

# *APPLICATION FOR CONSTRUCTION PERMIT*

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NEW FM TRANSLATOR STATION  
ST. ROBERT, MISSOURI  
BNPFT-20030312AWL  
106.5 MHz / 0.092 kW ND

COMMUNITY BROADCASTING, INC.

MARCH, 2013

## **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 facility to serve St. Robert, Missouri, and are in support of their application for construction permit for that facility. This application is being filed as the long-form submission for the original short-form engineering proposal under FCC File No. BNPFT-20030312AWL.<sup>1</sup>

The proposed facility would operate with an effective radiated power of 92 Watts at a center of radiation of 413.6 meters AMSL utilizing a non-directional antenna. The primary station for the proposed facility is KMCV(FM) at High Point, Missouri.<sup>2</sup> The proposed facility would not operate as a fill-in translator for KMCV. Exhibit E-1 illustrates the predicted 60 dBu service contour of both the translator and its primary facility.

The center of radiation and effective radiated power are consistent with the power and height limitations table in Section 74.1235 of the Commission's Rules. The average terrain was determined through a 12 radial sample of a 30-second linearly interpolated terrain database. That study indicated that the average elevation along the 60 degree true radial was the lowest of any of the sampled radials. The average elevation on this radial was determined to be 247.7 meters AMSL. This yields a center of radiation height above average terrain of 165.9 meters.

This application proposes a small change to the site specified in the original short-form application submitted in 2003. The change in the technical parameters would not, however,

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<sup>1</sup> The Facility ID for NEW / BNPFT-20030312AWL at St. Robert, Missouri is 138459.

<sup>2</sup> The Facility ID for KMCV at High Point, Missouri is 84371.

JEREMY RUCK & ASSOCIATES, INC.

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constitute a major change to the short-form engineering proposal. Exhibit E-2 illustrates the predicted 60 dBu service contour resulting from the original short-form proposal along with the 60 dBu service contour based on the technical parameters described in this application. As the map demonstrates, there would be overlap of the two contours.

Although a change in the site location is proposed, the proposed facility would not impact either the St. Louis, MO or Springfield, MO market grids. Exhibit E-3 illustrates the market boundaries, market grid, and market grid buffer of both the St. Louis and Springfield, MO markets. As this map demonstrates, the proposed site location is well outside either of the markets, including their respective market grid, and market grid buffer. As a result, the proposed facility will not preclude any future LPFM licensing opportunities in these areas.

The proposed facility would comply with the contour overlap and interference provisions of Section 74.1204 of the Commission's Rules. Exhibit E-4 is a tabular based allocation study for the proposed facility. As this study demonstrates, there would be no areas of prohibited contour overlap between the proposed facility, and any other proposed or authorized facility of relevance. Exhibit E-5 illustrates the tabular study in a graphical contour format.

CBI has several other pending translator applications and licensed translator facilities in the region. There is no overlap of the proposed 60 dBu service contour with the 60 dBu service contour of any other proposed or authorized CBI translator facility.<sup>3</sup> As a result, the proposed facility would be in compliance with the multiple translator provisions of the Commission's Rules.

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<sup>3</sup> The three closest facilities to the proposed translator are K222BD at Lebanon, Missouri, K292FO at Rolla, Missouri, and the pending application for Iberia, Missouri under FCC File No. BNPFT-20030312BAX.

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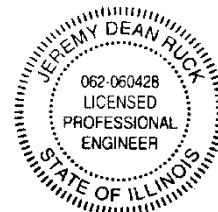
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The facility specified in this application would not constitute a significant environmental impact, and is exempt from environmental processing. The translator would utilize an existing tower that is registered with the Commission. The addition of the translator antenna to this tower would not increase the existing environmental impact already present from the facility.

In addition, the proposed facility would not constitute a radiofrequency radiation hazard to persons at the site. As indicated on the form pages, the proposed facility would operate with a Shively model 6812B-2 model antenna. The Commission's *FM Model* software package predicts a maximum power density of  $0.073 \mu\text{W}/\text{cm}^2$  at a distance of 68 meters from the base of the tower. This value is considerably less than the maximum value permissible under the applicable safety standards. CBI certifies that it will coordinate with all present and future users of the site to ensure that workers 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  
March 6, 2013

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**628813.X**

BNPFT20030312AWL  
Latitude: 37-50-34.40 N  
Longitude: 092-10-46.40 W  
ERP: 0.099 kW  
Channel: 293  
Frequency: 106.5 MHz  
AMSL Height: 413.6 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**KMCV**

BLED20101209AJF  
Latitude: 38-35-48 N  
Longitude: 092-32-17 W  
ERP: 50.00 kW  
Channel: 210  
Frequency: 89.9 MHz  
AMSL Height: 336.5 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

Exhibit E-1

Proposed 60 dBu Service Contour  
NEW - St. Robert, Missouri  
Community Broadcasting, Inc.  
March, 2013

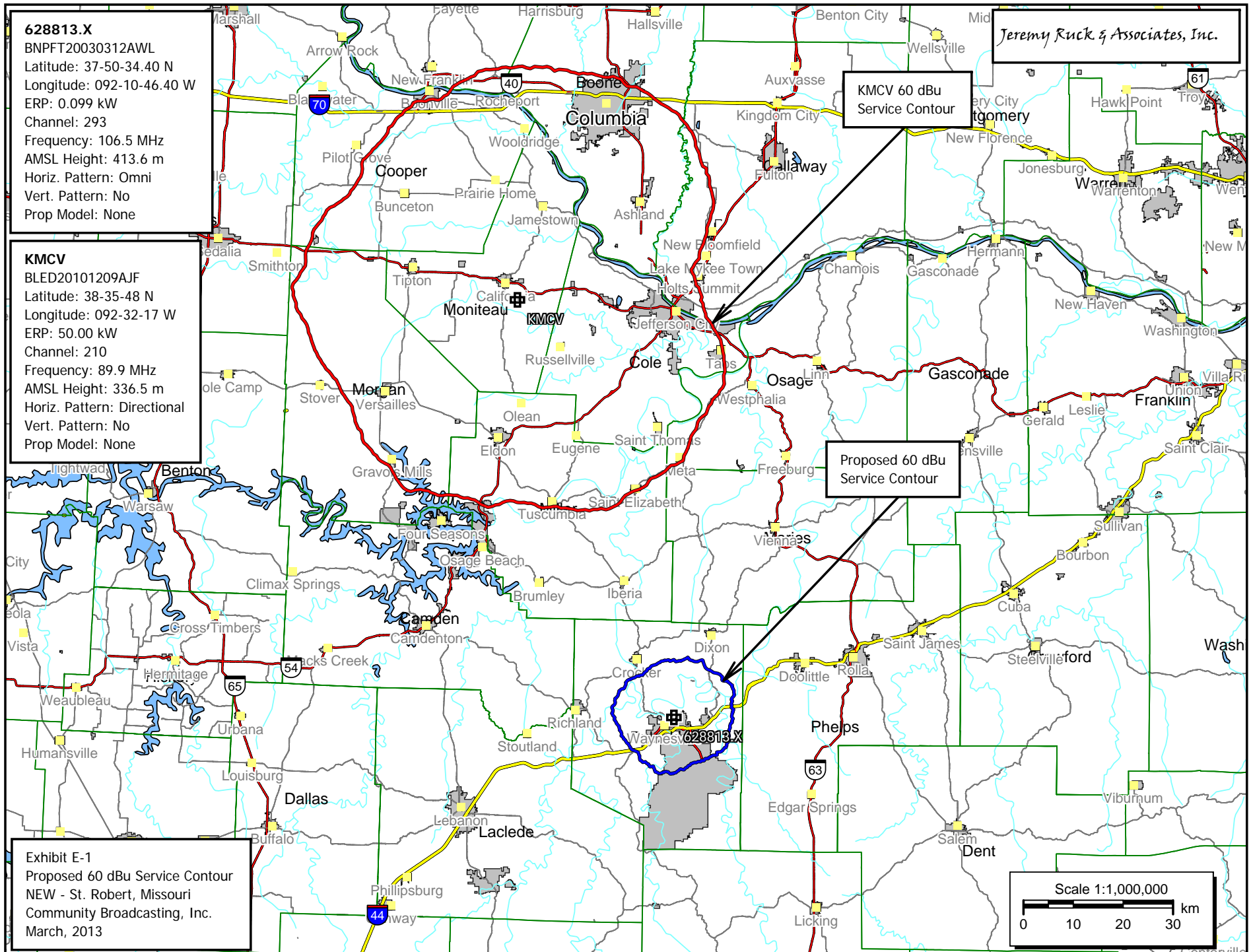
*Jeremy Ruck & Associates, Inc.*

KMCV 60 dBu  
Service Contour

Proposed 60 dBu  
Service Contour

Scale 1:1,000,000

0 10 20 30 km



**628813.A**

BNPFT20030312AWL  
Latitude: 37-48-25 N  
Longitude: 092-08-20 W  
ERP: 0.205 kW  
Channel: 293  
Frequency: 106.5 MHz  
AMSL Height: 375.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**628813.X**

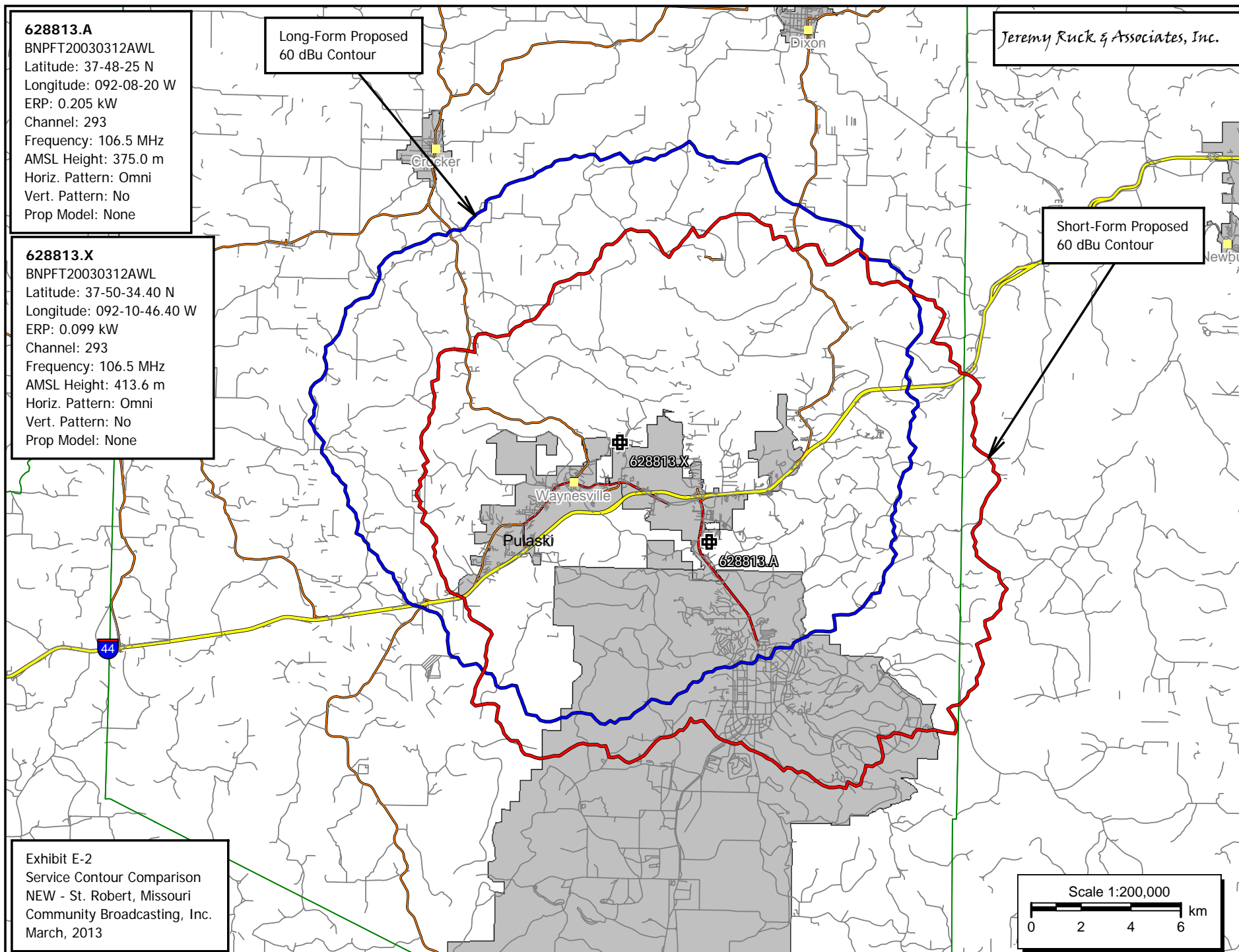
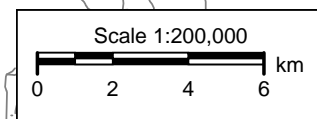
BNPFT20030312AWL  
Latitude: 37-50-34.40 N  
Longitude: 092-10-46.40 W  
ERP: 0.099 kW  
Channel: 293  
Frequency: 106.5 MHz  
AMSL Height: 413.6 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

Long-Form Proposed  
60 dBu Contour

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Short-Form Proposed  
60 dBu Contour

Exhibit E-2  
Service Contour Comparison  
NEW - St. Robert, Missouri  
Community Broadcasting, Inc.  
March, 2013



**628813.X**

BNPFT20030312AWL

Latitude: 37-50-34.40 N

Longitude: 092-10-46.40 W

ERP: 0.099 kW

Channel: 293

Frequency: 106.5 MHz

AMSL Height: 413.6 m

Elevation: 296.395 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

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Short-Form  
Proposed Site

Springfield, MO  
Grid Buffer

Springfield, MO  
Market Grid

Long-Form  
Proposed Site

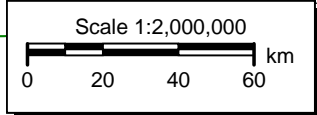
St. Louis  
Grid Buffer

St. Louis  
Market Grid

St. Louis  
Market Boundary

Exhibit E-3  
Market and Grid Illustration  
NEW - St. Robert, Missouri  
Community Broadcasting, Inc.  
March, 2013

Springfield, MO  
Market Boundary



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

Exhibit E-4 - Tabular Allocation Study  
NEW - St. Robert, Missouri  
CH# 293D - 106.5 MHz, Pwr= 0.092 kW, HAAT= 129.9 M, COR= 413.6 M  
Average Protected F(50-50)= 11.43 km  
Omni-directional

REFERENCE  
37 50 34.4 N.  
92 10 46.4 W.

DISPLAY DATES  
DATA 03-06-13  
SEARCH 03-06-13

CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
293D St. Robert	628813	APP _C_ MO	138.2 318.2	5.35 BNPFT20030312AWL	37 48 25.0 92 08 20.0	0.205 90	40.2 375	11.7 Community Broadcasting, In	-45.7*	-43.0*
293C1 Granite City	WARH	LIC _C_ IL	62.8 243.9	181.24 BLH20111026AGG	38 34 27.7 90 19 31.5	90.000 309	169.2 462	71.2 St. Louis Fcc License Sub,	-1.0	67.3
292D Rolla	K292FO	LIC _C_ MO	67.1 247.4	42.48 BLFT20120320ACM	37 59 26.0 91 43 58.0	0.250	20.8 410	13.7 Community Broadcasting, In	8.8	9.2
292C3 Bunker	AU9411336	VAC ____ MO	115.4 295.9	83.17	37 31 10.0 91 19 38.0	25.000 100	59.1 475	38.1 Horizon Christian Fellowsh	12.1	27.0
295C Jefferson City	KTXY	LIC _CY MO	342.9 162.7	92.51 BLH19900727KA	38 38 16.0 92 29 34.0	100.000 381	11.3 609	78.0 Zimmer Radio Of Mid-missou	69.7	13.7
293D Jefferson City	K293AX	LIC _C_ MO	358.7 178.7	77.62 BLFT20070618ABG	38 32 27.2 92 11 57.0	0.085 85	29.7 284	8.8 Lake Area Educational Broa	36.3	29.5
291C1 Ashland	KOQL	LIC NCN MO	342.0 161.7	106.16 BLH19981125KG	38 45 01.0 92 33 31.0	69.000 292	9.0 519	67.5 Cumulus Licensing LIc	85.6	37.7

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.



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