

MINOR CHANGE APPLICATION

K208FZ, Amana, IA- Relocating as Fill-In Translator for KKLO (AM)

July, 2016

**TECHNICAL STATEMENT**

This technical statement and attached exhibits have been prepared on behalf of Vision Communications Incorporated, (“Vision”), Proposed assignee of translator construction permit K208FZ, Facility ID number 21063. The applicant proposes to modify K208FZ at Amana, IA to change tower location and use the translator as a fill-in translator for AM station KKLO (AM), Leavenworth, KS (1410kHz, Class B). Facility ID number 10345 in compliance with 47 CFR 74.1201(g). The translator community of license will change to Lenexa, KS. The proposed operation is compliant with the FCC’s “AM Revitalization” Order released October 23, 2015 (AMR Order). As a class B station, KKLO is eligible to apply in the second modification window opening July 29, 2016. In accordance with the modifications permitted the AMR Order, translator station K208FZ will change frequency from channel 261D (99.5MHz) to 224D (92.7MHz) and will be relocated 228 miles from the currently permitted site to the proposed tower site which is within the maximum allowable 250 miles.

**Facilities Proposed**

Location (NAD27)	39° 00' 58" N Latitude, 94° 41' 23" W Longitude
Channel	224D (92.7MHz)
Tower Overall AGL Height-	107m
Tower ASR	1030961 (Exhibit E)
Proposed Antenna	LPX-1E-DA
Antenna AGL Height-	80m
Site AMSL Height-	312m
COR AMSL Height	392m
ERP	99w DIRECTIONAL (EXHIBIT A)

## Interference Study

ComStudy 2.2 search of channel 224 (92.7 MHz Class D) at 39-00-58.0 N, 94-41-23.0 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
KMXV	KANSAS CITY	MO 227 C0	15.85	0.00	90.1	-32.85 dB EXHIBIT D
KCCV-FM	OLATHE	KS 222 C3	16.10	0.00	236.5	-17.18 Db EXHIBIT D
KPRS	KANSAS CITY	MO 277 C	15.85	29.00	90.1	-13.1 IF LIM 99W
K225CI	KANSAS CITY	MO 225 D	25.08	0.00	49.8	0.20 Db EXHIBIT C
K224ET	KANSAS CITY	KS 224 D	15.85	0.00	90.1	0.59 Db EXHIBIT C
KMXN	OSAGE CITY	KS 225 C2	80.88	0.00	247.9	7.33 dB
KSJQ	SAVANNAH	MO 224 C2	109.41	0.00	347.1	7.34 dB
K224ET	KNOB NOSTER	MO 224 D	69.46	0.00	120.7	13.18 dB
KAYX	RICHMOND	MO 223 A	76.39	0.00	75.3	18.61 dB
900118ML	SAVANNAH	MO 224 C2	106.37	0.00	350.1	22.40 dB
KCVT	SILVER LAKE	KS 223 C3	108.01	0.00	278.0	27.63 dB
K224EX	MANHATTAN	KS 224 D	167.06	0.00	276.0	31.35 dB

### COMPLIANCE, 74.1201(g), 74.1233(a)(1), 74.1204(a) and 74.1204(d)

Exhibit B demonstrates compliance with Rule 74.1201(g) governing the use of a translator as a fill-in for an AM station. The 60dBu contour of the proposed K208FZ will be completely contained within the 2mV/m contour of KKLO (AM) and is within 25 miles of the KKLO transmitter.

Due to the special nature of the AMR Order, Rule 74.1233(a)(1) does not apply.

Exhibit C demonstrates compliance with Rule 74.1204(a). There are no impermissible contour overlaps to any other facilities.

As demonstrated in Exhibit D, per Rule 74.1204(d), there will be no location at ground level where the signal of the proposed K208FZ will be in excess of 40dBu above the KMXV 2<sup>nd</sup> adjacent signal or KCCV-FM 3<sup>rd</sup> adjacent signal.

## Environmental Exhibit

The proposed facility will use a 1-bay ERI LPX antenna located 80 meters above ground level.

The station will emit 99 watts ERP (both horizontal and vertical).

Using the FCC program "FM Model for Windows", it was calculated that using a worst case dipole antenna, the proposed translators will contribute approximately  $0.65 \mu\text{W}/\text{cm}^2$  or 0.33% of the total allowable  $200 \mu\text{W}/\text{cm}^2$ . Because the total contribution from this antenna is well below the 5% threshold, the proposed operation is categorically excluded from further environmental review under §1.1306 of the FCC rules and regulations.

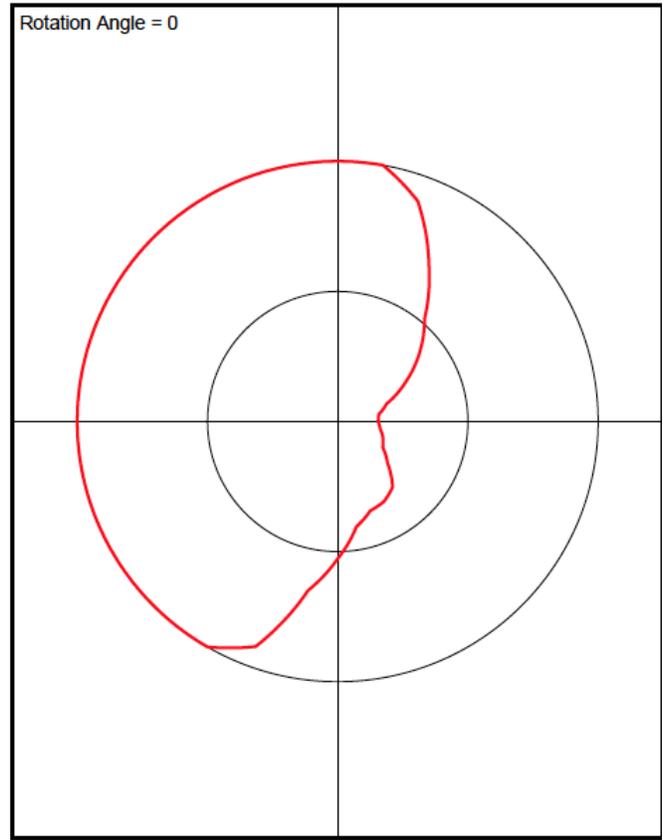
Respectfully Submitted



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**EXHIBIT A-**  
 PROP 224D Lenexa PAT  
 Pre-Rotation Antenna Pattern....

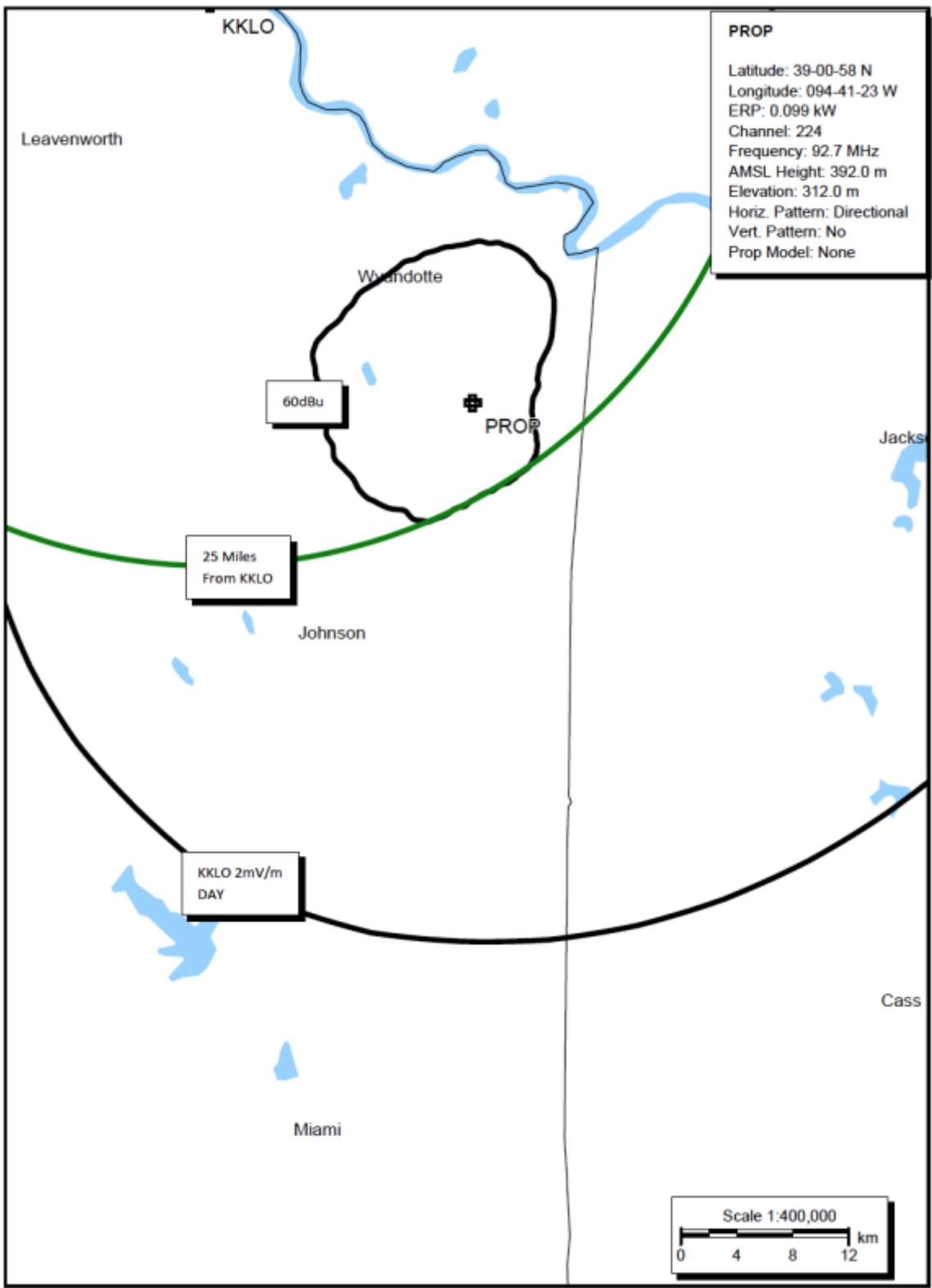
Azimuth (deg)	Relative Field
0.0	1.0
5.0	1.0
10.0	1.0
15.0	0.95
20.0	0.9
25.0	0.8
30.0	0.7
35.0	0.61
40.0	0.52
45.0	0.465
50.0	0.41
55.0	0.355
60.0	0.3
65.0	0.25
70.0	0.2
75.0	0.18
80.0	0.16
85.0	0.1575
90.0	0.155
95.0	0.1605
100.0	0.166
105.0	0.1755
110.0	0.185
115.0	0.1925
120.0	0.2
125.0	0.225
130.0	0.25
135.0	0.289
140.0	0.328
145.0	0.3415
150.0	0.355
155.0	0.36
160.0	0.365
165.0	0.388
170.0	0.411
175.0	0.469
180.0	0.527
185.0	0.5935
190.0	0.66
195.0	0.79
200.0	0.92
205.0	0.96
210.0	1.0
215.0	1.0
220.0	1.0
225.0	1.0
230.0	1.0
235.0	1.0
240.0	1.0
245.0	1.0
250.0	1.0
255.0	1.0
260.0	1.0
265.0	1.0
270.0	1.0
275.0	1.0
280.0	1.0
285.0	1.0
290.0	1.0
295.0	1.0
300.0	1.0
305.0	1.0
310.0	1.0
315.0	1.0



320.0	1.0
325.0	1.0
330.0	1.0
335.0	1.0
340.0	1.0
345.0	1.0
350.0	1.0
355.0	1.0

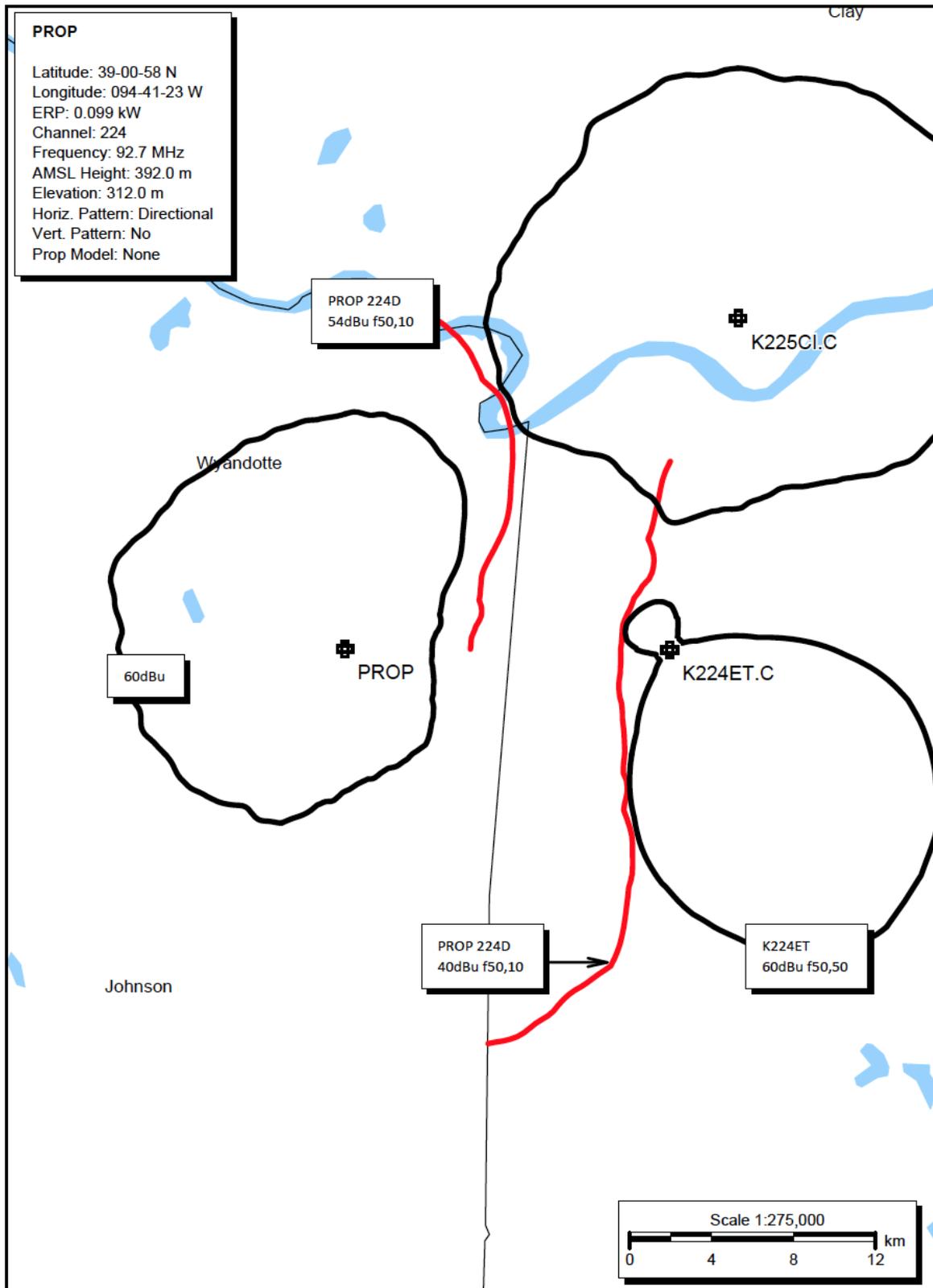
# Exhibit B- FCC 74.1201(g) Compliance

## 74.120(a) Compliance, PROP 224D, Lenexa, KS



# EXHIBIT C 74.1204(a) Compliance

## 74.1201(a) Compliance, PROP 224D, Lenexa, KS



## EXHIBIT D 74.1204(d) Compliance TO WMXV

PROP Lenexa, KS  
 74.1204(d) Showing  
 Translator or LPFM Maximum Licensed ERP = 0.099  
 Translator or LPFM Antenna Height AG = 80 Meters  
 PROP Antenna Model = LPX1

Protected Station's Contour = 92.33122 dBu  
 Translator's or LPFM's full Interference contour 132.33122

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.099 kW  
 Distance between stations = 15.8 km  
 Protected Station= KMXV, 100 kW, 599 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.0990	016.8755	016.8755	080.000
05.00	0.993	1.0	0.0976	016.7574	016.6936	078.539
10.00	0.974	1.0	0.0939	016.4367	016.1870	077.146
15.00	0.941	1.0	0.0877	015.8798	015.3388	075.890
20.00	0.897	1.0	0.0797	015.1373	014.2244	074.823
25.00	0.843	1.0	0.0704	014.2260	012.8932	073.988
30.00	0.78	1.0	0.0602	013.1629	011.3994	073.419
35.00	0.709	1.0	0.0498	011.9647	009.8009	073.137
40.00	0.633	1.0	0.0397	010.6822	008.1830	073.134
45.00	0.554	1.0	0.0304	009.3490	006.6108	073.389
50.00	0.473	1.0	0.0221	007.9821	005.1308	073.885
55.00	0.394	1.0	0.0154	006.6489	003.8137	074.554
60.00	0.317	1.0	0.0099	005.3495	002.6748	075.367
65.00	0.245	1.0	0.0059	004.1345	001.7473	076.253
70.00	0.181	1.0	0.0032	003.0545	001.0447	077.130
75.00	0.124	1.0	0.0015	002.0926	000.5416	077.979
80.00	0.077	1.0	0.0006	001.2994	000.2256	078.720
85.00	0.041	1.0	0.0002	000.6919	000.0603	079.311
90.00	0.016	1.0	0.0000	000.2700	000.0000	079.730

## EXHIBIT D 74.1204(d) Compliance To KCCV

PROP Lenexa, KS  
 74.1204(d) Showing  
 Translator or LPFM Maximum Licensed ERP = 0.099  
 Translator or LPFM Antenna Height AG = 80 Meters  
 PROP Antenna Model = SHPX1H

Protected Station's Contour = 76.30008 dBu  
 Translator's or LPFM's full Interference contour 116.30008

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.099 kW  
 Distance between stations = 16.1 km  
 Protected Station= KCCV-F, 8.3 kW, 465 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle (m)	Dist to IX Contour From Tower Base (m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.0990	106.8596	106.8596	080.000
05.00	0.993	1.0	0.0976	106.1116	105.7078	070.752
10.00	0.974	1.0	0.0939	104.0813	102.5000	061.926
15.00	0.941	1.0	0.0877	100.5549	097.1286	053.974
20.00	0.897	1.0	0.0797	095.8531	090.0724	047.216
25.00	0.843	1.0	0.0704	090.0827	081.6426	041.929
30.00	0.78	1.0	0.0602	083.3505	072.1836	038.325
35.00	0.709	1.0	0.0498	075.7635	062.0618	036.544
40.00	0.633	1.0	0.0397	067.6421	051.8169	036.520
45.00	0.554	1.0	0.0304	059.2002	041.8609	038.139
50.00	0.473	1.0	0.0221	050.5446	032.4894	041.281
55.00	0.394	1.0	0.0154	042.1027	024.1491	045.511
60.00	0.317	1.0	0.0099	033.8745	016.9372	050.664
65.00	0.245	1.0	0.0059	026.1806	011.0644	056.272
70.00	0.181	1.0	0.0032	019.3416	006.6152	061.825
75.00	0.124	1.0	0.0015	013.2506	003.4295	067.201
80.00	0.077	1.0	0.0006	008.2282	001.4288	071.897
85.00	0.041	1.0	0.0002	004.3812	000.3819	075.635
90.00	0.016	1.0	0.0000	001.7098	000.0000	078.290

## EXHIBIT D- ASR Registration

### Registration 1030961

[Map Registration](#)

#### Registration Detail

Reg Number	1030961	Status	Constructed
File Number	A0905061	Constructed	04/09/2013
EMI	No	Dismantled	
NEPA	No		

#### Antenna Structure

Structure Type L TOWER - Lattice Tower

#### Location (in NAD83 Coordinates)

Lat/Long	39-00-57.8 N 094-41-24.2 W	Address	6230 IKEA Way (90332)
City, State	Shawnee Mission , KS		
Zip	66202	County	JOHNSON
Center of AM Array		Position of Tower in Array	

#### Heights (meters)

Elevation of Site Above Mean Sea Level	311.8	Overall Height Above Ground (AGL)	106.7
Overall Height Above Mean Sea Level	418.5	Overall Height Above Ground w/o Appurtenances	105.2

#### Painting and Lighting Specifications

FAA Chapters 4, 8, 12  
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

#### FAA Notification

FAA Study	2014-ACE-1392-OE	FAA Issue Date	04/17/2014
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#### Owner & Contact Information

FRN	0011498342	Owner Entity Type	Limited Liability Company
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#### Owner

American Towers, LLC. Attention To: Regulatory Compliance FAA FCC 10 Presidential Way Woburn , MA 01801	P: (678)564-3236 F: E: faa-fcc@americantower.com
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#### Contact

Attention To: Regulatory Compliance FAA FCC 10 Presidential Way Woburn , MA 01801	P: (678)564-3236 F: E: faa-fcc@americantower.com
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#### Last Action Status

Status	Constructed	Received	05/14/2014
Purpose	Notification	Entered	05/14/2014
Mode	Interactive		

#### Related Applications

05/14/2014	A0905061 - Notification (NT)
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