# **MAINTENANCE DRAWINGS**

**APPENDIX C-5** 

SITE NAME:

# **WMAW ROSE HILL**

**FCC ASR NUMBER:** 

1041037

SITE ADDRESS:

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY) N 32°08'19.13", W 89°05'37.15"

INDEX OF CHEETO

### **MAINTENANCE PROVISIONS**

THE MAINTENANCE REPAIRS DEPICTED ON THESE DRAWINGS ARE BASED ON THE MAINTENANCE AND CONDITION ASSESSMENT REPORT BY TOWER ENGINEERING PROFESSIONALS (TEP), JOB#: 327679.814192 DATED MARCH 10, 2023 (REV 0).

CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING, ORDERING MATERIALS, AND CONSTRUCTION.

### REFERENCED DOCUMENTS

DOCUMENT	REMARKS	DATE
MAINTENANCE AND CONDITION ASSESSMENT REPORT	TEP PROJECT #: 327679.814192	03-10-23
TOWER MAPPING REPORT	TEP PROJECT #: 327679.814193	03-28-23

CONTRACTOR SHALL FIELD VERIFY ALL: DIMENSIONS, QUANTITIES, PART NUMBERS AND COAX/ANTENNA PLACEMENTS PRIOR TO: BIDDING ORDERING MATERIALS, AND CONSTRUCTION.

INDEX OF SHEETS					
NO.	SHEET TITLE	REV			
T-1	TITLE SHEET	0			
N-1	MI CHECKLIST AND NOTES	0			
N-2	PROJECT NOTES I	0			
N-3	PROJECT NOTES II	0			
S-1	TOWER ELEVATION AND MAINTENANCE SCHEDULE	0			
S-2	GENERAL MAINTENANCE DETAILS I	0			
S-3	GENERAL MAINTENANCE DETAILS II	0			
S-4	GENERAL MAINTENANCE DETAILS III	0			
S-5	GUY WIRE DETAILS I	0			
S-6	GUY WIRE DETAILS II	0			
S-7	GUY WIRE DETAILS III	0			
S-8	GUY ANCHOR GROUNDING DETAILS	0			

## **PROJECT TEAM**

#### PROJECT CONTACT:

NAME MISSISSIPPI AUTHORITY FOR EDUCATIONAL TELEVISION ADDRESS 3825 RIDGEWOOD RD.

CITY, STATE, ZIP
CONTACT
PHONE

JACKSON, MS 39211-6497
ALICIA HARRIS
(601) 432-6770

### **ENGINEERING FIRM PROJECT MANAGER:**

NAME TOWER ENGINEERING PROFESSIONALS, INC. ADDRESS 326 TRYON ROAD

CITY, STATE, ZIP RALEIGH, NC 27603
CONTACT LEAH BUNCH, P.E.
PHONE (919) 661–6351
EMAIL SDD@TEPGROUP.NET

PLANS PREPARED FOR:

Mississippi Public Broadcasting

3825 RIDGEWOOD RD.
JACKSON, MS 39211-6497

OFFICE: (601) 432-6770





O 04-14-23 MAINTENANCE DRAWINGS
REV DATE ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFC

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

REVISION:

	MI CHECKLIST						
REQUIRED	REPORT ITEM	BRIEF DESCRIPTION					
		PRE-CONSTRUCTION					
Х	MI CHECKLIST DRAWING	THIS CHECKLIST SERVES AS A GUIDELINE FOR THE REQUIRED CONSTRUCTION DOCUMENTS AND INSPECTIONS FOR THIS MODIFICATION.					
NA	ONCE THE PRE-MODIFICATION MAPPING IS COMPLETE AND PRIOR TO FABRICATION, THE CONTRACTOR SHALL PROVIDE DETAILED ASSEMBLY DRAWINGS AN SHOP DRAWINGS. THESE ARE TO INCLUDE, BUT ARE NOT LIMITED TO, A VISUAL LAYOUT OF NEW REINFORCEMENT, EXISTING REINFORCEMENT CONFIGURAT PORTHOLES, MOUNTS, STEP PEGS, SAFELY CLIMBS AND ANY OTHER MISCELLANEOUS ITEMS WHICH MAY AFFECT SUCCESSFUL INSTALLATION OF MODIFICA' ON THE TOWER. THESE DRAWINGS SHALL BE SUBMITTED TO THE EOR FOR APPROVAL. SHOP DRAWING SUBMISSION SHALL INCLUDE THE EOR RFI FORM DETAILING ANY CHANGES FROM THE ORIGINAL DESIGN.						
NA	FABRICATION INSPECTION	A LETTER FROM THE FABRICATOR, STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THE CONTRACT DOCUMENTS, SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
NA	FABRICATOR CERTIFIED WELD INSPECTION	A CWI SHALL INSPECT ALL WELDING PERFORMED ON STRUCTURAL MEMBERS DURING FABRICATION. A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
X	MATERIAL TEST REPORTS (MTR)	MATERIAL TEST REPORTS SHALL BE PROVIDED FOR MATERIAL USED. MTRS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
NA	FABRICATOR NDE INSPECTION REPORT	CRITICAL SHOP WELDS THAT REQUIRE TESTING ARE NOTED ON THESE CONTRACT DRAWINGS. A CERTIFIED NDT INSPECTOR SHALL PERFORM NON-DESTRUCTIVE EXAMINATION AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
NA	NDE OF MONOPOLE BASE PLATE	A NDE OF THE POLE TO BASE PLATE CONNECTION IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
X	PACKING SLIPS	PACKAGING/SHIPPING LIST FOR ALL MATERIAL THAT WAS USED DURING CONSTRUCTION OF THE MODIFICATION.					
ADDITIONAL	TESTING AND INSPECTIONS						
NA							
		CONSTRUCTION					
NA	FOUNDATION INSPECTIONS	A VISUAL OBSERVATION OF THE EXCAVATION AND REBAR SHALL BE PERFORMED BEFORE PLACING THE CONCRETE. A VISUAL OBSERVATION OF THE REBAR SHALL BE PERFORMED BEFORE PLACING THE EPOXY. A SEALED WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
NA	CONCRETE COMP. STRENGTH AND SLUMP TESTS	THE CONCRETE MIX DESIGN, SLUMP TEST, AND COMPRESSIVE STRENGTH TESTS SHALL BE PROVIDED AS PART OF THE FOUNDATION REPORT.					
NA	EARTHWORK	FOUNDATION SUB-GRADES SHALL BE INSPECTED AND APPROVED BY AN APPROVED FOUNDATION INSPECTOR AND RESULTS INCLUDED AS PART OF THE FOUNDATION REPORT.					
NA	MICROPILE/ROCK ANCHOR	MICROPILES/ROCK ANCHORS SHALL BE INSPECTED BY THE FOUNDATION INSPECTION VENDOR AND SHALL BE INCLUDED AS PART OF THE FOUNDATION INSPECTION REPORT, ADDITIONAL TESTING AND/OR INSPECTION REQUIREMENTS ARE NOTED IN THESE CONTRACT DOCUMENTS.					
NA	POST-INSTALLED ANCHOR ROD VERIFICATION	POST-INSTALLED ANCHOR ROD VERIFICATION SHALL BE PERFORMED AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.					
NA	BASE PLATE GROUT VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE MI INSPECTOR THAT CERTIFIES THAT THE GROUT WAS REMOVED AND/OR INSTALLED IN ACCORDANCE WITH CONTRACTOR DOCUMENTS FOR INCLUSION IN THE MI REPORT.					
NA	FIELD CERTIFIED WELD INSPECTION	AN AWS CERTIFIED WELD INSPECTOR SHALL INSPECT AND TEST FIELD WELDS, IN ACCORDANCE WITH AWS D1.1/D1.1M: "STRUCTURAL WELDING CODE - STEEL". A REPORT SHALL BE PROVIDED. NDE OF FIELD WELDS SHALL BE PERFORMED AS REQUIRED PER CONTRACT DOCUMENTS. THE NDE REPORT SHALL BE INCLUDED IN THE CWI REPORT.					
X	ON-SITE COLD GALVANIZING VERIFICATION	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THAT ANY ON-SITE COLD GALVANIZING WAS APPLIED PER MANUFACTURER SPECIFICATIONS AND APPLICABLE STANDARDS.					
Х	TENSION TWIST AND PLUMB	THE GENERAL CONTRACTOR SHALL PROVIDE A REPORT IN ACCORDANCE WITH APPLICABLE STANDARDS DOCUMENTING TENSION TWIST AND PLUMB.					
Х	GC AS-BUILT DOCUMENTS	THE GENERAL CONTRACTOR SHALL SUBMIT A LEGIBLE COPY OF THE ORIGINAL DESIGN DRAWINGS EITHER STATING "INSTALLED AS DESIGNED" OR NOTING ANY CHANGES THAT WERE REQUIRED AND APPROVED BY THE ENGINEER OF RECORD. EOR/RFI FORMS APPROVING ALL CHANGES SHALL BE SUBMITTED.					
ADDITIONAL	TESTING AND INSPECTIONS						
NA							
		POST-CONSTRUCTION					
Х	CONSTRUCTION COMPLIANCE LETTER	A LETTER FROM THE GENERAL CONTRACTOR STATING THAT THE WORKMANSHIP WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THESE CONTRACT DRAWINGS, INCLUDING LISTING ADDITIONAL PARTIES TO THE MODIFICATION PROCESS.					
NA	POST-INSTALLED ANCHOR ROD PULL TESTS	POST-INSTALLED ANCHOR RODS SHALL BE TESTED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND A REPORT SHALL BE PROVIDED INDICATING TESTING RESULTS.					
Х	PHOTOGRAPHS	PHOTOGRAPHS SHALL BE SUBMITTED TO THE MI. PHOTOS SHALL DOCUMENT ALL PHASES OF THE CONSTRUCTION. THE PHOTOS SHALL BE ORGANIZED IN A MANNER THAT EASILY IDENTIFIES THE EXACT LOCATION OF THE PHOTO.					
х	BOLT HOLE INSTALLATION AND VERIFICATION REPORT	THE MI INSPECTOR SHALL VERIFY THE INSTALLATION AND TIGHTNESS 10% OF ALL NON PRE-TENSIONED BOLTS INSTALLED AS PART OF THE MODIFICATION. THE MI INSPECTOR SHALL LOOSEN THE NUT AND VERIFY THE BOLT HOLE SIZE AND CONDITION. THE MI REPORT SHALL CONTAIN THE COMPLETED BOLT INSTALLATION VERIFICATION REPORT, INCLUDING THE SUPPORTING PHOTOGRAPHS.					
Х	PUNCH LIST DEVELOPMENT AND CORRECTION DOCUMENTATION	FINAL PUNCHLIST INDICATING ALL NONCONFORMANCE(S) IDENTIFIED AND THE FINAL RESOLUTION AND APPROVAL.					
Х	MI INSPECTOR REDLINE OR RECORD DRAWING(S)	THE MI INSPECTOR SHALL OBSERVE AND REPORT ANY DISCREPANCIES BETWEEN THE CONTRACTOR'S REDLINE DRAWING AND THE ACTUAL COMPLETED INSTALLATION.					
ADDITIONAL	TESTING AND INSPECTIONS						
NA							
	<del> </del>	PRINTION ALL DARTIES TO THE MODIFICATION SHALL INDEPENDENT INSPECTION (DOCUMENTATION THAT IS ADDICABLE TO THE SCORE OF WORK THEY ADD					

THE MI CHECKLIST SHALL BE REVIEWED PRIOR TO THE START OF CONSTRUCTION. ALL PARTIES TO THE MODIFICATION SHALL UNDERSTAND INSPECTION/DOCUMENTATION THAT IS APPLICABLE TO THE SCOPE OF WORK THEY ARE PERFORMING. ERRORS ON THE CHECKLIST SHALL BE BROUGHT TO THE ATTENTION OF THE TOWER OWNER AND EOR AS SOON AS POSSIBLE.

NOTE: X DENOTES A DOCUMENT NEEDED FOR THE PMI REPORT NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE PMI REPORT

### **MODIFICATION INSPECTION NOTES:**

#### **GENERAL**

THE MI IS AN ON-SITE VISUAL AND HANDS-ON INSPECTION OF TOWER MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS ANY INSPECTION DOCUMENTS PROVIDED BY 3RD PARTY INSPECTORS. THE MI IS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

NO DOCUMENT, CODE OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THIS CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR MODIFICATION INSPECTION.

THE MLIS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, AND THE MI INSPECTOR DOES NOT TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN DESIGN OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES. THE MI INSPECTOR SHALL INSPECT AND NOTE CONFORMANCE/NONCONFORMANCE AND PROVIDE TO THE TOWER OWNER POINT OF CONTACT FOR EVALUATION.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE CORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN THE GC AND/OR INSPECTOR SHALL CONTACT THE TOWER OWNER POINT OF CONTACT.

#### SERVICE LEVEL COMMITMENT

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- TO BE CONDUCTED.
  THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE
  PROJECT.
  WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE
  SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- OPERATIONS.
  WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON—SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

#### REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION / ERECTION AND INSPECTION RAW MATERIALS
- RAW MATERIALS
  PHOTOS OF ALL CRITICAL DETAILS
  FOUNDATION MODIFICATIONS
  WELD PREPARATION
  BOLT INSTALLATION
  FINAL INSTALLED CONDITION

- SURFACE COATING REPAIR
   POST CONSTRUCTION PHOTOGRAPHS
   FINAL INFIELD CONDITION

PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE

PLANS PREPARED FOR:



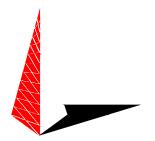
3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

## **WMAW ROSE HILL** FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY:

SHEET TITLE:

MI CHECKLIST **AND NOTES** 

SHEET NUMBER:

**N**-'

REVISION:

## **GENERAL NOTES:**

- 1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED MISSISSIPPI AUTHORITY FOR EDUCATIONAL TELEVISION OR ITS DESIGNATED REPRESENTATIVE.
- 2. ALL WORK PRESENTED ON THESE DESIGN DRAWINGS MUST BE COMPLETED BY THE GENERAL CONTRACTOR (GC) UNLESS NOTED OTHERWISE. THE GC MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE GC IS ATTESTING THAT HE HAS SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF MISSISSIPPI.
- 3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2018 EDITION.
- 4. UNLESS SHOWN OR NOTED OTHERWISE ON THE DESIGN DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
- 5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
- 6. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE DESIGN DRAWINGS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER OF RECORD (EOR) PRIOR TO INSTALLATION. THE GC SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
- 7. THE GC SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE GC IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
- 8. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE GC SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
- 9. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE GC. THE GC WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
- 10. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-14 "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
- 11. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE GC MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
- 12. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
- 13. ALL DIMENSIONS SHALL BE VERIFIED WITH THE DESIGN DRAWINGS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE EOR IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED DESIGN DRAWINGS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
- 14. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED, OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER AND EOR. ALL ALTERATIONS TO A SAFETY CLIMB'S ORIGINAL MANUFACTURER'S CONFIGURATION MUST BE DESIGNED BY THE EOR. IF THE GC FINDS THAT THE CLIMBING FACILITIES ARE IMPEDED, EITHER DURING BIDDING, DURING PRE-FABRICATION MAPPING, OR WHILE ON-SITE, THE GC SHALL CONTACT THE OWNER AND EOR TO DETERMINE A METHOD OF RESOLUTION.
- 15. ANY WORK PERFORMED WITHOUT A PREFABRICATION MAPPING IS DONE AT THE RISK OF THE GC AND/OR FABRICATOR.
- 16. IF DURING THE COURSE OF A FOUNDATION MODIFICATION, THE GC ENCOUNTERS EXISTING CONDUIT LOCATED WITHIN THE CONFINES OF THE EXISTING OR PROPOSED FOUNDATION CONCRETE, AND THIS CONDUIT IS NOT IN A LOCATION THAT IS SPECIFIED WITHIN THESE DESIGN DRAWINGS, THE GC SHALL IMMEDIATELY CONTACT THE EOR FOR GUIDANCE BEFORE PROCEEDING WITH THE INSTALLATION OF THE PROPOSED FOUNDATION MODIFICATIONS. IF CONDUIT IS TO BE INSTALLED THROUGH THE EXISTING FOUNDATION OR PROPOSED FOUNDATION MODIFICATION AND HASN'T BEEN SPECIFIED WITHIN THESE DESIGN DRAWINGS THEN THE GC SHALL IMMEDIATELY CONTACT THE EOR FOR GUIDANCE PRIOR TO PROCEEDING WITH THE INSTALLATION OF THE PROPOSED FOUNDATION MODIFICATIONS.

### **ATTENTION**

ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GC RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION), FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH THE ANSI/TIA-322 (LATEST EDITION).

## STRUCTURAL STEEL NOTES:

- I. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC STEEL CONSTRUCTION MANUAL, LOAD AND RESISTANCE FACTOR DESIGN (LRFD), 15TH EDITION.
- 2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: STRUCTURAL STEEL:

- ANGLE: ASTM A572-50

- PIPE/TUBE (ROUND): ASTM A500 GR.C (Fy = 46 KSI)
- PIPE/TUBE (SQUARE): ASTM A500 GR.C (Fy = 50 KSI)

PLATE: ASTM A572-50
 SOLID ROD: ASTM A572-50
 W-SHAPES: ASTM A992

- A. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
- B. ALL U-BOLTS, ASTM A193 GRADE B7
- C. ALL NUTS, ASTM A563 GRADE DH OR A194 GRADE 2H CARBON AND ALLOY STEEL NUTS.
- D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
- 3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, LRFD, 15TH EDITION.
- 4. HOLES SHALL NOT BE FLAME CUT THROUGH STEEL UNLESS APPROVED BY THE ENGINEER.
- 5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE. ADDITIONALLY, ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
- 5. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL. AFTER REPAIR, STEEL SHALL BE REPAINTED TO MATCH EXISTING FINISH (IF APPLICABLE).
- 7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
- 8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
- 9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
- 10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

## **WELDING NOTES:**

- 1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2015 "STRUCTURAL WELDING CODE-STEEL".
- 2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
- 3. CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
- 4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING. SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
- 5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0°F. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS SHALL COMPLY WITH SECTION 3.5.1 AND TABLE 3.2 OF THE AWS D1.1/D1.1M: 2015.
- 6. DO NOT WELD ON WET OR FROST-COVERED SURFACES & PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
- 7. FOR ALL WELDING, USE 70 KSI LOW HYDROGEN ELECTRODES. ELECTRODES SHALL BE APPROPRIATE FOR THE WELDING POSITION REQUIRED TO MAKE THE JOINT.
- 8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% ± PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MIL.
- 9. FOR MONOPOLE TOWERS FULL PENETRATION WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 100% NDE INSPECTED BY ULTRASONIC TESTING (UT) IN ACCORDANCE WITH AWS D1.1.
- 10. FOR MONOPOLE TOWERS PARTIAL PENETRATION AND FILLET WELDS IN THE VICINITY OF THE BASE OF THE TOWER ARE REQUIRED TO BE 50% NDE INSPECTED BY MAGNETIC PARTICLE (MT) IN ACCORDANCE WITH AWS D1.1.
- 11. PROVIDE WELDS ALL AROUND OR ADD SEAL WELDS WHERE STRUCTURAL WELDS ARE NOT SPECIFIED.

PLANS PREPARED FOR:



3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



#### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



O 04-14-23 MAINTENANCE DRAWINGS
REV DATE ISSUED FOR:

DRAWN BY: JORM CHECKED BY:

SHEET TITLE:

**PROJECT NOTES I** 

SHEET NUMBER:

**N-2** 

REVISION:

## **BOLT TIGHTENING PROCEDURE:**

- 1. UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. ALL SNUG TIGHT BOLTS SHALL BE INSTALLED WITH A NUT-LOCKING DEVICE OR MECHANISM SUCH AS, BUT NOT LIMITIED TO, LOCK NUTS, LOCK WASHERS, OR PALNUTS, TO PREVENT LOOSENING.
- 2. WHEN SPECIFIED IN THE DRAWINGS, CONNECTION BOLTS SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS, LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

#### 8.2.1 TURN-OF-THE-NUT TIGHTENING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED BELOW. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

3. PRE-TENSIONED BOLTS AS SPECIFIED ON THE DRAWINGS SHALL BE TIGHTENED IN ACCORDANCE WITH AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

#### **BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.**

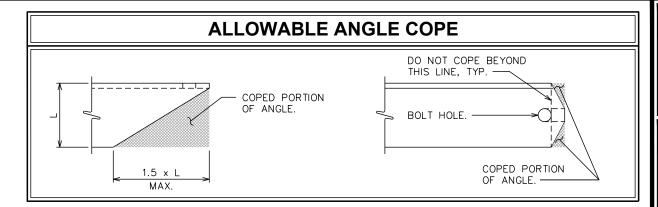
1/2"	BOLTS UP	TO	AND	INCLUDING	2.0	INCH	LENGTH	+1/3	TURN	BEYOND	SNUG	TIGHT
<b>%</b> "	BOLTS UP	TO	AND	INCLUDING	2.5	INCH	LENGTH	+1/3	TURN	BEYOND	SNUG	TIGHT
3/4"	BOLTS UP	TO	AND	INCLUDING	3.0	INCH	LENGTH	+1/3	TURN	BEYOND	SNUG	TIGHT
%"	BOLTS UP	TO	AND	INCLUDING	3.5	INCH	LENGTH	+1/3	TURN	BEYOND	SNUG	TIGHT
1"	BOLTS UP	TO	AND	INCLUDING	4.0	INCH	LENGTH	+1/3	TURN	BEYOND	SNUG	TIGHT

#### BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA.

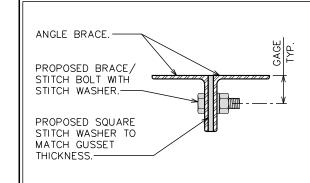
BOLT LENGTH

		X-22-2011-0-11-1-2011
1/2"	BOLTS 2.25 TO 4.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
5∕8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
3/4"	BOLTS 3.25 TO 6.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
½"	BOLTS 3.75 TO 7.0 INCH LENGTH	+½ TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

4. ALL ONE-SIDED BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.



# SECTION AT CENTER AND STITCH CONNECTION



## NOTE:

ALL STITCH WASHERS ARE TO BE NEW ASTM A36 MATERIAL AND BE OF EQUAL SIZE TO THE ANGLE LEG HEIGHT. THICKNESS TO MATCH EXISTING GUSSET/LEG THICKNESS.

## **WORKABLE GAGES**

LEG	4	3½	3	21/2	2	13⁄4
G	2	13/4	1½	11/4	1	<i>7</i> ⁄8



- WORKABLE GAGES GIVEN IN INCHES
- MATCH EXISTING
  WHEN APPLICABLE

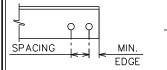
## **NOMINAL HOLE DIMENSIONS**

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT
1/2	%6	%6 × 11/16
5/8	1 1/ <sub>6</sub>	11/16 × 7/8
3/4	13/16	<sup>13</sup> / <sub>16</sub> × 1
7/8	<sup>15</sup> / <sub>16</sub>	<sup>15</sup> / <sub>16</sub> × 1½
1	1¼ <sub>6</sub>	1½6 × 1½6

- 1. DIMENSIONS GIVEN IN INCHES.
- 2. ALL PROPOSED HOLES SHALL BE DRILLED OR PUNCHED.

# READS BOLT EDGE AND SPACING

BOLT DIAMETER	MIN. EDGE	SPACING
1/2	7/8	1½
%	1½	17/8
3/4	11/4	21/4
<sup>7</sup> ⁄8	1½	2%
1	13/4	3



- DIMENSIONS GIVEN IN INCHES PLANS PREPARED FOR:



3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

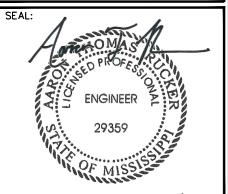
2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



#### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



April 14, 2023

0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFO

SHEET TITLE:

**PROJECT NOTES II** 

SHEET NUMBER:

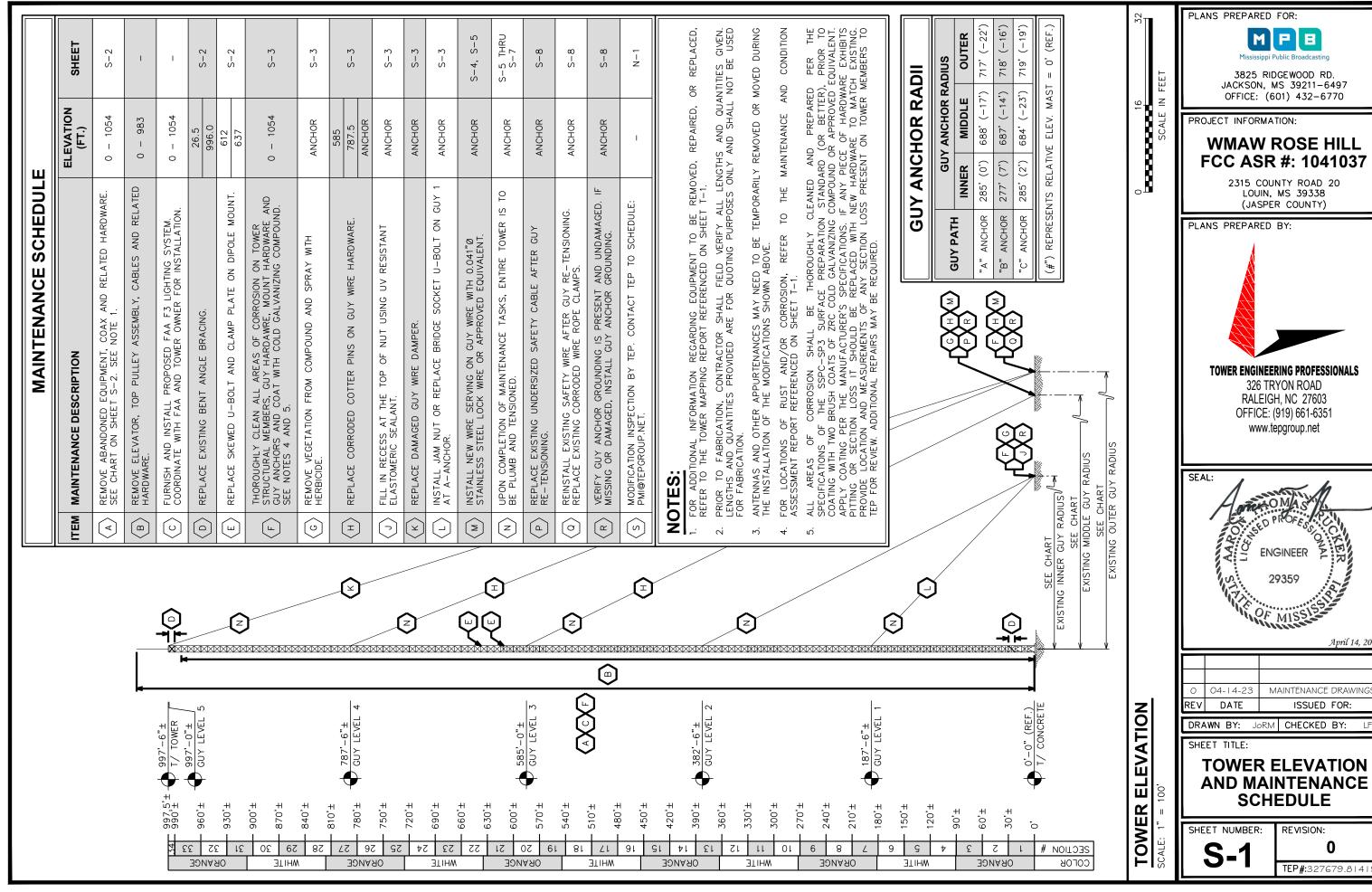
REVISION:

TEP#:327679.814196

#### **SINGLE SHEAR CONNECTIONS: DOUBLE SHEAR CONNECTIONS:** A325-X BOLT: UNTHREADED LENGTH OF BOLT PASSES UNTHREADED LENGTH OF BOLT PASSES THROUGH SHEAR PLANE. THROUGH SHEAR PLANES. **BOLT THREADS** F436 FLAT WASHER F436 FLAT WASHER AS REQUIRED. AS REQUIRED. - LOCK WASHER. LOCK WASHER. **THREAD** BOLT - A563 HEAVY HEX A563 HEAVY HEX DIAMETER LENGTH NUT. NUT ½"ø BOLT HEAD. BOLT HEAD. %"ø 11/4" ¾"ø 1%" %"ø 1½" UNTHREADED THREADED UNTHREADED THREADED PORTION OF PORTION OF LENGTH OF LENGTH OF BOLT. BOLT. SEE BOLT. SEE 1"ø 13/4" BOLT. CHART CHART 1½"ø 2" THREAD GRIP THREAD LENGTH LENGTH `LENGTH 1¼"ø 2"

BOLT LENGTH

**BOLT DETAILS** 



В

3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

# **WMAW ROSE HILL** FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



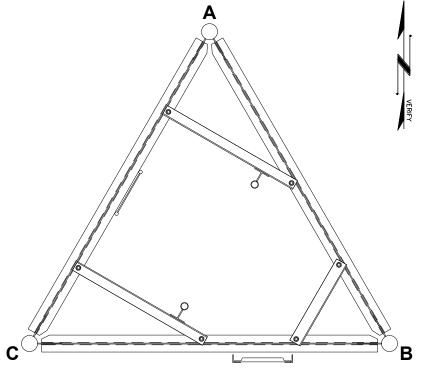
JORM CHECKED BY:

# **TOWER ELEVATION AND MAINTENANCE SCHEDULE**

REVISION: 0

# **LOADING REMOVAL CHART**

EQUIPMENT TYPE	COAX QTY / SIZE	ELEV. (FT.)
LIGHTING SYSTEM	(1) 2¼"ø	0 - 1054
MOUNT AND ANTENNA	-	808
MOUNT AND ANTENNA	-	804
EQUIPMENT BOX	(1) 1¼"ø	800
-	(2) ¾"ø	764 – 800
(3) EQUIPMENT BOXES	(1) ¾"ø	798
DISH AND MOUNT	-	767
DISH AND MOUNT	_	763
_	(1) ½"ø	0 - 762
-	(1) ¼"ø	0 – 758
MOUNT	_	747
MOUNT AND ANTENNA	_	520.5
-	(1) ¼"ø	0 - 517
MOUNT AND ANTENNA	(1) ½"ø	496
MOUNT AND ANTENNA	_	482
DISH AND MOUNT	-	465
-	(1) ½"ø	0 - 464
MOUNT AND ANTENNA	(1) ¾"ø	392
MOUNT	-	348
MOUNT	-	342
-	(1) 5/ <sub>6</sub> "ø, (1) ½"ø	0 - 267
-	(1) 5⁄ <sub>32</sub> "	0 - 256
MOUNT AND ANTENNA	(1) ¼"ø	213
_	(1) %"	0 - 200
-	(1) ½"ø, (1) ¾"ø, (1) ½"ø	0 – 198
MOUNT AND ANTENNA	_	132
_	(1) ½"ø	0 - 120
_	(1) ¼"ø	0 - 93
_	(1) ¼"ø	0 - 81
MOUNT	_	96





REPLACE EXISTING SKEWED U-BOLT -

## **TOWER PLAN VIEW**

SCALE: N.T.S.

REPLACE BENT DIAGONAL BRACE ON BC-FACE AT 26.5-FT. MATCH EXISTING SIZE AND CONNECTION DETAILS.



REPLACE EXISTING BENT DIAGONAL BRACE -

# **SKEWED U-BOLT**

SCALE: N.T.S.

REPLACE BENT DIAGONAL BRACES ON BC-FACE AT 996-FT, TYP. OF 2. MATCH EXISTING SIZE AND CONNECTION DETAILS.



REPLACE EXISTING BENT DIAGONAL BRACES—

**DAMAGED DIAGONALS** 

# **LOADING REMOVAL**

SCALE: N.T.S.

# **DAMAGED DIAGONAL**

SCALE: N.T.S.

SCALE: N.T.S.

PLANS PREPARED FOR:



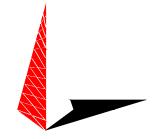
3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

## **WMAW ROSE HILL** FCC ASR #: 1041037

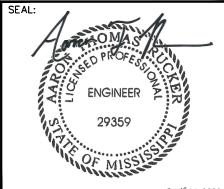
2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



April 14, 2023

0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY:

SHEET TITLE:

## **GENERAL MAINTENANCE DETAILS I**

SHEET NUMBER:

REVISION:

CLEAR ALL VEGETATION FROM INSIDE ANCHOR COMPOUNDS AT A, AA, AND CORRODED COTTER PINS WERE OBSERVED AT GL-3 AND GL-4 ON THE SURFACE CORROSION IS PRESENT AT THE FOLLOWING LOCATIONS: CC ANCHORS AND SPRAY WITH HERBICIDE. TOWER AND AT ALL MIDDLE AND OUTER GUY ANCHORS. CHANNEL GUY PULL-OFF MOUNT HARDWARE BRIDGE SOCKETS, TURNBUCKLES, AND POURED SOCKETS. • GUY ANCHOR FAN PLATE PINS, WASHERS AND ANCHOR SHAFTS. THOROUGHLY CLEAN AREAS OF CORROSION AND COAT WITH AT LEAST TWO COATS OF ZRC COLD GALVANIZING COMPOUND OR APPROVED EQUIVALENT.
DURING OR BEFORE CLEANING, IF ANY HARDWARE EXHIBITS SECTION LOSS, PITTING, OR HOLES, THEY SHOULD BE REPLACED. [CONTRACTOR TO FIELD MATCH EXISTING.] EXISTING COTTER PIN TO BE REPLACED WITH STAINLESS REMOVE ALL INTERFERING VEGETATION. STEEL COTTER PINS-CORROSION **VEGETATION CORRODED COTTER PINS** SCALE: N.T.S. SCALE: N.T.S. SCALE: N.T.S. RECESSED GUY ANCHOR RODS OBSERVED AT C GUY ANCHOR. DAMAGED DAMPER WAS OBSERVED ON GL-5 AT CCC ANCHOR. DAMAGED BRIDGE SOCKET U-BOLT WAS OBSERVED AT GUY LEVEL 1 OF A **\$\psi\_3/01/2023 18:45** 03/01/2023 15:24 CONTRACTOR TO REPLACE DAMAGED CONTRACTOR TO REPLACE BROKEN BRIDGE SOCKET U-BOLT IF JAM NUT WIRE DAMPER. MATCH EXISTING. INSTALL PER MANUFACTURER -FILL IN RECESS AT TOP OF NUT USING UV CANNOT BE PROPERLY INSTALLED.
MATCH EXISTING. INSTALL PER RESISTANT ELASTOMERIC SEALANT, FILL FLUSH RECOMMENDATIONS. -WITH TOP OF NUT. MANUFACTURER RECOMMENDATIONS. **RECESSED ANCHOR RODS DAMAGED GUY DAMPER** DAMAGED BRIDGE SOCKET U-BOLT SCALE: N.T.S. SCALE: N.T.S. SCALE: N.T.S.

PLANS PREPARED FOR:



3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

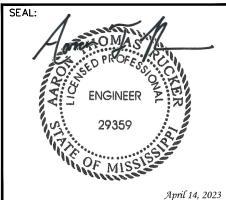
2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



## **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFC

SHEET TITLE:

GENERAL MAINTENANCE DETAILS II

SHEET NUMBER:

2 |

REVISION:



# **CORRODED WIRE SERVING**

SCALE: N.T.S.

PLANS PREPARED FOR:



3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LI

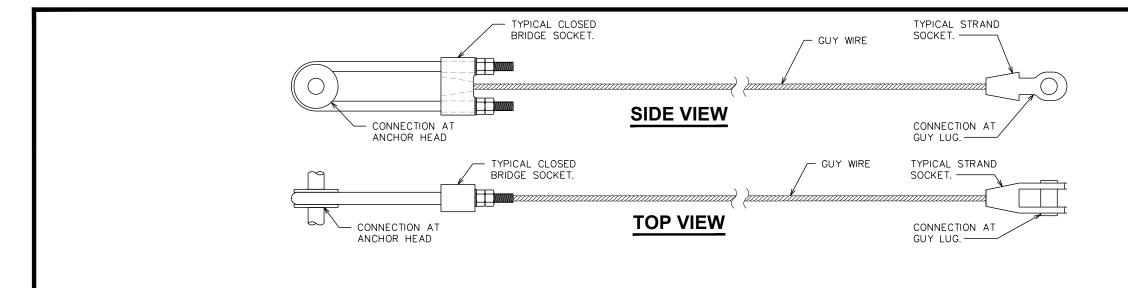
SHEET TITLE:

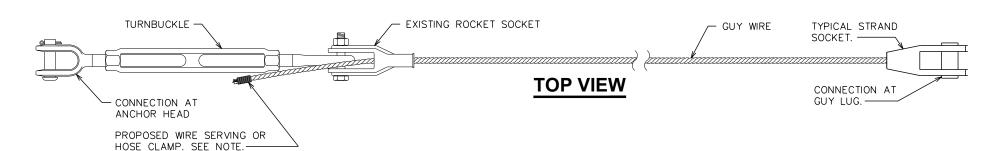
GENERAL
MAINTENANCE
DETAILS III

SHEET NUMBER:

**S-4** 

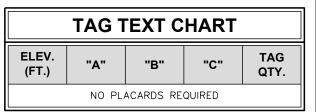
REVISION:





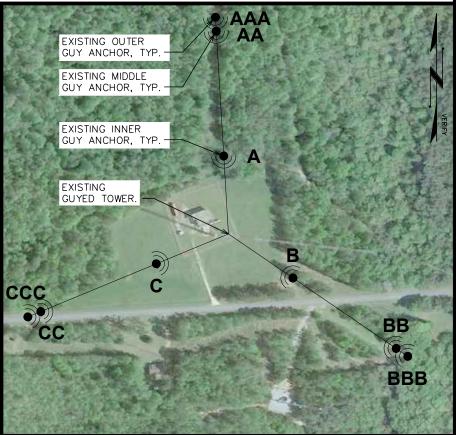
# **SERVING NOTE:**

PROPOSED WIRE SERVING TO BE INSTALLED AT CUT ENDS OF GUY WIRES FOR A LENGTH EQUAL TO THREE TIMES THE DIAMETER OF THE GUY WIRE. SERVING SHALL BE STAINLESS STEEL LOCK WIRE WIRE MEASURING 0.041" IN DIAMETER.



## **TENSION TAG NOTES:**

- 1. TAG MATERIAL SHALL BE 12 Ga. STAINLESS STEEL
- 2. ATTACH TAG TO GUY WIRE WITH (1) ½"x2" STAINLESS STEEL WORM-DRIVE HOSE CLAMP WITH STAINLESS STEEL SCREW.
- 3. TEXT SIZE ON TAG: 1/4" HIGH, CENTERED HORIZONTALLY AND VERTICALLY ON TAG.
- 4. NO TENSION TAGS ARE REQUIRED FOR GUY WIRES THAT ARE SET TO 10% INITIAL TENSION.
- 5. PUNCH CARD TYPE TAGS ARE ALSO PERMITTED IN ACCORDANCE WITH NOTES 1 THROUGH 4. USE 1/8" MINIMUM LETTERING FOR PUNCH-TYPE TAGS.



**GUY ANCHOR PLAN VIEW** 

SCALE: N.T.S.

PLANS PREPARED FOR:



3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

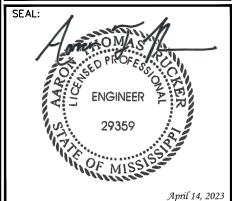
2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



O 04-14-23 MAINTENANCE DRAWINGS
REV DATE ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFG

SHEET TITLE:

GUY WIRE DETAILS I

SHEET NUMBER:

REVISION:

## **INSTALL GUYS & PLUMB TOWER:**

- 1. THE MODIFICATIONS ARE DESIGNED FOR INITIAL TENSION AS SPECIFIED BELOW. IT IS IMPORTANT THAT THE GUYS BE TENSIONED ACCURATELY TO ASSURE THE STIFFNESS OF THE TOWER. THE USE OF WIRE ROPE CLIPS AS DEAD—END SLEEVES IS PROHIBITED.
- 2. UNEVEN TERRAIN, TEMPERATURE, PLUMBNESS OF TOWER AND WIND ARE FACTORS WHICH AFFECT GUY TENSIONS. IF THE TOWER SITE IS LEVEL AND ANCHOR DISTANCES ARE EQUAL, THE TENSIONS IN ALL THREE GUYS AT A LEVEL WILL BE EQUAL WHEN THE TOWER IS PLUMB. IF THE TERRAIN OF THE TOWER SITE IS UNEVEN, THE GUYS ARE NOT PERFECTLY SYMMETRICAL AND TENSIONS IN GUYS VARY IN THE THREE DIRECTIONS. INITIAL GUY TENSIONS, SHOWN ON THIS SHEET, ARE BASED ON THE RELATIVE ELEVATION SHOWN. THE TOWER SHOULD BE PLUMBED WITH THE SPECIFIED TENSIONS.
- 3. WIND LOAD ON TOWER AND GUYS CHANGES THE TENSION IN ALL GUYS; THEREFORE, PLUMB THE TOWER IN CALM WEATHER ONLY.
- 4. WHEN INSTALLING GUYS, ALL THREE PERMANENT GUYS SHOULD BE FASTENED TO THE TOWER FIRST. THEN ALL GUYS SHOULD BE PULLED TO THE ANCHORS SIMULTANEOUSLY.
- 5. THE ONLY SATISFACTORY WAY OF PLUMBING A TOWER OR OF CHECKING ALIGNMENT OF A TOWER AT A LATER DATE IS WITH THE USE OF THREE (FOUR IF THE TOWER IS FOUR LEGGED) TRANSITS. A TRANSIT IS TO BE SET UP ON EACH LEG AZIMUTH AT THE BASE OF THE TOWER. THE CORRESPONDING TOWER LEG AT THE BASE OF THE TOWER IS USED TO SET THE VERTICAL BASELINE. THE DEFLECTION AT EACH POINT OF INTEREST ON THE TOWER IS MEASURED FROM THIS VERTICAL BASELINE. TWIST & PLUMB TOLERANCES ARE AS SPECIFIED IN THE TIA STANDARD. SEE THE CORRESPONDING STRUCTURAL ANALYSIS FOR THE REVISION ON THE STANDARD REFERENCED.

## **GUY WIRE PROPERTIES**

Guy	Guy		Guy	Initial	%	Guy	Guy	$L_u$	Anchor	Anchor	Anchor	End
Elevation	Grade		Size	Tension		Modulus	Weight		Radius	Azimuth	Elevation	Fitting
										Adj.		Efficiency
ft				K		ksi	plf	ft	ft	0	ft	%
997.5	BS	A	1 1/8	15.60	10%	24000	2.66	1243.39	717.00	0.000	-22.00	100%
		В	1 1/8	15.60	10%	24000	2.66	1239.06	718.00	0.000	-16.00	100%
		$\mathbf{C}$	1 1/8	15.60	10%	24000	2.66	1242.09	719.00	0.000	-19.00	100%
787.583	BS	Α	1 1/4	19.20	10%	24000	3.28	1078.18	717.00	0.000	-22.00	100%
124-25, 22 02-24-24-25-20		$\mathbf{B}$	1 1/4	19.20	10%	24000	3.28	1074.35	718.00	0.000	-16.00	100%
		C	1 1/4	19.20	10%	24000	3.28	1077.26	719.00	0.000	-19.00	100%
585	BS	Α	1 3/16	17.20	10%	24000	2.96	910.60	688.00	0.000	-17.00	100%
		В	1 3/16	17.20	10%	24000	2.96	907.87	687.00	0.000	-14.00	100%
		$\mathbf{C}$	1 3/16	17.20	10%	24000	2.96	911.59	684.00	0.000	-23.00	100%
382.417	BS	A	1 5/16	21.20	10%	24000	3.62	473.98	285.00	0.000	0.00	100%
		$\mathbf{B}$	1 5/16	21.20	10%	24000	3.62	463.62	277.00	0.000	7.00	100%
		$\mathbf{C}$	1 5/16	21.20	10%	24000	3.62	472.37	285.00	0.000	2.00	100%
187.583	BS	$\mathbf{A}$	1 1/16	13.80	10%	24000	2.37	337.32	285.00	0.000	0.00	100%
		В	1 1/16	13.80	10%	24000	2.37	326.79	277.00	0.000	7.00	100%
		$\mathbf{C}$	1 1/16	13.80	10%	24000	2.37	336.22	285.00	0.000	2.00	100%

- I. THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS AS REQUIRED INDICATING THE PERCENT BREAKING STRENGTH THAT THE GUY WIRES ARE TENSIONED. SEE SHEET S—5 FOR PREFERRED LABELING PROCEDURE.
- 2. SEE SHEET S-5 FOR THE NECESSARY GUY HARDWARE TO COMPLETE THE INSTALLATION. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING, FABRICATION, & ERECTION OF ANY MATERIALS. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY GUYING THE TOWER DURING MODIFICATION WORK.
- 3. GIVEN LENGTHS (Lu) ARE BASED ON STRAIGHT CHORD LENGTH. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AMOUNT OF GUY WIRE TO ORDER.
- . THE MAXIMUM DEVIATION FROM THE DESIGN INITIAL TENSION SHALL BE ±10% FOR GUYS UP TO AND INCLUDING 1" DIAMETER AND ±5% FOR GUYS GREATER THAN 1" DIAMETER, OF THE SPECIFIED DESIGN INITIAL TENSION AT AN ANCHORAGE, CORRECTED FOR THE AMBIENT TEMPERATURE.

PLANS PREPARED FOR:



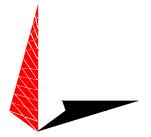
3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFC

SHEET TITLE:

**GUY WIRE DETAILS II** 

SHEET NUMBER:

**S-6** 

REVISION:

## **INSTALL GUYS & PLUMB TOWER:**

- 1. THE MODIFICATIONS ARE DESIGNED FOR INITIAL TENSION AS SPECIFIED BELOW. IT IS IMPORTANT THAT THE GUYS BE TENSIONED ACCURATELY TO ASSURE THE STIFFNESS OF THE TOWER. THE USE OF WIRE ROPE CLIPS AS DEAD—END SLEEVES IS PROHIBITED.
- 2. UNEVEN TERRAIN, TEMPERATURE, PLUMBNESS OF TOWER AND WIND ARE FACTORS WHICH AFFECT GUY TENSIONS. IF THE TOWER SITE IS LEVEL AND ANCHOR DISTANCES ARE EQUAL, THE TENSIONS IN ALL THREE GUYS AT A LEVEL WILL BE EQUAL WHEN THE TOWER IS PLUMB. IF THE TERRAIN OF THE TOWER SITE IS UNEVEN, THE GUYS ARE NOT PERFECTLY SYMMETRICAL AND TENSIONS IN GUYS VARY IN THE THREE DIRECTIONS. INITIAL GUY TENSIONS, SHOWN ON THIS SHEET, ARE BASED ON THE RELATIVE ELEVATION SHOWN. THE TOWER SHOULD BE PLUMBED WITH THE SPECIFIED TENSIONS.
- 3. WIND LOAD ON TOWER AND GUYS CHANGES THE TENSION IN ALL GUYS; THEREFORE, PLUMB THE TOWER IN CALM WEATHER ONLY.
- 4. WHEN INSTALLING GUYS, ALL THREE PERMANENT GUYS SHOULD BE FASTENED TO THE TOWER FIRST. THEN ALL GUYS SHOULD BE PULLED TO THE ANCHORS SIMULTANEOUSLY.
- 5. THE ONLY SATISFACTORY WAY OF PLUMBING A TOWER OR OF CHECKING ALIGNMENT OF A TOWER AT A LATER DATE IS WITH THE USE OF THREE (FOUR IF THE TOWER IS FOUR LEGGED) TRANSITS. A TRANSIT IS TO BE SET UP ON EACH LEG AZIMUTH AT THE BASE OF THE TOWER. THE CORRESPONDING TOWER LEG AT THE BASE OF THE TOWER IS USED TO SET THE VERTICAL BASELINE. THE DEFLECTION AT EACH POINT OF INTEREST ON THE TOWER IS MEASURED FROM THIS VERTICAL BASELINE. TWIST & PLUMB TOLERANCES ARE AS SPECIFIED IN THE TIA STANDARD. SEE THE CORRESPONDING STRUCTURAL ANALYSIS FOR THE REVISION ON THE STANDARD REFERENCED.

### **GUY TENSIONING INFORMATION**

				Temperature At Time Of Tensioning													
				0 F		20 F		40 F		60 F		80 F		100 F		120 F	
Guy Elevation	ı	H	V	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept
ft		ft	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft
997.5	A	712.67	1019.50	16.753	113.73	16.355	116.30	15.971	118.90	15.600	121.53	15.242	124.18	14.895	126.85	14.561	129.54
	В	713.67	1013.50	16.762	112.93	16.361	115.50	15.974	118.11	15.600	120.74	15.239	123.39	14.890	126.07	14.554	128.76
	C	714.67	1016.50	16.758	113.48	16.359	116.06	15.973	118.67	15.600	121.30	15.240	123.96	14.893	126.64	14.557	129.33
787.583	A	712.67	809.58	21.068	85.25	20.417	87.82	19.795	90.43	19.200	93.07	18.632	95.74	18.091	98.43	17.575	101.14
	В	713.67	803.58	21.083	84.63	20.427	87.20	19.799	89.81	19.200	92.45	18.628	95.13	18.083	97.82	17.564	100.54
	C	714.67	806.58	21.076	85.09	20.422	87.67	19.797	90.29	19.200	92.93	18.630	95.61	18.087	98.31	17.570	101.02
585	A	683.67	602.00	19.487	60.30	18.693	62.76	17.943	65.28	17.200	67.97	16.543	70.55	15.926	73.16	15.347	75.79
	В	682.67	599.00	19.498	59.92	18.700	62.37	17.947	64.89	17.200	67.58	16.541	70.16	15.921	72.76	15.340	75.39
	C	679.67	608.00	19.468	60.46	18.680	62.91	17.937	65.41	17.200	68.09	16.547	70.65	15.934	73.25	15.357	75.86
382.417	A	280.67	382.42	24.092	16.42	23.111	17.10	22.146	17.82	21.200	18.59	20.274	19.42	19.372	20.30	18.494	21.23
	В	272.67	375.42	24.075	15.73	23.101	16.37	22.142	17.06	21.200	17.80	20.278	18.59	19.377	19.42	18.501	20.32
	C	280.67	380.42	24.112	16.30	23.124	16.97	22.153	17.70	21.200	18.47	20.268	19.30	19.360	20.17	18.476	21.11
187.583	A	280.67	187.58	17.605	7.57	16.297	8.17	15.026	8.85	13.800	9.63	12.629	10.51	11.526	11.49	10.501	12.60
	В	272.67	180.58	17.656	7.09	16.333	7.65	15.044	8.30	13.800	9.04	12.610	9.88	11.487	10.83	10.444	11.89
	C	280.67	185.58	17.630	7.51	16.314	8.11	15.034	8.79	13.800	9.56	12.622	10.44	11.512	11.43	10.482	12.54

- 1. THE CONTRACTOR SHALL CLEARLY LABEL ALL GUY WIRES AT GUY ANCHORS AS REQUIRED INDICATING THE PERCENT BREAKING STRENGTH THAT THE GUY WIRES ARE TENSIONED. SEE SHEET S-5 FOR PREFERRED LABELING PROCEDURE.
- 2. SEE SHEET S-5 FOR THE NECESSARY GUY HARDWARE TO COMPLETE THE INSTALLATION. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING, FABRICATION, & ERECTION OF ANY MATERIALS. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY GUYING THE TOWER DURING MODIFICATION WORK.
- 3. GIVEN LENGTHS (Lu) ARE BASED ON STRAIGHT CHORD LENGTH. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AMOUNT OF GUY WIRE TO ORDER.
- 4. THE MAXIMUM DEVIATION FROM THE DESIGN INITIAL TENSION SHALL BE ±10% FOR GUYS UP TO AND INCLUDING 1" DIAMETER AND ±5% FOR GUYS GREATER THAN 1" DIAMETER, OF THE SPECIFIED DESIGN INITIAL TENSION AT AN ANCHORAGE, CORRECTED FOR THE AMBIENT TEMPERATURE.

PLANS PREPARED FOR:



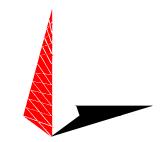
3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### **TOWER ENGINEERING PROFESSIONALS**

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFC

SHEET TITLE:

**GUY WIRE DETAILS III** 

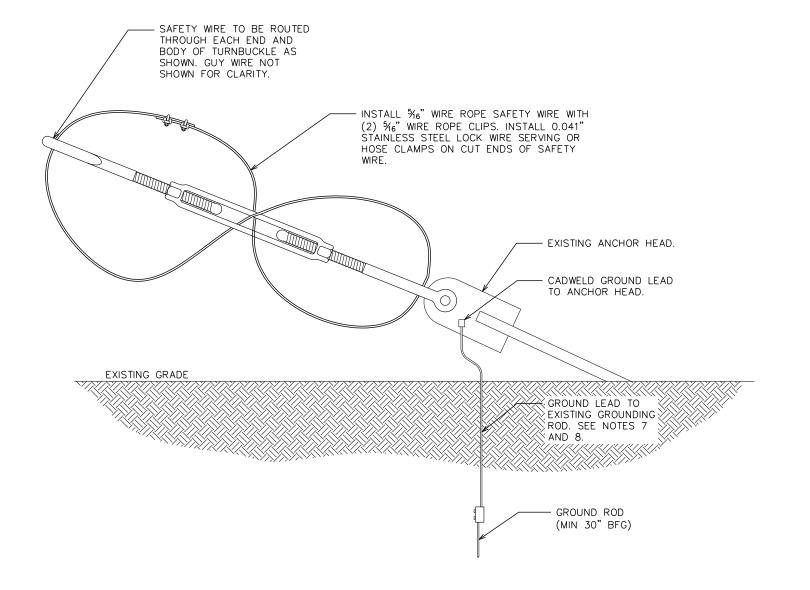
SHEET NUMBER:

**S-7** 

REVISION:

## **NOTES:**

- IF WATERFALL GROUNDING IS PRESENT, IT SHALL BE REMOVED AND ATTACHMENT AREAS ON GUY WIRES SHALL BE CLEANED, INSPECTED, AND COLD—GALVANIZED.
- 2. THE USE OF WIRE ROPE CLIPS AS DEAD-END SLEEVES IS PROHIBITED.
- 3. THE PREFERRED SAFETY LOOP IS A FIGURE 8 CONFIGURATION.
- 4. THE TAG END OF GUY WIRES SHALL NOT TOUCH THE GROUND.
- 5. DEAD-END SLEEVES SHALL BE INSTALLED FULLY EVEN WITH THE SHORT TAIL SIDE OF THE BIG GRIP.
- 6. ALL GUY WIRES ARE TO BE GROUNDED FROM THE FAN PLATE UTILIZING 2/O A.W.G. STRANDED WIRE TO THE ANCHORS EXISTING BURIED GROUND RING.
- 7. GROUNDING WIRES MAY BE SPLICED TOGETHER BY CAD WELD PROCESS IF NECESSARY TO REACH THE EXISTING FAN PLATE.
- 8. IF A GROUND ROD IS NOT PRESENT AT THE SITE, CONTACT TEP AT SDD@TEPGROUP.NET.
- 9. FOR ALL SITE SPECIFIC FAN PLATE ATTACHMENT CONFIGURATIONS, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THE SAFETY LOOPS IS INSTALLED SO THAT IT PREVENTS THE ROTATION OF ALL TURNBUCKLES.



PLANS PREPARED FOR:



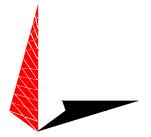
3825 RIDGEWOOD RD. JACKSON, MS 39211-6497 OFFICE: (601) 432-6770

PROJECT INFORMATION:

# WMAW ROSE HILL FCC ASR #: 1041037

2315 COUNTY ROAD 20 LOUIN, MS 39338 (JASPER COUNTY)

PLANS PREPARED BY:



### TOWER ENGINEERING PROFESSIONALS

326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 661-6351 www.tepgroup.net



0	04-14-23	MAINTENANCE DRAWINGS
REV	DATE	ISSUED FOR:

DRAWN BY: JORM CHECKED BY: LFC

SHEET TITLE:

# GUY ANCHOR GROUNDING DETAILS

SHEET NUMBER:

**S-8** 

REVISION: