

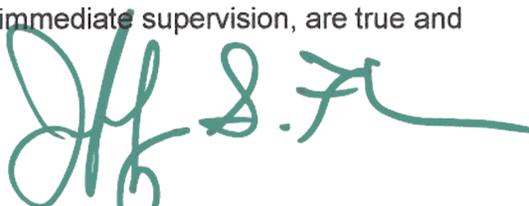
ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FORT SMITH 46, INC., licensee of Class-A low power television station K59ES, Channel 59 in Hindsville, Arkansas, in support of this Application for Construction Permit to specify operation on Channel 40 from a new site. This proposal is being submitted in response to the Commission's reclamation of Channel 59 spectrum for future auction, thereby placing this translator in a displacement situation.

It is proposed to mount a standard MCI directional antenna on the side of an existing 118-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 74 dBu contour encompasses a significant portion of that which obtains from the licensed K59ES facility. Operating parameters for the proposed facility are tabulated in Exhibit C. A contour overlap analysis and interference study are 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 1040585 to this tower.

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.

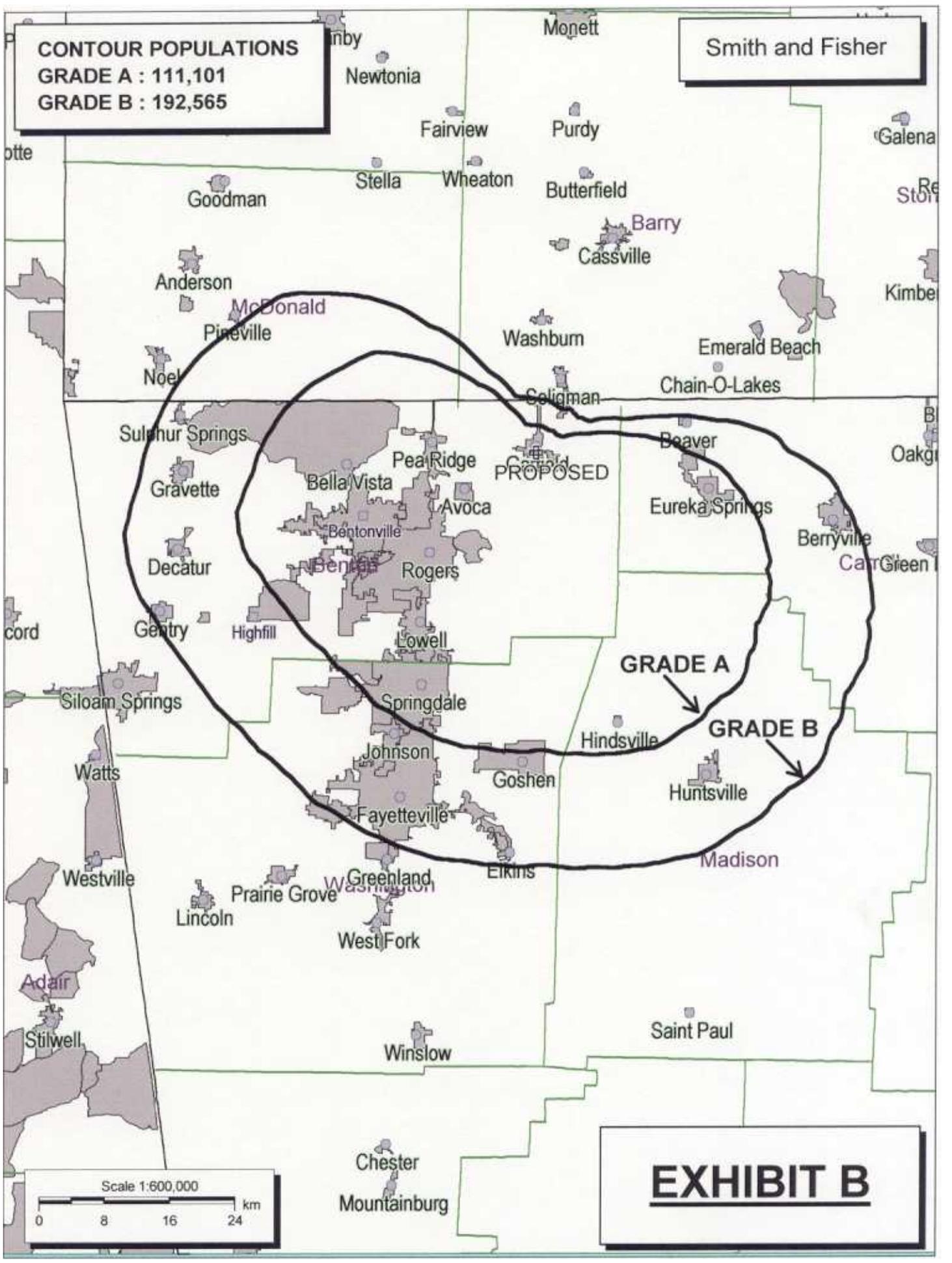


JEFFREY S. FISHER

March 11, 2004

**CONTOUR POPULATIONS**  
**GRADE A : 111,101**  
**GRADE B : 192,565**

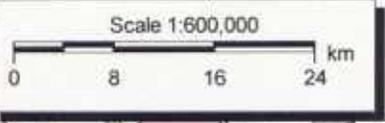
**Smith and Fisher**



**GRADE A**  
**GRADE B**

**PROPOSED**

**EXHIBIT B**



PROPOSED OPERATING PARAMETERS  
PROPOSED CLASS-A TELEVISION STATION  
K59ES  
CHANNEL 40 – HINDSVILLE, ARKANSAS

Transmitter Power Output:	4.0 kw
Transmission Line Efficiency:	67.4%
Antenna Power Gain – Toward Horizon:	53.2
Antenna Power Gain – Main Lobe:	53.2
Effective Radiated Power – Toward Horizon:	142.0 kw
Effective Radiated Power – Main Lobe:	142.0 kw
Transmitter Make and Model:	Type-accepted
Rated Output	4.0 kw
Transmission Line Make and Model:	Andrew HJ7-50A
Size and Type:	1-5/8" air heliax
Length:	304 feet
Antenna Make and Model:	MCI 955316
Orientation	220 degrees
Beam Tilt	0.5 degrees
Effective Height Above Ground:	85.1 meters
Effective Height Above Mean Sea Level:	593 meters

CONTOUR OVERLAP AND  
LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED CLASS-A TELEVISION STATION  
K59ES  
CHANNEL 40 – HINDSVILLE, ARKANSAS

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements except for four stations: KHBS(TV), Channel 40, Fort Smith, Arkansas; KAUT-DT(APR), Channel 40, Oklahoma City, Oklahoma; KSBN-DT (CPM, STA), Channel 39, Springdale, Arkansas; and, K36DR, Channel 40, Little Rock, Arkansas.

We then conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to these facilities of concern. The software utilizes a 2-square kilometer cell size, calculates signal strength at 1.0 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 each station's protected contour where interference from another source (other than Fort Smith's proposed K59ES) already is predicted to exist (also known as "masking"). The results of these

EXHIBIT D-1

studies are provided in Exhibit D-3. It concludes that the facility proposed herein causes no new interference to any of the above stations.

As a result, a waiver of Section 73.6011 of the Commission's Rules with respect to interference to KHBS(TV), and Section 73.6013 with respect to interference to KAUT-DT and KSBN-DT, and Section 73.6012 and 73.6014 with respect to interference to K36DR are requested and believed to be justified based on the aforementioned Longley-Rice studies.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED K59ES  
HINDSVILLE - AR

REFERENCE

36 26 30 N  
93 58 25 W

LPTV Pwr = 142 kW, HAMS L COR= 613 M

DISPLAY DATES

DATA 03-06-04  
SEARCH 03-08-04

..... Channel 40+, 626 MHz

Call	Channel	Location	Dist	Azi	FCC	Margin
KHBS*	LI 40-	Fort Smith	AR 164.90	202.9	> 275.31	-105.10
KAUT-D*APR	40	Oklahoma City	OK 330.47	254.5	> 389.20	-58.73
KSBN-D*CPM	39	Springdale	AR 40.65	225.6	> 084.40	-43.62
KSBN-D*ST	39	Springdale	AR 40.65	225.6	> 074.58	-33.81
K36DR*	AP 40+	Little Rock	AR 225.92	143.5	> 263.33	-3.76
KOZJ*	LI 26-	Joplin	MO 86.54	324.8	> 051.79	34.75
K25BD	LI 25+	Branson	MO 69.12	71.1	> 028.89	40.23
KTFO	LI 41+	Tulsa	OK 158.40	253.2	> 113.97	44.43
KWHB	CP 47Z	Tulsa	OK 159.97	253.5	> 100.00	59.97
KWHB	LI 47Z	Tulsa	OK 159.97	253.5	> 100.00	59.97

\* Actual radials antenna height and directional patterns used (if any)

## INTERFERENCE SUMMARY

PROPOSED CLASS-A TELEVISION STATION  
 K59ES  
 CHANNEL 40 – HINDSVILLE, ARKANSAS

<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>
*KHBS(TV) BMLCT-20030514ADT	Lic.	Fort Smith, AR	40	291,087	1,413	0.49
KAUT-DT BPRM-20000328ABD	APR	Oklahoma City, OK	40	1,310,740	0	0
KSBN-DT BMPCDT-20000426AAR	CPM	Springdale, AR	39	295,488	0	0
KSBN-DT BDSTA-20021011ACB	CPM	Springdale, AR	39	257,907	0	0
K36DR BPTTL-20020829ABS	Appl.	Little Rock, AR	40	338,827	220	<0.1

\*Masking was considered from: KTFO(TV), Channel 41, Tulsa, OK; and KWHB(CP), Channel 47, Tulsa, OK.