

**W229BR
BNPFT-20130826AGF
MINOR MODIFICATION**

This application requests minor changes to the W229BR construction permit to change site, antenna, and HAAT. The translator will function as a fill-in in translator for station WLSS(AM) at Sarasota, FL (facility ID #59126). It is noted that it will overlap the W276CR application which will rebroadcast the same station by less than 50%. Both translators are required to serve the Sarasota-Bradenton area.

Allocation discussion:

All exhibits were developed utilizing the FCC 30 second terrain database.
Allocation exhibits are provided as follows:

- E1 Channel study
- E1A Interference plot to WFLZ-FM on 227C
- E1B Interference to WLLD on 231C
- E1C Aerial view of interference area
- E2 60 dBu and 2 mV/m AM contours
- E3 ASR and NADCON

A channel study is included as E1 demonstrating compliance with 74.1204 with the exception of 2nd adjacent channel stations WFLZ-FM and WLLD. A plot of the proposed and CP 60 dBu contours is provided as E2 showing that the proposed 60 dBu overlaps the long form CP 60 dBu and is contained within the WLSS(AM) 2 mV/m and 25 mile radius.

WFLZ-FM and WLLD analysis:

The proposed channel 229 facility will be located inside the protected contour of 2nd adjacent channel stations WFLZ-FM on 227C and WLLD on 231C. Therefore, an interference analysis has been conducted based on the D/U ratio of +40 dB at the proposed site. The WFLZ-FM contour at that site is 70.86 dBu and the proposed interference contour is 110.86 dBu (50:10). Exhibit E1A demonstrates that the contour does not reach any populated area or major highway with a minimum clearance of 14.9 meters above ground.

The WLLD contour is 72.24 dBu and the proposed interference contour is 112.524 dBu (50:10). Exhibit E1B demonstrates that the interference contour's minimum ground clearance is 21.4 meters above ground. A careful examination of the area using Google earth aerial and street views show that all of the buildings are one story (an aerial photograph is included as E1C). Therefore, since there is no interference to populated areas or major highways, a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

RF Exposure Calculation:

The proposed facility will a two bay Shively SLV-2 circularly polarized 0.75 wavelength antenna at 59 meters AGL. The RF contribution of the proposed translator was calculated using the formula included below and a worst case vertical factor of 1.0 to be 2.04 $\mu\text{Watts}/\text{cm}^2$ or 1.02% of the maximum permissible 200 $\mu\text{Watts}/\text{cm}^2$ exposure for general population/uncontrolled exposure, and less than the 5% requiring consideration.

$$S \text{ (RF in } \mu\text{Watts}/\text{cm}^2) = \frac{33.4 (F^2 - \text{Vertical Factor}) \times (\text{H ERP} + \text{V ERP in Watt})}{R^2 \text{ (distance to radiation center in meters} - 2 \text{ m)}}$$

E1 CHANNEL STUDY Way Media , Inc.											
REFERENCE		CH# 229D - 93.7 MHz, Pwr= 0.099 kw, HAAT= 64.4 M, COR= 69 M								DISPLAY DATES	
27 20 59.0 N.		Average Protected F(50-50)= 8.25 km								DATA 11-06-14	
82 31 23.0 W.		Omni-directional								SEARCH 11-06-14	
CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
229C2 Sanibel	AL8348	RSV-A FL	155.1 335.3	104.04 RM11207	26 30 00.0 82 05 00.0	50.000 150	137.7 150	52.2	-41.8*	24.8	
229D Bayshore Gardens	W229BR	CP FL	107.3 287.3	5.28 BNPFT20130826AGF	27 20 08.0 82 28 19.0	0.099 109	37.1 116	10.9 Way Media , Inc.	-39.8*	-32.1*	
231C Lakeland	WLLD	LIC FL	48.5 228.7	54.34 BLH19950713KB	27 40 23.0 82 06 35.0	100.000 455	12.2 489	83.7 Cbs Radio Stations Inc.	34.1	-30.1*	(1)
227C Tampa	WFLZ-FM	LIC FL	26.3 206.4	58.26 BLH20110317ABC	27 49 09.7 82 15 38.7	100.000 472	12.3 491	84.8 Citicasters Licenses, Inc.	37.7	-27.2*	(2)
229C2 Sanibel	WXNX	LIC FL	144.6 324.9	114.97 BLH20100119ABA	26 30 18.0 81 51 14.0	43.000 145	133.8 146	50.3 Sun Broadcasting Inc	-26.9*	38.2	
229D Riverview	W229BM	LIC FL	24.7 204.8	61.07 BLFT20120904ABO	27 50 54.9 82 15 48.7	0.230 208	37.3 226	11.2 Radio Training Network, In	15.5	22.9	
229C0 Ocala	WOGK	LIC FL	11.4 191.6	217.62 BLH19870915KA	29 16 05.0 82 04 51.0	100.000 411	183.3 430	80.2 Ocala Broadcasting Corpora	25.9	109.6	
229L1 Lakeland	WSEU-LP	CP FL	38.2 218.5	95.88 BNPL20131112BUG	28 01 35.1 81 55 08.9	0.100 22	64	69.3 Southeastern University, I		63.6	
229C2 Vero Beach	WGYL	LIC FL	81.9 262.9	212.00 BLH19911021KD	27 36 04.0 80 23 33.0	50.000 146	136.3 150	50.8 Vero Beach Broadcasters, L	67.7	134.8	

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 protected contour.

- (1) See E1B for disproval of interference to WLLD.
(2) See E1A for disproval of interference to WFLZ-FM.

E1A W229BR Bayshore Gardens , FL

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.099

Translator or LPFM Antenna Height AG = 59 Meters

W229BR Antenna Model = SHI-SLV-2-75% WAVELENGTH

Protected Station's Contour = 70.8595 dBu

Translator's or LPFM's full Interference contour 110.8595

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

Translator/LPFM ERP on the horizon at Review Azimuth = 0.099 kW

Distance between stations = 58.3 km

Protected Station= WFLZ-F, 100 kW, 491 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.0990	199.9137	199.9137	059.000
01.00	0.999	1.0	0.0988	199.7138	199.6834	055.515
02.00	0.996	1.0	0.0982	199.1141	198.9928	052.051
03.00	0.991	1.0	0.0972	198.1145	197.8430	048.631
04.00	0.984	1.0	0.0959	196.7151	196.2359	045.278
05.00	0.975	1.0	0.0941	194.9159	194.1742	042.012
06.00	0.964	1.0	0.0920	192.7168	191.6611	038.856
07.00	0.951	1.0	0.0895	190.1179	188.7008	035.830
08.00	0.936	1.0	0.0867	187.1192	185.2982	032.958
09.00	0.92	1.0	0.0838	183.9206	181.6563	030.228
10.00	0.902	1.0	0.0805	180.3222	177.5827	027.687
11.00	0.882	1.0	0.0770	176.3239	173.0843	025.356
12.00	0.861	1.0	0.0734	172.1257	168.3644	023.213
13.00	0.838	1.0	0.0695	167.5277	163.2340	021.314
14.00	0.814	1.0	0.0656	162.7298	157.8960	019.632
15.00	0.788	1.0	0.0615	157.5320	152.1642	018.228
16.00	0.762	1.0	0.0575	152.3343	146.4331	017.011
17.00	0.734	1.0	0.0533	146.7367	140.3250	016.098
18.00	0.705	1.0	0.0492	140.9392	134.0411	015.447
19.00	0.675	1.0	0.0451	134.9418	127.5899	015.067
20.00	0.645	1.0	0.0412	128.9443	121.1680	014.898
21.00	0.614	1.0	0.0373	122.7470	114.5942	015.011
22.00	0.582	1.0	0.0335	116.3498	107.8776	015.415
23.00	0.55	1.0	0.0299	109.9525	101.2119	016.038
24.00	0.517	1.0	0.0265	103.3554	94.4199	016.962
25.00	0.484	1.0	0.0232	96.7582	87.6927	018.108
26.00	0.451	1.0	0.0201	90.1611	81.0362	019.476
27.00	0.418	1.0	0.0173	83.5639	74.4560	021.063
28.00	0.385	1.0	0.0147	76.9668	67.9576	022.866
29.00	0.353	1.0	0.0123	70.5695	61.7215	024.787
30.00	0.288	1.0	0.0082	57.5751	49.8615	030.212
31.00	0.288	1.0	0.0082	57.5751	49.3515	029.347
32.00	0.256	1.0	0.0065	51.1779	43.4013	031.880
33.00	0.225	1.0	0.0050	44.9806	37.7239	034.502
34.00	0.195	1.0	0.0038	38.9832	32.3185	037.201
35.00	0.165	1.0	0.0027	32.9858	27.0204	040.080
36.00	0.135	1.0	0.0018	26.9884	21.8340	043.137
37.00	0.107	1.0	0.0011	21.3908	17.0834	046.127
38.00	0.08	1.0	0.0006	15.9931	12.6027	049.154
39.00	0.053	1.0	0.0003	10.5954	8.2342	052.332
40.00	0.027	1.0	0.0001	5.3977	4.1349	055.530
41.00	0.003	1.0	0.0000	0.5997	0.4526	058.607
42.00	0.021	1.0	0.0000	0.1982	0.1199	056.191
43.00	0.043	1.0	0.0002	0.5963	0.2869	053.137
44.00	0.064	1.0	0.0004	0.7945	0.2036	050.112
45.00	0.085	1.0	0.0007	0.9927	0.20156	046.984

E1A W229BR (continued)

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
46.00	0.104	1.0	0.0011	020.7910	014.4427	044.044
47.00	0.121	1.0	0.0014	024.1896	016.4972	041.309
48.00	0.138	1.0	0.0019	027.5881	018.4600	038.498
49.00	0.153	1.0	0.0023	030.5868	020.0667	035.916
50.00	0.168	1.0	0.0028	033.5855	021.5883	033.272
51.00	0.181	1.0	0.0032	036.1844	022.7716	030.879
52.00	0.192	1.0	0.0036	038.3834	023.6312	028.753
53.00	0.203	1.0	0.0041	040.5825	024.4231	026.589
54.00	0.212	1.0	0.0044	042.3817	024.9113	024.712
55.00	0.221	1.0	0.0048	044.1809	025.3411	022.809
56.00	0.228	1.0	0.0051	045.5803	025.4882	021.212
57.00	0.234	1.0	0.0054	046.7798	025.4781	019.767
58.00	0.239	1.0	0.0057	047.7794	025.3192	018.481
59.00	0.243	1.0	0.0058	048.5790	025.0201	017.360
60.00	0.246	1.0	0.0060	049.1788	024.5894	016.410
61.00	0.247	1.0	0.0060	049.3787	023.9393	015.812
62.00	0.248	1.0	0.0061	049.5786	023.2757	015.225
63.00	0.248	1.0	0.0061	049.5786	022.5082	014.825
64.00	0.247	1.0	0.0060	049.3787	021.6462	014.619
65.00	0.245	1.0	0.0059	048.9789	020.6994	014.610
66.00	0.242	1.0	0.0058	048.3791	019.6776	014.803
67.00	0.238	1.0	0.0056	047.5795	018.5908	015.203
68.00	0.234	1.0	0.0054	046.6799	017.4866	015.719
69.00	0.229	1.0	0.0052	045.7802	016.4062	016.260
70.00	0.223	1.0	0.0049	044.5808	015.2475	017.108
71.00	0.216	1.0	0.0046	043.1814	014.0585	018.171
72.00	0.209	1.0	0.0043	041.7820	012.9113	019.263
73.00	0.201	1.0	0.0040	040.1827	011.7483	020.573
74.00	0.193	1.0	0.0037	038.5833	010.6350	021.911
75.00	0.184	1.0	0.0034	036.7841	009.5204	023.469
76.00	0.174	1.0	0.0030	034.7850	008.4152	025.248
77.00	0.164	1.0	0.0027	032.7859	007.3752	027.054
78.00	0.153	1.0	0.0023	030.5868	006.3594	029.082
79.00	0.143	1.0	0.0020	028.5877	005.4548	030.938
80.00	0.131	1.0	0.0017	026.1887	004.5476	033.209
81.00	0.12	1.0	0.0014	023.9896	003.7528	035.306
82.00	0.107	1.0	0.0011	021.3908	002.9770	037.817
83.00	0.095	1.0	0.0009	018.9918	002.3145	040.150
84.00	0.082	1.0	0.0007	016.3929	001.7135	042.697
85.00	0.07	1.0	0.0005	013.9940	001.2197	045.059
86.00	0.056	1.0	0.0003	011.1952	000.7809	047.832
87.00	0.043	1.0	0.0002	008.5963	000.4499	050.415
88.00	0.029	1.0	0.0001	005.7975	000.2023	053.206
89.00	0.015	1.0	0.0000	002.9987	000.0523	056.002
90.00	0.0	1.0	0.0000	000.0200	000.0000	058.980

E1B W229BR-WLLD Bayshore Gardens, FL

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.099

Translator or LPFM Antenna Height AG = 59 Meters

W229BR Antenna Model = SHI-SLV-2-75% WAVELENGTH

Protected Station's Contour = 72.24324 dBu

Translator's or LPFM's full Interference contour 112.24324

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

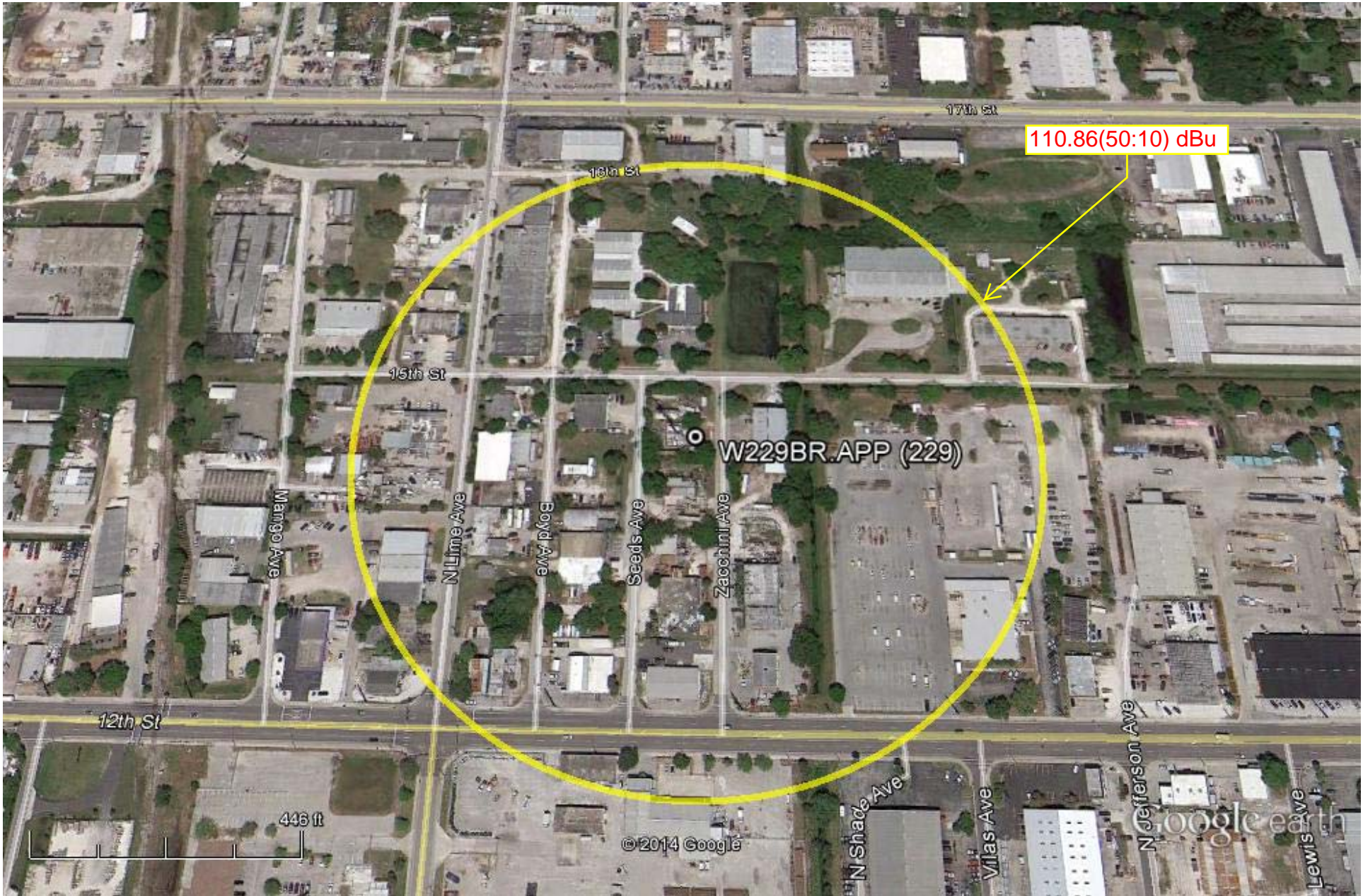
Translator/LPFM ERP on the horizon at Review Azimuth = 0.099 kW

Distance between stations = 54.3 km

Protected Station= WLLD, 100 kW, 489 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.0990	170.4730	170.4730	059.000
05.00	0.975	1.0	0.0941	166.2112	165.5787	044.514
10.00	0.902	1.0	0.0805	153.7666	151.4306	032.299
15.00	0.788	1.0	0.0615	134.3327	129.7554	024.232
20.00	0.645	1.0	0.0412	109.9551	103.3240	021.393
25.00	0.484	1.0	0.0232	082.5089	074.7785	024.130
30.00	0.288	1.0	0.0082	049.0962	042.5186	034.452
35.00	0.165	1.0	0.0027	028.1280	023.0411	042.866
40.00	0.027	1.0	0.0001	004.6028	003.5259	056.041
45.00	0.085	1.0	0.0007	014.4902	010.2461	048.754
50.00	0.168	1.0	0.0028	028.6395	018.4091	037.061
55.00	0.221	1.0	0.0048	037.6745	021.6092	028.139
60.00	0.246	1.0	0.0060	041.9364	020.9682	022.682
65.00	0.245	1.0	0.0059	041.7659	017.6510	021.147
70.00	0.223	1.0	0.0049	038.0155	013.0021	023.277
75.00	0.184	1.0	0.0034	031.3670	008.1184	028.702
80.00	0.131	1.0	0.0017	022.3320	003.8779	037.007
85.00	0.07	1.0	0.0005	011.9331	001.0400	047.112
90.00	0.0	1.0	0.0000	000.0170	000.0000	058.983

E1C AERIAL VIEW OF MAXIMUM INTERFERENCE AREA



Google earth



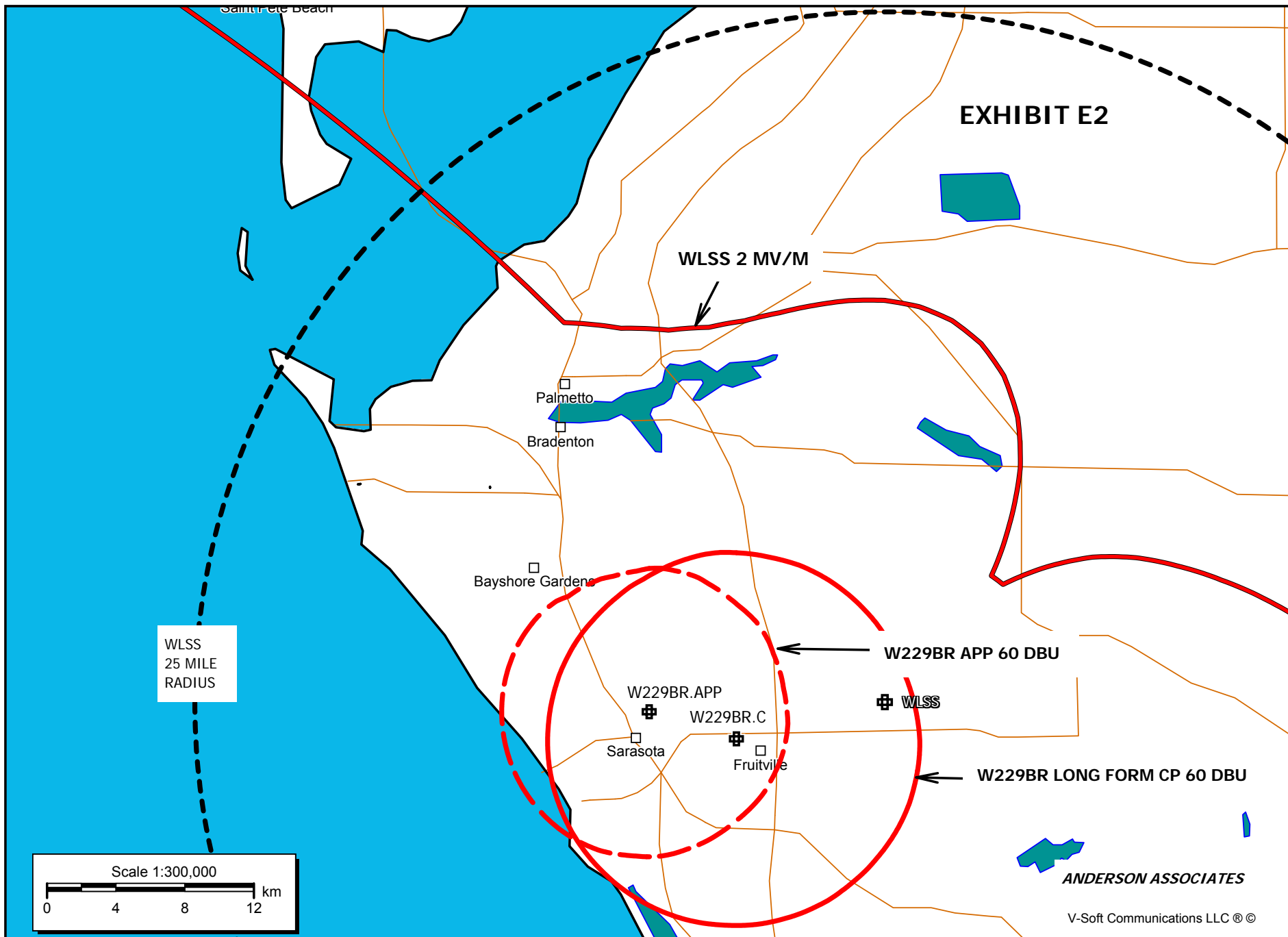


EXHIBIT E2

WLSS 2 MV/M

Palmetto

Bradenton

Bayshore Gardens

W229BR.APP

W229BR.C

Sarasota

Fruitville

W229BR APP 60 DBU

WLSS

W229BR LONG FORM CP 60 DBU

WLSS
25 MILE
RADIUS

Scale 1:300,000

0 4 8 12 km

ANDERSON ASSOCIATES

V-Soft Communications LLC ® ©

E3 Registration 1219465

 [Map Registration](#)

Registration Detail

Reg Number	1219465	Status	Constructed
File Number	A0603428	Constructed	05/22/2002
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	27-21-00.3 N 082-31-22.7 W	Address	1337 Zacchini Avenue (Sarasota - ACME / 023903)
City, State	Sarasota , FL		
Zip	34237	County	SARASOTA
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
9.7	60.4
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
70.1	60.1

Painting and Lighting Specifications

None

FAA Notification

FAA Study	2002-ASO-5547-OE	FAA Issue Date	10/02/2002
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Owner & Contact Information

FRN	0011498342	Owner Entity Type
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Owner

American Towers, LLC.	P: (678)265-6770
Attention To: FAA/FCC Compliance Team	F:
1898 Leland Drive	E: bridget.carter@americantower.com
Marietta , GA 30067	

Contact

Department , Compliance	P: (678)265-6770
1898 Leland Drive	F:
Marietta , GA 30067	E: bridget.carter@americantower.com

Last Action Status

Status	Constructed	Received	08/04/2008
Purpose	Admin Update	Entered	08/04/2008
Mode	Interactive		

Related Applications

08/04/2008	A0603428	- Admin Update (AU)
05/11/2006	A0504489	- Admin Update (AU)
12/07/2004	A0417836	- Admin Update (AU)
Related applications (14)		

Output from NADCON for station W229BR

North American Datum Conversion

NAD 83 to NAD 27

NADCON Program Version 2.11

Transformation #: 1 Region: Conus

	Latitude	Longitude
NAD 27 datum values:	27 20 59.13684	82 31 23.35099
NAD 83 datum values:	27 21 0.30000	82 31 22.70000
NAD 27 - NAD 83 shift values:	-1.16316	0.65099(secs.)
	-35.802	17.893 (meters)
Magnitude of total shift:		40.024(meters)



NGS HOME PAGE