

Non-Interference Compliance Study

Alpha Media Licensee, LLC

K248CC (Facility ID: 156984)

This exhibit demonstrates compliance with all contour overlap and interference protection requirements and demonstrates full compliance with 47 C.F.R. §74.1204.

Applicant certifies that should any actual interference occur it will promptly cease operation in accordance with 47 C.F.R. §74.1203.

Below is a listing of area stations whose contours are less than 25 km clear of the proposed translator.

Callsign	State	City	Channel	ERP (kW)	Class	Status	Distance (km)	Clr (km)
KOOI	TX	Jacksonville	293	100	C	LIC	32.21	-51.35
KYKX	TX	Longview	289	100	C0	LIC	52.64	-24.56

The only stations that are of concern are KOOI and KYKX. KOOI is a second adjacent Class C that requires that a minimum of 40 dB separation exist between its service contour and K248CC's interference contour. KYKX is a second adjacent Class C0 that requires that a minimum of 40 dB separation exist between its service contour and K248CC's interference contour. The following pages demonstrate that this proposal is in compliance with these requirements.

Compliance with 47 C.F.R. §74.1204(d)

All Authorized second and third adjacent stations with which the proposed translator's contour overlaps their service contour are listed below. The table lists the minimum signal level of the primary station's service contour that reaches the proposed tower site for W248CC.

Facility ID	Call Sign	Contour at Tower F(50,50)
70740	KOOI	83.0 dBu
54844	KYKX	70.32 dBu

Minimum protected contour signal level at W248CC's proposed tower site: **70.32 dBu**

This study will use the minimum contour of 70.32 dBu to represent a worst-case potential interference level. At 40 dB above 70.32 dBu, the translator interference contour is 110.32 dBu. Calculation of distance at this power and signal level requires the use of the free-space calculation due to the distance being less than 1.5 km.

The following tables use the free space formula to calculate the worst-case height above ground level. As shown in Table 1, at 110.32 dBu and 68 watts, the overall interference contour extends to 176.3 m with the minimum height above ground being 36.1 meters. A satellite image is attached showing the interference area. Note that there are two buildings whose height exceeds 36.1 meters and which will be more thoroughly analyzed below.



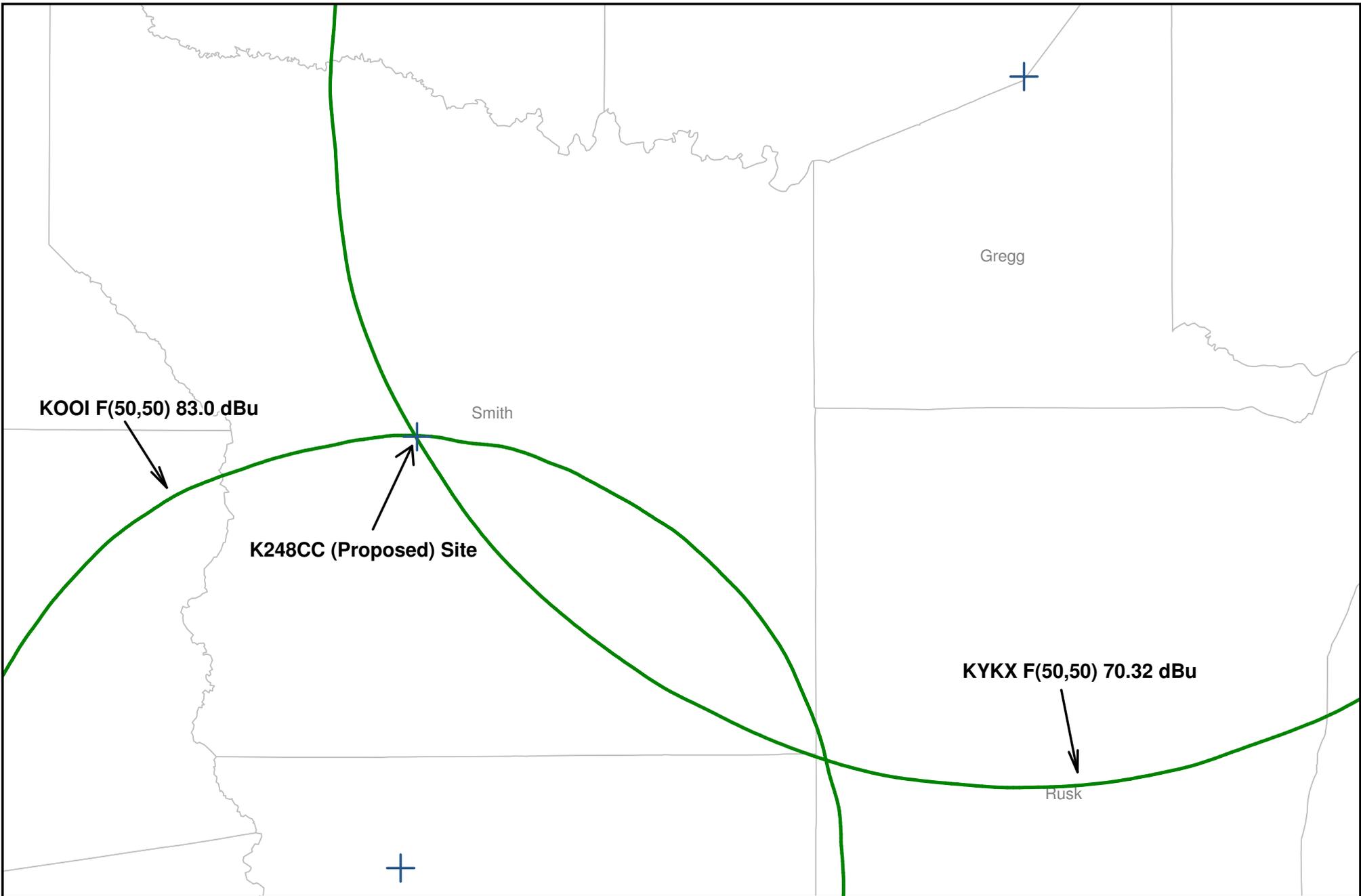
The first building of concern is People's Petroleum Building ("PPB") which is the building to the left (south) of the Plaza Tower in the image above. This structure has a height of 202 feet, or 61.6 meters above ground level. From the K248CC antenna, which is located near the Northeast corner of the building, the closest distance to the PPB is 54 meters. Additionally, the azimuth from the K248CC antenna spans the arc from 172 to 207 degrees true.

Based on the manufacturer's data, the maximum field in this arc is 0.437 at 207 degrees which gives an ERP of 13 watts. Table 2 shows the interference contour for this ERP along with the building height and distance. As seen in the table, the worst case height is 60.8 meters but is only 41.1 meters horizontal from the antenna. At 49.4 meters, the height is already greater than the building and continues to increase as the depression angle decreases. Therefore, the interference contour only passes above the PPB and does not reach the building.



The second building of concern is the Regions building shown above. This structure has a height, to the roofline, of 142 feet, or 43.3 meters above ground level. From the K248CC antenna the closest distance to the Regions building is 158.7 meters. Additionally, the azimuth from the K248CC antenna spans the arc from 44 to 62 degrees true.

Based on the manufacturer's data, the maximum field in this arc is 0.676 at 62 degrees which gives an ERP of 31 watts. Table 3 shows the interference contour for this ERP along with the building height and distance. As seen in the table, the worst case distance is 119 meters which is well short of the building at 158.7 meters. Therefore, the interference contour is 39.7 meters short of reaching the building.



KOOI F(50,50) 83.0 dBu



Smith

K248CC (Proposed) Site



KYKX F(50,50) 70.32 dBu



Rusk

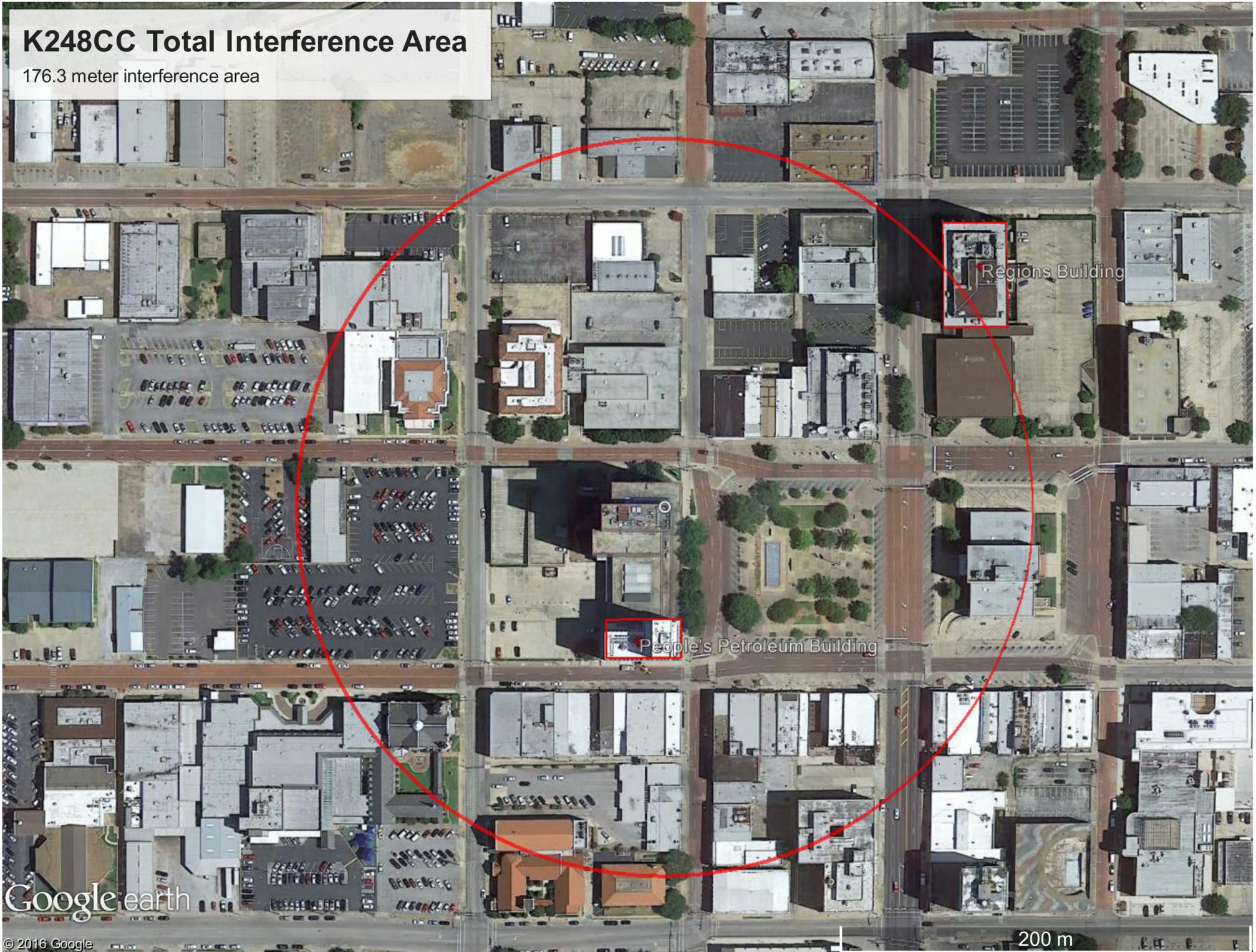
Protected Signal Levels at Proposed Tower Site

Scale 1:380,190



K248CC Total Interference Area

176.3 meter interference area



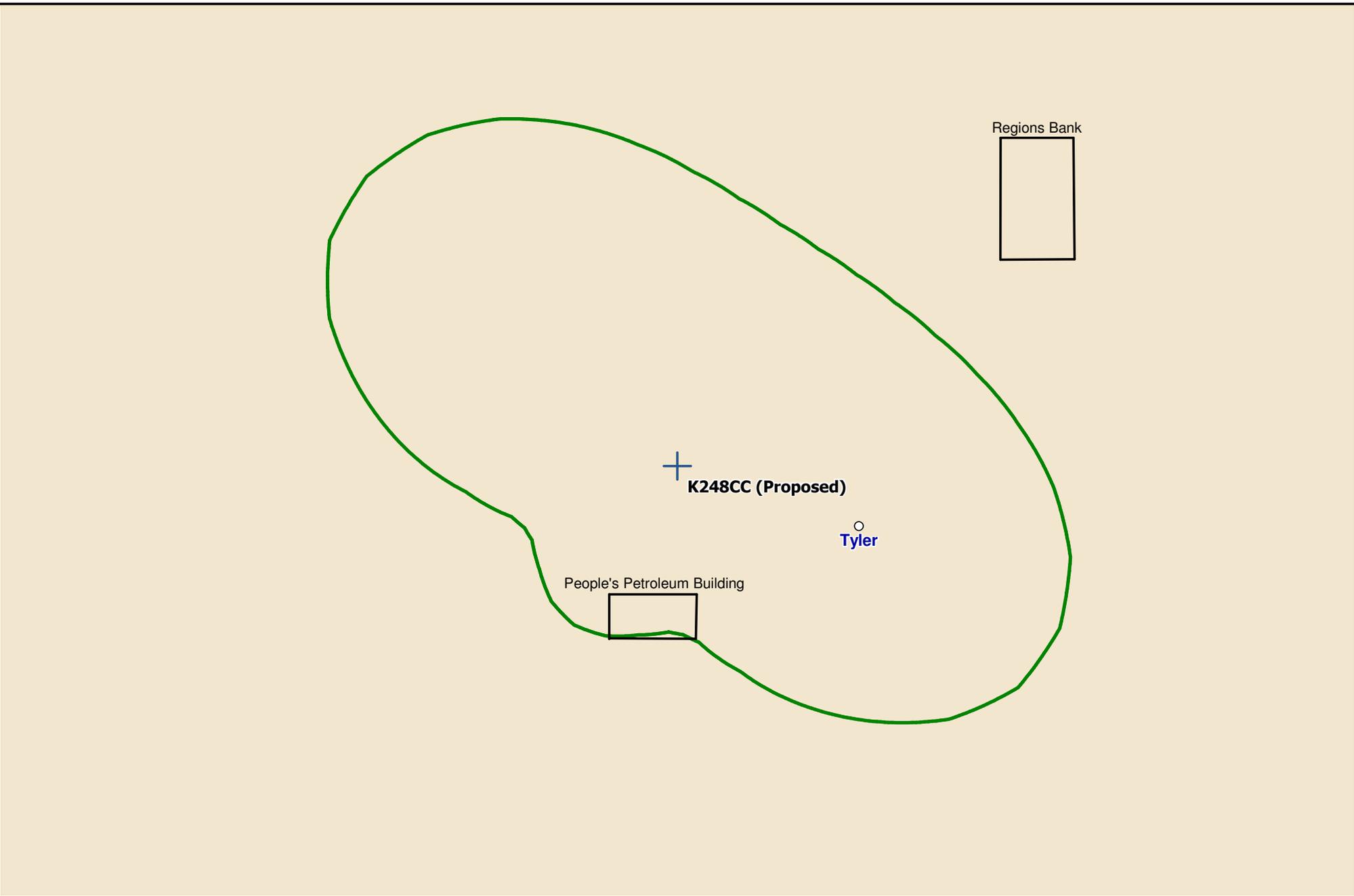
Regions Building

People's Petroleum Building

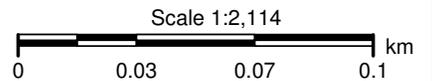
Google earth

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200 m



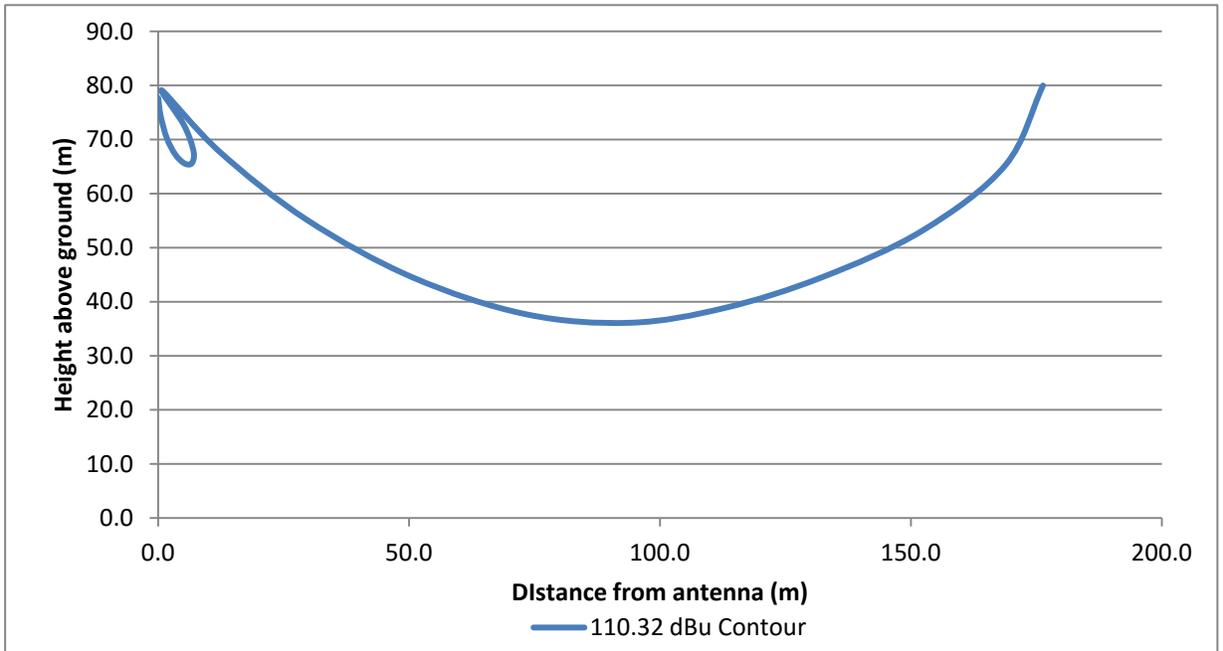
Surrounding Building(s) Interference Study
110.32 dBu Signal from Proposed Tower Site



§74.1204(d) Contour Protection Study
Table 1: K248CC vs. KYKX - Overall Interference Area

Antenna: BEXT TFC2K-D 2 Bay/0.65-Wave ERP (watts): 68
 Protected Contour at tower - F(50,50): 70.32 dBu RC-AGL (m): 80
 Interference Ratio: 40 dB Relative field at Azimuth: 1.000
 Interference Contour - F(50,10): 110.32 dBu ERP (watts) at Azimuth: 68

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	68.0	-11.67	176.3	176.3	80.0
5	0.961	62.8	-12.02	169.4	168.8	65.2
10	0.877	52.3	-12.81	154.6	152.3	53.2
15	0.777	41.1	-13.87	137.0	132.3	44.5
20	0.682	31.6	-15.00	120.2	113.0	38.9
25	0.589	23.6	-16.27	103.8	94.1	36.1
30	0.480	15.7	-18.05	84.6	73.3	37.7
35	0.351	8.4	-20.77	61.9	50.7	44.5
40	0.219	3.3	-24.87	38.6	29.6	55.2
45	0.099	0.7	-31.76	17.5	12.3	67.7
50	0.007	0.0	-54.77	1.2	0.8	79.1
55	0.051	0.2	-37.52	9.0	5.2	72.6
60	0.080	0.4	-33.61	14.1	7.1	67.8
65	0.090	0.6	-32.59	15.9	6.7	65.6
70	0.087	0.5	-32.88	15.3	5.2	65.6
75	0.075	0.4	-34.17	13.2	3.4	67.2
80	0.056	0.2	-36.71	9.9	1.7	70.3
85	0.032	0.1	-41.57	5.6	0.5	74.4
90	0.013	0.0	-49.40	2.3	0.0	77.7
WORST CASE HEIGHT AGL (m)						36.1

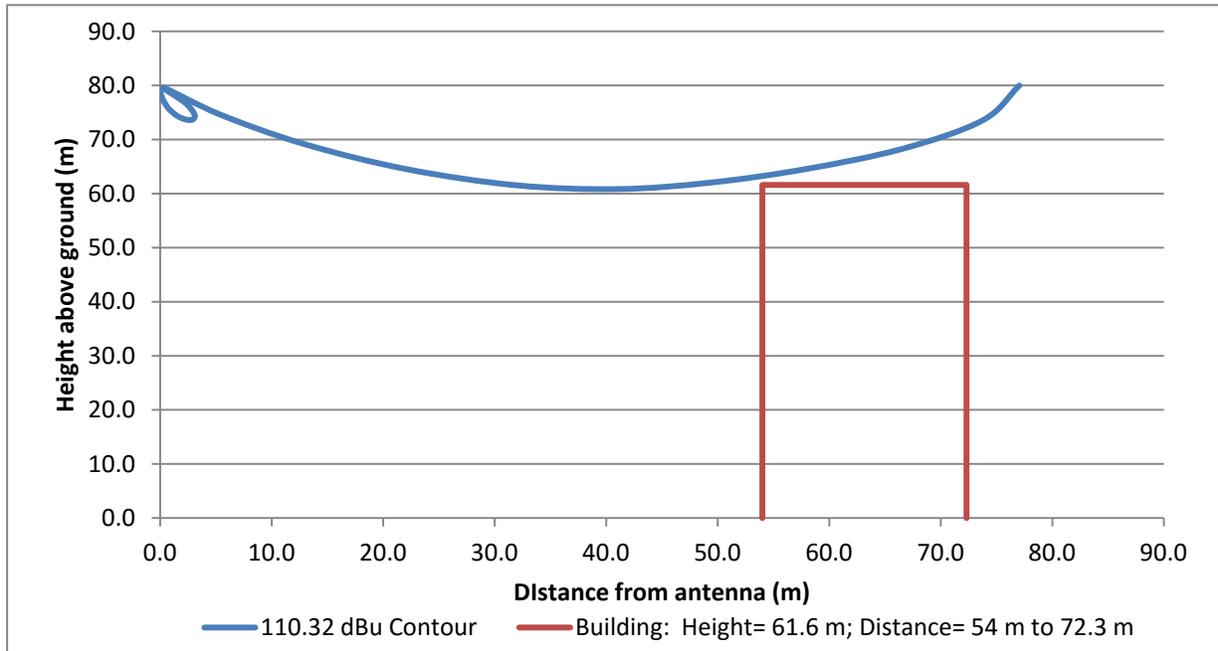


§74.1204(d) Contour Protection Study

Table 2: K248CC vs. KYKX - PPB Study

Antenna:	BEXT TFC2K-D 2 Bay/0.65-Wave	ERP (watts):	68
Protected Contour at tower - F(50,50):	70.32 dBu	RC-AGL (m):	80
Interference Ratio:	40 dB	Relative field at Azimuth:	0.437
Interference Contour - F(50,10):	110.32 dBu	ERP (watts) at Azimuth:	13

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	13.0	-18.87	77.0	77.0	80.0
5	0.961	12.0	-19.21	74.0	73.8	73.5
10	0.877	10.0	-20.01	67.6	66.5	68.3
15	0.777	7.8	-21.06	59.9	57.8	64.5
20	0.682	6.0	-22.19	52.5	49.4	62.0
25	0.589	4.5	-23.46	45.4	41.1	60.8
30	0.480	3.0	-25.24	37.0	32.0	61.5
35	0.351	1.6	-27.96	27.0	22.2	64.5
40	0.219	0.6	-32.06	16.9	12.9	69.2
45	0.099	0.1	-38.95	7.6	5.4	74.6
50	0.007	0.0	-61.96	0.5	0.3	79.6
55	0.051	0.0	-44.71	3.9	2.3	76.8
60	0.080	0.1	-40.80	6.2	3.1	74.7
65	0.090	0.1	-39.78	6.9	2.9	73.7
70	0.087	0.1	-40.07	6.7	2.3	73.7
75	0.075	0.1	-41.36	5.8	1.5	74.4
80	0.056	0.0	-43.90	4.3	0.7	75.8
85	0.032	0.0	-48.76	2.5	0.2	77.5
90	0.013	0.0	-56.59	1.0	0.0	79.0
WORST CASE HEIGHT AGL (m)						60.8



§74.1204(d) Contour Protection Study
Table 3: K248CC vs. KYKX - Regions Bank Study

Antenna: BEXT TFC2K-D 2 Bay/0.65-Wave ERP (watts): 68
 Protected Contour at tower - F(50,50): 70.32 dBu RC-AGL (m): 80
 Interference Ratio: 40 dB Relative field at Azimuth: 0.676
 Interference Contour - F(50,10): 110.32 dBu ERP (watts) at Azimuth: 31

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	31.1	-15.08	119.2	119.2	80.0
5	0.961	28.7	-15.42	114.5	114.1	70.0
10	0.877	23.9	-16.22	104.5	102.9	61.9
15	0.777	18.8	-17.27	92.6	89.4	56.0
20	0.682	14.5	-18.40	81.3	76.4	52.2
25	0.589	10.8	-19.67	70.2	63.6	50.3
30	0.480	7.2	-21.45	57.2	49.5	51.4
35	0.351	3.8	-24.17	41.8	34.3	56.0
40	0.219	1.5	-28.27	26.1	20.0	63.2
45	0.099	0.3	-35.16	11.8	8.3	71.7
50	0.007	0.0	-58.17	0.8	0.5	79.4
55	0.051	0.1	-40.92	6.1	3.5	75.0
60	0.080	0.2	-37.01	9.5	4.8	71.7
65	0.090	0.3	-35.99	10.7	4.5	70.3
70	0.087	0.2	-36.29	10.4	3.5	70.3
75	0.075	0.2	-37.57	8.9	2.3	71.4
80	0.056	0.1	-40.11	6.7	1.2	73.4
85	0.032	0.0	-44.97	3.8	0.3	76.2
90	0.013	0.0	-52.80	1.5	0.0	78.5
WORST CASE HEIGHT AGL (m)						50.3

