

Exhibit 11 Page 1
Templo De Dios, Org 2
Second-Adjacent Waiver Request
Dallas, TX

The proposed LPFM station will broadcast on channel 281, which is within the 93 kilometers second-adjacent minimum distance separation of station KKDA-FM on channel 283 and the 93 kilometers second-adjacent minimum distance separation of station KVIL on channel 279. The KKDA-FM and KVIL interfering contour at the LPFM tower site are 89.7 dBμ F(50,50). Using the ratio of 100:1 (LPFM to KKDA-FM and KVIL) on the second-adjacent channel, the population within the proposed LPFM 129.7 dBμ contour is zero. Applying 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 four bay full wave spaced SWR FMEC antenna. It was determined from the manufacturer's vertical plan that at 55 degrees below horizontal the interference area would extend 3.3 meters toward the ground and extend 2.3 meters horizontally. We have proposed the antenna radiation center will be 27 meters above ground with an Effective Radiated Power of 100 watts, thus the interference area will never reach the ground. There are no occupied structures or elevated roadways within the interference area of the LPFM. 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	0.819	67.1	19	18.9	24.3
10	0.389	15.1	9	8.9	24.4
15	0.037	0.1	1	1.0	25.7
20	0.246	6.1	6	5.6	23.9
25	0.195	3.8	4	3.6	24.3
30	0.000	0.0	0	0.0	26.0
35	0.172	3.0	4	3.3	23.7
40	0.214	4.6	5	3.8	22.8
45	0.119	1.4	3	2.1	23.9
50	0.051	0.3	1	0.6	25.2
55	0.219	4.8	5	2.9	21.9
60	0.334	11.2	8	4.0	19.1
65	0.382	14.6	9	3.8	17.8
70	0.372	13.8	9	3.1	17.5
75	0.323	10.4	7	1.8	19.2
80	0.255	6.5	6	1.0	20.1
85	0.178	3.2	4	0.3	22.0
90	0.100	1.0	2	0.0	24.0
Minimum Clearance above TGL:					17.5 m

Antenna Height Above Average Terrain Calculations -- Results

Input Data

Latitude **32° 45' 2" North**

Longitude **96° 48' 39" West** (NAD 27)

These coordinates convert to NAD 83 coordinates of
32° 45' 02.47", North, 96° 48' 40.01" West (NAD 83).

Height of antenna radiation center above mean sea level: **182 meters AMSL**

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

Results

Calculated HAAT = **28 meters**

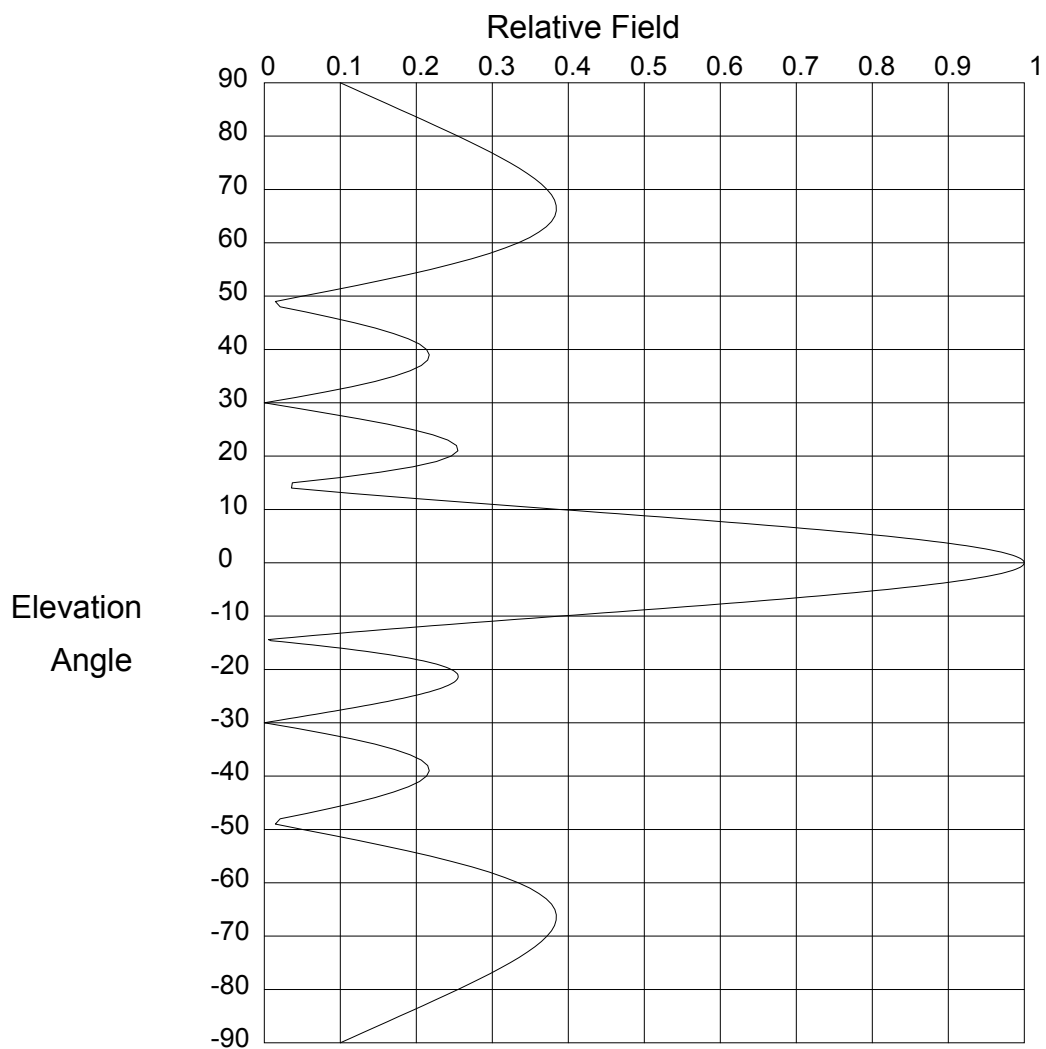
Antenna Height Above Average Terrain calculated
using 1 km [GLOBE terrain data](#)

Individual "Radial HAAT" Values, in meters

0°	26.1 m
45°	32.9 m
90°	45.8 m
135°	53.3 m
180°	6.0 m
225°	-17.8 m
270°	30.1 m
315°	49.4 m

Print Results?

New Calculation?



Elevation Pattern

Scale: Linear

Units: Field, Relative

Systems With Reliability

CLIENT: *Sterling Comm*

Date: 4/21/2017

ANTENNA TYPE: FMEC/4

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 4.088/6.115 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 4.088/6.115 dBd

Null Fill(s)(%) : 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
90.0	.10 (-20)	52.0	.122 (-18.296)	14.0	.036 (-28.925)
89.0	.116 (-18.733)	51.0	.087 (-21.259)	13.0	.116 (-18.677)
88.0	.131 (-17.628)	50.0	.051 (-25.907)	12.0	.203 (-13.829)
87.0	.147 (-16.648)	49.0	.015 (-36.679)	11.0	.295 (-10.601)
86.0	.163 (-15.769)	48.0	.021 (-33.591)	10.0	.389 (-8.198)
85.0	.178 (-14.973)	47.0	.055 (-25.123)	9.8	.408 (-7.785)
84.0	.194 (-14.247)	46.0	.088 (-21.083)	9.6	.427 (-7.391)
83.0	.209 (-13.581)	45.0	.119 (-18.507)	9.4	.446 (-7.015)
82.0	.225 (-12.967)	44.0	.146 (-16.7)	9.2	.465 (-6.656)
81.0	.24 (-12.4)	43.0	.17 (-15.39)	9.0	.484 (-6.311)
80.0	.255 (-11.875)	42.0	.19 (-14.446)	8.8	.502 (-5.981)
79.0	.269 (-11.39)	41.0	.204 (-13.798)	8.6	.521 (-5.665)
78.0	.284 (-10.941)	40.0	.214 (-13.409)	8.4	.539 (-5.362)
77.0	.298 (-10.528)	39.0	.217 (-13.261)	8.2	.558 (-5.071)
76.0	.311 (-10.149)	38.0	.215 (-13.353)	8.0	.576 (-4.792)
75.0	.323 (-9.803)	37.0	.207 (-13.7)	7.8	.594 (-4.524)
74.0	.335 (-9.491)	36.0	.192 (-14.331)	7.6	.612 (-4.266)
73.0	.346 (-9.212)	35.0	.172 (-15.306)	7.4	.63 (-4.019)
72.0	.356 (-8.968)	34.0	.146 (-16.728)	7.2	.647 (-3.782)
71.0	.365 (-8.759)	33.0	.115 (-18.8)	7.0	.664 (-3.554)
70.0	.372 (-8.587)	32.0	.08 (-21.983)	6.8	.681 (-3.335)
69.0	.378 (-8.453)	31.0	.041 (-27.75)	6.6	.698 (-3.125)
68.0	.382 (-8.359)	30.0	.00 (-50)	6.4	.714 (-2.924)
67.0	.384 (-8.309)	29.0	.042 (-27.509)	6.2	.73 (-2.731)
66.0	.384 (-8.305)	28.0	.084 (-21.504)	6.0	.746 (-2.546)
65.0	.382 (-8.352)	27.0	.125 (-18.095)	5.8	.761 (-2.368)
64.0	.378 (-8.452)	26.0	.162 (-15.813)	5.6	.776 (-2.199)
63.0	.371 (-8.611)	25.0	.195 (-14.205)	5.4	.791 (-2.036)
62.0	.362 (-8.836)	24.0	.222 (-13.076)	5.2	.805 (-1.881)
61.0	.349 (-9.134)	23.0	.242 (-12.335)	5.0	.819 (-1.733)
60.0	.334 (-9.515)	22.0	.253 (-11.938)	4.8	.833 (-1.591)
59.0	.317 (-9.989)	21.0	.255 (-11.878)	4.6	.846 (-1.457)
58.0	.296 (-10.571)	20.0	.246 (-12.177)	4.4	.858 (-1.329)
57.0	.273 (-11.282)	19.0	.226 (-12.899)	4.2	.87 (-1.207)
56.0	.247 (-12.148)	18.0	.196 (-14.173)	4.0	.882 (-1.092)
55.0	.219 (-13.205)	17.0	.153 (-16.282)	3.8	.893 (-0.983)
54.0	.188 (-14.511)	16.0	.10 (-19.974)	3.6	.904 (-0.88)
53.0	.156 (-16.155)	15.0	.037 (-28.661)	3.4	.914 (-0.783)

Systems With Reliability

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CLIENT: *Sterling Comm*

Date: 4/21/2017

ANTENNA TYPE: FMEC/4

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 4.088/6.115 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 4.088/6.115 dBd

Null Fill(s)(%) : 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.923 (-0.692)	-4.4	.858 (-1.329)	-12.0	.203 (-13.829)
3.0	.933 (-0.607)	-4.6	.846 (-1.457)	-12.2	.186 (-14.626)
2.8	.941 (-0.528)	-4.8	.833 (-1.591)	-12.4	.168 (-15.493)
2.6	.949 (-0.454)	-5.0	.819 (-1.733)	-12.6	.151 (-16.444)
2.4	.956 (-0.386)	-5.2	.805 (-1.881)	-12.8	.133 (-17.497)
2.2	.963 (-0.324)	-5.4	.791 (-2.036)	-13.0	.116 (-18.677)
2.0	.97 (-0.268)	-5.6	.776 (-2.199)	-13.2	.10 (-20.021)
1.8	.975 (-0.216)	-5.8	.761 (-2.368)	-13.4	.083 (-21.584)
1.6	.981 (-0.171)	-6.0	.746 (-2.546)	-13.6	.067 (-23.455)
1.4	.985 (-0.131)	-6.2	.73 (-2.731)	-13.8	.051 (-25.792)
1.2	.989 (-0.096)	-6.4	.714 (-2.924)	-14.0	.036 (-28.925)
1.0	.992 (-0.067)	-6.6	.698 (-3.125)	-14.2	.021 (-33.736)
.8	.995 (-0.043)	-6.8	.681 (-3.335)	-14.4	.006 (-44.914)
.6	.997 (-0.024)	-7.0	.664 (-3.554)	-14.6	.009 (-41.043)
.4	.999 (-0.011)	-7.2	.647 (-3.782)	-14.8	.023 (-32.742)
.2	1.00 (-0.003)	-7.4	.63 (-4.019)	-15.0	.037 (-28.661)
.0	1.00 (0)	-7.6	.612 (-4.266)	-15.2	.05 (-25.959)
-.2	1.00 (-0.003)	-7.8	.594 (-4.524)	-15.4	.063 (-23.954)
-.4	.999 (-0.011)	-8.0	.576 (-4.792)	-15.6	.076 (-22.37)
-.6	.997 (-0.024)	-8.2	.558 (-5.071)	-15.8	.088 (-21.07)
-.8	.995 (-0.043)	-8.4	.539 (-5.362)	-16.0	.10 (-19.974)
-1.0	.992 (-0.067)	-8.6	.521 (-5.665)	-16.2	.112 (-19.034)
-1.2	.989 (-0.096)	-8.8	.502 (-5.981)	-16.4	.123 (-18.214)
-1.4	.985 (-0.131)	-9.0	.484 (-6.311)	-16.6	.133 (-17.493)
-1.6	.981 (-0.171)	-9.2	.465 (-6.656)	-16.8	.144 (-16.854)
-1.8	.975 (-0.216)	-9.4	.446 (-7.015)	-17.0	.153 (-16.282)
-2.0	.97 (-0.268)	-9.6	.427 (-7.391)	-17.2	.163 (-15.77)
-2.2	.963 (-0.324)	-9.8	.408 (-7.785)	-17.4	.172 (-15.308)
-2.4	.956 (-0.386)	-10.0	.389 (-8.198)	-17.6	.18 (-14.891)
-2.6	.949 (-0.454)	-10.2	.37 (-8.63)	-17.8	.188 (-14.514)
-2.8	.941 (-0.528)	-10.4	.351 (-9.085)	-18.0	.196 (-14.173)
-3.0	.933 (-0.607)	-10.6	.333 (-9.563)	-18.2	.203 (-13.864)
-3.2	.923 (-0.692)	-10.8	.314 (-10.068)	-18.4	.209 (-13.584)
-3.4	.914 (-0.783)	-11.0	.295 (-10.601)	-18.6	.215 (-13.331)
-3.6	.904 (-0.88)	-11.2	.276 (-11.166)	-18.8	.221 (-13.103)
-3.8	.893 (-0.983)	-11.4	.258 (-11.767)	-19.0	.226 (-12.899)
-4.0	.882 (-1.092)	-11.6	.24 (-12.407)	-19.2	.231 (-12.716)
-4.2	.87 (-1.207)	-11.8	.222 (-13.092)	-19.4	.236 (-12.553)

Systems With Reliability

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CLIENT: *Sterling Comm*

Date: 4/21/2017

ANTENNA TYPE: FMEC/4

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 4.088/6.115 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 4.088/6.115 dBd

Null Fill(s)(%) : 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.24 (-12.41)	-27.2	.117 (-18.664)	-54.0	.188 (-14.511)
-19.8	.243 (-12.285)	-27.4	.109 (-19.281)	-55.0	.219 (-13.205)
-20.0	.246 (-12.177)	-27.6	.101 (-19.954)	-56.0	.247 (-12.148)
-20.2	.249 (-12.086)	-27.8	.092 (-20.691)	-57.0	.273 (-11.282)
-20.4	.251 (-12.012)	-28.0	.084 (-21.504)	-58.0	.296 (-10.571)
-20.6	.253 (-11.952)	-28.2	.076 (-22.408)	-59.0	.317 (-9.989)
-20.8	.254 (-11.908)	-28.4	.067 (-23.424)	-60.0	.334 (-9.515)
-21.0	.255 (-11.878)	-28.6	.059 (-24.581)	-61.0	.349 (-9.134)
-21.2	.255 (-11.862)	-28.8	.051 (-25.921)	-62.0	.362 (-8.836)
-21.4	.255 (-11.861)	-29.0	.042 (-27.509)	-63.0	.371 (-8.611)
-21.6	.255 (-11.873)	-29.2	.034 (-29.455)	-64.0	.378 (-8.452)
-21.8	.254 (-11.899)	-29.4	.025 (-31.965)	-65.0	.382 (-8.352)
-22.0	.253 (-11.938)	-29.6	.017 (-35.502)	-66.0	.384 (-8.305)
-22.2	.251 (-11.99)	-29.8	.008 (-41.542)	-67.0	.384 (-8.309)
-22.4	.25 (-12.056)	-30.0	.00 (-50)	-68.0	.382 (-8.359)
-22.6	.247 (-12.136)	-31.0	.041 (-27.75)	-69.0	.378 (-8.453)
-22.8	.245 (-12.228)	-32.0	.08 (-21.983)	-70.0	.372 (-8.587)
-23.0	.242 (-12.335)	-33.0	.115 (-18.8)	-71.0	.365 (-8.759)
-23.2	.238 (-12.455)	-34.0	.146 (-16.728)	-72.0	.356 (-8.968)
-23.4	.235 (-12.588)	-35.0	.172 (-15.306)	-73.0	.346 (-9.212)
-23.6	.231 (-12.736)	-36.0	.192 (-14.331)	-74.0	.335 (-9.491)
-23.8	.226 (-12.899)	-37.0	.207 (-13.7)	-75.0	.323 (-9.803)
-24.0	.222 (-13.076)	-38.0	.215 (-13.353)	-76.0	.311 (-10.149)
-24.2	.217 (-13.269)	-39.0	.217 (-13.261)	-77.0	.298 (-10.528)
-24.4	.212 (-13.478)	-40.0	.214 (-13.409)	-78.0	.284 (-10.941)
-24.6	.206 (-13.703)	-41.0	.204 (-13.798)	-79.0	.269 (-11.39)
-24.8	.201 (-13.945)	-42.0	.19 (-14.446)	-80.0	.255 (-11.875)
-25.0	.195 (-14.205)	-43.0	.17 (-15.39)	-81.0	.24 (-12.4)
-25.2	.189 (-14.484)	-44.0	.146 (-16.7)	-82.0	.225 (-12.967)
-25.4	.182 (-14.783)	-45.0	.119 (-18.507)	-83.0	.209 (-13.581)
-25.6	.176 (-15.103)	-46.0	.088 (-21.083)	-84.0	.194 (-14.247)
-25.8	.169 (-15.446)	-47.0	.055 (-25.123)	-85.0	.178 (-14.973)
-26.0	.162 (-15.813)	-48.0	.021 (-33.591)	-86.0	.163 (-15.769)
-26.2	.155 (-16.207)	-49.0	.015 (-36.679)	-87.0	.147 (-16.648)
-26.4	.147 (-16.629)	-50.0	.051 (-25.907)	-88.0	.131 (-17.628)
-26.6	.14 (-17.082)	-51.0	.087 (-21.259)	-89.0	.116 (-18.733)
-26.8	.132 (-17.569)	-52.0	.122 (-18.296)	-90.0	.10 (-20)
-27.0	.125 (-18.095)	-53.0	.156 (-16.155)	90.0	.00 (-50)

Systems With Reliability

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CLIENT: *Sterling Comm*

Date: 4/21/2017

ANTENNA TYPE: FMEC/4

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 4.088/6.115 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 4.088/6.115 dBd

Null Fill(s)(%) : 0, 0, 0

Exhibit 11 Figure 4
Aerial Photo of the 3.1 meter Vicinity Surrounding the Proposed Tower Site

