

# COMPREHENSIVE TECHNICAL EXHIBIT

## DISCUSSION

Applicant seeks modification of its current license to relocate full-service KKSE-FM Broomfield, CO, FID # 59972, to a different tower location with a corresponding change in the RCAMSL, ERP, antenna pattern and a Class change from C1 to C2.

## ALLOCATION STUDY

A theoretical allotment site for the downgrade to Class C2 has been identified. It is located at 40 01 19.53N by 104 54 18.32W and is fully spaced under 47 CFR 73.207 (see **Figure 1**).

REFERENCE		C2 Allocation Study		Kse Radio Ventures, LLC		DISPLAY DATES		
40 01 19.53 N.		CLASS = C2				DATA 10-05-23		
104 54 18.32 W.		Current Spacings to 3 <sup>rd</sup> Adj.				SEARCH 10-05-23		
-----		Channel 223 - 92.5 MHz		-----		-----		
Call	Channel	Location		Azi	Dist	FCC	Margin	
KJMN	LIC-N 221C2	Castle Rock	CO	189.9	71.76	57.5	14.3	
KYOY	LIC-N 222C3	Hillsdale	WY	15.1	141.23	116.5	24.7	
KKCH	LIC-N 224C	Glenwood Springs	CO	253.1	221.63	187.5	34.1	
KKPK	LIC 225C	Colorado Springs	CO	178.5	141.77	104.5	37.3	
NEW/KFII	CP 222A	Hugo	CO	124.4	145.63	105.5	40.1	
DKKHG	VAC 222A	Hugo	CO	133.6	146.69	105.5	41.2	
KRJN	STA 226C3	Log Lane Village	CO	74.6	97.52	55.5	42.0	
766816	CP -N 220A	Log Lane Village	CO	74.6	97.52	54.5	43.0	
KRJN	LIC 226C3	Log Lane Village	CO	74.9	111.14	55.5	55.6	
AL9324	RSV-A 224C1	Stratton	CO	110.7	216.65	157.5	59.2	
KUWR	LIC 220C0	Laramie	WY	342.2	150.39	88.5	61.9	
KPAW	LIC 225C2	Warren Afb	WY	348.0	119.76	57.5	62.3	
KFWA	LIC 276C3	Weldona	CO	73.1	87.11	16.5	70.6	
KVRH-FM	LIC 222C3	salida	CO	209.1	198.92	116.5	82.4	
NEW/KBWB	CP 224C1	Stratton	CO	108.8	240.87	157.5	83.4	
1501452	VAC 226A	walden	CO	302.3	147.63	54.5	93.1	
KSTH	CP 222C2	Holyoke	CO	73.4	228.31	129.5	98.8	

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 RSV-R = reserved - needs protection, RSV-A = allocation.  
 All separation margins include rounding

**FIGURE 1**

Figure 2 shows the city of license coverage map for the theoretical site (32.6 km).

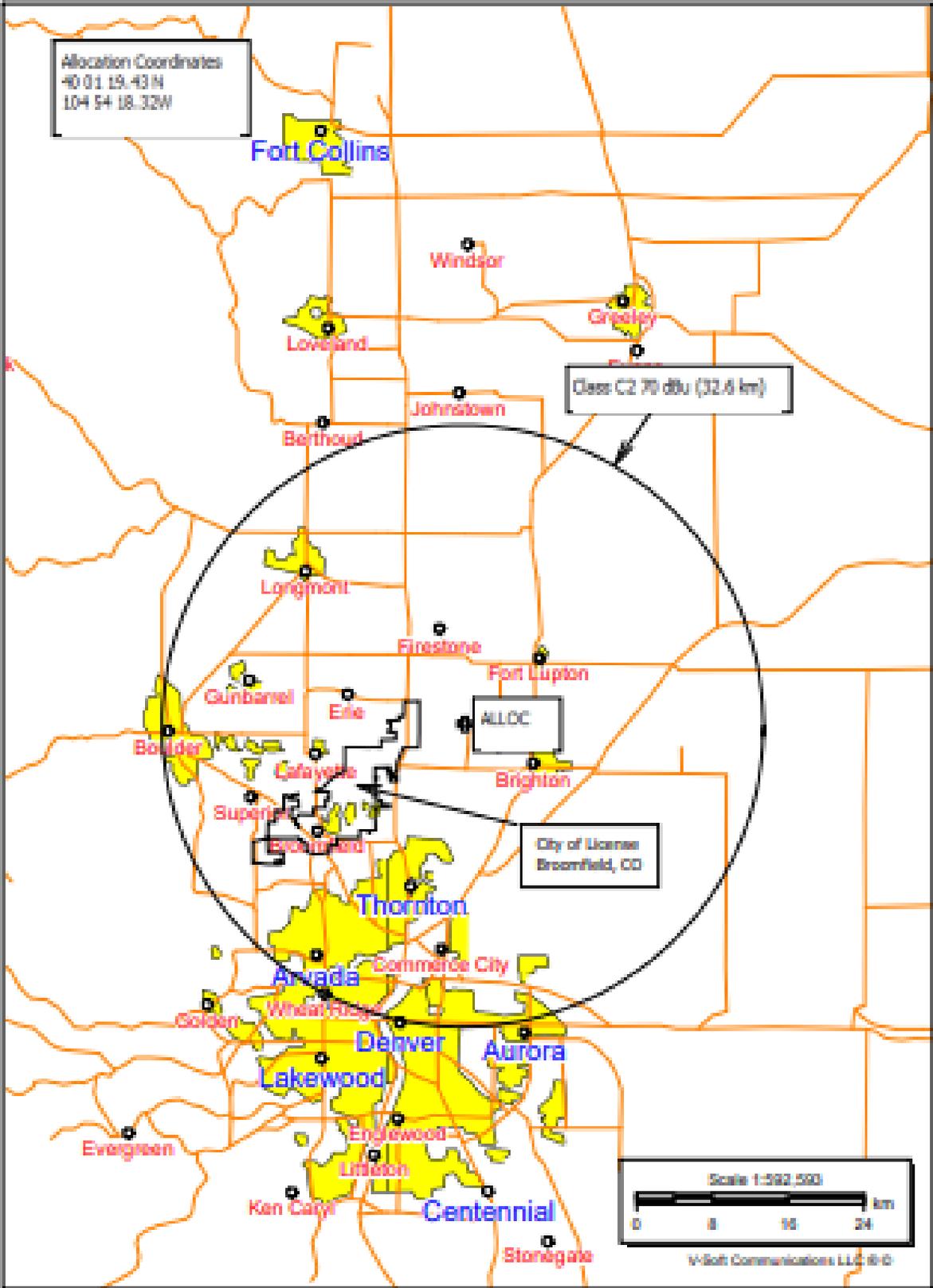
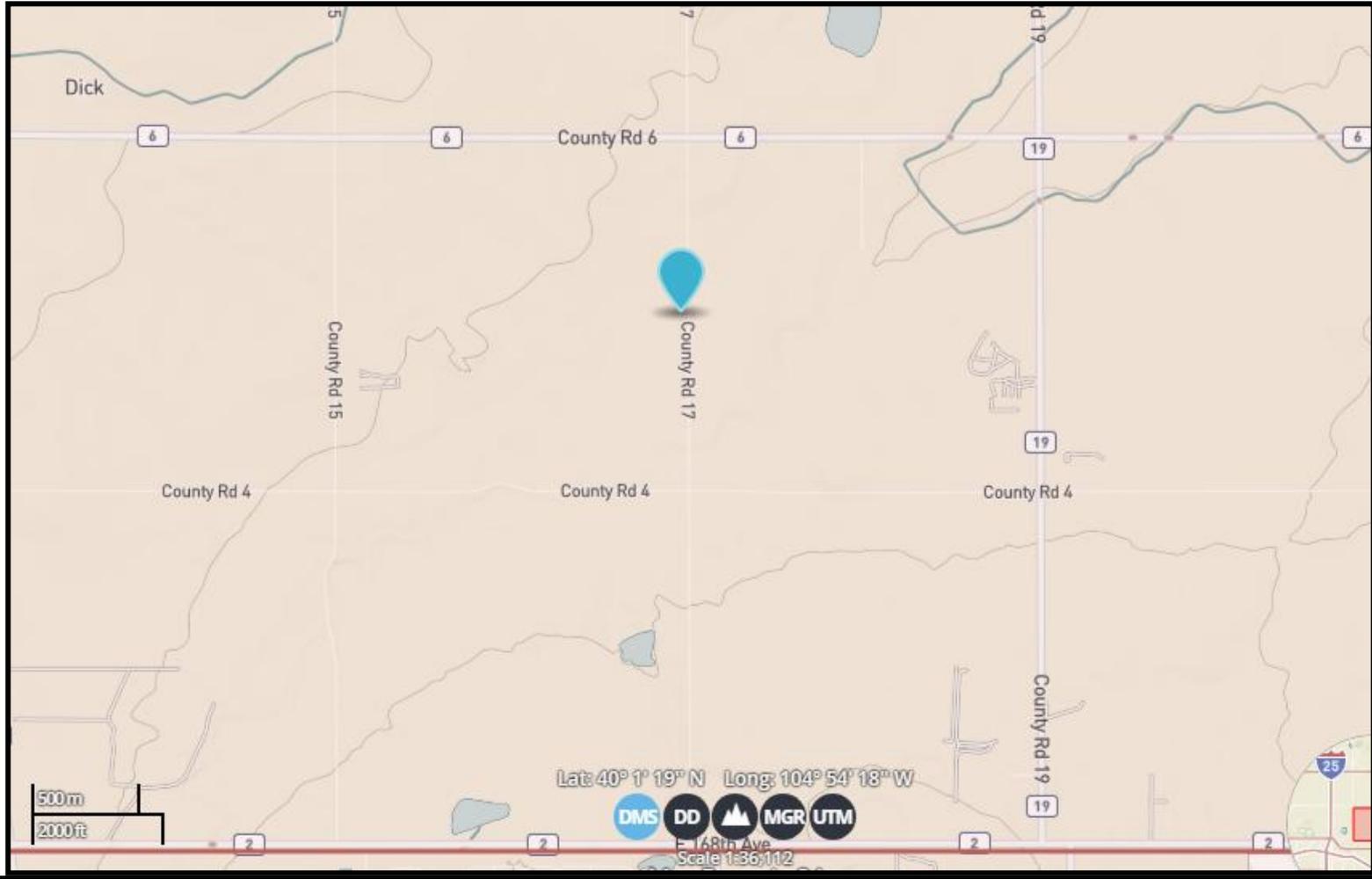


FIGURE 2

Figure 3 is a topographical map showing the location of the theoretical allotment site.



**FIGURE 3**

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**Compliance with 47 CFR 73.207 (Requesting 73.215 processing)**

The proposed facility meets all minimum distance separation requirements with regard to co-channel, first, second, and third adjacent channel stations, and those separated by 53/54 channels, except for KKCH, Glenwood Springs, CO. The proposed facility is short-spaced 1.5 kilometers to KKCH, a 1<sup>st</sup> adjacent Class C facility (see **Figure 4**).

This application proposes contour protection for KKCH according to the guidelines of 47 CFR 73.215 which states that the minimum separation requirement between a Class C2 and a 1<sup>st</sup> adjacent Class C facility is 176 kilometers. Figure 4 shows that the proposed facility is separated from KKCH by 185.97 kilometers.

Therefore, the proposed facility is permitted to use contour protection toward the short-spaced facility. (See **Figures 5 & 6**)

**KKSE-FM Proposed Channel Study (73.207)**  
Kse Radio Ventures, LLC

REFERENCE 39 54 48.00 N. CLASS = C2 DISPLAY DATES  
105 17 35.00 W. Current Spacings to 3rd Adj. DATA 10-06-23  
Channel 223 - 92.5 MHz SEARCH 10-06-23

Call	Channel	Location	Azi	Dist	FCC	Margin
KKSE-FM	LIC-D 223C1	Broomfield CO	58.5	39.05	223.5	-184.5
KKCH	LIC-N 224C	Glenwood Springs CO	253.5	185.97	187.5	-1.5
KJMN	LIC-N 221C2	Castle Rock CO	160.3	62.33	57.5	4.8
KKPK	LIC 225C	Colorado Springs CO	163.9	135.01	104.5	30.5
KYOY	LIC-N 222C3	Hillsdale WY	25.0	164.15	116.5	47.7
KVRH-FM	LIC 222C3	Salida CO	201.3	173.95	116.5	57.5
DKKHG	VAC 222A	Hugo CO	122.4	165.27	105.5	59.8
NEW/KFII	CP 222A	Hugo CO	114.4	168.39	105.5	62.9
KPAW	LIC 225C2	Warren Afb WY	3.3	129.52	57.5	72.0
AL9324	RSV-A 224C1	Stratton CO	105.1	243.95	157.5	86.5

RSV-R = reserved - needs protection, RSV-A = allocation.  
All separation margins include rounding

Facility being modified

Short-spaced, 73.215 processing requested

**FIGURE 4**

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**KKSE-FM Proposed Site Channel Study (73.215)**

Kse Radio Ventures, LLC

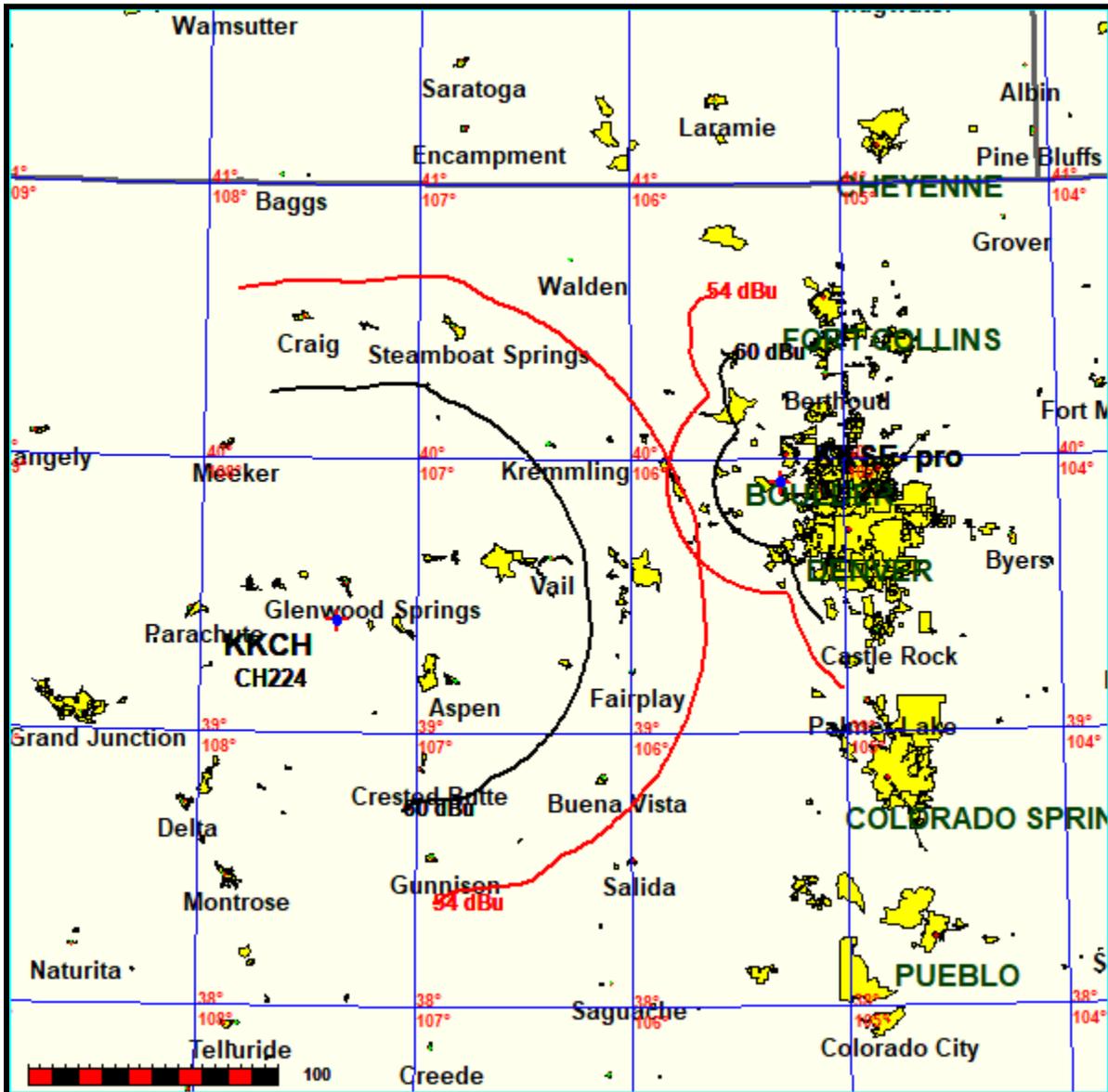
REFERENCE CH# 223C2- 92.5 MHz, Pwr= 5.6 kw DA, HAAT= 431.2 M, COR= 2557.8 M DISPLAY DATES  
39 54 48.0 N. Average Protected F(50-50)= 52.5 km DATA 10-06-23  
105 17 35.0 W. Standard Directional SEARCH 10-06-23

CH CITY	CALL	TYPE STATE	ANT	AZI	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
223C1 Broomfield	KKSE-FM!	LIC DEN CO	DEN	58.5	39.11	40 05 46.90	57.000	1895	---	Reference---	
221C2 Castle Rock	KJMN«	LIC NCN CO	NCN	160.3	62.28	39 23 06.90	42.000	9.1	71.4	57.5R	4.8M
224C Glenwood Springs	KKCH	LIC NCN CO	NCN	253.5	185.97	39 25 06.90	56.000	147.1	102.2	11.8	73.6*
**OF NOTE: A 73.215 station**											
225C Colorado Springs	KKPK«	LIC CN CO	CN	163.9	134.86	38 44 44.00	79.000	16.3	97.0	104.5R	30.4M
222C3 Hillsdale	KYOY«	LIC NCN WY	NCN	25.0	164.07	41 14 54.90	12.000	28.2	19.0	116.5R	47.6M
222C3 Salida	KVRH-FM«	LIC CN CO	CN	201.3	173.79	38 27 10.90	0.220	62.4	44.3	116.5R	57.3M
222A Hugo	DKKHG«	VAC CO		122.4	165.51	39 06 19.97	6.000	25.5	16.1	105.5R	60.0M
222A Hugo	NEW/KFII«	CP CN CO	CN	114.4	168.72	39 16 30.00	3.500	20.4	13.7	105.5R	63.2M
225C2 Warren Afb	KPAW«	LIC CN WY	CN	3.3	129.36	41 04 34.90	33.000	6.1	53.9	57.5R	71.9M
224C1 Stratton	AL9324«	RSV-A CO		105.1	244.53	39 18 33.98	100.000	102.8	70.5	157.5R	87.0M

Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference Zone= - ZN2, Co to 3rd adjacent.  
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.  
« = Station meets FCC minimum distance spacing for its class.

\*73.215 Contour Protection proposed

**FIGURE 5**

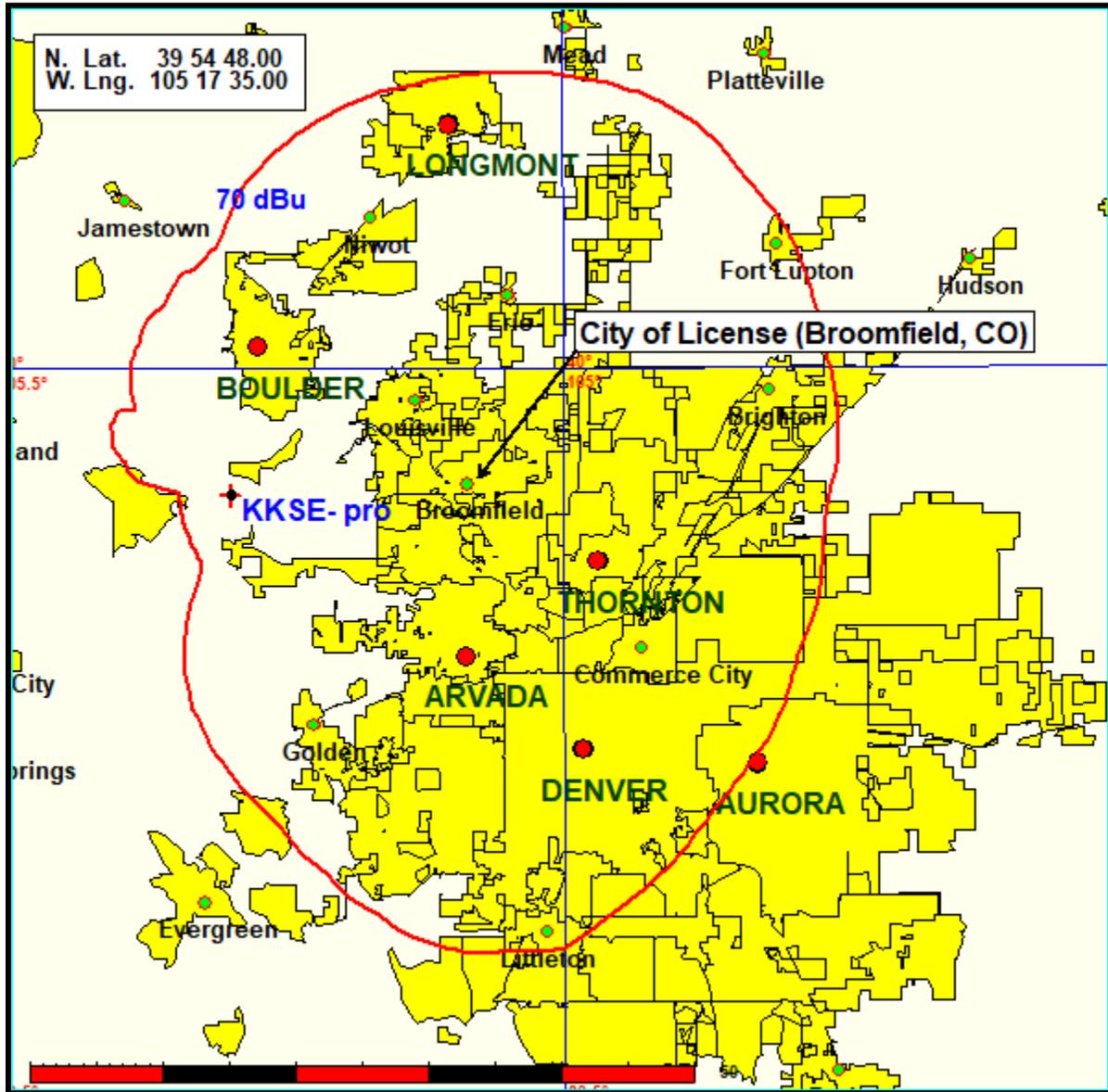


Contour Relationships – KKSE-FM proposed vs KKCH

FIGURE 6

**PROPOSED ANTENNA SITE CITY GRADE COVERAGE**

Figure 7 below reveals 100% 70 dBu city-grade coverage of the City of License (Broomfield, CO).



**FIGURE 7**

**ENVIRONMENTAL COMPLIANCE:**

There will be no new construction. Applicant proposes use of a one bay AAT Panel antenna (AAT FM-P-CP-1), mounted on a registered tower (ASR # 1033692) with RCAGL at 28 meters, radiating 5.6 kW H&V ERP.

Due to the fact that several existing and proposed emitters are located at or near the site, the applicant agrees to conduct a Radiofrequency Electromagnetic Field survey at the site upon construction of the proposed facility to ensure that any areas at ground level that exceed the Commission's exposure guideline values are appropriately marked and fenced. The results of the survey will be provided with the application for license. Even though the site will fully comply with the Uncontrolled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

**Existing Tower:**

The proposed facility is exempt from environmental processing because the facility is not located at a location specified in Section 1.1307(a) (1)-(8) of the Commission's Rules and since the tower in question already exists.