

Technical Report W287CX Minor Modification

This technical report is submitted for a minor modification to W287CX , FCC file no. BLFT-20161011ABU. A move to the -54 I.F. channel 233 with corresponding changes in tower site, COR, antenna and ERP are submitted. The translator will continue to serve as a fill-in facility to rebroadcast WYCT(FM) 254C1 at Pensacola, FL, FCC facility I.D. no. 539.

W287CX Modification Analysis:

An overlap study in exhibit E-1 shows the W287CX modification at channel 233 is within the WKSJ-FM 235C and WMEZ(FM) 231C0 second-adjacent protected contours. The +40 dBu interfering contours calculated in exhibits E-2 and E-3 show the interfering contours do not reach any population, major roads or buildings (exhibit E-4). The modified 60 dBu contour overlaps the licensed W287CX 60 dBu contour and is contained within the primary WYCT(FM) 60 dBu contour (exhibit E-5).

Antenna System:

W287CX is to be relocated to the existing tower, ASR no. 1064772, at coordinates:

30 35 18N 87 04 19W NAD 27.

A Nicom BKG77 single bay, nondirectional antenna will be mounted at a COR AGL of 140 meters, 167 meters AMSL and operate at 0.250 kW ERP.

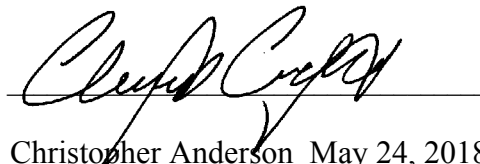
RF Exposure Calculation:

The RF contribution was calculated using FM Model (exhibit E-6). The worst-case RF is calculated to be $0.241 \mu\text{W}/\text{cm}^2$ at a distance of 142 meters from the base of the

tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for uncontrolled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the W287CX modification complies with all Commission rules and policies.

A handwritten signature in black ink, appearing to read 'Christopher Anderson', is written over a horizontal line.

Christopher Anderson May 24, 2018
andersce@bham.rr.com
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E-1 W287CX Mod. Overlap Study

REFERENCE		CH# 233D - 94.5 MHz, Pwr= 0.25 kW, HAAT= 152.0 M, COR= 167 M						DISPLAY DATES		
30 35 18.0 N.		Average Protected F(50-50)= 16.02 km						DATA 05-24-18		
87 04 19.0 W.		Omni -di rectional						SEARCH 05-24-18		
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* (in km)
233D Milton	W287CX	CP _C_ FL	339.3 159.3	3.99 BPFT20161014ACS	30 37 19.0 87 05 12.0	0.250		---	Reference---	
							158	Adx Communications Of Pens		
233D Milton	W287CX	APP _C_ FL	0.0 0.0	0.00 BMPFT20180510AAA	30 35 18.0 87 04 19.0	0.250		---	Reference---	
							57	Adx Communications Of Pens		
233D Milton	W287CX	APP _C_ FL	0.0 0.0	0.00 BMPFT20180510AAA	30 35 18.0 87 04 19.0	0.250		---	Reference---	
							57	Adx Communications Of Pens		
235C Mobile	WKSJ-FM	LIC NC_ AL	272.9 92.7	54.93 BLH20060627ACX	30 36 45.0 87 38 43.0	100.000 521	12.9 553	88.7 Cc Licenses, Lic, As Debto	25.8	-34.9*(1)
231C0 Pensacola	WMEZ	LIC NCX FL	273.0 92.7	51.28 BLH20071114ACD	30 36 40.0 87 36 26.0	77.000 488	11.7 520	84.0 Cumulus Licensing Lic	23.3	-33.8*(2)
233C2 Jackson	WHOD	LIC NC_ AL	325.6 145.3	120.76 BLH19991102ABM	31 28 59.0 87 47 27.0	30.000 195	136.3 257	55.3 Radio Center Of Jackson, I	-31.0*	14.5
233C0 Parker	WFLF-FM	LIC _CX FL	115.7 296.6	194.01 BLH20070606ABP	29 49 09.0 85 15 34.0	100.000 303	172.3 304	72.6 Clear Chan. B/casting Lic	5.1	68.3
232D Fort Walton Beach	W232CF	APP _C_ FL	109.8 290.0	46.22 BPFT20180315AAM	30 26 49.0 86 37 05.0	0.250	16.2 93	11.2 Omni Broadcasting, Lic	13.4	10.0
232D Fort Walton Beach	W232CF	APP _C_ FL	114.4 294.6	46.76 BPFT20180411AAL	30 24 50.0 86 37 40.0	0.098	12.9 93	9.3 Omni Broadcasting, Lic	17.2	12.8
232D Fort Walton Beach	W232CF	LIC _C_ FL	114.4 294.6	46.76 BLFT20120613ABA	30 24 50.0 86 37 40.0	0.098 80	12.5 87	8.9 Omni Broadcasting, Lic	17.7	13.1
233D Mobile	1777082	APP _C_ AL	277.6 97.0	103.50 BNPFT20180125AFO	30 42 24.0 88 08 43.0	0.250	41.1 87	12.0 Archangel Communications,	46.2	39.7
233D Fairhope	1777259	APP _C_ AL	276.8 96.2	99.69 BNPFT20180130ACT	30 41 23.5 88 06 26.8	0.250	25.5 36	7.6 Cumulus Licensing Lic	58.0	40.1
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.										

- (1) The +40 114.05 F(50-10) dBu contour within the WKSJ-FM 235C second-adjacent protected contour (exhibit E-2) does not reach any population, roads or buildings (exhibit E-4).
- (2) The +40 113.62 F(50-10) dBu contour within the WMEZ(FM) 231C0 second-adjacent protected contour (exhibit E-3) does not reach any population, roads or buildings (exhibit E-4).

E-2 +40 dBu Tabulation Within WKSJ-FM 235C

W287CX Milton, FL, Showing Protection to WKSJ-FM
Geographic Coordinates: N.30 35 18.00 W.87 04 19.00
74.1204(d) Study - Using FCC 30 SEC Terrain Database
Translator or LPFM Maximum Licensed ERP = 0.25
Translator or LPFM Antenna Height AG = 140 Meters
W287CX Antenna Model = BKG-77-1

Protected Station's Contour = 74.05209 dBu
Translator's or LPFM's full Interference contour 114.05209

Review Azimuth = 0 Degrees True
Relative Field on the horizon at Review Azimuth = 1.000
Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW
Distance between stations = 54.9 km
Protected Station= WKSJ-FM, 100 kW, 553.4 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	0.2500	219.9710	219.9710	140.000
05.00	0.999	1.0	0.2495	219.7511	218.9149	120.847
10.00	0.982	1.0	0.2411	216.0116	212.7299	102.490
15.00	0.954	1.0	0.2275	209.8524	202.7018	085.686
20.00	0.918	1.0	0.2107	201.9334	189.7553	070.935
25.00	0.872	1.0	0.1901	191.8147	173.8432	058.936
30.00	0.818	1.0	0.1673	179.9363	155.8294	050.032
35.00	0.758	1.0	0.1436	166.7381	136.5838	044.363
40.00	0.691	1.0	0.1194	152.0000	116.4387	042.296
45.00	0.616	1.0	0.0949	135.5022	095.8145	044.186
50.00	0.538	1.0	0.0724	118.3444	076.0703	049.343
55.00	0.465	1.0	0.0541	102.2865	058.6691	056.212
60.00	0.391	1.0	0.0382	086.0087	043.0043	065.514
65.00	0.313	1.0	0.0245	068.8509	029.0977	077.600
70.00	0.239	1.0	0.0143	052.5731	017.9811	090.597
75.00	0.176	1.0	0.0077	038.7149	010.0202	102.604
80.00	0.129	1.0	0.0042	028.3763	004.9275	112.055
85.00	0.103	1.0	0.0027	022.6570	001.9747	117.429
90.00	0.004	1.0	0.0000	000.8799	000.0000	139.120

E-3 +40 dBu Tabulation Within WMEZ(FM) 231C0

W287CX Milton, FL, Showing Protection to WMEZ
Geographic Coordinates: N.30 35 18.00 W.87 04 19.00
74.1204(d) Study - Using FCC 30 SEC Terrain Database
Translator or LPFM Maximum Licensed ERP = 0.25
Translator or LPFM Antenna Height AG = 140 Meters
W287CX Antenna Model = BKG-77-1

Protected Station's Contour = 73.61745 dBu
Translator's or LPFM's full Interference contour 113.61745

Review Azimuth = 0 Degrees True
Relative Field on the horizon at Review Azimuth = 1.000
Translator/LPFM ERP on the horizon at Review Azimuth = 0.25 kW
Distance between stations = 51.3 km
Protected Station= WMEZ, 77 kW, 520 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	0.2500	231.2584	231.2584	140.000
05.00	0.999	1.0	0.2495	231.0271	230.1480	119.865
10.00	0.982	1.0	0.2411	227.0957	223.6456	100.565
15.00	0.954	1.0	0.2275	220.6205	213.1030	082.899
20.00	0.918	1.0	0.2107	212.2952	199.4922	067.391
25.00	0.872	1.0	0.1901	201.6573	182.7636	054.776
30.00	0.818	1.0	0.1673	189.1694	163.8255	045.415
35.00	0.758	1.0	0.1436	175.2939	143.5923	039.456
40.00	0.691	1.0	0.1194	159.7995	122.4136	037.283
45.00	0.616	1.0	0.0949	142.4552	100.7310	039.269
50.00	0.538	1.0	0.0724	124.4170	079.9737	044.691
55.00	0.465	1.0	0.0541	107.5352	061.6796	051.912
60.00	0.391	1.0	0.0382	090.4220	045.2110	061.692
65.00	0.313	1.0	0.0245	072.3839	030.5907	074.398
70.00	0.239	1.0	0.0143	055.2708	018.9037	088.062
75.00	0.176	1.0	0.0077	040.7015	010.5343	100.685
80.00	0.129	1.0	0.0042	029.8323	005.1803	110.621
85.00	0.103	1.0	0.0027	023.8196	002.0760	116.271
90.00	0.004	1.0	0.0000	000.9250	000.0000	139.075

E-4 +40 dBu Contour Aerial Photo

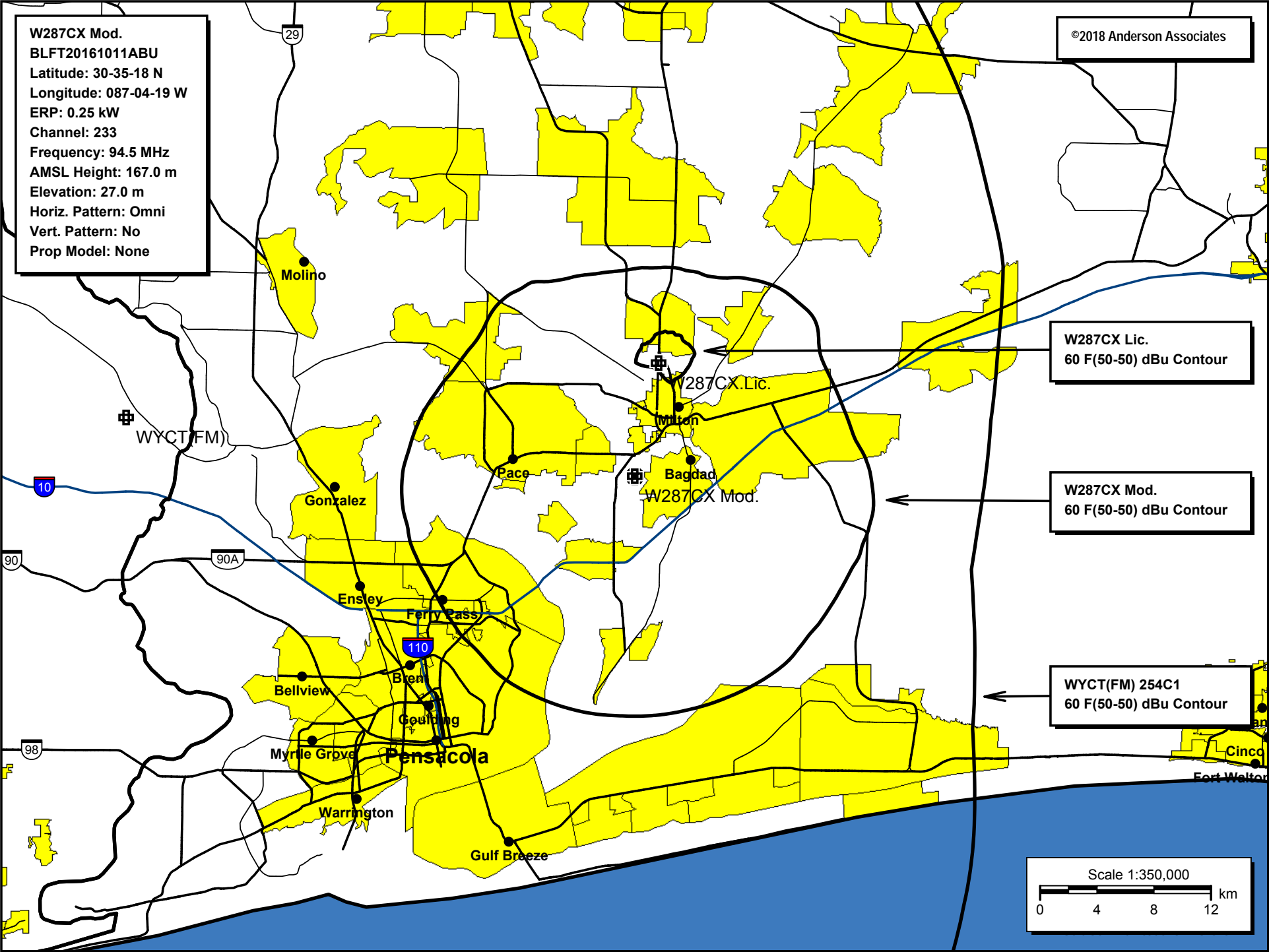


Google Earth

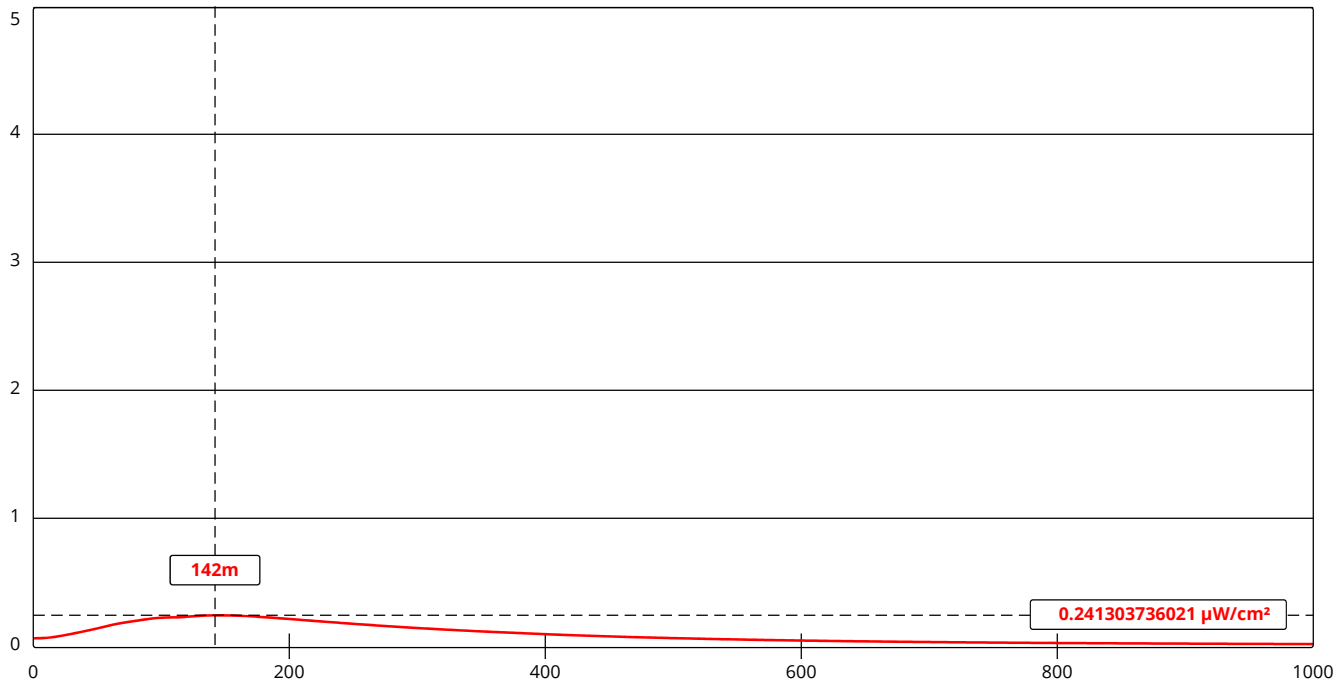
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300 m

E-5 W287CX Mod. 60 dBu Contour Plot



FM Model



Channel Selection	Channel 233 (94.5 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	140	Distance (m)	1000
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		

ASR Registration 1064772

Registration Detail

Reg Number	1064772	Status	Constructed
File Number	A0551384	Constructed	05/24/2007
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

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

Location (in NAD83 Coordinates)

Lat/Long	30-35-19.1 N 087-04-18.8 W	Address	6000 FAIRLANDS RD
City, State	MILTON , FL		
Zip	32583	County	SANTA ROSA
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
27.4	150.9
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
178.3	144.8

Painting and Lighting Specifications

FAA Chapters 4, 6, 12
Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2007-ASO-2147-OE	FAA Issue Date	05/23/2007
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Owner & Contact Information

FRN	0005428511	Owner Entity Type
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Owner

SANTA ROSA, COUNTY OF	P: (850)983-5372
Attention To: Sheryl A. Bracewell	F:
4499 PINE FOREST RD	E:
MILTON , FL 32583	

Contact

Lynch , Josie	P: (301)309-2380
P.O. Box 1714	F:
Rockville , MD 20849	E: plcinc@aol.com

Last Action Status

Status	Constructed	Received	06/06/2007
Purpose	Notification	Entered	06/06/2007