

Exhibit 11  
**LPFM CONSTRUCTION PERMIT MODIFICATION**  
**ENGINEERING STATEMENT**

prepared for  
**St. Joseph's Catholic Church and School**  
WXPB(LP) Athens, GA  
107.1 MHz Ch. 296L1 33.4 m HAAT

St. Joseph's Catholic Church and School (*St. Joseph's*) is the permittee for new Low-Power FM station WXPB(LP), Athens, Georgia. *St. Joseph's* seeks herein to modify Construction Permit (FCC File BNPL-20131114AVM) to specify a different antenna and a different transmitter site located 1.6 kilometers from the authorized site. The proposed tower FCC ASRN 1000795, located at 33° 57' 10.7" N, 83° 24' 31.2" W. According to FCC Rule §73.870(a), a transmitter site relocation less than 5.6 kilometers is a minor change. The current and proposed 60 dBμ contours for WXPB-LP are shown in Figure 1.

As shown in the following spacing study, the proposed facility meets the minimum separation requirements for LPFM stations shown in §73.807 to authorized cochannel, first-adjacent, and second-adjacent channel facilities, with the exception of WYAY(FM).

REFERENCE				CLASS = L1			DISPLAY DATES	
33 57 10.7 N.				Current Spacings to 3rd Adj.			DATA	12-20-16
83 24 31.2 W.				Channel 296 - 107.1 MHz			SEARCH	12-20-16
Call	Channel	Location		Azi	Dist	FCC	Margin	
WYAY	LIC-N 294C	Gainesville	GA	256.3	40.01	92.5	-52.5	
WJMZ-FM	LIC 297C0	Anderson	SC	41.3	111.21	110.5	0.7	
WAMJ	LIC-Z 298C2	Roswell	GA	267.1	73.42	52.5	20.9	
WTSH-FM	CP -N 296C1	Aragon	GA	275.2	145.47	110.5	35.0	
WTSH-FM	LIC-N 296C1	Aragon	GA	283.3	149.13	110.5	38.6	
WFXM	LIC 296A	Gordon	GA	182.9	122.63	66.5	56.1	
WPRW-FM	LIC-N 299C2	Martinez	GA	109.9	109.60	52.5	57.1	

*St. Joseph's* requests a waiver of the second adjacent minimum distance separation requirement of 47 C.F.R. Section 73.807 with regard to WYAY. At the proposed WXPB-LP site, the WYAY(FM) contour-method field strength is 79.37 dBμ. Based on the -40 dB desired-to-undesired ratio, the appropriate second-adjacent interfering signal level at this location is 119.73 dBμ. Using the distance from the proposed antenna and the proposed antenna vertical plane (elevation) pattern, predicted field strengths were calculated and plotted in **Figure 2**. Considering the antenna height and elevation pattern, the proposed WXPB-LP signal does not reach the level of 119.73 dBμ that would be considered interference to surrounding population.

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A review of translator stations within 10 km of the proposed site revealed no translator having an input channel on the same or adjacent channel as that proposed in the instant application. The proposed site is located more than 860 km from the U.S.-Canadian border, which is well beyond the “border area” specified in the Canadian Agreement.<sup>1</sup> The nearest FCC monitoring station is 122 km distant at Powder Springs, GA. This distance exceeds the threshold minimum distance specified in §73.1030 that would suggest consideration of the monitoring station. Non-directional AM broadcast WGAU is 1.62 km from the proposed site, but the proposed site is more than one wavelength at WGAU’s frequency (1340 kHz) from the WGAU site, thus no notification of the AM station is required according to §1.30002(a) of the Commission’s rules.

It is therefore believed that the proposed facility satisfies all of the pertinent Commission Rules and Policies now in effect regarding allocation matters.

**Environmental Considerations**

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Because an existing structure will be used and no change in current structure marking or lighting requirements is anticipated, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission’s rules.

**Human Exposure to Radiofrequency Radiation**

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 (“OET 65”). OET 65 describes a means of determining whether a proposed facility meets the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in

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<sup>1</sup> *Agreement between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service and the Associated Working Arrangement*, publication date June, 1997.

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OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The general population/uncontrolled maximum permitted exposure (“MPE”) limit specified in §1.1310 for the entire FM broadcast band is  $200 \mu\text{W}/\text{cm}^2$ . For the purpose of this study, “public access” will be considered at the base of the tower at a location two-meters above ground.

Using the FCC’s FM Model program and a worst-case EPA Type 2 (Opposed V-dipole) antenna it was determined that the proposed facility would contribute a worst-case RF power density of  $1.2 \mu\text{W}/\text{cm}^2$  at two meters above ground level near the antenna support structure, or 0.6 percent of the general population/uncontrolled limit.

§1.1307(b)(3) states that facilities at locations with multiple emitters are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent of the pertinent MPE limit. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of any other facilities near this site may be considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at ground level as defined under §1.1307(b).

### **Safety of Tower Workers and the General Public**

As demonstrated herein, excessive levels of RF energy will not be caused by the proposal at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will continue to be restricted and controlled through the use of a locked fence. According to information provided by the applicant, appropriate RF exposure warning signs are posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be

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performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations. Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under §1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

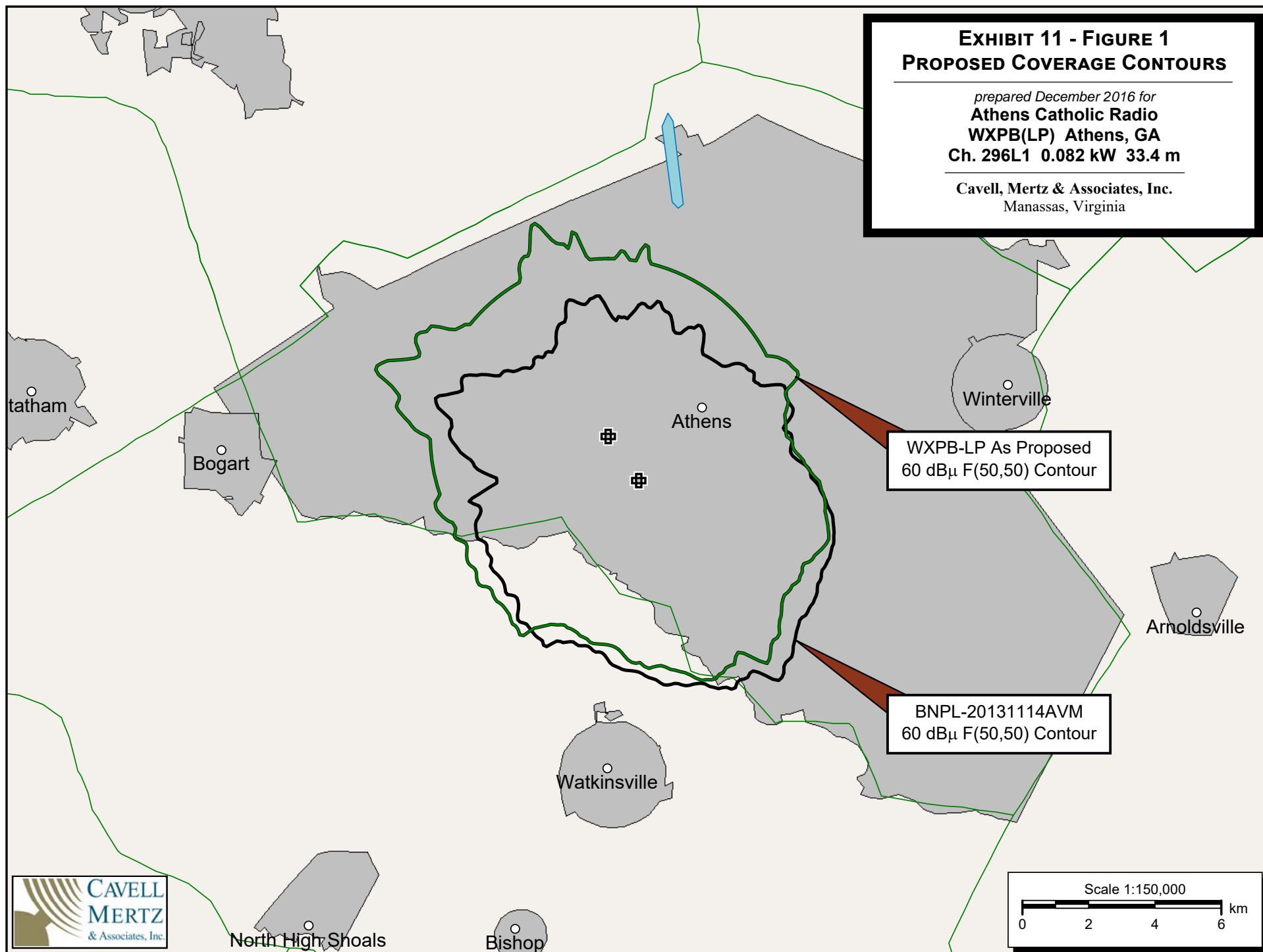
**Conclusion**

It is therefore believed that the proposed facility satisfies all of the pertinent Commission Rules and Policies now in effect.

**EXHIBIT 11 - FIGURE 1**  
**PROPOSED COVERAGE CONTOURS**

*prepared December 2016 for*  
**Athens Catholic Radio**  
**WXPB(LP) Athens, GA**  
**Ch. 296L1 0.082 kW 33.4 m**

**Cavell, Mertz & Associates, Inc.**  
Manassas, Virginia



**EXHIBIT 11 - FIGURE 2**  
**PREDICTED GROUND LEVEL**  
**FIELD STRENGTHS**

*prepared December 2016 for*  
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