



# OWL ENGINEERING & EMC TEST LABS, INC.

CONSULTING COMMUNICATIONS ENGINEERS - EMC TEST LABORATORIES

MINNESOTA OFFICE  
5844 Hamline Avenue North, Shoreview, MN 55126  
651-784-7445 • Fax 651-784-7541

800-797-1338

**FCC FORM 349 APPLICATION  
FOR FM BOOSTER STATION CONSTRUCTION PERMIT  
ANDERSON BROADCASTING  
FOR KBIG PABLO, MT**

**ENGINEERING STATEMENT**

The engineering portion of this application was prepared by the firm of Owl Engineering, Inc in support of an application filed by Anderson Broadcasting for a construction permit for an FM Booster station to serve the community of Kalispell, MT.

The FM Booster station is proposed for operation on FM Channel 264 (100.7 MHz) with an output power of 250 watts Effective Radiated Power in both the vertical and horizontal polarizations.

The antenna location is proposed at:

N 48° 11' 46"  
W 114° 18' 38"

The antenna will be side mounted on an existing tower located on the top of a building at an overall height of 15 meters above ground level. The proposed construction of the facility specified herein will not change the overall height of the existing structure. No approval is therefore required by the Federal Aviation Administration (FAA).

The site location can be found in Figure 1 (Site Map) and in Figure 2 (Aerial View).

**FM Allocation and Interference Considerations**

Engineering Figure 3 shows the 60 dBu F(50,50) contour of the main facility of FM station KBIG and the 60 dBu F(50,50) contour of the proposed booster station. This exhibit clearly demonstrates that the 60 dBu contour of the proposed FM Booster station is completely contained within the 60 dBu contour of the main KBIG facility. Therefore the proposed FM Booster station is in complete compliance with Section 74.1204 of the Commission's Rules.



# OWL ENGINEERING & EMC TEST LABS, INC.

CONSULTING COMMUNICATIONS ENGINEERS - EMC TEST LABORATORIES

MINNESOTA OFFICE  
5844 Hamline Avenue North, Shoreview, MN 55126  
651-784-7445 • Fax 651-784-7541

800-797-1338

The coverage contours were prepared using the Commission's Standard Contour protection Method using terrain data supplied by the Defense Mapping Agency (DMA 3 Arc Second Digitized Terrain Data file).

## Environmental Statement

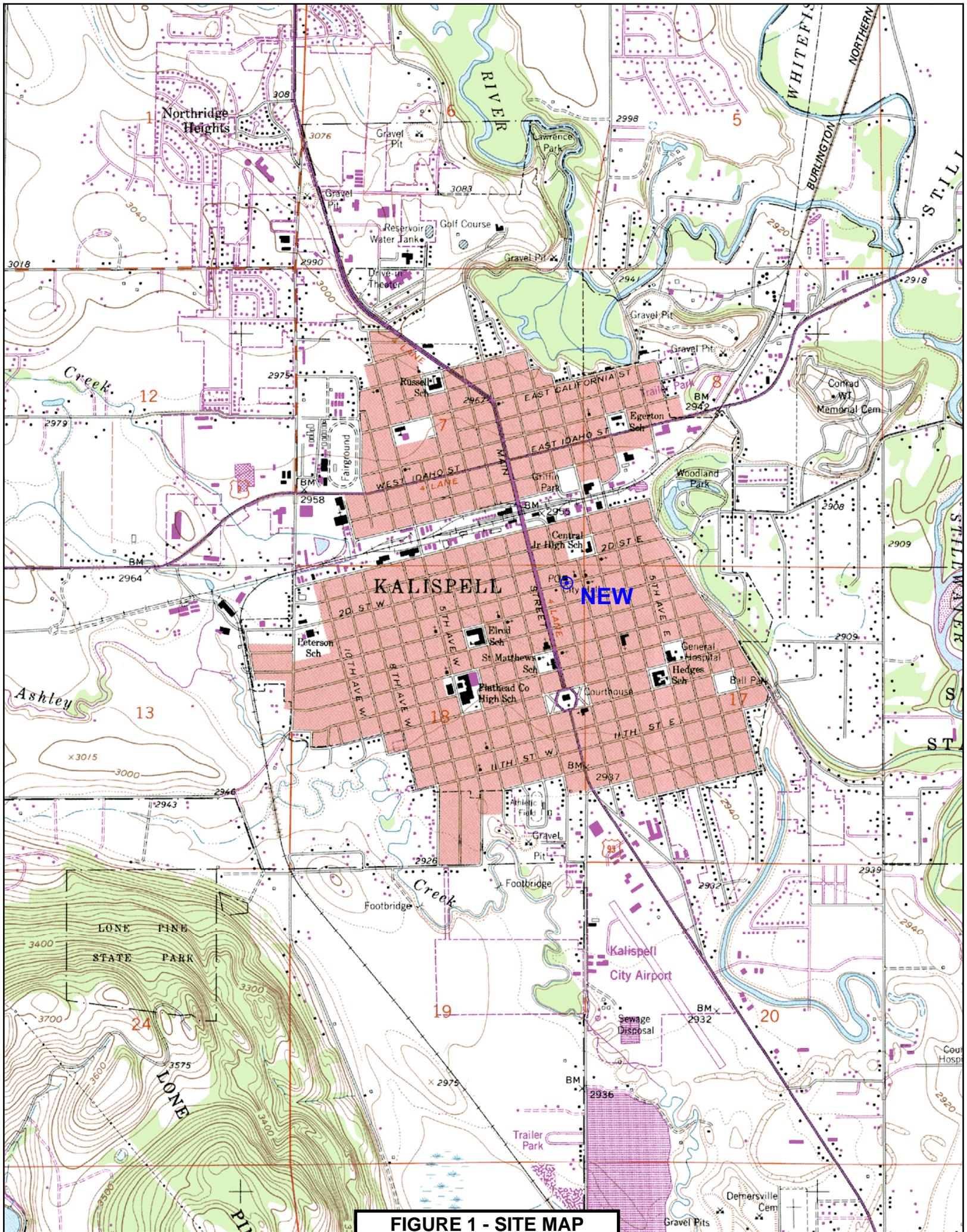
The proposed FM Booster antenna will be side mounted on an existing 7 meter tower located on top of the building. The antenna center of radiation (CR) will be 15 meters AGL. The will not change the existing height of the structure.

Access to the roof is restricted to the public and the applicant will cease operation or reduce the operating power level when necessary to comply with Commission's Rules, Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation. Using a single bay type 6 antenna with an output power of 0.25 kW does not exceed the RFR power levels found in OST Bulletin #65 for controlled locations.

Respectfully submitted,

A handwritten signature in black ink that reads "Garrett G. Lysiak". The signature is written in a cursive, flowing style.

Garrett G. Lysiak, P.E.  
June 15, 2006



**FIGURE 1 - SITE MAP**



SITE

NEW

FIGURE 2 - AERIAL VIEW

Prop. model: FCC-EDX  
 Time: 50.0% Loc.: 50.0%  
 Prediction Confidence Margin: 0.0dB  
 Climate: Continental Temperate  
 Land use (clutter): none  
 Atmospheric Abs.: none  
 K Factor: 1.333  
 RX Antenna - Type: OMNI  
 Height: 9.1 m AGL Gain: 0.00 dBd

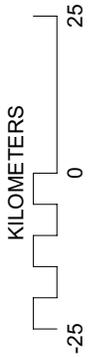
Field strength at remote  
 = 60.0 dBµV/m  
 Display threshold level: -120.0 dBmW

Sites

Site: BIGFORK  
 N47°46'25.42" W114°16'00.49" 1584.0 m  
 KIBG Tx.Ht.AGL: 77.0 m Total ERPd: 85.00kW  
 Grp.: 1 omni-horizontal/0.0° 100.7000 MHz

Site: NEW  
 N48°11'46.00" W114°18'38.00" 910.2 m  
 NEW Tx.Ht.AGL: 15.0 m Total ERPd: 0.25kW  
 Grp.: 1 omni-horizontal/0.0° 100.7000 MHz

Reference Grid (spacing: 30')



**OWL ENGINEERING, INC**  
 SIGNAL COVERAGE

FIGURE 3  
 JUNE 14, 2006

