



Technical Memorandum

To:	Andrea Lacy Bourbon County Joint Planning Commission	Date:	March 12, 2019
From:	GRW Engineers	GRW Project No.:	4602-01
Subject:	TowerCo2013 Cell Tower Application Review		

I. Background

TowerCo2013 seeks to construct a cell tower at 93 E. Main Street. A uniform application, pursuant to the local cell tower ordinance, has been submitted for review by the Bourbon County Joint Planning Commission. GRW has been hired to review and provide comments on the proposed application. We reviewed an initial application and supporting materials in December 2018 and prepared a memo on December 5, 2018 and on February 15, 2019 after additional information was received. The project proponents have since submitted additional information, March 1, 2019. **Our response to that information is in red type.**

II. Analysis

We have reviewed the contents of the uniform application as stated in KRS 100.9865, the additional requirements of KRS 100.987, and the local cell tower ordinance and our comments are as follows:

1. A grid map extending ½ mile outside the boundaries of the planning unit, showing all existing and proposed cell towers is missing. (KRS 100.987(2)(a))
2. The application and the subsequently submitted foundation design appears to comply with KRS 100.9865 and 100.987.
3. This application is for a 196’ monopole tower with 3’ lightning rod. This application lists a 229-foot crane, which may be used during construction.
4. The foundation proposed is a 9’ diameter, 32 foot deep drilled shaft. Approximately 80 cubic yards of material will be removed during drilling. The ground elevation at the base of the tower is approximately 30 feet above Stoner Creek, so dewatering may be necessary during drilling. It is also possible that a karst opening could be encountered during foundation construction.

III. Recommendations

We would recommend the following:

1. The applicant should provide additional information with the construction plans, at a minimum:
 - a. Detailed construction phasing plan to include provisions for access of large equipment – **Item 6 of the “Second Supplement”, provided by the applicant, states that construction practices are beyond the scope of this proceeding. We would recommend that the city require this information prior to issuing a building permit.**
 - b. Details of all site work for construction and post-construction – **Access drive revised from chip seal surface to asphalt surface.**
 - c. Handling of removed material – **Same as item 1a**
 - d. A mitigation plan if karst is encountered – **Same as item 1a**
 - e. Measures to protect the adjacent creek and its vegetative buffer. – **After reviewing the plan and calculations for the detention basin we feel that a low impact design, such as a bio infiltration swale,**

may be more appropriate for this site. That should allow the swale to be placed only on the applicant's property and out of the floodplain. As designed, it is difficult to determine how the runoff from the asphalt drive will reach the pond. Also, the grading for the outfall swale is in the floodplain and on an adjacent property. At the very least the applicant would need a stream construction permit from Kentucky Division of Water and an easement from the adjacent property owner.

2. This project may require the services of special construction inspection to monitor construction on behalf of the city. Details of the arrangement could be finalized before a construction permit is approved. – **Item 4 of the "Second Supplement"** states the name of the construction manager for the project. His resume is attached to that document.