

**KLIP 105.3 FM COMPREHENSIVE TECHNICAL EXHIBIT**

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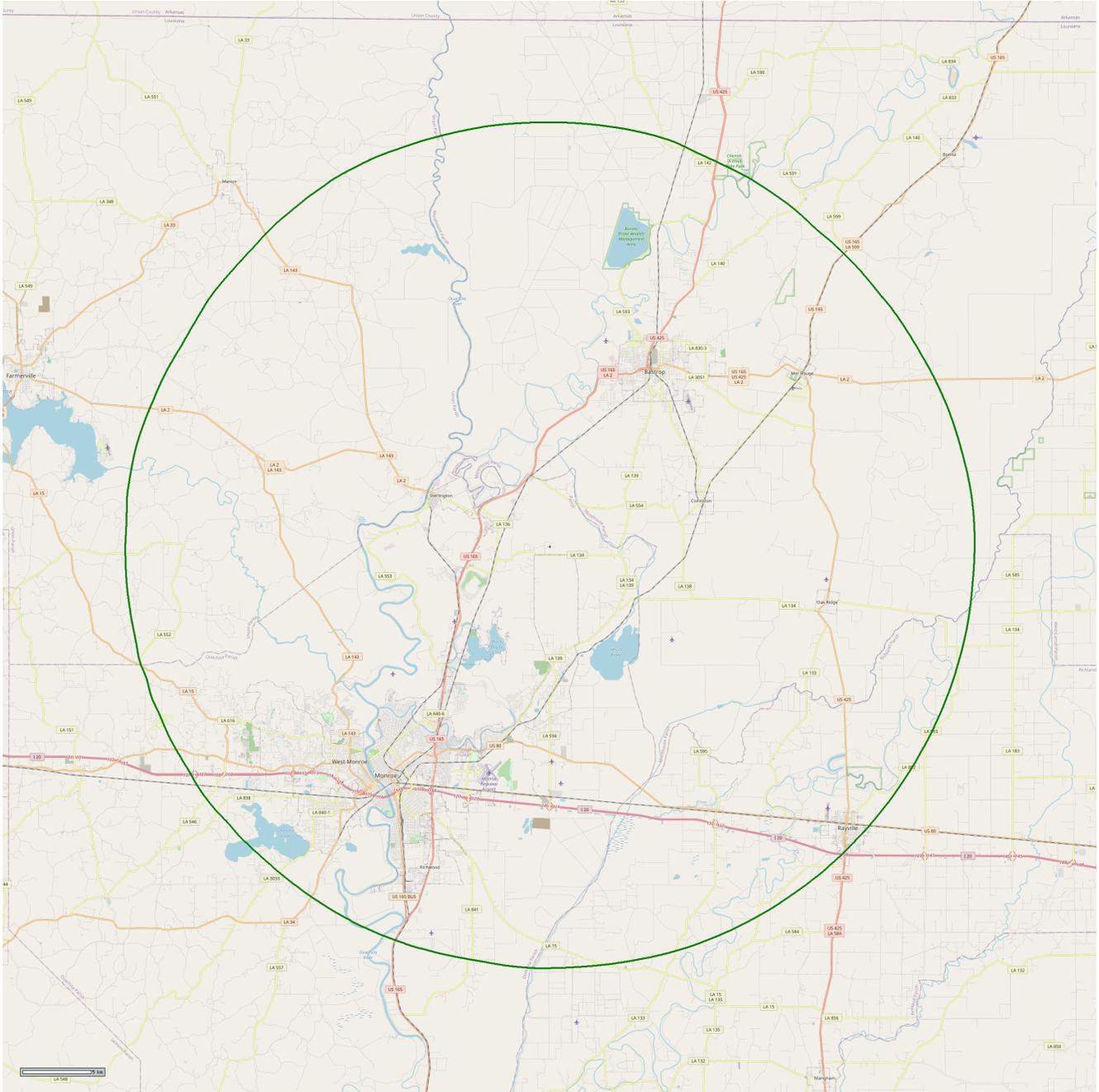
**KLIP 105.3 FM, MONROE, LOUISIANA, FCC FACILITY ID 10865**  
**ENGINEERING SHOWING**

**SUMMARY**

Holladay Broadcasting of Louisiana, LLC (“Applicant”) is the licensee of KLIP, FM Channel 287C2, FCC Facility ID 10865, CDBS BLH-19930510KB, at Monroe, Louisiana (“KLIP”). In this application, Applicant proposes to modify the broadcast location of KLIP to a proposed multi-plexed common antenna site with radio stations KEDM 90.3 FM (Monroe, Louisiana, FCC Facility ID 49406), KXUL 91.1 FM (Monroe, Louisiana, FCC Facility ID 49404), KJMG 97.3 FM (Bastrop, Louisiana, FCC Facility ID 15095), KZRZ 98.3 FM (West Monroe, Louisiana, FCC Facility ID 52510), and KRVV 100.1 FM (Bastrop, Louisiana, FCC Facility ID 27468). The minor modification applications for this common antenna for stations KJMG and KRVV are being filed concurrently with the KLIP application described herein.

## **SECTION 73.315 SHOWING – PROPOSED FACILITY**

The facility proposed herein, which is spaced under Section 73.215 of the Commission's Rules, would serve all of the Monroe community within a F(50,50) 70 dBu contour.



**FIGURE 1:** The map above depicts the F(50,50) 70 dBu contour of KLIP contemplated in the application herein. As shown above, the facility would provide 70 dBu city grade service to the entire community of Monroe, Louisiana.

**73.207 SHOWING – ALLOCATION SITE**

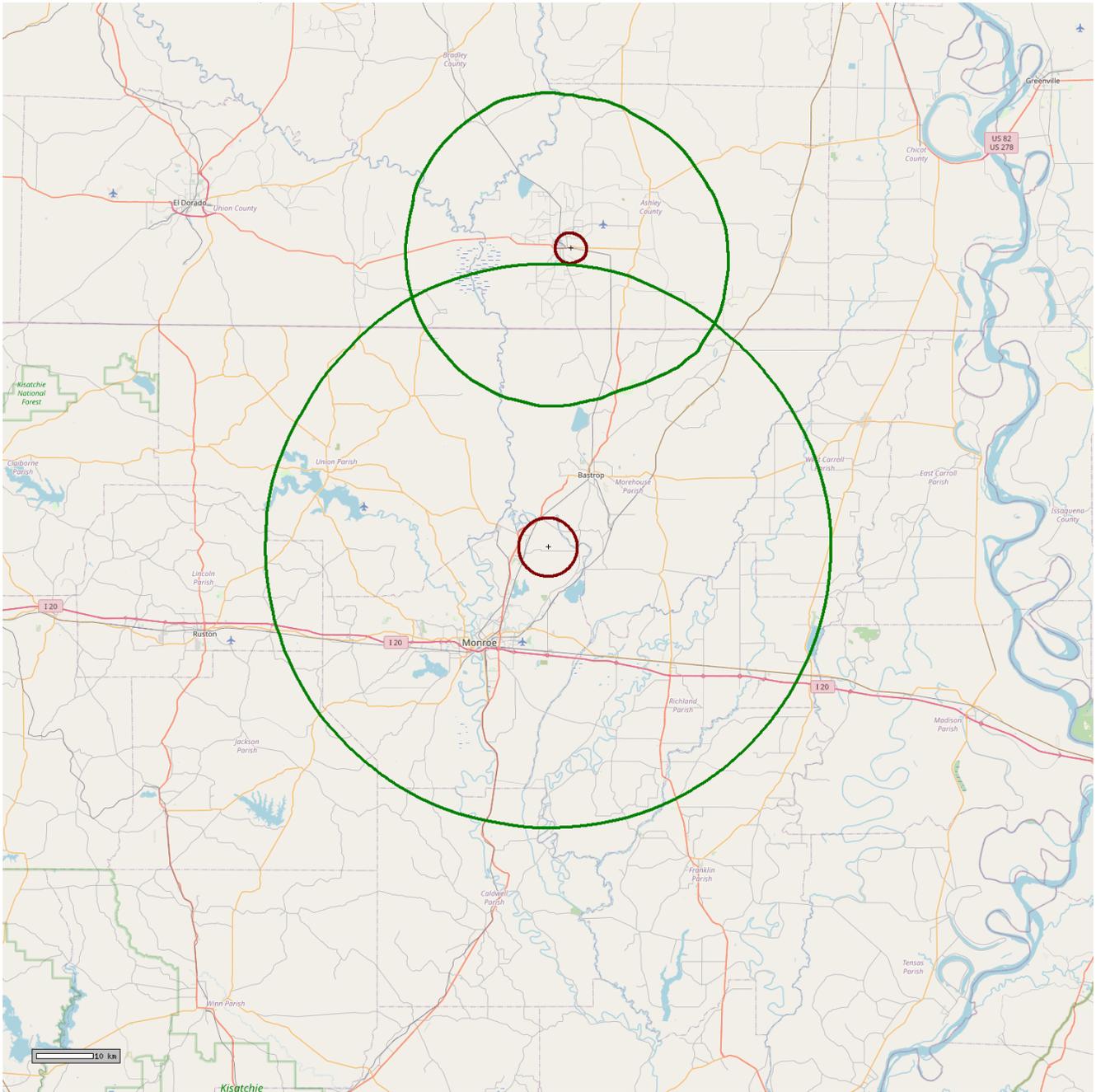
As Applicant is not requesting a new community of license nor a change in its FM class, Applicant respectfully believes that a new Section 73.207 study is not required as part of the application contemplated herein.

### **73.215 SHOWING – PROPOSED KLIP ANTENNA SITE**

Although the proposed KLIP facilities do not satisfy the minimum spacing requirements of §73.207 with regard to station KAGH-FM, Crossett, Arkansas (Facility ID #2937), the contour protection requirements for short-spaced assignments of §73.215 are met.

The distance between the proposed KLIP (287C2) transmitter site and the KAGH-FM (285A) transmitter site is 52.77 km. Although this distance is less than the 55 km spacing required under §73.207, it exceeds the 49 km minimum distance requirement of §73.215(e). The locations of protected and interfering contours of KAGH-FM (using facilities of 6 kW ERP from an antenna height of 100 meters above average terrain) and the proposed KLIP facility were determined and are shown in Figure 2. No prohibited overlap is expected between the protected and interfering contours.

Relevant contour plots were generated by computer using the methods specified in §73.313. Antenna height above average terrain was computed using the standard eight-radial method specified in §73.313(d). Average terrain along additional azimuths was computed and used in conjunction with the F(50,50) and F(50,10) curves to determine distances to protected and interfering contours respectively. These additional azimuths were not included in the computation of the antenna eight-radial height above average terrain. Elevation data used in the computation of average terrain was determined by linear interpolation of USGS 3-arcsecond digital elevation model files consistent with §73.312.



**FIGURE 2:** The map above depicts the F(50,50) 60 dBu contour of the proposed KLIP facility (green, center) and the F(50,10) 100 dBu interfering contour (dark red, top) of station KAGH 104.9 FM (FCC Facility ID 2936) at Crossett, Arkansas. As show above, no prohibited overlap is expected to occur between the two facilities.

## 73.215 SPACING TABLE – PROPOSED KLIP ANTENNA SITE

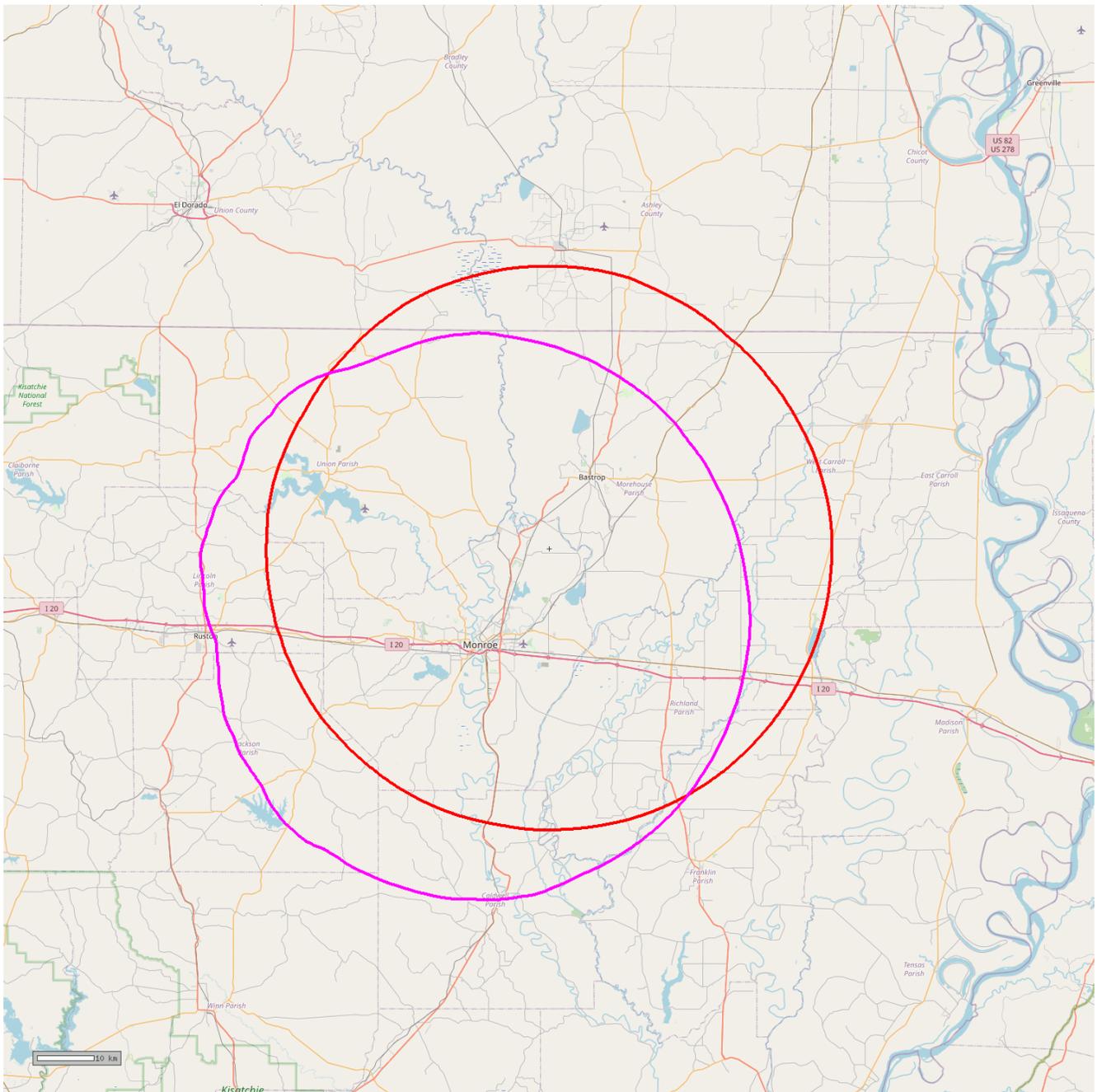
FIGURE 3: PROPOSED KLIP ANTENNA SITE

Call: KLIP  
 FCC Facility ID: 10865  
 Channel: 287C2 / 105.3 FM  
 Community: Monroe, Louisiana  
 ASRN: 1022704  
 COORDINATES: 32-39-38 N, 91-59-28 W (NAD 83)

<u>Application</u>	<u>Call</u>	<u>Type</u>	<u>Channel</u>	<u>Community</u>	<u>State</u>	<u>Distance</u>	<u>Minimum</u>	<u>Margin</u>
ef945c3f065b4	KAGH-FM	LIC	285A	CROSSETT	AR	52.77	55.00	-2.23 *
6072-2019-09	KWRF-FM	VAC_	288A	WARREN	AR	108.10	106.00	2.10
4bc3bef3602f4	KWRF-FM	LIC	288A	WARREN	AR	108.38	106.00	2.38
5509-2019-09	WVVG-FM	VAC_	288A	REDWOOD	MS	113.10	106.00	7.10
134-2022-05-0	NEW	VAC_	286A	HAYNESVILLE	LA	113.22	106.00	7.22
48f0524c84864	KZKR	LIC	286A	JONESVILLE	LA	113.49	106.00	7.49
25076f917c2e	TNEW	CP	286A	Haynesville	LA	113.85	106.00	7.85
25076f9179a9	VAC_AL	VAC_	286A	Haynesville	LA	113.87	106.00	7.87
16946-2019-09	VAC	VAC_	286A	HAYNESVILLE	LA	114.01	106.00	8.01
28323e5f8c5c4	WVVG-FM	LIC	288A	REDWOOD	MS	116.37	106.00	10.37
7747-2019-09	KZKR	VAC_	286A	JONESVILLE	LA	120.30	106.00	14.30
823a7ba1dcba	KNCB-FM	LIC	287A	VIVIAN	LA	181.91	166.00	15.91
16945-2019-09	NEW	VAC_	288A	HEFLIN	LA	122.64	106.00	16.64
8d7393f52d4f4	KIMW	LIC	288A	HEFLIN	LA	123.89	106.00	17.89
696-2019-09-1	KNCB-FM	VAC_	287A	VIVIAN	LA	184.53	166.00	18.53
7596d79dbc3c	KTOC-FM	LIC	285C3	JONESBORO	LA	84.21	56.00	28.21
e47da881b0ae	KSLO-FM	LIC	287A	SIMMESPORT	LA	195.03	166.00	29.03
9423-2019-09	KSLO-FM	VAC_	287A	SIMMESPORT	LA	197.08	166.00	31.08
1294-2019-09	KBKK	VAC_	288A	BALL	LA	137.58	106.00	31.58

\* - Section 73.215 processing is requested towards KAGH-FM.

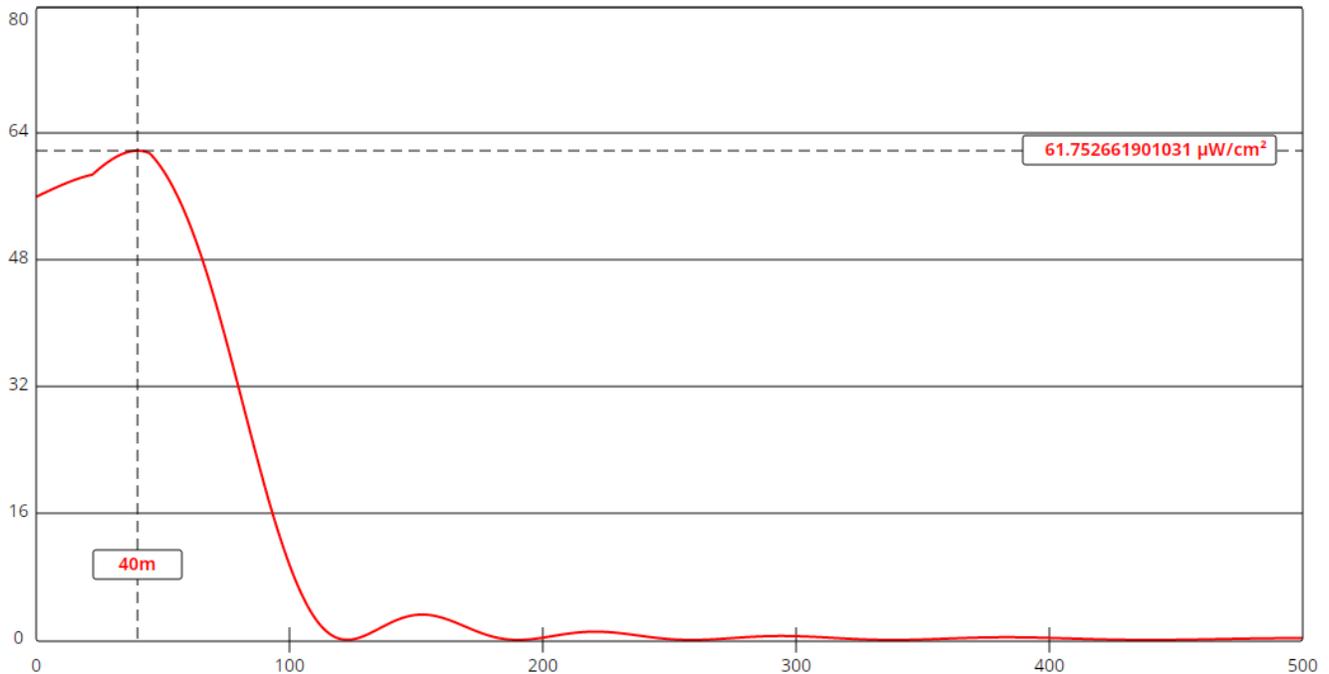
## **MUTUALLY-EXCLUSIVE SHOWING – LICENSED VERSUS PROPOSED SITE**



**FIGURE 4:** The map above depicts the F(50,50) 60 dBu contour of the proposed KLIP facility (red) and the F(50,50) 60 dBu contour of the licensed KLIP facility (purple). As shown, there is substantial overlap between the two facilities. Applicant respectfully asserts that the licensed and proposed facilities are mutually-exclusive to each other, and therefore, the proposal herein represents a minor change application.

## RF EXPOSURE SHOWING

In determining RF Exposure at the proposed antenna site, Applicant utilized the Commission's FM Model software, as shown below in Figure 5. Applicant specified a ten element circularly polarized full-wave spaced EPA Type 1 FM antenna that accounts for the proposed KLIP 105.3 FM facility, as well as KEDM 90.3 FM (Monroe, Louisiana, FCC Facility ID 49406), KXUL 91.1 FM (Monroe, Louisiana, FCC Facility ID 49404), KJMG 97.3 FM (Bastrop, Louisiana, FCC Facility ID 15095), KZRZ 98.3 FM (West Monroe, Louisiana, FCC Facility ID 52510), and KRVV 100.1 FM (Bastrop, Louisiana, FCC Facility ID 27468) broadcasting from the same antenna source.



**FIGURE 5:** The above chart represents RF exposure in microwatts per square centimeter (vertical axis) against the distance from the radiating elements (horizontal axis) in meters. Radiation under the acceptable level of 20.0 microwatts per square centimeter at all points further than 89.5 meters from the broadcast antenna. As this radiation occurs only significantly above ground level, Applicant respectfully asserts that radiation exposure will not present a hazard to any individual near the proposed tower location. Signage alerting persons to the potential RF hazards at the site will be placed around the base of the tower's fence enclosure. Additionally, Applicant will limit power or cease transmitting in the event that personnel must be located closer to the transmitter site.