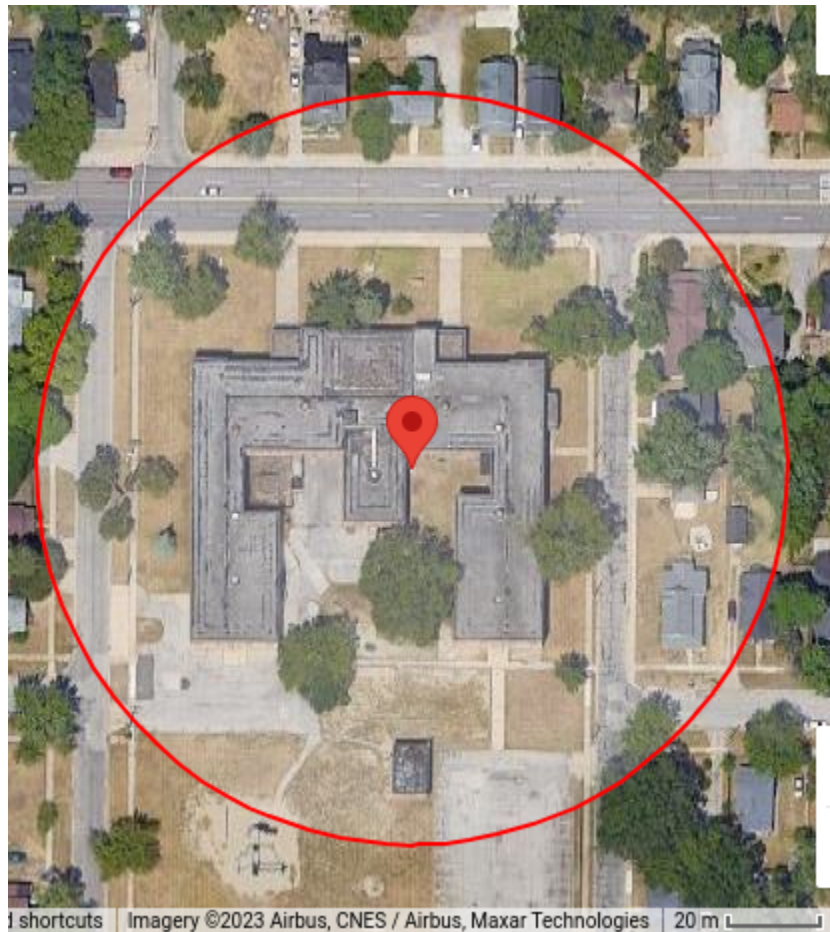


# Muskegon Second-Adjacent Exhibit

Application requests a waiver for a location which is short-spaced on a second-adjacent channel with (LMS)BLH-20041118ACA, callsign WVIB, class A, status LICEN, HOLTON, MI, channel 261, facility ID 73994

Undesired-to-Desired Ratio Method	
(LMS)BLH-20041118ACA f(50,50) signal	77.930 dBu
Second-adjacent protection	+ 40 dB
Interference-zone boundary	117.93 dBu
Distance to 117.93 dBu	82.1 m (ERP <= 0.085 kW)

The worst-case interference zone is a sphere of radius 82.1 meters, shown projected on the ground in the following map.



A Nicom 2-bay BKG-88 antenna with 0.85-wavelength spacing is proposed with a radiation center of 32m AGL. By virtue of its elevation pattern, the BKG-88 reduces the 82.1 meter interference contour distance to 23.3 meters below the antenna, or  $32 - 23.3 = 8.7$  meters AGL. The highest floor within the circle shown is the second floor of the host building, a two-story former school building with high ceilings, placing the heads of occupants at 6.4 meters AGL. This is well below the 8.7 meter interference floor, thus no population will be subject to interference from the proposed station according to the undesired-to-desired ratio method.

Nicom BKG-88 2 Bays @ 0.85 Spacing				
Downward Interference Distance				
		Interference Contour Distance (m)		
Antenna Elevation Field Pattern		80.61		
Elev Angle	Rel Field (%)	Interference Distance (m) at Elevation Angle	Downward Component of Interference Distance (m)	
0	100	80.6	0.0	
10	87.1	70.2	12.2	
20	51.8	41.8	14.3	
30	18.9	15.2	7.6	
40	14.9	12.0	7.7	
50	32.1	25.9	19.8	
57	34.5	27.8	23.3	
60	33.1	26.7	23.1	
70	24.6	19.8	18.6	
80	15.1	12.2	12.0	
89	11.7	9.4	9.4	