

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of COMMUNITY TELEVISION, INC., licensee of full-power digital television station WATC-DT, Channel 41 in Atlanta, Georgia, in support of its Application for Construction Permit to specify operation on its post-repack channel, Channel 34. No change in site location or antenna height is proposed herein.

It is proposed to mount a Dielectric omnidirectional, horizontally-polarized antenna at the 52-meter level of the existing 60-meter WATC-DT tower. The proposed effective radiated power for the facility is 288 kW in horizontal plane, which is the allotted repack power level for WATC-DT. Exhibit B is a map upon which the predicted service contours are plotted. As shown, the community of Atlanta is completely encompassed by the proposed 48 dBu city-grade service contour. An elevation pattern for the proposed antenna is provided in Exhibit C. Since the facility proposed herein specifies the exact repack allotment facility assigned to WATC-DT, no interference study is included herein. A power density calculation appears as Exhibit D.

Due to the diminutive height of the existing WATC-DT tower and because no change in the overall height or location of the tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, and for the same reasons, antenna structure registration of the tower with the Federal Communications Commission is not required.

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.

A handwritten signature in blue ink, appearing to read "K. T. Fisher". The signature is stylized with a large "K", a small "T", and a long horizontal line for the "F".

KEVIN T. FISHER

May 22, 2017

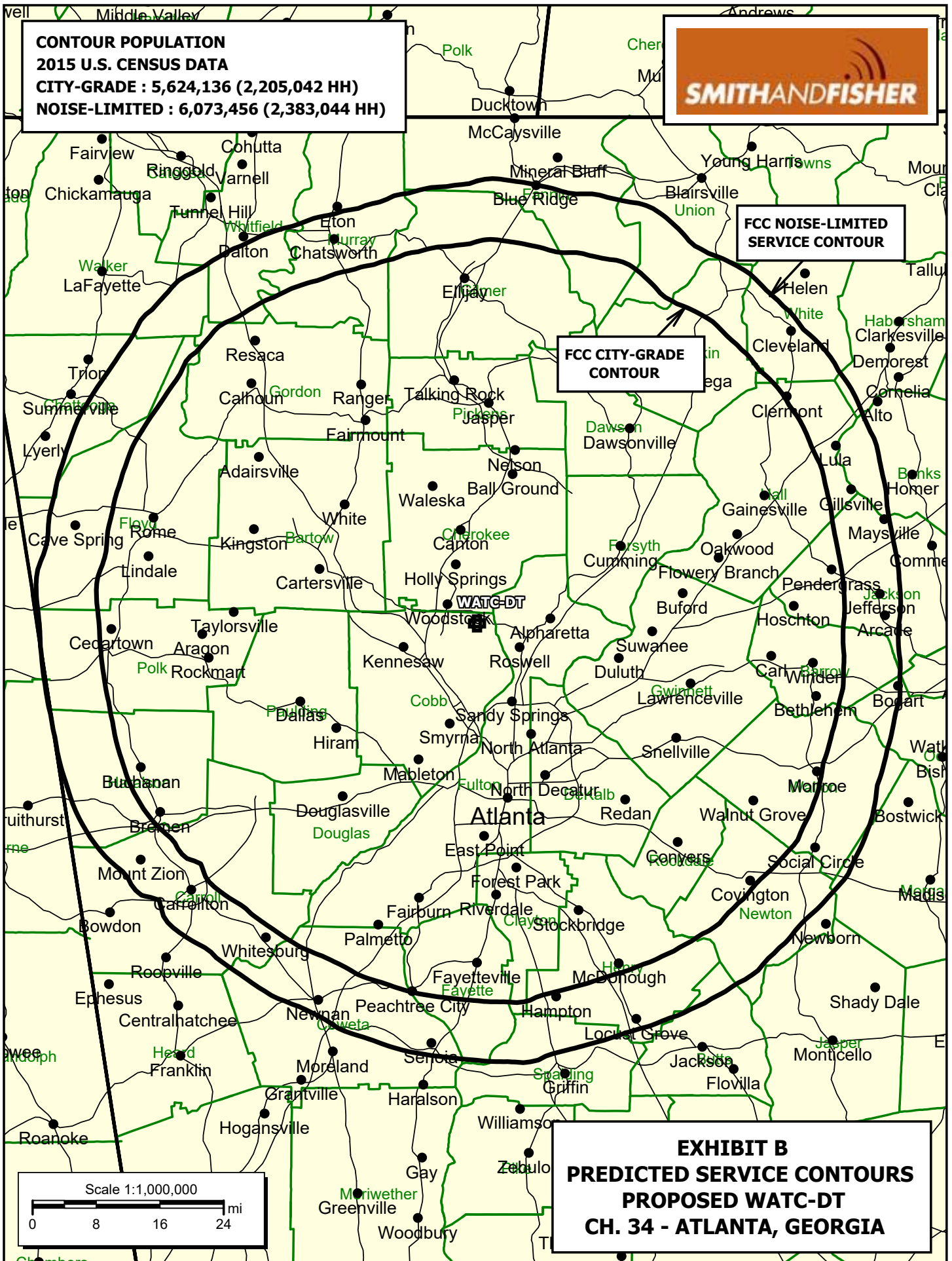
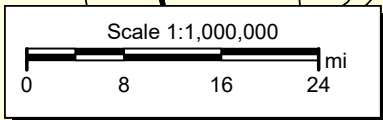
**CONTOUR POPULATION**  
**2015 U.S. CENSUS DATA**  
**CITY-GRADE : 5,624,136 (2,205,042 HH)**  
**NOISE-LIMITED : 6,073,456 (2,383,044 HH)**



**FCC NOISE-LIMITED  
SERVICE CONTOUR**

**FCC CITY-GRADE  
CONTOUR**

**EXHIBIT B**  
**PREDICTED SERVICE CONTOURS**  
**PROPOSED WATC-DT**  
**CH. 34 - ATLANTA, GEORGIA**



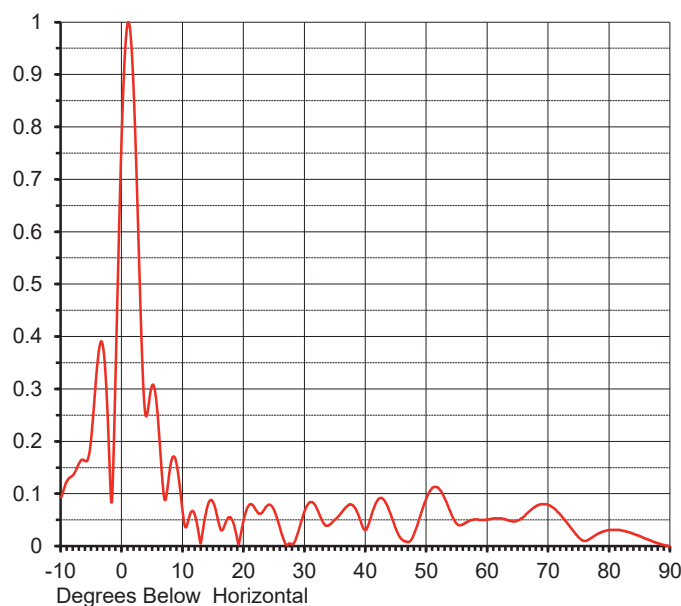
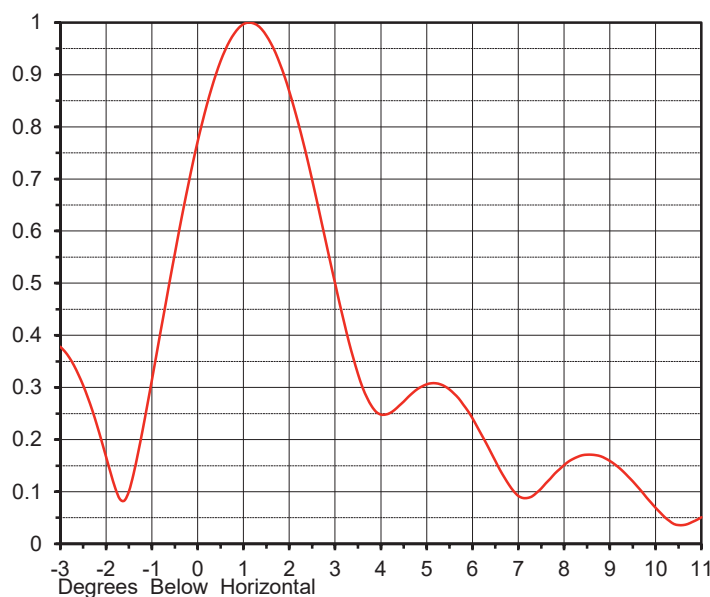
## EXHIBIT C

## ELEVATION PATTERN

Proposal No. **C-70771**  
 Date **18-May-17**  
 Call Letters **WATC**  
 Channel **34**  
 Frequency **593 MHz**  
 Antenna Type **TFU-18JSC-R S190**

RMS Directivity at Main Lobe **17.0 ( 12.30 dB )**  
 RMS Directivity at Horizontal **11.1 ( 10.45 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Pattern Number **18J170100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.093	10.0	0.060	30.0	0.068	50.0	0.093	70.0	0.078
-9.0	0.125	11.0	0.055	31.0	0.084	51.0	0.112	71.0	0.071
-8.0	0.136	12.0	0.057	32.0	0.071	52.0	0.110	72.0	0.059
-7.0	0.159	13.0	0.011	33.0	0.045	53.0	0.090	73.0	0.045
-6.0	0.162	14.0	0.076	34.0	0.040	54.0	0.062	74.0	0.030
-5.0	0.215	15.0	0.082	35.0	0.051	55.0	0.042	75.0	0.016
-4.0	0.354	16.0	0.038	36.0	0.064	56.0	0.042	76.0	0.010
-3.0	0.369	17.0	0.045	37.0	0.077	57.0	0.048	77.0	0.016
-2.0	0.136	18.0	0.051	38.0	0.076	58.0	0.051	78.0	0.023
-1.0	0.363	19.0	0.008	39.0	0.052	59.0	0.050	79.0	0.028
0.0	0.808	20.0	0.052	40.0	0.031	60.0	0.051	80.0	0.031
1.0	1.000	21.0	0.080	41.0	0.062	61.0	0.053	81.0	0.031
2.0	0.838	22.0	0.068	42.0	0.089	62.0	0.053	82.0	0.030
3.0	0.461	23.0	0.064	43.0	0.088	63.0	0.051	83.0	0.027
4.0	0.248	24.0	0.079	44.0	0.063	64.0	0.047	84.0	0.023
5.0	0.308	25.0	0.067	45.0	0.031	65.0	0.049	85.0	0.019
6.0	0.225	26.0	0.031	46.0	0.012	66.0	0.057	86.0	0.014
7.0	0.088	27.0	0.002	47.0	0.008	67.0	0.068	87.0	0.009
8.0	0.158	28.0	0.003	48.0	0.026	68.0	0.077	88.0	0.005
9.0	0.153	29.0	0.031	49.0	0.060	69.0	0.080	89.0	0.002
								90.0	0.000

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POWER DENSITY CALCULATION

PROPOSED WATC-DT  
CHANNEL 34 – ATLANTA, 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 Atlanta facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 288 kW (H), an antenna radiation center 52 meters above ground, and the specific elevation pattern of the proposed Dielectric antenna, maximum power density two meters above ground of  $0.029 \text{ mW/cm}^2$  is calculated to occur 40 meters from the base of the tower. Since this is only 7.3 percent of the  $0.40 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 34 (590-596 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

In addition, once the new WATC-DT antenna is installed, a power density survey of the tower site will be conducted in order to ensure compliance with the Commission's RF human exposure standards.

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.