

Engineering Statement

In Support of an Application for a Construction Permit

**WTWR, Luna Pier, MI
Channel 252A**

WTWR Terrain-Contour Study

Reference Coordinates:

North Latitude: 41-40-05

West Longitude: 83-27-11

ERP =	3.4 kW	FM - 2-6 Tables		F(50-50)	F(50-50)
Azimuth	Ave. Elev.	Effective		Distance to	Distance to
°T.	3 to 16 km	Antenna Height	ERP	70 dBu Contour	60 dBu Contour
	Meters AMSL	Meters AAT	(dBk)	km	km
0.0	174.6	140.9	5.315	16.7	28.9
5.0	174.0	141.5	5.315	16.7	28.9
10.0	174.0	141.5	5.315	16.7	28.9
15.0	174.0	141.5	5.315	16.7	28.9
20.0	174.0	141.5	5.315	16.7	28.9
25.0	174.0	141.5	5.315	16.7	28.9
30.0	174.0	141.5	5.315	16.7	28.9
35.0	174.0	141.5	5.315	16.7	28.9
40.0	174.0	141.5	5.315	16.7	28.9
45.0	174.0	141.5	5.315	16.7	28.9
50.0	174.0	141.5	5.315	16.7	28.9
55.0	174.1	141.4	5.315	16.7	28.9
60.0	174.1	141.4	5.315	16.7	28.9
65.0	174.2	141.3	5.315	16.7	28.9
70.0	174.4	141.1	5.315	16.7	28.9
75.0	174.6	140.9	5.315	16.7	28.9
80.0	175.1	140.4	5.315	16.7	28.8
85.0	175.6	139.9	5.315	16.6	28.8
90.0	176.0	139.5	5.315	16.6	28.8
95.0	176.7	138.8	5.315	16.6	28.7
100.0	177.3	138.2	5.315	16.5	28.6
105.0	177.9	137.6	5.315	16.5	28.6
110.0	178.3	137.2	5.315	16.4	28.5
115.0	179.0	136.5	5.315	16.4	28.5
120.0	179.7	135.8	5.315	16.3	28.4
125.0	180.5	135.0	5.315	16.3	28.3
130.0	181.3	134.2	5.315	16.2	28.3
135.0	181.9	133.6	5.315	16.2	28.2
140.0	182.6	132.9	5.315	16.1	28.2
145.0	183.1	132.4	5.315	16.1	28.1
150.0	183.6	131.9	5.315	16.1	28.1
155.0	184.6	130.9	5.315	16.0	28.0

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Exhibit E, Figure 2

ERP =	3.4 kW	FM - 2-6 Tables		F(50-50)	F(50-50)
Azimuth	Ave. Elev.	Effective	ERP	Distance to	Distance to
°T.	3 to 16 km	Antenna Height	(dBk)	70 dBu Contour	60 dBu Contour
	Meters AMSL	Meters AAT		km	km
160.0	185.1	130.4	5.315	16.0	27.9
165.0	185.9	129.6	5.315	15.9	27.9
170.0	186.6	128.9	5.315	15.9	27.8
175.0	187.1	128.4	4.990	15.5	27.3
180.0	187.5	128.0	4.666	15.2	26.8
185.0	188.2	127.3	3.264	14.0	25.1
190.0	188.8	126.7	1.862	12.8	23.1
195.0	189.1	126.4	0.912	12.1	22.0
200.0	189.4	126.1	-0.037	11.5	20.8
205.0	189.5	126.0	-0.986	10.9	19.8
210.0	189.8	125.7	-1.935	10.3	18.6
215.0	189.3	126.2	-2.882	9.8	17.7
220.0	188.5	127.0	-3.829	9.3	16.6
225.0	186.2	129.3	-4.288	9.2	16.3
230.0	183.3	132.2	-4.747	9.0	16.0
235.0	180.4	135.1	-4.401	9.3	16.6
240.0	180.5	135.0	-4.056	9.5	17.0
245.0	183.8	131.7	-3.505	9.7	17.4
250.0	182.0	133.5	-2.953	10.0	18.1
255.0	184.8	130.7	-2.385	10.3	18.5
260.0	184.8	130.7	-1.816	10.6	19.1
265.0	183.7	131.8	-1.107	11.1	20.0
270.0	184.2	131.3	-0.399	11.5	20.8
275.0	184.7	130.8	0.297	11.9	21.6
280.0	185.6	129.9	0.993	12.3	22.3
285.0	185.1	130.4	1.945	13.1	23.6
290.0	184.4	131.1	2.897	13.8	24.7
295.0	183.4	132.1	3.846	14.7	26.1
300.0	181.6	133.9	4.796	15.7	27.5
305.0	183.9	131.6	5.055	15.8	27.7
310.0	183.0	132.5	5.315	16.1	28.2
315.0	182.6	132.9	5.315	16.1	28.3
320.0	181.2	134.3	5.315	16.2	28.4
325.0	180.2	135.3	5.315	16.3	28.5
330.0	179.2	136.3	5.315	16.4	28.5
335.0	178.6	136.9	5.315	16.4	28.6
340.0	177.4	138.1	5.315	16.5	28.7
345.0	176.5	139.0	5.315	16.6	28.8
350.0	175.7	139.8	5.315	16.6	28.8
355.0	175.1	140.4	5.315	16.7	28.2