

EXHIBIT 10

SPECIAL OPERATING CONDITIONS

Baldwin Wallace College

Berea, OH

As required by Section 73.316 of the FCC Rules and the terms of the WBWC construction permit, a complete proof of performance (pattern modeling) has been conducted on the WBWC directional antenna by the manufacturer. Appendix A of this exhibit details the results of these measurements, including a description of the procedures and equipment which were utilized and the measured antenna patterns in both the horizontal and vertical polarizations.

Table 10.0 presents a tabulation of the measured radiation pattern data, in both the horizontal and vertical polarizations, in relation to the composite envelope pattern authorized by the WBWC construction permit. As shown in this table, the measured radiation in both polarizations is totally encompassed by the authorized composite pattern, as required by Section 73.316(c)(2) of the FCC Rules.

The maximum effective radiated power in the horizontal polarization is 4.0 kilowatts, while that in the vertical polarization is 3.4 kilowatts. The RMS of the horizontally polarized relative field pattern is 0.588, while that of the vertically polarized relative field pattern is 0.586. Thus, the RMS of the vertically polarized pattern is less than that of the horizontally polarized pattern. The composite measured RMS is 0.617, or 86.9% of the RMS of the authorized envelope pattern (0.710).

No other antennas are mounted within or in close proximity to the aperture of this antenna. Furthermore, there is no platform or other similar structure at the top of this tower which could possibly distort the directional pattern of this antenna.

The construction permit also requires that an affidavit from a licensed surveyor be submitted to establish that the antenna has been oriented at the proper azimuth. This certification is contained in Appendix B of this exhibit. Also included in Appendix B is the affidavit of Jerry C. Smith certifying that the antenna was installed in compliance with the drawings supplied by the manufacturer.

The WBWC construction permit also contains a condition requiring the submission of documentation that the constructed facilities comply with the FCC nonionizing radiation exposure standards if the antenna which was installed was anything other than a Jampro JMPC-4-RFR four bay half wave spaced antenna. Since the antenna which was installed is a Jampro JMPC-4-RFR four bay half wave spaced antenna, the facilities which were constructed comply with this condition and no such showing is required to be submitted as part of this application.

TABLE 10.0

**WBWC MEASURED DIRECTIONAL
PATTERN AND AUTHORIZED PATTERN**

Positive Alternative Radio, Inc.
Point Pleasant, WV

<u>Azimuth (Degrees)</u>	<u>Authorized Pattern (Relative Field)</u>	<u>Measured Pattern</u>	
		<u>Horizontal Polarization (Relative Field)</u>	<u>Vertical Polarization (Relative Field)</u>
0	0.440	0.370	0.405
10	0.350	0.300	0.340
20	0.280	0.250	0.280
30	0.225	0.200	0.215
40	0.180	0.170	0.160
45	0.180	0.155	0.120
50	0.180	0.150	0.100
60	0.180	0.155	0.070
70	0.180	0.165	0.040
80	0.180	0.170	0.040
90	0.225	0.155	0.080
100	0.280	0.120	0.185
110	0.350	0.090	0.275
120	0.440	0.130	0.360
130	0.500	0.240	0.430
135	0.520	0.300	0.460
140	0.540	0.340	0.480
150	0.580	0.420	0.520
160	0.620	0.490	0.555
170	0.660	0.530	0.605
180	0.700	0.575	0.650

TABLE 10.0 (cont'd)

<u>Azimuth (Degrees)</u>	Authorized Pattern (Relative Field)	<u>Measured Pattern</u>	
		Horizontal Polarization (Relative Field)	Vertical Polarization (Relative Field)
190	0.780	0.615	0.695
200	0.880	0.660	0.740
210	1.000	0.710	0.775
220	1.000	0.770	0.820
225	1.000	0.800	0.835
230	1.000	0.830	0.850
240	1.000	0.905	0.880
250	1.000	0.960	0.900
260	1.000	1.000	0.920
270	1.000	1.000	0.910
280	1.000	0.970	0.890
290	1.000	0.920	0.840
300	1.000	0.845	0.760
310	1.000	0.770	0.680
315	1.000	0.730	0.645
320	1.000	0.690	0.600
330	0.860	0.610	0.540
340	0.690	0.530	0.495
350	0.550	0.450	0.450

RMS of authorized envelope pattern = 0.710

RMS of horizontally polarized measured pattern = 0.588

RMS of vertically polarized measured pattern = 0.586

RMS of composite measured pattern = 0.617 (86.9% of authorized envelope pattern)

APPENDIX A
MEASURED DIRECTIONAL
ANTENNA PATTERN DATA



6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880

(916) 383-1177 FAX (916) 383-1182

DATE: November 30,2000

ANTENNA GAIN	<u>H-pol</u>	<u>V-pol</u>
relative	4.09	3.46
(dBd)	(6.11)	(5.39)

RMS OF THE
AZIMUTH PATTERNS:

CERTIFICATION

This certification, along with the accompanying antenna specification sheet, antenna mounting sketches, and azimuth and elevation patterns, certifies the construction and measurement of the *JAMPRO* FM CP antenna to the station's requirements, as measured at the *JAMPRO* antenna site in Sacramento, California. The following is an outline of construction methods, pattern measurements, installation requirements, recommended maintenance and equipment used.

CONSTRUCTION

A standard CP FM antenna model was used and parasitic reflectors were added to create the required directional patterns. From experience and by repeated measurements, these elements were adjusted as to position until the final configuration was determined and the pattern requirements were met. These additional elements are steel, hot dipped galvanized and either bolted or welded in place. Measurements to establish their exact location are shown on the antenna mounting sketches.

MEASUREMENT

The full scale antenna was mounted on an exact duplicate of its final support at the station. We were careful to duplicate conduits, cables and anything peculiar to this mounting. This was then placed on a turntable at the *JAMPRO* antenna range. This directional antenna was used for receiving the radiation from a transmitting antenna that is elevated 25 feet above ground and located at a distance of 7,000 feet. This transmitting antenna is capable of transmitting either horizontal or vertical polarization. The frequency of the signal generator was accurately set to station frequency by use of a frequency counter. A spectrum analyzer was used to continuously measure field strength as the antenna under test was rotated. Field strength at each azimuth was then plotted.



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Station: **WBWC**

Model: **JMPC-4R RFR DA**

INSTALLATION

The antenna must be installed in exactly the manner in which it was measured at the factory. This is shown in detail on the antenna mounting sketch, including the azimuth bearing of the elements. This boom must be verified by a surveyor at the site when installation is being completed. Good engineering practices should be followed in any details not covered by specific instructions.

MAINTENANCE

Annual or regular inspection should be made on the antenna system. At this time, tightness of U-bolts, or other fastenings, should be routinely checked. Any deterioration of the antenna due to lightning, or other causes should be promptly repaired.

EQUIPMENT

MODEL: -3000 WAVETEK SIGNAL GENERATOR, SERIAL #66479
-8591E H.P. SPECTRUM ANALYZER, SERIAL #3308A01312, CAL'd 5/99
-TUNED CAVITY DIPOLE

CONCLUSION

In the development of this pattern, JAMPRO antennas, Inc. observed known requirements of the FCC, as stated on the station construction permit.

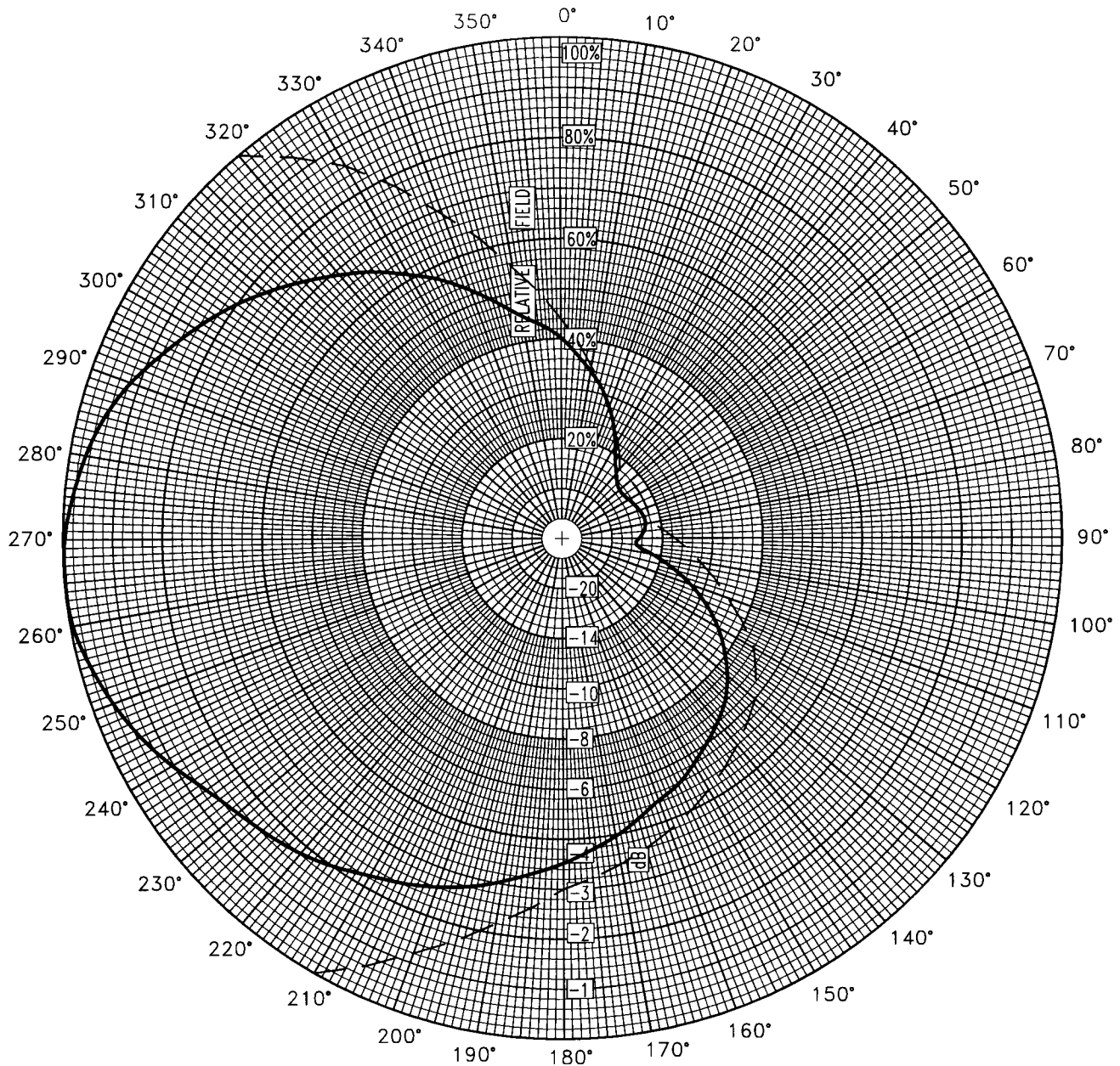
Gain figures and required input power to achieve station ERP, as well as other details, are found on the first page.

This certification, with its calculations were performed by J. Dane Jubera, B.S.E.E., Electrical Engineer, JAMPRO Antennas, Inc.

EXECUTED THIS 30th DAY OF November, 20 00

BY: J. Dane Jubera

J. Dane Jubera, B.S.E.E. JAMPRO Antennas, Inc.



Azimuth Pattern

Customer: WBWC

Date: October 30, 2000

Frequency: 88.3 MHz

Type Number: JMPC-4R RFR DA

Notes:

COMPOSITE PATTERN ENVELOPE (H & V)



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WBWC

ERP = 4.00 kW

October 30,2000

JMPC-4R RFR DA

TABULATION OF RELATIVE FIELD

COMPOSITE MEASURED PATTERN (H & V)

<u>BEARING</u>	<u>FIELD</u>	<u>ERP</u> <u>(kW)</u>	<u>dBk</u>
0	0.405	0.66	-1.83
10	0.340	0.46	-3.35
20	0.280	0.31	-5.04
30	0.215	0.18	-7.33
40	0.170	0.12	-9.37
50	0.150	0.09	-10.46
60	0.155	0.10	-10.17
70	0.165	0.11	-9.63
80	0.170	0.12	-9.37
90	0.155	0.10	-10.17
100	0.185	0.14	-8.64
110	0.275	0.30	-5.19
120	0.360	0.52	-2.85
130	0.430	0.74	-1.31
140	0.480	0.92	-0.35
150	0.520	1.08	0.34
160	0.555	1.23	0.91
170	0.605	1.46	1.66
180	0.650	1.69	2.28
190	0.695	1.93	2.86
200	0.740	2.19	3.41
210	0.775	2.40	3.81
220	0.820	2.69	4.30
230	0.850	2.89	4.61
240	0.905	3.28	5.15
250	0.960	3.69	5.67
260	1.000	4.00	6.02
270	1.000	4.00	6.02
280	0.970	3.76	5.76
290	0.920	3.39	5.30
300	0.845	2.86	4.56
310	0.770	2.37	3.75
320	0.690	1.90	2.80
330	0.610	1.49	1.73
340	0.530	1.12	0.51
350	0.450	0.81	-0.92

Relative fields at other azimuths:

45	0.155	225	0.835
135	0.460	315	0.730



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Frequency: <MHz> 88.30

File Name:WBWC.ELU

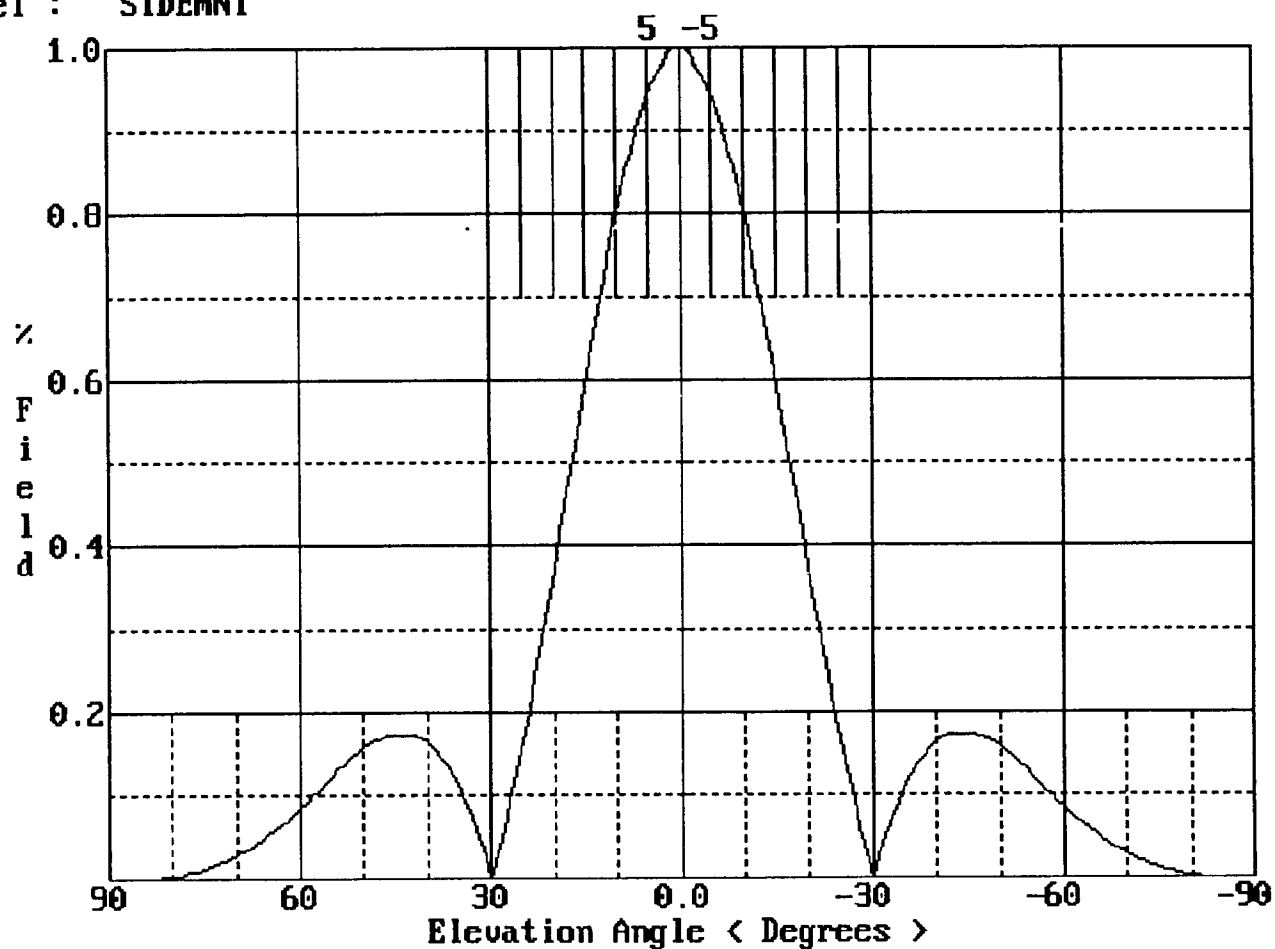
JAMPRO ANTENNAS INC.

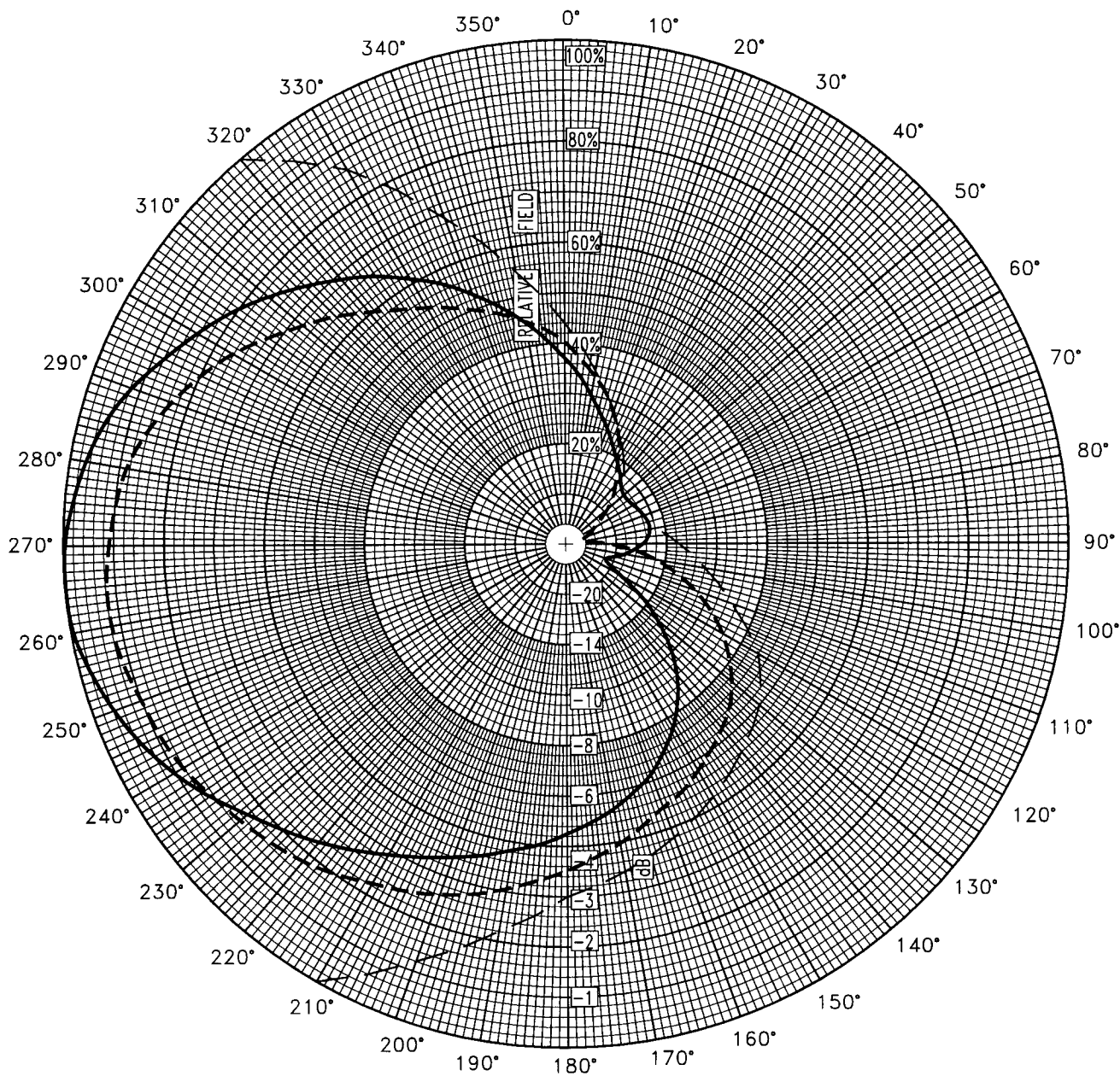
Bays : 4

ELEVATION PATTERN

Spacing (Wavelength): .50

Model : SIDEMNT





Azimuth Pattern

Customer: WBWC

Date: October 30, 2000

Frequency: 88.3 MHz

Type Number: JMPC-4R RFR DA

Notes:

MEASURED PATTERN IN FULL SCALE

HPOL

VPOL

--- LIMITS



6340 Sky Creek Drive, Sacramento, CA 95828
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APPENDIX B
CERTIFICATIONS REGARDING
ANTENNA INSTALLATION



DEAN M. CULP, P.S.

3323 Spring Valley Rd.
Akron, Ohio 44333
(216) 659-4044

Property Surveys
Subdivisions
Condominiums
Construction Staking

December 14, 2000

Warmus and Associates, Inc.
2324 N. Cleveland-Massillon Road
Bath, OH 44210

Re: Antenna Alignment - North Olmsted, OH

Gentlemen:

This is to certify that the new antenna installed by your firm for WBWC Radio is installed with the antenna boom oriented at 267° True, as specified by the antenna manufacturer.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Dean M. Culp".


Dean M. Culp
Registered Surveyor No. 6811



ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)

I, Jerry C. Smith, being duly sworn, depose and state that I am a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that I have extensive experience over many years in the installation of FM broadcast antennas, both directional and nondirectional. I personally supervised the installation of the Jampro JSCP-4R RFR DA four bay half wave spaced directional antenna for WBWC and further inspected the completed installation. The antenna, including the parasitic elements, was installed in compliance with the drawings supplied by the antenna manufacturer detailing the configuration which was utilized in the pattern modeling.


Jerry C. Smith

Subscribed and sworn to before me on **December 14, 2000.**

Nancy D. Adams
Notary Public

NANCY A. ADAMS, Notary Public
Residence - Cuyahoga County
State Wide Jurisdiction, Ohio
My Commission Expires Sept. 5, 2005

/SEAL/