

# Exhibit 12 – ENGINEERING REPORT

Family Life Broadcasting System Requesting Minor Modification  
to W231CV FM Translator – Facility ID: 148503  
BLFT-20151120BAW  
Holly, Michigan  
Channel 231 (94.1 MHz), 0.19 kW ERP

Family Life Broadcasting System (“FLBS”) as the licensee of translator station W231CV, Channel 231D, Holly Michigan proposes herein to make a minor change in the facilities of W231CV by only modifying the manufacture and model number of the single-bay non-directional transmission antenna. We propose no change to the transmitter site location, transmitting channel, the center of radiation height above ground and sea level, nor any other variable.

The W231CV transmission antenna proposed in this application is a single-bay, non-directional Bext TFC-2K.

**Exhibit 12.1** which normally shows there is common 60-dBu contour area between the authorized and the modified W231CV facility is not needed as this single modification only changes out one non-directional single-bay antenna transmitter antenna with another on the same site with same operating conditions, which will cause 100% overlap between the licensed and the modified facility. Thus, it is mutually exclusive with the licensed W231CV facility showing compliance with § 74.1233(a)(1).

**Exhibit 13.1** is a CH231D Allocation of Allotments demonstrating that the modified W231CV facility will not cause interference to any full-service U.S. station, translator, or LPFM application or station with the possible exception of 3<sup>rd</sup> adjacent WCSX and Canadian station CKLW.

**Exhibit 13.2** shows that the modified W231CV facility will provide given interference to CKLW only over United States territory only, which is allowed by the

**Exhibit 13.3** is waiver request of § 74.1204(d) and shows that WCSX is fully protected as the calculated interference area will not reach the ground nor a 7-meter artificial plane representing a two-story building when taking into account the downward radiation characteristics of the transmitting antenna.

**Exhibit 13.4** shows that the proposed interference caused toward CKLW is only over U.S. territory, making it compliant with U.S. – Canadian agreement(s).

**Exhibit 13.5** shows compliance with Section 4.3 of the Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels Under the Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service as well as § 74.1235(d)(3).

**Exhibit 17** is a study that shows the modified W231CV facility complies with the Commission’s environmental and RF exposure guidelines.

All other necessary documentation used to certify the technical portion of the FCC Form 349 is available to the Commission upon request. The FCC NGDC 30 Second terrain data was utilized in the preparation of the exhibits.