

Casa de Adoración Inc.
Interference Area
Taunton, MA

The proposed LPFM station will broadcast on channel 243, which is within the 67 kilometers, second-adjacent minimum distance separation of station WBQT on channel 245. The WBQT interfering contour at the LPFM tower site is 62.1 dBμ F(50,50). Using the ratio of 100:1 (LPFM to WBQT) on the second-adjacent channel, the population within the proposed LPFM 102.1 dBμ contour respectively is zero. Applying the antenna manufacturer's vertical radiation pattern the area of interference can be more accurately calculated geometrically, rather than just by using the free space equation alone. This particular antenna is a 6 bay Nicom BKG77. It was determined from the manufacturer's vertical plan that at 40 degrees and from 55 degrees to 60 degrees below horizontal the interference area would reach down within 2 meters of the ground and extend 51.3 meters horizontally. We have proposed the antenna radiation center will be 44 meters above ground with an Effective Radiated Power of 100 watts. There are no occupied structures or major roadways within the interference area of the station. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

Figure 1
Minimum Ground Clearance

ERP: 100

ARC: 44

Depression Angle Below Horizontal	Antenna Relative Field	ERP (Watts)	Distance to interfering Contour from Antenna (m)	Horizontal Distance of Interfering contour from tower (m)	Vertical Clearance of Interfering contour above TGL (m)
5	0.679	46.1	374	372.6	11.4
10	0.068	0.5	39	38.4	37.2
15	0.229	5.2	126	121.7	11.4
20	0.088	0.8	49	46.0	27.2
25	0.124	1.5	67	60.7	15.7
30	0.116	1.3	63	54.6	12.5
35	0.040	0.2	25	20.5	29.7
40	0.123	1.5	67	51.3	0.9
45	0.064	0.4	35	24.7	19.3
50	0.048	0.2	25	16.1	24.8
55	0.109	1.2	60	34.4	-5.1
60	0.092	0.8	49	24.5	1.6
65	0.034	0.1	17	7.2	28.6
70	0.022	0.0	1	0.3	43.1
75	0.055	0.3	30	7.8	15.0
80	0.063	0.4	35	6.1	9.5
85	0.062	0.4	35	3.1	9.1
90	0.062	0.4	35	0.0	9.0
Minimum Clearance above TGL:					-5.1

TX station: BGK77 6 GENERIC

Casa de Adoración Inc.

Site name:

Frequency: 100.00 MHz

Vertical diagram

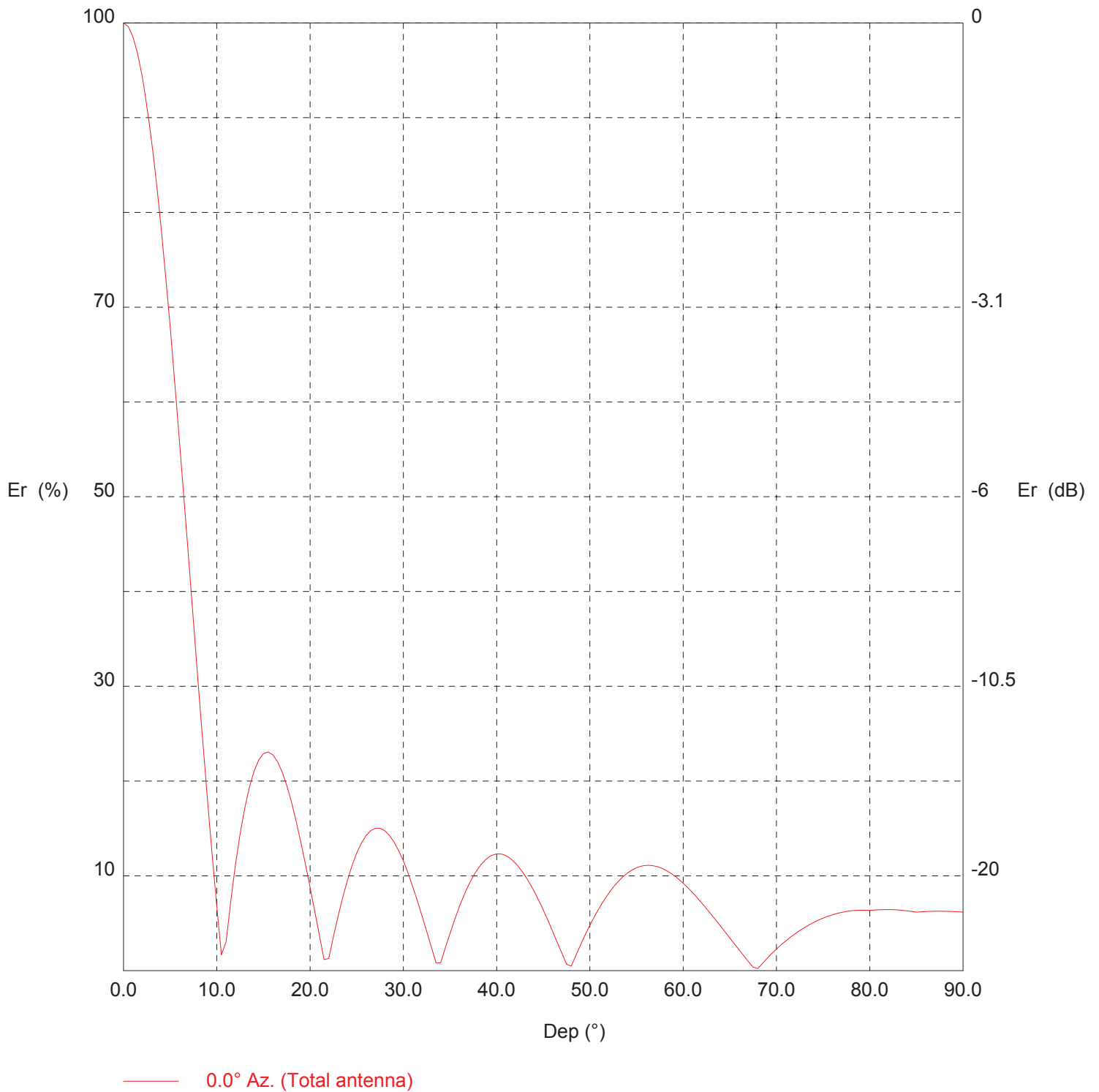


Figure 2 page 2

TX station: BGK77 6 GENERIC Casa de Adoración Inc.

Site name:

Frequency: 100.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	100.0	2.74	30.0	11.6	0.04	60.0	9.2	0.02
0.5	99.6	2.72	30.5	10.3	0.03	60.5	8.8	0.02
1.0	98.6	2.66	31.0	8.9	0.02	61.0	8.2	0.02
1.5	96.8	2.57	31.5	7.4	0.01	61.5	7.7	0.02
2.0	94.4	2.44	32.0	5.8	0.01	62.0	7.1	0.01
2.5	91.3	2.28	32.5	4.2	0.00	62.5	6.5	0.01
3.0	87.6	2.10	33.0	2.5	0.00	63.0	5.9	0.01
3.5	83.4	1.91	33.5	0.8	0.00	63.5	5.3	0.01
4.0	78.7	1.70	34.0	0.8	0.00	64.0	4.7	0.01
4.5	73.5	1.48	34.5	2.4	0.00	64.5	4.0	0.00
5.0	67.9	1.27	35.0	4.0	0.00	65.0	3.4	0.00
5.5	62.0	1.06	35.5	5.4	0.01	65.5	2.8	0.00
6.0	55.9	0.86	36.0	6.7	0.01	66.0	2.2	0.00
6.5	49.6	0.67	36.5	8.0	0.02	66.5	1.5	0.00
7.0	43.2	0.51	37.0	9.0	0.02	67.0	0.9	0.00
7.5	36.8	0.37	37.5	10.0	0.03	67.5	0.4	0.00
8.0	30.4	0.25	38.0	10.8	0.03	68.0	0.2	0.00
8.5	24.2	0.16	38.5	11.4	0.04	68.5	0.8	0.00
9.0	18.1	0.09	39.0	11.9	0.04	69.0	1.3	0.00
9.5	12.3	0.04	39.5	12.2	0.04	69.5	1.8	0.00
10.0	6.8	0.01	40.0	12.3	0.04	70.0	2.2	0.00
10.5	1.7	0.00	40.5	12.3	0.04	70.5	2.7	0.00
11.0	3.1	0.00	41.0	12.1	0.04	71.0	3.1	0.00
11.5	7.3	0.01	41.5	11.8	0.04	71.5	3.5	0.00
12.0	11.1	0.03	42.0	11.4	0.04	72.0	3.9	0.00
12.5	14.4	0.06	42.5	10.8	0.03	72.5	4.2	0.00
13.0	17.1	0.08	43.0	10.1	0.03	73.0	4.6	0.01
13.5	19.3	0.10	43.5	9.3	0.02	73.5	4.8	0.01
14.0	21.0	0.12	44.0	8.4	0.02	74.0	5.1	0.01
14.5	22.2	0.14	44.5	7.4	0.02	74.5	5.3	0.01
15.0	22.9	0.14	45.0	6.4	0.01	75.0	5.5	0.01
15.5	23.1	0.15	45.5	5.3	0.01	75.5	5.7	0.01
16.0	22.8	0.14	46.0	4.2	0.00	76.0	5.9	0.01
16.5	22.1	0.13	46.5	3.0	0.00	76.5	6.0	0.01
17.0	21.0	0.12	47.0	1.8	0.00	77.0	6.1	0.01
17.5	19.5	0.10	47.5	0.7	0.00	77.5	6.2	0.01
18.0	17.8	0.09	48.0	0.5	0.00	78.0	6.3	0.01
18.5	15.8	0.07	48.5	1.6	0.00	78.5	6.4	0.01
19.0	13.6	0.05	49.0	2.7	0.00	79.0	6.4	0.01
19.5	11.2	0.03	49.5	3.8	0.00	79.5	6.4	0.01
20.0	8.8	0.02	50.0	4.8	0.01	80.0	6.3	0.01
20.5	6.2	0.01	50.5	5.7	0.01	80.5	6.4	0.01
21.0	3.7	0.00	51.0	6.6	0.01	81.0	6.4	0.01
21.5	1.2	0.00	51.5	7.4	0.02	81.5	6.4	0.01
22.0	1.3	0.00	52.0	8.1	0.02	82.0	6.4	0.01
22.5	3.6	0.00	52.5	8.8	0.02	82.5	6.4	0.01
23.0	5.7	0.01	53.0	9.4	0.02	83.0	6.4	0.01
23.5	7.7	0.02	53.5	9.9	0.03	83.5	6.4	0.01
24.0	9.5	0.02	54.0	10.3	0.03	84.0	6.3	0.01
24.5	11.1	0.03	54.5	10.6	0.03	84.5	6.2	0.01
25.0	12.4	0.04	55.0	10.9	0.03	85.0	6.2	0.01
25.5	13.4	0.05	55.5	11.0	0.03	85.5	6.2	0.01
26.0	14.2	0.06	56.0	11.1	0.03	86.0	6.2	0.01
26.5	14.8	0.06	56.5	11.1	0.03	86.5	6.3	0.01
27.0	15.0	0.06	57.0	11.0	0.03	87.0	6.3	0.01
27.5	15.0	0.06	57.5	10.9	0.03	87.5	6.3	0.01
28.0	14.8	0.06	58.0	10.7	0.03	88.0	6.3	0.01
28.5	14.3	0.06	58.5	10.4	0.03	88.5	6.2	0.01
29.0	13.6	0.05	59.0	10.0	0.03	89.0	6.2	0.01
29.5	12.7	0.04	59.5	9.7	0.03	89.5	6.2	0.01

Figure 3 Page 1
Aerial Photo of the 51.3 meter Vicinity Surrounding the Proposed Tower Site

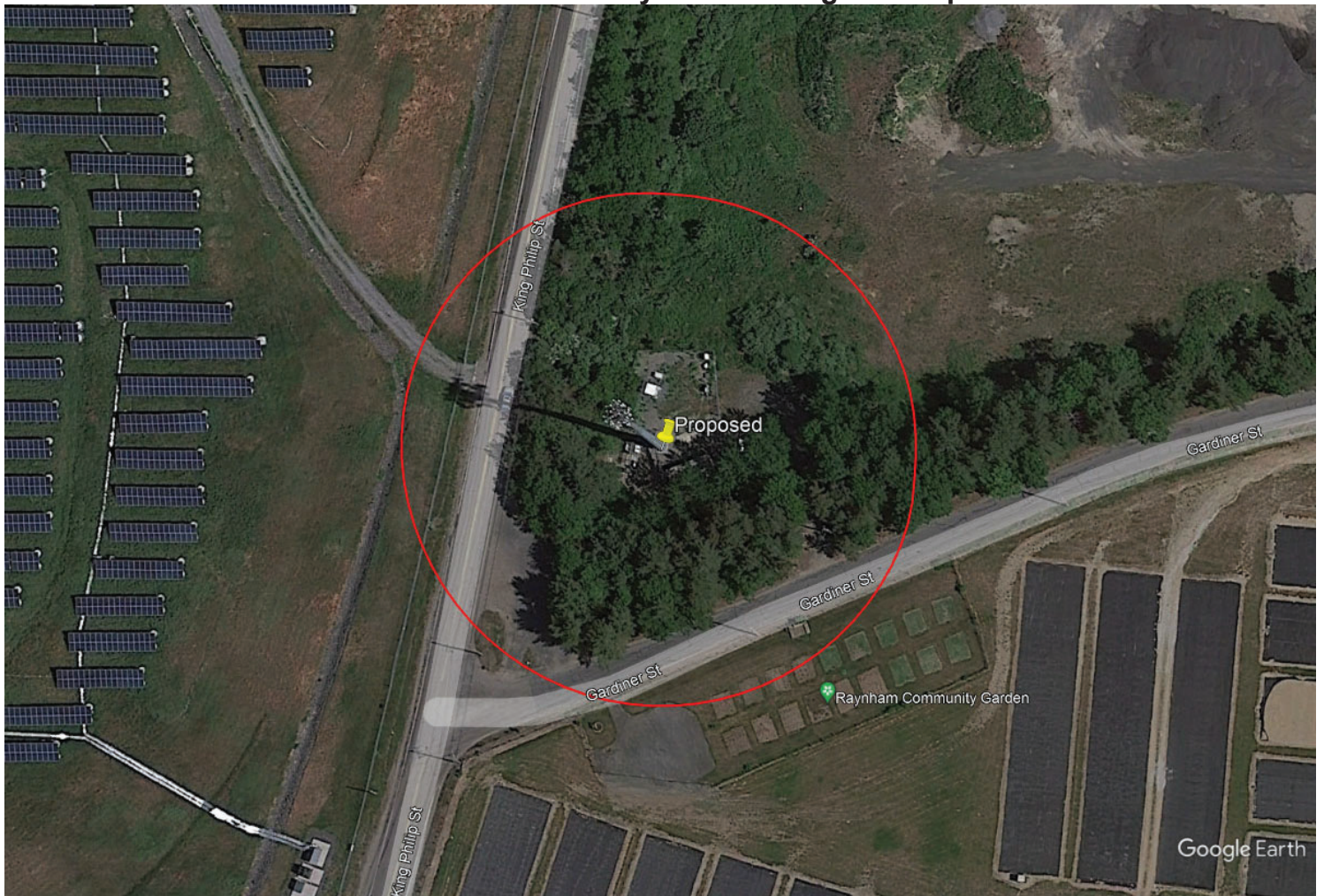


Figure 3 Page 2
Quadrangle Map of the 51.3 meter Vicinity Surrounding the Proposed Tower Site

