

**Engineering Statement
In Support of an
Application for a Construction Permit
WWLS, Channel 251C1, The Village, Oklahoma**

General

In MB Docket 05-136 the FCC allocated channel 251C1 at The Village for use by WWLS. The instant application seeks to move WWLS to an existing tower as a fully spaced class C1 facility.

Exhibits Explained

Since WWLS is a fully spaced class C1 facility at the proposed site, it will be considered a §73.207 facility. This is shown in Exhibit E, Figure 1.

Exhibit E, Figures 2 and 3 demonstrate that the proposed facility will cover 100% of the community of The Village. All pertinent elevations are shown in Exhibit E, Figure 4.

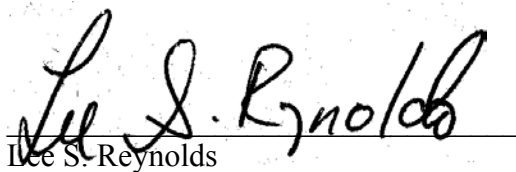
Human Exposure to Radiofrequency Radiation (No Exhibits)

When WWLS operates from the new master antenna at the proposed tower site, there will also be 5 other stations operating from this antenna (KYIS, KATT, KOMA, KMGL, and KR XO). KATT and WWLS will operate as class C1 facilities; all other stations will operate as class C stations (100 kW ERP). KATT and WWLS will operate with 31 kW ERP. Using the RF Worksheet #1A, the ERP of each station (along with an antenna AGL of 471 meters) were input, and the total radiation 2 meters above ground was 14.03 $\mu\text{W}/\text{cm}^2$. This is below both the controlled and uncontrolled limit that the FCC specifies.

Conclusion

The instant WWLS application will bring the station into compliance with the Report and Order MB Docket 05-136.

For the applicant:



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Channel Spacing Study

REFERENCE		DISPLAY DATES
35 33 37 N	CLASS = C1	DATA 06-21-07
97 29 07 W	Current Spacings	SEARCH 07-10-07
----- Channel 251 - 98.1 MHz -----		

Call	Channel	Location	Dist	Azi	FCC	Margin
AL4909	RSV 251C1	The Village	OK 3.24	1.8	245.0	-241.76
WWLS-F	LIC 250A	Edmond	OK 1.72	307.7	133.0	-131.28

Of no concern:
Coordinates used by WWLS.

KVRO	LIC 251A	Stillwater	OK 78.71	21.5	200.0	-121.29
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Of no concern:
KVRO moves to channel 266A in the Report and Order.

RADD	ADD 249A	Purcell	OK 70.25	170.2	75.0	-4.75
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Of no concern:
These coordinates have been dismissed by the FCC.

AL7537	VAC	249A	Hennessey	OK	77.56	325.1	75.0	2.56
AL4940	VAC	249A	Hennessey	OK	77.56	325.1	75.0	2.56
NEW.C	CP	252C1	Kiowa	KS	184.32	331.5	177.0	7.32
KJMZ	LIC	250A	Cache	OK	144.73	222.3	133.0	11.73
KFYZ-F	LIC-N	251A	Bennington	OK	219.42	139.6	200.0	19.42
KUSN	LIC-N	251C3	Dearing	KS	233.51	42.0	211.0	22.51
RADD	ADD	251A	Electra	TX	222.52	218.5	200.0	22.52
KBOC	LIC-N	252C	Bridgeport	TX	235.54	180.0	209.0	26.54
KACO	LIC-N	253C3	Apache	OK	106.20	229.9	76.0	30.20
KVOO-F	LIC	253C	Tulsa	OK	143.54	60.3	105.0	38.54
KMOD-F	CP	248C	Tulsa	OK	143.77	60.1	105.0	38.77
KMOD-F	LIC	248C	Tulsa	OK	143.77	60.1	105.0	38.77

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Terrain/Contour Study

Reference Coordinates:

ERP: 31 kW

North Latitude: 35-33-37

West Longitude: 97-29-07

Azimuth °T.	Ave. Elev. 3 to 16 km (Meters AMSL)	FM - 2-6 Tables Effective Antenna Height (Meters AAT)	ERP (dBk)	F(50-50) Distance to 70 dBu Contour (km)	F(50-50) Distance to 60 dBu Contour (km)
0	351.4	468.6	14.914	48.9	72.3
5	347.8	472.2	14.914	49.1	72.5
10	344.8	475.2	14.914	49.3	72.7
15	344.6	475.4	14.914	49.3	72.8
20	342.1	477.9	14.914	49.4	72.9
25	340.0	480.0	14.914	49.6	73.1
30	337.1	482.9	14.914	49.7	73.3
35	330.4	489.6	14.914	50.1	73.8
40	326.5	493.5	14.914	50.3	74.0
45	319.0	501.0	14.914	50.7	74.5
50	312.1	507.9	14.914	51.1	75.0
55	318.2	501.8	14.914	50.8	74.6
60	324.3	495.7	14.914	50.4	74.2
65	333.3	486.7	14.914	49.9	73.6
70	341.0	479.0	14.914	49.5	73.0
75	336.0	484.0	14.914	49.8	73.4
80	338.9	481.1	14.914	49.6	73.2
85	342.1	477.9	14.914	49.4	72.9
90	347.3	472.7	14.914	49.2	72.6
95	350.2	469.8	14.914	49.0	72.3
100	354.5	465.5	14.914	48.8	72.0
105	357.7	462.3	14.914	48.6	71.8
110	357.2	462.8	14.914	48.6	71.8
115	356.6	463.4	14.914	48.6	71.9
120	358.1	461.9	14.914	48.6	71.8
125	358.7	461.3	14.914	48.5	71.7
130	360.2	459.8	14.914	48.5	71.6
135	355.4	464.6	14.914	48.7	72.0
140	354.3	465.7	14.914	48.8	72.0
145	358.3	461.7	14.914	48.6	71.8
150	359.1	460.9	14.914	48.5	71.7
155	356.1	463.9	14.914	48.7	71.9

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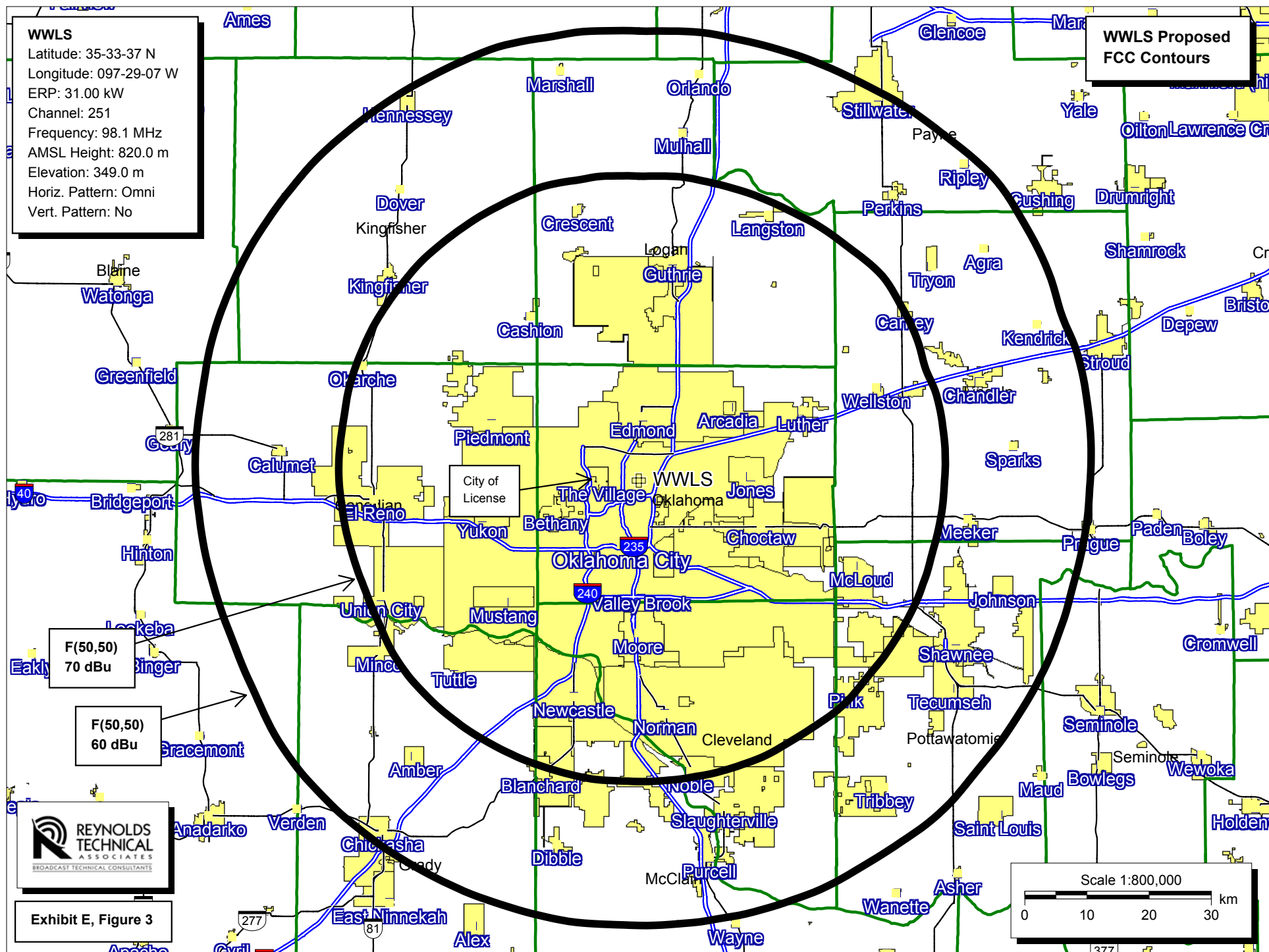
ERP: 84 kW

Azimuth °T.	Ave. Elev. 3 to 16 km (Meters AMSL)	FM - 2-6 Tables Effective Antenna Height (Meters AAT)	ERP (dBk)	F(50-50) Distance to 70 dBu Contour (km)	F(50-50) Distance to 60 dBu Contour (km)
160	357.5	462.5	14.914	48.6	71.8
165	358.1	461.9	14.914	48.6	71.8
170	360.4	459.6	14.914	48.4	71.6
175	361.2	458.8	14.914	48.4	71.5
180	361.4	458.6	14.914	48.4	71.5
185	360.7	459.3	14.914	48.4	71.6
190	358.3	461.7	14.914	48.6	71.7
195	359.2	460.8	14.914	48.5	71.7
200	359.2	460.8	14.914	48.5	71.7
205	358.9	461.1	14.914	48.5	71.7
210	358.6	461.4	14.914	48.5	71.7
215	357.3	462.7	14.914	48.6	71.8
220	357.3	462.7	14.914	48.6	71.8
225	357.9	462.1	14.914	48.6	71.8
230	358.8	461.2	14.914	48.5	71.7
235	363.5	456.5	14.914	48.3	71.4
240	373.3	446.7	14.914	47.7	70.7
245	378.3	441.7	14.914	47.5	70.3
250	380.2	439.8	14.914	47.4	70.2
255	377.8	442.2	14.914	47.5	70.3
260	373.8	446.2	14.914	47.7	70.6
265	370.7	449.3	14.914	47.9	70.8
270	365.5	454.5	14.914	48.2	71.2
275	362.8	457.2	14.914	48.3	71.4
280	361.6	458.4	14.914	48.4	71.5
285	356.4	463.6	14.914	48.7	71.9
290	350.6	469.4	14.914	49.0	72.3
295	347.7	472.3	14.914	49.1	72.5
300	344.4	475.6	14.914	49.3	72.8
305	343.2	476.8	14.914	49.4	72.9
310	341.7	478.3	14.914	49.5	73.0
315	339.1	480.9	14.914	49.6	73.2
320	340.3	479.7	14.914	49.5	73.1
325	340.7	479.3	14.914	49.5	73.0
330	340.3	479.7	14.914	49.5	73.1
335	340.0	480.0	14.914	49.6	73.1
340	337.8	482.2	14.914	49.7	73.3
345	340.5	479.5	14.914	49.5	73.1
350	345.1	474.9	14.914	49.3	72.7
355	347.4	472.6	14.914	49.2	72.6

WWLS

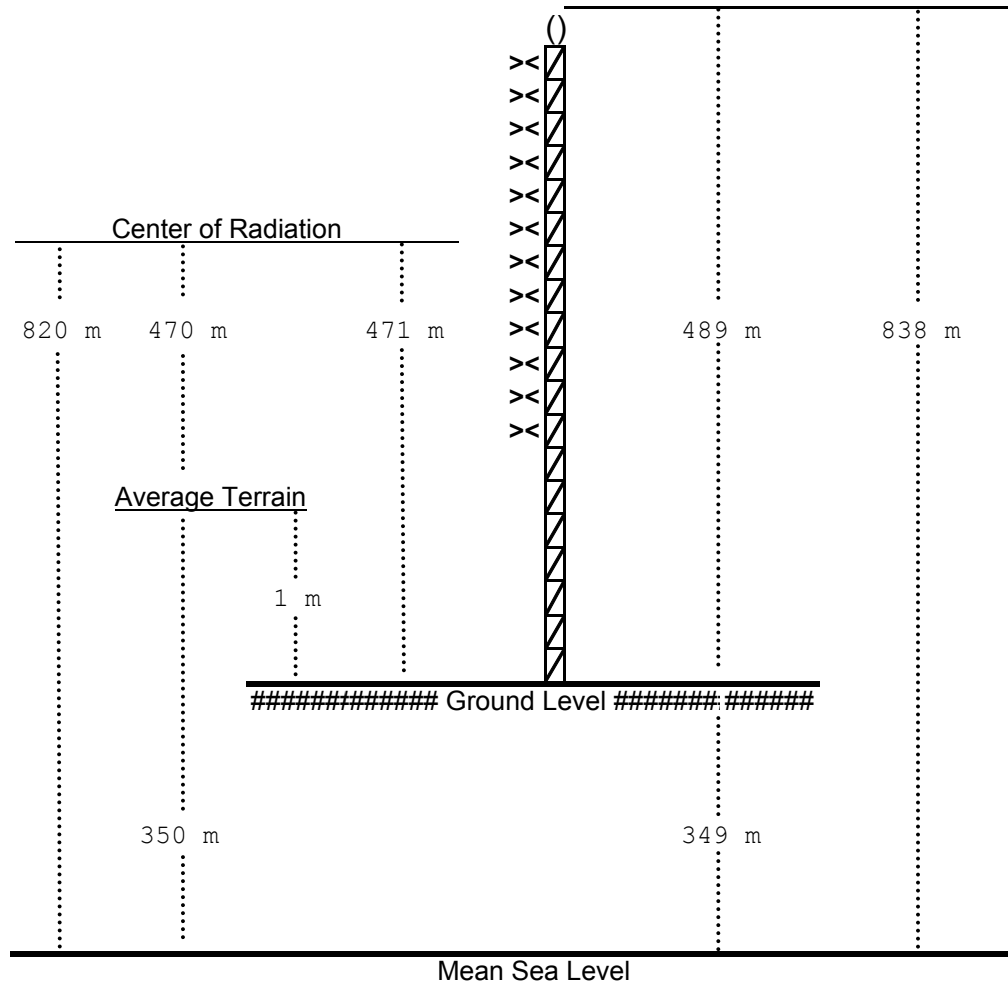
Latitude: 35-33-37 N
Longitude: 097-29-07 W
ERP: 31.00 kW
Channel: 251
Frequency: 98.1 MHz
AMSL Height: 820.0 m
Elevation: 349.0 m
Horiz. Pattern: Omni
Vert. Pattern: No

WWLS Proposed FCC Contours



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Vertical Sketch



Proposed Location: 35° 33' 37" N. Lat. 97° 29' 07" W. Long. [NAD27]

NOT DRAWN TO SCALE

Proposed Antenna: 12 elements

Tower Registration Number: 1253490