

ENGINEERING STATEMENT  
MODIFICATION OF CONSTRUCTION PERMIT  
(FCC FILE NO. BPCDT-19991019ABB)  
ON BEHALF OF KEVN, INC.  
KEVN-DT, RAPID CITY, SOUTH DAKOTA  
CHANNEL 7 12.3 KW ND ERP 204 METERS HAAT

FEBRUARY 2008

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:

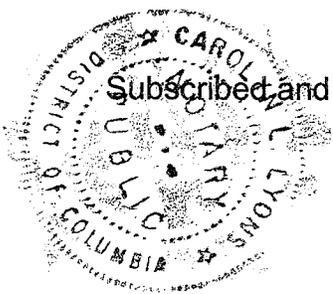
He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President, Secretary and Treasurer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

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

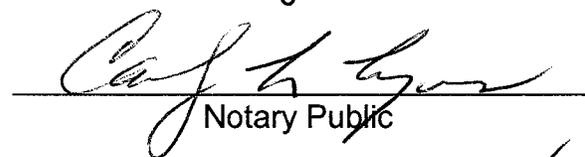
That the attached engineering report was prepared by him or under his supervision and direction and

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 8<sup>th</sup> day of February, 2008.

  
\_\_\_\_\_  
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;

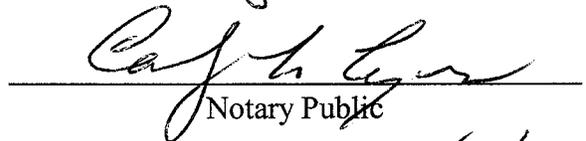
That the attached engineering report was prepared by him or under his supervision and direction and

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.



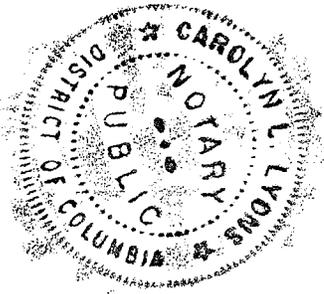
Martin R. Doczkat

Subscribed and sworn to before me this 8<sup>th</sup> day of February, 2008.



Notary Public

My Commission Expires: 2/28/2008



This engineering statement has been prepared on behalf of KEVN, Inc., licensee of KEVN-TV, Rapid City, South Dakota. The purpose of this engineering statement is to accompany its request to modify its outstanding construction permit (FCC File No. BPCDT-19991019ABB) for digital television (“DTV”) facilities and to supplement those data required in FCC Form 301, Section III-D. As demonstrated in this exhibit, KEVN-TV’s proposed DTV application meets the criteria for waiver of the filing freeze policy as set out in the FCC’s Third Periodic Review.<sup>1</sup>

KEVN-TV operates on NTSC Television Channel 7 with a maximum visual horizontal effective radiated power (“ERP”) of 263 kW non-directional and a height above average terrain (“HAAT”) of 204 meters. KEVN-TV is proposed to be allocated post-transition DTV Channel 7 with facilities of 12.3 kW maximum directional ERP and HAAT of 204 meters in the proposed DTV Table of Allotments.<sup>2</sup> KEVN-DT has been authorized to construct DTV facilities of 120 kW directional ERP (horizontal polarization) on its allotted DTV Channel 18 at a HAAT of 181 meters on its existing antenna structure, however, KEVN-DT now proposes to construct DTV facilities on its post-transition Channel 7 in accordance with Paragraph 151 of the Third Periodic Review with 12.3 kW non-directional ERP (horizontal polarization) at an HAAT of 204 meters at the existing KEVN-TV tower site to utilize the existing Channel 7 KEVN-TV antenna.

There are no AM stations located within 3.22 km of the existing KEVN-TV tower site. There are numerous FM and TV stations located and transmitting within 500 meters from this site.

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<sup>1</sup>“In the Matter of Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television”, MB Docket No. 07-91, Report & Order (FCC 07-228), Released December 31, 2007.

<sup>2</sup>“In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service”, MM Docket No. 87-268, Seventh Report and Order and Eighth Further Notice of Proposed Rule Making (FCC07-138),8/6/2007, Granted Requests for Alternative Channel Assignments, Appendix D5.

The existing post-transition DTV antenna is already currently being used by KEVN-TV and is top-mounted on the existing tower having a total overall structure height above ground of 190.8 meters (626 feet). The existing transmitter site is located at 2000 Skyline Dr., Rapid City, South Dakota.

Since there is no change in overall height, FAA airspace approval is not required. The tower registration number of the existing tower is 1042276. Exhibit E-1 is a diagram of the existing tower and the proposed transmitting antenna.

North Latitude: 44° 04' 00"

West Longitude: 103° 15' 01"

NAD-27

Equipment Data

Antenna: RCA, Type TF-12BH (or equivalent) top-mounted, horizontally polarized antenna with 50/50 power split and 1.0° electrical beam tilt. The horizontal and vertical plane patterns and other exhibits required by Section 73.625(c) are herein included as Exhibit E-2.

Power Data

|   |         |           |
|---|---------|-----------|
| Transmitter output  | 1.64 kW | 2.145 dBk |
| RCA, Type MI-19313-1H (dual run)<br>3-1/8"-length 228.6 meters (750 ft) | 79.9%   | 0.975 dB  |
| Filter and combiner loss  |         | included  |
| Input power to the antenna  | 1.31 kW | 1.17 dBk  |
| Antenna power gain,<br>Main Lobe  | 9.40    | 9.73 dB   |
| Effective Radiated Power  | 12.3 kW | 10.90 dBk |

Elevation Data  
(existing)

|  |                            |
|--|----------------------------|
| Vertical dimension of Channel 7<br>top-mounted antenna including beacon<br>and lightning rod           | 23.2 meters<br>76 feet     |
| Overall height above ground of the<br>proposed antenna structure<br>including beacon and lightning rod | 190.8 meters<br>626 feet   |
| Center of radiation of Channel 7<br>antenna above ground   | 179.4 meters<br>588.5 feet |
| Elevation of site above mean sea level   | 1132.6 meters<br>3716 feet |
| Center of radiation of Channel 7<br>antenna above mean sea level                                       | 1312 meters<br>4304.5 feet |
| Overall height above mean sea level<br>of proposed tower including beacon<br>and lightning rod         | 1323.4 meters<br>4342 feet |
| Antenna height above average terrain   | 204 meters                 |

NOTE: Slight height differences result due to conversion to metric.

Coverage

The average elevation data for 3.2 to 16.1 km along each radial has been determined from the 3-second NGDC for the existing KEVN-TV site. The F(50,90) DTV coverage contours have been computed from reference to the propagation data for Channels 7-13 and for Channels 14-69, as published by the FCC in Figures 10, 10a, 10b and 10c, Section 73.699 of the FCC Rules and Regulations. Utilizing the formula in Section 73.625(b)(2) of the Rules for the effective heights shown on the attached tabulations, the depression angle,  $A_h$ , for each azimuth has been calculated.

The maximum radiation value has been used to calculate ERP and to determine coverage where the vertical radiation pattern at these angles is greater than 90% of the maximum.

Table I includes the distances along the radials to the predicted F(50,90) 43 and 36 dBu contours (shown on Exhibit E-3), the average elevation 3.2 to 16.1 km, and the effective antenna heights in accordance with Section 73.625(b) of the FCC Rules.

#### Filing Freeze Waiver Request

An allocation study from the proposed site has been performed as the predicted F(50,90) 36 dBu contour of the proposed DTV facilities at the currently authorized site are not expected to be entirely within the predicted F(50,90) 36 dBu contour of the KEVN-DT facility in the Seventh Report and Order and Eighth Further Notice of Proposed Rulemaking. However, since KEVN-DT intends to use its currently licensed non-directional antenna after the transition, the proposed operation requests a sufficient non-directional ERP to replicate its current analog service area. Further, the proposed operation does not extend more than 5 miles beyond the KEVN-DT facility in the Seventh Report and Order and Eighth Further Notice of Proposed Rulemaking (see Exhibit E-4) and does not exceed the 0.5% additional interference standard to any other station in the Seventh Report and Order and Eighth Further Notice of Proposed Rulemaking potentially affected by the proposed operation. Therefore, KEVN-DT requests a waiver of the DTV filing freeze<sup>3</sup> for rapid approval of minor expansion applications in accordance with Paragraph 151 of the Third Periodic Review Report and Order.<sup>4</sup>

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<sup>3</sup>Public Notice entitled, "Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes", released August 3, 2004.

<sup>4</sup>Ibid.

Other Stations

There are numerous FM and TV stations located within 500 meters of the KEVN-TV tower. The existing KEVN-TV antenna will be used by the proposed KEVN-DT operation post-transition.

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

RFF Levels at Tower Site

The radiofrequency field (“RFF”) two meters above the ground at the proposed KEVN-DT tower site will be calculated. The following station is exempt from RFF evaluation for the following reason:

| <u>Station</u> | <u>Reason</u>                  |
|----------------|--------------------------------|
| K289AI (FX)    | Subpart L Exempt (# 100 W ERP) |

RFF Calculations

The RFF contribution of each broadcast station will be calculated using the following formula abstracted from OET Bulletin No. 65 dated August 1997:

$$S = \frac{33.4(F^2) \text{ Total ERP}}{R^2}$$

where:

S = power density in  $\mu\text{W}/\text{cm}^2$

F = relative field factor

Total ERP = ERP Horizontal Polarization + ERP Vertical Polarization

$R^2 = (\text{RCAGL-2 meters})^2 + (\text{distance from KEVN-TV tower})^2$

ERP = RMS ERP in watts for DTV Stations and FM Stations.

ERP =  $[0.4\text{ERP}_V + \text{ERP}_A]$  for NTSC Stations

$ERP_v$  = peak visual ERP in watts

$ERP_A$  = RMS aural ERP in watts

The RFF for each station is calculated in Table II.

#### Total RFF at KEVN-DT Tower Site

The total percentage of RFF can be calculated by combining the percentage contribution of each station.

The total “worst-case” post-transition RFF contribution of all stations two meters above the ground at the base of the KEVN-DT tower is no more than 15% of the FCC guidelines for an uncontrolled environment which is no more than 3% of the proposed FCC guidelines for a controlled environment. KEVN-DT will likely not operate its post-transition facilities until 2009, thereby potentially reducing the RFF at the site after analog operations are removed from the tower and the vicinity.

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 the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

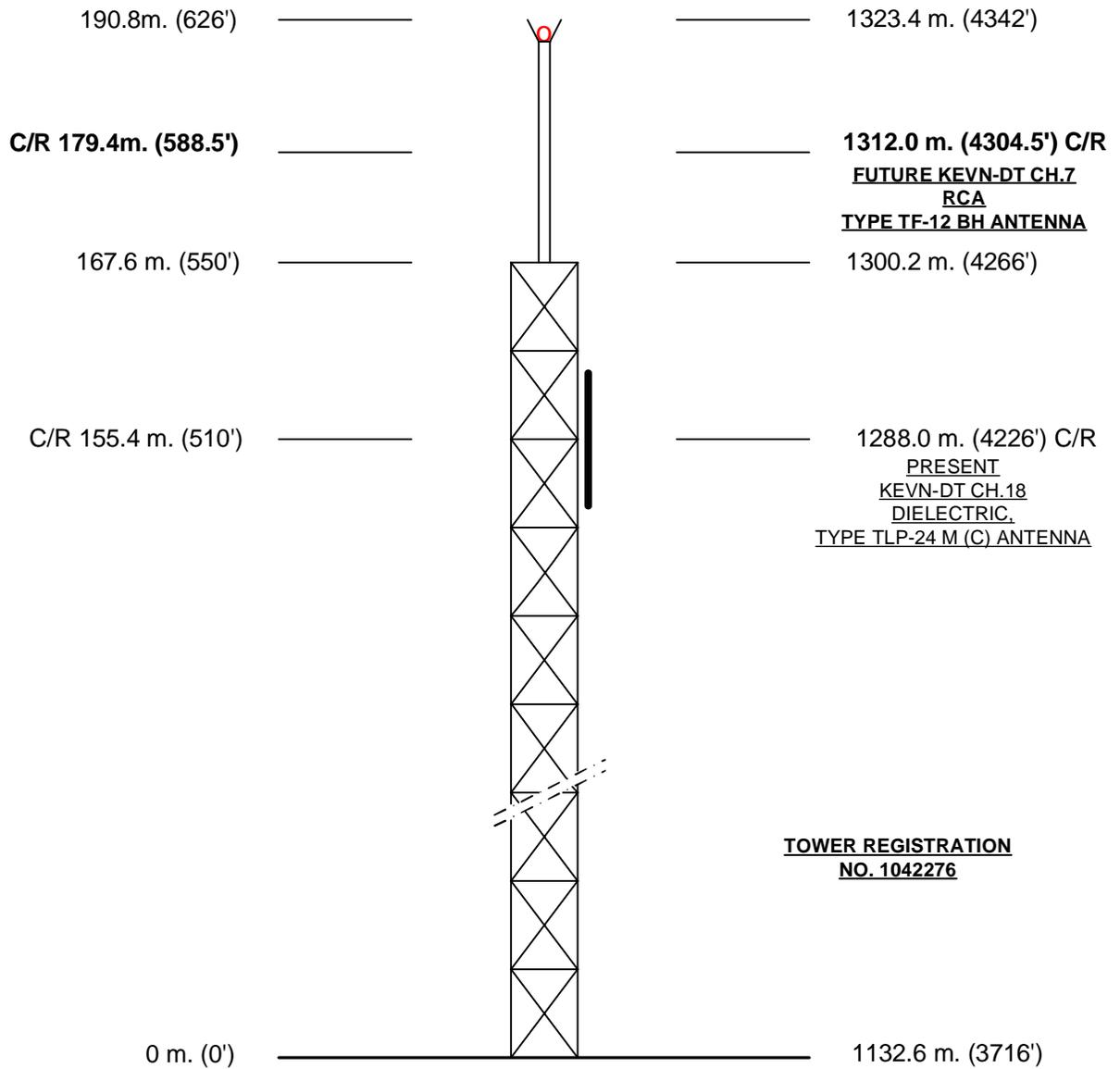
#### Environmental Assessment

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 GROUND

ABOVE MEAN SEA LEVEL



(NOT TO SCALE)

EXHIBIT E - 1  
VERTICAL SKETCH  
FOR  
**KEVN-DT, RAPID CITY, SOUTH DAKOTA**  
FEBRUARY 2008

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

KEVN-DT, RAPID CITY, SOUTH DAKOTA

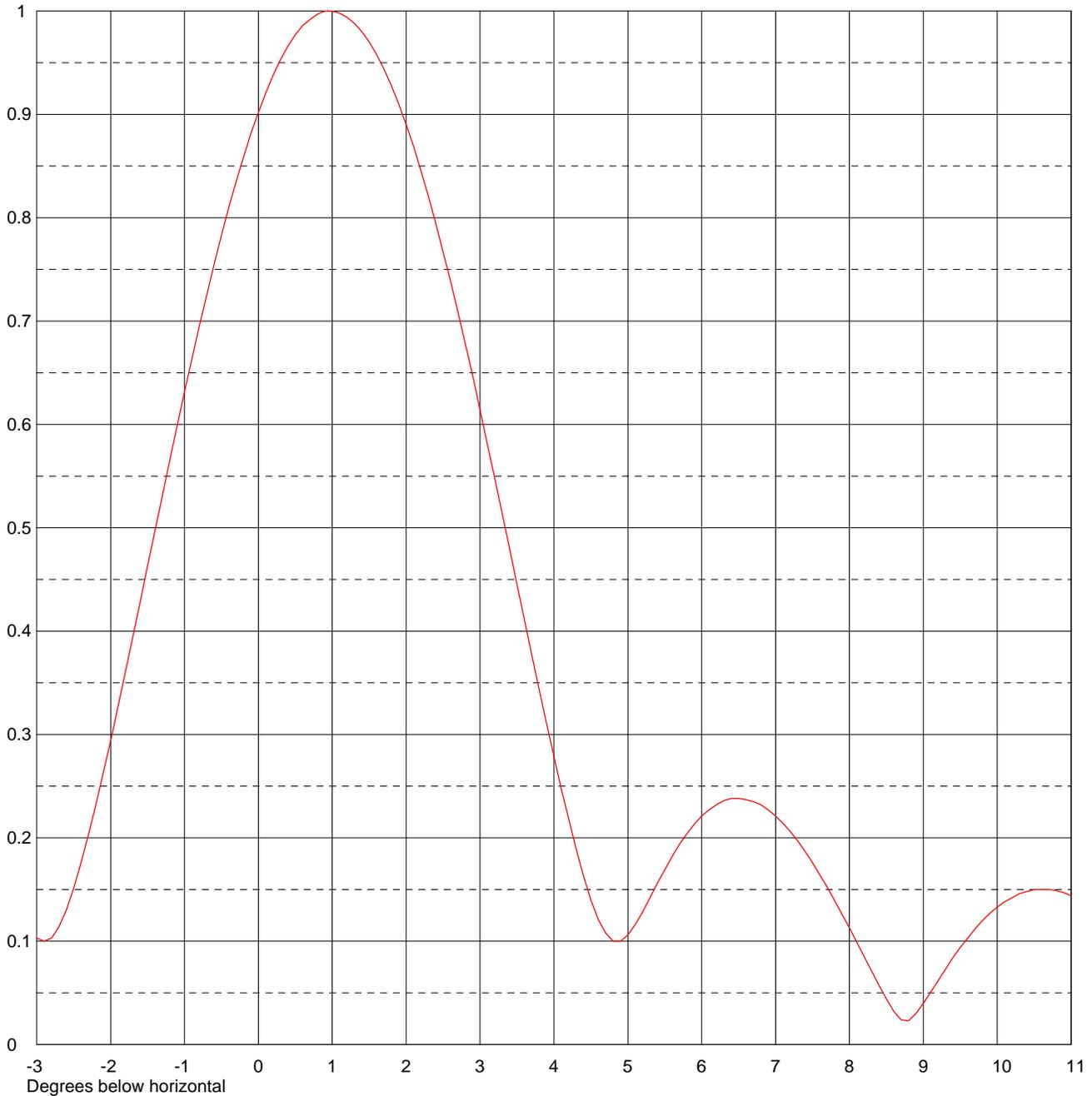


Proposal Number  
Date **08 Feb 2008**  
Call Letters  
Location  
Customer  
Antenna Type **TF-12BH**

Revision  
Channel **11**

### ELEVATION PATTERN

|                        |                        |           |                     |
|------------------------|------------------------|-----------|---------------------|
| RMS Gain at Main Lobe  | <b>12.4 (10.93 dB)</b> | Beam Tilt | <b>1.00 Degrees</b> |
| RMS Gain at Horizontal | <b>10.1 (10.04 dB)</b> | Frequency | <b>201.00 MHz</b>   |
| Calculated / Measured  | <b>Calculated</b>      | Drawing # | <b>12S12410</b>     |



Remarks:



Proposal Number

Revision

Date

08 Feb 2008

Call Letters

Channel 11

Location

Customer

Antenna Type

TF-12BH

### ELEVATION PATTERN

RMS Gain at Main Lobe

12.4 (10.93 dB)

Beam Tilt

1.00 Degrees

RMS Gain at Horizontal

10.1 (10.04 dB)

Frequency

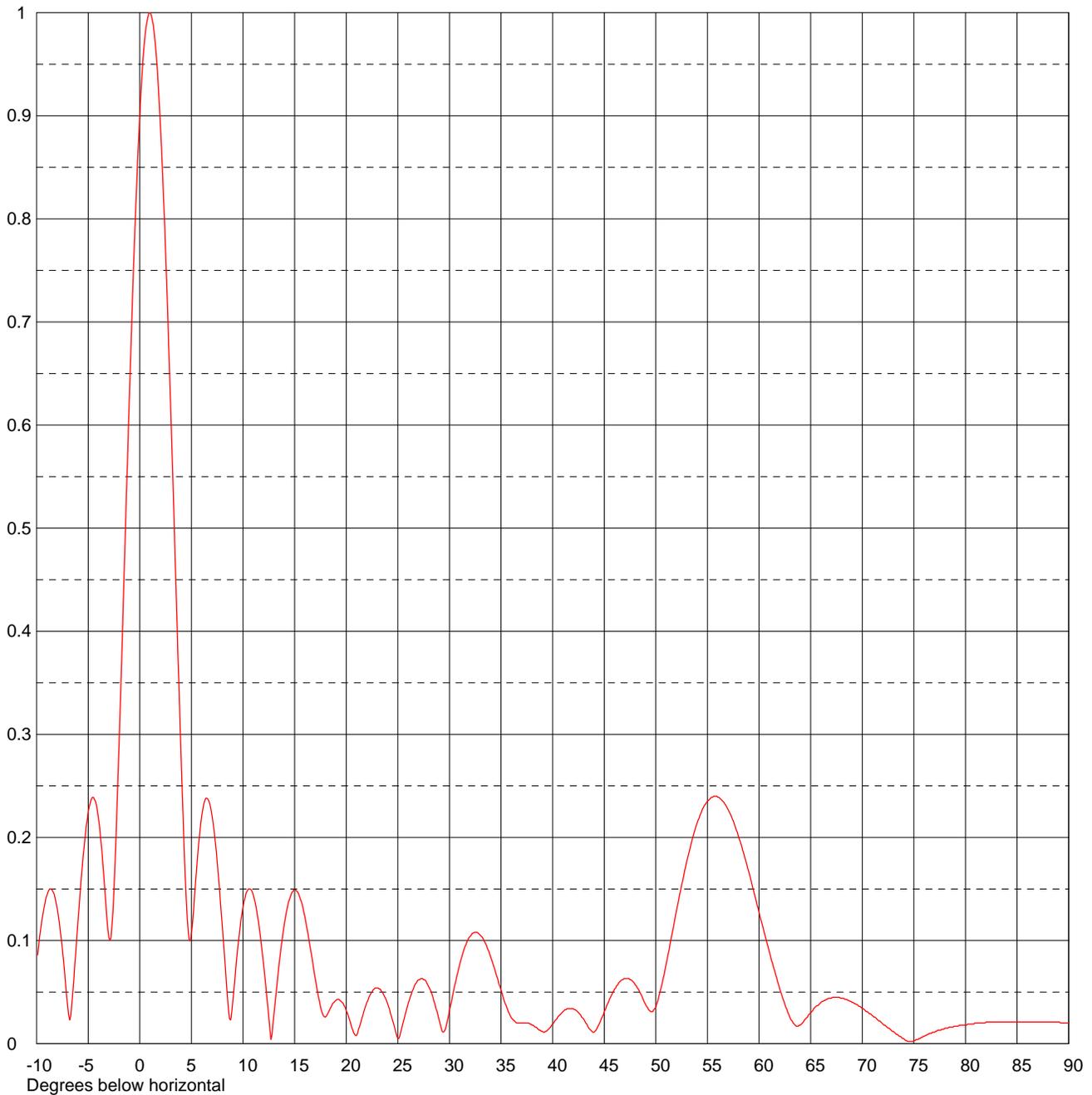
201.00 MHz

Calculated / Measured

Calculated

Drawing #

12S12410-90



Remarks:



Proposal Number  
 Date **08 Feb 2008**  
 Call Letters  
 Location  
 Customer  
 Antenna Type **TF-12BH**  
 Revision  
 Channel **11**

**TABULATION OF ELEVATION PATTERN**

Elevation Pattern Drawing # **12S12410**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.077 | 2.4   | 0.795 | 10.6  | 0.150 | 30.5  | 0.056 | 51.0  | 0.077 | 71.5  | 0.023 |
| -9.5  | 0.119 | 2.6   | 0.739 | 10.8  | 0.149 | 31.0  | 0.077 | 51.5  | 0.103 | 72.0  | 0.019 |
| -9.0  | 0.144 | 2.8   | 0.678 | 11.0  | 0.144 | 31.5  | 0.094 | 52.0  | 0.129 | 72.5  | 0.015 |
| -8.5  | 0.149 | 3.0   | 0.614 | 11.5  | 0.118 | 32.0  | 0.104 | 52.5  | 0.154 | 73.0  | 0.012 |
| -8.0  | 0.131 | 3.2   | 0.548 | 12.0  | 0.076 | 32.5  | 0.108 | 53.0  | 0.177 | 73.5  | 0.008 |
| -7.5  | 0.091 | 3.4   | 0.480 | 12.5  | 0.025 | 33.0  | 0.105 | 53.5  | 0.197 | 74.0  | 0.005 |
| -7.0  | 0.037 | 3.6   | 0.411 | 13.0  | 0.029 | 33.5  | 0.097 | 54.0  | 0.214 | 74.5  | 0.002 |
| -6.5  | 0.049 | 3.8   | 0.344 | 13.5  | 0.078 | 34.0  | 0.084 | 54.5  | 0.227 | 75.0  | 0.003 |
| -6.0  | 0.118 | 4.0   | 0.279 | 14.0  | 0.116 | 34.5  | 0.068 | 55.0  | 0.235 | 75.5  | 0.005 |
| -5.5  | 0.181 | 4.2   | 0.218 | 14.5  | 0.140 | 35.0  | 0.052 | 55.5  | 0.239 | 76.0  | 0.007 |
| -5.0  | 0.225 | 4.4   | 0.163 | 15.0  | 0.149 | 35.5  | 0.037 | 56.0  | 0.239 | 76.5  | 0.010 |
| -4.5  | 0.239 | 4.6   | 0.121 | 15.5  | 0.142 | 36.0  | 0.025 | 56.5  | 0.235 | 77.0  | 0.011 |
| -4.0  | 0.218 | 4.8   | 0.100 | 16.0  | 0.123 | 36.5  | 0.020 | 57.0  | 0.227 | 77.5  | 0.013 |
| -3.5  | 0.164 | 5.0   | 0.106 | 16.5  | 0.094 | 37.0  | 0.020 | 57.5  | 0.216 | 78.0  | 0.015 |
| -3.0  | 0.103 | 5.2   | 0.128 | 17.0  | 0.063 | 37.5  | 0.020 | 58.0  | 0.201 | 78.5  | 0.016 |
| -2.8  | 0.103 | 5.4   | 0.156 | 17.5  | 0.036 | 38.0  | 0.018 | 58.5  | 0.185 | 79.0  | 0.017 |
| -2.6  | 0.130 | 5.6   | 0.182 | 18.0  | 0.026 | 38.5  | 0.015 | 59.0  | 0.167 | 79.5  | 0.018 |
| -2.4  | 0.176 | 5.8   | 0.204 | 18.5  | 0.035 | 39.0  | 0.012 | 59.5  | 0.147 | 80.0  | 0.018 |
| -2.2  | 0.232 | 6.0   | 0.221 | 19.0  | 0.042 | 39.5  | 0.013 | 60.0  | 0.127 | 80.5  | 0.019 |
| -2.0  | 0.294 | 6.2   | 0.232 | 19.5  | 0.041 | 40.0  | 0.019 | 60.5  | 0.108 | 81.0  | 0.020 |
| -1.8  | 0.360 | 6.4   | 0.238 | 20.0  | 0.032 | 40.5  | 0.026 | 61.0  | 0.089 | 81.5  | 0.020 |
| -1.6  | 0.428 | 6.6   | 0.237 | 20.5  | 0.017 | 41.0  | 0.031 | 61.5  | 0.071 | 82.0  | 0.021 |
| -1.4  | 0.497 | 6.8   | 0.232 | 21.0  | 0.008 | 41.5  | 0.034 | 62.0  | 0.053 | 82.5  | 0.021 |
| -1.2  | 0.565 | 7.0   | 0.221 | 21.5  | 0.024 | 42.0  | 0.034 | 62.5  | 0.038 | 83.0  | 0.021 |
| -1.0  | 0.631 | 7.2   | 0.206 | 22.0  | 0.040 | 42.5  | 0.030 | 63.0  | 0.025 | 83.5  | 0.021 |
| -0.8  | 0.695 | 7.4   | 0.187 | 22.5  | 0.050 | 43.0  | 0.024 | 63.5  | 0.018 | 84.0  | 0.021 |
| -0.6  | 0.755 | 7.6   | 0.164 | 23.0  | 0.054 | 43.5  | 0.015 | 64.0  | 0.018 | 84.5  | 0.021 |
| -0.4  | 0.810 | 7.8   | 0.139 | 23.5  | 0.050 | 44.0  | 0.011 | 64.5  | 0.024 | 85.0  | 0.021 |
| -0.2  | 0.859 | 8.0   | 0.113 | 24.0  | 0.039 | 44.5  | 0.019 | 65.0  | 0.030 | 85.5  | 0.021 |
| 0.0   | 0.902 | 8.2   | 0.085 | 24.5  | 0.022 | 45.0  | 0.031 | 65.5  | 0.036 | 86.0  | 0.021 |
| 0.2   | 0.938 | 8.4   | 0.057 | 25.0  | 0.005 | 45.5  | 0.043 | 66.0  | 0.040 | 86.5  | 0.021 |
| 0.4   | 0.966 | 8.6   | 0.032 | 25.5  | 0.020 | 46.0  | 0.053 | 66.5  | 0.043 | 87.0  | 0.021 |
| 0.6   | 0.986 | 8.8   | 0.023 | 26.0  | 0.039 | 46.5  | 0.060 | 67.0  | 0.044 | 87.5  | 0.021 |
| 0.8   | 0.997 | 9.0   | 0.040 | 26.5  | 0.053 | 47.0  | 0.063 | 67.5  | 0.045 | 88.0  | 0.021 |
| 1.0   | 1.000 | 9.2   | 0.062 | 27.0  | 0.062 | 47.5  | 0.062 | 68.0  | 0.044 | 88.5  | 0.021 |
| 1.2   | 0.994 | 9.4   | 0.084 | 27.5  | 0.062 | 48.0  | 0.057 | 68.5  | 0.043 | 89.0  | 0.021 |
| 1.4   | 0.980 | 9.6   | 0.103 | 28.0  | 0.055 | 48.5  | 0.049 | 69.0  | 0.040 | 89.5  | 0.020 |
| 1.6   | 0.958 | 9.8   | 0.120 | 28.5  | 0.041 | 49.0  | 0.038 | 69.5  | 0.038 | 90.0  | 0.020 |
| 1.8   | 0.928 | 10.0  | 0.133 | 29.0  | 0.023 | 49.5  | 0.031 | 70.0  | 0.034 |       |       |
| 2.0   | 0.890 | 10.2  | 0.142 | 29.5  | 0.012 | 50.0  | 0.036 | 70.5  | 0.031 |       |       |
| 2.2   | 0.845 | 10.4  | 0.148 | 30.0  | 0.032 | 50.5  | 0.054 | 71.0  | 0.027 |       |       |

Remarks:

TABLE I  
COMPUTED COVERAGE DATA  
FOR THE PROPOSED DTV OPERATION OF  
KEVN-DT, RAPID CITY, SOUTH DAKOTA  
CHANNEL 7 12.3 KW ERP 204 METERS HAAT  
FEBRUARY 2008

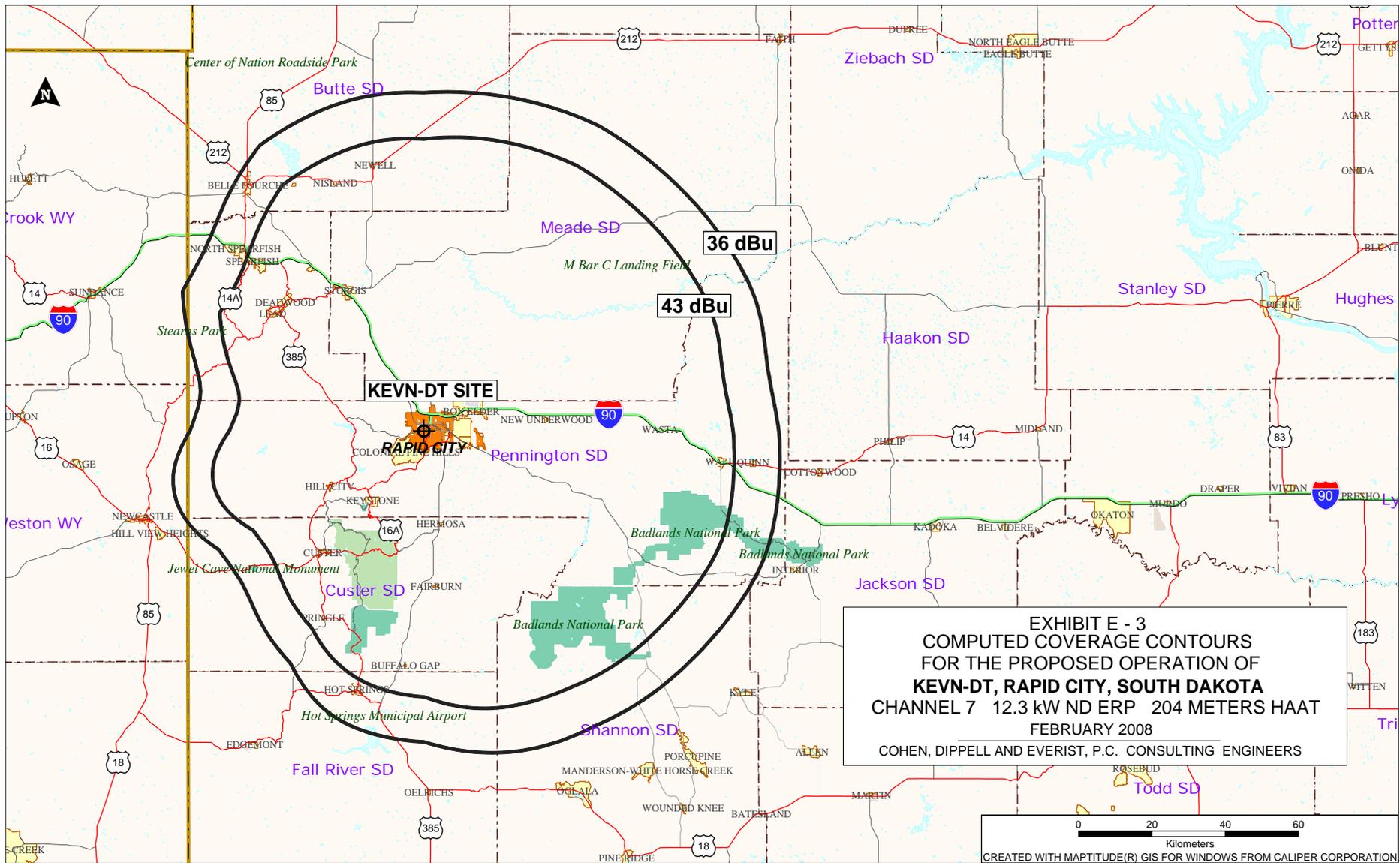
| <u>Radial</u><br><u>Bearing</u><br>N ° E, T | <u>Average*</u><br><u>Elevation</u><br><u>3.2 to 16.1 km</u> | <u>Effective</u><br><u>Height</u><br>meters | <u>Depression</u><br><u>Angle</u> | <u>ERP At</u><br><u>Radio</u><br><u>Horizon</u><br>kW | <u>Distance to Contour F(50,90)</u>      |   |
|---|--|---|-----------------------------------|---|--|---|
|   | meters   |   |                                   |   | <u>43 dBu</u><br><u>City Grade</u><br>km | <u>36 dBu</u><br><u>Noise-Limited</u><br>km |
| 0   | 1055.8   | 256.2                                       | 0.443                             | 12.3  | 79.5                                     | 92.1  |
| 45  | 982.4  | 329.6                                       | 0.503                             | 12.3  | 83.7                                     | 96.1  |
| 90  | 971.9  | 340.1                                       | 0.511                             | 12.3  | 84.4                                     | 96.9  |
| 135   | 993.4  | 318.6                                       | 0.494                             | 12.3  | 82.9                                     | 95.3  |
| 180   | 1151.9   | 160.1                                       | 0.350                             | 12.3  | 72.4                                     | 84.6  |
| 225   | 1247.5   | 64.5  | 0.223                             | 12.3  | 55.8                                     | 66.6  |
| 270   | 1257.7   | 54.3  | 0.204                             | 12.3  | 53.1                                     | 63.9  |
| 315   | 1202.4   | 109.6                                       | 0.290                             | 12.3  | 64.8                                     | 76.7  |
| Average                                     | 1108   | 204   |                                   |   |  |   |

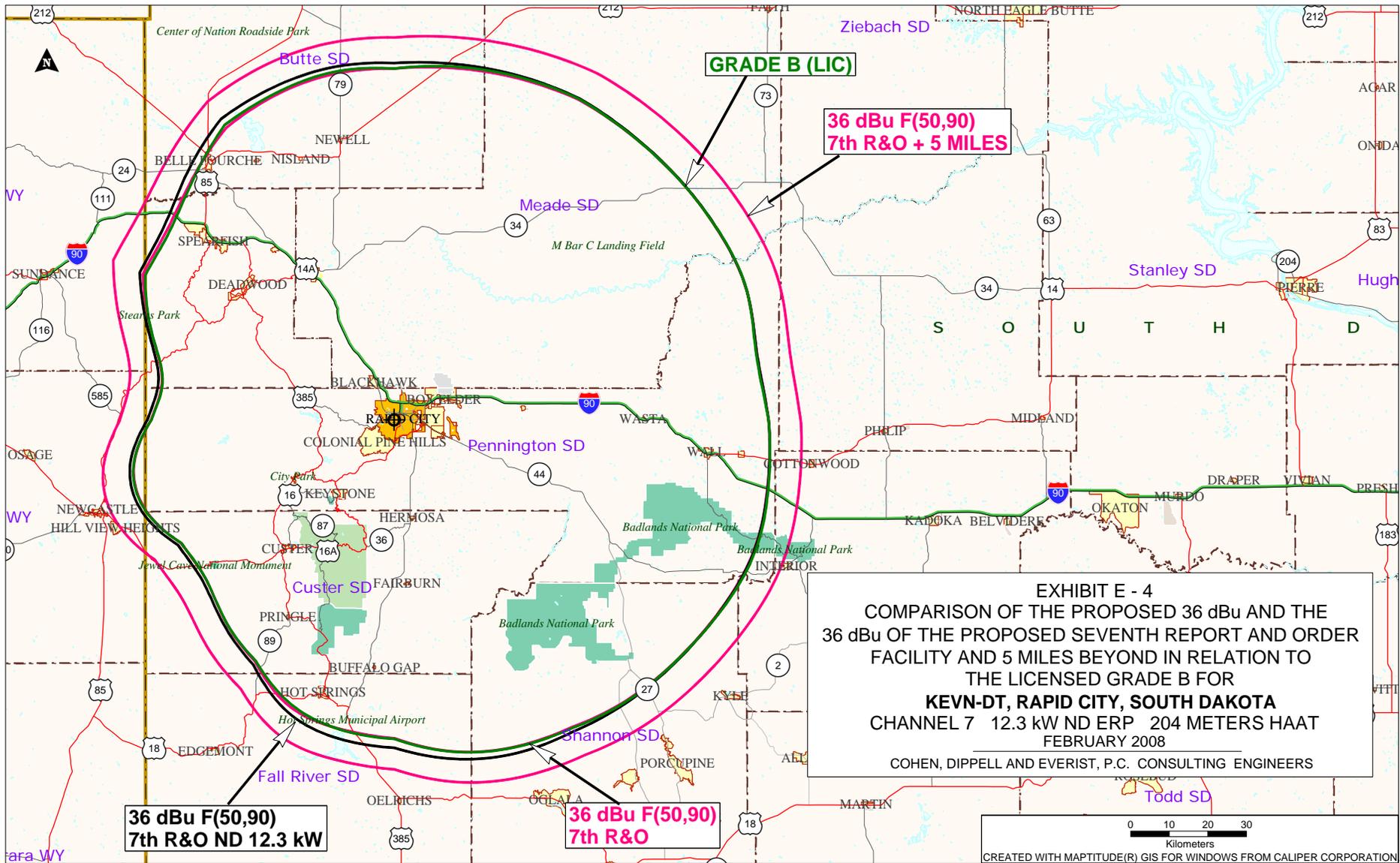
\*Based on data from FCC 3-second data base

DTV Channel 7 (174-180 MHz)  
Average Elevation 3.2 to 16.1 km 1108 meters AMSL  
Center of Radiation 1312 meters AMSL  
Antenna Height Above Average Terrain 204 meters  
Effective Radiated Power 12.3 kW (10.90 dBk) Max.

North Latitude: 44° 04' 00"  
West Longitude: 103° 15' 01"

(NAD-27)





COHEN, DIPPELL AND EVERIST, P.C.

TABLE II  
PREDICTED RADIOFREQUENCY FIELD LEVELS  
AS A PERCENTAGE FOR AN UNCONTROLLED ENVIRONMENT  
2 METERS ABOVE GROUND LEVEL AT THE BASE OF THE KEVN-TV TOWER IN  
RAPID CITY, SOUTH DAKOTA  
FEBRUARY 2008

| <u>Call Sign</u> | <u>Status</u> | <u>Center</u>    |                | <u>ERP</u> | <u>Polarization</u> | <u>Approximate</u><br><u>Distance from</u> |          | <u>RCAGL<sup>1</sup></u> | <u>R<sup>2</sup></u> | <u>RFV<sup>3</sup></u>   | <u>S</u>                 | <u>MPE<sup>4</sup></u> | <u>RFF</u> |
|------------------|---------------|------------------|----------------|------------|---------------------|--|----------|--------------------------|----------------------|--------------------------|--------------------------|------------------------|------------|
|                  |               | <u>Frequency</u> | <u>Channel</u> |            |                     | <u>KEVN-TV Tower</u>                       | <u>m</u> |                          |                      |                          |                          |                        |            |
|                  |               | <u>MHz</u>       |                | <u>kW</u>  |                     | <u>m</u>                                   | <u>m</u> | <u>m</u>                 |                      | <u>μW/cm<sup>2</sup></u> | <u>μW/cm<sup>2</sup></u> | <u>%</u>               |            |
| KEVN-DT          | Prop          | 177              | 7              | 12.3       | H                   | 0  | 177.4    | 177.4                    | 0.2                  | 0.5                      | 200                      | 0.3                    |            |
| KOTA-DT          | Lic           | 57               | 2              | 7.1        | H                   | 210  | 136      | 250.2                    | 0.8                  | 2.4                      | 200                      | 1.2                    |            |
| KOTA-TV          | Lic           | 63               | 3              | 100        | H                   | 250  | 168      | 268.9                    | 0.21                 | 1.0                      | 200                      | 0.5                    |            |
| KCLO-TV          | Lic           | 479              | 15             | 692        | H                   | 400  | 112      | 415.4                    | 0.2                  | 2.7                      | 319.3                    | 0.9                    |            |
| KCLO-DT          | Lic           | 485              | 16             | 150        | H                   | 400  | 112      | 415.4                    | 0.2                  | 1.2                      | 323.3                    | 0.4                    |            |
| KASD(FM)         | Lic           | 90.3             | 212            | 1          | H&V                 | 400  | 77       | 407.3                    | 0.3                  | <0.1                     | 200                      | <0.1                   |            |
| KQRQ(FM)         | Lic           | 92.3             | 222            | 100        | H&V                 | 220  | 128      | 254.5                    | 0.3                  | 9.3                      | 200                      | 4.7                    |            |
| K242BK (FX)      | Lic           | 96.3             | 242            | 0.25       | H&V                 | 220  | 63       | 228.8                    | 0.5                  | <0.1                     | 200                      | <0.1                   |            |
| KOUT(FM)         | Lic           | 98.7             | 254            | 100        | H&V                 | 400  | 94       | 410.9                    | 0.25                 | 2.5                      | 200                      | 1.3                    |            |
| KFXS(FM)         | Lic           | 100.3            | 262            | 100        | H&V                 | 400  | 94       | 410.9                    | 0.25                 | 2.5                      | 200                      | 1.3                    |            |
| K278AN (FX)      | Lic           | 103.5            | 278            | 0.28       | H                   | 250  | 74       | 260.7                    | 0.5                  | <0.1                     | 200                      | <0.1                   |            |
| KZLK(FM)         | Lic           | 106.3            | 292            | 100        | H&V                 | 220  | 163      | 273.8                    | 0.3                  | 8.0                      | 200                      | 4.0                    |            |

<sup>1</sup>Radiation Center Above Ground Level -2 Meters

<sup>2</sup>R = diagonal downward distance from radiation center to 2 meters above base of KEVN-DT proposed site

<sup>3</sup>F = Assumed downward relative field value

<sup>4</sup>Limit for an uncontrolled environment

**SECTION III - D - DTV Engineering**

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

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to modify pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required 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.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

- 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.  Yes  No
  - (b) It will operate a pre-transition facility 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.  Yes  No
  - (c) It will operate a pre-transition facility 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.  Yes  No
  - (d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").  Yes  No  
 N/A
  - (e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.  Yes  No  
 N/A
- 2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RIF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307.  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.  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.  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.  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 \_\_\_\_\_ Analog TV, if any \_\_\_\_\_

2. Zone:  I  II  III

3. Antenna Location Coordinates: (NAD 27)

\_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  N  S Latitude  
 \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  E  W Longitude

4. Antenna Structure Registration Number: \_\_\_\_\_

Not applicable  FAA Notification Filed with FAA

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

6. Overall Tower Height Above Ground Level: \_\_\_\_\_ meters

7. Height of Radiation Center Above Ground Level: \_\_\_\_\_ meters

8. Height of Radiation Center Above Average Terrain: \_\_\_\_\_ meters

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

10. Antenna Specifications:

|              |       |
|--------------|-------|
| Manufacturer | Model |
|--------------|-------|

a.  Not Applicable

b. Electrical Beam Tilt: \_\_\_\_\_ degrees  Not Applicable

c. Mechanical Beam Tilt: \_\_\_\_\_ degrees toward azimuth \_\_\_\_\_ degrees True  Not Applicable

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

d. Polarization:  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                   |       | 60     |       | 120    |       | 180    |       | 240    |       | 300    |       |
| 10                  |       | 70     |       | 130    |       | 190    |       | 250    |       | 310    |       |
| 20                  |       | 80     |       | 140    |       | 200    |       | 260    |       | 320    |       |
| 30                  |       | 90     |       | 150    |       | 210    |       | 270    |       | 330    |       |
| 40                  |       | 100    |       | 160    |       | 220    |       | 280    |       | 340    |       |
| 50                  |       | 110    |       | 170    |       | 230    |       | 290    |       | 350    |       |
| 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.

11. Does the proposed facility satisfy the pre-transition 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.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?  Yes  No

Exhibit No.

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

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

Exhibit No.

13. **Environmental Protection Act. Submit in an Exhibit** the following:

Exhibit No.

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 radio frequency 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.**

13. **Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.** If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. Section 73.202) to add a new FM channel allotment, petitioner/counter-proponent certifies that, if the FM channel allotment requested is allotted, petitioner/counter-proponent will apply to participate in the auction of the channel allotment requested and specified in this application.

Yes  No  N/A

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<br>Martin R. Doczkat  | Relationship to Applicant (e.g., Consulting Engineer)<br>Consulting Engineer |                   |
| Signature<br> | Date<br>February 8, 2008   |                   |
| Mailing Address<br>Cohen, Dippell and Everist, P.C, 1300 L Street, NW Suite 1100                 |  |                   |
| City<br>Washington   | State or Country (if foreign address)<br>DC                                  | ZIP Code<br>20005 |
| Telephone Number (include area code)<br>(202) 898-0111   | E-Mail Address (if available)<br>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).