ENGINEERING EXHIBIT

Application for Modification of Construction Permit
Digital Low Power Television Station

prepared for

Stainless Broadcasting, L.P.
WBPN-LD Binghamton, NY
Facility ID 168092
Ch. 23 (digital) 0.08 kW

Stainless Broadcasting, L.P. ("Stainless") holds a Construction Permit ("CP" BDCCDTL-20061030AGK) for unbuilt digital Low Power Television station WBPN-LD, Facility ID 168092, Binghamton, NY. This is a digital companion channel associated with WBPN-LP analog Channel 10, Facility ID 74020 (BLTVL-20000824ADL). *Stainless* proposes herein to modify the CP to specify use of a different transmitting site and reductions in power and antenna height.

The site proposed herein for WBPN-LD is located 4.3 km from the authorized site. WBPN-LD will operate on Channel 23 as currently authorized. Figure 1 depicts the 51 dBµ coverage contour of the proposed facility with that of the current CP and the licensed analog facility. The service area overlap shown demonstrates compliance with §73.3572 for a minor change.

It is proposed to utilize a rooftop transmitting antenna at the new location, atop the building housing the WBPN-LD and WICZ-TV[1] studio facilities. The proposed rooftop transmitting antenna's overall height will be 12.8 meters above ground level. FCC Antenna Structure Registration and notification to the FAA are not required since there are no known landing areas within 8 km of the site and the overall height does not exceed 61 meters AGL.

Interference study per OET Bulletin 69[2] shows that the proposal complies with the Commission's interference protection requirements toward all digital television, television translator,

[1] *Stainless* is also the licensee of full service station WICZ-TV Ch. 8, Binghamton, NY.
[2] FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV*

LPTV, and Class A stations. The results, summarized in Table 1, show no interference is predicted to be caused to any facility and therefore the proposal complies with §74.793.

The proposed site is located 184 km from the U.S. – Canadian border. The worst-case 19.5 dBμ F(50,10) co-channel DTV-to-DTV interfering contour is depicted in Figure 2 and does not extend across the border or expand beyond the 19.5 dBμ F(50,10) contour of current CP. Thus, international coordination should not be required.

The nearest FCC monitoring station is 141 km distant at Canandaigua, NY. This exceeds the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with quiet zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3.2 kilometers of the site.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and considering the worst-case of 100 percent antenna relative field in downward elevations, the calculated signal density at ground level is attributable to the proposed facility is 22.9 $\mu W/cm^2$, which is 6.5 percent of the general population/uncontrolled maximum permitted exposure ("MPE") limit. As to locations within the building and on the rooftop, worst-case RF levels attributable to the proposed facility will not exceed the general population/uncontrolled MPE limit for distances at least 3 meters from the antenna. No other authorized FM, AM, or TV facilities are located near enough to the proposed site to be considered significant emitters at the proposed rooftop location.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will be posted on the rooftop near the antenna

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Coverage and Interference, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A cell size of 1 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

mast and access to the mast will be controlled. With respect to worker safety, the applicant will reduce power or cease operation as necessary to protect persons having access to the mast or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

Joseph M. Davis, P.E.
February 8, 2013

Chesapeake RF Consultants, LLC
207 Old Dominion Road
Yorktown, VA 23692
703-650-9600

List of Attachments

Figure 1	Coverage Contour Comparison
Figure 2	Interfering Contour Towards Canada
Table 1	Interference Analysis Results Summary
Form 346	Saved Version of Engineering Sections from FCC Form at Time of Upload

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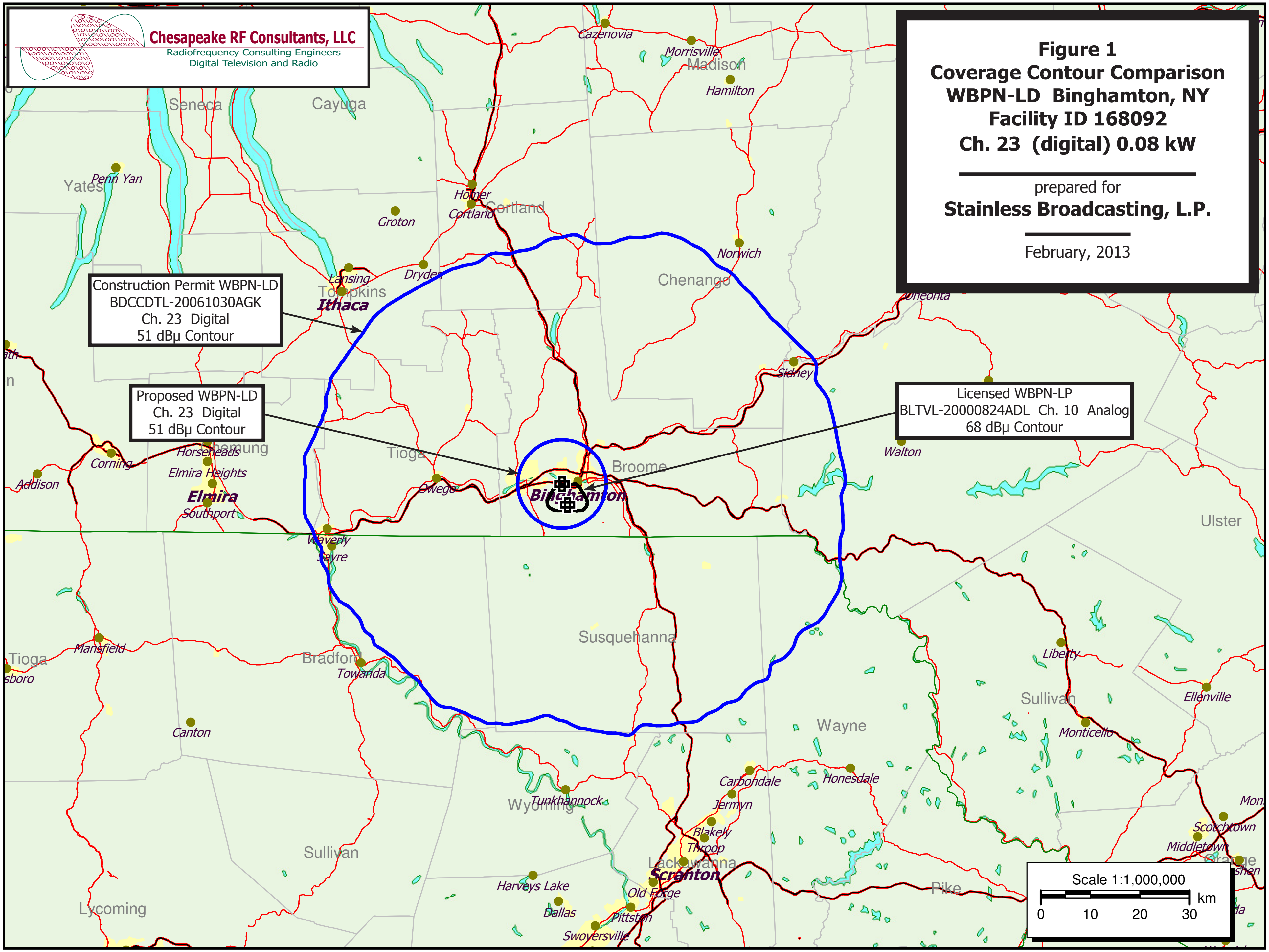
Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 1
Coverage Contour Comparison
WBPN-LD Binghamton, NY
Facility ID 168092
Ch. 23 (digital) 0.08 kW
prepared for
Stainless Broadcasting, L.P.
February, 2013
Construction Permit WBPN-LD
BDCCDTL-20061030AGK
Ch. 23 Digital
51 dBμ Contour
Proposed WBPN-LD
Ch. 23 Digital
51 dBμ Contour
Licensed WBPN-LP
BLTVL-20000824ADL Ch. 10 Analog
68 dBμ Contour
Scale 1:1,000,000
km
0
10
20
30
Seneca
Cayuga
Cazenovia
Morrisville
Madison
Hamilton
Yates
Penn Yan
Homer
Cortland
Cortland
Groton
Norwich
Lansing
Dryden
Tompkins
Ithaca
Chenango
Oneonta
Sidney
Walton
Horseheads
Corning
Elmira Heights
Addison
Elmira
Southport
Tioga
Owego
Broome
Binghamton
Ulster
Waverly
Sayre
Susquehanna
Liberty
Tioga
Mansfield
Bradford
Towanda
Sullivan
Ellenville
Monticello
Wayne
Canton
Carbondale
Honesdale
Jermyn
Wyoming
Tunkhannock
Blakely
Throop
Scotchtown
Middletown
Lackawanna
Scranton
Sullivan
Harveys Lake
Old Forge
Pike
Dallas
Pittston
Lycoming
Swoyersville

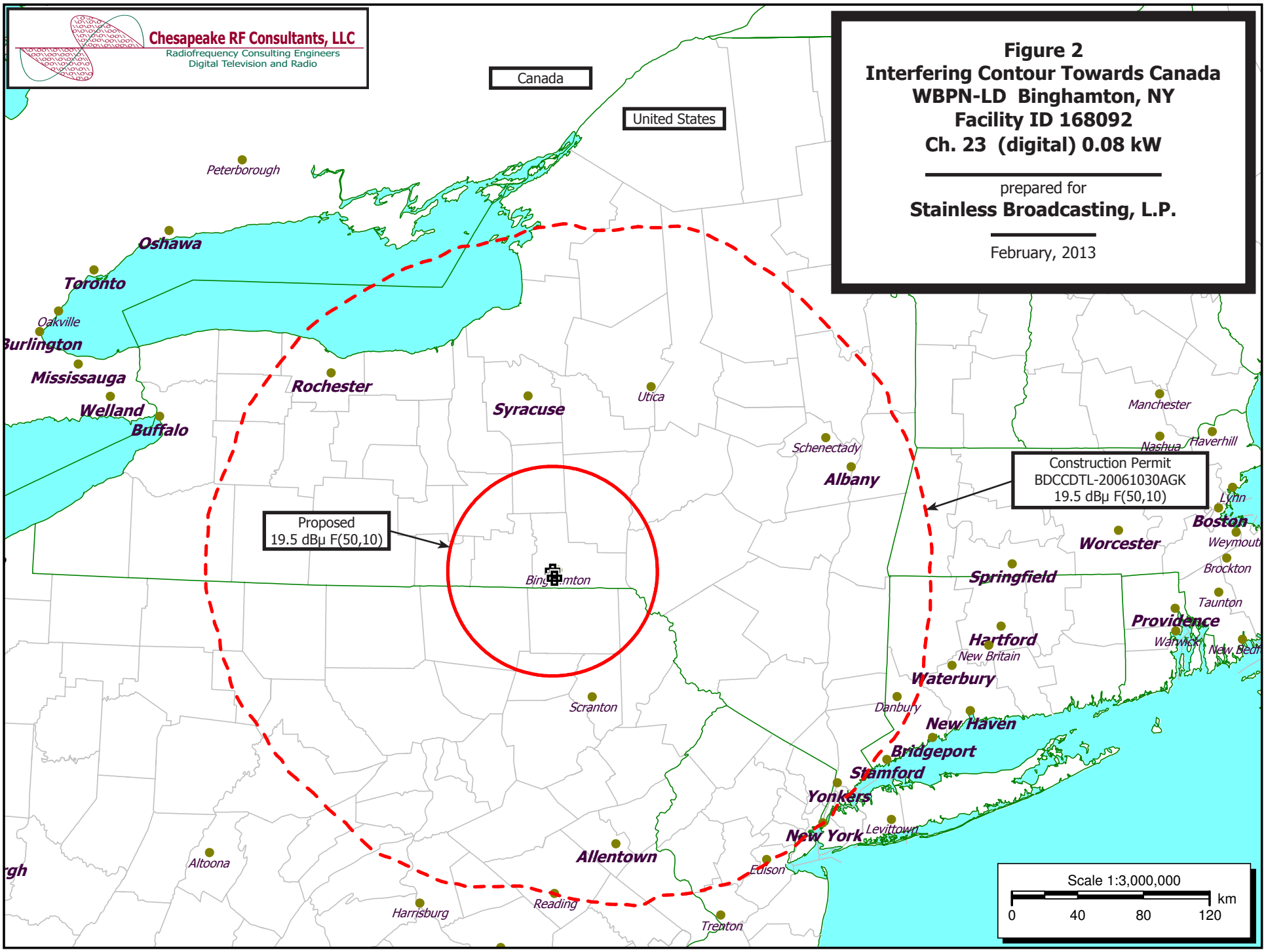
Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 2
Interfering Contour Towards Canada
WBPN-LD Binghamton, NY
Facility ID 168092
Ch. 23 (digital) 0.08 kW
prepared for
Stainless Broadcasting, L.P.
February, 2013
Canada
United States
Peterborough
Oshawa
Toronto
Oakville
Burlington
Mississauga
Welland
Buffalo
Rochester
Syracuse
Utica
Schenectady
Albany
Manchester
Nashua
Haverhill
Lynn
Boston
Weymouth
Worcester
Brockton
Springfield
Taunton
Providence
Warwick
New Bedf
Hartford
New Britain
Waterbury
Danbury
New Haven
Bridgeport
Stamford
Yonkers
New York
Levittown
Edison
Allentown
Reading
Trenton
Harrisburg
Altoona
Scranton
Binghamton
Proposed
19.5 dBµ F(50,10)
Construction Permit
BDCCDTL-20061030AGK
19.5 dBµ F(50,10)
Scale 1:3,000,000
km
0
40
80
120

Table 1

Interference Analysis Results Summary

prepared for

Stainless Broadcasting, L.P.

WBPN-LD Binghamton, NY

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

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WBPN-LD   USERRECORD-01              BINGHAMTON          NY US
 Channel 23 ERP 0.08   kW   HAAT   30. m  RCAMSL 00288 m SIMPLE MASK
 Latitude 042-05-38  Longitude 0075-57-27
 Nondirectional Antenna
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			Dist			---Population (2000 Census)----	
Ch.	Call	City/State	(km)	Status	Application Ref. No.	Baseline	New Interference
15	WTKO-LP	ONEIDA NY	110.6	LIC	BLTT-20000302AAT	---	none
15	WISF-LP	ONEONTA NY	81.1	LIC	BLTTL-19900425JZ	---	none
16	W16AX	ITHACA NY	58.0	LIC	BLTTA-20010302ABE	---	none
20	WBGH-CA	BINGHAMTON NY	3.9	LIC	BLTTA-20050505AAV	---	none
20	W20CM	PORT JERVIS NY	133.6	LIC	BLTTL-20071129AIS	---	none
22	NEW	CORNING NY	92.5	APP	BMJADTL-20100524AHU	---	none
22	DWROH-LP	ROCHESTER NY	176.4	CP	BDCCDTL-20061030ANY	---	none
22	WTVU-LP	SYRACUSE NY	108.6	CP MOD	BMPDTA-20111031AAK	---	none
22	WTVU-LP	SYRACUSE NY	108.6	LIC	BLTTL-19990816JB	---	none
22	WTVU-LP	SYRACUSE NY	108.6	APP	BSTA-20120103ADP	---	none
22	W22DO-D	UTICA NY	133.0	LIC	BLDTT-20111024AES	---	none
22	WNEP-TV	WAYMART PA	67.6	LIC	BLCDT-20091216AAH	---	none
23	WDDN-LD	WASHINGTON DC	356.2	LIC	BLDTL-20120810AAG	---	none
23	WDDN-LD	WASHINGTON DC	356.2	APP	BSTA-20110420AAX	---	none
23	WDVB-CD	EDISON NJ	222.2	LIC	BLDTL-20110113ABM	---	none
23	W23AZ	HACKETTSTOWN NJ	167.1	LIC	BLTTL-20021007AAH	---	none
23	WNAI-LP	SPRINGVILLE NJ	236.0	CP	BDISDTL-20101206ABZ	---	none
23	WPXJ-TV	BATAVIA NY	190.7	LIC	BLCDT-20090612AHY	---	none
23	WNPI-DT	NORWOOD NY	280.9	APP	BPEDT-20080619ABH	---	none
23	WNPI-DT	NORWOOD NY	280.9	LIC	BLEDT-20050715ABZ	---	none
23	W43CN-D	PORT JERVIS NY	165.5	APP	BDISDTL-20110823ACW	---	none
23	WFTY-DT	SMITHTOWN NY	283.6	LIC	BLCDT-20120427ABO	---	none
23	WNGN-LP	TROY NY	205.9	CP	BDISDTL-20090824ALE	---	none
23	WLYH-TV	LANCASTER PA	207.9	LIC	BLCDT-20040922AAC	---	none
23	WPXI	UNIONTOWN PA	397.9	LIC	BLCDT-20100429ADA	---	none
23	WDWA-LP	CLARKS CORNER VA	405.1	LIC	BLTTL-20080814AAR	---	none
23	WDWA-LP	DALE CITY VA	385.4	CP	BDFCDTL-20110310ABW	---	none
23	WDWA-LP	LURAY VA	405.1	APP	BSTA-20080321ACV	---	none
23	W23DR-D	ROMNEY WV	387.0	LIC	BLDTT-20090609AAZ	---	none
24	WRGB	KINGSTON NY	160.1	LIC	BLCDT-20110523AEL	---	none
24	W24EF	PORT JERVIS NY	133.6	LIC	BLTTL-20121024AAA	---	none

Table 1

Interference Analysis Results Summary

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Ch.	Call	City/State	Dist (km)	Status	Application Ref. No.	---Population (2000 Census)---- Baseline	New Interference
24	WSTM-TV	SYRACUSE NY	95.5	LIC	BLCDT-20090622AEM	---	none
24	W24DB	CLARKS SUMMIT PA	75.5	LIC	BLTTA-20041202ADB	---	none
24	W24BB	EAST STROUDSBURG PA	124.5	LIC	BLTTL-19911219JM	---	none
24	W24CS	READING PA	193.5	CP	BDFCDTT-20100617AHK	---	none
24	W24CS	READING PA	193.5	LIC	BLTT-20030321AAO	---	none
26	W26BS	BINGHAMTON NY	4.3	LIC	BLTT-19971110IR	---	none
26	W26BF	ELMIRA NY	68.7	LIC	BLTTL-19960111AB	---	none
26	W26DB	PORT JERVIS NY	133.6	LIC	BLTTL-20070223AHI	---	none
31	W31BP	BURLINGTON, ETC. NY	96.0	LIC	BLTTL-19980120JE	---	none
31	W42EB-D	SYRACUSE NY	107.4	CP	BPTTL-20080213ABM	---	none

Section III - Engineering (Digital)

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel:
23

2. Translator Input Channel No. :

3. Primary station proposed to be rebroadcast:

Facility Identifier	Call Sign	City	State	Channel

4. Antenna Location Coordinates: (NAD 27)
Latitude:
Degrees 42 Minutes 5 Seconds 38 (•) North ( ) South

Longitude:
Degrees 75 Minutes 57 Seconds 27 (•) West ( ) East

5. Antenna Structure Registration Number:
[x] Not Applicable [Exhibit 11] [ ] Notification filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 277.4 meters

7. Overall Tower Height Above Ground Level: 12.8 meters

8. Height of Radiation Center Above Ground Level: 10.7 meters

9. Maximum Effective Radiated Power (ERP): 0.08 kW

10. Transmitter Output Power: 0.01 kW

11. a.Transmitting Antenna:
Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.
(•) Nondirectional ( ) Directional Off-the Shelf ( ) Directional composite

Manufacturer ERI Model AL8O-23

b. Electrical Beam Tilt: 1.75 degrees [ ] Not Applicable

c. Mechanical Beam Tilt: degrees toward azimuth degrees True [x] Not Applicable

d. Directional Antenna Relative Field Values: [x] N/A (Nondirectional or Off-the-Shelf)
Rotation (Degrees): [ ] No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0		10		20		30		40		50	
60		70		80		90		100		110	
120		130		140		150		160		170	
180		190		200		210		220		230	
240		250		260		270		280		290	
300		310		320		330		340		350	
Additional Azimuths											

e. Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt? ( ) Yes (•) No

[Exhibit 12]

If Yes, attach an Exhibit (see instructions for details).

Relative Field Polar Plot

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. **Out-of-channel Emission Mask:** (•) Simple ( ) Stringent ( ) Full Service

CERTIFICATION

13. **Interference** : The proposed facility complies with all of the following applicable rule sections. 47.C.F.R Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. (•) Yes ( ) No

See Explanation in [Exhibit 13]

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 2/8/2013	
Mailing Address CHESAPEAKE RF CONSULTANTS LLC 207 OLD DOMINION ROAD		
City YORKTOWN	State or Country (if foreign address) VA	Zip Code 23692 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	