

APPLICATION
FOR CONSTRUCTION
PERMIT
OF
AUXILIARY FACILITIES

FCC FORM 301

KMDG FM
FACILITY ID #72769

NEPHI, UTAH

AUXILIARY FACILITIES

CHANNEL 280C (103.9 MHz)

ERP: 1.0 kW (H&V)

HAAT: 301 METERS (H&V)

APPLICANT: Millcreek Broadcasting LLC.

September 4, 2002

Engineering Statement
In Support of an
Application for FM Construction Permit
Auxiliary Antenna

KMDG FM

Facility Number 72769
280C, Nephi, Utah

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ENGINEERING STATEMENT
Of

Kevin Terry

In Support of an

Application for
FM Construction Permit

Facility Number 72769

Nephi, Utah

Channel 280C - 103.9 mHz

ERP: 1.0 kW (H&V)

HAAT: 301 Meters (H&V)

September 4, 2002

General

As Director of Engineering of Millcreek Broadcasting, LLC, licensee of KMDG FM Nephi, Utah, I have been authorized to conduct engineering studies and prepare and submit the engineering portion of an Application for Construction Permit for Auxiliary Facilities for KMDG FM. Utah is an extremely rugged state that endures extreme winter weather conditions. It is due to access concerns to the KMDG main transmitter site, that the licensee has chosen to apply for auxiliary facilities to be used in the event of a transmission failure at the main site.

The attached exhibits will show that when the KMDG AUX operates as an Auxiliary Facility with an ERP of 1.0 kW at its auxiliary site it will be in compliance with all of the Commission's Rules and Regulations.

The Proposed Technical Parameters are as follows:

ASRN:	1210829
COORDINATES:	N39-43-58, W111-56-34
ERP:	1.0 kW
COR AGL:	128 meters
COR AMSL:	2044 meters
HAAT:	301 meters

The Site, Surrounding Terrain, and Predicted Service Contours

A map showing the transmitter site location is provided in Exhibit E, Figure 2.

A computer study was conducted to determine the average terrain elevations for each of the 360 radials, beginning with true north, then at intervals of 1 degree, in accordance with the provisions of Section 73.313. The 8 cardinal radials were included in the generation of this terrain study. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors. The average of each radial was taken from three to sixteen kilometers, at 0.1 kilometer intervals. The USGS 3-second terrain database was used to conduct the computer study. Exhibit E, Figure 3 is a copy of the terrain study and the contour study showing the distance to the service contours and the average elevations of each.

Exhibit E, Figure 4 is a map that shows the F(50,50) 60 dBu contours of the KMDG Main Facility and the proposed KMDG Auxiliary Facilities. As can be shown in Exhibit E, Figure 4, the entire 60 dBu contour of the proposed KMDG Auxiliary Facilities is fully encompassed by the F(50,50) 60 dBu contour of the KMDG Licensed Main Facilities.

It should be noted that Millcreek Broadcasting is concurrently filing a separate Application for Construction Permit for co-owned KMXU FM Manti, Utah, to use this transmitter site for its own auxiliary facilities. The two stations will combine into an ERI

8 bay SHPX antenna to provide service in the event of a transmission system failure at that station's Main Facilities. Besides this application for the KMDG AUX and the separate application for the KMXU AUX, there are no other proposed or authorized FM or TV transmitters, nor any non-broadcast radio antennas within 60 meters of the proposed antenna. There are no proposed FM or TV transmitters that may produce receiver induced intermodulation interference within ten kilometers of the proposed transmitting antenna. There are no AM facilities within 3.2 kilometers of the proposed tower site.

The distance to the blanketing (115 dBu) contour is calculated at 0.39 kilometers from the transmitter site. No interference is expected, as the proposed transmitting site is located in a rural area. Of course, 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 of the Commission's Rules.

Antenna and Supporting Structure

A sketch showing the proposed antenna and supporting structure is shown in Exhibit E, Figure 5. This tower is an existing structure with an Antenna Structure Registration Number (ASRN) of 1210829.

Human Exposure to Radiofrequency Radiation

The proposed FM 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 (OET Bulletin 65, Second Edition 97-01, August, 1997). The Commission's FM Model Power Density Prediction program was employed to determine the Field. The proposed center of radiation is 128 meters above ground level with an ERP of 1.0 kW (Horizontal and Vertical) using a ERI SHPX Series antenna with 8 elements, full wave spaced between elements. According to this study, the power density 2 meters above ground at the base of the tower will be .00013 mW/cm² and would not exceed the Uncontrolled Standard of .2 mW/cm². The highest predicted power

density 2 meters above ground would occur 38 meters away from the base of the tower. Here, the predicted power density would still comply as it would be .00025 mW/cm² or 0.13% of the Uncontrolled Standard. The combined transmission system of the proposed KMDG AUX and the separately proposed KMXU AUX facilities would continue to easily comply with the Uncontrolled Standard with a highest predicted power density of .0005 mW/cm², or 0.25% of the Uncontrolled Standard, occurring 38 meters from the base of the tower.

Even though the site will fully comply with the Uncontrolled Site Standards, 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.

Environmental Impact

The proposal would not be subject to environmental processing in accordance with Section 1.1306. The proposed construction would not constitute a major action as defined in the Commission's Rules and Regulations. During operation, the facility will produce no chemical or significant thermal pollution, and no ionizing radiation will be generated. Areas of high intensity radiofrequency fields will be confined to the immediate area of the transmitting antenna, far above the ground and away from any human and wildlife protection. The area is not officially designated as a wilderness area or wildlife preserve and is not pending consideration. The area has no significant value in American history, architecture, archaeology, or culture, which is listed in the Register of Historic Places, and it is not eligible for listing. It is not recognized either nationally or locally for special scenic or recreational value.

Conclusion

This statement/application has been prepared for The Applicant by utilizing the latest available information, cross-checked with the Federal Communications Commission and

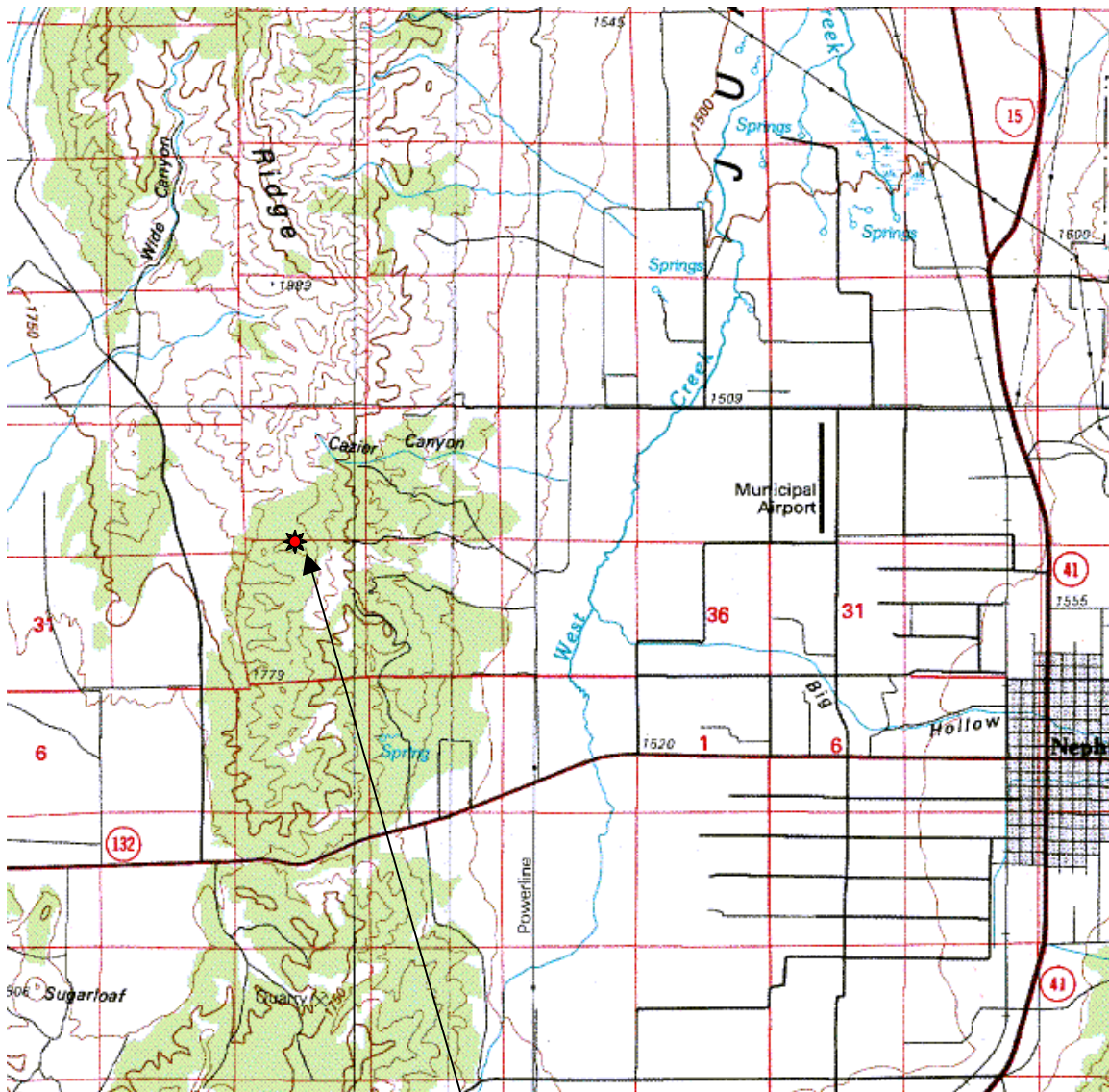
other sources. Therefore, it is submitted that the proposed is in compliance with the Commission's Rules and Regulations and other sources. Therefore, it is submitted that the engineering data complied and demonstrated herein for the proposed is in compliance with Commission's Rules and Regulations at the time of the application's filing date. I welcome the opportunity to discuss with the staff of the Federal Communications Commission the engineering data contained in this application. Should any questions arise concerning the information, please contact the undersigned. The following pages are exhibits prepared and assembled in support of the proposed:

Kevin Terry, Director of Engineering
Millcreek Broadcasting
2835 East 3300 South
Salt Lake City, UT 84109

(801) 412-6040

Exhibit E, Figure 1
Map of Proposed Transmitter Site

Scale = 1:100,000



KMDG AUX Nephi, Utah
Proposed Site
N39-43-58, W111-56-34
USGS Quad: Sugarloaf

Exhibit E, Figure 2
Service Contour Study and Terrain Averaging Study

Millcreek Broadcasting Contours

KMDG AUX

N. Lat. = 39 43 58 W. Lng. = 111 56 34

HAAT and Distance to Contour - FCC Method - 03 Arc Sec.

Azi.	AV EL	HAAT	kW	dBk	Field	60 .5
000	1902.4	141.6	1.0000	0.00	1.000	22.00
001	1887.7	156.3	1.0000	0.00	1.000	23.03
002	1879.9	164.1	1.0000	0.00	1.000	23.54
003	1870.0	174.0	1.0000	0.00	1.000	24.17
004	1855.8	188.2	1.0000	0.00	1.000	24.99
005	1839.6	204.4	1.0000	0.00	1.000	25.95
006	1821.0	223.0	1.0000	0.00	1.000	27.06
007	1804.4	239.6	1.0000	0.00	1.000	28.03
008	1788.6	255.4	1.0000	0.00	1.000	28.87
009	1775.9	268.1	1.0000	0.00	1.000	29.55
010	1765.9	278.1	1.0000	0.00	1.000	30.08
011	1741.8	302.2	1.0000	0.00	1.000	31.35
012	1717.8	326.2	1.0000	0.00	1.000	32.62
013	1703.8	340.2	1.0000	0.00	1.000	33.36
014	1687.0	357.0	1.0000	0.00	1.000	34.20
015	1672.2	371.8	1.0000	0.00	1.000	34.87
016	1660.1	383.9	1.0000	0.00	1.000	35.37
017	1648.2	395.8	1.0000	0.00	1.000	35.84
018	1637.5	406.5	1.0000	0.00	1.000	36.27
019	1627.8	416.2	1.0000	0.00	1.000	36.67
020	1618.6	425.4	1.0000	0.00	1.000	37.05
021	1609.9	434.1	1.0000	0.00	1.000	37.41
022	1600.4	443.6	1.0000	0.00	1.000	37.82
023	1592.7	451.3	1.0000	0.00	1.000	38.14
024	1585.7	458.3	1.0000	0.00	1.000	38.45
025	1579.7	464.3	1.0000	0.00	1.000	38.71
026	1574.0	470.0	1.0000	0.00	1.000	38.96
027	1568.7	475.3	1.0000	0.00	1.000	39.19
028	1564.1	479.9	1.0000	0.00	1.000	39.39
029	1559.8	484.2	1.0000	0.00	1.000	39.58
030	1555.6	488.4	1.0000	0.00	1.000	39.77
031	1552.0	492.0	1.0000	0.00	1.000	39.93
032	1548.6	495.4	1.0000	0.00	1.000	40.09
033	1545.9	498.1	1.0000	0.00	1.000	40.21
034	1544.2	499.8	1.0000	0.00	1.000	40.28

035	1543.1	500.9	1.0000	0.00	1.000	40.33
036	1542.9	501.1	1.0000	0.00	1.000	40.34
037	1543.3	500.7	1.0000	0.00	1.000	40.33
038	1543.8	500.2	1.0000	0.00	1.000	40.30
039	1544.7	499.3	1.0000	0.00	1.000	40.26
040	1545.7	498.3	1.0000	0.00	1.000	40.22
041	1547.1	496.9	1.0000	0.00	1.000	40.15
042	1548.9	495.1	1.0000	0.00	1.000	40.07
043	1551.2	492.8	1.0000	0.00	1.000	39.97
044	1553.9	490.1	1.0000	0.00	1.000	39.85
045	1556.6	487.4	1.0000	0.00	1.000	39.73
046	1561.0	483.0	1.0000	0.00	1.000	39.53
047	1565.9	478.1	1.0000	0.00	1.000	39.31
048	1572.8	471.2	1.0000	0.00	1.000	39.01
049	1585.8	458.2	1.0000	0.00	1.000	38.44
050	1601.7	442.3	1.0000	0.00	1.000	37.76
051	1619.6	424.4	1.0000	0.00	1.000	37.01
052	1632.2	411.8	1.0000	0.00	1.000	36.49
053	1642.5	401.5	1.0000	0.00	1.000	36.07
054	1658.7	385.3	1.0000	0.00	1.000	35.42
055	1683.4	360.6	1.0000	0.00	1.000	34.37
056	1701.7	342.3	1.0000	0.00	1.000	33.47
057	1707.4	336.6	1.0000	0.00	1.000	33.17
058	1702.5	341.5	1.0000	0.00	1.000	33.43
059	1698.4	345.6	1.0000	0.00	1.000	33.64
060	1704.8	339.2	1.0000	0.00	1.000	33.31
061	1711.8	332.2	1.0000	0.00	1.000	32.94
062	1719.4	324.6	1.0000	0.00	1.000	32.54
063	1739.3	304.7	1.0000	0.00	1.000	31.48
064	1762.0	282.0	1.0000	0.00	1.000	30.29
065	1776.6	267.4	1.0000	0.00	1.000	29.51
066	1790.8	253.2	1.0000	0.00	1.000	28.76
067	1814.7	229.3	1.0000	0.00	1.000	27.44
068	1839.8	204.2	1.0000	0.00	1.000	25.93
069	1870.0	174.0	1.0000	0.00	1.000	24.17
070	1883.4	160.6	1.0000	0.00	1.000	23.32
071	1888.2	155.8	1.0000	0.00	1.000	22.99
072	1909.2	134.8	1.0000	0.00	1.000	21.50
073	1937.6	106.4	1.0000	0.00	1.000	19.22
074	1955.6	88.4	1.0000	0.00	1.000	17.35
075	1942.2	101.8	1.0000	0.00	1.000	18.78
076	1911.7	132.3	1.0000	0.00	1.000	21.33
077	1877.0	167.0	1.0000	0.00	1.000	23.73
078	1841.2	202.8	1.0000	0.00	1.000	25.85
079	1821.6	222.4	1.0000	0.00	1.000	27.03
080	1808.9	235.1	1.0000	0.00	1.000	27.77
081	1802.1	241.9	1.0000	0.00	1.000	28.16
082	1786.1	257.9	1.0000	0.00	1.000	29.01
083	1768.3	275.7	1.0000	0.00	1.000	29.95

084	1741.9	302.1	1.0000	0.00	1.000	31.34
085	1717.4	326.6	1.0000	0.00	1.000	32.64
086	1707.5	336.5	1.0000	0.00	1.000	33.17
087	1701.3	342.7	1.0000	0.00	1.000	33.49
088	1693.3	350.7	1.0000	0.00	1.000	33.89
089	1680.9	363.1	1.0000	0.00	1.000	34.49
090	1673.5	370.5	1.0000	0.00	1.000	34.82
091	1667.6	376.4	1.0000	0.00	1.000	35.07
092	1662.5	381.5	1.0000	0.00	1.000	35.27
093	1650.9	393.1	1.0000	0.00	1.000	35.73
094	1640.9	403.1	1.0000	0.00	1.000	36.14
095	1631.2	412.8	1.0000	0.00	1.000	36.53
096	1619.2	424.8	1.0000	0.00	1.000	37.02
097	1609.1	434.9	1.0000	0.00	1.000	37.45
098	1601.3	442.7	1.0000	0.00	1.000	37.78
099	1596.5	447.5	1.0000	0.00	1.000	37.98
100	1600.2	443.8	1.0000	0.00	1.000	37.82
101	1606.4	437.6	1.0000	0.00	1.000	37.56
102	1621.4	422.6	1.0000	0.00	1.000	36.93
103	1637.6	406.4	1.0000	0.00	1.000	36.27
104	1655.2	388.8	1.0000	0.00	1.000	35.56
105	1669.3	374.7	1.0000	0.00	1.000	35.00
106	1679.8	364.2	1.0000	0.00	1.000	34.54
107	1681.0	363.0	1.0000	0.00	1.000	34.48
108	1677.7	366.3	1.0000	0.00	1.000	34.63
109	1673.1	370.9	1.0000	0.00	1.000	34.84
110	1678.6	365.4	1.0000	0.00	1.000	34.59
111	1683.1	360.9	1.0000	0.00	1.000	34.39
112	1678.9	365.1	1.0000	0.00	1.000	34.58
113	1668.0	376.0	1.0000	0.00	1.000	35.05
114	1663.6	380.4	1.0000	0.00	1.000	35.23
115	1666.5	377.5	1.0000	0.00	1.000	35.11
116	1670.4	373.6	1.0000	0.00	1.000	34.95
117	1670.2	373.8	1.0000	0.00	1.000	34.96
118	1663.8	380.2	1.0000	0.00	1.000	35.22
119	1659.7	384.3	1.0000	0.00	1.000	35.38
120	1657.2	386.8	1.0000	0.00	1.000	35.48
121	1660.3	383.7	1.0000	0.00	1.000	35.36
122	1662.3	381.7	1.0000	0.00	1.000	35.28
123	1659.3	384.7	1.0000	0.00	1.000	35.40
124	1657.1	386.9	1.0000	0.00	1.000	35.49
125	1654.5	389.5	1.0000	0.00	1.000	35.59
126	1648.7	395.3	1.0000	0.00	1.000	35.82
127	1644.8	399.2	1.0000	0.00	1.000	35.97
128	1638.4	405.6	1.0000	0.00	1.000	36.23
129	1632.3	411.7	1.0000	0.00	1.000	36.48
130	1630.5	413.5	1.0000	0.00	1.000	36.56
131	1628.8	415.2	1.0000	0.00	1.000	36.63
132	1622.8	421.2	1.0000	0.00	1.000	36.87

133	1618.7	425.3	1.0000	0.00	1.000	37.05
134	1613.6	430.4	1.0000	0.00	1.000	37.26
135	1609.0	435.0	1.0000	0.00	1.000	37.45
136	1604.9	439.1	1.0000	0.00	1.000	37.62
137	1601.7	442.3	1.0000	0.00	1.000	37.76
138	1599.0	445.0	1.0000	0.00	1.000	37.88
139	1596.7	447.3	1.0000	0.00	1.000	37.98
140	1594.6	449.4	1.0000	0.00	1.000	38.06
141	1592.4	451.6	1.0000	0.00	1.000	38.16
142	1590.6	453.4	1.0000	0.00	1.000	38.23
143	1588.8	455.2	1.0000	0.00	1.000	38.31
144	1587.1	456.9	1.0000	0.00	1.000	38.39
145	1585.7	458.3	1.0000	0.00	1.000	38.45
146	1584.5	459.5	1.0000	0.00	1.000	38.50
147	1583.7	460.3	1.0000	0.00	1.000	38.53
148	1583.3	460.7	1.0000	0.00	1.000	38.55
149	1583.3	460.7	1.0000	0.00	1.000	38.55
150	1583.1	460.9	1.0000	0.00	1.000	38.56
151	1582.7	461.3	1.0000	0.00	1.000	38.58
152	1582.3	461.7	1.0000	0.00	1.000	38.60
153	1582.0	462.0	1.0000	0.00	1.000	38.61
154	1582.1	461.9	1.0000	0.00	1.000	38.60
155	1582.3	461.7	1.0000	0.00	1.000	38.60
156	1582.9	461.1	1.0000	0.00	1.000	38.57
157	1584.0	460.0	1.0000	0.00	1.000	38.52
158	1586.9	457.1	1.0000	0.00	1.000	38.39
159	1593.6	450.4	1.0000	0.00	1.000	38.11
160	1603.0	441.0	1.0000	0.00	1.000	37.71
161	1612.9	431.1	1.0000	0.00	1.000	37.29
162	1622.1	421.9	1.0000	0.00	1.000	36.91
163	1631.1	412.9	1.0000	0.00	1.000	36.53
164	1637.3	406.7	1.0000	0.00	1.000	36.28
165	1646.2	397.8	1.0000	0.00	1.000	35.92
166	1655.8	388.2	1.0000	0.00	1.000	35.54
167	1665.0	379.0	1.0000	0.00	1.000	35.17
168	1675.9	368.1	1.0000	0.00	1.000	34.71
169	1689.3	354.7	1.0000	0.00	1.000	34.09
170	1700.8	343.2	1.0000	0.00	1.000	33.51
171	1714.2	329.8	1.0000	0.00	1.000	32.81
172	1726.0	318.0	1.0000	0.00	1.000	32.18
173	1736.6	307.4	1.0000	0.00	1.000	31.62
174	1747.6	296.4	1.0000	0.00	1.000	31.05
175	1753.4	290.6	1.0000	0.00	1.000	30.74
176	1756.9	287.1	1.0000	0.00	1.000	30.56
177	1761.9	282.1	1.0000	0.00	1.000	30.29
178	1767.8	276.2	1.0000	0.00	1.000	29.98
179	1775.1	268.9	1.0000	0.00	1.000	29.59
180	1788.8	255.2	1.0000	0.00	1.000	28.86
181	1796.8	247.2	1.0000	0.00	1.000	28.43

182	1804.1	239.9	1.0000	0.00	1.000	28.04
183	1810.0	234.0	1.0000	0.00	1.000	27.71
184	1810.6	233.4	1.0000	0.00	1.000	27.68
185	1814.5	229.5	1.0000	0.00	1.000	27.45
186	1814.9	229.1	1.0000	0.00	1.000	27.43
187	1814.2	229.8	1.0000	0.00	1.000	27.47
188	1817.1	226.9	1.0000	0.00	1.000	27.30
189	1812.7	231.3	1.0000	0.00	1.000	27.56
190	1809.7	234.3	1.0000	0.00	1.000	27.73
191	1805.4	238.6	1.0000	0.00	1.000	27.97
192	1796.8	247.2	1.0000	0.00	1.000	28.44
193	1787.0	257.0	1.0000	0.00	1.000	28.96
194	1777.4	266.6	1.0000	0.00	1.000	29.47
195	1773.6	270.4	1.0000	0.00	1.000	29.67
196	1771.8	272.2	1.0000	0.00	1.000	29.77
197	1770.1	273.9	1.0000	0.00	1.000	29.86
198	1765.7	278.3	1.0000	0.00	1.000	30.09
199	1761.1	282.9	1.0000	0.00	1.000	30.34
200	1757.4	286.6	1.0000	0.00	1.000	30.53
201	1753.9	290.1	1.0000	0.00	1.000	30.72
202	1748.7	295.3	1.0000	0.00	1.000	30.99
203	1744.7	299.3	1.0000	0.00	1.000	31.20
204	1742.2	301.8	1.0000	0.00	1.000	31.33
205	1742.3	301.7	1.0000	0.00	1.000	31.32
206	1740.3	303.7	1.0000	0.00	1.000	31.43
207	1736.3	307.7	1.0000	0.00	1.000	31.63
208	1730.5	313.5	1.0000	0.00	1.000	31.94
209	1726.0	318.0	1.0000	0.00	1.000	32.18
210	1719.8	324.2	1.0000	0.00	1.000	32.51
211	1715.8	328.2	1.0000	0.00	1.000	32.73
212	1708.5	335.5	1.0000	0.00	1.000	33.12
213	1702.5	341.5	1.0000	0.00	1.000	33.43
214	1698.6	345.4	1.0000	0.00	1.000	33.63
215	1694.7	349.3	1.0000	0.00	1.000	33.82
216	1692.1	351.9	1.0000	0.00	1.000	33.95
217	1687.8	356.2	1.0000	0.00	1.000	34.16
218	1681.4	362.6	1.0000	0.00	1.000	34.46
219	1678.0	366.0	1.0000	0.00	1.000	34.62
220	1675.9	368.1	1.0000	0.00	1.000	34.71
221	1674.9	369.1	1.0000	0.00	1.000	34.76
222	1672.0	372.0	1.0000	0.00	1.000	34.88
223	1670.5	373.5	1.0000	0.00	1.000	34.95
224	1673.0	371.0	1.0000	0.00	1.000	34.84
225	1673.3	370.7	1.0000	0.00	1.000	34.83
226	1672.9	371.1	1.0000	0.00	1.000	34.84
227	1674.6	369.4	1.0000	0.00	1.000	34.77
228	1677.5	366.5	1.0000	0.00	1.000	34.64
229	1679.9	364.1	1.0000	0.00	1.000	34.53
230	1685.6	358.4	1.0000	0.00	1.000	34.27

231	1692.7	351.3	1.0000	0.00	1.000	33.93
232	1696.1	347.9	1.0000	0.00	1.000	33.75
233	1701.0	343.0	1.0000	0.00	1.000	33.50
234	1708.5	335.5	1.0000	0.00	1.000	33.11
235	1712.5	331.5	1.0000	0.00	1.000	32.90
236	1710.8	333.2	1.0000	0.00	1.000	32.99
237	1709.0	335.0	1.0000	0.00	1.000	33.09
238	1709.3	334.7	1.0000	0.00	1.000	33.07
239	1709.2	334.8	1.0000	0.00	1.000	33.07
240	1716.1	327.9	1.0000	0.00	1.000	32.71
241	1722.8	321.2	1.0000	0.00	1.000	32.35
242	1730.1	313.9	1.0000	0.00	1.000	31.96
243	1736.7	307.3	1.0000	0.00	1.000	31.61
244	1741.0	303.0	1.0000	0.00	1.000	31.39
245	1743.0	301.0	1.0000	0.00	1.000	31.28
246	1748.4	295.6	1.0000	0.00	1.000	31.00
247	1751.4	292.6	1.0000	0.00	1.000	30.85
248	1754.3	289.7	1.0000	0.00	1.000	30.69
249	1757.6	286.4	1.0000	0.00	1.000	30.52
250	1760.1	283.9	1.0000	0.00	1.000	30.39
251	1763.8	280.2	1.0000	0.00	1.000	30.19
252	1765.8	278.2	1.0000	0.00	1.000	30.09
253	1767.6	276.4	1.0000	0.00	1.000	29.99
254	1766.8	277.2	1.0000	0.00	1.000	30.03
255	1769.7	274.3	1.0000	0.00	1.000	29.88
256	1769.8	274.2	1.0000	0.00	1.000	29.87
257	1772.9	271.1	1.0000	0.00	1.000	29.71
258	1776.6	267.4	1.0000	0.00	1.000	29.51
259	1783.1	260.9	1.0000	0.00	1.000	29.17
260	1788.1	255.9	1.0000	0.00	1.000	28.90
261	1790.4	253.6	1.0000	0.00	1.000	28.78
262	1789.6	254.4	1.0000	0.00	1.000	28.82
263	1789.6	254.4	1.0000	0.00	1.000	28.82
264	1793.5	250.5	1.0000	0.00	1.000	28.61
265	1798.0	246.0	1.0000	0.00	1.000	28.38
266	1796.6	247.4	1.0000	0.00	1.000	28.45
267	1793.0	251.0	1.0000	0.00	1.000	28.64
268	1793.6	250.4	1.0000	0.00	1.000	28.61
269	1793.7	250.3	1.0000	0.00	1.000	28.60
270	1800.8	243.2	1.0000	0.00	1.000	28.22
271	1802.8	241.2	1.0000	0.00	1.000	28.11
272	1817.0	227.0	1.0000	0.00	1.000	27.31
273	1827.7	216.3	1.0000	0.00	1.000	26.66
274	1832.0	212.0	1.0000	0.00	1.000	26.40
275	1843.2	200.8	1.0000	0.00	1.000	25.73
276	1850.3	193.7	1.0000	0.00	1.000	25.31
277	1860.5	183.5	1.0000	0.00	1.000	24.73
278	1861.3	182.7	1.0000	0.00	1.000	24.68
279	1869.9	174.1	1.0000	0.00	1.000	24.17

280	1881.1	162.9	1.0000	0.00	1.000	23.46
281	1879.8	164.2	1.0000	0.00	1.000	23.55
282	1880.8	163.2	1.0000	0.00	1.000	23.48
283	1890.2	153.8	1.0000	0.00	1.000	22.86
284	1897.9	146.1	1.0000	0.00	1.000	22.32
285	1908.1	135.9	1.0000	0.00	1.000	21.59
286	1918.7	125.3	1.0000	0.00	1.000	20.80
287	1928.8	115.2	1.0000	0.00	1.000	20.02
288	1932.2	111.8	1.0000	0.00	1.000	19.73
289	1936.9	107.1	1.0000	0.00	1.000	19.30
290	1941.3	102.7	1.0000	0.00	1.000	18.87
291	1952.6	91.4	1.0000	0.00	1.000	17.68
292	1960.3	83.7	1.0000	0.00	1.000	16.81
293	1966.0	78.0	1.0000	0.00	1.000	16.14
294	1964.1	79.9	1.0000	0.00	1.000	16.36
295	1957.7	86.3	1.0000	0.00	1.000	17.11
296	1959.3	84.7	1.0000	0.00	1.000	16.93
297	1964.2	79.8	1.0000	0.00	1.000	16.35
298	1965.9	78.1	1.0000	0.00	1.000	16.14
299	1961.6	82.4	1.0000	0.00	1.000	16.66
300	1950.2	93.8	1.0000	0.00	1.000	17.95
301	1943.0	101.0	1.0000	0.00	1.000	18.70
302	1945.3	98.7	1.0000	0.00	1.000	18.46
303	1949.4	94.6	1.0000	0.00	1.000	18.03
304	1956.1	87.9	1.0000	0.00	1.000	17.30
305	1959.1	84.9	1.0000	0.00	1.000	16.95
306	1969.6	74.4	1.0000	0.00	1.000	15.72
307	1974.3	69.7	1.0000	0.00	1.000	15.19
308	1970.5	73.5	1.0000	0.00	1.000	15.61
309	1969.6	74.4	1.0000	0.00	1.000	15.72
310	1968.6	75.4	1.0000	0.00	1.000	15.83
311	1962.6	81.4	1.0000	0.00	1.000	16.54
312	1953.3	90.7	1.0000	0.00	1.000	17.61
313	1942.3	101.7	1.0000	0.00	1.000	18.77
314	1937.0	107.0	1.0000	0.00	1.000	19.28
315	1931.9	112.1	1.0000	0.00	1.000	19.75
316	1925.3	118.7	1.0000	0.00	1.000	20.30
317	1908.0	136.0	1.0000	0.00	1.000	21.59
318	1892.7	151.3	1.0000	0.00	1.000	22.69
319	1884.5	159.5	1.0000	0.00	1.000	23.24
320	1877.2	166.8	1.0000	0.00	1.000	23.72
321	1877.8	166.2	1.0000	0.00	1.000	23.68
322	1872.4	171.6	1.0000	0.00	1.000	24.02
323	1860.7	183.3	1.0000	0.00	1.000	24.71
324	1851.5	192.5	1.0000	0.00	1.000	25.24
325	1839.5	204.5	1.0000	0.00	1.000	25.95
326	1835.8	208.2	1.0000	0.00	1.000	26.18
327	1822.9	221.1	1.0000	0.00	1.000	26.95
328	1813.5	230.5	1.0000	0.00	1.000	27.51

329	1806.9	237.1	1.0000	0.00	1.000	27.89
330	1800.0	244.0	1.0000	0.00	1.000	28.26
331	1796.6	247.4	1.0000	0.00	1.000	28.45
332	1796.2	247.8	1.0000	0.00	1.000	28.47
333	1796.8	247.2	1.0000	0.00	1.000	28.44
334	1798.6	245.4	1.0000	0.00	1.000	28.34
335	1799.3	244.7	1.0000	0.00	1.000	28.30
336	1801.1	242.9	1.0000	0.00	1.000	28.21
337	1800.0	244.0	1.0000	0.00	1.000	28.26
338	1797.3	246.7	1.0000	0.00	1.000	28.41
339	1799.1	244.9	1.0000	0.00	1.000	28.32
340	1799.1	244.9	1.0000	0.00	1.000	28.31
341	1796.5	247.5	1.0000	0.00	1.000	28.45
342	1795.2	248.8	1.0000	0.00	1.000	28.52
343	1794.8	249.2	1.0000	0.00	1.000	28.54
344	1799.0	245.0	1.0000	0.00	1.000	28.32
345	1808.5	235.5	1.0000	0.00	1.000	27.80
346	1819.4	224.6	1.0000	0.00	1.000	27.16
347	1838.3	205.7	1.0000	0.00	1.000	26.03
348	1856.8	187.2	1.0000	0.00	1.000	24.93
349	1871.3	172.7	1.0000	0.00	1.000	24.09
350	1878.6	165.4	1.0000	0.00	1.000	23.63
351	1887.8	156.2	1.0000	0.00	1.000	23.02
352	1907.2	136.8	1.0000	0.00	1.000	21.65
353	1919.6	124.4	1.0000	0.00	1.000	20.73
354	1922.8	121.2	1.0000	0.00	1.000	20.50
355	1927.7	116.3	1.0000	0.00	1.000	20.11
356	1935.9	108.1	1.0000	0.00	1.000	19.39
357	1936.1	107.9	1.0000	0.00	1.000	19.37
358	1924.7	119.3	1.0000	0.00	1.000	20.35
359	1918.6	125.4	1.0000	0.00	1.000	20.81

Average Elevation = 1743.15 M

HAAT= 300.85 M

AMSL= 2044 M

Area by numeric integration= 3086.30 Sq km.

Exhibit E, Figure 3
Coverage Contour Map

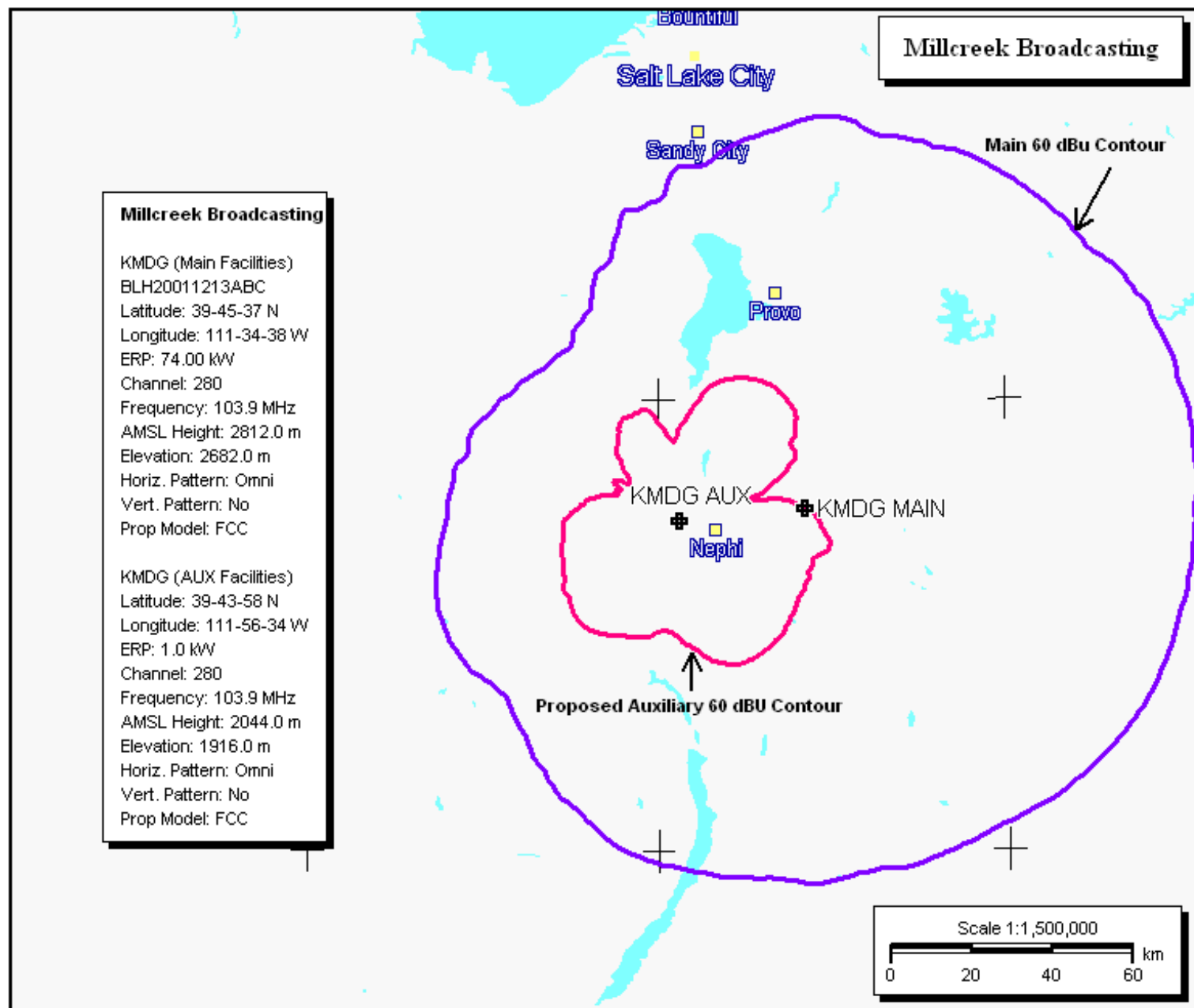
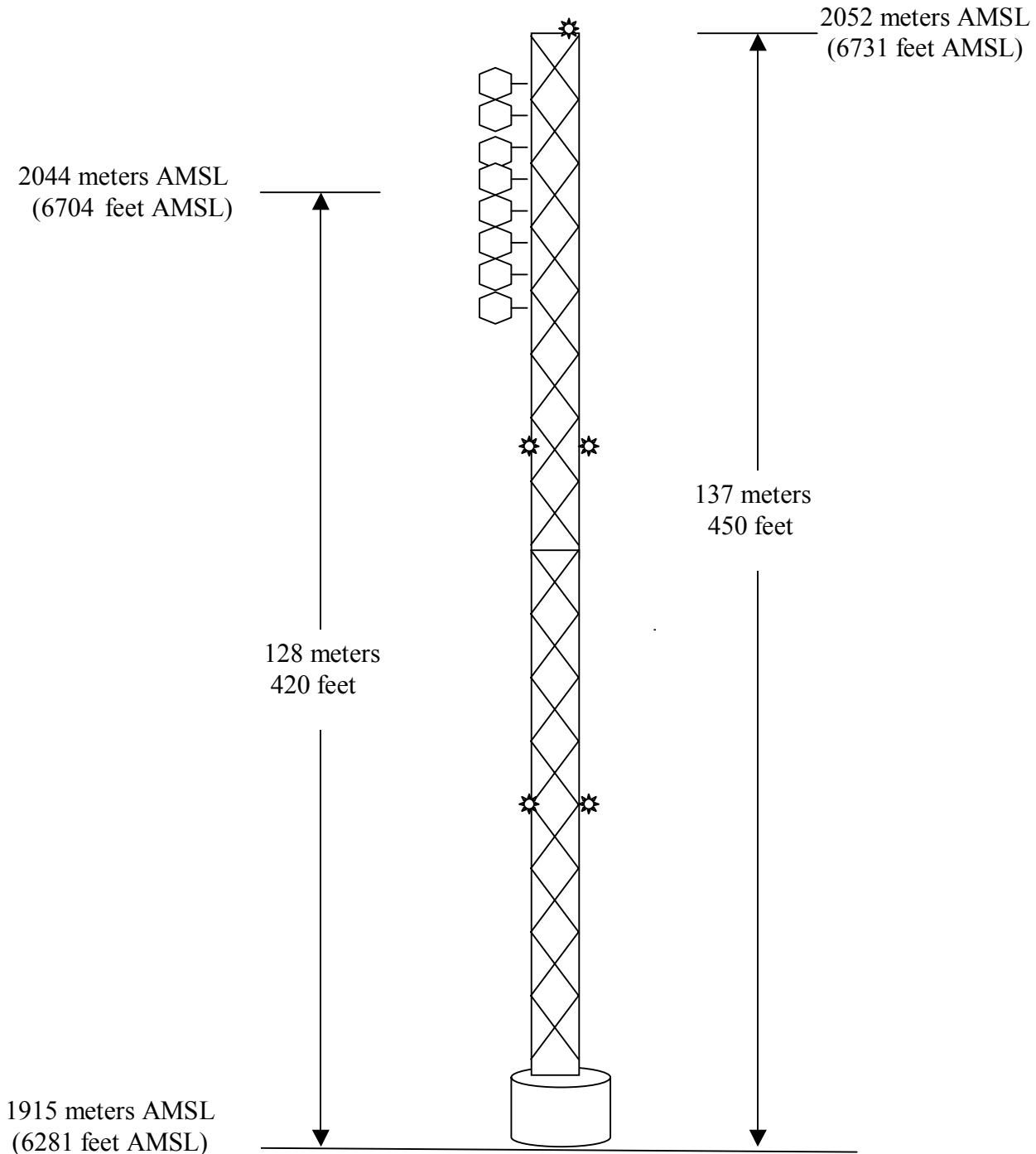


Exhibit E, Figure 4
Vertical Plane Sketch of Supporting Structure
(Not to Scale)



KMDG FM Nephi, Utah
Facility Number 72769
Proposed Location: N39-43-58, W111-56-34
Proposed Antenna: 8 element
ASRN: 1210829