

W212CP CHANNEL 266 (101.1 MHZ)

MINOR MODIFICATION OF A LICENSED
FACILITY FOR FM TRANSLATOR APPLICATION

DUNNELLON, FLORIDA

(JVC MEDIA OF FLORIDA, LLC)

**ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR.
OF THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS
CONSULTING ENGINEERS IN CONNECTION WITH A MINOR MODIFICATION OF A
LICENSED FACILITY FOR FM TRANSLATOR APPLICATION (FILE NO. 0000189075)
HAVING CALL SIGN W212CP AND LICENSED TO JVC MEDIA OF FLORIDA, LLC. (JVC).**

The firm Kessler and Gehman Associates was retained by JVC Media of Florida, LLC (JVC), to prepare engineering studies and the engineering portion of a minor modification of a licensed facility application for the W212CP FM translator facility (0000189075). This application requests authorization to make the following changes: 1) Change transmitter site; 2) Change channels; 3) Change antenna; 4) Change antenna height radiation center, and 5) Change status to Fill-In Translator for WXUS Parent station.

The W212CP FM translator facility is currently licensed to operate on Channel 212 (90.3 MHz) with an ERP of 25 W (circularly polarized) using a directional antenna with an antenna height radiation center of 19.8 m Above Ground Level (AGL) located at Antenna Structure Registration Number (ASRN) 1249523. In this application, JVC seeks authority to move the W212CP FM translator facility approximately 10.8 km ESE (117°) to an existing support structure (No ASR). The change in antenna locations will result in some portion of its licensed 1 mV/m service area (green contour) being overlapped by the proposed 1 mV/m service area (red contour) based on the antenna height above average terrain (HAAT) being calculated for 12 distinct radials with each radial spaced 30 degrees apart and with the bearing of the first radial bearing true north pursuant to §73.313(d) of the FCC rules as shown in **Exhibit 1**. JVC also proposes to change frequencies from 90.3 MHz (Channel 212) to 101.1 MHz (I.F. Channel 266), change antennas from directional to nondirectional, change polarization from circular to horizontal and change antenna height radiation center from 19.8 m AGL (65.0 ft) to 37.0 m AGL (121.4 ft). The proposed facility will serve as a Fill-In translator for JVC's WXUS FM Channel 272 (102.3 MHz) licensed facility, therefore, the proposed ERP and antenna HAAT are permissible pursuant to §73.1235(a) of the FCC rules. All requested changes are considered "minor" pursuant to §74.1233(a) of the FCC rules.

INTERFERENCE STUDY

The FM interference study depicted in **Exhibit 2** verifies that the proposed W212CP FM translator facility's F(50,10) interfering contours will not overlap any applicable station's F(50,50) 60.0 dBuV/m protected contours ("OUT" column). Pursuant to §74.1204, FM translators may accept interference; therefore, the "IN" column depicted in Exhibit 2 is not applicable. All studies were calculated using 30 arc second terrain; therefore, JVC respectfully requests that the Commission evaluate interference and contour overlap using 30 arc second terrain. All 30 arc second terrain data used for this application has been provided as exhibits herein (See **Exhibits 5-9**).

The enclosed comprehensive allocation study contour map depicted in **Exhibit 3** plots the proposed facility's F(50,10) 40.0 dBu and 54 dBu interfering contours (red) and the desired station's F(50,50) 60.0 dBu protected contours (green). The allocation study contour map was generated using terrain data from the 30 arc second U.S. terrain database.

EXISTING TRANSMISSION TOWER

The proposed tower is an existing 46 m support structure located in Ocala, FL. The proposed Scala model FMO, horizontally polarized, nondirectional antenna shall be side-mounted on the proposed support structure and will have an antenna height radiation center of 43.0 meters AGL. **Exhibit 4** is a 7.5-minute topographic map depicting the proposed W212CP transmitter site.

FM BLANKETING INTERFERENCE

Blanketing is defined as interference to the reception of other broadcast stations which is caused by the presence of an FM broadcast signal of 115 dBu (562 mV/m) or greater signal strength in the area adjacent to the antenna of the transmitting station. The 115 dBu contour is referred to as the blanketing contour and the area within this contour is referred to as the blanketing area. The proposed W212CP blanketing contour extends a maximum of 0.20 km from its transmitter site and it is understood that JVC must assume responsibility for remedying new complaints of blanketing interference for a period of one year to all broadcast stations within the proposed W212CP blanketing contour.

FILL-IN TRANSLATOR

The F(50,50) 60 dBu contour for the proposed W212CP Channel 266 FM translator fill-in facility is completely encompassed in all azimuthal directions by the licensed WXUS Channel 272 full-service FM primary facility pursuant to §74.1235 of the rules as demonstrated in **Exhibit 10**.

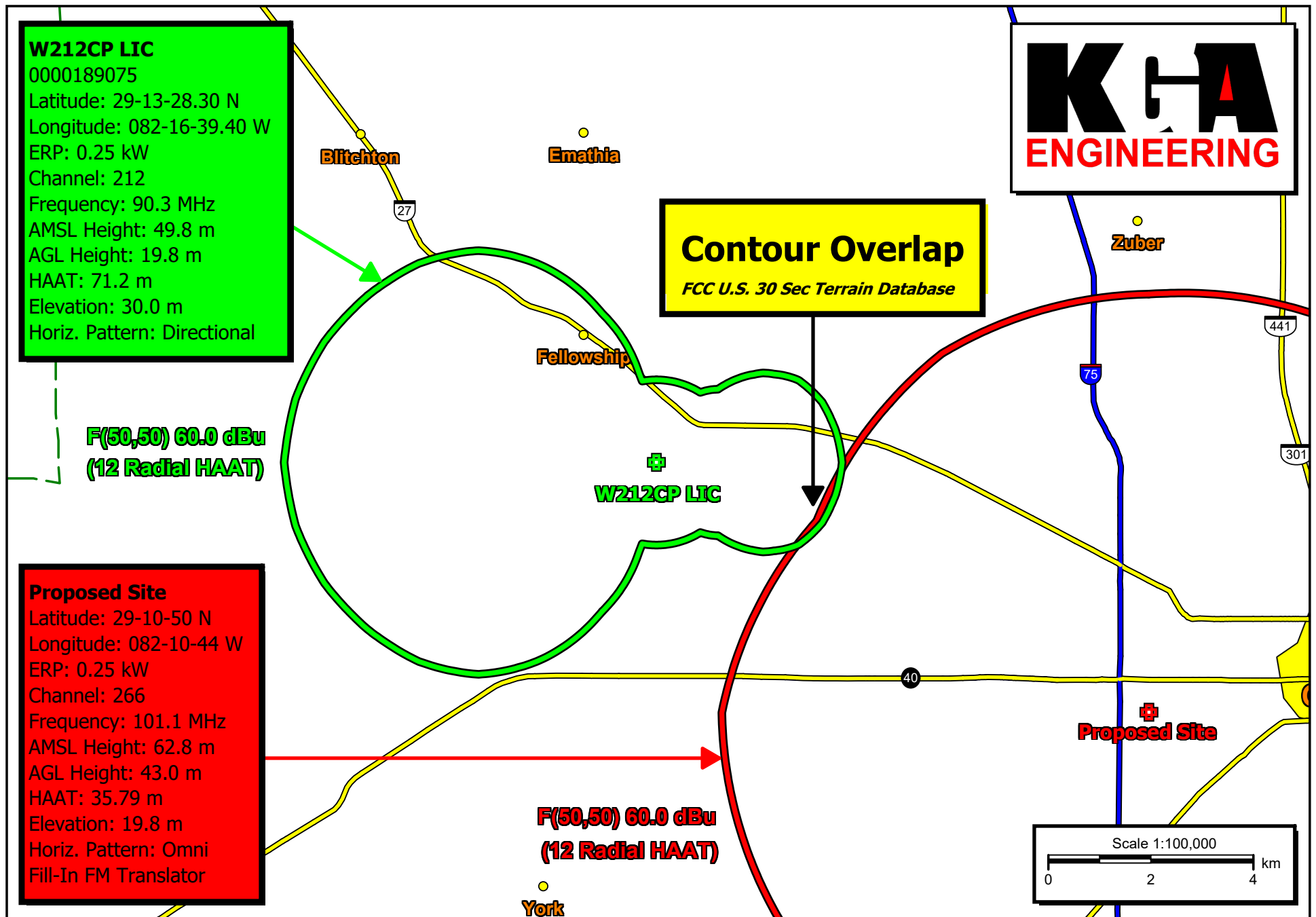
CERTIFICATION

This engineering technical statement was prepared by William T. Godfrey, Jr., with the professional firm Kessler and Gehman Associates, Inc., Telecommunications Consulting Engineers having offices in Gainesville, Florida, and has been working with the firm in the field of television and radio broadcast consulting since 1998 and his qualifications are a matter of record with the Federal Communications Commission. Mr. Godfrey is a Graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

A handwritten signature in blue ink that reads 'William T. Godfrey, Jr.'.

WILLIAM T. GODFREY, JR., CBT
Kessler and Gehman Associates, Inc.
Consulting Engineers

June 8, 2022



Licensed W212CP Channel 212 (90.3 MHz) vs. Proposed W212CP Channel 266 (101.1 MHz)



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W212CP Site Change Interference Study

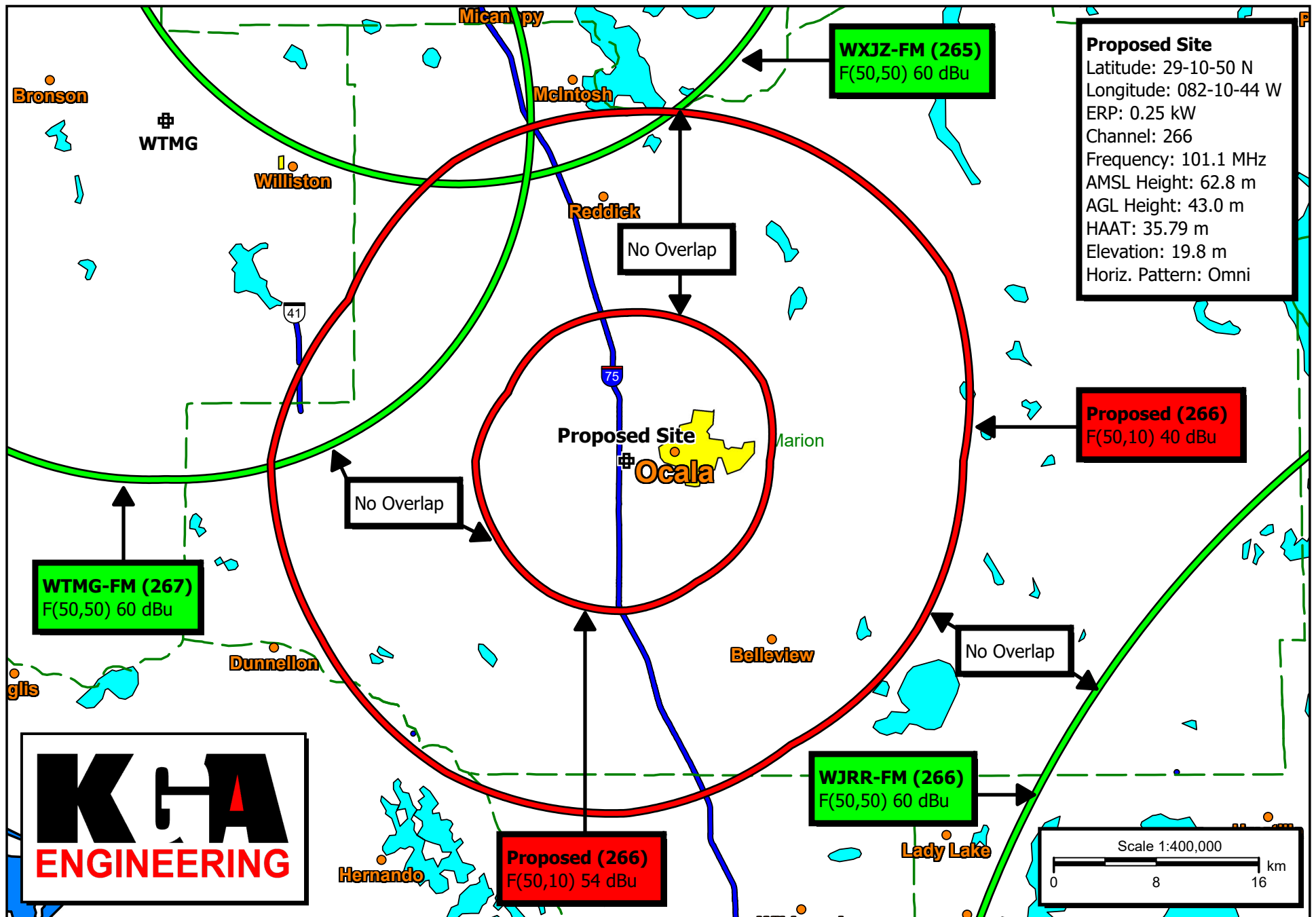
REFERENCE 29 10 50.00 N. CH# 266D - 101.1 MHz, Pwr= 0.25 kw, HAAT= 35.8 M, COR= 62.8 M JVC Media of Florida, LLC
82 10 44.00 W. Average Protected F(50-50)= 7.69 km
Omni-directional

DISPLAY DATES
DATA 06-08-22
SEARCH 06-08-22

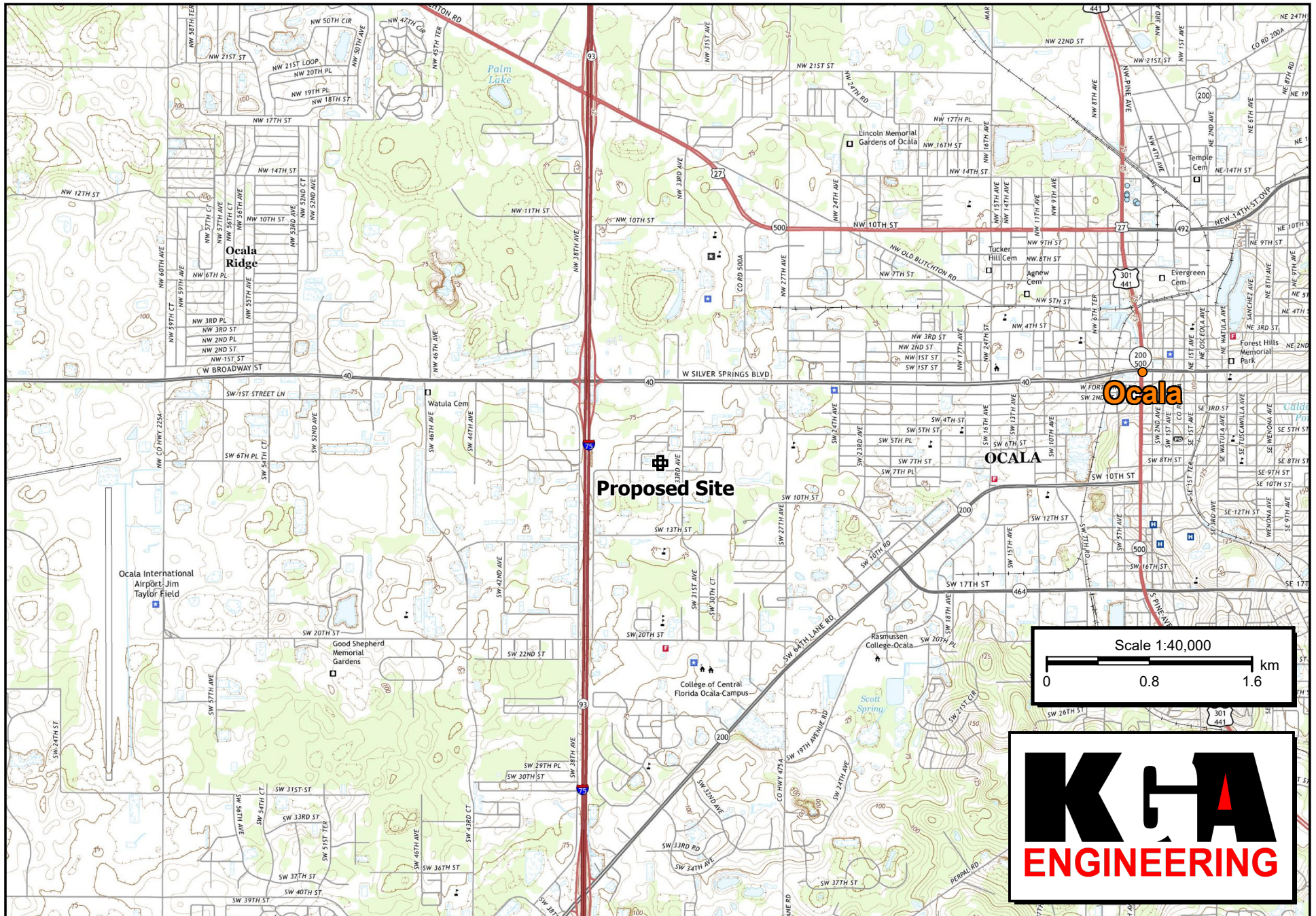
CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
266C Cocoa Beach	WJRR	LIC _CN FL	121.5 302.1	126.42 BMLH20031010ADE	28 34 51.90 81 04 31.20	100.000 487	189.7 500	85.9 Ihm Licenses, LLC	-71.3*	13.8
267A Williston	WTMG	CP _CN FL	306.6 126.4	44.63 BPH20180404AAB	29 25 09.10 82 32 56.90	3.500 134	43.5 154	28.5 Marc Radio Gainesville, LL	-7.0	4.9
267A Williston	WTMG	LIC _CN FL	306.6 126.4	44.63 0000120284	29 25 09.10 82 32 56.90	3.500 134	43.5 154	28.5 Marc Radio Gainesville, LL	-7.0	4.9
265A Gainesville	WXJZ	LIC _CN FL	345.5 165.5	52.12 BMLH19980504KE	29 38 03.90 82 18 49.40	6.000 91	44.6 123	28.8 Marc Radio Gainesville, LL	-0.7	11.6
265D Crystal River	W265BJ	LIC _CN FL	225.4 45.3	46.93 BLFT20050830AAP	28 53 01.90 82 31 20.40	0.055 53	8.8 68	6.1 Bible Broadcasting Network	29.7	28.8
263C2 Newberry	WHHZ	LIC NCN FL	306.4 126.1	80.54 BMLH20180306AAH	29 36 32.00 82 50 58.10	44.000 143	5.6 155	50.1 Marc Radio Gainesville, LL	66.8	29.4
212C3 Eustis	WIGW	LIC DCN FL	118.7 299.0	47.26 BLED20181107ABN	28 58 32.10 81 45 11.40	9.400 71	76.8 92	48.3 Relevant Radio, Inc.	11.5R	35.8M
266L1 Palatka	WPJM-LP	LIC _CN FL	45.5 225.7	73.00 BLL20170123FLE	29 38 23.90 81 38 25.30	0.054 41	47	45.9 Minority Educational Broad	39.0	
269C3 Trenton	WDVH-FM	LIC ZCN FL	306.4 126.1	80.54 0000156836	29 36 32.00 82 50 58.10	22.000 106	3.3 122	33.0 Radio Training Network	69.2	46.3

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

Light Pink represents incoming contour overlap meeting FCC rules since translators may receive interference.



Proposed W212CP Channel 266 (101.1 MHz) Allocation Study



Proposed W212CP Channel 266 (101.1 MHz) Site TOPO Map



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W212CP (Proposed) F(50,10) 40.0 dBuV/m Interfering Contour

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 10.0 %
of Radials Calculated: 360 [12 Radials Used for HAAT]
FCC Matching HAAT Calculation Used
Field Strength: 40.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

Transmitter Information:

Call Letters: Proposed Site
Latitude: 29-10-50 N
Longitude: 082-10-44 W
ERP: 0.25 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 62.8 m
Elevation: 19.8 m
HAAT: 35.79 m
Horiz. Antenna Pattern: Omni

Azimuth (deg)	Distance (km)	HAAT (m)
0.0	27.19	39.9
10.0	27.53	38.8
20.0	27.87	41.7
30.0	28.21	42.8
40.0	28.47	43.1
50.0	28.73	43.6
60.0	28.98	45.0
70.0	28.07	46.0
80.0	27.16	41.6
90.0	26.25	37.2
100.0	26.23	41.8
110.0	26.21	37.2
120.0	26.18	37.0
130.0	25.98	38.0
140.0	25.79	36.1
150.0	25.59	35.3
160.0	26.21	32.7
170.0	26.84	37.6
180.0	27.46	40.6
190.0	27.66	42.8
200.0	27.87	42.8
210.0	28.07	42.4
220.0	27.89	42.5

230.0	27.71	42.3
240.0	27.53	40.8
250.0	27.60	42.3
260.0	27.67	38.5
270.0	27.74	41.4
280.0	26.84	45.7
290.0	25.95	42.2
300.0	25.06	33.7
310.0	25.69	34.8
320.0	26.33	35.2
330.0	26.96	39.2
340.0	27.03	36.2
350.0	27.11	40.7



W212CP (Proposed) F(50,10) 54.0 dBuV/m Interfering Contour

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 10.0 %
of Radials Calculated: 360 [12 Radials Used for HAAT]
FCC Matching HAAT Calculation Used
Field Strength: 54.00 dBuV/m

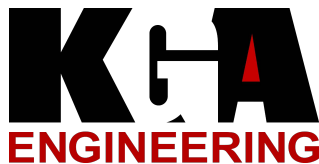
Primary Terrain: FCC 30 Second US Database

Transmitter Information:

Call Letters: Proposed Site
Latitude: 29-10-50 N
Longitude: 082-10-44 W
ERP: 0.25 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 62.8 m
Elevation: 19.8 m
HAAT: 35.79 m
Horiz. Antenna Pattern: Omni

Azimuth (deg)	Distance (km)
-----	-----
0.0	11.56
10.0	11.70
20.0	11.84
30.0	11.98
40.0	12.08
50.0	12.18
60.0	12.28
70.0	11.92
80.0	11.55
90.0	11.18
100.0	11.17
110.0	11.16
120.0	11.15
130.0	11.07
140.0	10.98
150.0	10.90
160.0	11.16
170.0	11.42
180.0	11.67
190.0	11.75
200.0	11.84
210.0	11.92
220.0	11.85
230.0	11.77

240.0	11.70
250.0	11.73
260.0	11.76
270.0	11.78
280.0	11.42
290.0	11.05
300.0	10.69
310.0	10.95
320.0	11.21
330.0	11.47
340.0	11.50
350.0	11.53



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WJRR-FM F(50,50) 60.0 dBuV/m Protected Contour

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 60.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

Transmitter Information:

Call Letters: WJRR
File Number: BMLH20031010ADE
Latitude: 28-34-51.90 N
Longitude: 081-04-31.20 W
ERP: 100.00 kW
Channel: 266
Frequency: 101.1 MHz
AMSL Height: 500.0 m
Elevation: 20.0 m
HAAT: 487.0 m
Horiz. Antenna Pattern: Omni

Azimuth (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	86.44	495.3
1.0	86.45	495.5
2.0	86.46	495.7
3.0	86.47	495.8
4.0	86.48	495.9
5.0	86.48	496.0
6.0	86.49	496.1
7.0	86.49	496.2
8.0	86.50	496.3
9.0	86.50	496.4
10.0	86.51	496.5
11.0	86.52	496.6
12.0	86.52	496.7
13.0	86.52	496.7
14.0	86.52	496.7
15.0	86.52	496.7
16.0	86.52	496.6
17.0	86.52	496.6
18.0	86.52	496.6
19.0	86.51	496.6
20.0	86.51	496.5

21.0	86.52	496.6
22.0	86.52	496.6
23.0	86.52	496.7
24.0	86.53	496.8
25.0	86.53	496.9
26.0	86.54	496.9
27.0	86.54	497.0
28.0	86.54	496.9
29.0	86.54	496.9
30.0	86.54	496.9
31.0	86.53	496.9
32.0	86.52	496.7
33.0	86.51	496.5
34.0	86.50	496.2
35.0	86.49	496.2
36.0	86.49	496.2
37.0	86.49	496.2
38.0	86.49	496.2
39.0	86.49	496.2
40.0	86.50	496.3
41.0	86.51	496.4
42.0	86.53	496.7
43.0	86.55	497.1
44.0	86.56	497.3
45.0	86.57	497.5
46.0	86.57	497.6
47.0	86.58	497.6
48.0	86.58	497.7
49.0	86.59	497.8
50.0	86.59	497.8
51.0	86.59	497.8
52.0	86.59	497.8
53.0	86.59	497.8
54.0	86.59	497.8
55.0	86.58	497.7
56.0	86.58	497.7
57.0	86.58	497.6
58.0	86.58	497.6
59.0	86.58	497.6
60.0	86.58	497.7
61.0	86.58	497.7
62.0	86.58	497.7
63.0	86.58	497.7
64.0	86.58	497.6
65.0	86.58	497.6
66.0	86.57	497.5
67.0	86.57	497.5
68.0	86.57	497.4
69.0	86.57	497.4
70.0	86.56	497.4
71.0	86.56	497.4
72.0	86.57	497.4
73.0	86.57	497.4
74.0	86.57	497.5

75.0	86.57	497.5
76.0	86.57	497.5
77.0	86.57	497.5
78.0	86.57	497.6
79.0	86.58	497.6
80.0	86.58	497.6
81.0	86.58	497.6
82.0	86.58	497.6
83.0	86.58	497.6
84.0	86.58	497.6
85.0	86.58	497.6
86.0	86.58	497.6
87.0	86.58	497.7
88.0	86.58	497.6
89.0	86.57	497.4
90.0	86.56	497.3
91.0	86.55	497.1
92.0	86.54	496.9
93.0	86.53	496.8
94.0	86.52	496.6
95.0	86.50	496.4
96.0	86.49	496.2
97.0	86.49	496.1
98.0	86.48	496.0
99.0	86.47	495.9
100.0	86.47	495.8
101.0	86.46	495.7
102.0	86.46	495.6
103.0	86.46	495.6
104.0	86.46	495.6
105.0	86.45	495.6
106.0	86.45	495.5
107.0	86.45	495.5
108.0	86.45	495.4
109.0	86.44	495.4
110.0	86.44	495.4
111.0	86.44	495.3
112.0	86.44	495.3
113.0	86.43	495.2
114.0	86.43	495.2
115.0	86.42	495.0
116.0	86.40	494.7
117.0	86.37	494.2
118.0	86.34	493.6
119.0	86.31	493.2
120.0	86.29	492.8
121.0	86.28	492.7
122.0	86.28	492.7
123.0	86.28	492.8
124.0	86.28	492.8
125.0	86.27	492.6
126.0	86.24	492.1
127.0	86.20	491.4
128.0	86.15	490.7

129.0	86.12	490.1
130.0	86.10	489.8
131.0	86.09	489.6
132.0	86.08	489.5
133.0	86.08	489.4
134.0	86.07	489.3
135.0	86.07	489.3
136.0	86.06	489.2
137.0	86.06	489.1
138.0	86.06	489.1
139.0	86.06	489.1
140.0	86.05	489.0
141.0	86.05	488.9
142.0	86.04	488.7
143.0	86.02	488.5
144.0	86.01	488.3
145.0	85.99	488.0
146.0	85.98	487.8
147.0	85.97	487.6
148.0	85.95	487.3
149.0	85.93	487.1
150.0	85.92	486.8
151.0	85.90	486.6
152.0	85.89	486.4
153.0	85.87	486.2
154.0	85.86	485.9
155.0	85.83	485.5
156.0	85.80	485.0
157.0	85.77	484.5
158.0	85.75	484.1
159.0	85.74	484.0
160.0	85.73	483.9
161.0	85.71	483.6
162.0	85.68	483.0
163.0	85.64	482.5
164.0	85.62	482.0
165.0	85.60	481.7
166.0	85.57	481.3
167.0	85.54	480.9
168.0	85.52	480.6
169.0	85.50	480.3
170.0	85.49	480.1
171.0	85.49	480.0
172.0	85.50	480.1
173.0	85.51	480.3
174.0	85.52	480.5
175.0	85.54	480.8
176.0	85.56	481.1
177.0	85.57	481.4
178.0	85.59	481.7
179.0	85.61	482.0
180.0	85.62	482.2
181.0	85.63	482.3
182.0	85.64	482.4

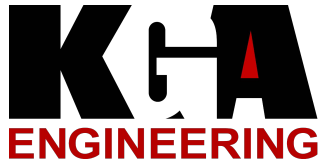
183.0	85.64	482.5
184.0	85.69	483.1
185.0	85.76	484.3
186.0	85.83	485.5
187.0	85.90	486.6
188.0	85.94	487.2
189.0	85.95	487.4
190.0	85.95	487.3
191.0	85.94	487.1
192.0	85.93	487.1
193.0	85.93	487.1
194.0	85.92	487.0
195.0	85.91	486.8
196.0	85.89	486.3
197.0	85.85	485.7
198.0	85.80	485.0
199.0	85.76	484.3
200.0	85.73	483.9
201.0	85.72	483.7
202.0	85.73	483.8
203.0	85.75	484.1
204.0	85.77	484.5
205.0	85.79	484.8
206.0	85.80	485.0
207.0	85.82	485.2
208.0	85.83	485.5
209.0	85.85	485.7
210.0	85.86	486.0
211.0	85.88	486.2
212.0	85.89	486.3
213.0	85.89	486.4
214.0	85.89	486.4
215.0	85.88	486.3
216.0	85.87	486.1
217.0	85.86	485.9
218.0	85.85	485.7
219.0	85.84	485.6
220.0	85.84	485.6
221.0	85.84	485.7
222.0	85.85	485.8
223.0	85.86	485.9
224.0	85.87	486.0
225.0	85.88	486.2
226.0	85.89	486.4
227.0	85.90	486.5
228.0	85.90	486.6
229.0	85.90	486.6
230.0	85.89	486.4
231.0	85.88	486.3
232.0	85.87	486.0
233.0	85.84	485.7
234.0	85.82	485.2
235.0	85.79	484.8
236.0	85.77	484.4

237.0	85.75	484.2
238.0	85.75	484.1
239.0	85.75	484.1
240.0	85.75	484.1
241.0	85.75	484.1
242.0	85.74	484.0
243.0	85.74	483.9
244.0	85.73	483.8
245.0	85.73	483.8
246.0	85.73	483.9
247.0	85.74	484.1
248.0	85.76	484.3
249.0	85.78	484.6
250.0	85.80	484.9
251.0	85.81	485.1
252.0	85.81	485.1
253.0	85.81	485.1
254.0	85.81	485.0
255.0	85.80	484.9
256.0	85.79	484.8
257.0	85.78	484.6
258.0	85.77	484.5
259.0	85.76	484.3
260.0	85.75	484.2
261.0	85.74	484.0
262.0	85.73	483.9
263.0	85.73	483.8
264.0	85.73	483.8
265.0	85.75	484.1
266.0	85.77	484.5
267.0	85.80	484.9
268.0	85.81	485.1
269.0	85.81	485.1
270.0	85.81	485.1
271.0	85.80	485.0
272.0	85.81	485.0
273.0	85.81	485.1
274.0	85.82	485.3
275.0	85.83	485.4
276.0	85.83	485.4
277.0	85.84	485.5
278.0	85.84	485.6
279.0	85.84	485.7
280.0	85.85	485.7
281.0	85.86	485.8
282.0	85.86	486.0
283.0	85.87	486.1
284.0	85.90	486.5
285.0	85.93	487.0
286.0	85.96	487.5
287.0	85.98	487.9
288.0	85.99	487.9
289.0	85.98	487.8
290.0	85.96	487.6

291.0	85.96	487.5
292.0	85.97	487.6
293.0	85.98	487.8
294.0	85.98	487.9
295.0	85.99	487.9
296.0	85.98	487.8
297.0	85.96	487.6
298.0	85.95	487.3
299.0	85.94	487.1
300.0	85.93	487.0
301.0	85.91	486.7
302.0	85.87	486.0
303.0	85.82	485.3
304.0	85.81	485.1
305.0	85.82	485.3
306.0	85.84	485.6
307.0	85.85	485.8
308.0	85.86	485.9
309.0	85.88	486.2
310.0	85.91	486.7
311.0	85.96	487.5
312.0	86.00	488.1
313.0	86.02	488.5
314.0	86.03	488.7
315.0	86.04	488.9
316.0	86.05	489.0
317.0	86.06	489.1
318.0	86.07	489.2
319.0	86.07	489.3
320.0	86.08	489.5
321.0	86.09	489.7
322.0	86.10	489.7
323.0	86.09	489.7
324.0	86.08	489.5
325.0	86.07	489.3
326.0	86.06	489.1
327.0	86.07	489.3
328.0	86.09	489.6
329.0	86.11	489.9
330.0	86.12	490.1
331.0	86.12	490.2
332.0	86.12	490.1
333.0	86.11	490.0
334.0	86.11	490.0
335.0	86.11	490.0
336.0	86.11	490.0
337.0	86.11	490.0
338.0	86.11	490.0
339.0	86.11	490.0
340.0	86.11	490.0
341.0	86.11	490.0
342.0	86.11	490.0
343.0	86.11	490.0
344.0	86.11	489.9

345.0	86.11	489.9
346.0	86.10	489.8
347.0	86.11	489.9
348.0	86.11	490.0
349.0	86.11	490.0
350.0	86.11	490.0
351.0	86.12	490.1
352.0	86.13	490.2
353.0	86.14	490.4
354.0	86.17	490.9
355.0	86.21	491.6
356.0	86.25	492.2
357.0	86.29	492.9
358.0	86.34	493.7
359.0	86.39	494.5

Average HAAT for radials shown: 490.0 m



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WTMG-FM F(50,50) 60.0 dBuV/m Protected Contour

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 60.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

Transmitter Information:

Call Letters: WTMG
File Number: 0000120284
Latitude: 29-25-09.10 N
Longitude: 082-32-56.90 W
ERP: 3.50 kW
Channel: 267
Frequency: 101.3 MHz
AMSL Height: 154.0 m
Elevation: 24.0 m
HAAT: 134.0 m
Horiz. Antenna Pattern: Omni

Azimuth (deg)	Distance (km)	HAAT (m)
-----	-----	-----
0.0	28.45	134.0
1.0	28.45	134.0
2.0	28.45	134.0
3.0	28.44	134.0
4.0	28.44	133.9
5.0	28.43	133.8
6.0	28.43	133.8
7.0	28.44	133.9
8.0	28.44	134.0
9.0	28.44	134.0
10.0	28.44	133.9
11.0	28.44	133.9
12.0	28.44	133.9
13.0	28.44	134.0
14.0	28.45	134.0
15.0	28.45	134.0
16.0	28.45	134.0
17.0	28.45	134.0
18.0	28.45	134.0
19.0	28.45	134.0
20.0	28.45	134.0

21.0	28.45	134.0
22.0	28.45	134.0
23.0	28.45	134.0
24.0	28.45	134.0
25.0	28.45	134.0
26.0	28.45	134.0
27.0	28.45	134.0
28.0	28.45	134.0
29.0	28.45	134.0
30.0	28.45	134.0
31.0	28.45	134.0
32.0	28.45	134.0
33.0	28.45	134.1
34.0	28.45	134.1
35.0	28.46	134.1
36.0	28.46	134.2
37.0	28.47	134.3
38.0	28.48	134.4
39.0	28.49	134.5
40.0	28.49	134.5
41.0	28.50	134.6
42.0	28.50	134.6
43.0	28.50	134.6
44.0	28.50	134.6
45.0	28.49	134.5
46.0	28.49	134.5
47.0	28.48	134.4
48.0	28.47	134.3
49.0	28.47	134.2
50.0	28.46	134.2
51.0	28.46	134.2
52.0	28.46	134.2
53.0	28.46	134.2
54.0	28.47	134.3
55.0	28.48	134.3
56.0	28.48	134.4
57.0	28.49	134.5
58.0	28.51	134.7
59.0	28.53	134.9
60.0	28.54	135.0
61.0	28.53	135.0
62.0	28.51	134.7
63.0	28.48	134.3
64.0	28.45	134.0
65.0	28.44	133.9
66.0	28.43	133.9
67.0	28.42	133.7
68.0	28.41	133.6
69.0	28.40	133.4
70.0	28.41	133.6
71.0	28.42	133.8
72.0	28.44	133.9
73.0	28.45	134.0
74.0	28.45	134.0

75.0	28.44	134.0
76.0	28.43	133.8
77.0	28.42	133.7
78.0	28.40	133.5
79.0	28.39	133.4
80.0	28.40	133.5
81.0	28.42	133.7
82.0	28.43	133.9
83.0	28.44	134.0
84.0	28.45	134.0
85.0	28.45	134.0
86.0	28.45	134.0
87.0	28.45	134.0
88.0	28.45	134.0
89.0	28.45	134.0
90.0	28.45	134.0
91.0	28.45	134.0
92.0	28.45	134.0
93.0	28.45	134.0
94.0	28.45	134.0
95.0	28.45	134.0
96.0	28.45	134.0
97.0	28.45	134.0
98.0	28.44	133.9
99.0	28.42	133.7
100.0	28.39	133.4
101.0	28.38	133.2
102.0	28.40	133.5
103.0	28.42	133.7
104.0	28.44	133.9
105.0	28.44	134.0
106.0	28.44	134.0
107.0	28.44	134.0
108.0	28.45	134.0
109.0	28.45	134.0
110.0	28.45	134.0
111.0	28.45	134.0
112.0	28.45	134.0
113.0	28.45	134.0
114.0	28.45	134.0
115.0	28.45	134.0
116.0	28.45	134.0
117.0	28.45	134.0
118.0	28.45	134.0
119.0	28.45	134.0
120.0	28.45	134.0
121.0	28.45	134.0
122.0	28.45	134.0
123.0	28.45	134.0
124.0	28.46	134.1
125.0	28.48	134.3
126.0	28.51	134.7
127.0	28.54	135.1
128.0	28.56	135.3

129.0	28.57	135.4
130.0	28.58	135.4
131.0	28.58	135.5
132.0	28.58	135.5
133.0	28.58	135.4
134.0	28.56	135.3
135.0	28.56	135.3
136.0	28.58	135.5
137.0	28.60	135.7
138.0	28.59	135.6
139.0	28.58	135.4
140.0	28.60	135.7
141.0	28.67	136.5
142.0	28.74	137.2
143.0	28.78	137.7
144.0	28.79	137.8
145.0	28.80	137.9
146.0	28.80	137.9
147.0	28.80	137.9
148.0	28.80	137.9
149.0	28.79	137.8
150.0	28.78	137.6
151.0	28.75	137.4
152.0	28.71	136.9
153.0	28.66	136.4
154.0	28.60	135.7
155.0	28.54	135.1
156.0	28.48	134.4
157.0	28.42	133.7
158.0	28.36	133.1
159.0	28.32	132.7
160.0	28.29	132.3
161.0	28.25	131.8
162.0	28.18	131.1
163.0	28.09	130.0
164.0	28.00	129.0
165.0	27.95	128.5
166.0	27.93	128.2
167.0	27.92	128.1
168.0	27.90	127.9
169.0	27.91	128.0
170.0	27.92	128.1
171.0	27.94	128.3
172.0	27.94	128.3
173.0	27.95	128.5
174.0	27.97	128.7
175.0	27.99	128.9
176.0	28.02	129.2
177.0	28.02	129.2
178.0	27.99	129.0
179.0	27.97	128.7
180.0	27.95	128.5
181.0	27.90	127.9
182.0	27.84	127.3

183.0	27.79	126.7
184.0	27.77	126.4
185.0	27.77	126.5
186.0	27.75	126.3
187.0	27.73	126.0
188.0	27.67	125.4
189.0	27.64	125.0
190.0	27.64	125.0
191.0	27.65	125.1
192.0	27.67	125.3
193.0	27.65	125.1
194.0	27.63	124.8
195.0	27.60	124.6
196.0	27.62	124.8
197.0	27.69	125.6
198.0	27.80	126.8
199.0	27.90	127.9
200.0	27.99	128.9
201.0	28.05	129.6
202.0	28.11	130.3
203.0	28.17	130.9
204.0	28.24	131.7
205.0	28.32	132.6
206.0	28.40	133.5
207.0	28.48	134.4
208.0	28.54	135.1
209.0	28.59	135.6
210.0	28.62	135.9
211.0	28.65	136.2
212.0	28.67	136.5
213.0	28.69	136.7
214.0	28.71	137.0
215.0	28.74	137.2
216.0	28.77	137.5
217.0	28.80	137.9
218.0	28.83	138.2
219.0	28.86	138.6
220.0	28.89	138.9
221.0	28.91	139.1
222.0	28.93	139.3
223.0	28.95	139.5
224.0	28.96	139.6
225.0	28.97	139.7
226.0	28.98	139.9
227.0	28.99	140.0
228.0	29.00	140.1
229.0	29.01	140.2
230.0	29.02	140.3
231.0	29.02	140.3
232.0	29.03	140.4
233.0	29.03	140.4
234.0	29.03	140.4
235.0	29.03	140.4
236.0	29.02	140.3

237.0	29.01	140.2
238.0	28.99	140.0
239.0	28.98	139.8
240.0	28.96	139.6
241.0	28.94	139.5
242.0	28.93	139.3
243.0	28.92	139.2
244.0	28.92	139.2
245.0	28.92	139.2
246.0	28.92	139.2
247.0	28.92	139.2
248.0	28.91	139.2
249.0	28.92	139.2
250.0	28.92	139.2
251.0	28.92	139.2
252.0	28.93	139.3
253.0	28.94	139.4
254.0	28.95	139.5
255.0	28.95	139.5
256.0	28.95	139.5
257.0	28.95	139.5
258.0	28.95	139.5
259.0	28.95	139.6
260.0	28.96	139.6
261.0	28.96	139.7
262.0	28.97	139.7
263.0	28.96	139.6
264.0	28.94	139.5
265.0	28.93	139.3
266.0	28.91	139.1
267.0	28.89	138.9
268.0	28.87	138.7
269.0	28.86	138.5
270.0	28.85	138.4
271.0	28.84	138.3
272.0	28.83	138.2
273.0	28.81	138.0
274.0	28.81	138.0
275.0	28.80	138.0
276.0	28.80	137.9
277.0	28.80	137.9
278.0	28.80	137.9
279.0	28.80	137.9
280.0	28.80	137.9
281.0	28.79	137.8
282.0	28.79	137.8
283.0	28.79	137.8
284.0	28.78	137.7
285.0	28.78	137.7
286.0	28.78	137.7
287.0	28.77	137.6
288.0	28.77	137.6
289.0	28.76	137.5
290.0	28.76	137.5

291.0	28.75	137.4
292.0	28.75	137.3
293.0	28.74	137.3
294.0	28.74	137.2
295.0	28.72	137.1
296.0	28.70	136.9
297.0	28.68	136.5
298.0	28.64	136.1
299.0	28.60	135.7
300.0	28.57	135.3
301.0	28.54	135.0
302.0	28.51	134.7
303.0	28.47	134.3
304.0	28.43	133.8
305.0	28.38	133.2
306.0	28.33	132.7
307.0	28.30	132.4
308.0	28.29	132.2
309.0	28.29	132.2
310.0	28.29	132.3
311.0	28.29	132.3
312.0	28.30	132.4
313.0	28.30	132.3
314.0	28.29	132.3
315.0	28.29	132.2
316.0	28.28	132.2
317.0	28.28	132.2
318.0	28.27	132.1
319.0	28.26	132.0
320.0	28.26	131.9
321.0	28.27	132.1
322.0	28.29	132.3
323.0	28.29	132.3
324.0	28.26	132.0
325.0	28.21	131.4
326.0	28.14	130.6
327.0	28.05	129.6
328.0	27.95	128.5
329.0	27.88	127.7
330.0	27.85	127.4
331.0	27.87	127.6
332.0	27.92	128.2
333.0	27.97	128.7
334.0	28.00	129.1
335.0	28.02	129.3
336.0	28.03	129.4
337.0	28.02	129.3
338.0	28.01	129.2
339.0	28.01	129.1
340.0	28.03	129.4
341.0	28.07	129.8
342.0	28.12	130.3
343.0	28.15	130.7
344.0	28.17	130.9

345.0	28.17	131.0
346.0	28.18	131.1
347.0	28.20	131.3
348.0	28.22	131.5
349.0	28.24	131.8
350.0	28.27	132.1
351.0	28.29	132.3
352.0	28.32	132.6
353.0	28.32	132.6
354.0	28.32	132.6
355.0	28.32	132.6
356.0	28.33	132.7
357.0	28.37	133.1
358.0	28.40	133.5
359.0	28.43	133.8

Average HAAT for radials shown: 134.2 m



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WXJZ-FM F(50,50) 60.0 dBuV/m Protected Contour

Type of contour: FCC
Location Variability: 50.0 %
Time Variability: 50.0 %
of Radials Calculated: 360
FCC Matching HAAT Calculation Used
Field Strength: 60.00 dBuV/m

Primary Terrain: FCC 30 Second US Database

Transmitter Information:

Call Letters: WXJZ
File Number: BMLH19980504KE
Latitude: 29-38-03.90 N
Longitude: 082-18-49.40 W
ERP: 6.00 kW
Channel: 265
Frequency: 100.9 MHz
AMSL Height: 123.0 m
Elevation: 39.0 m
HAAT: 91.0 m
Horiz. Antenna Pattern: Omni

Azimuth (deg)	Distance (km)	HAAT (m)
0.0	24.96	76.5
1.0	24.93	76.3
2.0	24.90	76.1
3.0	24.83	75.7
4.0	24.77	75.2
5.0	24.70	74.8
6.0	24.67	74.6
7.0	24.67	74.6
8.0	24.70	74.8
9.0	24.75	75.1
10.0	24.82	75.6
11.0	24.90	76.1
12.0	24.97	76.6
13.0	25.03	77.0
14.0	25.10	77.5
15.0	25.21	78.2
16.0	25.33	79.0
17.0	25.43	79.7
18.0	25.47	80.0
19.0	25.49	80.1
20.0	25.52	80.3

21.0	25.55	80.5
22.0	25.57	80.7
23.0	25.60	80.9
24.0	25.66	81.3
25.0	25.72	81.7
26.0	25.77	82.0
27.0	25.79	82.2
28.0	25.81	82.3
29.0	25.84	82.5
30.0	25.88	82.7
31.0	25.93	83.1
32.0	25.99	83.5
33.0	26.05	83.9
34.0	26.11	84.4
35.0	26.17	84.7
36.0	26.23	85.2
37.0	26.34	85.9
38.0	26.48	86.9
39.0	26.65	88.1
40.0	26.81	89.2
41.0	26.99	90.5
42.0	27.16	91.7
43.0	27.33	92.9
44.0	27.47	93.9
45.0	27.57	94.6
46.0	27.64	95.2
47.0	27.70	95.6
48.0	27.78	96.2
49.0	27.88	96.9
50.0	28.01	97.8
51.0	28.12	98.7
52.0	28.22	99.4
53.0	28.30	100.0
54.0	28.35	100.4
55.0	28.39	100.7
56.0	28.42	100.9
57.0	28.44	101.1
58.0	28.46	101.2
59.0	28.47	101.3
60.0	28.48	101.4
61.0	28.48	101.4
62.0	28.47	101.3
63.0	28.46	101.2
64.0	28.45	101.2
65.0	28.44	101.1
66.0	28.42	101.0
67.0	28.40	100.8
68.0	28.37	100.5
69.0	28.33	100.2
70.0	28.30	100.0
71.0	28.32	100.1
72.0	28.37	100.5
73.0	28.43	101.0
74.0	28.48	101.4

75.0	28.49	101.5
76.0	28.48	101.4
77.0	28.49	101.4
78.0	28.50	101.5
79.0	28.49	101.4
80.0	28.43	101.0
81.0	28.35	100.4
82.0	28.28	99.9
83.0	28.23	99.5
84.0	28.24	99.6
85.0	28.26	99.7
86.0	28.27	99.8
87.0	28.27	99.8
88.0	28.27	99.8
89.0	28.26	99.7
90.0	28.25	99.6
91.0	28.24	99.6
92.0	28.25	99.6
93.0	28.26	99.7
94.0	28.27	99.8
95.0	28.29	100.0
96.0	28.31	100.1
97.0	28.34	100.3
98.0	28.34	100.3
99.0	28.38	100.6
100.0	28.40	100.8
101.0	28.44	101.1
102.0	28.49	101.5
103.0	28.51	101.6
104.0	28.49	101.5
105.0	28.42	101.0
106.0	28.30	100.1
107.0	28.17	99.1
108.0	28.06	98.2
109.0	27.98	97.7
110.0	27.97	97.6
111.0	27.98	97.7
112.0	27.99	97.8
113.0	28.02	97.9
114.0	28.05	98.2
115.0	28.11	98.6
116.0	28.17	99.1
117.0	28.23	99.5
118.0	28.28	99.9
119.0	28.32	100.2
120.0	28.37	100.5
121.0	28.41	100.9
122.0	28.45	101.1
123.0	28.46	101.2
124.0	28.47	101.3
125.0	28.46	101.3
126.0	28.46	101.2
127.0	28.45	101.2
128.0	28.44	101.1

129.0	28.44	101.1
130.0	28.43	101.0
131.0	28.43	101.0
132.0	28.42	101.0
133.0	28.43	101.0
134.0	28.43	101.0
135.0	28.44	101.1
136.0	28.45	101.1
137.0	28.47	101.3
138.0	28.52	101.7
139.0	28.57	102.1
140.0	28.62	102.5
141.0	28.65	102.7
142.0	28.66	102.7
143.0	28.63	102.6
144.0	28.60	102.3
145.0	28.58	102.1
146.0	28.57	102.1
147.0	28.58	102.1
148.0	28.60	102.3
149.0	28.64	102.6
150.0	28.65	102.7
151.0	28.63	102.5
152.0	28.61	102.4
153.0	28.63	102.6
154.0	28.67	102.9
155.0	28.70	103.1
156.0	28.72	103.2
157.0	28.72	103.2
158.0	28.72	103.2
159.0	28.75	103.4
160.0	28.81	103.9
161.0	28.89	104.5
162.0	28.94	105.0
163.0	28.96	105.1
164.0	28.93	104.8
165.0	28.87	104.4
166.0	28.81	103.9
167.0	28.74	103.3
168.0	28.70	103.1
169.0	28.71	103.2
170.0	28.74	103.4
171.0	28.76	103.5
172.0	28.77	103.6
173.0	28.77	103.6
174.0	28.76	103.6
175.0	28.75	103.4
176.0	28.75	103.5
177.0	28.76	103.5
178.0	28.77	103.6
179.0	28.75	103.5
180.0	28.73	103.3
181.0	28.71	103.2
182.0	28.69	103.0

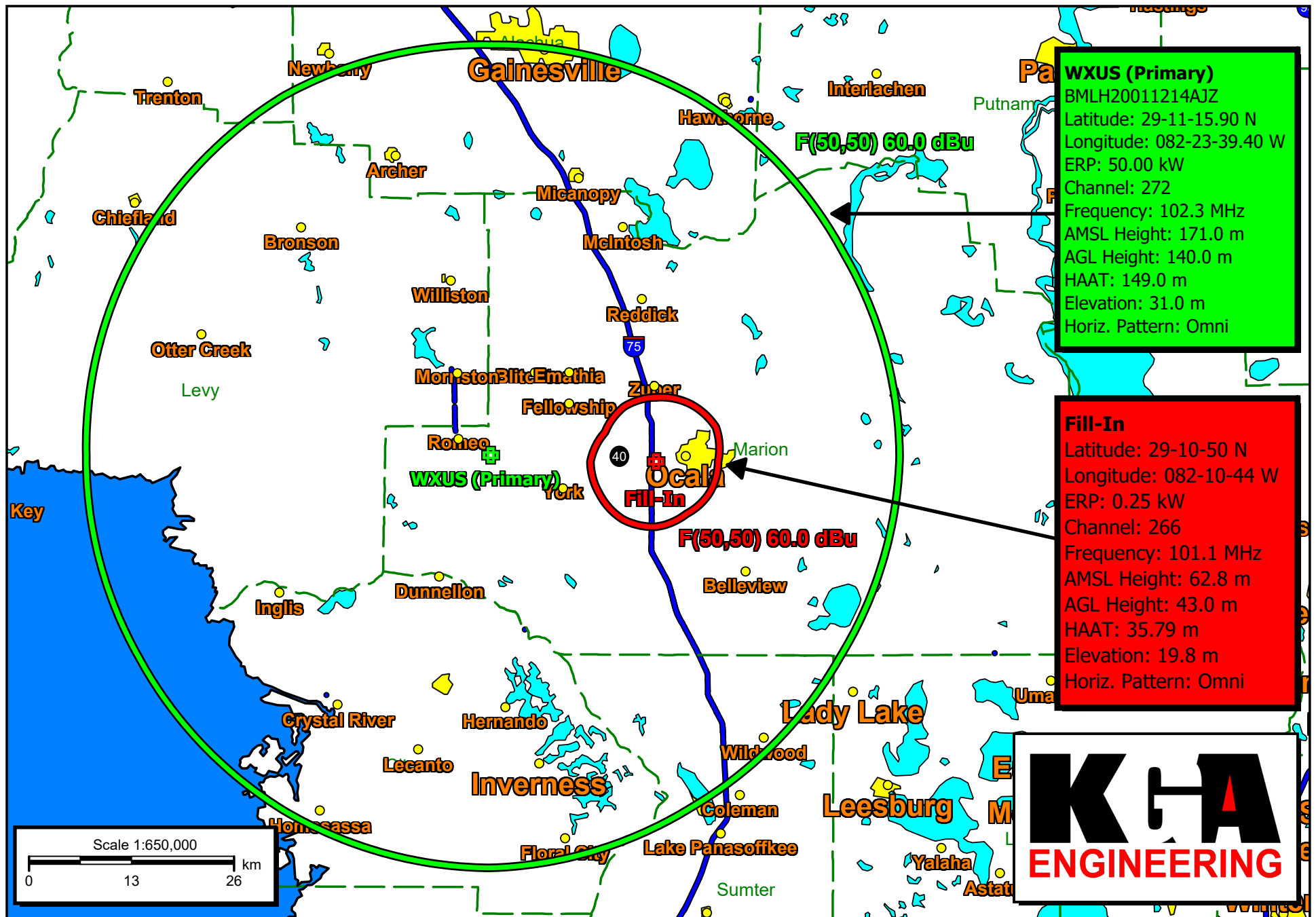
183.0	28.65	102.7
184.0	28.61	102.4
185.0	28.60	102.3
186.0	28.59	102.2
187.0	28.60	102.3
188.0	28.62	102.5
189.0	28.65	102.7
190.0	28.69	103.0
191.0	28.72	103.2
192.0	28.74	103.4
193.0	28.78	103.7
194.0	28.82	104.0
195.0	28.88	104.4
196.0	28.94	104.9
197.0	28.99	105.3
198.0	29.03	105.6
199.0	29.05	105.8
200.0	29.07	105.9
201.0	29.08	106.0
202.0	29.08	106.0
203.0	29.07	106.0
204.0	29.05	105.8
205.0	29.03	105.7
206.0	29.01	105.5
207.0	28.98	105.3
208.0	28.96	105.1
209.0	28.95	105.0
210.0	28.94	104.9
211.0	28.93	104.8
212.0	28.93	104.9
213.0	28.94	104.9
214.0	28.95	105.0
215.0	28.97	105.2
216.0	28.99	105.3
217.0	29.00	105.4
218.0	29.00	105.4
219.0	28.99	105.3
220.0	28.97	105.2
221.0	28.95	105.0
222.0	28.91	104.7
223.0	28.85	104.3
224.0	28.79	103.8
225.0	28.72	103.3
226.0	28.66	102.8
227.0	28.60	102.3
228.0	28.56	102.0
229.0	28.52	101.7
230.0	28.50	101.6
231.0	28.49	101.5
232.0	28.49	101.5
233.0	28.50	101.5
234.0	28.51	101.6
235.0	28.52	101.7
236.0	28.54	101.9

237.0	28.56	102.0
238.0	28.58	102.2
239.0	28.60	102.3
240.0	28.62	102.5
241.0	28.64	102.6
242.0	28.65	102.7
243.0	28.67	102.8
244.0	28.67	102.9
245.0	28.68	102.9
246.0	28.69	103.0
247.0	28.69	103.0
248.0	28.69	103.0
249.0	28.69	103.0
250.0	28.69	103.0
251.0	28.69	103.0
252.0	28.71	103.1
253.0	28.73	103.3
254.0	28.75	103.5
255.0	28.78	103.7
256.0	28.81	103.9
257.0	28.84	104.1
258.0	28.85	104.2
259.0	28.85	104.2
260.0	28.85	104.2
261.0	28.85	104.2
262.0	28.85	104.2
263.0	28.85	104.2
264.0	28.85	104.2
265.0	28.85	104.2
266.0	28.83	104.1
267.0	28.77	103.6
268.0	28.71	103.1
269.0	28.65	102.7
270.0	28.60	102.3
271.0	28.55	101.9
272.0	28.50	101.5
273.0	28.45	101.2
274.0	28.42	100.9
275.0	28.36	100.5
276.0	28.31	100.1
277.0	28.27	99.8
278.0	28.24	99.6
279.0	28.23	99.5
280.0	28.24	99.6
281.0	28.23	99.5
282.0	28.17	99.1
283.0	28.11	98.6
284.0	28.03	98.0
285.0	27.94	97.4
286.0	27.87	96.8
287.0	27.80	96.4
288.0	27.76	96.0
289.0	27.71	95.7
290.0	27.67	95.4

291.0	27.61	94.9
292.0	27.55	94.5
293.0	27.46	93.8
294.0	27.34	93.0
295.0	27.23	92.2
296.0	27.11	91.3
297.0	27.00	90.6
298.0	26.90	89.8
299.0	26.80	89.1
300.0	26.69	88.4
301.0	26.60	87.7
302.0	26.51	87.1
303.0	26.43	86.6
304.0	26.36	86.1
305.0	26.32	85.8
306.0	26.28	85.5
307.0	26.24	85.3
308.0	26.19	84.9
309.0	26.14	84.6
310.0	26.12	84.4
311.0	26.11	84.4
312.0	26.09	84.2
313.0	26.05	83.9
314.0	26.00	83.6
315.0	25.96	83.3
316.0	25.93	83.1
317.0	25.88	82.7
318.0	25.79	82.2
319.0	25.66	81.3
320.0	25.52	80.3
321.0	25.41	79.5
322.0	25.31	78.9
323.0	25.21	78.2
324.0	25.09	77.4
325.0	24.97	76.6
326.0	24.86	75.9
327.0	24.80	75.5
328.0	24.78	75.3
329.0	24.78	75.3
330.0	24.79	75.4
331.0	24.81	75.5
332.0	24.82	75.6
333.0	24.83	75.7
334.0	24.84	75.7
335.0	24.84	75.7
336.0	24.83	75.6
337.0	24.80	75.5
338.0	24.77	75.2
339.0	24.72	74.9
340.0	24.68	74.6
341.0	24.63	74.3
342.0	24.60	74.1
343.0	24.57	73.9
344.0	24.55	73.8

345.0	24.52	73.6
346.0	24.50	73.4
347.0	24.47	73.2
348.0	24.46	73.2
349.0	24.46	73.2
350.0	24.51	73.5
351.0	24.60	74.1
352.0	24.71	74.9
353.0	24.81	75.5
354.0	24.86	75.8
355.0	24.91	76.2
356.0	24.94	76.4
357.0	24.96	76.5
358.0	24.99	76.7
359.0	24.99	76.7

Average HAAT for radials shown: 95.2 m



Proposed W212CP Channel 266 Fill-In FM Translator & WXUS Channel 272 Primary FM