

ENGINEERING STATEMENT

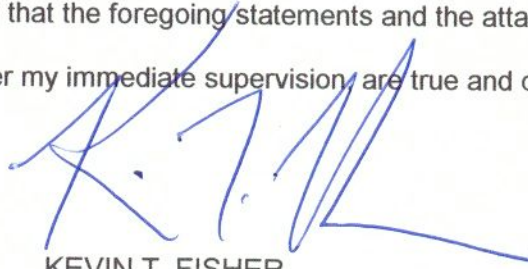
The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING NETWORK, licensee of WMCF-DT, Channel 46 in Montgomery, Alabama, in support of its Application for Construction Permit to operate with its post-transition DTV facility.

It is proposed to mount a standard ERI directional antenna in the analog antenna's aperture at the 316-meter level of the existing 356-meter tower, once the analog antenna is removed. Exhibit B provides antenna azimuth and elevation pattern data, and proposed operating parameters are tabulated in Exhibit C. Exhibit D is a map upon which the predicted service contours are plotted. As shown, the city of license is completely contained within the proposed 48 dBu service contour. It is important to note that the proposed 41 dBu service contour is virtually the same as that assigned to WMCF-DT in Appendix B of the Commission's Table of Allotments. As a result, no interference study is required. A power density calculation is provided in Exhibit E.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the WMCF-DT site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. In addition, the FCC issued Antenna Structure Registration Number 1042484 to this tower.

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.

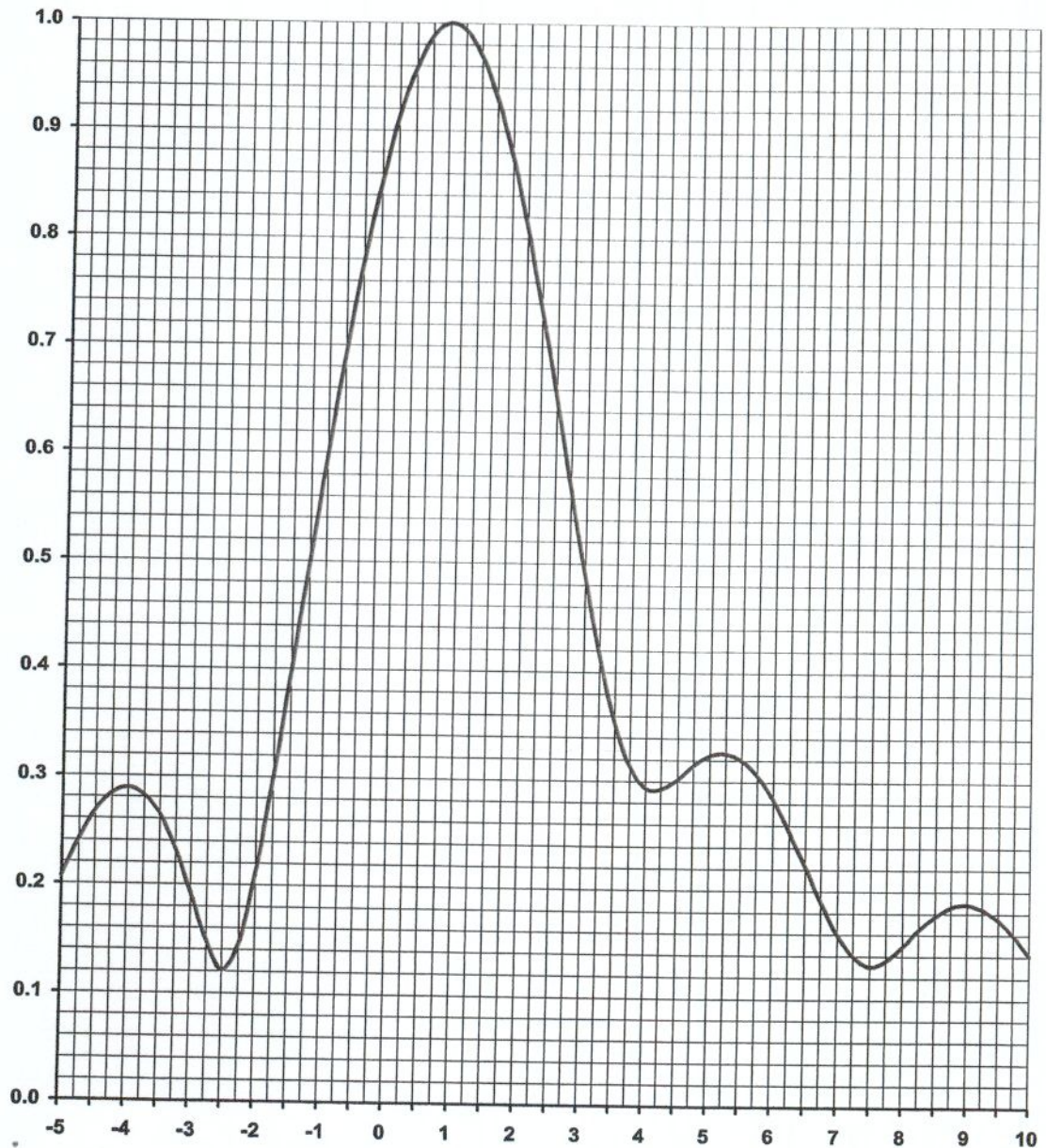
A handwritten signature in blue ink, appearing to read 'K. T. Fisher', is written over the text of the declaration.

KEVIN T. FISHER

March 14, 2008

**ELEVATION PATTERN****TYPE:****ATW16H3H****Frequency:** 46 (DTV)**Directivity:**

Numeric	dBd
16.00	12.04
13.34	11.25

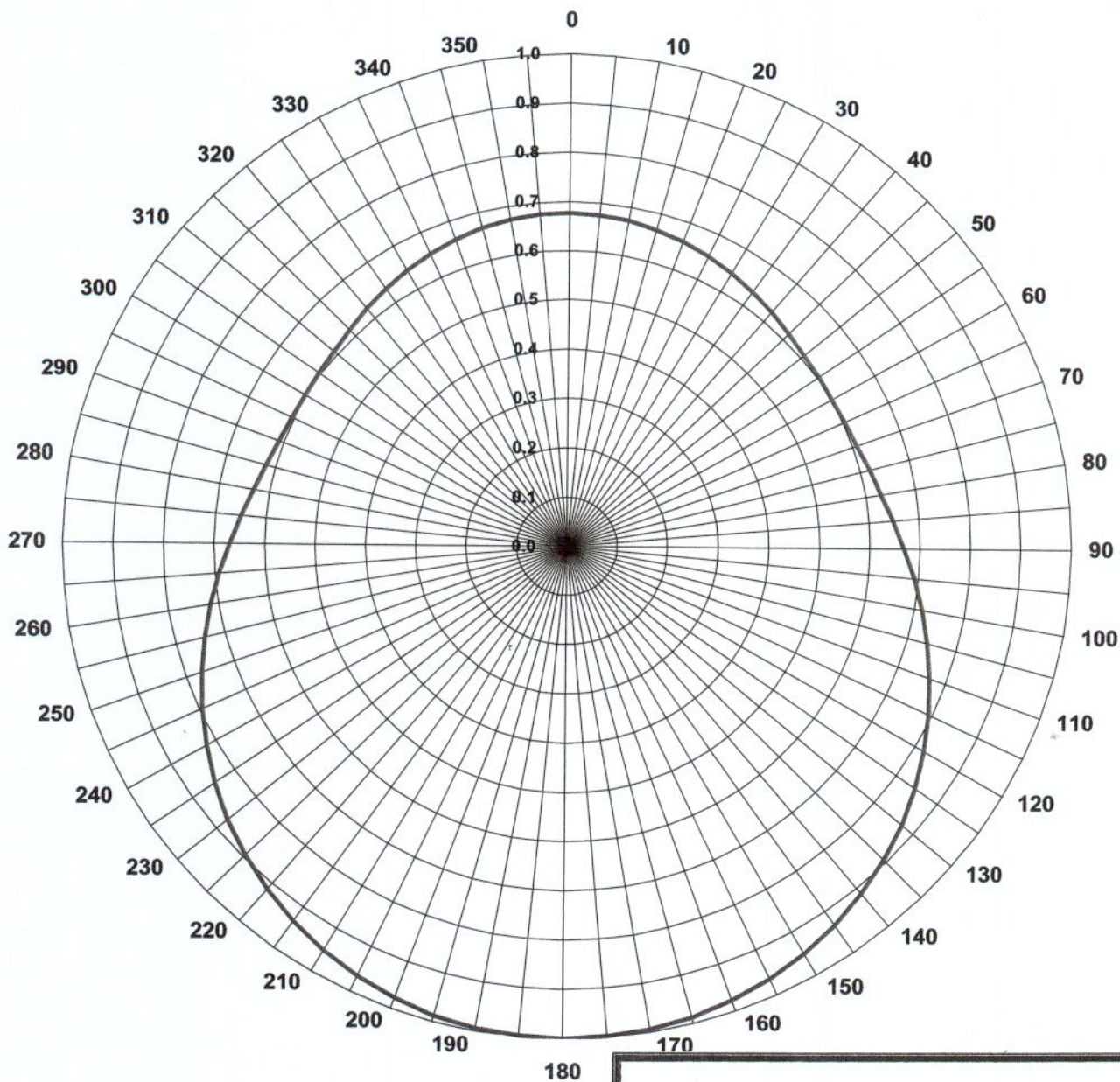
**Location:** Montgomery, AL**Main Lobe:****Beam Tilt:** 0.75**Horizontal:****Polarization:** Horizontal**ELECTRONICS RESEARCH, INC. ERI****EXHIBIT B-1****ANTENNA ELEVATION PATTERN****PROPOSED WMCF-DT  
CHANNEL 46 – MONTGOMERY, ALABAMA**

SMITH AND FIGHER



**AZIMUTH PATTERN****TYPE:****ALP-OC****Frequency:****46 (DTV)****Directivity:****Numeric****dB****Location:****Montgomery, AL****Peak(s) at:****1.70****2.30****Polarization:****Horizontal**

Note: Pattern shape and directivity may vary with channel and mounting configuration.

**ELECTRONICS RESEARCH, INC. ERI****EXHIBIT B-2****ANTENNA AZIMUTH PATTERN****PROPOSED WMCF-DT  
CHANNEL 46 – MONTGOMERY, ALABAMA****SMITH AND FISHER**

## ANTENNA AZIMUTH PATTERN DATA

PROPOSED WMCF-DT  
CHANNEL 46 – MONTGOMERY, ALABAMA

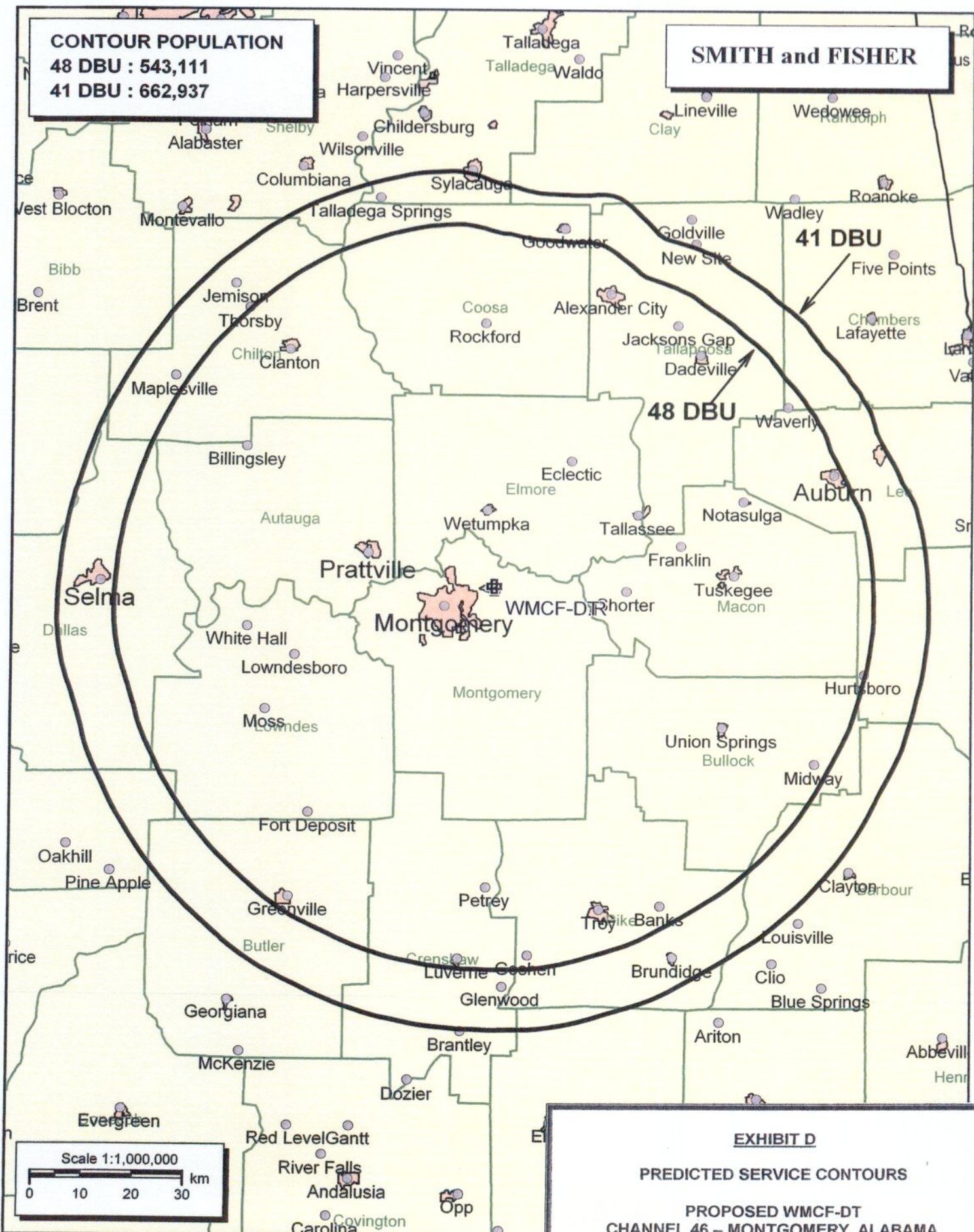
<u>Azimuth (° T)</u>	<u>Relative Field</u>	<u>ERP (dbk)</u>	<u>Azimuth (° T)</u>	<u>Relative Field</u>	<u>ERP (dbk)</u>
0	0.676	23.6	180	1.000	27.0
10	0.672	23.5	190	0.994	26.9
20	0.659	23.4	200	0.978	26.8
30	0.642	23.2	210	0.951	26.6
40	0.623	22.9	220	0.915	26.2
50	0.608	22.7	230	0.871	25.8
60	0.602	22.6	240	0.820	25.3
70	0.609	22.7	250	0.767	24.7
80	0.631	23.0	260	0.715	24.1
90	0.668	23.5	270	0.668	23.5
100	0.715	24.1	280	0.631	23.0
110	0.767	24.7	290	0.609	22.7
120	0.820	25.3	300	0.602	22.6
130	0.871	25.8	310	0.608	22.7
140	0.915	26.2	320	0.623	22.9
150	0.951	26.6	330	0.642	23.2
160	0.978	26.8	340	0.659	23.4
170	0.994	26.9	350	0.672	23.5

## PROPOSED OPERATING PARAMETERS

PROPOSED WMCF-DT  
CHANNEL 46 – MONTGOMERY, ALABAMA

Transmitter Power Output:	24.7 kw
Transmission Line Efficiency:	74.6%
Antenna Power Gain – Main Lobe:	27.2
Effective Radiated Power – Main Lobe:	500 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	ERI Standard
Size and Type:	6-1/8" rigid
Length:	1080 feet
Antenna:	
Make and Model:	ERI ATW16H3-HSOC-46L
Orientation	180° T
Beam Tilt	0.75 degrees
Radiation Center Above Ground:	316 meters
Radiation Center Above Mean Sea Level:	371 meters





POWER DENSITY CALCULATION

PROPOSED WMCF-DT  
CHANNEL 46 – MONTGOMERY, 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 Montgomery facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 500 kw, an antenna radiation center 316 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of  $0.00092 \text{ mw/cm}^2$  is calculated to occur 111 meters south of the base of the tower. Since this is only 0.2 percent of the  $0.44 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 46 (662-668 MHz), a grant of this proposal may be considered a minor environmental action with respect to public and occupational ground-level 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.