

## **TECHNICAL EXHIBIT**

Displacement Application for Modification  
of Digital Television Translator Station  
prepared for

Rocky Mountain Public Media, Inc.  
K45KC-D Glenwood Springs, Colorado  
Facility ID 167430  
CH 46 (digital) .25 kW

Rocky Mountain Public Media, Inc (formerly Rocky Mountain Public Broadcasting, Inc) is the licensee of digital television translator station K45KC-D, Channel 46, Glenwood Springs, Colorado, File BLTT20101007AAN, Facility ID 167430. K45KC-D is being displaced and is hereby applying during the Special Displacement Window for a new digital channel (32).

As proposed herein K45KC-D will operate at a new antenna location on Channel 32. The new antenna will be a Scala SL-8 UHF antenna. The new site will be located at 39-33-42.86 N, 107-19-1.94 W (NAD27) at a base elevation of 2211 meters AMSL. The antenna center of radiation will be located 9 meters above ground level on a pole attached to an existing building. The antenna and pole will not extend the height of the building more than 6 meters; thus no ASR is required.

### **Contour Overlap**

The 51 dBu F(50,90) contour of both the current facility and the proposed facility are shown in Exhibit 1, demonstrating that there will be contour overlap.

### **Interference Analysis, International Coordination, etc.**

The results of evaluating the proposed facility for interference using the FCC TV Study program indicate that the station will comply with the FCC's interference protection requirements. These results also indicate that the station complies with the FCC's requirements for international coordination, FCC monitoring station protection, and AM transmitter protection. The proposed facility is well outside the range for coordination with the NTIA regarding the Table Mountain Quiet Zone. The TV Study results are attached to this exhibit.

### **Environmental Considerations**

The proposed facility was evaluated for human exposure to RF energy using the procedures described in FCC OET Bulletin Number 65. Based on OET-65 equations and using .3

as the relative field strength in a downward direction<sup>1</sup>, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 9.28 uW/cm<sup>2</sup>, which is 2.4 % of the general population/uncontrolled maximum permitted exposure limit. Thus, the public will not be exposed to RF levels attributable to the proposed facility in excess of the FCC's guidelines. The proposed antenna location is a pole attached to an existing building located in a communication site that is restricted from public access. There are multiple warning signs on the buildings at the site. The applicant will reduce power or cease operation to protect workers having access to the antenna. Thus the proposed facility is categorically excluded from environmental processing.

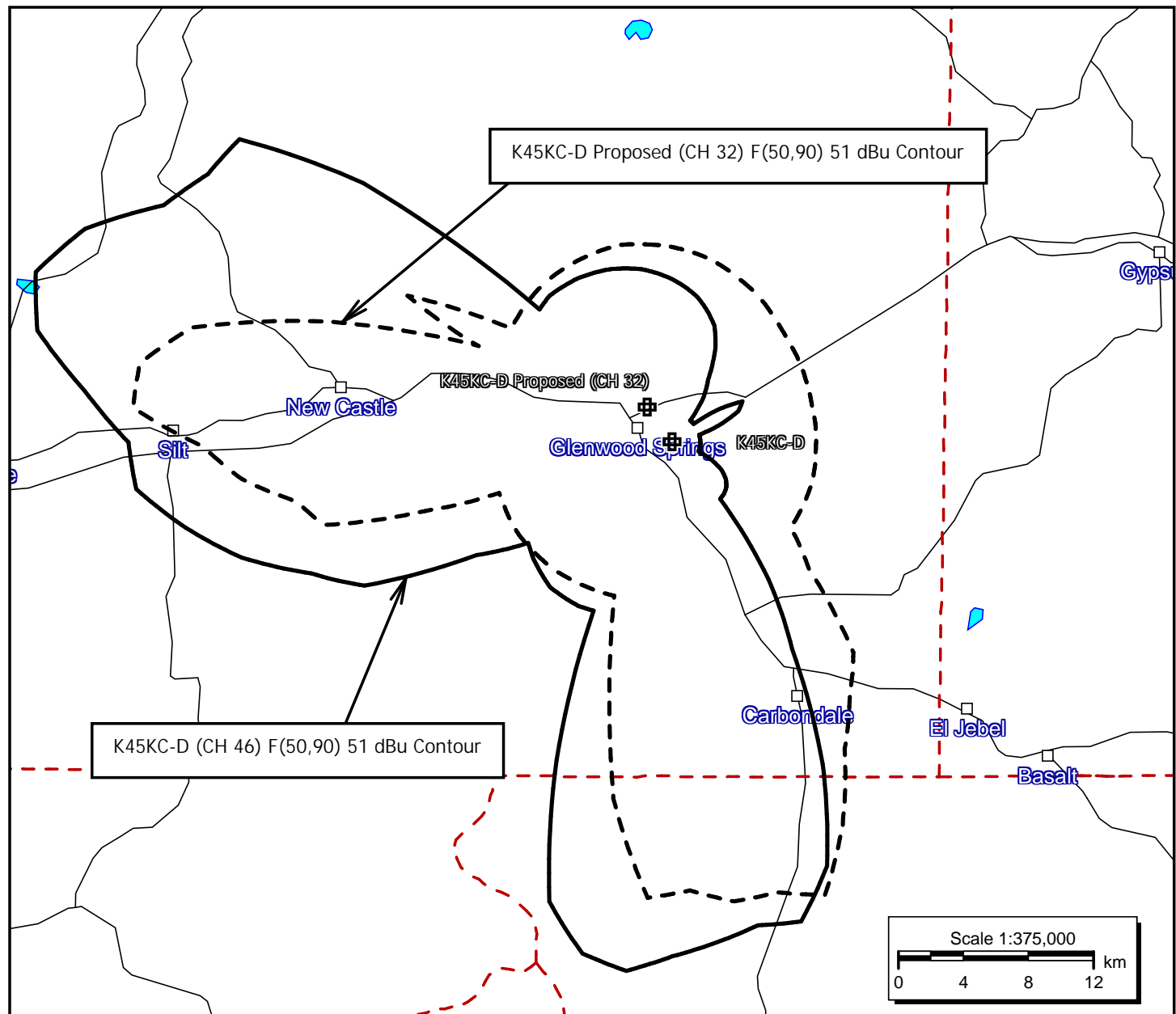
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<sup>1</sup> The elevation pattern for a Scala SL-8 antenna shows  $\leq .3$  relative field value from 30 to 90 degrees below horizontal.

Figure 1: Contour map showing overlap of licensed facility and proposed facility.



Study created: 2018.05.20 21:10:39

Study build station data: LMS TV 2018-05-19

Proposal: K45KC-D D32 LD APP GLENWOOD SPRINGS, CO  
File number: BLDTT20101007AAN  
Facility ID: 167430  
Station data: User record  
Record ID: 5  
Country: U.S.

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

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	K25FZ	N25+	TX	LIC	GRAND JUNCTION, CO	BLTT19990706JH	134.6 km
Yes	K31CW-D	D31	LD	LIC	CARBONDALE, CO	BLDTT20091221AAT	16.2
No	K45CY-D	D31	LD	APP	CRESTED BUTTE, CO	BLANK0000054027	90.6
No	KZDN-LD	D31	LD	LIC	DENVER, CO	BLANK0000001552	179.1
No	KTVD	D31	DT	APP	DENVER, CO	BLANK0000027979	179.4
No	K39AF-D	D31	LD	APP	GRAND JUNCTION, CO	BLANK0000052949	94.2
No	K31DW-D	D31	LD	LIC	MESA, CO	BLDTT20141217ABP	93.2
No	K31IW-D	D31	LD	LIC	RIDGWAY, CO	BLDTT20101007AAS	158.0
No	K31IX-D	D31	LD	LIC	SALIDA, CO	BLDTT20101001ACB	167.6
No	KCEC	D32	DT	APP	BOULDER, CO	BLANK0000029929	180.1
No	KCEC	D32	DT	CP	BOULDER, CO	BLANK0000025102	180.1
No	K32IJ-D	D32	LD	LIC	CORTEZ, CO	BLDTT20110331AEY	254.7
No	K47BL-D	D32	LD	APP	CRESTED BUTTE, CO	BLANK0000054030	90.6
No	KDVR	D32	DT	LIC	DENVER, CO	BMLCDT20130627ABX	178.9
No	K32EY-D	D32	LD	LIC	DOVE CREEK, ETC, CO	BLDTT20120615ABL	243.4
No	K32CW-D	D32	LD	LIC	MONTROSE, CO	BLDTT20101007AAQ	158.5
No	K32EX-D	D32	LD	LIC	PEETZ, CO	BLDTT20110808ABI	377.0
Yes	K32HL-D	D32	LD	LIC	RULISON, CO	BLDTT20101013AAH	55.0
No	K32IK-D	D32	LD	LIC	SAN LUIS VALLEY, CO	BLDTT20101001ABZ	321.3
No	K32JT-D	D32	LD	LIC	FARMINGTON, NM	BLDTL20140819ABM	328.2
No	K32JT-D	D32	LD	CP	FARMINGTON, NM	BPDTL20141112ALP	328.1
No	K47KP-D	D32	LD	APP	CAINEVILLE, UT	BLANK0000052827	336.7
No	K18HU-D	D32	LD	APP	CAPITOL REEF NATIONA, UT	BLANK0000052812	371.4
No	K42IU-D	D32	LD	APP	CLEAR CREEK, UT	BLANK0000053510	328.8
No	K32IT-D	D32	LD	LIC	COALVILLE AND ADJ. A, UT	BLDTT20090624AAV	377.8
No	K32HX-D	D32	LD	LIC	DUCHESNE, UT	BLDTT20100111AFZ	270.5
No	K32JI-D	D32	LD	LIC	EMERY, UT	BLDTT20100310AAM	340.7
No	K24IO-D	D32	LD	APP	FERRON, UT	BLANK0000053564	333.2
No	K32JB-D	D32	LD	LIC	FOUNTAIN GREEN, UT	BLDTT20100914AHQ	365.9
No	K48LR-D	D32	LD	APP	GREEN RIVER, UT	BLANK0000053554	285.8
No	K51KV-D	D32	LD	APP	HANKSVILLE, UT	BLANK0000052899	320.8
No	K32HP-D	D32	LD	LIC	HANNA, ETC., UT	BLDTT20100111AGA	307.1
No	K39HS-D	D32	LD	APP	HEBER/MIDWAY, UT	BLANK0000053081	370.8
No	K24IP-D	D32	LD	APP	HUNTINGTON, UT	BLANK0000053557	315.4
No	K32IA-D	D32	LD	LIC	MANILA, ETC., UT	BLDTT20100111ABO	236.3
No	K32FR	N32	TX	LIC	ORANGEVILLE, UT	BLTT20030806ABF	330.9
No	K39HP-D	D32	LD	APP	PARK CITY, UT	BLANK0000041672	378.6
No	KUTH-DT	D32	DT	LIC	PROVO, UT	BLCDT20090616ACK	401.5
No	KUTH-DT	D32	DT	CP	PROVO, UT	BPCDT20100921AAY	432.8
No	K26IM-D	D32	LD	APP	SAMAK, UT	BLANK0000053070	355.7
No	K32IZ-D	D32	LD	LIC	SCOFIELD, UT	BLDTT20100127ABW	328.2
No	K26LP-D	D32	LD	APP	SPRING GLEN, UT	BLANK0000053528	320.1
No	K32HV-D	D32	LD	LIC	VERNAL, ETC., UT	BLDTT20150205ABG	180.1
No	K32IU-D	D32	LD	LIC	WANSHIP, UT	BLDTT20090624ADJ	373.0
No	K35EJ-D	D32	LD	LIC	WOODLAND, UT	BLDTT20110331ADY	352.1
No	K32DS	N32	TX	LIC	EVANSTON, WY	BLTT19940201JG	362.9
Yes	NEW	D33	LD	APP	ASPEN, CO	BNPDTL20090825BXL	55.7
Yes	K33HY-D	D33	LD	LIC	BASALT, CO	BLDTT20091221ABF	30.2
No	K33KJ-D	D33	LD	LIC	CRESTED BUTTE, CO	BLDTL20091221AIB	79.1
No	KRMA-TV	D33	DT	CP	DENVER, CO	BLANK0000027320	180.1
No	KRTN-TV	D33	DD	APP	DURANGO, CO	BPCDT20130201BGY	260.5
No	KRTN-TV	D33	DT	LIC	DURANGO, CO	BLCDT20081029AAA	260.5
No	K33BV	N33+	TX	LIC	FRASER, ETC., CO	BLTT19890609IJ	136.2
No	K41AE-D	D33	LD	APP	GRAND JUNCTION, CO	BLANK0000052950	94.2

No	KAVC-LD	D33	LD	LIC	LOVELAND, CO	BLANK0000032758	207.1
No	K33KE-D	D33	LD	LIC	SARGENTS, CO	BLANK0000034296	120.3
No	KHSB-LD	D33	LD	LIC	STEAMBOAT SPRINGS, CO	BLDTL20100312ABQ	110.6
No	K39BT	N39-	TX	LIC	FRASER, ETC., CO	BLTT19890609II	136.2
No	K39CD	N39-	TX	LIC	LAKE GEORGE, CO	BLTT19890808IB	165.1
No	KCXP-LP	N40-	TX	LIC	ASPEN, CO	BLTTL20080229AAP	57.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D32  
Mask: Stringent  
Latitude: 39 33 42.86 N (NAD83)  
Longitude: 107 19 1.94 W  
Height AMSL: 2211.0 m  
HAAT: 0.0 m  
Peak ERP: 0.250 kW  
Antenna: SCA-SL-8 170.0 deg  
Elev Pattn: Generic

50.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.128 kW	-929.2 m	10.3 km
45.0	0.110	-569.8	10.0
90.0	0.134	-145.5	10.5
135.0	0.233	27.9	11.9
180.0	0.250	218.2	30.2
225.0	0.196	-173.6	11.5
270.0	0.112	386.9	31.9
315.0	0.120	-462.1	10.2

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: -206 m

Distance to Canadian border: 1049.0 km

Distance to Mexican border: 864.6 km

Conditions at FCC monitoring station: Grand Island NE

Bearing: 75.8 degrees Distance: 768.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 70.0 degrees Distance: 186.6 km

ERP: 0.112 kW Field strength: -57.8 dBu, 0.0 mV/m

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%

No IX check failures found.