

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY CHRISTIAN CENTER OF SANTA ANA, INC., licensee of digital television station WELF-DT, Channel 16 in Dalton, Georgia, in support of its Request for Special Temporary Authority (STA) to operate with reduced facilities during which time WELF-DT's new facility can be constructed (authorization BPCDT-20101214ACB). The instant request involves utilizing an emergency antenna on the same tower as the licensed WELF-DT antenna is presently mounted and operating with an effective radiated power of 5 kW.

It is proposed to utilize the ERI directional antenna that is presently mounted at the 96-meter level of the existing 152-meter. Elevation and azimuth pattern data for the proposed antenna are provided in Exhibit B. Exhibit C is a map upon which the predicted service contours of the STA facility are plotted. A map showing the STA service contour in relation to the licensed WPGD-DT service contour is provided in Exhibit D. As shown, the STA facility's predicted 41 dBu service contour is completely contained within that of the licensed WELF-DT facility. As a result, and since this proposal is for a temporary facility, no interference study is provided herein. A power density calculation appears in Exhibit E.

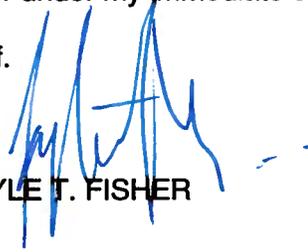
It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station operating at or near the WPGD-DT site.

EXHIBIT A

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 1028358 to this tower.

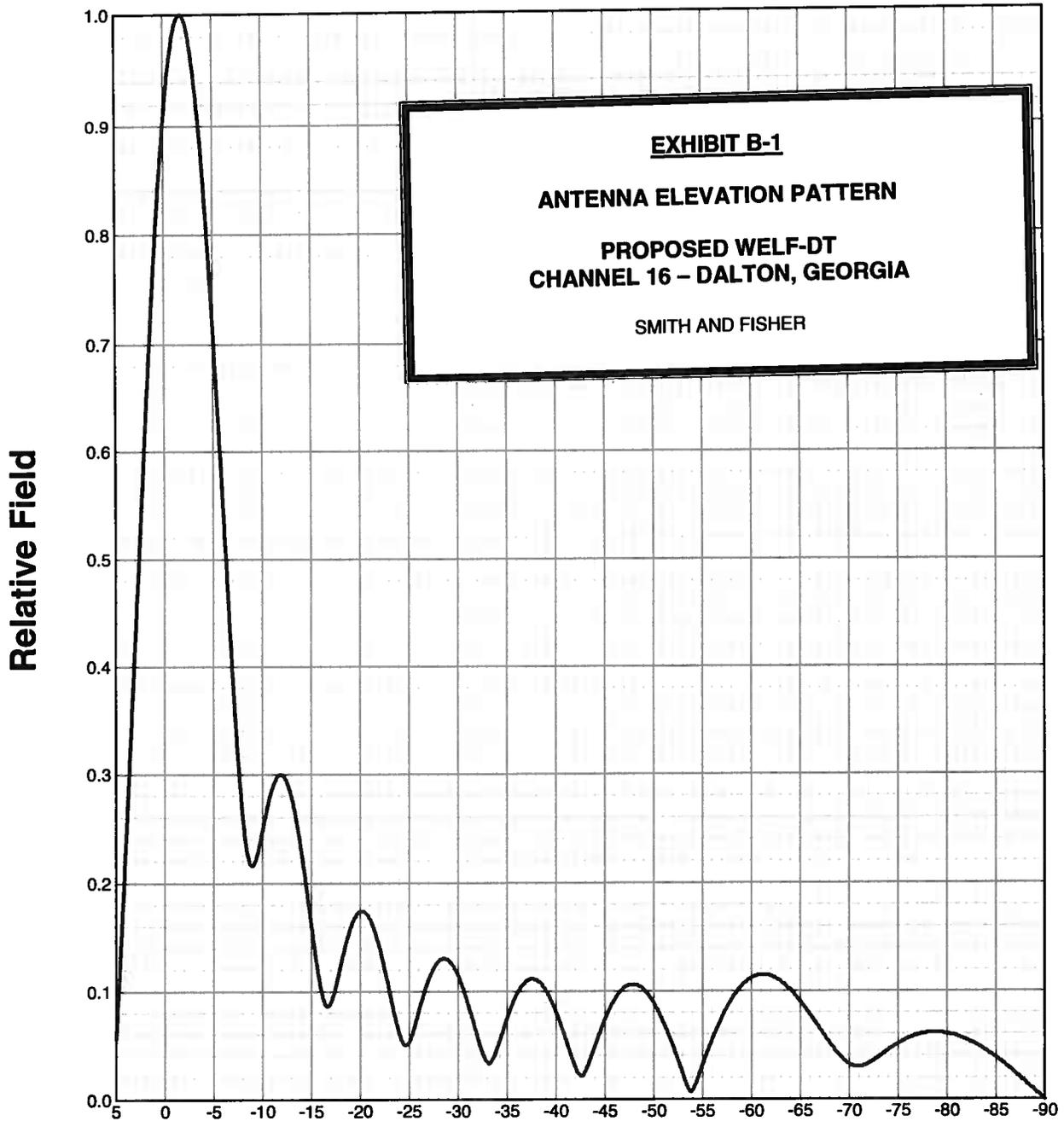
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.


KYLE T. FISHER

April 19, 2012

ELEVATION PATTERN

Type:	<u>AL8</u>		Channel:	<u>16</u>
Directivity:	<u>Numeric</u>	<u>dBd</u>	Location:	<u> </u>
Main Lobe:	<u>8.50</u>	<u>9.29</u>	Beam Tilt:	<u>-1.75</u>
Horizontal:	<u>7.01</u>	<u>8.46</u>	Polarization:	<u>Horizontal</u>

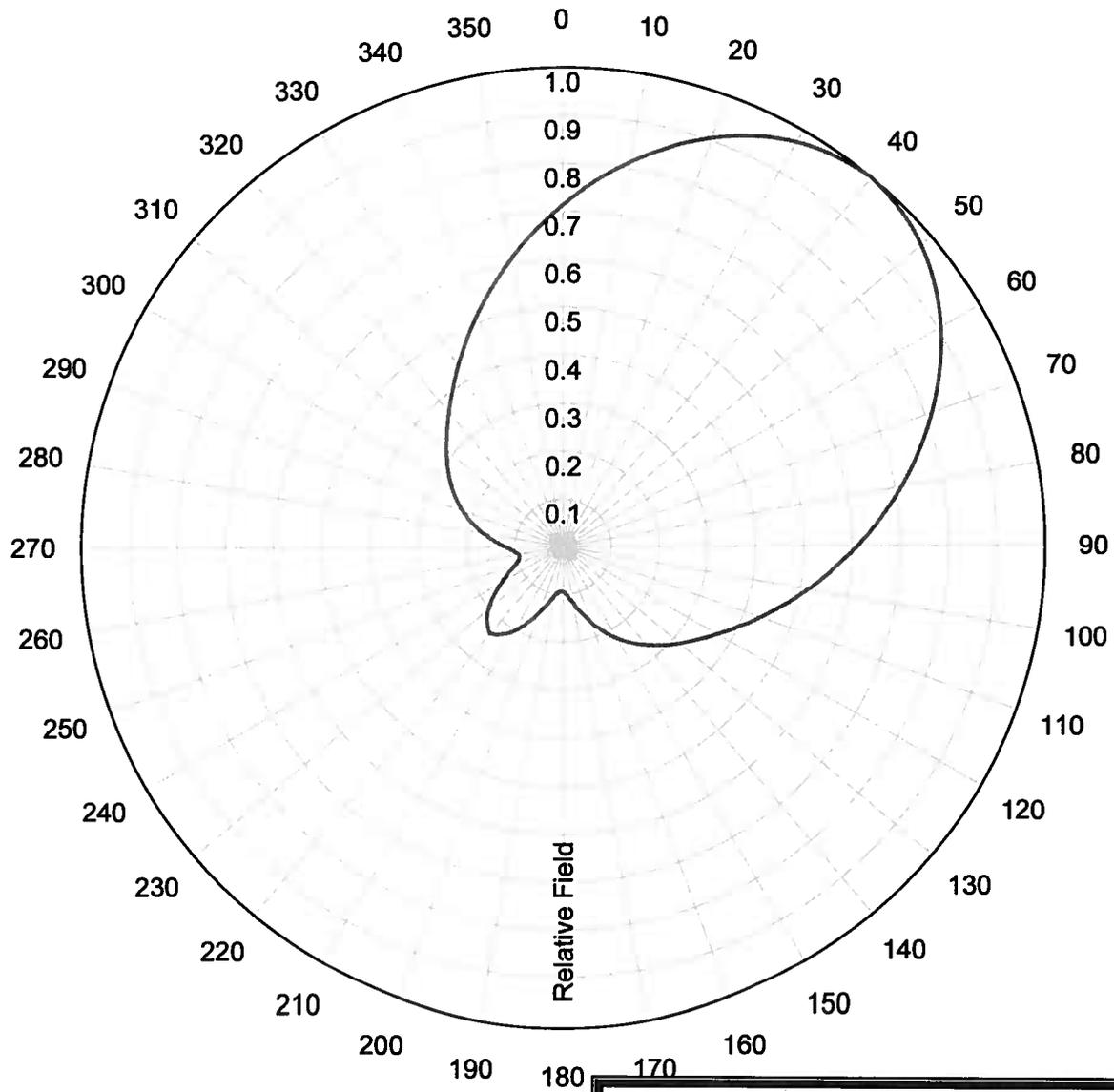


Preliminary, subject to final design and review.

AZIMUTH PATTERN

Type: ALP-N
Directivity: Numeric 3.77 dBd 5.76
Peak(s) at: _____

Channel: 16
Location: Dalton, GA.
Polarization: Horizontal
Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final

ELECTRONICS RESEARCH, INC. **ERI**

EXHIBIT B-2

ANTENNA AZIMUTH PATTERN

PROPOSED WELF-DT
CHANNEL 16 – DALTON, GEORGIA

SMITH AND FISHER

ANTENNA AZIMUTH PATTERN DATA**PROPOSED WELF-DT
CHANNEL 16 – DALTON, GEORGIA**

SMITH AND FISHER

**TABULATED DATA FOR AZIMUTH
FCC FILING FORMAT***Type: ALP-N**Polarization: Horizontal*

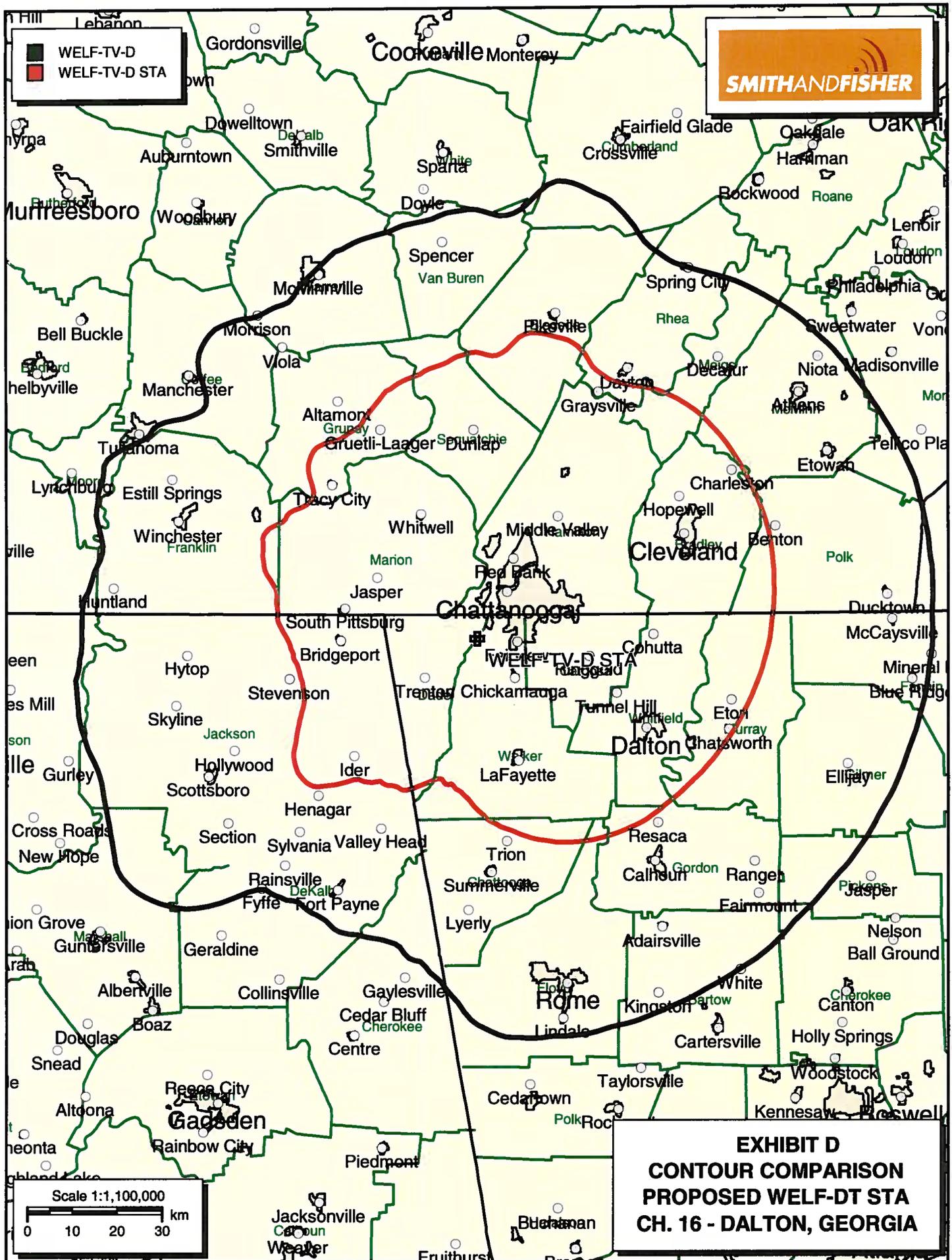
ANGLE	FIELD	ERP (kW)	ERP (dBk)
0	1.000	4.994	6.984
10	0.972	4.718	6.737
20	0.906	4.099	6.127
30	0.815	3.317	5.207
40	0.713	2.539	4.046
50	0.611	1.864	2.705
60	0.517	1.335	1.254
70	0.435	0.945	-0.246
80	0.368	0.676	-1.699
90	0.316	0.499	-3.022
100	0.269	0.361	-4.421
110	0.221	0.244	-6.128
120	0.168	0.141	-8.510
130	0.120	0.072	-11.432
140	0.094	0.044	-13.553
150	0.104	0.054	-12.675
160	0.147	0.108	-9.670
170	0.202	0.204	-6.909
180	0.236	0.278	-5.558
190	0.202	0.204	-6.909
200	0.147	0.108	-9.670
210	0.104	0.054	-12.675
220	0.094	0.044	-13.553
230	0.120	0.072	-11.432
240	0.168	0.141	-8.510
250	0.221	0.244	-6.128
260	0.269	0.361	-4.421
270	0.316	0.499	-3.022
280	0.368	0.676	-1.699
290	0.435	0.945	-0.246
300	0.517	1.335	1.254
310	0.611	1.864	2.705
320	0.713	2.539	4.046
330	0.815	3.317	5.207
340	0.906	4.099	6.127
350	0.972	4.718	6.737

Preliminary, subject to final design and review.

PROPOSED OPERATING PARAMETERS

**PROPOSED WELF-DT
CHANNEL 16 – DALTON, GEORGIA**

Transmitter Power Output:	0.2 kw
Transmission Line Efficiency:	64.9%
Antenna Power Gain – Toward Horizon:	32.05
Antenna Power Gain – Main Lobe:	32.05
Effective Radiated Power – Toward Horizon:	5.0 kw
Effective Radiated Power – Main Lobe:	5.0 kw
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	ERI HJ7-50A
Size and Type:	1-5/8" foam heliax
Length:	300 feet
Antenna Make and Model:	ERI AL8N-16-PL
Orientation	40 degrees true
Beam Tilt	1.75 degrees
Radiation Center Above Ground:	96 meters
Radiation Center Above Mean Sea Level:	712 meters



WELF-TV-D
 WELF-TV-D STA



Scale 1:1,100,000
 0 10 20 30 km

EXHIBIT D
CONTOUR COMPARISON
PROPOSED WELF-DT STA
CH. 16 - DALTON, GEORGIA

EXHIBIT E

POWER DENSITY CALCULATION

PROPOSED WELF-DT
CHANNEL 16 – DALTON, GEORGIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Dalton facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 5 kw, an antenna radiation center 96 meters above ground, and the elevation pattern of the ERI antenna, maximum power density two meters above ground of 0.00019 mw/cm² is calculated to occur 51 meters northeast of the base of the tower. Since this is only 0.6 percent of the 0.33 mw/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 16 (482-488 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.