

## INTERFERENCE EXHIBIT FOR BELMONT, NC

The proposed facility is fully spaced to all relevant stations except WBAV. The instant application seeks a waiver of the minimum distance separation requirement of 47 C.F.R. Section 73.807 for second adjacent facilities. The proposed facility will not interfere with WBAV.

As shown by the tabular and graphic analysis provided below using V-Soft's X-Field program, no population exists within the predicted region of interference because the region does not extend far enough to reach any populated areas and/or the region exists above ground sufficiently to not interfere with any populated areas. The closest the interfering contour comes to the ground is 16.8m, which is at least 2m above the highest floor of the building on which the antenna is located .

### Tabular Analysis

LPFM Belmont, NC  
74.1204(d) Showing  
Translator or LPFM Maximum Licensed ERP = 0.1  
Translator or LPFM Antenna Height AG = 21 Meters  
LPFM Antenna Model = 6812B 3 3-4

Protected Station's Contour = 87.65102 dBu  
LPFM's full Interference contour 127.65102

Review Azimuth = 0 Degrees True  
Relative Field on the horizon at Review Azimuth = 1.000  
LPFM ERP on the horizon at Review Azimuth = 0.1 kW  
Distance between stations = 21.3 km  
Protected Station= WBAV-F, 100 kW, 552 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.1000	029.0703	029.0703	021.000
01.00	0.998	1.0	0.0996	029.0121	029.0077	020.494
02.00	0.99	1.0	0.0980	028.7796	028.7620	019.996
03.00	0.978	1.0	0.0956	028.4307	028.3918	019.512
04.00	0.962	1.0	0.0925	027.9656	027.8975	019.049
05.00	0.941	1.0	0.0885	027.3551	027.2510	018.616
06.00	0.916	1.0	0.0839	026.6284	026.4825	018.217
07.00	0.886	1.0	0.0785	025.7563	025.5643	017.861

# INTERFERENCE EXHIBIT FOR BELMONT, NC

08.00	0.853	1.0	0.0728	024.7969	024.5556	017.549
09.00	0.817	1.0	0.0667	023.7504	023.4580	017.285
10.00	0.777	1.0	0.0604	022.5876	022.2444	017.078
11.00	0.734	1.0	0.0539	021.3376	020.9455	016.929
12.00	0.689	1.0	0.0475	020.0294	019.5917	016.836
13.00	0.642	1.0	0.0412	018.6631	018.1848	016.802
14.00	0.593	1.0	0.0352	017.2387	016.7266	016.830
15.00	0.543	1.0	0.0295	015.7852	015.2473	016.915
16.00	0.492	1.0	0.0242	014.3026	013.7485	017.058
17.00	0.441	1.0	0.0194	012.8200	012.2598	017.252
18.00	0.389	1.0	0.0151	011.3083	010.7549	017.506
19.00	0.338	1.0	0.0114	009.8257	009.2904	017.801
20.00	0.287	1.0	0.0082	008.3432	007.8400	018.146
21.00	0.237	1.0	0.0056	006.8897	006.4320	018.531
22.00	0.189	1.0	0.0036	005.4943	005.0942	018.942
23.00	0.142	1.0	0.0020	004.1280	003.7998	019.387
24.00	0.097	1.0	0.0009	002.8198	002.5760	019.853
25.00	0.054	1.0	0.0003	001.5698	001.4227	020.337
26.00	0.014	1.0	0.0000	000.4070	000.3658	020.822
27.00	0.024	1.0	0.0001	000.6977	000.6216	020.683
28.00	0.06	1.0	0.0004	001.7442	001.5401	020.181
29.00	0.092	1.0	0.0008	002.6745	002.3391	019.703
30.00	0.122	1.0	0.0015	003.5466	003.0714	019.227
31.00	0.148	1.0	0.0022	004.3024	003.6879	018.784
32.00	0.172	1.0	0.0030	005.0001	004.2403	018.350
33.00	0.192	1.0	0.0037	005.5815	004.6810	017.960
34.00	0.209	1.0	0.0044	006.0757	005.0370	017.603
35.00	0.224	1.0	0.0050	006.5117	005.3341	017.265
36.00	0.236	1.0	0.0056	006.8606	005.5503	016.967
37.00	0.244	1.0	0.0060	007.0931	005.6648	016.731
38.00	0.25	1.0	0.0063	007.2676	005.7269	016.526
39.00	0.254	1.0	0.0065	007.3838	005.7383	016.353
40.00	0.255	1.0	0.0065	007.4129	005.6786	016.235
41.00	0.254	1.0	0.0065	007.3838	005.5727	016.156
42.00	0.251	1.0	0.0063	007.2966	005.4225	016.118
43.00	0.245	1.0	0.0060	007.1222	005.2089	016.143
44.00	0.238	1.0	0.0057	006.9187	004.9769	016.194
45.00	0.23	1.0	0.0053	006.6862	004.7278	016.272
46.00	0.22	1.0	0.0048	006.3955	004.4427	016.399
47.00	0.209	1.0	0.0044	006.0757	004.1436	016.557
48.00	0.197	1.0	0.0039	005.7268	003.8320	016.744

# INTERFERENCE EXHIBIT FOR BELMONT, NC

49.00	0.184	1.0	0.0034	005.3489	003.5092	016.963
50.00	0.17	1.0	0.0029	004.9419	003.1766	017.214
51.00	0.156	1.0	0.0024	004.5350	002.8539	017.476
52.00	0.142	1.0	0.0020	004.1280	002.5414	017.747
53.00	0.127	1.0	0.0016	003.6919	002.2219	018.051
54.00	0.112	1.0	0.0013	003.2559	001.9138	018.366
55.00	0.098	1.0	0.0010	002.8489	001.6341	018.666
56.00	0.083	1.0	0.0007	002.4128	001.3492	019.000
57.00	0.069	1.0	0.0005	002.0058	001.0925	019.318
58.00	0.055	1.0	0.0003	001.5989	000.8473	019.644
59.00	0.042	1.0	0.0002	001.2210	000.6288	019.953
60.00	0.029	1.0	0.0001	000.8430	000.4215	020.270
61.00	0.018	1.0	0.0000	000.5233	000.2537	020.542
62.00	0.006	1.0	0.0000	000.1744	000.0819	020.846
63.00	0.004	1.0	0.0000	000.1163	000.0528	020.896
64.00	0.014	1.0	0.0000	000.4070	000.1784	020.634
65.00	0.023	1.0	0.0001	000.6686	000.2826	020.394
66.00	0.031	1.0	0.0001	000.9012	000.3665	020.177
67.00	0.038	1.0	0.0001	001.1047	000.4316	019.983
68.00	0.044	1.0	0.0002	001.2791	000.4792	019.814
69.00	0.049	1.0	0.0002	001.4244	000.5105	019.670
70.00	0.054	1.0	0.0003	001.5698	000.5369	019.525
71.00	0.057	1.0	0.0003	001.6570	000.5395	019.433
72.00	0.06	1.0	0.0004	001.7442	000.5390	019.341
73.00	0.062	1.0	0.0004	001.8024	000.5270	019.276
74.00	0.063	1.0	0.0004	001.8314	000.5048	019.240
75.00	0.063	1.0	0.0004	001.8314	000.4740	019.231
76.00	0.063	1.0	0.0004	001.8314	000.4431	019.223
77.00	0.061	1.0	0.0004	001.7733	000.3989	019.272
78.00	0.059	1.0	0.0003	001.7151	000.3566	019.322
79.00	0.057	1.0	0.0003	001.6570	000.3162	019.373
80.00	0.054	1.0	0.0003	001.5698	000.2726	019.454
81.00	0.05	1.0	0.0003	001.4535	000.2274	019.564
82.00	0.046	1.0	0.0002	001.3372	000.1861	019.676
83.00	0.042	1.0	0.0002	001.2210	000.1488	019.788
84.00	0.037	1.0	0.0001	001.0756	000.1124	019.930
85.00	0.031	1.0	0.0001	000.9012	000.0785	020.102
86.00	0.026	1.0	0.0001	000.7558	000.0527	020.246
87.00	0.02	1.0	0.0000	000.5814	000.0304	020.419
88.00	0.013	1.0	0.0000	000.3779	000.0132	020.622
89.00	0.007	1.0	0.0000	000.2035	000.0036	020.797

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90.00

0.001

1.0

0.0000

000.0291

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020.971

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