

Pete Ricketts
Governor

STATE OF NEBRASKA

OFFICE OF THE CHIEF INFORMATION OFFICER
State of Nebraska 700 MHz
Narrowband Spectrum (769-
775/799-805 MHz)
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SUPPLEMENT TO SCHEDULE K, FCC FORM 601

INTERIM SUBSTANTIAL SERVICE EXPLANATION

Introduction

The State of Nebraska has filed this additional response to Schedule K to demonstrate Federal Communication Commission substantial service requirements regarding state license channels in the 700 MHz narrowband spectrum.

The state believes it has met the requirement of substantial service prior to the June 2014 interim benchmark that the state is providing substantial service to more than one third of its population and territory. The use described herein is on systems and facilities that were constructed and in operation on the state channels prior to the deadline date. This meets the definition of "sound, favorable, and substantially above a level of mediocre service which just might minimally warrant renewal."

The state licensed channels are integrated into the most populated urban area public safety communications systems, and the Nebraska Statewide Radio System.

1. Nebraska Background and Status

The state coordinated with counties in the most populated urban area of the state to designate state license channels in support of their public safety communications systems. This included 700 MHz frequency designations for mobile data infrastructure build out, subscriber radios and vehicle repeater operation. The jurisdictions involved in these build outs include the Omaha metropolitan area, Douglas County, Sarpy County and Washington County, Nebraska and Pottawattamie County, IA. This represents significant investment in 700 MHz mobile data infrastructure and subscriber radio programming in the tri-county urban area.

The State of Nebraska began the build out of its P25 VHF statewide radio system infrastructure in October 2008 and completed in December 2012. The state uses 700 MHz vehicle repeaters for hundreds of its state radio users to operate in the statewide radio system across the state. Vehicle repeater operation is integral to access the state's VHF mobile radio coverage over approximately 97% of the state from our state users' 700 MHz portable radios, in addition to supporting multi-jurisdictional operations between state and local agencies.

2. State License Use and Service Provided

a. Based on Population

Population use is comprised of several counties in the state's most populated areas. The Omaha metro area, Douglas County, Sarpy County, and Washington County, Nebraska comprise a population of 726,810 (April 1, 2013 estimate), or 38.9% of the state population. Pottawattamie County, IA is connected to the Douglas County system to share these resources, although for the purpose of this letter Pottawattamie County, IA figures are not included.

b. Based on Territory

The State of Nebraska provides state license 700 MHz frequencies to hundreds of its state users operating vehicle repeaters to access the Nebraska statewide radio system over approximately 97% of the state's 77,421 square miles. These vehicle repeaters are integral to the statewide radio system and its users. The state also uses state license 700 MHz frequencies in support of state special law enforcement operations, and support to several local agencies, which are not detailed in this letter. **Exhibit A** shows the frequency designations used in the Nebraska state license, call sign WPTZ786. **Exhibit B** shows the coverage provided in the statewide radio system.

3. Channels Used in the State Licensee System

The state has designated 45 channels for use as described in this letter, with the specific frequency designations shown in **Exhibit A**. The channel designations were coordinated between the state and local jurisdictions including Pottawattamie County, IA to accommodate combiner specifications for the fixed mobile data system, subscriber radios and vehicle repeater operation statewide. State users operate their trunked radio talkgroups through the vehicle repeater to maintain communications with the VHF statewide radio system and with dispatch across the state. Multiple agencies are able to operate through the 700 MHz vehicle repeaters anywhere in the state.

4. Whether the State Licensee is making its showing based upon population or territory

The State of Nebraska showing is based on both population and territory.

5. The percentage of territory or population that is served in Nebraska

The coverage map labeled **Exhibit B** shows the statewide coverage footprint, which covers approximately 97% of the state area. Urban based mobile data systems and subscriber radios accounts for 38.9% of the state population, as listed numerically in **Exhibit C**.

6. Nebraska System Footprint Based on the 40 dBuV/m F(50,50) Service Contour or an Alternate Signal Level Value

The Nebraska statewide coverage footprint is based on 2.2% bit error rate (BER) measurements collected from extensive drive testing across the entire state. The coverage map is derived from the Motorola Hydra software used to model BER field measurements and subsequent validation from drive testing with state user vehicles. The Tri-County urban area mobile data system uses the 40 dBuV/m F(50,50) service contour as shown in **Exhibit D** and site locations are shown in **Exhibit E**.

7. If any portion of a State Licensee's showing is based upon unconstructed facilities, information showing that the licensee has received funding approval for that portion of the system.

The Nebraska statewide radio system and Tri-County mobile data system are fully constructed and operational.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Mike Jeffres', is written above the printed name.

Mike Jeffres
Public Safety Systems Manager

Exhibit A

Nebraska Channel Designations for Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

| Narrowband Base Channels | | | Narrowband Mobile Channels | | | |
|--------------------------|-----------|---------------|----------------------------|-----------|---------------|---------------------|
| Channel Number | 12.5 kHz | Allocation | Channel Number | 12.5 kHz | Allocation | Channel Designation |
| 25 | 769.15625 | State license | 985 | 799.15625 | State license | State DVRS |
| 26 | | State license | 986 | | State license | |
| 27 | 769.16875 | State license | 987 | 799.16875 | State license | |
| 28 | | State license | 988 | | State license | |
| 29 | 769.18125 | State license | 989 | 799.18125 | State license | State DVRS |
| 30 | | State license | 990 | | State license | |
| 31 | 769.19375 | State license | 991 | 799.19375 | State license | |
| 32 | | State license | 992 | | State license | |
| 33 | 769.20625 | State license | 993 | 799.20625 | State license | State DVRS |
| 34 | | State license | 994 | | State license | |
| 35 | 769.21875 | State license | 995 | 799.21875 | State license | |
| 36 | | State license | 996 | | State license | |
| 65 | 769.40625 | State license | 1025 | 799.40625 | State license | State DVRS |
| 66 | | State license | 1026 | | State license | |
| 67 | 769.41875 | State license | 1027 | 799.41875 | State license | |
| 68 | | State license | 1028 | | State license | |
| 69 | 769.43125 | State license | 1029 | 799.43125 | State license | |
| 70 | | State license | 1030 | | State license | |
| 71 | 769.44375 | State license | 1031 | 799.44375 | State license | |
| 72 | | State license | 1032 | | State license | |
| 73 | 769.45625 | State license | 1033 | 799.45625 | State license | State DVRS |
| 74 | | State license | 1034 | | State license | |
| 75 | 769.46875 | State license | 1035 | 799.46875 | State license | |
| 76 | | State license | 1036 | | State license | |
| 105 | 769.65625 | State license | 1065 | 799.65625 | State license | State DVRS |
| 106 | | State license | 1066 | | State license | |
| 107 | 769.66875 | State license | 1067 | 799.66875 | State license | |
| 108 | | State license | 1068 | | State license | |

| | | |
|-----|-----------|---------------|
| 109 | 769.68125 | State license |
| 110 | | State license |
| 111 | 769.69375 | State license |
| 112 | | State license |
| 113 | 769.70625 | State license |
| 114 | | State license |
| 115 | 769.71875 | State license |
| 116 | | State license |
| 145 | 769.90625 | State license |
| 146 | | State license |
| 147 | 769.91875 | State license |
| 148 | | State license |
| 149 | 769.93125 | State license |
| 150 | | State license |
| 151 | 769.94375 | State license |
| 152 | | State license |
| 153 | 769.95625 | State license |
| 154 | | State license |
| 155 | 769.96875 | State license |
| 156 | | State license |
| 185 | 770.15625 | State license |
| 186 | | State license |
| 187 | 770.16875 | State license |
| 188 | | State license |
| 189 | 770.18125 | State license |
| 190 | | State license |
| 191 | 770.19375 | State license |
| 192 | | State license |
| 193 | 770.20625 | State license |
| 194 | | State license |
| 195 | 770.21875 | State license |
| 196 | | State license |
| 225 | 770.40625 | State license |
| 226 | | State license |

| | | | |
|------|-----------|---------------|-----------------------|
| 1069 | 799.68125 | State license | Washington County MO3 |
| 1070 | | State license | |
| 1071 | 799.69375 | State license | |
| 1072 | | State license | State DVRS |
| 1073 | 799.70625 | State license | |
| 1074 | | State license | |
| 1075 | 799.71875 | State license | |
| 1076 | | State license | |
| 1105 | 799.90625 | State license | |
| 1106 | | State license | |
| 1107 | 799.91875 | State license | |
| 1108 | | State license | |
| 1109 | 799.93125 | State license | |
| 1110 | | State license | NPPD MO3 |
| 1111 | 799.94375 | State license | |
| 1112 | | State license | |
| 1113 | 799.95625 | State license | State LE |
| 1114 | | State license | |
| 1115 | 799.96875 | State license | |
| 1116 | | State license | State LE |
| 1145 | 800.15625 | State license | |
| 1146 | | State license | |
| 1147 | 800.16875 | State license | State LE |
| 1148 | | State license | |
| 1149 | 800.18125 | State license | |
| 1150 | | State license | State LE |
| 1151 | 800.19375 | State license | |
| 1152 | | State license | |
| 1153 | 800.20625 | State license | State LE |
| 1154 | | State license | |
| 1155 | 800.21875 | State license | |
| 1156 | | State license | State LE |
| 1185 | 800.40625 | State license | |
| 1186 | | State license | |

| | | | | | | |
|-----|-----------|---------------|------|-----------|---------------|-----------------------|
| 227 | 770.41875 | State license | 1187 | 800.41875 | State license | Washington County MO3 |
| 228 | | State license | 1188 | | State license | |
| 229 | 770.43125 | State license | 1189 | 800.43125 | State license | |
| 230 | | State license | 1190 | | State license | |
| 231 | 770.44375 | State license | 1191 | 800.44375 | State license | |
| 232 | | State license | 1192 | | State license | |
| 233 | 770.45625 | State license | 1193 | 800.45625 | State license | |
| 234 | | State license | 1194 | | State license | |
| 235 | 770.46875 | State license | 1195 | 800.46875 | State license | |
| 236 | | State license | 1196 | | State license | |
| 265 | 770.65625 | State license | 1225 | 800.65625 | State license | |
| 266 | | State license | 1226 | | State license | |
| 267 | 770.66875 | State license | 1227 | 800.66875 | State license | |
| 268 | | State license | 1228 | | State license | |
| 269 | 770.68125 | State license | 1229 | 800.68125 | State license | |
| 270 | | State license | 1230 | | State license | |
| 271 | 770.69375 | State license | 1231 | 800.69375 | State license | |
| 272 | | State license | 1232 | | State license | |
| 273 | 770.70625 | State license | 1233 | 800.70625 | State license | |
| 274 | | State license | 1234 | | State license | |
| 275 | 770.71875 | State license | 1235 | 800.71875 | State license | |
| 276 | | State license | 1236 | | State license | |
| 305 | 770.90625 | State license | 1265 | 800.90625 | State license | |
| 306 | | State license | 1266 | | State license | |
| 307 | 770.91875 | State license | 1267 | 800.91875 | State license | |
| 308 | | State license | 1268 | | State license | |
| 309 | 770.93125 | State license | 1269 | 800.93125 | State license | |
| 310 | | State license | 1270 | | State license | |
| 311 | 770.94375 | State license | 1271 | 800.94375 | State license | |
| 312 | | State license | 1272 | | State license | |
| 313 | 770.95625 | State license | 1273 | 800.95625 | State license | |
| 314 | | State license | 1274 | | State license | |
| 315 | 770.96875 | State license | 1275 | 800.96875 | State license | |
| 316 | | State license | 1276 | | State license | |

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|-----|-----------|---------------|
| 645 | 773.03125 | State license |
| 646 | | State license |
| 647 | 773.04375 | State license |
| 648 | | State license |
| 649 | 773.05625 | State license |
| 650 | | State license |
| 651 | 773.06875 | State license |
| 652 | | State license |
| 653 | 773.08125 | State license |
| 654 | | State license |
| 655 | 773.09375 | State license |
| 656 | | State license |
| 685 | 773.28125 | State license |
| 686 | | State license |
| 687 | 773.29375 | State license |
| 688 | | State license |
| 689 | 773.30625 | State license |
| 690 | | State license |
| 691 | 773.31875 | State license |
| 692 | | State license |
| 693 | 773.33125 | State license |
| 694 | | State license |
| 695 | 773.34375 | State license |
| 696 | | State license |
| 725 | 773.53125 | State license |
| 726 | | State license |
| 727 | 773.54375 | State license |
| 728 | | State license |
| 729 | 773.55625 | State license |
| 730 | | State license |
| 731 | 773.56875 | State license |
| 732 | | State license |
| 733 | 773.58125 | State license |
| 734 | | State license |

| | | | |
|------|-----------|---------------|--------------------------|
| 1605 | 803.03125 | State license | Pottawattamie County HPD |
| 1606 | | State license | Pottawattamie County HPD |
| 1607 | 803.04375 | State license | Pottawattamie County HPD |
| 1608 | | State license | Pottawattamie County HPD |
| 1609 | 803.05625 | State license | Sarpy County HPD |
| 1610 | | State license | Sarpy County HPD |
| 1611 | 803.06875 | State license | Sarpy County HPD |
| 1612 | | State license | Sarpy County HPD |
| 1613 | 803.08125 | State license | Douglas County HPD |
| 1614 | | State license | Douglas County HPD |
| 1615 | 803.09375 | State license | Douglas County HPD |
| 1616 | | State license | Douglas County HPD |
| 1645 | 803.28125 | State license | Pottawattamie County HPD |
| 1646 | | State license | Pottawattamie County HPD |
| 1647 | 803.29375 | State license | Pottawattamie County HPD |
| 1648 | | State license | Pottawattamie County HPD |
| 1649 | 803.30625 | State license | Sarpy County HPD |
| 1650 | | State license | Sarpy County HPD |
| 1651 | 803.31875 | State license | Sarpy County HPD |
| 1652 | | State license | Sarpy County HPD |
| 1653 | 803.33125 | State license | Douglas County HPD |
| 1654 | | State license | Douglas County HPD |
| 1655 | 803.34375 | State license | Douglas County HPD |
| 1656 | | State license | Douglas County HPD |
| 1685 | 803.53125 | State license | Sarpy County HPD |
| 1686 | | State license | Sarpy County HPD |
| 1687 | 803.54375 | State license | Sarpy County HPD |
| 1688 | | State license | Sarpy County HPD |
| 1689 | 803.55625 | State license | |
| 1690 | | State license | |
| 1691 | 803.56875 | State license | |
| 1692 | | State license | |
| 1693 | 803.58125 | State license | Pottawattamie County HPD |
| 1694 | | State license | Pottawattamie County HPD |

| | | | | | | | |
|-----|-----------|---------------|------|-----------|---------------|--------------------------|----------|
| 735 | 773.59375 | State license | 1695 | 803.59375 | State license | Pottawattamie County HPD | |
| 736 | | State license | 1696 | | State license | Pottawattamie County HPD | |
| 765 | 773.78125 | State license | 1725 | 803.78125 | State license | Pottawattamie County HPD | |
| 766 | | State license | 1726 | | State license | Pottawattamie County HPD | |
| 767 | 773.79375 | State license | 1727 | 803.79375 | State license | Pottawattamie County HPD | NPPD MO3 |
| 768 | | State license | 1728 | | State license | Pottawattamie County HPD | |
| 769 | 773.80625 | State license | 1729 | 803.80625 | State license | | |
| 770 | | State license | 1730 | | State license | | |
| 771 | 773.81875 | State license | 1731 | 803.81875 | State license | | |
| 772 | | State license | 1732 | | State license | | |
| 773 | 773.83125 | State license | 1733 | 803.83125 | State license | Douglas County HPD | |
| 774 | | State license | 1734 | | State license | Douglas County HPD | |
| 775 | 773.84375 | State license | 1735 | 803.84375 | State license | Douglas County HPD | |
| 776 | | State license | 1736 | | State license | Douglas County HPD | |
| 805 | 774.03125 | State license | 1765 | 804.03125 | State license | | |
| 806 | | State license | 1766 | | State license | | |
| 807 | 774.04375 | State license | 1767 | 804.04375 | State license | | |
| 808 | | State license | 1768 | | State license | | |
| 809 | 774.05625 | State license | 1769 | 804.05625 | State license | | |
| 810 | | State license | 1770 | | State license | | |
| 811 | 774.06875 | State license | 1771 | 804.06875 | State license | | |
| 812 | | State license | 1772 | | State license | | |
| 813 | 774.08125 | State license | 1773 | 804.08125 | State license | Douglas County HPD | |
| 814 | | State license | 1774 | | State license | Douglas County HPD | |
| 815 | 774.09375 | State license | 1775 | 804.09375 | State license | Douglas County HPD | |
| 816 | | State license | 1776 | | State license | Douglas County HPD | |
| 845 | 774.28125 | State license | 1805 | 804.28125 | State license | | |
| 846 | | State license | 1806 | | State license | | |
| 847 | 774.29375 | State license | 1807 | 804.29375 | State license | | |
| 848 | | State license | 1808 | | State license | | |
| 849 | 774.30625 | State license | 1809 | 804.30625 | State license | | |
| 850 | | State license | 1810 | | State license | | |
| 851 | 774.31875 | State license | 1811 | 804.31875 | State license | | |
| 852 | | State license | 1812 | | State license | | |

| | | |
|-----|-----------|---------------|
| 853 | 774.33125 | State license |
| 854 | | State license |
| 855 | 774.34375 | State license |
| 856 | | State license |
| 885 | 774.53125 | State license |
| 886 | | State license |
| 887 | 774.54375 | State license |
| 888 | | State license |
| 889 | 774.55625 | State license |
| 890 | | State license |
| 891 | 774.56875 | State license |
| 892 | | State license |
| 893 | 774.58125 | State license |
| 894 | | State license |
| 895 | 774.59375 | State license |
| 896 | | State license |
| 925 | 774.78125 | State license |
| 926 | | State license |
| 927 | 774.79375 | State license |
| 928 | | State license |
| 929 | 774.80625 | State license |
| 930 | | State license |
| 931 | 774.81875 | State license |
| 932 | | State license |
| 933 | 774.83125 | State license |
| 934 | | State license |
| 935 | 774.84375 | State license |
| 936 | | State license |

| | | | |
|------|-----------|---------------|--------------------|
| 1813 | 804.33125 | State license | Douglas County HPD |
| 1814 | | State license | Douglas County HPD |
| 1815 | 804.34375 | State license | Douglas County HPD |
| 1816 | | State license | Douglas County HPD |
| 1845 | 804.53125 | State license | Douglas County HPD |
| 1846 | | State license | Douglas County HPD |
| 1847 | 804.54375 | State license | Douglas County HPD |
| 1848 | | State license | Douglas County HPD |
| 1849 | 804.55625 | State license | |
| 1850 | | State license | |
| 1851 | 804.56875 | State license | |
| 1852 | | State license | |
| 1853 | 804.58125 | State license | Douglas County HPD |
| 1854 | | State license | Douglas County HPD |
| 1855 | 804.59375 | State license | Douglas County HPD |
| 1856 | | State license | Douglas County HPD |
| 1885 | 804.78125 | State license | Douglas County HPD |
| 1886 | | State license | Douglas County HPD |
| 1887 | 804.79375 | State license | Douglas County HPD |
| 1888 | | State license | Douglas County HPD |
| 1889 | 804.80625 | State license | |
| 1890 | | State license | |
| 1891 | 804.81875 | State license | |
| 1892 | | State license | |
| 1893 | 804.83125 | State license | Douglas County HPD |
| 1894 | | State license | Douglas County HPD |
| 1895 | 804.84375 | State license | Douglas County HPD |
| 1896 | | State license | Douglas County HPD |

Saunders
County Jail
MO

OPPD FI
Calhoun MO

Exhibit B

Nebraska Statewide Radio System Coverage

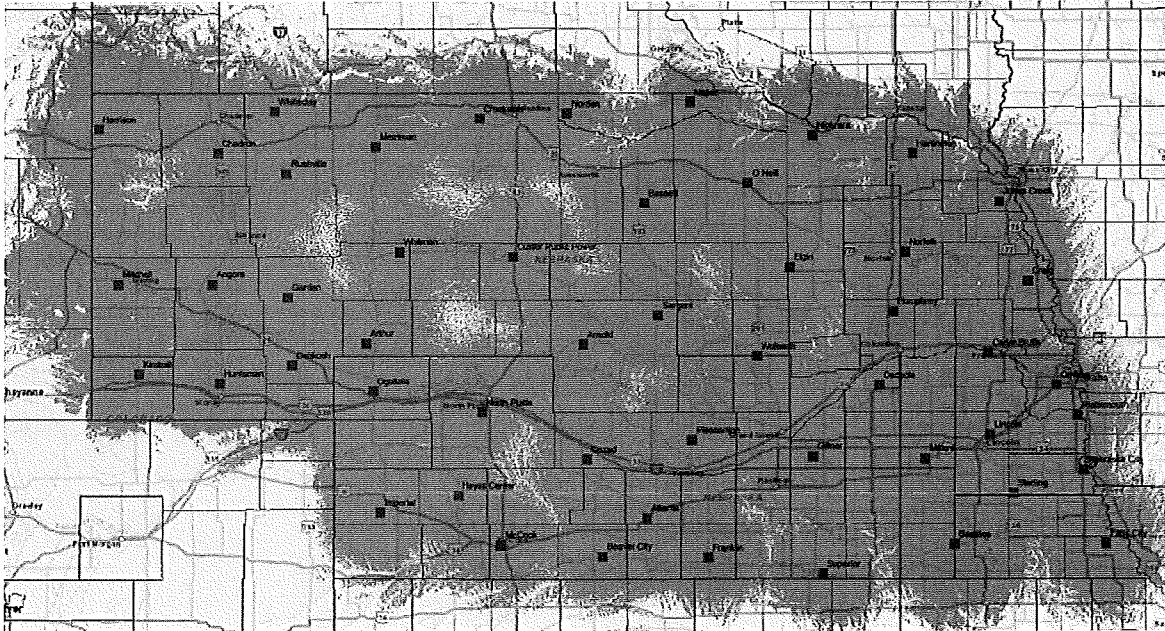


Exhibit C

Nebraska 700 MHz Use by Population*

| | |
|---|----------------|
| State Population | 1,868,516 |
| Douglas County Population | 537,256 |
| Sarpy County Population | 169,331 |
| Washington County Population | 20,223 |
| Tri-County Population Total | 726,810 |
| Tri-County Percent of State Population | 38.90% |

* Estimate April 1, 2013

Exhibit D

Tri-County 700 MHz Mobile Data Service Contours

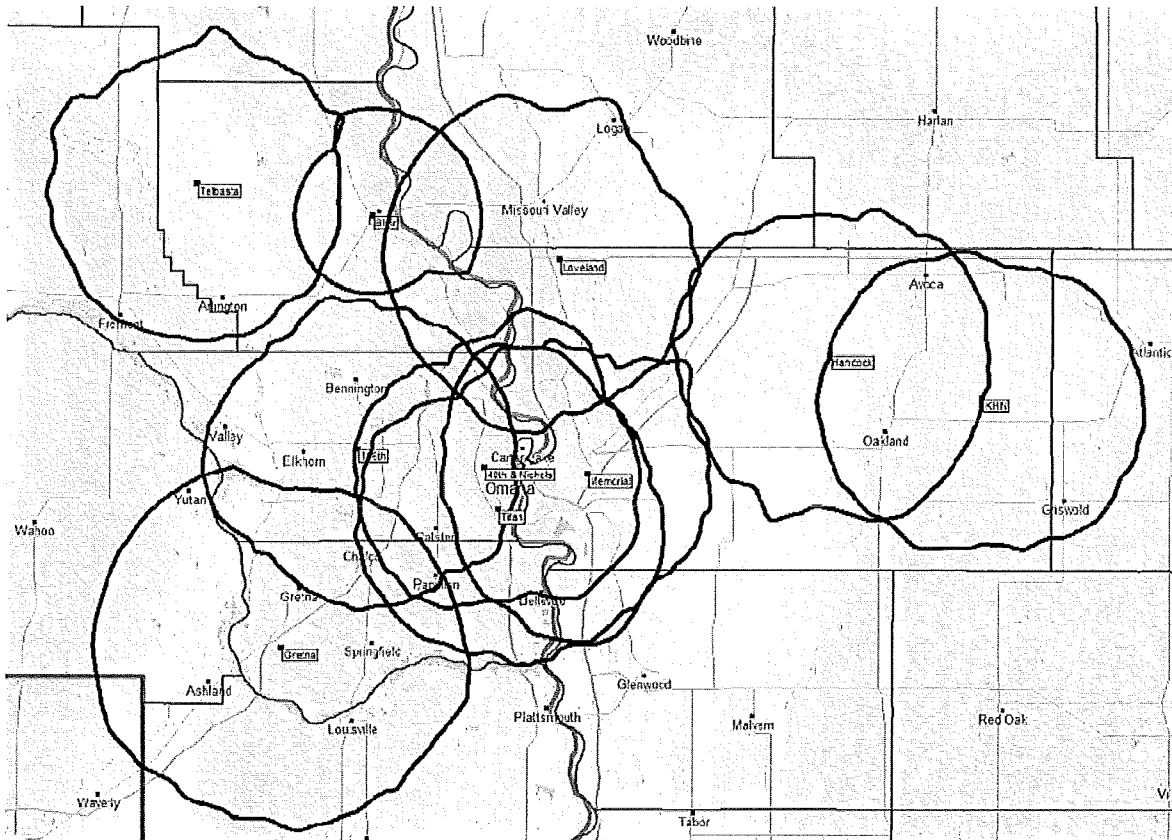


Exhibit E

Tri-County 700 MHz Mobile Data Sites

| Tower | Latitude | Longitude | AMSL (m, ft) | AAT (m, ft) |
|-------------|---------------|--------------------------|----------------|--------------|
| 156th | 41 17 25 N | 96 9 20 W | 384, 1259.9 | 27, 88.6 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 51.8, 149.7 | 101-83B-09-0-03N-745.adf | 91.4, 300 | 118.5, 388.6 |
| 40th & Nich | 41 16 13 N | 95 58 21 W | 377, 1236.9 | 44.4, 145.7 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52.3, 170.3 | 101-83B-09-0-03N-745.adf | 56.4, 185 | 100.8, 330.7 |
| Blair | 41 32 25 N | 96 8 7.1 W | 331, 1086 | -14.1, -46.3 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 51.8, 149.6 | 101-83B-09-0-03N-745.adf | 30.5, 100 | 53.8, 176.5 |
| Gretna | 41 4 35 N | 96 15 48.1 W | 393, 1289.4 | 46.4, 152.4 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 50.9, 123.8 | 101-83B-09-0-03N-745.adf | 115.8, 380 | 162.3, 532.4 |
| Hancock | 41 23 26.8 N | 95 28 32.8 W | 381, 1250.1 | 9.9, 32.3 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52, 160.3 | 101-83B-09-0-03N-745.adf | 106.7, 350 | 116.5, 382.4 |
| KHIN | 41 20 40.9 N | 95 15 21 W | 405, 1328.8 | 33.5, 109.9 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52.5, 176.1 | 101-83B-09-0-03N-745.adf | 91.4, 300 | 124.9, 409.9 |
| Loveland | 41 29 35.87 N | 95 51 58.03 W | 403, 1322.2 | 70.5, 231.3 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52.8, 191.2 | 101-83B-09-0-03N-745.adf | 53.3, 175 | 123.8, 406.3 |
| Memorial | 41 15 48.1 N | 95 49 29 W | 378, 1240.2 | 42.7, 140.2 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52.2, 167.4 | 101-83B-09-0-03N-745.adf | 59.4, 195 | 102.2, 335.3 |
| Telbasta | 41 34 28.9 N | 96 23 14 W | 406, 1332.1 | 23.3, 76.5 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 51.8, 149.6 | 101-83B-09-0-03N-745.adf | 91.4, 300 | 114.8, 376.5 |
| Titan | 41 13 29 N | 95 57 10.6 W | 362, 1187.7 | 35.1, 115.2 |
| | ERP (dBm, W) | Antenna | Ant HT (m, ft) | HAAT (m, ft) |
| | 52.2, 166.1 | 101-83B-09-0-03N-745.adf | 78, 256 | 113.1, 371.2 |