

## **Non-Interference Compliance**

Regarding Facility id 154006

Channel 279

### **Description of Exhibit 12 Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

**Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.**

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

*[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.*

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Page 5 of this exhibit is a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the nature of the buildings in the vicinity.

## Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
152062	BLH19900904KB	WAKG	89.8	89.8
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>89.8</b>

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **89.8 dBμ**, this makes the proposed translator's worst-case interfering contour **129.8 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **35.9 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

**Note: W228BF, Danville, VA (FIN: 154767) is currently being modded to the same transmit site as the proposed site for this application. IF BMPFT-20070309AAA is granted before this application, this proposal will cause 3<sup>rd</sup> adjacent overlap. Pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method. The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is 89.8 dBμ, this makes the proposed translator's worst-case interfering contour 129.8 dBμ. By the free-space equation, this contour is calculated to extend a maximum of 35.9 m from the transmit antenna. It is expected that the signal strength of W228BF will greatly exceed 89.8dBμ, so that WAKG will still be the worst case scenario and these calculations will still be valid.**

<b>Antenna Manufacturer:</b>	<b>TEL</b>
<b>Antenna Model:</b>	<b>ANT90D</b>
<b>CORAGL:</b>	<b>15 m</b>
<b>Maximum ERP:</b>	<b>0.25 kW</b>
<b>Interfering Contour:</b>	<b>129.8 dBμ</b>
<b>Max Int. Contour Distance:</b>	<b>35.9 m</b>

# **Adjacent Channel Study** **For Station W279AO, Facility\_id: 154006**

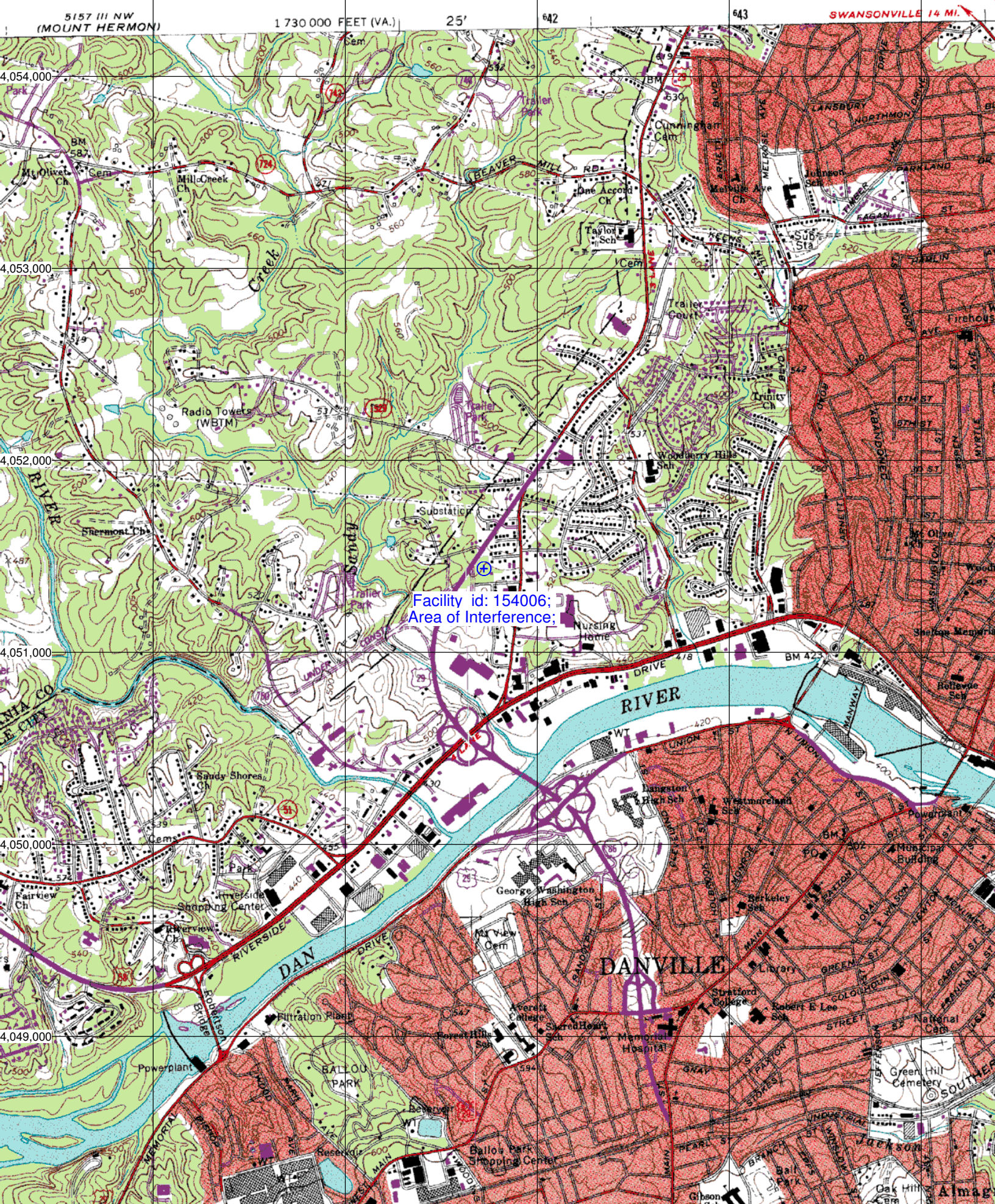
## **Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
152062	52545	BLH	19900904KB	WAKG	PIEDMONT BROADCASTING CORPORATION	C1	DANVILLE	VA	LIC	100	410	277	2	15.9	1.4918
681859	152725	BNPFT	20030826ABA	W281AE	EDGEWATER BROADCASTING, INC.	D	ROXBORO	NC	CP	0.01	363	281	2	44.8	0
1175406	152725	BMPFT	20070305ADB	W281AE	EDGEWATER BROADCASTING INC.	D	ROXBORO	NC	APP	0.01	363	281	2	44.8	0
1175391	154012	BMPFT	20070305ACU	W279AN	EDGEWATER BROADCASTING INC.	D	SOUTH BOSTON	VA	APP	0.01	285	279	0	45.4	0
681836	154012	BNPFT	20030826AAJ	W279AN	EDGEWATER BROADCASTING, INC.	D	SOUTH BOSTON	VA	CP	0.01	285	279	0	45.4	0
117258	68667	BLD	19880819KC	WUAG	U. OF NORTH CAROLINA AT GREENSBORO	D	GREENSBORO	NC	LIC	0.018	323	276	3	69.3	0
260921	87023	BLFT	19980127TC	W278AM	TRIAD FAMILY NETWORK, INC.	D	SEDALIA	NC	LIC	0.01	466	278	1	79.2	0
680369	140512	BNPFT	20030829AVN	W281AO	CAPSTAR TX LIMITED PARTNERSHIP	D	MONETA	VA	CP	0.007	681	281	2	82.4	0
1000403	135187	BLL	20040629ACS	WCOM-LP	PUBLIC GALLERY OF CARRBORO, INC.	L1	CHAPEL HILL	NC	LIC	0	149	278	1	86.1	0
1118033	79178	BPFT	20060309AAP	W280DB	POSITIVE ALTERNATIVE RADIO, INC.	D	LYNCHBURG	VA	CP	0.01	430	280	1	86.2	0
256512	79178	BLFT	19971106TB	W280DB	POSITIVE ALTERNATIVE RADIO, INC.	D	LYNCHBURG	VA	LIC	0.01	425	280	1	86.2	0
218297	58392	BLH	19960111KD	WTQR	CLEAR CHANNEL RADIO LICENSES, INC.	C	WINSTON-SALEM	NC	LIC	100	763	281	2	89.4	0
1069436	58392	BXLH	20050627ACF	WTQR	CLEAR CHANNEL BROADCASTING LICENSES, INC.	C	WINSTON-SALEM	NC	LIC	45	763	281	2	89.4	0
1169228	28340	BPH	20060918ABK	WXCF-FM	WVJT, LLC	A	RUSTBURG	VA	APP	6	298	280	1	90.5	0
208676	70360	BLFT	19950501TB	W279AC	VISION COMMUNICATIONS, INC.	D	ROANOKE	VA	LIC	0.233	722	279	0	93.6	0
177550	9728	BLH	19921001KA	WNNL	CLEAR CHANNEL BROADCASTING LICENSES, INC.	C3	FUQUAY-VARINA	NC	LIC	7.9	272	280	1	126.4	0
145011	24931	BLH	19900209KD	WFXK	CLEAR CHANNEL RADIO LICENSES, INC.	C1	TARBORO	NC	LIC	100	375	282	3	136.4	0

## **Intermediate Frequencies (53 and 54 channels difference):**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
628872	40752	BMLH	20030303ABL	WPAW	ENTERCOM GREENSBORO LICENSE, LLC	C	WINSTON-SALEM	NC	LIC	99	568	226	53	59.2	30.2
631083	139940	BNPFT	20030314BRV	NEW	CAPSTAR TX LIMITED PARTNERSHIP	D	DURHAM	NC	APP	0.25	196	225	54	80.2	70.2
631055	139926	BNPFT	20030314BRQ	NEW	CAPSTAR TX LIMITED PARTNERSHIP	D	MORRISVILLE	NC	APP	0.25	162	225	54	98.2	88.2







-78.4153

36.5999

36.5999

