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# CONSTRUCTION PERMIT APPLICATION FOR A NEW LOW POWER FM (LPFM) BROADCAST STATION TO SERVE KEARNEY, NJ



## Prepared For:

- Gospel Light Prayer Church, Inc.

- 873 Sanford Avenue  
Irvington, NJ 07111

## Prepared By:

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## Prepared On:

November 14, 2013

## Proposed Parameters:

Channel:	240 (95.9 MHz)
ERP:	75 W
HAAT:	4.4 m
Waiver:	Yes
Antenna:	Omni
Terrain:	3 Arc Second

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**1.0 Transmitter Site Coordinates (NAD27)**

N. Latitude 40° 46' 13.2"

W. Longitude 074° 08' 04.7"

**2.0 Effective Radiated Power****75 Watts (for 2<sup>nd</sup> adjacent waiver compliance)****3.0 ANTENNA AND SITE ELEVATIONS - ROUNDED ON FCC 318 FORM****1.1 Height of Site AMSL**

17.1ft / 5.2 m

**1.2 Overall Height of Structure AGL**

100.0 ft / 30.5 m

**1.3 Antenna Height Radiation Center AGL**

100.0 ft / 30.5 m

**1.4 Antenna Height Radiation Center AMSL**

117.1 ft / 35.7 m

**1.5 Antenna Height Above Average Terrain (HAAT) – 3 Second Terrain**14.4 ft / 4.4 m (Refer to Appendix A for HAAT Calculations)**4.0 FREQUENCY SEARCH PRESELECTION OVERVIEW****4.1 Channels Found With No Spacing Violations**

Pursuant to 47 C.F.R. Section 73.807(a)(1) (Minimum Distance Separation Between Stations) of the FCC Rules, the following table depicts channels available for the assignment of an LPFM station at the proposed location that are fully spaced pursuant to Section 73.807(a)(1):

Channel	Comments
NONE	There are no channels at the proposed location that meet the minimum spacing requirements pursuant to 47 C.F.R. Section 73.807(a)(1) of the FCC Rules.

#### 4.2 **Channel Found Requiring a Second Adjacent Channel Waiver**

Pursuant to 47 C.F.R. Section 73.807(e)(1) (*Waiver Of The Second-Adjacent Channel Separations*) of the FCC Rules, the following table depicts the applicant's proposed channel which is available for the assignment of an LPFM station at the proposed location:

ERP *	Channel	Comments
75W	240	Channel 240 (95.9 MHz) meets the minimum spacing requirements pursuant to 47 C.F.R. Section 73.807(a)(1) of the FCC Rules for co-channel and first-adjacent channel stations. Channel 240 is short-spaced with one licensed second adjacent channel facility but meets the second-adjacent channel waiver requirements pursuant to 47 C.F.R. Section 73.807(e)(1) of the FCC Rules.

\*Calculated from **Appendix B**

### 5.0 ALLOCATION ANALYSIS & 2<sup>nd</sup> ADJACENT CHANNEL WAIVER REQUEST

As indicated in Section 2 of this report, the only channels available for an LPFM facility at the proposed site will require a waiver of second adjacent channel separations as permitted pursuant to Section 73.807(e)(1) of the FCC Rules.

#### 5.1 **LPFM Short Space Study - 3 Second Terrain Data Used**

An LPFM station will not be authorized initially unless the minimum distance separations pursuant to Section 73.807 of the FCC Rules are met. **Appendix C** in this report depicts the results of a channel spacing study which demonstrates that the proposed LPFM facility is short-spaced with the following second adjacent channel licensed facilities:

- WXNY-FM
- WPLJ-FM

**Note: 3 second terrain data was used for calculations.**

## 5.2 **Second Adjacent Channel Short Spacing - Waiver Required**

Pursuant to Section 73.807(e)(1) of the FCC Rules, the FCC requires an LPFM station to establish that its proposed operations will not result in interference to any authorized radio service. An LPFM station may do so by demonstrating that no actual interference will occur due to intervening terrain or lack of population. An LPFM station may use an undesired to desired signal strength ratio methodology to define areas of potential interference. **Accordingly, the applicant hereby requests processing based on the “undesired-to-desired signal ratio method.”** Based on the undesired-to-desired signal ratio method, when contour overlap is caused to a second adjacent frequency, “interference is predicted to occur where the LPFM’s undesired signal exceeds the protection station’s desired signal by 40 dB or more.”

**WXNY-FM:** FCC F(50,50) curves were used to determine the signal strength, in dBu, of WXNY-FM (Channel 242) at the proposed LPFM facility’s transmitter site. The WXNY-FM signal strength at the proposed LPFM facility’s transmitter site was calculated to be 86.345 dBu (**Appendix D**). Combining the 40 dB U/D ratio, the resulting interference contour for the proposed LPFM facility is the 126.345 dBu contour ( $86.345 + 40 = 126.345$  dBu). **Based on the parameters for the proposed LPFM facility, its 126.345 dBu interference contour extends a maximum distance of 29.2 meters from the antenna.** Since the tower antenna will be 30.5 meters AGL, the 29.2 meter interference contour will never touch the ground. **As such, a waiver is respectfully requested for the proposed LPFM second-adjacent channel short-spacing with WXNY-FM.**

**WPLJ-FM:** FCC F(50,50) curves were used to determine the signal strength, in dBu, of WPLJ-FM (Channel 238) at the proposed LPFM facility’s transmitter site. The WPLJ -FM signal strength at the proposed

LPFM facility's transmitter site was calculated to be 86.693 dBu (**Appendix D**). Combining the 40 dB U/D ratio, the resulting interference contour for the proposed LPFM facility is the 126.693 dBu contour ( $86.693 + 40 = 126.693$  dBu). **Based on the parameters for the proposed LPFM facility, its 126.693 dBu interference contour extends a maximum distance of 28.1 meters from the antenna.** Since the tower antenna will be 30.5 meters AGL, the 28.1 meter interference contour will never touch the ground. **As such, a wavier is respectfully requested for the proposed LPFM second-adjacent channel short-spacing with WPLJ-FM.**

## 6.0 INTERFERENCE TO TRANSLATOR OR BOOSTER INPUT SIGNALS

Pursuant to the requirements of 47 C.F.R. Section 73.827(a), **Appendix E** lists the following FM translator stations (no FM boosters operate within 10 km) which are located within 10 km of the proposed LPFM site and are subject to potential third adjacent-channel interference to the reception of the FM translator station's input channel from their parent station from the proposed LPFM facility:

### **FM Boosters**

- NONE

### **FM Translators**

- NONE

The proposed LPFM facility will not cause interference to the input signals of surrounding FM translator and/or FM booster stations.

## 7.0 TELEVISION CHANNEL 6 (TV6) STATIONS

Channel 6 interference is not a factor for LPFM stations operating on channels 221 – 300 and therefore is not applicable to the application for further analysis.

## 8.0 AM STATION PROXIMITY

This rule part protects the operations of AM broadcast stations from nearby tower construction that may distort the AM antenna patterns. All parties holding or applying for Commission authorizations that propose to construct or make a significant modification to an antenna tower or support structure in the immediate vicinity of an AM antenna, or propose to install an antenna on an AM tower, are responsible for completing the analysis and notice process described in the FCC Rules, and for taking any measures necessary to correct disturbances of the AM radiation pattern, if such disturbances occur as a result of the tower construction or modification or as a result of the installation of an antenna on an AM tower. In the event these processes are not completed before an antenna structure is constructed, any holder of or applicant for a Commission authorization is responsible for completing these processes before locating or proposing to locate an antenna on the structure, as described in the FCC Rules.

There are no AM stations within 3.2 km of the proposed coordinates as demonstrated in the FCC's AM Query Study below:

Search Parameters	
Search radius:	3.20 km
Center lat / lon:	N 40 46 13.20 W 74 8 4.70
Lower Frequency	530
Upper Frequency	1700

\*\*\* 0 AM Records within 3.20 km distance of 40° 46' 13.20" N, 74° 8' 4.70 " W \*\*\*

## 9.0 INTERNATIONAL COORDINATION

The proposed facility is not within 320 km of the Canadian or Mexican borders and therefore, does not require international coordination.

## 10.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

#### 10.1 **General Environmental Requirements**

The proposed support structure and antenna will not:

- Require high intensity white lighting.
- Is not located in an official designated wilderness area or wildlife preserve.
- Does not threaten the existence or habitat of endangered species.
- Does not affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Does not affect Indian religious sites.
- Is not located in a floodplain
- Does not require construction that involves significant changes in surface features (e.g., wetland fill, deforestation or water diversion).

#### 10.2 **Radio Frequency Radiation (RFR) Compliance**

The proposed Channel 240 LPFM facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments pursuant to §1.1307 of the FCC Rules and the FCC's Office of Engineering and Technology Bulletin 65, Edition 97-01 (OET-65).

The LPFM transmitter, transmission line and antenna system shall produce an ERP of 75 W (circular polarization). Assuming the maximum lobe of radiation were oriented directly toward the ground, the proposed LPFM facility's power density six feet above the ground would be 0.006 mW/cm<sup>2</sup>. A power density of 0.006 mW/cm<sup>2</sup> equates to 0.62% of the Maximum Permissible Exposure (MPE) limits for Occupational/Controlled Exposure and 3.08% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (ANSI). Since operation of the proposed LPFM facility

will not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, the proposed facility is not considered a “significant contributor” to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions will be insignificant and well within the maximum allowable requirements.

## **110 RADIO READING SERVICE**

LPFM stations must satisfy the second-adjacent channel minimum distance separation requirements with respect to any third-adjacent channel FM station that, as of September 20, 2000, broadcasts a radio reading service via a subcarrier frequency pursuant to Section 73.807(a)(2) of the FCC Rules. Referring to **Appendix E** in this document, it can be seen that the proposed LPFM station satisfies the third-adjacent channel Radio Reading requirements pursuant to Section 73.807(a)(2) of the FCC Rules.

## **12.0 NOTIFICATIONS**

The proposed facility is not within the affected areas of the following installations and stations pursuant to 73.1030 of the FCC Rules.

- 73.1030(a) National Radio Astronomy Observatory Quite Zone at Green Bank, WV.....**Okay**
- 73.1030(a) Arecibo Observatory, Puerto Rico, Radio Astronomy Coordination Zone.....**Okay**
- 73.1030(b) Table Mountain Quiet Zone, Boulder, CO.....**Okay**
- 73.1030 (c) Monitoring Station at ALLEGAN, MI.....**Okay**
- 73.1030 (c) Monitoring Station at ANCHORAGE, AK.....**Okay**
- 73.1030 (c) Monitoring Station at BELFAST, ME.....**Okay**
- 73.1030 (c) Monitoring Station at CANANDAIGUA, NY.....**Okay**
- 73.1030 (c) Monitoring Station at DOUGLAS, AZ.....**Okay**
- 73.1030 (c) Monitoring Station at FERNDALE, WA.....**Okay**




- 73.1030 (c) Monitoring Station at VERO BEACH, FL..... **Okay**
- 73.1030 (c) Monitoring Station at GRAND ISLAND, NE..... **Okay**
- 73.1030 (c) Monitoring Station at KINGSVILLE, TX..... **Okay**
- 73.1030 (c) Monitoring Station at LAUREL, MD..... **Okay**
- 73.1030 (c) Monitoring Station at LIVERMORE, CA..... **Okay**
- 73.1030 (c) Monitoring Station at POWDER SPRINGS, GA..... **Okay**
- 73.1030 (c) Monitoring Station at SANTA ISABEL, PR..... **Okay**
- 73.1030 (c) Monitoring Station at HONOLULU, OAHU, HI..... **Okay**

### 13.0 CONCLUSION

The engineering conducted and discussed in this report demonstrates that Channel 240 (95.9 MHz) is available for the proposed LPFM facility. The proposed LPFM facility is well within compliance on all regulatory matters and a construction permit should therefore be issued to ETBU.

### 14.0 CERTIFICATION

This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

  
William T. Godfrey, Jr.  
Engineering Associate

Kessler and Gehman Associates, Inc.



**APPENDIX A – Height Above Average Terrain (HAAT) Calculation**

**The Height Above Average Terrain (HAAT)** was **calculated using a 3-arc second terrain database**; therefore, the applicant requests that the FCC also calculate the HAAT using 3 second terrain so that the applicant can operate with and ERP of 90 W. (See Appendix D for ERP calculation).

Results are as follows:

The screenshot shows a window titled "HAAT Calculation". It contains the following fields and controls:

- Latitude: 40-46-13.20 N
- Longitude: 074-08-04.70 W
- Broadcast Type: ☐ TV, ☒ FM
- Number Of Radials: 8 (dropdown menu)
- Update Average Terrain button
- Average Terrain: 31.606 m
- HAAT: 4.39 m
- AMSL Height: 36.0 m

The screenshot shows a window titled "Transmitter Properties" with three tabs: Transmitter, Antenna, and Info. The Transmitter tab is active, showing the following fields and controls:

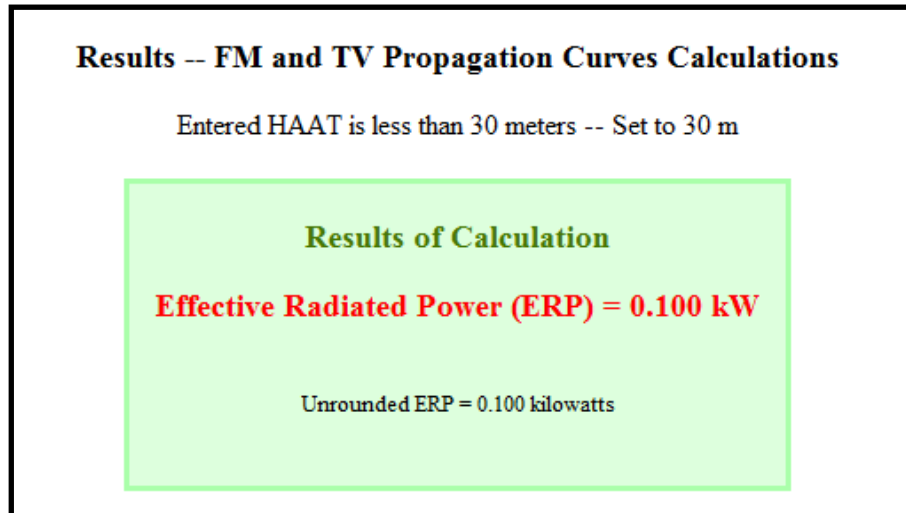
- Transmitter Parameters:
  - Identification: LPFM
  - Latitude: 40-46-13.20 N
  - Longitude: 074-08-04.70 W
  - ERP: 0.1 kW
- Frequency: 95.90 MHz
- Channel: 240
- FM Broadcast Mode: Analog (dropdown menu)
- HAAT: 4.39 m
- Calc HAAT button
- Get Elevation button
- Auto checkbox (checked)
- Base Elevation: 13.59 m
- Antenna Height AG: 22.41 m
- Calc COR button
- Specify Xmitter Height AMSL button
- To Ref and From Ref buttons
- Load From FCC Database button
- Class: Max L1 (dropdown menu)
- Print Transmitter Info button
- Property Files: Import and Export buttons
- Broadcast Type: ☐ TV, ☐ DTV, ☒ FM, ☐ Other
- Propagation Model: Don't Calculate Signal (dropdown menu)

**APPENDIX B – FM Propagation Curves Calculation**

**The Effective Radiated Power (ERP)** was calculated from the FCC's FM Propagation Curves Calculator tool:

<http://transition.fcc.gov/mb/audio/bickel/curves.html>

Results are as follows:



**Interference Contour Must < 30.5 m (antenna height)**

<b>LPFM Power</b>	<b>75</b>	<b>W</b>
<b>Field Strength</b>	<b>126.693</b>	<b>dBuV/m</b>
<b>Distance</b>	<b>28.1</b>	<b>Meters</b>
<b>Distance</b>	<b>92.1</b>	<b>Feet</b>
<b>Distance</b>	<b>0.0281</b>	<b>km</b>

An ERP of 75 W will keep the interference contour from reaching within 6 ft of the ground (Based on free space loss).

## APPENDIX C – Channel Spacing Study

## Short Spacing Study for Channel 240 (3 Second Terrain Data)

Kessler and Gehman Associates, Inc. Telecommunications Consulting Engineers LPFM Channel Study Channel Spacing Study						
REFERENCE				CLASS = L1 Int = L1	DISPLAY DATES	
40 46 13.2 N.				Current Spacings to 2nd Adj.	DATA	11-13-13
74 08 04.7 W.				Channel 240 - 95.9 MHz	SEARCH	11-14-13
Call	Channel	Location	Azi	Dist	FCC	Margin
ALLO	USE	242B New York	NY 101.0	12.77	66.5	-53.7
Coordinates updated from LIC record BLH840214AB						
WXNY-FM	LIC	242B New York	NY 101.0	12.77	66.5	-53.7
ALLO	USE	238B New York	NY 101.0	12.77	66.5	-53.7
Coordinates updated from LIC record BLH851224KB						
WPLJ	LIC	238B New York	NY 101.0	12.77	66.5	-53.7
ALLO	USE	240A Point Pleasant	NJ 172.2	67.12	66.5	0.6
Coordinates updated from LIC record BLH840203AE						
WRAT	LIC	240A Point Pleasant	NJ 172.3	67.17	66.5	0.7
WRAT	CP	240A Point Pleasant	NJ 172.6	67.68	66.5	1.2
ALLO	USE	240A Norwalk	CT 56.7	70.25	66.5	3.8
Coordinates updated from LIC record BLH840716DP						
WFOX	LIC	240A Norwalk	CT 56.7	70.25	66.5	3.8
ALLO	USE	241B Easton	PA 260.4	110.32	96.5	13.8
Coordinates updated from LIC record BLH3551						
WCTO	LIC	241B Easton	PA 260.4	110.32	96.5	13.8
Grandfathered at 50 kW ERP / 152 meters HAAT						
1549178	APP	240D Warren Township	NJ 243.0	40.37	25.5	14.9
1567231	APP-D	240D Warren Township	NJ 243.0	40.37	25.5	14.9
ALLO	USE	239B Philadelphia	PA 230.1	122.55	96.5	26.1
Coordinates updated from LIC record BLH3813						
WBEN-FM	LIC	239B Philadelphia	PA 229.3	123.88	96.5	27.4
1566954	APP	240D Peekskill	NY 17.6	66.22	25.5	40.7
1550946	APP	240D Peekskill	NY 17.6	66.22	25.5	40.7
WKSS	LIC-D	239B Hartford-meriden	CT 50.4	139.45	96.5	43.0
ALLO	USE	239B Hartford-meriden	CT 50.4	139.45	96.5	43.0
Coordinates updated from LIC record BLH840109AA						
ALLO	USE	241A Poughkeepsie	NY 9.3	104.84	55.5	49.3
Proposed to Canada as Class B1 951031						
ALLO	USE	240A Liberty	NY 336.2	119.49	66.5	53.0
Coordinates updated from LIC record BLH781023AF						
WVOS-FM	LIC-D	240A Liberty	NY 336.2	119.49	66.5	53.0
WPKF	LIC	241A Poughkeepsie	NY 10.0	109.14	55.5	53.6
WPKF	LIC	241A Poughkeepsie	NY 10.0	109.42	55.5	53.9
Proposed to Canada as Class B1 951031-Accepted by Canada 960319						
WJVC	LIC-Z	241A Center Moriches	NY 85.0	115.89	55.5	60.4
ALLO	USE	241A Center Moriches	NY 85.9	117.00	55.5	61.5
W239AC	LIC	239D Middletown	NY 342.7	79.62	14.5	65.1
1567094	APP-D	241D Danbury	CT 40.3	91.58	20.5	71.1
W239BL	LIC-D	239D Poughkeepsie	NY 6.0	103.76	27.5	76.3
1547166	APP	241D Danbury	CT 40.3	91.58	14.5	77.1
ALLO	USE	239A Olyphant	PA 304.5	145.46	55.5	90.0
Accepted by Canada on 940207						

## Radio Reading Service study for Channel 240 (3 Second Terrain Data)

LPFM stations must satisfy the second-adjacent channel minimum distance separation requirements with respect to any third-adjacent channel FM station that, as of September 20, 2000, broadcasts a Radio Reading Service (RRS) via a subcarrier frequency. The proposed LPFM station is not shortspaced to any station; including stations providing a RRS Radio Reading Service.

Kessler and Gehman Associates, Inc. Telecommunications Consulting Engineers LPFM Channel Study Radio Reading Service Spacing Study						
REFERENCE	CLASS = L1 Int = L1				DISPLAY DATES	
40 46 13.2 N.	Current Spacings to 3rd Adj.				DATA 11-13-13	
74 08 04.7 W.	Channel 240 - 95.9 MHz				SEARCH 11-14-13	
Call	Channel	Location	Azi	Dist	FCC	Margin
ALLO	USE 242B	New York	NY 101.0	12.77	66.5	-53.7
Coordinates updated from LIC record BLH840214AB						
WXNY-FM	LIC 242B	New York	NY 101.0	12.77	66.5	-53.7
ALLO	USE 238B	New York	NY 101.0	12.77	66.5	-53.7
Coordinates updated from LIC record BLH851224KB						
WPLJ	LIC 238B	New York	NY 101.0	12.77	66.5	-53.7
ALLO	USE 240A	Point Pleasant	NJ 172.2	67.12	66.5	0.6
Coordinates updated from LIC record BLH840203AE						
WRAT	LIC 240A	Point Pleasant	NJ 172.3	67.17	66.5	0.7
WRAT	CP 240A	Point Pleasant	NJ 172.6	67.68	66.5	1.2
WFOX	LIC 240A	Norwalk	CT 56.7	70.25	66.5	3.8
ALLO	USE 240A	Norwalk	CT 56.7	70.25	66.5	3.8
Coordinates updated from LIC record BLH840716DP						
WCTO	LIC 241B	Easton	PA 260.4	110.32	96.5	13.8
Grandfathered at 50 kW ERP / 152 meters HAAT						
ALLO	USE 241B	Easton	PA 260.4	110.32	96.5	13.8
Coordinates updated from LIC record BLH3551						
1549178	APP 240D	Warren Township	NJ 243.0	40.37	25.5	14.9
1567231	APP-D 240D	Warren Township	NJ 243.0	40.37	25.5	14.9
ALLO	USE 239B	Philadelphia	PA 230.1	122.55	96.5	26.1
Coordinates updated from LIC record BLH3813						
WBEN-FM	LIC 239B	Philadelphia	PA 229.3	123.88	96.5	27.4
1566954	APP 240D	Peekskill	NY 17.6	66.22	25.5	40.7
1550946	APP 240D	Peekskill	NY 17.6	66.22	25.5	40.7
WKSS	LIC-D 239B	Hartford-meriden	CT 50.4	139.45	96.5	43.0
ALLO	USE 239B	Hartford-meriden	CT 50.4	139.45	96.5	43.0
Coordinates updated from LIC record BLH840109AA						
ALLO	USE 241A	Poughkeepsie	NY 9.3	104.84	55.5	49.3
Proposed to Canada as Class B1 951031						
ALLO	USE 240A	Liberty	NY 336.2	119.49	66.5	53.0
Coordinates updated from LIC record BLH781023AF						
WVOS-FM	LIC-D 240A	Liberty	NY 336.2	119.49	66.5	53.0
WPKF	LIC 241A	Poughkeepsie	NY 10.0	109.14	55.5	53.6
WPKF	LIC 241A	Poughkeepsie	NY 10.0	109.42	55.5	53.9
Proposed to Canada as Class B1 951031-Accepted by Canada 960319						
WRDW-FM	LIC 243B	Philadelphia	PA 229.4	123.66	66.5	57.2
ALLO	USE 243B	Philadelphia	PA 229.3	123.88	66.5	57.4
Coordinates updated from LIC record BLH871112KA						
WJVC	LIC-Z 241A	Center Moriches	NY 85.0	115.89	55.5	60.4
ALLO	USE 241A	Center Moriches	NY 85.9	117.00	55.5	61.5
W239AC	LIC 239D	Middletown	NY 342.7	79.62	14.5	65.1
1567094	APP-D 241D	Danbury	CT 40.3	91.58	20.5	71.1
W239BL	LIC-D 239D	Poughkeepsie	NY 6.0	103.76	27.5	76.3

## APPENDIX D - SHORT SPACING WAIVER CALCULATIONS

Short Spacing Undesired-to-Desired Ratio Calculation to second-adjacent channel facility:

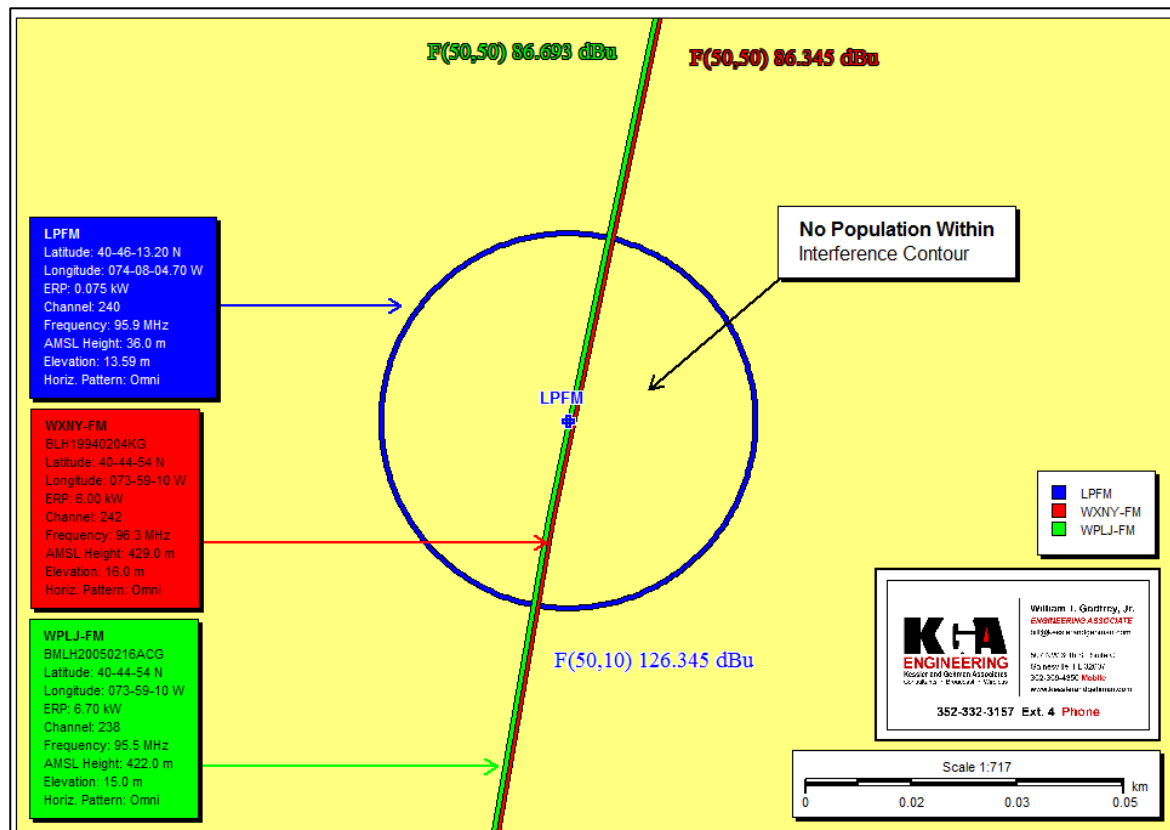
### 1) WXNY-FM

Undesired-to-Desired Ratio Method:

F(50,50) Service Contour at proposed LPFM site: **86.345 dBu**  
 Second-adjacent protection: **+ 40 dB**  
 Interference-zone boundary: **126.345 dBu**  
 Distance to F(50,10) 126.345 dBu: **28.1 m**

\*\*\* **Antenna is 30.5 m AGL and the interference zone extends a maximum of 28.1 m. Therefore, the interference zone will not come within 6 ft of the ground.** \*\*\*

The Interference Zone values above were calculated from map below:



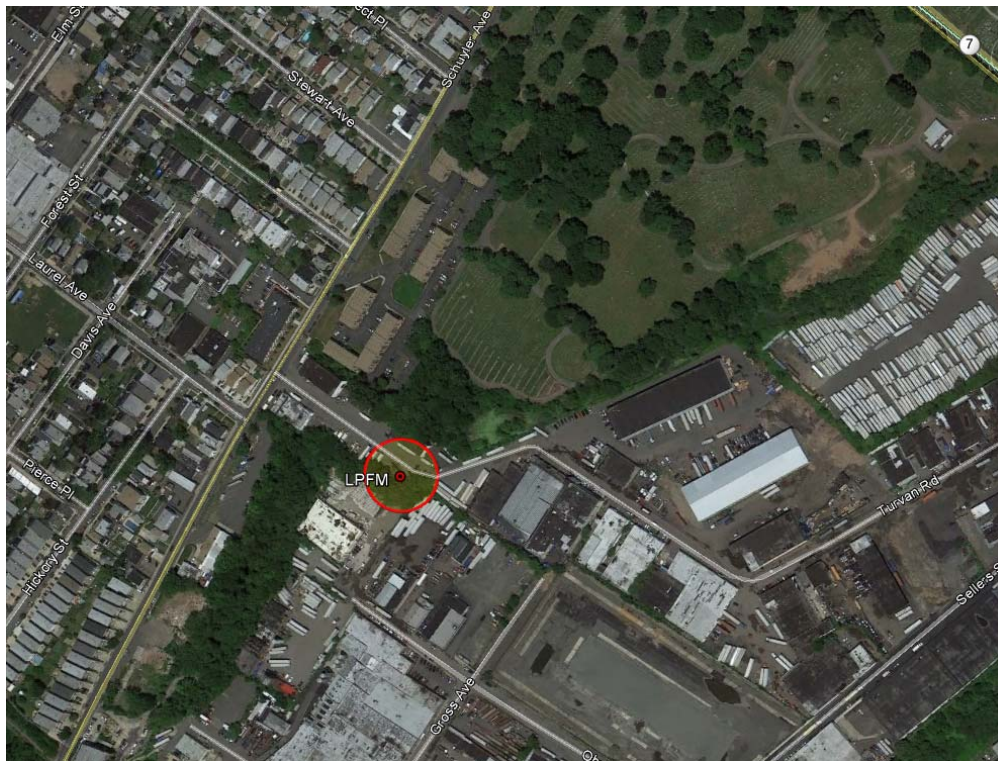
Contour Parameters:  
Type: FCC Contour  
F(50-10) FS: 126.345 dBu [360 Radials]  
Population Database: 2010 US Census (PL)  
Primary Terrain: 3 Second US Terrain

Transmitter Information:  
Call Letters: LPFM  
Latitude: 40-46-13.20 N  
Longitude: 074-08-04.70 W  
ERP: 0.075 kW  
Channel: 240  
Frequency: 95.9 MHz  
AMSL Height: 36.0 m  
Elevation: 13.59 m  
HAAT: 4.39 m  
Horiz. Antenna Pattern: Omni

Total Population Within Contour: 0  
Total Housing Units Within Contour: 0  
Total Area Within Contour: 0.00 sq. km

**No Population (0.0)  
Within F(50,10)  
126.345 dBu  
Interference Contour:**





**2) WPLJ-FM**Undesired-to-Desired Ratio Method:

F(50,50) Service Contour at proposed LPFM site:	<b>86.963 dBu</b>
Second-adjacent protection:	<b>+ 40 dB</b>
Interference-zone boundary:	<b>126.963 dBu</b>
Distance to F(50,10) 126.963 dBu:	<b>27.2 m</b>

Since it has been shown that there would be no interference caused to WXNY-FM with an interference contour of 28.1 m, it must also be true that there is no interference (0.9 m smaller).

**Accordingly, it has been demonstrated that the proposed LPFM facility's operations will not result in interference to any authorized radio service pursuant to Section 73.807(e)(1) of the FCC Rules.**

**APPENDIX E – TRANSLATOR AND BOOSTER PROXIMITY**

The proposed transmitter site proximity to FM boosters and translators was determined using the FCC's FMQuery tool:

<http://www.fcc.gov/encyclopedia/fm-query-broadcast-station-search>

Results are as follows:

**Boosters within 10km of the proposed LPFM transmitter site: 0**

Search Parameters	
Service:	FB
Search radius:	10.00 km
Center lat / lon:	N 40 46 13.20 W 74 8 4.70
Lower Channel	200
Upper Channel	300
*** 0 FM Records within 10.00 km distance of 40° 46' 13.20" N, 74° 8' 4.70 " W ***	



**Translators within 10km of the proposed LPFM transmitter site: 0****Search Parameters**

Service:	FX
Search radius:	10.00 km
Center lat / lon:	N 40 46 13.20 W 74 8 7.70
Lower Channel	200
Upper Channel	300

\*\*\* 0 FM Records within 10.00 km distance of 40° 46' 13.20" N, 74° 8' 7.70 " W \*\*\*