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

# ENGINEERING STATEMENT

In support of a request for Displacement for LPTV Translator Application K50KE-D Channel 36 Altus, OK

Facility ID: 168331

# PURPOSE

MARSAND, INC. has been retained by Oklahoma Community Television, LLC ("OKCT"), licensee of digital TV translator K50KE-D, the "station", in Altus, 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 50 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.

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# 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  $0.07 \ \mu$ W/cm<sup>2</sup>, or <0.00% of the 2.02 mW/cm<sup>2</sup> maximum. The total exposure as defined by the ANSI standard computations for general population/uncontrolled area is 0.02% of the 403  $\mu$ W/cm<sup>2</sup> 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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# MARSAND, INC.

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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.

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

David Sanderford

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

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

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# MARSAND, INC.

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### EXHIBIT 1

Study created: 2017.08.25 13:54:51 Study build station data: LMS TV 2017-08-08 (11) Proposal: K50KE-D D36 LD LIC ALTUS, OK File number: okct k50ke-d prop01 Facility ID: 168331 Station data: User record Record ID: 222 Country: U.S. Build options: Protect records not on baseline channel Stations affected by proposal: Call Chan Svc Status City, State File Number Distance K35KE-D D35 LD LIC HOLLIS, OK BLDTT20101208AEC 43.0 km LD LIC K36AB-D D36 LAWTON, OK BLDTT20091229ACY 99.2 No non-directional AM stations found within 0.8 km No directional AM stations found within 3.2 km Record parameters as studied: Channel: D36 Mask: Stringent Latitude: 34 38 21.00 N (NAD83) Longitude: 99 21 20.00 W Height AMSL: 512.8 m HAAT: 0.0 m Peak ERP: 0.440 kW Antenna: Omnidirectional Elev Pattrn: Generic 50.9 dBu contour: HAAT Distance Azimuth ERP 81.7 m 22.7 km 0.0 deg 0.440 kW 0.440 45.0 80.7 22.6 90.0 105.0 25.4 0.440 135.0 108.3 25.7 180.0 0.440 105.4 25.5 0.440 25.1 225.0 101.8 270.0 0.440 93.1 24.1 315.0 0.440 83.4 22.9 Database HAAT does not agree with computed HAAT Database HAAT: 0 m Computed HAAT: 95 m Distance to Canadian border: 1596.2 km Distance to Mexican border: 574.1 km Conditions at FCC monitoring station: Grand Island NE Bearing: 6.4 degrees Distance: 703.1 km Proposal is not within the West Virginia quiet zone area Conditions at Table Mountain receiving zone: Bearing: 321.3 degrees Distance: 799.4 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% o IX check failures found

211 Pack Saddle Trail

Weatherford, Texas 76088-8646

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