

Maranatha Baptist Church

Shelby, NC

Technical Certifications

As shown below (next page), the proposed facility meets the applicable engineering standards and assignment requirements of 47 CFR §73.807(a) through (g), and §73.825

LPFM Channel Study Maranatha Baptist Church

REFERENCE		DISPLAY DATES
35 16 54.39 N.	CLASS = L1	DATA 10-31-23
81 33 23.35 W.	Current Spacings to 2nd Adj.	SEARCH 10-31-23
----- Channel 290 - 105.9 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
WOLS	LIC-N 291C2	Waxhaw	NC 122.3	82.41	79.5	2.9
WTMT	LIC 290C2	Weaverville	NC 290.0	105.57	90.5	15.1
W290CW	LIC 290D	Hickory	NC 27.2	55.06	31.5	23.6
W289BS	LIC 289D	Spartanburg	SC 234.7	50.49	20.5	30.0
WSPA-FM	LIC 292C3	Simpsonville	SC 228.8	73.94	39.5	34.4
W289BO	LIC 289D	Pineville	NC 98.3	62.57	27.5	35.1
W290DK	LIC-D 290D	Mooreville	NC 61.5	73.63	38.5	35.1
W292FL	LIC 292D	Morganton	NC 344.1	54.34	13.5	40.8
AL4061	RSV-A 292C3	Simpsonville	SC 216.4	86.83	39.5	47.3
W290BW	LIC-D 290D	Greenville	SC 243.7	86.34	38.5	47.8
WMMY	LIC-N 291C3	Jefferson	NC 358.6	116.50	66.5	50.0

RSV-R = reserved - needs protection, RSV-A = allocation
All separation margins include rounding

The proposed facility's 60dBu service contour is 5.56 km, meeting the requirements of 47CFR §73.811, which specifies that the contour will be between 4.7 and 5.6 km.

Environmental Effect

The proposed facility is excluded from environmental processing under 47 CFR §1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

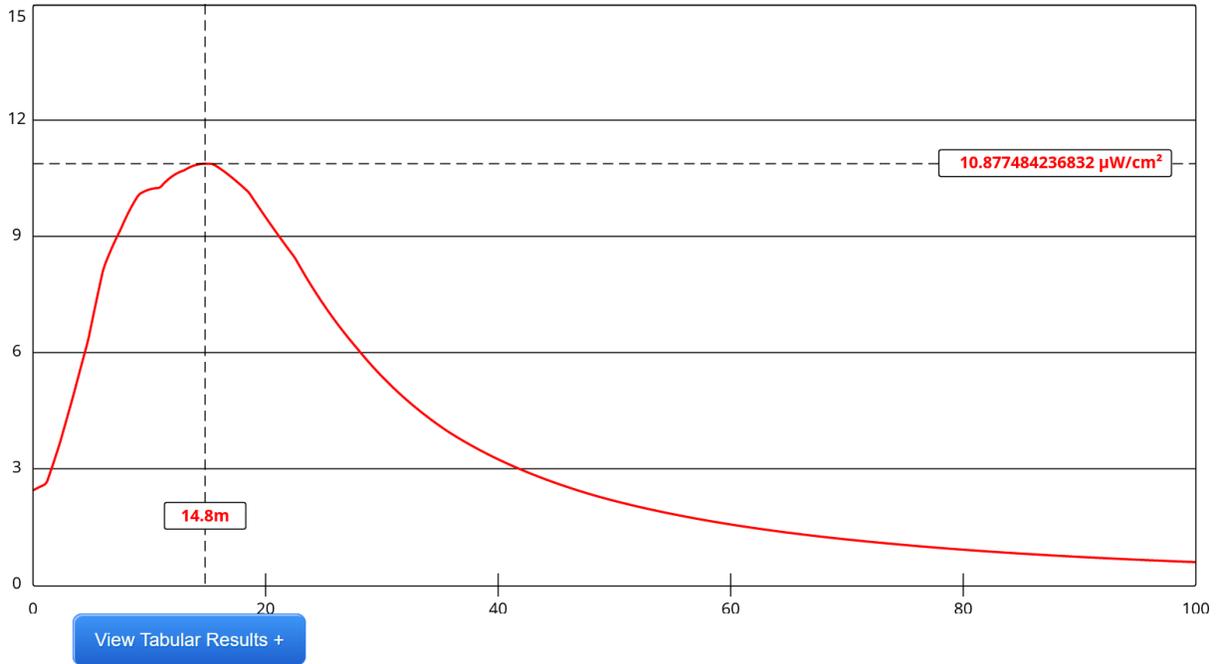
The proposed site is not in an officially designated wilderness area, wildlife preserve, flood plain, or near a site that is either listed or eligible for listing in the National Register of Historic Places. The proposed construction will not adversely affect any listed or proposed threatened or endangered species or their critical habitats, or any sites significant to Native American Religious practice, and will not involve any significant change in surface features. The applicant does not propose to light the antenna support structure with high intensity white lighting.

The proposed facility is located on the grounds of Maranatha Baptist Church, which is owned by the applicant. The applicant proposes a 20m (AGL) tower, utilizing a single bay Shively SLV antenna (EPA Type 4). There is not an elevated area within the building, so the elevation above population remains the standard 2 meters utilized by FM Model.

Shown below is the output of the Commission's FM Model program, with a maximum calculated exposure of $10.88 \mu\text{W}/\text{cm}^2$, well below the maximum permissible exposure for the general public, or 5.44% of the limit of $200 \mu\text{W}/\text{cm}^2$.

The applicant is cognizant of its responsibility to protect those workers whose duties require that they be in the vicinity of the antenna from exposure to radio frequency fields in excess of those outlined above. To that end, signage will be attached to the base of the antenna support structure warning all workers of the potential for harmful exposure and directing them to contact the responsible person at the broadcast station. That person will ascertain whether the worker will be in areas where there is an exposure hazard, and if so, arrange to shut down the transmitter(s). The permittee/licensee will also coordinate with other users of the site, if any, to reduce power or cease operation in order to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of Commission guidelines.

For these reasons, the applicant believes that a Commission grant of this application would not have a significant environmental impact.



Channel Selection	Channel 290 (105.9 MHz) ▾		
Antenna Type +	EPA Type 4: Two-Piece Spiral ▾		
Height (m)	15	Distance (m)	100
ERP-H (W)	95	ERP-V (W)	95
Num of Elements	1	λ	1
Num of Points	500	Apply	