

Technical Exhibit

AMERICAN EDUCATIONAL BROADCASTING, INC.
Technical Exhibits in Support of
Minor Modification of Construction Permit for W277BG

CHANNEL 277D
0.038 kW

68 meters AGL COR
72 meters HAAT (FCC NGDC 30-SEC Terrain)

26 21 8 N x 81 44 33 W (NAD 27)
Bonita Springs, Florida

July 12, 2007

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AMERICAN EDUCATIONAL BROADCASTING, INC.
Technical Exhibits in Support of Minor Modification of CP for W277BG

W277BG Chan 277D – 103.3 MHz – 0.038 kW - 72 M HAAT – Bonita Springs, FL

This Exhibit is in support of the Minor Modification of Construction Permit application by AMERICAN EDUCATIONAL BROADCASTING, INC. (herein “Applicant”) for changes to W277BG in Bonita Springs, Florida that will increase HAAT and decrease ERP and replace the proposed antenna with a Shively 6512B-1.

The Applicant proposes an ERP that is fully compliant with the maximum ERP (MERP) values allowed according to 47 C.F.R. Section 74.1235(b)1, based on calculations of all 12, 30-degree radials (Table 3).

Interference Compliance

Contour protection, as required by 47 C.F.R. Section 73.1204 to co-channel and first adjacent channels is shown herein and is 100% (Table 1).

Some contour overlap is predicted to occur between the proposed facility's interfering contour and the protected contour of second adjacent channel WJGO and third adjacent channel WXKB.

With respect to second adjacent WJGO: WJGO is located 23.94 km at a bearing of 309 degrees from the proposed site. In the direction of W277BG (a bearing of 129 degrees), WJGO (LIC), WJGO (CP), and WJGO (APP-STA) have various ERP and HAAT values producing three different field strength values at the W277BG site (see Figure 1A). The minimum field strength (“worst case”) is produced by WJGO (APP-STA) with an effective ERP of 25 kW at 111 meters HAAT which results in a field strength value of 70.366 dBu F(50,50) at the proposed W277BG site. Therefore the interfering contour from W277BG is 110.4 dBu F(50,10) which extends a horizontal distance of 131.1 meters from the W277BG site and contains zero population (see Figure 1B). Furthermore, using the proposed antenna, the interfering contour will not reach the ground at any distance from the W277BG site (see Table 4). Therefore, since the proposed interfering contour will not reach ground level, no population resides within the interference area. Therefore this proposal is compliant with the allowance of Rule 74.1204(d).

With respect to third adjacent WXKB: WXKB is located 13.66 km at a bearing of 54.9 degrees from the proposed site. In the direction of W277BG (a bearing of 234.9 degrees), WXKB has an effective ERP of 100 kW at 343 meters HAAT which results in a field strength value of 95.877 dBu F(50,50) at the proposed W277BG site. Therefore the interfering contour from W277BG is 135.8 dBu F(50,10) which extends a horizontal distance of 7 meters from the W277BG site and does not touch the ground and, therefore, contains zero population (see Figure 2). Therefore this proposal is compliant with the allowance of Rule 74.1204(d).

Required spacing with respect to facilities operating on I.F. frequencies is fully compliant with 47 C.F.R. Section 74.1204(g) since W277BG will operate with less than 100 watts and is therefore considered as a Class D with respect to 47 C.F.R. Section 74.1204(g) of the Commission's Rules.

Environmental Protection Act / RF Radiation Compliance (Table 2)

The Rules require that an addition to any multiple use site must not contribute non-ionizing RF Radiation in excess of the total limits for each class of service in either of the two selected environments.

In the case of FM, this limit is 1,000 microwatts for the controlled, or worker environment, or 200 microwatts for the uncontrolled, or public, environment per square centimeter at 2 meters above ground level.

The attached Radiofrequency Electromagnetic Exposure Analysis Table 2 specifically lists all potential sources of radiation and estimates the power density expected to occur at a distance of 10 meters from the base of the tower, the maximum power density expected from each source, the maximum distance from the base of the tower to the point of maximum power density for each source, and the total worst case (sum of all maximum power densities from all sources, at most distant maximum occurring power density). The power density values are in units of microwatts per square meter at a height of 2 meters above ground level. These levels are also expressed relative to the maximum allowable limit of each of the two environments.

W277BG proposes to operate at 0.038 kW with its antenna located at 68 meters above ground level. A 1-bay Shively 6812B-1 Series antenna is proposed. At 10 meters from the base of the tower, W277BG would contribute 0.33 microwatts per square centimeter at 2 meters above ground level. W277BG would contribute a maximum of 0.35 microwatts per square centimeter at 2 meters above ground level at a point that is 17.8 meters from the base of the tower.

Considering all current and proposed facilities operating from the proposed site, the total contribution of all potential sources of radiation at 10 meters from the base of the tower (controlled environment) is less than 0.33 microwatts per square centimeter at 2 meters above ground level which is only 0.033% of the ANSI limit for the controlled environment.

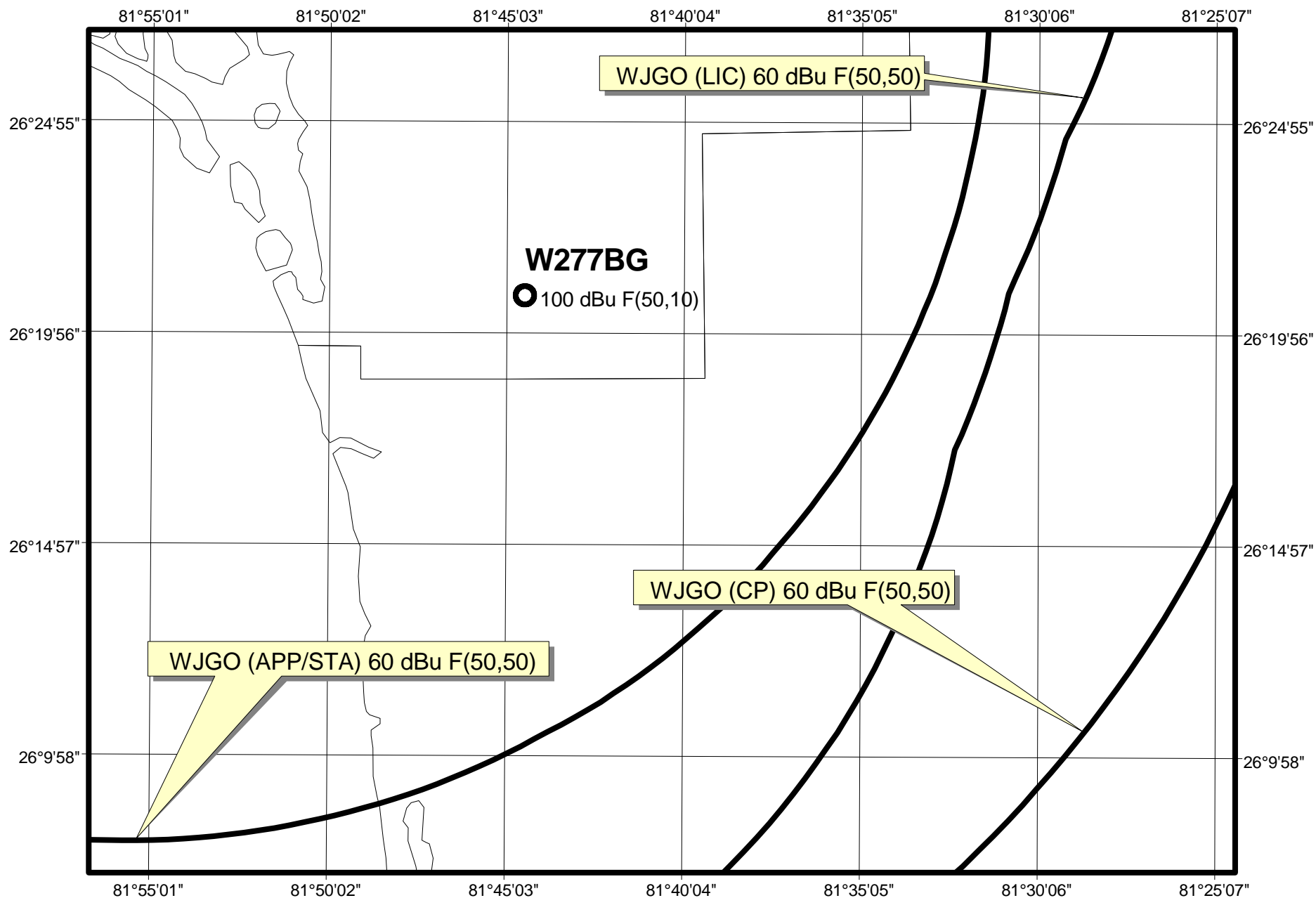
For the uncontrolled environment, the sum of all individual source maximum power densities is 0.35 microwatts per square centimeter at 2 meters above ground level. This represents a worst-case power density level that is less than 0.18% of the ANSI limit for the uncontrolled environment.

Given that access within 10 meters to the site is restricted by a locked fence, and given that no more than 0.35 microwatts per square centimeter at 2 meters above ground level is predicted to occur at any point beyond 17.8 meters from the base of the tower, the total radiation contributed by W277BG would be less than the ANSI limit

for all points in both the controlled and the uncontrolled environments. Therefore, this proposal is fully compliant with the provisions of OST Bulletin #65 as recently amended.

Further to the requirements and intentions of the FCC, W277BG will post appropriate signs at entrances to the property, on the walls and doors of buildings containing transmitters, and on fences warning the public and workers of the potential hazard.

W277BG will require that the power to the antenna be reduced as necessary to accommodate workers or will discontinue operation, if necessary, for this purpose.



0 20 Kilometers

Figure 1A

W277BG, Bonita Springs, FL: MINOR MODIFICATION OF CONSTRUCTION PERMIT
2nd Adjacent Channel Study with respect to WJGO

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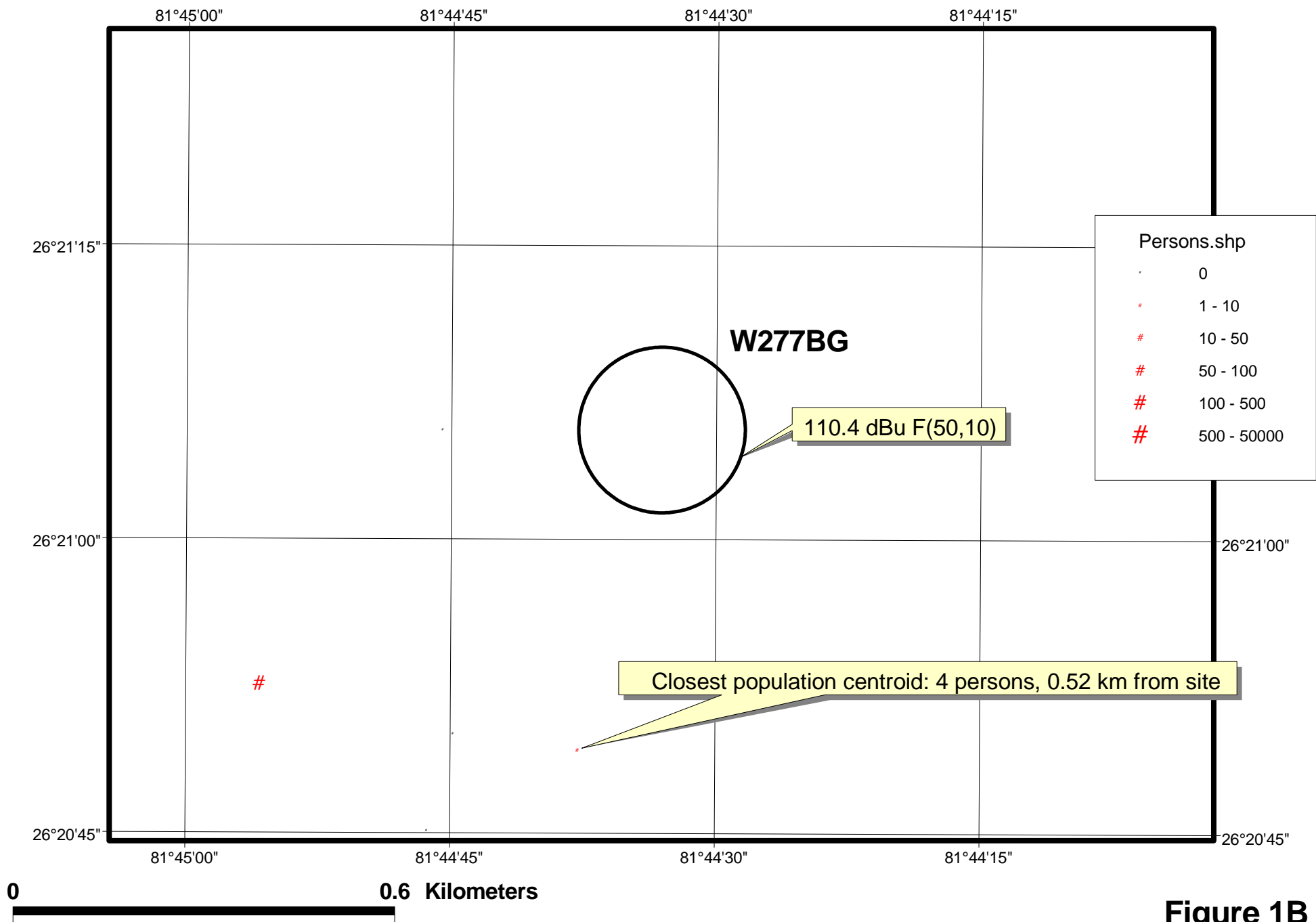
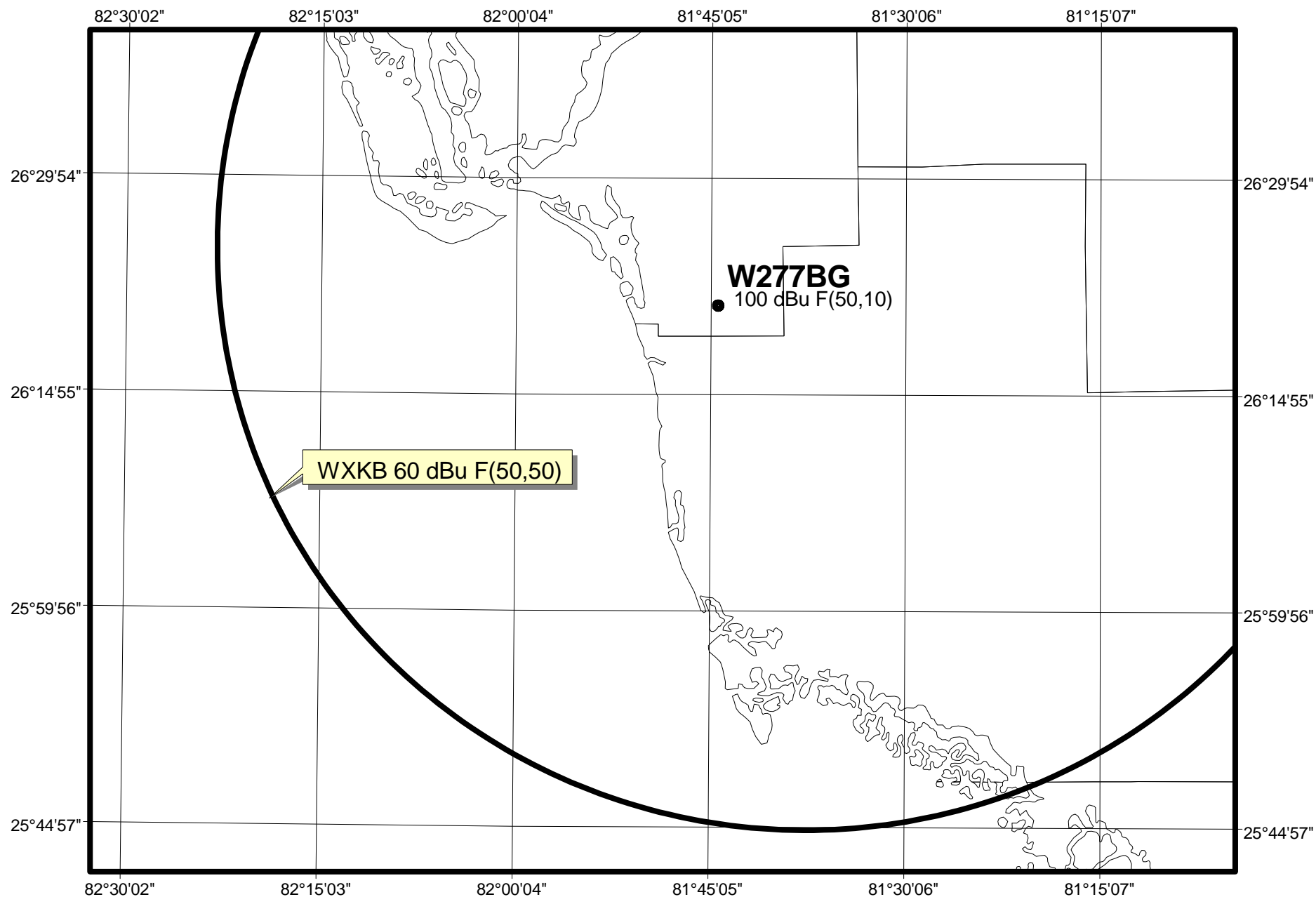


Figure 1B

W277BG, Bonita Springs, FL: MINOR MODIFICATION OF CONSTRUCTION PERMIT
2nd Adjacent Channel Study with respect to WJGO (detail) www.radiodataservices.com





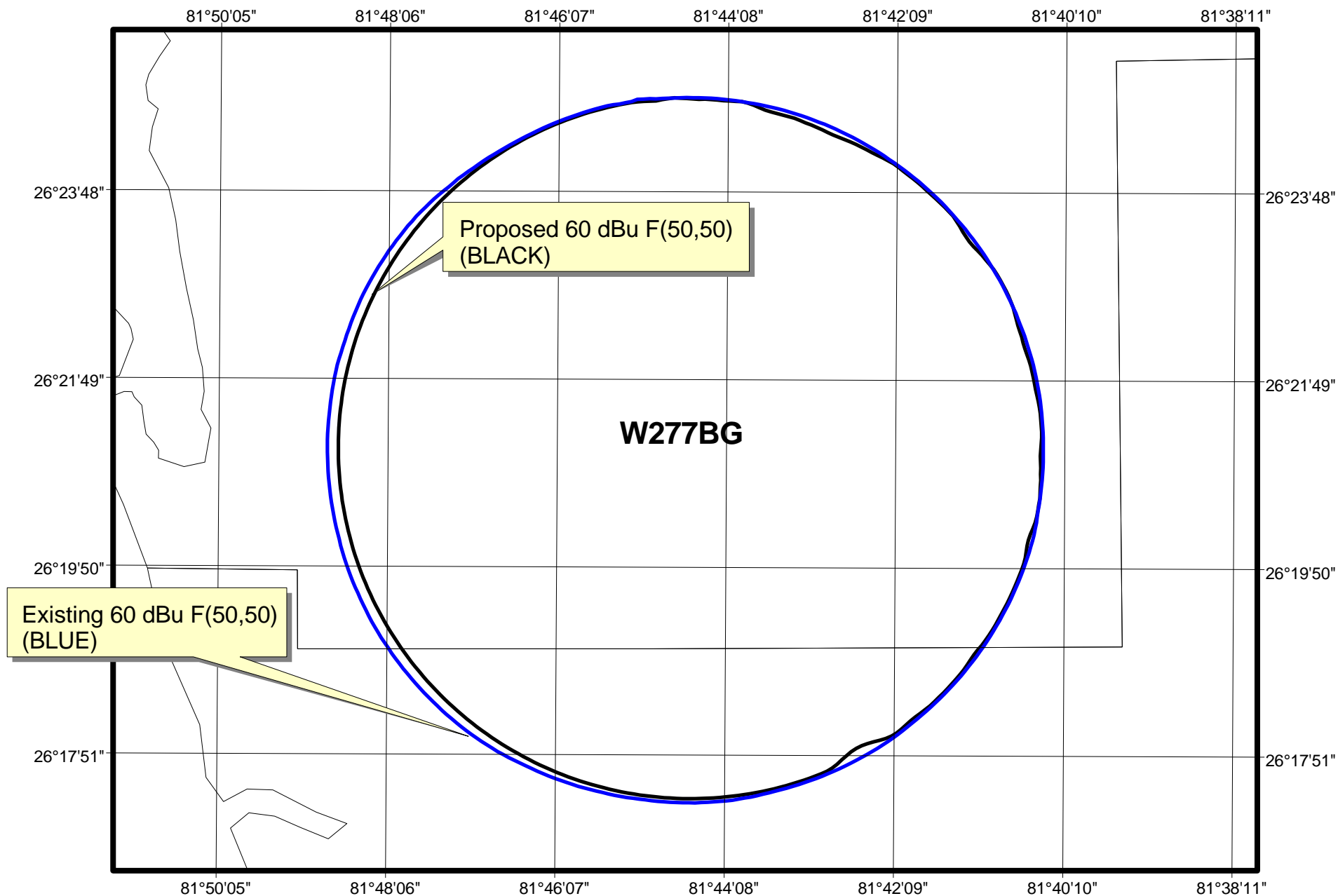
0 50 Kilometers

Figure 2

W277BG, Bonita Springs, FL: MINOR MODIFICATION OF CONSTRUCTION PERMIT
3rd Adjacent Channel Study with respect to WXKB

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0 8 Kilometers

Figure 3

W277BG, Bonita Springs, FL: MINOR MODIFICATION OF CONSTRUCTION PERMIT
Proposed and existing 60 dBu F(50,50) coverage

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Table 1

**W277BG Minor Modification of Construction Permit
Channel Study**

Chan	Class	Call Letters	Type	Status	City	State	Country	Owner	Distance (km)	Bearing TO (deg)	Req. Dist. (km)	Clearance (km)
275	C1	WJGO	FM	CP	TICE	FL	US	REDA BROADCASTING CORP. OF NE'	23.94	309	57.7	-33.8
275	C2	WJGO	FM	LIC	TICE	FL	US	REDA BROADCASTING CORP. OF NE'	23.94	309	47.4	-23.5
275	C2	WJGO	FM	APP	TICE	FL	US	REDA BROADCASTING CORP. OF NE'	23.94	309	41.2	-17.3
277	D	W277BG	FX	CP	BONITA SPRINGS	FL	US	AMERICAN EDUCATIONAL BROADCAST	0	0	30.0	-30.0
277	D	W277AP	FX	LIC	BAYSHORE	FL	US	REACH COMMUNICATIONS, INC.	43.74	350.6	30.2	13.6
280	C	WXKB	FM	LIC	CAPE CORAL	FL	US	WXKB LICENSE LIMITED PARTNERSHII	13.66	54.9	76.0	-62.3

* The area a minor overlap between the proposed facility's interfering contour and the protected contours of WJGO and WXKB occurs over a small area that is more than 0.5 km separated from the nearest population centroid which contains 4 persons. Furthermore, the interfering contour does not contact the ground at any point. Therefore this proposal is compliant with the allowance of Rule 74.1204(d).

Table 2.

Radiofrequency Electromagnetic Exposure Analysis for W277BG

Source	Height AGL(m)	Antenna type	Bays	Horizontal ERP (kw)	Vertical ERP (kw)	Power Density $\mu\text{W}/\text{cm}^2$ at 2 meters AGL				
						at 10 meters distance	% controlled environment limit (1000 $\mu\text{W}/\text{cm}^2$)	Max. PD	% uncontrolled environment limit (200 $\mu\text{W}/\text{cm}^2$)	Distance to maximum PD (m)
W277BG	68	SHIV6812B	1	0.038	0.038	0.330	0.0330%	0.3500	0.18%	17.8
						0.330	0.0330%	0.3500	0.18%	17.8

The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments).

In the absence of specific antenna information, the EPA dipole, single element model is assumed (worst case)

Calculations made using FCC FM Model v2.10 Beta

Table 3.

**W277BG Minor Modification of Construction Permit
Channel Study**

Radial (deg.)	FCC NGDC (30 sec) radial HAAT (m)	MERP per FCC 73.1235(b)1 (watts)	Proposed (watts)
0	72	38	38
30	71	38	38
60	73	38	38
90	72	38	38
120	73	38	38
150	70	38	38
180	73	38	38
210	73	38	38
240	73	38	38
270	73	38	38
300	73	38	38
330	73	38	38
Average HAAT:	72		

Elevation Pattern Tabulation, 6602B and 6812B Single-Bay

Relative Field at 0° Depression = 1.000

Degrees	Rel. Field
1	1.000
2	0.999
3	0.999
4	0.998
5	0.996
6	0.995
7	0.993
8	0.991
9	0.988
10	0.985
11	0.982
12	0.979
13	0.975
14	0.971
15	0.967
16	0.963
17	0.958
18	0.953

Degrees	Rel. Field
19	0.948
20	0.942
21	0.936
22	0.930
23	0.924
24	0.917
25	0.910
26	0.903
27	0.895
28	0.887
29	0.879
30	0.871
31	0.862
32	0.854
33	0.845
34	0.835
35	0.826
36	0.816

Degrees	Rel. Field
37	0.806
38	0.796
39	0.785
40	0.774
41	0.763
42	0.752
43	0.741
44	0.729
45	0.717
46	0.705
47	0.693
48	0.680
49	0.667
50	0.654
51	0.641
52	0.628
53	0.614
54	0.600

Degrees	Rel. Field
55	0.586
56	0.572
57	0.558
58	0.544
59	0.529
60	0.514
61	0.499
62	0.484
63	0.469
64	0.453
65	0.437
66	0.422
67	0.406
68	0.390
69	0.373
70	0.357
71	0.341
72	0.324

Degrees	Rel. Field
73	0.307
74	0.290
75	0.273
76	0.256
77	0.239
78	0.221
79	0.204
80	0.186
81	0.168
82	0.151
83	0.133
84	0.114
85	0.096
86	0.078
87	0.059
88	0.040
89	0.021
90	0.000