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ENGINEERING EXHIBIT EE-1:

**R AND S BROADCASTING LLC
LOW-POWER TELEVISION STATION WRNT-LP
HARTFORD, CT**

**DIGITAL CHANNEL 48
"FLASH-CUT" APPLICATION**

MARCH 2008

FCC FACILITY NUMBER: 26336

**ENGINEERING EXHIBIT
IN SUPPORT OF
AN APPLICATION FOR AUTHORITY TO CONSTRUCT
OR MAKE CHANGES IN A
LOW-POWER TELEVISION BROADCAST STATION**

**WRNT-LP, HARTFORD, CONNECTICUT
CHANNEL 48 DIGITAL FLASH-CUT**

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TABLE OF CONTENTS:

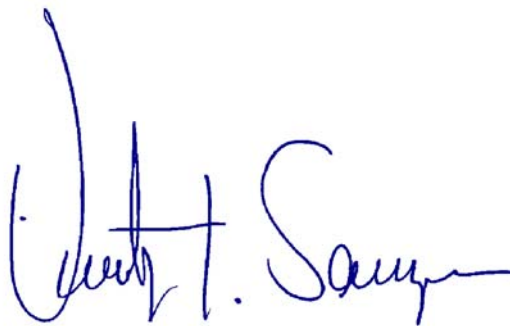
1. F.C.C. Form 346, Section III (Engineering Digital)
2. F.C.C. Form 346, Section III (Certification)
3. Declaration of Engineer
4. Narrative Statement
5. Figure 1, Predicted Coverage Contours
6. Figure 2, Directional Antenna Details
7. Figure 3, Allocation Study

DECLARATION

I, Timothy Z. Sawyer, declare and that I have provided engineering services in the area of telecommunications since 1969. My qualifications are a matter of record with the Federal Communications Commission. I am a senior engineer with the firm of Mullaney Engineering, Inc., consulting radio telecommunications engineers with offices in Gaithersburg, Maryland.

The firm of Mullaney Engineering, Inc., has been retained by R AND S BROADCASTING LLC, to prepare the instant engineering exhibit in support of *an application for Authority to Construct or Make Changes in a Low-Power Television Broadcast Station, WRNT-LP, FCC Facility ID Number 26336.*

All facts contained herein are true of my own knowledge except those stated to be on information and belief, and as to those facts, I believe them to be true. I declare under the penalty of perjury that the foregoing is true and correct.



Timothy Z. Sawyer

Executed on the 15th day of March 2008

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NARRATIVE STATEMENT:

I. GENERAL:

This engineering statement and the instant engineering exhibit of which it is part has been prepared on behalf of R AND S BROADCASTING LLC, (hereinafter "RSB").

This engineering exhibit supports a "flash-cut" application for LPTV station WRNT-LP. Station WRNT-LP is licensed to serve the community of Hartford, Connecticut and operates on analog channel 48(-).

The proposed digital "flash-cut" facilities will operate on digital television channel 48 with a maximum effective radiated power of 1-kilowatt (1000 watts) and an antenna height above mean sea level of 288.6 meters utilizing a directional antenna.

The proposed facilities will be built to comply with the *FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields* and the instant proposal is categorically excluded from environmental processing pursuant to the provisions of Section 1.1306 of the Commission's Rules. A more detailed discussion of environmental factors is included under the heading Environmental Considerations below.

Information requested by exhibits in response to questions on Section III of FCC Form 346 (digital) is incorporated in the following paragraphs, figures and/or tables.

Processing of this application is requested under the rules currently in effect at the time of filing.

ENGINEERING DISCUSSION:

Figure 1 is a map showing the 74 dBu (analog) construction permit and the proposed 51 dBu (digital) coverage contours. As can be seen on the map, the 51 dBu digital contour channel 48 and the 74 dBu analog channel 48 contours overlap. The proposed digital contour also overlaps a pending minor change application by WRNT-LP to modify its license by specifying a different antenna system.

As no changes in station location are proposed, the contours must physically overlap as the point of origin (the transmitter site) remains the same.

PROPOSED FACILITIES:

This application proposes digital operation on the WRNT-LP analog channel assignment (TV channel 48), at the authorized transmitter site. No changes in site location, or channel assignment are proposed, this is a digital “flash-cut” application.

The antenna supporting structure has been registered and issued FCC Tower Registration Number 1226764. The tower is 105.7 meters in overall height above the ground. No changes in the height of the existing structure are required. The ground elevation above mean sea level (AMSL) of the site is 210.9 meters.

The applicant proposes to side-mount its antenna with a center of radiation at 77.7 meters above ground on the existing structure. The center of radiation of the antenna above mean sea level (AMSL) is 288.6 meters.

This is an existing communication site that has been authorized for use by WRNT-LP in FCC License Permit BLTTL-20061120AAT.

Figure 2 contains a horizontal radiation (relative field) pattern of the proposed digital directional horizontal radiation pattern. The antenna is a RFT 14-Bay Custom UHF slot antenna (RFT-CUS-14-WRFT)

ALLOCATION CONSIDERATIONS:

A study has been conducted to assure that the proposal will not create prohibited interference with other licensed, authorized or pending analog or digital full-service TV, LPTV or TV Translator or Class-A TV stations.

Using the procedures outlined in the FCC's OET-69 Bulletin, a 1-kilometer cell size resolution and 1990 U.S. Census, the proposal complies with the current FCC policy (i.e., less than 0.5% new interference caused to other pertinent assignments).

Each station of concern has been analyzed using the methods described in OET Bulletin No. 69, and the results indicate that no interference (unmasked) or interference above 0.5% of the service population of the station studied will occur.

The results of the OET Bulletin No. 69 styled study are contained with Figure 3.

The applicant recognizes that its proposal is secondary to authorized full-service and Class-A television analog or digital operations or proposals.

ENVIRONMENTAL CONSIDERATIONS:

The applicant believes its proposal will not significantly affect the environment for the following reasons.

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall

within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights.

Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

Based upon a worst case downward field value of 0.20 for all angles 15 degrees and greater below the horizon, and a digital power of 1-kilowatt, and an antenna height of 77.7 meters above ground. The power density level 2-meters above ground is predicted to be 0.0001 mW/cm² or less. The computed power density is 0.004% of the Commission's guidelines for a controlled area and 0.022% for an uncontrolled area. This level is well below the Commission's guidelines for maximum exposure levels to electromagnetic fields and no further study is required.

The applicant will fully-cooperate and coordinate with all site users as required by the Commission's rules.

II SUMMARY:

The proposed station will operate on Digital Television Channel 48 with a maximum ERP of 1-kilowatt (1000 Watts), utilizing a DIRECTIONAL antenna system.

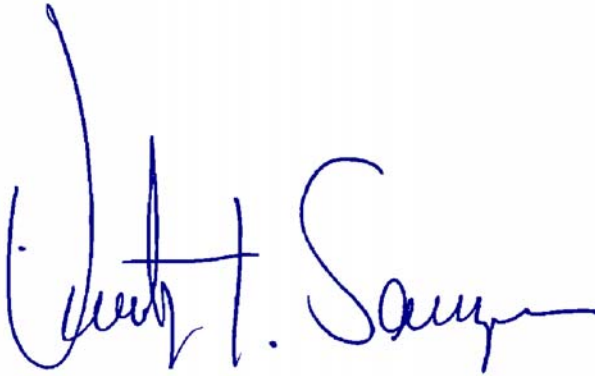
The estimated digital transmitter power output to produce the requested ERP is 85 watts.

Operation as proposed herein would not cause/increase any normally prohibited contour overlap using a terrain dependant - OET Bulletin No. 69 review, and would

not have any significant impact on the environment. The proposed operation will not create any new prohibited interference.

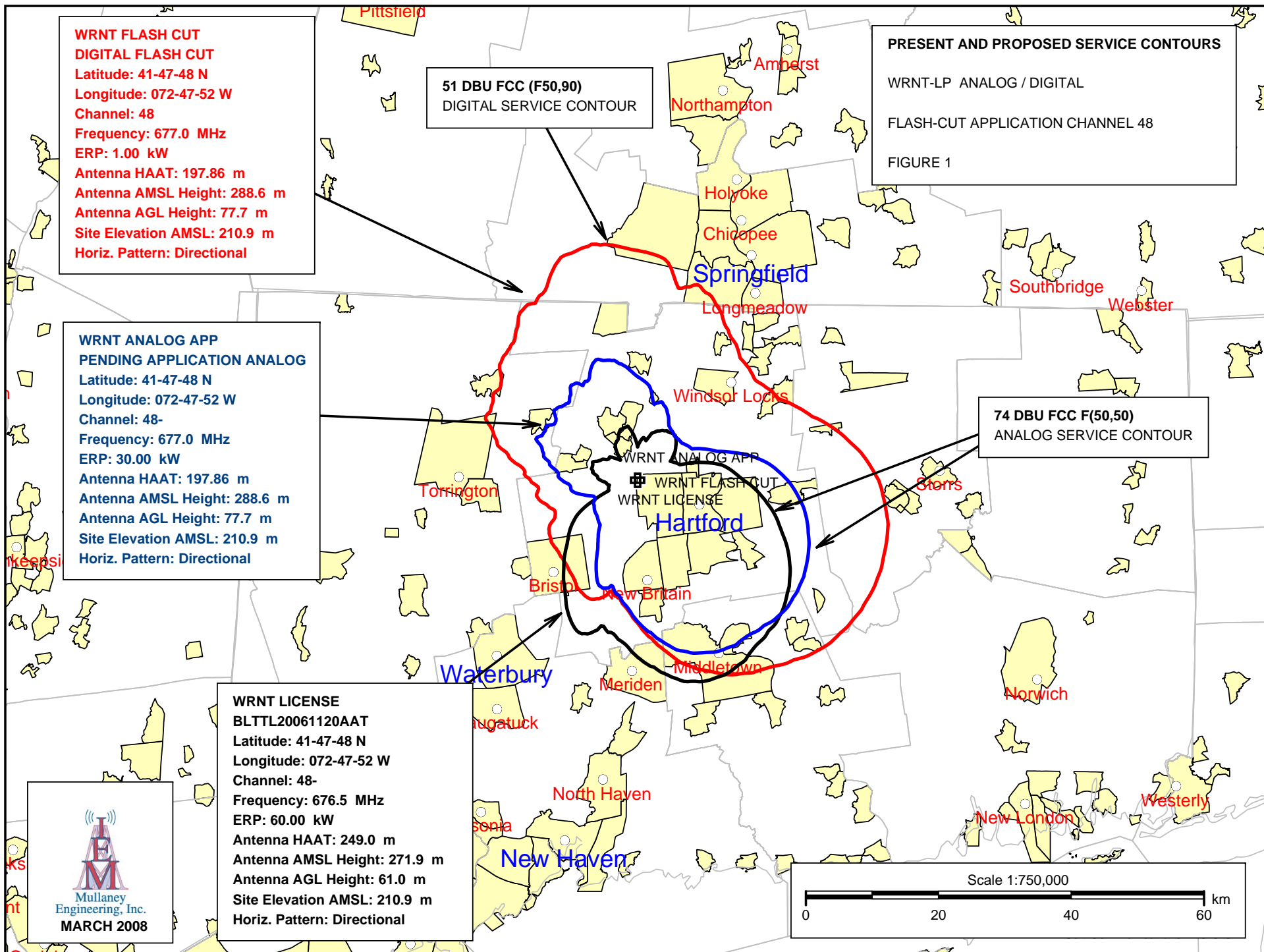
The proposed operation is fully in compliance with all other areas of the Commission's rules and applicable international agreements.

15 March 2008

A handwritten signature in blue ink, appearing to read "Timothy Z. Sawyer". The signature is fluid and cursive, with a large initial "T" and "S".

Timothy Z. Sawyer

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WRNT CUSTOM DIGITAL ANTENNA FIGURE 2

Azimuth (deg)	Effective Field
0.0	0.923
10.0	0.765
20.0	0.549
30.0	0.364
40.0	0.269
50.0	0.246
60.0	0.269
70.0	0.364
80.0	0.549
90.0	0.765
100.0	0.923
110.0	0.992
120.0	0.994
130.0	0.936
140.0	0.818
150.0	0.664
160.0	0.513
170.0	0.386
180.0	0.282
190.0	0.211
200.0	0.177
210.0	0.161
220.0	0.146
230.0	0.137
240.0	0.146
250.0	0.161
260.0	0.177
270.0	0.211
280.0	0.282
290.0	0.386
300.0	0.513
310.0	0.664
320.0	0.818
330.0	0.936
340.0	0.994
350.0	0.992
115.0	1.000
345.0	1.000

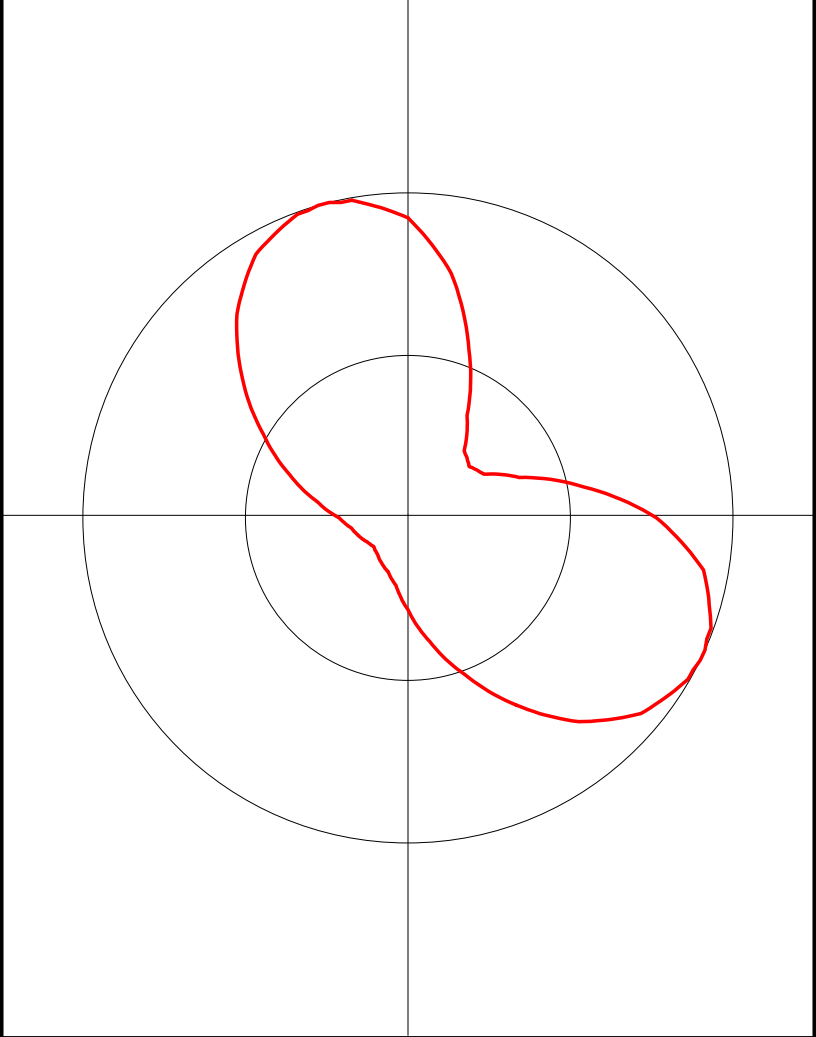


FIGURE 3 - OET BULLETIN NUMBER 69 INTERFERENCE STUDY - SUMMARY REPORT

Outgoing Interference Population Report

WRNT-PRE DTV (48) Hartford, CT
 Broadcast Type: Digital Service: G [Stringent Emission Mask]
 Lat: 41-47-48 N Lng: 072-47-52 W ERP: 1.0 kW AMSL: 288.6 m
 TV Outgoing Interference Study
 Signal Resolution: 1.0 km
 Consider NTSC Taboo: Yes

Default # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.

LR Profile Spacing Increment: 1.0 km

Using LPTV/translator D/U rules.
 Pop Centroid DB: 1990 US Census

Primary Terrain: NED 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second World Terrain

Population Database: 1990 US Census

----- Stations Considered:

Call Letters	City	State	Dist	Bear
WEDW-D.C (49)	Bridgeport	CT	66.0	209.5
WEDW (49-)	Bridgeport	CT	66.0	209.5
WEDW-D.R (49)	BRIDGEPORT	CT	66.0	209.5
WEDW.A (49-)	Bridgeport	CT	66.0	209.5
WYDN (48+)	Worcester	MA	93.4	52.6
WRNN-D.P.A (48)	Kingston	NY	101.7	250.7
WRNN-D.R (48)	KINGSTON	NY	101.8	250.7
WRNN-D (48)	Kingston	NY	101.8	250.7

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
WEDW-D.C (49)	32.0	4,837	3,976,006	28,462	12,268	0.3
WEDW (49-)	7.3	362	3,777,237	9,465	916	0.0
WEDW-D.R (49)	36.6	5,077	4,006,502	29,711	12,977	0.3
WEDW.A (49-)	0.0	0	1,352,438	0	0	0.0
WYDN (48+)	136.1	3,666	4,911,105	278,627	10,299	0.2
WRNN-D.P.A (48)	11.8	116	9,805,906	1,284	350	0.0
WRNN-D.R (48)	7.3	79	13,907,180	1,293	265	0.0
WRNN-D (48)	7.3	79	13,920,150	1,293	265	0.0

-----NO PROBLEMS-----