Kessler and Gehman Associates
Consultants • Broadcast • Wireless

APPLICATION FOR MINOR MODIFICATION OF AN EXISTING TELEVISION AUXILIARY BROADCAST STATION

CALL SIGN: KARE-TV
FACILITY ID: 23079
LOCATION: MINNEAPOLIS, MN
FCC FILE NO.: 0000052819

Prepared For:

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Corporation
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November 12, 2021

1.0 BACKGROUND AND DISCUSSION

Kessler and Gehman Associates, Inc. has been retained by Multimedia Holdings Corporation, licensee of full-power television broadcast station KARE-TV to prepare a minor modification to an existing broadcast television auxiliary facility for emergency, maintenance, and test operations. KARE-TV filed a petition for rulemaking[1] to change its main facility RF channel from 11 to 31 and has subsequently built out and filed a license[2] to cover the facility. As a result of the main facility channel change, the licensed[3] broadcast auxiliary facility must also change its channel from 11 to 31. As such, it is herein proposed to:

- change the channel from 11 to 31,
- reduce the antenna height 19 meters,
- increase the ERP from 34kW to 1000kW,
- change the antenna from a Dielectric TLS-V8/VP-R to a Dielectric TFU-27EST-R 04

No other changes are proposed.

2.0 ALLOCATION ANALYSIS

Appendix A demonstrates that the proposed broadcast auxiliary facility has a service contour which is 100 percent subsumed by the licensed KARE-TV contour as required by 47 C.F.R Section 73.1675. The broadcast auxiliary facility shall also provide Section 73.625 48-dBµV/m F(50,90) principal community coverage to the entire Minneapolis, MN incorporated boundaries. Appendix A predicted coverage contours were generated using V-Soft Probe-5 software in accordance with § 73.625(b) methodology using F(50,90) propagation curves. The average terrain was extracted from three arc second terrain along eight

[1] *See Notice of Proposed Rulemaking in the Matter of Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Minneapolis, Minnesota),* MB Docket No. 20-340, DA 20-1221, RM-11865, Released and adopted October 15, 2020
[2] FCC File No.: 0000165989
[3] FCC File No.: 0000052819

equally spaced cardinal radials from 3 kilometers to 16 kilometers from the site and beginning from true north.

3.0 National Environmental Policy Act (NEPA)

3.1 General Environmental Requirements

The proposed antenna is to be side mounted to an existing tower which is registered with the FAA and FCC and will not require modification since there is no change in overall height. Since the existing structure has been previously accepted by the FAA and the FCC, it is thus presumed that the following has already been mitigated:

- Require high intensity white lighting.
- Is not located in an official designated wilderness area or wildlife preserve.
- Does not threaten the existence or habitat of endangered species.
- Does not affect districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Does not affect Indian religious sites.
- Is not located in a floodplain
- Does not require construction that involves significant changes in surface features (e.g., wetland fill, deforestation, or water diversion).

3.2 Radio Frequency Radiation (RFR) Compliance.

A theoretical analysis has been conducted of the human exposure to radio frequency radiation ("RFR") using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain extraction is compiled from the support structure site, if the support structure is on a rooftop with no higher elevations (e.g., elevator shaft) then flat terrain is compiled. Terrain is extracted using radial lengths of 0.25 miles in 0.001-mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360-degree radials for each 0.001-mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

Appendix B is an RFR analysis which demonstrates that the peak RFR exposure is less than 5% of the most restrictive permissible exposure threshold standing anywhere at ground level and in any proximity to the proposed support structure. Pursuant to OET Bulletin 65, since the proposed operation does not exceed 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR and other sources of RFR need not be taken into consideration for a net effect. The instant application is compliant with the FCC limits for human exposure to RFR and thus is excluded from further environmental processing.

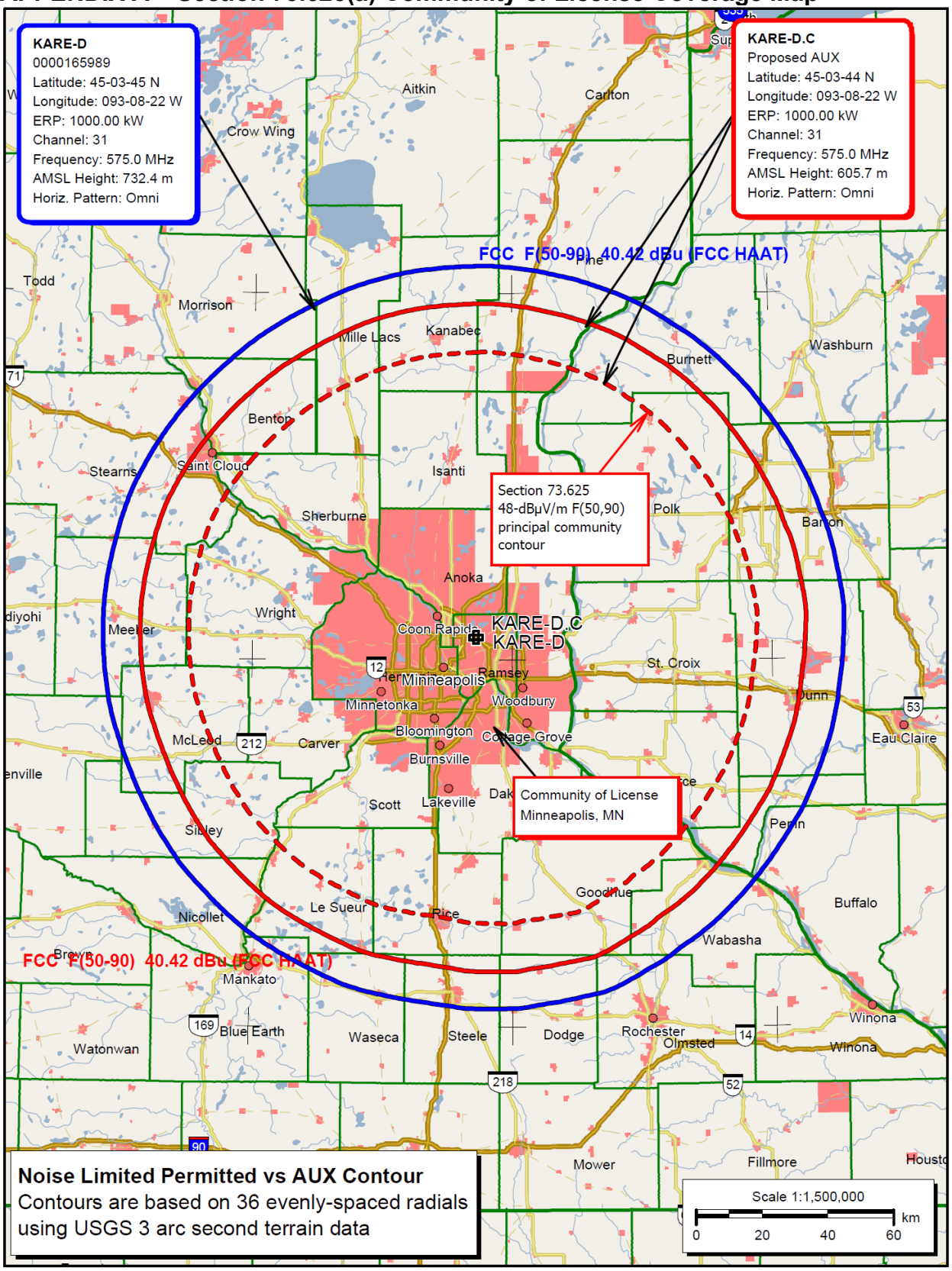
4.0 CERTIFICATION

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour

Consulting Engineer
November 12, 2021

APPENDIX A – Section 73.625(a) Community of License Coverage Map



APPENDIX B – Far Field Exposure to RF Emissions