SUSPENSION ASSEMBLY COW-SL
FOR ATTACHMENT HOLE IN-LINE WITH COW

SUSPENSION ASSEMBLY COW-SP
FOR ATTACHMENT HOLE PERPENDICULAR TO COW

SUSPENSION ASSEMBLY COW-SH
FOR ATTACHMENT TO STEEL ANGLE

SUSPENSION ASSEMBLY COW-SYL
FOR ATTACHMENT HOLE IN-LINE WITH COW

SUSPENSION ASSEMBLY COW-SYP
FOR ATTACHMENT HOLE PERPENDICULAR TO COW

TENSION ASSEMBLY COW-TY
FOR HORIZONTAL ATTACHMENT HOLE
(OVERHEAD VIEW)

TENSION ASSEMBLY COW-TV
FOR VERTICAL ATTACHMENT HOLE

TENSION ASSEMBLY COW-TH
FOR HORIZONTAL ATTACHMENT HOLE
SUSPENSION INSULATOR ASSEMBLIES
ULTIMATE INSULATOR ASSEMBLY STRENGTH AS SPECIFIED

NOTE 2
TABLE A - PORCELAIN OR GLASS UNITS

<table>
<thead>
<tr>
<th>VOLTAGE (KV)</th>
<th>UNIT QUANTITY PER ASSEMBLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T11 and T12</td>
</tr>
<tr>
<td></td>
<td>WOOD STRUCTURES</td>
</tr>
<tr>
<td>69</td>
<td>3</td>
</tr>
<tr>
<td>115</td>
<td>8</td>
</tr>
<tr>
<td>136</td>
<td>10</td>
</tr>
<tr>
<td>220</td>
<td>13</td>
</tr>
</tbody>
</table>

NOTES
1. SRK INDICATES RUT, NUT AND STAINLESS STEEL EYE BOLTS, AS SHOWN.
2. ASSEMBLY DESIGNATED WITH A "SR" SHALL HAVE THE INSULATOR OR INSULATORS AT THE CONDUCTOR END OF THE ASSEMBLY AS SHOWN, AND ARE FOR USE WHEN THE CONDUCTOR ATTACHMENT POINT IS AT A HEIGHT 12 FT (3.65 M) HIGHER THAN THE STRUCTURE ATTACHMENT POINT.
3. FOR DOUBLE CONDUCTORS ASSEMBLED, THE RINGS ON THE INSULATOR SPECIFIED SHALL BE TURNED OUT TO EACH SIDE IN ORDER TO CLEAR INSULATION AND TO PROVIDE CLEARANCE TO A HANGER OR TO THE INSULATOR AT THE HANGER OR Suspension ASSEMBLY.
4. INSULATORS ATTACHED TO A SINGLE CONDUCTOR TENSION STRING SHALL NOT BE USED IN SINGLE STRING TENSION CONFIGURATIONS.

INJSULATOR ASSEMBLY TYPE NO.

EXAMPLE: T12-B

ONE (1) OR TWO (2) SUBCONDUCTORS

SINGLE (1) OR DOUBLE (2) INSULATOR STRING TENSION ASSEMBLY

SINGLE STRING TENSION INSULATOR ASSEMBLIES

ULTIMATE INSULATOR ASSEMBLY STRENGTH AS SPECIFIED

(NOTE 1)

1022
VEE STRING INSULATOR ASSEMBLIES
ULTIMATE INSULATOR ASSEMBLY STRENGTH AS SPECIFIED
(NOTE 2)

VEE STRING INSULATOR ASSEMBLIES
ULTIMATE INSULATOR ASSEMBLY STRENGTH AS SPECIFIED
(NOTE 2)
ITEM NO. | ITEM DESCRIPTION | PART NUMBER (OR EQUAL) | MANUFACTURER (OR EQUAL) | QUANTITY
--- | --- | --- | --- | ---
1 | OPTICAL FIBER SPLICE ENCLOSURE | ACO-1111 | ACO (ACI) | 1
2 | SWEEPER EXTERNAL CLEVIS BRACKET | CB-444-34L | ACO (ACI) | 1
3 | WOOD POLE STRUCTURE | | | |
4 | CORELOCK CLAMP | SEE NOTE T | ACO (ACI) | AS PED
5 | GROUND BONDING CLAMP | | | |
6 | COPPER CLAD GROUND CABLE, SQUARE WIRE & COPPER | | | 2

NOTES
1. REMOVE 20 FEET OF CABLE 인 the MOUNTING OPERATIONS. THE AMOUNT OF CABLE TO BE REMOVED WILL VARY DUE TO ACCESS FOR THE SPLICE VAN.
2. PERMANENTLY ATTACH EXTERNAL CLEVIS BRACKET TO STRUCTURE.
3. CORELOCK CLAMP TO BE SECURED USING HARDWARE INCLUDED WITH CORELOCK CLAMP OR EQUIVALENT. CLAMP TO BE SECURED WHERE CABLE ENDS AND CABLE COILS.
4. BRASS OPTIC CABLE SHALL ENTER THE BOTTOM EXCLUSIVE WIRE LOOPS AT THE BOTTOM ENTRANCE. UNDERSIDE ENCLOSED SLEEVES SHALL BE SEPARATED TO ALLOW FREEDOM OF MOVEMENT.
5. THE CORELOCK CLAMP MAY BE SECURED TO THE CABLE ENDS AND CABLE COILS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
6. THE CORELOCK CLAMP MAY BE SECURED TO THE CABLE ENDS AND CABLE COILS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
CONCRETE ANCHOR

REINFORCE WITH 10 PIECES OF WIRE TIE TOGETHER
1/4" WIRE SHAPED AS SHOWN. USE ONE EACH BROWN
STEEL RING WITH NO. 4 WIRE

SET UP FOR POURING CONCRETE ANCHOR

CONCRETE SHALL BE 1/2-4 NOT USING TIGHT GRADE

DETAILS OF INSTALLATION

OF CONCRETE ANCHOR

EARTH TO BE WELL SHAPED WHEN FINISHED

DETAILS OF FORM FOR CONCRETE ANCHOR

TWO PIECES TO BE PLACED TOGETHER

WOOD OR STEEL PLUG

NO. 12 GAUGE SHEET IRON
NOTES
1. ALL HOLES TO BE MADE BEFORE TREATMENT
2. ALL HOLES SHALL BE COMPLETELY DRILLED THROUGH THE PILE FROM ONE INJECTION
3. HOLES SHALL RUN PARALLEL TO CONDUCTOR
CROSSARM DRILLING DETAILS

NOTES
1. CROSSARMS SHALL BE SLID EMBEDDED
2. ALL HOLES IN WOOD SHALL BE SIZED 1/8 INCH LARGER THAN THEIR RESPECTIVE BOLT DIAMETERS

DETAIL OF ADJUSTABLE SPACER FITTING

<table>
<thead>
<tr>
<th>VOLTAGE</th>
<th>STRUCTURE TYPE</th>
<th>L</th>
<th>Z</th>
<th>Z/2</th>
<th>HAMPS BOLT SPACER (EA) (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKY</td>
<td>ME=2</td>
<td>23</td>
<td>10</td>
<td>6.6</td>
<td>2414.2</td>
</tr>
<tr>
<td>BKY</td>
<td>ME=1</td>
<td>23</td>
<td>10</td>
<td>6.6</td>
<td>2414.2</td>
</tr>
<tr>
<td>TBY</td>
<td>ME=1 AND ME=2</td>
<td>23</td>
<td>10</td>
<td>6.6</td>
<td>2414.2</td>
</tr>
<tr>
<td>HBY</td>
<td>ME=1 AND ME=2</td>
<td>35</td>
<td>17</td>
<td>8.4</td>
<td>3415.15</td>
</tr>
<tr>
<td>ELY</td>
<td>ME=1</td>
<td>45</td>
<td>22</td>
<td>11.6</td>
<td>3415.15</td>
</tr>
</tbody>
</table>

WESTERN AREA ELECTRIC CORPORATION
STANDARD DESIGNS
TRANSMISSION LINES
CROSSARM DRILLING DETAILS
ME=1 AND ME=2 STRUCTURE
WITH ADJUSTABLE SPACER FITTINGS

ENGINEER: — — — —
APPROVER: — — — —
CHECK: — — — —
DATE: AUGUST 30, 1999

SHEET 1 OF 2

6113
CROSSARM DRILLING DETAILS

NOTES
1. CROSSARMS SHALL BE DESIGNED IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS IN EFFECT.
2. CROSSARMS SHALL BE DESIGNED IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS IN EFFECT. ALL NEW STRUCTURES SHALL USE STANDARD CROSSARM SIZES AND DETAILS SHOWN ON STANDARD DRAWING NUMBER 41 6109.

<table>
<thead>
<tr>
<th>VOLTAGE</th>
<th>STRUCTURE TYPE</th>
<th>L</th>
<th>D</th>
<th>Z</th>
<th>Z/2</th>
<th>G</th>
<th>STANDARD DESIGN PART NO.</th>
<th>REFERENCE DRAWING NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>69kV</td>
<td>AC</td>
<td>2 1/2</td>
<td>3 5/8</td>
<td>9 1/2</td>
<td>10-0</td>
<td>5-0</td>
<td>2 3/4</td>
<td>40-00-40.52</td>
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<tr>
<td>69kV</td>
<td>AC</td>
<td>2 1/2</td>
<td>3 5/8</td>
<td>9 1/2</td>
<td>10-0</td>
<td>5-0</td>
<td>2 3/4</td>
<td>40-00-40.52</td>
</tr>
<tr>
<td>115kV</td>
<td>AC AND AC</td>
<td>2 1/2</td>
<td>3 5/8</td>
<td>9 1/2</td>
<td>10-0</td>
<td>5-0</td>
<td>2 3/4</td>
<td>40-00-40.52</td>
</tr>
<tr>
<td>138kV</td>
<td>AC AND AC</td>
<td>2 1/2</td>
<td>3 5/8</td>
<td>11 1/2</td>
<td>14-0</td>
<td>7-0</td>
<td>3 5/4</td>
<td>40-00-40.56</td>
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<tr>
<td>161kV</td>
<td>AC AND AC</td>
<td>2 1/2</td>
<td>3 5/8</td>
<td>11 1/2</td>
<td>14-0</td>
<td>7-0</td>
<td>3 5/4</td>
<td>40-00-40.56</td>
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<tr>
<td>220kV</td>
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<td>9</td>
<td>22-0</td>
<td>11-0</td>
<td>2 1/2</td>
<td>40-00-40.00</td>
</tr>
</tbody>
</table>

DETAIL OF FIXED SPACER FITTING
(Stainless 1/2" in part no. 40-04-04-06)

SUPERSEDES DRAWING NO. 41 6023, 41 6025, 41 6027

WESTERN AREA ELECTRIC ADMINISTRATION

STANDARD DESIGNS TRANSMISSION LINES CROSSARM DRILLING DETAILS
20 INCH WEB STRUCTURE WITH FIXED SPACER FITTINGS

APPROVED: L.L.T. DATE: APRIL 16, 1999
NOTE
1. WHERE SINGLE WIRE FENCE EXISTS, PURCHASE AND INSTALL MATERIALS FOR SINGLE WIRE FENCE.
LOCATION AND MOUNTING DETAILS FOR SIGNS ON LATTICE STEEL TOWERS

NOTE: 3/8" MAY BE MOUNTED EITHER VERTICALLY OR HORIZONTALLY AS INDICATED. SEE NOTE E.

REFERENCE DRAWING
AERIAL PATROL MILE MARKER
SIGNAL HOLLOW, SQUARE MICROPHONE, _______ 41 9299

DETAIL X
SEE DETAIL B FOR MOUNTING HARDWARE

DETAIL Y
SEE DETAIL X, Y, Z, FOR ALTERNATE MOUNTING OF "X" MILE MARKER SIGNS

DETAIL Z

SECTION A-A
NOTES

1. AERIAL PATROL MILE MARKER SIGNS SMALL SHALL BE NO 18
   CM, MADE OF STEEL, EPOXY-PHOSPHATE, OR PORCELAIN ENAMEL.
   SMALL SIGNS SHALL BE WHITE ON A BLACK BACKGROUND.

2. MOUNTING PLATES SHALL BE 6 INCHES SQUARE AND MADE OF
   STEEL, WITH HOLES FOR 1/4" BOLTS, WASHERS, AND LOCKNUTS.

3. INSTALLATION OF MOUNTING PLATES AND SIGNS SHALL BE
   PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS
   SHEET.

4. MOUNTING PLATE Holes FOR BOLTS, WASHERS, AND LOCKNUTS
   SHALL BE 1/4".

5. AERIAL PATROL MILE MARKER SIGNS SHALL BE MADE OF
   STEEL, AND FIXED TO THE MOUNTING PLATE.

REFERENCE DRAWINGS

AERIAL PATROL MILE MARKER AND STRUCTURE
NUMBER SIGNS SHEET 2 OF 3,________,________,0927-2
AERIAL PATROL MILE MARKER AND STRUCTURE
NUMBER SIGNS SHEET 3 OF 3,________,________,0927-3

NOTES

1. AERIAL PATROL MILE MARKER SIGNS SMALL SHALL BE NO 18
   CM, MADE OF STEEL, EPOXY-PHOSPHATE, OR PORCELAIN ENAMEL.
   SMALL SIGNS SHALL BE WHITE ON A BLACK BACKGROUND.

2. MOUNTING PLATES SHALL BE 6 INCHES SQUARE AND MADE OF
   STEEL, WITH HOLES FOR 1/4" BOLTS, WASHERS, AND LOCKNUTS.

3. INSTALLATION OF MOUNTING PLATES AND SIGNS SHALL BE
   PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS
   SHEET.

4. MOUNTING PLATE Holes FOR BOLTS, WASHERS, AND LOCKNUTS
   SHALL BE 1/4".

5. AERIAL PATROL MILE MARKER SIGNS SHALL BE MADE OF
   STEEL, AND FIXED TO THE MOUNTING PLATE.

REFERENCE DRAWINGS

AERIAL PATROL MILE MARKER AND STRUCTURE
NUMBER SIGNS SHEET 2 OF 3,________,________,0927-2
AERIAL PATROL MILE MARKER AND STRUCTURE
NUMBER SIGNS SHEET 3 OF 3,________,________,0927-3
THIS SHEET COVERS STRUCTURE NUMBER SIGNS
AND MOUNTING PLATES FOR NEW STRUCTURES

NOTES

1. STRUCTURE NUMBER SIGNS SHALL BE 1/8 U.S. GAGE SHEET STEEL.
2. FITTINGS FOR STRUCTURE NUMBER SIGNS SHALL BE PORCELAIN ENAMEL BACKGROUND COLOR SHALL BE YELLOW AND FIGURES SHALL BE BLACK.
3. STRUCTURE NUMBER SIGNS SHALL BE CONFORM TO THE RECOMMENDED STANDARDS FOR MANUFACTURE OF PORCELAIN ENAMEL SIGNS STEEL, 18-05-001 OF THE SPECIFICATION OF THE PORCELAIN ENAMEL INSTITUTE, INC.
4. FIGURES SHALL BE "BOLTED" TYPE.
5. HOLES IN SIGNS SHALL BE FURNISHED AND FITTED WITH BOLTED EXTRUSIONS.
6. STRUCTURE NUMBER SIGN BACKER PLATES SHALL BE THE SAME TYPE OF MATERIAL AND FINISH AS THE STEEL
7. INSTALL STRUCTURE NUMBER SIGNS IN BOTH THE AHEAD AND BACK SIDES OF EACH STRUCTURE.
8. FOR STRUCTURE NUMBER SIGNS REQUIRING 5 DIGITS, 11/16" HOLE IN LINE OF 4" HIGH.
9. BOLTED SIGN DIMENSIONS SHALL BE 2 1/2" X 2 1/2".
10. DRAWING 41-9027-1 COVERS DETAILS FOR AERIAL PATROL, WIRE MARKERS AND MOUNTING PLATES.
11. DRAWING 41-9027-2 COVERS DETAILS FOR STRUCTURE NUMBER SIGNS AND MOUNTING PLATES FOR EXISTING STRUCTURES TO BE REFINISHED.

REFERENCE DRAWINGS
AERIAL PATROL, WIRE MARKER AND STRUCTURE NUMBER SIGNS SHEET 1 OF 2 AERIAL PATROL, WIRE MARKER AND STRUCTURE NUMBER SIGNS SHEET 2 OF 3

ATTACHMENT DETAILS

SECTION A-A
FOR NEW STRUCTURES

1.3-0 DIGIT WIRE NUMBER
2. 1 AND 2 DIGIT WIRE NUMBERS
3. STRUCTURE NUMBER SIGNS, LETTER DIMENSIONS, AND MOUNTING PLATES

MOUNTING PLATE
STEEL
POLE
SHAFT

3/8" BOLT, NUT, WASHERS, AND LOCKNUT

AERIAL PATROL, WIRE MARKER AND STRUCTURE NUMBER SIGNS

SUPERSEDES Dwg No. 41 9027-1 (IN PART)
AERIAL PATROL, WIRE MARKER AND STRUCTURE NUMBER SIGNS

TRANSMISSION LINE STANDARDS
STEEL POLE STRUCTURES
AERIAL PATROL, WIRE MARKER
AND STRUCTURE NUMBER SIGNS (SH. 2 OF 3)

NOVEMBER 10, 2013
41
9027-2

ENGINEER
PLANNER
SURVEYOR
SUPERVISOR
THIS SHEET COVERS STRUCTURE NUMBER SIGNS AND MOUNTING PLATES FOR EXISTING STRUCTURES

NOTES
1. STRUCTURE NUMBER SIGNS SHALL BE 20 U.S. CAGE SHEET STEEL.
2. FINISH FOR STRUCTURE NUMBER SIGN SHALL BE PECKENBERRY ENAMEL. PECKENBERRY COLOR CODES SHALL BE YELLOW AND RED.
3. PECKENBERRY ENAMEL SHALL BE IN ACCORDANCE WITH THE RECOMMENDED STANDARDS FOR MANUFACTURE OF PECKENBERRY ENAMEL SIGNS (REV. 5-103) OF THE SIGN MANUFACTURERS' INSTITUTE, INC.
4. FIGURES SHALL BE "360" TYPE.
5. MOUNTING PLATES SHALL BE FORGED AND FITTED WITH BOLTS.
6. STRUCTURE NUMBER SIGN MOUNTING PLATES SHALL BE THE SAME TYPE OF MATERIAL AND FINISH AS THE STEEL POLE.
7. INSTALL STRUCTURE NUMBER SIGNS IN THE FIELD AND SHOW SPAN SIDE OF EACH STRUCTURE.
8. MECHANICAL DETAILS SHOWN IN THE DETAIL DRAWINGS ARE OF THE MANUFACTURER'S DESIGN. DIMENSIONS FOR FIGURES SHALL BE AT VIEWER 12" FROM CENTER LINE OR AT MIDDLE 18" HIGH. 3-DOT SIGN DimENSIONS SHALL BE 2" ACCORDING TO THE 2-DOT SIGN NUMBER DETAILS.
9. FOR EXISTING STRUCTURES, USE MOUNTING PLATES TO SPECIFICATIONS OF MANUFACTURER, OR 3/8" THICK, 2" IN DIA. HOLE WITH 3/4" BOLTS.
10. MOUNTING PLATES COVER DETAILS FOR AERIAL PATROL, MOUNTING PLATES AND MOUNTING PLATES.
11. MOUNTING PLATES COVER DETAILS FOR STRUCTURE NUMBER SIGNS AND MOUNTING PLATES FOR NEW STRUCTURES.

REFERENCE DRAWINGS
AERIAL PATROL, MOUNTED STRUCTURE NUMBER SIGNS (SHEET 1 OF 3) 41 9027-1
AERIAL PATROL, MOUNTED STRUCTURE NUMBER SIGNS (SHEET 2 OF 3) 41 9027-2
AERIAL PATROL, MOUNTED STRUCTURE NUMBER SIGNS (SHEET 3 OF 3) 41 9027-3

SECTION A-A (SIM).
MOUNTING PLATE FOR EXISTING STRUCTURES.
ATTACHMENT DETAILS.

SECTION B-B.
1/2" STAINLESS STEEL BANDING.
NOTES
1. GALVANIZE MATERIAL AFTER FABRICATION
2. MATERIAL THICKNESS USED RECOMMENDED = 2 1/4 INCHES

REFERENCE DRAWINGS
MAINTENANCE PROVISIONS
S/T/956.-------------------------4/1 956 TPR 9569
DETAILS.------------------------4/1 956 8 9569

3/24/80

3/24/80

TRANSMISSION LINE
STRUCTURE STANDARDS
STEEL POLE STRUCTURES
MAINTENANCE PROVISIONS-WORK RING

MARCH 31, 1980
43 2203
METHOD A
4-11/16" Holes for Removable Steps

METHOD B
4 Sets of Clips for Removable Climbing Ring Sections

NOTES
1. Removable steps and attachments shall be equal to shortest steps and locking series as manufactured by manufacturer limited, 17 palmer place, east tampa, fl 33613, phone 1-800-276-4562, fax 1-800-276-4562.
2. Attachments shall be entered directly into 11/16" holes in pole shaft rails.
3. Location of holes for removable steps shall provide for smooth unrestricted-climbing for the full length of all pole sections.
4. Alternating spacing for holes for removable steps shall provide for smooth climbing and adjustability to accommodate different climbing pickets. See specifications.
5. Contractor responsible for testing and testing specified.

REFERENCE DRAWING
CLASS 5 EQUIVALENT STEEL

LIGHT DUTY TRANSMISSION LINE
STEEL POLE STRUCTURES
CLIMBING PROVISIONS

DATE: 7/27/00
NOTES

1. Anti-Perch Devices for Steel Pole Davit Arms shall be black polyethylene with UV stabilizer and bonded in same approximately 0.25" tall. Davit Arms shall be marked with a class 1000 at least 12" apart along the entire length of the arms. A class 1000 shall be equal to the class 1000 manufactured by Invincible Enterprises Ltd., 12551 Turnberry Court, Jupiter, FL 33477.

2. Anti-Perch Devices for the Pole Taps shall be black polyethylene with UV stabilizer and shall be bonded in same approximately 0.25" tall. Pole Taps shall be marked with a class 1000 at least 12" apart along the entire length of the pole. A class 1000 shall be equal to the class 1000 manufactured by Invincible Enterprises Ltd., 12551 Turnberry Court, Jupiter, FL 33477.

EXCEPTION: Anti-Perch Devices for the Pole Taps are not required on structures with aerial fiber pole cover or minimum fiber diameter to pole tops.

SINGLE POLE STRUCTURE WITH DAVIT ARMS
SINGLE POLE STRUCTURE WITHOUT DAVIT ARMS
H-FRAME STRUCTURE (Y-TYPE STRUCTURE SIMILAR)
NOTES

1. "X" dimension shall be minimum required to install top removable climbing ring section.
2. Extension from steps to face of pole shall be same for fixed and removable climbing ring sections.
3. Provide fail protection on davit arms longer than 3'-0" as shown on drawing 43 2210.
4.要求 to attach maintenance provisions to structures shall develop the ultimate tensile strength of the attaching parts.
5. Structures with conductor and ground wire attachment components not shown, provide only those maintenance provisions which apply to this type of attachment.

REFERENCE DRAWINGS

Maintenance provisions - details. 43 2210
Permanent fall protection - details. 43 2215
1. Attach vertical cable lifeline system equal to 26" at 14-foot automatic, fixed-height vertical cable lifeline system to top and bottom fixed ladder section.

2. If permanent fall protection is required, provide all maintenance provisions shown on maintenance provisions guidelines and details drawings, except for the hoisting points. See notes.

3. Replace the top 12" of fixed climbing ring sections shown on outline drawings with a 2-foot top fixed ladder section and two fixed ladder attachments. Attach top bracket assembly of fall protection system to top fixed ladder section.

4. Replace the bottom 24" of fixed climbing ring sections shown on outline drawings with a 1-foot bottom fixed ladder section and two fixed ladder attachments. Attach bottom bracket assembly of fall protection system to bottom fixed ladder section.

5. Distance from top ring of top fixed ladder section to top step of fixed climbing ring section shall be 7 feet.

6. Distance from top ring of bottom fixed ladder section to bottom step of bottom fixed climbing ring section shall be 1 foot.

7. Top step of top removable climbing ring section shall be 1 foot.

8. Install intermediate automatic pass-through cable sleeves at 20-foot maximum intervals along the cable from top bracket to bottom bracket. Attach sleeves to steps in fixed climbing ring sections.

**REFERENCE DRAWINGS**

- Maintenance provisions - 43 2206 thru 2209, 8 2214
- 8 2210
DRILLED VERTICAL AUGER TYPE

<table>
<thead>
<tr>
<th>SOIL</th>
<th>N</th>
<th>H (FT.-VIN.)</th>
<th>D1 (FT.-VIN.)</th>
<th>COMPRESSION SHEAR</th>
<th>MOMENT</th>
<th>TIED</th>
<th>CLINIC</th>
<th>LONGITUDINAL</th>
<th>ANCHOR</th>
<th>REINFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAND OR CLAY</td>
<td></td>
<td>14-1/2&quot;</td>
<td>4-1/2&quot;</td>
<td>12&quot;</td>
<td>0.2</td>
<td>100</td>
<td>5.0</td>
<td>3-3/4-4&quot;</td>
<td>2-5/16-2-5/16</td>
<td></td>
</tr>
</tbody>
</table>

NOTES
1. CONCRETE: 1/4" MALLEABLE PIECE.
2. NO MULLING SHALL BE PERFORMED UNLESS SHOWN.
3. REINFORCEMENT 1/4" MALLEABLE PIECE. MINIMUM 3" COVER ON ALL REINFORCEMENT. THIS SHALL BE 44 BARS.
4. DRIVE TIP OF AUGER VERTICAL 1/2" FOR DRAINAGE.
5. THE SOIL DESIGN IS FOR SAND AND MUD. THICKNESS DEPENDS ON PRESSURE FROM BULKHEAD AND BUILDING. THE VEIN MATERIAL IS 110 CFT. Required for 30" for a 2x2 foundation, and 1/2 BOLT IN NON-WADING SOIL. USE BOTH.
6. WAVEGUIDE SUPPORT ANCHOR BOLTS TO BE GOVERNMENT FURNISHED.
7. THE ANCHOR BOLT TEMPLATE IS TO HOLD ANCHOR BOLTS AND THE SECOND ONE TO BE SET THEM IN THE FOUNDATION.
8. BOLTS ARE ASTM A572 STEEL.

ELEVATION

SECTION A-A

SECTION B-B

ANCHOR BOLT WELDMENT

REFERENCE DRAWINGS
50 FOOT MONOPOLE ELEVATION AND SECTION
50 FOOT MONOPOLE ELEVATION AND DETAIL
50 FOOT MONOPOLE WAVEGUIDE BRIDGE
DRILLED VERTICAL AUGER TYPE

SOIL
N
H
(DT.-IN.)
(DT.-IN.)
COMPRESSION SHEAR MOMENT
(kip) (kip-ft)
LONGITUDINAL
ANCHOR
REINFORCEMENT TIES
CMA 6 CLAY OR Silt
NOTE 2
17.0
-4
4
21.0
2.5
120.0
3.0
1.50
0.44
8

NOTES
1. CONCRETE TYPE #30-9
2. NO VALVES SHALL BE PERMITTED UNLESS SHOWN.
3. REINFORCEMENT 9" X 150,000 PSI. MINIMUM 1" COVERS
   ON ALL REINFORCEMENT. THIS SHALL BE 44 SAWG.
4. BAR TOP OF AUGER 1/2" FOR DRAINSAGE.
5. THE SOIL DESIGNED FOR SAND N90, THOMPSON SERIES,
   100° FRICTION ANGLE (SQUARE FEET OF SURFACE)
   OF 1/2" FOR DRAINSAGE, AND 2 FT ON NON-SWITCHING SOIL.
6. WAVEGUIDE SUPPORT ANCHOR BOLTS WILL BE
   GOVERNMENT FURNISHED.
7. THE ANCHOR BOLT TEMPLATE IS TO HOLD ANCHOR BOLTS
   AND THE SECOND ONE IS TO SET THEM IN THE
   FOUNDATION.
8. ANCHOR BOLTS ARE ASTM A294-STEEL

REFERENCE DRAWINGS
70 FOOT MONOPOLE ELEVATION AND SETTINGs ------- 43 TMW 2200
70 FOOT MONOPOLE SETTINGs AND DETAILS ------- 43 TMW 2201
70 FOOT MONOPOLE WAVEGUIDE BRIDGE ------- 43 TMW 2203

70 FOOT MONOPOLE FOUNDATION
ANCHOR BOLT MELDMENT WEIGHT = 600 LB

43 TMW 2202

WESTERN AREA POWER ADMINISTRATION
STANDARD MICROWAVE

DATE: SEPTEMBER 23, 2021
43 TMW 2202

AUTHOR: S.M. WILSON