

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington DC 20554**

In the Matter of	)	
	)	
Amendment of Section 73.622,	)	MB Docket No. _____
Digital Television Table of Allotments	)	
For KLCW-TV, Wolfforth, Texas	)	Rulemaking No. _____
(Facility 77719)	)	
	)	
And	)	
	)	
For KJTV-TV, Lubbock, Texas	)	
(Facility 55031)	)	

To: Office of the Secretary, Federal Communications Commission  
Attn: Chief, Media Bureau

**JOINT PETITION FOR RULEMAKING**

Gray Television Licensee, LLC (“Gray”), licensee of full power commercial television stations KCBD(TV), Lubbock Texas (“KCBD”) and KLCW-TV, Wolfforth, Texas (“KLCW-TV”), and SagamoreHill of Lubbock, LLC (“SagamoreHill”), licensee of KJTV-TV, Lubbock, Texas (“KJTV-TV”), hereby request that the Commission institute a rulemaking proceeding for the purpose of amending the DTV Table of Allotments (the “DTV Table”) contained in Section 73.622(i) of the Commission’s rules.<sup>1</sup> Gray and SagamoreHill are jointly referenced herein as “Licensees.”

The Licensees request that the Commission amend the DTV Table as summarized below to facilitate a channel swap between Gray and SagamoreHill that will allow SagamoreHill’s KJTV-TV to replace its failing equipment with the equipment currently used by KLCW-TV. Following the completion of the channel swap, the stations will operate as follows:

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<sup>1</sup> See 47 C.F.R. §§ 1.401, 1.420, 73.622(i).

Call Sign	Fac ID	Community of License	Current Ch	Proposed Ch
KJTV-TV <sup>2</sup>	55031	Lubbock, Texas	35	23
KCBD(TV)	27507	Lubbock, Texas	11 <sup>3</sup>	35
KLCW-TV	77719	Wolfforth, Texas	23	11

To facilitate the channel swap, the Licensees request the following changes to the DTV Table:

Community	Present	Proposed
Lubbock, TX	16, *25, 27, 31, 35, 36	16, 23, *25, 27, 31, 35
Wolfford, TX	23	11

As set forth herein, grant of this Petition will create a preferential arrangement of allotments by providing a more efficient allocation of free over-the-air television service in this market.

The FCC has described the goal of the DTV Table as ensuring the provision of digital television service “to the American people in an expeditious and efficient manner.”<sup>4</sup> In considering channel substitution requests, the Commission considers the

<sup>2</sup> Gray and SagamoreHill are parties to a Shared Services Agreement whereby Gray provides certain operational services to KJTV.

<sup>3</sup> In 2021, Gray was granted a channel substitution of Channel 36 for Channel 11 for KCBD(TV), Lubbock, Texas. *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Lubbock, TX)*, MB Docket No. 21-61, RM 11885, DA 21-477, released April 26, 2021. Construction has not yet commenced on the Channel 36 facility for KCBD.

<sup>4</sup> See, e.g., *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (Nampa, Idaho)*, Report and Order, 19 FCC Rcd. 4491, 4493 (2004); *In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (In the Matter of Amendment of Section 73.622(B), Table of Allotments, Digital Television Broadcast Stations (Albany, New York)*, 19 FCC Rcd. 4279, 4331 (2004); see also *In the Matter of Advanced Television Systems & Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd. 14588 ¶ 76 (1997).

petitioner's public interest justification and whether the proposal would comply with the principal community coverage requirements of Section 73.625(a).<sup>5</sup>

The Engineering Statement attached as Exhibit 1 provided by Chesapeake RF Consultants, LLC sets forth in detail the proposed three-station channel swap (which is contingent upon grant of this Petition) and the KJTV-TV Channel 23 and KLCW-TV Channel 11 DTV Table specifications.

This proposal is in compliance with all relevant technical requirements for amendment of the post-transition DTV Table, including the interference protection requirements of 47 C.F.R. §73.616 and the 0.5% de minimis interference standard with respect to all allotments and assignments, existing and proposed. The proposed Channel 23 and 35 facilities will provide full principal community coverage to Lubbock, Texas, and the proposed Channel 11 facility will provide full principal community coverage to Wolfford, Texas.

This proposal will serve the public interest because it will allow SagamoreHill to replace KJTV-TV's failing equipment with the working equipment currently used by KLCW-TV. KJTV-TV's tube transmitter is currently failing, and replacement parts for tube transmitters are not available. The cost for SagamoreHill to replace the transmitter for KJTV-TV's 1000kW facility is prohibitive. Gray, for its part, was already planning to invest in a new 1000kW transmitter for KCBD (as granted in KCBD's channel

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<sup>5</sup> See, e.g., *In Re Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Mesa, Arizona)*, Notice of Proposed Rulemaking, MB Docket No. 20-331, RM-11863, DA-20-1192 (rel. Oct. 13, 2020) ("Mesa NPRM"); *In Re Amendment of Section 73.622(b), Table of Allotments, Digital Television Broad. Stations, Ontario, CA*, Notice of Proposed Rulemaking, 16 FCC Rcd. 2276 (2001); *In Re Amendment of Section 73.606(b), Table of Allotments, Television Broad. Stations, Moscow, Idaho*, Notice of Proposed Rulemaking, 17 FCC Rcd. 19447 (2002).

substitution petition). To maximize the existing equipment in the market, Gray and Sagamore have agreed that in lieu of constructing a new Channel 36 facility, KCBD will move to KJTV-TV's Channel 35. Because KCBD will not be building a new Channel 36 facility, it will be able to bear the cost of replacing the Channel 35 transmitter. KJTV-TV will move to Channel 23, KLCW-TV's current channel, operating with the existing Channel 23 equipment, all of which is in good operating condition. KLCW-TV, in turn, will move to Channel 11 and operate with the current KCBD equipment, which is also in good operating condition.<sup>6</sup>

As demonstrated by the attached Engineering Statement, the proposed Channel 11 facilities significantly expand the reach of KLCW-TV's coverage. The population within the proposed Channel 11 contour is 414,829, an increase of 32,784 persons from KLCW-TV's current facility.

While KCBD's proposed Channel 35 facility does not match the coverage of its licensed Channel 11 facility, once terrain-limited coverage predictions are evaluated, the actual terrain-listed loss population is only 350. This is the same loss as the Channel 36 proposal previously approved by the Commission and well below the allowable *de minimus* loss of 500 persons. Likewise, the KJTV-TV proposed Channel 23 facility will not match its current Channel 35 facility. However, once terrain-limited coverage predictions are evaluated, the actual terrain-listed loss population is only 32 persons, well below the allowable *de minimus* loss of 500 persons.

Thus, the combination of the proposed channel swap with this proposed channel substitution will allow: (1) KJTV-TV to stay on the air serving the local community without great financial hardship, (2) KCBD to upgrade its facility to a UHF channel at

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<sup>6</sup> Gray has evaluated moving KLCW to Channel 36 in lieu of Channel 11, however, the cost of purchasing new equipment for both KCBD and KLCW is financially infeasible in this smaller market.

1000kW, and (3) KLCW-TV to expand its coverage area well beyond that of its current Channel 23 facility, increasing the population served by over 32,000 persons. The proposal fully complies with the Commission's allotment priorities as set forth in the *Sixth Report and Order*<sup>7</sup> because it will not result in a change to the number of television broadcast stations serving Lubbock and Wolfford -- only the specific channels used to serve each community.

For the foregoing reasons, the Licensees respectfully request that the Commission grant this Petition, immediately commence a rulemaking proceeding to modify the DTV Table as set forth herein, and authorize the filing of major modification applications to implement the proposed channel swap.

Respectfully submitted,

GRAY TELEVISION LICENSEE, LLC

SAGAMOREHILL OF LUBBOCK, LLC

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Dated: January 12, 2024

<sup>7</sup> *Amendment of Section 3.606 of the Commission's Rules and Regulations*, Sixth Report and Order, 41 F.C.C. 148, 167-173 (1952).

## Exhibit 1

## **Engineering Statement**

prepared for

**Gray Television Licensee, LLC**

**SagamoreHill of Lubbock, LLC**

KCBD(DT) Lubbock, TX Facility ID 27507

KJTV-TV Lubbock, TX Facility ID 55031

KLCW-TV Wolfforth, TX Facility ID 77719

This engineering statement has been prepared on behalf of *Gray Television Licensee, LLC* (“Gray”) and *SagamoreHill of Lubbock, LLC* (“SagamoreHill”) in support of a *Petition for Rulemaking* to amend §73.622(j) to swap the digital television channel assignments between three digital television stations. *Gray* is licensee of KCBD (Facility ID 27507, Lubbock TX) and KLCW-TV (Facility ID 77719 Wolfforth, TX), and *SagamoreHill* is licensee of KJTV-TV (Facility ID 55031 Lubbock, TX).

KCBD is licensed to operate on Channel 11 (File# 0000010766). A recent channel substitution changed the digital channel allotment for KCBD from Channel 11 to Channel 36 as described in the FCC Report and Order in MB Docket 21-477<sup>1</sup>. A Construction Permit (“CP” file# 0000149814), which has not been built out, authorizes KCBD to operate on Channel 36. As currently authorized, KCBD would operate on Channel 36 at 1000 kW effective radiated power (“ERP”) using the existing broadband antenna that is shared by KJTV-TV (Channel 35) and KLCW-TV (Channel 23), located 5.5 km distant from the licensed KCBD Channel 11 site.

*Gray* and *SagamoreHill* propose to swap the KCBD, KJTV-TV, and KLCW-TV allotments such that the channels, antennas, and power levels will continue to operate as currently licensed but for different television facilities. That is, the Channel 35 technical facility currently utilized by KJTV-TV will be employed by KCBD, the existing Channel 23 technical facility of KLCW-TV will be utilized by KJTV-TV, and KCBD’s existing Channel 11 technical facility will be employed by KLCW-TV.

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<sup>1</sup>*Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Lubbock, TX)*, MB Docket No. 21-61, RM 11885, DA 21-477, released April 26, 2021.

The attached Figure 1 provides an overview comparison map of the noise limited service contour (“NLSC”) for each station. There will be no change in the total number of existing television NLSC services for any location. A summary of the technical parameters is provided in the following.

KCBD Facility ID 27507: currently licensed on Channel 11

Proposed substitution: KCBD to use Channel 35 with the antenna and ERP currently utilized by KJTV-TV (1000 kW ERP, file# 0000074582)

**Proposed KCBD Channel 35 Parameters**  
**Same as Licensed KJTV-TV Channel 35 (file# 0000074582)**

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
27507	KCBD	35	LUBBOCK	TX	333008.3	1015221.3	1263.7	282.1	1000	DA 1005100

KJTV-TV Facility ID 55031: currently licensed on Channel 35

Proposed substitution: KJTV-TV to use Channel 23 with the antenna and ERP currently utilized by KLCW-TV (200 kW ERP, file# 0000074584)

**Proposed KJTV-TV Channel 23 Parameters**  
**Same as Licensed KLCW-TV Channel 23 (file# 0000074584)**

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
55031	KJTV-TV	23	LUBBOCK	TX	333008.3	1015221.3	1263.7	282.1	200	DA 1005101

KLCW-TV Facility ID 77719: currently licensed on Channel 23

Proposed substitution: KLCW-TV to use Channel 11 with the antenna and ERP currently utilized by KCBD (41 kW ERP, file# 0000010766)

**Proposed KLCW-TV Channel 11 Parameters**  
**Same as Licensed KCBD Channel 11 (file# 0000010766)**

FacID	Call	Ch	City	St	Lat	Lon	RCAMSL	HAAT	ERP	DA
77719	KLCW-TV	11	WOLFFORTH	TX	333229.9	1015013.6	1208.2	234	41	ND



### **Discussion – KCBD**

The proposed KCBD Channel 35 operation will employ the existing UHF broadband directional antenna that is top-mounted on the tower structure associated with FCC Antenna Structure Registration (“ASR”) number 1248244. The antenna will be shared with the proposed KJTV-TV Channel 23 facility.

The KCBD Channel 35 proposed ERP is 1000 kW. The Channel 35 directional antenna azimuthal pattern (FCC Antenna ID 1005100) is plotted in Figure 2. The proposed KCBD Channel 35 facility parameters match those of the licensed KJTV-TV Channel 35 facility (file# 0000074582).

A map is supplied as Figure 2A, which depicts the proposed KCBD standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Lubbock will be encompassed by the 48 dBμ contour.

Interference study per FCC OET Bulletin 69<sup>2</sup> shows that the KCBD proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations as required by §73.616. The interference study output report is provided as Table 1. No predicted interference is caused to any relevant facility.

Figure 2B shows that the proposed KCBD Channel 35 NLSC encompasses and expands slightly beyond the NLSC corresponding to the KCBD Channel 36 NLSC adopted in MB Docket 21-477 and authorized by CP (file# 0000149814). Owing to the use of the same broadband antenna at the same ERP of 1000 kW and the dipole factor NLSC adjustment, no loss of service will occur when the Channel 35 proposal is compared to the authorized Channel 36. The population within the KCBD authorized Channel 36 NLSC is 406,634 persons (2010 census) and increases by 191 persons to 406,825 for the proposed Channel 35 NLSC.

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<sup>2</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 2 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC’s implementation of TVStudy show excellent correlation.

As with the KCBD Channel 36 CP, the proposed Channel 35 NLSC will fall short of matching that of the licensed Channel 11 facility. The KCBD licensed Channel 11 NLSC encompasses 414,829 persons (2010 census) and decreases by 8,004 persons to 406,825 for the proposed Channel 35 NLSC. KCBD is a top-four network affiliate (NBC), and further analysis shows that only a *de minimis* level of population in the NLSC loss area will lose NBC terrain-limited service when compared to the licensed Channel 11.

As was provided in MB Docket 21-477, a loss area analysis is provided in Figure 2C to consider terrain-limited coverage predictions of the licensed Channel 11 facility and the proposed Channel 35 operation. Here, the FCC's TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 35 NLSC. The study area was set using the "fixed geography" option to match the KCBD licensed Channel 11 NLSC. Default cell size and profile step settings were employed. The analysis included examination of each cell that is located beyond the proposed KCBD Channel 35 NLSC and within the existing KCBD Channel 11 facility's NLSC. Cells in this region were counted as lost service if they are predicted to have terrain-limited service from the licensed Channel 11 facility and not from the proposed Channel 35.

This analysis shows that nearly all of the terrain-limited service population achieved by the licensed KCBD within its Channel 11 NLSC will receive terrain-limited service from the proposed Channel 35. The determination of terrain-limited service loss considers each cell that is located within the existing Channel 11 facility's NLSC and beyond the proposed Channel 35 NLSC. This analysis shows that the terrain-limited loss population is only 350 persons, which is the same result that was determined for Channel 36 in MB Docket 21-477. The FCC has previously found that population loss of less than 500 persons is *de minimis*,<sup>3</sup> and the predicted population loss in this case is only 350 persons.

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<sup>3</sup>See *WSET, Inc.*, 80 FCC 2d 233, 246 (1980).

### **Discussion – KJTV-TV**

The proposed KJTV-TV Channel 23 operation will continue to employ the existing UHF broadband directional antenna that is currently utilized by the licensed KJTV-TV Channel 35 facility and currently shared with the licensed KLCW-TV Channel 23 facility. The antenna, top-mounted on the tower structure associated with ASR number 1248244, will be shared with the proposed KCBD Channel 35 facility, while KLCW-TV will relocate to a separate site on Channel 11.

The KJTV-TV Channel 23 proposed ERP is 200 kW. The Channel 23 directional antenna azimuthal pattern (FCC Antenna ID 1005101) is plotted in Figure 3. The proposed KJTV-TV Channel 23 facility parameters match those of the licensed KLCW-TV Channel 23 facility (file# 0000074584).

A map is supplied as Figure 3A, which depicts the proposed KCBD standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Lubbock will be encompassed by the 48 dBμ contour.

TVStudy interference analysis shows that the KJTV-TV proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations as required by §73.616. The interference study output report is provided as Table 2.

Figure 3B shows that the proposed KJTV-TV Channel 23 NLSC at 200 kW ERP will fall short of matching that of the licensed 1000 kW ERP Channel 35 facility. The KJTV-TV licensed Channel 35 NLSC encompasses 406,825 persons (2010 census) and decreases by 27,780 persons to 382,045 for the proposed Channel 23 NLSC. KJTV-TV is a top-four network affiliate (Fox), and further analysis shows that only a *de minimis* level of population in the NLSC loss area will lose Fox terrain-limited service.

The loss area analysis provided in Figure 3B considers terrain-limited coverage predictions of the licensed KJTV-TV Channel 35 facility and the proposed Channel 23 operation. Again, the

FCC's TVStudy computer program was used to determine terrain-limited coverage predictions at locations beyond the proposed Channel 23 NLSC using the "fixed geography" option to match the KJTV-TV licensed Channel 35 NLSC at default cell size and profile step settings. The analysis included examination of each cell that is located beyond the proposed KJTV-TV Channel 23 NLSC and within the licensed Channel 35 facility's NLSC. Cells in this region were counted as lost service if they are predicted to have terrain-limited service from the licensed Channel 35 facility and not from the proposed Channel 23.

This analysis shows that nearly all of the terrain-limited service population achieved by the licensed KJTV-TV within its Channel 35 NLSC will receive terrain-limited service from the proposed Channel 23. The determination of terrain-limited service loss considers each cell that is located within the licensed Channel 35 facility's NLSC and beyond the proposed Channel 23 NLSC. This analysis shows that the terrain-limited loss population is only 32 persons, which is considerably less than the allowable *de minimis* loss of 500 persons.

### **Discussion – KLCW-TV**

The proposed KLCW-TV Channel 11 operation will employ the existing nondirectional antenna that is top-mounted on the tower structure associated with ASR number 1298672. The proposed ERP is 41 kW. The proposed KLCW-TV Channel 11 facility parameters match those of the licensed KCBD Channel 11 facility (file# 0000010766).

A map is supplied as Figure 4, which depicts the proposed KLCW-TV standard predicted coverage contours. As demonstrated thereon, the proposed facility complies with §73.625(a)(1) as the entire community of Wolfforth will be encompassed by the 43 dBμ contour.

TVStudy interference analysis shows that the KLCW-TV proposal complies with the 0.5 percent limit of new interference caused to pertinent nearby full service and Class A television stations and reassignments as required by §73.616. The interference study output report is provided as Table 3.

Figure 4A shows that the proposed KLCW-TV Channel 11 NLSC encompasses and expands well beyond that of the licensed Channel 23 facility. The population within the licensed Channel 23 NLSC is 382,045 persons (2010 census) and increases by 32,784 persons to 414,829 for the proposed Channel 11 NLSC.

### **Conclusion**

The proposed channel swap involving three digital television stations complies with the FCC's principal community coverage requirements of §73.625 and the interference protection requirements of §73.616. There will be no change in the total number of existing television NLSC services for any location. Individual station NLSC area differences will occur, while terrain-limited analysis shows that only a *de minimis* level of population in any individual NLSC loss area will lose top-four network service.

### **List of Attachments**

Figure 1	Coverage Contour Comparison – Proposed Channel Substitutions
Figure 2	KCBD Antenna Azimuthal Pattern
Figure 2A	KCBD Proposed Coverage Contours
Figure 2B	KCBD Coverage Contour Comparison
Figure 2C	KCBD NBC Loss Area Analysis – Terrain-Limited Method
Figure 3	KJTV-TV Antenna Azimuthal Pattern
Figure 3A	KJTV-TV Proposed Coverage Contours
Figure 3B	KJTV-TV Fox Loss Area Analysis – Terrain-Limited Method
Figure 4	KLCW-TV Proposed Coverage Contours
Figure 4A	KLCW-TV Coverage Contour Comparison
Table 1	KCBD Ch. 35 TVStudy Analysis of Proposal
Table 2	KJTV-TV Ch. 23 TVStudy Analysis of Proposal
Table 3	KLCW-TV Ch. 11 TVStudy Analysis of Proposal

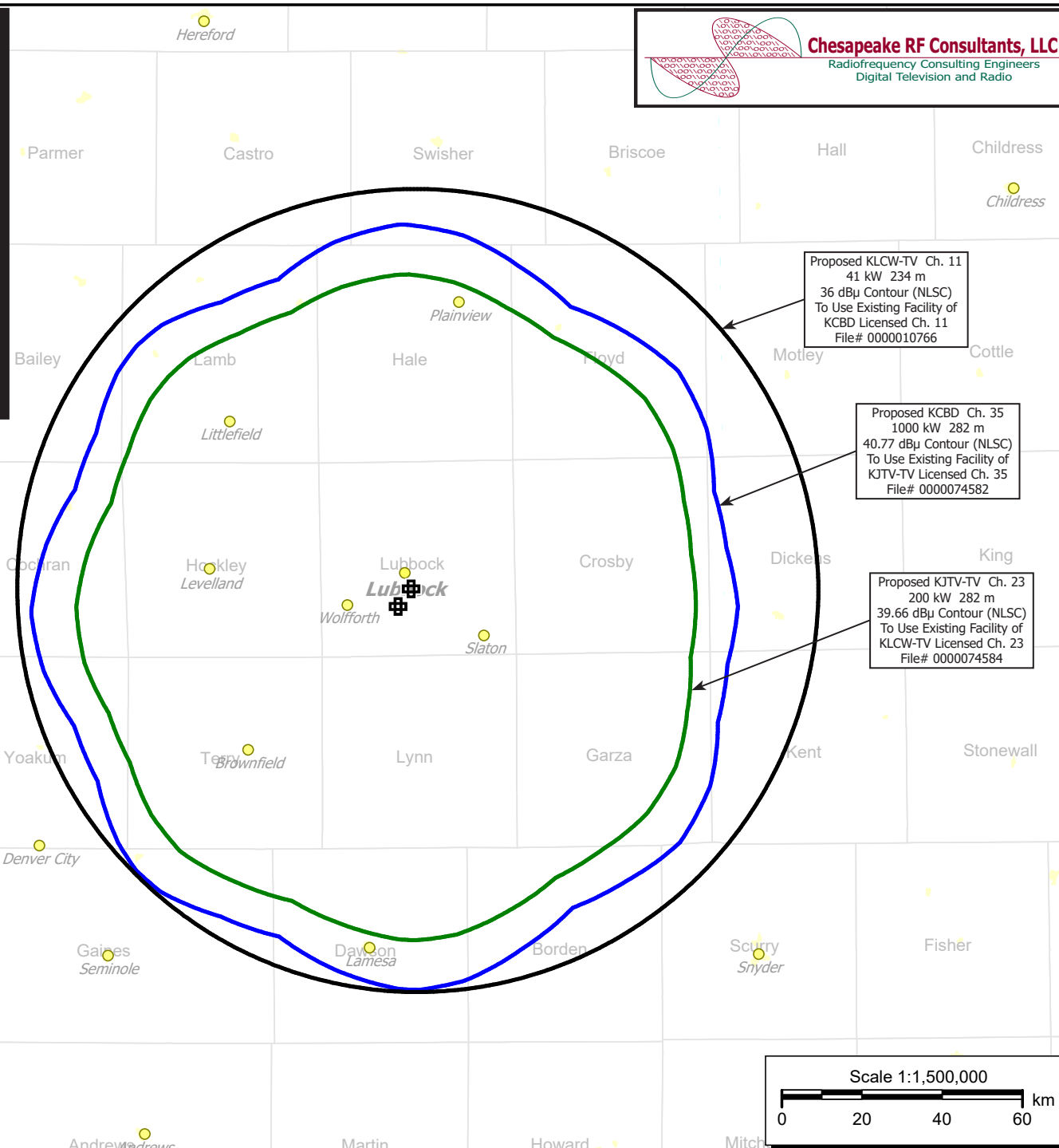
### **Chesapeake RF Consultants, LLC**

Joseph M. Davis, P.E.	December 28, 2023	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

**Figure 1**  
**Coverage Contour Comparison**  
**Proposed Channel Substitutions**  
**KCBD(DT) Lubbock, TX**  
**KJTV-TV Lubbock, TX**  
**KLCW-TV Wolfforth, TX**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

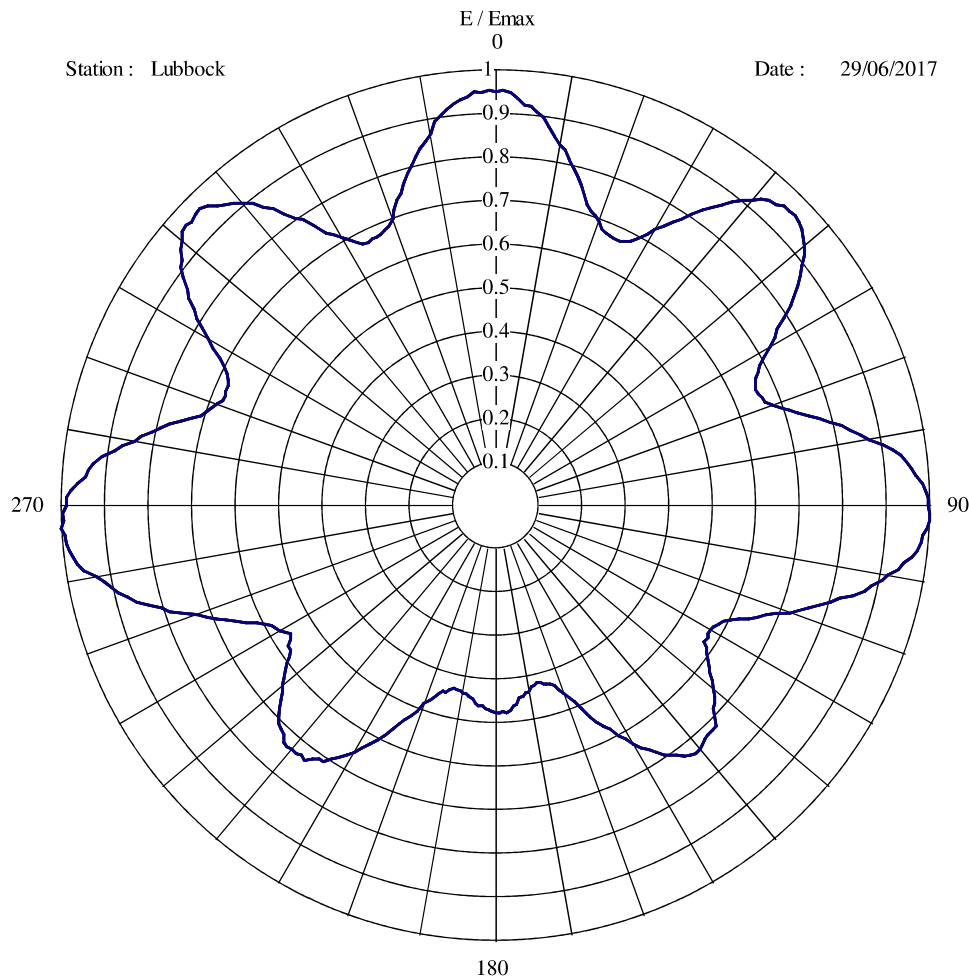
December, 2023





Rotate Pattern  
270 Degrees

## Horizontal Radiation Pattern



Model : PHP64U3313

Polarisation : Horizontal  
Frequency (MHz) : 602.00  
Directivity : 2.45 dB  
Elevation Angle : 0.7 degrees

**Figure 2**  
**Antenna Azimuthal Pattern**  
**KCBD(DT) Lubbock, TX**  
**Facility ID 27507**  
**Ch. 35 1000 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

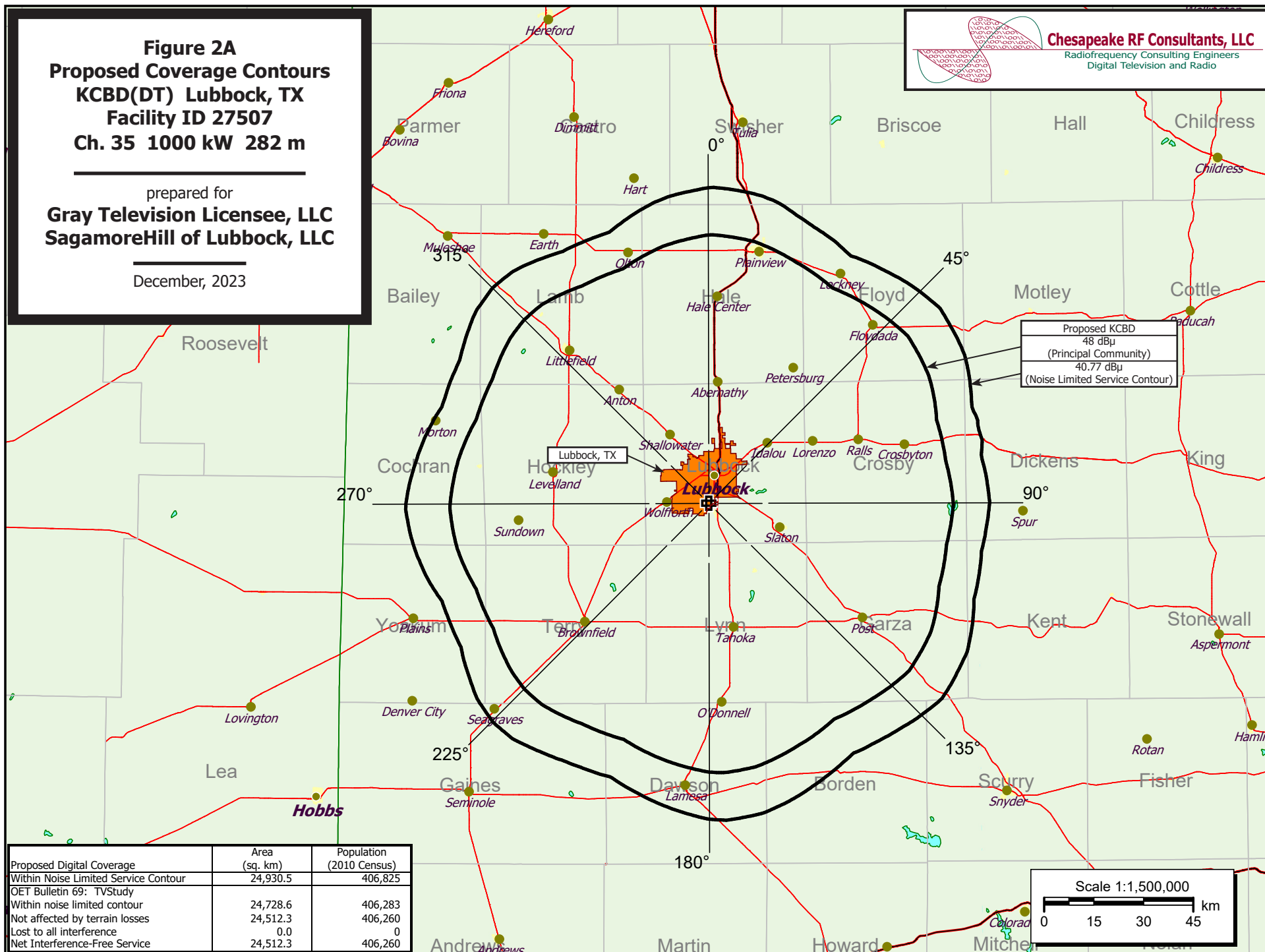
December, 2023



**Figure 2A**  
**Proposed Coverage Contours**  
**KCBD(DT) Lubbock, TX**  
**Facility ID 27507**  
**Ch. 35 1000 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

December, 2023



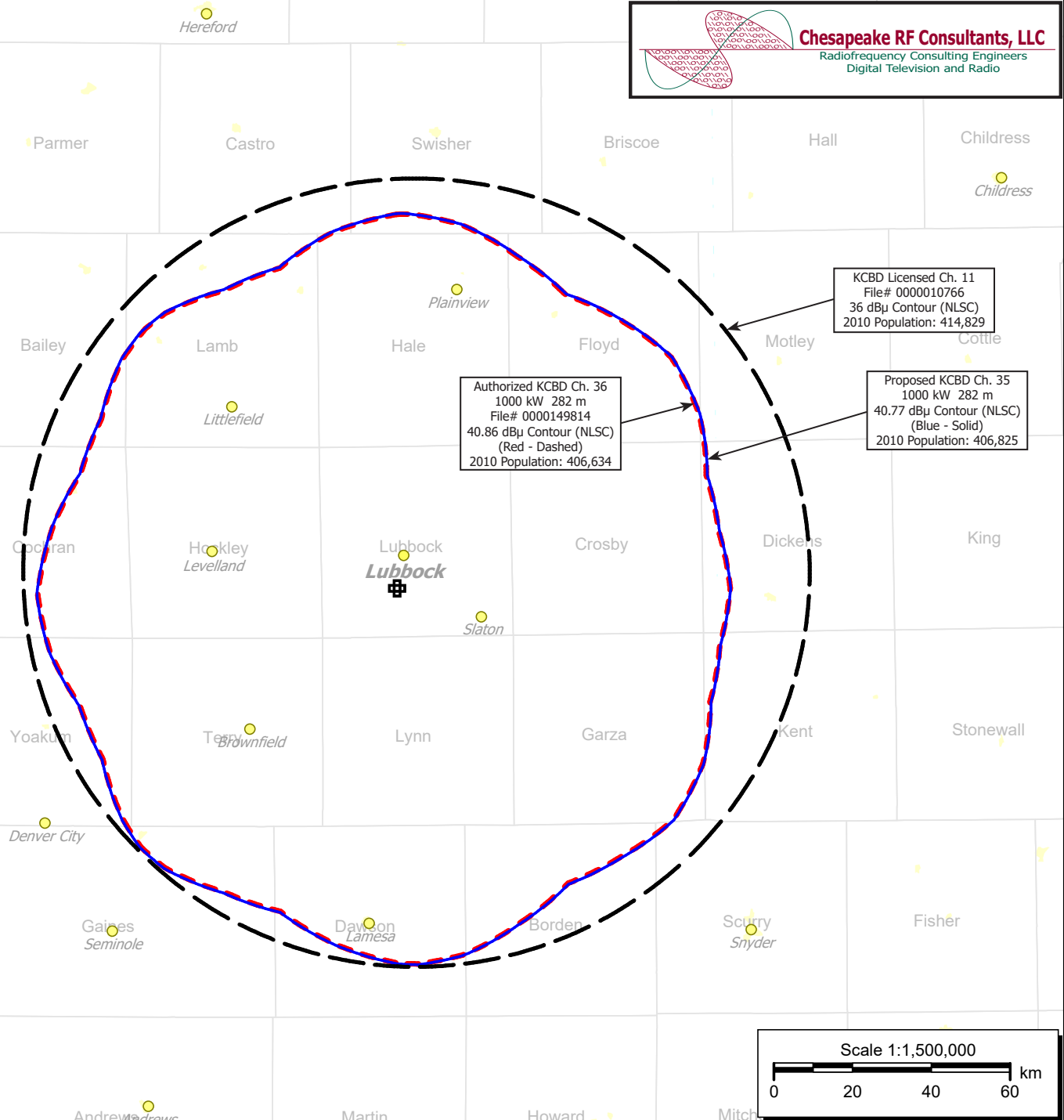
Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	24,930.5	406,825
OET Bulletin 69: TVStudy		
Within noise limited contour	24,728.6	406,283
Not affected by terrain losses	24,512.3	406,260
Lost to all interference	0.0	0
Net Interference-Free Service	24,512.3	406,260



**Figure 2B**  
**Coverage Contour Comparison**  
**KCBD(DT) Lubbock, TX**  
**Facility ID 27507**  
**Ch. 35 1000 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

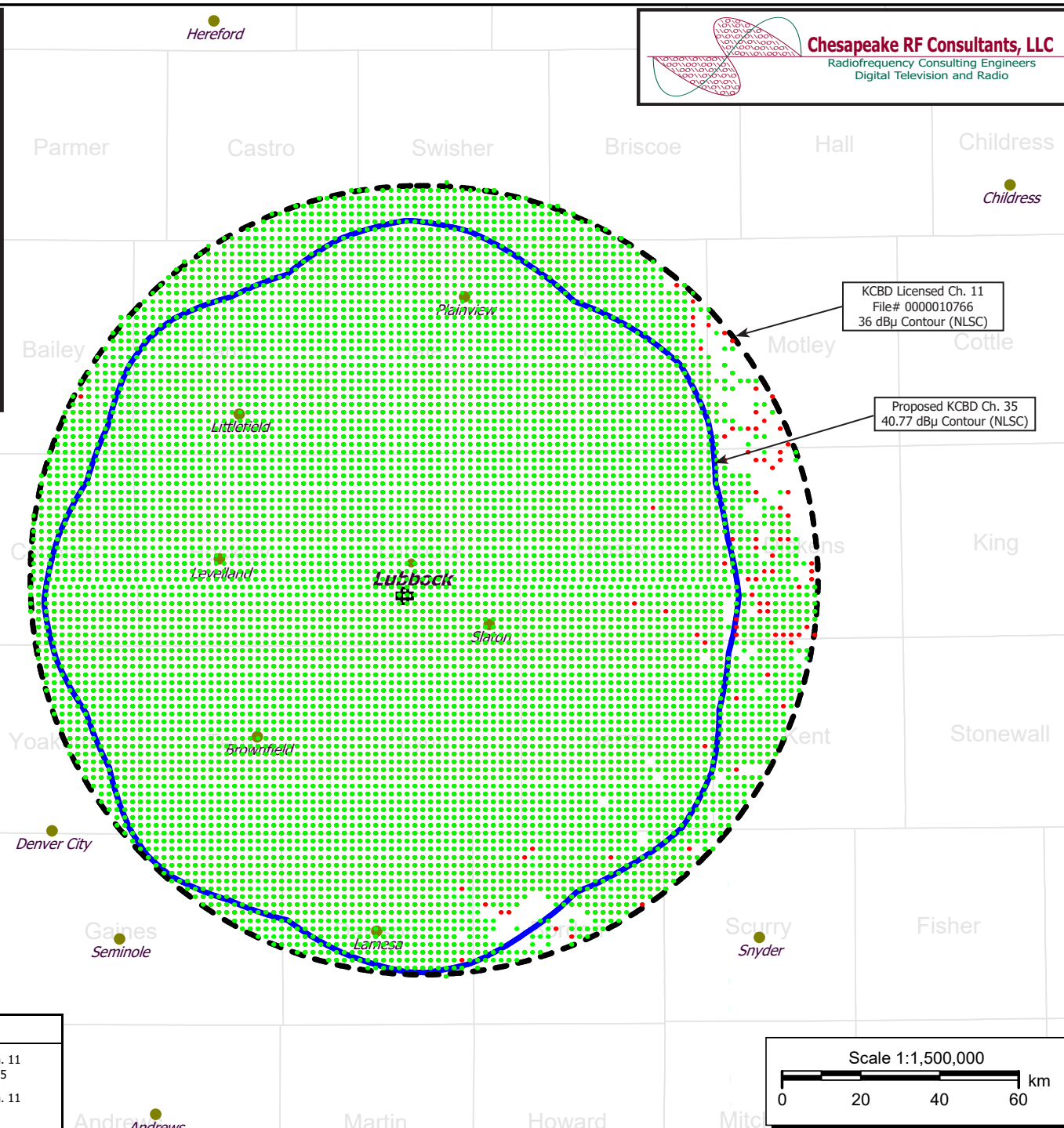
December, 2023



**Figure 2C**  
**NBC Loss Area Analysis**  
**Terrain-Limited Method**  
**KCBD(DT) Lubbock, TX**  
**Facility ID 27507**  
**Ch. 35 1000 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

December, 2023



KCBD Terrain-Limited Population TVStudy at Fixed Geography Area	(2010 census)
Licensed Ch. 11 Total	414,091
Loss Beyond Proposed Ch. 35 NLSC	350

FCC "TVStudy" Analysis (default settings) Terrain-Limited Results	
<span style="color: green;">●</span> No Loss	Cells Having Terrain-Limited Service From Licensed Ch. 11 Terrain-Limited Service Is Provided for Proposed Ch. 35
<span style="color: red;">●</span> Loss	Cells Having Terrain-Limited Service From Licensed Ch. 11 Terrain-Limited Service Is Lost for Proposed Ch. 35

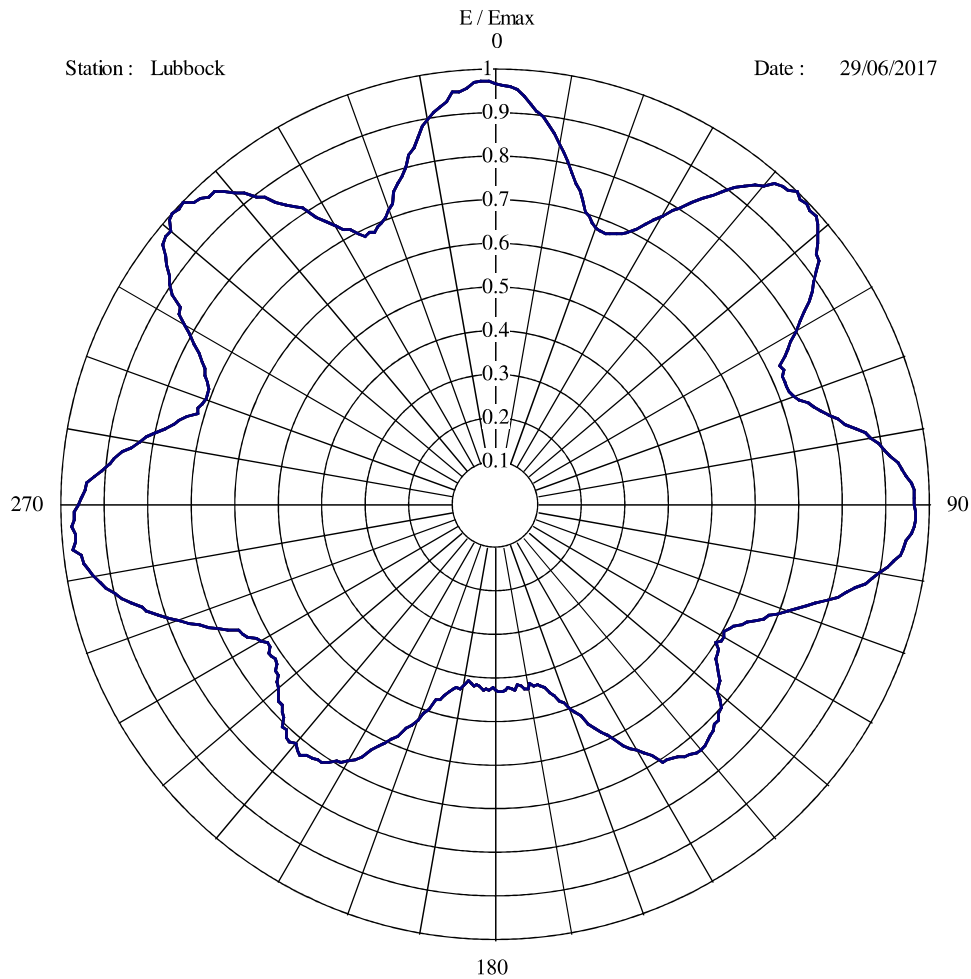


Rotate Pattern  
270 Degrees

## Horizontal Radiation Pattern

Station : Lubbock

Date : 29/06/2017



Model : PHP64U3313

Polarisation : Horizontal

Frequency (MHz) : 528.00

Directivity : 2.27 dB

Elevation Angle : 0.7 degrees

**Figure 3**  
**Antenna Azimuthal Pattern**  
**KJTV-TV Lubbock, TX**  
**Facility ID 55031**  
**Ch. 23 200 kW 282 m**

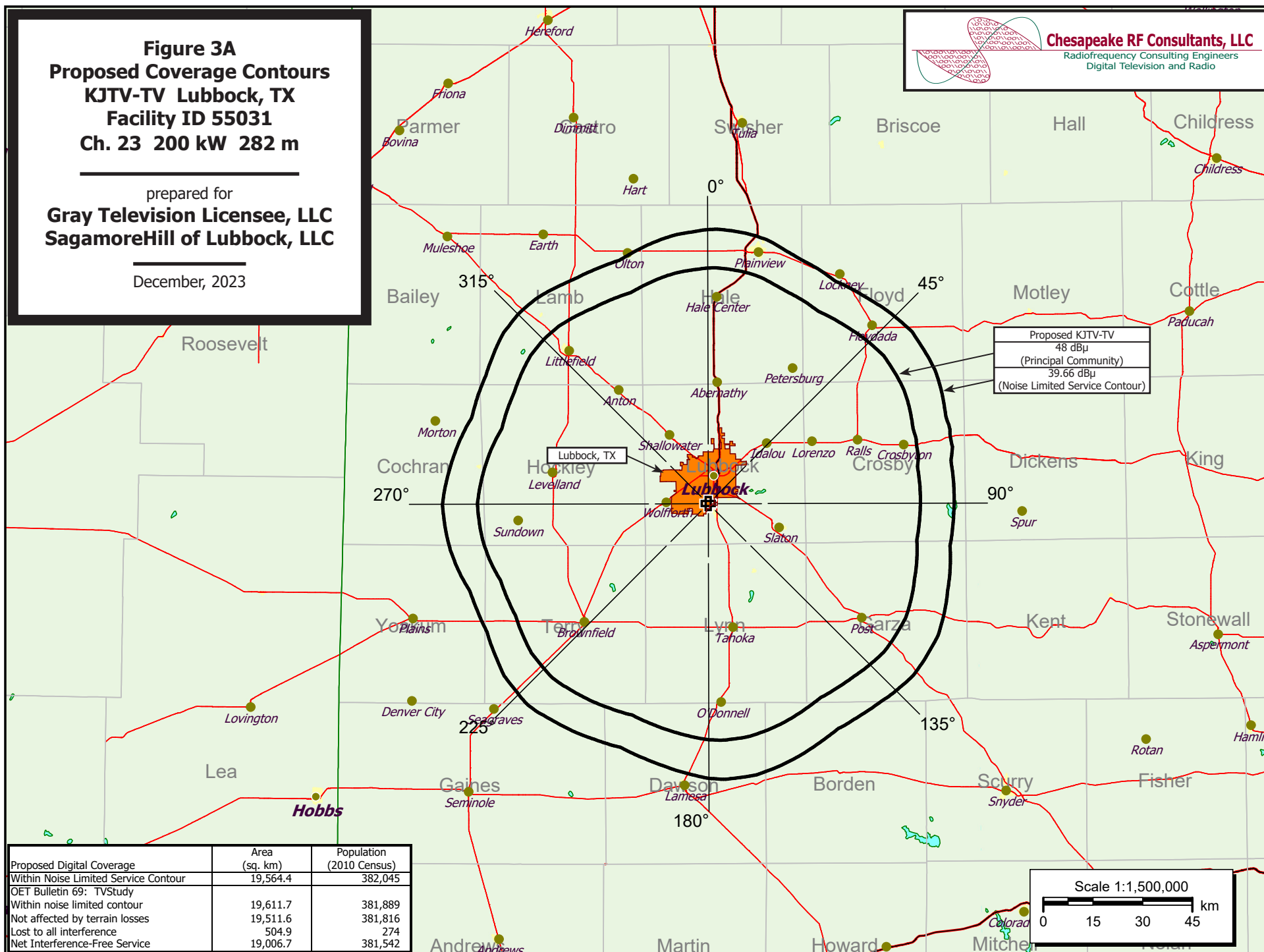
prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

December, 2023

**Figure 3A**  
**Proposed Coverage Contours**  
**KJTV-TV Lubbock, TX**  
**Facility ID 55031**  
**Ch. 23 200 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

December, 2023

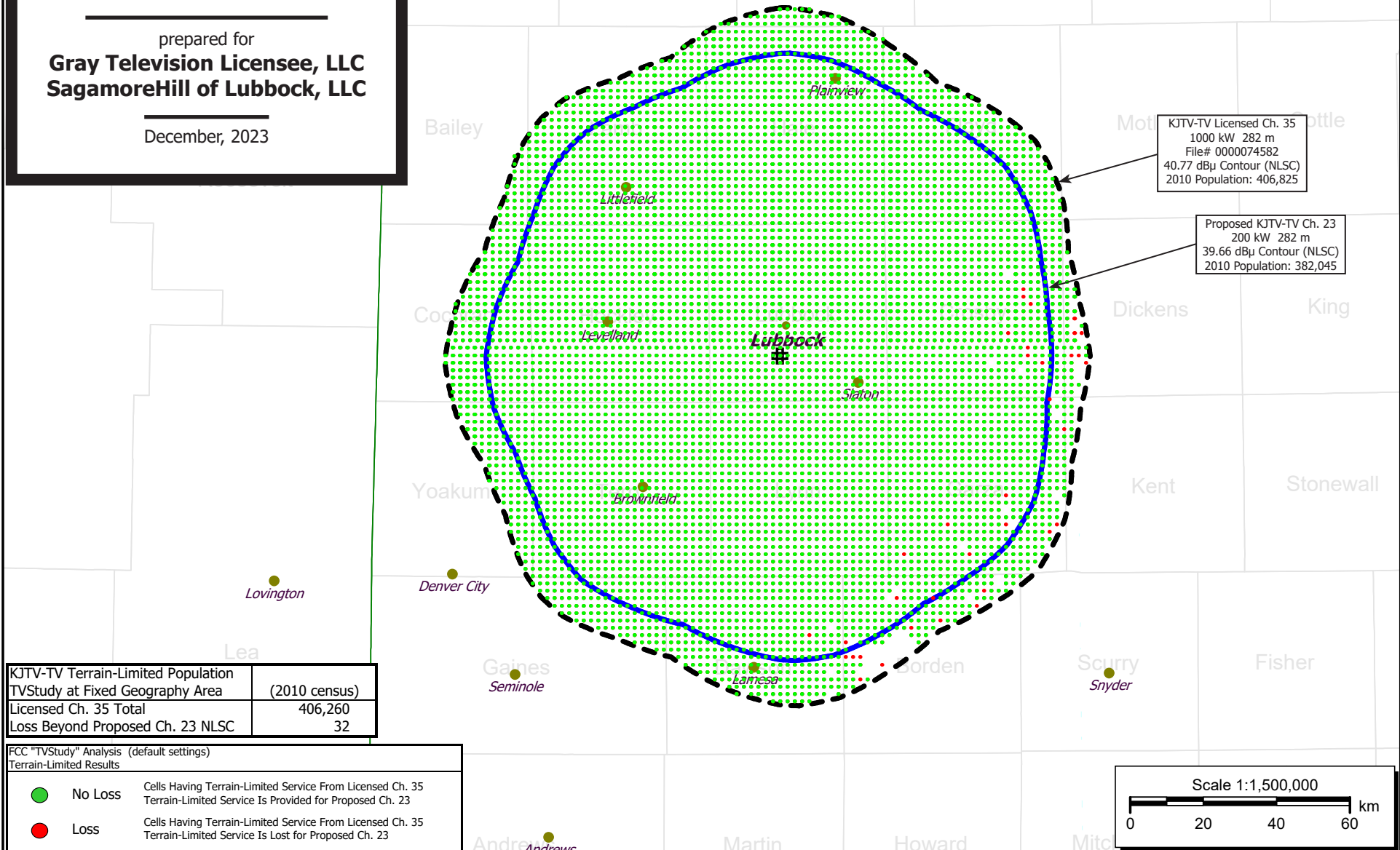


Proposed Digital Coverage	Area (sq. km)	Population (2010 Census)
Within Noise Limited Service Contour	19,564.4	382,045
OET Bulletin 69: TVStudy		
Within noise limited contour	19,611.7	381,889
Not affected by terrain losses	19,511.6	381,816
Lost to all interference	504.9	274
Net Interference-Free Service	19,006.7	381,542

**Figure 3B**  
**Fox Loss Area Analysis**  
**Terrain-Limited Method**  
**KJTV-TV Lubbock, TX**  
**Facility ID 55031**  
**Ch. 23 200 kW 282 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

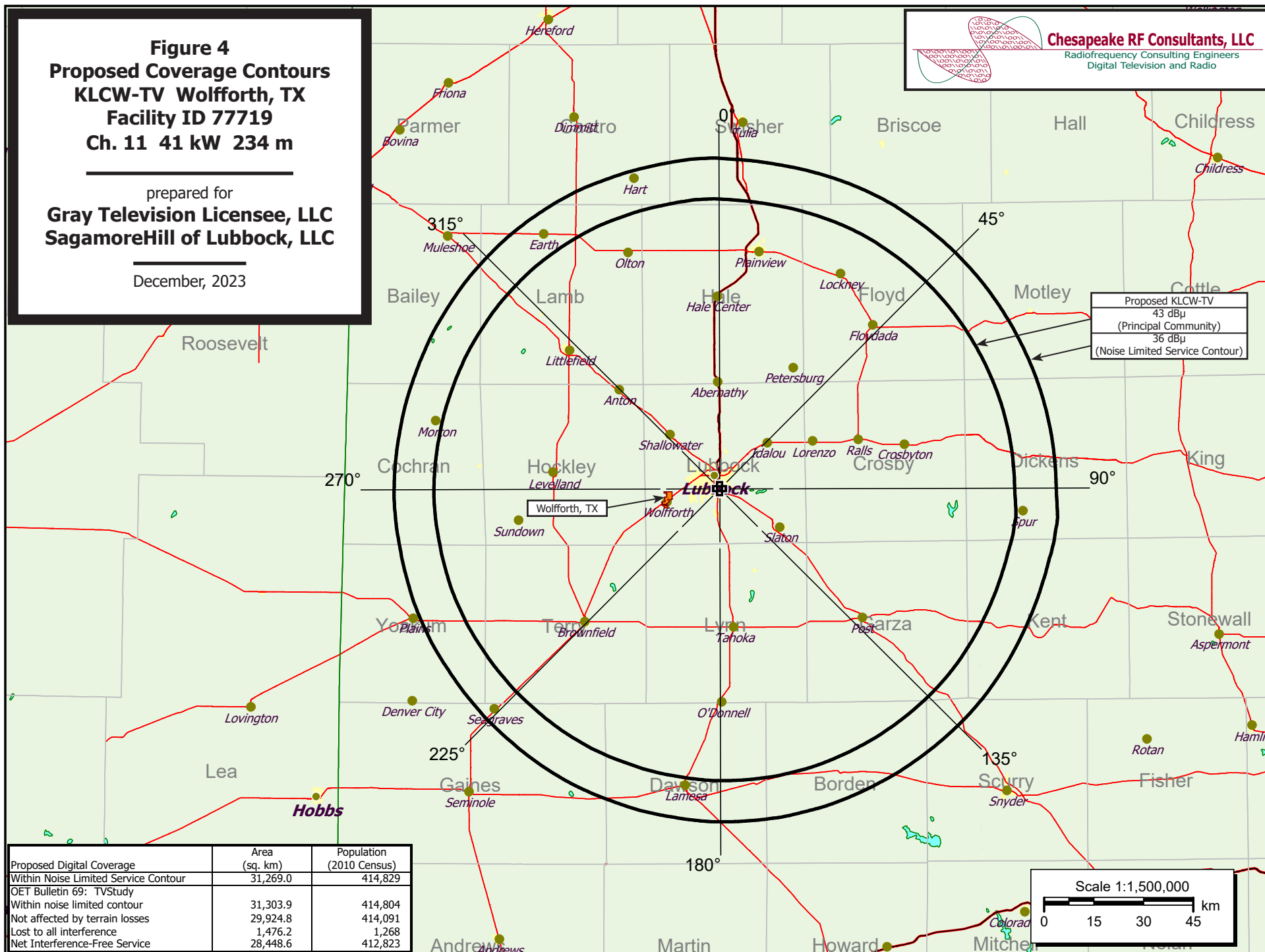
December, 2023



**Figure 4**  
**Proposed Coverage Contours**  
**KLCW-TV Wolfforth, TX**  
**Facility ID 77719**  
**Ch. 11 41 kW 234 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

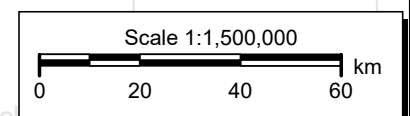
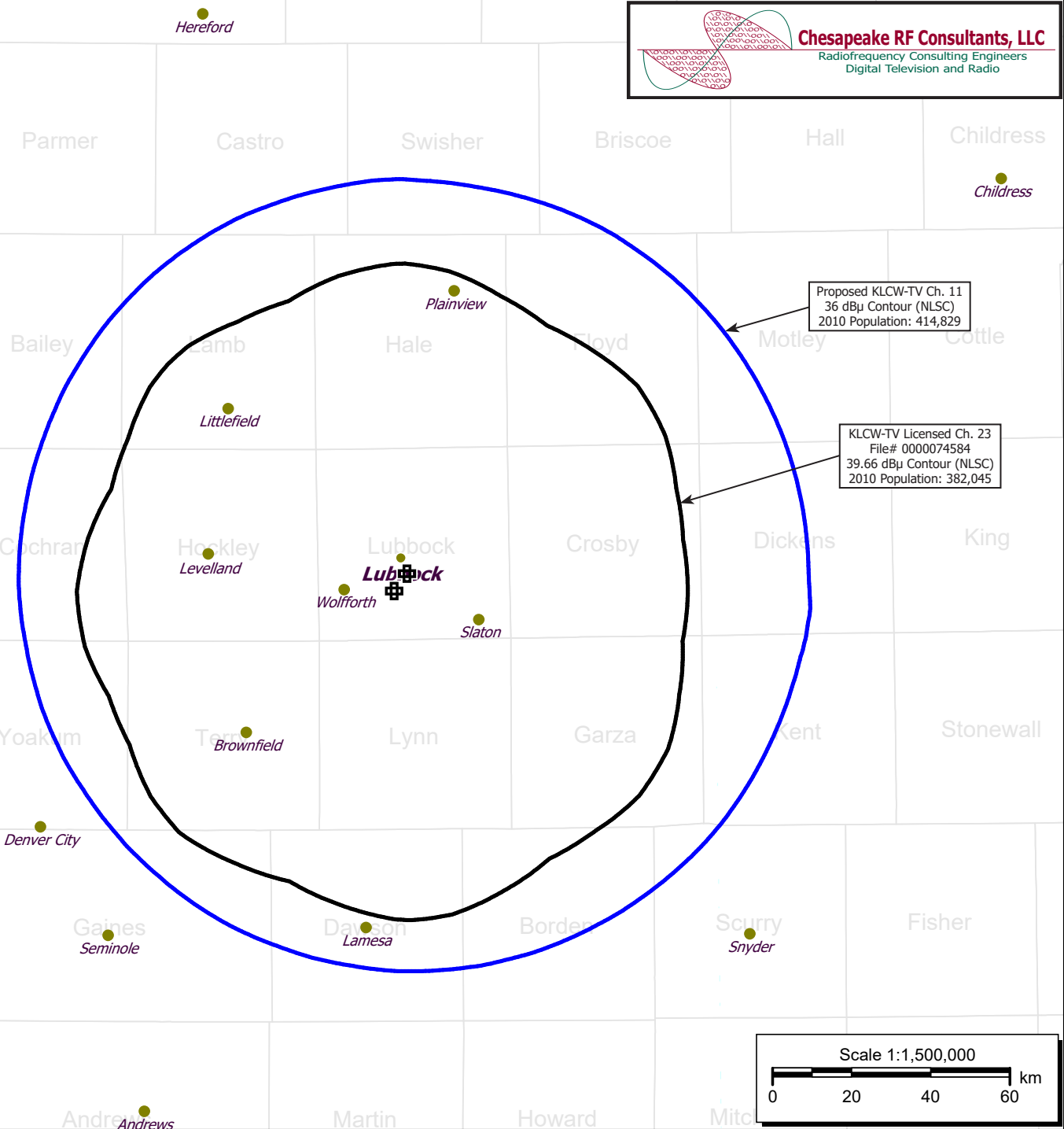
December, 2023



**Figure 4A**  
**Coverage Contour Comparison**  
**KLCW-TV Wolfforth, TX**  
**Facility ID 77719**  
**Ch. 11 41 kW 234 m**

prepared for  
**Gray Television Licensee, LLC**  
**SagamoreHill of Lubbock, LLC**

December, 2023



**Table 1 KCBD Ch. 35 TV Study Analysis of Proposal**  
(page 1 of 2)



tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: KCBD Ch-35 prop, Model: Longley-Rice  
Start: 2023.12.27 09:33:50

Study created: 2023.12.27 09:33:50

Study build station data: LMS TV 2023-12-27

Proposal: KCBD D35 DT APP LUBBOCK, TX  
File number: KCBD Ch-35  
Facility ID: 27507  
Station data: User record  
Record ID: 232  
Country: U.S.  
Zone: II

Build options:  
Protect pre-transition records not on baseline channel

Search options:  
Baseline record excluded if station has CP

Individual records excluded:  
0000074582 KJTV-TV D35 DT LIC LUBBOCK, TX BLANK0000074582  
55031 KJTV-TV D35 DT BL LUBBOCK, TX DTVBL55031

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KNME-TV	D35	DT	LIC	ALBUQUERQUE, NM	BLANK0000131933	461.0 km
No	KUOK	D35	DT	LIC	WOODWARD, OK	BLANK0000004509	379.2
No	KDFW	D35	DT	LIC	DALLAS, TX	BLANK0000120280	467.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D35  
Latitude: 33 30 8.30 N (NAD83)  
Longitude: 101 52 21.30 W  
Height AMSL: 1263.7 m  
HAAT: 282.1 m  
Peak ERP: 1000 kW  
Antenna: RFS-PHPR64U3313 (ID 1005100) 0.0 deg  
Elev Pattern: Generic  
Elec Tilt: 0.70

40.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	990 kW	282.3 m	94.9 km
45.0	478	295.1	89.8
90.0	227	300.8	84.3
135.0	468	298.4	90.1
180.0	976	283.8	95.0
225.0	929	268.6	92.2
270.0	903	261.9	90.7
315.0	914	265.8	91.5

Distance to Canadian border: 1722.5 km

Distance to Mexican border: 404.8 km

Conditions at FCC monitoring station: Douglas AZ  
Bearing: 255.2 degrees Distance: 762.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 338.9 degrees Distance: 793.4 km



**Table 1 KCBD Ch. 35 TVStudy Analysis of Proposal**  
(page 2 of 2)



Study cell size: 2.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

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Interference to proposal scenario 1

Desired:	Call KCBD	Chan D35	Svc DT	Status APP	City, State LUBBOCK, TX	File Number KCBD Ch-35	Distance
	Service area			Terrain-limited		IX-free	Percent IX
24728.6	406,283	24512.3		406,260	24512.3	406,260	0.00 0.00

**Table 2 KJTV-TV Ch. 23 TVStudy Analysis of Proposal**  
(page 1 of 2)



tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: KJTV-TV Ch-23 prop, Model: Longley-Rice  
Start: 2023.12.27 09:35:50

Study created: 2023.12.27 09:35:49

Study build station data: LMS TV 2023-12-27

Proposal: KJTV-TV D23 DT APP Lubbock, TX  
File number: KJTV-TV Ch-23 prop  
Facility ID: 88031  
Station data: User record  
Record ID: 236  
Country: U.S.  
Zone: II

Build options:  
Protect pre-transition records not on baseline channel

Search options:  
Baseline record excluded if station has CP

Individual records excluded:  
0000074584 KLCW-TV D23 DT LIC WOLFFORTH, TX BLANK0000074584  
77719 KLCW-TV D23 DT BL WOLFFORTH, TX DTVBL77719

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KRWG-TV	D23	DT	LIC	LAS CRUCES, NM	BLEDT20071119AFE	469.9 km
No	KSBI	D23	DT	LIC	OKLAHOMA CITY, OK	BLANK0000055374	463.9
No	KSBI	D23	DT	LIC	OKLAHOMA CITY, OK	BLCDT20140530AFS	463.9
No	KTXD-TV	D23	DT	LIC	GREENVILLE, TX	BLANK0000080284	467.8
Yes	KPEJ-TV	D23	DT	LIC	ODESSA, TX	BLCDT20060629AGO	160.9
Yes	KXTQ-CD	D24	DC	LIC	LUBBOCK, TX	BLANK0000063861	0.0

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D23  
Latitude: 33 30 8.30 N (NAD83)  
Longitude: 101 52 21.30 W  
Height AMSL: 1263.7 m  
HAAT: 282.1 m  
Peak ERP: 200 kW  
Antenna: RFS-PHPR64U3313 (ID 1005101) 0.0 deg  
Elev Pattn: Generic  
Elec Tilt: 0.70

39.7 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	185 kW	282.3 m	82.3 km
45.0	97.6	295.1	79.7
90.0	36.1	300.8	74.3
135.0	94.8	298.4	79.8
180.0	185	283.8	82.5
225.0	190	268.6	80.9
270.0	187	261.9	80.2
315.0	196	265.8	80.8

Distance to Canadian border: 1722.5 km

Distance to Mexican border: 404.8 km

Conditions at FCC monitoring station: Douglas AZ  
Bearing: 255.2 degrees Distance: 762.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

**Table 2 KJTV-TV Ch. 23 TVStudy Analysis of Proposal**  
(page 2 of 2)



Bearing: 338.9 degrees Distance: 793.4 km

Study cell size: 2.00 km  
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

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Interference to BLCDT20060629AGO LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KPEJ-TV	D23	DT	LIC	ODESSA, TX	BLCDT20060629AGO	
Undesireds:	KJTV-TV	D23	DT	APP	Lubbock, TX	KJTV-TV Ch-23 prop	160.9 km
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	26771.9 368,212	26660.2	368,208	26660.2	368,208	26156.0 366,414	1.89 0.49
Undesired			Total IX		Unique IX, before	Unique IX, after	
KJTV-TV D23 DT APP		504.2	1,794		504.2	1,794	

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Interference to BLANK0000063861 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KXTQ-CD	D24	DC	LIC	LUBBOCK, TX	BLANK0000063861	
Undesireds:	KJTV-TV	D23	DT	APP	Lubbock, TX	KJTV-TV Ch-23 prop	0.0 km
	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
	8525.7 322,396	8501.8	322,396	8501.8	322,396	8497.8 322,396	0.05 0.00
Undesired			Total IX		Unique IX, before	Unique IX, after	
KJTV-TV D23 DT APP		4.0	0		4.0	0	

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Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KJTV-TV	D23	DT	APP	Lubbock, TX	KJTV-TV Ch-23 prop	
Undesireds:	KPEJ-TV	D23	DT	LIC	ODESSA, TX	BLCDT20060629AGO	160.9 km
	Service area		Terrain-limited		IX-free	Percent IX	
	19611.7 381,889	19511.6	381,816	19006.7	381,542	2.59 0.07	
Undesired			Total IX		Unique IX	Prct Unique IX	
KPEJ-TV D23 DT LIC		504.9	274	504.9	274	2.59 0.07	

**Table 3 KLCW-TV Ch. 11 TVStudy Analysis of Proposal**  
(page 1 of 3)



tvstudy v2.2.5 (4uoc83)  
Database: localhost, Study: KLCW-TV Ch-11 prop, Model: Longley-Rice  
Start: 2023.12.27 09:25:52

Study created: 2023.12.27 09:25:51

Study build station data: LMS TV 2023-12-27

Proposal: KLCW-TV D11 DT APP Wolfforth, TX  
File number: KLCW-TV Ch-11 prop  
Facility ID: 77719  
Station data: User record  
Record ID: 235  
Country: U.S.  
Zone: II

Build options:  
Protect pre-transition records not on baseline channel

Search options:  
Baseline record excluded if station has CP

Individual records excluded:  
0000010766 KCBD D11 DT LIC LUBBOCK, TX BLANK0000010766

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KBIM-TV	D10	DT	LIC	ROSWELL, NM	BLANK0000067866	192.2 km
No	KFDA-TV	D10	DT	LIC	AMARILLO, TX	BLCDT20111114BLB	194.6
Yes	KSWO-TV	D11	DT	LIC	LAWTON, OK	BLANK0000005143	297.1
Yes	KLST	D11	DT	LIC	SAN ANGELO, TX	BLCDT20090316ABJ	294.3
Yes	KVIH-TV	D12	DT	LIC	CLOVIS, NM	BLANK0000211126	151.5

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:  
KRFE 580 L DA2 D LUBBOCK, TX BL5108  
KRFE 580 L DA2 N LUBBOCK, TX BL5108

Record parameters as studied:

Channel: D11  
Latitude: 33 32 29.90 N (NAD83)  
Longitude: 101 50 13.60 W  
Height AMSL: 1208.2 m  
HAAT: 234.0 m  
Peak ERP: 41.0 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 0.75

36.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	41.0 kW	228.8 m	99.5 km
45.0	41.0	239.7	100.5
90.0	41.0	252.7	101.3
135.0	41.0	249.0	101.1
180.0	41.0	236.8	100.2
225.0	41.0	218.8	98.6
270.0	41.0	212.8	98.0
315.0	41.0	221.4	98.9

Database HAAT does not agree with computed HAAT  
Database HAAT: 234 m Computed HAAT: 233 m

Distance to Canadian border: 1718.1 km

Distance to Mexican border: 409.5 km

Conditions at FCC monitoring station: Douglas AZ  
Bearing: 254.9 degrees Distance: 766.7 km



**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

Interference to BLANK0000211126 LIC scenario 1

**Table 3 KLCW-TV Ch. 11 TVStudy Analysis of Proposal**  
(page 3 of 3)



Desired:	Call KVIH-TV	Chan D12	Svc DT	Status LIC	City, State CLOVIS, NM	File Number BLANK0000211126	Distance				
Undesireds:	KLCW-TV	D11	DT	APP	Wolfforth, TX	KLCW-TV Ch-11 prop	151.5 km				
	Service area 36986.6	144,902	Terrain-limited 33311.4		122,956	IX-free, before 33311.4	122,956	IX-free, after 33206.9	122,450	Percent New IX 0.31	0.41
Undesired				Total IX	Unique IX, before	Unique IX, after					
KLCW-TV	D11	DT	APP	104.5	506	104.5	506				

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Interference to proposal scenario 1

Desired:	Call KLCW-TV	Chan D11	Svc DT	Status APP	City, State Wolfforth, TX	File Number KLCW-TV Ch-11 prop	Distance
Undesireds:	KSWO-TV	D11	DT	LIC	LAWTON, OK	BLANK0000005143	297.1 km
	KLST	D11	DT	LIC	SAN ANGELO, TX	BLCDDT20090316ABJ	294.3
	KVIH-TV	D12	DT	LIC	CLOVIS, NM	BLANK0000211126	151.5
Service area		Terrain-limited			IX-free	Percent IX	
31303.9	414,804	29924.8		414,091	28448.6	412,823	4.93      0.31
Undesired				Total IX	Unique IX	Prct Unique IX	
KSWO-TV	D11	DT	LIC	1227.5	1,125	999.4	1,008      3.34      0.24
KLST	D11	DT	LIC	468.8	252	240.7	135      0.80      0.03
KVIH-TV	D12	DT	LIC	8.0	8	8.0	8      0.03      0.00