

**ENGINEERING STATEMENT**

**In support of a request for**

**Displacement for LPTV Translator Application**

**K42AG-D Channel 33**

**Strong City, OK**

**Facility ID: 49663**

**PURPOSE**

MARSAND, INC. has been retained by Oklahoma Community Television, LLC (“OKCT”), licensee of digital TV translator K42AG-D, the “station”, in Strong City, OK, to prepare this engineering statement in support of a displacement application and accompanying Special Temporary Authority (STA).

**DISCUSSION**

The station currently operates on channel 42 which is outside the broadcast television band plan implemented in the *Incentive Auction Closing and Channel Reassignment Public Notice*, DA 17-314, released April 13, 2017. The station has received a letter from T-Mobile providing 120 day notice to vacate its channel before T-Mobile commences operations or testing as the station will likely cause interference operating on its current channel. Following the procedure set forth in the Public Notice on June 14, 2017 (DA 17-584 “Incentive Auction Task Force and Media Bureau Set Forth Tools Available to LPTV/Translator Stations Displaced Prior to the Special Displacement Window”) OKCT respectfully requests a waiver of the Displacement Freeze for this application. The grant of this waiver allows this station to continue servicing its viewers with minimal interruption.

**INTERFERENCE STUDY**

An interference study was performed on the proposed facility using the FCC TVStudy v2.2.3 software, and the results of which show no predicted new interference in excess of the allowable 0.50% to full-service and Class A stations or 2.00% to other LPTV’s. A summary is included as **Exhibit 1**.

## ENVIRONMENTAL STATEMENT

The proposed facility has been evaluated according to FCC OET Bulletin No. 65 "Evaluating Compliance With FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-01, and has been found to comply with the limits set forth in Section 1.1310 of the Rules. The total exposure as defined by the ANSI standard computations for occupational/controlled area is  $0.06 \mu\text{W}/\text{cm}^2$ , or  $<0.00\%$  of the  $1.96 \text{ mW}/\text{cm}^2$  maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is  $0.01\%$  of the  $391 \mu\text{W}/\text{cm}^2$  maximum. The proposed facility contributes power densities less than 5% of the exposure limit at this site and is therefore categorically excluded from further RF exposure evaluation. The Applicant agrees to maintain full compliance with the safety precautions to workers on the tower (controlled) and the general public (uncontrolled) by reducing or removing radiated power during the time of construction or maintenance on or near the antenna. The Applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from Radiofrequency Electromagnetic exposure in excess of FCC guidelines

## CONCLUSION

It is respectfully requested that the Commission grant this displacement application and accompanying request for STA for the facilities as specified herein.

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**DECLARATION**

David Sanderford, EIT, declares and states that he is a graduate Electrical Engineer with a Bachelor of Science Degree in Electrical Engineering from the Georgia Institute of Technology, and his qualifications are known to the Federal Communications Commission, and that he is Vice-President of MARSAND, INC., a Registered Professional Engineering firm in the State of Texas, and that firm has been retained by Oklahoma Community Television, LLC, to perform the engineering support as contained in this report.

All facts contained herein are true of his own knowledge except where stated to be on information or belief provided by others, and as to those facts, he believes them to be true.

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I declare under penalty of perjury that the foregoing is true and correct.



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David Sanderford, EIT  
Vice-President - MARSAND, INC.

Executed this 11<sup>th</sup> day of September, 2017  
State of Texas

# MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

## EXHIBIT 1

Study created: 2017.08.25 13:42:22

Study build station data: LMS TV 2017-08-08 (11)

Proposal: K42AG-D D33 LD LIC STRONG CITY, OK  
File number: okct\_k42ag-d\_prop01  
Facility ID: 49663  
Station data: User record  
Record ID: 217  
Country: U.S.

Build options:  
Protect records not on baseline channel

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KOCB	D33	DT	LIC	OKLAHOMA CITY, OK	BLCDT20060615AAL	191.3 km
K33CQ-D	D33	LD	LIC	CANADIAN, TX	BLDPT20100520ACY	75.5
KOMI-CD	D34	DC	LIC	WOODWARD, OK	BLANK0000014011	55.9

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33  
Mask: Stringent  
Latitude: 35 46 58.00 N (NAD83)  
Longitude: 99 35 14.00 W  
Height AMSL: 817.0 m  
HAAT: 0.0 m  
Peak ERP: 0.430 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic

50.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.430 kW	171.7 m	30.3 km
45.0	0.430	175.7	30.6
90.0	0.430	216.4	32.8
135.0	0.430	214.0	32.6
180.0	0.430	210.8	32.5
225.0	0.430	190.3	31.3
270.0	0.430	126.2	27.4
315.0	0.430	181.1	30.9

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 186 m

Distance to Canadian border: 1469.0 km

Distance to Mexican border: 688.3 km

Conditions at FCC monitoring station: Grand Island NE

Bearing: 9.7 degrees Distance: 580.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 316.0 degrees Distance: 689.9 km

Study cell size: 1.00 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%

# MARSAND, INC.

Matthew A. Sanderford, Jr., P.E.

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No IX check failures found.