

TECHNICAL EXHIBIT
AMENDMENT TO
APPLICATION FOR FM CONSTRUCTION PERMIT
RADIO STATION KOTB(FM)
EVANSTON, WYOMING

NOVEMBER 19, 2002

CH 291C 89 KW-H 644 M

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Technical Narrative

The technical exhibit of which this narrative is part was prepared as to amend a pending application for construction permit for station KOTB(FM) in Evanston, Wyoming.¹ KOTB(FM) has an application pending for a "one-step" upgrade to Channel 291C from its licensed Channel 291C3 facility. This amendment seeks to modify the proposed transmitter site location and reference site location. This facility will also be co-located and diplxed with KPKK(FM) and KWKD(FM).

The proposal would not be subject to environmental processing in accordance with Section 1.1306. It is believed that this proposal conforms with all applicable rules and regulations of the FCC.

¹ See FCC License Number: BPH-20010306ABO.

Proposed Transmitter Location

A map showing the transmitter site location is provided in Figure 1. A sketch showing the proposed antenna and supporting structure is shown on Figure 2. Since the overall tower height is less than 200 feet and no public airports are located within 10 kilometers, a tower registration number is not required.

Interference Concerns

The 115 dBu predicted "blanketing" contour of the proposed station would extend radially 4 kilometers from the transmitting site. No interference is expected as the proposed transmitter site is located in a rural area. However, the applicant recognizes its responsibility to resolve complaints of interference, including blanketing and receiver-induced interference as required by Sections 73.315(b), 73.316(e) and 73.318.

Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrains over the evenly spaced radials to determine the overall average terrain were obtained from the past KWKD(FM) application for construction permit.

Figure 3 is a map showing the predicted coverage contours. The map indicates that the FCC predicted 70 dBu coverage contour entirely encompasses all of the Evanston city limits (2000 U.S. Census).

Inspection of the intervening terrain between the proposed transmitter site and the principal community of Evanston indicates the obstructions should be classified as minor since studies based on the Longley-Rice propagation method show 70 dBu or greater signals exist over 85% of the Evanston city limits.¹

Allocation Study

Figure 4 is an allocation study for channel 272C at the proposed site. The figure contains a tabulation of actual and required separation distances from other pertinent stations and allotments. The proposed site meets the FCC's minimum separation requirements, specified in Section 73.207(b) of the Commission's Rules, to all assignments and stations except to the licensed facility of KOSY-FM at Spanish Fork, Utah (FCC File Number: BLH-19980929KC) and KLCY-FM on Channel 290A at Vernal, Utah.

KOSY-FM has filed an application to cover its construction permit (FCC File Number: BMPH-20011206AAT). Therefore, upon licensure of KOSY-FM, the proposed transmitter site will become fully-spaced to KOSY-FM.

KLCY-FM on Channel 290A assigned to Vernal, Utah has filed a contingent application for operation on Channel 288C2, which may be granted simultaneously with the grant of the instant application.²

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, *Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields*.³ The power density at the base of the tower was calculated using the appropriate procedure contained in Section 2, Supplement A, *Additional Information for Radio and Television Broadcast Stations*, of the Bulletin.

For the calculation, an assumed downward vertical factor of 0.1 was employed (see the plot of the proposed *Shively 6016-10/4* antenna vertical radiation pattern contained in the Appendix) with an effective radiated power of 89 kilowatts and radiation center of 44 meters (144 feet) above ground level. It is calculated that the power density would not exceed 0.02 mW/cm² at ground level. This is 10 percent of the Commission's guideline value in an uncontrolled environment for a FM radio station.⁴

Stations KPKK(FM) on Channel 268C assigned to Oakley, Utah and KWKD(FM) on Channel 272C assigned to Randolph, Utah will also be combined on this antenna, each with the same horizontally-only effective radiated power of 89 kilowatts. Therefore, the cumulative ground level power

² See FCC File Number BPH-20010306ABN.

³ OET Bulletin 65, Second Edition 97-01, August, 1997.

⁴ The FCC maximum guideline for a FM broadcast station in an uncontrolled environment is 0.2 mW/cm².

density should not exceed 30 percent of the Commission's uncontrolled standard.

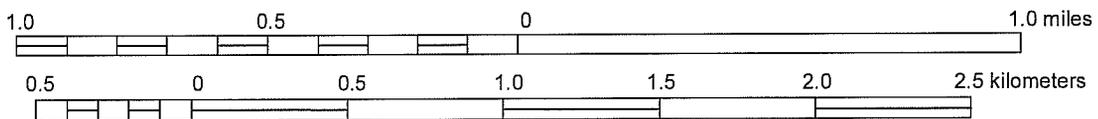
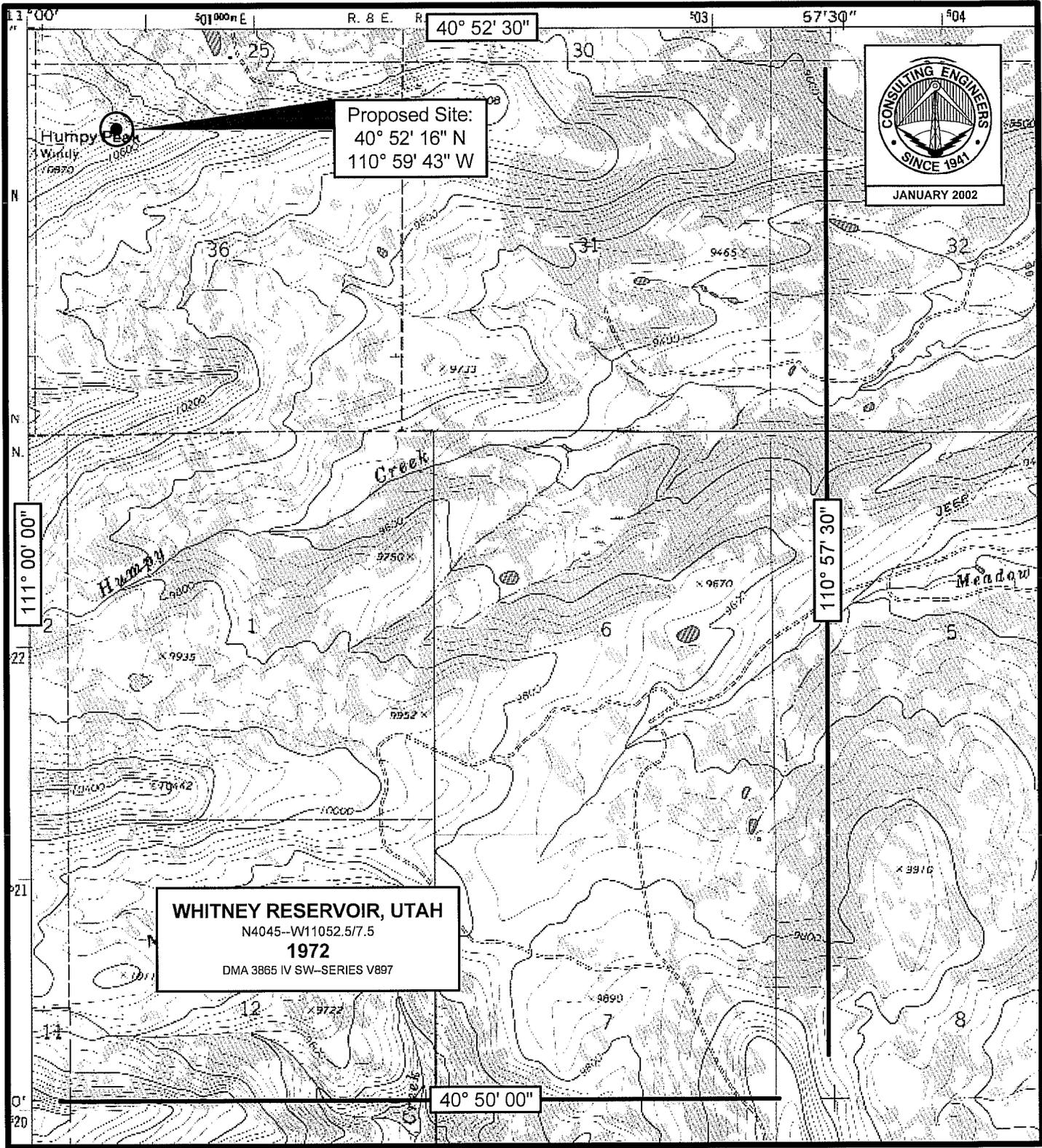
Access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

Charles A. Cooper

November 26, 2002

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Figure 1



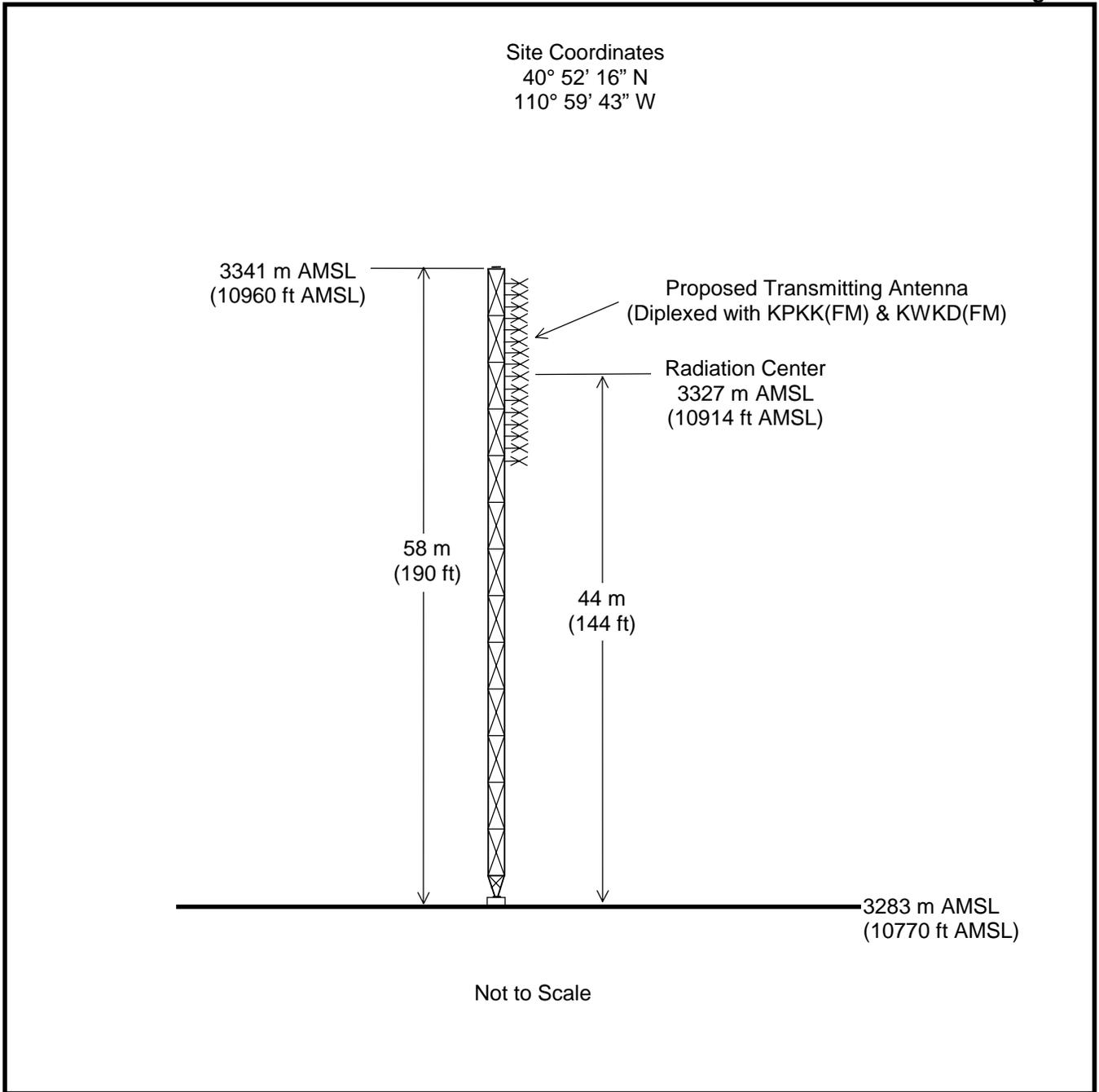
PROPOSED TRANSMITTER SITE

RADIO STATION KOTB(FM)

EVANSTON, WYOMING

CH 291C 89 KW-H 644 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

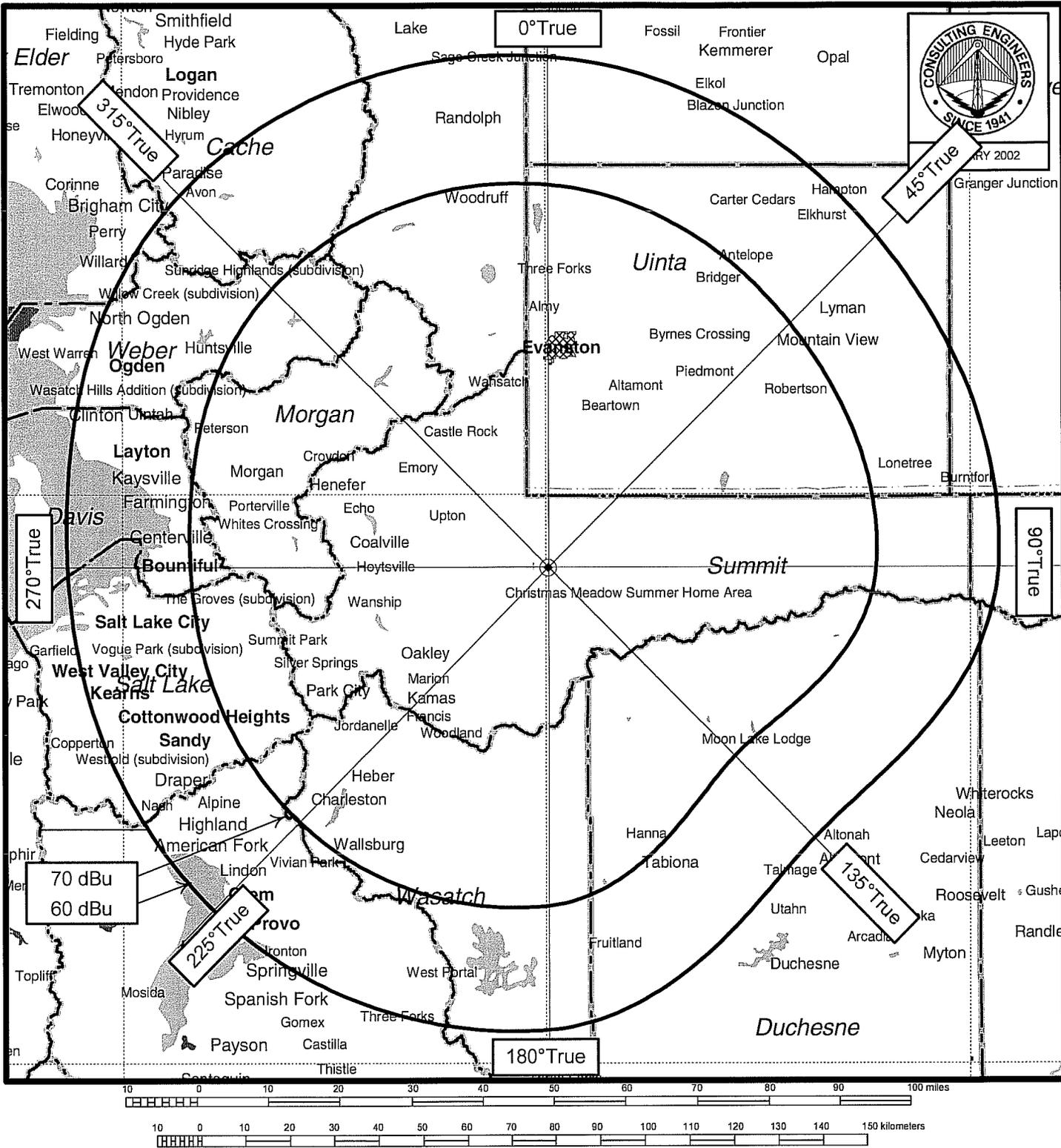


PROPOSED ANTENNA AND SUPPORTING STRUCTURE

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Figure 3



FCC PREDICTED COVERAGE CONTOURS

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Channel 291C Allocation Study

40° 52' 16" North Latitude
 110° 59' 43" West Longitude

Call Status	City State	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-Tru	Dist. (km)	Req. (km)
KLCY-F 2935	VERNAL UT RSV C		288C2 105.5		40-35-22 109-45-29	106.3	109.10	105.0
KLCY-F 2935	VERNAL UT APP C	BPH 20010306ABN	288C2 105.5	3.3 518	40-32-16 109-41-57	Y 108.3	115.62	105.0
KCPX 69555	CENTERVILLE UT LIC C	BLH 19961029KB	289C 105.7	25.5 1111	40-39-35 112-12-05	N 257.4	105.0	
<i>(Separation distance rounds to 105 kilometers. No allocation issue.)</i>								
KCPX 69555	CENTERVILLE UT CP C	BPH 20011206AAU	289C 105.7	25 1140	40-39-34 112-12-05	N 257.3	104.52	105.0
KLCY-F 2935	VERNAL UT LIC C	BLH 19881110KA	290A 105.9	3 126	40-24-50 109-35-34	N 112.8	129.05	165.0
<i>(A continent application has been filed to reallocate station KLCY-FM to Channel 288C2 from Channel 290A. Therefore, this instant application is contingent upon grant of KLCY-FM application).</i>								
KOTB 20029	EVANSTON WY APP C	BPH 20010306ABO	291C 106.1	100 598	40-53-28 110-59-44	N 358.7	2.22	
<i>(Instant application being amended.)</i>								
KOTB 20029	EVANSTON WY LIC C	BLH 19970926KD	291C3 106.1	0.38 464	41-21-11 110-54-28	N 7.8	54.02	237.0
<i>(Applicant's licensed facility.)</i>								
KOSY-F 63536	SPANISH FOR UT LIC C	BLH 19980929KC	293C 106.5	45 841	40-16-50 111-56-06	N 230.7	103.11	105.0
<i>(Application for license has been filed for KOSY-FM for the below facility. Therefore, this facility is no longer in need of protection.)</i>								
KOSY-F 63536	SPANISH FOR UT CP C	BMPH 20011206AAT	293C 106.5	25 1140	40-39-34 112-12-05	N 257.3	104.52	105.0
<i>(Separation distance rounds to 105 kilometers. No allocation issue.)</i>								

APPENDIX

TRANSMITTING ANTENNA VERTICAL PLANE MANUFACTURER SPECIFICATIONS

FIELD ELEVATION PATTERN

ANT. MFG.: SHIVELY LABS

ANT. TYPE: 6016-10/4

STATION: KOTB

FREQ: 106.1 MHz CHAN: 291

Power Gain 6.650 8.228 dB

DATE: 11/13/02

FIGURE NO.: *HORIR*

