

# Non-Interference Compliance Study

## Glory Communications Inc.

### W255DR (Facility ID: 142008)

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>W255DR*</b>	<b>SC</b>	<b>Saint Matthews</b>	<b>255</b>	<b>0.25</b>	<b>D</b>	<b>LIC</b>	<b>29.72</b>	<b>-34-81</b>
<b>WOMG</b>	<b>SC</b>	<b>Lexington</b>	<b>253</b>	<b>6</b>	<b>A</b>	<b>LIC</b>	<b>18.25</b>	<b>-16.53</b>
WXNW-LP	SC	Seven Oaks	256	0.049	L1	LIC	25.25	3.37
WHBJ	SC	Barnwell	256	25	C3	LIC	65.05	10.34
W254DQ	SC	Camden	254	0.25	D	LIC	44.51	16.54

\*Translator being modified per this application

The only station of concern is WOMG. WOMG is a second adjacent Class A that requires that a minimum of 40 dB separation exists between its service contour and W255DR's interference contour. The following pages demonstrate that this proposal is in compliance with these requirements.

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

All Authorized second 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 W255DR.

Facility ID	Call Sign	Contour at Tower F(50,50)
37200	WOMG	71.4 dBu

Minimum protected contour signal level at W255DR's proposed tower site: **71.4 dBu**

This study will use the minimum contour of 71.4 dBu to represent a worst-case potential interference level. At 40 dB above 71.4 dBu, the translator interference contour is 111.4 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.

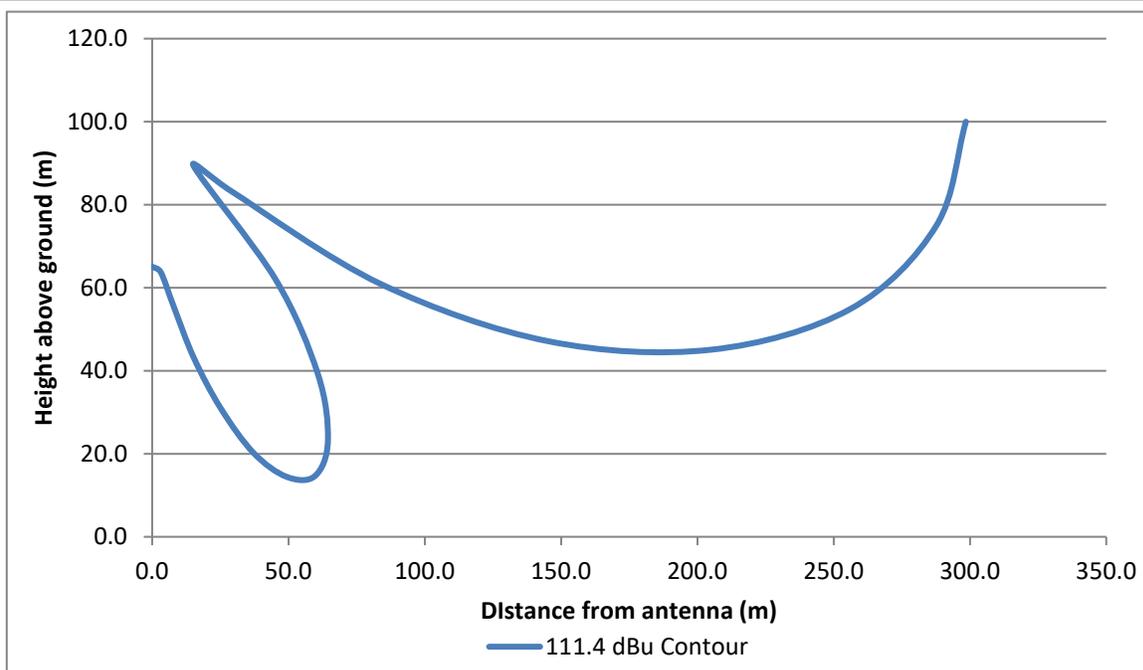
The following table uses the free space formula to calculate the worst-case height above ground level. At 111.4 dBu and 250 watts, the worst-case height is 14.4 meters.

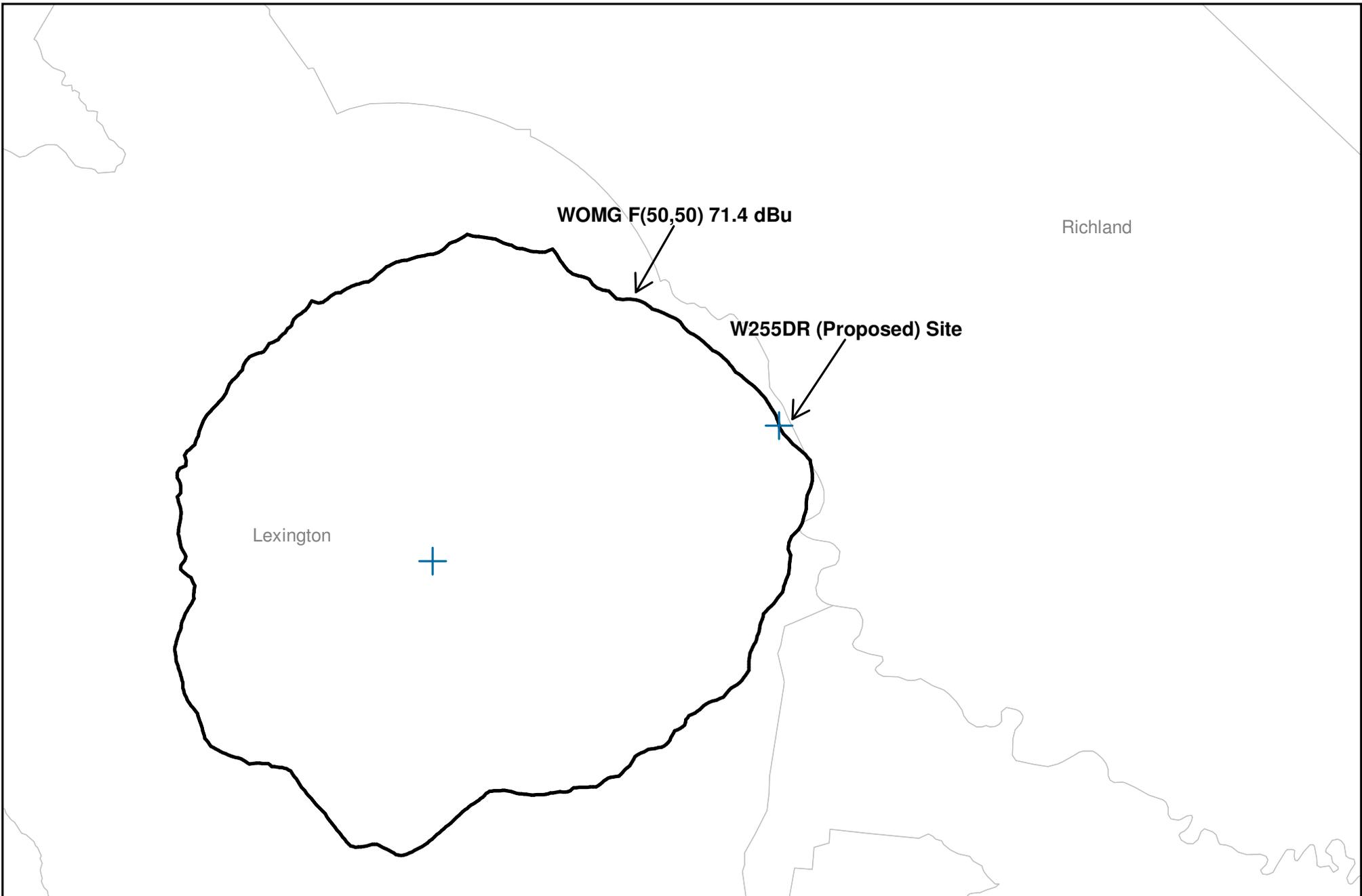
Therefore, no interference is predicted to reach the ground.

## §74.1204(d) Contour Protection Study W255DR vs. WOMG

Antenna: Nicom BKG 77 - 2 Bay/0.75-Wave ERP (watts): 250  
 Protected Contour at tower - F(50,50): 71.4 dBu RC-AGL (m): 100  
 Interference Ratio: 40 dB Relative field at Azimuth: 1.000  
 Interference Contour - F(50,10): 111.4 dBu ERP (watts) at Azimuth: 250

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	250.0	-6.02	298.5	298.5	100.0
5	0.967	233.8	-6.31	288.7	287.6	74.8
10	0.871	189.7	-7.22	260.0	256.1	54.8
15	0.711	126.4	-8.98	212.2	205.0	45.1
20	0.518	67.1	-11.73	154.6	145.3	47.1
25	0.310	24.0	-16.19	92.5	83.9	60.9
30	0.112	3.1	-25.04	33.4	29.0	83.3
35	0.062	1.0	-30.17	18.5	15.2	89.4
40	0.198	9.8	-20.09	59.1	45.3	62.0
45	0.288	20.7	-16.83	86.0	60.8	39.2
50	0.336	28.2	-15.49	100.3	64.5	23.2
55	0.349	30.5	-15.16	104.2	59.8	14.7
60	0.331	27.4	-15.62	98.8	49.4	14.4
65	0.295	21.8	-16.62	88.1	37.2	20.2
70	0.246	15.1	-18.20	73.4	25.1	31.0
75	0.197	9.7	-20.13	58.8	15.2	43.2
80	0.151	5.7	-22.44	45.1	7.8	55.6
85	0.122	3.7	-24.29	36.4	3.2	63.7
90	0.117	3.4	-24.66	34.9	0.0	65.1
<b>WORST CASE HEIGHT AGL (m)</b>						<b>14.4</b>





Protected Signal Levels at Proposed Tower Site

