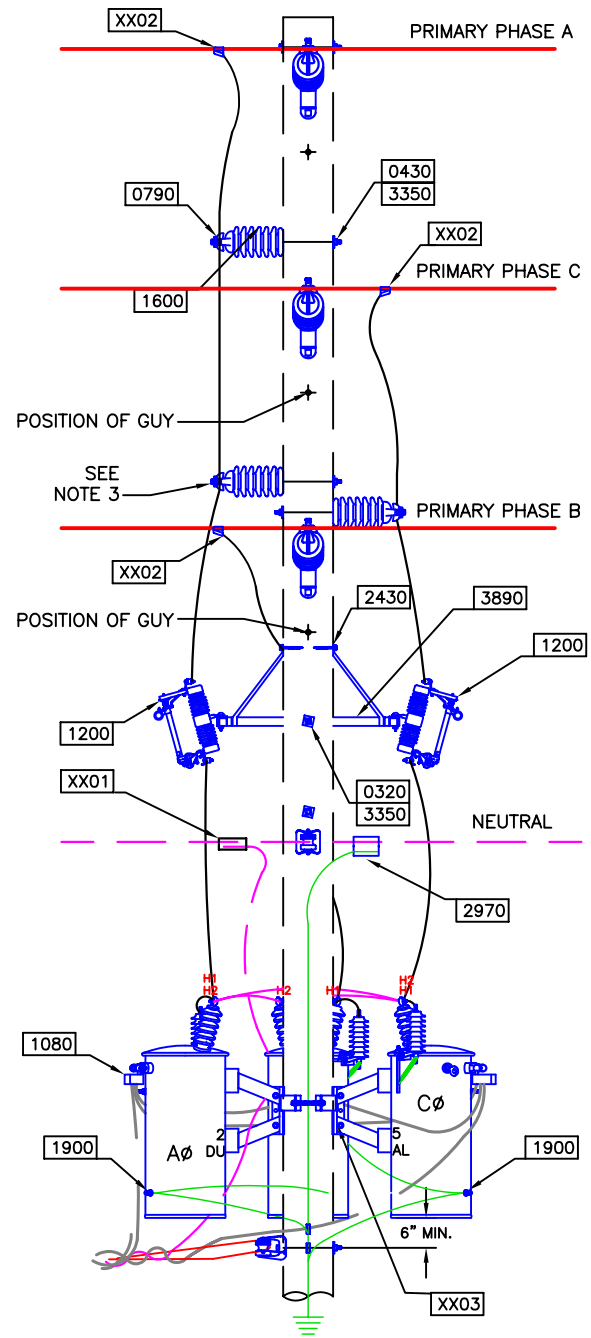
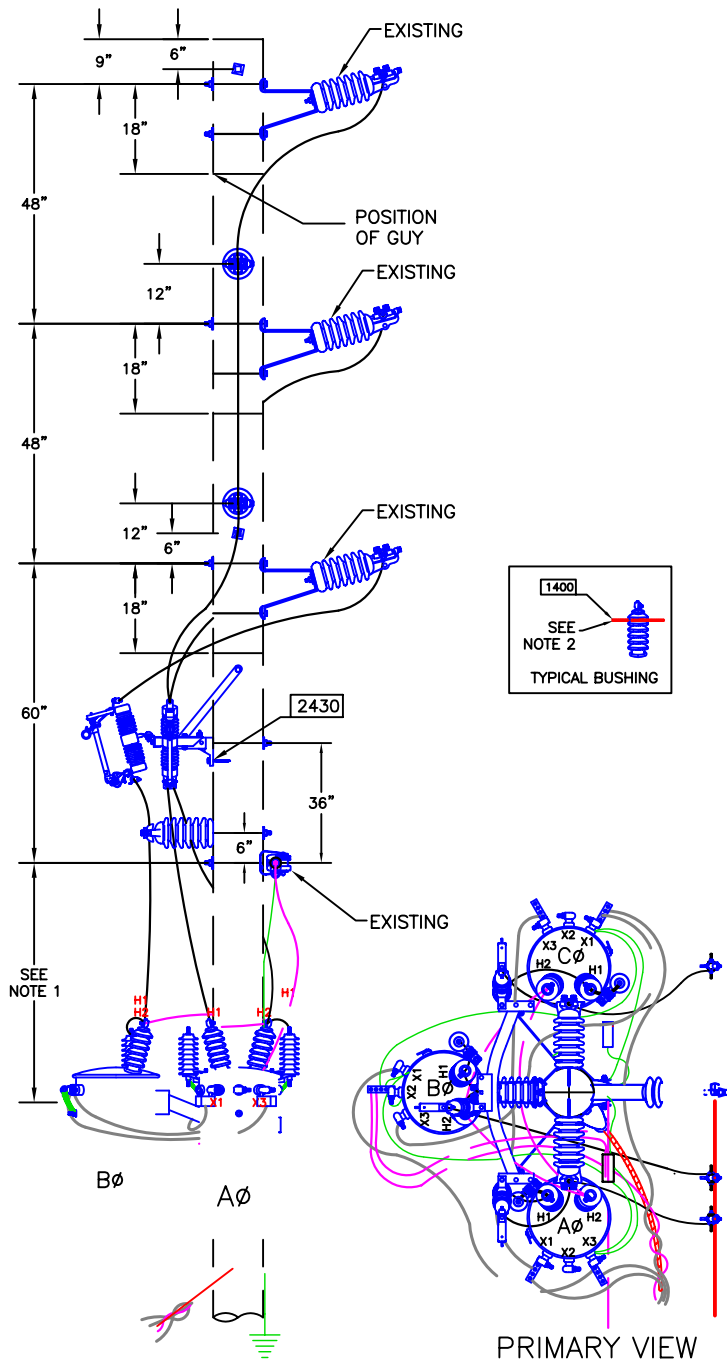
Drawn By: DEM	Date Drawn: MAY 2005
Approved By: WHP	Date Updated: 10/06/2008
Old CU: NEW	DWG Name: VG3-16-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE
TRANSFORMERS, CLUSTER MOUNT, GROUNDED
WYE-GROUNDED WYE, 120/208 AND 277/480
VOLT LOADS, DEADEND POLE

REV# : 003
VG3.16.V

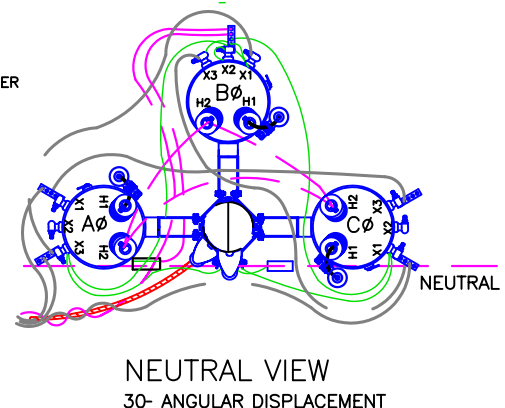
CONSTRUCTION UNIT:	VG3.16.V	AUTOCAD FILE:	VG3.16-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY;3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; GROUNDED WYE - GROUNDED WYE; 120/208 AND 277/480 VOLT LOADS; DEADEND POLE	PDF FILE:	VG3.16-V.PDF
		PDF SPEC.:	VG3.16-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	3	CONNECTOR; PTT4-250		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); HOT LINE AL	W	15
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



NOTES:

- 1) THIS CONSTRUCTION UNIT CAN NOT USE STANDARD CSP TRANSFORMERS. A TYPICAL TWO BUSHING TRANSFORMER SHALL BE USED. THE CLUSTER BRACKETS ARE DEPENDANT UPON THE TYPE OF TRANSFORMER REQUIRED. THE SN-0480 BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.1G OR G3.1.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS, AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT.



DRAWING IS NOT TO SCALE

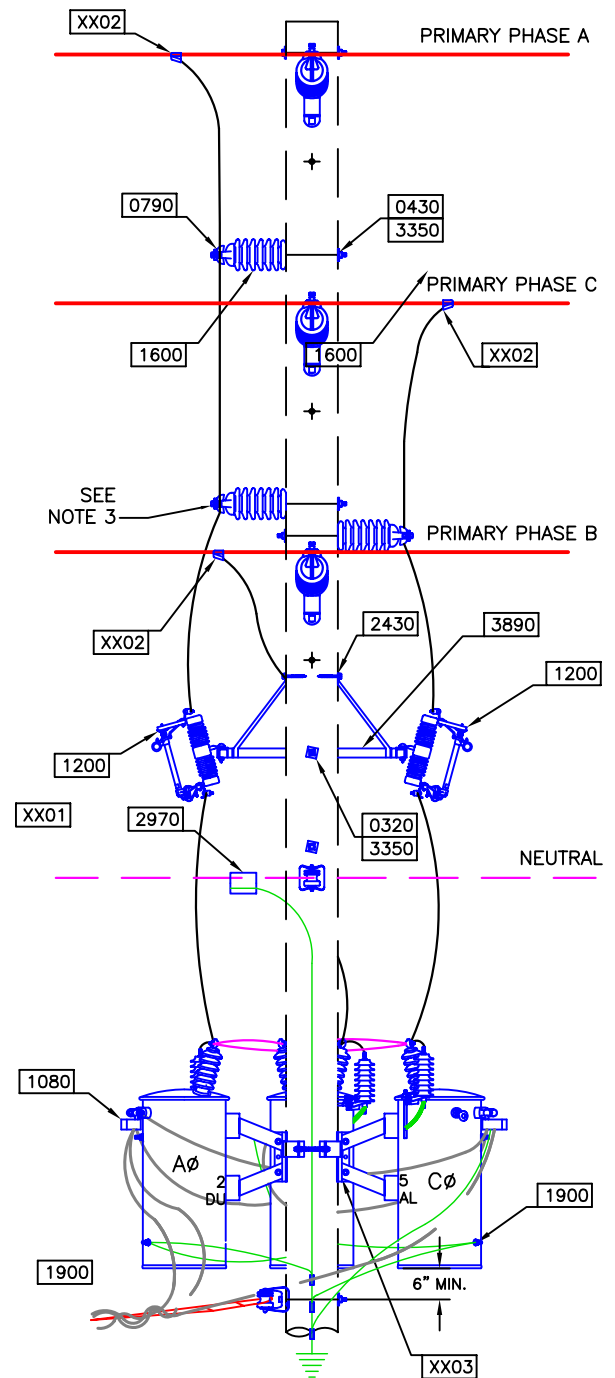
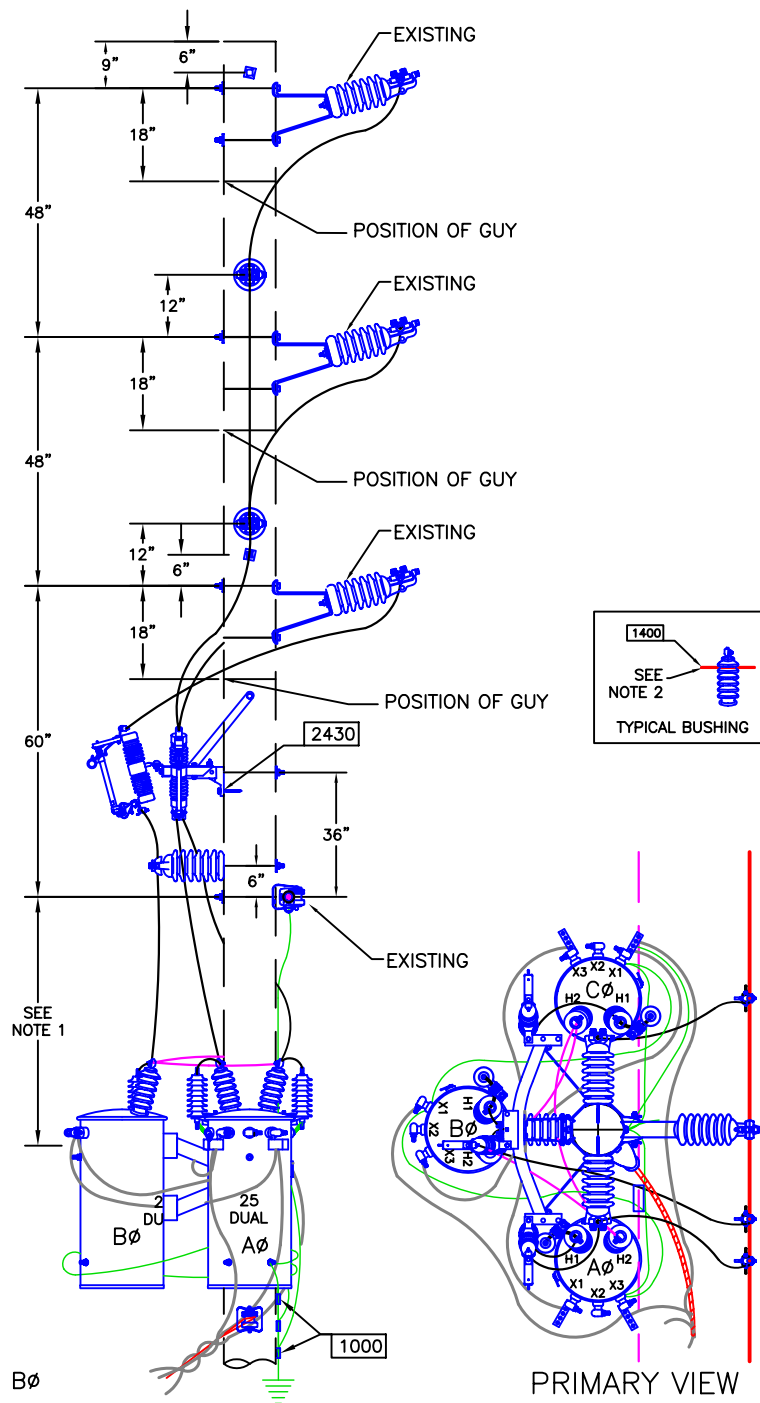
Drawn By: DEM	Date Drawn: 7/08/2003
Approved By: WHP	Date Updated: 10/11/2008
Old CU: NEW	DWG Name: VG3-2-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE
TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED
WYE-CENTER TAP GROUNDED DELTA, 120/240
VOLT LOADS, WITH CUTOUT FUSES, TANGENT POLE

REV# : 003
VG3.2.V

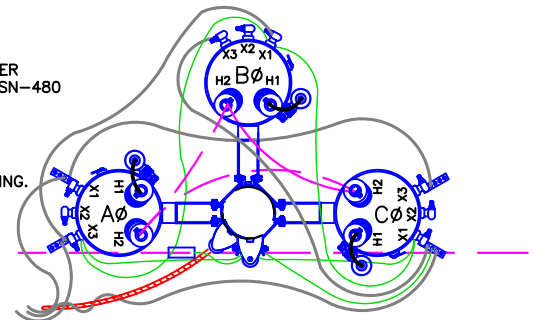
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DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; UNGROUNDED WYE - CENTER-TAP GROUNDED DELTA; 120/240 VOLT LOADS;	PDF FILE:	VG3-2-V.PDF
		PDF SPEC.:	VG3-2-V_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	5	CONNECTOR; PTT4-250		
1200	3	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	3	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



NOTES:

- 1) THIS CONSTRUCTION UNIT CAN NOT USE STANDARD CSP TRANSFORMERS. A TYPICAL TWO BUSHING TRANSFORMER SHALL BE USED. THE CLUSTER BRACKETS ARE DEPENDANT UPON THE TYPE OF TRANSFORMER REQUIRED. THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. RANGE FOR CLEARANCE IS BETWEEN 9" 48".
- 2) THE SN-1400(BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.2G OR G3.2.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT. DRAWING IS NOT TO SCALE

NEUTRAL VIEW
30- ANGULAR DISPLACEMENT

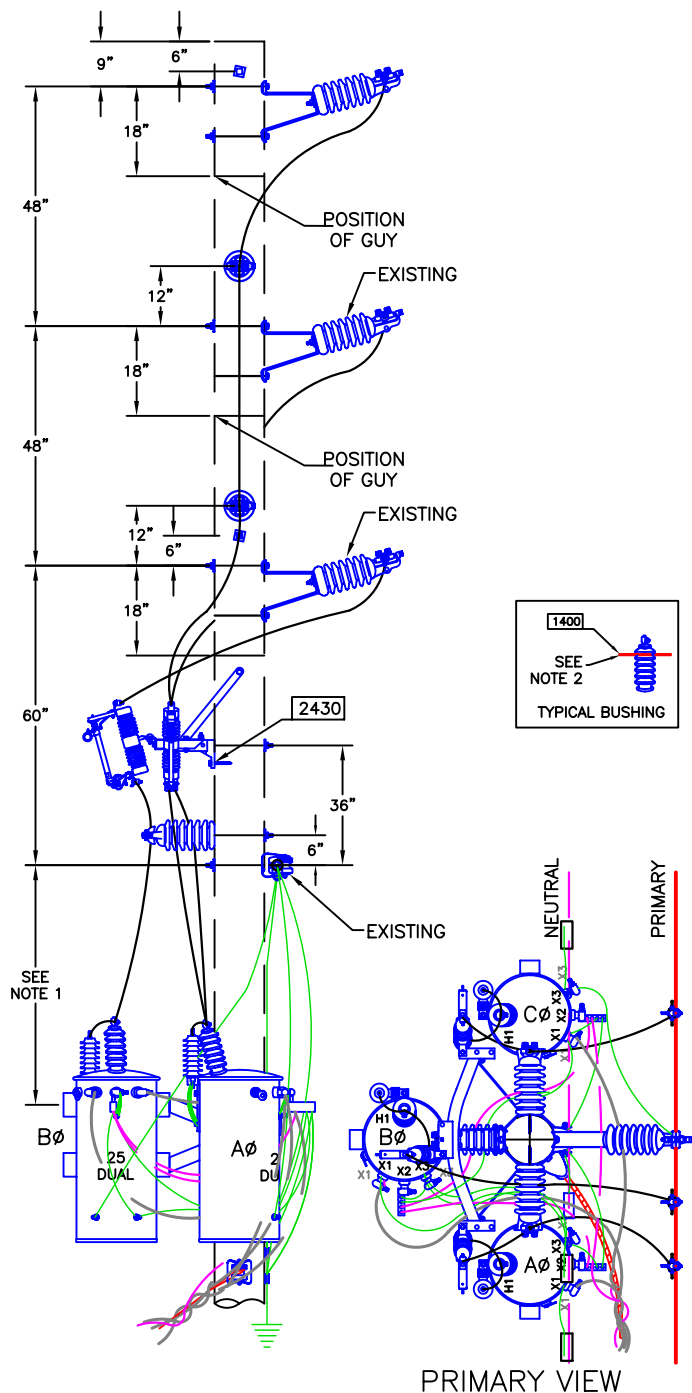
Drawn By: DEM	Date Drawn: 7/8/2003
Approved By: WHP	Date Updated: 10/09/2008
Old CU: NEW	DWG Name: VG3-21-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE
TRANSFORMERS, CLUSTER MOUNT, UNGROUNDED
WYE-CORNER GROUNDED DELTA, 240 AND 480
VOLT LOADS, WITH FUSE CUTOUTS TANGENT POLE

REV# : 003
VG3.21.V

CONSTRUCTION UNIT:	VG3.21.V	AUTOCAD FILE:	VG3-21-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; UNGROUNDED WYE - CORNER GROUNDED DELTA; 240 AND 480 VOLT LOADS; WITH	PDF FILE:	VG3-21-V.PDF
		PDF SPEC.:	VG3-21-V_SPEC.PDF
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	3

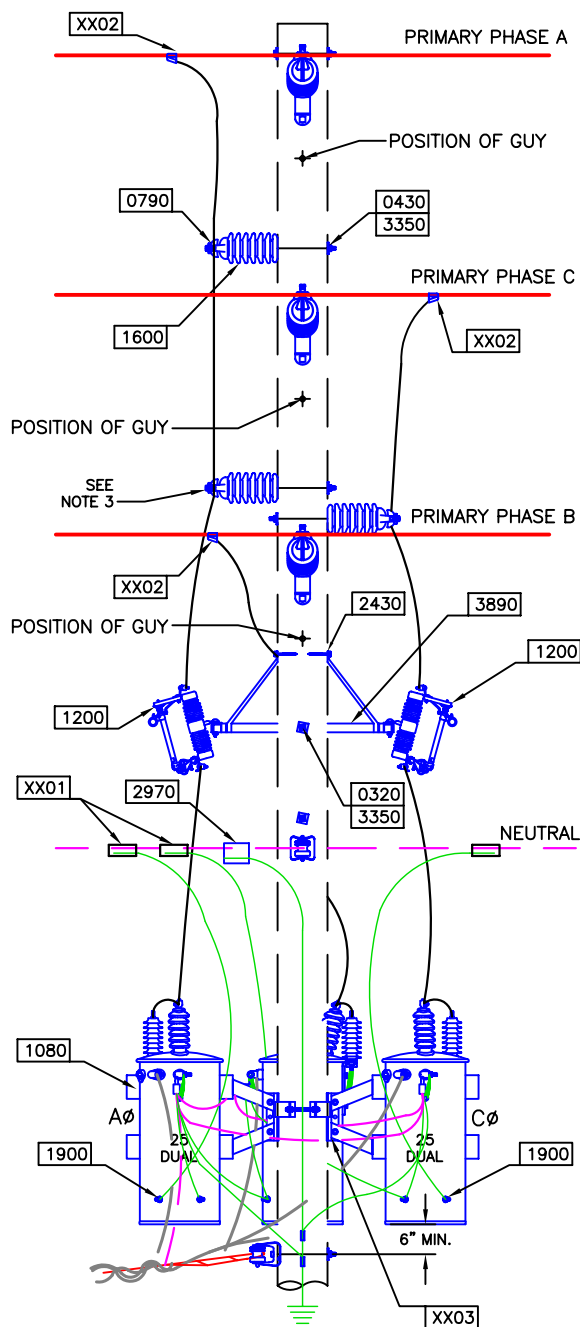
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	4	CONNECTOR; PTT4-250		
1200	2	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	3	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51



PRIMARY VIEW

NOTES:

- 1) THE CLUSTER BRACKET IS DEPENDANT UPON THE TRANSFORMER REQUIRED. THE SN-480 CLUSTER BRACKET, WITH A SPACING OF 12", IS USED FOR 10 KV, 15KV, 25 KV, AND 50 KV TRANSFORMERS. THE SN-481 CLUSTER BRACKET, WITH A SPACING OF 24", IS USED FOR 75 KV, AND 100 KV TRANSFORMERS. SEE GUIDE DRAWING G1.2G FOR MOUNTING INFORMATION. RANGE FOR CLEARANCE IS BETWEEN 9" AND 48".
- 2) THE SN-1400(BIRD AND SQUIRREL GUARD) SHOULD BE INSERTED INTO THE FIRST RING OF THE PRIMARY BUSHING.
- 3) THE SN-1600 25 KV INSULATORS, WITH THE NECESSARY TANGENT CLAMP, SHOULD BE USED WHEN ATTACHING THE PRIMARY TRANSFORMER BUSHING TO THE UPPER PHASES. THE SN-1600 INSULATORS SHOULD BE IN THE SAME QUADRANTS AS THE TRANSFORMERS.
- 4) SEE GUIDE DRAWING G1.1G FOR DETAILS OF THE TRANSFORMER SECONDARY AND SERVICE CONNECTIONS.
- 5) SEE WIRING DIAGRAM G3.3G OR G3.3.1G FOR CONNECTION, POTENTIAL HAZARDS AND ANGULAR DISPLACEMENT INFORMATION. RECONNECT THE INTERNAL WINDINGS OF THE SECONDARY AS SHOWN IN THE WIRING DIAGRAM. THIS CONSTRUCTION UNIT IS SHOWN WITH A 30- ANGULAR DISPLACEMENT.
- 6) THREE 25 KV TRANSFORMERS AND A SN-480 CLUSTER BRACKET ARE SHOWN WITH THIS CONSTRUCTION UNIT.

NEUTRAL VIEW
30- ANGULAR DISPLACEMENT

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 7/08/2003
Approved By: WHP	Date Updated: 10/09/2008
Old CU: NEW	DWG Name: VG3-22-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE
TRANSFORMERS, CLUSTER MOUNT, GROUNDED
WYE-GROUNDED WYE, 120/208 AND 277/480
VOLT LOADS, WITH FUSE CUTOUTS, TANGENT POLE

REV# : 003
VG3.22.V

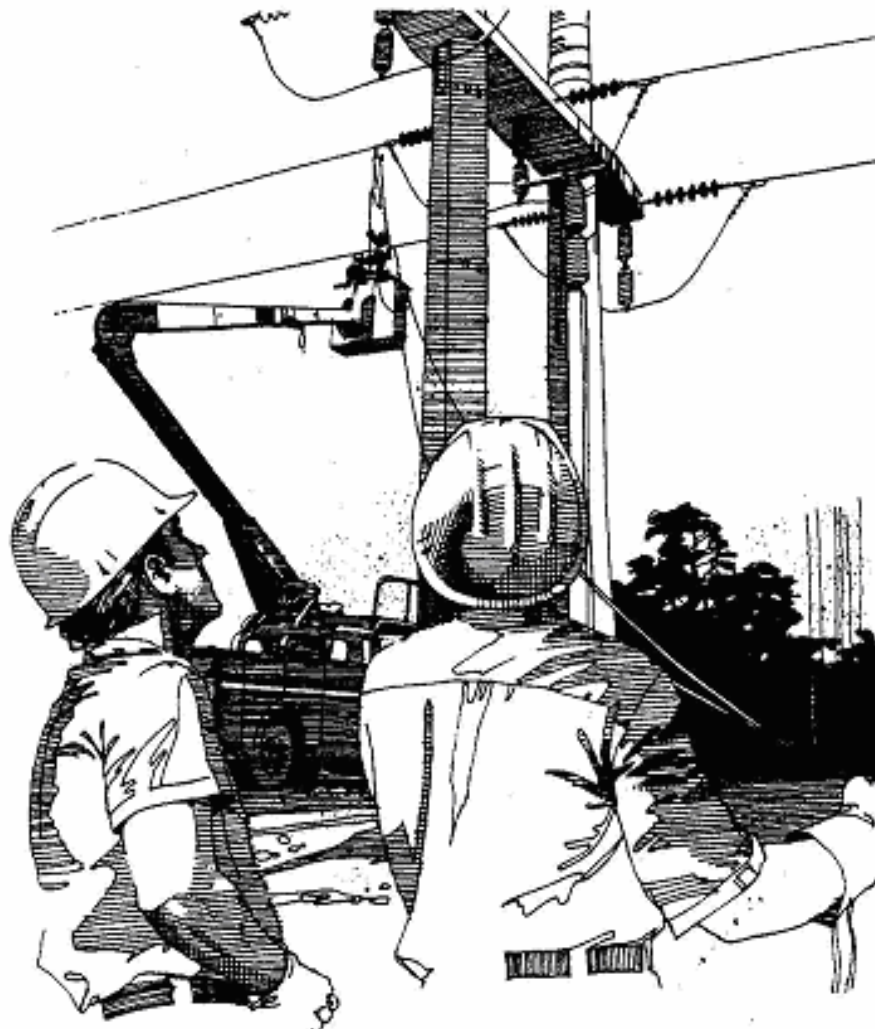
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DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; THREE TRANSFORMERS; CLUSTER MOUNT; GROUNDED WYE - GROUNDED WYE; 120/208 AND 277/480 VOLT LOADS; WITH CUTOUT	PDF FILE:	VG3-22-V.PDF
		PDF SPEC.:	VG3-22-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	3

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	3	CONNECTOR; CU #4		
1080	3	CONNECTOR; PTT4-250		
1200	3	CUTOUT; FUSED OH 100 AMP		
1400	3	GUARD; BIRD & SQUIRREL		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	2	SCREW; LAG 1/2" X 4"		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	5	WASHER; SQUARE		
3530	110	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
XX01	3	CONNECTOR (NEUTRAL)	N	13
XX02	3	CONNECTOR (PRIMARY); AMPACT	W	17
XX03	1	BRACKET; CLUSTER MOUNT AL	T	51

CONSTRUCTION UNITS

TRANSFORMER ASSEMBLY GUIDES AND WIRING DIAGRAMS

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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NOTES

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NOTES

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TRANSFORMER ASSEMBLY GUIDES AND WIRING DIAGRAMS

C.U. NO.	DESCRIPTION	PAGE NO.
G1.1G	14.4/24.9 KV PRIMARY, CONNECTION GUIDE, SINGLE - PHASE, POLE-TYPE TRANSFORMER, TRIPLEX CABLE SERVICE TAKE-OFF	1
G1.2G	14.4/24.9 KV PRIMARY, INSTALLATION GUIDE, THREE - PHASE, THREE TRANSFORMER, CLUSTER MOUNT BRACKET	2
G2.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, TWO TRANSFORMER, THREE - PHASE, GROUNDED OPEN WYE -- OPEN DELTA, FOR 120/240 VOLT SECONDARY, 30 DEGREE ANGULAR DISPLACEMENT	3
G2.1.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, TWO TRANSFORMER, THREE - PHASE, GROUNDED OPEN WYE -- OPEN DELTA, FOR 120/240 VOLT SECONDARY, 210 DEGREE ANGULAR DISPLACEMENT	4
G3.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE - PHASE, UNGROUNDED WYE -- CENTER TAP DELTA, FOR 120/240 VOLT SECONDARY, 30 DEGREE ANGULAR DISPLACEMENT	5
G3.1.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE - PHASE, UNGROUNDED WYE -- CENTER TAP DELTA, FOR 120/240 VOLT SECONDARY, 210 DEGREE ANGULAR DISPLACEMENT	6
G3.2G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE -- PHASE, UNGROUNDED WYE -- CENTER TAP DELTA, FOR 240 AND 480 VOLT SECONDARY, 30 DEGREE ANGULAR DISPLACEMENT,	7
G3.2.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE -- PHASE, UNGROUNDED WYE -- CENTER TAP DELTA, FOR 120/240 VOLT SECONDARY, 210 DEGREE ANGULAR DISPLACEMENT	8
G3.3G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE - PHASE, GROUNDED WYE -- GROUNDED WYE FOR 120/208 VOLT SECONDARY	9
G3.3.1G	14.4/24.9 KV PRIMARY, WIRING DIAGRAM, THREE TRANSFORMER, THREE - PHASE, GROUNDED WYE -- GROUNDED WYE FOR 277/480 VOLT SECONDARY	10

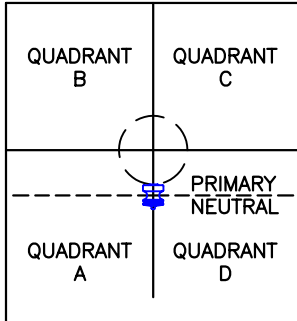
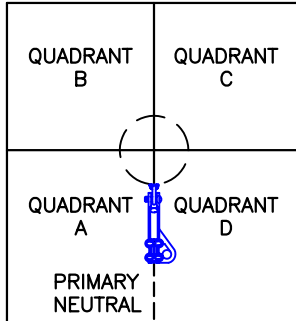
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GUIDE FOR TRANSFORMER QUADRANT INSTALLATION

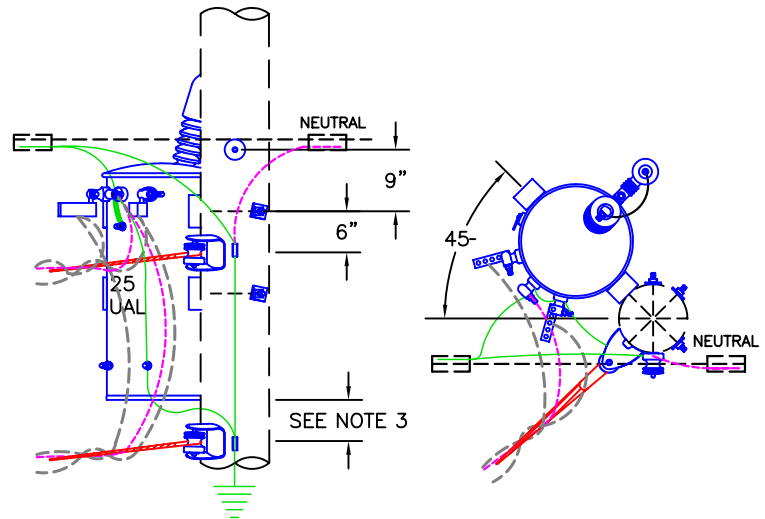
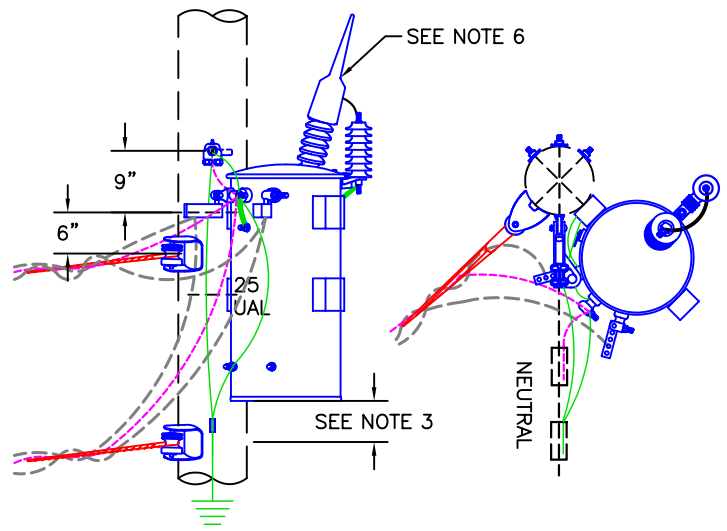
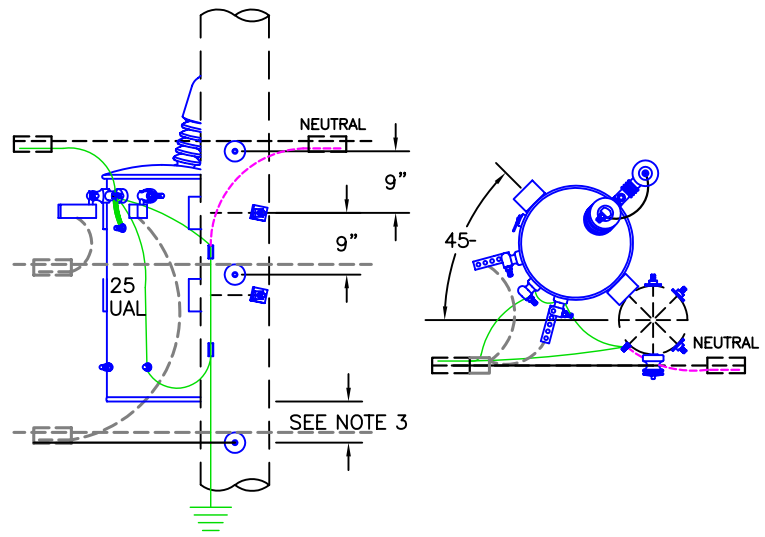
SERVICE DROP QUADRANT	QUADRANT TO INSTALL TRANSFORMER	
	TANGENT POLE	DEADEND POLE
A	B or C	D
B	C	C
C	B	B
D	B or C	A

TANGENT POLE
TOP VIEWDEADEND POLE
TOP VIEW

NOTE:

- 1) INSTALL TRANSFORMER ON TANGENT POLES, IN A QUADRANT, ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE SECONDARY BUSHINGS SHOULD FACE THE PRIMARY NEUTRAL. SEE CONSTRUCTION UNITS VG1.2, VG1.36 AND VG1.5 FOR ATTACHMENT DETAILS.
- 2) INSTALL TRANSFORMER ON DEADEND POLES, IN A QUADRANT, SO THAT THE SECONDARY BUSHINGS ARE ADJACENT TO AND FACE THE PRIMARY NEUTRAL. SEE CONSTRUCTION UNITS VG1.3, VG1.36 AND VG1.6 FOR ATTACHMENT DETAILS.
- 3) WHEN IT IS NECESSARY TO INSTALL A TRANSFORMER IN THE SAME QUADRANT AS A SERVICE DROP, ATTACH THE SERVICE DROP A MINIMUM OF 6" BELOW THE TRANSFORMER'S BASE.
- 4) STANDARD ALUMINUM ALLOY OR STANDARD SOFT-DRAWN COPPER WIRE IS RECOMMENDED FOR ALL GROUNDING LOOP CONDUCTORS. COMPRESSION TYPE CONNECTORS SHOULD ALSO BE USED.
- 5) TRANSFORMER SECONDARY BUSHINGS ARE NOT TO BE USED FOR BI-METAL CONNECTIONS.
- 6) THE SN-1400 (BIRD AND SQUIRREL GUARD) SHOULD BE POSITIONED ONLY OVER THE FIRST RING OF THE PRIMARY BUSHING.
- 7) COVER SECONDARY TERMINALS WITH MOISTURE SEAL AND/OR DRESS CONDUCTOR ENDS DOWNWARD TO PREVENT ENTRY OF MOISTURE. THE MINIMUM BENDING RADIUS IS SIX TIMES THE OVERALL CABLE OUTER DIAMETER.
- 8) A 25 KV TRANSFORMER IS SHOWN, A 15 KV, 25 KV, OR 50 KV TRANSFORMER MAY BE USED WITH THIS CONSTRUCTION GUIDE.

DRAWING IS NOT TO SCALE

PRIMARY TANGENT POLE, DEADEND SERVICE
DROP, AT AND BELOW TRANSFORMERPRIMARY DEADEND POLE, DEADEND SERVICE
DROP, AT AND BELOW TRANSFORMERPRIMARY TANGENT POLE,
TANGENT SERVICE DROP

Drawn By: DEM	Date Drawn: JUNE 24, 2003
Approved By: WHP	Date Updated:
Old CU: M27-1 & -2	DWG Name: G1-1G.DWG

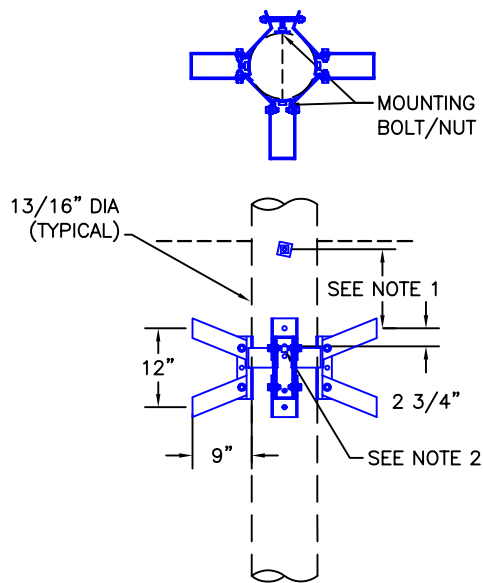
14.4/24.9 KV PRIMARY, CONNECTION GUIDE,
SINGLE-PHASE, POLE-TYPE TRANSFORMER,
TRIPLEX CABLE SERVICE DROP

ISSUE#: REV 1

G1.1G



DRAWING IS NOT TO SCALE



SN-0480 CLUSTER BRACKET
REVERSE IMAGE TO SHOW MOUNTING BOLT

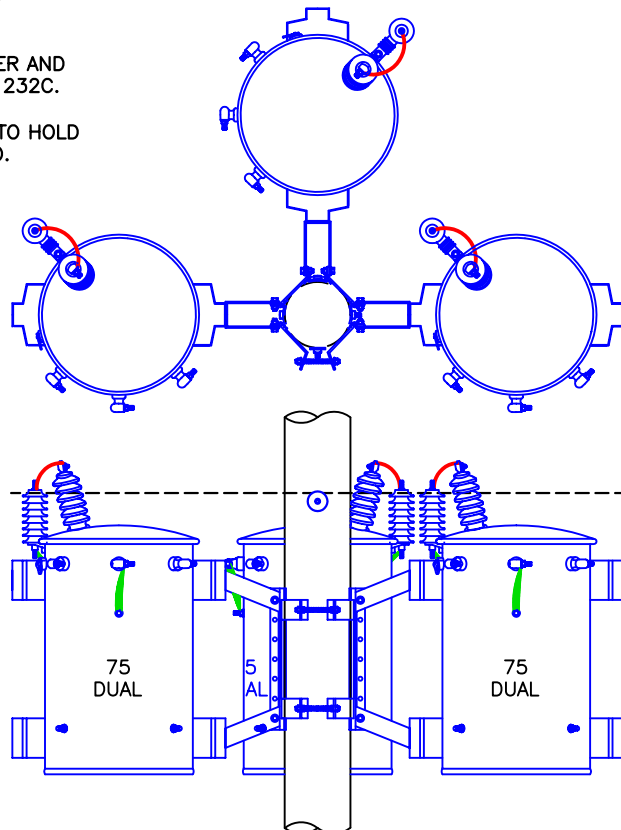
NOTE:

- 1) THE DIMENSION BETWEEN THE NEUTRAL WIRE AND THE TRANSFORMER'S MOUNTING BRACKET IS DEPENDANT ON THE NECESSARY CLEARANCE BETWEEN THE TRANSFORMER'S PRIMARY AND SECONDARY BUSHINGS AND THE NEUTRAL WIRE. THIS CLEARANCE IS NORMALLY BETWEEN 9" AND 12" AND SHOULD BE COMPLIANT WITH NESC RULE 124 AND 152. ADDITIONAL CLEARANCE IS REQUIRED WHEN EQUIPMENT IS CONNECTED BETWEEN THE PRIMARY PHASE AND THE TRANSFORMERS PRIMARY BUSHING. THIS ADDITIONAL CLEARANCE SHOULD NOT BE GREATER THAN 48".

THE CLEARANCE BETWEEN THE BASE OF THE TRANSFORMER CLUSTER AND THE GROUND SHOULD BE COMPLIANT WITH NESC RULES 232B AND 232C.

- 2) THE MOUNTING BOLT IS A 5/8" X (REQUIRED LENGTH), AND USED TO HOLD THE CLUSTER BRACKET IN PLACE WITH THE CLAMPS ARE TIGHTENED. THE SPRING CLIPS MUST BE PROPERLY INSTALLED TO INSURE THE CLUSTER MOUNT CLAMPS DO NOT FAIL.

TYPICAL TRANSFORMER MOUNTING ON
SN-0480 CLUSTER BRACKET



SN-0481 CLUSTER BRACKET
REVERSE IMAGE TO SHOW MOUNTING BOLT

TYPICAL TRANSFORMER MOUNTING ON
SN-0481 CLUSTER BRACKET

Drawn By: DEM	Date Drawn: JULY 1, 2003
Approved By: WHP	Date Updated:
Old CU:	DWG Name: G1-2G.DWG

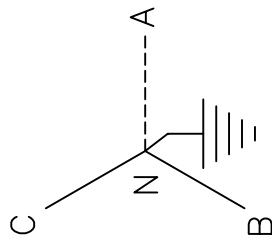
14.4/24.9 KV PRIMARY, INSTALLATION GUIDE,
THREE - PHASE, THREE TRANSFORMER,
CLUSTER MOUNT BRACKET

ISSUE#: REV 1

G1.2G



WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



PHASE A
(0 Deg.)

PHASE C

PHASE B

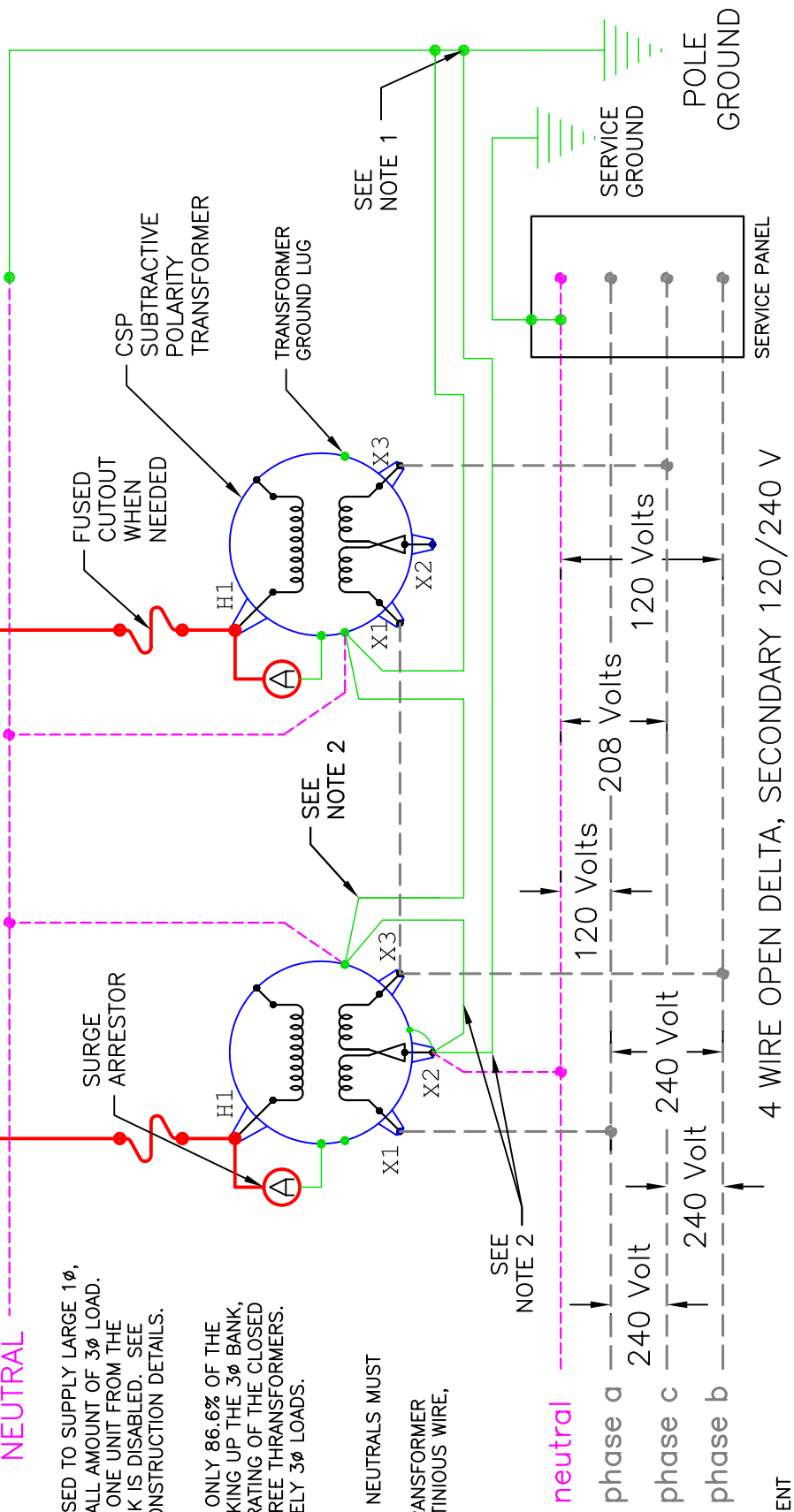
NEUTRAL

4 WIRE, GROUNDED WYE, 14.4/24.9 KV PRIMARY

APPLICATION: THIS BANK IS USED TO SUPPLY LARGE 1 ϕ , 120/240 V LOADS WITH A SMALL AMOUNT OF 3 ϕ LOAD. USED IN EMERGENCIES WHEN ONE UNIT FROM THE FOUR-WIRE, WYE-DELTA BANK IS DISABLED. SEE VG2.1V AND VG2.11.V FOR CONSTRUCTION DETAILS.

BANK RATING: THIS BANK HAS ONLY 86.6% OF THE RATING OF THE TWO UNITS MAKING UP THE 3 ϕ BANK, AND ONLY 57.7% OF THE 3 ϕ RATING OF THE CLOSED DELTA-DELTA BANK USING THREE TRANSFORMERS. INEFFICIENT FOR PERDOMINATELY 3 ϕ LOADS.

- NOTE:
- 1) PRIMARY AND SECONDARY NEUTRALS MUST BE INTERCONNECTED.
 - 2) GROUND AND NEUTRAL TRANSFORMER CONNECTIONS USE A CONTINUOUS WIRE, WHEN POSSIBLE.

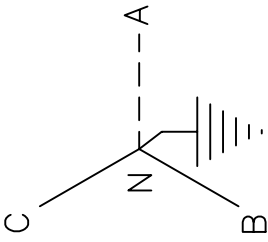


30- ANGULAR DISPLACEMENT

Drawn By: DEM	Date Drawn: APRIL 17, 2002	WREC WIRING DIAGRAM 3 ϕ GROUNDED OPEN WYE TO OPEN DELTA FOR 120/240 VOLT SECONDARY	ISSUE#: REV 2 G2.1G
Approved By: WHP	Date Updated: MAY 6, 2005		
Old CU:	DWG Name: G2-1G.DWG		



WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



PHASE A
(0 Deg.)

PHASE C

PHASE B

NEUTRAL

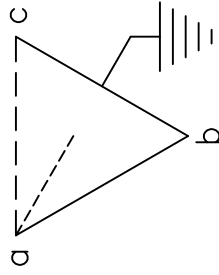
4 WIRE, GROUNDED WYE, 14.4/24.9 KV PRIMARY

APPLICATION: THIS BANK IS USED TO SUPPLY LARGE 1 ϕ , 120/240 V LOADS WITH A SMALL AMOUNT OF 3 ϕ LOAD. USED IN EMERGENCIES WHEN ONE UNIT FROM THE FOUR-WIRE, WYE-DELTA BANK IS DISABLED. SEE VG2.1V AND VG2.11-V FOR CONSTRUCTION DETAILS.

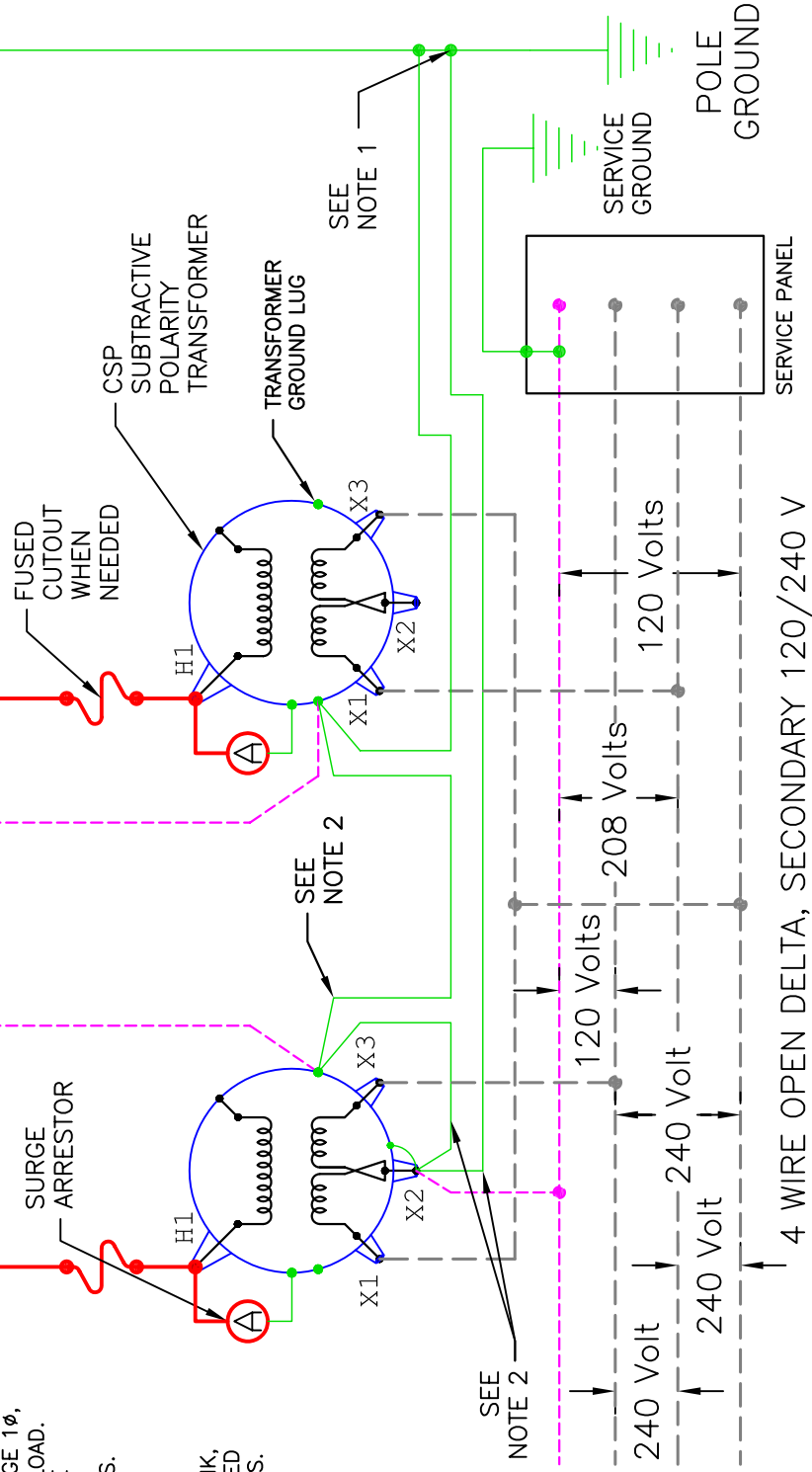
BANK RATING: THIS BANK HAS ONLY 86.6% OF THE RATING OF THE TWO UNITS MAKING UP THE 3 ϕ BANK, AND ONLY 57.7% OF THE 3 ϕ RATING OF THE CLOSED DELTA-DELTA BANK USING THREE TRANSFORMERS. INEFFICIENT FOR PERDOMINATELY 3 ϕ LOADS.

NOTE:

- 1) PRIMARY AND SECONDARY NEUTRALS MUST BE INTERCONNECTED.
- 2) GROUND AND NEUTRAL TRANSFORMER CONNECTIONS USE A CONTINUOUS WIRE, WHEN POSSIBLE.



210- ANGULAR DISPLACEMENT



Drawn By: DEM

Date Drawn: APRIL 17, 2002

Approved By: WHP

Date Updated: MAY 67, 2005

Old CU:

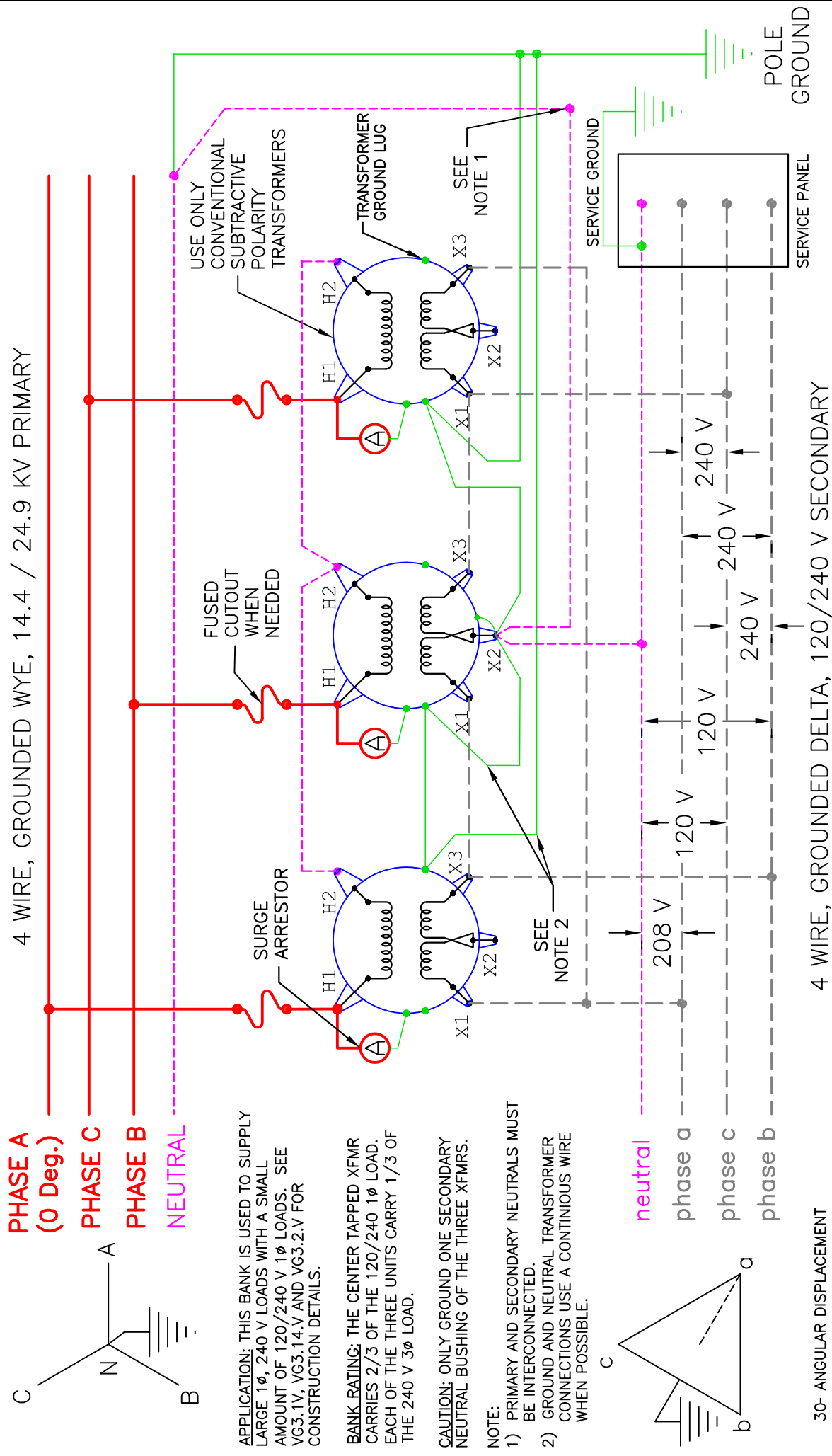
DWG Name: G2-1-1G.DWG

WREC WIRING DIAGRAM

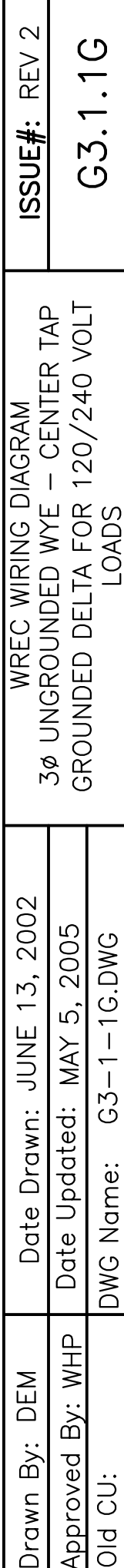
3 ϕ GROUNDED OPEN WYE TO OPEN DELTA
FOR 120/240 VOLT SECONDARY

ISSUE#: REV 2

G2.1.1G

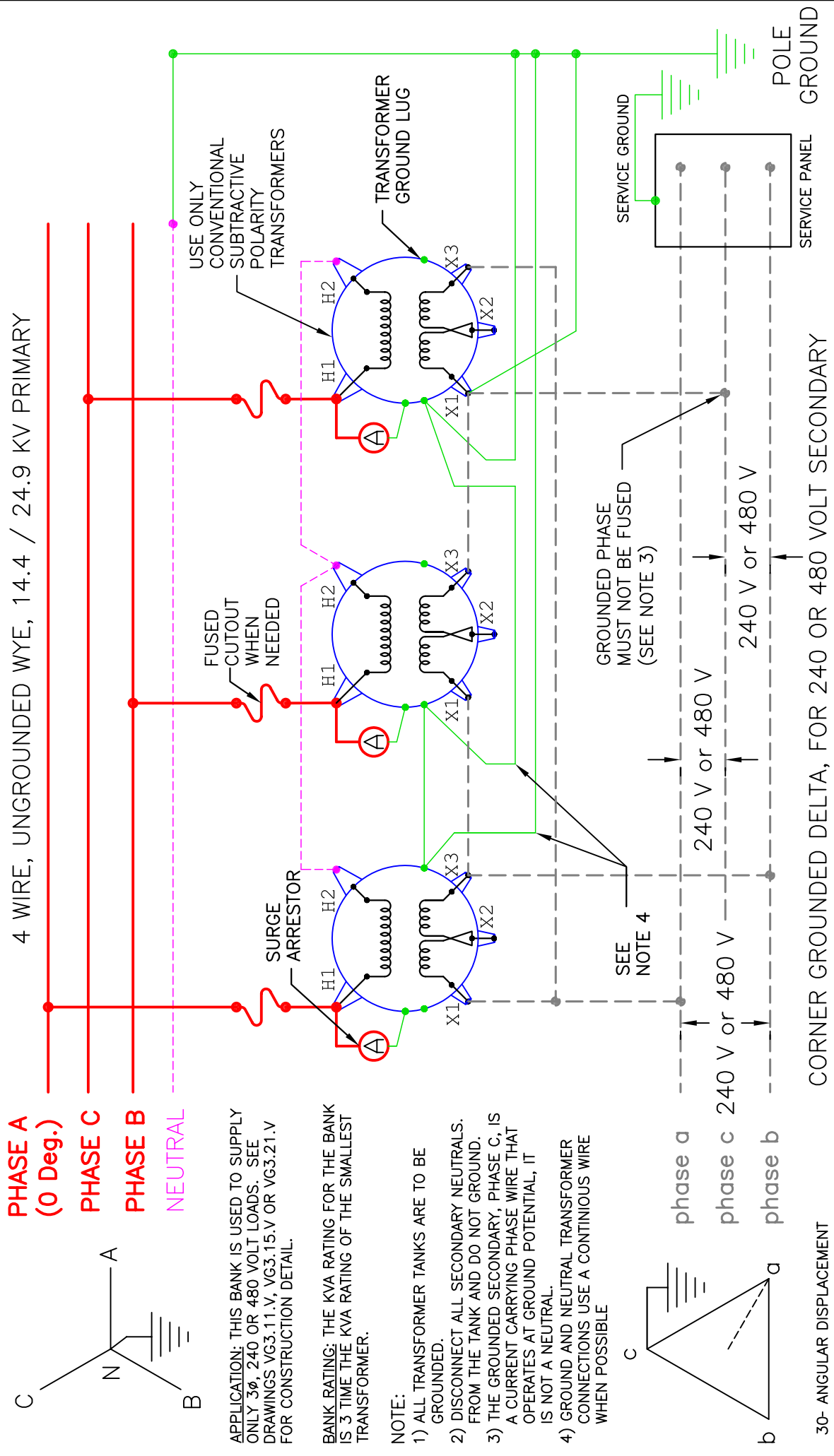


Drawn By: DEM	Date Drawn: JUNE 13, 2002	<p>WREC WIRING DIAGRAM</p> <p>3Ø UNGROUNDED WYE – CENTER TAP</p> <p>GROUNDING DELTA FOR 120/240 VOLT LOADS</p>	<p>ISSUE#: REV 2</p>
Approved By: WHP	Date Updated: MAY 5, 2005		
Old CU:	DWG Name: G3-1G.DWG		<p>G3.1G</p>





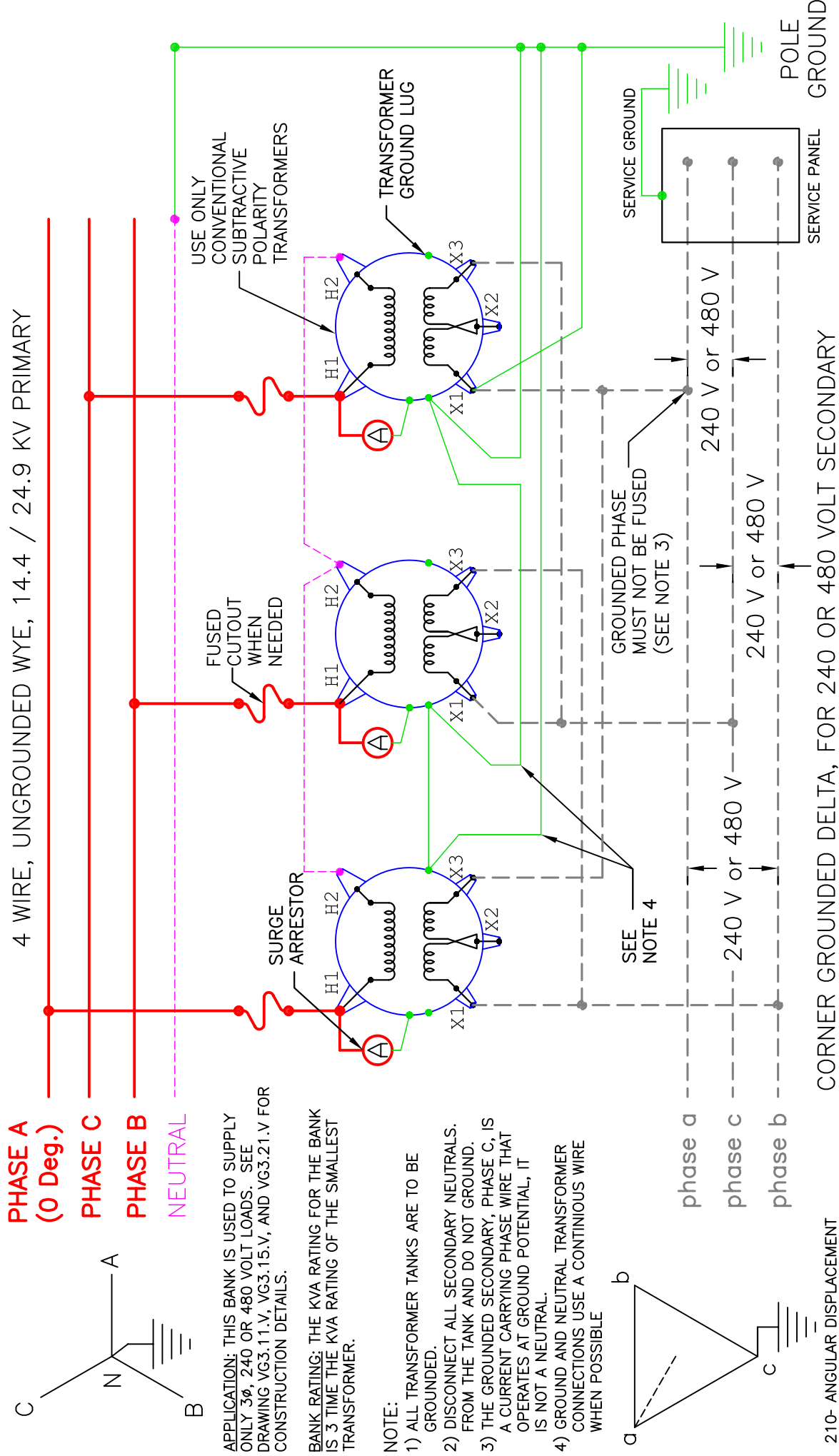
WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



WREC WIRING DIAGRAM 3 ϕ UNGROUNDED WYE – CORNER GROUNDED DELTA FOR 240 AND 480 V, 3 ϕ POWER LOADS		ISSUE#: REV 2	
Drawn By: DEM	Date Drawn: JUNE 13, 2002	G3.2G	
Approved By: WHP	Date Updated: MAY 5, 2005		
Old CU:	DWG Name: G3-2G.DWG		

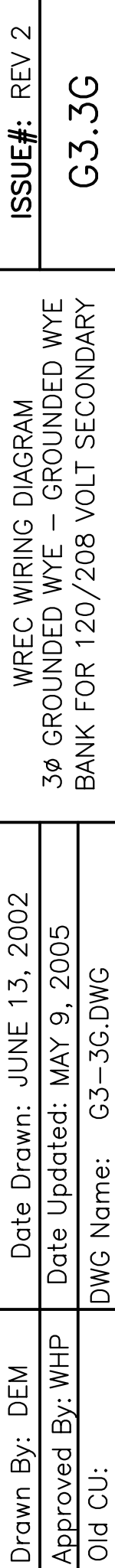


WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



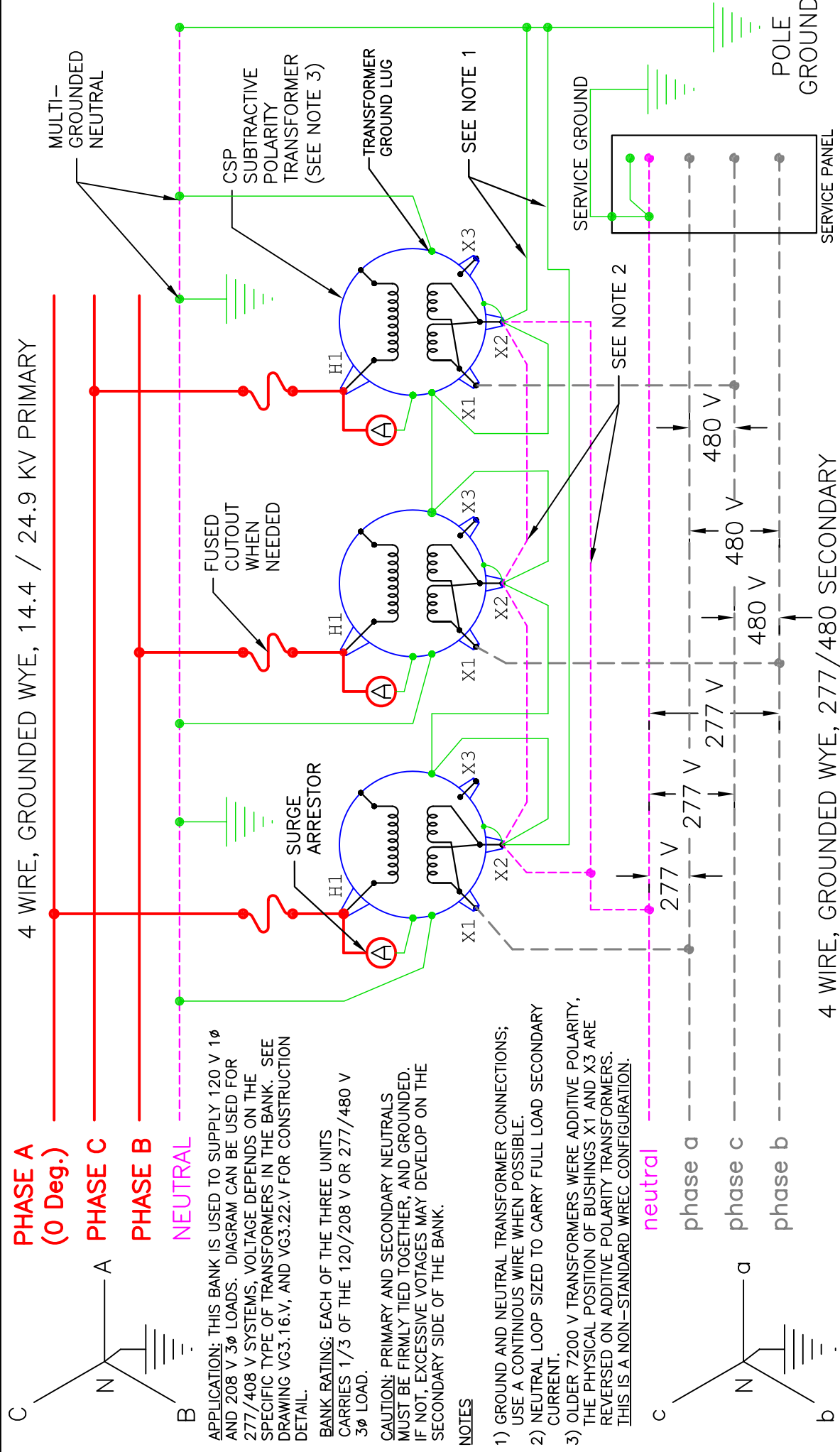
Drawn By: DEM	Date Drawn: JUNE 13, 2002	WREC WIRING DIAGRAM 3 ϕ UNGROUNDED WYE – CORNER GROUNDED DELTA FOR 240 AND 480 V, 3 ϕ POWER LOADS	ISSUE#: REV 2
Approved By: WHP	Date Updated: MAY 5, 2005		
Old CU:	DWG Name: G3-2-1G.DWG		

G3.2.1G





WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



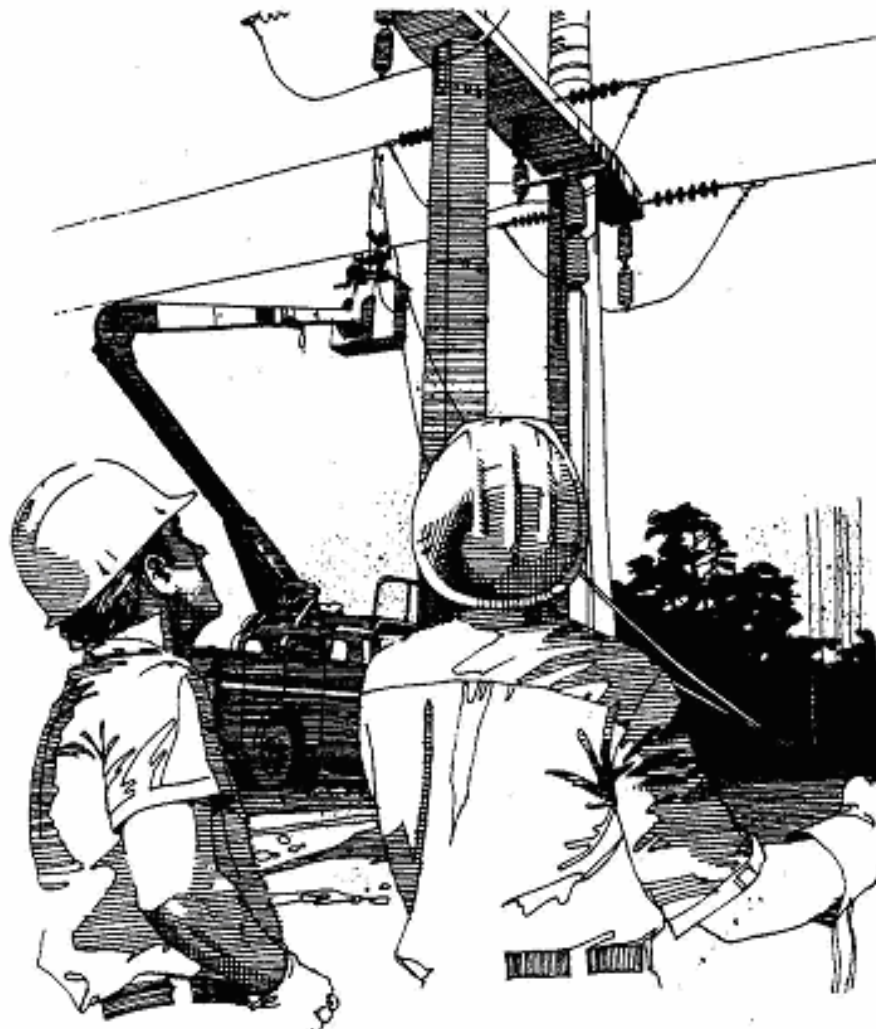
Drawn By: DEM	Date Drawn: JUNE 13, 2002	WREC WIRING DIAGRAM 3 ϕ GROUNDED WYE – GROUNDED WYE BANK FOR 277/480 VOLT SECONDARY	ISSUE#: REV 2
Approved By: WHP	Date Updated: MAY 9, 2005		
Old CU:	DWG Name: G3-3-1G.DWG		

G3.3.1G

CONSTRUCTION UNITS

INDEX H: GROUNDING ASSEMBLY UNITS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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NOTES

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NOTES

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GROUNDING ASSEMBLY UNITS

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WREC CONSTRUCTION UNIT UPDATE TABLE

GROUNDING ASSEMBLY UNITS

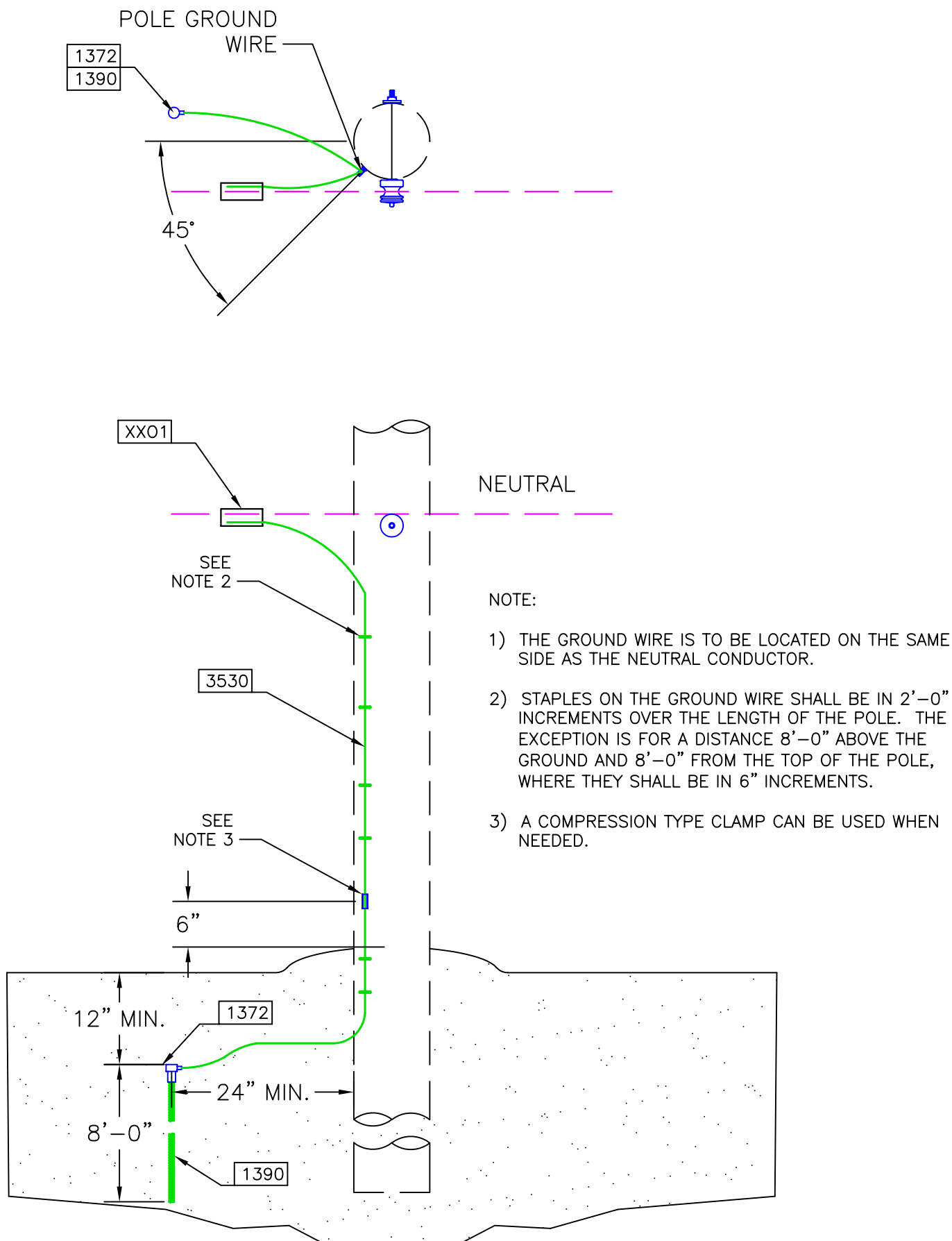
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H1-1	H1.1.CW	H1.1.CW	GROUNDING ASSEMBLY, GROUND ROD TYPE, WELDED CONNECTION, COPPERWELD WIRE, VERTICAL CONSTRUCTION	--	10/13/08
--	H1.1.E	H1.1.E	GROUNDING ASSEMBLY, GROUND WIRE ONLY, FOR POLE REPLACEMENT ONLY	--	9/09/03
--	H1.1.ECW	H1.1.ECW	GROUNDING ASSEMBLY, COPPERWELD GROUND WIRE ONLY, FOR POLE REPLACEMENT ONLY	--	10/13/08
M2-11	H1.11	H1.11	GROUNDING ASSEMBLY, GROUND ROD TYPE, MECHANICAL CONNECTION, VERTICAL CONSTRUCTION	--	9/09/03
--	H1.11.CW	H1.11.CW	GROUNDING ASSEMBLY, GROUND ROD TYPE, MECHANICAL CONNECTION, COPPERWELD WIRE, VERTICAL CONSTRUCTION	--	10/13/08
H1-1-P	H1.1.P	H1.1.P	PARALLEL GROUNDING ASSEMBLY, GROUND ROD TYPE, WELDED CONNECTION, VERTICAL CONSTRUCTION	--	9/09/03
--	H1.1.PCW	H1.1.PCW	PARALLEL GROUNDING ASSEMBLY, GROUND ROD TYPE, WELDED CONNECTION, COPPERWELD WIRE, VERTICAL CONSTRUCTION	--	10/13/08
M2-11P	H1.11.P	H1.11.P	PARALLEL GROUNDING ASSEMBLY, GROUND ROD TYPE, VERTICAL CONSTRUCTION	--	9/09/03
--	H1.11.PCW	H1.11.PCW	PARALLEL GROUNDING ASSEMBLY, GROUND ROD TYPE, MECHANICAL CONNECTION, COPPERWELD WIRE, VERTICAL CONSTRUCTION	--	10/13/08
M2-11R	H1.11R	H1.11R	GROUNDING ASSEMBLY, GROUND ROD, GALV. 5/8" X 8'	--	9/09/03
M2-11R	H1.11RC	H1.11RC	GROUNDING ASSEMBLY, GROUND ROD, CU CLAD 5/8" X 8'	--	11/03/08



GROUNDING ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
H3-1	H3.1	H3.1	GROUNDING ASSEMBLY, GROUND ROD TYPE, WELDED CONNECTION, FOR SECTIONALIZING AIR BREAK SWITCH	--	9/09/03
--	H3.1.CW	H3.1.CW	GROUNDING ASSEMBLY, GROUND ROD TYPE, WELDED CONNECTION, COPPERWELD WIRE, FOR SECTIONALIZING AIR BREAK SWITCH	--	10/13/08
VM2-15	H3.11	H3.11	GROUNDING ASSEMBLY, GROUND ROD TYPE, FOR SECTIONALIZING AIR BREAK SWITCH	--	9/09/03
--	H3.11.CW	H3.11.CW	GROUNDING ASSEMBLY, GROUND ROD TYPE, MECHANICAL CONNECTION, COPPERWELD WIRE, FOR SECTIONALIZING AIR BREAK SWITCH	--	10/13/08
H3-4	H4.1	H4.1	GROUNDING ASSEMBLY, PLATFORM TYPE, WELDED CONNECTION, FOR SECTIONALIZING AIR BREAK SWITCH	--	9/09/03
--	H4.1.CW	H4.1.CW	GROUNDING ASSEMBLY, PLATFORM TYPE, WELDED CONNECTION, COPPERWELD WIRE, FOR SECTIONALIZING AIR BREAK SWITCH	--	10/13/08





DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 10/17/2008

Old CU: H1-1 DWG Name: H1-1.DWG

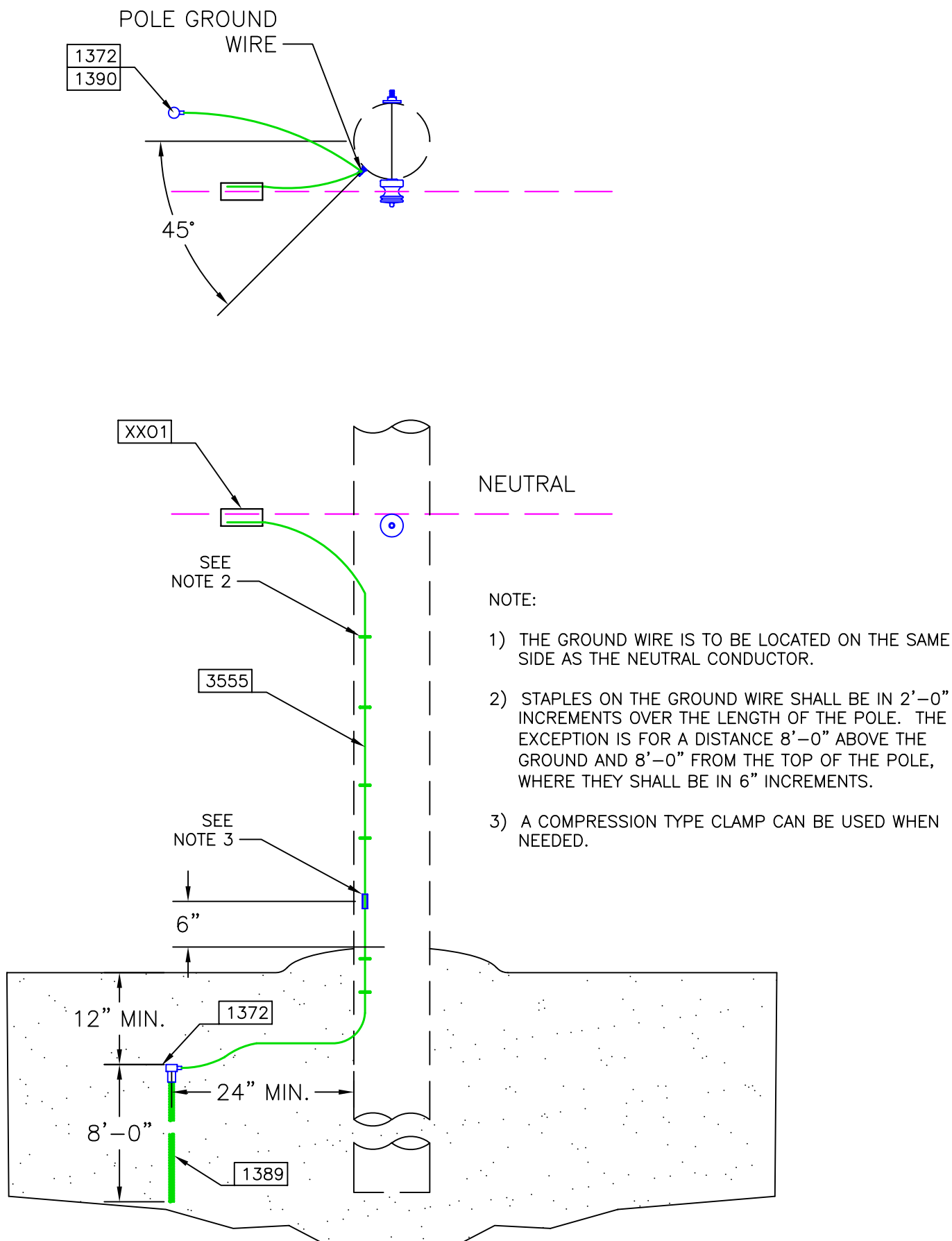
GROUNDING ASSEMBLY; GROUND ROD TYPE;
WELDED CONNECTION; VERTICAL CONSTRUCTION

REV# : 002

H1.1

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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1372	1	GROUND ROD CLAMP #4 TO 5/8		
1390	1	GROUND ROD; GALV 5/8" X 8"		
3530	45	WIRE; CU BSD 4		
XX01	1	CONNECTOR (NEUTRAL)	N	13



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/17/2008
Approved By: WHP	Date Updated: -
Old CU: H1-1	DWG Name: H1-1-CW.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
WELDED CONNECTION; COPPERWELD WIRE;
VERTICAL CONSTRUCTION

REV# : 000

H1.1.CW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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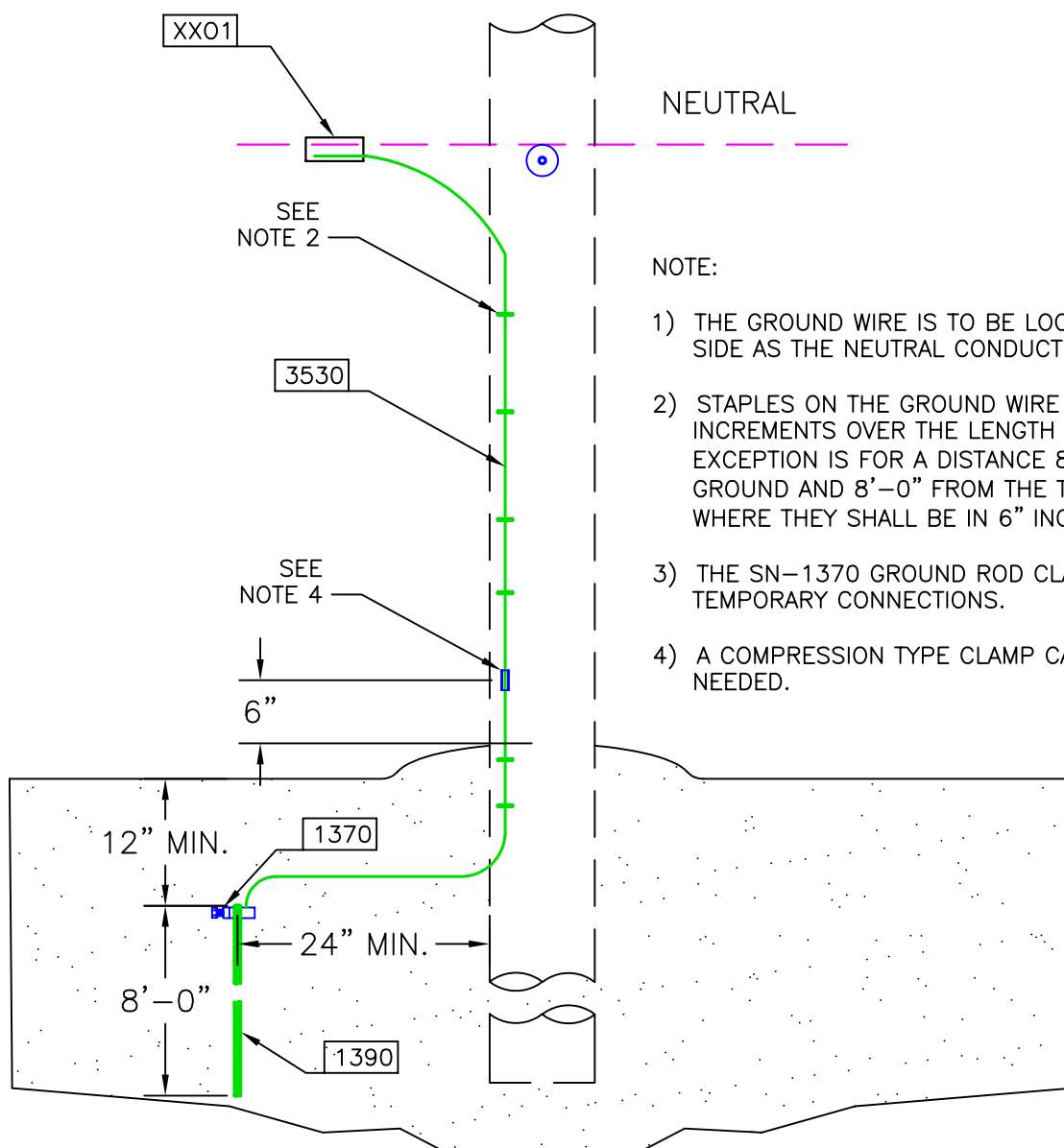
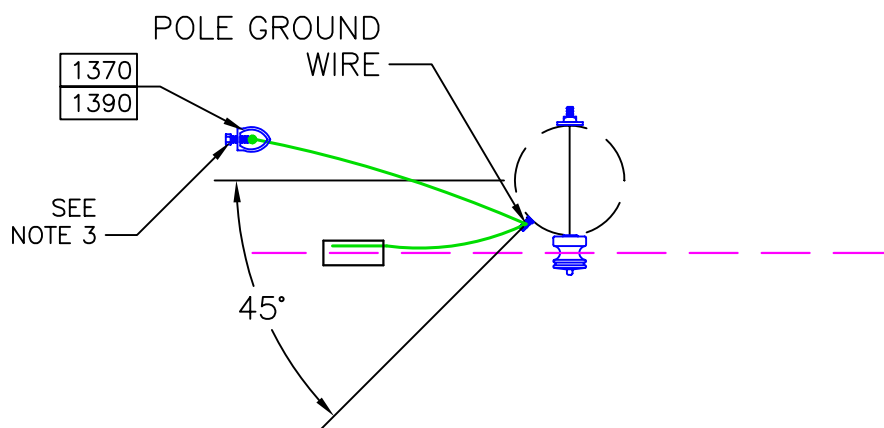
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1389	1	GROUND ROD; CU CLAD 5/8" X 8"		
3555	45	WIRE; COPPERWELD #4		
XX01	1	CONNECTOR (NEUTRAL)	N	13

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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
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GROUND WIRE ONLY; FOR POLE
REPLACEMENT ONLY"/>	PDF FILE:	<input type="text"/>
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
3555	45	WIRE; COPPERWELD #4		



NOTE:

- 1) THE GROUND WIRE IS TO BE LOCATED ON THE SAME SIDE AS THE NEUTRAL CONDUCTOR.
- 2) STAPLES ON THE GROUND WIRE SHALL BE IN 2'-0" INCREMENTS OVER THE LENGTH OF THE POLE. THE EXCEPTION IS FOR A DISTANCE 8'-0" ABOVE THE GROUND AND 8'-0" FROM THE TOP OF THE POLE, WHERE THEY SHALL BE IN 6" INCREMENTS.
- 3) THE SN-1370 GROUND ROD CLAMP IS ONLY FOR TEMPORARY CONNECTIONS.
- 4) A COMPRESSION TYPE CLAMP CAN BE USED WHEN NEEDED.

DRAWING IS NOT TO SCALE

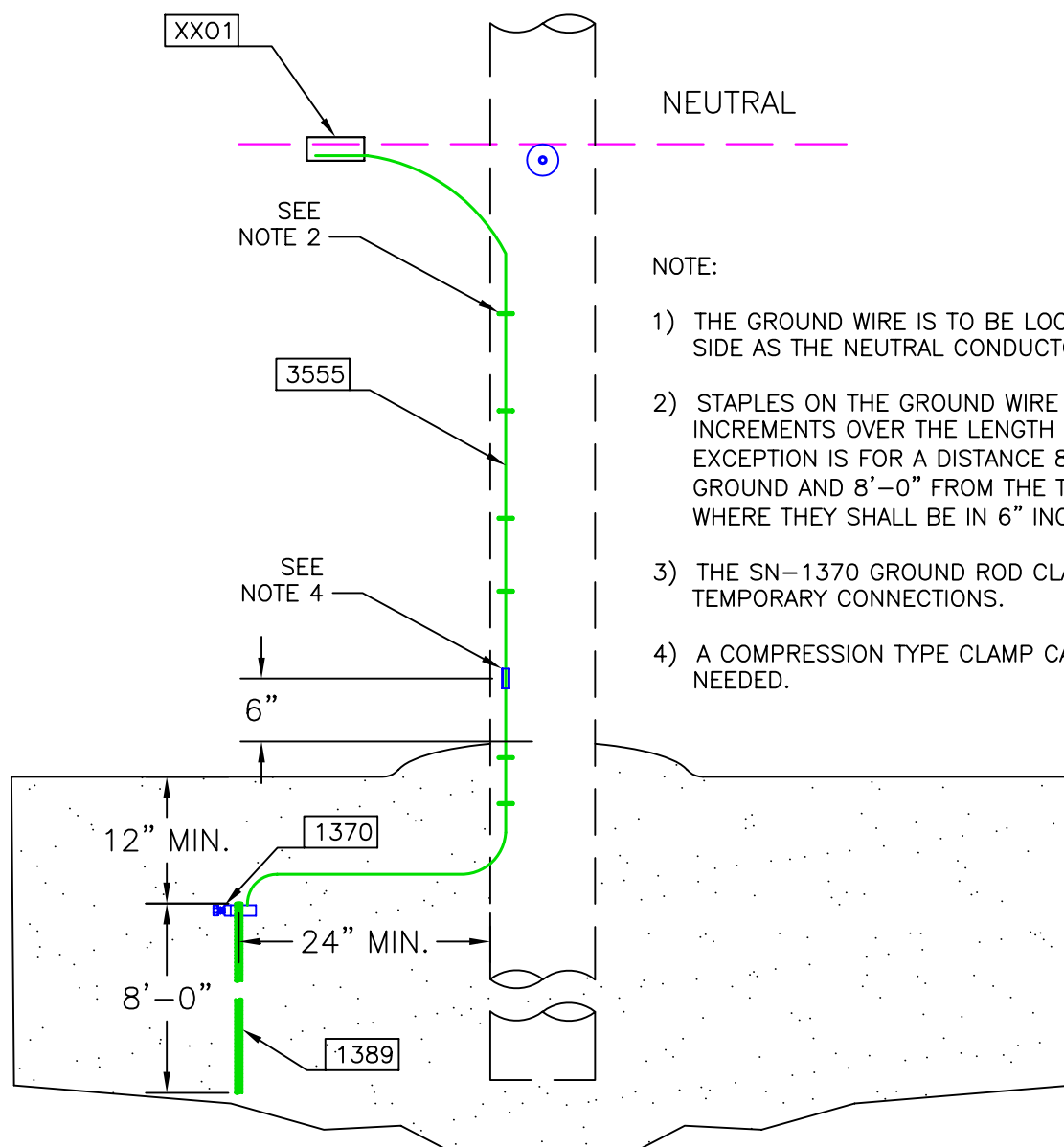
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Approved By: WHP	Date Updated: 10/17/2008
Old CU: H1-1	DWG Name: H1-11.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
MECHANICAL CONNECTION; VERTICAL
CONSTRUCTION

REV# : 002
H1.11

CONSTRUCTION UNIT:	H1.11	AUTOCAD FILE:	H1-11.DWG
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	1	GROUND ROD CLAMP		
1390	1	GROUND ROD; GALV 5/8" X 8"		
3530	45	WIRE; CU BSD 4		
XX01	1	CONNECTOR (NEUTRAL)	N	13



REV# : 000
H1.11.CW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **H1.11.CW**

AUTOCAD FILE: **H1-11-CW.DWG**

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MECHANICAL CONNECTION; COPPERWELD
WIRE; VERTICAL CONSTRUCTION**

PDF FILE: **H1-11-CW.PDF**

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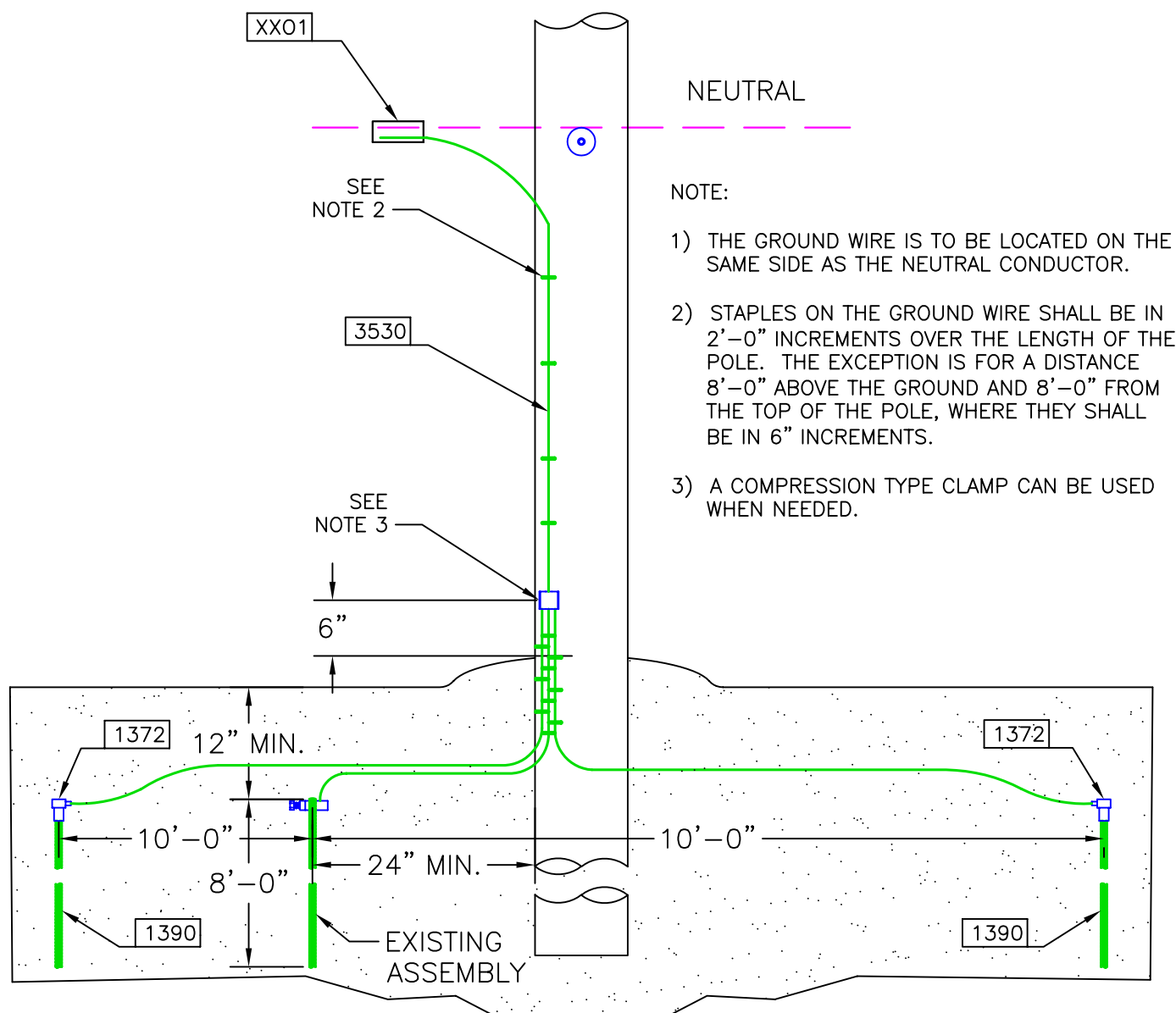
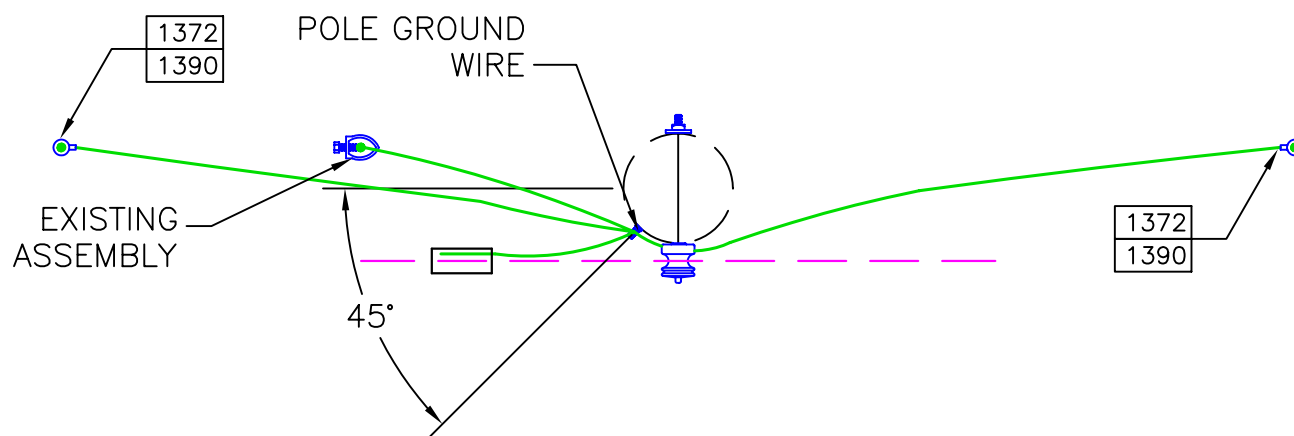
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	1	GROUND ROD CLAMP		
1389	1	GROUND ROD; CU CLAD 5/8" X 8"		
3555	45	WIRE; COPPERWELD #4		
XX01	1	CONNECTOR (NEUTRAL)	N	13



DRAWING IS NOT TO SCALE

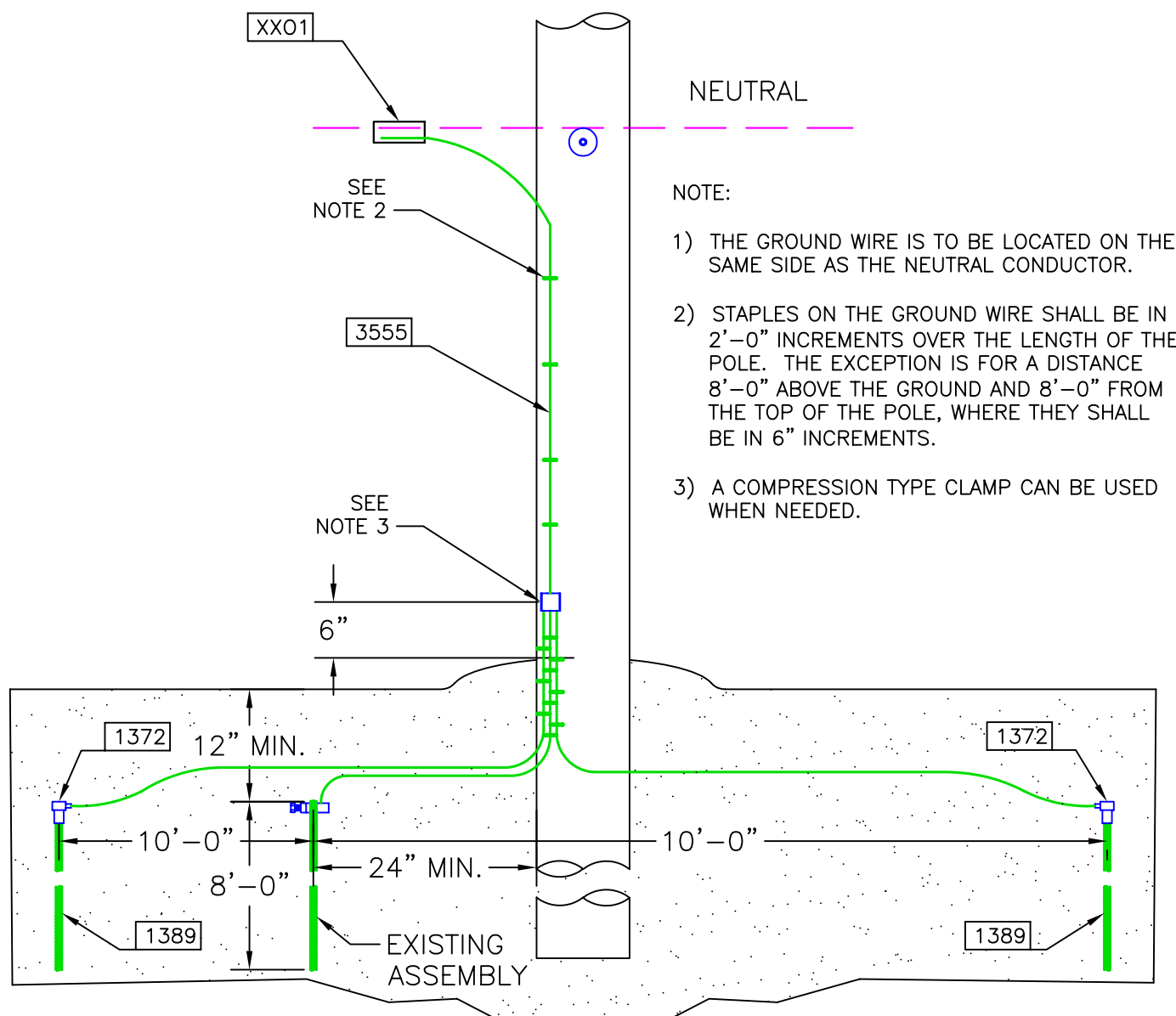
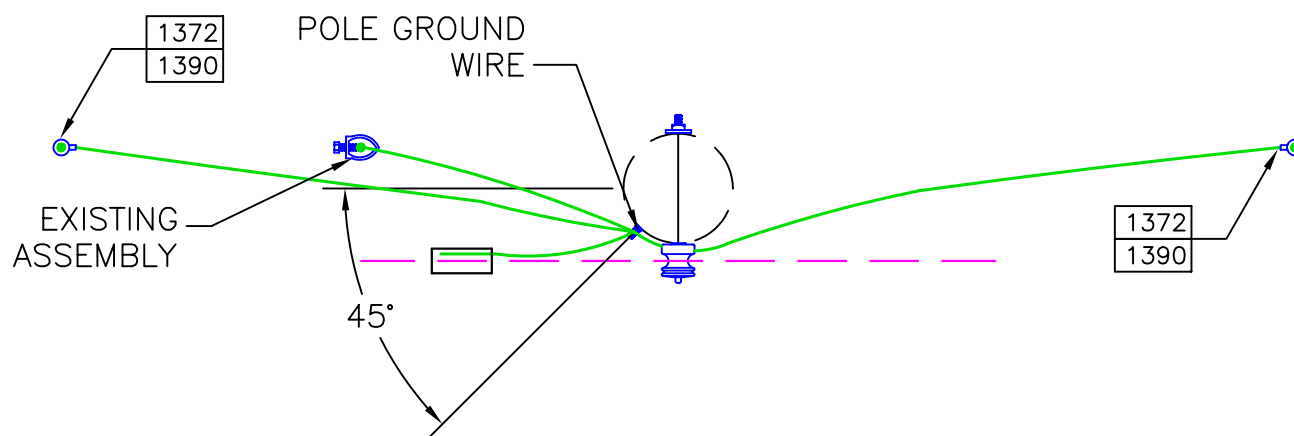
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/17/2008
Old CU: H1-1-P	DWG Name: H1-1-P.DWG

PARALLEL GROUNDING ASSEMBLY; GROUND ROD
TYPE; WELDED CONNECTION; VERTICAL
CONSTRUCTION

REV# : 002
H1.1.P

CONSTRUCTION UNIT:	H1.1.P	AUTOCAD FILE:	H1-1-P.DWG
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1372	2	GROUND ROD CLAMP #4 TO 5/8		
1390	2	GROUND ROD; GALV 5/8" X 8"		
3530	45	WIRE; CU BSD 4		
XX01	2	CONNECTOR (NEUTRAL)	N	13



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/17/2008
Approved By: WHP	Date Updated: -
Old CU: H1-1-P	DWG Name: H1-1-PCW.DWG

PARALLEL GROUNDING ASSEMBLY; GROUND ROD
TYPE; WELDED CONNECTION; COPPERWELD WIRE;
VERTICAL CONSTRUCTION

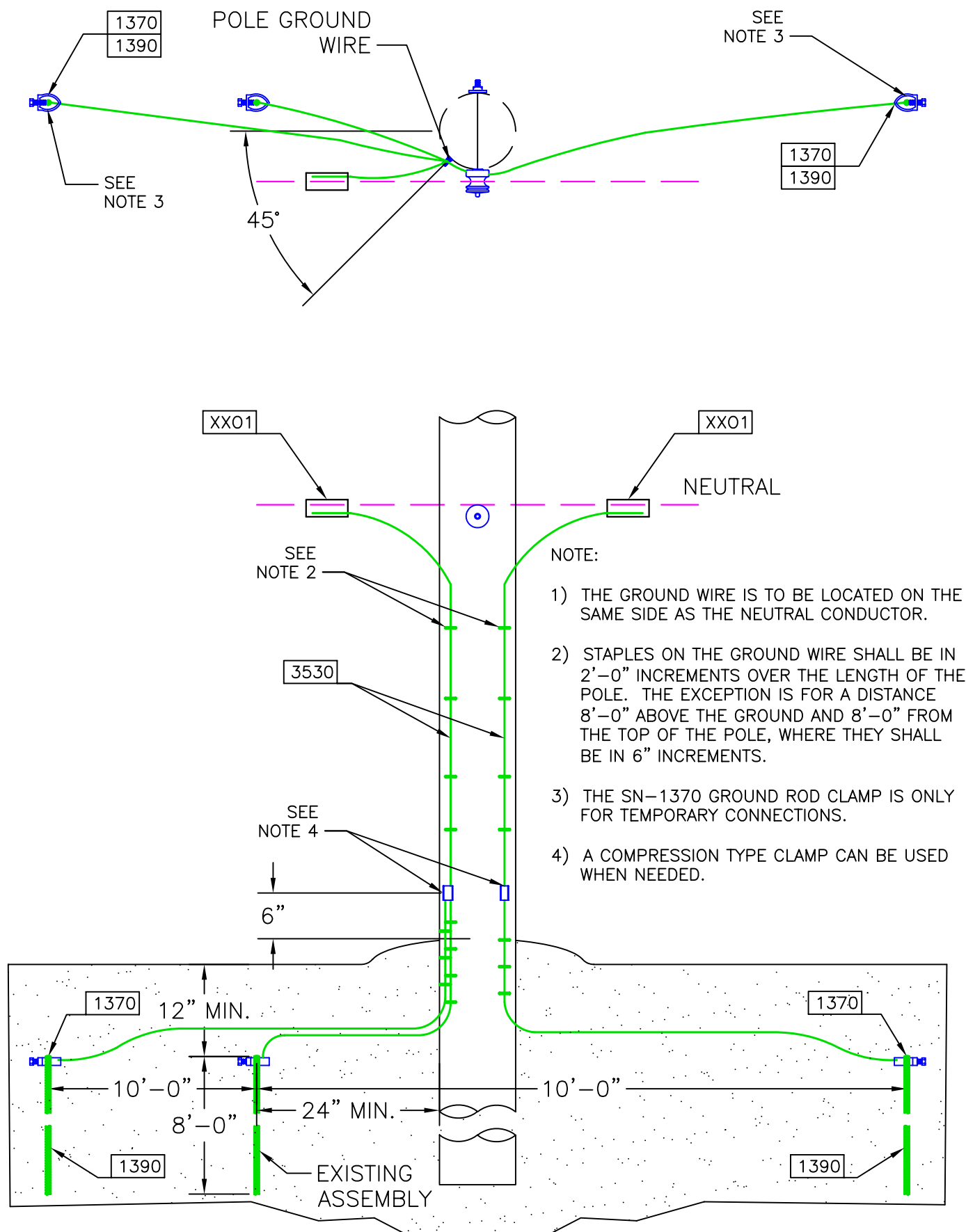
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H1.1.PCW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1372	2	GROUND ROD CLAMP #4 TO 5/8		
1389	2	GROUND ROD; CU CLAD 5/8" X 8"		
3555	45	WIRE; COPPERWELD #4		
XX01	2	CONNECTOR (NEUTRAL)	N	13



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/17/2008
Old CU: H1-1-P	DWG Name: H1-11-P.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
MECHANICAL CONNECTION; VERTICAL
CONSTRUCTION

REV# : 002
H1.11.P

CONSTRUCTION UNIT:	H1.11.P	AUTOCAD FILE:	H1-11-P.DWG
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	2	GROUND ROD CLAMP		
1390	2	GROUND ROD; GALV 5/8" X 8"		
3530	45	WIRE; CU BSD 4		
XX01	2	CONNECTOR	N	13

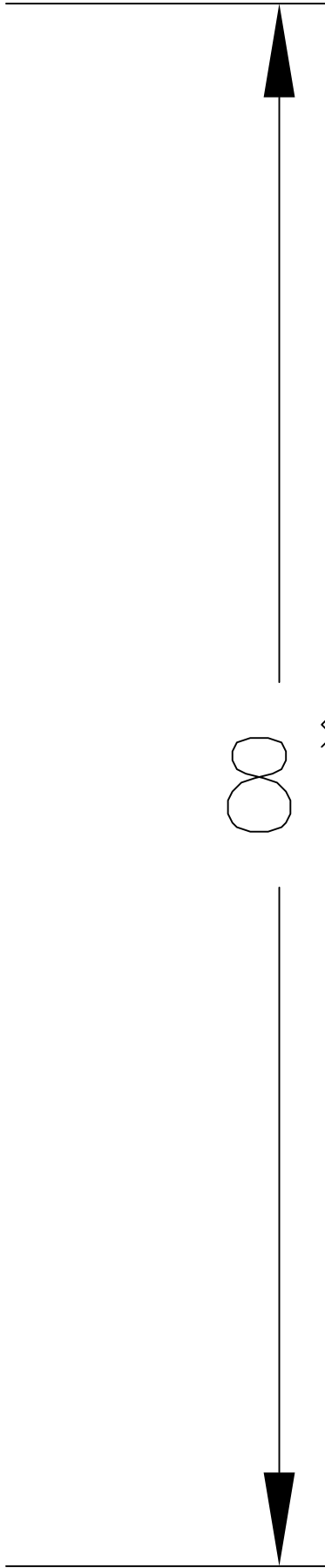
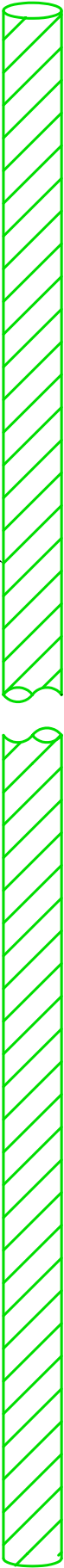
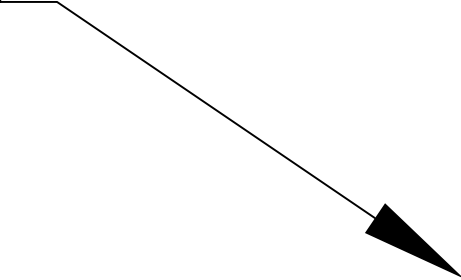
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	2	GROUND ROD CLAMP		
1389	2	GROUND ROD; CU CLAD 5/8" X 8"		
3555	45	WIRE; COPPERWELD #4		
XX01	2	CONNECTOR	N	13



1390



DRAWING IS NOT TO SCALE

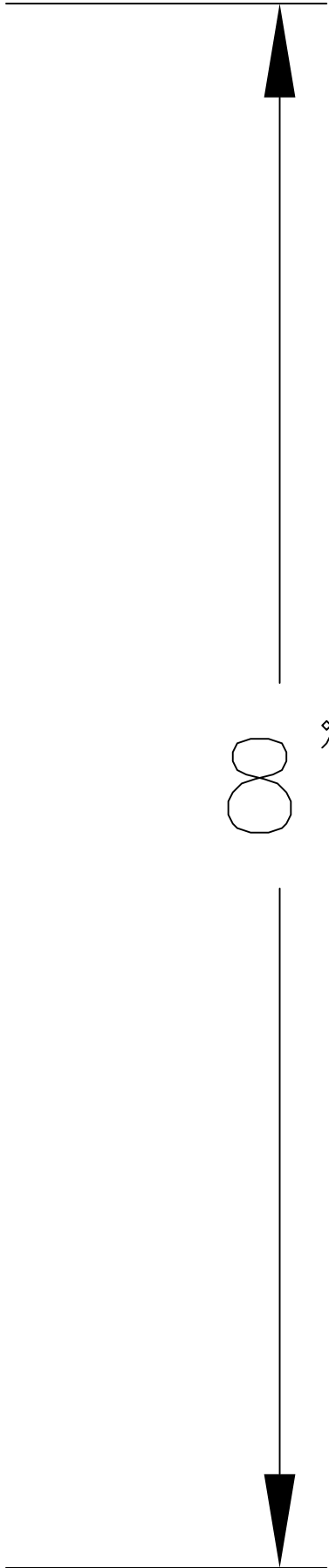
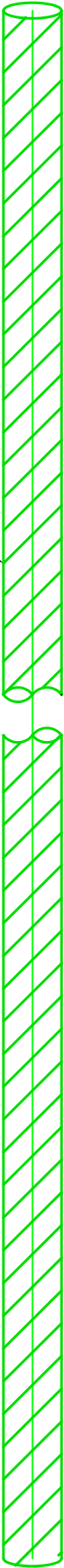
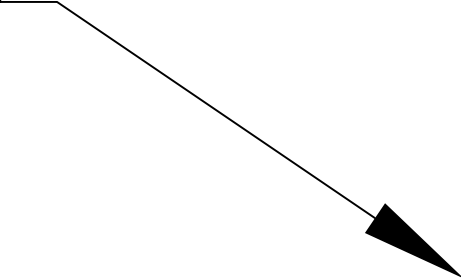
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Approved By: WHP	Date Updated: 10/17/2008		H1.11R
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		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1372	1	GROUND ROD CLAMP #4 TO 5/8		
1390	1	GROUND ROD; GALV 5/8" X 8"		



1389



8⁹

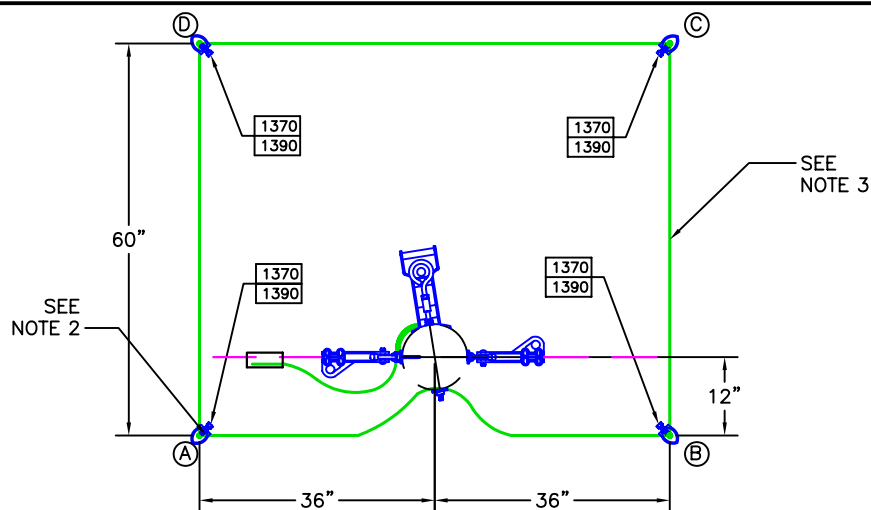
DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	GROUNDING ASSEMBLY; GROUND ROD; CU CLAD 5/8" X 8'	REV# : 000
Approved By: WHP	Date Updated: 10/17/2008		H1.11RC
Old CU: M2-11R	DWG Name: H1-11RC.DWG		

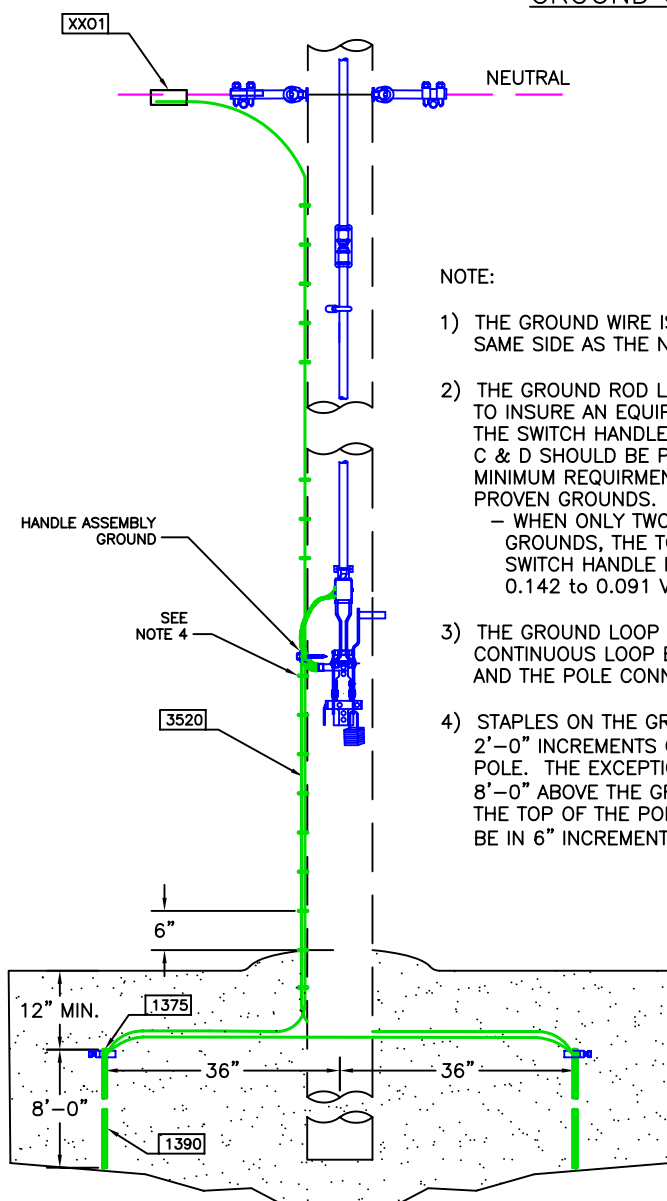
OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="H1.11RC"/>	AUTOCAD FILE:	<input type="text" value="H1-11R.DWG"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1372	1	GROUND ROD CLAMP #4 TO 5/8		
1389	1	GROUND ROD; CU CLAD 5/8" X 8"		

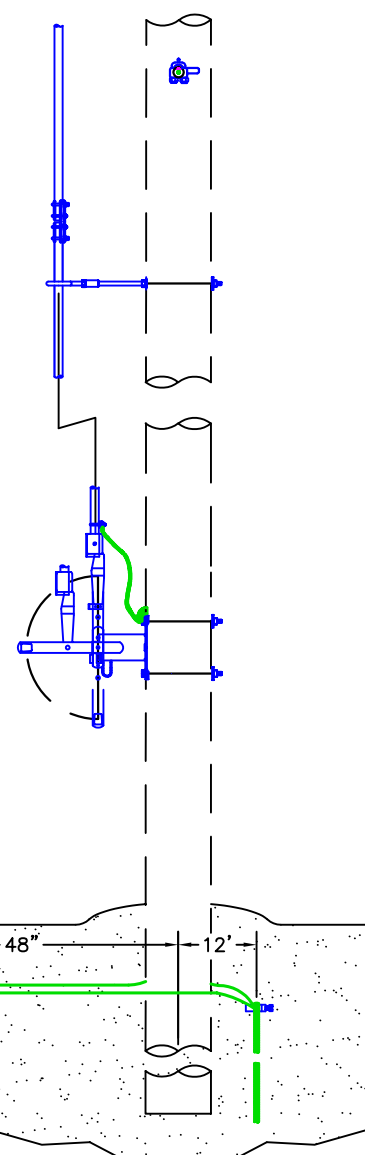


GROUND GRID DETAIL



NOTE:

- 1) THE GROUND WIRE IS TO BE LOCATED ON THE SAME SIDE AS THE NEUTRAL CONDUCTOR.
- 2) THE GROUND ROD LOCATIONS A, B, C & D: TO INSURE AN EQUIPOTENTIAL SURFACE BELOW THE SWITCH HANDLE; GROUND LOCATIONS A, B, C & D SHOULD BE PROVEN GROUNDS. MINIMUM REQUIREMENT: LOCATIONS A & B ARE PROVEN GROUNDS.
 - WHEN ONLY TWO GROUND RODS ARE PROVEN GROUNDS, THE TOUCH POTENTIAL AT THE SWITCH HANDLE INCREASES BY A RANGE OF 0.142 TO 0.091 VOLTS P.U.
- 3) THE GROUND LOOP CONDUCTOR SHOULD BE A CONTINUOUS LOOP BETWEEN THE GROUND RODS AND THE POLE CONNECTION.
- 4) STAPLES ON THE GROUND WIRE SHALL BE IN 2'-0" INCREMENTS OVER THE LENGTH OF THE POLE. THE EXCEPTION IS FOR A DISTANCE 8'-0" ABOVE THE GROUND AND 8'-0" FROM THE TOP OF THE POLE, WHERE THEY SHALL BE IN 6" INCREMENTS.



DRAWING IS NOT TO SCALE

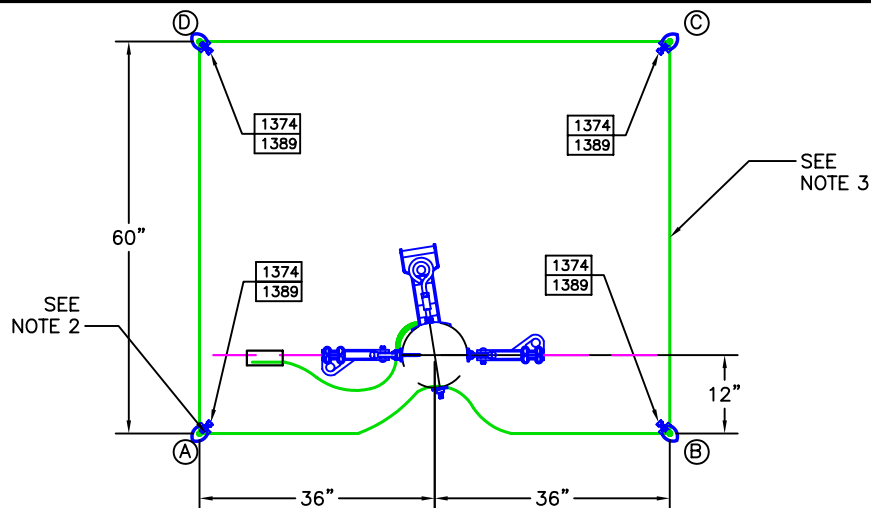
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/17/2008
Old CU: H3-1	DWG Name: H3-1.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
WELDED CONNECTION; FOR SECTIONALIZED AIR
BREAK SWITCH

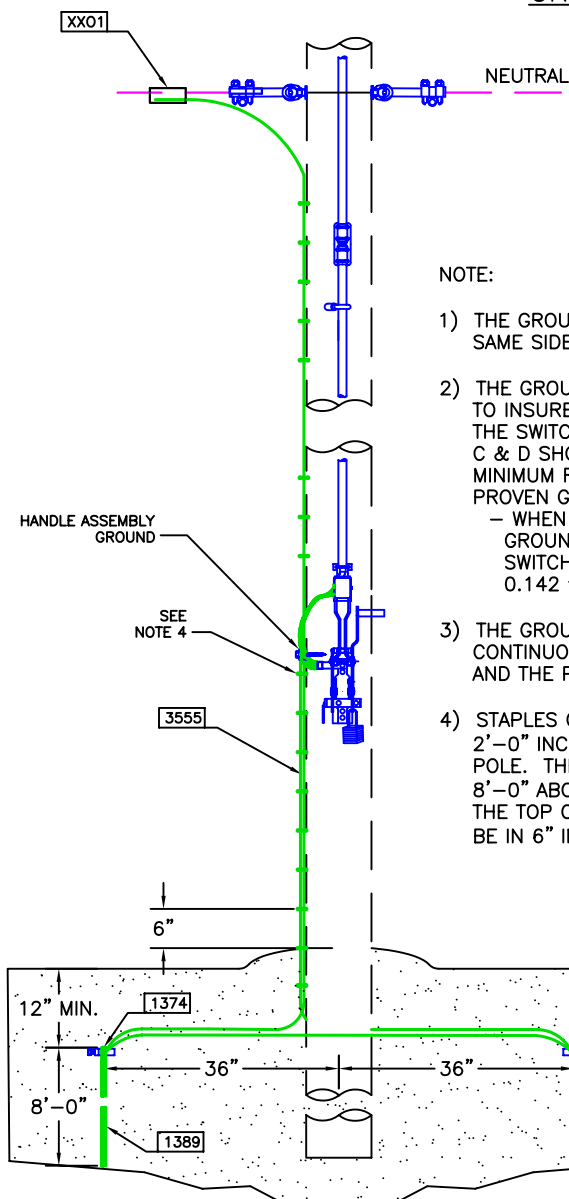
REV# : 003
H3.1

CONSTRUCTION UNIT:	H3.1	AUTOCAD FILE:	H3-1.DWG
DESCRIPTION:	GROUNDING ASSEMBLY;GROUND ROD TYPE; WELDED CONNECTION; FOR SECTIONALIZED AIR BREAK SWITCH	PDF FILE:	H3-1.PDF
		PDF SPEC.:	H3-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1375	4	GROUND ROD CLAMP 2#2 TO 5/8		
1390	4	GROUND ROD; GALV 5/8" X 8"		
3520	70	WIRE; CU BSD 2		
XX01	1	CONNECTOR	N	13

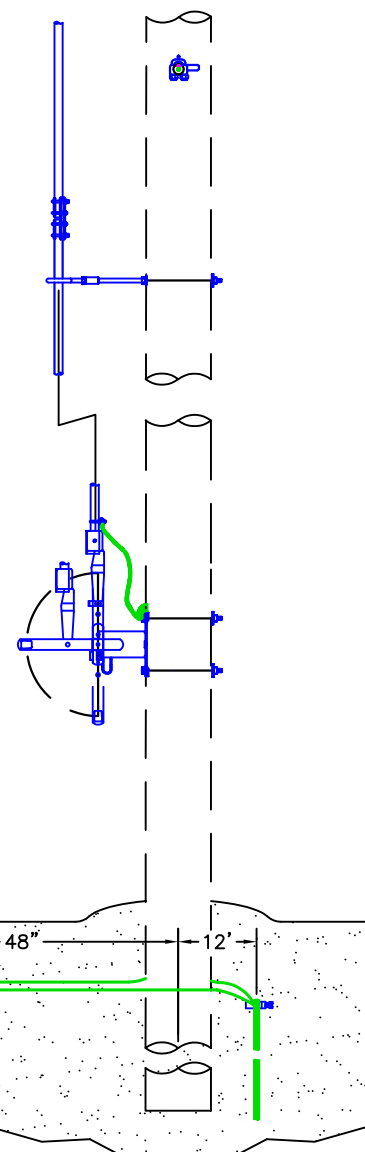


GROUND GRID DETAIL



NOTE:

- 1) THE GROUND WIRE IS TO BE LOCATED ON THE SAME SIDE AS THE NEUTRAL CONDUCTOR.
- 2) THE GROUND ROD LOCATIONS A, B, C & D: TO INSURE AN EQUIPOTENTIAL SURFACE BELOW THE SWITCH HANDLE; GROUND LOCATIONS A, B, C & D SHOULD BE PROVEN GROUNDS. MINIMUM REQUIREMENT: LOCATIONS A & B ARE PROVEN GROUNDS.
 - WHEN ONLY TWO GROUND RODS ARE PROVEN GROUNDS, THE TOUCH POTENTIAL AT THE SWITCH HANDLE INCREASES BY A RANGE OF 0.142 TO 0.091 VOLTS P.U.
- 3) THE GROUND LOOP CONDUCTOR SHOULD BE A CONTINUOUS LOOP BETWEEN THE GROUND RODS AND THE POLE CONNECTION.
- 4) STAPLES ON THE GROUND WIRE SHALL BE IN 2'-0" INCREMENTS OVER THE LENGTH OF THE POLE. THE EXCEPTION IS FOR A DISTANCE 8'-0" ABOVE THE GROUND AND 8'-0" FROM THE TOP OF THE POLE, WHERE THEY SHALL BE IN 6" INCREMENTS.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/17/2008
Approved By: WHP	Date Updated: 10/17/2008
Old CU: H3-1	DWG Name: H3-1-CW.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
WELDED CONNECTION; COPPERWELD WIRE; FOR
SECTIONALIZED AIR BREAK SWITCH

REV# : 000

H3.1.CW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **H3.1.CW**

AUTOCAD FILE: **H3-1-CW.DWG**

DESCRIPTION: **GROUNDING ASSEMBLY;GROUND ROD TYPE;
WELDED CONNECTION; COPPERWELD WIRE;
FOR SECTIONALIZED AIR BREAK SWITCH**

PDF FILE: **H3-1-CW.PDF**

PDF SPEC.: **H3-1-CW_SPEC.PDF**

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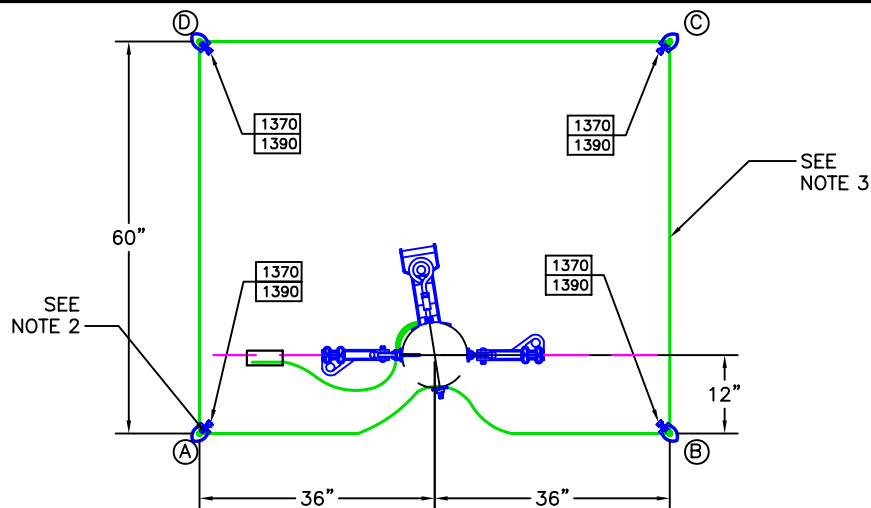
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RETIREMENT:

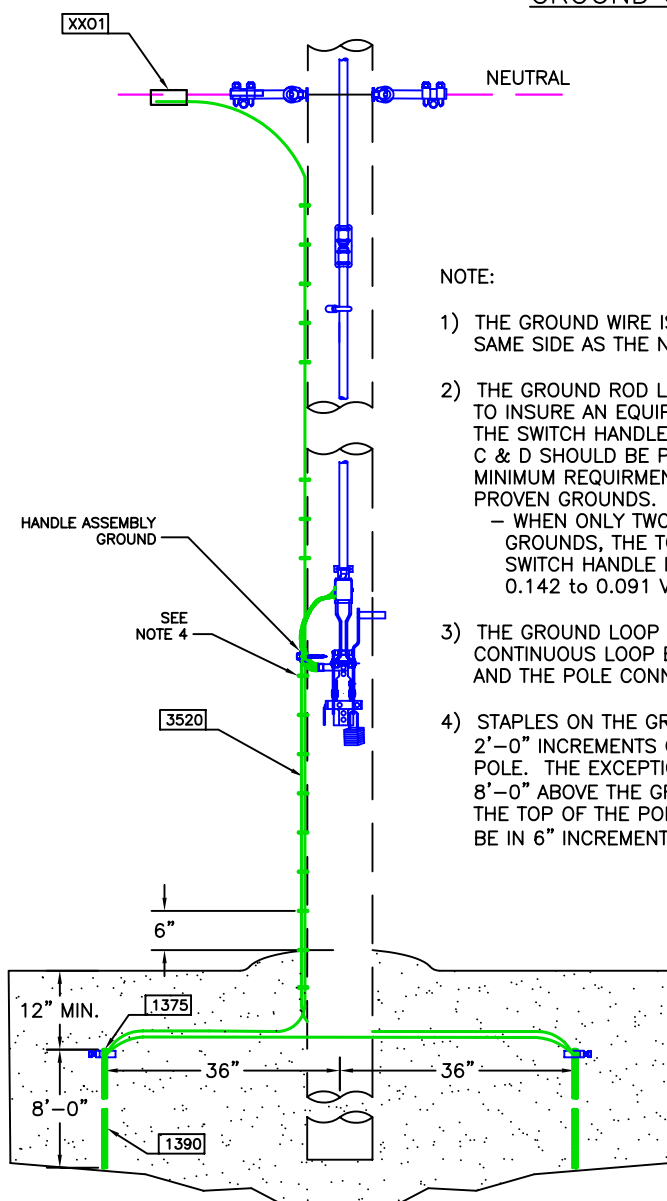
NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1374	4	GROUND ROD CLAMP 2#4 TO 5/8		
1389	4	GROUND ROD; CU CLAD 5/8" X 8"		
3555	70	WIRE; COPPERWELD #4		
XX01	1	CONNECTOR	N	13



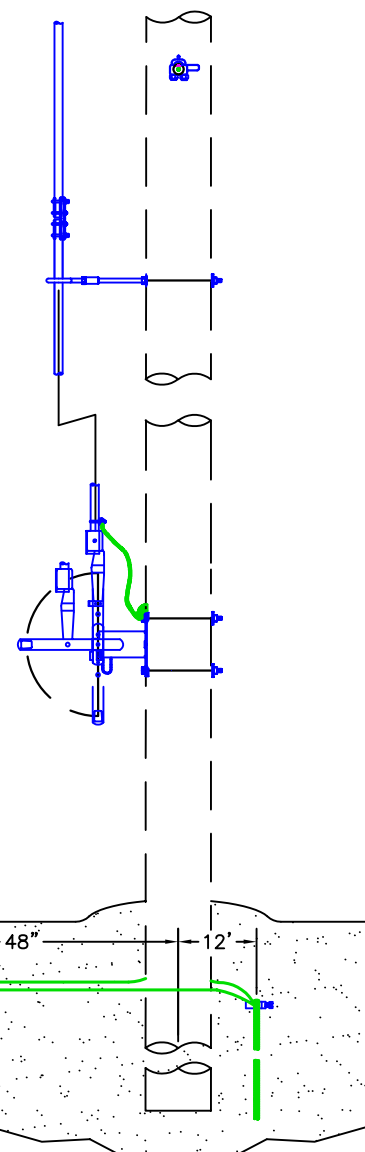


GROUND GRID DETAIL



NOTE:

- 1) THE GROUND WIRE IS TO BE LOCATED ON THE SAME SIDE AS THE NEUTRAL CONDUCTOR.
- 2) THE GROUND ROD LOCATIONS A, B, C & D: TO INSURE AN EQUIPOTENTIAL SURFACE BELOW THE SWITCH HANDLE; GROUND LOCATIONS A, B, C & D SHOULD BE PROVEN GROUNDS. MINIMUM REQUIREMENT: LOCATIONS A & B ARE PROVEN GROUNDS.
 - WHEN ONLY TWO GROUND RODS ARE PROVEN GROUNDS, THE TOUCH POTENTIAL AT THE SWITCH HANDLE INCREASES BY A RANGE OF 0.142 TO 0.091 VOLTS P.U.
- 3) THE GROUND LOOP CONDUCTOR SHOULD BE A CONTINUOUS LOOP BETWEEN THE GROUND RODS AND THE POLE CONNECTION.
- 4) STAPLES ON THE GROUND WIRE SHALL BE IN 2'-0" INCREMENTS OVER THE LENGTH OF THE POLE. THE EXCEPTION IS FOR A DISTANCE 8'-0" ABOVE THE GROUND AND 8'-0" FROM THE TOP OF THE POLE, WHERE THEY SHALL BE IN 6" INCREMENTS.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 10/17/2008
Old CU: VM2-15	DWG Name: H3-11.DWG

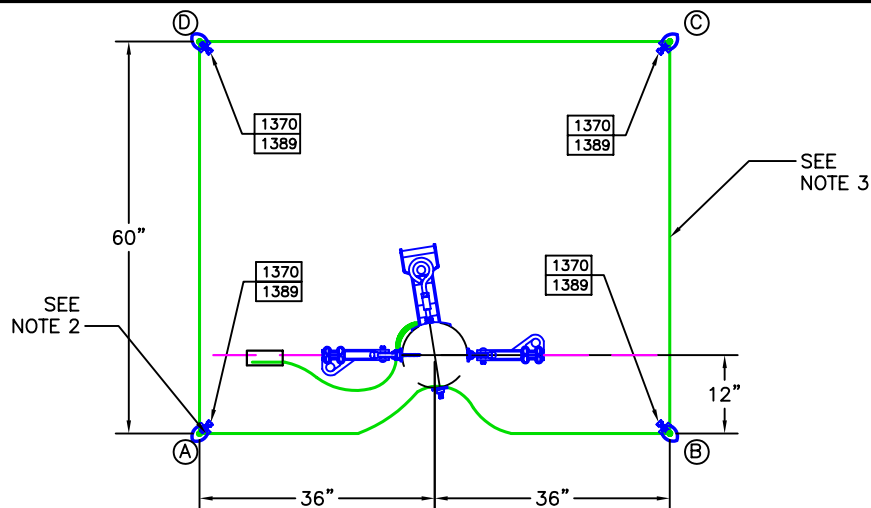
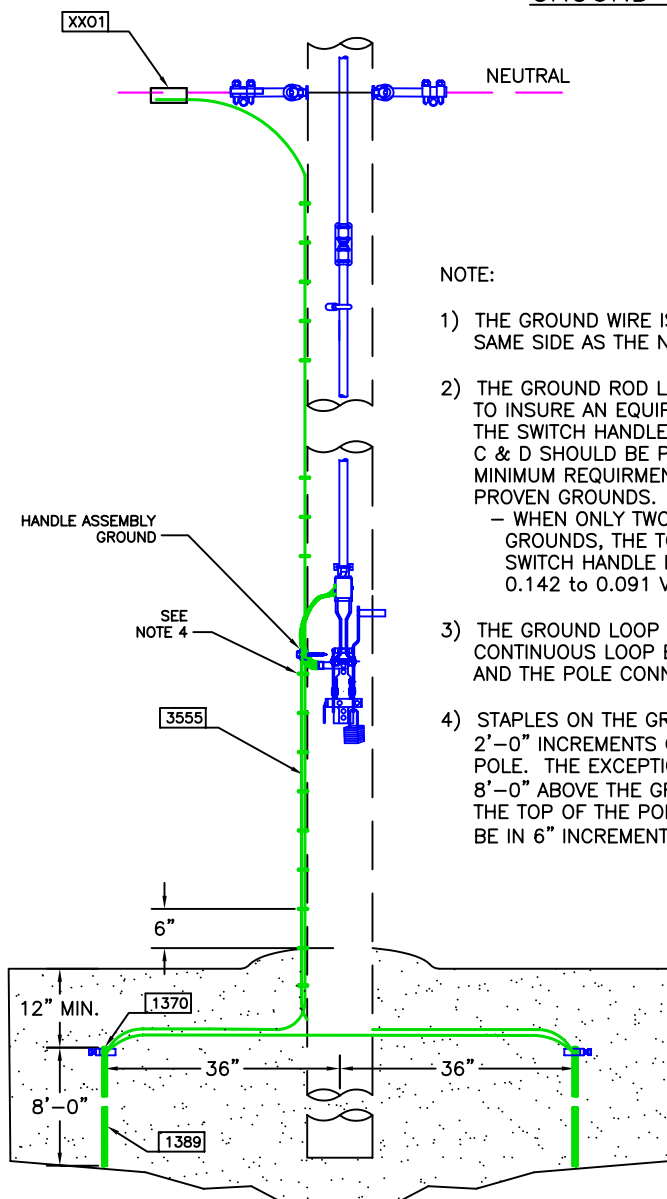
GROUNDING ASSEMBLY; GROUND ROD TYPE;
MECHANICAL CONNECTION; FOR SECTIONALIZED
AIR BREAK SWITCH

REV# : 003

H3.11

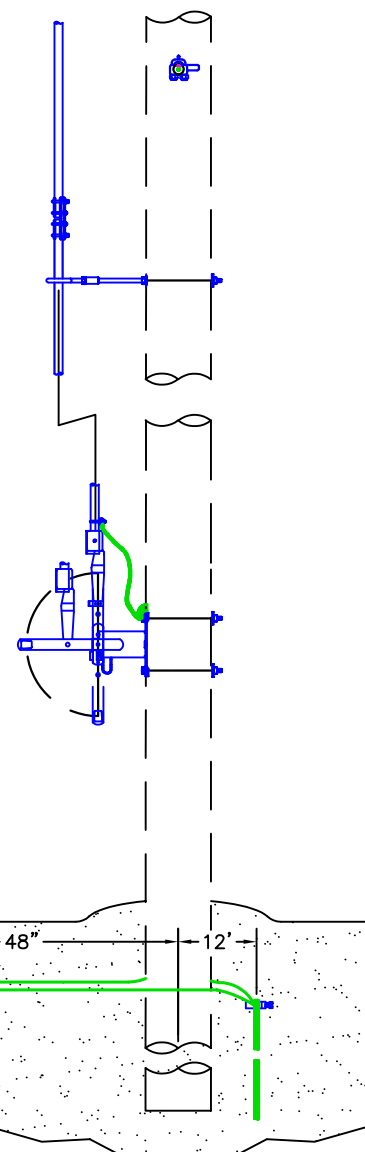
CONSTRUCTION UNIT:	H3.11	AUTOCAD FILE:	H3-11.DWG
DESCRIPTION:	GROUNDING ASSEMBLY;GROUND ROD TYPE; MECHANICAL CONNECTION; FOR SECTIONALIZING AIR BREAK SWITCH	PDF FILE:	H3-11.PDF
		PDF SPEC.:	H3-11_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	4	GROUND ROD CLAMP		
1390	4	GROUND ROD; GALV 5/8" X 8"		
3520	70	WIRE; CU BSD 2		
XX01	1	CONNECTOR	N	13

GROUND GRID DETAIL

NOTE:

- 1) THE GROUND WIRE IS TO BE LOCATED ON THE SAME SIDE AS THE NEUTRAL CONDUCTOR.
- 2) THE GROUND ROD LOCATIONS A, B, C & D: TO INSURE AN EQUIPOTENTIAL SURFACE BELOW THE SWITCH HANDLE; GROUND LOCATIONS A, B, C & D SHOULD BE PROVEN GROUNDS. MINIMUM REQUIREMENT: LOCATIONS A & B ARE PROVEN GROUNDS.
 - WHEN ONLY TWO GROUND RODS ARE PROVEN GROUNDS, THE TOUCH POTENTIAL AT THE SWITCH HANDLE INCREASES BY A RANGE OF 0.142 TO 0.091 VOLTS P.U.
- 3) THE GROUND LOOP CONDUCTOR SHOULD BE A CONTINUOUS LOOP BETWEEN THE GROUND RODS AND THE POLE CONNECTION.
- 4) STAPLES ON THE GROUND WIRE SHALL BE IN 2'-0" INCREMENTS OVER THE LENGTH OF THE POLE. THE EXCEPTION IS FOR A DISTANCE 8'-0" ABOVE THE GROUND AND 8'-0" FROM THE TOP OF THE POLE, WHERE THEY SHALL BE IN 6" INCREMENTS.



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/17/2008
Approved By: WHP	Date Updated: 10/17/2008
Old CU: VM2-15	DWG Name: H3-11-CW.DWG

GROUNDING ASSEMBLY; GROUND ROD TYPE;
MECHANICAL CONNECTION; COPPERWELD WIRE;
FOR SECTIONALIZED AIR BREAK SWITCH

REV# : 000
H3.11.CW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **H3.11.CW**

AUTOCAD FILE: **H3-11-CW.DWG**

DESCRIPTION: **GROUNDING ASSEMBLY;GROUND ROD TYPE;
MECHANICAL CONNECTION; COPPERWELD
WIRE;FOR SECTIONALIZING AIR BREAK
SWITCH**

PDF FILE: **H3-11-CW.PDF**

PDF SPEC.: **H3-11-CW_SPEC.PDF**

ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1370	4	GROUND ROD CLAMP		
1389	4	GROUND ROD; CU CLAD 5/8" X 8"		
3555	70	WIRE; COPPERWELD #4		
XX01	1	CONNECTOR	N	13

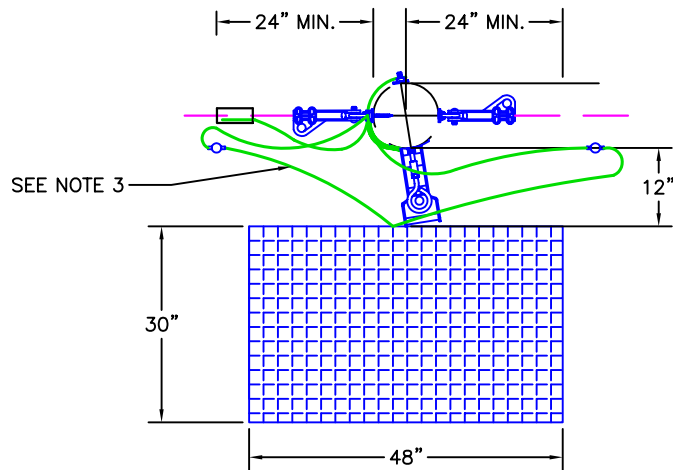




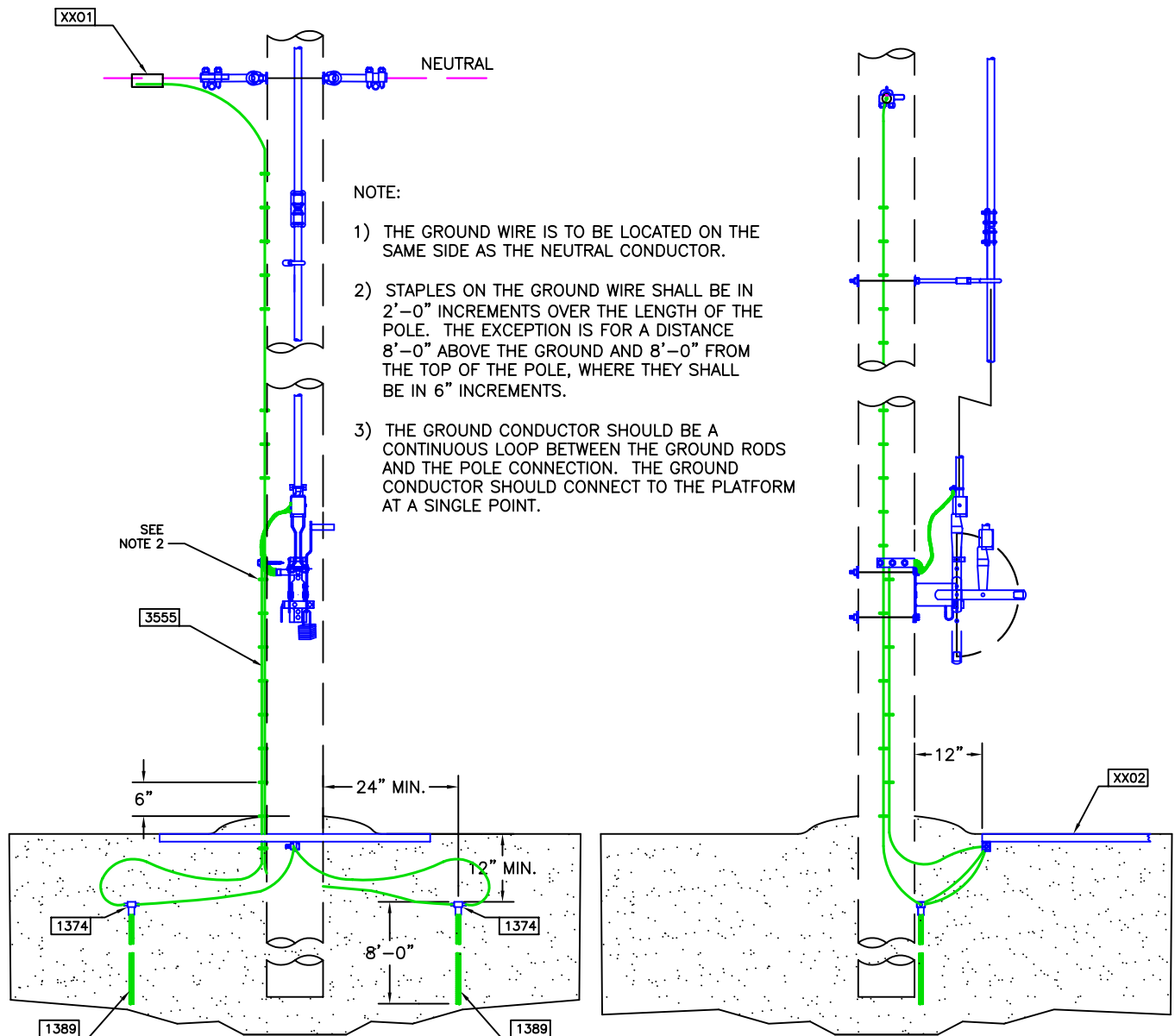
Drawn By: DEM	Date Drawn: JANUARY 2002	GROUNDING ASSEMBLY; PLATFORM TYPE; WELDED CONNECTION; FOR SECTIONALIZED AIR BREAK SWITCH	REV# : 002
Approved By: WHP	Date Updated: 10/17/2008		H4.1
Old CU: H4-1	DWG Name: H4-1.DWG		

CONSTRUCTION UNIT:	<input type="text" value="H4.1"/>	AUTOCAD FILE:	<input type="text" value="H4-1.DWG"/>
DESCRIPTION:	<input type="text" value="GROUNDING ASSEMBLY; PLATFORM TYPE; WELDED CONNECTION; FOR SECTIONALIZING AIR BREAK SWITCH"/>	PDF FILE:	<input type="text" value="H4-1.PDF"/>
		PDF SPEC.:	<input type="text" value="H4-1_SPEC.PDF"/>
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1375	2	GROUND ROD CLAMP 2#2 TO 5/8		
1390	2	GROUND ROD; GALV 5/8" X 8"		
3520	70	WIRE; CU BSD 2		
XX01	1	CONNECTOR (NEUTRAL)	N	13
XX02	1	GROUND; IRON PLATFORM PLATE	N	13



PLATFORM DETAIL



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/17/2008
Approved By: WHP	Date Updated: 10/17/2008
Old CU: H4-1	DWG Name: H4-1-CW.DWG

GROUNDING ASSEMBLY; PLATFORM TYPE; WELDED
CONNECTION; COPPERWELD WIRE; FOR
SECTIONALIZED AIR BREAK SWITCH

REV# : 000
H4.1.CW

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:

AUTOCAD FILE:

DESCRIPTION:

PDF FILE:

PDF SPEC.:

ANGLE FROM:

ANGLE TO:

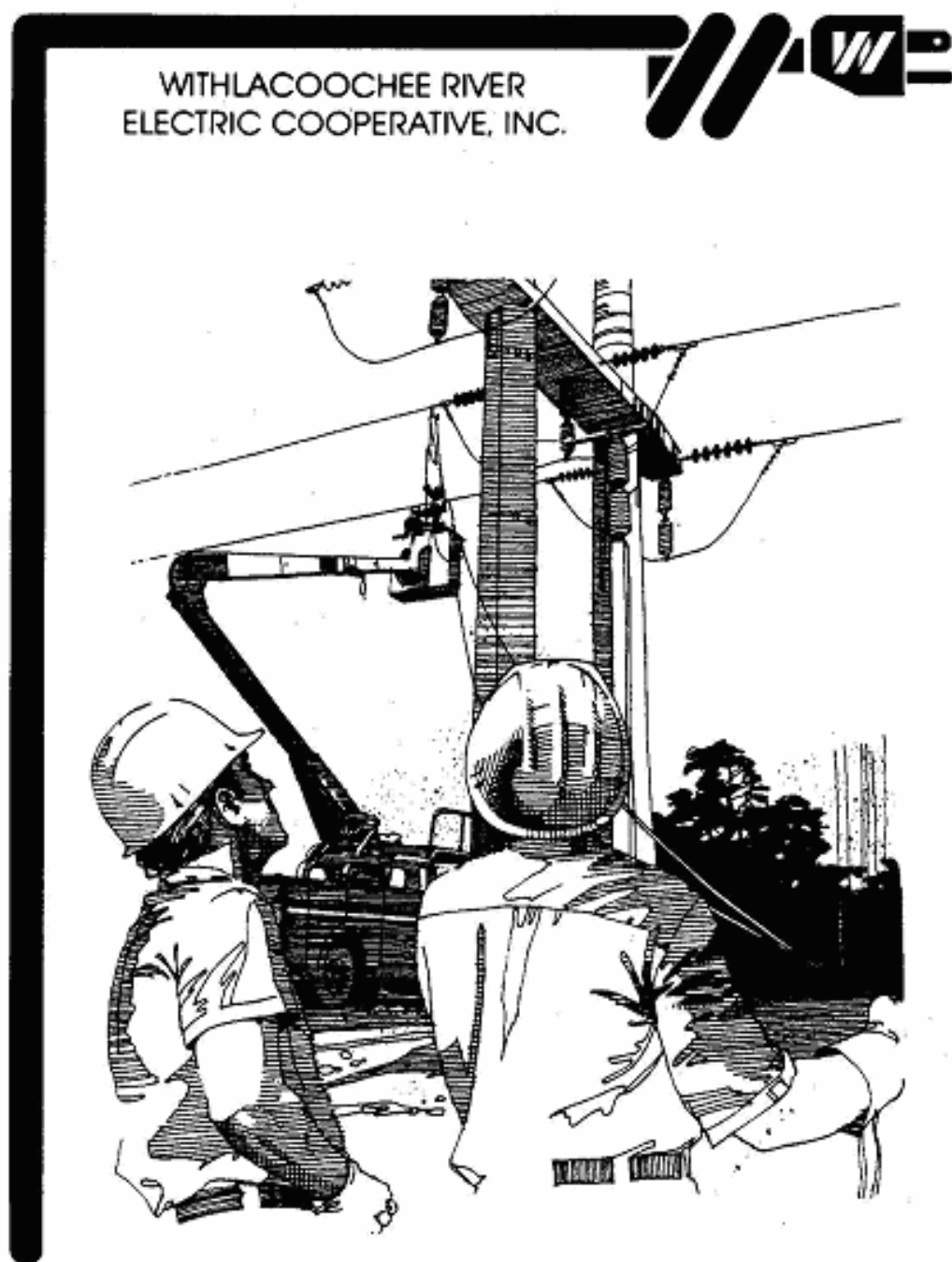
RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
1374	2	GROUND ROD CLAMP 2#4 TO 5/8		
1389	2	GROUND ROD; CU CLAD 5/8" X 8"		
3555	70	WIRE; COPPERWELD #4		
XX01	1	CONNECTOR (NEUTRAL)	N	13
XX02	1	GROUND; IRON PLATFORM PLATE	N	13

CONSTRUCTION UNITS

INDEX M: MISCELLANEOUS ASSEMBLY UNITS.



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NOTES

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NOTES

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MISCELLANEOUS ASSEMBLY UNITS

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M5.6	7.2/12.47 KV PRIMARY, PIN TYPE INSULATOR	5 - 6
M5.8	7.2/12.47 KV PRIMARY, TWO SUSPENSION INSULATORS 4 ¼" BELLS, PRIMARY ASSEMBLY	7 - 8
M5.20.1	7.2/12.47 KV PRIMARY, ONE INSULATOR, SUSPENSION TYPE, 4 ¼" BELL	9 - 10
M5.20.2	7.2/12.47 KV PRIMARY, TWO INSULATORS, SUSPENSION TYPE, 4 ¼" BELL	11 - 12
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M5.23.6	6' GUY STRAIN INSUALTOR, PRIMARY ASSEMBLY	21 - 22
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M5.23.12	12' GUY STRAIN INSUALTOR, PRIMARY ASSEMBLY	25 - 26
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VM5.7	14.4/24.9 KV PRIMARY, POST TYPE INSULATOR	55 – 56
VM5.7.B	14.4/24.9 KV PRIMARY, HORIZONTAL POST TYPE INSULATOR, WITH STANDOFF BRACKET	57 – 58
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WREC CONSTRUCTION UNIT UPDATE TABLE

MISCELLANEOUS ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
M5-4	M5.4	M5.4	7.2/12.47 KV PRIMARY, PIN TOP INSULATOR, WITH PIN	--	7/30/03
M5-5	M5.5	M5.5	7.2/12.47 KV PRIMARY, PIN TOP INSULATOR	--	7/30/03
M5-8	M5.8	M5.8	7.2/12.47 KV PRIMARY, TWO SUSPENSION INSULATORS 4 1/4" BELLS, PRIMARY ASSEMBLY	--	7/30/03
M5-20-1	M5.20.1	M5.20.1	14.4/24.9 KV PRIMARY, ONE INSULATOR, SUSPENSION TYPE 4 1/4" BELL	--	7/30/03
M5-20-2	M5.20.2	M5.20.2	14.4/24.9 KV PRIMARY, TWO INSULATORS, SUSPENSION TYPE 4 1/4" BELLS	--	7/30/03
M5-20-3	M5.20.3	M5.20.3	14.4/24.9 KV PRIMARY, THREE INSULATORS, SUSPENSION TYPE 4 1/4" BELLS	--	7/30/03
M5-21	M5.21	M5.21	ANCHOR SHACKLE, OVAL EYE BOLT, OVAL EYE NUT, PRIMARY ASSEMBLY	--	7/30/03
M5-23	M5.23	M5.23	FIBERGLASS LINK	--	7/30/03
M5-23-3	M5.23.3	M5.23.3	3' GUY STRAIN INSULATOR, PRIMARY ASSEMBLY	--	7/30/03
M5-23-6	M5.23.6	M5.23.6	6' GUY STRAIN INSULATOR, PRIMARY ASSEMBLY	--	7/30/03
--	M5.23.9	M5.23.9	3' and 6' GUY STRAIN INSULATOR, PRIMARY ASSEMBLY	--	3/16/04
M5-23-12	M5.23.12	M5.23.12	12' GUY STRAIN INSULATOR, PRIMARY ASSEMBLY	--	7/30/03
M5-23-15	M5.23.15	M5.23.15	3' and 12' GUY STRAIN INSULATOR, PRIMARY ASSEMBLY	--	6/30/06
--	M6.41	M6.41	14.4/24.9 KV PRIMARY, FAULT INDICATOR, OVERHEAD CONDUCTORS, MAGNETIC RESET	--	10/01/03
VM3-IL	VM3.IL	VM3.IL	14.4/24.9 KV 600 AMP IN LINE DISCONNECT SWITCH	--	7/22/03
VM5-1	VM5.1	VM5.1	14.4/24.9 KV PRIMARY, CLAMP, HOT LINE	--	7/22/03

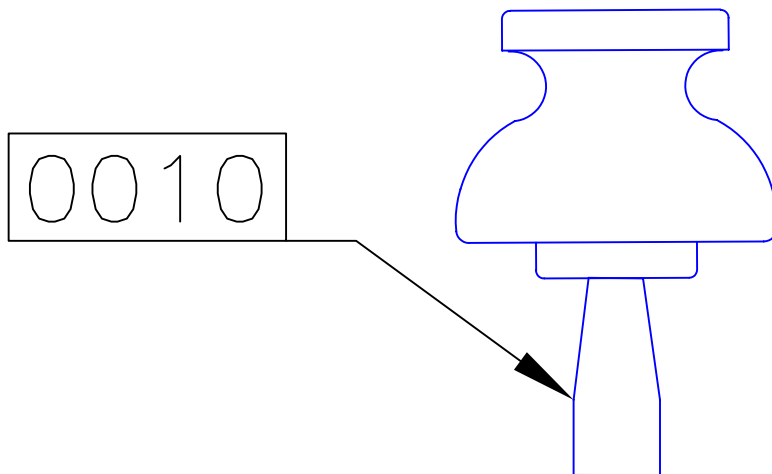
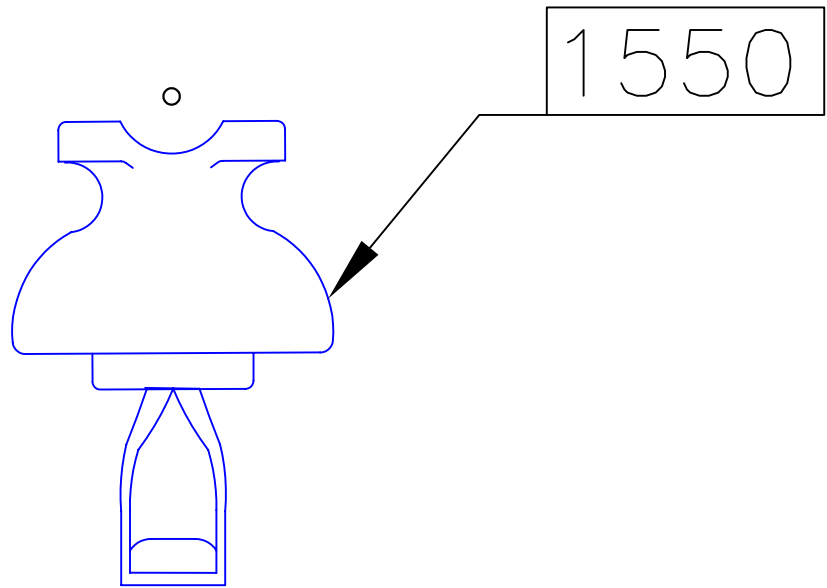


WREC CONSTRUCTION UNIT UPDATE TABLE

MISCELLANEOUS ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	VM5.11	VM5.11	14.4/24.9 KV PRIMARY, CONNECTOR, BASKET AND HOT LINE CLAMP, VERTICAL CONSTRUCTION	--	10/16/08
VM5-18	VM5.18	VM5.18	14.4/24.9 KV PRIMARY, VERTICAL POST TYPE INSULATOR, WITH POLE TYPE BRACKET	--	7/22/03
VM5-18-S	VM5.18.S	VM5.18.S	14.4/24.9 KV PRIMARY, SLACK SPAN INSULATOR	--	7/22/03
VM5-18S-1	VM5.18S.1	VM5.18S.1	14.4/24.9 KV PRIMARY, 1-PHASE, SLACK SPAN	--	7/22/03
VM5-18S-2	VM5.18S.2	VM5.18S.2	14.4/24.9 KV PRIMARY, 2-PHASE, SLACK SPAN	--	7/22/03
VM5-18S-3	VM5.18S.3	VM5.18S.3	14.4/24.9 KV PRIMARY, 3-PHASE, SLACK SPAN	--	7/22/03
VM5-2	VM5.2	VM5.2	14.4/24.9 KV PRIMARY, POLE PIN TOP ASSEMBLY	--	7/22/03
VM5-20	VM5.20	VM5.20	14.4/24.9 KV PRIMARY, SUSPENSION INSULATOR	--	7/22/03
---	VM5.22	VM5.22	14.4/24.9 KV PRIMARY, DOUBLE POLE PIN TOP ASSEMBLY	--	2/10/04
VM5-5	VM5.5	VM5.5	14.4/24.9 KV PRIMARY, INSULATOR, PIN TYPE 25 KV	--	7/22/03
VM5-7	VM5.7	VM5.7	14.4/24.9 KV PRIMARY, POST TYPE INSULATOR	--	7/22/03
VM5-7-B	VM5.7.B	VM5.7.B	14.4/24.9 KV PRIMARY, HORIZONTAL POST TYPE INSULATOR, WITH STANDOFF BRACKET	--	7/22/03
---	VM5.7.S0	VM5.7.S0	14.4/24.9 KV PRIMARY, ONE HORIZONTAL POST INSULATOR, PRIMARY ASSEMBLY	--	3/09/04
VM5-7-S1	VM5.7.S1	VM5.7.S1	14.4/24.9 KV PRIMARY, ONE HORIZONTAL POST INSULATOR, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	7/22/03
VM5-81L	VM5.81L	VM5.81L	14.4/24.9 KV PRIMARY, FIBERGLASS LINK, 3 SUSPENSION INSULATORS 4 1/4" BELLS, PRIMARY ASSEMBLY	--	7/22/03
---	VM10.13.DS	VM10.13.DS	14.4/24.9 KV PRIMARY, 3-PHASE, SWITCHED CAPACITOR FRAME ASSEMBLY WITH DIELECTRIC/VACUUM SWITCHES, GROUNDED WYE, VERTICAL CONSTRUCTION	--	6/30/06
---	VM10.13.OS	VM10.13.OS	14.4/24.9 KV PRIMARY, 3-PHASE, SWITCHED CAPACITOR FRAME ASSEMBLY WITH OIL SWITCHES, GROUNDED WYE, VERTICAL CONSTRUCTION	--	6/30/06
---	VM10.13.V	VM10.13.V	14.4/24.9 KV PRIMARY, 3-PHASE, FIXED CAPACITOR FRAME ASSEMBLY GROUNDED WYE, VERTICAL CONSTRUCTION	--	3/19/08





DRAWING IS NOT TO SCALE

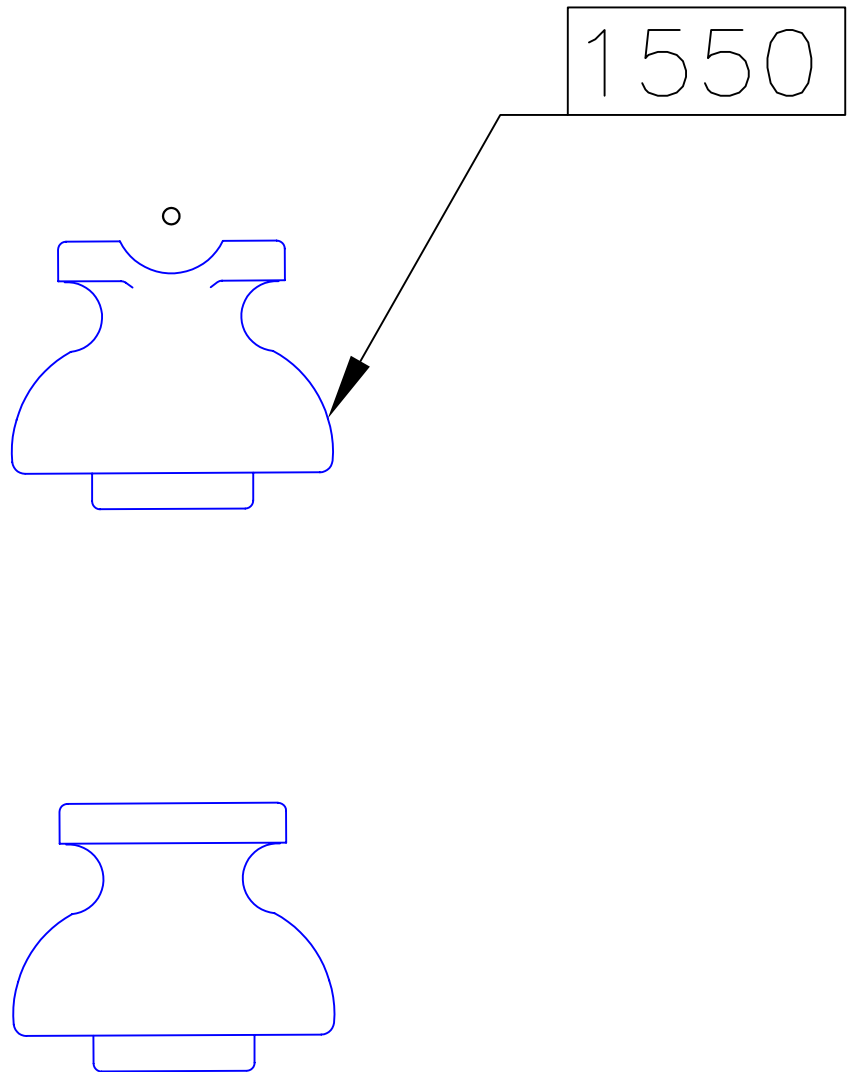
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-4	DWG Name: M5-4.DWG

**7.2/12.47 KV PRIMARY
PIN TYPE INSULATOR, WITH PIN**

ISSUE#: REV 1
M5.4

CONSTRUCTION UNIT:	M5.4	AUTOCAD FILE:	M5-4.DWG
DESCRIPTION:	7.2/12.47 KV PRIMARY,PIN TYPE INSULATOR, WITH PIN		PDF FILE:
		PDF SPEC.:	M5-4_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0010	1	ADAPTER, INSULATOR		
1550	1	INSULATOR, PIN TYPE		
3350	2	WASHER, SQUARE		



DRAWING IS NOT TO SCALE

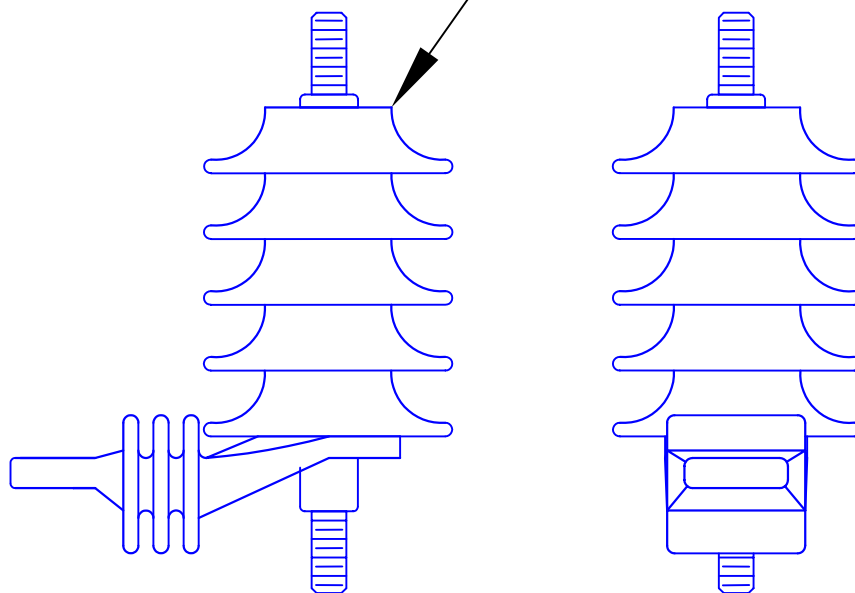
Drawn By: DEM	Date Drawn: JANUARY 2002	7.2/12.47 KV PRIMARY PIN TYPE INSULATOR	ISSUE#: REV 1
Approved By: WHP	Date Updated: JULY 30, 2003		M5.5
Old CU: M5-5	DWG Name: M5-5.DWG		

CONSTRUCTION UNIT:	M5.5	AUTOCAD FILE:	M5-5.DWG
DESCRIPTION:	7.2/12.47 KV PRIMARY, PIN TYPE INSULATOR	PDF FILE:	M5-5.PDF
		PDF SPEC.:	M5-5_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1550	1	INSULATOR, PIN TYPE		



0120



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-6	DWG Name: M5-6.DWG

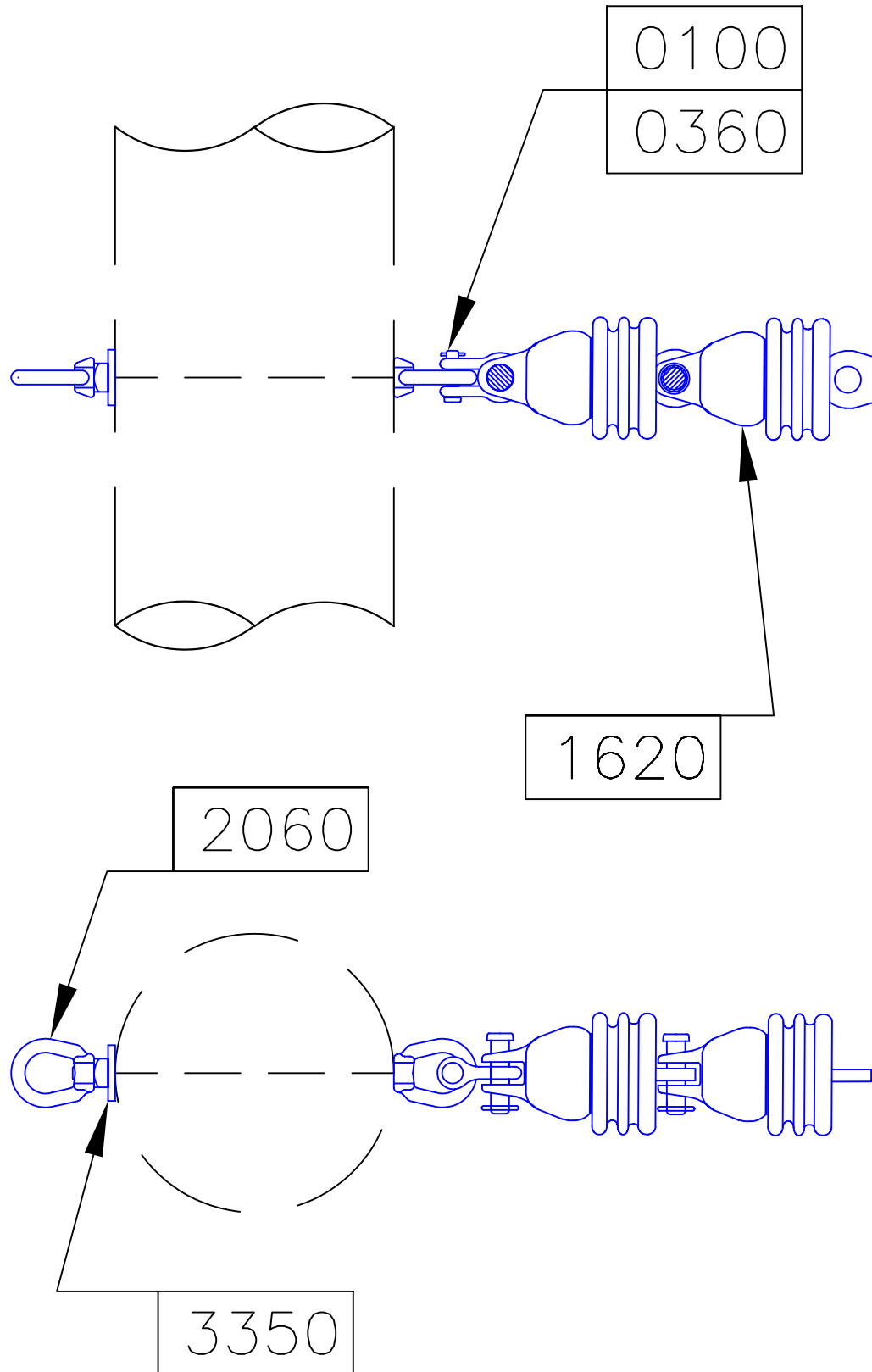
7.2/12.47 KV PRIMARY
9 KV LIGHTNING ARRESTOR

ISSUE#: REV 1

M5.6

CONSTRUCTION UNIT:	M5.6	AUTOCAD FILE:	M5-6.DWG
DESCRIPTION:	7.2/12.47 KV, 9 KV LIGHTNING ARRESTOR	PDF FILE:	M5-6.PDF
		PDF SPEC.:	M5-6_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	1	ARRESTER, LIGHTNING 9 KV		



DRAWING IS NOT TO SCALE

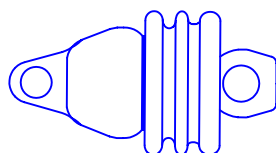
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-8	DWG Name: M5-8.DWG

7.2/12.47 KV PRIMARY
TWO SUSPENSION INSULATORS 4 1/4 BELLS,
PRIMARY ASSEMBLY

ISSUE#: REV 1
M5.8

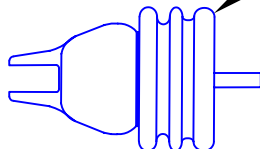
CONSTRUCTION UNIT:	M5.8	AUTOCAD FILE:	M5-8.DWG
DESCRIPTION:	7.2/12.47 KV PRIMARY, TWO SUSPENSION INSULATORS 4 1/4" BELLS, PRIMARY ASSEMBLY		PDF FILE: M5-8.PDF
		PDF SPEC.:	M5-8_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	1	ANCHOR, SHACKLE		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	2	INSULATOR, SUSP 4 1/4"		
2060	1	NUT, OVAL EYE 5/8"		
3350	1	WASHER, SQUARE		



SIDE VIEW

1620



TOP VIEW

DRAWING IS NOT TO SCALE

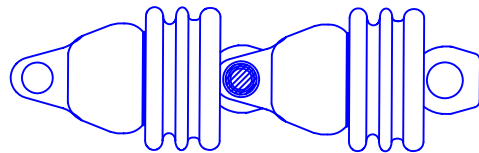
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-20-1	DWG Name: M5-20-1.DWG

14.4/24.9 KV PRIMARY, ONE INSULATOR,
SUSPENSION TYPE, 4 1/4" BELL

ISSUE#: REV 1
M5.20.1

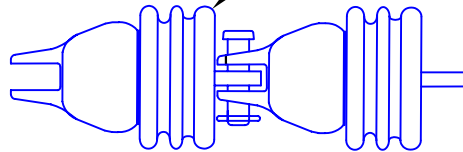
CONSTRUCTION UNIT:	M5.20.1	AUTOCAD FILE:	M5-20-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, INSULATOR, SUSPENSION, 4 1/4" BELL	PDF FILE:	M5-20-1.PDF
		PDF SPEC.:	M5-20-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1620	1	INSULATOR, SUSP 4 1/4"		



SIDE VIEW

1620



TOP VIEW

DRAWING IS NOT TO SCALE

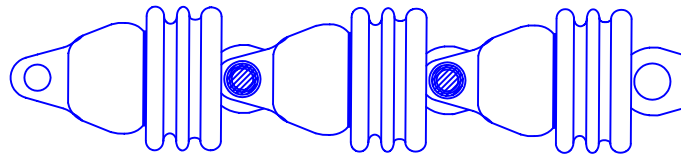
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-20-2	DWG Name: M5-20-2.DWG

14.4/24.9 KV PRIMARY, TWO INSULATORS,
SUSPENSION TYPE, 4 1/4" BELLS

ISSUE#: REV 1
M5.20.2

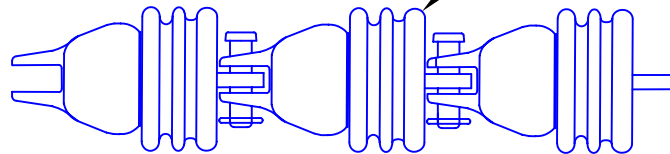
CONSTRUCTION UNIT:	M5.20.2	AUTOCAD FILE:	M5-20-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, INSULATOR, SUSPENSION, 4 1/4" BELLS	PDF FILE:	M5-20-2.PDF
		PDF SPEC.:	M5-20-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1620	2	INSULATOR, SUSP 4 1/4"		



SIDE VIEW

1620



TOP VIEW

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-20-3	DWG Name: M5-20-3.DWG

14.4/24.9 KV PRIMARY, THREE INSULATORS,
SUSPENSION TYPE, 4 1/4" BELLS

ISSUE#: REV 1
M5.20.3

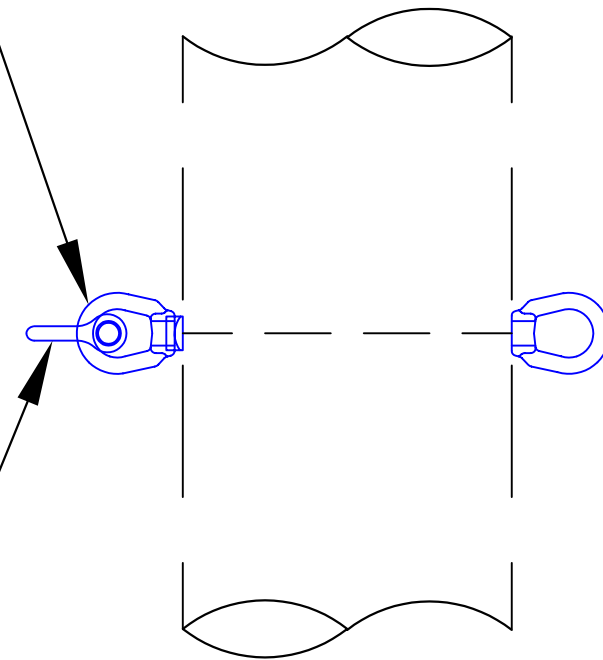
CONSTRUCTION UNIT:	M5.20.3	AUTOCAD FILE:	M5-20-3.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, INSULATOR, SUSPENSION, 4 1/4" BELLS	PDF FILE:	M5-20-3.PDF
		PDF SPEC.:	M5-20-3_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1620	3	INSULATOR, SUSP 4 1/4"		

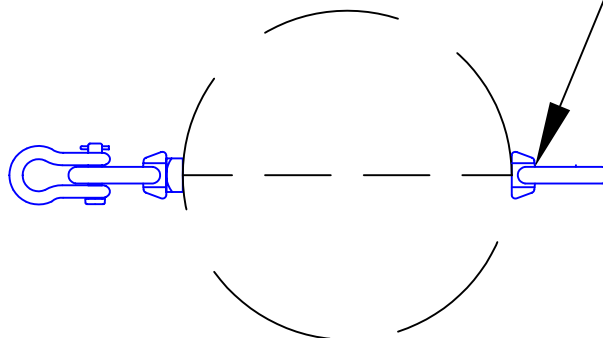


2060

0100



0360



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-21	DWG Name: M5-21.DWG

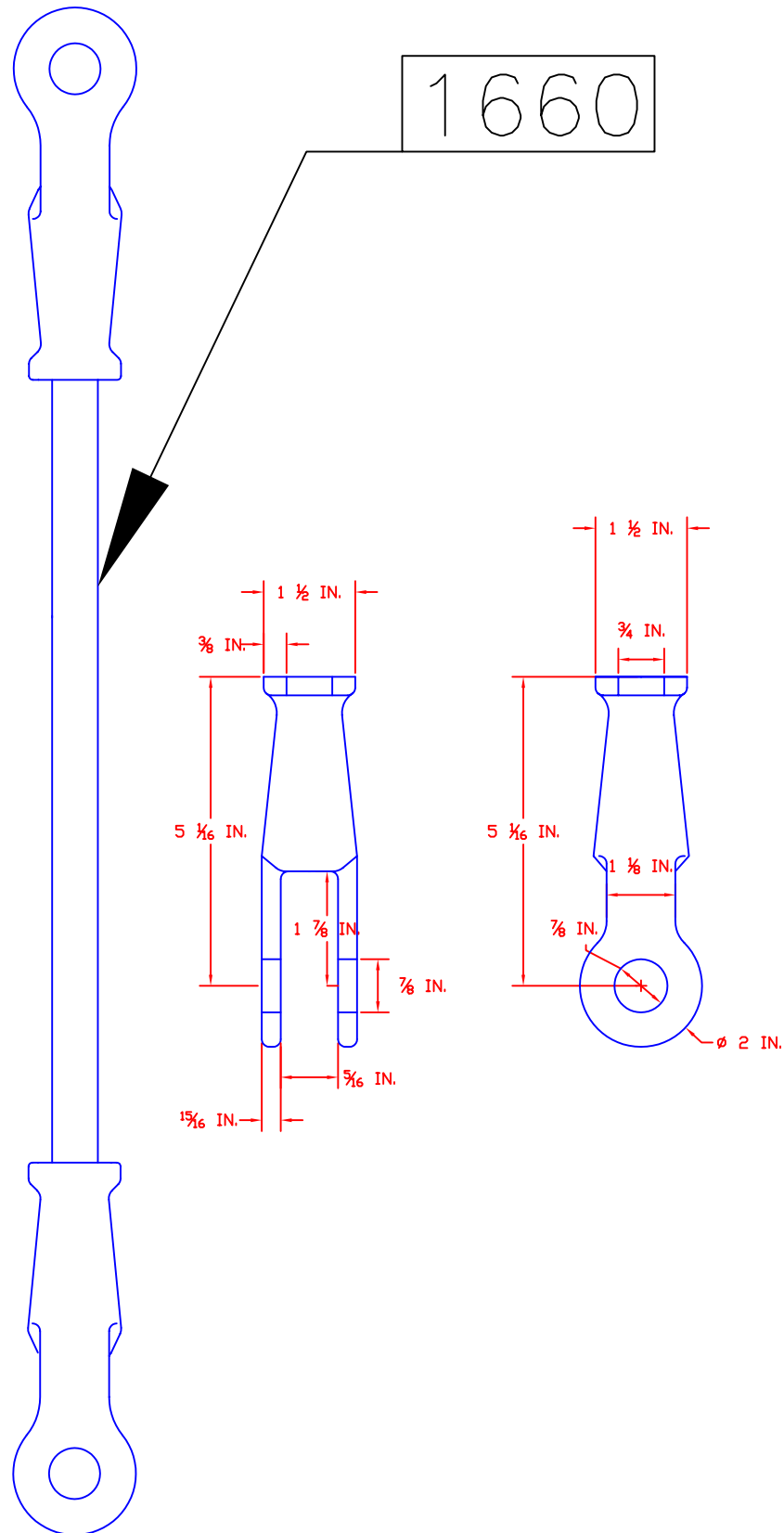
ANCHOR SHACKLE, OVAL EYE BOLT,
OVAL EYE NUT, PRIMARY ASSEMBLY

ISSUE#: REV 1

M5.21

CONSTRUCTION UNIT:	M5.21	AUTOCAD FILE:	M5-21.DWG
DESCRIPTION:	ANCHOR SHACKLE, OVAL EYE BOLT, OVAL EYE NUT, PRIMARY ASSEMBLY		PDF FILE:
		PDF SPEC.:	M5-21_SPEC.DWG
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0100	1	ANCHOR, SHACKLE		
0360	1	BOLT, OVAL EYE 5/8" X 12"		
2060	1	NUT, OVAL EYE 5/8"		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30 ,2003
Old CU: M5-23	DWG Name: M5-23.DWG

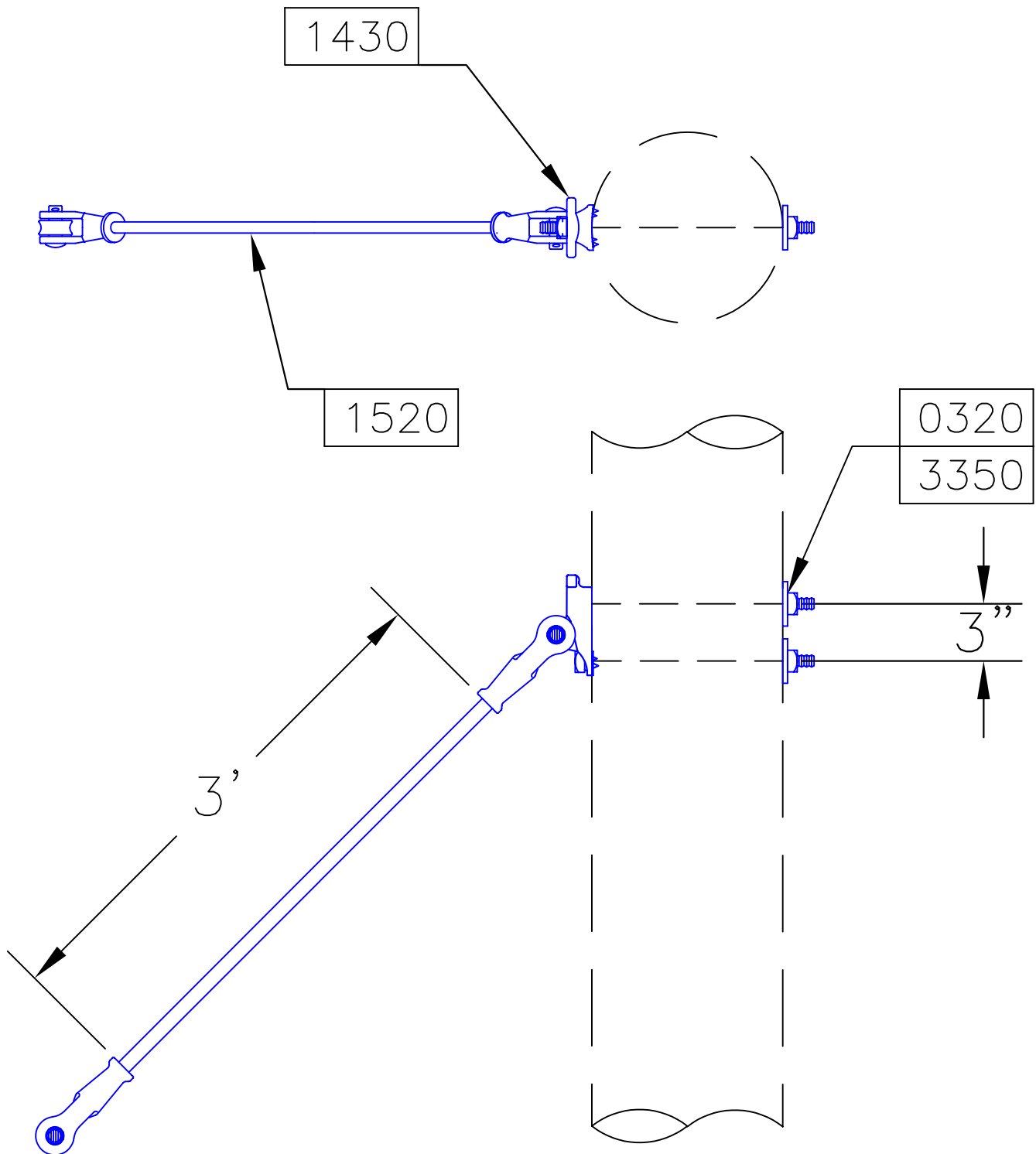
FIBERGLASS LINK

ISSUE#: REV 1

M5.23

CONSTRUCTION UNIT:	M5.23	AUTOCAD FILE:	M5-23.DWG
DESCRIPTION:	FIBERGLASS LINK	PDF FILE:	M5-23.PDF
		PDF SPEC.:	M5-23_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1660	1	LINK, FIBERGLASS		



DRAWING IS NOT TO SCALE

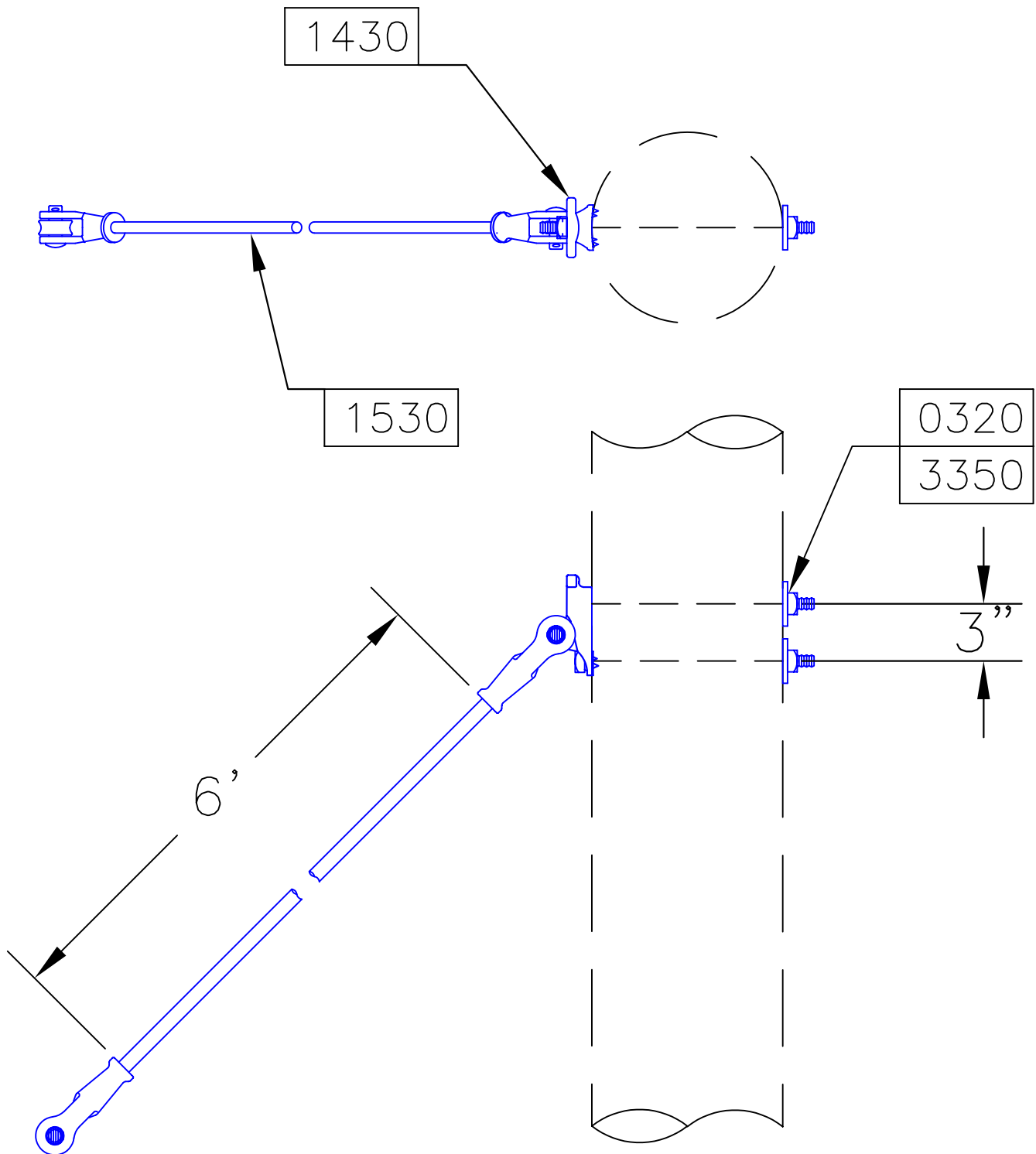
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-23-3	DWG Name: M5-23-3.DWG

3' GUY STRAIN INSULATOR,
PRIMARY ASSEMBLY

ISSUE#: REV 1
M5.23.3

CONSTRUCTION UNIT:	M5.23.3	AUTOCAD FILE:	M5-23-3.DWG
DESCRIPTION:	3' GUY STRAIN INSULATOR; PRIMARY ASSEMBLY	PDF FILE:	M5-23-3.PDF
		PDF SPEC.:	M5-23-3_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	2	BOLT; MACHINE 5/8 X 12		
1430	1	GUY ATTACHMENT 3/4 W/EYE		
1520	1	INSULATOR; GUY WIRE 3'		
3350	2	WASHER; SQUARE		
3440	10	WIRE; AL GROUND 4		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

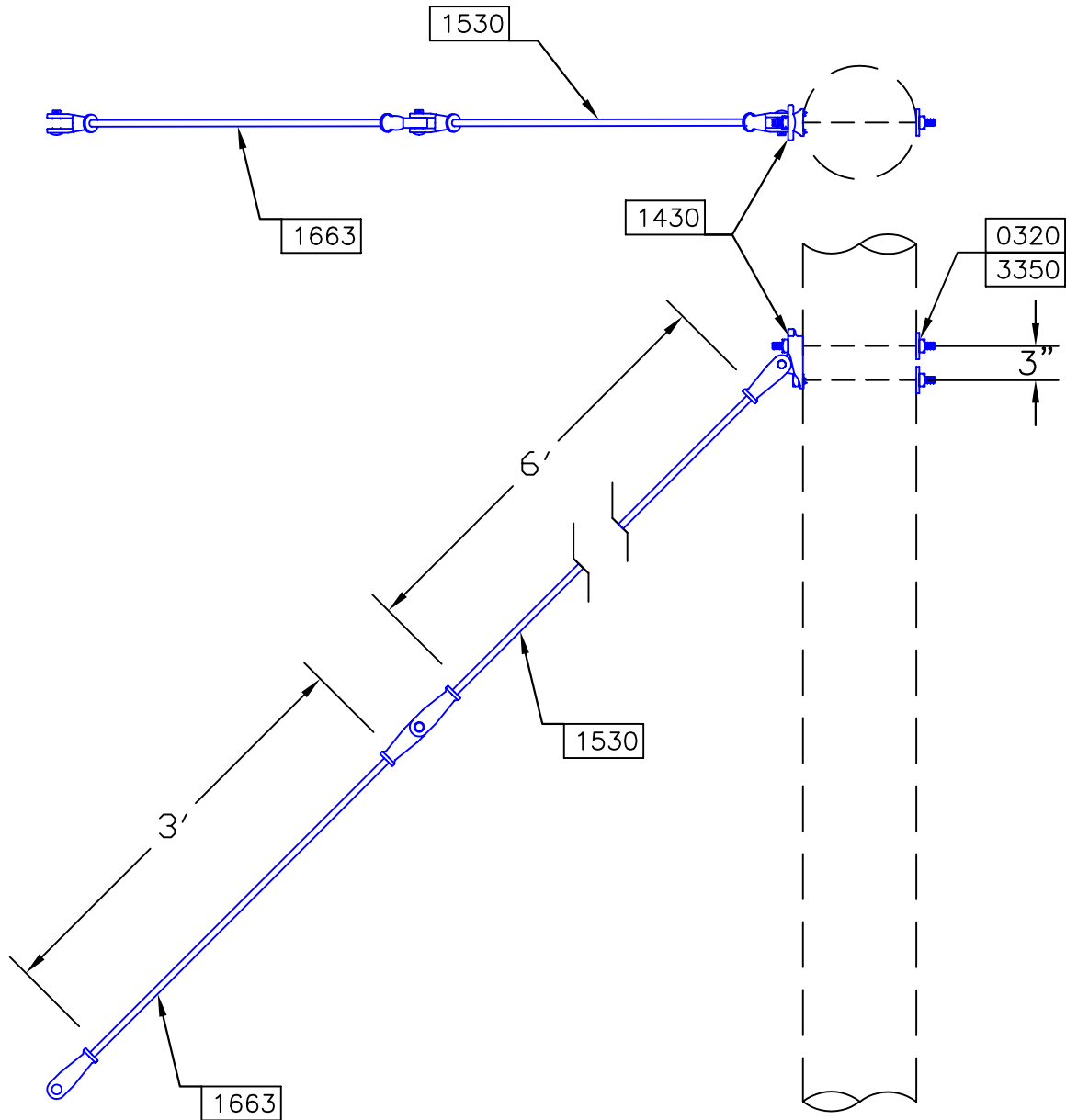
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-23-6	DWG Name: M5-23-6.DWG

6' GUY STRAIN INSULATOR,
PRIMARY ASSEMBLY

ISSUE#: REV 1
M5.23.6

CONSTRUCTION UNIT:	M5.23.6	AUTOCAD FILE:	M5-23-6.DWG
DESCRIPTION:	6' GUY STRAIN INSULATOR; PRIMARY ASSEMBLY	PDF FILE:	M5-23-6.PDF
		PDF SPEC.:	M5-23-6_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	2	BOLT; MACHINE 5/8 X 12		
1430	1	GUY ATTACHMENT 3/4 W/EYE		
1530	1	INSULATOR; GUY WIRE 6'		
3350	2	WASHER; SQUARE		
3440	10	WIRE; AL GROUND 4		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

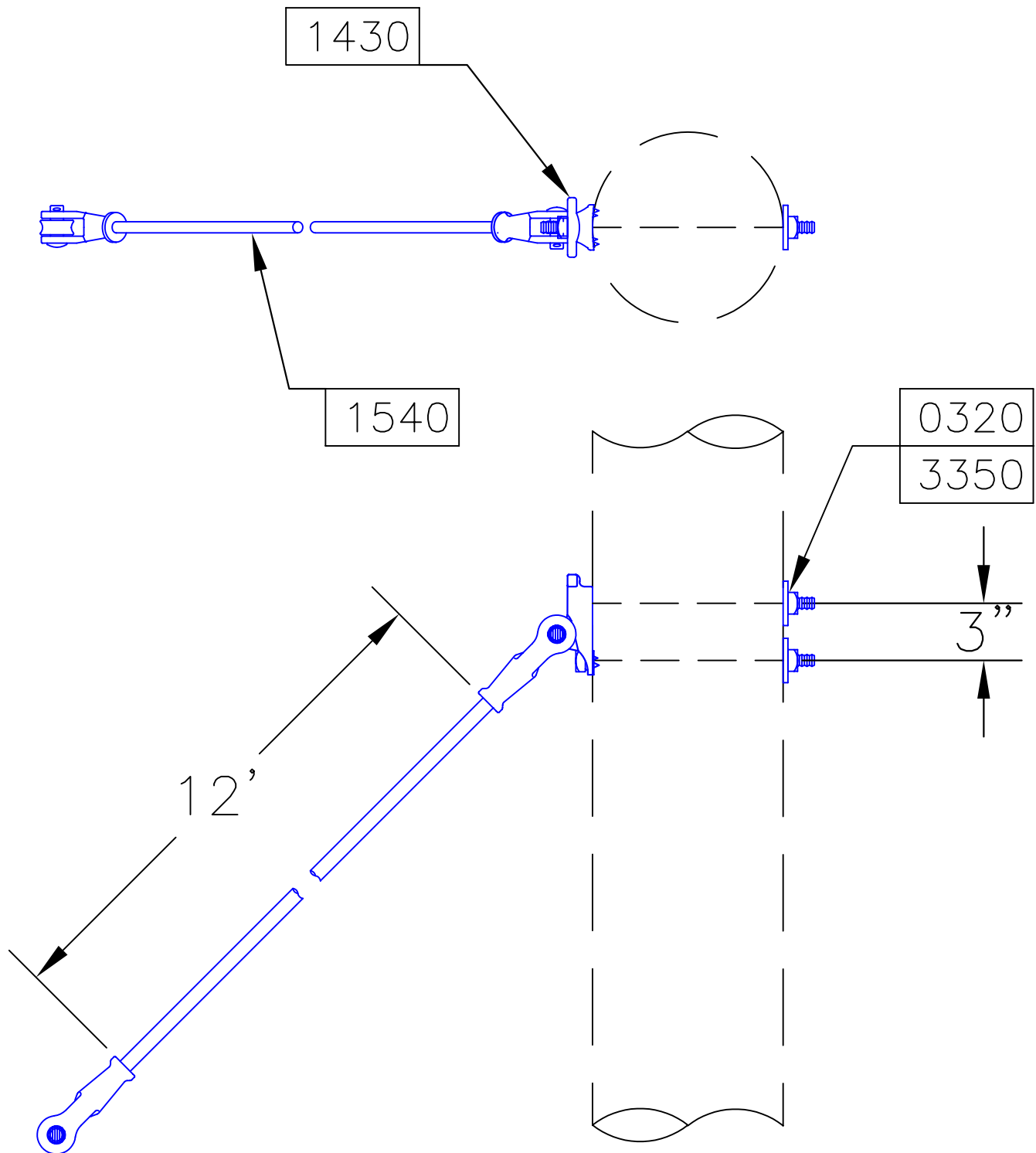
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU:	DWG Name: M5-23-9.DWG

**3' and 6' GUY STRAIN INSULATOR,
PRIMARY ASSEMBLY**

ISSUE#: REV 1
M5.23.9

CONSTRUCTION UNIT:	M5.23.9	AUTOCAD FILE:	M5-23-9.DWG
DESCRIPTION:	3' AND 6' GUY STRAIN INSULATOR; PRIMARY ASSEMBLY	PDF FILE:	M5-23-9.PDF
		PDF SPEC.:	M5-23-9_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	2	BOLT; MACHINE 5/8 X 12		
1430	1	GUY ATTACHMENT 3/4 W/EYE		
1530	1	INSULATOR; GUY WIRE 6'		
1663	1	LINK; FIBERGLS 3' STRAIN INS		
3350	2	WASHER; SQUARE		
3440	10	WIRE; AL GROUND 4		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



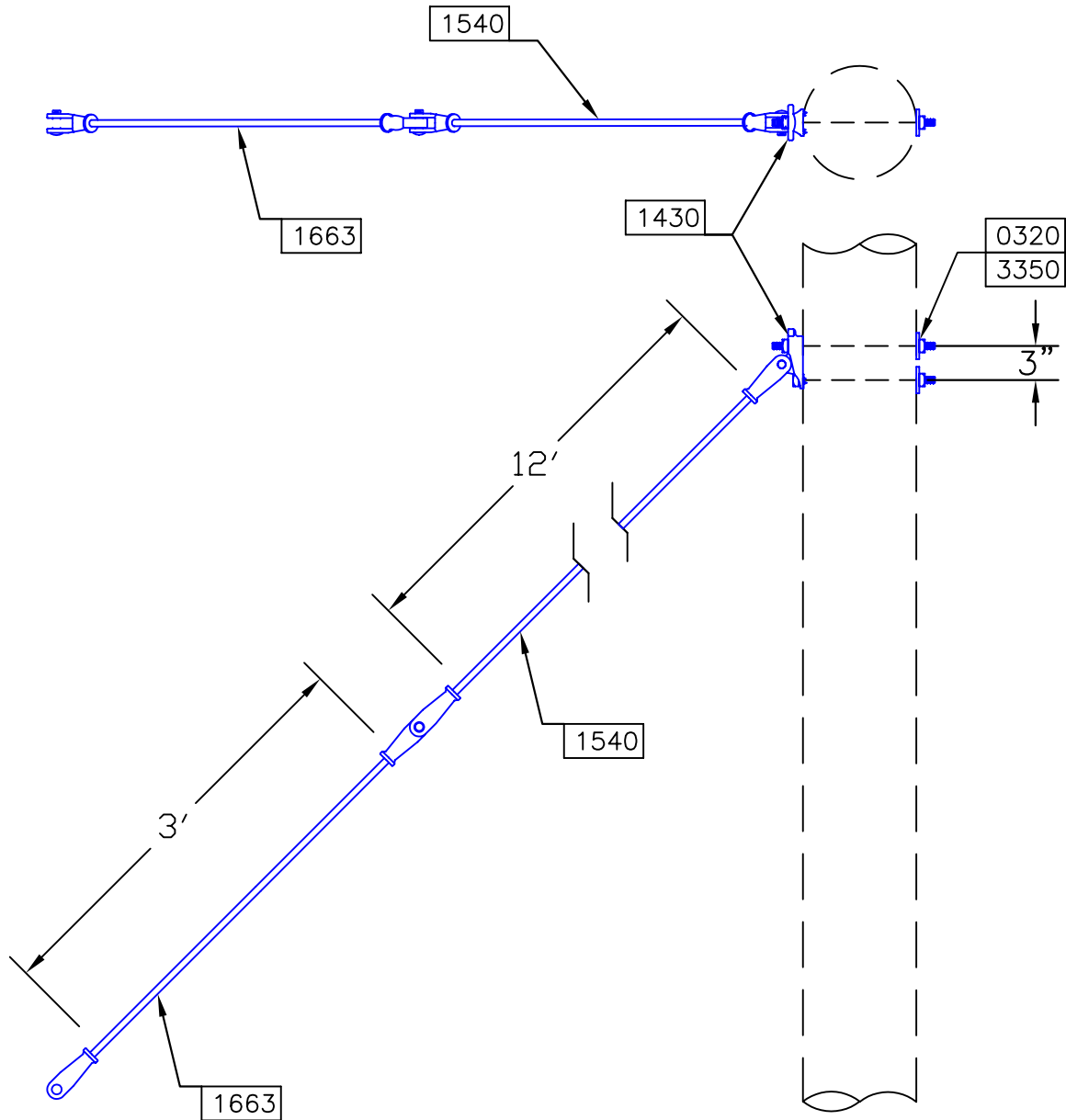
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 30, 2003
Old CU: M5-23-12	DWG Name: M5-23-12.DWG

12' GUY STRAIN INSULATOR,
PRIMARY ASSEMBLY

ISSUE#: REV 1
M5.23.12

CONSTRUCTION UNIT:	M5.23.12	AUTOCAD FILE:	M5-23-12.DWG
DESCRIPTION:	12' GUY STAIN INSULATOR; PRIMARY ASSEMBLY	PDF FILE:	M5-23-12.PDF
		PDF SPEC.:	M5-23-12_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	2	BOLT; MACHINE 5/8 X 12		
1430	1	GUY ATTACHMENT 3/4 W/EYE		
1540	1	INSULATOR; GUY WIRE 12'		
3350	2	WASHER; SQUARE		
3440	10	WIRE; AL GROUND 4		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



DRAWING IS NOT TO SCALE

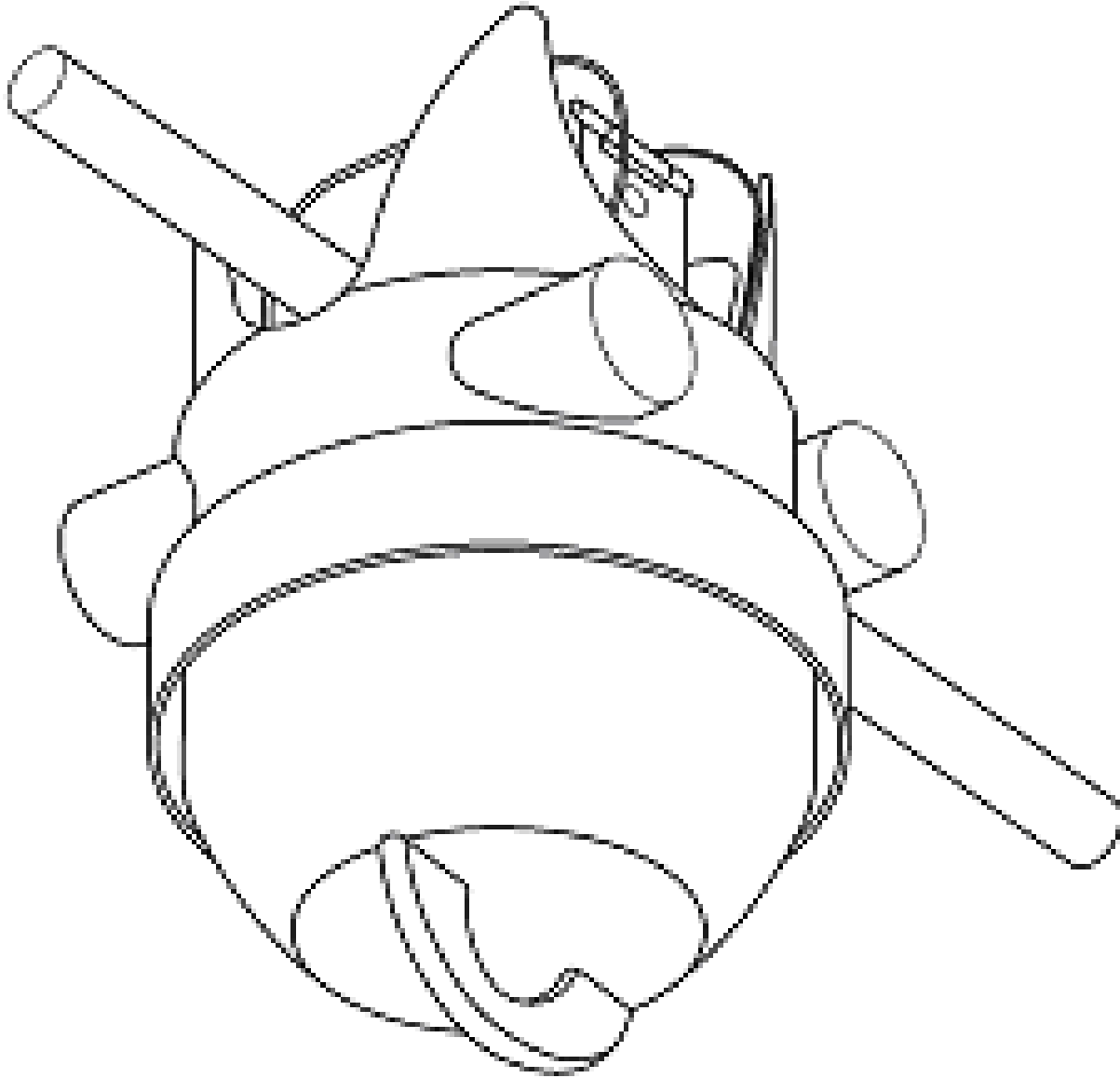
Drawn By: DEM	Date Drawn: JUNE 2006
Approved By: WHP	Date Updated: JUNE 30, 2006
Old CU:	DWG Name: M5-23-15.DWG

3' and 12' GUY STRAIN INSULATOR,
PRIMARY ASSEMBLY

ISSUE#: REV 1
M5.23.15

CONSTRUCTION UNIT:	M5.23.15	AUTOCAD FILE:	M5-23-15.DWG
DESCRIPTION:	3' AND 12' GUY STRAIN INSULATOR; PRIMARY ASSEMBLY	PDF FILE:	M5-23-15.PDF
		PDF SPEC.:	M5-23-15_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	2	BOLT; MACHINE 5/8 X 12		
1430	1	GUY ATTACHMENT 3/4 W/EYE		
1540	1	INSULATOR; GUY WIRE 12'		
1663	1	LINK; FIBERGLS 3' STRAIN INS		
3350	2	WASHER; SQUARE		
3440	10	WIRE; AL GROUND 4		
XX01	1	CONNECTOR (JUMPER TO NEUTRAL)	N	10



NOTES:

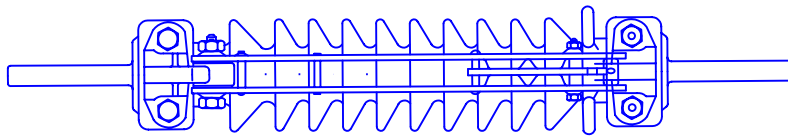
- 1) UNIT HAS HIGH INTENSITY INDICATION AND IS VISIBLE IN BRIGHT SUNLIGHT.
- 2) UNIT USES LOAD TRACKING LOGIC TO DETERMINE IF THERE HAS BEEN A FAULT. 100 AMP MINIMUM TRIP AND AUTOMATIC INRUSH CURRENT RESTRAINT.
- 3) UNIT HAS MAUNAL, TIME AND 3 AMP CURRENT RESET CAPABILITIES, AND IS INSTALLED USING A HOT STICK.

DRAWING IS NOT TO SCALE

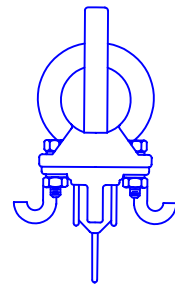
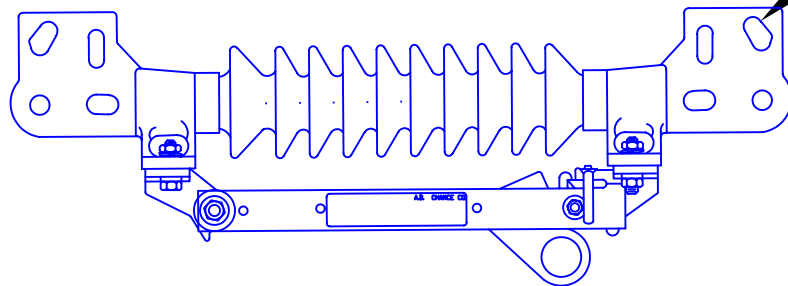
Drawn By: DEM	Date Drawn: OCTOBER 1, 2003	14.4/24.9 KV PRIMARY, FAULT INDICATOR, OVERHEAD RISERS AND CONDUCTORS, CURRENT RESET	ISSUE#: REV 1
Approved By: WHP	Date Updated: OCTOBER 1, 2003		M6.41
Old CU:	DWG Name: M6-41.DWG		

CONSTRUCTION UNIT:	M6.41	AUTOCAD FILE:	M6-41.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, FAULT INDICATOR, OVERHEAD RISERS AND CONDUCTORS, CURRENT RESET	PDF FILE:	M6-41.PDF
		PDF SPEC.:	M6-41_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
4582	1	FAULT INDICATOR CUR RESET 400 A		



3030



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM3-IL	DWG Name: VM3-IL.DWG

14.4/24.9 KV, 600 AMP IN-LINE
DISCONNECT SWITCH

ISSUE#: REV 1
VM3.IL

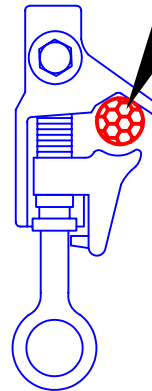
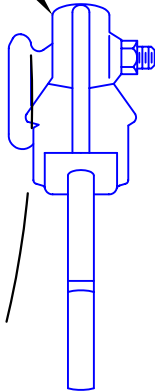
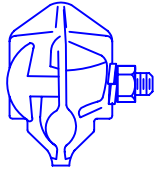
CONSTRUCTION UNIT:	VM3.IL	AUTOCAD FILE:	VM3-IL.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 600 AMP IN-LINE DISCONNECT SWITCH	PDF FILE:	MV3-IL.PDF
		PDF SPEC.:	MV3-IL_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
3030	1	SWITCH, DISCONNECT IN-LINE 25K		



PRIMARY

XX01



3530

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-1	DWG Name: VM5-1.DWG

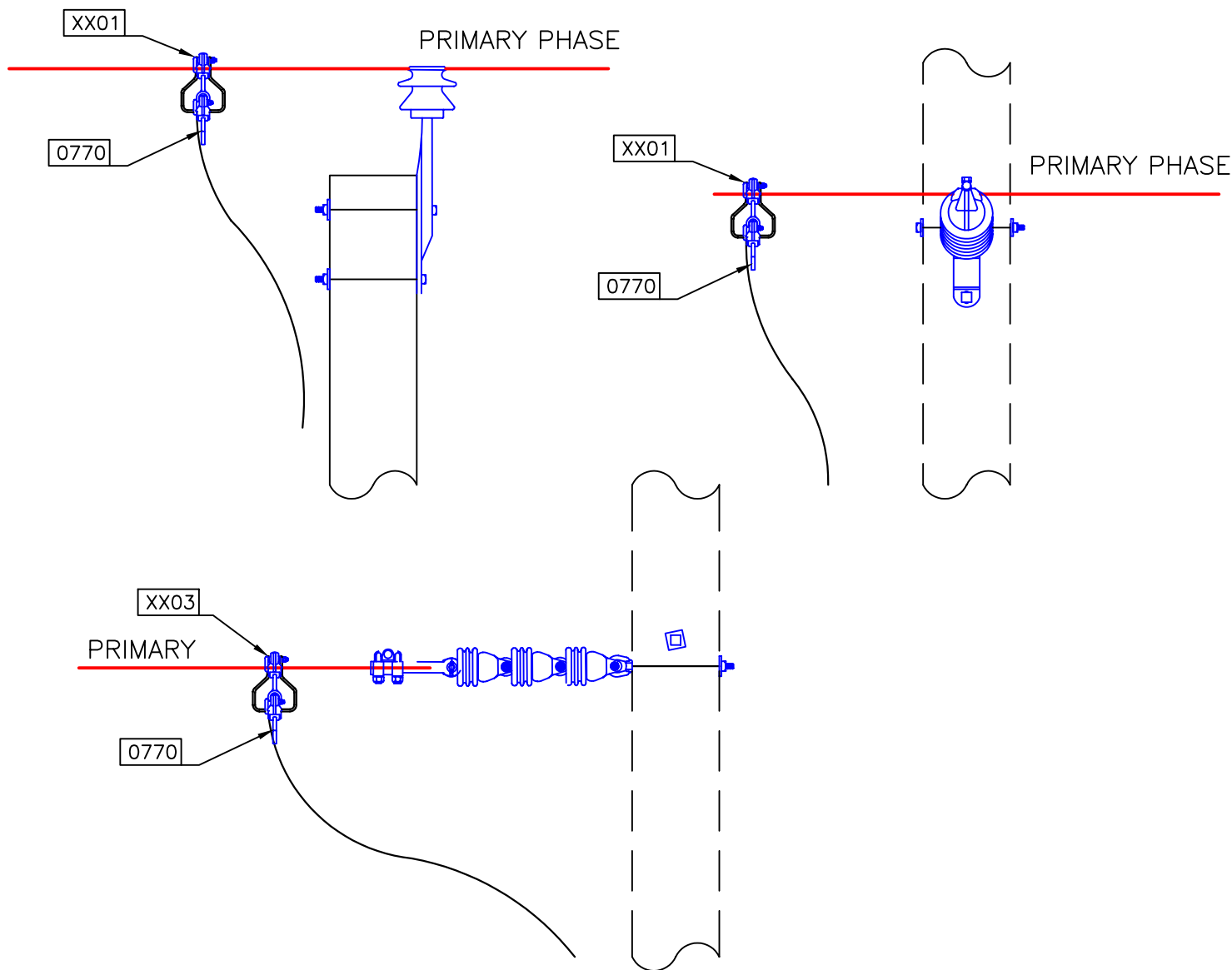
14.4/24.9 KV PRIMARY,
CLAMP, HOT LINE

ISSUE#: REV 1

VM5.1

CONSTRUCTION UNIT:	VM5.1	AUTOCAD FILE:	VM5-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, CLAMP, HOT LINE	PDF FILE:	VM5-1.PDF
		PDF SPEC.:	VM5-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
3530	10	WIRE, CU BSD 4		
XX01	1	CLAMP, HOT LINE	W	18



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/16/2008
Approved By: DEM	Date Updated: 10/16/2008
Old CU:	DWG Name: VM5-11.DWG

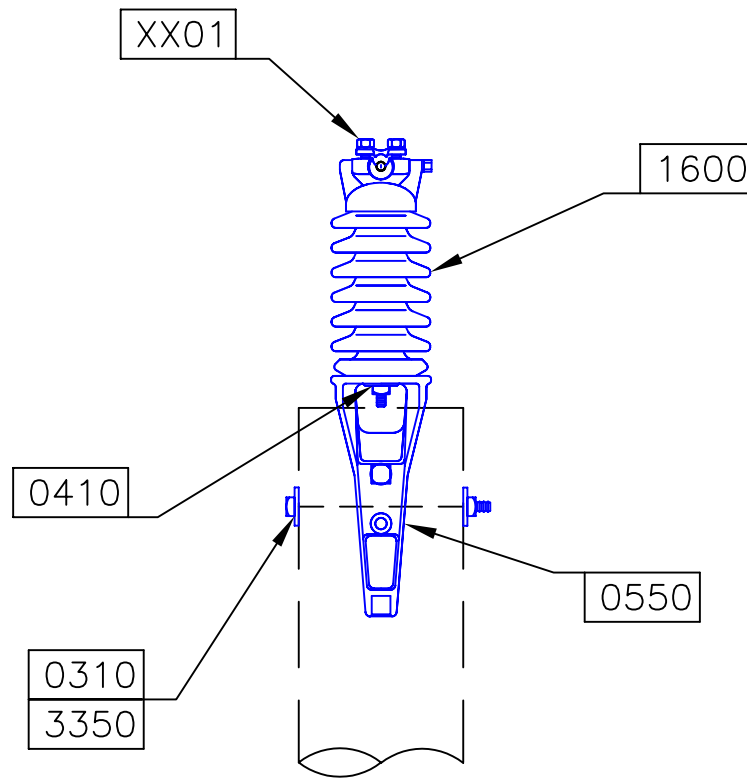
14.4/24.9 KV PRIMARY, CONNECTOR, BASKET and
HOTLINE CLAMP. VERTICAL CONSTRUCTION

REV# : 000
VM5.11

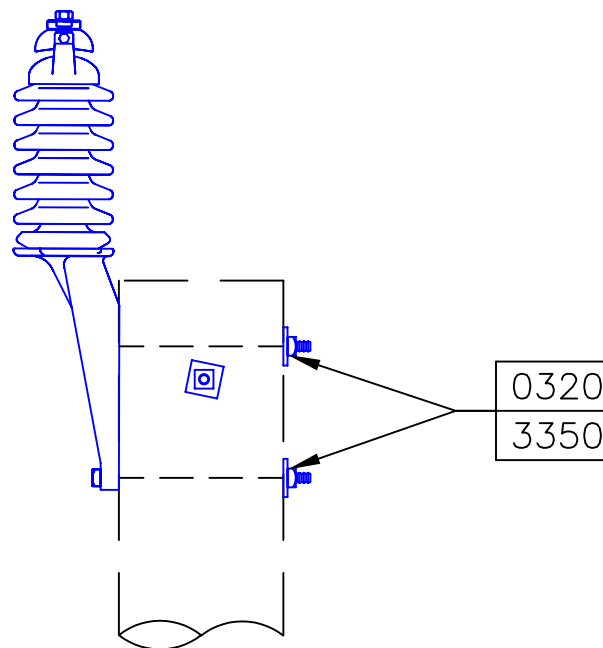
OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT:	<input type="text" value="VM5.11"/>	AUTOCAD FILE:	<input type="text" value="VM5-11.DWG"/>
DESCRIPTION:	<input type="text" value="14.4/24.9 KV PRIMARY; CONNECTOR; BASKET AND HOT-LINE CLAMP; VERTICAL CONSTRUCTION"/>	PDF FILE:	<input type="text" value="VM5-11.PDF"/>
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0770	1	CLAMP; HOT LINE CU #8 - 2/0		
XX01	2	BASKET; HOT LINE AL	W	11



FRONT VIEW



SIDE VIEW

DRAWING IS NOT TO SCALE

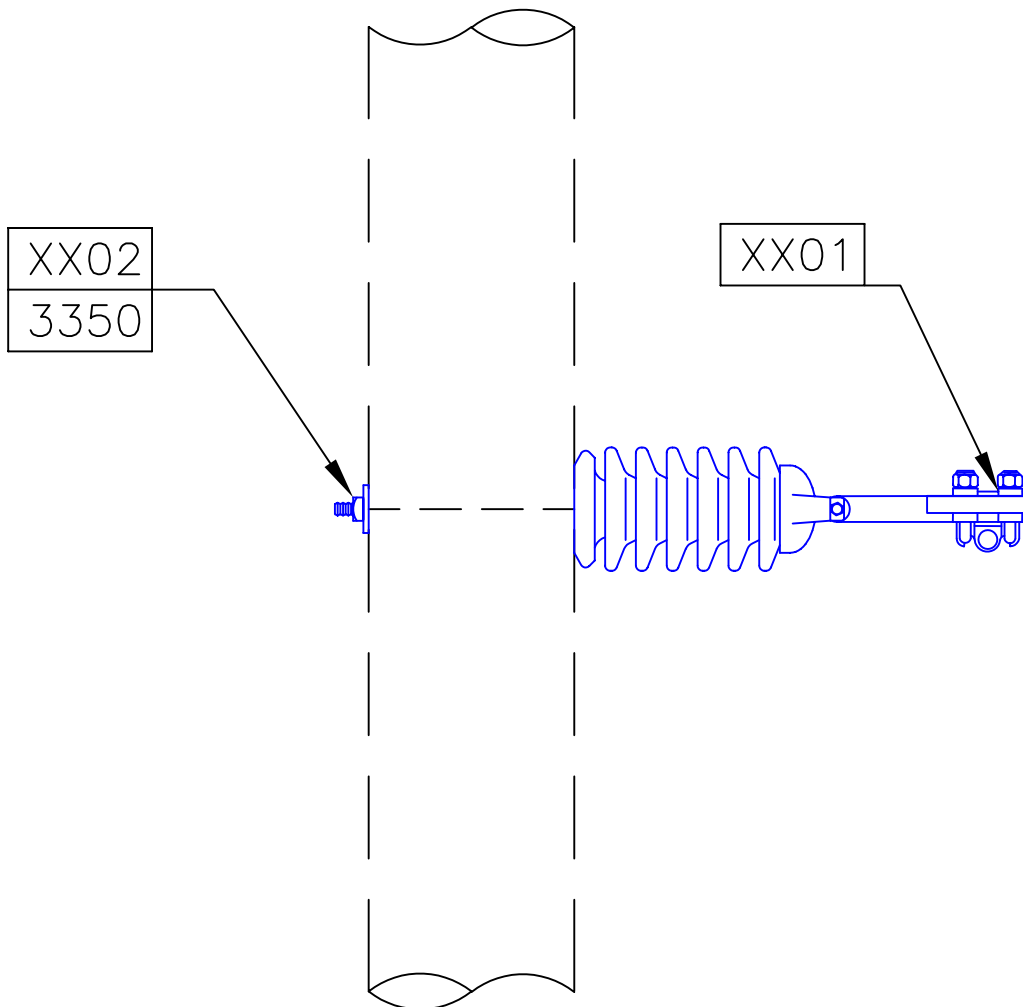
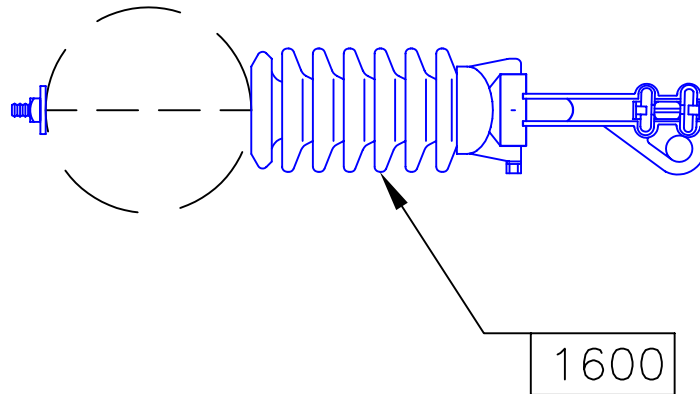
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-18	DWG Name: VM5-18.DWG

14.4/24.9 KV PRIMARY,
VERTICAL POST TYPE INSULATOR,
WITH POLE TYPE BRACKET

ISSUE#: REV 1
VM5.18

CONSTRUCTION UNIT:	VM5.18	AUTOCAD FILE:	VM5-18.DWG
DESCRIPTION:	14.4/24.9 KV VERTICAL POST TYPE INSULATOR WITH POLE TYPE BRACKET	PDF FILE:	VM5-18.PDF
		PDF SPEC.:	VM5-18_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	1	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0550	1	BRACKET, POLE TOP		
1600	1	INSULATOR, POST TYPE VERTICAL		
3350	4	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT	W	7



DRAWING IS NOT TO SCALE

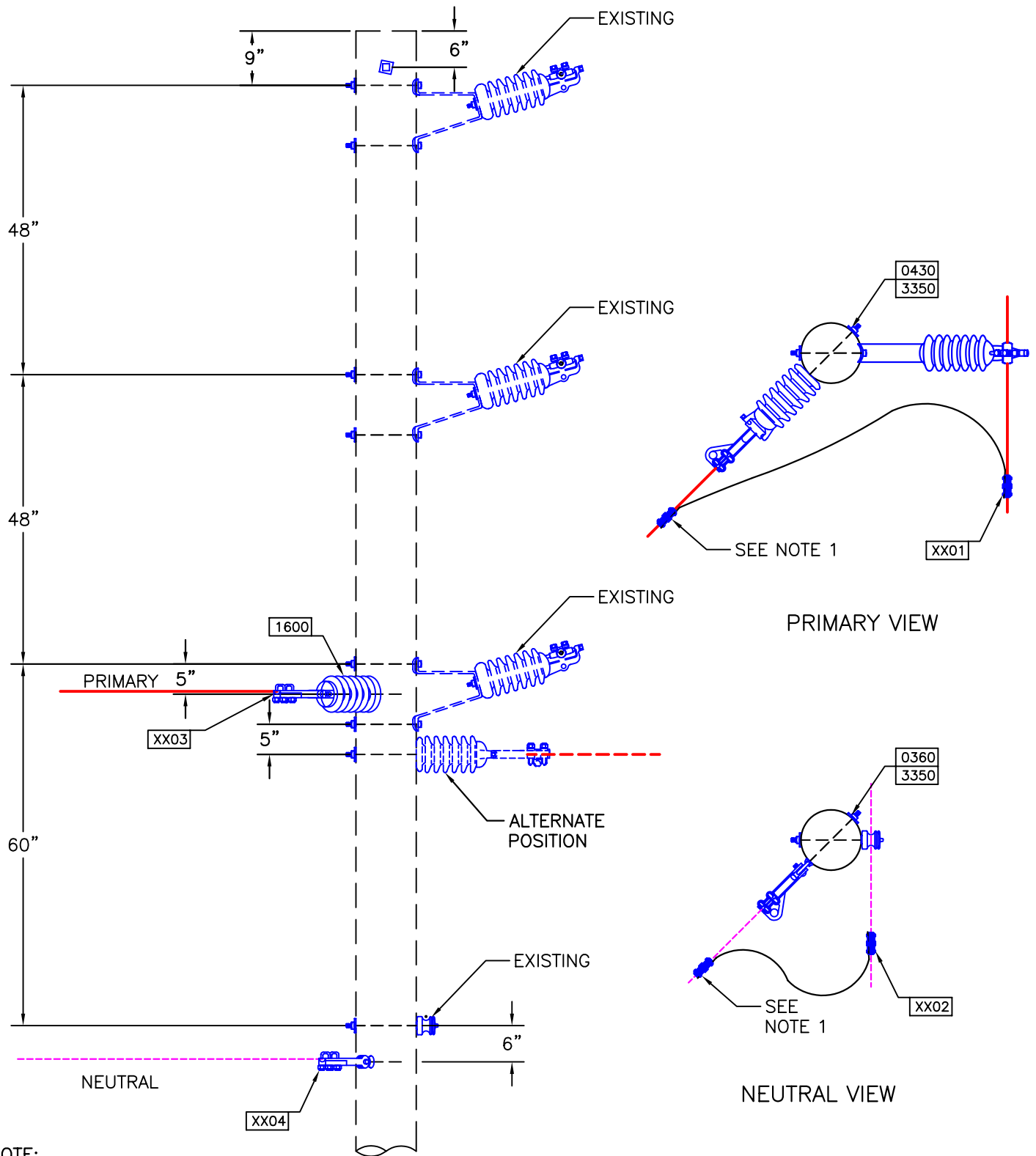
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-18-S	DWG Name: VM5-18-S.DWG

14.4/24.9 KV PRIMARY,
SLACK SPAN INSULATOR

ISSUE#: REV 1
VM5.18.S

CONSTRUCTION UNIT:	VM5.18.S	AUTOCAD FILE:	VM5-18-S.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, SLACK SPAN INSULATOR	PDF FILE:	VM5-18-S.PDF
		PDF SPEC.:	VM5-18-S_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1600	1	INSULATOR, POST TYPE VERTICAL		
3350	1	WASHER, SQUARE		
XX01	1	CLAMP, DEADEND, SLACK SPAN	W	20
XX02	1	BOLT, STUD 5/8" X REQ. LENGTH	P	43



NOTE:

- 1) USE ADDITIONAL CONNECTOR(S) IF NECESSARY.
- 2) THE SPACING BETWEEN THE SLACK SPAN INSULATOR AND THE MOUNTING BRACKET SHOULD BE NO MORE THAN 5". THIS WILL PROVIDE CLEARANCE BETWEEN THE SLACK SPAN INSULATOR(S) AND THE MOUNTING BRACKET.
- 3) SEE FRAMING GUIDE (FRAMEGID15) FOR DETAILS ON THE SLACK SPAN INSULATOR(S) ANGULAR POSITION.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JUNE 21, 2005
Old CU: VM5-18S-1	DWG Name: VM5-18S-1.DWG

14.4/24.9 KV PRIMARY, 1-PHASE,
SLACK SPAN

ISSUE#: REV 2
VM5.18S.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**

PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0360	1	BOLT, OVAL EYE 5/8" X 12"		
0430	1	BOLT, STUD 5/8"X 3/4"X 12"		
1600	1	INSULATOR, POST TYPE VERTICAL		
3350	1	WASHER, SQUARE		
XX01	1	CONNECTOR (SOURCE)	WC	5
XX02	1	CONNECTOR (NEUTRAL) SOURCE	NX	5
XX03	1	CLAMP, SLACK SPAN	C	20
XX04	1	CLAMP, DEADEND (NEUTRAL)	X	4

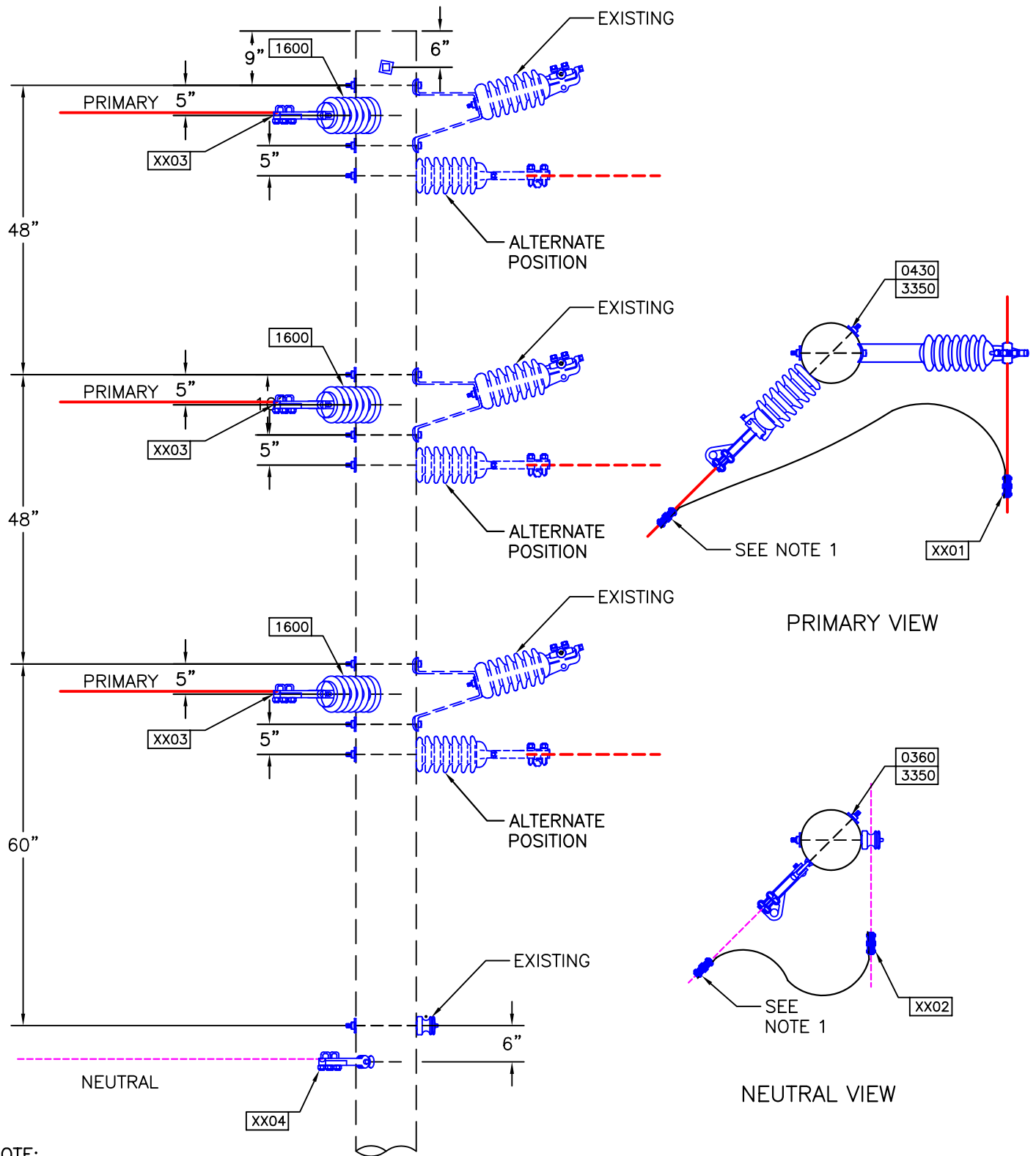


- DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 2-PHASE, SLACK SPAN	ISSUE#: REV 2
Approved By: WHP	Date Updated: JUNE 21, 2005		VM5.18S.2
Old CU: VM5-18S-2	DWG Name: VM5-18S-2.DWG		

CONSTRUCTION UNIT:	VM5.18S.2	AUTOCAD FILE:	VM5-18S-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 2-PHASE, SLACK SPAN	PDF FILE:	VM5-18S-2.PDF
		PDF SPEC.:	VM5-18S-2_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0360	1	BOLT, OVAL EYE 5/8" X 12"		
0430	2	BOLT, STUD 5/8"X 3/4"X 12"		
1600	2	INSULATOR, POST TYPE VERTICAL		
3350	3	WASHER, SQUARE		
XX01	2	CONNECTOR (SOURCE)	WC	5
XX02	1	CONNECTOR (NEUTRAL) SOURCE	NX	5
XX03	2	CLAMP, SLACK SPAN	C	20
XX04	1	CLAMP, DEADEND (NEUTRAL)	X	4



NOTE:

- 1) USE ADDITIONAL CONNECTOR(S) IF NECESSARY.
- 2) THE SPACING BETWEEN THE SLACK SPAN INSULATOR AND THE MOUNTING BRACKET SHOULD BE NO MORE THAN 5". THIS WILL PROVIDE CLEARANCE BETWEEN THE SLACK SPAN INSULATOR(S) AND THE MOUNTING BRACKET.
- 3) SEE FRAMING GUIDE (FRAMEGID15) FOR DETAILS ON THE SLACK SPAN INSULATOR(S) ANGULAR POSITION.

DRAWING IS NOT TO SCALE

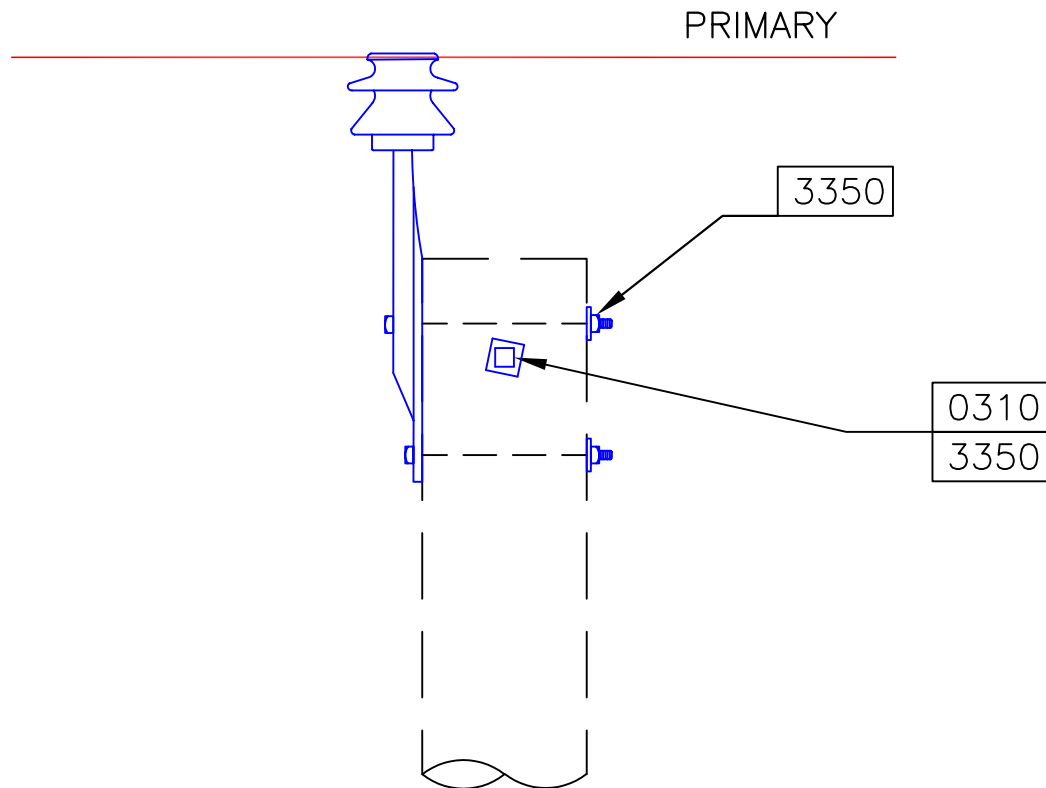
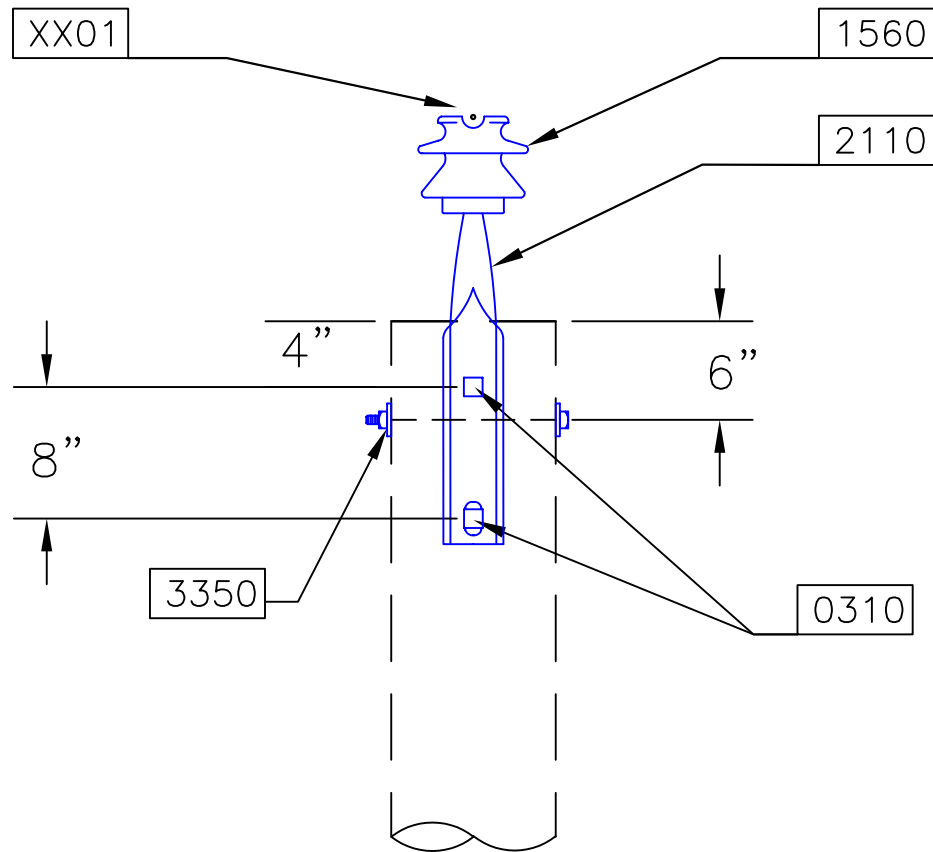
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JUNE 21, 2005
Old CU: VM5-18S-3	DWG Name: VM5-18S-3.DWG

14.4/24.9 KV PRIMARY, 3-PHASE,
SLACK SPAN

ISSUE#: REV 2
VM5.18S.3

CONSTRUCTION UNIT:	VM5.18S.3	AUTOCAD FILE:	VM5-18S-3.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 3-PHASE, SLACK SPAN	PDF FILE:	VM5-18S-3.PDF
		PDF SPEC.:	VM5-18S-3_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0360	1	BOLT, OVAL EYE 5/8" X 12"		
0420	1	BOLT, STUD 5/8"X 3/4"X 10"		
0430	2	BOLT, STUD 5/8"X 3/4"X 12"		
1600	3	INSULATOR, POST TYPE VERTICAL		
3350	4	WASHER, SQUARE		
XX01	3	CONNECTOR (SOURCE)	WC	5
XX02	1	CONNECTOR (NEUTRAL) SOURCE	NX	5
XX03	3	CLAMP, SLACK SPAN	C	20
XX04	1	CLAMP, DEADEND (NEUTRAL)	X	4



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5.2	DWG Name: VM5-2.DWG

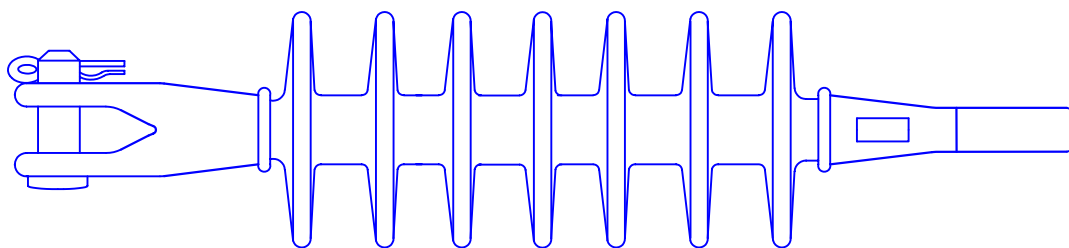
14.4/24.9 KV PRIMARY,
POLE PIN TOP ASSEMBLY

ISSUE#: REV 1

VM5.2

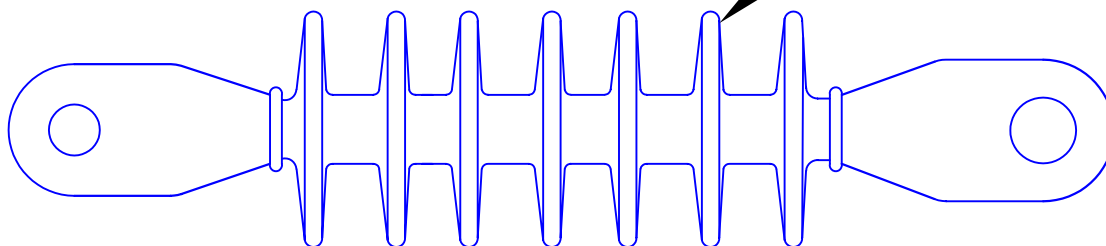
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DESCRIPTION:	14.4/24.9 KV PRIMARY, POLE PIN TOP ASSEMBLY	PDF FILE:	VM5-2.PDF
		PDF SPEC.:	VM5-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	2	BOLT, MACHINE 5/8" X 10"		
1560	1	INSULATOR, PIN TYPE 25 KV		
2110	1	PIN, POLE TOP 1 3/8" STRAIGHT		
3350	2	WASHER, SQUARE		
XX01	8	TIE WIRE, CONDUCTOR	W	19

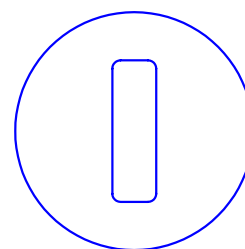


TOP VIEW

1640



SIDE VIEW



END VIEW

DRAWING IS NOT TO SCALE

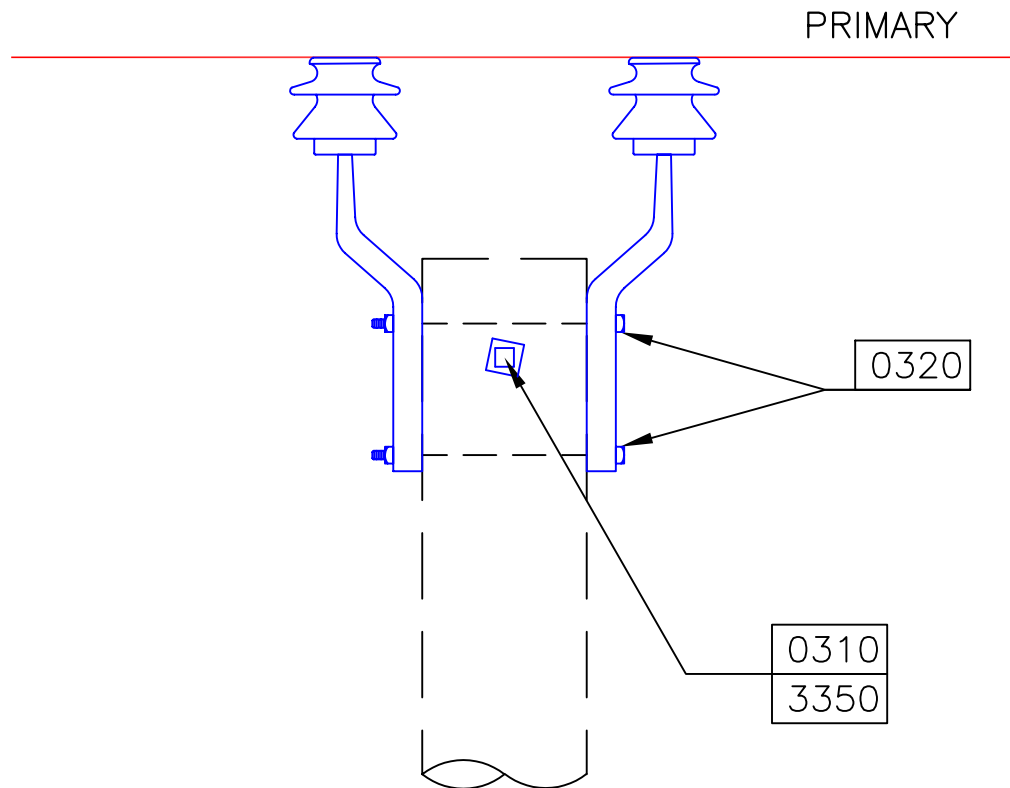
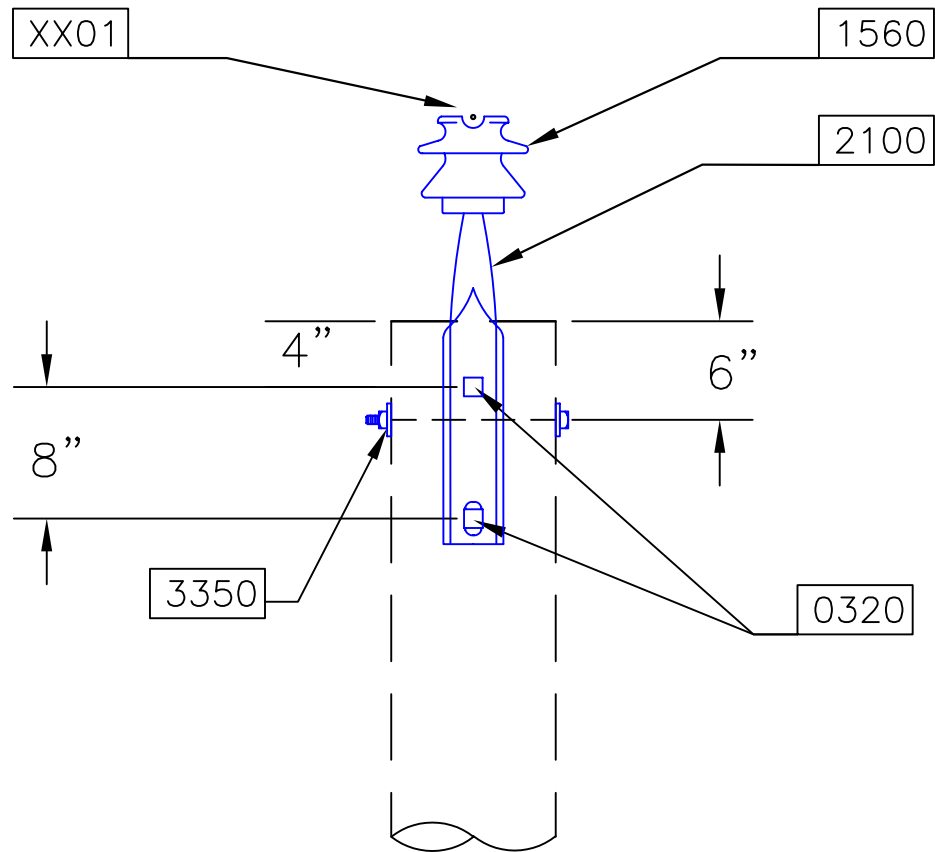
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Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-20	DWG Name: VM5-20.DWG

**14.4/24.9 KV PRIMARY,
SUSPENSION INSULATOR**

ISSUE#: REV 1
VM5.20

CONSTRUCTION UNIT:	VM5.20	AUTOCAD FILE:	VM5-20.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, SUSPENSION INSULATOR	PDF FILE:	VM5-20.PDF
		PDF SPEC.:	VM5-20_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1640	1	INSULATOR, SUSP 25 KV		



DRAWING IS NOT TO SCALE

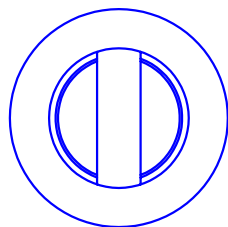
Drawn By: DEM	Date Drawn: FEBRUARY 2004
Approved By: WHP	Date Updated: FEB. 10, 2004
Old CU:	DWG Name: VM5-22.DWG

14.4/24.9 KV PRIMARY,
DOUBLE POLE PIN TOP ASSEMBLY

ISSUE#: REV 1
VM5.22

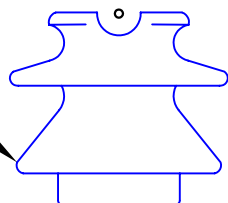
CONSTRUCTION UNIT:	VM5.22	AUTOCAD FILE:	VM5-22.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, DOUBLE, POLE PIN TOP ASSEMBLY	PDF FILE:	VM5-22.PDF
		PDF SPEC.:	VM5-22_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
1560	2	INSULATOR, PIN TYPE 25 KV		
2100	2	PIN, POLE TOP 1 3/8" OFFSET		
XX01	16	TIE WIRE, CONDUCTOR	W	19

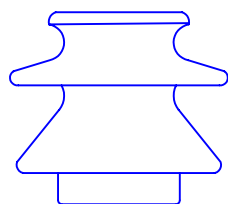


TOP VIEW

1560



SIDE VIEW



FRONT VIEW

DRAWING IS NOT TO SCALE

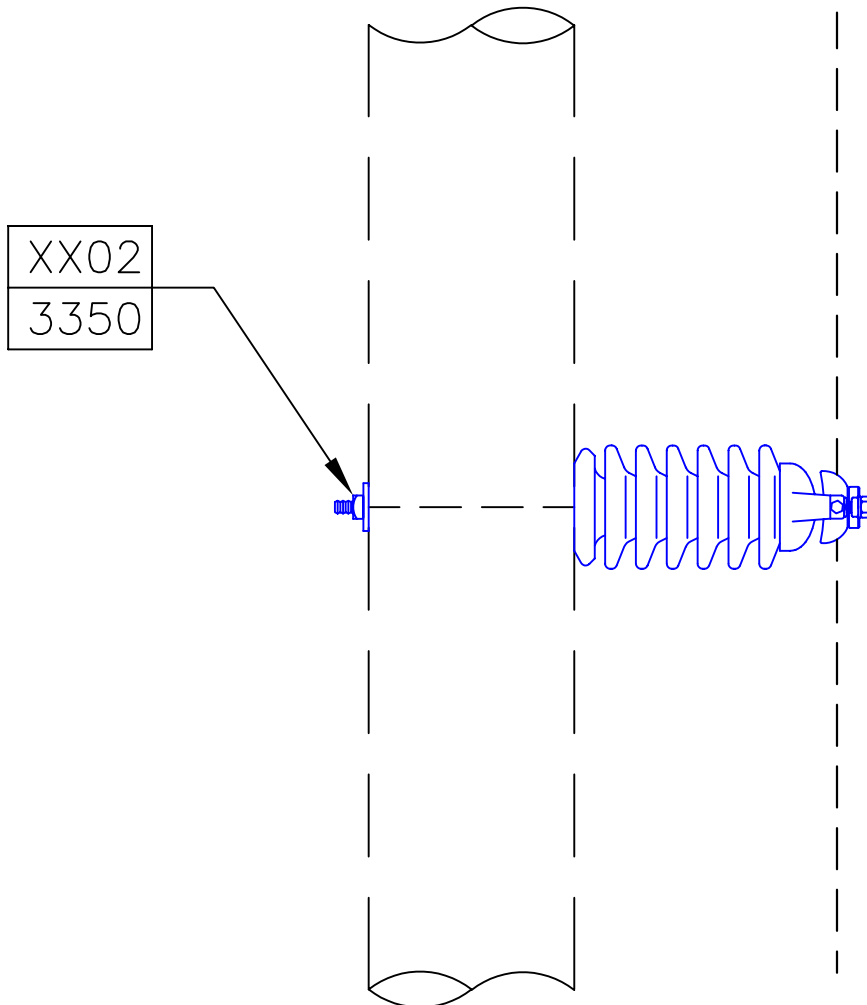
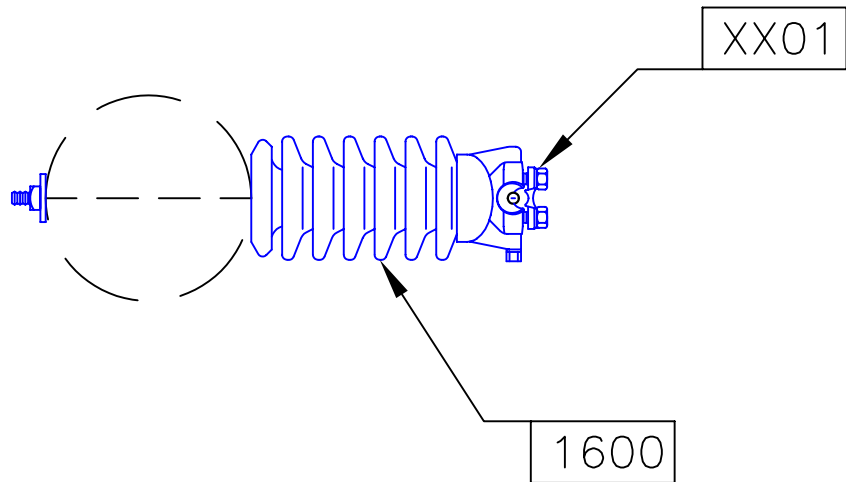
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-5	DWG Name: VM5-5.DWG

**14.4/24.9 KV PRIMARY,
INSULATOR, PIN TYPE 25 KV**

ISSUE#: REV 1
VM5.5

CONSTRUCTION UNIT:	VM5.5	AUTOCAD FILE:	VM5-5.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, INSULATOR, PIN TYPE 25 KV.		PDF FILE:
		PDF SPEC.:	VM5-5_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1560	1	INSULATOR, PIN TYPE 25 KV		



DRAWING IS NOT TO SCALE

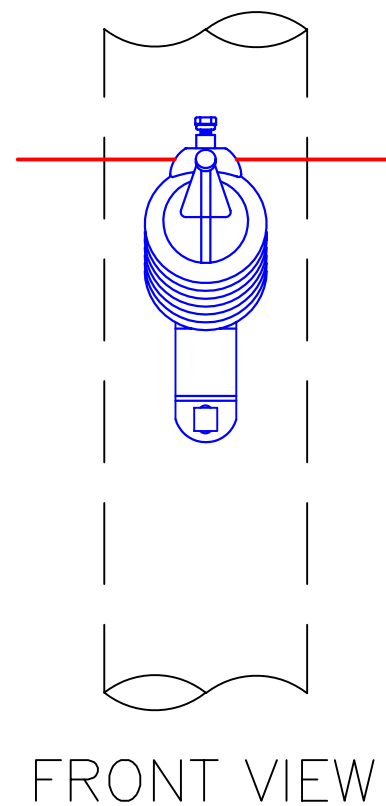
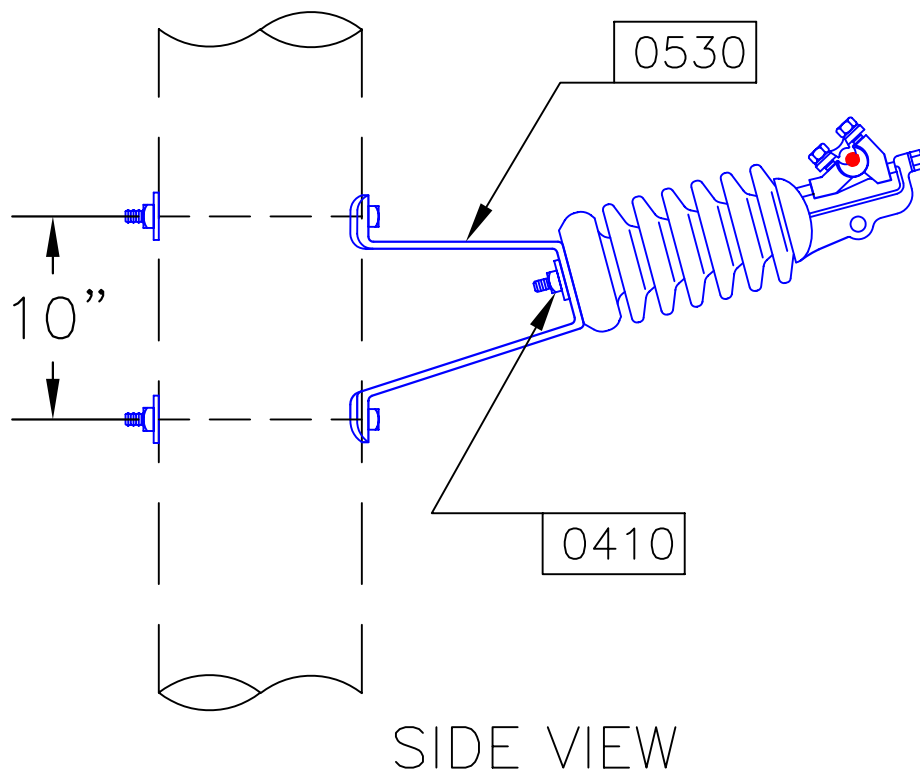
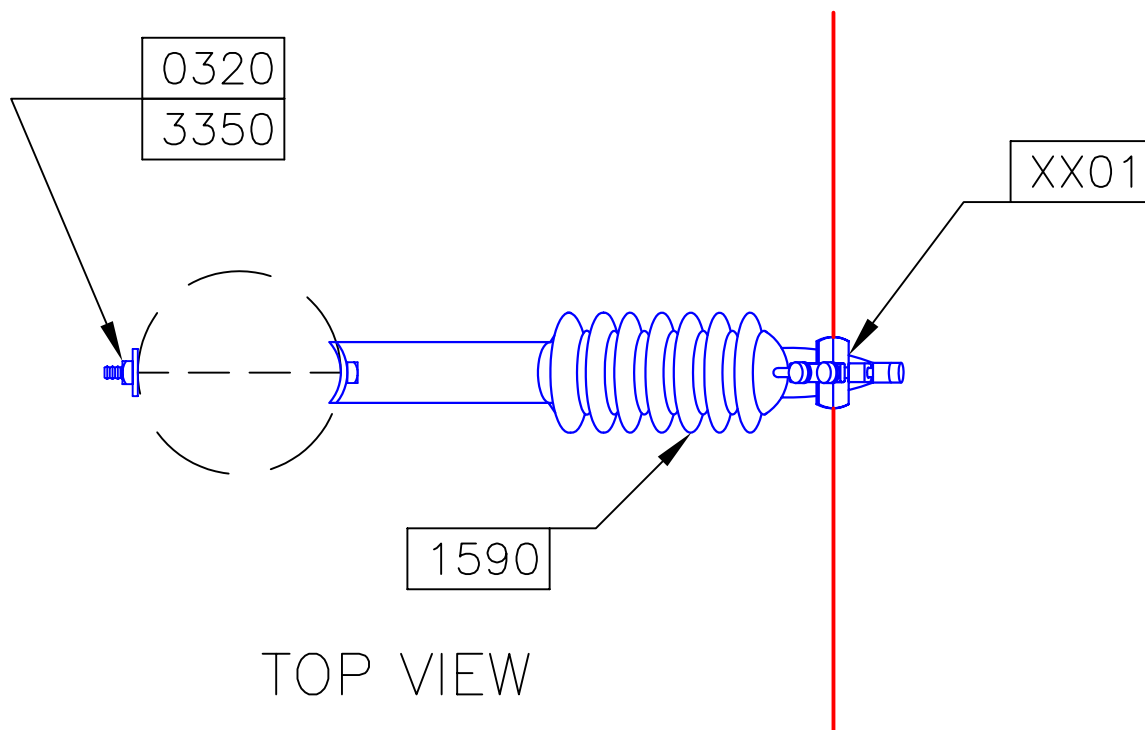
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JUNE 22, 2004
Old CU: VM5-7	DWG Name: VM5-7.DWG

14.4/24.9 KV PRIMARY,
POST TYPE INSULATOR

ISSUE#: REV 2
VM5.7

CONSTRUCTION UNIT:	VM5.7	AUTOCAD FILE:	VM5-7.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, POST TYPE INSULATOR	PDF FILE:	VM5-7.PDF
		PDF SPEC.:	VM5-7_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
1600	1	INSULATOR, POST TYPE VERTICAL		
3350	1	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT	W	7
XX02	1	BOLT, S U 5/8" X REQ. LENGTH	P	1



DRAWING IS NOT TO SCALE

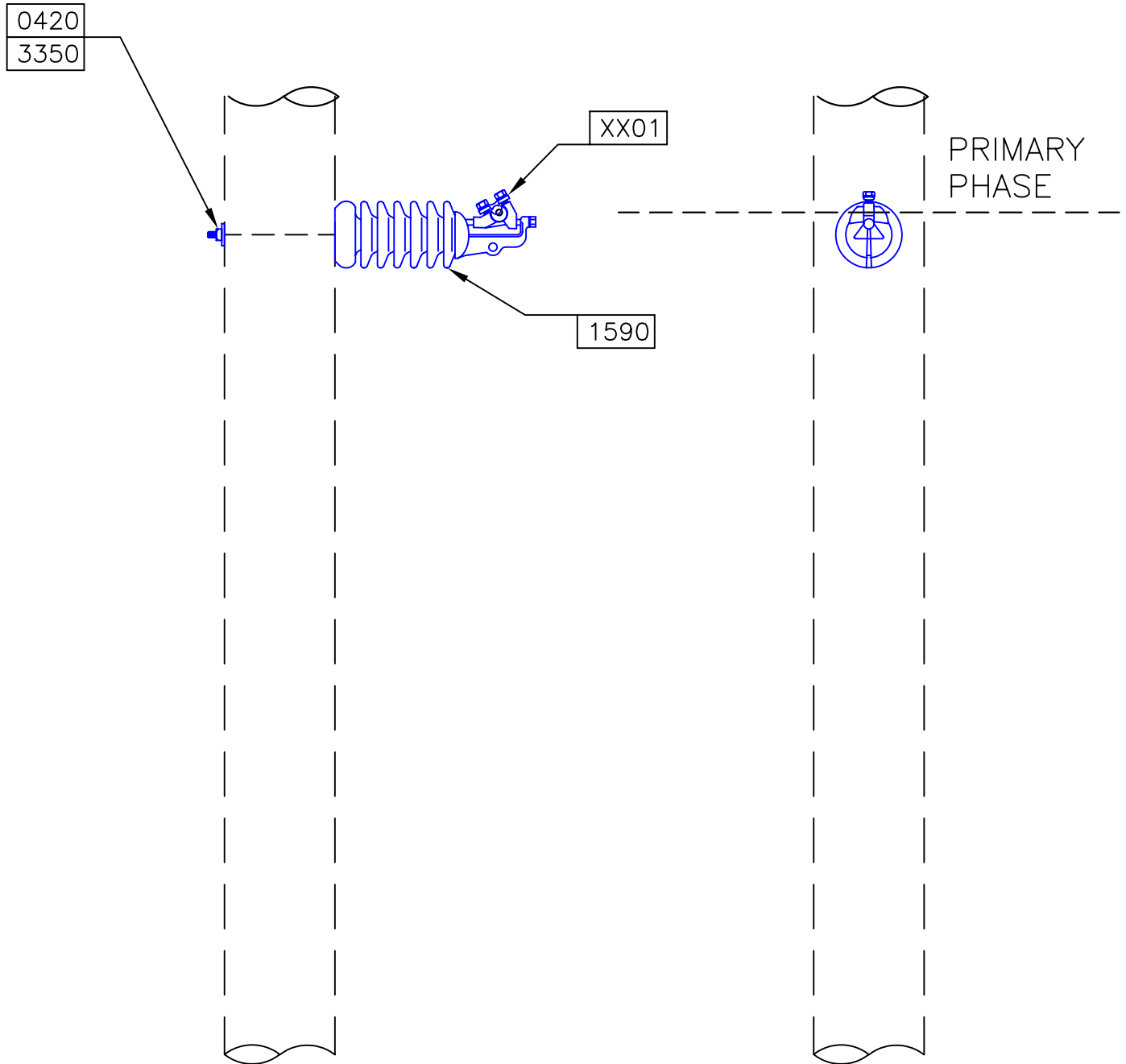
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-7-B	DWG Name: VM5-7-B.DWG

14.4/24.9 KV PRIMARY,
HORIZONTAL POST TYPE INSULATOR,
WITH STANDOFF BRACKET

ISSUE#: REV 1
VM5.7.B

CONSTRUCTION UNIT:	VM5.7.B	AUTOCAD FILE:	VM5-7-B.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, HORIZONTAL POST TYPE INSULATOR, WITH STANDOFF BRACKET		PDF FILE: VM5-7-B.PDF
		PDF SPEC.:	VM5-7-B_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
0410	1	BOLT, STUD 5/8"X 3/4"X 1 3/4"		
0530	1	BRACKET, INSULATOR MOUNT		
1590	1	INSULATOR, POST TYP HORIZONTAL		
3350	2	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT (ANGLE)	W	7



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: MARCH 2004
Approved By: WHP	Date Updated: MAR. 9, 2004
Old CU:	DWG Name: VM5-7-S0.DWG

14.4/24.9 KV PRIMARY, ONE HORIZONTAL
POST INSULATOR, PRIMARY ASSEMBLY

ISSUE#: REV 1
VM5.7.S0

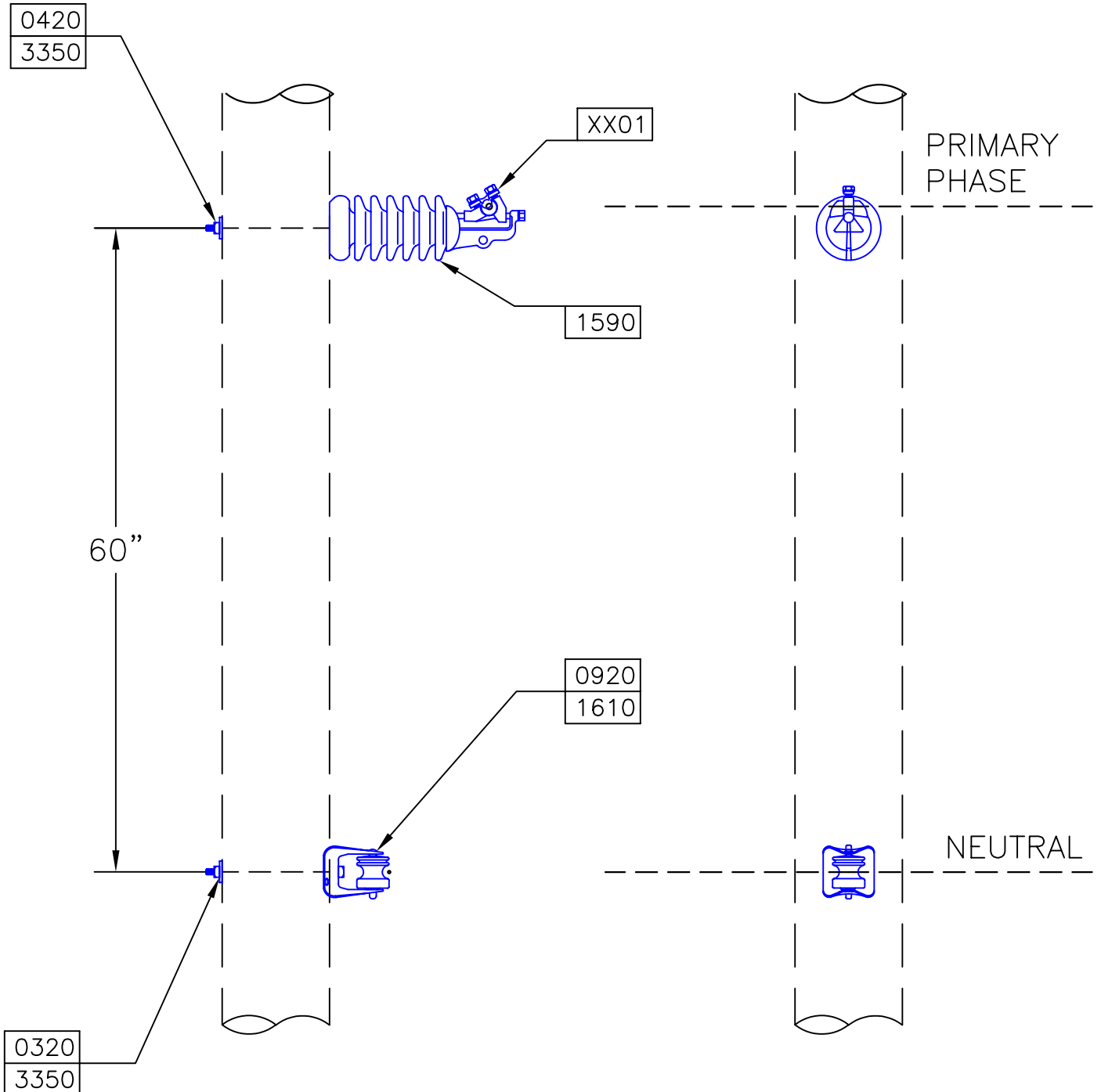
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DESCRIPTION: **PDF FILE:**

PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0420	1	BOLT, STUD 5/8" X 10"		
1590	1	INSULATOR, POST TYP HORIZONTAL		
3350	1	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT	W	7



DRAWING IS NOT TO SCALE

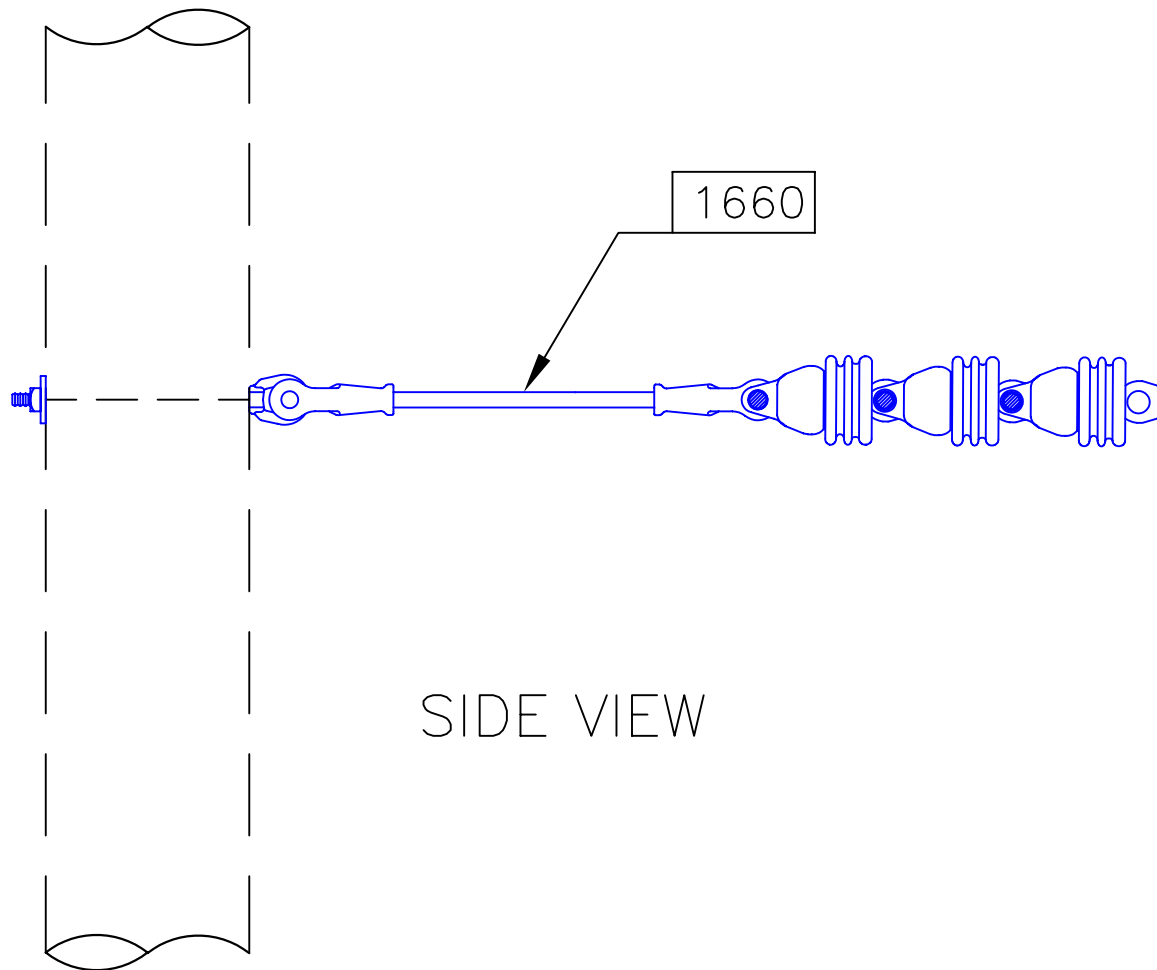
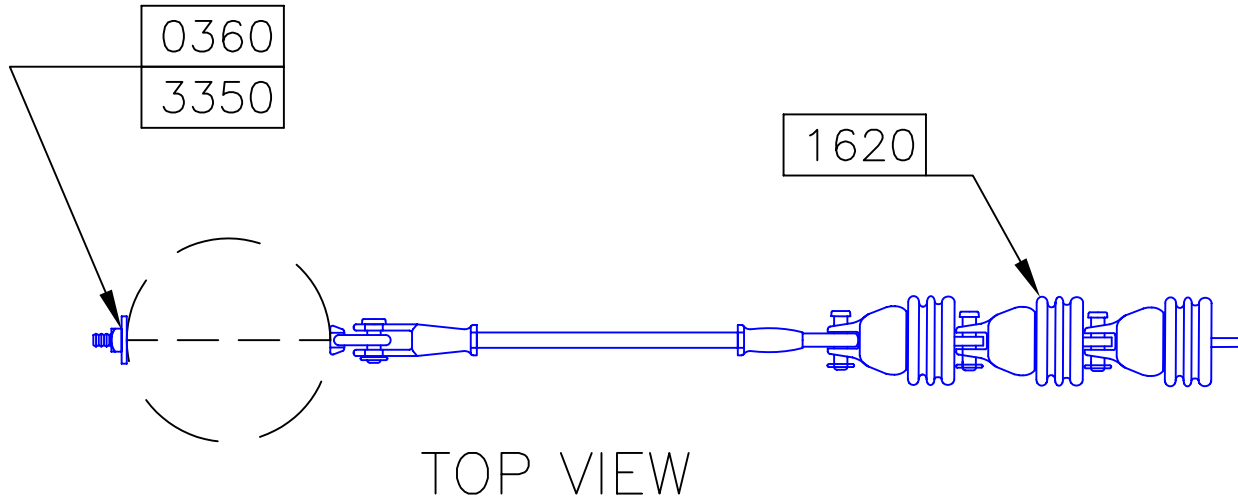
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 22, 2003
Old CU: VM5-7-S1	DWG Name: VM5-7-S1.DWG

14.4/24.9 KV PRIMARY, ONE HORIZONTAL
POST INSULATOR, PRIMARY ASSEMBLY,
VERTICAL CONSTRUCTION

ISSUE#: REV 1
VM5.7.S1

CONSTRUCTION UNIT:	VM5.7.S1	AUTOCAD FILE:	VM5-7-S1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, ONE HORIZONTAL POST INSULATOR, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION		PDF FILE: VM5-7-S1.PDF
		PDF SPEC.:	VM5-7-S1_SPEC.PDF
ANGLE FROM:	0	ANGLE TO:	30
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	1	BOLT, MACHINE 5/8" X 12"		
0420	1	BOLT, STUD 5/8"X 3/4"X 10"		
0920	1	CLEVIS, SECONDARY DE J 10		
1590	1	INSULATOR, POST TYP HORIZONTAL		
1610	1	INSULATOR, SPOOL 3"		
3350	2	WASHER, SQUARE		
XX01	1	CLAMP, TANGENT	W	7

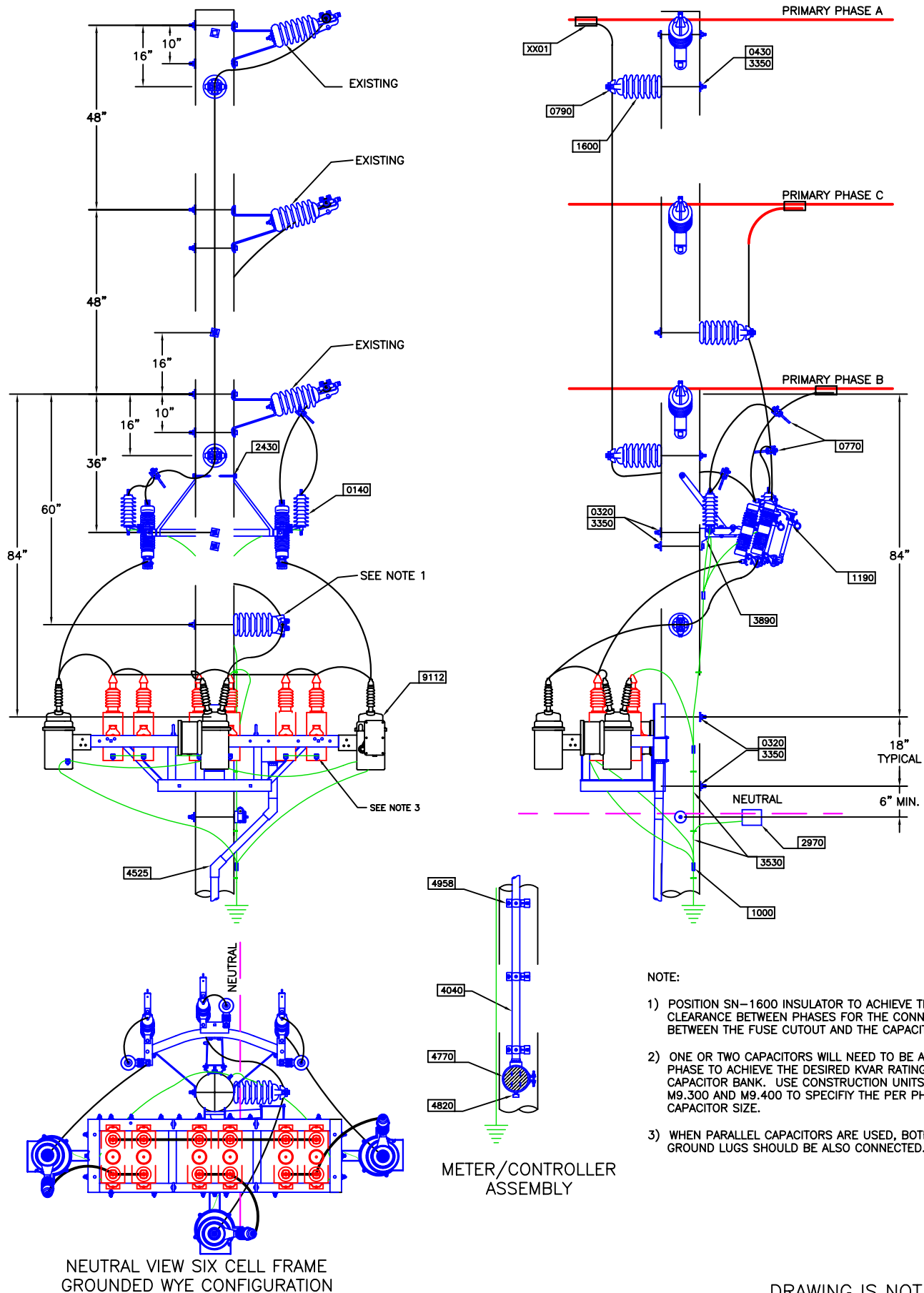


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, FIBERGLASS LINK, 3 SUSPENSION INSULATORS 4 1/4" BELLS PRIMARY ASSEMBLY	ISSUE#: REV 1
Approved By: WHP	Date Updated: JULY 22, 2003		VM5.81L
Old CU: VM5-81L	DWG Name: VM5-81L.DWG		

CONSTRUCTION UNIT:	VM5.81L	AUTOCAD FILE:	VM5-8IL.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, FIBERGLASS LINK, 3 SUSPENSION INSULATORS 4 1/4" BELLS, PRIMARY ASSEMBLY		PDF FILE: VM5-8IL.PDF
		PDF SPEC.:	VM5-8IL_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

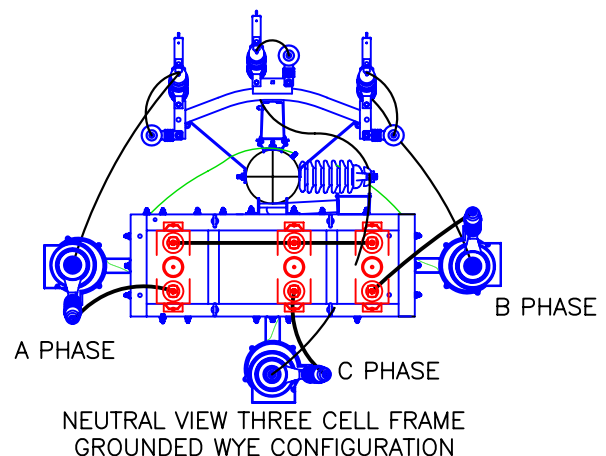
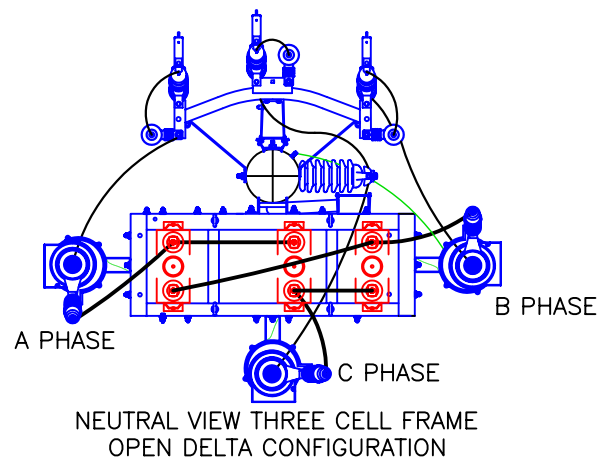
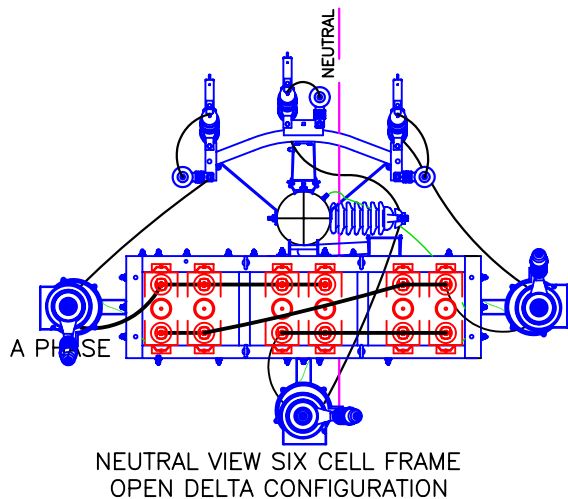
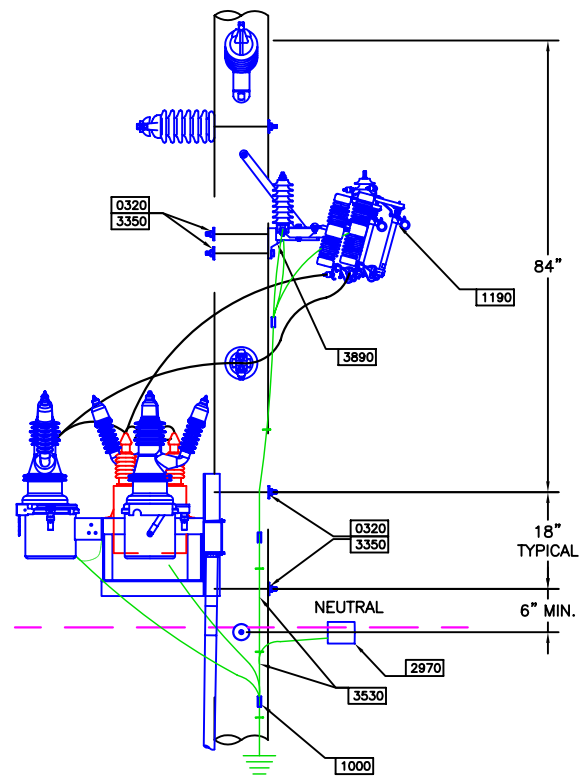
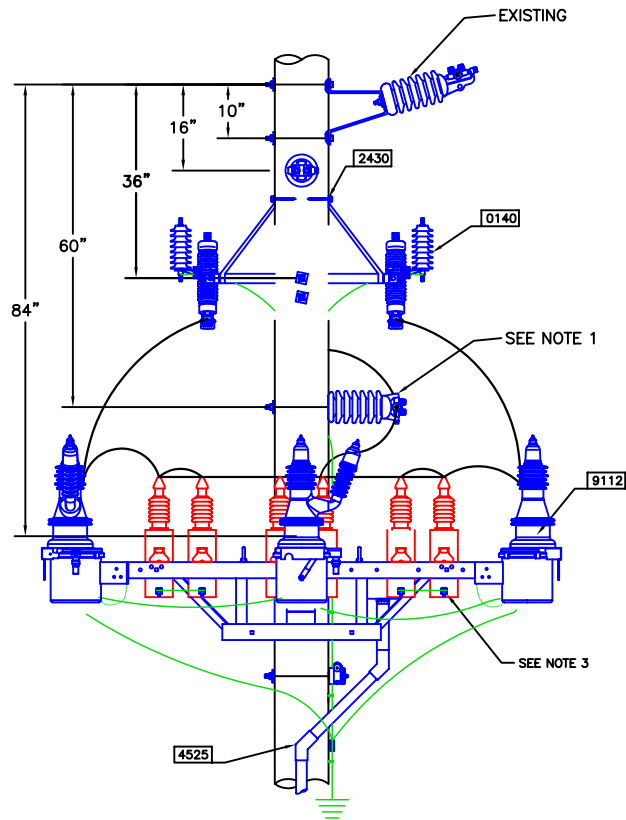
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0360	1	BOLT, OVAL EYE 5/8" X 12"		
1620	3	INSULATOR, SUSP 4 1/4"		
1660	1	LINK, FIBERGLASS		
3350	1	WASHER, SQUARE		



Drawn By: DEM	Date Drawn: 10/15/2007
Reviewed by: WHP	Date Updated: 10/15/2007
Old CU: NEW	DWG Name: VM10-13-DS.DWG

14.4/24.9 KV PRIMARY; 3 ϕ , SWITCHED CAPACITOR BANK FRAME ASSEMBLY, WITH SOLID DIELECTRIC VACUUM SWITCHES, VERTICAL CONSTRUCTION

REV# : 000
VM10.13.DS



DRAWING IS NOT TO SCALE

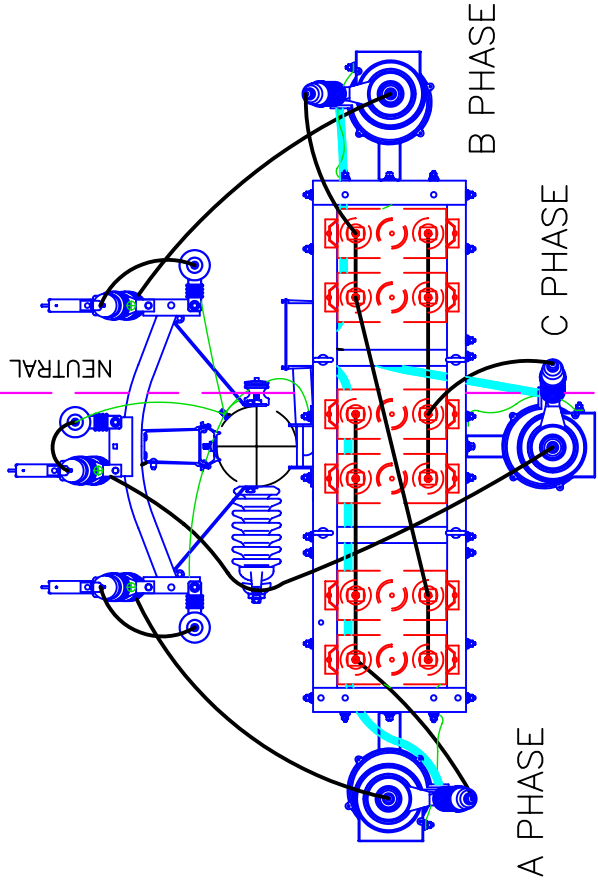
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Reviewed by: WHP	Date Updated: 10/15/2007
Old CU: NEW	DWG Name: VM10-13-DS.DWG

14.4/24.9 KV PRIMARY; 3 ϕ , SWITCHED CAPACITOR
BANK FRAME ASSEMBLY, WITH SOLID DIELECTRIC
VACUUM SWITCHES, VERTICAL CONSTRUCTION

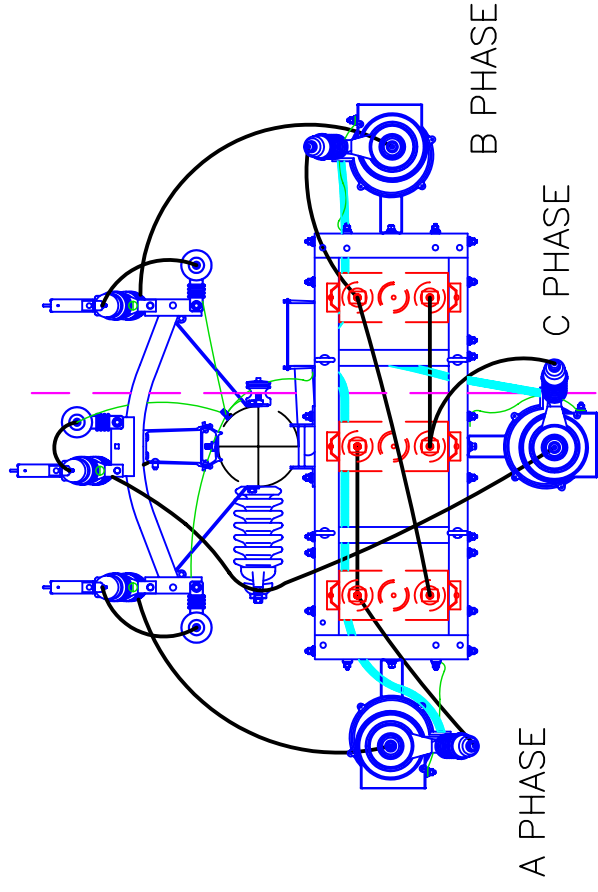
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VM10.13.DS

CONSTRUCTION UNIT:	VM10.13.DS	AUTOCAD FILE:	VM10-13.DS.DWG
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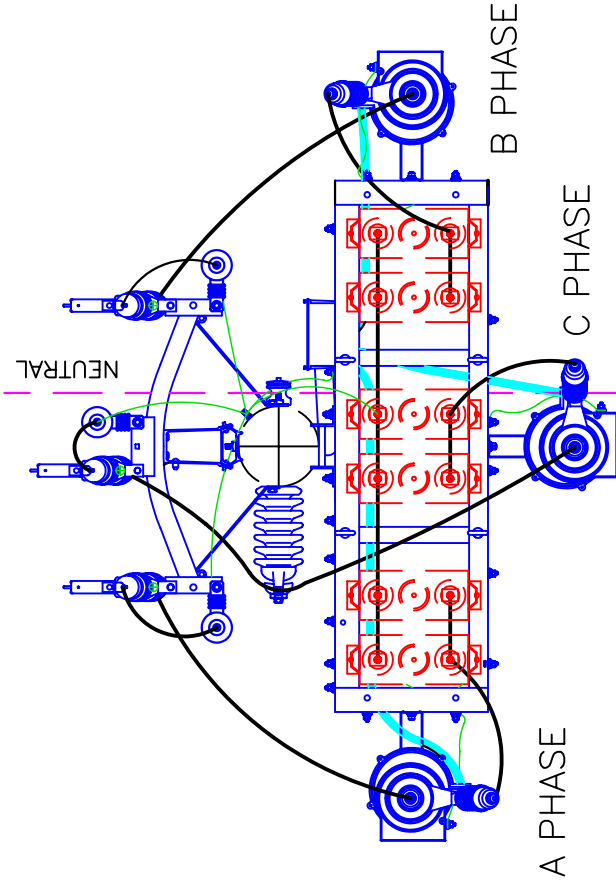
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0140	3	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8 X 12		
0430	4	BOLT; STUD 5/8X 3/4X 12		
0770	3	CLAMP; HOT LINE CU #8 - 2/0		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1200	3	CUTOUT; FUSED OH 100 AMP		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	2	SCREW; LAG 1/2 X 4		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	4	WASHER; SQUARE		
3520	25	WIRE; CU BSD 2		
3825	2	ADAPTER; PVC MALE 1		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
4040	25	CONDUIT; PVC 1 (T) OBSOLETE		
4525	2	ELBOW; PVC 1 90 DEG		
4770	1	METER SOCKET FOR VOLTMETER		
4820	1	PLUG; 1 FOR MINI-MAX SOCKET		
4958	4	STRAP; CONDUIT 2 HOLE 1-1/2		
9112	1	CAPACITOR BANK FRAME		
XX01	3	CONNECTOR	W	36



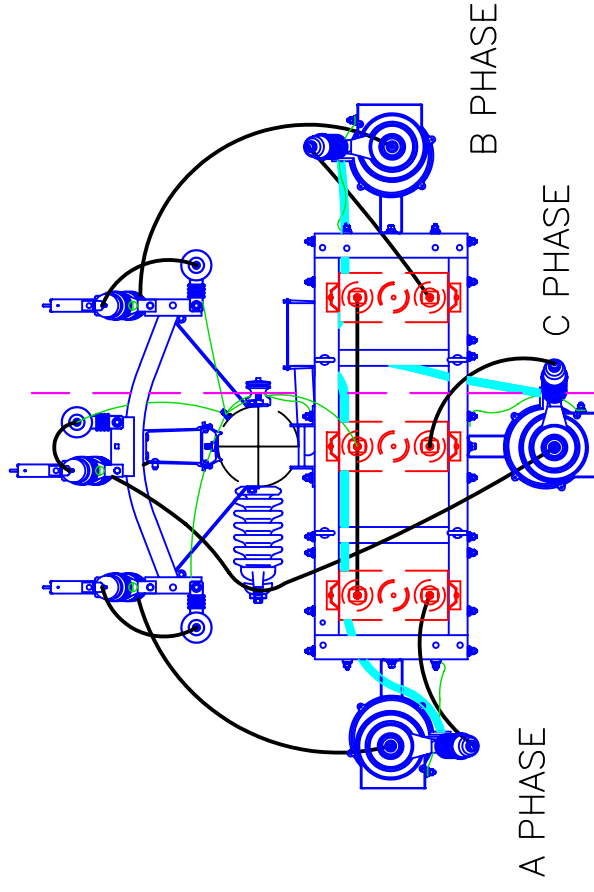
NEUTRAL VIEW SIX CELL FRAME
OPEN DELTA CONFIGURATION FOR 7.2 KV CIRCUITS



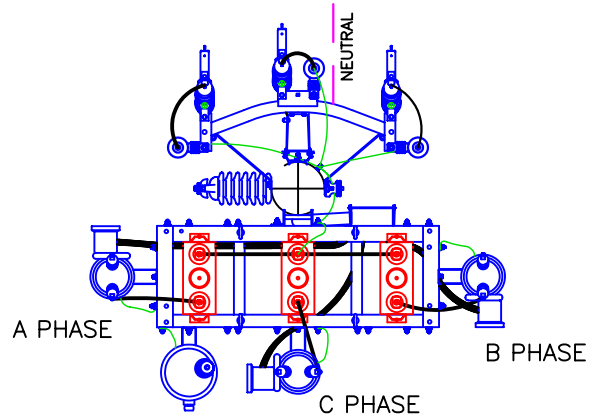
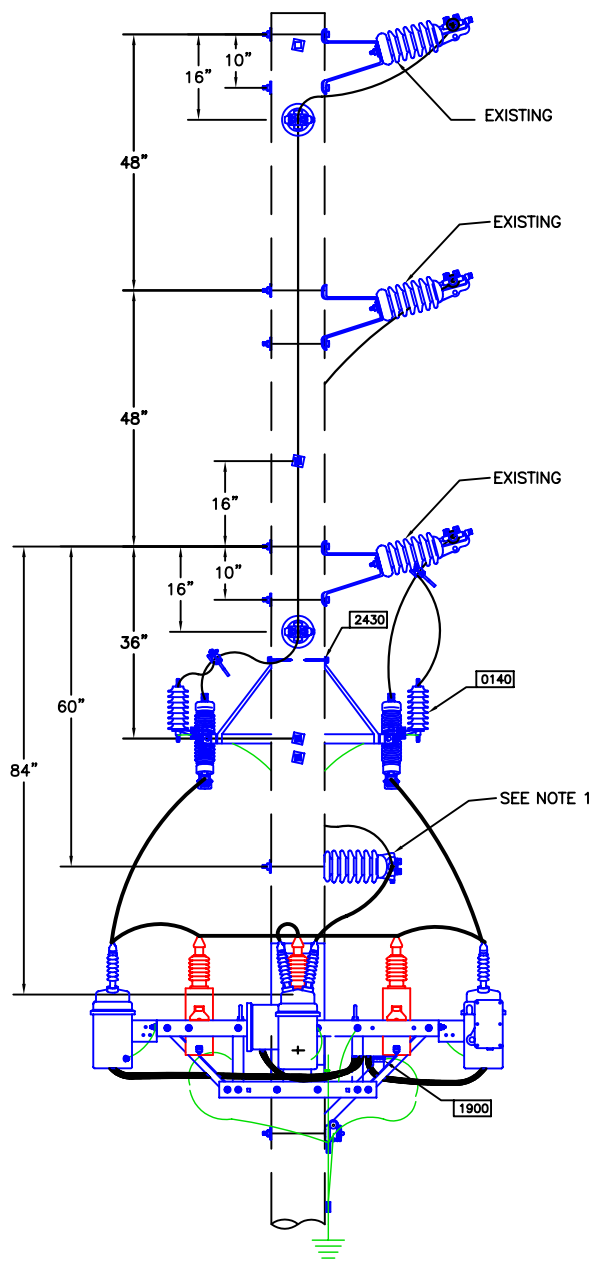
NEUTRAL VIEW THREE CELL FRAME
OPEN DELTA CONFIGURATION FOR 7.2 KV CIRCUITS



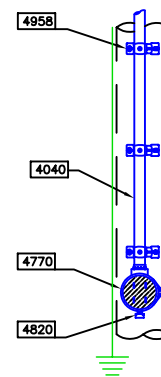
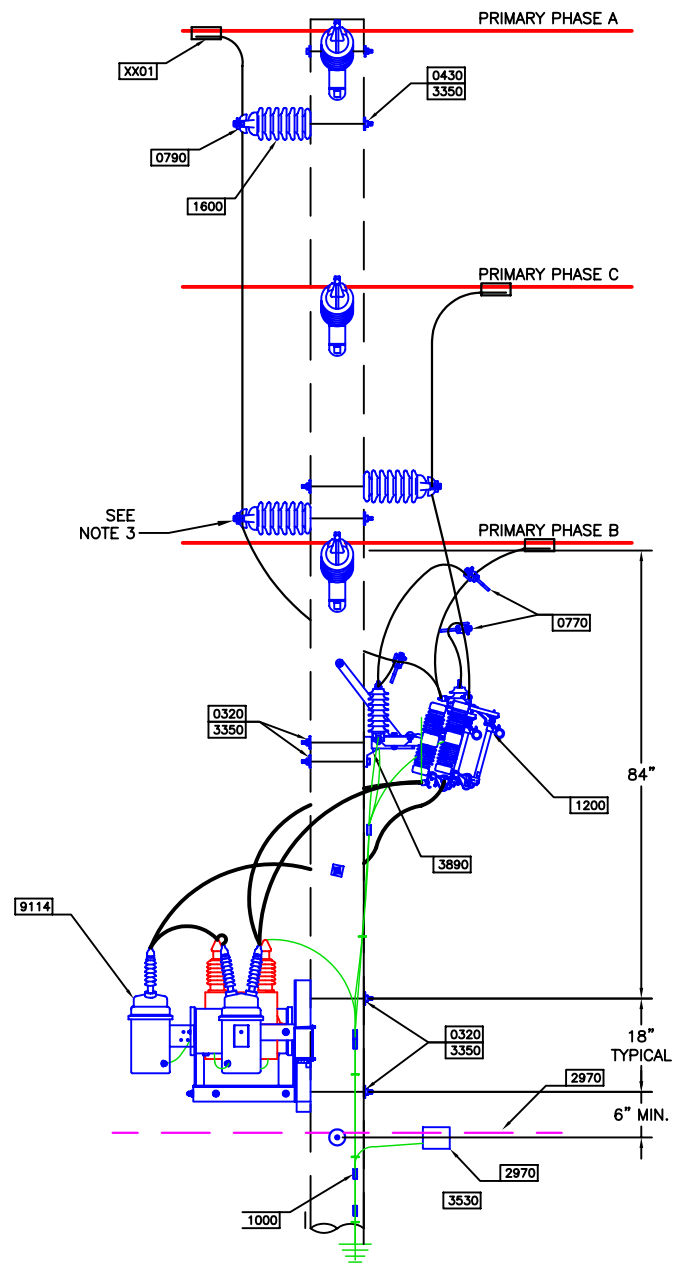
NEUTRAL VIEW SIX CELL FRAME
GROUNDED WYE CONFIGURATION FOR 14.4 KV CIRCUITS



NEUTRAL VIEW THREE CELL FRAME
GROUNDED WYE CONFIGURATION



NEUTRAL VIEW, THREE CELL FRAME, GROUNDED
WYE CONFIGURATION FOR 14.4 KV CIRCUITS



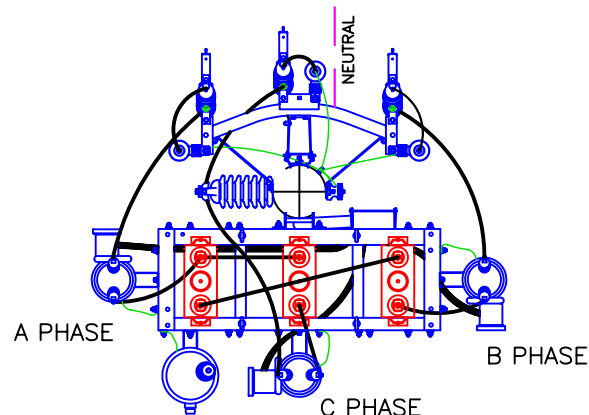
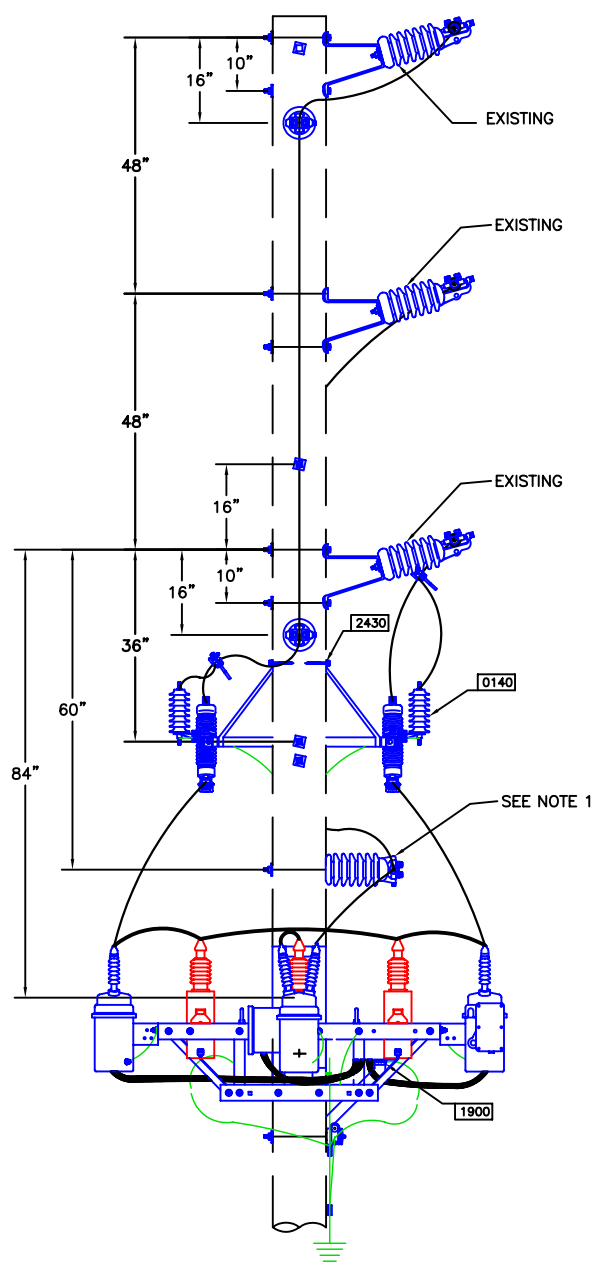
METER/CONTROLLER
ASSEMBLY

DRAWING IS NOT TO SCALE

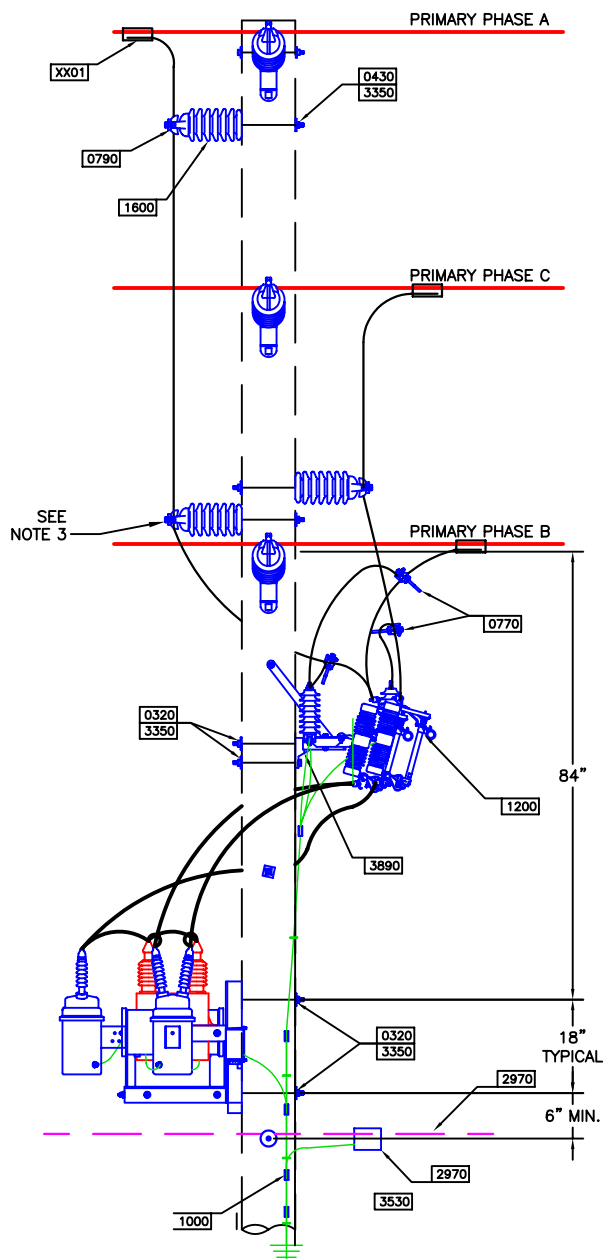
Drawn By: DEM	Date Drawn: 10/23/2007
Reviewed by: WHP	Date Updated: 10/23/2007
Old CU: NEW	DWG Name: VM10-13-OS.DWG

14.4/24.9 KV PRIMARY; 3Ø, SWITCHED
CAPACITOR BANK FRAME ASSEMBLY, WITH OIL
SWITCHES, GROUNDED WYE CONFIGURATION;
VERTICAL CONSTRUCTION

REV# : 000
VM10.13.OS



NEUTRAL VIEW THREE CELL FRAME
OPEN DELTA CONFIGURATION FOR 7.2 KV CIRCUITS



NOTE:

- 1) POSITION SN-1600 INSULATOR TO ACHIEVE THE MAXIMUM CLEARANCE BETWEEN PHASES FOR THE CONNECTION BETWEEN THE FUSE CUTOUT AND THE CAPACITOR BANK.
- 2) ONE CAPACITOR WILL NEED TO BE ADDED PER PHASE TO ACHIEVE THE DESIRED KVAR RATING FOR THE CAPACITOR BANK. USE CONSTRUCTION UNITS M9.150, M9.300 AND M9.400 TO SPECIFY THE PER PHASE CAPACITOR SIZE.
- 3) CAPACITOR TANK GROUND LUGS SHOULD CONNECTED.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/23/2007
Reviewed by: WHP	Date Updated: 10/23/2007
Old CU: NEW	DWG Name: VM10-13-OS.DWG

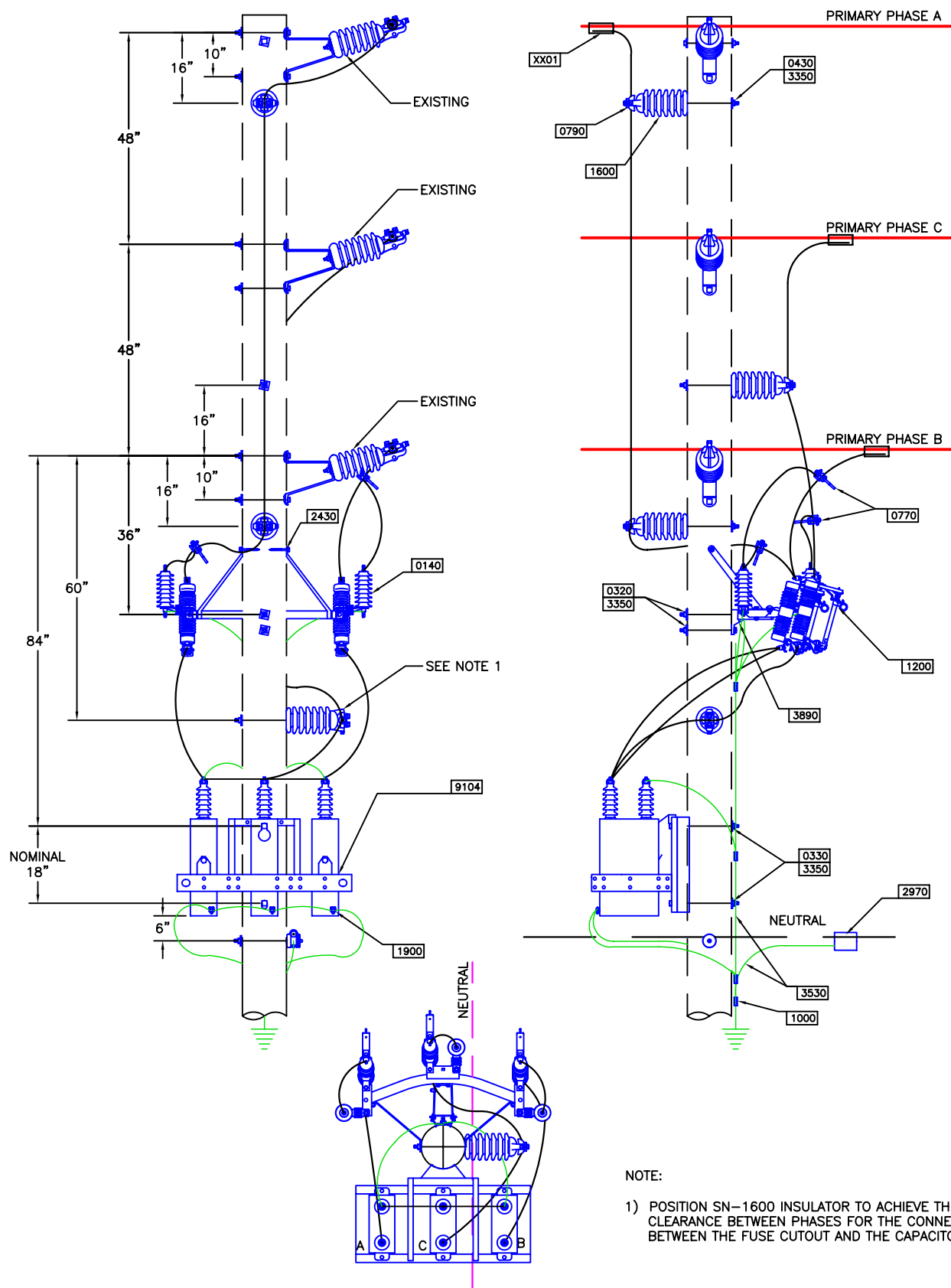
14.4/24.9 KV PRIMARY; 3Ø, SWITCHED
CAPACITOR BANK FRAME ASSEMBLY, WITH OIL
SWITCHES, DELTA CONFIGURATION,
VERTICAL CONSTRUCTION

REV# : 000
VM10.13.OS

CONSTRUCTION UNIT:	VM10.13.OS	AUTOCAD FILE:	VM10-13.OS.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; SWITCHED CAPACITOR BANK FRAME ASSEMBLY; WITH OIL SWITCHES; VERTICAL CONSTRUCTION	PDF FILE:	VM10-13.OS.PDF
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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	3	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8 X 12		
0430	4	BOLT; STUD 5/8X 3/4X 12		
0770	3	CLAMP; HOT LINE CU #8 - 2/0		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1200	3	CUTOUT; FUSED OH 100 AMP		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	2	SCREW; LAG 1/2 X 4		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	4	WASHER; SQUARE		
3520	25	WIRE; CU BSD 2		
3825	2	ADAPTER; PVC MALE 1		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
4040	25	CONDUIT; PVC 1 (T) OBSOLETE		
4525	2	ELBOW; PVC 1 90 DEG		
4770	1	METER SOCKET FOR VOLTMETER		
4820	1	PLUG; 1 FOR MINI-MAX SOCKET		
4958	4	STRAP; CONDUIT 2 HOLE 1-1/2		
9114	1	CAPACITOR BANK FRAME, OIL SWTCH		
XX01	3	CONNECTOR	W	36

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NEUTRAL VIEW
GROUNDED WYE CONFIGURATION

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 3/20/08	14.4/24.9 KV PRIMARY, 3-PHASE, FIXED CAPACITOR BANK FRAME ASSEMBLY, GROUNDED WYE CONFIGURATION, VERTICAL CONSTRUCTION	REV# : 000
Approved By: WHP	Date Updated: --		VM10.13.V
Old CU: --	DWG Name: VM10-13-V.DWG		

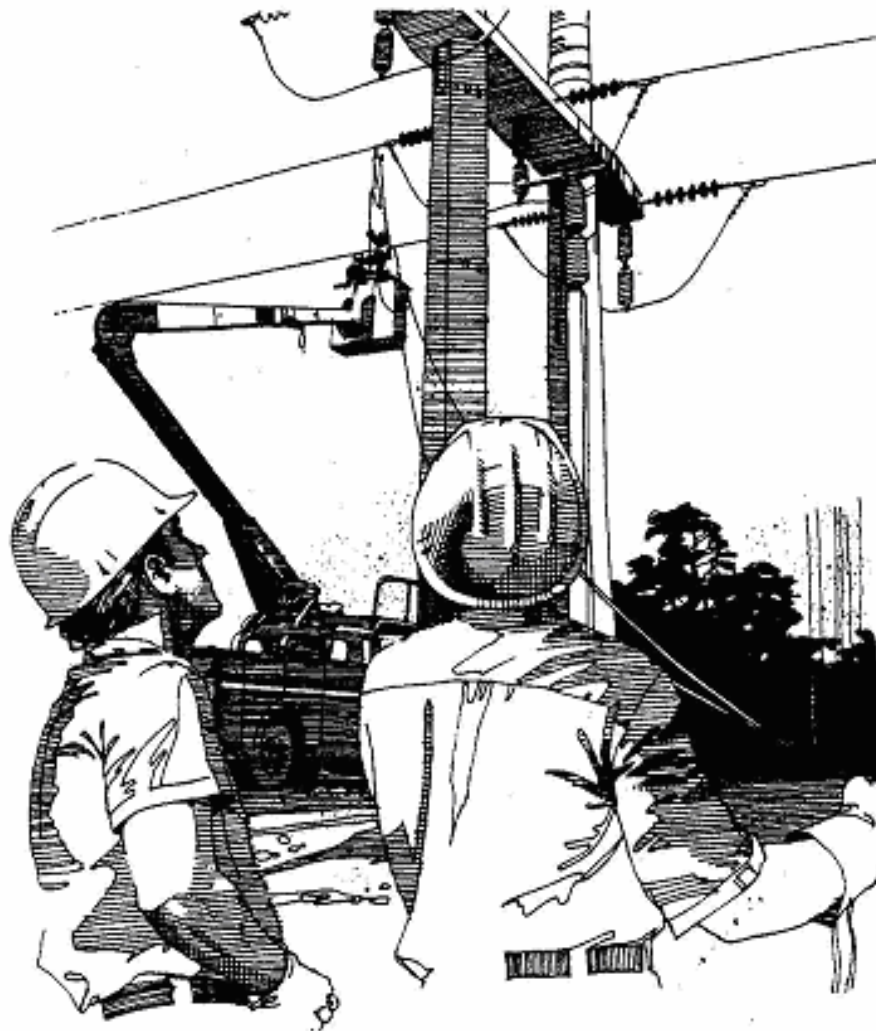
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DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; FIXED CAPACITOR BANK FRAME ASSEMBLY; GROUNDED WYE CONFIGURATION; VERTICAL CONSTRUCTION	PDF FILE:	VM10-13.V.PDF
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STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	3	ARRESTER; LIGHTNING MOV 18 KV		
0320	2	BOLT; MACHINE 5/8 X 12		
0330	2	BOLT; MACHINE 5/8 X 14		
0430	4	BOLT; STUD 5/8X 3/4X 12		
0770	3	CLAMP; HOT LINE CU #8 - 2/0		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	6	CONNECTOR; CU #4		
1200	3	CUTOUT; FUSED OH 100 AMP		
1600	4	INSULATOR; POST TYPE VERTICAL		
1900	3	LUG; TRANSFORMER GROUND		
2430	2	SCREW; LAG 1/2 X 4		
2970	1	SQUEEZON; CU #4-#4 302-82		
3350	8	WASHER; SQUARE		
3530	55	WIRE; CU BSD 4		
3890	1	BRACKET; CUTOUT & ARR 3 POSIT		
9110	1	CAPACITOR BANK FRAME; BASIC FX		
XX01	3	CONNECTOR (PRIMARY)	W	36

CONSTRUCTION UNITS

INDEX P: PROTECTION ASSEMBLY UNITS.

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ELECTRIC COOPERATIVE, INC.



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PROTECTION ASSEMBLY UNITS

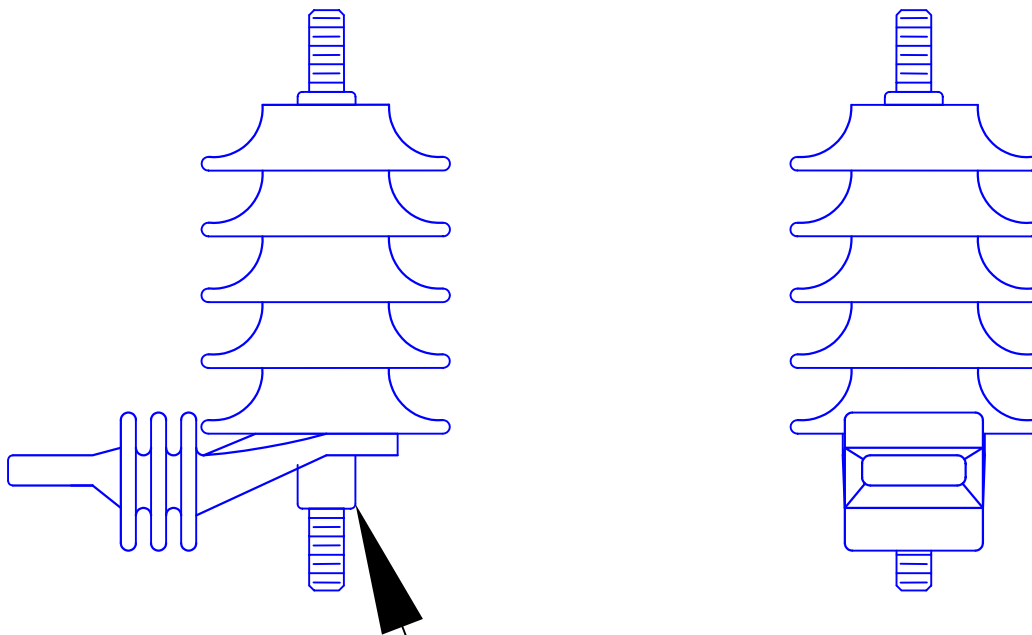
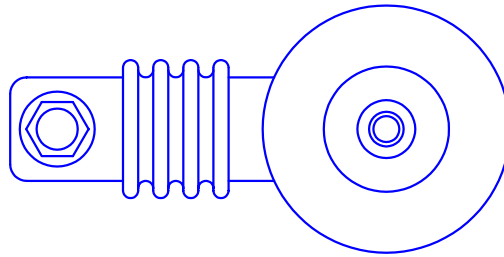
C.U. NO.	DESCRIPTION	PAGE NO.
P1.01	7.2 / 12.47 KV PRIMARY, LIGHTNING ARRESTER	1 - 2
P1.1	7.2 / 12.47 KV PRIMARY, MOV 9 KV SURGE ARRESTER, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	3 - 4
VP1.01	14.4 / 24.9 KV PRIMARY, LIGHTNING ARRESTER	5 - 6
VP1.1	14.4 / 24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	7 - 8
VP1.1.C	14.4 / 24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION, CONCRETE POLE	9 - 10
VP1.1RP	14.4 / 24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY, RISER POLE CLASS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	11 - 12

WREC CONSTRUCTION UNIT UPDATE TABLE

PROTECTION ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRITPION	(RUS) DATE ADDED	(WREC) DATE UPDATED
	P1.01	P1.01	7.2 / 12/47 KV PRIMARY, LIGHTNING ARRESTER	--	3/08/04
P1-1	P1.1	P1.1	7.2 / 12.47 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY	--	3/08/04
	VP1.01	VP1.01	14.4 / 24.9 KV PRIMARY, LIGHTNING ARRESTER	--	3/08/04
VM5-6	VP1.1	VP1.1	14.4/24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/04/03
VM5-6-C	VP1.1.C	VP1.1.C	14.4/24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION, CONCRETE POLE	--	9/04/03
VM5-6RP	VP1.1RP	VP1.1RP	14.4/24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, RISER POLE CLASS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/04/03





0120

DRAWING IS NOT TO SCALE

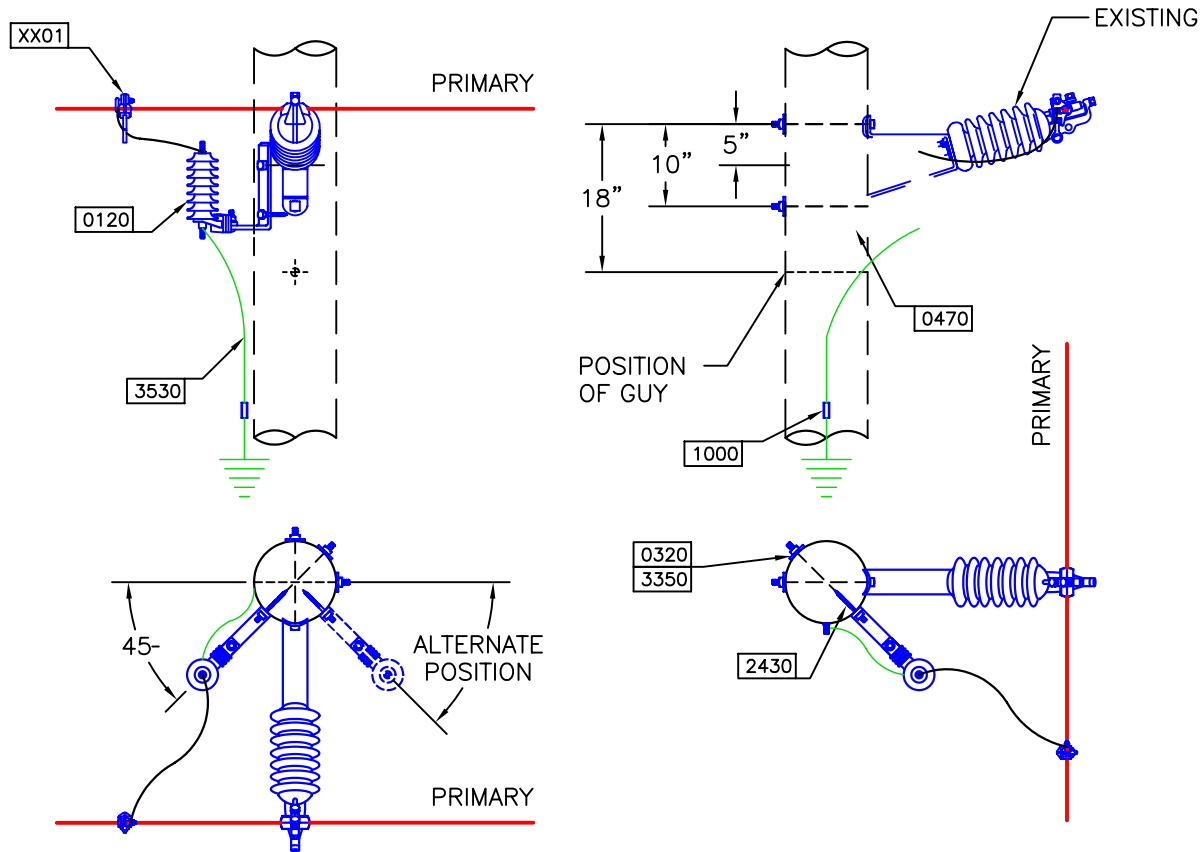
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: MAR. 9, 2004
Old CU: P1-1	DWG Name: P1-01.DWG

**7.2/12.47 KV PRIMARY,
LIGHTNING ARRESTER**

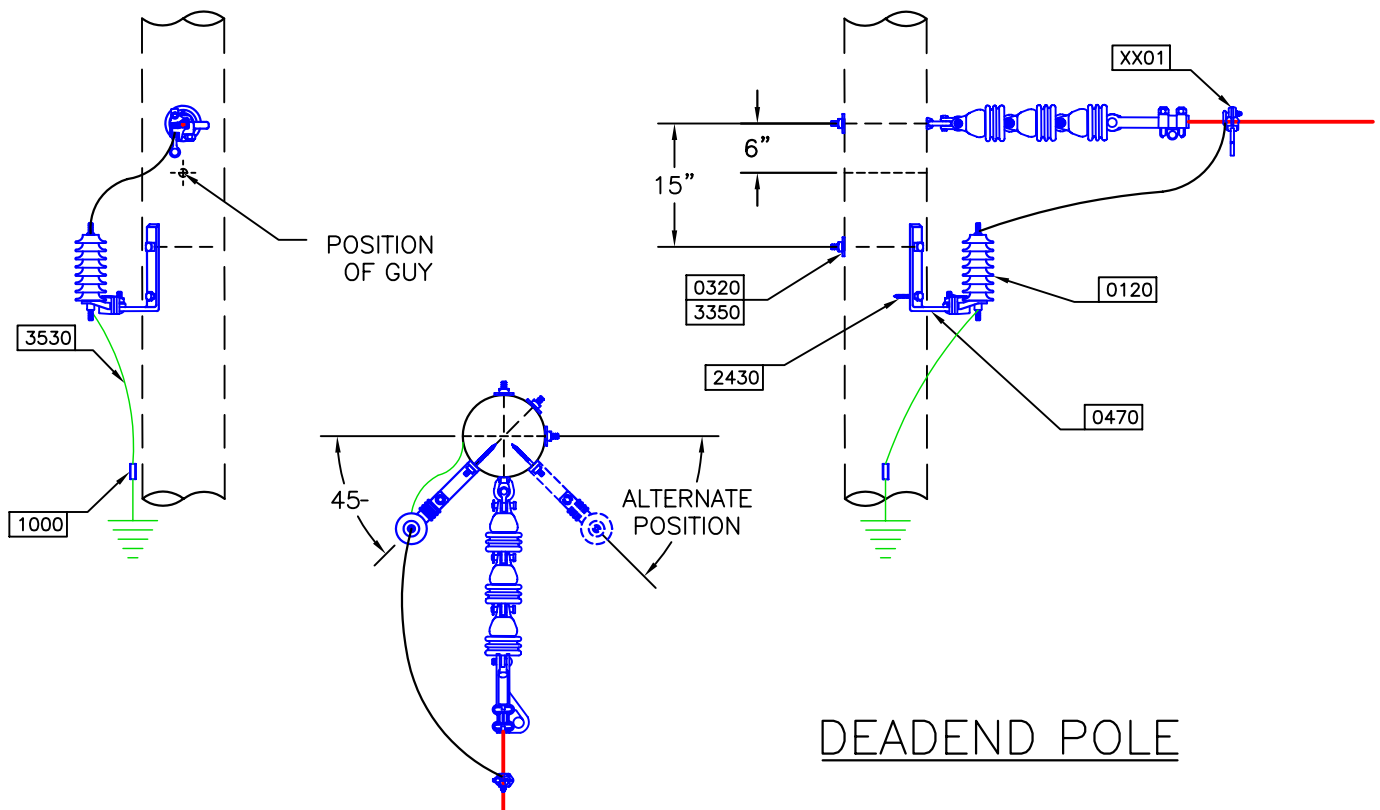
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	1	ARRESTER, LIGHTING MOVE 9 KV		



TANGENT POLE



DEADEND POLE

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JUNE 9, 2004
Old CU:	DWG Name: P1-1.DWG

7.2/12.47 KV PRIMARY, SURGE ARRESTER,
PRIMARY ASSEMBLY,
VERTICAL CONSTRUCTION

ISSUE#: REV 2
P1.1

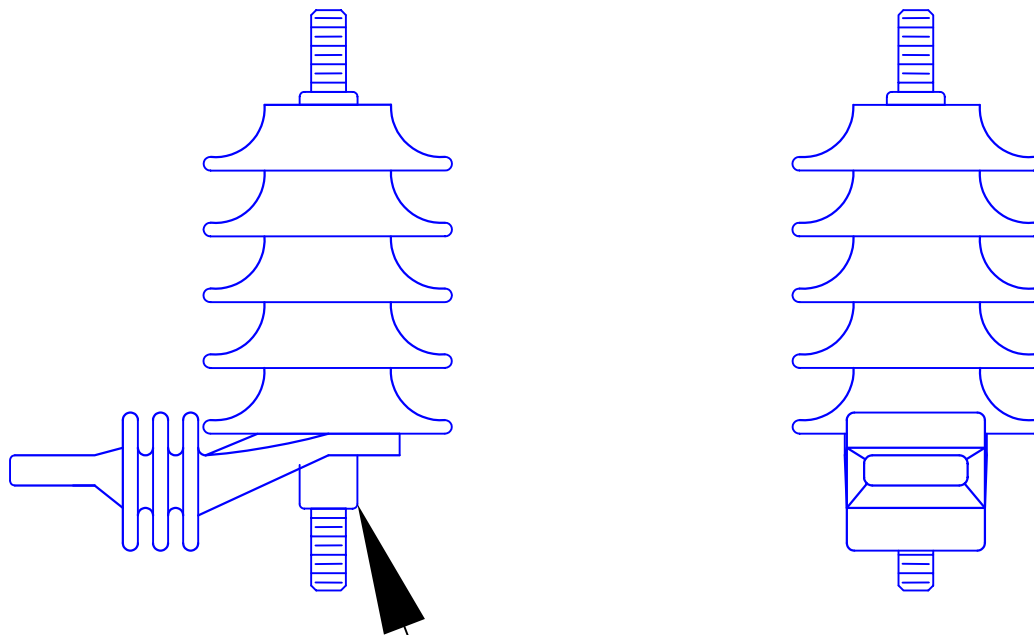
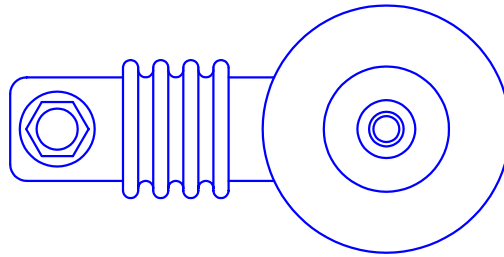
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ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

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0320	1	BOLT, MACHING 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1000	1	CONNECTOR, CU # 4		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	6	WIRE, CU BSD 4		
XX01	1	CLAMP, HOT LINE AL	18	



0140

DRAWING IS NOT TO SCALE

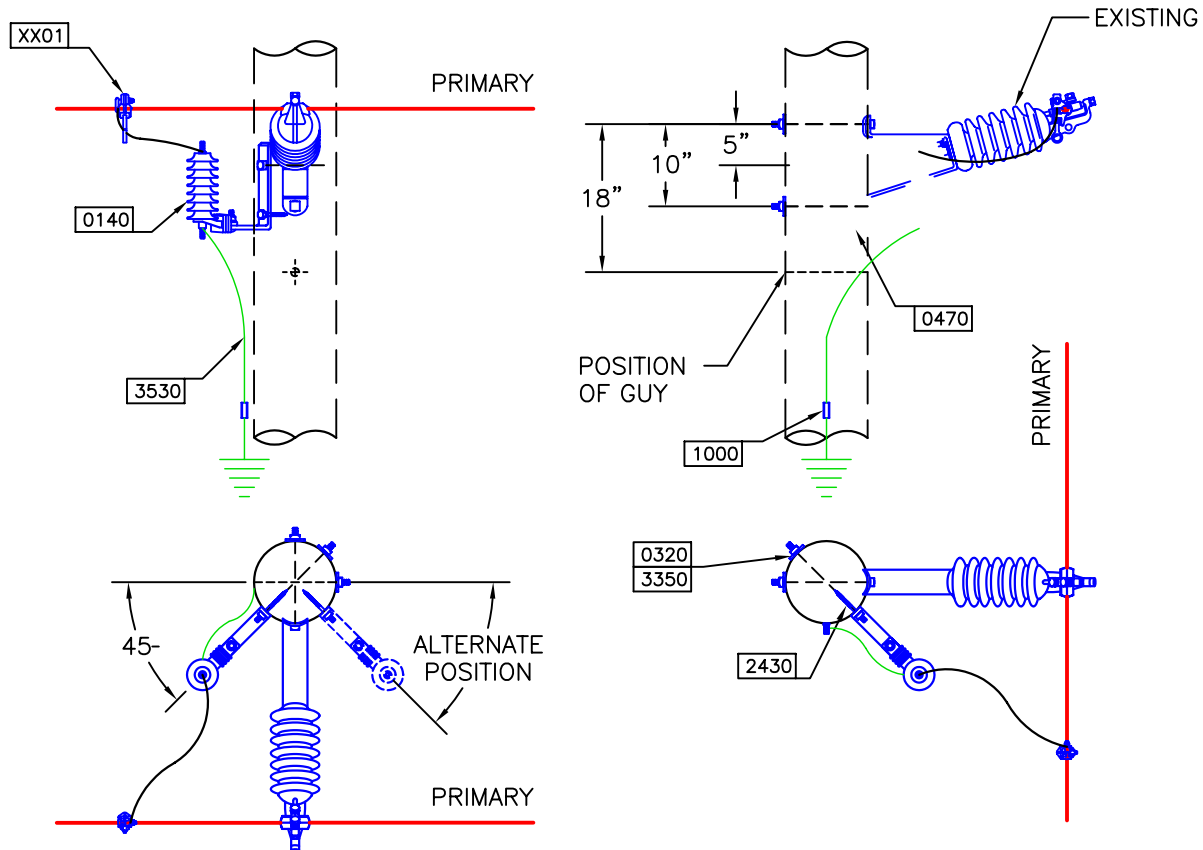
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**14.4/24.9 KV PRIMARY,
LIGHTNING ARRESTER**

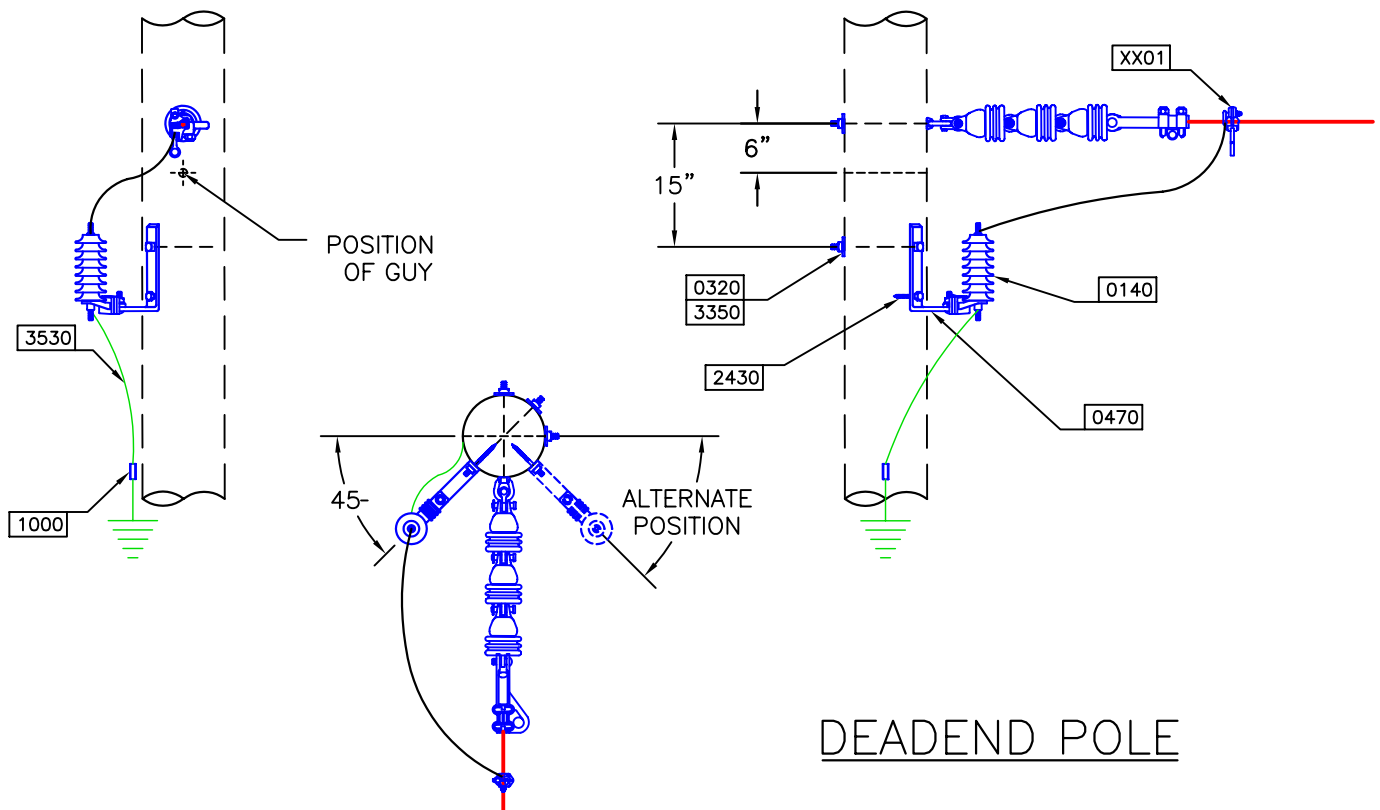
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VP1.01

CONSTRUCTION UNIT:	VP1.01	AUTOCAD FILE:	VP1-01.DWG
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ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0140	1	ARRESTER, LIGHTNING MOV 18 KV		



TANGENT POLE



DEADEND POLE

DRAWING IS NOT TO SCALE

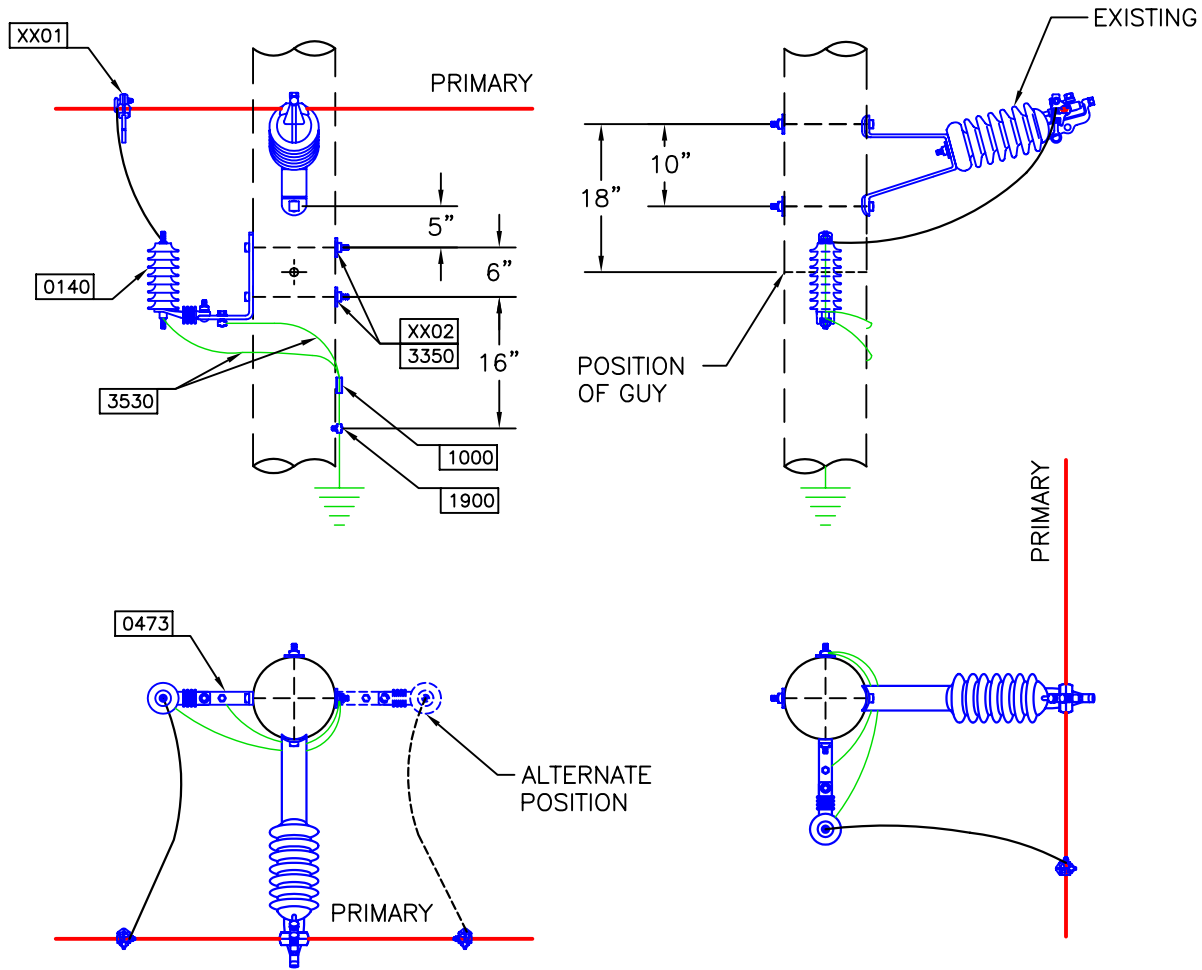
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Approved By: WHP	Date Updated: SEPT. 4, 2003
Old CU: VM5-6	DWG Name: VP1-1.DWG

14.4/24.9 KV PRIMARY, 18KV MOV SURGE
ARRESTER, PRIMARY ASSEMBLY,
VERTICAL CONSTRUCTION

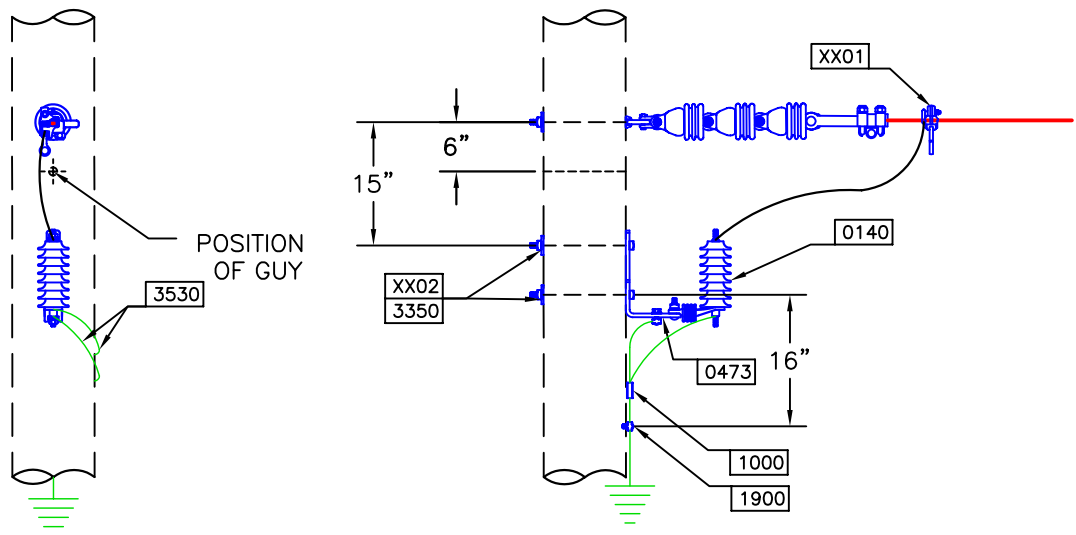
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VP1.1

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		PDF SPEC.:	VP1-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0140	1	ARRESTER, LIGHTNING MOV 18 KV		
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1000	1	CONNECTOR, CU #4		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	6	WIRE, CU BSD 4		
XX01	1	CLAMP, HOT LINE AL	W	18



TANGENT POLE



DEADEND POLE

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 4, 2003
Old CU: VM5-6-C	DWG Name: VP1-1-C.DWG

14.4/24.9 KV PRIMARY, 18KV MOV SURGE
ARRESTER, PRIMARY ASSEMBLY,
VERTICAL CONSTRUCTION, CONCRETE POLE

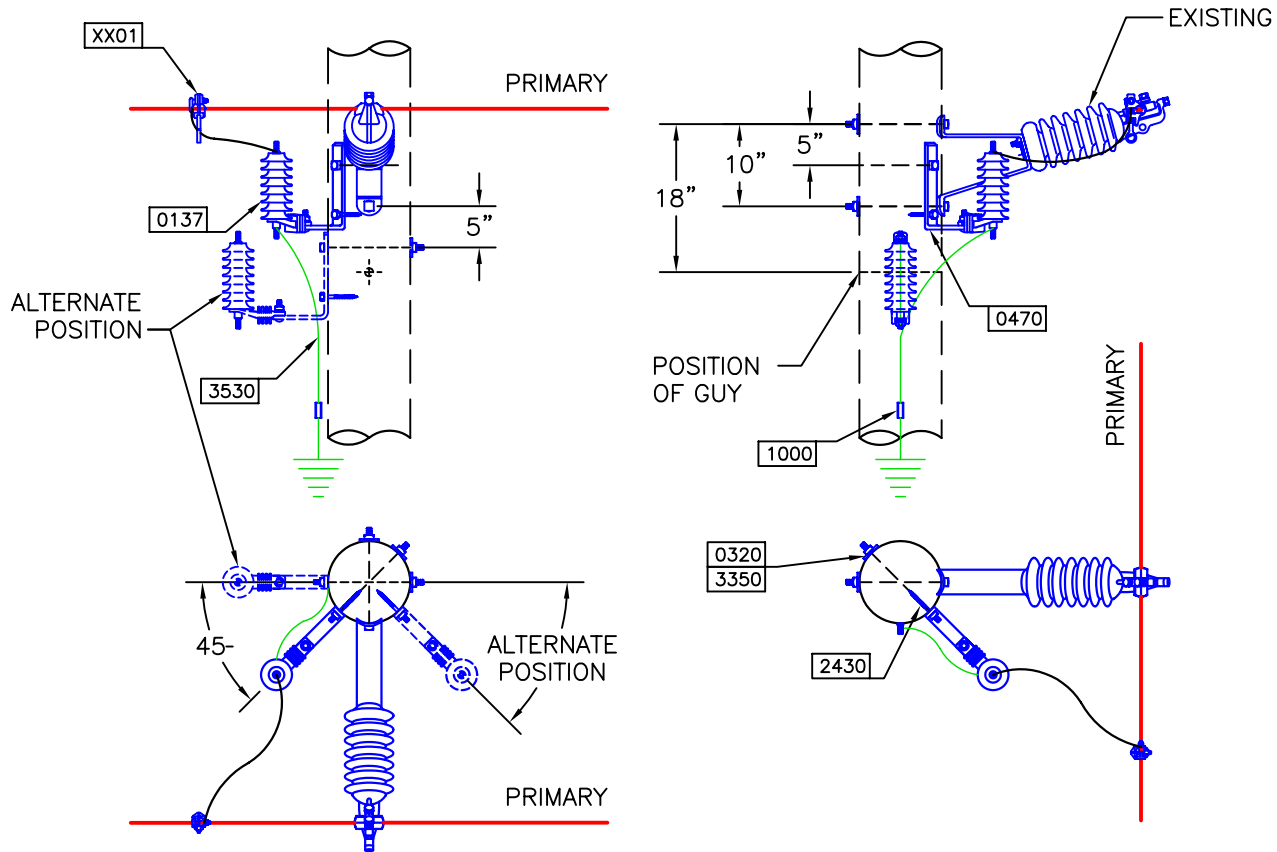
ISSUE#: REV 1
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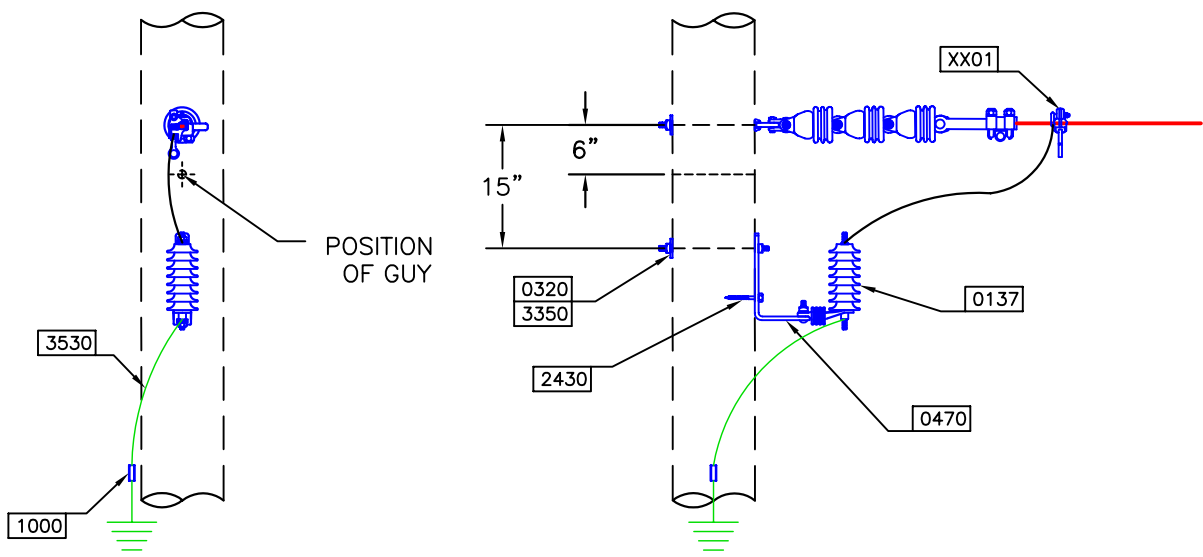
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ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0140	1	ARRESTER, LIGHTNING MOV 18 KV		
0473	1	BRACKET, ARRESTER W/ GND LUG		
1000	1	CONNECTOR, CU #4		
1900	1	LUG, TRANSFORMER GROUND		
3350	2	WASHER, SQUARE		
3530	6	WIRE, CU BSD 4		
XX01	1	CLAMP, HOT LINE AL	W	18
XX02	2	BOLT, MACHINE 5/8" X REQ. LENG	P	40



TANGENT POLE



DEADEND POLE

DRAWING IS NOT TO SCALE

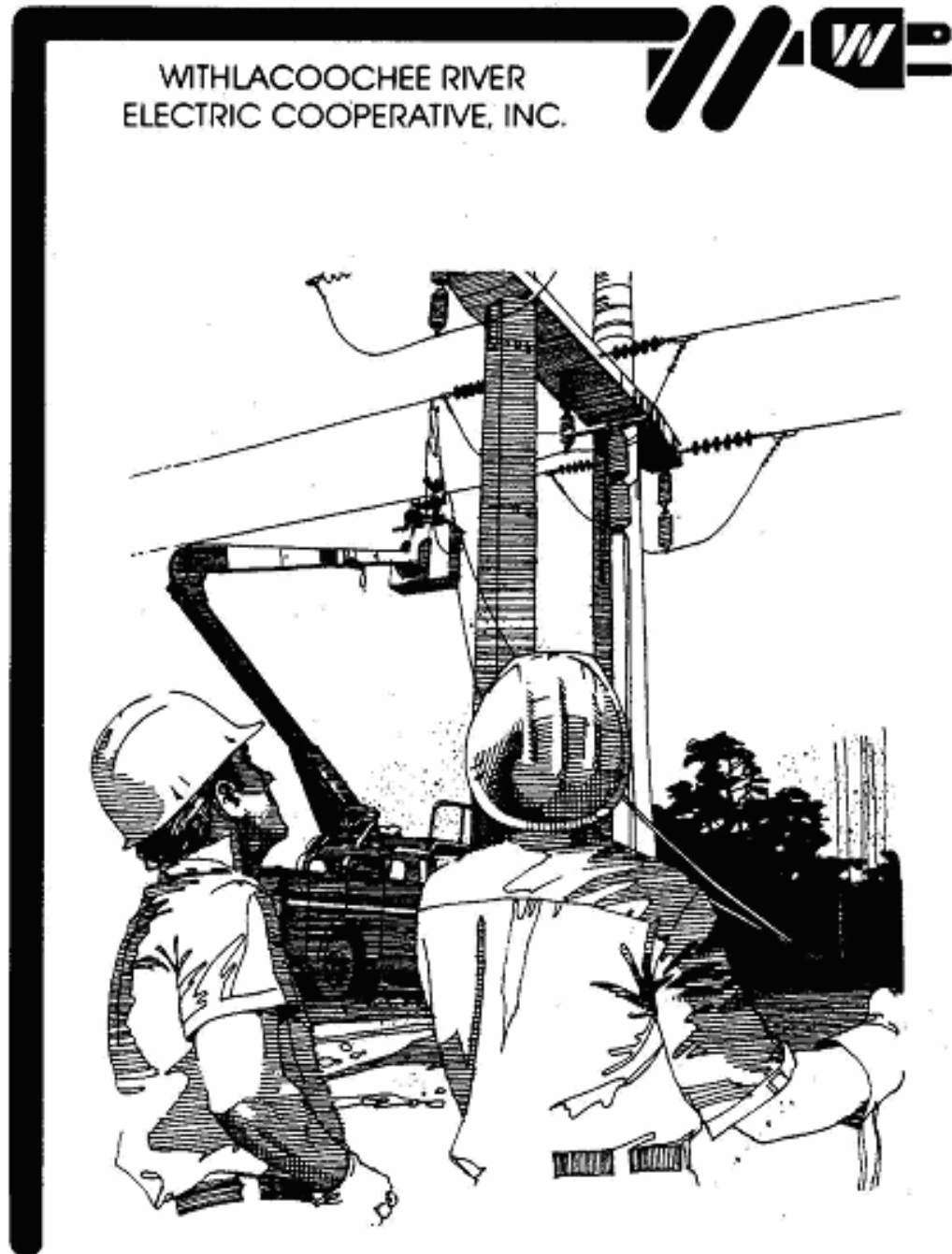
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Approved By: WHP	Date Updated: SEPT. 4, 2003		
Old CU: VM5-6RP	DWG Name: VP1-1RP.DWG		

CONSTRUCTION UNIT:	VP1.1RP	AUTOCAD FILE:	VP1-1RP.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 18 KV MOV SURGE ARRESTER, RISER POLE CLASS, PRIMARY ASSEMBLY, VERICAL CONSTRUCTION	PDF FILE:	VP1-1RP.PDF
		PDF SPEC.:	VP1-1RP_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0137	1	ARRESTER, LIGHTNING MOV RISER POLE		
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1000	1	CONNECTOR, CU #4		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	6	WIRE, CU BSD 4		
XX01	1	CLAMP, HOT LINE AL	W	18

CONSTRUCTION UNITS

INDEX Q: METERING ASSEMBLY UNITS.



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METERING ASSEMBLY UNITS

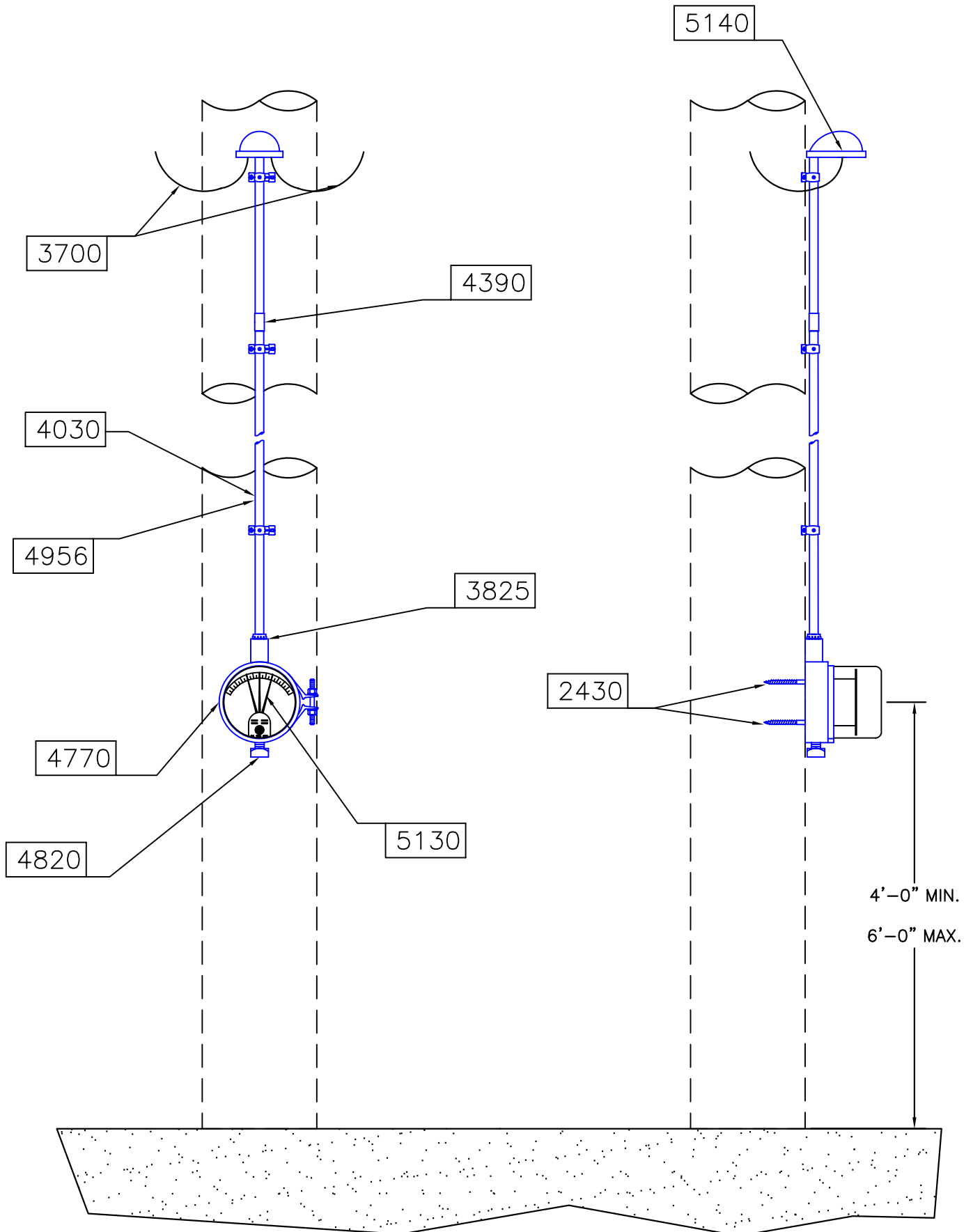
C.U. NO.	DESCRIPTION	PAGE NO.
Q1.1	SECONDARY METERING, 1-PHASE, MIN.-MAX. VOLTMETER, 120 V	1 - 2
Q2.2	SECONDARY METERING, 2-PHASE, MIN.-MAX. VOLTMETER, 120 V	3 - 4
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Q1.21	SECONDARY METERING, 1-PHASE, TYPICAL OVERHEAD SERVICE, WALL MOUNTED	7
Q1.22	SECONDARY METERING, 1-PHASE, TYPICAL OVERHEAD SERVICE, PIPE EXTENSION	8
Q1.23	SECONDARY METERING, 1-PHASE, TYPICAL RESIDENTIAL, UNDERGROUND SERVICE	9
Q1.24	SECONDARY METERING, 1-PHASE, MOBILE HOME OR MANUFACTURED HOME, OVERHEAD SERVICE	10
Q1.25	SECONDARY METERING, 1-PHASE, TEMPORARY OVERHEAD, CONSTRUCTION SERVICE, 70 AMP MAXIMUM	11
Q1.26	SECONDARY METERING, 1-PHASE, TEMPORARY CONSTRUCTION, SERVICE FROM PAD-MOUNT TRANSFORMER	12
VQ6.1	14.4/24.9 KV PRIMARY, 3-PHASE PRIMARY METER, POLE MOUNT, VERTICAL CONSTRUCTION	13 - 14

WREC CONSTRUCTION UNIT UPDATE TABLE

METERING ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
M8-1	Q1.1	Q1.1	SECONDARY METERING, 1-PHASE, MIN.-MAX. VOLTMETER, 120 V	--	8/20/03
M8-2	Q2.2	Q2.2	SECONDARY METERING, 1-PHASE, MIN.-MAX. VOLTMETER, 120 V	--	8/20/03
M8-3	Q3.3	Q3.3	SECONDARY METERING, 1-PHASE, MIN.-MAX. VOLTMETER, 120 V	--	8/20/03
--	Q1.21	Q1.21	SECONDARY METERING, 1-PHASE, TYPICAL OVERHEAD SERVICE, WALL MOUNTED	--	10/28/03
--	Q1.22	Q1.22	SECONDARY METERING, 1-PHASE, TYPICAL OVERHEAD SERVICE, PIPE EXTENSION	--	10/28/03
--	Q1.23	Q1.23	SECONDARY METERING, 1-PHASE, TYPICAL RESIDENTIAL, UNDERGROUND SERVICE	--	10/28/03
--	Q1.24	Q1.24	SECONDARY METERING, 1-PHASE, MOBILE HOME OR MANUFACTURED HOME, OVERHEAD SERVICE	--	10/28/03
--	Q1.25	Q1.25	SECONDARY METERING, 1-PHASE, TEMPORARY OVERHEAD, CONSTRUCTION SERVICE, 70 AM MAXIMUM	--	10/29/03
--	Q1.26	Q1.26	SECONDARY METERING, 1-PHASE, TEMPORARY CONSTRUCTION, SERVICE FROM PAD-MOUNT TRANSFORMER	--	10/29/03
--	VQ6.1	VQ6.1	14.4/24.9 KV PRIMARY, 3-PHASE PRIMARY METER, POLE MOUNT, VERTICAL CONSTRUCTION	--	6/23/2008





DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: AUGUST 20, 2003
Old CU: M8-1	DWG Name: Q1-1.DWG

SECONDARY METERING, 1-PHASE,
MIN. - MAX. VOLTMETER, 120 V

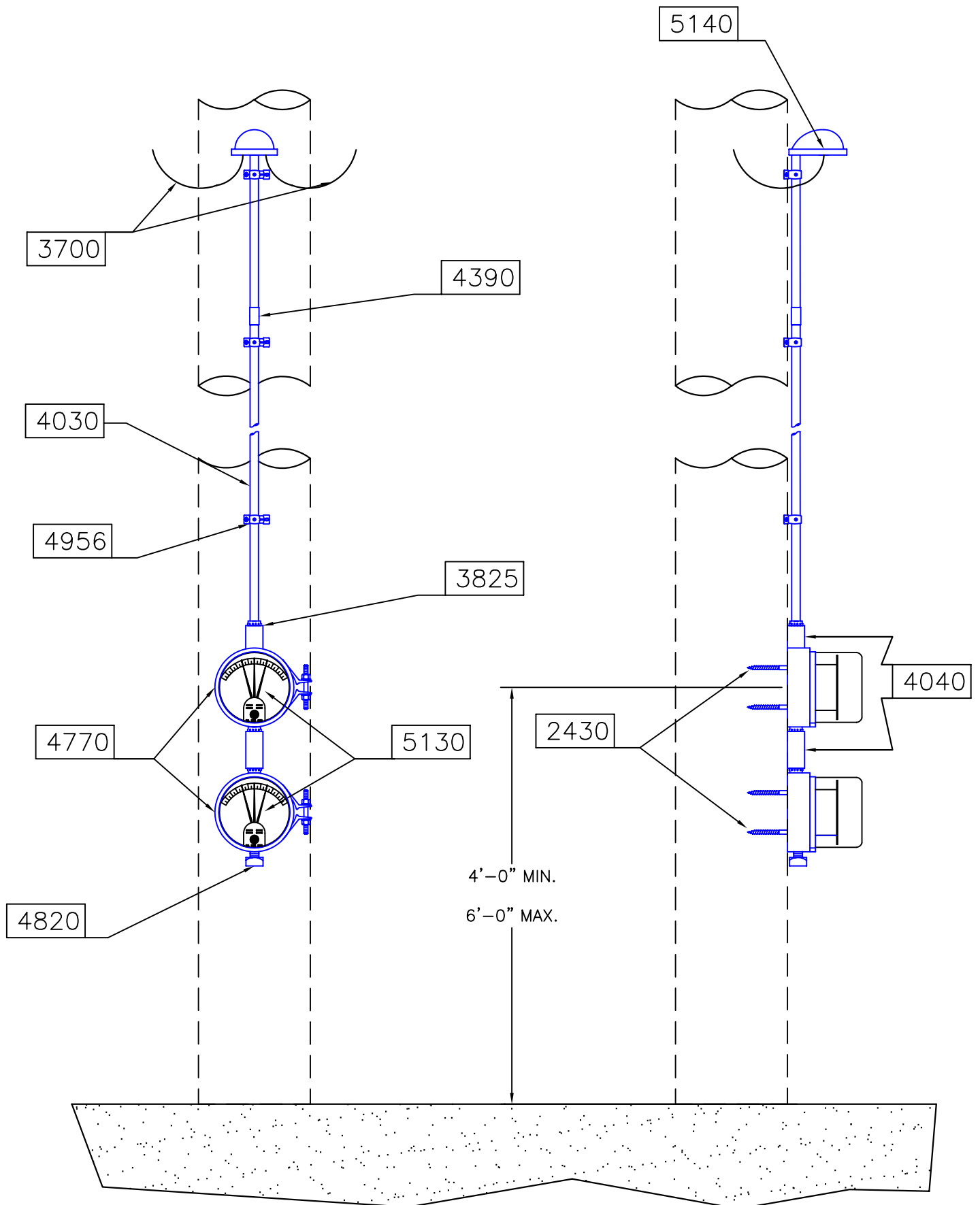
ISSUE#: REV 1
Q1.1

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
2430	2	SCREW, LAG 1/2" X 4"		
3700	50	WIRE, THW #12		
3825	1	ADAPTER, PVC MALE 1"		
4030	20	CONDUIT, PVC 3/4"		
4390	1	COUPLING, PVC 3/4"		
4770	1	METER SOCKET FOR VOLTMETER		
4820	1	PLUG, 1" FOR MINI-MAX SOCKET		
4956	3	STRAP, CONDUIT 2 HOLE 3/4"		
5130	1	VOLTMETER, MINI-MAXI		
5140	1	WEATHERHEAD 3/4" PVC		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: AUGUST 20, 2003
Old CU: M8-2	DWG Name: Q2-2.DWG

SECONDARY METERING, 2-PHASE,
MIN. - MAX. VOLTMETER, 120 V

ISSUE#: REV 1

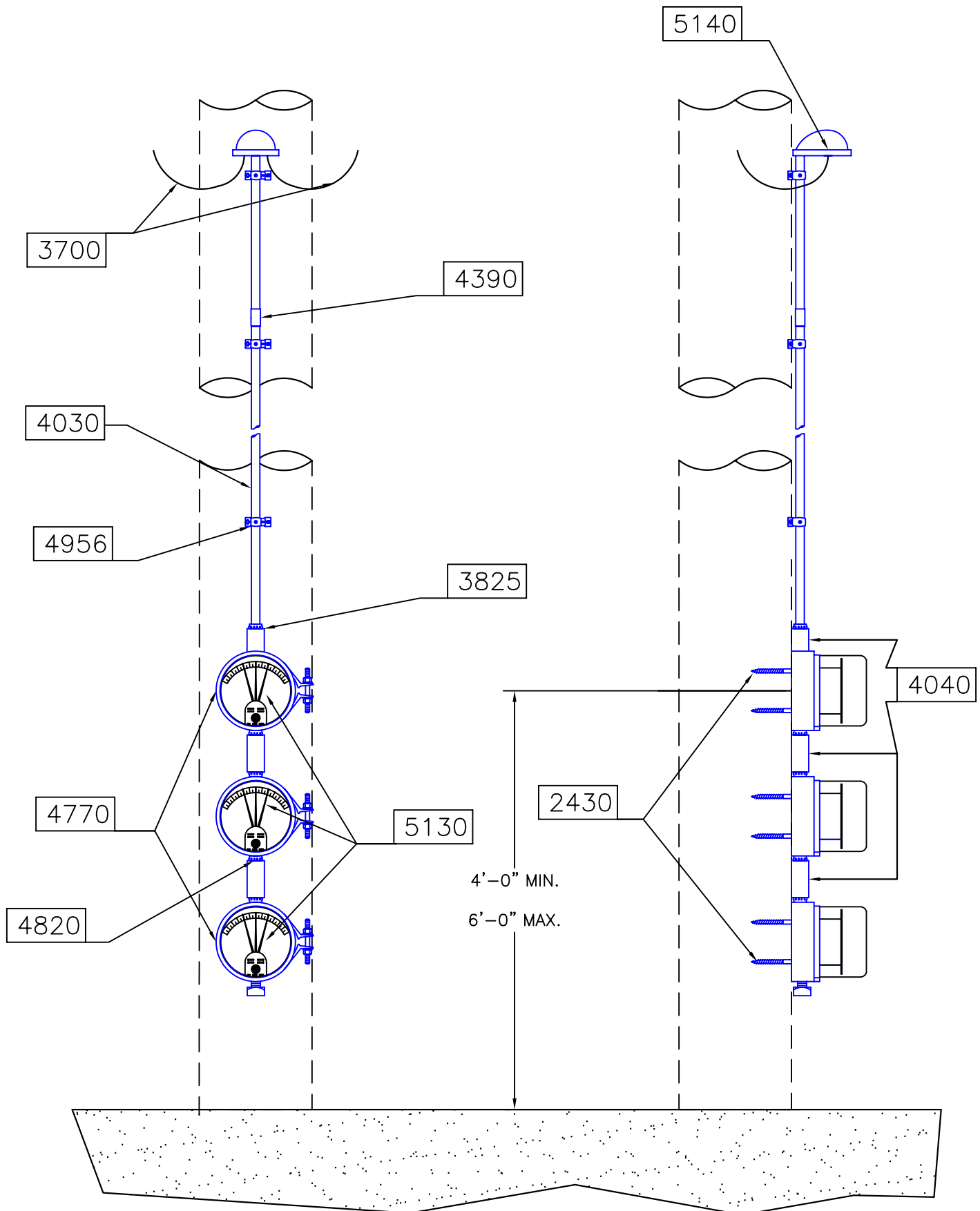
Q2.2

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
2430	4	SCREW, LAG 1/2" X 4"		
3700	75	WIRE, THW #12		
3825	3	ADAPTER, PVC MALE 1"		
4030	20	CONDUIT, PVC 3/4"		
4040	2	CONDUIT, PVC 1"		
4390	1	COUPLING, PVC 3/4"		
4770	2	METER SOCKET FOR VOLTMETER		
4820	1	PLUG, 1" FOR MINI-MAX SOCKET		
5130	2	VOLTMETER, MINI-MAXI		
5140	1	WEATHERHEAD 3/4" PVC		



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: AUGUST 20, 2003
Old CU: M8-3	DWG Name: Q3-3.DWG

SECONDARY METERING, 3-PHASE,
MIN. - MAX. VOLTMETER, 120 V

ISSUE#: REV 1

Q3.3

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
2430	6	SCREW, LAG 1/2" X 4"		
3700	90	WIRE, THW #12		
3825	5	ADAPTER, PVC MALE 1"		
4030	20	CONDUIT, PVC 3/4"		
4040	4	CONDUIT, PVC 1"		
4390	1	COUPLING, PVC 3/4"		
4770	3	METER SOCKET FOR VOLTMETER		
4820	1	PLUG, 1" FOR MINI-MAX SOCKET		
5130	3	VOLTMETER, MINI-MAXI		
5140	1	WEATHERHEAD 3/4" PVC		



SERVICE ENTRANCE CONDUCTOR SHALL EXTEND A MINIMUM OF 2'-0" OUT OF THE WEATHERHEAD, NEUTRAL SHALL BE MARKED WITH WHITE TAPE.

WEATHERHEAD
SEE NOTE 2

MIN. DIA. 1 1/4" RIGID CONDUIT
OR SEU CABLE, CONDUIT SECURED
WITH A MIN. OF 3 CLAMPS

METER SOCKET FURNISHED AND
INSTALLED BY CUSTOMER.
SEE NOTE 1 FOR SPECIFICATIONS.

MAIN DISCONNECT PANEL MAY
BE INSTALLED ON THE INSIDE
OR OUTSIDE OF WALL.

SECURE GROUNDING CONDUCTOR
EVERY 2'-0" MAX.

GROUNDING CONDUCTOR
#4 COPPER MIN.

WREC APPROVED GROUND
AND CLAMP ATTACHED TO
APPROVED GROUNDING
ROD AND TO METALIC
WATER PIPE. BURIED A
MIN. 6" BELOW GRADE.

6"

3'-0" MIN.
SEE NOTE 3

6"

10'-0"
MIN.

SEE
NOTE 4

4'-0" MIN.

6'-0" MAX

6" MIN.

NOTE:

1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 200 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. THE HEIGHT OF THE WEATHERHEAD TO BE INCREASED, IF REQUIRED, BY NATIONAL ELECTRICAL SAFETY CODE(NESC) OR WREC.
3. THE CLEARANCE BETWEEN WINDOWS OR WALL PROJECTIONS IS SPECIFIED IN NESC RULE 234-B1 & TABLE 234-1.
4. THE CLEARANCE UNDER ROOFS IS SPECIFIED IN NESC RULE 234-C AND TABLE 234-1.

DRAWING IS NOT TO SCALE

Drawn By: DEM

Date Drawn: OCT. 28, 2003

Approved By: WHP

Date Updated: OCT. 28, 2003

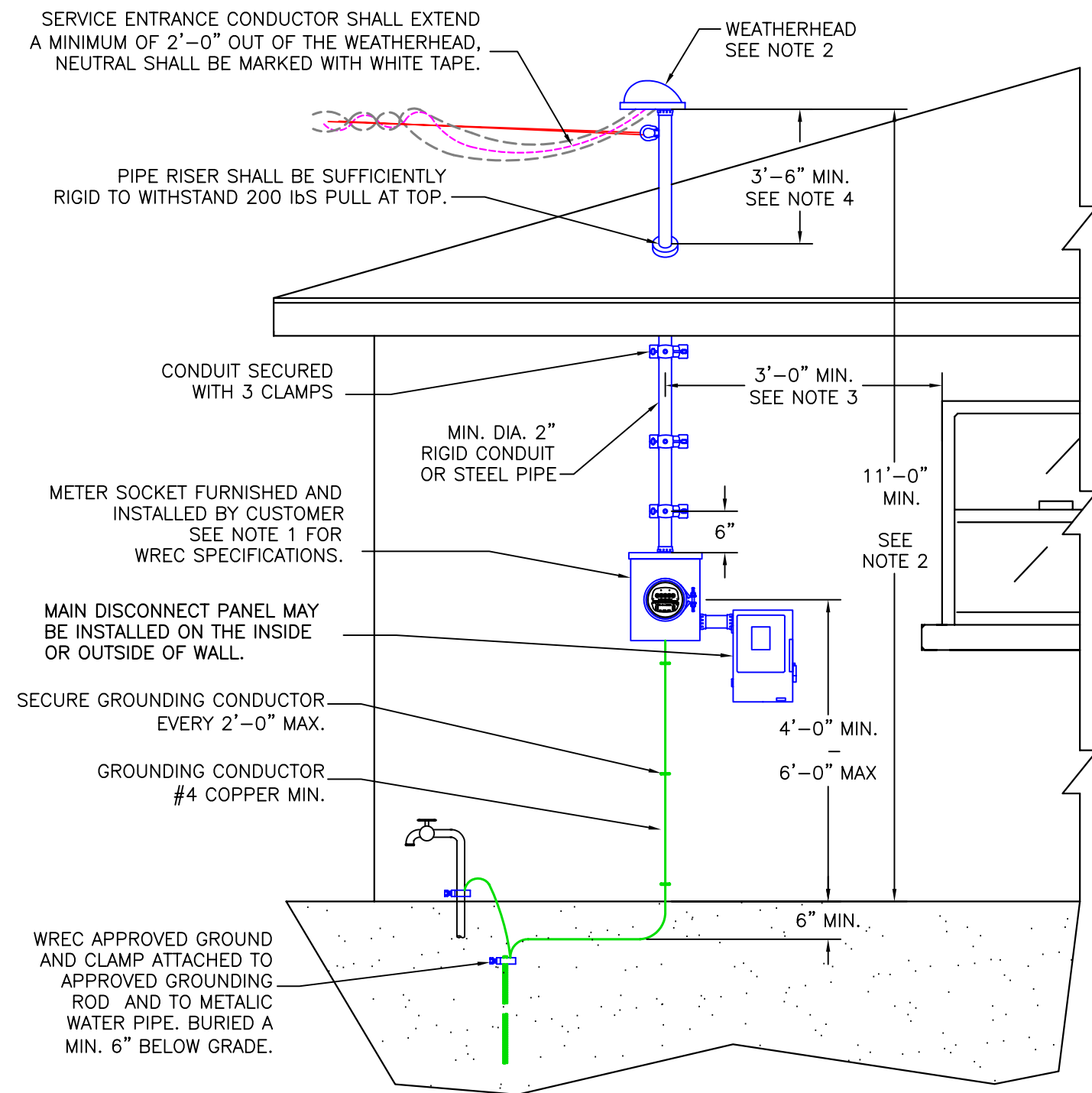
Old CU:

DWG Name: Q1-21.DWG

SECONDARY METERING, 1 ϕ ,
TYPICAL OVERHEAD SERVICE,
WALL MOUNTED

ISSUE#: REV 1

Q1.21



NOTES:

1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 200 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. THE HEIGHT OF THE WEATHERHEAD TO BE INCREASED, IF REQUIRED, BY NATIONAL ELECTRICAL SAFETY CODE(NESC) OR WREC.
3. THE CLEARANCE BETWEEN WINDOWS OR WALL PROJECTIONS IS SPECIFIED IN NESC RULE 234-B1 & TABLE 234-1.
4. THE CLEARANCE OVER ROOFS IS SPECIFIED IN NESC RULE 234-C AND TABLE 234-1.

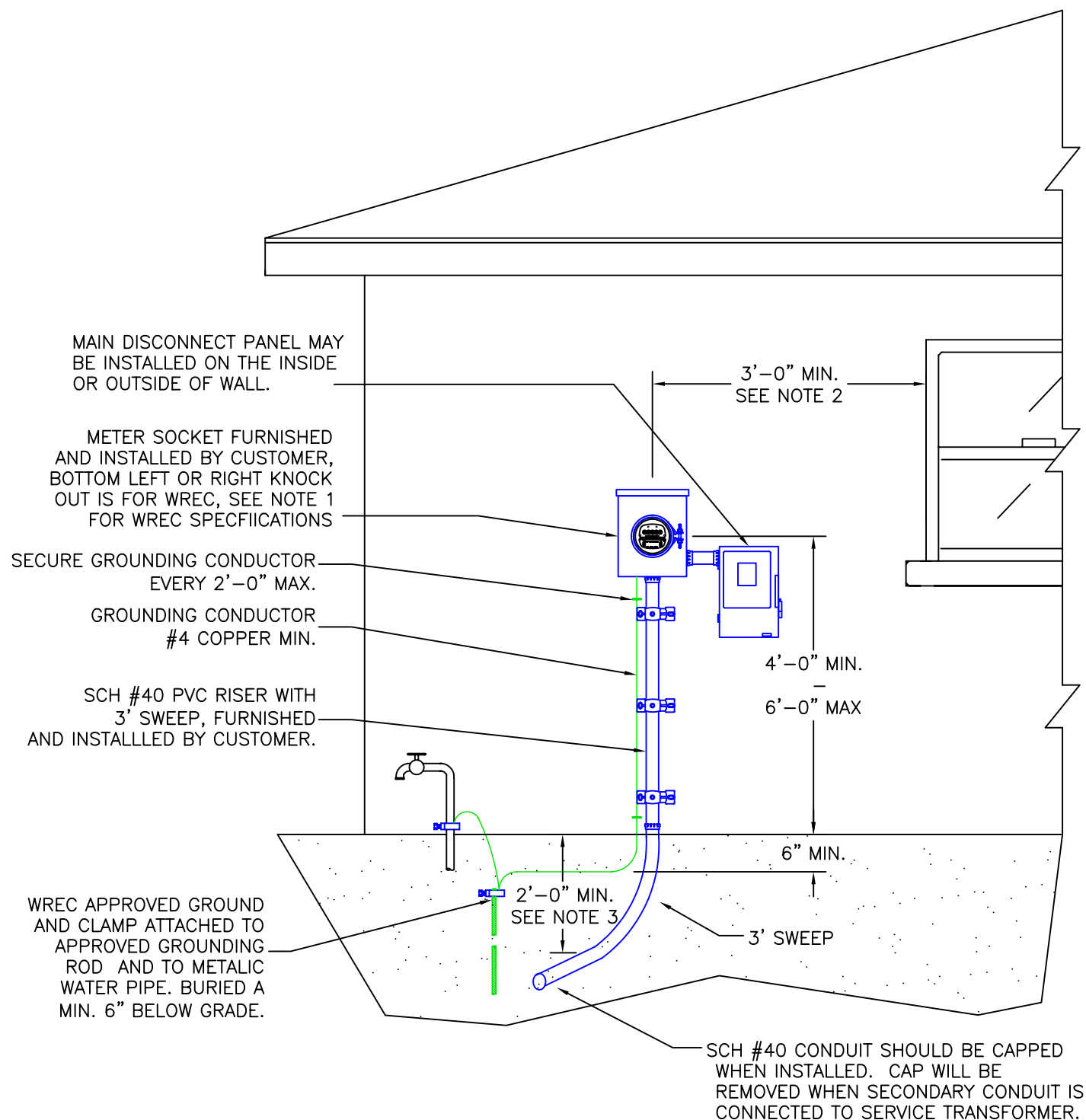
DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: OCT. 28, 2003
Approved By: WHP	Date Updated: OCT. 28, 2003
Old CU:	DWG Name: Q1-22.DWG

SECONDARY METERING, 1 ϕ ,
TYPICAL OVERHEAD SERVICE,
PIPE EXTENSION

ISSUE#: REV 1

Q1.22



NOTES:

1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 200 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. THE CLEARANCE BETWEEN WINDOWS OR WALL PROJECTIONS IS SPECIFIED IN NESC RULE 234-B1 & TABLE 234-1.
3. DIRECT BURIAL CABLE OR COUDUIT MUST BE COMPLIANT WITH NESC 352-D, AND TABLE 352-1. MINIMUM DEPTH BELOW GROUND SURFACE IS 30".

DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: 10/28/2003

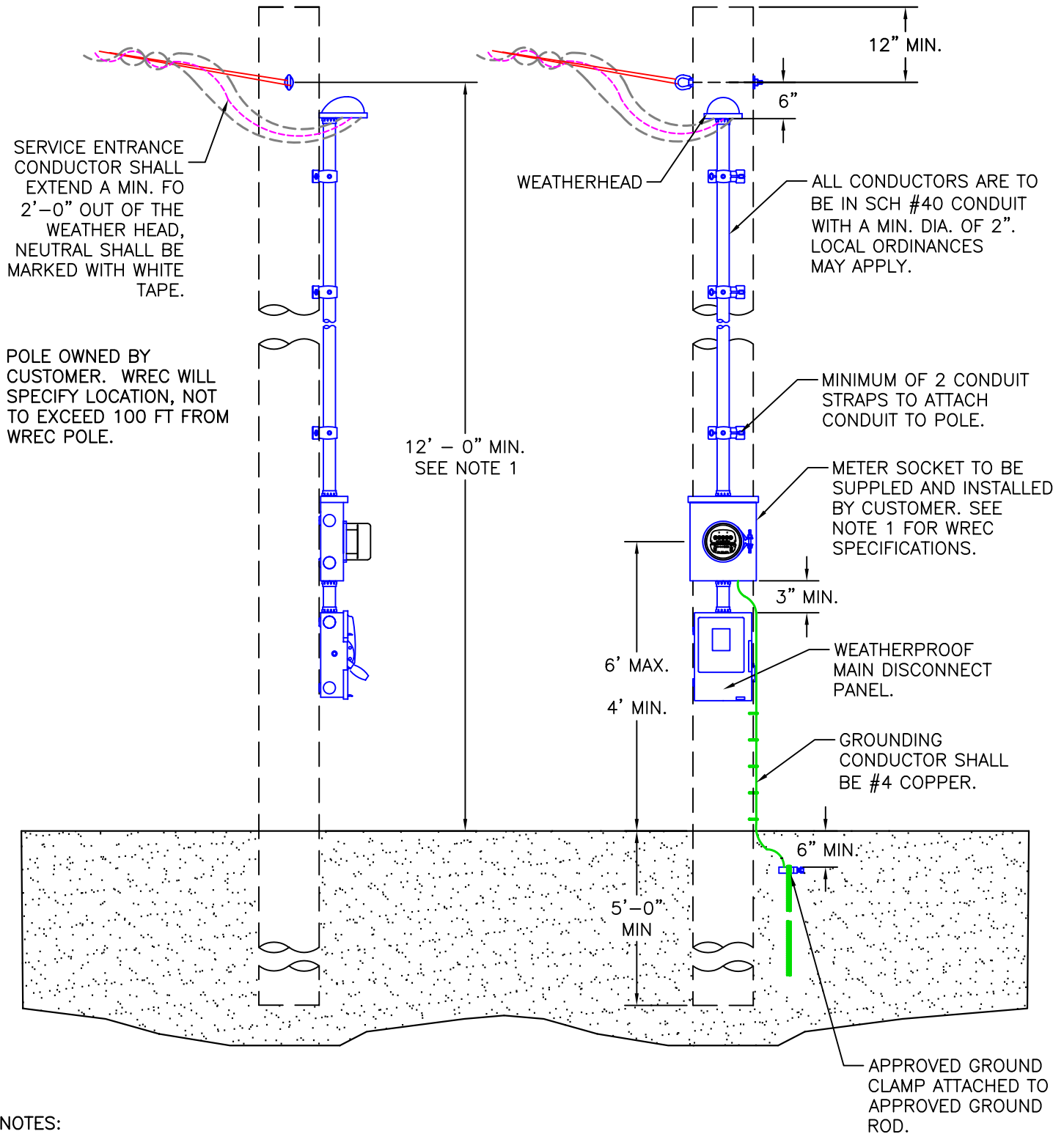
Approved By: WHP Date Updated: 5/14/2007

Old CU: -- DWG Name: Q1-23.DWG

SECONDARY METERING, 1 ϕ ,
TYPICAL RESIDENTIAL,
UNDEGROUND SERVICE

REV# : 002

Q1.23



NOTES:

1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 200 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. CLEARANCE OF SECONDARY DROP DESCRIBED IN NESC RULE 234A, AND TABLE 234-1. THE MINIMUM CLEARANCE IS SPECIFIED BY WREC AS 12'.
3. THE POLE IS TO BE CLASS 6 OR 7 PRESSURE TREATED WOOD. THE POLE MUST BE SUFFICIENTLY RIGID TO WITHSTAND A 200 lb. PULL AT TOP.

DRAWING NOT TO SCALE

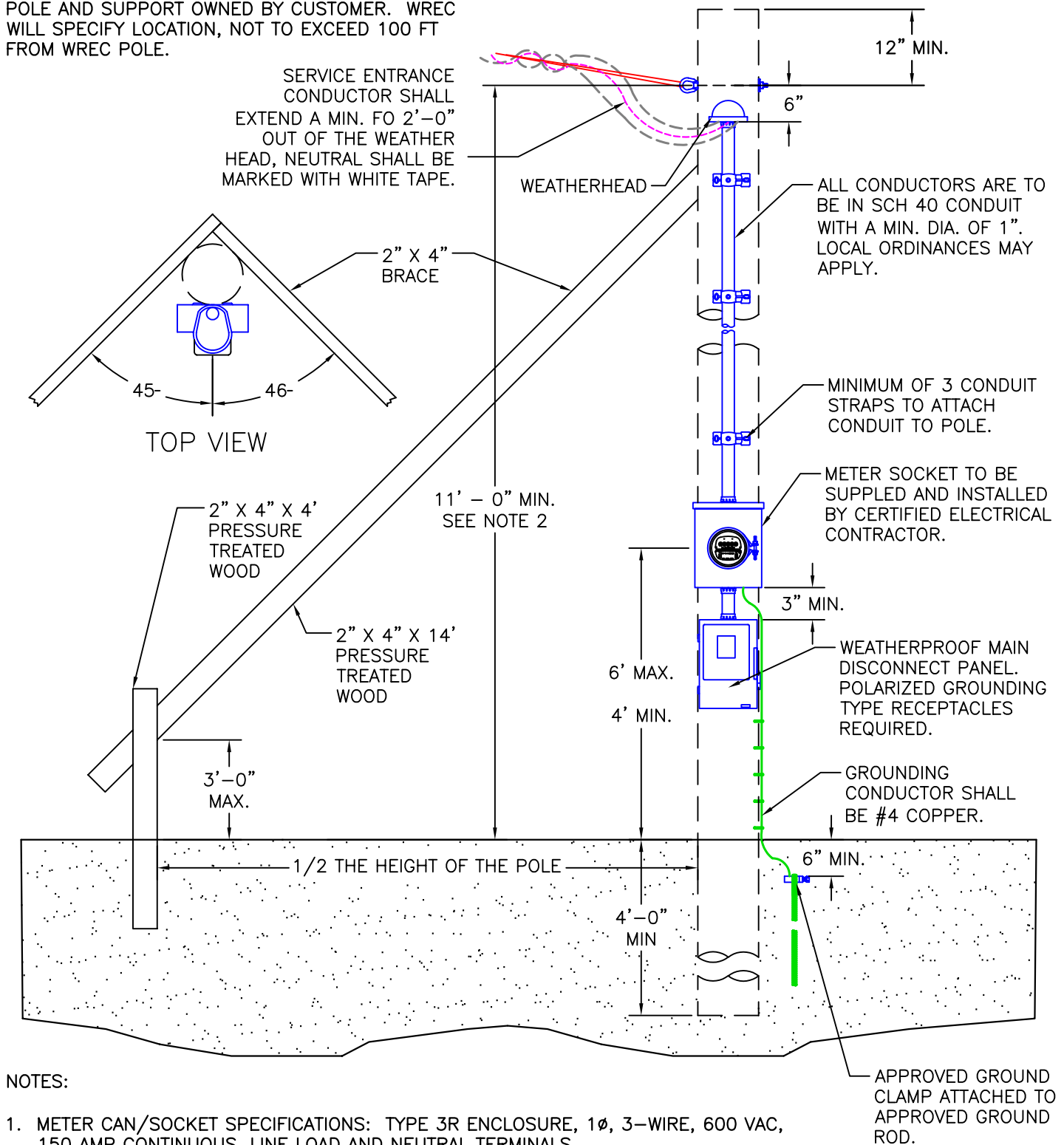
Drawn By: WIC, DEM	Date Drawn: OCT. 29, 2003
Approved By: WHP	Date Updated: OCT. 29, 2003
Old CU:	DWG Name: Q1-24.DWG

SECONDARY METERING, 1 ϕ ,
MOBILE HOME, OR MANUFACTURED HOME,
OVERHEAD SERVICE

ISSUE#: REV 1
Q1.24



POLE AND SUPPORT OWNED BY CUSTOMER. WREC WILL SPECIFY LOCATION, NOT TO EXCEED 100 FT FROM WREC POLE.



NOTES:

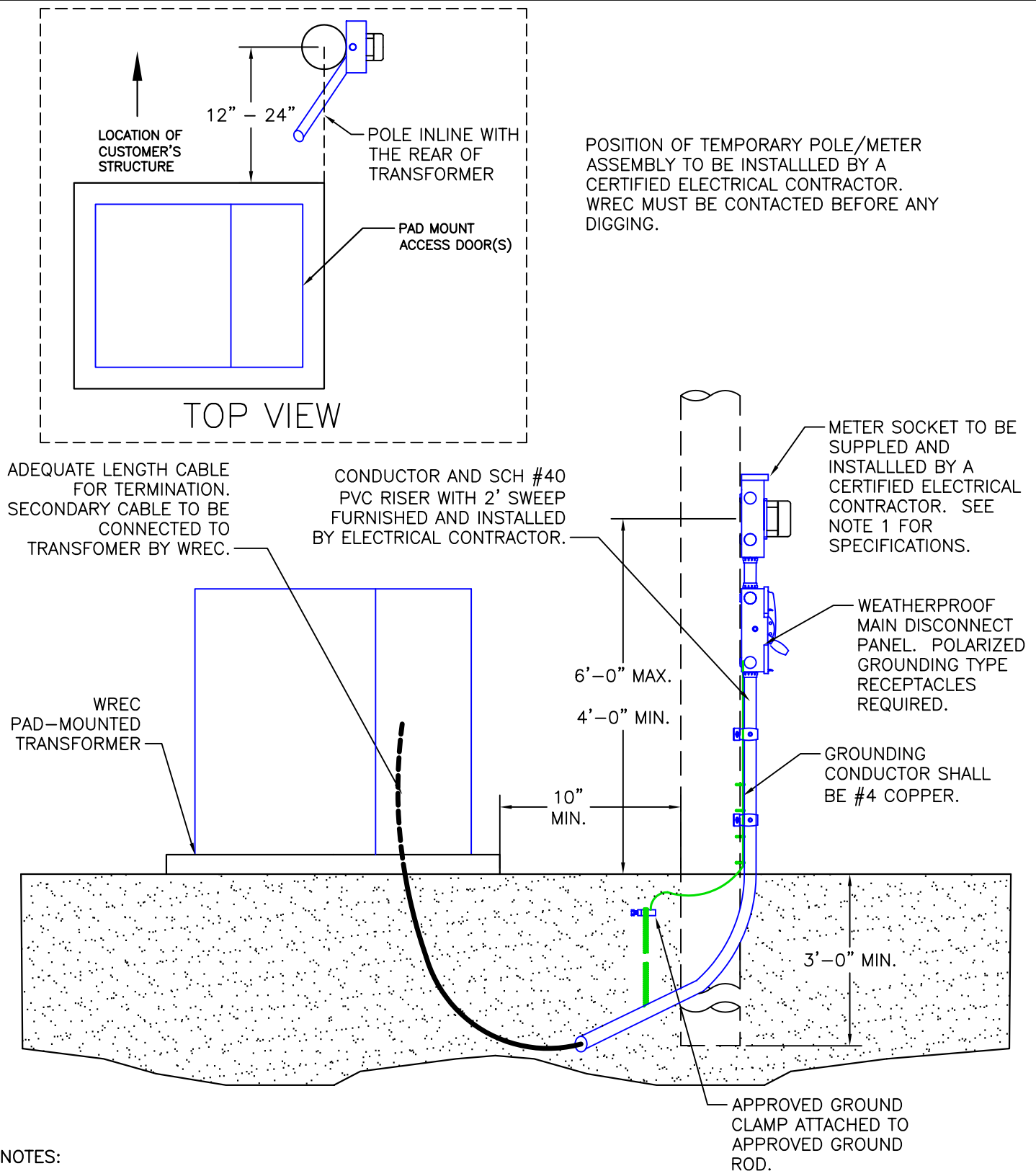
1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 150 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. THE CLEARANCE OF SECONDARY DROP DESCRIBED IN NESC RULE 234A, AND TABLE 234-1. THE MINIMUM CLEARANCE IS SPECIFIED BY WREC AT 11'.
3. THE POST IS TO BE A MINIMUM OF 4" X 4" X 16' PRESSURE TREATED WOOD. BRACES ARE TO BE A MINIMUM OF 2" X 4" X 14' PRESSURE TREATED WOOD.
4. THE POLE AND BRACES MYST BE SUFFICIENTLY RIGID TO WITHSTAND A 200 lb. PULL AT THE TOP.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: OCT. 29, 2003
Approved By: WHP	Date Updated: OCT. 29, 2003
Old CU:	DWG Name: Q1-25.DWG

SECONDARY METERING, 1 ϕ ,
TEMPORARY OVERHEAD, CONSTRUCTION
SERVICE, 70 AMP MAXIMUM

ISSUE#: REV 1
Q1.25



NOTES:

1. METER CAN/SOCKET SPECIFICATIONS: TYPE 3R ENCLOSURE, 1 ϕ , 3-WIRE, 600 VAC, 200 AMP CONTINUOUS, LINE LOAD AND NEUTRAL TERMINALS.
2. THE SERVICE CONDUCTOR SHALL BE DIRECT BURIAL CABLE.
3. THE POLE IS TO BE A MINIMUM OF 4" X 4" PRESSURE TREATED WOOD. POLE IS TO BE INSTALLED BY CUSTOMER.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: OCT. 29, 2003	SECONDARY METERING, 1 ϕ , TEMPORARY CONSTRUCTION, SERVICE FROM PAD-MOUNT TRANSFORMER	ISSUE#: REV 1
Approved By: WHP	Date Updated: OCT. 29, 2003		Q1.26
Old CU:	DWG Name: Q1-26.DWG		



Drawn By: DEM	Date Drawn: 6/23/2008	14.4/24.9 KV PRIMARY, 3Ø PRIMARY METER, POLE MOUNT, VERTICAL CONSTRUCTION	REV# : 000
Approved By: WHP	Date Updated: —		VQ6.1
Old CU: —	DWG Name: VQ6—1.DWG		

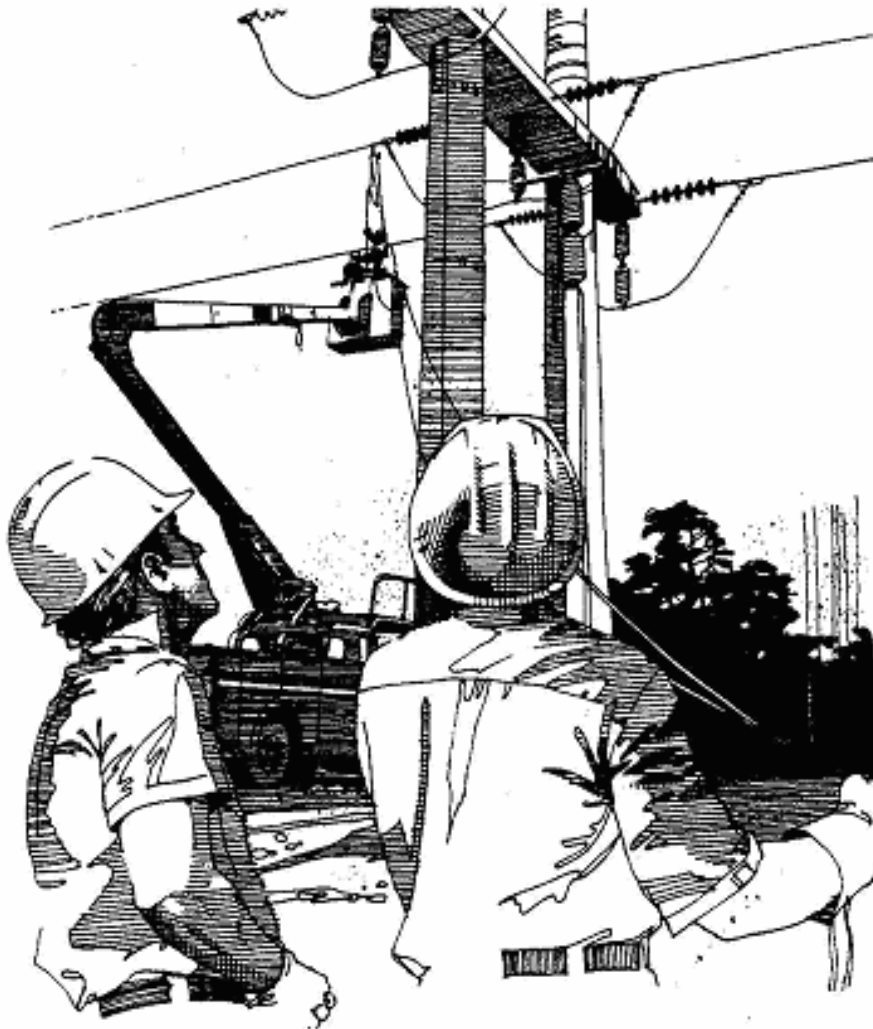
CONSTRUCTION UNIT:	VQ6.1	AUTOCAD FILE:	VQ6-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; PRIMARY METER; POLE MOUNT; VERTICAL CONSTRUCTION	PDF FILE:	VQ6-1.PDF
		PDF SPEC.:	VQ6-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0282	2	BOLT; MACHINE 3/4 X 12		
2055	1	METER RACK, PRIMARY BA3VPMR		
3355	2	WASHER; SQUARE 7/8"		
9225	3	METER TFR,CURRENT,PRIMARY		
9230	3	METER TFR,POTENTIAL,PRIMARY		
XX01	6	TAP; AL. LUG (PADDLE) TO COND.	W	30
XX02	3	CONNECTOR (PRIMARY JUMPER)	W	15
XX03	1	CONNECTOR (NEUTRAL)	N	29

CONSTRUCTION UNITS

PRIMARY AND SECONDARY METERING GUIDES AND WIRING DIAGRAMS

WITH LACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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NOTES

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SECONDARY AND PRIMARY METERING GUIDES

C.U. NO.	DESCRIPTION	PAGE NO.
Q1.10.G	SECONDARY METERING GUIDE, 1-PHASE, 2-WIRE, 120 VOLT, FORM 1S	1
Q1.11.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/240 VOLT, SELF CONTAINED METER, FORM 2S	2
Q1.12.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/208 VOLT, NETWORK, 5 TERMINAL METER, FORM 12S	3
Q1.13.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/240 VOLT, 8 TERMINAL METER, FORM 5S	4
Q3.10.DG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/240 VOLT, CENTER TAP GROUNDED DELTA, SELF CONTAINED, 7 TERMINAL METER, FORM 15S	5
Q3.11.DG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 240 VOLT, CENTER TAP DELTA, 13 TERMINAL METER, FORM 8S	6
Q3.12.DG	SECONDARY METERING GUIDE, 3-PHASE, 3-WIRE, 480 VOLT, CORNER GROUNDED DELTA, SELF CONTAINED, 8 TERMINAL METER, FORM 5S	7
Q3.13.DG	SECONDARY METERING GUIDE, 3-PHASE, 3-WIRE, 480 VOLT, UNGROUNDED DELTA, SELF CONTAINED, 8 TERMINAL METER, FORM 5S	8
Q3.10.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, SELF CONTAINED, 7 TERMINAL METER, FORM 14S	9
Q3.11.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, SELF CONTAINED, 7 TERMINAL METER, FORM 14S	10
Q3.12.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, SELF CONTAINED, 7 TERMINAL, FORM 16S, CLASS 320 METER	11
Q3.13.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, 13 TERMINAL METER, FORM 6S	12

SECONDARY AND PRIMARY METERING GUIDES

C.U. NO.	DESCRIPTION	PAGE NO.
Q3.14.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, 13 TERMINAL METER, FORM 6S	13
Q3.15.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, 13 TERMINAL METER, FORM 9S	14
Q3.16.YG	PRIMARY METERING GUIDE, 3-PHASE, 4-WIRE, 7.2/12.47 KV OR 14.4/24.9 KV, WYE, 120 V METER, 13 TERMINAL, FORM 6S	15
Q3.17.YG	PRIMARY METERING GUIDE, 3-PHASE, 4-WIRE, 7.2/12.47 KV OR 14.4/24.9 KV, WYE, 120 V METER, 13 TERMINAL, FORM 9S	16

WREC CONSTRUCTION UNIT UPDATE TABLE

SECONDARY AND PRIMARY METERING GUIDES

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	Q1.10.G	Q1.10.G	SECONDARY METERING GUIDE, 1-PHASE, 2-WIRE, 120 VOLT, FORM 1S	--	10/30/03
--	Q1.11.G	Q1.11.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/240 VOLT, SELF CONTAINED METER, FORM 2S	--	10/30/03
--	Q1.12.G	Q1.12.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/208 VOLT, NETWORK, 5 TERMINAL METER, FORM 1S	--	11/03/03
--	Q1.13.G	Q1.13.G	SECONDARY METERING GUIDE, 1-PHASE, 3-WIRE, 120/240 VOLT, 8 TERMINAL METER, FORM 5S	--	11/03/03
--	Q3.10.DG	Q3.10.DG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/240 VOLT, CENTER TAP GROUNDED DELTA, SELF CONTAINED, 7 TERMINAL METER, FORM 15S	--	11/03/03
--	Q3.11.DG	Q3.11.DG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 240 VOLT, CENTER TAP DELTA, 13 TERMINAL METER, FORM 8S	--	11/03/03
--	Q3.12.DG	Q3.12.DG	SECONDARY METERING GUIDE, 3-PHASE, 3-WIRE, 480 VOLT, CORNER GROUNDED DELTA, SELF CONTAINED, 8 TERMINAL METER, FORM 5S	--	11/04/03
--	Q3.13.DG	Q3.13.DG	SECONDARY METERING GUIDE, 3-PHASE, 3-WIRE, 480 VOLT, UNGROUNDED DELTA, SELF CONTAINED, 8 TERMINAL METER, FORM 5S	--	11/04/03
--	Q3.10.YG	Q3.10.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, SELF CONTAINED, 7 TERMINAL METER, FORM 14S	--	11/03/03
--	Q3.11.YG	Q3.11.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, SELF CONTAINED, 7 TERMINAL FORM 14S	--	11/03/03
--	Q3.12.YG	Q3.12.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, SELF CONTAINED, 7 TERMINAL FORM 16S, CLASS 320 METER	--	11/04/03

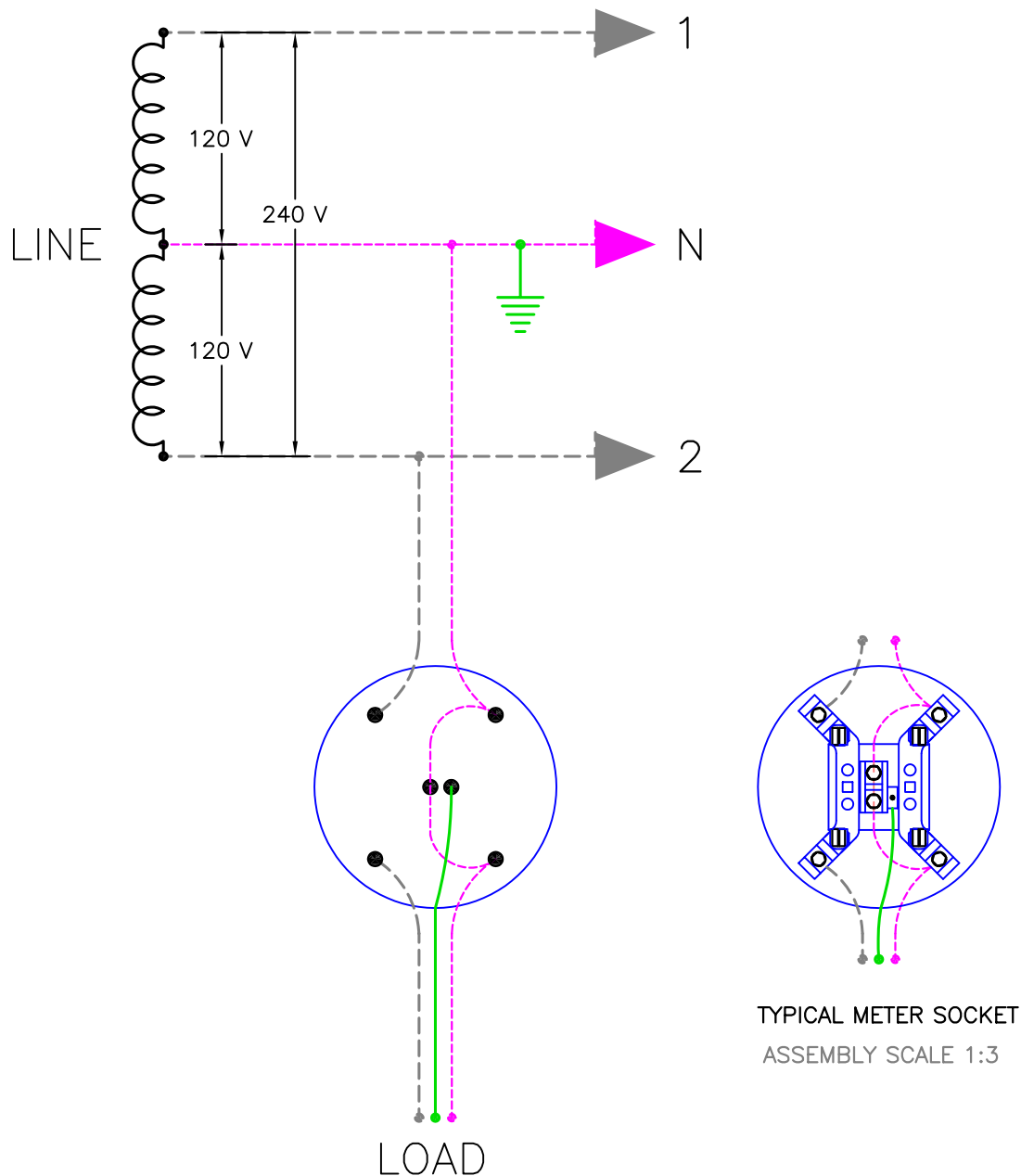


WREC CONSTRUCTION UNIT UPDATE TABLE

SECONDARY AND PRIMARY METERING GUIDES

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	Q3.13.YG	Q3.13.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, 13 TERMINAL METER, FORM 6S	--	11/04/03
--	Q3.14.YG	Q3.14.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 120/208 VOLT, WYE, 13 TERMINAL METER, FORM 6S	--	11/04/03
--	Q3.15.YG	Q3.15.YG	SECONDARY METERING GUIDE, 3-PHASE, 4-WIRE, 277/480 VOLT, WYE, 13 TERMINAL METER, FORM 9S	--	11/05/03
--	Q3.16.YG	Q3.16.YG	PRIMARY METERING GUIDE, 3-PHASE, 7.2/12.47 KV OR 14.4/24.9 KV, WYE, 120 VOLT METER, 13 TERMINAL, FORM 6S	--	11/05/03
--	Q3.17.YG	Q3.17.YG	PRIMARY METERING GUIDE, 3-PHASE, 7.2/12.47 KV OR 14.4/24.9 KV, WYE, 120 VOLT METER, 13 TERMINAL, FORM 9S	--	11/05/03





NOTES:

1. 1 ϕ , 2-WIRE, 120 V, SELF CONTAINED METER, FORM 1S.
2. S-BASED, 2-WIRE, 4-JAW SOCKET.

BORDER SCALE 1:1

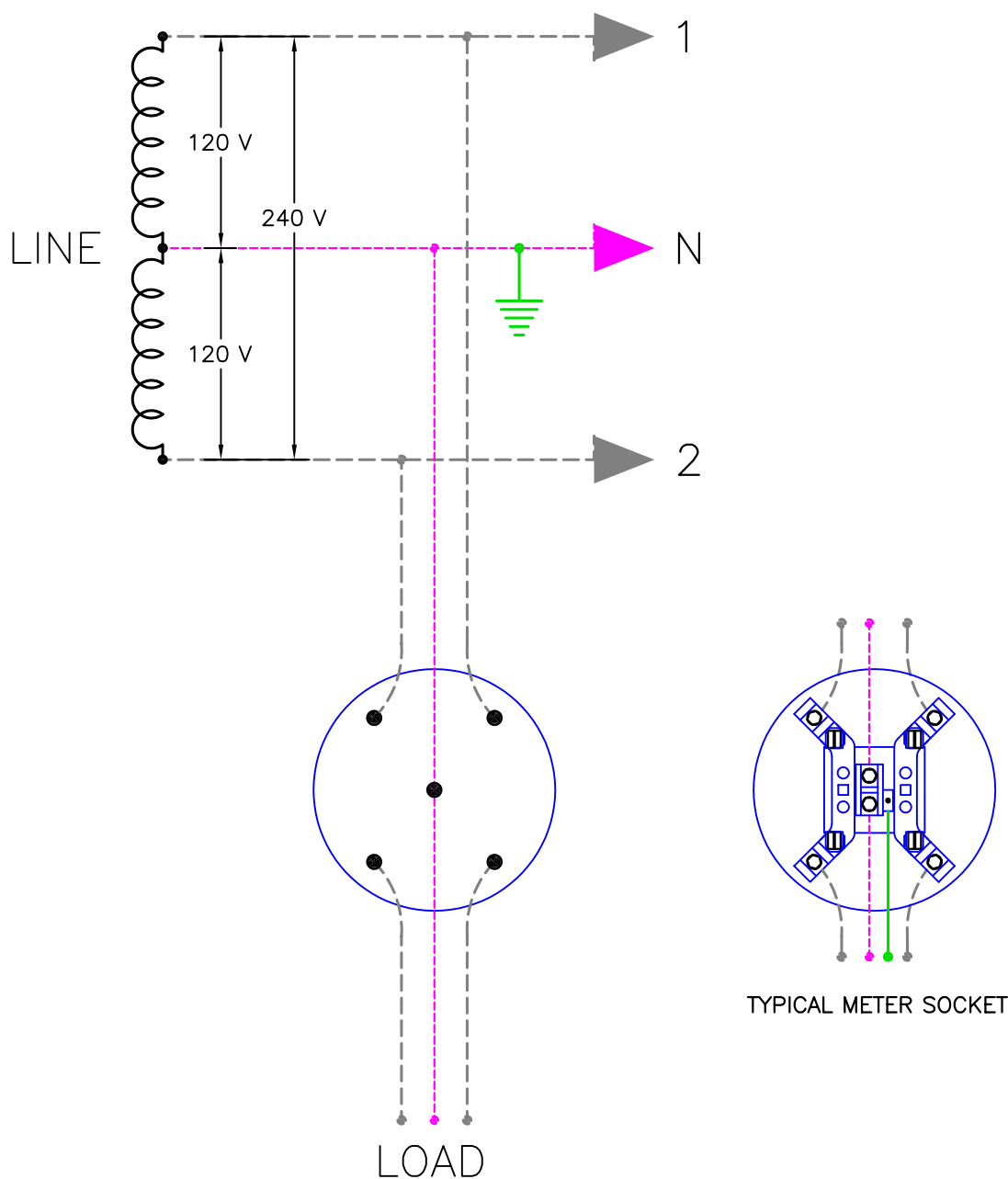
DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: OCT. 30, 2003
Approved By: WHP	Date Updated: OCT. 30, 2003
Old CU:	DWG Name: Q1-10-G.DWG

SECONDARY METERING GUIDE,
1 ϕ , 2- WIRE, 120 VOLT, FORM 1S

ISSUE#: REV 1

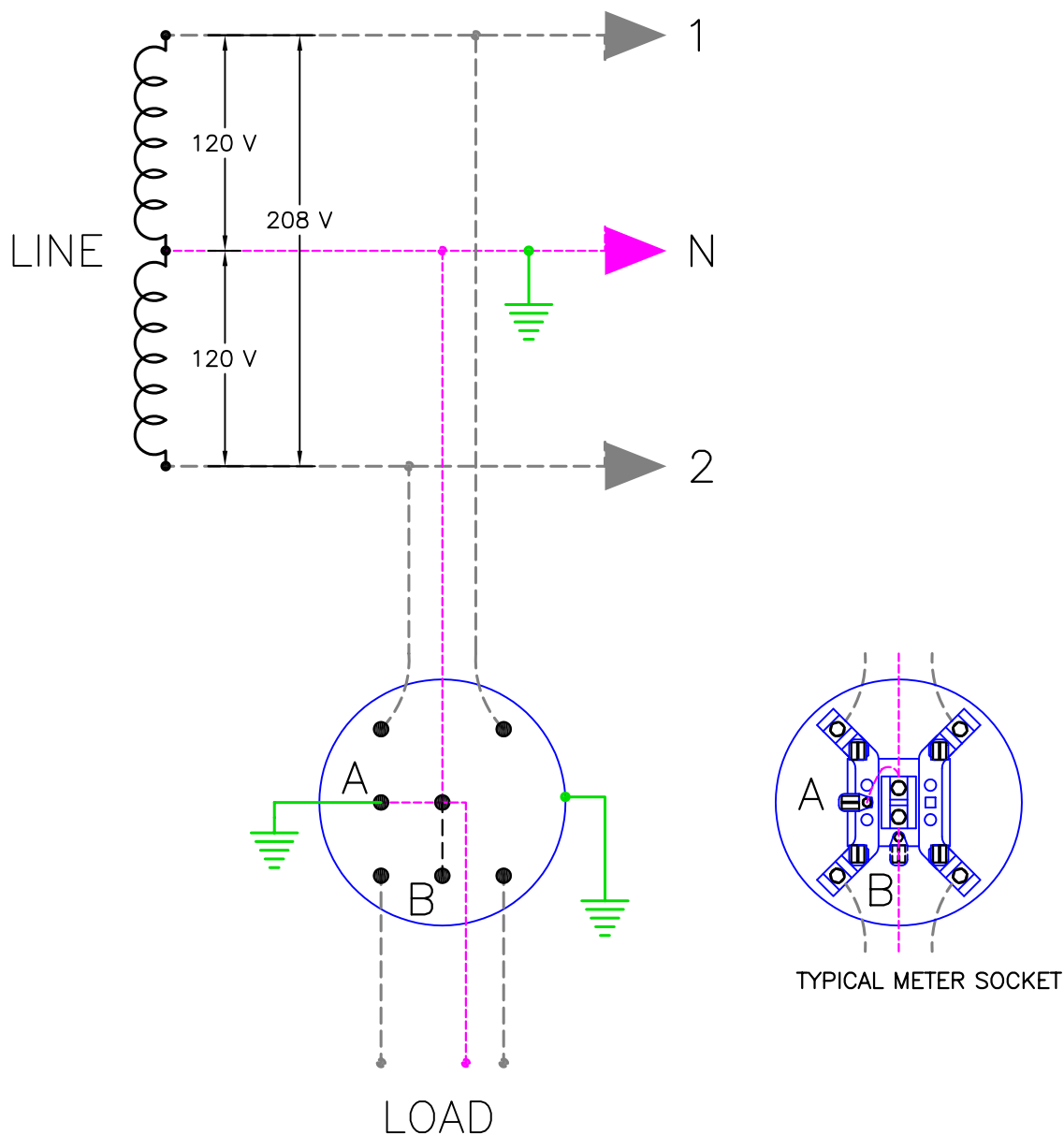
Q1.10.G



- NOTES:
- FOR USE WITH S-BASED, 3-WIRE, CLASS 100 OR 200, SELF CONTAINED METER; 4-JAW SOCKET.
 - 1 ϕ , 3-WIRE, 240 V, SELF CONTAINED METER, FORM 2S

DRAWING NOT TO SCALE

Drawn By: WIC, DEM	Date Drawn: OCT. 30, 2003	SECONDARY METERING GUIDE, 1 ϕ , 3-WIRE, 120/240 VOLT, SELF CONTAINED METER, FORM 2S	ISSUE#: REV 1
Approved By: WHP	Date Updated: OCT. 30, 2003		Q1.11.G
Old CU:	DWG Name: Q1-11-G.DWG		



NOTES:

1. MOUNT FIFTH TERMINALS IN POSITION "A" FOR VERTICAL SOCKET. CHANGE TO POSITION "B" FOR HORIZONTAL SOCKET. FIFTH TERMINAL MUST BE PROPERLY ALIGNED WITH SOCKET JAW.
2. 2 ELEMENT, 3-WIRE, 120 VOLT, S.C., 5 TERMINAL METER, FORM 12S.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: OCT. 30, 2003

Approved By: WHP

Date Updated: OCT. 30, 2003

Old CU:

DWG Name: Q1-12-G.DWG

SECONDARY METERING GUIDE, 1 ϕ , 3-WIRE,
120/208 VOLT, NETWORK, 5 TERMINAL METER,
FORM 12S

ISSUE#: REV 1

Q1.12.G



1. USE WINDOW TYPE: 2 CURRENT TRANSFORMERS(CT).
2. 1 ϕ , 3-WIRE, 240 V, CLASS 10 OR 20 METER, T.R., 8 TERMINAL, FORM 5S.
3. FOR USE WITH 8-JAW SOCKET, METER CAN ASSEMBLY WITH 8 POLE TEST SWITCH.

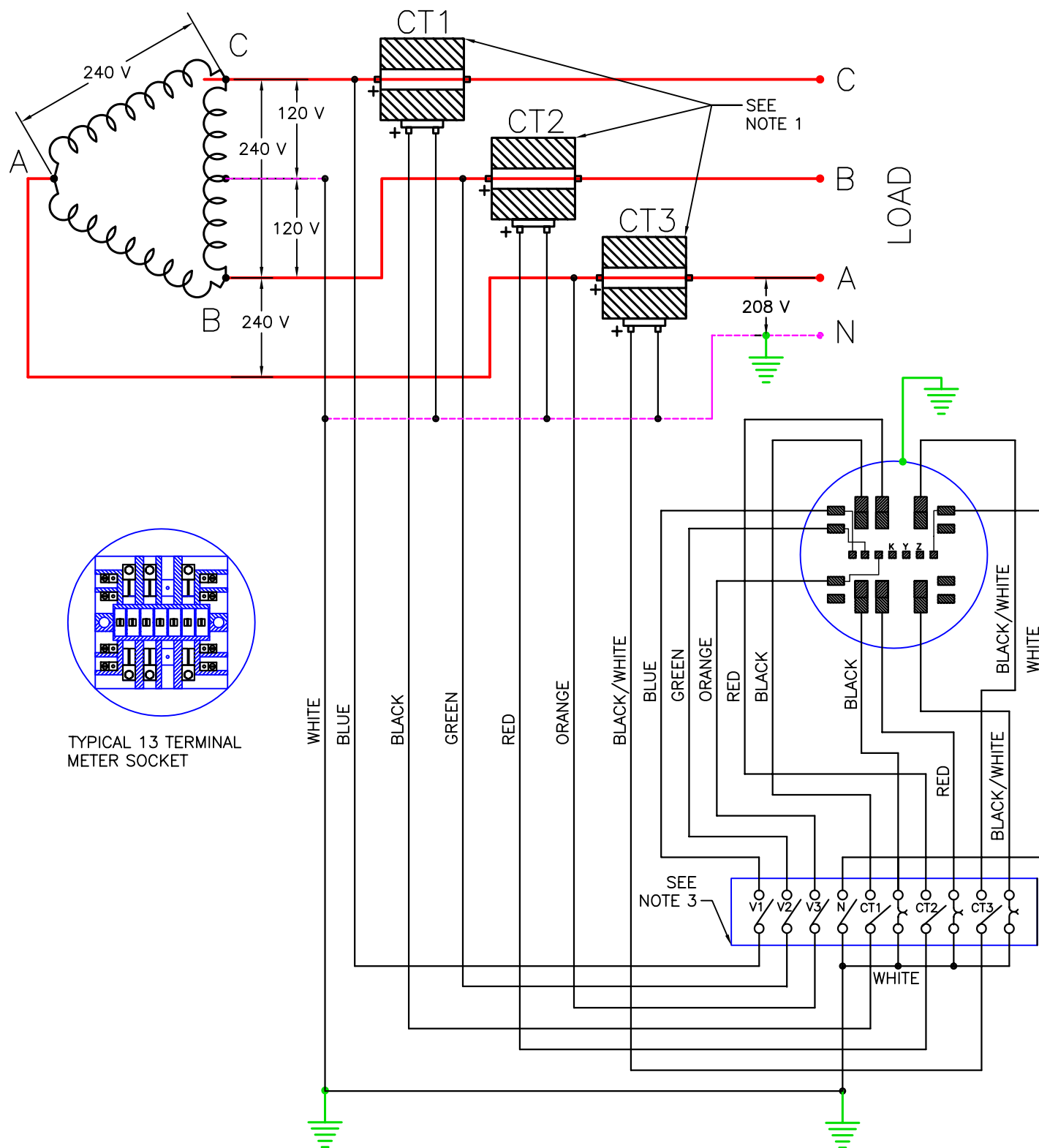
Drawn By: WIC, DEM	Date Drawn: NOV. 3, 2003
Approved By: WHP	Date Updated: NOV. 3, 2003
Old CU:	DWG Name: Q1-13-G.DWG

ISSUE#:	REV 1
Q1.13.G	



1. 2 ELEMENT S.C., 4-WIRE, 240 V DELTA, SELF CONTAINED, 7 TERMINAL METER, FORM 15S
2. HIGH LEG MUST BE ON RIGHT SIDE TERMINALS IN METER SOCKET.
HIGH LEG TO BE MARKED WITH ORANGE TAPE.

Drawn By: WIC, DEM	Date Drawn: NOV. 3, 2003	SECONDARY METERING GUIDE, 3Ø, 4-WIRE, 120/240 VOLT CETER TAP GROUNDED DELTA, SELF CONTAINED, 7 TERMINAL METER, FORM 15S	ISSUE#: REV 1
Approved By: WHP	Date Updated: NOV. 3, 2003		Q3.10.DG
Old CU:	DWG Name: Q3-10-DG.DWG		



TYPICAL 13 TERMINAL
METER SOCKET

NOTES:

1. USE WINDOW TYPE: 3 CURRENT TRANSFORMERS(CT).
2. 2 ELEMENT, T.R., 4-WIRE DELTA, 240 V, 13 TERMINAL METER, FORM 8S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 3, 2003

Approved By: WHP

Date Updated: NOV. 3, 2003

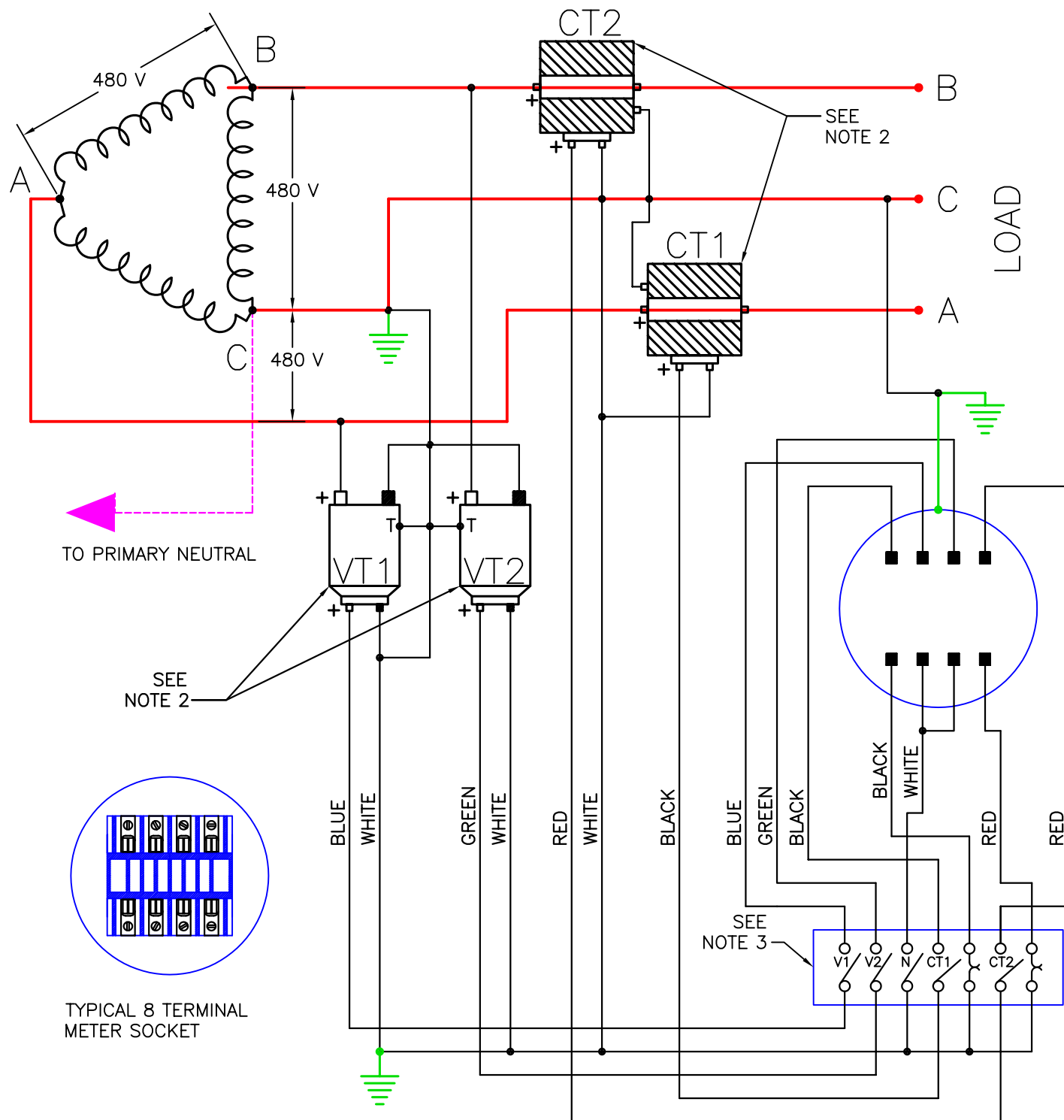
Old CU:

DWG Name: Q3-11-DG.DWG

SECONDARY METERING GUIDE, 3 ϕ ,
4-WIRE, 240 VOLT, CETER TAP DELTA,
13 TERMINAL METER, FORM 8S

ISSUE#: REV 1

Q3.11.DG



NOTES:

1. 2 ELEMENT, 3 ϕ , 3-WIRE CORNER GROUNDED DELTA, 8 TERMINAL METER, FORM 5S.
2. USE WINDOW TYPE: 2 CURRENT TRANSFORMERS(CT) AND 2 VOLTAGE TRANSFORMERS(VT).
3. FOR USE WITH 8-JAW SOCKET, METER CAN ASSEMBLY WITH 8 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 4, 2003

Approved By: WHP

Date Updated: NOV. 4, 2003

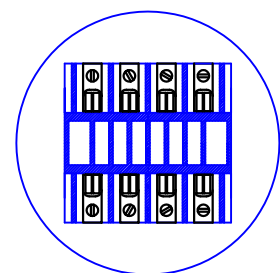
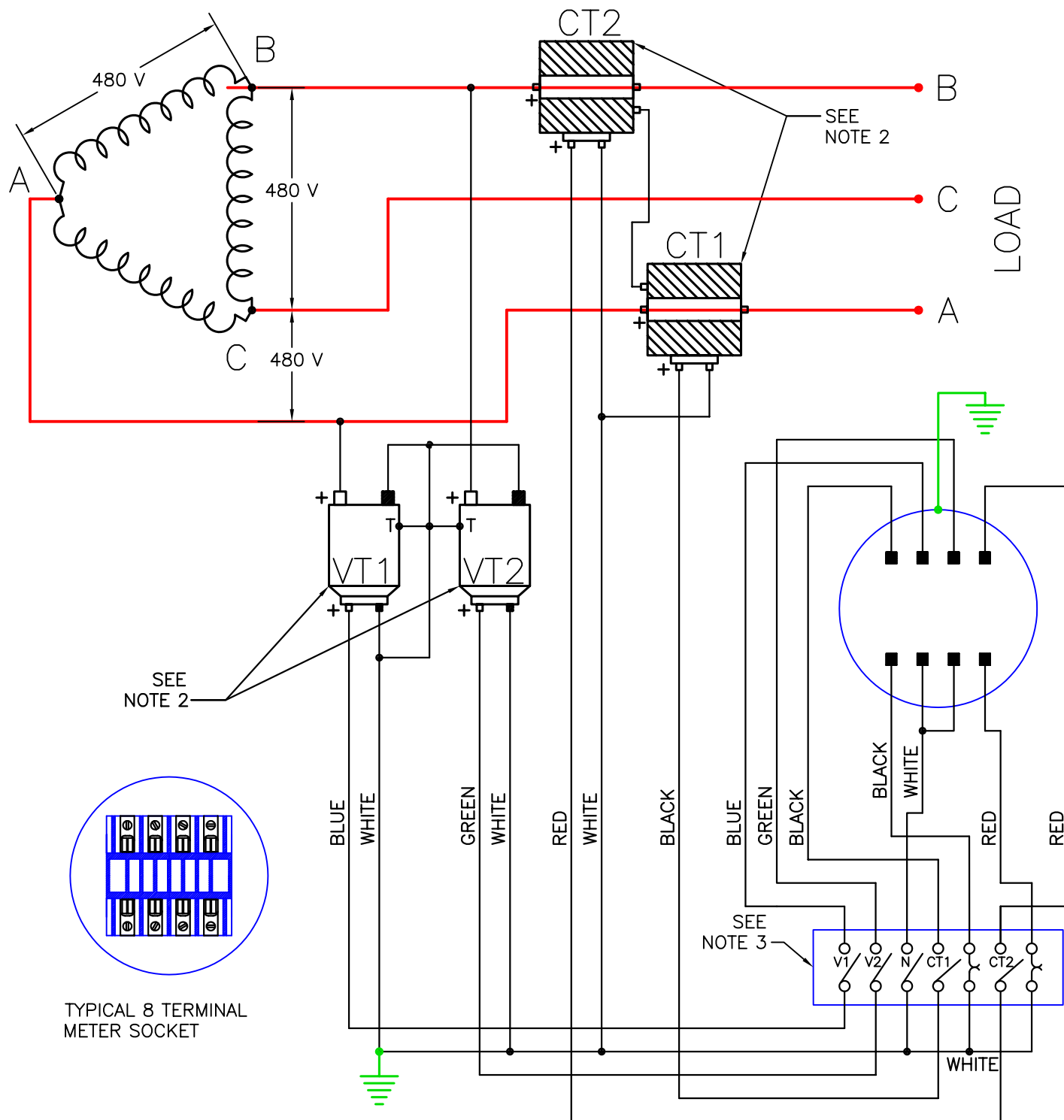
Old CU:

DWG Name: Q3-12-DG.DWG

SECONDARY METERING GUIDE, 3 ϕ , 3-WIRE,
480 VOLT, CORNER GROUNDED DELTA, SELF
CONTAINED, 8 TERMINAL METER, FORM 5S

ISSUE#: REV 1

Q3.12.DG



TYPICAL 8 TERMINAL
METER SOCKET

NOTES:

1. 2 ELEMENT, 3 ϕ , T.R., 3-WIRE UNGROUNDED DELTA, 8 TERMINAL METER, FORM 5S.
2. USE WINDOW TYPE: 2 CURRENT TRANSFORMERS(CT)AND 2 VOLTAGE TRANSFORMERS(VT).
3. FOR USE WITH 8-JAW SOCKET, METER CAN ASSEMBLY WITH 8 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 4, 2003

Approved By: WHP

Date Updated: NOV. 4, 2003

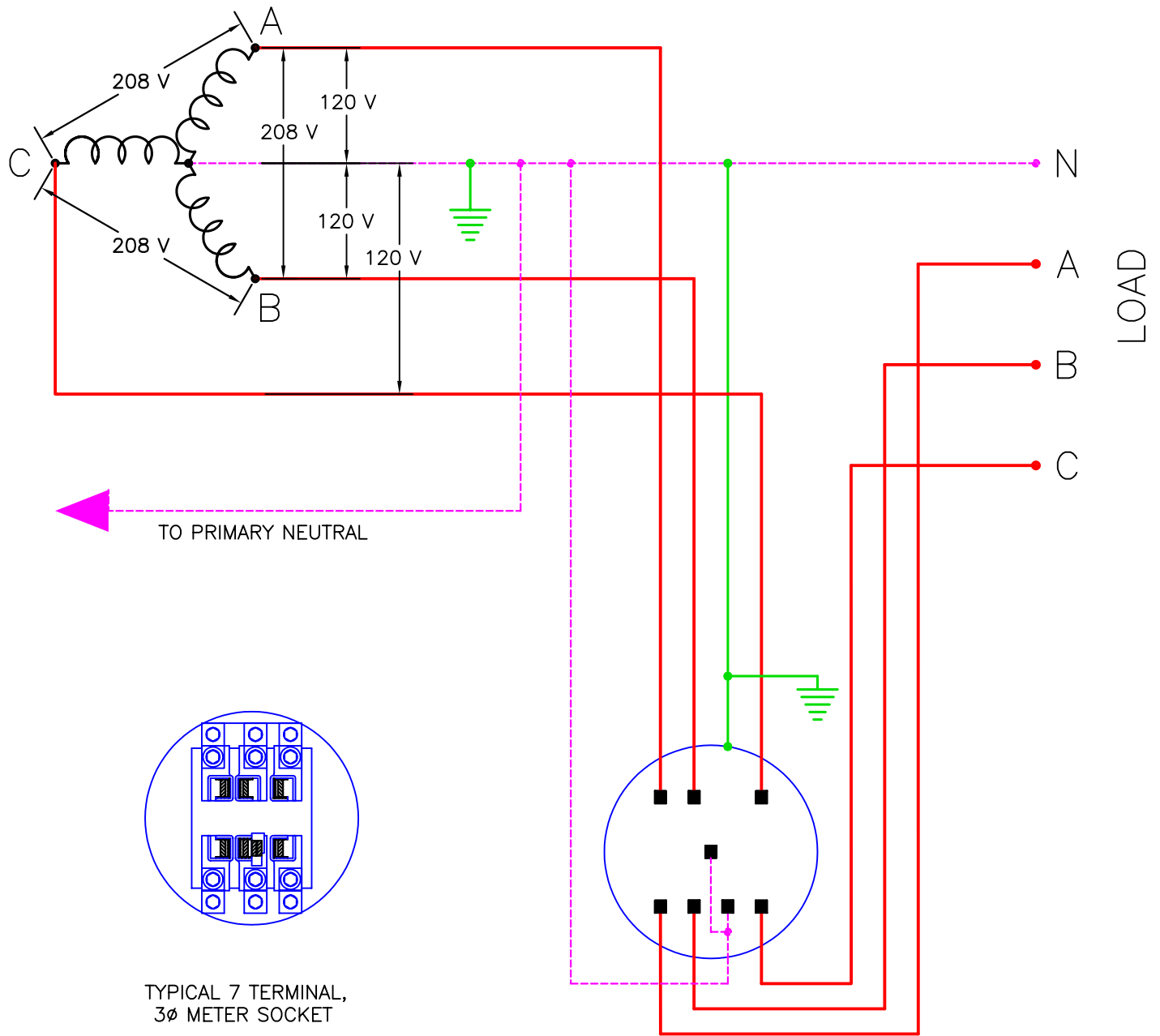
Old CU:

DWG Name: Q3-13-DG.DWG

SECONDARY METERING GUIDE, 3 ϕ , 3-WIRE,
480 VOLT, UNGROUNDED DELTA, SELF
CONTAINED, 8 TERMINAL METER, FORM 5S

ISSUE#: REV 1

Q3.13.DG



NOTES:

1. 2 1/2 ELEMENT, 4-WIRE METER, 120/208 VOLT WYE, SELF CONTAINED 7 TERMINAL SOCKET, FORM 14S
2. USE CLASS 100 OR 200, SELF CONTAINED 120 VOLT WYE METER.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 3, 2003

Approved By: WHP

Date Updated: NOV. 3, 2003

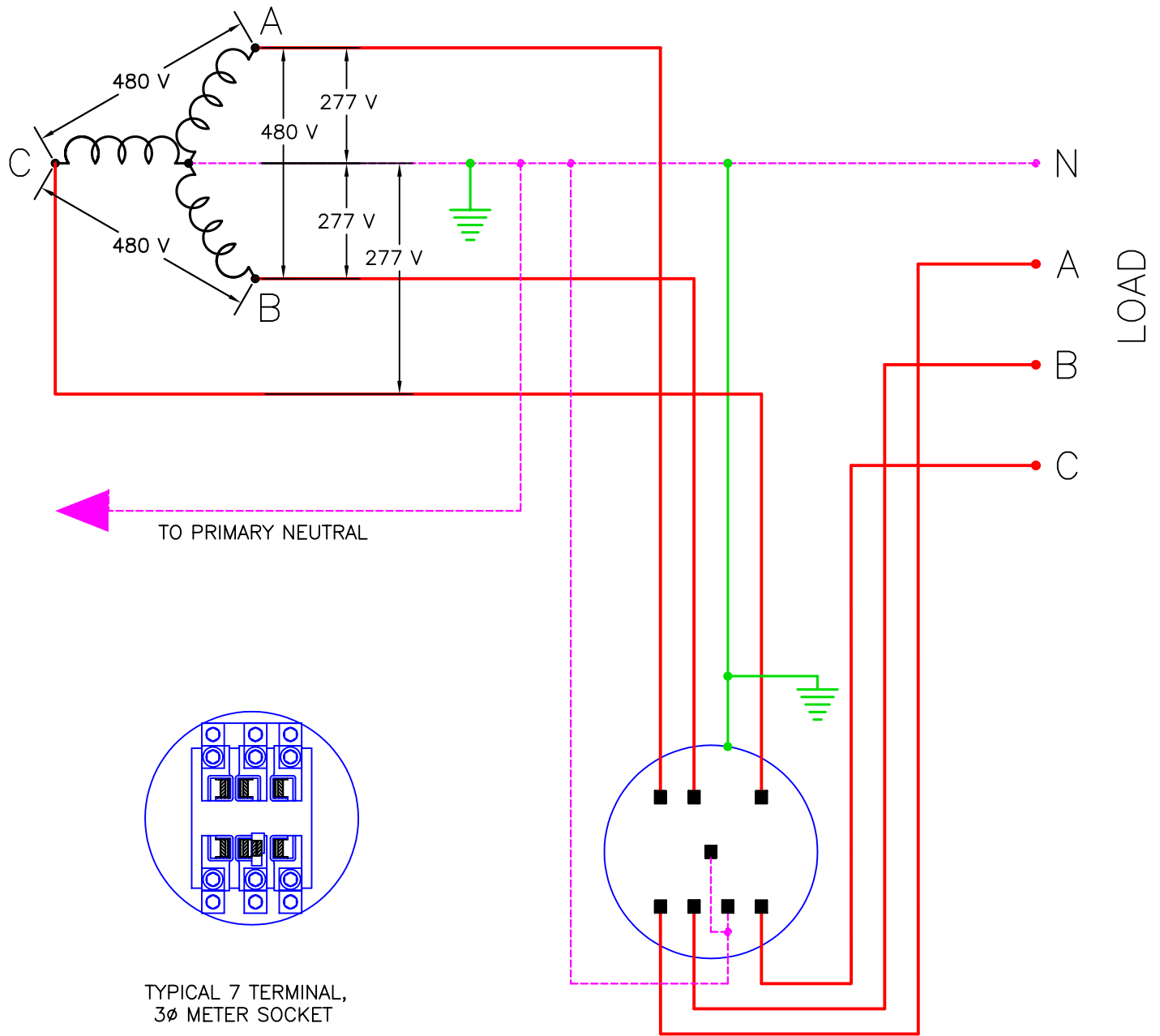
Old CU:

DWG Name: Q3-10-YG.DWG

SECONDARY METERING GUIDE, 3 ϕ ,
4-WIRE, 120/208 VOLT, WYE, SELF CONTAINED,
7 TERMINAL METER, FORM 14S

ISSUE#: REV 1

Q3.10.YG



NOTES:

1. 2 1/2 ELEMENT, 4-WIRE METER, 277/480 VOLT WYE, SELF CONTAINED 7 TERMINAL SOCKET, FORM 14S
2. USE CLASS 100 OR 200, SELF CONTAINED 240 V OR 277 V WYE METER.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 3, 2003

Approved By: WHP

Date Updated: NOV. 3, 2003

Old CU:

DWG Name: Q3-11-YG.DWG

SECONDARY METERING GUIDE, 3 ϕ ,
4-WIRE, 277/480 VOLT, WYE, SELF CONTAINED,
7 TERMINAL METER, FORM 14S

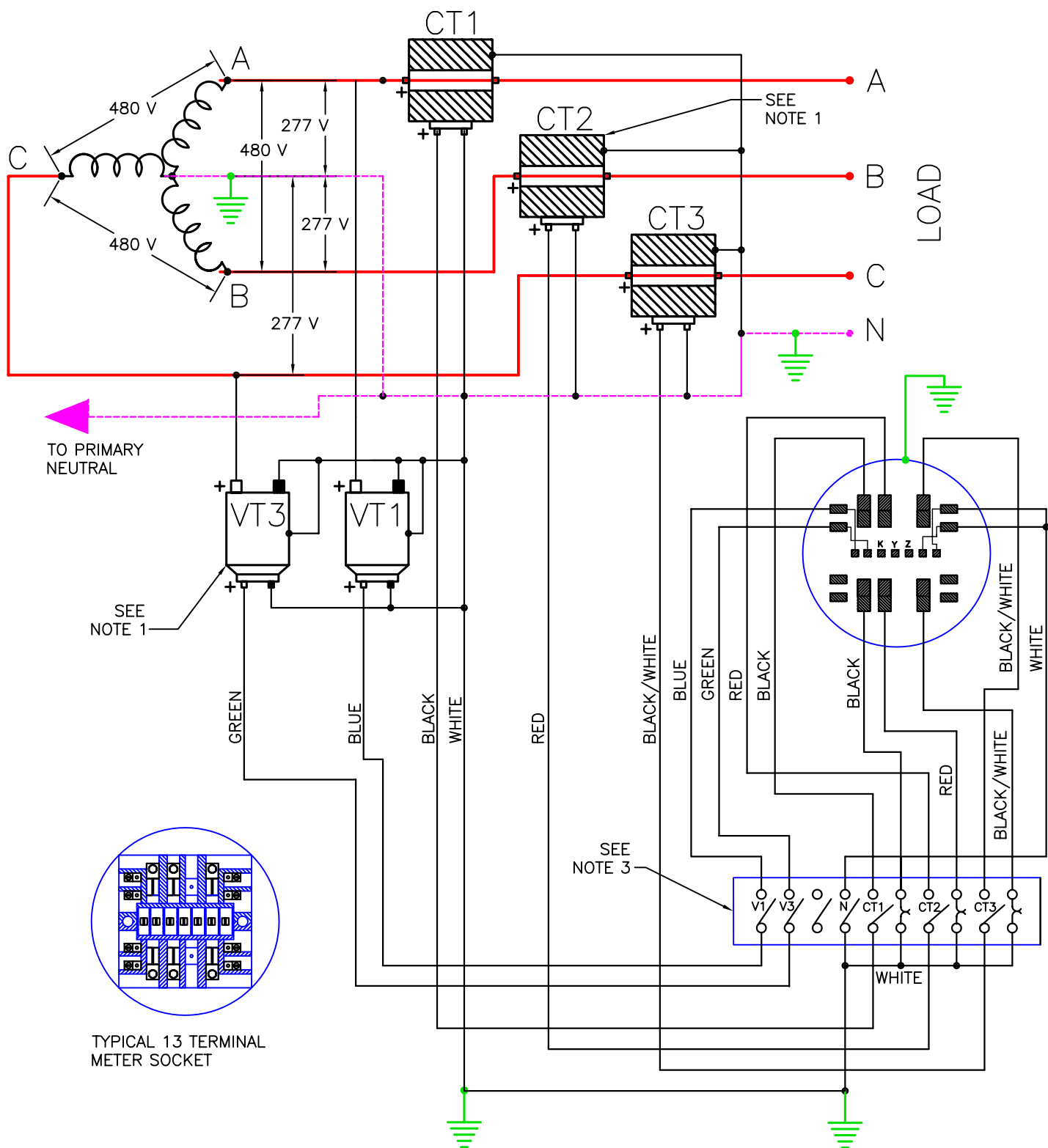
ISSUE#: REV 1

Q3.11.YG



1. USE WINDOW TYPE: 3 CURRENT TRANSFORMERS(CT).
2. CLASS 10 OR 20, 2 1/2 ELEMENT 4-WIRE,T.R., 120 V WYE METER, 13 TERMINAL, FORM 6S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

ISSUE#: REV 1
Q3.13.YG



NOTES:

1. USE WINDOW TYPE: 3 CURRENT TRANSFORMERS(CT) AND 2 VOLTAGE TRANSFORMERS(VT).
2. CLASS 10 OR 20, 2 1/2 ELEMENT 4-WIRE, T.R., 120 V WYE METER, 13 TERMINAL, FORM 6S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 5, 2003

Approved By: WHP

Date Updated: NOV. 5, 2003

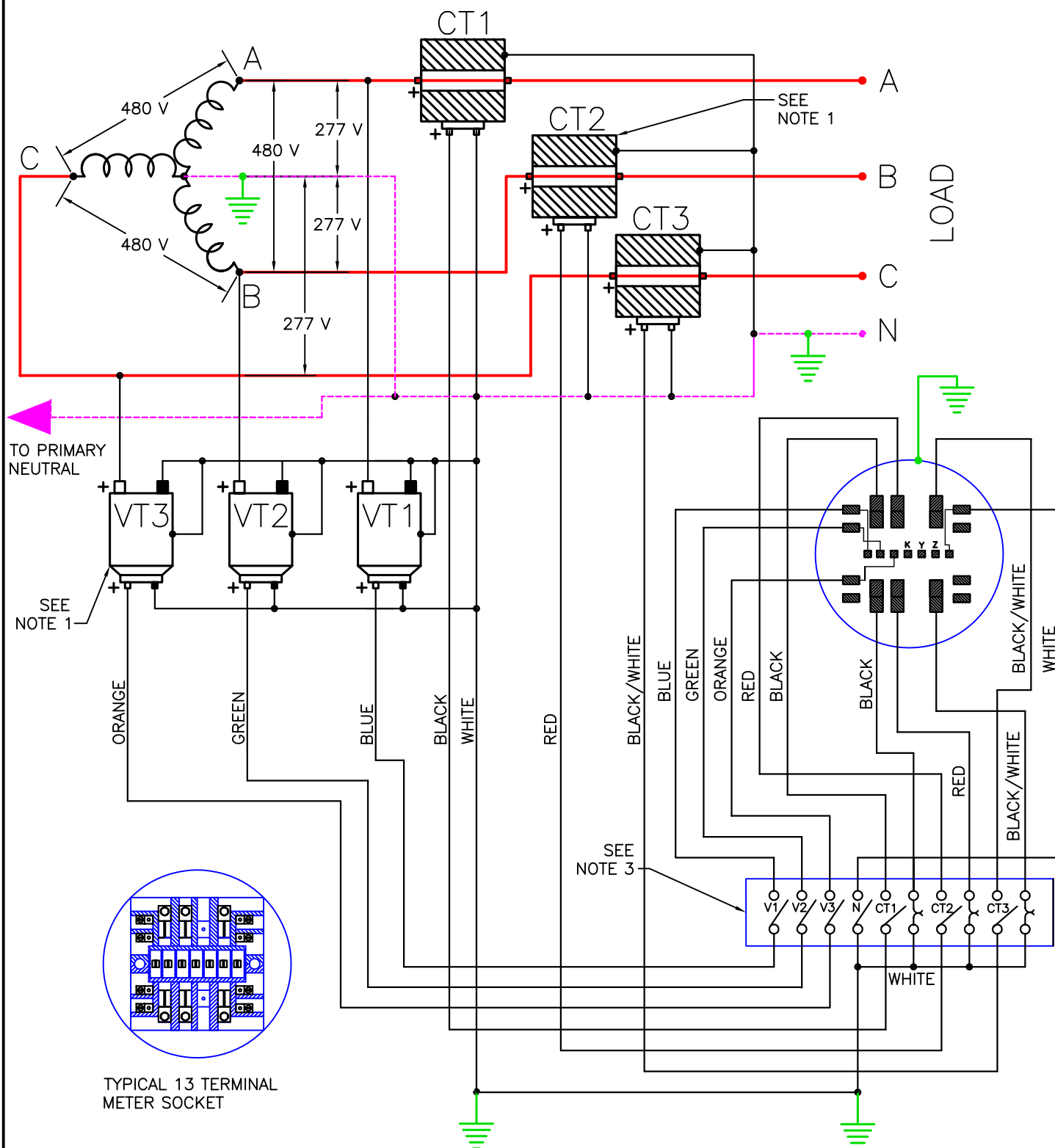
Old CU:

DWG Name: Q3-14-YG.DWG

SECONDARY METERING GUIDE, 3 ϕ ,
4-WIRE, 277/480 VOLT, WYE,
13 TERMINAL METER, 120 V, FORM 6S

ISSUE#: REV 1

Q3.14.YG



NOTES:

1. USE WINDOW TYPE: 3 CURRENT TRANSFORMERS(CT) AND 3 VOLTAGE TRANSFORMERS(VT).
2. 3 ELEMENT 4-WIRE, T.R., 120 V WYE METER, 13 TERMINAL, FORM 9S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 5, 2003

Approved By: WHP

Date Updated: NOV. 5, 2003

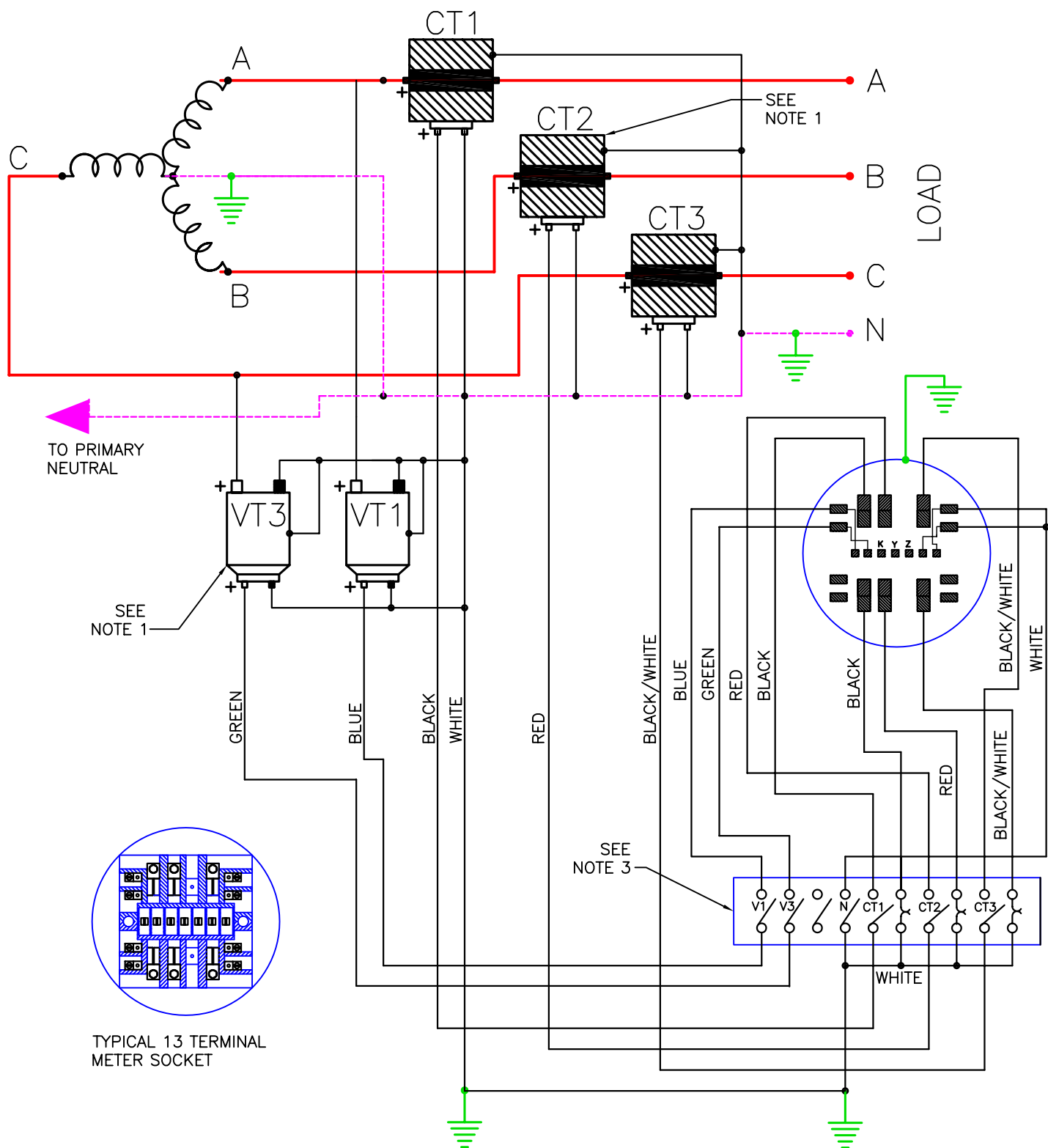
Old CU:

DWG Name: Q3-15-YG.DWG

SECONDARY METERING GUIDE, 3 ϕ ,
4-WIRE, 277/480 VOLT, WYE, 13 TERMINAL
METER, 120 V, FORM 9S

ISSUE#: REV 1

Q3.15.YG



NOTES:

1. USE WOUND TYPE, HIGH VOLTAGE: 3 CURRENT TRANSFORMERS(CT) AND 2 VOLTAGE TRANSFORMERS(VT).
2. CLASS 10 OR 20, 2 1/2 ELEMENT 4-WIRE, T.R., 120 V. WYE METER, 13 TERMINAL, FORM 6S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: NOV. 5, 2003

Approved By: WHP

Date Updated: NOV. 5, 2003

Old CU:

DWG Name: Q3-16-YG.DWG

PRIMARY METERING 3 ϕ , 4-WIRE
7.2/12.47 KV OR 14.4/24.9 KV,WYE,
120 V METER, 13 TERMINAL, FORM 6S

ISSUE#: REV 1

Q3.16.YG



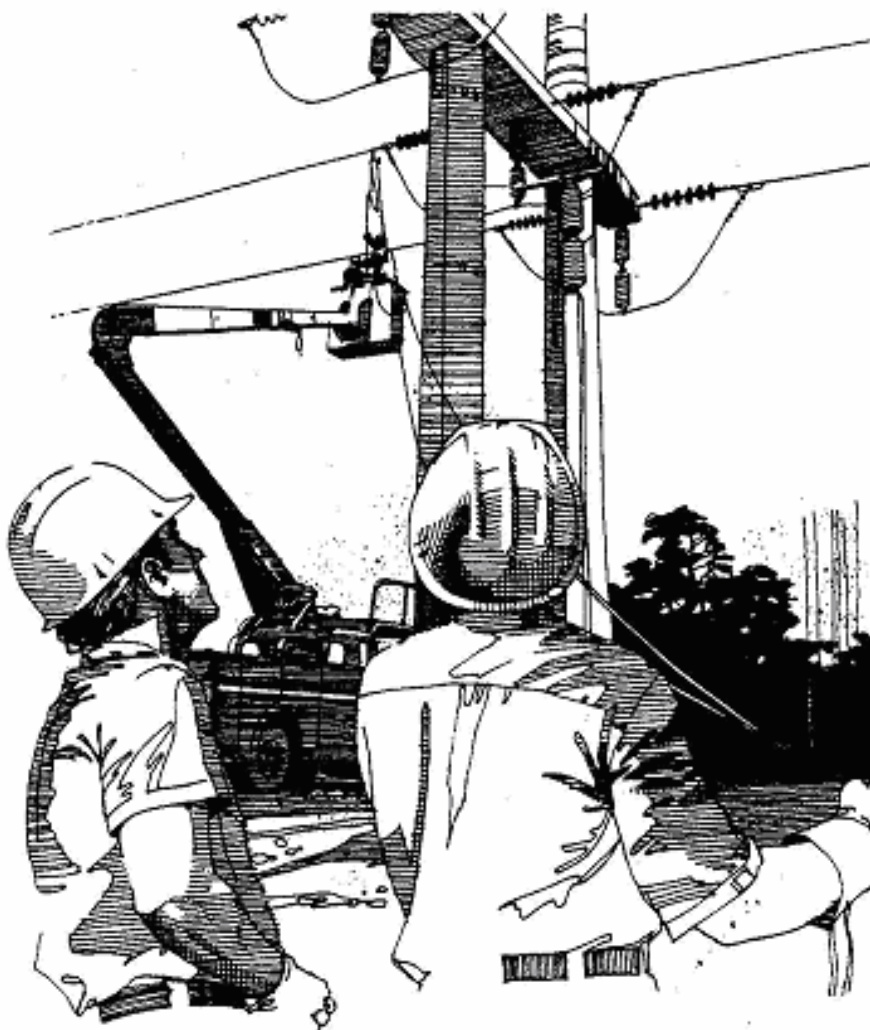
1. USE WOUND TYPE HIGH VOLTAGE: 3 CURRENT TRANSFORMERS(CT) AND 3 VOLTAGE TRANSFORMERS(VT).
2. 3 ELEMENT 4-WIRE, T.R., 120 V WYE METER, 13 TERMINAL, FORM 9S.
3. FOR USE WITH 13-JAW SOCKET, METER CAN ASSEMBLY WITH 10 POLE TEST SWITCH.

Q3.17.YG

CONSTRUCTION UNITS

INDEX R: OIL CIRCUIT RECLOSER
ASSEMBLY UNITS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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OIL CIRCUIT RECLOSER ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VR1.1B	14.4/24.9 KV PRIMARY, 1-PHASE, SINGLE PHASE SECTIONALIZING OIL CIRUCIT RECLOSER, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	1 - 2
VR1.1.V	14.4/24.9 KV PRIMARY, 1-PHASE, ONE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, VERTICAL CONSTRUCTION	3 - 4
VR2.1.V	14.4/24.9 KV PRIMARY, 2-PHASE, TWO, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, VERTICAL CONSTRUCTION	5 - 6
VR3.1.V	14.4/24.9 KV PRIMARY, 3-PHASE, THREE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, VERTICAL CONSTRUCTION	7 - 8
VR1.10.VI	14.4/24.9 KV PRIMARY, 1-PHASE, ONE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, WITN IN LINE INSULATORS, VERTICAL CONSTRUCTION	9 – 10
VR2.11.VI	14.4/24.9 KV PRIMARY, 2-PHASE, TWO, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	11 - 12
VR3.12.VI	14.4/24.9 KV PRIMARY, 3-PHASE, THREE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	13 - 14
VR3.21.V	14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, WITH BY-PASS DISCONNECT SWITCHES, DEADEND, VERTICAL CONSTRUCTION	15 - 16
VR3.22.V	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, SECTIONALIZED 3-PHASE OIL CIRCUIT RECLOSER, WITH IN LINE BY-PASS DISCONNECT SWITCHES	17 - 18
VR3.23.V	14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, ELECTRONIC CONTROL. WITH BY-PASS DISCONNECT SWITCHES, DEADEND, VERTICAL CONSTRUCTION	19 - 20

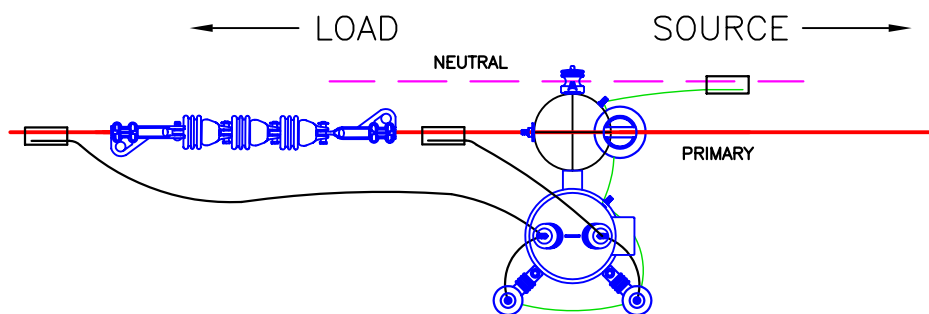
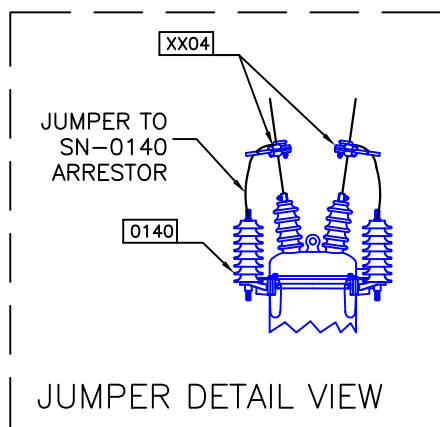
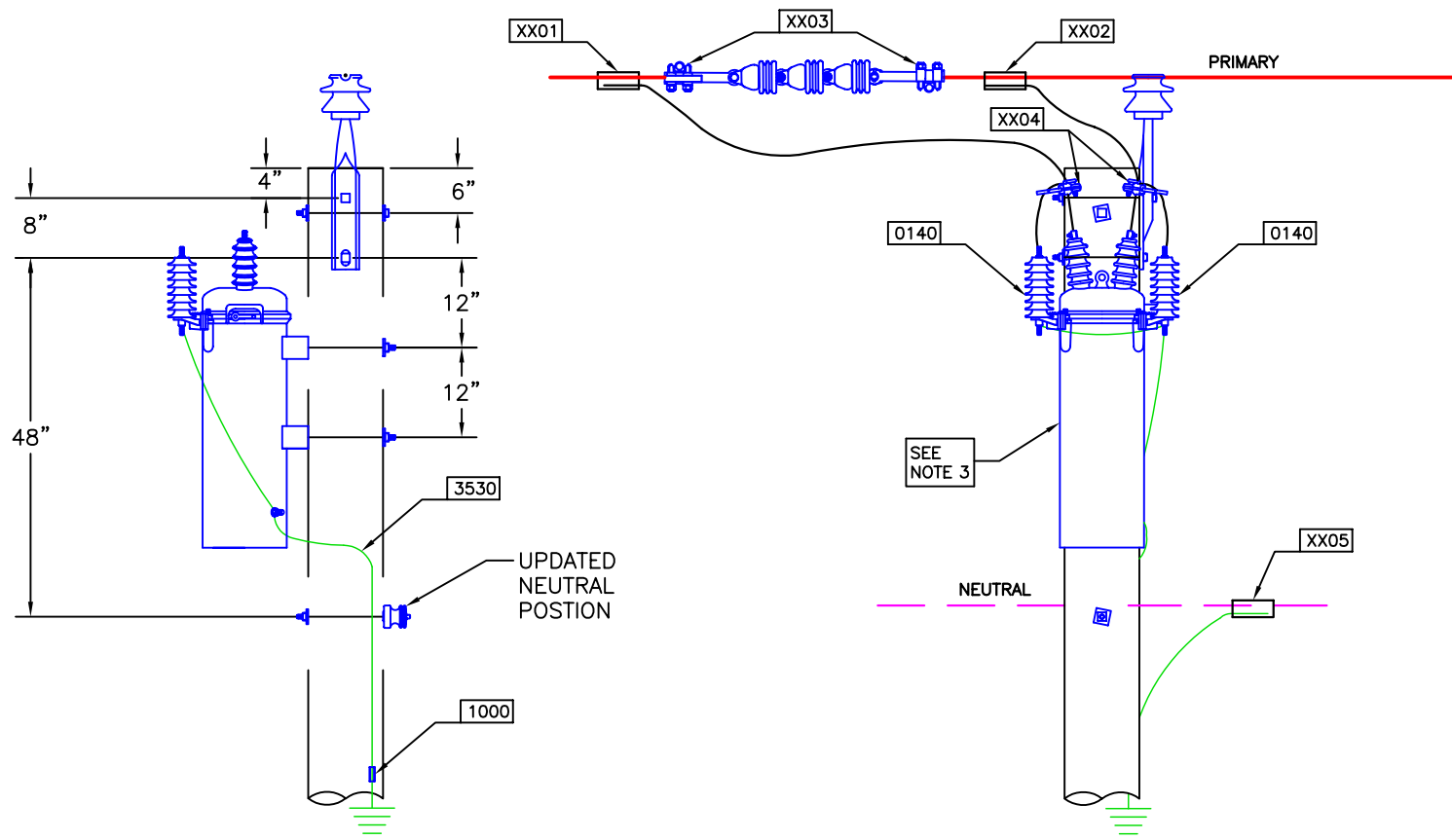


WREC CONSTRUCTION UNIT UPDATE TABLE

OIL CIRCUIT RECLOSER ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VM3-10B	VR1.1B	VR1.1B	14.4/24.9 KV PRIMARY, 1-PHASE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	07/23/01	9/30/03
VM3-10V	VR1.1.V	VR1.1.V	14.4/24.9 KV PRIMARY, 1-PHASE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, VERTICAL CONSTRUCTION	7/23/03	9/29/03
VM3-11V	VR2.1.V	VR2.1.V	14.4/24.9 KV PRIMARY, 2-PHASE, TWO, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, VERTICAL CONSTRUCTION	7/23/03	9/29/03
VM3-12V	VR3.1.V	VR3.1.V	14.4/24.9 KV PRIMARY, 3-PHASE, THREE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, VERTICAL CONSTRUCTION	7/23/03	9/29/03
VM3-10V/I	VR1.10.VI	VR1.10.VI	14.4/24.9 KV PRIMARY, 1-PHASE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSER, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	7/23/03	9/29/03
VM3-11V/I	VR2.11.VI	VR2.11.VI	14.4/24.9 KV PRIMARY, 2-PHASE, TWO, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	7/23/03	9/30/03
VM3-12V/I	VR3.12.VI	VR3.12.VI	14.4/24.9 KV PRIMARY, 3-PHASE, THREE, SINGLE PHASE SECTIONALIZING OIL CIRCUIT RECLOSERS, WITH IN LINE INSULATORS, VERTICAL CONSTRUCTION	7/23/03	9/30/03
---	VR3.21.V	VR3.21.V	14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZED OIL CIRCUIT RECLOSER, WITH BY-PASS DISCONNECT SWITCHES, DEADEND POLE, VERTICAL CONSTRUCTION	---	10/02/03
---	VR3.22.V	VR3.22.V	14.4/24.9 KV PRIMARY, 3-PHASE, CONVERSION, SINGLE TO DOUBLE CIRCUIT, SECTIONALIZED 3-PHASE OIL CIRCUIT RECLOSER, WITH IN LINE BY-PASS DISCONNECT SWITCHES, VERTICAL CONSTRUCTION	---	10/02/03
---	VR3.23.V	VR3.23.V	14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZED OIL CIRCUIT RECLOSER, ELECTRONIC CONTROL, WITH BY-PASS DISCONNECT SWITCHES, DEADEND POLE, VERTICAL CONSTRUCTION	---	7/01/08





NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VA1.1 CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSER.

DRAWING IS NOT TO SCALE

Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 11/03/2008

Old CU: VM3-10B DWG Name: VR1-1B.DWG

14.4/24.9 KV PRIMARY, 1 ϕ , SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER, WITH
IN-LINE INSULATORS, VERTICAL CONSTRUCTION

REV# : 002

VR1.1B

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR1.1B**

AUTOCAD FILE: **VR1-1B.DWG**

DESCRIPTION: **14.4/24.9 KV PRIMARY; 1-PHASE;
SECTIONALIZING OIL CIRCUIT RECLOSER;
WITH IN-LINE INSULATORS; VERTICAL
CONSTRUCTION**

PDF FILE: **VR1-1B.PDF**

PDF SPEC.: **VR1-1B_SPEC.PDF**

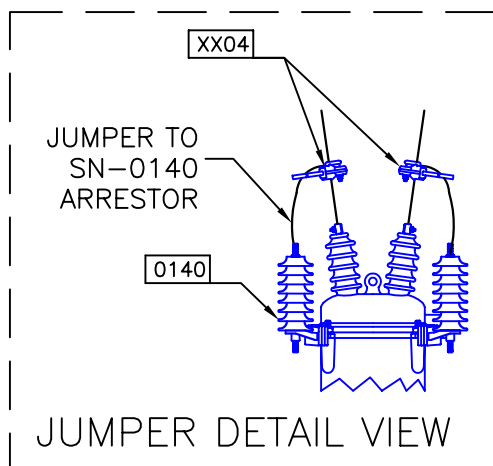
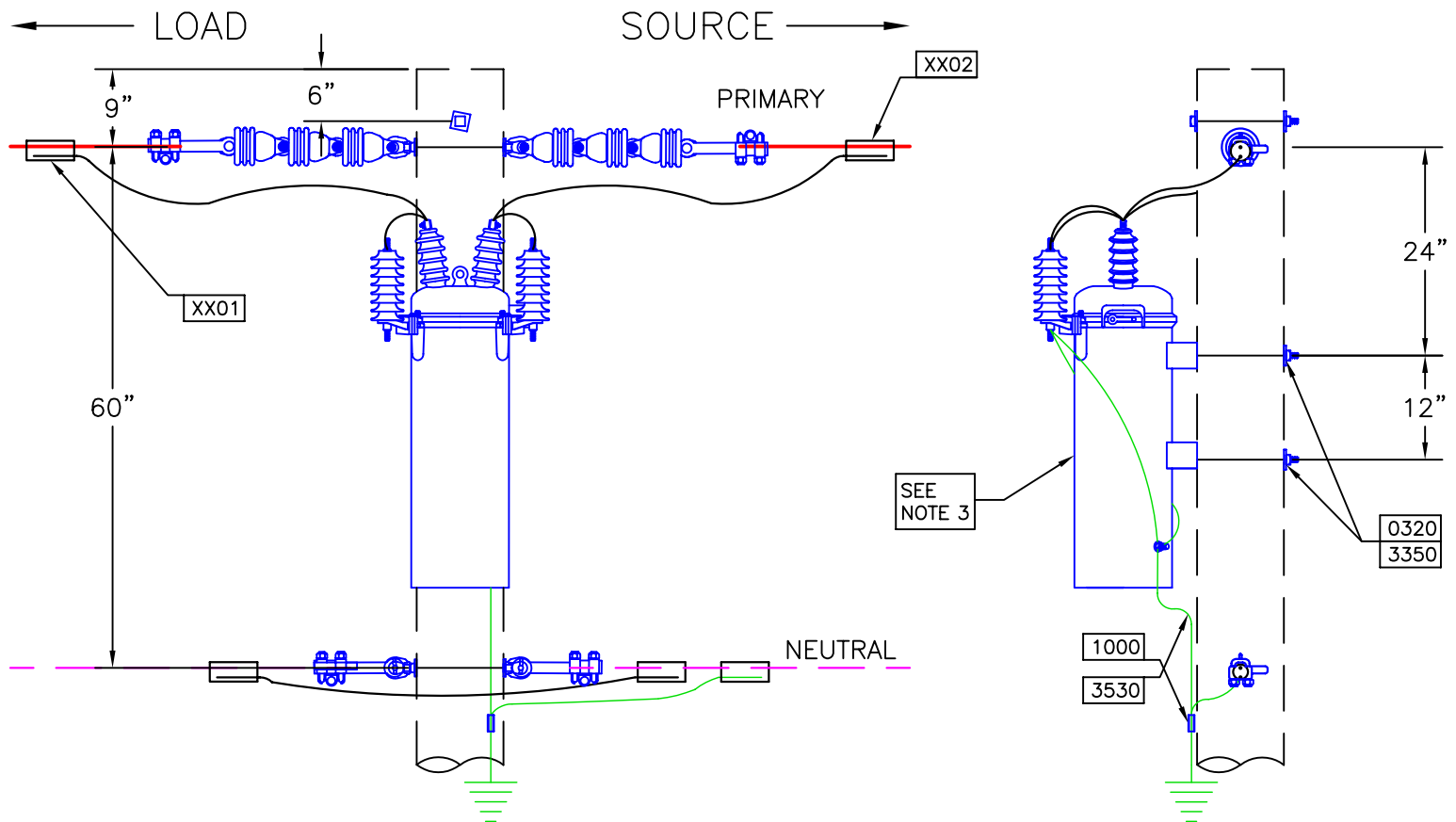
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	2	ARRESTER; LIGHTNING MOV 18 KV		
0320	2	BOLT; MACHINE 5/8" X 12"		
1000	1	CONNECTOR; CU #4		
1000	1	CONNECTOR; CU #4		
1620	3	INSULATOR; SUSP 4 1/4"		
3350	2	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
XX01	1	CONNECTOR (LOAD)	W	16
XX02	1	CONNECTOR (SOURCE)	C	16
XX03	2	CLAMP; DEADEND (PRIMARY)	W	4
XX04	1	CLAMP; HOT LINE AL	W	15
XX05	1	CONNECTOR (NEUTRAL)	NX	5



NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VC6.1 CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSER.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 11/03/2008
Old CU: VM3-10V	DWG Name: VR1-1-V.DWG

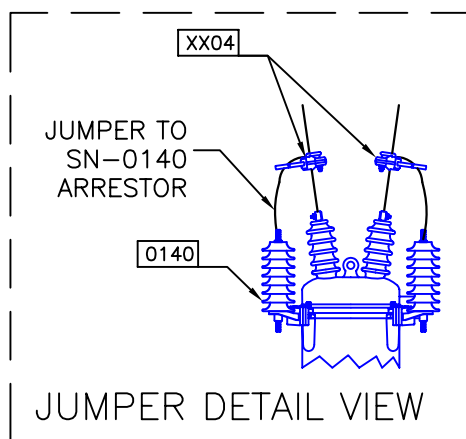
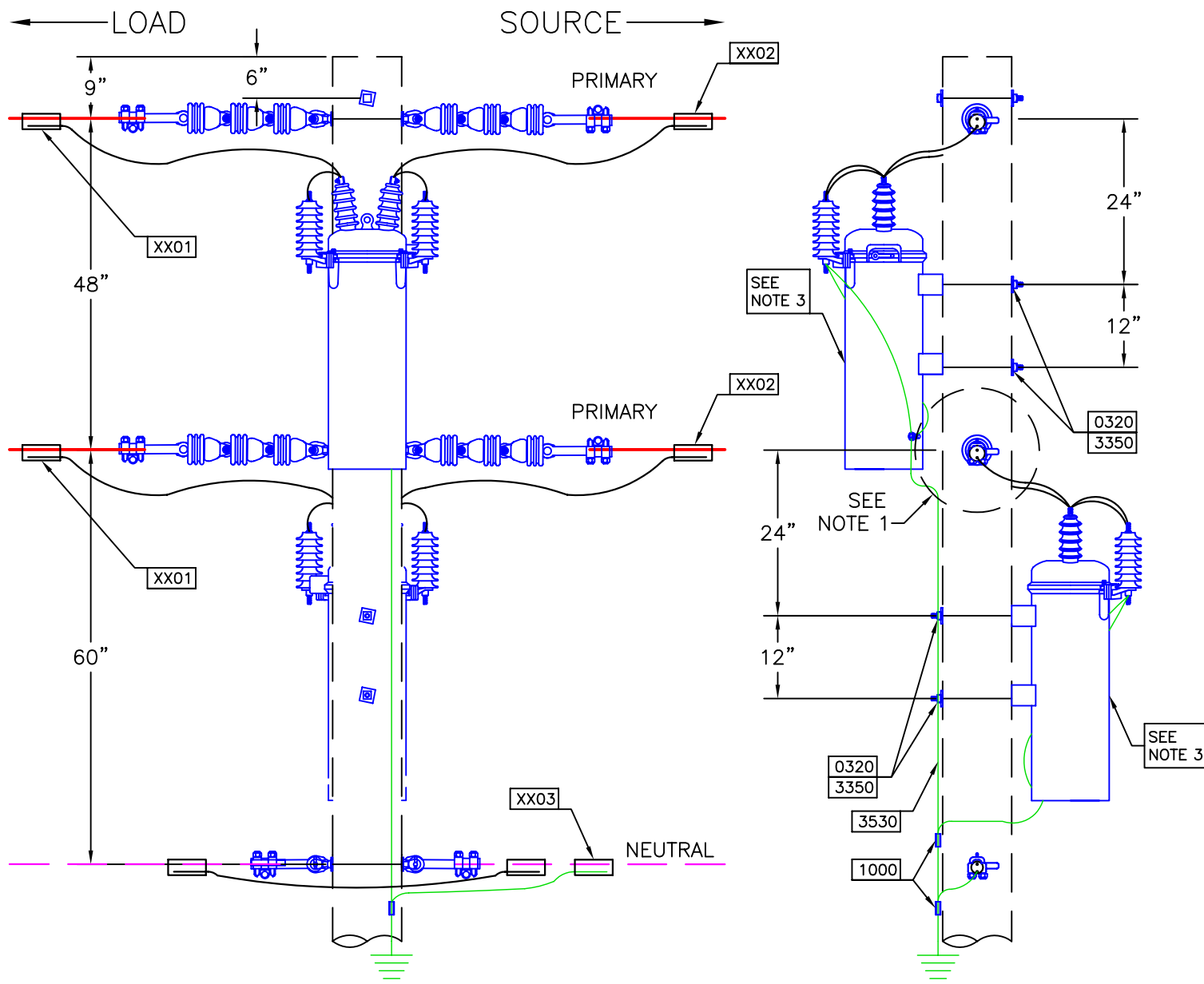
14.4/24.9 KV PRIMARY, 1Ø, ONE SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER,
VERTICAL CONSTRUCTION

REV# : 002
VR1.1.V

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	2	ARRESTER; LIGHTNING MOV 18 KV		
0320	2	BOLT; MACHINE 5/8" X 12"		
1000	2	CONNECTOR; CU #4		
3350	2	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
XX01	1	CONNECTOR (LOAD)	W	36
XX02	1	CONNECTOR (SOURCE)	C	36
XX03	1	CONNECTOR (NEUTRAL)	NX	5
XX04	4	CLAMP; HOT LINE AL	W	15



DRAWING IS NOT TO SCALE

NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VC6.1 CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSERS.

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 11/03/2008
Old CU: VM3-11V	DWG Name: VR2-1-V.DWG

**14.4/24.9 KV PRIMARY, 2Ø, TWO, SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER,
VERTICAL CONSTRUCTION**

**REV# : 002
VR2.1.V**

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR2.1.V**

AUTOCAD FILE: **VR2-1-V.DWG**

DESCRIPTION: **14.4/24.9 KV PRIMARY; 2-PHASE; TWO;
SINGLE PHASE SECTIONALIZING OIL CIRCUIT
RECLOSERS; VERTICAL CONSTRUCTION**

PDF FILE: **VR2-1-V.PDF**

PDF SPEC.: **VR2-1-V_SPEC.PDF**

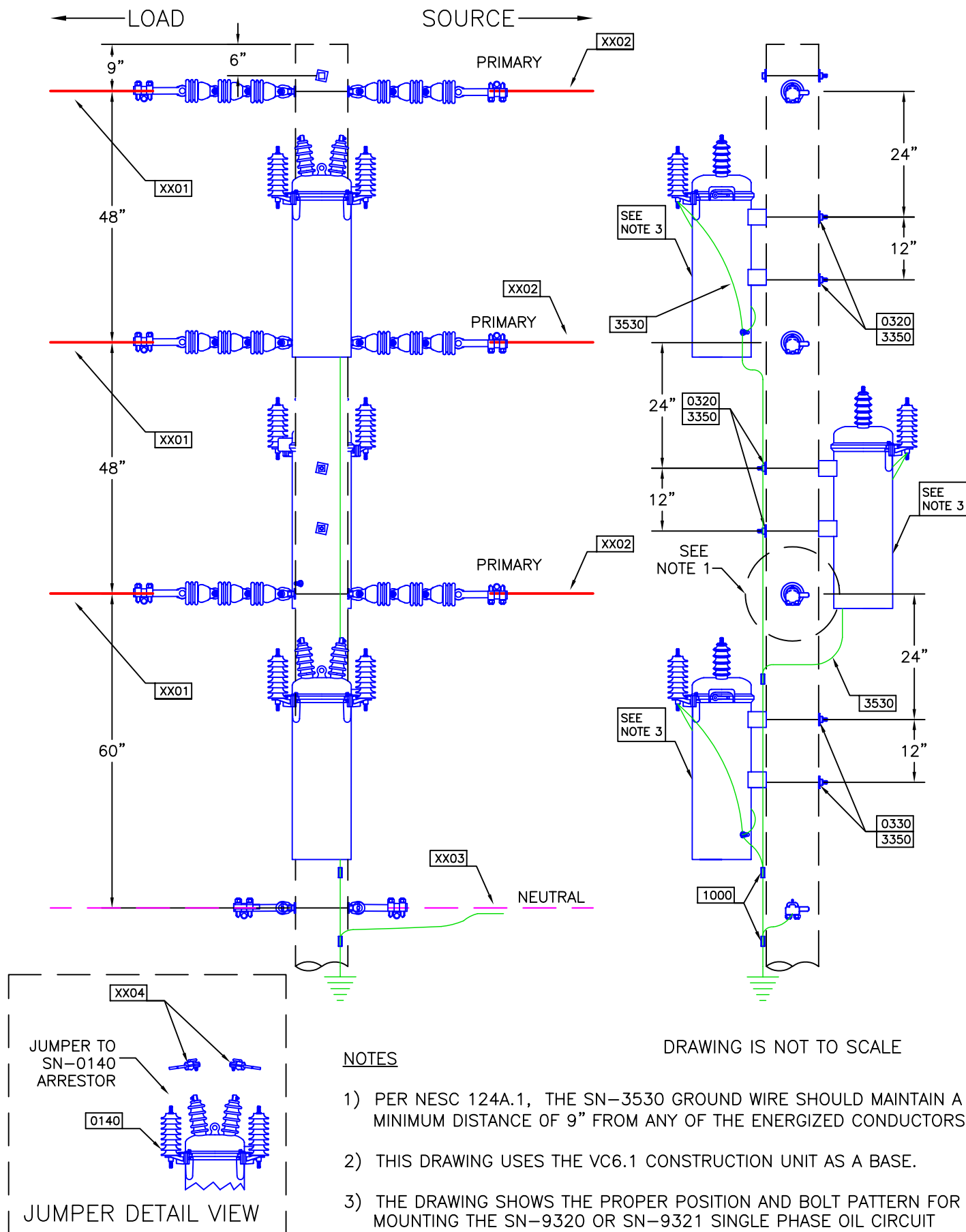
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	4	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8" X 12"		
1000	2	CONNECTOR; CU #4		
3350	4	WASHER; SQUARE		
3530	40	WIRE; CU BSD 4		
XX01	2	CONNECTOR (LOAD)	W	16
XX02	2	CONNECTOR (SOURCE)	C	16
XX03	1	CONNECTOR (NEUTRAL)	NX	5
XX04	6	CLAMP; HOT LINE AL	W	15



Drawn By: DEM Date Drawn: JANUARY 2002

Approved By: WHP Date Updated: 11/03/2008

Old CU: VM3-12V DWG Name: VR3-1-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER,
VERTICAL CONSTRUCTION

REV# : 002

VR3.1.V

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR3.1.V**

AUTOCAD FILE: **VR3-1-V.DWG**

DESCRIPTION: **14.4/24.9 KV PRIMARY; 3-PHASE; THREE;
SINGLE PHASE SECTIONALIZING OIL CIRCUIT
RECLOSERS. VERTICAL CONSTRUCTION**

PDF FILE: **VR3-1-V.PDF**

PDF SPEC.: **VR3-1-V_SPEC.PDF**

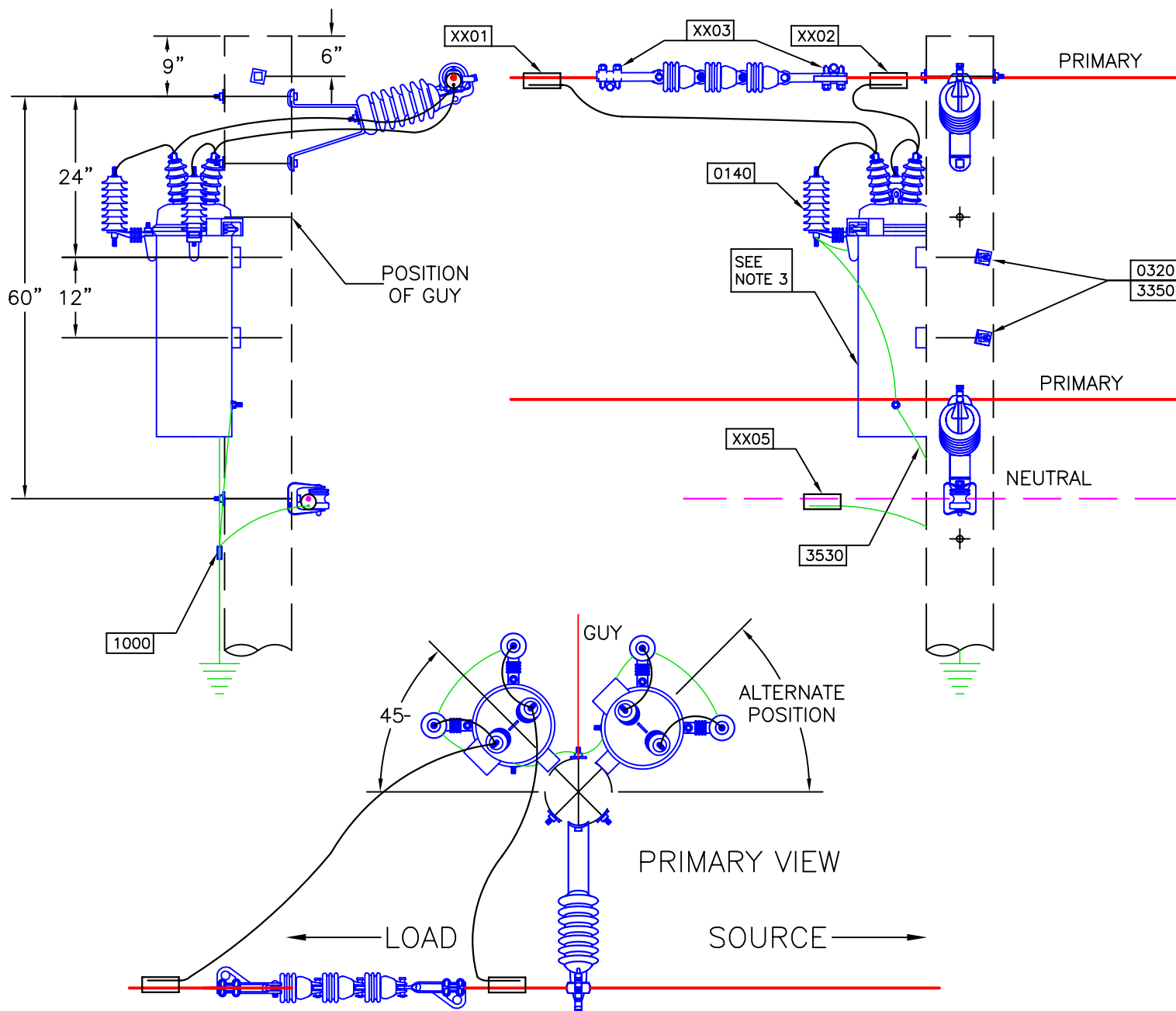
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ANGLE TO:

RETIREMENT:

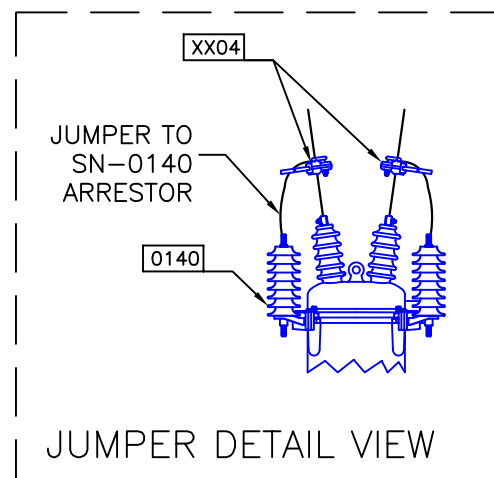
NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8" X 12"		
0330	2	BOLT; MACHINE 5/8" X 14"		
1000	3	CONNECTOR; CU #4		
3350	6	WASHER; SQUARE		
3530	60	WIRE; CU BSD 4		
XX01	3	CONNECTOR (LOAD)	W	16
XX02	3	CONNECTOR (SOURCE)	C	16
XX03	1	CONNECTOR (NEUTRAL)	NX	5
XX04	6	CLAMP; HOT LINE AL	W	15



NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VC2.1.V CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSERS. DRAWING IS NOT TO SCALE



Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 11/03/2008
Old CU: VM3-10V/I	DWG Name: VR1-10-VI.DWG

14.4/24.9 KV PRIMARY, 1Ø, ONE, SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER, WITH
IN-LINE INSULATORS, VERTICAL CONSTRUCTION

REV# : 002

VR1.10.VI

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR1.10.VI**

AUTOCAD FILE: **VR1-10-VI.DWG**

DESCRIPTION: **14.4/24.9KV PRIMARY; 1-PHASE; ONE; SINGLE
PHASE SECTIONALIZING OIL CIRCUIT
RECLOSER; WITH IN-LINE INSULATORS;
VERTICAL CONSTRUCTION**

PDF FILE: **VR1-10-VI.PDF**

PDF SPEC.: **VR1-10-VI_SPEC.PDF**

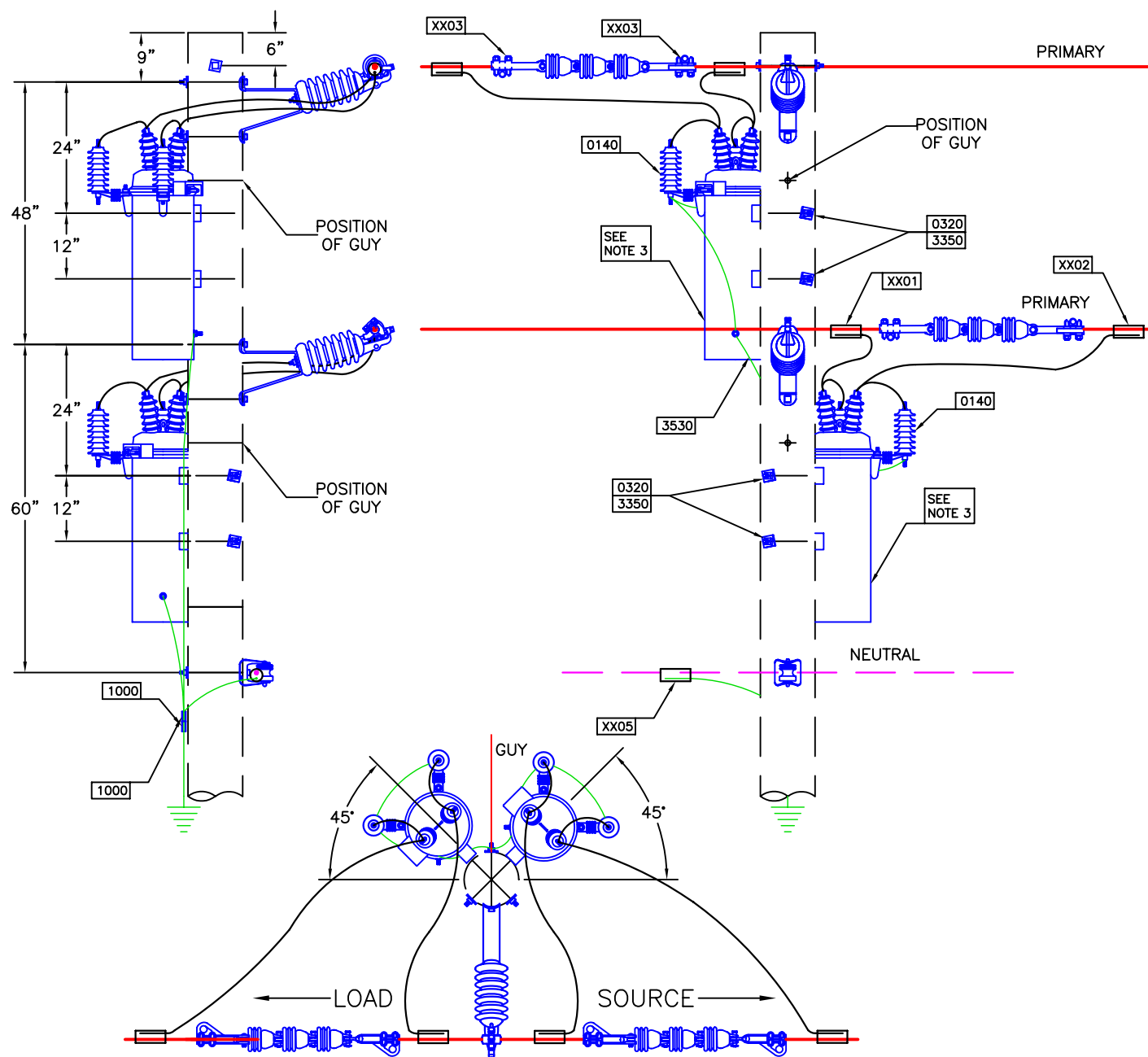
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	2	ARRESTER; LIGHTNING MOV 18 KV		
0320	2	BOLT; MACHINE 5/8" X 12"		
1000	1	CONNECTOR; CU #4		
1620	3	INSULATOR; SUSP 4 1/4"		
3350	2	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
XX01	1	CONNECTOR (LOAD)	W	16
XX02	1	CONNECTOR (SOURCE)	C	16
XX03	2	CLAMP; DEADEND (PRIMARY)	W	4
XX04	2	CLAMP; HOT LINE AL	W	15
XX05	1	CONNECTOR (NEUTRAL)	NX	5

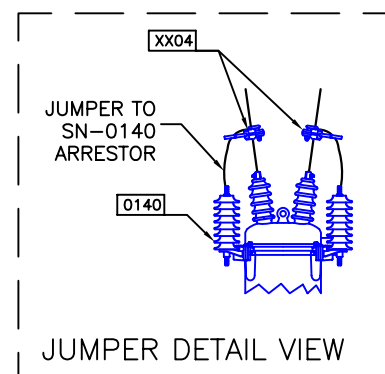


PRIMARY VIEW

NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VC2.1.V CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSERS.

DRAWING IS NOT TO SCALE



JUMPER DETAIL VIEW

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 11/03/2008
Old CU: VM3-11V/I	DWG Name: VR2-11-VI.DWG

14.4/24.9 KV PRIMARY, 2Ø, TWO, SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER, WITH
IN-LINE INSULATORS, VERTICAL CONSTRUCTION

REV# : 002

VR2.11.VI

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: VR2.11.VI

AUTOCAD FILE: VR2-11.VI.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY; 2-PHASE; TWO;
SINGLE PHASE SECTIONALIZING OIL CIRCUIT
RECLOSERS; WITH IN-LINE INSULATORS;
VERTICAL CONSTRUCTION

PDF FILE: VR2-11.VI.PDF

PDF SPEC.: VR2-11.VI_SPEC.PDF

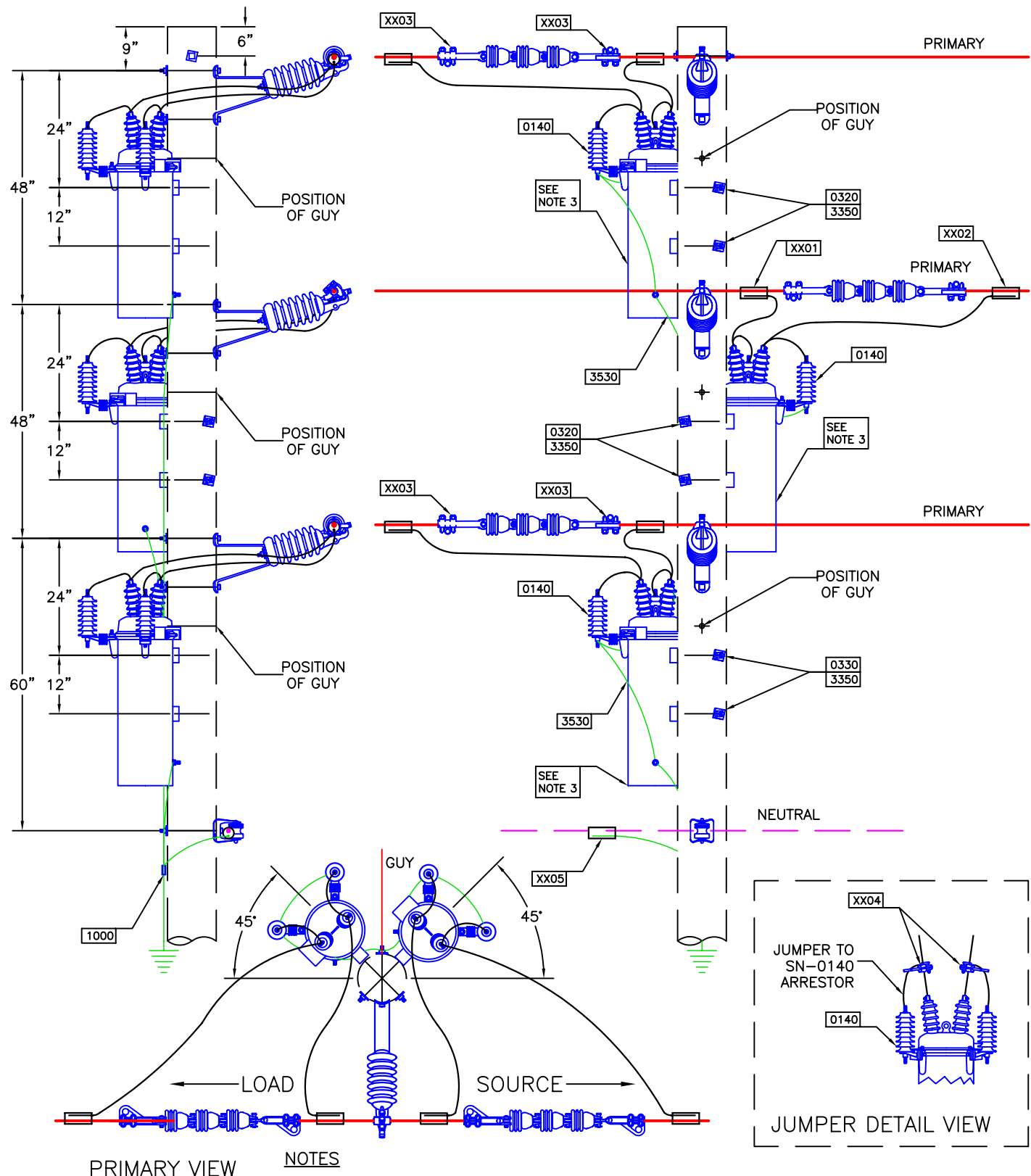
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	4	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8" X 12"		
0330	2	BOLT; MACHINE 5/8" X 14"		
1000	3	CONNECTOR; CU #4		
1620	6	INSULATOR; SUSP 4 1/4"		
3350	4	WASHER; SQUARE		
3530	40	WIRE; CU BSD 4		
XX01	2	CONNECTOR (LOAD)	W	16
XX02	2	CONNECTOR (SOURCE)	C	16
XX03	4	CLAMP; DEADEND (PRIMARY)	W	4
XX04	6	CLAMP; HOT LINE AL	W	15



PRIMARY VIEW

NOTES

- 1) PER NESC 124A.1, THE SN-3530 GROUND WIRE SHOULD MAINTAIN A MINIMUM DISTANCE OF 9" FROM ANY OF THE ENERGIZED CONDUCTORS.
- 2) THIS DRAWING USES THE VC2.1.V CONSTRUCTION UNIT AS A BASE.
- 3) THE DRAWING SHOWS THE PROPER POSITION AND BOLT PATTERN FOR MOUNTING THE SN-9320 OR SN-9321 SINGLE PHASE OIL CIRCUIT RECLOSERS.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: 11/03/2008
Old CU: VM3-12V/I	DWG Name: VR3-12-VI.DWG

14.4/24.9 KV PRIMARY, 3Ø, THREE SINGLE PHASE
SECTIONALIZING OIL CIRCUIT RECLOSER, WITH
IN-LINE INSULATORS, VERTICAL CONSTRUCTION

REV# : 002

VR3.12.VI

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR3.12.VI**

AUTOCAD FILE: **VR3-12.VI.DWG**

DESCRIPTION: **14.4/24.9KV PRIMARY; 3-PHASE; THREE;
SINGLE PHASE OIL CIRCUIT RECLOSERS;
WITH IN-LINE INSULATORS; VERTICAL
CONSTRUCTION**

PDF FILE: **VR3-12.VI.PDF**

PDF SPEC.: **VR3-12.VI_SPEC.PDF**

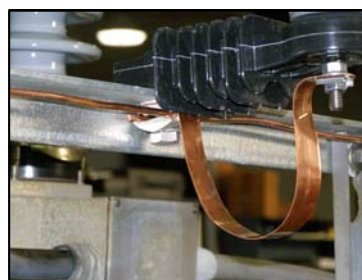
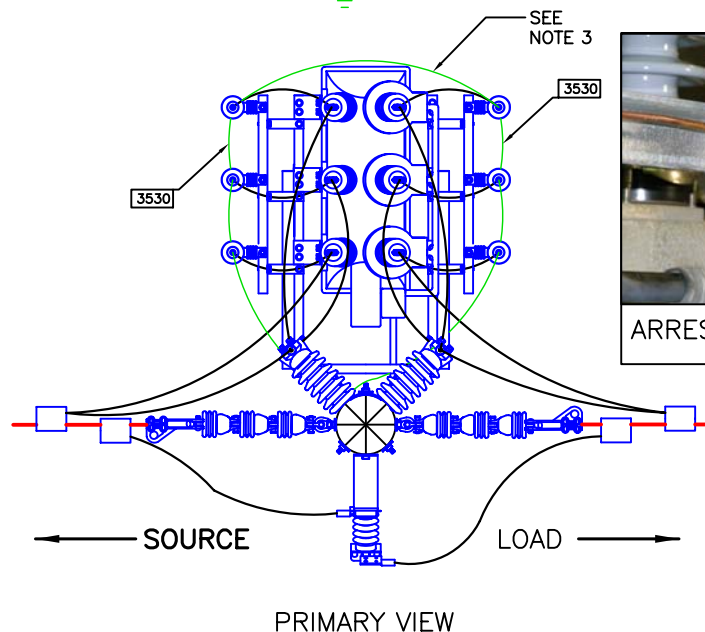
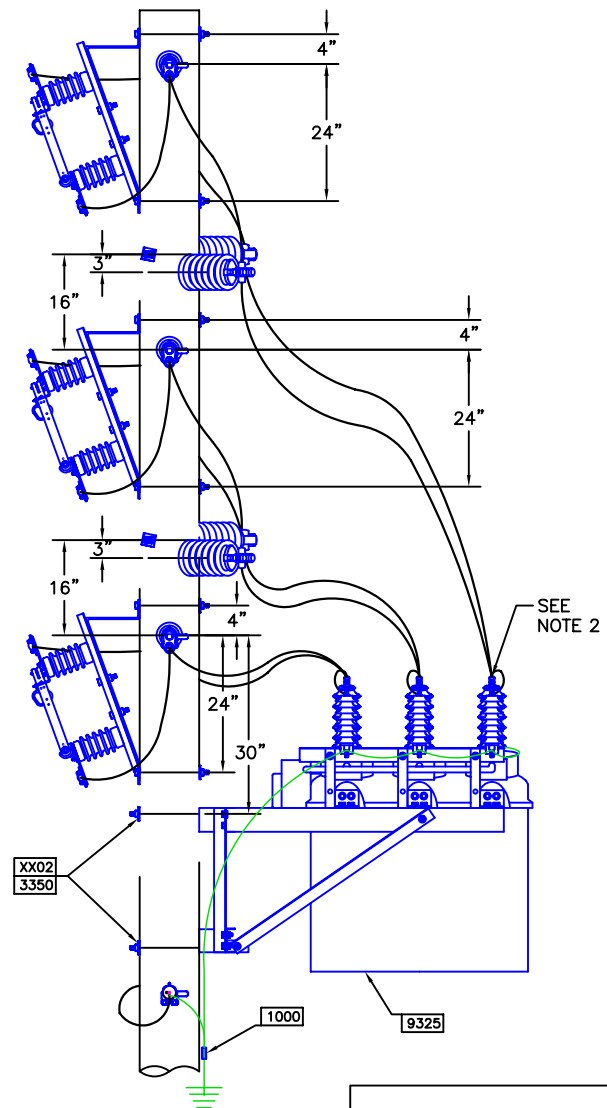
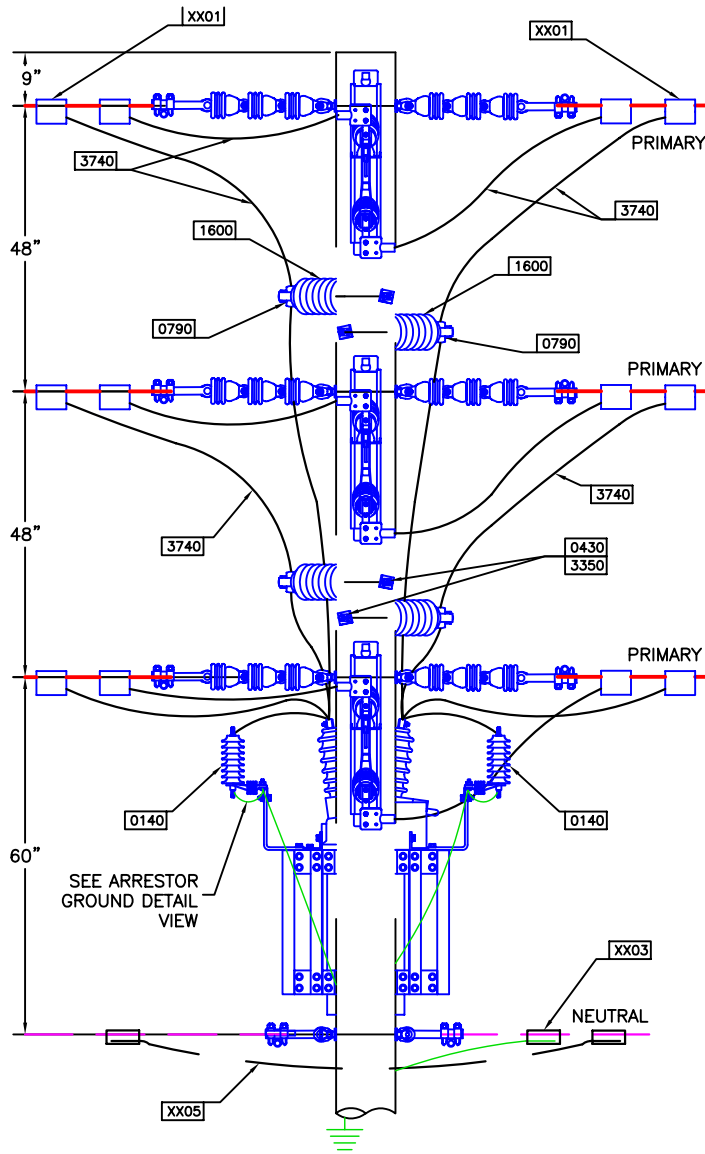
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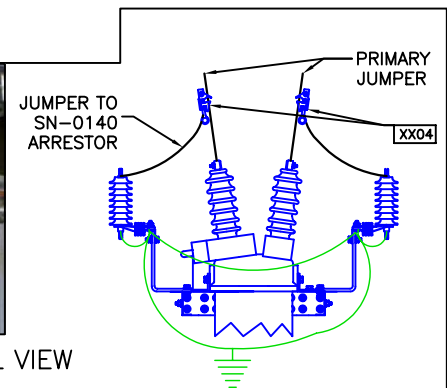
RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0320	4	BOLT; MACHINE 5/8" X 12"		
0330	2	BOLT; MACHINE 5/8" X 14"		
1000	3	CONNECTOR; CU #4		
1620	9	INSULATOR; SUSP 4 1/4"		
3350	6	WASHER; SQUARE		
3530	60	WIRE; CU BSD 4		
XX01	3	CONNECTOR (LOAD)	W	16
XX02	3	CONNECTOR (SOURCE)	C	16
XX03	6	CLAMP; DEADEND (PRIMARY)	W	4
XX04	6	CLAMP; HOT LINE AL	W	15
XX05	1	CONNECTOR (NEUTRAL)	NX	5



ARRESTOR GROUND DETAIL VIEW



NOTES:

- 1) THIS DRAWING USES THE VC6.1 DEADEND POLE, AND THE VS2.3.V 3 ϕ , DISCONNECT SWITCH ASSEMBLY, THE VS2.3.V IS USED AS A BY-PASS. THIS CONSTRUCTION UNIT SHOWS THE PROPER POSITION AND BOLT PATTERN FOR EACH OF SN-1600 INSULATORS AND THE PROPER POSITION FOR THE OIL CIRCUIT RECLOSER.
- 2) THE HOT LINE CLAMP IS USED TO CONNECT THE SN-0140 LIGHTNING ARRESTOR TO THE PRIMARY JUMPER. SEE DETAIL FOR MORE INFORMATION.
- 3) ALL GROUND CONNECTIONS SHOULD BE IN A CONTINUOUS LOOP.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 10/02/2003
Approved By: WHP	Date Updated: 7/01/2008
Old CU: --	DWG Name: VR3-21-V.DWG

14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZING
OIL CIRCUIT RECLOSER, WITH DISCONNECT SWITCHES,
DEADEND POLE, VERTICAL CONSTRUCTION

REV# : 003
VR3.21.V

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR3.21.V**

AUTOCAD FILE: **VR3-21-V.DWG**

DESCRIPTION: **14.4/24.9 KV PRIMARY; 3-PHASE;
SECTIONALIZING OIL CIRCUIT RECLOSER;
WITH BY-PASS DISCONNECT SWITCHES;
DEADEND POLE; VERTICAL CONSTRUCTION**

PDF FILE: **VR3-21-V.PDF**

PDF SPEC.: **VR3-21-V_SPEC.PDF**

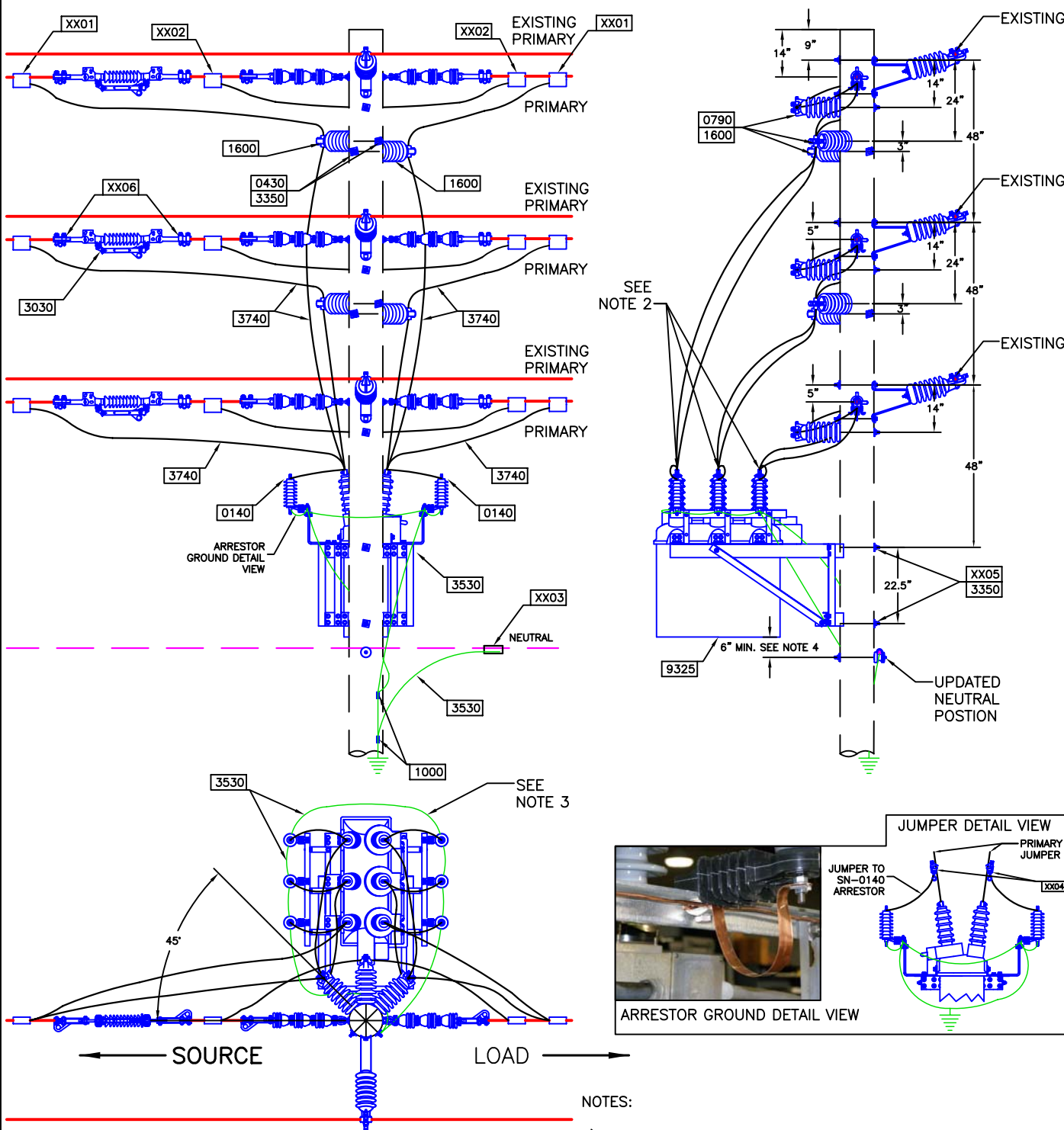
ANGLE FROM:

ANGLE TO:

RETIREMENT:

NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	1	CONNECTOR; CU #4		
1600	4	INSULATOR; POST TYPE VERTICAL		
3350	6	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
3740	60	WIRE; THW CU 4/0		
9325	1	OCR; 3PH;TYPE VWV		
XX01	6	CONNECTOR; AMPACT TAP	W	17
XX02	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX03	1	SQUEEZON; #4 CU TO NEUTRAL	N	13
XX04	6	CLAMP; HOT LINE AL	C	15



PRIMARY VIEW

DRAWING IS NOT TO SCALE

NOTES:

- 1) THIS DRAWING USES THE VC1.V TANGENT, AND THE VC6.1 DOUBLE DEADEND POLES FOR THE BASE OF THE ASSEMBLY. THIS CONSTRUCTION UNIT SHOWS THE PROPER POSITION AND BOLT PATTERN FOR EACH OF SN-1600 INSULATORS AND THE PROPER POSITION FOR THE 3-PHASE OIL CIRCUIT RECLOSER(SN-9325).
- 2) THE HOT LINE CLAMPS ARE USED TO CONNECT THE SN-0140 LIGHTING ARRESTORS TO THE PRIMARY JUMPERS. SEE DETAIL FOR MORE INFORMATION.
- 3) ALL GROUND CONNECTIONS SHOULD BE IN A CONTINUOUS LOOP.
- 4) THE UPDATED NEUTRAL POSITION SHALL BE A MINIMUM OF 6" BELOW BASE OF THE OIL CIRCUIT RECLOSER(SN-9325).

Drawn By: DEM	Date Drawn: 10/03/2003
Approved By: WHP	Date Updated: 7/01/2008
Old CU: --	DWG Name: VR3-22-V.DWG

14.4/24.9 KV PRIMARY, 3Ø, CONVERSION SINGLE TO
DOUBLE CIRCUIT, SECTIONALIZED OIL CIRCUIT
RECLOSER, WITH IN-LINE DISCONNECT SWITCHES,
VERTICAL CONSTRUCTION

REV# : 002
VR3.22.V

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: **VR3.22.V**

AUTOCAD FILE: **VR3-22-V.DWG**

DESCRIPTION: **14.4/24.9 KV PRIMARY; CONVERSION; SINGLE TO DOUBLE CIRCUIT; SECTIONALIZED 3-PHASE OIL CIRCUIT RECLOSER; WITH IN-LINE DISCONNECT SWITCHES; VERTICAL CON**

PDF FILE: **VR3-22-V.PDF**

PDF SPEC.: **VR3-22-V_SPEC.PDF**

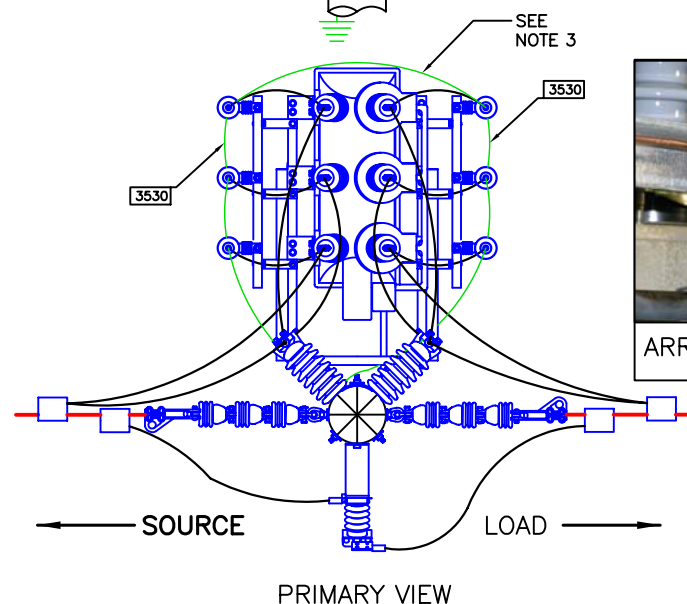
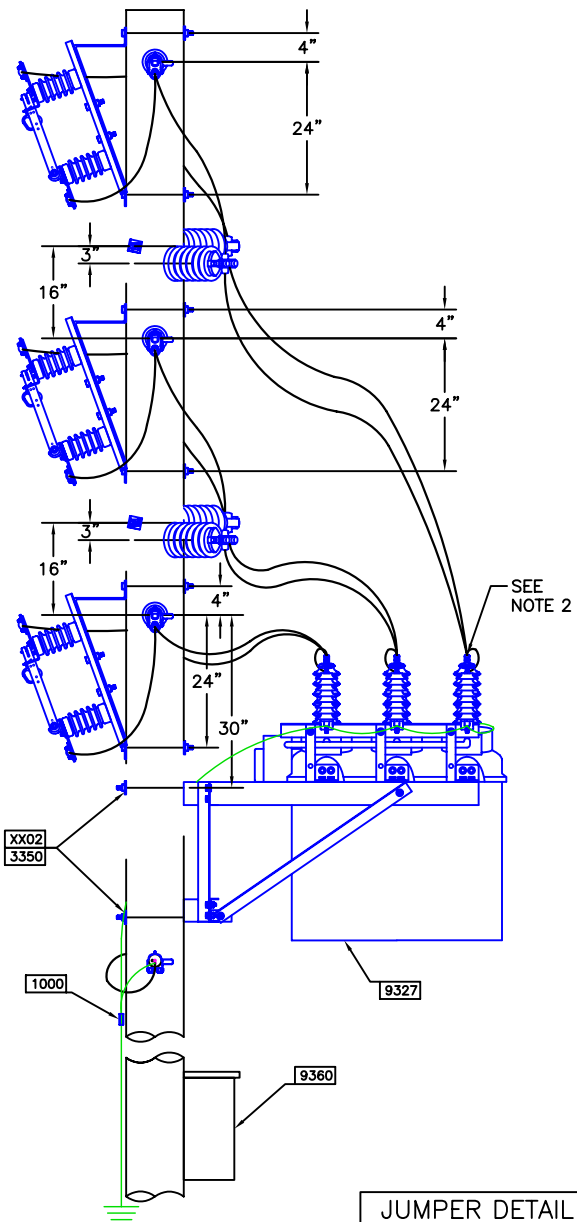
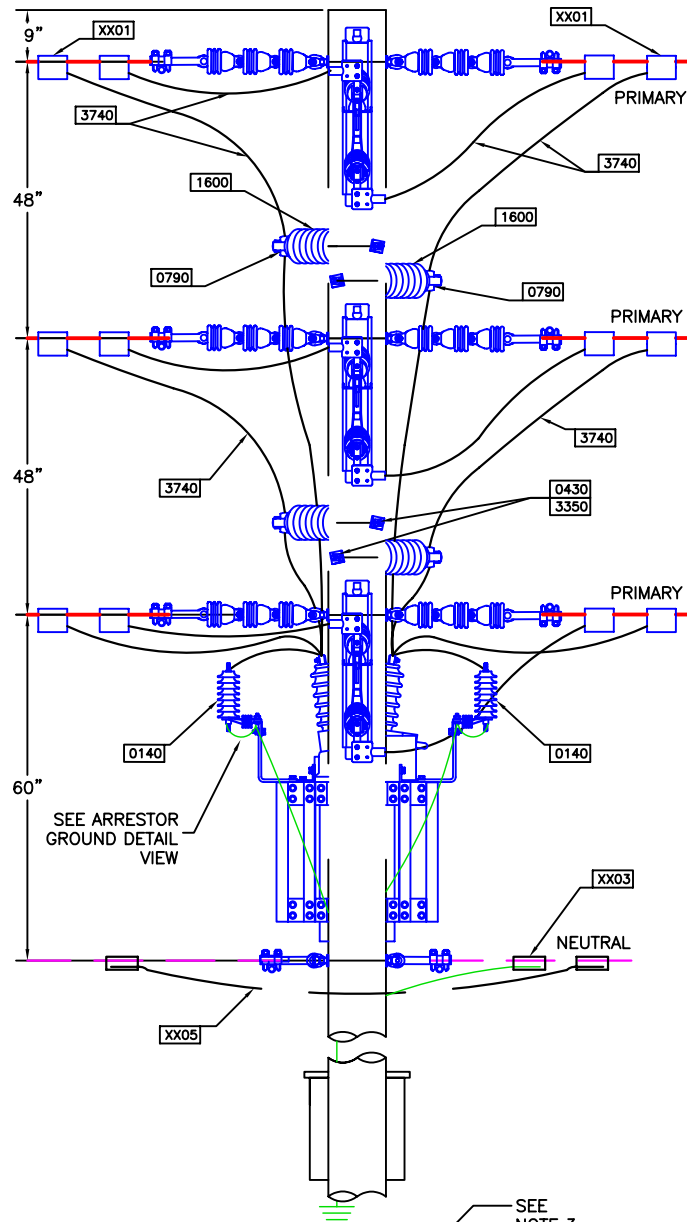
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ANGLE TO:

RETIREMENT:

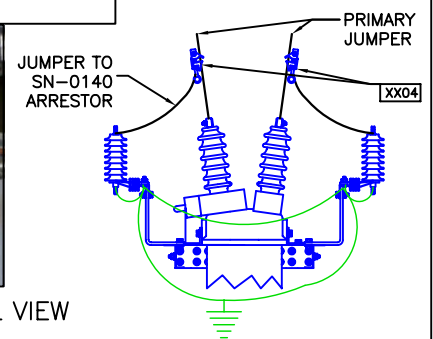
NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	2	CONNECTOR; CU #4		
1600	4	INSULATOR; POST TYPE VERTICAL		
3350	6	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
3740	20	WIRE; THW CU 4/0		
9325	1	OCR; 3PH;TYPE VWV		
XX01	6	CONNECTOR; AMPACT TAP	W	17
XX02	6	CONNECTOR (PRIMARY)	W	16
XX03	1	SQUEEZON; #4 CU TO NEUTRAL	N	13
XX04	6	CLAMP; HOT LINE AL	C	15
XX05	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX06	6	CLAMP; DEADEND (PRIMARY)	W	4



ARRESTOR GROUND DETAIL VIEW

JUMPER DETAIL VIEW



NOTES:

- 1) THIS DRAWING USES THE VC6.1 DEADEND POLE, AND THE VS2.3.V 3 ϕ , DISCONNECT SWITCH ASSEMBLY, THE VS2.3.V IS USED AS A BY-PASS. THIS CONSTRUCTION UNIT SHOWS THE PROPER POSITION AND BOLT PATTERN FOR EACH OF SN-1600 INSULATORS AND THE PROPER POSITION FOR THE OIL CIRCUIT RECLOSER.
- 2) THE HOT LINE CLAMP IS USED TO CONNECT THE SN-0140 LIGHTNING ARRESTOR TO THE PRIMARY JUMPER. SEE DETAIL FOR MORE INFORMATION.
- 3) ALL GROUND CONNECTIONS SHOULD BE IN A CONTINUOUS LOOP.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 7/01/08
Approved By: WHP	Date Updated: --
Old CU: --	DWG Name: VR3-23-V.DWG

14.4/24.9 KV PRIMARY, 3-PHASE SECTIONALIZING
OIL CIRCUIT RECLOSER, ELECTRONIC CONTROL, WITH
BY-PASS DISCONNECT SWITCHES, VERTICAL
CONSTRUCTION

REV# : 000

VR3.23.V

OVERHEAD CONSTRUCTION UNIT SPECIFICATIONS

CONSTRUCTION UNIT: VR3.23.V

AUTOCAD FILE: VR3-23-V.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY; 3-PHASE;
SECTIONALIZING OIL CIRCUIT RECLOSER;
ELECTRONIC CONTROL; WITH BY-PASS
DISCONNECT SWITCHES; VERTICAL

PDF FILE: VR3-23-V.PDF

PDF SPEC.: VR3-23-V_SPEC.PDF

ANGLE FROM:

ANGLE TO:

RETIREMENT:

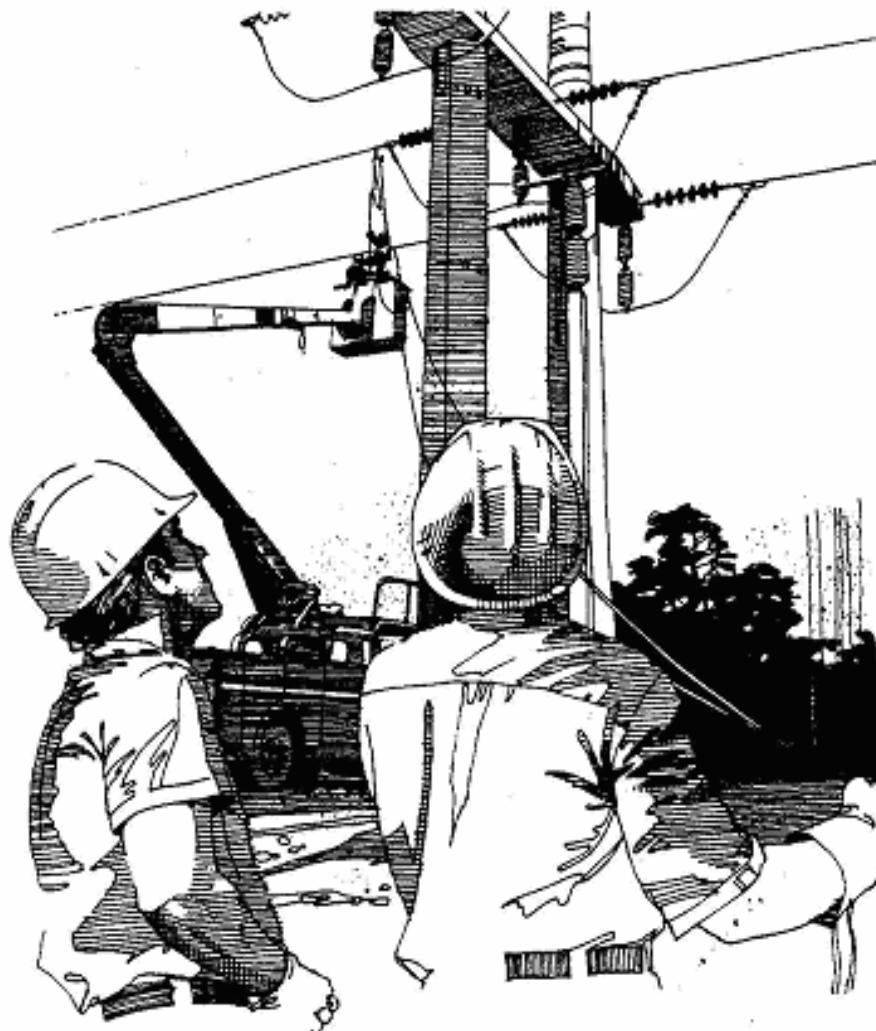
NO. TRANS:

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0430	4	BOLT; STUD 5/8"X 3/4"X 12"		
0790	4	CLAMP; INS WIRE #2 - 4/0		
1000	2	CONNECTOR; CU #4		
1600	4	INSULATOR; POST TYPE VERTICAL		
3350	6	WASHER; SQUARE		
3530	20	WIRE; CU BSD 4		
3740	20	WIRE; THW CU 4/0		
9327	1	OCR; 3PH;TYPE PWVE W/CONTROLS		
9360	1	RECLOSER CONTROL; ELECTRONIC		
XX01	6	CONNECTOR; AMPACT TAP	W	17
XX02	6	CONNECTOR (PRIMARY)	W	16
XX03	1	SQUEEZON; #4 CU TO NEUTRAL	N	13
XX04	6	CLAMP; HOT LINE AL	C	15
XX05	2	BOLT; MACHINE 5/8" X REQ. LENG	P	2
XX06	6	CLAMP; DEADEND (PRIMARY)	W	4

CONSTRUCTION UNITS

INDEX S: SECTIONALIZING ASSEMBLY UNITS.

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ELECTRIC COOPERATIVE, INC.



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SECTIONALIZING ASSEMBLY UNITS

C.U. NO.	DESCRIPTION	PAGE NO.
VS1.1	14.4/24.9 KV PRIMARY, 100 AMP FUSE CUTOUT WITH BRACKET, PRIMARY ASSEMBLY	1 - 2
VS1.2	14.4/24.9 KV PRIMARY, 200 AMP FUSE CUTOUT WITH BRACKET, PRIMARY ASSEMBLY	3 - 4
VS1.1T	14.4/24.9 KV PRIMARY, FUSE CUTOUT WITH BRACKET, TRANSFORMER APPLICATION, PRIMARY ASSEMBLY	5 - 6
VS1.14.B	14.4/24.9 KV PRIMARY, 1 – PHASE, SECTIONALIZING FUSE CUTOUT, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	7 - 8
VS1.14.V	14.4/24.9 KV PRIMARY, 1 – PHASE, ONE SECTIONALIZING FUSE CUTOUT, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	9 - 10
VS1.15.V	14.4/24.9 KV PRIMARY, 2 – PHASE, TWO SECTIONALIZING FUSE CUTOUTS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	11 - 12
VS1.16.V	14.4/24.9 KV PRIMARY, 3 – PHASE, THREE SECTIONALIZING FUSE CUTOUTS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	13 - 14
VS1.3_E	14.4/24.9 KV PRIMARY, ONE (VS1.31E), TWO (VS1.32E), AND THREE (VS1.33E), 50 AMP ELECTRONIC RESET SECTIONALIZER(S), FOR FUSE CUTOUT(S)	15 - 16
VS1.4_E	14.4/24.9 KV PRIMARY, ONE (VS1.41E), TWO (VS1.42E), AND THREE (VS1.43E), 70 AMP ELECTRONIC RESET SECTIONALIZER(S), FOR FUSE CUTOUT(S)	17 - 18
VS1.5_E	14.4/24.9 KV PRIMARY, ONE (VS1.51E), TWO (VS1.52E), AND THREE (VS1.53E), 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER(S), FOR FUSE CUTOUT(S)	19 - 20
VS1.7_E	14.4/24.9 KV PRIMARY, ONE (VS1.71E), TWO (VS1.72E), AND THREE (VS1.73E), 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER(S), FOR FUSE CUTOUT(S)	21 - 22
VS1.4V.E	14.4/24.9 KV PRIMARY, 1 - PHASE, ONE ELECTRONIC REST SECTIONALIZER, FOR FUSE CUTOUT, VERTICAL CONSTRUCTION	23 - 24



C.U. NO.	DESCRIPTION	PAGE NO.
VS1.5V.E	14.4/24.9 KV PRIMARY, 2 - PHASE, TWO ELECTRONIC REST SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	25 - 26
VS1.6V.E	14.4/24.9 KV PRIMARY, 3 - PHASE, THREE ELECTRONIC REST SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	27 - 28
VS2.1.V	14.4/24.9 KV PRIMARY, 1 - PHASE, SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, VERTICAL CONSTRUCTION	29 - 30
VS2.3.V	14.4/24.9 KV PRIMARY, 3 - PHASE, SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, VERTICAL CONSTRUCTION	31 - 32
VS2.31.V	14.4/24.9 KV PRIMARY, 3 - PHASE, SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, WITH SURGE ARRESTORS, VERTICAL CONSTRUCTION	33 - 34
VS2.11.S	14.4/24.9 KV PRIMARY, ONE REGULATOR BY-PASS DISCONNECT SWITCH	35 - 38
VS2.13.S	14.4/24.9 KV PRIMARY, THREE REGULATOR BY-PASS DISCONNECT SWITCH	39 - 42
VS3.16.V	14.4/24.9 KV PRIMARY, 3 – PHASE, GOAB AIR BREAK SWITCH, VERTICAL CONSTRUCTION	43 - 46
VS3.16P.V	14.4/24.9 KV PRIMARY, 3 – PHASE, GOAB AIR BREAK SWITCH, SURGE ARRESTORS, VERTICAL CONSTRUCTION	47 - 48
VS3.16P.V.ST	14.4/24.9 KV PRIMARY, 3 – PHASE, GOAB AIR BREAK SWITCH, SURGE ARRESTORS, VERTICAL CONSTRUCTION, STEEL POLE	49 - 50



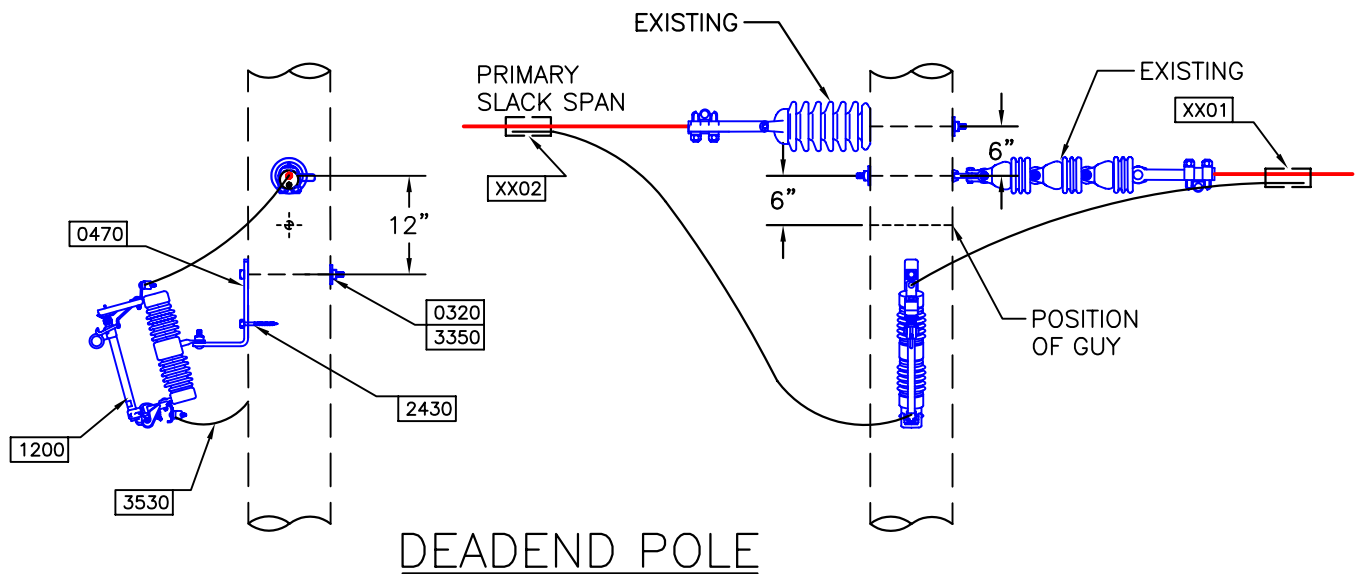
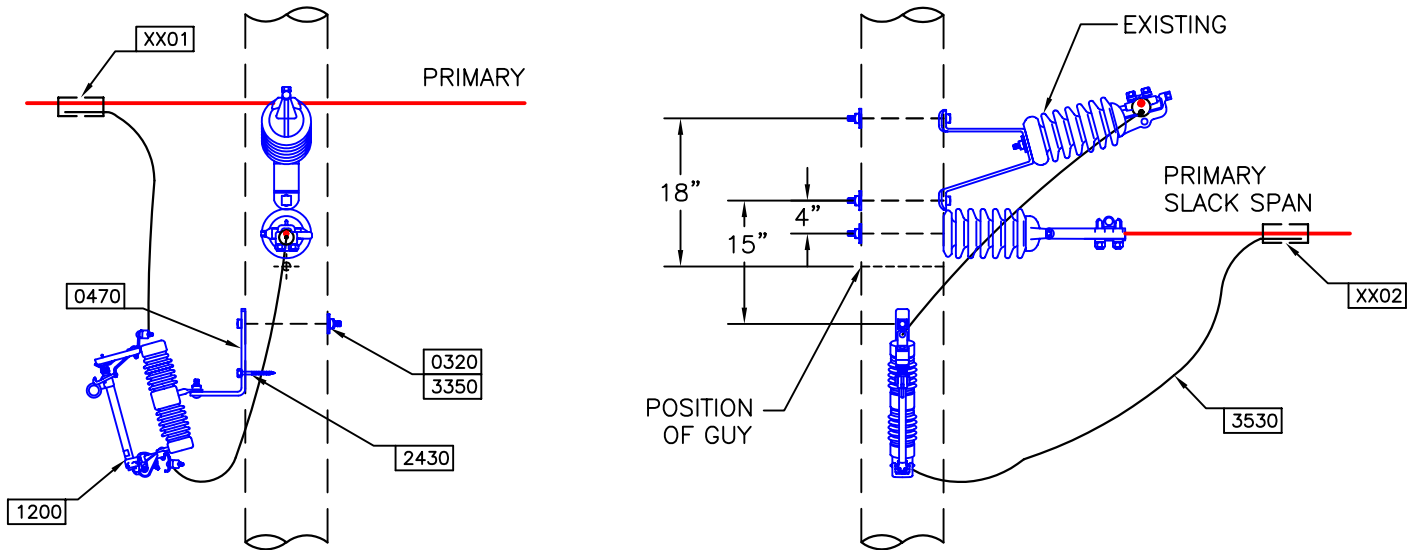
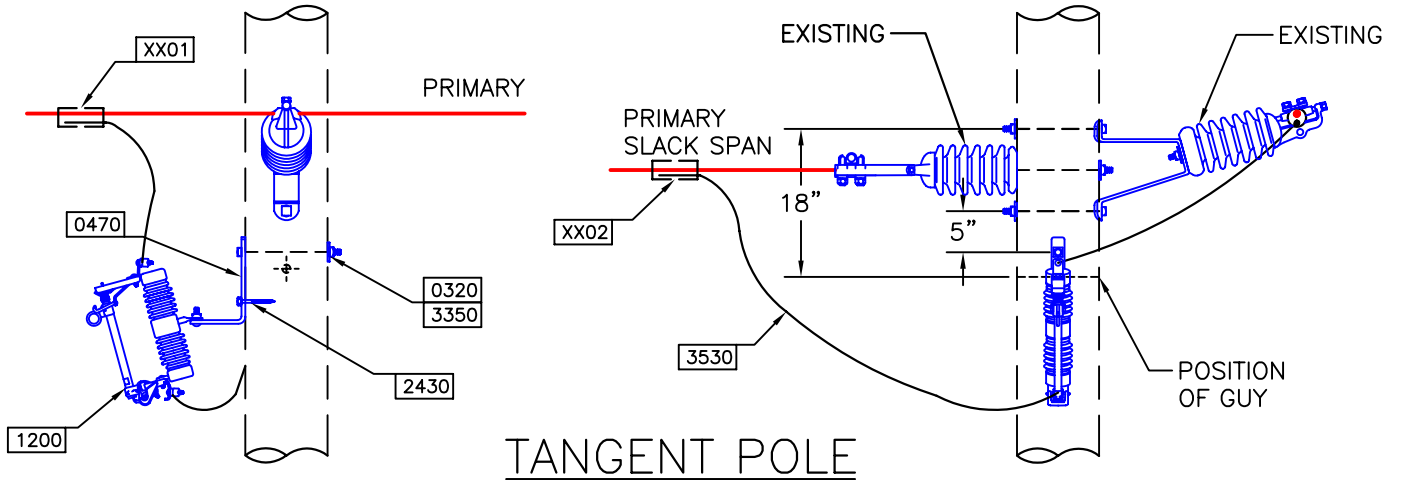
WREC CONSTRUCTION UNIT UPDATE TABLE

SECTIONALIZING ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VM5-9	VS1.1	VS1.1	14.4/24.9 KV PRIMARY, 100 AMP FUSE CUTOUT BRACKET, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/02/03
--	VS1.2	VS1.2	14.4/24.9 KV PRIMARY, 100 AMP FUSE CUTOUT BRACKET, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	4/11/06
VM5-9T	VS1.1T	VS1.1T	14.4/24.9 KV PRIMARY, FUSE CUTOUT BRACKET, PRIMARY ASSEMBLY, TRANSFORMER APPLICATION, VERTICAL CONSTRUCTION	--	9/02/03
VM3-4B	VS1.14.B	VS1.14.B	14.4/24.9 KV PRIMARY, 1 – PHASE, SECTIONALIZING FUSE CUTOUT, PRIMARY ASSEMBLY VERTICAL CONSTRUCTION	--	9/02/03
VM3-4	VS1.14.V	VS1.14.V	14.4/24.9 KV PRIMARY, 1 – PHASE, ONE SECTIONALIZING FUSE CUTOUT, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/02/03
VM3-5	VS1.15.V	VS1.15.V	14.4/24.9 KV PRIMARY, 2 – PHASE, TWO SECTIONALIZING FUSE CUTOUTS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/02/03
VM3-6	VS1.16.V	VS1.16.V	14.4/24.9 KV PRIMARY, 3 – PHASE, THREE SECTIONALIZING FUSE CUTOUTS, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	--	9/02/03
--	VS1.31E	VS1.31E	14.4/24.9 KV PRIMARY, ONE, 50 AMP ELECTRONIC RESET SECTIONALIZER, FOR FUSE CUTOUT	--	5/20/04
--	VS1.32E	VS1.32E	14.4/24.9 KV PRIMARY, TWO, 50 AMP ELECTRONIC RESET SECTIONALIZER, FOR FUSE CUTOUT	--	5/20/04
--	VS1.33E	VS1.33E	14.4/24.9 KV PRIMARY, THREE, 50 AMP ELECTRONIC RESET SECTIONALIZER, FOR FUSE CUTOUT	--	5/20/04
VM3-41E	VS1.41E	VS1.41E	14.4/24.9 KV PRIMARY, ONE 70 AMP ELECTRONIC RESET SECTIONALIZER, FOR FUSE CUTOUT	--	9/02/03
VM3-42E	VS1.42E	VS1.42E	14.4/24.9 KV PRIMARY, TWO 70 AMP ELECTRONIC RESET SECTIONALIZERS, FOR FUSE CUTOUTS	--	9/02/03
VM3-43E	VS1.43E	VS1.43E	14.4/24.9 KV PRIMARY, THREE 70 AMP ELECTRONIC RESET SECTIONALIZERS, FOR FUSE CUTOUTS	--	9/02/03
--	VS1.51E	VS1.51E	14.4/24.9 KV PRIMARY, ONE, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04



(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
--	VS1.52E	VS1.52E	14.4/24.9 KV PRIMARY, TWO, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04
--	VS1.53E	VS1.53E	14.4/24.9 KV PRIMARY, THREE, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04
--	VS1.71E	VS1.71E	14.4/24.9 KV PRIMARY, ONE, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04
--	VS1.72E	VS1.72E	14.4/24.9 KV PRIMARY, TWO, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04
--	VS1.73E	VS1.73E	14.4/24.9 KV PRIMARY, THREE, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER, FOR FUSE CUTOUT	--	4/08/04
VM3-4V-E	VS1.4V.E	VS1.4V.E	14.4/24.9 KV PRIMARY, 1-PHASE, ONE ELECTRONIC RESET SECTIONALIZER, FOR FUSE CUTOUT, VERTICAL CONSTRUCTION	--	9/02/03
VM3-5V-E	VS1.5V.E	VS1.5V.E	14.4/24.9 KV PRIMARY, 2-PHASE, TWO ELECTRONIC RESET SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	--	9/02/03
VM3-6V-E	VS1.6V.E	VS1.6V.E	14.4/24.9 KV PRIMARY, 3-PHASE, THREE ELECTRONIC RESET SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	--	9/02/03
--	VS2.3.V	VS2.3.V	14.4/24.9 KV PRIMARY, 3 - PHASE, SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, VERTICAL CONSTRUCTION	--	9/02/03
--	VS2.31.V	VS2.31.V	14.4/24.9 KV PRIMARY, 3 - PHASE, SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, WITH SURGE ARRESTORS VERTICAL CONSTRUCTION	--	9/02/03
VM7-11-S	VS2.11.S	VS2.11.S	14.4/24.9 KV PRIMARY, ONE REGULATOR BY-PASS DISCONNECT SWITCH	--	9/03/03
VM7-13-S	VS2.13.S	VS2.13.S	14.4/24.9 KV PRIMARY, THREE REGULATOR BY-PASS DISCONNECT SWITCHES	--	9/03/03
VM3-16V	VS3.16.V	VS3.16.V	14.4/24.9 KV PRIMARY, 3-PHASE, GOAB AIR BREAK SWITCH, VERTICAL CONSTRUCTION	--	9/03/03
--	VS3.16P.V	VS3.16P.V	14.4/24.9 KV PRIMARY, 3-PHASE, GOAB AIR BREAK SWITCH, WITH SURGE ARRESTORS, VERTICAL CONSTRUCTION	--	9/03/03
--	VS3.16P.V.ST	VS3.16P.V.ST	14.4/24.9 KV PRIMARY, 3-PHASE, GOAB AIR BREAK SWITCH, WITH SURGE ARRESTORS, VERTICAL CONSTRUCTION, STEEL POLE	--	9/03/03



NOTES:

- 1) SEE FRAMING GUIDE [FRAMEGID15](#) FOR MORE DETAILS ON THE POSTIONING OF SLACK SPAN AND PRIMARY TAP INSULTORS.

DRAWING IS NOT TO SCALE

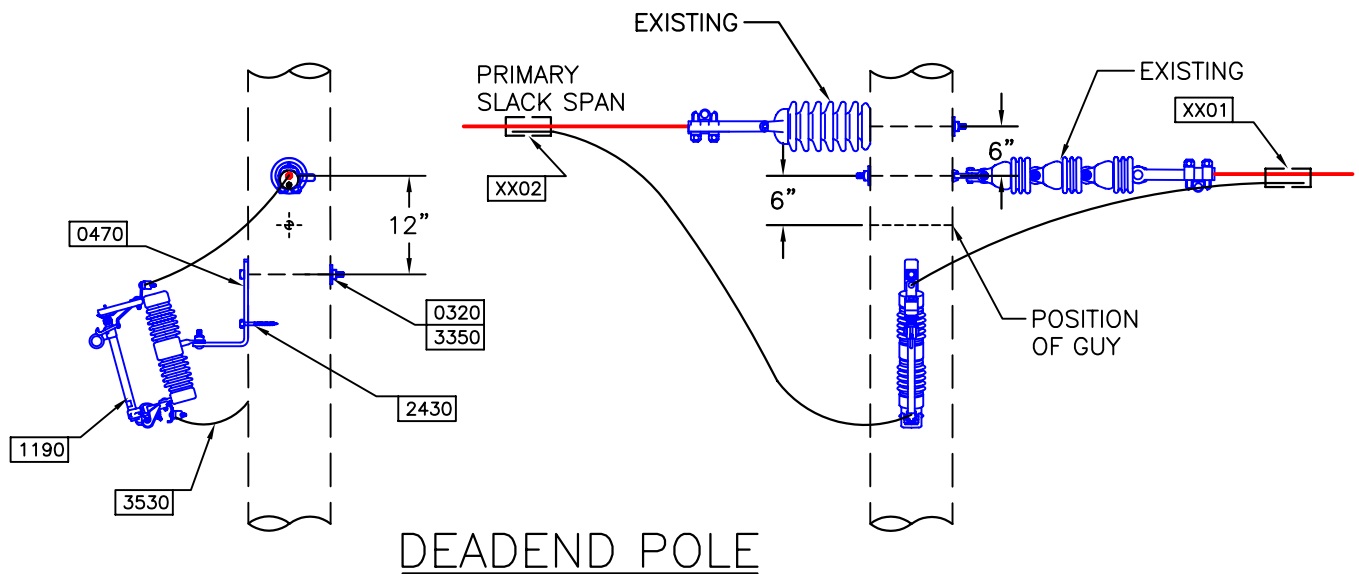
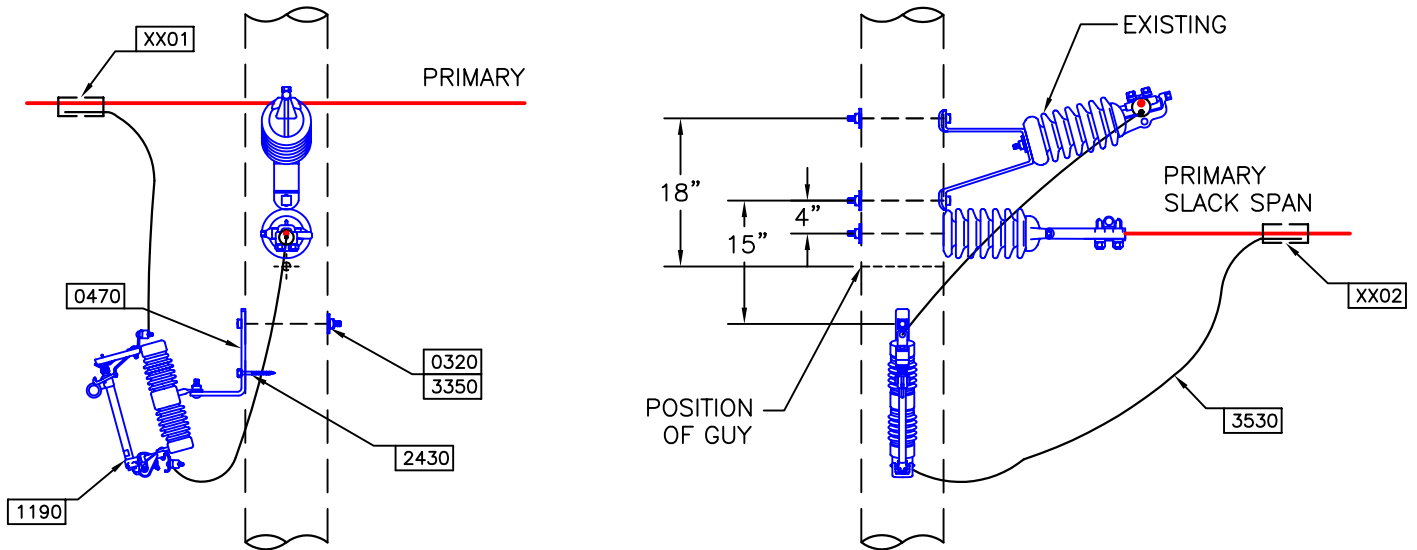
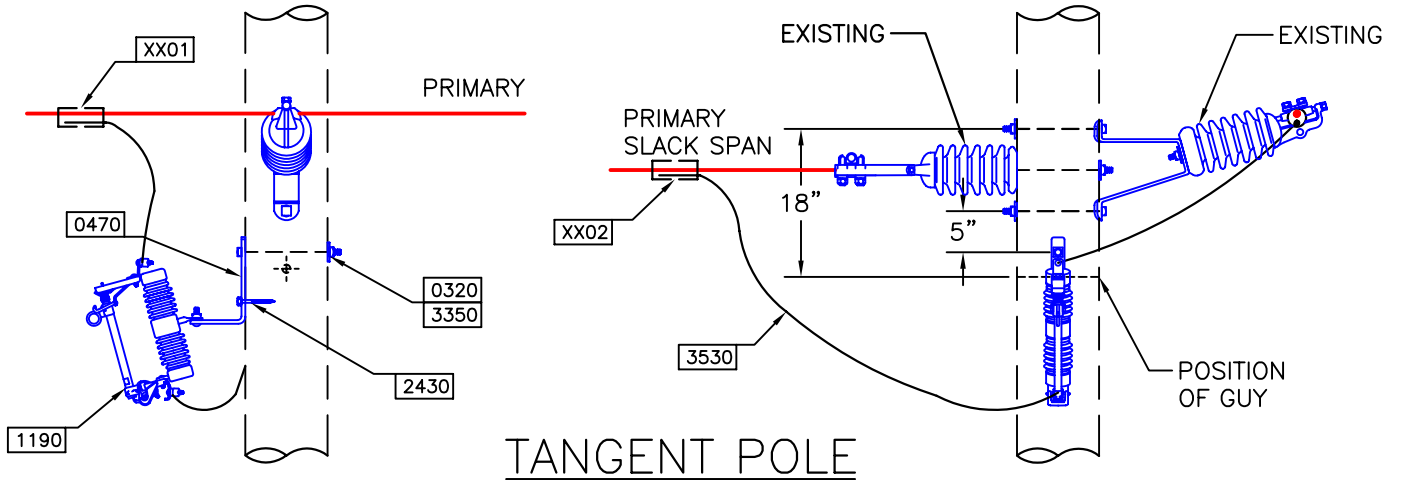
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: APRIL 11, 2006
Old CU: VM5-9	DWG Name: VS1-1.DWG

14.4/24.9 KV PRIMARY, 100 AMP FUSE CUTOUT
WITH BRACKET, PRIMARY ASSEMBLY

ISSUE#: REV 2
VS1.1

CONSTRUCTION UNIT:	VS1.1	AUTOCAD FILE:	VS1-1.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, FUSE CUTOUT WITH BRACKET, PRIMARY ASSEMBLY		PDF FILE:
		PDF SPEC.:	VS1-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1200	1	CUTOUT, FUSED OH 100 AMP		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	1	CONNECTOR (SOURCE)	W	16
XX02	1	CONNECTOR (LOAD)	C	16



NOTES:

- 1) SEE FRAMING GUIDE [FRAMEGID15](#) FOR MORE DETAILS ON THE POSTIONING OF SLACK SPAN AND PRIMARY TAP INSUALTORS.

DRAWING IS NOT TO SCALE

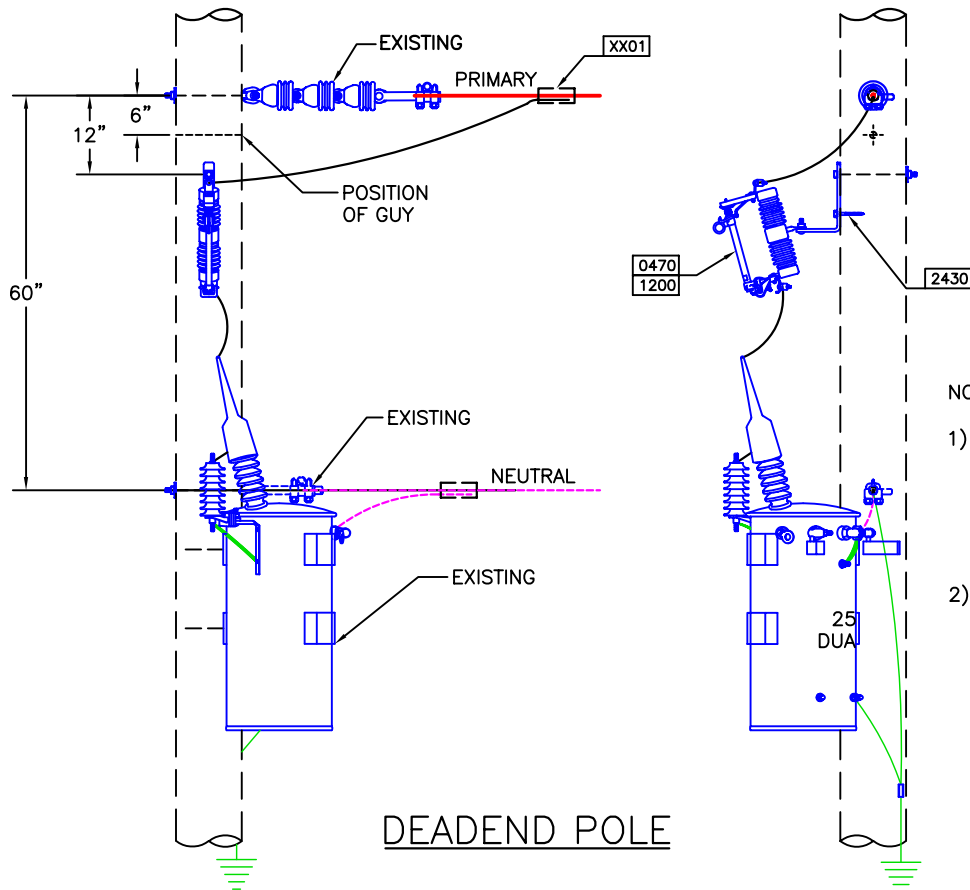
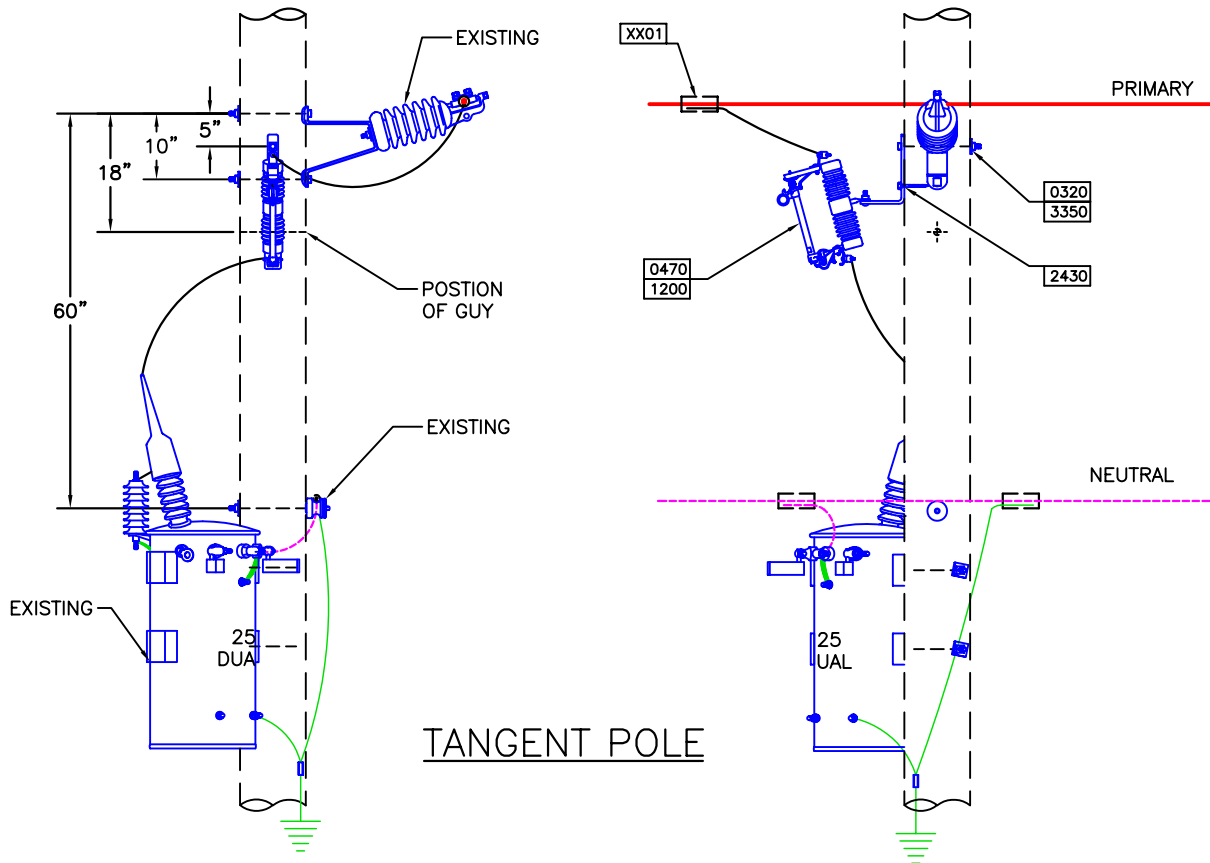
Drawn By: DEM	Date Drawn: APRIL 11, 2006
Approved By: WHP	Date Updated: —
Old CU: new	DWG Name: VS1-2.DWG

14.4/24.9 KV PRIMARY, 200 AMP FUSE CUTOUT
WITH BRACKET, PRIMARY ASSEMBLY

ISSUE#: —
VS1.2

CONSTRUCTION UNIT:	VS1.2	AUTOCAD FILE:	VS1-2.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 200 AMP FUSE CUTOUT WITH BRACKET; PRIMARY ASSEMBLY	PDF FILE:	VS1-2.PDF
		PDF SPEC.:	VS1-2_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	1	BOLT; MACHINE 5/8" X 12"		
0470	1	BRACKET; ARRESTER MOUNT LARGE		
1190	1	CUTOUT; FUSED OH 200 AMP		
2430	1	SCREW; LAG 1/2" X 4"		
3530	10	WIRE; CU BSD 4		
XX01	1	CONNECTOR (SOURCE)	W	16
XX02	1	CONNECTOR (LOAD)	C	16



NOTE:

- 1) FUSE CUTOUT ASSEMBLY SHOULD BE POSITIONED IN THE SAME QUADRANT AS THE TRANSFORMER. REVIEW GUIDE DRAWING G1.1G FOR THE RECOMMENDED TRANSFORMER QUADRANT LOCATIONS.
- 2) TRANSFORMERS SHOWN IN THIS DRAWING ARE 25 KV. ALL OTHER POLE MOUNT TRANSFORMERS MAY BE USED WITH THIS CONSTRUCTION UNIT.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 2, 2003
Old CU: VM5-9T	DWG Name: VS1-1T.DWG

14.4/24.9 KV PRIMARY, FUSE CUTOUT WITH
BRACKET, TRANSFORMER APPLICATION,
PRIMARY ASSEMBLY

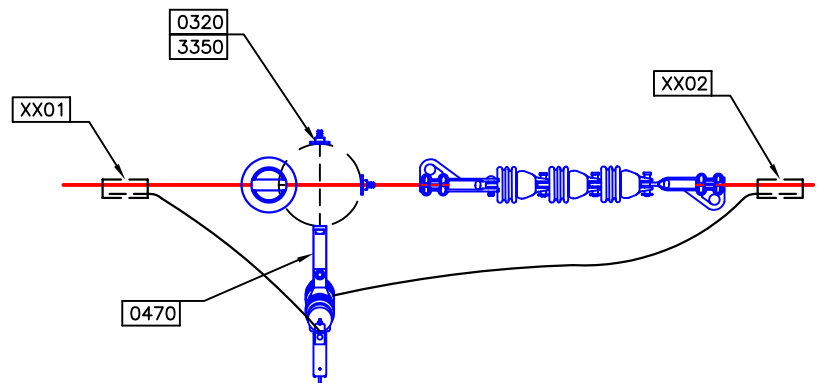
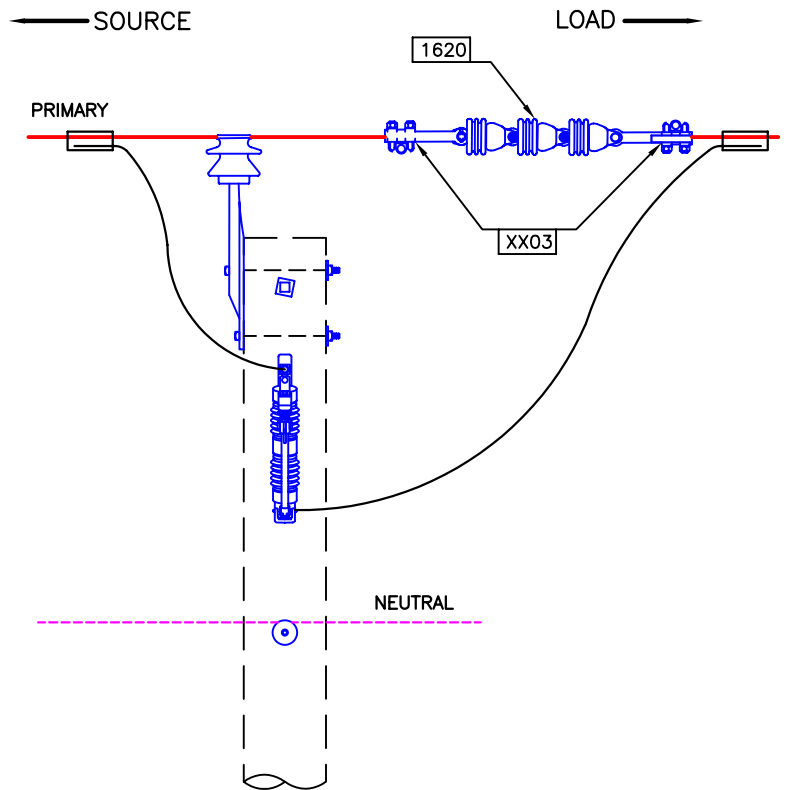
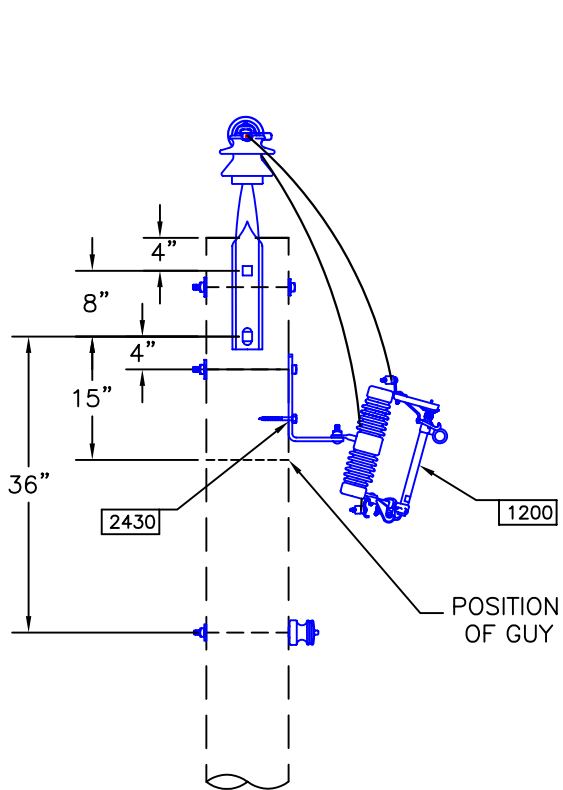
ISSUE#: REV 1
VS1.1T

CONSTRUCTION UNIT: VS1.1T **AUTOCAD FILE:** VM5-9T.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, FUSE CUTOUT WITH BRACKET, TRANSFORMER APPLICATION, PRIMARY ASSEMBLY **PDF FILE:** VM5-9T.PDF **PDF SPEC.:** VM5-9T_SPEC.PDF

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1200	1	CUTOUT, FUSED OH 100 AMP		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	5	WIRE, CU BSD 4		
XX01	1	CONNECTOR (SOURCE)	W	16



DRAWING NOT TO SCALE

Drawn By: WIC, DEM

Date Drawn: JAN. 2002

Approved By: WHP

Date Updated: SEPT. 2, 2003

Old CU: VM3-4B

DWG Name: VS1-14-B.DWG

14.4 / 24.9 KV PRIMARY, 1 ϕ ,
SECTIONALIZING FUSE CUTOUT, PRIMARY
ASSEMBLY, VERTICAL CONSTRUCTION

ISSUE#: REV 1

VS1.14.B

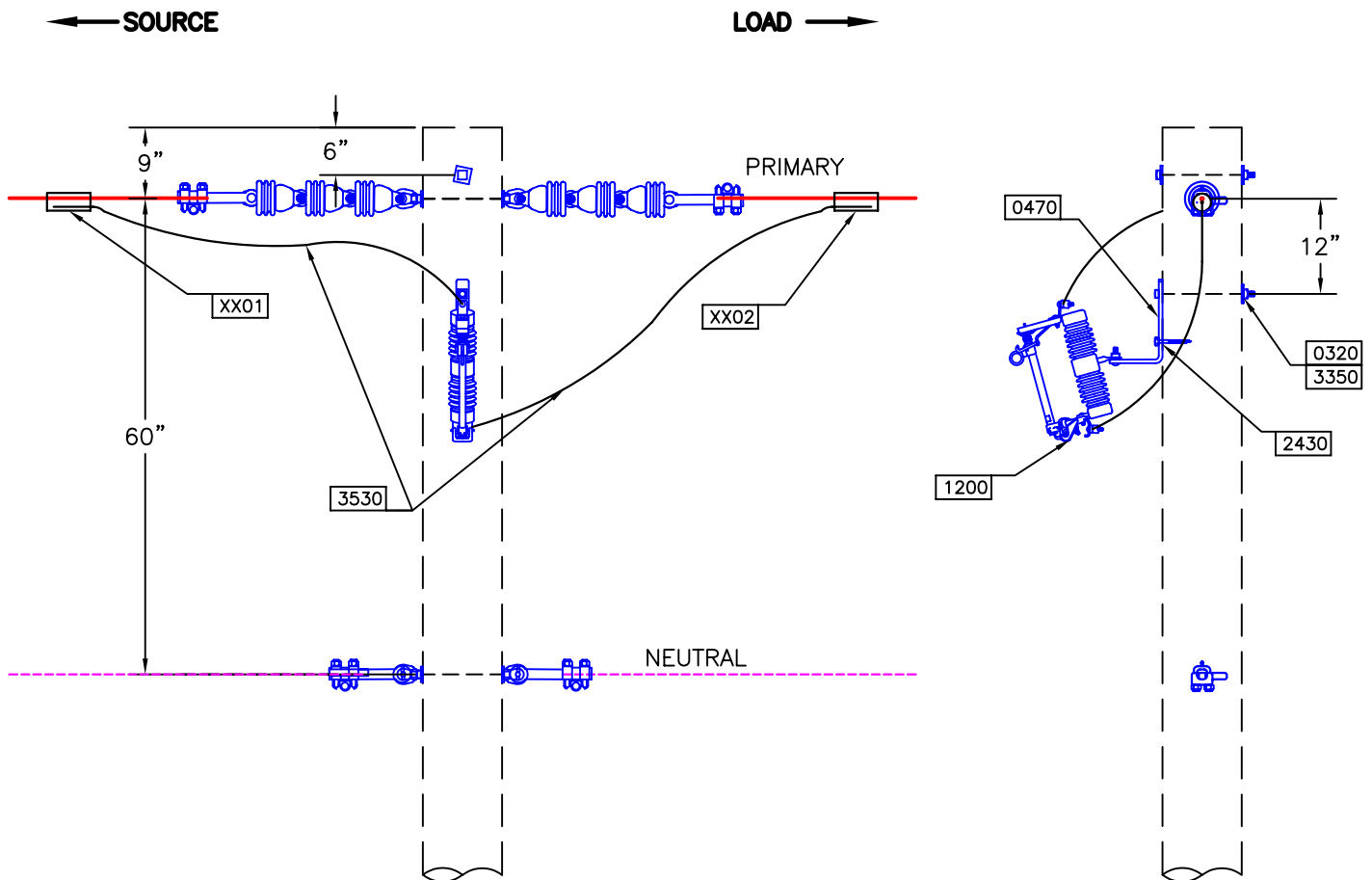
CONSTRUCTION UNIT: VS1.14.B **AUTOCAD FILE:** VS1-14-B.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 1-PHASE,
SECTIONALIZING FUSE CUTOUT, PRIMARY
ASSEMBLY, VERTICAL CONSTRUCTION **PDF FILE:** VS1-14-B.PDF
PDF SPEC.: VS1-14-B_SPEC.PDF

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1200	1	CUTOUT, FUSED OH 100 AMP		
1620	3	INSULATOR, SUSP 4/14"		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	1	CONNECTOR (SOURCE)	W	16
XX02	1	CONNECTOR (LOAD)	C	16
XX03	2	CLAMP, DEADEND (PRIMARY)	W	4





DRAWING IS NOT TO SCALE

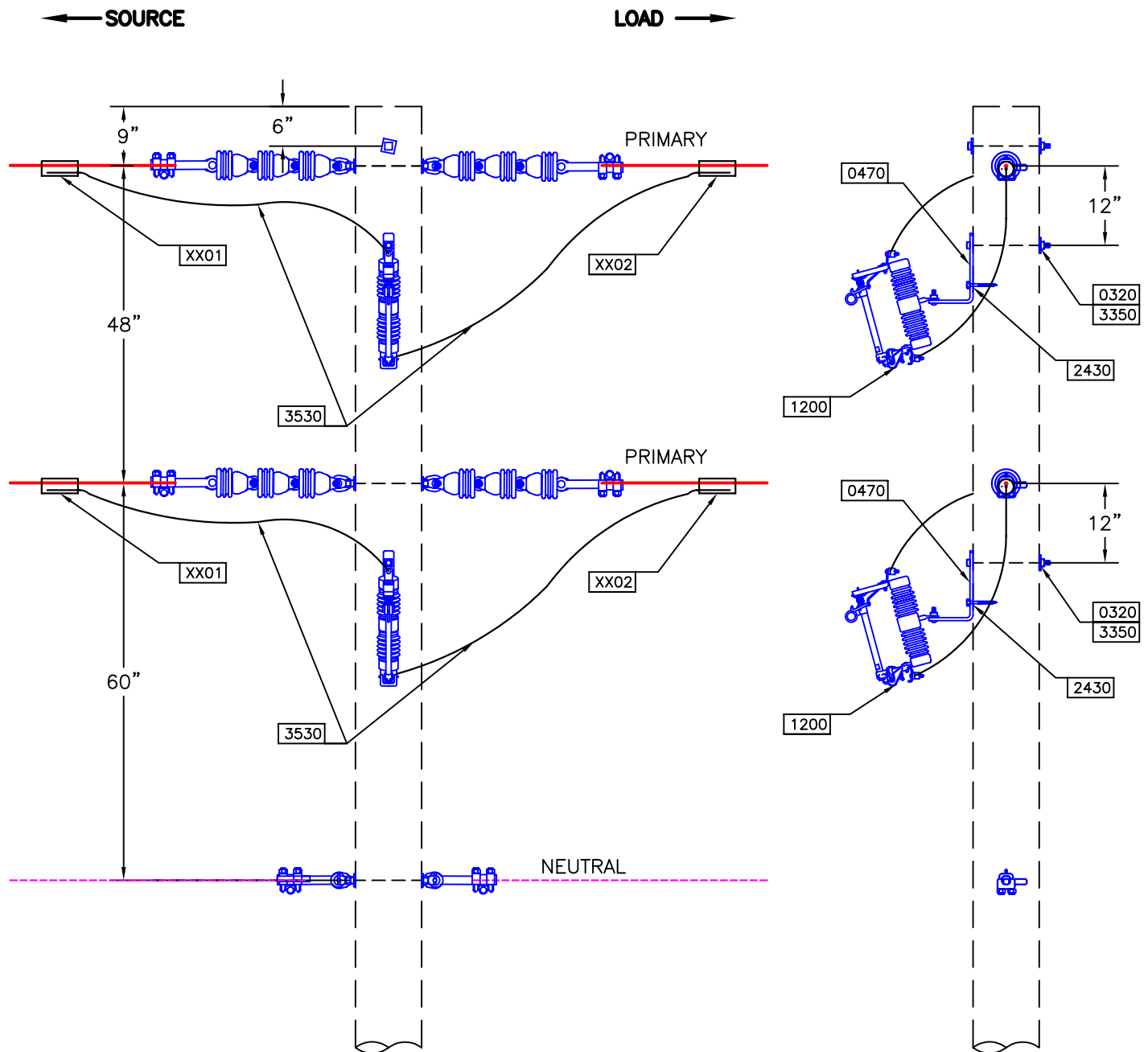
Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 1Ø, ONE SECTIONALIZING FUSE CUTOUT, PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION	ISSUE#: REV 1
Approved By: WHP	Date Updated: SEPT. 2, 2003		VS1.14.V
Old CU: VM3-4	DWG Name: VS1-14-V.DWG		

CONSTRUCTION UNIT: VS1.14.V **AUTOCAD FILE:** VS1-14-V.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 1-PHASE, ONE
SECTIONALIZING FUSE CUTOUT, PRIMARY
ASSEMBLY, VERTICAL CONSTRUCTION **PDF FILE:** VS1-14-V.PDF
PDF SPEC.: VS1-14-V_SPEC.PDF

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
1200	1	CUTOUT, FUSED OH 100 AMP		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	1	CONNECTOR (LOAD)	C	16
XX02	1	CONNECTOR (SOURCE)	W	16



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 2, 2003
Old CU: VM3-5	DWG Name: VS1-15-V.DWG

14.4/24.9 KV PRIMARY, 2Ø,
TWO SECTIONALIZING FUSE CUTOUTS,
PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION

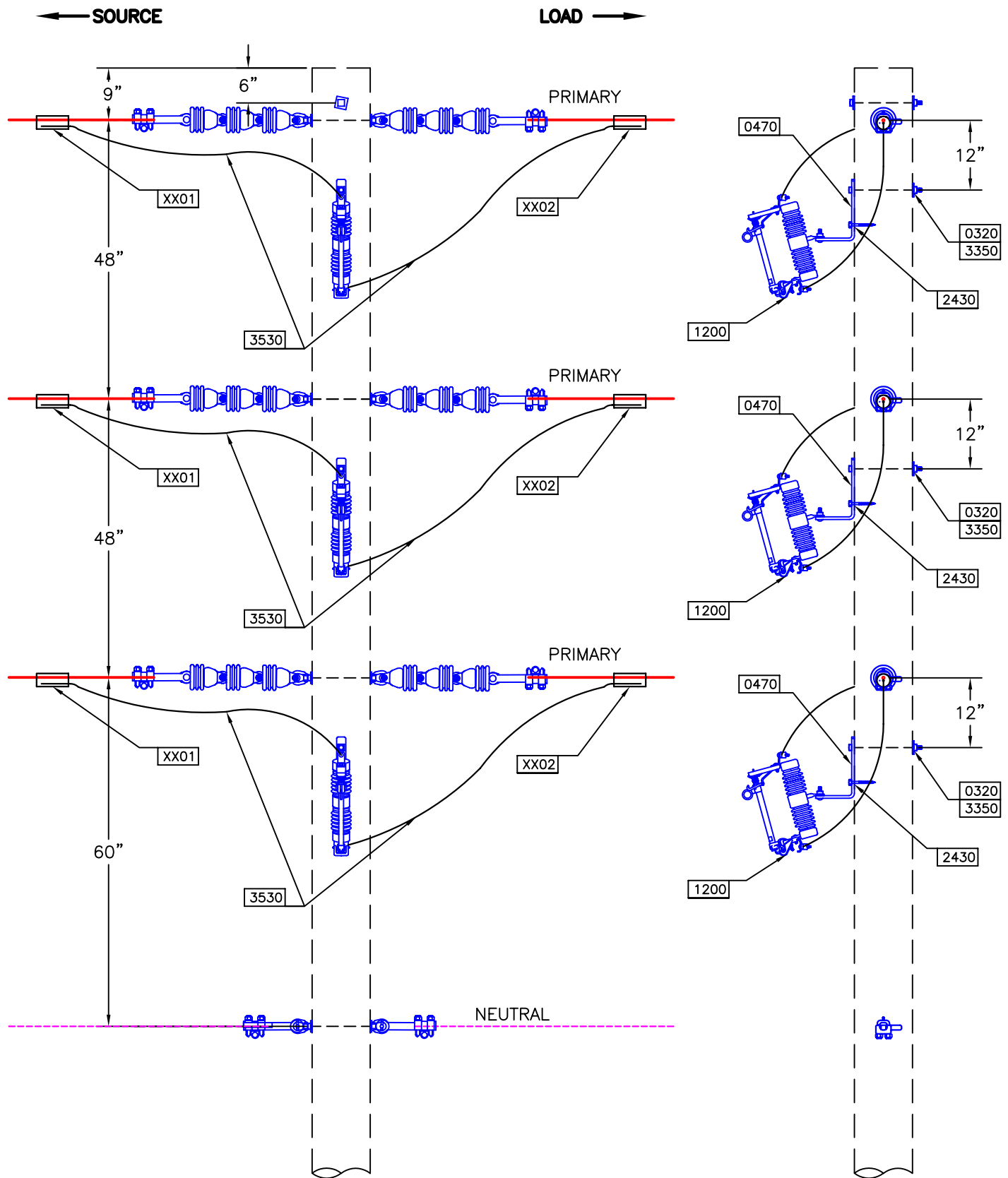
ISSUE#: REV 1
VS1.15.V

CONSTRUCTION UNIT: VS1.15.V **AUTOCAD FILE:** VS1-15.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 2-PHASE TWO
SECTIONALIZING FUSE CUTOUTS, PRIMARY
ASSEMBLY, VERTICAL CONSTRUCTION **PDF FILE:** VS1.15.PDF
PDF SPEC.: VS1-15_SPEC.PDF

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
0470	2	BRACKET, ARRESTER MOUNT LARGE		
1200	2	CUTOUT, FUSED OH 100 AMP		
2430	2	SCREW, LAG 1/2" X 4"		
3350	2	WASHER, SQUARE		
3530	20	WIRE, CU BSD 4		
XX01	2	CONNECTOR (LOAD)	C	16
XX02	2	CONNECTOR (SOURCE)	W	16



DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 2, 2003
Old CU: VM3-6	DWG Name: VS1-16-V.DWG

14.4/24.9 KV PRIMARY, 3Ø,
THREE SECTIONALIZING FUSE CUTOUTS,
PRIMARY ASSEMBLY, VERTICAL CONSTRUCTION

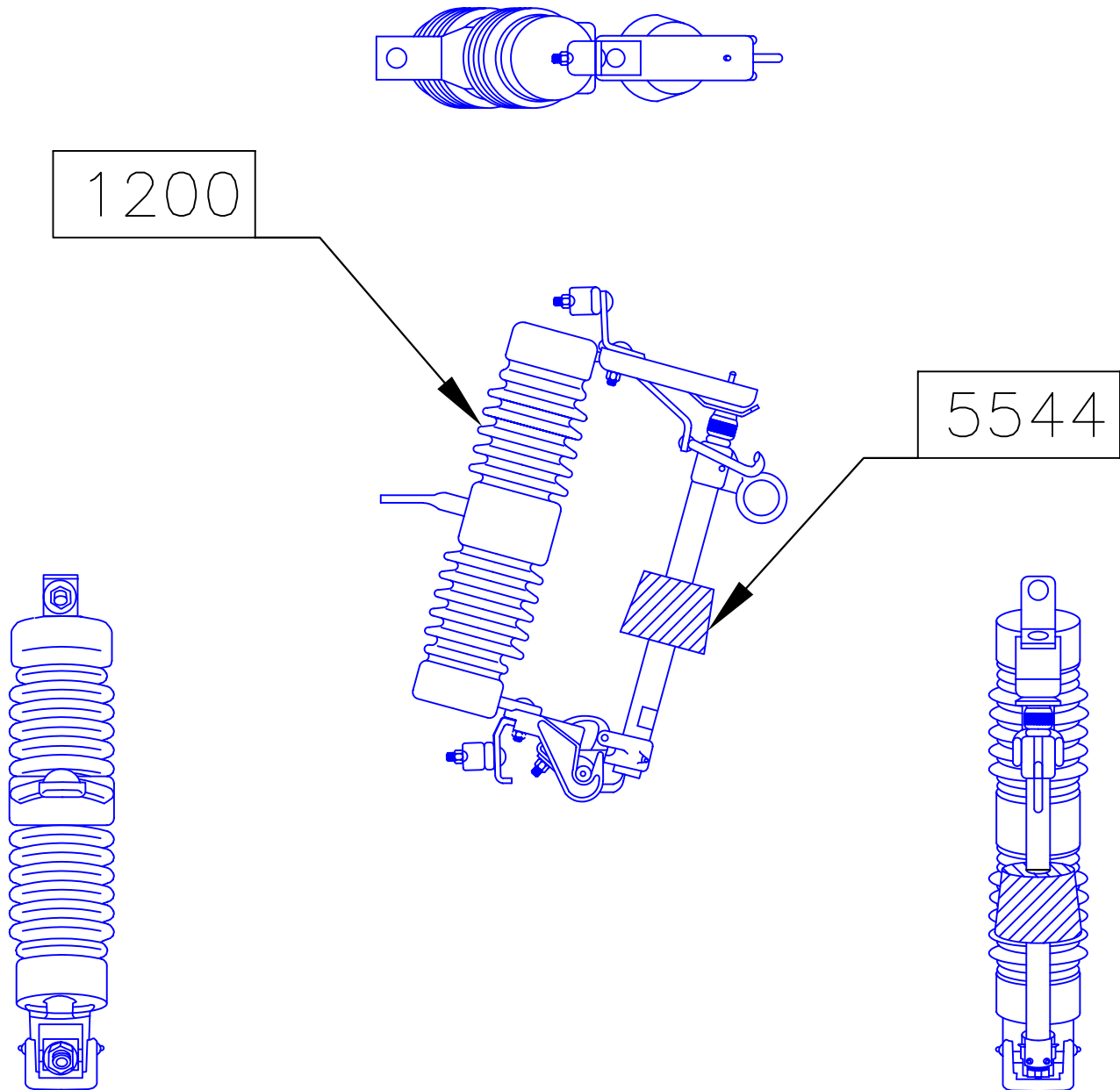
ISSUE#: REV 1
VS1.16.V

CONSTRUCTION UNIT: VS1.16.V **AUTOCAD FILE:** VS1-16.DWG

DESCRIPTION: 14.4/24.9 KV PRIMARY, 3-PHASE, THREE
SECTIONALIZING FUSE CUTOUTS, PRIMARY
ASSEMBLY, VERTICAL CONSTRUCTION **PDF FILE:** VS1.16.PDF
PDF SPEC.: VS1-16_SPEC.PDF

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0320	2	BOLT, MACHINE 5/8" X 12"		
0330	1	BOLT, MACHINE 5/8" X 14"		
0470	3	BRACKET, ARRESTER MOUNT LARGE		
1200	3	CUTOUT, FUSED OH 100 AMP		
2430	3	SCREW, LAG 1/2" X 4"		
3350	3	WASHER, SQUARE		
3530	30	WIRE, CU BSD 4		
XX01	6	CONNECTOR (LOAD)	C	16
XX02	6	CONNECTOR (SOURCE)	W	16



NOTE:

THIS CONSTRUCTION UNIT DRAWING DEFINES THREE SEPERATE CONSTRUCTION UNITS.

CU NUMBER DESCRIPTION

VS1.31E THIS IS A SINGLE, 50 AMP ELECTRONIC RESET, SECTIONALIZER

VS1.32E THIS IS TWO, 50 AMP ELECTRONIC RESEST, SECTIONALIZERS

VS1.33E THIS IS THREE, 50 AMP ELECTRONIC RESET, SECTIONALIZERS

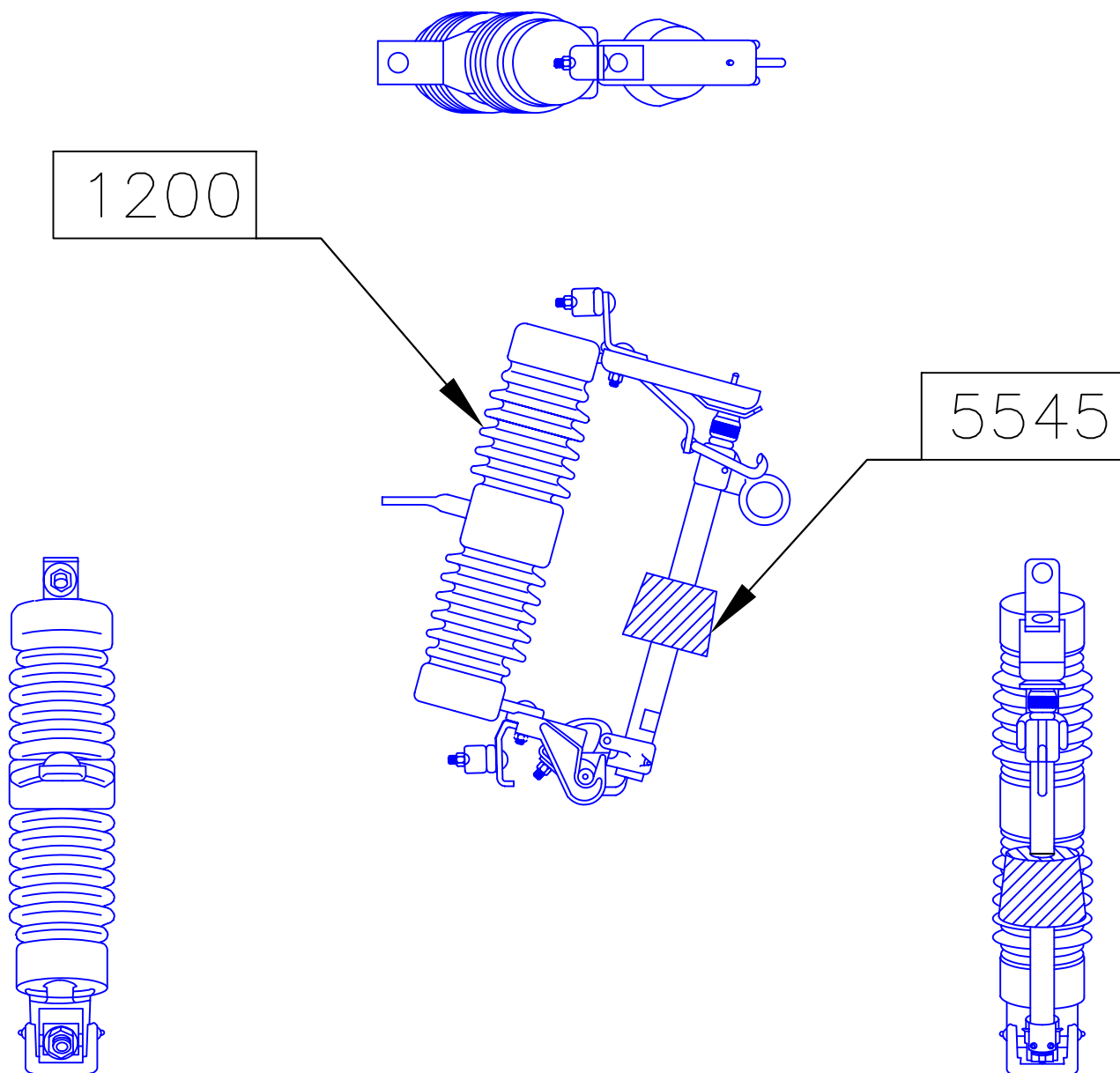
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Drawn By: DEM	Date Drawn: MAY 20, 2004
Approved By: WHP	Date Updated: MAY 20, 2004
Old CU:	DWG Name: VS1-3_E.DWG

**14.4/24.9 KV PRIMARY, 50 AMP
ELECTRONIC RESET SECTIONALIZER(S),
FOR FUSE CUTOUT**

ISSUE#: REV 1
VS1.3_E

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NOTE:

THIS CONSTRUCTION UNIT DRAWING DEFINES THREE SEPERATE CONSTRUCTION UNITS.

CU NUMBER DESCRIPTION

VS1.41E	THIS IS A SINGLE, 70 AMP ELECTRONIC RESET, SECTIONALIZER
VS1.42E	THIS IS TWO, 70 AMP ELECTRONIC RESEST, SECTIONALIZERS
VS1.43E	THIS IS THREE, 70 AMP ELECTRONIC RESET, SECTIONALIZERS

DRAWING IS NOT TO SCALE

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: SEPT. 2, 2003

Old CU: VM3-41E

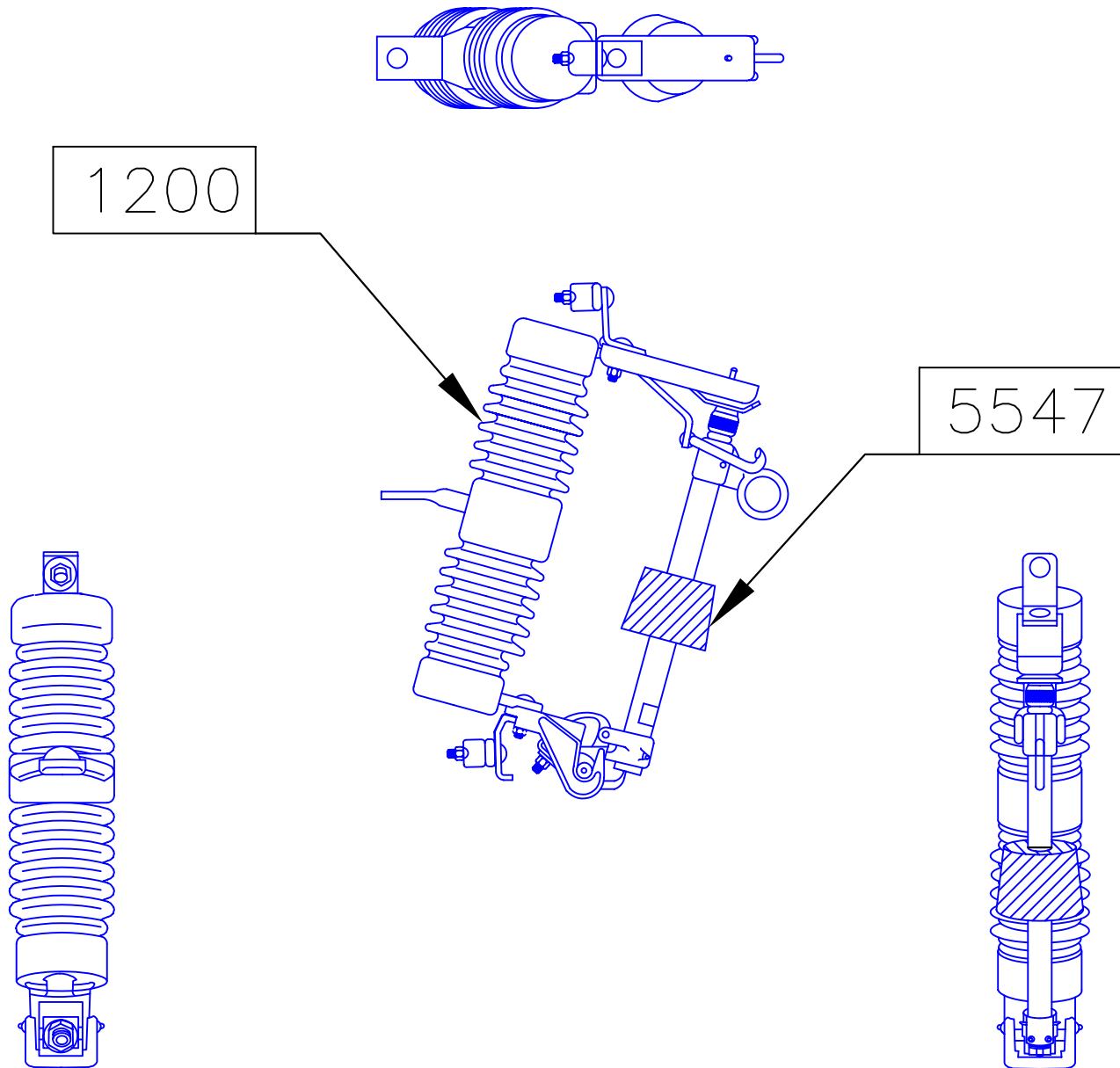
DWG Name: VS1-4_E.DWG

**14.4/24.9 KV PRIMARY, 70 AMP ELECTRONIC
RESET SECTIONALIZER(S),
FOR FUSE CUTOUT**

ISSUE#: REV 1

VS1.4_E

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NOTE:

THIS CONSTRUCTION UNIT DRAWING DEFINES THREE SEPERATE CONSTRUCTION UNITS.

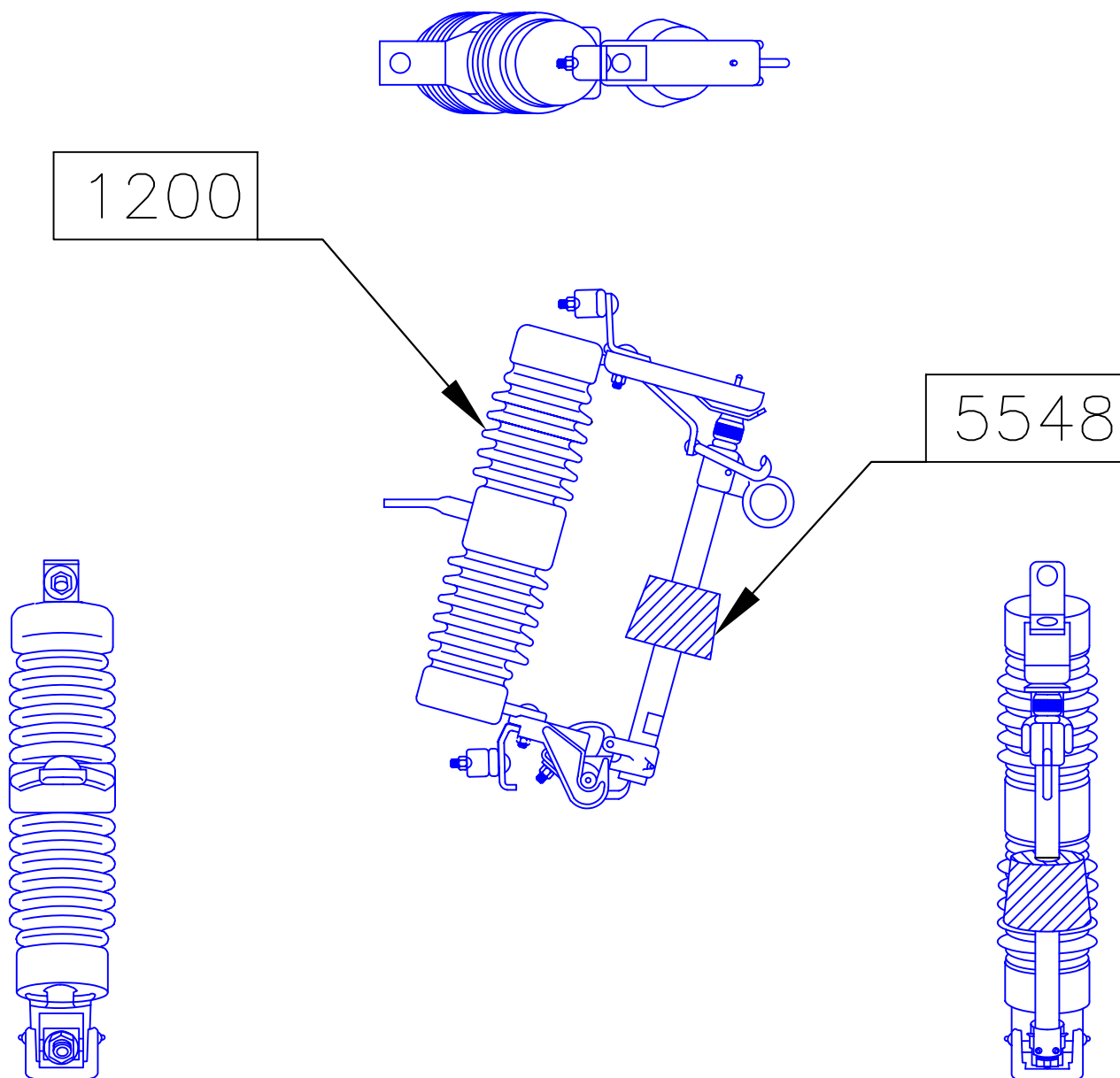
CU NUMBER DESCRIPTION

VS1.51E	THIS IS A SINGLE, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER
VS1.52E	THIS IS TWO, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZERS
VS1.53E	THIS IS THREE, 50 AMP ELECTRONIC, ONE SHOT, SECTIONALIZERS

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: APRIL 2004	14.4/24.9 KV PRIMARY, 50 AMP ELECTRONIC, ONE SHOT SECTIONALIZER(S), FOR FUSE CUTOUT	ISSUE#: REV 1
Approved By: WHP	Date Updated: April 8, 2004		VS1.5_E
Old CU:	DWG Name: VS1-5_E.DWG		

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NOTE:

THIS CONSTRUCTION UNIT DRAWING DEFINES THREE SEPERATE CONSTRUCTION UNITS.

CU NUMBER	DESCRIPTION
-----------	-------------

VS1.71E	THIS IS A SINGLE, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZER
---------	--

VS1.72E	THIS IS TWO, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZERS
---------	--

VS1.73E	THIS IS THREE, 70 AMP ELECTRONIC, ONE SHOT, SECTIONALIZERS
---------	--

DRAWING IS NOT TO SCALE

Drawn By: DEM

Date Drawn: APRIL 2004

Approved By: WHP

Date Updated: APRIL 8, 2004

Old CU:

DWG Name: VS1-7_E.DWG

14.4/24.9 KV PRIMARY, 70 AMP ELECTRONIC,
ONE SHOT,SECTIONALIZER(S),
FOR FUSE CUTOUT

ISSUE#: REV 1

VS1.7_E

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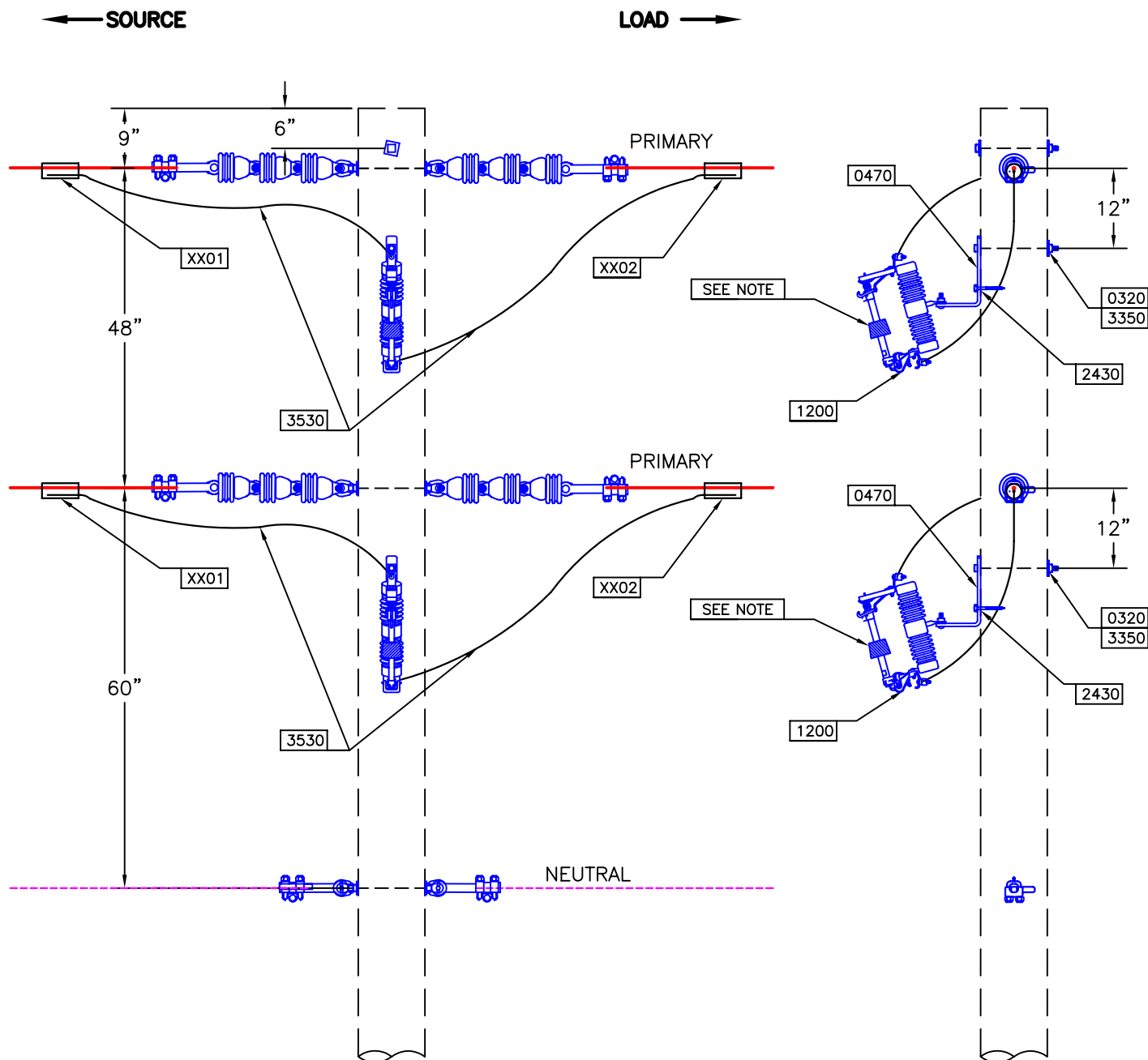
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PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0470	1	BRACKET, ARRESTOR MOUNT LARGE		
1200	1	CUTOUT, FUSED OH 100 AMP		
2430	1	SCREW, LAG 1/2" X 4"		
3350	1	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
XX01	1	CONNECTOR (LOAD)	C	16
XX02	1	CONNECTOR (SOURCE)	W	16



NOTE:

THE SECTIONALIZERS ARE TO BE SELECTED FROM THE FOLLOWING CONSTRUCTION UNIT LIST. THE SELECTED CONSTRUCTION UNIT IS TO BE USED AS A SEPERATE LINE ITEM IN THE STAKING SHEET, AND IS USED TO DEFINE THE SECTIONALIZER.

CU NUMBER	STOCK NUMBER	SN QTY	DESCRIPTION
VS1.32E	SN-5544	2	50 AMP, ELECTRONIC RESET, SECTIONALIZERS
VS1.42E	SN-5545	2	70 AMP, ELECTRONIC RESET, SECTIONALIZERS
VS1.52E	SN-5547	2	50 AMP, ELECTRONIC, ONE SHOT, SECTIONALIZERS
VS1.72E	SN-5548	2	70 AMP, ELECTRONIC, ONE SHOT, SECTIONALIZERS

DRAWING IS NOT TO SCALE

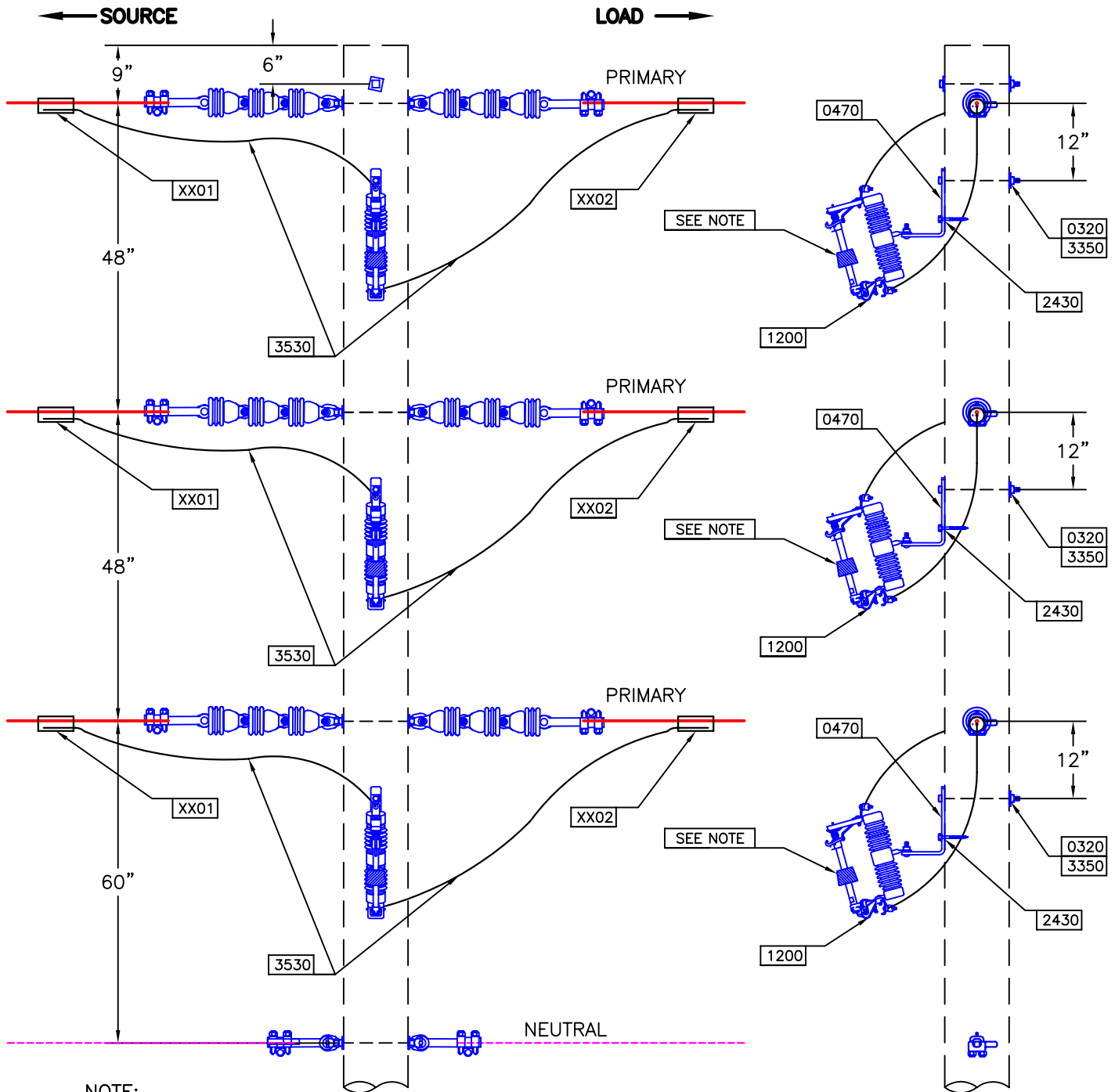
Drawn By: DEM	Date Drawn: SEPT. 2, 2003	14.4/24.9 KV PRIMARY, 2Ø, TWO ELECTRONIC SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	ISSUE#: REV 2
Approved By: WHP	Date Updated: MAY 20, 2004		VS1.5V.E
Old CU: VM3-5V-E	DWG Name: VS1-5V-E.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

DESCRIPTION: **PDF FILE:**
PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	1	BOLT, MACHINE 5/8" X 12"		
0470	2	BRACKET, ARRESTOR MOUNT LARGE		
1200	2	CUTOUT, FUSED OH 100 AMP		
2430	2	SCREW, LAG 1/2" X 4"		
3350	2	WASHER, SQUARE		
3530	20	WIRE, CU BSD 4		
XX01	2	CONNECTOR (LOAD)	C	16
XX02	2	CONNECTOR (SOURCE)	W	16



CU NUMBER	STOCK NUMBER	SN QTY	DESCRIPTION
VS1.33E	SN-5544	3	50 AMP, ELECTRONIC RESET, SECTIONALIZERS
VS1.43E	SN-5545	3	70 AMP, ELECTRONIC RESET, SECTIONALIZERS
VS1.53E	SN-5547	3	50 AMP, ELECTRONIC, ONE SHOT, SECTIONALIZERS
VS1.73E	SN-5548	3	70 AMP, ELECTRONIC, ONE SHOT, SECTIONALIZERS

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: SEPT. 2, 2003	14.4/24.9 KV PRIMARY, 3Ø, THREE ELECTRONIC SECTIONALIZERS, FOR FUSE CUTOUTS, VERTICAL CONSTRUCTION	ISSUE#: REV 2 VS1.6V.E
Approved By: WHP	Date Updated: MAY 20, 2004		
Old CU: VM3-6V-E	DWG Name: VS1-6V-E.DWG		

CONSTRUCTION UNIT: **AUTOCAD FILE:**

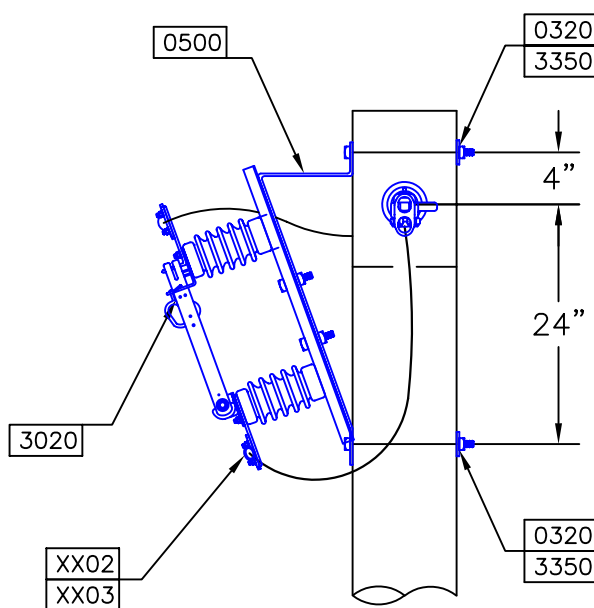
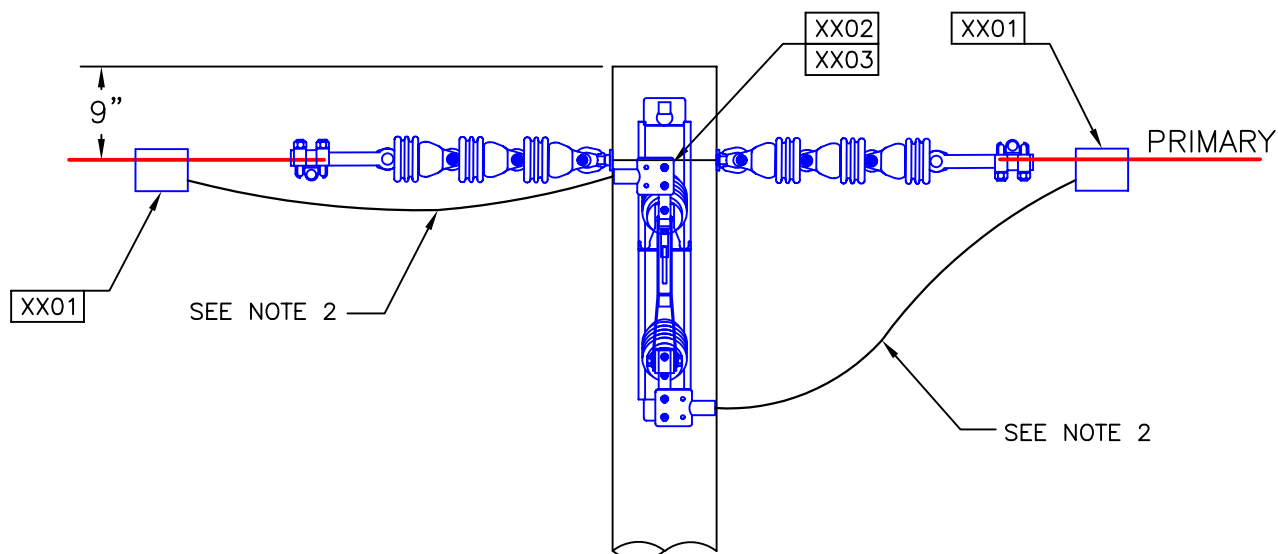
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PDF FILE:

PDF SPEC.:

ANGLE FROM: **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0310	1	BOLT, MACHINE 5/8" X 10"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0470	3	BRACKET, ARRESTOR MOUNT LARGE		
1200	3	CUTOUT, FUSED OH 100 AMP		
2430	3	SCREW, LAG 1/2" X 4"		
3350	3	WASHER, SQUARE		
3530	30	WIRE, CU BSD 4		
XX01	3	CONNECTOR (LOAD)	C	16
XX02	3	CONNECTOR (SOURCE)	W	16



NOTES:

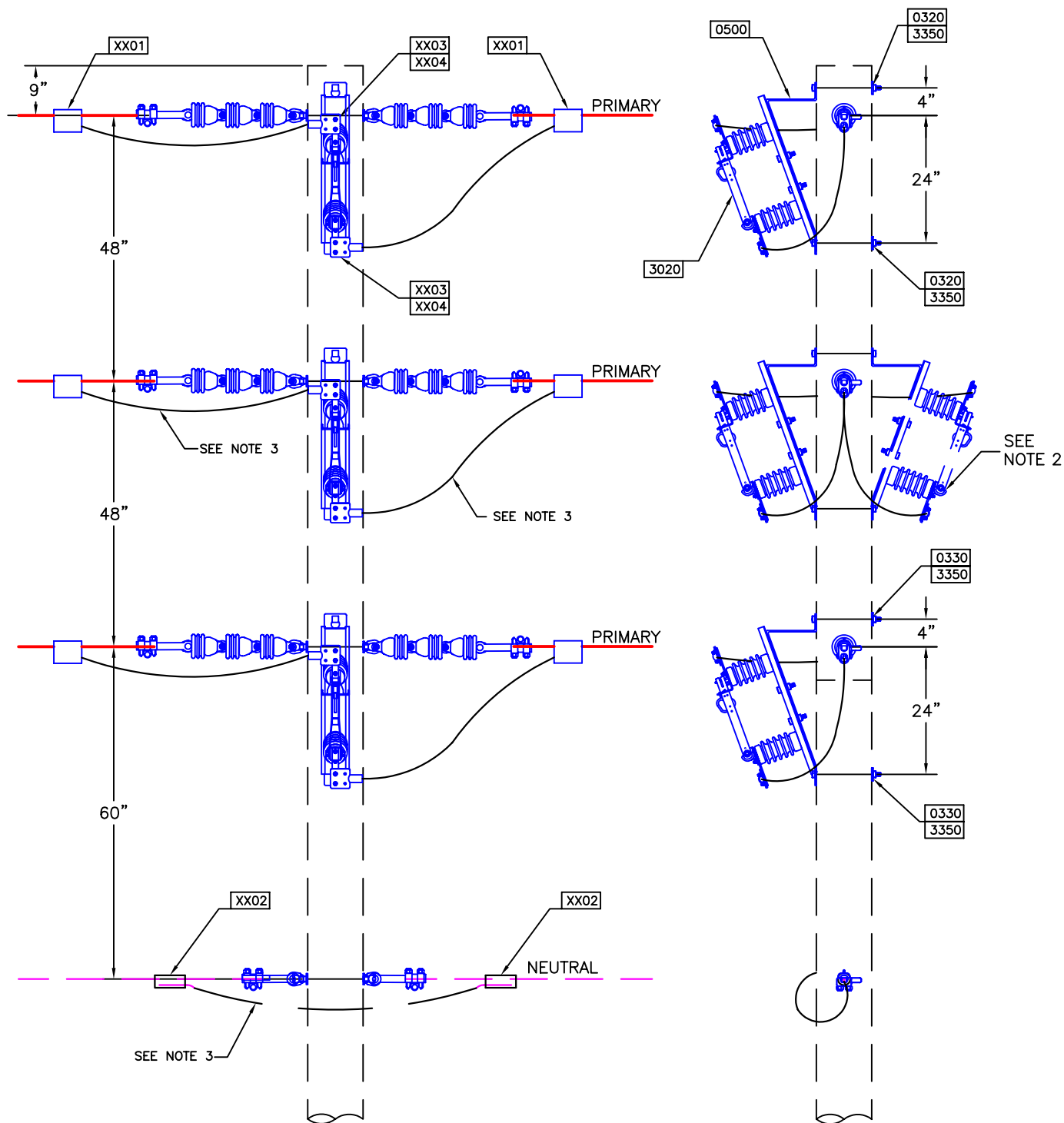
- 1) THE SWITCH/BACKET ASSEMBLY MAY BE MOUNTED ON THE OPPOSITE SIDE OF THE POLE TO ALLOW FOR MORE CLEARANCE BETWEEN THE PHASES, WHEN NECESSARY.
- 2) JUMPER WIRE TO BE THE SAME AS THE PRIMARY WIRE USED ON THE SOURCE AND LOAD SIDE OF THE SWITCH ASSEMBLY

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 12/19/06	14.4/24.9 KV PRIMARY, 1 ϕ , SECTIONALIZED DISCONNECT SWITCH ASSEMBLY, VERTICAL CONSTRUCTION	REV# : 001
Approved By: WHP	Date Updated: MAY 7, 2004		VS2.1.V
Old CU: VM3-1V	DWG Name: VS2-1-V.DWG		

CONSTRUCTION UNIT:	VS2.1.V	AUTOCAD FILE:	VS2-1-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 1-PHASE; SECTIONALIZED DISCONNECT SWITCH ASSEMBLY; VERTICAL CONSTRUCTION	PDF FILE:	VS2-1-V.PDF
		PDF SPEC.:	VS2-1-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	4	BOLT; MACHINE 5/8 X 12		
0330	2	BOLT; MACHINE 5/8 X 14		
3020	1	SWITCH; DISCONNECT 600AMP 25KV		
3350	2	WASHER; SQUARE		
XX01	2	CONNECTOR (PRIMARY)	W	29
XX02	2	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX03	2	TAP; AL. LUG (PADDLE) TO COND.	W	33



NOTES:

- 1) DRAWING IS SHOWN ON A THREE PHASE (VC6.1) DOUBLE DEADEND POLE. THIS SHOWS THE PROPER POSITION AND BOLT PATTERN FOR EACH OF SWITCH/BRAKET ASSEMBLY.
- 2) THE SWITCH/BRAKET ASSEMBLY MAY BE MOUNTED ON THE OPPOSITE SIDE OF THE POLE TO ALLOW FOR MORE CLEARANCE BETWEEN THE PHASES.
- 3) JUMPER IS THE SAME WIRE AS THE SOURCE AND LOAD SIDE OF THE SWITCH ASSEMBLY.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 12/19/06
Approved By: WHP	Date Updated: JULY 21, 2003
Old CU: NEW	DWG Name: VS2-3-V.DWG

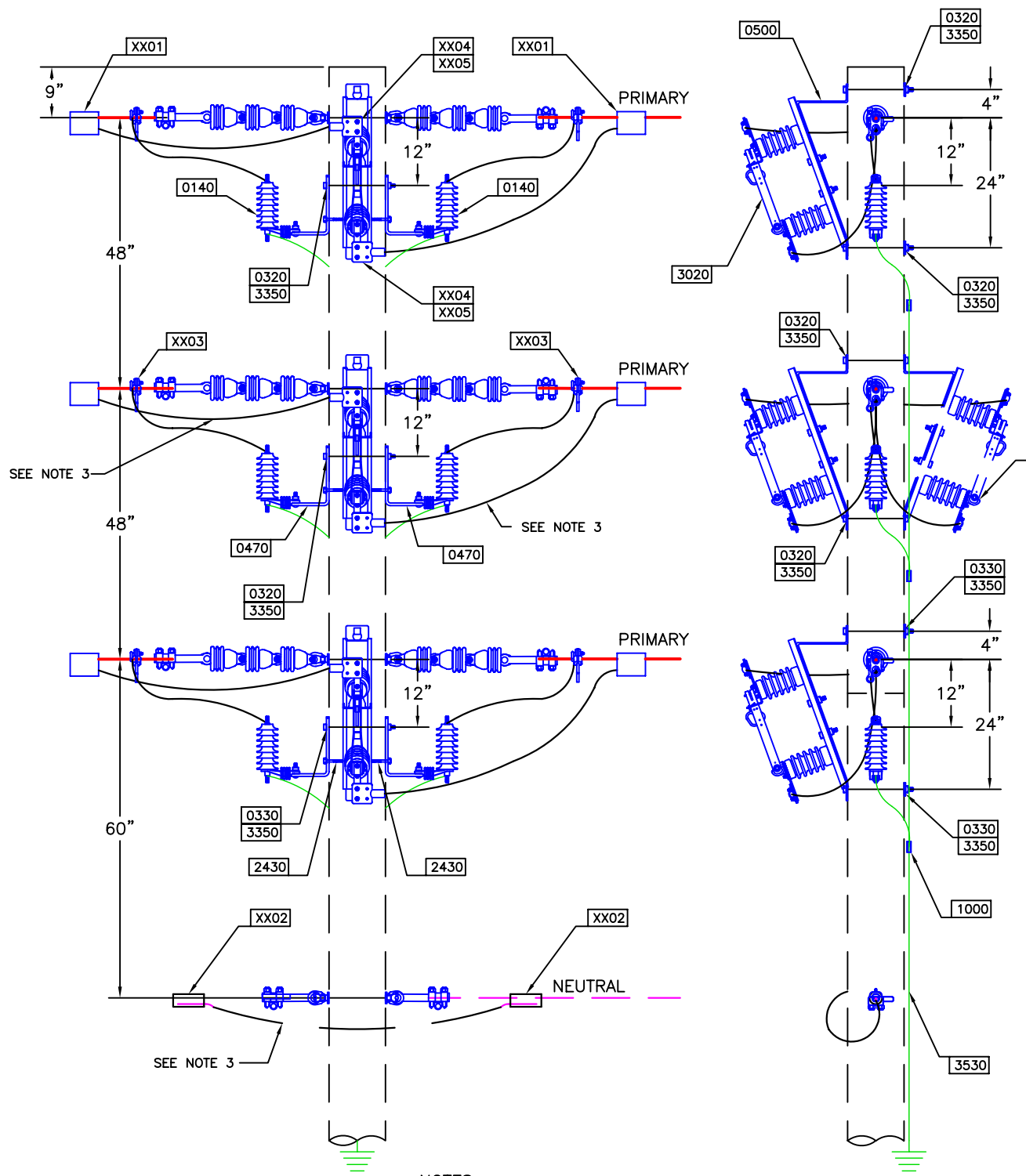
14.4/24.9 KV PRIMARY, 3 ϕ , SECTIONALIZED
DISCONNECT SWITCH ASSEMBLY,
VERTICAL CONSTRUCTION

REV# : 002

VS2.3.V

CONSTRUCTION UNIT:	VS2.3.V	AUTOCAD FILE:	VS2-3-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; SECTIONALIZED DISCONNECT SWITCH ASSEMBLY; VERTICAL CONSTRUCTION	PDF FILE:	VS2-3-V.PDF
		PDF SPEC.:	VS2-3-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0320	4	BOLT; MACHINE 5/8 X 12		
0330	2	BOLT; MACHINE 5/8 X 14		
0500	3	BRACKET; DISCONNECT SWITCH		
3020	3	SWITCH; DISCONNECT 600AMP 25KV		
3350	6	WASHER; SQUARE		
XX01	6	CONNECTOR (PRIMARY)	W	29
XX02	2	CONNECTOR (NEUTRAL)	N	29
XX03	6	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX04	6	TAP; AL. LUG (PADDLE) TO COND.	W	33



NOTES:

- 1) DRAWING IS SHOWN ON A THREE PHASE (VC6.1) DOUBLE DEADEND POLE. THIS SHOWS THE PROPER POSITION AND BOLT PATTERN FOR EACH OF SWITCH/BRAKET ASSEMBLY.
- 2) THE SWITCH/BRAKET ASSEMBLY MAY BE MOUNTED ON THE OPPOSITE SIDE OF THE POLE TO ALLOW FOR MORE CLEARANCE BETWEEN THE PHASES.
- 3) JUMPER IS THE SAME WIRE AS THE SOURCE AND LOAD SIDE OF THE SWITCH ASSEMBLY.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 12/19/06
Approved By: WHP	Date Updated: JUNE 21, 2004
Old CU: VS2-31-V	DWG Name: VS2-31-V.DWG

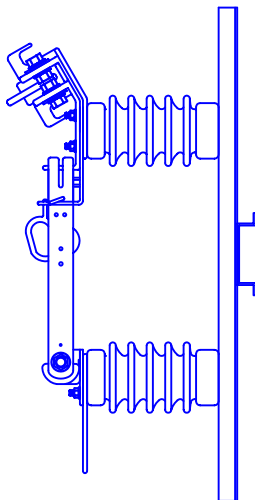
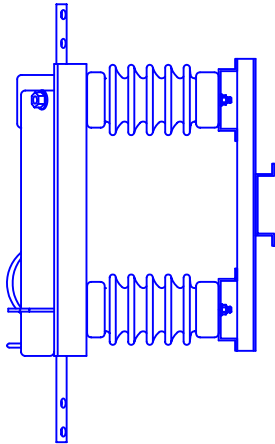
14.4/24.9 KV PRIMARY, 3Ø, SECTIONALIZED
DISCONNECT SWITCH ASSEMBLY, WITH LIGHTING
ARRESTERS, VERTICAL CONSTRUCTION

REV# : 003

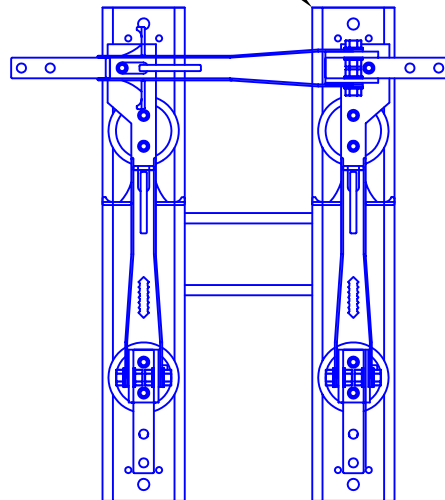
VS2.31.V

CONSTRUCTION UNIT:	VS2.31.V	AUTOCAD FILE:	VS2-31-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; SECTIONALIZED DISCONNECT SWITCHE ASSEMBLY; WITH SURGE ARRESTORS; VERTICAL CONSTRUCTION	PDF FILE:	VS2-31-V.PDF
		PDF SPEC.:	VS2-31-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0320	6	BOLT; MACHINE 5/8 X 12		
0330	3	BOLT; MACHINE 5/8 X 14		
0470	6	BRACKET; ARRESTER MOUNT LARGE		
0500	3	BRACKET; DISCONNECT SWITCH		
1000	3	CONNECTOR; CU #4		
2430	6	SCREW; LAG 1/2 X 4		
3020	3	SWITCH; DISCONNECT 600AMP 25KV		
3350	6	WASHER; SQUARE		
XX01	6	CONNECTOR (PRIMARY)	W	29
XX02	1	CONNECTOR (NEUTRAL)	N	29
XX03	6	CLAMP; HOT LINE AL	W	11
XX04	6	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX05	6	TAP; AL. LUG (PADDLE) TO COND.	W	33



3345



DRAWING IS NOT TO SCALE

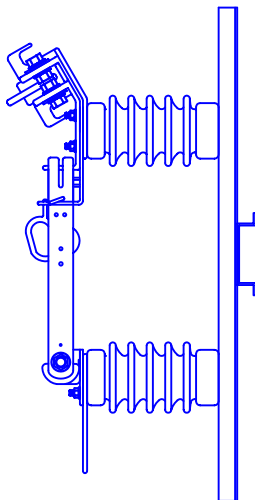
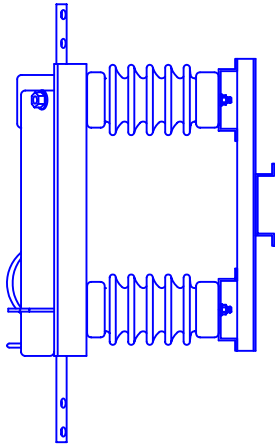
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 3, 2003
Old CU: VM7-11-S	DWG Name: VS2-11-S.DWG

14.4/24.9 KV PRIMARY,
ONE REGULATOR BY-PASS
DISCONNECT SWITCH

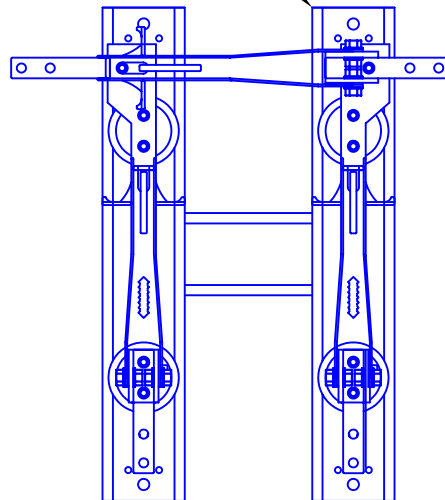
ISSUE#: REV 1
VS2.11.S

CONSTRUCTION UNIT:	VS2.11.S	AUTOCAD FILE:	VS2-11-S.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, ONE REGULATOR BY-PASS DISCONNECT SWITCH		PDF FILE:
		PDF SPEC.:	VS2-11-S_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
3045	1	SWITCH, REGULATOR BY-PASS 600A		



3345



DRAWING IS NOT TO SCALE

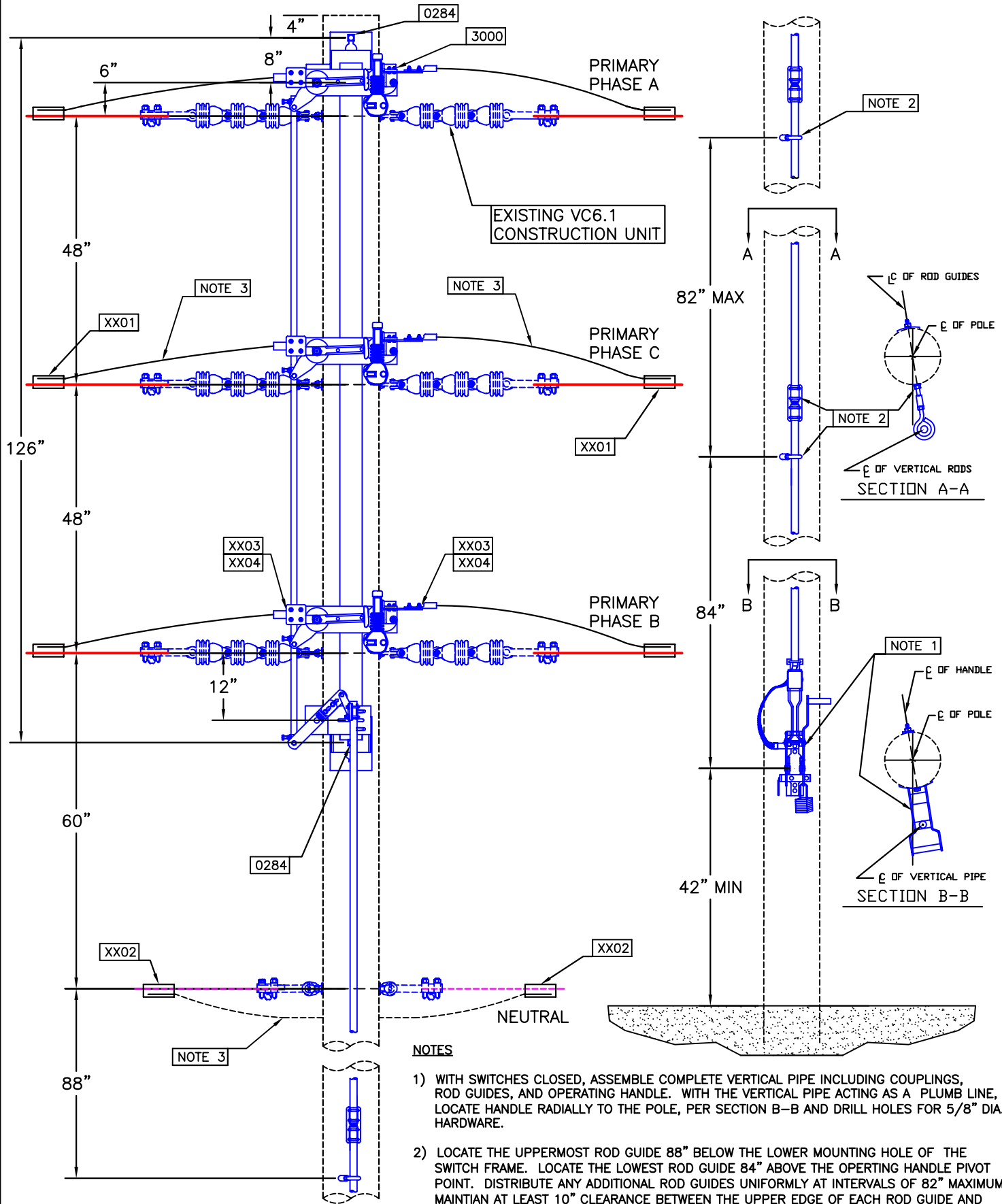
Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 3, 2003
Old CU: VM7-13-S	DWG Name: VS2-13-S.DWG

14.4/24.9 KV PRIMARY,
THREE REGULATOR BY-PASS
DISCONNECT SWITCHES

ISSUE#: REV 1
VS2.13.S

CONSTRUCTION UNIT:	VS2.13.S	AUTOCAD FILE:	VS2-13-S.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, THREE REGULATOR BY PASS DISCONNECT SWITCHES	PDF FILE:	VS2-13-S.PDF
		PDF SPEC.:	VS2-13-S_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
3045	3	SWITCH, REGULATOR BY-PASS 600A		

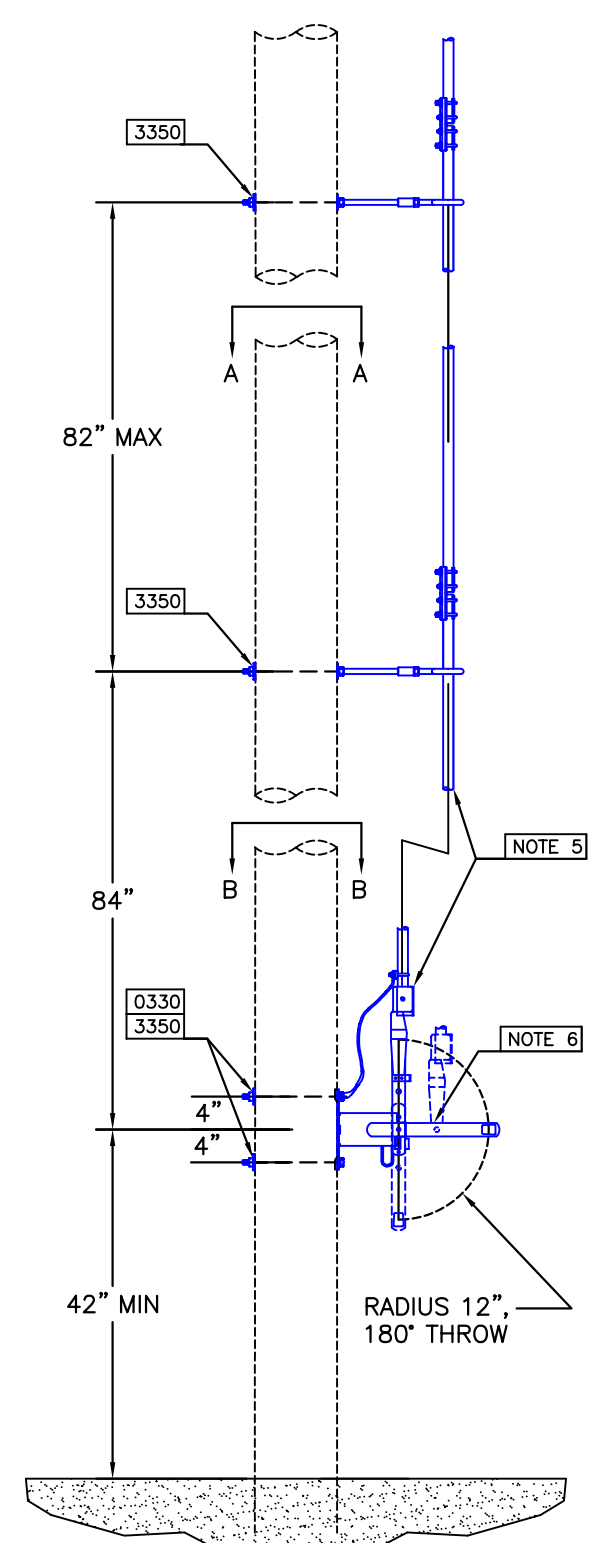
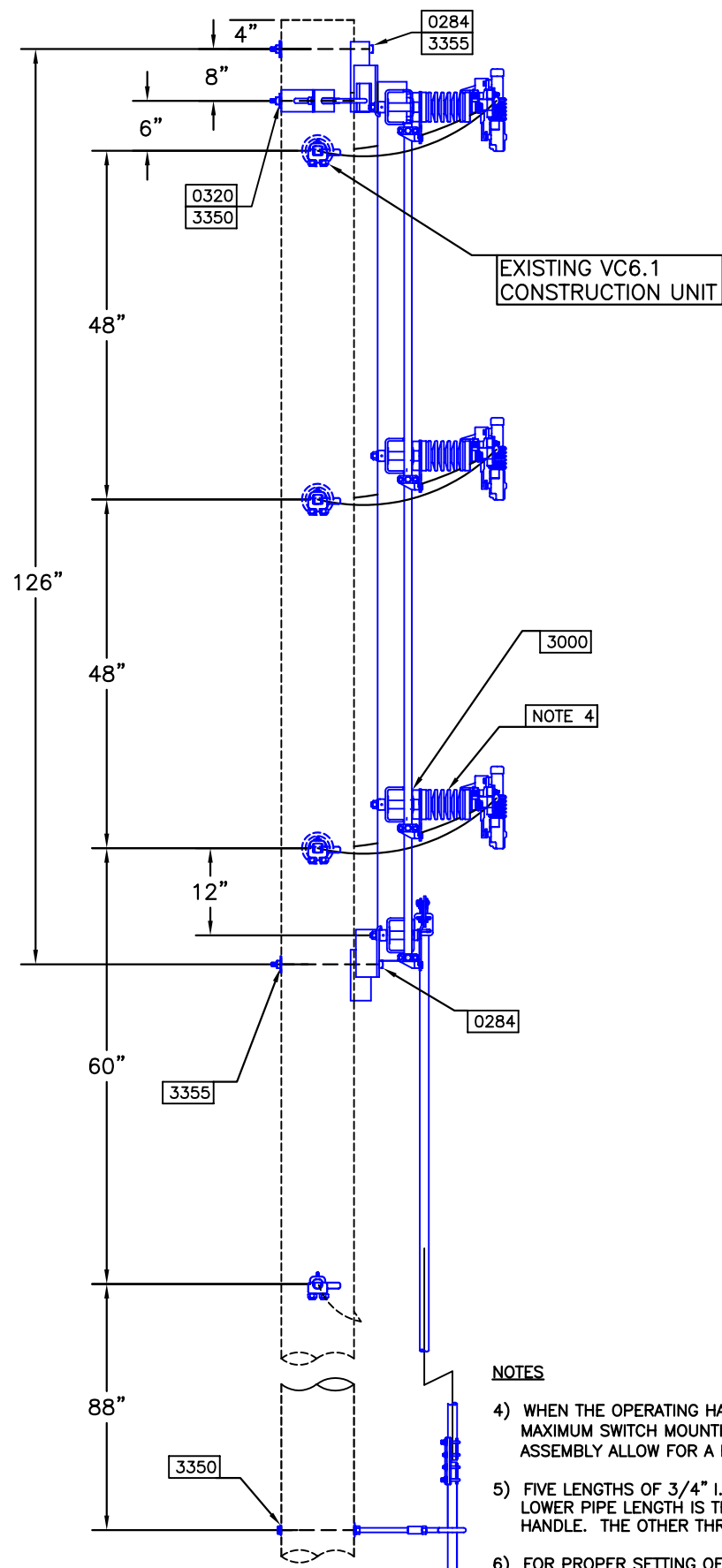


DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 3, 2003
Old CU: VM3-16V	DWG Name: VS3-16-V.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , GOAB AIR
BRAKE SWITCH, VERTICAL CONSTRUCTION

REV#: 002
VS3.16.V
PAGE 1



NOTES

- 4) WHEN THE OPERATING HANDLE IS INSTALLED AT 42" ABOVE THE GROUND, THE MAXIMUM SWITCH MOUNTING HEIGHT OF (X) 52'-0". PARTS FURNISHED WITH THIS ASSEMBLY ALLOW FOR A HEIGHT OF 38'-4".
- 5) FIVE LENGTHS OF 3/4" I.P.S. PIPE ARE PROVIDED FOR FIELD ASSEMBLY. THE LOWER PIPE LENGTH IS THREADED ON ONE END TO ACCOMMODATE THE OPERATION HANDLE. THE OTHER THREE LENGTHS OF PIPE CAN BE CUT TO SUIT.
- 6) FOR PROPER SETTING OF ROD GUIDES, MOVE RECIPROCATING HANDLE TO MIDDLE POSITION, AND TEMPORARILY SECURE WITH HARDWARE. ADJUST ROD GUIDE DISTANCE FROM FACE OF POLE S THAT PIPE IS CENTRALLY LOCATED IN EACH LOOP. ONCE ADJUSTED, SECURE RECIPROCATING HANDLE ASSEMBLY.

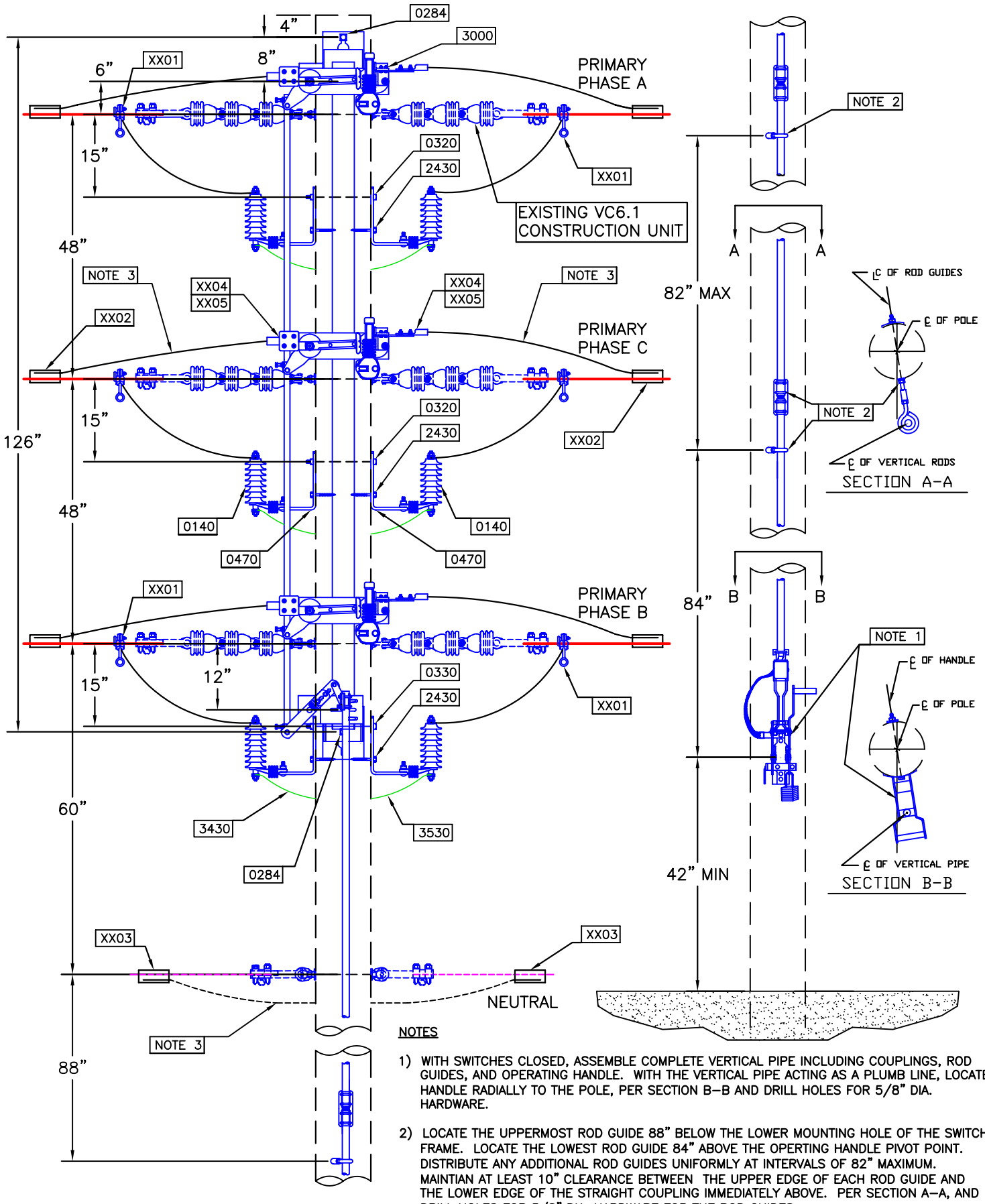
DRAWING IS NOT TO SCALE

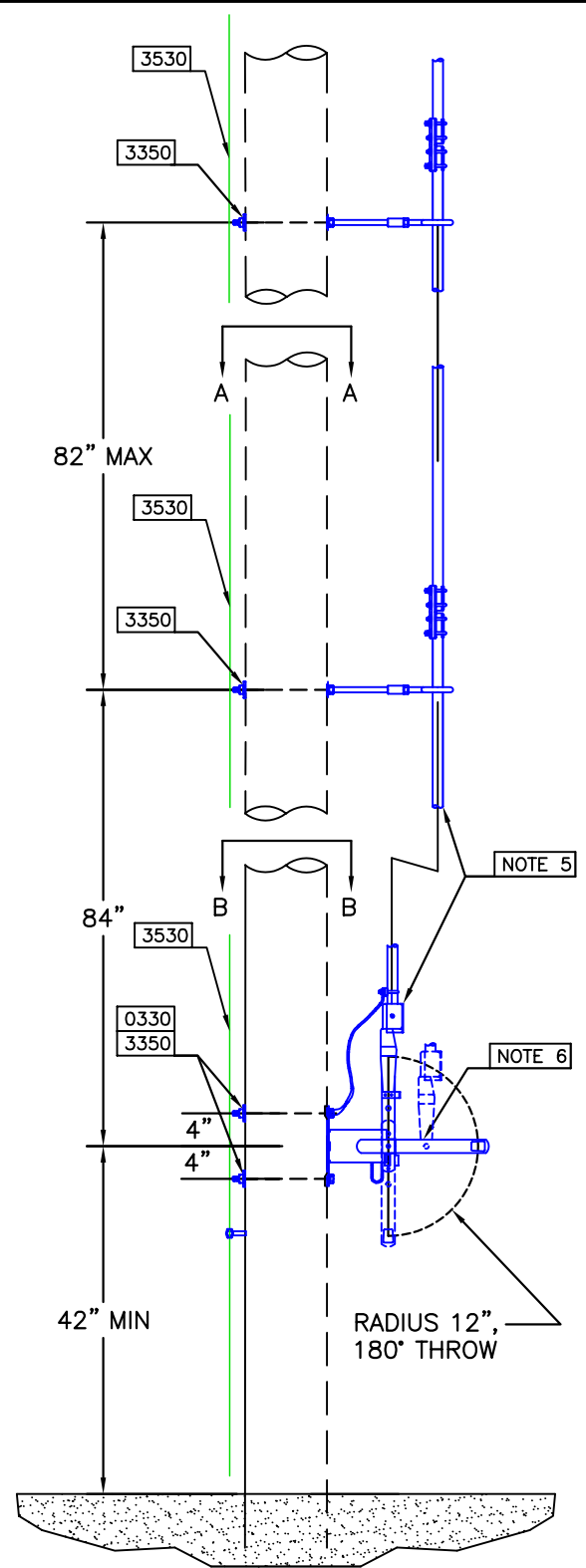
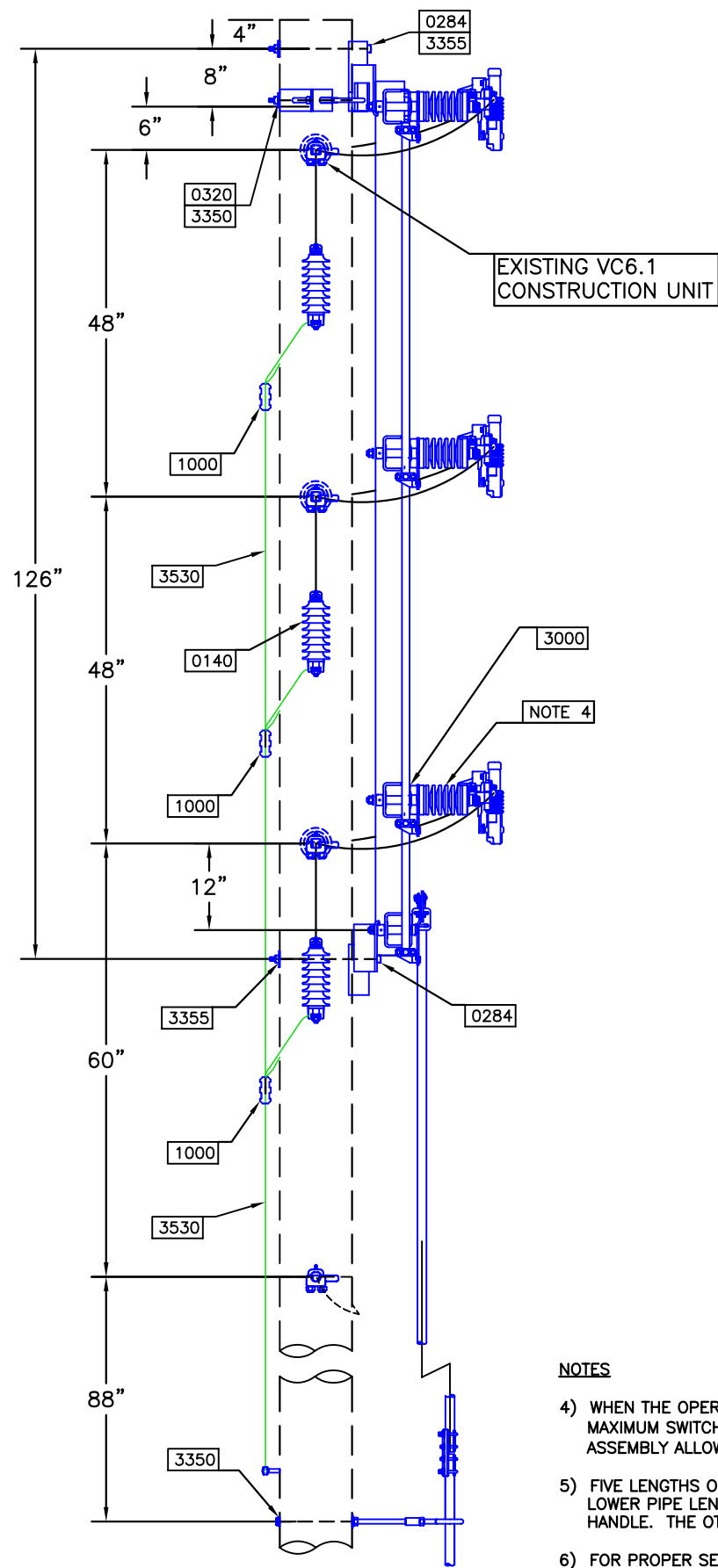
Drawn By: DEM	Date Drawn: JANUARY 2002	14.4/24.9 KV PRIMARY, 3 ϕ , GOAB AIR BRAKE SWITCH, VERTICAL CONSTRUCTION	REV#: 002
Approved By: WHP	Date Updated: SEPT. 3, 2003		VS3.16.V
Old CU: VM3-16V	DWG Name: VS3-16-V.DWG		PAGE 2

CONSTRUCTION UNIT:	VS3.16.V	AUTOCAD FILE:	VS3-16-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; GOAB AIR BRAKE SWITCH; VERTICAL CONSTRUCTION	PDF FILE:	VS3-16-V.PDF
		PDF SPEC.:	VS3-16-V_SPEC.PDF
ANGLE FROM:	<input type="text"/>	ANGLE TO:	<input type="text"/>
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		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0284	2	BOLT; MACHINE 3/4 X 14		
0320	1	BOLT; MACHINE 5/8 X 12		
0330	2	BOLT; MACHINE 5/8 X 14		
2430	2	SCREW; LAG 1/2 X 4		
3000	1	SWITCH; AIR BREAK VERTICAL		
3350	6	WASHER; SQUARE		
3355	2	WASHER; SQUARE 7/8		
XX01	6	CONNECTOR (PRIMARY)	WC	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	6	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX04	6	TAP; AL. LUG (PADDLE) TO COND.	W	33

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- NOTES**
- 4) WHEN THE OPERATING HANDLE IS INSTALLED AT 42" ABOVE THE GROUND, THE MAXIMUM SWITCH MOUNTING HEIGHT OF (X) 52'-0". PARTS FURNISHED WITH THIS ASSEMBLY ALLOW FOR A HEIGHT OF 38'-4".
 - 5) FIVE LENGTHS OF 3/4" I.P.S. PIPE ARE PROVIDED FOR FIELD ASSEMBLY. THE LOWER PIPE LENGTH IS THREADED ON ONE END TO ACCOMMODATE THE OPERATION HANDLE. THE OTHER THREE LENGTHS OF PIPE CAN BE CUT TO SUIT.
 - 6) FOR PROPER SETTING OF ROD GUIDES, MOVE RECIPROCATING HANDLE TO MIDDLE POSITION, AND TEMPORARILY SECURE WITH HARDWARE. ADJUST ROD GUIDE DISTANCE FROM FACE OF POLE S THAT PIPE IS CENTRALLY LOCATED IN EACH LOOP. ONCE ADJUSTED, SECURE RECIPROCATING HANDLE ASSEMBLY.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: 12/19/06 2002	14.4/24.9 KV PRIMARY, 3Ø, GOAB AIR	REV#: 002
Approved By:WHP	Date Updated: SEPT. 3, 2003	BRAKE SWITCH, WITH SURGE ARRESTORS,	VS3.16P.V
Old CU:	DWG Name: VS3-16P-V.DWG	VERTICAL CONSTRUCTION	PAGE 2

CONSTRUCTION UNIT:	VS3.16P.V	AUTOCAD FILE:	VS3-16P-V.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY; 3-PHASE; GOAB AIR BREAK SWITCH; WITH SURGE ARRESTORS; VERTICAL CONSTRUCTION	PDF FILE:	VS3-16P-V.PDF
		PDF SPEC.:	VS3-16P-V_SPEC.PDF
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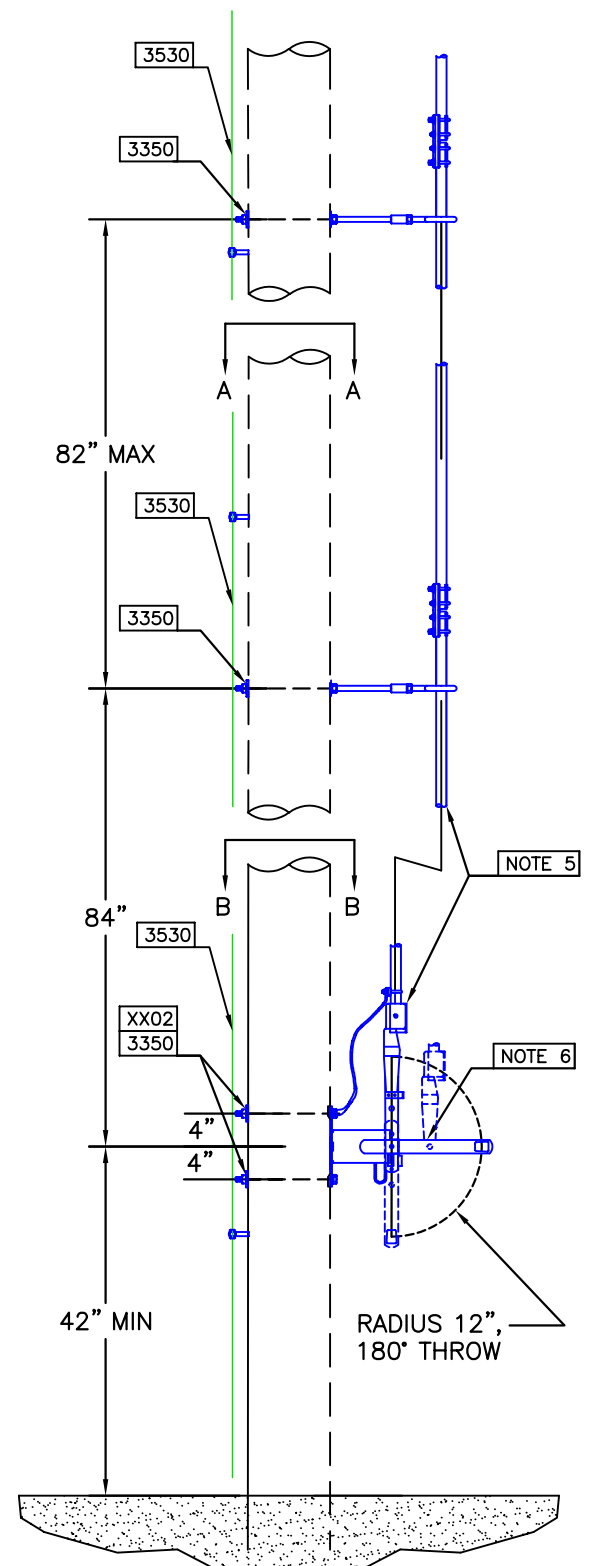
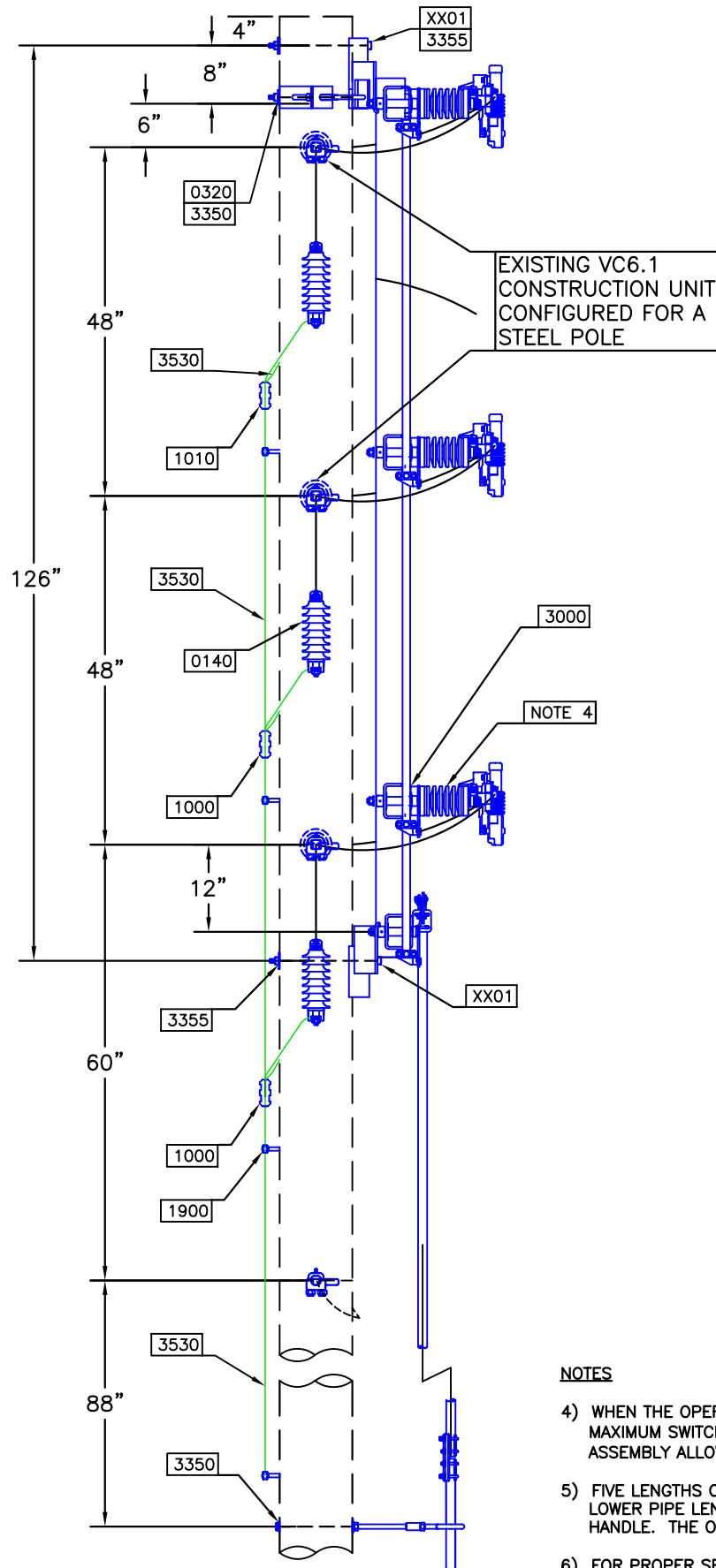
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0284	2	BOLT; MACHINE 3/4 X 14		
0320	3	BOLT; MACHINE 5/8 X 12		
0330	3	BOLT; MACHINE 5/8 X 14		
0470	6	BRACKET; ARRESTER MOUNT LARGE		
1000	3	CONNECTOR; CU #4		
2430	6	SCREW; LAG 1/2 X 4		
3000	1	SWITCH; AIR BREAK VERTICAL		
3350	6	WASHER; SQUARE		
3355	2	WASHER; SQUARE 7/8		
3530	110	WIRE; CU BSD 4		
XX01	6	CLAMP; HOT LINE AL	W	15
XX02	6	CONNECTOR (PRIMARY)	WC	5
XX03	2	CONNECTOR (NEUTRAL)	NX	5
XX04	6	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX05	6	TAP AL. LUG (PADDLE) TO COND.	W	33

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- 1) WITH SWITCHES CLOSED, ASSEMBLE COMPLETE VERTICAL PIPE INCLUDING COUPLINGS, ROD GUIDES, AND OPERATING HANDLE. WITH THE VERTICAL PIPE ACTING AS A PLUMB LINE, LOCATE HANDLE RADIALY TO THE POLE, PER SECTION B-B AND DRILL HOLES FOR 5/8" DIA. HARDWARE.
- 2) LOCATE THE UPPERMOST ROD GUIDE 88" BELOW THE LOWER MOUNTING HOLE OF THE SWITCH FRAME. LOCATE THE LOWEST ROD GUIDE 84" ABOVE THE OPERATING HANDLE PIVOT POINT. DISTRIBUTE ANY ADDITIONAL ROD GUIDES UNIFORMLY AT INTERVALS OF 82" MAXIMUM. MAINTAIN AT LEAST 10" CLEARANCE BETWEEN THE UPPER EDGE OF EACH ROD GUIDE AND THE LOWER EDGE OF THE STRAIGHT COUPLING IMMEDIATELY ABOVE. PER SECTION A-A, AND DRILL HOLES FOR 5/8" DIA. HARDWARE FOR THE ROD GUIDES.
- 3) JUMPER IS THE SAME WIRE AS THE SOURCE AND LOAD SIDE OF THE SWITCH ASSEMBLY.

Drawn By: DEM	Date Drawn: 12/19/06	14.4/24.9 KV PRIMARY, 3 ϕ , GOAB AIR BRAKE SWITCH, WITH SURGE ARRESTORS, VERTICAL CONSTRUCTION, STEEL POLE	REV#: 002
Approved By:WHP	Date Updated: SEPT. 3, 2003		VS3.16P.V.ST
Old CU:	DWG Name\VS3-16P-V-ST.DWG		PAGE 1

**NOTES**

- 4) WHEN THE OPERATING HANDLE IS INSTALLED AT 42" ABOVE THE GROUND, THE MAXIMUM SWITCH MOUNTING HEIGHT OF (X) 52'-0". PARTS FURNISHED WITH THIS ASSEMBLY ALLOW FOR A HEIGHT OF 38'-4".
- 5) FIVE LENGTHS OF 3/4" I.P.S. PIPE ARE PROVIDED FOR FIELD ASSEMBLY. THE LOWER PIPE LENGTH IS THREADED ON ONE END TO ACCOMMODATE THE OPERATION HANDLE. THE OTHER THREE LENGTHS OF PIPE CAN BE CUT TO SUIT.
- 6) FOR PROPER SETTING OF ROD GUIDES, MOVE RECIPROCATING HANDLE TO MIDDLE POSITION, AND TEMPORARILY SECURE WITH HARDWARE. ADJUST ROD GUIDE DISTANCE FROM FACE OF POLE S THAT PIPE IS CENTRALLY LOCATED IN EACH LOOP. ONCE ADJUSTED, SECURE RECIPROCATING HANDLE ASSEMBLY.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: SEPT. 3, 2003
Old CU:	DWG Name: VS3-16P-V-ST.DWG

14.4/24.9 KV PRIMARY, 3 ϕ , GOAB AIR
BRAKE SWITCH, WITH SURGE ARRESTORS,
VERTICAL CONSTRUCTION, STEEL POLE

REV#: 002
VS3.16P.V.ST
PAGE 2

CONSTRUCTION UNIT: VS3.16P.V.ST**AUTOCAD FILE:** VS3-16P-V-ST.DWG**DESCRIPTION:** 14.4/24.9 KV PRIMARY; 3-PHASE; GOAB AIR
BRAKE SWITCH; WITH SURGE ARRESTORS;
VERTICAL CONSTRUCTION; STEEL POLE**PDF FILE:** VS3-16P-V-ST.PDF**PDF SPEC.:** VS3-16P-V-ST_SPEC.P
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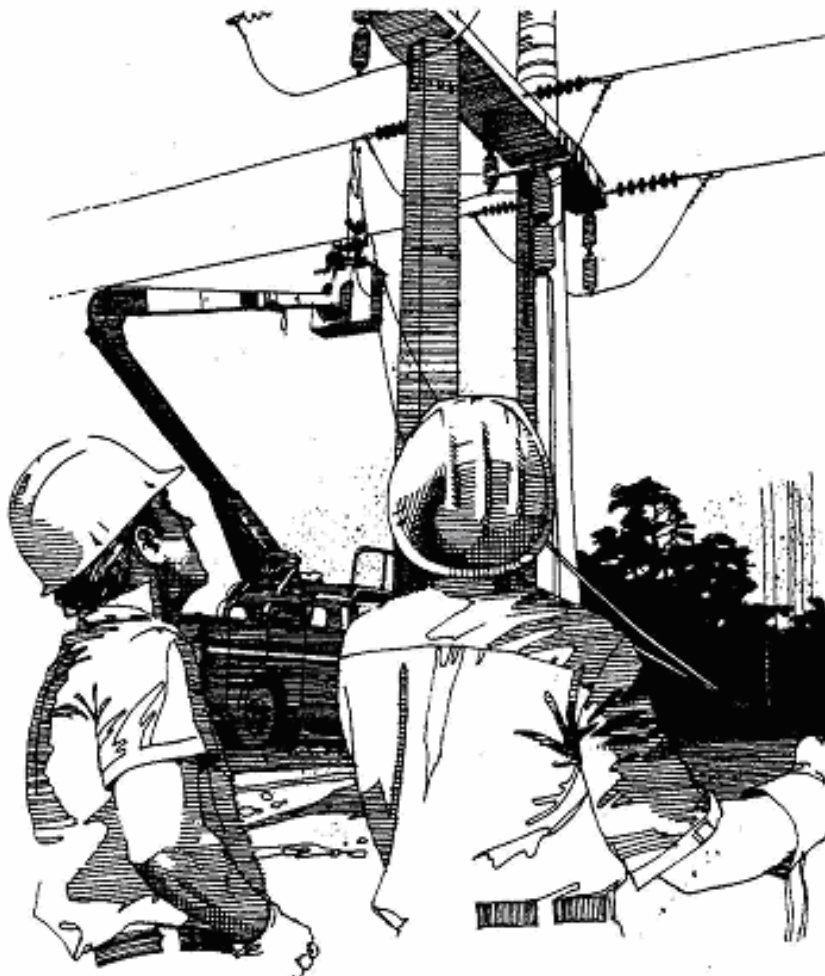
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE NO
0140	6	ARRESTER; LIGHTNING MOV 18 KV		
0470	6	BRACKET; ARRESTER MOUNT LARGE		
1000	3	CONNECTOR; CU #4		
1900	5	LUG; TRANSFORMER GROUND		
3000	1	SWITCH; AIR BREAK VERTICAL		
3350	6	WASHER; SQUARE		
3355	2	WASHER; SQUARE 7/8		
3530	110	WIRE; CU BSD 4		
XX01	2	BOLT; MACHINE 3/4 X REQ. LENG	P	49
XX02	9	BOLT; MACHINE 5/8 X REQ. LENG	P	2
XX03	6	CLAMP; HOT LINE AL	W	15
XX04	6	CONNECTOR (PRIMARY)	WC	5
XX05	2	CONNECTOR (NEUTRAL)	NX	5
XX06	6	ALUMINUM TERMINAL LUG (PADDLE)	W	31
XX07	6	TAP; AL. LUG (PADDLE) TO COND.	W	33

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CONSTRUCTION UNITS

INDEX Y: VOLTAGE REGULATORS AND STEP/DOWN TRANSFORMERS ASSEMBLY UNITS.

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ELECTRIC COOPERATIVE, INC.



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NOTES

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VOLTAGE REGULATORS AND STEP/DOWN TRANSFORMERS ASSEMBLY UNITS

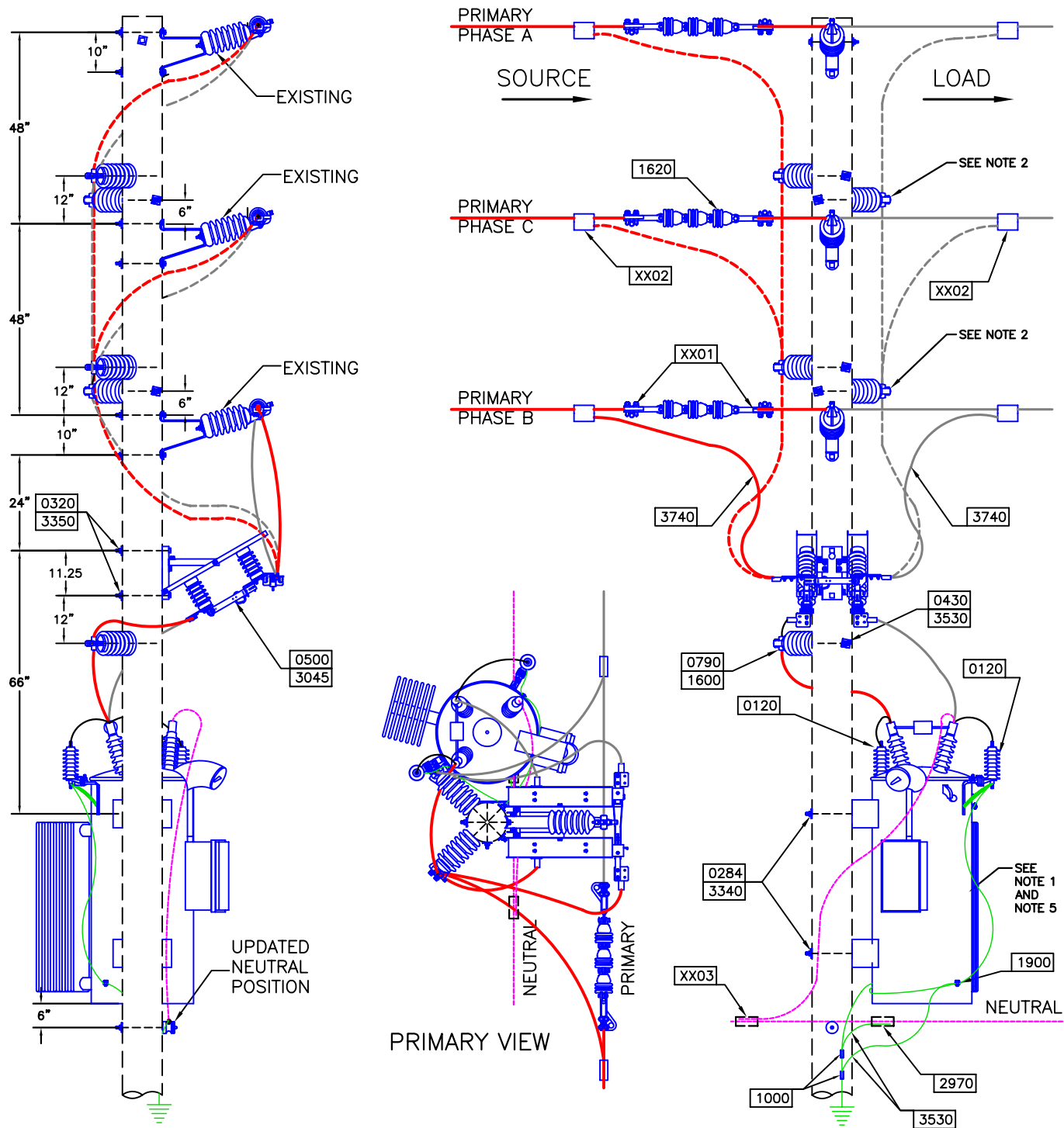
C.U. NO.	DESCRIPTION	PAGE NO.
Y1.7	7.2/12.47 KV PRIMARY, 1-PHASE, ONE STEP VOTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION	1 - 2
Y1.3.P	7.2/12.47 KV PRIMARY, 3-PHASE, THREE STEP VOLTAGE REGULATORS, PLATFORM MOUNTED	3 - 4
VY1.7	14.4/24.9 KV PRIMARY, 1-PHASE, ONE STEP VOTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION	5 - 6
VY1.3.P	14.4/24.9 KV PRIMARY, 3-PHASE, THREE STEP VOLTAGE REGULATORS, PLATFORM MOUNTED	7 - 8
VY2.1	14.4/24.9 KV PRIMARY TO 7.2 KV/ 12.57 KV PRIMARY, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER, POLE MOUNTED	9 - 10
VY2.2	14.4/24.9 KV PRIMARY TO 7.2 KV/ 12.57 KV PRIMARY, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS, POLE MOUNTED	11 - 12
VY2.3	14.4/24.9 KV PRIMARY TO 7.2 KV/ 12.57 KV PRIMARY, THREE, 2,500 KVA, SINGLE PHASE, STEP/DOWN TRANSFORMERS, PLATFORM MOUNTED	13 - 14

WREC CONSTRUCTION UNIT UPDATE TABLE

VOLTAGE REGULATORS AND STEP/DOWN TRANSFORMERS ASSEMBLY UNITS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
M7-11	Y1.7	Y1.7	7.2/12/47 KV PRIMARY, 1-PHASE, ONE STEP VOLTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION	--	8/08/03
M7-3	Y1.3.P	Y1.3.P	7.2/12/47 KV PRIMARY, 3-PHASE, THREE ONE STEP VOLTAGE REGULATOR, PLATFORM MOUNTED	--	8/05/03
VM7-1	VY1.7	VY1.7	14.4/24.9 KV PRIMARY, 1-PHASE, ONE STEP VOLTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION	--	8/08/03
VM7-3	VY1.3.P	VY1.3.P	14.4/24.9 KV PRIMARY, 3-PHASE, THREE ONE STEP VOLTAGE REGULATOR, PLATFORM MOUNTED	--	8/08/03
--	--	VY2.1	14.4/24.9 KV TO 7.2/12.47 KV PRIMARY, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER, POLE MOUNTED	--	6/15/04
--	--	VY2.2	14.4/24.9 KV TO 7.2/12.47 KV PRIMARY, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS, POLE MOUNTED	--	6/15/04
--	--	VY2.3	14.4/24.9 KV TO 7.2/12.47 KV PRIMARY, THREE, 2,500 KVA, SINGLE PHASE , STEP/DOWN TRANSFORMERS, PLATFORM MOUNTED	--	6/21/04





NOTE:

- 1) INSTALL VOLTAGE REGULATOR ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE NEUTRAL BUSHING SHOULD FACE THE PRIMARY NEUTRAL. THE VOLTAGE REGULATOR IS TO BE SPECIFIED AS A SEPERATE LINE ITEM.
- 2) THE SN-1600 25 KV INSULATOR SHOULD BE USED, WITH THE PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES. THE SN-1600/CLAMP ASSEMBLIES ARE TO BE SPECIFIED AS SEPERATE LINE ITEMS.
 - IF CONNECTING TO PHASE A, USE FOUR EXTRA SN-1600 25 KV INSULATORS AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE C, USE TWO EXTRA SN-1600 25 KV INSULATOR AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE B, NO EXTRA SN-1600 25 KV INSULATORS ARE NEEDED.
- 3) SEE WIRING DIAGRAM Y1.1G FOR DETAILS ON THE VOLTAGE REGULATORS PRIMARY AND GROUND CONNECTIONS.
- 4) FOR THREE PHASE INSTALLATIONS: INSTALL EACH THE REGULATOR ASSEMBLIES ON THREE CONSECUTIVE POLES, AND CONNECT ONE REGULATOR TO EACH PHASE USING THE Y1.1G WIRING DIAGRAM AS A REFERENCE.
- 5) 7.2 KV VOLTAGE REGULATORS: SN-9400, SN-9401, SN-9402, SN-9403, SN-9404, SN-9405, SN-9407, OR SN-9408.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 19, 2003
Old CU:	DWG Name: Y1-7.DWG

7.2/12.47 KV PRIMARY, 1Ø,
ONE, STEP VOLTAGE REGULATOR,
POLE MOUNTED, VERTICAL CONSTRUCTION

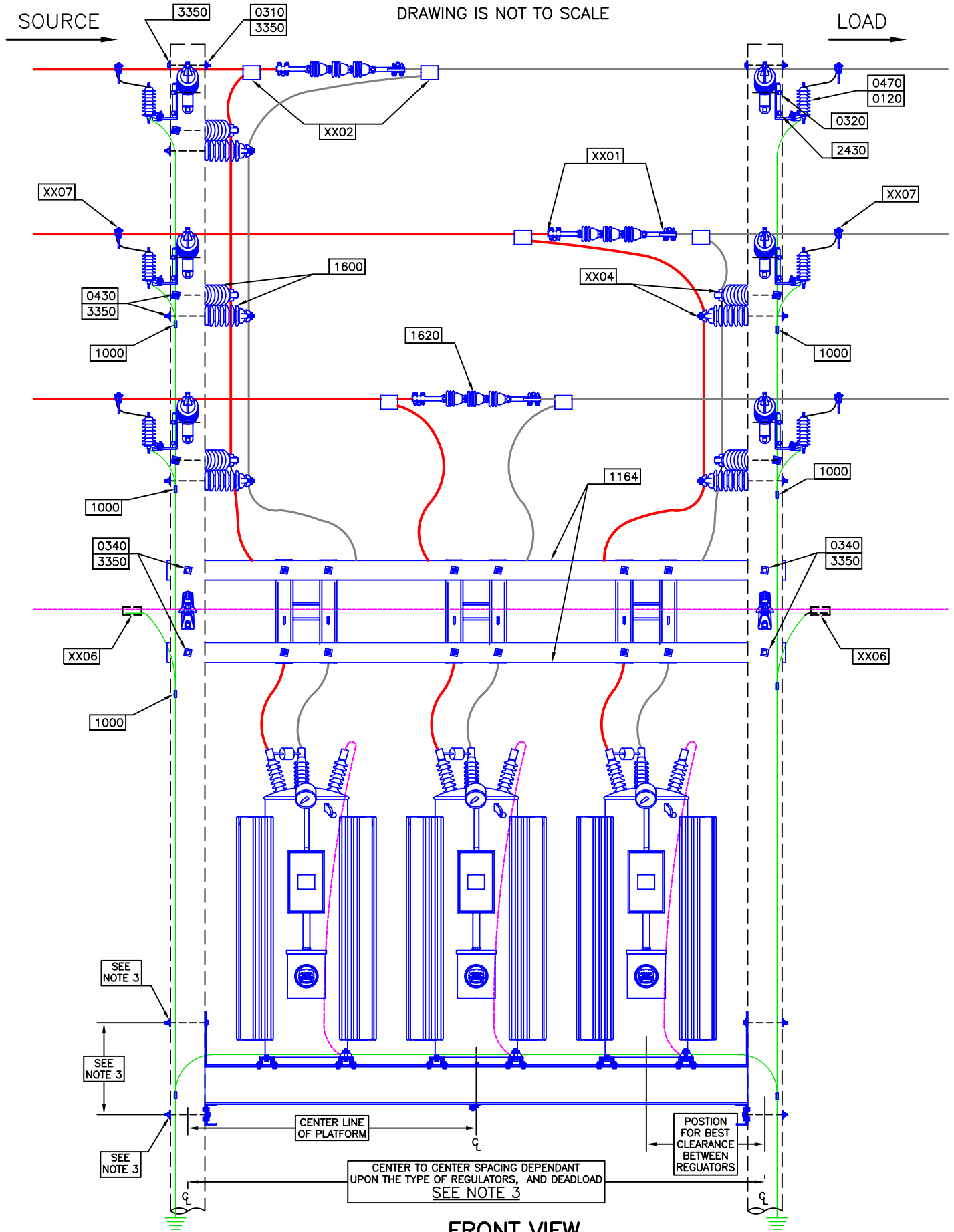
ISSUE#: REV 2
Y1.7

CONSTRUCTION UNIT:	Y1.7	AUTOCAD FILE:	Y1-7.DWG
DESCRIPTION:	7.2/12.47 KV PRIMARY, 1-PHASE, ONE STEP VOLTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION		PDF FILE: Y1-7.PDF
		PDF SPEC.:	Y1-7_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	2	ARRESTER, LIGHTNING MOV 9 KV		
0284	2	BOLT, MACHINE 3/4" X 14"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0430	1	BOLT, STUD 5/8" X 12"		
0500	1	BRACKET, DISCONNECT SWITCH		
0790	1	CLAMP, INS WIRE #2 - 4/0		
1000	2	CONNECTOR, CU #4		
1600	1	INSULATOR, POST TYPE VERTICAL		
1620	3	INSULATOR, SUSP 4 1/4"		
1900	2	LUG, TRANSFORMER GROUND		
2970	1	SQUEEZON, CU #4-#4		
3045	1	SWITCH, REGULATOR BY-PASS 600A		
3340	2	WASHER, CURVED 3/4"D		
3350	3	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
3740	40	WIRE, THW CU 4/0		
XX01	2	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CONNECTOR (PRIMARY)	W	17
XX03	1	SQUEEZON, #4 CU TO NEUTRAL	N	13



DRAWING IS NOT TO SCALE



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: JULY 20, 2004

Old CU:

DWG Name: Y1-3-P.DWG

7.2/12.47 KV PRIMARY, 3 ϕ ,
THREE, STEP VOLTAGE REGULATORS,
PLATFORM MOUNTED

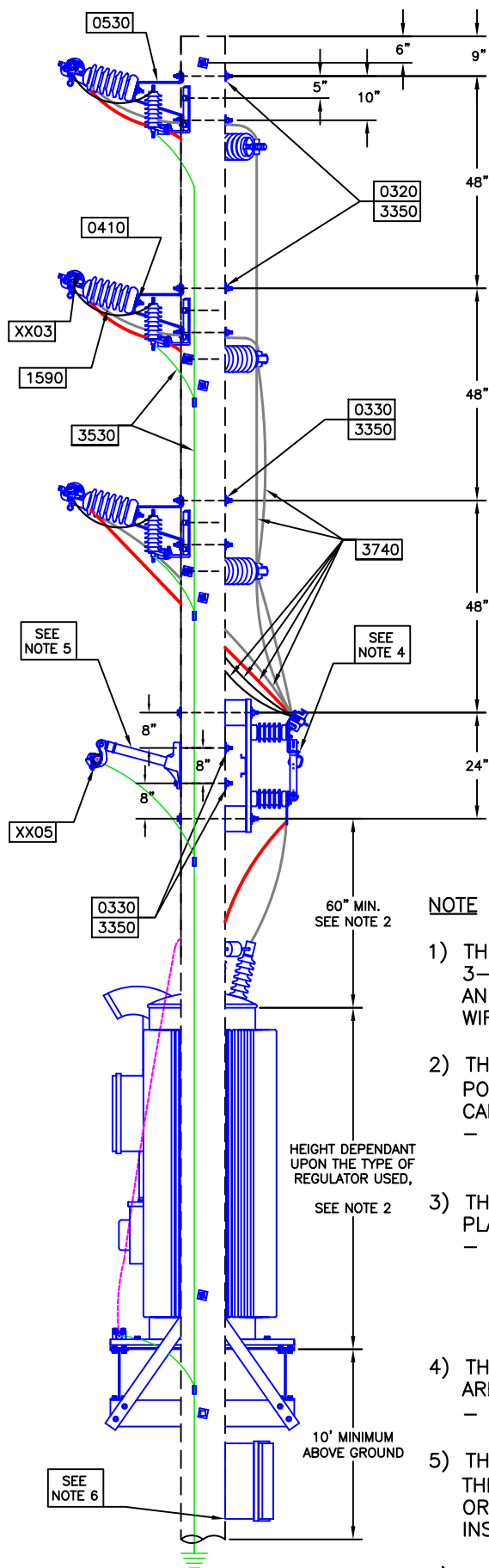
PAGE 1

ISSUE#: REV 2

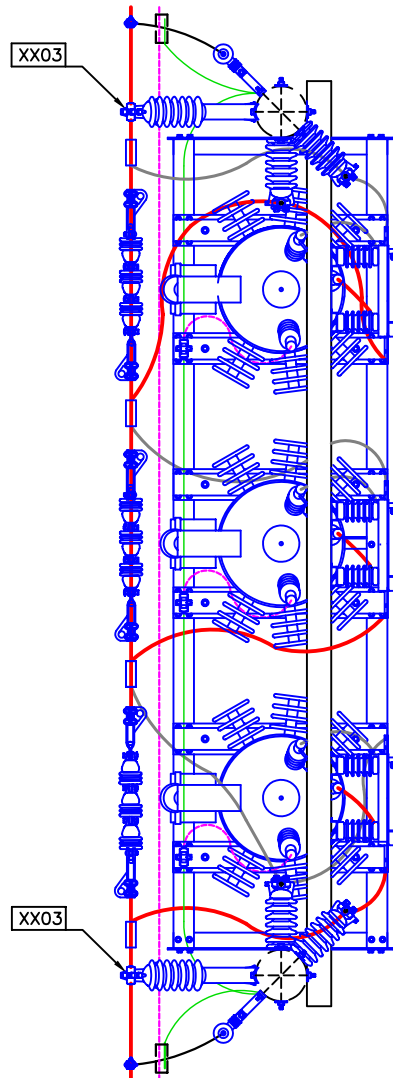
Y1.3.P



DRAWING IS NOT TO SCALE



RIGHT SIDE VIEW



TOP VIEW

NOTE

- 1) THIS CONSTRUCTION UNIT IS TO BE USED FOR ALL PLATFORM MOUNTED 3-PHASE REGULATOR ASSEMBLIES. THE REGULATORS, BY-PASS SWITCHES AND PLATFORM ARE TO BE SPECIFIED AS SEPERATE LINE ITEMS. USE WIRING DIAGRAM Y1.3G AS A REFERENCE.
- 2) THE PHYSICAL TANK HEIGHT OF THE REGULATOR DEFINES THE PLATFORM'S POSITION BELOW THE CROSSARM/SWITCH ASSEMBLY. THE REGULATORS THAT CAN BE USED FOR THIS CONSTRUCTION UNIT ARE AS FOLLOWS:
 - 7.2 KV REGULATORS: SN-9400, SN9401, SN9402, SN9403, SN9404, SN-9405, SN-9407, OR SN-9408
- 3) THE PHYSICAL WEIGHT AND SIZE OF THE THREE REGULATORS, DEFINES WHICH PLATFORM IS TO BE USED, MOUNTING BOLTS SPECIFIED BY PLATFORM.
 - PLATFORMS:
 - SN-2094: LENGTH 14', 3 @ 4500 lbs. EACH
 - SN-2095: LENGTH 16', 3 @ 4500 lbs. EACH
 - SN-2096: LENGTH 18', 3 @ 3620 lbs. EACH
- 4) THE BY-PASS SWITCHES ARE DEFINED BY THE TYPE OF REGULATORS THAT ARE USED IN THE ASSEMBLY.
 - SWITCHES: SN-3040 (400 A), SN-3045 (600 A)
- 5) THE STANDOFF BRACKET USED TO INSURE THE NEUTRAL IS SPACED AWAY FROM THE CROSSARM/SWITCH ASSEMBLY, HAS NO STOCK NUMBER ASSIGNED. IT IS, OR SIMILAR, TO THE MACLEAN POWER SYSTEMS, SINGLE EYE SUSPENSION INSULATOR BRACKET, PART NUMBER G5568M18ESC.
- 6) 6 FT MINIMUM ELEVATION ABOVE LEVEL GROUND, FOR CONTROL BOX. THIS IS A SAFETY ISSUE TO ELIMINATE UNAUTHORIZED ACCESS TO THE REGULATORS.

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: JULY 20, 2004

Old CU:

DWG Name: Y1-3-P.DWG

**7.2/12.47 KV PRIMARY, 3 ϕ ,
THREE, STEP VOLTAGE REGULATORS,
PLATFORM MOUNTED**

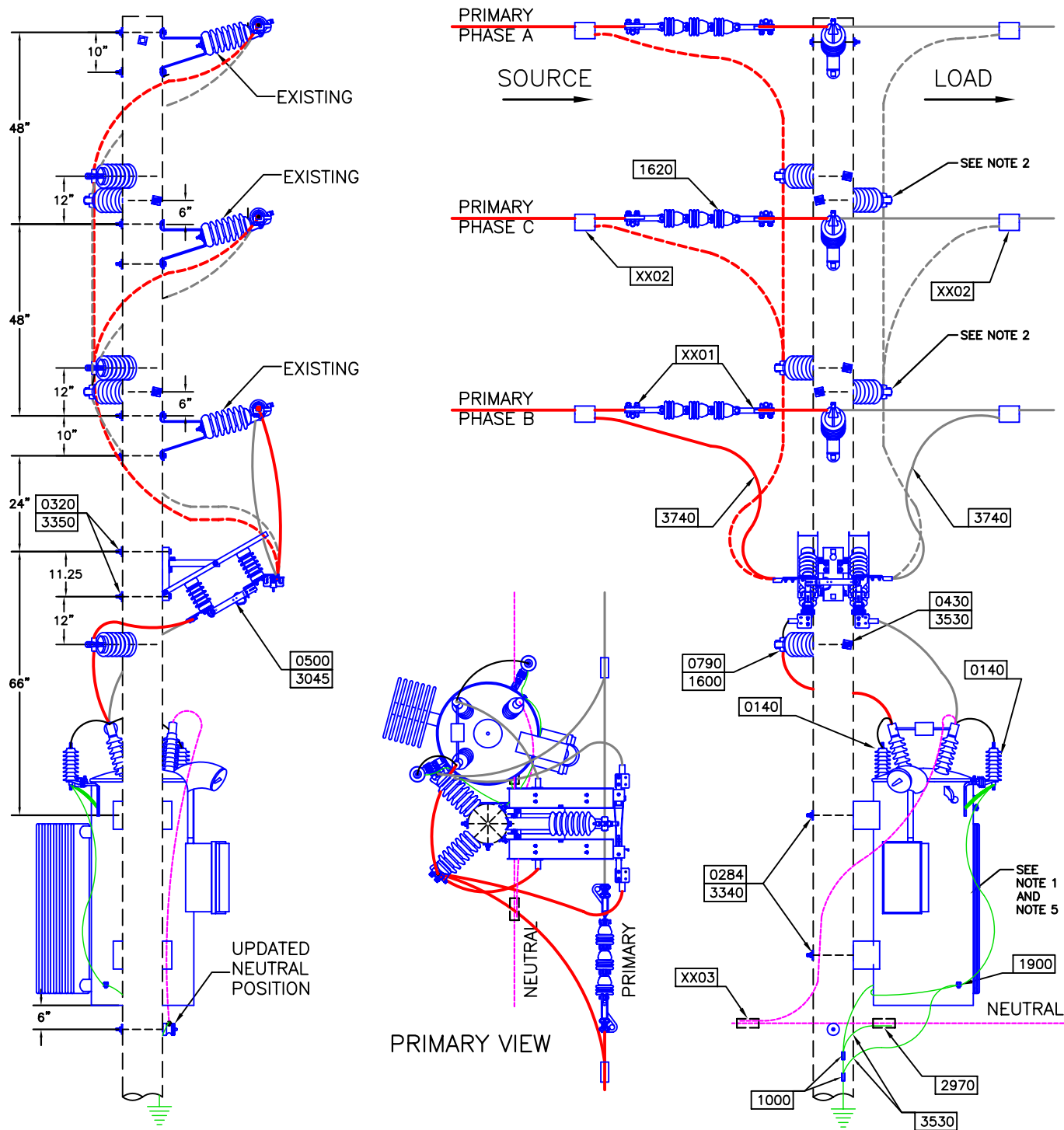
PAGE 2

ISSUE#: REV 2**Y1.3.P**

CONSTRUCTION UNIT: Y1.3.P**AUTOCAD FILE:** Y1-3-P.DWG**DESCRIPTION:** 7.2/12.47KV PRIMARY, 3-PHASE, THREE STEP
VOLTAGE REGULATORS, PLATFORM
MOUNTED**PDF FILE:** Y1-3-P.PDF**PDF SPEC.:** Y1-3-P_SPEC.PDF**ANGLE FROM:** **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	6	ARRESTER, LIGHTNING MOV 9 KV		
0310	2	BOLT, MACHINE 5/8" X 10"		
0320	14	BOLT, MACHINE 5/8" X 12"		
0330	8	BOLT, MACHINE 5/8" X 14"		
0340	4	BOLT, MACHINE 5/8" X 16"		
0410	6	BOLT, STUD 5/8" X 3/4" X 1 3/4"		
0430	10	BOLT, STUD 5/8" X 3/4" X 12"		
0470	6	BRACKET, ARRESTOR MOUNT LARGE		
0530	6	BRACKET, INSULATOR MOUNT		
1000	6	CONNECTOR, CU #4		
1164	2	CROSSARM WOOD 5" X 6" X 20'		
1590	6	INSULATOR, POST TYPE HORIZONTAL		
1600	10	INSULATOR, POST TYPE VERTICAL		
1620	9	INSULATOR, SUSP 4 1/4"		
2430	6	SCREW, LAG 1/2" X 4"		
3350	40	WASHER, SQUARE		
3530	140	WIRE, CU BSD 4		
3740	120	WIRE, THW CU 4/0		
XX01	6	CLAMP, DEADEND (PRIMARY)	W	4
XX02	6	CONNECTOR, PRIMARY	W	17
XX03	6	CLAMP, TANGENT (PRIMARY)	W	7
XX04	10	CLAMP, TANGENT (PRIMARY)	W	7
XX05	2	CLAMP, ANGLE SUSP	N	3
XX06	2	SQUEEZON, #4 CU TO NEUTRAL	N	13
XX07	6	CLAMP, HOT LINE	W	15

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NOTE:

- 1) INSTALL VOLTAGE REGULATOR ON THE OPPOSITE SIDE OF THE POLE FROM THE PRIMARY NEUTRAL. THE NEUTRAL BUSHING SHOULD FACE THE PRIMARY NEUTRAL. THE VOLTAGE REGULATOR IS TO BE SPECIFIED AS A SEPERATE LINE ITEM.
- 2) THE SN-1600 25 KV INSULATOR SHOULD BE USED, WITH THE PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES. THE SN-1600/CLAMP ASSEMBLIES ARE TO BE SPECIFIED AS SEPERATE LINE ITEMS.
 - IF CONNECTING TO PHASE A, USE FOUR EXTRA SN-1600 25 KV INSULATORS AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE C, USE TWO EXTRA SN-1600 25 KV INSULATOR AND TANGENT CLAMPS, TO CONTAIN THE JUMPER.
 - IF CONNECTING TO PHASE B, NO EXTRA SN-1600 25 KV INSULATORS ARE NEEDED.
- 3) SEE WIRING DIAGRAM Y1.1G FOR DETAILS ON THE VOLTAGE REGULATORS PRIMARY AND GROUND CONNECTIONS.
- 4) FOR THREE PHASE INSTALLATIONS: INSTALL EACH THE REGULATOR ASSEMBLIES ON THREE CONSECUTIVE POLES, AND CONNECT ONE REGULATOR TO EACH PHASE USING THE Y1.1 WIRING DIAGRAM AS A REFERENCE.
- 5) 14.4 KV VOLTAGE REGULATORS: SN-9420, SN-9421, OR SN-9422.

DRAWING IS NOT TO SCALE

Drawn By: DEM	Date Drawn: JANUARY 2002
Approved By: WHP	Date Updated: JULY 19, 2003
Old CU:	DWG Name: VY1-7.DWG

14.4/24.9 KV PRIMARY, 1Ø,
ONE, STEP VOLTAGE REGULATOR,
POLE MOUNTED, VERTICAL CONSTRUCTION

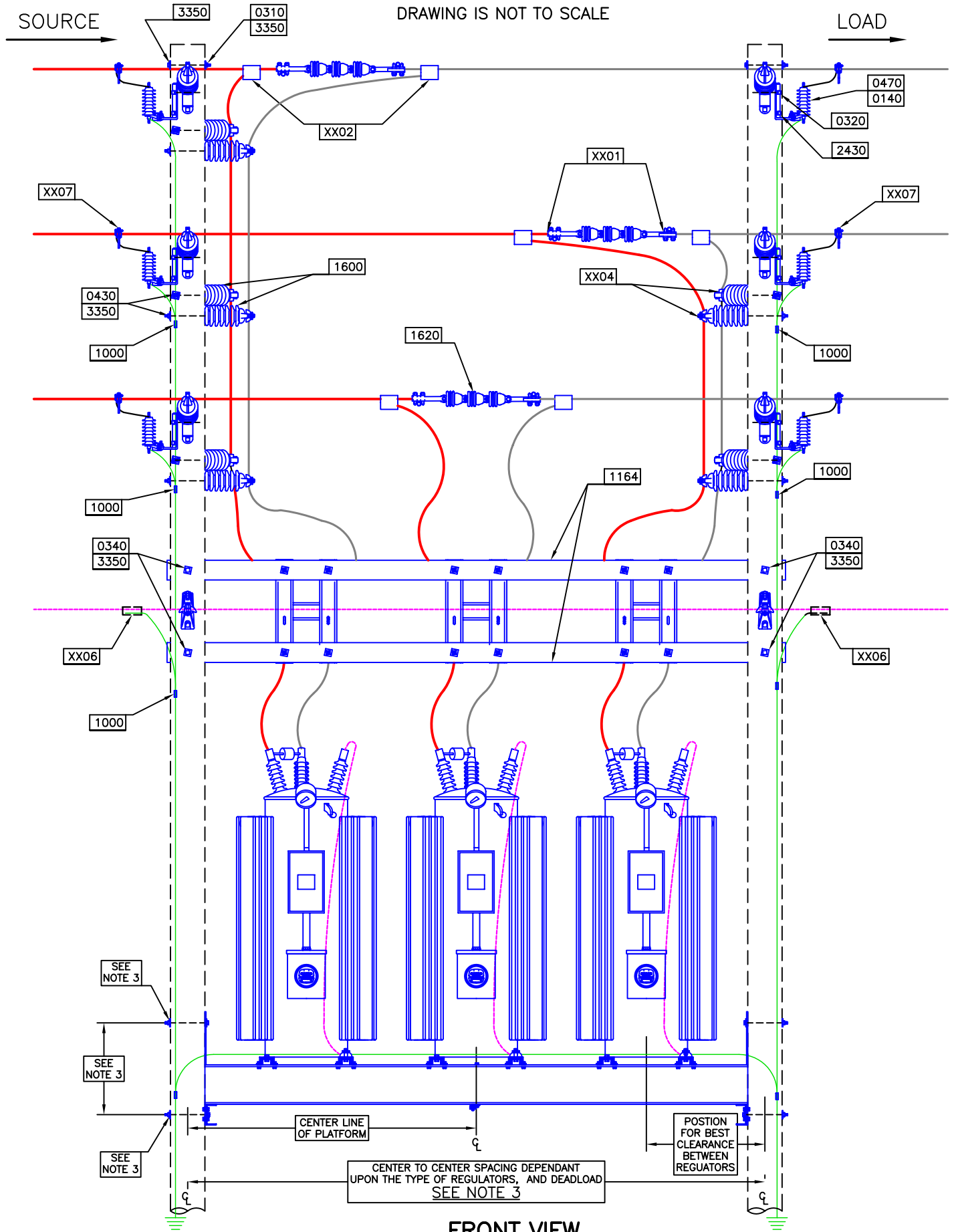
ISSUE#: REV 2
VY1.7

CONSTRUCTION UNIT:	VY1.7	AUTOCAD FILE:	VY1-7.DWG
DESCRIPTION:	14.4/24.9 KV PRIMARY, 1-PHASE, ONE STEP VOLTAGE REGULATOR, POLE MOUNTED, VERTICAL CONSTRUCTION	PDF FILE:	VY1-7.PDF
		PDF SPEC.:	VY1-7_SPEC.DWG
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		RETIREMENT:	<input type="text"/>
		NO. TRANS:	<input type="text"/>

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0140	2	ARRESTER, LIGHTNING MOV 18 KV		
0284	2	BOLT, MACHINE 3/4" X 14"		
0320	2	BOLT, MACHINE 5/8" X 12"		
0430	1	BOLT, STUD 5/8" X 3/4" X 12"		
0500	1	BRACKET, DISCONNECT SWITCH		
0790	1	CLAMP, INS WIRE #2- 4/0		
1000	2	CONNECTOR, CU #4		
1600	1	INSULATOR, POST TYPE VERTICAL		
1620	3	INSULATOR, SUSP 4 1/4"		
1900	2	LUG, TRANSFORMER GROUND		
2970	1	SQUEEZON, CU #4-#4		
3045	1	SWITCH, REGULATOR BY-PASS 600A		
3340	2	WASHER, CURVED 3/4"D		
3350	3	WASHER, SQUARE		
3530	10	WIRE, CU BSD 4		
3740	40	WIRE, THW CU 4/0		
XX01	2	CLAMP, DEADEND (PRIMARY)	W	4
XX02	2	CONNECTOR (PRIMARY)	W	17
XX03	1	SQUEEZON, #4 CU TO NEUTRAL	N	13



DRAWING IS NOT TO SCALE



Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: JULY 20, 2004

Old CU:

DWG Name: VY1-3-P.DWG

14.4/24.9 KV PRIMARY, 3 ϕ ,
THREE, STEP VOLTAGE REGULATORS,
PLATFORM MOUNTED

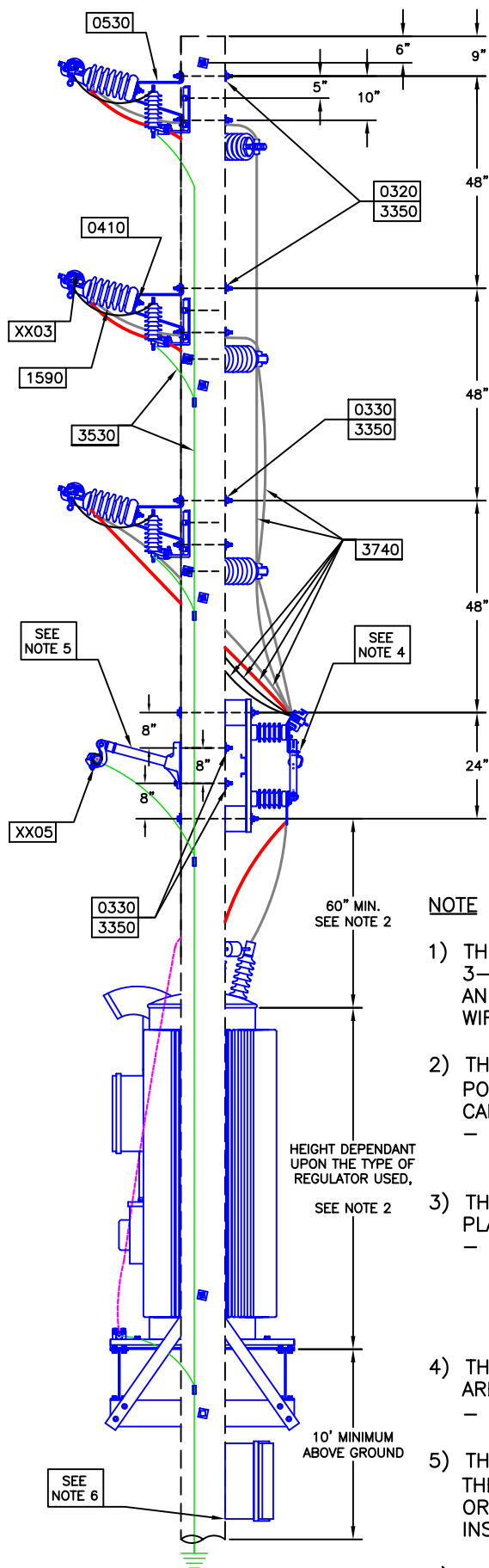
PAGE 1

ISSUE#: REV 2

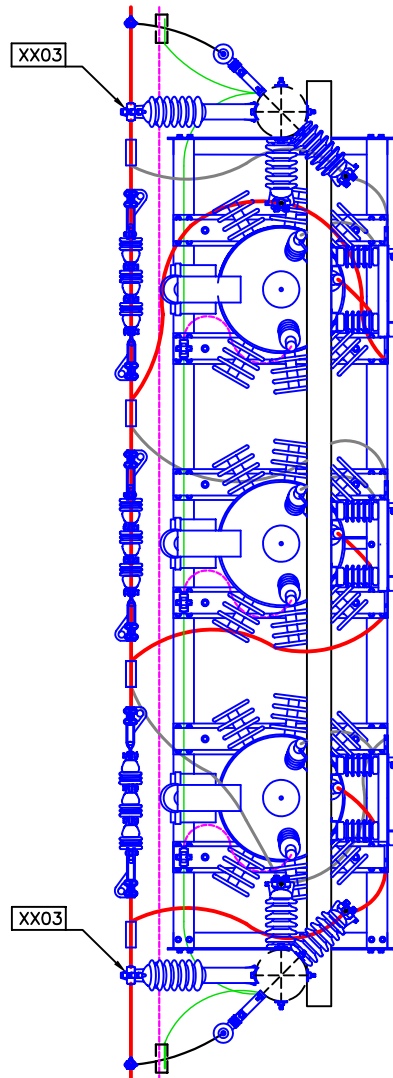
VY1.3.P



DRAWING IS NOT TO SCALE



RIGHT SIDE VIEW



TOP VIEW

NOTE

- 1) THIS CONSTRUCTION UNIT IS TO BE USED FOR ALL PLATFORM MOUNTED 3-PHASE REGULATOR ASSEMBLIES. THE REGULATORS, BY-PASS SWITCHES AND PLATFORM ARE TO BE SPECIFIED AS SEPERATE LINE ITEMS. USE WIRING DIAGRAM Y1.3G AS A REFERENCE.
- 2) THE PHYSICAL TANK HEIGHT OF THE REGULATOR DEFINES THE PLATFORM'S POSITION BELOW THE CROSSARM/SWITCH ASSEMBLY. THE REGULATORS THAT CAN BE USED FOR THIS CONSTRUCTION UNIT ARE AS FOLLOWS:
 - 14.4 KV REGULATORS:
 - SN-9420, SN-9421, OR SN-9422
- 3) THE PHYSICAL WEIGHT AND SIZE OF THE THREE REGULATORS, DEFINES WHICH PLATFORM IS TO BE USED, MOUNTING BOLTS SPECIFIED BY PLATFORM.
 - PLATFORMS:
 - SN-2094: LENGTH 14', 3 @ 4500 lbs. EACH
 - SN-2095: LENGTH 16', 3 @ 4500 lbs. EACH
 - SN-2096: LENGTH 18', 3 @ 3620 lbs. EACH
- 4) THE BY-PASS SWITCHES ARE DEFINED BY THE TYPE OF REGULATORS THAT ARE USED IN THE ASSEMBLY.
 - SWITCHES: SN-3040 (400 A), SN-3045 (600 A)
- 5) THE STANDOFF BRACKET USED TO INSURE THE NEUTRAL IS SPACED AWAY FROM THE CROSSARM/SWITCH ASSEMBLY, HAS NO STOCK NUMBER ASSIGNED. IT IS, OR SIMILAR, TO THE MACLEAN POWER SYSTEMS, SINGLE EYE SUSPENSION INSULATOR BRACKET, PART NUMBER G5568M18ESC.
- 6) 6 FT MINIMUM ELEVATION ABOVE LEVEL GROUND, FOR CONTROL BOX. THIS IS A SAFETY ISSUE TO ELIMINATE UNAUTHORIZED ACCESS TO THE REGULATORS.

Drawn By: DEM

Date Drawn: JANUARY 2002

Approved By: WHP

Date Updated: JULY 20, 2004

Old CU:

DWG Name: VY1-3-P.DWG

**14.4/24.9 KV PRIMARY, 3 ϕ ,
THREE, STEP VOLTAGE REGULATORS,
PLATFORM MOUNTED**

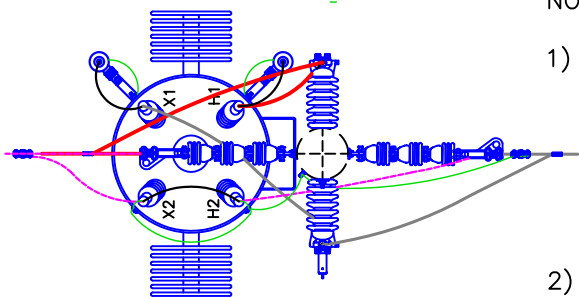
PAGE 2

ISSUE#: REV 2**VY1.3.P**

CONSTRUCTION UNIT: VY1.3.P**AUTOCAD FILE:** VY1-3-P.DWG**DESCRIPTION:** 14.4/24.9 KV, 3-PHASE, STEP VOLTAGE
REGULATORS, PLATFORM MOUNTED**PDF FILE:** VY1-3-P.PDF**PDF SPEC.:** VY1-3-P_SPEC.PDF**ANGLE FROM:** **ANGLE TO:** **RETIREMENT:** **NO. TRANS:**

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0140	6	ARRESTER, LIGHTNING MOV 18 KV		
0310	2	BOLT, MACHINE 5/8" X 10"		
0320	14	BOLT, MACHINE 5/8" X 12"		
0330	8	BOLT, MACHINE 5/8" X 14"		
0340	4	BOLT, MACHINE 5/8" X 16"		
0410	6	BOLT, STUD 5/8" X 3/4" X 1 3/4"		
0430	10	BOLT, STUD 5/8" X 3/4" X 12"		
0470	6	BRACKET, ARRESTOR MOUNT LARGE		
0530	6	BRACKET, INSULATOR MOUNT		
1000	6	CONNECTOR, CU #4		
1164	2	CROSSARM WOOD 5" X 6" X 20'		
1590	6	INSULATOR, POST TYPE HORIZONTAL		
1600	10	INSULATOR, POST TYPE VERTICAL		
1620	9	INSULATOR, SUSP 4 1/4"		
2430	6	SCREW, LAG 1/2" X 4"		
3350	40	WASHER, SQUARE		
3530	140	WIRE, CU BSD 4		
3740	120	WIRE, THW CU 4/0		
XX01	6	CLAMP, DEADEND (PRIMARY)	W	4
XX02	6	CONNECTOR, PRIMARY	W	17
XX03	6	CLAMP, TANGENT (PRIMARY)	W	7
XX04	10	CLAMP, TANGENT (PRIMARY)	W	7
XX05	2	CLAMP, ANGLE SUSP	N	3
XX06	2	SQUEEZON, #4 CU TO NEUTRAL	N	13
XX07	6	CLAMP, HOT LINE	W	15

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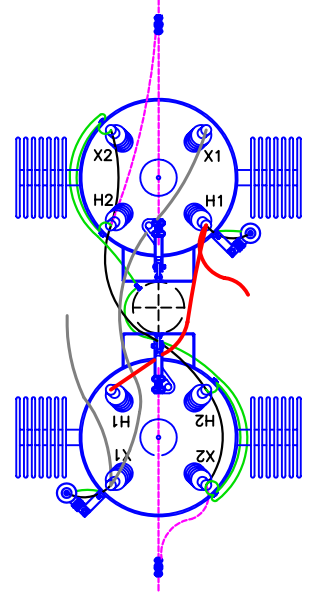
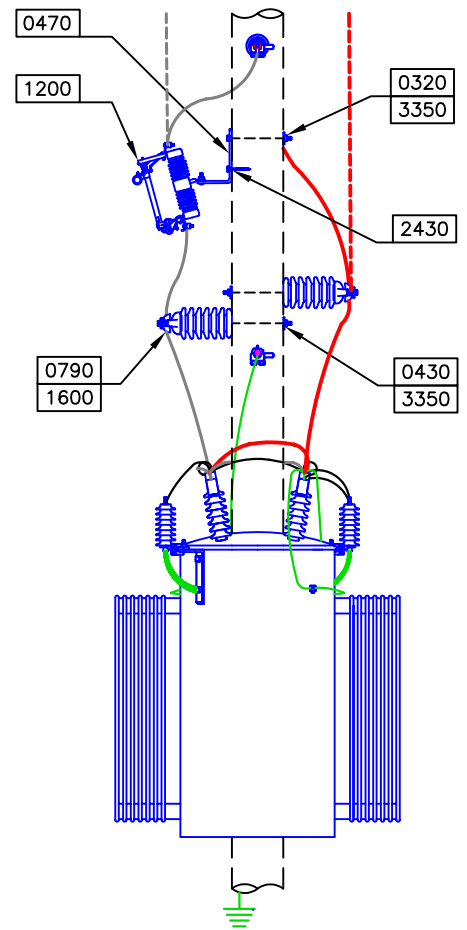
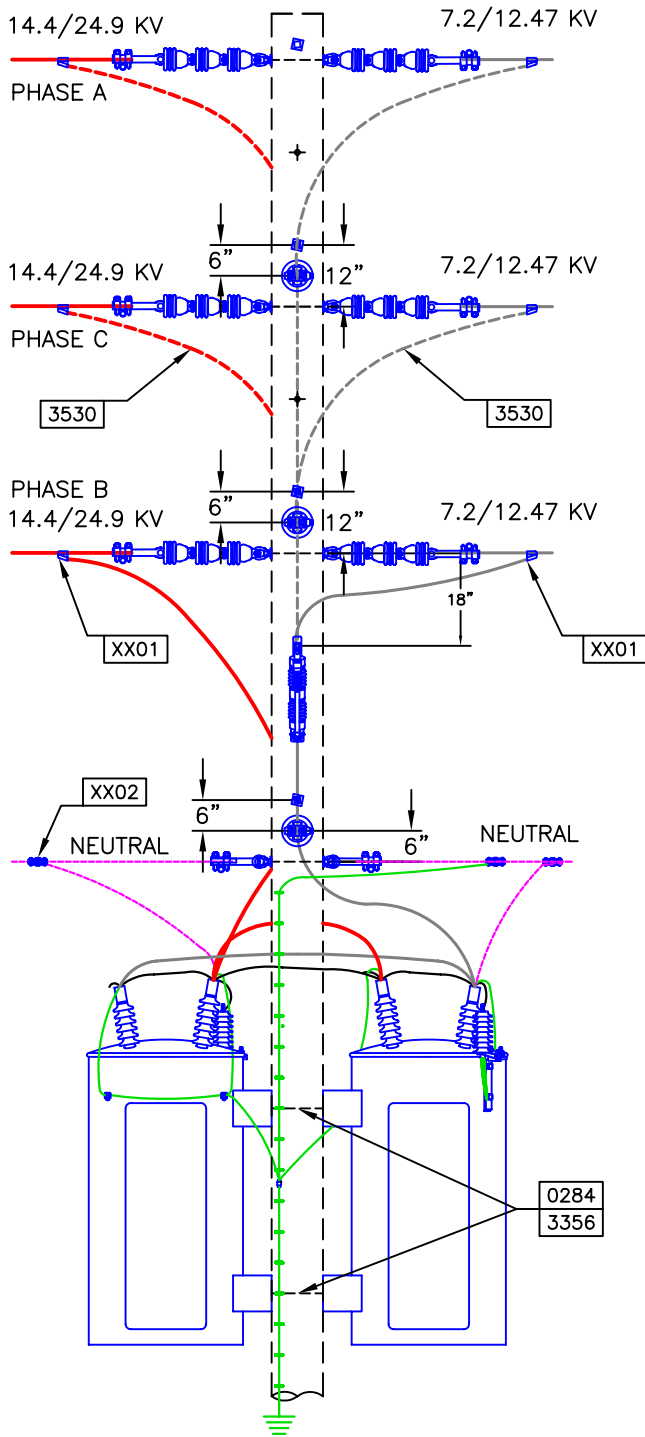
DRAWING IS NOT TO SCALE

- 1) THE SN-1600 25 KV INSULATOR SHOULD BE USED, WITH THE PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES. FOR ADDITIONAL ASSEMBLIES, USE CONSTRUCTION UNIT VM5.7.
 - IF CONNECTING TO PHASE B USE TWO SN-1600 ASSEMBLIES, TWO ASSEMBLIES ARE INCLUDED WITH THIS SPECIFICATION.
 - IF CONNECTING TO PHASE C USE FOUR SN-1600 ASSEMBLIES.
 - IF CONNECTING TO PHASE A USE SIX SN-1600 ASSEMBLIES.
- 2) SEE GUIDE Y2.1G FOR THE TRANSFORMER WIRING DIAGRAM.
- 3) THE DIMENSION IS 24" FOR THE 167 KV(SN-9241) TRANSFORMER, AND 36" FOR 500 KV(SN-9242) TRANSFORMER.

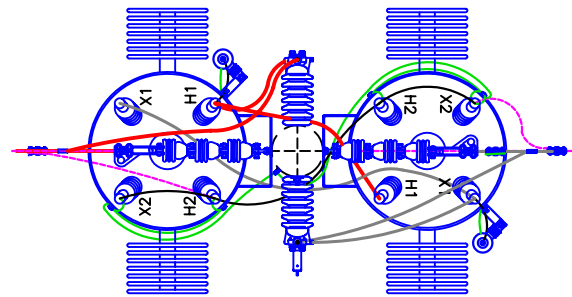
Drawn By: DEM	Date Drawn: JUNE 15, 2004	14.4/24.9 KV TO 7.2/12.47 KV PRIMARY, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER, POLE MOUNTED	ISSUE#: NEW
Approved By: WHP	Date Updated: JUNE 15, 2004		VY2.1
Old CU: NEW	DWG Name: VY2-1.DWG		

CONSTRUCTION UNIT:	VY2.1	AUTOCAD FILE:	VY2-1.DWG
DESCRIPTION:	14.4/24.9 KV - 7.2/12.5 KV PRIMARY, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER, POLE MOUNTED	PDF FILE:	VY2-1.PDF
		PDF SPEC.:	VY2-1_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	1

STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	1	ARRESTER, LIGHTNING 9 KV		
0140	1	ARRESTER, LIGHTNING MOV 18 KV		
0284	2	BOLT, MACHINE 3/4" X 14"		
0320	1	BOLT, MACHINE 5/8" X 12"		
0430	2	BOLT, STUD 5/8"X 3/4"X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
0790	2	CLAMP, INS WIRE #2 - 4/0		
1000	1	CONNECTOR, CU #4		
1200	1	CUTOUT, FUSED OH 100 AMP		
1600	2	INSULATOR, POST TYPE VERTICAL		
1900	2	LUG, TRANSFORMER GROUND		
2430	1	SCREW, LAG 1/2" X 4"		
3350	3	WASHER, SQUARE		
3356	2	WASHER, SQUARE CURVE 2 1/4"		
3530	60	WIRE, CU BSD 4		
XX01	2	CONNECTOR (PRIMARY)	WX	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	2	SQUEEZON, #4 CU TO NEUTRAL	N	13



NEUTRAL
VIEW



PHASE B VIEW

DRAWING IS NOT TO SCALE

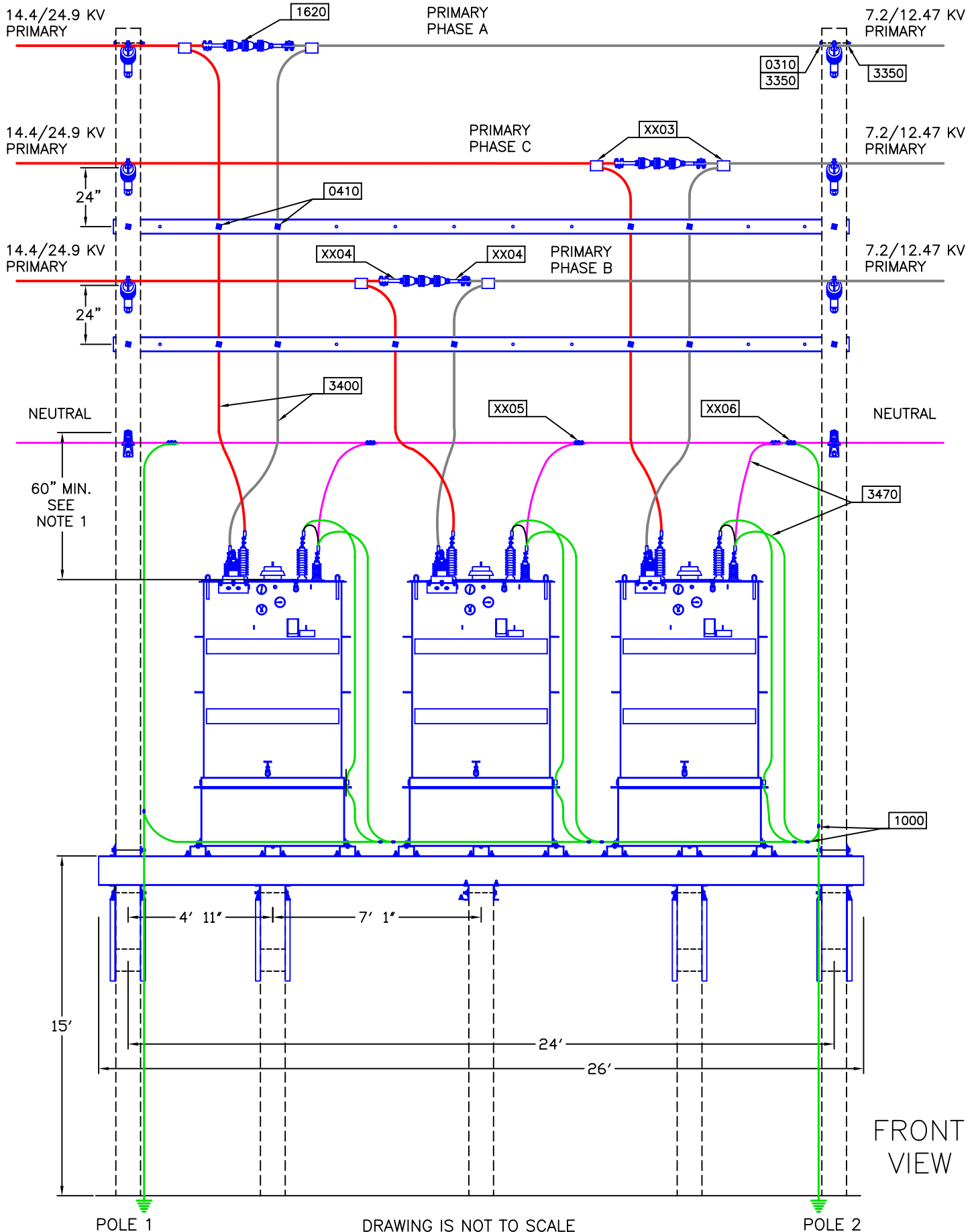
NOTE:

- 1) USE THE SN-1600 25 KV INSULATOR, AND PROPER TANGENT CLAMP, WHEN CONNECTING TO THE UPPER PHASES. FOR ADDITIONAL ASSEMBLIES, USE CONSTRUCTION UNIT VM5.7.
 - IF CONNECTING TO PHASE C USE FOUR SN-1600 ASSEMBLIES.
 - IF CONNECTING TO PHASE A USE SIX SN-1600 ASSEMBLIES.
- 2) SEE GUIDE Y2.2G FOR THE TRANSFORMER WIRING DIAGRAM.
- 3) THE DIMENSION IS 24" FOR THE 167 KV(SN-9241) OR 36" FOR THE 500 KV(SN-9242) TRANSFORMER.

Drawn By: DEM	Date Drawn: JUNE 15, 2004	14.4/24.9 KV TO 7.2/12.47 KV PRIMARY, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS, POLE MOUNTED	ISSUE#: NEW VY2.2
Approved By: WHP	Date Updated: JUNE 15, 2004		
Old CU: NEW	DWG Name: VY2-2.DWG		

CONSTRUCTION UNIT:	VY2.2	AUTOCAD FILE:	VY2-2.DWG
DESCRIPTION:	4.4/24.9 KV - 7.2/12.5 KV PRIMARY, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS, POLE MOUNTED	PDF FILE:	VY2-2.PDF
		PDF SPEC.:	VY2-2_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	2

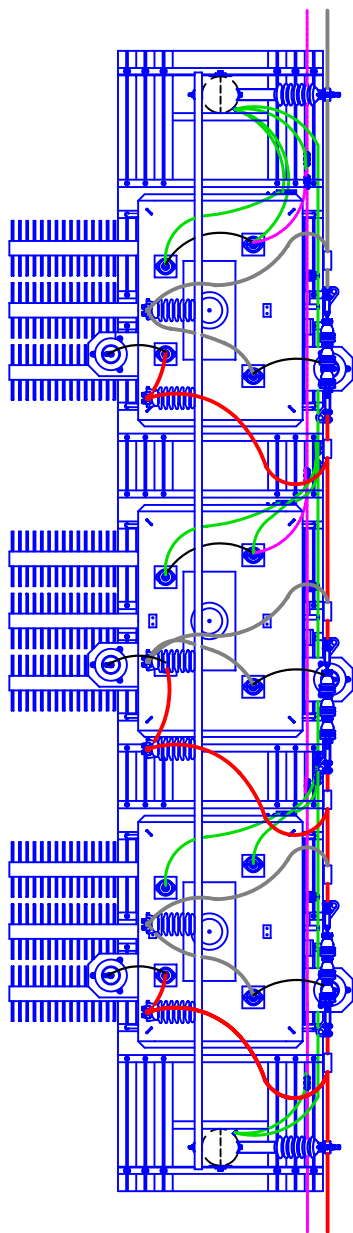
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0120	1	ARRESTER, LIGHTNING 9 KV		
0140	1	ARRESTER, LIGHTNING MOV 18 KV		
0284	2	BOLT, MACHINE 3/4" X 14"		
0320	1	BOLT, MACHINE 5/8" X 12"		
0430	2	BOLT, STUD 5/8"X 3/4"X 12"		
0470	1	BRACKET, ARRESTER MOUNT LARGE		
0790	2	CLAMP, INS WIRE #2 - 4/0		
1000	1	CONNECTOR, CU #4		
1200	1	CUTOUT, FUSED OH 100 AMP		
1600	2	INSULATOR, POST TYPE VERTICAL		
1900	2	LUG, TRANSFORMER GROUND		
2430	1	SCREW, LAG 1/2" X 4"		
3350	3	WASHER, SQUARE		
3356	2	WASHER, SQUARE CURVE 2 1/4"		
3530	60	WIRE, CU BSD 4		
XX01	2	CONNECTOR (PRIMARY)	WX	5
XX02	2	CONNECTOR (NEUTRAL)	NX	5
XX03	2	SQUEEZON, #4 CU TO NEUTRAL	N	13



Drawn By: DEM	Date Drawn: JUNE 21, 2004
Approved By: WHP	Date Updated: JUNE 21, 2004
Old CU: NEW	DWG Name: VY2.2.DWG

14.4/24.9 KV to 7.2/12.47 PRIMARY, THREE, 2,500 KVA, SINGLE PHASE, STEP/DOWN TRANSFORMERS, PLATFORM MOUNTED

ISSUE#: NEW
VY2.3
PG. 1

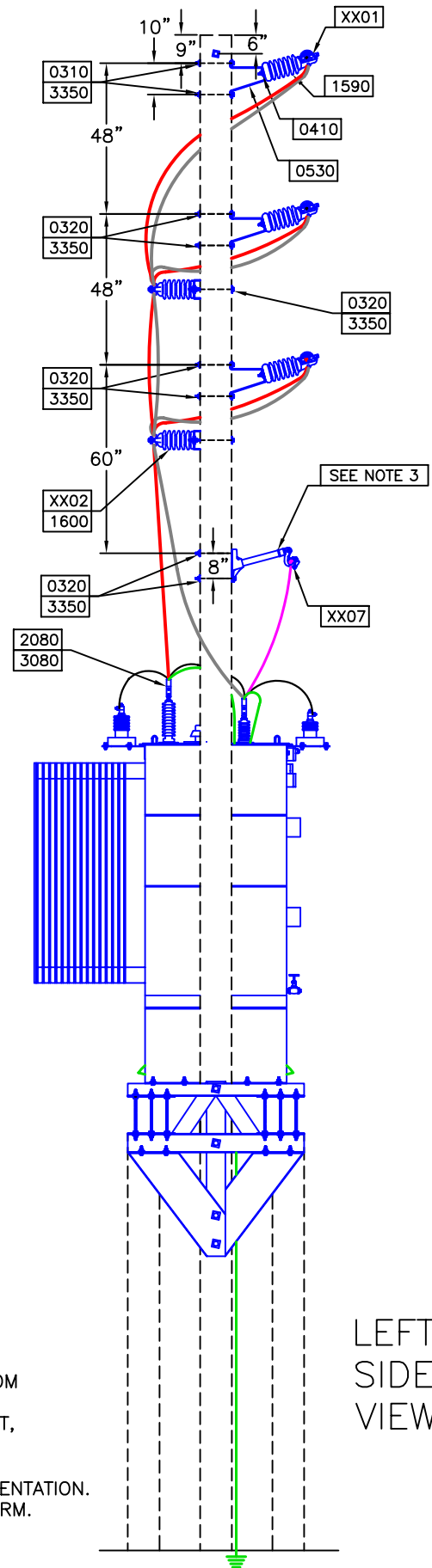


TOP VIEW

NOTE

- 1) THIS CONSTRUCTION UNIT IS TO BE USED SPECIFICALLY FOR THREE 2500 KVA, SINGLE PHASE, STEP DOWN TRANSFORMERS (SN-9743). THE PLATFORM IS TO BE SPECIFIED AS A SEPERATE LINE ITEM. USE WIRING DIAGRAM VY2.3G AS A REFERENCE.
- 2) THE PHYSICAL TANK HEIGHT OF THE AUTOTRANSFORMERS DEFINES THE NEUTRAL POSITION, SEE PAGE 1.
- 3) THE STANDOFF BRACKET USED TO INSURE THE NEUTRAL IS SPACED AWAY FROM THE ASSEMBLY, HAS NO STOCK NUMBER ASSIGNED. IT IS, OR SIMILAR TO, THE MACLEAN POWER SYSTEMS, SINGLE EYE SUSPENSION INSULATOR BRACKET, PART NUMBER G5568M18ESC.
- 6) 6 FT MINIMUM ELEVATION ABOVE LEVEL GROUND, FOR ANY CONTROL INSTRUMENTATION. THIS IS A SAFETY ISSUE TO ELIMINATE UNAUTHORIZED ACCESS TO THE PLATFORM.

DRAWING IS NOT TO SCALE

LEFT
SIDE
VIEW

Drawn By: DEM	Date Drawn: JUNE 21, 2004
Approved By: WHP	Date Updated: JUNE 21, 2004
Old CU: NEW	DWG Name: VY2.2.DWG

14.4/24.9 KV to 7.2/12.47 PRIMARY, THREE,
2,500 KVA, SINGLE PHASE, STEP/DOWN
TRANSFORMERS, PLATFORM MOUNTED

ISSUE#: NEW

VY2.3

PG. 2

CONSTRUCTION UNIT:	VY2.3	AUTOCAD FILE:	VY2-3.DWG
DESCRIPTION:	14.4/24.9KV to 7.2/12.47 KV, THREE, 2500 KVA, SINGLE PHASE, STEP/DOWN TRANSFORMERS, PLATFORM MOUNTED	PDF FILE:	VY2-3.PDF
		PDF SPEC.:	VY2-3_SPEC.PDF
ANGLE FROM:		ANGLE TO:	
		RETIREMENT:	
		NO. TRANS:	3

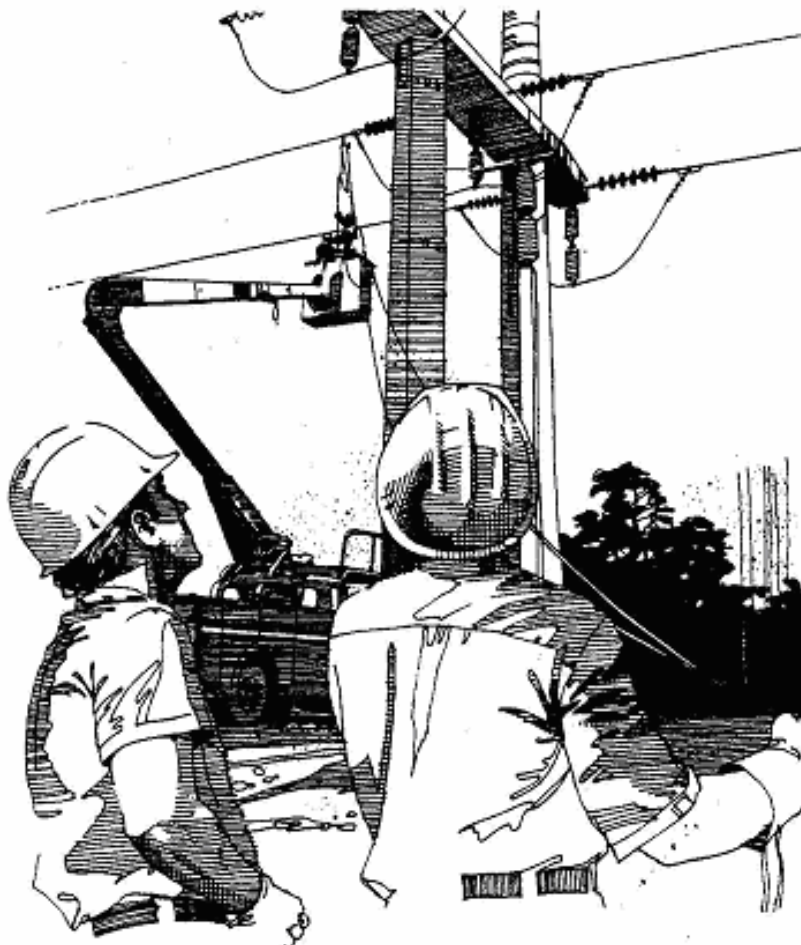
STOCK NUMBER	QUANTITY	STOCK NUMBER DESCRIPTION	VARIABLE	TABLE_NO
0284	16	BOLT, MACHINE 3/4" X 14"		
0310	6	BOLT, MACHINE 5/8" X 10"		
0320	16	BOLT, MACHINE 5/8" X 12"		
0410	16	STUD, MACHINE 5/8" X 3/4" X 1 3/4"		
0530	6	BRACKET, INSULATOR MOUNT		
1000	8	CONNECTOR, CU #4		
1590	6	INSULATOR, POST TYP HORIZONTAL		
1600	10	INSULATOR, POST TYPE VERTICAL		
1620	9	INSULATOR, SUSP 4 1/4"		
2080	6	PADDLE, AL 336-394		
3080	6	TAP, 1-602031-4 394.5 - 394.5		
3350	24	WASHER, SQUARE		
3356	16	WASHER, SQUARE CURV 2-1/4"		
3400	60	WIRE, AL 336-394		
3470	60	WIRE, CU BHD 4		
XX01	6	CLAMP, TANGENT (PRIMARY)	W	7
XX02	10	CLAMP, TANGENT	WC	7
XX03	6	TAP, TO JUMPER	WC	50
XX04	6	CLAMP, DEADEND	W	4
XX05	3	CONNECTOR (NEUTRAL)	N	13
XX06	2	CONNECTOR (NEUTRAL TO GRD)	NX	5
XX07	2	CLAMP, ANGLE SUSP AL	NX	3

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CONSTRUCTION UNITS

INDEX Y: VOLTAGE REGULATORS AND STEP/DOWN TRANSFORMER WIRING DIAGRAMS.

WITHLACOOCHEE RIVER
ELECTRIC COOPERATIVE, INC.



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NOTES

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NOTES

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VOLTAGE REGULATORS AND STEP DOWN TRANSFORMERS **WIRING DIAGRAMS**

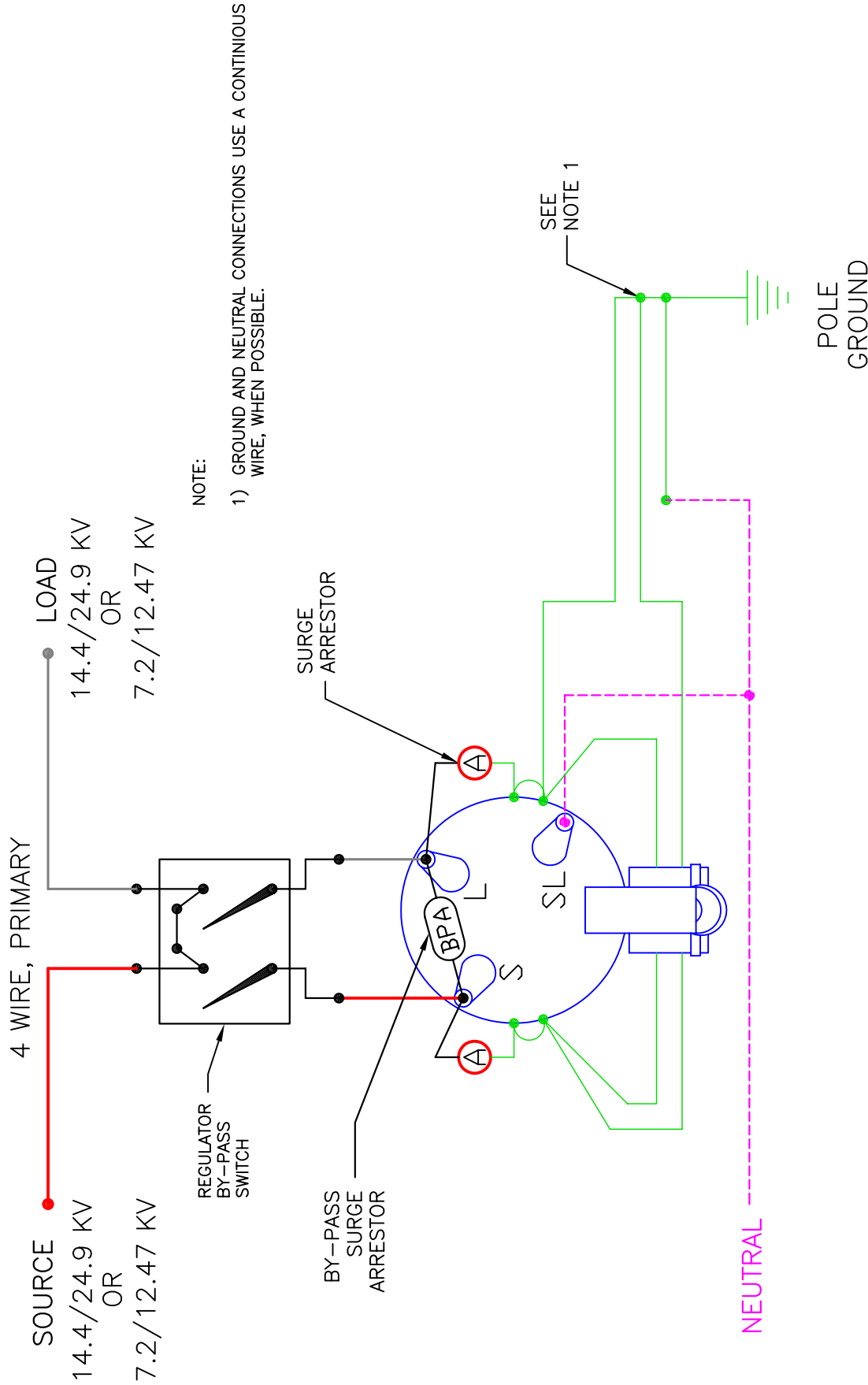
C.U. NO.	DESCRIPTION	PAGE NO.
Y1.1G	WIRING DIAGRAM, 1-PHASE, ONE STEP VOLTAGE REGULATORS, POLE MOUNTED	1 - 2
Y1.3G	WIRING DIAGRAM, 3-PHASE, THREE ONE STEP VOLTAGE REGULATORS, PLATFORM MOUNTED	3 - 4
Y2.1G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER	5 - 6
Y2.2G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS	7 - 8
Y2.3G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, THREE, SINGLE PHASE 2500 KVA, STEP/DOWN TRANSFORMERS	9 - 10

WREC CONSTRUCTION UNIT UPDATE TABLE

WIRING DIAGRAMS

(RUS) OLD C.U.	(RUS) NEW C.U.	(WREC) UPDATED C.U.	CONSTRUCTION UNIT DESCRIPTION	(RUS) DATE ADDED	(WREC) DATE UPDATED
VM7-1	--	Y1.1G	WIRING DIAGRAM, 1-PHASE, SINGLE PHASE ONE STEP VOLTAGE REGULATOR, POLE MOUNTED	--	8/06/03
VM7-3	--	Y1.3G	WIRING DIAGRAM, 3-PHASE, THREE SINGLE PHASE ONE STEP VOLTAGE REGULATORS, PLATFORM MOUNTED	--	8/06/03
--	--	Y2.1G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER	--	6/29/04
--	--	Y2.2G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS	--	6/29/04
--	--	Y2.3G	WIRING DIAGRAM, 14.4/24.9 KV TO 7.2/12.47 KV, THREE, SINGLE PHASE 2500 KVA, STEP/DOWN TRANSFORMERS	--	6/29/04

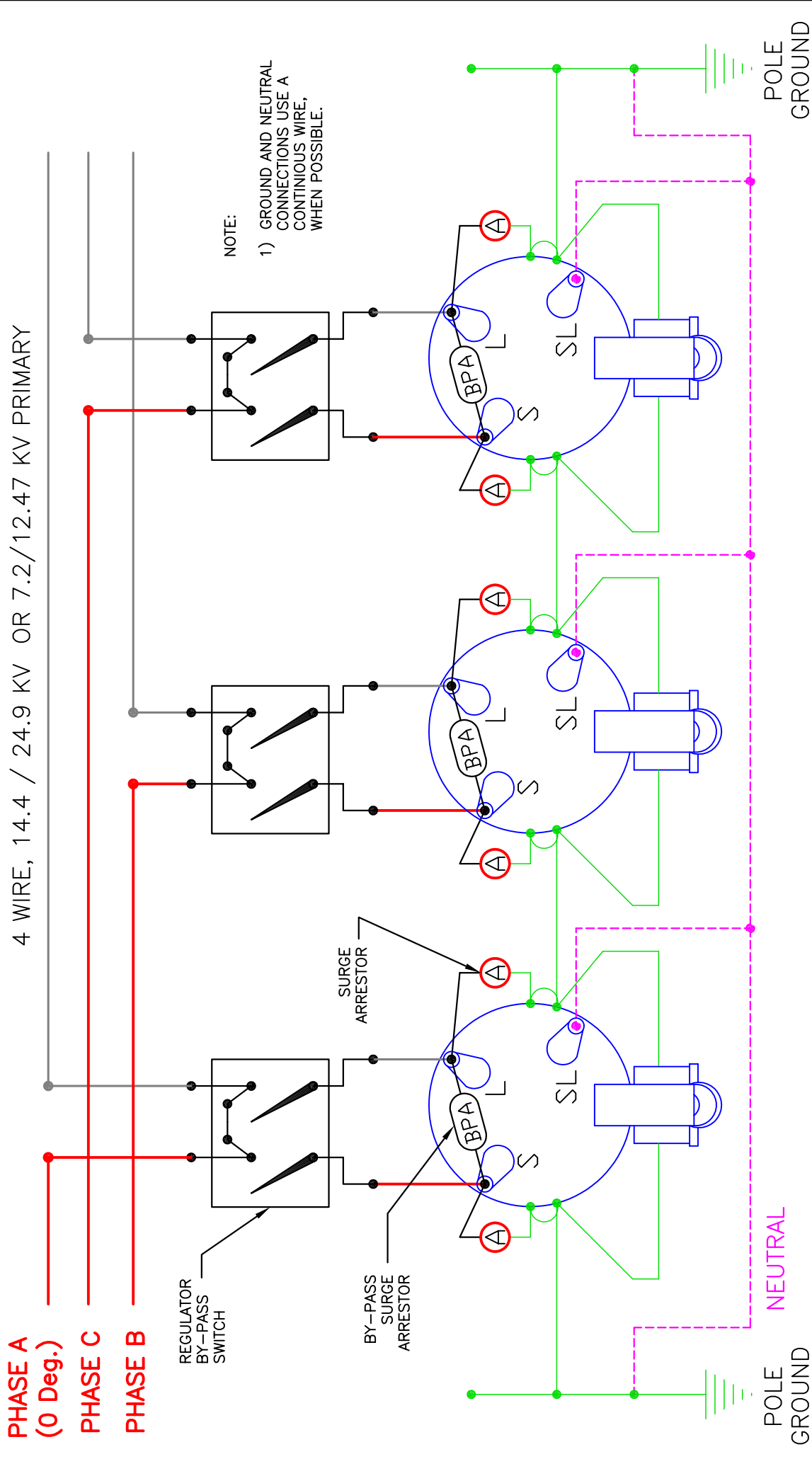




Drawn By: DEM	Date Drawn: AUGUST 6, 2003	WREC WIRING DIAGRAM 1 ϕ , ONE STEP VOLTAGE REGULATOR, POLE MOUNTED	ISSUE#: REV 1
Approved By: WHP	Date Updated: JULY 19, 2004		
Old CU: VM7.1	DWG Name: Y1.1G.DWG		



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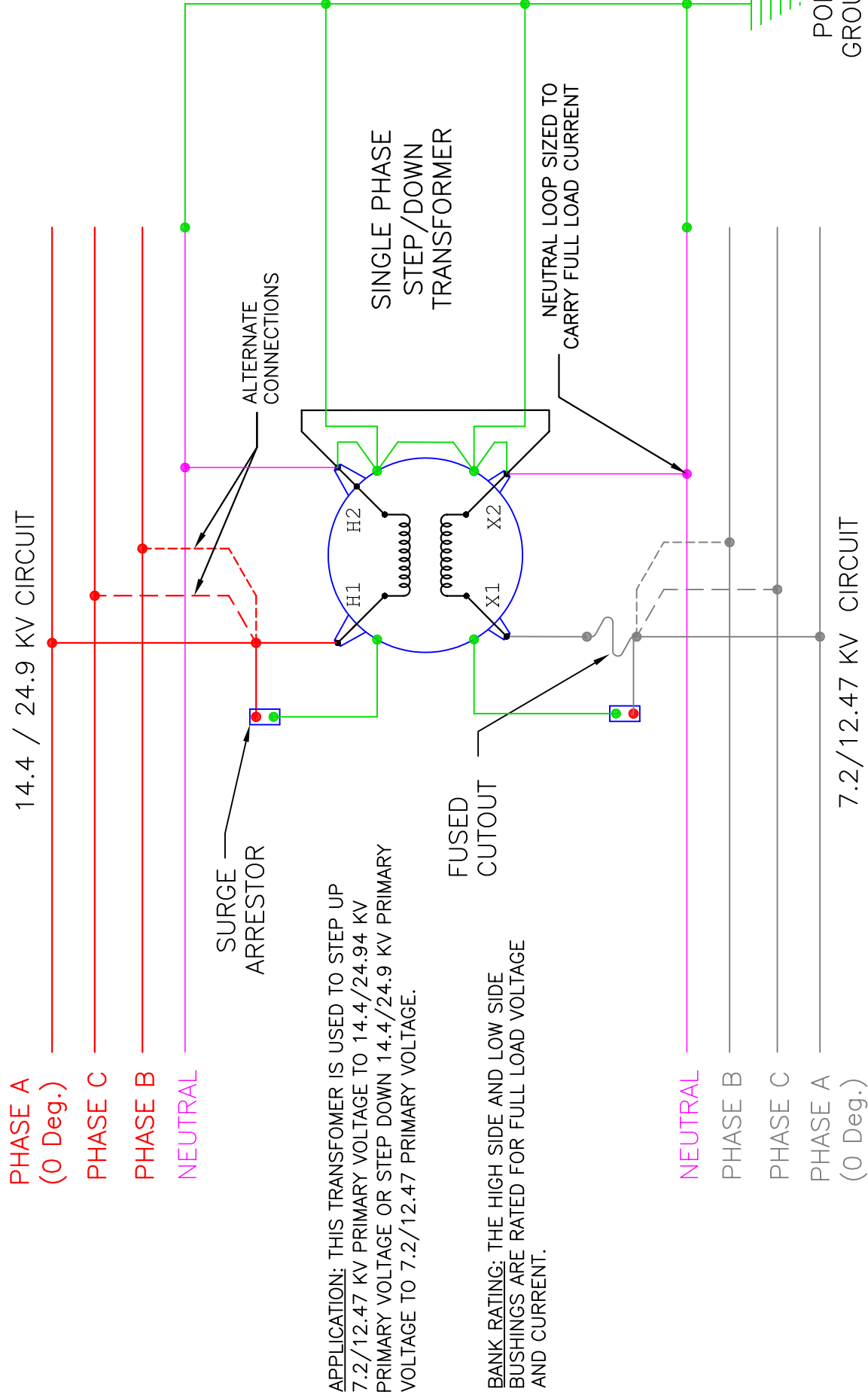


Drawn By: DEM	Date Drawn: JUNE 13, 2002	WREC WIRING DIAGRAM, 3 ϕ , THREE, 1 ϕ , ONE STEP VOLTAGE REGULATORS, PLATFORM MOUNTED	ISSUE#: REV 1
Approved By: WHP	Date Updated: AUGUST 8, 2003		
Old CU: VM7-3	DWG Name: Y1-3G.DWG		

Y1.3G



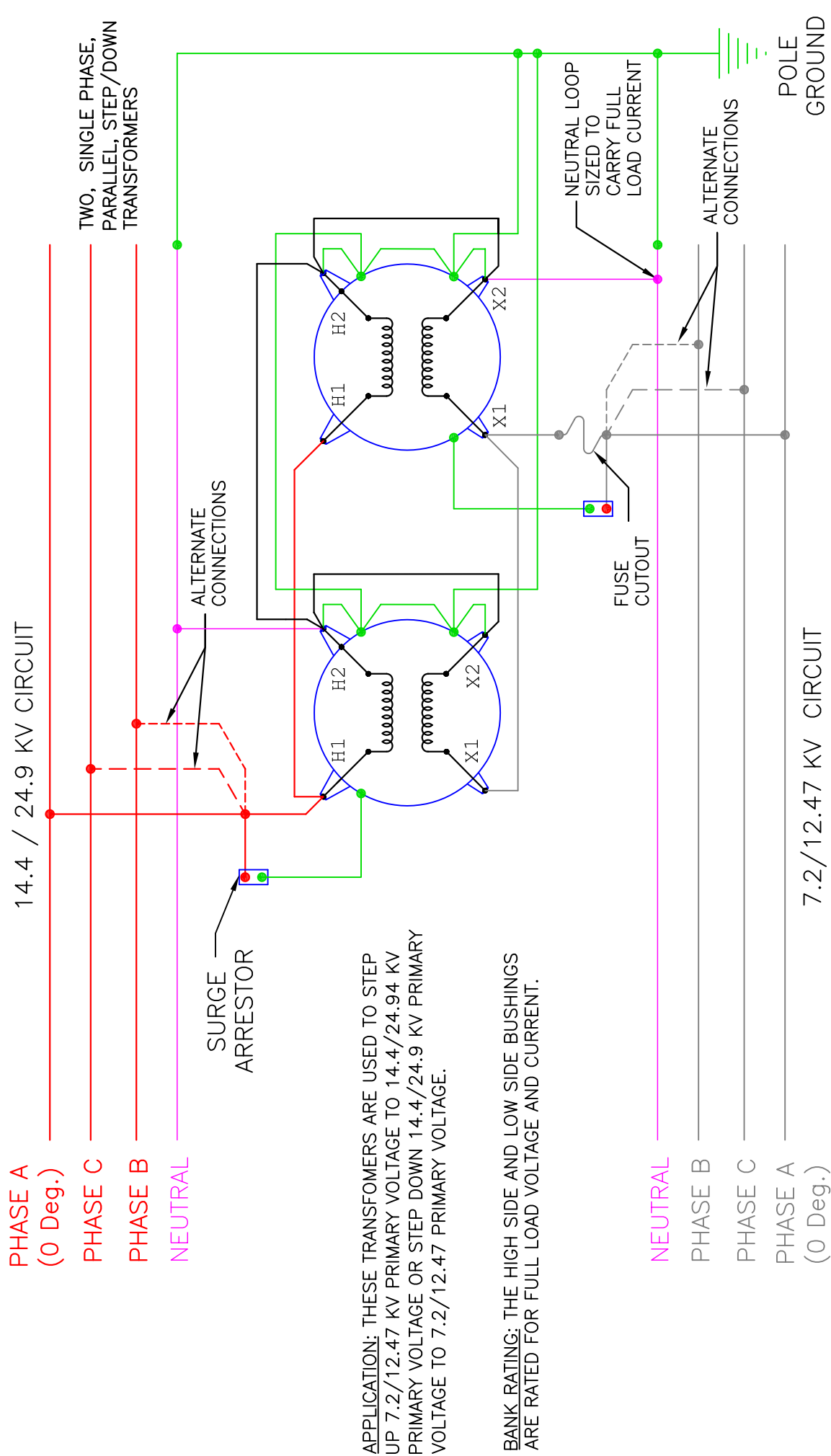
WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



Drawn By: DEM	Date Drawn: JUNE 8, 2004	WREC WIRING DIAGRAM 14.4/24.9 KV TO 7.2/12.47 KV, ONE, SINGLE PHASE, STEP/DOWN TRANSFORMER	ISSUE#: NEW
	Date Updated: JUNE 8, 2004		
	DWG Name: Y2-1G.DWG		Y2.1G



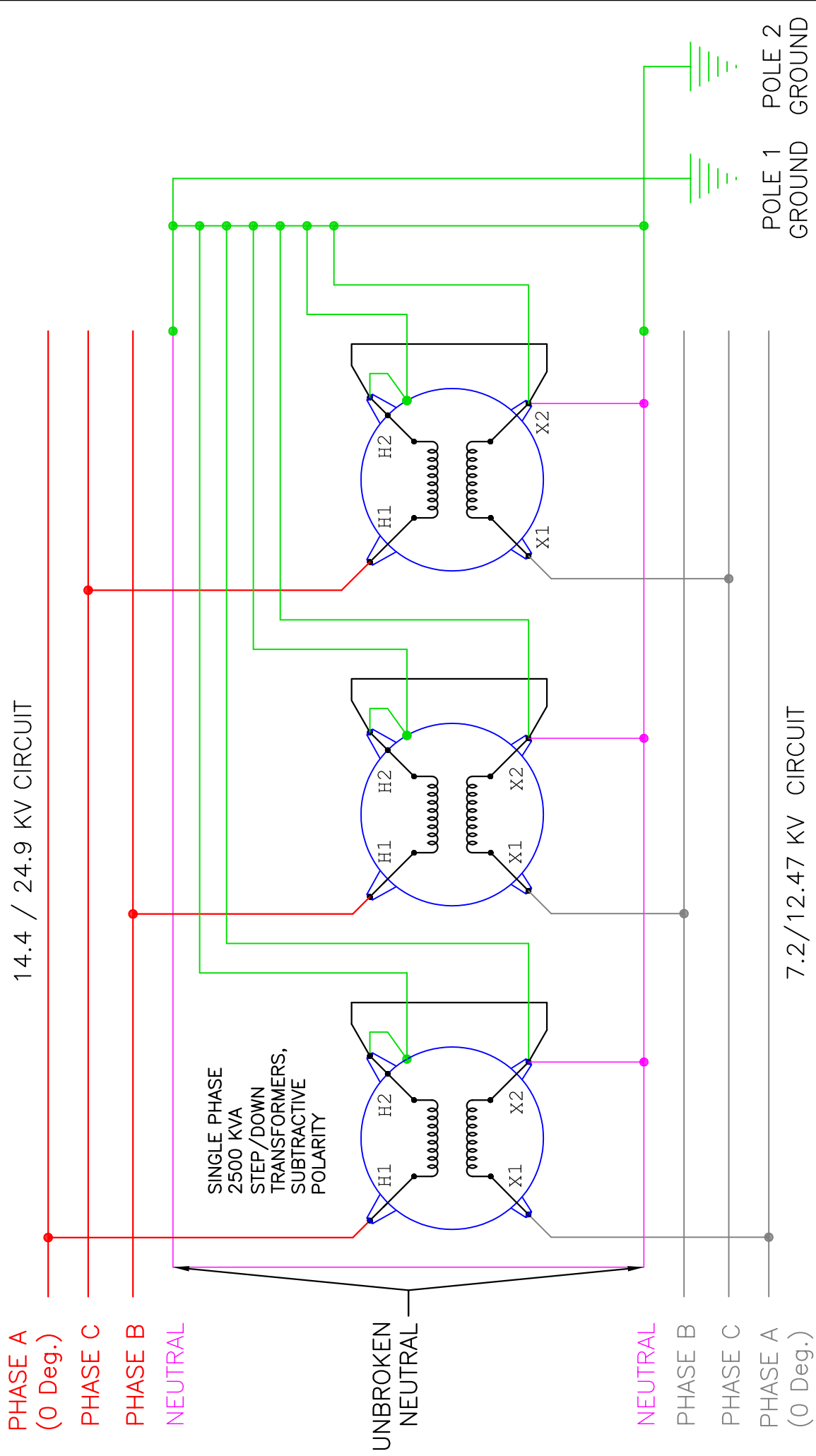
WITHLACOOCHEE RIVER ELECTRIC COOPERATIVE, INC.



Drawn By: DEM	Date Drawn: JUNE 8, 2004	WREC WIRING DIAGRAM		ISSUE#: NEW
Approved By: WHP	Date Updated: JUNE 8, 2004	14.4/24.9 KV TO 7.2/12.47 KV, TWO, SINGLE PHASE, PARALLEL, STEP/DOWN TRANSFORMERS		Y2.2G
Old CU: NEW	DWG Name: Y2-2G.DWG			



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Drawn By: DEM	Date Drawn: JUNE 29, 2004	WREC WIRING DIAGRAM 14.4/24.9 KV TO 7.2/12.47 KV, THREE, SINGLE PHASE 2500 KVA, STEP/DOWN TRANSFORMERS	ISSUE#:	NEW
			Y2.3G PG 1	
Approved By: WHP	Date Updated: JUNE 29, 2004			
Old CU: NEW	DWG Name: Y2-3G.DWG			

APPLICATION: THIS CONSTRUCTION UNIT USES THREE 2,500 KVA SINGLE PHASE STEP/DOWN TRANSFORMER AS A 3–PHASE ASSEMBLY. THEY STEP/UP 7.2/12.47 KV 3–PHASE PRIMARY VOLTAGES TO 14.4/24.94 KV PRIMARY VOLTAGES OR STEP/DOWN 3–PHASE 14.4/24.9 KV PRIMARY VOLTAGES TO 7.2/12.47 PRIMARY VOLTAGES.

BANK RATING: THE HIGH SIDE AND LOW SIDE BUSHINGS ARE RATED FOR FULL LOAD VOLTAGE AND CURRENT. HIGH SIDE RATED CURRENT @ 14.4 KV IS 170 AMPS, LOW SIDE RATED CURRENT @ 7.2 KV IS 340 AMPS

Drawn By: DEM	Date Drawn: JUNE 29, 2004	WREC WIRING DIAGRAM 14.4/24.9 KV TO 7.2/12.47 KV, THREE, SINGLE PHASE 2500 KVA, STEP/DOWN TRANSFORMERS	ISSUE#:	NEW
			Y2.3G	
			PG 2	
Approved By: WHP	Date Updated: JUNE 29, 2004			
Old CU: NEW	DWG Name: Y2-3G.DWG			