

Comprehensive Technical Exhibit

Amendment to Application for Construction Permit

BPCDT-20080321ACW

WPBN-DT – Traverse City, Michigan

Barrington Traverse City License LLC

May, 2008

General

The following engineering statement and attached exhibits have been prepared for **Barrington Traverse City License LLC** ("Barrington"), licensee of television station WPBN-TV and digital television station WPBN-DT at Traverse City, Michigan, and are in support of the Barrington amendment to application for construction permit for post-transition digital television facilities.¹ This amendment seeks to revise data submitted in the original application in Exhibits E-3 through E-5, which describe interference received by WOOD-DT from WPBN. Although not strictly required to be submitted, these exhibits were provided in view of the history of concern expressed by WOOD-DT regarding the level of interference received from WPBN. The revised exhibits continue to show that the interference to WOOD-DT is reduced.

Discussion of Modified Exhibits

In the original application, Exhibits E-4 and E-5 were performed utilizing the revised Appendix B parameters for the WPBN-DT allocation and the proposed WPBN-DT facilities. The calculated interference illustrated in these exhibits was, however, inadvertently based on the F(50,50) propagation curves instead of the F(50,10) curves. In addition, these two studies, plus the study contained in Exhibit E-3, were based on the sampling of a 30 second linearly interpolated terrain database. OET Bulletin 69 indicates that a 3 second terrain database should be utilized, therefore this additional minor discrepancy is corrected in the exhibits contained in this amendment.

It should also be noted that the original studies were also based on a 0.5 km grid with terrain sampling occurring at 0.1 km increments. Under OET Bulletin 69, typical calculations are based on the use of a 2.0 km grid and 1.0 km increments in terrain sampling. Although the Bulletin

¹ The facility ID for WPBN-TV is 21253. This amendment is relevant to the original application under FCC File No. BPCDT-20080321ACW.

states that calculations based on a finer grid are expected to be consistent with the standard methodology, the exhibits contained in this amendment are based on the standard parameters rather than the previously utilized finer grid.

As demonstrated both in the original application and in this amendment, the proposed WPBN-DT facility *reduces* the level of interference predicted to be received by WOOD-DT from WPBN when compared to both the licensed WPBN-TV NTSC facility and the revised Appendix B allotment.² The reduction in the level of interference relative to the revised Appendix B allotment is a direct result of the reduction in the maximum effective radiated power and the corresponding contraction of the noise limited service contour along azimuths in the direction of WOOD-DT.³

The revised Exhibits E-3 through E-5 depict and summarize the predicted interference from WPBN-DT to WOOD-DT. Respectively these exhibits depict the interference predicted to occur from (1) the licensed WPBN NTSC facilities, (2) the revised Appendix B facilities, and (3) the facilities proposed in the construction permit application. As these three exhibits demonstrate, the Appendix B facilities result in *less* interference to WOOD-DT than it currently is predicted to receive. The facilities proposed in this application further reduce the interference level to WOOD-DT from WPBN.

The licensed WPBN-TV NTSC facility is predicted to cause interference to 148,069 persons or 6.1 percent of the population served by WOOD-DT. The Appendix B allocation reduces this interference population to 145,533 persons or 6.0 percent of WOOD-DT service area population.

² Revised Appendix B facilities are based on parameters contained the *Memorandum and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order* to MB Docket 87-268 (FCC 08-72).

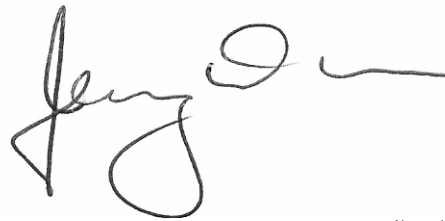
³ The revised Appendix B effective radiated power is 19.1 kW utilizing antenna ID 84826. BPCDT-20080302ACW proposes a reduction in this maximum effective radiated power to 15.4 kW utilizing a non-directional antenna. Exhibit E-1 in the original application demonstrates the contraction in the noise limited service contour.

The proposed WPBN-DT facility further reduces the population receiving interference to 131,919 persons or 5.5 percent of the WOOD-DT service area population.

This amendment makes no other changes to the WPBN-DT application as filed. All other data contained within the original application remain valid.

Affidavit

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2009

Jeremy D. Ruck, PE
May 23, 2008

WPBNTV

BLCT1578

Latitude: 44-16-33 N

Longitude: 085-42-49 W

ERP: 316.00 kW

Channel: 07+

Frequency: 177.0 MHz

AMSL Height: 756.0 m

Elevation: 434.0 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 0.7

Prop Model: Longley/Rice

Climate: Cont temperate

Conductivity: 0.0050

Dielec Const: 15.0

Refractivity: 301.0

Receiver Ht AG: 10.0 m

Receiver Gain: 0 dB

Time Variability: 10.0%

Sit. Variability: 50.0%

ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

- WOOD-DT Noise Limited Service Contour
- Areas of Predicted Interference from WPBN-TV

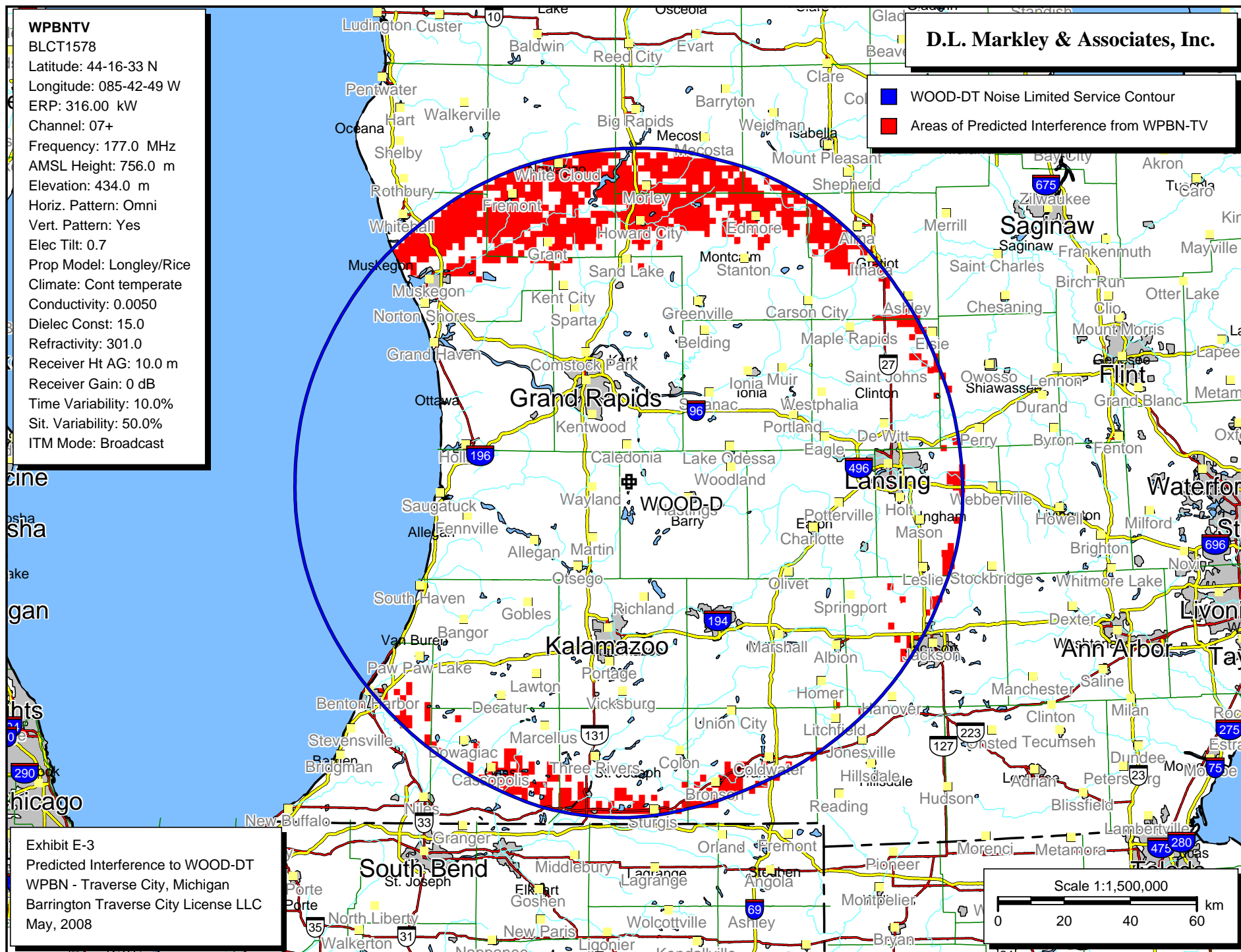


Exhibit E-3

Predicted Interference to WOOD-DT

WPBN - Traverse City, Michigan

Barrington Traverse City License LLC

May, 2008

Exhibit E-3
 Outgoing Interference Population Report
 Interference from licensed WPBN-TV facilities.

WPBNTV (07+) Traverse City, MI - BLCT1578
 Broadcast Type: NTSC Service: V
 Lat: 44-16-33 N Lng: 085-42-49 W ERP: 316.0 kW AMSL: 756.0 m
 TV Outgoing Interference Study
 Signal Resolution: 2.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 Default # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.
 LR Profile Spacing Increment: 1.0 km
 Masked interference points are being
 counted as interference.
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 5/20/2008
 TV Database Date: 5/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

 Stations Considered:

Call Letters	City	State	Dist	Bear
WOOD-D (07)	Grand Rapids	MI	177.3	174.6

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
WOOD-D (07)	3689.0	62,356	2,409,552	0	148,069	6.1

	Housing Units	Population
Michigan		
Allegan County		
Total	43,292	105,665
WOOD-D (07)	0	0
Berrien County		
Total	73,445	162,453
WOOD-D (07)	5,507	12,742
Branch County		
Total	19,822	45,787
WOOD-D (07)	1,965	4,869

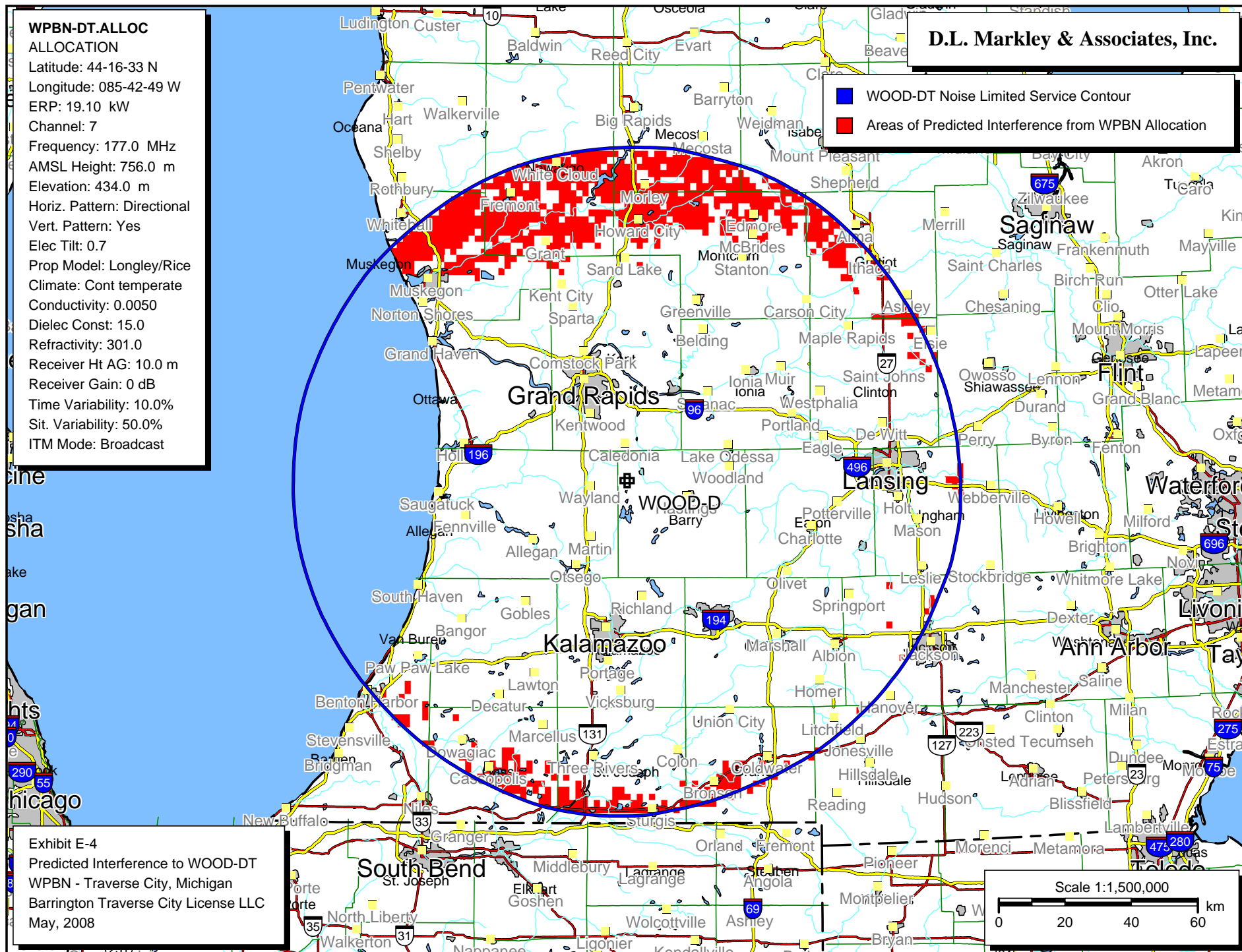
Calhoun County		
Total	58,691	137,985
WOOD-D (07)	18	54
Cass County		
Total	23,884	51,104
WOOD-D (07)	3,715	6,728
Clinton County		
Total	24,630	64,753
WOOD-D (07)	1,308	3,644
Gratiot County		
Total	15,516	42,285
WOOD-D (07)	2,918	7,342
Hillsdale County		
Total	20,189	46,527
WOOD-D (07)	90	215
Ingham County		
Total	115,056	279,320
WOOD-D (07)	2,133	5,261
Isabella County		
Total	24,528	63,351
WOOD-D (07)	227	576
Jackson County		
Total	62,906	158,422
WOOD-D (07)	2,653	6,513
Kent County		
Total	224,000	574,335
WOOD-D (07)	133	380
Mecosta County		
Total	19,593	40,553
WOOD-D (07)	2,718	5,862
Montcalm County		
Total	25,900	61,266
WOOD-D (07)	7,128	16,788
Muskegon County		
Total	68,556	170,200
WOOD-D (07)	12,499	31,489
Newaygo County		
Total	23,202	47,874
WOOD-D (07)	12,118	28,042
Oceana County		
Total	15,009	26,873
WOOD-D (07)	51	164
Ottawa County		
Total	86,856	238,314
WOOD-D (07)	0	0
Shiawassee County		
Total	29,087	71,687
WOOD-D (07)	122	346
St. Joseph County		
Total	26,503	62,422
WOOD-D (07)	7,053	17,054

WPBN-DT.ALLOC**ALLOCATION**

Latitude: 44-16-33 N
Longitude: 085-42-49 W
ERP: 19.10 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 756.0 m
Elevation: 434.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.7
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

- WOOD-DT Noise Limited Service Contour
- Areas of Predicted Interference from WPBN Allocation

**Exhibit E-4**

Predicted Interference to WOOD-DT
WPBN - Traverse City, Michigan
Barrington Traverse City License LLC
May, 2008

Exhibit E-4
 Outgoing Interference Population Report
 Interference from revised Appendix B facilities.

WPBN-DT.ALLOC (7) Traverse City, MI - ALLOCATION
 Broadcast Type: Digital Service: V
 Lat: 44-16-33 N Lng: 085-42-49 W ERP: 19.1 kW AMSL: 756.0 m
 TV Outgoing Interference Study
 Signal Resolution: 2.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 Default # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.
 LR Profile Spacing Increment: 1.0 km
 Masked interference points are being counted
 as interference free.
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 5/20/2008
 TV Database Date: 5/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

 Stations Considered:

Call Letters	City	State	Dist	Bear
WOOD-D (07)	Grand Rapids	MI	177.3	174.6

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
WOOD-D (07)	3558.2	61,341	2,409,552	0	145,533	6.0

	Housing Units	Population
Michigan		
Berrien County		
Total	73,445	162,453
WOOD-D (07)	4,375	10,038
Branch County		
Total	19,822	45,787
WOOD-D (07)	1,816	4,567
Cass County		
Total	23,884	51,104
WOOD-D (07)	3,672	6,617

Clinton County		
Total	24,630	64,753
WOOD-D (07)	279	796
Gratiot County		
Total	15,516	42,285
WOOD-D (07)	2,888	7,301
Hillsdale County		
Total	20,189	46,527
WOOD-D (07)	90	215
Ingham County		
Total	115,056	279,320
WOOD-D (07)	1,669	3,967
Isabella County		
Total	24,528	63,351
WOOD-D (07)	227	576
Jackson County		
Total	62,906	158,422
WOOD-D (07)	896	2,290
Kent County		
Total	224,000	574,335
WOOD-D (07)	165	472
Mecosta County		
Total	19,593	40,553
WOOD-D (07)	2,718	5,862
Montcalm County		
Total	25,900	61,266
WOOD-D (07)	7,138	16,809
Muskegon County		
Total	68,556	170,200
WOOD-D (07)	16,397	41,429
Newaygo County		
Total	23,202	47,874
WOOD-D (07)	12,118	28,042
Oceana County		
Total	15,009	26,873
WOOD-D (07)	51	164
Ottawa County		
Total	86,856	238,314
WOOD-D (07)	0	0
St. Joseph County		
Total	26,503	62,422
WOOD-D (07)	6,842	16,388

WPBN-DT.PRO

BPCT20080321ACW
Latitude: 44-16-33 N
Longitude: 085-42-49 W
ERP: 15.40 kW
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 756.0 m
Elevation: 434.0 m
Horiz. Pattern: Omni
Vert. Pattern: Yes
Elec Tilt: 0.7
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

D.L. Markley & Associates, Inc.

- WOOD-DT Noise Limited Service Contour
- Areas of Predicted Interference from Proposed WPBN-DT

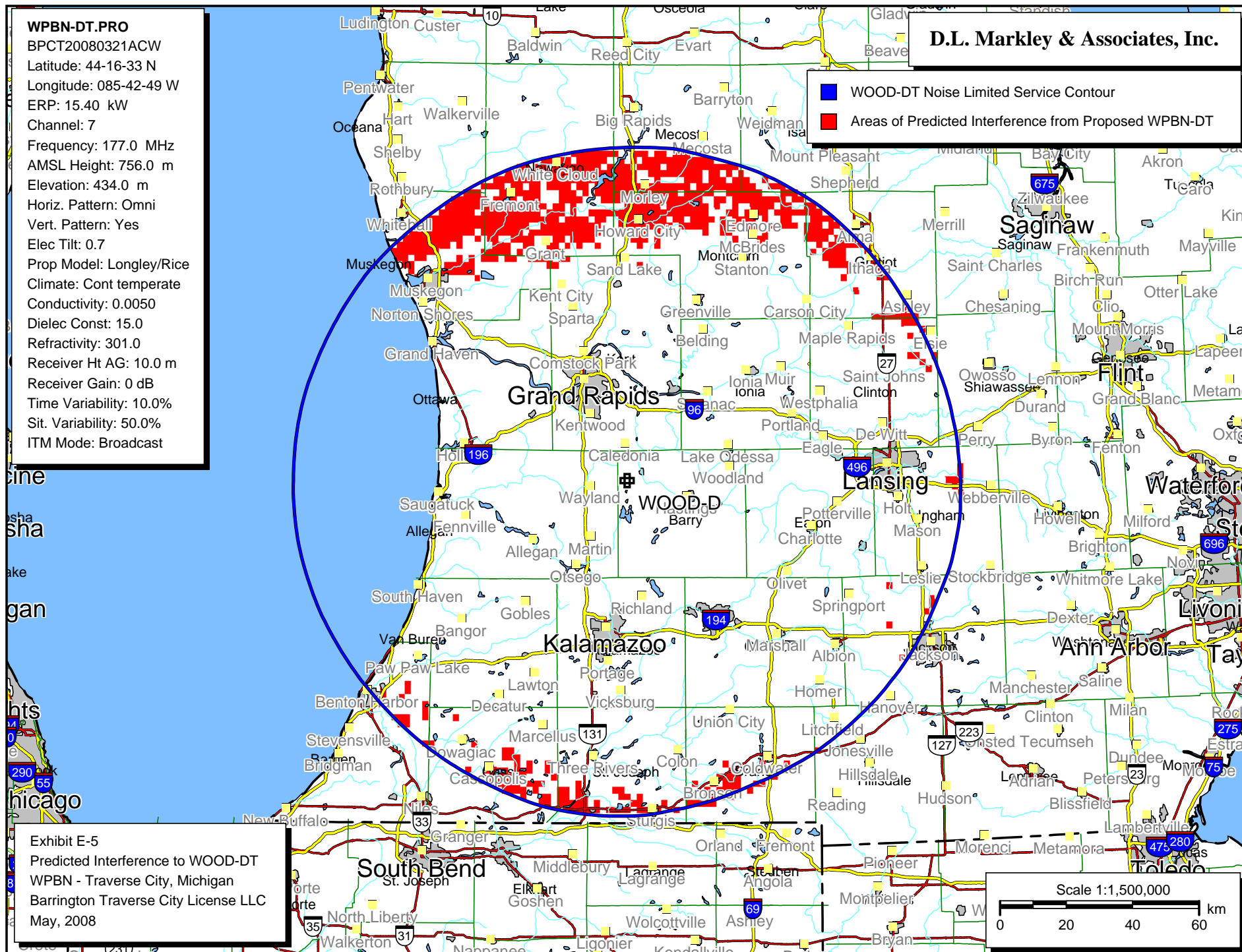


Exhibit E-5
Predicted Interference to WOOD-DT
WPBN - Traverse City, Michigan
Barrington Traverse City License LLC
May, 2008

Exhibit E-5
 Outgoing Interference Population Report
 Interference from proposed WPBN-DT facilities

WPBN-DT.PRO (7) Traverse City, MI - BPCT20080321ACW
 Broadcast Type: Digital Service: V
 Lat: 44-16-33 N Lng: 085-42-49 W ERP: 15.4 kW AMSL: 756.0 m
 TV Outgoing Interference Study
 Signal Resolution: 2.0 km
 Consider NTSC Taboo: Yes
 KWX error points are considered to
 be interference free coverage.
 Default # of radials computed for contours: 72
 Contours calculated using 8 radial HAAT.
 LR Profile Spacing Increment: 1.0 km
 Masked interference points are being counted
 as interference free.
 Pop Centroid DB: 2000 US Census (SF1)

Study Date: 5/20/2008
 TV Database Date: 5/17/2008

Primary Terrain: V-Soft 3 Second US Terrain
 Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

 Stations Considered:

Call Letters	City	State	Dist	Bear
WOOD-D (07)	Grand Rapids	MI	177.3	174.6

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
WOOD-D (07)	3356.6	55,890	2,409,552	0	131,919	5.5

	Housing Units	Population
Michigan		
Berrien County		
Total	73,445	162,453
WOOD-D (07)	4,375	10,038
Branch County		
Total	19,822	45,787
WOOD-D (07)	1,542	3,893
Cass County		
Total	23,884	51,104
WOOD-D (07)	3,313	5,783

Clinton County		
Total	24,630	64,753
WOOD-D (07)	279	796
Gratiot County		
Total	15,516	42,285
WOOD-D (07)	2,874	7,261
Hillsdale County		
Total	20,189	46,527
WOOD-D (07)	23	45
Ingham County		
Total	115,056	279,320
WOOD-D (07)	1,669	3,967
Isabella County		
Total	24,528	63,351
WOOD-D (07)	227	576
Jackson County		
Total	62,906	158,422
WOOD-D (07)	896	2,290
Kent County		
Total	224,000	574,335
WOOD-D (07)	133	380
Mecosta County		
Total	19,593	40,553
WOOD-D (07)	2,718	5,862
Montcalm County		
Total	25,900	61,266
WOOD-D (07)	7,053	16,623
Muskegon County		
Total	68,556	170,200
WOOD-D (07)	12,367	31,150
Newaygo County		
Total	23,202	47,874
WOOD-D (07)	12,089	27,944
Oceana County		
Total	15,009	26,873
WOOD-D (07)	51	164
Ottawa County		
Total	86,856	238,314
WOOD-D (07)	0	0
St. Joseph County		
Total	26,503	62,422
WOOD-D (07)	6,281	15,147