

TECHNICAL SUMMARY
SPECIAL DISPLACEMENT WINDOW
APPLICATION FOR CONSTRUCTION PERMIT
LOW POWER DIGITAL STATION WHTX-LD
SPRINGFIELD, MASSACHUSETTS
CHANNEL 24 15 KW (DA)

1. Application Purpose: The instant application is a special displacement window application for WHTX-LD currently on channel 43 at Springfield, Massachusetts (LMS File No. 0000004590).¹ As detailed below, WHTX-LD is eligible for displacement. Therefore, it is proposed to operate WHTX-LD on “in core” channel 24 with a directional antenna maximum effective radiated power (ERP) of 15 kW using an ERI model ALP8L1-HSM-24 horizontally polarized directional antenna. The antenna radiation center height will be 202 m AMSL. There will be no change in the overall structure height (no ASRN).

2. Eligibility to File in Special Displacement Window: Station WHTX-LD is eligible to file in the special displacement window as (1) it was operating with its currently licensed facilities (LMS File No. 0000004590) prior to April 13, 2017 – the release date of the *Closing and Channel Reassignment Public Notice*² and (2) it operates on digital channel 43 which has been repurposed for new, flexible 600 MHz Band wireless service.³ An exhibit supporting a request for waiver of the contingent application rule, Section 73.3517 of the FCC Rules, is attached.

3. Interference Compliance: As indicated in the attached *TVStudy* analysis, WHTX-LD’s proposed channel 24 displacement operation meets the FCC’s interference protection requirements with respect to all protected facilities based on a post-transition

¹ See FCC Public Notice dated February 9, 2018 entitled “*Incentive Auction Task Force and Media Bureau Announce Post-Incentive Auction Special Displacement Window April 10, 2018 through May 15, 2018 and Make Location and Channel Data Available*” (DA 18-124, MB Docket No. 16-306, GN Docket No. 12-268) (“FCC Special Displacement Window PN”).

² See *Media Bureau Announces Date by Which LPTV and TV Translator Stations Must Be “Operating” In Order to Participate In Post-Incentive Auction Special Displacement Window*, Public Notice, 31 FCC Rcd 5383 (MB 2016).

³ See *The Incentive Auction Task Force and Media Bureau Announce Procedures for Low Power Television, Television Translator and Replacement Translator Stations During the Post-Incentive Auction Transition*, Public Notice, at Section III paragraph 8 (DA 17-442, Released May 12, 2017).

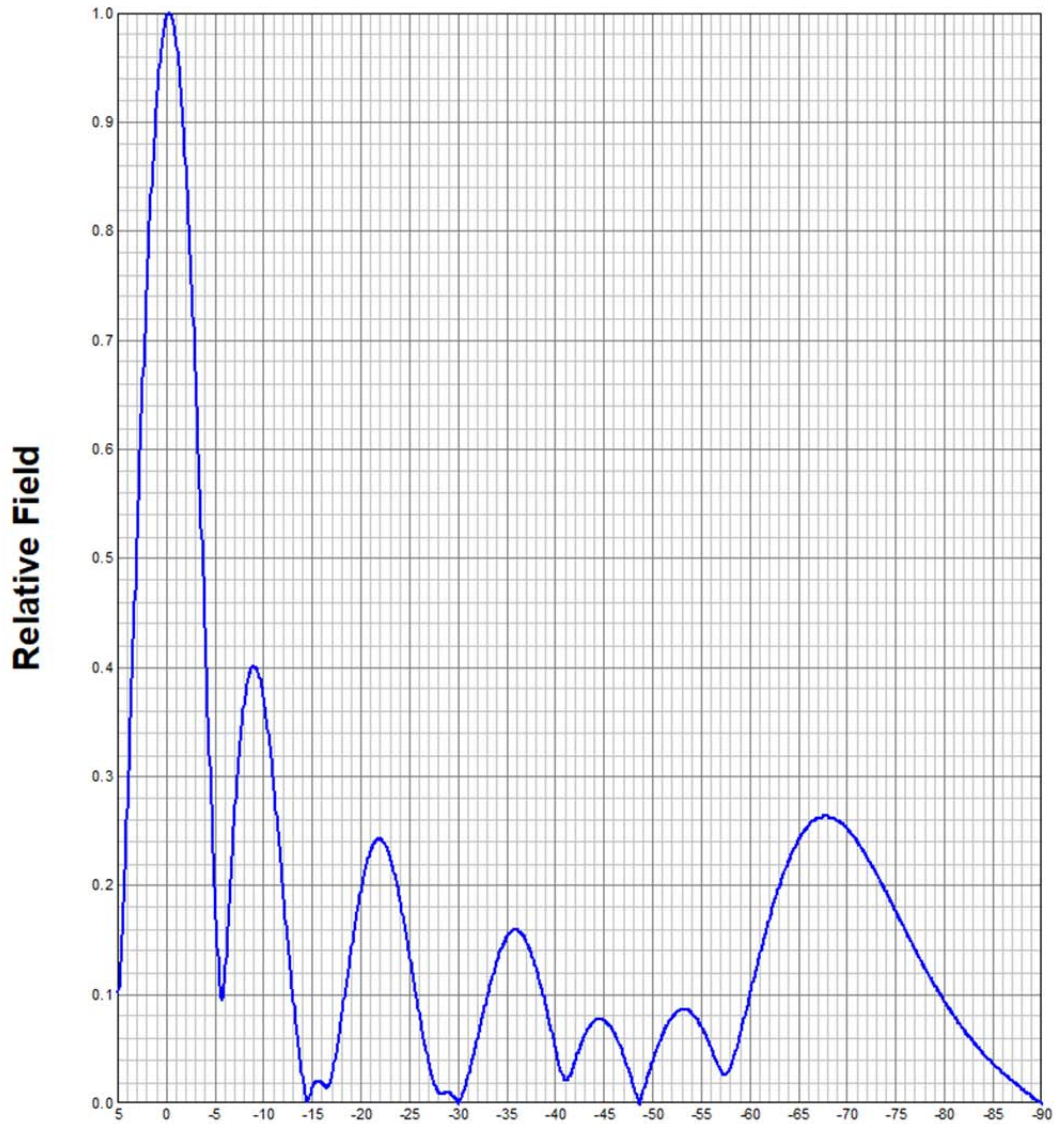
allocation environment. A cell size of 1.0 km and a profile resolution of 1.0 points/km were utilized for the *TVStudy* analysis.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 19 meters above ground level. The total DTV ERP is 15 (horizontal polarization). A greater than expected vertical plane relative field value of 0.27 is presumed for the antenna's downward radiation (-60° to -90° elevation, see elevation pattern attached). The calculated power density at a point 2 meters above ground level is 126.4 uW/cm^2 which is 36% of the FCC's recommended limit of 355.3 uW/cm^2 for channel 24 for an uncontrolled environment. However, as this is a multi-user site, measurements will be made to substantiate compliance.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.

ELEVATION PATTERN

Type:	ALP8M1		Channel:	24
Directivity:	Numeric	dBd	Location:	
Main Lobe:	9.05	9.57	Beam Tilt:	-0.25
Horizontal:	9.00	9.54	Polarization:	Horizontal



Preliminary, subject to final design and review.