

Statement A
COMPREHENSIVE ENGINEERING STATEMENT
prepared for
Triple J Community Broadcasting, LLC
W05BG Williamsport, Pennsylvania
Channel 9 (Digital Companion) 0.75 kW

Triple J Community Broadcasting, LLC (“*Triple J*”) is the licensee of Class A television station W05BG, Channel 5, Williamsport, Pennsylvania, Facility ID 68143 (file number BLTVL-19880602IG). *Triple J* is hereby submitting an **amendment** of the recently-filed proposal (0000001184) for a digital companion channel to be associated with W05BG. **The amendments include the substitution of a “full service” mask to replace the “stringent” mask to eliminate possible adjacent-channel interference, and the correction of the RCAMSL on the form and in the calculations.**

The proposed W05BG Channel 9 digital companion antenna will be side mounted on the existing W05BG antenna support structure, having FCC Antenna Structure Registration (“ASR”) number 1047274. No increase in overall structure height is necessary for the instant proposal.

The proposed facility will operate on Channel 9 using a “full service” out of channel emission mask with a directional antenna having an effective radiated power of 0.75 kW. The proposed antenna is an Alive Telecommunications model ATC-BPHV2C2-9, horizontally polarized. **Figure 1** depicts the coverage contours of the licensed analog facility and the proposed digital companion facility. The service area overlap with each facility demonstrates compliance with the minor change criteria of §73.3572.

Allocation Considerations

The instant proposal complies with the Commission’s interference protection requirements toward all DTV, television translator, LPTV, and Class A stations. A detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission’s Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*,

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February 6, 2004 (“OET 69”).¹ The interference study examined the change in interference as experienced by nearby pertinent stations that would result from the proposed facility.

The results, summarized in **Table I**, show that no new interference is predicted to full power, Class A stations, or to secondary stations. Accordingly, the instant proposal complies with §74.793 regarding interference protection to digital television, low power television, television translator, and Class A television facilities.

International Coordination and Other Matters

The proposed facility is located 244.6 km from the nearest U.S. - Canadian border, which is within the 400 km coordination distance specified in the 2000 Canadian Letter of Understanding for full service facilities, but greater than the 100 km required coordination distance specified for digital low power television stations.² Additionally, as demonstrated in **Figure 2**, the worst-case interfering contour of 7.4 dBμ F(50,10) does not reach the Canadian border. Thus, it is believed that international coordination will not be necessary for the instant proposal. The nearest FCC monitoring station is at Canandaigua, NY, at a distance of 189.94 km from the proposed site. This exceeds by a great margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The proposed site is also located outside the area specified in §73.1030(a)(1). Thus, notification of the instant proposal to the National Radio Astronomy Observatory at Green Bank, West Virginia, is not required. Based on information extracted from the Commission’s engineering database, AM broadcast station WWPA(AM), 1340 kHz, Williamsport, PA, is located 4.75 km of the proposed site.

As described fully above, it is believed that the instant proposal complies with the Commission’s allocation Rules and policies.

¹ The implementation of OET 69 for this study followed the guidelines of OET 69 as specified herein. **A cell size of 1 km was employed.**

² The Letter of Understanding Between the Federal Communications Commission of the United States of America and Industry Canada Related to the Use of the 54-72 MHz, 76-88 MHz, 174-216 MHz and 470-806 MHz Bands for the Digital Television Broadcasting Service Along the Common Border, September 29, 2000, paragraph 12.

Environmental Considerations

The instant proposal is not believed to have a significant environmental impact as defined under §1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required. *Triple J Community Broadcasting ("Triple J")* herein proposes to construct a new digital companion facility on an existing tower structure, presently authorized for the analog W05BG facility under BLTVL-19880602IG.

The use of existing tower structures has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No change in structure height is proposed, thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed operation was evaluated for human exposure to radiofrequency electromagnetic field using the procedures outlined in the Commission's OET Bulletin 65 ("OET-65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The proposed W05BG digital companion Channel 9 antenna will be situated such that its center of radiation will be 53 meters above ground level. According to elevation pattern data provided by the antenna manufacturer, the W05BG Channel 9 antenna has a maximum relative field of 47 percent from 15 to 90 degrees below the horizontal plane (i.e., below the antenna). Thus, a "worst-case" relative field value of 47 percent is used for purposes of the calculation. The "uncontrolled/general population" limit specified in §1.1310 for Channel 9 (center frequency 189 MHz) is $200 \mu\text{W}/\text{cm}^2$.

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OET 65's formula for television transmitting antennas is based on the NTSC transmission standards, where the average power is normally much less than the peak power. For the DTV facility in the instant proposal, the peak-to-average ratio is different than the NTSC ratio. The DTV ERP figure herein refers to the average power level. The formula used for calculating DTV signal density in this analysis is essentially the same as equation (10) in OET 65.

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

- S = power density in microwatts/cm²
- ERP = total (average) ERP in Watts
- F = relative field factor
- D = distance in meters

Using this formula and the above assumptions, the proposed facility would contribute a power density of 2.13 μ W/cm² at two meters above ground level near the antenna support structure, or 1.06 percent of the general population/uncontrolled limit.

§1.1307(b)(3) states that facilities are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent of the exposure limit. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of any other facilities near this site may be considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at or near ground level as defined under §1.1307(b).

Safety of Tower Workers and the General Public

As demonstrated herein, excessive levels of RF energy attributable to the proposal will not be caused at publicly accessible areas at ground level or near the base of the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will be restricted

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and controlled through the use of a fence and locked gate. Additionally, appropriate RF exposure warning signs will be posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level or at the base of the top mounted tower structure. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower or in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines would otherwise be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.

Conclusion

Based on the preceding, it is believed that the instant proposal complies with all Commission Rules and policies.

FIGURE 1
PREDICTED COVERAGE CONTOURS
W05BG EXISTING AND PROPOSED FACILITY

prepared for
Triple J Community Broadcasting, LLC
W05BG Williamsport, Pennsylvania Fac ID 68143
Channel 9 (Digital Companion) 0.75 kW ERP

Cavell Mertz & Associates, Inc.
Manassas, Virginia

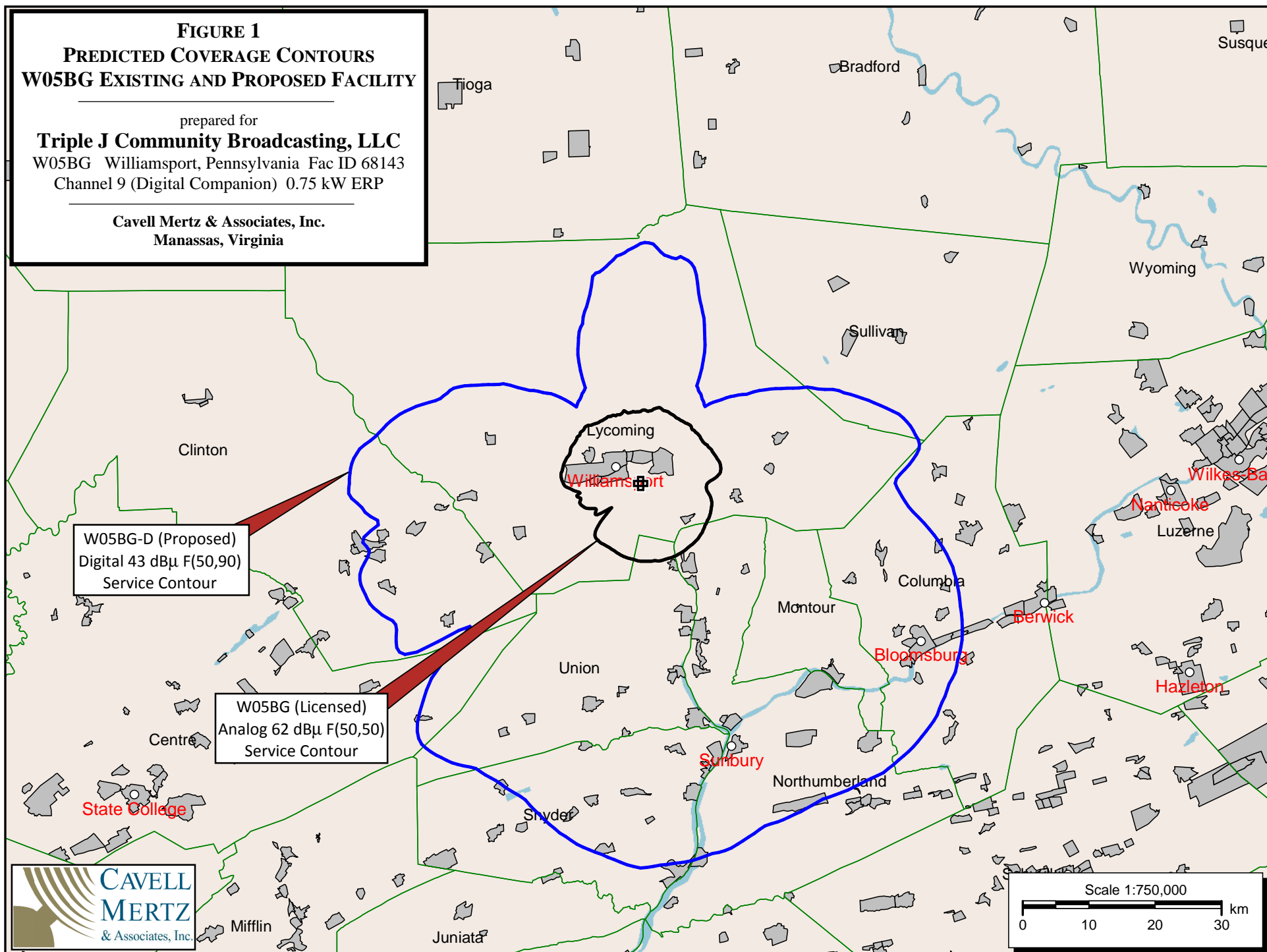


FIGURE 2
PREDICTED INTERFERENCE CONTOUR
W05BG PROPOSED FACILITY

prepared for
Triple J Community Broadcasting, LLC
W05BG Williamsport, Pennsylvania Fac ID 68143
Channel 9 (Digital Companion) 0.75 kW

Cavell Mertz & Associates, Inc.
Manassas, Virginia

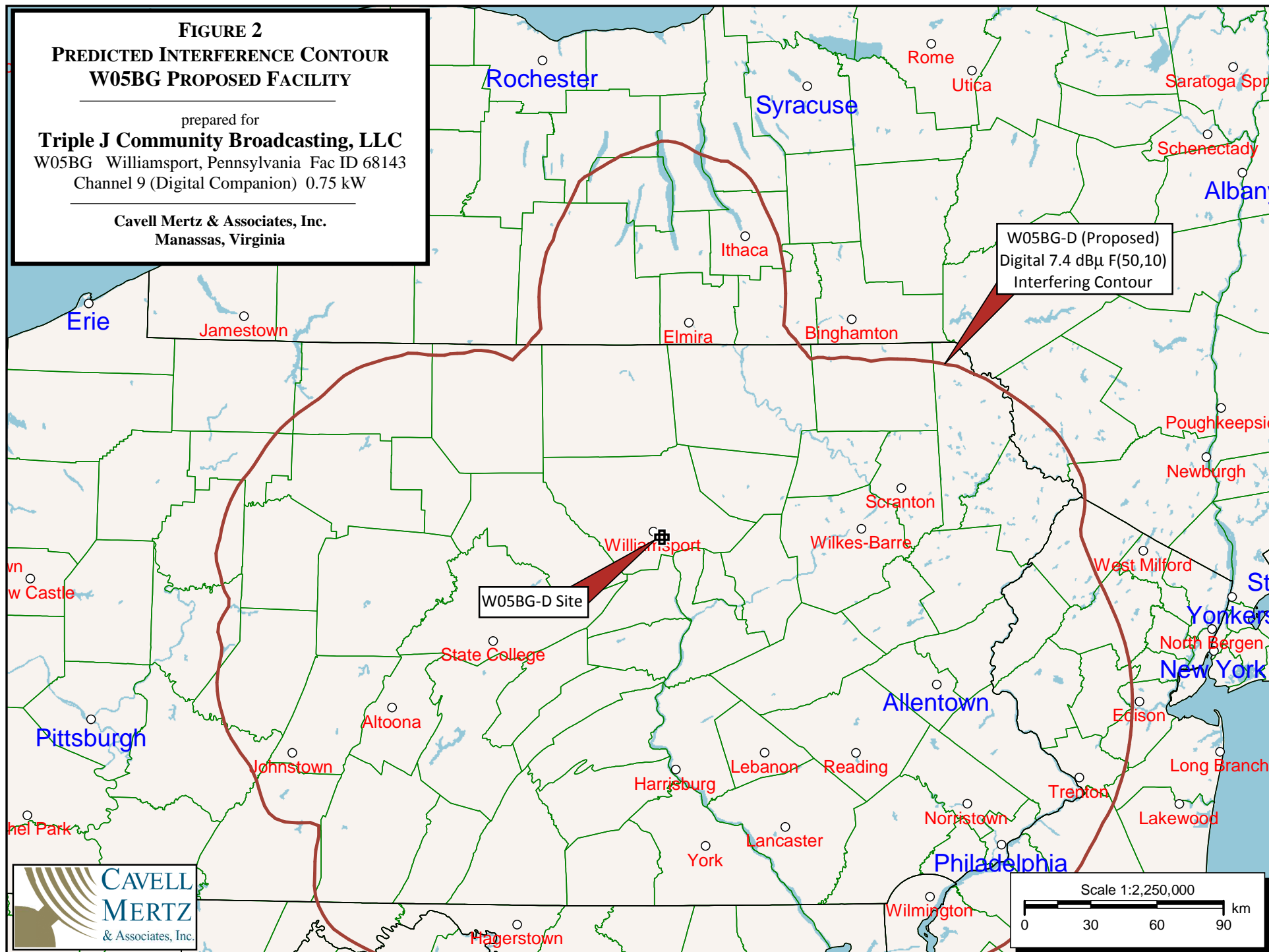


Table I
INTERFERENCE STUDY RESULTS
prepared for
Triple J Community Broadcasting, LLC
W05BG Williamsport, PA
Facility Id: 68143
Ch. 9 0.75 kW

<u>Channel</u>	<u>Affected Station</u>	<u>City, State</u>	<u>File Number</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population without Proposal (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>New Interference</u>	
							<u>Population</u>	<u>Percentage</u>
8	WNJB	New Brunswick, NJ	BLEDT-20110427ABF			--- No Interference ---		
8	WICZ-TV	Binghamton, NY	BLCDDT-20060320AFC			--- No Interference ---		
8	WHSB-LD	Rochester, NY	BDISDVL-20081217AHE			--- No Interference ---		
8	WWCP-TV	Johnstown, PA	BLANK-0000001044			--- No Interference ---		
8	WGAL	Lancaster, PA	BPCDDT-20110516ACI	5,891,853	1,079,175	1,079,213	38	0.0006 %
8	WGAL	Lancaster, PA	BLCDDT-20110323ABF			--- No Interference ---		
8	W08EE-D	Martinsburg, WV	BLDTV-20081014AEN			--- No Interference ---		
9	WEDN	Norwich, CT	BLEDT-20090618ACB			--- No Interference ---		
9	WUSA	Washington, DC	BLCDDT-20110314ACQ	7,436,793	168,270	168,722	452	0.0061 %
9	WWPS-LP	Kinnelon, NJ	BDFCDVL-20090507ABP			--- No Interference ---		
9	WWPS-LP	Kinnelon, NJ	BPDVL-20090602AAP	356,908	114,074	114,074	0	0.0000 %
9	WNGF-LP	Gouverneur, NY	BDFCDVL-20111212AHJ			--- No Interference ---		
9	WNGF-LP	Gouverneur, NY	BLTVL-20110318AFA			--- No Interference ---		
9	WYXN-LD	New York, NY	BDISDVL-20091125AAH			--- No Interference ---		
9	W09CU-D	Port Jervis, NY	BMPDVL-20080211AEO			--- No Interference ---		
9	W09CZ-D	Roslyn, NY	BLDTV-20141117ALU			--- No Interference ---		
9	W09BB	Schroon Lake, NY	BLTTV-19791221IL			--- No Interference ---		
9	WTOV-TV	Steubenville, OH	BLCDDT-20111206ACB			--- No Interference ---		
9	WBPH-TV	Bethlehem, PA	BPCDDT-20110518ADP	9,080,485	2,315,426	2,354,289	38,863	0.4280 %
9	WBPH-TV	Bethlehem, PA	BLCDDT-20100907AAF	8,607,361	2,088,218	2,131,237	43,019	0.4998 %
9	WWPS-LP	Hawley, PA	BDISTVL-20081119AOJ			--- No Interference ---		
9	WWPS-LP	Hawley, PA	BLTVL-20090311AAM			--- No Interference ---		
9	WVER	Rutland, VT	BLEDT-20050608AGC			--- No Interference ---		
9	W09CT-D	Mathias, Etc., WV	BLDTV-20090121AGY			--- No Interference ---		
10	WBPN-LP	Morris, NY	BLTVL-20000824ADL			--- No Interference ---		
10	W10DC-D	Port Jervis, NY	BDCCDVL-20110629CCM			--- No Interference ---		
10	W10CY-D	Port Jervis, NY	BMPDVL-20080221ACJ			--- No Interference ---		
10	WHEC-TV	Rochester, NY	BMLCDDT-20111228ABJ			--- No Interference ---		
10	WHTM-TV	Harrisburg, PA	BLCDDT-20040812AAH	2,109,270	50,499	50,908	409	0.0194 %
10	W10CP-D	Towanda, PA	BLDTV-20090806AAV			--- No Interference ---		