



**REC Networks**  
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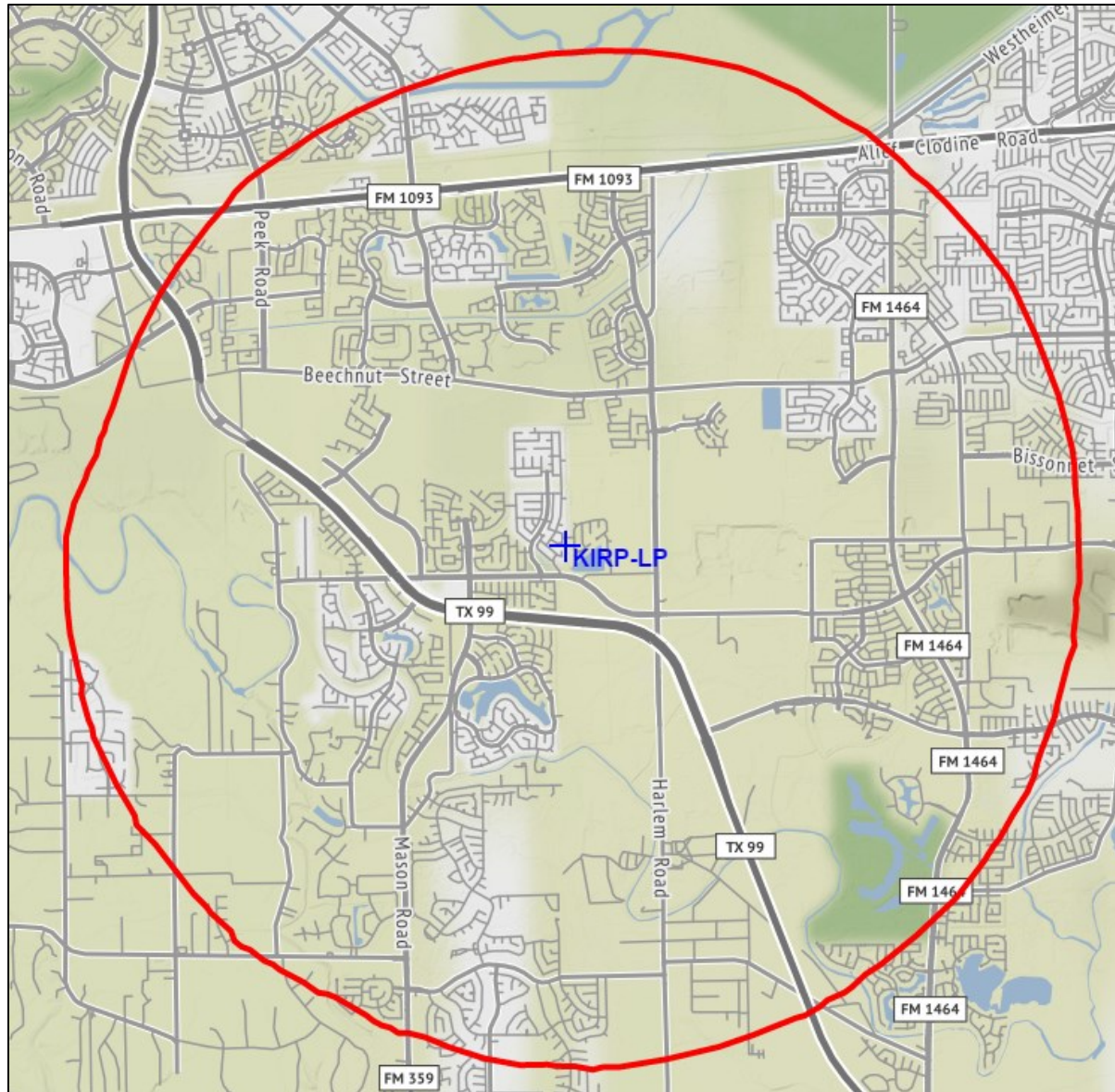
Minor modification for KIRP-LP

**SUGAR LAND, TX**

**POSITIVE BROADCASTING COMPANY**

**BLL-20160310AAA**

**PROPOSED 60dBu F(50,50) SERVICE CONTOUR**



SUGAR LAND, TX – Channel 241L1 (96.1 MHz) ~ ERP 0.017 kW

Elev: 30 meters ~ RCAGL: 70 meters ~ RCAMSL: 100 meters ~ HAAT: 72m (GLOBE)

Overall tower height: 78 meters – ASR: 1055444

NAD27 Latitude: 29° 40' 03.0" NL – Longitude: 95° 43' 31.0" WL

NAD83 Latitude: 29° 40' 03.8" NL – Longitude: 95° 43' 31.8" WL

R E C NETWORKS  
CHANNEL REPORT

NAD27 LATITUDE: 29 - 40' 03.0" - LONGITUDE: 95 - 43' 31.0"  
CHANNEL: 241 - CLASS: LPFM(LP-100)

CHAN	FREQ	CALL	LOCATION	CLS	DIST	REQ	CLEAR	BEAR
238	95.5	KAFX-FM	DIBOLL	TX C1	213.8	0.0	213.8	25.2
		: TOWNSQUARE MEDIA	LUFKIN LICENSE, LLC					
238	95.5	KKMJ-FM	AUSTIN	TX C1	212.9	0.0	212.9	290.5
		: ENTERCOM LICENSE, LLC						
238	95.5	KZFM	CORPUS CHRISTI	TX C0	286.5	0.0	286.5	219.2
		: MALKAN INTERACTIVE	COMMUNICATIONS, LLC					
239	95.7	KKHH	HOUSTON	TX C	23.2	93.0	-69.8	116.0
		: CBS RADIO TEXAS INC.						
241	96.1	KIOX-FM	EDNA	TX C3	94.7	78.0	16.7	228.4
		: GLOBECOM MEDIA, LLC						
241	96.1	KAGG	MADISONVILLE	TX C2	131.1	91.0	40.1	343.4
		: CC LICENSES, LLC						
241	96.1	KYKZ	LAKE CHARLES	LA C1	238.6	111.0	127.6	73.8
		: CUMULUS LICENSING LLC						
241	96.1	NEW	HOUSTON	TX L1	52.8	24.0	28.8	54.3
		: CENTRO MUNDIAL DE FE INC.						
241	96.1	KYKZ	LAKE CHARLES	LA C1	218.6	111.0	107.6	70.9
		: CUMULUS LICENSING LLC						
241	96.1	KBLT-LP	HOUSTON	TX L1	31.2	24.0	7.2	79.9
		: WILLIAM MARSH RICE UNIVERSITY						
241	96.1	K241CM	HOUSTON	TX D6	53.6	39.0	14.6	114.7
		: SOUTH TEXAS BROADCASTING, INC.						
241	96.1	K241CM	HOUSTON	TX D7	53.6	39.0	14.6	114.7
		: SOUTH TEXAS BROADCASTING, INC.						
241	96.1	K241CO	HOUSTON	TX D1	28.3	26.0	2.3	34.1
		: LA PROMESA FOUNDATION						
243	96.5	KHMX	HOUSTON	TX C	23.2	93.0	-69.8	116.0
		: CBS RADIO STATIONS INC.						
244	96.7	KHFI-FM	GEORGETOWN	TX C1	213.0	0.0	213.0	290.4
		: CC LICENSES, LLC						

Contour: 5050

<b>Azimuth</b>	<b>Field</b>	<b>ERP</b>	<b>HAAT</b>	<b>Contour</b>	<b>Latitude</b>	<b>Longitude</b>
0	1.000	0.017	67.8	5.465	29.71687900	-95.72550800
5	1.000	0.017	68.9	5.504	29.71704300	-95.72054100
10	1.000	0.017	70.1	5.551	29.71690000	-95.71552600
15	1.000	0.017	70.8	5.578	29.71618700	-95.71055900
20	1.000	0.017	72.4	5.638	29.71537500	-95.70554200
25	1.000	0.017	72.8	5.654	29.71381500	-95.70076600
30	1.000	0.017	72.3	5.636	29.71162600	-95.69632900
35	1.000	0.017	72.8	5.653	29.70937600	-95.69193400
40	1.000	0.017	72.7	5.651	29.70665900	-95.68789900
45	1.000	0.017	73.2	5.668	29.70377100	-95.68401100
50	1.000	0.017	73.4	5.676	29.70053500	-95.68049400
55	1.000	0.017	74.1	5.704	29.69714800	-95.67713300
60	1.000	0.017	74.7	5.724	29.69346300	-95.67418800
65	1.000	0.017	74.2	5.706	29.68940800	-95.67197600
70	1.000	0.017	73.9	5.695	29.68524000	-95.67010600
75	1.000	0.017	74.1	5.702	29.68099200	-95.66850100
80	1.000	0.017	74.4	5.714	29.67664400	-95.66726200
85	1.000	0.017	73.9	5.696	29.67218500	-95.66677500
90	1.000	0.017	73.7	5.689	29.66772000	-95.66662400
95	1.000	0.017	74.1	5.705	29.66324900	-95.66669000
100	1.000	0.017	74.5	5.717	29.65879300	-95.66724200
105	1.000	0.017	74.6	5.723	29.65439900	-95.66829700
110	1.000	0.017	75.2	5.743	29.65005700	-95.66966300
115	1.000	0.017	75.6	5.760	29.64583100	-95.67149100
120	1.000	0.017	76.4	5.790	29.64168700	-95.67362200
125	1.000	0.017	76.5	5.795	29.63783200	-95.67639100
130	1.000	0.017	77.0	5.812	29.63412800	-95.67944400
135	1.000	0.017	77.1	5.815	29.63074700	-95.68296500
140	1.000	0.017	76.9	5.810	29.62770100	-95.68687100
145	1.000	0.017	76.6	5.798	29.62501600	-95.69110300
150	1.000	0.017	77.0	5.812	29.62246500	-95.69544500
155	1.000	0.017	77.2	5.820	29.62029100	-95.70006100
160	1.000	0.017	76.9	5.808	29.61865100	-95.70495900
165	1.000	0.017	76.6	5.797	29.61737900	-95.70998800
170	1.000	0.017	76.6	5.796	29.61640200	-95.71509700
175	1.000	0.017	76.7	5.801	29.61576500	-95.72027800

<b>Azimuth</b>	<b>Field</b>	<b>ERP</b>	<b>HAAT</b>	<b>Contour</b>	<b>Latitude</b>	<b>Longitude</b>
180	1.000	0.017	75.8	5.767	29.61586900	-95.72550800
185	1.000	0.017	76.1	5.778	29.61596900	-95.73071800
190	1.000	0.017	75.1	5.739	29.61690300	-95.73581800
195	1.000	0.017	73.4	5.678	29.61841200	-95.74071000
200	1.000	0.017	73.6	5.684	29.61969700	-95.74562000
205	1.000	0.017	72.3	5.633	29.62181800	-95.75013700
210	1.000	0.017	72.8	5.653	29.62370000	-95.75475100
215	1.000	0.017	73.0	5.662	29.62602100	-95.75910500
220	1.000	0.017	74.4	5.716	29.62835300	-95.76351800
225	1.000	0.017	72.6	5.645	29.63183000	-95.76680600
230	1.000	0.017	72.1	5.629	29.63518900	-95.77012000
235	1.000	0.017	72.4	5.640	29.63863200	-95.77331100
240	1.000	0.017	72.3	5.635	29.64238400	-95.77600700
245	1.000	0.017	72.1	5.629	29.64632900	-95.77829800
250	1.000	0.017	72.2	5.631	29.65040100	-95.78026700
255	1.000	0.017	71.0	5.584	29.65472500	-95.78132300
260	1.000	0.017	70.9	5.581	29.65900600	-95.78238900
265	1.000	0.017	70.2	5.555	29.66336700	-95.78277600
270	1.000	0.017	69.9	5.543	29.66772100	-95.78287400
275	1.000	0.017	68.0	5.471	29.67201000	-95.78192000
280	1.000	0.017	64.3	5.333	29.67605100	-95.77987400
285	1.000	0.017	62.7	5.274	29.67999900	-95.77824200
290	1.000	0.017	62.2	5.257	29.68389200	-95.77664000
295	1.000	0.017	62.6	5.271	29.68775700	-95.77495900
300	1.000	0.017	62.9	5.282	29.69147800	-95.77286800
305	1.000	0.017	63.3	5.296	29.69504400	-95.77042100
310	1.000	0.017	63.6	5.308	29.69840800	-95.76760200
315	1.000	0.017	64.2	5.332	29.70163100	-95.76454000
320	1.000	0.017	65.1	5.365	29.70469000	-95.76121400
325	1.000	0.017	64.7	5.349	29.70713800	-95.75727800
330	1.000	0.017	64.6	5.345	29.70935900	-95.75318000
335	1.000	0.017	64.6	5.345	29.71129600	-95.74889800
340	1.000	0.017	65.1	5.363	29.71305600	-95.74450200
345	1.000	0.017	65.3	5.370	29.71438000	-95.73990000
350	1.000	0.017	66.1	5.402	29.71557800	-95.73522200
355	1.000	0.017	66.8	5.426	29.71634800	-95.73040600

**REQUEST FOR WAIVER OF §73.807(a)**  
**SHORT-SPACED SECOND ADJACENT CHANNELS**

KIRP-LP  
Sugar Land, Texas  
Channel 241L1 (96.1 MHz)

KIRP-LP is proposing operation on Channel 241L1 from their current tower site at Sugar Land, Texas. Operation on channel 241L1 meets all minimum spacing requirements under §73.807(a)(1) with the exception of second-adjacent channel stations KKHH and KHMx, both licensed to Houston, Texas.

KKHH operates on Channel 239C with 95 kW at 585 meters above average terrain. The KIRP-LP tower site is inside the 91.4 dBu F(50, 50) service contour of KKHH.

KHMx is co-owned by KKHH and operates from the same site on Channel 243C. KHMx operates 97 kW at 585 meters above average terrain. KIRP-LP is inside the 91.5 dBu F(50, 50) service contour of KHMx.

When evaluating more than one second-adjacent channel short-spaced station, we further evaluate the weaker station, which in this case is KKHH. The interfering contour towards KHMx will be entirely within the interfering contour of KKHH.

Based on a height above average terrain of 72 meters based on GLOBE terrain data, KIRP-LP proposes to operate 0.017 kW ERP in accordance with §73.811(a) of the Commission's Rules. Using the U/D method<sup>1</sup>, the proposed LPFM station is predicted to produce an undesired interference overlap in respect to KKHH to the proposed LPFM station's 131.4 dBu interference contour ("overlap zone"). At 17 watts ERP, the overlap zone extends to 8 meters from the radiation center. As the radiation center of the proposed operation on Channel 241L1 is 70 meters above ground level, the KIRP-LP interfering contour will reach no point lower than 62 meters above ground level. There are no taller buildings within the immediate vicinity of this free-standing tower.

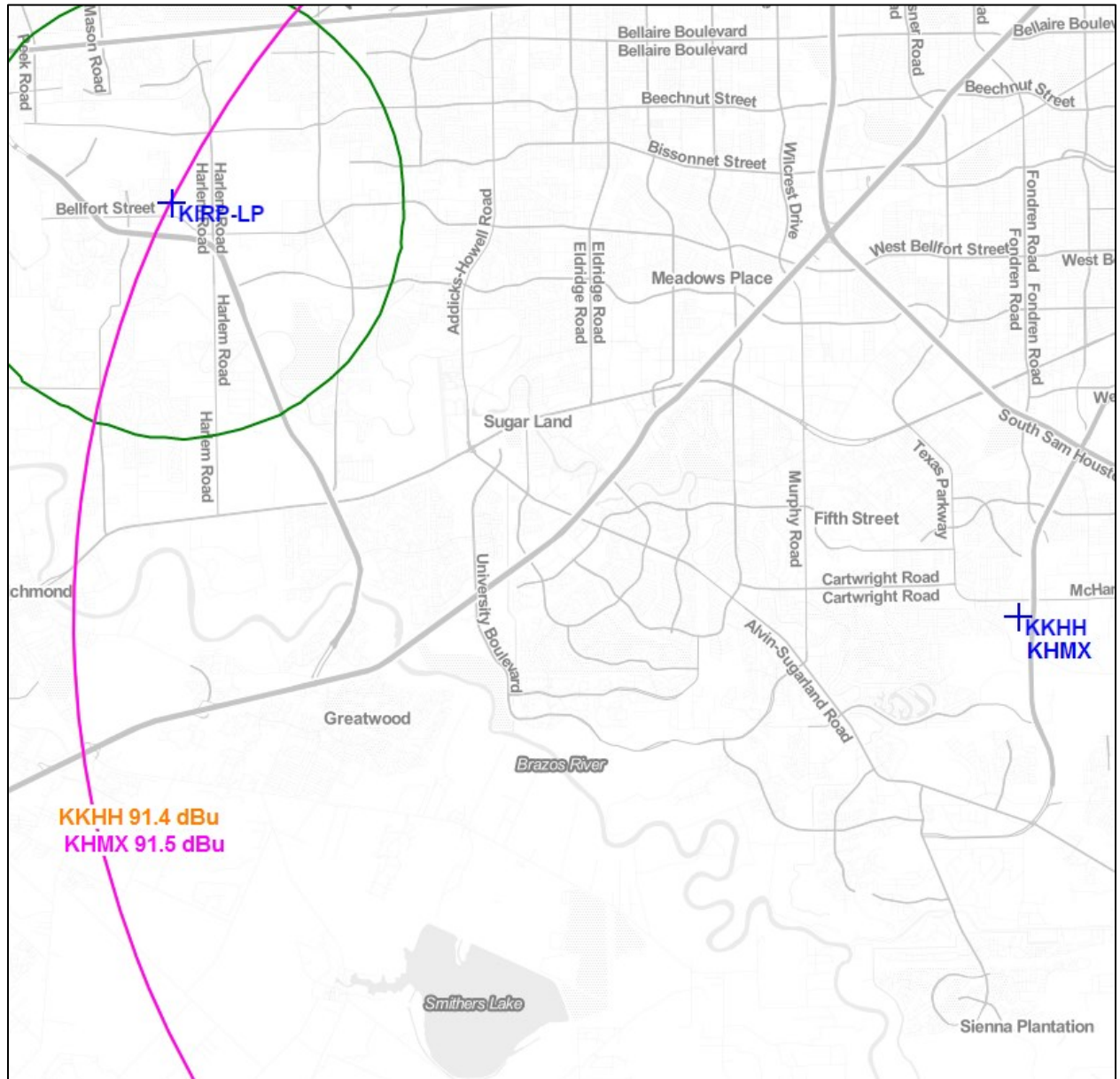
Based on the information presented, REC submits that the proposed station will not create any interference to existing or potential listeners of second adjacent channel stations KKHH and KHMx. The applicant requests a waiver of §73.807 of the Commission's Rules in respect to KKHH and KHMx.

Report completed by  
Michelle Bradley  
Founder, REC Networks  
June 24, 2017

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<sup>1</sup> - See *Living Way Ministries, Inc.* Memorandum Opinion and Order, 17 FCC Rcd 17054, 17056 (2002) at 5. *Recon denied* 23 FCC Rcd 15070 (2008).

## SERVICE CONTOURS OF KKHH & KHMx IN RESPECT TO KIRP-LP





**AREA SURROUNDING TOWER SITE**



**REQUEST FOR HANDLING UNDER §73.870(a)**  
**NON-ADJACENT CHANNEL**

KIRP-LP  
Sugar Land, Texas  
Channel 241L1 (96.1 MHz)

KIRP-LP is currently licensed and operating on Channel 252L1 (98.3 MHz) at Sugar Land, Texas.

KIRP-LP is experiencing very strong first-adjacent channel interference from KTJM, Port Arthur, Texas. KTJM places a 58.4 dBu F(50, 10) interfering contour at the KIRP-LP site. KTJM places interfering field strengths between 56.8 and 60.0 dBu within the KIRP-LP protected service contour.

Also, most of the protected contour of KIRP-LP is inside the interfering contour for co-channel station KULM-FM, Columbus, Texas which places a 40.7 dBu interfering contour at the KIRP-LP site.

KIRP-LP is proposing operation on non-adjacent Channel 241L1.

On Channel 241L1, KIRP-LP is inside of the interfering contours of KIOX-FM, Edna, Texas which places a 42.5 dBu interfering contour at the KIRP-LP site. Also, KAGG, Madisonville, Texas places a 40.5 dBu interfering contour with interference over only a portion of the KIRP-LP service contour. Translator K241CM currently places a 39.0 dBu interfering contour at the KIRP-LP site and has a granted construction permit that will result in a 40 dBu interfering contour at the KIRP-LP site.

The move to Channel 241L1 will eliminate the strong first-adjacent interference from KTJM in which KIRP-LP is located 4.4 dBu inside of the KTJM 54 dBu interfering contour. The other stronger interfering station on Channel 252L1 is KULM-FM at 40.8 dBu will be replaced by KAGG with a 40.5 dBu interfering contour.

The following chart shows a comparison of the two channels:

Channel 252L1			Channel 241L1		
Station	Field strength at LPFM	LPFM inside contour	Station	Field strength at LPFM	LPFM inside contour
KTJM(1 <sup>st</sup> adj.)	58.4 dBu	<b>4.4 dBu</b>	KIOX-FM	42.5 dBu	<b>2.5 dBu</b>
KULM-FM	40.7 dBu	0.7 dBu	KAGG	40.5 dBu	0.5 dBu
			K241CM(CP)	40.0 dBu	0.0 dBu



§73.870(a)(1) of the Rules permits “changes in frequency to adjacent or IF frequencies, or, upon a technical showing of reduced interference” to be handled by the Commission as a minor change.<sup>2</sup> While we are replacing one interfering channel with another potentially interfering channel, the proposed channel eliminates a strong first-adjacent interferer (KTJM) throughout the KIRP-LP protected contour and replaced it with weaker interfering stations in portions of the LPFM service contour. Because of this, we have a showing of “reduced interference” as required by §73.870(a)(1) of the Commission’s Rules.

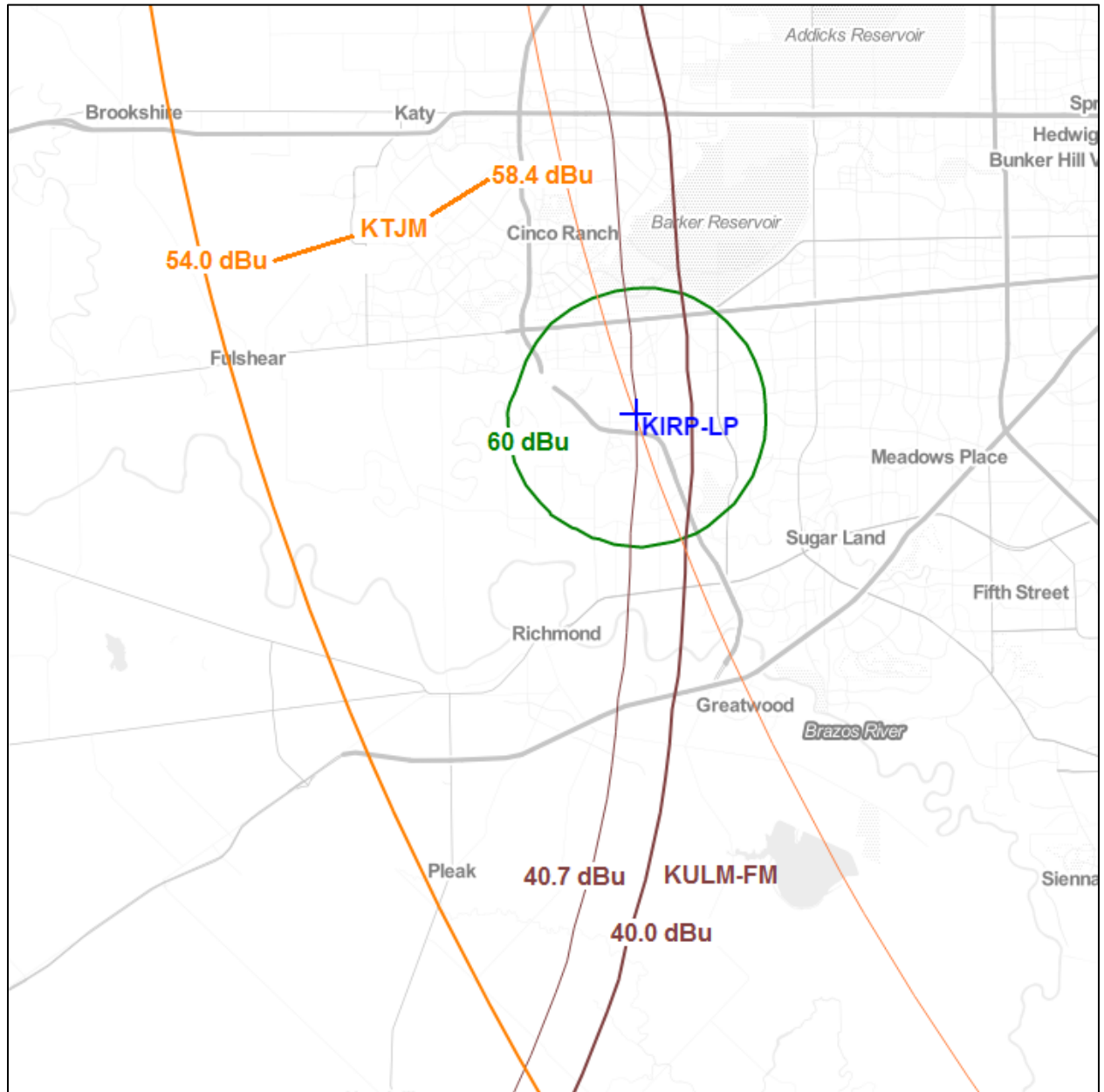
Based on the information presented, the applicant is requesting handling under §73.870(a)(1) to specify non-adjacent channel 241L1.

Prepared by  
Michelle Bradley  
REC Networks  
June 24, 2017

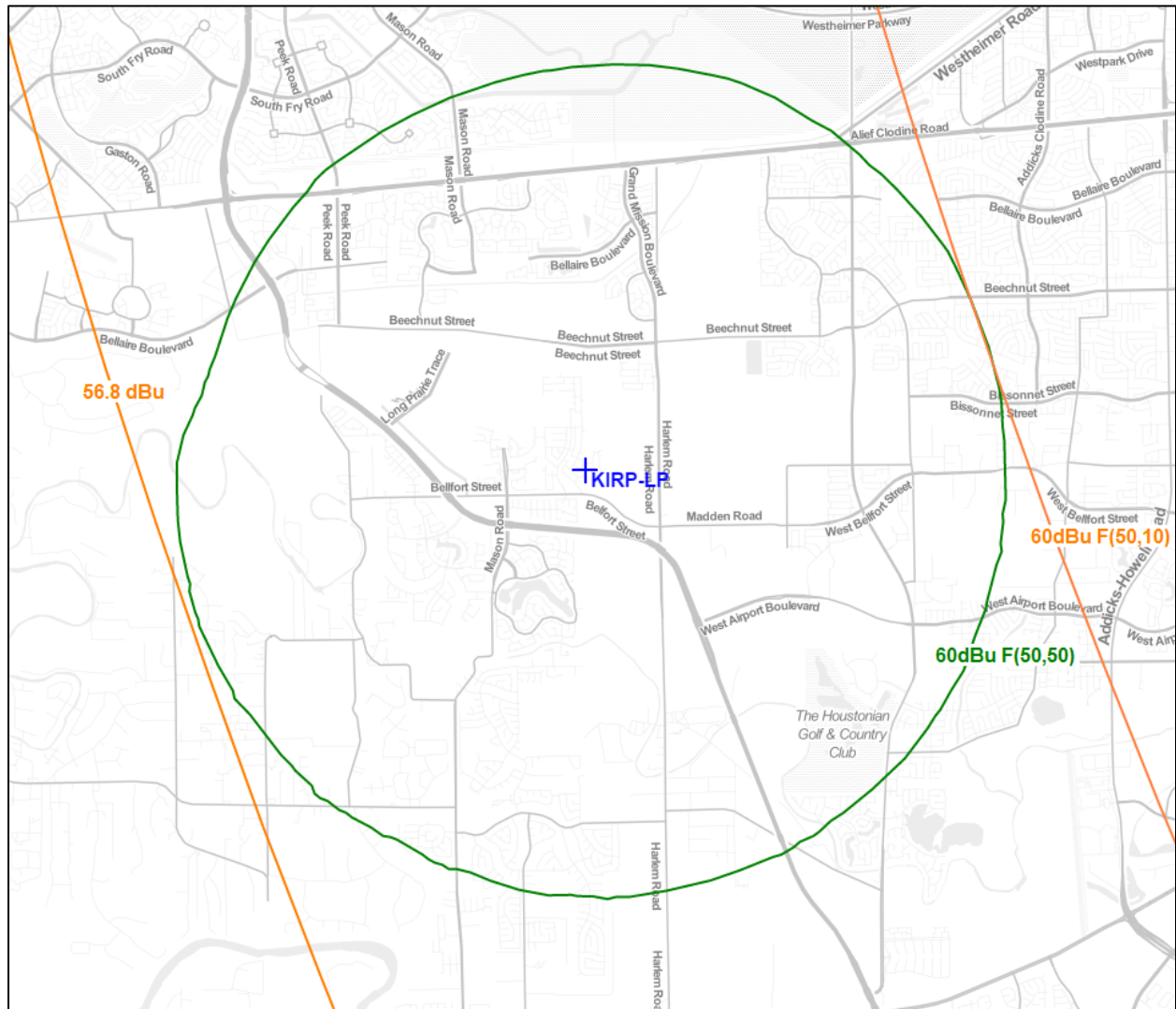
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<sup>2</sup> - See 47 C.F.R. §73.870(a).

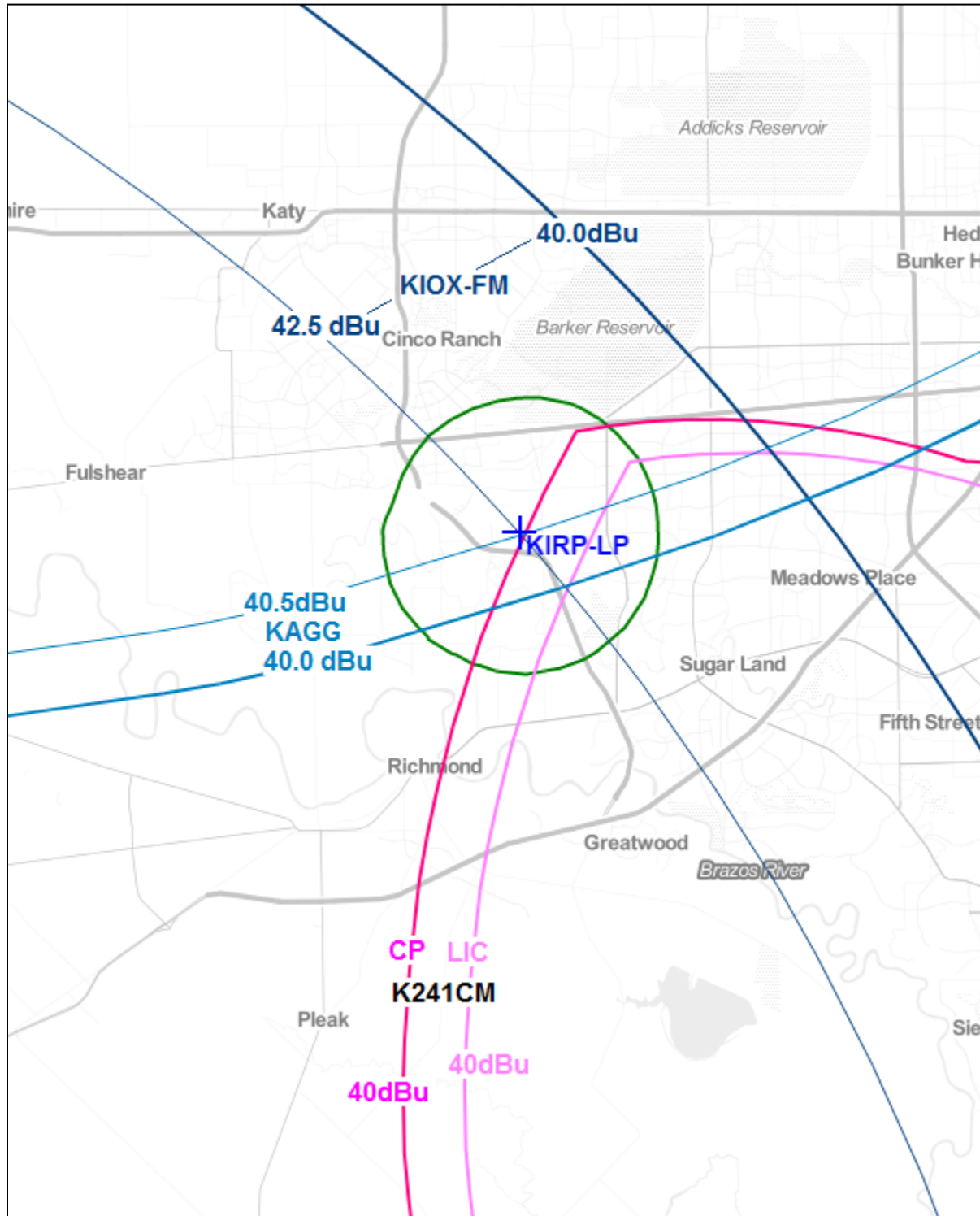
## KIRP-LP ON CHANNEL 252L1



## INTERFERING CONTOUR RANGE OF KTJM TO KIRP-LP



## KIRP-LP ON CHANNEL 252L1



## **GLOBE TERRAIN DATA TO SHOW 72m HAAT**

Applicant requests ERP of 17 watts based on GLOBE terrain data.

### **Antenna Height Above Average Terrain Calculations -- Results**

#### **Input Data**

Latitude **29° 40' 3" North**

Longitude **95° 43' 31" (NAD 27)**

These coordinates convert to NAD 83 coordinates of  
29° 40' 03.84", North, 95° 43' 31.81" West (NAD 83).

Height of antenna radiation center above mean sea level: **100 meters AMSL**

Number of Evenly Spaced Radials = **8**     0° is referenced to True North

#### **Results**

**Calculated HAAT = 72 meters**

Antenna Height Above Average Terrain calculated  
using 1 km **GLOBE terrain data**

#### **Individual "Radial HAAT" Values, in meters**

0°	67.1 m
45°	72.4 m
90°	73.5 m
135°	77.3 m
180°	75.8 m
225°	72.8 m
270°	69.0 m
315°	64.1 m