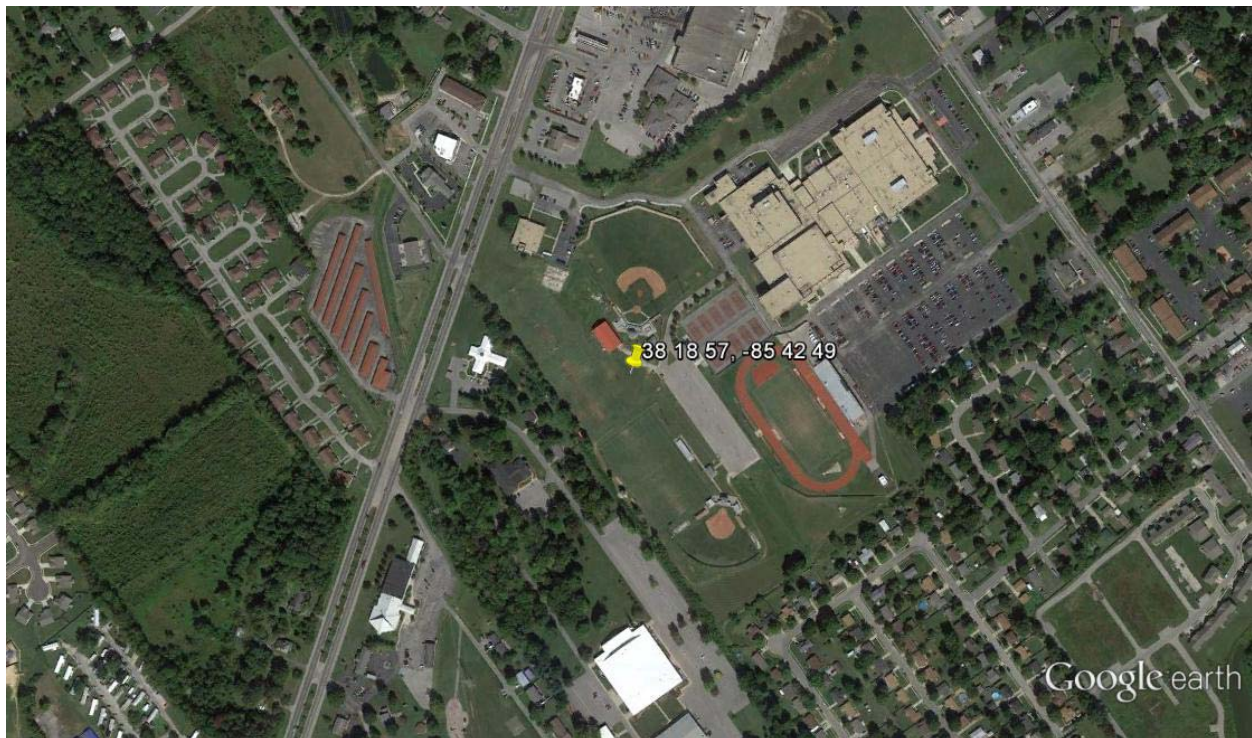


Greater Clark County Schools
Second Adjacent Channel Waiver Request
LPFM Application Amendment
BNPL-20131114AAE
Facility ID #196195

The proposed facility is fully-spaced pursuant to 47 C.F.R. Section 73.807 to all other facilities other than second-adjacent WNRW (FID #60706) (the “Protected Station”). As more fully discussed below, a waiver of 47 C.F.R. 73.807 is appropriate in this instance.

The Protected Station is authorized to broadcast with 43 kilowatts at 157 meters HAAT from a site that is 21.85 kilometers from the proposed LPFM site. The predicted strength of the Protected Station at the proposed LPFM site is 77.3 dBu. Therefore, 117.3 dBu is the lowest value predicted to cause interference to the Protected Station.

The applicant proposes to mount the antenna for the LPFM station on a new tower at 35 meters AGL.



The area of predicted interference without accounting for the elevation pattern of the antenna is 96 meters. The aerial image on the previous page demonstrates that a number of buildings exist in the area. However, all of them are significantly shorter than 15 meters AGL.

The facility proposed herein will utilize a four-bay Shively 6812b antenna that employs half-wave spacing. The elevation pattern of this antenna configuration as provided by the manufacturer accompanies the instant application.

The table on the following page indicates the predicted signal strength from the proposed LPFM station both at ground level, and at receiving antenna locations up to 15 meters above ground level. The 15 meter “artificial plane” exceeds the height of all the nearby structures. Consequentially, all potential listeners are below the artificial plane in the following tables

As can be determined by the columns colored green, at no location from ground level to 15 meters above the ground does the predicted signal of the proposed LPFM station exceed that of the Protected Station by 40 dBu or more.

The Applicant respectfully submits that since a lack of population exists in the area of predicted interference, a waiver of 47 C.F.R § 73.807 is appropriate for the instant application.

Proposed Antenna: Shively Labs 6812b 4 Bay Half-wave-spaced.

Proposed Power: 0.1 kW

Antenna Height AGL: 35 meters

Interference Contour: 117.3 dBu

Artificial Rcv Antenna Height: 15 meters

Distance (Free Space) Equation: $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)}) * 1000$

Field Strength (dBu) Equation $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$

Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Streng	Distance	Field Strength
Below	Relative	ERP	ERP	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	0.998	0.100	-10.02	95.53 m	infinite		infinite	
-5°	0.963	0.093	-10.33	92.18 m	229.47 m	109.38 dBu	401.58 m	104.52 dBu
-10°	0.858	0.074	-11.33	82.13 m	115.18 m	114.36 dBu	201.56 m	109.50 dBu
-15°	0.703	0.049	-13.06	67.29 m	77.27 m	116.10 dBu	135.23 m	111.24 dBu
-20°	0.519	0.027	-15.70	49.68 m	58.48 m	115.88 dBu	102.33 m	111.02 dBu
-25°	0.331	0.011	-19.60	31.68 m	47.32 m	113.81 dBu	82.82 m	108.95 dBu
-30°	0.162	0.003	-25.81	15.51 m	40.00 m	109.07 dBu	70.00 m	104.21 dBu
-35°	0.026	0.000	-41.70	2.49 m	34.87 m	94.37 dBu	61.02 m	89.51 dBu
-40°	0.071	0.001	-32.97	6.80 m	31.11 m	104.09 dBu	54.45 m	99.23 dBu
-45°	0.130	0.002	-27.72	12.44 m	28.28 m	110.17 dBu	49.50 m	105.31 dBu
-50°	0.155	0.002	-26.19	14.84 m	26.11 m	112.39 dBu	45.69 m	107.53 dBu
-55°	0.155	0.002	-26.19	14.84 m	24.42 m	112.97 dBu	42.73 m	108.11 dBu
-60°	0.140	0.002	-27.08	13.40 m	23.09 m	112.57 dBu	40.41 m	107.71 dBu
-65°	0.116	0.001	-28.71	11.10 m	22.07 m	111.33 dBu	38.62 m	106.47 dBu
-70°	0.090	0.001	-30.92	8.61 m	21.28 m	109.44 dBu	37.25 m	104.58 dBu
-75°	0.065	0.000	-33.74	6.22 m	20.71 m	106.86 dBu	36.23 m	102.00 dBu
-80°	0.041	0.000	-37.74	3.92 m	20.31 m	103.02 dBu	35.54 m	98.16 dBu
-85°	0.021	0.000	-43.56	2.01 m	20.08 m	97.31 dBu	35.13 m	92.45 dBu
-90°	0.001	0.000	-70.00	0.10 m	20.00 m	70.90 dBu	35.00 m	66.04 dBu