

Exhibit 11 Page 1
La Respuesta Church Ministries
Second-Adjacent Waiver Request
Mission, TX

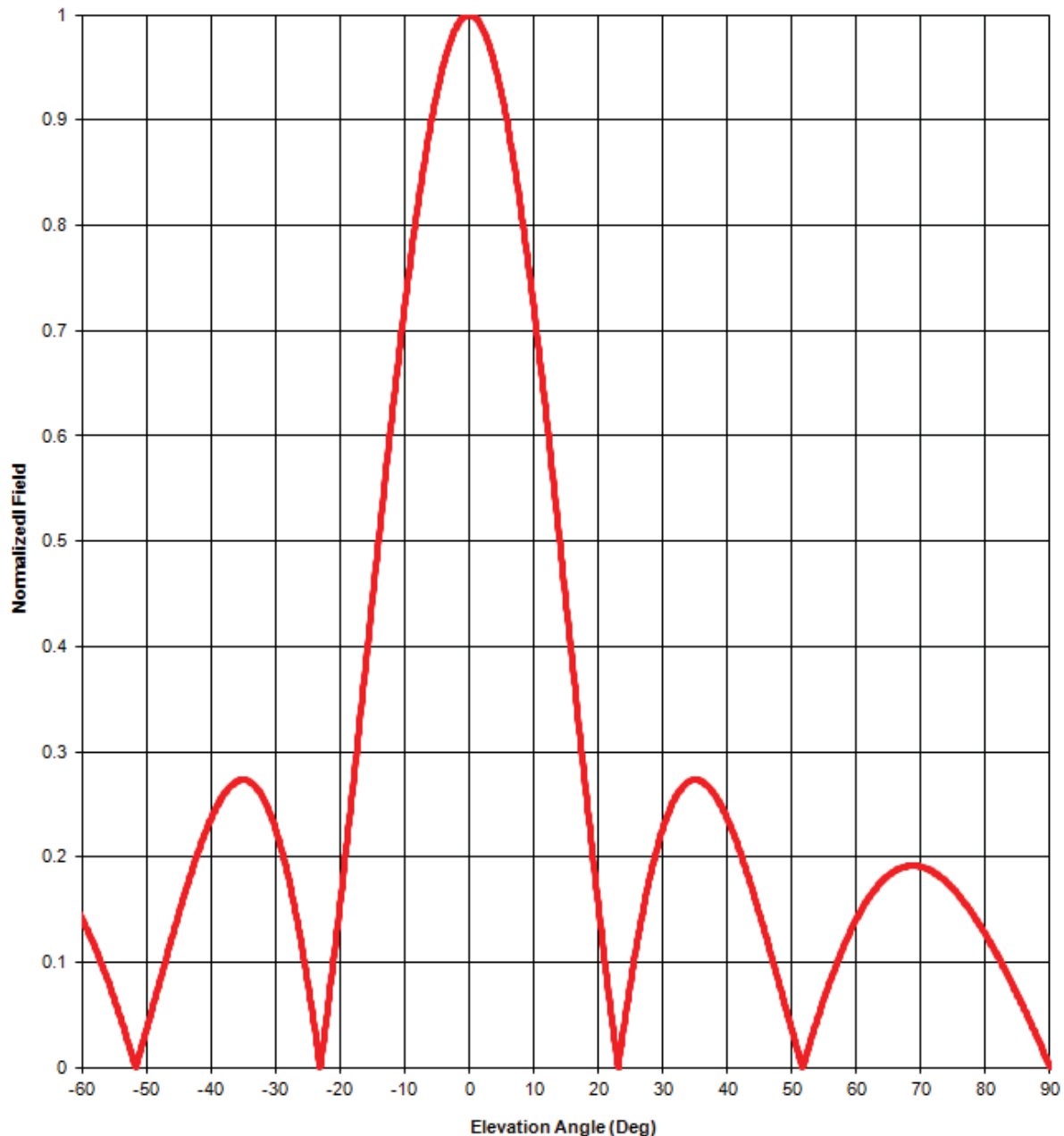
The proposed LPFM station will broadcast on channel 260, which is within the 84 kilometers second-adjacent minimum distance separation of station KTEX on channel 262; and the 93 kilometers second-adjacent minimum distance separation of station KKPS (License) on channel 258. The KTEX interfering contour at the LPFM tower site is 71.7 dBμ F(50,50). The KKPS (License) interfering contour at the LPFM tower site is 69.3 dBμ F(50,50). Using the ratio of 100:1 (LPFM to KTEX and KKPS) on the second-adjacent channel, the population within the proposed LPFM 111.7 dBμ contour, and 109.3 dBμ contour is zero. Using the antenna manufacturer's vertical radiation pattern the area of interference can be more accurately calculated geometrically, rather than just by using the free space equation alone. This particular antenna is a three bay full-wave spaced Shively 6812b antenna. It was determined from the manufacturer's vertical plan that at 70 degrees below horizontal the interference area would extend 31.9 meters toward the ground with an Effective Radiated Power of 56 watts. The antenna radiation center 37 meters above ground, thus the interference area will never reach the ground. There are no occupied structures or elevated roadways within the interference area of the translator. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

Exhibit 11 Figure 1

Minimum Ground Clearance

Depression Angle Below Horizontal	Antenna Relative Field	ERP (Watts)	Distance to interfering Contour from Antenna (m)	Horizontal Distance of Interfering contour from tower (m)	Vertical Clearance of Interfering contour above TGL (m)
5	0.926	48.0	167	166.4	22.4
10	0.723	29.3	130	128.0	14.4
15	0.443	11.0	80	77.3	16.3
20	0.155	1.3	27	25.4	27.8
25	0.081	0.4	24	21.8	26.9
30	0.227	2.9	41	35.5	16.5
35	0.274	4.2	49	40.1	8.9
40	0.236	3.1	42	32.0	10.0
45	0.146	1.2	26	18.4	18.6
50	0.036	0.1	24	15.4	18.6
55	0.066	0.2	24	13.8	17.3
60	0.141	1.1	25	12.5	15.3
65	0.183	1.9	33	13.9	7.1
70	0.191	2.0	34	11.6	5.1
75	0.170	1.6	30	7.8	8.0
80	0.127	0.9	24	4.2	13.4
85	0.069	0.3	24	2.1	13.1
90	0.000	0.0	0	0.0	37.0
Minimum Clearance above TGL:					5.1

Elevation pattern



Antenna model: 6812b, 3-bay full-wave-spaced

Test frequency: 98.1 MHz

Gain (maximum):

Power	dB
1.55	1.91 dB

[Document No. 6812b 3-bay fw \(130701\)](#)

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Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field	Degrees	Rel. Field
1	0.997	19	0.210	37	0.267	55	0.066	73	0.181
2	0.988	20	0.155	38	0.260	56	0.083	74	0.176
3	0.973	21	0.102	39	0.249	57	0.100	75	0.170
4	0.952	22	0.052	40	0.236	58	0.115	76	0.163
5	0.926	23	0.004	41	0.221	59	0.129	77	0.155
6	0.894	24	0.040	42	0.205	60	0.141	78	0.146
7	0.858	25	0.081	43	0.186	61	0.153	79	0.137
8	0.816	26	0.118	44	0.167	62	0.162	80	0.127
9	0.771	27	0.151	45	0.146	63	0.171	81	0.116
10	0.723	28	0.181	46	0.124	64	0.177	82	0.105
11	0.671	29	0.206	47	0.103	65	0.183	83	0.093
12	0.616	30	0.227	48	0.080	66	0.187	84	0.081
13	0.560	31	0.244	49	0.058	67	0.190	85	0.069
14	0.502	32	0.257	50	0.036	68	0.191	86	0.056
15	0.443	33	0.266	51	0.014	69	0.192	87	0.042
16	0.384	34	0.272	52	0.007	70	0.191	88	0.029
17	0.325	35	0.274	53	0.028	71	0.189	89	0.015
18	0.267	36	0.272	54	0.047	72	0.185	90	0.000

Elevation Pattern Tabulation

Antenna model: 6812b, 3-bay full-wave-spaced

Relative Field at 0° Depression = 1.000

Exhibit 11 Figure 2 Page 2 Manufacturer Elevation Pattern

Exhibit 11 Figure 3
Aerial photo of the 11.6 meter Horizontal Interfering Contour
Surrounding the Proposed Tower Site

