

TECHNICAL EXHIBIT  
FOR A NEW DIGITAL REPLACEMENT TRANSLATOR  
FOR STATION KTLM(DT)  
HARLINGEN, TEXAS  
CH 22 15 KW (MAX-DA)

Technical Narrative

This Technical Exhibit supports an application for a new digital replacement translator for digital television (DTV) station KTLM at Rio Grande City, Texas. Station KTLM is authorized to operate on digital channel 40, with a non-directional antenna effective radiated power (ERP) of 365 kilowatts (kW) and an antenna radiation center height above average terrain (HAAT) of 577 meters.<sup>1</sup>

The applicant is the licensee of a full-service television station that experienced a loss of service affecting former analog viewers located east of Rio Grande City after it transitioned to its final, post-transition DTV facility. KTLM has received numerous complaints from viewers in the area to be covered by the proposed translator of difficulties with reception of the station's post-transition digital signal. The applicant proposes to construct a replacement digital translator facility to help alleviate these digital reception issues.

Proposed Facilities

This application proposes digital operation on channel 22 with a directional antenna maximum ERP of 15 kW and an antenna radiation center height above mean sea level (RCAMSL) of 172 meters (see Figure 1). The proposed coordinates are (NAD27):

26° 09' 19" North Latitude  
97° 41' 28" West Longitude

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<sup>1</sup> See BMPCDT-20090304ABG, BLCDT-20090617AAK

The site is 104 kilometers east-southeast of the main DTV site. The antenna structure registration number is 1050199.

Figure 2 is a map showing the licensed KTLM(DT) 41 dBu (digital) coverage contour as well as the proposed digital translator 51 dBu contour. The contour of the requested facility would not extend more than a *de minimis* amount beyond the service area of the applicant's former analog facility and would fall entirely within the service area of the station's currently authorized 355 kW DTV facility. The applicant accordingly is eligible to receive a permit to construct the requested facility.

#### Allocation Considerations

A study has been conducted to assure that the proposal will not create prohibited interference with other licensed, authorized or pending DTV, Class A, digital Class A, LPTV displacement applications or any licensed or authorized LPTV or translator stations. Using the procedures outlined in the FCC's OET-69 Bulletin, a standard 1 kilometer grid and 1 kilometer terrain distance increment, and 2000 U.S. Census, the proposal complies with the current FCC policy (i.e., less than 0.5% new interference caused to other pertinent assignments).

The applicant recognizes the proposal is secondary to other authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation.

#### Mexican Coordination

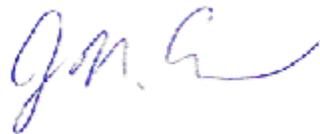
The proposed site is 4 kilometers from the U.S./Mexican border. The proposal meets the FCC's full service minimum separations for a digital TV station on channel 22 in Zone 3. Therefore, it is believed that the proposal should not impact any Mexican assignment. If coordination is necessary, it is respectfully requested.

Radiofrequency Electromagnetic Field Exposure

The proposed digital facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the antenna is located 137.2 meters above ground level. The proposed maximum ERP is 15 kW. Based on a conservative downward relative field of 0.5, the calculated power density at a point 2 meters (6.6 feet) above ground level will not exceed 2% of the FCC's recommended limit of 0.35 mW/cm<sup>2</sup> for channel 22 for an “uncontrolled” environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site and agreement will control site access. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

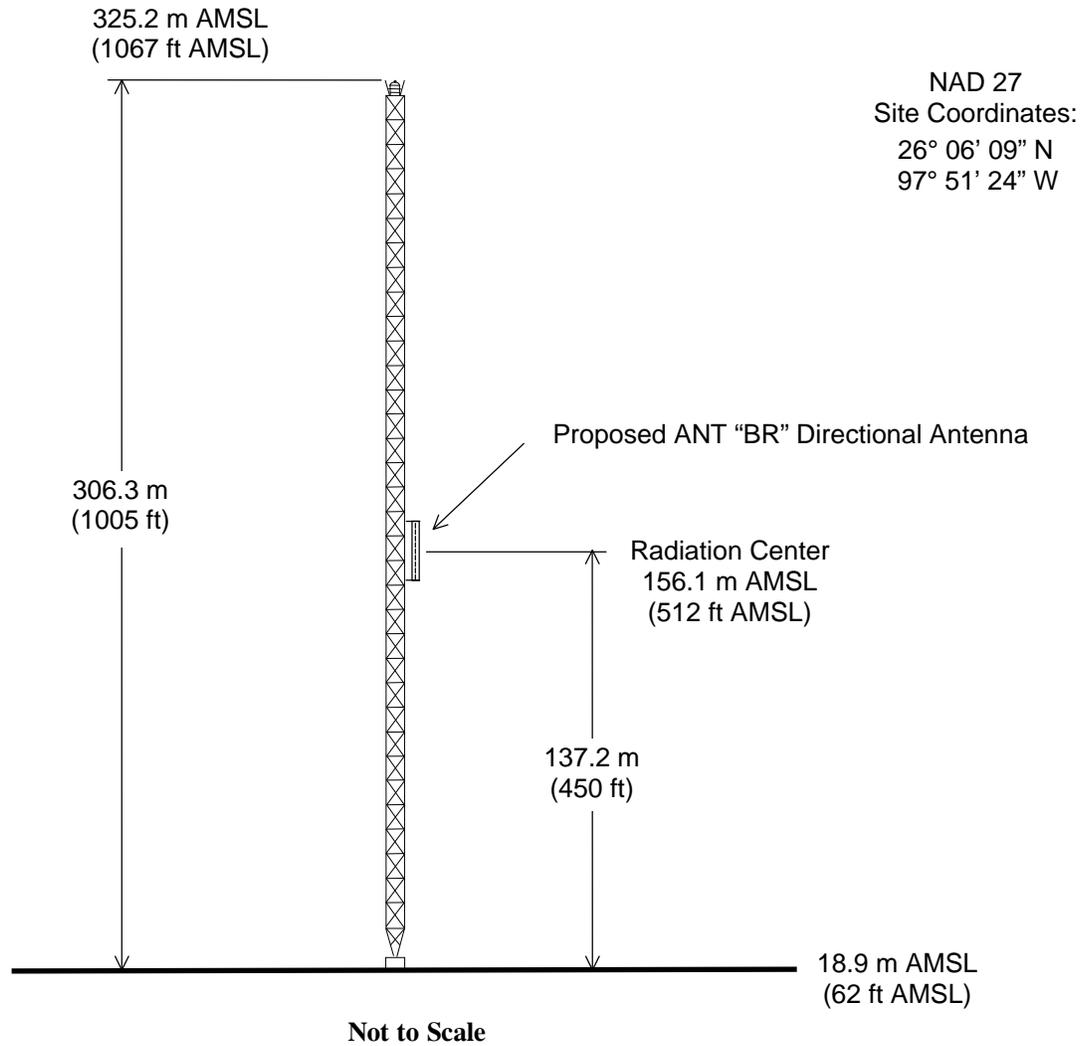


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Registration No. 1050199



## ANTENNA AND SUPPORTING STRUCTURE

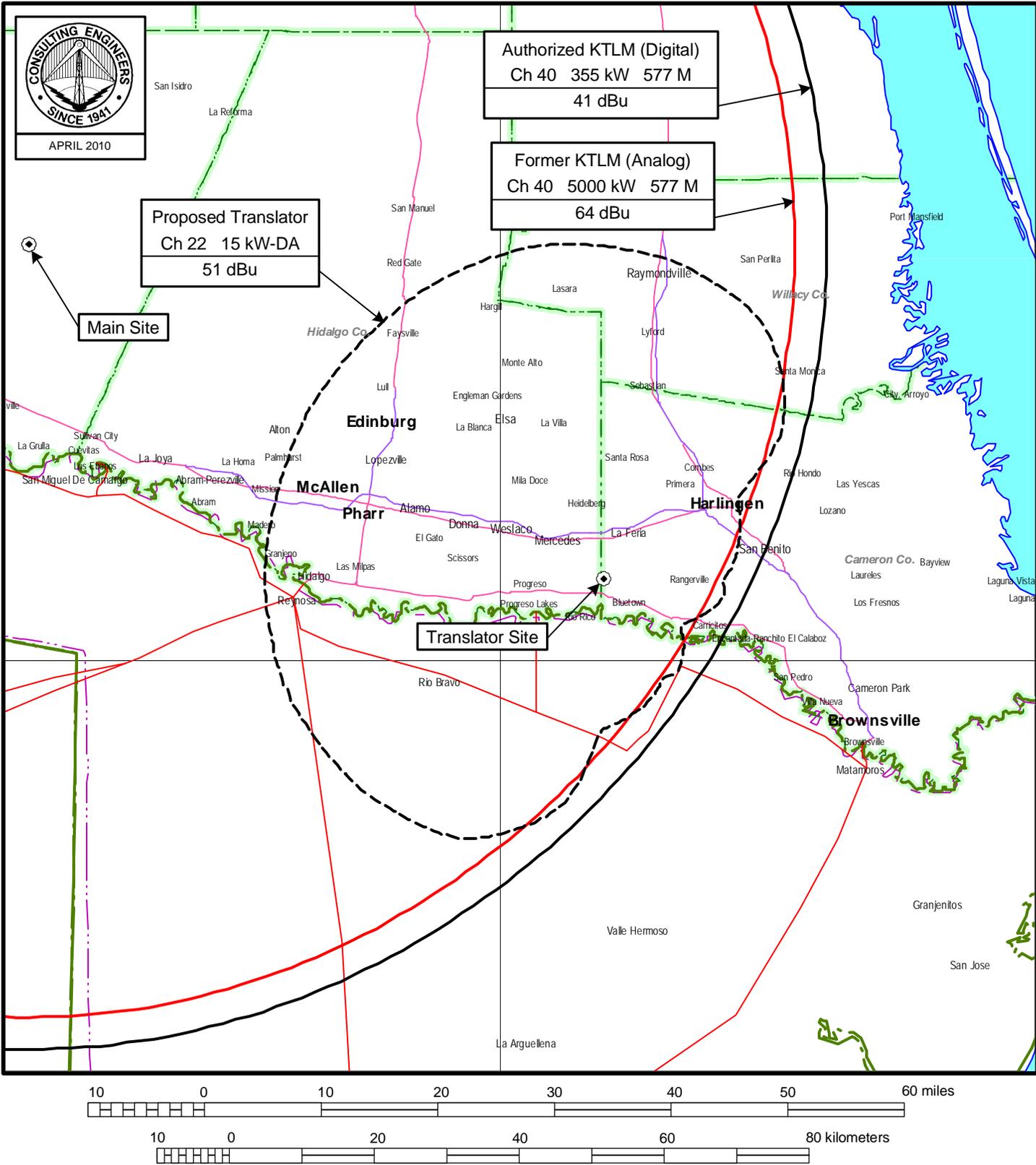
STATION KLTM-LD

HARLINGEN, TEXAS

CH 22 15 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



**PREDICTED COVERAGE CONTOURS**

STATION KTLM-LD

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