



November 7, 2014

Ms. Sandra L. Day  
Planning Division  
P.O. Box 708  
Lawrence, KS 66044

Re: Third Party Review for a New Communication Tower at 1725 Bullene Ave.  
LAWC Barker Cell Site

Dear Ms. Day:

Burns & McDonnell has completed our radio collocation feasibility assessment and report the following:

**Applicant**

PAMCORP, LLC on behalf of Verizon Wireless, LLC

**Project**

Applicant proposes to construct a telecommunications tower in Lawrence, Kansas. Burns & McDonnell conducted a study in accordance with the Land Development Code to determine the extent to which the Applicant has, or has not, met the Burden of Proof required by Subsection 20-529 (7).

Proposed tower: LAWC Barker

Location: 1725 Bullene Avenue, Lawrence, Kansas, 66044

Geographic Coordinates: Lat. 38-57-8.89 North; Long. 93-13-34.91 West

Ground Elevation: 843 feet above mean sea level.

Structure height: 120 feet above ground level.

Transmitter Frequency Bands: 1860-1900 MHz; 700 MHz

**Analysis**

Burns & McDonnell reviewed the project data provided by the City including:

- Applicant's software-generated radio signal propagation models showing current radio signal coverage and proposed coverage after construction of the new tower.
- Applicant's zoning application including proposed site design drawings.

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Burns & McDonnell obtained a list of existing communication towers within a 1 mile radius of the proposed site, which is a reasonable search area for co-location given the technology involved and the area of desired coverage. Those tower locations are shown on the map on Attachment A.

Burns & McDonnell's engineer travelled to Lawrence on November 6, 2014 and reviewed the proposed tower location, and other structures in the general area of study. The proposed tower site would be located in an improved area approximately 120 feet from Bullene Avenue to the east of an existing building. Attachment B contains photographs of the proposed site and the other structures in the area considered in this review.

Other communication towers and structures in the area that were reviewed are summarized below:

FCC Reg. No. 1240013

Owner: Douglas County, KS

This is a 199-foot self-supporting tower located near the Law Enforcement Center. See photograph in Attachment C. This tower appears fully occupied and would not appear to be a candidate for colocation. It is also too far to the northeast to provide adequate coverage of the required area in Burns & McDonnell's opinion.

FCC Reg. No. 127515

Owner: Verizon Wireless

This 42-foot tower site is proposed and registered with the FCC but not yet constructed. It will be too far to the northeast and of inadequate height to provide adequate coverage of the required area in Burns & McDonnell's opinion.

FCC Reg. No. 1240758

Owner: Knology of Kansas, Inc.

This is a 202-foot guyed tower located in a residential area. The tower support CATV and cellular antennas. The tower is appears to be fully loaded and is too far to the east to provide adequate coverage of the required area in Burns & McDonnell's opinion.



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Grain Elevator on Moodie Road one block south of 19<sup>th</sup> Street:

Owner: Unknown

This structure is located approximately 1700 feet south-southeast of the proposed site. There are numerous land mobile radio antennas on the structure. It is the opinion of Burns & McDonnell that the height and configuration of the structure would not be suitable for the Applicant's needs.

**Findings**

No other structures were observed in the area that would be suitable for collocation and provide the radio signal coverage proposed by the Applicant. The Burden of Proof required of the Applicant has been met. These findings are Burns & McDonnell's **independent** professional opinion based on our experience related to the propagation characteristics of the radio frequency bands proposed, our experience in the design and **construction** of similar radio facilities, and our observations of the site and the surrounding area.

Sincerely,

A handwritten signature in cursive script that reads "Matthew B. Olson".

Matthew B. Olson, P.E.  
License KS20642

Attachment A-Third Party Review LAWC Barker  
Attachment B-Photographs of Proposed Site and Other Structures



Attachment B

Photographs of Proposed Site and Other Area Structures



1725 Bullene Avenue, Lawrence, KS



1725 Bullene Avenue  
Rear of Property  
Approximate Location of Proposed Site



FCC Reg. No. 1240013  
Owner Douglas County, KS  
11<sup>th</sup> St. and Rhode Island St



FCC Reg. No. 1240758  
Owner Knology of Kansas, Inc.  
15th St. and Lindenwood Ln.





Grain Elevator on Moodie Road one block south of 19th Street  
Owner: Unknown