

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of SAN-LEE COMMUNITY BROADCASTING, INC., licensee of Class A digital television station WBFT-CD, Channel 46 in Sanford, North Carolina, in support of this application for modification of Construction Permit 0000034838, which authorizes WBFT-CD operation on its post-repack channel, Channel 36. It is proposed herein to specify a new site, due to the loss of the presently licensed WBFT-CD site. The new site is located just 3.8 kilometers southeast of the site authorized in LMS-0000034838.

It is proposed to mount a Dielectric TLP-8B directional antenna at the 47.2-meter level of an existing 61-meter tower. The newly proposed effective radiated power for the facility is 10.0 kW in the horizontal plane. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted. In Exhibit C, we have plotted the authorized and proposed 51 dBu contours for comparison. As shown, the difference between the two coverage areas is minor. Indeed, according to the 2018 U.S. Census Estimate, the service population within the authorized WBFT-CD contour is 233,457. That within the newly proposed 51 dBu contour is 234,262. The two service populations are within 1% of each other. However, since the proposed service contour does extend slightly beyond that authorized in LMS-0000034838, a waiver of the Commission's present freeze on the filing of such applications is respectfully requested and believed to be justified, due to the reasons stated above. A grant of this application will allow the station to satisfy its repack obligation.

Elevation and azimuth pattern data for the proposed Dielectric 8-bay antenna appear in Exhibit D. Exhibit E contains the summary results from a TVStudy interference study, which

EXHIBIT A

was conducted using a cell size of 1.0 kilometers and an increment spacing of 0.1 kilometer. It concludes that the proposed WBFT-CD facility meets the Commission's de minimis interference criteria to all co-channel and adjacent-channel post-repack full-power and Class A and LPTV/translator facilities.

A detailed power density calculation is provided in Exhibit F.

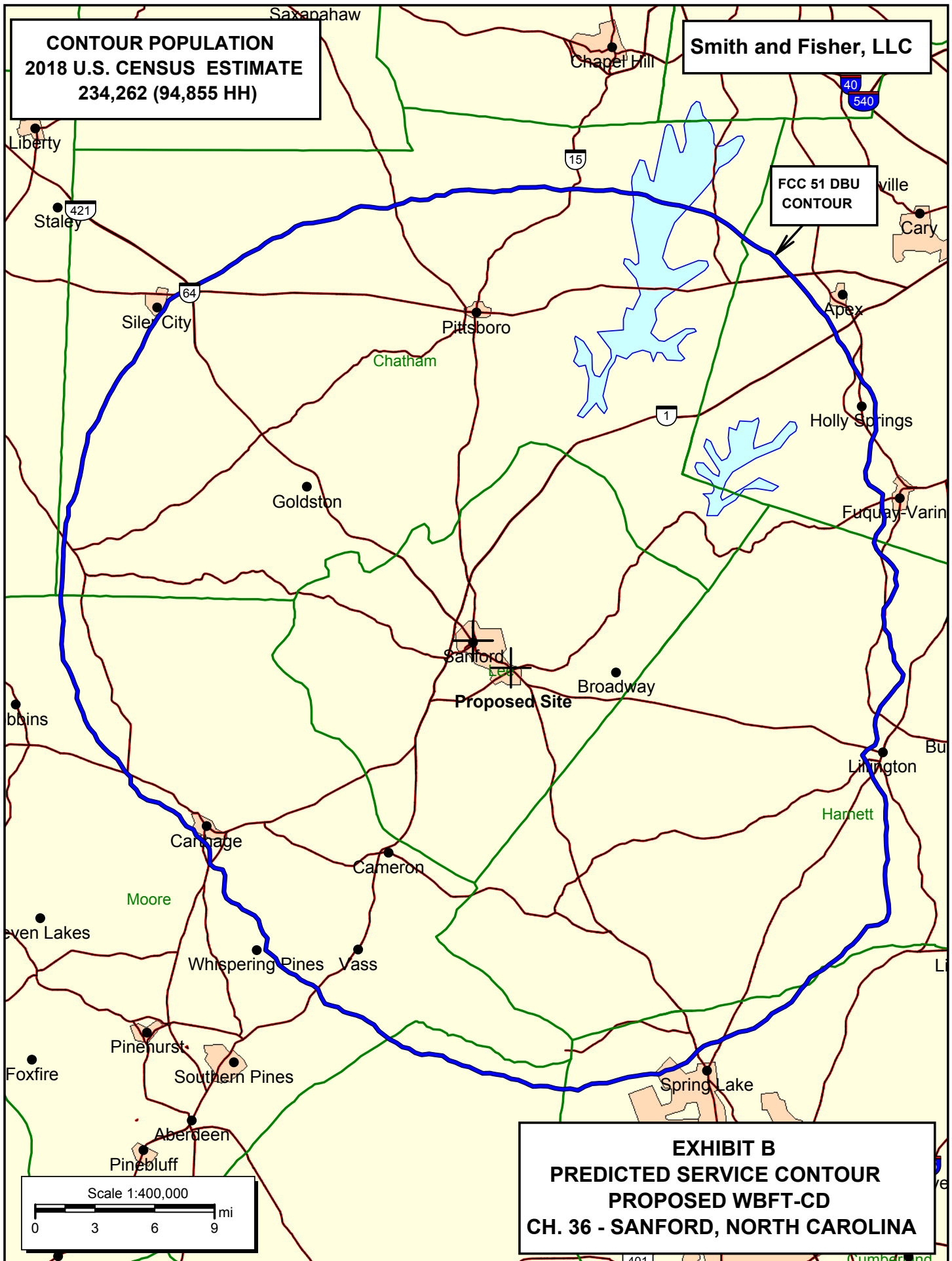
Since no change in the overall height or location of the existing tower is proposed herein the Federal Aviation Administration has not been notified of this application. In addition, the FCC has issued Antenna Structure Registration Number 1021844 to this tower.

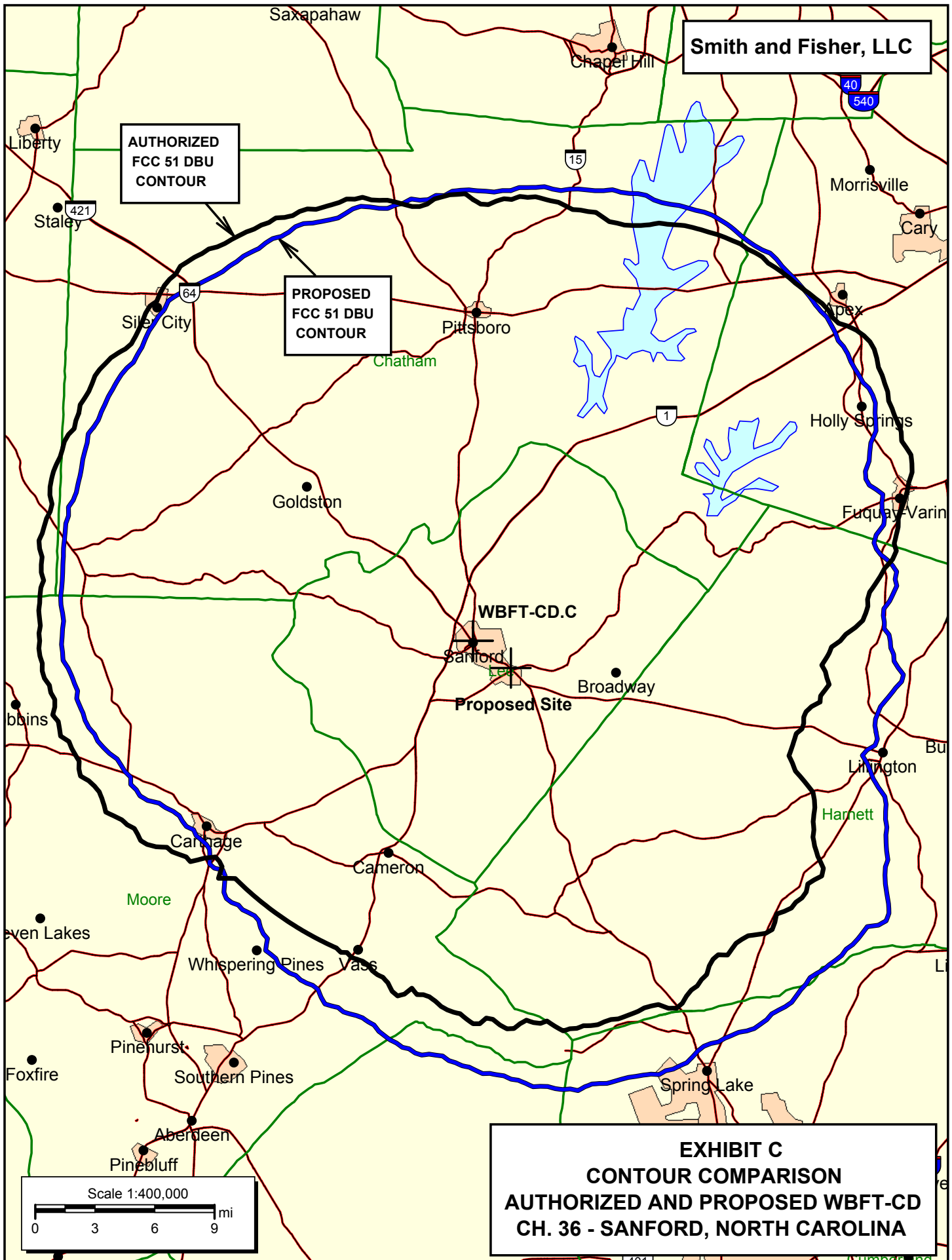
I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

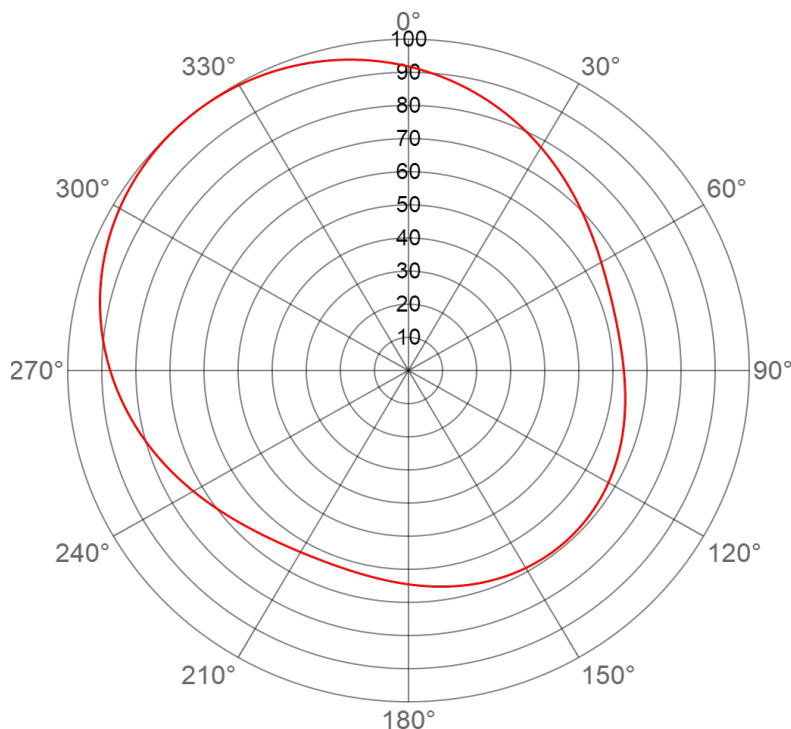
A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized flourish at the end.

KEVIN T. FISHER

May 20, 2020







Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

Date **20 May 2020**

Call Letters

Channel **36**Antenna Type **B**

Location

Customer

Gain **1.7 (2.30 dB)****Calculated**Drawing # **b-pattern**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.918	36	0.748	72	0.631	108	0.659	144	0.692	180	0.646	216	0.643	252	0.788	288	0.946	324	0.999
1	0.914	37	0.743	73	0.630	109	0.661	145	0.691	181	0.644	217	0.646	253	0.793	289	0.950	325	0.999
2	0.910	38	0.738	74	0.629	110	0.662	146	0.691	182	0.642	218	0.648	254	0.798	290	0.953	326	0.998
3	0.906	39	0.734	75	0.628	111	0.664	147	0.690	183	0.641	219	0.651	255	0.803	291	0.956	327	0.997
4	0.902	40	0.729	76	0.628	112	0.666	148	0.690	184	0.639	220	0.653	256	0.808	292	0.959	328	0.997
5	0.897	41	0.724	77	0.627	113	0.667	149	0.689	185	0.638	221	0.656	257	0.813	293	0.962	329	0.996
6	0.893	42	0.720	78	0.627	114	0.669	150	0.689	186	0.637	222	0.659	258	0.818	294	0.964	330	0.995
7	0.889	43	0.715	79	0.627	115	0.670	151	0.688	187	0.635	223	0.662	259	0.823	295	0.967	331	0.993
8	0.884	44	0.711	80	0.627	116	0.672	152	0.687	188	0.634	224	0.665	260	0.828	296	0.970	332	0.992
9	0.880	45	0.707	81	0.627	117	0.673	153	0.686	189	0.633	225	0.668	261	0.833	297	0.972	333	0.991
10	0.875	46	0.702	82	0.627	118	0.675	154	0.685	190	0.632	226	0.672	262	0.837	298	0.974	334	0.990
11	0.871	47	0.698	83	0.627	119	0.676	155	0.684	191	0.631	227	0.675	263	0.842	299	0.977	335	0.988
12	0.866	48	0.694	84	0.628	120	0.678	156	0.683	192	0.630	228	0.679	264	0.847	300	0.979	336	0.986
13	0.861	49	0.690	85	0.628	121	0.679	157	0.682	193	0.629	229	0.682	265	0.852	301	0.981	337	0.985
14	0.857	50	0.686	86	0.629	122	0.680	158	0.680	194	0.629	230	0.686	266	0.857	302	0.983	338	0.983
15	0.852	51	0.682	87	0.629	123	0.682	159	0.679	195	0.628	231	0.690	267	0.861	303	0.985	339	0.981
16	0.847	52	0.679	88	0.630	124	0.683	160	0.678	196	0.628	232	0.694	268	0.866	304	0.986	340	0.979
17	0.842	53	0.675	89	0.631	125	0.684	161	0.676	197	0.627	233	0.698	269	0.871	305	0.988	341	0.977
18	0.837	54	0.672	90	0.632	126	0.685	162	0.675	198	0.627	234	0.702	270	0.875	306	0.990	342	0.974
19	0.833	55	0.668	91	0.633	127	0.686	163	0.673	199	0.627	235	0.707	271	0.880	307	0.991	343	0.972
20	0.828	56	0.665	92	0.634	128	0.687	164	0.672	200	0.627	236	0.711	272	0.884	308	0.992	344	0.970
21	0.823	57	0.662	93	0.635	129	0.688	165	0.670	201	0.627	237	0.715	273	0.889	309	0.993	345	0.967
22	0.818	58	0.659	94	0.637	130	0.689	166	0.669	202	0.627	238	0.720	274	0.893	310	0.995	346	0.964
23	0.813	59	0.656	95	0.638	131	0.689	167	0.667	203	0.627	239	0.724	275	0.897	311	0.996	347	0.962
24	0.808	60	0.653	96	0.639	132	0.690	168	0.666	204	0.628	240	0.729	276	0.902	312	0.997	348	0.959
25	0.803	61	0.651	97	0.641	133	0.690	169	0.664	205	0.628	241	0.734	277	0.906	313	0.997	349	0.956
26	0.798	62	0.648	98	0.642	134	0.691	170	0.662	206	0.629	242	0.738	278	0.910	314	0.998	350	0.953
27	0.793	63	0.646	99	0.644	135	0.691	171	0.661	207	0.630	243	0.743	279	0.914	315	0.999	351	0.950
28	0.788	64	0.643	100	0.646	136	0.692	172	0.659	208	0.631	244	0.748	280	0.918	316	0.999	352	0.946
29	0.783	65	0.641	101	0.647	137	0.692	173	0.657	209	0.632	245	0.753	281	0.922	317	0.999	353	0.943
30	0.778	66	0.639	102	0.649	138	0.692	174	0.655	210	0.633	246	0.758	282	0.925	318	1.000	354	0.940
31	0.773	67	0.638	103	0.650	139	0.692	175	0.654	211	0.635	247	0.763	283	0.929	319	1.000	355	0.936
32	0.768	68	0.636	104	0.652	140	0.692	176	0.652	212	0.636	248	0.768	284	0.933	320	1.000	356	0.933
33	0.763	69	0.635	105	0.654	141	0.692	177	0.650	213	0.638	249	0.773	285	0.936	321	1.000	357	0.929
34	0.758	70	0.633	106	0.655	142	0.692	178	0.649	214	0.639	250	0.778	286	0.940	322	1.000	358	0.925
35	0.753	71	0.632	107	0.657	143	0.692	179	0.647	215	0.641	251	0.783	287	0.943	323	0.999	359	0.922

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ELEVATION PATTERN

Exhibit No. **D**
 Date **20 May 2020**
 Call Letters **WBFT-CD**
 Channel **36**
 Antenna Type **B**
 Location **Sanford, NC**
 Customer

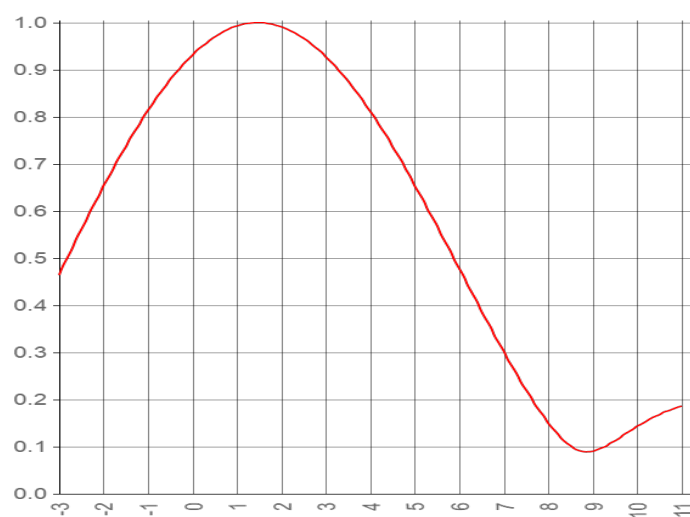
RMS Gain at Main Lobe **8.0 (9.03 dB)**

Beam Tilt **1.5 Degrees**

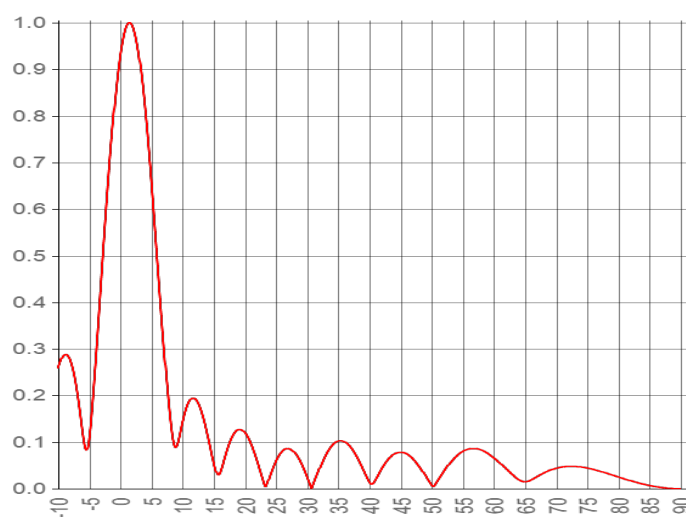
RMS Gain at Horizontal **6.9 (8.42 dB)**

Drawing #

Calculated



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.258	10	0.143	30	0.025	50	0.007	70	0.044
-9	0.287	11	0.186	31	0.010	51	0.018	71	0.047
-8	0.273	12	0.193	32	0.044	52	0.038	72	0.048
-7	0.213	13	0.166	33	0.073	53	0.056	73	0.048
-6	0.117	14	0.115	34	0.093	54	0.070	74	0.047
-5	0.111	15	0.056	35	0.102	55	0.080	75	0.044
-4	0.271	16	0.034	36	0.101	56	0.085	76	0.041
-3	0.464	17	0.078	37	0.088	57	0.086	77	0.038
-2	0.652	18	0.112	38	0.068	58	0.083	78	0.034
-1	0.814	19	0.127	39	0.041	59	0.076	79	0.029
0	0.932	20	0.120	40	0.015	60	0.066	80	0.025
1	0.993	21	0.095	41	0.020	61	0.055	81	0.021
2	0.991	22	0.058	42	0.044	62	0.042	82	0.017
3	0.928	23	0.015	43	0.063	63	0.030	83	0.013
4	0.811	24	0.027	44	0.074	64	0.019	84	0.010
5	0.655	25	0.060	45	0.078	65	0.015	85	0.007
6	0.478	26	0.080	46	0.075	66	0.019	86	0.004
7	0.301	27	0.086	47	0.064	67	0.027	87	0.003
8	0.150	28	0.077	48	0.048	68	0.034	88	0.001
9	0.090	29	0.055	49	0.028	69	0.040	89	0.000

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TVSTUDY INTERFERENCE ANALYSIS RESULTS
 PROPOSED WBFT-CD
 CHANNEL 36 – SANFORD, NORTH CAROLINA

Study created: 2020.05.19 13:30:32

Study build station data: LMS TV 2020-05-06

Proposal: WBFT-CD D36 DC CP SANFORD, NC

File number: BLANK0000034838

Facility ID: 64400

Station data: User record

Record ID: 763

Country: U.S.

Build options:

Protect LPTV records from Class A

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W22CJ	N22-	TX	LIC	JACKSONVILLE, NC	BLTT19990629JD	176.3 km
No	WACN-LP	N34z	TX	LIC	RALEIGH, NC	BLTTL20060609AAA	60.8
Yes	WFMY-TV	D35	DT	CP	GREENSBORO, NC	BLANK0000028086	77.4
Yes	WFMY-TV	D35	DT	BL	GREENSBORO, NC	DTVBL72064	77.4
No	W35DW-D	D35	LD	CP	GREENVILLE, NC	BLANK0000072082	189.5
No	WTMV-LD	D35	LD	LIC	OGDEN, NC	BLANK0000058471	178.0
No	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	429.2
No	WTTG	D36	DT	CP	WASHINGTON, DC	BLANK0000068634	429.2
No	WFXG	D36	DT	LIC	AUGUSTA, GA	BLANK0000081277	335.2
No	WGCB-LD	D36-	LD	LIC	SAVANNAH, GA	BLANK0000080179	428.9
No	WKAS	D36	DT	LIC	ASHLAND, KY	BLANK0000087441	454.2
No	WASV-LD	D36	LD	LIC	ASHEVILLE, NC	BLANK0000108621	319.4
Yes	W30CR-D	D36	LD	CP	BISCOE, NC	BLANK0000054531	65.6
Yes	W24CP-D	D36	LD	CP	DURHAM, NC	BLANK0000052041	45.5
No	WEPX-TV	D36	DT	LIC	GREENVILLE, NC	BLANK0000090758	180.0
No	WAXN-TV	D36	LD	LIC	KANNAPOLIS, NC	BLCDT20100630BZK	134.9
No	WUNE-TV	D36	DT	LIC	LINVILLE, NC	BLANK0000111606	252.2
Yes	WFXB	D36	DT	LIC	MYRTLE BEACH, SC	BLANK0000081825	141.5
No	WVLR	D36	DT	LIC	TAZEWELL, TN	BLANK0000097858	413.3
No	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	BLANK0000111670	327.6
No	WSVF-CD	D36	DC	LIC	HARRISONBURG, VA	BLANK0000107363	327.6
No	WRID-LD	D36	LD	CP	RICHMOND, VA	BLANK0000054443	266.5

Yes	WFXR	D36	DT LIC	ROANOKE, VA	BLANK0000080996	212.9
No	WYSJ-CA	D36	DC CP	YORKTOWN, VA	BLANK0000034756	301.4
No	WYSJ-CA	D36	DC BL	YORKTOWN, VA	DTVBL35134	301.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D36
Mask: Stringent
Latitude: 35 27 41.30 N (NAD83)
Longitude: 79 8 47.70 W
Height AMSL: 178.9 m
HAAT: 0.0 m
Peak ERP: 10.0 kW
Antenna: 0.0 deg
Elev Pattn: Generic
Elec Tilt: 1.75

50.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	8.43 kW	87.4 m	38.5 km
45.0	5.10	98.4	37.4
90.0	4.19	63.3	31.5
135.0	5.00	80.5	34.9
180.0	4.37	73.9	33.3
225.0	4.60	48.7	29.1
270.0	7.67	71.7	35.8
315.0	9.95	93.7	40.1

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 77 m

Distance to Canadian border: 746.2 km

Distance to Mexican border: 1994.4 km

Conditions at FCC monitoring station: Laurel MD

Bearing: 25.8 degrees Distance: 460.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 290.6 degrees Distance: 2339.4 km

Study cell size: 1.00 km

Profile point spacing: 0.10 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 WBFT-CD
CHANNEL 36 – SANFORD, NORTH CAROLINA
[MODIFICATION OF CONSTRUCTION PERMIT 0000034838]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Sanford facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 10.0 kW, an antenna radiation center 47.2 meters above ground, and the specific elevation pattern of the proposed Dielectric TLP-8B antenna, maximum power density two meters above ground of 0.00085 mW/cm^2 is calculated to occur 29 meters northwest of the base of the tower. Since this is only 0.2 percent of the 0.40 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 36 (602-608 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.