

MINOR CHANGE APPLICATION
REQUEST FOR CHANNEL DISPLACEMENT
LAKE MURRAY BROADCASTING, INC.
WLXM-LP LPFM RADIO STATION
CH 291L1 - 106.1 MHZ - 0.015 KW
LEXINGTON, SOUTH CAROLINA
May 2011

EXHIBIT A

Waiver of §73.807(a)

As shown on Exhibit A1, Channel 291L1 can be implemented at the proposed/existing WLXM-LP site and meet the Commission's spacing requirements to all stations, with the exception of a shortage to station WTCB, Channel 294C1, Orangeburg, South Carolina and a minute shortage to WEKL, Channel 289C0, Augusta, Georgia. As will be shown, neither WTCB nor WEKL will receive interference from the proposed WLXM-LP facility.

The predicted contour of WTCB at the proposed/existing WLXM-LP site, as shown on Exhibit A2, is 73.6 dBu (50/50). Applying a ratio of 40 dBu to this contour, the corresponding interfering contour of the LPFM station, operating at 0.015 kilowatt, is the 113.6 dBu (50/10) contour. The WLXM-LP interfering contour extends 0.057 kilometer (187.0 feet) from the proposed site. However, due to the proposed channel change, WLXM-LP will be replacing its existing antenna with an Electronics Research, Inc., Model 100-2 HW two bay half wavelength antenna system. The vertical elevation pattern and tabulation are attached as Exhibit A3. As indicated on Exhibit A4, based on the vertical elevation pattern of the proposed antenna system,

MINOR CHANGE APPLICATION
REQUEST FOR CHANNEL DISPLACEMENT
LAKE MURRAY BROADCASTING, INC.
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LEXINGTON, SOUTH CAROLINA
May 2011

EXHIBIT A1

Spacing Review for WLXM-LP Lexington, South Carolina
Using Present Site as Reference

REFERENCE		CLASS = L1	DISPLAY DATES
33 59 14.0 N.			DATA 05-09-11
81 14 50.0 W.	Current	Spacings to 3rd Adj.	SEARCH 05-09-11
----- Channel 291 - 106.1 MHZ -----			

Call Lat.	Channel Lng.	Location Ant	Power	Azi HAAT	Dist	FCC	Margin
WTCB	LIC-D 294C1 33 46 52.0	Orangeburg 80 55 14.0	SC DCN 100.000 kW	127.1	37.9	73.0	-35.1
	Radio License Holding CBC		BMLH-19981203KA		240 M		
WEKL	LIC 289C0 33 25 17.0	Augusta 81 50 19.0	GA CN 100.000 kW	221.2	83.3	84.0	-0.7
	Capstar TX LLC		BMLH-20090107AGS		371 M		
WFMV	LIC-Z 237A 33 53 58.0	South Congaree 81 13 29.0	SC ZC 6.000 kW	168.0	10.0	6.0	4.0
	Glory Communications, Inc.		BLH-20010725AEF		100 M		
640268	APP 288D 34 00 23.0	Columbia 81 00 44.0	SC C 0.250 kW	84.3	21.8	14.0	7.8
	Glory Communications, Inc.		BNPFT-20030317AFG		33 M		
631977	APP-D 290D 34 09 04.0	Columbia 80 54 37.0	SC DC 0.250 kW	59.5	36.0	28.0	8.0
	Capstar TX Limited Partner		BNPFT-20030314BVE		107 M		
634883	APP 290D 34 02 38.0	Columbia 80 59 51.0	SC C 0.027 kW	74.6	23.9	15.0	8.9
	Community Public Radio, Inc.		BNPFT-20030311AUT		66 M		
631071	APP 290D 34 03 27.0	Columbia 80 58 36.0	SC C 0.013 kW	72.5	26.2	15.0	11.2
	Capstar TX Limited Partnership		BNPFT-20030314BRS		132 M		
WFMV	CP -Z 237A 33 52 34.0	South Congaree 81 04 28.0	SC ZCX 1.900 kW	127.7	20.2	6.0	14.2
	Glory Communications, Inc.		BPH-20081009AOR		80 M		
WOLS	LIC-N 291C2 34 53 01.0	Waxhaw 80 47 37.0	NC NCX 21.000 kW	22.5	107.8	91.0	16.8
	GHB of Waxhaw, Inc.		BLH-20081014ADN		188 M		
WNIR-LP	LIC 238L1 34 17 03.0	Newberry 81 37 16.0	SC 0.058 kW	313.9	47.7	0.0	47.7
	Newberry College		BLL-20060213ABR		39 M		

WLXM-LP Proposed
Latitude: 33-59-14 N
Longitude: 081-14-50 W
ERP: 0.015 kW
Channel: 291L1
Frequency: 106.1 MHz
AMSL Height: 187.6 m
Horiz. Pattern: Omni
Prop Model : FCC

Graham Brock, Inc. - Broadcast Technical Consultants

WTCB
BMLH-19981203KA
Latitude: 33-46-52 N
Longitude: 080-55-14 W
ERP: 100.00 kW
Channel: 294C1
Frequency: 106.7 MHz
AMSL Height: 304.0 m
Horiz. Pattern: Directional
Prop Model : FCC

WTCB 73.6 dBu

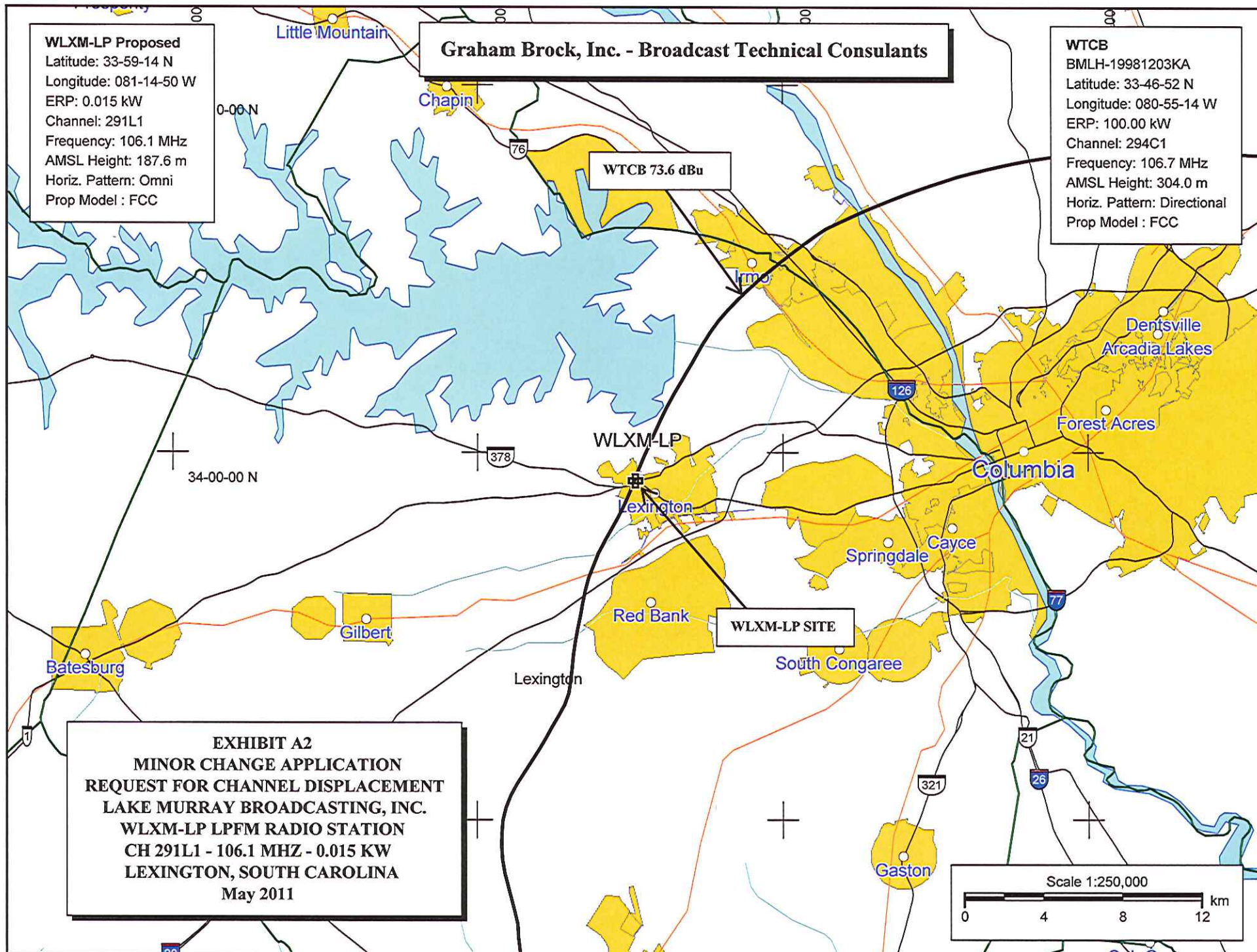
WLXM-LP

WLXM-LP SITE

EXHIBIT A2
MINOR CHANGE APPLICATION
REQUEST FOR CHANNEL DISPLACEMENT
LAKE MURRAY BROADCASTING, INC.
WLXM-LP LPFM RADIO STATION
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Scale 1:250,000

0 4 8 12 km



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EXHIBIT A2A

Predicted contours:

N. Lat. = 33 59 14 - Tabulated Service and Interfering Contour Data
W. Lng. = 81 14 50 - WLXM-LP LPFM station - Lexington, South Carolina

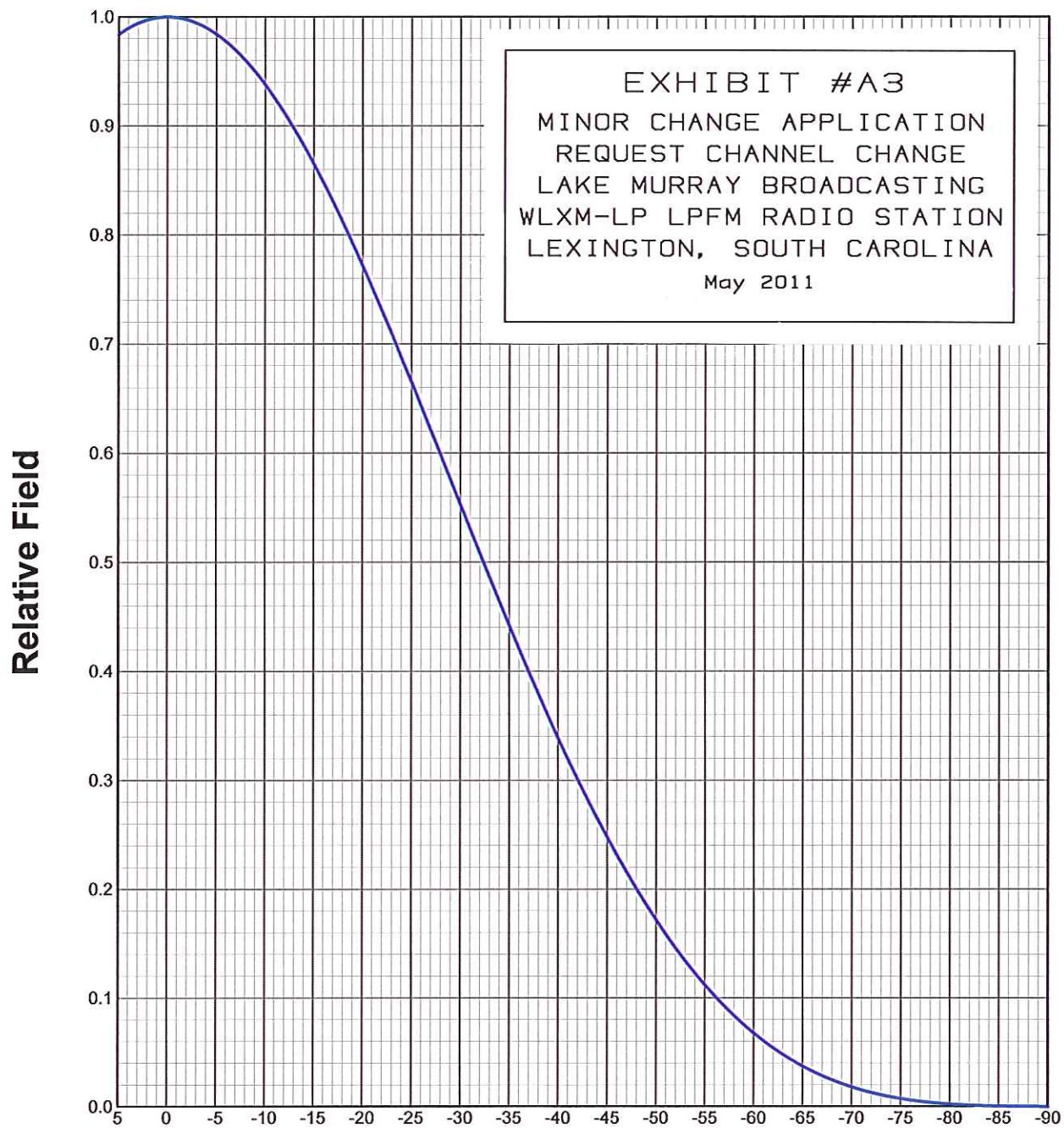
HAAT and Distance to Contour - NGDC 30 Second terrain database								
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	100-F1	113.6-F1
000	112.6	75.0	0.0150	-18.24	1.000	5.57	0.27	0.057
010	114.9	72.7	0.0150	-18.24	1.000	5.48	0.27	0.057
020	101.4	86.2	0.0150	-18.24	1.000	5.97	0.27	0.057
030	88.7	98.9	0.0150	-18.24	1.000	6.42	0.27	0.057
040	83.6	104.0	0.0150	-18.24	1.000	6.59	0.27	0.057
050	82.3	105.3	0.0150	-18.24	1.000	6.63	0.27	0.057
060	74.3	113.3	0.0150	-18.24	1.000	6.87	0.27	0.057
070	77.3	110.3	0.0150	-18.24	1.000	6.78	0.27	0.057
080	84.1	103.5	0.0150	-18.24	1.000	6.57	0.27	0.057
090	92.8	94.8	0.0150	-18.24	1.000	6.28	0.27	0.057
100	90.2	97.4	0.0150	-18.24	1.000	6.37	0.27	0.057
110	86.4	101.2	0.0150	-18.24	1.000	6.49	0.27	0.057
120	82.6	105.0	0.0150	-18.24	1.000	6.62	0.27	0.057
130	77.5	110.1	0.0150	-18.24	1.000	6.78	0.27	0.057
140	88.2	99.4	0.0150	-18.24	1.000	6.44	0.27	0.057
150	91.4	96.2	0.0150	-18.24	1.000	6.33	0.27	0.057
160	105.5	82.1	0.0150	-18.24	1.000	5.83	0.27	0.057
170	110.1	77.5	0.0150	-18.24	1.000	5.66	0.27	0.057
180	109.6	78.0	0.0150	-18.24	1.000	5.68	0.27	0.057
190	117.8	69.8	0.0150	-18.24	1.000	5.38	0.27	0.057
200	118.2	69.4	0.0150	-18.24	1.000	5.36	0.27	0.057
210	126.1	61.5	0.0150	-18.24	1.000	5.07	0.27	0.057
220	129.9	57.7	0.0150	-18.24	1.000	4.92	0.27	0.057
230	138.4	49.2	0.0150	-18.24	1.000	4.51	0.27	0.057
240	136.2	51.4	0.0150	-18.24	1.000	4.63	0.27	0.057
250	143.5	44.1	0.0150	-18.24	1.000	4.24	0.27	0.057
260	159.4	28.2	0.0150	-18.24	1.000	3.48	0.27	0.057
270	150.5	37.1	0.0150	-18.24	1.000	3.86	0.27	0.057
280	133.9	53.7	0.0150	-18.24	1.000	4.74	0.27	0.057
290	125.9	61.7	0.0150	-18.24	1.000	5.08	0.27	0.057
300	121.5	66.1	0.0150	-18.24	1.000	5.24	0.27	0.057
310	118.1	69.5	0.0150	-18.24	1.000	5.36	0.27	0.057
320	116.0	71.6	0.0150	-18.24	1.000	5.44	0.27	0.057
330	116.3	71.3	0.0150	-18.24	1.000	5.43	0.27	0.057
340	116.3	71.3	0.0150	-18.24	1.000	5.43	0.27	0.057
350	112.1	75.5	0.0150	-18.24	1.000	5.58	0.27	0.057

AMSL= 187.6 M

ELEVATION PATTERN

Type: 1002H
Directivity: Numeric dBd
Main Lobe: 0.63 -1.99
Horizontal: 0.63 -1.99

Channel: 291
Location: Lexington, South Carolina
Beam Tilt: 0.00
Polarization: Circular



Preliminary, subject to final design and review.

TABULATED DATA FOR ELEVATION PATTERN

Type: 1002H

Polarization: Circular

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
5.00	0.984	-0.14	-6.75	0.971	-0.25	-27.00	0.621	-4.14	-50.50	0.165	-15.63	-74.00	0.009	-40.92
4.75	0.986	-0.13	-7.00	0.969	-0.27	-27.50	0.609	-4.30	-51.00	0.159	-15.98	-74.50	0.008	-41.76
4.50	0.987	-0.11	-7.25	0.967	-0.29	-28.00	0.598	-4.46	-51.50	0.152	-16.34	-75.00	0.007	-42.63
4.25	0.989	-0.10	-7.50	0.965	-0.31	-28.50	0.587	-4.63	-52.00	0.146	-16.70	-75.50	0.007	-43.52
4.00	0.990	-0.09	-7.75	0.962	-0.33	-29.00	0.576	-4.80	-52.50	0.140	-17.07	-76.00	0.006	-44.43
3.75	0.991	-0.08	-8.00	0.960	-0.36	-29.50	0.564	-4.97	-53.00	0.134	-17.44	-76.50	0.005	-45.37
3.50	0.992	-0.07	-8.25	0.957	-0.38	-30.00	0.553	-5.15	-53.50	0.129	-17.82	-77.00	0.005	-46.33
3.25	0.993	-0.06	-8.50	0.955	-0.40	-30.50	0.542	-5.33	-54.00	0.123	-18.21	-77.50	0.004	-47.32
3.00	0.994	-0.05	-8.75	0.952	-0.43	-31.00	0.530	-5.51	-54.50	0.117	-18.60	-78.00	0.004	-48.33
2.75	0.995	-0.04	-9.00	0.949	-0.45	-31.50	0.519	-5.69	-55.00	0.112	-19.00	-78.50	0.003	-49.38
2.50	0.996	-0.03	-9.25	0.947	-0.48	-32.00	0.508	-5.88	-55.50	0.107	-19.40	-79.00	0.003	-50.45
2.25	0.997	-0.03	-9.50	0.944	-0.50	-32.50	0.497	-6.07	-56.00	0.102	-19.81	-79.50	0.003	-51.56
2.00	0.997	-0.02	-9.75	0.941	-0.53	-33.00	0.486	-6.27	-56.50	0.097	-20.23	-80.00	0.002	-52.70
1.75	0.998	-0.02	-10.00	0.938	-0.56	-33.50	0.475	-6.47	-57.00	0.093	-20.66	-80.50	0.002	-53.87
1.50	0.999	-0.01	-10.50	0.932	-0.61	-34.00	0.464	-6.67	-57.50	0.088	-21.09	-81.00	0.002	-55.08
1.25	0.999	-0.01	-11.00	0.925	-0.67	-34.50	0.453	-6.88	-58.00	0.084	-21.53	-81.50	0.002	-56.32
1.00	0.999	-0.01	-11.50	0.919	-0.74	-35.00	0.442	-7.09	-58.50	0.080	-21.98	-82.00	0.001	-57.60
0.75	1.000	0.00	-12.00	0.912	-0.80	-35.50	0.431	-7.30	-59.00	0.076	-22.43	-82.50	0.001	-58.91
0.50	1.000	0.00	-12.50	0.905	-0.87	-36.00	0.421	-7.52	-59.50	0.072	-22.89	-83.00	0.001	-60.26
0.25	1.000	0.00	-13.00	0.897	-0.94	-36.50	0.410	-7.74	-60.00	0.068	-23.36	-83.50	0.001	-61.65
0.00	1.000	0.00	-13.50	0.889	-1.02	-37.00	0.400	-7.97	-60.50	0.064	-23.84	-84.00	0.001	-63.08
-0.25	1.000	0.00	-14.00	0.882	-1.09	-37.50	0.389	-8.20	-61.00	0.061	-24.33	-84.50	0.001	-64.53
-0.50	1.000	0.00	-14.50	0.874	-1.17	-38.00	0.379	-8.43	-61.50	0.057	-24.82	-85.00	0.001	-66.02
-0.75	1.000	0.00	-15.00	0.865	-1.26	-38.50	0.369	-8.67	-62.00	0.054	-25.33	-85.50	0.000	-67.53
-1.00	0.999	-0.01	-15.50	0.857	-1.34	-39.00	0.359	-8.91	-62.50	0.051	-25.84	-86.00	0.000	-69.05
-1.25	0.999	-0.01	-16.00	0.848	-1.43	-39.50	0.349	-9.15	-63.00	0.048	-26.36	-86.50	0.000	-70.57
-1.50	0.999	-0.01	-16.50	0.839	-1.52	-40.00	0.339	-9.40	-63.50	0.045	-26.89	-87.00	0.000	-72.09
-1.75	0.998	-0.02	-17.00	0.830	-1.62	-40.50	0.329	-9.65	-64.00	0.042	-27.44	-87.50	0.000	-73.58
-2.00	0.997	-0.02	-17.50	0.821	-1.72	-41.00	0.320	-9.91	-64.50	0.040	-27.99	-88.00	0.000	-75.03
-2.25	0.997	-0.03	-18.00	0.811	-1.82	-41.50	0.310	-10.17	-65.00	0.037	-28.55	-88.50	0.000	-76.41
-2.50	0.996	-0.03	-18.50	0.802	-1.92	-42.00	0.301	-10.43	-65.50	0.035	-29.12	-89.00	0.000	-77.71
-2.75	0.995	-0.04	-19.00	0.792	-2.03	-42.50	0.292	-10.70	-66.00	0.033	-29.71	-89.50	0.000	-78.92
-3.00	0.994	-0.05	-19.50	0.782	-2.14	-43.00	0.283	-10.97	-66.50	0.031	-30.30	-90.00	0.000	-80.02
-3.25	0.993	-0.06	-20.00	0.772	-2.25	-43.50	0.274	-11.25	-67.00	0.028	-30.91			
-3.50	0.992	-0.07	-20.50	0.762	-2.36	-44.00	0.265	-11.53	-67.50	0.027	-31.53			
-3.75	0.991	-0.08	-21.00	0.751	-2.48	-44.50	0.256	-11.82	-68.00	0.025	-32.16			
-4.00	0.990	-0.09	-21.50	0.741	-2.60	-45.00	0.248	-12.11	-68.50	0.023	-32.81			
-4.25	0.989	-0.10	-22.00	0.730	-2.73	-45.50	0.240	-12.41	-69.00	0.021	-33.47			
-4.50	0.987	-0.11	-22.50	0.720	-2.86	-46.00	0.232	-12.71	-69.50	0.020	-34.14			
-4.75	0.986	-0.13	-23.00	0.709	-2.99	-46.50	0.224	-13.01	-70.00	0.018	-34.83			
-5.00	0.984	-0.14	-23.50	0.698	-3.12	-47.00	0.216	-13.32	-70.50	0.017	-35.53			
-5.25	0.983	-0.15	-24.00	0.687	-3.26	-47.50	0.208	-13.64	-71.00	0.015	-36.25			
-5.50	0.981	-0.17	-24.50	0.676	-3.40	-48.00	0.201	-13.96	-71.50	0.014	-36.98			
-5.75	0.979	-0.18	-25.00	0.665	-3.54	-48.50	0.193	-14.28	-72.00	0.013	-37.73			
-6.00	0.977	-0.20	-25.50	0.654	-3.69	-49.00	0.186	-14.61	-72.50	0.012	-38.50			
-6.25	0.975	-0.22	-26.00	0.643	-3.84	-49.50	0.179	-14.95	-73.00	0.011	-39.29			
-6.50	0.973	-0.23	-26.50	0.632	-3.99	-50.00	0.172	-15.29	-73.50	0.010	-40.09			

Preliminary, subject to final design and review.

CALL: WLXM-LP
 POWER (Watts): 15 0° radial
 ANTENNA AGL (m): 50.6
 Desired Contour (dBu) 113.6

INPUT FROM MFG

DEPRESSION ANGLE	ANTENNA RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE TO INTERFERING CONTOUR (m)	HORIZONTAL DISTANCE FROM TOWER (m)	VERTICAL DISTANCE FROM GROUND (m)
5	0.987	14.6	-18.35	55.9	55.7	45.7
10	0.950	13.5	-18.68	53.8	53.0	41.3
15	0.891	11.9	-19.24	50.5	48.7	37.5
20	0.814	9.9	-20.03	46.1	43.3	34.8
25	0.723	7.8	-21.06	40.9	37.1	33.3
30	0.624	5.8	-22.34	35.3	30.6	32.9
35	0.523	4.1	-23.87	29.6	24.3	33.6
40	0.423	2.7	-25.71	24.0	18.4	35.2
45	0.330	1.6	-27.87	18.7	13.2	37.4
50	0.247	0.9	-30.39	14.0	9.0	39.9
55	0.176	0.5	-33.33	10.0	5.7	42.4
60	0.118	0.2	-36.80	6.7	3.3	44.8
65	0.073	0.1	-40.97	4.1	1.7	46.9
70	0.040	0.0	-46.20	2.3	0.8	48.5
75	0.019	0.0	-52.66	1.1	0.3	49.6
80	0.007	0.0	-61.34	0.4	0.1	50.2
85	0.001	0.0	-78.24	0.1	0.0	50.5
90	0.000	0.0	-118.24	0.0	0.0	50.6

WORST CASE HEIGHT AGL (m) 32.9

EXHIBIT #A4
 MINOR CHANGE APPLICATION
 REQUEST CHANNEL CHANGE
 LAKE MURRAY BROADCASTING
 WLXM-LP LPFM RADIO STATION
 LEXINGTON, SOUTH CAROLINA
 May 2011

WEKL
BMLH-20090107AGS
Latitude: 33-25-17 N
Longitude: 081-50-19 W
ERP: 100.00 kW
Channel: 289C0
Frequency: 105.7 MHz
AMSL Height: 454.0 m
Horiz. Pattern: Omni
Prop Model : FCC

Graham Brock, Inc. - Broadcast Technical Consultants

WLXM-LP Proposed
Latitude: 33-59-14 N
Longitude: 081-14-50 W
ERP: 0.015 kW
Channel: 291L1
Frequency: 106.1 MHz
AMSL Height: 187.6 m
Horiz. Pattern: Omni
Prop Model : FCC

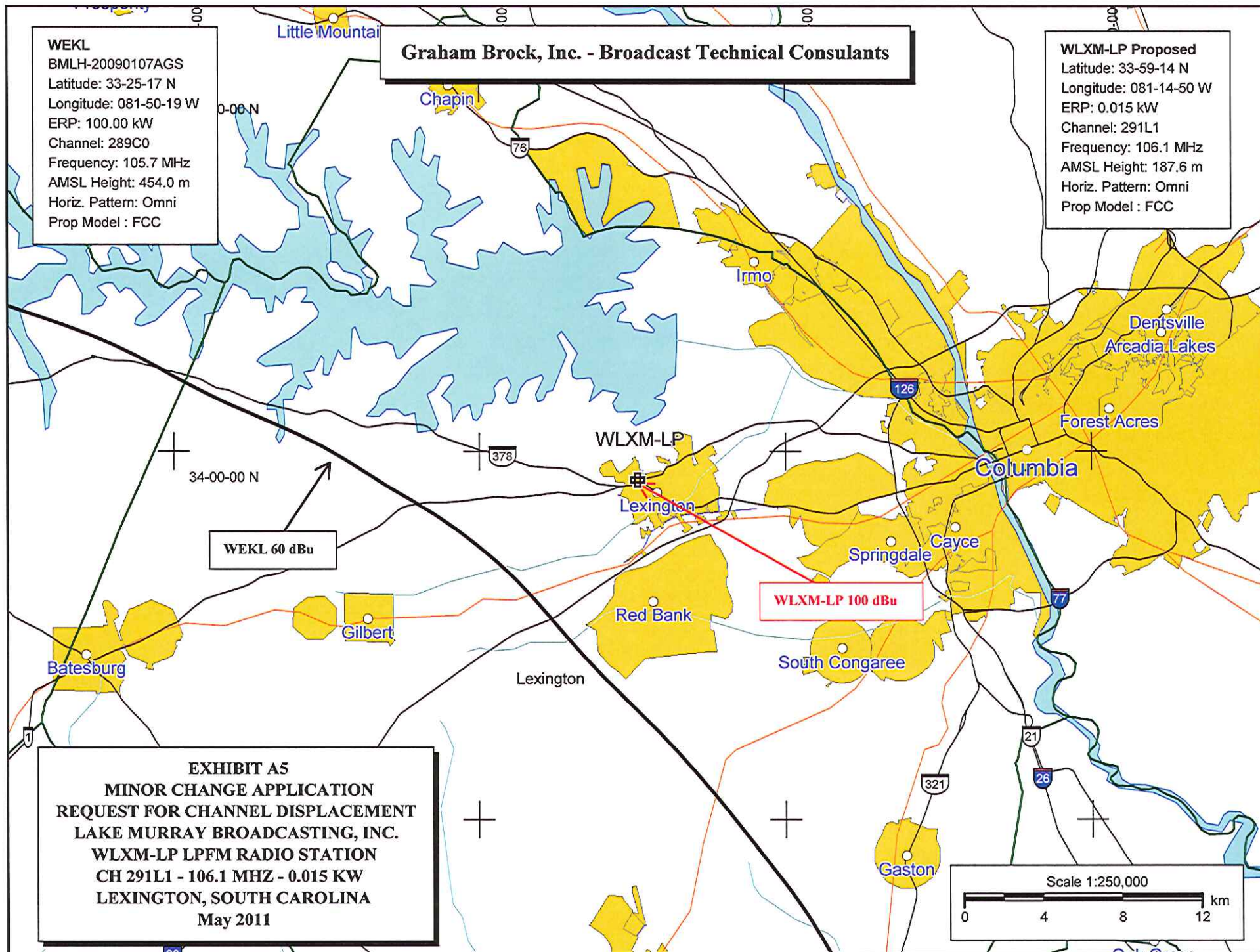


EXHIBIT A5
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