

ENGINEERING STATEMENT**In support of a request to****Modify Construction Permit LMS File No. 26208 for****KOZK Channel 16****Springfield, MO****Facility ID: 51102****PURPOSE**

MARSAND, INC. has been retained by the Board of Governors of Missouri State University, the “applicant”, to prepare this engineering statement in support of a request to Modify its Construction Permit(CP) (LMS File No. 26208). The applicant proposes to increase its Effective Radiated Power(ERP) to 100 kW.

DISCUSSION

The Commission has granted the applicant authorization to construct its post-repack facility on channel 16 with 84.7 kW ERP at 1,064 m RCAMSL. The applicant proposes to increase the ERP from 84.7 kW to 100 kW using the same site location, height and antenna pattern. No other changes are proposed.

INTERFERENCE STUDY

The study results of this proposal utilizing the FCC TVStudy v2.2.3 software are included as **Exhibit 1**. There is no predicted interference beyond the 0.5% to full-service and Class A stations or the 2.00% to LPTV stations.

ENVIRONMENTAL ASSESMENT

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 as shown below:

Channel Frequency	ERP (H + V)	Relative Field Factor	Distance to the Ground	Calculated Power Density 2 m above ground	ANSI Minimum Standard	
					Occupational / Controlled 1.6167 mW/cm ²	General / Uncontrolled 323.3 µW/cm ²
CH 16 485 MHz	100 kW	0.06	587	0.10 µW/cm ²	0.01 %	0.03 %

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.

ANTENNA TECHNICAL

The proposed coverage contour shown in **Exhibit 2**.

The proposed antenna technical information is shown in **Exhibit 3**.

CONCLUSION

It is respectfully requested that the Commission grant this request for Minor Change to the Construction Permit as specified herein.

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 the Board of Governors of Missouri State University, 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, EIT
Vice-President - MARSAND, INC.

Executed this 1st of November, 2017

State of Texas

EXHIBIT 1

Study created: 2017.10.29 02:33:17

Study build station data: LMS TV 2017-10-26 (18)

Proposal: KOZK D16 DT CP SPRINGFIELD, MO
File number: KOZK_Maximization_Final
Facility ID: 51102
Station data: User record
Record ID: 363
Country: U.S.
Zone: II

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KHOG-TV	D15	DT	LIC	FAYETTEVILLE, AR	BLCDT20020904AAX	163.8 km
KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	162.1
KVTH-DT	D16	DT	CP	HOT SPRINGS, AR	BLANK0000028415	311.1
KTCA-TV	D16	DT	CP	TOPEKA, KS	BLANK0000028133	332.1
KWHB	D16	DT	CP	TULSA, OK	BLANK0000025172	275.4
KSNF	D17	DT	CP	JOPLIN, MO	BLANK0000027633	143.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D16
Latitude: 37 10 11.00 N (NAD83)
Longitude: 92 56 31.00 W
Height AMSL: 1064.0 m
HAAT: 616.0 m
Peak ERP: 100 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.0

38.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	100 kW	617.5 m	104.9 km
45.0	100	603.2	104.3
90.0	100	572.5	102.7
135.0	100	610.4	104.6
180.0	100	628.5	105.3
225.0	100	619.6	104.9
270.0	100	636.3	105.6
315.0	100	636.7	105.7

**Proposal service area extends beyond baseline plus 1.0%

Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 993.4 km

Distance to Mexican border: 1135.4 km

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

Conditions at FCC monitoring station: Grand Island NE
Bearing: 313.1 degrees Distance: 630.9 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 290.9 degrees Distance: 1114.5 km

No land mobile station failures found

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%

Proposal receives 0.88% interference from scenario 1
No IX check failures found.

EXHIBIT 2

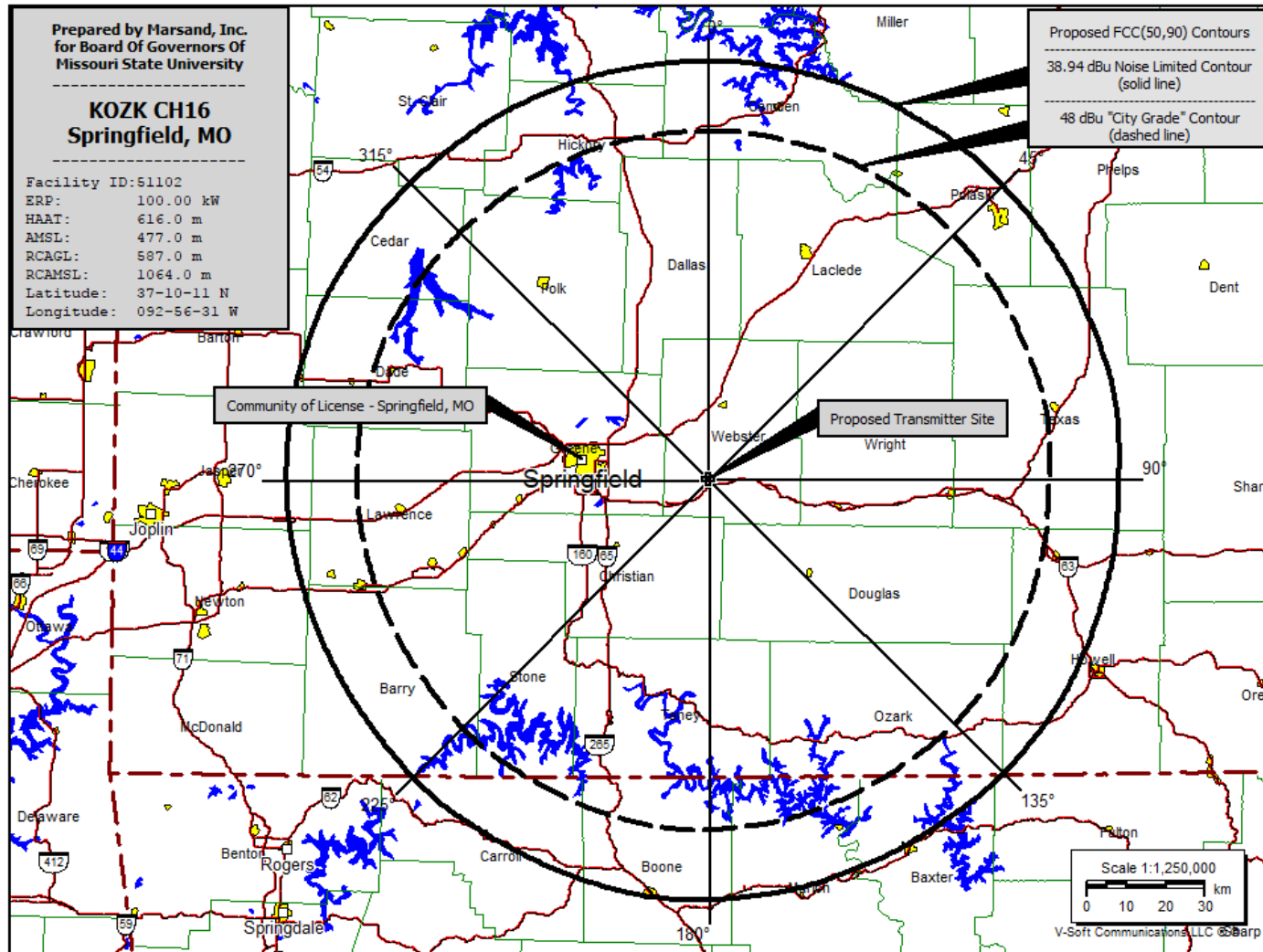


EXHIBIT 3

Proposal Number	DCA-10011	Revision:	1
Date	21-Mar-03		
Call Letters	KOZK-DT	Channel	23
Location	Springfield, MO		
Customer	Southwest MO State		
Antenna Type	TUF-O4-16/64H-1-T		

ELEVATION PATTERN

RMS Gain at Main Lobe	30.88 (14.90 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	8.30 (9.19 dB)	Frequency	527.00 MHz
Calculated / Measured	Calculated	Drawing #	16U309100

