

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
AM BROADCAST STATION LICENSE

File No. : BZ-960715AA
Call Sign : WNZK

LICENSEE: Birach Broadcasting Corporation

1. Community of License . . . : Dearborn Heights, MI
2. Transmitter location. . . . : 1.8 miles west of
Telegraph Rd on north
side of Will Carleton
Road, Flat Rock, MI
North Latitude : 42° 05' 55"
West Longitude : 83° 19' 48"
Antenna and ground system:
Attached

3. Transmitter(s): Type Accepted. See Sections 73.1660,
73.1665 and 73.1670 of the Commission's rules)
4. Main Studio Location: (See Section 73.1125)
21,700 Northwestern Hwy,
Tower 14, Suite 1190
Southfield, MI
5. Remote control location
21,700 Northwestern Hwy,
Tower 14, Suite 1190
Southfield, MI

Obstruction marking and lighting specifications - FCC Form 715, paragraphs: 1, 3, 4, 13, 21 & 22 for towers 1, 8, 4 & 6; 1 for towers 2, 3, 5 & 7.

8. Frequency 690 Day kHz 680 Night kHz
9. Nominal power (kW) 2.5 Day 2.5 Night
Antenna input power (kW) :
2.7 Day Non-directional antenna current 7.35 amperes: resistance 50 ohms.
 Directional antenna
2.7 Night Non-directional antenna current 7.35 amperes: resistance 50 ohms.
 Directional antenna

10. Hours of operation : BP-871116AF; BMP-901123AD
11. Conditions

Subject to the provisions of the Communications Act of 1934, as amended, subsequent Acts, Treaties, and Commission rules made thereunder, and further subject to conditions set forth in this license,¹ the LICENSEE is hereby authorized to use and operate the radio transmitting apparatus herein described for the purpose of broadcasting for the term ending 3 A.M. Local Time
October 1, 2003

The Commission reserves the right during said license period of terminating this license or making effective any change, or modification of this license which may be necessary to comply with any decision of the Commission rendered as a result of any hearing held under the rules of the Commission prior to the commencement of this license period.
The license is issued on the licensee's representation that the statements contained in the 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, as amended. This license is subject to the right of control by the Government of the United States conferred by section 606 of the Communications Act of 1934, as amended.

¹ This license consists of this page and pages
Dated:

EAL:rao
2, 3, 4 & 5
FEDERAL COMMUNICATIONS COMMISSION



OCT 30 1996

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DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

No. and Type of Elements: Eight (8) vertical, guyed, series excited, insulated, steel radiators of uniform cross section, four towers are common for both arrays. Theo. RMS (mV/m/km) Day: 489.2; Night: 508.63. Standard RMS (mV/m/km) Day: 513.92; Night: 534.46. Q factor: Day: 15.81; Night: 19.89. An STL & RPU Antenna is sidemounted on #4 tower. Augmented RMS (mV/m/km) Day: 513.92; Night: 534.46.

Height above Insulators: 110.3 m (91.3° for Day and 90° for Night).

Overall Height: Corner towers #1, 4, 8 & 6: 112 m; towers #2, 3, 5 & 7: 111 m.

Spacing and Orientation: Daytime (690 kHz): towers are arranged in the form of a parallelogram with two lines of 3 towers spaced 306.4 m (253.8°) apart on a line bearing 64.8°. The three towers in each line are spaced 110.3 m (91.3°) apart on a line bearing of 180° T. Nighttime (680 kHz): towers are also arranged in the form of a parallelogram with two lines of 3 towers spaced 291.6 m (238°) apart on a line bearing of 108° True. The 3 towers in each line are spaced 110.3 m (90°) apart on a line bearing of 180° T.

Non-Directional Antenna: Not Authorized.

Ground System consists of 120 equally spaced, buried, copper radials 110.3 m in length except where intersecting radials are shortened and bonded or at the property boundaries. In addition 120 radials 18.3 m in length are interspersed between the long radials about the base of each tower.

2. **THEORETICAL SPECIFICATIONS**

Towers:		#1	#2	#3	#4	#5	#6	#7	#8
Phasing:	Night:	0°	144.0°	-78°	12°	156°	-66°	...	...
	Day:	...	...	0°	-64°	55°	174°	119°	-122°
Field Ratio:	Night:	1.0	1.323	0.72	0.9	1.191	0.648	...	...
	Day:	...	...	1.0	0.7	1.296	0.659	1.851	0.941

3. **OPERATING SPECIFICATIONS**

Phase Indication*:										
	Night:1/	0.772	1.0	0.544	0.667	0.930	0.553			
	Day:	...	...	0.53	0.407	0.697	0.360	1.00	0.540	
Antenna Base										
Current Ratio:										
	Night:2/	-145.4°	0°	135.2°	-127°	16.9°	154.3°	...	...
	Day:	...	...	-115.8°	-176.7°	-62°	58.5°	0°	113.8°	

Antenna Monitor Sample

Current Ratio:

Night:	0.782	1.00	0.562	0.686	0.932	0.542	...	...
Day:	...	...	0.52	0.412	0.712	0.382	1.00	0.554

Sample Current Deviation:

Night: ^{3/}	0%	0%	0%	0%	0%	0%	...
Day:							

Precision Adaptor Attenuator Values:

Night:	12.51	9.80	17.34	14.37	10.64	18.00
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1/ Permissible deviations from these values shall not exceed $\pm 5\%$.

2/ Permissible deviations from these values shall not exceed $\pm 0.5\%$.

3/ Permissible deviations from these values shall not exceed $\pm 0.8\%$.

* As indicated by Potomac Instruments AM-19/PMA-19 Antenna Monitor.
 Antenna sampling system approved under Section 73.68 (b) of the Rules.

THE DESCRIPTION OF AND FIELD INTENSITY MEASURED AT MONITORING POINTS:

Direction of 63° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn left and proceed approximately 1.75 miles northeast to the entrance of the Creekside Apartments. Turn left into the apartment drive and then turn right to go around the north end of the apartment buildings. Follow the drive north and then west to the parking area west of the first group of buildings. The point is located at the north end of the eastern drive at the east end of the sidewalk across the grassy area between the parking drives. This is point #13 on the radial and is located 4.38 kilometers from the transmitter site. The field intensity measured at this point should not exceed 17.9 mV/m Nighttime.

Direction of 90° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn left and proceed approximately 0.27 mile northeast to Gibraltar Road. Turn right and proceed approximately 0.32 mile southeast and then approximately 1.22 miles east to Cahill Road. Turn left and proceed approximately 0.31 mile north to the point. The point is located on the east side of the road in line with the first large tree north of the 25 mph speed limit sign. This is point #15 on the radial and is located 5.36 kilometers from the transmitter site. The field intensity measured at this point should not exceed 9.0 mV/m Nighttime.

Direction of 147° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn right and proceed approximately 3.28 miles southwest to Ready Road. Turn left and proceed approximately 1.80 miles east to the point. The point is located on the north side of the road in line with a small concrete drain abutment in the ditch. This is point #12 on the radial and is located 6.17 kilometers from the transmitter site. The field intensity measured at this point should not exceed 5.7 mV/m Nighttime.

Direction of 153° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn left and proceed approximately 2.20 miles southwest to Carleton Rockwood Road. Turn left and proceed approximately 0.58 mile east to Berlin Road. Turn right and proceed 0.49 mile south to the point. The point is located on the east side of the road in line with a fence row and metal post. This is point #12 on the radial and is located 4.96 kilometers from the transmitter site. The field intensity measured at this point should not exceed 4.6 mV/m Nighttime.

Direction of 252° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed west approximately 3.65 miles to Maxwell Road. Turn left and proceed approximately 0.77 mile south to the point. The point is located on the west side of the road in line with a lone large tree close to the road. This point #9 on the radial and is located 6.15 kilometers from the transmitter site. The field intensity measured at this point should not exceed 5.4 mV/m Nighttime.

Direction of 269.5° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed west approximately 2.88 miles to Bell Road. Turn right and proceed approximately 0.39 mile north to the point. The point is located on the west side of the road in line with a group of small trees in the ditch. This is point #11 on the radial and is located 4.70 kilometers from the transmitter site. The field intensity measured at this point should not exceed 6.2 mV/m Nighttime.

Direction 324° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed west approximately 1.66 miles to Romine Road. Turn right and proceed approximately 1.49 miles north to Willow Road. Turn right and proceed east, then northeast, then north approximately 0.92 mile to Huron River Drive. Continue north-

THE DESCRIPTION OF AND FIELD INTENSITY MEASURED AT MONITORING POINTS:

northwest along Huron River Drive approximately 2.21 miles to the intersection with Vining and King Roads. Turn left and continue on Huron River Drive approximately 0.89 miles to the point. The point is located south of the approach over I-275 at the "No Outlet" sign on the north side of the old road-way. This is point #10 on the radial and is located 7.14 kilometers from the transmitter site. The field intensity measured at this point should not exceed 8.3 mV/m Nighttime.

Direction of 118.5° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn right and then immediately left on South Huron River Drive. Proceed approximately 2.55 miles to Gildersleeve and turn left. Proceed approximately 0.35 mile northeast to house number 13380. The point is located on the west side of the road opposite the door to 13380 Gildersleeve. This is point #10 on the radial and is located 6.60 kilometers from the transmitter site. The field intensity measured at this point should not exceed 3.3 mV/m Daytime.

Direction of 149° True North. Proceed out transmitter drive to Will Carleton Drive. Turn left and proceed east approximately 1.77 miles to Telegraph Road. Turn right and proceed approximately 3.28 miles to Ready Road. Turn left and proceed approximately 2.11 miles east to Armstrong Road. Turn right and proceed south approximately 0.73 mile to the point which is located at the driveway made from crushed red stone on the west side of the road. This is point #13 on the radial and is located 7.34 kilometers from the transmitter site. The field intensity measured at this point should not exceed 2.5 mV/m Daytime.

Direction of 182° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and then take an immediate left on Port Creek Road. Follow Port Creek Road to the south-southeast for approximately 1.20 miles to Newburg Road. Turn right and proceed approximately 0.61 mile west to the point which is located on the south side of the road opposite the mailbox to 2535 Newburg Road. This is point #7 on the radial and is located 2.02 kilometers from the transmitter site. The field intensity measured at this point should not exceed 10.2 mV/m Daytime.

Direction of 211° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed west approximately 0.93 mile to Briar Hill Road. Turn left and proceed approximately 1.10 miles south to Newburg Road. Turn left and proceed approximately 0.55 mile east to the point which is located on the south side of the road opposite the third pole west of the railroad crossing. This is point #6 on the radial and is located 2.40 kilometers from the transmitter site. The field intensity measured at this point should not exceed 7.9 mV/m Daytime.

Direction of 241.5° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed approximately 3.65 miles to Maxwell Road. Turn left and proceed approximately 1.62 miles south to the point. The point is located on the west side of the road in line with the metal post at the end of the fence row. This is point #10 on the radial and is located 6.62 kilometers from the transmitter site. The field intensity measured at this point should not exceed 5.5 mV/m Daytime.

Direction of 307° True North. Proceed out transmitter drive to Will Carleton Drive. Turn right and proceed west approximately 1.66 miles to Romine Road. Turn right and proceed approximately 1.49 mile north to Willow Road. Turn left and proceed approximately 0.33 mile west to the entrance of Willow Metro Park. Turn right and proceed north 0.15 mile along the park drive to the "T" intersection. Turn right and proceed approximately 0.08 mile to the park drive on the left. Turn left and follow this drive approximately 0.10 mile to the "Y" intersection. Proceed to the right along the eastern drive to the center of the parking lot. The point is located on the west side of the parking

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area in line with the public restrooms. This is point #10 on the radial and is located 3.97 kilometers from the transmitter site. The field intensity measured at this point should not exceed 59 mV/m Daytime.