EXHIBIT E

ENGINEERING STATEMENT
RE MODIFICATION OF CONSTRUCTION PERMIT
(FCC FILE NO. BPCDT-19991029AIK)
ON BEHALF OF
NEXSTAR BROADCASTING, INC.
WQRF-DT, ROCKFORD, ILLINOIS
CHANNEL 42 900 KW MAX DA ERP 148 METERS HAAT

FEBRUARY 2007

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 1300 L Street, N.W., Suite 1100, 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 5th day of February, 2007.

Notary Public

My Commission Expires: 2/28/2008

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Martin R. Doczkat being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer of the Pennsylvania State University, and is a staff engineer at Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

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.

Martin R. Doczkat

Subscribed and sworn to before me this 5th day of February, 2007.

Notary Public

My Commission Expires: 2/28/2008

CAROLYN L. TYSON NOTARY PUBLIC DISTRICT OF COLUMBIA

Introduction

This engineering statement has been prepared on behalf of Nexstar Broadcasting, Inc., ("Nexstar"), licensee of TV Station WQRF-TV, Rockford, Illinois, in support of its request for modification of its outstanding construction permit (FCC File No. BPCDT-19991029AIK) for digital television ("DTV") operation. At present, WQRF-TV operates on NTSC TV Channel 39 (620-626 MHz) with 1050 kW effective radiated power ("ERP") and 176 meters antenna height above average terrain ("HAAT"). The current analog Channel 39 operation of WQRF-TV is with a non-directional TV antenna and horizontal polarization. Station WQRF-DT has been allotted Channel 42 (638-644 MHz) for its digital TV operation and been authorized to construct a facility (FCC File No. BPCDT-19991029AIK) with 1000 kW maximum ERP and 149 meters HAAT. WQRF-DT proposes to modify its authorized facility by requesting to construct its DTV facility on a tower that currently supports WTVO(TV) and WTVO-DT in Rockford, Illinois with 900 kW directional ERP at an HAAT of 148 meters.

Antenna Site

The DTV antenna will be side-mounted on the existing WTVO(TV) tower at 192 meters above ground level.

The WTVO(TV) antenna site is located at 1917 N. Meridian Rd., Rockford, Illinois. The WTVO(TV) antenna structure registration number is 1035539. A vertical sketch of the proposed antenna mounted on the existing WTVO(TV) tower is included as Exhibit E-1.

The geographic coordinates of the existing tower are as follows:

North Latitude: 42° 17' 14"

West Longitude: 89° 10' 15"

(NAD-27)

The following data shows the pertinent information concerning the proposed operation.

Antenna Data

Antenna:	Dielectric	TFU-25JSC-R P210SP (or equivalent)	
	Beam Tilt	0.75° electrical	
	Directional Max. Power Gain	46.2	16.65 dB

Horizontal and vertical plane data required by Section 73.625(c) of the FCC Rules have been included as Exhibit E-2.

Power Data

Transmitter Power Output	22.7 kW	13.54 dBk
Transmission Line Loss (160 m (525 ft) of Dielectric 6-1/8" 75 ohm EIA/DCA)	86.0%	0.65 dB
Input Power to Antenna	19.5 kW	12.89 dBk
Antenna Gain, Directional	46.2	16.65 dB
Effective Radiated Power, Max.	900 kW	29.54 dBk

Elevation Data

Elevation of the site above mean sea level:	241.0 meters 790.7 feet
Elevation of the top of existing supporting structure above ground including WTVO antenna	216.0 meters 708.7 feet
Elevation of the top of supporting structure above mean sea level including WTVO antenna	457.0 meters 1499.3 feet
Height of DTV antenna radiation center meters above ground	150.9 meters 495.0 feet
Height of DTV antenna radiation center above mean sea level	391.9 meters 1285.7 feet
Height of DTV antenna radiation center above average terrain	148 meters

Authorized Effective Radiated Power

The maximum ERP authorized by the outstanding construction permit for the DTV operation is 1000 kW at 149 meters HAAT. Station WQRF-DT is proposing to operate its DTV facility with a maximum ERP of 900 kW and 148 meters HAAT using a directional transmitting antenna. This power and height will ensure that it does not extend the predicted 41 dBu contour in any direction beyond that authorized by the construction permit.

The attached map (Exhibit E-3) shows the computed F(50,90) 48 and 41 dBu contours predicted according to Section 73.625(b) of the Commission's rules based on the DTV facilities authorized in the outstanding construction permit and the requested facilities of 900 kW ERP and 148 meters HAAT.

Principal Community Coverage

In MM Docket No. 00-39, the Commission adopted rules to require DTV stations to place a stronger TV signal over the principal community.

The operation proposed by Station WQRF-DT places a predicted 48 dBu contour over the community of license.

Topographic Data

The average elevation data for each radial separated every ten degrees from 3.2 to 16.1 kilometers are based on the NGDC 3-second computerized terrain database.

Contour Data

Utilizing the formula in Section 73.625(b)(2) for the effective heights shown on the attached tabulation, the depression angle A_h, for each azimuth has been calculated. The maximum radiation value has been used to calculate ERP where the vertical radiation pattern at these angles is greater than 90% of the maximum.

Table I provides the distances along the radials calculated every ten degrees to the predicted F(50,90) 48 and 41 dBu contours, the average elevations, and the effective antenna heights.

The distances along each radial to the limits of F(50,90) 48 dBu and 41 dBu contours were determined as specified in Section 73.625(b) by reference to the propagation data for Channels 14-69, as published by the Commission in Figures 10b and 10c, Section 73.699 of its rules.

Interference Analysis

An analysis of predicted interference caused by the proposed WQRF-DT service has been performed even as the proposed F(50,90) 41 dBu contour is not predicted to extend in any direction beyond that authorized by the F(50,90) 41 dBu contour of the outstanding construction permit (see Exhibit E-4).

The interference analysis used the FCC's FORTRAN-77 code which was modified only to the extent necessary (primarily input/output handling) for the program to run on a Windows 98/Intel platform. Comparison of service/interference areas and populations indicates that this model closely matches the FCC's evaluation program. Best efforts have been made to use data and calculations identical to the FCC's program. Any slight differences are attributable to compiler, operating system and/or processor characteristics. The effect of any variance in calculated population values versus the FCC's program is minimized when differencing a given model's results, such as calculating new interference as total interference less baseline interference. Any variance effect is further reduced when using ratios of calculated population values such as measuring the incremental population affected as a percent of the total population served. The model employs the Longley-Rice propagation methodology and evaluates in grid

cells of approximately 4 km^2 using 3-second terrain data sampled approximately every 1.0 km at one degree azimuth intervals with 2000 Census centroids.

Stations were selected from the FCC's Consolidated Database System ("CDBS") according to the FCC Public Notice dated August 10, 1998 and entitled, "Additional Application Processing Guidelines for Digital Television", which outlines the station selection criteria "culling distances" for considering potential interference scenarios.

Table II provides a summary of the Longley-Rice interference analysis and demonstrates that no new interference above 0.1% caused by the proposed operation of WQRF-DT to any potentially affected facility above the outstanding construction permit.

Other Stations

WTVO-DT and WTVO(TV) are the only FM or TV broadcast stations located within 500 meters of the proposed site. No objectionable interference problems are anticipated, however, if any problems occur, the applicant will take the necessary steps to resolve them. There are no AM stations within 3.22 km of the proposed site.

Environment Statement

The WQRF-DT antenna will be side-mounted on the existing tower at 150.9 meters above ground.

The following broadcast stations are operating from the tower.

Station	Channel	Status
WTVO(TV)	17	Licensed
WTVO-DT	16	Licensed
WQRF-DT	42	Proposed

The radiofrequency field level ("RFF") contribution of the two DTV stations will be calculated and added to this value.

Station WTVO(TV) NTSC

Channel 17 Freq: 488-494 MHz Range

$S = \frac{33.4\ (F^2)\ ERP}{R^2}$ ERP = 0.4 (646 kW Peak Visual) + (64.6 kW RMS Aural) = 323 kW (Horizontal only)
R = 202 meters (antenna height above ground -2 meters)
F = 0.2 (assumed)

$S = 10.6\ \mu W/cm^2$

WTVO(TV) contributes less than 10.6 $\mu W/cm^2$ at 2 meters above the ground.

The limit for an uncontrolled environment (general population) is f/1.5 for the 300-1500 MHz range.

(491 MHz)/1.5 = 327.3 $\mu W/cm^2$

WTVO(TV) contributes less than 3.2% RFF level for an uncontrolled environment (general population) two meters above the ground.

Station WTVO-DT

Channel 16 Freq: 482-488 MHz Range

$S = \frac{33.4\ (F^2)\ ERP}{R^2}$ ERP = 196 kW (Horizontal Only)
R = 202 meters (antenna height above ground -2 meters)
F = 0.1 (assumed)

$S = <1.6\ \mu W/cm^2$

WTVO-DT contributes less than 1.6 $\mu W/cm^2$ at 2 meters above the ground.

The limit for an uncontrolled environment is f/1.5 for the 300-1500 MHz range.

(485 MHz)/1.5 = 323.3 $\mu W/cm^2$

Therefore:

WTVO-DT contributes less than 0.5% RFF level for an uncontrolled environment (general population) two meters above the ground.

Station WQRF-DT (Proposed)

Channel 42 Freq: 638-644 MHz Range

$S = \frac{33.4\ (F^2)\ ERP}{R^2}$ ERP = 900 kW (Horizontal only)
R = 148.9 meters (antenna height above ground -2 meters)
F = 0.1 (manufacturer data)

$S = 13.6\ \mu W/cm^2$

WQRF-DT contributes less than 13.6 $\mu W/cm^2$ at 2 meters above the ground.

The limit for an uncontrolled environment is f/1.5 for the 300-1500 MHz range.

(641 MHz)/1.5 = 427.3 $\mu W/cm^2$

Therefore:

WQRF-DT contributes less than 3.2% RFF level for an uncontrolled environment (general population) two meters above the ground.

Therefore the total RFF percentage two meters above the ground at the highest RFF point will be less than 7% of the limit, when WTVO(TV), WTVO-DT and WQRF-DT are operational for an uncontrolled environment.

Authorized personnel and rigging contractors will be alerted to the potential zone of high radiation 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 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 permittee 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 will be located on a tower which was built prior to the adoption of WT Docket No. 03-128 and will not affect 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 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.

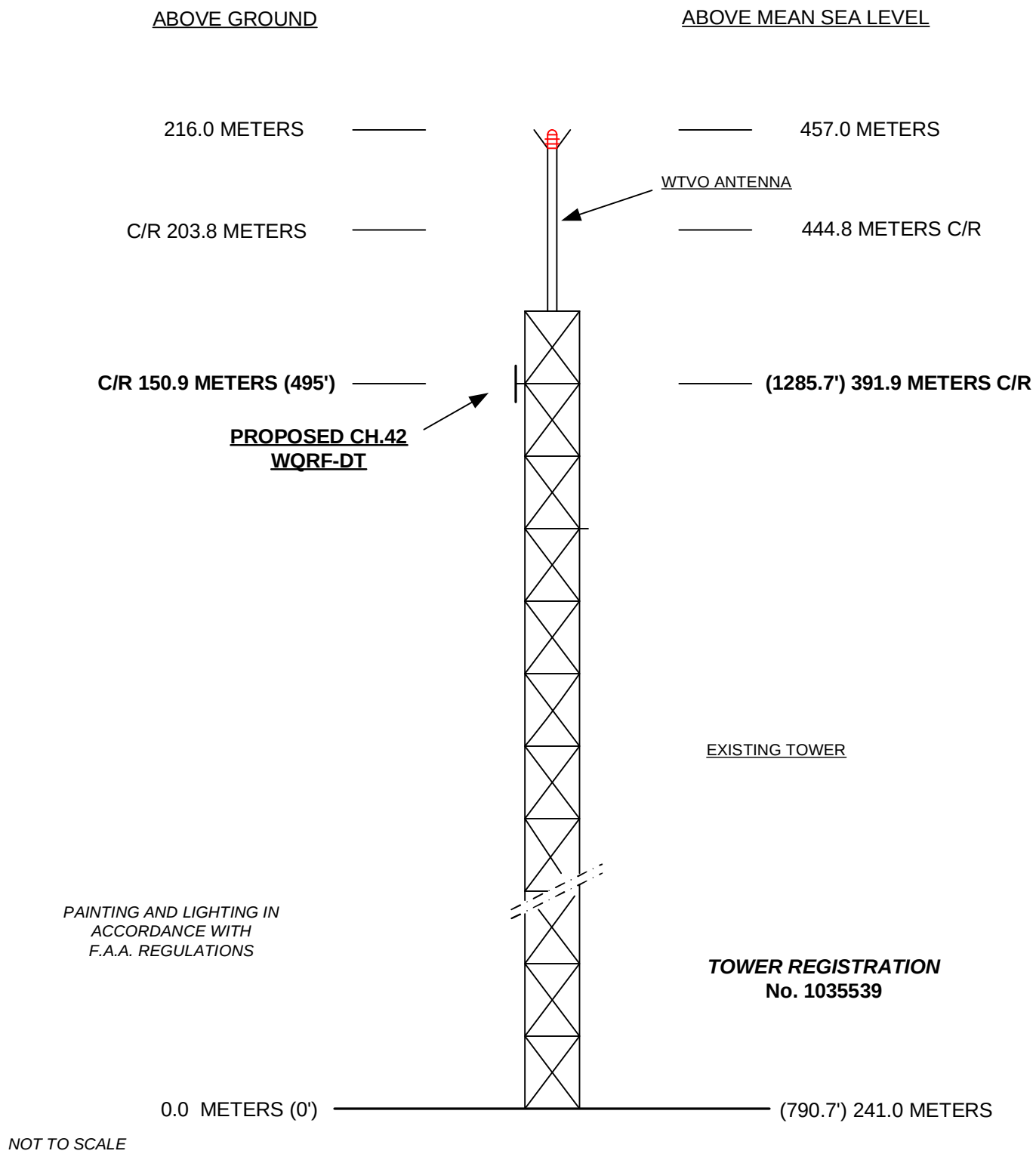


EXHIBIT E-1
TOWER SKETCH
WQRF-DT, ROCKFORD, ILLINOIS
FEBRUARY 2007

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

COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

WQRF-DT, ROCKFORD, ILLINOIS

Dielectric

Proposal #: **DCA-11033** Antenna Type: **TFU-25JSC-R P210SP** Channel: **42 DTV**

Call Letters: **WQRF-DT** Location: **Rockford, IL**

Electrical Specifications		Value		Remarks
		Ratio	dB	
RMS Gain at Main Lobe over Halfwave Dipole	Hpol	22.0	13.42	
	Vpol			
RMS Gain at Horizontal over Halfwave Dipole	Hpol	14.6	11.64	
	Vpol			
Peak Directional Gain over Halfwave Dipole	Hpol	46.2	16.65	
	Vpol			
Peak Directional Gain at Horizontal over Halfwave Dipole	Hpol	30.7	14.87	
	Vpol			
Circularity		dB		
Axial Ratio		dB		
Beam Tilt		0.75 deg		
Average Power DTV		50 kW	16.99 dBk	
Antenna Input: T/L		6-1/8 in	75.0 ohm	Type: EIA/DCA
Maximum Antenna Input VSWR		Channel	1.08 : 1	
Patterns	Azimuth	TFU-P210SP-6410		
	Elevation	25Z220075	25Z220075-90	

Mechanical Specifications		Metric	English	Preliminary
Height with Lightning Protector	H4	m	ft	**Side mounted**
Height Less Lightning Protector	H2	13.2 m	43.4 ft	
Height of Center of Radiation	H3	6.6 m	21.7 ft	
Basic Wind Speed	V	128.7 km/h	80 mi/h	TIA/EIA-222-F.
Force Coeff. x Projected Area	CaAc	7.39 m²	79.5 ft²	Excludes Mounts
Moment Arm	D1	m	ft	
Force Coeff. x Projected Area	CaAc	m²	ft²	
Moment Arm	D3	m	ft	
Pole Bury Length	D2	m	ft	
Weight	W	0.6 t	1,310 lbs	Excludes Mounts
Radome				

Antenna designed in accordance with AISC specifications for design of structural steel for building as prescribed by TIA/EIA-222-F.

NOTE:

Prepared By : SWB

Original Date : 9-Jun-05

Approved By : JLS

Dielectric

SIDE MOUNTED ANTENNA
TFU-25JSC-R P210SP
WQRF-DT: Rockford, IL

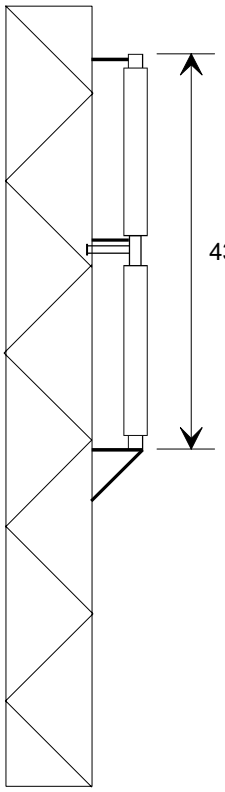
Preliminary
MECHANICAL DATA

CaAc = 79.5 ft² Excludes Mounts

Center of Radiation = 21.7 ft

Weight = 1310 lbs Excludes Mounts

EIA-222-F Specification
(80 mph basic wind speed)



CH d42
TFU-25JSC-R P210SP

SWB-050609-03SK

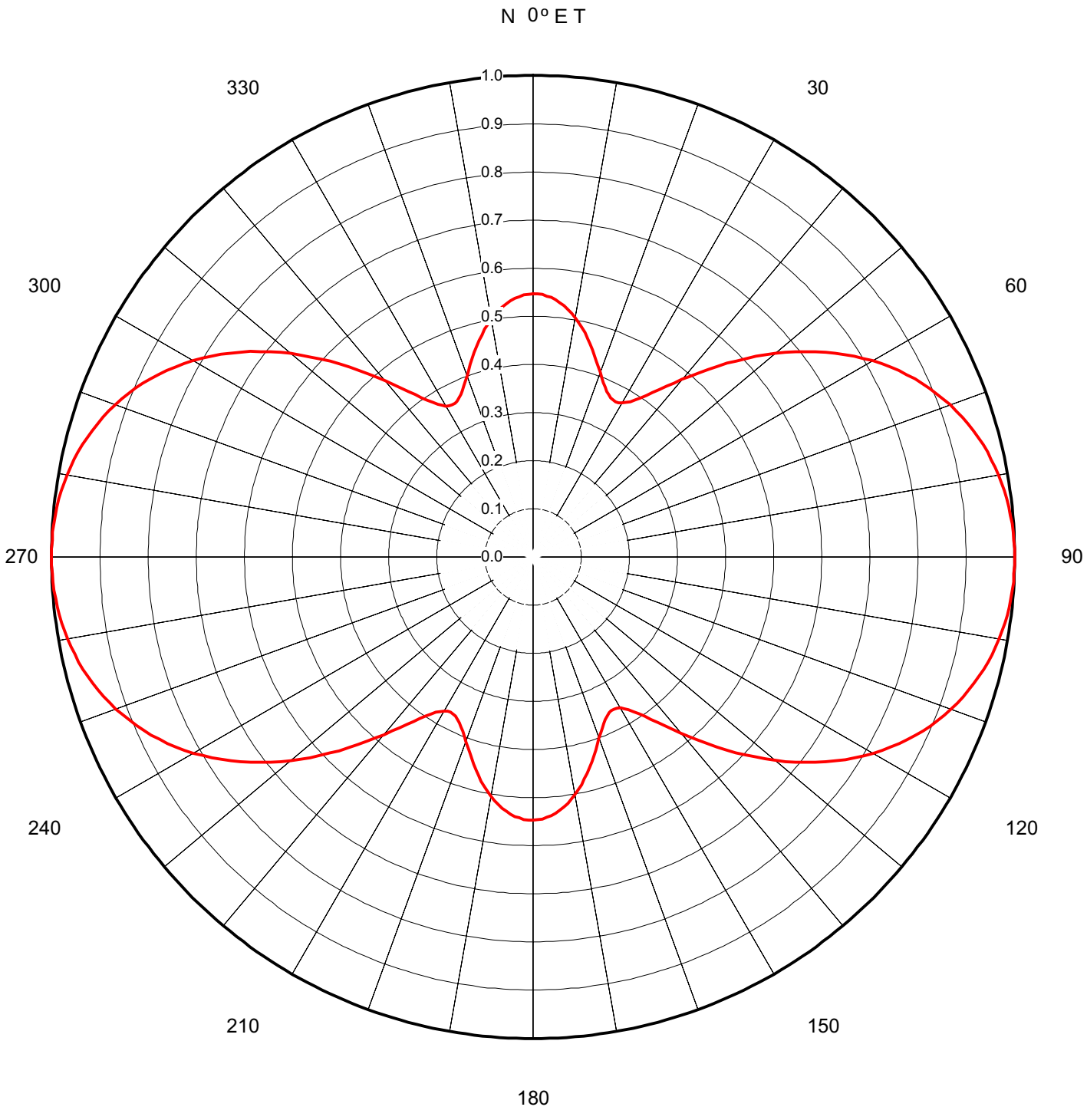
NOT DRAWN TO SCALE

Dielectric

Proposal Number	**DCA-11033**		
Date	**9-Jun-05**		
Call Letters	**WQRF-DT**	Channel	**42**
Location	**Rockford, IL**		
Customer	**Nexstar Broadcasting**		
Antenna Type	**TFU-25JSC-R P210SP**		

AZIMUTH PATTERN

Gain	**2.10**	**(3.22 dB)**	Frequency	**641.00 MHz**
Calculated / Measured		**Calculated**	Drawing #	**TFU-P210SP-6410**



Dielectric

EXHIBIT E-2d

Proposal Number	**DCA-11033**
Date	**9-Jun-05**
Call Letters	**WQRF-DT** Channel **42**
Location	**Rockford, IL**
Customer	**Nexstar Broadcasting**
Antenna Type	**TFU-25JSC-R P210SP**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-P210SP-6410**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.546	45	0.568	90	1.000	135	0.566	180	0.546	225	0.568	270	1.000	315	0.566
1	0.546	46	0.586	91	1.000	136	0.548	181	0.546	226	0.586	271	1.000	316	0.548
2	0.545	47	0.604	92	0.999	137	0.530	182	0.545	227	0.604	272	0.999	317	0.530
3	0.543	48	0.622	93	0.999	138	0.512	183	0.543	228	0.622	273	0.999	318	0.512
4	0.540	49	0.640	94	0.997	139	0.495	184	0.540	229	0.640	274	0.997	319	0.495
5	0.536	50	0.658	95	0.996	140	0.478	185	0.536	230	0.658	275	0.996	320	0.478
6	0.531	51	0.675	96	0.994	141	0.461	186	0.531	231	0.675	276	0.994	321	0.461
7	0.526	52	0.692	97	0.992	142	0.445	187	0.526	232	0.692	277	0.992	322	0.445
8	0.519	53	0.709	98	0.989	143	0.430	188	0.519	233	0.709	278	0.989	323	0.430
9	0.512	54	0.725	99	0.986	144	0.416	189	0.512	234	0.725	279	0.986	324	0.416
10	0.504	55	0.741	100	0.982	145	0.404	190	0.504	235	0.741	280	0.982	325	0.404
11	0.496	56	0.757	101	0.978	146	0.392	191	0.496	236	0.757	281	0.978	326	0.392
12	0.487	57	0.772	102	0.974	147	0.382	192	0.487	237	0.772	282	0.974	327	0.382
13	0.478	58	0.786	103	0.969	148	0.374	193	0.478	238	0.786	283	0.969	328	0.374
14	0.468	59	0.801	104	0.964	149	0.367	194	0.468	239	0.801	284	0.964	329	0.367
15	0.458	60	0.814	105	0.959	150	0.362	195	0.458	240	0.814	285	0.959	330	0.362
16	0.448	61	0.827	106	0.953	151	0.359	196	0.448	241	0.827	286	0.953	331	0.359
17	0.437	62	0.840	107	0.946	152	0.358	197	0.437	242	0.840	287	0.946	332	0.358
18	0.427	63	0.852	108	0.939	153	0.358	198	0.427	243	0.852	288	0.939	333	0.358
19	0.417	64	0.864	109	0.932	154	0.360	199	0.417	244	0.864	289	0.932	334	0.360
20	0.408	65	0.875	110	0.924	155	0.364	200	0.408	245	0.875	290	0.924	335	0.364
21	0.399	66	0.885	111	0.915	156	0.369	201	0.399	246	0.885	291	0.915	336	0.369
22	0.390	67	0.895	112	0.906	157	0.376	202	0.390	247	0.895	292	0.906	337	0.376
23	0.383	68	0.905	113	0.897	158	0.383	203	0.383	248	0.905	293	0.897	338	0.383
24	0.377	69	0.914	114	0.886	159	0.392	204	0.377	249	0.914	294	0.886	339	0.392
25	0.372	70	0.922	115	0.876	160	0.401	205	0.372	250	0.922	295	0.876	340	0.401
26	0.368	71	0.930	116	0.865	161	0.411	206	0.368	251	0.930	296	0.865	341	0.411
27	0.366	72	0.938	117	0.853	162	0.421	207	0.366	252	0.938	297	0.853	342	0.421
28	0.365	73	0.945	118	0.841	163	0.431	208	0.365	253	0.945	298	0.841	343	0.431
29	0.366	74	0.951	119	0.828	164	0.442	209	0.366	254	0.951	299	0.828	344	0.442
30	0.369	75	0.957	120	0.815	165	0.453	210	0.369	255	0.957	300	0.815	345	0.453
31	0.374	76	0.963	121	0.801	166	0.463	211	0.374	256	0.963	301	0.801	346	0.463
32	0.381	77	0.968	122	0.787	167	0.473	212	0.381	257	0.968	302	0.787	347	0.473
33	0.389	78	0.973	123	0.772	168	0.483	213	0.389	258	0.973	303	0.772	348	0.483
34	0.398	79	0.977	124	0.757	169	0.492	214	0.398	259	0.977	304	0.757	349	0.492
35	0.409	80	0.981	125	0.741	170	0.501	215	0.409	260	0.981	305	0.741	350	0.501
36	0.422	81	0.985	126	0.725	171	0.509	216	0.422	261	0.985	306	0.725	351	0.509
37	0.435	82	0.988	127	0.709	172	0.516	217	0.435	262	0.988	307	0.709	352	0.516
38	0.450	83	0.991	128	0.692	173	0.523	218	0.450	263	0.991	308	0.692	353	0.523
39	0.465	84	0.993	129	0.675	174	0.529	219	0.465	264	0.993	309	0.675	354	0.529
40	0.481	85	0.995	130	0.657	175	0.534	220	0.481	265	0.995	310	0.657	355	0.534
41	0.498	86	0.997	131	0.639	176	0.538	221	0.498	266	0.997	311	0.639	356	0.538
42	0.515	87	0.998	132	0.621	177	0.542	222	0.515	267	0.998	312	0.621	357	0.542
43	0.533	88	0.999	133	0.603	178	0.544	223	0.533	268	0.999	313	0.603	358	0.544
44	0.550	89	1.000	134	0.585	179	0.546	224	0.550	269	1.000	314	0.585	359	0.546

EXHIBIT E-2e

Proposal Number	**DCA-11033**
Date	**9-Jun-05**
Call Letters	**WQRF-DT** Channel **42**
Location	**Rockford, IL**
Customer	**Nexstar Broadcasting**
Antenna Type	**TFU-25JSC-R P210SP**

ELEVATION PATTERN

RMS Gain at Main Lobe	**22.00 (13.42 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**14.60 (11.64 dB)**	Frequency	**641.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**25Z220075**

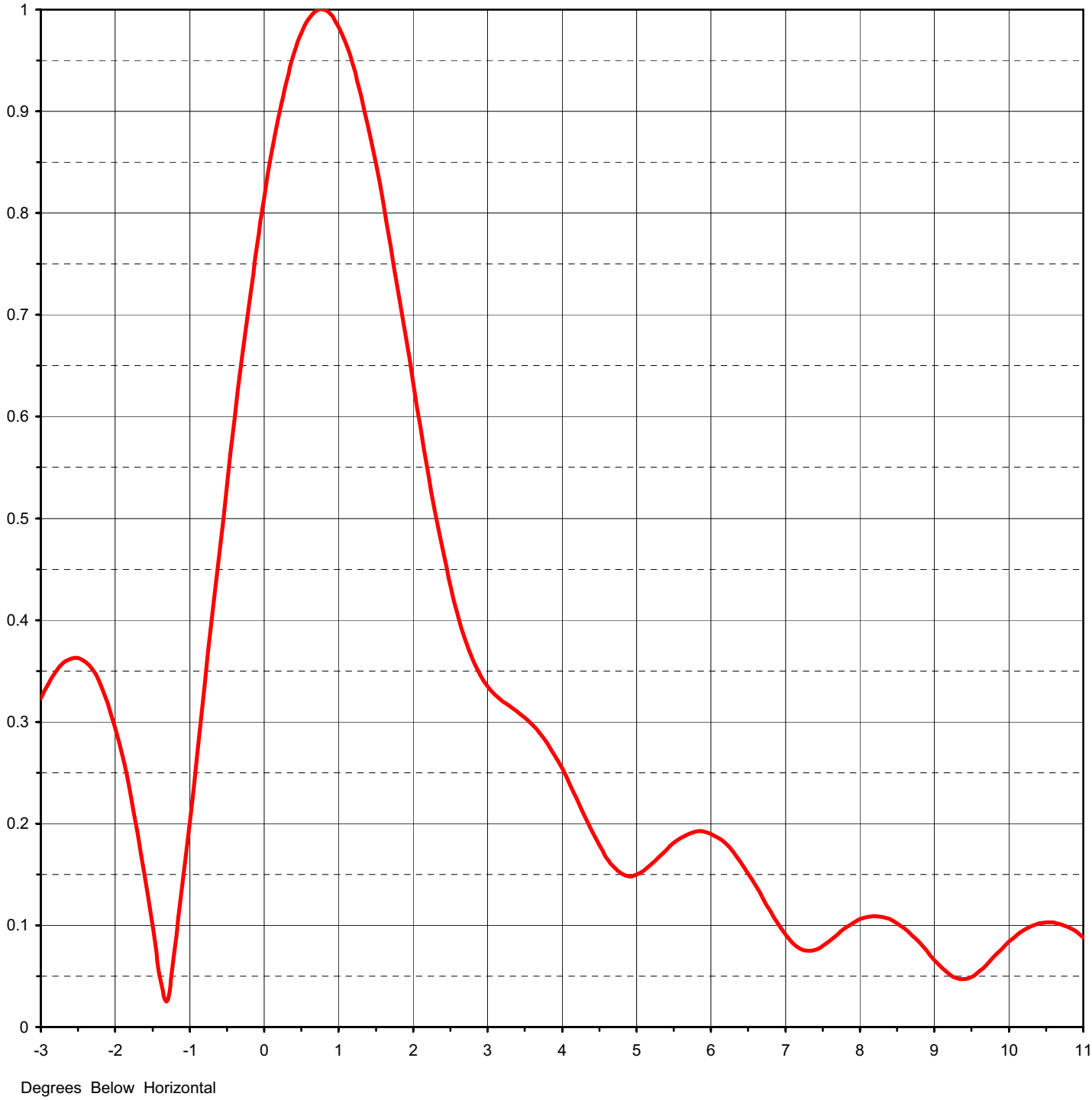
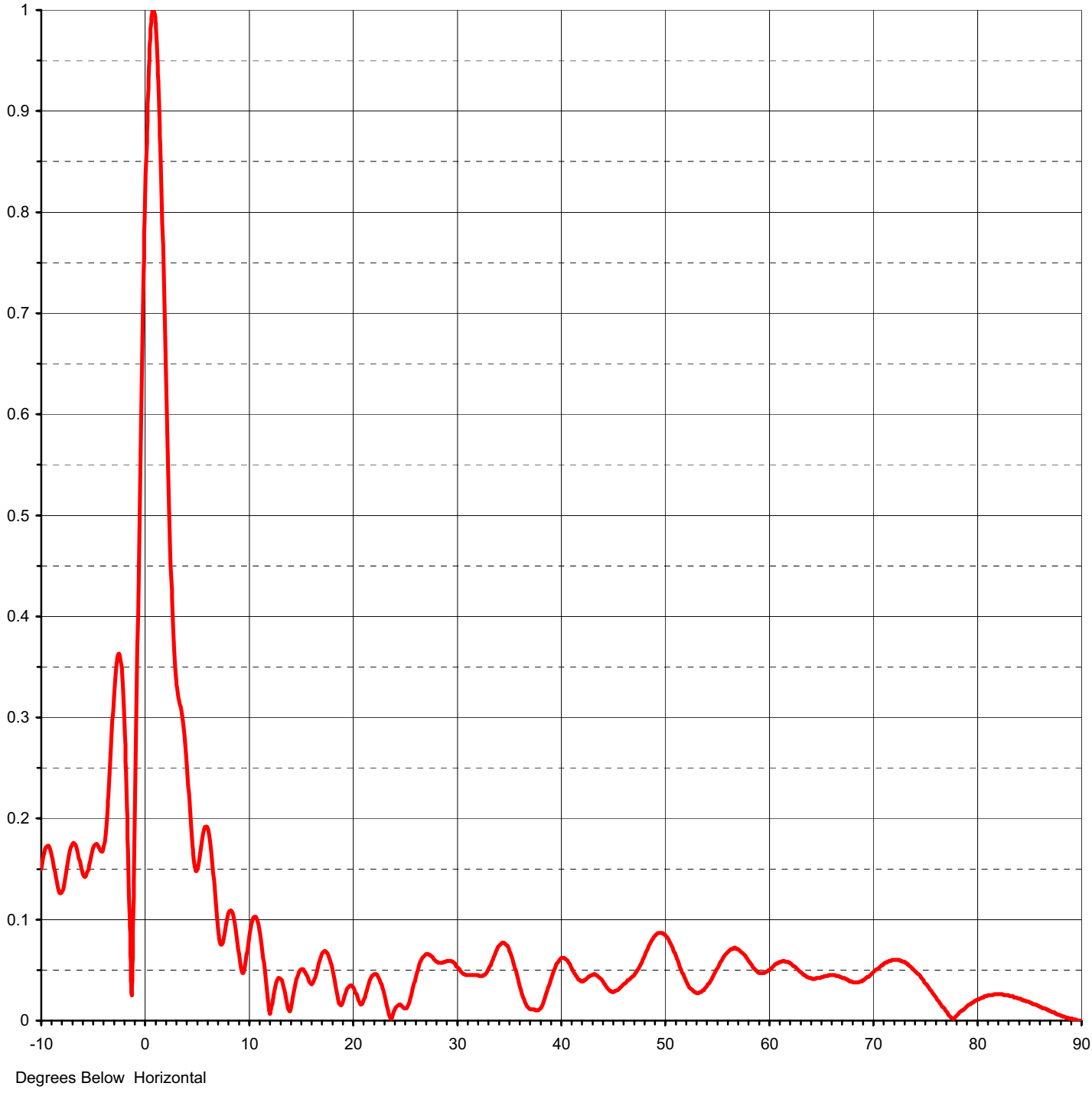


EXHIBIT E-2f

Proposal Number	**DCA-11033**
Date	**9-Jun-05**
Call Letters	**WQRF-DT** Channel **42**
Location	**Rockford, IL**
Customer	**Nexstar Broadcasting**
Antenna Type	**TFU-25JSC-R P210SP**

ELEVATION PATTERN

RMS Gain at Main Lobe	**22.00 (13.42 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**14.60 (11.64 dB)**	Frequency	**641.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**25Z220075-90**



Dielectric

Proposal Number **DCA-11033**
Date **9-Jun-05**
Call Letters **WQRF-DT** Channel **42**
Location **Rockford, IL**
Customer **Nexstar Broadcasting**
Antenna Type **TFU-25JSC-R P210SP**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **25Z220075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.150	2.4	0.468	10.6	0.103	30.5	0.048	51.0	0.067	71.5	0.059
-9.5	0.172	2.6	0.405	10.8	0.101	31.0	0.045	51.5	0.053	72.0	0.060
-9.0	0.164	2.8	0.361	11.0	0.094	31.5	0.045	52.0	0.041	72.5	0.060
-8.5	0.137	3.0	0.335	11.5	0.057	32.0	0.045	52.5	0.032	73.0	0.058
-8.0	0.127	3.2	0.320	12.0	0.012	32.5	0.044	53.0	0.028	73.5	0.054
-7.5	0.153	3.4	0.310	12.5	0.029	33.0	0.049	53.5	0.028	74.0	0.049
-7.0	0.175	3.6	0.297	13.0	0.042	33.5	0.060	54.0	0.033	74.5	0.044
-6.5	0.167	3.8	0.279	13.5	0.029	34.0	0.072	54.5	0.040	75.0	0.037
-6.0	0.145	4.0	0.254	14.0	0.009	34.5	0.077	55.0	0.050	75.5	0.030
-5.5	0.149	4.2	0.224	14.5	0.034	35.0	0.072	55.5	0.059	76.0	0.023
-5.0	0.171	4.4	0.193	15.0	0.050	35.5	0.057	56.0	0.067	76.5	0.016
-4.5	0.172	4.6	0.166	15.5	0.048	36.0	0.038	56.5	0.071	77.0	0.009
-4.0	0.171	4.8	0.151	16.0	0.037	36.5	0.021	57.0	0.071	77.5	0.003
-3.5	0.231	5.0	0.150	16.5	0.045	37.0	0.012	57.5	0.067	78.0	0.005
-3.0	0.323	5.2	0.160	17.0	0.063	37.5	0.011	58.0	0.061	78.5	0.010
-2.8	0.349	5.4	0.174	17.5	0.068	38.0	0.011	58.5	0.053	79.0	0.014
-2.6	0.362	5.6	0.186	18.0	0.055	38.5	0.022	59.0	0.048	79.5	0.018
-2.4	0.359	5.8	0.192	18.5	0.029	39.0	0.038	59.5	0.047	80.0	0.021
-2.2	0.337	6.0	0.190	19.0	0.016	39.5	0.052	60.0	0.050	80.5	0.023
-2.0	0.294	6.2	0.180	19.5	0.031	40.0	0.061	60.5	0.054	81.0	0.025
-1.8	0.230	6.4	0.162	20.0	0.034	40.5	0.061	61.0	0.057	81.5	0.025
-1.6	0.147	6.6	0.139	20.5	0.023	41.0	0.054	61.5	0.059	82.0	0.026
-1.4	0.048	6.8	0.114	21.0	0.017	41.5	0.044	62.0	0.057	82.5	0.025
-1.2	0.077	7.0	0.091	21.5	0.034	42.0	0.039	62.5	0.054	83.0	0.025
-1.0	0.202	7.2	0.077	22.0	0.045	42.5	0.041	63.0	0.049	83.5	0.023
-0.8	0.335	7.4	0.076	22.5	0.043	43.0	0.045	63.5	0.045	84.0	0.022
-0.6	0.468	7.6	0.085	23.0	0.029	43.5	0.045	64.0	0.042	84.5	0.020
-0.4	0.596	7.8	0.097	23.5	0.008	44.0	0.040	64.5	0.042	85.0	0.018
-0.2	0.713	8.0	0.106	24.0	0.009	44.5	0.033	65.0	0.043	85.5	0.016
0.0	0.815	8.2	0.109	24.5	0.016	45.0	0.028	65.5	0.044	86.0	0.014
0.2	0.898	8.4	0.106	25.0	0.012	45.5	0.030	66.0	0.045	86.5	0.012
0.4	0.957	8.6	0.097	25.5	0.019	46.0	0.035	66.5	0.044	87.0	0.009
0.6	0.991	8.8	0.083	26.0	0.039	46.5	0.040	67.0	0.042	87.5	0.007
0.8	1.000	9.0	0.066	26.5	0.057	47.0	0.044	67.5	0.040	88.0	0.005
1.0	0.983	9.2	0.052	27.0	0.065	47.5	0.051	68.0	0.038	88.5	0.003
1.2	0.944	9.4	0.047	27.5	0.065	48.0	0.062	68.5	0.038	89.0	0.002
1.4	0.884	9.6	0.055	28.0	0.059	48.5	0.073	69.0	0.040	89.5	0.001
1.6	0.809	9.8	0.061	28.5	0.057	49.0	0.083	69.5	0.043	90.0	0.000
1.8	0.723	10.0	0.076	29.0	0.058	49.5	0.087	70.0	0.048		
2.0	0.633	10.2	0.090	29.5	0.059	50.0	0.086	70.5	0.052		
2.2	0.546	10.4	0.099	30.0	0.054	50.5	0.078	71.0	0.056		

TABLE I
COMPUTED COVERAGE DATA
FOR PROPOSED DTV OPERATION OF
WQRF-DT, ROCKFORD, ILLINOIS
CHANNEL 42 900 KW ERP 148 METERS HAAT
FEBRUARY 2007

Radial	Average* Elevation	Effective Height	Depression Angle	ERP	Distance to Contour 48 dBu	41 dBu
N ° E, T	meters	meters	degrees	kW	km	km
0	245.2	146.7	0.335	268.3	63.6	71.0
10	250.1	141.8	0.330	228.6	62.5	69.8
20	258.0	133.9	0.321	149.8	60.0	67.1
30	249.9	142.0	0.330	122.5	59.7	66.9
40	238.6	153.3	0.343	208.2	62.9	70.3
50	236.6	155.3	0.345	389.7	65.8	73.7
60	232.6	159.3	0.350	596.3	68.1	76.5
70	233.0	158.9	0.349	765.1	69.2	78.0
80	239.1	152.8	0.342	866.1	69.4	78.2
90	237.2	154.7	0.345	900.0	69.7	78.6
100	236.9	155.0	0.345	867.9	69.5	78.4
110	236.9	155.0	0.345	768.4	69.0	77.7
120	233.2	158.7	0.349	597.8	68.1	76.4
130	235.0	156.9	0.347	388.5	66.0	73.8
140	227.8	164.1	0.355	205.6	63.7	71.1
150	224.5	167.4	0.358	117.9	61.4	68.7
160	228.6	163.3	0.354	144.7	62.0	69.3
170	235.1	156.8	0.347	225.9	63.6	71.0
180	241.1	150.8	0.340	268.3	63.9	71.4
190	244.8	147.1	0.336	228.6	62.9	70.3
200	245.2	146.7	0.335	149.8	61.0	68.2
210	254.2	137.7	0.325	122.5	59.4	66.5
220	256.8	135.1	0.322	208.2	61.6	68.8
230	261.2	130.7	0.317	389.7	64.0	71.6
240	266.8	125.1	0.310	596.3	65.4	73.5
250	264.9	127.0	0.312	765.1	66.7	75.1
260	260.9	131.0	0.317	866.1	67.6	76.2
270	259.6	132.3	0.319	900.0	67.9	76.6
280	249.5	142.4	0.331	867.9	68.5	77.3

TABLE I
COMPUTED COVERAGE DATA
FOR PROPOSED OPERATION OF
WQRF-DT, ROCKFORD, ILLINOIS
CHANNEL 42 900 KW ERP 148 METERS HAAT
FEBRUARY 2007
(continued)

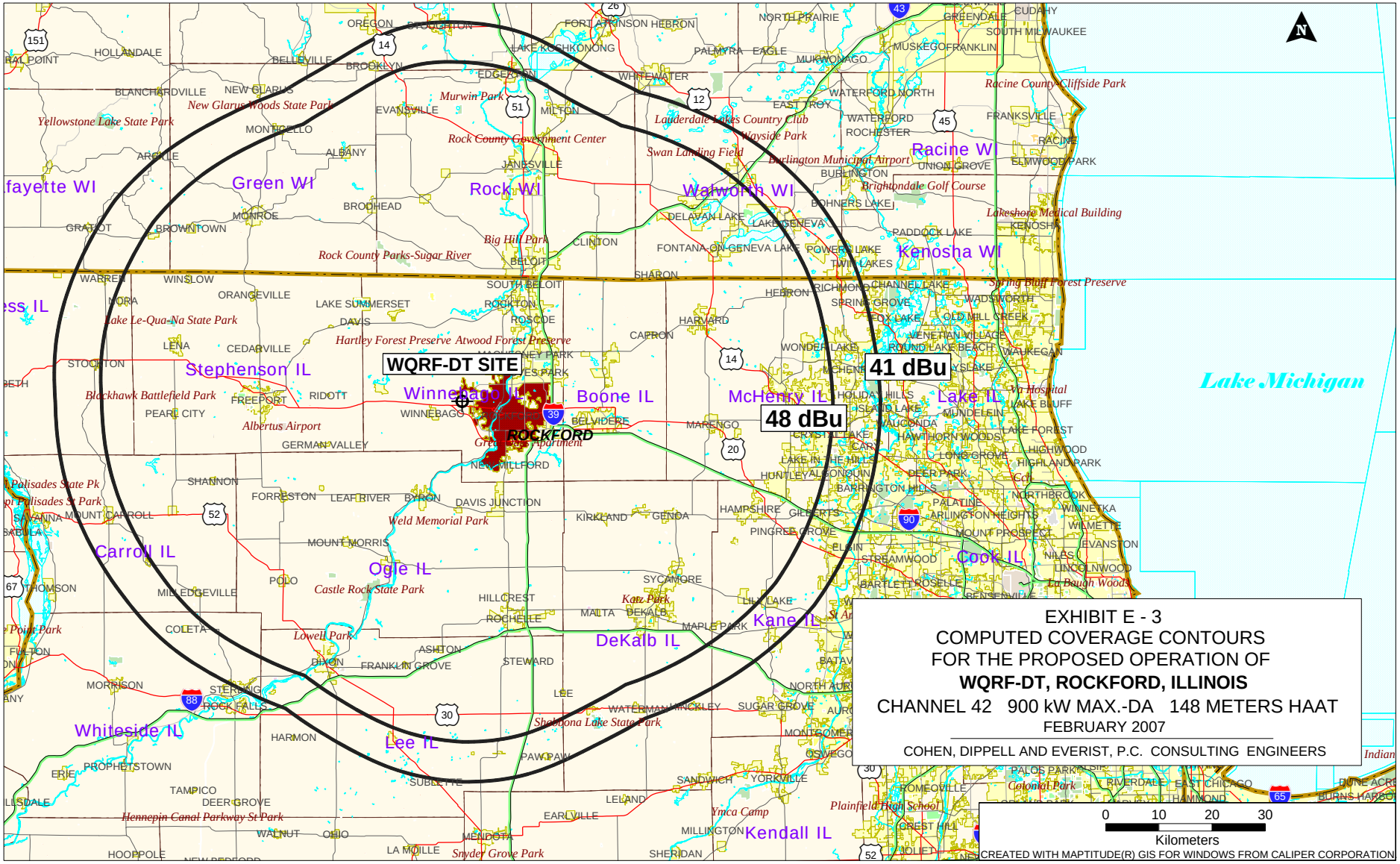
Radial	Average* Elevation	Effective Height	Depression Angle	ERP	Distance to Contour 48 dBu	41 dBu
N ° E, T	meters	meters	degrees	kW	km	km
290	248.6	143.3	0.332	768.4	68.0	76.6
300	244.6	147.3	0.336	597.8	67.2	75.4
310	247.2	144.7	0.333	388.5	65.0	72.8
320	245.8	146.1	0.335	205.6	62.4	69.7
330	243.9	148.0	0.337	117.9	60.0	67.2
340	242.2	149.7	0.339	144.7	61.0	68.3
350	237.3	154.6	0.344	225.9	63.4	70.8

*Based on data from FCC 3-second data base.

DTV Channel 42 (638-644 MHz)
Average Elevation 3.2 to 16.1 km 243.9 meters AMSL
Center of Radiation 391.9 meters AMSL
Antenna Height Above Average Terrain 148 meters
Effective Radiated Power 900 kW (29.54 dBk) Max

North Latitude: 42˚ 17' 14"
West Longitude: 89˚ 10' 15"

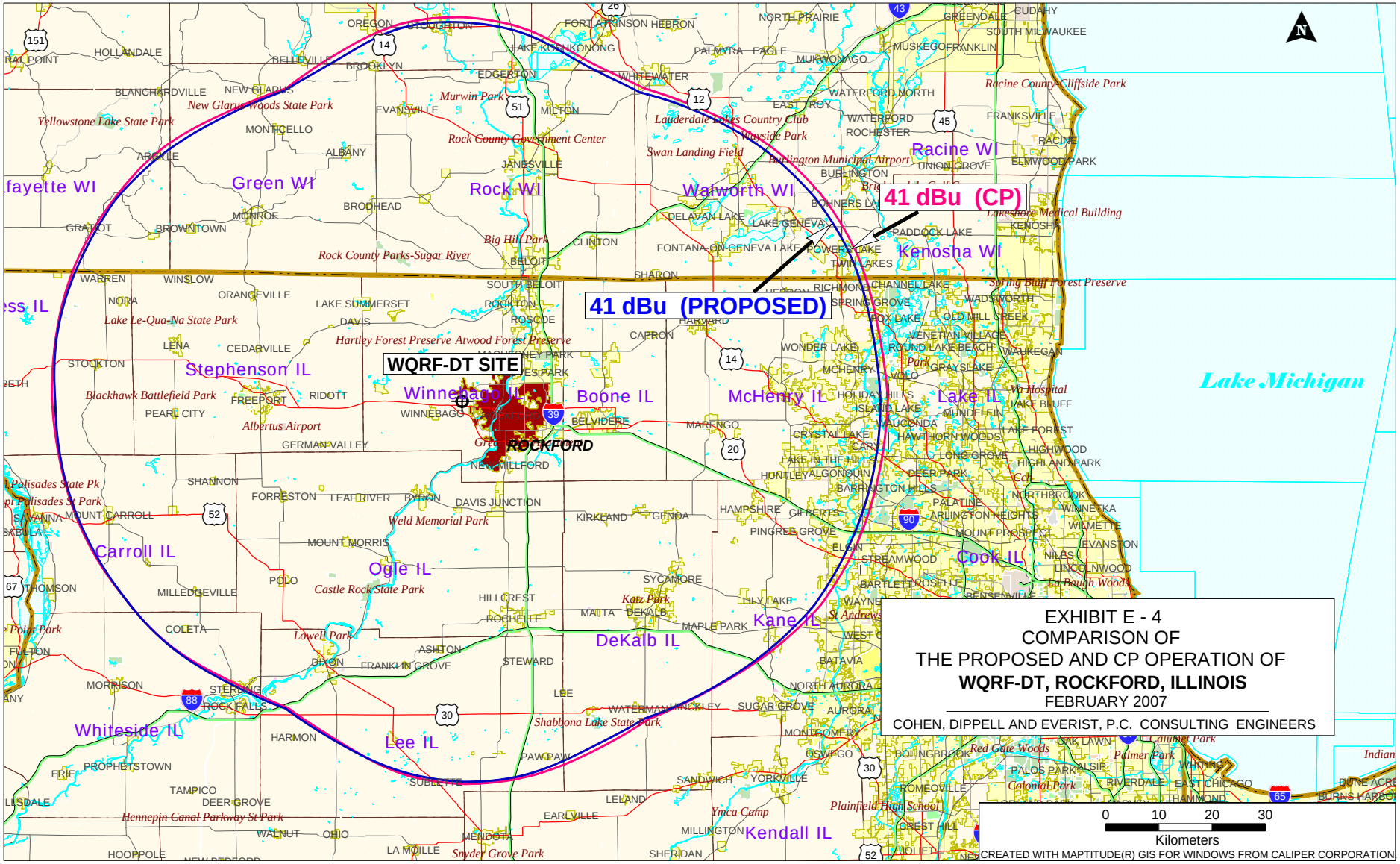
(NAD-27)


WQRF-DT SITE
41 dBu
48 dBu
ROCKFORD
Lake Michigan
Racine WI
Kenosha WI
Walworth WI
Rock WI
Green WI
Stephenson IL
Winnebago IL
Boone IL
McHenry IL
Lake IL
Cook IL
Kane IL
DeKalb IL
Ogle IL
Carroll IL
Whiteside IL
Lee IL
Kendall IL
EXHIBIT E - 3
COMPUTED COVERAGE CONTOURS
FOR THE PROPOSED OPERATION OF
WQRF-DT, ROCKFORD, ILLINOIS
CHANNEL 42 900 kW MAX.-DA 148 METERS HAAT
FEBRUARY 2007
COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
0 10 20 30
Kilometers
CREATED WITH MAPTITUDE(R) GIS FOR WINDOWS FROM CALIPER CORPORATION

COHEN, DIPPELL AND EVERIST, P.C.

TABLE II
LONGLEY-RICE ANALYSIS
ABOVE THE OUTSTANDING CONSTRUCTION PERMIT
(FCC FILE NO. BPCDT-19991029AIK)
FOR THE PROPOSED OPERATION OF
WQRF-DT, ROCKFORD, ILLINOIS
CHANNEL 42 900 KW ERP MAX DA 148 METERS HAAT
FEBRUARY 2007

Channel	Call	City/State	Dist(km)	Status	FCC File No.	Result
27	WKOW-TV	MADISON WI	90.3	LIC	BLCT-20000306AAW	0.00%
34	WEDE-CA	ARLINGTON HEIGHTS IL	134.1	LIC	BLTTA-20050308AAS	no interference
35	WWTO-TV	LASALLE IL	113.8	LIC	BLCT-19861212LH	no interference
38	WCPX(TV)	CHICAGO IL	134.1	LIC	BLCT-20050715ACC	no interference
39	WQRF-TV	ROCKFORD IL	0	LIC	BLCT-19960402KE	no interference
40	KFXB(TV)	DUBUQUE IA	122.2	LIC	BLCT-2567	no interference
40	KFXB(TV)	DUBUQUE IA	122.1	CP	BPCT-20050830AAO	no interference
41	KGCW-DT	BURLINGTON IA	187.3	CP	BPCDT-19991028AFB	no interference
41	WOCH-CA	CHICAGO IL	134.4	LIC	BLTTA-20060103ACT	no interference
41	WOCH-CA	CHICAGO IL	134.4	APP	BPTTA-20050127ALO	no interference
41	WIFR-DT	FREEPORT IL	0.9	LIC	BLCDT-20041012AIQ	0.05%
41	WIFR-DT	FREEPORT IL	0.9	CP MOD	BMPCDT-20050103AFQ	0.02%
41	WIFR-DT	FREEPORT IL	0.9	ALLOT		0.03%
41	WMLW-CA	MILWAUKEE WI	136	LIC	BLTTA-20021002AAA	no interference
42	KIMT-DT	MASON CITY IA	322.3	CP MOD	BMPCDT-20000501ACT	-0.01%
42	KIMT-DT	MASON CITY IA	317.2	APP	BMPCDT-20060509AAH	0.00%
42	KIMT-DT	MASON CITY IA	322.3	ALLOT		0.01%
42	WICS-DT	SPRINGFIELD IL	277.5	LIC	BLCDT-20050627AAI	0.00%
42	WICS-DT	SPRINGFIELD IL	277.5	ALLOT		no interference
42	WNDU-DT	SOUTH BEND IN	255.6	LIC	BLCDT-20060717AAG	0.00%
42	WNDU-DT	SOUTH BEND IN	255.6	ALLOT		0.00%
42	WPNE-DT	GREEN BAY WI	253.6	LIC	BMLEDT-20040818AAP	-0.01%
42	WPNE-DT	GREEN BAY WI	253.6	ALLOT		0.00%
43	KFXB-DT	DUBUQUE IA	122.1	CP	BPCDT-19991028ACY	-0.01%
43	KFXB-DT	DUBUQUE IA	122.2	ALLOT		no interference
43	WYZZ-TV	BLOOMINGTON IL	182.8	LIC	BLCT-19851129KG	no interference
43	WCPX-DT	CHICAGO IL	134.1	LIC	BLCDT-20010226ABH	0.00%
43	WCPX-DT	CHICAGO IL	134.4	ALLOT		0.00%
43	WWRS-DT	MAYVILLE WI	137.6	CP MOD	BMPCDT-20041005ADD	no interference
43	WWRS-DT	MAYVILLE WI	137.6	ALLOT		no interference
44	WSNS-TV	CHICAGO IL	134.1	LIC	BLCT-20000110AAU	no interference
45	960722KN	RICHLAND CENTER WI	135.6	APP	BPCT-19960722KN	no interference
49	WJJA(TV)	RACINE WI	124.9	LIC	BLCT-19900518KP	no interference
50	WPWR-TV	GARY IN	134.1	LIC	BLCT-19870128KL	no interference


41 dBu (CP)
41 dBu (PROPOSED)
WQRF-DT SITE
Lake Michigan
Racine WI
Kenosha WI
Walworth WI
Rock WI
Green WI
Stephenson IL
Winnebago IL
Boone IL
McHenry IL
Lake IL
Cook IL
Kane IL
DeKalb IL
Ogle IL
Carroll IL
Whiteside IL
Lee IL
Kendall IL
ROCKFORD
EXHIBIT E - 4
COMPARISON OF
THE PROPOSED AND CP OPERATION OF
WQRF-DT, ROCKFORD, ILLINOIS
FEBRUARY 2007
COHEN, DIPPELL AND EVERIST, P.C. CONSULTING ENGINEERS
0 10 20 30
Kilometers
CREATED WITH MAPTITUDE(R) GIS FOR WINDOWS FROM CALIPER CORPORATION

SECTION III-D - DTV Engineering

Complete Questions 1-5 of the Certification Checklist and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Certification Checklist: A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be requird prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:

   (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. [X] Yes [ ] No

   (b) It will operate from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. [X] Yes [ ] No

   (c) It will operate with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. [X] Yes [ ] No

2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. [X] Yes [ ] No

   Applicant must **submit the Exhibit** called for in Item 13.

3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. [X] Yes [ ] No

4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. [X] Yes [ ] No

5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. [X] Yes [ ] No

SECTION III-D DTV Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number: DTV 42 Analog TV, if any 39

2. Zone: [X] I [ ] II [ ] III

3. Antenna Location Coordinates: (NAD 27)

42 ° 17 ' 14 " [X] N [ ] S Latitude

89 ° 10 ' 15 " [ ] E [X] W Longitude

4. Antenna Structure Registration Number: 1035539

[ ] Not applicable [ ] FAA Notification Filed with FAA

5. Antenna Location Site Elevation Above Mean Sea Level: 241 meters

6. Overall Tower Height Above Ground Level: 216 meters

7. Height of Radiation Center Above Ground Level: 150.9 meters

8. Height of Radiation Center Above Average Terrain: 148 meters

9. Maximum Effective Radiated Power (average power): 900 kW

10. Antenna Specifications:

a. Manufacturer: DIELECTRIC | Model: TFU-25JSC-R P210SP

b. Electrical Beam Tilt: 0.75 degrees [ ] Not Applicable

c. Mechanical Beam Tilt: _____ degrees toward azimuth _____ degrees True [X] Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit No. E-2

d. Polorization: [X] Horizontal [ ] Circular [ ] Elliptical

TECH BOX

e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)

Rotation: _____ ° ☒ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.546	60	0.814	120	0.815	180	0.546	240	0.814	300	0.815
10	0.504	70	0.922	130	0.657	190	0.504	250	0.922	310	0.657
20	0.408	80	0.981	140	0.478	200	0.408	260	0.981	320	0.478
30	0.369	90	1.0	150	0.362	210	0.369	270	1.0	330	0.362
40	0.481	100	0.982	160	0.401	220	0.481	280	0.982	340	0.401
50	0.658	110	0.924	170	0.501	230	0.658	290	0.924	350	0.501
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No. E-2

11. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") ☐ Yes ☐ No

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers. Exhibit No.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.") Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following: Exhibit No. E

a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

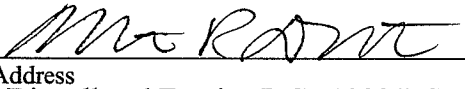
I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name Martin R. Doczkat		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer
Signature 		Date February 5, 2007
Mailing Address Cohen, Dippell and Everist, P.C., 1300 L Street, NW, Suite 1100		
City Washington	State or Country (if foreign address) DC	ZIP Code 20005
Telephone Number (include area code) (202) 898-0111	E-Mail Address (if available) cde@attglobal.net	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).