

TECHNICAL EXHIBIT  
MINOR CHANGE APPLICATION  
STATION WBGH-CA (FACILITY ID 15569)  
BINGHAMTON, NEW YORK

MARCH 7, 2005

CH 20(z) 0.161 KW

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Technical Narrative

The technical exhibit of which this narrative is part supports a minor change application for class A television station WBGH-CA at Binghamton, New York. Station WBGH-CA is licensed to operate on channel 20 with a non-directional antenna visual effective radiated power (ERP) of 0.161 kilowatts (kW) and an antenna radiation center height above mean sea level (RCAMSL) of 603 meters (BLTTA-20010921AAG).

Proposed Facilities

This minor change application proposes ONLY to correct the transmitter site coordinates and adjust the antenna height due to the revised ground elevation. The existing operation is located on the WIVT(TV) tower; however the WBGH-CA site coordinates are incorrect. The corrected transmitter site coordinates (NAD27) are: 42-03-39 N, 75-56-36 W. The tower registration number (ASRN) for this existing structure is 1007060 (see Figure 1).

Figure 2 is a map showing the present and proposed 74 dBu coverage contours for WBGH-CA. The proposed facility will not result in any extension of the predicted 74 dBu coverage contour.<sup>1</sup> Therefore, the proposal meets the terms of the FCC Filing Freeze for television stations.<sup>2</sup>

Allocation Considerations

Using the procedures outlined in the FCC's OET-69 Bulletin, no calculated interference is predicted to occur to any full service (NTSC or DTV), Class A or LPTV station by this proposed coordinate correction (see Figure 3).

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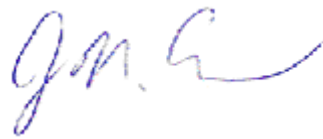
<sup>1</sup> This modification will result in a slight reduction in the predicted 74 dBu contour relative to the licensed predicted 74 dBu contour.

<sup>2</sup> See August 2004 Filing Freeze PN, DA 04-2446 (MB released Aug. 3, 2004).

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

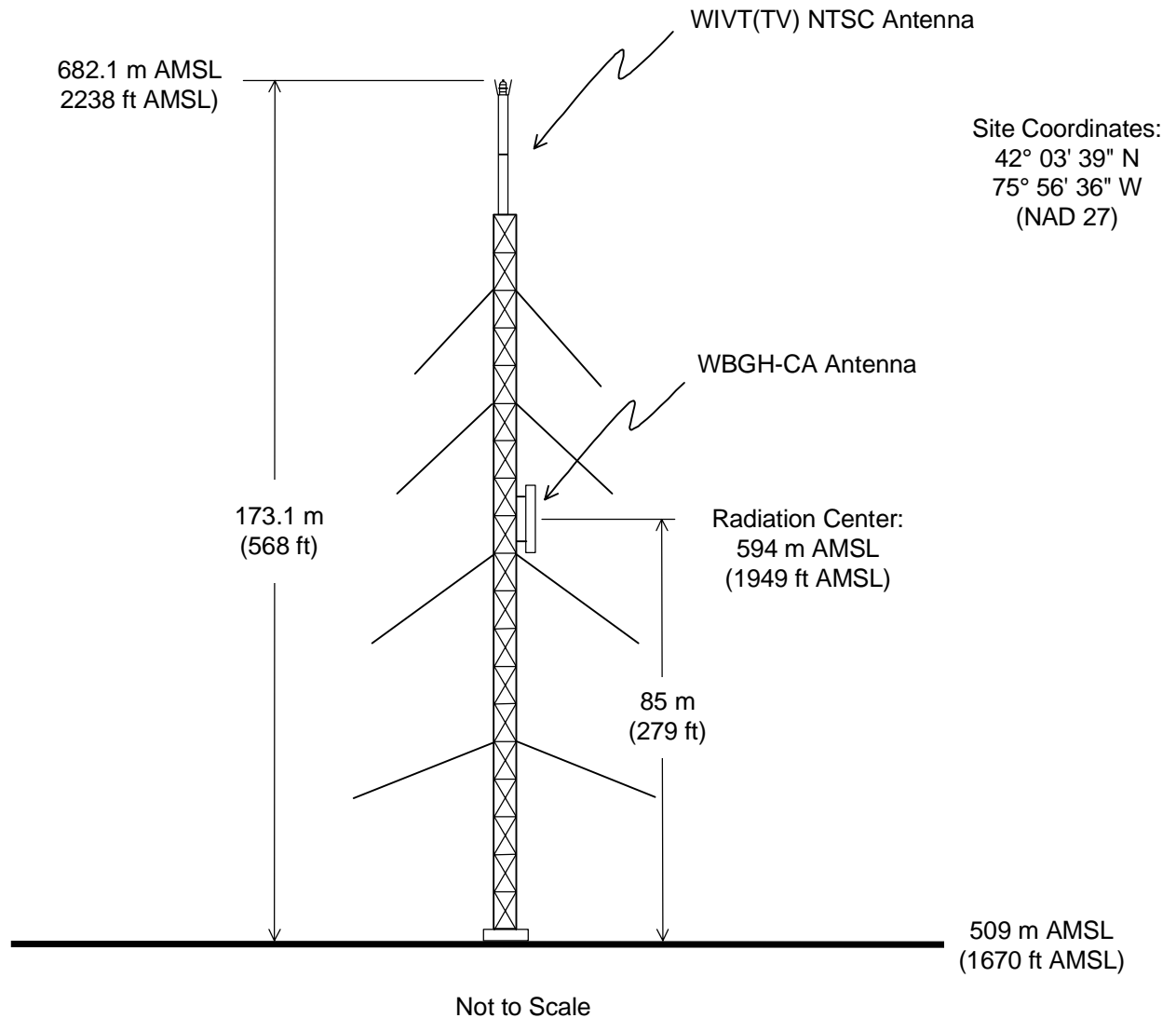
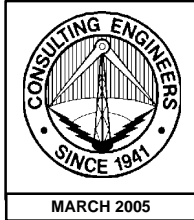
For the calculation, a visual peak effective radiated power of 0.161 kilowatts, with 22% aural power, and a radiation center of 85 meters above ground level was employed. A “worst-case” vertical downward radiation value of 1.0 was assumed. The calculated power density at 2 meters above ground level resulting from this facility will not exceed 0.001 mW/cm<sup>2</sup>. This is less than five percent of the maximum Commission guideline value in an uncontrolled environment. It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner as part of the tower registration process.



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March 7, 2005

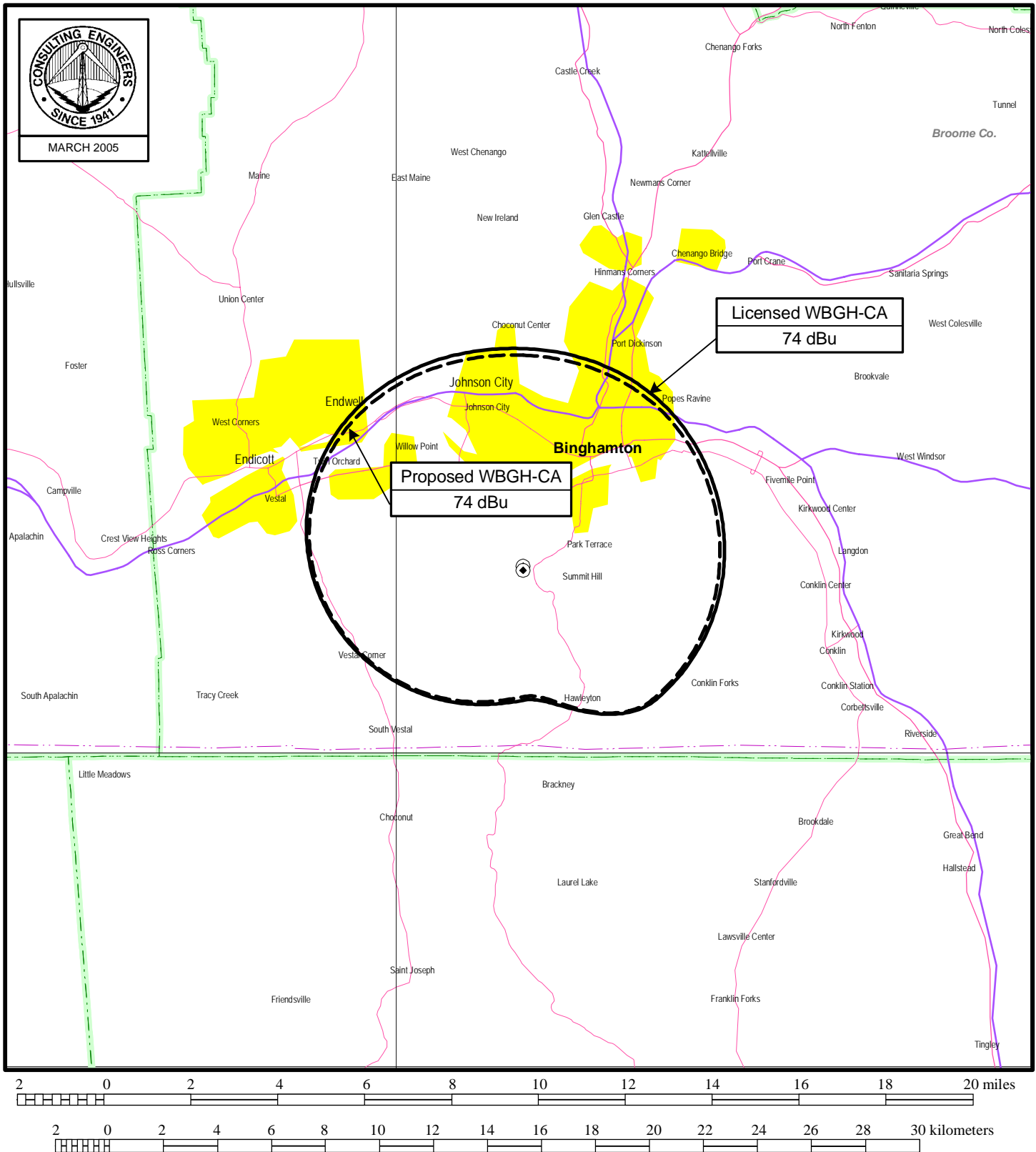


## **ANTENNA AND SUPPORTING STRUCTURE**

STATION WBGH-CA  
BINGHAMTON, NEW YORK  
CH 20(z) 0.161 KW

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

Figure 2



## **PREDICTED COVERAGE CONTOURS**

STATION WBGH-CA

BINGHAMTON, NEW YORK

CH 20(z) 0.161 KW

du Treil, Lundin & Rackley, Inc Sarasota, Florida

1990 Census data selected  
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Record Selected for Analysis

WBGH-CA USERRECORD-01 BINGHAMTON NY US  
Channel 20 ERP 0.161 kW HAAT 287. m RCAMSL 00594 m  
Latitude 042-03-39 Longitude 0075-56-36  
Status APP Zone 1 Border Offset Z

Cell Size for Service Analysis 2.0 km/side  
Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	74.0 dBu F(50,50) (km)
0.0	0.002	257.9	1.8
45.0	0.002	239.3	1.8
90.0	0.002	200.0	1.8
135.0	0.003	167.2	2.0
180.0	0.146	77.1	4.4
225.0	0.099	134.8	5.3
270.0	0.002	234.7	1.7
315.0	0.002	287.1	1.8

Evaluation from Class A Station

No Spacing violations or contour overlap from Class A station  
Contour Overlap Evaluation from Class A Complete

Contour Overlap Evaluation from LPTV Station to LPTV Stations

No Spacing violations or contour overlap from LPTV station  
Contour Overlap Evaluation from LPTV to LPTV Stations Complete

Contour Overlap to Proposed Station  
Station

WTXX 20 WATERBURY CT BLCT19820428KE causes  
Contour overlap to Class A station  
WBGH-CA 20 BINGHAMTON NY USERRECORD01

Station

WUTR 20 UTICA NY BPCT20021218AAM causes  
Contour overlap to Class A station  
WBGH-CA 20 BINGHAMTON NY USERRECORD01

Station

WUTR 20 UTICA NY BLCT1970 causes  
Contour overlap to Class A station  
WBGH-CA 20 BINGHAMTON NY USERRECORD01  
Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations  
Proposed facility OK toward West Virginia quite zone  
Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance  
 Distance to border = 188.3km  
 Proposed facility is beyond the Mexican coordination distance  
 Proposed station is 3.15km from AM station  
 BINGHAMTON NY WKOP Status: Antenna: DA2  
 Proposed station is 0.95km from AM station  
 BINGHAMTON NY WNBK Status: Antenna: DAN

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### Start of Interference Analysis

Channel	Call	City/State	ARN
20	WBGH-CA	BINGHAMTON NY	USERRECORD01

### Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
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### Analysis of Interference to Affected Station 1

#### Analysis of current record

Channel	Call	City/State	Application Ref. No.
20	WBGH-CA	BINGHAMTON NY	USERRECORD-01

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
17	WIXT-TV	SYRACUSE NY	98.5	LIC	BLCDT -20030812ABK
17	WIXT-DT	SYRACUSE NY	98.5	PLN	DTVPLN -DTVP0274
19	WSYT-DT	SYRACUSE NY	93.5	PLN	DTVPLN -DTVP0366
19	WSYT	SYRACUSE NY	93.5	CP	BPCDT -19991029ADL
20	WTXX	WATERBURY CT	249.8	LIC	BLCT -19820428KE
20	WDCA	WASHINGTON DC	358.0	LIC	BLCT -2091
20	WCVB-TV	BOSTON MA	388.5	LIC	BLCDT -20020102AAH
20	WCVB-DT	BOSTON MA	388.5	PLN	DTVPLN -DTVP0399
20	W20BL	BATH NY	108.8	LIC	BLTTL -19961015JG
20	W20BT	ITHACA NY	76.8	LIC	BLTTL -19990809JL
20	WUTR	UTICA NY	135.9	APP	BPCT -20021218AAM
20	WUTR	UTICA NY	135.9	LIC	BLCT -1970
20	W68CE	SHICKSHINNY PA	100.9	CP	BPTTL -20010706AAN
27	WFXV-DT	UTICA NY	116.0	PLN	DTVPLN -DTVP0682
27	WFXV	UTICA NY	115.9	CP	BPCDT -19991029AIE
34	WIVT	BINGHAMTON NY	0.0	LIC	BLCT -20040113ABJ

Total scenarios = 2

Result key: 1  
 Scenario 1 Affected station 1  
 Before Analysis

Results for: 20N NY BINGHAMTON	USERRECORD01	APP
	POPULATION	AREA (sq km)
within Noise Limited Contour	4098	52.0
not affected by terrain losses	4098	52.0



lost to NTSC IX	4098	52.0
lost to additional IX by ATV	0	0.0
lost to all IX	4098	52.0

Potential Interfering Stations Included in above Scenario 1

20N CT WATERBURY	BLCT	19820428KE	LIC
20N NY UTICA	BLCT	1970	LIC
34N NY BINGHAMTON	BLCT	20040113ABJ	LIC

Result key: 2  
Scenario 2 Affected station 1  
Before Analysis

Results for: 20N NY BINGHAMTON	USERRECORD01	APP
	POPULATION	AREA (sq km)
within Noise Limited Contour	4098	52.0
not affected by terrain losses	4098	52.0
lost to NTSC IX	4098	52.0
lost to additional IX by ATV	0	0.0
lost to all IX	4098	52.0

Potential Interfering Stations Included in above Scenario 2

20N CT WATERBURY	BLCT	19820428KE	LIC
20N NY UTICA	BPCT	20021218AAM	APP
34N NY BINGHAMTON	BLCT	20040113ABJ	LIC

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