

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

**RECEIVED**

APR 04 2017

PUBLIC SERVICE  
COMMISSION

In the matter of:

THE APPLICATION OF EAST KENTUCKY NETWORK )  
LLC FOR THE ISSUANCE OF A CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY TO ) CASE NO. 2017-00047  
CONSTRUCT A TOWER IN WOLFE COUNTY, )  
KENTUCKY. )

East Kentucky Network, LLC d/b/a Appalachian Wireless was granted authorization to provide cellular service in the KY-10 Cellular Market Area (CMA452) by the Federal Communications Commission (FCC). The FCC license is included as Exhibit 1. East Kentucky Network, LLC merger documents were filed with the Commission on February 2, 2001 in Case No. 2001-022. East Kentucky Network, LLC is a Kentucky limited liability company that was organized on June 16, 1998. East Kentucky Network, LLC is in good standing with the Commonwealth of Kentucky.

In an effort to improve service in Wolfe County, pursuant to KRS 278.020 Subsection 1 and 807 KAR 5:001, East Kentucky Network, LLC is seeking the Commission's approval to construct a 300 foot self-supporting tower on a tract of land located at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky (37°44'03.9522"N 83°28'09.2560"W). A map and detailed directions to the site can be found in Exhibit 7.

Exhibit 2 is a list of all Property owners according to the Property Valuation Administrator's record who own property within 500 feet of the proposed Tower and all property owners that own property contiguous to the property upon which construction is proposed in accordance with the Property Valuation Administrator's record.

Pursuant to 807 KAR 5:063 Section 1(1)(l), Section 1(m) and Section 2, all affected property owners according to the Property Valuation Administrator's record who own property

within 500 feet of the proposed Tower or contiguous to the property upon which construction is proposed were notified by certified mail return receipt requested of East Kentucky Network, LLC's proposed construction and informed of their right to intervene. They were given the docket number under which this application is filed. Enclosed in Exhibit 2 is a copy of that notification.

Wolfe County has no formal local planning unit. In absence of this unit, the Wolfe County Judge Executive's office was notified by certified mail, return receipt requested of East Kentucky Network, LLC's proposal and informed of their right to intervene. They were given the docket number under which this application is filed. Enclosed in Exhibit 3 is a copy of that notification.

Notice of the location of the proposed construction was published in The Wolfe County News, March 31, 2017, edition. Enclosed is a copy of that notice in Exhibit 3. The Wolfe County News is the newspaper with the largest circulation in Wolfe County.

A geologist was employed to determine soil and rock types and to ascertain the distance to solid bedrock. The geotechnical report is enclosed as Exhibit 4.

A copy of the tower design information is enclosed as Exhibit 5. The proposed tower has been designed by engineers at World Tower Co., Inc. and will be constructed under their supervision. Their qualifications are evidenced in Exhibit 5 by the seal and signature of the registered professional engineer responsible for this project.

The tower will be erected by S & S Tower Services of St. Albans, West Virginia. S & S Tower Services has vast experience in the erection of communications towers.

FAA and Kentucky Airport Zoning Commission Approvals are included as Exhibit 6.

No Federal Communications Commission approval is required prior to construction of this facility. Once service is established from this tower we must immediately notify the Federal Communications Commission of its operation. Prior approval is needed only if the proposed

facility increases the size of the cellular geographic service area. This cell site will not expand the cellular geographic service area.

East Kentucky Network, LLC will finance the subject Construction with earned surplus in its General Fund.

Estimated Cost of Construction	\$ 350,000.00
Annual Operation Expense of Tower	\$ 12,500.00

Two notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2), measuring at least two (2) feet in height and four (4) feet in width and containing all required language in letters of required height, have been posted, one at a visible location on the proposed site and one on the nearest public road. The two signs were posted on March 24, 2017, and will remain posted for at least two weeks after filing of this application as specified.

Enclosed in Exhibit 8 is a copy of East Kentucky Network, LLC's Memorandum of Lease for the site location along with a lot description.

The proposed construction site is on a forested mountaintop some feet from the nearest structure.

Due to the steep hillside surrounding the proposed site, the property in close proximity is unsuitable for any type of development. East Kentucky Network, LLC's operation will not affect the use of nearby land nor its value. No more suitable site exists in the area. A copy of the search area map is enclosed in Exhibit 7. No other tower capable of supporting East Kentucky Network, LLC's load exists in the general area; therefore, there is no opportunity for co-location of our facilities with anyone else.

Enclosed, and filed as Exhibit 9 is a survey of the proposed tower site signed by a Kentucky registered professional engineer.

Exhibit 10 is a map in one (1) inch equals 200 feet scale identifying every structure and every owner of real estate within 500 feet of the proposed tower and all property owners who own contiguous property to the property upon which construction is proposed.

Exhibit 11 contains a vertical sketch of the tower supplied by James W. Caudill, Kentucky registered professional engineer.

**WHEREFORE**, Applicant, having met the requirements of KRS 278.020(1), 278.650, 278.665, and all applicable rules and regulations of the PSC, respectfully requests that the PSC accept the foregoing Application for filing and grant a Certificate of Public Convenience and Necessity to construct and operate the proposed tower.

The foregoing document was prepared by Cindy McCarty, Staff Attorney for East Kentucky Network, LLC d/b/a Appalachian Wireless. All related questions or correspondence concerning this filing should be mailed to East Kentucky Network, LLC d/b/a/ Appalachian Wireless, 101 Technology Trail, Ivel, KY 41642.

SUBMITTED BY: Lynn Haney DATE: 3/31/17  
Lynn Haney, Regulatory Compliance Director

APPROVED BY: W.A. Gillum DATE: 3/31/17  
W.A. Gillum, General Manager

ATTORNEY: Cindy McCarty DATE: 3/31/2017  
Hon. Cindy McCarty, Attorney

**CONTACT INFORMATION:**

**W.A. Gillum, General Manager**  
**Phone: (606) 477-2355, Ext. 111**  
**Email: wagillum@ekn.com**

**Lynn Haney, Regulatory Compliance Director**  
**Phone: (606) 477-2355, Ext. 1007**  
**Email: lhaney@ekn.com**

**Cindy McCarty, Attorney**  
**Phone: (606) 477-2355, Ext. 1006**  
**Email: cmccarty@ekn.com**

**Mailing Address:**

**East Kentucky Network, LLC**  
**d/b/a Appalachian Wireless**  
**101 Technology Trail**  
**Ivel, KY 41642**

1	FCC License
2	Copies of Cell Site Notices to Land Owners
3	Notification of County Judge Executive and Newspaper Advertisement
4	Universal Soil Bearing Analysis
5	Tower Design
6	FAA and KAZ C Approvals
7	Driving Directions from County Court House and Map to Suitable Scale
8	Memorandum of Lease for Proposed Site with Legal Description
9	Survey of Site Signed/Sealed by Professional Engineer Registered in State of Kentucky
10	Site Survey Map with Property Owners Identified in Accordance with PVA of County
11	Vertical Profile Sketch of Proposed Tower
12	

ULS License

**Cellular License - KNKN809 - East Kentucky Network, LLC d/b/a Appalachian Wireless**

Call Sign KNKN809 Radio Service CL - Cellular  
Status Active Auth Type Regular

**Market**

Market CMA452 - Kentucky 10 - Channel Block B  
Powell

Submarket 0 Phase 2

**Dates**

Grant 08/30/2011 Expiration 10/01/2021

Effective 08/30/2011 Cancellation

**Five Year Buildout Date**

10/17/1996

**Control Points**

1 US Route 23, FLOYD, Harold, KY  
P: (606)478-2355

**Licensee**

FRN 0001786607 Type Limited Liability Company

**Licensee**

East Kentucky Network, LLC d/b/a Appalachian  
Wireless P:(606)477-2355  
101 Technology Trail F:(606)874-7551  
Ivel, KY 41642  
ATTN Gerald Robinette, Manager

**Contact**

Lukas, Nace, Gutierrez & Sachs, LLP P:(703)584-8665  
Pamela L Gist Esq F:(703)584-8695  
8300 Greensboro Drive E:pgist@fcclaw.com  
McLean, VA 22102

**Ownership and Qualifications**

Radio Service Mobile  
Type

Regulatory Status Common Carrier Interconnected Yes

**Alien Ownership**

The Applicant answered "No" to each of the Alien Ownership questions.

**Basic Qualifications**

The Applicant answered "No" to each of the Basic Qualification questions.

**EXHIBIT II: LIST OF PROPERTY OWNERS:**

**Statement Pursuant to Section 1 (1) (I) 807 KAR 5:063**

**Section 1 (1)(I) 1.** The following is a list of every property owner who according to property valuation administrator's records, owns property within 500 feet of the proposed tower and each have been: notified by certified mail, return receipt requested, of the proposed construction,

**Section 1 (1)(I) 2.** Every person listed below who, according to the property valuation administrator's records, owns property within 500 feet of the proposed tower has been: Given the Commission docket number under which the application will be processed: and

**Section 1 (1)(I) 3.** Every person listed below who, according to property valuation administrator's records owns property within 500 feet of the proposed tower has been: Informed of his right to request intervention.

**Section 2.** If the construction is proposed for an area outside the incorporated boundaries of a city, the application shall state that public notices required by Section 1(1)(L) have been sent to every person who, according to the property valuation administrator, owns property contiguous to the property upon which the construction is proposed

LIST OF PROPERTY OWNERS

Donald Lawson  
608 Gevedon Road  
Pine Ridge, KY 41360

Johnny Hurt  
480 Reed Hurt Road  
Campton, KY 41301

Taylor Graham, Jr.  
4872 Campton-Baptist Road  
Campton, KY 41301

Mary E. Miller  
4465 Baptist Road  
Campton, KY 41301





VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 31, 2017

Donald Lawson  
608 Gevedon Road  
Pine Ridge, KY 41360

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2017-00047)

East Kentucky Network, LLC d/b/a Appalachian Wireless has applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular telecommunications service in Wolfe County. The facility will include a 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you may own property within a 500' radius of the proposed tower or own property contiguous to the property upon which construction is proposed.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. The Commission must receive your initial communication within 20 days of the date of this letter as shown above.

Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, P.O. Box 615, Frankfort, KY 40602. Please refer to Case No. 2017-00047 in your correspondence.

If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

Sincerely,

A handwritten signature in blue ink that reads "Lynn Haney".

Lynn Haney, CPA  
Regulatory Compliance Director  
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 31, 2017

Johnny Hurt  
480 Reed Hurt Road  
Campton, KY 41301

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2017-00047)

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The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. The Commission must receive your initial communication within 20 days of the date of this letter as shown above.

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If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

Sincerely,

A handwritten signature in blue ink that reads "Lynn Haney". The signature is fluid and cursive, written over a light blue background.

Lynn Haney, CPA  
Regulatory Compliance Director  
Enclosure 1

EAST KENTUCKY NETWORK  
101 TECHNOLOGY TRAIL  
I/VT 41642  
P: (606) 874-7550  
FAX: (606) 874-7551

EAST KENTUCKY  
NETWORK



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 31, 2017

Taylor Granham, Jr  
4872 Campton-Baptist Road  
Campton, KY 41301

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2017-00047)

East Kentucky Network, LLC d/b/a Appalachian Wireless has applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular telecommunications service in Wolfe County. The facility will include a 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you may own property within a 500' radius of the proposed tower or own property contiguous to the property upon which construction is proposed.

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Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, P.O. Box 615, Frankfort, KY 40602. Please refer to Case No. 2017-00047 in your correspondence.

If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

Sincerely,

Lynn Haney, CPA  
Regulatory Compliance Director  
Enclosure 1

EAST KENTUCKY NETWORK  
101 TECHNOLOGY TRAIL  
IVEL, KY 41642  
P: (606) 874-7550  
FAX: (606) 874-7551

EAST KENTUCKY  
NETWORK



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 31, 2017

Mary E. Miller  
4468 Baptist Road  
Campton, KY 41301

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2017-00047)

East Kentucky Network, LLC d/b/a Appalachian Wireless has applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular telecommunications service in Wolfe County. The facility will include a 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you may own property within a 500' radius of the proposed tower or own property contiguous to the property upon which construction is proposed.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. The Commission must receive your initial communication within 20 days of the date of this letter as shown above.

Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, P.O. Box 615, Frankfort, KY 40602. Please refer to Case No. 2017-00047 in your correspondence.

If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

Sincerely,

Lynn Haney, CPA  
Regulatory Compliance Director  
Enclosure 1

# Appalachian Wireless Location Map



Site Name

Bapist Fork Site

Location

5632 Campton Rd. Campton, KY. 41301

GPS Location

N 37 44 03.9522  
W 83 28 09.2560

dba Appalachian Wireless  
101 Technology Trail  
Ivel, KY 41642  
Phone: 606-477-2355  
Fax: 606-791-2225

EAST KENTUCKY  
NETWORK



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**To:** The Wolfe County News  
Attn: Classifieds

**From:** Raina Helton  
Regulatory Compliance Assistant

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**Email:** wolfenews@mrtc.com

**Date:** March 23, 2017

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**Re:** PUBLIC NOTICE ADVERTISEMENT

**Pages:** 1

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**Please place the following Public Notice Advertisement in The Wolfe County News to be ran on March 31, 2017.**

PUBLIC NOTICE:

RE: Public Service Commission of Kentucky (CASE NO. 2017-00047)

Public Notice is hereby given that East Kentucky Network, LLC, dba Appalachian Wireless has applied to the Kentucky Public Service Commission to construct a cellular telecommunications tower on a tract of land located at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky. The proposed tower will be a 300 foot self-supporting tower with attached antennas. If you would like to respond to this notice, please contact the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to Case No. 2017-00047

If you have any questions about the placement of the above mentioned notice, please call me at 606-477-2375, ext. 1005.

Thank you,

Raina Helton, CKP  
Regulatory Compliance Assistant

The message above and the information contained in the documents transmitted are confidential and intended only for the person(s) named above. Dissemination, distribution or copying of this communication by anyone other than the person(s) named above is prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the address listed above via regular mail. Thank you.

EAST KENTUCKY NETWORK  
101 TECHNOLOGY TRAIL  
IVEL, KY 41642  
PH: (606) 874-7550  
FAX: (606) 874-7551



VIA: U.S. CERTIFIED MAIL

March 31, 2017

Dennis Brooks, Judge Executive  
P.O. Box 429  
Campton, KY 41301

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2017-00047)

East Kentucky Network, LLC d/b/a Appalachian Wireless has applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular telecommunications service in Wolfe County. The facility will include a 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land located at 5634 Campton Baptist Road, Campton, Wolfe County, Kentucky. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you are the County Judge Executive of Wolfe County.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. The Commission must receive your initial communication within 20 days of the date of this letter as shown above.

Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, P.O. Box 615, Frankfort, KY 40602. Please refer to Case No. 207-00047 in your correspondence.

If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

Sincerely,

A handwritten signature in blue ink that reads "Lynn Haney". The signature is written in a cursive, flowing style.

Lynn Haney, CPA  
Regulatory Compliance Director  
Enclosure

# Appalachian Wireless Location Map



Site Name

Bapist Fork Site

Location

5632 Campton Rd. Campton, KY. 41301

GPS Location

N 37 44 03.9522  
W 83 28 09.2560



# APPALACHIAN WIRELESS Geotechnical Investigation on the Baptist Fork Site Wolfe County, Kentucky Project No. 03058.0004

*prepared for:*

Appalachian Wireless  
101 Technology Trail  
Ivel, Kentucky 41642

*Prepared by:*

Richard Dirk Smith PE, PLS  
Manager Appalachian Region  
230 Swartz Drive  
Hazard, Kentucky 41701



, 20215, February 20<sup>th</sup>, 2017



**EXECUTIVE SUMMARY**

**1.0 INTRODUCTION**

**2.0 PROJECT DESCRIPTION**

**3.0 SITE DESCRIPTION**

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3.2 SURFACE MINING

3.3 UNDERGROUND MINING

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6.3 ANALYSIS AND RECOMMENDATIONS

6.4 CONSTRUCTION MONITORING

6.5 GENERAL

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**II – ENGINEERED FILL BENEATH STRUCTURES**

**III – DRILLED PIER INSTALLATION**

**IV - GUIDELINES FOR EXCAVATIONS AND TRENCHING**

**V – GENERAL CONCRETE SPECIFICATIONS**

**APPENDIX A – PHOTOGRAPHS**

**APPENDIX B – SEISMIC DATA**

**APPENDIX C– MAPS**



## EXECUTIVE SUMMARY

A geotechnical investigation was performed on the Baptist Fork Site, located in Wolfe County, Kentucky. This site is not readily accessible. A preliminary site drawing was provided by the client. The estimated base elevation of the proposed tower footer of 1153.5 ft. was taken from this site drawing. A location map is shown in Figure 1 of this report. Trench and visual inspections were used to determine the lithology and type of materials at the proposed tower site. The following geotechnical considerations were identified:

- This area is forested. The site has not been previously disturbed. Soils, coal, sandstone and shales were encountered on the site during the trenching. The soils varied from 3.5 feet to 6 feet in thickness. We are recommending that shallow foundations be used with the base of the foundation placed in the sandstone unit at an elevation of approximately 1152.5 ft. The allowable bearing capacity of this sandstone unit is estimated to be 8 tsf. The 2015 International Building Code seismic site classification for this site is "B".
- Close monitoring of the construction operations discussed herein will be critical in achieving the design subgrade support. We therefore recommend that ERMC2 be retained to monitor this portion of the work.

This executive summary is included to provide a general overview of the project and should not be relied upon except for the purpose it was prepared. Please rely on the complete report for the information on the findings, recommendations and all other concerns.



## 1. INTRODUCTION

ERMC2 was retained by Mr. Marty Thacker of Appalachian Wireless to prepare a geotechnical engineering report for the proposed tower site located near the intersection of highway 1812 and Baptist Road in Wolfe County, Kentucky. A site location map is shown in Figure No. 1.

Trenching and test pits were excavated with assistance from Wendall Gay Construction using a track excavator. Visual inspections and surveyed elevations were used to determine the lithology and type of materials immediately below the proposed tower site. A vertical datum was based upon the property pins found with provided mapping. The purpose of these services is to provide information and geotechnical engineering recommendations relative to subsurface conditions, earthwork, seismic considerations, groundwater conditions and foundation design.

## 2.0 PROJECT DESCRIPTION

The proposed communication facility will consist of a self-supporting tower of undetermined height and ancillary support areas. Based upon information provided the foundation dimensions are to be approximately 40' 6" x 40' 6". We estimate the structural loads will be similar to the following conditions:

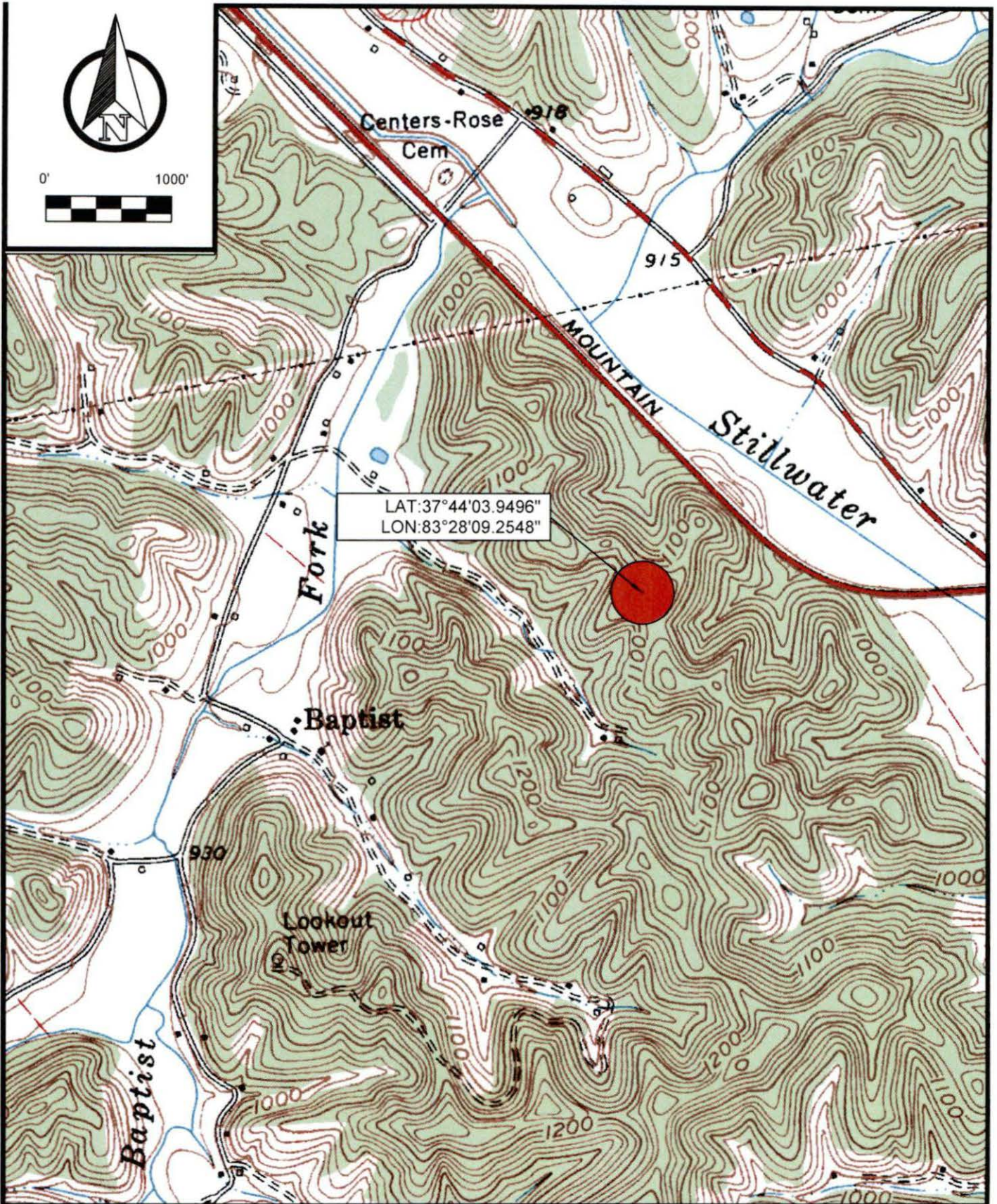
TABLE NO. 1

CONDITION	LOAD
Total Shear	40 Kips
Axial Load	50 Kips

It is expected that overturning will govern the structural design. If the loadings are significantly different than these expected values, ERMC2 should be notified to re-evaluate the recommendations provided in this report.



0' 1000'



Drawn:	Date: 2/17/17
Job:	Scale: 1"=1000'
Drawing: USGS QUAD LOCATION MAP	

BAPTIST FORK SITE  
APPALACHIAN WIRELESS  
USGS QUAD LOCATION MAP



921 Beasley Street, Suite 145  
Lexington, KY 40509  
(859)381-1000  
engineering@ermc2.us

### **3.0 SITE DESCRIPTION & HISTORICAL MINING**

#### **3.1 GENERAL INFORMATION**

The site location is on an undisturbed ridge in Wolfe County, Kentucky. The current surface elevation is approximately 1165 ft. Research on the historical mining was conducted by reviewing previous mine license maps from the "Kentucky Mine Mapping Information System" (KMMIS). Other sources were also used to try to evaluate historic mining.

#### **3.2 SURFACE MINING**

Based upon research and mine maps reviewed from Kentucky Mine Mapping Information System (KMMIS), no surface mining has been conducted near or adjacent to this site.

#### **3.3 UNDERGROUND MINING**

Based upon research and mine maps reviewed from Kentucky Mine Mapping Information System (KMMIS), no underground mining has been conducted near or adjacent that would influence this site.

### **4.0 FIELD EXPLORATION**

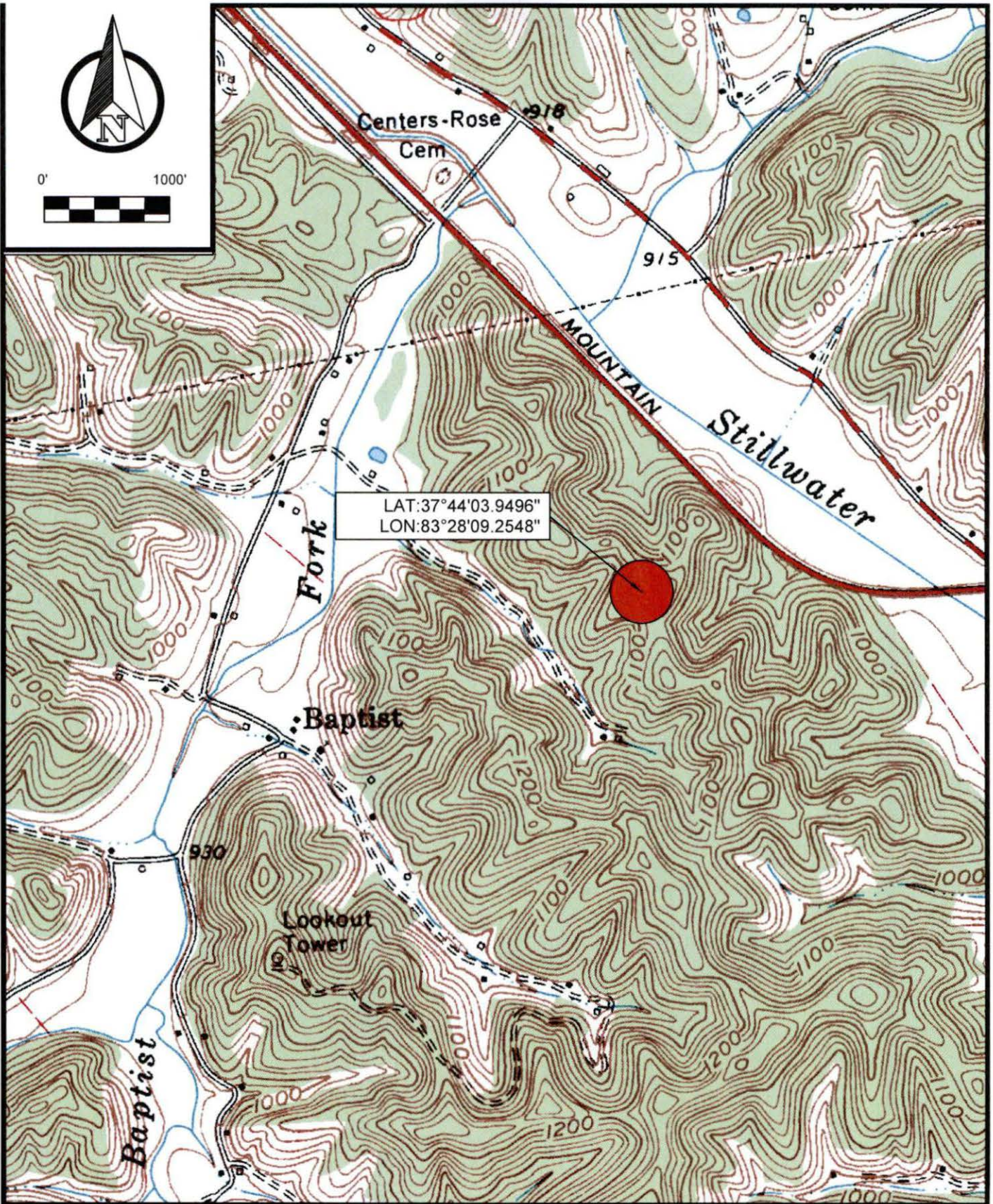
#### **4.1 SITE INFORMATION**

The proposed site is located on an undisturbed point in Wolfe County, Kentucky. The site lies within the Landsaw Quadrangle and is located Southwest of the intersection of highway 1812 and Baptist Road. The site is in a wooded area and is not readily accessible by conventional exploratory equipment. An estimated pad location was determined based upon the information provided. A survey stake was found on this site for the center of the tower location. Foundation dimensions were estimated to be a 40' 6" . x 40' 6" footer for the purpose of this report.

#### **4.2 TRENCHING AND FIELD OBSERVATIONS**

This investigation was conducted with assistance from Wendell Gay Construction with a track excavator. Trenching and visual inspection were conducted to evaluate the site





Drawn:	Date: 2/17/17
Job:	Scale: 1"=1000'
Drawing: USGS QUAD LOCATION MAP	

BAPTIST FORK SITE  
APPALACHIAN WIRELESS  
USGS QUAD LOCATION MAP



921 Beasley Street, Suite 145  
Lexington, KY 40509  
(859)381-1000  
engineering@ermc2.us

lithology and type of materials immediately below the proposed tower site. The following soils and rock properties were found.

TABLE NO. 2

Depth (Ft.)	Base Elevation (Ft.)	Strata
5.0	1160.0	Soils
3.8	1156.2	Shale
0.7	1155.5	Coal
6.1	1149.4	Sandstone
15.0	1134.4	Shale
1.2	1133.2	Coal
5.5	1127.7	Shale

A cross section of this information is in Appendix C of this report.

#### 4.3 GROUNDWATER

Groundwater flow in Eastern Kentucky is characterized by water flowing through a system of internal fractures that lead to an alluvial aquifer near the bottom of valley floors. Large, defined aquifers other than the alluvium are not common, especially in higher elevations such as where this tower site is proposed. Therefore, groundwater should not be a concern in this area. During trenching activities, no groundwater resources were observed.

#### 4.4 SEISMIC SITE CLASSIFICATION

Based on the encountered soil conditions at the project site, the site classification was determined to be "Site Class "B" Rock" per the 2015 International Building Code. In addition, a  $S_{DS}$  coefficient of 0.130g was calculated, and a  $S_{D1}$  coefficient of 0.058g was also calculated for design based on the aforementioned building code.





## 5.0 DISCUSSION AND RECOMMENDATIONS

### 5.1 GENERAL

The structure will be a self-supporting free standing tri-pole tower. Due to wind loading, lattice tower foundations can experience both vertical loads and horizontal loads. The vertical loads act in both an upward and downward direction as the tower attempts to overturn and can act in any direction. The proposed excavation pad elevation provided is approximately 1160 ft. The following recommendation are for the foundation proposed once base pad site elevation is established.

### 5.2 SHALLOW FOUNDATIONS RECOMMENDATIONS

If shallow foundations are used, we recommend that the site be excavated through the soils and weathered shale. A small coal seam 0.7 ft. thick is present at an approximate base elevation 1155.5 ft. Below this is a sandstone unit approximately 6.1 ft. thick with an approximately base elevation of 1149.4. **The allowable bearing capacity for this sandstone unit is 8 tsf.** It is recommended that the foundation be placed in this sandstone unit.

It is furthermore recommended that the slabs-on-grade be supported on 4 to 6-inch layer of relatively clean granular material such as sand and gravel or crushed stone. This is to help distribute concentrated loads and equalize moisture conditions beneath the slab. Proper drainage must be incorporated into this granular layer to preclude future wet areas in the finished slab-on-grade. However, all topsoil and/or other deleterious materials encountered during site preparation must be removed and replaced with 4000 psi. concrete below the foundation base. Provided that a minimum of 4 inches of granular material is placed below the new slab-on-grade, a modulus of subgrade reaction (k30) of 100 lbs./cu. in. can be used for design of the slabs.

Support structure for this tower can be placed as needed. It is recommended that test pits are examined to insure that any of these structures are on the competent materials. If pockets of soft, loose or otherwise unsuitable material are encountered in the footing excavations and it is inconvenient to lower the footings, the proposed



footing elevations may be re-established by backfilling after the undesirable material has been removed. The undercut excavation beneath each footing should extend to suitable bearing soils and the dimensions of the excavation base should be determined by imaginary planes extending outward and down on a 1 (vertical) to 1 (horizontal) slope from the base perimeter of the footing. The entire excavation should then be refilled with a well-compacted engineered fill, or lean concrete (Please note that the width of the lean concrete zone should be equal or wider than the width of the overlying footing element). Special care should be exercised to remove any sloughed, loose or soft materials near the base of the excavation slopes. In addition, special care should be taken to "tie-in" the compacted fill with the excavation slopes, with benches as necessary, to insure that no pockets of loose or soft materials will be left in place along the excavation slopes below the foundation bearing level. All Federal, State, and Local regulations should be strictly adhered to relative to excavation side-slope geometry.

## 5.2 DRILLED PIER FOUNDATIONS RECOMMENDATIONS

If drilled piers are used for foundation support, we recommend the following design parameters.

TABLE NO. 1

Approx. Depth (ft.)	Allowable Skin Friction (psf.)	Allowable End Bearing Pressure (psf.)	Effective Unit Weight (pcf.)	Cohesion (psf.)	Internal Angle of Friction (Degrees)
0-5 Soils*	Ignore	Ignore	Ignore	Ignore	Ignore
5-8.8 Weathered Shale	800	5,000	140	-----	27
8.8-9.5 Coal	-----	-----	-----	-----	-----



Approx. Depth (ft.)	Allowable Skin Friction (psf.)	Allowable End Bearing Pressure (psf.)	Effective Unit Weight (pcf.)	Cohesion (psf.)	Internal Angle of Friction (Degrees)
9.5 to 15.6 Sandstone	2,000	25,000	150	-----	37
15.6-30.6 Shale	1,400	15,000	140	-----	30

*\*Expected to be removed during site development.*

Due to limited data the values of these parameters have been reduced. It is expected that the top five feet of soils material will be removed for site development. The presented cohesion has no safety factor. The skin friction and passive resistance have a factor of safety of 2. The allowable end bearing pressure has an approximate safety factor of 3. If the drilled piers are designed using the above design parameters and socketed into solid bedrock, settlements are not anticipated to exceed ¼ inch.

## **6.0 WARRANTY**

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. No other warranty, express or implied, is made.

While the services of ERMC2 are a valuable and integral part of the design and construction teams, we do not warrant, guarantee, or insure the quality or completeness of services provided by other members of those teams, the quality, completeness, or satisfactory performance of construction plans and specifications which we have not prepared, nor the ultimate performance of building site materials.



## **6.1 SUBSURFACE EXPLORATION**

Subsurface exploration is normally accomplished by test borings, although test pits are sometimes employed. The method of determining the boring location and the surface elevation at the boring is noted in the report, and is presented on the Boring Location Plan or on the boring log. The location and elevation of the boring should be considered accurate only to the degree inherent with the method used.

The boring and / or trenching logs includes sampling information, description of the materials recovered, approximate depth of boundaries between soil and rock strata and groundwater data. These logs represent conditions specifically at the location and time the evaluation was made. The boundaries between different soil strata are indicated at specific depths; however, these depths are in fact approximate and are somewhat dependent upon the frequency of sampling (The transition between soil strata is often gradual). Free groundwater level readings are made at the times and under conditions stated on the logs (Groundwater levels change with time and season). The borehole does not always remain open sufficiently long enough for the measured water level to coincide with the groundwater table.

## **6.2 LABORATORY AND FIELD TESTS**

Laboratory and field tests are performed in accordance with specific ASTM standards unless otherwise indicated. All determinations included in a given ASTM standard are not always required and performed. Each test report indicates the measurements and determinations actually made.

## **6.3 ANALYSIS AND RECOMMENDATIONS**

The geotechnical report is prepared primarily to aid in the engineering design of site work and structural foundations. Although the information in the report is expected to be sufficient for these purposes, it is not intended to determine the cost of construction or to stand alone as a construction specification.

Our engineering report recommendations are based primarily on data from tests made at the locations shown on a site drawing included. Soil variations may exist in adjacent areas and may not become evident until construction. If significant variations are then



noted, the geotechnical engineer should be contacted so that field conditions can be examined and recommendations revised if necessary.

The geotechnical engineering report states our understanding as to the location, dimensions and structural features proposed for the site. Any significant changes in the nature, design, or location of the site improvements **MUST** be communicated to the geotechnical engineer such that the geotechnical analysis, conclusions, and recommendations can be appropriately adjusted. The geotechnical engineer should be given the opportunity to review all drawings that have been prepared based on their recommendations.

#### **6.4 CONSTRUCTION MONITORING**

Construction monitoring is a vital element of complete geotechnical services. The field engineer/inspector is the owner's "representative" observing the work of the contractor, performing tests as required in the specifications, and reporting data developed from such tests and observations. The field engineer or inspector does not direct the contractor's construction means, methods, operations or personnel. The field inspector/engineer does not interfere with the relationship between the owner and the contractor and, except as an observer, does not become a substitute owner on site. The field inspector/engineer is responsible for his own safety but has no responsibility for the safety of other personnel at the site. The field inspector/engineer is an important member of a team whose responsibility is to watch and test the work being done and report to the owner whether that work is being carried out in general conformance with the plans and specifications.

#### **6.5 GENERAL**

The scope of our services did not include an environmental assessment for the presence or absence of hazardous or toxic materials in the soil, surface water, groundwater or air, on, within or beyond the site studied. Any statements in the report or on the boring logs regarding odors, staining of soils or other unusual items or conditions observed are strictly for the information of our client.



To evaluate the site for possible environmental liabilities, we recommend an environmental assessment, consisting of a detailed site reconnaissance, a record review, and report of findings. Additional subsurface drilling and samplings, including groundwater sampling, may be required.

This report has been prepared for the exclusive use of Appalachian Wireless, for specific application to the proposed cellular tower located on the Baptist Fork Site in Wolfe County, Kentucky. Specific design and construction recommendations have been provided in the various sections of the report. The report shall, therefore, be used in its entirety. This report is not a bidding document and shall not be used for that purpose. Anyone reviewing this report must interpret and draw their own conclusions regarding specific construction techniques and methods chosen. ERMC2 is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploratory and laboratory test data presented in this report.



# SPECIFICATIONS

## I – GENERAL

### 1.0 STANDARDS AND DEFINITIONS

**1.1 STANDARDS** - All standards refer to latest edition unless otherwise noted.

**1.1.1** ASTM D-698-70 (Method C) "Standard Test Methods for Moisture, Density Relations of Soils and Soil Aggregate Mixtures Using 5.5-lb (2.5 kg.) Rammer and 12-inch (305-mm) Drop".

**1.1.2** ASTM D-2922 "Standard Test Method for Density of Soil and Soil Aggregate in Place by Nuclear methods (Shallow Depth)".

**1.1.3** ASTM D-1556 "Standard Test Method for Density of Soil in place by the Sand-Cone Method".

### 1.2 DEFINITIONS

**1.2.1** Owner - In these specifications the word "Owner" shall mean Appalachian Wireless.

**1.2.2** Engineer - In these specifications the word "Engineer" shall mean the Owner designated engineer.

**1.2.3** Design Engineer - In these specifications the words "Design Engineer" shall mean the Owner designated design engineer.

**1.2.4** Contractor - In these specifications the word "Contractor" shall mean the firm or corporation undertaking the execution of any work under the terms of these specifications.

**1.2.5** Approved - In these specifications the word "approved" shall refer to the approval of the Engineer or his designated representative.

**1.2.6** As Directed - In these specifications the words "as directed" shall refer to the directions to the Contractor from the Owner or his designated representative.

## 2.0 GENERAL CONDITIONS

- 2.1** The Contractor shall furnish all labor, material and equipment and perform all work and services except those set out and furnished by the Owner, necessary to complete in a satisfactory manner the site preparation, excavation, filling, compaction, grading as shown on the plans and as described therein.

This work shall consist of all mobilization clearing and grading, grubbing, stripping, removal of existing material unless otherwise stated, preparation of the land to be filled, filling of the land, spreading and compaction of the fill, and all subsidiary work necessary to complete the grading of the cut and fill areas to conform with the lines, grades, slopes, and specifications.

This work is to be accomplished under the observation of the Owner or his designated representative.

- 2.2** Prior to bidding the work, the Contractor shall examine, investigate and inspect the construction site as to the nature and location of the work, and the general and local conditions at the construction site, including, without limitation, the character of surface or subsurface conditions and obstacles to be encountered on and around the construction site; and shall make such additional investigation as he may deem necessary for the planning and proper execution of the work.

If conditions other than those indicated are discovered by the Contractor, the Owner should be notified immediately. The material which the Contractor believes to be a changed condition should not be disturbed so that the owner can investigate the condition.

- 2.3** The construction shall be performed under the direction of an experienced engineer who is familiar with the design plan.





## **II - ENGINEERED FILL BENEATH STRUCTURES** **CLEARING AND GRADING SPECIFICATIONS**

### **1.0 GENERAL CONDITIONS**

The Contractor shall furnish all labor, materials, and equipment, and perform all work and services necessary to complete in a satisfactory manner the site preparation, excavation, filling, compaction and grading as shown on the plans and as described therein.

This work shall consist of all clearing and grading, removal of existing structures unless otherwise stated, preparation of the land to be filled, filling of the land, spreading and compaction of the fill, and all subsidiary work necessary to complete the grading of the cut and fill areas to conform with the lines, grades, slopes, and specifications.

This work is to be accomplished under the constant and continuous supervision of the Owner or his designated representative.

In these specifications the terms "approved" and "as directed" shall refer to directions to the Contractor from the Owner or his designated representative.

### **2.0 SUBSURFACE CONDITIONS**

Prior to bidding the work, the Contractor shall examine, investigate and inspect the construction site as to the nature and location of the work, and the general and local conditions at the construction site, including without limitation, the character of surface or subsurface conditions and obstacles to be encountered on and around the construction site; and shall make such additional investigation as he may deem necessary for the planning and proper execution of the work. Borings and/or soil investigations shall have been made. Results of these borings and studies will be made available by the Owner to the Contractor upon his request, but the Owner is not responsible for any interpretations or conclusions with ERMC2t thereto made by the Contractor on the basis of such information, and the Owner further has no responsibility for the accuracy of the borings and the soil investigations.

If conditions other than those indicated are discovered by the Contractor, the Owner should be notified immediately. The material which the Contractor believes to be a changed condition should not be disturbed so that the Owner can investigate the condition.

### **3.0 SITE PREPARATION**

Within the specified areas, all trees, brush, stumps, logs, tree roots, and structures scheduled for demolition shall be removed and disposed of.

All cut and fill areas shall be properly stripped. Topsoil will be removed to its full depth and stockpiled for use in finish grading. Any rubbish, organic and other objectionable soils, and other deleterious material shall be disposed of off the site, or as directed by the Owner or his designated representative if on site disposal is provided. In no case



shall such objectionable material be allowed in or under the fill unless specifically authorized in writing.

Prior to the addition of fill, the original ground shall be compacted to job specifications as outlined below. Special notice shall be given to the proposed fill area at this time. If wet spots, spongy conditions, or groundwater seepage is found, corrective measures must be taken before the placement of fill.

#### **4.0 FORMATION OF FILL AREAS**

Fills shall be formed of satisfactory materials placed in successive horizontal layers of not more than eight (8) inches in loose depth for the full width of the cross-section. The depth of lift may be increased if the Contractor can demonstrate the ability to compact a larger lift. If compaction is accomplished using hand-tamping equipment, lifts will be limited to 4-inch loose lifts. Engineered fill placed below the structure bearing elevation shall be compacted to at least 95% of the maximum dry unit weight with a moisture content within 2% of the optimum moisture content as determined by the modified Proctor test. The top size of the material placed shall not exceed 4 inches.

All material entering the fill shall be free of organic matter such as leaves, grass, roots, and other objectionable material.

The operations on earth work shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing weather, or other unsatisfactory conditions. The Contractor shall keep the work areas graded to provide the drainage at all times.

The fill material shall be of the proper moisture content before compaction efforts are started. Wetting or drying of the material and manipulation to secure a uniform moisture content throughout the layer shall be required. Should the material be too wet to permit proper compaction or rolling, all work thus affected shall be delayed until the material has dried to the required moisture content. The moisture content of the fill material should be no more than two (2) percentage points higher or lower than optimum unless otherwise authorized. Sprinkling shall be done with equipment that will satisfactorily distribute the water over the disced area. Any areas inaccessible to a roller shall be consolidated and compacted by mechanical tampers. The equipment shall be operated in such a manner that hardpan, cemented gravel, clay or other chunky soil material will be broken up into small particles and become incorporated with the other material in the layer.

In the construction of filled areas, starting layers shall be placed in the deepest portion of the fill, and as placement progresses, additional layers shall be constructed in horizontal planes. Original slopes shall be continuously, vertically benched to provide horizontal fill planes. The size of the benches shall be formed so that the base of the bench is horizontal and the back of the bench is vertical. As many benches as are necessary to bring the site to final grade shall be constructed. Filling operations shall



begin on the lowest bench, with the fill being placed in horizontal eight (8) inch thick loose lifts unless otherwise authorized. The filling shall progress in this manner until the entire first bench has been filled, before any fill is placed on the succeeding benches. Proper drainage shall be maintained at all times during benching and filling of the benches, to insure that all water is drained away from the fill area.

Frozen material shall not be placed in the fill nor shall the fill be placed upon frozen material.

The Contractor shall be responsible for the stability of all fills made under the contract, and shall replace any portion, which in the opinion of the Owner or his designated representative, has become displaced due to carelessness or negligence on the part of the Contractor. Fill damaged by inclement weather shall be repaired at the Contractor's expense.

#### **5.0 SLOPE RATIO AND STORM WATER RUN-OFF**

Slopes shall not be greater than 2 (horizontal) to 1 (vertical) in both cut and fill, or as illustrated on the construction drawings. Excavations shall be constructed in accordance with all Federal, State and local codes relative to slope geometry.

#### **6.0 GRADING**

The Contractor shall furnish, operate, and maintain such equipment as is necessary to construct uniform layers, and control smoothness of grade for maximum compaction and drainage.

#### **7.0 COMPACTING**

The compaction equipment shall be approved equipment of such design, weight, and quantity to obtain the required density in accordance with these specifications.

#### **8.0 TESTING AND INSPECTION SERVICES**

Testing and inspection services will be provided by the Owner.



### **III- DRILLED PIER INSTALLATION**

#### **1.0 DRILLING PROCEDURE**

- 1.1 Drilled piers will be installed with large caisson drill rigs capable of torque and crowd forces sufficient to install drilled piers at the project site given the in-situ soil conditions.
- 1.2 The drill rig kelly bar and auger will be carefully and accurately placed over the centerline of the drilled pier. The Contractor is responsible for providing necessary surveying to verify drilled pier location before, during, and after the drilled pier installation.
- 1.3 The augers are advanced downwards as they are rotated such that drilling of the soil mass is efficiently accomplished. Depending on the subsurface conditions, and the requirements for the given project, a temporary steel casing should be installed at this time to preclude caving of the soil and/or broken rock mass being penetrated.

#### **2.0 CASING INSTALLATION**

- 2.1 The casing will be checked for centerline accuracy and plumbness by the Contractor's survey crew. During casing installation, the Contractor's survey crew will verify alignment with instruments. If plumbness and alignment are not within tolerance as determined by the Contractor's survey crew, the casing will be extracted and re-aligned as necessary.
- 2.2 The drill rig will remove soil and bedrock material from within the casing to the drilled pier design tip elevation. A steel casing, or "Sonotube" shall be inserted into the borehole to preclude cave-ins and/or instability in the borehole.
- 2.3 The bearing surface within the drilled pier will be inspected by a registered Professional Engineer prior to being approved for structural concreting.

#### **3.0 INSTALLATION OF THE REBAR CAGE**

- 3.1 An epoxy coated spiral reinforcing steel cage will be installed while in the drilled pier borehole.
- 3.2 To assist in assuring that the reinforcing steel cage does not settle during concrete pumping, a mat of reinforcing steel bars will be installed across the bottom of the reinforcing steel cage perpendicular to the vertical axis of the cage. The exact number of bars will be determined and installed



by the Structural Engineer. The number of rebar boots used on the bottom of the cage will also be determined by the Structural Engineer.

- 3.3 The reinforcing steel cage will be lowered into the drilled pier borehole, while drilled pier spacers are placed at intervals as required by the Structural Engineer. The reinforcing steel cage will be checked for alignment by the Contractors survey crew.
- 3.4 The crane will remain attached to the reinforcing steel cage while the concrete pump outlet pipe is lowered to just above the bottom of the drilled pier. The concrete pump pipe sections will be welded together to assure that do not separate during pumping.

#### **4.0 CONCRETING OF THE DRILLED PIER**

- 4.1 Concrete pumping may commence once the bearing surface has been approved in accordance with Clause 2.3
- 4.2 A three inch trash pump will be used to pump slurry and/or water from within the casing and from above the newly pumped concrete.
- 4.3 The concrete pump outlet pipe will maintain at least ten (10) feet of embedment into the fresh concrete. The concrete level in the casing will be monitored.
- 4.4 The casing will be completely extracted with the crane and/or vibratory hammer. Caisson clamps on the vibratory hammer (if applicable) will be adjusted to the proper dimension to withdrawal the casing.
- 4.5 The concrete will be terminated at the top of drilled pier elevation and screeded flat.
- 4.6 The upper reinforcing steel dowel cage will be lowered into the concrete to the embedment elevation. If necessary, the concrete will be vibrated to assist in placement. Alignment will be verified by the Contractors survey crew and the cage will be sufficiently braced.



## **IV - GUIDELINES FOR EXCAVATIONS AND TRENCHES**

The following represents some general guidelines relative to the design and construction of excavations and trenches. It must be emphasized that these guidelines are not intended to represent a "safety plan," but rather are presented herein to provide general guidance with regard to the design characteristics and safety measures for excavations and trenches.

1. Check with the following utilities prior to breaking ground:

- Sewer
- Telephone
- Fuel
- Electric
- Water
- Gas
- Cable

When utility companies or owners do not respond to your request within 48 hours, the contractor may only then proceed provided the contractor does so with caution by using detection equipment or other acceptable means to locate utility installations.

Once the excavation is open, the contractor should protect and support the exposed underground utilities or remove installations to safeguard workers and prevent damage to exposed utilities.

2. Access and egress ramps must be designed by a "competent person" and structural ramps used for equipment must be designed by a "competent person" with qualified knowledge in structural design. In addition:

- Ramps must be secured to prevent displacement;
- Ramps used in lieu of steps must have cleats to prevent slipping; and
- Trenching excavations four feet or greater in depth must have a stairway, ladder, ramps or other safe means to egress with lateral travel no more than 25 feet.

3. Workers must be provided with reflector garments, such as warning orange or red vests, when exposed to vehicular traffic.

4. Contractors must not allow workers to work under or near equipment when there is danger of falling debris, spillage or equipment-related injuries.

5. Mobile equipment, operating adjacent to an open excavation or approaching the edge of an excavation, must have one of the following when the operator's view is obstructed:

- Warning System
- Mechanical Signals
- Barricades
- Stop Logs
- Hand Signals



6. The contractor must check the atmosphere for hazardous gases and oxygen deficiencies when excavating four feet or greater around landfills, or when hazardous substances are stored nearby, and when the contractor expects there could be any exposure to the workers.
7. When hazardous atmospheric conditions exist, or when conditions could change, the contractor must make emergency rescue equipment readily available including breathing apparatus, safety harnesses with life lines and a basket stretcher.
8. When workers enter bell-bottom pier holes or other deep and confined excavations, the worker must wear (at all times while performing work in the confined space) a separate life line attached to a harness. The line must be attended by someone above while work is being performed. The worker must check for hazardous atmospheric conditions prior to entry.
9. The contractor must ensure that water does not accumulate in open excavations and must inspect the excavation prior to allowing workers to re-enter after heavy rains.
10. Adjacent structures (buildings, walls, etc.) must be supported or secured to prevent worker exposure to unsafe conditions and damage to existing structures.
11. A registered professional engineer must approve operations when a contractor underpins existing structures to ensure worker safety and prevent damage to existing structures.
12. Workers must not be exposed to loose soil and rock or materials in and around excavations. Materials, such as removed soil and rock, must not be stored closer than two feet from the edge of the excavation.
13. Daily inspections of the excavation, the adjacent areas and protective systems must be made by a "competent person" for evidence of possible cave-ins, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions. The "competent person" must stop work immediately and remove workers from the excavation when conditions change and pose a threat to their safety.
14. Workers must not be exposed to fall hazards associated with excavations. Protective walkways or bridges with standard guard rails must be provided.
15. All wells, pits, shafts etc. must be barricaded or covered. After completion of work, all wells, pits, shafts etc. must be backfilled.



## V - GENERAL CONCRETE SPECIFICATIONS

### 1.0 GENERAL

It is the intent of this specification to secure, for every part of the work, concrete of homogenous structure which, when hardened, will have the required strength and resistance to weathering. To this end, the limiting values of concrete and the requirements hereinafter specified must be met. Standard tests of the cement, aggregates, concrete and reinforcement will be made by the Owner as it sees fit. The Contractor shall furnish the material for all required samples plus such labor as required to obtain samples. The Contractor shall provide to authorized representatives of the Owner, convenient access to all parts of the work of all concreting operations for the purpose of sampling and inspection.

### 2.0 SCOPE

Contractor shall furnish all materials, labor, services, transportation, tools, equipment, and related items required to complete work indicated on the drawings and/or specified.

Unless otherwise noted or as modified by more stringent requirements specified herein, all plain and reinforced concrete work shall be performed in full compliance with applicable requirements of the Building Code Requirements for Reinforced Concrete ACI 318.

Contractor shall obtain Owner's approval of all subgrades, footing bottoms, forms, and reinforcement just prior to placing concrete.

Contractor shall coordinate the work specified in this section with that specified in other sections so that all anchors, pipes and other embedded items are properly installed before concrete is placed.

Contractor shall clean all exposed concrete surfaces and obtain approval of Owner for method of cleaning.

### 3.0 MATERIALS

All materials shall be of the ERMC2tive quality specified herein, delivered, stored, and handled as to prevent inclusion of foreign matter and damage by dampness or breakage. Packaged material shall be stored in original container until ready for use. Materials showing evidence of dampness or other damage may be rejected.

A. Fine and Coarse Aggregates: Coarse and fine aggregates shall conform to ASTM Specification C33. The maximum size of aggregate shall not be larger than one-fifth (1/5) of the narrowest dimensions between forms, or larger than three fourths (3/4) of the minimum clear spacing between reinforcement.

1. Fine Aggregate: Sand shall be composed essentially of clean, hard, strong, durable grains free of structurally weak grains,





- organic matter, loam, clay, silt, salt, mica or other fine materials that may affect bonding of the cement paste.
2. Coarse Aggregate: Cement concrete shall consist of crushed rock or screened gravel and shall be composed essentially of clean, hard, strong and impermeable particles, resistant to wear and frost and free from deleterious amounts of organic matter, loam, clay, salts, mica, and soft, thin, elongated, laminated or disintegrated stone, and shall be inert to water and cement.
- B. Portland Cement: Portland cement shall conform to ASTM Specification C150. Type I or Type II Portland Cement shall be used provided that they are not intermixed during any one batch. Type II Portland Cement shall not be used unless indicated on the plans.
- C. Water: Water for mixing and curing shall be clean, fresh, and free from deleterious materials.
- D. Metal Reinforcement: Rebar shall be Grade 60 and with deformations conforming to ASTH Specification A305. Welded wire mesh shall conform to W4 x W4 size and be of Grade 60 steel.
- E. Admixtures: Except as herein noted, admixtures shall not be used.
1. Under adverse weather conditions only retarding or accelerating agents containing no chloride may be used.
  2. Air-Entraining Agent shall be used for all concrete will give an entrained air range of not less than 4 percent but no greater than 8 percent in the finished product. Under no circumstances shall the air-entraining be interground with cement.
  3. Approval in writing shall be required from Owner prior to the use of any admixture.

#### 4.0 FORM

Forms shall be constructed with proper shoring and cross-bracing, safeguarding the total structure and specifically lateral stability and sufficiently strong to stand vibrations of concrete and to carry, without appreciable deflection or displacement, all dead and live loads to which they may be subjected.

#### 5.0 INSERTS, ETC.

Anchors, bolts, dowels, conduit, waterstops, vent pipes and other similar built-in or concreted-in items shall be properly located, accurately positioned and secured. The Contractor shall cooperate in placing of such items with other contractors who require a fastening device for their work and he shall maintain them in proper location during the progress of his work.



## 6.0 REINFORCEMENT

Reinforcement at the time concrete is placed shall be free from rust, scale or other coatings that will destroy or reduce the bond.

Reinforcement shall be accurately placed and securely tied at intersections and shall be securely held in position during the placing of concrete by pacers, chairs, or other approved supports.

The reinforcement of foundations, footings and other principal structural members in which the concrete is deposited against the ground shall not have less than three (3) inches of concrete between it and the ground contact surface. If concrete surfaces after removal of the forms are to be exposed to the weather or to be in contact with the ground or rock, reinforcement shall be protected with not less than two (2) inches of concrete.

## 7.0 CONCRETE

Concrete for the various parts of the work shall be of 4000 pounds per square inch compressive strength with a minimum 28-day cure. Contractor is responsible to provide a mix of not less than 6 bags of cement per yard of concrete and not more than 7 gallons of water per bag of cement, producing a minimum slump of 2-1/2 inches and a maximum slump of 4-1/2 inches. Concrete that exceeds the above range of maximum or minimum slump requirements may be rejected by the Owner. All concrete shall be air-entrained. Contractors are required to furnish the name or names of the company(s) that will be providing the mix. The Owner reserves the right to disapprove any concrete supplier that has been known to supply an undesirable material to the Owner on previous occasions.

## 8.0 DEPOSITING CONCRETE

4.1. Preparation for Placing Concrete: Before depositing concrete, the Contractor shall:

1. Remove from space to be occupied by concrete all debris, including snow, ice, and water unless otherwise permitted by Owner.
2. Provide diversion, satisfactory to Owner, of any flow of water to an excavation so as to avoid washing the freshly deposited concrete.
3. Coat the forms prior to placing of reinforcing steel as required in form work.
4. Secure firmly in correct position, all reinforcement and other items to be encased and remove therefrom all coating including ice and frost.



- B. Transportation of Concrete from Batch Plant: The concrete shall be delivered to the site of the work and discharge shall be completed within 90 minutes after addition of the cement and water to the aggregates. Each batch of concrete delivered at the job site shall be accompanied by a time slip issued at the batching plant, bearing the time of charging of the mixer drum with the cement and aggregates.
- C. Transporting of Concrete from Mixer to Place of Final Deposit: Transportation shall be done as rapidly as practical by means which shall prevent the separation or loss of the ingredients. If chutes are used, they shall be at a slope not flatter than one vertical to two horizontal. Buggies or carts shall be equipped with pneumatic rubber tires or surfaces of runways shall be sufficiently smooth or both so as not to cause separation or segregation of concrete ingredients. Concrete shall not be allowed to drop freely more than 4 feet. Where greater drops are required, canvas "elephant trunks" or galvanized iron chutes equipped with suitable hopper heads shall be employed and a sufficient number placed to insure that the concrete may be effectively compacted into horizontal layers not exceeding 12 inches in thickness with minimum lateral movements.
- D. Depositing of Concrete: Depositing of concrete shall:
1. Proceed continuously after once starting until reaching the end of a section of construction joint location shown on the drawings, or as approved by the Owner. The operations shall be conducted so that no concrete is deposited on concrete sufficiently hardened to cause formation of seams, and planes of weakness.
  2. Be as near as practical to its final position in the forms.
  3. Proceed so as to maintain constantly a top surface which is approximately level.
  4. Be placed before initial set has occurred, and in no event after it has contained its water content for more than 90 minutes.
  5. Be thoroughly worked and compacted by means of suitable tools to provide impermeability, durability and strength and shall be thoroughly worked around reinforcements and embedded items and into corners of forms and so as to be free from voids, pockets or honeycombing. Particular care shall be taken to provide impermeability.
- E. Vibration Equipment: Vibration equipment shall be of the appropriate type and shall, at all times, be adequate in number of units and power of each unit to properly consolidate all concrete.



- F. Monolithic Pours: Proper delivery of concrete shall be the Contractor's responsibility in order to make a mono-lithic pour without delays and changes of cold joints.

## 9.0 CURING

All concrete work shall be protected from injurious action by the sun, rain, flowing water, frost and other injury and shall be covered with plastic after application of curing compound for three (3) days on pours located above ground.

Contractor shall not remove any formwork for a minimum period of 24 hours after a concrete pour without written approval of the Owner.

## 10.0 CONCRETE FINISHES

Finishes of all exposed concrete shall be free of defects which impair its durability or adversely affect its appearance. All such surfaces when stripped, shall be uniform in appearance and any surfaces displaying any deviations from adjacent uniform surfaces shall be rejected and subject to removal.

Finished work shall be level and plumb, true to lines, and dimensions. Finished plane surfaces shall be smooth, and as nearly perfect as practical; however, deviations from a true plane shall not exceed 1/8 inch when measured from a 6-foot straight edge placed against the surface to any point on the surface and under the straight edge.

All exposed surfaces shall have defects corrected, protrusions removed, and holes filled.



APPENDIX A PHOTOGRAPHS



Trench At Site



Site Before Trenching

**APPENDIX B SEISMIC**



# USGS Design Maps Summary Report

## User-Specified Input

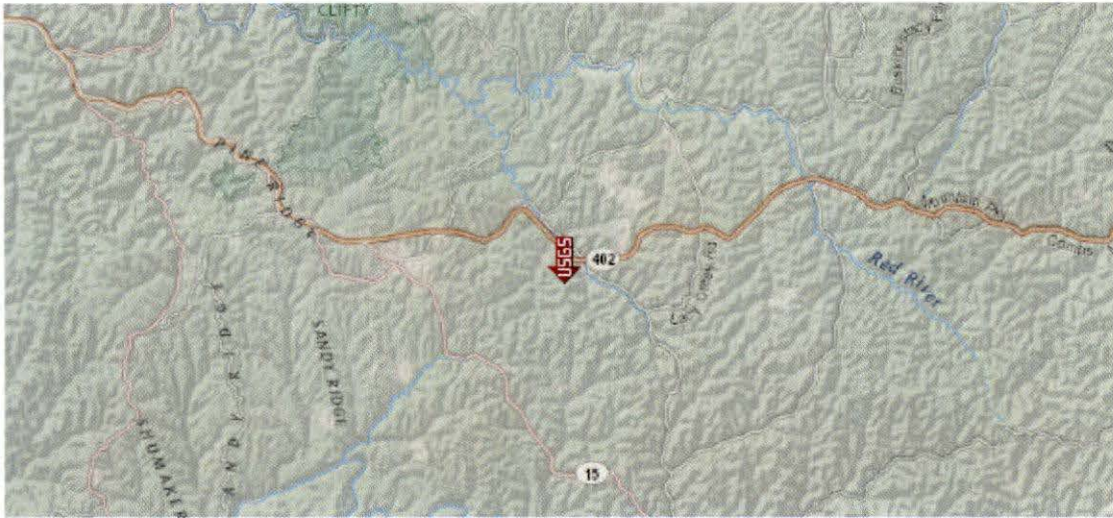
**Report Title** Baptist Fork  
Fri February 24, 2017 14:22:48 UTC

**Building Code Reference Document** 2012/2015 International Building Code  
(which utilizes USGS hazard data available in 2008)

**Site Coordinates** 37.73443°N, 83.46924°W

**Site Soil Classification** Site Class B – "Rock"

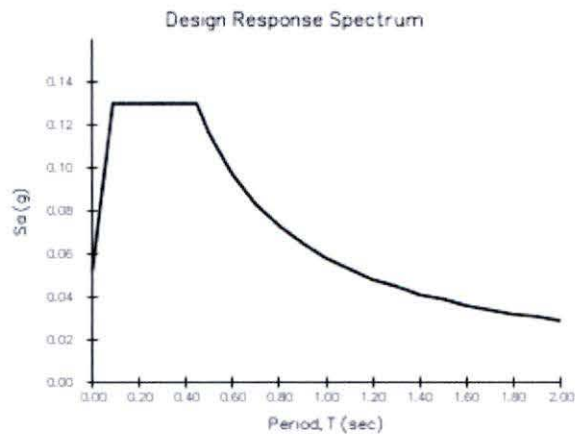
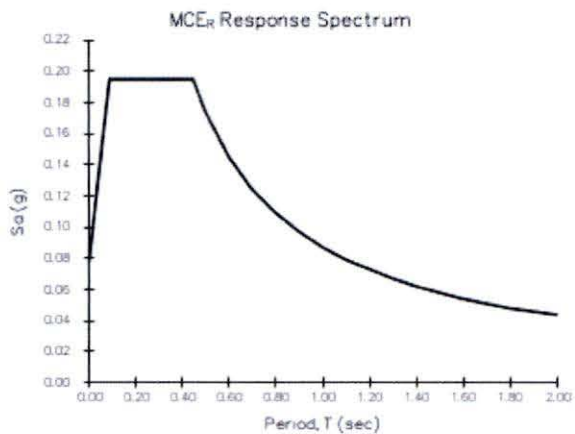
**Risk Category** IV (e.g. essential facilities)



## USGS-Provided Output

$S_s = 0.195 \text{ g}$	$S_{MS} = 0.195 \text{ g}$	$S_{DS} = 0.130 \text{ g}$
$S_1 = 0.087 \text{ g}$	$S_{M1} = 0.087 \text{ g}$	$S_{D1} = 0.058 \text{ g}$

For information on how the  $S_s$  and  $S_1$  values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.



Although this information is a product of the U.S. Geological Survey, we provide no warranty, expressed or implied, as to the accuracy of the data contained therein. This tool is not a substitute for technical subject-matter knowledge.

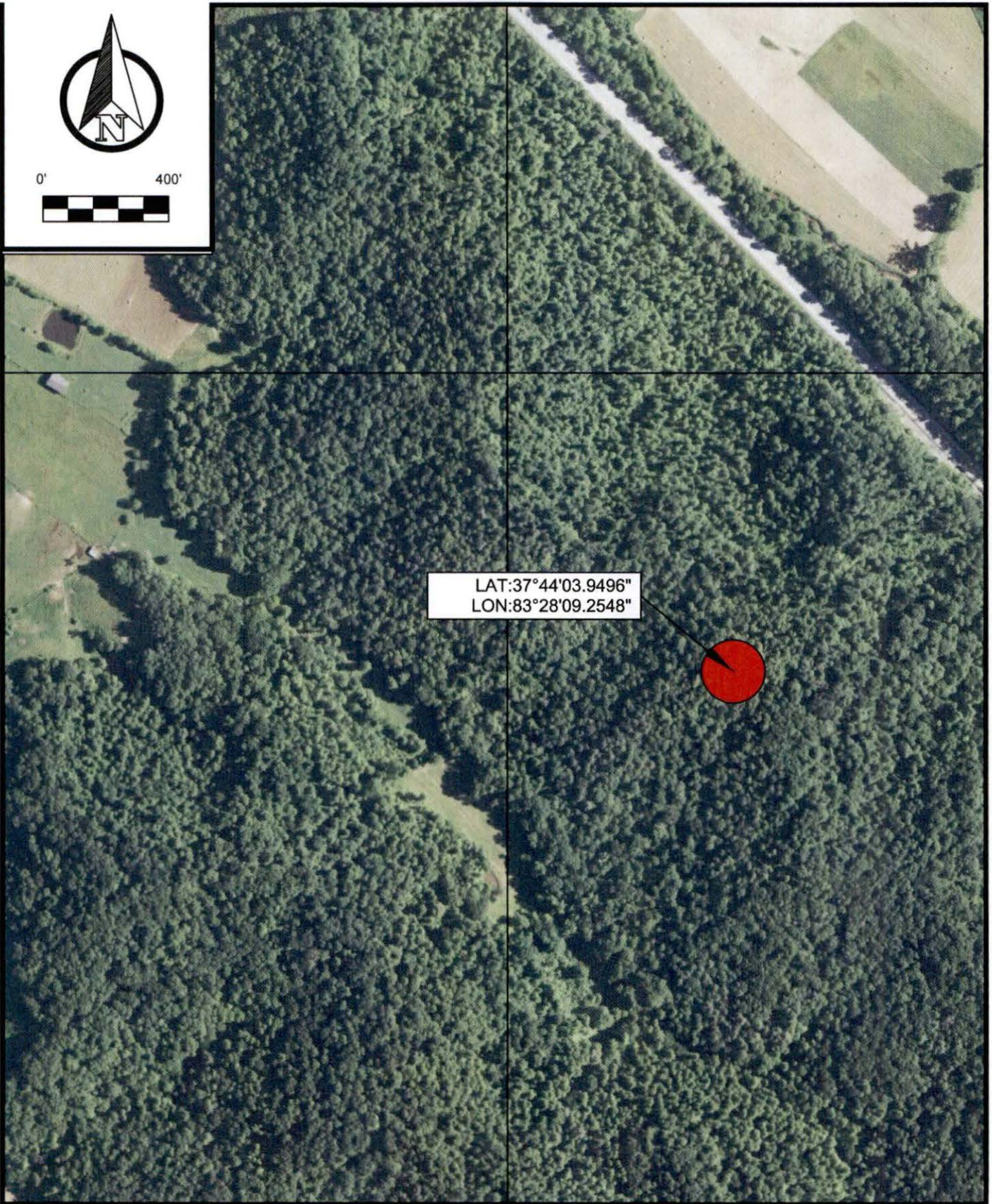
**APPENDIX C MAPS**







0' 400'



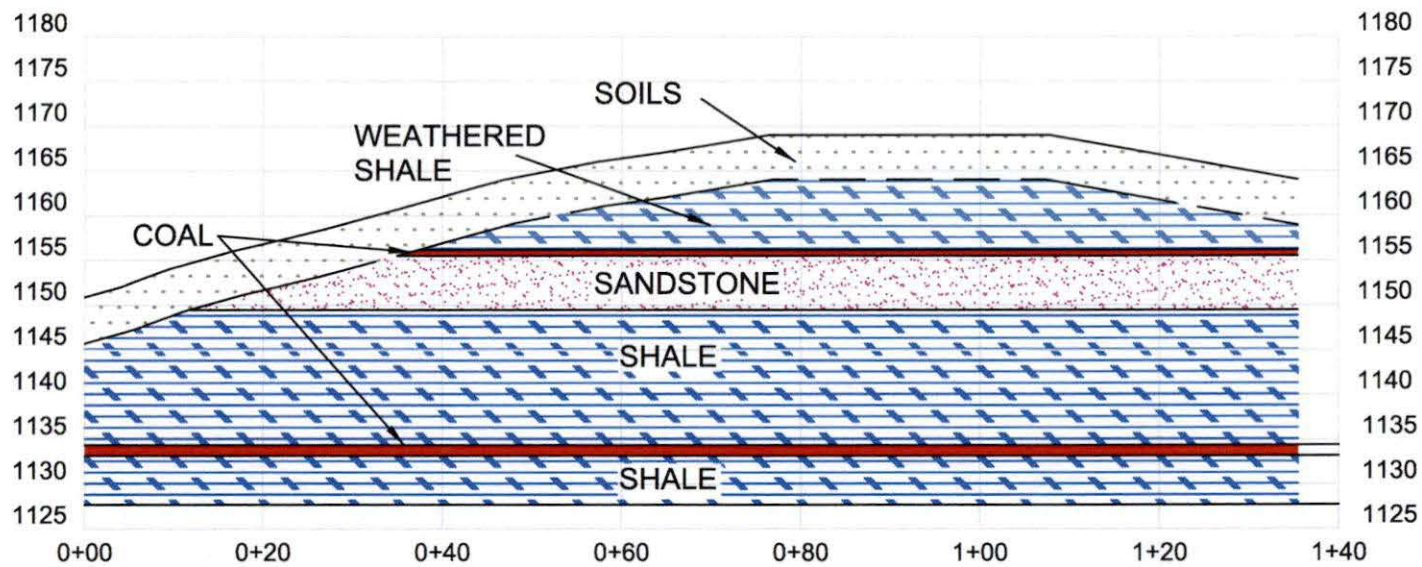
LAT:37°44'03.9496"  
LON:83°28'09.2548"

Drawn:	Date: 2/17/17
Job:	Scale: 1"=400'
Drawing: 2016 AERIAL IMAGE LOCATION MAP	

BAPTIST FORK SITE  
APPALACHIAN WIRELESS  
2016 AERIAL IMAGE LOCATION MAP



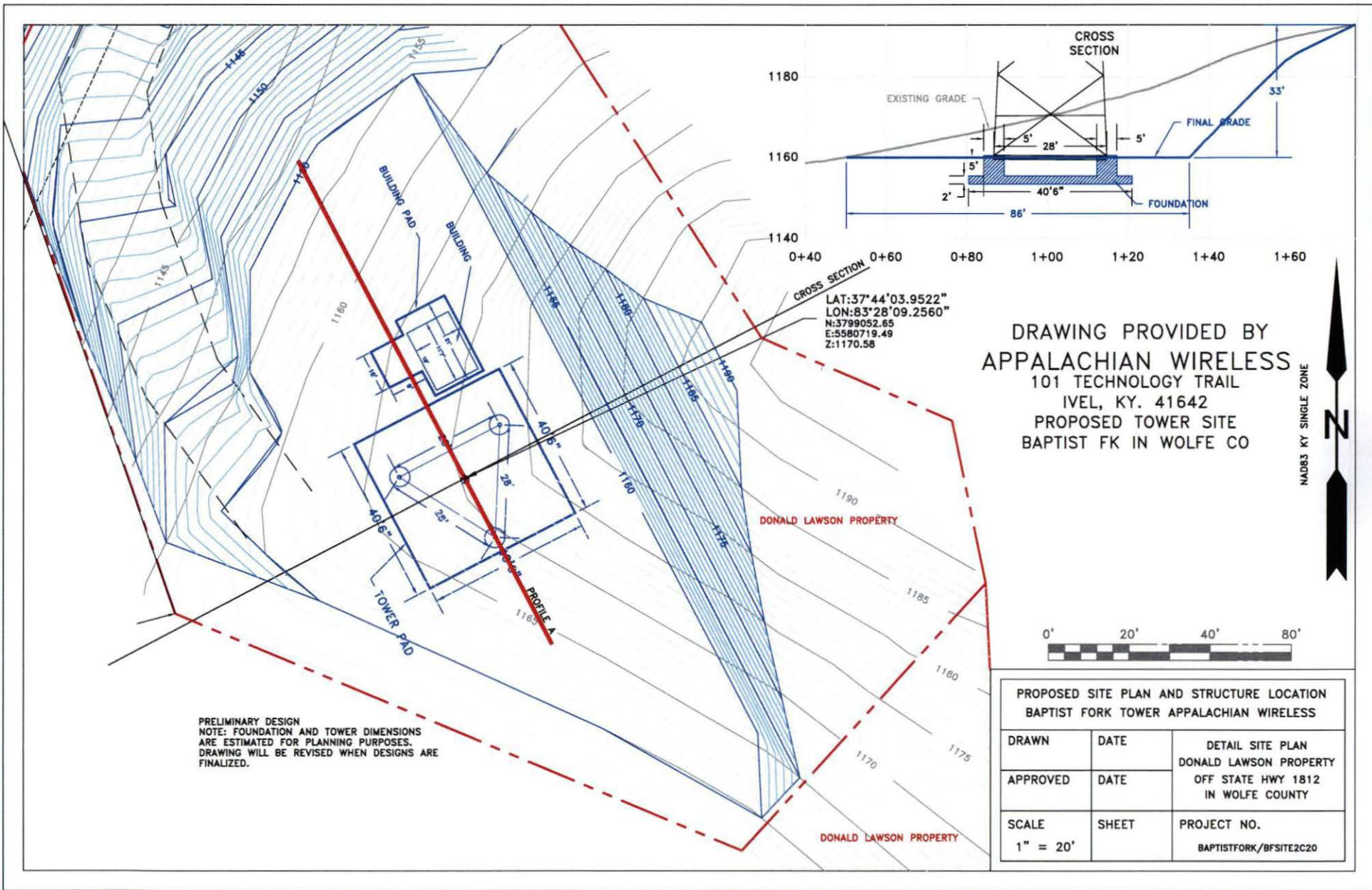
921 Beasley Street, Suite 145  
Lexington, KY 40509  
(859)381-1000  
engineering@ermc2.us



PROFILE A  
 BAPTIST FORK SITE  
 SCALE 1" = 20'



921 Beasley Street, Suite 145  
 Lexington, KY 40509  
 (859)381-1000  
 engineering@ermc2.us





**World Tower**  
COMPANY, INC.

---

1213 Compressor Drive  
P.O. Box 508  
Mayfield, KY 42066  
270-247-3642  
FAX: 270-247-0909  
E-mail: [worldtower@worldtower.com](mailto:worldtower@worldtower.com)  
Web: [www.worldtower.com](http://www.worldtower.com)

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**300' MODEL WSST TOWER  
FOR: APPALACHIAN WIRELESS  
SITE: BAPTIST FORK  
WOLFE COUNTY, KY  
DESIGN PACKAGE**



*Fabrication, Installation, and Maintenance of TV, AM, FM, & Wireless Communications Towers*

## GENERAL NOTES

1. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISION OF THE AMERICAN WELDING SOCIETY AWS. D 1.1.
2. TOWER AND ALL FABRICATED ACCESSORIES ARE HOT-DIP GALVANIZED.
3. ALL BOLTS SHALL BE GALVANIZED ACCORDING TO THE STANDARD SPECIFICATION FOR ZINC COATING OF IRON AND STEEL HARDWARE ASTM A153.
4. LEG STEEL IS 50 KSI MIN YIELD SOLID ROUND OR PIPE AND BRACING STEEL IS 36 KSI MIN YIELD SOLID ROUND OR STRUCTURAL ANGLE.
5. ALL STRUCTURAL BOLTS ARE ASTM A325X, THREADS EXCLUDED FROM SHEAR PLANE.
6. TOWER SHOULD BE INSPECTED IN ACCORDANCE WITH TIA-222-G EVERY 5 YEARS.
7. TOWER INSPECTION SHOULD ONLY BE PERFORMED BY EXPERIENCED QUALIFIED PERSONNEL. FOR ASSISTANCE IN PROPER MAINTENANCE OF YOUR TOWER, CALL WORLD TOWER AT 270-247-3642.

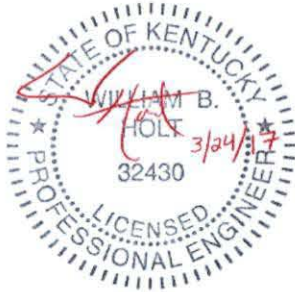


### WORLD TOWER

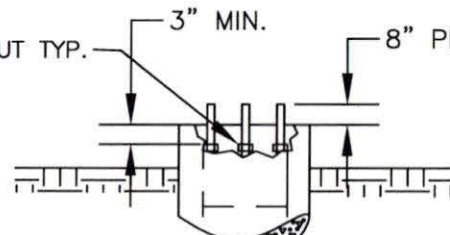
TITLE:

300' MODEL WSST TOWER  
FOR: APPALACHIAN WIRELESS  
SITE: BAPTIST FORK  
WOLFE COUNTY, KY

SCALE	DWN.	LKG	CKD.	DATE 3-23-17
FILE	DWG. NO.			Q16783N

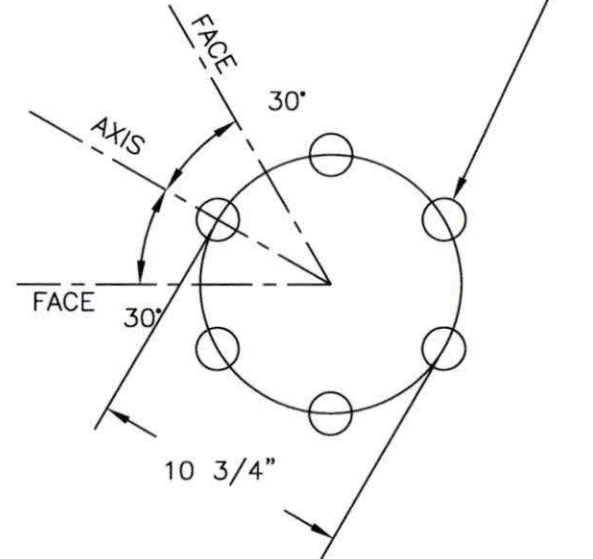
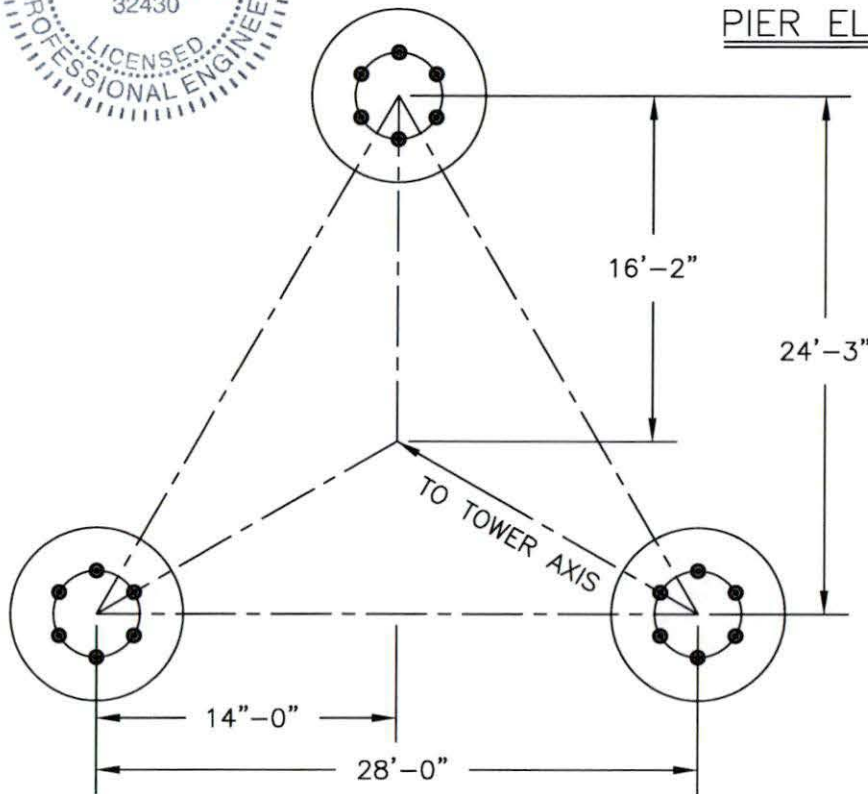


GALVANIZED NUT TYP. 3" MIN. 8" PROJ.



PIER ELEVATION

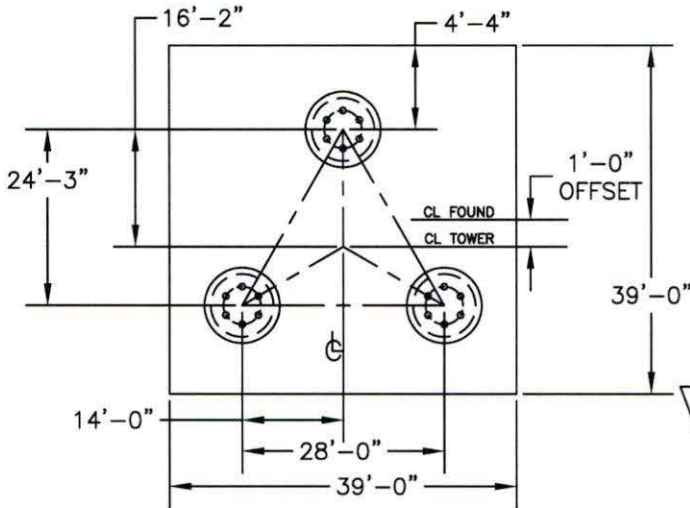
ANCHOR BOLTS  
 (6) 1 1/2"  $\phi$  X 72"  
 (ASTM A354 GR. BC)  
 EQUALLY SPACED WITH  
 TOP TEMPLATE AND  
 EMBEDDED PLATE



TITLE:  
 300' MODEL WSST TOWER  
 FOR: APPALACHIAN WIRELESS  
 SITE: BAPTIST FORK  
 WOLFE COUNTY, KY

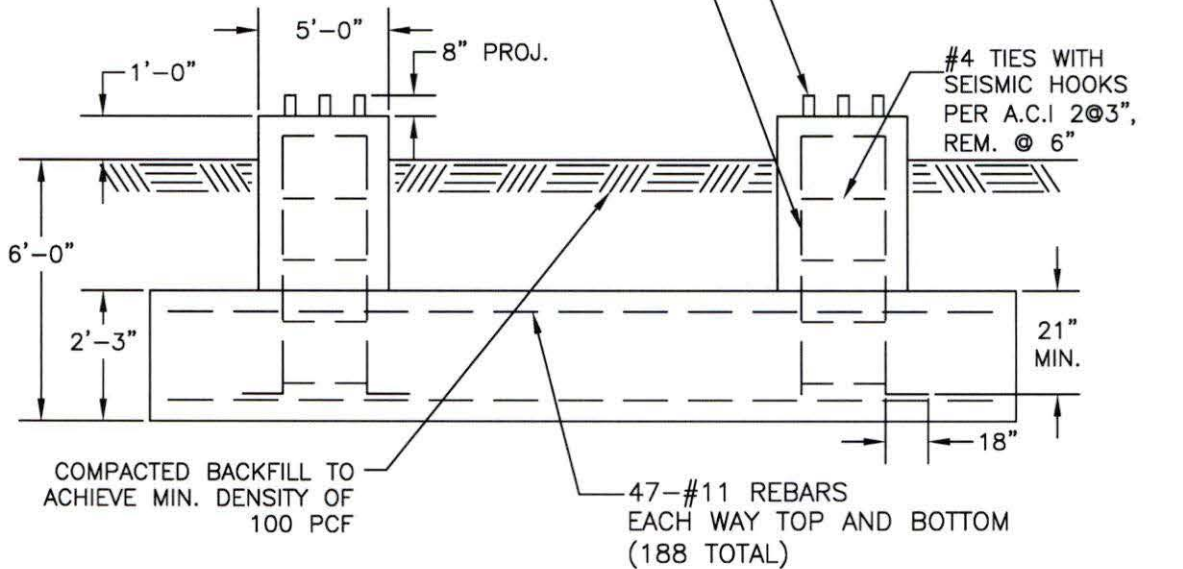
# WORLD TOWER

SCALE	NONE	DWN.	LKG	CKD.	DATE	3-23-17
FILE				DWG. NO.	Q16783AB	



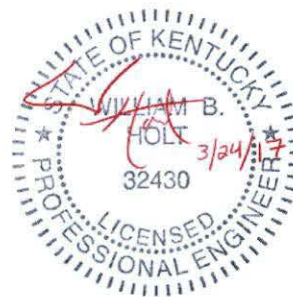
137.1 CU. YDS.  
CONCRETE REQ'D.

BASE REACTIONS	
OTM:	16345.0 FT. KIPS
COMP.	712.0 KIPS
UPLIFT	617.0 KIPS
SHEAR (3 LEGS)	97.0 KIPS
WT. NO ICE	116.0 KIPS
WT. 3/4" ICE	357.0 KIPS



**GENERAL NOTES**

1. CONCRETE TO HAVE 4000 PSI MIN. COMPRESSIVE STRENGTH AFTER 28 DAYS.
2. ALL REINFORCEMENT STEEL IS DEFORMED AND MEETS THE STRENGTH REQUIREMENTS OF ASTM A615 GRADE 60.
3. EMBEDDED STEEL TO HAVE 3" MIN. CONCRETE COVER.
4. FOUNDATION DESIGN IS BASED ON CUSTOMER SUPPLIED SOIL DATA FROM ERM2. PROJECT NUMBER 03058.004 DATED FEBRUARY 20, 2017.
5. CONTRACTOR SHALL VERIFY FOUNDATION BEARING IN SANDSTONE LAYER.

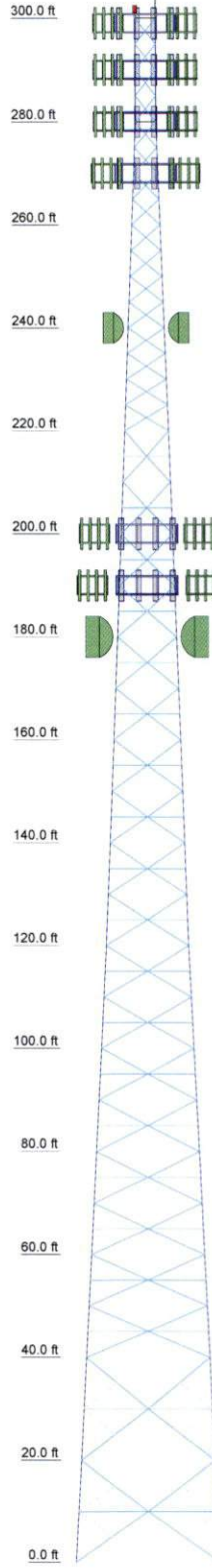


TITLE: FOUNDATION DETAIL  
300' WSST TOWER  
FOR: APPALACHIAN WIRELESS  
SITE: BAPTIST FORK  
WOLFE COUNTY, KY

**WORLD TOWER**

SCALE	NONE	DWN.	LKG	CKD.	DATE	3-23-17
FILE				DWG. NO.	Q16783F	

Section	T10	T11	T12	T13	T14	T15	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30	T31	T32
Legs	SR 4 3/4	SR 4 1/2	SR 4 3/4	SR 4 3/8	SR 4 3/4	SR 4 1/2	SR 3 3/4	SR 4	SR 3 1/4	SR 3 1/2	SR 3 1/4	SR 3	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2	SR 2 1/2
Diagonals	L4x4x1/4	L4x4x1/4	L4x4x3/8	L4x4x3/8	L4x4x1/4	L3 1/2x3 1/2x1/4	L3x3x3/8	L3x3x3/8	L3x3x1/4	L3x3x3/8	L3x3x1/4	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16	L2x2x3/16
Diagonal Grade																							
Top Girts																							
Horizontals	L4x4x1/4	L4x4x1/4	L3x3x3/8	L3x3x3/8	L3x3x1/4	L3x3x1/4	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16	L2 1/2x2 1/2x3/16
Red. Horizontals	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16
Red. Diagonals	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16	L3x3x3/16
Inner Bracing	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4	L3x3x1/4
Face Width (ft)	26	24	22	20	20	18	16	14.5	13	11.5	10	8.5	7	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
# Panels @ (ft)	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10	4 @ 10
Weight (K)	67.1	7.4	8.1	6.5	6.5	5.4	4.7	4.5	4.1	3.5	2.9	2.3	1.5	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
5/8" x 10' LROD	300	(4) RRUS 11	270
12" x 24" Beacon	300	(4) RRUS 11	270
(4) BXA-70063-6CF w/ Mount Pipe	299	(4) RRUS 11	270
(4) BXA-70063-6CF w/ Mount Pipe	299	WD13X53 Antenna Mounting Frame	270
(4) BXA-70063-6CF w/ Mount Pipe	299	WD13X53 Antenna Mounting Frame	270
(4) RRUS 11	299	WD13X53 Antenna Mounting Frame	270
(4) RRUS 11	299	Pipe Mount [PM 601-1]	240
(4) RRUS 11	299	Pipe Mount [PM 601-1]	240
WD13X53 Antenna Mounting Frame	299	6 FT DISH	240
WD13X53 Antenna Mounting Frame	299	6 FT DISH	240
WD13X53 Antenna Mounting Frame	299	(4) RRUS 11	200
(4) BXA-70063-6CF w/ Mount Pipe	290	(4) RRUS 11	200
(4) BXA-70063-6CF w/ Mount Pipe	290	WD13X53 Antenna Mounting Frame	200
(4) RRUS 11	290	WD13X53 Antenna Mounting Frame	200
(4) RRUS 11	290	(4) BXA-70063-6CF w/ Mount Pipe	200
(4) RRUS 11	290	(4) BXA-70063-6CF w/ Mount Pipe	200
WD13X53 Antenna Mounting Frame	290	(4) BXA-70063-6CF w/ Mount Pipe	200
WD13X53 Antenna Mounting Frame	290	(4) RRUS 11	200
WD13X53 Antenna Mounting Frame	290	(4) RRUS 11	190
(4) BXA-70063-6CF w/ Mount Pipe	280	(4) RRUS 11	190
(4) BXA-70063-6CF w/ Mount Pipe	280	WD13X53 Antenna Mounting Frame	190
(4) BXA-70063-6CF w/ Mount Pipe	280	WD13X53 Antenna Mounting Frame	190
(4) RRUS 11	280	WD13X53 Antenna Mounting Frame	190
(4) RRUS 11	280	(4) BXA-70063-6CF w/ Mount Pipe	190
(4) RRUS 11	280	(4) BXA-70063-6CF w/ Mount Pipe	190
WD13X53 Antenna Mounting Frame	280	(4) BXA-70063-6CF w/ Mount Pipe	190
WD13X53 Antenna Mounting Frame	280	(4) RRUS 11	190
WD13X53 Antenna Mounting Frame	280	Pipe Mount [PM 601-1]	180
(4) BXA-70063-6CF w/ Mount Pipe	270	Pipe Mount [PM 601-1]	180
(4) BXA-70063-6CF w/ Mount Pipe	270	8 FT DISH	180
(4) BXA-70063-6CF w/ Mount Pipe	270	8 FT DISH	180

**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x1/4	C	L3 1/2x3 1/2x3/8
B	L3 1/2x3 1/2x1/4		

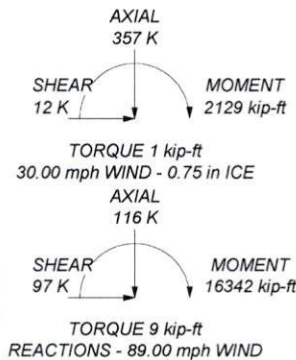
**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

**TOWER DESIGN NOTES**

1. Tower is located in Wolfe County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 89.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.6%

UPLIFT: -617 K  
SHEAR: 54 K



<b>World Tower Co.</b> 1213 Compressor Drive Mayfield, KY Phone: (270) 247-3642 FAX: (270) 247-0909	<b>Job: 300' Model WSST / Run Q16783</b> Project: <b>Baptist Fork, KY</b> Client: <b>Appalachian Wireless</b> Code: <b>TIA-222-G</b> Path: <b>G:\World Tower\KY\Q16783 Baptist Fork\Analysis\Q16783.eri</b>	Drawn by: <b>WBH</b> Date: <b>03/24/17</b> Scale: <b>NTS</b> Dwg No. <b>E-1</b>
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Mail Processing Center  
 Federal Aviation Administration  
 Southwest Regional Office  
 Obstruction Evaluation Group  
 10101 Hillwood Parkway  
 Fort Worth, TX 76177

Aeronautical Study No.  
 2017-ASO-263-OE

Issued Date: 02/16/2017

Ali Kuzehkanani  
 East Kentucky Network, LLC  
 8300 Greensboro Drive, Suite 1200  
 Tysons, VA 22102

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:            Antenna Tower Baptist Fork (Trent)  
 Location:            Trent, KY  
 Latitude:            37-44-03.95N NAD 83  
 Longitude:          83-28-09.25W  
 Heights:            1161 feet site elevation (SE)  
                           310 feet above ground level (AGL)  
                           1471 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 08/16/2018 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-2611. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ASO-263-OE.

**Signature Control No: 314162887-322422816**  
Angelique Eersteling  
Technician

( DNE )

Attachment(s)  
Frequency Data

cc: FCC

**Frequency Data for ASN 2017-ASO-263-OE**

<b>LOW FREQUENCY</b>	<b>HIGH FREQUENCY</b>	<b>FREQUENCY UNIT</b>	<b>ERP</b>	<b>ERP UNIT</b>
698	806	MHz	1000	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1850	1910	MHz	1640	W
1930	1990	MHz	1640	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W



**KENTUCKY AIRPORT ZONING COMMISSION**

**MATTHEW BEVIN**  
Governor

200 Mero Street 4th Floor  
Frankfort, KY 40622  
www.transportation.ky.gov  
502-782-4044

February 21, 2017

**APPROVAL OF APPLICATION**

**APPLICANT:**

East Kentucky Network, LLC.  
East Kentucky Network, LLC.  
8300 Greensboro Drive|Suite 1200  
McLean, VA 22102

**SUBJECT:** AS-119-JKL-2017-002

**STRUCTURE:** Antenna  
**LOCATION:** Trent, KY  
**COORDINATES:** 37° 44' 3.95" N / 83° 28' 9.25" W  
**HEIGHT:** 310' AGL/1471'AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 310' AGL/ 1471'AMSL Antenna near Trent, KY 37° 44' 3.95" N / 83° 28' 9.25" W.

This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit.

A copy of the approved application is enclosed for your files.

Medium Dual Obstruction Lighting is required in accordance with 602 KAR 50:100.

A blue ink signature of John Houlihan, consisting of a stylized 'J' and 'H' followed by a flourish.

John Houlihan  
Administrator



An Equal Opportunity Employer M/F/D



**KENTUCKY AIRPORT ZONING COMMISSION**

**MATTHEW BEVIN**  
Governor

200 Mero Street 4th Floor  
Frankfort, KY 40622  
www.transportation.ky.gov  
502-782-4044

**CONSTRUCTION/ALTERATION STATUS REPORT**

February 21, 2017

AERONAUTICAL STUDY NUMBER: AS-119-JKL-2017-002

East Kentucky Network, LLC.  
East Kentucky Network, LLC.  
8300 Greensboro Drive/Suite 1200  
McLean, VA 22102

This concerns the permit which was issued to you by the Kentucky Airport Zoning Commission on February 21, 2017. This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within the said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit. When appropriate, please indicate the status of the project in the place below and return this letter to John Houlihan, Administrator, Kentucky Airport Zoning Commission, 200 Mero Street 4th Floor Office of Audits, Frankfort, KY, 40622. 502-782-4044.

STRUCTURE: Antenna  
LOCATION: Trent, KY  
COORDINATES: 37° 44' 3.95" N / 83° 28' 9.25" W  
HEIGHT: 310' AGL /1471'AMSL

**CONSTRUCTION/ALTERATION STATUS**

1. The project ( ) is abandoned. ( ) is not abandoned.

2. Construction status is as follows:

Structure reached its greatest height of \_\_\_\_\_ ft. AGL  
\_\_\_\_\_ ft. AMSL on \_\_\_\_\_ (date).

Date construction was completed. \_\_\_\_\_

Type of obstruction marking/painting. \_\_\_\_\_

Type of obstruction lighting. \_\_\_\_\_

As built coordinates. \_\_\_\_\_

Miscellaneous Information. \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE/TITLE \_\_\_\_\_



An Equal Opportunity Employer M/F/D



KENTUCKY TRANSPORTATION CABINET

TC 56-50  
Rev. 07/2010  
Page 2 of 2

KENTUCKY AIRPORT ZONING COMMISSION

**APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE**

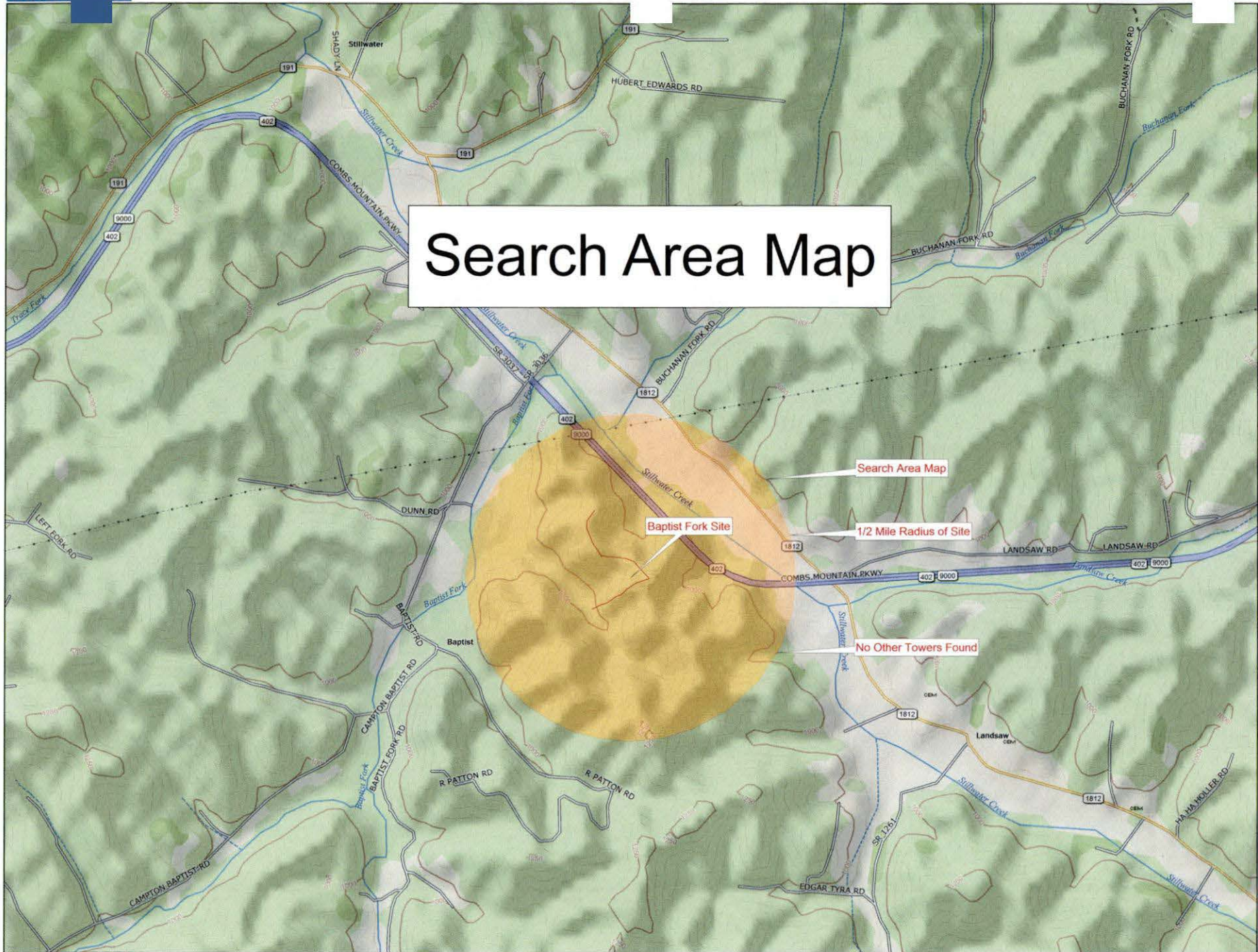
<b>APPLICANT (name)</b> East Kentucky Network, LLC c/o LNGS		<b>PHONE</b> 703-584-8667	<b>FAX</b> 703-584-8692	<b>KY AERONAUTICAL STUDY #</b> 2017-002
<b>ADDRESS (street)</b> 8300 Greensboro Dr, #1200		<b>CITY</b> Tysons		<b>STATE</b> VA <b>ZIP</b> 22102
<b>APPLICANT'S REPRESENTATIVE (name)</b> Ali Kuzehkanani		<b>PHONE</b> 703-584-8667	<b>FAX</b> 703-584-8692	
<b>ADDRESS (street)</b> 8300 Greensboro Dr, #1200		<b>CITY</b> Tysons		<b>STATE</b> VA <b>ZIP</b> 22102
<b>APPLICATION FOR</b> <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing				<b>WORK SCHEDULE</b>
<b>DURATION</b> <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days )				Start 02/15/17 End 02/20/17
<b>TYPE</b> <input type="checkbox"/> Crane <input type="checkbox"/> Building		<b>MARKING/PAINTING/LIGHTING PREFERRED</b>		
<input checked="" type="checkbox"/> Antenna Tower		<input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity		
<input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank		<input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white		
<input type="checkbox"/> Landfill <input type="checkbox"/> Other		<input type="checkbox"/> Other		
<b>LATITUDE</b> 37°44'03.95"		<b>LONGITUDE</b> 83°28'09.25"		<b>DATUM</b> <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other
<b>NEAREST KENTUCKY</b> City Trent County Wolfe		<b>NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT</b> Julian Carroll Airport		
<b>SITE ELEVATION (AMSL, feet)</b> 1161		<b>TOTAL STRUCTURE HEIGHT (AGL, feet)</b> 310		<b>CURRENT (FAA aeronautical study #)</b>
<b>OVERALL HEIGHT (site elevation plus total structure height, feet)</b> 1471				<b>PREVIOUS (FAA aeronautical study #)</b>
<b>DISTANCE (from nearest Kentucky public use or Military airport to structure)</b> 12.8 mi				<b>PREVIOUS (KY aeronautical study #)</b>
<b>DIRECTION (from nearest Kentucky public use or Military airport to structure)</b> SE				
<b>DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.)</b> Baptist Fork, approx. 2.7 miles SSW of Trent (Wolfe), KY				
<b>DESCRIPTION OF PROPOSAL</b> A new 300' tower with top-mounted antennas (overall height of 310' AGL)				
<b>FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?)</b> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, when? 01/05/17				
<b>CERTIFICATION (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.)</b>				
<b>PENALTIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)</b>				
<b>NAME</b> Ali Kuzehkanani	<b>TITLE</b> Dir of Engineering	<b>SIGNATURE</b> 		<b>DATE</b> 01/05/17
<b>COMMISSION ACTION</b>				
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved				
<b>SIGNATURE</b> 		<b>DATE</b> 2-21-17		

## Driving Directions for Baptist Fork

Beginning on 2491 South or Washington Street beside the Wolfe County Courthouse in Campton, KY go through the traffic light and drive five miles and six tenths. Turn right onto a gravel road (signs will be posted here). Continue on the gravel road and cross the creek. Drive approximately sixty-two hundred feet (signs will be posted here).

Prepared By:  
Daryl Bartley  
Cell Site Compliance Agent  
East Kentucky Network  
d/b/a Appalachian Wireless  
606-791-0310 (cell)  
606-339-1363 (fax)  
[dbartley@ekn.com](mailto:dbartley@ekn.com)

# Search Area Map





Lease-41  
PS-101

RECEIVED  
DEC 12 2016  
WOLFE COUNTY CLERK  
STEPHEN OLIVER

**MEMORANDUM OF LEASE**

THIS MEMORANDUM OF LEASE is made and entered into on this 29<sup>th</sup> day of November, 2016, with a commencement date of December 1, 2016, 2016 (the "**Commencement Date**"), by and between **DONALD LAWSON** and **VICKIE LAWSON**, husband and wife, with a mailing address of 620 Gevedon Road, Pine Ridge, Kentucky, 41360, hereinafter referred to as "**Lessors**", and **EAST KENTUCKY NETWORK, LLC D/B/A APPALACHIAN WIRELESS**, a Kentucky limited liability company, with a mailing address of 101 Technology Trail, Ivel, Kentucky, 41642, hereinafter referred to as "**Lessee.**"

WITNESSETH:

1. **Demised Premises.** For good and valuable consideration, Lessors have leased to Lessee, and Lessee has leased from Lessors that certain tract of real estate located in Wolfe County, Kentucky, and being a portion of the same land conveyed to Lessors, by Deed dated August 5, 2010, and recorded in Deed Book 130, Page 15, in the Wolfe County Clerk's Office. Said property is more particularly described in the description **attached** hereto and made a part hereof as **Exhibit A** and the plat **attached** hereto and made a part hereof as **Exhibit B**, prepared by James W. Caudill, Licensed Professional Land Surveyor (hereinafter referred to as the "**Premises**"). The Lessors have also granted unto Lessee full and complete rights of ingress, egress and regress to and from the Premises over any property owned by Lessors and other associated rights for installation of utilities, maintenance, and other purposes.

2. **Term.** The initial term of the Lease is for a period of five (5) years from the Commencement Date set forth above.

3. **Renewals.** The Lease shall automatically renew for an additional six (6) terms of five (5) years each, unless Lessee provides sixty (60) days written notice that it does not wish to renew.

4. **Binding Effect.** All of the terms, conditions, and covenants hereof shall be binding and inure to the benefit of the parties and their respective heirs, representatives, successors, and assigns.

5. **Purpose.** This Memorandum of Lease is prepared solely for the purpose of recordation, and is not intended to, nor shall it be deemed to, modify any of the terms and conditions set forth in the Lease, nor to construe any of the rights, duties or responsibilities of Lessors and Lessee. In the event of any conflict between the terms and conditions of this Memorandum and the terms and conditions of the Lease, the terms and conditions of the Lease shall supersede and control.

**IN WITNESS WHEREOF,** Lessors and Lessee have caused their names to be signed hereto, as of the day and year first above written.

**LESSORS:**



**DONALD LAWSON**



**VICKIE LAWSON**

COMMONWEALTH OF KENTUCKY  
COUNTY OF Wolfe

The foregoing instrument was acknowledged before me on this 29<sup>th</sup> day of November, 2016, by DONALD LAWSON and VICKIE LAWSON, Lessors.

Raina L. Helton  
Notary Public



My Commission Expires Feb 6, 2020

**LESSEE:**

**EAST KENTUCKY NETWORK, LLC D/B/A  
APPALACHIAN WIRELESS**

W.A. Gillum

By: W.A. Gillum

Its: CEO/ General Manager

COMMONWEALTH OF KENTUCKY  
COUNTY OF Floyd

The foregoing instrument was acknowledged before me on this 30<sup>th</sup> day of November, 2016, by W.A. Gillum, CEO/General Manager of EAST KENTUCKY NETWORK, LLC D/B/A APPALACHIAN WIRELESS, Lessee.

Raina L. Helton  
Notary Public



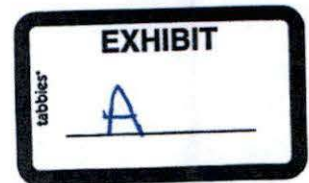
My Commission Expires Feb 6, 2020

This instrument was prepared by:

Cindy D. McCarty

Cindy D. McCarty, Attorney  
101 Technology Trail  
Ivel, Kentucky 41642  
(606) 339-1006

**LOT DESCRIPTION**  
Property of  
Donald & Vickie Lawson  
620 Gevedon Road  
Pine Ridge, KY 41360  
Baptist Fork of Stillwater Creek  
November 11, 2016



A portion of the property lying on Baptist Fork of Stillwater Creek in Wolfe County of Kentucky, on the ridge between Baptist Fork (Seminary Fork) and Stillwater Creek. Being a part of the same land conveyed by deed from Paul Stamper to Donald & Vickie Lawson, by Deed dated August 5, 2010 and recorded in Deed Book 130 Page 15 of the Wolfe County Court Clerk.

Unless stated otherwise, any monument referred to herein as "set iron pin with cap" is a set 1/2" diameter rebar, at least eighteen (18") in length, with a plastic cap stamped "LS-2259". All bearings stated herein are referred to NAD83, KY single zone of the Kentucky state plane system. This survey performed by James W. Caudill, LS2259, on November 11, 2016.

Lot 1A

Beginning on a set iron pin with cap marked ls2259 on the ridge at old wire fence on the line between Donald & Vickie Lawson (book 130 page 15) and Johnny R. & Shirley Hurt (book 137 page 118); thence running with the ridge and the Hurt line South 66 deg 28 min 01 sec East, 51.49 feet to a iron pin on top of the knob, South 11 deg 38 min 32 sec East, 41.34 feet to a set iron pin with cap marked ls2259 on the ridge; thence leaving the ridge and running down the hill, severing the property of Donald & Vickie Lawson, South 42 deg 19 min 47 sec West, 89.59 feet to a set pk nail in root of 8" tree on hillside; thence around the hillside North 67 deg 20 min 15 sec West, 152.32 feet to a set iron pin with cap marked ls2259 on a point; thence angling down the hill North 18 deg 59 min 54 sec West, 135.16 feet to a set iron pin with cap marked ls2259 near 6" pine tree below old log road; thence running around the hill North 24 deg 15 min 45 sec East, 147.65 feet to a set iron pin with cap marked ls2259 2' above 16" hickory on ridge, being a corner to the Johnny R. Hurt property; thence running up the ridge South 35 deg 40 min 56 sec East, 72.94 feet to a set iron pin with cap marked ls2259 at a found marked 48" oak with wire fence, South 32 deg 25 min 59 sec East, 80.62 feet to a set iron pin with cap marked ls2259 on the ridge near fence line, South 32 deg 48 min 38 sec East, 79.15 feet to the beginning. Containing a calculated area of 39263 sq ft or 0.90 acres.

To be included with Lot1A is an access right of way from Baptist Fork Road to the lot; being partly where the existing access road is now located and partly new road. About 7500 feet of road with a right of way of 75' wide will be constructed from the existing road to the lot site. Should for any reason the access road become unusable or inadequate for the intended purpose, then additional area shall be provided to upgrade the access road or, if necessary, construct new access road to the lot.

This survey was performed on November 11, 2016 by James W. Caudill, a Kentucky Licensed Professional Land Surveyor No. 2259.

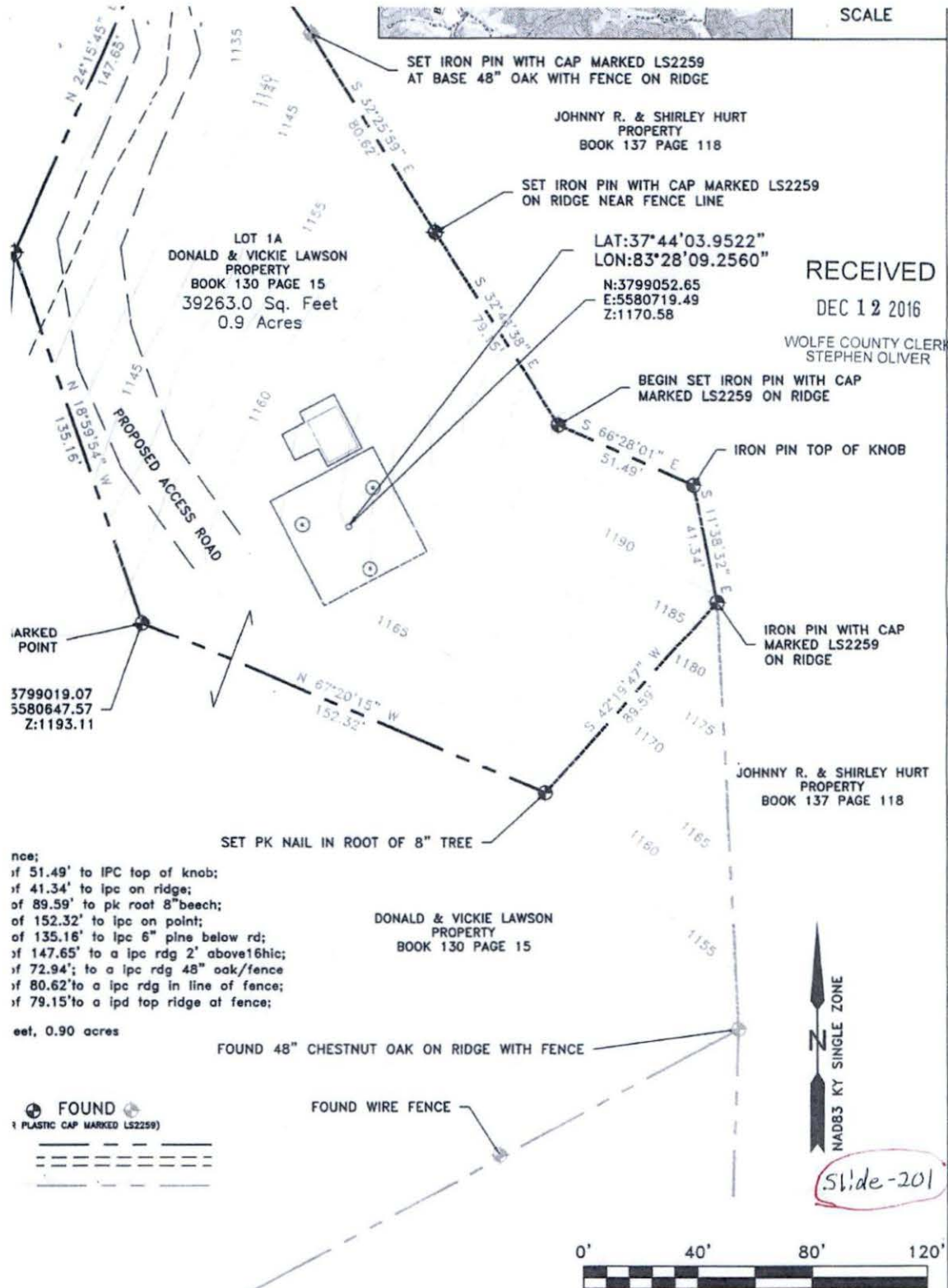


*James W. Caudill*  
James W. Caudill, PLS #2259  
11-11-16



237731  
Filed on: 12/12/2016 10:33:17 AM  
Book: LEASE Number: 41  
Pages: 101 - 105  
Steve Oliver, Wolfe County  
DC: BRENDA MOORE

SCALE



RECEIVED  
 DEC 12 2016  
 WOLFE COUNTY CLERK  
 STEPHEN OLIVER

- nce;
- if 51.49' to ipc top of knob;
  - if 41.34' to ipc on ridge;
  - of 89.59' to pk root 8" beech;
  - of 152.32' to ipc on point;
  - of 135.16' to ipc to ipc 6" pine below rd;
  - if 147.65' to a ipc rdg 2' above 16hic;
  - if 72.94'; to a ipc rdg 48" oak/fence;
  - if 80.62' to a ipc rdg in line of fence;
  - if 79.15' to a ipd top ridge at fence;
- net, 0.90 acres



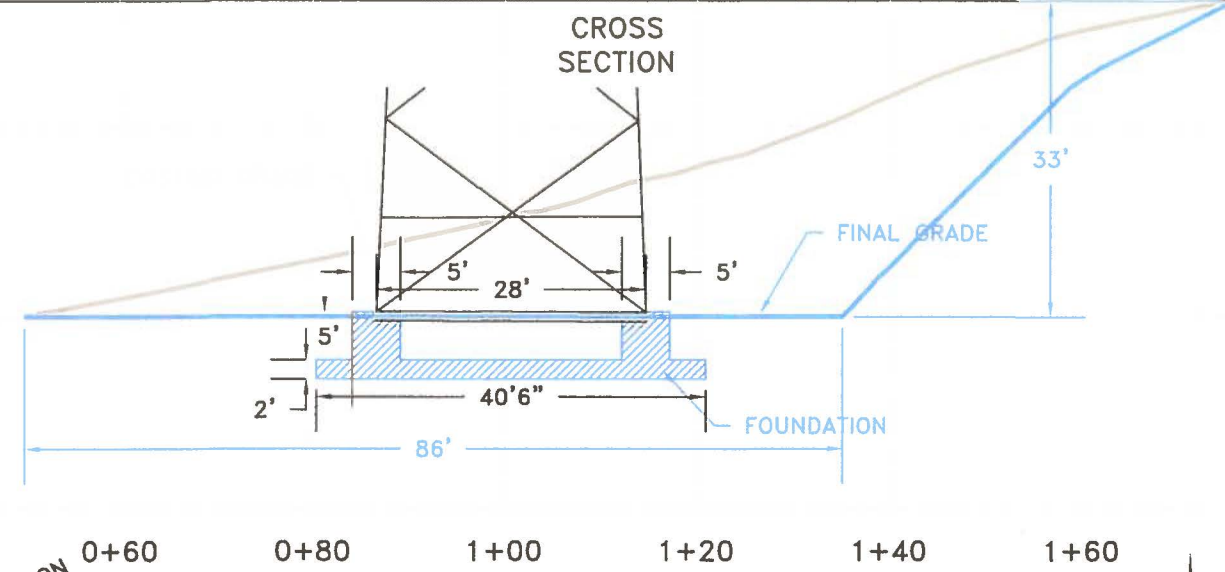
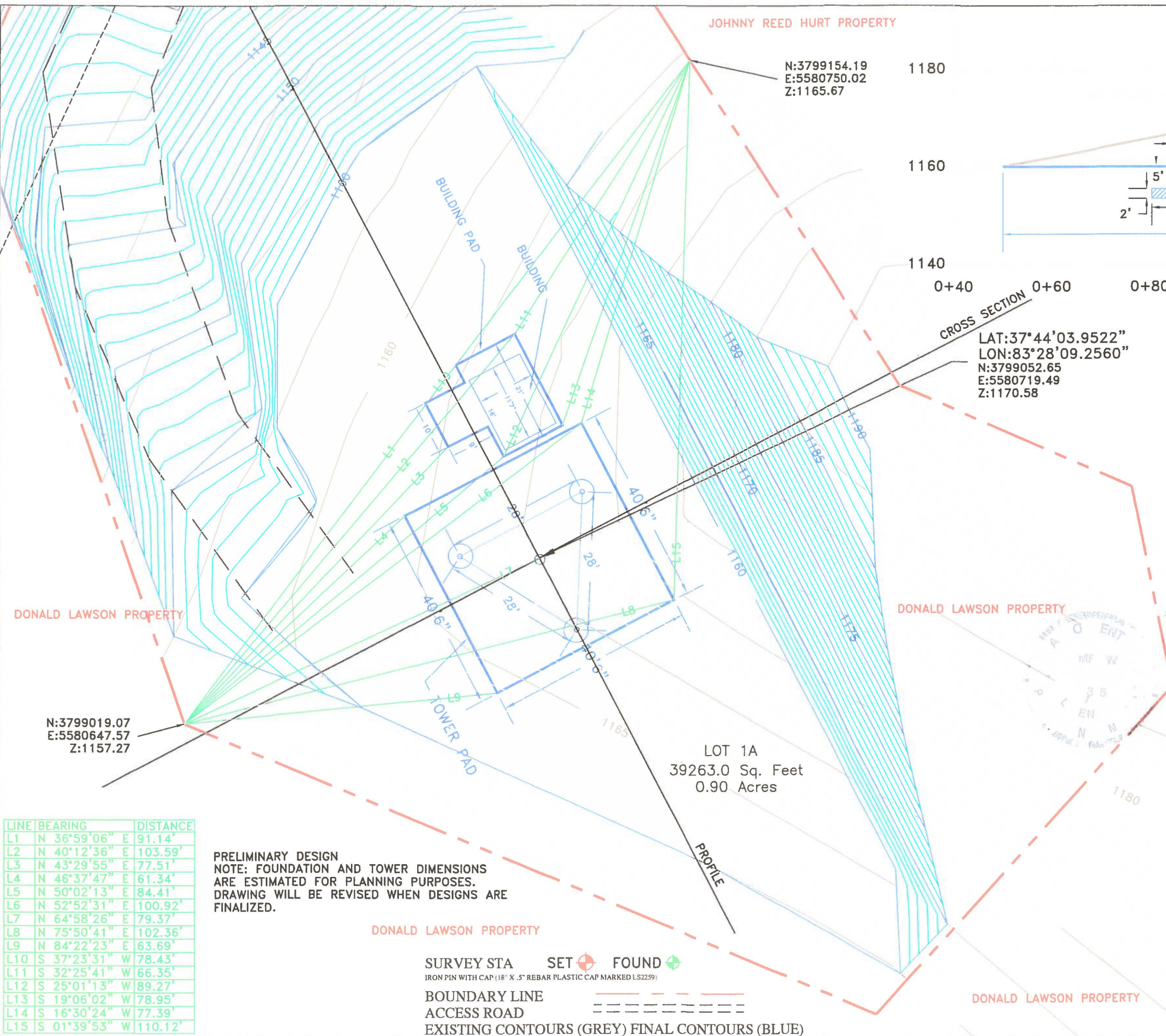
TAYLOR GRAHAM JR.  
 PROPERTY  
 BOOK 74 PAGE 415

LICENSED PROFESSIONAL LAND SURVEYOR

URBAN CLASS SURVEY  
 I HEREBY CERTIFY THAT THIS PLAT DEPICTS A SURVEY MADE BY ME, BY THE METHOD OF RANDOM TRAVERSE. THE BEARINGS SHOWN HEREON HAVE NOT BEEN ADJUSTED FOR CLOSURE. THIS SURVEY AND PLAT MEETS OR EXCEEDS THE MINIMUM STANDARDS OF GOVERNING AUTHORITIES. THE UNADJUSTED ERROR OF CLOSURE WAS 1 IN 14171

James W. Caudill 2259 11-11-16  
 NAME PLS# DATE

PLAT OF SURVEY		
DRAWN BY JWC	SURVEY DATE 11/11/16	SUB DIVISION PROPERTY OF DONALD & VICKIE LAWSON 620 GEVEDON ROAD PINE RIDGE, KY 41360 BAPTIST FORK OF STILLWATER CRK DEED BOOK 130 PAGE 15
CHECKED BY JWC	DRAWING DATE 11/11/16	
SCALE 1" = 40'	SHEET 1 OF 1	SURVEYED BY JAMES W. CAUDILL LS2259 2999 PERKINS/MADDEN ROAD AMBURGEY, KY 41773 PHONE 606-642-3217



LAT:37°44'03.9522"  
 LON:83°28'09.2560"  
 N:3799052.65  
 E:5580719.49  
 Z:1170.58

**APPALACHIAN WIRELESS**  
 101 TECHNOLOGY TRAIL  
 IVEL, KY. 41642  
 PROPOSED TOWER SITE  
 BAPTIST FK IN WOLFE CO

-THE PROPOSED TOWER HAS BEEN LOCATED USING DUAL FREQUENCY GPS UNIT PROCESSED BY "OPUS"  
 -STATE PLANE COORDINATES NAD 83 KY SINGLE ZONE N:3799052.65 E:5580719.49 EL:1170.6' EXISTING GR PLAN- FOUNDATION EL1161.0'-TOP TOWER EL 1461.0'  
 -PRECISION: HORIZONTAL=0.30' VERTICAL=0.50'  
 -THIS SURVEY MEETS OBSTACLE ACCURACY CODE 2C.  
 -PROPERTY LINE INFORMATION TAKEN FROM DEEDS AND VERIFIED IN THE FIELD.

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECTION.  
*James W. Caudill* 12305 12-3-16  
 JAMES W. CAUDILL PE# DATE



LINE	BEARING	DISTANCE
L1	N 36°59'06" E	91.14'
L2	N 40°12'36" E	103.59'
L3	N 43°29'55" E	77.51'
L4	N 46°37'47" E	61.34'
L5	N 50°02'13" E	84.41'
L6	N 52°52'31" E	100.92'
L7	N 64°58'26" E	79.37'
L8	N 75°50'41" E	102.36'
L9	N 84°22'23" E	63.69'
L10	S 37°23'31" W	78.43'
L11	S 32°25'41" W	66.35'
L12	S 25°01'13" W	89.27'
L13	S 19°06'02" W	78.95'
L14	S 16°30'24" W	77.39'
L15	S 01°39'53" W	110.12'

PRELIMINARY DESIGN  
 NOTE: FOUNDATION AND TOWER DIMENSIONS ARE ESTIMATED FOR PLANNING PURPOSES. DRAWING WILL BE REVISED WHEN DESIGNS ARE FINALIZED.

DONALD LAWSON PROPERTY

SURVEY STA SET FOUND  
 IRON PIN WITH CAP (1/8" X .5" REBAR PLASTIC CAP MARKED LS2259)

BOUNDARY LINE  
 ACCESS ROAD  
 EXISTING CONTOURS (GREY) FINAL CONTOURS (BLUE)

PROPOSED SITE PLAN AND STRUCTURE LOCATION  
 BAPTIST FORK TOWER APPALACHIAN WIRELESS

DRAWN JWC	DATE 12/03/16	DETAIL SITE PLAN DONALD LAWSON PROPERTY
APPROVED	DATE	OFF STATE HWY 1812 IN WOLFE COUNTY
SCALE 1" = 20'	SHEET 2 OF 3	PROJECT NO. BAPTISTFORK/BFSITE2C20

NAD83 KY SINGLE ZONE



Application

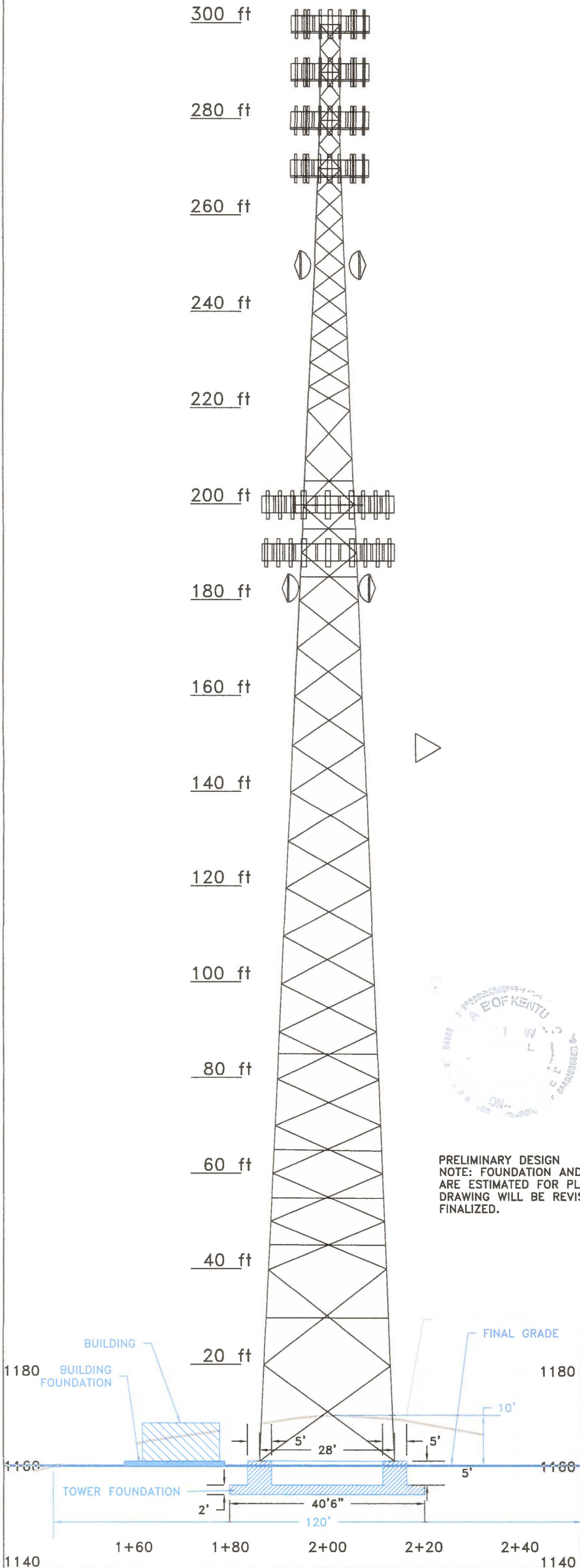
CONTAINS

LARGE OR OVERSIZED

MAP(S)



APPALACHIAN WIRELESS  
 101 TECHNOLOGY TRAIL  
 IVEL, KY. 41642  
 PROPOSED TOWER SITE  
 BAPTIST FORK IN WOLFE COUNTY



PROFILE  
 WITH TOWER

THIS IS A VERTICAL PROFILE SKETCH OF THE TOWER INDICATING THE PROPOSED ANTENNA AND DISH ELEVATIONS. NO DESIGN CRITERIA WAS CONSIDERED IN THE PREPARATION OF THIS DRAWING.



*James W. Caudill* 12305 12-3-16  
 JAMES W. CAUDILL PE #. DATE

NOTE: SEE FOUNDATION DRAWINGS FOR DETAILS

PRELIMINARY DESIGN  
 NOTE: FOUNDATION AND TOWER DIMENSIONS ARE ESTIMATED FOR PLANNING PURPOSES. DRAWING WILL BE REVISED WHEN DESIGNS ARE FINALIZED.

12/03/2016

SCALE 1" = 20'



PROPOSED SITE PLAN AND STRUCTURE LOCATION BAPTIST FORK TOWER APPALACHIAN WIRELESS		
DRAWN JWC	DATE 12/03/2016	DETAIL SITE PLAN DONALD LAWSON PROPERTY
APPROVED	DATE	OFF STATE HWY 1812 IN WOLFE COUNTY
SCALE 1" = 20'	SHEET 3 OF 3	PROJECT NO. BAPTISTFORK/BFPRO2C20