

# RADIOTECHNIQUE®

402 Tenth Avenue • PO Box 367 • Haddon Heights, NJ 08035

Engineering Report (Amended)  
Exhibit 13 Figure 3 Page 1  
Signal on Ground Report 2<sup>nd</sup> Adjacent Test  
W294AH Columbus, OH  
December 2013

The 54 dbu F(50,50) contours of second adjacent Class B stations WLVQ, Columbus, OH and WZOH-FM Lancaster, OH encompass the 94 dbu F(50,10) proposed contour. Protection of these stations is by the ratio method, as outlined in Exhibit 12. The WZOH-FM 62.5 dbu contour encompasses the proposed 94 dbu contour, so the protection required by the ratio method is 40 db above this value or 102.5 dbu. WLVQ is located nearby and produces more than 100 dbu at the proposed site, so WZOH-FM is the limiting station.

Study for center of Radiation                      235 m AGL                      ERP                      99 Watts  
Element                      Bays                      Spacing  
Antenna                      PSIFMR-                      2                      Spacing Wavelength

Distance above Ground Level of Interfering Contour

Depression Angle (Degrees)	Slant Distance To 102.5 dbμV (meters)	Horiz Distance To 102.5 dbμV (meters)	Relative Field	ERP Watts	102.5 dbμV Above Gnd (meters)
1	522.39	521.9	1.000	99.000	225.9
2	521.89	519.8	0.999	98.810	216.8
3	519.86	516.7	0.995	98.044	207.9
4	516.84	512.6	0.989	96.908	199.2
5	512.84	507.4	0.982	95.413	190.6
6	507.87	500.8	0.972	93.572	182.4
7	501.44	493.3	0.960	91.219	174.4
8	494.09	479.9	0.946	88.565	167.5
9	480.94	475.5	0.921	83.914	159.7
10	476.74	464.9	0.913	82.454	153.0
12	466.32	441.0	0.893	78.890	141.3
14	442.72	413.9	0.847	71.106	131.8
16	415.91	384.3	0.796	62.753	124.8
18	386.30	352.7	0.739	54.136	120.4
20	354.35	319.5	0.678	45.552	118.7
25	320.53	233.3	0.614	37.272	126.2
30	230.49	149.9	0.441	19.272	148.4
35	139.80	76.3	0.268	7.090	181.6
40	55.14	17.2	0.106	1.103	220.5
45	17.88	24.8	0.034	0.116	210.2
50	75.67	50.1	0.145	2.077	175.3
55	116.59	60.4	0.223	4.932	148.8
60	140.33	59.1	0.269	7.144	132.6
65	148.72	50.0	0.285	8.024	127.8
70	143.53	36.7	0.275	7.474	134.3
75	127.02	22.7	0.243	5.854	150.3
80	102.26	10.8	0.196	3.793	174.0
85	71.44	2.8	0.137	1.852	203.3
90	36.51	0.0	0.070	0.484	234.6

Min Height above Gnd

The 102.5 dbuV interfering signal is closest to the ground at 320 meters horizontally from the antenna. The above chart shows the signals in the direction of the antenna main lobe. The contour remains at least 118 meters above the ground. There are no other buildings within the nuisance contour distance.

## Location of Interfering Contour

