

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION WALR-FM  
GREENVILLE, GEORGIA

OCTOBER 2, 2006

CH 281C0    100 KW    371 M

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0    100 KW    371 M

Table of Contents

	Technical Narrative
Figure 1	Reference Site Location Map
Figure 2	Reference Site Allocation Study
Figure 3	Reference Site Coverage Map
Figure 4	Proposed Antenna and Supporting Structure
Figure 5	Proposed Transmitter Site Coverage Map
Figure 6	Proposed Transmitter Site Allocation Study

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0 100 KW 371 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared to support an application for construction permit for WALR-FM on Channel 281 at Greenville, Georgia. This application seeks authorization for a facility as ordered by MB Docket No. 03-223 to allocate Channel 281C1 to Greenville, Georgia.<sup>1</sup> This application does not propose any technical changes and seeks to maintain WALR-FM's present Class C0 allotment, which was independently implemented during the MB Docket No. 03-223 proceeding.

The proposal would not be subject to environmental processing in accordance with Section 1.1306. It is believed that this proposal conforms with all applicable rules and regulations of the FCC as discussed below.

---

<sup>1</sup> See Report and Order in Amendment of Section 73.202(b), Table of Allotments, FM Broadcast Stations. (LaGrange, Greenville and Waverly Hall, Georgia), MB Docket No. 03-223, Adopted: December 14, 2005. Released: December 16, 2005.

One-Step Upgrade

This application seeks authorization for WALR-FM to continue to operate without changing any technical parameters. For WALR-FM to maintain its present Class C0 facility, however, it must seek authority via the "one-step" upgrade process because WALR-FM was allocated to Channel 281C1 in MB Docket 03-223." Since the herein proposed transmitter site requests contour protection for short-spaced stations under Section 73.215 of the Commission's Rules (as described below), nearly the same (one-second difference in the Longitude) Channel 281C0 allotment reference site as initially proposed, described by the following geographic coordinates, are again employed.

33° 23' 40" North Latitude  
084° 55' 24" West Longitude

Figure 1 is a topographic site map showing the allotment reference site. As can be seen from Figure 1, the assumed reference site could be suitable for a transmission facility. Figure 2 is an Allocation Study for Channel 281C0 at the reference allotment site. The proposed allotment reference site satisfies the Commission's minimum distance separations contained in Section 73.207(b) of the Commission's Rules except with respect to stations: WCLE-FM on Channel 281A at Calhoun, Tennessee; and WHKC(FM) on Channel 282A at Dahlonega, Georgia. See CDBS Exhibit 25 for further discussion on these short-spacings.

Figure 3 is a coverage map showing that the allotment site 70 dBu reference contour entirely encompasses the principal community of Greenville.<sup>2</sup>

#### Existing Transmitter Location

The transmitting facility will be located on its existing Class C0 licensed supporting structure. The location is uniquely described by the following geographic coordinates:

33° 24' 43" North Latitude  
84° 50' 03" West Longitude

A sketch showing the antenna and existing supporting structure is shown on Figure 4.

#### Interference Concerns

The 115 dBu predicted "blanketing" contour of the proposed station would extend radially approximately 4 kilometers from the transmitting site. The applicant recognizes its responsibility to resolve complaints of interference, including blanketing and receiver-induced interference as required by Sections 73.315(b), 73.316(e) and 73.318.

---

<sup>2</sup> At the allotment stage, the Commission typically employs the reference city coverage contour, assuming uniform terrain in all radial directions, to determine if an allotment site will satisfy the Commission's coverage criteria. This was used in this instance.

FCC Predicted Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45 degree intervals were obtained from the previous WALR-FM application for construction permit.

Figure 5 is a map showing the predicted coverage contours. As the map illustrates, the FCC predicted 70 dBu contour entirely encompasses the principal community of Greenville.

Proposed Site Allocation Study

Channel 281C0 at the proposed site will satisfy the Commission's minimum separation distance requirements, specified in Section 73.207(b) of the Rules, to all assignments except to the licensed WRBN(FM) on Channel 281A at Clayton, Georgia and WDDK(FM) on Channel 280A at Greensboro, Georgia.

Section 73.215 processing is requested toward both WRBN(FM) and WDDK(FM). Stations WDDK(FM) and WRBN(FM) are already authorized pursuant to Section 73.215. Therefore, only the actual WDDK(FM) and WRBN(FM) facilities are protected as shown on Sheet 2 of Figure 6.

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, *Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*.<sup>3</sup> The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

For the calculation, a combined horizontal and vertical polarized effective radiated power of 200 kilowatts is employed with a radiation center of 346 meters above ground level. Using an assumed "worst-case" downward relative field value of 0.5, it is calculated that the maximum power density at ground level resulting from this facility is less than 0.007 mW/cm<sup>2</sup>. This is less than five percent of the maximum Commission guideline value in an uncontrolled environment for a FM radio station.<sup>4</sup>

---

<sup>3</sup> OET Bulletin 65, Second Edition 97-01, August, 1997.

<sup>4</sup> The FCC maximum guideline for a FM broadcast station in an uncontrolled environment is 0.2 mW/cm<sup>2</sup>.

When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic will not exceed the FCC guidelines.

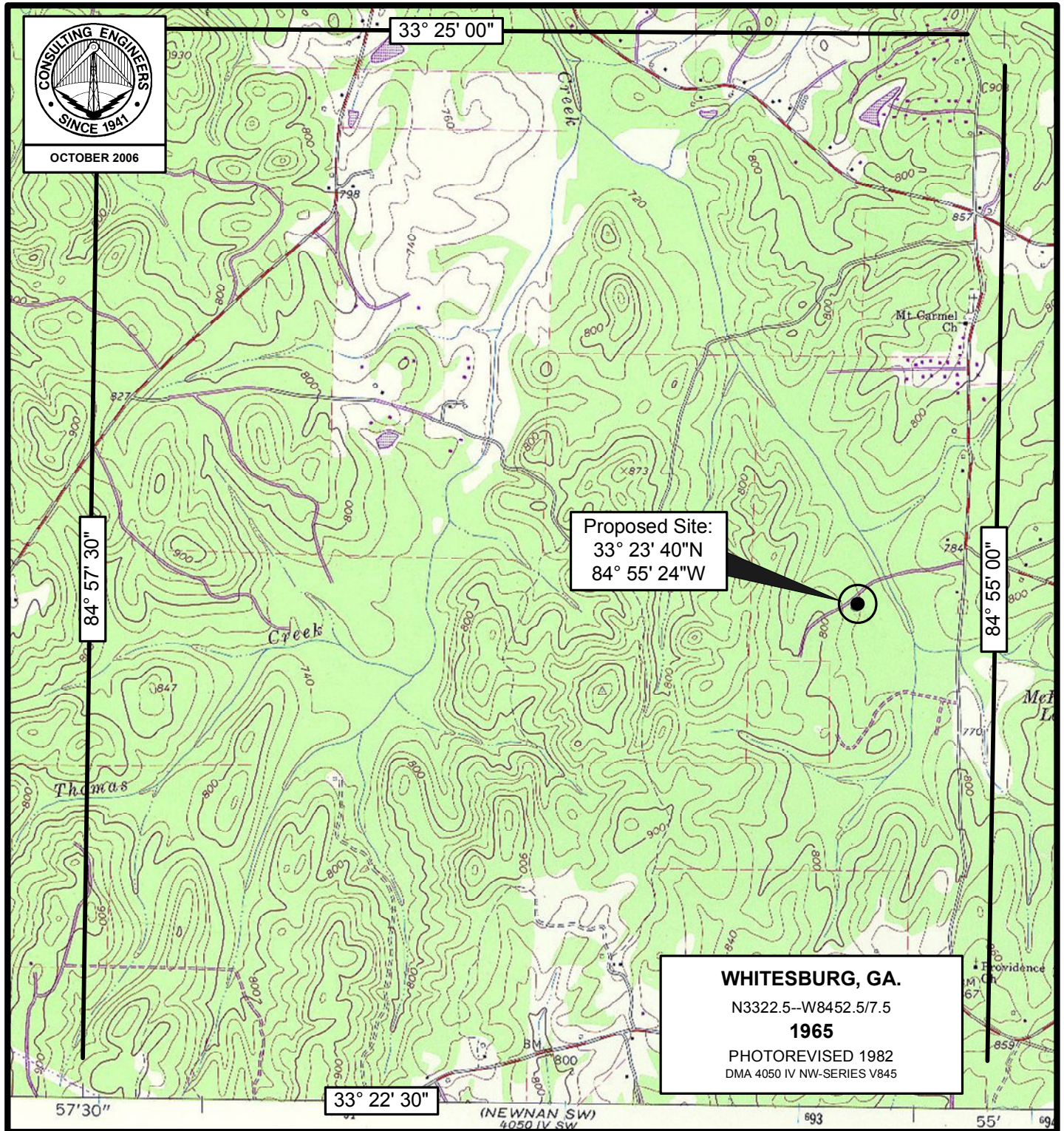
Charles A. Cooper

October 2, 2006

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
941.329.6000



Figure 1



## PROPOSED REFERENCE SITE LOCATION

RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0 100 KW 371 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

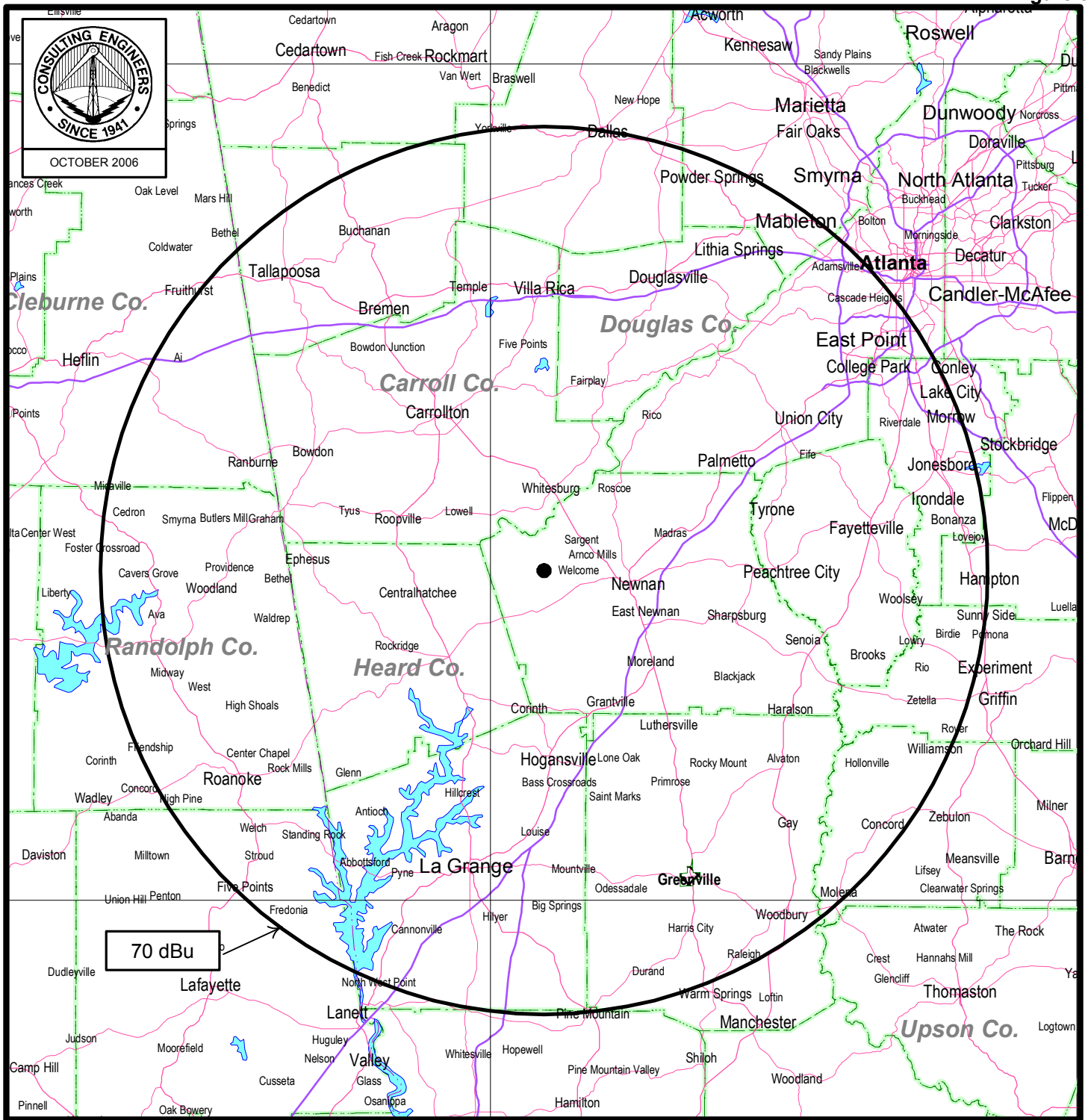
TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0      100 KW      371 M

Channel 281C0 Allocation Study at Reference Site

33° 23' 40" North Latitude  
084° 55' 24" West Longitude

Call Id	City St	File Status	Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. min
WVFJ-FM 53679	MANCHESTER GA	LIC C	BMLH 20030220AAJ	227 C1 93.3	27.000 491	N	33-05-10 084-46-10	N	157.3	37.08	37.0
WDDK 6798	GREENSBORO GA	LIC C	BLH 19981127KC	280 A 103.9	5.300 100	N	33-28-29 083-14-4	Y	86.3	156.23	152.0
WPPL 21152	BLUE RIDGE GA	LIC C	BLH 20000216AAW	280 A 103.9	5.500 104	Y	34-52-03 084-20-02	N	18.2	172.20	152.0
WRPG 67693	HAWKINSVILLE GA	LIC C	BLH 19960122KE	280 C3 103.9	10.500 151	N	32-10-03 083-37-51	N	138.1	182.14	163.0
WALR-FM 48728	GRANGE GA	LIC C	BLH 20040722ADN	281 C0 104.1	100.000 371	N	33-24-43 084-50-03	Y	76.7	8.52	270.0
<i>(Applicant's existing facility.)</i>											
WCLE-FM 55099	CALHOUN TN	LIC C	BLH 20040709ACQ	281 A 104.1	2.300 159	Y	35-15-59 084-50-23	Y	2.1	207.79	215.0
<i>(See CDBS Exhibit 25.)</i>											
WRBN 56201	CLAYTON GA	LIC C	BMLH 20021011ABP	281 A 104.1	0.370 395	N	34-54-24 083-24-56	Y	39.1	217.88	215.0
WRBN 56201	CLAYTON GA	CP C	BPH 20040720ABP	281 A 104.1	4.200 120	Y	34-49-46 083-21-53	Y	41.5	214.51	215.0
<i>(Separation Distance rounds to 215 kilometers. Therefore, no allocation issue.)</i>											
WKHC 34319	DAHLONEGA GA	LIC C	BLH 20040709ACR	282 A 104.3	3.700 127	Y	34-29-56 084-08-32	Y	30.2	142.20	152.0
<i>(See CDBS Exhibit 25.)</i>											
WHLW 6655	LUVERNE AL	LIC C	BLH 19970731KB	282 C1 104.3	13.500 558	N	31-58-28 086-09-44	Y	216.6	195.70	196.0
<i>(Separation Distance rounds to 196 kilometers. Therefore, no allocation issue.)</i>											
WZYP 3083	ATHENS AL	LIC C	BLH 19880510KB	282 C 104.3	100.000 340	N	34-49-05 086-44-16	N	314.0	230.14	220.0





70 dBu

# **CITY COVERAGE REFERENCE CONTOUR** **CHANNEL 281C0 ALLOTMENT REFERENCE SITE** **ASSUMED MAXIMUM CLASS C0 FACILITIES**

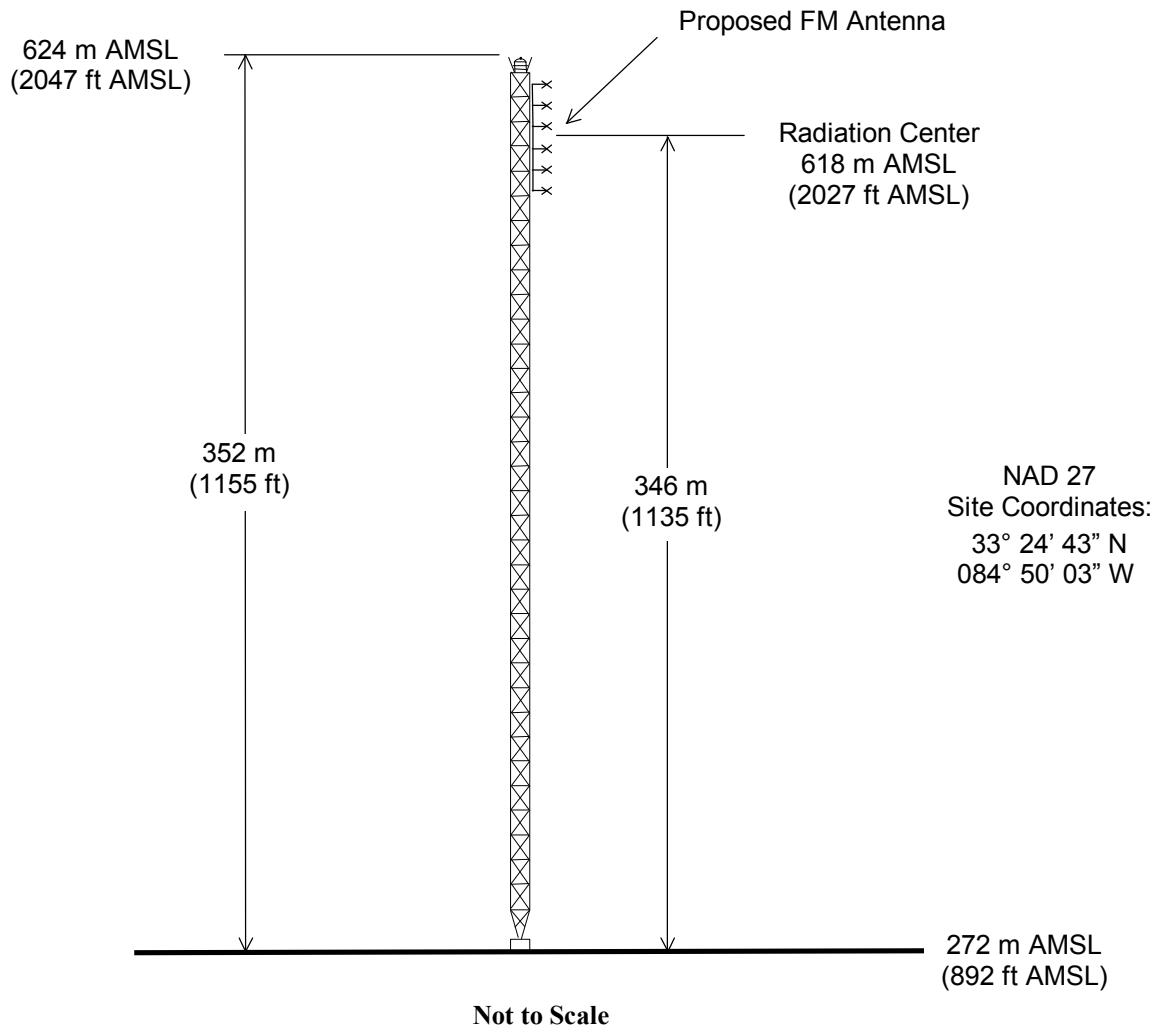
RADIO STATION WALR-FM  
 GREENVILLE, GEORGIA  
 CH 281C0 100 KW 371 M

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

Figure 4



FCC Tower Registration Number  
1057861



## **PROPOSED ANTENNA AND SUPPORTING STRUCTURE**

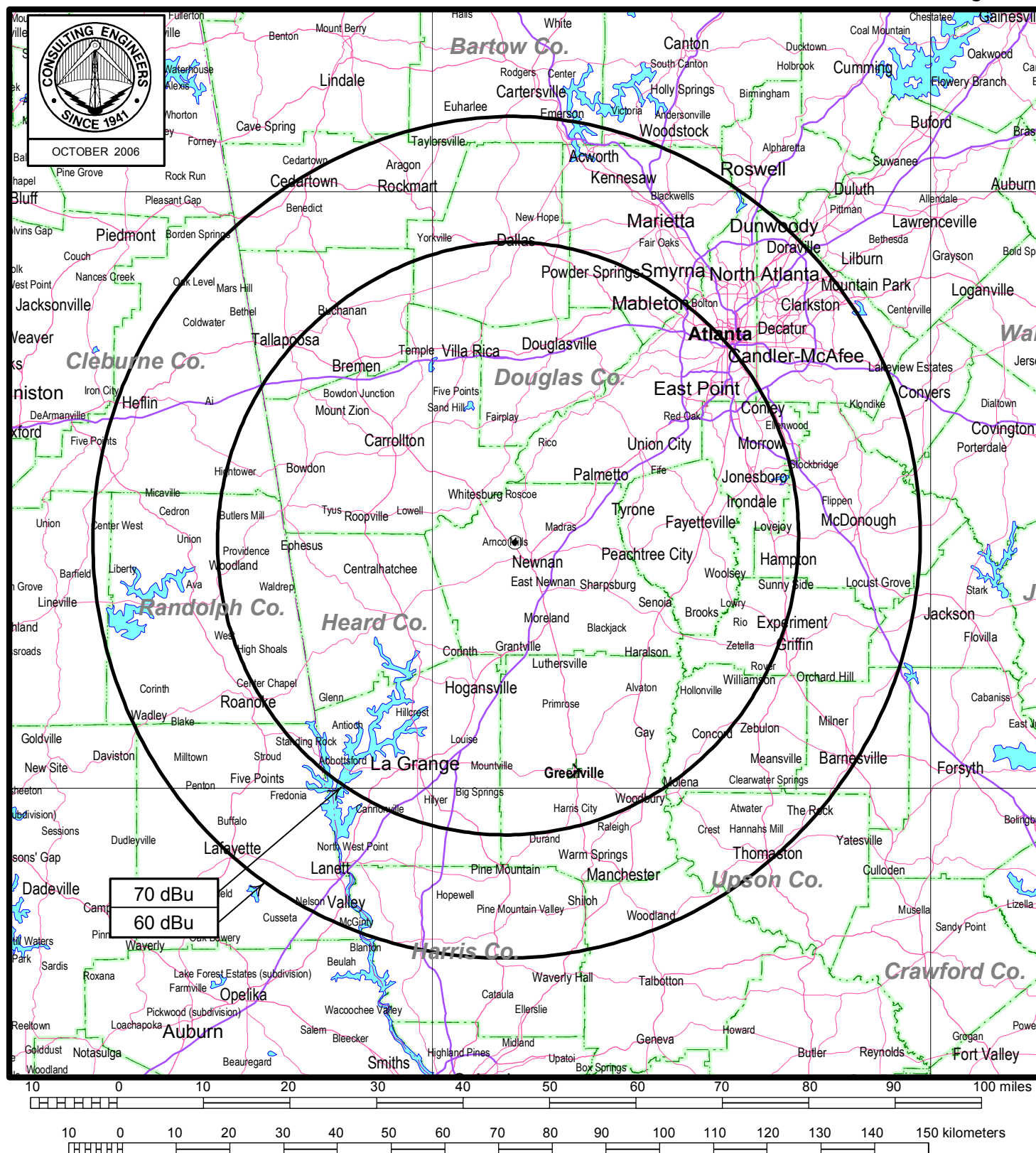
RADIO STATION WALR-FM

GREENVILLE, GEORGIA

CH 281C0 100 KW 371 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 5



## FCC PREDICTED COVERAGE CONTOURS

RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0 100 KW 371 M

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

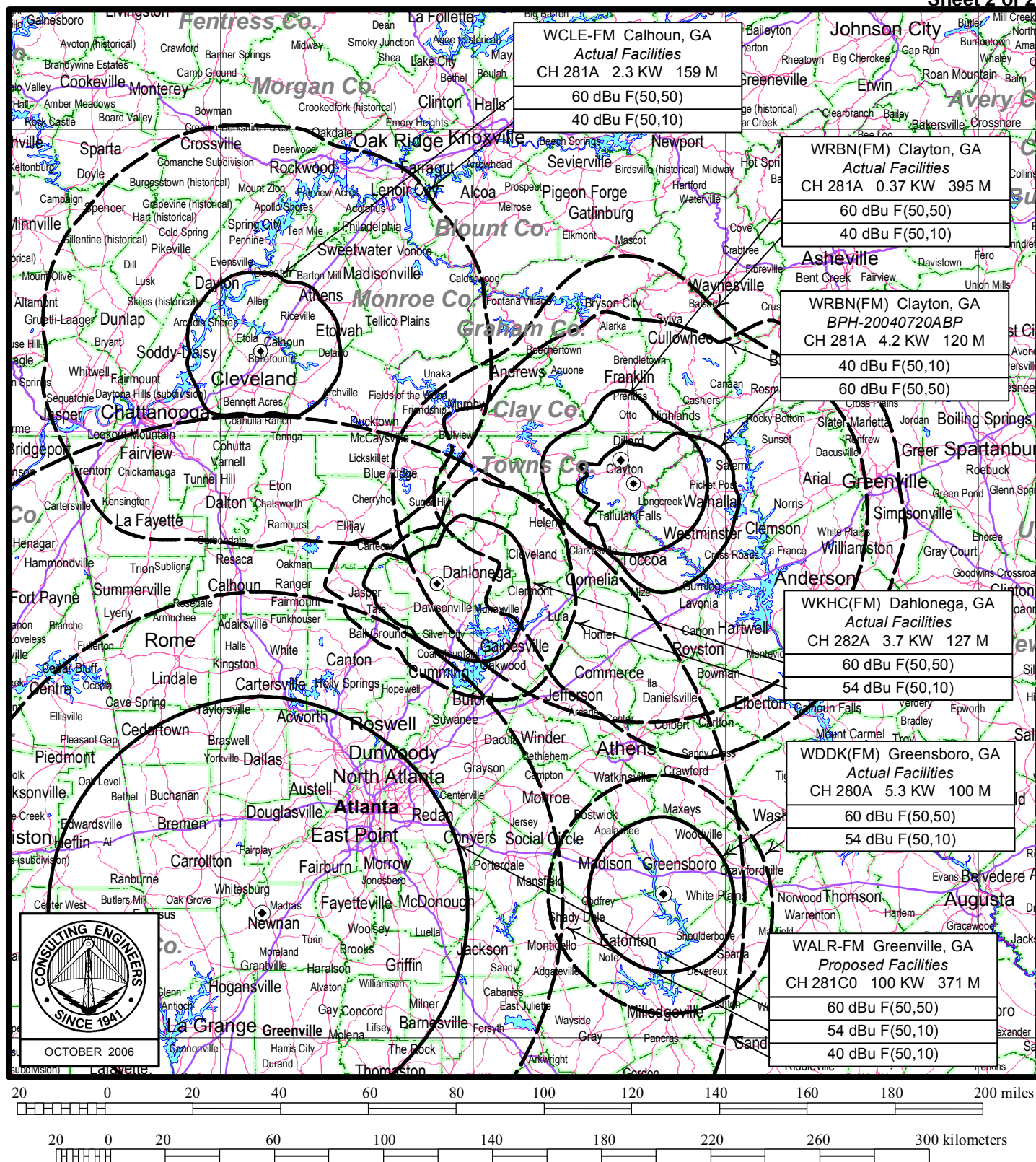
TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0 100 KW 371 M

Channel 281C0 Proposed Site

33° 24' 43" North Latitude  
84° 50' 03" West Longitude

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. min
WVFJ-FM	MANCHESTER	BMLH	227 C1	27.000	N	33-05-10	N	170.6	36.64	0.0
53679	GA	LIC C	20030220AAJ	93.3	491	084-46-10				
(Rounds to 37 kilometers. Therefore, no short spacing.)										
WDDK	GREENSBORO	BLH	280 A	5.300	N	33-28-29	Y	86.9	147.83	152.0
6798	GA	LIC C	19981127KC	103.9	100	083-14-46				
(Section 73.215 processing requested towards WDDK(FM). See Sheet 2 of Figure 6.)										
WPPL	BLUE RIDGE	BLH	280 A	5.500	Y	34-52-03	N	15.7	167.92	152.0
21152	GA	LIC C	20000216AAW	103.9	104	15900 084-20-02				
WALR-FM	LA GRANGE	BLH	281 C0	100.000	N	33-24-43	Y	90.0	0.00	
48728	GA	LIC C	20040722ADN	104.1	371	084-50-03				
(Applicant's existing facility.)										
WCLE-FM	CALHOUN	BLH	281 A	2.300	Y	35-15-59	Y	359.8	205.71	215.0
55099	TN	LIC C	20040709ACQ	104.1	159	64684 084-50-23				
(Section 73.215 processing requested towards WCLE-FM.)										
WRBN	CLAYTON	BPH	281 A	4.200	Y	34-49-46	Y	40.2	207.60	215.0
56201	GA	CP C	20040720ABP	104.1	120	71546 083-21-53				
(Section 73.215 processing requested towards WRBN(FM).)										
WRBN	CLAYTON	BMLH	281 A	0.370	N	34-54-24	Y	37.7	211.19	215.0
56201	GA	LIC C	20021011ABP	104.1	395	083-24-56				
(Section 73.215 processing requested towards WRBN(FM).)										
WKHC	DAHLONEGA	BLH	282 A	3.700	Y	34-29-56	Y	27.6	136.48	152.0
34319	GA	LIC C	20040709ACR	104.3	127	64683 084-08-32				
(Section 73.215 processing requested towards WKHC(FM).)										
WHLW	LUVERNE	BLH	282 C1	13.500	N	31-58-28	Y	218.2	202.29	196.0
6655	AL	LIC C	19970731KB	104.3	558	086-09-44				
WZYP	ATHENS	BLH	282 C	100.000	N	34-49-05	N	312.3	234.89	220.0
3083	AL	LIC C	19880510KB	104.3	340	086-44-16				
WFSH-FM	ATHENS	BLH	284 C1	24.000	N	33-52-02	N	61.2	106.06	94.0
56390	GA	LIC C	20050317ADA	104.7	505	083-49-44				





## SECTION 73.215 ALLOCATION STUDY

RADIO STATION WALR-FM  
GREENVILLE, GEORGIA  
CH 281C0 100 KW 371 M

du Treil, Lundin & Rackley, Inc., Sarasota, Florida