

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FIRST CULLMAN BROADCASTING, INC., licensee of Low Power Television Station WCQT-LP, Channel 27 in Cullman, Alabama, in support of this Application for Construction Permit to specify digital operation on Channel 38 from the licensed WCQT-LP site. This proposal is being submitted in response to the Commission's assignment of Channel 27 to WAIQ-DT in Montgomery, Alabama (205 kilometers away), Channel 26 to WTJP-DT in Gadsden, Alabama (54 kilometers away), and Channel 28 to WTTO-DT in Homewood, Alabama (76 kilometers away), thereby placing this LPTV station in a displacement situation. It is important to note that there are no analog channels available in the core spectrum (Channels 2-51) at the licensed site.

It is proposed to mount a standard Andrew directional antenna at the 83-meter level of the existing 89-meter communications tower. Exhibit B is a map upon which the predicted service contours are plotted. It is important to note that the newly proposed 51 dBu contour encompasses a significant portion of the Grade A contour that obtains from the licensed WCQT-LP facility. Operating parameters for the proposed facility are tabulated in Exhibit C. An interference study is provided in Exhibit D, and a power density calculation follows as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1235441 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



KEVIN T. FISHER

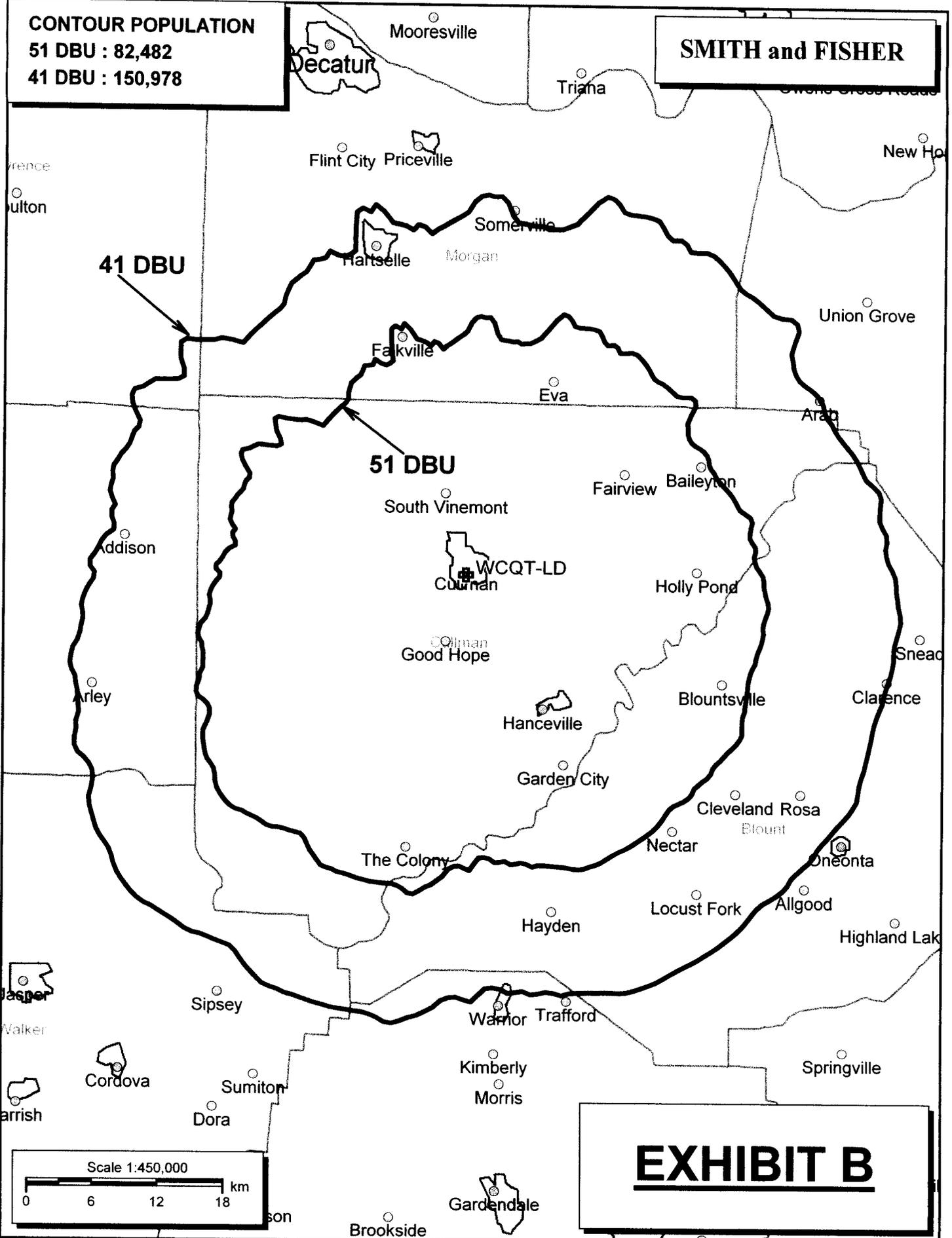
September 28, 2006

**CONTOUR POPULATION**

**51 DBU : 82,482**

**41 DBU : 150,978**

**SMITH and FISHER**



**EXHIBIT B**

## PROPOSED OPERATING PARAMETERS

PROPOSED WQCT-LP  
CHANNEL 38 – CULLMAN, ALABAMA

Transmitter Power Output:	0.2 kw
Transmission Line Efficiency:	69.1%
Antenna Power Gain – Toward Horizon:	14.06
Antenna Power Gain – Main Lobe:	14.06
Effective Radiated Power – Toward Horizon:	2.0 kw
Effective Radiated Power – Main Lobe:	2.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	0.25 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	300 feet*
Antenna Make and Model:	Andrew AL8
Orientation	0° T
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	83 meters
Radiation Center Above Mean Sea Level:	313 meters

\*estimated

LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED WCQT-LD  
CHANNEL 38 – CULLMAN, ALABAMA

We conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 0.1 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than proposed WCQT-LD) already is predicted to exist (also known as "masking").

It is important to note that the applicant has specified use of a "stringent" out-of-channel emission mask in order to take advantage of the d/u ratios that pertain to adjacent-channel interference relationships. A revised LPTV DTV elevation pattern, based on the new FCC Rules, has been applied to proposed facility for the referenced studies. The results of these studies are provided in Exhibit D-2. They conclude that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed Channel 38 facility complies with the interference requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY  
PROPOSED WCQT-LD  
CHANNEL 38 – CULLMAN, ALABAMA

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
WBMG-LP BLTTL-19970804JG	Lic.	Moody, AL	38	89,668	774	0.9
NEW-LD BSFDTL-20060630CZB	Appl.	Berry, AL	38	79,244	581	0.7
WJSU-TV BLCT-19971009KE	Lic.	Anniston, AL	40	1,373,564	4,811	0.35

EXHIBIT E

POWER DENSITY CALCULATION  
PROPOSED WCQT-LP  
CHANNEL 38 – CULLMAN, ALABAMA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Cullman facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 2.0 kw, an antenna radiation center 83 meters above ground, and the vertical pattern of the Andrew antenna, maximum power density two meters above ground of  $0.000095 \text{ mw/cm}^2$  is calculated to occur 73 meters north of the base of the tower. Since this is significantly less than 0.1 percent of the  $0.41 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 38 (614-620 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.