

**Non-Interference Compliance Study**  
**Stu-Comm, Inc.**  
**W273DZ (Facility ID: 201653)**

This exhibit demonstrates compliance with all contour overlap and interference protection requirements and demonstrates full compliance with 47 C.F.R. §74.1204.

Applicant certifies that should any actual interference occur it will promptly cease operation in accordance with 47 C.F.R. §74.1203.

Below is a listing of area stations whose contours are less than 25 km clear of the proposed translator.

| Callsign           | State     | City           | Channel    | ERP (kW)     | Class    | Status     | Distance (km) | Clr (km)      |
|--------------------|-----------|----------------|------------|--------------|----------|------------|---------------|---------------|
| <b>WOWI</b>        | <b>VA</b> | <b>Norfolk</b> | <b>275</b> | <b>50</b>    | <b>B</b> | <b>LIC</b> | <b>30.43</b>  | <b>-36.15</b> |
| <b>W273DZ(CP)*</b> | <b>VA</b> | <b>Norfolk</b> | <b>273</b> | <b>0.25</b>  | <b>D</b> | <b>CP</b>  | <b>42.58</b>  | <b>-15.67</b> |
| <b>W270DA</b>      | <b>VA</b> | <b>Hampton</b> | <b>270</b> | <b>0.175</b> | <b>D</b> | <b>LIC</b> | <b>0.13</b>   | <b>-14.17</b> |
| <b>W273DZ</b>      | <b>VA</b> | <b>Norfolk</b> | <b>273</b> | <b>0.145</b> | <b>D</b> | <b>LIC</b> | <b>48.99</b>  | <b>-5.36</b>  |
| WBOC-FM            | MD        | Princess Anne  | 273        | 50           | B        | LIC        | 136.12        | 3.47          |
| W272EJ             | VA        | Gloucester     | 272        | 0.25         | D        | LIC        | 44.89         | 9.0           |
| WERX-FM            | NC        | Columbia       | 273        | 64           | C1       | LIC        | 123.36        | 11.16         |
| WXTG-FM            | VA        | Virginia Beach | 271        | 6            | A        | LIC        | 36.88         | 19.3          |

\*CP Being modified per this instant application

The only stations that are of concern are WOWI and W270DA. WOWI is a second adjacent Class B that requires that a minimum of 40 dB separation exist between its service contour and W273DZ's interference contour. W270DA is a third adjacent Class D that requires that a minimum of 40 dB separation exist between its service contour and W273DZ's interference contour. The following pages demonstrate that W273DZ is in compliance with these requirements.

## Compliance with 47 C.F.R. §74.1204(d)

All authorized second/third adjacent stations with which the proposed translator's contour overlaps their service contour are listed below. The table lists the minimum signal level of the primary station's service contour that reaches the proposed tower site for W273DZ.

| Facility ID | Call Sign | Contour at Tower F(50,50) |
|-------------|-----------|---------------------------|
| 69558       | WOWI      | 71.07 dBu                 |
| 200498      | W270DA    | 117.12 dBu                |

Minimum protected contour signal level at W273DZ 's proposed tower site: **71.07 dBu**

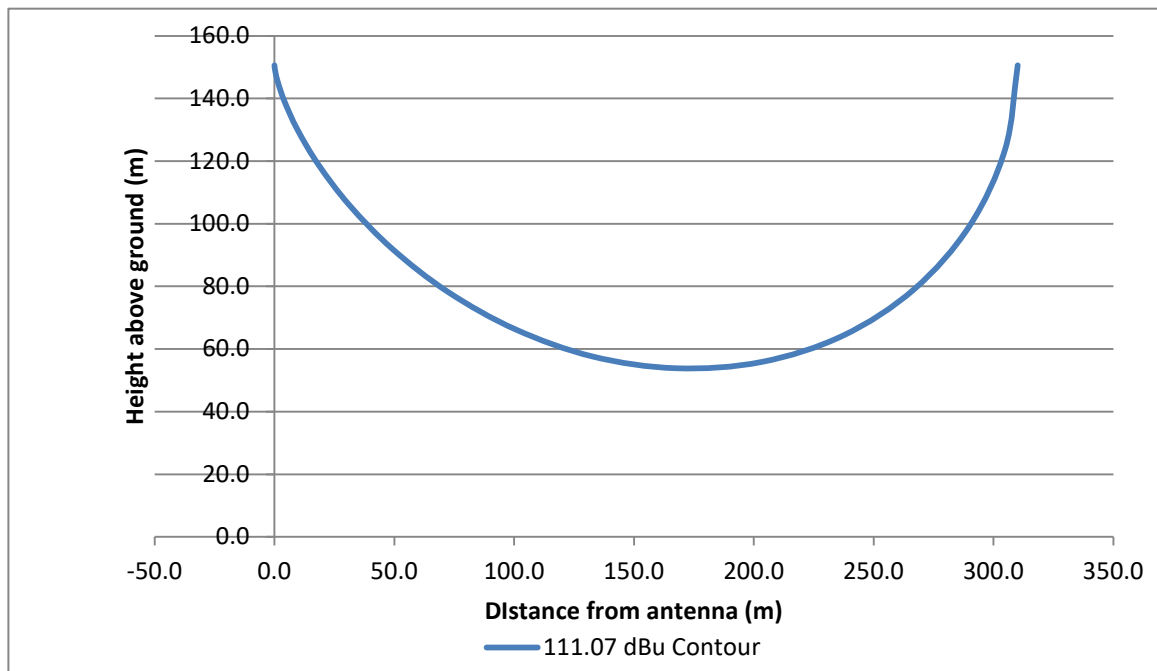
This study will use the minimum contour of 71.07 dBu to represent a worst-case potential interference level. At 40 dB above 71.07 dBu, the translator interference contour is 111.07 dBu. Calculation of distance at this power and signal level requires the use of the free-space calculation due to the distance being less than 1.5 km.

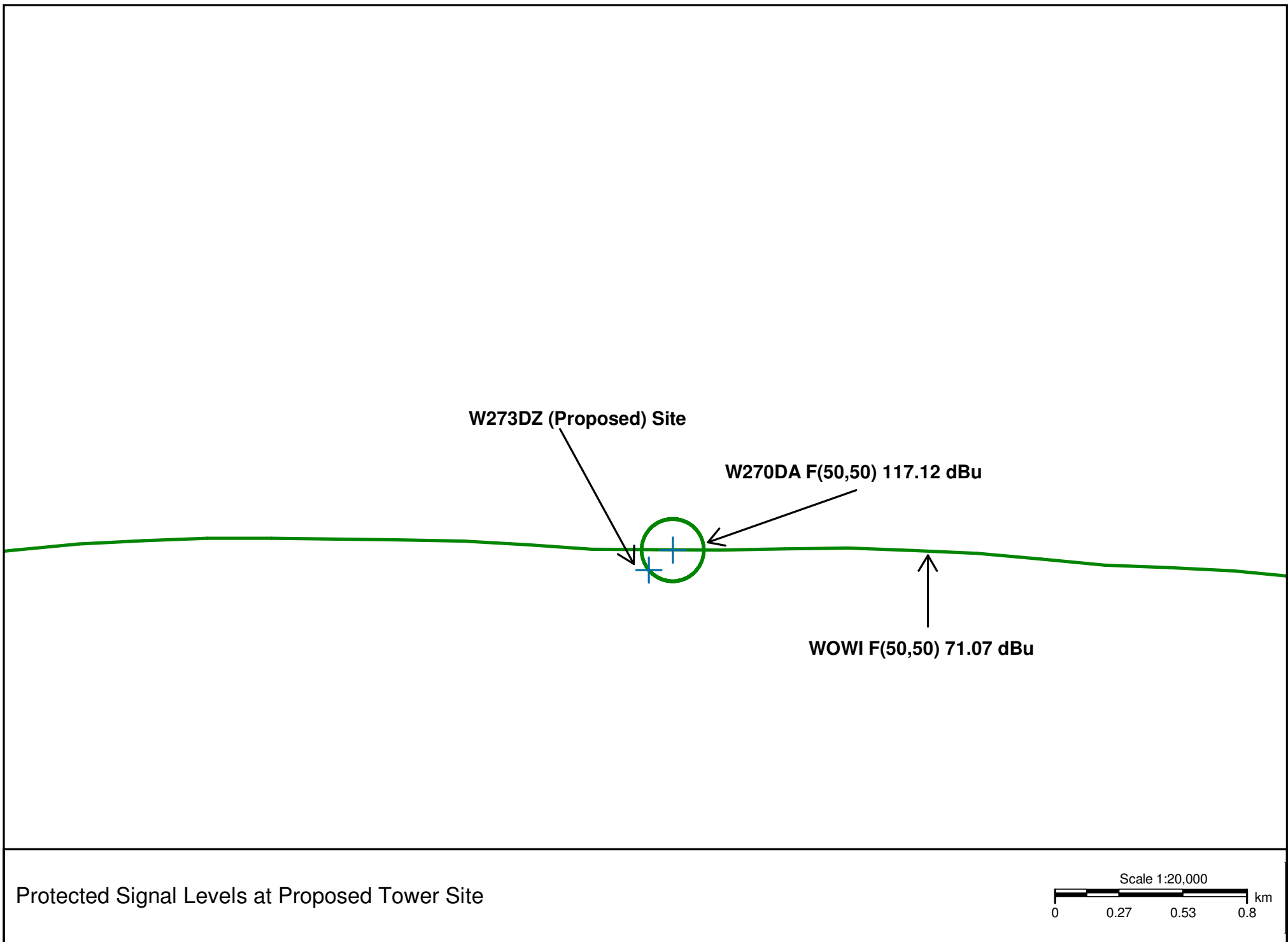
The following table uses the free space formula to calculate the worst-case height above ground level. At 111.07 dBu and 250 watts, the worst-case height is 53.9 meters. Therefore, no interference is predicted to reach the ground.

## §74.1204(d) Contour Protection Study W273DZ vs. WOWI

Antenna: ERI 100A: Two Bay Half-Wave ERP (watts): 250  
Protected Contour at tower - F(50,50): 71.07 dBu RC-AGL (m): 150.6  
Interference Ratio: 40 dB Relative field at Azimuth: 1.000  
Interference Contour - F(50,10): 111.07 dBu ERP (watts) at Azimuth: 250

| DEPRESSION<br>ANGLE              | RELATIVE<br>FIELD | ERP<br>(WATTS) | dBk     | DISTANCE (m) |            |             |
|----------------------------------|-------------------|----------------|---------|--------------|------------|-------------|
|                                  |                   |                |         | Contour      | Horizontal | AGL         |
| 0                                | 1.000             | 250.0          | -6.02   | 310.1        | 310.1      | 150.6       |
| 5                                | 0.987             | 243.5          | -6.13   | 306.0        | 304.9      | 123.9       |
| 10                               | 0.950             | 225.6          | -6.47   | 294.6        | 290.1      | 99.4        |
| 15                               | 0.891             | 198.5          | -7.02   | 276.3        | 266.9      | 79.1        |
| 20                               | 0.814             | 165.6          | -7.81   | 252.4        | 237.2      | 64.3        |
| 25                               | 0.723             | 130.7          | -8.84   | 224.2        | 203.2      | 55.9        |
| 30                               | 0.624             | 97.3           | -10.12  | 193.5        | 167.6      | 53.9        |
| 35                               | 0.523             | 68.4           | -11.65  | 162.2        | 132.8      | 57.6        |
| 40                               | 0.423             | 44.7           | -13.49  | 131.2        | 100.5      | 66.3        |
| 45                               | 0.330             | 27.2           | -15.65  | 102.3        | 72.4       | 78.2        |
| 50                               | 0.247             | 15.3           | -18.17  | 76.6         | 49.2       | 91.9        |
| 55                               | 0.176             | 7.7            | -21.11  | 54.6         | 31.3       | 105.9       |
| 60                               | 0.118             | 3.5            | -24.58  | 36.6         | 18.3       | 118.9       |
| 65                               | 0.073             | 1.3            | -28.75  | 22.6         | 9.6        | 130.1       |
| 70                               | 0.040             | 0.4            | -33.98  | 12.4         | 4.2        | 138.9       |
| 75                               | 0.019             | 0.1            | -40.45  | 5.9          | 1.5        | 144.9       |
| 80                               | 0.007             | 0.0            | -49.12  | 2.2          | 0.4        | 148.5       |
| 85                               | 0.001             | 0.0            | -66.02  | 0.3          | 0.0        | 150.3       |
| 90                               | 0.000             | 0.0            | -146.02 | 0.0          | 0.0        | 150.6       |
| <b>WORST CASE HEIGHT AGL (m)</b> |                   |                |         |              |            | <b>53.9</b> |





Protected Signal Levels at Proposed Tower Site