



**ENGINEERING STATEMENT**  
**OF**  
**JOHN F.X. BROWNE, P.E.**  
**IN SUPPORT OF AN APPLICATION FOR**  
**MINOR CHANGE TO A LICENSED FACILITY**  
**AND**  
**REQUEST FOR WAIVER**  
**KSHB-DT**  
**KANSAS CITY, MO**

**Background**

Scripps Howard Broadcasting Company (Scripps) is the licensee of KSHB-DT which has been authorized to operate its post-transition DTV facility on Channel 42 (BLCDT-20030902ABH) at Kansas City, MO, with an ERP of 450 kW at an HAAT of 276m. The tower is located at the following coordinates:

(NAD27)  
38° 58' 42" N  
94° 32' 01" W

Scripps now wishes to "maximize" the post-transition facility ERP to 1000 kW using a new digital antenna at the top of its tower.



### **Antenna System and Tower**

Scripps proposes to use an omni-directional Dielectric TFU-30GTH/VP-R O6 DC digital antenna for the proposed “maximized” facility which will be shared by co-owned station KMCI-DT on adjacent Channel 41. The existing KMCI analog antenna will be removed from the top of the tower and the new digital antenna will take its place. The antenna will be installed on a tower (ASR#1234587) that presently has an overall height of 624.5m AMSL (including appurtenances). After the new digital antenna is placed on top of the tower, the structure will have a new overall height of 621.1m AMSL (with appurtenances) which is 3.4m lower than the present overall tower height of 624.5m AMSL and the antenna will have a center-of-radiation of 611.9m AMSL (with a calculated HAAT of 323.7m). The FAA will be notified of the decrease in height of the overall structure and the ASR will be amended accordingly.

The proposed KSHB facility will incorporate both horizontal (1000 kW) and vertical polarization (201 kW). (See attached HP and VP patterns as Figure 1a and Figure 1b respectively.) The vertically polarized radiation component will not exceed the authorized horizontally polarized component in any azimuth.

### **Coverage**

The entire principal community of Kansas City, MO is well within the predicted F(50,90) 48 dBu contour based on the proposed 1000 kW ERP.

### **Interference Considerations and Request for Waiver**

Studies were run with the proposed parameters using software that emulates the software used by the FCC (OET-69 analysis). The results of the study indicate that the only post-transition station predicted to receive more than 0.5% new interference is KMCI-DT (on adjacent Channel 41). The proposed KSHB maximized facility is predicted to cause 6.97% interference to the KMCI 8<sup>th</sup> Report and Order Appendix B facility and 6.87% to the recently



granted KCMF post-transition facility; however, KMCI is co-owned by Scripps and with which it plans to share the top-mounted omni-directional antenna for its “maximized” facility. It should be noted that the predicted interference is to the KMCI allotment facility and to its post-transition construction permit facility. As a practical matter, there will not be any actual interference as both stations will be sharing a common antenna if the instant application and the pending KMCI maximization application are granted (and neither of the facilities subject to predicted interference will be constructed). KMCI has agreed to accept this theoretical interference and KSHB is requesting a waiver of the 0.5% new interference limit.

### **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  $0.002831 \text{ mW/cm}^2$  which is less than 5% of the MPE for public exposure ( $0.43 \text{ mW/cm}^2$ ) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

Scripps 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

**B**

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, reading "John F. X. Browne". The signature is fluid and cursive, with the first name "John" and last name "Browne" clearly legible. The middle initial "F. X." is written in a smaller, more compact script between the first and last names.

---

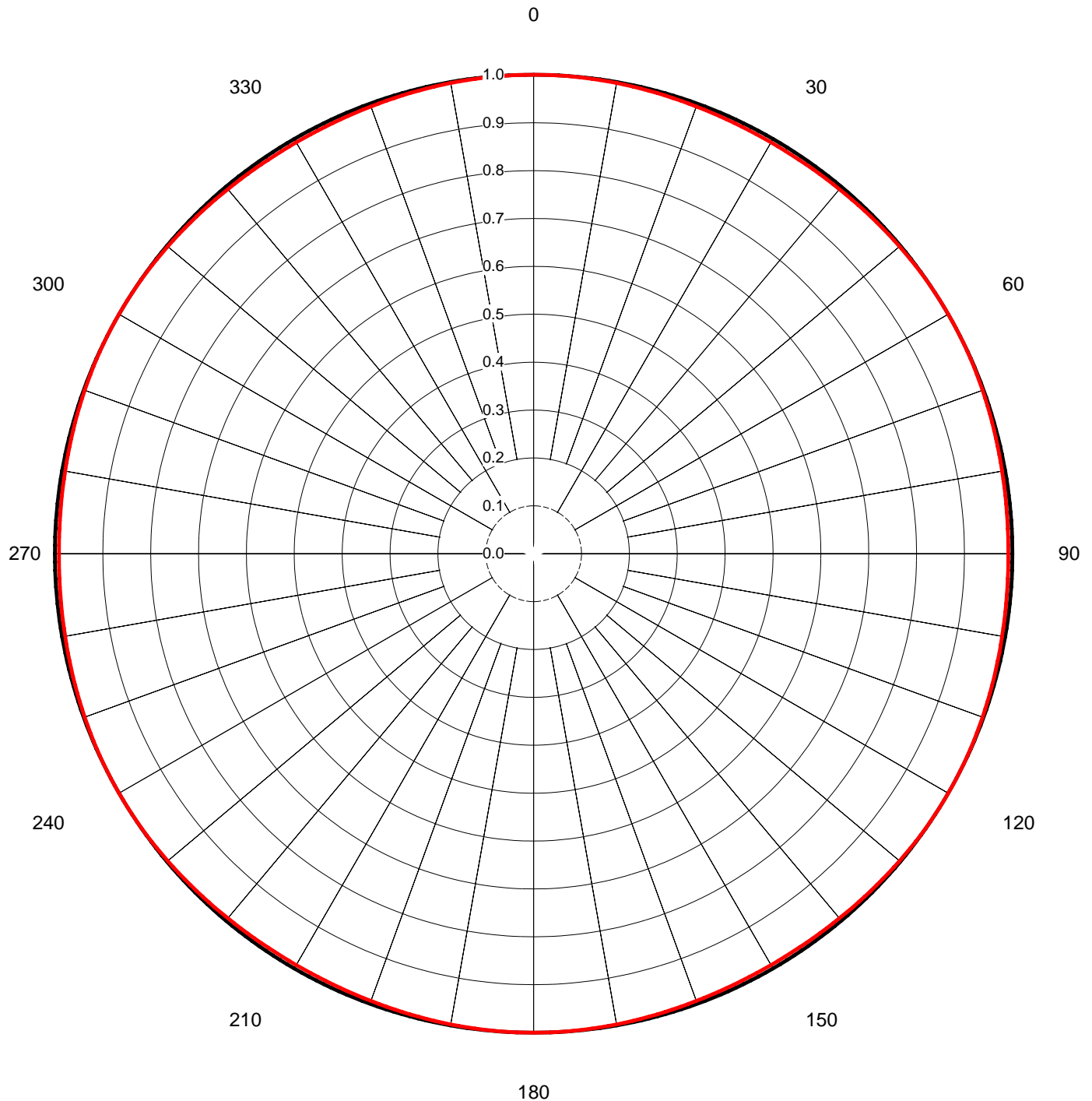
John F. X. Browne, P.E.  
June 12, 2008

Proposal Number	<b>C-02014</b>	Revision:	<b>1</b>
Date	<b>15-Oct-07</b>		
Call Letters	<b>KSHB-DT</b>	Channel	<b>42</b>
Location	<b>Kansas City, MO</b>		
Customer			
Antenna Type	<b>TFU-30GTH/VP-R O6 DC</b>		

## AZIMUTH PATTERN

Gain **1.00** (0.00 dB)  
Calculated / Measured **Calculated**

Frequency **641.00 MHz**  
Drawing # **TFU-O6-HP-42**



Proposal Number	<b>C-02014</b>	Revision:	<b>1</b>
Date	<b>15-Oct-07</b>		
Call Letters	<b>KSHB-DT</b>	Channel	<b>42</b>
Location	<b>Kansas City, MO</b>		
Customer			
Antenna Type	<b>TFU-30GTH/VP-R O6 DC</b>		

## AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain	<b>1.20</b>	<b>( 0.79 dB)</b>
Calculated / Measured		<b>Calculated</b>

Frequency	<b>641.00 MHz</b>
Drawing #	<b>TFU-O6-VP-42</b>

