

[Exhibit 12]

## **Non-Interference Compliance**

Regarding Facility id 149712

Channel 277

### **Description of Exhibit 12 Contents**

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

**Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.**

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

*[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.*

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dB $\mu$  F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

## Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dB $\mu$  for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
1046608	BNPH20050103AFI	NEW	99.2	96.7
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>96.7</b>

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **96.7 dB $\mu$** , this makes the proposed translator's worst-case interfering contour **136.7 dB $\mu$** . By the free-space equation, this contour is calculated to extend a maximum of **10.2 m** from the transmit antenna.

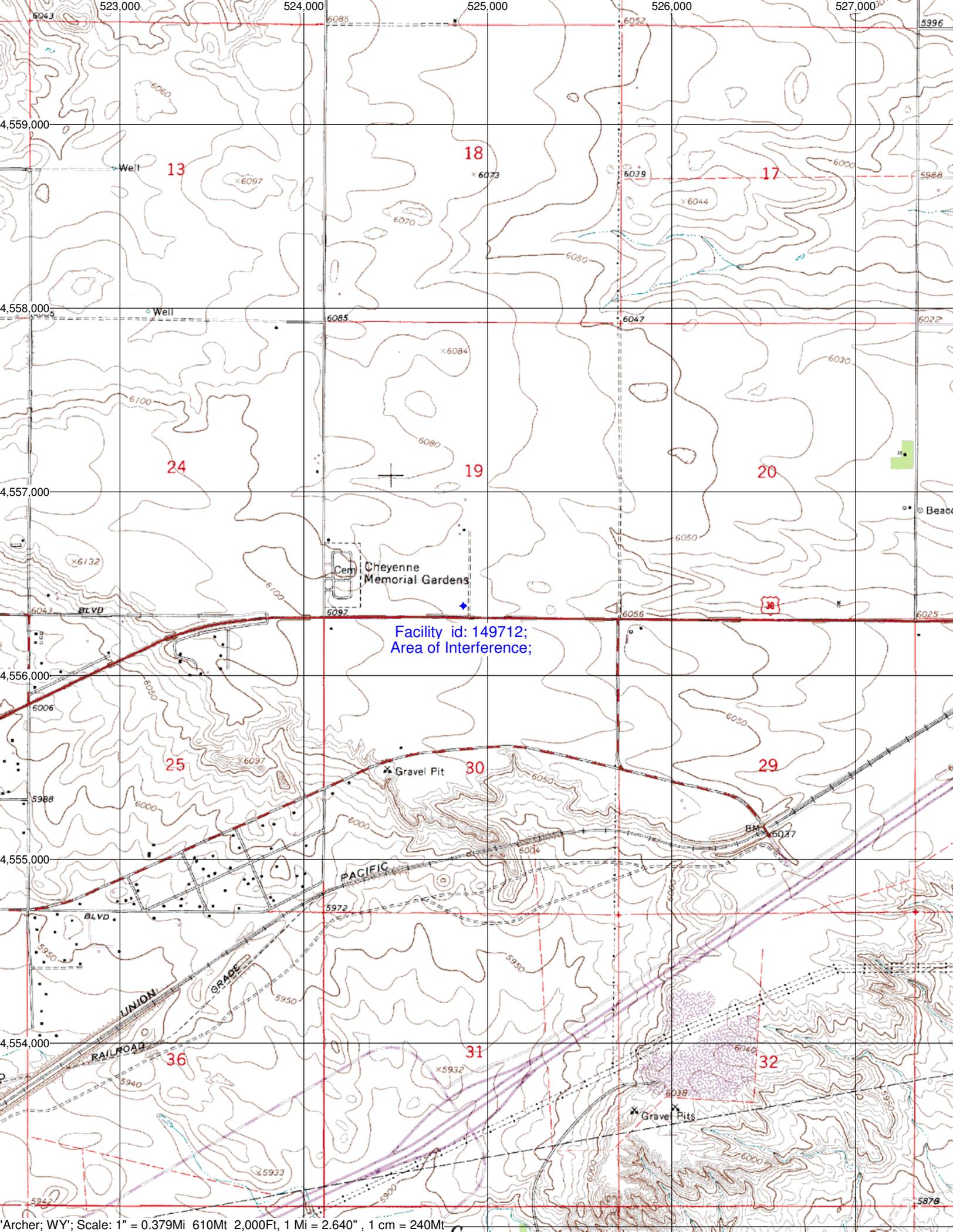
The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population"). Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

**Antenna Manufacturer:** NIC  
**Antenna Model:** BKG77  
**CORAGL:** 38 m  
**Maximum ERP:** 0.099 kW  
**Interfering Contour:** 136.7 dB $\mu$   
**Max Int. Contour Distance:** 10.2 m

## Adjacent Channel Study For Station K277BC, Facility\_id: 149712

### Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1046608	164151	BNPH	20050103AFI	NEW	COLLEGE CREEK BROADCASTING, INC.	C2	CHEYENNE	WY	CP	50	1963	280	3	5.6	0.5908
647548	154329	BNPFT	20030317BVB	NEW	EDGEWATER BROADCASTING, INC.	D	WARREN AFB	WY	APP	0.034	2182	279	2	26	0
1177364	164951	BPFTB	20070319ABX	KARS-FM1	REGENT BROADCASTING OF FT. COLLINS, INC.	D	FORT COLLINS	CO	CP	17	2100	275	2	45	0
1087672	164951	BLFTB	20050926AEG	KARS-FM1	REGENT BROADCASTING OF FT. COLLINS, INC.	D	FORT COLLINS	CO	LIC	6	2100	275	2	45	0
71231	36554	BLFT	19840723MU	K280BM	LARAMIE PLAINS ANTENNA TV ASSN., INC	D	LARAMIE	WY	LIC	0.08	2661	280	3	64.1	0
648436	155212	BNPFT	20030317MBH	NEW	EDGEWATER BROADCASTING, INC.	D	LARAMIE	WY	APP	0.01	2771	278	1	64.9	0
644326	151251	BNPFT	20030317CYC	NEW	EDGEWATER BROADCASTING, INC.	D	FORT COLLINS	CO	APP	0.01	2187.9	280	3	79.9	0
631548	140262	BNPFT	20030312ADT	NEW	EDUCATIONAL COMMUNICATIONS OF COLORADO	D	FT. COLLINS	CO	APP	0.01	2078	280	3	84.3	0
650325	157029	BNPFT	20030317JQN	NEW	REGENT BROADCASTING OF FT. COLLINS, INC.	D	FORT COLLINS	CO	APP	0.02	2075	277	0	84.3	0
631570	140284	BNPFT	20030312AWT	NEW	EDUCATIONAL COMMUNICATIONS OF COLORADO	D	EVANS	CO	APP	0.05	1528	280	3	85.8	0
633633	141905	BNPFT	20030317AXA	NEW	HORIZON CHRISTIAN FELLOWSHIP	D	GREELEY	CO	APP	0.14	1543	280	3	86.3	0
1094270	10334	BLH	20051031ABO	KARS-FM	REGENT BROADCASTING OF FT. COLLINS, INC.	C1	LARAMIE	WY	LIC	83	2999	275	2	89	0
1192205	166001	BMPH	20070117AFI	KHNA	WHITE PARK BROADCASTING, INC.	C2	ROCK RIVER	WY	APP	50	2321	277	0	99.9	0
230747	67473	BLH	19960807KE	KOZY-FM	TRACY BROADCASTING CORPORATION	C3	GERING	NE	LIC	7	1273	280	3	114.1	0
1159617	29731	BPH	20061116ADQ	KRFX	JACOR BROADCASTING OF COLORADO, INC.	C0	DENVER	CO	CP	100	2256	278	1	165	0
1126636	29731	BXLH	20060804AEN	KRFX	JACOR BROADCASTING OF COLORADO, INC.	C0	DENVER	CO	LIC	100	2256	278	1	165	0
299673	29731	BLH	4823	KRFX		C0	DENVER	CO	LIC	100	2344	278	1	165.2	0



Facility id: 149712;  
Area of Interference;

Cem Cheyenne Memorial Gardens

Gravel Pit

Gravel Pits