

ENGINEERING STATEMENT
AMENDMENT TO PENDING
APPLICATION FOR A DTV
CONSTRUCTION PERMIT FOR
AN EXISTING TELEVISION TRANSLATOR
K64BK, THE DALLES, OREGON
CHANNEL 7 128 W ND ERP 981 METERS RC/AMSL

APRIL 2010

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

COHEN, DIPPELL AND EVERIST, P. C.

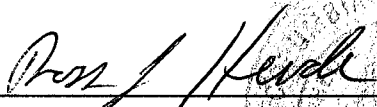
City of Washington)
) ss
District of Columbia)

Ross J. Heide, being duly sworn upon his oath, deposes and states that:

He is a graduate of the Massachusetts Institute of Technology in Operations Research and Management Science, a Registered Professional Engineer in the District of Columbia, and employed by Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

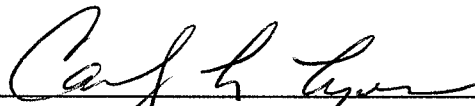
That the attached engineering report was prepared by him or under his supervision and direction and

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.



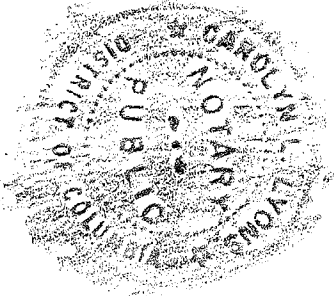
Ross J. Heide
District of Columbia
Professional Engineer
Registration No. PE900748

Subscribed and sworn to before me this 15th day of April, 2010.



Notary Public

My Commission Expires: 2/28/2013



Introduction

This engineering statement has been prepared on behalf of NVT Portland Licensee, LLC, licensee of TV translator K64BK, The Dalles, Oregon. This statement supports the licensee's request to amend its pending application [BDFCDTV-20090630AEK] to DTV non-directional effective radiated power ("ERP") of 128 W at a radiation center above mean sea level ("RCAMSL") of 981 meters. No other changes are proposed in this amendment other than reducing the ERP from 5.2 kW to 128 W and the TPO from 2.6 kW to 64 W.

Transmitter Site

No significant alteration of the tower is proposed. There is no change in transmitter site. The geographic coordinates of the site follow below.

North Latitude: 45° 42' 43"

West Longitude: 121° 06' 58"

NAD-27

Elevation Data

Elevation of site above mean sea level	963 meters (3159 feet)
Center of radiation of antenna above ground level	18 meters (59 feet)
Center of radiation of antenna above mean sea level	981 meters (3218 feet)
Overall tower height above ground level	21 meters (69 feet)
Overall tower height above mean sea level	984 meters (3228 feet)

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

The existing tower is less than 200 feet and TOWAIR indicates that the structure does not require registration. There are no airports within 8 km (5 miles) of the existing site.

Equipment Data

Transmitter:	Larcen MXi201V, 70 W TPO or equivalent
Transmission Line:	Andrew, Type LDF5-50A, 7/8", 22.9 meters (75 feet) with 91.5% efficiency or equivalent
Antenna:	Kathrein-Scala, TVO-4-RGU-HP with maximum gain of 3.0 and 0° electrical beam tilt or equivalent
Out-of-band Emission Mask:	Simple

Power Data

Transmitter:	70 W	18.45 dBW
Transmission Line Efficiency (Loss):	91.5%	(0.39) dB
Input Into Antenna:	64 W	18.06 dBk
Antenna Gain:	2.0	3.00 dB
ERP:	128 W	21.07 dBW

As indicated above, the transmitter with typical power output of 70 W will deliver 64 W to the input of the antenna. The antenna, having a maximum gain of 2 and an electrical beam tilt of 0°, will produce maximum ERP of 128 W. A coverage map of the proposed facility has been

included as Exhibit E-1 of this report. The manufacturer's data for the antenna is included as Exhibit E-2.

Other Broadcast Facilities

A brief analysis was completed to determine the presence of stations in the vicinity of the K64BK tower using the April 15, 2009 data contained within the Commission's Consolidated Database System ("CDBS"). Within 500 meters of the proposed site, five authorized FM translators, one authorized FM radio station were identified and seven authorized analog TV translators, four authorized digital TV translators, and no full-service authorized DTV television stations were also found within 500 meters. There are no AM facilities within 3.2 km of the existing tower. Although no adverse technical affects are expected due to the proposed changes, the licensee will take measures to resolve any problems proven to be related to the changes proposed in this application.

Interference Analysis

A study of predicted interference caused by the proposed K64BK 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 http://www.fcc.gov/oet/dtv/dtv_apps.html. The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Microsoft Windows XP platform. 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 3-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 2000 census centroids, all studies are based upon data in the current CDBS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed K64BK low power digital facilities and all relevant stations listed in the FCC data base as of April 15, 2010. The study results and the included stations are listed in Table I. There is no predicted impermissible interference to any of the listed facilities.

Other Licensed and Broadcast Facilities

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 300 W non-directional operation will utilize a Kathrein-Scala, Type TVO-4-RGU-HP antenna (or equivalent) described above with a center of radiation above ground of 18 meters. The existing antenna is mounted on a tower with an overall height of 21 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 Kathrein-Scala, Type TVO-4-RGU-HP antenna, Exhibit E-2, shows a maximum relative field of less than 0.272 toward the ground (30° to 90° below the horizontal). Calculation

according to OET Bulletin 65 predicts a maximum RFF power density of less than $1.24 \mu\text{W}/\text{cm}^2$, 2 meters above ground or less than 0.62% of the $200 \mu\text{W}/\text{cm}^2$ uncontrolled Maximum Permissible Exposure (“MPE”) guideline which is less than 0.12% of the $1000 \mu\text{W}/\text{cm}^2$ controlled MPE guideline.

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 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 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 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.

K64BK-D PROPOSED 51 dBu

K64BK CP 74 dBu

SITE

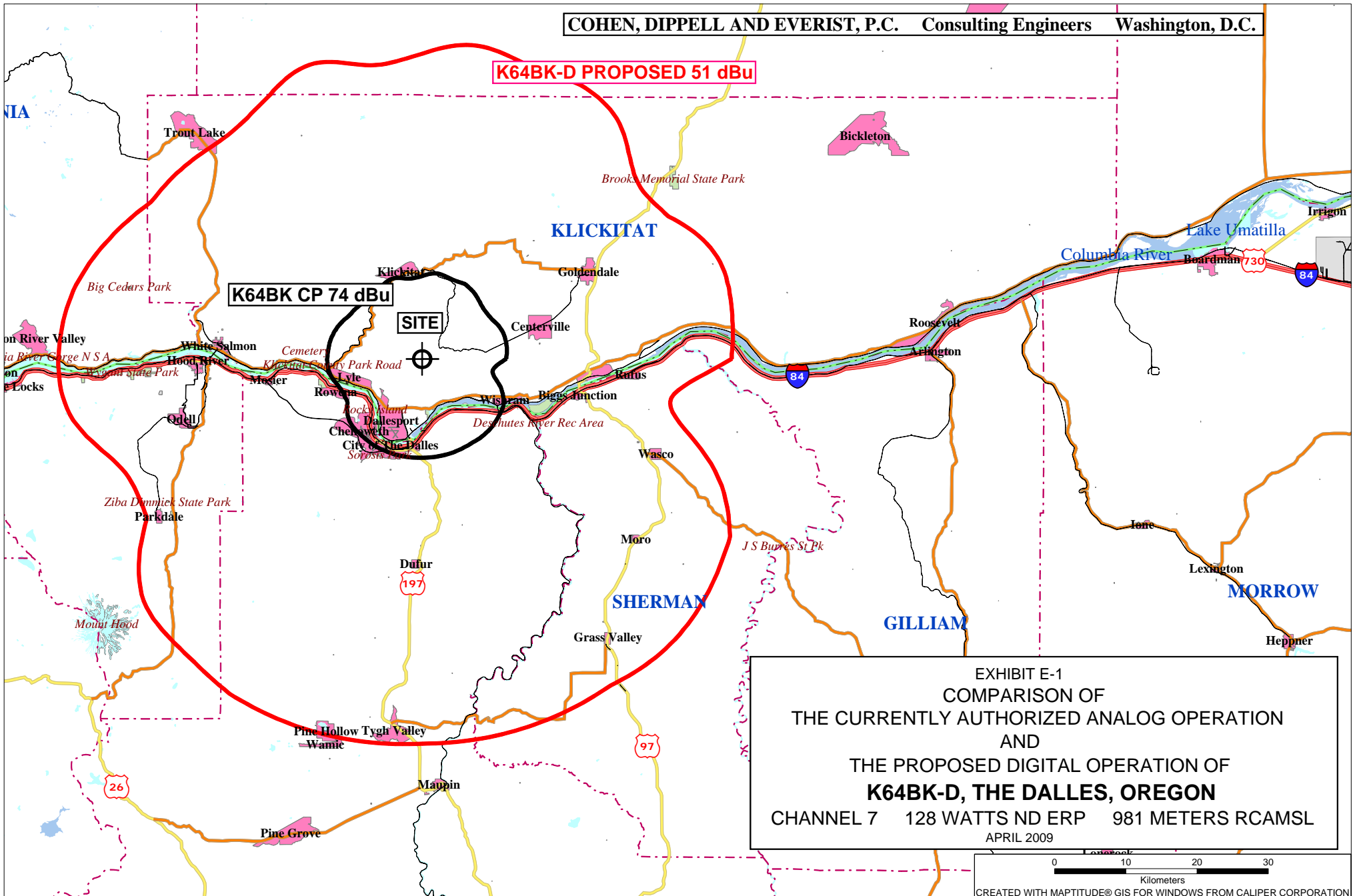
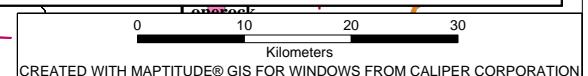


EXHIBIT E-1
COMPARISON OF
THE CURRENTLY AUTHORIZED ANALOG OPERATION
AND
THE PROPOSED DIGITAL OPERATION OF
K64BK-D, THE DALLES, OREGON
CHANNEL 7 128 WATTS ND ERP 981 METERS RCMSL
APRIL 2009

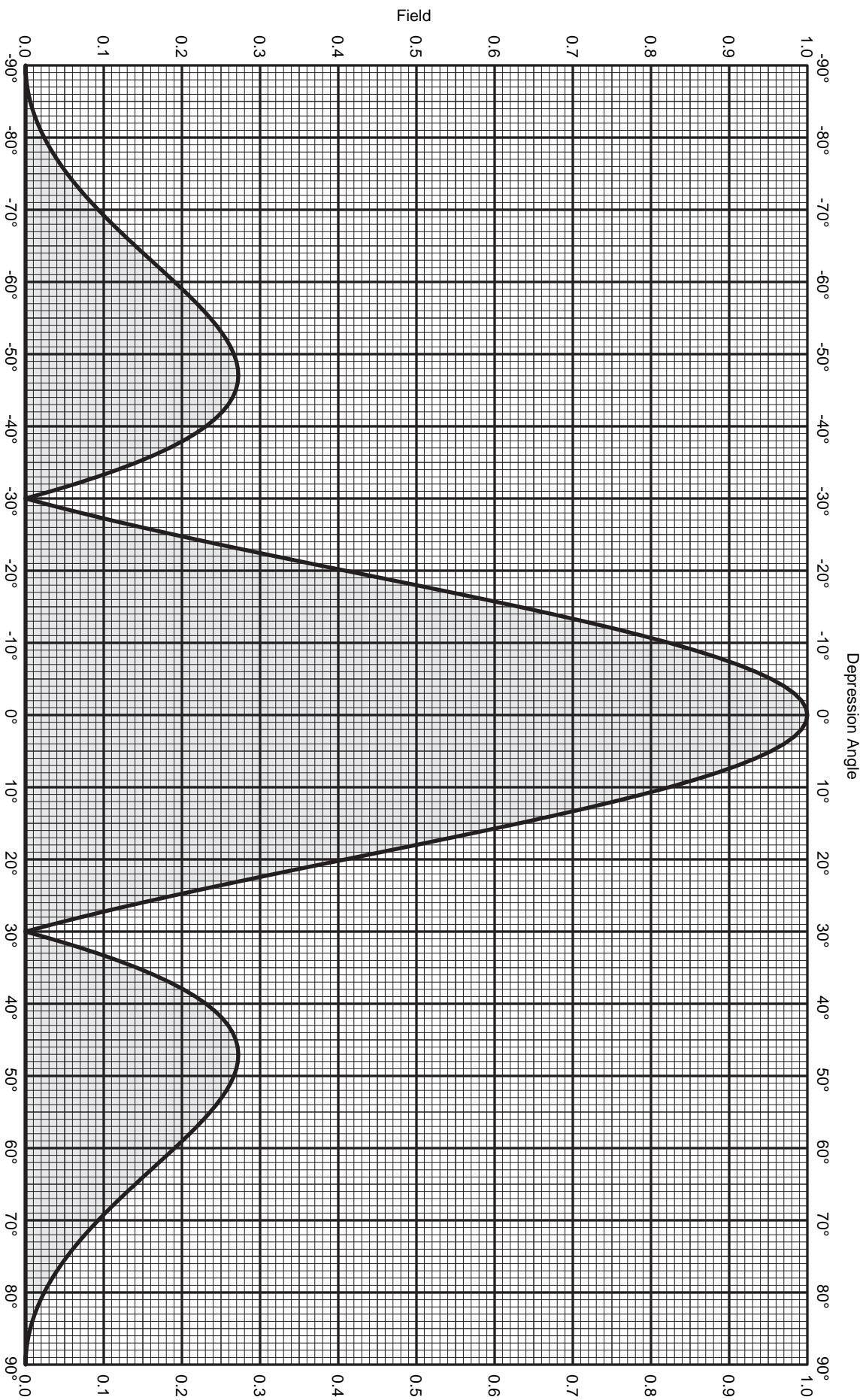


COHEN, DIPPELL AND EVERIST, P.C.

EXHIBIT E-2

ANTENNA MANUFACTURER DATA

K64BK, THE DALLES, OREGON



TVO-4 Omni array

Ch-7

Maximum gain: 3.0 dBd

Horizontal polarization

Vertical radiation pattern

0 degree electrical downtilt



SCALA DIVISION

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TVO-4 Omni array
Ch-7

Maximum gain: 3.0 dBd
Horizontal polarization

Vertical radiation pattern
0 degree electrical downtilt

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.010	-40.00	-37.00	0.00	-45	0.269	-11.41	-8.41	0.14
-89	0.010	-40.00	-37.00	0.00	-44	0.265	-11.54	-8.54	0.14
-88	0.010	-40.00	-37.00	0.00	-43	0.259	-11.73	-8.73	0.13
-87	0.010	-40.00	-37.00	0.00	-42	0.252	-11.98	-8.98	0.13
-86	0.010	-40.00	-37.00	0.00	-41	0.242	-12.32	-9.32	0.12
-85	0.010	-40.00	-37.00	0.00	-40	0.231	-12.74	-9.74	0.11
-84	0.010	-40.00	-37.00	0.00	-39	0.217	-13.26	-10.26	0.09
-83	0.012	-38.60	-35.60	0.00	-38	0.202	-13.90	-10.90	0.08
-82	0.015	-36.29	-33.29	0.00	-37	0.184	-14.70	-11.70	0.07
-81	0.019	-34.26	-31.26	0.00	-36	0.164	-15.69	-12.69	0.05
-80	0.024	-32.44	-29.44	0.00	-35	0.142	-16.94	-13.94	0.04
-79	0.029	-30.80	-27.80	0.00	-34	0.118	-18.56	-15.56	0.03
-78	0.034	-29.30	-26.30	0.00	-33	0.092	-20.76	-17.76	0.02
-77	0.040	-27.92	-24.92	0.00	-32	0.063	-23.99	-20.99	0.01
-76	0.046	-26.65	-23.65	0.00	-31	0.033	-29.74	-26.74	0.00
-75	0.053	-25.48	-22.48	0.01	-30	0.010	-40.00	-37.00	0.00
-74	0.060	-24.38	-21.38	0.01	-29	0.035	-29.23	-26.23	0.00
-73	0.068	-23.35	-20.35	0.01	-28	0.071	-22.99	-19.99	0.01
-72	0.076	-22.39	-19.39	0.01	-27	0.109	-19.25	-16.25	0.02
-71	0.084	-21.49	-18.49	0.01	-26	0.149	-16.56	-13.56	0.04
-70	0.093	-20.64	-17.64	0.02	-25	0.190	-14.44	-11.44	0.07
-69	0.102	-19.83	-16.83	0.02	-24	0.232	-12.69	-9.69	0.11
-68	0.111	-19.08	-16.08	0.02	-23	0.275	-11.21	-8.21	0.15
-67	0.121	-18.36	-15.36	0.03	-22	0.319	-9.92	-6.92	0.20
-66	0.130	-17.69	-14.69	0.03	-21	0.364	-8.78	-5.78	0.26
-65	0.140	-17.05	-14.05	0.04	-20	0.409	-7.76	-4.76	0.33
-64	0.150	-16.45	-13.45	0.05	-19	0.454	-6.85	-3.85	0.41
-63	0.161	-15.89	-12.89	0.05	-18	0.499	-6.03	-3.03	0.50
-62	0.171	-15.36	-12.36	0.06	-17	0.544	-5.29	-2.29	0.59
-61	0.181	-14.86	-11.86	0.07	-16	0.588	-4.61	-1.61	0.69
-60	0.191	-14.39	-11.39	0.07	-15	0.631	-4.00	-1.00	0.80
-59	0.200	-13.96	-10.96	0.08	-14	0.673	-3.44	-0.44	0.90
-58	0.210	-13.55	-10.55	0.09	-13	0.714	-2.93	0.07	1.02
-57	0.219	-13.18	-10.18	0.10	-12	0.752	-2.47	0.53	1.13
-56	0.228	-12.84	-9.84	0.10	-11	0.789	-2.06	0.94	1.24
-55	0.236	-12.53	-9.53	0.11	-10	0.823	-1.69	1.31	1.35
-54	0.244	-12.26	-9.26	0.12	-9	0.855	-1.36	1.64	1.46
-53	0.251	-12.01	-9.01	0.13	-8	0.884	-1.07	1.93	1.56
-52	0.257	-11.80	-8.80	0.13	-7	0.911	-0.81	2.19	1.65
-51	0.262	-11.62	-8.62	0.14	-6	0.934	-0.59	2.41	1.74
-50	0.267	-11.48	-8.48	0.14	-5	0.954	-0.41	2.59	1.81
-49	0.270	-11.38	-8.38	0.15	-4	0.970	-0.26	2.74	1.88
-48	0.272	-11.32	-8.32	0.15	-3	0.983	-0.15	2.85	1.93
-47	0.272	-11.30	-8.30	0.15	-2	0.993	-0.07	2.93	1.97
-46	0.271	-11.33	-8.33	0.15	-1	0.998	-0.02	2.98	1.99
					0	1.000	0.00	3.00	2.00



TVO-4 Omni array
Ch-7

Maximum gain: 3.0 dBd
Horizontal polarization

Vertical radiation pattern
0 degree electrical downtilt

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	3.00	2.00	45	0.269	-11.41	-8.41	0.14
1	0.998	-0.02	2.98	1.99	46	0.271	-11.33	-8.33	0.15
2	0.993	-0.07	2.93	1.97	47	0.272	-11.30	-8.30	0.15
3	0.983	-0.15	2.85	1.93	48	0.272	-11.32	-8.32	0.15
4	0.970	-0.26	2.74	1.88	49	0.270	-11.38	-8.38	0.15
5	0.954	-0.41	2.59	1.81	50	0.267	-11.48	-8.48	0.14
6	0.934	-0.59	2.41	1.74	51	0.262	-11.62	-8.62	0.14
7	0.911	-0.81	2.19	1.65	52	0.257	-11.80	-8.80	0.13
8	0.884	-1.07	1.93	1.56	53	0.251	-12.01	-9.01	0.13
9	0.855	-1.36	1.64	1.46	54	0.244	-12.26	-9.26	0.12
10	0.823	-1.69	1.31	1.35	55	0.236	-12.53	-9.53	0.11
11	0.789	-2.06	0.94	1.24	56	0.228	-12.84	-9.84	0.10
12	0.752	-2.47	0.53	1.13	57	0.219	-13.18	-10.18	0.10
13	0.714	-2.93	0.07	1.02	58	0.210	-13.55	-10.55	0.09
14	0.673	-3.44	-0.44	0.90	59	0.200	-13.96	-10.96	0.08
15	0.631	-4.00	-1.00	0.80	60	0.191	-14.39	-11.39	0.07
16	0.588	-4.61	-1.61	0.69	61	0.181	-14.86	-11.86	0.07
17	0.544	-5.29	-2.29	0.59	62	0.171	-15.36	-12.36	0.06
18	0.499	-6.03	-3.03	0.50	63	0.161	-15.89	-12.89	0.05
19	0.454	-6.85	-3.85	0.41	64	0.150	-16.45	-13.45	0.05
20	0.409	-7.76	-4.76	0.33	65	0.140	-17.05	-14.05	0.04
21	0.364	-8.78	-5.78	0.26	66	0.130	-17.69	-14.69	0.03
22	0.319	-9.92	-6.92	0.20	67	0.121	-18.36	-15.36	0.03
23	0.275	-11.21	-8.21	0.15	68	0.111	-19.08	-16.08	0.02
24	0.232	-12.69	-9.69	0.11	69	0.102	-19.83	-16.83	0.02
25	0.190	-14.44	-11.44	0.07	70	0.093	-20.64	-17.64	0.02
26	0.149	-16.56	-13.56	0.04	71	0.084	-21.49	-18.49	0.01
27	0.109	-19.25	-16.25	0.02	72	0.076	-22.39	-19.39	0.01
28	0.071	-22.98	-19.98	0.01	73	0.068	-23.35	-20.35	0.01
29	0.035	-29.23	-26.23	0.00	74	0.060	-24.38	-21.38	0.01
30	0.010	-40.00	-37.00	0.00	75	0.053	-25.48	-22.48	0.01
31	0.033	-29.75	-26.75	0.00	76	0.046	-26.65	-23.65	0.00
32	0.063	-23.99	-20.99	0.01	77	0.040	-27.92	-24.92	0.00
33	0.092	-20.76	-17.76	0.02	78	0.034	-29.30	-26.30	0.00
34	0.118	-18.56	-15.56	0.03	79	0.029	-30.80	-27.80	0.00
35	0.142	-16.94	-13.94	0.04	80	0.024	-32.44	-29.44	0.00
36	0.164	-15.69	-12.69	0.05	81	0.019	-34.26	-31.26	0.00
37	0.184	-14.70	-11.70	0.07	82	0.015	-36.29	-33.29	0.00
38	0.202	-13.90	-10.90	0.08	83	0.012	-38.60	-35.60	0.00
39	0.217	-13.26	-10.26	0.09	84	0.010	-40.00	-37.00	0.00
40	0.231	-12.74	-9.74	0.11	85	0.010	-40.00	-37.00	0.00
41	0.242	-12.32	-9.32	0.12	86	0.010	-40.00	-37.00	0.00
42	0.252	-11.98	-8.98	0.13	87	0.010	-40.00	-37.00	0.00
43	0.259	-11.73	-8.73	0.13	88	0.010	-40.00	-37.00	0.00
44	0.265	-11.54	-8.54	0.14	89	0.010	-40.00	-37.00	0.00
					90	0.010	-40.00	-37.00	0.00

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
DLPTV LONGLEY-RICE INTERFERENCE ANALYSIS
FOR THE PROPOSED OPERATION OF
K64BK-D, THE DALLES, OREGON
CHANNEL 7 128 W ND ERP 981 METERS RCAMSL
USING THE SIMPLE EMISSION MASK
APRIL 2010

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
7	CBUT-2	CHILLIWACK BC	381.7	LIC	BPFS-20081118ADN	0.00%
7	CBUT-PT-	CHILLIWACK BC	381.6	AL	CANADA-1369006NULL	0.00%
7	BC-DT-13	HOPE BC	408.8	AL	CANADA-C1366494	0.00%
7	NEW-DT	HOPE BC	408.8	APP	BPFS-20041001AAF	0.00%
7	CBUT32	MIDWAY BC	408.5	LIC	NULL-305037NULL	0.00%
7	K07CP	FERDINAND ID	367.5	LIC	BLTTV-190	0.00%
7	K07NL	JULIAETTA ID	354.1	LIC	BLTTV-4640	0.00%
7	DK07FT	OROFINO ID	381.8	LIC	BLTTV-3416	0.00%
7	K07BQ	PECK ID	368.9	LIC	BLTTV-426	0.00%
7	KBNZ-LD	BEND OR	182.4	LIC	BLDVL-20081016AEM	No interference
7	K07PP	CAMAS VALLEY OR	367.7	LIC	BLTTV-19800610IE	No interference
7	K07KT	CANYONVILLE, ETC. OR	356.8	LIC	BLTTV-3954	0.00%
7	K07PS	CHEMULT, ETC. OR	271.7	LIC	BLTTV-19800424IC	No interference
7	KOAC-TV	CORVALLIS OR	206.8	CP	BPEDT-20080215ABJ	0.00%
7	K07RQ	JACKSONVILLE OR	401.8	LIC	BLTTV-19830810IA	0.00%
7	K07PU	KLAMATH FALLS, ETC. OR	389.6	LIC	BLTTV-19840629IA	0.00%
7	K07NR-D	LAKEVIEW, ETC. OR	394.9	LIC	BLDTV-20081201AKV	0.00%
7	K07JS	NORTH BEND OR	351.5	APP	BDFCDTV-20090430ABB	No interference
7	K07IA	OAKLAND OR	307.6	LIC	BLTTV-1145	No interference
7	K07GI	PROSPECT OR	352.4	LIC	BLTTV-1469	0.00%
7	K07IL	WINSTON OR	340.1	LIC	BLTTV-3153	No interference
7	K07BC	BRIDGEPORT WA	280.8	LIC	BLTTV-38	No interference
7	K07JO	CHELAN BUTTE WA	242.4	LIC	BLTTV-3684	No interference
7	K54DX	ELLENSBURG-KITTITAS WA	140.6	CP	BDISDTV-20090505ABB	0.00%
7	K07DG	OMAK, ETC. WA	334.1	LIC	BLTTV-19950419IE	0.00%
7	K07SB	OROVILLE WA	383.2	LIC	BLTTV-19840702IO	0.00%
7	K07WQ	PLAIN WA	232.2	LIC	BLTTV-19960509JQ	No interference
7	KSPS-DR	SPOKANE WA	357.4	RULE	BPRM-20080619ALM	No interference
7	KSPS-TV	SPOKANE WA	357.4	CP	BPEDT-20090612ADT	0.00%

COHEN, DIPPELL AND EVERIST, P.C.

TABLE I
DLPTV LONGLEY-RICE INTERFERENCE ANALYSIS
FOR THE PROPOSED OPERATION OF
K64BK-D, THE DALLES, OREGON
CHANNEL 7 128 W ND ERP 981 METERS RCAMSL
USING THE SIMPLE EMISSION MASK
APRIL 2010

<u>Channel</u>	<u>Call</u>	<u>City/State</u>	<u>Dist(km)</u>	<u>Status</u>	<u>FCC File No.</u>	<u>Result</u>
8	KGW	PORTLAND OR	128.4	CP MO	BMPCDT-20080620AHM	0.06%
8	K08KN	PRINEVILLE, ETC. OR	168.7	LIC	BLTTV-19910821IF	0.00%
8	K08JP	DRYDEN WA	214.9	LIC	BLTTV-19800321IC	0.00%
8	KWVC-LP	MALAGA, ECT WA	206.6	CP	BDFCDTV-20090716ACG	0.00%
8	KWVC-LP	MALAGA, ETC. WA	206.6	LIC	BLTTV-3372	0.00%
8	K08LU	SUNNYSIDE-GRANDVIEW WA	117.7	LIC	BLTVL-19950308IE	No interference

Section III - Engineering (Digital)

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: _____
2. Translator Input Channel No. _____
3. Station proposed to be rebroadcast:

Call Sign	City	State	Channel
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4. Antenna Location Coordinates: (NAD 27)

_____ ° _____ ' _____ " ☐ N ☐ S Latitude
_____ ° _____ ' _____ " ☐ E ☐ W Longitude

5. Antenna Structure Registration Number: _____

☐

Not applicable

See Explanation
in Exhibit No.

☐

FAA Notification Filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: _____ meters
7. Overall Tower Height Above Ground Level: _____ meters
8. Height of Radiation Center Above Ground Level: _____ meters
9. Maximum Effective Radiated Power (ERP): _____ kW
10. Transmitter Output Power: _____ kW

11. a. Transmitting Antenna: ☐ Nondirectional ☐ Directional ☐ Directional composite

Manufacturer	Model
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- b. Electrical Beam Tilt: _____ degrees ☐ Not applicable

c. Directional Antenna Relative Field Values:

Rotation: _____ ° ☐ No rotation ☐ N/A (Nondirectional)

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											

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

12. **Out-of-Channel Emission Mask:** Simple ☐ Stringent ☐

CERTIFICATION

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. ☐ Yes ☐ No

See Explanation in Exhibit No.

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.** ☐ Yes ☐ No

See Explanation in Exhibit No.

Exhibit No.

By checking "Yes" above, 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.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.


☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

- ☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licensees of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees,
- ☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreement(s) with 700 MHz public safety regional planning committee(s) and state frequency administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.
- ☐ Pursuant to Section 74.786(e), an applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

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 Ross J. Heide		Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer	
Signature 		Date April 15, 2010	
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).