

**Engineering Statement  
In Support of an  
Application for a Construction Permit**

**NEW FM, Channel 256A, Morgantown, KY**

**General**

This application is being filed to request a construction permit to build a new FM station in Morgantown, Kentucky. The included exhibits show that this proposed station complies with all FCC rules regarding spacing, human exposure, and environmental impact.

**The Proposed Site**  
**(Exhibit E, Figures 1 through 3, and Figure 6)**

Exhibit E, Figure 1 is a channel spacing study for the proposed facility. The terrain averaging and contour study for the proposed facility is included as Exhibit E, Figure 2. Exhibit E, Figure 3 is the service contour map displaying the FCC F(50,50) 70 and 60 dBu contours of the proposed facility.

Exhibit E, Figure 6 is a vertical sketch of the proposed antenna supporting structure. The proposed facility is on an existing tower (1217204).

**Protected and Interfering Contours**  
**(Exhibit E, Figures 4 and 5)**

Exhibit E, Figure 4 is a map displaying the protected and interfering contours of the proposed facility. Exhibit E, Figure 5 is a zoomed view of NEW FM's protected 60 dBu and WHSX's interfering 40 dBu contours.

### **Human Exposure**

#### **(No Exhibits)**

The proposed FM facility was evaluated in terms of potential radiofrequency radiation exposure at ground level. Using Worksheet #1, the controlled/occupational limit, as well as the uncontrolled/general public limit is in compliance. The uncontrolled value is 8.67% of the allowable radiation at 2 meters above ground.

A policy will be placed in effect stating that if anyone is required to climb the tower, the facility on the tower will reduce power or cease operation to prevent hazardous exposure to radiofrequency radiation.

### **Environmental Impact**

#### **(No Exhibits)**

A grant of the proposed construction would not constitute a major action as defined in the Commission's Rules and Regulations.

During operation, the facility will produce no chemical or significant thermal pollution, and no ionizing radiation will be generated. Areas of high intensity radiofrequency fields will be confined to the immediate area of the transmitting antenna, far above the ground and away from any human and wildlife population.

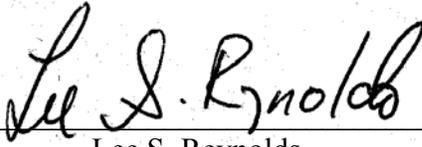
The area is not officially designated as a wilderness area or wildlife preserve and is not pending consideration. The area has no significant value in American history, architecture, archaeology, or culture, which is listed in the Register of Historic Places, and it is not eligible for listing. It is not recognized either nationally or locally for special scenic or recreational value.

### **Conclusion**

This statement/application has been prepared for The Applicant by utilizing the latest available information, cross-checked with the Federal Communications Commission and other sources.

Therefore, it is submitted that the engineering data compiled and demonstrated herein for the proposed is in compliance with Commission's Rules and Regulations at the time of this application's filing date. We welcome the opportunity to discuss with the staff of the Federal Communications Commission the engineering data contained in this application. Should any questions arise concerning the information, please contact us.

For RTA:



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Lee S. Reynolds

April 25<sup>th</sup>, 2007

6930 Cahaba Valley Road, Suite 202  
Birmingham, Alabama 35242  
(205) 618-2020

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**NEW FM Channel Spacing Study**

REFERENCE		DISPLAY DATES
37 17 38 N.	CLASS = A	DATA 04-05-07
86 44 30 W.	Current Spacings	SEARCH 04-25-07
----- Channel 256 - 99.1 MHz -----		

Call	Channel	Location	Azi	Dist	FCC	Margin
<b>AP1179</b>	<b>APP 256A</b>	<b>Morgantown</b>	<b>KY 238.1</b>	<b>7.24</b>	<b>115.0</b>	<b>-107.76</b>
<b>AU7056</b>	<b>VAC 256A</b>	<b>Morgantown</b>	<b>KY 238.1</b>	<b>7.24</b>	<b>115.0</b>	<b>-107.76</b>

Of no concern:  
Coordinates used by NEW FM

<b>WHSX</b>	<b>LIC 256A</b>	<b>Edmonton</b>	<b>KY 105.5</b>	<b>109.62</b>	<b>115.0</b>	<b>-5.38</b>
<b>WVLE.A</b>	<b>APP-N 257A</b>	<b>Scottsville</b>	<b>KY 144.4</b>	<b>69.61</b>	<b>72.0</b>	<b>-2.39</b>

Of concern:  
Protection afforded by §73.215.

WKDQ	LIC 258C	Henderson	KY 313.2	96.17	95.0	1.17
WHOP-F	LIC-N 254C1	Hopkinsville	KY 240.6	82.31	75.0	7.31
WVLE	LIC 257A	Scottsville	KY 140.6	79.46	72.0	7.46
WTHX.A	APP 257A	Lebanon Junction	KY 58.2	95.04	72.0	23.04
WZKF	LIC 255B	Salem	IN 29.0	136.46	113.0	23.46
WCBL-F	LIC 256A	Benton	KY 251.6	149.81	115.0	34.81
AL1041	RSV 255B	Prospect	KY 31.9	149.57	113.0	36.57
RADD	ADD 257A	Lebanon Junction	KY 62.3	108.82	72.0	36.82

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**Terrain/Contour Study**

**Reference Coordinates:**

**ERP: 6 kW**

**North Latitude: 37-17-38**

**West Longitude: 86-44-30**

Azimuth °T.	Ave. Elev. 3 to 16 km Meters AMSL	FM - 2-6 Tables	ERP (dBk)	F(50-50)	F(50-50)
		Effective Antenna Height Meters AAT		Distance to 70 dBu Contour km	Distance to 60 dBu Contour km
0	147.2	51.6	7.782	11.7	20.9
5	154.2	44.6	7.782	10.8	19.4
10	169.7	29.1	7.782	8.9	15.8
15	169.8	29.0	7.782	8.9	15.8
20	171.6	27.2	7.782	8.9	15.8
25	166.0	32.8	7.782	9.3	16.5
30	166.5	32.3	7.782	9.2	16.3
35	163.0	35.8	7.782	9.7	17.2
40	158.3	40.5	7.782	10.3	18.4
45	150.8	48.0	7.782	11.3	20.1
50	150.2	48.6	7.782	11.3	20.3
55	160.4	38.4	7.782	10.0	17.9
60	157.2	41.6	7.782	10.5	18.7
65	148.8	50.0	7.782	11.5	20.6
70	151.2	47.6	7.782	11.2	20.1
75	152.7	46.1	7.782	11.0	19.7
80	153.6	45.2	7.782	10.9	19.5
85	151.5	47.3	7.782	11.2	20.0
90	148.0	50.8	7.782	11.6	20.7
95	148.3	50.5	7.782	11.6	20.7
100	149.9	48.9	7.782	11.4	20.3
105	153.3	45.5	7.782	11.0	19.6
110	150.6	48.2	7.782	11.3	20.2
115	156.9	41.9	7.782	10.5	18.7
120	156.9	41.9	7.782	10.5	18.7
125	156.9	41.9	7.782	10.5	18.7
130	153.6	45.2	7.782	10.9	19.5
135	137.7	61.1	7.782	12.6	22.6
140	133.4	65.4	7.782	13.0	23.3
145	137.1	61.7	7.782	12.7	22.7
150	136.5	62.3	7.782	12.7	22.8
155	144.4	54.4	7.782	12.0	21.5

Continued on next page

**ERP: 6 kW**

Azimuth °T.	Ave. Elev.	FM - 2-6 Tables	ERP (dBk)	F(50-50)	F(50-50)
	3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT		Distance to 70 dBu Contour km	Distance to 60 dBu Contour km
160	149.6	49.2	7.782	11.4	20.4
165	153.0	45.8	7.782	11.0	19.7
170	163.6	35.2	7.782	9.6	17.1
175	161.7	37.1	7.782	9.9	17.6
180	151.8	47.0	7.782	11.1	19.9
185	145.4	53.4	7.782	11.9	21.3
190	136.4	62.4	7.782	12.7	22.8
195	135.4	63.4	7.782	12.8	23.0
200	137.7	61.1	7.782	12.6	22.6
205	148.8	50.0	7.782	11.5	20.6
210	145.0	53.8	7.782	11.9	21.4
215	146.1	52.7	7.782	11.8	21.1
220	137.9	60.9	7.782	12.6	22.6
225	136.9	61.9	7.782	12.7	22.7
230	130.1	68.7	7.782	13.3	23.8
235	121.6	77.2	7.782	14.0	25.1
240	119.4	79.4	7.782	14.2	25.4
245	123.2	75.6	7.782	13.9	24.8
250	125.6	73.2	7.782	13.7	24.5
255	128.7	70.1	7.782	13.4	24.0
260	129.8	69.0	7.782	13.3	23.8
265	133.9	64.9	7.782	13.0	23.2
270	136.0	62.8	7.782	12.8	22.9
275	136.5	62.3	7.782	12.7	22.8
280	137.5	61.3	7.782	12.7	22.7
285	142.4	56.4	7.782	12.2	21.8
290	141.7	57.1	7.782	12.3	22.0
295	137.5	61.3	7.782	12.7	22.7
300	138.8	60.0	7.782	12.5	22.5
305	139.7	59.1	7.782	12.5	22.3
310	140.9	57.9	7.782	12.3	22.1
315	138.0	60.8	7.782	12.6	22.6
320	136.2	62.6	7.782	12.8	22.9
325	136.0	62.8	7.782	12.8	22.9
330	139.6	59.2	7.782	12.5	22.3
335	143.3	55.5	7.782	12.1	21.7
340	145.3	53.5	7.782	11.9	21.3
345	147.8	51.0	7.782	11.6	20.8
350	150.9	47.9	7.782	11.2	20.1
355	152.8	46.0	7.782	11.0	19.7

**NEW FM**

Latitude: 37-17-38 N  
Longitude: 086-44-30 W  
ERP: 6.00 kW  
Channel: 256  
Frequency: 99.1 MHz  
AMSL Height: 199.8 m  
Elevation: 129.8 m  
HAAT: 56.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**NEW FM, Morgantown, KY  
Proposed FCC Coverage Contours**

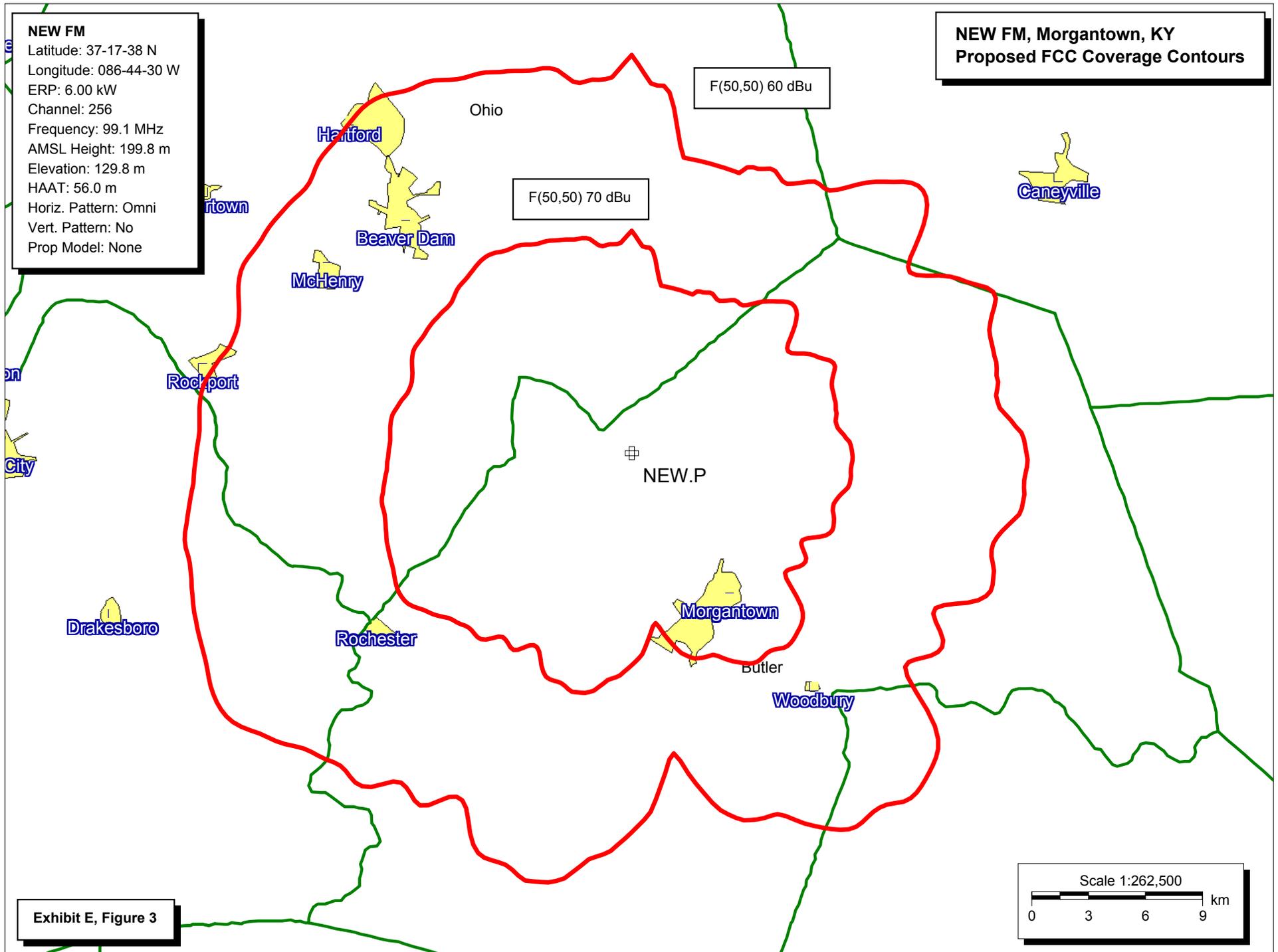
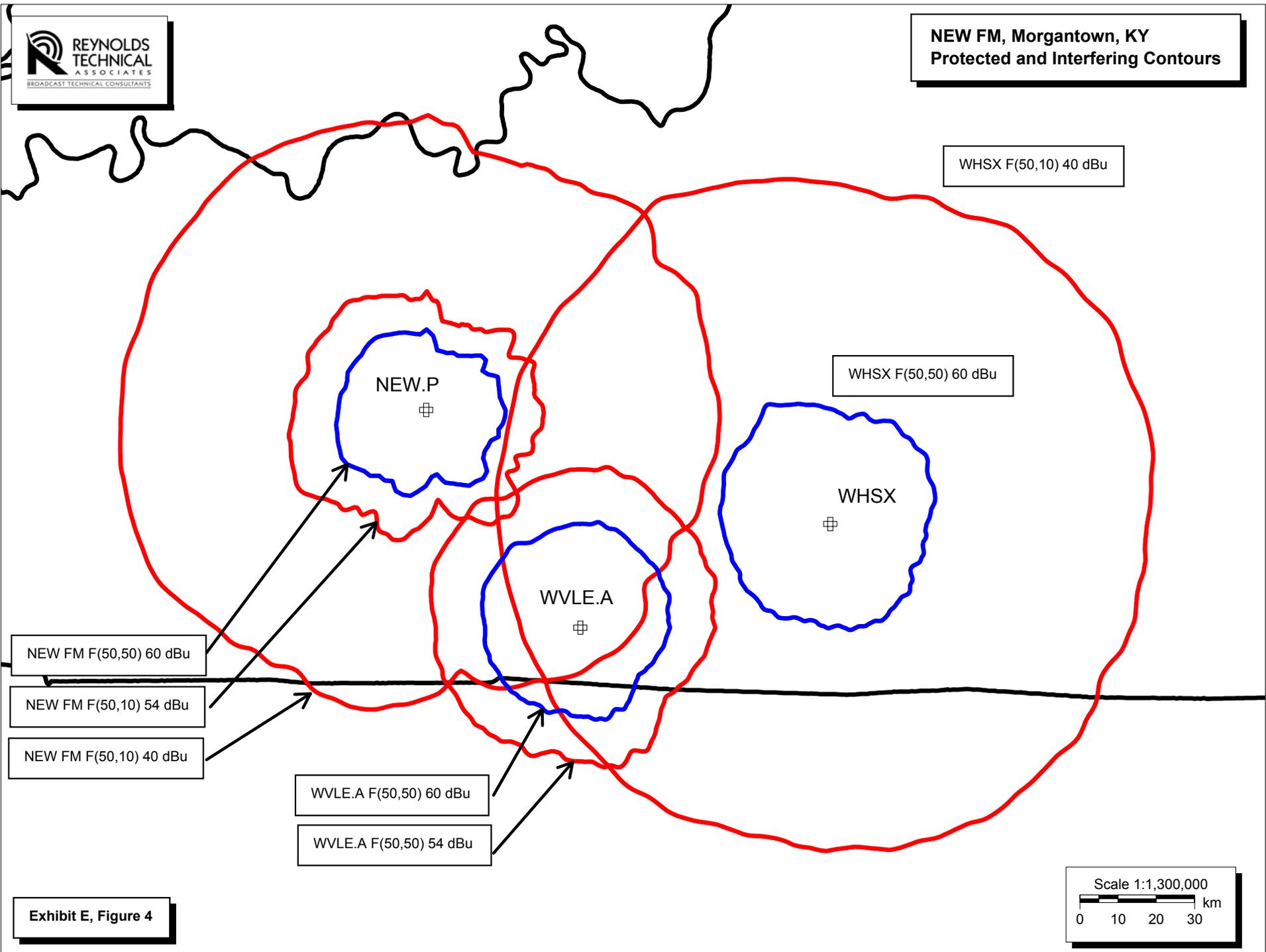


Exhibit E, Figure 3



**Exhibit E, Figure 4**



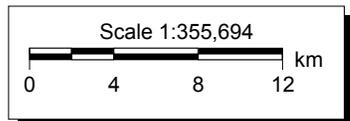
**NEW FM, Morgantown, KY  
NEW FM Protected and WHSX Interfering  
Contours (Zoomed View)**

NEW FM F(50,50) 60 dBu

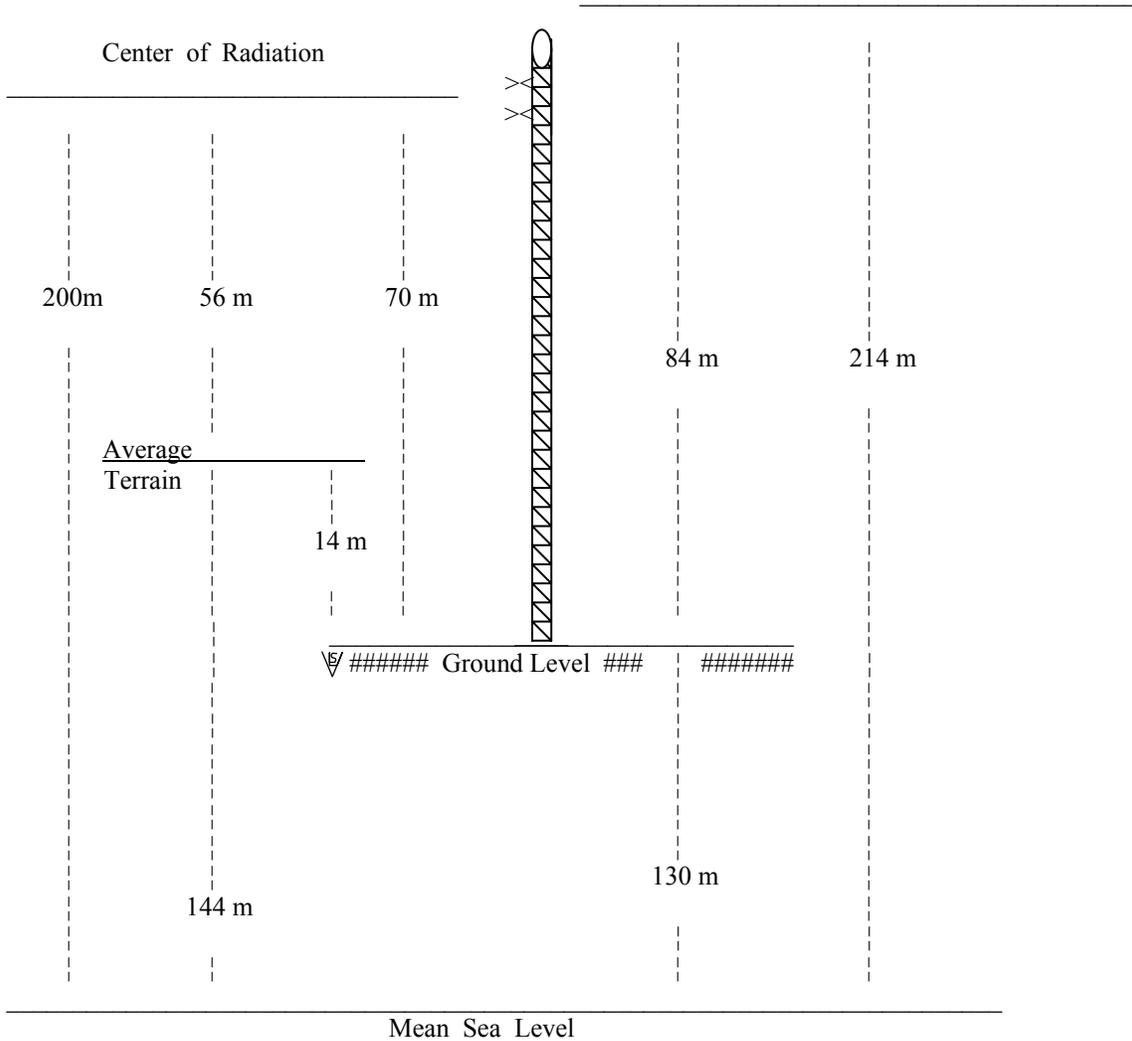
WHSX F(50,10) 40 dBu

NEW.P  
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**Exhibit E, Figure 5**



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NEW FM, Channel 256A, Morgantown, KY  
Supporting Structure**



Proposed Location - 37° 17' 38" N. Lat.      86° 44' 30" W. Long. [NAD 27]

NOT DRAWN TO SCALE

Proposed antenna - 2 element