

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

MAR 16 2016

PUBLIC SERVICE
COMMISSION

In the matter of:

THE APPLICATION OF EAST KENTUCKY NETWORK)
LIMITED LIABILITY COMPANY FOR THE ISSUANCE)
OF A CERTIFICATE OF PUBLIC CONVENIENCE AND) CASE NO. 2015-00380
NECESSITY TO CONSTRUCT A TOWER IN FLOYD)
COUNTY, KENTUCKY.)

East Kentucky Network, LLC d/b/a Appalachian Wireless, was granted authorization to provide cellular service in the KY-9 Cellular Market Area (CMA451) by the Federal Communications Commission (FCC). 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 state of Kentucky.

In an effort to improve service in Floyd 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 350 foot self-supporting tower on a tract of land located near 4777 KY RT 850, Hippo, Floyd County, Kentucky (37°32'38.50"N 82°51'56.90"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.

Floyd County has no formal local planning unit. In absence of this unit, the Floyd 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 The Floyd County Times, March 9, 2016, edition. Enclosed is a copy of that notice in Exhibit 3. The Floyd County Times is the newspaper with the largest circulation in Floyd 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 Company, 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 February 25, 2016, 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 very rugged 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 11 contains a vertical sketch of the tower supplied by Bradley Slone, 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: 3/11/2016
Lynn Haney, Regulatory Compliance Director

APPROVED BY: W.A. Gillum DATE: 3/14/2016
W.A. Gillum, General Manager

ATTORNEY: Cindy McCarty DATE: 3/14/2016
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 KAZC 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	

Cellular License - KNKN880 - East Kentucky Network, LLC d/b/a Appalachian Wireless

Call Sign	KNKN880	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular
Market			
Market	CMA451 - Kentucky 9 - Elliott	Channel Block	B
Submarket	0	Phase	2
Dates			
Grant	08/30/2011	Expiration	10/01/2021
Effective	08/30/2011	Cancellation	

Five Year Buildout Date

10/23/1996

Control Points

1 U.S. 23, HAROLD, KY

Licensee

FRN 0001786607 Type Limited Liability Company

Licensee

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

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

Amber Biliter Hall
693 Ratliff Creek Road
Pikeville, KY 41501

James Michael Griffith
1201 Virginia Lane
Auburn, IN 46706

Donn Chickering
Suite 401 and Suite 501
Lexington, KY 40502

David Hayes
140 Hayes Drive
Betsy Layne, KY 41605

Blueashers, LLC
123 Winding View Trail
Georgetown, KY 40324

Lawrence and Louise Howard
4245 KY RT 850
Hippo, KY 41653

Carrie Hicks Estate
c/o Pauline Allen
813 KY RT 850
David, KY 41616

Wanda Hayes and Edna Hayes
P.O. Box 198
Eastern, KY 41622

Dixie Adkins
P.O. Box 170
Eastern, KY 41622

James and Laura Burchett
4725 KY RT 850
Prestonsburg, KY 41653

Arbadellia and Scott Richardson
5001 Langford Pass
Old Hickory, TN 37138

Ricky and Vonda Brown
4753 KY RT 850
Hippo, KY 41637



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Amber Biliter Hall
693 Ratliff Creek Road
Pikeville, KY 41501

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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 Floyd County. The facility will include a 350-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land near 4777 KY RT 850, Hippo, Floyd 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. 2015-00380 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 cursive script that reads "Lynn Haney".

Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

James Michael Griffith
1201 Virginia Lane
Auburn, IN 46706

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Sincerely,

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Donn Chickering
Suite 401 and Suite 501
Lexington, KY 40502

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Sincerely,

Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

David Hayes
140 Hayes Drive
Betsy Layne, KY 41605

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Blueashers, LLC
123 Winding View Trail
Georgetown, KY 40324

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Lawrence and Louise Howard
4245 KY RT 850
Hippo, KY 41653

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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Sincerely,

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Carrie Hicks Estate
c/o Pauline Allen
813 KY RT 850
David, KY 41616

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Wanda Hayes and Edna Hayes
P.O. Box 198
Eastern, KY 41622

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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Sincerely,

Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Dixie Adkins
P.O. Box 170
Eastern, KY 41622

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

James and Laura Burchett
4725 KY RT 850
Prestonsburg, KY 41653

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Sincerely,

Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Arbadellia and Scott Richardson
5001 Langford Pass
Old Hickory, TN 37138

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Sincerely,

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Lynn Haney
Regulatory Compliance Director
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

March 8, 2016

Ricky and Vonda Brown
4753 KY RT 850
Hippo, KY 41637

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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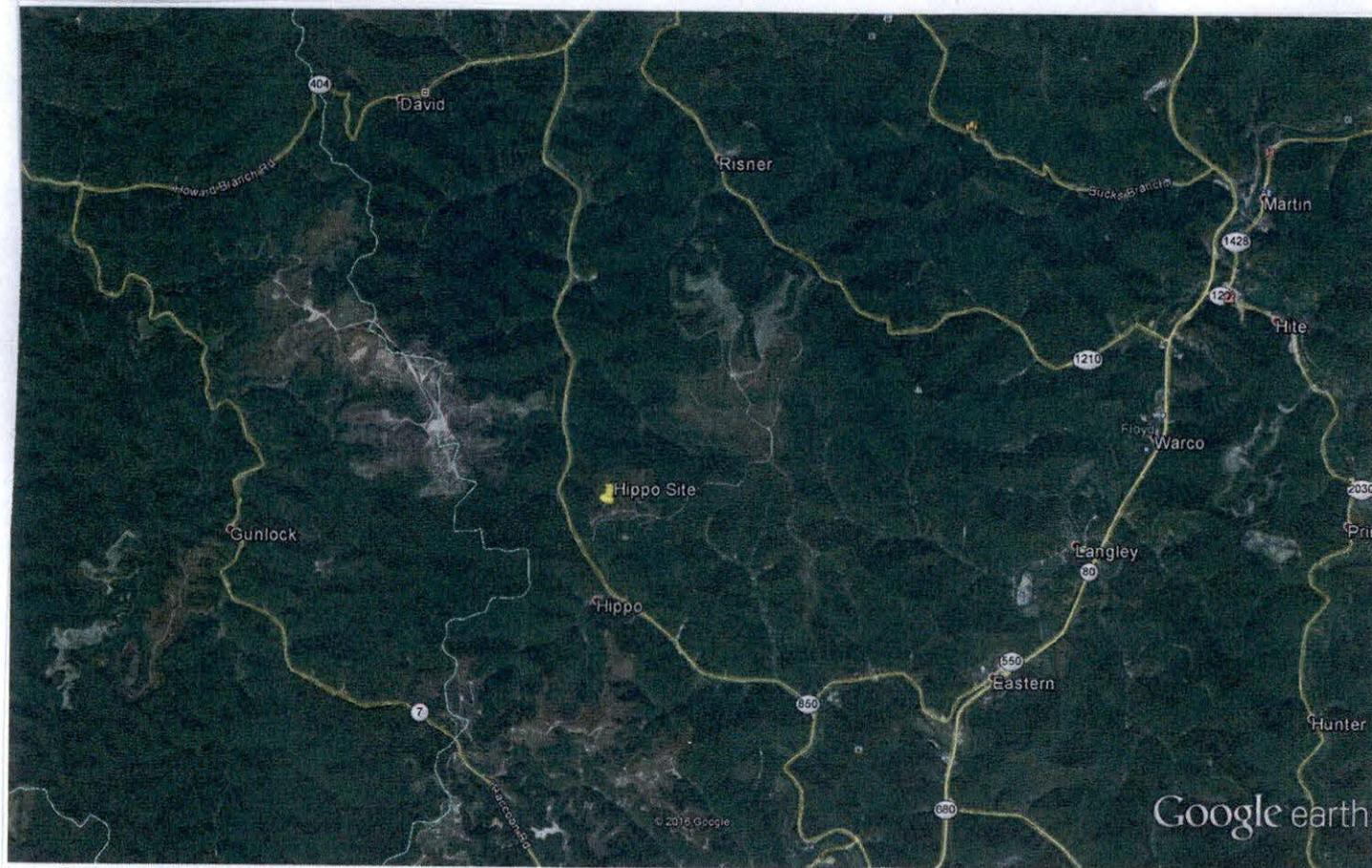
If you have any questions for East Kentucky Network, LLC, please direct them to my attention at the following address: East Kentucky Network, LLC, 101 Technology Trail, Ivel, KY 41642 or call me at 606-477-2355, Ext. 1007.

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Lynn Haney
Regulatory Compliance Director
Enclosure 1

Appalachian Wireless Location Map



Site Name

Hippo Site

Location

4777 KY RT 850, Hippo, KY 41653

GPS Location

N 37 32 38.50

W 82 51 56.90

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

EAST KENTUCKY
NETWORK



To: Floyd County Times
Attn: Classifieds

From: Raina Helton
Regulatory Compliance Assistant

Email: jousley@civitasmedia.com

Date: March 4, 2016

Re: PUBLIC NOTICE ADVERTISEMENT

Pages: 1

Please place the following Public Notice Advertisement in the Floyd County Times to be ran on March 9, 2016.

PUBLIC NOTICE:

RE: Public Service Commission of Kentucky (CASE NO. 2015-00380)

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 near 4777 KY RT 850, Hippo, Floyd County, Kentucky. The proposed tower will be a 350 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. 2015-00380.

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
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
PHONE: (606) 874-7550
FAX: (606) 874-7551



VIA: U.S. CERTIFIED MAIL

March 4, 2016

Ben Hale, Judge Executive
149 S Central Ave.
Prestonsburg, KY 41653

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2015-00380)

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 Floyd County. The facility will include a 350-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land near 4777 KY RT 850, Hippo, Floyd 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 Floyd 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. 2015-00380 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 cursive script that reads "Lynn Haney".

Lynn Haney
Regulatory Compliance Director
Enclosure

Appalachian Wireless Location Map



Site Name

Hippo Site

Location

4777 KY RT 850, Hippo, KY 41653

GPS Location

N 37 32 38.50

W 82 51 56.90

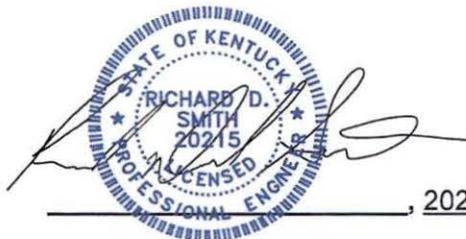
**APPALACHIAN WIRELESS
Geotechnical Investigation on the
Hippo Site
Floyd County, Kentucky
ERMC² Project No. 165-000-0018**

PREPARED FOR:

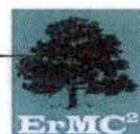
Appalachian Wireless.
101 Technology Trail
Ivel, Kentucky 41642

PREPARED BY:

Richard Dirk Smith PE, PLS
General Manager Appalachian Region
**ENVIRONMENTAL RESOURCES MANAGEMENT
CONSULTING COMPANY**
230 Swartz Drive
Hazard, Kentucky 41701



_____, 20215, January 18th, 2016



EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

A geotechnical investigation was performed on the Hippo tower site, located near Hippo in FloydFloyd County, Kentucky. This site is readily accessible. A location map is shown in Figure 1 of this report. Four (4) borings were advanced to depths ranging from 18 ft. to 110ft. The following geotechnical considerations were identified:

- Borings utilized for this study encountered fill material to a depth of 110 ft. Topography and previous mapping indicates that the fill is approximately 135 feet deep.
- This area is a reclaimed mine site. This area has been surface mined and reclaimed as a grassland area with trees/shrub vegetation spread intermittently.
- The bearing capacities of the spoil is estimated at 1500 psf with recommended site remediation.
- The 2012 International Building Code seismic site classification for this site is "D".
- 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, recommendation and all other concerns.



1. INTRODUCTION

Environmental Resources Management Consultant Company (ERMC²) was retained by Mr. Marty Thacker of Appalachian Wireless to prepare a geotechnical engineering report for the proposed tower site located on the Hippo Site, Near Hicks Fork in Floyd County, Kentucky. A site location map is shown in Figure No. 1.

Four (4) borings were advanced to depths ranging from 18ft. to 110 ft. Logs of the borings are included in Appendix A. 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

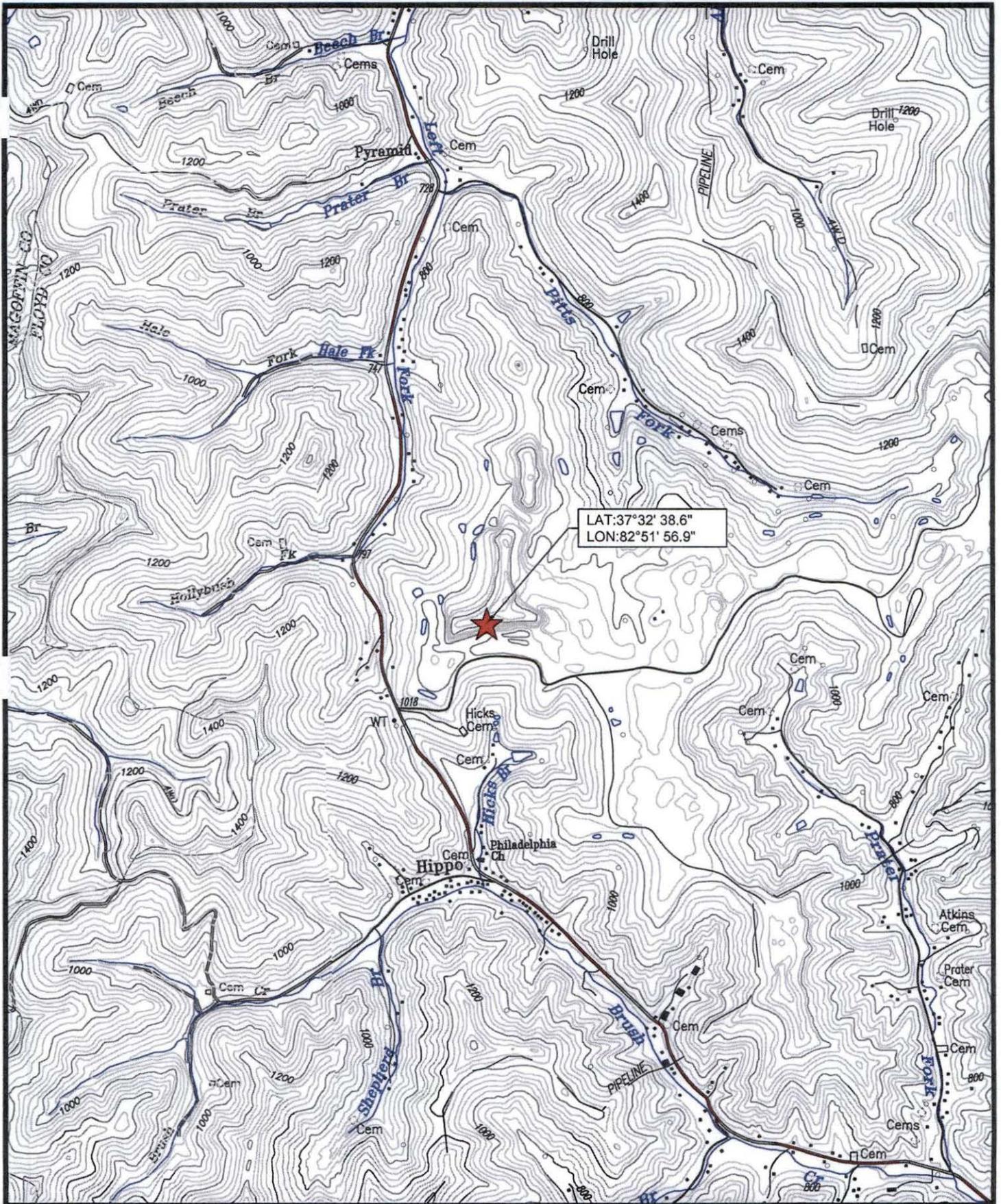
The proposed communication facility will consist of a self-supporting tower of undetermined height and ancillary support areas. The construction area will be approximately 40 ft. x 40 ft. Based upon information provided, we estimate the structural loads will be similar to the following conditions;

TABLE NO. 1

CONDITION	LOAD
Total Shear	40 Kips
Axial Load	50 Kips

We anticipate 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.





LAT: 37°32' 38.6"
 LON: 82°51' 56.9"

Drawn:	Date: 1/21/16
Job:	Scale: 1"=2000'
Drawing: USGS SITE LOCATION MAP	

HIPPO TOWER SITE
 APPALACHIAN WIRELESS
 USGS SITE LOCATION MAP



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

3.0 SITE DESCRIPTION & HISTORICAL MINING

The site location is a relatively flat existing fill area. The site has good vegetative cover. The fill is estimated to 135 feet deep.

Four (4) borings were advanced to depths ranging from 25 ft. to 110ft. Logs of the borings are included in Appendix A. 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.

Research on the historical mining was conducted by obtaining previous mine license maps from the "Kentucky Mine Mapping Information System" (KMMIS). Other sources were also used to try to better determine what to extents and which seams were taken.

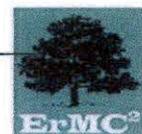
3.2 SURFACE MINING

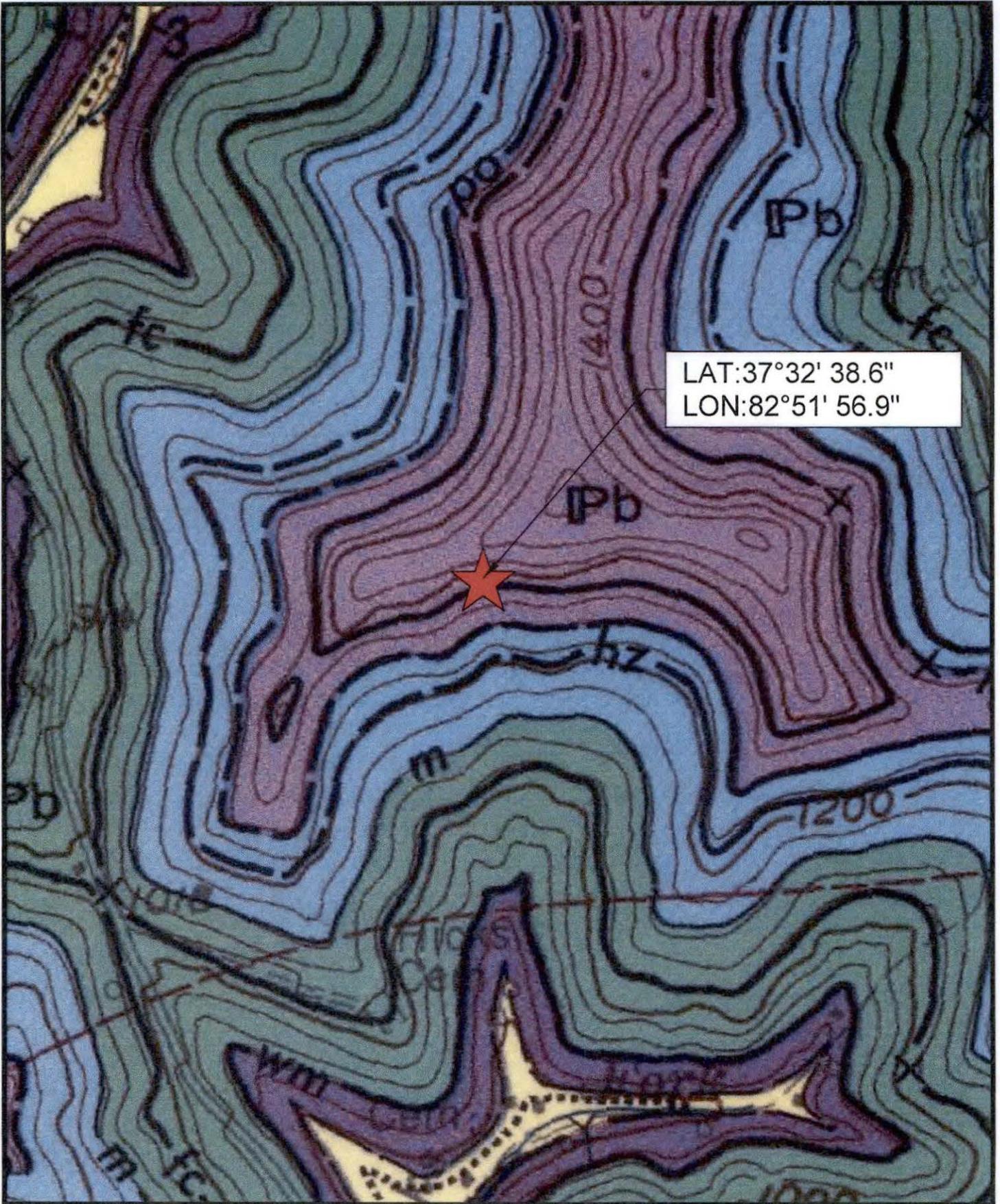
The site was contoured an area mined by Branham and Baker Coal Company Inc. Based upon mine maps and review of maps obtained from KMMIS and review of the aerial mapping, the Hazard 7 Seam and all seam above (± 1180 ft.) were area mined. Mining was proposed in the Fireclay seem (± 1000 ft.). Based upon review of the site and aerial mapping this mining was not conducted. It is possible that this seam was mined below the existing hollow fills. No records have been found to verify this mining.

3.3 UNDERGROUND MINING

No underground mining activities were found to beneath this proposed tower site during our research. The Fireclay Seam (Hazard No. 4 Seam) ($\pm 1033'$ elevation) was mined by Marissa Mining Company using standard room and pillar mining techniques. This mining is approximately 1120 ft south east of the proposed tower location. Based upon the information available, no secondary mining occurred (therefore, the pillars remain). The average coal thickness was 52 inches.

Based upon the research conducted there should be no subsidence issues from existing underground mining.





LAT: 37°32' 38.6"
 LON: 82°51' 56.9"

Drawn:	Date: 1/21/16
Job:	Scale: 1"=500'
Drawing: GQ SITE LOCATION MAP	

HIPPO TOWER SITE
 APPALACHIAN WIRELESS
 GQ SITE LOCATION MAP



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

4.0 FIELD EXPLORATION

4.1 SITE INFORMATION

This site is located on reclaimed surface mining and a proposed location was provided by the client. An estimated pad location was determined and boring locations were placed at the corners of proposed concrete pads for the towers support.

4.2 BORING DATA

Four (4) borings were made in the relative positions shown on the Boring Location Map in Appendix A. The boring logs and resulting data are also included in Appendix A. The borings were made with a track mounted boring rig using hollow-stem augers and employing standard penetration resistance methods (ASTM D-1586, which includes 140-pound hammer, 30-inch drop, and two-inch-O.D. split-spoon sampler) at maximum depth intervals of five feet or at major changes in stratum, whichever occurred first. The disturbed split-spoon samples were visually classified, logged, sealed in moisture-proof jars, and taken to the ERMC² laboratory for study. The depths where these "A"-type split-spoon samples were collected are noted on the boring logs. The results of the natural moisture contents by boring and interval are shown in Table 2.

TABLE NO. 2

RESULTS OF NATURAL MOISTURE CONTENT TESTS (ASTM D-4643)

BORING NO.	DEPTH INCREMENT, (FT.)	NATURAL MOISTURE CONTENT, %
B1	0-0.5	9.2%
B1	4.0-5.5	8.7%
B1	9.0-10.5	4.7%
B1	14.0-15.5	5.5%
B1	19.0-20.5	10.7%
B1	24.0-25.5	9.0%

BORING NO.	DEPTH INCREMENT, (FT.)	NATURAL MOISTURE CONTENT, %
B2	0.0-0.5	10.3%
B2	4.0-5.5	5.7%
B2	9.0-10.5	6.5%
B2	14.0-15.5	9.1%
B2	19.0-20.5	6.9%
B2	24.0-25.5	8.1%
B3	0.0-0.5	8.4%
B3	4.0-5.5	15.9%
B3	9.0-10.5	6.1%
B3	19.0-20.5	10.2%
B3	24.0-25.5	5.2%
B4	0.0-0.5	9.1%
B4	4.0-5.5	7.8%
B4	9.0-10.5	8.3%

In order to determine the depth of the existing fill, boring B1 was extended to auger refusal to a depth of 110 ft. at which point this was terminated without finding refusal.

4.3 GROUNDWATER

Groundwater observations were made during the drilling operations (by noting the depth to water on the drilling tools) and in the open boreholes following withdrawal of the drilling augers. No groundwater levels were noted during drilling activities.

4.4 SEISMIC SITE CLASSIFICATION

Based on the encountered soil conditions at the project site, the site classification was determined to be "Site Class D" per the Kentucky Building Code. In addition, a S_{DS} coefficient of 0.235g was calculated, and a S_{D1} coefficient of 0.131 g 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 directions.

5.2 FOUNDATIONS

It is our understanding that the foundations for these structures can be designed to bear on low bearing pressure soils. This report demonstrates the different expected bearing capacities based upon the type of material encountered from the boring logs and sampling taken at the site.

An estimate of approximately 135 feet of fill is present at this proposed location. It consists of mixture of shale, sandstones and clay material. Standard penetration tests were conducted on five foot intervals in this material to depth of 25 feet. If shallow footings are used the expected depth of excavations will not exceed 20 ft. in depth.

The approximate elevation of the surface of the site is 1290 ft. The standard penetration tests were conducted on five foot intervals within the fill material. The blow counts (N) ranged from 7 to 50/0" to the depth of 25.5 feet.

5.3 SHALLOW FOUNDATIONS

Typically we do not recommend shallow foundations on sites consisting of spoil. Settlement can and is likely to occur once the final structure's loading is in place. No settlement calculations have been evaluated for this report. If shallow foundations are used it should be noted that the material type and bearing capacity can vary significantly due to the inconsistency of the underlying material. Based upon the laboratory and field testing, visual inspection of the materials and practical experience we have estimated that the bearing capacity of the soils to be at 1500 psf once the following remediation is completed.



If shallow foundations are used we recommend that site be over excavated to a minimum of ten ft. below the footing subgrade and ten ft. plus the footing depth outside the footing area. Any large rock and unsuitable material be removed and backfilled with a select backfill or dense grade aggregate. The material is to be placed in 8 inch horizontal lifts, compacted to not less than 95% of the maximum density as determined in accordance with the standard Proctor dry unit weight (ASTM D-968) and within +2% and -2% of the optimum moisture content. This remediation should assist in preventing differential settlement.

5.4 DEEP FOUNDATIONS

Due to the depth of mine spoil it will not be practical to use deep foundations at this site.

5.6 BURIED UTILITIES

Excavations for buried utility pipelines should follow the guidelines set forth in this report. Depending on the pipeline material, a minimum thickness of at least 0.5 foot of select fine-grained granular bedding material should be used beneath all below-grade pipes, with a minimum cover thickness of at least 3 feet to afford an "arching" effect and reduce stresses on the pipe. The cover thickness may be reduced if the external loading condition on the pipe is relatively light or if the pipe is designed to withstand the external loading condition. It is not recommended that "pea-gravel" or other "open-work" aggregates be used for trench backfill since these materials are nearly impossible to compact and have a tendency to pond water within their interstices.

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.

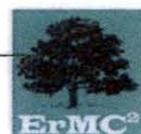
The boring log includes sampling information, description of the materials recovered, approximate depth of boundaries between soil and rock strata and groundwater data. The boring log represents conditions specifically at the location and time the boring was made. The boundaries between different soil 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 boring logs (Groundwater levels change with time and season). The borehole does not always remain open sufficiently long 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



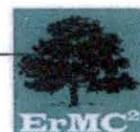
be sufficient for these purposes, it is not intended to determine the cost of construction or to stand alone as a construction specification.

Our engineering report recommendations are based primarily on data from test borings made at the locations shown on a boring location drawing included. Soil variations may exist between borings and these variations 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 Hippo Site located in Floyd 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 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.

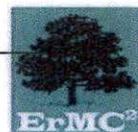
This work is to be accomplished under the constant and continuous supervision of the Owner or his designated representative.

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 respect 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.

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

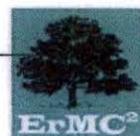
The Contractor shall furnish, operate, and maintain such equipment as is necessary to construct uniform layers, and control smoothness of grade for maximum compaction and drainage.

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 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.

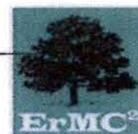
2. Access and egress ramps must be designed by a "competent person" and structural ramps used for equipment must be designed by a "competent person" with qualified knowledge in structural design. In addition:

- 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.

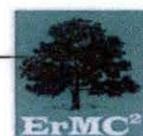
3. Workers must be provided with reflector garments, such as warning orange or red vests, when exposed to vehicular traffic.



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.



IV - 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 authorize 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 respective quality specified herein, delivered, stored, and handles 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 effect 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 BORING DATA AND TESTING



APPENDIX B MAPS



USGS Design Maps Summary Report

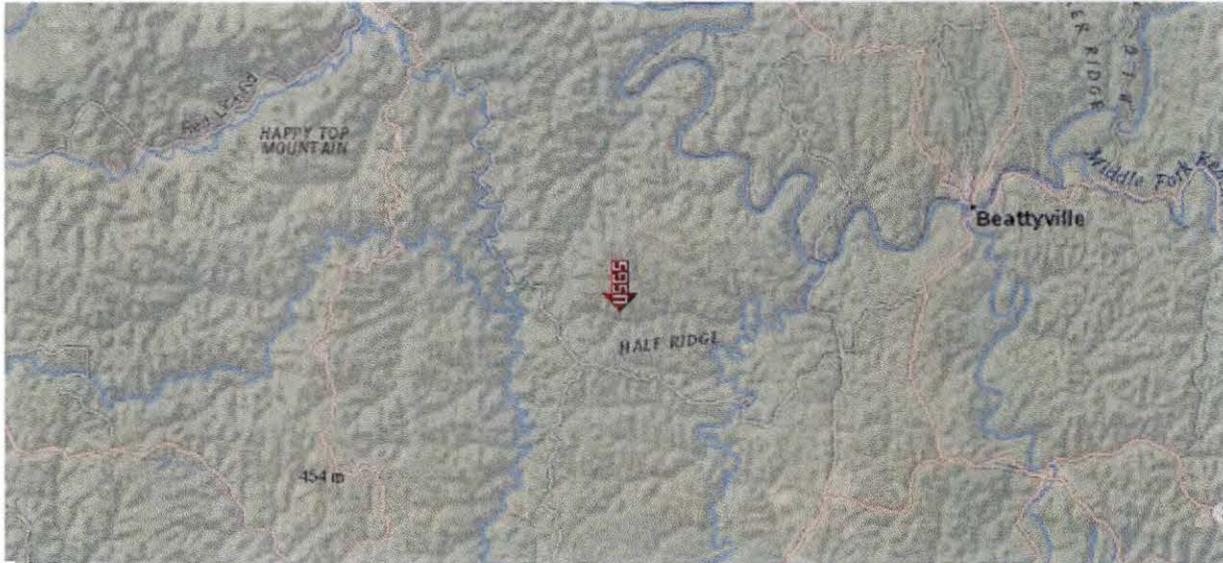
User-Specified Input

Report Title Hippo Site
Sun January 17, 2016 21:32:05 UTC

Building Code Reference Document 2009 AASHTO Guide Specifications for LRFD Seismic Bridge Design
(which utilizes USGS hazard data available in 2002)

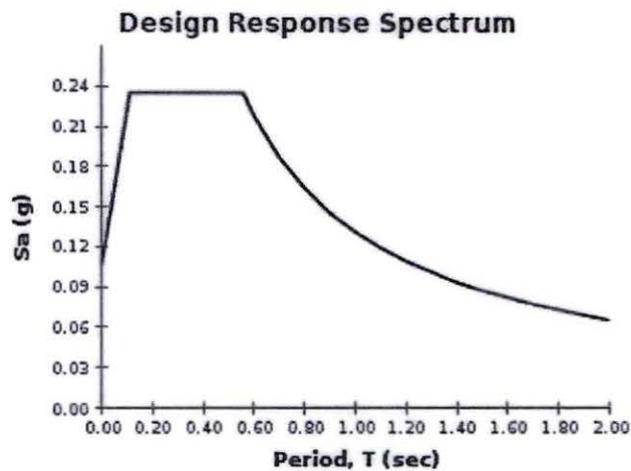
Site Coordinates 37.54441°N, 83.8658°W

Site Soil Classification Site Class D - "Stiff Soil"



JSGS-Provided Output

PGA = 0.066 g	$A_s = 0.106$ g
$S_s = 0.147$ g	$S_{DS} = 0.235$ g
$S_1 = 0.055$ g	$S_{D1} = 0.131$ g



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.

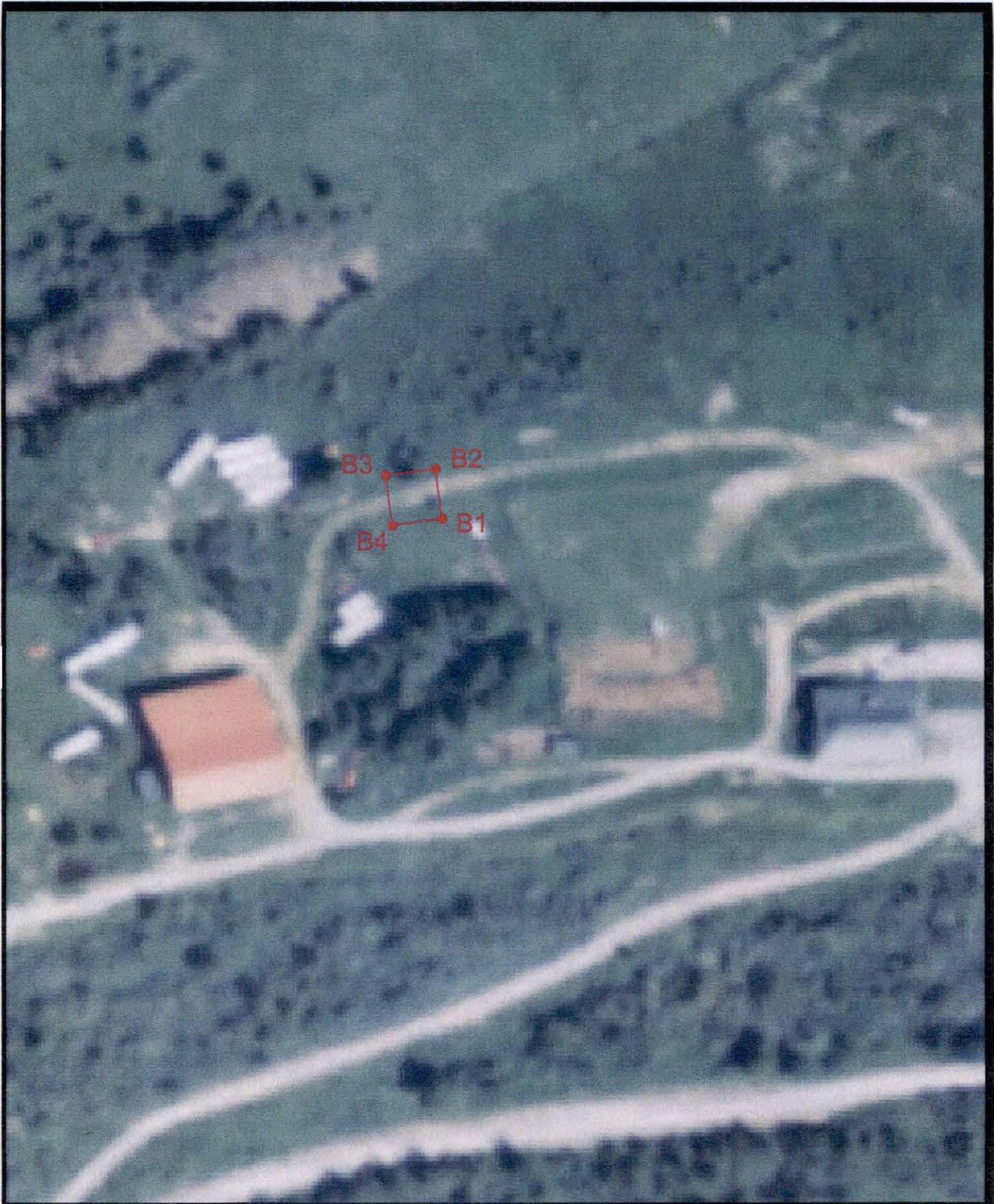


Drawn:	Date: 1/27/16
Job:	Scale: 1"=500'
Drawing: AERIAL IMAGE LOCATION MAP	

HIPPO TOWER SITE
APPALACHIAN WIRELESS
2014 AERIAL IMAGE LOCATION MAP



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



Drawn:	Date: 1/27/16
Job:	Scale: 1"=50'
Drawing: AERIAL IMAGE LOCATION MAP	

HIPPO TOWER SITE
APPALACHIAN WIRELESS
2014 AERIAL IMAGE LOCATION MAP
BORING LOCATION MAP



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
Web: www.worldtower.com

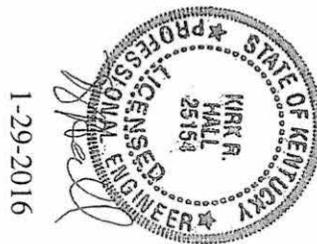
**350' MODEL WSST TOWER
FOR: APPALACHIAN WIRELESS
SITE: HIPPO, KY
DESIGN PACKAGE**



1-29-2016

GENERAL NOTES

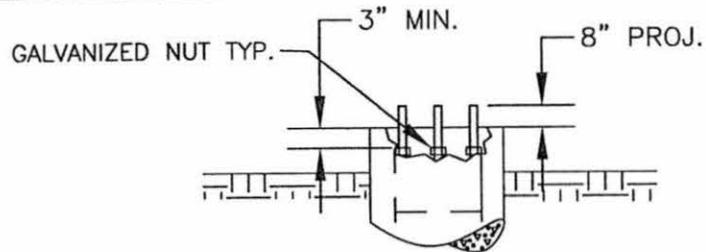
1. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISION OF THE AMERICAN WELDING SOCIETY AWS. D 1.1.
2. TOWER AND ALL FABRICATED ACCESSORIES ARE HOT-DIP GALVANIZED.
3. ALL BOLTS SHALL BE GALVANIZED ACCORDING TO THE STANDARD SPECIFICATION FOR ZINC COATING OF IRON AND STEEL HARDWARE ASTM A153.
4. LEG 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 A325.
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

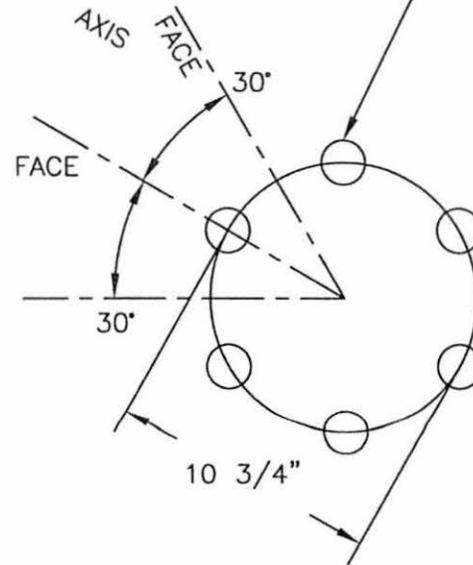
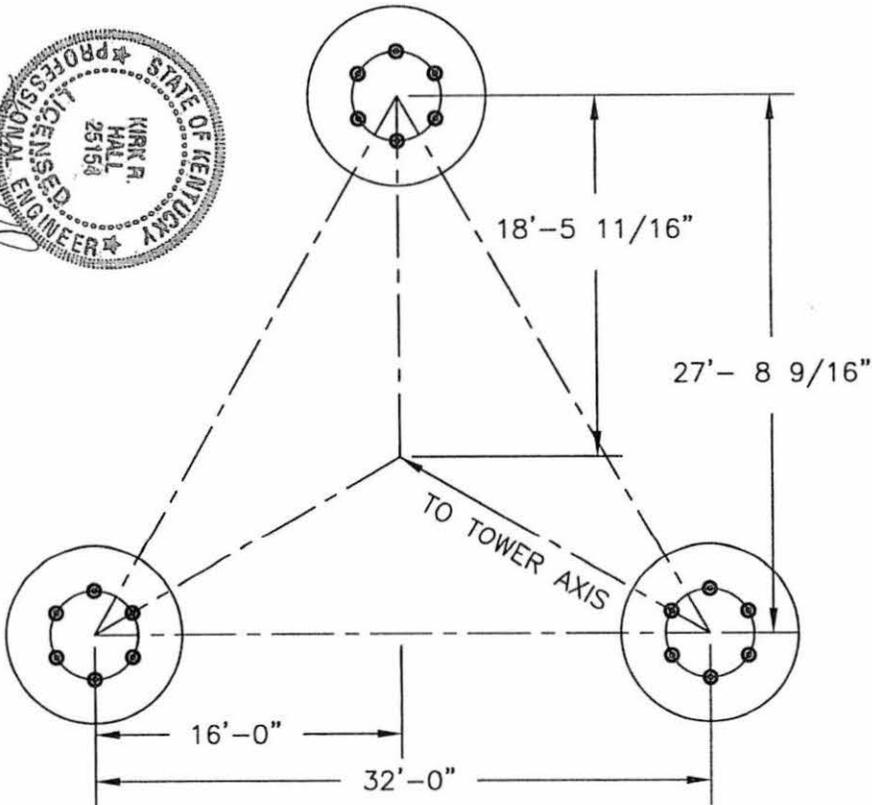
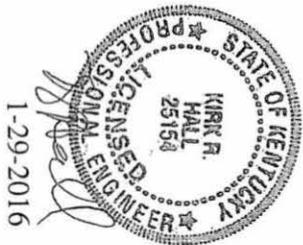
TITLE: 350' MODEL WSST TOWER
FOR: APPALACHIAN WIRELESS
SITE: HIPPO, KY

SCALE	DWN.	LKG	CKD.	DATE 1-29-16
FILE	DWG. NO.			Q15893N



PIER ELEVATION

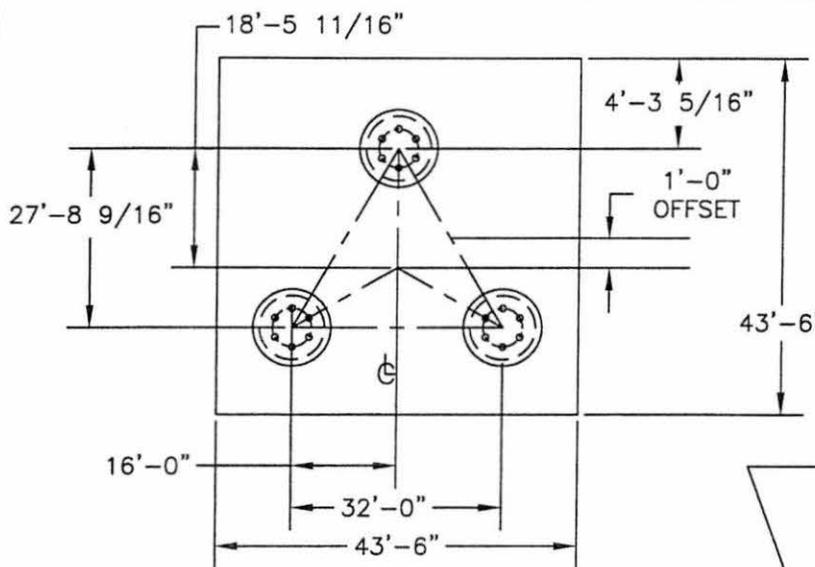
ANCHOR BOLTS
 (6) 1 1/2" X 84"
 ASTM A354 GR BC
 EQUALLY SPACED ON A
 10 3/4" DIA. BOLT CIRCLE WITH
 TOP TEMPLATE AND
 EMBEDDED PLATE



TITLE: ANCHOR BOLT LAYOUT
 350' MODEL WSST TOWER
 FOR: APPALACHIAN WIRELESS
 SITE: HIPPO, KY

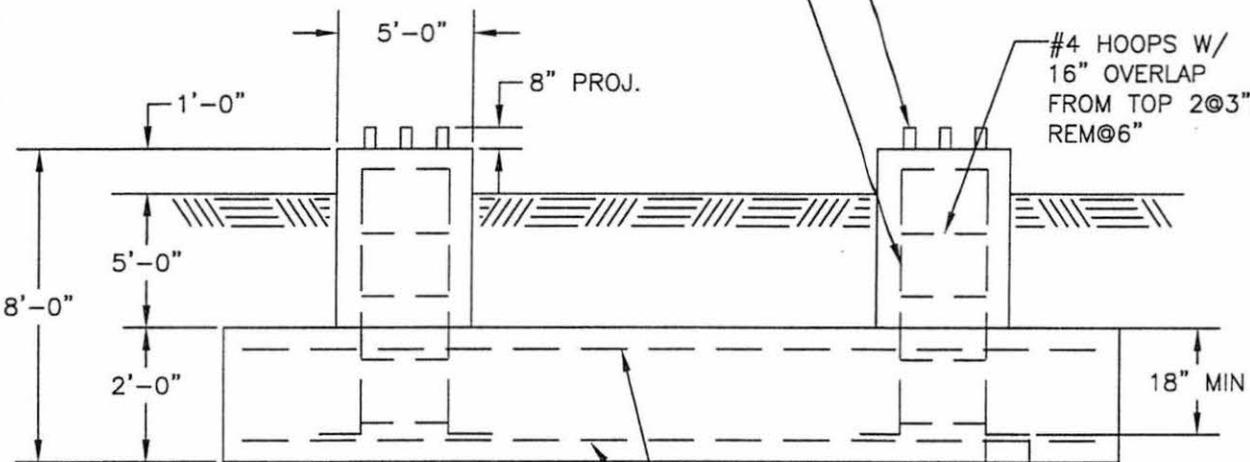
WORLD TOWER

SCALE	NONE	DWN.	LKG	CKD.	DATE	1-29-16
FILE	DWG. NO.		Q15893AB			



153.0 CU. YDS.
CONCRETE REQ'D.

BASE REACTIONS	
OTM:	18079.0 FT. KIPS
COMP.	694.0 KIPS
UPLIFT	579.0 KIPS
SHEAR (3 LEGS)	104.0 KIPS
WT. (NO ICE)	126.0 KIPS
WT. (3/4" ICE)	382.0 KIPS



48-#11 REBARS
EACH WAY TOP AND BOTTOM
(TOTAL = 192)



GENERAL NOTES

- 1-29-2016
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 UPON CUSTOMER SUPPLIED SOILS BY ERMC2. PROJECT NUMBER 165-000-0018 DATED JANUARY 18, 2016.

TITLE: FOUNDATION DETAIL
350' MODEL WSST TOWER
FOR: APPALACHIAN WIRELESS
SITE: HIPPO, KY

WORLD TOWER

SCALE	DWN. LKG	CKD.	DATE 1-29-16
FILE	DWG. NO. Q15893F		



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2015-ASO-19099-OE

Issued Date: 01/04/2016

Ali Kuzehkanani
 East Kentucky Network, LLC
 8300 Greensboro Drive, Suite 1200
 McLean, 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 Hippo
 Location: Hippo, KY
 Latitude: 37-32-38.50N NAD 83
 Longitude: 82-51-56.90W
 Heights: 1294 feet site elevation (SE)
 310 feet above ground level (AGL)
 1604 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 marked/lighted in accordance with FAA Advisory circular 70/7460-1 L, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

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 07/04/2017 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.

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.

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 2015-ASO-19099-OE.

Signature Control No: 271477072-276665492

(DNE)

Angelique Eersteling
Technician

Attachment(s)
Frequency Data

cc: FCC

Frequency Data for ASN 2015-ASO-19099-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
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

STEVEN BESHEAR
Governor

90 Airport Road, Bldg 400
Frankfort, KY 40601
www.transportation.ky.gov/aviation
502 564-4480

January 11, 2016

APPROVAL OF APPLICATION

APPLICANT:

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

SUBJECT: AS-036-PBX-2015-113

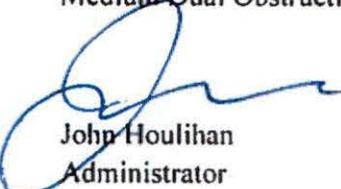
STRUCTURE: Antenna Tower
LOCATION: Hippo, KY
COORDINATES: 37° 32' 38.50" N / 82° 51' 56.90" W
HEIGHT: 310' AGL/1604' AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 310' AGL/ 1604' AMSL Antenna Tower near Hippo, KY 37° 32' 38.50" N / 82° 51' 56.90" 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.


John Houlihan
Administrator



An Equal Opportunity Employer M/F/D



KENTUCKY AIRPORT ZONING COMMISSION

STEVEN BESHEAR
Governor

90 Airport Road, Bldg 400
Frankfort, KY 40601
www.transportation.ky.gov/aviation
502 564-4480

CONSTRUCTION/ALTERATION STATUS REPORT

January 11, 2016

AERONAUTICAL STUDY NUMBER: AS-036-PBX-2015-113

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 January 11, 2016. 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, 90 Airport Road, Bldg 400, Frankfort, KY, 40601. 502 564-4480.

STRUCTURE: Antenna Tower
LOCATION: Hippo, KY
COORDINATES: 37° 32' 38.50" N / 82° 51' 56.90" W
HEIGHT: 310' AGL /1604'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 _____





KENTUCKY AIRPORT ZONING COMMISSION

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

APPLICANT (name) East Kentucky Network, LLC c/o LNGS		PHONE 703-584-8667	FAX 703-584-8692	KY AERONAUTICAL STUDY # <i>AI-036-PBK-2015-113</i>
ADDRESS (street) 8300 Greensboro Dr, #1200		CITY McLean		STATE VA ZIP 22102
APPLICANT'S REPRESENTATIVE (name) Ali Kuzehkanani		PHONE 703-584-8667	FAX 703-584-8692	
ADDRESS (street) 8300 Greensboro Dr, #1200		CITY McLean		STATE VA ZIP 22102
APPLICATION FOR <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing			WORK SCHEDULE	
DURATION <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days)			Start 12/15/15 End 12/20/15	
TYPE <input type="checkbox"/> Crane <input type="checkbox"/> Building <input checked="" type="checkbox"/> Antenna Tower <input type="checkbox"/> Power Line <input type="checkbox"/> Water Tank <input type="checkbox"/> Landfill <input type="checkbox"/> Other		MARKING/PAINTING/LIGHTING PREFERRED <input type="checkbox"/> Red Lights & Paint <input type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity <input checked="" type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white <input type="checkbox"/> Other		
LATITUDE 37°32'38.50"		LONGITUDE 82°51'56.90"		DATUM <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other
NEAREST KENTUCKY City Hippo County Floyd ✓		NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT Pike County - Hatcher Field Airport		
SITE ELEVATION (AMSL, feet) 1294		TOTAL STRUCTURE HEIGHT (AGL, feet) 310		CURRENT (FAA aeronautical study #)
OVERALL HEIGHT (site elevation plus total structure height, feet) 1604			PREVIOUS (FAA aeronautical study #)	
DISTANCE (from nearest Kentucky public use or Military airport to structure) 16.5 mi			PREVIOUS (KY aeronautical study #)	
DIRECTION (from nearest Kentucky public use or Military airport to structure) East				
DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.) Approx. 0.8 mi N of Hippo (Floyd), KY				
DESCRIPTION OF PROPOSAL A new 300' tower with top-mounted antennas (overall height of 310' AGL)				
FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?) <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, when? 11/06/15				
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.)				
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.)				
NAME Ali Kuzehkanani	TITLE Dir of Engineering	SIGNATURE <i>Ali Kuzehkanani</i>		DATE 11/06/15
COMMISSION ACTION		<input checked="" type="checkbox"/> Chairperson, KAZC <input checked="" type="checkbox"/> Administrator, KAZC		
<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved		SIGNATURE <i>[Signature]</i>		DATE <i>1-11-16</i>

Directions for Hippo

Beginning at the Floyd County Courthouse on the right corner of South Lake Drive and Court Street, turn right onto North Drive. Go .2 miles, then turn left on to HWY 114 West, go 3 miles, turn left onto Route 404, go 5.0 miles turn left onto Route 850, go 4.7 miles and turn left onto tower site access road (signs will be posted here).

Prepared By:

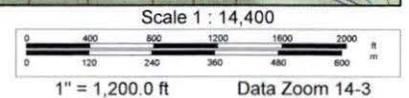
Jack Adkins
Appalachian Wireless
606-339-0531



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www.delorme.com



MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is made and entered into on this the 30th day of October, 2015, with a commencement date of November 1, 2015, by and between Amber Biliter Hall and James Riley Hall, III, wife and husband, with the mailing address of 4779 KY 850, Kentucky 41653, hereinafter referred to as "Lessors" and East Kentucky Network, LLC d/b/a Appalachian Wireless, 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 do hereby lease to Lessee, and Lessee does hereby lease from Lessors, a portion of that certain tract of real estate located in Floyd County, Kentucky, and being a portion of the same land conveyed to Amber Biliter by Deed of Conveyance referenced in Deed Book 558, Page 754, in the Floyd County Clerk's Office. Said property is more particularly described in the description and plat attached hereto and made a part hereof as Exhibits A and B, prepared by Steven E. Haywood of Summit Engineering, Licensed Professional Land Surveyor (hereinafter referred to as the "Premises");
2. **Term:** The term of the Lease shall be for a period of five (5) years from the commencement date of the Lease Agreement.
3. **Option to Renew:** Lessee shall have the option to renew the Lease for an additional six (6) terms of five (5) years each.
4. **Binding Effect:** All of the terms, conditions, and covenants hereof shall be binding and shall inure to the benefit of the heirs, representatives, successors, and assigns of the parties hereto.

5. **Purpose:** This Memorandum of Lease is prepared solely for the purpose of recordation, and is not intended, 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 thereunder.

In Witness Whereof, Lessors and Lessee have executed this Memorandum of Lease as of the day, month and year first written above.

LESSORS:

Amber Hall
Amber Biliter Hall

James Hall III
James Riley Hall, III

COMMONWEALTH OF KENTUCKY
COUNTY OF Floyd

The foregoing instrument was acknowledged before me on this 30th day of October, 2015, by Amber Biliter Hall and James Riley Hall, III, Lessors.

Lynn Haney
Notary Public

My Commission Expires 8-19-19



LESSEE:

EAST KENTUCKY NETWORK, LLC

By WA Gillum

Its CEO/GM

COMMONWEALTH OF KENTUCKY
COUNTY OF Floyd

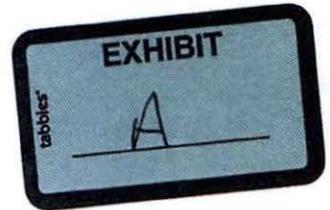
The foregoing instrument was acknowledged before me on this 29th day of October, 2015, by W.A. Gillum, CEO/General Manager of East Kentucky Network, LLC, d/b/a Appalachian Wireless.

Naomi J. Bradley
Notary Public

My Commission Expires Feb 3, 2016

This instrument was prepared by:

William S. Kendrick
William S. Kendrick, Attorney at Law
Penn, Stuart & Eskridge
119 E. Court Street, Ste. 201
Prestonsburg, KY 41653



Description
Hippo, KY Tower Site
Portion of the Amber Biliter property

A certain tract of land located on the ridge between Hick's branch of Bush Creek of the Right Beaver Creek and Pitts Fork of the Left Fork of Middle Creek, near the community of Hippo, Floyd County, Kentucky and more particularly described as follows.

Unless state otherwise any monument referred to herein as a Re-Bar is a set 1/2 inch re-bar 18" in length with a yellow cap stamped Summit, L.S. #2661. All bearings stated herein are referred to the Kentucky South State Plane Coordinate System NAD 1983.

Beginning at a set Re-Bar with coordinates of N: 2,093,939.18 E: 2,476,542.31; Thence, S 82°42'46" W a distance of 100.00' to a set Re-Bar; Thence, N 07°17'14" W a distance of 100.00' to a set Re-Bar and being S 23°03'54" E 79.87' from the boundary line between Amber Biliter (D.B. 558 P. 754) and Lawrence & Louise Howard (D.B. 131 P. 278 D.B. 141 P. 97 & D.B. 163 P. 581); Thence, N 82°42'46" E a distance of 100.00' to a set Re-Bar; Thence, S 07°17'14" E a distance of 100.00' to the point of beginning and containing 10,000.00 square feet or 0.23 acres more or less according to a survey conducted by persons under the direct supervision of Steven E. Haywood, PLS #2661 with Summit Engineering on July 20, 2015 and being a portion of the tract of land conveyed to Amber Biliter by John Paul Biliter and Scarlet Biliter, his wife, by deed dated April 24, 2009 which is recorded in Deed Book 558 Page 754 in the records of the Floyd County Court Clerk's office.


Steven E. Haywood, PLS



Date: 7/20/2015

Grid North
KY South NAD83

Flood Hazard Information:
The site shown hereon does not lie within a Flood Zone

FIRM Panel 65 of 115
Floyd County
Map # 210069 0065 B
Map Effective Date: September 8, 1984

Adjoining Property Owner
Lawrence & Louise Howard
PVA # 018-00-00-011.00
D.B. 131 P. 278
D.B. 141 P. 97
D.B. 163 P. 581

Survey Dates:
7/16/15
7/20/15

Surveyor Information:
Steven E. Haywood, PLS #2661
Summit Engineering, Inc.
131 Summit Drive
Pikeville, KY 41501

Client Information:
East Kentucky Network
d/b/a Appalachian Wireless
101 Technology Trail
Ivel, KY 41642

Owner Information:
Amber Dawn Biliter Hall
693 Ratliff Creek Road
Pikeville, KY 41501

STATE OF KENTUCKY
STEVE HAYWOOD
2661
LICENSED PROFESSIONAL LAND SURVEYOR

Surveyors Seal

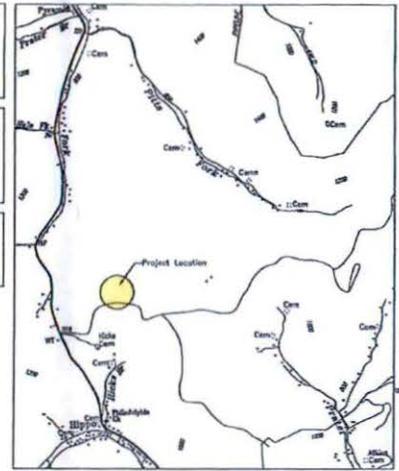
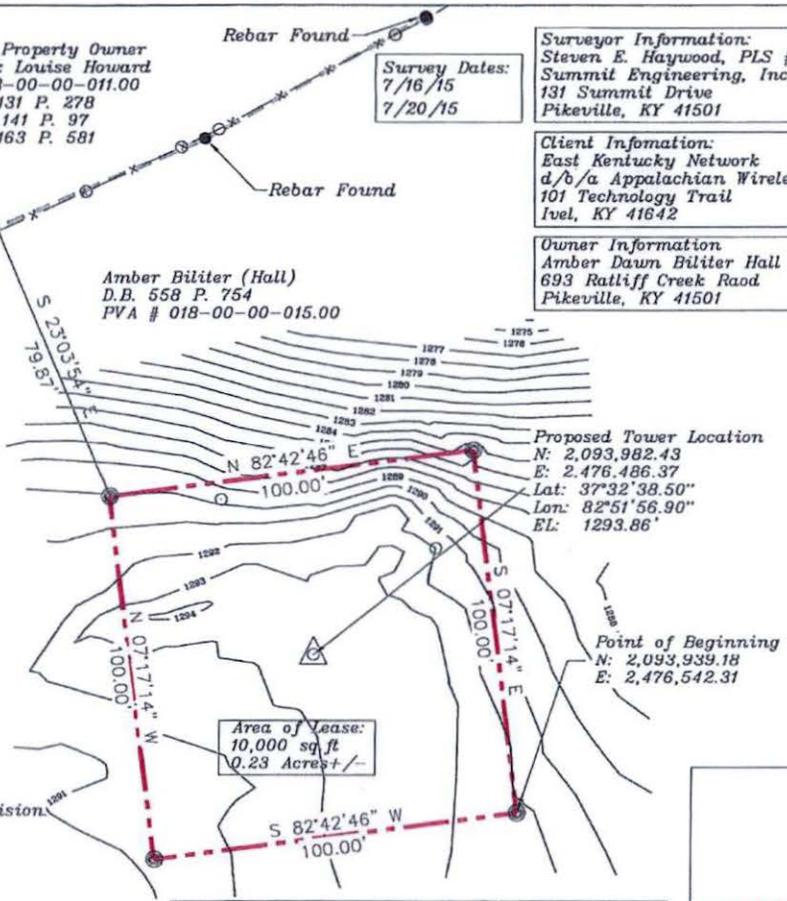
SURVEYOR'S STATEMENTS

1. The survey shown hereon was conducted under my direct supervision.
2. The method used was by random traverse with sideshots.
3. The mathematical error of closure was 1:54,604
4. The bearings and distances were not adjusted for closure.
5. The basis for the bearings: Grid North, KY South NAD 83
6. This is a Class "B" Rural survey.
7. This plat of survey represents a Boundary Survey and complies with 201 KAR 18:150

Steven E. Haywood #2661 7-21-15
Steven E. Haywood PLS No. 2661 Date: 7/21/15



EXHIBIT
B



Vicinity Map
Not to Scale
Martin, KY
7 12' Quadrangle Map

The tract of land shown hereon is located on the ridge between Hick's Branch of Bush Fork of Right Beaver Creek and Pitts Fork of the Left Fork of Middle Creek, Hippo, Floyd County, Kentucky.

The tract of land shown hereon is a portion of the tract of land conveyed to Amber Biliter by John Paul Biliter and Scarlet Biliter, his wife, by deed dated April 24th, 2009, which is recorded in Deed Book 558 Page 754 in the records of the Floyd County Court Clerk's office.

Legend

- ⊙ 1/2" re-bar set with a plastic cap stamped Summit Engineering, L.S. #2661 unless otherwise noted.
- Monument Found - Type Noted
- Boundary
- - - - - Adjoining Property Lines
- x - x - Fence Line
- △ Proposed Tower Location

DATE: 7-20-15	SCALE: 1" = 40'
DRAWN BY: MAC	
Z:\East Ky Network\Hippo\Plat.dwg	

East Kentucky Network
D/B/A Appalachian Wireless
101 Technology Trail, Ivel, KY 41642

Plat Map
Portion of the Amber Biliter Property Located on Hicks Branch of Bush Fork of Right Beaver Creek, Hippo, KY

SUMMIT ENGINEERING, INC.
131 Summit Drive
Pikeville, Ky. 41501
(806) 432-1447

Lexington, KY • Henderson, KY
Charleston, WV • Pikeville, KY

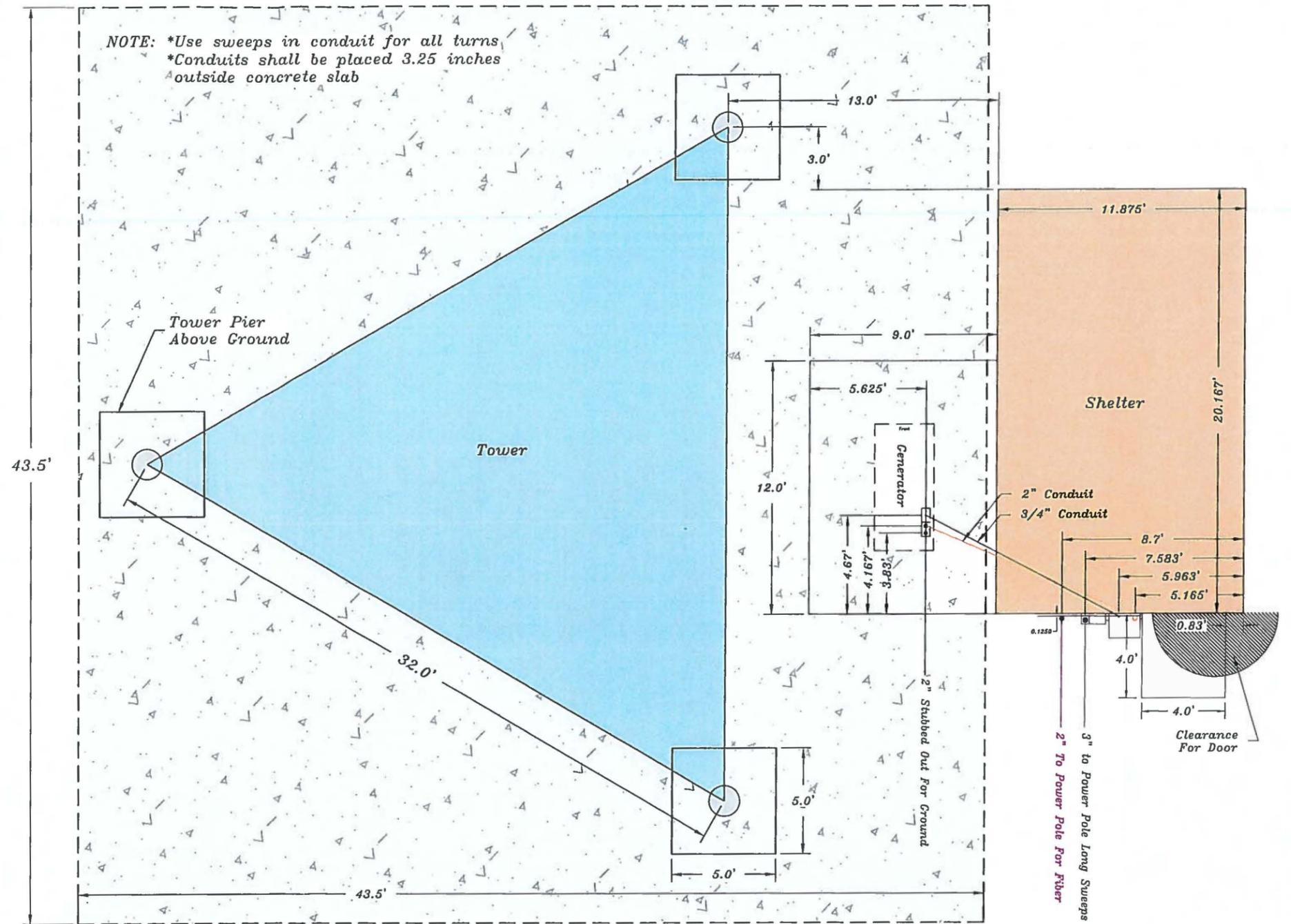
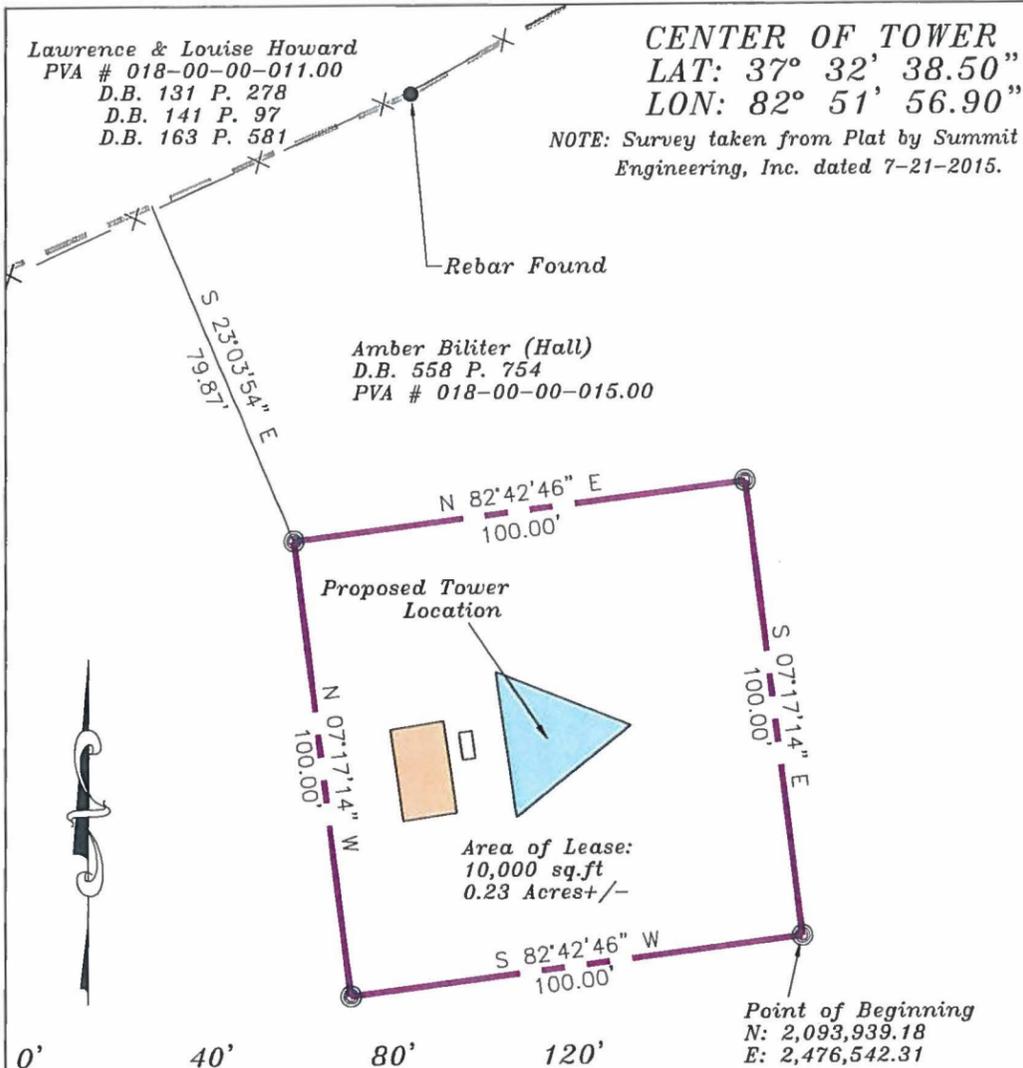
HIPPO TOWER

SITE SURVEY WITH PROPOSED TOWER & BUILDING LOCATION

Lawrence & Louise Howard
 PVA # 018-00-00-011.00
 D.B. 131 P. 278
 D.B. 141 P. 97
 D.B. 163 P. 581

CENTER OF TOWER
 LAT: 37° 32' 38.50"
 LON: 82° 51' 56.90"

NOTE: Survey taken from Plat by Summit Engineering, Inc. dated 7-21-2015.



Legend

- ⊙ 1/2" re-bar set with a plastic cap stamped Summit Engineering, L.S. #2661 unless otherwise noted.
- Boundary
- Adjoining Property Lines
- X — Fence
- ▲ Proposed Tower Location

— NAD 83 KY South Zone State Plane Coordinates
 N: 2,093,982.43
 E: 2,476,486.37

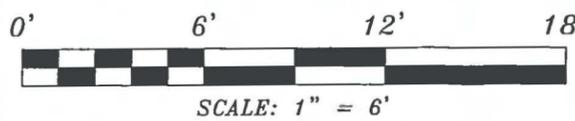
— EL: 1,294 (Existing Ground)

FAA Certification

In Accordance with FAA Order B260.19G, Appendix C, I hereby certify that the Obstacle Accuracy Codes for the proposed Tower Meets or exceeds accuracy 2C (+50 ft Horizontal and +20 ft Vertical).

Steve Haywood 2661 3-2-15
 Steven E. Haywood, PLS #2661 Date

STATE OF KENTUCKY
 LAND SURVEYOR
 STEVE HAYWOOD
 2661
 LICENSED PROFESSIONAL LAND SURVEYOR



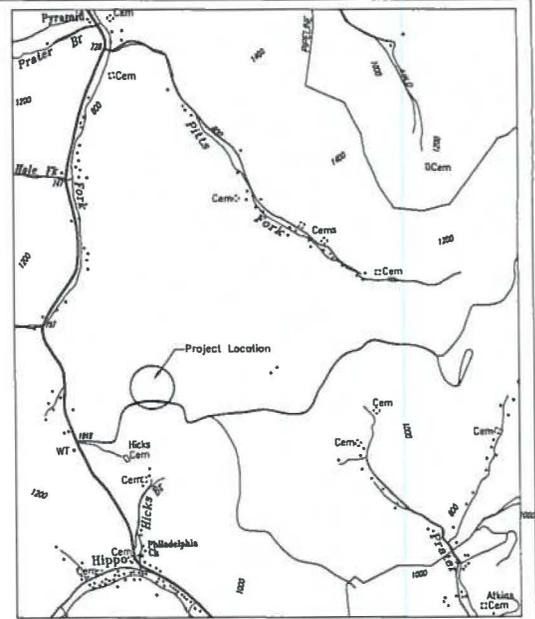
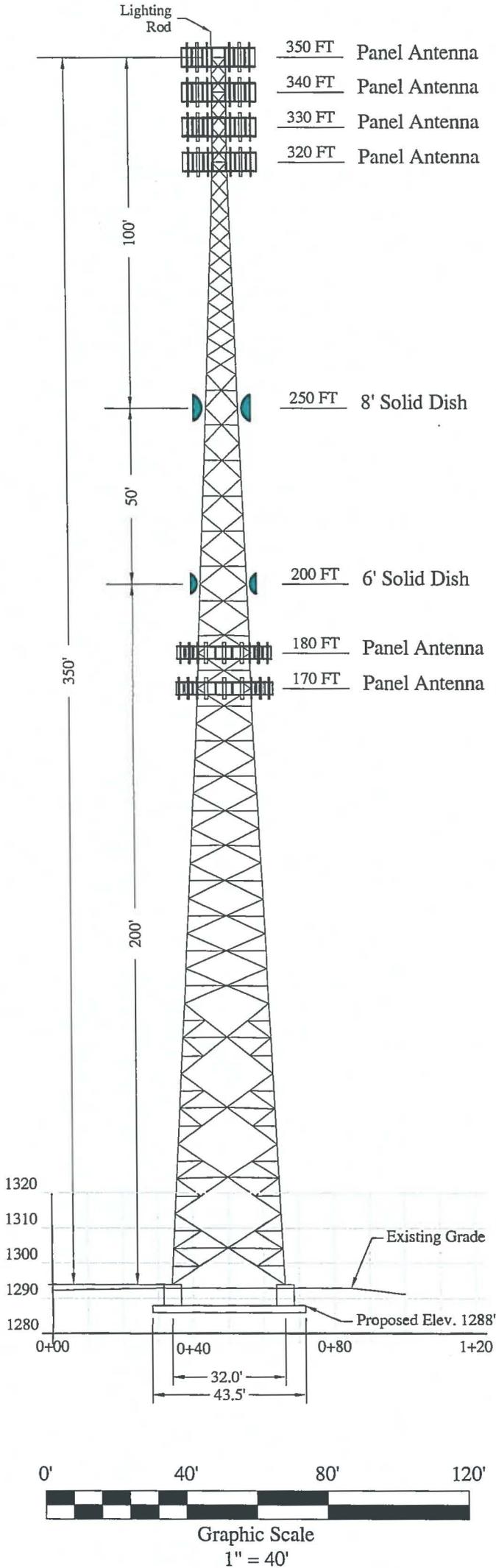
Bradley Slone 22,308 3-2-16
 Bradley Slone PE# 22308 DATE

EAST KENTUCKY NETWORK D/B/A APPALACHIAN WIRELESS 101 TECHNOLOGY TRAIL, IVEL, KY 41643				SUMMIT ENGINEERING, INC. 131 SUMMIT DRIVE PIKEVILLE, KY. 41501 (606) 432-1447	
Hippo Tower - Site Map Amber Biliter Located on Hicks Branch of Bush Fork of Right Beaver Creek, Hippo, KY				LEXINGTON, KY GRUNDTV, VA LOGAN, WV CHARLESTON, WV HAZARD, KY	
Scale: As Noted	Drawn By: MAC	Chk By: MAC	Apprvd. By:	PER. NO:	
Plot Date: 02 MARCH 2016 - 9:11 AM				ATT:	
Z:\East Ky Network\Hippo\Hippo Site Plan.dwg					

Application
CONTAINS
LARGE OR OVERSIZED
MAP(S)

RECEIVED ON:
3/16/16

HIPPO TOWER
 VERTICAL PROFILE SKETCH
 APPALACHIAN WIRELESS



Vicinity Map
 NTS

Note: This is a vertical sketch of the tower indicating the proposed antenna and dish elevations. No design criteria was considered in the preparations of this drawing.



BSL 22,308 3-2-16
 Bradley Slonge PE #22308 Date

DATE: 3-02-2016	SCALE: 1"=40'	East Kentucky Network D/B/A/ Appalachian Wireless 101 Technology Trail, Ivel, KY 41642	SUMMIT ENGINEERING, INC. 131 SUMMIT DRIVE PIKEVILLE, KY. 41501 (606) 432-1447
DRAWN BY: MAC			
		Vertical Profile Sketch Hippo Tower	