

Introduction

This engineering report has been prepared on behalf of Jamestown College, permittee of an FM facility and is in support of an application for license for its outstanding construction permit (FCC File No. BNPED-20071022AQO as reissued). The authorized FM operation is proposed on Channel 201 (88.1 MHz) with 4.0 kW ("vertical") maximum effective radiated power ("ERP") and 1 meter height above average terrain ("HAAT").

Exhibits requested by Electronic Form of the FCC Form 302 are included in this engineering report and meet all special construction permit conditions.

Antenna Site

The 4-bay halfwave spaced FM antenna is side-mounted on an existing self-supporting structure. The installed antenna is located 213 Second Avenue, NW, Jamestown, ND 58401.

The geographic coordinates of the antenna site are as follows:

North Latitude: 46° 54' 37"

West Longitude: 98° 42' 01"

NAD-27

The following tabulation shows the pertinent data for the installation.

Equipment Data

Transmitter: Type-approved

Transmission Line: 125 feet (38.1 meters) Andrews, Type AVA5-50 7/8" low loss foam (0.315 dB/100')

Antenna: Scala, Model No.FMV-4, 4-bay, 0.5 wave spaced vertically polarized antenna

Power Data

Transmitter output power (nominal)	1.10 kW	0.4155 DB
Transmission line efficiency/loss	91.3%	0.3937 dB
Power input to antenna	1.005 kW	0.218 dB
Antenna gain (vertical only)	3.98 kW	6 dB
Effective Radiated Power (H&V)	4 kW	6.02 dB

Elevation Data

Elevation of the site above mean sea level	429 meters (1391 feet)
Elevation of the top of supporting structure above ground	30 meters (98.4 feet)
Elevation of the top of supporting structure above mean sea level	459 meters (1505.9 feet)
Height of radiation center above ground (H&V)	25 meters (82 feet)
Height of radiation center above mean sea level (H&V)	454 meters (1489.5 feet)
Height of radiation center above average terrain (H&V)	1.0 meter (3.28 feet)

Appendix A provides the antenna manufacturer's test data which demonstrates the antenna conforms to the requirements set forth in the re-issued outstanding construction permit.