

Exhibit 12: Figure 4 Interference Minimum Vertical Clearance

11800 Shaker Blvd Channel 283 104.5 MHz
 Antenna: BKG77 2-bay 0.75 spaced
 ERP: 19.0 Watts Station: WQAL
 AGL: 17.0 meters Signal at Site: 79.7 dBu

Depression Angle Below Horizontal	Antenna Relative Field	ERP (Watts)	Distance to Interfering Contour from Antenna (meters)	Horizontal Distance of Interfering Contour from Tower (meters)	Vertical Clearance of Interfering Contour above Tower Ground Level (meters)
0	1.000	19.0	31.6	31.6	17.0
5	0.967	17.8	30.6	30.5	14.3
10	0.871	14.4	27.6	27.1	12.2
15	0.711	9.6	22.5	21.7	11.2
20	0.518	5.1	16.4	15.4	11.4
25	0.310	1.8	9.8	8.9	12.9
30	0.112	0.2	3.5	3.1	15.2
35	0.062	0.1	2.0	1.6	15.9
40	0.198	0.7	6.3	4.8	13.0
45	0.288	1.6	9.1	6.4	10.6
50	0.336	2.1	10.6	6.8	8.9
55	0.349	2.3	11.0	6.3	8.0
60	0.331	2.1	10.5	5.2	7.9
65	0.295	1.7	9.3	3.9	8.5
70	0.246	1.1	7.8	2.7	9.7
75	0.197	0.7	6.2	1.6	11.0
80	0.151	0.4	4.8	0.8	12.3
85	0.122	0.3	3.9	0.3	13.2
90	0.117	0.3	3.7	0.0	13.3