

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NORSAN CONSULTING & MANAGEMENT, LLC, licensee of Low Power Television Station WAZS-LD, Channel 29 in North Charleston, South Carolina, in support of its request for engineering special temporary authority to operate at reduced power. No change in site location, antenna azimuth pattern or antenna height is proposed herein.

This station requests this engineering STA in order to remain on the air while it constructs its recently granted FCC displacement authorization (LMS-0000210572) to operate on Channel 22.

For the Channel 29 STA, it is proposed to utilize the existing WAZS-LD wide-band horizontally-polarized directional panel antenna, which is mounted at the 84.4-meter level of an existing 100-meter communications tower. The proposed effective radiated power for the facility is 0.04 kW in the horizontal plane. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted. Azimuth pattern data for the Aldena ATU-08-07-420 antenna is provided in Exhibit C.

Included, as Exhibit D, is a summary report from a TVStudy interference analysis for the proposed facility. Our study employed a cell size of 1.0 kilometer and an increment spacing of 1.0 kilometer. Further the applicant proposes use of a stringent mask filter. The results indicate that the proposed WAZS-LD STA facility on Channel 29 meets the Commission's interference requirements to all full-power and low-power co-channel and adjacent-channel full-power television facilities.

EXHIBIT A

A detailed power density calculation is attached hereto as Exhibit E.

Since no change in the overall height or location of the existing WAZS-LD tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the FCC assigned Antenna Structure Registration Number 1054307 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', with a stylized flourish at the end.

KEVIN T. FISHER

February 13, 2023

**CONTOUR POPULATION**  
**2020 U.S. CENSUS DATA**  
**196,196 (81,932 HH)**

**SMITH AND FISHER, LLC**

**PROPOSED CH. 29**  
**51 DBU CONTOUR**

Summerville

Lincolnvill

78

26

52

Goose Creek

WAZS-LD

Nanahan

North Charlest

Scale 1:150,000

0 1 2 3 mi

**EXHIBIT B**  
**PREDICTED SERVICE CONTOUR**  
**PROPOSED WAZS-LD STA REQUEST**  
**CH. 29 - NORTH CHARLESTON, SC**

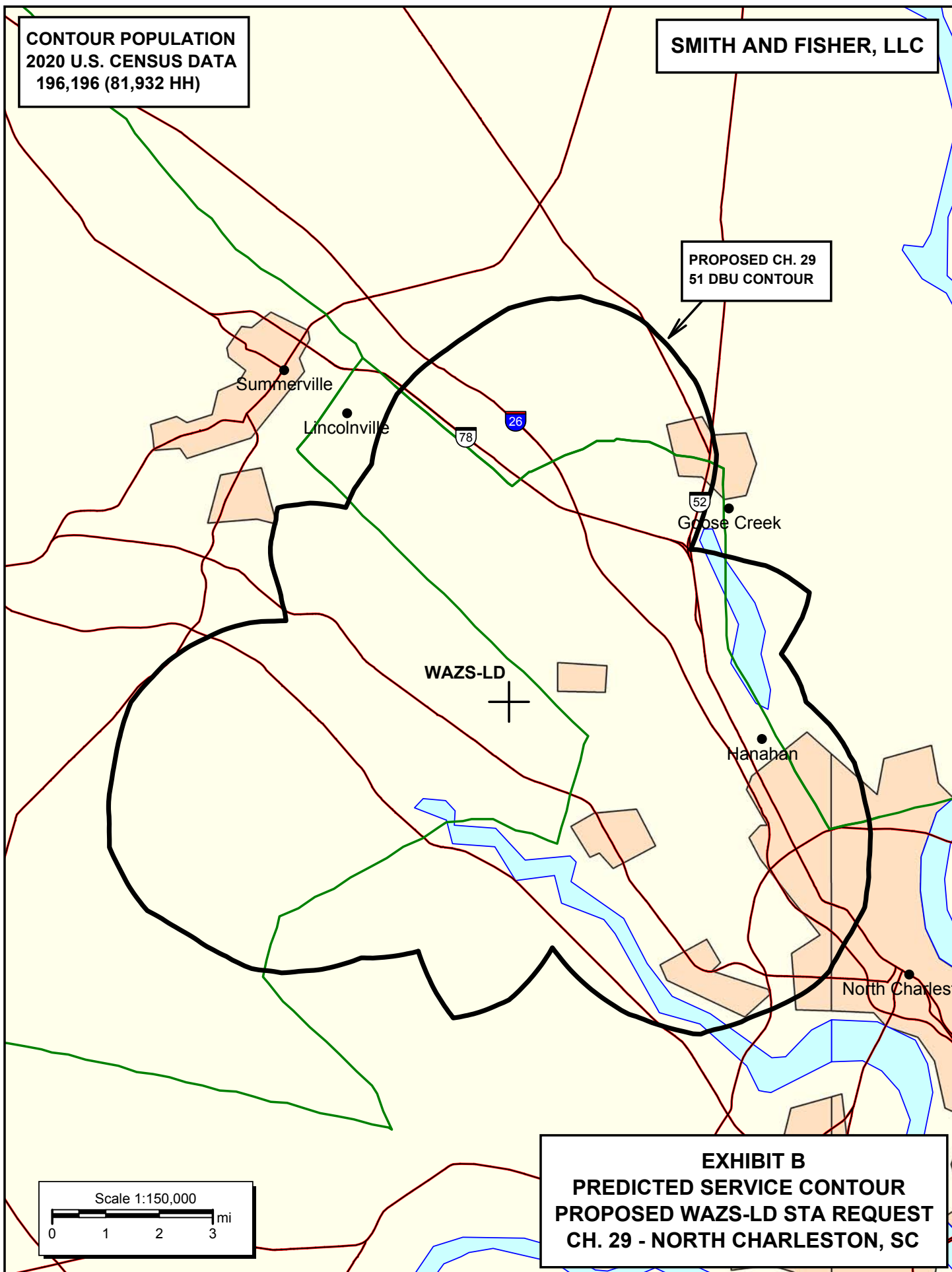
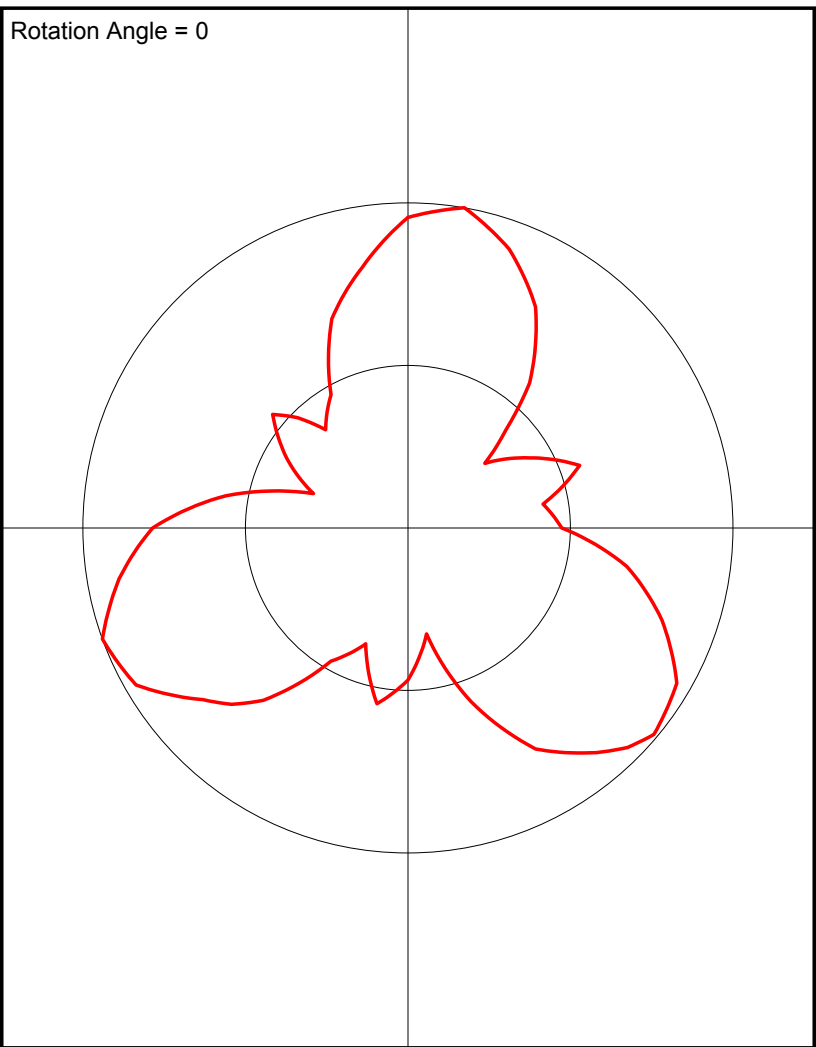


Exhibit C - WAZS  
Pre-Rotation Antenna Pattern....

Rotation Angle = 0

Azimuth (deg)	Relative Field
0.0	0.955
10.0	1.0
20.0	0.912
30.0	0.785
40.0	0.582
45.0	0.426
50.0	0.309
60.0	0.431
70.0	0.562
80.0	0.422
90.0	0.473
100.0	0.684
110.0	0.832
120.0	0.955
130.0	0.988
135.0	0.955
140.0	0.902
150.0	0.785
160.0	0.569
170.0	0.331
180.0	0.468
190.0	0.549
200.0	0.38
210.0	0.473
220.0	0.692
225.0	0.767
230.0	0.822
240.0	0.966
250.0	1.0
260.0	0.902
270.0	0.785
280.0	0.569
290.0	0.309
300.0	0.431
310.0	0.543
315.0	0.479
320.0	0.394
330.0	0.473
340.0	0.684
350.0	0.813



TVSTUDY INTERFERENCE ANALYSIS RESULTS  
PROPOSED WAZS-LD ENGINEERING STA REQUEST  
CHANNEL 29 – NORTH CHARLESTON, SOUTH CAROLINA

Study created: 2023.02.13 11:01:32

Study build station data: LMS TV 2023-01-24

Proposal: WAZS-LD D29 LD LIC NORTH CHARLESTON, SC

File number: BLDL20100916ADH

Facility ID: 168038

Station data: User record

Record ID: 128

Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WJBF	D28	DT	LIC	AUGUSTA, GA	BLANK0000116201	169.5 km
No	WHMC	D28	DT	LIC	CONWAY, SC	BLANK0000115805	146.3
No	WGFL	D29	DT	LIC	HIGH SPRINGS, FL	BLANK0000100460	435.3
No	WQXT-CD	D29	DC	LIC	ST. AUGUSTINE, FL	BLANK0000098976	357.4
No	WFXL	D29	DT	CP	ALBANY, GA	BLANK0000150485	395.8
No	W29DN-D	D29	LD	LIC	ATHENS, GA	BLANK0000179566	330.8
No	WYGA-CD	D29	DC	LIC	ATLANTA, GA	BLANK0000200786	405.5
No	WDZC-LD	D29	LD	LIC	AUGUSTA, GA	BLANK0000199567	231.5
No	WJDO-LD	D29	LD	LIC	MACON, GA	BLANK0000186474	323.4
No	W29FE-D	D29	LD	LIC	BAT CAVE, ETC., NC	BLANK0000073778	340.9
No	WUND-TV	D29	DT	LIC	EDENTON, NC	BLANK0000132286	477.2
No	WNCB-LD	D29	LD	LIC	FAYETTEVILLE, NC	BLANK0000107110	257.0
No	WSFX-TV	D29	DT	LIC	WILMINGTON, NC	BLANK0000111706	222.2
No	WSFX-TV	D29	DT	APP	WILMINGTON, NC	BLANK0000207372	222.2
No	WXLV-TV	D29	DT	LIC	WINSTON-SALEM, NC	BLANK0000158591	327.6
No	W29EN-D	D29	LD	LIC	BEAUFORT-LADYS ISLAN, SC	BLANK0000197959	83.6
No	WSQY-LD	D29	LD	LIC	SPARTANBURG, SC	BLANK0000136293	308.8
Yes	WRJA-TV	D29	DT	LIC	SUMTER, SC	BLANK0000153954	107.0

## SMITH AND FISHER

No	WAGT-CD	D30	DC LIC	AUGUSTA, GA	BLANK0000063630	169.5
No	WUNU	D30	DT LIC	LUMBERTON, NC	BLANK0000114990	229.6
No	WLOW-LD	D30	LD CP	Charleston, SC	BLANK0000157610	13.3
No	WLOW-LD	D30	LD LIC	Charleston, SC	BLANK0000207324	13.3
No	WLOW-LD	D30	LD LIC	Charleston, SC	BLANK0000118486	23.1
No	W30CV-D	D30	DC LIC	HILTON HEAD ISLAND, SC	BLANK0000194091	105.0
No	WSCG-LD	N32+	TX LIC	BEAUFORT, ETC., SC	BLTT19970401JB	83.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D29

Mask: Stringent

Latitude: 32 55 43.00 N (NAD83)

Longitude: 80 6 12.00 W

Height AMSL: 93.8 m

HAAT: 0.0 m

Peak ERP: 0.040 kW

Antenna: ALD-ATV-08-07-420 (ID 100207) 0.0 deg

Elev Pattn: Generic

Elec Tilt: 0.50

50.2 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.036 kW	79.4 m	12.3 km
45.0	0.007	87.6	8.8
90.0	0.009	89.1	9.3
135.0	0.036	88.2	13.0
180.0	0.009	90.7	9.4
225.0	0.024	88.5	11.7
270.0	0.025	88.6	11.8
315.0	0.009	79.2	8.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 86 m

Distance to Canadian border: 993.2 km

Distance to Mexican border: 1799.1 km

Conditions at FCC monitoring station: Powder Springs GA

Bearing: 284.9 degrees Distance: 441.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 296.9 degrees Distance: 2372.2 km

Study cell size: 1.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

No IX check failures found.

POWER DENSITY CALCULATION

PROPOSED WAZS-LD ENGINEERING STA REQUEST  
CHANNEL 29 – NORTH CHARLESTON, SOUTH CAROLINA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this North Charleston facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 0.04 kW, an antenna radiation center 84.4 meters above ground, and assuming a vertical relative field value of 10 percent at the steeper elevation angles for the existing Aldena ATU-08-07-420 panel antenna, maximum power density two meters above ground of  $0.0000020 \text{ mW/cm}^2$  is calculated to occur near the base of the tower. Since this value is less than 0.1 percent of the  $0.37 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 29 (560-566 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing 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 non-ionizing radiation.