

ENGINEERING EXHIBIT

Application for FM Translator Construction Permit

prepared for

Premier Broadcasters, Inc.

K263BS Centralia, WA

Facility ID 142916

Ch. 263 100.5 MHz 0.25 kW

Premier Broadcasters, Inc. (“Premier”) is the licensee of FM translator station K263BS, Channel 263, Facility ID 142916, Centralia, WA (BLFT-20170328AAR). K263BS is a fill-in translator for station KITI(AM) (1420 kHz, Fac ID 53398, Centralia-Chehalis WA). *Premier* is also the licensee of KITI. *Premier* herein seeks a Construction Permit to operate K263BS with increased power at the existing transmitter site.

K263BS is licensed to operate with 0.15 kW effective radiated power (“ERP”) and a nondirectional antenna centered 35 meters above ground level (“AGL”). *Premier* proposes herein to increase the ERP to 0.25 kW, nondirectional, and adjust the antenna’s center of radiation to 34 meters AGL. No change is proposed to the transmitting site location.

K263BS will continue to employ the licensed antenna system which is side-mounted on the tower structure associated with FCC Antenna Structure Registration number 1060077. No change to overall structure height will result from this proposal.

Fill-In and Minor Change Compliance

K263BS will continue to be a fill-in translator for station KITI(AM). The 60 dB μ contour of the proposed K263BS is encompassed by the greater of the KITI daytime 2 mV/m contour and a 25 mile radius from KITI’s transmitter site as depicted in Figure 1. This complies

with the modified §74.1201(g) which becomes effective on April 10, 2017, the date¹ on which this proposal is intended to be filed.

As a fill-in translator, the proposed 0.25 kW ERP complies with §74.1235(a). Final signal delivery of the audio programming material to the translator will be accomplished via microwave. Since there is no change to the transmitting site location or channel, the proposal is considered a minor change under §74.1233.

§74.1204 Interference Protection

Table 1 supplies a summary of the proposal's compliance with the interference protection requirements of §74.1204(a) and (g). The proposed facility complies with the prohibited contour overlap and minimum spacing requirements of 74.1204(a) and (g) regarding all FM full power, low power, and translator stations.

The proposed site is located 177.9 km from the border with Canada, within the 320 km international coordination zone. The proposed 34 dB μ interfering contour extends a maximum of 63.4 km from the proposed site, and thus does not reach the Canada border. The proposal therefore complies with §74.1235(d)(3) and coordination with Canada is not required (see DA 97-1595 and FCC 14-120).

The nearest FCC monitoring station is 256 km distant at Ferndale, WA. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3 km of the site.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. The proposed transmitting antenna

¹Media Bureau Announces Notice of Effective Date of Rule Change Adopted in Second Report and Order in Revitalization of the AM Radio Service Published in Federal Register; Effective Date of Modified Section 74.1201(g) of Commission's Rules Is April 10, 2017, Public Notice, DA 17-255, released March 16, 2017.

is a Jampro model JLLP-1 consisting of a single element. According to the FCC’s “FMModel” software analysis,² the graph in Figure 2 depicts calculated power density levels attributable to the proposed facility at locations near the tower at a height of two meters above ground level. That analysis shows that the maximum calculated RF electromagnetic field attributable to the proposed K263BS is 5.1 $\mu\text{W}/\text{cm}^2$, which is 2.6 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal’s contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC’s guidelines. RF exposure warning signs will continue to be posted and the tower will continue to be fenced. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field.

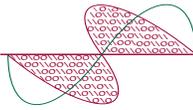
List of Attachments

Figure 1	Coverage Contours – Primary and Translator Stations
Figure 2	RF Electromagnetic Field – FCC FMModel Results
Table 1	Channel Allocation Summary
Form 349	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E. April 5, 2017
207 Old Dominion Road Yorktown, VA 23692 703-650-9600

²“Office of Engineering and Technology Announces Updates to FMModel Software,” Public Notice, DA 16-340, March 31, 2016. FMModel is available at <https://www.fcc.gov/oet/software/fmmodel>.

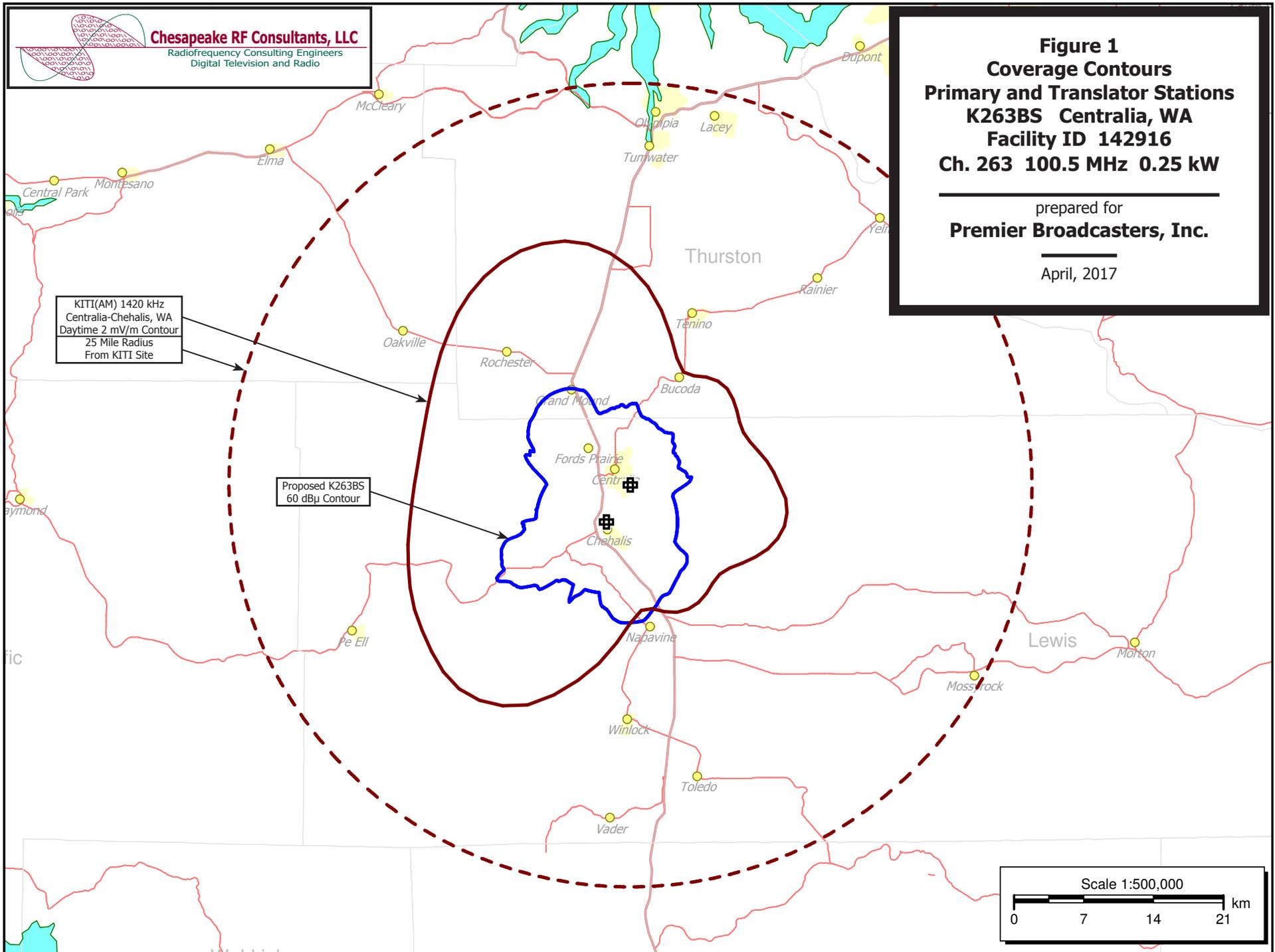


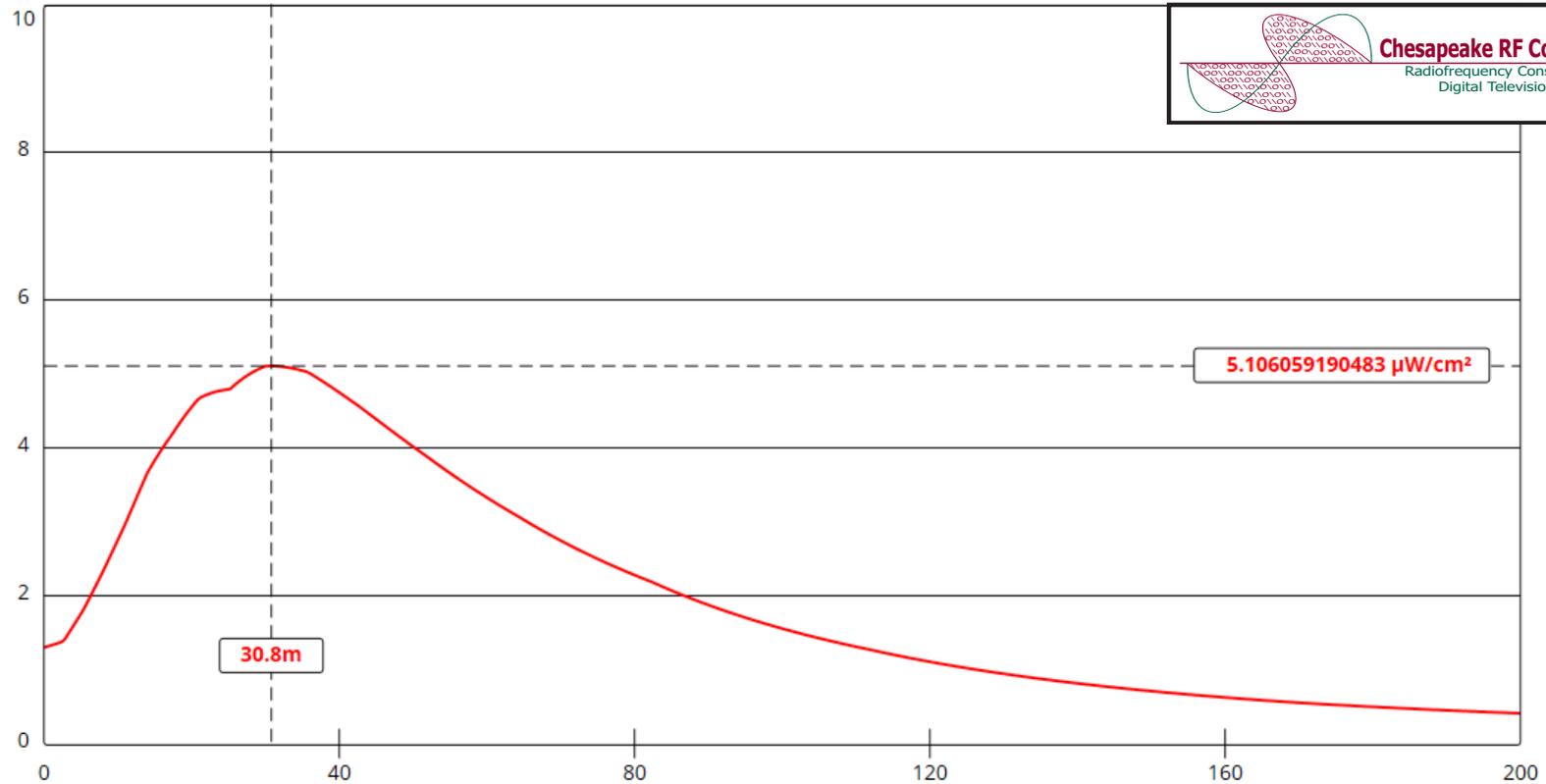
Chesapeake RF Consultants, LLC
 Radiofrequency Consulting Engineers
 Digital Television and Radio

Figure 1
Coverage Contours
Primary and Translator Stations
K263BS Centralia, WA
Facility ID 142916
Ch. 263 100.5 MHz 0.25 kW

prepared for
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April, 2017





[View Tabular Results +](#)

Channel Selection	Channel 263 (100.5 MHz) ▾		
Antenna Type +	EPA Type 2: Opposed V Dipole ▾		
Height (m)	<input type="text" value="32"/>	Distance (m)	<input type="text" value="200"/>
ERP-H (W)	<input type="text" value="250"/>	ERP-V (W)	<input type="text" value="250"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

Figure 2
RF Electromagnetic Field
FCC FMModel Results
K263BS Centralia, WA
Facility ID 142916
Ch. 263 100.5 MHz 0.25 kW

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Table 1
Channel Allocation Study Summary
Premier Broadcasters, Inc.
K263BS Centralia, WA



CH	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)	
264C	KKWF	LIC	DC WA	38.5	119.26	47 30 14.0	68.000	139.1	94.7	9.8	
Seattle				219.3	BLH20081120AFT	121 58 29.0	707	940	Entercom License, Llc		
262L1	KOLP-LP	LIC	WA	2.4	37.45	47 00 19.7	0.006	187	Olympia All Ages Project	15.4	
Olympia				182.4	BLL20170206AAB	122 56 35.5	96				
266D	K266BM	LIC	C WA	338.9	36.30	46 58 24.0	0.010	0.2	14.9	20.2	
Olympia				158.7	BLFT20130402ACL	123 08 11.0	656	858	Northwest Rock N Roll Pres		
260C	KISW	LIC	ZC WA	38.5	119.26	47 30 14.0	68.000	13.5	94.7	23.4	
Seattle				219.3	BLH20080730AKM	121 58 29.0	707	940	Entercom License, Llc		
262C	KKRZ	LIC	C OR	172.4	128.55	45 31 21.0	100.000	128.5	86.1	28.4	
Portland				352.6	BLH20011214AAE	122 44 45.0	470	561	Citicasters Licenses, Inc.		
263D	K263BE	LIC	C WA	297.0	65.46	46 56 00.0	0.250	40.8	11.9	29.8	
Aberdeen				116.4	BLFT20130531AAF	123 43 57.0		201	Jodesha Broadcasting, Inc.		
266D	K266BM	CP	DV WA	338.9	36.30	46 58 24.0	0.070	0.0	0.6	34.6	
Olympia				158.7	BPFT20160729AKW	123 08 11.0		843	Northwest Rock N Roll Pres		
209A	KWFJ	LIC	DEN WA	43.5	45.72	46 57 59.0	1.000	0.0	0.0	10.0R	35.7M
Roy				223.8	BLED19950725KA	122 32 56.0	30	154	Bible Broadcasting Network		
266C	KXL-FM	LIC	C OR	172.0	129.39	45 30 58.0	100.000	12.7	87.6	40.7	
Portland				352.2	BLH20100503ACD	122 43 59.0	502	594	Alpha Media Licensee Llc		
262D	K262CI	LIC	V WA	48.7	67.77	47 04 08.0	0.010	4.6	3.2	51.2	
Tacoma				229.2	BLFT20161129AHB	122 17 28.0		181	Edgewater Broadcasting, In		
266D	K266BL	LIC	DV WA	271.9	58.59	46 41 00.0	0.040	0.3	3.9	53.5	
Raymond				91.3	BLFT20100506ADI	123 43 54.0	-89	17	Jodesha Broadcasting, Inc.		
265D	K265DP	LIC	C WA	297.1	65.31	46 56 01.0	0.090	0.7	9.0	55.2	
Aberdeen				116.5	BLFT20030912AAU	123 43 48.0	117	199	Pacific Public Media		
210A	KGHP	LIC	DEX WA	12.9	65.25	47 14 27.0	1.350	0.0	0.0	10.0R	55.3M
Gig Harbor				193.0	BLED20061204AHL	122 46 16.0	61	86	Peninsula School District		
265D	K265CP	LIC	?HN OR	237.8	83.98	46 15 46.0	0.110	0.7	12.2	70.7	
Astoria				57.1	BLFT19880908TC	123 53 19.0	210	251	Gospel Echo, Inc.		
209C3	KOAC-FM	CP	DCX OR	237.8	83.78	46 15 47.0	1.900	0.0	0.0	12.0R	71.8M
Astoria				57.1	BPED20140902ADU	123 53 09.0	323	368	Oregon Public Broadcasting		
262L1	KUCP-LP	LIC	WA	38.5	95.86	47 20 28.0	0.041	160	Ukrainian Church Of Evange	73.5	
Kent				219.1	BLL20160218AAQ	122 10 19.3	47				
209A	KOAC-FM	LIC	CX OR	237.7	83.80	46 15 46.0	0.180	0.0	0.0	10.0R	73.8M
Astoria				57.1	BLED20100927ABF	123 53 09.0	321	367	Oregon Public Broadcasting		

Terrain database is USGS 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference Zone= West Zone, Co to 3rd adjacent.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 Incoming contour overlap is ignored.
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
 < = Station meets FCC minimum distance spacing for its class.
 < = Contour Overlap

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 JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 04/05/2017	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 207 OLD DOMINION ROAD			
City YORKTOWN		State or Country (if foreign address) VA	Zip Code 23692 -
Telephone Number (include area code) 7036509600		E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

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-A - 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: 263

2. Primary Station:

Facility ID Number	Call Sign	City	State
53398	KITI	CENTRALIA-CHEHALIS	WA

3. Delivery Method (Select One):
 Off-air Microwave Satellite Via Other

4. Antenna Location Coordinates: (NAD 27)

Latitude:
 Degrees 46 Minutes 40 Seconds 8 North South

Longitude:
 Degrees 122 Minutes 57 Seconds 50 West East

5. Antenna Structure Registration Number: 1060077
 Not Applicable Notification filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 136 meters

7. Overall Tower Height Above Ground Level: 59 meters

8. Height of Radiation Center Above Ground Level: 34 meters(H) 34 meters(V)

9. Effective Radiated Power: 0.25 kW(H) 0.25 kW(V)

10. Transmitting Antenna:
 Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under [CDBS Public Access](http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm) (http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.
 Nondirectional Directional Off-the Shelf Directional composite
 Manufacturer JAM Model JLLP-1
 Rotation:degrees No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0		10		20		30		40		50	
60		70		80		90		100		110	
120		130		140		150		160		170	
180		190		200		210		220		230	
240		250		260		270		280		290	
300		310		320		330		340		350	
Additional Azimuths											

[Relative Field Polar Plot](#)

11. For FM Boosters and Fill-in translators only.

a. FM Fill-in translators. Applicant certifies that the FM translator's (a) coverage contour does not extend beyond the protected contour of the commercial FM primary station to be rebroadcast, or (b) entire 60 dBu contour is contained within the lesser of: (i) the 2 mV/m Yes No N/A

	<p>daytime contour of the AM primary station to be rebroadcast, or (ii) a 25-mile radius centered at the AM primary station's transmitter site.</p> <p>b. FM Boosters. Applicant certifies that the FM Booster station's service contour is entirely within the primary station's protected coverage contour.</p>	<p>See Explanation in [Exhibit 10]</p> <p><input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A</p> <p>See Explanation in [Exhibit 11]</p>
12.	<p>Interference. The proposed facility complies with all of the following applicable rule sections. Check all that apply:</p> <p>Overlap Requirements. <input type="checkbox"/> a) 47 C.F.R. Section 74.1204 Exhibit Required.</p> <p>Television Channel 6 Protection. <input type="checkbox"/> b) 47 C.F.R. Section 74.1205 with respect to station(s) Exhibit Required.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 12]</p> <p>[Exhibit 13]</p> <p>[Exhibit 14]</p>
13.	<p>Unattended operation. Applicant certifies that unattended operation is not proposed, or if this application proposes unattended operation, the applicant certifies that it will comply with the requirements of 47 C.F.R. Section 74.1234.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 15]</p>
14.	<p>Multiple Translators. Applicant certifies that it does not have any interest in an application or an authorization for an FM translator station that serves substantially the same area and rebroadcasts the same signal as the proposed FM translator station.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 16]</p>
15.	<p>Environmental Protection Act. Applicant certifies that 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 compliance through the use of the RF worksheets in Appendix A, an Exhibit is required.</p> <p>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.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 17]</p>
<p>PREPARER'S CERTIFICATION ON PAGE 4 MUST BE COMPLETED AND SIGNED.</p>		