



United States of America
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

Authorizing Official:

Official Mailing Address:

MEL WHEELER, INC.
 5001 S. HULEN, SUITE 107
 FORT WORTH TX 76132

Son Nguyen
 Supervisory Engineer
 Audio Division
 Media Bureau

Grant Date: October 27, 2015

Facility Id: 31138

Call Sign: WFIR

This license expires 3:00 a.m.
 local time, October 01, 2019.

License File Number: BL-20140930APN

This license covers permit no.: BMP-20150817ABY

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Hours of Operation: Unlimited

Average hours of sunrise and sunset:
 Local Standard Time (Non-Advanced)

Jan.	7:30 AM	5:30 PM	Jul.	5:15 AM	7:45 PM
Feb.	7:15 AM	6:00 PM	Aug.	5:30 AM	7:15 PM
Mar.	6:30 AM	6:30 PM	Sep.	6:00 AM	6:30 PM
Apr.	5:45 AM	7:00 PM	Oct.	6:30 AM	5:45 PM
May	5:15 AM	7:15 PM	Nov.	7:00 AM	5:15 PM
Jun.	5:00 AM	7:45 PM	Dec.	7:30 AM	5:00 PM

Callsign: WFIR

License No.: BL-20140930APN

Name of Licensee: MEL WHEELER, INC.

Station Location: ROANOKE, VA

Frequency (kHz): 960

Station Class: B

Antenna Coordinates:

Day

Latitude: N 37 Deg 18 Min 09 Sec

Longitude: W 80 Deg 02 Min 25 Sec

Night

Latitude: N 37 Deg 15 Min 19 Sec

Longitude: W 79 Deg 57 Min 34 Sec

Transmitter(s): Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Nominal Power (kW): Day: 10.0 Night: 5.0

Antenna Input Power (kW): Day: 10.0 Night: 5.4

Antenna Mode: Day: ND Night: DA

(DA=Directional Antenna, ND=Non-directional Antenna; CH=Critical Hours)

Current (amperes): Day: 11 Night: 10

Resistance (ohms): Day: 83 Night: 54

Non-Directional Antenna: Day

Radiator Height: 115.8 meters; 133.5 deg

Theoretical Efficiency: 334.6 mV/m/kw at 1km

Antenna Registration Number(s):

Day:

Tower No.	ASRN	Overall Height (m)
4	1035290	

Night:

Tower No.	ASRN	Overall Height (m)
1	1018042	
2	1018043	

DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

Theoretical RMS (mV/m/km): Night: 720.2
 Standard RMS (mV/m/km):
 Augmented RMS (mV/m/km): Night: 756.59
 Q Factor: Night:

Theoretical Parameters:

Night Directional Antenna:

Tower No.	Field Ratio	Phasing (Deg.)	Spacing (Deg.)	Orientation (Deg.)	Tower Ref Switch *	Height (Deg.)
1	1.0000	0.000	0.0000	0.000	0	107.0
2	0.8500	4.500	217.5000	84.800	0	107.0

* Tower Reference Switch

- 0 = Spacing and orientation from reference tower
- 1 = Spacing and orientation from previous tower

Augmentation Parameters:

Aug No.	Central Azimuth (Deg. T)	Span (Deg.)	Radiation at Central Azimuth (mV/m @ 1 km)
1	292.0	10.0	160.93

Night Directional Operation:

Twr. No.	Phase (Deg.)	Antenna Monitor Sample Current Ratio
1	50	0.73
2	0	1

Antenna Monitor: POTOMAC INSTRUMENTS AM-19(204)

Sampling System Approved Under Section 73.68 of the Rules.

Monitoring Points:

Night Operation:

Radial (Deg. T)	Distance From Transmitter (kM)	Maximum Field Strength (mV/m)
52	3.38	31
180	1.98	690
238	4.94	31
292	6.24	20.1
313.5	2.43	149.6

Special operating conditions or restrictions:

- 1 The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.
- 2 Licensee shall be responsible for satisfying all reasonable complaints of blanketing interference within the 1 V/m contour as required by Section 73.88 of the Commission's rules.

- 3 Daytime:
Ground system consists of 120 equally spaced buried copper wire radials surrounding the five towers and extending to a length of 122.9 meters each except where overlap of radials between adjacent towers would occur. (WFIR daytime operation uses existing tower number 4 of the WVBE, 610 kHz, Roanoke, Virginia)

Nighttime:

Ground System consists of 120 equally spaced, buried, copper radials about the base of each tower. Radials are between 106.7 m and 198 m in length for E (#1) tower and 91.4 m except where terminated by property boundaries for the W(#2) tower, plus a 9.8 m square ground screen at the base of each tower.

- 4 DESCRIPTION OF AND FIELD INTENSITY MEASURED AT MONITORING POINTS:

Direction of 52° True North: From the transmitter, make a right turn onto Colonial Avenue and proceed approximately 0.2 miles to Wonju Street. Turn left at Wonju Street, and enter the I-581 north ramp. Follow I-581 north for 1.2 miles. Taking the Elm Street exit and turn right, going 0.5 miles to 9th Street. Turn left onto 9th Street and travel four blocks to Tazewell Avenue. Turn right onto Tazewell Avenue and go one block, looking for 10th Street on the left. At 10th Street turn left and go one block to Campbell Avenue. Turn right onto Campbell Avenue and proceed to the Valley Metro Building. The monitor point is in the first driveway of the Valley Metro building, 1108 Campbell Avenue. The field intensity measured at this point should not exceed 31 mV/m.

Direction of 180° True North: From the transmitter, make a right turn onto Colonial Avenue, then an immediate left turn onto Wonju Street. Follow Wonju Street for 0.25 mile and turn right onto Franklin Road. Travel along Franklin Road for 0.8 mile, making a left turn onto Avenham Avenue. Follow Avenham Avenue 0.1 mile and make a right turn on the Somerset Street. Travel 0.4 mile to the end of Somerset Street. The monitoring point is in the street at the end of the road. Distance from antenna 1.23 miles. The field intensity measured at this point should not exceed 690 mV/m.

Direction of 238° True North: From the transmitter, make a left turn onto Colonial Avenue. Travel 0.2 miles to the "T" intersection of Colonial and Brandon Avenues, making a left turn onto Brandon Avenue. Follow Brandon Avenue 1.0 mile and turn left onto Bramton Avenue. Travel 2.6 miles on Brambleton Avenue and turn left onto Valley Forge Avenue. (Rt. 1602). Travel up Valley Forge Avenue 0.3 mile to top of the hill. The point is 150 feet in the driveway that begins here, next to a shed. Distance from antenna 3.07 miles. The field intensity measured at this point should not exceed 31 mV/m.

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*** END OF AUTHORIZATION ***