

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of PAPPAS TELECASTING OF CENTRAL NEBRASKA, L.P., licensee of digital Class A Television Station KHGI-CD, Channel 27 in North Platte, Nebraska, in support of this Application for Construction Permit to increase the effective radiated power from 1.45 kW to 15.0 kW. No change in site location, antenna model or effective antenna height is proposed herein.

It is intended to utilize the existing Andrew (ERI) directional antenna, which is mounted at the 91-meter level of an existing 125-meter communications tower. Exhibit B is a map upon which the predicted service contour is plotted. It is important to note that the newly proposed 51 dBu contour completely encompasses the city of license as well as the existing KHGI-CD service contour. Operating parameters for the proposed facility are tabulated in Exhibit C. An interference study is provided as Exhibit D, and a power density calculation appears as Exhibit E.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1026658 to this tower.

I declare under penalty of perjury that the foregoing statements and the attached exhibits are true and correct to the best of my knowledge and belief.



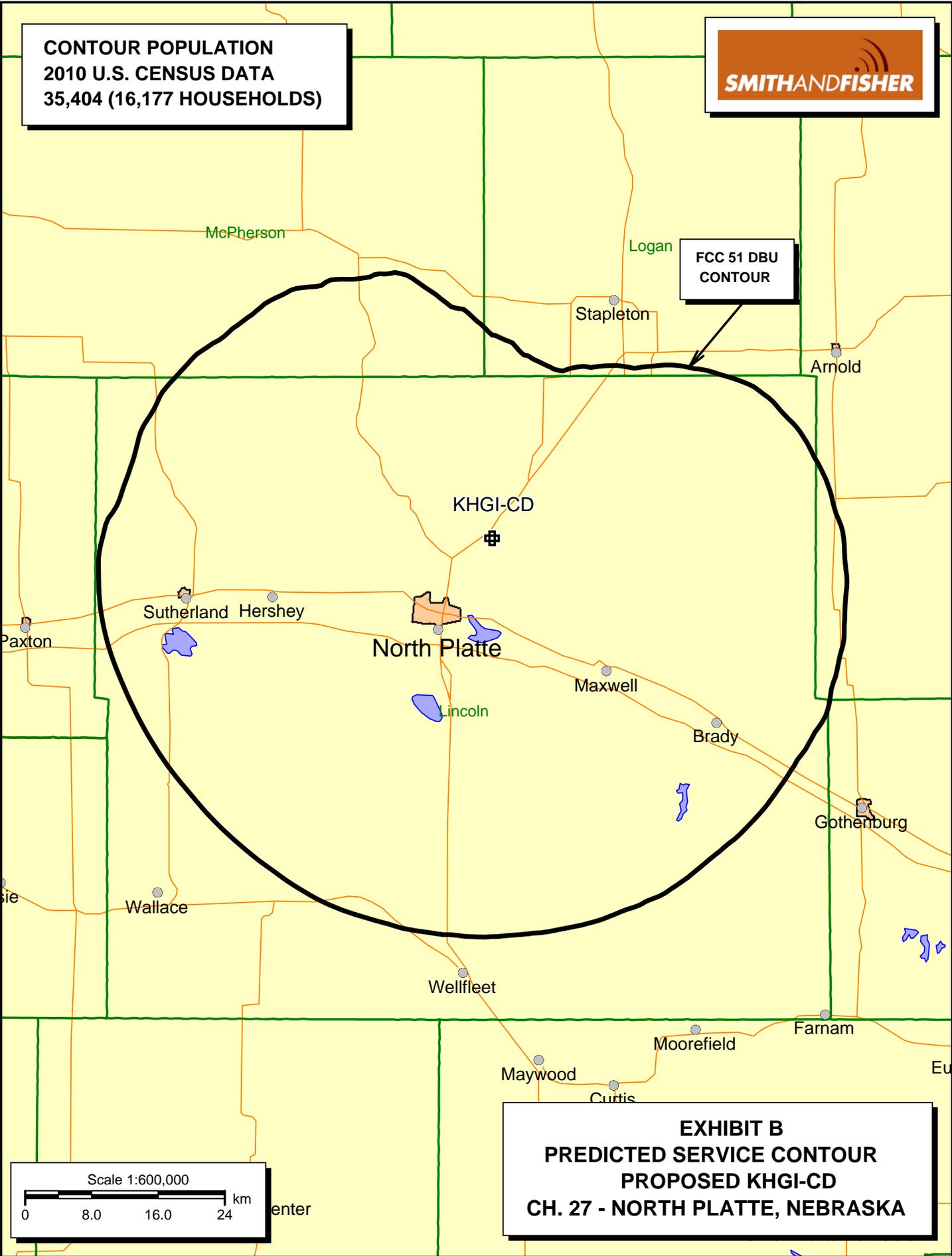
March 29, 2013

KEVIN T. FISHER

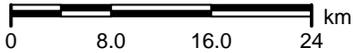
**CONTOUR POPULATION
2010 U.S. CENSUS DATA
35,404 (16,177 HOUSEHOLDS)**



**FCC 51 DBU
CONTOUR**



Scale 1:600,000



**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED KHGI-CD
CH. 27 - NORTH PLATTE, NEBRASKA**

PROPOSED OPERATING PARAMETERS

PROPOSED KHGI-CD
CHANNEL 27 – NORTH PLATTE, NEBRASKA

Transmitter Power Output:	1.03 kW
Transmission Line Efficiency:	68.0%
Antenna Power Gain – Main Lobe:	21.36
Effective Radiated Power – Main Lobe:	15.0 kW
Transmitter Make and Model:	Type-accepted
Transmission Line Make and Model:	Andrew LDF7-50A
Size and Type:	1-5/8" foam heliax
Length:	312 feet
Antenna Make and Model:	ERI ALP12L2-HSWR
Orientation	200 degrees true
Beam Tilt	0.5 degrees
Radiation Center Above Ground:	91 meters
Radiation Center Above Mean Sea Level:	1,042 meters

LONGLEY-RICE INTERFERENCE STUDY
PROPOSED KHGI-CD
CHANNEL 27 – NORTH PLATTE, NEBRASKA

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 2000 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than the proposed KHGI-CD facility) already is predicted to exist (also known as "masking").

It is also important to note that the applicant has specified the use of a "full service" out-of-channel emission mask in order to take advantage of the improved d/u ratios that pertain to adjacent-channel interference relationships. In addition, a standard DTV elevation pattern, based on the FCC's Rules, has been applied to the proposed facility for the reference studies.

The results of this study are provided in Exhibit D-2. It concludes that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed KHGI-CD facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY

PROPOSED KHGI-CD
CHANNEL 27 – NORTH PLATTE, NEBRASKA

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
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[NO STATIONS AFFECTED]

POWER DENSITY CALCULATION

PROPOSED KHGI-CD
CHANNEL 27 – NORTH PLATTE, NEBRASKA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this North Platte facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kW, an antenna radiation center 91 meters above ground, and the specific elevation pattern of the existing ERI antenna, maximum power density two meters above ground of 0.0026 mW/cm² is calculated to occur approximately 27 meters south-southwest of the base of the tower. Since this value is only 0.7 percent of the 0.32 mW/cm² reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 27 (548-554 MHz), this proposal may be excluded from consideration with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.