

0 200 400ft

Scale 1:9,028



0 100 200ft

Scale 1:4,514

Exhibit 13.2

Vertical Plan of Antenna System

The site is located at the intersection of Whistler Avenue and William Street, the city of Prichard, Mobile County, Alabama.

Site Location (NAD 27)

NL: 30° 44' 44"

WL: 88° 05' 40"

(30-44-45.0 NL; 88-05-40.0 WL NAD1983)

Proposed Antenna
COR: 46 meters AMSL
max HAAT: N/A (AM Fill-in status)

163.3 meters AMSL

NOTE: Existing Tower Construction

Antenna Structure Registration No.

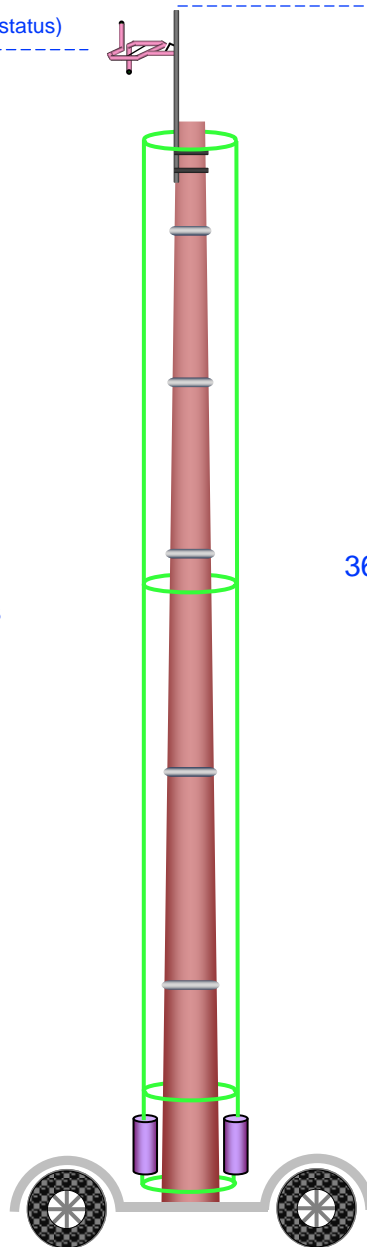
Not Required

Please reference
WASG(AM) & WIJD(AM) STA's
BSTA-20121102AAO
BSTA-20121102AAJ

This W239AP Translator Antenna will be mounted on a Model SR-106 telescoping tower. The tower itself is 106 feet high atop a trailer height of 4 feet. A 10-foot pole will be mounted on top of the tower for use by W239AP. The AM portion of the construction consists of a 3-wire skirt mounted 110 feet above ground. Diplexing of the two (2) AM Stations, WASG(AM) and WIJD(AM), is proposed as outlined in STA's BSTA-20121102AAO and BSTA-20121102AAJ.

35 meters

36.6 meters AGL
(120 feet)



Ground Elevation = 10.9 m AMSL

Drawing is not to Scale

MUNN-REESE, INC.

Broadcast Engineering Consultants
Coldwater, MI 49036

W239AP.L
BLFT20080307AAY
Latitude: 30-45-09 N
Longitude: 088-12-15 W
ERP: 0.019 kW
Channel: 239
Frequency: 95.7 MHz
AMSL Height: 122.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

60 dBu Contour
Total Population: 34,110
Total Area: 117 sq. km

W239AP.P
Proposed Operation
Latitude: 30-44-44 N
Longitude: 088-05-40 W
ERP: 0.099 kW
Channel: 239
Frequency: 95.7 MHz
AMSL Height: 46.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

60 dbu Contour
Total Population: 54,179
Total Area: 122 sq. km

Exhibit 13.3 Present vs. Proposed Service Contour Study

Present 60 dBu F(50:50)

Proposed 60 dBu F(50:50)

W239AP.L

W239AP.P

Chickasaw

Prichard

Mobile

Spanish Fort

Daphn

Tillmans Corner

Scale 1:185,000



NED 03 sec terrain database
US Census 2010 PL database

Terrain

-2 96 m



Exhibit 13.4 Proposed vs. Primary Service Contour Study

WIJD(AM)
Prichard, AL
FAC ID: 53144
Freq: 1270 kHz
PRICHARD, AL, US
Hours: D
Lat: 30-44-44 N
Lng: 088-05-40 W
Power: 5.0 kW
Theo RMS: 297.73 mV/m
@ 1km @ 1kW

W239AP.P
Proposed Operation
Latitude: 30-44-44 N
Longitude: 088-05-40 W
ERP: 0.099 kW
Channel: 239
Frequency: 95.7 MHz
AMSL Height: 46.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

NED 03 SEC terrain database
US Census 2010 PL database

Scale 1:425,000
0 5 10 15 km

Terrain
-5 111 m

25 mile AM Site Radius

2 mV/m Daytime Contour

Proposed 60 dBu F(50:50)

WIJD(AM)
W239AP.P
+

Mobile



Exhibit 13.5

Tabulation of Proposed Fill-In Translator Allocation

Alabama Radio Corporation											
REFERENCE		CH# 239D - 95.7 MHz, Pwr= 0.099 kW, HAAT= 29.5 M, COR= 46 M							DISPLAY DATES		
30 44 44.0 N.		Average Protected F(50-50)= 5.62 km							DATA 11-02-12		
88 05 40.0 W.		Omni -directional							SEARCH 11-05-12		
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*
241C Mobile	WRKH	LI C _C_ AL		103.9 284.1	26.02 BLH20050615ACP	30 41 20.0 87 49 49.0	77.000 535	12.2 569	87.6 Cc Licenses, Lic	7.1	-62.2*<
239D Mobile	W239AP	CP _C_ AL		0.0 0.0	0.00 BMPFT20120820AAI	30 44 44.0 88 05 40.0	0.099	38.2 131	11.2 Alabama Radio Corporation	-44.3*	-31.4*
239D Mobile	W239AP	LI C _C_ AL		274.2 94.2	10.51 BLFT20080307AAY	30 45 09.0 88 12 15.0	0.019 83	23.6 122	7.1 Alabama Radio Corporation	-18.7*	-15.1
239C3 Navarre	WKFP	LI C _CN FL		105.3 285.9	122.01 BLH19990803KK	30 27 02.0 86 51 59.0	25.000 86	112.8 104	38.3 550 Am, Inc.	2.4	61.0
239C New Orleans	R15111	DEL _ _ LA		244.1 63.1	206.73	29 55 11.0 90 01 29.0	100.000 600	197.7 600	91.8 Blakeney Communications, I	3.4	96.4
Triggered to Class C0 by application BPH-20120705AC, WBBN, Taylorsville, MS											
237C0 Lumberton	WZNF	LI C ZCX MS		270.7 90.2	91.94 BLH20080212ABV	30 45 05.0 89 03 24.0	100.000 435	12.1 482	82.8 Jmd, Inc.	74.3	8.4
239C New Orleans	WKBU	LI C _C_ LA		244.1 63.1	206.73 BMLH20031124APE	29 55 11.0 90 01 29.0	100.000 300	171.9 300	72.3 Entercom New Orleans Licen	29.2	115.9
238C3 Thomasville	WJDB-FM	LI C NCN AL		15.9 196.0	115.02 BLH19940316KD	31 44 25.0 87 45 43.0	9.600 160	53.6 253	35.3 Griffin Broadcasting Corpo	55.0	70.4
240C1 Taylorsville	WBBN	APP ZCX MS		307.3 126.6	164.42 BPH20050613ADQ	31 38 03.0 89 28 35.0	100.000 223	89.0 310	60.1 Blakeney Communications, I	69.8	96.4
Dismissed 3/18/2008 by DA 08-588											
240C1 Taylorsville	WBBN	LI C ZCX MS		307.3 126.6	164.42 BLH20120418AAE	31 38 03.0 89 28 35.0	100.000 223	85.8 310	58.0 Blakeney Communications, I	73.0	98.5
240C1 Taylorsville	WBBN	APP ZCX MS		307.3 126.6	164.42 BPH20120705ACI	31 38 03.0 89 28 35.0	100.000 223	85.8 310	58.0 Blakeney Communications, I	73.0	98.5
239A Fort Deposit	WKXN	CP _CX AL		44.3 225.0	187.96 BPH20100106AFK	31 56 52.0 86 42 09.0	2.100 171	81.1 283	27.9 Autaugaville Radio, Inc.	100.1	137.4
One Step Application											
237D Brewton	W237BE	LI C _C_ AL		67.9 248.5	109.60 BLFT20070405AAA	31 06 42.6 87 01 38.9	0.002 82	0.1 130	3.6 Divine Word Communications	102.6	105.3
236C2 Marion	WKZB	LI C NCN MS		342.3 162.0	183.94 BLH19900222KB	32 19 12.0 88 41 27.0	26.000 182	5.3 307	48.7 New South Communications,	173.0	134.5
240A Greenville	WKXN	LI C _CN AL		47.9 228.7	183.86 BMLH19900228KC	31 50 43.0 86 38 56.0	4.000 69	34.5 192	22.9 Autaugaville Radio, Inc.	142.6	151.2
238C Jackson	WHLH	LI C _CX MS		307.8 126.6	274.89 BLH20031106AKR	32 14 26.0 90 24 15.0	100.000 451	121.8 540	82.0 Capstar Tx Lic	147.4	184.9

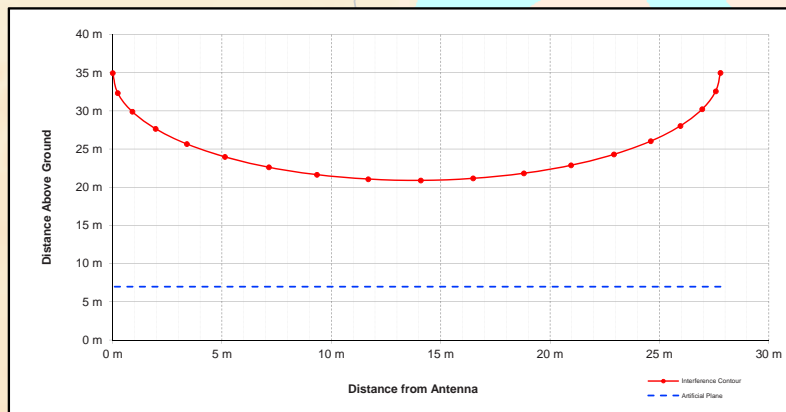
Terrain database is NED 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference zone= East Zone, Co to 3rd adjacent.
 All separation margins (if shown) include rounding
 Ant Column: (D= DA Standard, 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.
 < = Contour Overlap
 Reference station has protected zone issue:

Blue Highlighted text denotes W239AP filings representing the facility to be modified by this minor change proposal.
 This filings need not be protected.

Yellow highlighted text denotes a §74.1204(d) Waiver Request for given second adjacent channel interference to WRKH(FM) - Mobile, AL (CH241C) as included in **Exhibit 13.6**. Full protection will be afforded the facility as the calculated interference area will not reach the ground nor a 7 meter artificial plane representing a standard two story building when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the antenna manufacturer specifications have been included in **Exhibit 13.7**.

WRKH(FM) - 88.0 dBu F(50:50)

W239AP.P



Proposed Antenna: 1-Bay Shively 6812-B Fully spaced									
Proposed Power: 0.099 kW									
Antenna Height AGL: 35 meters									
Interference Contour: 128 dBu F(50:10)									
Artificial Ground Plane Height: 7 meters									
Distance (Free Space) Equation: $= (10^4 \cdot ((106.92 - (\text{desired dBu}) + [\text{ERP in dBk}] / 20)) \cdot 1000$									
Field Strength (dBu) Equation: $= 106.92 - (20 \cdot (\text{LOG10}(\text{DistMeters} / 1000))) + [\text{ERP in dBk}]$									
Depression Angle	Antenna Relative	ERP	ERP	Distance from Ant. to Interference Contour	Distance from Ant. to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant. to Ground Level	Field Strength in dBu @ Ground Level	
Below Horizon	Field	in kW	in dBk						
0°	1.000	0.099	-10.04	27.79 m	infinite	---	---	---	
-5°	0.996	0.098	-10.08	27.67 m	321.26 m	106.70 dBu	401.58 m	104.77 dBu	
-10°	0.985	0.096	-10.17	27.37 m	161.25 m	112.60 dBu	201.56 m	110.66 dBu	
-15°	0.967	0.093	-10.34	26.87 m	108.18 m	115.90 dBu	135.23 m	113.96 dBu	
-20°	0.942	0.088	-10.56	26.17 m	81.87 m	118.10 dBu	102.33 m	116.16 dBu	
-25°	0.910	0.082	-10.86	25.28 m	66.25 m	119.63 dBu	82.82 m	117.69 dBu	
-30°	0.871	0.075	-11.24	24.20 m	56.00 m	120.71 dBu	70.00 m	118.77 dBu	
-35°	0.826	0.068	-11.70	22.95 m	48.82 m	121.44 dBu	61.02 m	119.51 dBu	
-40°	0.774	0.059	-12.27	21.51 m	43.56 m	121.87 dBu	54.45 m	119.93 dBu	
-45°	0.717	0.051	-12.93	19.92 m	39.60 m	122.03 dBu	49.50 m	120.10 dBu	
-50°	0.654	0.042	-13.73	18.17 m	36.55 m	121.93 dBu	45.69 m	119.99 dBu	
-55°	0.586	0.034	-14.69	16.28 m	34.18 m	121.56 dBu	42.73 m	119.62 dBu	
-60°	0.514	0.026	-15.82	14.28 m	32.33 m	120.90 dBu	40.41 m	118.96 dBu	
-65°	0.437	0.019	-17.23	12.14 m	30.89 m	119.89 dBu	38.62 m	117.95 dBu	
-70°	0.357	0.013	-18.99	9.92 m	29.80 m	118.45 dBu	37.25 m	116.51 dBu	
-75°	0.273	0.007	-21.32	7.59 m	28.99 m	116.36 dBu	36.23 m	114.42 dBu	
-80°	0.186	0.003	-24.65	5.17 m	28.43 m	113.19 dBu	35.54 m	111.25 dBu	
-85°	0.096	0.001	-30.40	2.67 m	28.11 m	107.55 dBu	35.13 m	105.61 dBu	
-90°	0.001	0.000	-70.04	0.03 m	28.00 m	67.93 dBu	35.00 m	65.99 dBu	



NED 03 sec terrain database
US Census 2010 PL database

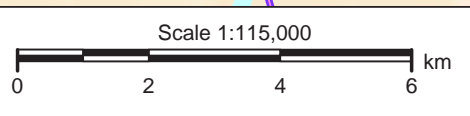


Exhibit 13.6

§74.1204(d) 2nd Adjacent Channel Given Interference Waiver Request Study Toward WRKH(FM) - Mobile, AL

W239AP.P
Proposed Operation
Latitude: 30-44-44 N
Longitude: 088-05-40 W
ERP: 0.099 kW
Channel: 239
Frequency: 95.7 MHz
AMSL Height: 46.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

WRKH(FM)
BLH20050615ACP
Latitude: 30-41-20 N
Longitude: 087-49-49 W
ERP: 77.00 kW
Channel: 241
Frequency: 96.1 MHz
AMSL Height: 569.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

WRKH(FM)
+

The Interference Contour corresponding to WRKH(FM) - Mobile, AL (CH241C) Protected Contour at the proposed Translator operational site has been calculated to be no more than the 128.0 dBu F(50:10) Interference Contour corresponding to the WRKH(FM) 88.0 dBu F(50:50) Protected Contour. This represents the proposed interference contour which falls wholly within the 40:1 dBu ratio. As seen on the map and associated vertical protection study, full protection will be afforded the WRKH(FM) facility as the calculated interference area will not reach the ground nor a 7 meter artificial plane representing a standard two story building when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the antenna manufacturer's vertical radiation pattern has been included in **Exhibit 13.7**.

Exhibit 13.7 - Proposed Directional Antenna Information
(Vertical Radiation Pattern as supplied by the Antenna Manufacturer)



Shively Labs

Antenna Mfr.: Shively Labs

Date: 12/30/2004

Antenna Type: 6812B or 6602B 1-Bay, full-wave-spaced

Frequency: 98.1

6812B Gain (Max) 0.46 -3.37 dB

6602B Gain (Max) 0.92 -0.36 dB

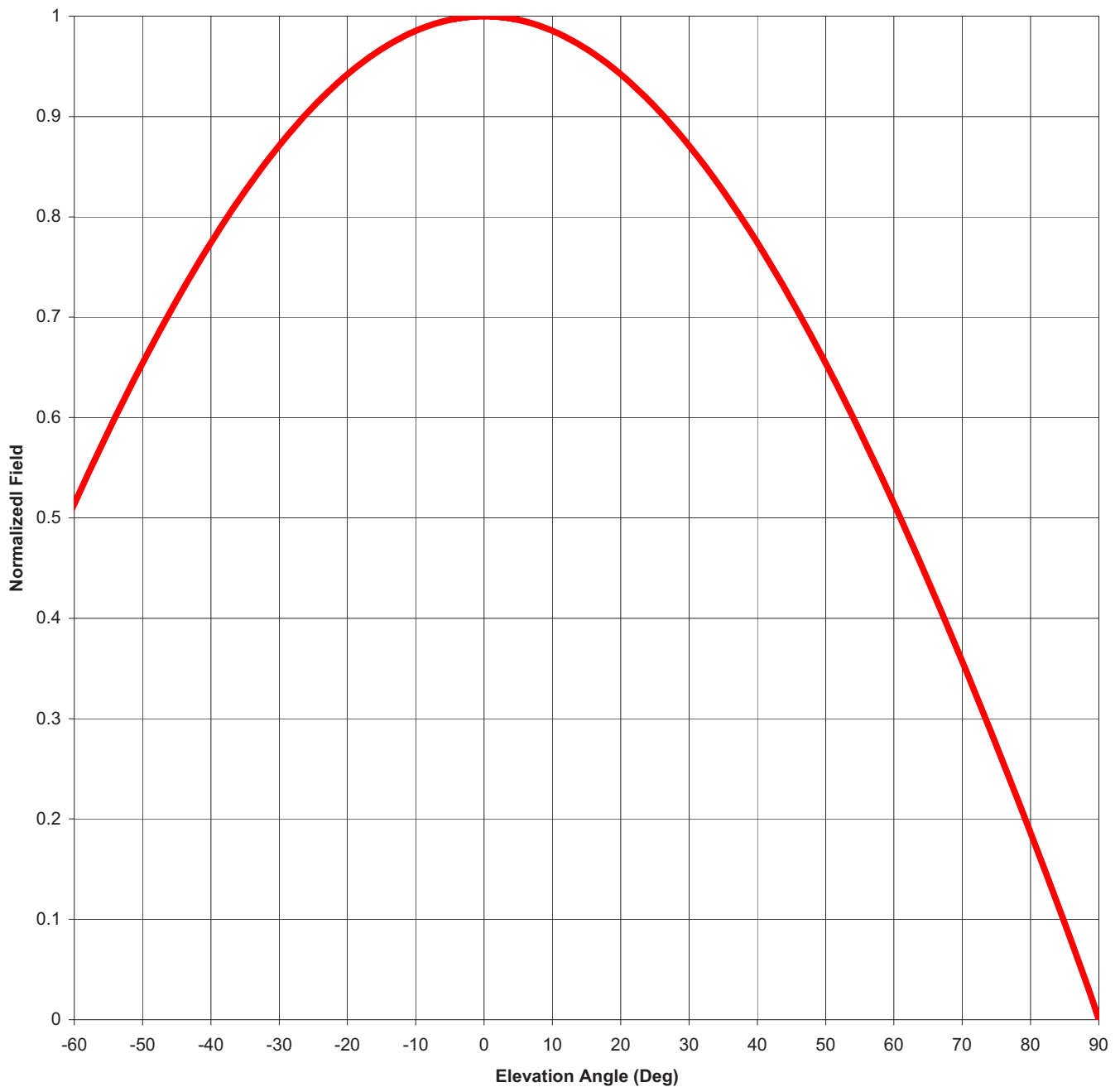


Exhibit 13.7 - Proposed Directional Antenna Information (Vertical Radiation Pattern as supplied by the Antenna Manufacturer)



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