



**ENGINEERING STATEMENT**  
OF  
**JOHN F.X. BROWNE, P.E.**  
IN SUPPORT OF  
**APPLICATION FOR CONSTRUCTION PERMIT**  
**POST-TRANSITION DTV FACILITY**  
**WIPB-DT**  
**MUNCIE, IN**

**Background**

Ball State University (BSU) is the licensee of WIPB, located at Muncie, IN, which is presently authorized to operate its digital facility on out-of-core Channel 52 with the following parameters:

Pre-transition Facility (Ch. 52)

Coordinates: 40° 05' 37" N (NAD27)  
85° 23' 32" W  
ERP: 140 kW (omni)  
HAAT: 246m

WIPB elected Channel 23 and has been allotted the post-transition DTV operation Appendix B facility parameters listed below:

Post-transition Facility (Ch. 23)

Coordinates: 40° 05' 37" N (NAD27)  
85° 23' 32" W  
ERP: 79.1 kW (omni)  
HAAT: 246m



### **Antenna System and Tower**

The existing WIPB digital antenna, a Dielectric TUA-O4-12/48H-1-T, is a broadband panel antenna (which will be used for post-transition DTV operation on Channel 23) that is installed on a tower (ASR#1243031) approximately 11km south of Muncie, IN. The tower has an overall height of 562m AMSL (with appurtenances) and the antenna will have a center of radiation of 554m AMSL (with a calculated HAAT of 246m).

### **Coverage**

The entire principal community of Muncie, IN is well within the predicted F(50,90) 48 dBu contour using the proposed omni-directional 79.1 kW ERP.

### **Interference**

WIPB is not seeking to expand its service contour beyond the contour of its Appendix B facility in any direction; therefore, no interference analysis is required to be submitted with this application.

### **Environmental/RFR**

The proposed construction does not require preparation of an Environmental Assessment as it does not involve any of the factors listed in Section 1.1306.

The additional ground level RFR contributed to the site by this proposal in public areas is calculated to be  $0.000416 \text{ mW/cm}^2$  which is less than 5% of the MPE for public exposure ( $0.35 \text{ mW/cm}^2$ ) at the proposed frequency and, therefore, the proposal is excluded from further consideration.



BSU recognizes that this is a multi-user tower site and RFR levels on the tower may exceed the occupational exposure limit. BSU agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of RFR hazards is posted.

### **Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, appearing to read 'John F.X. Browne', written over a horizontal line.

John F.X. Browne, P.E.  
February 25, 2008