

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

In the matter of:

THE APPLICATION OF EAST KENTUCKY NETWORK, )  
LLC FOR THE ISSUANCE OF A CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY TO ) CASE NO. 2022-00397  
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). The FCC license is included as Exhibit 1. East Kentucky Network, LLC merger documents were filed with the Commission on February 2, 2001 in Case No. 2001-022. East Kentucky Network, LLC is a Kentucky Limited Liability Company that was organized on June 16, 1998. East Kentucky Network, LLC is in good standing with the 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 300-foot self-supporting tower on a tract of land located near Bobcat Way, Betsy Layne, Floyd County, Kentucky (37°33'53.2" N 82°37'53.0" W). A map and detailed directions to the site can be found in Exhibit 7.

Construction of the proposed tower is required by public convenience and necessity. Due to increasing demand for telecommunications service, the proposed tower is necessary to provide adequate coverage. The proposed tower will improve service in Floyd County by providing an interconnection between East Kentucky Network, LLC's other sites thereby forming a cohesive network.

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 who 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. The Floyd County Judge Executive's office was also 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 Floyd County Chronicle and Times, November 23, 2022 edition. Enclosed is a copy of that notice in Exhibit 3. The Floyd County Chronicle and 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 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. Their qualifications are described in Exhibit 13.

FAA and Kentucky Airport Zoning Commission determinations and extensions 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.

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 November 17, 2022, 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 vacant lot that was previously used as a television headend facility.

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

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

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

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

Enclosed as Exhibit 12 is a list of utilities, corporations, or persons with whom the tower is likely to compete.

**[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]**



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 Krystal Branham, Regulatory Compliance 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: Raina Helton DATE: 11-28-22  
Raina Helton, Regulatory Compliance Director

APPROVED BY: W.A. Gillum DATE: 11-18-2022  
W.A. Gillum, General Manager

ATTORNEY: Krystal Branham DATE: 11/28/22  
Hon. Krystal Branham, Attorney

**CONTACT INFORMATION:**

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

**Raina Helton, Regulatory Compliance Director**  
Phone: (606) 477-2355, Ext. 1005  
Email: [rhelton@ekn.com](mailto:rhelton@ekn.com)

**Krystal Branham, Attorney**  
Phone: (606) 477-2355, Ext. 1009  
Email: [kbranham@ekn.com](mailto:kbranham@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 Determinations
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	List of Competitors
13	<i>Qualifications</i>
14	
15	

# Exhibit 1

Uls License

## 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	10/26/2021	Expiration	10/01/2031
Effective	10/26/2021	Cancellation	

**Five Year Buildout Date**

10/23/1996

**Control Points**

**1** U.S. 23, HAROLD, KY

**Licensee**

FRN	0001786607	Type	Limited Liability Company
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**Licensee**

East Kentucky Network, LLC d/b/a Appalachian Wireless 101 Technology Trail Ivel, KY 41642 ATTN Regulatory Compliance Department	P:(606)477-2355 E:compliance@ekn.com
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**Contact**

East Kentucky Network, LLC Cindy D McCarty Esq P.O. Box 41642-9057 101 Technology Trl Ivel, KY 41642 ATTN Regulatory Compliance Dept.	P:(606)477-2355 E:cmccarty@ekn.com
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**Ownership and Qualifications**

Radio Service Type	Mobile
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.

**Demographics**

Race

Ethnicity

Gender

# Exhibit 2

## **EXHIBIT 2 – 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

Paul Douglas & Linda Gearheart  
P.O. Box 401  
Harold, KY 41635

Lisa Lynn & Franklin Howell  
P.O. Box 323  
Betsy Lane, KY 41605

Neely Jane Lewis  
c/o Edgar Blackburn  
P.O. Box 204  
Stanville, KY 41659

Gregory K. & Sandra K. Tackett  
640 Mare Creek  
Stanville, KY 41659



William Ray Hedrick III  
601 Old Mare Creek Road  
Stanville, KY 41659

Floyd County Board of Education  
Prestonsburg, KY 41653



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

November 23, 2022

Paul Douglas & Linda Gearheart  
P.O. Box 401  
Harold, KY 41635

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2022-00397)

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 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land near 794 Wireless Way, Betsy Layne, KY. 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. 2022-00397 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. 1005.

Sincerely,

A handwritten signature in blue ink that reads "Raina Helton".

Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

November 23, 2022

Lisa Lynn & Franklin Howell  
P.O. Box 323  
Betsy Lane, KY 41605

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2022-00397)

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Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

November 23, 2022

Neely Jane Lewis  
c/o Edgar Blackburn  
P.O. Box 204  
Stanville, KY 41659

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Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1



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PUBLIC NOTICE

November 23, 2022

Gregory K. & Sandra K. Tackett  
640 Mare Creek  
Stanville, KY 41659

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Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1





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Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1



VIA: U.S. CERTIFIED MAIL

PUBLIC NOTICE

November 23, 2022

Floyd County Board of Education  
Prestonsburg, KY 41653

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2022-00397)

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Sincerely,

Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure 1



# Stanville

Location:  
794 Wireless Way  
Betsy Layne, KY 41605

Coordinates:  
Lat: 37° 33' 53.2"  
Lon: 82° 37' 53.0"

 Proposed Stanville Tower





# Exhibit 3

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

EAST KENTUCKY  
NETWORK



**To:** The Floyd County Chronicle and Times      **From:** Libby Ratliff  
Attn: Classifieds      Regulatory Compliance Assistant

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**Email:** ecompton@floydct.com      **Date:** November 15, 2022

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**Re:** PUBLIC NOTICE ADVERTISEMENT      **Pages:** 1

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**Please place the following Public Notice Advertisement in The Floyd County Chronicle Times to be ran on November 30, 2022.**

**PUBLIC NOTICE:**

**RE: Public Service Commission of Kentucky (CASE NO. 2022-00397)**

Public Notice is hereby given that East Kentucky Network, LLC, dba Appalachian Wireless has applied to the Kentucky Public Service Commission to construct a cellular telecommunications tower on a tract of land located near Bobcat Way, Betsy Layne, Floyd County, Kentucky. The proposed tower will be a 300 foot self-supporting tower with attached antennas. If you would like to respond to this notice, please contact the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to Case No. 2022-00397.

If you have any questions about the placement of the above-mentioned notice, please call me at 606-477-2375, ext. 1010.

Thank you,

Libby Ratliff  
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.



**PHONE: (800) 539-4054**

**EMAIL: eburchett@floydct.com**

**MAIL: P.O. Box 802 • Pikeville, KY 41502**

**FAX: (606) 437-4246**

**Deadlines are:**  
**Wednesday - Monday @ Noon**  
**Friday - Monday @ Noon**

**Pre-Pay and Save!**

**All major credit cards accepted**



**TO OUR READERS**

**PUBLISHER'S NOTICE**

All real estate advertising in this newspaper is subject to the Fair Housing Act which makes it illegal to advertise "any preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin, or an intention to make any such preference, limitation or discrimination." Familial includes children under the age of 18 living with parents or legal custodians, pregnant women and people securing custody of children under 18. This newspaper will not knowingly accept any advertising for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis. To complain of discrimination, call HUD



toll-free at 1-800-669-9777. The toll-free number for the hearing impaired is 1-800-927-9275.

**POLICIES**

The *Floyd County Chronicle and Times* reserves the right to edit, properly classify, cancel or decline any ad. We will not knowingly accept advertising that discriminates on the basis of sex, age, religion, race, national origin or physical disability.

**PLEASE CHECK YOUR AD**

Please read your ad the first day it appears in the *Floyd County Chronicle and Times*. Report any errors immediately and we will gladly correct any errors published. Credit will be issued for one (1) day only. After the first day the ad can be corrected for the remaining number of runs, but credit will not be issued for days ad ran incorrectly.

**PERSONAL AD POLICY**

Ads will be printed at publisher's discretion. Publisher not responsible for results, parties responding to or placing ads.

**FOR SALE**

**FOR SALE**  
2 Burial Plots at Davidson Memorial Gardens. Located on a flat area. \$2,400. Call 606-791-8008.

**NEED EXTRA CASH?** Run a Classified Ad. They Work! Call (800)539-4054 Today!

**OTHER ANNOUNCEMENTS**

**NEVER PAY FOR** Covered Home Repairs Again! Complete Care Home Warranty COVERS ALL MAJOR SYSTEMS AND APPLIANCES. 30 DAY RISK FREE. \$200.00 OFF 2 FREE Months! 1-833-565-4193.

**VIASAT SATELLITE INTERNET.** Up to 12 Mbps Plans Starting at \$30/month. Our Fastest Speeds (up to 50 Mbps) & Unlimited Data Plans Start at \$100/month. Call Viasat today! 1-844-977-1317

**GENERAC STANDBY GENERATORS** provide backup power during utility power outages, so your home and family stay safe and comfortable. Prepare now. Free 7-year extended warranty (\$695 value!). Request a free quote today! Call for additional terms and conditions. 1-866-503-0696

**UP TO \$15,000.00** of GUARANTEED Life Insurance! No medical exam or health questions. Cash to help pay funeral and other final expenses. Call Physicians Life Insurance Company-877-529-6601 or visit www.Life55plus.info/apnews

**APPLICATIONS BEING ACCEPTED for 1-Bedroom Apartments for Persons 62 and older**

Located on Mays Branch in Prestonsburg. All utilities included, rent is based on gross monthly income. Several activities such as line dancing, crafts, church services, hair salon. Furnished with stove, refrigerator, emergency alarm system and air conditioner. For more information, please call Highland Terrace at 606-886-1925, TDD: 1-800-648-6056 or 711 or come by the office for an application.

Highland Terrace does not discriminate in admission or employment in subsidized housing on account of race, color, religion, gender, national origin, disability or familial status.

**OTHER ANNOUNCEMENTS**

**AT&T TV** - The Best of Live & On-Demand On All Your Favorite Screens. CHOICE Package, \$64.99/mo plus taxes for 12 months. Premium Channels at No Charge for One Year! Anytime, anywhere. Some restrictions apply. W/ 24-mo. agmt TV price higher in 2nd year. Regional Sports Fee up to \$8.49/mo. is extra & applies. Call IVS 1-606-552-1671

**THE GENERAC PWRCELL**, a solar plus battery storage system. SAVE money, reduce your reliance on the grid, prepare for power outages and power your home. Full installation services available. \$0 Down Financing Option. Request a FREE, no obligation, quote today. Call 1-877-319-0835

**PORTABLE OXYGEN CONCENTRATOR** May Be Covered by Medicare! Reclaim independence and mobility with the compact design and long-lasting battery of Inogen One. Free information kit! Call 844-875-7725

**DENTAL INSURANCE FROM** Physicians Mutual Insurance Company. Coverage for 350 plus procedures. Real dental insurance - NOT just a discount plan. Do not wait! Call now! Get your FREE Dental Information Kit with all the details! 1-844-753-3244 www.dental50plus.com/appalachian #6258

**APPLICATIONS BEING ACCEPTED for 1,2,3 & 4 Bedroom Apartments**

Located in Prestonsburg is Highland Heights Apartments in Goble Roberts addition and Cliffside Apartments on Cliff Road. Rent is based on gross monthly income. All utilities included at Highland Heights and a utility Allowance at Cliffside. Learning centers at both sites with computers available. For more information, call Highland Heights at 606-886-0608 and Cliffside at 606-886-1819, TDD: 1-800-648-6056 or 711 or come by the offices for an application.

Highland Heights and Cliffside Apartments do not discriminate in admission or employment in subsidized housing on account of race, color, religion, gender, national origin, disability or familial status.

**APARTMENTS- UNFURNISHED**

**MULTIPLE UNITS AVAILABLE!**  
3 BR/2 BA House for rent; 3 BR/2 BA Unit for rent; 2-1 BR apartments. Great Location. Call 606-794-7025 for more information.

**LEGALS**

**PUBLIC NOTICE:**

**RE:** Public Service Commission of Kentucky (CASE NO. 2022-00397) 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 telecommuni-

**LEGALS**

cations tower on a tract of land located near Bobcat Way, Betsy Layne, Floyd County, Kentucky. The proposed tower will be a 300 foot self-supporting tower with attached antennas. If you would like to respond to this notice, please contact the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to Case No. 2022-00397.

**NOTICE OF INTENTION TO MINE NON-COAL MINERALS Pursuant to Application Number**

**LEGALS**

**036-9403 Original**  
In accordance with 405 KAR 350:055, notice is hereby given that A. Allen Farms LLC, 170 Rebel Road, Eastern Kentucky 41622 intends to apply for an original 30.4 acres of surface disturbance located 0.7 mile west of Eastern in Floyd County, Kentucky. The proposed operation is located 0.2 mile north of the junction with KY 80 and Spriggs Street and located 0.1 mile west of Right Fork of Beaver Creek. The latitude is 37 degrees 30 minutes 29 seconds. The Longitude is 82 degrees 48 minutes

**LEGALS**

57 seconds. The operation is located on the Martin U.S.G.S. 7 1/2 minute quadrangle map. The operation will use the area and contour method of mining. The proposed permit area is owned by Baron Allen. The application will be on file for public inspection at the Department for Natural Resources, 300 Sower Boulevard, Frankfort, Kentucky 40601. Written comments, objections or request for a permit conference must be filed with the Director, Division of Mine Reclamation and Enforcement, 300 Sower Boulevard, Frankfort,

**LEGALS**

Kentucky 40601 within 15 days of the date of this advertisement and briefly summarize the issues to be raised at the conference. All comments or objections must be received within fifteen (15) days of today's date.

**2002-04 SUMMARY OF ORDINANCE AND NOTICE OF ADOPTION**  
At a meeting held on November 14, 2022, the City of Allen, Kentucky gave a second reading to and enacted an Ordinance entitled: AN ORDINANCE OF THE CITY COMMISSION OF THE CITY OF ALLEN, KENTUCKY, PRO-

**LEGALS**

VIDING FOR THE ADVERTISEMENT AND SALE OF A FRANCHISE AUTHORIZING THE OWNER THEREOF TO OWN, MAINTAIN, CONSTRUCT AND OPERATE ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LINES UPON, ALONG, OVER AND UNDER THE STREETS, THOROUGHFARES, ALLEYS, SIDEWALKS, BRIDGES, PUBLIC WAYS AND OTHER PUBLIC PLACES OF THE SAID CITY. The Ordinance authorizes the request of bids for the transmission and distribution

**NOTICE (Of Final Settlement)**

**COMMONWEALTH OF KENTUCKY COUNTY OF FLOYD**  
I, Douglas Ray Hall, Clerk of the Floyd District Court, do hereby certify that the following Settlements of Estates have been filed in my office. Anyone desiring to take exceptions to said Settlements must do so on or before December 30, 2022

SETTLEMENT	CASE NUMBER	ESTATE OF:	FIDUCIARY	DATE FILED
FINAL	20-P-307	ROSE HUMBLE	RANDY HUMBLE	10/5/20
FINAL	20-P-387	MAXINE GOBLE	DONNIE GOBLE	12/11/20
FINAL	20-P-414	EUGENE SHELTON	JOYCE SHELTON	12/18/20
FINAL	21-P-25	LUCAS HAMILTON	MICHELLE NEWSOME	1/15/21
FINAL	21-P-98	PHYLLIS PORTER	JAMES PORTER	3/8/21
FINAL	21-P-218	JONATHAN ALLEN	MAGGIE ALLEN	5/5/21
FINAL	21-P-375	DONNA LONG	MARILYN SCARBROUGH	8/13/22
FINAL	21-P-393	ANNETTE VANNJCCI	RENEE GIRDLER	8/27/21
FINAL	21-P-504	BECKY BROWN	TERRY BROWN	10/25/21
FINAL	21-P-562	DANA SMITH	DEANNA NANNY	12/6/21
	22-P-45	ELVA SMITH	MICHAEL SMITH	2/11/22
FINAL	22-P-144	AARON BRANHAM	JEANETTE BRANHAM	3/21/22
FINAL	22-P-148	CHRISTINE STUMBO	JEFF STUMBO	4/27/22

**LEGAL NOTICE, NOTICE OF APPOINTMENT**

**COMMONWEALTH OF KENTUCKY COUNTY OF FLOYD**  
I, Douglas Ray Hall, Clerk of Floyd District Court, Do hereby certify that the following persons have been appointed fiduciaries by the District Court. All person indebted to an Estate should settle with the Fiduciary within six (6) months from the date of appointment.

DATE OF APPOINTMENT	CASE NUMBER	ESTATE OF:	FIDUCIARY	ATTORNEY
9/23/22	22-P-419	AUDREY SKEEN	PATRICIA PREECE	
9/23/22	22-P-421	RICHARD CARL PREECE, JR	PATRICIA PREECE	
10/4/22	22-P-466	BELLAH COLLINS	REBECCA CASTLE	CHARLES JASON COLLINS
10/21/22	22-P-468	JAMES MEDLOCK	QUINLYN JARVIS	ADAM P. COLLINS
10/21/22	22-P-479	DARRELL PARKS	LILLIEANN PARKS	
10/24/22	22-P-480	ELMER BENTLEY	JANICE BENTLEY	
10/24/22	22-P-481	TREVERT BLACKBURN	BONNIE SCALF	
10/24/22	22-P-482	LILLY MULLINS	LARRY MULLINS	
10/26/22	22-P-484	BOBBY HAMILTON	MAZIE HAMILTON	
10/28/22	22-P-486	JACOB R. CHAFFINS	SAVANNAH CHAFFINS	JENNIFER BURKE ELLIOTT
10/31/22	22-P-492	TODD THORNSBURY	RACHEL THORNSBURY & RYAN THORNSBURY	
11/2/22	22-P-495	ROBERT LEE DUNCAN	WANDA DUNCAN	
11/2/22	22-P-497	HOLLIE BLANTON	WARREN KEITH BLANTON	
11/7/22	22-P-498	CLARA HAMILTON	WILLIAM NEWSOME	
11/2/22	22-P-499	GERRY LEE LITTLE	SAMANTHA OSBORNE	
11/7/22	22-P-501	JOAN SLONE	MALCOM SLONE	
11/21/22	22-P-502	CODY NICHOLAS CHAFFINS	VERNIE GIBSON	STEVEN BAILEY
11/9/22	22-P-503	PHYLLIS WILKS	ANDREA HUGHES	LISA STUMBO
11/9/22	22-P-504	DONNA RAMSEY	CHRISTAL JOHNSON	
11/10/22	22-P-506	PHYLLIS SPARKS	TERESA SAMMONS	
11/21/22	22-P-508	ROSE MARY CRUM	DEBRA BOYD	
11/14/22	22-P-509	DONNIE JOHNSON	STACY JOHNSON-COOK	
11/15/22	22-P-511	HAROLD BALDRIDGE	KATHY BALDRIDGE	
11/14/22	22-P-513	PAULA NEWBERRY	CLAUDE NEWBERRY	
11/18/22	22-P-519	LINDA LOCKHART	GLENDA DAWSON	
11/16/22	22-P-521	FRANK FAIRCHILD	APRYL FAIRCHILD	
11/21/22	22-P-522	DONALD NEELEY	TEENA SPEARS	
11/18/22	22-P-523	BRENNAN NEWSOME	JUSTIN NEWSOME	LISA STUMBO
11/21/22	22-P-524	AUDREY GUNNELL	WINSTON GUNNELL	JUDY ROSS
11/18/22	22-P-525	ROBIN JOHNSON	ASHTON MUSIC	



VIA: U.S. CERTIFIED MAIL

November 23, 2022

Robert Williams, Judge Executive  
149 S Central Ave.  
Prestonsburg, KY 41653

RE: Public Notice-Public Service Commission of Kentucky (Case No. 2022-00397)

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 300-foot self-supporting tower with attached antennas extending upwards, and an equipment shelter located on a tract of land near Bobcat Way, Betsy Layne, 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. 2022-00397 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. 1005.

Sincerely,



Raina Helton, CKP  
Regulatory Compliance Director  
Enclosure



# Stanville

Location:  
794 Wireless Way  
Betsy Layne, KY 41605

Coordinates:  
Lat: 37° 33' 53.2"  
Lon: 82° 37' 53.0"

 Proposed Stanville Tower





# Exhibit 4

GEOTECHNICAL ASSESSMENT FOR  
BETSY LAYNE HIGHSCHOOL CELLULAR TOWER SITE  
for  
East Kentucky Network, LLC  
dba Appalachian Wireless  
Located off US 23 between Mare Creek and Pike-Floyd Hollow  
Stanville, KY

*prepared by*

Tim Malone, PE, PLS

Synergy Engineering Services, PLLC  
611 Hambley Blvd, Suite #3  
Pikeville, KY 41501

**SYNERGY ENGINEERING SERVICES, PLLC**  
**611 Hambley Boulevard, Suite #3**  
**Pikeville, KY 41501**  
**(606) 433-0336**

October 12, 2022

Mr. Stanton Neece  
East Kentucky Network, LLC  
d/b/a Appalachian Wireless  
101 Technology Trail  
Ivel, KY 41642

Re: Geotechnical Assessment and Report  
Betsy Layne High School Tower Site  
In Stanville, Floyd County, Kentucky

Dear Stanton,

Attached please find our report of the Geotechnical Assessment for the new tower site located on at on a high knob above Betsy Layne High School in Stanville in Floyd County. This report includes a description of the scope of the proposed tower, a discussion of our findings of the foundation investigation and a listing of our concerns and recommendations for construction of the tower site. Note that weak strata were encountered at the proposed tower foundation elevation and are discussed in detail in the report.

If you should have any questions or need additional information in this matter, please do not hesitate to contact me.

Respectfully,

Tim Malone, PE, PLS  
Synergy Engineering Services, PLLC





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## **APPENDICES**

Appendix A	Trenching Site Photographs
Appendix B	Core Logs
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## **1.0 Executive Summary**

Synergy Engineering Services, PLLC (Synergy), has been retained by East Kentucky Network, LLC (EKN) to perform a geotechnical exploration and technical report in support of the proposed Betsy Layne High School Tower located in Stanville, KY. The proposed tower site is located on a high knob between the mouths of Mare Creek and Pike-Floyd Hollow and directly above Betsy Layne High School. The site coordinates are Latitude: 37°33'53.2" and Longitude: 82°37'53.0". The site is located on the Betsy Layne USGS 7.5' Quadrangle map.

### **1.1 Summary of Findings**

Synergy conducted research relating to the tower site consisting of published corehole information from the Kentucky Geological Survey, a search of past underground coal mining records and subsurface investigations consisting of soil trenching operations with identification of the bedrock stratigraphy. Due to the fact that the soils along the mountain ridges are generally very shallow and that the tower site will be excavated to bedrock in order to create a level site large enough to accommodate the facility, no soil testing was conducted.

### **1.2 Recommendations**

Synergy proposes the following general recommendations for design and construction of the proposed tower site. However, this report should be read in its entirety and the recommendations contained therein fully implemented.

- EKN has indicated that the tower will be 300 feet tall and will be constructed upon a shallow reinforced concrete mat foundation situated on bedrock. Foundations bearing on competent bedrock may be designed for a maximum net allowable bearing pressure of 1000 K/sqft. This bearing strength far exceeds the strength of the concrete foundation.
- All soils and subsoils will be excavated to bedrock beneath the mat foundation and used as non-structural fill or will be disposed of offsite.
- A seismic site classification of "A" is recommended for foundation design. The structure Seismic Risk Classification is II.

## **2.0 Project Information**

### **2.1 Purpose and Scope of Services**

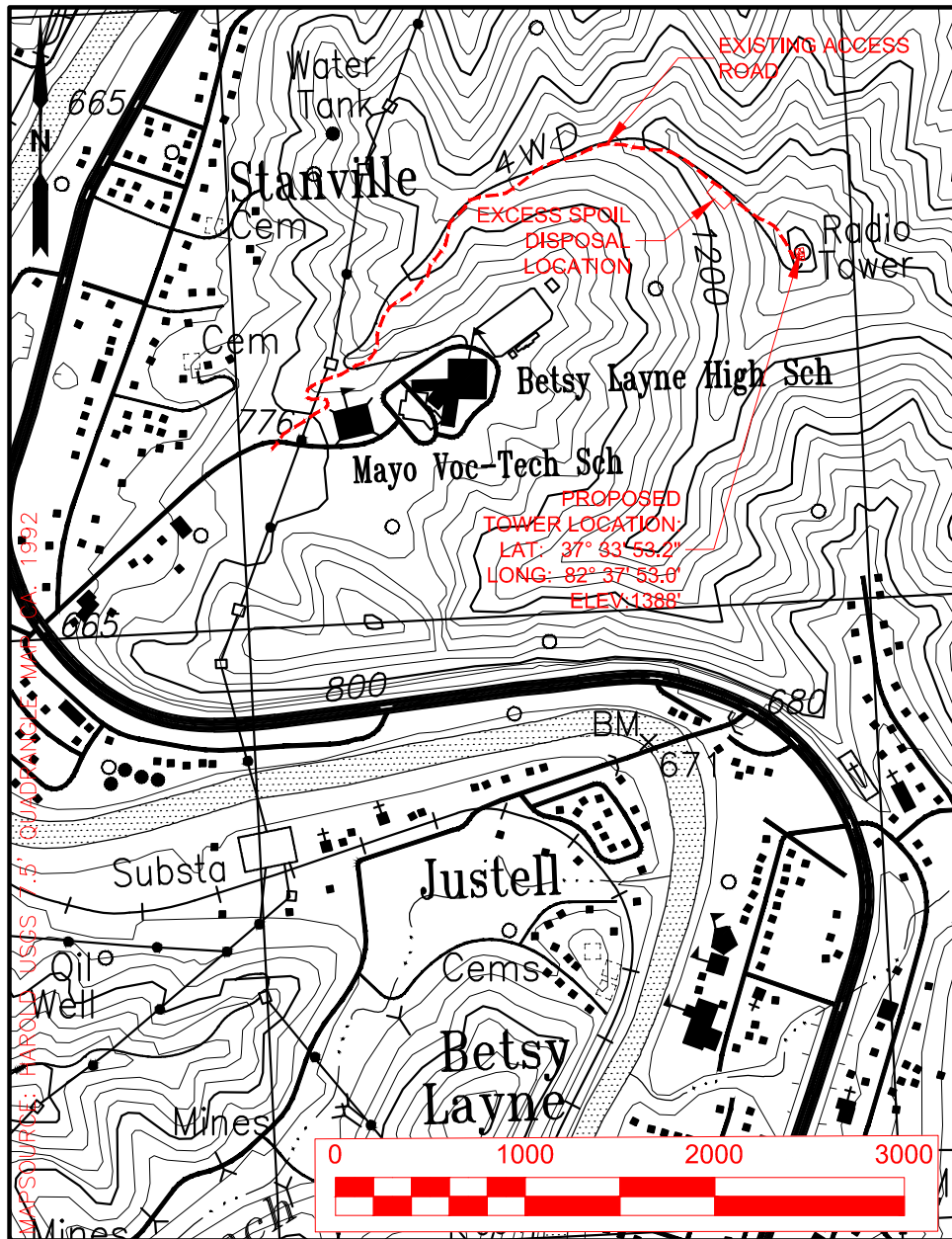
The purpose of this subsurface exploration was to prepare recommendations for design and construction of foundations for the tower and support buildings. Our scope of work included the following:

- A discussion of site surface conditions.
- A discussion of subsurface conditions encountered and published geologic conditions at the site.
- A review of the bedrock geology beneath the tower using published corehole information.
- A review and assessment of the past surface and underground coal mining affecting the tower site and the potential for subsidence beneath the tower.
- Field exploration operations utilizing trenching and test pits for identification of the immediate bearing strata beneath the tower site and all overburden to be excavated. The stratigraphy encountered and the quality/condition of each will be summarized in the report and included in the appendices.
- A discussion of specific geotechnical conditions and concerns which may affect the design or construction of the project.
- Recommendations for site preparation and construction of compacted fills.
- Recommended general design and construction criteria for the project foundations.
- A recommendation for seismic site class according to the 2018 Kentucky Building Code (KBC).

### **2.2 Project Description**

The proposed cellular tower site level footprint is approximately 70 feet wide by 125 feet long. The site will be constructed by excavating the area to bedrock. The tower will be 300 feet tall. The free-standing steel tower will be mounted on a reinforced concrete mat built directly on the bedrock foundation. The tower legs will be mounted on reinforced concrete columns cast into the base mat. The mat will then be backfilled with excavated subsoil to a depth of 4 to 6 feet in order to create the final finished grade of the site. The approximate site location is depicted below. Reference Figure 2.2.A.

FIGURE 2.2.A LOCATION MAP



### 2.3 Site Conditions

The site is located within the along US 23 near Stanville, Kentucky on a high knob above Betsy Layne High School on a ridge between Mare Creek and Pike-Floyd Hollow. Tim Malone, PE of Synergy, and Mark Blair, technician, visited the site on September 14, 2022 to conduct site investigations. During this visit, efforts were made to observe existing conditions, to assist the contractor with the trenching operations, to interpret the subsurface data and to detect conditions which could affect recommendations. The tower site was observed to be forested, with only an access road and surface gasline passing through the lower end of the proposed site. Synergy was informed that an agreement was already in place to relocate the gasline. The upper side of the site had been the location of a tower for an old cable tv system. The tower was gone and a small equipment building remained that was to be torn down. Two additional gaslines ran along the upper end of the site but were outside the proposed site area. There were no signs of previous surface or underground mining.

### 2.4 Structural Loading Information

The proposed site will consist of a self-supporting tower approximately three hundred feet tall and ancillary support areas. The shallow mat footing area is estimated to be forty feet by forty feet with an estimated maximum base of the tower footer elevation at 13'. Based on the information provided to Synergy by EKN, we estimate the structural loads will be similar to those provided in the table below:

**Table 2.4.A**

CONDITION	LOAD
Total Shear	50 Kips
Static Axial Load	325 Kips
Maximum Dynamic Load	600 Kips

We anticipate that overturning will govern the structural design. If the loading is significantly different than these expected values, Synergy should be notified to re-evaluate the recommendations provided in this report.

### 2.5 Site Grading and Topography

The proposed tower base elevation is 1388'. Based on the existing site topography, extensive excavations will be necessary in order to create a flat bench wide enough to accommodate the proposed facilities. This excavation will remove all of the topsoil, subsoils,

weathered rock and will expose the un-weathered bedrock upon which the reinforced concrete shallow mat foundation will be constructed. Excavation of the bedrock will be accomplished using heavy equipment with a pneumatic hammer. It is anticipated that blasting will not be required. The excavated material will be disposed of by use as non-structural fill on the site or used in the access road construction. This material will not be used beneath the tower foundation in any load bearing capacity. The tower mat foundation will be constructed directly on the bedrock.

## **2.6 Flooding Hazard**

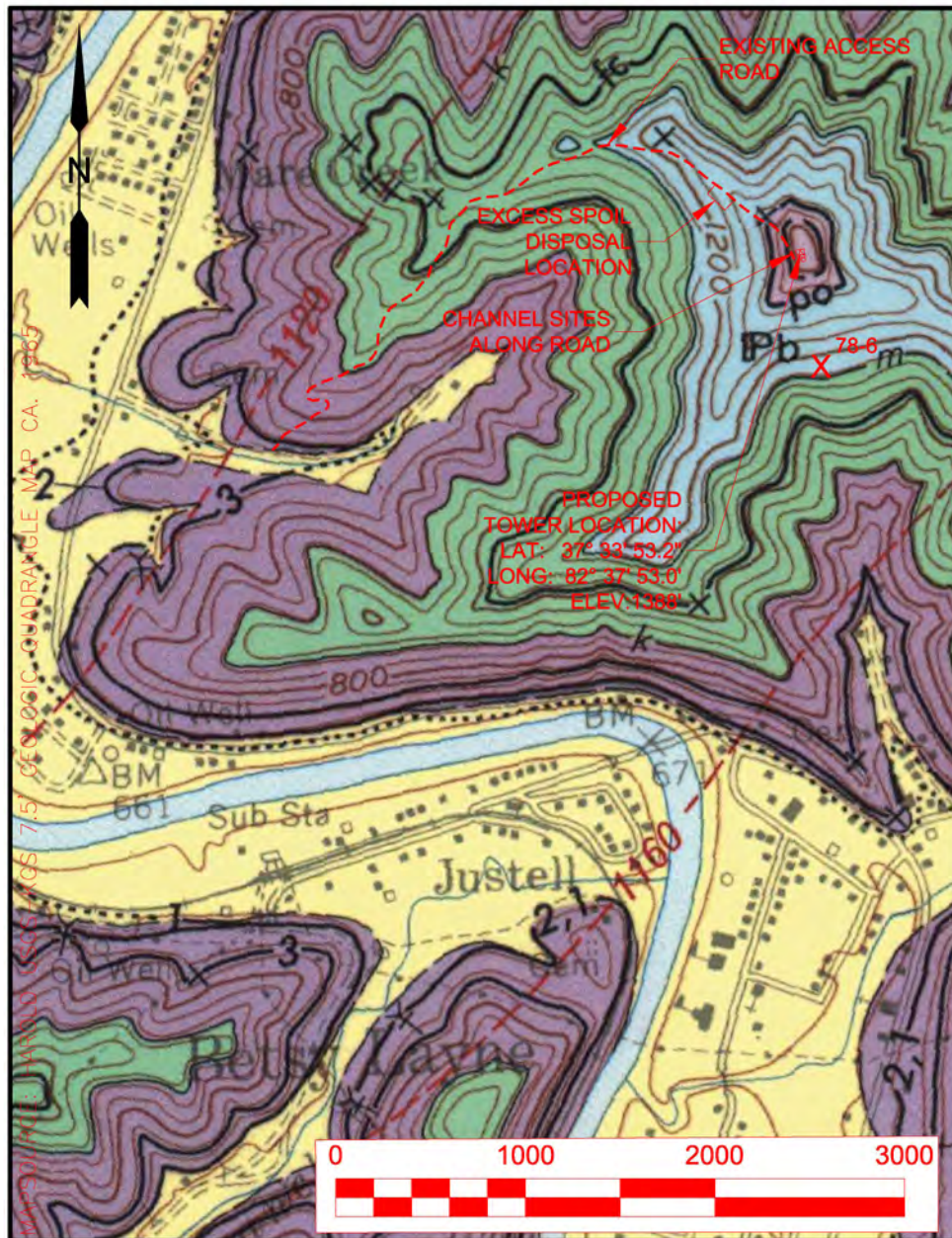
Due to the location of the tower site along the ridgeline of the mountain and that the site is approximately 800 vertical feet above the valley floor, flooding of the site will not be an issue. This site falls within FEMA Zone X, and is well above the 0.2% chance of annual flooding zone. A FEMA NFHL Firmette map of the site is included in the Appendix.

## **3.0 Subsurface Investigations and Encountered Conditions**

### **3.1 Published Geologic Information**

Geologic information was referenced from the Kentucky Geological Survey (KGS) Geologic Maps of the Betsy Layne Quadrangle, Floyd County, Kentucky. Additionally, the KGS corehole database was researched for any available adjacent coreholes representing the subsurface stratigraphy at the site. The geology of eastern Kentucky is described as being sedimentary in nature and is of Pennsylvanian age. The rocks underlying the tower site are mapped as the Breathitt Formation of the Lower Pennsylvanian Period. The stratigraphy is generally comprised of alternating beds of sandstones, shales, siltstones and sandy shales that are interbedded with layers of coal, clay and some limestone. It is known to exhibit many lateral variations, but is generally consistent over the total Breathitt Formation. There are two coal seams beneath the site that are thick enough to have been mined to the extent that may affect the tower foundation. These are the Elkhorn #2 and the Elkhorn #3 seams. These seams vary in thickness from 1 to 5 feet and have historically been mined in the area. Additional discussion of existing mining in these seams is provided below. The remaining coal seams are generally too thin to mine commercially and remain intact beneath the site. The KGS mapping indicates that the underlying rock units have no karst potential. A relevant portion of the Betsy Layne GQ map is shown below.

FIGURE 3.1.A - PIKEVILLE GEOLOGIC QUADRANGLE MAP



### 3.2 Subsurface Exploration Program

Due to the mountainous terrain and the steep slopes leading to the site, it was determined that trenching with an excavator would be the best method to determine the depth to bedrock and the bedrock stratigraphy beneath the tower site. A series of four overlapping trenches were excavated along existing access road and edge of the proposed site. The trenches began at the level of the proposed final tower site elevation and extended downhill to a point greater than 25' below the starting elevation. The trench was dug down to the bedrock to the point of refusal. At this point, minimally weathered bedrock was exposed and the engineer was able to measure the depth to bedrock along the profile and to determine the types of rock and thicknesses of the rock layers that will be encountered in the foundation excavation. The rock encountered consisted of layers of shale, coal, fireclay, sandstone. The shale, coal and fireclay will be excavated as overburden and the tower will rest upon the sandstone layer. The results of the trenching investigations are presented in the table below.

**Table 3.2.A**

Top of Strata El.	Thickness	Description	Condition
1395.0'	0.5'	Topsoil	n/a
1394.5'	3.5'	Subsoil - Yellow Clay soil and weathered shale	Poor – Yellow Clay soil and weathered shale
1391.0'	1.0'	Weathered Gray Shale	Weak
1390.0'	1.1'	Coal (Upper Peach Orchard split)	Poor
1388.9'	0.9'	Lt. Gray Fireclay	Poor
1388.0'	2.0'	Gray Shale	Strong
1386.0'	1.8'	Coal (Upper Peach Orchard split)	Poor
1384.2'	2.6'	Lt. Gray Fireclay	Poor
1381.6'	8.5'	Lt Gray Massive Sandstone weathered at outcrop.	Strong
1373.1'	6'*	Layered sandstone with Iron Bands	Strong



\* Observation along roadway leading to site indicated that the sandstone was in excess of an additional 15' in thickness.

### **3.3 Boring Logs**

The Kentucky Geological Survey corehole database was also searched for adjacent corehole locations that are relevant to the site. No nearby coreholes were found that passed through the strata to be excavated or lay immediately below the proposed tower site. However, one corehole was found that was useful, KGS number "HRL0069\_KY". This is a corehole that was drilled in 1978 by Blair A. Mott Drilling Corp for Beth Elkhorn and is labeled as 78-6. This hole was drilled near but from an elevation approximately 160' below the proposed tower foundation and is located on the Geologic Map included as Figure 3.1.A. A review of this log indicated that the corehole passed through the Elkhorn #3 and #2 coal seams. Due to the time in which the corehole was drilled and the fact that it did not intersect mine works helps to confirm that no mining was conducted beneath the proposed tower site.

### **3.4 Groundwater**

Groundwater was not encountered in any of the trenching operations. Given the location of the tower along the top of the ridge, there are no problems anticipated from groundwater. Generally, in the Appalachian region, groundwater is limited to the alluvial aquifer system located in the valley bottoms.

### **3.5 Review of Previous Mining and Potential for Subsidence**

A review of the Kentucky Mine Mapping Information System (KMMIS) indicates that the Elkhorn #3 and Elkhorn #2 seams have been underground mined in the area. Due to the fact that these seams are of sufficient thickness to potentially cause subsidence beneath the tower foundation, a review of the mining extents is warranted. This review indicated the presence of abandoned underground mine workings in both seams at a distance in excess of 0.5 mile from the proposed tower location. Due to the distance from the proposed tower location, no maps of previous underground mining have been included in this report. It is possible that small unmapped "punch" mines, which local residents mined for house coal, could exist near the proposed tower site. These mines were historically extremely small and most likely wouldn't have penetrated deep enough to lie beneath the proposed tower location. In conventional underground room and pillar mining, the pillars consist of solid coal that is left to support the mine roof. In the absence of massive pillar failure, subsidence from roof caving within the rooms is limited to the strata immediately above the coal seam, generally less than fifty feet. This determination is also supported by the presence of the massive sandstone and shale strata between the coal seams and the tower site. These thick massive strata, especially the sandstone,

have a beam effect and will bridge over the voids caused by the room caving. Additionally, subsidence from underground room and pillar mining occurs rapidly following coal extraction, generally less than a year. Given the age of any potential mine works, it is anticipated that any subsidence would have already occurred. During the site visit, we inspected the surface area in and around the tower site for any apparent surface damage or other signs that could be caused by subsidence, and none were found. Please also note that the Elkhorn #2 and #3 coal seams occur at an elevation at least 550' below the proposed tower elevation. Subsidence from room and pillar mining does not generally cause noticeable affects at such intervals.

There are no surface mining disturbances in the immediate area beyond the limits of the tower site. No adverse effects to the tower foundation are expected from the past surface or underground mining activities.

## **4.0 Geotechnical Concerns and Construction Considerations**

Based on the results of the subsurface exploration and experience with similar past projects, we believe the project site is generally suitable for the proposed development. However, some concerns exist with the subsurface conditions, as discussed below.

### **4.1 Faulting or Fracturing in the Bedrock**

Based on the information gathered from the subsurface investigations and past knowledge and experience conducting excavations in the bedrock strata, a potential concern exists with the potential for large faults, cracks or fissures that may be exposed during excavation of the site. The Pennsylvanian rocks underwent severe compressional forces during the uplift of the Appalachian Plateau, thereby creating multiple series of fractures along with occasional intermittent folds and faults. These occasional faults can have an adverse effect on the integrity of the foundation. Normal fracturing exists in all of the bedrock strata and normally does not decrease the compressional strength of the rock when the rock interface along the fracture stays tight and does not lose contact. However, whenever there is subsidence or lateral movement of the strata and the fracture interface loses contact, it can greatly reduce the stability of the foundational support. **Care should be taken during excavation of the site to look for and note the presence of any fissures, voids or large cracks in the bedrock beneath the foundation mat.** In the event that any of these features are found, Synergy should be notified such that remedial measures can be formulated and implemented.

## **4.2 Removal of Unsuitable Material from Beneath Mat Foundation**

In order for the reinforced concrete mat foundation to develop the full compressional strength of the underlying bedrock, it is important to remove all organic material, topsoil, subsoil, coal and weak rock from beneath the tower foundation footprint. The tower foundation should be situated on competent bedrock only, with an underlying leveling run of compacted dense grade aggregate or lean concrete.

The tower site was originally projected on the 2C map to be constructed at an elevation of 1395' with the tower foundation excavated to approximately 1389'. The subsurface investigation revealed that weak strata exist in the form of coal and fireclay down to an approximate elevation of 1381.6'. The tower should not be constructed on these weak strata. The coal is brittle and fractured while fireclay rapidly weathers when exposed to surface water and loses its integrity. This additional 7.4' of strata should be removed down to the hard massive sandstone shown in Table 3.2.A. This would put the final elevation of the constructed tower site at approximately 1388' rather than 1395' as originally proposed.

## **4.3 Placement of Non-Structural Fill**

Level areas may be created along the outer edge of the tower site above the outslope by shallow fills using portions of the excavated subsoil. Due to the hard rock beneath the site and the resulting steepness of slope, fills placed in these areas have a tendency to slide if the ground surface is not prepared properly and the fill is not adequately compacted.

Considering the site configuration and requirements, it is anticipated that the excess material not required for backfilling of the tower pad will be hauled down the hill and placed in a saddle along the existing road in the manner described in Section 5.2, below and in the location shown on the Location Map, Figure 2.2.A.

# **5.0 Recommendations**

## **5.1 Site Preparation**

- All vegetation and topsoil materials should be stripped to prepare the site for construction. Removed materials should be windrowed along the perimeter beyond the limits of the excavation or fill areas.
- In no event should organic materials or salvaged topsoil materials be used in any portion of the fill areas.

- As mentioned above, soft strata exist immediately below the proposed foundation elevation. It is recommended that these soft strata be removed and the tower foundation be built on solid sandstone as depicted in the “Typical Cross-Section” included as Figure 5.1 below.

## **5.2 Non-Structural Fill Placement**

- The non-structural fill areas should be scarified and the fill material should be compacted in maximum two foot lifts using track mounted equipment or other mechanical means. Non-structural fill shall be placed in the “Spoil Disposal Area” identified on the location map.
- Un-compacted or push-over filling should be avoided and the outslope of the fill should be limited to 30 degrees or less.
- Usage of the filled areas should be limited to non-loading type activities such as fence construction, road and parking areas.
- All surface drainage should be diverted away from the filled areas and should not be allowed to flow onto or over the outslope.

## **5.3 Shallow Mat Foundation Preparation**

- Upon completion of the foundation excavation, all remaining soils, loose rock or other weak materials should be removed from the area beneath the reinforced concrete mat.
- Prior to construction of the mat, a leveling run of lean concrete or compacted dense grade aggregate should be placed on the clean bedrock. This leveling run will provide a smooth working surface for assembly of the steel reinforcement and will aid in forming a consistent thickness and level finished concrete surface.
- All concrete and steel construction within the reinforced concrete foundation will be based upon the designs and recommendations provided by the Structural Engineer. Synergy assumes no responsibility for the design or certification of those elements.

## **5.4 Foundation Backfilling and Final Grading**

- Upon completion of the concrete construction and curing process, the reinforced concrete mat will be backfilled with the excavated subsoil to a thickness needed to establish the final finished grade of the site. This back fill material should be compacted in maximum one foot lifts using lightweight equipment or by other mechanical means. Backfilling of the areas surrounding the vertical piers should be compacted by hand tamping in order to prevent damage from the equipment.

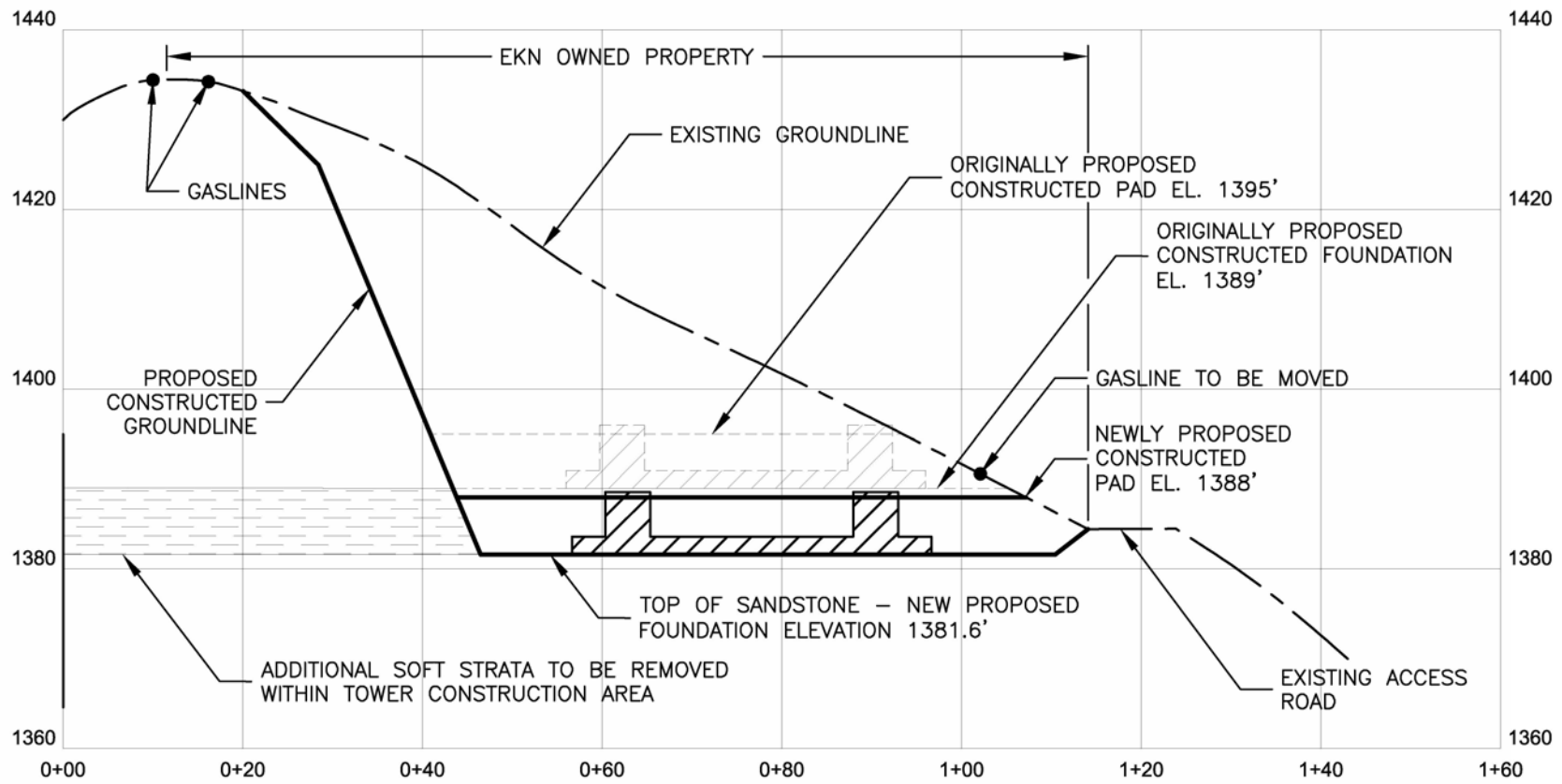
- Compaction of the foundation backfill will be suitable for the support buildings which are of modular construction and will be placed upon a slab on grade.
- In order to prevent saturation of the site and to enhance storm runoff from the finished surface, the site should be graded to a slope of 1 to 2% away from the tower footing and equipment buildings and directed to perimeter ditches. It is also recommended that the perimeter ditches discharge into the access road ditch or into an established natural drain.
- The final graded surface should be covered with a durable gravel surface and can be supplemented with geotextile fabric beneath the gravel layer.

### 5.5 Seismic Site Classification

This classification is based on the seismic standards and design values from the 2018 Kentucky Building Code and the 2010 ASCE-7 Standard. Based on the results of our exploration and the geology of the area, we assign a site seismic classification of “A”. Seismic Site Class and design parameters are summarized in the table below.

<b>Table 5.5.A - Seismic Site Class Information</b>	
<b>Seismic Design Parameters</b>	
<b>Site Classification</b>	Site Class “A”
<b>Risk Category</b>	II
<b>F<sub>a</sub></b>	0.8
<b>F<sub>v</sub></b>	0.8
<b>S<sub>s</sub></b>	0.210g
<b>S<sub>1</sub></b>	0.088g
<b>S<sub>s,0</sub></b>	0.177g
<b>S<sub>1,0</sub></b>	0.081g

The recommendations in this report are based on limited subsurface information. The nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to re-evaluate our recommendations. In the event that subsurface conditions differ from those anticipated, we will provide recommendations if deemed necessary.



**TYPICAL CROSS-SECTION VIEW**

SCALE: 1" = 20'

FIGURE 5.1 "TYPICAL CROSS-SECTION VIEW"

## **6.0 Report Limitations**

This report has been prepared for the exclusive use of East Kentucky Network, LLC for specific application to the project site. Our recommendations have been prepared using generally accepted standards of geotechnical engineering practice in the Commonwealth of Kentucky. No other warranty is expressed or implied. The recommendations provided are based on the subsurface information and other findings obtained by Synergy as well as information provided by EKN. If there are revisions to the plans for this project or if subsurface conditions detailed in this report are encountered during construction that are different than our exploration, we should be notified immediately to modify the foundation recommendations if deemed necessary. We cannot be held responsible for the impact of those conditions on the project if those impacts are not made known to us.

## **7.0 Associated Geotechnical Risks**

The analytical tools which are used by geotechnical engineers are generally empirical and must be used in conjunction with professional engineering judgment and experience. Therefore, the recommendations presented in this geotechnical exploration should not be considered risk-free and are not a guarantee that the proposed structure will perform as planned. The engineering recommendations presented in this report are based on the information gathered during the subsurface exploration, information provided by EKN and past experience with similar projects.

Appendix A: Trenching Site Photographs



Photograph A – Standing at bottom of Trench #1, looking east uphill





Photograph B – Standing at bottom of Trench #2, looking east uphill



Photograph C – Standing at bottom of Trench #3, looking east uphill





Photograph D – Standing at bottom of Trench #4, looking east uphill

## Appendix B: Core Logs

QUADRANGLE NAME HAROLD

69

ORIGIN COMPANY/AGENCY BETH ELKHORN

ORIGIN ID # BE-78-6 ALT. ID # \_\_\_\_\_

CONTRIBUTOR COMPANY/AGENCY Utah Int

CONTRIB. ID # BE-78-6

TRACT /PROPERTY/PROJECT \_\_\_\_\_

TYPE: CORE  ROTARY \_\_\_\_\_ ELOG \_\_\_\_\_ MS \_\_\_\_\_ OTHER \_\_\_\_\_

DRILLERS LOG  GEOLOGISTS LOG \_\_\_\_\_ ELECTRIC LOG \_\_\_\_\_

GAMMA/DENSITY LOG \_\_\_\_\_ QUALITY DATA \_\_\_\_\_ (IN DATABASE?) \_\_\_\_\_

4158400  
355970

COORDINATES

L/L \_\_\_\_\_ UTM  ST PL \_\_\_\_\_ CARTER \_\_\_\_\_ COMPANY \_\_\_\_\_ NONE \_\_\_\_\_

ELEVATION 1221.136 TOT. DEPTH 598.05 YEAR DRILLED 1928

KGS ID NO. \_\_\_\_\_ DTR: HEADER \_\_\_\_\_ LITHO \_\_\_\_\_

CMASTER: QUAD HRLD ST KV SC 2 ID 69 | PROJECTS \_\_\_\_\_

MINEX \_\_\_\_\_

OTHER DATA STORAGE \_\_\_\_\_

CONFIDENTIAL \_\_\_\_\_ PUBLIC

KGS PERSON WHO OBTAINED RECORD Chestnut

DUPLICATE VERSIONS ? \_\_\_\_\_

COMMENTS \_\_\_\_\_

BETHLEHEM STEEL CORPORATION  
AUG 10 1978  
GEOLOGY, MINING

### DIAMOND CORE DRILL HOLE RECORD

HOLE No. 7B-6 DEPTH 598.05'

LOCATION Head of First Hollow in Mars Creek, near Betsy Layne, Floyd  
County, Kentucky

PROPERTY PAUL GAYHEART, PO. GAYHEART - DANIEL HILL

ELEVATION 1221.136

ANALYSIS \_\_\_\_\_

DRILLING STARTED April 13, 1978 COMPLETED April 29, 1978

FOR Beth Elkhorn Corporation  
Jenkins, Kentucky

**Blair A. Mott Drilling Corporation**  
HUNTINGTON, WEST VIRGINIA

*2 logs - hole redrilled*



# BLAIR A. MOTT, DRILLING CORP.

MAIN OFFICE

HUNTINGTON, W. VA.

## DIAMOND CORE DRILL HOLE RECORD

FOR **Beth Elkhorn Corporation** ADDRESS **Jenkins, Kentucky** DATE **April 29, 19 78**  
 ON **Head of First Mallow NEAR Betsy Lyles** COUNTY **Floyd** STATE **Kentucky**  
 in **Mare Creek**  
 HOLE No. **78-6** EL **1221/36** DRILLER **Eddie Church, Jr.** DRILL No.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS.	FEET	INS.
Overburden	22	0	22	0
Went Thru 1 1/2" of Coal Cut 8.0'				
Gray Shale	34	3	56	3
Gray, Sandy Shale	4	6	60	9
Gray Shale	6	5	67	4
Gray, Sandy Shale	2	95	70	38
Gray Sandstone	3	8	74	18
Gray Shale	6	1	80	28
→ Coal-----	0	1	80	38
Gray Shale	1	15	81	8
Gray Sandstone	42	8	124	3
Gray Shale	0	6	124	9
Gray Sandstone	15	65	140	78
→ Coal-----	0	08	140	8
Gray Sandstone w/ Coal Stracks	1	15	141	98
Gray, Sandy Shale	2	65	144	6
Gray Shale	4	85	149	48
→ Coal-----	0	4	149	88
Gray Shale	1	5	151	38
Gray, Sandy Shale	13	8	168	18
Gray Sandstone	3	8	168	98
Gray, Sandy Shale	4	9	173	88
Gray Sandstone	31	9	208	78
Gray, Sandy Shale	1	7	207	48
Gray Sandstone	2	35	209	8
→ Coal-----	1	8	211	8
Gray Shale	0	2	211	8
Coal-----	1	4	213	2
Gray Sandstone w/ Shale Stracks	9	25	222	48
Gray Shale	2	2	224	68
Gray Sandstone w/ Shale Stracks	6	8	231	48
Gray Sandstone	3	5	234	98
Gray Shale w/ Sandstone Stracks	5	2	240	18
Gray Shale	2	25	242	4
→ Coal-----	1	4	243	8
Gray Shale	5	75	248	88
→ Coal-----	0	2	249	78
Gray, Sandy Shale	1	9	251	68
Gray Sandstone	23	1	274	78
Gray Shale	1	7	276	48
→ Coal-----	1	0	277	48
Gray Shale	1	2	278	68

STARTED April 13, 19 78  
 COMPLETED April 29, 19 78

FORM 1 TR 04 2005' DDH KEY MAP  
 8-29-78 C.D.T.

# BLAIR A. MOTT, DRILLING CORP.

MAIN OFFICE

HUNTINGTON, W. VA.

Page 2

## DIAMOND CORE DRILL HOLE RECORD

FOR **Beth Elkhorn Corporation** ADDRESS **Jenkins, Kentucky** DATE **April 29, 1978**

ON \_\_\_\_\_ NEAR \_\_\_\_\_ COUNTY **Floyd** STATE **Kentucky**

HOLE NO. **78-6** EL \_\_\_\_\_ DRILLER **Eddie Church, Jr.** DRILL NO. \_\_\_\_\_

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS. THE.	FEET	INS. THE.
Coal-----	0	65	279	5
Gray Shale	8	7	288	2
Gray, Sandy Shale	6	6	294	8
Gray Sandstone	43	25	338	06
Gray Shale	9	0	347	08
Coal-----	0	5	347	88
Gray Sandstone	30	85	378	4
Gray, Sandy Shale	1	3	379	7
Gray Sandstone	18	9	398	6
Gray, Sandy Shale	19	8	418	4
Gray Shale	8	0	426	4
Gray, Sandstone w/ Shale Streaks	3	9	430	3
Gray Sandstone	13	35	443	65
Gray, Sandy Shale	15	4	459	08
Gray Shale	10	2	469	28
Coal-----	0	25	469	5
Gray Shale	2	1	471	6
Coal-----	1	2	472	8
Gray Shale	6	3	479	1
Gray, Sandy Shale	5	0	484	1
Gray Sandstone	1	45	485	58
Gray, Sandy Shale	4	15	489	7
Gray Sandstone	2	2	491	9
Gray, Sandy Shale	7	7	499	6
Coal-----	0	8	500	4
Gray Shale	0	4	500	8
Coal-----	0	8	501	6
Gray Shale	0	5	502	1
Gray Sandstone w/ Shale Streaks	28	9	531	0
Gray Shale	2	08	533	08
Gray Sandstone w/ Shale Streaks	2	2	535	25
Gray, Sandy Shale	0	8	536	08
Coal-----	0	4	536	45
Gray Shale w/ Coal Streaks	1	15	537	6
Coal-----	0	3	537	9
Gray Shale	0	15	538	06
Coal-----	1	4	539	45
Gray Shale	1	2	540	65
Gray Sandstone	24	05	564	7
Coal-----	1	5	566	2
Gray Shale	0	15	566	38
Coal-----	0	5	566	4

STARTED **April 13, 1978**  
 COMPLETED **April 29, 1978**

**BLAIR A. MOTT, DRILLING CORP.**

MAIN OFFICE

HUNTINGTON, W. VA.

Page 3

**DIAMOND CORE DRILL HOLE RECORD**

FOR **Beth Elkhorn Corporation** ADDRESS **Jenkins, Kentucky** DATE, **April 29,** 19 **78**

ON \_\_\_\_\_ NEAR \_\_\_\_\_ COUNTY **Floyd** STATE **Kentucky**

HOLE NO. **78-4** EL. \_\_\_\_\_ DRILLER **Eddie Church, Jr.** DRILL NO. \_\_\_\_\_

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS. THS.	FEET	INS. THS.
Gray Shale	0	8	567	2
Coal -----	1	4	568	6
Gray Shale	0	55	569	15
Gray Sandstone	26	15	595	3
Gray Sandstone w/ Shale Stracks	2	75	598	05
<b>Total Depth 598.05'</b>				
3--6' Boxes				
30 Bags Cement				
4 Hrs. Cementing Hole				

PAUL & D. D. GAYHEART AND DANIEL HALL  
PROPERTY

STARTED **April 13,** 19 **78**

COMPLETED **April 29,** 19 **78**

# BLAIR A. MOTT, DRILLING CORP.

MAIN OFFICE

HUNTINGTON, W. VA.

## DIAMOND CORE DRILL HOLE RECORD

FOR Beth Elkhorn Corporation ADDRESS Jenkins, Kentucky DATE April 29, 1978

ON Head of First Hollow NEAR Betsy Layne COUNTY Floyd STATE Kentucky  
in Mare Creek

HOLE No. BE-78-6 EL/221/36 DRILLER Eddie Church, Jr. DRILL NO.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS. THS.	FEET	INS. THS.
Overburden	22	0	22	0
Went Thru 1 1/8" of Coal Cut 8.0'				
Gray Shale	34	3	56	3
Gray, Sandy Shale	4	6	60	9
Gray Shale	6	5	67	4
Gray, Sandy Shale	2	95	70	35
Gray Sandstone	3	8	74	15
Gray Shale	6	1	80	25
Coal-----	0	1	80	35
Gray Shale	1	15	81	5
Gray Sandstone	42	8	124	3
Gray Shale	0	6	124	9
Gray Sandstone	15	85	140	75
Coal-----	0	05	140	8
Gray Sandstone w/ Coal Streaks	1	15	141	95
Gray, Sandy Shale	2	65	144	6
Gray Shale	4	85	149	45
Coal-----	0	4	149	85
Gray Shale	1	5	151	35
Gray, Sandy Shale	13	8	165	15
Gray Sandstone	3	8	168	95
Gray, Sandy Shale	4	9	173	85
Gray Sandstone	31	9	205	75
Gray, Sandy Shale	1	7	207	45
Gray Sandstone	2	35	209	8
Coal-----	1	8	211	6
Gray Shale	0	2	211	8
Coal-----	1	4	213	2
Gray Sandstone w/ Shale Streaks	9	25	222	45
Gray Shale	2	2	224	65
Gray Sandstone w/ Shale Streaks	6	8	231	45
Gray Sandstone	3	5	234	95
Gray Shale w/ Sandstone Streaks	5	2	240	15
Gray Shale	2	25	242	4
Coal-----	1	4	243	8
Gray Shale	5	75	248	55
Coal-----	0	2	249	75
Gray, Sandy Shale	1	9	251	65
Gray Sandstone	23	1	274	75
Gray Shale	1	7	276	45
Coal-----	1	0	277	45
Gray Shale	1	2	278	65

STARTED April 13, 1978

COMPLETED April 29, 1978



**BLAIR A. MOTT, DRILLING CORP.**  
 MAIN OFFICE  
 HUNTINGTON, W. VA.

Page 2

**DIAMOND CORE DRILL HOLE RECORD**

FOR Beth Elkhorn Corporation ADDRESS Jenkins, Kentucky DATE April 29, 19 78  
 ON NEAR COUNTY Floyd STATE Kentucky

HOLE No. 78-6 EL DRILLER Eddie Church, Jr. DRILL No.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS. THS.	FEET	INS. THS.
Coal-----	0	85	279	5
Gray Shale	8	7	288	2
Gray, Sandy Shale	6	6	294	8
Gray Sandstone	43	25	338	05
Gray Shale	9	0	347	05
Coal-----	0	5	347	55
Gray Sandstone	30	85	378	4
Gray, Sandy Shale	1	3	379	7
Gray Sandstone	18	9	398	6
Gray, Sandy Shale	19	8	418	4
Gray Shale	8	0	426	4
Gray, Sandstone w/ Shale Streaks	3	9	430	3
Gray Sandstone	13	35	443	65
Gray, Sandy Shale	15	4	459	05
Gray Shale	10	2	469	25
Coal-----	0	25	469	5
Gray Shale	2	1	471	6
Coal-----	1	2	472	8
Gray Shale	6	3	479	1
Gray, Sandy Shale	5	0	484	1
Gray Sandstone	1	45	485	55
Gray, Sandy Shale	4	15	489	7
Gray Sandstone	2	2	491	9
Gray, Sandy Shale	7	7	499	6
Coal-----	0	8	500	4
Gray Shale	0	4	500	8
Coal-----	0	8	501	6
Gray Shale	0	5	502	1
Gray Sandstone w/ Shale Streaks	28	9	531	0
Gray Shale	2	05	533	05
Gray Sandstone w/ Shale Streaks	2	2	535	25
Gray, Sandy Shale	0	8	536	05
Coal-----	0	4	536	45
Gray Shale w/ Coal Streaks	1	15	537	6
Coal-----	0	3	537	9
Gray Shale	0	15	538	05
Coal-----	1	4	539	45
Gray Shale	1	2	540	65
Gray Sandstone	24	05	564	7
Coal-----	1	5	566	2
Gray Shale	0	15	566	35
Coal-----	0	5	566	4

STARTED April 13, 19 78

COMPLETED April 29, 19 78

**BLAIR A. MOTT, DRILLING CORP.**

MAIN OFFICE

HUNTINGTON, W. VA.

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**DIAMOND CORE DRILL HOLE RECORD**

FOR Beth Elkhorn Corporation ADDRESS Jenkins, Kentucky DATE April 29, 19 78  
 ON NEAR COUNTY Floyd STATE Kentucky

HOLE No. 78-6 EL DRILLER Eddie Church, Jr. DRILL No.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	INS. THS.	FEET	INS. THS.
Gray Shale	0	8	567	2
Coal-----	1	4	568	6
Gray Shale	0	55	569	15
Gray Sandstone	26	15	595	3
Gray Sandstone w/ Shale Streaks	2	75	598	05
Total Depth 598.05'				
3--6' Boxes				
30 Bags Cement				
4 Hrs. Cementing Hole				

STARTED April 13, 19 78

COMPLETED April 29, 19 78

**BLAIR A. MOTT, DRILLING CORP.**  
 MAIN OFFICE  
 HUNTINGTON, W. VA.  
**DIAMOND CORE DRILL HOLE RECORD**

FOR **Beth Elkhorn Corporation** ADDRESS **Jenkins, Kentucky** DATE **April 29, 1978**  
 ON **Head of First Hollow NEAR Betay Lays** COUNTY **Floyd** STATE **Kentucky**  
 in **Mare Creeks**  
 HOLE NO. **78-6** EL **1221.136** DRILLER **Eddie Church, Jr.** DRILL NO.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE
	FEET	INS	
Overburden	22		
<del>Went Thru 1 1/2" of Coal Cut 8.0'</del>			
Gray Shale	34	3.6	
Gray, Sandy Shale	4	7.2	
Gray Shale	6	6.0	
Gray, Sandy Shale	2	11.4	
Gray Sandstone	3	9.6	
Gray Shale	6	1.2	
Coal-----	0	1.2	
Gray Shale	1	1.8	
Gray Sandstone	42	9.6	
Gray Shale	0	7.2	
Gray Sandstone	15	10.2	
Coal-----	0	0.6	
Gray Sandstone w/ Coal Streaks	1	1.8	
Gray, Sandy Shale	2	7.8	
Gray Shale	4	10.2	
Coal-----	0	4.8	
Gray Shale	1	6.0	
Gray, Sandy Shale	13	9.6	
Gray Sandstone	3	9.6	
Gray, Sandy Shale	4	10.8	
Gray Sandstone	31	10.8	
Gray, Sandy Shale	1	8.4	
Gray Sandstone	2	4.2	
Coal-----	1	7.6	
Gray Shale	0	2.4	
Coal-----	1	4.8	
Gray Sandstone w/ Shale Streaks	9	3.0	
Gray Shale	2	2.4	
Gray Sandstone w/ Shale Streaks	6	9.6	
Gray Sandstone	3	6.0	
Gray Shale w/ Sandstone Straks	5	2.4	
Gray Shale	2	3.0	
Coal-----	1	4.8	
Gray Shale	5	9.0	
Coal-----	0	2.4	
Gray, Sandy Shale	1	10.8	
Gray Sandstone	23	1.2	
Gray Shale	1	8.4	
Coal-----	1		
Gray Shale	1	2.4	

STARTED April 13, 1978  
 COMPLETED April 29, 1978

# BLAIR A. MOTT, DRILLING CORP.

MAIN OFFICE

HUNTINGTON, W. VA.

Page 2

## DIAMOND CORE DRILL HOLE RECORD

FOR **Beth Elkhorn Corporation** ADDRESS **Jenkins, Kentucky** DATE **April 29, 1978**  
 ON \_\_\_\_\_ NEAR \_\_\_\_\_ COUNTY **Floyd** STATE **Kentucky**

HOLE NO. **70-6** EL \_\_\_\_\_ DRILLER **Eddie Church, Jr.** DRILL NO. \_\_\_\_\_

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE	
	FEET	IN	FEET	IN
Coal-----			0	10.2
Gray Shale			8	8.4
Gray, Sandy Shale			6	7.2
Gray Sandstone			43	3.0
Gray Shale			9	
Coal-----			0	6.0
Gray Sandstone			30	10.2
Gray, Sandy Shale			1	3.6
Gray Sandstone			18	10.8
Gray, Sandy Shale			19	9.6
Gray Shale			8	
Gray, Sandstone w/ Shale Streaks			3	10.8
Gray Sandstone			13	4.2
Gray, Sandy Shale			15	4.8
Gray Shale			10	2.4
Coal-----			0	3.0
Gray Shale			2	1.2
Coal-----			1	2.4
Gray Shale			6	3.6
Gray, Sandy Shale			5	
Gray Sandstone			1	5.4
Gray, Sandy Shale			4	1.8
Gray Sandstone			2	2.4
Gray, Sandy Shale			7	8.4
Coal-----			0	9.6
Gray Shale			0	4.8
Coal-----			0	9.6
Gray Shale			0	6.0
Gray Sandstone w/ Shale Streaks			28	10.8
Gray Shale			2	0.6
Gray Sandstone w/ Shale Streaks			2	2.4
Gray, Sandy Shale			0	9.6
Coal-----			0	4.8
Gray Shale w/ Coal Streaks			1	1.8
Coal-----			0	3.6
Gray Shale			0	1.8
Coal-----			1	4.8
Gray Shale			1	2.4
Gray Sandstone			24	0.6
Coal-----			1	6.0
Gray Shale			0	1.8
Coal-----			0	6.0

STARTED April 13, 1978

COMPLETED April 29, 1978

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# BLAIR A. MOTT, DRILLING CORP.

MAIN OFFICE

HUNTINGTON, W. VA.

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## DIAMOND CORE DRILL HOLE RECORD

FOR Bath Elkhorn Corporation ADDRESS Jenkins, Kentucky DATE April 29, 1978  
 ON NEAR COUNTY floyd STATE Kentucky

HOLE NO. 78-6 EL. DRILLER Eddie Church, Jr. DRILL NO.

CLASSIFICATION	THICKNESS OF STRATA		DEPTH FROM SURFACE
	FEET	INS	
Gray Shale	0	9.6	
Coal	1	4.8	
Gray Shale	0	6.6	
Gray Sandstone	26	1.8	
Gray Sandstone w/ Shale Streaks	2	9.0	
Total Depth: 598.05'			
3--5' Boxes			
30 Bags Cement			
4 Hrs. Cementing Hole			

C 3.4  
S 4.35 E2

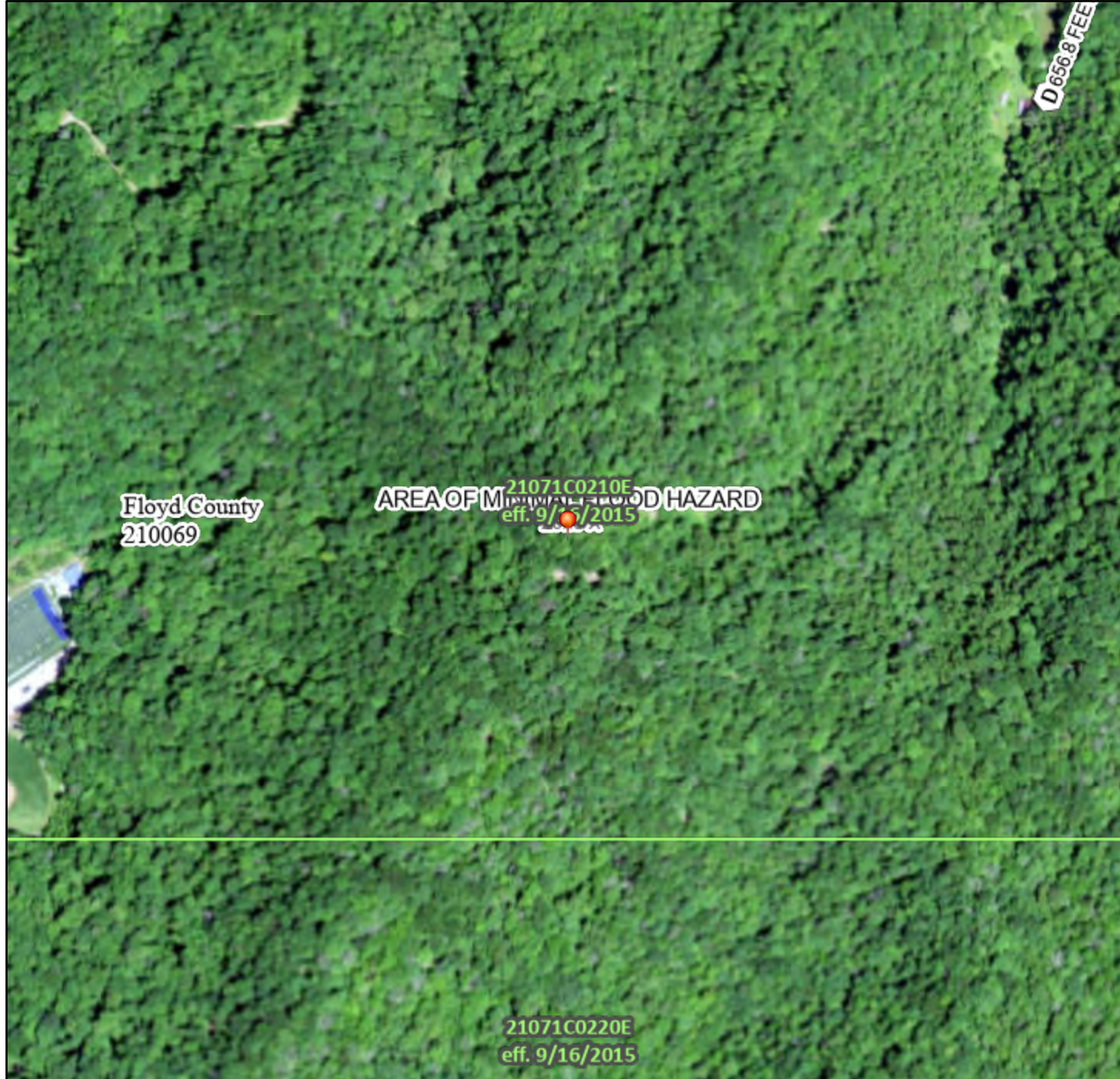
STARTED April 13, 1978  
 COMPLETED April 29, 1978

## Appendix C: Flood Map

# National Flood Hazard Layer FIRMMette



82°38'12"W 37°34'7"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Base Flood Elevation Line (BFE)
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/12/2022 at 9:50 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

82°37'34"W 37°33'39"N

# Exhibit 5



**World Tower**  
COMPANY, INC.

---

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

---

**300' MODEL WSST TOWER  
FOR: EAST KENTUCKY NETWORK  
SITE: STANVILLE  
FLOYD COUNTY, KY  
DESIGN PACKAGE**



10-26-2022



# GENERAL NOTES

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

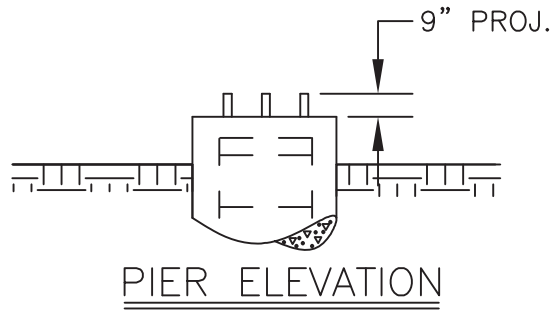
10-26-2022



## WORLD TOWER

TITLE:  
300' MODEL WSST TOWER  
FOR: EAST KENTUCKY NETWORK  
SITE: STANVILLE  
FLOYD COUNTY, KY

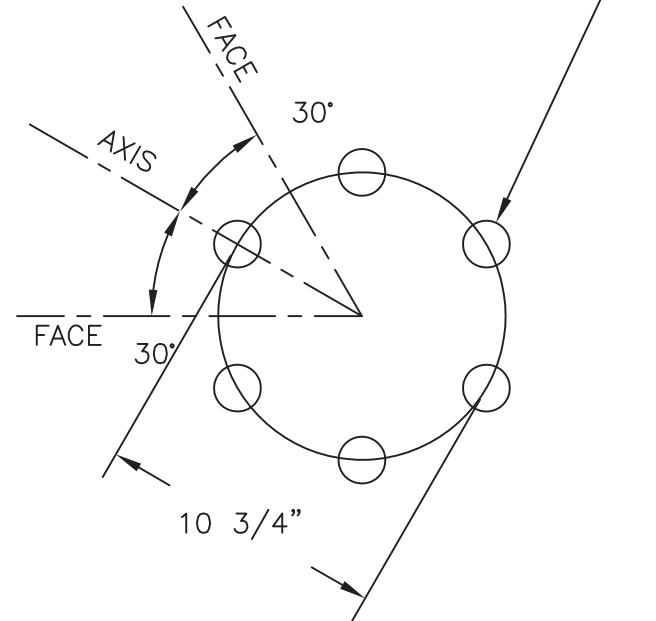
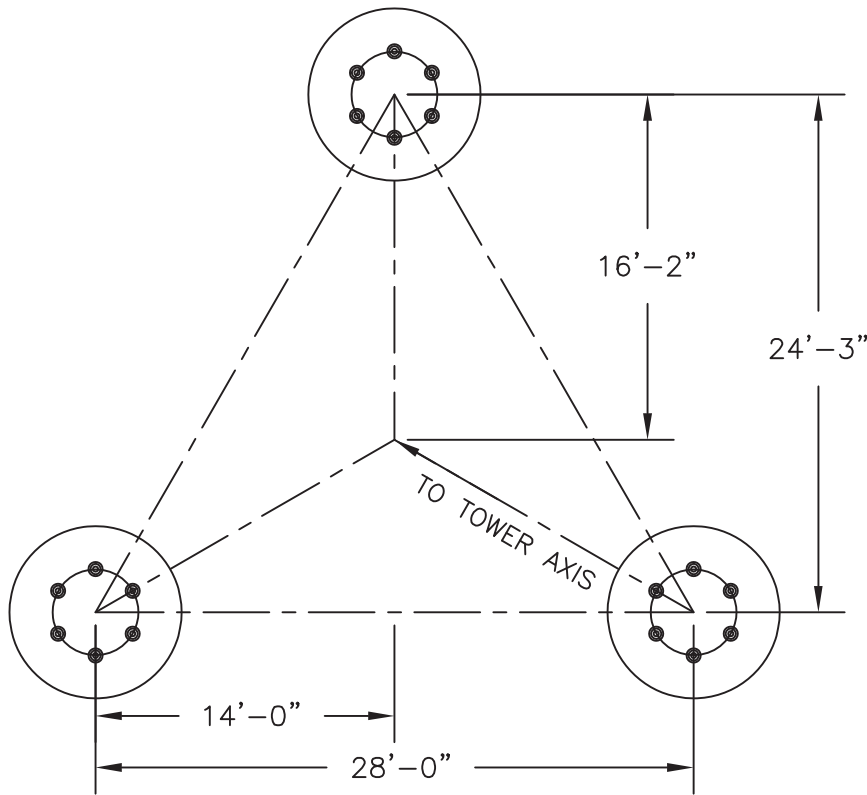
SCALE	DWN.	LKG	CKD.	DATE 10-26-22
FILE	DWG. NO.			Q220536N



10-26-2022



ANCHOR BOLTS  
 (6) 1 1/2"  $\phi$  X 81"  
 ASTM F1554-105  
 EQUALLY SPACED WITH  
 TOP TEMPLATE AND  
 EMBEDDED PLATE



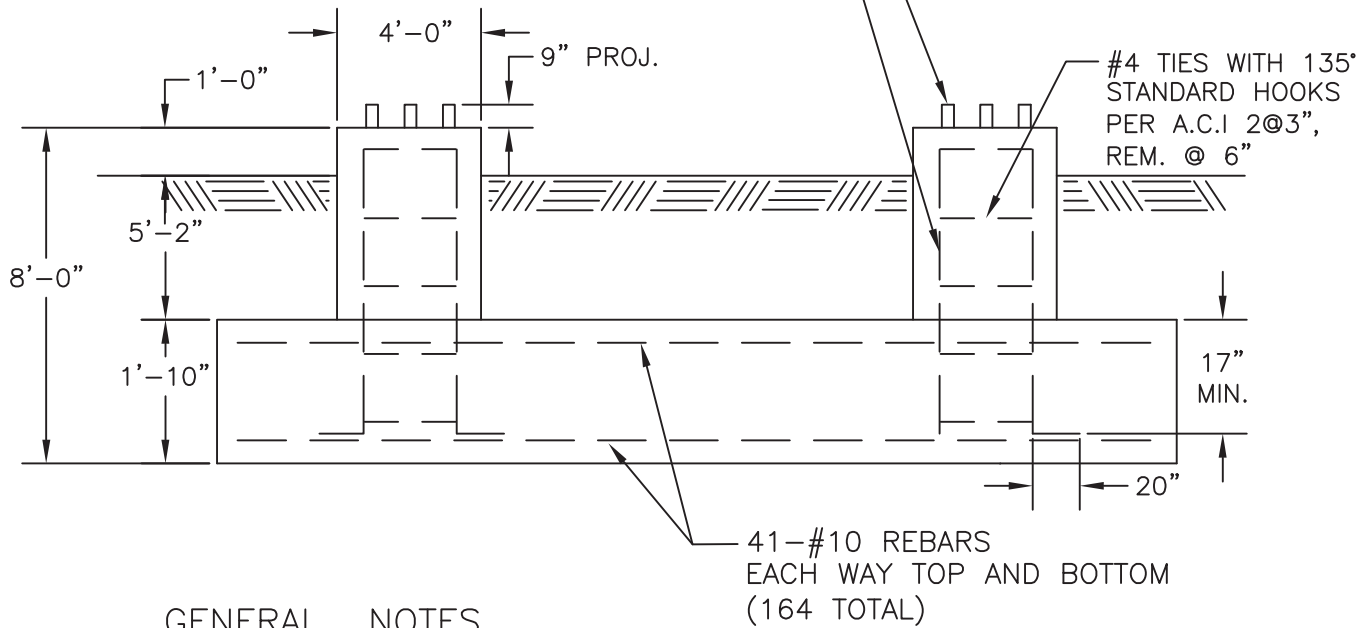
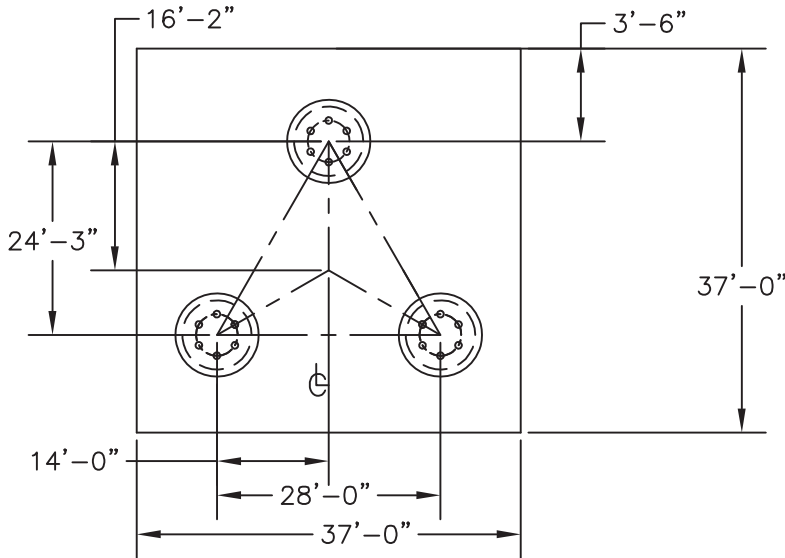
TITLE:  
 300' MODEL WSST TOWER  
 FOR: EAST KENTUCKY NETWORK  
 SITE: STANVILLE  
 FLOYD COUNTY, KY

# WORLD TOWER

SCALE	NONE	DWN.	LKG	CKD.	DATE	10-26-22
FILE				DWG. NO.	Q220536AB	

101.6 CU. YDS.  
CONCRETE REQ'D.

BASE REACTIONS	
OTM:	12590.0 FT. KIPS
COMP.	552.0 KIPS
UPLIFT	468.0 KIPS
SHEAR (3 LEGS)	72.0 KIPS
WT. NO ICE	100.0 KIPS
WT. 3/4" ICE	305.0 KIPS



41-#10 REBARS  
EACH WAY TOP AND BOTTOM  
(164 TOTAL)

GENERAL NOTES

1. CONCRETE TO HAVE 4500 PSI MIN. COMPRESSIVE STRENGTH AFTER 28 DAYS.
2. ALL REINFORCEMENT STEEL IS DEFORMED AND MEETS THE STRENGTH REQUIREMENTS OF ASTM A615 GRADE 60.
3. EMBEDDED STEEL TO HAVE 3" MIN. CONCRETE COVER.
4. FOUNDATION DESIGN IS BASED ON CUSTOMER SUPPLIED SOIL DATA FROM SYNERGY ENGINEERING SERVICES, PLLC DATED OCTOBER 12, 2022.



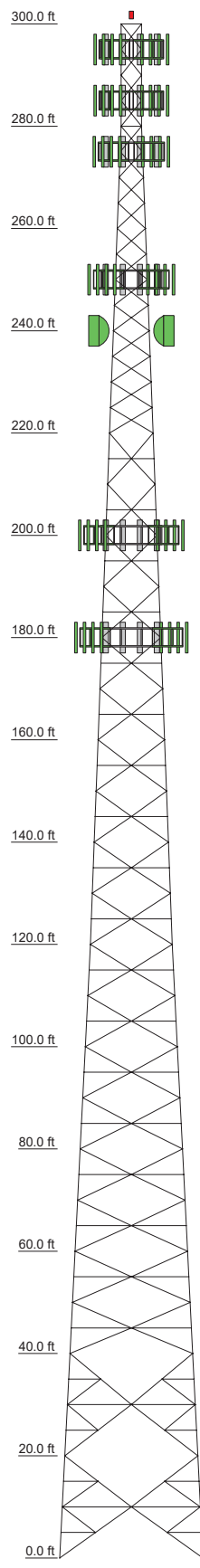
10-26-2022

TITLE: FOUNDATION DETAIL  
300' WSST TOWER  
FOR: EAST KENTUCKY NETWORK  
SITE: STANVILLE  
FLOYD COUNTY, KY

**WORLD TOWER**

SCALE NONE	DWN. LKG	CKD.	DATE 10-26-22
FILE	DWG. NO. Q220536F		

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Legs	SR 1 3/4	SR 2 1/2	SR 2 3/4	SR 3	SR 3 1/4	SR 3 1/2	SR 3 3/4	SR 4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2
Leg Grade															
Diagonals															
Diagonal Grade															
Top Girts															
Horizontals															
Red. Horizontals															
Red. Diagonals															
Inner Bracing															
Face Width (ft)	4	5.5	7	8.5	10	11.5	13	14.5	16	18	20	22	24	26	28
# Panels @ (ft)						52 @ 5									
Weight (K)	0.9	1.5	1.8	2.1	2.5	3.0	3.4	3.8	4.3	4.4	5.3	5.6	6.1	6.4	6.5



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
Beacon Lighting	300	WD13X53 Antenna Mounting Frame	250
Lighting Rod 5/8x4'	300	WD13X53 Antenna Mounting Frame	250
WD13X53 Antenna Mounting Frame	295	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	250
WD13X53 Antenna Mounting Frame	295	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	250
WD13X53 Antenna Mounting Frame	295	(4) Commscope NN-65B-R2 w/ mt. pipe*	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) RRU-12	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) RRU-12	250
(4) RRU-12	295	Dish Mount	240
(4) RRU-12	295	Dish Mount	240
(4) RRU-12	295	6 FT DISH	240
WD13X53 Antenna Mounting Frame	285	6 FT DISH	240
WD13X53 Antenna Mounting Frame	285	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	200
WD13X53 Antenna Mounting Frame	285	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	200
(4) Commscope NN-65B-R2 w/ mt. pipe*	285	(4) RRU-12	200
(4) Commscope NN-65B-R2 w/ mt. pipe*	285	(4) RRU-12	200
(4) Commscope NN-65B-R2 w/ mt. pipe*	285	(4) RRU-12	200
(4) RRU-12	285	WD13X53 Antenna Mounting Frame	200
(4) RRU-12	285	WD13X53 Antenna Mounting Frame	200
(4) RRU-12	285	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	200
WD13X53 Antenna Mounting Frame	275	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180
WD13X53 Antenna Mounting Frame	275	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180
WD13X53 Antenna Mounting Frame	275	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	275	(4) RRU-12	180
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	275	(4) RRU-12	180
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	275	(4) RRU-12	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
WD13X53 Antenna Mounting Frame	250	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180

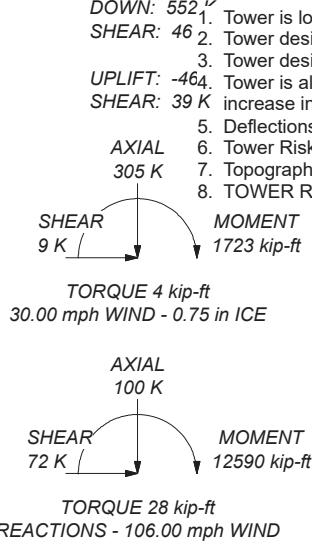
**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x3/16		

**MATERIAL STRENGTH**

ALL REACTION ARE FACTORED	GRADE	Fy	Fu	GRADE	Fy	Fu
	A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

**MAX. CORNER REACTIONS AT BASE:**



**TOWER DESIGN NOTES**

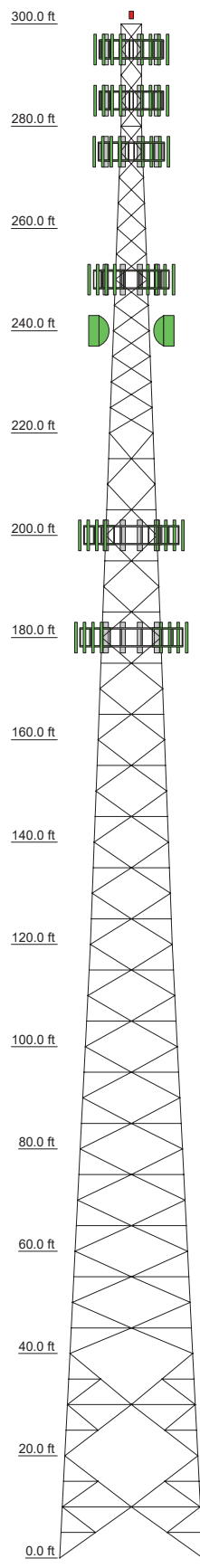
1. Tower is located in Floyd County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 106.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.7%



10-26-2022

<b>World Tower Company</b>		Job: <b>300' WSST Tower / WTC Q22-536</b>	
1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com		Project: <b>Stanville</b>	Client: <b>Appalachian Wireless</b>
Code: <b>TIA-222-G</b>	Date: <b>10/26/22</b>	Drawn by: <b>kirk</b>	App'd:
Path: <b>C:\Tower\PE Runs\2022\Q22-536 stanville appalachian\Q22-536.eri</b>		Scale: <b>NTS</b>	Dwg No. <b>E-1</b>

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Legs	SR 1 3/4	SR 2 1/2	SR 2 3/4	SR 3	SR 3 1/4	SR 3 1/2	SR 3 3/4	SR 4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2
Leg Grade															
Diagonals															
Diagonal Grade															
Top Girts															
Horizontals															
Red. Horizontals															
Red. Diagonals															
Inner Bracing															
Face Width (ft)															
# Panels @ (ft)															
Weight (K)															



**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x3/16		

**MATERIAL STRENGTH**

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

**TOWER DESIGN NOTES**

1. Tower is located in Floyd County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 106.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.7%



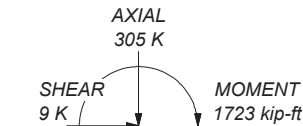
10-26-2022

ALL REACTIONS ARE FACTORED

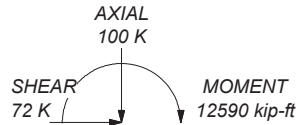
MAX. CORNER REACTIONS AT BASE:

DOWN: 552 K  
SHEAR: 46 K

UPLIFT: -468 K  
SHEAR: 39 K



TORQUE 4 kip-ft  
30.00 mph WIND - 0.75 in ICE

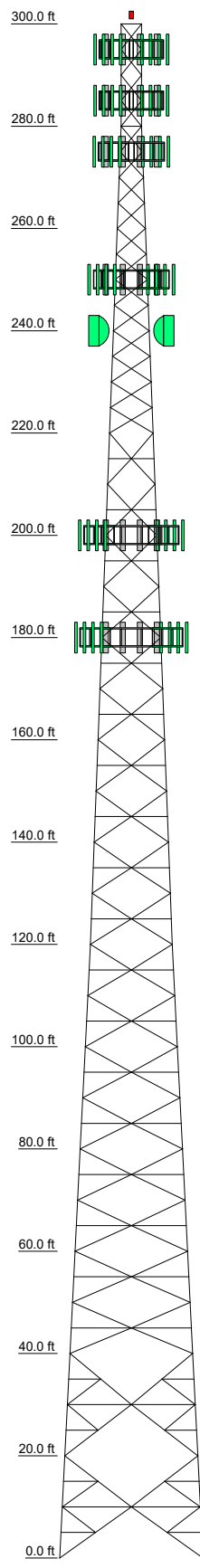


TORQUE 28 kip-ft  
REACTIONS - 106.00 mph WIND

<b>World Tower Company</b>		Job: <b>300' WSST Tower / WTC Q22-536</b>	
1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com		Project: <b>Stanville</b>	Client: <b>Appalachian Wireless</b>
Code: <b>TIA-222-G</b>	Date: <b>10/26/22</b>	Drawn by: <b>kirk</b>	App'd:
Path: <b>C:\Tower\PE Runs\2022\Q22-536 stanville appalachian\Q22-536.eri</b>	Scale: <b>NTS</b>	Dwg No. <b>E-1</b>	



Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Legs	SR 1 3/4	SR 2 1/2	SR 2 3/4	SR 3	SR 3 1/4	SR 3 1/2	SR 3 3/4	SR 3 3/4	SR 4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/2	SR 4 1/2	SR 4 1/2
Leg Grade			L2x2x3/16												
Diagonals															
Top Girts															
Horizontals															
Red. Horizontals															
Red. Diagonals															
Inner Bracing															
Face Width (ft)	4	5.5	7	8.5	10	11.5	13	14.5	16	18	20	22	24	26	28
# Panels @ (ft)						52 @ 5									
Weight (K)	0.9	1.5	1.8	2.1	2.5	3.0	3.4	3.8	4.3	4.4	5.3	6.1	6.4	6.5	57.7



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
Beacon Lighting	300	WD13X53 Antenna Mounting Frame	250
Lighting Rod 5/8x4'	300	WD13X53 Antenna Mounting Frame	250
WD13X53 Antenna Mounting Frame	295	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	250
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WD13X53 Antenna Mounting Frame	295	(4) Commscope NN-65B-R2 w/ mt. pipe*	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) RRU-12	250
(4) Commscope NN-65B-R2 w/ mt. pipe*	295	(4) RRU-12	250
(4) RRU-12	295	Dish Mount	240
(4) RRU-12	295	Dish Mount	240
(4) RRU-12	295	6 FT DISH	240
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(4) Commscope NN-65B-R2 w/ mt. pipe*	285	(4) RRU-12	200
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(4) RRU-12	285	WD13X53 Antenna Mounting Frame	200
(4) RRU-12	285	WD13X53 Antenna Mounting Frame	200
(4) RRU-12	285	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	200
WD13X53 Antenna Mounting Frame	275	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180
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(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	275	(4) RRU-12	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
(4) RRU-12	275	WD13X53 Antenna Mounting Frame	180
WD13X53 Antenna Mounting Frame	250	(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	180

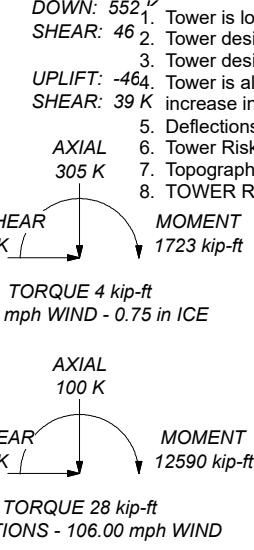
**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x3/16		

**MATERIAL STRENGTH**

ALL REACTION ARE FACTORED	GRADE	Fy	Fu	GRADE	Fy	Fu
	A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

**MAX. CORNER REACTIONS AT BASE:**

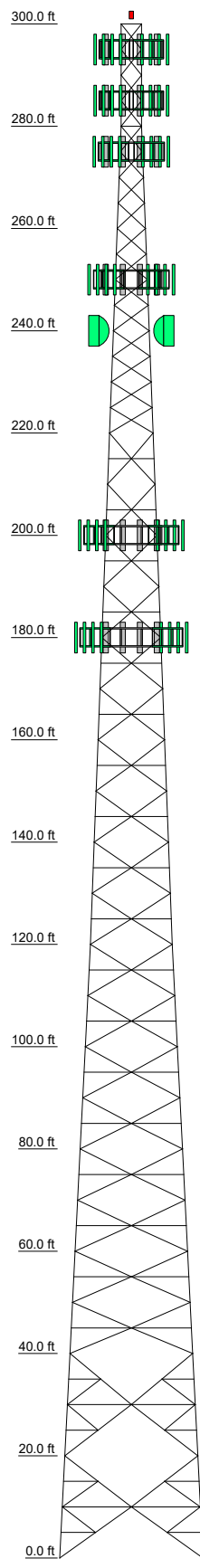


**TOWER DESIGN NOTES**

1. Tower is located in Floyd County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 106.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.7%

<b>World Tower Company</b>		Job: <b>300' WSST Tower / WTC Q22-536</b>	
1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com		Project: <b>Stanville</b>	Client: <b>Appalachian Wireless</b>
Code: <b>TIA-222-G</b>	Date: <b>10/26/22</b>	Drawn by: <b>kirk</b>	App'd:
Path: <b>C:\Tower\PE Runs\2022\Q22-536 stanville appalachian\Q22-536.eri</b>	Scale: <b>NTS</b>	Dwg No. <b>E-1</b>	

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Legs	SR 1 3/4	SR 2 1/2	SR 2 3/4	SR 3	SR 3 1/4	SR 3 1/2	SR 3 3/4	SR 4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2	SR 4 1/4	SR 4 1/2
Leg Grade															
Diagonals															
Diagonal Grade															
Top Girts															
Horizontals															
Red. Horizontals															
Red. Diagonals															
Inner Bracing															
Face Width (ft)	4	5.5	7	8.5	10	11.5	13	14.5	16	18	20	22	24	26	28
# Panels @ (ft)						52 @ 5									
Weight (K)	0.9	1.5	1.8	2.1	2.5	3.0	3.4	3.8	4.3	4.4	5.3	6.1	6.4	6.5	57.7



**SYMBOL LIST**

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x3/16		

**MATERIAL STRENGTH**

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

**TOWER DESIGN NOTES**

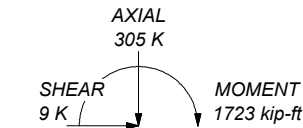
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4. Tower is also designed for a 30.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 99.7%

ALL REACTIONS ARE FACTORED

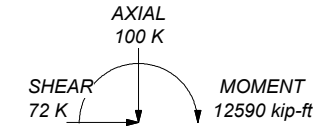
MAX. CORNER REACTIONS AT BASE:

DOWN: 552 K  
SHEAR: 46 K

UPLIFT: -468 K  
SHEAR: 39 K



TORQUE 4 kip-ft  
30.00 mph WIND - 0.75 in ICE



TORQUE 28 kip-ft  
REACTIONS - 106.00 mph WIND

<b>World Tower Company</b>		Job: <b>300' WSST Tower / WTC Q22-536</b>	
1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com		Project: <b>Stanville</b>	Client: <b>Appalachian Wireless</b>
Code: <b>TIA-222-G</b>	Date: <b>10/26/22</b>	Drawn by: <b>kirk</b>	App'd:
Path: <b>C:\Tower\PE Runs\2022\Q22-536 stanville appalachian\Q22-536.eri</b>	Scale: <b>NTS</b>	Dwg No. <b>E-1</b>	

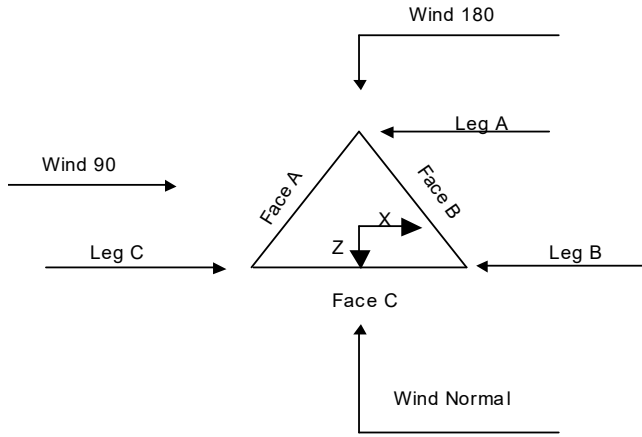
<p><b>tnxTower</b></p> <p><b>World Tower Company</b>  1213 Compressor Drive  Mayfield, KY 42066  Phone: (270) 247-3642  FAX: www.worldtower.com</p>	<b>Job</b> 300' WSST Tower / WTC Q22-536	<b>Page</b> 1 of 27
	<b>Project</b> Stanville	<b>Date</b> 10:13:01 10/26/22
	<b>Client</b> Appalachian Wireless	<b>Designed by</b> kirk

**Tower Input Data**

The main tower is a 3x free standing tower with an overall height of 300.00 ft above the ground line.  
The base of the tower is set at an elevation of 0.00 ft above the ground line.  
The face width of the tower is 4.00 ft at the top and 28.00 ft at the base.  
This tower is designed using the TIA-222-G standard.

The following design criteria apply:

- Tower is located in Floyd County, Kentucky.
- ASCE 7-10 Wind Data is used.
- Basic wind speed of 106.00 mph.
- Risk Category II.
- Exposure Category C.
- Topographic Category 1.
- Crest Height 0.00 ft.
- Nominal ice thickness of 0.75 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 30.00 mph is used in combination with ice.
- Temperature drop of 30 °F.
- Deflections calculated using a wind speed of 60.00 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.



**Triangular Tower**

<b>tnxTower</b>  <b>World Tower Company</b> 1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com	<b>Job</b>	300' WSST Tower / WTC Q22-536	<b>Page</b>	2 of 27
	<b>Project</b>	Stanville	<b>Date</b>	10:13:01 10/26/22
	<b>Client</b>	Appalachian Wireless	<b>Designed by</b>	kirk

### Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	300.00-280.00			4.00	1	20.00
T2	280.00-260.00			4.00	1	20.00
T3	260.00-240.00			5.50	1	20.00
T4	240.00-220.00			7.00	1	20.00
T5	220.00-200.00			8.50	1	20.00
T6	200.00-180.00			10.00	1	20.00
T7	180.00-160.00			11.50	1	20.00
T8	160.00-140.00			13.00	1	20.00
T9	140.00-120.00			14.50	1	20.00
T10	120.00-100.00			16.00	1	20.00
T11	100.00-80.00			18.00	1	20.00
T12	80.00-60.00			20.00	1	20.00
T13	60.00-40.00			22.00	1	20.00
T14	40.00-20.00			24.00	1	20.00
T15	20.00-0.00			26.00	1	20.00

### Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	300.00-280.00	5.00	X Brace	No	No	0.00	0.00
T2	280.00-260.00	5.00	X Brace	No	No	0.00	0.00
T3	260.00-240.00	5.00	X Brace	No	No	0.00	0.00
T4	240.00-220.00	5.00	X Brace	No	No	0.00	0.00
T5	220.00-200.00	5.00	Double K	No	Yes	0.00	0.00
T6	200.00-180.00	5.00	Double K	No	Yes	0.00	0.00
T7	180.00-160.00	5.00	Double K	No	Yes	0.00	0.00
T8	160.00-140.00	5.00	Double K	No	Yes	0.00	0.00
T9	140.00-120.00	5.00	Double K	No	Yes	0.00	0.00
T10	120.00-100.00	5.00	Double K	No	Yes	0.00	0.00
T11	100.00-80.00	5.00	Double K	No	Yes	0.00	0.00
T12	80.00-60.00	5.00	Double K	No	Yes	0.00	0.00
T13	60.00-40.00	5.00	Double K	No	Yes	0.00	0.00
T14	40.00-20.00	10.00	Double K1	No	Yes	0.00	0.00
T15	20.00-0.00	10.00	Double K1	No	Yes	0.00	0.00

### Tower Section Geometry (cont'd)

Tower Elevation	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
<i>ft</i>						
T1 300.00-280.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T2 280.00-260.00	Solid Round	2 1/2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

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Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T3 260.00-240.00	Solid Round	2 3/4	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T4 240.00-220.00	Solid Round	3	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T5 220.00-200.00	Solid Round	3 1/4	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 200.00-180.00	Solid Round	3 1/2	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T7 180.00-160.00	Solid Round	3 1/2	A572-50 (50 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T8 160.00-140.00	Solid Round	3 3/4	A572-50 (50 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T9 140.00-120.00	Solid Round	4	A572-50 (50 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T10 120.00-100.00	Solid Round	4	A572-50 (50 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T11 100.00-80.00	Solid Round	4 1/4	A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T12 80.00-60.00	Solid Round	4 1/4	A572-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T13 60.00-40.00	Solid Round	4 1/4	A572-50 (50 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)
T14 40.00-20.00	Solid Round	4 1/2	A572-50 (50 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)
T15 20.00-0.00	Solid Round	4 1/2	A572-50 (50 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 300.00-280.00	Equal Angle	L2x2x1/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T2 280.00-260.00	Equal Angle	L2x2x1/8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T5 220.00-200.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L2x2x1/8	A36 (36 ksi)
T6 200.00-180.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T7 180.00-160.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T8 160.00-140.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)



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Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T9 140.00-120.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T10 120.00-100.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)
T11 100.00-80.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T12 80.00-60.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T13 60.00-40.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T14 40.00-20.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)
T15 20.00-0.00	None	Single Angle		A36 (36 ksi)	Equal Angle	L4x4x1/4	A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T14 40.00-20.00	Equal Angle		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T15 20.00-0.00	Equal Angle		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Redundant Bracing Grade	Redundant Type	Redundant Size	K Factor
T14 40.00-20.00	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Equal Angle L3x3x3/16	1
T15 20.00-0.00	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Equal Angle L3x3x3/16	1

### Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft <sup>2</sup>	Gusset Thickness in	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 300.00-280.00	0.25	0.25	A36 (36 ksi)	1	1	1.06	0.00	0.00	36.00
T2 280.00-260.00	0.25	0.25	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
T3 260.00-240.00	0.25	0.25	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T4 240.00-220.00	0.25	0.25	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T5 220.00-200.00	0.38	0.38	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T6 200.00-180.00	0.38	0.38	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T7 180.00-160.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T8 160.00-140.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T9 140.00-120.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T10 120.00-100.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T11 100.00-80.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T12 80.00-60.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T13 60.00-40.00	0.50	0.50	A36 (36 ksi)	1	1	1.07	0.00	0.00	36.00
T14 40.00-20.00	0.50	0.50	A36 (36 ksi)	1	1	1.08	0.00	0.00	36.00
T15 20.00-0.00	0.50	0.50	A36 (36 ksi)	1	1	1.08	0.00	0.00	36.00

### Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	<i>K Factors<sup>1</sup></i>							
				<i>X</i> Brace Diags	<i>K</i> Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
				<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	<i>X</i> <i>Y</i>	
T1 300.00-280.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T2 280.00-260.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T3 260.00-240.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T4 240.00-220.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T5 220.00-200.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T6 200.00-180.00	Yes	Yes	1	1	1	1	1	0.66666	1	1	1
T7 180.00-160.00	Yes	Yes	1	1	1	1	1	0.66666	1	1	1
T8 160.00-140.00	Yes	Yes	1	1	1	1	1	0.66666	1	1	1
T9 140.00-120.00	Yes	Yes	1	1	1	1	1	0.66666	1	1	1
T10 120.00-100.00	Yes	Yes	1	1	1	1	1	0.66666	1	1	1



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Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 300.00-280.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T2 280.00-260.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T3 260.00-240.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T4 240.00-220.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T5 220.00-200.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T6 200.00-180.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T7 180.00-160.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T8 160.00-140.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T9 140.00-120.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T10 120.00-100.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T11 100.00-80.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T12 80.00-60.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T13 60.00-40.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T14 40.00-20.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T15 20.00-0.00	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 300.00-280.00	Flange	0.75 A325X	4	0.63 A325X	1	0.63 A325X	1	0.00 A325X	0	0.63 A325N	0	0.00 A325X	0	0.00 A325X	0
T2 280.00-260.00	Flange	1.00 A325X	4	0.63 A325X	1	0.63 A325X	1	0.00 A325X	0	0.63 A325N	0	0.00 A325X	0	0.00 A325X	0
T3 260.00-240.00	Flange	1.00 A325X	4	0.63 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.00 A325X	0	0.00 A325X	0
T4 240.00-220.00	Flange	1.00 A325X	4	0.63 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.00 A325X	0	0.00 A325X	0
T5 220.00-200.00	Flange	1.00 A325X	6	0.63 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.63 A325X	1	0.00 A325X	0
T6 200.00-180.00	Flange	1.00 A325X	6	0.63 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.63 A325X	1	0.00 A325X	0
T7 180.00-160.00	Flange	1.25 A325X	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T8 160.00-140.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T9 140.00-120.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T10 120.00-100.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T11 100.00-80.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T12 80.00-60.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T13 60.00-40.00	Flange	1.25 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T14 40.00-20.00	Flange	1.50 A325X >1"	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0
T15 20.00-0.00	Flange	1.50 F1554-105	6	0.75 A325X	1	0.00 A325X	0	0.00 A325X	0	0.63 A325N	0	0.75 A325X	1	0.00 A325X	0

### Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	A	No	No	Ar (CaAa)	5.00 - 300.00	0.00	0.1	1	1	0.38	0.38		0.22
W/G LADDER RAIL*	B	No	No	Af (CaAa)	5.00 - 300.00	0.00	0	2	2	36.00	0.25		2.50
W/G LADDER RAIL*	C	No	No	Af (CaAa)	5.00 - 300.00	0.00	0	2	2	36.00	0.25		2.50
****													
1 1/4	B	No	No	Ar (CaAa)	285.00 - 295.00	0.00	0	4	2	0.50	1.55		0.66
1 1/4	B	No	No	Ar (CaAa)	275.00 - 285.00	0.00	0	8	4	0.50	1.55		0.66
1 1/4	B	No	No	Ar (CaAa)	5.00 - 275.00	0.00	0	12	6	0.50	1.55		0.66
1 1/4	C	No	No	Ar (CaAa)	200.00 - 250.00	0.00	0	4	2	0.50	1.55		0.66
1 1/4	C	No	No	Ar (CaAa)	180.00 - 200.00	0.00	0	8	4	0.50	1.55		0.66
1 1/4	C	No	No	Ar (CaAa)	5.00 - 180.00	0.00	0	12	6	0.50	1.55		0.66
EW63	C	No	No	Ar (CaAa)	5.00 - 240.00	0.00	0	2	2	1.57	1.57		0.51



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### Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	$A_R$	$A_F$	$C_A A_A$ In Face	$C_A A_A$ Out Face	Weight K
			$ft^2$	$ft^2$	$ft^2$	$ft^2$	
T1	300.00-280.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	14.067	0.000	0.15
		C	0.000	0.000	1.667	0.000	0.10
T2	280.00-260.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	35.767	0.000	0.25
		C	0.000	0.000	1.667	0.000	0.10
T3	260.00-240.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	7.867	0.000	0.13
T4	240.00-220.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	20.364	0.000	0.17
T5	220.00-200.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	20.364	0.000	0.17
T6	200.00-180.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	32.764	0.000	0.23
T7	180.00-160.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T8	160.00-140.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T9	140.00-120.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T10	120.00-100.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T11	100.00-80.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T12	80.00-60.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T13	60.00-40.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T14	40.00-20.00	A	0.000	0.000	0.750	0.000	0.00
		B	0.000	0.000	38.867	0.000	0.26
		C	0.000	0.000	45.164	0.000	0.28
T15	20.00-0.00	A	0.000	0.000	0.563	0.000	0.00
		B	0.000	0.000	29.150	0.000	0.19
		C	0.000	0.000	33.873	0.000	0.21

### Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness	$A_R$	$A_F$	$C_A A_A$ In Face	$C_A A_A$ Out Face	Weight K
			in	$ft^2$	$ft^2$	$ft^2$	$ft^2$	
T1	300.00-280.00	A	1.864	0.000	0.000	8.207	0.000	0.11

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	38.020	0.000	0.77
		C		0.000	0.000	16.580	0.000	0.44
T2	280.00-260.00	A	1.851	0.000	0.000	8.153	0.000	0.11
		B		0.000	0.000	57.064	0.000	1.19
		C		0.000	0.000	16.474	0.000	0.43
T3	260.00-240.00	A	1.837	0.000	0.000	8.097	0.000	0.10
		B		0.000	0.000	59.104	0.000	1.24
		C		0.000	0.000	29.218	0.000	0.61
T4	240.00-220.00	A	1.821	0.000	0.000	8.036	0.000	0.10
		B		0.000	0.000	58.881	0.000	1.23
		C		0.000	0.000	66.493	0.000	1.06
T5	220.00-200.00	A	1.805	0.000	0.000	7.970	0.000	0.10
		B		0.000	0.000	58.639	0.000	1.22
		C		0.000	0.000	66.131	0.000	1.05
T6	200.00-180.00	A	1.787	0.000	0.000	7.898	0.000	0.10
		B		0.000	0.000	58.376	0.000	1.21
		C		0.000	0.000	73.780	0.000	1.26
T7	180.00-160.00	A	1.767	0.000	0.000	7.819	0.000	0.10
		B		0.000	0.000	58.086	0.000	1.20
		C		0.000	0.000	82.360	0.000	1.47
T8	160.00-140.00	A	1.745	0.000	0.000	7.731	0.000	0.09
		B		0.000	0.000	57.764	0.000	1.18
		C		0.000	0.000	81.887	0.000	1.46
T9	140.00-120.00	A	1.720	0.000	0.000	7.632	0.000	0.09
		B		0.000	0.000	57.401	0.000	1.17
		C		0.000	0.000	81.354	0.000	1.44
T10	120.00-100.00	A	1.692	0.000	0.000	7.518	0.000	0.09
		B		0.000	0.000	56.984	0.000	1.15
		C		0.000	0.000	80.741	0.000	1.42
T11	100.00-80.00	A	1.658	0.000	0.000	7.383	0.000	0.09
		B		0.000	0.000	56.493	0.000	1.13
		C		0.000	0.000	80.018	0.000	1.39
T12	80.00-60.00	A	1.617	0.000	0.000	7.219	0.000	0.08
		B		0.000	0.000	55.891	0.000	1.11
		C		0.000	0.000	79.133	0.000	1.36
T13	60.00-40.00	A	1.564	0.000	0.000	7.005	0.000	0.08
		B		0.000	0.000	55.109	0.000	1.08
		C		0.000	0.000	77.984	0.000	1.32
T14	40.00-20.00	A	1.486	0.000	0.000	6.693	0.000	0.07
		B		0.000	0.000	53.971	0.000	1.04
		C		0.000	0.000	76.313	0.000	1.26
T15	20.00-0.00	A	1.331	0.000	0.000	4.556	0.000	0.04
		B		0.000	0.000	38.787	0.000	0.72
		C		0.000	0.000	54.751	0.000	0.87

### Feed Line Center of Pressure

Section	Elevation ft	CP <sub>X</sub> in	CP <sub>Z</sub> in	CP <sub>X</sub> Ice in	CP <sub>Z</sub> Ice in
T1	300.00-280.00	1.71	-1.03	1.82	-0.52
T2	280.00-260.00	2.83	-2.40	2.71	-1.32
T3	260.00-240.00	3.24	-1.72	3.37	-0.61
T4	240.00-220.00	3.22	0.76	3.28	3.06
T5	220.00-200.00	3.43	0.82	3.66	3.45
T6	200.00-180.00	3.23	0.85	3.75	3.69
T7	180.00-160.00	3.17	0.90	3.87	3.95

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Section	Elevation	CP <sub>X</sub>	CP <sub>Z</sub>	CP <sub>X</sub>	CP <sub>Z</sub>
	ft	in	in	Ice in	Ice in
T8	160.00-140.00	3.35	0.95	4.10	4.19
T9	140.00-120.00	3.42	0.97	4.26	4.36
T10	120.00-100.00	3.58	1.02	4.48	4.59
T11	100.00-80.00	3.51	1.01	4.55	4.67
T12	80.00-60.00	3.54	1.02	4.67	4.79
T13	60.00-40.00	3.45	1.00	4.66	4.79
T14	40.00-20.00	3.84	1.11	5.04	5.15
T15	20.00-0.00	3.06	0.88	4.03	4.08

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T1	1	Safety Line 3/8	280.00 - 300.00	0.6000	0.5038
T1	2	W/G LADDER RAIL*	280.00 - 300.00	0.6000	0.5038
T1	3	W/G LADDER RAIL*	280.00 - 300.00	0.6000	0.5038
T1	5	1 1/4	285.00 - 295.00	0.6000	0.5038
T1	6	1 1/4	280.00 - 285.00	0.6000	0.5038
T2	1	Safety Line 3/8	260.00 - 280.00	0.6000	0.5430
T2	2	W/G LADDER RAIL*	260.00 - 280.00	0.6000	0.5430
T2	3	W/G LADDER RAIL*	260.00 - 280.00	0.6000	0.5430
T2	6	1 1/4	275.00 - 280.00	0.6000	0.5430
T2	7	1 1/4	260.00 - 275.00	0.6000	0.5430
T3	1	Safety Line 3/8	240.00 - 260.00	0.6000	0.6000
T3	2	W/G LADDER RAIL*	240.00 - 260.00	0.6000	0.6000
T3	3	W/G LADDER RAIL*	240.00 - 260.00	0.6000	0.6000
T3	7	1 1/4	240.00 - 260.00	0.6000	0.6000
T3	8	1 1/4	240.00 - 250.00	0.6000	0.6000
T4	1	Safety Line 3/8	220.00 - 240.00	0.6000	0.6000
T4	2	W/G LADDER RAIL*	220.00 - 240.00	0.6000	0.6000
T4	3	W/G LADDER RAIL*	220.00 - 240.00	0.6000	0.6000
T4	7	1 1/4	220.00 - 240.00	0.6000	0.6000
T4	8	1 1/4	220.00 - 240.00	0.6000	0.6000
T4	11	EW63	220.00 - 240.00	0.6000	0.6000

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K<sub>a</sub> No Ice</i>	<i>K<sub>a</sub> Ice</i>
T5	1	Safety Line 3/8	200.00 - 220.00	0.6000	0.6000
T5	2	W/G LADDER RAIL*	200.00 - 220.00	0.6000	0.6000
T5	3	W/G LADDER RAIL*	200.00 - 220.00	0.6000	0.6000
T5	7	1 1/4	200.00 - 220.00	0.6000	0.6000
T5	8	1 1/4	200.00 - 220.00	0.6000	0.6000
T5	11	EW63	200.00 - 220.00	0.6000	0.6000
T6	1	Safety Line 3/8	180.00 - 200.00	0.6000	0.6000
T6	2	W/G LADDER RAIL*	180.00 - 200.00	0.6000	0.6000
T6	3	W/G LADDER RAIL*	180.00 - 200.00	0.6000	0.6000
T6	7	1 1/4	180.00 - 200.00	0.6000	0.6000
T6	9	1 1/4	180.00 - 200.00	0.6000	0.6000
T6	11	EW63	180.00 - 200.00	0.6000	0.6000
T7	1	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T7	2	W/G LADDER RAIL*	160.00 - 180.00	0.6000	0.6000
T7	3	W/G LADDER RAIL*	160.00 - 180.00	0.6000	0.6000
T7	7	1 1/4	160.00 - 180.00	0.6000	0.6000
T7	10	1 1/4	160.00 - 180.00	0.6000	0.6000
T7	11	EW63	160.00 - 180.00	0.6000	0.6000
T8	1	Safety Line 3/8	140.00 - 160.00	0.6000	0.6000
T8	2	W/G LADDER RAIL*	140.00 - 160.00	0.6000	0.6000
T8	3	W/G LADDER RAIL*	140.00 - 160.00	0.6000	0.6000
T8	7	1 1/4	140.00 - 160.00	0.6000	0.6000
T8	10	1 1/4	140.00 - 160.00	0.6000	0.6000
T8	11	EW63	140.00 - 160.00	0.6000	0.6000
T9	1	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T9	2	W/G LADDER RAIL*	120.00 - 140.00	0.6000	0.6000
T9	3	W/G LADDER RAIL*	120.00 - 140.00	0.6000	0.6000
T9	7	1 1/4	120.00 - 140.00	0.6000	0.6000
T9	10	1 1/4	120.00 - 140.00	0.6000	0.6000
T9	11	EW63	120.00 - 140.00	0.6000	0.6000
T10	1	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
T10	2	W/G LADDER RAIL*	100.00 - 120.00	0.6000	0.6000
T10	3	W/G LADDER RAIL*	100.00 - 120.00	0.6000	0.6000
T10	7	1 1/4	100.00 - 120.00	0.6000	0.6000
T10	10	1 1/4	100.00 - 120.00	0.6000	0.6000
T10	11	EW63	100.00 - 120.00	0.6000	0.6000
T11	1	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T11	2	W/G LADDER RAIL*	80.00 - 100.00	0.6000	0.6000
T11	3	W/G LADDER RAIL*	80.00 - 100.00	0.6000	0.6000
T11	7	1 1/4	80.00 - 100.00	0.6000	0.6000
T11	10	1 1/4	80.00 - 100.00	0.6000	0.6000
T11	11	EW63	80.00 - 100.00	0.6000	0.6000
T12	1	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T12	2	W/G LADDER RAIL*	60.00 - 80.00	0.6000	0.6000
T12	3	W/G LADDER RAIL*	60.00 - 80.00	0.6000	0.6000
T12	7	1 1/4	60.00 - 80.00	0.6000	0.6000
T12	10	1 1/4	60.00 - 80.00	0.6000	0.6000
T12	11	EW63	60.00 - 80.00	0.6000	0.6000
T13	1	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T13	2	W/G LADDER RAIL*	40.00 - 60.00	0.6000	0.6000
T13	3	W/G LADDER RAIL*	40.00 - 60.00	0.6000	0.6000
T13	7	1 1/4	40.00 - 60.00	0.6000	0.6000
T13	10	1 1/4	40.00 - 60.00	0.6000	0.6000
T13	11	EW63	40.00 - 60.00	0.6000	0.6000
T14	1	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T14	2	W/G LADDER RAIL*	20.00 - 40.00	0.6000	0.6000
T14	3	W/G LADDER RAIL*	20.00 - 40.00	0.6000	0.6000
T14	7	1 1/4	20.00 - 40.00	0.6000	0.6000
T14	10	1 1/4	20.00 - 40.00	0.6000	0.6000
T14	11	EW63	20.00 - 40.00	0.6000	0.6000
T15	1	Safety Line 3/8	5.00 - 20.00	0.6000	0.6000
T15	2	W/G LADDER RAIL*	5.00 - 20.00	0.6000	0.6000
T15	3	W/G LADDER RAIL*	5.00 - 20.00	0.6000	0.6000
T15	7	1 1/4	5.00 - 20.00	0.6000	0.6000
T15	10	1 1/4	5.00 - 20.00	0.6000	0.6000
T15	11	EW63	5.00 - 20.00	0.6000	0.6000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	$C_{AA}$ Front	$C_{AA}$ Side	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
Beacon Lighting	A	From Leg	0.00	0.00	0.000	300.00	No Ice	1.50	1.50	0.05
			0				1/2" Ice	2.00	2.00	0.07
			1				1" Ice	2.50	2.50	0.09
Lightning Rod 5/8x4'	C	From Leg	0.00	0.00	0.000	300.00	No Ice	0.25	0.25	0.03
			0				1/2" Ice	0.66	0.66	0.03



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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			Horz	Lateral						Vert
****										
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
(4) Commscope NN-65B-R2 w/ mt. pipe*	A	From Leg	3.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) Commscope NN-65B-R2 w/ mt. pipe*	B	From Leg	3.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) Commscope NN-65B-R2 w/ mt. pipe*	C	From Leg	3.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) RRU-12	A	From Leg	2.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10
(4) RRU-12	B	From Leg	2.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10
(4) RRU-12	C	From Leg	2.00	0	0.000	295.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10
*****										
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	9.71 13.89 18.07	5.18 7.60 10.02	0.40 1.60 2.80
(4) Commscope NN-65B-R2 w/ mt. pipe*	A	From Leg	3.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) Commscope NN-65B-R2 w/ mt. pipe*	B	From Leg	3.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) Commscope NN-65B-R2 w/ mt. pipe*	C	From Leg	3.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	13.72 14.32 14.92	7.15 8.10 8.94	0.10 0.18 0.28
(4) RRU-12	A	From Leg	2.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10
(4) RRU-12	B	From Leg	2.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10
(4) RRU-12	C	From Leg	2.00	0	0.000	285.00	No Ice 1/2" Ice 1" Ice	3.14 3.36 3.59	1.25 1.41 1.56	0.06 0.08 0.10

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			Horz	Lateral					
*****									
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0.000	275.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0.000	275.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0.000	275.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	A	From Leg	3.00	0.000	275.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	B	From Leg	3.00	0.000	275.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	C	From Leg	3.00	0.000	275.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) RRU-12	A	From Leg	2.00	0.000	275.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	B	From Leg	2.00	0.000	275.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	C	From Leg	2.00	0.000	275.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
*****									
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0.000	250.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0.000	250.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0.000	250.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	A	From Leg	3.00	0.000	250.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	B	From Leg	3.00	0.000	250.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	C	From Leg	3.00	0.000	250.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) RRU-12	A	From Leg	2.00	0.000	250.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	B	From Leg	2.00	0.000	250.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	C	From Leg	2.00	0.000	250.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
*****									

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment °	Placement ft	C <sub>AA</sub> Front ft <sup>2</sup>	C <sub>AA</sub> Side ft <sup>2</sup>	Weight K
			Horz Lateral ft	Vert ft					
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0.000	200.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0.000	200.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0.000	200.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	A	From Leg	3.00	0.000	200.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	B	From Leg	3.00	0.000	200.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	C	From Leg	3.00	0.000	200.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) RRU-12	A	From Leg	2.00	0.000	200.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	B	From Leg	2.00	0.000	200.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	C	From Leg	2.00	0.000	200.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
*****									
WD13X53 Antenna Mounting Frame	A	From Leg	1.50	0.000	180.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	B	From Leg	1.50	0.000	180.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
WD13X53 Antenna Mounting Frame	C	From Leg	1.50	0.000	180.00	No Ice	9.71	5.18	0.40
			0			1/2" Ice	13.89	7.60	1.60
			0			1" Ice	18.07	10.02	2.80
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	A	From Leg	3.00	0.000	180.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	B	From Leg	3.00	0.000	180.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) Commscope NN-65A-M w/ mt. pipe* (54.9" x 26.9" x 7.1")	C	From Leg	3.00	0.000	180.00	No Ice	12.31	4.91	0.08
			0			1/2" Ice	12.77	5.54	0.16
			0			1" Ice	13.23	6.18	0.25
(4) RRU-12	A	From Leg	2.00	0.000	180.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	B	From Leg	2.00	0.000	180.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
(4) RRU-12	C	From Leg	2.00	0.000	180.00	No Ice	3.14	1.25	0.06
			0			1/2" Ice	3.36	1.41	0.08
			0			1" Ice	3.59	1.56	0.10
*****									
Dish Mount	B	From Leg	0.50	0.000	240.00	No Ice	0.00	1.62	0.02

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight	
			ft ft ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
Dish Mount	C	From Leg	0	0.000	240.00	1/2" Ice	0.00	2.34	0.04
			0			1" Ice	0.00	2.69	0.06
			0.50			No Ice	0.00	1.62	0.02
			0			1/2" Ice	0.00	2.34	0.04
			0			1" Ice	0.00	2.69	0.06

### Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight	
				ft ft ft	°	°	ft	ft	ft <sup>2</sup>	K	
6 FT DISH	B	Paraboloid w/Shroud (HP)	From Leg	1.00	0.000		240.00	6.00	No Ice	28.27	0.14
				0					1/2" Ice	29.05	0.29
				0					1" Ice	29.83	0.44
6 FT DISH	C	Paraboloid w/Shroud (HP)	From Leg	1.00	0.000		240.00	6.00	No Ice	28.27	0.14
				0					1/2" Ice	29.05	0.29
				0					1" Ice	29.83	0.44

### Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load Allowable	Allowable Ratio	Criteria
T1	300	Leg	A325X	0.75	4	4.96	29.82	0.166	✓	1 Bolt Tension
		Diagonal	A325X	0.63	1	5.61	8.89	0.630	✓	1 Member Block Shear
		Top Girt	A325X	0.63	1	0.60	5.93	0.102	✓	1 Member Block Shear
T2	280	Leg	A325X	1.00	4	18.27	53.01	0.345	✓	1 Bolt Tension
		Diagonal	A325X	0.63	1	5.92	8.89	0.666	✓	1 Member Block Shear
		Top Girt	A325X	0.63	1	1.43	5.93	0.242	✓	1 Member Block Shear
T3	260	Leg	A325X	1.00	4	29.37	53.01	0.554	✓	1 Bolt Tension
		Diagonal	A325X	0.63	1	5.84	8.89	0.657	✓	1 Member Block Shear
T4	240	Leg	A325X	1.00	4	40.65	53.01	0.767	✓	1 Bolt Tension
		Diagonal	A325X	0.63	1	6.37	8.89	0.716	✓	1 Member Block Shear
T5	220	Leg	A325X	1.00	6	32.49	53.01	0.613	✓	1 Bolt Tension
		Diagonal	A325X	0.63	1	7.49	10.93	0.685	✓	1 Member Block Shear

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Section No.	Elevation	Component Type	Bolt Grade	Bolt Size	Number Of Bolts	Maximum Load per Bolt	Allowable Load per Bolt	Ratio	Allowable Ratio	Criteria
T6	200	Leg	A325X	1.00	6	38.79	53.01	0.732	1	Member Block Shear
		Diagonal	A325X	0.63	1	8.65	11.09	0.780	1	Member Bearing
		Horizontal	A325X	0.63	1	4.92	8.89	0.553	1	Member Block Shear
T7	180	Leg	A325X	1.25	6	45.46	72.51	0.627	1	Member Block Shear
		Diagonal	A325X	0.75	1	9.80	17.84	0.549	1	Member Bearing
		Horizontal	A325X	0.75	1	5.80	11.18	0.519	1	Member Block Shear
T8	160	Leg	A325X	1.25	6	51.71	72.51	0.713	1	Member Block Shear
		Diagonal	A325X	0.75	1	9.48	17.84	0.531	1	Member Bearing
		Horizontal	A325X	0.75	1	6.30	11.18	0.563	1	Member Block Shear
T9	140	Leg	A325X	1.25	6	57.41	72.51	0.792	1	Member Block Shear
		Diagonal	A325X	0.75	1	9.37	17.84	0.525	1	Member Bearing
		Horizontal	A325X	0.75	1	6.72	13.38	0.502	1	Member Bearing
T10	120	Leg	A325X	1.25	6	61.52	72.51	0.849	1	Member Bearing
		Diagonal	A325X	0.75	1	6.56	17.84	0.368	1	Member Bearing
		Horizontal	A325X	0.75	1	7.25	13.38	0.542	1	Member Bearing
T11	100	Leg	A325X	1.25	6	64.82	72.51	0.894	1	Member Bearing
		Diagonal	A325X	0.75	1	6.78	17.84	0.380	1	Member Bearing
		Horizontal	A325X	0.75	1	7.69	17.84	0.431	1	Member Bearing
T12	80	Leg	A325X	1.25	6	68.04	72.51	0.938	1	Member Bearing
		Diagonal	A325X	0.75	1	7.20	17.84	0.404	1	Member Bearing
		Horizontal	A325X	0.75	1	8.14	17.84	0.456	1	Member Bearing
T13	60	Leg	A325X	1.25	6	71.21	72.51	0.982	1	Member Bearing
		Diagonal	A325X	0.75	1	7.91	17.84	0.443	1	Member Bearing
		Horizontal	A325X	0.75	1	8.59	17.84	0.482	1	Member Bearing
T14	40	Leg	A325X	1.50	6	73.36	104.41	0.703	1	Member Bearing
		Diagonal	A325X	0.75	1	9.83	17.84	0.551	1	Member Bearing
		Horizontal	A325X	0.75	1	8.93	17.84	0.500	1	Member Bearing
T15	20	Leg	F1554-10	1.50	6	76.47	124.25	0.615	1	Member Bearing
		Diagonal	A325X	0.75	1	9.73	17.84	0.545	1	Member Bearing
		Horizontal	A325X	0.75	1	9.38	17.84	0.526	1	Member Bearing

**Compression Checks**



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### Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	1 3/4	20.00	5.00	137.1 K=1.00	2.41	-24.97	28.89	0.864 <sup>1</sup>
T2	280 - 260	2 1/2	20.02	5.00	96.1 K=1.00	4.91	-82.73	112.46	0.736 <sup>1</sup>
T3	260 - 240	2 3/4	20.02	5.00	87.4 K=1.00	5.94	-131.87	152.99	0.862 <sup>1</sup>
T4	240 - 220	3	20.02	5.00	80.1 K=1.00	7.07	-180.15	199.04	0.905 <sup>1</sup>
T5	220 - 200	3 1/4	20.02	5.00	73.9 K=1.00	8.30	-215.33	250.37	0.860 <sup>1</sup>
T6	200 - 180	3 1/2	20.02	5.00	68.6 K=1.00	9.62	-258.92	306.80	0.844 <sup>1</sup>
T7	180 - 160	3 1/2	20.02	5.00	68.6 K=1.00	9.62	-305.27	306.80	0.995 <sup>1</sup>
T8	160 - 140	3 3/4	20.02	5.00	64.1 K=1.00	11.04	-347.63	368.18	0.944 <sup>1</sup>
T9	140 - 120	4	20.02	5.00	60.1 K=1.00	12.57	-387.26	434.40	0.891 <sup>1</sup>
T10	120 - 100	4	20.03	5.01	60.1 K=1.00	12.57	-417.71	434.24	0.962 <sup>1</sup>
T11	100 - 80	4 1/4	20.03	5.01	56.6 K=1.00	14.19	-443.50	505.22	0.878 <sup>1</sup>
T12	80 - 60	4 1/4	20.03	5.01	56.6 K=1.00	14.19	-469.31	505.22	0.929 <sup>1</sup>
T13	60 - 40	4 1/4	20.03	5.01	56.6 K=1.00	14.19	-495.23	505.22	0.980 <sup>1</sup>
T14	40 - 20	4 1/2	20.03	5.01	53.4 K=1.00	15.90	-514.70	580.90	0.886 <sup>1</sup>
T15	20 - 0	4 1/2	20.03	5.01	53.4 K=1.00	15.90	-540.88	580.90	0.931 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	L2x2x3/16	6.40	2.94	97.1 K=1.09	0.71	-5.89	14.10	0.418 <sup>1</sup>
T2	280 - 260	L2x2x3/16	6.77	3.24	103.9 K=1.05	0.71	-5.97	13.12	0.455 <sup>1</sup>
T3	260 - 240	L2x2x3/16	8.45	4.05	123.5 K=1.00	0.71	-5.79	10.38	0.558 <sup>1</sup>
T4	240 - 220	L2x2x3/16	9.70	4.67	142.2	0.71	-5.95	7.99	0.745 <sup>1</sup>

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T5	220 - 200	L2 1/2x2 1/2x3/16	7.07	6.59	K=1.00 159.7	0.90	-7.48	7.99	0.936 <sup>1</sup> ✓
T6	200 - 180	L3x3x3/16	7.62	7.14	K=1.00 143.7	1.09	-8.61	11.93	0.722 <sup>1</sup> ✓
T7	180 - 160	L3x3x1/4	8.20	7.68	K=1.00 155.8	1.44	-9.84	13.41	0.734 <sup>1</sup> ✓
T8	160 - 140	L3x3x1/4	8.81	8.28	K=1.00 167.9	1.44	-9.72	11.54	0.842 <sup>1</sup> ✓
T9	140 - 120	L3x3x1/4	9.43	8.90	K=1.00 180.5	1.44	-9.96	9.98	0.997 <sup>1</sup> ✓
T10	120 - 100	L3x3x1/4	10.30	9.77	K=1.00 198.1	1.44	-6.74	8.29	0.813 <sup>1</sup> ✓
T11	100 - 80	L3 1/2x3 1/2x1/4	11.18	10.65	K=1.00 184.1	1.69	-7.26	11.26	0.645 <sup>1</sup> ✓
T12	80 - 60	L3 1/2x3 1/2x1/4	12.08	11.56	K=1.00 199.8	1.69	-7.87	9.56	0.823 <sup>1</sup> ✓
T13	60 - 40	L4x4x1/4	13.00	12.48	K=1.00 188.3	1.94	-8.77	12.36	0.710 <sup>1</sup> ✓
T14	40 - 20	L4x4x1/4	16.40	15.83	K=1.00 152.0	1.94	-10.89	18.97	0.574 <sup>1</sup> ✓
T15	20 - 0	L4x4x1/4	17.21	16.64	K=1.00 159.8	1.94	-11.01	17.17	0.641 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T5	220 - 200	L2x2x1/8	9.63	4.53	K=1.00 136.8	0.48	-4.31	5.85	0.737 <sup>1</sup> ✓
T6	200 - 180	L2x2x3/16	11.13	5.27	K=1.00 160.5	0.71	-4.92	6.27	0.785 <sup>1</sup> ✓
T7	180 - 160	L2 1/2x2 1/2x3/16	12.63	6.00	K=1.00 145.5	0.90	-5.80	9.63	0.602 <sup>1</sup> ✓
T8	160 - 140	L2 1/2x2 1/2x3/16	14.13	6.74	K=1.00 163.4	0.90	-6.30	7.63	0.825 <sup>1</sup> ✓
T9	140 - 120	L3x3x3/16	15.63	7.48	K=1.00 150.6	1.09	-6.72	10.86	0.619 <sup>1</sup> ✓
T10	120 - 100	L3x3x3/16	17.50	8.42	K=1.00 169.5	1.09	-7.25	8.57	0.846 <sup>1</sup> ✓
T11	100 - 80	L3x3x1/4	19.50	9.41	K=1.00 190.7	1.44	-7.69	8.95	0.859 <sup>1</sup> ✓
T12	80 - 60	L3 1/2x3 1/2x1/4	21.50	10.41	K=1.00 179.9	1.69	-8.14	11.79	0.690 <sup>1</sup> ✓
T13	60 - 40	L3 1/2x3 1/2x1/4	23.50	11.41	K=1.00 197.2	1.69	-8.59	9.82	0.875 <sup>1</sup> ✓

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L4x4x1/4	25.00	12.15	183.3 K=1.00	1.94	-8.93	13.04	0.685 <sup>1</sup>
T15	20 - 0	L4x4x1/4	27.00	13.15	198.4 K=1.00	1.94	-9.38	11.13	0.843 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	L2x2x1/8	4.00	3.56	113.8 K=1.06	0.48	-0.70	7.85	0.089 <sup>1</sup>
T2	280 - 260	L2x2x1/8	4.00	3.50	112.8 K=1.07	0.48	-1.43	7.94	0.181 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L3x3x3/16	6.25	6.06	122.1 K=1.00	1.09	-8.93	15.99	0.558 <sup>1</sup>
T15	20 - 0	L3x3x3/16	6.75	6.56	132.1 K=1.00	1.09	-9.38	14.04	0.668 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L3x3x3/16	8.20	7.96	160.2 K=1.00	1.09	-5.86	9.59	0.611 <sup>1</sup>
T15	20 - 0	L3x3x3/16	8.60	8.37	168.5 K=1.00	1.09	-5.98	8.68	0.689 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

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### Inner Bracing Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L3 1/2x3 1/2x1/4	12.50	12.50	216.1 K=1.00	1.69	-0.03	8.17	0.003 <sup>1</sup>
T15	20 - 0	L3 1/2x3 1/2x1/4	13.50	13.50	233.4 K=1.00	1.69	-0.02	7.01	0.003 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Tension Checks

### Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	1 3/4	20.00	5.00	137.1	2.41	19.83	108.24	0.183 <sup>1</sup>
T2	280 - 260	2 1/2	20.02	5.00	96.1	4.91	73.08	220.89	0.331 <sup>1</sup>
T3	260 - 240	2 3/4	20.02	5.00	87.4	5.94	117.49	267.28	0.440 <sup>1</sup>
T4	240 - 220	3	20.02	5.00	80.1	7.07	162.60	318.09	0.511 <sup>1</sup>
T5	220 - 200	3 1/4	20.02	5.00	73.9	8.30	195.09	373.31	0.523 <sup>1</sup>
T6	200 - 180	3 1/2	20.02	5.00	68.6	9.62	232.97	432.95	0.538 <sup>1</sup>
T7	180 - 160	3 1/2	20.02	5.00	68.6	9.62	272.95	432.95	0.630 <sup>1</sup>
T8	160 - 140	3 3/4	20.02	5.00	64.1	11.04	310.48	497.01	0.625 <sup>1</sup>
T9	140 - 120	4	20.02	5.00	60.1	12.57	344.76	565.49	0.610 <sup>1</sup>
T10	120 - 100	4	20.03	5.01	60.1	12.57	369.44	565.49	0.653 <sup>1</sup>
T11	100 - 80	4 1/4	20.03	5.01	56.6	14.19	389.24	638.38	0.610 <sup>1</sup>
T12	80 - 60	4 1/4	20.03	5.01	56.6	14.19	408.60	638.38	0.640 <sup>1</sup>
T13	60 - 40	4 1/4	20.03	5.01	56.6	14.19	427.62	638.38	0.670 <sup>1</sup>
T14	40 - 20	4 1/2	20.03	5.01	53.4	15.90	441.43	715.69	0.617 <sup>1</sup>
T15	20 - 0	4 1/2	20.03	5.01	53.4	15.90	459.41	715.69	0.642 <sup>1</sup>

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
									✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	L2x2x3/16	6.40	2.94	60.0	0.43	5.61	18.74	0.299 <sup>1</sup> ✓
T2	280 - 260	L2x2x3/16	6.77	3.24	65.8	0.43	5.92	18.74	0.316 <sup>1</sup> ✓
T3	260 - 240	L2x2x3/16	8.15	3.91	78.8	0.43	5.84	18.74	0.312 <sup>1</sup> ✓
T4	240 - 220	L2x2x3/16	8.76	4.20	84.5	0.43	6.37	18.74	0.340 <sup>1</sup> ✓
T5	220 - 200	L2 1/2x2 1/2x3/16	6.56	6.08	98.3	0.57	7.49	24.84	0.302 <sup>1</sup> ✓
T6	200 - 180	L3x3x3/16	7.07	6.59	87.9	0.71	8.65	30.97	0.279 <sup>1</sup> ✓
T7	180 - 160	L3x3x1/4	7.62	7.10	96.0	0.92	9.80	39.84	0.246 <sup>1</sup> ✓
T8	160 - 140	L3x3x1/4	8.20	7.68	103.4	0.92	9.48	39.84	0.238 <sup>1</sup> ✓
T9	140 - 120	L3x3x1/4	9.12	8.59	115.1	0.92	9.37	39.84	0.235 <sup>1</sup> ✓
T10	120 - 100	L3x3x1/4	9.86	9.34	124.8	0.92	6.56	39.84	0.165 <sup>1</sup> ✓
T11	100 - 80	L3 1/2x3 1/2x1/4	10.74	10.21	116.0	1.10	6.78	48.00	0.141 <sup>1</sup> ✓
T12	80 - 60	L3 1/2x3 1/2x1/4	11.63	11.10	125.9	1.10	7.20	48.00	0.150 <sup>1</sup> ✓
T13	60 - 40	L4x4x1/4	13.00	12.48	123.0	1.29	7.91	56.16	0.141 <sup>1</sup> ✓
T14	40 - 20	L4x4x1/4	16.40	15.83	155.2	1.29	9.83	56.16	0.175 <sup>1</sup> ✓
T15	20 - 0	L4x4x1/4	16.40	15.84	155.3	1.29	9.73	56.16	0.173 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Horizontal Design Data (Tension)



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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T5	220 - 200	L2x2x1/8	8.88	4.16	123.7	0.29	4.31	12.74	0.338 <sup>1</sup>
T6	200 - 180	L2x2x3/16	10.38	4.90	147.1	0.43	4.92	18.74	0.262 <sup>1</sup>
T7	180 - 160	L2 1/2x2 1/2x3/16	11.88	5.63	134.0	0.55	5.80	24.08	0.241 <sup>1</sup>
T8	160 - 140	L2 1/2x2 1/2x3/16	13.38	6.36	151.1	0.55	6.30	24.08	0.262 <sup>1</sup>
T9	140 - 120	L3x3x3/16	15.63	7.48	146.6	0.69	6.72	30.21	0.222 <sup>1</sup>
T10	120 - 100	L3x3x3/16	16.50	7.92	155.0	0.69	7.25	30.21	0.240 <sup>1</sup>
T11	100 - 80	L3x3x1/4	19.50	9.41	185.3	0.92	7.69	39.84	0.193 <sup>1</sup>
T12	80 - 60	L3 1/2x3 1/2x1/4	20.50	9.91	166.3	1.10	8.14	48.00	0.170 <sup>1</sup>
T13	60 - 40	L3 1/2x3 1/2x1/4	22.50	10.91	182.9	1.10	8.59	48.00	0.179 <sup>1</sup>
T14	40 - 20	L4x4x1/4	25.00	12.15	118.2	1.29	8.93	56.16	0.159 <sup>1</sup>
T15	20 - 0	L4x4x1/4	27.00	13.15	127.8	1.29	9.38	56.16	0.167 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T1	300 - 280	L2x2x1/8	4.00	3.56	73.9	0.29	0.60	12.74	0.047 <sup>1</sup>
T2	280 - 260	L2x2x1/8	4.00	3.50	72.7	0.29	1.43	12.74	0.113 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L3x3x3/16	6.25	6.06	77.5	1.09	8.93	35.32	0.253 <sup>1</sup>
T15	20 - 0	L3x3x3/16	6.75	6.56	83.9	1.09	9.38	35.32	0.266 <sup>1</sup>

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
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<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T14	40 - 20	L3x3x3/16	8.20	7.96	101.7	1.09	5.86	35.32	0.166 <sup>1</sup> ✓
T15	20 - 0	L3x3x3/16	8.60	8.37	106.9	1.09	5.98	35.32	0.169 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Inner Bracing Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> K	φP <sub>n</sub> K	Ratio $\frac{P_u}{\phi P_n}$
T15	20 - 0	L3 1/2x3 1/2x1/4	13.50	13.50	148.6	1.69	0.00	54.76	0.000 <sup>1</sup> ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP <sub>allow</sub> K	% Capacity	Pass Fail
T1	300 - 280	Leg	1 3/4	1	-24.97	28.89	86.4	Pass
T2	280 - 260	Leg	2 1/2	31	-82.73	112.46	73.6	Pass
T3	260 - 240	Leg	2 3/4	61	-131.87	152.99	86.2	Pass
T4	240 - 220	Leg	3	88	-180.15	199.04	90.5	Pass
T5	220 - 200	Leg	3 1/4	115	-215.33	250.37	86.0	Pass
T6	200 - 180	Leg	3 1/2	148	-258.92	306.80	84.4	Pass
T7	180 - 160	Leg	3 1/2	181	-305.27	306.80	99.5	Pass
T8	160 - 140	Leg	3 3/4	214	-347.63	368.18	94.4	Pass
T9	140 - 120	Leg	4	247	-387.26	434.40	89.1	Pass
T10	120 - 100	Leg	4	280	-417.71	434.24	96.2	Pass
T11	100 - 80	Leg	4 1/4	313	-443.50	505.22	87.8	Pass
T12	80 - 60	Leg	4 1/4	346	-469.31	505.22	89.4 (b) 92.9	Pass
T13	60 - 40	Leg	4 1/4	379	-495.23	505.22	93.8 (b) 98.0	Pass
T14	40 - 20	Leg	4 1/2	412	-514.70	580.90	98.2 (b) 88.6	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
T15	20 - 0	Leg	4 1/2	457	-540.88	580.90	93.1	Pass
T1	300 - 280	Diagonal	L2x2x3/16	9	-5.89	14.10	41.8	Pass
							63.0 (b)	
T2	280 - 260	Diagonal	L2x2x3/16	51	-5.97	13.12	45.5	Pass
							66.6 (b)	
T3	260 - 240	Diagonal	L2x2x3/16	64	-5.79	10.38	55.8	Pass
							65.7 (b)	
T4	240 - 220	Diagonal	L2x2x3/16	91	-5.95	7.99	74.5	Pass
T5	220 - 200	Diagonal	L2 1/2x2 1/2x3/16	119	-7.48	7.99	93.6	Pass
T6	200 - 180	Diagonal	L3x3x3/16	152	-8.61	11.93	72.2	Pass
							78.0 (b)	
T7	180 - 160	Diagonal	L3x3x1/4	185	-9.84	13.41	73.4	Pass
T8	160 - 140	Diagonal	L3x3x1/4	218	-9.72	11.54	84.2	Pass
T9	140 - 120	Diagonal	L3x3x1/4	251	-9.96	9.98	99.7	Pass
T10	120 - 100	Diagonal	L3x3x1/4	284	-6.74	8.29	81.3	Pass
T11	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	317	-7.26	11.26	64.5	Pass
T12	80 - 60	Diagonal	L3 1/2x3 1/2x1/4	350	-7.87	9.56	82.3	Pass
T13	60 - 40	Diagonal	L4x4x1/4	383	-8.77	12.36	71.0	Pass
T14	40 - 20	Diagonal	L4x4x1/4	416	-10.89	18.97	57.4	Pass
T15	20 - 0	Diagonal	L4x4x1/4	461	-11.01	17.17	64.1	Pass
T5	220 - 200	Horizontal	L2x2x1/8	124	-4.31	5.85	73.7	Pass
T6	200 - 180	Horizontal	L2x2x3/16	157	-4.92	6.27	78.5	Pass
T7	180 - 160	Horizontal	L2 1/2x2 1/2x3/16	190	-5.80	9.63	60.2	Pass
T8	160 - 140	Horizontal	L2 1/2x2 1/2x3/16	223	-6.30	7.63	82.5	Pass
T9	140 - 120	Horizontal	L3x3x3/16	256	-6.72	10.86	61.9	Pass
T10	120 - 100	Horizontal	L3x3x3/16	289	-7.25	8.57	84.6	Pass
T11	100 - 80	Horizontal	L3x3x1/4	322	-7.69	8.95	85.9	Pass
T12	80 - 60	Horizontal	L3 1/2x3 1/2x1/4	355	-8.14	11.79	69.0	Pass
T13	60 - 40	Horizontal	L3 1/2x3 1/2x1/4	388	-8.59	9.82	87.5	Pass
T14	40 - 20	Horizontal	L4x4x1/4	429	-8.93	13.04	68.5	Pass
T15	20 - 0	Horizontal	L4x4x1/4	474	-9.38	11.13	84.3	Pass
T1	300 - 280	Top Girt	L2x2x1/8	4	-0.70	7.85	8.9	Pass
							10.2 (b)	
T2	280 - 260	Top Girt	L2x2x1/8	36	-1.43	7.94	18.1	Pass
							24.2 (b)	
T14	40 - 20	Redund Horz 1 Bracing	L3x3x3/16	440	-8.93	15.99	55.8	Pass
T15	20 - 0	Redund Horz 1 Bracing	L3x3x3/16	462	-9.38	14.04	66.8	Pass
T14	40 - 20	Redund Diag 1 Bracing	L3x3x3/16	456	-5.86	9.59	61.1	Pass
T15	20 - 0	Redund Diag 1 Bracing	L3x3x3/16	486	-5.98	8.68	68.9	Pass
T14	40 - 20	Inner Bracing	L3 1/2x3 1/2x1/4	436	-0.03	8.17	0.7	Pass
T15	20 - 0	Inner Bracing	L3 1/2x3 1/2x1/4	482	-0.02	7.01	0.7	Pass
							Summary	
						Leg (T7)	99.5	Pass
						Diagonal (T9)	99.7	Pass
						Horizontal (T13)	87.5	Pass
						Top Girt (T2)	24.2	Pass
						Redund Horz 1 Bracing (T15)	66.8	Pass
						Redund Diag 1 Bracing (T15)	68.9	Pass

<b>tnxTower</b>  <b>World Tower Company</b> 1213 Compressor Drive Mayfield, KY 42066 Phone: (270) 247-3642 FAX: www.worldtower.com	<b>Job</b> 300' WSST Tower / WTC Q22-536	<b>Page</b> 27 of 27
	<b>Project</b> Stanville	<b>Date</b> 10:13:01 10/26/22
	<b>Client</b> Appalachian Wireless	<b>Designed by</b> kirk

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\phi P_{allow}$ K	% Capacity	Pass Fail
						Inner Bracing (T14)	0.7	Pass
						Bolt Checks	98.2	Pass
						<b>RATING =</b>	<b>99.7</b>	<b>Pass</b>

# Exhibit 6





## APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

### JURISDICTION

602 KAR 50:030

- Section 1. The commission has zoning jurisdiction over that airspace over and around the public use and military airports within the Commonwealth which lies above the imaginary surface that extends outward and upward at one (1) of the following slopes:
- (1) 100 to one (1) for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each public use airport and military airport with at least one (1) runway 3,200 feet or more in length; or
  - (2) fifty (50) to one (1) for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each public use and military airport with its longest runway less than 3,200 feet in length.
- Section 2. The commission has zoning jurisdiction over the use of land and structures within public use airports within the state.
- Section 3. The commission has jurisdiction from the ground upward within the limits of the primary and approach surfaces of each public use airport and military airport as depicted on airport zoning maps approved by the Kentucky Airport Zoning Commission.
- Section 4. The Commission has jurisdiction over the airspace of the Commonwealth that exceeds 200 feet in height above the ground.
- Section 5. The owner or person who has control over a structure which penetrates or will penetrate the airspace over which the Commission has Jurisdiction shall apply for a permit from the Commission in accordance with 602 KAR 50:090.

### INSTRUCTIONS

1. "Alteration" means to increase or decrease the height of a structure or change the obstruction marking and lighting.
2. "Applicant" means the person who will own or have control over the completed structure.
3. "Certification by Applicant" shall be made by the individual who will own or control the completed structure; or a partner in a partnership; or the president or authorized officer of a corporation company, or association; or the authorized official of a body politic; or the legally designated representative of a trustee, receiver, or assignee.
4. Prepare the application and forward to the Kentucky Airport Zoning Commission, 421 Buttermilk Pike, Covington, KY 41017. For questions, telephone 859-341-2700.
5. The statutes applicable to the Kentucky Airport Commission are KRS 183.861 to 183.990 and the administrative regulations are 602 KAR Chapter 50.
6. When applicable, attach the following appendices to the application:
  - Appendix A. A 7.5 minute quadrangle topographical map prepared by the U.S. Geological Survey and the Kentucky Geological Survey with the exact location of the structure which is the subject of the application indicated thereon. (*The 7.5 minute quadrangle map may be obtained from the Kentucky Geological Survey, Department of Mines and Minerals, Lexington, KY 40506.*)
  - Appendix B. For structures on or very near to property of a public use airport, a copy of the airport layout drawing (ALP) with the exact location of the structure which is the subject of this application indicated thereon. (*The ALP may be obtained from the Chairperson of the local airport board or the Kentucky Airport Zoning Commission.*)
  - Appendix C. Copies of Federal Aviation Administration Applications (*FFA Form 7460-1*) or any orders issued by the manager, Air Traffic Division, FAA regional office.
  - Appendix D. If the applicant has indicated in item number 7 of the application that the structure will not be marked or lighted in accordance with the regulations of the Commission, the applicant shall attach a written request for a determination by the commission that the marking and lighting are not necessary. The applicant shall specifically state the reasons that the absence of marking and lighting will not impair the safety of air navigation.
  - Appendix E. The overall height in feet of the overhead transmission line or static wire above ground level or mean water level with span length 1,000 feet and over shall be depicted on a blueprint profile map.

### PENALTIES

1. Persons failing to comply with the Airport Zoning Commission statutes and regulations are liable for a fine or imprisonment as set forth in KRS 183.990(3).
2. Applicants are cautioned: Noncompliance with Federal Aviation Administration Regulations may provide for further penalties.



KENTUCKY TRANSPORTATION CABINET  
KENTUCKY AIRPORT ZONING COMMISSION

TC 55-2  
Rev. 05/2017  
Page 2 of 2

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

<b>APPLICANT (name)</b> East Kentucky Network, LLC		<b>PHONE</b> 606-339-1006	<b>FAX</b> 606-339-1363	<b>KY AERONAUTICAL STUDY #</b>	
<b>ADDRESS (street)</b> 101 Technology Trail		<b>CITY</b> Ivel		<b>STATE</b> KY	<b>ZIP</b> 41642
<b>APPLICANT'S REPRESENTATIVE (name)</b> Cindy McCarty		<b>PHONE</b> 606-339-1006	<b>FAX</b> 606-339-1363		
<b>ADDRESS (street)</b> 101 Technology Trail		<b>CITY</b> Ivel		<b>STATE</b> KY	<b>ZIP</b> 41642
<b>APPLICATION FOR</b> <input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Alteration <input type="checkbox"/> Existing				<b>WORK SCHEDULE</b>	
<b>DURATION</b> <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary (months days )				Start 2/1/2023 End 2/28/2023	
<b>TYPE</b> <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		<b>MARKING/PAINTING/LIGHTING PREFERRED</b> <input type="checkbox"/> Red Lights & Paint <input checked="" type="checkbox"/> White- medium intensity <input type="checkbox"/> White- high intensity <input type="checkbox"/> Dual- red & medium intensity white <input type="checkbox"/> Dual- red & high intensity white <input type="checkbox"/> Other None			
<b>LATITUDE</b> 37°33'53.20"		<b>LONGITUDE</b> 82°37'53.02"		<b>DATUM</b> <input checked="" type="checkbox"/> NAD83 <input type="checkbox"/> NAD27 <input type="checkbox"/> Other	
<b>NEAREST KENTUCKY</b> City Betsy Layne County Floyd		<b>NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT</b> Pike County Hatcher Field Airport			
<b>SITE ELEVATION (AMSL, feet)</b> 1396		<b>TOTAL STRUCTURE HEIGHT (AGL, feet)</b> 310		<b>CURRENT (FAA aeronautical study #)</b> 2021-ASO-10684-OE	
<b>OVERALL HEIGHT (site elevation plus total structure height, feet)</b> 1706				<b>PREVIOUS (FAA aeronautical study #)</b>	
<b>DISTANCE (from nearest Kentucky public use or Military airport to structure)</b> 3.1 nm				<b>PREVIOUS (KY aeronautical study #)</b>	
<b>DIRECTION (from nearest Kentucky public use or Military airport to structure)</b> W					
<b>DESCRIPTION OF LOCATION (Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.)</b> Located off Bobcat Way, Betsy Layne (Floyd County), KY					
<b>DESCRIPTION OF PROPOSAL</b> Request an extension for subject number AS-FLOYD-PBX-2021-034.					
<b>FAA Form 7460-1 (Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?)</b> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes, when? 3-26-2021					
<b>CERTIFICATION (I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.)</b>					
<b>PENALTIES (Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.)</b>					
<b>NAME</b> Cindy McCarty	<b>TITLE</b> In-House Counsel	<b>SIGNATURE</b> /s/ Cindy McCarty		<b>DATE</b> 10/24/2022	
<b>COMMISSION ACTION</b> <input type="checkbox"/> Chairperson, KAZC <input type="checkbox"/> Administrator, KAZC					
<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<b>SIGNATURE</b>			<b>DATE</b>	



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

Aeronautical Study No.  
2021-ASO-10684-OE

Issued Date: 10/20/2022

Cindy D. McCarty  
East Kentucky Network, LLC  
101 Technology Trail  
Ivel, KY 41642

**\*\* Extension \*\***

A Determination was issued by the Federal Aviation Administration (FAA) concerning:

Structure:	Antenna Tower Stanville
Location:	Betsy Layne, KY
Latitude:	37-33-53.20N NAD 83
Longitude:	82-37-53.02W
Heights:	1396 feet site elevation (SE) 310 feet above ground level (AGL) 1706 feet above mean sea level (AMSL)

In response to your request for an extension of the effective period of the determination, the FAA has reviewed the aeronautical study in light of current aeronautical operations in the area of the structure and finds that no significant aeronautical changes have occurred which would alter the determination issued for this structure.

Accordingly, pursuant to the authority delegated to me, the effective period of the determination issued under the above cited aeronautical study number is hereby extended and will expire on 04/20/2024 unless otherwise extended, revised, or terminated by this office. You must adhere to all conditions identified in the original determination.

This extension issued in accordance with 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerns the effect of the structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this extension 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 (817) 222-5928, or [chris.smith@faa.gov](mailto:chris.smith@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2021-ASO-10684-OE.

**Signature Control No: 475734118-558555882**

**( EXT )**

**Chris Smith**

**Specialist**

**Attachment(s)**

**Additional Information**

**Map(s)**

**cc: FCC**

**Additional information for ASN 2021-ASO-10684-OE**

**Request the Antenna Tower be equipped with NVG compatible lighting, and applicable FAA lighting/paint/markings**

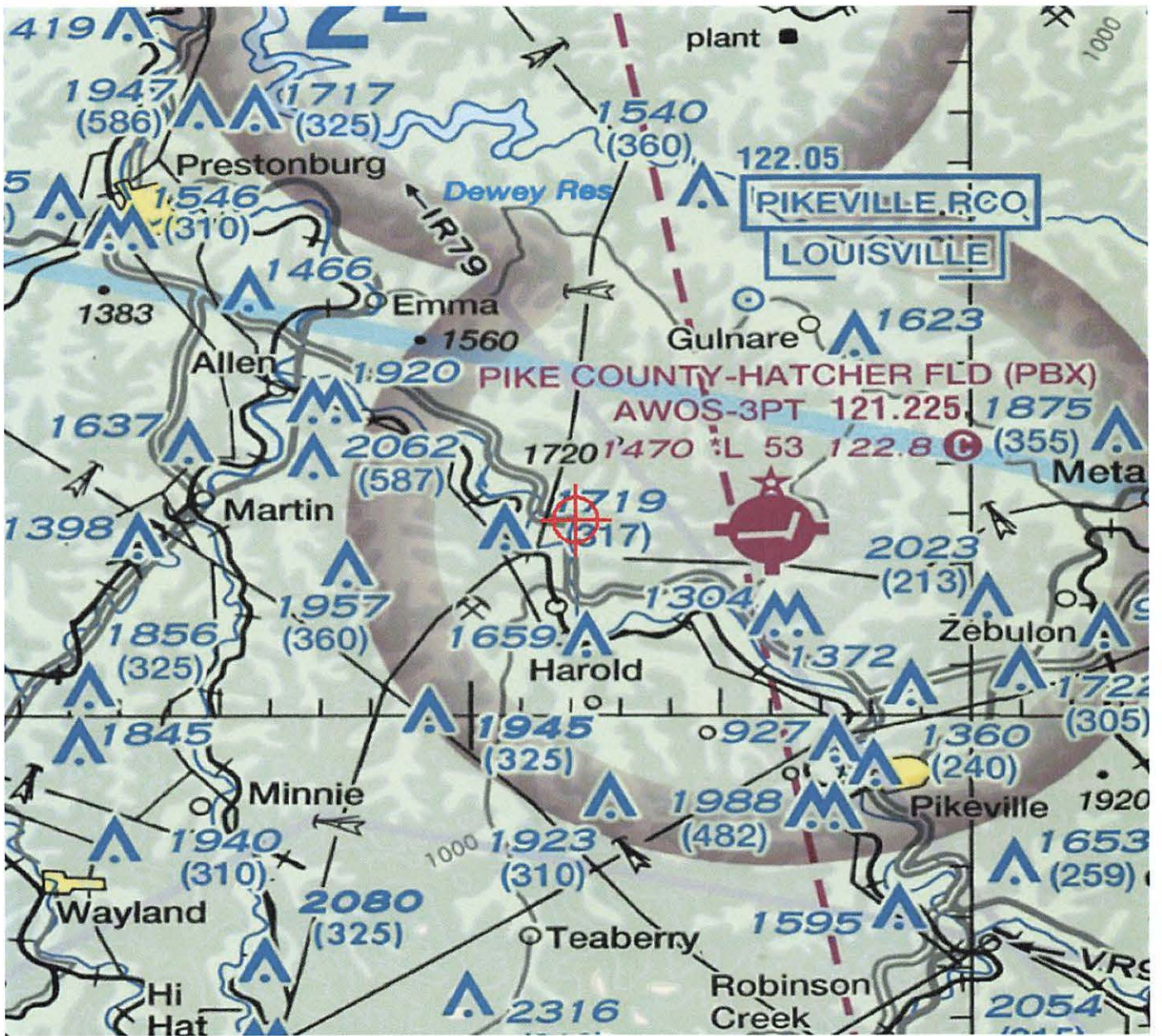


TOPO Map for ASN 2021-ASO-10684-OE





Sectional Map for ASN 2021-ASO-10684-OE



# Exhibit 7

### Driving Directions for Stanville site

1. Beginning at the intersection of Court Street and Central Avenue headed east
2. Drive .3 miles to the intersection of central Avenue and South Lake Drive
3. Turn left onto South Lake Drive
4. Drive 2.6 miles and turn right onto KY-80
5. Drive 2.6 miles and exit to your left onto U.S. 23
6. Drive 9.6 miles and exit to your left onto Bobcat Boulevard Road
7. Continue.3 miles
8. Turn left onto gravel road (sign posted)
9. From this point, entrance is by previous arrangement only
10. Continue 1 mile up the hill (sign posted)

**Prepared By:**

Daryl Bartley  
CELL SITE COMPLIANCE AGENT  
d/b/a Appalachian Wireless  
(606) 791-0310 (cell)

# Exhibit 8

Name: DEEDS

CHRIS WAUGH

FLOYD COUNTY

6/15/2022 10:38 AM



MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is made and entered into on this 2 day of June, 2022, with a commencement date of June 1, 2022 (the

“Commencement Date”), by and between **INTER MOUNTAIN CABLE, INC. (fka Tele-Com of Harold, Inc.)**, a Kentucky Corporation, with an address of P.O. Box 160, Harold, Kentucky 41635, hereinafter referred to as “**Lessor**”, and **EAST KENTUCKY NETWORK, LLC D/B/A APPALACHIAN WIRELESS**, a Kentucky limited liability company, with a mailing address of 101 Technology Trail, Ivel, Kentucky, 41642, hereinafter referred to as “**Lessee**.”

WITNESSETH

1. **Demised Premises.** For good and valuable consideration, Lessor leased to Lessee, and Lessee has leased from Lessor that certain tract of real estate located in Floyd County, Kentucky, and being a portion of the same land conveyed to Inter Mountain Cable, INC. by Quit Claim Deed of Correction dated December 22, 2020, and recorded on January 29, 2021, in Deed Book 661, Page 67, and Deed dated October 31, 1969, and recorded on December 4, 1973, in Deed Book 216, Page 565, all in the Floyd County Clerk’s Office. Said property is more particularly described in the description **attached** hereto and made a part hereof as **Exhibit A** and the plat **attached** hereto and made a part hereof as **Exhibit B**, prepared by James W. Caudill, Licensed Professional Land Surveyor (hereinafter referred to as the “**Premises**”). The Lessor has also granted unto Lessee full and complete rights of ingress, egress and regress to and from the Premises over any property owned by Lessor and other associated rights for installation of utilities, maintenance, and other purposes. Lessee has the absolute right to assign, sublease, sublicense or otherwise transfer, in whole or in part, the Leased Premises and the easements and rights-of-way.



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

3. **Renewals.** The Lease shall automatically renew for an additional seven (7) terms of five (5) years each, unless Lessee provides sixty (60) days written notice prior to the end of the current term that it does not wish to renew.

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

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

**[THE REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK.]**

IN WITNESS WHEREOF, Lessor and Lessee have caused their names to be signed hereto, as of the date(s) indicated below.

LESSOR:

INTER MOUNTAIN CABLE, INC.

Paul D Gearheart  
By: Paul D Gearheart  
Its: President

COMMONWEALTH OF KENTUCKY,  
COUNTY OF Floyd, TO WIT;

The foregoing instrument was acknowledged before me on this 2nd day of June, 2022, by Paul D Gearheart, the President of Inter Mountain Cable, Inc., Lessor.

Mary LeBush  
Notary Public  
Commission No.: 630053

My Commission Expires 10/19/23

[SIGNATURES CONTINUE ON NEXT PAGE.]

LESSEE:

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

WA Gillum  
By: W.A. Gillum  
Its: CEO/ General Manager

COMMONWEALTH OF KENTUCKY  
COUNTY OF Floyd

The foregoing instrument was acknowledged before me on this 6 day of May, 2022, by W.A. Gillum, CEO/General Manager of East Kentucky Network, LLC d/b/a Appalachian Wireless, Lessee.

Raina D. Helton  
Notary Public  
Commission No.: KYNP375

My Commission Expires 2-6-2024



This instrument was prepared by:

Krystal Branham  
Krystal Branham, Attorney  
101 Technology Trail  
Ivel, Kentucky 41642  
(606) 477-2355

**LOT DESCRIPTION**  
Property of  
InterMountain Cable, Inc.  
Formerly Known as Tele-Com of Harold, Inc.  
Box 160  
Harold, KY 41635  
Off of Highway 23  
Near Stanville  
in Floyd County, Kentucky  
March 15, 2021

A certain tract or parcel of land lying in Floyd County, Kentucky, and being the same tract of land conveyed to InterMountain Cable, Inc, by Deed, dated December 22, 2020, from Floyd County Board of Education, and of record in Deed Book 661 Page 67, of the records of the Floyd County Court Clerk's Office, and also being the same tract of land conveyed to Tele-Com of Harold, Inc., by deed, dated October 31, 1969 from Clifton & Edith Steele, and of record in Deed Book 214 Page 565 of the records of the Floyd County Court Clerk's Office.

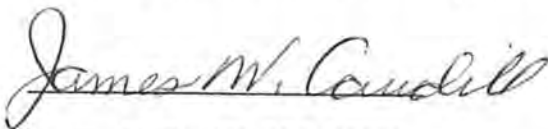
The tract is more particularly bounded and described as follows:

Beginning at found iron pin in concrete on the ridge and the dividing line between Neely Jane Lewis (DB 123 Pg 270) and Lisa Lynn and Franklin Howell (DB 418 PG 236) and Paul Douglas & Linda Gearheart (DB 226 PG 407) and InterMountain Cable, Inc. (DB 214 Pg 565 & DB 661 PG 67); thence running in a Southwesterly direction with the line between Paul & Linda Gearheart and InterMountain Cable South 34 deg 03 min 01 sec West, 125.92 feet to a set iron pin with cap marked ls2259 in road; thence in a northwesterly direction with the road North 16 deg 27 min 29 sec West, 89.52 feet to a set iron pin with cap marked ls2259 in the road, North 15 deg 56 min 30 sec West, 79.02 feet to a set iron pin with cap marked ls2259 above road; thence up the hill North 48 deg 54 min 00 sec East, 114.63 feet to a set iron pin with cap marked ls2259 on the ridge; thence running with the ridge South 28 deg 31 min 00 sec East, 30.00 feet to a set iron pin with cap marked ls2259 on the ridge, South 09 deg 44 min 07 sec East, 107.75 feet to a found iron pin which is the point of the beginning. Containing a calculated area of 15662 Sq. Feet, or 0.36 Acres.

Also included is an easement for the right of way of use over the adjoining property of Floyd County Board of Education DB 551 Pg 67 and by Clifton and Edith Steele DB 214 PG 565.

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

This survey was performed on March 15, 2021 by James W. Caudill, a Kentucky Licensed Professional Land Surveyor No. 2259.



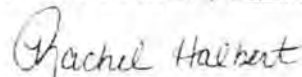
James W. Caudill, PLS #2259



STATE OF KENTUCKY  
COUNTY OF FLOYD  
I, CHRIS WAUGH, County Clerk for the County and State aforesaid, certify that the foregoing LEASAM was on June 15, 2022 10:38 AM lodged for record, whereupon the same with the foregoing and this certificate have been duly recorded in my office.

WITNESS my hand this June 15, 2022  
CHRIS WAUGH, CLERK

By



D.C.

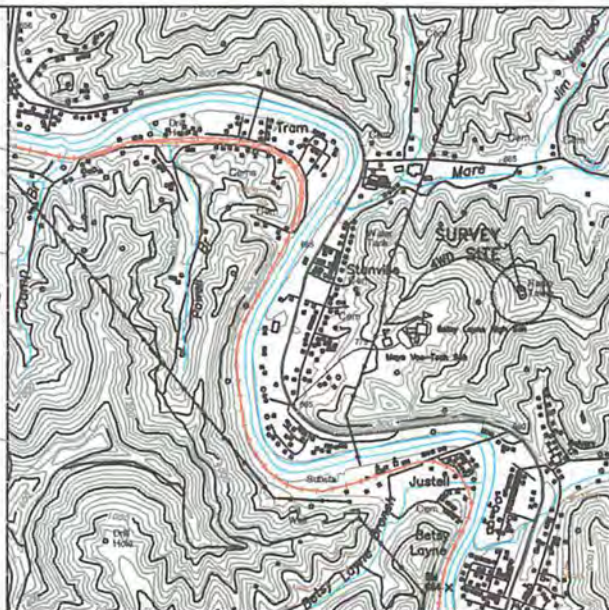




APPALACHIAN WIRELESS  
101 TECHNOLOGY TRAIL  
IVEL, KY. 41642  
PROPOSED TOWER  
STANVILLE, KY  
IN FLOYD COUNTY

Map 93 Parcel 44  
William Ray Hedrick III  
601 Old Mare Creek Road  
Stanville, KY 41659  
Deed Book 642 Page 584

Map 93 Parcel 41.21  
Gregory K. & Sandra K.  
Tackett  
640 Mare Creek  
Stanville, KY 41659  
Deed Book 405 Page 385



Map 105 Parcel 2  
Neely Jane Lewis  
c/o Edgar Blackburn  
P.O. Box 204  
Stanville, KY 41659  
Deed Book 123 Page 270

Set Iron Pin with Cap  
Marked Is2259 in Rd

InterMountain Cable, Inc.  
Formerly known as  
Tele-Com of Harold, Inc  
P.O. Box 160, Harold, KY 41635  
D.B. 214 P. 565  
D.B. 661 P. 67

15662 Sq. Feet  
0.36 Acres

Old Tower Base (Concrete)  
Old Equipment Bldg  
Found Iron Pin in Concrete  
on Ridge—Old Corner

Map 94 Parcel 67  
Floyd County  
Board of Education  
Prestonsburg, KY 41653  
D.B. 232 P. 409

Set iron pin with Cap  
Marked Is2259 in Rd

Old Gasline Meter Bldgs.

Set iron pin with Cap  
marked Is2259 in rd

Map 94 Parcel 63  
Lisa Lynn and Franklin Howell  
P.O. Box 323  
Betsy Lane, KY 41605  
Deed Book 418 Page 236

Map 94 Parcel 64  
Paul Douglas and Linda Gearheart  
P.O. Box 401  
Harold, KY 41635  
Deed Book 226 Page 407

**Legend**

- 
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- 

**EXHIBIT**  
tabbles  
**B**



Beginning at a found iron pin in concrete on ridge;  
thence S 34°03'01" W a distance of 125.92' to a set ipc in road;  
thence N 16°27'29" W a distance of 89.62' to a set ipc in road;  
thence N 16°56'30" W a distance of 79.02' to a set ipc above road;  
thence N 48°54'00" E a distance of 114.63' to a set ipc on ridge;  
thence S 28°31'00" E a distance of 30.00' to a set ipc on ridge;  
thence S 09°44'07" E a distance of 107.75' to a found ipc/concrete on ridge;  
which is the point of beginning,  
having an area of 15662 square feet, 0.36 acres

URBAN CLASS SURVEY  
I HEREBY CERTIFY THAT THIS PLAT DEPICTS A SURVEY, MADE  
BY ME, BY THE METHOD OF RANDOM TRAVERSE. THE  
BEARINGS SHOWN HEREON HAVE NOT BEEN ADJUSTED FOR  
CLOSURE. THIS SURVEY AND PLAT MEETS OR EXCEEDS  
THE MINIMUM STANDARDS OF GOVERNING AUTHORITIES.  
THE UNADJUSTED ERROR OF CLOSURE WAS 1 IN 10940.

*James W. Caudill* 2259 03/15/21  
NAME PLS# DATE

STATE OF KENTUCKY  
**JAMES W. CAUDILL**  
2259  
LICENSED  
PROFESSIONAL  
LAND SURVEYOR

PLAT OF SURVEY		
DRAWN JWC	DATE 03/15/21	Retracement of the Property of InterMountain Cable, Inc. East of Highway 23 Near Stanville, Floyd Co, KY Deed Book 214 Page 565 Deed Book 661 Page 67
APPROVED	DATE	
SCALE 1" = 50'	SHEET	SURVEYED BY JAMES W. CAUDILL LS2259 2999 PERKINS/MADDEN ROAD AMBURGEY, KY 41773 PHONE 606-642-3217

# Exhibit 9



APPALACHIAN WIRELESS  
 101 TECHNOLOGY TRAIL  
 IVEL, KY 41642  
 PROPOSED TOWER SITE  
 NEAR STANVILLE  
 IN FLOYD COUNTY, KY

LINE	BEARING	DISTANCE
L1	S 59°01'20" E	127.41'
L2	S 80°04'35" E	72.62'
L3	S 55°39'34" E	34.64'
L4	S 54°47'14" E	96.15'
L5	S 46°23'31" E	86.35'
L6	S 38°48'06" E	87.23'
L7	S 29°41'54" E	71.92'
L8	N 04°29'34" E	124.72'
L9	N 08°14'19" E	85.85'
L10	N 14°49'33" E	85.31'
L11	N 16°49'10" E	110.11'
L12	N 22°38'14" E	91.72'

Proposed Tower Location  
 LAT: 37°33'53.2006"  
 LON: 82°37'53.0273"  
 N: 3,744,323.02  
 E: 5,824,962.39  
 EL: 1396'

InterMountain Cable, Inc.  
 Formerly known as Tel-Corn of Harold, Inc.  
 D.B. 214 P. 565

Floyd County Board of Education  
 D.B. 232 P. 409

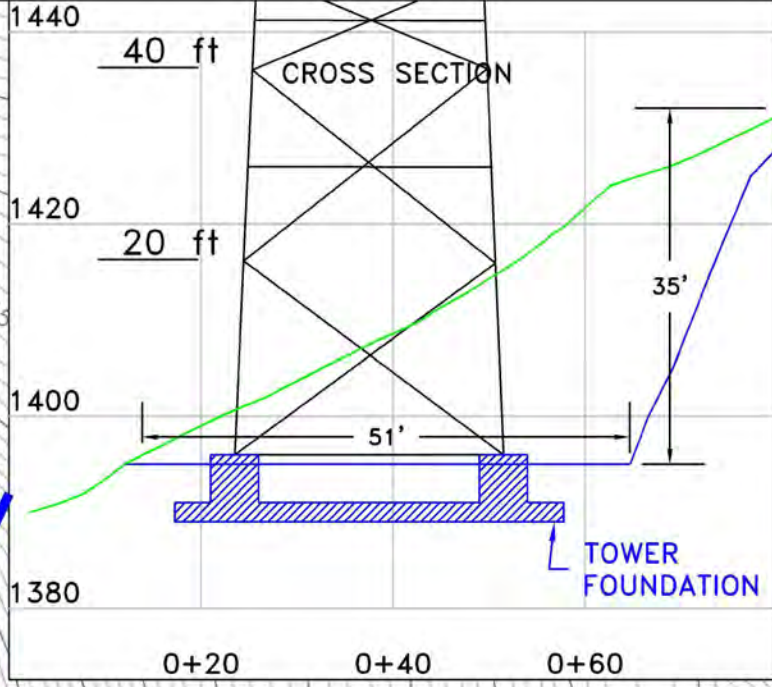
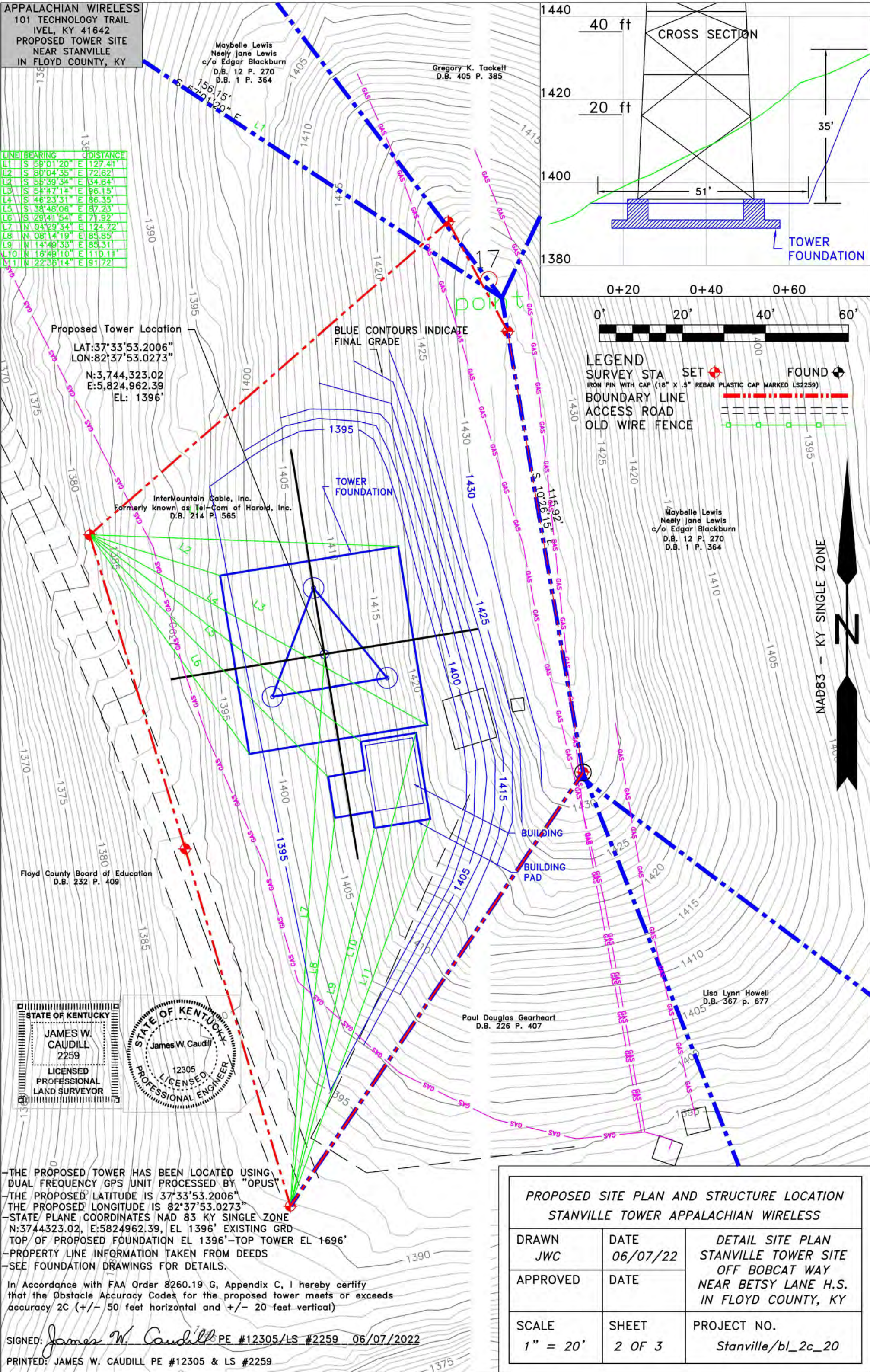
STATE OF KENTUCKY  
 JAMES W. CAUDILL  
 2259  
 LICENSED PROFESSIONAL LAND SURVEYOR

STATE OF KENTUCKY  
 James W. Caudill  
 12305  
 LICENSED PROFESSIONAL ENGINEER

-THE PROPOSED TOWER HAS BEEN LOCATED USING DUAL FREQUENCY GPS UNIT PROCESSED BY "OPUS"  
 -THE PROPOSED LATITUDE IS 37°33'53.2006"  
 -THE PROPOSED LONGITUDE IS 82°37'53.0273"  
 -STATE PLANE COORDINATES NAD 83 KY SINGLE ZONE N:3744323.02, E:5824962.39, EL 1396' EXISTING GRD TOP OF PROPOSED FOUNDATION EL 1396'-TOP TOWER EL 1696'  
 -PROPERTY LINE INFORMATION TAKEN FROM DEEDS  
 -SEE FOUNDATION DRAWINGS FOR DETAILS.

In Accordance with FAA Order 8260.19 G, Appendix C, I hereby certify that the Obstacle Accuracy Codes for the proposed tower meets or exceeds accuracy 2C (+/- 50 feet horizontal and +/- 20 feet vertical)

SIGNED: *James W. Caudill* PE #12305/LS #2259 06/07/2022  
 PRINTED: JAMES W. CAUDILL PE #12305 & LS #2259



LEGEND  
 SURVEY STA SET FOUND   
 IRON PIN WITH CAP (1/8" X 1/2" REBAR PLASTIC CAP MARKED LS2259)  
 BOUNDARY LINE   
 ACCESS ROAD   
 OLD WIRE FENCE



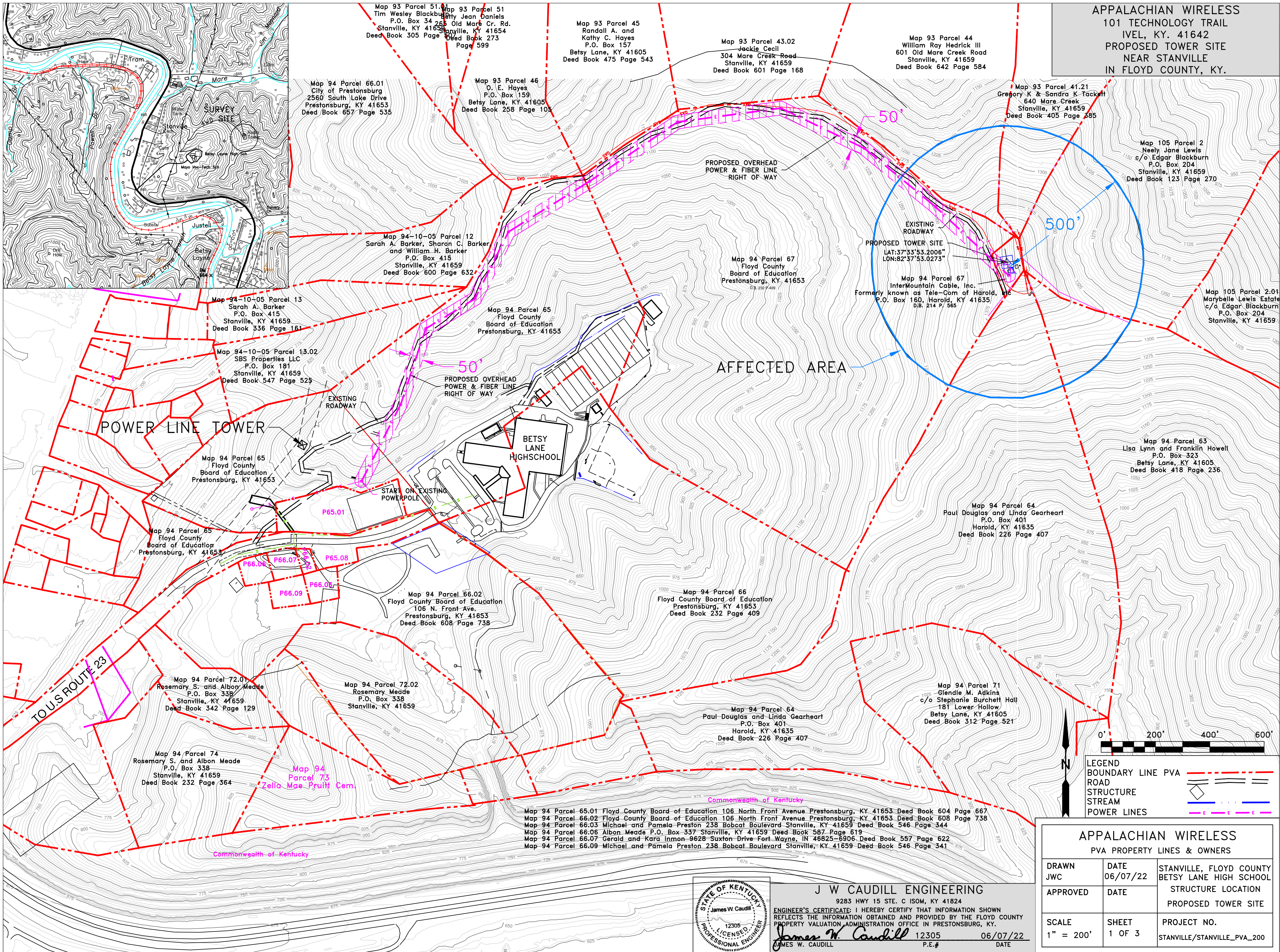
PROPOSED SITE PLAN AND STRUCTURE LOCATION STANVILLE TOWER APPALACHIAN WIRELESS		
DRAWN JWC	DATE 06/07/22	DETAIL SITE PLAN STANVILLE TOWER SITE OFF BOBCAT WAY NEAR BETSY LANE H.S. IN FLOYD COUNTY, KY
APPROVED	DATE	
SCALE 1" = 20'	SHEET 2 OF 3	PROJECT NO. Stanville/bl_2c_20



# Exhibit 10



**APPALACHIAN WIRELESS**  
 101 TECHNOLOGY TRAIL  
 IVEL, KY. 41642  
 PROPOSED TOWER SITE  
 NEAR STANVILLE  
 IN FLOYD COUNTY, KY.



Map 93 Parcel 51.01  
 Tim Wesley Blackburn & Jean Daniels  
 P.O. Box 34 265 Old Mare Cr. Rd.  
 Stanville, KY 41654  
 Deed Book 305 Page 599

Map 93 Parcel 45  
 Randall A. and Kathy C. Hayes  
 P.O. Box 157  
 Betsy Lane, KY 41605  
 Deed Book 475 Page 543

Map 93 Parcel 43.02  
 Jackie Cecil  
 304 Mare Creek Road  
 Stanville, KY 41659  
 Deed Book 601 Page 168

Map 93 Parcel 44  
 William Ray Hedrick III  
 601 Old Mare Creek Road  
 Stanville, KY 41659  
 Deed Book 642 Page 584

Map 93 Parcel 41.21  
 Gregory K & Sandra K Tackett  
 640 Mare Creek  
 Stanville, KY 41659  
 Deed Book 405 Page 385

Map 105 Parcel 2  
 Neely Jane Lewis  
 c/o Edgar Blackburn  
 P.O. Box 204  
 Stanville, KY 41659  
 Deed Book 123 Page 270

Map 94 Parcel 66.01  
 City of Prestonsburg  
 2560 South Lake Drive  
 Prestonsburg, KY 41653  
 Deed Book 657 Page 535

Map 93 Parcel 46  
 O. E. Hayes  
 P.O. Box 159  
 Betsy Lane, KY 41605  
 Deed Book 258 Page 105

Map 94-10-05 Parcel 12  
 Sarah A. Barker, Sharon C. Barker  
 and William H. Barker  
 P.O. Box 415  
 Stanville, KY 41659  
 Deed Book 600 Page 632

Map 94 Parcel 67  
 Floyd County Board of Education  
 Prestonsburg, KY 41653

Map 94 Parcel 67  
 InterMountain Cable, Inc.  
 Formerly known as Tele-Corn of Harold, Inc.  
 P.O. Box 160, Harold, KY 41635  
 D.B. 214 P. 565

Map 105 Parcel 2.01  
 Marybelle Lewis Estate  
 c/o Edgar Blackburn  
 P.O. Box 204  
 Stanville, KY 41659

Map 94-10-05 Parcel 13  
 Sarah A. Barker  
 P.O. Box 415  
 Stanville, KY 41659  
 Deed Book 336 Page 161

Map 94 Parcel 65  
 Floyd County Board of Education  
 Prestonsburg, KY 41653

Map 94-10-05 Parcel 13.02  
 SBS Properties LLC  
 P.O. Box 181  
 Stanville, KY 41659  
 Deed Book 547 Page 525

Map 94 Parcel 63  
 Lisa Lynn and Franklin Howell  
 P.O. Box 323  
 Betsy Lane, KY 41605  
 Deed Book 418 Page 236

Map 94 Parcel 65  
 Floyd County Board of Education  
 Prestonsburg, KY 41653

Map 94 Parcel 64  
 Paul Douglas and Linda Gearheart  
 P.O. Box 401  
 Harold, KY 41635  
 Deed Book 226 Page 407

Map 94 Parcel 65  
 Floyd County Board of Education  
 Prestonsburg, KY 41653

Map 94 Parcel 66.02  
 Floyd County Board of Education  
 106 N. Front Ave.  
 Prestonsburg, KY 41653  
 Deed Book 608 Page 738

Map 94 Parcel 66  
 Floyd County Board of Education  
 Prestonsburg, KY 41653  
 Deed Book 232 Page 409

Map 94 Parcel 72.01  
 Rosemary S. and Albon Meade  
 P.O. Box 338  
 Stanville, KY 41659  
 Deed Book 342 Page 129

Map 94 Parcel 72.02  
 Rosemary Meade  
 P.O. Box 338  
 Stanville, KY 41659

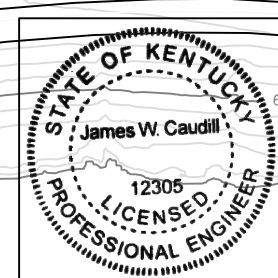
Map 94 Parcel 64  
 Paul Douglas and Linda Gearheart  
 P.O. Box 401  
 Harold, KY 41635  
 Deed Book 226 Page 407

Map 94 Parcel 71  
 Glendie M. Adkins  
 c/o Stephanie Burchett Hall  
 181 Lower Hollow  
 Betsy Lane, KY 41605  
 Deed Book 312 Page 521

Map 94 Parcel 74  
 Rosemary S. and Albon Meade  
 P.O. Box 338  
 Stanville, KY 41659  
 Deed Book 232 Page 364

Map 94 Parcel 73  
 Zella Mae Pruitt Cem.

- Map 94 Parcel 65.01 Floyd County Board of Education 106 North Front Avenue Prestonsburg, KY 41653 Deed Book 604 Page 667
- Map 94 Parcel 66.02 Floyd County Board of Education 106 North Front Avenue Prestonsburg, KY 41653 Deed Book 608 Page 738
- Map 94 Parcel 66.03 Michael and Pamela Preston 238 Bobcat Boulevard Stanville, KY 41659 Deed Book 546 Page 344
- Map 94 Parcel 66.06 Albon Meade P.O. Box 337 Stanville, KY 41659 Deed Book 587 Page 619
- Map 94 Parcel 66.07 Gerald and Kara Inmon 9628 Suxton Drive Fort Wayne, IN 46825-6906 Deed Book 557 Page 622
- Map 94 Parcel 66.09 Michael and Pamela Preston 238 Bobcat Boulevard Stanville, KY 41659 Deed Book 546 Page 341

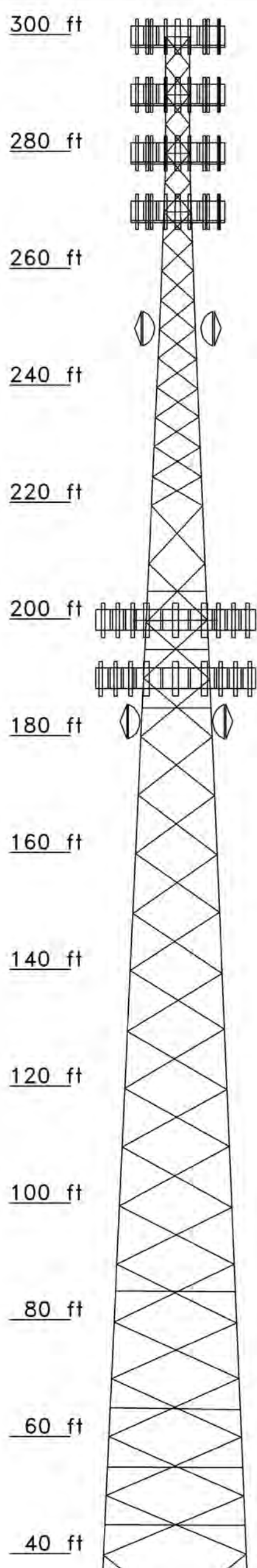


**J W CAUDILL ENGINEERING**  
 9283 HWY 15 STE. C ISOM, KY 41824  
 ENGINEER'S CERTIFICATE: I HEREBY CERTIFY THAT INFORMATION SHOWN REFLECTS THE INFORMATION OBTAINED AND PROVIDED BY THE FLOYD COUNTY PROPERTY VALUATION ADMINISTRATION OFFICE IN PRESTONSBURG, KY.  
 James W. Caudill 12305 06/07/22  
 P.E.# DATE

APPALACHIAN WIRELESS PVA PROPERTY LINES & OWNERS		
DRAWN JWC	DATE 06/07/22	STANVILLE, FLOYD COUNTY BETSY LANE HIGH SCHOOL STRUCTURE LOCATION PROPOSED TOWER SITE
APPROVED	DATE	PROJECT NO. STANVILLE/STANVILLE_PVA_200
SCALE 1" = 200'	SHEET 1 OF 3	



# Exhibit 11



# PROFILE WITH TOWER

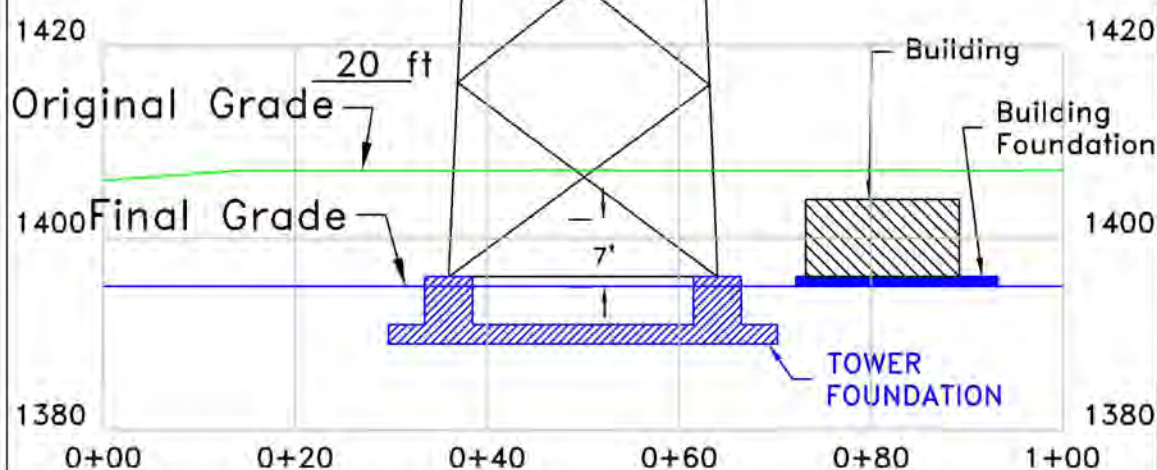
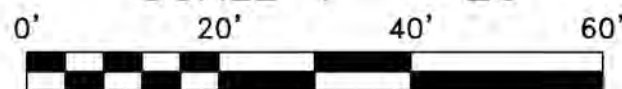
THIS IS A VERTICAL PROFILE SKETCH OF THE TOWER INDICATING THE PROPOSED ANTENNA AND DISH ELEVATIONS. NO DESIGN CRITERIA WAS CONSIDERED IN THE PREPARATION OF THIS DRAWING.

*James W. Caudill* 12305 06/07/22  
 JAMES W. CAUDILL PE #. DATE



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

06/07/22  
 SCALE 1" = 20'



PROPOSED SITE PLAN AND STRUCTURE LOCATION STANVILLE TOWER APPALACHIAN WIRELESS		
DRAWN JWC	DATE 06/07/22	DETAIL SITE PLAN OFF BOBCAT WAY STANVILLE TOWER SITE NEAR BETSY LANE H.S. IN FLOYD COUNTY, KY
APPROVED	DATE	
SCALE 1" = 20'	SHEET 3 OF 3	PROJECT NO. Stanville/bl_pro_20

# Exhibit 12



Utility ID	Utility Name	Utility Type	Class	City	State
4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
4109300	Access Point, Inc.	Cellular	D	Cary	NC
4108300	Air Voice Wireless, LLC	Cellular	A	Bloomfield Hill	MI
4110650	Alliant Technologies of KY, L.L.C.	Cellular	C	Morristown	NJ
44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
4110850	AltaWorx, LLC	Cellular	C	Fairhope	AL
4107800	American Broadband and Telecommunications Company	Cellular	C	Toledo	OH
4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
4110700	Andrew David Balholm dba Norcell	Cellular	C	Clayton	WA
4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
4108750	Blue Jay Wireless, LLC	Cellular	C	Carrollton	TX
4111050	BlueBird Communications, LLC	Cellular	C	New York	NY
4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
4107600	Boomerang Wireless, LLC	Cellular	B	Hiawatha	IA
4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
4110050	CampusSims, Inc.	Cellular	D	Boston	MA
4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
4111000	ComApp Technologies LLC	Cellular	C	Melrose	MA
4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Grand Rapids	MI
10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
4109600	Google North America Inc.	Cellular	A	Mountain View	CA
33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
4110600	Horizon River Technologies, LLC	Cellular	C	Atlanta	GA
4103100	i-Wireless, LLC	Cellular	A	Newport	KY
4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Tulsa	OK
22215360	KDDI America, Inc.	Cellular	D	New York	NY
10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
4109750	Konatel, Inc. dba telecom.mobi	Cellular	D	Johnstown	PA
4110900	Lunar Labs, Inc.	Cellular	C	Detroit	MI
4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS

4001800	OnStar, LLC	Cellular	A	Detroit	MI
4110750	Onvoy Spectrum, LLC	Cellular	C	Plymouth	MN
4109050	Patriot Mobile LLC	Cellular	D	Southlake	TX
4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
4108700	Ready Wireless, LLC	Cellular	B	Hiawatha	IA
4110500	Republic Wireless, Inc.	Cellular	D	Raleigh	NC
4111100	ROK Mobile, Inc.	Cellular	C	Culver City	CA
4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
4109550	Stream Communications, LLC	Cellular	D	Dallas	TX
4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	South Portland	ME
4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
4109950	The People's Operator USA, LLC	Cellular	D	New York	NY
4109000	Ting, Inc.	Cellular	A	Toronto	ON
4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
4002000	Truphone, Inc.	Cellular	D	Durham	NC
4110300	UVNV, Inc.	Cellular	D	Costa Mesa	CA
4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
4110800	Visible Service LLC	Cellular	C	Lone Tree	CO
4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
4110950	Wing Tel Inc.	Cellular	C	New York	NY
4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	D	Louisville	KY

# Exhibit 13

S & S Tower Services  
120 Branden Dr.  
Mousie, KY 41839

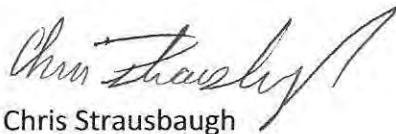
Kentucky Public Service Commission  
211 Sower Blvd.  
P.O. Box 615  
Frankfort, KY 40602-0615

Dear Commissioners:

The Construction Manager for the proposed communications facility will be Dave Strausbaugh. His contact information is (606) 497-6730 or [dstrausbaugh010@gmail.com](mailto:dstrausbaugh010@gmail.com).

Dave has been in the industry completing civil construction and constructing towers since 1991. He has worked for S&S Tower Services since 2015 as Construction Manager overseeing the construction of telecommunications towers and sites.

Thank you,

A handwritten signature in black ink, appearing to read "Chris Strausbaugh". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Chris Strausbaugh  
Owner  
S&S Tower Services  
(606) 497-5798

### **General Company Information**

World Tower Company, Inc. is located at 1213 Compressor Drive in Mayfield, Kentucky. Our mailing address is PO Box 508, Mayfield KY 42066. You may reach our offices at V - 270-247-3642, F - 270-247-0909, or E-Mail us at [worldtow@tdc.net](mailto:worldtow@tdc.net). Our website may be visited at [www.worldtower.com](http://www.worldtower.com)

The company was established in 1959 as eastern division manufacturing of Utility Tower. The company became World Tower Company, Inc. in 1979. At which time designs were changed from pipe to total solid rod towers. Due to increase in volume and a need for more capacity, World Tower Company moved manufacturing and offices to a new facility in 1997. World Tower Company manufactures all solid rod guyed and self-supporting towers. We are able to fabricate guyed towers to 1200' and self-supporting towers to 500'.

Guyed towers make up about 40% percent of the company's total production. Sixty percent of our production output is in self-supporting towers.

World Tower Company, Inc. is wholly owned and not a member of a partnership of consortium

### **Account Management**

Doug Walker is President of World Tower Company. Doug takes a hands-on approach to the business. He is involved in sales, design and customer relations. The Secretary/Treasurer of the company is Danette Rowe. Danette serves the company as office manager. She oversees the office operations and is responsible for accounting for the business. Kirk Hall P.E. oversees World Tower's Engineering Department. Kirk has much experience in the tower industry.

A weekly production meeting with all responsible supervisory personnel is held each Tuesday to update production schedules. Following that meeting a detailed report can be generated to our customers as to the exact status of their order. Reports are provided only at customers request.

### **Quality/Customer Service**

World Tower Company requires that all welded material be inspected prior to loading. One (1) face of all self-supporting towers is assembled to ensure proper fit prior to being galvanized. An on-site inspection is performed at the galvanizing plant prior to

galvanizing. All material is once again inspected following the galvanizing process. Our truck driver must inspect each load before loading at galvanizing plant. All loads are again inspected by driver and notated on delivery sheet following off loading. A customer representative must be on site to inspect and accept material when off loaded (unless waived by customer).

## **World Tower Self-Supporting System**

For restricted space requirements, World Tower offers a versatile and self-supporting tower system. No guy wires are necessary and each tower is fabricated using a solid leg with angled cross members for a sound, secure tower. Each system can vary in face width, which depends on site space. In addition, World Tower offers a maximum height of their self-supporter at approximately 500 feet depending on tower loading.

Choose World Tower's Self Supporting system for the security of life-long usage for your communications systems.

### **Self-Supporting Systems:**

- Stable, rigid construction
  - Pre-assembled before Delivery
  - Minimal space requirements
  - Multiple application usage
  - Solid rod legs with angled cross members
- Retrofitting for future loading