EXHIBIT E

ENGINEERING STATEMENT
APPLICATION FOR A DTV
DISPLACEMENT APPLICATION
FOR AN EXISTING TELEVISION TRANSLATOR
WLQP-LP, LIMA, OHIO
CHANNEL 27 15 KW ND ERP
358.8 METERS RC/AMSL

MAY 2018

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1420 N Street, N.W., Suite One, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 14th day of May, 2018.

Notary Public

My Commission Expires: 2/28/2023

CAROLYN L. [illegible] NOTARY PUBLIC DISTRICT OF COLUMBIA EXPIRES FEB. 28 2023

Introduction

This engineering statement has been prepared on behalf of West Central Ohio Broadcasting, Inc., licensee of low-power television station WLQP-LP, Lima, Ohio. This statement supports the licensee's request for displacement to convert the current analog operation on the licensed channel and currently operating under special temporary authority to channel 27 with a DTV effective radiated power ("ERP") of 15 kW non-directional at a radiation center above mean sea level ("RCAMSL") of 358.8 meters.

WLQP-LP has operated for several years under special temporary authority. The proposed operation is approximately 29.4 miles (47.2 km) from the existing STA site and the noise-limited contour overlaps the WLQP-LP licensed noise-limited contour.

Transmitter Site

The proposed new directional antenna will be utilized in order to protect domestic and international constraints. The geographic coordinates of the site follow below.

North Latitude: 41° 08' 11.8"

West Longitude: 83° 54' 24.2"

NAD-27

North Latitude: 48° 08' 12"

West Longitude: 83° 54' 24"

NAD-83

The Antenna Structure Registration Number ("ASRN") for the existing tower is 1016071. A tower sketch has been included as Exhibit E-1.

Equipment Data

Transmitter:	Type-approved
Transmission Line:	Andrew, Type HJ7-50A, 1-5/8" air dielectric, 164.3 meters (539 feet) or equivalent
Antenna:	Alive Telecom, Model ATC-BCE512O-V0-27, 1.25º electrical beam tilt or equivalent. Exhibit E-2 provides the antenna manufacturer antenna data
Filter Type:	Full-Service

Power Data

Transmitter at Output Filter:		3.03 kW	4.81 dBk
Transmission Line Loss:		53.6%	2.71 dB
Input Into Antenna:		1.624 kW	2.10 dBk
Antenna Gain:	H	9.23	9.65 dBd
	V	2.77	4.42 dBd
ERP:	H	15 kW	11.76 dBk
	V	4.5 kW	6.53 dBk

Elevation Data

Elevation of site above mean sea level	221.6 meters (727 feet)
Center of radiation of antenna above ground level	137.2 meters (450 feet)
Center of radiation of antenna above mean sea level	358.8 meters (1177.2 feet)

Overall antenna structure height above ground level	332.1 meters (1089.6 feet)
Overall antenna structure height above mean sea level	553.7 meters (1816.6 feet)

Note: slight height differences may result due to conversion to/from metric.

Interference Analysis

A study of predicted interference caused by the proposed WLQP-LP low-power digital operation has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at fcc.gov/oet/tvstudy. Comparison of service/interference areas and population indicates this model closely matches the FCC's digital low power TV/translator evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using one-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2010 census centroids, all studies are based upon data in the current LMS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed WLQP-LP low-power digital facilities and all relevant stations listed in the FCC data base. The study results and the included stations are listed in Exhibit E-3.

International

A comprehensive search of LMS databases available containing Canadian broadcast information has been made. It has been determined that the proposed operation is located approximately 106.7 km to the nearest Canadian border and F(50,10) proposed contour [cross] the border. The nearest listed Canadian station is CKCO-TV-3 located 159.6 km from the proposed WLQP-LP site. No interference is predicted to [the] CKCO-TV-3 service area. DTV station and as shown by the proposed antenna pattern a null is produced in the direction of the nearest Canadian land mass. [A special designated antenna is specified that will protect the U.S.-Canadian border. Therefore, coordination will be required.

Other Licensed and Broadcast Facilities

Based on the FCC CDBS, there is one FM station and one TV broadcast station within 0.2 km and no AM broadcast stations within 3.22 km.

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the licensee will install filters or take other measures as necessary to resolve the problem.

FCC Rule, Section 1.1307

The proposed 15 kW directional operation will utilize an Alive Telecom, Model ATC-BCE512O-V0-27 antenna (or equivalent) described above with a center of radiation above ground of 137.2 meters. The proposed antenna is side-mounted on a steel lattice tower with an overall height of 332.1 meters above ground.

The proposed operation based upon the current OET Bulletin No. 65, Edition 97-01 dated August 1997 and Supplement A meets the provisions of the FCC radiofrequency field ("RFF") guidelines, and thus, complies with Section 1.1307 of the FCC Rules. The elevation pattern for the Alive Telecom, Model ATC-BCE512O-V0-27 antenna, Exhibit E-2 shows a maximum relative field of less than 0.095 toward the ground (60° to 90° below the horizontal). Calculation according to OET Bulletin 65 predicts a maximum RFF power density of less than one $\mu W/cm^2$, 2 meters above ground (135.2 meters) or less than one percent (1%) of the [367] $\mu W/cm^2$ uncontrolled Maximum Permissible Exposure ("MPE") guideline.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on or near the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the licensee indicates:

(a)(1) The existing tower is not located in an officially designated wilderness area.

(a)(2) The existing tower is not located in an officially designated wildlife preserve.

(a)(3)	The proposed facilities will not affect any listed threatened or endangered species or habitats.
(a)(3)(ii)	The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
(a)(4)	The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
(a)(5)	The existing tower is not located near any known Indian religious sites.
(a)(6)	The existing tower is not located in a flood plain.
(a)(7)	The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
(a)(8)	It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
(b)	Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

ABOVE MEAN SEA LEVEL

ABOVE GROUND

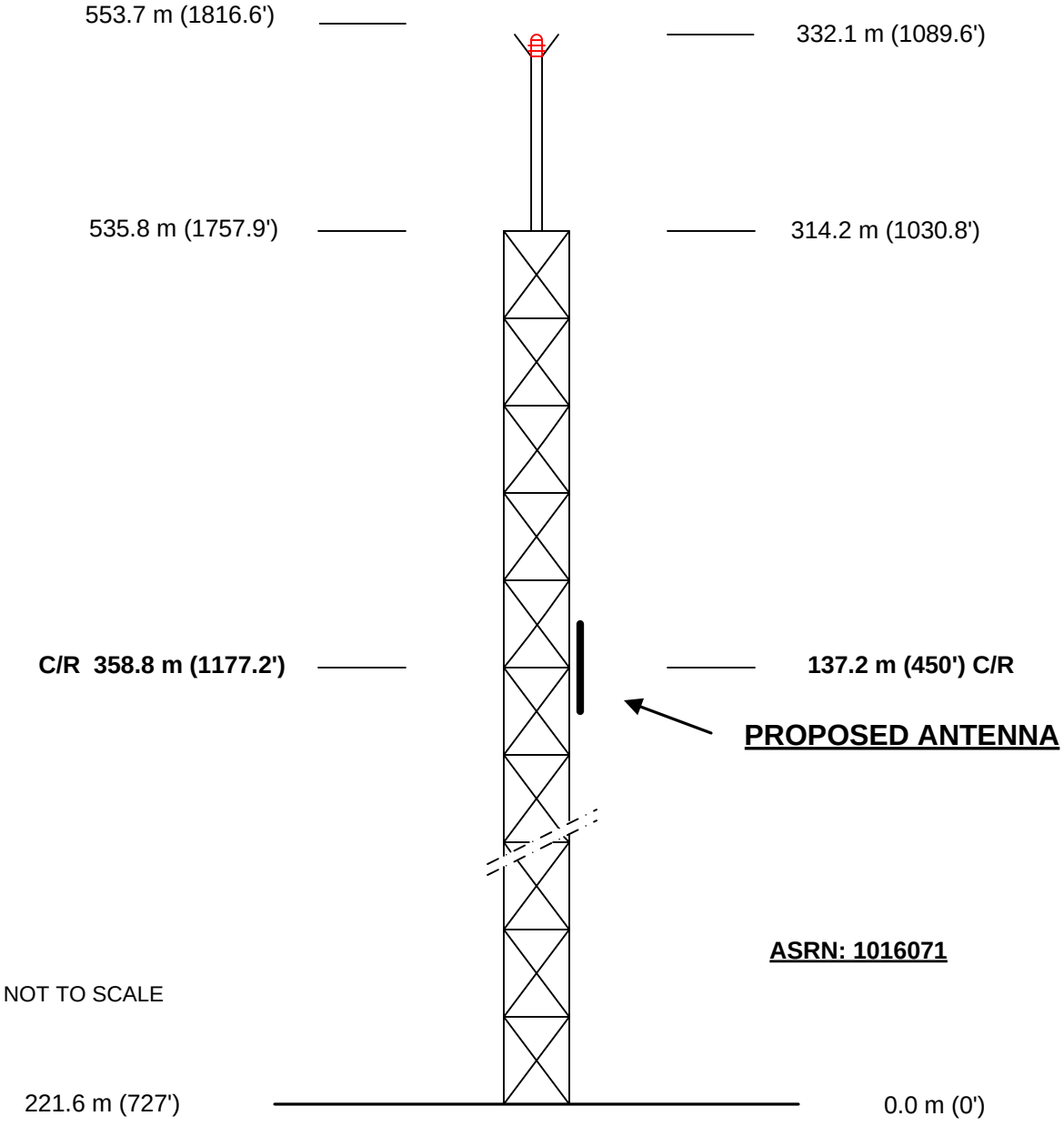


EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
WLQP-LP, LIMA, OHIO
MAY 2018

COHEN, DIPPELL AND EVERIST, P.C. Consulting Engineers Washington, D.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

Antenna Proposal

WLQP
Lima, OH
ATC-BCE512O-V0-27

E-POL Coaxial Slot Antenna
Full Radome Azimuth Pattern
Side Mount

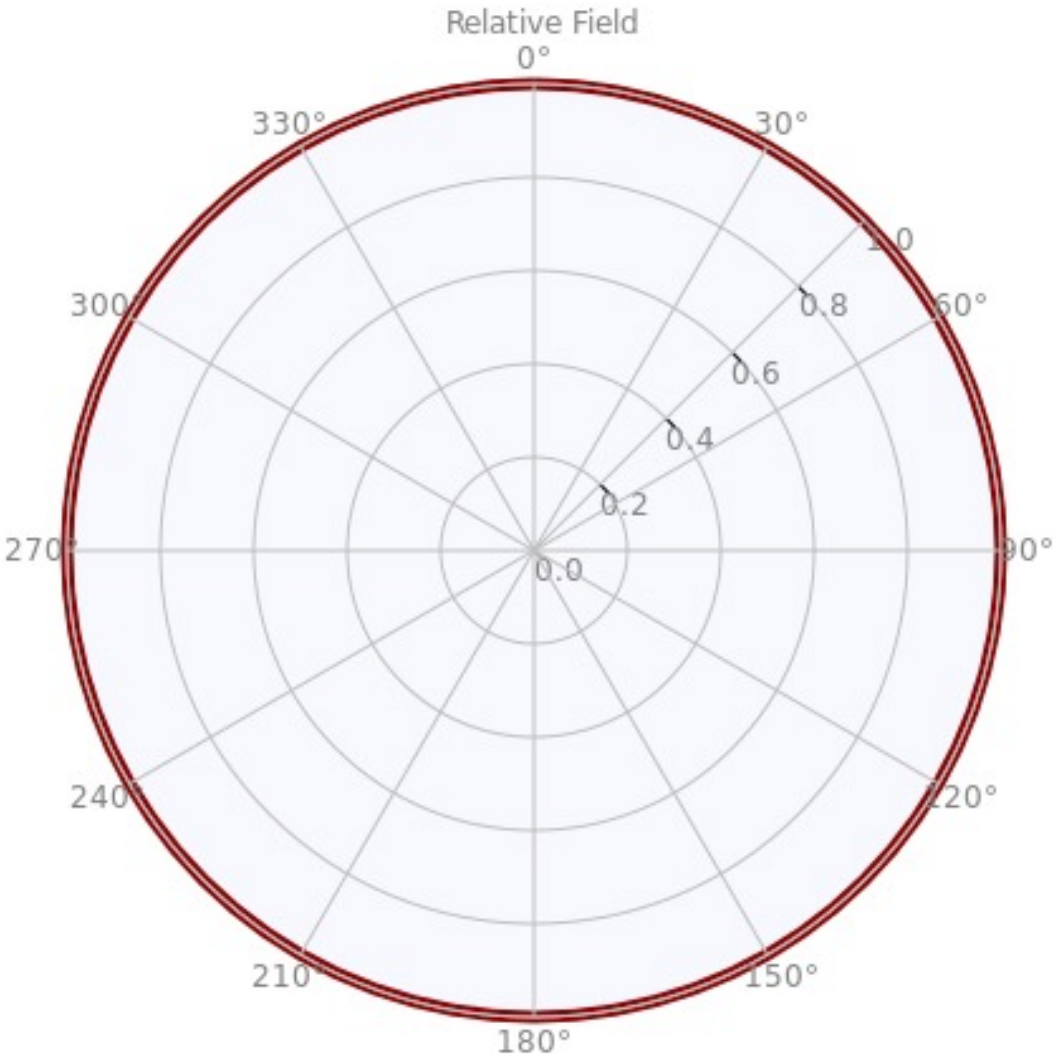
05/10/2018

9850 W 190th Unit F Mokena IL 60448 www.alivetele.com 708 478 6886

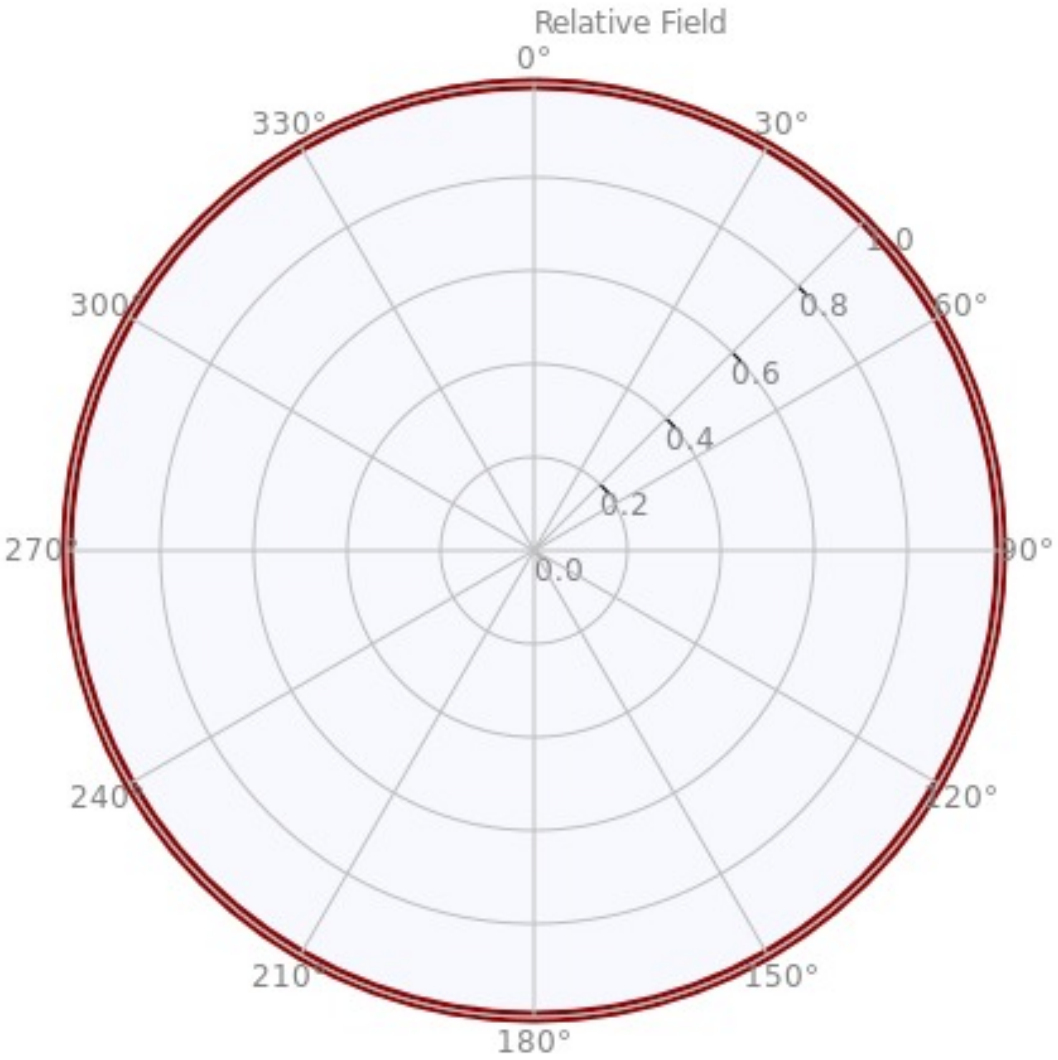
Summary

Antenna Specifications	
Antenna Type	Coaxial Slot
Antenna Model	ATC-BCE512O-V0-27
Electrical Specifications	
Channel(s)	27
Frequency Range (MHz)	548 - 554
Polarization	Elliptical
Horizontal Azimuth Pattern	Omni
Directivity	1.00
dB	0.00
Vertical Azimuth Pattern	V-Omni
Directivity	1.00
dB	0.00
Vertical Component	30 %
Azimuth Peak of Beam	0 °
Elevation Pattern	BC12
Directivity	12.00
dB	10.79
Electrical Beam Tilt	1.25 °
Antenna Peak Power Gain	
Horizontal Gain Power	9.23
Horizontal Gain Ratio	9.65 dBd
Vertical Gain Power	2.77
Vertical Gain Ratio	4.42 dBd
Line Type	1-5/8" 50 Ohm Air Flex Line
Line Length	539 ft
Total Line Loss	2.71 dB
Effective Radiated Power (ERP)	15 kW
ERP Vertical Power	4.50 kW
Transmitter Power Output (TPO)	
TPO Power	3.03 kW
TPO Ratio	4.82 dBk
Input Type	EIA 1-5/8"
Mechanical Specifications	
Mount Type	Side Mount
Length of Antenna	24.54 ft
Center of Radiation	12.27 ft
Radome Diameter	10.25"
Color	White
Calculated Weight	275 lbs
Windload (Shear)	Contact Alive Telelcom 1 2

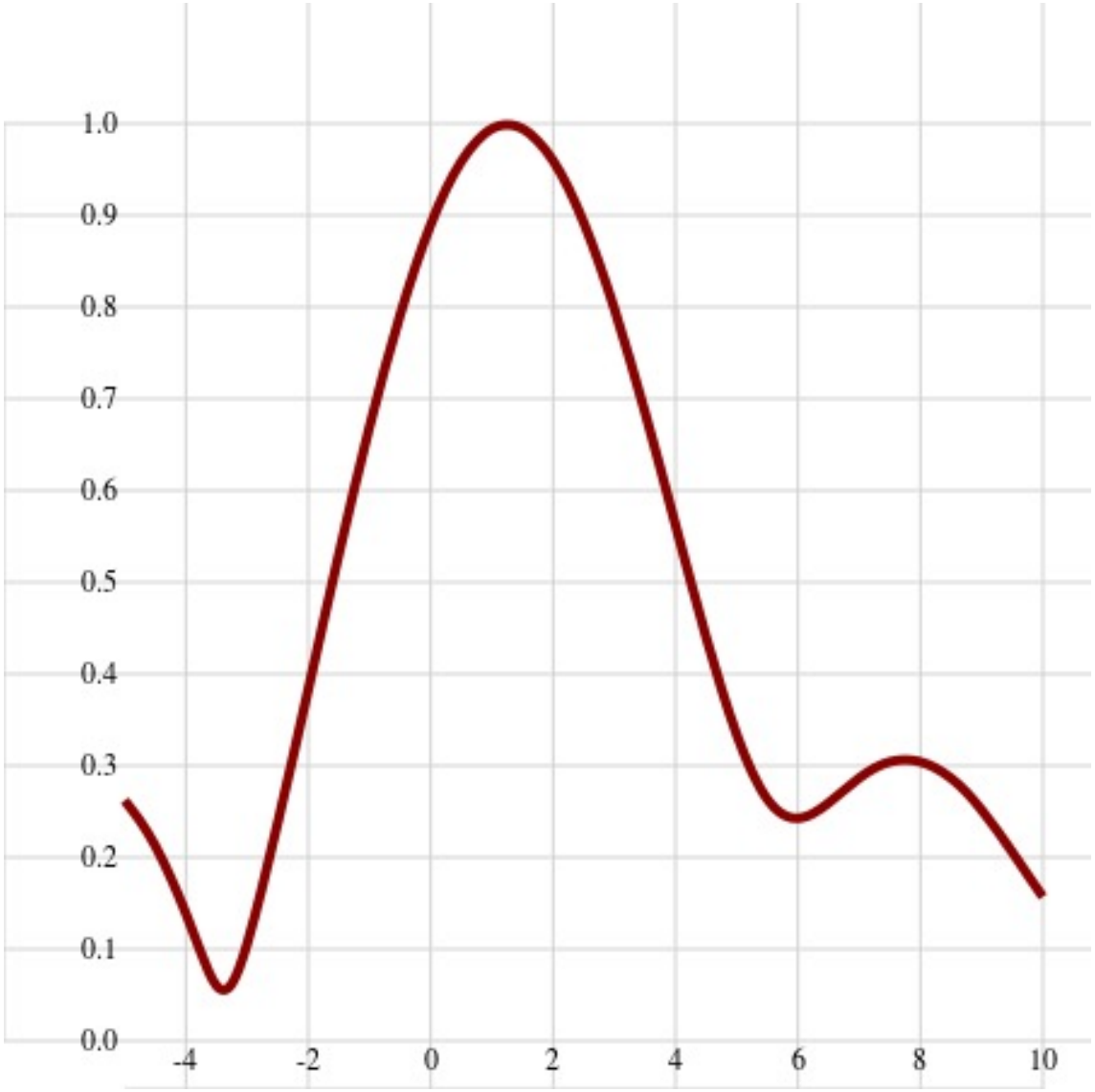
Horizontal Azimuth Pattern



Vertical Azimuth Pattern



Elevation pattern -5 to 10



Elevation pattern -5 to 90

Azimuth Horizontal Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
2°	1.000	0.00	92°	1.000	0.00	182°	1.000	0.00	272°	1.000	0.00
4°	1.000	0.00	94°	1.000	0.00	184°	1.000	0.00	274°	1.000	0.00
6°	1.000	0.00	96°	1.000	0.00	186°	1.000	0.00	276°	1.000	0.00
8°	1.000	0.00	98°	1.000	0.00	188°	1.000	0.00	278°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
12°	1.000	0.00	102°	1.000	0.00	192°	1.000	0.00	282°	1.000	0.00
14°	1.000	0.00	104°	1.000	0.00	194°	1.000	0.00	284°	1.000	0.00
16°	1.000	0.00	106°	1.000	0.00	196°	1.000	0.00	286°	1.000	0.00
18°	1.000	0.00	108°	1.000	0.00	198°	1.000	0.00	288°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
22°	1.000	0.00	112°	1.000	0.00	202°	1.000	0.00	292°	1.000	0.00
24°	1.000	0.00	114°	1.000	0.00	204°	1.000	0.00	294°	1.000	0.00
26°	1.000	0.00	116°	1.000	0.00	206°	1.000	0.00	296°	1.000	0.00
28°	1.000	0.00	118°	1.000	0.00	208°	1.000	0.00	298°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
32°	1.000	0.00	122°	1.000	0.00	212°	1.000	0.00	302°	1.000	0.00
34°	1.000	0.00	124°	1.000	0.00	214°	1.000	0.00	304°	1.000	0.00
36°	1.000	0.00	126°	1.000	0.00	216°	1.000	0.00	306°	1.000	0.00
38°	1.000	0.00	128°	1.000	0.00	218°	1.000	0.00	308°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
42°	1.000	0.00	132°	1.000	0.00	222°	1.000	0.00	312°	1.000	0.00
44°	1.000	0.00	134°	1.000	0.00	224°	1.000	0.00	314°	1.000	0.00
46°	1.000	0.00	136°	1.000	0.00	226°	1.000	0.00	316°	1.000	0.00
48°	1.000	0.00	138°	1.000	0.00	228°	1.000	0.00	318°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
52°	1.000	0.00	142°	1.000	0.00	232°	1.000	0.00	322°	1.000	0.00
54°	1.000	0.00	144°	1.000	0.00	234°	1.000	0.00	324°	1.000	0.00
56°	1.000	0.00	146°	1.000	0.00	236°	1.000	0.00	326°	1.000	0.00
58°	1.000	0.00	148°	1.000	0.00	238°	1.000	0.00	328°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
62°	1.000	0.00	152°	1.000	0.00	242°	1.000	0.00	332°	1.000	0.00
64°	1.000	0.00	154°	1.000	0.00	244°	1.000	0.00	334°	1.000	0.00
66°	1.000	0.00	156°	1.000	0.00	246°	1.000	0.00	336°	1.000	0.00
68°	1.000	0.00	158°	1.000	0.00	248°	1.000	0.00	338°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
72°	1.000	0.00	162°	1.000	0.00	252°	1.000	0.00	342°	1.000	0.00
74°	1.000	0.00	164°	1.000	0.00	254°	1.000	0.00	344°	1.000	0.00
76°	1.000	0.00	166°	1.000	0.00	256°	1.000	0.00	346°	1.000	0.00
78°	1.000	0.00	168°	1.000	0.00	258°	1.000	0.00	348°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00
82°	1.000	0.00	172°	1.000	0.00	262°	1.000	0.00	352°	1.000	0.00
84°	1.000	0.00	174°	1.000	0.00	264°	1.000	0.00	354°	1.000	0.00
86°	1.000	0.00	176°	1.000	0.00	266°	1.000	0.00	356°	1.000	0.00
88°	1.000	0.00	178°	1.000	0.00	268°	1.000	0.00	358°	1.000	0.00

Azimuth Pattern Tabulation, FCC

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00

Elevation Pattern Tabulation

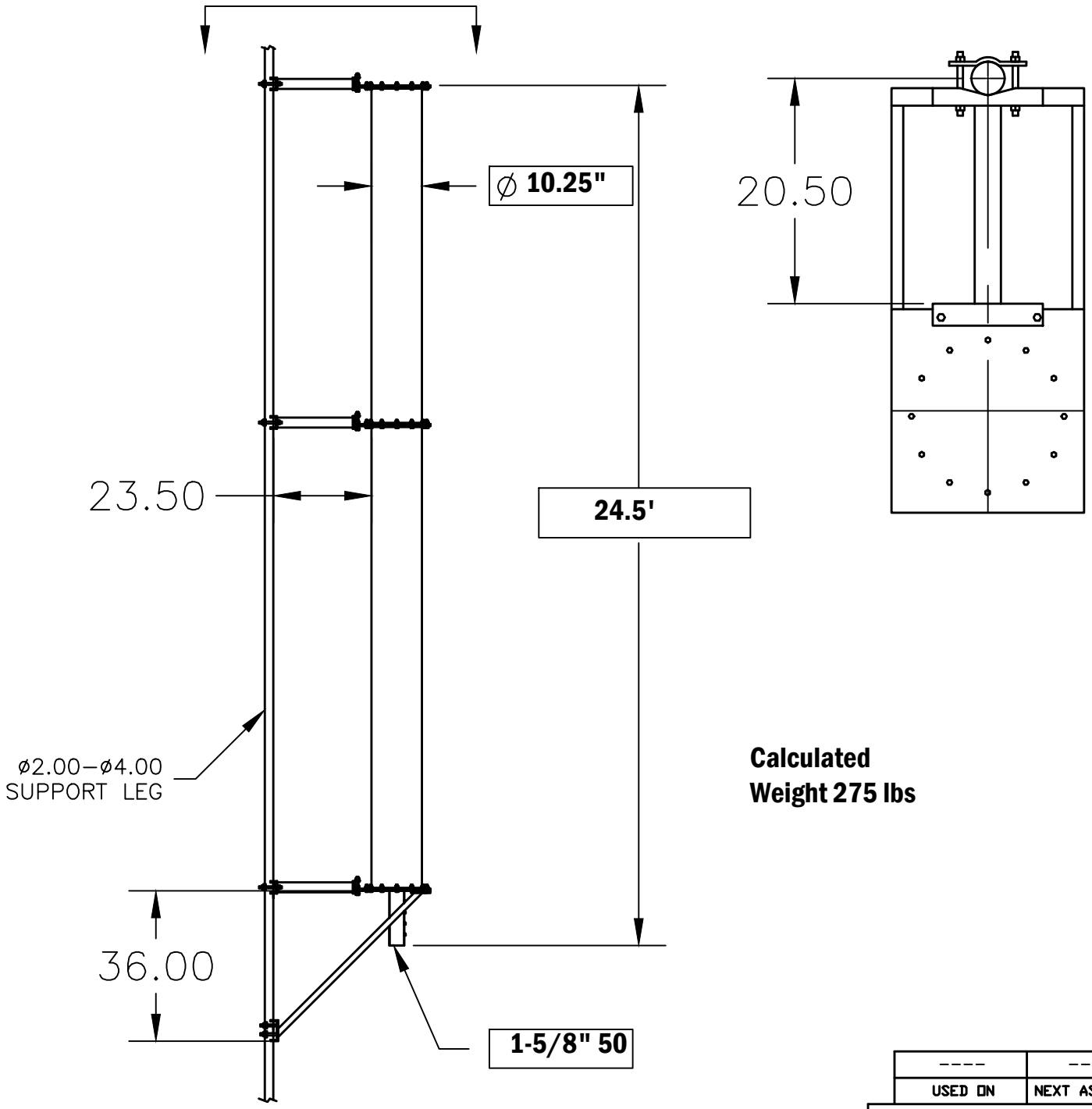
-5 to 10 in 0.25 increments, 10 to 90 in 0.50 increments

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.262	-11.63	8.75	0.272	-11.31	35.00	0.081	-21.83	62.50	0.042	-27.54
-4.75	0.241	-12.36	9.00	0.252	-11.97	35.50	0.078	-22.16	63.00	0.053	-25.51
-4.50	0.214	-13.39	9.25	0.230	-12.77	36.00	0.071	-22.97	63.50	0.062	-24.15
-4.25	0.179	-14.94	9.50	0.206	-13.72	36.50	0.060	-24.44	64.00	0.071	-22.97
-4.00	0.140	-17.08	9.75	0.181	-14.85	37.00	0.047	-26.56	64.50	0.078	-22.16
-3.75	0.095	-20.45	10.00	0.157	-16.08	37.50	0.035	-29.12	65.00	0.084	-21.51
-3.50	0.053	-25.51	10.50	0.117	-18.64	38.00	0.028	-31.06	65.50	0.088	-21.11
-3.25	0.054	-25.35	11.00	0.104	-19.66	38.50	0.032	-29.90	66.00	0.091	-20.82
-3.00	0.103	-19.74	11.50	0.121	-18.34	39.00	0.043	-27.33	66.50	0.093	-20.63
-2.75	0.167	-15.55	12.00	0.147	-16.65	39.50	0.055	-25.19	67.00	0.093	-20.63
-2.50	0.237	-12.51	12.50	0.167	-15.55	40.00	0.066	-23.61	67.50	0.092	-20.72
-2.25	0.309	-10.20	13.00	0.177	-15.04	40.50	0.073	-22.73	68.00	0.090	-20.92
-2.00	0.383	-8.34	13.50	0.173	-15.24	41.00	0.077	-22.27	68.50	0.086	-21.31
-1.75	0.458	-6.78	14.00	0.158	-16.03	41.50	0.077	-22.27	69.00	0.082	-21.72
-1.50	0.531	-5.50	14.50	0.132	-17.59	42.00	0.073	-22.73	69.50	0.077	-22.27
-1.25	0.602	-4.41	15.00	0.102	-19.83	42.50	0.065	-23.74	70.00	0.071	-22.97
-1.00	0.670	-3.48	15.50	0.075	-22.50	43.00	0.055	-25.19	70.50	0.065	-23.74
-0.75	0.734	-2.69	16.00	0.064	-23.88	43.50	0.043	-27.33	71.00	0.058	-24.73
-0.50	0.792	-2.03	16.50	0.076	-22.38	44.00	0.031	-30.17	71.50	0.050	-26.02
-0.25	0.845	-1.46	17.00	0.097	-20.26	44.50	0.025	-32.04	72.00	0.043	-27.33
0.00	0.891	-1.00	17.50	0.115	-18.79	45.00	0.028	-31.06	72.50	0.036	-28.87
0.25	0.930	-0.63	18.00	0.126	-17.99	45.50	0.038	-28.40	73.00	0.029	-30.75
0.50	0.960	-0.35	18.50	0.127	-17.92	46.00	0.050	-26.02	73.50	0.022	-33.15
0.75	0.982	-0.16	19.00	0.119	-18.49	46.50	0.060	-24.44	74.00	0.016	-35.92
1.00	0.996	-0.03	19.50	0.104	-19.66	47.00	0.069	-23.22	74.50	0.011	-39.17
1.25	1.000	0.00	20.00	0.083	-21.62	47.50	0.074	-22.62	75.00	0.010	-40.00
1.50	0.996	-0.03	20.50	0.061	-24.29	48.00	0.077	-22.27	75.50	0.013	-37.72
1.75	0.982	-0.16	21.00	0.048	-26.38	48.50	0.076	-22.38	76.00	0.017	-35.39
2.00	0.961	-0.35	21.50	0.052	-25.68	49.00	0.072	-22.85	76.50	0.021	-33.56
2.25	0.931	-0.62	22.00	0.069	-23.22	49.50	0.066	-23.61	77.00	0.026	-31.70
2.50	0.893	-0.98	22.50	0.086	-21.31	50.00	0.057	-24.88	77.50	0.030	-30.46
2.75	0.849	-1.42	23.00	0.098	-20.18	50.50	0.046	-26.74	78.00	0.033	-29.63
3.00	0.799	-1.95	23.50	0.104	-19.66	51.00	0.035	-29.12	78.50	0.037	-28.64
3.25	0.744	-2.57	24.00	0.102	-19.83	51.50	0.025	-32.04	79.00	0.039	-28.18
3.50	0.686	-3.27	24.50	0.093	-20.63	52.00	0.021	-33.56	79.50	0.041	-27.74
3.75	0.625	-4.08	25.00	0.079	-22.05	52.50	0.026	-31.70	80.00	0.043	-27.33
4.00	0.562	-5.01	25.50	0.062	-24.15	53.00	0.037	-28.64	80.50	0.044	-27.13
4.25	0.500	-6.02	26.00	0.045	-26.94	53.50	0.048	-26.38	81.00	0.044	-27.13
4.50	0.439	-7.15	26.50	0.038	-28.40	54.00	0.058	-24.73	81.50	0.044	-27.13
4.75	0.383	-8.34	27.00	0.045	-26.94	54.50	0.067	-23.48	82.00	0.044	-27.13
5.00	0.332	-9.58	27.50	0.060	-24.44	55.00	0.074	-22.62	82.50	0.043	-27.33
5.25	0.291	-10.72	28.00	0.074	-22.62	55.50	0.079	-22.05	83.00	0.042	-27.54
5.50	0.261	-11.67	28.50	0.084	-21.51	56.00	0.081	-21.83	83.50	0.041	-27.74
5.75	0.245	-12.22	29.00	0.089	-21.01	56.50	0.081	-21.83	84.00	0.039	-28.18
6.00	0.241	-12.36	29.50	0.088	-21.11	57.00	0.078	-22.16	84.50	0.037	-28.64
6.25	0.247	-12.15	30.00	0.081	-21.83	57.50	0.073	-22.73	85.00	0.034	-29.37
6.50	0.259	-11.73	30.50	0.069	-23.22	58.00	0.066	-23.61	85.50	0.032	-29.90
6.75	0.273	-11.28	31.00	0.055	-25.19	58.50	0.058	-24.73	86.00	0.029	-30.75
7.00	0.287	-10.84	31.50	0.040	-27.96	59.00	0.048	-26.38	86.50	0.025	-32.04
7.25	0.298	-10.52	32.00	0.032	-29.90	59.50	0.037	-28.64	87.00	0.022	-33.15
7.50	0.305	-10.31	32.50	0.036	-28.87	60.00	0.026	-31.70	87.50	0.019	-34.42
7.75	0.307	-10.26	33.00	0.049	-26.20	60.50	0.017	-35.39	88.00	0.015	-36.48
8.00	0.305	-10.31	33.50	0.062	-24.15	61.00	0.014	-37.08	88.50	0.011	-39.17
8.25	0.298	-10.52	34.00	0.073	-22.73	61.50	0.021	-33.56	89.00	0.008	-41.94
8.50	0.287	-10.84	34.50	0.079	-22.05	62.00	0.031	-30.17	89.50	0.004	-47.96
8.75	0.272	-11.31	35.00	0.081	-21.83	62.50	0.042	-27.54	90.00	0.003	-50.46

Azimuth Vertical Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	1.000	0.00	90°	1.000	0.00	180°	1.000	0.00	270°	1.000	0.00
2°	1.000	0.00	92°	1.000	0.00	182°	1.000	0.00	272°	1.000	0.00
4°	1.000	0.00	94°	1.000	0.00	184°	1.000	0.00	274°	1.000	0.00
6°	1.000	0.00	96°	1.000	0.00	186°	1.000	0.00	276°	1.000	0.00
8°	1.000	0.00	98°	1.000	0.00	188°	1.000	0.00	278°	1.000	0.00
10°	1.000	0.00	100°	1.000	0.00	190°	1.000	0.00	280°	1.000	0.00
12°	1.000	0.00	102°	1.000	0.00	192°	1.000	0.00	282°	1.000	0.00
14°	1.000	0.00	104°	1.000	0.00	194°	1.000	0.00	284°	1.000	0.00
16°	1.000	0.00	106°	1.000	0.00	196°	1.000	0.00	286°	1.000	0.00
18°	1.000	0.00	108°	1.000	0.00	198°	1.000	0.00	288°	1.000	0.00
20°	1.000	0.00	110°	1.000	0.00	200°	1.000	0.00	290°	1.000	0.00
22°	1.000	0.00	112°	1.000	0.00	202°	1.000	0.00	292°	1.000	0.00
24°	1.000	0.00	114°	1.000	0.00	204°	1.000	0.00	294°	1.000	0.00
26°	1.000	0.00	116°	1.000	0.00	206°	1.000	0.00	296°	1.000	0.00
28°	1.000	0.00	118°	1.000	0.00	208°	1.000	0.00	298°	1.000	0.00
30°	1.000	0.00	120°	1.000	0.00	210°	1.000	0.00	300°	1.000	0.00
32°	1.000	0.00	122°	1.000	0.00	212°	1.000	0.00	302°	1.000	0.00
34°	1.000	0.00	124°	1.000	0.00	214°	1.000	0.00	304°	1.000	0.00
36°	1.000	0.00	126°	1.000	0.00	216°	1.000	0.00	306°	1.000	0.00
38°	1.000	0.00	128°	1.000	0.00	218°	1.000	0.00	308°	1.000	0.00
40°	1.000	0.00	130°	1.000	0.00	220°	1.000	0.00	310°	1.000	0.00
42°	1.000	0.00	132°	1.000	0.00	222°	1.000	0.00	312°	1.000	0.00
44°	1.000	0.00	134°	1.000	0.00	224°	1.000	0.00	314°	1.000	0.00
46°	1.000	0.00	136°	1.000	0.00	226°	1.000	0.00	316°	1.000	0.00
48°	1.000	0.00	138°	1.000	0.00	228°	1.000	0.00	318°	1.000	0.00
50°	1.000	0.00	140°	1.000	0.00	230°	1.000	0.00	320°	1.000	0.00
52°	1.000	0.00	142°	1.000	0.00	232°	1.000	0.00	322°	1.000	0.00
54°	1.000	0.00	144°	1.000	0.00	234°	1.000	0.00	324°	1.000	0.00
56°	1.000	0.00	146°	1.000	0.00	236°	1.000	0.00	326°	1.000	0.00
58°	1.000	0.00	148°	1.000	0.00	238°	1.000	0.00	328°	1.000	0.00
60°	1.000	0.00	150°	1.000	0.00	240°	1.000	0.00	330°	1.000	0.00
62°	1.000	0.00	152°	1.000	0.00	242°	1.000	0.00	332°	1.000	0.00
64°	1.000	0.00	154°	1.000	0.00	244°	1.000	0.00	334°	1.000	0.00
66°	1.000	0.00	156°	1.000	0.00	246°	1.000	0.00	336°	1.000	0.00
68°	1.000	0.00	158°	1.000	0.00	248°	1.000	0.00	338°	1.000	0.00
70°	1.000	0.00	160°	1.000	0.00	250°	1.000	0.00	340°	1.000	0.00
72°	1.000	0.00	162°	1.000	0.00	252°	1.000	0.00	342°	1.000	0.00
74°	1.000	0.00	164°	1.000	0.00	254°	1.000	0.00	344°	1.000	0.00
76°	1.000	0.00	166°	1.000	0.00	256°	1.000	0.00	346°	1.000	0.00
78°	1.000	0.00	168°	1.000	0.00	258°	1.000	0.00	348°	1.000	0.00
80°	1.000	0.00	170°	1.000	0.00	260°	1.000	0.00	350°	1.000	0.00
82°	1.000	0.00	172°	1.000	0.00	262°	1.000	0.00	352°	1.000	0.00
84°	1.000	0.00	174°	1.000	0.00	264°	1.000	0.00	354°	1.000	0.00
86°	1.000	0.00	176°	1.000	0.00	266°	1.000	0.00	356°	1.000	0.00
88°	1.000	0.00	178°	1.000	0.00	268°	1.000	0.00	358°	1.000	0.00

REV	DESCRIPTION	DATE	APPROVED
-	----	--	--



Calculated
Weight 275 lbs

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USED ON	NEXT ASSEMBLY

UNLESS OTHERWISE SPECIFIED
.X ± 0.1
.XX ± 0.02
.XXX ± 0.005

QTY	ITEM NO.	PART NO.	DESCRIPTION
–	–	–	--

ALIVE TELECOM
9850 W. 190TH ST. SUITE F MOKENA, IL 60448
Office: (708) 478-6886 Fax: (708) 478-6892

DESCRIPTION:	2 RADOME TEMPLATE	MATERIAL:	N/A	REV: 0
DRAWN BY: SM	APPROVED BY:	DRAWING # - 1938	DATE: 07/11/14	SCALE: NTS

EXHIBIT E-3

ALLOCATION STUDY

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WLQP-Deshler3-Ch27 #1362, Model: Longley-Rice
Start: 2018.05.09 16:24:55

Study created: 2018.05.09 16:24:54

Study build station data: LMS TV 2018-05-08 #73

    Proposal: TEST D27 LD APP Deshler, OH
 File number: Deshler3-Ch27
 Facility ID: 435
Station data: User record
   Record ID: 231
     Country: U.S.
        Zone: II

Build options:
Protect pre-transition records not on baseline channel

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Individual records excluded:
20090612AFQ   WBGU-TV D27 DT LIC BOWLING GREEN, OH BLEDT20090612AFQ

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WLWD-LD	N20+	TX	LIC	SPRINGFIELD, OH	BLTT20051219ADW	130.6 km
No	W26DH-D	D26	LD	LIC	AUBURN, IN	BLDTL20091005ABQ	98.2
No	WJGP-LD	D26	LD	LIC	KALAMAZOO, MI	BLDTL20091210ADC	162.3
No	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	229.2
No	WVIZ	D26	DT	LIC	CLEVELAND, OH	BLANK0000006262	187.3
No	WCSN-LD	D26	LD	APP	COLUMBUS, OH	BLANK0000053697	145.2
No	WDFM-LP	N26-	TX	LIC	DEFIANCE, OH	BLTTL20031007AAN	55.5
No	WBDT	D26	DT	LIC	SPRINGFIELD, OH	BLCDT20090619AAV	159.7
Yes	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	69.4
No	WCIU-TV	D27	DT	LIC	CHICAGO, IL	BLCDT20110822ADN	321.2
No	W40CN-D	D27	DC	APP	SUGAR GROVE, IL	BLANK0000034531	346.4

No	W40CN-D	D27	DC	CP	SUGAR GROVE, IL	BLANK0000027753	386.1
Yes	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	270.3
Yes	WIPX-TV	D27	DT	LIC	BLOOMINGTON, IN	BLANK0000050610	270.4
No	WSOT-LD	D27	LD	LIC	MARION, IN	BLDTL20111212AGP	153.8
Yes	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	199.3
No	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	347.4
No	WFHD-LP	N27z	TX	LIC	ANN ARBOR, MI	BLTT20000925AAY	127.6
No	W48CL	D27+	LD	APP	GRAND RAPIDS, MI	BLANK0000052038	257.9
No	WLNM-LD	D27	LD	LIC	LANSING, MI	BLDTL20090630ABI	184.2
Yes	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	178.7
Yes	WOUB-TV	D27	DT	LIC	ATHENS, OH	BLEDT20030411ABC	251.5
No	W16DO-D	D27	DC	CP	CLEVELAND, OH	BLANK0000034701	186.8
No	WEKA-LD	D27	LD	LIC	Cleveland, OH	BLANK0000007976	189.6
Yes	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	152.9
No	W27DG-D	D27	LD	LIC	MILLERSBURG, OH	BLDTT20101007ABN	212.3
No	W27DG-D	D27	LD	CP	MILLERSBURG, OH	BPDTT20140123AZT	227.7
No	WQLN	D27	DT	CP	ERIE, PA	BLANK0000026514	334.8
No	WPCW	D27	LD	LIC	JEANNETTE, PA	BLCDT20120709AED	416.5
No	WTAE-TV	D27	DT	CP	PITTSBURGH, PA	BLANK0000034565	358.6
No	WVTV	D27	DT	CP	MILWAUKEE, WI	BLANK0000027399	395.0
No	WVTV	D27	DT	APP	MILWAUKEE, WI	BLANK0000034387	395.0
No	WIPX-TV	D28	DT	CP	BLOOMINGTON, IN	BLANK0000034351	270.6
No	WSJV	D28	DT	LIC	ELKHART, IN	BLCDT20100115AAE	198.1
No	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	157.3
No	WSYM-TV	D28	DT	CP	LANSING, MI	BLANK0000026760	160.3
No	WLPC-CD	D28	DC	CP	Redford, MI	BLANK0000036014	150.9
No	WBQC-LD	D28	LD	APP	CINCINNATI, OH	BLANK0000052535	229.2
No	WSYX	D28	DT	CP	COLUMBUS, OH	BLANK0000027371	152.9
No	WCBZ-CD	D28	DC	LIC	Columbus, OH	BLANK0000044818	137.8
No	WPTO	D28	DT	LIC	OXFORD, OH	BLEDT20040714AAQ	230.5
No	CKCO-TV-3	D26	DT	LIC	SARNIA, ON	BLANKCANADA216	228.5
No	CICO-DT-59	D28	DT	LIC	CHATHAM, ON	BLANKCANADA167	210.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D27

```
       Mask: Full Service
   Latitude:  41  8 12.00 N (NAD83)
  Longitude:  83 54 24.00 W
Height AMSL: 358.8 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic

50.0 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   15.0 kW   143.9 m   47.4 km
 45.0       15.0      144.0     47.4
 90.0       15.0      135.6     46.8
135.0       15.0      123.5     46.0
180.0       15.0      127.2     46.2
225.0       15.0      129.3     46.4
270.0       15.0      132.5     46.6
315.0       15.0      140.7     47.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 135 m

**Proposal 25.05 dBu contour crosses Canadian border, coordination required
Distance to Canadian border: 106.7 km

Distance to Mexican border: 2018.1 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 314.6 degrees   Distance: 235.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.5 degrees   Distance: 1796.8 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%

Interference to BLANK0000034234 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	69.4 km
	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	91.9
	WCMU-TV	D26	DT	LIC	MOUNT PLEASANT, MI	BLEDT20130710ABN	274.0
	WOSC-CD	D26	DC	CP	PITTSBURGH, PA	BLANK0000029678	321.2
	CKCO-TV-3	D26	DT	LIC	SARNIA, ON	BLANKCANADA216	159.6

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
17930.4	2,098,172	17927.4	2,097,600	17868.3	2,066,935	17736.1	2,064,490	0.74	0.12
1026.5	26,618	1026.5	26,618	1026.5	26,618	1026.5	26,618	0.00	0.00
(in Canada)									

Undesired	Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	132.3	2,445			132.3	2,445
WXYZ-TV D25 DT CP	45.1	28,749	39.1	26,554	39.1	26,554
WCMU-TV D26 DT LIC	19.9	4,111	9.0	1,374	9.0	1,374
CKCO-TV-3 D26 DT LIC	8.0	1,551	0.0	0	0.0	0

Interference to BLANK0000034516 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	270.3 km
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	145.3
	W40CN-D	D27	DC	APP	SUGAR GROVE, IL	BLANK0000034531	312.1
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	244.4
	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	215.5
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	273.9
	WKRN-TV	D27	DT	LIC	NASHVILLE, TN	BLCDT20090624ABO	378.3

WIPX-TV	D28	DT	CP	BLOOMINGTON, IN		BLANK0000034351	0.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27349.1	2,524,999	27193.5	2,521,368	26647.2	2,470,500	26647.2	2,470,500	0.00	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	2.0	17				0.0	0
WCPO-TV D26 DT CP	5.0	100		3.0	100	3.0	100
WNDU-TV D27 DT CP	306.8	38,834		244.6	31,884	243.6	31,880
WTVQ-DT D27 DT CP	81.9	6,589		30.9	440	30.9	440
WTTE D27 DT CP	173.0	12,502		101.9	5,843	101.9	5,843
WKRN-TV D27 DT LIC	1.0	0		0.0	0	0.0	0
WIPX-TV D28 DT CP	86.7	5,586		80.7	5,380	80.7	5,380

Interference to BLANK0000050610 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WIPX-TV	D27	DT	LIC	BLOOMINGTON, IN	BLANK0000050610	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	270.4 km
	WLKY	D26	DT	LIC	LOUISVILLE, KY	BLCDT20030129AFL	118.2
	WCIU-TV	D27	DT	LIC	CHICAGO, IL	BLCDT20110822ADN	302.5
	WOUB-TV	D27	DT	LIC	ATHENS, OH	BLEDT20030411ABC	343.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
22062.6	2,261,848	21942.1	2,260,866	21926.2	2,260,810	21926.2	2,260,810	0.00	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	1.0	0				0.0	0
WLKY D26 DT LIC	4.0	0		4.0	0	4.0	0
WCIU-TV D27 DT LIC	9.9	56		9.9	56	9.9	56
WOUB-TV D27 DT LIC	2.0	0		2.0	0	1.0	0

Interference to BLANK0000025267 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	

	Call	Chan	Svc	Status	City, State	File Number	Distance
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	199.3 km
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	121.4
	W40CN-D	D27	DC	APP	SUGAR GROVE, IL	BLANK0000034531	147.2
	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	244.4
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	326.4
	WVTV	D27	DT	CP	MILWAUKEE, WI	BLANK0000027399	216.2
	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	119.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28997.8	1,857,072	28921.7	1,839,249	28335.6	1,784,881	28304.4	1,784,111	0.11	0.04

Undesired	Total IX	Unique IX, before		Unique IX, after	
TEST D27 LD APP	41.2	1,087		31.2	770
WPVN-CD D26 DC CP	1.0	0	0.0	0.0	0
W40CN-D D27 DC APP	178.2	22,373	161.1	20,632	161.1	20,632
WTTV D27 DT CP	351.7	20,664	255.3	9,651	254.3	9,634
WADL D27 DT CP	22.0	7,802	12.0	7,316	12.0	7,316
WTTE D27 DT CP	18.0	3,586	1.0	64	1.0	64
WVTV D27 DT CP	63.3	7,797	28.3	1,793	28.3	1,793
WIWU-CD D28 DC CP	91.3	9,069	8.9	894	8.9	894

Interference to BLANK0000025267 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	199.3 km
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	121.4
	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	244.4
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	326.4
	WVTV	D27	DT	CP	MILWAUKEE, WI	BLANK0000027399	216.2
	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	119.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28997.8	1,857,072	28921.7	1,839,249	28496.7	1,805,513	28465.6	1,804,743	0.11	0.04

Undesired	Total IX	Unique IX, before	Unique IX, after

TEST D27 LD APP	41.2	1,087			31.2	770
WPVN-CD D26 DC CP	1.0	0	0.0	0	0.0	0
WTTV D27 DT CP	351.7	20,664	255.3	9,651	254.3	9,634
WADL D27 DT CP	22.0	7,802	12.0	7,316	12.0	7,316
WTTE D27 DT CP	18.0	3,586	1.0	64	1.0	64
WVTV D27 DT CP	63.3	7,797	43.3	3,534	43.3	3,534
WIWU-CD D28 DC CP	91.3	9,069	8.9	894	8.9	894

Interference to BLANK0000025267 CP scenario 3

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	199.3 km
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	121.4
	W40CN-D	D27	DC	APP	SUGAR GROVE, IL	BLANK0000034531	147.2
	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	244.4
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	326.4
	WVTV	D27	DT	APP	MILWAUKEE, WI	BLANK0000034387	216.2
	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	119.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28997.8	1,857,072	28921.7	1,839,249	28182.2	1,776,311	28151.0	1,775,541	0.11	0.04

Undesired	Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	41.2	1,087			31.2	770
WPVN-CD D26 DC CP	1.0	0	0.0	0	0.0	0
W40CN-D D27 DC APP	178.2	22,373	128.0	0	128.0	0
WTTV D27 DT CP	351.7	20,664	247.4	9,134	246.4	9,117
WADL D27 DT CP	22.0	7,802	6.0	3,772	6.0	3,772
WTTE D27 DT CP	18.0	3,586	1.0	64	1.0	64
WVTV D27 DT APP	265.8	41,068	181.7	10,363	181.7	10,363
WIWU-CD D28 DC CP	91.3	9,069	8.9	894	8.9	894

Interference to BLANK0000025267 CP scenario 4

Call	Chan	Svc	Status	City, State	File Number	Distance

Desired:	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	199.3 km
	WPVN-CD	D26	DC	CP	CHICAGO, IL	BLANK0000031140	121.4
	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	244.4
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	326.4
	WVTV	D27	DT	APP	MILWAUKEE, WI	BLANK0000034387	216.2
	WIWU-CD	D28	DC	CP	MARION, IN	BLANK0000033170	119.8

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
28997.8	1,857,072	28921.7	1,839,249	28310.2	1,776,311	28279.0	1,775,541	0.11	0.04

Undesired	Total IX	Unique IX, before		Unique IX, after	
TEST D27 LD APP	41.2	1,087		31.2	770
WPVN-CD D26 DC CP	1.0	0	0.0	0.0	0
WTTV D27 DT CP	351.7	20,664	247.4	9,134	246.4	9,117
WADL D27 DT CP	22.0	7,802	6.0	3,772	6.0	3,772
WTTE D27 DT CP	18.0	3,586	1.0	64	1.0	64
WVTV D27 DT APP	265.8	41,068	229.9	32,736	229.9	32,736
WIWU-CD D28 DC CP	91.3	9,069	8.9	894	8.9	894

Interference to BLANK0000027047 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	178.7 km
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	293.9
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	291.1
	WQLN	D27	DT	CP	ERIE, PA	BLANK0000026514	238.9
	CKCO-TV-3	D26	DT	LIC	SARNIA, ON	BLANKCANADA216	64.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
11184.6	4,605,126	11128.3	4,596,461	11026.5	4,571,033	11026.5	4,571,033	0.00	0.00
5544.3	543,216	5544.3	543,216	5535.3	543,216	5535.3	543,216	0.00	0.00
(in Canada)									

Undesired	Total IX	Unique IX, before	Unique IX, after

TEST D27 LD APP	4.0	1,325			0.0	0	
TEST D27 LD APP	1.0	0			0.0	0	(in Canada)
WNDU-TV D27 DT CP	99.8	24,809	95.7	23,751	94.7	23,484	
WTTE D27 DT CP	4.0	1,677	1.0	619	1.0	619	
WTTE D27 DT CP	2.0	0	1.0	0	1.0	0	(in Canada)
WQLN D27 DT CP	1.0	0	0.0	0	0.0	0	
WQLN D27 DT CP	1.0	0	0.0	0	0.0	0	(in Canada)
CKCO-TV-3 D26 DT LIC	1.0	0	1.0	0	1.0	0	
CKCO-TV-3 D26 DT LIC	7.0	0	7.0	0	7.0	0	(in Canada)

Interference to BLEDT20030411ABC LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WOUB-TV	D27	DT	LIC	ATHENS, OH	BLEDT20030411ABC	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	251.5 km
	WKAS	D26	DT	LIC	ASHLAND, KY	BLEDT20020404ABM	103.1
	WIPX-TV	D27	DT	LIC	BLOOMINGTON, IN	BLANK0000050610	343.4
	WKPT-TV	D27	DT	LIC	KINGSPORT, TN	BLANK0000003746	320.5
	WCBZ-CD	D28	DC	LIC	Columbus, OH	BLANK0000044818	113.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
20054.6	757,904	19596.6	734,700	19572.6	733,293	19571.6	733,293	0.01	0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	17.0	963				1.0	0
WKAS D26 DT LIC	2.0	0		1.0	0	1.0	0
WIPX-TV D27 DT LIC	16.0	797		13.9	646	2.0	22
WKPT-TV D27 DT LIC	1.0	0		0.0	0	0.0	0
WCBZ-CD D28 DC LIC	8.1	761		6.0	610	4.0	422

Interference to BLANK0000034206 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	
Undesireds:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	152.9 km
	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	155.6

	WTTV	D27	DT	CP	BLOOMINGTON, IN	BLANK0000034516	273.9
	WNDU-TV	D27	DT	CP	SOUTH BEND, IN	BLANK0000025267	326.4
	WTVQ-DT	D27	DT	CP	LEXINGTON, KY	BLANK0000026675	242.5
	WADL	D27	DT	CP	MOUNT CLEMENS, MI	BLANK0000027047	291.1
	W16DO-D	D27	DC	CP	CLEVELAND, OH	BLANK0000034701	195.8
	WQLN	D27	DT	CP	ERIE, PA	BLANK0000026514	340.9
	WTAE-TV	D27	DT	CP	PITTSBURGH, PA	BLANK0000034565	276.2

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27967.7	2,689,177	27071.9	2,647,548	26119.4	2,568,543	25576.8	2,558,277	2.08	0.40

Undesired	Total IX		Unique IX, before		Unique IX, after	
TEST D27 LD APP	810.2	25,420			542.6	10,266
WCPO-TV D26 DT CP	17.8	476	1.0	115	1.0	115
WTTV D27 DT CP	518.4	55,904	212.5	28,914	166.5	25,316
WNDU-TV D27 DT CP	273.3	25,283	15.0	264	1.0	11
WTVQ-DT D27 DT CP	193.3	14,705	77.5	3,286	70.5	3,199
WADL D27 DT CP	54.9	1,753	3.0	462	2.0	440
W16DO-D D27 DC CP	41.9	3,319	19.9	2,763	18.9	2,749
WQLN D27 DT CP	17.0	511	2.0	0	2.0	0
WTAE-TV D27 DT CP	311.7	15,483	262.9	14,212	244.0	13,655

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	TEST	D27	LD	APP	Deshler, OH	Deshler3-Ch27	
Undesireds:	W40CN-D	D27	DC	APP	SUGAR GROVE, IL	BLANK0000034531	346.4 km
	WTTE	D27	DT	CP	COLUMBUS, OH	BLANK0000034206	152.9
	W27DG-D	D27	LD	LIC	MILLERSBURG, OH	BLDTT20101007ABN	212.3

Service area		Terrain-limited		IX-free		Percent IX	
6864.2	321,220	6864.2	321,220	6859.2	320,471	0.07	0.23

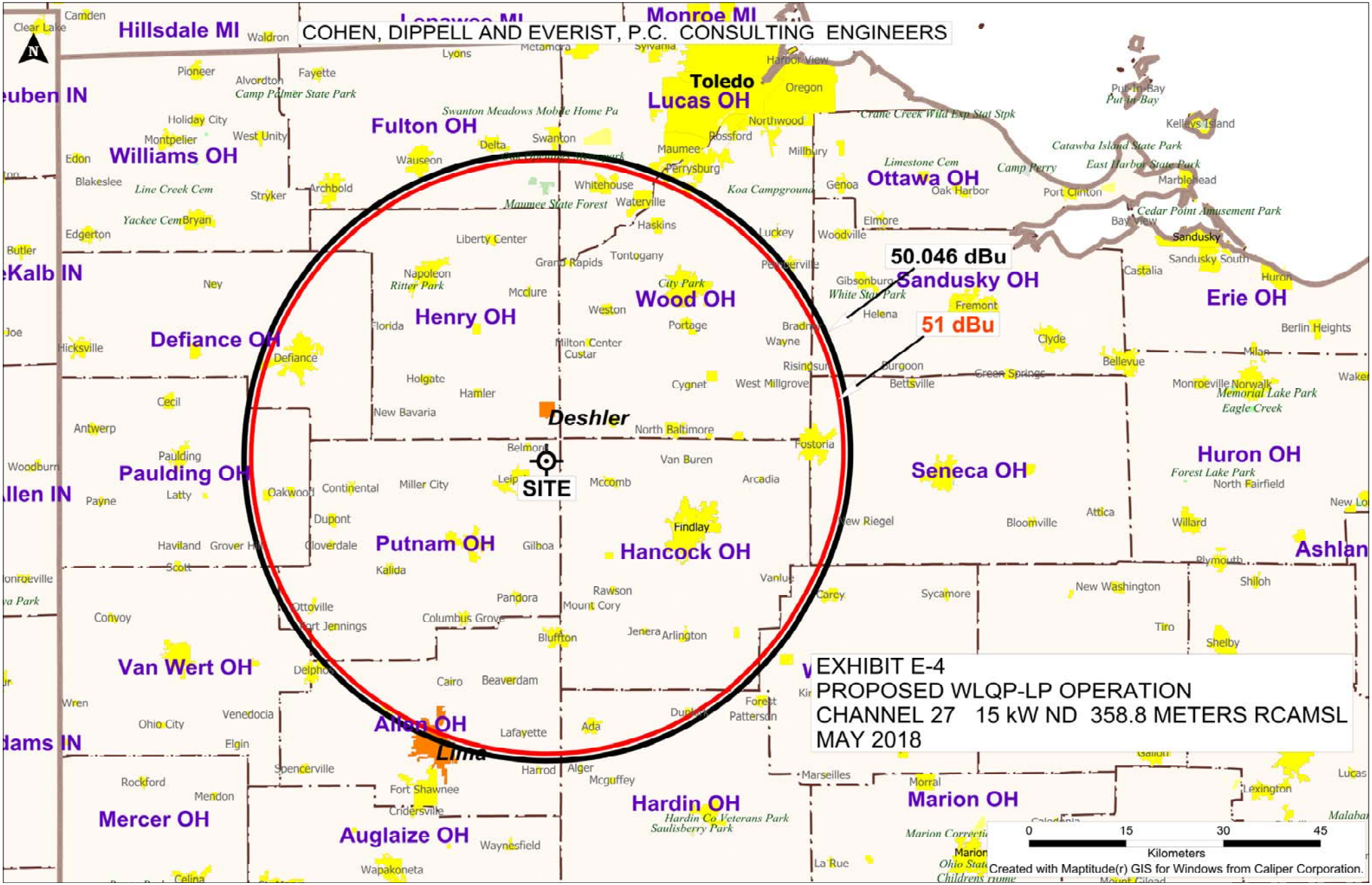
Undesired	Total IX		Unique IX		Prcnt Unique IX	
WTTE D27 DT CP	5.0	749	5.0	749	0.07	0.23

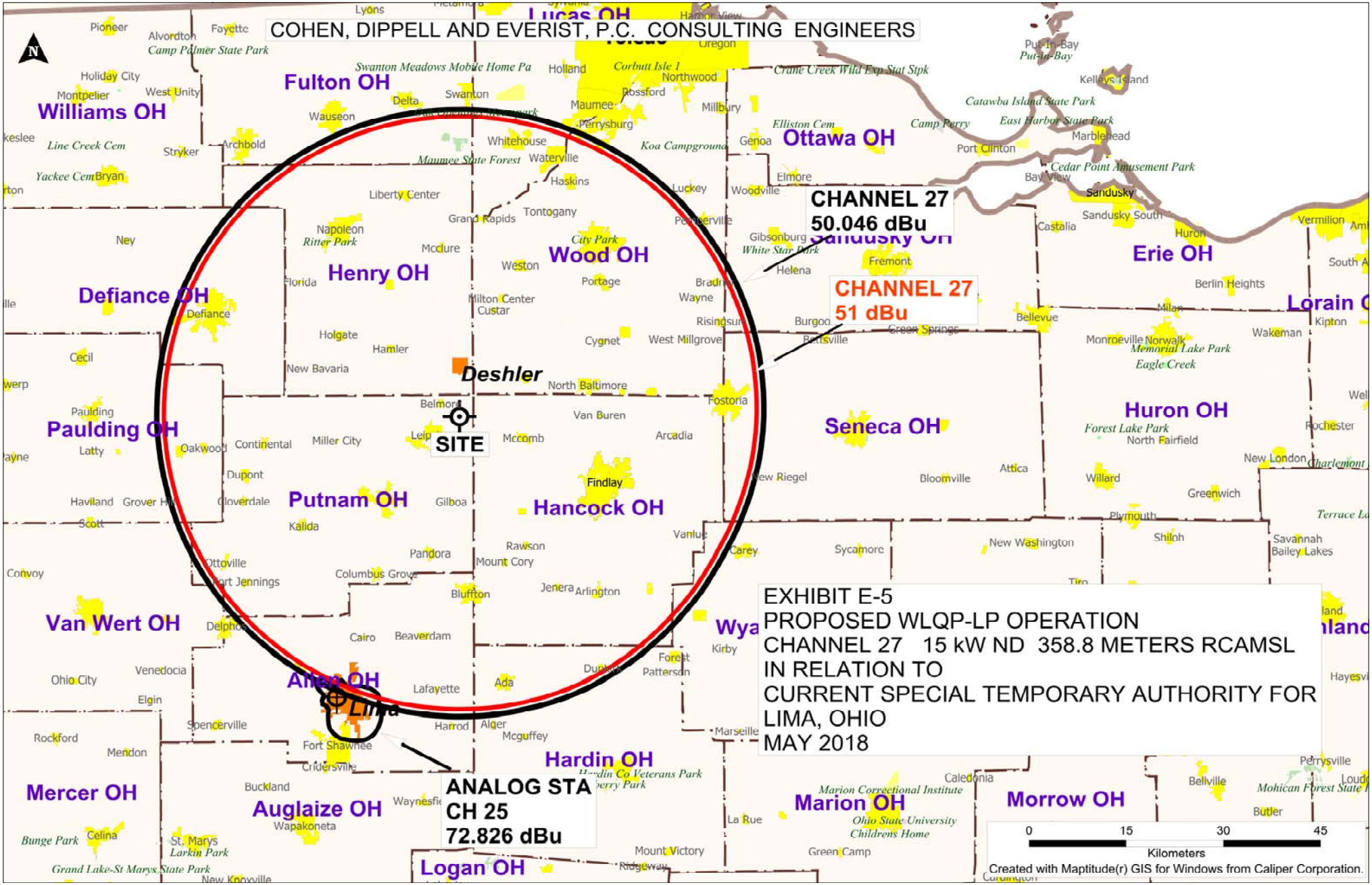
TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WLQP-LP, LIMA, OHIO
CHANNEL 27 15 KW ND ERP 358.8 METERS RC/AMSL
MAY 2018

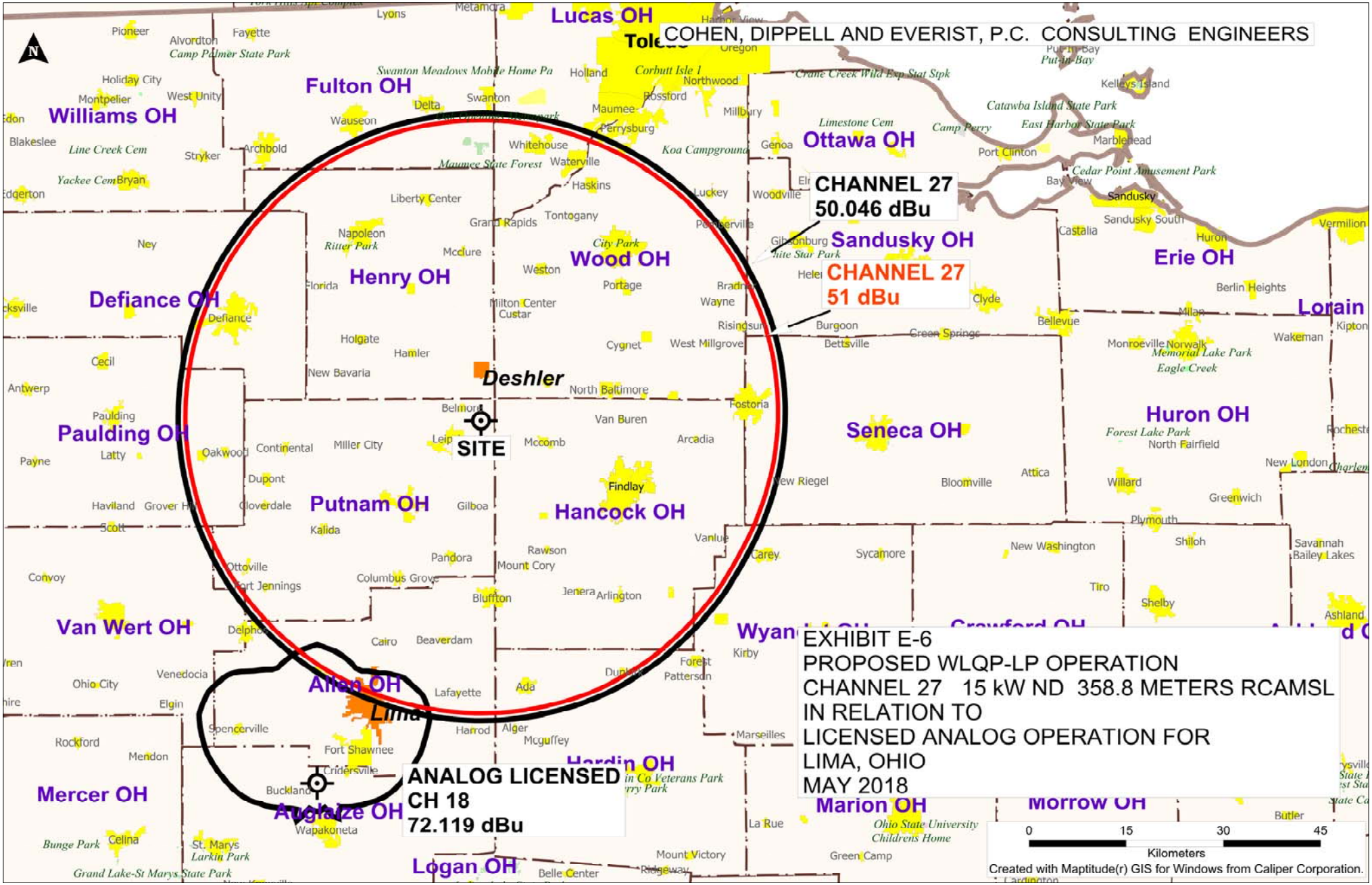
Radial	Average Elevation	Effective Height	Depression Angle	Effective Radiated Power	Distance to Contour 51 dBu	Distance to Contour 50.046 dBu
N ° E, T	meters	meters	degrees	kW	km	km
0	214.9	143.9	0.332	15.0	46.3	47.4
10	214.7	144.1	0.332	15.0	46.3	47.4
20	215.1	143.7	0.332	15.0	46.3	47.4
30	214.5	144.3	0.333	15.0	46.3	47.4
40	214.7	144.1	0.333	15.0	46.3	47.4
50	215.6	143.3	0.332	15.0	46.3	47.4
60	217.1	141.7	0.330	15.0	46.2	47.3
70	218.0	140.8	0.329	15.0	46.1	47.2
80	220.5	138.3	0.326	15.0	45.9	47.0
90	223.2	135.6	0.323	15.0	45.7	46.8
100	227.2	131.6	0.318	15.0	45.4	46.6
110	232.4	126.4	0.311	15.0	45.1	46.2
120	236.0	122.8	0.307	15.0	44.8	45.9
130	235.4	123.4	0.308	15.0	44.9	46.0
140	234.1	124.7	0.309	15.0	45.0	46.1
150	232.4	126.4	0.311	15.0	45.1	46.2
160	231.1	127.7	0.313	15.0	45.2	46.3
170	231.4	127.4	0.313	15.0	45.2	46.3
180	231.6	127.2	0.312	15.0	45.1	46.2
190	231.8	127.0	0.312	15.0	45.1	46.2
200	231.2	127.7	0.313	15.0	45.2	46.3
210	230.5	128.3	0.314	15.0	45.2	46.3
220	230.0	128.8	0.314	15.0	45.3	46.4
230	229.4	129.4	0.315	15.0	45.3	46.4
240	228.8	130.0	0.316	15.0	45.3	46.4
250	228.3	130.5	0.316	15.0	45.4	46.5
260	227.9	130.9	0.317	15.0	45.4	46.5
270	226.3	132.5	0.319	15.0	45.5	46.6

TABLE I
COMPUTED COVERAGE DATA
FOR THE PROPOSED DTV OPERATION OF
WLQP-LP, LIMA, OHIO
CHANNEL 27 15 KW ND ERP 358.8 METERS RC/AMSL
MAY 2018

Radial	Average Elevation	Effective Height	Depression Angle	Effective Radiated Power	Distance to Contour 51 dBu	Distance to Contour 50.046 dBu
N ° E, T	meters	meters	degrees	kW	km	km
280	225.6	133.2	0.320	15.0	45.6	46.7
290	223.6	135.2	0.322	15.0	45.7	46.8
300	221.2	137.6	0.325	15.0	45.9	47.0
310	218.9	139.9	0.328	15.0	46.0	47.1
320	217.5	141.3	0.329	15.0	46.1	47.2
330	216.5	142.3	0.330	15.0	46.2	47.3
340	215.6	143.2	0.331	15.0	46.3	47.4
350	215.1	143.7	0.332	15.0	46.3	47.4


COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
50.046 dBu
51 dBu
SITE
Deshler
Toledo
Lucas OH
Monroe MI
Hillsdale MI
Fulton OH
Williams OH
Defiance OH
Henry OH
Wood OH
Ottawa OH
Sandusky OH
Erie OH
Seneca OH
Huron OH
Paulding OH
Putnam OH
Hancock OH
Van Wert OH
Allen OH
Hardin OH
Marion OH
Mercer OH
Auglaize OH
Lima
EXHIBIT E-4
PROPOSED WLQP-LP OPERATION
CHANNEL 27 15 kW ND 358.8 METERS RCAMSL
MAY 2018
0 15 30 45
Kilometers
Created with Maptitude(r) GIS for Windows from Caliper Corporation.


COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
CHANNEL 27
50.046 dBu
CHANNEL 27
51 dBu
SITE
ANALOG STA
CH 25
72.826 dBu
EXHIBIT E-5
PROPOSED WLQP-LP OPERATION
CHANNEL 27 15 kW ND 358.8 METERS RCAMSL
IN RELATION TO
CURRENT SPECIAL TEMPORARY AUTHORITY FOR
LIMA, OHIO
MAY 2018
Williams OH
Fulton OH
Henry OH
Defiance OH
Paulding OH
Putnam OH
Van Wert OH
Allen OH
Auglaize OH
Mercer OH
Hardin OH
Logan OH
Wood OH
Hancock OH
Seneca OH
Ottawa OH
Sandusky OH
Erie OH
Huron OH
Lorain
Marion OH
Morrow OH
Deshler
Findlay
Lima
Kilometers
Created with Maptitude(r) GIS for Windows from Caliper Corporation.


COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
CHANNEL 27
50.046 dBu
CHANNEL 27
51 dBu
SITE
ANALOG LICENSED
CH 18
72.119 dBu
EXHIBIT E-6
PROPOSED WLQP-LP OPERATION
CHANNEL 27 15 kW ND 358.8 METERS RCAMSL
IN RELATION TO
LICENSED ANALOG OPERATION FOR
LIMA, OHIO
MAY 2018
Lucas OH
Fulton OH
Williams OH
Ottawa OH
Sandusky OH
Erie OH
Henry OH
Wood OH
Defiance OH
Paulding OH
Putnam OH
Hancock OH
Seneca OH
Huron OH
Van Wert OH
Allen OH
Mercer OH
Auglaize OH
Logan OH
Marion OH
Morrow OH
Hardin OH
Deshler
Lima
Toledo
Findlay
Fostoria
Bellevue
Sandusky
Kilometers
0 15 30 45
Created with Maptitude(r) GIS for Windows from Caliper Corporation.