

## APPENDIX B-3



March 27, 2023

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**Subject: Structural Analysis Report**

**Client Designation:** *Mississippi Public Broadcasting Reconfiguration*  
**FCC ASR Number:** 1041044  
**Client Site Name:** WMAV Oxford

**Engineering Firm Designation:** **TEP Project Number:** 19780.814207

**Site Data:** **Near CR344, Oxford, Lafayette County, MS 38655**  
**Latitude 34° 17' 27.5", Longitude -89° 42' 21.8"**  
**1247.5± Foot - Guyed Tower**

Dear Alicia Harris,

*Tower Engineering Professionals* is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the stress level for the tower and foundation structure, under the following load case, to be:

LC1: Existing + Proposed + Reserved Loading

Note: See Table 1 for the existing, proposed, and reserved loading

**Insufficient Capacity**

| Structure Capacity | Foundation Capacity |
|--------------------|---------------------|
| 104.8%             | CANNOT DETERMINE    |

The analysis has been performed in accordance with the ANSI/TIA-222-H Structural Standard for Antenna Supporting Structures, Antennas, and Small Wind Turbine Support Structures and the 2018 International Building Code.

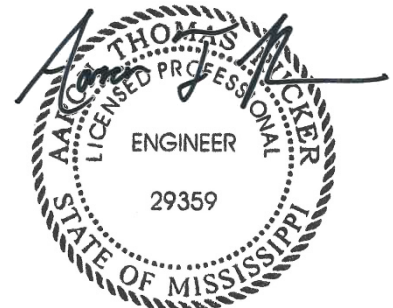
All modifications and equipment proposed in this report shall be installed in accordance with the appurtenances listed in Table 1 for the determined available structural capacity to be effective.

We at *Tower Engineering Professionals* appreciate the opportunity of providing our continuing professional services to you and *Mississippi Authority for Educational Television*. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by: Erik Latta, P.E. / LFC

Respectfully submitted by:

Aaron T. Rucker, P.E.



03/27/2023

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## 1) INTRODUCTION

The tower is a 1247.5± Foot Guyed Tower mapped by Tower Engineering Professionals in February of 2023. The original design standard and wind speed were unavailable for review. The previously installed secondary horizontal modifications were determined to be ineffective and were not considered structurally in this analysis. All information provided to TEP was assumed to be accurate and complete.

## 2) ANALYSIS CRITERIA

|                               |                      |
|-------------------------------|----------------------|
| <b>TIA-222 Revision:</b>      | ANSI/TIA-222-H       |
| <b>Type of Analysis:</b>      | Feasibility Study    |
| <b>Risk Category:</b>         | II                   |
| <b>Wind Speed:</b>            | 106 mph (Ultimate)   |
| <b>Exposure Category:</b>     | C                    |
| <b>Topographic Procedure:</b> | Method 1 (Kzt = 1.0) |
| <b>Ice Thickness:</b>         | 1.5 in               |
| <b>Wind Speed with Ice:</b>   | 30 mph               |
| <b>Service Wind Speed:</b>    | 60 mph               |

**Table 1 - Existing, Proposed, and Reserved Antenna and Cable Information**

| Existing/<br>Proposed/<br>Reserved | Mount<br>Level<br>(ft) | Ant<br>CL<br>(ft) | Qty      | Antenna Model                             | Mount<br>Type              | Qty<br>Coax | Coax<br>Size   | Coax<br>Location          | Owner/<br>Tenant    |
|------------------------------------|------------------------|-------------------|----------|-------------------------------------------|----------------------------|-------------|----------------|---------------------------|---------------------|
| <b>Proposed</b>                    | <b>0 - 1301</b>        |                   | -        | <b>FAA F4 Lighting System</b>             | -                          | <b>1</b>    | <b>1" M.C.</b> | <b>CA-Face</b>            | <b>MPB</b>          |
| <i>To Be<br/>Removed</i>           | <i>0 – 1299</i>        |                   | -        | <i>Existing Lighting System</i>           | -                          | 1           | 2-1/4" M.C.    | CA-Face                   | MPB                 |
| <b>Reserved</b>                    | <b>1247.5</b>          | <b>1274</b>       | <b>1</b> | <b>Dielectric<br/>TFU-27ETT/VP-R S210</b> | <b>Tower Top</b>           | <b>1</b>    | <b>6-1/8"</b>  | <b>Inside<br/>A-Leg</b>   | <b>WMAV-<br/>TV</b> |
| <i>To Be<br/>Removed</i>           | <i>1247.5</i>          | <i>1271</i>       | <i>1</i> | <i>Dielectric 881-32</i>                  | <i>Tower Top</i>           | <i>1</i>    | <i>6-1/8"</i>  | <i>Inside<br/>A-Leg</i>   | <i>WMAV-<br/>TV</i> |
| <i>To Be<br/>Removed</i>           | <i>1197</i>            | <i>1203</i>       | <i>1</i> | <i>6" Dia. x 10' Omni</i>                 | <i>Standoff</i>            | 1           | EW20           | B-Leg                     | Unknown             |
| <i>To Be<br/>Removed</i>           | <i>1186</i>            | <i>1186</i>       | <i>1</i> | <i>4.5' Dia. Grid Dish</i>                | <i>Direct</i>              |             |                |                           |                     |
| <b>Reserved</b>                    | <b>1135</b>            | <b>1135</b>       | <b>1</b> | <b>ERI SHPX-10AC</b>                      | <b>(10)<br/>Standoffs</b>  | <b>1</b>    | <b>3-1/8"</b>  | <b>Inside<br/>C-Leg</b>   | <b>WMAV-<br/>FM</b> |
| <i>To Be<br/>Removed</i>           | <i>1149.5</i>          | <i>1149.5</i>     | <i>1</i> | <i>Jampro JHVP-6</i>                      | <i>(6)<br/>Standoffs</i>   | <i>1</i>    | <i>3-1/8"</i>  | <i>Inside<br/>C-Leg</i>   | <i>WMAV-<br/>FM</i> |
| <i>To Be<br/>Removed</i>           | 1045                   | 1045              | 1        | Equipment Box 18"x22"x45"                 | Side<br>Platform           | 1           | 1-1/4" M.C.    | BC-Face                   | Unknown             |
|                                    |                        |                   | 1        | Equipment Box 30"x24"x16"                 |                            |             |                |                           |                     |
| <i>To Be<br/>Removed</i>           | <i>1038</i>            | <i>1029</i>       | <i>1</i> | <i>20', 4-Element Dipole</i>              | <i>Standoff</i>            | -           | -              | -                         | Unknown             |
| Existing                           | 1008                   | 1008              | 1        | 40', 8-Element Dipole                     | (4)<br>Standoffs           | 1           | 7/8            | AB-Face                   | NWS                 |
| <b>Reserved</b>                    | <b>950</b>             | <b>950</b>        | <b>1</b> | <b>Jampro JHVP-6</b>                      | <b>(6)<br/>Standoffs</b>   | <b>1</b>    | <b>3"</b>      | <b>CA-Face</b>            | <b>WMAV-<br/>FM</b> |
| <b>Reserved</b>                    | <b>900</b>             | <b>900</b>        | <b>1</b> | <b>Dielectric TFU-8WB-R S230</b>          | <b>Direct</b>              | <b>1</b>    | <b>4-1/16"</b> | <b>Inside<br/>CA-Face</b> | <b>WMAV-<br/>TV</b> |
| <b>Reserved</b>                    | <b>778</b>             | <b>778</b>        | <b>1</b> | <b>Kathrein Scala PR-TV</b>               | <b>Standoff</b>            | <b>1</b>    | <b>1/2</b>     | <b>CA-Face</b>            | <b>MPB</b>          |
| <i>To Be<br/>Removed</i>           | <i>643</i>             | -                 | -        | -                                         | <i>Horizontal<br/>Pipe</i> | -           | -              | -                         | Unknown             |

| Existing/<br>Proposed/<br>Reserved | Mount<br>Level<br>(ft) | Ant<br>CL<br>(ft) | Qty | Antenna Model                | Mount<br>Type      | Qty<br>Coax         | Coax<br>Size | Coax<br>Location  | Owner/<br>Tenant |
|------------------------------------|------------------------|-------------------|-----|------------------------------|--------------------|---------------------|--------------|-------------------|------------------|
| To Be<br>Removed                   | 624                    | -                 | -   | -                            | Horizontal<br>Pipe | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 616                    | 616               | 1   | 3', 6-Element Yagi           | Direct             | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 604                    | 613               | 1   | 18', 16-Element Dipole       | Standoff           | 1                   | 7/8          | AB-Face           | Unknown          |
| Existing                           | 542                    | 552               | 1   | 20', 4-Element Dipole        | Standoff           | 1                   | 7/8          | Inside<br>AB-Face | FBI              |
| To Be<br>Removed                   | 515                    | 515               | 2   | 6' Dia. Grid Dish            | Direct             | 1                   | 1/2          | Inside<br>AB-Face | Unknown          |
| To Be<br>Removed                   | 442                    | 442               | 1   | 10', Single Element Dipole   | Direct             | 1                   | 1/2          | AB-Face           | Unknown          |
| Existing                           | 432                    | 432               | 1   | 25', 4-Element Dipole        | Standoff           | 1                   | 7/8          | AB-Face           | FBI              |
| To Be<br>Removed                   | 423                    | 423               | 1   | 10', Single Element Dipole   | Direct             | Shared <sup>1</sup> |              | AB-Face           | Unknown          |
| To Be<br>Removed                   | 394                    | 394               | 1   | 20', 4-Element Dipole        | (2)<br>Standoffs   | 1                   | 7/8          | AB-Face           | Unknown          |
| Existing                           | 392                    | 392               | 1   | 8' Dia. Dish w/ Radome       | Pipe               | 1                   | EW63         | AB-Face           | MPB              |
| To Be<br>Removed                   | 356                    | 356               | 1   | 10', Single Element Dipole   | Direct             | Shared <sup>1</sup> |              | AB-Face           | Unknown          |
| Existing                           | 348                    | 348               | 1   | 8' Dia. Dish w/ Radome       | Standoff           | 1                   | EW63         | AB-Face           | MPB              |
| To Be<br>Removed                   | 214                    | -                 | -   | -                            | Face<br>Mount      | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 190                    | 190               | 1   | 40" x 32" Grid Panel Antenna | Pipe               | 1                   | 1/4"         | CA-Face           | Unknown          |
| To Be<br>Removed                   | 186                    | 186               | 1   | 8', 3-Element Yagi           | Standoff           | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 183                    | 183               | 1   | 10', 10-Element Yagi         | Direct             | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 176                    | 176               | 1   | 10', 10-Element Yagi         | Direct             | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 159                    | -                 | -   | -                            | Standoff           | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 155                    | 155               | 1   | 4.5', 7-Element Yagi         | Tape               | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 145.5                  | 151.5             | 1   | 14', 10-Element Yagi         | Standoff           | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 138                    | 144               | 1   | 14', 10-Element Yagi         | Standoff           | 1                   | 3/8"         | CA-Face           | Unknown          |
| To Be<br>Removed                   | 95                     | -                 | -   | -                            | Standoff           | -                   | -            | -                 | Unknown          |
| To Be<br>Removed                   | 61                     | -                 | -   | -                            | Standoff           | -                   | -            | -                 | Unknown          |
| Existing                           | 39                     | 39                | 1   | Compound Light               | Standoff           | 1                   | 5/8"         | CA-Face           | MPB              |
| Existing                           | 39                     | 39                | 1   | 3' x 2' Ice Shield           | Standoff           | -                   | -            | -                 | MPB              |
| Existing                           | 34                     | 35                | 1   | Anemometer                   | Standoff           | 1                   | 5/16"        | Inside<br>A-Leg   | MPB              |

| Existing/<br>Proposed/<br>Reserved | Mount<br>Level<br>(ft)                                      | Ant<br>CL<br>(ft) | Qty | Antenna Model | Mount<br>Type | Qty<br>Coax | Coax<br>Size | Coax<br>Location | Owner/<br>Tenant |
|------------------------------------|-------------------------------------------------------------|-------------------|-----|---------------|---------------|-------------|--------------|------------------|------------------|
| To Be<br>Removed                   | Multiple abandoned feed lines throughout tower. See note 2. |                   |     |               |               |             |              |                  | Unknown          |

Notes:

- 1) Feed line to 442' is shared with antennas at 423' and 356'.
- 2) Refer to the Tower Mapping Report referenced in Table 2 for abandoned feed line details.

### 3) ANALYSIS PROCEDURE

**Table 2 - Documents Provided**

| Document                                    | Remarks                                                                             | Source |
|---------------------------------------------|-------------------------------------------------------------------------------------|--------|
| Maintenance and Condition Assessment Report | Tower Engineering Professionals, Inc., dated March 3, 2023<br>TEP No. 19780.814204  | TEP    |
| Tower Mapping Report                        | Tower Engineering Professionals, Inc., dated March 27, 2023<br>TEP No. 19780.814205 | TEP    |
| Correspondence                              | Correspondence in reference to the existing, proposed, and reserved loading.        | KGA    |

#### 3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

#### 3.2) Analysis Assumptions

- 1) The tower and foundation were built and maintained in accordance with the manufacturer's specification.
- 2) The configuration of existing antennas, transmission cables, mounts and other appurtenances are as specified in the tower mapping report by TEP.
- 3) Unless specified by the client or tower mapping, the location of the existing and proposed coax is assumed by TEP and listed in Table 1.
- 4) All tower components are in sufficient condition to carry their full design capacity.
- 5) Serviceability with respect to antenna twist, tilt, roll, or lateral translation, is not checked and is left to the carrier or tower owner to ensure conformance.
- 6) All antenna mounts and mounting hardware are structurally sufficient to carry the full design capacity requirements of appurtenance wind area and weight as provided by the original manufacturer specifications. It is the carrier's responsibility to ensure compliance to the structural limitations of the existing and/or proposed antenna mounts. TEP did not analyze antenna supporting mounts as part of this structural analysis report.
- 7) The following material grades were assumed:
  - a) Connection bolts: A325N
  - b) Leg grade: A572-50
  - c) SR diagonal grade: A572-50
  - d) Other bracing grade: A36
  - e) Guy wire grade: A586 Gr. 1
  - f) Guy anchor shaft grade: A572-50
- 8) The secondary horizontal bracing from 30-ft to 150-ft and from 1,117.6-ft to 1,207.6-ft is not sufficiently connected to the tower diagonal bracing. Therefore, the secondary horizontal bracing was not considered to provide lateral support to the leg members.
- 9) This analysis report is not a construction document.

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the tower.

#### 4) ANALYSIS RESULTS

**Table 3 - Section Capacity (Summary)**

| Section No. | Elevation (ft) | Component Type | Size  | Critical Element | P (K)   | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------|-------|------------------|---------|----------------------|------------|-------------|
| T1          | 1247.5 - 1246  | Leg            | 3     | 4                | -5.52   | 330.49               | 52.3       | Pass        |
| T2          | 1246 - 1238    | Leg            | 3     | 10               | -47.76  | 106.74               | 44.7       | Pass        |
| T3          | 1238 - 1230    | Leg            | 3     | 21               | -74.02  | 106.74               | 69.3       | Pass        |
| T4          | 1230 - 1207.58 | Leg            | 3 1/4 | 36               | -105.39 | 163.02               | 64.6       | Pass        |
| T5          | 1207.58 - 1200 | Leg            | 3 1/4 | 66               | -113.97 | 163.04               | 69.9       | Pass        |
| T6          | 1200 - 1170    | Leg            | 3 1/4 | 83               | -135.91 | 163.02               | 83.4       | Pass        |
| T7          | 1170 - 1140    | Leg            | 3 1/4 | 137              | -138.94 | 163.02               | 85.2       | Pass        |
| T8          | 1140 - 1117.58 | Leg            | 3 1/4 | 193              | -134.95 | 163.02               | 82.8       | Pass        |
| T9          | 1117.58 - 1110 | Leg            | 3 1/4 | 230              | -118.25 | 163.04               | 72.5       | Pass        |
| T10         | 1110 - 1080    | Leg            | 3     | 245              | -110.27 | 119.07               | 92.6       | Pass        |
| T11         | 1080 - 1050    | Leg            | 3 1/2 | 289              | -123.34 | 213.35               | 57.8       | Pass        |
| T12         | 1050 - 1020    | Leg            | 3 3/4 | 331              | -148.69 | 270.01               | 55.1       | Pass        |
| T13         | 1020 - 990     | Leg            | 3 1/2 | 373              | -132.41 | 213.35               | 62.1       | Pass        |
| T14         | 990 - 960      | Leg            | 3 1/2 | 413              | -145.18 | 213.35               | 68.0       | Pass        |
| T15         | 960 - 930      | Leg            | 3 1/2 | 455              | -149.40 | 213.35               | 70.0       | Pass        |
| T16         | 930 - 900      | Leg            | 3 1/2 | 497              | -147.09 | 213.35               | 68.9       | Pass        |
| T17         | 900 - 870      | Leg            | 3 3/4 | 541              | -179.66 | 270.01               | 66.5       | Pass        |
| T18         | 870 - 840      | Leg            | 4     | 583              | -202.23 | 332.73               | 60.8       | Pass        |
| T19         | 840 - 810      | Leg            | 3 3/4 | 625              | -187.62 | 270.01               | 69.5       | Pass        |
| T20         | 810 - 780      | Leg            | 3 3/4 | 667              | -198.53 | 270.01               | 73.5       | Pass        |
| T21         | 780 - 750      | Leg            | 3 3/4 | 707              | -202.56 | 270.01               | 75.0       | Pass        |
| T22         | 750 - 720      | Leg            | 3 3/4 | 749              | -202.76 | 270.01               | 75.1       | Pass        |
| T23         | 720 - 690      | Leg            | 3 3/4 | 791              | -199.81 | 270.01               | 74.0       | Pass        |
| T24         | 690 - 660      | Leg            | 4 1/4 | 833              | -221.72 | 401.30               | 55.2       | Pass        |
| T25         | 660 - 630      | Leg            | 4     | 875              | -228.90 | 332.73               | 68.8       | Pass        |
| T26         | 630 - 600      | Leg            | 4     | 917              | -238.45 | 332.73               | 71.7       | Pass        |
| T27         | 600 - 570      | Leg            | 4     | 959              | -241.76 | 332.73               | 72.7       | Pass        |
| T28         | 570 - 540      | Leg            | 4     | 1001             | -242.15 | 332.73               | 72.8       | Pass        |
| T29         | 540 - 510      | Leg            | 4 1/4 | 1043             | -261.05 | 401.30               | 65.1       | Pass        |
| T30         | 510 - 480      | Leg            | 4 1/4 | 1085             | -291.50 | 401.30               | 72.6       | Pass        |
| T31         | 480 - 450      | Leg            | 4 1/4 | 1127             | -290.91 | 401.30               | 72.5       | Pass        |
| T32         | 450 - 420      | Leg            | 4 1/4 | 1169             | -285.69 | 401.30               | 71.2       | Pass        |
| T33         | 420 - 390      | Leg            | 4 1/4 | 1211             | -286.80 | 401.30               | 71.5       | Pass        |
| T34         | 390 - 360      | Leg            | 4 1/4 | 1253             | -298.94 | 401.30               | 74.5       | Pass        |
| T35         | 360 - 330      | Leg            | 4 1/2 | 1296             | -316.81 | 475.53               | 66.6       | Pass        |
| T36         | 330 - 300      | Leg            | 4 1/2 | 1338             | -339.26 | 475.53               | 71.3       | Pass        |
| T37         | 300 - 270      | Leg            | 4 1/2 | 1380             | -336.68 | 475.53               | 70.8       | Pass        |

| Section No. | Elevation (ft) | Component Type | Size          | Critical Element | P (K)   | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail       |
|-------------|----------------|----------------|---------------|------------------|---------|----------------------|------------|-------------------|
| T38         | 270 - 240      | Leg            | 4 1/2         | 1422             | -331.80 | 475.53               | 69.8       | Pass              |
| T39         | 240 - 210      | Leg            | 4 1/2         | 1464             | -334.80 | 475.53               | 70.4       | Pass              |
| T40         | 210 - 180      | Leg            | 4 1/2         | 1506             | -344.48 | 475.53               | 72.4       | Pass              |
| T41         | 180 - 150      | Leg            | 4 3/4         | 1549             | -363.45 | 555.28               | 65.5       | Pass              |
| T42         | 150 - 120      | Leg            | 4 1/2         | 1589             | -364.98 | 475.53               | 76.8       | Pass              |
| T43         | 120 - 90       | Leg            | 4 1/2         | 1643             | -369.92 | 475.53               | 77.8       | Pass              |
| T44         | 90 - 60        | Leg            | 4 1/2         | 1697             | -377.82 | 475.53               | 79.5       | Pass              |
| T45         | 60 - 30        | Leg            | 4 1/2         | 1753             | -405.22 | 475.53               | 85.2       | Pass              |
| T46         | 30 - 22.5      | Leg            | 5 1/4         | 1807             | -399.98 | 736.31               | 54.3       | Pass              |
| T47         | 22.5 - 15      | Leg            | 5 1/4         | 1819             | -414.86 | 725.27               | 57.2       | Pass              |
| T48         | 15 - 7.5       | Leg            | 5 1/4         | 1831             | -415.89 | 725.27               | 57.3       | Pass              |
| T49         | 7.5 - 0        | Leg            | 5 1/4         | 1843             | -431.61 | 725.27               | 59.5       | Pass              |
| T2          | 1246 - 1238    | Diagonal       | 2L2x2x1/4x3/8 | 19               | -11.22  | 48.70                | 23.0       | Pass              |
| T3          | 1238 - 1230    | Diagonal       | 3/4           | 34               | 13.31   | 20.87                | 63.7       | Pass              |
| T4          | 1230 - 1207.58 | Diagonal       | 5/8           | 64               | 12.20   | 14.50                | 84.1       | Pass              |
| T5          | 1207.58 - 1200 | Diagonal       | 5/8           | 79               | 9.71    | 14.50                | 67.0       | Pass              |
| T6          | 1200 - 1170    | Diagonal       | 5/8           | 133              | 8.76    | 14.50                | 60.4       | Pass              |
| T7          | 1170 - 1140    | Diagonal       | 5/8           | 149              | 3.86    | 14.50                | 26.6       | Pass              |
| T8          | 1140 - 1117.58 | Diagonal       | 5/8           | 200              | 8.28    | 14.50                | 57.2       | Pass              |
| T9          | 1117.58 - 1110 | Diagonal       | 5/8           | 242              | 10.13   | 14.50                | 69.9       | Pass              |
| T10         | 1110 - 1080    | Diagonal       | 3/4           | 257              | 15.60   | 20.87                | 74.7       | Pass              |
| T11         | 1080 - 1050    | Diagonal       | 7/8           | 299              | 19.11   | 28.41                | 67.3       | Pass              |
| T12         | 1050 - 1020    | Diagonal       | 7/8           | 368              | 19.17   | 28.41                | 67.5       | Pass              |
| T13         | 1020 - 990     | Diagonal       | 5/8           | 411              | 12.14   | 14.50                | 83.7       | Pass              |
| T14         | 990 - 960      | Diagonal       | 5/8           | 453              | 7.42    | 14.50                | 51.2       | Pass              |
| T15         | 960 - 930      | Diagonal       | 5/8           | 467              | 4.45    | 14.50                | 30.7       | Pass              |
| T16         | 930 - 900      | Diagonal       | 5/8           | 509              | 9.47    | 14.50                | 65.4       | Pass              |
| T17         | 900 - 870      | Diagonal       | 5/8           | 552              | 15.19   | 14.50                | 104.8      | Fail              |
| T18         | 870 - 840      | Diagonal       | 3/4           | 621              | 16.96   | 20.87                | 81.2       | Pass              |
| T19         | 840 - 810      | Diagonal       | 5/8           | 663              | 14.08   | 14.50                | 97.1       | Fail <sup>1</sup> |
| T20         | 810 - 780      | Diagonal       | 5/8           | 705              | 9.79    | 14.50                | 67.5       | Pass              |
| T21         | 780 - 750      | Diagonal       | 5/8           | 744              | 5.21    | 14.50                | 35.9       | Pass              |
| T22         | 750 - 720      | Diagonal       | 5/8           | 762              | 8.77    | 14.50                | 60.5       | Pass              |
| T23         | 720 - 690      | Diagonal       | 5/8           | 804              | 13.51   | 14.50                | 93.2       | Pass              |
| T24         | 690 - 660      | Diagonal       | 3/4           | 864              | 15.69   | 20.87                | 75.2       | Pass              |
| T25         | 660 - 630      | Diagonal       | 3/4           | 916              | 12.49   | 20.87                | 59.8       | Pass              |
| T26         | 630 - 600      | Diagonal       | 5/8           | 956              | 8.05    | 14.50                | 55.5       | Pass              |
| T27         | 600 - 570      | Diagonal       | 5/8           | 998              | 3.71    | 14.50                | 25.6       | Pass              |
| T28         | 570 - 540      | Diagonal       | 5/8           | 1015             | 7.91    | 14.50                | 54.6       | Pass              |
| T29         | 540 - 510      | Diagonal       | 3/4           | 1057             | 12.60   | 20.87                | 60.4       | Pass              |
| T30         | 510 - 480      | Diagonal       | 3/4           | 1117             | 14.71   | 20.87                | 70.4       | Pass              |
| T31         | 480 - 450      | Diagonal       | 3/4           | 1166             | 11.05   | 20.87                | 52.9       | Pass              |
| T32         | 450 - 420      | Diagonal       | 5/8           | 1208             | 7.00    | 14.50                | 48.3       | Pass              |
| T33         | 420 - 390      | Diagonal       | 5/8           | 1225             | 6.50    | 14.50                | 44.9       | Pass              |

| Section No. | Elevation (ft) | Component Type | Size              | Critical Element | P (K)  | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------|-------------------|------------------|--------|----------------------|------------|-------------|
| T34         | 390 - 360      | Diagonal       | 3/4               | 1267             | 10.31  | 20.87                | 49.4       | Pass        |
| T35         | 360 - 330      | Diagonal       | 7/8               | 1306             | 17.71  | 28.41                | 62.3       | Pass        |
| T36         | 330 - 300      | Diagonal       | 7/8               | 1375             | 19.06  | 28.41                | 67.1       | Pass        |
| T37         | 300 - 270      | Diagonal       | 3/4               | 1419             | 9.03   | 20.87                | 43.3       | Pass        |
| T38         | 270 - 240      | Diagonal       | 5/8               | 1461             | 5.69   | 14.50                | 39.2       | Pass        |
| T39         | 240 - 210      | Diagonal       | 5/8               | 1474             | 4.94   | 14.50                | 34.1       | Pass        |
| T40         | 210 - 180      | Diagonal       | 5/8               | 1516             | 8.08   | 14.50                | 55.7       | Pass        |
| T41         | 180 - 150      | Diagonal       | 3/4               | 1576             | 9.45   | 20.87                | 45.3       | Pass        |
| T42         | 150 - 120      | Diagonal       | 5/8               | 1635             | 4.83   | 14.50                | 33.3       | Pass        |
| T43         | 120 - 90       | Diagonal       | 5/8               | 1657             | 4.02   | 14.50                | 27.7       | Pass        |
| T44         | 90 - 60        | Diagonal       | 5/8               | 1711             | 7.14   | 14.50                | 49.3       | Pass        |
| T45         | 60 - 30        | Diagonal       | 5/8               | 1777             | 8.96   | 14.50                | 61.8       | Pass        |
| T46         | 30 - 22.5      | Diagonal       | 2L2x2x3/16x1/4    | 1816             | -11.42 | 37.73                | 30.3       | Pass        |
| T47         | 22.5 - 15      | Diagonal       | 2L2 1/2x2x1/4x1/4 | 1827             | -6.10  | 29.10                | 21.0       | Pass        |
| T48         | 15 - 7.5       | Diagonal       | 2L2x2x3/16x1/4    | 1840             | -11.69 | 37.39                | 31.3       | Pass        |
| T49         | 7.5 - 0        | Diagonal       | 2L2 1/2x2x1/4x1/4 | 1851             | -7.18  | 29.10                | 24.7       | Pass        |
| T4          | 1230 - 1207.58 | Horizontal     | 2L2x2x3/16x1/4    | 58               | -8.37  | 26.42                | 31.7       | Pass        |
| T6          | 1200 - 1170    | Horizontal     | 2L2x2x3/16x1/4    | 124              | -5.75  | 26.42                | 21.7       | Pass        |
| T7          | 1170 - 1140    | Horizontal     | 2L2x2x3/16x1/4    | 152              | -2.36  | 26.42                | 8.9        | Pass        |
| T8          | 1140 - 1117.58 | Horizontal     | 2L2x2x3/16x1/4    | 204              | -5.18  | 26.42                | 19.6       | Pass        |
| T10         | 1110 - 1080    | Horizontal     | 2L2x2x3/16x1/4    | 261              | -10.51 | 26.32                | 39.9       | Pass        |
| T11         | 1080 - 1050    | Horizontal     | 2L2x2x3/16x1/4    | 303              | -13.04 | 26.53                | 49.2       | Pass        |
| T12         | 1050 - 1020    | Horizontal     | 2L2x2x3/16x1/4    | 355              | -10.14 | 26.63                | 38.1       | Pass        |
| T13         | 1020 - 990     | Horizontal     | 2L2x2x3/16x1/4    | 406              | -8.14  | 26.53                | 30.7       | Pass        |
| T14         | 990 - 960      | Horizontal     | 2L2x2x3/16x1/4    | 448              | -4.84  | 26.53                | 18.3       | Pass        |
| T15         | 960 - 930      | Horizontal     | 2L2x2x3/16x1/4    | 471              | -2.78  | 26.53                | 10.5       | Pass        |
| T16         | 930 - 900      | Horizontal     | 2L2x2x3/16x1/4    | 513              | -6.22  | 26.53                | 23.4       | Pass        |
| T17         | 900 - 870      | Horizontal     | 2L2x2x3/16x1/4    | 555              | -10.44 | 26.63                | 39.2       | Pass        |
| T18         | 870 - 840      | Horizontal     | 2L2x2x3/16x1/4    | 616              | -11.25 | 26.74                | 42.1       | Pass        |
| T19         | 840 - 810      | Horizontal     | 2L2x2x3/16x1/4    | 658              | -9.54  | 26.63                | 35.8       | Pass        |
| T20         | 810 - 780      | Horizontal     | 2L2x2x3/16x1/4    | 700              | -6.55  | 26.63                | 24.6       | Pass        |
| T21         | 780 - 750      | Horizontal     | 2L2x2x3/16x1/4    | 740              | -3.36  | 26.63                | 12.6       | Pass        |
| T22         | 750 - 720      | Horizontal     | 2L2x2x3/16x1/4    | 766              | -5.70  | 26.63                | 21.4       | Pass        |
| T23         | 720 - 690      | Horizontal     | 2L2x2x3/16x1/4    | 808              | -9.13  | 26.63                | 34.3       | Pass        |
| T24         | 690 - 660      | Horizontal     | 2L2x2x3/16x1/4    | 868              | -10.93 | 26.84                | 40.7       | Pass        |
| T25         | 660 - 630      | Horizontal     | 2L2x2x3/16x1/4    | 910              | -8.25  | 26.74                | 30.8       | Pass        |
| T26         | 630 - 600      | Horizontal     | 2L2x2x3/16x1/4    | 951              | -5.25  | 26.74                | 19.6       | Pass        |
| T27         | 600 - 570      | Horizontal     | 2L2x2x3/16x1/4    | 993              | -2.41  | 26.74                | 9.0        | Pass        |
| T28         | 570 - 540      | Horizontal     | 2L2x2x3/16x1/4    | 1018             | -5.19  | 26.74                | 19.4       | Pass        |
| T29         | 540 - 510      | Horizontal     | 2L2x2x3/16x1/4    | 1060             | -8.37  | 26.84                | 31.2       | Pass        |
| T30         | 510 - 480      | Horizontal     | 2L2x2x3/16x1/4    | 1111             | -10.24 | 26.84                | 38.2       | Pass        |
| T31         | 480 - 450      | Horizontal     | 2L2x2x3/16x1/4    | 1161             | -7.28  | 26.84                | 27.1       | Pass        |
| T32         | 450 - 420      | Horizontal     | 2L2x2x3/16x1/4    | 1203             | -4.58  | 26.84                | 17.1       | Pass        |
| T33         | 420 - 390      | Horizontal     | 2L2x2x3/16x1/4    | 1228             | -4.39  | 26.84                | 16.4       | Pass        |

| Section No. | Elevation (ft) | Component Type       | Size           | Critical Element | P (K)  | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------------|----------------|------------------|--------|----------------------|------------|-------------|
| T34         | 390 - 360      | Horizontal           | 2L2x2x3/16x1/4 | 1270             | -6.97  | 26.84                | 26.0       | Pass        |
| T35         | 360 - 330      | Horizontal           | 2L2x2x3/16x1/4 | 1311             | -12.05 | 26.95                | 44.7       | Pass        |
| T36         | 330 - 300      | Horizontal           | 2L2x2x3/16x1/4 | 1371             | -12.81 | 26.95                | 47.5       | Pass        |
| T37         | 300 - 270      | Horizontal           | 2L2x2x3/16x1/4 | 1414             | -5.99  | 26.95                | 22.2       | Pass        |
| T38         | 270 - 240      | Horizontal           | 2L2x2x3/16x1/4 | 1456             | -3.61  | 26.95                | 13.4       | Pass        |
| T39         | 240 - 210      | Horizontal           | 2L2x2x3/16x1/4 | 1479             | -3.26  | 26.95                | 12.1       | Pass        |
| T40         | 210 - 180      | Horizontal           | 2L2x2x3/16x1/4 | 1521             | -5.43  | 26.95                | 20.1       | Pass        |
| T41         | 180 - 150      | Horizontal           | 2L2x2x3/16x1/4 | 1581             | -6.57  | 27.05                | 24.3       | Pass        |
| T42         | 150 - 120      | Horizontal           | 2L2x2x3/16x1/4 | 1628             | -2.85  | 26.95                | 10.6       | Pass        |
| T43         | 120 - 90       | Horizontal           | 2L2x2x3/16x1/4 | 1658             | -2.37  | 26.95                | 8.8        | Pass        |
| T44         | 90 - 60        | Horizontal           | 2L2x2x3/16x1/4 | 1714             | -4.15  | 26.95                | 15.4       | Pass        |
| T45         | 60 - 30        | Horizontal           | 2L2x2x3/16x1/4 | 1768             | -5.52  | 26.95                | 20.5       | Pass        |
| T47         | 22.5 - 15      | Horizontal           | 2L2x2x3/16x1/4 | 1826             | 7.78   | 39.34                | 19.8       | Pass        |
| T49         | 7.5 - 0        | Horizontal           | 2L2x2x3/16x1/4 | 1850             | 8.30   | 39.34                | 21.1       | Pass        |
| T5          | 1207.58 - 1200 | Secondary Horizontal | L2x2x1/4       | 82               | -0.17  | 6.13                 | 2.8        | Pass        |
| T6          | 1200 - 1170    | Secondary Horizontal | L2x2x1/4       | 136              | -0.26  | 6.13                 | 4.2        | Pass        |
| T7          | 1170 - 1140    | Secondary Horizontal | L2x2x1/4       | 156              | -0.14  | 6.13                 | 2.3        | Pass        |
| T8          | 1140 - 1117.58 | Secondary Horizontal | L2x2x1/4       | 219              | -0.24  | 6.13                 | 3.9        | Pass        |
| T42         | 150 - 120      | Secondary Horizontal | L2x2x1/4       | 1631             | -0.30  | 6.31                 | 4.8        | Pass        |
| T43         | 120 - 90       | Secondary Horizontal | L2x2x1/4       | 1675             | -0.27  | 6.31                 | 4.2        | Pass        |
| T44         | 90 - 60        | Secondary Horizontal | L2x2x1/4       | 1729             | -0.45  | 6.31                 | 7.2        | Pass        |
| T45         | 60 - 30        | Secondary Horizontal | L2x2x1/4       | 1771             | -0.67  | 6.31                 | 10.5       | Pass        |
| T2          | 1246 - 1238    | Top Girt             | 2L2x2x3/16x1/4 | 13               | 2.48   | 39.34                | 6.3        | Pass        |
| T3          | 1238 - 1230    | Top Girt             | 2L2x2x3/16x1/4 | 25               | -2.77  | 26.32                | 10.5       | Pass        |
| T4          | 1230 - 1207.58 | Top Girt             | 2L2x2x3/16x1/4 | 40               | -3.43  | 26.42                | 13.0       | Pass        |
| T5          | 1207.58 - 1200 | Top Girt             | 2L2x2x3/16x1/4 | 70               | -7.11  | 26.42                | 26.9       | Pass        |
| T6          | 1200 - 1170    | Top Girt             | 2L2x2x3/16x1/4 | 88               | -3.12  | 26.42                | 11.8       | Pass        |
| T7          | 1170 - 1140    | Top Girt             | 2L2x2x3/16x1/4 | 142              | -1.47  | 26.42                | 5.6        | Pass        |
| T8          | 1140 - 1117.58 | Top Girt             | 2L2x2x3/16x1/4 | 195              | -1.66  | 26.42                | 6.3        | Pass        |
| T9          | 1117.58 - 1110 | Top Girt             | 2L2x2x3/16x1/4 | 234              | -6.48  | 26.42                | 24.5       | Pass        |
| T10         | 1110 - 1080    | Top Girt             | 2L2x2x3/16x1/4 | 249              | -4.14  | 26.32                | 15.7       | Pass        |
| T11         | 1080 - 1050    | Top Girt             | 2L2x2x3/16x1/4 | 291              | -6.23  | 26.53                | 23.5       | Pass        |
| T12         | 1050 - 1020    | Top Girt             | 2L2x2x3/16x1/4 | 333              | -6.89  | 26.63                | 25.9       | Pass        |
| T13         | 1020 - 990     | Top Girt             | 2L2x2x3/16x1/4 | 376              | -4.44  | 26.53                | 16.7       | Pass        |
| T14         | 990 - 960      | Top Girt             | 2L2x2x3/16x1/4 | 418              | -2.74  | 26.53                | 10.3       | Pass        |
| T15         | 960 - 930      | Top Girt             | 2L2x2x3/16x1/4 | 460              | -1.02  | 26.53                | 3.8        | Pass        |
| T16         | 930 - 900      | Top Girt             | 2L2x2x3/16x1/4 | 501              | -2.12  | 26.53                | 8.0        | Pass        |
| T17         | 900 - 870      | Top Girt             | 2L2x2x3/16x1/4 | 543              | -4.31  | 26.63                | 16.2       | Pass        |
| T18         | 870 - 840      | Top Girt             | 2L2x2x3/16x1/4 | 586              | -6.25  | 26.74                | 23.4       | Pass        |
| T19         | 840 - 810      | Top Girt             | 2L2x2x3/16x1/4 | 628              | -5.12  | 26.63                | 19.2       | Pass        |

| Section No. | Elevation (ft) | Component Type | Size           | Critical Element | P (K) | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------|----------------|------------------|-------|----------------------|------------|-------------|
| T20         | 810 - 780      | Top Girt       | 2L2x2x3/16x1/4 | 670              | -3.58 | 26.63                | 13.4       | Pass        |
| T21         | 780 - 750      | Top Girt       | 2L2x2x3/16x1/4 | 710              | -2.00 | 26.63                | 7.5        | Pass        |
| T22         | 750 - 720      | Top Girt       | 2L2x2x3/16x1/4 | 754              | -1.73 | 26.63                | 6.5        | Pass        |
| T23         | 720 - 690      | Top Girt       | 2L2x2x3/16x1/4 | 796              | -3.58 | 26.63                | 13.4       | Pass        |
| T24         | 690 - 660      | Top Girt       | 2L2x2x3/16x1/4 | 838              | -5.22 | 26.84                | 19.4       | Pass        |
| T25         | 660 - 630      | Top Girt       | 2L2x2x3/16x1/4 | 879              | -4.42 | 26.74                | 16.5       | Pass        |
| T26         | 630 - 600      | Top Girt       | 2L2x2x3/16x1/4 | 921              | -2.99 | 26.74                | 11.2       | Pass        |
| T27         | 600 - 570      | Top Girt       | 2L2x2x3/16x1/4 | 963              | -1.46 | 26.74                | 5.5        | Pass        |
| T28         | 570 - 540      | Top Girt       | 2L2x2x3/16x1/4 | 1006             | -1.57 | 26.74                | 5.9        | Pass        |
| T29         | 540 - 510      | Top Girt       | 2L2x2x3/16x1/4 | 1048             | -3.19 | 26.84                | 11.9       | Pass        |
| T30         | 510 - 480      | Top Girt       | 2L2x2x3/16x1/4 | 1090             | -4.75 | 26.84                | 17.7       | Pass        |
| T31         | 480 - 450      | Top Girt       | 2L2x2x3/16x1/4 | 1131             | -3.94 | 26.84                | 14.7       | Pass        |
| T32         | 450 - 420      | Top Girt       | 2L2x2x3/16x1/4 | 1173             | -2.65 | 26.84                | 9.9        | Pass        |
| T33         | 420 - 390      | Top Girt       | 2L2x2x3/16x1/4 | 1216             | -1.11 | 26.84                | 4.1        | Pass        |
| T34         | 390 - 360      | Top Girt       | 2L2x2x3/16x1/4 | 1258             | -2.75 | 26.84                | 10.2       | Pass        |
| T35         | 360 - 330      | Top Girt       | 2L2x2x3/16x1/4 | 1300             | -4.15 | 26.95                | 15.4       | Pass        |
| T36         | 330 - 300      | Top Girt       | 2L2x2x3/16x1/4 | 1341             | -6.79 | 26.95                | 25.2       | Pass        |
| T37         | 300 - 270      | Top Girt       | 2L2x2x3/16x1/4 | 1384             | -3.43 | 26.95                | 12.7       | Pass        |
| T38         | 270 - 240      | Top Girt       | 2L2x2x3/16x1/4 | 1426             | -2.19 | 26.95                | 8.1        | Pass        |
| T39         | 240 - 210      | Top Girt       | 2L2x2x3/16x1/4 | 1467             | -0.97 | 26.95                | 3.6        | Pass        |
| T40         | 210 - 180      | Top Girt       | 2L2x2x3/16x1/4 | 1509             | -1.99 | 26.95                | 7.4        | Pass        |
| T41         | 180 - 150      | Top Girt       | 2L2x2x3/16x1/4 | 1551             | -3.12 | 27.05                | 11.5       | Pass        |
| T42         | 150 - 120      | Top Girt       | 2L2x2x3/16x1/4 | 1592             | -1.52 | 26.95                | 5.7        | Pass        |
| T43         | 120 - 90       | Top Girt       | 2L2x2x3/16x1/4 | 1648             | -1.32 | 26.95                | 4.9        | Pass        |
| T44         | 90 - 60        | Top Girt       | 2L2x2x3/16x1/4 | 1702             | -1.45 | 26.95                | 5.4        | Pass        |
| T45         | 60 - 30        | Top Girt       | 2L2x2x3/16x1/4 | 1756             | -2.40 | 26.95                | 8.9        | Pass        |
| T46         | 30 - 22.5      | Top Girt       | 2L2x2x3/16x1/4 | 1810             | 3.67  | 39.34                | 9.3        | Pass        |
| T48         | 15 - 7.5       | Top Girt       | 2C8x11.5x1/4   | 1834             | 7.13  | 218.29               | 3.3        | Pass        |
| T3          | 1238 - 1230    | Bottom Girt    | 2C8x11.5x3/8   | 28               | -6.38 | 151.83               | 4.2        | Pass        |
| T5          | 1207.58 - 1200 | Bottom Girt    | 2L2x2x3/16x1/4 | 73               | -3.48 | 26.42                | 13.2       | Pass        |
| T6          | 1200 - 1170    | Bottom Girt    | 2L2x2x3/16x1/4 | 91               | -1.70 | 26.42                | 6.4        | Pass        |
| T7          | 1170 - 1140    | Bottom Girt    | 2L2x2x3/16x1/4 | 144              | -1.58 | 26.42                | 6.0        | Pass        |
| T9          | 1117.58 - 1110 | Bottom Girt    | 2L2x2x3/16x1/4 | 237              | -3.83 | 26.42                | 14.5       | Pass        |
| T10         | 1110 - 1080    | Bottom Girt    | 2L2x2x3/16x1/4 | 252              | -5.78 | 26.32                | 22.0       | Pass        |
| T11         | 1080 - 1050    | Bottom Girt    | 2L2x2x3/16x1/4 | 294              | -6.98 | 26.53                | 26.3       | Pass        |
| T12         | 1050 - 1020    | Bottom Girt    | 2L2x2x3/16x1/4 | 337              | -4.73 | 26.63                | 17.8       | Pass        |
| T13         | 1020 - 990     | Bottom Girt    | 2L2x2x3/16x1/4 | 379              | -2.97 | 26.53                | 11.2       | Pass        |
| T14         | 990 - 960      | Bottom Girt    | 2L2x2x3/16x1/4 | 421              | -1.26 | 26.53                | 4.7        | Pass        |
| T15         | 960 - 930      | Bottom Girt    | 2L2x2x3/16x1/4 | 462              | -1.71 | 26.53                | 6.4        | Pass        |
| T16         | 930 - 900      | Bottom Girt    | 2L2x2x3/16x1/4 | 504              | -3.60 | 26.53                | 13.6       | Pass        |
| T17         | 900 - 870      | Bottom Girt    | 2L2x2x3/16x1/4 | 547              | -5.45 | 26.63                | 20.5       | Pass        |
| T18         | 870 - 840      | Bottom Girt    | 2L2x2x3/16x1/4 | 589              | -5.50 | 26.74                | 20.6       | Pass        |
| T19         | 840 - 810      | Bottom Girt    | 2L2x2x3/16x1/4 | 631              | -4.01 | 26.63                | 15.1       | Pass        |
| T20         | 810 - 780      | Bottom Girt    | 2L2x2x3/16x1/4 | 671              | -2.41 | 26.63                | 9.0        | Pass        |

| Section No. | Elevation (ft) | Component Type | Size           | Critical Element | P (K) | $\phi P_{allow}$ (K) | % Capacity | Pass / Fail |
|-------------|----------------|----------------|----------------|------------------|-------|----------------------|------------|-------------|
| T21         | 780 - 750      | Bottom Girt    | 2L2x2x3/16x1/4 | 715              | -1.41 | 26.63                | 5.3        | Pass        |
| T22         | 750 - 720      | Bottom Girt    | 2L2x2x3/16x1/4 | 757              | -3.26 | 26.63                | 12.3       | Pass        |
| T23         | 720 - 690      | Bottom Girt    | 2L2x2x3/16x1/4 | 799              | -4.94 | 26.63                | 18.6       | Pass        |
| T24         | 690 - 660      | Bottom Girt    | 2L2x2x3/16x1/4 | 841              | -4.22 | 26.84                | 15.7       | Pass        |
| T25         | 660 - 630      | Bottom Girt    | 2L2x2x3/16x1/4 | 882              | -3.22 | 26.74                | 12.1       | Pass        |
| T26         | 630 - 600      | Bottom Girt    | 2L2x2x3/16x1/4 | 924              | -1.67 | 26.74                | 6.2        | Pass        |
| T27         | 600 - 570      | Bottom Girt    | 2L2x2x3/16x1/4 | 967              | -1.35 | 26.74                | 5.1        | Pass        |
| T28         | 570 - 540      | Bottom Girt    | 2L2x2x3/16x1/4 | 1009             | -2.97 | 26.74                | 11.1       | Pass        |
| T29         | 540 - 510      | Bottom Girt    | 2L2x2x3/16x1/4 | 1051             | -4.62 | 26.84                | 17.2       | Pass        |
| T30         | 510 - 480      | Bottom Girt    | 2L2x2x3/16x1/4 | 1092             | -3.64 | 26.84                | 13.6       | Pass        |
| T31         | 480 - 450      | Bottom Girt    | 2L2x2x3/16x1/4 | 1134             | -2.72 | 26.84                | 10.1       | Pass        |
| T32         | 450 - 420      | Bottom Girt    | 2L2x2x3/16x1/4 | 1175             | -1.05 | 26.84                | 3.9        | Pass        |
| T33         | 420 - 390      | Bottom Girt    | 2L2x2x3/16x1/4 | 1219             | -2.45 | 26.84                | 9.1        | Pass        |
| T34         | 390 - 360      | Bottom Girt    | 2L2x2x3/16x1/4 | 1261             | -3.70 | 26.84                | 13.8       | Pass        |
| T35         | 360 - 330      | Bottom Girt    | 2L2x2x3/16x1/4 | 1302             | -6.43 | 26.95                | 23.9       | Pass        |
| T36         | 330 - 300      | Bottom Girt    | 2L2x2x3/16x1/4 | 1345             | -3.46 | 26.95                | 12.8       | Pass        |
| T37         | 300 - 270      | Bottom Girt    | 2L2x2x3/16x1/4 | 1387             | -2.13 | 26.95                | 7.9        | Pass        |
| T38         | 270 - 240      | Bottom Girt    | 2L2x2x3/16x1/4 | 1428             | -0.94 | 26.95                | 3.5        | Pass        |
| T39         | 240 - 210      | Bottom Girt    | 2L2x2x3/16x1/4 | 1470             | -1.83 | 26.95                | 6.8        | Pass        |
| T40         | 210 - 180      | Bottom Girt    | 2L2x2x3/16x1/4 | 1512             | -3.01 | 26.95                | 11.2       | Pass        |
| T41         | 180 - 150      | Bottom Girt    | 2L2x2x3/16x1/4 | 1553             | -1.58 | 27.05                | 5.8        | Pass        |
| T42         | 150 - 120      | Bottom Girt    | 2L2x2x3/16x1/4 | 1597             | -1.31 | 26.95                | 4.9        | Pass        |
| T43         | 120 - 90       | Bottom Girt    | 2L2x2x3/16x1/4 | 1651             | -1.40 | 26.95                | 5.2        | Pass        |
| T44         | 90 - 60        | Bottom Girt    | 2L2x2x3/16x1/4 | 1705             | -2.47 | 26.95                | 9.2        | Pass        |
| T45         | 60 - 30        | Bottom Girt    | 2L2x2x3/16x1/4 | 1759             | 2.67  | 39.34                | 6.8        | Pass        |
| T1          | 1247.5 - 1246  | Guy A@1246.75  | 1 1/16         | 1855             | 57.47 | 86.94                | 66.1       | Pass        |
| T12         | 1050 - 1020    | Guy A@1042.42  | 1 3/16         | 1858             | 75.82 | 108.36               | 70.0       | Pass        |
| T18         | 870 - 840      | Guy A@855      | 1 1/16         | 1861             | 60.35 | 86.94                | 69.4       | Pass        |
| T24         | 690 - 660      | Guy A@667.583  | 1              | 1864             | 49.09 | 76.86                | 63.9       | Pass        |
| T30         | 510 - 480      | Guy A@487.583  | 1 1/16         | 1867             | 59.35 | 86.94                | 68.3       | Pass        |
| T36         | 330 - 300      | Guy A@315      | 1              | 1870             | 47.20 | 76.86                | 61.4       | Pass        |
| T41         | 180 - 150      | Guy A@157.583  | 13/16          | 1873             | 20.33 | 50.40                | 40.3       | Pass        |
| T1          | 1247.5 - 1246  | Guy B@1246.75  | 1 1/16         | 1854             | 57.43 | 86.94                | 66.1       | Pass        |
| T12         | 1050 - 1020    | Guy B@1042.42  | 1 3/16         | 1857             | 75.47 | 108.36               | 69.7       | Pass        |
| T18         | 870 - 840      | Guy B@855      | 1 1/16         | 1860             | 60.09 | 86.94                | 69.1       | Pass        |
| T24         | 690 - 660      | Guy B@667.583  | 1              | 1863             | 49.26 | 76.86                | 64.1       | Pass        |
| T30         | 510 - 480      | Guy B@487.583  | 1 1/16         | 1866             | 60.10 | 86.94                | 69.1       | Pass        |
| T36         | 330 - 300      | Guy B@315      | 1              | 1869             | 48.33 | 76.86                | 62.9       | Pass        |
| T41         | 180 - 150      | Guy B@157.583  | 13/16          | 1872             | 20.57 | 50.40                | 40.8       | Pass        |
| T1          | 1247.5 - 1246  | Guy C@1246.75  | 1 1/16         | 1853             | 57.08 | 86.94                | 65.7       | Pass        |
| T12         | 1050 - 1020    | Guy C@1042.42  | 1 3/16         | 1856             | 75.35 | 108.36               | 69.5       | Pass        |
| T18         | 870 - 840      | Guy C@855      | 1 1/16         | 1859             | 60.20 | 86.94                | 69.2       | Pass        |
| T24         | 690 - 660      | Guy C@667.583  | 1              | 1862             | 48.78 | 76.86                | 63.5       | Pass        |
| T30         | 510 - 480      | Guy C@487.583  | 1 1/16         | 1865             | 59.43 | 86.94                | 68.4       | Pass        |

| Section No. | Elevation (ft) | Component Type           | Size         | Critical Element | P (K) | $\phi P_{allow}$ (K)       | % Capacity   | Pass / Fail |
|-------------|----------------|--------------------------|--------------|------------------|-------|----------------------------|--------------|-------------|
| T36         | 330 - 300      | Guy C@315                | 1            | 1868             | 45.84 | 76.86                      | 59.6         | Pass        |
| T41         | 180 - 150      | Guy C@157.583            | 13/16        | 1871             | 20.11 | 50.40                      | 39.9         | Pass        |
| T1          | 1247.5 - 1246  | Top Guy Pull-Off@1246.75 | W18x40       | 5                | 26.92 | 401.44                     | 6.7          | Pass        |
| T12         | 1050 - 1020    | Top Guy Pull-Off@1042.42 | 2C9x13.4x1/4 | 362              | 23.27 | 254.03                     | 9.2          | Pass        |
| T18         | 870 - 840      | Top Guy Pull-Off@855     | 2C9x13.4x1/4 | 605              | 21.51 | 254.03                     | 8.5          | Pass        |
| T24         | 690 - 660      | Top Guy Pull-Off@667.583 | 2C9x13.4x1/4 | 850              | 21.01 | 254.03                     | 8.3          | Pass        |
| T30         | 510 - 480      | Top Guy Pull-Off@487.583 | 2C9x13.4x1/4 | 1102             | 16.75 | 254.03                     | 6.6          | Pass        |
| T36         | 330 - 300      | Top Guy Pull-Off@315     | 2C9x13.4x1/4 | 1363             | 17.10 | 254.03                     | 6.7          | Pass        |
| T41         | 180 - 150      | Top Guy Pull-Off@157.583 | 2C9x13.4x1/4 | 1562             | 9.45  | 254.03                     | 3.7          | Pass        |
|             |                |                          |              |                  |       |                            | Summary      |             |
|             |                |                          |              |                  |       | Leg (T10)                  | 92.6         | Pass        |
|             |                |                          |              |                  |       | Diagonal (T17)             | 104.8        | Fail        |
|             |                |                          |              |                  |       | Horizontal (T11)           | 49.2         | Pass        |
|             |                |                          |              |                  |       | Secondary Horizontal (T45) | 10.5         | Pass        |
|             |                |                          |              |                  |       | Top Girt (T5)              | 26.9         | Pass        |
|             |                |                          |              |                  |       | Bottom Girt (T11)          | 26.3         | Pass        |
|             |                |                          |              |                  |       | Guy A (T12)                | 70.0         | Pass        |
|             |                |                          |              |                  |       | Guy B (T12)                | 69.7         | Pass        |
|             |                |                          |              |                  |       | Guy C (T12)                | 69.5         | Pass        |
|             |                |                          |              |                  |       | Top Guy Pull-Off (T12)     | 9.2          | Pass        |
|             |                |                          |              |                  |       | Bolt Checks                | 77.4         | Pass        |
|             |                |                          |              |                  |       | <b>RATING =</b>            | <b>104.8</b> | <b>Fail</b> |

**Table 4 - Tower Component Stresses vs. Capacity**

| Notes | Component              | Elevation (ft) | % Capacity | Pass / Fail |
|-------|------------------------|----------------|------------|-------------|
| 2,3   | Inner Guy Anchor Shaft | -              | 50.1       | Pass        |
| 2,3   | Outer Guy Anchor Shaft | -              | 77.1       | Pass        |

|                                                                 |               |
|-----------------------------------------------------------------|---------------|
| <b>Structure Rating (max from all components)<sup>2</sup> =</b> | <b>104.8%</b> |
|-----------------------------------------------------------------|---------------|

Notes:

- 1) This analysis considers all tower and foundation components with a rating higher than 95% capacity to be insufficient, per direction from the tower owner.
- 2) Rating per TIA-222-H, Section 15.5
- 3) See additional documentation in "Appendix B - Additional Calculations" for calculations supporting the % capacity listed.

**Table 5 - Dish Twist/Sway Results for 60 mph Service Wind Speed**

| Elevation<br>(ft) | Dish Model                         | Beam Deflection |              |              |
|-------------------|------------------------------------|-----------------|--------------|--------------|
|                   |                                    | Deflection (in) | Tilt (deg)   | Twist (deg)  |
| <b>778</b>        | <b><i>Kathrein Scala PR-TV</i></b> | <b>30.002</b>   | <b>0.144</b> | <b>2.407</b> |
| 392               | 8' Dia. Dish w/ Radome             | 9.504           | 0.194        | 1.511        |
| 348               | 8' Dia. Dish w/ Radome             | 7.407           | 0.179        | 1.375        |

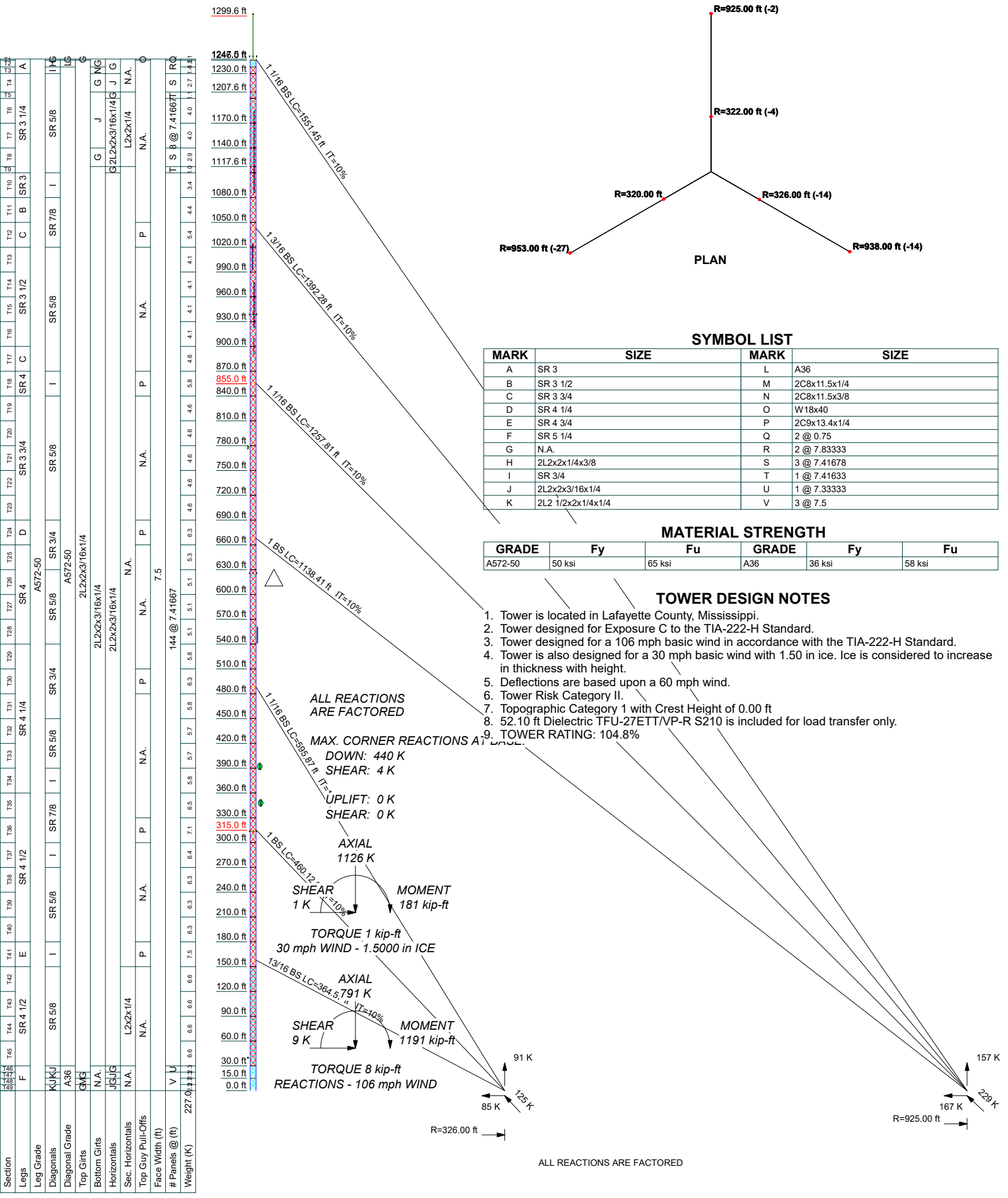
#### 4.1) Recommendations

- 1) If the load differs from that described in Table 1 of this report or the provisions of this analysis are found to be invalid, another structural analysis should be performed.
- 2) This analysis assumes that the issues listed in the Maintenance and Condition Assessment Report referenced in Table 2 have been corrected.
- 3) TEP did not have sufficient information to perform a foundation analysis. Provide TEP with foundation drawings and a geotechnical report for this site in order to determine the substructure capacity. If this information is not available, TEP recommends a foundation mapping and geotechnical investigation.
- 4) Prior to acceptance of changed configuration a comprehensive structural analysis shall be performed in order to determine the overall stability and the adequacy of the structural members, foundations and connections.
- 5) The tower and/or its foundation does not have sufficient capacity to carry the proposed load configuration. Modifications will be required to bring the tower and/or foundation into compliance with the ANSI/TIA-222-H standard and the tower owner's specifications for the proposed load configuration. The following components require modifications:
  - a) Diagonal bracing from 810' to 840' and 870' to 900'
  - b) Possible foundation modifications

Further engineering and detailing is required to design the necessary modifications.
- 6) A Professional Engineer licensed in the state of Mississippi shall issue design drawings for the above modifications. This analysis report is not a construction document.

## **APPENDIX A**

### **TNX TOWER OUTPUT**



| SYMBOL LIST |                   |      |              |
|-------------|-------------------|------|--------------|
| MARK        | SIZE              | MARK | SIZE         |
| A           | SR 3              | L    | A36          |
| B           | SR 3 1/2          | M    | 2C8x11.5x1/4 |
| C           | SR 3 3/4          | N    | 2C8x11.5x3/8 |
| D           | SR 4 1/4          | O    | W18x40       |
| E           | SR 4 3/4          | P    | 2C9x13.4x1/4 |
| F           | SR 5 1/4          | Q    | 2 @ 0.75     |
| G           | N.A.              | R    | 2 @ 7.83333  |
| H           | 2L2x2x1/4x3/8     | S    | 3 @ 7.41678  |
| I           | SR 3/4            | T    | 1 @ 7.41633  |
| J           | 2L2x2x3/16x1/4    | U    | 1 @ 7.33333  |
| K           | 2L2 1/2x2x1/4x1/4 | V    | 3 @ 7.5      |

| MATERIAL STRENGTH |        |        |       |        |        |
|-------------------|--------|--------|-------|--------|--------|
| GRADE             | Fy     | Fu     | GRADE | Fy     | Fu     |
| A572-50           | 50 ksi | 65 ksi | A36   | 36 ksi | 58 ksi |

- TOWER DESIGN NOTES**
1. Tower is located in Lafayette County, Mississippi.
  2. Tower designed for Exposure C to the TIA-222-H Standard.
  3. Tower designed for a 106 mph basic wind in accordance with the TIA-222-H Standard.
  4. Tower is also designed for a 30 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
  5. Deflections are based upon a 60 mph wind.
  6. Tower Risk Category II.
  7. Topographic Category 1 with Crest Height of 0.00 ft
  8. 52.10 ft Dielectric TFU-27ETT/VP-R S210 is included for load transfer only.
  9. TOWER RATING: 104.8%



**Tower Engineering Professionals**  
326 Tryon Road  
Raleigh, NC 27603  
Phone: (919) 661-6351  
FAX: (919) 661-6350

|                                                                                                                                 |                         |                    |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------|
| Job: <b>WMAV Oxford (ASR# 1041044)</b>                                                                                          |                         |                    |
| Project: <b>TEP# 19780.814207</b>                                                                                               |                         |                    |
| Client: <b>MPB</b>                                                                                                              | Drawn by: <b>elatta</b> | App'd:             |
| Code: <b>TIA-222-H</b>                                                                                                          | Date: <b>03/27/23</b>   | Scale: <b>NTS</b>  |
| Path: <small>G:\Shared drives\19411 - 19802\19780P-38509- L&amp;I\2023 - WMAV Structural Analysis\Tower\WMAV Oxford.dwg</small> |                         | Dwg No. <b>E-1</b> |

|                                                                                                                                                                    |                                          |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br>1 of 77           |
|                                                                                                                                                                    | <b>Project</b><br>TEP# 19780.814207      | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b><br>MPB                     | <b>Designed by</b><br>elatta     |

## Tower Input Data

The main tower is a 3x guyed tower with an overall height of 1247.50 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 7.50 ft at the top and 7.50 ft at the base.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Lafayette County, Mississippi.

Tower base elevation above sea level: 460.00 ft.

Basic wind speed of 106 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.5000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 30 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.

Safety factor used in guy design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used:  $K_{es}(Fw) = 0.95$ ,  $K_{es}(ti) = 0.85$ .

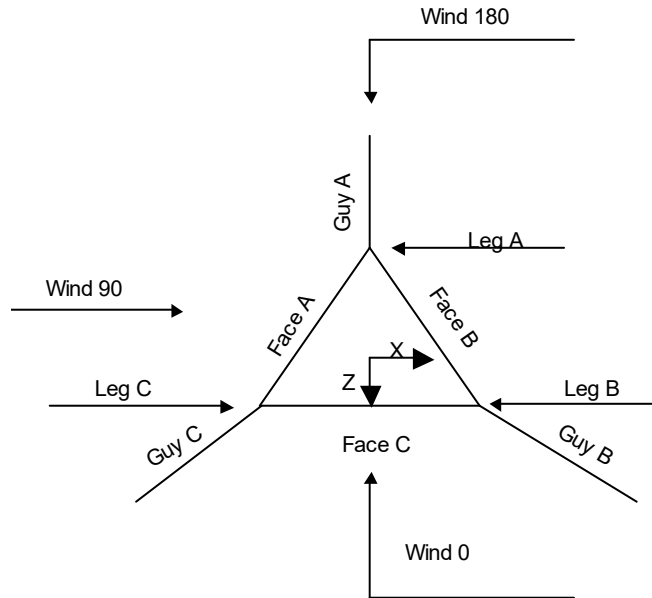
Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

|                                     |                                      |                                         |
|-------------------------------------|--------------------------------------|-----------------------------------------|
| Consider Moments - Legs             | Distribute Leg Loads As Uniform      | Use ASCE 10 X-Brace Ly Rules            |
| Consider Moments - Horizontals      | Assume Legs Pinned                   | Calculate Redundant Bracing Forces      |
| Consider Moments - Diagonals        | √ Assume Rigid Index Plate           | Ignore Redundant Members in FEA         |
| Use Moment Magnification            | √ Use Clear Spans For Wind Area      | SR Leg Bolts Resist Compression         |
| √ Use Code Stress Ratios            | √ Use Clear Spans For KL/r           | All Leg Panels Have Same Allowable      |
| √ Use Code Safety Factors - Guys    | √ Retension Guys To Initial Tension  | Offset Girt At Foundation               |
| Escalate Ice                        | √ Bypass Mast Stability Checks       | √ Consider Feed Line Torque             |
| Always Use Max Kz                   | √ Use Azimuth Dish Coefficients      | √ Include Angle Block Shear Check       |
| Use Special Wind Profile            | √ Project Wind Area of Appurt.       | Use TIA-222-H Bracing Resist. Exemption |
| Include Bolts In Member Capacity    | √ Autocalc Torque Arm Areas          | Use TIA-222-H Tension Splice Exemption  |
| Leg Bolts Are At Top Of Section     | Add IBC .6D+W Combination            | Poles                                   |
| Secondary Horizontal Braces Leg     | √ Sort Capacity Reports By Component | Include Shear-Torsion Interaction       |
| Use Diamond Inner Bracing (4 Sided) | √ Triangulate Diamond Inner Bracing  | Always Use Sub-Critical Flow            |
| √ SR Members Have Cut Ends          | Treat Feed Line Bundles As Cylinder  | Use Top Mounted Sockets                 |
| SR Members Are Concentric           | Ignore KL/ry For 60 Deg. Angle Legs  | Pole Without Linear Attachments         |
|                                     |                                      | Pole With Shroud Or No Appurtenances    |
|                                     |                                      | Outside and Inside Corner Radii Are     |
|                                     |                                      | Known                                   |

|                                                                                                                                                      |                                          |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br>2 of 77           |
|                                                                                                                                                      | <b>Project</b><br>TEP# 19780.814207      | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b><br>MPB                     | <b>Designed by</b><br>elatta     |



**Corner & Starmount Guyed Tower**

## Tower Section Geometry

| Tower Section | Tower Elevation | Assembly Database | Description | Section Width | Number of Sections | Section Length |
|---------------|-----------------|-------------------|-------------|---------------|--------------------|----------------|
|               | ft              |                   |             | ft            |                    | ft             |
| T1            | 1247.50-1246.00 |                   |             | 7.50          | 1                  | 1.50           |
| T2            | 1246.00-1238.00 |                   |             | 7.50          | 1                  | 8.00           |
| T3            | 1238.00-1230.00 |                   |             | 7.50          | 1                  | 8.00           |
| T4            | 1230.00-1207.58 |                   |             | 7.50          | 1                  | 22.42          |
| T5            | 1207.58-1200.00 |                   |             | 7.50          | 1                  | 7.58           |
| T6            | 1200.00-1170.00 |                   |             | 7.50          | 1                  | 30.00          |
| T7            | 1170.00-1140.00 |                   |             | 7.50          | 1                  | 30.00          |
| T8            | 1140.00-1117.58 |                   |             | 7.50          | 1                  | 22.42          |
| T9            | 1117.58-1110.00 |                   |             | 7.50          | 1                  | 7.58           |
| T10           | 1110.00-1080.00 |                   |             | 7.50          | 1                  | 30.00          |
| T11           | 1080.00-1050.00 |                   |             | 7.50          | 1                  | 30.00          |
| T12           | 1050.00-1020.00 |                   |             | 7.50          | 1                  | 30.00          |
| T13           | 1020.00-990.00  |                   |             | 7.50          | 1                  | 30.00          |
| T14           | 990.00-960.00   |                   |             | 7.50          | 1                  | 30.00          |
| T15           | 960.00-930.00   |                   |             | 7.50          | 1                  | 30.00          |
| T16           | 930.00-900.00   |                   |             | 7.50          | 1                  | 30.00          |
| T17           | 900.00-870.00   |                   |             | 7.50          | 1                  | 30.00          |
| T18           | 870.00-840.00   |                   |             | 7.50          | 1                  | 30.00          |
| T19           | 840.00-810.00   |                   |             | 7.50          | 1                  | 30.00          |
| T20           | 810.00-780.00   |                   |             | 7.50          | 1                  | 30.00          |
| T21           | 780.00-750.00   |                   |             | 7.50          | 1                  | 30.00          |
| T22           | 750.00-720.00   |                   |             | 7.50          | 1                  | 30.00          |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 3 of 77           |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Tower Elevation</i> | <i>Assembly Database</i> | <i>Description</i> | <i>Section Width</i> | <i>Number of Sections</i> | <i>Section Length</i> |
|----------------------|------------------------|--------------------------|--------------------|----------------------|---------------------------|-----------------------|
|                      | <i>ft</i>              |                          |                    | <i>ft</i>            |                           | <i>ft</i>             |
| T23                  | 720.00-690.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T24                  | 690.00-660.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T25                  | 660.00-630.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T26                  | 630.00-600.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T27                  | 600.00-570.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T28                  | 570.00-540.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T29                  | 540.00-510.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T30                  | 510.00-480.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T31                  | 480.00-450.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T32                  | 450.00-420.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T33                  | 420.00-390.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T34                  | 390.00-360.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T35                  | 360.00-330.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T36                  | 330.00-300.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T37                  | 300.00-270.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T38                  | 270.00-240.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T39                  | 240.00-210.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T40                  | 210.00-180.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T41                  | 180.00-150.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T42                  | 150.00-120.00          |                          |                    | 7.50                 | 1                         | 30.00                 |
| T43                  | 120.00-90.00           |                          |                    | 7.50                 | 1                         | 30.00                 |
| T44                  | 90.00-60.00            |                          |                    | 7.50                 | 1                         | 30.00                 |
| T45                  | 60.00-30.00            |                          |                    | 7.50                 | 1                         | 30.00                 |
| T46                  | 30.00-22.50            |                          |                    | 7.50                 | 1                         | 7.50                  |
| T47                  | 22.50-15.00            |                          |                    | 7.50                 | 1                         | 7.50                  |
| T48                  | 15.00-7.50             |                          |                    | 7.50                 | 1                         | 7.50                  |
| T49                  | 7.50-0.00              |                          |                    | 7.50                 | 1                         | 7.50                  |

### Tower Section Geometry (cont'd)

| <i>Tower Section</i> | <i>Tower Elevation</i> | <i>Diagonal Spacing</i> | <i>Bracing Type</i> | <i>Has K Brace End Panels</i> | <i>Has Horizontals</i> | <i>Top Girt Offset</i> | <i>Bottom Girt Offset</i> |
|----------------------|------------------------|-------------------------|---------------------|-------------------------------|------------------------|------------------------|---------------------------|
|                      | <i>ft</i>              | <i>ft</i>               |                     |                               |                        | <i>in</i>              | <i>in</i>                 |
| T1                   | 1247.50-1246.00        | 0.75                    | X Brace             | No                            | Yes                    | 9.0000                 | 0.0000                    |
| T2                   | 1246.00-1238.00        | 7.83                    | X Brace             | No                            | Yes                    | 2.0000                 | 0.0000                    |
| T3                   | 1238.00-1230.00        | 7.83                    | TX Brace            | No                            | Yes                    | 0.0000                 | 2.0000                    |
| T4                   | 1230.00-1207.58        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 0.0000                    |
| T5                   | 1207.58-1200.00        | 7.42                    | TX Brace            | No                            | Yes                    | 0.0000                 | 2.0000                    |
| T6                   | 1200.00-1170.00        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T7                   | 1170.00-1140.00        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T8                   | 1140.00-1117.58        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 0.0000                    |
| T9                   | 1117.58-1110.00        | 7.42                    | TX Brace            | No                            | Yes                    | 0.0000                 | 2.0000                    |
| T10                  | 1110.00-1080.00        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T11                  | 1080.00-1050.00        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T12                  | 1050.00-1020.00        | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T13                  | 1020.00-990.00         | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T14                  | 990.00-960.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T15                  | 960.00-930.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T16                  | 930.00-900.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T17                  | 900.00-870.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T18                  | 870.00-840.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T19                  | 840.00-810.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T20                  | 810.00-780.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T21                  | 780.00-750.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T22                  | 750.00-720.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 4 of 77           |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Tower Elevation</i> | <i>Diagonal Spacing</i> | <i>Bracing Type</i> | <i>Has K Brace End Panels</i> | <i>Has Horizontals</i> | <i>Top Girt Offset</i> | <i>Bottom Girt Offset</i> |
|----------------------|------------------------|-------------------------|---------------------|-------------------------------|------------------------|------------------------|---------------------------|
|                      | <i>ft</i>              | <i>ft</i>               |                     |                               |                        | <i>in</i>              | <i>in</i>                 |
| T23                  | 720.00-690.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T24                  | 690.00-660.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T25                  | 660.00-630.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T26                  | 630.00-600.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T27                  | 600.00-570.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T28                  | 570.00-540.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T29                  | 540.00-510.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T30                  | 510.00-480.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T31                  | 480.00-450.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T32                  | 450.00-420.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T33                  | 420.00-390.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T34                  | 390.00-360.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T35                  | 360.00-330.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T36                  | 330.00-300.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T37                  | 300.00-270.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T38                  | 270.00-240.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T39                  | 240.00-210.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T40                  | 210.00-180.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T41                  | 180.00-150.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T42                  | 150.00-120.00          | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T43                  | 120.00-90.00           | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T44                  | 90.00-60.00            | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T45                  | 60.00-30.00            | 7.42                    | TX Brace            | No                            | Yes                    | 2.0000                 | 2.0000                    |
| T46                  | 30.00-22.50            | 7.33                    | X Brace             | No                            | No                     | 2.0000                 | 0.0000                    |
| T47                  | 22.50-15.00            | 7.50                    | K Brace Down        | No                            | Yes                    | 0.0000                 | 0.0000                    |
| T48                  | 15.00-7.50             | 7.50                    | X Brace             | No                            | No                     | 0.0000                 | 0.0000                    |
| T49                  | 7.50-0.00              | 7.50                    | K Brace Down        | No                            | Yes                    | 0.0000                 | 0.0000                    |

### Tower Section Geometry (cont'd)

| <i>Tower Elevation</i> | <i>Leg Type</i> | <i>Leg Size</i> | <i>Leg Grade</i> | <i>Diagonal Type</i> | <i>Diagonal Size</i> | <i>Diagonal Grade</i> |
|------------------------|-----------------|-----------------|------------------|----------------------|----------------------|-----------------------|
| <i>ft</i>              |                 |                 |                  |                      |                      |                       |
| T1 1247.50-1246.00     | Solid Round     | 3               | A572-50 (50 ksi) | Double Equal Angle   |                      | A36 (36 ksi)          |
| T2 1246.00-1238.00     | Solid Round     | 3               | A572-50 (50 ksi) | Double Equal Angle   | 2L2x2x1/4x3/8        | A36 (36 ksi)          |
| T3 1238.00-1230.00     | Solid Round     | 3               | A572-50 (50 ksi) | Solid Round          | 3/4                  | A572-50 (50 ksi)      |
| T4 1230.00-1207.58     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T5 1207.58-1200.00     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T6 1200.00-1170.00     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T7 1170.00-1140.00     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T8 1140.00-1117.58     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T9 1117.58-1110.00     | Solid Round     | 3 1/4           | A572-50 (50 ksi) | Solid Round          | 5/8                  | A572-50 (50 ksi)      |
| T10 1110.00-1080.00    | Solid Round     | 3               | A572-50 (50 ksi) | Solid Round          | 3/4                  | A572-50 (50 ksi)      |
| T11 1080.00-1050.00    | Solid Round     | 3 1/2           | A572-50 (50 ksi) | Solid Round          | 7/8                  | A572-50 (50 ksi)      |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 5 of 77           |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower<br/>Elevation<br/>ft</i> | <i>Leg<br/>Type</i> | <i>Leg<br/>Size</i> | <i>Leg<br/>Grade</i> | <i>Diagonal<br/>Type</i> | <i>Diagonal<br/>Size</i> | <i>Diagonal<br/>Grade</i> |
|-----------------------------------|---------------------|---------------------|----------------------|--------------------------|--------------------------|---------------------------|
| T12 1050.00-1020.00               | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 7/8                      | A572-50<br>(50 ksi)       |
| T13 1020.00-990.00                | Solid Round         | 3 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T14 990.00-960.00                 | Solid Round         | 3 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T15 960.00-930.00                 | Solid Round         | 3 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T16 930.00-900.00                 | Solid Round         | 3 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T17 900.00-870.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T18 870.00-840.00                 | Solid Round         | 4                   | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T19 840.00-810.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T20 810.00-780.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T21 780.00-750.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T22 750.00-720.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T23 720.00-690.00                 | Solid Round         | 3 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T24 690.00-660.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T25 660.00-630.00                 | Solid Round         | 4                   | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T26 630.00-600.00                 | Solid Round         | 4                   | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T27 600.00-570.00                 | Solid Round         | 4                   | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T28 570.00-540.00                 | Solid Round         | 4                   | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T29 540.00-510.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T30 510.00-480.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T31 480.00-450.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T32 450.00-420.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T33 420.00-390.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T34 390.00-360.00                 | Solid Round         | 4 1/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T35 360.00-330.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 7/8                      | A572-50<br>(50 ksi)       |
| T36 330.00-300.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 7/8                      | A572-50<br>(50 ksi)       |
| T37 300.00-270.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T38 270.00-240.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T39 240.00-210.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T40 210.00-180.00                 | Solid Round         | 4 1/2               | A572-50<br>(50 ksi)  | Solid Round              | 5/8                      | A572-50<br>(50 ksi)       |
| T41 180.00-150.00                 | Solid Round         | 4 3/4               | A572-50<br>(50 ksi)  | Solid Round              | 3/4                      | A572-50<br>(50 ksi)       |
| T42 150.00-120.00                 | Solid Round         | 4 1/2               | A572-50              | Solid Round              | 5/8                      | A572-50                   |

|                                                                                                                                                                    |         |                            |             |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|-------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page        | 6 of 77           |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by | elatta            |

| <i>Tower Elevation<br/>ft</i> | <i>Leg Type</i> | <i>Leg Size</i> | <i>Leg Grade</i>    | <i>Diagonal Type</i> | <i>Diagonal Size</i> | <i>Diagonal Grade</i> |
|-------------------------------|-----------------|-----------------|---------------------|----------------------|----------------------|-----------------------|
| T43 120.00-90.00              | Solid Round     | 4 1/2           | (50 ksi)<br>A572-50 | Solid Round          | 5/8                  | (50 ksi)<br>A572-50   |
| T44 90.00-60.00               | Solid Round     | 4 1/2           | (50 ksi)<br>A572-50 | Solid Round          | 5/8                  | (50 ksi)<br>A572-50   |
| T45 60.00-30.00               | Solid Round     | 4 1/2           | (50 ksi)<br>A572-50 | Solid Round          | 5/8                  | (50 ksi)<br>A572-50   |
| T46 30.00-22.50               | Solid Round     | 5 1/4           | (50 ksi)<br>A572-50 | Double Equal Angle   | 2L2x2x3/16x1/4       | (50 ksi)<br>A36       |
| T47 22.50-15.00               | Solid Round     | 5 1/4           | (50 ksi)<br>A572-50 | Double Angle         | 2L2 1/2x2x1/4x1/4    | (36 ksi)<br>A36       |
| T48 15.00-7.50                | Solid Round     | 5 1/4           | (50 ksi)<br>A572-50 | Double Equal Angle   | 2L2x2x3/16x1/4       | (36 ksi)<br>A36       |
| T49 7.50-0.00                 | Solid Round     | 5 1/4           | (50 ksi)<br>A572-50 | Double Angle         | 2L2 1/2x2x1/4x1/4    | (36 ksi)<br>A36       |

### Tower Section Geometry (cont'd)

| <i>Tower Elevation<br/>ft</i> | <i>Top Girt Type</i> | <i>Top Girt Size</i> | <i>Top Girt Grade</i> | <i>Bottom Girt Type</i> | <i>Bottom Girt Size</i> | <i>Bottom Girt Grade</i> |
|-------------------------------|----------------------|----------------------|-----------------------|-------------------------|-------------------------|--------------------------|
| T2 1246.00-1238.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      |                         | A36<br>(36 ksi)          |
| T3 1238.00-1230.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Channel          | 2C8x11.5x3/8            | A36<br>(36 ksi)          |
| T4 1230.00-1207.58            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      |                         | A36<br>(36 ksi)          |
| T5 1207.58-1200.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T6 1200.00-1170.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T7 1170.00-1140.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T8 1140.00-1117.58            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      |                         | A36<br>(36 ksi)          |
| T9 1117.58-1110.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T10 1110.00-1080.00           | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T11 1080.00-1050.00           | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T12 1050.00-1020.00           | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T13 1020.00-990.00            | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T14 990.00-960.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T15 960.00-930.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T16 930.00-900.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T17 900.00-870.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T18 870.00-840.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T19 840.00-810.00             | Double Equal Angle   | 2L2x2x3/16x1/4       | A36<br>(36 ksi)       | Double Equal Angle      | 2L2x2x3/16x1/4          | A36<br>(36 ksi)          |
| T20 810.00-780.00             | Double Equal         | 2L2x2x3/16x1/4       | A36                   | Double Equal            | 2L2x2x3/16x1/4          | A36                      |

|                                                                                                                                                                    |                                              |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br><br>7 of 77           |
|                                                                                                                                                                    | <b>Project</b><br><br>TEP# 19780.814207      | <b>Date</b><br><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b><br><br>MPB                     | <b>Designed by</b><br><br>elatta     |

| <i>Tower<br/>Elevation<br/>ft</i> | <i>Top Girt<br/>Type</i> | <i>Top Girt<br/>Size</i> | <i>Top Girt<br/>Grade</i> | <i>Bottom Girt<br/>Type</i> | <i>Bottom Girt<br/>Size</i> | <i>Bottom Girt<br/>Grade</i> |
|-----------------------------------|--------------------------|--------------------------|---------------------------|-----------------------------|-----------------------------|------------------------------|
| T21 780.00-750.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T22 750.00-720.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T23 720.00-690.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T24 690.00-660.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T25 660.00-630.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T26 630.00-600.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T27 600.00-570.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T28 570.00-540.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T29 540.00-510.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T30 510.00-480.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T31 480.00-450.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T32 450.00-420.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T33 420.00-390.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T34 390.00-360.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T35 360.00-330.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T36 330.00-300.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T37 300.00-270.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T38 270.00-240.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T39 240.00-210.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T40 210.00-180.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T41 180.00-150.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T42 150.00-120.00                 | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T43 120.00-90.00                  | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T44 90.00-60.00                   | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T45 60.00-30.00                   | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       | 2L2x2x3/16x1/4              | (36 ksi)<br>A36              |
| T46 30.00-22.50                   | Angle<br>Double Equal    | 2L2x2x3/16x1/4           | (36 ksi)<br>A36           | Angle<br>Double Equal       |                             | (36 ksi)<br>A36              |
| T48 15.00-7.50                    | Angle<br>Double Channel  | 2C8x11.5x1/4             | (36 ksi)<br>A36           | Angle<br>Double Equal       |                             | (36 ksi)<br>A36              |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>8 of 77           |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

### Tower Section Geometry (cont'd)

| <i>Tower<br/>Elevation</i><br><br><i>ft</i> | <i>No.<br/>of<br/>Mid<br/>Girts</i> | <i>Mid Girt<br/>Type</i> | <i>Mid Girt<br/>Size</i> | <i>Mid Girt<br/>Grade</i> | <i>Horizontal<br/>Type</i> | <i>Horizontal<br/>Size</i> | <i>Horizontal<br/>Grade</i> |
|---------------------------------------------|-------------------------------------|--------------------------|--------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| T1 1247.50-1246.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Wide Flange                | W18x40                     | A36<br>(36 ksi)             |
| T2 1246.00-1238.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T3 1238.00-1230.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T4 1230.00-1207.58                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T5 1207.58-1200.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T6 1200.00-1170.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T7 1170.00-1140.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T8 1140.00-1117.58                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T9 1117.58-1110.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T10 1110.00-1080.00                         | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T11 1080.00-1050.00                         | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T12 1050.00-1020.00                         | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T13 1020.00-990.00                          | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T14 990.00-960.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T15 960.00-930.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T16 930.00-900.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T17 900.00-870.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T18 870.00-840.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T19 840.00-810.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T20 810.00-780.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T21 780.00-750.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T22 750.00-720.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T23 720.00-690.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T24 690.00-660.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T25 660.00-630.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T26 630.00-600.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T27 600.00-570.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T28 570.00-540.00                           | None                                | Flat Bar                 |                          | A36<br>(36 ksi)           | Double Equal<br>Angle      | 2L2x2x3/16x1/4             | A36<br>(36 ksi)             |
| T29 540.00-510.00                           | None                                | Flat Bar                 |                          | A36                       | Double Equal               | 2L2x2x3/16x1/4             | A36                         |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 9 of 77           |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Elevation</i><br><i>ft</i> | <i>No. of Mid Girts</i> | <i>Mid Girt Type</i> | <i>Mid Girt Size</i> | <i>Mid Girt Grade</i> | <i>Horizontal Type</i> | <i>Horizontal Size</i> | <i>Horizontal Grade</i> |
|-------------------------------------|-------------------------|----------------------|----------------------|-----------------------|------------------------|------------------------|-------------------------|
| T30 510.00-480.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T31 480.00-450.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T32 450.00-420.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T33 420.00-390.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T34 390.00-360.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T35 360.00-330.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T36 330.00-300.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T37 300.00-270.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T38 270.00-240.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T39 240.00-210.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T40 210.00-180.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T41 180.00-150.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T42 150.00-120.00                   | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T43 120.00-90.00                    | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T44 90.00-60.00                     | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T45 60.00-30.00                     | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T47 22.50-15.00                     | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |
| T49 7.50-0.00                       | None                    | Flat Bar             |                      | (36 ksi)<br>A36       | Angle<br>Double Equal  | 2L2x2x3/16x1/4         | (36 ksi)<br>A36         |

### Tower Section Geometry (cont'd)

| <i>Tower Elevation</i><br><i>ft</i> | <i>Secondary Horizontal Type</i> | <i>Secondary Horizontal Size</i> | <i>Secondary Horizontal Grade</i> | <i>Inner Bracing Type</i> | <i>Inner Bracing Size</i> | <i>Inner Bracing Grade</i> |
|-------------------------------------|----------------------------------|----------------------------------|-----------------------------------|---------------------------|---------------------------|----------------------------|
| T5 1207.58-1200.00                  | Equal Angle                      | L2x2x1/4                         | A36<br>(36 ksi)                   | Solid Round               |                           | A572-50<br>(50 ksi)        |
| T6 1200.00-1170.00                  | Equal Angle                      | L2x2x1/4                         | A36<br>(36 ksi)                   | Single Angle              |                           | A572-50<br>(50 ksi)        |
| T7 1170.00-1140.00                  | Equal Angle                      | L2x2x1/4                         | A36<br>(36 ksi)                   | Single Angle              |                           | A572-50<br>(50 ksi)        |
| T8 1140.00-1117.58                  | Equal Angle                      | L2x2x1/4                         | A36<br>(36 ksi)                   | Single Angle              |                           | A572-50<br>(50 ksi)        |
| T42 150.00-120.00                   | Equal Angle                      | L2x2x1/4                         | A36<br>(36 ksi)                   | Solid Round               |                           | A572-50<br>(50 ksi)        |
| T43 120.00-90.00                    | Equal Angle                      | L2x2x1/4                         | A36                               | Solid Round               |                           | A572-50                    |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 10 of 77          |
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|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Elevation</i> | <i>Secondary Horizontal Type</i> | <i>Secondary Horizontal Size</i> | <i>Secondary Horizontal Grade</i> | <i>Inner Bracing Type</i> | <i>Inner Bracing Size</i> | <i>Inner Bracing Grade</i>      |
|------------------------|----------------------------------|----------------------------------|-----------------------------------|---------------------------|---------------------------|---------------------------------|
| <i>ft</i>              |                                  |                                  |                                   |                           |                           |                                 |
| T44 90.00-60.00        | Equal Angle                      | L2x2x1/4                         | (36 ksi)<br>A36                   | Solid Round               |                           | (50 ksi)<br>A572-50             |
| T45 60.00-30.00        | Equal Angle                      | L2x2x1/4                         | (36 ksi)<br>A36<br>(36 ksi)       | Solid Round               |                           | (50 ksi)<br>A572-50<br>(50 ksi) |

### Tower Section Geometry (*cont'd*)

| <i>Tower Elevation</i> | <i>Gusset Area (per face)</i> | <i>Gusset Thickness</i> | <i>Gusset Grade</i>         | <i>Adjust. Factor <math>A_f</math></i> | <i>Adjust. Factor <math>A_r</math></i> | <i>Weight Mult.</i> | <i>Double Angle Stitch Bolt Spacing Diagonals</i> | <i>Double Angle Stitch Bolt Spacing Horizontals</i> | <i>Double Angle Stitch Bolt Spacing Redundants</i> |
|------------------------|-------------------------------|-------------------------|-----------------------------|----------------------------------------|----------------------------------------|---------------------|---------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|
| <i>ft</i>              | <i>ft<sup>2</sup></i>         | <i>in</i>               |                             |                                        |                                        |                     | <i>in</i>                                         | <i>in</i>                                           | <i>in</i>                                          |
| T1 1247.50-1246.00     | 0.00                          | 0.0000                  | A36                         | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T2 1246.00-1238.00     | 0.00                          | 0.3750                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T3 1238.00-1230.00     | 0.00                          | 0.3750                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T4 1230.00-1207.58     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T5 1207.58-1200.00     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T6 1200.00-1170.00     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T7 1170.00-1140.00     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T8 1140.00-1117.58     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T9 1117.58-1110.00     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T10 1110.00-1080.00    | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T11 1080.00-1050.00    | 0.00                          | 0.3125                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T12 1050.00-1020.00    | 0.00                          | 0.3125                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T13 1020.00-990.00     | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T14 990.00-960.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T15 960.00-930.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T16 930.00-900.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T17 900.00-870.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T18 870.00-840.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T19 840.00-810.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T20 810.00-780.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36             | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |
| T21 780.00-750.00      | 0.00                          | 0.2500                  | (36 ksi)<br>A36<br>(36 ksi) | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                            | Third-Pt                                            | Mid-Pt                                             |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 11 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Elevation</i> | <i>Gusset Area (per face)</i> | <i>Gusset Thickness</i> | <i>Gusset Grade</i> | <i>Adjust. Factor <math>A_f</math></i> | <i>Adjust. Factor <math>A_r</math></i> | <i>Weight Mult.</i> | <i>Double Angle Stitch Bolt Spacing Diagonals in</i> | <i>Double Angle Stitch Bolt Spacing Horizontals in</i> | <i>Double Angle Stitch Bolt Spacing Redundants in</i> |
|------------------------|-------------------------------|-------------------------|---------------------|----------------------------------------|----------------------------------------|---------------------|------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------|
| <i>ft</i>              | <i>ft<sup>2</sup></i>         | <i>in</i>               |                     |                                        |                                        |                     |                                                      |                                                        |                                                       |
| T22 750.00-720.00      | 0.00                          | 0.2500                  | A36                 | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T23 720.00-690.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T24 690.00-660.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T25 660.00-630.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T26 630.00-600.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T27 600.00-570.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T28 570.00-540.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T29 540.00-510.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T30 510.00-480.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T31 480.00-450.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T32 450.00-420.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T33 420.00-390.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T34 390.00-360.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T35 360.00-330.00      | 0.00                          | 0.3125                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T36 330.00-300.00      | 0.00                          | 0.3125                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T37 300.00-270.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T38 270.00-240.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T39 240.00-210.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T40 210.00-180.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T41 180.00-150.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T42 150.00-120.00      | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T43 120.00-90.00       | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T44 90.00-60.00        | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T45 60.00-30.00        | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T46 30.00-22.50        | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T47 22.50-15.00        | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | 42.0000                                                | Mid-Pt                                                |
| T48 15.00-7.50         | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | Third-Pt                                               | Mid-Pt                                                |
| T49 7.50-0.00          | 0.00                          | 0.2500                  | (36 ksi) A36        | 1.4                                    | 1                                      | 1.1                 | Mid-Pt                                               | 42.0000                                                | Mid-Pt                                                |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>12 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

## Tower Section Geometry (cont'd)

| Tower<br>Elevation<br><br><i>ft</i> | Calc<br>K<br>Single<br>Angles | Calc<br>K<br>Solid<br>Rounds | Legs | K Factors <sup>1</sup>        |                               |                           |                 |                  |                          |                          |
|-------------------------------------|-------------------------------|------------------------------|------|-------------------------------|-------------------------------|---------------------------|-----------------|------------------|--------------------------|--------------------------|
|                                     |                               |                              |      | X<br>Brace<br>Diags<br>X<br>Y | K<br>Brace<br>Diags<br>X<br>Y | Single<br>Diags<br>X<br>Y | Girts<br>X<br>Y | Horiz.<br>X<br>Y | Sec.<br>Horiz.<br>X<br>Y | Inner<br>Brace<br>X<br>Y |
|                                     |                               |                              |      |                               |                               |                           |                 |                  |                          |                          |
| T1 1247.50-1246.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T2 1246.00-1238.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T3 1238.00-1230.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T4 1230.00-1207.58                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T5 1207.58-1200.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T6 1200.00-1170.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T7 1170.00-1140.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T8 1140.00-1117.58                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T9 1117.58-1110.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T10 1110.00-1080.00                 | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T11 1080.00-1050.00                 | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T12 1050.00-1020.00                 | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T13 1020.00-990.00                  | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T14 990.00-960.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T15 960.00-930.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T16 930.00-900.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T17 900.00-870.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T18 870.00-840.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T19 840.00-810.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T20 810.00-780.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T21 780.00-750.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T22 750.00-720.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T23 720.00-690.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T24 690.00-660.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T25 660.00-630.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T26 630.00-600.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |
| T27 600.00-570.00                   | Yes                           | Yes                          | 1    | 1                             | 1                             | 1                         | 1               | 1                | 1                        | 1                        |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 13 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Tower<br>Elevation<br><br>ft | Calc<br>K<br>Single<br>Angles | Calc<br>K<br>Solid<br>Rounds | K Factors <sup>1</sup> |                     |                     |                 |        |        |                |                |
|------------------------------|-------------------------------|------------------------------|------------------------|---------------------|---------------------|-----------------|--------|--------|----------------|----------------|
|                              |                               |                              | Legs                   | X<br>Brace<br>Diags | K<br>Brace<br>Diags | Single<br>Diags | Girts  | Horiz. | Sec.<br>Horiz. | Inner<br>Brace |
|                              |                               |                              |                        | X<br>Y              | X<br>Y              | X<br>Y          | X<br>Y | X<br>Y | X<br>Y         | X<br>Y         |
| T28 570.00-540.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T29 540.00-510.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T30 510.00-480.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T31 480.00-450.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T32 450.00-420.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T33 420.00-390.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T34 390.00-360.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T35 360.00-330.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T36 330.00-300.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T37 300.00-270.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T38 270.00-240.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T39 240.00-210.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T40 210.00-180.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T41 180.00-150.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T42 150.00-120.00            | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T43 120.00-90.00             | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T44 90.00-60.00              | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T45 60.00-30.00              | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T46 30.00-22.50              | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T47 22.50-15.00              | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T48 15.00-7.50               | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |
| T49 7.50-0.00                | Yes                           | Yes                          | 1                      | 1                   | 1                   | 1               | 1      | 1      | 1              | 1              |

<sup>1</sup>Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.



|                                                                                                                                                      |                            |  |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--|--------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>                 |  | <b>Page</b>        |
|                                                                                                                                                      | WMAV Oxford (ASR# 1041044) |  | 15 of 77           |
|                                                                                                                                                      | <b>Project</b>             |  | <b>Date</b>        |
|                                                                                                                                                      | TEP# 19780.814207          |  | 12:43:11 03/27/23  |
|                                                                                                                                                      | <b>Client</b>              |  | <b>Designed by</b> |
|                                                                                                                                                      | MPB                        |  | elatta             |

| Tower<br>Elevation<br>ft | Redundant<br>Horizontal   |      | Redundant<br>Diagonal     |      | Redundant<br>Sub-Diagonal |      | Redundant<br>Sub-Horizontal  |      | Redundant Vertical           | Redundant Hip                |      | Redundant Hip<br>Diagonal    |      |
|--------------------------|---------------------------|------|---------------------------|------|---------------------------|------|------------------------------|------|------------------------------|------------------------------|------|------------------------------|------|
|                          | Net Width<br>Deduct<br>in | U    | Net Width<br>Deduct<br>in | U    | Net Width<br>Deduct<br>in | U    | Net<br>Width<br>Deduct<br>in | U    | Net<br>Width<br>Deduct<br>in | Net<br>Width<br>Deduct<br>in | U    | Net<br>Width<br>Deduct<br>in | U    |
| T1 1247.50-1246.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T2 1246.00-1238.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T3 1238.00-1230.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T4 1230.00-1207.58       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T5 1207.58-1200.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T6 1200.00-1170.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T7 1170.00-1140.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T8 1140.00-1117.58       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T9 1117.58-1110.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T10 1110.00-1080.00      | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T11 1080.00-1050.00      | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T12 1050.00-1020.00      | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T13 1020.00-990.00       | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T14 990.00-960.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T15 960.00-930.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T16 930.00-900.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T17 900.00-870.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T18 870.00-840.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T19 840.00-810.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T20 810.00-780.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T21 780.00-750.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T22 750.00-720.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T23 720.00-690.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T24 690.00-660.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T25 660.00-630.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T26 630.00-600.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T27 600.00-570.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T28 570.00-540.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T29 540.00-510.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T30 510.00-480.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T31 480.00-450.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T32 450.00-420.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T33 420.00-390.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T34 390.00-360.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T35 360.00-330.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T36 330.00-300.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T37 300.00-270.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T38 270.00-240.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T39 240.00-210.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T40 210.00-180.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T41 180.00-150.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T42 150.00-120.00        | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T43 120.00-90.00         | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T44 90.00-60.00          | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T45 60.00-30.00          | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T46 30.00-22.50          | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T47 22.50-15.00          | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T48 15.00-7.50           | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |
| T49 7.50-0.00            | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                    | 0.75 | 0.0000                       | 0.75 | 0.0000                       | 0.0000                       | 0.75 | 0.0000                       | 0.75 |

|                                                                                                                                                      |         |                            |             |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|-------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page        | 16 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date        | 12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by | elatta            |

## Tower Section Geometry (cont'd)

| Tower<br>Elevation<br>ft | Leg<br>Connection<br>Type | Leg             |     | Diagonal        |     | Top Girt        |     | Bottom Girt     |     | Mid Girt        |     | Long Horizontal |     | Short Horizontal |     |
|--------------------------|---------------------------|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|------------------|-----|
|                          |                           | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in  | No. |
| T1 1247.50-1246.00       | Flange                    | 0.8750<br>A325N | 5   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N  | 0   |
| T2 1246.00-1238.00       | Flange                    | 0.8750<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T3 1238.00-1230.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 4   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T4 1230.00-1207.58       | Flange                    | 0.8750<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T5 1207.58-1200.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 1   |
| T6 1200.00-1170.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 1   |
| T7 1170.00-1140.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 1   |
| T8 1140.00-1117.58       | Flange                    | 0.8750<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 1   |
| T9 1117.58-1110.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T10 1110.00-1080.00      | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T11 1080.00-1050.00      | Flange                    | 0.8750<br>A325N | 4   | 0.7500<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T12 1050.00-1020.00      | Flange                    | 0.8750<br>A325N | 4   | 0.7500<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T13 1020.00-990.00       | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T14 990.00-960.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T15 960.00-930.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T16 930.00-900.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T17 900.00-870.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T18 870.00-840.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T19 840.00-810.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T20 810.00-780.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T21 780.00-750.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T22 750.00-720.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T23 720.00-690.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T24 690.00-660.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T25 660.00-630.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T26 630.00-600.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |
| T27 600.00-570.00        | Flange                    | 0.8750<br>A325N | 4   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 2   | 0.6250<br>A325N | 0   | 0.6250<br>A325N | 2   | 0.6250<br>A325N  | 0   |

|                                                                                                                                                      |                |                            |             |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|-------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b> | 17 of 77           |                   |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          |             | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        |             | <b>Designed by</b> | elatta            |

| Tower<br>Elevation<br>ft | Leg<br>Connection<br>Type | Leg             |     | Diagonal        |     | Top Girt        |     | Bottom Girt     |     | Mid Girt        |     | Long Horizontal |     | Short Horizontal |     |
|--------------------------|---------------------------|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|------------------|-----|
|                          |                           | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in | No. | Bolt Size<br>in  | No. |
| T28 570.00-540.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T29 540.00-510.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T30 510.00-480.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T31 480.00-450.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T32 450.00-420.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T33 420.00-390.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T34 390.00-360.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T35 360.00-330.00        | Flange                    | 0.8750          | 4   | 0.7500          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T36 330.00-300.00        | Flange                    | 0.8750          | 4   | 0.7500          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T37 300.00-270.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T38 270.00-240.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T39 240.00-210.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T40 210.00-180.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T41 180.00-150.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T42 150.00-120.00        | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 1   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T43 120.00-90.00         | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 1   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T44 90.00-60.00          | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 1   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T45 60.00-30.00          | Flange                    | 0.8750          | 4   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 1   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T46 30.00-22.50          | Flange                    | 0.8750          | 0   | 0.6250          | 2   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 0   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T47 22.50-15.00          | Flange                    | 0.8750          | 0   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T48 15.00-7.50           | Flange                    | 0.8750          | 0   | 0.6250          | 2   | 0.6250          | 4   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 0   | 0.6250           | 0   |
|                          |                           | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |
| T49 7.50-0.00            | Flange                    | 1.2500          | 0   | 0.6250          | 2   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 0   | 0.6250          | 2   | 0.6250           | 0   |
|                          |                           | A307            |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N           |     | A325N            |     |

## Guy Data

| Guy<br>Elevation | Guy<br>Grade | Guy<br>Size | Initial<br>Tension | %   | Guy<br>Modulus | Guy<br>Weight | $L_u$   | Anchor<br>Radius | Anchor<br>Azimuth<br>Adj. | Anchor<br>Elevation | End<br>Fitting<br>Efficiency |
|------------------|--------------|-------------|--------------------|-----|----------------|---------------|---------|------------------|---------------------------|---------------------|------------------------------|
| ft               |              |             | K                  |     | ksi            | plf           | ft      | ft               | °                         | ft                  | %                            |
| 1246.75          | BS           | A 1 1/16    | 13.80              | 10% | 24000          | 2.37          | 1551.33 | 925.00           | 0.000                     | -2.00               | 100%                         |
|                  |              | B 1 1/16    | 13.80              | 10% | 24000          | 2.37          | 1568.74 | 938.00           | 0.000                     | -14.00              | 100%                         |
|                  |              | C 1 1/16    | 13.80              | 10% | 24000          | 2.37          | 1588.16 | 953.00           | 0.000                     | -27.00              | 100%                         |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 18 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

|         |    |   |        |       |     |       |      |         |        |       |        |      |
|---------|----|---|--------|-------|-----|-------|------|---------|--------|-------|--------|------|
| 1042.42 | BS | A | 1 3/16 | 17.20 | 10% | 24000 | 2.96 | 1392.23 | 925.00 | 0.000 | -2.00  | 100% |
|         |    | B | 1 3/16 | 17.20 | 10% | 24000 | 2.96 | 1409.86 | 938.00 | 0.000 | -14.00 | 100% |
|         |    | C | 1 3/16 | 17.20 | 10% | 24000 | 2.96 | 1429.58 | 953.00 | 0.000 | -27.00 | 100% |
| 855     | BS | A | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 1257.81 | 925.00 | 0.000 | -2.00  | 100% |
|         |    | B | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 1275.53 | 938.00 | 0.000 | -14.00 | 100% |
|         |    | C | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 1295.40 | 953.00 | 0.000 | -27.00 | 100% |
| 667.583 | BS | A | 1      | 12.20 | 10% | 24000 | 2.10 | 1138.46 | 925.00 | 0.000 | -2.00  | 100% |
|         |    | B | 1      | 12.20 | 10% | 24000 | 2.10 | 1156.06 | 938.00 | 0.000 | -14.00 | 100% |
|         |    | C | 1      | 12.20 | 10% | 24000 | 2.10 | 1175.88 | 953.00 | 0.000 | -27.00 | 100% |
| 487.583 | BS | A | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 584.84  | 322.00 | 0.000 | -4.00  | 100% |
|         |    | B | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 595.41  | 326.00 | 0.000 | -14.00 | 100% |
|         |    | C | 1 1/16 | 13.80 | 10% | 24000 | 2.37 | 580.40  | 320.00 | 0.000 | 0.00   | 100% |
| 315     | BS | A | 1      | 12.20 | 10% | 24000 | 2.10 | 449.86  | 322.00 | 0.000 | -4.00  | 100% |
|         |    | B | 1      | 12.20 | 10% | 24000 | 2.10 | 459.78  | 326.00 | 0.000 | -14.00 | 100% |
|         |    | C | 1      | 12.20 | 10% | 24000 | 2.10 | 445.62  | 320.00 | 0.000 | 0.00   | 100% |
| 157.583 | BS | A | 13/16  | 8.00  | 10% | 24000 | 1.39 | 356.14  | 322.00 | 0.000 | -4.00  | 100% |
|         |    | B | 13/16  | 8.00  | 10% | 24000 | 1.39 | 364.31  | 326.00 | 0.000 | -14.00 | 100% |
|         |    | C | 13/16  | 8.00  | 10% | 24000 | 1.39 | 352.56  | 320.00 | 0.000 | 0.00   | 100% |

### Guy Data(cont'd)

| Guy Elevation<br>ft | Mount Type | Torque-Arm Spread<br>ft | Torque-Arm Leg Angle<br>° | Torque-Arm Style | Torque-Arm Grade | Torque-Arm Type | Torque-Arm Size |
|---------------------|------------|-------------------------|---------------------------|------------------|------------------|-----------------|-----------------|
| 1246.75             | Corner     |                         |                           |                  |                  |                 |                 |
| 1042.42             | Corner     |                         |                           |                  |                  |                 |                 |
| 855                 | Corner     |                         |                           |                  |                  |                 |                 |
| 667.583             | Corner     |                         |                           |                  |                  |                 |                 |
| 487.583             | Corner     |                         |                           |                  |                  |                 |                 |
| 315                 | Corner     |                         |                           |                  |                  |                 |                 |
| 157.583             | Corner     |                         |                           |                  |                  |                 |                 |

### Guy Data (cont'd)

| Guy Elevation<br>ft | Diagonal Grade      | Diagonal Type | Upper Diagonal Size | Lower Diagonal Size | Is Strap. | Pull-Off Grade  | Pull-Off Type  | Pull-Off Size |
|---------------------|---------------------|---------------|---------------------|---------------------|-----------|-----------------|----------------|---------------|
| 1246.75             | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Wide Flange    | W18x40        |
| 1042.42             | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |
| 855.00              | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |
| 667.58              | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |
| 487.58              | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |
| 315.00              | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |
| 157.58              | A572-50<br>(50 ksi) | Solid Round   |                     |                     | No        | A36<br>(36 ksi) | Double Channel | 2C9x13.4x1/4  |

|                                                                                                                                                      |         |                            |             |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|-------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page        | 19 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date        | 12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by | elatta            |

### Guy Data (cont'd)

| Guy Elevation | Cable Weight A | Cable Weight B | Cable Weight C | Cable Weight D | Tower Intercept A | Tower Intercept B | Tower Intercept C | Tower Intercept D |
|---------------|----------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|
| ft            | K              | K              | K              | K              | ft                | ft                | ft                | ft                |
| 1246.75       | 3.68           | 3.72           | 3.76           |                | 187.19            | 191.24            | 195.82            |                   |
|               |                |                |                |                | 23.6 sec/pulse    | 23.9 sec/pulse    | 24.2 sec/pulse    |                   |
| 1042.42       | 4.12           | 4.17           | 4.23           |                | 153.48            | 157.25            | 161.53            |                   |
|               |                |                |                |                | 21.4 sec/pulse    | 21.7 sec/pulse    | 21.9 sec/pulse    |                   |
| 855           | 2.98           | 3.02           | 3.07           |                | 126.91            | 130.39            | 134.36            |                   |
|               |                |                |                |                | 19.5 sec/pulse    | 19.7 sec/pulse    | 20.0 sec/pulse    |                   |
| 667.583       | 2.39           | 2.43           | 2.47           |                | 105.78            | 108.98            | 112.63            |                   |
|               |                |                |                |                | 17.8 sec/pulse    | 18.0 sec/pulse    | 18.3 sec/pulse    |                   |
| 487.583       | 1.39           | 1.41           | 1.38           |                | 28.21             | 29.22             | 27.80             |                   |
|               |                |                |                |                | 9.2 sec/pulse     | 9.3 sec/pulse     | 9.1 sec/pulse     |                   |
| 315           | 0.94           | 0.97           | 0.94           |                | 16.97             | 17.71             | 16.66             |                   |
|               |                |                |                |                | 7.1 sec/pulse     | 7.3 sec/pulse     | 7.0 sec/pulse     |                   |
| 157.583       | 0.50           | 0.51           | 0.49           |                | 10.88             | 11.37             | 10.66             |                   |
|               |                |                |                |                | 5.7 sec/pulse     | 5.8 sec/pulse     | 5.6 sec/pulse     |                   |

### Guy Data (cont'd)

| Guy Elevation<br>ft | Calc K<br>Single Angles | Calc K<br>Solid Rounds | Torque Arm     |                | Pull Off       |                | Diagonal       |                |
|---------------------|-------------------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                     |                         |                        | K <sub>x</sub> | K <sub>y</sub> | K <sub>x</sub> | K <sub>y</sub> | K <sub>x</sub> | K <sub>y</sub> |
| 1246.75             | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 1042.42             | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 855                 | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 667.583             | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 487.583             | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 315                 | No                      | No                     |                |                | 1              | 1              | 1              | 1              |
| 157.583             | No                      | No                     |                |                | 1              | 1              | 1              | 1              |

### Guy Data (cont'd)

| Guy Elevation<br>ft | Torque-Arm      |        |                           |      | Pull Off        |        |                           |      | Diagonal        |        |                           |   |
|---------------------|-----------------|--------|---------------------------|------|-----------------|--------|---------------------------|------|-----------------|--------|---------------------------|---|
|                     | Bolt Size<br>in | Number | Net Width<br>Deduct<br>in | U    | Bolt Size<br>in | Number | Net Width<br>Deduct<br>in | U    | Bolt Size<br>in | Number | Net Width<br>Deduct<br>in | U |
| 1246.75             | 0.0000          | 0      | 0.0000                    | 1    | 0.0000          | 0      | 0.0000                    | 1    | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 1042.42             | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 855                 | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 667.583             | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 487.583             | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 315                 | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |
| 157.583             | 0.6250          | 0      | 0.0000                    | 0.75 | 0.7500          | 4      | 0.0000                    | 0.75 | 0.0000          | 0      | 0.0000                    | 1 |
|                     | A325N           |        |                           |      | A325N           |        |                           |      | A325N           |        |                           |   |

|                                                                                                                                                      |         |                            |             |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|-------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page        | 20 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date        | 12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by | elatta            |

## Guy Pressures

| Guy Elevation<br>ft | Guy Location | z<br>ft | q <sub>z</sub><br>psf | q <sub>z</sub> Ice<br>psf | Ice Thickness<br>in |
|---------------------|--------------|---------|-----------------------|---------------------------|---------------------|
| 1246.75             | A            | 622.38  | 42                    | 3                         | 1.7103              |
|                     | B            | 616.38  | 42                    | 3                         | 1.7086              |
|                     | C            | 609.88  | 42                    | 3                         | 1.7068              |
| 1042.42             | A            | 520.21  | 41                    | 3                         | 1.6799              |
|                     | B            | 514.21  | 41                    | 3                         | 1.6779              |
|                     | C            | 507.71  | 41                    | 3                         | 1.6758              |
| 855                 | A            | 426.50  | 39                    | 3                         | 1.6468              |
|                     | B            | 420.50  | 39                    | 3                         | 1.6445              |
|                     | C            | 414.00  | 39                    | 3                         | 1.6419              |
| 667.583             | A            | 332.79  | 37                    | 3                         | 1.6065              |
|                     | B            | 326.79  | 37                    | 3                         | 1.6036              |
|                     | C            | 320.29  | 37                    | 3                         | 1.6003              |
| 487.583             | A            | 241.79  | 35                    | 3                         | 1.5560              |
|                     | B            | 236.79  | 35                    | 3                         | 1.5527              |
|                     | C            | 243.79  | 35                    | 3                         | 1.5573              |
| 315                 | A            | 155.50  | 32                    | 3                         | 1.4888              |
|                     | B            | 150.50  | 32                    | 3                         | 1.4839              |
|                     | C            | 157.50  | 32                    | 3                         | 1.4907              |
| 157.583             | A            | 76.79   | 27                    | 2                         | 1.3874              |
|                     | B            | 71.79   | 27                    | 2                         | 1.3781              |
|                     | C            | 78.79   | 27                    | 2                         | 1.3909              |

## Guy-Tensioning Information

| Temperature At Time Of Tensioning |         |         |                 |           |                 |           |                 |           |                 |           |                 |           |                 |           |                 |           |
|-----------------------------------|---------|---------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
| Guy Elevation<br>ft               | H<br>ft | V<br>ft | 0 F             |           | 20 F            |           | 40 F            |           | 60 F            |           | 80 F            |           | 100 F           |           | 120 F           |           |
|                                   |         |         | Initial Tension | Intercept | Initial Tension | Intercept | Initial Tension | Intercept | Initial Tension | Intercept | Initial Tension | Intercept | Initial Tension | Intercept | Initial Tension | Intercept |
|                                   |         |         | K               | ft        | K               | ft        | K               | ft        | K               | ft        | K               | ft        | K               | ft        | K               | ft        |
| 1246.75                           | A       | 920.67  | 1248.75         | 14.649    | 177.21          | 14.363    | 180.45          | 14.063    | 183.97          | 13.800    | 187.19          | 13.545    | 190.41          | 13.311    | 193.46          | 13.063    |
|                                   | B       | 933.67  | 1260.75         | 14.638    | 181.19          | 14.330    | 184.76          | 14.061    | 188.00          | 13.800    | 191.24          | 13.548    | 194.50          | 13.312    | 197.64          | 13.065    |
|                                   | C       | 948.67  | 1273.75         | 14.599    | 185.99          | 14.324    | 189.26          | 14.058    | 192.54          | 13.800    | 195.82          | 13.563    | 198.94          | 13.316    | 202.31          | 13.083    |
| 1042.42                           | A       | 920.67  | 1044.42         | 18.457    | 143.73          | 18.020    | 146.97          | 17.602    | 150.22          | 17.200    | 153.48          | 16.804    | 156.83          | 16.444    | 160.01          | 16.092    |
|                                   | B       | 933.67  | 1056.42         | 18.439    | 147.40          | 18.009    | 150.68          | 17.596    | 153.96          | 17.200    | 157.25          | 16.803    | 160.69          | 16.440    | 163.97          | 16.097    |
|                                   | C       | 948.67  | 1069.42         | 18.419    | 151.57          | 17.996    | 154.88          | 17.589    | 158.20          | 17.200    | 161.53          | 16.814    | 164.95          | 16.467    | 168.17          | 16.122    |
| 855                               | A       | 920.67  | 857.00          | 15.019    | 117.17          | 14.592    | 120.41          | 14.186    | 123.66          | 13.800    | 126.91          | 13.428    | 130.22          | 13.086    | 133.41          | 12.755    |
|                                   | B       | 933.67  | 869.00          | 15.006    | 120.49          | 14.586    | 123.76          | 14.187    | 127.04          | 13.800    | 130.39          | 13.447    | 133.61          | 13.098    | 136.95          | 12.759    |
|                                   | C       | 948.67  | 882.00          | 14.975    | 124.40          | 14.564    | 127.72          | 14.172    | 131.04          | 13.800    | 134.36          | 13.446    | 137.68          | 13.109    | 140.99          | 12.783    |
| 667.583                           | A       | 920.67  | 669.58          | 13.489    | 96.08           | 13.032    | 99.32           | 12.601    | 102.56          | 12.200    | 105.78          | 11.820    | 109.02          | 11.462    | 112.27          | 11.124    |
|                                   | B       | 933.67  | 681.58          | 13.465    | 99.16           | 13.017    | 102.43          | 12.595    | 105.71          | 12.200    | 108.98          | 11.822    | 112.30          | 11.466    | 115.62          | 11.145    |
|                                   | C       | 948.67  | 694.58          | 13.448    | 102.62          | 13.010    | 105.93          | 12.601    | 109.21          | 12.200    | 112.63          | 11.844    | 115.86          | 11.496    | 119.20          | 11.175    |
| 487.583                           | A       | 317.67  | 491.58          | 15.330    | 25.49           | 14.810    | 26.35           | 14.300    | 27.26           | 13.800    | 28.21           | 13.310    | 29.21           | 12.832    | 30.26           | 12.367    |
|                                   | B       | 321.67  | 501.58          | 15.306    | 26.44           | 14.795    | 27.32           | 14.293    | 28.25           | 13.800    | 29.22           | 13.318    | 30.24           | 12.847    | 31.30           | 12.389    |
|                                   | C       | 315.67  | 487.58          | 15.337    | 25.10           | 14.815    | 25.95           | 14.303    | 26.85           | 13.800    | 27.80           | 13.308    | 28.79           | 12.827    | 29.82           | 12.359    |
| 315                               | A       | 317.67  | 319.00          | 14.513    | 14.32           | 13.719    | 15.13           | 12.947    | 16.01           | 12.200    | 16.97           | 11.480    | 18.01           | 10.792    | 19.13           | 10.138    |
|                                   | B       | 321.67  | 329.00          | 14.459    | 15.00           | 13.684    | 15.83           | 12.930    | 16.74           | 12.200    | 17.71           | 11.497    | 18.77           | 10.824    | 19.90           | 10.184    |
|                                   | C       | 315.67  | 315.00          | 14.533    | 14.04           | 13.733    | 14.84           | 12.954    | 15.71           | 12.200    | 16.66           | 11.474    | 17.69           | 10.780    | 18.79           | 10.120    |
| 157.583                           | A       | 317.67  | 161.58          | 10.465    | 8.34            | 9.609     | 9.07            | 8.785     | 9.92            | 8.000     | 10.88           | 7.264     | 11.97           | 6.585     | 13.18           | 5.945     |
|                                   | B       | 321.67  | 171.58          | 10.403    | 8.77            | 9.568     | 9.53            | 8.765     | 10.39           | 8.000     | 11.37           | 7.282     | 12.48           | 6.619     | 13.71           | 5.995     |
|                                   | C       | 315.67  | 157.58          | 10.490    | 8.15            | 9.625     | 8.88            | 8.793     | 9.71            | 8.000     | 10.66           | 7.256     | 11.74           | 6.571     | 12.95           | 5.924     |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 21 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

## Feed Line/Linear Appurtenances - Entered As Round Or Flat

| Description                                          | Face or Leg | Allow Shield | Exclude From Torque Calculation | Component Type | Placement<br>ft   | Face Offset<br>in | Lateral Offset<br>(Frac FW) | # | # Per Row | Clear Spacing<br>in | Width or Diameter<br>in | Perimeter<br>in | Weight<br>plf |
|------------------------------------------------------|-------------|--------------|---------------------------------|----------------|-------------------|-------------------|-----------------------------|---|-----------|---------------------|-------------------------|-----------------|---------------|
| Pipe 1 1/2" STD                                      | B           | No           | No                              | Ar (CaAa)      | 1230.00 - 0.00    | -7.0000           | -0.05                       | 1 | 1         | 1.9000              | 1.9000                  |                 | 2.72          |
| Pipe 1 1/2" STD                                      | C           | No           | No                              | Ar (CaAa)      | 1230.00 - 0.00    | -7.0000           | 0.05                        | 1 | 1         | 1.9000              | 1.9000                  |                 | 2.72          |
| L2-1/2x2-1/2x1/4<br>(3' Long @ 7.5' Spacing)         | B           | No           | No                              | Af (CaAa)      | 1230.00 - 0.00    | -9.0000           | -0.2                        | 1 | 1         | 1.0000              | 1.0000                  |                 | 1.60          |
| L2-1/2x2-1/2x1/4<br>(3' Long @ 7.5' Spacing)         | C           | No           | No                              | Af (CaAa)      | 1230.00 - 0.00    | -9.0000           | 0.2                         | 1 | 1         | 1.0000              | 1.0000                  |                 | 1.60          |
| L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)<br>***         | B           | No           | No                              | Af (CaAa)      | 1230.00 - 0.00    | -12.0000          | 0.3                         | 1 | 1         | 0.3500              | 0.3500                  |                 | 0.60          |
| L1-1/2x2x1/4"                                        | C           | No           | No                              | Af (CaAa)      | 23.00 - 1.00      | 6.0000            | -0.1                        | 2 | 2         | 12.0000             | 1.5000                  |                 | 2.75          |
| 1" O.D. Rolled Plate Rungs (12" W x 15" Step)<br>*** | C           | No           | No                              | Ar (CaAa)      | 23.00 - 1.00      | 6.0000            | -0.1                        | 1 | 1         | 1.0000              | 0.8500                  |                 | 1.40          |
| 3/4" Solid Round                                     | A           | No           | No                              | Ar (CaAa)      | 1238.00 - 15.00   | -2.0000           | 0                           | 2 | 2         | 12.0000             | 0.7500                  |                 | 1.50          |
| 5/8" SR Rungs (12" W x 15" Step)<br>***              | A           | No           | No                              | Ar (CaAa)      | 1238.00 - 15.00   | -2.0000           | 0                           | 1 | 1         | 0.5000              | 0.5000                  |                 | 0.84          |
| L1-1/2x2x1/4"                                        | B           | No           | No                              | Af (CaAa)      | 1247.50 - 1230.00 | 6.0000            | -0.1                        | 2 | 2         | 12.0000             | 1.5000                  |                 | 2.75          |
| 1" O.D. Rolled Plate Rungs (12" W x 15" Step)<br>*** | B           | No           | No                              | Ar (CaAa)      | 1247.50 - 1230.00 | 6.0000            | -0.1                        | 1 | 1         | 1.0000              | 0.8500                  |                 | 1.40          |
| LDF5-50A(7/8")                                       | B           | No           | No                              | Ar (CaAa)      | 432.00 - 0.00     | 2.0000            | -0.15                       | 1 | 1         | 1.0900              | 1.0900                  |                 | 0.33          |
| EW63(ELLIPTICAL)                                     | B           | No           | No                              | Ar (CaAa)      | 392.00 - 0.00     | 2.0000            | -0.05                       | 1 | 1         | 2.0100              | 2.0100                  |                 | 0.51          |
| EW63(ELLIPTICAL)                                     | B           | No           | No                              | Ar (CaAa)      | 348.00 - 0.00     | 2.0000            | 0.05                        | 1 | 1         | 2.0100              | 2.0100                  |                 | 0.51          |
| LDF5-50A(7/8")<br>***                                | B           | No           | No                              | Ar (CaAa)      | 1008.00 - 0.00    | 2.0000            | 0.15                        | 1 | 1         | 1.0900              | 1.0900                  |                 | 0.33          |
| 5/8" Cable (Lights)<br>*** Inside ***                | A           | No           | No                              | Ar (CaAa)      | 39.00 - 0.00      | 2.0000            | -0.4                        | 1 | 1         | 0.6250              | 0.6250                  |                 | 0.30          |
| LDF5-50A(7/8")<br>***                                | B           | No           | No                              | Ar (CaAa)      | 542.00 - 0.00     | -2.0000           | 0.2                         | 1 | 1         | 1.0900              | 1.0900                  |                 | 0.33          |
| 1" Metal Conduit                                     | A           | No           | No                              | Ar (CaAa)      | 1247.50 - 0.00    | 2.0000            | 0.1                         | 1 | 1         | 1.0000              | 1.0000                  |                 | 1.13          |
| 6 1/8" Rigid                                         | A           | No           | No                              | Ar (CaAa)      | 1247.50 - 0.00    | -4.0000           | 0.35                        | 1 | 1         | 6.1250              | 6.1250                  |                 | 7.25          |
| 3-1/8" Rigid                                         | A           | No           | No                              | Ar (CaAa)      | 1135.00 - 0.00    | -4.0000           | -0.35                       | 1 | 1         | 3.1250              | 3.1250                  |                 | 3.00          |
| HJ8-50B(3")                                          | A           | No           | No                              | Ar (CaAa)      | 922.00 - 0.00     | 2.0000            | 0.3                         | 1 | 1         | 3.0100              | 3.0100                  |                 | 1.78          |
| 4 1/16" Rigid                                        | A           | No           | No                              | Ar (CaAa)      | 900.00 - 0.00     | -4.0000           | -0.25                       | 1 | 1         | 4.0625              | 4.0625                  |                 | 5.50          |
| LDF4P-50A(1/2")                                      | A           | No           | No                              | Ar (CaAa)      | 778.00 - 0.00     | 2.0000            | 0.2                         | 1 | 1         | 0.6300              | 0.6300                  |                 | 0.15          |

## Feed Line/Linear Appurtenances Section Areas

| Tower Section | Tower Elevation<br>ft | Face | A <sub>R</sub><br>ft <sup>2</sup> | A <sub>F</sub><br>ft <sup>2</sup> | C <sub>A</sub> A <sub>A</sub><br>In Face<br>ft <sup>2</sup> | C <sub>A</sub> A <sub>A</sub><br>Out Face<br>ft <sup>2</sup> | Weight<br>K |
|---------------|-----------------------|------|-----------------------------------|-----------------------------------|-------------------------------------------------------------|--------------------------------------------------------------|-------------|
| T1            | 1247.50-1246.00       | A    | 0.000                             | 0.000                             | 0.621                                                       | 0.000                                                        | 0.01        |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>22 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| <i>Tower Section</i> | <i>Tower Elevation<br/>ft</i> | <i>Face</i> | <i>A<sub>R</sub></i><br><i>ft<sup>2</sup></i> | <i>A<sub>F</sub></i><br><i>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub></i><br><i>In Face<br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub></i><br><i>Out Face<br/>ft<sup>2</sup></i> | <i>Weight<br/>K</i> |
|----------------------|-------------------------------|-------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------|
|                      |                               | B           | 0.000                                         | 0.000                                         | 0.877                                                                  | 0.000                                                                   | 0.01                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 0.000                                                                  | 0.000                                                                   | 0.00                |
| T2                   | 1246.00-1238.00               | A           | 0.000                                         | 0.000                                         | 3.312                                                                  | 0.000                                                                   | 0.07                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 4.680                                                                  | 0.000                                                                   | 0.06                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 0.000                                                                  | 0.000                                                                   | 0.00                |
| T3                   | 1238.00-1230.00               | A           | 0.000                                         | 0.000                                         | 4.912                                                                  | 0.000                                                                   | 0.10                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 4.680                                                                  | 0.000                                                                   | 0.06                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 0.000                                                                  | 0.000                                                                   | 0.00                |
| T4                   | 1230.00-1207.58               | A           | 0.000                                         | 0.000                                         | 13.764                                                                 | 0.000                                                                   | 0.27                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 9.303                                                                  | 0.000                                                                   | 0.11                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 7.995                                                                  | 0.000                                                                   | 0.10                |
| T5                   | 1207.58-1200.00               | A           | 0.000                                         | 0.000                                         | 4.656                                                                  | 0.000                                                                   | 0.09                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 3.147                                                                  | 0.000                                                                   | 0.04                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 2.705                                                                  | 0.000                                                                   | 0.03                |
| T6                   | 1200.00-1170.00               | A           | 0.000                                         | 0.000                                         | 18.421                                                                 | 0.000                                                                   | 0.37                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 12.450                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T7                   | 1170.00-1140.00               | A           | 0.000                                         | 0.000                                         | 18.421                                                                 | 0.000                                                                   | 0.37                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 12.450                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T8                   | 1140.00-1117.58               | A           | 0.000                                         | 0.000                                         | 19.207                                                                 | 0.000                                                                   | 0.33                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 9.303                                                                  | 0.000                                                                   | 0.11                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 7.995                                                                  | 0.000                                                                   | 0.10                |
| T9                   | 1117.58-1110.00               | A           | 0.000                                         | 0.000                                         | 7.026                                                                  | 0.000                                                                   | 0.12                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 3.147                                                                  | 0.000                                                                   | 0.04                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 2.705                                                                  | 0.000                                                                   | 0.03                |
| T10                  | 1110.00-1080.00               | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 12.450                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T11                  | 1080.00-1050.00               | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 12.450                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T12                  | 1050.00-1020.00               | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 12.450                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T13                  | 1020.00-990.00                | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 14.412                                                                 | 0.000                                                                   | 0.15                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T14                  | 990.00-960.00                 | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T15                  | 960.00-930.00                 | A           | 0.000                                         | 0.000                                         | 27.796                                                                 | 0.000                                                                   | 0.46                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T16                  | 930.00-900.00                 | A           | 0.000                                         | 0.000                                         | 34.418                                                                 | 0.000                                                                   | 0.50                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T17                  | 900.00-870.00                 | A           | 0.000                                         | 0.000                                         | 46.280                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T18                  | 870.00-840.00                 | A           | 0.000                                         | 0.000                                         | 46.348                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T19                  | 840.00-810.00                 | A           | 0.000                                         | 0.000                                         | 46.420                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T20                  | 810.00-780.00                 | A           | 0.000                                         | 0.000                                         | 46.494                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T21                  | 780.00-750.00                 | A           | 0.000                                         | 0.000                                         | 48.335                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>23 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| <i>Tower Section</i> | <i>Tower Elevation<br/>ft</i> | <i>Face</i> | <i>A<sub>R</sub></i><br><i>ft<sup>2</sup></i> | <i>A<sub>F</sub></i><br><i>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub></i><br><i>In Face<br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub></i><br><i>Out Face<br/>ft<sup>2</sup></i> | <i>Weight<br/>K</i> |
|----------------------|-------------------------------|-------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------|
| T22                  | 750.00-720.00                 | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
|                      |                               | A           | 0.000                                         | 0.000                                         | 48.542                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T23                  | 720.00-690.00                 | A           | 0.000                                         | 0.000                                         | 48.627                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T24                  | 690.00-660.00                 | A           | 0.000                                         | 0.000                                         | 48.716                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T25                  | 660.00-630.00                 | A           | 0.000                                         | 0.000                                         | 48.809                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T26                  | 630.00-600.00                 | A           | 0.000                                         | 0.000                                         | 48.907                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T27                  | 600.00-570.00                 | A           | 0.000                                         | 0.000                                         | 49.010                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.720                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T28                  | 570.00-540.00                 | A           | 0.000                                         | 0.000                                         | 49.120                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 15.938                                                                 | 0.000                                                                   | 0.16                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T29                  | 540.00-510.00                 | A           | 0.000                                         | 0.000                                         | 49.236                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 18.990                                                                 | 0.000                                                                   | 0.17                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T30                  | 510.00-480.00                 | A           | 0.000                                         | 0.000                                         | 49.360                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 18.990                                                                 | 0.000                                                                   | 0.17                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T31                  | 480.00-450.00                 | A           | 0.000                                         | 0.000                                         | 49.492                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 18.990                                                                 | 0.000                                                                   | 0.17                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T32                  | 450.00-420.00                 | A           | 0.000                                         | 0.000                                         | 49.635                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 20.298                                                                 | 0.000                                                                   | 0.17                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T33                  | 420.00-390.00                 | A           | 0.000                                         | 0.000                                         | 49.788                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 22.662                                                                 | 0.000                                                                   | 0.18                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T34                  | 390.00-360.00                 | A           | 0.000                                         | 0.000                                         | 49.955                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 28.290                                                                 | 0.000                                                                   | 0.19                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T35                  | 360.00-330.00                 | A           | 0.000                                         | 0.000                                         | 50.137                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 31.908                                                                 | 0.000                                                                   | 0.20                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T36                  | 330.00-300.00                 | A           | 0.000                                         | 0.000                                         | 50.338                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T37                  | 300.00-270.00                 | A           | 0.000                                         | 0.000                                         | 50.561                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T38                  | 270.00-240.00                 | A           | 0.000                                         | 0.000                                         | 50.811                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T39                  | 240.00-210.00                 | A           | 0.000                                         | 0.000                                         | 51.096                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T40                  | 210.00-180.00                 | A           | 0.000                                         | 0.000                                         | 51.427                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |
| T41                  | 180.00-150.00                 | A           | 0.000                                         | 0.000                                         | 51.820                                                                 | 0.000                                                                   | 0.68                |
|                      |                               | B           | 0.000                                         | 0.000                                         | 34.320                                                                 | 0.000                                                                   | 0.21                |
|                      |                               | C           | 0.000                                         | 0.000                                         | 10.700                                                                 | 0.000                                                                   | 0.13                |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 24 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Tower Elevation<br/>ft</i> | <i>Face</i> | <i>A<sub>R</sub><br/>ft<sup>2</sup></i> | <i>A<sub>F</sub><br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub><br/>In Face<br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub><br/>Out Face<br/>ft<sup>2</sup></i> | <i>Weight<br/>K</i> |
|----------------------|-------------------------------|-------------|-----------------------------------------|-----------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|
| T42                  | 150.00-120.00                 | A           | 0.000                                   | 0.000                                   | 52.301                                                           | 0.000                                                             | 0.68                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 34.320                                                           | 0.000                                                             | 0.21                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 10.700                                                           | 0.000                                                             | 0.13                |
| T43                  | 120.00-90.00                  | A           | 0.000                                   | 0.000                                   | 52.917                                                           | 0.000                                                             | 0.68                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 34.320                                                           | 0.000                                                             | 0.21                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 10.700                                                           | 0.000                                                             | 0.13                |
| T44                  | 90.00-60.00                   | A           | 0.000                                   | 0.000                                   | 53.720                                                           | 0.000                                                             | 0.68                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 34.320                                                           | 0.000                                                             | 0.21                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 10.700                                                           | 0.000                                                             | 0.13                |
| T45                  | 60.00-30.00                   | A           | 0.000                                   | 0.000                                   | 54.958                                                           | 0.000                                                             | 0.68                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 34.320                                                           | 0.000                                                             | 0.21                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 10.700                                                           | 0.000                                                             | 0.13                |
| T46                  | 30.00-22.50                   | A           | 0.000                                   | 0.000                                   | 14.256                                                           | 0.000                                                             | 0.17                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 8.580                                                            | 0.000                                                             | 0.05                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 2.967                                                            | 0.000                                                             | 0.04                |
| T47                  | 22.50-15.00                   | A           | 0.000                                   | 0.000                                   | 14.379                                                           | 0.000                                                             | 0.17                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 8.580                                                            | 0.000                                                             | 0.05                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 7.063                                                            | 0.000                                                             | 0.08                |
| T48                  | 15.00-7.50                    | A           | 0.000                                   | 0.000                                   | 12.961                                                           | 0.000                                                             | 0.14                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 8.580                                                            | 0.000                                                             | 0.05                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 7.063                                                            | 0.000                                                             | 0.08                |
| T49                  | 7.50-0.00                     | A           | 0.000                                   | 0.000                                   | 12.961                                                           | 0.000                                                             | 0.14                |
|                      |                               | B           | 0.000                                   | 0.000                                   | 8.580                                                            | 0.000                                                             | 0.05                |
|                      |                               | C           | 0.000                                   | 0.000                                   | 6.478                                                            | 0.000                                                             | 0.08                |

### Feed Line/Linear Appurtenances Section Areas - With Ice

| <i>Tower Section</i> | <i>Tower Elevation<br/>ft</i> | <i>Face or Leg</i> | <i>Ice Thickness<br/>in</i> | <i>A<sub>R</sub><br/>ft<sup>2</sup></i> | <i>A<sub>F</sub><br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub><br/>In Face<br/>ft<sup>2</sup></i> | <i>C<sub>A</sub>A<sub>A</sub><br/>Out Face<br/>ft<sup>2</sup></i> | <i>Weight<br/>K</i> |
|----------------------|-------------------------------|--------------------|-----------------------------|-----------------------------------------|-----------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|---------------------|
| T1                   | 1247.50-1246.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 2.140                                                            | 0.000                                                             | 0.05                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 2.484                                                            | 0.000                                                             | 0.05                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 0.000                                                            | 0.000                                                             | 0.00                |
| T2                   | 1246.00-1238.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 11.412                                                           | 0.000                                                             | 0.25                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 13.248                                                           | 0.000                                                             | 0.25                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 0.000                                                            | 0.000                                                             | 0.00                |
| T3                   | 1238.00-1230.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 21.580                                                           | 0.000                                                             | 0.41                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 13.248                                                           | 0.000                                                             | 0.25                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 0.000                                                            | 0.000                                                             | 0.00                |
| T4                   | 1230.00-1207.58               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 60.470                                                           | 0.000                                                             | 1.16                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 33.312                                                           | 0.000                                                             | 0.59                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 24.001                                                           | 0.000                                                             | 0.44                |
| T5                   | 1207.58-1200.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 20.455                                                           | 0.000                                                             | 0.39                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 11.268                                                           | 0.000                                                             | 0.20                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 8.119                                                            | 0.000                                                             | 0.15                |
| T6                   | 1200.00-1170.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 80.925                                                           | 0.000                                                             | 1.55                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 44.580                                                           | 0.000                                                             | 0.78                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 32.120                                                           | 0.000                                                             | 0.59                |
| T7                   | 1170.00-1140.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 80.925                                                           | 0.000                                                             | 1.55                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 44.580                                                           | 0.000                                                             | 0.78                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 32.120                                                           | 0.000                                                             | 0.59                |
| T8                   | 1140.00-1117.58               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 72.131                                                           | 0.000                                                             | 1.40                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 33.312                                                           | 0.000                                                             | 0.59                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 24.001                                                           | 0.000                                                             | 0.44                |
| T9                   | 1117.58-1110.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 25.532                                                           | 0.000                                                             | 0.50                |
|                      |                               | B                  |                             | 0.000                                   | 0.000                                   | 11.268                                                           | 0.000                                                             | 0.20                |
|                      |                               | C                  |                             | 0.000                                   | 0.000                                   | 8.119                                                            | 0.000                                                             | 0.15                |
| T10                  | 1110.00-1080.00               | A                  | 1.785                       | 0.000                                   | 0.000                                   | 101.010                                                          | 0.000                                                             | 1.96                |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>25 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Tower Section | Tower Elevation<br>ft | Face or Leg | Ice Thickness<br>in | $A_R$<br>ft <sup>2</sup> | $A_F$<br>ft <sup>2</sup> | $C_A A_A$<br>In Face<br>ft <sup>2</sup> | $C_A A_A$<br>Out Face<br>ft <sup>2</sup> | Weight<br>K |
|---------------|-----------------------|-------------|---------------------|--------------------------|--------------------------|-----------------------------------------|------------------------------------------|-------------|
|               |                       | B           |                     | 0.000                    | 0.000                    | 44.580                                  | 0.000                                    | 0.78        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.120                                  | 0.000                                    | 0.59        |
| T11           | 1080.00-1050.00       | A           | 1.785               | 0.000                    | 0.000                    | 101.010                                 | 0.000                                    | 1.96        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 44.580                                  | 0.000                                    | 0.78        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.120                                  | 0.000                                    | 0.59        |
| T12           | 1050.00-1020.00       | A           | 1.785               | 0.000                    | 0.000                    | 101.010                                 | 0.000                                    | 1.96        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 44.580                                  | 0.000                                    | 0.78        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.120                                  | 0.000                                    | 0.59        |
| T13           | 1020.00-990.00        | A           | 1.785               | 0.000                    | 0.000                    | 101.010                                 | 0.000                                    | 1.96        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 52.968                                  | 0.000                                    | 0.90        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.120                                  | 0.000                                    | 0.59        |
| T14           | 990.00-960.00         | A           | 1.785               | 0.000                    | 0.000                    | 101.010                                 | 0.000                                    | 1.96        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 58.560                                  | 0.000                                    | 0.98        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.120                                  | 0.000                                    | 0.59        |
| T15           | 960.00-930.00         | A           | 1.783               | 0.000                    | 0.000                    | 100.945                                 | 0.000                                    | 1.96        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 58.517                                  | 0.000                                    | 0.98        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.098                                  | 0.000                                    | 0.59        |
| T16           | 930.00-900.00         | A           | 1.777               | 0.000                    | 0.000                    | 115.182                                 | 0.000                                    | 2.22        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 58.379                                  | 0.000                                    | 0.98        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 32.030                                  | 0.000                                    | 0.59        |
| T17           | 900.00-870.00         | A           | 1.772               | 0.000                    | 0.000                    | 143.002                                 | 0.000                                    | 2.85        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 58.237                                  | 0.000                                    | 0.97        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.959                                  | 0.000                                    | 0.59        |
| T18           | 870.00-840.00         | A           | 1.765               | 0.000                    | 0.000                    | 142.709                                 | 0.000                                    | 2.84        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 58.091                                  | 0.000                                    | 0.97        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.885                                  | 0.000                                    | 0.59        |
| T19           | 840.00-810.00         | A           | 1.759               | 0.000                    | 0.000                    | 142.407                                 | 0.000                                    | 2.83        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.940                                  | 0.000                                    | 0.96        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.810                                  | 0.000                                    | 0.58        |
| T20           | 810.00-780.00         | A           | 1.753               | 0.000                    | 0.000                    | 142.095                                 | 0.000                                    | 2.82        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.784                                  | 0.000                                    | 0.96        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.732                                  | 0.000                                    | 0.58        |
| T21           | 780.00-750.00         | A           | 1.746               | 0.000                    | 0.000                    | 153.313                                 | 0.000                                    | 2.95        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.622                                  | 0.000                                    | 0.95        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.651                                  | 0.000                                    | 0.58        |
| T22           | 750.00-720.00         | A           | 1.739               | 0.000                    | 0.000                    | 153.761                                 | 0.000                                    | 2.95        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.455                                  | 0.000                                    | 0.95        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.567                                  | 0.000                                    | 0.58        |
| T23           | 720.00-690.00         | A           | 1.732               | 0.000                    | 0.000                    | 153.370                                 | 0.000                                    | 2.94        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.281                                  | 0.000                                    | 0.94        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.481                                  | 0.000                                    | 0.57        |
| T24           | 690.00-660.00         | A           | 1.724               | 0.000                    | 0.000                    | 152.965                                 | 0.000                                    | 2.92        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.101                                  | 0.000                                    | 0.94        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.390                                  | 0.000                                    | 0.57        |
| T25           | 660.00-630.00         | A           | 1.716               | 0.000                    | 0.000                    | 152.542                                 | 0.000                                    | 2.91        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 56.913                                  | 0.000                                    | 0.93        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.297                                  | 0.000                                    | 0.57        |
| T26           | 630.00-600.00         | A           | 1.708               | 0.000                    | 0.000                    | 152.102                                 | 0.000                                    | 2.89        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 56.718                                  | 0.000                                    | 0.93        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.199                                  | 0.000                                    | 0.56        |
| T27           | 600.00-570.00         | A           | 1.700               | 0.000                    | 0.000                    | 151.642                                 | 0.000                                    | 2.88        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 56.513                                  | 0.000                                    | 0.92        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 31.096                                  | 0.000                                    | 0.56        |
| T28           | 570.00-540.00         | A           | 1.691               | 0.000                    | 0.000                    | 151.160                                 | 0.000                                    | 2.86        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 57.193                                  | 0.000                                    | 0.93        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.989                                  | 0.000                                    | 0.56        |
| T29           | 540.00-510.00         | A           | 1.681               | 0.000                    | 0.000                    | 150.654                                 | 0.000                                    | 2.84        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 69.432                                  | 0.000                                    | 1.09        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.877                                  | 0.000                                    | 0.55        |
| T30           | 510.00-480.00         | A           | 1.672               | 0.000                    | 0.000                    | 150.121                                 | 0.000                                    | 2.82        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 69.136                                  | 0.000                                    | 1.08        |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>26 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Tower Section | Tower Elevation<br>ft | Face or Leg | Ice Thickness<br>in | $A_R$<br>ft <sup>2</sup> | $A_F$<br>ft <sup>2</sup> | $C_A A_A$<br>In Face<br>ft <sup>2</sup> | $C_A A_A$<br>Out Face<br>ft <sup>2</sup> | Weight<br>K |
|---------------|-----------------------|-------------|---------------------|--------------------------|--------------------------|-----------------------------------------|------------------------------------------|-------------|
| T31           | 480.00-450.00         | C           |                     | 0.000                    | 0.000                    | 30.759                                  | 0.000                                    | 0.55        |
|               |                       | A           | 1.661               | 0.000                    | 0.000                    | 149.559                                 | 0.000                                    | 2.80        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 68.824                                  | 0.000                                    | 1.07        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.634                                  | 0.000                                    | 0.55        |
| T32           | 450.00-420.00         | A           | 1.650               | 0.000                    | 0.000                    | 148.962                                 | 0.000                                    | 2.78        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 73.761                                  | 0.000                                    | 1.13        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.501                                  | 0.000                                    | 0.54        |
| T33           | 420.00-390.00         | A           | 1.638               | 0.000                    | 0.000                    | 148.328                                 | 0.000                                    | 2.76        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 82.298                                  | 0.000                                    | 1.24        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.360                                  | 0.000                                    | 0.54        |
| T34           | 390.00-360.00         | A           | 1.626               | 0.000                    | 0.000                    | 147.650                                 | 0.000                                    | 2.74        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 96.573                                  | 0.000                                    | 1.44        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.209                                  | 0.000                                    | 0.53        |
| T35           | 360.00-330.00         | A           | 1.612               | 0.000                    | 0.000                    | 146.921                                 | 0.000                                    | 2.72        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 105.428                                 | 0.000                                    | 1.56        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 30.047                                  | 0.000                                    | 0.53        |
| T36           | 330.00-300.00         | A           | 1.598               | 0.000                    | 0.000                    | 146.132                                 | 0.000                                    | 2.69        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 111.009                                 | 0.000                                    | 1.64        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 29.872                                  | 0.000                                    | 0.52        |
| T37           | 300.00-270.00         | A           | 1.582               | 0.000                    | 0.000                    | 145.273                                 | 0.000                                    | 2.66        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 110.245                                 | 0.000                                    | 1.61        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 29.681                                  | 0.000                                    | 0.52        |
| T38           | 270.00-240.00         | A           | 1.564               | 0.000                    | 0.000                    | 144.328                                 | 0.000                                    | 2.63        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 109.405                                 | 0.000                                    | 1.59        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 29.471                                  | 0.000                                    | 0.51        |
| T39           | 240.00-210.00         | A           | 1.545               | 0.000                    | 0.000                    | 143.278                                 | 0.000                                    | 2.60        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 108.471                                 | 0.000                                    | 1.56        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 29.238                                  | 0.000                                    | 0.50        |
| T40           | 210.00-180.00         | A           | 1.523               | 0.000                    | 0.000                    | 142.092                                 | 0.000                                    | 2.56        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 107.418                                 | 0.000                                    | 1.53        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 28.974                                  | 0.000                                    | 0.49        |
| T41           | 180.00-150.00         | A           | 1.498               | 0.000                    | 0.000                    | 140.730                                 | 0.000                                    | 2.51        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 106.207                                 | 0.000                                    | 1.50        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 28.672                                  | 0.000                                    | 0.49        |
| T42           | 150.00-120.00         | A           | 1.468               | 0.000                    | 0.000                    | 139.123                                 | 0.000                                    | 2.46        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 104.779                                 | 0.000                                    | 1.46        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 28.315                                  | 0.000                                    | 0.47        |
| T43           | 120.00-90.00          | A           | 1.431               | 0.000                    | 0.000                    | 137.156                                 | 0.000                                    | 2.40        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 103.030                                 | 0.000                                    | 1.41        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 27.877                                  | 0.000                                    | 0.46        |
| T44           | 90.00-60.00           | A           | 1.384               | 0.000                    | 0.000                    | 134.598                                 | 0.000                                    | 2.32        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 100.756                                 | 0.000                                    | 1.35        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 27.309                                  | 0.000                                    | 0.45        |
| T45           | 60.00-30.00           | A           | 1.315               | 0.000                    | 0.000                    | 133.806                                 | 0.000                                    | 2.24        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 97.448                                  | 0.000                                    | 1.27        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 26.482                                  | 0.000                                    | 0.42        |
| T46           | 30.00-22.50           | A           | 1.246               | 0.000                    | 0.000                    | 34.125                                  | 0.000                                    | 0.55        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 23.534                                  | 0.000                                    | 0.30        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 7.080                                   | 0.000                                    | 0.11        |
| T47           | 22.50-15.00           | A           | 1.205               | 0.000                    | 0.000                    | 33.507                                  | 0.000                                    | 0.53        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 23.039                                  | 0.000                                    | 0.28        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 16.099                                  | 0.000                                    | 0.25        |
| T48           | 15.00-7.50            | A           | 1.145               | 0.000                    | 0.000                    | 25.955                                  | 0.000                                    | 0.42        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 22.319                                  | 0.000                                    | 0.27        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 15.649                                  | 0.000                                    | 0.24        |
| T49           | 7.50-0.00             | A           | 1.026               | 0.000                    | 0.000                    | 24.704                                  | 0.000                                    | 0.39        |
|               |                       | B           |                     | 0.000                    | 0.000                    | 20.890                                  | 0.000                                    | 0.24        |
|               |                       | C           |                     | 0.000                    | 0.000                    | 13.556                                  | 0.000                                    | 0.20        |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>27 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

## Feed Line Center of Pressure

| Section | Elevation       | CP <sub>x</sub> | CP <sub>z</sub> | CP <sub>x</sub><br>Ice | CP <sub>z</sub><br>Ice |
|---------|-----------------|-----------------|-----------------|------------------------|------------------------|
|         | ft              | in              | in              | in                     | in                     |
| T1      | 1247.50-1246.00 | -0.0088         | -0.5953         | 0.0000                 | 0.0000                 |
| T2      | 1246.00-1238.00 | 1.8884          | -6.3218         | 2.5497                 | -8.3215                |
| T3      | 1238.00-1230.00 | 1.0161          | -5.5811         | 0.0768                 | -7.3582                |
| T4      | 1230.00-1207.58 | -1.1522         | -5.3795         | -2.3638                | -4.8416                |
| T5      | 1207.58-1200.00 | -0.8229         | -3.9872         | -1.8695                | -3.8827                |
| T6      | 1200.00-1170.00 | -0.9135         | -4.3807         | -2.0887                | -4.3178                |
| T7      | 1170.00-1140.00 | -0.9135         | -4.3807         | -2.0887                | -4.3178                |
| T8      | 1140.00-1117.58 | -3.2206         | -2.9398         | -3.3704                | -3.5501                |
| T9      | 1117.58-1110.00 | -3.8349         | -2.5358         | -3.7232                | -3.3297                |
| T10     | 1110.00-1080.00 | -4.3432         | -2.8310         | -3.9860                | -3.5465                |
| T11     | 1080.00-1050.00 | -4.1935         | -2.7270         | -3.9275                | -3.4931                |
| T12     | 1050.00-1020.00 | -3.6286         | -2.3970         | -3.7278                | -3.3384                |
| T13     | 1020.00-990.00  | -3.8510         | -2.7910         | -3.1841                | -3.5005                |
| T14     | 990.00-960.00   | -3.5638         | -2.7891         | -2.6862                | -3.4870                |
| T15     | 960.00-930.00   | -3.5638         | -2.7891         | -2.6860                | -3.4872                |
| T16     | 930.00-900.00   | -3.8989         | -4.2396         | -3.0209                | -4.7450                |
| T17     | 900.00-870.00   | -6.0440         | -3.4652         | -4.4632                | -4.3712                |
| T18     | 870.00-840.00   | -4.4430         | -3.7134         | -4.2490                | -4.1873                |
| T19     | 840.00-810.00   | -5.1060         | -4.2093         | -4.4629                | -4.3722                |
| T20     | 810.00-780.00   | -5.1107         | -4.2144         | -4.4628                | -4.3728                |
| T21     | 780.00-750.00   | -5.2155         | -4.4737         | -4.7523                | -5.0458                |
| T22     | 750.00-720.00   | -5.2275         | -4.4968         | -4.7720                | -5.0923                |
| T23     | 720.00-690.00   | -5.2327         | -4.5023         | -4.7715                | -5.0921                |
| T24     | 690.00-660.00   | -4.5481         | -3.9662         | -4.5257                | -4.8583                |
| T25     | 660.00-630.00   | -5.1550         | -4.4329         | -4.7322                | -5.0499                |
| T26     | 630.00-600.00   | -5.2111         | -4.4844         | -4.7476                | -5.0670                |
| T27     | 600.00-570.00   | -5.2171         | -4.4909         | -4.7469                | -5.0667                |
| T28     | 570.00-540.00   | -5.1833         | -4.4876         | -4.6763                | -5.0478                |
| T29     | 540.00-510.00   | -4.5619         | -4.2822         | -3.6988                | -4.7577                |
| T30     | 510.00-480.00   | -4.0757         | -3.8818         | -3.5549                | -4.6000                |
| T31     | 480.00-450.00   | -4.5784         | -4.2979         | -3.6994                | -4.7572                |
| T32     | 450.00-420.00   | -4.4778         | -4.4994         | -3.4581                | -5.0239                |
| T33     | 420.00-390.00   | -4.2077         | -4.7586         | -3.0294                | -5.4185                |
| T34     | 390.00-360.00   | -3.4362         | -5.1105         | -2.2117                | -5.8098                |
| T35     | 360.00-330.00   | -2.8732         | -5.1380         | -1.6191                | -5.8595                |
| T36     | 330.00-300.00   | -2.3009         | -4.7667         | -1.2035                | -5.7382                |
| T37     | 300.00-270.00   | -2.5884         | -5.2652         | -1.2550                | -5.9357                |
| T38     | 270.00-240.00   | -2.6310         | -5.3224         | -1.2619                | -5.9522                |
| T39     | 240.00-210.00   | -2.6545         | -5.3349         | -1.2653                | -5.9498                |
| T40     | 210.00-180.00   | -2.6817         | -5.3494         | -1.2691                | -5.9472                |
| T41     | 180.00-150.00   | -2.4200         | -4.8454         | -1.2169                | -5.7115                |
| T42     | 150.00-120.00   | -2.4527         | -4.8734         | -1.1939                | -5.5776                |
| T43     | 120.00-90.00    | -2.4996         | -4.9030         | -1.1998                | -5.5719                |
| T44     | 90.00-60.00     | -2.5551         | -4.9491         | -1.2078                | -5.5642                |
| T45     | 60.00-30.00     | -1.7514         | -5.5453         | -1.4769                | -5.4091                |
| T46     | 30.00-22.50     | -1.6772         | -4.8805         | -1.9269                | -4.8017                |
| T47     | 22.50-15.00     | -1.0798         | -3.6675         | -1.1571                | -2.9342                |
| T48     | 15.00-7.50      | -0.5573         | -2.9634         | -0.0585                | -2.1066                |
| T49     | 7.50-0.00       | -0.7559         | -3.7306         | -0.2068                | -2.6937                |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 28 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

## Shielding Factor Ka

| Tower Section | Feed Line Record No. | Description                                   | Feed Line Segment Elev. | K <sub>a</sub> No Ice | K <sub>a</sub> Ice |
|---------------|----------------------|-----------------------------------------------|-------------------------|-----------------------|--------------------|
| T1            | 15                   | L1-1/2x2x1/4"                                 | 1246.00 - 1247.50       | 0.0000                | 0.0000             |
| T1            | 16                   | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 1246.00 - 1247.50       | 0.0000                | 0.0000             |
| T1            | 58                   | 1" Metal Conduit                              | 1246.00 - 1247.50       | 0.0000                | 0.0000             |
| T1            | 59                   | 6 1/8" Rigid                                  | 1246.00 - 1247.50       | 1.0000                | 0.0000             |
| T2            | 15                   | L1-1/2x2x1/4"                                 | 1238.00 - 1246.00       | 0.6000                | 0.6000             |
| T2            | 16                   | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 1238.00 - 1246.00       | 0.6000                | 0.6000             |
| T2            | 58                   | 1" Metal Conduit                              | 1238.00 - 1246.00       | 0.6000                | 0.6000             |
| T2            | 59                   | 6 1/8" Rigid                                  | 1238.00 - 1246.00       | 1.0000                | 0.6000             |
| T3            | 12                   | 3/4" Solid Round                              | 1230.00 - 1238.00       | 0.6000                | 0.5483             |
| T3            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1230.00 - 1238.00       | 0.6000                | 0.5483             |
| T3            | 15                   | L1-1/2x2x1/4"                                 | 1230.00 - 1238.00       | 0.6000                | 0.5483             |
| T3            | 16                   | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 1230.00 - 1238.00       | 0.6000                | 0.5483             |
| T3            | 58                   | 1" Metal Conduit                              | 1230.00 - 1238.00       | 0.6000                | 0.5483             |
| T3            | 59                   | 6 1/8" Rigid                                  | 1230.00 - 1238.00       | 1.0000                | 0.5483             |
| T4            | 1                    | Pipe 1 1/2" STD                               | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 2                    | Pipe 1 1/2" STD                               | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 12                   | 3/4" Solid Round                              | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 58                   | 1" Metal Conduit                              | 1207.58 - 1230.00       | 0.6000                | 0.6000             |
| T4            | 59                   | 6 1/8" Rigid                                  | 1207.58 - 1230.00       | 1.0000                | 0.6000             |
| T5            | 1                    | Pipe 1 1/2" STD                               | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 2                    | Pipe 1 1/2" STD                               | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 12                   | 3/4" Solid Round                              | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 58                   | 1" Metal Conduit                              | 1200.00 - 1207.58       | 0.6000                | 0.5548             |
| T5            | 59                   | 6 1/8" Rigid                                  | 1200.00 - 1207.58       | 1.0000                | 0.5548             |
| T6            | 1                    | Pipe 1 1/2" STD                               | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 2                    | Pipe 1 1/2" STD                               | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 12                   | 3/4" Solid Round                              | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 58                   | 1" Metal Conduit                              | 1170.00 - 1200.00       | 0.6000                | 0.5990             |
| T6            | 59                   | 6 1/8" Rigid                                  | 1170.00 - 1200.00       | 1.0000                | 0.5990             |
| T7            | 1                    | Pipe 1 1/2" STD                               | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 2                    | Pipe 1 1/2" STD                               | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 12                   | 3/4" Solid Round                              | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 58                   | 1" Metal Conduit                              | 1140.00 - 1170.00       | 0.6000                | 0.5990             |
| T7            | 59                   | 6 1/8" Rigid                                  | 1140.00 - 1170.00       | 1.0000                | 0.5990             |
| T8            | 1                    | Pipe 1 1/2" STD                               | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 2                    | Pipe 1 1/2" STD                               | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 12                   | 3/4" Solid Round                              | 1117.58 - 1140.00       | 0.6000                | 0.6000             |
| T8            | 13                   | 5/8" SR Rungs (12" W x 15" Step)              | 1117.58 - 1140.00       | 0.6000                | 0.6000             |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>29 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T8                   | 58                          | 1" Metal Conduit                          | 1117.58 - 1140.00              | 0.6000                      | 0.6000                   |
| T8                   | 59                          | 6 1/8" Rigid                              | 1117.58 - 1140.00              | 1.0000                      | 0.6000                   |
| T8                   | 60                          | 3-1/8" Rigid                              | 1117.58 - 1135.00              | 1.0000                      | 0.6000                   |
| T9                   | 1                           | Pipe 1 1/2" STD                           | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 2                           | Pipe 1 1/2" STD                           | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 12                          | 3/4" Solid Round                          | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 58                          | 1" Metal Conduit                          | 1110.00 - 1117.58              | 0.6000                      | 0.6000                   |
| T9                   | 59                          | 6 1/8" Rigid                              | 1110.00 - 1117.58              | 1.0000                      | 0.6000                   |
| T9                   | 60                          | 3-1/8" Rigid                              | 1110.00 - 1117.58              | 1.0000                      | 0.6000                   |
| T10                  | 1                           | Pipe 1 1/2" STD                           | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 2                           | Pipe 1 1/2" STD                           | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 12                          | 3/4" Solid Round                          | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 58                          | 1" Metal Conduit                          | 1080.00 - 1110.00              | 0.6000                      | 0.6000                   |
| T10                  | 59                          | 6 1/8" Rigid                              | 1080.00 - 1110.00              | 1.0000                      | 0.6000                   |
| T10                  | 60                          | 3-1/8" Rigid                              | 1080.00 - 1110.00              | 1.0000                      | 0.6000                   |
| T11                  | 1                           | Pipe 1 1/2" STD                           | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 2                           | Pipe 1 1/2" STD                           | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 12                          | 3/4" Solid Round                          | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 58                          | 1" Metal Conduit                          | 1050.00 - 1080.00              | 0.6000                      | 0.6000                   |
| T11                  | 59                          | 6 1/8" Rigid                              | 1050.00 - 1080.00              | 1.0000                      | 0.6000                   |
| T11                  | 60                          | 3-1/8" Rigid                              | 1050.00 - 1080.00              | 1.0000                      | 0.6000                   |
| T12                  | 1                           | Pipe 1 1/2" STD                           | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 2                           | Pipe 1 1/2" STD                           | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 12                          | 3/4" Solid Round                          | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 58                          | 1" Metal Conduit                          | 1020.00 - 1050.00              | 0.6000                      | 0.6000                   |
| T12                  | 59                          | 6 1/8" Rigid                              | 1020.00 - 1050.00              | 1.0000                      | 0.6000                   |
| T12                  | 60                          | 3-1/8" Rigid                              | 1020.00 - 1050.00              | 1.0000                      | 0.6000                   |
| T13                  | 1                           | Pipe 1 1/2" STD                           | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 2                           | Pipe 1 1/2" STD                           | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 12                          | 3/4" Solid Round                          | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 24                          | LDF5-50A(7/8")                            | 990.00 - 1008.00               | 0.6000                      | 0.6000                   |
| T13                  | 58                          | 1" Metal Conduit                          | 990.00 - 1020.00               | 0.6000                      | 0.6000                   |
| T13                  | 59                          | 6 1/8" Rigid                              | 990.00 - 1020.00               | 1.0000                      | 0.6000                   |
| T13                  | 60                          | 3-1/8" Rigid                              | 990.00 - 1020.00               | 1.0000                      | 0.6000                   |
| T14                  | 1                           | Pipe 1 1/2" STD                           | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 2                           | Pipe 1 1/2" STD                           | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 12                          | 3/4" Solid Round                          | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 24                          | LDF5-50A(7/8")                            | 960.00 - 990.00                | 0.6000                      | 0.6000                   |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 30 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T14                  | 58                          | 1" Metal Conduit                          | 960.00 - 990.00                | 0.6000                      | 0.6000                   |
| T14                  | 59                          | 6 1/8" Rigid                              | 960.00 - 990.00                | 1.0000                      | 0.6000                   |
| T14                  | 60                          | 3-1/8" Rigid                              | 960.00 - 990.00                | 1.0000                      | 0.6000                   |
| T15                  | 1                           | Pipe 1 1/2" STD                           | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 2                           | Pipe 1 1/2" STD                           | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 12                          | 3/4" Solid Round                          | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 24                          | LDF5-50A(7/8")                            | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 58                          | 1" Metal Conduit                          | 930.00 - 960.00                | 0.6000                      | 0.6000                   |
| T15                  | 59                          | 6 1/8" Rigid                              | 930.00 - 960.00                | 1.0000                      | 0.6000                   |
| T15                  | 60                          | 3-1/8" Rigid                              | 930.00 - 960.00                | 1.0000                      | 0.6000                   |
| T16                  | 1                           | Pipe 1 1/2" STD                           | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 2                           | Pipe 1 1/2" STD                           | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 12                          | 3/4" Solid Round                          | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 24                          | LDF5-50A(7/8")                            | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 58                          | 1" Metal Conduit                          | 900.00 - 930.00                | 0.6000                      | 0.6000                   |
| T16                  | 59                          | 6 1/8" Rigid                              | 900.00 - 930.00                | 1.0000                      | 0.6000                   |
| T16                  | 60                          | 3-1/8" Rigid                              | 900.00 - 930.00                | 1.0000                      | 0.6000                   |
| T16                  | 61                          | HJ8-50B(3")                               | 900.00 - 922.00                | 0.6000                      | 0.6000                   |
| T17                  | 1                           | Pipe 1 1/2" STD                           | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 2                           | Pipe 1 1/2" STD                           | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 12                          | 3/4" Solid Round                          | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 24                          | LDF5-50A(7/8")                            | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 58                          | 1" Metal Conduit                          | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 59                          | 6 1/8" Rigid                              | 870.00 - 900.00                | 1.0000                      | 0.6000                   |
| T17                  | 60                          | 3-1/8" Rigid                              | 870.00 - 900.00                | 1.0000                      | 0.6000                   |
| T17                  | 61                          | HJ8-50B(3")                               | 870.00 - 900.00                | 0.6000                      | 0.6000                   |
| T17                  | 62                          | 4 1/16" Rigid                             | 870.00 - 900.00                | 1.0000                      | 0.6000                   |
| T18                  | 1                           | Pipe 1 1/2" STD                           | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 2                           | Pipe 1 1/2" STD                           | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 12                          | 3/4" Solid Round                          | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 24                          | LDF5-50A(7/8")                            | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 58                          | 1" Metal Conduit                          | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 59                          | 6 1/8" Rigid                              | 840.00 - 870.00                | 1.0000                      | 0.6000                   |
| T18                  | 60                          | 3-1/8" Rigid                              | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 61                          | HJ8-50B(3")                               | 840.00 - 870.00                | 0.6000                      | 0.6000                   |
| T18                  | 62                          | 4 1/16" Rigid                             | 840.00 - 870.00                | 1.0000                      | 0.6000                   |
| T19                  | 1                           | Pipe 1 1/2" STD                           | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 2                           | Pipe 1 1/2" STD                           | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 12                          | 3/4" Solid Round                          | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 24                          | LDF5-50A(7/8")                            | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 58                          | 1" Metal Conduit                          | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 59                          | 6 1/8" Rigid                              | 810.00 - 840.00                | 1.0000                      | 0.6000                   |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>31 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T19                  | 60                          | 3-1/8" Rigid                              | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 61                          | HJ8-50B(3")                               | 810.00 - 840.00                | 0.6000                      | 0.6000                   |
| T19                  | 62                          | 4 1/16" Rigid                             | 810.00 - 840.00                | 1.0000                      | 0.6000                   |
| T20                  | 1                           | Pipe 1 1/2" STD                           | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 2                           | Pipe 1 1/2" STD                           | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 12                          | 3/4" Solid Round                          | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 24                          | LDF5-50A(7/8")                            | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 58                          | 1" Metal Conduit                          | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 59                          | 6 1/8" Rigid                              | 780.00 - 810.00                | 1.0000                      | 0.6000                   |
| T20                  | 60                          | 3-1/8" Rigid                              | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 61                          | HJ8-50B(3")                               | 780.00 - 810.00                | 0.6000                      | 0.6000                   |
| T20                  | 62                          | 4 1/16" Rigid                             | 780.00 - 810.00                | 1.0000                      | 0.6000                   |
| T21                  | 1                           | Pipe 1 1/2" STD                           | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 2                           | Pipe 1 1/2" STD                           | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 12                          | 3/4" Solid Round                          | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 24                          | LDF5-50A(7/8")                            | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 58                          | 1" Metal Conduit                          | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 59                          | 6 1/8" Rigid                              | 750.00 - 780.00                | 1.0000                      | 0.6000                   |
| T21                  | 60                          | 3-1/8" Rigid                              | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 61                          | HJ8-50B(3")                               | 750.00 - 780.00                | 0.6000                      | 0.6000                   |
| T21                  | 62                          | 4 1/16" Rigid                             | 750.00 - 780.00                | 1.0000                      | 0.6000                   |
| T21                  | 63                          | LDF4P-50A(1/2")                           | 750.00 - 778.00                | 0.6000                      | 0.6000                   |
| T22                  | 1                           | Pipe 1 1/2" STD                           | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 2                           | Pipe 1 1/2" STD                           | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 12                          | 3/4" Solid Round                          | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 24                          | LDF5-50A(7/8")                            | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 58                          | 1" Metal Conduit                          | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 59                          | 6 1/8" Rigid                              | 720.00 - 750.00                | 1.0000                      | 0.6000                   |
| T22                  | 60                          | 3-1/8" Rigid                              | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 61                          | HJ8-50B(3")                               | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T22                  | 62                          | 4 1/16" Rigid                             | 720.00 - 750.00                | 1.0000                      | 0.6000                   |
| T22                  | 63                          | LDF4P-50A(1/2")                           | 720.00 - 750.00                | 0.6000                      | 0.6000                   |
| T23                  | 1                           | Pipe 1 1/2" STD                           | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 2                           | Pipe 1 1/2" STD                           | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 12                          | 3/4" Solid Round                          | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 24                          | LDF5-50A(7/8")                            | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 58                          | 1" Metal Conduit                          | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 59                          | 6 1/8" Rigid                              | 690.00 - 720.00                | 1.0000                      | 0.6000                   |
| T23                  | 60                          | 3-1/8" Rigid                              | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 61                          | HJ8-50B(3")                               | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T23                  | 62                          | 4 1/16" Rigid                             | 690.00 - 720.00                | 1.0000                      | 0.6000                   |
| T23                  | 63                          | LDF4P-50A(1/2")                           | 690.00 - 720.00                | 0.6000                      | 0.6000                   |
| T24                  | 1                           | Pipe 1 1/2" STD                           | 660.00 - 690.00                | 0.6000                      | 0.6000                   |
| T24                  | 2                           | Pipe 1 1/2" STD                           | 660.00 - 690.00                | 0.6000                      | 0.6000                   |
| T24                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 660.00 - 690.00                | 0.6000                      | 0.6000                   |
| T24                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 660.00 - 690.00                | 0.6000                      | 0.6000                   |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>32 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Tower Section | Feed Line Record No. | Description                               | Feed Line Segment Elev. | K <sub>a</sub> No Ice | K <sub>a</sub> Ice |
|---------------|----------------------|-------------------------------------------|-------------------------|-----------------------|--------------------|
| T24           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 12                   | 3/4" Solid Round                          | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 24                   | LDF5-50A(7/8")                            | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 58                   | 1" Metal Conduit                          | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 59                   | 6 1/8" Rigid                              | 660.00 - 690.00         | 1.0000                | 0.6000             |
| T24           | 60                   | 3-1/8" Rigid                              | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 61                   | HJ8-50B(3")                               | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T24           | 62                   | 4 1/16" Rigid                             | 660.00 - 690.00         | 1.0000                | 0.6000             |
| T24           | 63                   | LDF4P-50A(1/2")                           | 660.00 - 690.00         | 0.6000                | 0.6000             |
| T25           | 1                    | Pipe 1 1/2" STD                           | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 2                    | Pipe 1 1/2" STD                           | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 12                   | 3/4" Solid Round                          | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 24                   | LDF5-50A(7/8")                            | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 58                   | 1" Metal Conduit                          | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 59                   | 6 1/8" Rigid                              | 630.00 - 660.00         | 1.0000                | 0.6000             |
| T25           | 60                   | 3-1/8" Rigid                              | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 61                   | HJ8-50B(3")                               | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T25           | 62                   | 4 1/16" Rigid                             | 630.00 - 660.00         | 1.0000                | 0.6000             |
| T25           | 63                   | LDF4P-50A(1/2")                           | 630.00 - 660.00         | 0.6000                | 0.6000             |
| T26           | 1                    | Pipe 1 1/2" STD                           | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 2                    | Pipe 1 1/2" STD                           | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 12                   | 3/4" Solid Round                          | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 24                   | LDF5-50A(7/8")                            | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 58                   | 1" Metal Conduit                          | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 59                   | 6 1/8" Rigid                              | 600.00 - 630.00         | 1.0000                | 0.6000             |
| T26           | 60                   | 3-1/8" Rigid                              | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 61                   | HJ8-50B(3")                               | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T26           | 62                   | 4 1/16" Rigid                             | 600.00 - 630.00         | 1.0000                | 0.6000             |
| T26           | 63                   | LDF4P-50A(1/2")                           | 600.00 - 630.00         | 0.6000                | 0.6000             |
| T27           | 1                    | Pipe 1 1/2" STD                           | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 2                    | Pipe 1 1/2" STD                           | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 12                   | 3/4" Solid Round                          | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 24                   | LDF5-50A(7/8")                            | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 58                   | 1" Metal Conduit                          | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 59                   | 6 1/8" Rigid                              | 570.00 - 600.00         | 1.0000                | 0.6000             |
| T27           | 60                   | 3-1/8" Rigid                              | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 61                   | HJ8-50B(3")                               | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T27           | 62                   | 4 1/16" Rigid                             | 570.00 - 600.00         | 1.0000                | 0.6000             |
| T27           | 63                   | LDF4P-50A(1/2")                           | 570.00 - 600.00         | 0.6000                | 0.6000             |
| T28           | 1                    | Pipe 1 1/2" STD                           | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 2                    | Pipe 1 1/2" STD                           | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 12                   | 3/4" Solid Round                          | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 24                   | LDF5-50A(7/8")                            | 540.00 - 570.00         | 0.6000                | 0.6000             |
| T28           | 53                   | LDF5-50A(7/8")                            | 540.00 - 542.00         | 0.6000                | 0.6000             |
| T28           | 58                   | 1" Metal Conduit                          | 540.00 - 570.00         | 0.6000                | 0.6000             |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 33 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T28                  | 59                          | 6 1/8" Rigid                              | 540.00 - 570.00                | 1.0000                      | 0.6000                   |
| T28                  | 60                          | 3-1/8" Rigid                              | 540.00 - 570.00                | 0.6000                      | 0.6000                   |
| T28                  | 61                          | HJ8-50B(3")                               | 540.00 - 570.00                | 0.6000                      | 0.6000                   |
| T28                  | 62                          | 4 1/16" Rigid                             | 540.00 - 570.00                | 1.0000                      | 0.6000                   |
| T28                  | 63                          | LDF4P-50A(1/2")                           | 540.00 - 570.00                | 0.6000                      | 0.6000                   |
| T29                  | 1                           | Pipe 1 1/2" STD                           | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 2                           | Pipe 1 1/2" STD                           | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 12                          | 3/4" Solid Round                          | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 24                          | LDF5-50A(7/8")                            | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 53                          | LDF5-50A(7/8")                            | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 58                          | 1" Metal Conduit                          | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 59                          | 6 1/8" Rigid                              | 510.00 - 540.00                | 1.0000                      | 0.6000                   |
| T29                  | 60                          | 3-1/8" Rigid                              | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 61                          | HJ8-50B(3")                               | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T29                  | 62                          | 4 1/16" Rigid                             | 510.00 - 540.00                | 1.0000                      | 0.6000                   |
| T29                  | 63                          | LDF4P-50A(1/2")                           | 510.00 - 540.00                | 0.6000                      | 0.6000                   |
| T30                  | 1                           | Pipe 1 1/2" STD                           | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 2                           | Pipe 1 1/2" STD                           | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 12                          | 3/4" Solid Round                          | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 24                          | LDF5-50A(7/8")                            | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 53                          | LDF5-50A(7/8")                            | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 58                          | 1" Metal Conduit                          | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 59                          | 6 1/8" Rigid                              | 480.00 - 510.00                | 1.0000                      | 0.6000                   |
| T30                  | 60                          | 3-1/8" Rigid                              | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 61                          | HJ8-50B(3")                               | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T30                  | 62                          | 4 1/16" Rigid                             | 480.00 - 510.00                | 1.0000                      | 0.6000                   |
| T30                  | 63                          | LDF4P-50A(1/2")                           | 480.00 - 510.00                | 0.6000                      | 0.6000                   |
| T31                  | 1                           | Pipe 1 1/2" STD                           | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 2                           | Pipe 1 1/2" STD                           | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 12                          | 3/4" Solid Round                          | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 24                          | LDF5-50A(7/8")                            | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 53                          | LDF5-50A(7/8")                            | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 58                          | 1" Metal Conduit                          | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 59                          | 6 1/8" Rigid                              | 450.00 - 480.00                | 1.0000                      | 0.6000                   |
| T31                  | 60                          | 3-1/8" Rigid                              | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 61                          | HJ8-50B(3")                               | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T31                  | 62                          | 4 1/16" Rigid                             | 450.00 - 480.00                | 1.0000                      | 0.6000                   |
| T31                  | 63                          | LDF4P-50A(1/2")                           | 450.00 - 480.00                | 0.6000                      | 0.6000                   |
| T32                  | 1                           | Pipe 1 1/2" STD                           | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 2                           | Pipe 1 1/2" STD                           | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 12                          | 3/4" Solid Round                          | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 21                          | LDF5-50A(7/8")                            | 420.00 - 432.00                | 0.6000                      | 0.6000                   |
| T32                  | 24                          | LDF5-50A(7/8")                            | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 53                          | LDF5-50A(7/8")                            | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 58                          | 1" Metal Conduit                          | 420.00 - 450.00                | 0.6000                      | 0.6000                   |
| T32                  | 59                          | 6 1/8" Rigid                              | 420.00 - 450.00                | 1.0000                      | 0.6000                   |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>34 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Tower Section | Feed Line Record No. | Description                               | Feed Line Segment Elev. | K <sub>a</sub> No Ice | K <sub>a</sub> Ice |
|---------------|----------------------|-------------------------------------------|-------------------------|-----------------------|--------------------|
| T32           | 60                   | 3-1/8" Rigid                              | 420.00 - 450.00         | 0.6000                | 0.6000             |
| T32           | 61                   | HJ8-50B(3")                               | 420.00 - 450.00         | 0.6000                | 0.6000             |
| T32           | 62                   | 4 1/16" Rigid                             | 420.00 - 450.00         | 1.0000                | 0.6000             |
| T32           | 63                   | LDF4P-50A(1/2")                           | 420.00 - 450.00         | 0.6000                | 0.6000             |
| T33           | 1                    | Pipe 1 1/2" STD                           | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 2                    | Pipe 1 1/2" STD                           | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 12                   | 3/4" Solid Round                          | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 21                   | LDF5-50A(7/8")                            | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 22                   | EW63(ELLIPTICAL)                          | 390.00 - 392.00         | 0.6000                | 0.6000             |
| T33           | 24                   | LDF5-50A(7/8")                            | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 53                   | LDF5-50A(7/8")                            | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 58                   | 1" Metal Conduit                          | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 59                   | 6 1/8" Rigid                              | 390.00 - 420.00         | 1.0000                | 0.6000             |
| T33           | 60                   | 3-1/8" Rigid                              | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 61                   | HJ8-50B(3")                               | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T33           | 62                   | 4 1/16" Rigid                             | 390.00 - 420.00         | 1.0000                | 0.6000             |
| T33           | 63                   | LDF4P-50A(1/2")                           | 390.00 - 420.00         | 0.6000                | 0.6000             |
| T34           | 1                    | Pipe 1 1/2" STD                           | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 2                    | Pipe 1 1/2" STD                           | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 12                   | 3/4" Solid Round                          | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 21                   | LDF5-50A(7/8")                            | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 22                   | EW63(ELLIPTICAL)                          | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 24                   | LDF5-50A(7/8")                            | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 53                   | LDF5-50A(7/8")                            | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 58                   | 1" Metal Conduit                          | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 59                   | 6 1/8" Rigid                              | 360.00 - 390.00         | 1.0000                | 0.6000             |
| T34           | 60                   | 3-1/8" Rigid                              | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 61                   | HJ8-50B(3")                               | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T34           | 62                   | 4 1/16" Rigid                             | 360.00 - 390.00         | 1.0000                | 0.6000             |
| T34           | 63                   | LDF4P-50A(1/2")                           | 360.00 - 390.00         | 0.6000                | 0.6000             |
| T35           | 1                    | Pipe 1 1/2" STD                           | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 2                    | Pipe 1 1/2" STD                           | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 12                   | 3/4" Solid Round                          | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 13                   | 5/8" SR Rungs (12" W x 15" Step)          | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 21                   | LDF5-50A(7/8")                            | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 22                   | EW63(ELLIPTICAL)                          | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 23                   | EW63(ELLIPTICAL)                          | 330.00 - 348.00         | 0.6000                | 0.6000             |
| T35           | 24                   | LDF5-50A(7/8")                            | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 53                   | LDF5-50A(7/8")                            | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 58                   | 1" Metal Conduit                          | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 59                   | 6 1/8" Rigid                              | 330.00 - 360.00         | 1.0000                | 0.6000             |
| T35           | 60                   | 3-1/8" Rigid                              | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 61                   | HJ8-50B(3")                               | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T35           | 62                   | 4 1/16" Rigid                             | 330.00 - 360.00         | 1.0000                | 0.6000             |
| T35           | 63                   | LDF4P-50A(1/2")                           | 330.00 - 360.00         | 0.6000                | 0.6000             |
| T36           | 1                    | Pipe 1 1/2" STD                           | 300.00 - 330.00         | 0.6000                | 0.6000             |
| T36           | 2                    | Pipe 1 1/2" STD                           | 300.00 - 330.00         | 0.6000                | 0.6000             |
| T36           | 5                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 300.00 - 330.00         | 0.6000                | 0.6000             |
| T36           | 6                    | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 300.00 - 330.00         | 0.6000                | 0.6000             |
| T36           | 7                    | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 300.00 - 330.00         | 0.6000                | 0.6000             |
| T36           | 12                   | 3/4" Solid Round                          | 300.00 - 330.00         | 0.6000                | 0.6000             |

|                                                                                                                                                                    |                                              |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br><br>35 of 77          |
|                                                                                                                                                                    | <b>Project</b><br><br>TEP# 19780.814207      | <b>Date</b><br><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b><br><br>MPB                     | <b>Designed by</b><br><br>elatta     |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T36                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 21                          | LDF5-50A(7/8")                            | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 22                          | EW63(ELLIPTICAL)                          | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 23                          | EW63(ELLIPTICAL)                          | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 24                          | LDF5-50A(7/8")                            | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 53                          | LDF5-50A(7/8")                            | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 58                          | 1" Metal Conduit                          | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 59                          | 6 1/8" Rigid                              | 300.00 - 330.00                | 1.0000                      | 0.6000                   |
| T36                  | 60                          | 3-1/8" Rigid                              | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 61                          | HJ8-50B(3")                               | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T36                  | 62                          | 4 1/16" Rigid                             | 300.00 - 330.00                | 1.0000                      | 0.6000                   |
| T36                  | 63                          | LDF4P-50A(1/2")                           | 300.00 - 330.00                | 0.6000                      | 0.6000                   |
| T37                  | 1                           | Pipe 1 1/2" STD                           | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 2                           | Pipe 1 1/2" STD                           | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 12                          | 3/4" Solid Round                          | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 21                          | LDF5-50A(7/8")                            | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 22                          | EW63(ELLIPTICAL)                          | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 23                          | EW63(ELLIPTICAL)                          | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 24                          | LDF5-50A(7/8")                            | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 53                          | LDF5-50A(7/8")                            | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 58                          | 1" Metal Conduit                          | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 59                          | 6 1/8" Rigid                              | 270.00 - 300.00                | 1.0000                      | 0.6000                   |
| T37                  | 60                          | 3-1/8" Rigid                              | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 61                          | HJ8-50B(3")                               | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T37                  | 62                          | 4 1/16" Rigid                             | 270.00 - 300.00                | 1.0000                      | 0.6000                   |
| T37                  | 63                          | LDF4P-50A(1/2")                           | 270.00 - 300.00                | 0.6000                      | 0.6000                   |
| T38                  | 1                           | Pipe 1 1/2" STD                           | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 2                           | Pipe 1 1/2" STD                           | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 12                          | 3/4" Solid Round                          | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 21                          | LDF5-50A(7/8")                            | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 22                          | EW63(ELLIPTICAL)                          | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 23                          | EW63(ELLIPTICAL)                          | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 24                          | LDF5-50A(7/8")                            | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 53                          | LDF5-50A(7/8")                            | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 58                          | 1" Metal Conduit                          | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 59                          | 6 1/8" Rigid                              | 240.00 - 270.00                | 1.0000                      | 0.6000                   |
| T38                  | 60                          | 3-1/8" Rigid                              | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 61                          | HJ8-50B(3")                               | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T38                  | 62                          | 4 1/16" Rigid                             | 240.00 - 270.00                | 1.0000                      | 0.6000                   |
| T38                  | 63                          | LDF4P-50A(1/2")                           | 240.00 - 270.00                | 0.6000                      | 0.6000                   |
| T39                  | 1                           | Pipe 1 1/2" STD                           | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 2                           | Pipe 1 1/2" STD                           | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 12                          | 3/4" Solid Round                          | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 21                          | LDF5-50A(7/8")                            | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 22                          | EW63(ELLIPTICAL)                          | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 23                          | EW63(ELLIPTICAL)                          | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 24                          | LDF5-50A(7/8")                            | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 53                          | LDF5-50A(7/8")                            | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 58                          | 1" Metal Conduit                          | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 59                          | 6 1/8" Rigid                              | 210.00 - 240.00                | 1.0000                      | 0.6000                   |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 36 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                        | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T39                  | 60                          | 3-1/8" Rigid                              | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 61                          | HJ8-50B(3")                               | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T39                  | 62                          | 4 1/16" Rigid                             | 210.00 - 240.00                | 1.0000                      | 0.6000                   |
| T39                  | 63                          | LDF4P-50A(1/2")                           | 210.00 - 240.00                | 0.6000                      | 0.6000                   |
| T40                  | 1                           | Pipe 1 1/2" STD                           | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 2                           | Pipe 1 1/2" STD                           | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 12                          | 3/4" Solid Round                          | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 21                          | LDF5-50A(7/8")                            | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 22                          | EW63(ELLIPTICAL)                          | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 23                          | EW63(ELLIPTICAL)                          | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 24                          | LDF5-50A(7/8")                            | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 53                          | LDF5-50A(7/8")                            | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 58                          | 1" Metal Conduit                          | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 59                          | 6 1/8" Rigid                              | 180.00 - 210.00                | 1.0000                      | 0.6000                   |
| T40                  | 60                          | 3-1/8" Rigid                              | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 61                          | HJ8-50B(3")                               | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T40                  | 62                          | 4 1/16" Rigid                             | 180.00 - 210.00                | 1.0000                      | 0.6000                   |
| T40                  | 63                          | LDF4P-50A(1/2")                           | 180.00 - 210.00                | 0.6000                      | 0.6000                   |
| T41                  | 1                           | Pipe 1 1/2" STD                           | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 2                           | Pipe 1 1/2" STD                           | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 12                          | 3/4" Solid Round                          | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 21                          | LDF5-50A(7/8")                            | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 22                          | EW63(ELLIPTICAL)                          | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 23                          | EW63(ELLIPTICAL)                          | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 24                          | LDF5-50A(7/8")                            | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 53                          | LDF5-50A(7/8")                            | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 58                          | 1" Metal Conduit                          | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 59                          | 6 1/8" Rigid                              | 150.00 - 180.00                | 1.0000                      | 0.6000                   |
| T41                  | 60                          | 3-1/8" Rigid                              | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 61                          | HJ8-50B(3")                               | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T41                  | 62                          | 4 1/16" Rigid                             | 150.00 - 180.00                | 1.0000                      | 0.6000                   |
| T41                  | 63                          | LDF4P-50A(1/2")                           | 150.00 - 180.00                | 0.6000                      | 0.6000                   |
| T42                  | 1                           | Pipe 1 1/2" STD                           | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 2                           | Pipe 1 1/2" STD                           | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)     | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 12                          | 3/4" Solid Round                          | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)          | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 21                          | LDF5-50A(7/8")                            | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 22                          | EW63(ELLIPTICAL)                          | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 23                          | EW63(ELLIPTICAL)                          | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 24                          | LDF5-50A(7/8")                            | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 53                          | LDF5-50A(7/8")                            | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 58                          | 1" Metal Conduit                          | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 59                          | 6 1/8" Rigid                              | 120.00 - 150.00                | 1.0000                      | 0.6000                   |
| T42                  | 60                          | 3-1/8" Rigid                              | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 61                          | HJ8-50B(3")                               | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T42                  | 62                          | 4 1/16" Rigid                             | 120.00 - 150.00                | 1.0000                      | 0.6000                   |
| T42                  | 63                          | LDF4P-50A(1/2")                           | 120.00 - 150.00                | 0.6000                      | 0.6000                   |
| T43                  | 1                           | Pipe 1 1/2" STD                           | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 2                           | Pipe 1 1/2" STD                           | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing) | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |

|                                                                                                                                                                    |                                              |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br><br>37 of 77          |
|                                                                                                                                                                    | <b>Project</b><br><br>TEP# 19780.814207      | <b>Date</b><br><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b><br><br>MPB                     | <b>Designed by</b><br><br>elatta     |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                            | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T43                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 12                          | 3/4" Solid Round                              | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)              | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 21                          | LDF5-50A(7/8")                                | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 22                          | EW63(ELLIPTICAL)                              | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 23                          | EW63(ELLIPTICAL)                              | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 24                          | LDF5-50A(7/8")                                | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 53                          | LDF5-50A(7/8")                                | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 58                          | 1" Metal Conduit                              | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 59                          | 6 1/8" Rigid                                  | 90.00 - 120.00                 | 1.0000                      | 0.6000                   |
| T43                  | 60                          | 3-1/8" Rigid                                  | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 61                          | HJ8-50B(3")                                   | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T43                  | 62                          | 4 1/16" Rigid                                 | 90.00 - 120.00                 | 1.0000                      | 0.6000                   |
| T43                  | 63                          | LDF4P-50A(1/2")                               | 90.00 - 120.00                 | 0.6000                      | 0.6000                   |
| T44                  | 1                           | Pipe 1 1/2" STD                               | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 2                           | Pipe 1 1/2" STD                               | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 12                          | 3/4" Solid Round                              | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)              | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 21                          | LDF5-50A(7/8")                                | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 22                          | EW63(ELLIPTICAL)                              | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 23                          | EW63(ELLIPTICAL)                              | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 24                          | LDF5-50A(7/8")                                | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 53                          | LDF5-50A(7/8")                                | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 58                          | 1" Metal Conduit                              | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 59                          | 6 1/8" Rigid                                  | 60.00 - 90.00                  | 1.0000                      | 0.6000                   |
| T44                  | 60                          | 3-1/8" Rigid                                  | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 61                          | HJ8-50B(3")                                   | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T44                  | 62                          | 4 1/16" Rigid                                 | 60.00 - 90.00                  | 1.0000                      | 0.6000                   |
| T44                  | 63                          | LDF4P-50A(1/2")                               | 60.00 - 90.00                  | 0.6000                      | 0.6000                   |
| T45                  | 1                           | Pipe 1 1/2" STD                               | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 2                           | Pipe 1 1/2" STD                               | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 12                          | 3/4" Solid Round                              | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)              | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 21                          | LDF5-50A(7/8")                                | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 22                          | EW63(ELLIPTICAL)                              | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 23                          | EW63(ELLIPTICAL)                              | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 24                          | LDF5-50A(7/8")                                | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 41                          | 5/8" Cable (Lights)                           | 30.00 - 39.00                  | 0.6000                      | 0.6000                   |
| T45                  | 53                          | LDF5-50A(7/8")                                | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 58                          | 1" Metal Conduit                              | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 59                          | 6 1/8" Rigid                                  | 30.00 - 60.00                  | 1.0000                      | 0.6000                   |
| T45                  | 60                          | 3-1/8" Rigid                                  | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 61                          | HJ8-50B(3")                                   | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 62                          | 4 1/16" Rigid                                 | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T45                  | 63                          | LDF4P-50A(1/2")                               | 30.00 - 60.00                  | 0.6000                      | 0.6000                   |
| T46                  | 1                           | Pipe 1 1/2" STD                               | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 2                           | Pipe 1 1/2" STD                               | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 9                           | L1-1/2x2x1/4"                                 | 22.50 - 23.00                  | 0.6000                      | 0.6000                   |
| T46                  | 10                          | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 22.50 - 23.00                  | 0.6000                      | 0.6000                   |
| T46                  | 12                          | 3/4" Solid Round                              | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)              | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 21                          | LDF5-50A(7/8")                                | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 22                          | EW63(ELLIPTICAL)                              | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 38 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Tower Section</i> | <i>Feed Line Record No.</i> | <i>Description</i>                            | <i>Feed Line Segment Elev.</i> | <i>K<sub>a</sub> No Ice</i> | <i>K<sub>a</sub> Ice</i> |
|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|-----------------------------|--------------------------|
| T46                  | 23                          | EW63(ELLIPTICAL)                              | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 24                          | LDF5-50A(7/8")                                | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 41                          | 5/8" Cable (Lights)                           | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 53                          | LDF5-50A(7/8")                                | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 58                          | 1" Metal Conduit                              | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 59                          | 6 1/8" Rigid                                  | 22.50 - 30.00                  | 1.0000                      | 0.6000                   |
| T46                  | 60                          | 3-1/8" Rigid                                  | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 61                          | HJ8-50B(3")                                   | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 62                          | 4 1/16" Rigid                                 | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T46                  | 63                          | LDF4P-50A(1/2")                               | 22.50 - 30.00                  | 0.6000                      | 0.6000                   |
| T47                  | 1                           | Pipe 1 1/2" STD                               | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 2                           | Pipe 1 1/2" STD                               | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 9                           | L1-1/2x2x1/4"                                 | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 10                          | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 12                          | 3/4" Solid Round                              | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 13                          | 5/8" SR Rungs (12" W x 15" Step)              | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 21                          | LDF5-50A(7/8")                                | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 22                          | EW63(ELLIPTICAL)                              | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 23                          | EW63(ELLIPTICAL)                              | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 24                          | LDF5-50A(7/8")                                | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 41                          | 5/8" Cable (Lights)                           | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 53                          | LDF5-50A(7/8")                                | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 58                          | 1" Metal Conduit                              | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 59                          | 6 1/8" Rigid                                  | 15.00 - 22.50                  | 1.0000                      | 0.6000                   |
| T47                  | 60                          | 3-1/8" Rigid                                  | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 61                          | HJ8-50B(3")                                   | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 62                          | 4 1/16" Rigid                                 | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T47                  | 63                          | LDF4P-50A(1/2")                               | 15.00 - 22.50                  | 0.6000                      | 0.6000                   |
| T48                  | 1                           | Pipe 1 1/2" STD                               | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 2                           | Pipe 1 1/2" STD                               | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 9                           | L1-1/2x2x1/4"                                 | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 10                          | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 21                          | LDF5-50A(7/8")                                | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 22                          | EW63(ELLIPTICAL)                              | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 23                          | EW63(ELLIPTICAL)                              | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 24                          | LDF5-50A(7/8")                                | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 41                          | 5/8" Cable (Lights)                           | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 53                          | LDF5-50A(7/8")                                | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 58                          | 1" Metal Conduit                              | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 59                          | 6 1/8" Rigid                                  | 7.50 - 15.00                   | 1.0000                      | 0.5762                   |
| T48                  | 60                          | 3-1/8" Rigid                                  | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 61                          | HJ8-50B(3")                                   | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 62                          | 4 1/16" Rigid                                 | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T48                  | 63                          | LDF4P-50A(1/2")                               | 7.50 - 15.00                   | 0.6000                      | 0.5762                   |
| T49                  | 1                           | Pipe 1 1/2" STD                               | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 2                           | Pipe 1 1/2" STD                               | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 5                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 6                           | L2-1/2x2-1/2x1/4 (3' Long @ 7.5' Spacing)     | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 7                           | L2-1/2x3x1/4 (2' Long @ 7.5' Spacing)         | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 9                           | L1-1/2x2x1/4"                                 | 1.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 10                          | 1" O.D. Rolled Plate Rungs (12" W x 15" Step) | 1.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 21                          | LDF5-50A(7/8")                                | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 22                          | EW63(ELLIPTICAL)                              | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 23                          | EW63(ELLIPTICAL)                              | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 24                          | LDF5-50A(7/8")                                | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |
| T49                  | 41                          | 5/8" Cable (Lights)                           | 0.00 - 7.50                    | 0.6000                      | 0.6000                   |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>39 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Tower Section | Feed Line Record No. | Description      | Feed Line Segment Elev. | K <sub>a</sub><br>No Ice | K <sub>a</sub><br>Ice |
|---------------|----------------------|------------------|-------------------------|--------------------------|-----------------------|
| T49           | 53                   | LDF5-50A(7/8")   | 0.00 - 7.50             | 0.6000                   | 0.6000                |
| T49           | 58                   | 1" Metal Conduit | 0.00 - 7.50             | 0.6000                   | 0.6000                |
| T49           | 59                   | 6 1/8" Rigid     | 0.00 - 7.50             | 1.0000                   | 0.6000                |
| T49           | 60                   | 3-1/8" Rigid     | 0.00 - 7.50             | 0.6000                   | 0.6000                |
| T49           | 61                   | HJ8-50B(3")      | 0.00 - 7.50             | 0.6000                   | 0.6000                |
| T49           | 62                   | 4 1/16" Rigid    | 0.00 - 7.50             | 0.6000                   | 0.6000                |
| T49           | 63                   | LDF4P-50A(1/2")  | 0.00 - 7.50             | 0.6000                   | 0.6000                |

### Antenna Pole Forces *Dielectric TFU-27ETT/VP-R S210*

| Length of Pole | I <sub>x</sub>  | I <sub>y</sub>  | Modulus E | Antenna Pole C <sub>A</sub> A <sub>A</sub> | Antenna Pole Weight | Length of Beacon | Beacon C <sub>A</sub> A <sub>A</sub> | Beacon Weight |
|----------------|-----------------|-----------------|-----------|--------------------------------------------|---------------------|------------------|--------------------------------------|---------------|
| ft             | in <sup>4</sup> | in <sup>4</sup> | ksi       | ft <sup>2</sup> /ft                        | plf                 | ft               | ft <sup>2</sup>                      | K             |
| 52.10          | 1000.0000       | 1000.0000       | 29000     | No Ice                                     | 0.00                | 0.00             | 0.00                                 | 0.00          |
|                |                 |                 |           | With Ice                                   | 0.00                | 0.00             | 0.00                                 | 0.00          |

### Discrete Tower Loads

| Description                       | Face or Leg | Offset Type | Offsets: Horz Lateral Vert | Azimuth Adjustment ° | Placement ft | C <sub>A</sub> A <sub>A</sub> Front    | C <sub>A</sub> A <sub>A</sub> Side | Weight                       |
|-----------------------------------|-------------|-------------|----------------------------|----------------------|--------------|----------------------------------------|------------------------------------|------------------------------|
|                                   |             |             | ft<br>ft<br>ft             | °                    | ft           | ft <sup>2</sup>                        | ft <sup>2</sup>                    | K                            |
| Drake Beacon LED-B-Hybrid-G5      | C           | None        |                            | 0.000                | 1301.00      | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.56<br>0.91<br>1.05<br>1.36       | 0.03<br>0.05<br>0.06<br>0.11 |
| ***                               |             |             |                            |                      |              |                                        |                                    |                              |
| Drake Side Strobe High-LED-WR-120 | A           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 1250.00      | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe High-LED-WR-120 | B           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 1250.00      | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe High-LED-WR-120 | C           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 1250.00      | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |
| ***                               |             |             |                            |                      |              |                                        |                                    |                              |
| Drake Side Strobe High-LED-WR-120 | A           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 938.00       | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe High-LED-WR-120 | B           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 938.00       | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe High-LED-WR-120 | C           | From Leg    | 1.00<br>0.00<br>0.00       | 0.000                | 938.00       | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50       | 0.04<br>0.06<br>0.08<br>0.12 |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>40 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Description                                       | Face<br>or<br>Leg | Offset<br>Type | Offsets:<br>Horz<br>Lateral<br>Vert<br>ft<br>ft<br>ft | Azimuth<br>Adjustment<br>° | Placement<br>ft     |                                        | C <sub>AA</sub><br>Front<br>ft <sup>2</sup> | C <sub>AA</sub><br>Side<br>ft <sup>2</sup> | Weight<br>K                  |
|---------------------------------------------------|-------------------|----------------|-------------------------------------------------------|----------------------------|---------------------|----------------------------------------|---------------------------------------------|--------------------------------------------|------------------------------|
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| Drake Side Strobe<br>High-LED-WR-120              | A                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 625.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe<br>High-LED-WR-120              | B                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 625.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe<br>High-LED-WR-120              | C                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 625.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| Drake Side Strobe<br>High-LED-WR-120              | A                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 313.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe<br>High-LED-WR-120              | B                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 313.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| Drake Side Strobe<br>High-LED-WR-120              | C                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 313.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.50<br>3.00<br>3.50<br>4.50                | 2.50<br>3.00<br>3.50<br>4.50               | 0.04<br>0.06<br>0.08<br>0.12 |
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| Interior Platform (Grating<br>Only)               | C                 | None           |                                                       | 0.000                      | 1240.00             | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 3.00<br>3.70<br>4.40<br>5.80                | 3.00<br>3.70<br>4.40<br>5.80               | 0.05<br>0.10<br>0.15<br>0.25 |
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| L3x3x3/8 8.5' long                                | C                 | None           |                                                       | 0.000                      | 1234.50             | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 4.25<br>5.23<br>6.10<br>7.34                | 4.25<br>5.23<br>6.10<br>7.34               | 0.06<br>0.08<br>0.12<br>0.20 |
| L3x3x3/8 8.5' long                                | C                 | None           |                                                       | 0.000                      | 1231.50             | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 4.25<br>5.23<br>6.10<br>7.34                | 4.25<br>5.23<br>6.10<br>7.34               | 0.06<br>0.08<br>0.12<br>0.20 |
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| 40-FT 8 Element Dipole                            | A                 | From Leg       | 2.50<br>-1.00<br>0.00                                 | -30.000                    | 1024.00 -<br>992.00 | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 10.00<br>14.03<br>18.07<br>26.22            | 10.00<br>14.03<br>18.07<br>26.22           | 0.09<br>0.16<br>0.26<br>0.54 |
| (4) C 2-1/4" x 1" x 3.5' Long<br>Standoff Bracket | A                 | From Leg       | 1.25<br>-0.50<br>0.00                                 | -30.000                    | 1024.00 -<br>992.00 | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.10<br>0.20<br>0.30<br>0.50                | 1.30<br>1.70<br>2.10<br>2.90               | 0.01<br>0.01<br>0.02<br>0.03 |
| ***                                               |                   |                |                                                       |                            |                     |                                        |                                             |                                            |                              |
| 20-ft 4 Element Dipole                            | B                 | From Leg       | 2.00<br>0.00<br>0.00                                  | 0.000                      | 560.00 - 542.00     | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 5.00<br>7.03<br>9.07<br>13.22               | 5.00<br>7.03<br>9.07<br>13.22              | 0.06<br>0.10<br>0.15<br>0.28 |
| Side Arm Mount [SO 304-1]                         | B                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 542.00              | No Ice<br>1/2" Ice<br>1" Ice           | 0.31<br>0.50<br>0.73                        | 0.88<br>1.26<br>1.67                       | 0.02<br>0.03<br>0.05         |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>41 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Description                            | Face<br>or<br>Leg | Offset<br>Type | Offsets:<br>Horz<br>Lateral<br>Vert<br>ft<br>ft<br>ft | Azimuth<br>Adjustment<br>° | Placement<br>ft      |                                        | C <sub>AA</sub><br>Front<br>ft <sup>2</sup> | C <sub>AA</sub><br>Side<br>ft <sup>2</sup> | Weight<br>K                   |
|----------------------------------------|-------------------|----------------|-------------------------------------------------------|----------------------------|----------------------|----------------------------------------|---------------------------------------------|--------------------------------------------|-------------------------------|
| ***                                    |                   |                |                                                       |                            |                      | 2" Ice                                 | 1.29                                        | 2.58                                       | 0.09                          |
| 25' x 2" 4-Element Dipole              | A                 | From Leg       | 2.00<br>12.00<br>0.00                                 | 0.000                      | 432.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 6.25<br>8.78<br>11.32<br>16.47              | 6.25<br>8.78<br>11.32<br>16.47             | 0.03<br>0.08<br>0.14<br>0.31  |
| Side Arm Mount [SO 304-1]              | A                 | From Leg       | 1.00<br>0.00<br>0.00                                  | 0.000                      | 432.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.31<br>0.50<br>0.73<br>1.29                | 0.88<br>1.26<br>1.67<br>2.58               | 0.02<br>0.03<br>0.05<br>0.09  |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| 2.4" dia. x 10' stabilizer             | A                 | From Leg       | 0.00<br>3.00<br>0.00                                  | 0.000                      | 392.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.37<br>3.41<br>4.46<br>5.97                | 2.38<br>3.41<br>4.46<br>5.97               | 0.04<br>0.06<br>0.09<br>0.16  |
| 4.5" dia x 6'                          | B                 | From Leg       | 0.50<br>0.00<br>0.00                                  | 0.000                      | 392.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.00<br>0.00<br>0.00<br>0.00                | 1.83<br>2.62<br>3.00<br>3.78               | 0.06<br>0.08<br>0.11<br>0.17  |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| 2.4" dia. x 10' stabilizer             | A                 | From Leg       | 0.00<br>3.00<br>0.00                                  | 0.000                      | 349.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 2.37<br>3.41<br>4.46<br>5.97                | 2.38<br>3.41<br>4.46<br>5.97               | 0.04<br>0.06<br>0.09<br>0.16  |
| 4.5" dia. x 10'                        | B                 | From Leg       | 1.30<br>-0.75<br>0.00                                 | -60.000                    | 348.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.80<br>1.00<br>1.20<br>1.60                | 3.47<br>5.24<br>5.85<br>7.09               | 0.11<br>0.14<br>0.18<br>0.27  |
| L6x4x5/16" x 10' Long                  | C                 | From Face      | 0.00<br>-1.00<br>0.00                                 | 0.000                      | 351.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 9.17<br>9.89<br>10.62<br>12.10              | 0.10<br>0.30<br>0.50<br>0.90               | 0.10<br>0.15<br>0.20<br>0.33  |
| L6x4x5/16" x 10' Long                  | C                 | From Face      | 0.00<br>-1.00<br>0.00                                 | 0.000                      | 344.00               | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 9.17<br>9.89<br>10.62<br>12.10              | 0.10<br>0.30<br>0.50<br>0.90               | 0.10<br>0.15<br>0.20<br>0.33  |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| Compound Light                         | C                 | From Leg       | 2.50<br>1.50<br>0.00                                  | 0.000                      | 39.00                | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.50<br>0.65<br>0.80<br>1.10                | 0.50<br>0.65<br>0.80<br>1.10               | 0.02<br>0.03<br>0.04<br>0.06  |
| 1.66" Dia x 2.5' Pipe                  | C                 | From Leg       | 1.25<br>0.75<br>0.00                                  | 0.000                      | 39.00                | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 0.36<br>0.52<br>0.68<br>1.04                | 0.36<br>0.52<br>0.68<br>1.04               | 0.01<br>0.01<br>0.01<br>0.03  |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| TFU-27ETT/VP-R S210 w/ 1' Base Adapter | C                 | None           |                                                       | 0.000                      | 1274.00              | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 52.00<br>109.38<br>114.77<br>125.60         | 52.00<br>109.38<br>114.77<br>125.60        | 7.20<br>7.86<br>8.56<br>10.05 |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| SHPX-10AC w/ Radomes                   | A                 | From Leg       | 2.50<br>1.00<br>0.00                                  | 0.000                      | 1185.00 -<br>1085.00 | No Ice<br>1/2" Ice<br>1" Ice<br>2" Ice | 98.10<br>112.60<br>127.10<br>156.10         | 98.10<br>112.60<br>127.10<br>156.10        | 1.86<br>3.31<br>4.76<br>7.66  |
| ***                                    |                   |                |                                                       |                            |                      |                                        |                                             |                                            |                               |
| JHVP-6                                 | A                 | From Leg       | 2.50                                                  | 0.000                      | 978.00 - 922.00      | No Ice                                 | 29.00                                       | 29.00                                      | 0.33                          |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 42 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Description                      | Face<br>or<br>Leg | Offset<br>Type | Offsets:<br>Horz<br>Lateral<br>Vert<br>ft<br>ft<br>ft | Azimuth<br>Adjustment<br>° | Placement<br>ft | C <sub>AA</sub><br>Front<br>ft <sup>2</sup> | C <sub>AA</sub><br>Side<br>ft <sup>2</sup> | Weight<br>K |
|----------------------------------|-------------------|----------------|-------------------------------------------------------|----------------------------|-----------------|---------------------------------------------|--------------------------------------------|-------------|
| ***<br>TFU-8WB-R S230            | A                 | From Leg       | 1.00                                                  | 0.000                      | 907.00 - 893.00 | 1/2" Ice                                    | 38.00                                      | 0.50        |
|                                  |                   |                | 0.00                                                  |                            |                 | 1" Ice                                      | 47.00                                      | 0.67        |
|                                  |                   |                |                                                       |                            |                 | 2" Ice                                      | 65.00                                      | 1.01        |
|                                  |                   |                |                                                       |                            |                 |                                             |                                            |             |
| ***<br>TFU-8WB-R S230            | A                 | From Leg       | 2.50                                                  | 0.000                      | 907.00 - 893.00 | No Ice                                      | 26.40                                      | 0.80        |
|                                  |                   |                | 1.00                                                  |                            |                 | 1/2" Ice                                    | 41.90                                      | 1.11        |
|                                  |                   |                | 0.00                                                  |                            |                 | 1" Ice                                      | 42.90                                      | 1.42        |
|                                  |                   |                |                                                       |                            |                 | 2" Ice                                      | 44.80                                      | 2.04        |
| ***<br>Side Arm Mount [SO 201-1] | C                 | From Leg       | 1.00                                                  | 0.000                      | 778.00          | No Ice                                      | 1.78                                       | 0.10        |
|                                  |                   |                | 0.00                                                  |                            |                 | 1/2" Ice                                    | 2.24                                       | 0.12        |
|                                  |                   |                | 0.00                                                  |                            |                 | 1" Ice                                      | 2.75                                       | 0.14        |
|                                  |                   |                |                                                       |                            |                 | 2" Ice                                      | 3.89                                       | 0.22        |

## Dishes

| Description               | Face<br>or<br>Leg | Dish<br>Type           | Offset<br>Type | Offsets:<br>Horz<br>Lateral<br>Vert<br>ft | Azimuth<br>Adjustment<br>° | 3 dB<br>Beam<br>Width<br>° | Elevation<br>ft | Outside<br>Diameter<br>ft | Aperture<br>Area<br>ft <sup>2</sup> | Weight<br>K |
|---------------------------|-------------------|------------------------|----------------|-------------------------------------------|----------------------------|----------------------------|-----------------|---------------------------|-------------------------------------|-------------|
| PAL8-59AC                 | B                 | Paraboloid<br>w/Radome | From<br>Leg    | 2.00                                      | 10.000                     |                            | 392.00          | 8.00                      | No Ice                              | 50.27       |
|                           |                   |                        |                | 0.00                                      |                            |                            |                 |                           | 1/2" Ice                            | 51.32       |
|                           |                   |                        |                | 0.00                                      |                            |                            |                 |                           | 1" Ice                              | 52.37       |
|                           |                   |                        |                |                                           |                            |                            |                 |                           | 2" Ice                              | 54.48       |
| PAL8-59AC                 | B                 | Paraboloid<br>w/Radome | From<br>Leg    | 2.50                                      | 10.000                     |                            | 348.00          | 8.00                      | No Ice                              | 50.27       |
|                           |                   |                        |                | -1.50                                     |                            |                            |                 |                           | 1/2" Ice                            | 51.32       |
|                           |                   |                        |                | 0.00                                      |                            |                            |                 |                           | 1" Ice                              | 52.37       |
|                           |                   |                        |                |                                           |                            |                            |                 |                           | 2" Ice                              | 54.48       |
| ****<br>Paraflector PR-TV | C                 | Grid                   | From<br>Leg    | 2.00                                      | 0.000                      |                            | 778.00          | 4.70                      | No Ice                              | 17.35       |
|                           |                   |                        |                | 0.00                                      |                            |                            |                 |                           | 1/2" Ice                            | 17.97       |
|                           |                   |                        |                | 0.00                                      |                            |                            |                 |                           | 1" Ice                              | 18.59       |
|                           |                   |                        |                |                                           |                            |                            |                 |                           | 2" Ice                              | 19.83       |

## Load Combinations

| Comb.<br>No. | Description                                   |
|--------------|-----------------------------------------------|
| 1            | Dead Only                                     |
| 2            | 1.2D+1.0W (pattern 1) 0 deg - No Ice+1.0 Guy  |
| 3            | 1.2D+1.0W (pattern 2) 0 deg - No Ice+1.0 Guy  |
| 4            | 1.2D+1.0W (pattern 3) 0 deg - No Ice+1.0 Guy  |
| 5            | 1.2D+1.0W (pattern 1) 30 deg - No Ice+1.0 Guy |
| 6            | 1.2D+1.0W (pattern 2) 30 deg - No Ice+1.0 Guy |
| 7            | 1.2D+1.0W (pattern 3) 30 deg - No Ice+1.0 Guy |
| 8            | 1.2D+1.0W (pattern 1) 60 deg - No Ice+1.0 Guy |
| 9            | 1.2D+1.0W (pattern 2) 60 deg - No Ice+1.0 Guy |
| 10           | 1.2D+1.0W (pattern 3) 60 deg - No Ice+1.0 Guy |
| 11           | 1.2D+1.0W (pattern 1) 90 deg - No Ice+1.0 Guy |
| 12           | 1.2D+1.0W (pattern 2) 90 deg - No Ice+1.0 Guy |

|                                                                                                                                                                    |                                          |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b><br>WMAV Oxford (ASR# 1041044) | <b>Page</b><br>43 of 77          |
|                                                                                                                                                                    | <b>Project</b><br>TEP# 19780.814207      | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b><br>MPB                     | <b>Designed by</b><br>elatta     |

| <i>Comb. No.</i> | <i>Description</i>                                 |
|------------------|----------------------------------------------------|
| 13               | 1.2D+1.0W (pattern 3) 90 deg - No Ice+1.0 Guy      |
| 14               | 1.2D+1.0W (pattern 1) 120 deg - No Ice+1.0 Guy     |
| 15               | 1.2D+1.0W (pattern 2) 120 deg - No Ice+1.0 Guy     |
| 16               | 1.2D+1.0W (pattern 3) 120 deg - No Ice+1.0 Guy     |
| 17               | 1.2D+1.0W (pattern 1) 150 deg - No Ice+1.0 Guy     |
| 18               | 1.2D+1.0W (pattern 2) 150 deg - No Ice+1.0 Guy     |
| 19               | 1.2D+1.0W (pattern 3) 150 deg - No Ice+1.0 Guy     |
| 20               | 1.2D+1.0W (pattern 1) 180 deg - No Ice+1.0 Guy     |
| 21               | 1.2D+1.0W (pattern 2) 180 deg - No Ice+1.0 Guy     |
| 22               | 1.2D+1.0W (pattern 3) 180 deg - No Ice+1.0 Guy     |
| 23               | 1.2D+1.0W (pattern 1) 210 deg - No Ice+1.0 Guy     |
| 24               | 1.2D+1.0W (pattern 2) 210 deg - No Ice+1.0 Guy     |
| 25               | 1.2D+1.0W (pattern 3) 210 deg - No Ice+1.0 Guy     |
| 26               | 1.2D+1.0W (pattern 1) 240 deg - No Ice+1.0 Guy     |
| 27               | 1.2D+1.0W (pattern 2) 240 deg - No Ice+1.0 Guy     |
| 28               | 1.2D+1.0W (pattern 3) 240 deg - No Ice+1.0 Guy     |
| 29               | 1.2D+1.0W (pattern 1) 270 deg - No Ice+1.0 Guy     |
| 30               | 1.2D+1.0W (pattern 2) 270 deg - No Ice+1.0 Guy     |
| 31               | 1.2D+1.0W (pattern 3) 270 deg - No Ice+1.0 Guy     |
| 32               | 1.2D+1.0W (pattern 1) 300 deg - No Ice+1.0 Guy     |
| 33               | 1.2D+1.0W (pattern 2) 300 deg - No Ice+1.0 Guy     |
| 34               | 1.2D+1.0W (pattern 3) 300 deg - No Ice+1.0 Guy     |
| 35               | 1.2D+1.0W (pattern 1) 330 deg - No Ice+1.0 Guy     |
| 36               | 1.2D+1.0W (pattern 2) 330 deg - No Ice+1.0 Guy     |
| 37               | 1.2D+1.0W (pattern 3) 330 deg - No Ice+1.0 Guy     |
| 38               | 1.2 Dead+1.0 Ice+1.0 Temp+Guy                      |
| 39               | 1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy   |
| 40               | 1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy  |
| 41               | 1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy  |
| 42               | 1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy  |
| 43               | 1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 44               | 1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 45               | 1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 46               | 1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 47               | 1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 48               | 1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 49               | 1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 50               | 1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy |
| 51               | Dead+Wind 0 deg - Service+Guy                      |
| 52               | Dead+Wind 30 deg - Service+Guy                     |
| 53               | Dead+Wind 60 deg - Service+Guy                     |
| 54               | Dead+Wind 90 deg - Service+Guy                     |
| 55               | Dead+Wind 120 deg - Service+Guy                    |
| 56               | Dead+Wind 150 deg - Service+Guy                    |
| 57               | Dead+Wind 180 deg - Service+Guy                    |
| 58               | Dead+Wind 210 deg - Service+Guy                    |
| 59               | Dead+Wind 240 deg - Service+Guy                    |
| 60               | Dead+Wind 270 deg - Service+Guy                    |
| 61               | Dead+Wind 300 deg - Service+Guy                    |
| 62               | Dead+Wind 330 deg - Service+Guy                    |

## Maximum Reactions

| <i>Location</i> | <i>Condition</i>    | <i>Gov. Load Comb.</i> | <i>Vertical K</i> | <i>Horizontal, X K</i> | <i>Horizontal, Z K</i> |
|-----------------|---------------------|------------------------|-------------------|------------------------|------------------------|
| Leg C           | Max. Vert           | 26                     | 438.59            | 3.03                   | -2.39                  |
|                 | Max. H <sub>x</sub> | 28                     | 437.18            | 3.08                   | -2.43                  |
|                 | Max. H <sub>z</sub> | 9                      | 102.12            | -3.65                  | 2.73                   |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 44 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Location</i>                                  | <i>Condition</i>    | <i>Gov.<br/>Load<br/>Comb.</i> | <i>Vertical<br/>K</i> | <i>Horizontal, X<br/>K</i> | <i>Horizontal, Z<br/>K</i> |
|--------------------------------------------------|---------------------|--------------------------------|-----------------------|----------------------------|----------------------------|
| Leg B                                            | Min. Vert           | 9                              | 102.12                | -3.65                      | 2.73                       |
|                                                  | Min. H <sub>x</sub> | 9                              | 102.12                | -3.65                      | 2.73                       |
|                                                  | Min. H <sub>z</sub> | 25                             | 392.86                | 2.19                       | -2.66                      |
|                                                  | Max. Vert           | 14                             | 434.72                | -3.15                      | -2.20                      |
|                                                  | Max. H <sub>x</sub> | 33                             | 96.86                 | 3.65                       | 2.50                       |
|                                                  | Max. H <sub>z</sub> | 34                             | 99.74                 | 3.63                       | 2.50                       |
| Leg A                                            | Min. Vert           | 33                             | 96.86                 | 3.65                       | 2.50                       |
|                                                  | Min. H <sub>x</sub> | 16                             | 433.43                | -3.19                      | -2.23                      |
|                                                  | Min. H <sub>z</sub> | 19                             | 393.94                | -2.32                      | -2.35                      |
|                                                  | Max. Vert           | 2                              | 440.42                | -0.17                      | 3.70                       |
|                                                  | Max. H <sub>x</sub> | 31                             | 247.47                | 1.84                       | 0.60                       |
|                                                  | Max. H <sub>z</sub> | 4                              | 439.26                | -0.19                      | 3.77                       |
| Guy C @ 953 ft<br>Elev -27 ft<br>Azimuth 240 deg | Min. Vert           | 21                             | 100.60                | 0.18                       | -4.49                      |
|                                                  | Min. H <sub>x</sub> | 13                             | 246.28                | -1.86                      | 0.60                       |
|                                                  | Min. H <sub>z</sub> | 21                             | 100.60                | 0.18                       | -4.49                      |
|                                                  | Max. Vert           | 28                             | -4.95                 | -2.98                      | 1.72                       |
|                                                  | Max. H <sub>x</sub> | 28                             | -4.95                 | -2.98                      | 1.72                       |
|                                                  | Max. H <sub>z</sub> | 7                              | -148.08               | -135.99                    | 84.11                      |
| Guy B @ 938 ft<br>Elev -14 ft<br>Azimuth 120 deg | Min. Vert           | 10                             | -155.26               | -144.23                    | 83.31                      |
|                                                  | Min. H <sub>x</sub> | 10                             | -155.26               | -144.23                    | 83.31                      |
|                                                  | Min. H <sub>z</sub> | 28                             | -4.95                 | -2.98                      | 1.72                       |
|                                                  | Max. Vert           | 16                             | -5.01                 | 2.97                       | 1.71                       |
|                                                  | Max. H <sub>x</sub> | 34                             | -156.11               | 144.55                     | 83.46                      |
|                                                  | Max. H <sub>z</sub> | 37                             | -149.36               | 136.76                     | 84.50                      |
| Guy A @ 925 ft<br>Elev -2 ft<br>Azimuth 0 deg    | Min. Vert           | 34                             | -156.11               | 144.55                     | 83.46                      |
|                                                  | Min. H <sub>x</sub> | 16                             | -5.01                 | 2.97                       | 1.71                       |
|                                                  | Min. H <sub>z</sub> | 16                             | -5.01                 | 2.97                       | 1.71                       |
|                                                  | Max. Vert           | 4                              | -5.01                 | -0.00                      | -3.39                      |
|                                                  | Max. H <sub>x</sub> | 31                             | -84.12                | 10.52                      | -88.67                     |
|                                                  | Max. H <sub>z</sub> | 4                              | -5.01                 | -0.00                      | -3.39                      |
| Guy C @ 320 ft<br>Elev 0 ft<br>Azimuth 240 deg   | Min. Vert           | 22                             | -156.82               | 0.03                       | -167.28                    |
|                                                  | Min. H <sub>x</sub> | 13                             | -83.68                | -10.52                     | -88.20                     |
|                                                  | Min. H <sub>z</sub> | 22                             | -156.82               | 0.03                       | -167.28                    |
|                                                  | Max. Vert           | 26                             | -1.67                 | -1.59                      | 0.91                       |
|                                                  | Max. H <sub>x</sub> | 26                             | -1.67                 | -1.59                      | 0.91                       |
|                                                  | Max. H <sub>z</sub> | 5                              | -87.47                | -70.81                     | 42.32                      |
| Guy B @ 326 ft<br>Elev -14 ft<br>Azimuth 120 deg | Min. Vert           | 11                             | -87.78                | -72.23                     | 40.33                      |
|                                                  | Min. H <sub>x</sub> | 11                             | -87.78                | -72.23                     | 40.33                      |
|                                                  | Min. H <sub>z</sub> | 26                             | -1.67                 | -1.59                      | 0.91                       |
|                                                  | Max. Vert           | 14                             | -1.78                 | 1.60                       | 0.92                       |
|                                                  | Max. H <sub>x</sub> | 29                             | -90.38                | 73.03                      | 40.76                      |
|                                                  | Max. H <sub>z</sub> | 35                             | -91.37                | 72.62                      | 43.40                      |
| Guy A @ 322 ft<br>Elev -4 ft<br>Azimuth 0 deg    | Min. Vert           | 35                             | -91.37                | 72.62                      | 43.40                      |
|                                                  | Min. H <sub>x</sub> | 14                             | -1.78                 | 1.60                       | 0.92                       |
|                                                  | Min. H <sub>z</sub> | 14                             | -1.78                 | 1.60                       | 0.92                       |
|                                                  | Max. Vert           | 2                              | -1.66                 | -0.00                      | -1.80                      |
|                                                  | Max. H <sub>x</sub> | 30                             | -46.17                | 2.24                       | -43.15                     |
|                                                  | Max. H <sub>z</sub> | 2                              | -1.66                 | -0.00                      | -1.80                      |
|                                                  | Min. Vert           | 17                             | -89.11                | -1.25                      | -83.80                     |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>45 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Location | Condition           | Gov.<br>Load<br>Comb. | Vertical<br>K | Horizontal, X<br>K | Horizontal, Z<br>K |
|----------|---------------------|-----------------------|---------------|--------------------|--------------------|
|          | Min. H <sub>x</sub> | 12                    | -46.12        | -2.22              | -43.07             |
|          | Min. H <sub>z</sub> | 17                    | -89.11        | -1.25              | -83.80             |

## Tower Mast Reaction Summary

| Load<br>Combination                                | Vertical<br>K | Shear <sub>x</sub><br>K | Shear <sub>z</sub><br>K | Overturning<br>Moment, M <sub>x</sub><br>kip-ft | Overturning<br>Moment, M <sub>z</sub><br>kip-ft | Torque<br>kip-ft |
|----------------------------------------------------|---------------|-------------------------|-------------------------|-------------------------------------------------|-------------------------------------------------|------------------|
| Dead Only                                          | 507.57        | 0.01                    | 0.02                    | -2.78                                           | 3.80                                            | -0.06            |
| 1.2D+1.0W (pattern 1) 0 deg - No Ice+1.0 Guy       | 771.35        | 0.12                    | -7.33                   | -1190.60                                        | 19.94                                           | -1.95            |
| 1.2D+1.0W (pattern 2) 0 deg - No Ice+1.0 Guy       | 771.90        | 0.15                    | -7.33                   | -1129.31                                        | 16.02                                           | -2.26            |
| 1.2D+1.0W (pattern 3) 0 deg - No Ice+1.0 Guy       | 791.00        | 0.16                    | -7.47                   | -1140.50                                        | 15.85                                           | -2.21            |
| 1.2D+1.0W (pattern 1) 30 deg - No Ice+1.0 Guy      | 751.35        | 4.79                    | -6.14                   | -934.34                                         | -415.43                                         | -5.32            |
| 1.2D+1.0W (pattern 2) 30 deg - No Ice+1.0 Guy      | 752.62        | 4.87                    | -6.08                   | -882.27                                         | -423.26                                         | -5.18            |
| 1.2D+1.0W (pattern 3) 30 deg - No Ice+1.0 Guy      | 764.72        | 4.83                    | -6.24                   | -892.57                                         | -422.61                                         | -5.14            |
| 1.2D+1.0W (pattern 1) 60 deg - No Ice+1.0 Guy      | 723.75        | 7.78                    | -4.61                   | -472.29                                         | -770.24                                         | -6.99            |
| 1.2D+1.0W (pattern 2) 60 deg - No Ice+1.0 Guy      | 723.01        | 7.88                    | -4.66                   | -471.68                                         | -769.27                                         | -6.93            |
| 1.2D+1.0W (pattern 3) 60 deg - No Ice+1.0 Guy      | 730.98        | 7.87                    | -4.65                   | -473.25                                         | -771.11                                         | -6.97            |
| 1.2D+1.0W (pattern 1) 90 deg - No Ice+1.0 Guy      | 752.06        | 7.76                    | -1.13                   | 82.91                                           | -1006.86                                        | -7.45            |
| 1.2D+1.0W (pattern 2) 90 deg - No Ice+1.0 Guy      | 753.29        | 7.79                    | -1.15                   | 56.15                                           | -971.00                                         | -7.45            |
| 1.2D+1.0W (pattern 3) 90 deg - No Ice+1.0 Guy      | 765.68        | 7.86                    | -1.07                   | 58.14                                           | -974.89                                         | -7.38            |
| 1.2D+1.0W (pattern 1) 120 deg - No Ice+1.0 Guy     | 768.42        | 6.51                    | 3.88                    | 595.27                                          | -995.67                                         | -4.46            |
| 1.2D+1.0W (pattern 2) 120 deg - No Ice+1.0 Guy     | 768.94        | 6.48                    | 3.88                    | 564.68                                          | -941.40                                         | -4.51            |
| 1.2D+1.0W (pattern 3) 120 deg - No Ice+1.0 Guy     | 788.08        | 6.61                    | 3.95                    | 570.45                                          | -951.18                                         | -4.48            |
| 1.2D+1.0W (pattern 1) 150 deg - No Ice+1.0 Guy     | 753.77        | 2.97                    | 7.20                    | 851.19                                          | -593.27                                         | -1.37            |
| 1.2D+1.0W (pattern 2) 150 deg - No Ice+1.0 Guy     | 755.00        | 2.96                    | 7.25                    | 835.49                                          | -551.14                                         | -1.31            |
| 1.2D+1.0W (pattern 3) 150 deg - No Ice+1.0 Guy     | 767.26        | 3.05                    | 7.26                    | 835.09                                          | -554.23                                         | -1.37            |
| 1.2D+1.0W (pattern 1) 180 deg - No Ice+1.0 Guy     | 726.34        | -0.10                   | 8.97                    | 918.21                                          | -11.35                                          | 2.15             |
| 1.2D+1.0W (pattern 2) 180 deg - No Ice+1.0 Guy     | 725.46        | -0.09                   | 9.08                    | 917.27                                          | -11.20                                          | 2.18             |
| 1.2D+1.0W (pattern 3) 180 deg - No Ice+1.0 Guy     | 733.59        | -0.10                   | 9.07                    | 920.07                                          | -11.49                                          | 2.14             |
| 1.2D+1.0W (pattern 1) 210 deg - No Ice+1.0 Guy     | 751.87        | -3.02                   | 7.28                    | 839.92                                          | 596.17                                          | 5.67             |
| 1.2D+1.0W (pattern 2) 210 deg - No Ice+1.0 Guy     | 752.92        | -2.98                   | 7.30                    | 819.58                                          | 550.59                                          | 5.37             |
| 1.2D+1.0W (pattern 3) 210 deg - No Ice+1.0 Guy     | 765.26        | -3.11                   | 7.35                    | 824.86                                          | 557.04                                          | 5.60             |
| 1.2D+1.0W (pattern 1) 240 deg - No Ice+1.0 Guy     | 768.98        | -6.49                   | 3.92                    | 589.72                                          | 1026.50                                         | 7.36             |
| 1.2D+1.0W (pattern 2) 240 deg - No Ice+1.0 Guy     | 769.35        | -6.51                   | 3.93                    | 561.33                                          | 976.32                                          | 7.37             |
| 1.2D+1.0W (pattern 3) 240 deg - No Ice+1.0 Guy     | 788.68        | -6.58                   | 3.99                    | 565.42                                          | 980.71                                          | 7.42             |
| 1.2D+1.0W (pattern 1) 270 deg - No Ice+1.0 Guy     | 755.68        | -7.55                   | -1.14                   | 82.97                                           | 1059.61                                         | 7.61             |
| 1.2D+1.0W (pattern 2) 270 deg - No Ice+1.0 Guy     | 756.77        | -7.54                   | -1.19                   | 51.90                                           | 1018.37                                         | 7.56             |
| 1.2D+1.0W (pattern 3) 270 deg - No Ice+1.0 Guy     | 769.30        | -7.65                   | -1.08                   | 58.24                                           | 1025.94                                         | 7.59             |
| 1.2D+1.0W (pattern 1) 300 deg - No Ice+1.0 Guy     | 726.44        | -7.50                   | -4.61                   | -501.23                                         | 798.96                                          | 4.40             |
| 1.2D+1.0W (pattern 2) 300 deg - No Ice+1.0 Guy     | 725.58        | -7.60                   | -4.66                   | -508.39                                         | 793.97                                          | 3.97             |
| 1.2D+1.0W (pattern 3) 300 deg - No Ice+1.0 Guy     | 733.63        | -7.58                   | -4.62                   | -498.92                                         | 798.01                                          | 4.26             |
| 1.2D+1.0W (pattern 1) 330 deg - No Ice+1.0 Guy     | 755.95        | -4.72                   | -5.92                   | -977.01                                         | 456.14                                          | 1.26             |
| 1.2D+1.0W (pattern 2) 330 deg - No Ice+1.0 Guy     | 757.23        | -4.76                   | -5.93                   | -930.10                                         | 460.44                                          | 1.23             |
| 1.2D+1.0W (pattern 3) 330 deg - No Ice+1.0 Guy     | 769.42        | -4.73                   | -6.02                   | -933.70                                         | 460.48                                          | 1.25             |
| 1.2 Dead+1.0 Ice+1.0 Temp+Guy                      | 1117.50       | -0.03                   | 0.14                    | -1.66                                           | 9.83                                            | 0.37             |
| 1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy   | 1124.92       | 0.03                    | -0.83                   | -176.95                                         | 22.47                                           | -0.40            |
| 1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy  | 1121.87       | 0.60                    | -0.78                   | -158.23                                         | -79.17                                          | -0.29            |
| 1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy  | 1119.37       | 0.84                    | -0.28                   | -62.87                                          | -111.56                                         | 0.27             |
| 1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy  | 1122.23       | 0.92                    | 0.01                    | -6.38                                           | -140.69                                         | -0.28            |
| 1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1125.34       | 0.78                    | 0.55                    | 69.97                                           | -139.26                                         | 0.70             |
| 1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1122.69       | 0.38                    | 0.89                    | 134.28                                          | -67.52                                          | 0.26             |
| 1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1120.07       | 0.03                    | 0.96                    | 157.46                                          | -6.66                                           | -0.57            |
| 1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1122.59       | -0.41                   | 0.94                    | 131.53                                          | 82.68                                           | 0.36             |
| 1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1125.53       | -0.76                   | 0.67                    | 72.58                                           | 144.21                                          | -0.41            |
| 1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1122.54       | -0.90                   | 0.10                    | -4.40                                           | 160.18                                          | -0.03            |
| 1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1119.67       | -0.71                   | -0.37                   | -78.35                                          | 138.27                                          | -0.73            |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>46 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Load Combination                                   | Vertical<br>K | Shear <sub>x</sub><br>K | Shear <sub>z</sub><br>K | Overturning<br>Moment, M <sub>x</sub><br>kip-ft | Overturning<br>Moment, M <sub>z</sub><br>kip-ft | Torque<br>kip-ft |
|----------------------------------------------------|---------------|-------------------------|-------------------------|-------------------------------------------------|-------------------------------------------------|------------------|
| 1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy | 1122.22       | -0.52                   | -0.63                   | -151.89                                         | 97.71                                           | 0.13             |
| Dead+Wind 0 deg - Service+Guy                      | 530.97        | 0.05                    | -3.48                   | -322.65                                         | 6.91                                            | -0.90            |
| Dead+Wind 30 deg - Service+Guy                     | 527.88        | 1.73                    | -2.89                   | -262.71                                         | -142.90                                         | -2.10            |
| Dead+Wind 60 deg - Service+Guy                     | 527.86        | 2.85                    | -1.82                   | -163.83                                         | -242.12                                         | -2.24            |
| Dead+Wind 90 deg - Service+Guy                     | 528.54        | 3.35                    | -0.02                   | 1.56                                            | -293.19                                         | -2.88            |
| Dead+Wind 120 deg - Service+Guy                    | 531.39        | 3.01                    | 1.88                    | 170.11                                          | -267.19                                         | -1.71            |
| Dead+Wind 150 deg - Service+Guy                    | 529.11        | 1.66                    | 2.95                    | 261.95                                          | -149.77                                         | -0.56            |
| Dead+Wind 180 deg - Service+Guy                    | 528.82        | -0.05                   | 3.38                    | 296.14                                          | 0.88                                            | 0.85             |
| Dead+Wind 210 deg - Service+Guy                    | 528.91        | -1.67                   | 2.97                    | 259.10                                          | 153.58                                          | 2.16             |
| Dead+Wind 240 deg - Service+Guy                    | 531.83        | -3.00                   | 1.88                    | 165.11                                          | 273.93                                          | 2.75             |
| Dead+Wind 270 deg - Service+Guy                    | 529.08        | -3.32                   | -0.03                   | -3.59                                           | 305.68                                          | 3.00             |
| Dead+Wind 300 deg - Service+Guy                    | 528.24        | -2.84                   | -1.75                   | -165.22                                         | 259.89                                          | 1.63             |
| Dead+Wind 330 deg - Service+Guy                    | 528.52        | -1.71                   | -2.85                   | -269.05                                         | 158.29                                          | 0.52             |

## Solution Summary

| Load Comb. | Sum of Applied Forces |         |         | Sum of Reactions |         |         | % Error |
|------------|-----------------------|---------|---------|------------------|---------|---------|---------|
|            | PX<br>K               | PY<br>K | PZ<br>K | PX<br>K          | PY<br>K | PZ<br>K |         |
| 1          | 0.00                  | -325.74 | 0.00    | -0.00            | 325.74  | -0.01   | 0.002%  |
| 2          | -0.23                 | -383.80 | -215.14 | 0.23             | 383.80  | 215.07  | 0.016%  |
| 3          | -0.20                 | -383.80 | -215.91 | 0.20             | 383.80  | 215.84  | 0.016%  |
| 4          | -0.20                 | -383.80 | -226.48 | 0.20             | 383.80  | 226.41  | 0.017%  |
| 5          | 102.71                | -381.32 | -179.46 | -102.73          | 381.32  | 179.40  | 0.015%  |
| 6          | 103.18                | -381.32 | -180.22 | -103.20          | 381.32  | 180.14  | 0.018%  |
| 7          | 108.14                | -381.32 | -188.80 | -108.16          | 381.32  | 188.73  | 0.017%  |
| 8          | 177.65                | -378.81 | -103.18 | -177.69          | 378.81  | 103.23  | 0.015%  |
| 9          | 178.48                | -378.81 | -103.66 | -178.51          | 378.81  | 103.70  | 0.012%  |
| 10         | 186.98                | -378.81 | -108.57 | -187.01          | 378.81  | 108.62  | 0.013%  |
| 11         | 207.56                | -381.23 | 0.09    | -207.51          | 381.23  | -0.04   | 0.016%  |
| 12         | 208.47                | -381.23 | 0.05    | -208.42          | 381.23  | -0.00   | 0.016%  |
| 13         | 218.48                | -381.23 | 0.05    | -218.43          | 381.23  | -0.00   | 0.016%  |
| 14         | 185.47                | -383.63 | 107.31  | -185.41          | 383.63  | -107.28 | 0.015%  |
| 15         | 186.15                | -383.63 | 107.67  | -186.09          | 383.63  | -107.63 | 0.017%  |
| 16         | 195.31                | -383.63 | 112.95  | -195.24          | 383.63  | -112.91 | 0.018%  |
| 17         | 103.95                | -381.09 | 180.80  | -103.89          | 381.09  | -180.79 | 0.015%  |
| 18         | 104.40                | -381.09 | 181.57  | -104.32          | 381.09  | -181.55 | 0.017%  |
| 19         | 109.39                | -381.09 | 190.21  | -109.32          | 381.09  | -190.19 | 0.017%  |
| 20         | 0.02                  | -378.57 | 206.29  | -0.03            | 378.57  | -206.35 | 0.014%  |
| 21         | -0.01                 | -378.57 | 207.19  | 0.00             | 378.57  | -207.24 | 0.011%  |
| 22         | -0.01                 | -378.57 | 217.02  | 0.00             | 378.57  | -217.07 | 0.012%  |
| 23         | -103.27               | -381.04 | 178.79  | 103.21           | 381.04  | -178.78 | 0.015%  |
| 24         | -103.74               | -381.04 | 179.55  | 103.67           | 381.04  | -179.54 | 0.017%  |
| 25         | -108.70               | -381.04 | 188.13  | 108.63           | 381.04  | -188.12 | 0.016%  |
| 26         | -185.24               | -383.56 | 106.81  | 185.18           | 383.56  | -106.78 | 0.015%  |
| 27         | -185.96               | -383.56 | 107.22  | 185.90           | 383.56  | -107.19 | 0.015%  |
| 28         | -195.11               | -383.56 | 112.50  | 195.04           | 383.56  | -112.47 | 0.016%  |
| 29         | -208.58               | -381.14 | -0.14   | 208.53           | 381.14  | 0.19    | 0.015%  |
| 30         | -209.48               | -381.14 | -0.11   | 209.43           | 381.14  | 0.16    | 0.017%  |
| 31         | -219.49               | -381.14 | -0.11   | 219.44           | 381.14  | 0.16    | 0.016%  |
| 32         | -179.23               | -378.73 | -103.82 | 179.27           | 378.73  | 103.85  | 0.011%  |
| 33         | -180.03               | -378.73 | -104.24 | 180.06           | 378.73  | 104.27  | 0.011%  |
| 34         | -188.54               | -378.73 | -109.16 | 188.54           | 378.73  | 109.16  | 0.001%  |
| 35         | -104.41               | -381.28 | -181.40 | 104.43           | 381.28  | 181.33  | 0.016%  |
| 36         | -104.85               | -381.28 | -182.17 | 104.87           | 381.28  | 182.10  | 0.016%  |
| 37         | -109.84               | -381.28 | -190.81 | 109.86           | 381.28  | 190.74  | 0.016%  |
| 38         | 0.00                  | -798.64 | 0.00    | -0.01            | 798.64  | 0.01    | 0.002%  |
| 39         | 0.05                  | -799.50 | -47.49  | -0.05            | 799.50  | 47.49   | 0.000%  |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 47 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Load Comb. | Sum of Applied Forces |         |         | Sum of Reactions |         |         | % Error |
|------------|-----------------------|---------|---------|------------------|---------|---------|---------|
|            | PX<br>K               | PY<br>K | PZ<br>K | PX<br>K          | PY<br>K | PZ<br>K |         |
| 40         | 23.15                 | -798.69 | -40.16  | -23.15           | 798.69  | 40.16   | 0.001%  |
| 41         | 40.50                 | -797.86 | -23.45  | -40.50           | 797.86  | 23.45   | 0.000%  |
| 42         | 46.90                 | -798.66 | -0.04   | -46.89           | 798.66  | 0.04    | 0.001%  |
| 43         | 41.06                 | -799.45 | 23.66   | -41.05           | 799.45  | -23.66  | 0.001%  |
| 44         | 23.45                 | -798.62 | 40.70   | -23.45           | 798.62  | -40.70  | 0.001%  |
| 45         | 0.00                  | -797.79 | 46.85   | -0.01            | 797.79  | -46.85  | 0.001%  |
| 46         | -23.14                | -798.60 | 40.10   | 23.13            | 798.60  | -40.10  | 0.001%  |
| 47         | -41.00                | -799.43 | 23.67   | 40.99            | 799.43  | -23.67  | 0.001%  |
| 48         | -46.96                | -798.63 | -0.01   | 46.95            | 798.63  | 0.02    | 0.002%  |
| 49         | -40.59                | -797.84 | -23.48  | 40.59            | 797.84  | 23.48   | 0.001%  |
| 50         | -23.49                | -798.67 | -40.76  | 23.48            | 798.67  | 40.75   | 0.001%  |
| 51         | -0.07                 | -326.63 | -77.53  | 0.07             | 326.63  | 77.50   | 0.007%  |
| 52         | 37.04                 | -325.79 | -64.66  | -37.05           | 325.79  | 64.64   | 0.007%  |
| 53         | 64.05                 | -324.94 | -37.19  | -64.06           | 324.94  | 37.20   | 0.006%  |
| 54         | 74.83                 | -325.76 | 0.02    | -74.81           | 325.76  | -0.00   | 0.007%  |
| 55         | 66.86                 | -326.57 | 38.67   | -66.84           | 326.57  | -38.65  | 0.007%  |
| 56         | 37.46                 | -325.71 | 65.14   | -37.44           | 325.71  | -65.14  | 0.007%  |
| 57         | -0.00                 | -324.86 | 74.33   | -0.00            | 324.86  | -74.35  | 0.006%  |
| 58         | -37.23                | -325.70 | 64.44   | 37.21            | 325.70  | -64.44  | 0.006%  |
| 59         | -66.79                | -326.55 | 38.51   | 66.77            | 326.55  | -38.50  | 0.007%  |
| 60         | -75.17                | -325.73 | -0.04   | 75.15            | 325.73  | 0.05    | 0.007%  |
| 61         | -64.58                | -324.92 | -37.39  | 64.59            | 324.92  | 37.40   | 0.004%  |
| 62         | -37.62                | -325.78 | -65.34  | 37.62            | 325.78  | 65.32   | 0.007%  |

## Non-Linear Convergence Results

| Load Combination | Converged? | Number of Cycles | Displacement Tolerance | Force Tolerance |
|------------------|------------|------------------|------------------------|-----------------|
| 1                | Yes        | 23               | 0.00020000             | 0.00014818      |
| 2                | Yes        | 61               | 0.00019222             | 0.00006689      |
| 3                | Yes        | 58               | 0.00018910             | 0.00006051      |
| 4                | Yes        | 59               | 0.00018477             | 0.00007874      |
| 5                | Yes        | 59               | 0.00018900             | 0.00005466      |
| 6                | Yes        | 54               | 0.00019560             | 0.00006259      |
| 7                | Yes        | 58               | 0.00019394             | 0.00006513      |
| 8                | Yes        | 29               | 0.00019275             | 0.00014344      |
| 9                | Yes        | 30               | 0.00017952             | 0.00012576      |
| 10               | Yes        | 30               | 0.00017835             | 0.00014680      |
| 11               | Yes        | 58               | 0.00019736             | 0.00006474      |
| 12               | Yes        | 54               | 0.00018377             | 0.00006478      |
| 13               | Yes        | 58               | 0.00018159             | 0.00007127      |
| 14               | Yes        | 61               | 0.00018300             | 0.00006802      |
| 15               | Yes        | 57               | 0.00019632             | 0.00006597      |
| 16               | Yes        | 58               | 0.00019528             | 0.00015866      |
| 17               | Yes        | 59               | 0.00018790             | 0.00005326      |
| 18               | Yes        | 54               | 0.00019006             | 0.00005741      |
| 19               | Yes        | 58               | 0.00019217             | 0.00006395      |
| 20               | Yes        | 29               | 0.00019719             | 0.00011873      |
| 21               | Yes        | 30               | 0.00016364             | 0.00009200      |
| 22               | Yes        | 30               | 0.00016504             | 0.00010682      |
| 23               | Yes        | 58               | 0.00018563             | 0.00005424      |
| 24               | Yes        | 53               | 0.00018861             | 0.00005908      |
| 25               | Yes        | 57               | 0.00018938             | 0.00006472      |
| 26               | Yes        | 60               | 0.00018766             | 0.00007228      |
| 27               | Yes        | 57               | 0.00018312             | 0.00008052      |
| 28               | Yes        | 58               | 0.00018018             | 0.00008459      |
| 29               | Yes        | 58               | 0.00018344             | 0.00006040      |
| 30               | Yes        | 53               | 0.00018491             | 0.00006143      |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 48 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

|    |     |    |            |            |
|----|-----|----|------------|------------|
| 31 | Yes | 57 | 0.00018553 | 0.00007145 |
| 32 | Yes | 30 | 0.00019161 | 0.00013348 |
| 33 | Yes | 30 | 0.00018517 | 0.00011551 |
| 34 | Yes | 41 | 0.00008498 | 0.00011390 |
| 35 | Yes | 59 | 0.00019531 | 0.00005568 |
| 36 | Yes | 55 | 0.00018061 | 0.00005786 |
| 37 | Yes | 59 | 0.00018300 | 0.00006056 |
| 38 | Yes | 26 | 0.00020000 | 0.00015687 |
| 39 | Yes | 55 | 0.00010832 | 0.00015745 |
| 40 | Yes | 44 | 0.00018860 | 0.00010555 |
| 41 | Yes | 51 | 0.00010319 | 0.00017756 |
| 42 | Yes | 40 | 0.00019354 | 0.00003135 |
| 43 | Yes | 43 | 0.00019768 | 0.00002954 |
| 44 | Yes | 43 | 0.00014728 | 0.00016843 |
| 45 | Yes | 40 | 0.00013789 | 0.00005352 |
| 46 | Yes | 43 | 0.00019603 | 0.00008537 |
| 47 | Yes | 48 | 0.00016117 | 0.00012532 |
| 48 | Yes | 40 | 0.00019131 | 0.00003194 |
| 49 | Yes | 50 | 0.00013336 | 0.00015474 |
| 50 | Yes | 38 | 0.00018417 | 0.00007344 |
| 51 | Yes | 46 | 0.00018144 | 0.00002688 |
| 52 | Yes | 43 | 0.00018284 | 0.00002589 |
| 53 | Yes | 24 | 0.00017186 | 0.00004430 |
| 54 | Yes | 43 | 0.00018249 | 0.00002749 |
| 55 | Yes | 45 | 0.00019912 | 0.00003113 |
| 56 | Yes | 43 | 0.00018238 | 0.00002559 |
| 57 | Yes | 25 | 0.00018420 | 0.00009395 |
| 58 | Yes | 43 | 0.00018023 | 0.00002497 |
| 59 | Yes | 45 | 0.00019662 | 0.00002973 |
| 60 | Yes | 43 | 0.00018315 | 0.00002705 |
| 61 | Yes | 26 | 0.00014753 | 0.00011708 |
| 62 | Yes | 43 | 0.00018637 | 0.00002632 |

## Maximum Tower Deflections - Service Wind

| Section No. | Elevation<br>ft | Horz.<br>Deflection<br>in | Gov.<br>Load<br>Comb. | Tilt<br>° | Twist<br>° |
|-------------|-----------------|---------------------------|-----------------------|-----------|------------|
| Pole        | 1299.6 - 1247.5 | 22.088                    | 61                    | 0.617     | 2.661      |
| Antenna     |                 |                           |                       |           |            |
| T1          | 1247.5 - 1246   | 24.455                    | 61                    | 0.617     | 2.662      |
| T2          | 1246 - 1238     | 24.526                    | 61                    | 0.617     | 2.664      |
| T3          | 1238 - 1230     | 24.895                    | 61                    | 0.613     | 2.669      |
| T4          | 1230 - 1207.58  | 25.316                    | 61                    | 0.606     | 2.718      |
| T5          | 1207.58 - 1200  | 26.456                    | 61                    | 0.578     | 2.901      |
| T6          | 1200 - 1170     | 26.802                    | 61                    | 0.564     | 2.961      |
| T7          | 1170 - 1140     | 27.938                    | 53                    | 0.499     | 3.172      |
| T8          | 1140 - 1117.58  | 28.552                    | 53                    | 0.423     | 3.281      |
| T9          | 1117.58 - 1110  | 28.658                    | 53                    | 0.366     | 3.220      |
| T10         | 1110 - 1080     | 28.635                    | 53                    | 0.349     | 3.182      |
| T11         | 1080 - 1050     | 28.375                    | 53                    | 0.281     | 3.003      |
| T12         | 1050 - 1020     | 28.016                    | 53                    | 0.256     | 2.836      |
| T13         | 1020 - 990      | 28.084                    | 53                    | 0.239     | 2.871      |
| T14         | 990 - 960       | 29.640                    | 59                    | 0.193     | 2.986      |
| T15         | 960 - 930       | 30.816                    | 59                    | 0.132     | 3.057      |
| T16         | 930 - 900       | 31.359                    | 59                    | 0.086     | 2.918      |
| T17         | 900 - 870       | 31.307                    | 59                    | 0.109     | 2.720      |
| T18         | 870 - 840       | 30.808                    | 59                    | 0.113     | 2.408      |
| T19         | 840 - 810       | 30.557                    | 59                    | 0.105     | 2.331      |
| T20         | 810 - 780       | 30.515                    | 59                    | 0.116     | 2.385      |
| T21         | 780 - 750       | 30.055                    | 59                    | 0.142     | 2.414      |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 49 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br>ft | Horz.<br>Deflection<br>in | Gov.<br>Load<br>Comb. | Tilt<br>° | Twist<br>° |
|-------------|-----------------|---------------------------|-----------------------|-----------|------------|
| T22         | 750 - 720       | 28.970                    | 59                    | 0.185     | 2.221      |
| T23         | 720 - 690       | 27.377                    | 59                    | 0.230     | 2.050      |
| T24         | 690 - 660       | 25.414                    | 59                    | 0.256     | 1.848      |
| T25         | 660 - 630       | 23.563                    | 59                    | 0.258     | 1.755      |
| T26         | 630 - 600       | 22.153                    | 59                    | 0.266     | 1.865      |
| T27         | 600 - 570       | 20.543                    | 51                    | 0.279     | 1.945      |
| T28         | 570 - 540       | 18.605                    | 51                    | 0.290     | 1.833      |
| T29         | 540 - 510       | 16.490                    | 51                    | 0.289     | 1.691      |
| T30         | 510 - 480       | 14.408                    | 51                    | 0.272     | 1.568      |
| T31         | 480 - 450       | 12.618                    | 51                    | 0.236     | 1.487      |
| T32         | 450 - 420       | 11.576                    | 51                    | 0.213     | 1.566      |
| T33         | 420 - 390       | 10.592                    | 51                    | 0.200     | 1.655      |
| T34         | 390 - 360       | 9.417                     | 51                    | 0.194     | 1.515      |
| T35         | 360 - 330       | 7.991                     | 51                    | 0.185     | 1.430      |
| T36         | 330 - 300       | 6.599                     | 51                    | 0.167     | 1.308      |
| T37         | 300 - 270       | 5.629                     | 51                    | 0.138     | 1.273      |
| T38         | 270 - 240       | 5.126                     | 51                    | 0.122     | 1.368      |
| T39         | 240 - 210       | 4.656                     | 51                    | 0.115     | 1.457      |
| T40         | 210 - 180       | 3.944                     | 51                    | 0.111     | 1.212      |
| T41         | 180 - 150       | 2.993                     | 51                    | 0.104     | 1.036      |
| T42         | 150 - 120       | 2.231                     | 51                    | 0.090     | 0.940      |
| T43         | 120 - 90        | 1.973                     | 51                    | 0.077     | 0.862      |
| T44         | 90 - 60         | 1.420                     | 51                    | 0.067     | 0.480      |
| T45         | 60 - 30         | 0.739                     | 51                    | 0.051     | 0.255      |
| T46         | 30 - 22.5       | 0.108                     | 51                    | 0.026     | 0.016      |
| T47         | 22.5 - 15       | 0.064                     | 59                    | 0.020     | 0.011      |
| T48         | 15 - 7.5        | 0.034                     | 59                    | 0.014     | 0.008      |
| T49         | 7.5 - 0         | 0.010                     | 55                    | 0.007     | 0.004      |

### Critical Deflections and Radius of Curvature - Service Wind

| Elevation<br>ft | Appurtenance                           | Gov.<br>Load<br>Comb. | Deflection<br>in | Tilt<br>° | Twist<br>° | Radius of<br>Curvature<br>ft |
|-----------------|----------------------------------------|-----------------------|------------------|-----------|------------|------------------------------|
| 1301.00         | Drake Beacon LED-B-Hybrid-G5           | 61                    | 22.088           | 0.617     | 2.663      | 193939                       |
| 1274.00         | TFU-27ETT/VP-R S210 w/ 1' Base Adapter | 61                    | 23.227           | 0.618     | 2.653      | 37879                        |
| 1250.00         | Drake Side Strobe High-LED-WR-120      | 61                    | 24.335           | 0.618     | 2.660      | 23446                        |
| 1246.75         | Guy                                    | 61                    | 24.491           | 0.617     | 2.663      | 32733                        |
| 1240.00         | Interior Platform (Grating Only)       | 61                    | 24.800           | 0.615     | 2.665      | 10901                        |
| 1234.50         | L3x3x3/8 8.5' long                     | 61                    | 25.074           | 0.610     | 2.686      | 12211                        |
| 1231.50         | L3x3x3/8 8.5' long                     | 61                    | 25.235           | 0.608     | 2.707      | 27914                        |
| 1185.00         | SHPX-10AC w/ Radomes                   | 53                    | 27.422           | 0.534     | 3.073      | 19941                        |
| 1180.00         | SHPX-10AC w/ Radomes                   | 53                    | 27.609           | 0.523     | 3.107      | 19092                        |
| 1175.00         | SHPX-10AC w/ Radomes                   | 53                    | 27.781           | 0.511     | 3.140      | 18313                        |
| 1170.00         | SHPX-10AC w/ Radomes                   | 53                    | 27.938           | 0.499     | 3.172      | 17249                        |
| 1165.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.080           | 0.487     | 3.201      | 17172                        |
| 1160.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.205           | 0.475     | 3.227      | 16769                        |
| 1155.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.315           | 0.462     | 3.249      | 16334                        |
| 1150.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.410           | 0.449     | 3.266      | 15918                        |
| 1145.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.489           | 0.436     | 3.277      | 15523                        |
| 1140.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.552           | 0.423     | 3.281      | 15276                        |
| 1135.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.601           | 0.410     | 3.277      | 15557                        |
| 1130.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.634           | 0.397     | 3.267      | 15989                        |
| 1125.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.654           | 0.384     | 3.251      | 16445                        |
| 1120.00         | SHPX-10AC w/ Radomes                   | 53                    | 28.660           | 0.372     | 3.231      | 16973                        |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>50 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| <i>Elevation</i> | <i>Appurtenance</i>                  | <i>Gov. Load Comb.</i> | <i>Deflection</i> | <i>Tilt</i> | <i>Twist</i> | <i>Radius of Curvature</i> |
|------------------|--------------------------------------|------------------------|-------------------|-------------|--------------|----------------------------|
| <i>ft</i>        |                                      |                        | <i>in</i>         | <i>°</i>    | <i>°</i>     | <i>ft</i>                  |
| 1115.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.653            | 0.360       | 3.208        | 18616                      |
| 1110.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.635            | 0.349       | 3.182        | 21391                      |
| 1105.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.609            | 0.337       | 3.156        | 22111                      |
| 1100.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.577            | 0.324       | 3.128        | 22173                      |
| 1095.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.537            | 0.312       | 3.099        | 22236                      |
| 1090.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.490            | 0.300       | 3.068        | 22299                      |
| 1085.00          | SHPX-10AC w/ Radomes                 | 53                     | 28.436            | 0.290       | 3.036        | 22362                      |
| 1042.42          | Guy                                  | 53                     | 27.991            | 0.253       | 2.826        | 20044                      |
| 1024.00          | 40-FT 8 Element Dipole               | 53                     | 28.055            | 0.243       | 2.858        | 47191                      |
| 1018.67          | 40-FT 8 Element Dipole               | 53                     | 28.094            | 0.238       | 2.876        | 76180                      |
| 1013.33          | 40-FT 8 Element Dipole               | 59                     | 28.376            | 0.232       | 2.894        | 79697                      |
| 1008.00          | 40-FT 8 Element Dipole               | 59                     | 28.681            | 0.224       | 2.914        | 47335                      |
| 1002.67          | 40-FT 8 Element Dipole               | 59                     | 28.979            | 0.216       | 2.935        | 33665                      |
| 997.33           | 40-FT 8 Element Dipole               | 59                     | 29.267            | 0.207       | 2.956        | 26121                      |
| 992.00           | 40-FT 8 Element Dipole               | 59                     | 29.541            | 0.197       | 2.978        | 21439                      |
| 978.00           | JHVP-6                               | 59                     | 30.183            | 0.170       | 3.032        | 18195                      |
| 972.91           | JHVP-6                               | 59                     | 30.385            | 0.159       | 3.047        | 17535                      |
| 967.82           | JHVP-6                               | 59                     | 30.569            | 0.149       | 3.056        | 16920                      |
| 962.73           | JHVP-6                               | 59                     | 30.735            | 0.138       | 3.059        | 16363                      |
| 957.64           | JHVP-6                               | 59                     | 30.882            | 0.128       | 3.053        | 16284                      |
| 952.55           | JHVP-6                               | 59                     | 31.010            | 0.117       | 3.038        | 16718                      |
| 947.45           | JHVP-6                               | 59                     | 31.119            | 0.106       | 3.017        | 17202                      |
| 942.36           | JHVP-6                               | 59                     | 31.210            | 0.095       | 2.990        | 17715                      |
| 938.00           | Drake Side Strobe<br>High-LED-WR-120 | 59                     | 31.274            | 0.086       | 2.965        | 18179                      |
| 937.27           | JHVP-6                               | 59                     | 31.284            | 0.084       | 2.961        | 18255                      |
| 932.18           | JHVP-6                               | 59                     | 31.340            | 0.084       | 2.931        | 18673                      |
| 927.09           | JHVP-6                               | 59                     | 31.380            | 0.089       | 2.902        | 18692                      |
| 922.00           | JHVP-6                               | 59                     | 31.404            | 0.094       | 2.873        | 18377                      |
| 907.00           | TFU-8WB-R S230                       | 59                     | 31.374            | 0.105       | 2.778        | 17361                      |
| 900.00           | TFU-8WB-R S230                       | 59                     | 31.307            | 0.109       | 2.720        | 17789                      |
| 893.00           | TFU-8WB-R S230                       | 59                     | 31.208            | 0.112       | 2.648        | 27986                      |
| 855.00           | Guy                                  | 59                     | 30.634            | 0.109       | 2.336        | 19989                      |
| 778.00           | Paraflector PR-TV                    | 59                     | 30.002            | 0.144       | 2.407        | 15698                      |
| 667.58           | Guy                                  | 59                     | 23.987            | 0.258       | 1.759        | 17738                      |
| 625.00           | Drake Side Strobe<br>High-LED-WR-120 | 59                     | 21.911            | 0.268       | 1.888        | 23826                      |
| 560.00           | 20-ft 4 Element Dipole               | 51                     | 17.908            | 0.291       | 1.783        | 89618                      |
| 554.00           | 20-ft 4 Element Dipole               | 51                     | 17.484            | 0.291       | 1.754        | 154838                     |
| 548.00           | 20-ft 4 Element Dipole               | 51                     | 17.058            | 0.291       | 1.726        | 453474                     |
| 542.00           | 20-ft 4 Element Dipole               | 51                     | 16.632            | 0.290       | 1.700        | 206168                     |
| 487.58           | Guy                                  | 51                     | 13.003            | 0.245       | 1.492        | 12124                      |
| 432.00           | 25' x 2" 4-Element Dipole            | 51                     | 11.004            | 0.204       | 1.648        | 41517                      |
| 392.00           | PAL8-59AC                            | 51                     | 9.504             | 0.194       | 1.511        | 30480                      |
| 351.00           | L6x4x5/16" x 10' Long                | 51                     | 7.551             | 0.181       | 1.388        | 59650                      |
| 349.00           | 2.4" dia. x 10' stabilizer           | 51                     | 7.455             | 0.180       | 1.380        | 51380                      |
| 348.00           | PAL8-59AC                            | 51                     | 7.407             | 0.179       | 1.375        | 48050                      |
| 344.00           | L6x4x5/16" x 10' Long                | 51                     | 7.217             | 0.177       | 1.359        | 38156                      |
| 315.00           | Guy                                  | 51                     | 6.047             | 0.152       | 1.271        | 20025                      |
| 313.00           | Drake Side Strobe<br>High-LED-WR-120 | 51                     | 5.984             | 0.150       | 1.269        | 19769                      |
| 157.58           | Guy                                  | 51                     | 2.370             | 0.094       | 0.954        | 15212                      |
| 39.00            | Compound Light                       | 51                     | 0.238             | 0.034       | 0.061        | 14179                      |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>51 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

## Maximum Tower Deflections - Design Wind

| Section No. | Elevation<br>ft | Horz.<br>Deflection<br>in | Gov.<br>Load<br>Comb. | Tilt<br>° | Twist<br>° |
|-------------|-----------------|---------------------------|-----------------------|-----------|------------|
| Pole        | 1299.6 - 1247.5 | 107.572                   | 2                     | 1.163     | 4.494      |
| Antenna     |                 |                           |                       |           |            |
| T1          | 1247.5 - 1246   | 107.408                   | 2                     | 1.163     | 4.497      |
| T2          | 1246 - 1238     | 107.413                   | 2                     | 1.163     | 4.501      |
| T3          | 1238 - 1230     | 107.405                   | 2                     | 1.157     | 4.516      |
| T4          | 1230 - 1207.58  | 107.522                   | 2                     | 1.146     | 4.656      |
| T5          | 1207.58 - 1200  | 109.272                   | 4                     | 1.102     | 5.181      |
| T6          | 1200 - 1170     | 110.677                   | 4                     | 1.082     | 5.353      |
| T7          | 1170 - 1140     | 115.322                   | 4                     | 0.984     | 5.948      |
| T8          | 1140 - 1117.58  | 118.278                   | 4                     | 0.875     | 6.146      |
| T9          | 1117.58 - 1110  | 119.345                   | 4                     | 0.800     | 5.985      |
| T10         | 1110 - 1080     | 119.494                   | 4                     | 0.778     | 5.879      |
| T11         | 1080 - 1050     | 119.415                   | 4                     | 0.708     | 5.382      |
| T12         | 1050 - 1020     | 118.753                   | 4                     | 0.708     | 4.911      |
| T13         | 1020 - 990      | 119.121                   | 4                     | 0.704     | 5.007      |
| T14         | 990 - 960       | 119.757                   | 4                     | 0.614     | 5.358      |
| T15         | 960 - 930       | 119.408                   | 4                     | 0.473     | 5.561      |
| T16         | 930 - 900       | 117.723                   | 4                     | 0.399     | 5.343      |
| T17         | 900 - 870       | 114.895                   | 4                     | 0.441     | 4.874      |
| T18         | 870 - 840       | 111.250                   | 4                     | 0.429     | 4.204      |
| T19         | 840 - 810       | 108.780                   | 4                     | 0.382     | 4.033      |
| T20         | 810 - 780       | 107.360                   | 4                     | 0.412     | 4.214      |
| T21         | 780 - 750       | 105.188                   | 4                     | 0.485     | 4.168      |
| T22         | 750 - 720       | 102.404                   | 3                     | 0.574     | 3.997      |
| T23         | 720 - 690       | 99.277                    | 3                     | 0.647     | 3.711      |
| T24         | 690 - 660       | 95.040                    | 3                     | 0.672     | 3.300      |
| T25         | 660 - 630       | 91.097                    | 3                     | 0.642     | 3.092      |
| T26         | 630 - 600       | 88.364                    | 3                     | 0.643     | 3.339      |
| T27         | 600 - 570       | 85.062                    | 3                     | 0.688     | 3.369      |
| T28         | 570 - 540       | 80.622                    | 3                     | 0.763     | 3.139      |
| T29         | 540 - 510       | 75.049                    | 3                     | 0.836     | 2.878      |
| T30         | 510 - 480       | 68.992                    | 3                     | 0.862     | 2.618      |
| T31         | 480 - 450       | 63.128                    | 3                     | 0.840     | 2.344      |
| T32         | 450 - 420       | 58.502                    | 3                     | 0.847     | 2.604      |
| T33         | 420 - 390       | 53.930                    | 2                     | 0.877     | 2.737      |
| T34         | 390 - 360       | 48.515                    | 2                     | 0.909     | 3.002      |
| T35         | 360 - 330       | 42.414                    | 2                     | 0.911     | 3.135      |
| T36         | 330 - 300       | 36.158                    | 2                     | 0.866     | 2.960      |
| T37         | 300 - 270       | 30.881                    | 2                     | 0.775     | 2.742      |
| T38         | 270 - 240       | 26.766                    | 2                     | 0.717     | 2.881      |
| T39         | 240 - 210       | 22.518                    | 2                     | 0.682     | 2.723      |
| T40         | 210 - 180       | 17.872                    | 2                     | 0.643     | 2.406      |
| T41         | 180 - 150       | 13.199                    | 2                     | 0.581     | 2.189      |
| T42         | 150 - 120       | 9.340                     | 2                     | 0.497     | 1.941      |
| T43         | 120 - 90        | 6.991                     | 2                     | 0.407     | 2.167      |
| T44         | 90 - 60         | 4.496                     | 2                     | 0.321     | 1.914      |
| T45         | 60 - 30         | 2.176                     | 26                    | 0.224     | 0.809      |
| T46         | 30 - 22.5       | 0.364                     | 2                     | 0.104     | 0.040      |
| T47         | 22.5 - 15       | 0.204                     | 26                    | 0.080     | 0.029      |
| T48         | 15 - 7.5        | 0.101                     | 26                    | 0.054     | 0.020      |
| T49         | 7.5 - 0         | 0.027                     | 9                     | 0.028     | 0.012      |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 52 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

## Critical Deflections and Radius of Curvature - Design Wind

| <i>Elevation</i> | <i>Appurtenance</i>                    | <i>Gov. Load Comb.</i> | <i>Deflection</i> | <i>Tilt</i> | <i>Twist</i> | <i>Radius of Curvature</i> |
|------------------|----------------------------------------|------------------------|-------------------|-------------|--------------|----------------------------|
| <i>ft</i>        |                                        |                        | <i>in</i>         | <i>°</i>    | <i>°</i>     | <i>ft</i>                  |
| 1301.00          | Drake Beacon LED-B-Hybrid-G5           | 2                      | 107.572           | 1.163       | 4.499        | 108044                     |
| 1274.00          | TFU-27ETT/VP-R S210 w/ 1' Base Adapter | 2                      | 107.419           | 1.162       | 4.471        | 21103                      |
| 1250.00          | Drake Side Strobe High-LED-WR-120      | 2                      | 107.398           | 1.163       | 4.490        | 12358                      |
| 1246.75          | Guy                                    | 2                      | 107.411           | 1.163       | 4.499        | 10987                      |
| 1240.00          | Interior Platform (Grating Only)       | 2                      | 107.401           | 1.159       | 4.505        | 5043                       |
| 1234.50          | L3x3x3/8 8.5' long                     | 2                      | 107.443           | 1.152       | 4.563        | 5385                       |
| 1231.50          | L3x3x3/8 8.5' long                     | 2                      | 107.495           | 1.148       | 4.623        | 22704                      |
| 1185.00          | SHPX-10AC w/ Radomes                   | 4                      | 113.194           | 1.036       | 5.681        | 6924                       |
| 1180.00          | SHPX-10AC w/ Radomes                   | 4                      | 113.949           | 1.019       | 5.779        | 6634                       |
| 1175.00          | SHPX-10AC w/ Radomes                   | 4                      | 114.659           | 1.002       | 5.869        | 6367                       |
| 1170.00          | SHPX-10AC w/ Radomes                   | 4                      | 115.322           | 0.984       | 5.948        | 6159                       |
| 1165.00          | SHPX-10AC w/ Radomes                   | 4                      | 115.937           | 0.966       | 6.014        | 6112                       |
| 1160.00          | SHPX-10AC w/ Radomes                   | 4                      | 116.502           | 0.948       | 6.067        | 6104                       |
| 1155.00          | SHPX-10AC w/ Radomes                   | 4                      | 117.019           | 0.930       | 6.107        | 6096                       |
| 1150.00          | SHPX-10AC w/ Radomes                   | 4                      | 117.488           | 0.911       | 6.133        | 6087                       |
| 1145.00          | SHPX-10AC w/ Radomes                   | 4                      | 117.907           | 0.893       | 6.146        | 6078                       |
| 1140.00          | SHPX-10AC w/ Radomes                   | 4                      | 118.278           | 0.875       | 6.146        | 6077                       |
| 1135.00          | SHPX-10AC w/ Radomes                   | 4                      | 118.600           | 0.857       | 6.132        | 6112                       |
| 1130.00          | SHPX-10AC w/ Radomes                   | 4                      | 118.874           | 0.839       | 6.105        | 6156                       |
| 1125.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.099           | 0.823       | 6.066        | 6201                       |
| 1120.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.276           | 0.807       | 6.014        | 6283                       |
| 1115.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.406           | 0.792       | 5.951        | 7302                       |
| 1110.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.494           | 0.778       | 5.879        | 9741                       |
| 1105.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.553           | 0.764       | 5.804        | 10398                      |
| 1100.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.583           | 0.750       | 5.726        | 10328                      |
| 1095.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.584           | 0.737       | 5.645        | 10259                      |
| 1090.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.557           | 0.725       | 5.561        | 10191                      |
| 1085.00          | SHPX-10AC w/ Radomes                   | 4                      | 119.501           | 0.715       | 5.474        | 10124                      |
| 1042.42          | Guy                                    | 4                      | 118.740           | 0.712       | 4.881        | 6176                       |
| 1024.00          | 40-FT 8 Element Dipole                 | 4                      | 119.025           | 0.708       | 4.969        | 11382                      |
| 1018.67          | 40-FT 8 Element Dipole                 | 4                      | 119.155           | 0.702       | 5.021        | 14377                      |
| 1013.33          | 40-FT 8 Element Dipole                 | 4                      | 119.291           | 0.691       | 5.079        | 17356                      |
| 1008.00          | 40-FT 8 Element Dipole                 | 4                      | 119.425           | 0.678       | 5.142        | 21348                      |
| 1002.67          | 40-FT 8 Element Dipole                 | 4                      | 119.549           | 0.662       | 5.206        | 15859                      |
| 997.33           | 40-FT 8 Element Dipole                 | 4                      | 119.655           | 0.643       | 5.271        | 11021                      |
| 992.00           | 40-FT 8 Element Dipole                 | 4                      | 119.735           | 0.623       | 5.335        | 8498                       |
| 978.00           | JHVP-6                                 | 4                      | 119.774           | 0.562       | 5.480        | 7530                       |
| 972.91           | JHVP-6                                 | 4                      | 119.720           | 0.538       | 5.519        | 7434                       |
| 967.82           | JHVP-6                                 | 4                      | 119.628           | 0.513       | 5.546        | 7341                       |
| 962.73           | JHVP-6                                 | 4                      | 119.495           | 0.487       | 5.560        | 7252                       |
| 957.64           | JHVP-6                                 | 4                      | 119.322           | 0.461       | 5.558        | 7226                       |
| 952.55           | JHVP-6                                 | 4                      | 119.107           | 0.434       | 5.541        | 7267                       |
| 947.45           | JHVP-6                                 | 4                      | 118.854           | 0.407       | 5.510        | 7310                       |
| 942.36           | JHVP-6                                 | 4                      | 118.564           | 0.379       | 5.469        | 7297                       |
| 938.00           | Drake Side Strobe High-LED-WR-120      | 4                      | 118.288           | 0.383       | 5.428        | 7287                       |
| 937.27           | JHVP-6                                 | 4                      | 118.240           | 0.384       | 5.421        | 7285                       |
| 932.18           | JHVP-6                                 | 4                      | 117.884           | 0.395       | 5.367        | 7267                       |
| 927.09           | JHVP-6                                 | 4                      | 117.499           | 0.405       | 5.310        | 7155                       |
| 922.00           | JHVP-6                                 | 4                      | 117.083           | 0.414       | 5.251        | 6972                       |
| 907.00           | TFU-8WB-R S230                         | 4                      | 115.666           | 0.435       | 5.019        | 6477                       |
| 900.00           | TFU-8WB-R S230                         | 4                      | 114.895           | 0.441       | 4.874        | 6609                       |
| 893.00           | TFU-8WB-R S230                         | 4                      | 114.055           | 0.444       | 4.726        | 10427                      |
| 855.00           | Guy                                    | 4                      | 109.815           | 0.403       | 4.040        | 5525                       |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 53 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| <i>Elevation</i> | <i>Appurtenance</i>        | <i>Gov. Load Comb.</i> | <i>Deflection in</i> | <i>Tilt °</i> | <i>Twist °</i> | <i>Radius of Curvature ft</i> |
|------------------|----------------------------|------------------------|----------------------|---------------|----------------|-------------------------------|
| <i>ft</i>        |                            |                        | <i>in</i>            |               |                |                               |
| 778.00           | Paraflector PR-TV          | 4                      | 105.002              | 0.490         | 4.167          | 6649                          |
| 667.58           | Guy                        | 3                      | 91.972               | 0.650         | 3.096          | 5885                          |
| 625.00           | Drake Side Strobe          | 3                      | 87.889               | 0.648         | 3.371          | 9786                          |
|                  | High-LED-WR-120            |                        |                      |               |                |                               |
| 560.00           | 20-ft 4 Element Dipole     | 3                      | 78.864               | 0.790         | 3.051          | 8174                          |
| 554.00           | 20-ft 4 Element Dipole     | 3                      | 77.753               | 0.806         | 2.998          | 9730                          |
| 548.00           | 20-ft 4 Element Dipole     | 3                      | 76.610               | 0.820         | 2.946          | 12002                         |
| 542.00           | 20-ft 4 Element Dipole     | 3                      | 75.442               | 0.832         | 2.895          | 15544                         |
| 487.58           | Guy                        | 3                      | 64.499               | 0.845         | 2.397          | 6324                          |
| 432.00           | 25' x 2" 4-Element Dipole  | 2                      | 55.782               | 0.864         | 2.732          | 8220                          |
| 392.00           | PAL8-59AC                  | 2                      | 48.902               | 0.908         | 2.982          | 15983                         |
| 351.00           | L6x4x5/16" x 10' Long      | 2                      | 40.506               | 0.904         | 3.106          | 32838                         |
| 349.00           | 2.4" dia. x 10' stabilizer | 2                      | 40.082               | 0.901         | 3.096          | 25776                         |
| 348.00           | PAL8-59AC                  | 2                      | 39.870               | 0.900         | 3.091          | 23274                         |
| 344.00           | L6x4x5/16" x 10' Long      | 2                      | 39.026               | 0.894         | 3.066          | 16608                         |
| 315.00           | Guy                        | 2                      | 33.348               | 0.822         | 2.842          | 7364                          |
| 313.00           | Drake Side Strobe          | 2                      | 32.999               | 0.815         | 2.828          | 7252                          |
|                  | High-LED-WR-120            |                        |                      |               |                |                               |
| 157.58           | Guy                        | 2                      | 10.161               | 0.520         | 1.993          | 5657                          |
| 39.00            | Compound Light             | 2                      | 0.745                | 0.138         | 0.173          | 5609                          |

## Bolt Design Data

| <i>Section No.</i> | <i>Elevation ft</i> | <i>Component Type</i> | <i>Bolt Grade</i> | <i>Bolt Size in</i> | <i>Number Of Bolts</i> | <i>Maximum Load per Bolt K</i> | <i>Allowable Load per Bolt K</i> | <i>Ratio Load Allowable</i> | <i>Allowable Ratio</i> | <i>Criteria</i>    |
|--------------------|---------------------|-----------------------|-------------------|---------------------|------------------------|--------------------------------|----------------------------------|-----------------------------|------------------------|--------------------|
| T1                 | 1247.5              | Leg                   | A325N             | 0.8750              | 5                      | 3.04                           | 41.56                            | 0.073                       | 1.05                   | Bolt Tension       |
| T2                 | 1246                | Diagonal              | A325N             | 0.6250              | 2                      | 5.61                           | 26.10                            | 0.215                       | 1.05                   | Gusset Bearing     |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 1.24                           | 13.19                            | 0.094                       | 1.05                   | Member Block Shear |
| T3                 | 1238                | Leg                   | A325N             | 0.8750              | 4                      | 6.19                           | 41.56                            | 0.149                       | 1.05                   | Bolt Tension       |
|                    |                     | Diagonal              | A325N             | 0.6250              | 2                      | 6.65                           | 13.81                            | 0.482                       | 1.05                   | Bolt Shear         |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 1.50                           | 13.19                            | 0.114                       | 1.05                   | Member Block Shear |
|                    |                     | Bottom Girt           | A325N             | 0.6250              | 4                      | 1.59                           | 26.10                            | 0.061                       | 1.05                   | Gusset Bearing     |
| T4                 | 1230                | Diagonal              | A325N             | 0.6250              | 2                      | 6.10                           | 13.81                            | 0.442                       | 1.05                   | Bolt Shear         |
|                    |                     | Horizontal            | A325N             | 0.6250              | 2                      | 4.18                           | 17.40                            | 0.241                       | 1.05                   | Gusset Bearing     |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 1.71                           | 17.40                            | 0.099                       | 1.05                   | Gusset Bearing     |
| T5                 | 1207.58             | Leg                   | A325N             | 0.8750              | 4                      | 15.84                          | 41.56                            | 0.381                       | 1.05                   | Bolt Tension       |
|                    |                     | Diagonal              | A325N             | 0.6250              | 2                      | 4.86                           | 13.81                            | 0.352                       | 1.05                   | Bolt Shear         |
|                    |                     | Secondary             | A325N             | 0.6250              | 1                      | 0.13                           | 9.11                             | 0.015                       | 1.05                   | Member Block Shear |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 3.56                           | 17.40                            | 0.204                       | 1.05                   | Gusset Bearing     |
|                    |                     | Bottom Girt           | A325N             | 0.6250              | 2                      | 1.74                           | 17.40                            | 0.100                       | 1.05                   | Gusset Bearing     |
| T6                 | 1200                | Leg                   | A325N             | 0.8750              | 4                      | 21.99                          | 41.56                            | 0.529                       | 1.05                   | Bolt Tension       |
|                    |                     | Diagonal              | A325N             | 0.6250              | 2                      | 4.38                           | 13.81                            | 0.317                       | 1.05                   | Bolt Shear         |
|                    |                     | Horizontal            | A325N             | 0.6250              | 2                      | 2.87                           | 17.40                            | 0.165                       | 1.05                   | Gusset Bearing     |
|                    |                     | Secondary             | A325N             | 0.6250              | 1                      | 0.26                           | 13.81                            | 0.019                       | 1.05                   | Bolt Shear         |
|                    |                     | Horizontal            |                   |                     |                        |                                |                                  |                             |                        |                    |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 1.56                           | 17.40                            | 0.090                       | 1.05                   | Gusset Bearing     |
|                    |                     | Bottom Girt           | A325N             | 0.6250              | 2                      | 0.85                           | 17.40                            | 0.049                       | 1.05                   | Gusset Bearing     |
| T7                 | 1170                | Leg                   | A325N             | 0.8750              | 4                      | 21.85                          | 41.56                            | 0.526                       | 1.05                   | Bolt Tension       |
|                    |                     | Diagonal              | A325N             | 0.6250              | 2                      | 1.93                           | 13.81                            | 0.140                       | 1.05                   | Bolt Shear         |
|                    |                     | Horizontal            | A325N             | 0.6250              | 2                      | 1.18                           | 17.40                            | 0.068                       | 1.05                   | Gusset Bearing     |
|                    |                     | Secondary             | A325N             | 0.6250              | 1                      | 0.14                           | 13.81                            | 0.010                       | 1.05                   | Bolt Shear         |
|                    |                     | Horizontal            |                   |                     |                        |                                |                                  |                             |                        |                    |
|                    |                     | Top Girt              | A325N             | 0.6250              | 2                      | 0.73                           | 17.40                            | 0.042                       | 1.05                   | Gusset Bearing     |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 54 of 77          |
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|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br>ft | Component Type       | Bolt Grade | Bolt Size<br>in | Number Of Bolts | Maximum Load per Bolt<br>K | Allowable Load per Bolt<br>K | Ratio Load Allowable | Allowable Ratio | Criteria       |
|-------------|-----------------|----------------------|------------|-----------------|-----------------|----------------------------|------------------------------|----------------------|-----------------|----------------|
| T8          | 1140            | Bottom Girt          | A325N      | 0.6250          | 2               | 0.79                       | 17.40                        | 0.045                | 1.05            | Gusset Bearing |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 4.14                       | 13.81                        | 0.300                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.59                       | 17.40                        | 0.149                | 1.05            | Gusset Bearing |
|             |                 | Secondary Horizontal | A325N      | 0.6250          | 1               | 0.24                       | 13.81                        | 0.017                | 1.05            | Bolt Shear     |
| T9          | 1117.58         | Top Girt             | A325N      | 0.6250          | 2               | 0.83                       | 17.40                        | 0.048                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 15.42                      | 41.56                        | 0.371                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 5.07                       | 13.81                        | 0.367                | 1.05            | Bolt Shear     |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 3.24                       | 17.40                        | 0.186                | 1.05            | Gusset Bearing |
| T10         | 1110            | Bottom Girt          | A325N      | 0.6250          | 2               | 1.92                       | 17.40                        | 0.110                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 6.42                       | 41.56                        | 0.154                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 7.80                       | 13.81                        | 0.565                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 5.25                       | 17.40                        | 0.302                | 1.05            | Gusset Bearing |
| T11         | 1080            | Top Girt             | A325N      | 0.6250          | 2               | 2.07                       | 17.40                        | 0.119                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 2.89                       | 17.40                        | 0.166                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 10.28                      | 41.56                        | 0.247                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.7500          | 2               | 9.56                       | 19.88                        | 0.481                | 1.05            | Bolt Shear     |
| T12         | 1050            | Horizontal           | A325N      | 0.6250          | 2               | 6.52                       | 21.75                        | 0.300                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 3.12                       | 21.75                        | 0.143                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 3.49                       | 21.75                        | 0.160                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 10.93                      | 41.56                        | 0.263                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.7500          | 2               | 9.58                       | 19.88                        | 0.482                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 5.07                       | 21.75                        | 0.233                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 3.45                       | 21.75                        | 0.158                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 2.37                       | 21.75                        | 0.109                | 1.05            | Gusset Bearing |
|             |                 | Top Guy              | A325N      | 0.7500          | 4               | 5.82                       | 23.52                        | 0.247                | 1.05            | Gusset Bearing |
|             |                 | Pull-Off@1042.4      |            |                 |                 |                            |                              |                      |                 |                |
|             |                 | 2                    |            |                 |                 |                            |                              |                      |                 |                |
|             |                 |                      |            |                 |                 |                            |                              |                      |                 |                |
| T13         | 1020            | Leg                  | A325N      | 0.8750          | 4               | 11.07                      | 41.56                        | 0.266                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 6.07                       | 13.81                        | 0.440                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 4.07                       | 17.40                        | 0.234                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 2.22                       | 17.40                        | 0.128                | 1.05            | Gusset Bearing |
| T14         | 990             | Bottom Girt          | A325N      | 0.6250          | 2               | 1.49                       | 17.40                        | 0.085                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 12.11                      | 41.56                        | 0.291                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 3.71                       | 13.81                        | 0.269                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.42                       | 17.40                        | 0.139                | 1.05            | Gusset Bearing |
| T15         | 960             | Top Girt             | A325N      | 0.6250          | 2               | 1.37                       | 17.40                        | 0.079                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.63                       | 17.40                        | 0.036                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 12.22                      | 41.56                        | 0.294                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 2.23                       | 13.81                        | 0.161                | 1.05            | Bolt Shear     |
| T16         | 930             | Horizontal           | A325N      | 0.6250          | 2               | 1.39                       | 17.40                        | 0.080                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.51                       | 17.40                        | 0.029                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.85                       | 17.40                        | 0.049                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 12.05                      | 41.56                        | 0.290                | 1.05            | Bolt Tension   |
| T17         | 900             | Diagonal             | A325N      | 0.6250          | 2               | 4.74                       | 13.81                        | 0.343                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 3.11                       | 17.40                        | 0.179                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.06                       | 17.40                        | 0.061                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.80                       | 17.40                        | 0.103                | 1.05            | Gusset Bearing |
| T18         | 870             | Leg                  | A325N      | 0.8750          | 4               | 14.98                      | 41.56                        | 0.360                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 7.59                       | 13.81                        | 0.550                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 5.22                       | 17.40                        | 0.300                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 2.16                       | 17.40                        | 0.124                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 2.72                       | 17.40                        | 0.157                | 1.05            | Gusset Bearing |
|             |                 | Leg                  | A325N      | 0.8750          | 4               | 14.58                      | 41.56                        | 0.351                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 8.48                       | 13.81                        | 0.614                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 5.62                       | 17.40                        | 0.323                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 3.13                       | 17.40                        | 0.180                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 2.75                       | 17.40                        | 0.158                | 1.05            | Gusset Bearing |
|             |                 | Top Guy              | A325N      | 0.7500          | 4               | 5.38                       | 18.81                        | 0.286                | 1.05            | Gusset Bearing |
|             |                 | Pull-Off@855         |            |                 |                 |                            |                              |                      |                 |                |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 55 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br>ft | Component Type  | Bolt Grade | Bolt Size<br>in | Number Of Bolts | Maximum Load per Bolt<br>K | Allowable Load per Bolt<br>K | Ratio Load Allowable | Allowable Ratio | Criteria       |
|-------------|-----------------|-----------------|------------|-----------------|-----------------|----------------------------|------------------------------|----------------------|-----------------|----------------|
| T19         | 840             | Leg             | A325N      | 0.8750          | 4               | 15.67                      | 41.56                        | 0.377                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 7.04                       | 13.81                        | 0.510                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 4.77                       | 17.40                        | 0.274                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 2.56                       | 17.40                        | 0.147                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 2.01                       | 17.40                        | 0.115                | 1.05            | Gusset Bearing |
| T20         | 810             | Leg             | A325N      | 0.8750          | 4               | 16.58                      | 41.56                        | 0.399                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 4.90                       | 13.81                        | 0.355                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 3.28                       | 17.40                        | 0.188                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 1.79                       | 17.40                        | 0.103                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 1.20                       | 17.40                        | 0.069                | 1.05            | Gusset Bearing |
| T21         | 780             | Leg             | A325N      | 0.8750          | 4               | 16.82                      | 41.56                        | 0.405                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 2.61                       | 13.81                        | 0.189                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 1.68                       | 17.40                        | 0.097                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 1.00                       | 17.40                        | 0.058                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 0.70                       | 17.40                        | 0.040                | 1.05            | Gusset Bearing |
| T22         | 750             | Leg             | A325N      | 0.8750          | 4               | 16.57                      | 41.56                        | 0.399                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 4.39                       | 13.81                        | 0.318                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 2.85                       | 17.40                        | 0.164                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 0.86                       | 17.40                        | 0.050                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 1.63                       | 17.40                        | 0.094                | 1.05            | Gusset Bearing |
| T23         | 720             | Leg             | A325N      | 0.8750          | 4               | 16.04                      | 41.56                        | 0.386                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 6.76                       | 13.81                        | 0.489                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 4.57                       | 17.40                        | 0.262                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 1.79                       | 17.40                        | 0.103                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 2.47                       | 17.40                        | 0.142                | 1.05            | Gusset Bearing |
| T24         | 690             | Leg             | A325N      | 0.8750          | 4               | 18.41                      | 41.56                        | 0.443                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 7.85                       | 13.81                        | 0.568                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 5.46                       | 17.40                        | 0.314                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 2.61                       | 17.40                        | 0.150                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 2.11                       | 17.40                        | 0.121                | 1.05            | Gusset Bearing |
|             |                 | Top Guy         | A325N      | 0.7500          | 4               | 5.25                       | 18.81                        | 0.279                | 1.05            | Gusset Bearing |
|             |                 | Pull-Off@667.58 |            |                 |                 |                            |                              |                      |                 |                |
|             |                 | 3               |            |                 |                 |                            |                              |                      |                 |                |
| T25         | 660             | Leg             | A325N      | 0.8750          | 4               | 19.11                      | 41.56                        | 0.460                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 6.25                       | 13.81                        | 0.452                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 4.12                       | 17.40                        | 0.237                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 2.21                       | 17.40                        | 0.127                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 1.61                       | 17.40                        | 0.093                | 1.05            | Gusset Bearing |
| T26         | 630             | Leg             | A325N      | 0.8750          | 4               | 19.84                      | 41.56                        | 0.477                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 4.03                       | 13.81                        | 0.292                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 2.63                       | 17.40                        | 0.151                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 1.50                       | 17.40                        | 0.086                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 0.83                       | 17.40                        | 0.048                | 1.05            | Gusset Bearing |
| T27         | 600             | Leg             | A325N      | 0.8750          | 4               | 20.10                      | 41.56                        | 0.484                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 1.86                       | 13.81                        | 0.135                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 1.21                       | 17.40                        | 0.069                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 0.73                       | 17.40                        | 0.042                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 0.68                       | 17.40                        | 0.039                | 1.05            | Gusset Bearing |
| T28         | 570             | Leg             | A325N      | 0.8750          | 4               | 20.21                      | 41.56                        | 0.486                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 3.95                       | 13.81                        | 0.286                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 2.60                       | 17.40                        | 0.149                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 0.78                       | 17.40                        | 0.045                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 1.49                       | 17.40                        | 0.085                | 1.05            | Gusset Bearing |
| T29         | 540             | Leg             | A325N      | 0.8750          | 4               | 21.79                      | 41.56                        | 0.524                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 6.30                       | 13.81                        | 0.456                | 1.05            | Bolt Shear     |
|             |                 | Horizontal      | A325N      | 0.6250          | 2               | 4.18                       | 17.40                        | 0.240                | 1.05            | Gusset Bearing |
|             |                 | Top Girt        | A325N      | 0.6250          | 2               | 1.60                       | 17.40                        | 0.092                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt     | A325N      | 0.6250          | 2               | 2.31                       | 17.40                        | 0.133                | 1.05            | Gusset Bearing |
| T30         | 510             | Leg             | A325N      | 0.8750          | 4               | 24.16                      | 41.56                        | 0.581                | 1.05            | Bolt Tension   |
|             |                 | Diagonal        | A325N      | 0.6250          | 2               | 7.35                       | 13.81                        | 0.533                | 1.05            | Bolt Shear     |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 56 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
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| Section No. | Elevation<br>ft | Component Type       | Bolt Grade | Bolt Size<br>in | Number Of Bolts | Maximum Load per Bolt<br>K | Allowable Load per Bolt<br>K | Ratio Load Allowable | Allowable Ratio | Criteria       |
|-------------|-----------------|----------------------|------------|-----------------|-----------------|----------------------------|------------------------------|----------------------|-----------------|----------------|
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 5.12                       | 17.40                        | 0.294                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 2.38                       | 17.40                        | 0.137                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.82                       | 17.40                        | 0.105                | 1.05            | Gusset Bearing |
|             |                 | Top Guy              | A325N      | 0.7500          | 4               | 4.19                       | 18.81                        | 0.223                | 1.05            | Gusset Bearing |
|             |                 | Pull-Off@487.58<br>3 |            |                 |                 |                            |                              |                      |                 |                |
| T31         | 480             | Leg                  | A325N      | 0.8750          | 4               | 23.72                      | 41.56                        | 0.571                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 5.53                       | 13.81                        | 0.400                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 3.64                       | 17.40                        | 0.209                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.97                       | 17.40                        | 0.113                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.36                       | 17.40                        | 0.078                | 1.05            | Gusset Bearing |
| T32         | 450             | Leg                  | A325N      | 0.8750          | 4               | 23.51                      | 41.56                        | 0.566                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 3.50                       | 13.81                        | 0.254                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.29                       | 17.40                        | 0.132                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.32                       | 17.40                        | 0.076                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.53                       | 17.40                        | 0.030                | 1.05            | Gusset Bearing |
| T33         | 420             | Leg                  | A325N      | 0.8750          | 4               | 23.91                      | 41.56                        | 0.575                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 3.25                       | 13.81                        | 0.236                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.19                       | 17.40                        | 0.126                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.55                       | 17.40                        | 0.032                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.22                       | 17.40                        | 0.070                | 1.05            | Gusset Bearing |
| T34         | 390             | Leg                  | A325N      | 0.8750          | 4               | 24.95                      | 41.56                        | 0.600                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 5.15                       | 13.81                        | 0.373                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 3.49                       | 17.40                        | 0.200                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.37                       | 17.40                        | 0.079                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.85                       | 17.40                        | 0.106                | 1.05            | Gusset Bearing |
| T35         | 360             | Leg                  | A325N      | 0.8750          | 4               | 26.44                      | 41.56                        | 0.636                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.7500          | 2               | 8.85                       | 19.88                        | 0.445                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 6.02                       | 21.75                        | 0.277                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 2.07                       | 21.75                        | 0.095                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 3.22                       | 21.75                        | 0.148                | 1.05            | Gusset Bearing |
| T36         | 330             | Leg                  | A325N      | 0.8750          | 4               | 27.98                      | 41.56                        | 0.673                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.7500          | 2               | 9.53                       | 19.88                        | 0.479                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 6.41                       | 21.75                        | 0.295                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 3.39                       | 21.75                        | 0.156                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.73                       | 21.75                        | 0.079                | 1.05            | Gusset Bearing |
|             |                 | Top Guy              | A325N      | 0.7500          | 4               | 4.28                       | 23.52                        | 0.182                | 1.05            | Gusset Bearing |
|             |                 | Pull-Off@315         |            |                 |                 |                            |                              |                      |                 |                |
| T37         | 300             | Leg                  | A325N      | 0.8750          | 4               | 27.52                      | 41.56                        | 0.662                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 4.52                       | 13.81                        | 0.327                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.99                       | 17.40                        | 0.172                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.71                       | 17.40                        | 0.099                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.07                       | 17.40                        | 0.061                | 1.05            | Gusset Bearing |
| T38         | 270             | Leg                  | A325N      | 0.8750          | 4               | 27.51                      | 41.56                        | 0.662                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 2.84                       | 13.81                        | 0.206                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 1.81                       | 17.40                        | 0.104                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.09                       | 17.40                        | 0.063                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.47                       | 17.40                        | 0.027                | 1.05            | Gusset Bearing |
| T39         | 240             | Leg                  | A325N      | 0.8750          | 4               | 27.80                      | 41.56                        | 0.669                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 2.47                       | 13.81                        | 0.179                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 1.63                       | 17.40                        | 0.094                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.49                       | 17.40                        | 0.028                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.91                       | 17.40                        | 0.053                | 1.05            | Gusset Bearing |
| T40         | 210             | Leg                  | A325N      | 0.8750          | 4               | 28.74                      | 41.56                        | 0.692                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 4.04                       | 13.81                        | 0.293                | 1.05            | Bolt Shear     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.71                       | 17.40                        | 0.156                | 1.05            | Gusset Bearing |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.99                       | 17.40                        | 0.057                | 1.05            | Gusset Bearing |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.50                       | 17.40                        | 0.086                | 1.05            | Gusset Bearing |
| T41         | 180             | Leg                  | A325N      | 0.8750          | 4               | 30.22                      | 41.56                        | 0.727                | 1.05            | Bolt Tension   |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 4.72                       | 13.81                        | 0.342                | 1.05            | Bolt Shear     |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 57 of 77          |
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|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br>ft | Component Type       | Bolt Grade | Bolt Size<br>in | Number Of Bolts | Maximum Load per Bolt<br>K | Allowable Load per Bolt<br>K | Ratio Load Allowable | Allowable Ratio | Criteria           |
|-------------|-----------------|----------------------|------------|-----------------|-----------------|----------------------------|------------------------------|----------------------|-----------------|--------------------|
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 3.28                       | 17.40                        | 0.189                | 1.05            | Gusset Bearing     |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.56                       | 17.40                        | 0.090                | 1.05            | Gusset Bearing     |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.79                       | 17.40                        | 0.045                | 1.05            | Gusset Bearing     |
|             |                 | Top Guy              | A325N      | 0.7500          | 4               | 2.36                       | 18.81                        | 0.126                | 1.05            | Gusset Bearing     |
|             |                 | Pull-Off@157.58<br>3 |            |                 |                 |                            |                              |                      |                 |                    |
| T42         | 150             | Leg                  | A325N      | 0.8750          | 4               | 30.22                      | 41.56                        | 0.727                | 1.05            | Bolt Tension       |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 2.41                       | 13.81                        | 0.175                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 1.42                       | 17.40                        | 0.082                | 1.05            | Gusset Bearing     |
|             |                 | Secondary            | A325N      | 0.6250          | 1               | 0.30                       | 13.81                        | 0.022                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           |            |                 |                 |                            |                              |                      |                 |                    |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.76                       | 17.40                        | 0.044                | 1.05            | Gusset Bearing     |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.65                       | 17.40                        | 0.038                | 1.05            | Gusset Bearing     |
| T43         | 120             | Leg                  | A325N      | 0.8750          | 4               | 30.70                      | 41.56                        | 0.739                | 1.05            | Bolt Tension       |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 2.01                       | 13.81                        | 0.146                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 1.18                       | 17.40                        | 0.068                | 1.05            | Gusset Bearing     |
|             |                 | Secondary            | A325N      | 0.6250          | 1               | 0.27                       | 13.81                        | 0.019                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           |            |                 |                 |                            |                              |                      |                 |                    |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.66                       | 17.40                        | 0.038                | 1.05            | Gusset Bearing     |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 0.70                       | 17.40                        | 0.040                | 1.05            | Gusset Bearing     |
| T44         | 90              | Leg                  | A325N      | 0.8750          | 4               | 31.37                      | 41.56                        | 0.755                | 1.05            | Bolt Tension       |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 3.57                       | 13.81                        | 0.259                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.07                       | 17.40                        | 0.119                | 1.05            | Gusset Bearing     |
|             |                 | Secondary            | A325N      | 0.6250          | 1               | 0.45                       | 13.81                        | 0.033                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           |            |                 |                 |                            |                              |                      |                 |                    |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 0.72                       | 17.40                        | 0.042                | 1.05            | Gusset Bearing     |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.24                       | 17.40                        | 0.071                | 1.05            | Gusset Bearing     |
| T45         | 60              | Leg                  | A325N      | 0.8750          | 4               | 33.78                      | 41.56                        | 0.813                | 1.05            | Bolt Tension       |
|             |                 | Diagonal             | A325N      | 0.6250          | 2               | 4.48                       | 13.81                        | 0.324                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 2.76                       | 17.40                        | 0.159                | 1.05            | Gusset Bearing     |
|             |                 | Secondary            | A325N      | 0.6250          | 1               | 0.67                       | 13.81                        | 0.048                | 1.05            | Bolt Shear         |
|             |                 | Horizontal           |            |                 |                 |                            |                              |                      |                 |                    |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.20                       | 17.40                        | 0.069                | 1.05            | Gusset Bearing     |
|             |                 | Bottom Girt          | A325N      | 0.6250          | 2               | 1.34                       | 13.19                        | 0.101                | 1.05            | Member Block Shear |
| T46         | 30              | Diagonal             | A325N      | 0.6250          | 2               | 5.71                       | 17.40                        | 0.328                | 1.05            | Gusset Bearing     |
|             |                 | Top Girt             | A325N      | 0.6250          | 2               | 1.83                       | 13.19                        | 0.139                | 1.05            | Member Block Shear |
| T47         | 22.5            | Diagonal             | A325N      | 0.6250          | 2               | 2.97                       | 15.23                        | 0.195                | 1.05            | Gusset Bearing     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 3.89                       | 13.19                        | 0.295                | 1.05            | Member Block Shear |
| T48         | 15              | Diagonal             | A325N      | 0.6250          | 2               | 5.84                       | 17.40                        | 0.336                | 1.05            | Gusset Bearing     |
|             |                 | Top Girt             | A325N      | 0.6250          | 4               | 1.78                       | 16.31                        | 0.109                | 1.05            | Gusset Bearing     |
| T49         | 7.5             | Diagonal             | A325N      | 0.6250          | 2               | 3.51                       | 15.23                        | 0.230                | 1.05            | Gusset Bearing     |
|             |                 | Horizontal           | A325N      | 0.6250          | 2               | 4.15                       | 13.19                        | 0.315                | 1.05            | Member Block Shear |

## Guy Design Data

| Section No. | Elevation<br>ft    | Size      | Initial Tension<br>K | Breaking Load<br>K | Actual $T_u$<br>K | Allowable $\phi T_n$<br>K | Required S.F. | Actual S.F. |
|-------------|--------------------|-----------|----------------------|--------------------|-------------------|---------------------------|---------------|-------------|
| T1          | 1246.75 (A) (1855) | 1 1/16 BS | 13.80                | 138.00             | 57.47             | 86.94                     | 0.952         | 1.441       |
|             | 1246.75 (B) (1854) | 1 1/16 BS | 13.80                | 138.00             | 57.43             | 86.94                     | 0.952         | 1.442       |
|             | 1246.75 (C) (1853) | 1 1/16 BS | 13.80                | 138.00             | 57.08             | 86.94                     | 0.952         | 1.451       |
| T12         | 1042.42 (A) (1858) | 1 3/16 BS | 17.20                | 172.00             | 75.82             | 108.36                    | 0.952         | 1.361       |
|             | 1042.42 (B) (1857) | 1 3/16 BS | 17.20                | 172.00             | 75.47             | 108.36                    | 0.952         | 1.367       |
|             | 1042.42 (C) (1856) | 1 3/16 BS | 17.20                | 172.00             | 75.35             | 108.36                    | 0.952         | 1.370       |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 58 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br><i>ft</i> | Size      | Initial Tension<br><i>K</i> | Breaking Load<br><i>K</i> | Actual $T_u$<br><i>K</i> | Allowable $\phi T_n$<br><i>K</i> | Required <i>S.F.</i> | Actual <i>S.F.</i> |
|-------------|------------------------|-----------|-----------------------------|---------------------------|--------------------------|----------------------------------|----------------------|--------------------|
| T18         | 855.00 (A) (1861)      | 1 1/16 BS | 13.80                       | 138.00                    | 60.35                    | 86.94                            | 0.952                | 1.372              |
|             | 855.00 (B) (1860)      | 1 1/16 BS | 13.80                       | 138.00                    | 60.09                    | 86.94                            | 0.952                | 1.378              |
|             | 855.00 (C) (1859)      | 1 1/16 BS | 13.80                       | 138.00                    | 60.20                    | 86.94                            | 0.952                | 1.376              |
| T24         | 667.58 (A) (1864)      | 1 BS      | 12.20                       | 122.00                    | 49.09                    | 76.86                            | 0.952                | 1.491              |
|             | 667.58 (B) (1863)      | 1 BS      | 12.20                       | 122.00                    | 49.26                    | 76.86                            | 0.952                | 1.486              |
|             | 667.58 (C) (1862)      | 1 BS      | 12.20                       | 122.00                    | 48.78                    | 76.86                            | 0.952                | 1.501              |
| T30         | 487.58 (A) (1867)      | 1 1/16 BS | 13.80                       | 138.00                    | 59.35                    | 86.94                            | 0.952                | 1.395              |
|             | 487.58 (B) (1866)      | 1 1/16 BS | 13.80                       | 138.00                    | 60.10                    | 86.94                            | 0.952                | 1.378              |
|             | 487.58 (C) (1865)      | 1 1/16 BS | 13.80                       | 138.00                    | 59.43                    | 86.94                            | 0.952                | 1.393              |
| T36         | 315.00 (A) (1870)      | 1 BS      | 12.20                       | 122.00                    | 47.20                    | 76.86                            | 0.952                | 1.551              |
|             | 315.00 (B) (1869)      | 1 BS      | 12.20                       | 122.00                    | 48.33                    | 76.86                            | 0.952                | 1.515              |
|             | 315.00 (C) (1868)      | 1 BS      | 12.20                       | 122.00                    | 45.84                    | 76.86                            | 0.952                | 1.597              |
| T41         | 157.58 (A) (1873)      | 13/16 BS  | 8.00                        | 80.00                     | 20.33                    | 50.40                            | 0.952                | 2.361              |
|             | 157.58 (B) (1872)      | 13/16 BS  | 8.00                        | 80.00                     | 20.57                    | 50.40                            | 0.952                | 2.334              |
|             | 157.58 (C) (1871)      | 13/16 BS  | 8.00                        | 80.00                     | 20.11                    | 50.40                            | 0.952                | 2.387              |

## Compression Checks

## Leg Design Data (Compression)

| Section No. | Elevation<br><i>ft</i> | Size  | <i>L</i><br><i>ft</i> | $L_u$<br><i>ft</i> | $Kl/r$          | <i>A</i><br><i>in</i> <sup>2</sup> | $P_u$<br><i>K</i> | $\phi P_n$<br><i>K</i> | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|------------------------|-------|-----------------------|--------------------|-----------------|------------------------------------|-------------------|------------------------|---------------------------------|
| T1          | 1247.5 - 1246          | 3     | 1.50                  | 0.75               | 12.0<br>K=1.00  | 7.0686                             | -5.52             | 314.76                 | 0.018                           |
| T2          | 1246 - 1238            | 3     | 8.00                  | 7.83               | 125.3<br>K=1.00 | 7.0686                             | -47.76            | 101.66                 | 0.470 <sup>1</sup>              |
| T3          | 1238 - 1230            | 3     | 8.00                  | 7.83               | 125.3<br>K=1.00 | 7.0686                             | -74.02            | 101.66                 | 0.728 <sup>1</sup>              |
| T4          | 1230 - 1207.58         | 3 1/4 | 22.42                 | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -105.39           | 155.26                 | 0.679 <sup>1</sup>              |
| T5          | 1207.58 - 1200         | 3 1/4 | 7.58                  | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -113.97           | 155.27                 | 0.734 <sup>1</sup>              |
| T6          | 1200 - 1170            | 3 1/4 | 30.00                 | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -135.91           | 155.26                 | 0.875 <sup>1</sup>              |
| T7          | 1170 - 1140            | 3 1/4 | 30.00                 | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -138.94           | 155.26                 | 0.895 <sup>1</sup>              |
| T8          | 1140 - 1117.58         | 3 1/4 | 22.42                 | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -134.95           | 155.26                 | 0.869 <sup>1</sup>              |
| T9          | 1117.58 - 1110         | 3 1/4 | 7.58                  | 7.42               | 109.5<br>K=1.00 | 8.2958                             | -118.25           | 155.27                 | 0.762 <sup>1</sup>              |
| T10         | 1110 - 1080            | 3     | 30.00                 | 7.42               | 118.7<br>K=1.00 | 7.0686                             | -110.27           | 113.40                 | 0.972 <sup>1</sup>              |
| T11         | 1080 - 1050            | 3 1/2 | 30.00                 | 7.42               | 101.7<br>K=1.00 | 9.6211                             | -123.34           | 203.19                 | 0.607 <sup>1</sup>              |
| T12         | 1050 - 1020            | 3 3/4 | 30.00                 | 7.42               | 94.9<br>K=1.00  | 11.0447                            | -148.69           | 257.15                 | 0.578 <sup>1</sup>              |
| T13         | 1020 - 990             | 3 1/2 | 30.00                 | 7.42               | 101.7<br>K=1.00 | 9.6211                             | -132.41           | 203.19                 | 0.652 <sup>1</sup>              |
| T14         | 990 - 960              | 3 1/2 | 30.00                 | 7.42               | 101.7<br>K=1.00 | 9.6211                             | -145.18           | 203.19                 | 0.714 <sup>1</sup>              |
| T15         | 960 - 930              | 3 1/2 | 30.00                 | 7.42               | 101.7<br>K=1.00 | 9.6211                             | -149.40           | 203.19                 | 0.735 <sup>1</sup>              |
| T16         | 930 - 900              | 3 1/2 | 30.00                 | 7.42               | 101.7<br>K=1.00 | 9.6211                             | -147.09           | 203.19                 | 0.724 <sup>1</sup>              |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>59 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size  | L<br>ft | L <sub>u</sub><br>ft | Kl/r           | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|-------|---------|----------------------|----------------|----------------------|---------------------|----------------------|---------------------------------|
| T17         | 900 - 870       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -179.66             | 257.15               | 0.699 <sup>1</sup>              |
| T18         | 870 - 840       | 4     | 30.00   | 7.42                 | 89.0<br>K=1.00 | 12.5664              | -202.23             | 316.88               | 0.638 <sup>1</sup>              |
| T19         | 840 - 810       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -187.62             | 257.15               | 0.730 <sup>1</sup>              |
| T20         | 810 - 780       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -198.53             | 257.15               | 0.772 <sup>1</sup>              |
| T21         | 780 - 750       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -202.56             | 257.15               | 0.788 <sup>1</sup>              |
| T22         | 750 - 720       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -202.76             | 257.15               | 0.788 <sup>1</sup>              |
| T23         | 720 - 690       | 3 3/4 | 30.00   | 7.42                 | 94.9<br>K=1.00 | 11.0447              | -199.81             | 257.15               | 0.777 <sup>1</sup>              |
| T24         | 690 - 660       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -221.72             | 382.19               | 0.580 <sup>1</sup>              |
| T25         | 660 - 630       | 4     | 30.00   | 7.42                 | 89.0<br>K=1.00 | 12.5664              | -228.90             | 316.88               | 0.722 <sup>1</sup>              |
| T26         | 630 - 600       | 4     | 30.00   | 7.42                 | 89.0<br>K=1.00 | 12.5664              | -238.45             | 316.88               | 0.752 <sup>1</sup>              |
| T27         | 600 - 570       | 4     | 30.00   | 7.42                 | 89.0<br>K=1.00 | 12.5664              | -241.76             | 316.88               | 0.763 <sup>1</sup>              |
| T28         | 570 - 540       | 4     | 30.00   | 7.42                 | 89.0<br>K=1.00 | 12.5664              | -242.15             | 316.88               | 0.764 <sup>1</sup>              |
| T29         | 540 - 510       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -261.05             | 382.19               | 0.683 <sup>1</sup>              |
| T30         | 510 - 480       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -291.50             | 382.19               | 0.763 <sup>1</sup>              |
| T31         | 480 - 450       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -290.91             | 382.19               | 0.761 <sup>1</sup>              |
| T32         | 450 - 420       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -285.69             | 382.19               | 0.748 <sup>1</sup>              |
| T33         | 420 - 390       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -286.80             | 382.19               | 0.750 <sup>1</sup>              |
| T34         | 390 - 360       | 4 1/4 | 30.00   | 7.42                 | 83.8<br>K=1.00 | 14.1863              | -298.94             | 382.19               | 0.782 <sup>1</sup>              |
| T35         | 360 - 330       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -316.81             | 452.89               | 0.700 <sup>1</sup>              |
| T36         | 330 - 300       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -339.26             | 452.89               | 0.749 <sup>1</sup>              |
| T37         | 300 - 270       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -336.68             | 452.89               | 0.743 <sup>1</sup>              |
| T38         | 270 - 240       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -331.80             | 452.89               | 0.733 <sup>1</sup>              |
| T39         | 240 - 210       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -334.80             | 452.89               | 0.739 <sup>1</sup>              |
| T40         | 210 - 180       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -344.48             | 452.89               | 0.761 <sup>1</sup>              |
| T41         | 180 - 150       | 4 3/4 | 30.00   | 7.42                 | 74.9<br>K=1.00 | 17.7205              | -363.45             | 528.84               | 0.687 <sup>1</sup>              |
| T42         | 150 - 120       | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -364.98             | 452.89               | 0.806 <sup>1</sup>              |
| T43         | 120 - 90        | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -369.92             | 452.89               | 0.817 <sup>1</sup>              |
| T44         | 90 - 60         | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -377.82             | 452.89               | 0.834 <sup>1</sup>              |
| T45         | 60 - 30         | 4 1/2 | 30.00   | 7.42                 | 79.1<br>K=1.00 | 15.9043              | -405.22             | 452.89               | 0.895 <sup>1</sup>              |
| T46         | 30 - 22.5       | 5 1/4 | 7.50    | 7.33                 | 67.0<br>K=1.00 | 21.6475              | -399.98             | 701.25               | 0.570 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>60 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size  | L<br>ft | L <sub>u</sub><br>ft | Kl/r           | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|-------|---------|----------------------|----------------|----------------------|---------------------|----------------------|---------------------------------|
| T47         | 22.5 - 15       | 5 1/4 | 7.50    | 7.50                 | 68.6<br>K=1.00 | 21.6475              | -414.86             | 690.73               | 0.601 <sup>1</sup>              |
| T48         | 15 - 7.5        | 5 1/4 | 7.50    | 7.50                 | 68.6<br>K=1.00 | 21.6475              | -415.89             | 690.73               | 0.602 <sup>1</sup>              |
| T49         | 7.5 - 0         | 5 1/4 | 7.50    | 7.50                 | 68.6<br>K=1.00 | 21.6475              | -431.61             | 690.73               | 0.625 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Leg Bending Design Data (Compression)

| Section No. | Elevation<br>ft | Size  | M <sub>ux</sub><br>kip-ft | φM <sub>ux</sub><br>kip-ft | Ratio<br>$\frac{M_{ux}}{\phi M_{ux}}$ | M <sub>uy</sub><br>kip-ft | φM <sub>uy</sub><br>kip-ft | Ratio<br>$\frac{M_{uy}}{\phi M_{uy}}$ |
|-------------|-----------------|-------|---------------------------|----------------------------|---------------------------------------|---------------------------|----------------------------|---------------------------------------|
| T1          | 1247.5 - 1246   | 3     | 9.12                      | 16.88                      | 0.541                                 | 0.00                      | 16.88                      | 0.000                                 |
| T2          | 1246 - 1238     | 3     | 0.00                      | 16.88                      | 0.000                                 | 0.00                      | 16.88                      | 0.000                                 |
| T3          | 1238 - 1230     | 3     | 0.00                      | 16.88                      | 0.000                                 | 0.00                      | 16.88                      | 0.000                                 |
| T4          | 1230 - 1207.58  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T5          | 1207.58 - 1200  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T6          | 1200 - 1170     | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T7          | 1170 - 1140     | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T8          | 1140 - 1117.58  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T9          | 1117.58 - 1110  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T10         | 1110 - 1080     | 3     | 0.00                      | 16.88                      | 0.000                                 | 0.00                      | 16.88                      | 0.000                                 |
| T11         | 1080 - 1050     | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T12         | 1050 - 1020     | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T13         | 1020 - 990      | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T14         | 990 - 960       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T15         | 960 - 930       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T16         | 930 - 900       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T17         | 900 - 870       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T18         | 870 - 840       | 4     | 0.00                      | 40.00                      | 0.000                                 | 0.00                      | 40.00                      | 0.000                                 |
| T19         | 840 - 810       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T20         | 810 - 780       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T21         | 780 - 750       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T22         | 750 - 720       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T23         | 720 - 690       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T24         | 690 - 660       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T25         | 660 - 630       | 4     | 0.00                      | 40.00                      | 0.000                                 | 0.00                      | 40.00                      | 0.000                                 |
| T26         | 630 - 600       | 4     | 0.00                      | 40.00                      | 0.000                                 | 0.00                      | 40.00                      | 0.000                                 |
| T27         | 600 - 570       | 4     | 0.00                      | 40.00                      | 0.000                                 | 0.00                      | 40.00                      | 0.000                                 |
| T28         | 570 - 540       | 4     | 0.00                      | 40.00                      | 0.000                                 | 0.00                      | 40.00                      | 0.000                                 |
| T29         | 540 - 510       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T30         | 510 - 480       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T31         | 480 - 450       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T32         | 450 - 420       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T33         | 420 - 390       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T34         | 390 - 360       | 4 1/4 | 0.00                      | 47.98                      | 0.000                                 | 0.00                      | 47.98                      | 0.000                                 |
| T35         | 360 - 330       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T36         | 330 - 300       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T37         | 300 - 270       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T38         | 270 - 240       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T39         | 240 - 210       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T40         | 210 - 180       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T41         | 180 - 150       | 4 3/4 | 0.00                      | 66.98                      | 0.000                                 | 0.00                      | 66.98                      | 0.000                                 |
| T42         | 150 - 120       | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |
| T43         | 120 - 90        | 4 1/2 | 0.00                      | 56.95                      | 0.000                                 | 0.00                      | 56.95                      | 0.000                                 |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>61 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size  | $M_{ux}$<br>kip-ft | $\phi M_{ux}$<br>kip-ft | Ratio<br>$\frac{M_{ux}}{\phi M_{ux}}$ | $M_{uy}$<br>kip-ft | $\phi M_{uy}$<br>kip-ft | Ratio<br>$\frac{M_{uy}}{\phi M_{uy}}$ |
|-------------|-----------------|-------|--------------------|-------------------------|---------------------------------------|--------------------|-------------------------|---------------------------------------|
| T44         | 90 - 60         | 4 1/2 | 0.00               | 56.95                   | 0.000                                 | 0.00               | 56.95                   | 0.000                                 |
| T45         | 60 - 30         | 4 1/2 | 0.00               | 56.95                   | 0.000                                 | 0.00               | 56.95                   | 0.000                                 |
| T46         | 30 - 22.5       | 5 1/4 | 0.00               | 90.44                   | 0.000                                 | 0.00               | 90.44                   | 0.000                                 |
| T47         | 22.5 - 15       | 5 1/4 | 0.00               | 90.44                   | 0.000                                 | 0.00               | 90.44                   | 0.000                                 |
| T48         | 15 - 7.5        | 5 1/4 | 0.00               | 90.44                   | 0.000                                 | 0.00               | 90.44                   | 0.000                                 |
| T49         | 7.5 - 0         | 5 1/4 | 0.00               | 90.44                   | 0.000                                 | 0.00               | 90.44                   | 0.000                                 |

### Leg Interaction Design Data (Compression)

| Section No. | Elevation<br>ft | Size  | Ratio<br>$P_u$<br>$\phi P_n$ | Ratio<br>$M_{ux}$<br>$\phi M_{ux}$ | Ratio<br>$M_{uy}$<br>$\phi M_{uy}$ | Comb.<br>Stress<br>Ratio | Allow.<br>Stress<br>Ratio | Criteria |
|-------------|-----------------|-------|------------------------------|------------------------------------|------------------------------------|--------------------------|---------------------------|----------|
| T1          | 1247.5 - 1246   | 3     | 0.018                        | 0.541                              | 0.000                              | 0.549                    | 1.050                     | 4.8.1    |
| T2          | 1246 - 1238     | 3     | 0.470                        | 0.000                              | 0.000                              | 0.470 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T3          | 1238 - 1230     | 3     | 0.728                        | 0.000                              | 0.000                              | 0.728 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T4          | 1230 - 1207.58  | 3 1/4 | 0.679                        | 0.000                              | 0.000                              | 0.679 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T5          | 1207.58 - 1200  | 3 1/4 | 0.734                        | 0.000                              | 0.000                              | 0.734 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T6          | 1200 - 1170     | 3 1/4 | 0.875                        | 0.000                              | 0.000                              | 0.875 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T7          | 1170 - 1140     | 3 1/4 | 0.895                        | 0.000                              | 0.000                              | 0.895 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T8          | 1140 - 1117.58  | 3 1/4 | 0.869                        | 0.000                              | 0.000                              | 0.869 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T9          | 1117.58 - 1110  | 3 1/4 | 0.762                        | 0.000                              | 0.000                              | 0.762 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T10         | 1110 - 1080     | 3     | 0.972                        | 0.000                              | 0.000                              | 0.972 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T11         | 1080 - 1050     | 3 1/2 | 0.607                        | 0.000                              | 0.000                              | 0.607 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T12         | 1050 - 1020     | 3 3/4 | 0.578                        | 0.000                              | 0.000                              | 0.578 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T13         | 1020 - 990      | 3 1/2 | 0.652                        | 0.000                              | 0.000                              | 0.652 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T14         | 990 - 960       | 3 1/2 | 0.714                        | 0.000                              | 0.000                              | 0.714 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T15         | 960 - 930       | 3 1/2 | 0.735                        | 0.000                              | 0.000                              | 0.735 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T16         | 930 - 900       | 3 1/2 | 0.724                        | 0.000                              | 0.000                              | 0.724 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T17         | 900 - 870       | 3 3/4 | 0.699                        | 0.000                              | 0.000                              | 0.699 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T18         | 870 - 840       | 4     | 0.638                        | 0.000                              | 0.000                              | 0.638 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T19         | 840 - 810       | 3 3/4 | 0.730                        | 0.000                              | 0.000                              | 0.730 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T20         | 810 - 780       | 3 3/4 | 0.772                        | 0.000                              | 0.000                              | 0.772 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T21         | 780 - 750       | 3 3/4 | 0.788                        | 0.000                              | 0.000                              | 0.788 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T22         | 750 - 720       | 3 3/4 | 0.788                        | 0.000                              | 0.000                              | 0.788 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T23         | 720 - 690       | 3 3/4 | 0.777                        | 0.000                              | 0.000                              | 0.777 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T24         | 690 - 660       | 4 1/4 | 0.580                        | 0.000                              | 0.000                              | 0.580 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T25         | 660 - 630       | 4     | 0.722                        | 0.000                              | 0.000                              | 0.722 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T26         | 630 - 600       | 4     | 0.752                        | 0.000                              | 0.000                              | 0.752 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T27         | 600 - 570       | 4     | 0.763                        | 0.000                              | 0.000                              | 0.763 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T28         | 570 - 540       | 4     | 0.764                        | 0.000                              | 0.000                              | 0.764 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T29         | 540 - 510       | 4 1/4 | 0.683                        | 0.000                              | 0.000                              | 0.683 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T30         | 510 - 480       | 4 1/4 | 0.763                        | 0.000                              | 0.000                              | 0.763 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T31         | 480 - 450       | 4 1/4 | 0.761                        | 0.000                              | 0.000                              | 0.761 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T32         | 450 - 420       | 4 1/4 | 0.748                        | 0.000                              | 0.000                              | 0.748 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T33         | 420 - 390       | 4 1/4 | 0.750                        | 0.000                              | 0.000                              | 0.750 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T34         | 390 - 360       | 4 1/4 | 0.782                        | 0.000                              | 0.000                              | 0.782 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T35         | 360 - 330       | 4 1/2 | 0.700                        | 0.000                              | 0.000                              | 0.700 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T36         | 330 - 300       | 4 1/2 | 0.749                        | 0.000                              | 0.000                              | 0.749 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T37         | 300 - 270       | 4 1/2 | 0.743                        | 0.000                              | 0.000                              | 0.743 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T38         | 270 - 240       | 4 1/2 | 0.733                        | 0.000                              | 0.000                              | 0.733 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T39         | 240 - 210       | 4 1/2 | 0.739                        | 0.000                              | 0.000                              | 0.739 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T40         | 210 - 180       | 4 1/2 | 0.761                        | 0.000                              | 0.000                              | 0.761 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T41         | 180 - 150       | 4 3/4 | 0.687                        | 0.000                              | 0.000                              | 0.687 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T42         | 150 - 120       | 4 1/2 | 0.806                        | 0.000                              | 0.000                              | 0.806 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T43         | 120 - 90        | 4 1/2 | 0.817                        | 0.000                              | 0.000                              | 0.817 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T44         | 90 - 60         | 4 1/2 | 0.834                        | 0.000                              | 0.000                              | 0.834 <sup>1</sup>       | 1.050                     | 4.8.1    |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 62 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br><i>ft</i> | Size  | Ratio<br>$P_u$<br>$\phi P_n$ | Ratio<br>$M_{ux}$<br>$\phi M_{nx}$ | Ratio<br>$M_{uy}$<br>$\phi M_{ny}$ | Comb.<br>Stress<br>Ratio | Allow.<br>Stress<br>Ratio | Criteria |
|-------------|------------------------|-------|------------------------------|------------------------------------|------------------------------------|--------------------------|---------------------------|----------|
| T45         | 60 - 30                | 4 1/2 | 0.895                        | 0.000                              | 0.000                              | 0.895 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T46         | 30 - 22.5              | 5 1/4 | 0.570                        | 0.000                              | 0.000                              | 0.570 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T47         | 22.5 - 15              | 5 1/4 | 0.601                        | 0.000                              | 0.000                              | 0.601 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T48         | 15 - 7.5               | 5 1/4 | 0.602                        | 0.000                              | 0.000                              | 0.602 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T49         | 7.5 - 0                | 5 1/4 | 0.625                        | 0.000                              | 0.000                              | 0.625 <sup>1</sup>       | 1.050                     | 4.8.1    |

<sup>1</sup>  $P_u$  /  $\phi P_n$  controls

### Diagonal Design Data (Compression)

| Section No. | Elevation<br><i>ft</i> | Size                                                                          | $L$<br><i>ft</i> | $L_u$<br><i>ft</i> | $Kl/r$          | $A$<br><i>in</i> <sup>2</sup> | $P_u$<br><i>K</i> | $\phi P_n$<br><i>K</i> | Ratio<br>$P_u$<br>$\phi P_n$ |
|-------------|------------------------|-------------------------------------------------------------------------------|------------------|--------------------|-----------------|-------------------------------|-------------------|------------------------|------------------------------|
| T2          | 1246 - 1238            | 2L2x2x1/4x3/8                                                                 | 10.84            | 5.03               | 99.1<br>K=1.00  | 1.8800                        | -11.22            | 46.38                  | 0.242 <sup>1</sup>           |
| T46         | 30 - 22.5              | 2L 'a' > 29.0542 in - 19<br>2L2x2x3/16x1/4                                    | 10.49            | 4.73               | 94.4<br>K=1.00  | 1.4297                        | -11.42            | 35.94                  | 0.318 <sup>1</sup>           |
| T47         | 22.5 - 15              | 2L 'a' > 27.1279 in - 1816<br>2L2 1/2x2x1/4x1/4                               | 8.39             | 7.47               | 146.2<br>K=1.00 | 2.1250                        | -6.10             | 27.72                  | 0.220 <sup>1</sup>           |
| T48         | 15 - 7.5               | 2L 'a' > 36.3429 in - 1827<br>2L2x2x3/16x1/4                                  | 10.61            | 4.78               | 95.5<br>K=1.00  | 1.4297                        | -11.69            | 35.61                  | 0.328 <sup>1</sup>           |
| T49         | 7.5 - 0                | 2L 'a' > 27.4447 in - 1840<br>2L2 1/2x2x1/4x1/4<br>2L 'a' > 36.3429 in - 1851 | 8.39             | 7.47               | 146.2<br>K=1.00 | 2.1250                        | -7.18             | 27.72                  | 0.259 <sup>1</sup>           |

<sup>1</sup>  $P_u$  /  $\phi P_n$  controls

### Horizontal Design Data (Compression)

| Section No. | Elevation<br><i>ft</i> | Size           | $L$<br><i>ft</i> | $L_u$<br><i>ft</i> | $Kl/r$          | $A$<br><i>in</i> <sup>2</sup> | $P_u$<br><i>K</i> | $\phi P_n$<br><i>K</i> | Ratio<br>$P_u$<br>$\phi P_n$ |
|-------------|------------------------|----------------|------------------|--------------------|-----------------|-------------------------------|-------------------|------------------------|------------------------------|
| T4          | 1230 - 1207.58         | 2L2x2x3/16x1/4 | 7.50             | 6.80               | 127.5<br>K=0.96 | 1.4297                        | -8.37             | 25.16                  | 0.333 <sup>1</sup>           |
| T6          | 1200 - 1170            | 2L2x2x3/16x1/4 | 7.50             | 6.80               | 127.5<br>K=0.96 | 1.4297                        | -5.75             | 25.16                  | 0.228 <sup>1</sup>           |
| T7          | 1170 - 1140            | 2L2x2x3/16x1/4 | 7.50             | 6.80               | 127.5<br>K=0.96 | 1.4297                        | -2.36             | 25.16                  | 0.094 <sup>1</sup>           |
| T8          | 1140 - 1117.58         | 2L2x2x3/16x1/4 | 7.50             | 6.80               | 127.5<br>K=0.96 | 1.4297                        | -5.18             | 25.16                  | 0.206 <sup>1</sup>           |
| T10         | 1110 - 1080            | 2L2x2x3/16x1/4 | 7.50             | 6.82               | 127.8<br>K=0.96 | 1.4297                        | -10.51            | 25.07                  | 0.419 <sup>1</sup>           |
| T11         | 1080 - 1050            | 2L2x2x3/16x1/4 | 7.50             | 6.78               | 127.3<br>K=0.97 | 1.4297                        | -13.04            | 25.26                  | 0.516 <sup>1</sup>           |
| T12         | 1050 - 1020            | 2L2x2x3/16x1/4 | 7.50             | 6.76               | 127.0<br>K=0.97 | 1.4297                        | -10.14            | 25.36                  | 0.400 <sup>1</sup>           |
| T13         | 1020 - 990             | 2L2x2x3/16x1/4 | 7.50             | 6.78               | 127.3<br>K=0.97 | 1.4297                        | -8.14             | 25.26                  | 0.322 <sup>1</sup>           |
| T14         | 990 - 960              | 2L2x2x3/16x1/4 | 7.50             | 6.78               | 127.3<br>K=0.97 | 1.4297                        | -4.84             | 25.26                  | 0.192 <sup>1</sup>           |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>63 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br><i>ft</i> | Size           | <i>L</i><br><i>ft</i> | <i>L<sub>u</sub></i><br><i>ft</i> | <i>Kl/r</i>     | <i>A</i><br><i>in<sup>2</sup></i> | <i>P<sub>u</sub></i><br><i>K</i> | $\phi P_n$<br><i>K</i> | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|------------------------|----------------|-----------------------|-----------------------------------|-----------------|-----------------------------------|----------------------------------|------------------------|---------------------------------|
| T15         | 960 - 930              | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -2.78                            | 25.26                  | 0.110 <sup>1</sup>              |
| T16         | 930 - 900              | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -6.22                            | 25.26                  | 0.246 <sup>1</sup>              |
| T17         | 900 - 870              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -10.44                           | 25.36                  | 0.411 <sup>1</sup>              |
| T18         | 870 - 840              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -11.25                           | 25.46                  | 0.442 <sup>1</sup>              |
| T19         | 840 - 810              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -9.54                            | 25.36                  | 0.376 <sup>1</sup>              |
| T20         | 810 - 780              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -6.55                            | 25.36                  | 0.258 <sup>1</sup>              |
| T21         | 780 - 750              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -3.36                            | 25.36                  | 0.132 <sup>1</sup>              |
| T22         | 750 - 720              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -5.70                            | 25.36                  | 0.225 <sup>1</sup>              |
| T23         | 720 - 690              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -9.13                            | 25.36                  | 0.360 <sup>1</sup>              |
| T24         | 690 - 660              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -10.93                           | 25.56                  | 0.427 <sup>1</sup>              |
| T25         | 660 - 630              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -8.25                            | 25.46                  | 0.324 <sup>1</sup>              |
| T26         | 630 - 600              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -5.25                            | 25.46                  | 0.206 <sup>1</sup>              |
| T27         | 600 - 570              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -2.41                            | 25.46                  | 0.095 <sup>1</sup>              |
| T28         | 570 - 540              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -5.19                            | 25.46                  | 0.204 <sup>1</sup>              |
| T29         | 540 - 510              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -8.37                            | 25.56                  | 0.327 <sup>1</sup>              |
| T30         | 510 - 480              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -10.24                           | 25.56                  | 0.401 <sup>1</sup>              |
| T31         | 480 - 450              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -7.28                            | 25.56                  | 0.285 <sup>1</sup>              |
| T32         | 450 - 420              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -4.58                            | 25.56                  | 0.179 <sup>1</sup>              |
| T33         | 420 - 390              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -4.39                            | 25.56                  | 0.172 <sup>1</sup>              |
| T34         | 390 - 360              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -6.97                            | 25.56                  | 0.273 <sup>1</sup>              |
| T35         | 360 - 330              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -12.05                           | 25.66                  | 0.469 <sup>1</sup>              |
| T36         | 330 - 300              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -12.81                           | 25.66                  | 0.499 <sup>1</sup>              |
| T37         | 300 - 270              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -5.99                            | 25.66                  | 0.233 <sup>1</sup>              |
| T38         | 270 - 240              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -3.61                            | 25.66                  | 0.141 <sup>1</sup>              |
| T39         | 240 - 210              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -3.26                            | 25.66                  | 0.127 <sup>1</sup>              |
| T40         | 210 - 180              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -5.43                            | 25.66                  | 0.212 <sup>1</sup>              |
| T41         | 180 - 150              | 2L2x2x3/16x1/4 | 7.50                  | 6.68                              | 126.0<br>K=0.97 | 1.4297                            | -6.57                            | 25.77                  | 0.255 <sup>1</sup>              |
| T42         | 150 - 120              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -2.85                            | 25.66                  | 0.111 <sup>1</sup>              |
| T43         | 120 - 90               | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -2.37                            | 25.66                  | 0.092 <sup>1</sup>              |
| T44         | 90 - 60                | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -4.15                            | 25.66                  | 0.162 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>64 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T45         | 60 - 30         | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 126.3<br>K=0.97 | 1.4297               | -5.52               | 25.66                | 0.215 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Secondary Horizontal Design Data (Compression)

| Section No. | Elevation<br>ft | Size     | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T5          | 1207.58 - 1200  | L2x2x1/4 | 7.50    | 6.99                 | 214.5<br>K=1.00 | 0.9380               | -0.17               | 5.83                 | 0.030 <sup>1</sup>              |
| T6          | 1200 - 1170     | L2x2x1/4 | 7.50    | 6.99                 | 214.5<br>K=1.00 | 0.9380               | -0.26               | 5.83                 | 0.044 <sup>1</sup>              |
| T7          | 1170 - 1140     | L2x2x1/4 | 7.50    | 6.99                 | 214.5<br>K=1.00 | 0.9380               | -0.14               | 5.83                 | 0.024 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | L2x2x1/4 | 7.50    | 6.99                 | 214.5<br>K=1.00 | 0.9380               | -0.24               | 5.83                 | 0.041 <sup>1</sup>              |
| T42         | 150 - 120       | L2x2x1/4 | 7.50    | 6.89                 | 211.3<br>K=1.00 | 0.9380               | -0.30               | 6.01                 | 0.051 <sup>1</sup>              |
| T43         | 120 - 90        | L2x2x1/4 | 7.50    | 6.89                 | 211.3<br>K=1.00 | 0.9380               | -0.27               | 6.01                 | 0.044 <sup>1</sup>              |
| T44         | 90 - 60         | L2x2x1/4 | 7.50    | 6.89                 | 211.3<br>K=1.00 | 0.9380               | -0.45               | 6.01                 | 0.075 <sup>1</sup>              |
| T45         | 60 - 30         | L2x2x1/4 | 7.50    | 6.89                 | 211.3<br>K=1.00 | 0.9380               | -0.67               | 6.01                 | 0.111 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Compression)

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T3          | 1238 - 1230     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 127.8<br>K=0.96 | 1.4297               | -2.77               | 25.07                | 0.111 <sup>1</sup>              |
| T4          | 1230 - 1207.58  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -3.43               | 25.16                | 0.136 <sup>1</sup>              |
| T5          | 1207.58 - 1200  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -7.11               | 25.16                | 0.283 <sup>1</sup>              |
| T6          | 1200 - 1170     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -3.12               | 25.16                | 0.124 <sup>1</sup>              |
| T7          | 1170 - 1140     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -1.47               | 25.16                | 0.058 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -1.66               | 25.16                | 0.066 <sup>1</sup>              |
| T9          | 1117.58 - 1110  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -6.48               | 25.16                | 0.257 <sup>1</sup>              |
| T10         | 1110 - 1080     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 127.8<br>K=0.96 | 1.4297               | -4.14               | 25.07                | 0.165 <sup>1</sup>              |
| T11         | 1080 - 1050     | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -6.23               | 25.26                | 0.247 <sup>1</sup>              |
| T12         | 1050 - 1020     | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -6.89               | 25.36                | 0.272 <sup>1</sup>              |

|                                                                                                                                                                    |                |                            |                    |                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 65 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation<br><i>ft</i> | Size           | <i>L</i><br><i>ft</i> | <i>L<sub>u</sub></i><br><i>ft</i> | <i>Kl/r</i>     | <i>A</i><br><i>in<sup>2</sup></i> | <i>P<sub>u</sub></i><br><i>K</i> | $\phi P_n$<br><i>K</i> | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|------------------------|----------------|-----------------------|-----------------------------------|-----------------|-----------------------------------|----------------------------------|------------------------|---------------------------------|
| T13         | 1020 - 990             | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -4.44                            | 25.26                  | 0.176 <sup>1</sup>              |
| T14         | 990 - 960              | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -2.74                            | 25.26                  | 0.108 <sup>1</sup>              |
| T15         | 960 - 930              | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -1.02                            | 25.26                  | 0.040 <sup>1</sup>              |
| T16         | 930 - 900              | 2L2x2x3/16x1/4 | 7.50                  | 6.78                              | 127.3<br>K=0.97 | 1.4297                            | -2.12                            | 25.26                  | 0.084 <sup>1</sup>              |
| T17         | 900 - 870              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -4.31                            | 25.36                  | 0.170 <sup>1</sup>              |
| T18         | 870 - 840              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -6.25                            | 25.46                  | 0.246 <sup>1</sup>              |
| T19         | 840 - 810              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -5.12                            | 25.36                  | 0.202 <sup>1</sup>              |
| T20         | 810 - 780              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -3.58                            | 25.36                  | 0.141 <sup>1</sup>              |
| T21         | 780 - 750              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -2.00                            | 25.36                  | 0.079 <sup>1</sup>              |
| T22         | 750 - 720              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -1.73                            | 25.36                  | 0.068 <sup>1</sup>              |
| T23         | 720 - 690              | 2L2x2x3/16x1/4 | 7.50                  | 6.76                              | 127.0<br>K=0.97 | 1.4297                            | -3.58                            | 25.36                  | 0.141 <sup>1</sup>              |
| T24         | 690 - 660              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -5.22                            | 25.56                  | 0.204 <sup>1</sup>              |
| T25         | 660 - 630              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -4.42                            | 25.46                  | 0.174 <sup>1</sup>              |
| T26         | 630 - 600              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -2.99                            | 25.46                  | 0.117 <sup>1</sup>              |
| T27         | 600 - 570              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -1.46                            | 25.46                  | 0.058 <sup>1</sup>              |
| T28         | 570 - 540              | 2L2x2x3/16x1/4 | 7.50                  | 6.74                              | 126.8<br>K=0.97 | 1.4297                            | -1.57                            | 25.46                  | 0.062 <sup>1</sup>              |
| T29         | 540 - 510              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -3.19                            | 25.56                  | 0.125 <sup>1</sup>              |
| T30         | 510 - 480              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -4.75                            | 25.56                  | 0.186 <sup>1</sup>              |
| T31         | 480 - 450              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -3.94                            | 25.56                  | 0.154 <sup>1</sup>              |
| T32         | 450 - 420              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -2.65                            | 25.56                  | 0.104 <sup>1</sup>              |
| T33         | 420 - 390              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -1.11                            | 25.56                  | 0.043 <sup>1</sup>              |
| T34         | 390 - 360              | 2L2x2x3/16x1/4 | 7.50                  | 6.72                              | 126.5<br>K=0.97 | 1.4297                            | -2.75                            | 25.56                  | 0.108 <sup>1</sup>              |
| T35         | 360 - 330              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -4.15                            | 25.66                  | 0.162 <sup>1</sup>              |
| T36         | 330 - 300              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -6.79                            | 25.66                  | 0.264 <sup>1</sup>              |
| T37         | 300 - 270              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -3.43                            | 25.66                  | 0.134 <sup>1</sup>              |
| T38         | 270 - 240              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -2.19                            | 25.66                  | 0.085 <sup>1</sup>              |
| T39         | 240 - 210              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -0.97                            | 25.66                  | 0.038 <sup>1</sup>              |
| T40         | 210 - 180              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -1.99                            | 25.66                  | 0.077 <sup>1</sup>              |
| T41         | 180 - 150              | 2L2x2x3/16x1/4 | 7.50                  | 6.68                              | 126.0<br>K=0.97 | 1.4297                            | -3.12                            | 25.77                  | 0.121 <sup>1</sup>              |
| T42         | 150 - 120              | 2L2x2x3/16x1/4 | 7.50                  | 6.70                              | 126.3<br>K=0.97 | 1.4297                            | -1.52                            | 25.66                  | 0.059 <sup>1</sup>              |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>66 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T43         | 120 - 90        | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 126.3<br>K=0.97 | 1.4297               | -1.32               | 25.66                | 0.051 <sup>1</sup>              |
| T44         | 90 - 60         | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 126.3<br>K=0.97 | 1.4297               | -1.45               | 25.66                | 0.056 <sup>1</sup>              |
| T45         | 60 - 30         | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 126.3<br>K=0.97 | 1.4297               | -2.40               | 25.66                | 0.094 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Bottom Girt Design Data (Compression)

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T3          | 1238 - 1230     | 2C8x11.5x3/8   | 7.50    | 7.25                 | 87.9<br>K=1.00  | 6.7024               | -6.38               | 144.60               | 0.044 <sup>1</sup>              |
| T5          | 1207.58 - 1200  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -3.48               | 25.16                | 0.138 <sup>1</sup>              |
| T6          | 1200 - 1170     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -1.70               | 25.16                | 0.067 <sup>1</sup>              |
| T7          | 1170 - 1140     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -1.58               | 25.16                | 0.063 <sup>1</sup>              |
| T9          | 1117.58 - 1110  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 127.5<br>K=0.96 | 1.4297               | -3.83               | 25.16                | 0.152 <sup>1</sup>              |
| T10         | 1110 - 1080     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 127.8<br>K=0.96 | 1.4297               | -5.78               | 25.07                | 0.230 <sup>1</sup>              |
| T11         | 1080 - 1050     | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -6.98               | 25.26                | 0.276 <sup>1</sup>              |
| T12         | 1050 - 1020     | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -4.73               | 25.36                | 0.187 <sup>1</sup>              |
| T13         | 1020 - 990      | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -2.97               | 25.26                | 0.118 <sup>1</sup>              |
| T14         | 990 - 960       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -1.26               | 25.26                | 0.050 <sup>1</sup>              |
| T15         | 960 - 930       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -1.71               | 25.26                | 0.068 <sup>1</sup>              |
| T16         | 930 - 900       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 127.3<br>K=0.97 | 1.4297               | -3.60               | 25.26                | 0.142 <sup>1</sup>              |
| T17         | 900 - 870       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -5.45               | 25.36                | 0.215 <sup>1</sup>              |
| T18         | 870 - 840       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 126.8<br>K=0.97 | 1.4297               | -5.50               | 25.46                | 0.216 <sup>1</sup>              |
| T19         | 840 - 810       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -4.01               | 25.36                | 0.158 <sup>1</sup>              |
| T20         | 810 - 780       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -2.41               | 25.36                | 0.095 <sup>1</sup>              |
| T21         | 780 - 750       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -1.41               | 25.36                | 0.055 <sup>1</sup>              |
| T22         | 750 - 720       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -3.26               | 25.36                | 0.129 <sup>1</sup>              |
| T23         | 720 - 690       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 127.0<br>K=0.97 | 1.4297               | -4.94               | 25.36                | 0.195 <sup>1</sup>              |
| T24         | 690 - 660       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 126.5<br>K=0.97 | 1.4297               | -4.22               | 25.56                | 0.165 <sup>1</sup>              |
| T25         | 660 - 630       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 126.8<br>K=0.97 | 1.4297               | -3.22               | 25.46                | 0.127 <sup>1</sup>              |
| T26         | 630 - 600       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 126.8           | 1.4297               | -1.67               | 25.46                | 0.065 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>67 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r            | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-----------------|----------------------|---------------------|----------------------|---------------------------------|
| T27         | 600 - 570       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | K=0.97<br>126.8 | 1.4297               | -1.35               | 25.46                | 0.053 <sup>1</sup>              |
| T28         | 570 - 540       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | K=0.97<br>126.8 | 1.4297               | -2.97               | 25.46                | 0.117 <sup>1</sup>              |
| T29         | 540 - 510       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -4.62               | 25.56                | 0.181 <sup>1</sup>              |
| T30         | 510 - 480       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -3.64               | 25.56                | 0.143 <sup>1</sup>              |
| T31         | 480 - 450       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -2.72               | 25.56                | 0.106 <sup>1</sup>              |
| T32         | 450 - 420       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -1.05               | 25.56                | 0.041 <sup>1</sup>              |
| T33         | 420 - 390       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -2.45               | 25.56                | 0.096 <sup>1</sup>              |
| T34         | 390 - 360       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | K=0.97<br>126.5 | 1.4297               | -3.70               | 25.56                | 0.145 <sup>1</sup>              |
| T35         | 360 - 330       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -6.43               | 25.66                | 0.251 <sup>1</sup>              |
| T36         | 330 - 300       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -3.46               | 25.66                | 0.135 <sup>1</sup>              |
| T37         | 300 - 270       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -2.13               | 25.66                | 0.083 <sup>1</sup>              |
| T38         | 270 - 240       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -0.94               | 25.66                | 0.037 <sup>1</sup>              |
| T39         | 240 - 210       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -1.83               | 25.66                | 0.071 <sup>1</sup>              |
| T40         | 210 - 180       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -3.01               | 25.66                | 0.117 <sup>1</sup>              |
| T41         | 180 - 150       | 2L2x2x3/16x1/4 | 7.50    | 6.68                 | K=0.97<br>126.0 | 1.4297               | -1.58               | 25.77                | 0.061 <sup>1</sup>              |
| T42         | 150 - 120       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -1.31               | 25.66                | 0.051 <sup>1</sup>              |
| T43         | 120 - 90        | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -1.40               | 25.66                | 0.055 <sup>1</sup>              |
| T44         | 90 - 60         | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | K=0.97<br>126.3 | 1.4297               | -2.47               | 25.66                | 0.096 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

## Tension Checks

## Leg Design Data (Tension)

| Section No. | Elevation<br>ft | Size  | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|-------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T1          | 1247.5 - 1246   | 3     | 1.50    | 0.75                 | 12.0  | 7.0686               | 5.03                | 318.09               | 0.016                           |
| T3          | 1238 - 1230     | 3     | 8.00    | 0.17                 | 2.7   | 7.0686               | 18.75               | 318.09               | 0.059 <sup>1</sup>              |
| T4          | 1230 - 1207.58  | 3 1/4 | 22.42   | 7.42                 | 109.5 | 8.2958               | 43.00               | 373.31               | 0.115 <sup>1</sup>              |
| T5          | 1207.58 - 1200  | 3 1/4 | 7.58    | 0.17                 | 2.5   | 8.2958               | 63.35               | 373.31               | 0.170 <sup>1</sup>              |
| T6          | 1200 - 1170     | 3 1/4 | 30.00   | 0.17                 | 2.5   | 8.2958               | 87.95               | 373.31               | 0.236 <sup>1</sup>              |
| T7          | 1170 - 1140     | 3 1/4 | 30.00   | 7.42                 | 109.5 | 8.2958               | 90.48               | 373.31               | 0.242 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | 3 1/4 | 22.42   | 0.17                 | 2.5   | 8.2958               | 87.38               | 373.31               | 0.234 <sup>1</sup>              |
| T9          | 1117.58 - 1110  | 3 1/4 | 7.58    | 7.42                 | 109.5 | 8.2958               | 61.99               | 373.31               | 0.166 <sup>1</sup>              |
| T10         | 1110 - 1080     | 3     | 30.00   | 0.17                 | 2.7   | 7.0686               | 61.67               | 318.09               | 0.194 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>68 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size  | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|-------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T11         | 1080 - 1050     | 3 1/2 | 30.00   | 0.17                 | 2.3   | 9.6211               | 31.84               | 432.95               | 0.074 <sup>1</sup>              |
| T12         | 1050 - 1020     | 3 3/4 | 30.00   | 0.17                 | 2.1   | 11.0447              | 31.83               | 497.01               | 0.064 <sup>1</sup>              |
| T13         | 1020 - 990      | 3 1/2 | 30.00   | 0.17                 | 2.3   | 9.6211               | 14.79               | 432.95               | 0.034 <sup>1</sup>              |
| T14         | 990 - 960       | 3 1/2 | 30.00   | 0.17                 | 2.3   | 9.6211               | 37.70               | 432.95               | 0.087 <sup>1</sup>              |
| T15         | 960 - 930       | 3 1/2 | 30.00   | 7.42                 | 101.7 | 9.6211               | 39.76               | 432.95               | 0.092 <sup>1</sup>              |
| T16         | 930 - 900       | 3 1/2 | 30.00   | 0.17                 | 2.3   | 9.6211               | 36.63               | 432.95               | 0.085 <sup>1</sup>              |
| T17         | 900 - 870       | 3 3/4 | 30.00   | 0.17                 | 2.1   | 11.0447              | 10.70               | 497.01               | 0.022 <sup>1</sup>              |
| T20         | 810 - 780       | 3 3/4 | 30.00   | 0.17                 | 2.1   | 11.0447              | 16.04               | 497.01               | 0.032 <sup>1</sup>              |
| T21         | 780 - 750       | 3 3/4 | 30.00   | 7.42                 | 94.9  | 11.0447              | 16.40               | 497.01               | 0.033 <sup>1</sup>              |
| T22         | 750 - 720       | 3 3/4 | 30.00   | 0.17                 | 2.1   | 11.0447              | 9.24                | 497.01               | 0.019 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Leg Bending Design Data (Tension)

| Section No. | Elevation<br>ft | Size  | M <sub>ux</sub><br>kip-ft | φM <sub>ux</sub><br>kip-ft | Ratio<br>$\frac{M_{ux}}{\phi M_{ux}}$ | M <sub>uy</sub><br>kip-ft | φM <sub>uy</sub><br>kip-ft | Ratio<br>$\frac{M_{uy}}{\phi M_{uy}}$ |
|-------------|-----------------|-------|---------------------------|----------------------------|---------------------------------------|---------------------------|----------------------------|---------------------------------------|
| T1          | 1247.5 - 1246   | 3     | 2.54                      | 16.88                      | 0.150                                 | 0.00                      | 16.88                      | 0.000                                 |
| T3          | 1238 - 1230     | 3     | 0.00                      | 16.88                      | 0.000                                 | 0.00                      | 16.88                      | 0.000                                 |
| T4          | 1230 - 1207.58  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T5          | 1207.58 - 1200  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T6          | 1200 - 1170     | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T7          | 1170 - 1140     | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T8          | 1140 - 1117.58  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T9          | 1117.58 - 1110  | 3 1/4 | 0.00                      | 21.46                      | 0.000                                 | 0.00                      | 21.46                      | 0.000                                 |
| T10         | 1110 - 1080     | 3     | 0.00                      | 16.88                      | 0.000                                 | 0.00                      | 16.88                      | 0.000                                 |
| T11         | 1080 - 1050     | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T12         | 1050 - 1020     | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T13         | 1020 - 990      | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T14         | 990 - 960       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T15         | 960 - 930       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T16         | 930 - 900       | 3 1/2 | 0.00                      | 26.80                      | 0.000                                 | 0.00                      | 26.80                      | 0.000                                 |
| T17         | 900 - 870       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T20         | 810 - 780       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T21         | 780 - 750       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |
| T22         | 750 - 720       | 3 3/4 | 0.00                      | 32.96                      | 0.000                                 | 0.00                      | 32.96                      | 0.000                                 |

### Leg Interaction Design Data (Tension)

| Section No. | Elevation<br>ft | Size  | Ratio<br>$\frac{P_u}{\phi P_n}$ | Ratio<br>$\frac{M_{ux}}{\phi M_{ux}}$ | Ratio<br>$\frac{M_{uy}}{\phi M_{uy}}$ | Comb.<br>Stress<br>Ratio | Allow.<br>Stress<br>Ratio | Criteria |
|-------------|-----------------|-------|---------------------------------|---------------------------------------|---------------------------------------|--------------------------|---------------------------|----------|
| T1          | 1247.5 - 1246   | 3     | 0.016                           | 0.150                                 | 0.000                                 | 0.158                    | 1.050                     | 4.8.1    |
| T3          | 1238 - 1230     | 3     | 0.059                           | 0.000                                 | 0.000                                 | 0.059 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T4          | 1230 - 1207.58  | 3 1/4 | 0.115                           | 0.000                                 | 0.000                                 | 0.115 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T5          | 1207.58 - 1200  | 3 1/4 | 0.170                           | 0.000                                 | 0.000                                 | 0.170 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T6          | 1200 - 1170     | 3 1/4 | 0.236                           | 0.000                                 | 0.000                                 | 0.236 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T7          | 1170 - 1140     | 3 1/4 | 0.242                           | 0.000                                 | 0.000                                 | 0.242 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T8          | 1140 - 1117.58  | 3 1/4 | 0.234                           | 0.000                                 | 0.000                                 | 0.234 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T9          | 1117.58 - 1110  | 3 1/4 | 0.166                           | 0.000                                 | 0.000                                 | 0.166 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T10         | 1110 - 1080     | 3     | 0.194                           | 0.000                                 | 0.000                                 | 0.194 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T11         | 1080 - 1050     | 3 1/2 | 0.074                           | 0.000                                 | 0.000                                 | 0.074 <sup>1</sup>       | 1.050                     | 4.8.1    |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>69 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size  | Ratio<br>$P_u$<br>$\phi P_n$ | Ratio<br>$M_{ux}$<br>$\phi M_{nx}$ | Ratio<br>$M_{uy}$<br>$\phi M_{ny}$ | Comb.<br>Stress<br>Ratio | Allow.<br>Stress<br>Ratio | Criteria |
|-------------|-----------------|-------|------------------------------|------------------------------------|------------------------------------|--------------------------|---------------------------|----------|
| T12         | 1050 - 1020     | 3 3/4 | 0.064                        | 0.000                              | 0.000                              | 0.064 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T13         | 1020 - 990      | 3 1/2 | 0.034                        | 0.000                              | 0.000                              | 0.034 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T14         | 990 - 960       | 3 1/2 | 0.087                        | 0.000                              | 0.000                              | 0.087 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T15         | 960 - 930       | 3 1/2 | 0.092                        | 0.000                              | 0.000                              | 0.092 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T16         | 930 - 900       | 3 1/2 | 0.085                        | 0.000                              | 0.000                              | 0.085 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T17         | 900 - 870       | 3 3/4 | 0.022                        | 0.000                              | 0.000                              | 0.022 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T20         | 810 - 780       | 3 3/4 | 0.032                        | 0.000                              | 0.000                              | 0.032 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T21         | 780 - 750       | 3 3/4 | 0.033                        | 0.000                              | 0.000                              | 0.033 <sup>1</sup>       | 1.050                     | 4.8.1    |
| T22         | 750 - 720       | 3 3/4 | 0.019                        | 0.000                              | 0.000                              | 0.019 <sup>1</sup>       | 1.050                     | 4.8.1    |

<sup>1</sup>  $P_u$  /  $\phi P_n$  controls

### Diagonal Design Data (Tension)

| Section No.           | Elevation<br>ft | Size                                      | $L$<br>ft | $L_u$<br>ft | $Kl/r$ | $A$<br>in <sup>2</sup> | $P_u$<br>K | $\phi P_n$<br>K | Ratio<br>$P_u$<br>$\phi P_n$ |
|-----------------------|-----------------|-------------------------------------------|-----------|-------------|--------|------------------------|------------|-----------------|------------------------------|
| T2                    | 1246 - 1238     | 2L2x2x1/4x3/8<br>2L 'a' > 29.0542 in - 19 | 10.84     | 5.03        | 103.3  | 1.1287                 | 4.78       | 49.10           | 0.097 <sup>1</sup>           |
| T3                    | 1238 - 1230     | 3/4                                       | 10.84     | 10.48       | 670.9  | 0.4418                 | 13.31      | 19.88           | 0.669 <sup>1</sup>           |
| T4                    | 1230 - 1207.58  | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 12.20      | 13.81           | 0.883 <sup>1</sup>           |
| T5                    | 1207.58 - 1200  | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 9.71       | 13.81           | 0.704 <sup>1</sup>           |
| T6                    | 1200 - 1170     | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 8.76       | 13.81           | 0.634 <sup>1</sup>           |
| T7                    | 1170 - 1140     | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 3.86       | 13.81           | 0.280 <sup>1</sup>           |
| T8                    | 1140 - 1117.58  | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 8.28       | 13.81           | 0.600 <sup>1</sup>           |
| T9                    | 1117.58 - 1110  | 5/8                                       | 10.55     | 10.17       | 780.8  | 0.3068                 | 10.13      | 13.81           | 0.734 <sup>1</sup>           |
| T10                   | 1110 - 1080     | 3/4                                       | 10.55     | 10.20       | 652.6  | 0.4418                 | 15.60      | 19.88           | 0.785 <sup>1</sup>           |
| T11                   | 1080 - 1050     | 7/8                                       | 10.55     | 10.14       | 556.1  | 0.6013                 | 19.11      | 27.06           | 0.706 <sup>1</sup>           |
| T12                   | 1050 - 1020     | 7/8                                       | 10.55     | 10.11       | 554.5  | 0.6013                 | 19.17      | 27.06           | 0.708 <sup>1</sup>           |
| T13                   | 1020 - 990      | 5/8                                       | 10.55     | 10.14       | 778.6  | 0.3068                 | 12.14      | 13.81           | 0.879 <sup>1</sup>           |
| T14                   | 990 - 960       | 5/8                                       | 10.55     | 10.14       | 778.6  | 0.3068                 | 7.42       | 13.81           | 0.537 <sup>1</sup>           |
| T15                   | 960 - 930       | 5/8                                       | 10.55     | 10.14       | 778.6  | 0.3068                 | 4.45       | 13.81           | 0.322 <sup>1</sup>           |
| T16                   | 930 - 900       | 5/8                                       | 10.55     | 10.14       | 778.6  | 0.3068                 | 9.47       | 13.81           | 0.686 <sup>1</sup>           |
| T17                   | 900 - 870       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 15.19      | 13.81           | 1.100 <sup>1</sup>           |
| 4.8.1 (1.10 CR) - 552 |                 |                                           |           |             |        |                        |            |                 |                              |
| T18                   | 870 - 840       | 3/4                                       | 10.55     | 10.08       | 645.1  | 0.4418                 | 16.96      | 19.88           | 0.853 <sup>1</sup>           |
| T19                   | 840 - 810       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 14.08      | 13.81           | 1.020 <sup>1</sup>           |
| T20                   | 810 - 780       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 9.79       | 13.81           | 0.709 <sup>1</sup>           |
| T21                   | 780 - 750       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 5.21       | 13.81           | 0.377 <sup>1</sup>           |
| T22                   | 750 - 720       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 8.77       | 13.81           | 0.635 <sup>1</sup>           |
| T23                   | 720 - 690       | 5/8                                       | 10.55     | 10.11       | 776.3  | 0.3068                 | 13.51      | 13.81           | 0.979 <sup>1</sup>           |
| T24                   | 690 - 660       | 3/4                                       | 10.55     | 10.05       | 643.2  | 0.4418                 | 15.69      | 19.88           | 0.789 <sup>1</sup>           |
| T25                   | 660 - 630       | 3/4                                       | 10.55     | 10.08       | 645.1  | 0.4418                 | 12.49      | 19.88           | 0.628 <sup>1</sup>           |
| T26                   | 630 - 600       | 5/8                                       | 10.55     | 10.08       | 774.1  | 0.3068                 | 8.05       | 13.81           | 0.583 <sup>1</sup>           |
| T27                   | 600 - 570       | 5/8                                       | 10.55     | 10.08       | 774.1  | 0.3068                 | 3.71       | 13.81           | 0.269 <sup>1</sup>           |
| T28                   | 570 - 540       | 5/8                                       | 10.55     | 10.08       | 774.1  | 0.3068                 | 7.91       | 13.81           | 0.573 <sup>1</sup>           |
| T29                   | 540 - 510       | 3/4                                       | 10.55     | 10.05       | 643.2  | 0.4418                 | 12.60      | 19.88           | 0.634 <sup>1</sup>           |
| T30                   | 510 - 480       | 3/4                                       | 10.55     | 10.05       | 643.2  | 0.4418                 | 14.71      | 19.88           | 0.740 <sup>1</sup>           |
| T31                   | 480 - 450       | 3/4                                       | 10.55     | 10.05       | 643.2  | 0.4418                 | 11.05      | 19.88           | 0.556 <sup>1</sup>           |
| T32                   | 450 - 420       | 5/8                                       | 10.55     | 10.05       | 771.8  | 0.3068                 | 7.00       | 13.81           | 0.507 <sup>1</sup>           |
| T33                   | 420 - 390       | 5/8                                       | 10.55     | 10.05       | 771.8  | 0.3068                 | 6.50       | 13.81           | 0.471 <sup>1</sup>           |
| T34                   | 390 - 360       | 3/4                                       | 10.55     | 10.05       | 643.2  | 0.4418                 | 10.31      | 19.88           | 0.518 <sup>1</sup>           |
| T35                   | 360 - 330       | 7/8                                       | 10.55     | 10.02       | 549.7  | 0.6013                 | 17.71      | 27.06           | 0.654 <sup>1</sup>           |
| T36                   | 330 - 300       | 7/8                                       | 10.55     | 10.02       | 549.7  | 0.6013                 | 19.06      | 27.06           | 0.704 <sup>1</sup>           |
| T37                   | 300 - 270       | 3/4                                       | 10.55     | 10.02       | 641.3  | 0.4418                 | 9.03       | 19.88           | 0.454 <sup>1</sup>           |
| T38                   | 270 - 240       | 5/8                                       | 10.55     | 10.02       | 769.6  | 0.3068                 | 5.69       | 13.81           | 0.412 <sup>1</sup>           |
| T39                   | 240 - 210       | 5/8                                       | 10.55     | 10.02       | 769.6  | 0.3068                 | 4.94       | 13.81           | 0.358 <sup>1</sup>           |

|                                                                                                                                                                    |         |                            |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>70 of 77          |
|                                                                                                                                                                    | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                                    | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size                                            | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|-------------------------------------------------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T40         | 210 - 180       | 5/8                                             | 10.55   | 10.02                | 769.6 | 0.3068               | 8.08                | 13.81                | 0.585 <sup>1</sup>              |
| T41         | 180 - 150       | 3/4                                             | 10.55   | 9.99                 | 639.4 | 0.4418               | 9.45                | 19.88                | 0.475 <sup>1</sup>              |
| T42         | 150 - 120       | 5/8                                             | 10.55   | 10.02                | 769.6 | 0.3068               | 4.83                | 13.81                | 0.350 <sup>1</sup>              |
| T43         | 120 - 90        | 5/8                                             | 10.55   | 10.02                | 769.6 | 0.3068               | 4.02                | 13.81                | 0.291 <sup>1</sup>              |
| T44         | 90 - 60         | 5/8                                             | 10.55   | 10.02                | 769.6 | 0.3068               | 7.14                | 13.81                | 0.517 <sup>1</sup>              |
| T45         | 60 - 30         | 5/8                                             | 10.55   | 10.02                | 769.6 | 0.3068               | 8.96                | 13.81                | 0.649 <sup>1</sup>              |
| T47         | 22.5 - 15       | 2L2 1/2x2x1/4x1/4<br>2L 'a' > 36.3429 in - 1828 | 8.39    | 7.47                 | 120.8 | 1.3125               | 5.93                | 57.09                | 0.104 <sup>1</sup>              |
| T49         | 7.5 - 0         | 2L2 1/2x2x1/4x1/4<br>2L 'a' > 36.3429 in - 1852 | 8.39    | 7.47                 | 120.8 | 1.3125               | 7.01                | 57.09                | 0.123 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Horizontal Design Data (Tension)

| Section No. | Elevation<br>ft | Size                                         | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------------------------------------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T4          | 1230 - 1207.58  | 2L2x2x3/16x1/4                               | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.04                | 37.47                | 0.001 <sup>1</sup>              |
| T6          | 1200 - 1170     | 2L2x2x3/16x1/4                               | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.06                | 37.47                | 0.002 <sup>1</sup>              |
| T7          | 1170 - 1140     | 2L2x2x3/16x1/4                               | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.05                | 37.47                | 0.001 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | 2L2x2x3/16x1/4                               | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.01                | 37.47                | 0.000 <sup>1</sup>              |
| T10         | 1110 - 1080     | 2L2x2x3/16x1/4                               | 7.50    | 6.82                 | 140.9 | 0.8613               | 0.08                | 37.47                | 0.002 <sup>1</sup>              |
| T11         | 1080 - 1050     | 2L2x2x3/16x1/4                               | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.15                | 37.47                | 0.004 <sup>1</sup>              |
| T14         | 990 - 960       | 2L2x2x3/16x1/4                               | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T15         | 960 - 930       | 2L2x2x3/16x1/4                               | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.12                | 37.47                | 0.003 <sup>1</sup>              |
| T16         | 930 - 900       | 2L2x2x3/16x1/4                               | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.20                | 37.47                | 0.005 <sup>1</sup>              |
| T17         | 900 - 870       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.06                | 37.47                | 0.002 <sup>1</sup>              |
| T18         | 870 - 840       | 2L2x2x3/16x1/4                               | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.02                | 37.47                | 0.000 <sup>1</sup>              |
| T19         | 840 - 810       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.23                | 37.47                | 0.006 <sup>1</sup>              |
| T20         | 810 - 780       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.09                | 37.47                | 0.002 <sup>1</sup>              |
| T21         | 780 - 750       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.19                | 37.47                | 0.005 <sup>1</sup>              |
| T22         | 750 - 720       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.06                | 37.47                | 0.001 <sup>1</sup>              |
| T23         | 720 - 690       | 2L2x2x3/16x1/4                               | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.00                | 37.47                | 0.000 <sup>1</sup>              |
| T25         | 660 - 630       | 2L2x2x3/16x1/4                               | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.00                | 37.47                | 0.000 <sup>1</sup>              |
| T27         | 600 - 570       | 2L2x2x3/16x1/4                               | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.25                | 37.47                | 0.007 <sup>1</sup>              |
| T32         | 450 - 420       | 2L2x2x3/16x1/4                               | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.14                | 37.47                | 0.004 <sup>1</sup>              |
| T33         | 420 - 390       | 2L2x2x3/16x1/4                               | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.25                | 37.47                | 0.007 <sup>1</sup>              |
| T34         | 390 - 360       | 2L2x2x3/16x1/4                               | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T35         | 360 - 330       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T36         | 330 - 300       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.07                | 37.47                | 0.002 <sup>1</sup>              |
| T38         | 270 - 240       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.04                | 37.47                | 0.001 <sup>1</sup>              |
| T39         | 240 - 210       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.19                | 37.47                | 0.005 <sup>1</sup>              |
| T40         | 210 - 180       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.12                | 37.47                | 0.003 <sup>1</sup>              |
| T41         | 180 - 150       | 2L2x2x3/16x1/4                               | 7.50    | 6.68                 | 138.1 | 0.8613               | 0.11                | 37.47                | 0.003 <sup>1</sup>              |
| T42         | 150 - 120       | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.02                | 37.47                | 0.001 <sup>1</sup>              |
| T43         | 120 - 90        | 2L2x2x3/16x1/4                               | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.08                | 37.47                | 0.002 <sup>1</sup>              |
| T47         | 22.5 - 15       | 2L2x2x3/16x1/4<br>2L 'a' > 19.3937 in - 1826 | 7.50    | 5.08                 | 68.6  | 0.8613               | 7.78                | 37.47                | 0.208 <sup>1</sup>              |
| T49         | 7.5 - 0         | 2L2x2x3/16x1/4<br>2L 'a' > 19.3937 in - 1850 | 7.50    | 5.08                 | 68.6  | 0.8613               | 8.30                | 37.47                | 0.222 <sup>1</sup>              |

\* DL controls

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>71 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

## Secondary Horizontal Design Data (Tension)

| Section No. | Elevation<br>ft | Size     | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T5          | 1207.58 - 1200  | L2x2x1/4 | 7.50    | 6.99                 | 142.4 | 0.5629               | 0.13                | 24.49                | 0.005 <sup>1</sup>              |
| T6          | 1200 - 1170     | L2x2x1/4 | 7.50    | 6.99                 | 142.4 | 0.5629               | 0.12                | 24.49                | 0.005 <sup>1</sup>              |
| T7          | 1170 - 1140     | L2x2x1/4 | 7.50    | 6.99                 | 142.4 | 0.5629               | 0.07                | 24.49                | 0.003 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | L2x2x1/4 | 7.50    | 6.99                 | 142.4 | 0.5629               | 0.10                | 24.49                | 0.004 <sup>1</sup>              |
| T42         | 150 - 120       | L2x2x1/4 | 7.50    | 6.89                 | 140.4 | 0.5629               | 0.09                | 24.49                | 0.004 <sup>1</sup>              |
| T43         | 120 - 90        | L2x2x1/4 | 7.50    | 6.89                 | 140.4 | 0.5629               | 0.07                | 24.49                | 0.003 <sup>1</sup>              |
| T44         | 90 - 60         | L2x2x1/4 | 7.50    | 6.89                 | 140.4 | 0.5629               | 0.08                | 24.49                | 0.003 <sup>1</sup>              |
| T45         | 60 - 30         | L2x2x1/4 | 7.50    | 6.89                 | 140.4 | 0.5629               | 0.13                | 24.49                | 0.005 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

## Top Girt Design Data (Tension)

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T2          | 1246 - 1238     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 140.9 | 0.8613               | 2.48                | 37.47                | 0.066 <sup>1</sup>              |
| T3          | 1238 - 1230     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 140.9 | 0.8613               | 3.00                | 37.47                | 0.080 <sup>1</sup>              |
| T4          | 1230 - 1207.58  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.61                | 37.47                | 0.016 <sup>1</sup>              |
| T6          | 1200 - 1170     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.06                | 37.47                | 0.002 <sup>1</sup>              |
| T7          | 1170 - 1140     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.01                | 37.47                | 0.000 <sup>1</sup>              |
| T8          | 1140 - 1117.58  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.16                | 37.47                | 0.004 <sup>1</sup>              |
| T9          | 1117.58 - 1110  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.03                | 37.47                | 0.001 <sup>1</sup>              |
| T10         | 1110 - 1080     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 140.9 | 0.8613               | 0.62                | 37.47                | 0.016 <sup>1</sup>              |
| T11         | 1080 - 1050     | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.92                | 37.47                | 0.025 <sup>1</sup>              |
| T12         | 1050 - 1020     | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.68                | 37.47                | 0.018 <sup>1</sup>              |
| T13         | 1020 - 990      | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.14                | 37.47                | 0.004 <sup>1</sup>              |
| T14         | 990 - 960       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.14                | 37.47                | 0.004 <sup>1</sup>              |
| T15         | 960 - 930       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.05                | 37.47                | 0.001 <sup>1</sup>              |
| T16         | 930 - 900       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.22                | 37.47                | 0.006 <sup>1</sup>              |
| T17         | 900 - 870       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.45                | 37.47                | 0.012 <sup>1</sup>              |
| T18         | 870 - 840       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.34                | 37.47                | 0.009 <sup>1</sup>              |
| T19         | 840 - 810       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.20                | 37.47                | 0.005 <sup>1</sup>              |
| T20         | 810 - 780       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.23                | 37.47                | 0.006 <sup>1</sup>              |
| T21         | 780 - 750       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.03                | 37.47                | 0.001 <sup>1</sup>              |
| T22         | 750 - 720       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.12                | 37.47                | 0.003 <sup>1</sup>              |
| T23         | 720 - 690       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.23                | 37.47                | 0.006 <sup>1</sup>              |
| T24         | 690 - 660       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.29                | 37.47                | 0.008 <sup>1</sup>              |
| T25         | 660 - 630       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.32                | 37.47                | 0.009 <sup>1</sup>              |
| T26         | 630 - 600       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.11                | 37.47                | 0.003 <sup>1</sup>              |
| T27         | 600 - 570       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.02                | 37.47                | 0.001 <sup>1</sup>              |
| T28         | 570 - 540       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T29         | 540 - 510       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T30         | 510 - 480       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.15                | 37.47                | 0.004 <sup>1</sup>              |
| T33         | 420 - 390       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.04                | 37.47                | 0.001 <sup>1</sup>              |
| T34         | 390 - 360       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.20                | 37.47                | 0.005 <sup>1</sup>              |
| T35         | 360 - 330       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.39                | 37.47                | 0.010 <sup>1</sup>              |
| T36         | 330 - 300       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.30                | 37.47                | 0.008 <sup>1</sup>              |
| T37         | 300 - 270       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.03                | 37.47                | 0.001 <sup>1</sup>              |
| T39         | 240 - 210       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.11                | 37.47                | 0.003 <sup>1</sup>              |
| T40         | 210 - 180       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.15                | 37.47                | 0.004 <sup>1</sup>              |
| T41         | 180 - 150       | 2L2x2x3/16x1/4 | 7.50    | 6.68                 | 138.1 | 0.8613               | 0.05                | 37.47                | 0.001 <sup>1</sup>              |
| T42         | 150 - 120       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.01                | 37.47                | 0.000 <sup>1</sup>              |
| T43         | 120 - 90        | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.05                | 37.47                | 0.001 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>72 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T46         | 30 - 22.5       | 2L2x2x3/16x1/4 | 7.50    | 6.64                 | 137.3 | 0.8613               | 3.67                | 37.47                | 0.098 <sup>1</sup>              |
| T48         | 15 - 7.5        | 2C8x11.5x1/4   | 7.50    | 7.06                 | 89.9  | 4.7793               | 7.13                | 207.90               | 0.034 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Bottom Girt Design Data (Tension)

| Section No. | Elevation<br>ft | Size           | L<br>ft | L <sub>u</sub><br>ft | Kl/r  | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|----------------|---------|----------------------|-------|----------------------|---------------------|----------------------|---------------------------------|
| T3          | 1238 - 1230     | 2C8x11.5x3/8   | 7.50    | 7.25                 | 87.9  | 4.7793               | 1.38                | 207.90               | 0.007 <sup>1</sup>              |
| T5          | 1207.58 - 1200  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.27                | 37.47                | 0.007 <sup>1</sup>              |
| T6          | 1200 - 1170     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.11                | 37.47                | 0.003 <sup>1</sup>              |
| T7          | 1170 - 1140     | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.00                | 37.47                | 0.000 <sup>*1</sup>             |
| T9          | 1117.58 - 1110  | 2L2x2x3/16x1/4 | 7.50    | 6.80                 | 140.5 | 0.8613               | 0.29                | 37.47                | 0.008 <sup>1</sup>              |
| T10         | 1110 - 1080     | 2L2x2x3/16x1/4 | 7.50    | 6.82                 | 140.9 | 0.8613               | 0.51                | 37.47                | 0.014 <sup>1</sup>              |
| T11         | 1080 - 1050     | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.57                | 37.47                | 0.015 <sup>1</sup>              |
| T12         | 1050 - 1020     | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.18                | 37.47                | 0.005 <sup>1</sup>              |
| T13         | 1020 - 990      | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.15                | 37.47                | 0.004 <sup>1</sup>              |
| T14         | 990 - 960       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.14                | 37.47                | 0.004 <sup>1</sup>              |
| T16         | 930 - 900       | 2L2x2x3/16x1/4 | 7.50    | 6.78                 | 140.1 | 0.8613               | 0.10                | 37.47                | 0.003 <sup>1</sup>              |
| T17         | 900 - 870       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.28                | 37.47                | 0.007 <sup>1</sup>              |
| T18         | 870 - 840       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.50                | 37.47                | 0.013 <sup>1</sup>              |
| T19         | 840 - 810       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.53                | 37.47                | 0.014 <sup>1</sup>              |
| T20         | 810 - 780       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.24                | 37.47                | 0.006 <sup>1</sup>              |
| T21         | 780 - 750       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.03                | 37.47                | 0.001 <sup>1</sup>              |
| T22         | 750 - 720       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.05                | 37.47                | 0.001 <sup>1</sup>              |
| T23         | 720 - 690       | 2L2x2x3/16x1/4 | 7.50    | 6.76                 | 139.7 | 0.8613               | 0.02                | 37.47                | 0.001 <sup>1</sup>              |
| T24         | 690 - 660       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.16                | 37.47                | 0.004 <sup>1</sup>              |
| T25         | 660 - 630       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.16                | 37.47                | 0.004 <sup>1</sup>              |
| T26         | 630 - 600       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.20                | 37.47                | 0.005 <sup>1</sup>              |
| T27         | 600 - 570       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.04                | 37.47                | 0.001 <sup>1</sup>              |
| T28         | 570 - 540       | 2L2x2x3/16x1/4 | 7.50    | 6.74                 | 139.3 | 0.8613               | 0.01                | 37.47                | 0.000 <sup>1</sup>              |
| T29         | 540 - 510       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.08                | 37.47                | 0.002 <sup>1</sup>              |
| T30         | 510 - 480       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.01                | 37.47                | 0.000 <sup>*1</sup>             |
| T31         | 480 - 450       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.02                | 37.47                | 0.001 <sup>1</sup>              |
| T32         | 450 - 420       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.03                | 37.47                | 0.001 <sup>1</sup>              |
| T34         | 390 - 360       | 2L2x2x3/16x1/4 | 7.50    | 6.72                 | 138.9 | 0.8613               | 0.06                | 37.47                | 0.002 <sup>1</sup>              |
| T38         | 270 - 240       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.12                | 37.47                | 0.003 <sup>1</sup>              |
| T42         | 150 - 120       | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 0.08                | 37.47                | 0.002 <sup>1</sup>              |
| T45         | 60 - 30         | 2L2x2x3/16x1/4 | 7.50    | 6.70                 | 138.5 | 0.8613               | 2.67                | 37.47                | 0.071 <sup>1</sup>              |

\* DL controls

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Guy Pull-Off Design Data (Tension)

| Section No. | Elevation<br>ft | Size         | L<br>ft | L <sub>u</sub><br>ft | Kl/r | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|--------------|---------|----------------------|------|----------------------|---------------------|----------------------|---------------------------------|
| T1          | 1247.5 - 1246   | W18x40       | 7.50    | 7.25                 | 68.5 | 11.8000              | 26.92               | 382.32               | 0.070 <sup>1</sup>              |
| T12         | 1050 - 1020     | 2C9x13.4x1/4 | 7.50    | 7.19                 | 86.9 | 5.5618               | 23.27               | 241.94               | 0.096 <sup>1</sup>              |
| T18         | 870 - 840       | 2C9x13.4x1/4 | 7.50    | 7.17                 | 86.6 | 5.5618               | 21.51               | 241.94               | 0.089 <sup>1</sup>              |

|                                                                                                                                                      |         |                            |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|---------------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | Job     | WMAV Oxford (ASR# 1041044) | Page<br>73 of 77          |
|                                                                                                                                                      | Project | TEP# 19780.814207          | Date<br>12:43:11 03/27/23 |
|                                                                                                                                                      | Client  | MPB                        | Designed by<br>elatta     |

| Section No. | Elevation<br>ft | Size         | L<br>ft | L <sub>u</sub><br>ft | Kl/r | A<br>in <sup>2</sup> | P <sub>u</sub><br>K | φP <sub>n</sub><br>K | Ratio<br>$\frac{P_u}{\phi P_n}$ |
|-------------|-----------------|--------------|---------|----------------------|------|----------------------|---------------------|----------------------|---------------------------------|
| T24         | 690 - 660       | 2C9x13.4x1/4 | 7.50    | 7.15                 | 86.4 | 5.5618               | 21.01               | 241.94               | 0.087 <sup>1</sup>              |
| T30         | 510 - 480       | 2C9x13.4x1/4 | 7.50    | 7.15                 | 86.4 | 5.5618               | 16.75               | 241.94               | 0.069 <sup>1</sup>              |
| T36         | 330 - 300       | 2C9x13.4x1/4 | 7.50    | 7.13                 | 86.1 | 5.5618               | 17.10               | 241.94               | 0.071 <sup>1</sup>              |
| T41         | 180 - 150       | 2C9x13.4x1/4 | 7.50    | 7.10                 | 85.9 | 5.5618               | 9.45                | 241.94               | 0.039 <sup>1</sup>              |

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

## Section Capacity Table

| Section No. | Elevation<br>ft | Component<br>Type | Size  | Critical<br>Element | P<br>K  | φP <sub>allow</sub><br>K | %<br>Capacity | Pass<br>Fail |
|-------------|-----------------|-------------------|-------|---------------------|---------|--------------------------|---------------|--------------|
| T1          | 1247.5 - 1246   | Leg               | 3     | 4                   | -5.52   | 330.49                   | 52.3          | Pass         |
| T2          | 1246 - 1238     | Leg               | 3     | 10                  | -47.76  | 106.74                   | 44.7          | Pass         |
| T3          | 1238 - 1230     | Leg               | 3     | 21                  | -74.02  | 106.74                   | 69.3          | Pass         |
| T4          | 1230 - 1207.58  | Leg               | 3 1/4 | 36                  | -105.39 | 163.02                   | 64.6          | Pass         |
| T5          | 1207.58 - 1200  | Leg               | 3 1/4 | 66                  | -113.97 | 163.04                   | 69.9          | Pass         |
| T6          | 1200 - 1170     | Leg               | 3 1/4 | 83                  | -135.91 | 163.02                   | 83.4          | Pass         |
| T7          | 1170 - 1140     | Leg               | 3 1/4 | 137                 | -138.94 | 163.02                   | 85.2          | Pass         |
| T8          | 1140 - 1117.58  | Leg               | 3 1/4 | 193                 | -134.95 | 163.02                   | 82.8          | Pass         |
| T9          | 1117.58 - 1110  | Leg               | 3 1/4 | 230                 | -118.25 | 163.04                   | 72.5          | Pass         |
| T10         | 1110 - 1080     | Leg               | 3     | 245                 | -110.27 | 119.07                   | 92.6          | Pass         |
| T11         | 1080 - 1050     | Leg               | 3 1/2 | 289                 | -123.34 | 213.35                   | 57.8          | Pass         |
| T12         | 1050 - 1020     | Leg               | 3 3/4 | 331                 | -148.69 | 270.01                   | 55.1          | Pass         |
| T13         | 1020 - 990      | Leg               | 3 1/2 | 373                 | -132.41 | 213.35                   | 62.1          | Pass         |
| T14         | 990 - 960       | Leg               | 3 1/2 | 413                 | -145.18 | 213.35                   | 68.0          | Pass         |
| T15         | 960 - 930       | Leg               | 3 1/2 | 455                 | -149.40 | 213.35                   | 70.0          | Pass         |
| T16         | 930 - 900       | Leg               | 3 1/2 | 497                 | -147.09 | 213.35                   | 68.9          | Pass         |
| T17         | 900 - 870       | Leg               | 3 3/4 | 541                 | -179.66 | 270.01                   | 66.5          | Pass         |
| T18         | 870 - 840       | Leg               | 4     | 583                 | -202.23 | 332.73                   | 60.8          | Pass         |
| T19         | 840 - 810       | Leg               | 3 3/4 | 625                 | -187.62 | 270.01                   | 69.5          | Pass         |
| T20         | 810 - 780       | Leg               | 3 3/4 | 667                 | -198.53 | 270.01                   | 73.5          | Pass         |
| T21         | 780 - 750       | Leg               | 3 3/4 | 707                 | -202.56 | 270.01                   | 75.0          | Pass         |
| T22         | 750 - 720       | Leg               | 3 3/4 | 749                 | -202.76 | 270.01                   | 75.1          | Pass         |
| T23         | 720 - 690       | Leg               | 3 3/4 | 791                 | -199.81 | 270.01                   | 74.0          | Pass         |
| T24         | 690 - 660       | Leg               | 4 1/4 | 833                 | -221.72 | 401.30                   | 55.2          | Pass         |
| T25         | 660 - 630       | Leg               | 4     | 875                 | -228.90 | 332.73                   | 68.8          | Pass         |
| T26         | 630 - 600       | Leg               | 4     | 917                 | -238.45 | 332.73                   | 71.7          | Pass         |
| T27         | 600 - 570       | Leg               | 4     | 959                 | -241.76 | 332.73                   | 72.7          | Pass         |
| T28         | 570 - 540       | Leg               | 4     | 1001                | -242.15 | 332.73                   | 72.8          | Pass         |
| T29         | 540 - 510       | Leg               | 4 1/4 | 1043                | -261.05 | 401.30                   | 65.1          | Pass         |
| T30         | 510 - 480       | Leg               | 4 1/4 | 1085                | -291.50 | 401.30                   | 72.6          | Pass         |
| T31         | 480 - 450       | Leg               | 4 1/4 | 1127                | -290.91 | 401.30                   | 72.5          | Pass         |
| T32         | 450 - 420       | Leg               | 4 1/4 | 1169                | -285.69 | 401.30                   | 71.2          | Pass         |
| T33         | 420 - 390       | Leg               | 4 1/4 | 1211                | -286.80 | 401.30                   | 71.5          | Pass         |
| T34         | 390 - 360       | Leg               | 4 1/4 | 1253                | -298.94 | 401.30                   | 74.5          | Pass         |
| T35         | 360 - 330       | Leg               | 4 1/2 | 1296                | -316.81 | 475.53                   | 66.6          | Pass         |
| T36         | 330 - 300       | Leg               | 4 1/2 | 1338                | -339.26 | 475.53                   | 71.3          | Pass         |
| T37         | 300 - 270       | Leg               | 4 1/2 | 1380                | -336.68 | 475.53                   | 70.8          | Pass         |
| T38         | 270 - 240       | Leg               | 4 1/2 | 1422                | -331.80 | 475.53                   | 69.8          | Pass         |
| T39         | 240 - 210       | Leg               | 4 1/2 | 1464                | -334.80 | 475.53                   | 70.4          | Pass         |
| T40         | 210 - 180       | Leg               | 4 1/2 | 1506                | -344.48 | 475.53                   | 72.4          | Pass         |
| T41         | 180 - 150       | Leg               | 4 3/4 | 1549                | -363.45 | 555.28                   | 65.5          | Pass         |
| T42         | 150 - 120       | Leg               | 4 1/2 | 1589                | -364.98 | 475.53                   | 76.8          | Pass         |
| T43         | 120 - 90        | Leg               | 4 1/2 | 1643                | -369.92 | 475.53                   | 77.8          | Pass         |
| T44         | 90 - 60         | Leg               | 4 1/2 | 1697                | -377.82 | 475.53                   | 79.5          | Pass         |
| T45         | 60 - 30         | Leg               | 4 1/2 | 1753                | -405.22 | 475.53                   | 85.2          | Pass         |
| T46         | 30 - 22.5       | Leg               | 5 1/4 | 1807                | -399.98 | 736.31                   | 54.3          | Pass         |

|                                                                                                                                                                    |                |                            |                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|----------------------------------|
| <b><i>tnxTower</i></b><br><br><b><i>Tower Engineering Professionals</i></b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b><br>74 of 77          |
|                                                                                                                                                                    | <b>Project</b> | TEP# 19780.814207          | <b>Date</b><br>12:43:11 03/27/23 |
|                                                                                                                                                                    | <b>Client</b>  | MPB                        | <b>Designed by</b><br>elatta     |

| Section No. | Elevation ft   | Component Type | Size              | Critical Element | P K     | $\phi P_{allow}$ K | % Capacity | Pass Fail         |
|-------------|----------------|----------------|-------------------|------------------|---------|--------------------|------------|-------------------|
| T47         | 22.5 - 15      | Leg            | 5 1/4             | 1819             | -414.86 | 725.27             | 57.2       | Pass              |
| T48         | 15 - 7.5       | Leg            | 5 1/4             | 1831             | -415.89 | 725.27             | 57.3       | Pass              |
| T49         | 7.5 - 0        | Leg            | 5 1/4             | 1843             | -431.61 | 725.27             | 59.5       | Pass              |
| T2          | 1246 - 1238    | Diagonal       | 2L2x2x1/4x3/8     | 19               | -11.22  | 48.70              | 23.0       | Pass              |
| T3          | 1238 - 1230    | Diagonal       | 3/4               | 34               | 13.31   | 20.87              | 63.7       | Pass              |
| T4          | 1230 - 1207.58 | Diagonal       | 5/8               | 64               | 12.20   | 14.50              | 84.1       | Pass              |
| T5          | 1207.58 - 1200 | Diagonal       | 5/8               | 79               | 9.71    | 14.50              | 67.0       | Pass              |
| T6          | 1200 - 1170    | Diagonal       | 5/8               | 133              | 8.76    | 14.50              | 60.4       | Pass              |
| T7          | 1170 - 1140    | Diagonal       | 5/8               | 149              | 3.86    | 14.50              | 26.6       | Pass              |
| T8          | 1140 - 1117.58 | Diagonal       | 5/8               | 200              | 8.28    | 14.50              | 57.2       | Pass              |
| T9          | 1117.58 - 1110 | Diagonal       | 5/8               | 242              | 10.13   | 14.50              | 69.9       | Pass              |
| T10         | 1110 - 1080    | Diagonal       | 3/4               | 257              | 15.60   | 20.87              | 74.7       | Pass              |
| T11         | 1080 - 1050    | Diagonal       | 7/8               | 299              | 19.11   | 28.41              | 67.3       | Pass              |
| T12         | 1050 - 1020    | Diagonal       | 7/8               | 368              | 19.17   | 28.41              | 67.5       | Pass              |
| T13         | 1020 - 990     | Diagonal       | 5/8               | 411              | 12.14   | 14.50              | 83.7       | Pass              |
| T14         | 990 - 960      | Diagonal       | 5/8               | 453              | 7.42    | 14.50              | 51.2       | Pass              |
| T15         | 960 - 930      | Diagonal       | 5/8               | 467              | 4.45    | 14.50              | 30.7       | Pass              |
| T16         | 930 - 900      | Diagonal       | 5/8               | 509              | 9.47    | 14.50              | 65.4       | Pass              |
| T17         | 900 - 870      | Diagonal       | 5/8               | 552              | 15.19   | 14.50              | 104.8      | Fail              |
| T18         | 870 - 840      | Diagonal       | 3/4               | 621              | 16.96   | 20.87              | 81.2       | Pass              |
| T19         | 840 - 810      | Diagonal       | 5/8               | 663              | 14.08   | 14.50              | 97.1       | Fail <sup>1</sup> |
| T20         | 810 - 780      | Diagonal       | 5/8               | 705              | 9.79    | 14.50              | 67.5       | Pass              |
| T21         | 780 - 750      | Diagonal       | 5/8               | 744              | 5.21    | 14.50              | 35.9       | Pass              |
| T22         | 750 - 720      | Diagonal       | 5/8               | 762              | 8.77    | 14.50              | 60.5       | Pass              |
| T23         | 720 - 690      | Diagonal       | 5/8               | 804              | 13.51   | 14.50              | 93.2       | Pass              |
| T24         | 690 - 660      | Diagonal       | 3/4               | 864              | 15.69   | 20.87              | 75.2       | Pass              |
| T25         | 660 - 630      | Diagonal       | 3/4               | 916              | 12.49   | 20.87              | 59.8       | Pass              |
| T26         | 630 - 600      | Diagonal       | 5/8               | 956              | 8.05    | 14.50              | 55.5       | Pass              |
| T27         | 600 - 570      | Diagonal       | 5/8               | 998              | 3.71    | 14.50              | 25.6       | Pass              |
| T28         | 570 - 540      | Diagonal       | 5/8               | 1015             | 7.91    | 14.50              | 54.6       | Pass              |
| T29         | 540 - 510      | Diagonal       | 3/4               | 1057             | 12.60   | 20.87              | 60.4       | Pass              |
| T30         | 510 - 480      | Diagonal       | 3/4               | 1117             | 14.71   | 20.87              | 70.4       | Pass              |
| T31         | 480 - 450      | Diagonal       | 3/4               | 1166             | 11.05   | 20.87              | 52.9       | Pass              |
| T32         | 450 - 420      | Diagonal       | 5/8               | 1208             | 7.00    | 14.50              | 48.3       | Pass              |
| T33         | 420 - 390      | Diagonal       | 5/8               | 1225             | 6.50    | 14.50              | 44.9       | Pass              |
| T34         | 390 - 360      | Diagonal       | 3/4               | 1267             | 10.31   | 20.87              | 49.4       | Pass              |
| T35         | 360 - 330      | Diagonal       | 7/8               | 1306             | 17.71   | 28.41              | 62.3       | Pass              |
| T36         | 330 - 300      | Diagonal       | 7/8               | 1375             | 19.06   | 28.41              | 67.1       | Pass              |
| T37         | 300 - 270      | Diagonal       | 3/4               | 1419             | 9.03    | 20.87              | 43.3       | Pass              |
| T38         | 270 - 240      | Diagonal       | 5/8               | 1461             | 5.69    | 14.50              | 39.2       | Pass              |
| T39         | 240 - 210      | Diagonal       | 5/8               | 1474             | 4.94    | 14.50              | 34.1       | Pass              |
| T40         | 210 - 180      | Diagonal       | 5/8               | 1516             | 8.08    | 14.50              | 55.7       | Pass              |
| T41         | 180 - 150      | Diagonal       | 3/4               | 1576             | 9.45    | 20.87              | 45.3       | Pass              |
| T42         | 150 - 120      | Diagonal       | 5/8               | 1635             | 4.83    | 14.50              | 33.3       | Pass              |
| T43         | 120 - 90       | Diagonal       | 5/8               | 1657             | 4.02    | 14.50              | 27.7       | Pass              |
| T44         | 90 - 60        | Diagonal       | 5/8               | 1711             | 7.14    | 14.50              | 49.3       | Pass              |
| T45         | 60 - 30        | Diagonal       | 5/8               | 1777             | 8.96    | 14.50              | 61.8       | Pass              |
| T46         | 30 - 22.5      | Diagonal       | 2L2x2x3/16x1/4    | 1816             | -11.42  | 37.73              | 30.3       | Pass              |
| T47         | 22.5 - 15      | Diagonal       | 2L2 1/2x2x1/4x1/4 | 1827             | -6.10   | 29.10              | 21.0       | Pass              |
| T48         | 15 - 7.5       | Diagonal       | 2L2x2x3/16x1/4    | 1840             | -11.69  | 37.39              | 31.3       | Pass              |
| T49         | 7.5 - 0        | Diagonal       | 2L2 1/2x2x1/4x1/4 | 1851             | -7.18   | 29.10              | 24.7       | Pass              |
| T4          | 1230 - 1207.58 | Horizontal     | 2L2x2x3/16x1/4    | 58               | -8.37   | 26.42              | 31.7       | Pass              |
| T6          | 1200 - 1170    | Horizontal     | 2L2x2x3/16x1/4    | 124              | -5.75   | 26.42              | 21.7       | Pass              |
| T7          | 1170 - 1140    | Horizontal     | 2L2x2x3/16x1/4    | 152              | -2.36   | 26.42              | 8.9        | Pass              |
| T8          | 1140 - 1117.58 | Horizontal     | 2L2x2x3/16x1/4    | 204              | -5.18   | 26.42              | 19.6       | Pass              |
| T10         | 1110 - 1080    | Horizontal     | 2L2x2x3/16x1/4    | 261              | -10.51  | 26.32              | 39.9       | Pass              |
| T11         | 1080 - 1050    | Horizontal     | 2L2x2x3/16x1/4    | 303              | -13.04  | 26.53              | 49.2       | Pass              |
| T12         | 1050 - 1020    | Horizontal     | 2L2x2x3/16x1/4    | 355              | -10.14  | 26.63              | 38.1       | Pass              |
| T13         | 1020 - 990     | Horizontal     | 2L2x2x3/16x1/4    | 406              | -8.14   | 26.53              | 30.7       | Pass              |
| T14         | 990 - 960      | Horizontal     | 2L2x2x3/16x1/4    | 448              | -4.84   | 26.53              | 18.3       | Pass              |
| T15         | 960 - 930      | Horizontal     | 2L2x2x3/16x1/4    | 471              | -2.78   | 26.53              | 10.5       | Pass              |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 75 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation ft   | Component Type       | Size           | Critical Element | P K    | $\sigma P_{allow}$ K | % Capacity | Pass Fail |
|-------------|----------------|----------------------|----------------|------------------|--------|----------------------|------------|-----------|
| T16         | 930 - 900      | Horizontal           | 2L2x2x3/16x1/4 | 513              | -6.22  | 26.53                | 23.4       | Pass      |
| T17         | 900 - 870      | Horizontal           | 2L2x2x3/16x1/4 | 555              | -10.44 | 26.63                | 39.2       | Pass      |
| T18         | 870 - 840      | Horizontal           | 2L2x2x3/16x1/4 | 616              | -11.25 | 26.74                | 42.1       | Pass      |
| T19         | 840 - 810      | Horizontal           | 2L2x2x3/16x1/4 | 658              | -9.54  | 26.63                | 35.8       | Pass      |
| T20         | 810 - 780      | Horizontal           | 2L2x2x3/16x1/4 | 700              | -6.55  | 26.63                | 24.6       | Pass      |
| T21         | 780 - 750      | Horizontal           | 2L2x2x3/16x1/4 | 740              | -3.36  | 26.63                | 12.6       | Pass      |
| T22         | 750 - 720      | Horizontal           | 2L2x2x3/16x1/4 | 766              | -5.70  | 26.63                | 21.4       | Pass      |
| T23         | 720 - 690      | Horizontal           | 2L2x2x3/16x1/4 | 808              | -9.13  | 26.63                | 34.3       | Pass      |
| T24         | 690 - 660      | Horizontal           | 2L2x2x3/16x1/4 | 868              | -10.93 | 26.84                | 40.7       | Pass      |
| T25         | 660 - 630      | Horizontal           | 2L2x2x3/16x1/4 | 910              | -8.25  | 26.74                | 30.8       | Pass      |
| T26         | 630 - 600      | Horizontal           | 2L2x2x3/16x1/4 | 951              | -5.25  | 26.74                | 19.6       | Pass      |
| T27         | 600 - 570      | Horizontal           | 2L2x2x3/16x1/4 | 993              | -2.41  | 26.74                | 9.0        | Pass      |
| T28         | 570 - 540      | Horizontal           | 2L2x2x3/16x1/4 | 1018             | -5.19  | 26.74                | 19.4       | Pass      |
| T29         | 540 - 510      | Horizontal           | 2L2x2x3/16x1/4 | 1060             | -8.37  | 26.84                | 31.2       | Pass      |
| T30         | 510 - 480      | Horizontal           | 2L2x2x3/16x1/4 | 1111             | -10.24 | 26.84                | 38.2       | Pass      |
| T31         | 480 - 450      | Horizontal           | 2L2x2x3/16x1/4 | 1161             | -7.28  | 26.84                | 27.1       | Pass      |
| T32         | 450 - 420      | Horizontal           | 2L2x2x3/16x1/4 | 1203             | -4.58  | 26.84                | 17.1       | Pass      |
| T33         | 420 - 390      | Horizontal           | 2L2x2x3/16x1/4 | 1228             | -4.39  | 26.84                | 16.4       | Pass      |
| T34         | 390 - 360      | Horizontal           | 2L2x2x3/16x1/4 | 1270             | -6.97  | 26.84                | 26.0       | Pass      |
| T35         | 360 - 330      | Horizontal           | 2L2x2x3/16x1/4 | 1311             | -12.05 | 26.95                | 44.7       | Pass      |
| T36         | 330 - 300      | Horizontal           | 2L2x2x3/16x1/4 | 1371             | -12.81 | 26.95                | 47.5       | Pass      |
| T37         | 300 - 270      | Horizontal           | 2L2x2x3/16x1/4 | 1414             | -5.99  | 26.95                | 22.2       | Pass      |
| T38         | 270 - 240      | Horizontal           | 2L2x2x3/16x1/4 | 1456             | -3.61  | 26.95                | 13.4       | Pass      |
| T39         | 240 - 210      | Horizontal           | 2L2x2x3/16x1/4 | 1479             | -3.26  | 26.95                | 12.1       | Pass      |
| T40         | 210 - 180      | Horizontal           | 2L2x2x3/16x1/4 | 1521             | -5.43  | 26.95                | 20.1       | Pass      |
| T41         | 180 - 150      | Horizontal           | 2L2x2x3/16x1/4 | 1581             | -6.57  | 27.05                | 24.3       | Pass      |
| T42         | 150 - 120      | Horizontal           | 2L2x2x3/16x1/4 | 1628             | -2.85  | 26.95                | 10.6       | Pass      |
| T43         | 120 - 90       | Horizontal           | 2L2x2x3/16x1/4 | 1658             | -2.37  | 26.95                | 8.8        | Pass      |
| T44         | 90 - 60        | Horizontal           | 2L2x2x3/16x1/4 | 1714             | -4.15  | 26.95                | 15.4       | Pass      |
| T45         | 60 - 30        | Horizontal           | 2L2x2x3/16x1/4 | 1768             | -5.52  | 26.95                | 20.5       | Pass      |
| T47         | 22.5 - 15      | Horizontal           | 2L2x2x3/16x1/4 | 1826             | 7.78   | 39.34                | 19.8       | Pass      |
| T49         | 7.5 - 0        | Horizontal           | 2L2x2x3/16x1/4 | 1850             | 8.30   | 39.34                | 21.1       | Pass      |
| T5          | 1207.58 - 1200 | Secondary Horizontal | L2x2x1/4       | 82               | -0.17  | 6.13                 | 2.8        | Pass      |
| T6          | 1200 - 1170    | Secondary Horizontal | L2x2x1/4       | 136              | -0.26  | 6.13                 | 4.2        | Pass      |
| T7          | 1170 - 1140    | Secondary Horizontal | L2x2x1/4       | 156              | -0.14  | 6.13                 | 2.3        | Pass      |
| T8          | 1140 - 1117.58 | Secondary Horizontal | L2x2x1/4       | 219              | -0.24  | 6.13                 | 3.9        | Pass      |
| T42         | 150 - 120      | Secondary Horizontal | L2x2x1/4       | 1631             | -0.30  | 6.31                 | 4.8        | Pass      |
| T43         | 120 - 90       | Secondary Horizontal | L2x2x1/4       | 1675             | -0.27  | 6.31                 | 4.2        | Pass      |
| T44         | 90 - 60        | Secondary Horizontal | L2x2x1/4       | 1729             | -0.45  | 6.31                 | 7.2        | Pass      |
| T45         | 60 - 30        | Secondary Horizontal | L2x2x1/4       | 1771             | -0.67  | 6.31                 | 10.5       | Pass      |
| T2          | 1246 - 1238    | Top Girt             | 2L2x2x3/16x1/4 | 13               | 2.48   | 39.34                | 6.3        | Pass      |
| T3          | 1238 - 1230    | Top Girt             | 2L2x2x3/16x1/4 | 25               | -2.77  | 26.32                | 10.5       | Pass      |
| T4          | 1230 - 1207.58 | Top Girt             | 2L2x2x3/16x1/4 | 40               | -3.43  | 26.42                | 13.0       | Pass      |
| T5          | 1207.58 - 1200 | Top Girt             | 2L2x2x3/16x1/4 | 70               | -7.11  | 26.42                | 26.9       | Pass      |
| T6          | 1200 - 1170    | Top Girt             | 2L2x2x3/16x1/4 | 88               | -3.12  | 26.42                | 11.8       | Pass      |
| T7          | 1170 - 1140    | Top Girt             | 2L2x2x3/16x1/4 | 142              | -1.47  | 26.42                | 5.6        | Pass      |
| T8          | 1140 - 1117.58 | Top Girt             | 2L2x2x3/16x1/4 | 195              | -1.66  | 26.42                | 6.3        | Pass      |
| T9          | 1117.58 - 1110 | Top Girt             | 2L2x2x3/16x1/4 | 234              | -6.48  | 26.42                | 24.5       | Pass      |
| T10         | 1110 - 1080    | Top Girt             | 2L2x2x3/16x1/4 | 249              | -4.14  | 26.32                | 15.7       | Pass      |
| T11         | 1080 - 1050    | Top Girt             | 2L2x2x3/16x1/4 | 291              | -6.23  | 26.53                | 23.5       | Pass      |
| T12         | 1050 - 1020    | Top Girt             | 2L2x2x3/16x1/4 | 333              | -6.89  | 26.63                | 25.9       | Pass      |
| T13         | 1020 - 990     | Top Girt             | 2L2x2x3/16x1/4 | 376              | -4.44  | 26.53                | 16.7       | Pass      |
| T14         | 990 - 960      | Top Girt             | 2L2x2x3/16x1/4 | 418              | -2.74  | 26.53                | 10.3       | Pass      |
| T15         | 960 - 930      | Top Girt             | 2L2x2x3/16x1/4 | 460              | -1.02  | 26.53                | 3.8        | Pass      |
| T16         | 930 - 900      | Top Girt             | 2L2x2x3/16x1/4 | 501              | -2.12  | 26.53                | 8.0        | Pass      |
| T17         | 900 - 870      | Top Girt             | 2L2x2x3/16x1/4 | 543              | -4.31  | 26.63                | 16.2       | Pass      |
| T18         | 870 - 840      | Top Girt             | 2L2x2x3/16x1/4 | 586              | -6.25  | 26.74                | 23.4       | Pass      |
| T19         | 840 - 810      | Top Girt             | 2L2x2x3/16x1/4 | 628              | -5.12  | 26.63                | 19.2       | Pass      |
| T20         | 810 - 780      | Top Girt             | 2L2x2x3/16x1/4 | 670              | -3.58  | 26.63                | 13.4       | Pass      |
| T21         | 780 - 750      | Top Girt             | 2L2x2x3/16x1/4 | 710              | -2.00  | 26.63                | 7.5        | Pass      |
| T22         | 750 - 720      | Top Girt             | 2L2x2x3/16x1/4 | 754              | -1.73  | 26.63                | 6.5        | Pass      |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 76 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No. | Elevation ft   | Component Type | Size           | Critical Element | P K   | $\sigma P_{allow}$ K | % Capacity | Pass Fail |
|-------------|----------------|----------------|----------------|------------------|-------|----------------------|------------|-----------|
| T23         | 720 - 690      | Top Girt       | 2L2x2x3/16x1/4 | 796              | -3.58 | 26.63                | 13.4       | Pass      |
| T24         | 690 - 660      | Top Girt       | 2L2x2x3/16x1/4 | 838              | -5.22 | 26.84                | 19.4       | Pass      |
| T25         | 660 - 630      | Top Girt       | 2L2x2x3/16x1/4 | 879              | -4.42 | 26.74                | 16.5       | Pass      |
| T26         | 630 - 600      | Top Girt       | 2L2x2x3/16x1/4 | 921              | -2.99 | 26.74                | 11.2       | Pass      |
| T27         | 600 - 570      | Top Girt       | 2L2x2x3/16x1/4 | 963              | -1.46 | 26.74                | 5.5        | Pass      |
| T28         | 570 - 540      | Top Girt       | 2L2x2x3/16x1/4 | 1006             | -1.57 | 26.74                | 5.9        | Pass      |
| T29         | 540 - 510      | Top Girt       | 2L2x2x3/16x1/4 | 1048             | -3.19 | 26.84                | 11.9       | Pass      |
| T30         | 510 - 480      | Top Girt       | 2L2x2x3/16x1/4 | 1090             | -4.75 | 26.84                | 17.7       | Pass      |
| T31         | 480 - 450      | Top Girt       | 2L2x2x3/16x1/4 | 1131             | -3.94 | 26.84                | 14.7       | Pass      |
| T32         | 450 - 420      | Top Girt       | 2L2x2x3/16x1/4 | 1173             | -2.65 | 26.84                | 9.9        | Pass      |
| T33         | 420 - 390      | Top Girt       | 2L2x2x3/16x1/4 | 1216             | -1.11 | 26.84                | 4.1        | Pass      |
| T34         | 390 - 360      | Top Girt       | 2L2x2x3/16x1/4 | 1258             | -2.75 | 26.84                | 10.2       | Pass      |
| T35         | 360 - 330      | Top Girt       | 2L2x2x3/16x1/4 | 1300             | -4.15 | 26.95                | 15.4       | Pass      |
| T36         | 330 - 300      | Top Girt       | 2L2x2x3/16x1/4 | 1341             | -6.79 | 26.95                | 25.2       | Pass      |
| T37         | 300 - 270      | Top Girt       | 2L2x2x3/16x1/4 | 1384             | -3.43 | 26.95                | 12.7       | Pass      |
| T38         | 270 - 240      | Top Girt       | 2L2x2x3/16x1/4 | 1426             | -2.19 | 26.95                | 8.1        | Pass      |
| T39         | 240 - 210      | Top Girt       | 2L2x2x3/16x1/4 | 1467             | -0.97 | 26.95                | 3.6        | Pass      |
| T40         | 210 - 180      | Top Girt       | 2L2x2x3/16x1/4 | 1509             | -1.99 | 26.95                | 7.4        | Pass      |
| T41         | 180 - 150      | Top Girt       | 2L2x2x3/16x1/4 | 1551             | -3.12 | 27.05                | 11.5       | Pass      |
| T42         | 150 - 120      | Top Girt       | 2L2x2x3/16x1/4 | 1592             | -1.52 | 26.95                | 5.7        | Pass      |
| T43         | 120 - 90       | Top Girt       | 2L2x2x3/16x1/4 | 1648             | -1.32 | 26.95                | 4.9        | Pass      |
| T44         | 90 - 60        | Top Girt       | 2L2x2x3/16x1/4 | 1702             | -1.45 | 26.95                | 5.4        | Pass      |
| T45         | 60 - 30        | Top Girt       | 2L2x2x3/16x1/4 | 1756             | -2.40 | 26.95                | 8.9        | Pass      |
| T46         | 30 - 22.5      | Top Girt       | 2L2x2x3/16x1/4 | 1810             | 3.67  | 39.34                | 9.3        | Pass      |
| T48         | 15 - 7.5       | Top Girt       | 2C8x11.5x1/4   | 1834             | 7.13  | 218.29               | 3.3        | Pass      |
| T3          | 1238 - 1230    | Bottom Girt    | 2C8x11.5x3/8   | 28               | -6.38 | 151.83               | 4.2        | Pass      |
| T5          | 1207.58 - 1200 | Bottom Girt    | 2L2x2x3/16x1/4 | 73               | -3.48 | 26.42                | 13.2       | Pass      |
| T6          | 1200 - 1170    | Bottom Girt    | 2L2x2x3/16x1/4 | 91               | -1.70 | 26.42                | 6.4        | Pass      |
| T7          | 1170 - 1140    | Bottom Girt    | 2L2x2x3/16x1/4 | 144              | -1.58 | 26.42                | 6.0        | Pass      |
| T9          | 1117.58 - 1110 | Bottom Girt    | 2L2x2x3/16x1/4 | 237              | -3.83 | 26.42                | 14.5       | Pass      |
| T10         | 1110 - 1080    | Bottom Girt    | 2L2x2x3/16x1/4 | 252              | -5.78 | 26.32                | 22.0       | Pass      |
| T11         | 1080 - 1050    | Bottom Girt    | 2L2x2x3/16x1/4 | 294              | -6.98 | 26.53                | 26.3       | Pass      |
| T12         | 1050 - 1020    | Bottom Girt    | 2L2x2x3/16x1/4 | 337              | -4.73 | 26.63                | 17.8       | Pass      |
| T13         | 1020 - 990     | Bottom Girt    | 2L2x2x3/16x1/4 | 379              | -2.97 | 26.53                | 11.2       | Pass      |
| T14         | 990 - 960      | Bottom Girt    | 2L2x2x3/16x1/4 | 421              | -1.26 | 26.53                | 4.7        | Pass      |
| T15         | 960 - 930      | Bottom Girt    | 2L2x2x3/16x1/4 | 462              | -1.71 | 26.53                | 6.4        | Pass      |
| T16         | 930 - 900      | Bottom Girt    | 2L2x2x3/16x1/4 | 504              | -3.60 | 26.53                | 13.6       | Pass      |
| T17         | 900 - 870      | Bottom Girt    | 2L2x2x3/16x1/4 | 547              | -5.45 | 26.63                | 20.5       | Pass      |
| T18         | 870 - 840      | Bottom Girt    | 2L2x2x3/16x1/4 | 589              | -5.50 | 26.74                | 20.6       | Pass      |
| T19         | 840 - 810      | Bottom Girt    | 2L2x2x3/16x1/4 | 631              | -4.01 | 26.63                | 15.1       | Pass      |
| T20         | 810 - 780      | Bottom Girt    | 2L2x2x3/16x1/4 | 671              | -2.41 | 26.63                | 9.0        | Pass      |
| T21         | 780 - 750      | Bottom Girt    | 2L2x2x3/16x1/4 | 715              | -1.41 | 26.63                | 5.3        | Pass      |
| T22         | 750 - 720      | Bottom Girt    | 2L2x2x3/16x1/4 | 757              | -3.26 | 26.63                | 12.3       | Pass      |
| T23         | 720 - 690      | Bottom Girt    | 2L2x2x3/16x1/4 | 799              | -4.94 | 26.63                | 18.6       | Pass      |
| T24         | 690 - 660      | Bottom Girt    | 2L2x2x3/16x1/4 | 841              | -4.22 | 26.84                | 15.7       | Pass      |
| T25         | 660 - 630      | Bottom Girt    | 2L2x2x3/16x1/4 | 882              | -3.22 | 26.74                | 12.1       | Pass      |
| T26         | 630 - 600      | Bottom Girt    | 2L2x2x3/16x1/4 | 924              | -1.67 | 26.74                | 6.2        | Pass      |
| T27         | 600 - 570      | Bottom Girt    | 2L2x2x3/16x1/4 | 967              | -1.35 | 26.74                | 5.1        | Pass      |
| T28         | 570 - 540      | Bottom Girt    | 2L2x2x3/16x1/4 | 1009             | -2.97 | 26.74                | 11.1       | Pass      |
| T29         | 540 - 510      | Bottom Girt    | 2L2x2x3/16x1/4 | 1051             | -4.62 | 26.84                | 17.2       | Pass      |
| T30         | 510 - 480      | Bottom Girt    | 2L2x2x3/16x1/4 | 1092             | -3.64 | 26.84                | 13.6       | Pass      |
| T31         | 480 - 450      | Bottom Girt    | 2L2x2x3/16x1/4 | 1134             | -2.72 | 26.84                | 10.1       | Pass      |
| T32         | 450 - 420      | Bottom Girt    | 2L2x2x3/16x1/4 | 1175             | -1.05 | 26.84                | 3.9        | Pass      |
| T33         | 420 - 390      | Bottom Girt    | 2L2x2x3/16x1/4 | 1219             | -2.45 | 26.84                | 9.1        | Pass      |
| T34         | 390 - 360      | Bottom Girt    | 2L2x2x3/16x1/4 | 1261             | -3.70 | 26.84                | 13.8       | Pass      |
| T35         | 360 - 330      | Bottom Girt    | 2L2x2x3/16x1/4 | 1302             | -6.43 | 26.95                | 23.9       | Pass      |
| T36         | 330 - 300      | Bottom Girt    | 2L2x2x3/16x1/4 | 1345             | -3.46 | 26.95                | 12.8       | Pass      |
| T37         | 300 - 270      | Bottom Girt    | 2L2x2x3/16x1/4 | 1387             | -2.13 | 26.95                | 7.9        | Pass      |
| T38         | 270 - 240      | Bottom Girt    | 2L2x2x3/16x1/4 | 1428             | -0.94 | 26.95                | 3.5        | Pass      |
| T39         | 240 - 210      | Bottom Girt    | 2L2x2x3/16x1/4 | 1470             | -1.83 | 26.95                | 6.8        | Pass      |
| T40         | 210 - 180      | Bottom Girt    | 2L2x2x3/16x1/4 | 1512             | -3.01 | 26.95                | 11.2       | Pass      |

|                                                                                                                                                      |                |                            |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------|--------------------|-------------------|
| <b>tnxTower</b><br><br><b>Tower Engineering Professionals</b><br>326 Tryon Road<br>Raleigh, NC 27603<br>Phone: (919) 661-6351<br>FAX: (919) 661-6350 | <b>Job</b>     | WMAV Oxford (ASR# 1041044) | <b>Page</b>        | 77 of 77          |
|                                                                                                                                                      | <b>Project</b> | TEP# 19780.814207          | <b>Date</b>        | 12:43:11 03/27/23 |
|                                                                                                                                                      | <b>Client</b>  | MPB                        | <b>Designed by</b> | elatta            |

| Section No.      | Elevation ft  | Component Type | Size           | Critical Element | P K   | $\phi P_{allow}$ K | % Capacity             | Pass Fail         |
|------------------|---------------|----------------|----------------|------------------|-------|--------------------|------------------------|-------------------|
| T41              | 180 - 150     | Bottom Girt    | 2L2x2x3/16x1/4 | 1553             | -1.58 | 27.05              | 5.8                    | Pass              |
| T42              | 150 - 120     | Bottom Girt    | 2L2x2x3/16x1/4 | 1597             | -1.31 | 26.95              | 4.9                    | Pass              |
| T43              | 120 - 90      | Bottom Girt    | 2L2x2x3/16x1/4 | 1651             | -1.40 | 26.95              | 5.2                    | Pass              |
| T44              | 90 - 60       | Bottom Girt    | 2L2x2x3/16x1/4 | 1705             | -2.47 | 26.95              | 9.2                    | Pass              |
| T45              | 60 - 30       | Bottom Girt    | 2L2x2x3/16x1/4 | 1759             | 2.67  | 39.34              | 6.8                    | Pass              |
| T1               | 1247.5 - 1246 | Guy A@1246.75  | 1 1/16         | 1855             | 57.47 | 86.94              | 66.1                   | Pass              |
| T12              | 1050 - 1020   | Guy A@1042.42  | 1 3/16         | 1858             | 75.82 | 108.36             | 70.0                   | Pass              |
| T18              | 870 - 840     | Guy A@855      | 1 1/16         | 1861             | 60.35 | 86.94              | 69.4                   | Pass              |
| T24              | 690 - 660     | Guy A@667.583  | 1              | 1864             | 49.09 | 76.86              | 63.9                   | Pass              |
| T30              | 510 - 480     | Guy A@487.583  | 1 1/16         | 1867             | 59.35 | 86.94              | 68.3                   | Pass              |
| T36              | 330 - 300     | Guy A@315      | 1              | 1870             | 47.20 | 76.86              | 61.4                   | Pass              |
| T41              | 180 - 150     | Guy A@157.583  | 13/16          | 1873             | 20.33 | 50.40              | 40.3                   | Pass              |
| T1               | 1247.5 - 1246 | Guy B@1246.75  | 1 1/16         | 1854             | 57.43 | 86.94              | 66.1                   | Pass              |
| T12              | 1050 - 1020   | Guy B@1042.42  | 1 3/16         | 1857             | 75.47 | 108.36             | 69.7                   | Pass              |
| T18              | 870 - 840     | Guy B@855      | 1 1/16         | 1860             | 60.09 | 86.94              | 69.1                   | Pass              |
| T24              | 690 - 660     | Guy B@667.583  | 1              | 1863             | 49.26 | 76.86              | 64.1                   | Pass              |
| T30              | 510 - 480     | Guy B@487.583  | 1 1/16         | 1866             | 60.10 | 86.94              | 69.1                   | Pass              |
| T36              | 330 - 300     | Guy B@315      | 1              | 1869             | 48.33 | 76.86              | 62.9                   | Pass              |
| T41              | 180 - 150     | Guy B@157.583  | 13/16          | 1872             | 20.57 | 50.40              | 40.8                   | Pass              |
| T1               | 1247.5 - 1246 | Guy C@1246.75  | 1 1/16         | 1853             | 57.08 | 86.94              | 65.7                   | Pass              |
| T12              | 1050 - 1020   | Guy C@1042.42  | 1 3/16         | 1856             | 75.35 | 108.36             | 69.5                   | Pass              |
| T18              | 870 - 840     | Guy C@855      | 1 1/16         | 1859             | 60.20 | 86.94              | 69.2                   | Pass              |
| T24              | 690 - 660     | Guy C@667.583  | 1              | 1862             | 48.78 | 76.86              | 63.5                   | Pass              |
| T30              | 510 - 480     | Guy C@487.583  | 1 1/16         | 1865             | 59.43 | 86.94              | 68.4                   | Pass              |
| T36              | 330 - 300     | Guy C@315      | 1              | 1868             | 45.84 | 76.86              | 59.6                   | Pass              |
| T41              | 180 - 150     | Guy C@157.583  | 13/16          | 1871             | 20.11 | 50.40              | 39.9                   | Pass              |
| T1               | 1247.5 - 1246 | Top Guy        | W18x40         | 5                | 26.92 | 401.44             | 6.7                    | Pass              |
| Pull-Off@1246.75 |               |                |                |                  |       |                    |                        |                   |
| T12              | 1050 - 1020   | Top Guy        | 2C9x13.4x1/4   | 362              | 23.27 | 254.03             | 9.2                    | Pass              |
| Pull-Off@1042.42 |               |                |                |                  |       |                    |                        |                   |
| T18              | 870 - 840     | Top Guy        | 2C9x13.4x1/4   | 605              | 21.51 | 254.03             | 8.5                    | Pass              |
| Pull-Off@855     |               |                |                |                  |       |                    |                        |                   |
| T24              | 690 - 660     | Top Guy        | 2C9x13.4x1/4   | 850              | 21.01 | 254.03             | 8.3                    | Pass              |
| Pull-Off@667.583 |               |                |                |                  |       |                    |                        |                   |
| T30              | 510 - 480     | Top Guy        | 2C9x13.4x1/4   | 1102             | 16.75 | 254.03             | 6.6                    | Pass              |
| Pull-Off@487.583 |               |                |                |                  |       |                    |                        |                   |
| T36              | 330 - 300     | Top Guy        | 2C9x13.4x1/4   | 1363             | 17.10 | 254.03             | 6.7                    | Pass              |
| Pull-Off@315     |               |                |                |                  |       |                    |                        |                   |
| T41              | 180 - 150     | Top Guy        | 2C9x13.4x1/4   | 1562             | 9.45  | 254.03             | 3.7                    | Pass              |
| Pull-Off@157.583 |               |                |                |                  |       |                    |                        |                   |
|                  |               |                |                |                  |       |                    | Summary                |                   |
|                  |               |                |                |                  |       |                    | Leg (T10)              | 92.6 Pass         |
|                  |               |                |                |                  |       |                    | Diagonal (T17)         | 104.8 Fail        |
|                  |               |                |                |                  |       |                    | Horizontal (T11)       | 49.2 Pass         |
|                  |               |                |                |                  |       |                    | Secondary              | 10.5 Pass         |
|                  |               |                |                |                  |       |                    | Horizontal (T45)       |                   |
|                  |               |                |                |                  |       |                    | Top Girt (T5)          | 26.9 Pass         |
|                  |               |                |                |                  |       |                    | Bottom Girt (T11)      | 26.3 Pass         |
|                  |               |                |                |                  |       |                    | Guy A (T12)            | 70.0 Pass         |
|                  |               |                |                |                  |       |                    | Guy B (T12)            | 69.7 Pass         |
|                  |               |                |                |                  |       |                    | Guy C (T12)            | 69.5 Pass         |
|                  |               |                |                |                  |       |                    | Top Guy Pull-Off (T12) | 9.2 Pass          |
|                  |               |                |                |                  |       |                    | Bolt Checks            | 77.4 Pass         |
|                  |               |                |                |                  |       |                    | <b>RATING =</b>        | <b>104.8 Fail</b> |

Notes:

- 1) This analysis considers all tower and foundation components with a rating higher than 95% capacity to be insufficient, per direction from the tower owner.

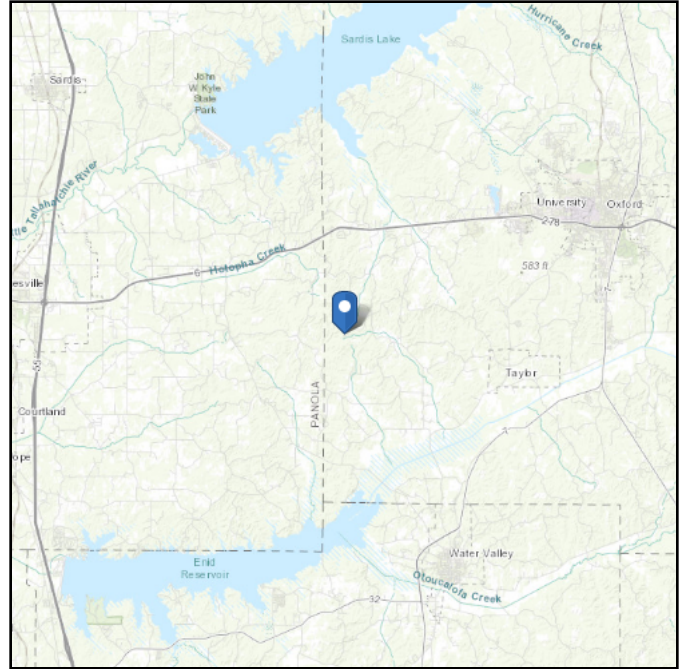
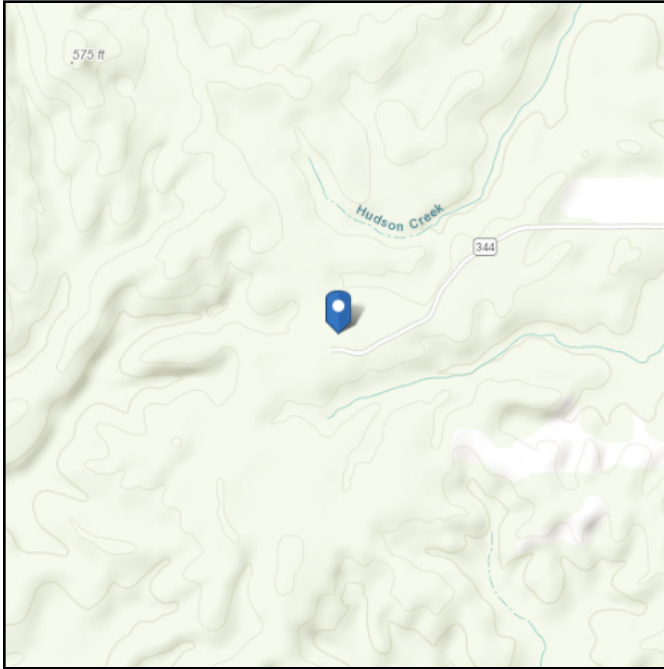
**APPENDIX B**  
**ADDITIONAL CALCULATIONS**

# ASCE 7 Hazards Report

**Address:**  
No Address at This Location

**Standard:** ASCE/SEI 7-16  
**Risk Category:** II  
**Soil Class:** D - Default (see  
Section 11.4.3)

**Latitude:** 34.29098  
**Longitude:** -89.70607  
**Elevation:** 460.2 ft (NAVD 88)



## Wind

### Results:

|              |          |
|--------------|----------|
| Wind Speed   | 106 Vmph |
| 10-year MRI  | 72 Vmph  |
| 25-year MRI  | 78 Vmph  |
| 50-year MRI  | 85 Vmph  |
| 100-year MRI | 91 Vmph  |

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Tue Feb 21 2023

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

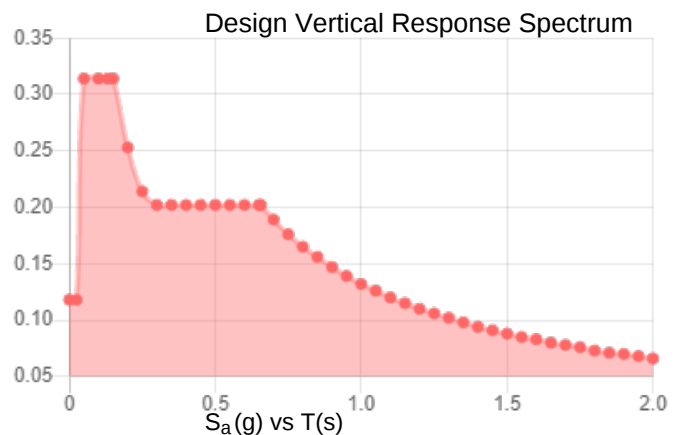
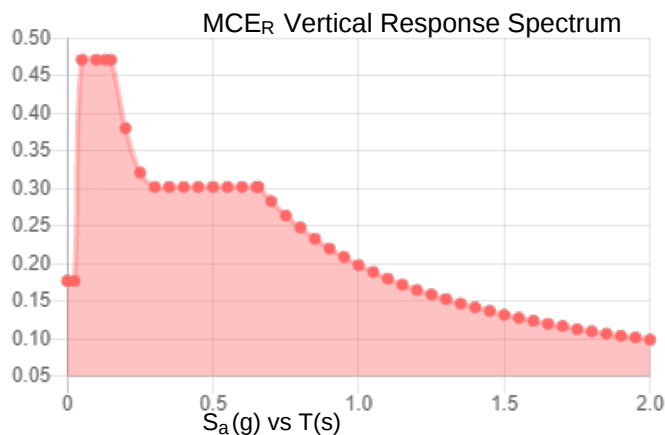
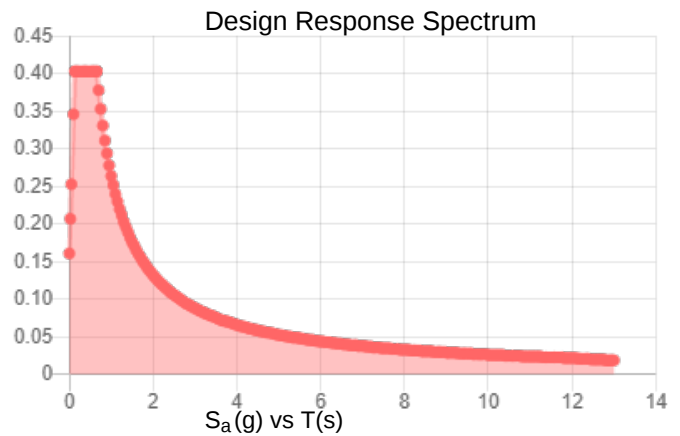
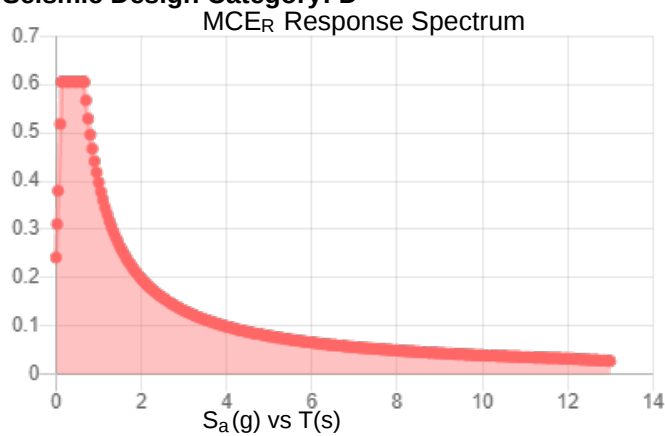
Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

**Site Soil Class:**

**Results:**

|            |       |                    |       |
|------------|-------|--------------------|-------|
| $S_S$ :    | 0.411 | $S_{D1}$ :         | 0.264 |
| $S_1$ :    | 0.177 | $T_L$ :            | 12    |
| $F_a$ :    | 1.471 | PGA :              | 0.216 |
| $F_v$ :    | 2.247 | PGA <sub>M</sub> : | 0.299 |
| $S_{MS}$ : | 0.605 | $F_{PGA}$ :        | 1.384 |
| $S_{M1}$ : | 0.397 | $I_e$ :            | 1     |
| $S_{DS}$ : | 0.403 | $C_v$ :            | 0.974 |

**Seismic Design Category: D**



**Data Accessed:**

**Tue Feb 21 2023**

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

**Results:**

Ice Thickness: 1.50 in.  
Concurrent Temperature: 15 F  
Gust Speed 30 mph

**Data Source:** Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

**Date Accessed:** Tue Feb 21 2023

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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ASR # 1041044\_WMAV Oxford

TEP #: 19780.814207

Analysis: ECL 3/27/2023

Check: LFC 3/27/2023

## Anchor Shaft Analysis

Code Revisions: ANSI/TIA-222-H

Number of Anchor Rings: 2

| Radius<br>(ft) | Reaction<br>(k) | Shaft Area<br>(in <sup>2</sup> ) | F <sub>y</sub><br>(ksi) | φTn<br>(k) | Capacity<br>(%) | Pass/Fail |
|----------------|-----------------|----------------------------------|-------------------------|------------|-----------------|-----------|
| 326.0          | 125             | 5.94                             | 50.00                   | 237.58     | 50.1%           | Pass      |
| 925.0          | 229             | 7.07                             | 50.00                   | 282.74     | 77.1%           | Pass      |
|                |                 |                                  |                         |            |                 |           |
|                |                 |                                  |                         |            |                 |           |
|                |                 |                                  |                         |            |                 |           |
|                |                 |                                  |                         |            |                 |           |