AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT

PROPOSED NEW FM TRANSLATOR STATION
FORT SMITH, ARKANSAS
FACILITY ID: 139221
104.1 MHZ / 0.099 KW ERP / ND

COMMUNITY BROADCASTING, INC.

JULY, 2013

JEREMY RUCK & ASSOCIATES, INC.
P.O. Box 415
221 S. 1st Avenue
Canton, IL 61520
Tel: 309.647.1200
Fax: 855.332.9537
jeremyruck.com

AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Community Broadcasting, Inc.** ("CBI"), applicant for a new FM translator station to sever Fort Smith, Arkansas, and are in support of their amendment to application for construction permit.[1]

This amendment is being submitted as part of the Commission's Translator Auction 83 settlement process. The original application submitted by CBI was assigned FCC File No. BNPFT-20030312AGX. Upon initial review by the Staff, it was determined that the application was mutually exclusive with two other applications, namely an application filed by E-String Wireless, Ltd. ("E-String"), and one filed by Starboard Media Foundation, Inc. ("Starboard"). The E-String application was assigned Facility ID 156351, and is under FCC File No. BNPFT-20030317HRG. The Starboard application was assigned Facility ID 142428, and is under FCC File No. BNPFT-20030311AKS. These three applications constitute MX Group 27.

CBI has cooperated with E-String in creating a solution to the mutual exclusivity that will extricate *both* applications from the MX Group. The CBI application and the associated E-String application both protect each other, and eliminate the contour overlap with the Starboard application. Therefore, in this application the parameters associated with the amended E-String facility will be utilized rather than those specified in the original application. Similarly, the E-String amendment, which will also be prepared by the undersigned engineer, will utilize the CBI technical parameters proposed under this amendment to the original application.

[1] The Facility ID for the proposed translator facility is 139221.

In order to eliminate the mutual exclusivity within the group, both CBI and E-String will be relocating their facilities to different sites in opposite directions. Both applications will also propose changes in the channel of operation to avoid each other, the Starboard application, and other proposed and authorized facilities in the region of relevance. The CBI facility proposed under this amendment would change to channel 281, which is a change of three (3) channels from the originally specified channel 278. The proposed facility would operate with an effective radiated power of 69 Watts at a center of radiation of 305.1 meters AMSL.[2] A directional antenna would be utilized by the facility in order to provide necessary contour protection. Exhibit E-1 illustrates the original 60 dBu service contour of the translator along with the 60 dBu service contour resulting from this amendment. As indicated these to contours overlap, thus the proposed changes to the facility are minor in nature.

The primary station for the proposed translator would be changed from the originally specified KQCV-FM to KAYH(FM) at Fayetteville, Arkansas. The Facility ID for KAYH(FM) is 79130. Exhibit E-2 illustrates the 60 dBu service contour of that facility as well as the 60 dBu service contour of the proposed translator.

The proposed change in site location and channel would not impact LPFM licensing opportunities within any of the Appendix A markets. The closest three Appendix A markets to the proposed facility are Little Rock, Arkansas, Springfield, Missouri and Tulsa, Oklahoma. Exhibit E-3 demonstrates that the proposed facility would be located outside the grid buffer of all three of these markets.

[2] The average terrain for the proposed facility is determined by the 150 degree true radial on which the average elevation is 120.0 meters AMSL. Terrain was sampled from the FCC 30-second terrain database.

The proposed facility would comply with the provisions of Section 74.1204 of the Commission's Rules. Exhibit E-4 is a tabular allocation study for the proposed facility *exclusive* of the E-String facility. As this study demonstrates, the proposed facility would comply with all of the spacing requirements to adjacent facilities with the exception of KQBK(FM) at Booneville, Arkansas.[3] The situation to that facility will be subsequently discussed pursuant to Section 74.1204(d) of the Commission's Rules. Exhibit E-5 illustrates this allocation study in a graphical contour based format. Similarly Exhibit E-5 also omits the situation relative to the E-String amended application.

Due to the change in the parameters associated with the proposed facility and with the E-String facility, the situation between the two is examined independently of the other facilities. Exhibit E-6 is a graphical allocation study illustrating the contour overlap situation. The proposed CBI facility would operate on channel 281 as was previously discussed, while the E-String facility would change from channel 278 to channel 279. As a result of these changes, the two facilities are second adjacent to each other, and are in compliance with Section 74.1204 if neither 60 dBu service contour is overlapped by the other 100 dBu interference contour. Exhibit E-6 demonstrates that this is the case, and no prohibited contour overlap exists between the two amended facilities.

Although normally prohibited contour overlap between the proposed facility and KQBK(FM) would be present, no populated areas would be affected by the predicted potential interference regions. Exhibit E-7 illustrates the proposed site location along with the predicted 68.1 dBu service contour from KQBK. As this map demonstrates, the 68.1 dBu contour from KQBK intersects the

[3] The Facility ID for KQBK(FM) at Booneville, Arkansas is 71701.

proposed site, thus, interference in the immediate vicinity of the site would potentially occur when the translator field strength is at least 108.1 dBu.[4]

The power density for the proposed facility at a field strength of 108.1 dBu is given by the following equation:

$$\boldsymbol{S = \frac{E^2}{Z_0} = \frac{(0.2541)^2}{377} = 0.0001713}$$

In this equation, S represents the calculated power density in Watts per square meter, E is the electric field intensity, which for 108.1 dBu is 0.2541 Volts per meter, and Z_0 is the characteristic impedance of free space of 377 ohms.

The power density is also given by:

$$\boldsymbol{S = \frac{P}{4\pi R^2}}$$

Where S is the same units, P is the power in Watts (69 Watts in this case), and R is the distance from the antenna. Rearranging the terms in the equation, it can be solved for the distance to the desired power density as follows:

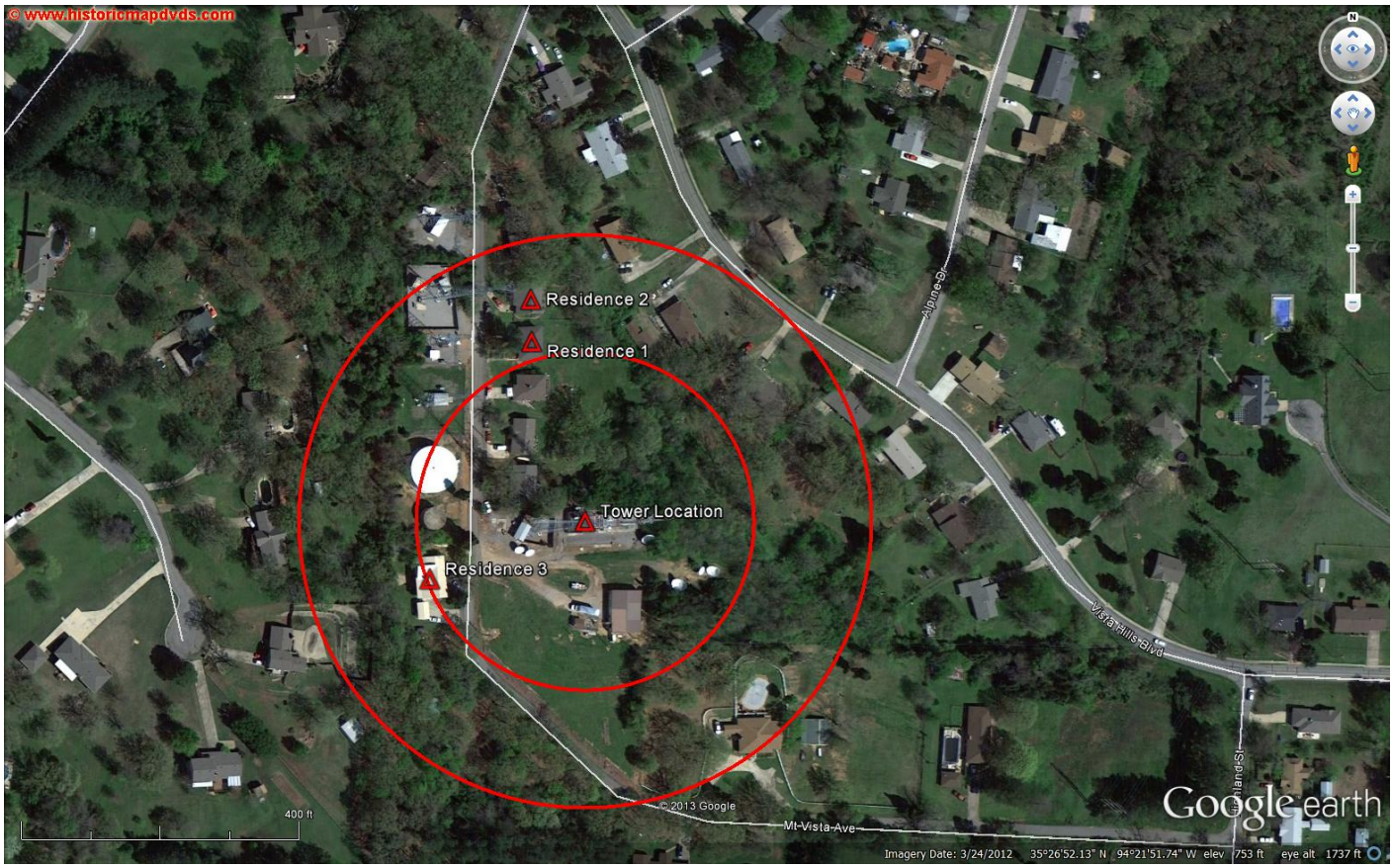
$$\boldsymbol{R^2 = \frac{P}{4\pi S}}$$

The results of these calculations for depression angles of 0 degrees to 90 degrees are tabulated in Exhibit E-8. Although a directional antenna would be utilized, this study will generally assume a non-directional antenna for ease, and for a worst-case scenario. In addition to the tabular data in Exhibit E-8, several graphs are included, which graphically illustrate the interference

[4] Specified value for interference is based on 40 dB ratio for second adjacent facilities.

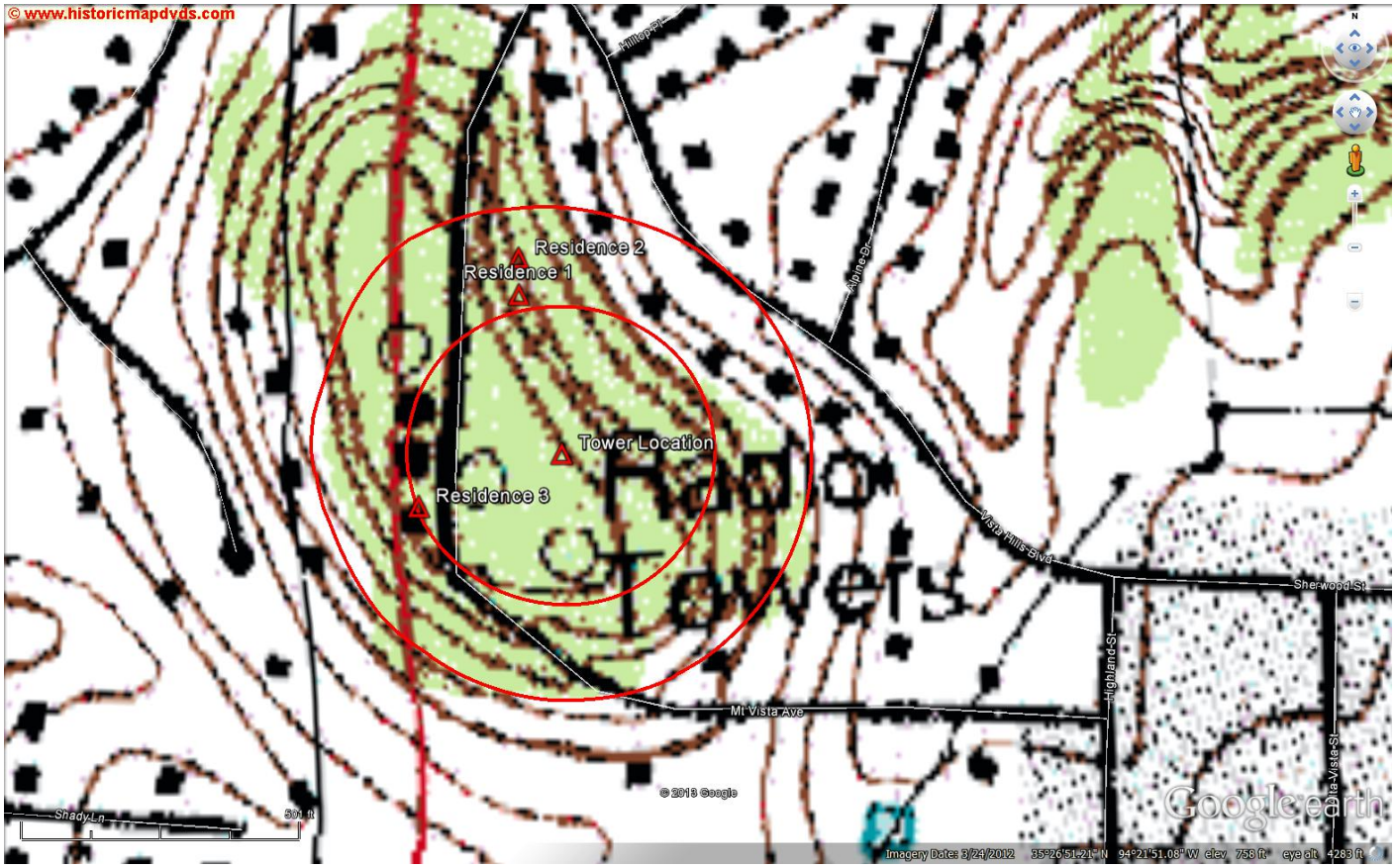
situation for a given azimuth slice. As indicated on the form pages, a Kathrein-Scala model CA5-FM-CP antenna is proposed for use by the facility. The relative field value listed at the various depression angles is based on the published data for this antenna, and was obtained from the Kathrein-Scala web page.

The tabulation and graphs in Exhibit E-8 demonstrate that the interference zone will approach ground level, but will remain a small distance above ground level. All of the structures constructed in the vicinity of the tower are single story buildings. Assuming a general structure height of approximately 15 feet, or 4.6 meters, the areas in which the interference zone falls below this above ground elevation require consideration. This range of horizontal distances from the tower lies in a range of 74 meters to 125.5 meters distant.



The image on the previous page illustrates the two interference zone rings previously described. The predicted interference zone resides between the two red rings on this image. This image is based on an overhead satellite shot, and no exaggeration of the terrain in the area has been added.

This second image exaggerates the terrain in the vicinity of the tower to definitively illustrate that it does site on a ridge. From this image it can be inferred that the terrain changes sufficiently that the interference zone will overshoot nearly all of the structures lying between the two rings comprising the interference zone. Residence 1 and Residence 2 to the north of the tower site are of initial interest.



The above image illustrates a portion of the USGS topographic map for the areas in the vicinity of the tower. The spacing on this map is 10 feet per contour. The two residences to the north of the tower have varying base elevations. The differential in elevation from the tower site to Residence 1 is minus 22 feet, and for Residence 3 it is minus 23 feet. Thus, the ground elevation at residences 1 and 2 is 6.7 meters and 7.0 meters respectively below the elevation at the base of the tower. Returning to the table in Exhibit E-8, the closest point of approach to ground level within the interference zone is 1.25 meters above ground, but since the residences are 6.7 and 7.0 meters above ground, the interference zone will lie no closer than 5.45 meters above the elevation at Residence 2 and 5.75 meters above ground at Residence 3. In English units these values are 17.9 and 18.9 feet AGL. Given that these residences are single story structures, the interference zone would definitively lie above their roof lines. The next image illustrates Residence 1 and 2 with Residence 1 being in the middle of the image, and Residence 2 the white house to the left.

For Residence 3 a more detailed analysis is necessary as the terrain does not drop off in that direction as it does in the other directions around the tower. The four corners of Residence 3 lie at distances and azimuths according to the following table.

Residence 3 Corner	Azimuth	Distance
NW	258.0 degrees true	77.2 meters
NE	256.8 degrees true	63.6 meters
SE	241.4 degrees true	68.6 meters
SW	245.2 degrees true	80.5 meters

As indicated on the form pages, the antenna rotation is 235 degrees true, therefore the azimuth at which the highest relative field from the antenna will lie and intersect Residence 3 is 241.4 degrees true, which for simplification purposes will be assumed to be 240 degrees true. The

relative field at the other corners of the structure is lower, which can be seen by inspection of the pattern.

At 240 degrees true, the relative field is 0.983, which relates to a relative power of 0.9663 resulting in an effective radiated power at that azimuth of 66.7 or 67 Watts. Exhibit E-9 is the previously discussed table recomputed for the ERP at that azimuth of 67 Watts. Upon inspection of the table in the horizontal radius column, it can be seen that at distances of 64 meters to 81 meters from the tower base the potential interference zone resides at elevations of 8.6 meters above ground down to approximately 4 meters above ground, or 28 feet above ground down to 13 feet above ground. Residence 3 is illustrated in the next image.

As this image demonstrates, Residence 3 is of similar height construction as the other residences in the vicinity of the tower, although the owners of this house have taken advantage of the terrain, and constructed a walk out basement. From this image it can be inferred that the residents of this house are not likely to experience interference to KQBK reception from the proposed translator, as to do so they would have to spend time in close proximity to the ceilings of their house, which seems quite unlikely.

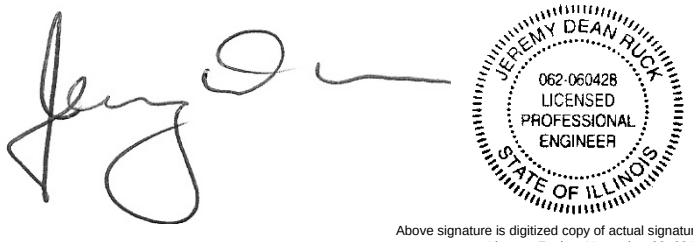
The remainder of the structures within the rings on the earlier images all lay well below the grade elevation at the tower base. As a result, the interference area would exist well above the vertical boundaries of their construction. As a result, interference to the reception of KQBK(FM) is not predicted to affect any populated areas.

The proposed facility would not result in a significant environmental impact, and is exempt from environmental processing. The addition of the translator antenna to the structure would not increase the already existing environmental impact form the existing tower. In addition, the translator would not constitute an RF exposure hazard to persons on the ground in the vicinity of the structure.

Under a worst-case scenario, the Commission's *FM Model* software package predicts a maximum power density at ground level of 0.68 $\mu W/cm^2$ at all locations in the vicinity of the tower to be utilized by CBI. This value categorically excludes the proposed facility. CBI certifies, however, that it will coordinate with all other users of the site to ensure that workers and other personnel having access to the site are not exposed to levels of radiofrequency radiation in excess

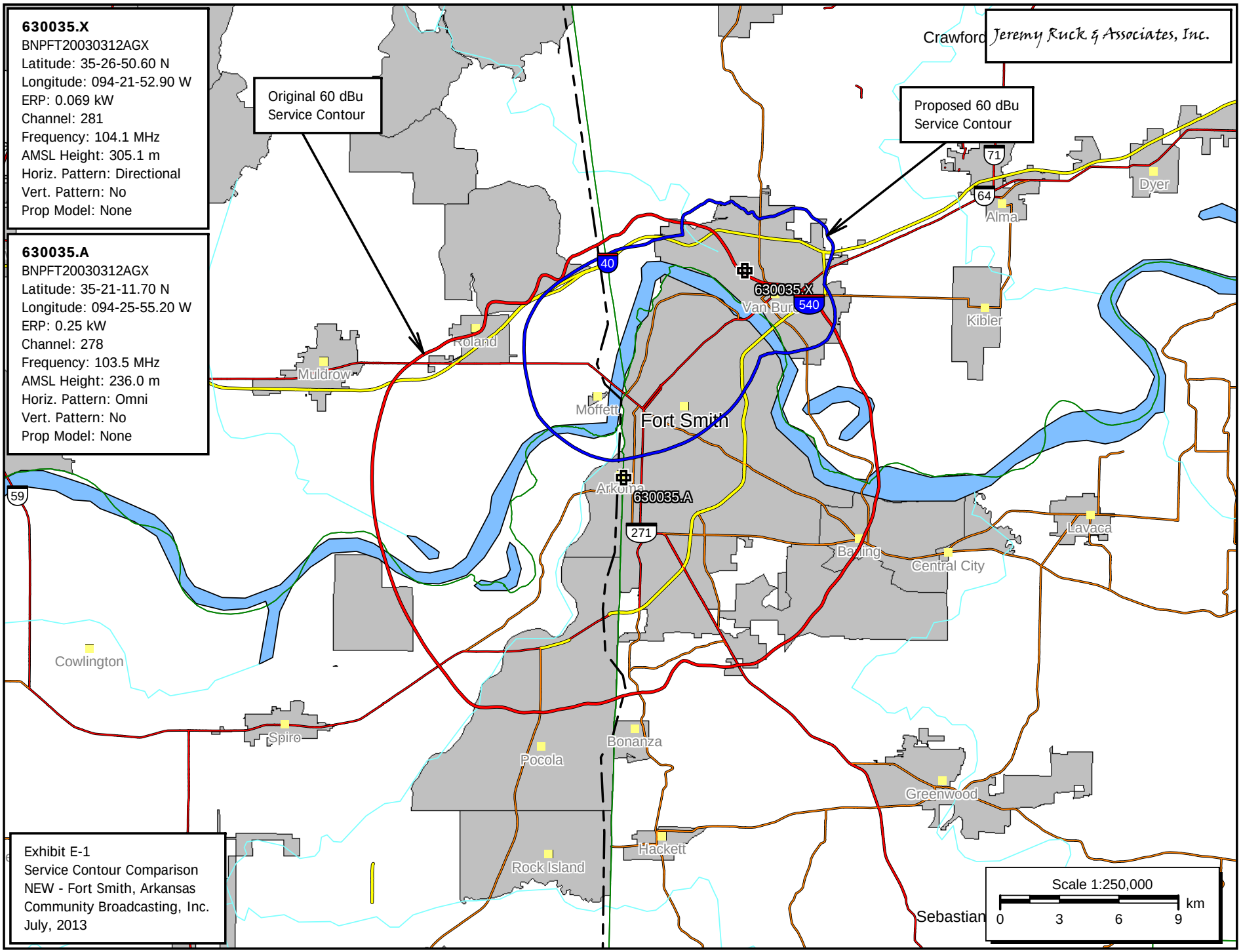
of the applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

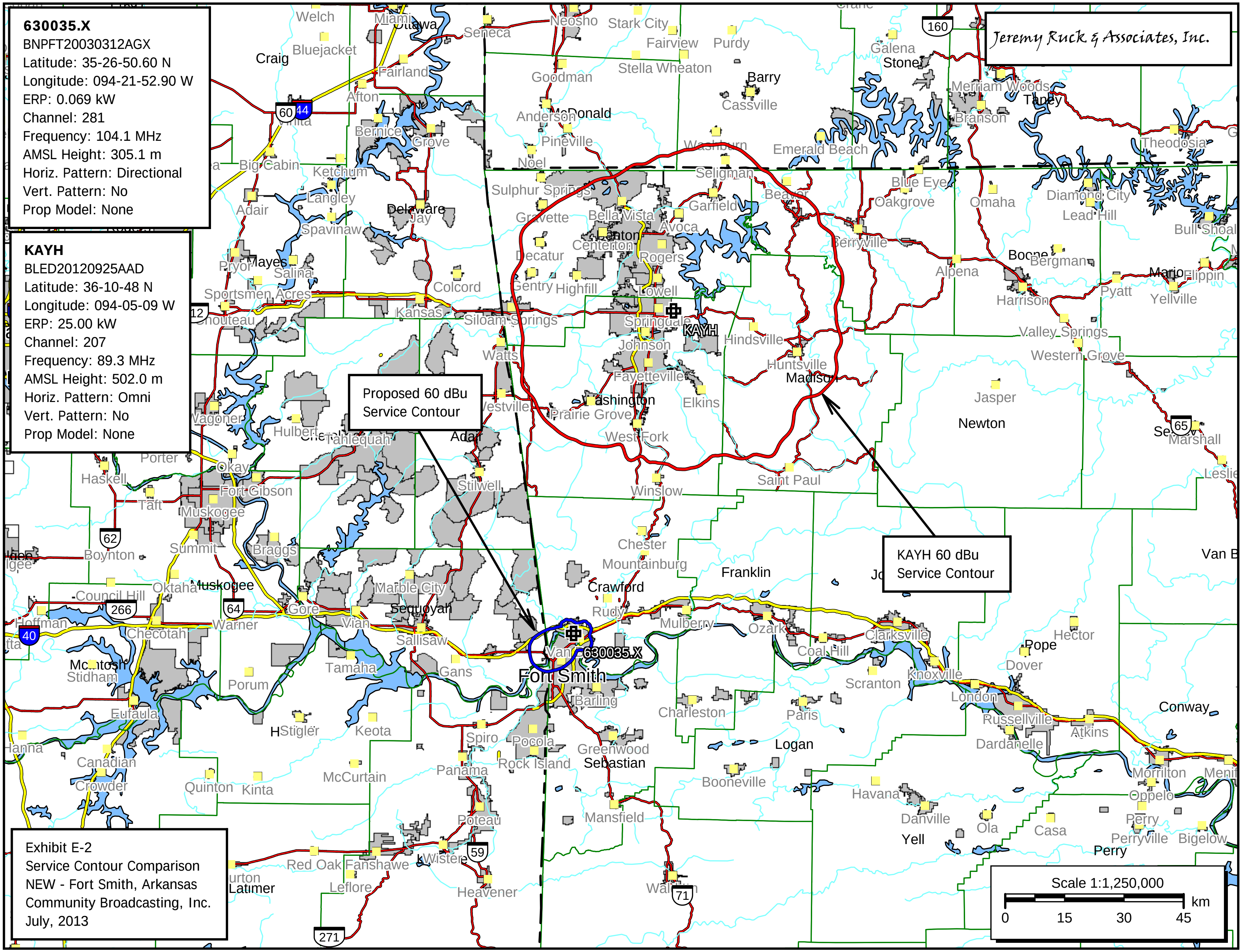
The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.

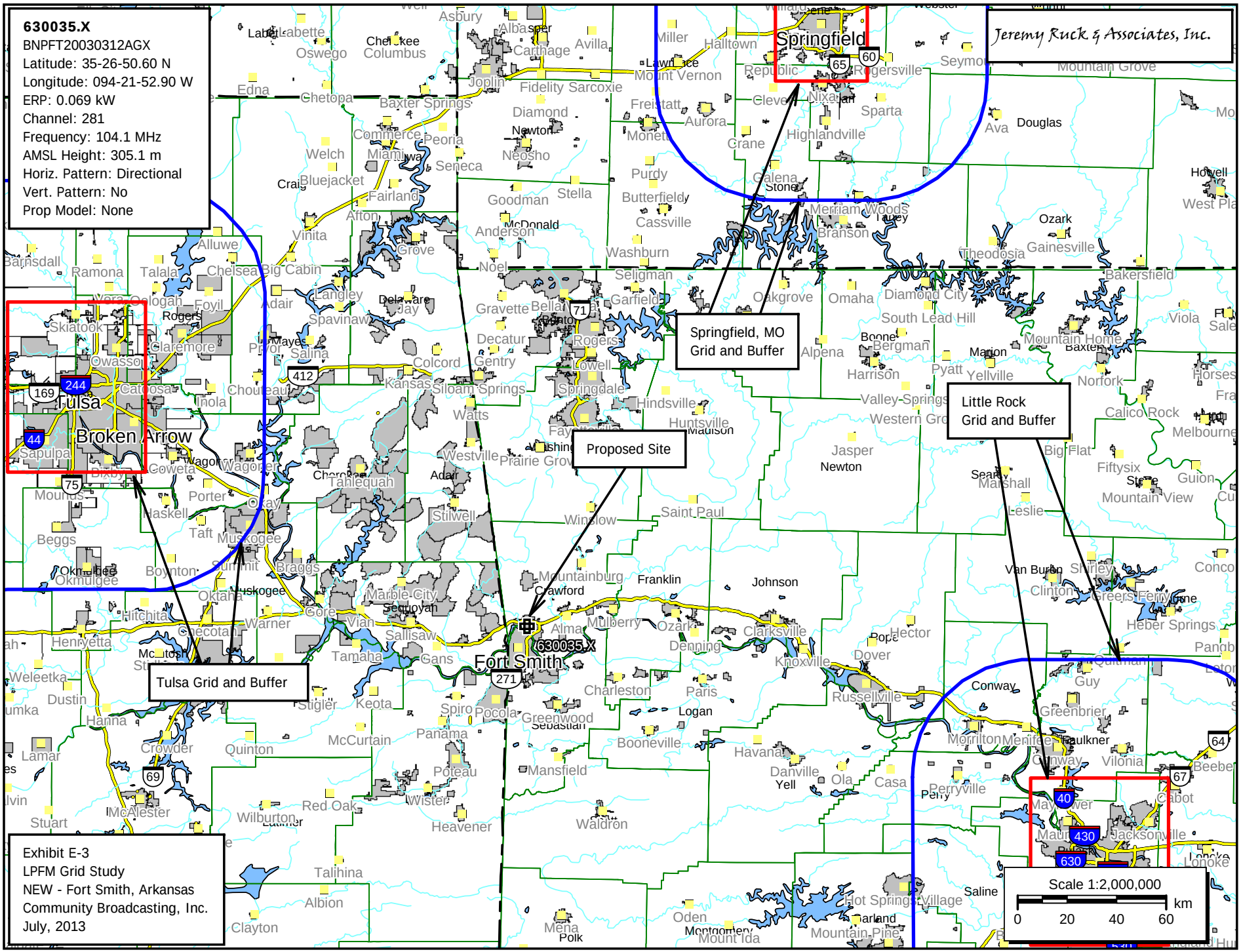


Above signature is digitized copy of actual signature
License Expires November 30, 2013

Jeremy D. Ruck, PE
July 10, 2013


630035.X
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
630035.A
BNPFT20030312AGX
Latitude: 35-21-11.70 N
Longitude: 094-25-55.20 W
ERP: 0.25 kW
Channel: 278
Frequency: 103.5 MHz
AMSL Height: 236.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Original 60 dBu Service Contour
Proposed 60 dBu Service Contour
Jeremy Ruck & Associates, Inc.
Crawford
Fort Smith
Van Buren
Alma
Dyer
Kibler
Roland
Muldrow
Moffett
Arkoma
Lavaca
Central City
Cowlington
Spiro
Pocola
Bonanza
Greenwood
Hackett
Rock Island
Sebastian
40
540
71
64
271
59
Exhibit E-1
Service Contour Comparison
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013
Scale 1:250,000
km
0
3
6
9


630035.X
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
KAYH
BLED20120925AAD
Latitude: 36-10-48 N
Longitude: 094-05-09 W
ERP: 25.00 kW
Channel: 207
Frequency: 89.3 MHz
AMSL Height: 502.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
Proposed 60 dBu Service Contour
KAYH 60 dBu Service Contour
KAYH
630035.X
Fort Smith
Scale 1:1,250,000
km
0
15
30
45
Exhibit E-2
Service Contour Comparison
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013


630035.X
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
Springfield, MO Grid and Buffer
Little Rock Grid and Buffer
Proposed Site
Tulsa Grid and Buffer
630035.X
Springfield
Tulsa
Broken Arrow
Fort Smith
Exhibit E-3
LPFM Grid Study
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013
Scale 1:2,000,000
km
0
20
40
60

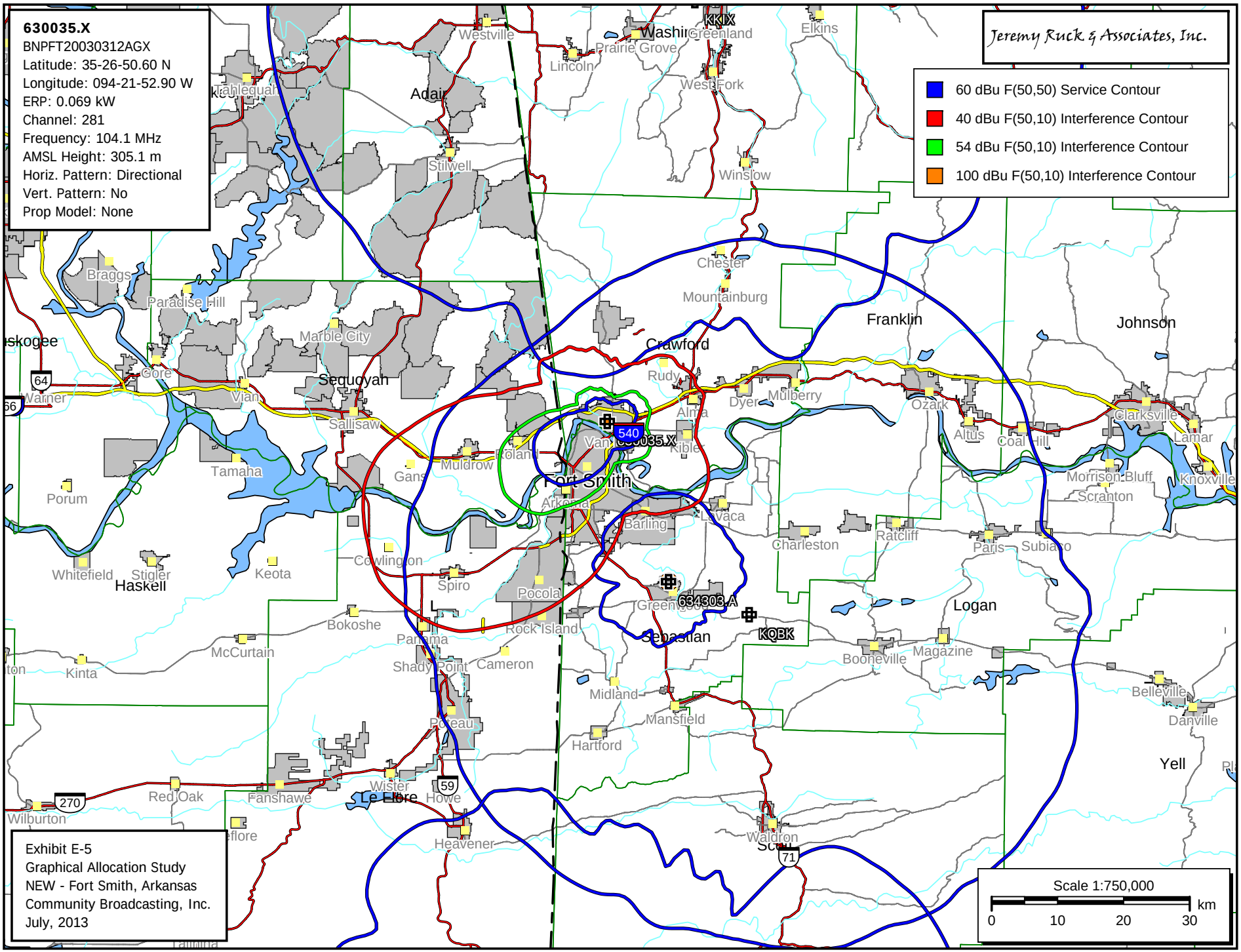
Jeremy Ruck & Associates, Inc.
Consulting Engineers - Canton, Illinois

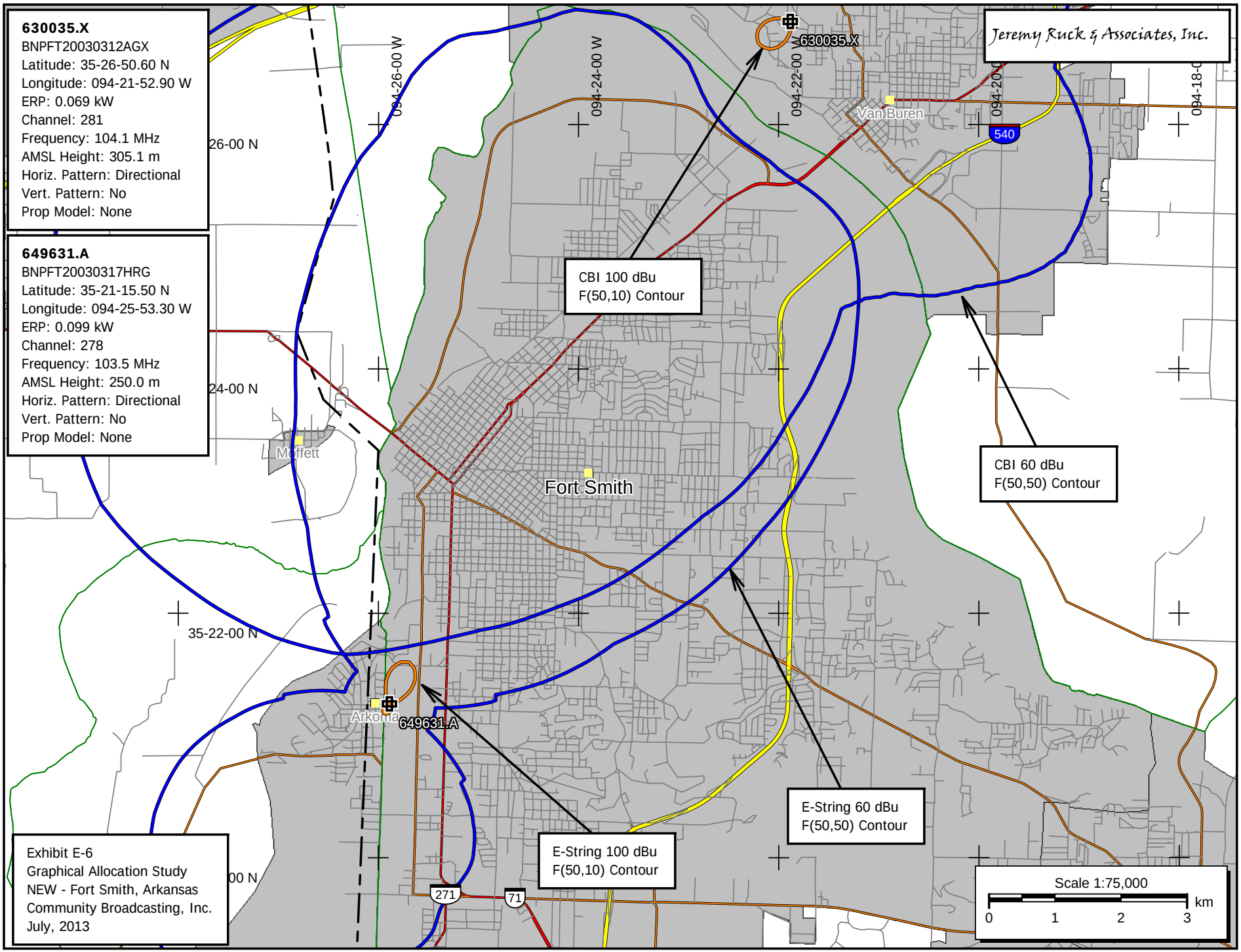
Exhibit E-4 - Tabular Allocation Study
NEW - Fort Smith, Arkansas

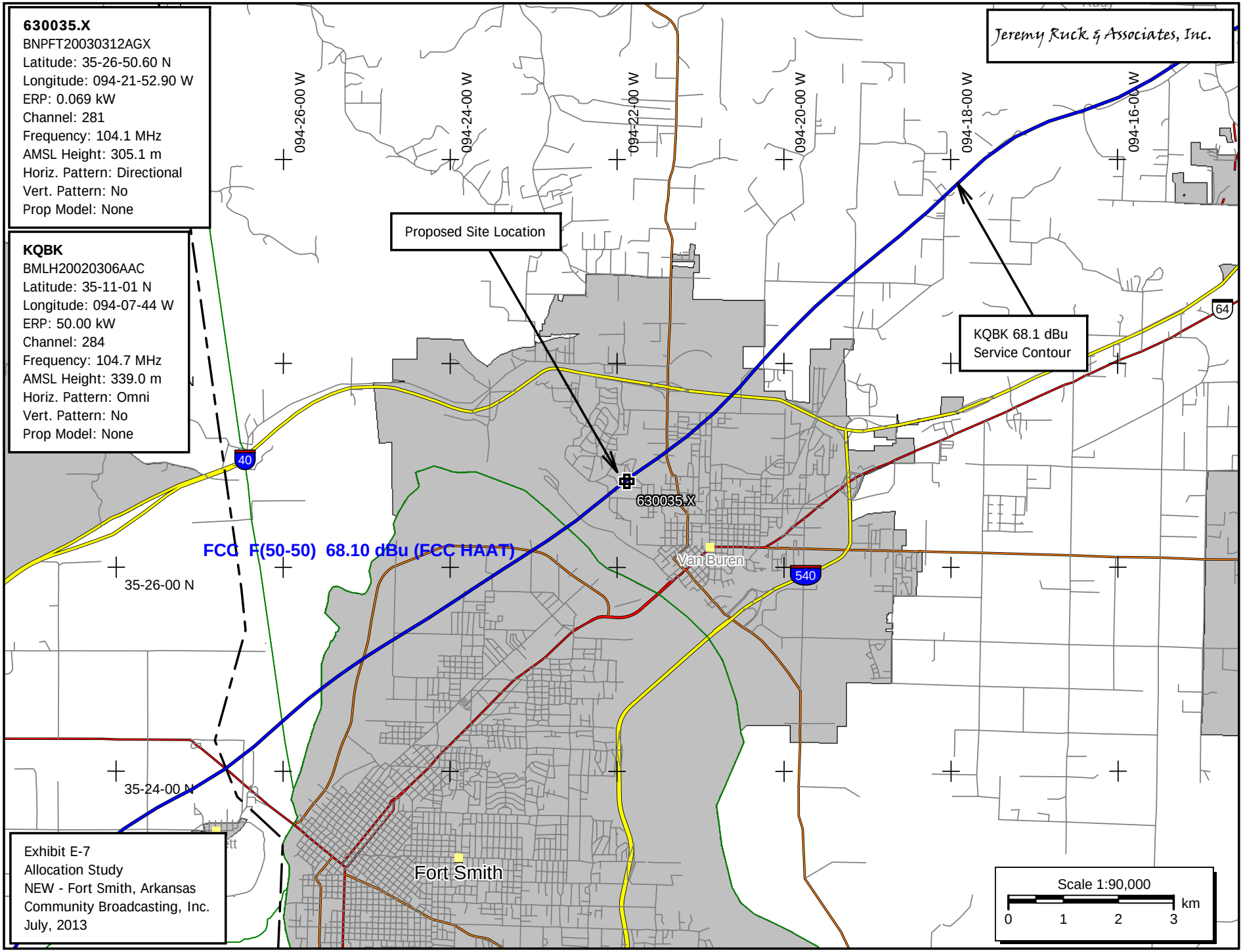
REFERENCE CH# 281D - 104.1 MHz, Pwr= 0.069 kW DA, HAAT= 139.1 M, COR= 305.1 M DISPLAY DATES
35 26 50.6 N. Average Protected F(50-50)= 11.04 km DATA 07-10-13
94 21 52.9 W. Standard Directional SEARCH 07-10-13

CH CITY	CALL STATE	TYPE ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
280C1	KKIX	LIC NCN	11.7	65.18	36 01 17.0	100.000	88.3	57.3	-26.2*	2.0
Fayetteville	AR		191.8	BLH19900622KC	94 13 04.0	147	565	Capstar Tx Llc		
281C2	KILX	LIC _CX	176.9	100.47	34 32 42.0	28.500	116.9	38.9	-25.6*	26.9
Hatfield	AR		357.0	BLH20030702ABC	94 18 21.0	143	501	Ouachita Broadcasting, Inc		
284C2	KQBK	LIC _CX	143.8	36.29	35 11 01.0	50.000	6.0	52.4	24.7	-16.2*
Booneville	AR		324.0	BMLH20020306AAC	94 07 44.0	150	339	Pharis Broadcasting, Inc,		
278D 649631		APP _C_	205.9	10.66	35 21 40.0	0.250	1.1	10.6	-1.1*	-0.4
Fort Smith	AR		25.9	BNPFT20030317HRG	94 24 58.0	76	221	E-string Wireless, Ltd		
278D 630035		APP _C_	210.3	12.11	35 21 11.7	0.250	1.1	11.9	-0.5	-0.4
Fort Smith	AR		30.2	BNPFT20030312AGX	94 25 55.2	89	236	Community Broadcasting, In		
278D 634303		APP _C_	159.1	25.99	35 13 44.0	0.250	1.1	13.0	18.0	12.6
Greenwood	AR		339.2	BNPFT20030311AKS	94 15 46.0	70	245	Starboard Media Foundation		

Terrain database is FCC NGDC 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= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding
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 protected contour.
Reference station has protected zone issue:


630035.X
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
60 dBu F(50,50) Service Contour
40 dBu F(50,10) Interference Contour
54 dBu F(50,10) Interference Contour
100 dBu F(50,10) Interference Contour
Exhibit E-5
Graphical Allocation Study
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013
Scale 1:750,000
0 10 20 30 km
Fort Smith
Van Buren
Alma
Mulberry
Ozark
Clarksville
Lamar
Knoxville
Morrison Bluff
Scranton
Coal Hill
Altus
Dyer
Rudy
Crawford
Franklin
Johnson
Chester
Mountainburg
Winslow
West Fork
Greenland
Elkins
Prairie Grove
Lincoln
Westville
Adair
Stilwell
Braggs
Paradise Hill
Marble City
Sequoyah
Gore
Vian
Sallisaw
Warner
Tamaha
Porum
Whitefield
Stigler
Haskell
Keota
Cowlington
Spiro
Pocola
Muldrow
Roland
Gans
Arkoma
Barling
Vaca
Charleston
Ratcliff
Paris
Subiaco
Ribler
Logan
Booneville
Magazine
Belleville
Danville
Yell
Sebastian
Rock Island
Bokoshe
Panama
Shady Point
Cameron
McCurtain
Kinta
Midland
Mansfield
Hartford
Poteau
Wister
Le Flore
Howe
Heavener
Red Oak
Fanshawe
Wilburton
Waldron
Scott
KKIX
KQBK
634308.A
540
59
64
270
71


630035.X
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
649631.A
BNPFT20030317HRG
Latitude: 35-21-15.50 N
Longitude: 094-25-53.30 W
ERP: 0.099 kW
Channel: 278
Frequency: 103.5 MHz
AMSL Height: 250.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
094-26-00 W
094-24-00 W
094-22-00 W
094-20-
094-18-
26-00 N
24-00 N
35-22-00 N
00 N
630035.X
649631.A
Van Buren
Moffett
Fort Smith
Arkoma
540
271
71
CBI 100 dBu
F(50,10) Contour
CBI 60 dBu
F(50,50) Contour
E-String 60 dBu
F(50,50) Contour
E-String 100 dBu
F(50,10) Contour
Exhibit E-6
Graphical Allocation Study
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013
Scale 1:75,000
0 1 2 3 km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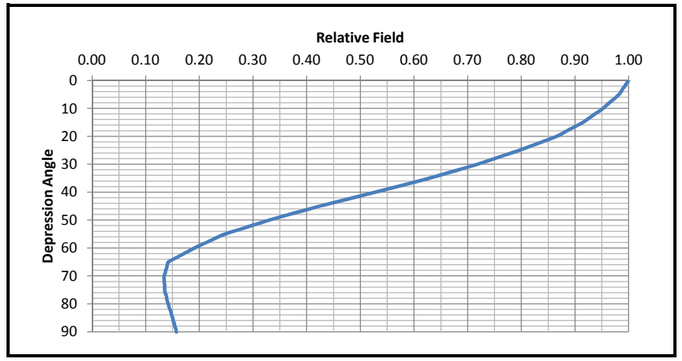
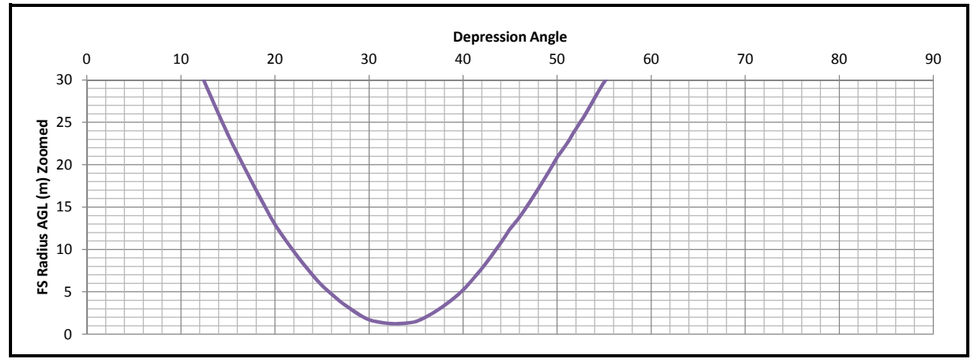
BNPFT20030312AGX
Latitude: 35-26-50.60 N
Longitude: 094-21-52.90 W
ERP: 0.069 kW
Channel: 281
Frequency: 104.1 MHz
AMSL Height: 305.1 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
KQBK
BMLH20020306AAC
Latitude: 35-11-01 N
Longitude: 094-07-44 W
ERP: 50.00 kW
Channel: 284
Frequency: 104.7 MHz
AMSL Height: 339.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
Jeremy Ruck & Associates, Inc.
094-26-00 W
094-24-00 W
094-22-00 W
094-20-00 W
094-18-00 W
094-16-00 W
Proposed Site Location
KQBK 68.1 dBu
Service Contour
630035.X
FCC F(50-50) 68.10 dBu (FCC HAAT)
Van Buren
Fort Smith
35-26-00 N
35-24-00 N
40
540
64
Exhibit E-7
Allocation Study
NEW - Fort Smith, Arkansas
Community Broadcasting, Inc.
July, 2013
Scale 1:90,000
0 1 2 3 km

Exhibit E-8
Translator Proximity Interference Analysis
NEW - Fort Smith, Arkansas

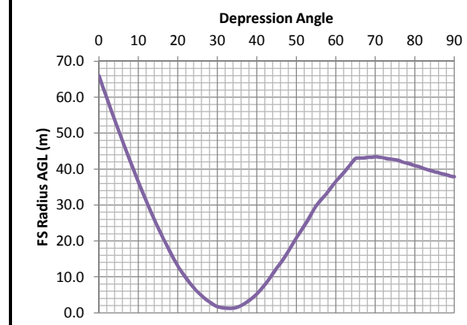
Antenna No:	58	Center of Radiation:	66 m AGL
Manufacturer:	Scala	Effective Radiated Power:	69 Watts
Model:	CA5-FM-CP	FS Contour:	108.1 dBu
Number of Bays:	N/A	E Field Strength:	0.25410 V/m
Bay Spacing:	Log	Z0 (Ohms):	377 Ohms
		Power Density:	0.000171261 W/m^2

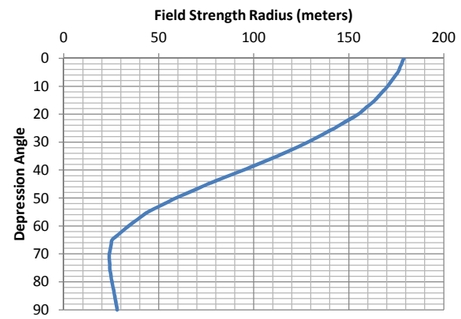


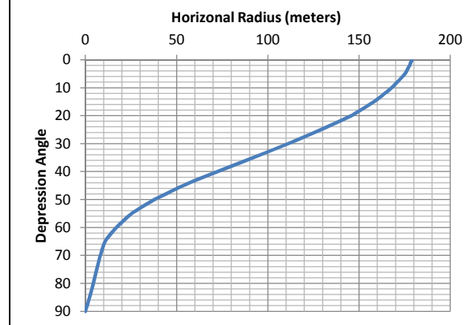


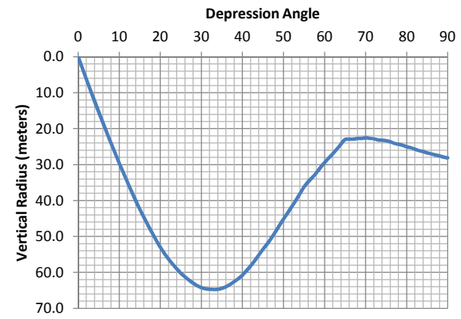
Depression Angle	Relative Field	Relative Power	ERP Watts	Radii in meters			
				Field Strength	Horizontal	Vertical	AGL
0	1.0000	1.0000	69.00	179.06	179.06	0.00	66.00
1	0.9960	0.9920	68.45	178.34	178.31	3.11	62.89
2	0.9930	0.9860	68.04	177.80	177.69	6.21	59.79
3	0.9890	0.9781	67.49	177.09	176.84	9.27	56.73
4	0.9860	0.9722	67.08	176.55	176.12	12.32	53.68
5	0.9820	0.9643	66.54	175.83	175.16	15.32	50.68
6	0.9760	0.9526	65.73	174.76	173.80	18.27	47.73
7	0.9700	0.9409	64.92	173.68	172.39	21.17	44.83
8	0.9640	0.9293	64.12	172.61	170.93	24.02	41.98
9	0.9580	0.9178	63.33	171.54	169.42	26.83	39.17
10	0.9520	0.9063	62.53	170.46	167.87	29.60	36.40
11	0.9450	0.8930	61.62	169.21	166.10	32.29	33.71
12	0.9370	0.8780	60.58	167.78	164.11	34.88	31.12
13	0.9300	0.8649	59.68	166.52	162.25	37.46	28.54
14	0.9220	0.8501	58.66	165.09	160.19	39.94	26.06
15	0.9150	0.8372	57.77	163.84	158.25	42.40	23.60
16	0.9050	0.8190	56.51	162.05	155.77	44.67	21.33
17	0.8950	0.8010	55.27	160.26	153.25	46.85	19.15
18	0.8850	0.7832	54.04	158.47	150.71	48.97	17.03
19	0.8760	0.7674	52.95	156.85	148.31	51.07	14.93
20	0.8660	0.7500	51.75	155.06	145.71	53.03	12.97
21	0.8520	0.7259	50.09	152.56	142.42	54.67	11.33
22	0.8380	0.7022	48.45	150.05	139.12	56.21	9.79
23	0.8240	0.6790	46.85	147.54	135.81	57.65	8.35
24	0.8100	0.6561	45.27	145.04	132.50	58.99	7.01
25	0.7960	0.6336	43.72	142.53	129.18	60.24	5.76
26	0.7800	0.6084	41.98	139.66	125.53	61.22	4.78
27	0.7650	0.5852	40.38	136.98	122.05	62.19	3.81
28	0.7490	0.5610	38.71	134.11	118.42	62.96	3.04
29	0.7340	0.5388	37.17	131.43	114.95	63.72	2.28
30	0.7180	0.5155	35.57	128.56	111.34	64.28	1.72
31	0.7000	0.4900	33.81	125.34	107.44	64.55	1.45
32	0.6820	0.4651	32.09	122.12	103.56	64.71	1.29
33	0.6640	0.4409	30.42	118.89	99.71	64.75	1.25
34	0.6460	0.4173	28.79	115.67	95.90	64.68	1.32
35	0.6280	0.3944	27.21	112.45	92.11	64.50	1.50
36	0.6080	0.3697	25.51	108.87	88.07	63.99	2.01
37	0.5880	0.3457	23.86	105.29	84.08	63.36	2.64
38	0.5680	0.3226	22.26	101.70	80.14	62.62	3.38
39	0.5480	0.3003	20.72	98.12	76.26	61.75	4.25
40	0.5280	0.2788	19.24	94.54	72.42	60.77	5.23
41	0.5070	0.2570	17.74	90.78	68.51	59.56	6.44
42	0.4860	0.2362	16.30	87.02	64.67	58.23	7.77
43	0.4650	0.2162	14.92	83.26	60.89	56.78	9.22
44	0.4440	0.1971	13.60	79.50	57.19	55.23	10.77
45	0.4230	0.1789	12.35	75.74	53.56	53.56	12.44

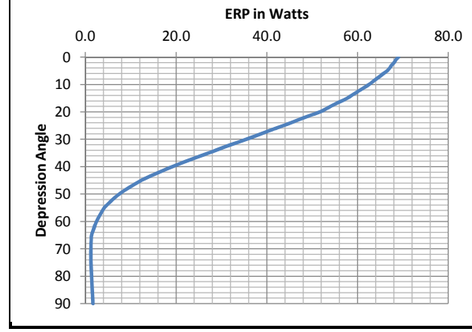
Depression Angle	Relative Field	Relative Power	ERP Watts	Radii in meters			
				Field Strength	Horizontal	Vertical	AGL
45	0.4230	0.1789	12.35	75.74	53.56	53.56	12.44
46	0.4050	0.1640	11.32	72.52	50.38	52.17	13.83
47	0.3860	0.1490	10.28	69.12	47.14	50.55	15.45
48	0.3670	0.1347	9.29	65.71	43.97	48.83	17.17
49	0.3480	0.1211	8.36	62.31	40.88	47.03	18.97
50	0.3290	0.1082	7.47	58.91	37.87	45.13	20.87
51	0.3130	0.0980	6.76	56.04	35.27	43.55	22.45
52	0.2960	0.0876	6.05	53.00	32.63	41.77	24.23
53	0.2800	0.0784	5.41	50.14	30.17	40.04	25.96
54	0.2630	0.0692	4.77	47.09	27.68	38.10	27.90
55	0.2470	0.0610	4.21	44.23	25.37	36.23	29.77
56	0.2350	0.0552	3.81	42.08	23.53	34.88	31.12
57	0.2240	0.0502	3.46	40.11	21.84	33.64	32.36
58	0.2130	0.0454	3.13	38.14	20.21	32.34	33.66
59	0.2010	0.0404	2.79	35.99	18.54	30.85	35.15
60	0.1900	0.0361	2.49	34.02	17.01	29.46	36.54
61	0.1800	0.0324	2.24	32.23	15.63	28.19	37.81
62	0.1710	0.0292	2.02	30.62	14.37	27.03	38.97
63	0.1610	0.0259	1.79	28.83	13.09	25.69	40.31
64	0.1510	0.0228	1.57	27.04	11.85	24.30	41.70
65	0.1420	0.0202	1.39	25.43	10.75	23.04	42.96
66	0.1400	0.0196	1.35	25.07	10.20	22.90	43.10
67	0.1390	0.0193	1.33	24.89	9.72	22.91	43.09
68	0.1370	0.0188	1.30	24.53	9.19	22.74	43.26
69	0.1360	0.0185	1.28	24.35	8.73	22.73	43.27
70	0.1340	0.0180	1.24	23.99	8.21	22.55	43.45
71	0.1340	0.0180	1.24	23.99	7.81	22.69	43.31
72	0.1340	0.0180	1.24	23.99	7.41	22.82	43.18
73	0.1350	0.0182	1.26	24.17	7.07	23.12	42.88
74	0.1350	0.0182	1.26	24.17	6.66	23.24	42.76
75	0.1350	0.0182	1.26	24.17	6.26	23.35	42.65
76	0.1360	0.0185	1.28	24.35	5.89	23.63	42.37
77	0.1380	0.0190	1.31	24.71	5.56	24.08	41.92
78	0.1390	0.0193	1.33	24.89	5.17	24.34	41.66
79	0.1400	0.0196	1.35	25.07	4.78	24.61	41.39
80	0.1420	0.0202	1.39	25.43	4.42	25.04	40.96
81	0.1430	0.0204	1.41	25.61	4.01	25.29	40.71
82	0.1450	0.0210	1.45	25.96	3.61	25.71	40.29
83	0.1470	0.0216	1.49	26.32	3.21	26.13	39.87
84	0.1480	0.0219	1.51	26.50	2.77	26.36	39.64
85	0.1500	0.0225	1.55	26.86	2.34	26.76	39.24
86	0.1510	0.0228	1.57	27.04	1.89	26.97	39.03
87	0.1530	0.0234	1.62	27.40	1.43	27.36	38.64
88	0.1540	0.0237	1.64	27.57	0.96	27.56	38.44
89	0.1560	0.0243	1.68	27.93	0.49	27.93	38.07
90	0.1570	0.0246	1.70	28.11	0.00	28.11	37.89











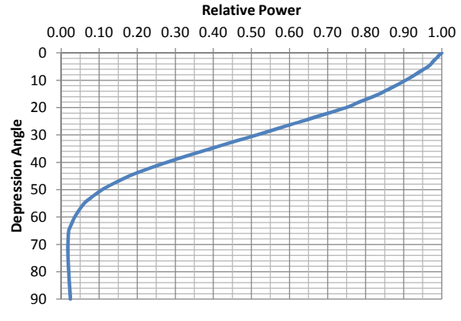
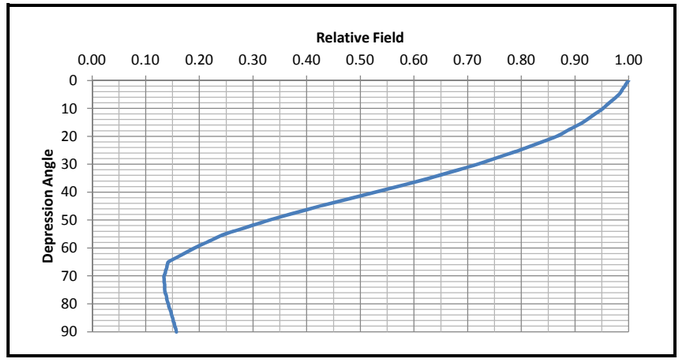


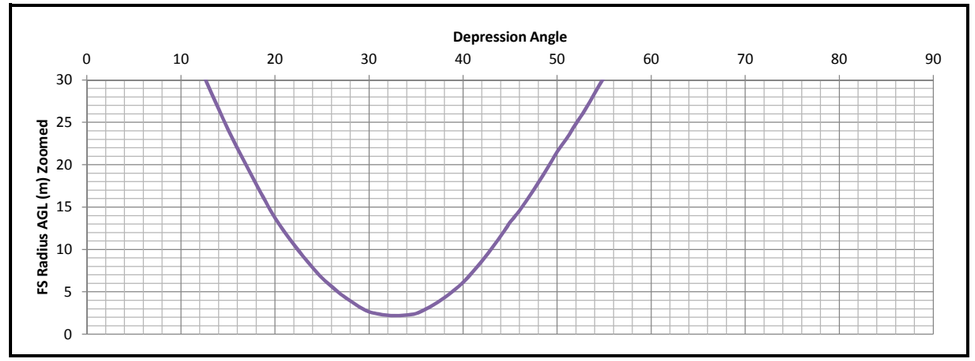
Exhibit E-9

Translator Proximity Interference Analysis

NEW - Fort Smith, Arkansas

Antenna No:	58	Center of Radiation:	66 m AGL
Manufacturer:	Scala	Effective Radiated Power:	67 Watts
Model:	CA5-FM-CP	FS Contour:	108.1 dBu
Number of Bays:	N/A	E Field Strength:	0.25410 V/m
Bay Spacing:	Log	Z0 (Ohms):	377 Ohms
		Power Density:	0.000171261 W/m^2





Depression Angle	Relative Field	Relative Power	ERP Watts	Radii in meters			
				Field Strength	Horizontal	Vertical	AGL
0	1.0000	1.0000	67.00	176.44	176.44	0.00	66.00
1	0.9960	0.9920	66.47	175.74	175.71	3.07	62.93
2	0.9930	0.9860	66.07	175.21	175.10	6.11	59.89
3	0.9890	0.9781	65.53	174.50	174.26	9.13	56.87
4	0.9860	0.9722	65.14	173.97	173.55	12.14	53.86
5	0.9820	0.9643	64.61	173.27	172.61	15.10	50.90
6	0.9760	0.9526	63.82	172.21	171.26	18.00	48.00
7	0.9700	0.9409	63.04	171.15	169.87	20.86	45.14
8	0.9640	0.9293	62.26	170.09	168.44	23.67	42.33
9	0.9580	0.9178	61.49	169.03	166.95	26.44	39.56
10	0.9520	0.9063	60.72	167.97	165.42	29.17	36.83
11	0.9450	0.8930	59.83	166.74	163.67	31.82	34.18
12	0.9370	0.8780	58.82	165.33	161.71	34.37	31.63
13	0.9300	0.8649	57.95	164.09	159.89	36.91	29.09
14	0.9220	0.8501	56.96	162.68	157.85	39.36	26.64
15	0.9150	0.8372	56.09	161.44	155.94	41.79	24.21
16	0.9050	0.8190	54.87	159.68	153.49	44.01	21.99
17	0.8950	0.8010	53.67	157.92	151.02	46.17	19.83
18	0.8850	0.7832	52.48	156.15	148.51	48.25	17.75
19	0.8760	0.7674	51.41	154.56	146.14	50.32	15.68
20	0.8660	0.7500	50.25	152.80	143.58	52.26	13.74
21	0.8520	0.7259	48.64	150.33	140.34	53.87	12.13
22	0.8380	0.7022	47.05	147.86	137.09	55.39	10.61
23	0.8240	0.6790	45.49	145.39	133.83	56.81	9.19
24	0.8100	0.6561	43.96	142.92	130.56	58.13	7.87
25	0.7960	0.6336	42.45	140.45	127.29	59.36	6.64
26	0.7800	0.6084	40.76	137.63	123.70	60.33	5.67
27	0.7650	0.5852	39.21	134.98	120.27	61.28	4.72
28	0.7490	0.5610	37.59	132.16	116.69	62.04	3.96
29	0.7340	0.5388	36.10	129.51	113.27	62.79	3.21
30	0.7180	0.5155	34.54	126.69	109.71	63.34	2.66
31	0.7000	0.4900	32.83	123.51	105.87	63.61	2.39
32	0.6820	0.4651	31.16	120.33	102.05	63.77	2.23
33	0.6640	0.4409	29.54	117.16	98.26	63.81	2.19
34	0.6460	0.4173	27.96	113.98	94.50	63.74	2.26
35	0.6280	0.3944	26.42	110.81	90.77	63.56	2.44
36	0.6080	0.3697	24.77	107.28	86.79	63.06	2.94
37	0.5880	0.3457	23.16	103.75	82.86	62.44	3.56
38	0.5680	0.3226	21.62	100.22	78.97	61.70	4.30
39	0.5480	0.3003	20.12	96.69	75.14	60.85	5.15
40	0.5280	0.2788	18.68	93.16	71.37	59.88	6.12
41	0.5070	0.2570	17.22	89.46	67.51	58.69	7.31
42	0.4860	0.2362	15.83	85.75	63.73	57.38	8.62
43	0.4650	0.2162	14.49	82.05	60.00	55.96	10.04
44	0.4440	0.1971	13.21	78.34	56.35	54.42	11.58
45	0.4230	0.1789	11.99	74.64	52.78	52.78	13.22

Depression Angle	Relative Field	Relative Power	ERP Watts	Radii in meters			
				Field Strength	Horizontal	Vertical	AGL
45	0.4230	0.1789	11.99	74.64	52.78	52.78	13.22
46	0.4050	0.1640	10.99	71.46	49.64	51.40	14.60
47	0.3860	0.1490	9.98	68.11	46.45	49.81	16.19
48	0.3670	0.1347	9.02	64.75	43.33	48.12	17.88
49	0.3480	0.1211	8.11	61.40	40.28	46.34	19.66
50	0.3290	0.1082	7.25	58.05	37.31	44.47	21.53
51	0.3130	0.0980	6.56	55.23	34.76	42.92	23.08
52	0.2960	0.0876	5.87	52.23	32.15	41.16	24.84
53	0.2800	0.0784	5.25	49.40	29.73	39.46	26.54
54	0.2630	0.0692	4.63	46.40	27.28	37.54	28.46
55	0.2470	0.0610	4.09	43.58	25.00	35.70	30.30
56	0.2350	0.0552	3.70	41.46	23.19	34.38	31.62
57	0.2240	0.0502	3.36	39.52	21.53	33.15	32.85
58	0.2130	0.0454	3.04	37.58	19.92	31.87	34.13
59	0.2010	0.0404	2.71	35.46	18.27	30.40	35.60
60	0.1900	0.0361	2.42	33.52	16.76	29.03	36.97
61	0.1800	0.0324	2.17	31.76	15.40	27.78	38.22
62	0.1710	0.0292	1.96	30.17	14.16	26.64	39.36
63	0.1610	0.0259	1.74	28.41	12.90	25.31	40.69
64	0.1510	0.0228	1.53	26.64	11.68	23.95	42.05
65	0.1420	0.0202	1.35	25.05	10.59	22.71	43.29
66	0.1400	0.0196	1.31	24.70	10.05	22.57	43.43
67	0.1390	0.0193	1.29	24.53	9.58	22.58	43.42
68	0.1370	0.0188	1.26	24.17	9.06	22.41	43.59
69	0.1360	0.0185	1.24	24.00	8.60	22.40	43.60
70	0.1340	0.0180	1.20	23.64	8.09	22.22	43.78
71	0.1340	0.0180	1.20	23.64	7.70	22.36	43.64
72	0.1340	0.0180	1.20	23.64	7.31	22.49	43.51
73	0.1350	0.0182	1.22	23.82	6.96	22.78	43.22
74	0.1350	0.0182	1.22	23.82	6.57	22.90	43.10
75	0.1350	0.0182	1.22	23.82	6.17	23.01	42.99
76	0.1360	0.0185	1.24	24.00	5.81	23.28	42.72
77	0.1380	0.0190	1.28	24.35	5.48	23.72	42.28
78	0.1390	0.0193	1.29	24.53	5.10	23.99	42.01
79	0.1400	0.0196	1.31	24.70	4.71	24.25	41.75
80	0.1420	0.0202	1.35	25.05	4.35	24.67	41.33
81	0.1430	0.0204	1.37	25.23	3.95	24.92	41.08
82	0.1450	0.0210	1.41	25.58	3.56	25.34	40.66
83	0.1470	0.0216	1.45	25.94	3.16	25.74	40.26
84	0.1480	0.0219	1.47	26.11	2.73	25.97	40.03
85	0.1500	0.0225	1.51	26.47	2.31	26.37	39.63
86	0.1510	0.0228	1.53	26.64	1.86	26.58	39.42
87	0.1530	0.0234	1.57	27.00	1.41	26.96	39.04
88	0.1540	0.0237	1.59	27.17	0.95	27.16	38.84
89	0.1560	0.0243	1.63	27.53	0.48	27.52	38.48
90	0.1570	0.0246	1.65	27.70	0.00	27.70	38.30