COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF	)	
NEW CINGULAR WIRELESS PCS, LLC,	)	
A DELAWARE LIMITED LIABILITY COMPANY,	)	
D/B/A AT&T MOBILITY	)	
AND UNITI TOWERS LLC, A DELAWARE	)	
LIMITED LIABILITY COMPANY	)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)	CASE NO.: 2020-00310
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF PULASKI	)	

SITE NAME: HAPPY RIDGE RELO

* * * * * * *

APPLICATION FOR
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
FOR CONSTRUCTION OF A WIRELESS COMMUNICATIONS FACILITY

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Towers LLC, a Delaware limited liability company ("Applicants"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.650, 278.665, and other statutory authority, and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submit this Application requesting issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Applicants with wireless communications services.

In support of this Application, Applicants respectfully provide and state the following

information:

1. The complete names and addresses of the Applicants are: New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility, having an address of Meidinger Tower, 462 S. 4th Street, Suite 2400, Louisville, Kentucky 40202 and Uniti Towers LLC, a Delaware limited liability company having an address of 10802 Executive Center Drive, Benton Building, Suite 300, Little Rock, Arkansas 72211.

2. Applicants propose construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicants submit this application to the PSC for a certificate of public convenience and necessity pursuant to KRS §§ 278.020(1), 278.040, 278.650, 278.665, and other statutory authority.

3. AT&T Mobility is a limited liability company organized in the State of Delaware on October 20, 1994. Uniti Towers is a limited liability company organized in the State of Delaware on December 2, 2015.

4. Applicants attest that they are in good standing in the state in which they are organized and further state that they are authorized to transact business in Kentucky.

5. The Certificates of Authority filed with the Kentucky Secretary of State for both Applicants are attached as part of **Exhibit A** pursuant to 807 KAR 5:001: Section 14(3).

6. AT&T Mobility operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. Copies of AT&T Mobility's FCC licenses to provide wireless services are attached to this Application or described as part of **Exhibit A**, and the facility will be constructed and operated in

accordance with applicable FCC regulations.

7. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve AT&T Mobility's services to an area currently not served or not adequately served by AT&T Mobility by increasing coverage or capacity and thereby enhancing the public's access to innovative and competitive wireless communications services. The WCF will provide a necessary link in AT&T Mobility's communications network that is designed to meet the increasing demands for wireless services in Kentucky's wireless communications service area. The WCF is an integral link in AT&T Mobility's network design that must be in place to provide adequate coverage to the service area.

8. To address the above-described service needs, Applicants propose to construct a WCF at 240 Happy Ridge Road, Nancy, Kentucky 42544 (37° 06' 00.76" North latitude, 84° 46' 36.42" West longitude), on a parcel of land located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Gladys Molden (1/2 interest), Terry Molden (1/4 interest) and Charlotte Wells (1/4 interest) pursuant to a deed recorded at Deed Book 897, Page 539 in the office of the County Clerk. The proposed WCF will consist of a 305-foot tall tower, with an approximately 12-foot tall lightning arrestor attached at the top, for a total height of 317-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of AT&T Mobility's radio electronics equipment and appurtenant equipment. The Applicants' equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF

compound will be fenced and all access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit B** and **Exhibit C**.

9. A list of utilities, corporations, or persons with whom the proposed WCF is likely to compete is attached as **Exhibit D**.

10. The site development plan and a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for AT&T Mobility's antennas has also been included as part of **Exhibit B**.

11. Foundation design plans signed and sealed by a professional engineer registered in Kentucky and a description of the standards according to which the tower was designed are included as part of **Exhibit C**.

12. Applicants have considered the likely effects of the installation of the proposed WCF on nearby land uses and values and have concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to co-locate AT&T Mobility's antennas on an existing structure. When suitable towers or structures exist, AT&T Mobility attempts to co-locate on existing structures such as communications towers or other structures capable of supporting AT&T Mobility's facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site.

13. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as **Exhibit E**.

14. A copy of the approval issued by the Kentucky Airport Zoning Commission ("KAZC") is attached as **Exhibit F**.

15. A geotechnical engineering firm has performed soil boring(s) and subsequent geotechnical engineering studies at the WCF site. A copy of the geotechnical engineering report, signed and sealed by a professional engineer registered in the Commonwealth of Kentucky, is attached as **Exhibit G**. The name and address of the geotechnical engineering firm and the professional engineer registered in the Commonwealth of Kentucky who supervised the examination of this WCF site are included as part of this exhibit.

16. Clear directions to the proposed WCF site from the County seat are attached as **Exhibit H**. The name and telephone number of the preparer of **Exhibit H** are included as part of this exhibit.

17. Uniti Towers LLC, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreements or abbreviated agreements recorded with the County Clerk are attached as **Exhibit I**.

18. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. The tower and foundation drawings for the proposed tower submitted as part of **Exhibit C** bear the signature and stamp of a professional engineer registered in the Commonwealth of Kentucky. All tower designs meet or exceed the minimum requirements of applicable laws and regulations.

19. The Construction Manager for the proposed facility is Jeremy Culpepper and the identity and qualifications of each person directly responsible for design and

construction of the proposed tower are contained in **Exhibits B & C**.

20. As noted on the Survey attached as part of **Exhibit B**, the surveyor has determined that the site is not within any flood hazard area.

21. **Exhibit B** includes a map drawn to an appropriate scale that shows the location of the proposed tower and identifies every owner of real estate within 500 feet of the proposed tower (according to the records maintained by the County Property Valuation Administrator). Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is illustrated in **Exhibit B**.

22. Applicants have notified every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the PSC docket number for this application, the address of the PSC, and has been informed of his or her right to request intervention. A list of the notified property owners and a copy of the form of the notice sent by certified mail to each landowner are attached as **Exhibit J** and **Exhibit K**, respectively.

23. Applicants have notified the applicable County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC docket number under which the application will be processed and informed the County Judge/Executive of his/her right to request intervention. A copy of this notice is attached as **Exhibit L**.

24. Notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2) that measure at least 2 feet in height and 4 feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two weeks after filing of the Application, and a copy of the posted text is attached as **Exhibit M**. A legal notice advertisement regarding the location of the proposed facility has been published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the newspaper legal notice advertisement is attached as part of **Exhibit M**.

25. The general area where the proposed facility is to be located is rural and heavily wooded.

26. The process that was used by AT&T Mobility's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. AT&T Mobility's radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Applicants when searching for sites for its antennas that would provide the coverage deemed necessary by AT&T Mobility. A map of the area in which the tower is proposed to be located which is drawn to scale and

clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit N**.

27. The tower must be located at the proposed location and proposed height to provide necessary service to wireless communications users in the subject area.

28. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

29. All responses and requests associated with this Application may be directed to:

David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369
Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com

WHEREFORE, Applicants respectfully request that the PSC accept the foregoing Application for filing, and having met the requirements of KRS §§ 278.020(1), 278.650, and 278.665 and all applicable rules and regulations of the PSC, grant a Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein.

Respectfully submitted,

David A. Pike
Pike Legal Group, PLLC
1578 Highway 44 East, Suite 6
P. O. Box 369
Shepherdsville, KY 40165-0369
Telephone: (502) 955-4400
Telefax: (502) 543-4410
Email: dpike@pikelegal.com
Attorney for Applicants

LIST OF EXHIBITS

A - Certificate of Authority & FCC License Documentation

B - Site Development Plan:

- 500' Vicinity Map
- Legal Descriptions
- Flood Plain Certification
- Site Plan
- Vertical Tower Profile

C - Tower and Foundation Design

D - Competing Utilities, Corporations, or Persons List

E - FAA

F - Kentucky Airport Zoning Commission

G - Geotechnical Report

H - Directions to WCF Site

I - Copy of Real Estate Agreement

J - Notification Listing

K - Copy of Property Owner Notification

L - Copy of County Judge/Executive Notice

M - Copy of Posted Notices and Newspaper Notice Advertisement

N - Copy of Radio Frequency Design Search Area

EXHIBIT A
CERTIFICATE OF AUTHORITY & FCC LICENSE DOCUMENTATION

Commonwealth of Kentucky
Alison Lundergan Grimes, Secretary of State

Alison Lundergan Grimes
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
http://www.sos.ky.gov

Certificate of Authorization

Authentication number: 216299
Visit https://app.sos.ky.gov/ftshow/certvalidate.aspx to authenticate this certificate.

I, Alison Lundergan Grimes, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

NEW CINGULAR WIRELESS PCS, LLC

, a limited liability company authorized under the laws of the state of Delaware, is authorized to transact business in the Commonwealth of Kentucky, and received the authority to transact business in Kentucky on October 14, 1999.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 14A.6-010 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 28th day of May, 2019, in the 227th year of the Commonwealth.

Alison Lundergan Grimes
Secretary of State
Commonwealth of Kentucky
216299/0481848

0972004.06	mstratton ADD
Alison Lundergan Grimes **Kentucky Secretary of State** Received and Filed: 1/3/2017 3:10 PM Fee Receipt: $90.00	

COMMONWEALTH OF KENTUCKY
ALISON LUNDERGAN GRIMES, SECRETARY OF STATE

Division of Business Filings **Business Filings** PO Box 718 Frankfort, KY 40602 (502) 564-3490 www.sos.ky.gov	Certificate of Authority (Foreign Business Entity)	FBE

Pursuant to the provisions of KRS 14A and KRS 271B, 273, 274,275, 362 and 386 the undersigned hereby applies for authority to transact business in Kentucky on behalf of the entity named below and, for that purpose, submits the following statements:

1. The entity is a : ☐ profit corporation (KRS 271B). ☐ nonprofit corporation (KRS 273). ☐ professional service corporation (KRS 274). ☐ business trust (KRS 386). ☑ limited liability company (KRS 275). ☐ professional limited liability company (KRS 275). ☐ limited partnership (KRS 362).

2. The name of the entity is Uniti Towers LLC
(The name must be identical to the name on record with the Secretary of State.)

3. The name of the entity to be used in Kentucky is (if applicable): _____
(Only provide if "real name" is unavailable for use; otherwise, leave blank.)

4. The state or country under whose law the entity is organized is Delaware

5. The date of organization is 12/2/2015 and the period of duration is _____
(If left blank, the period of duration is considered perpetual.)

6. The mailing address of the entity's principal office is

10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Street Address	**City**	**State**	**Zip Code**

7. The street address of the entity's registered office in Kentucky is

306 West Main Street - Suite 512	Frankfort	KY	40601
Street Address (No P.O. Box Numbers)	**City**	**State**	**Zip Code**

and the name of the registered agent at that office is C T Corporation System

8. The names and business addresses of the entity's representatives (secretary, officers and directors, managers, trustees or general partners):

Daniel L. Heard	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Name	**Street or P.O. Box**	**City**	**State**	**Zip Code**
Kenneth Gunderman	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Name	**Street or P.O. Box**	**City**	**State**	**Zip Code**
Mark A. Wallace	10802 Executive Center Drive, Benton Building, Suite 300	Little Rock	AR	72211
Name	**Street or P.O. Box**	**City**	**State**	**Zip Code**

9. If a professional service corporation, all the individual shareholders, not less than one half (1/2) of the directors, and all of the officers other than the secretary and treasurer are licensed in one or more states or territories of the United States or District of Columbia to render a professional service described in the statement of purposes of the corporation.

10. I certify that, as of the date of filing this application, the above-named entity validly exists under the laws of the jurisdiction of its formation.

11. If a limited partnership, it elects to be a limited liability limited partnership. Check the box if applicable: ☐

12. If a limited liability company, check box if manager-managed: ■

13. This application will be effective upon filing, unless a delayed effective date and/or time is provided.
The effective date or the delayed effective date cannot be prior to the date the application is filed. The date and/or time is _____
(Delayed effective date and/or time)

[signature]	Keith Harvey, VP - Deputy General Counsel	12/30/2016
Signature of Authorized Representative	**Printed Name & Title**	**Date**

I, C T Corporation System, consent to serve as the registered agent on behalf of the business entity.
Type/Print Name of Registered Agent

[signature]	Tristan Emrich	Assistant Secretary	12/30/2016
Signature of Registered Agent	**Printed Name**	**Title**	**Date**

(09/15)

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "UNITI TOWERS LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE THIRTIETH DAY OF DECEMBER, A.D. 2016.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN PAID TO DATE.

5896640 8300
SR# 20167345793
You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 203613650
Date: 12-30-16

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNKN965	
Radio Service CL - Cellular	
Market Numer CMA448	**Channel Block** B
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003291192

Market Name
Kentucky 6 - Madison

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-30-2011	08-31-2018	10-01-2021		

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
4	37-24-34.0 N	084-19-48.0 W	449.6	110.0	1043626

Address: Burdette Rd (105167)
City: WILDIE **County:** ROCKCASTLE **State:** KY **Construction Deadline:**

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	211.200	144.500	148.400	190.800	163.400	170.700	205.900	192.000
Transmitting ERP (watts)	61.200	28.600	3.100	0.200	0.122	0.200	3.900	32.100

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	211.200	144.500	148.400	190.800	163.400	170.700	205.900	192.000
Transmitting ERP (watts)	0.400	0.500	13.000	99.800	198.200	83.200	6.800	0.900

Antenna: 4
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	211.200	144.500	148.400	190.800	163.400	170.700	205.900	192.000
Transmitting ERP (watts)	6.800	0.900	0.400	0.500	13.000	99.800	198.200	83.200

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

FCC 601-C
March 2018

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
10	37-21-02.1 N	084-19-46.3 W	450.8	77.4	1242832

Address: 208 DAVIS LANE (86925)

City: Mount Vernon **County:** ROCKCASTLE **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	193.700	137.500	148.900	151.500	164.200	185.600	160.000	178.000
Transmitting ERP (watts)	122.700	52.400	5.400	0.300	0.245	0.300	8.700	63.000

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	193.700	137.500	148.900	151.500	164.200	185.600	160.000	178.000
Transmitting ERP (watts)	1.600	18.200	93.100	111.900	26.300	2.500	0.300	0.400

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	193.700	137.500	148.900	151.500	164.200	185.600	160.000	178.000
Transmitting ERP (watts)	1.800	0.400	0.400	6.700	55.500	186.500	141.700	15.300

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-30-14.0 N	084-19-39.5 W	339.2	110.3	1204267

Address: 151 JIM LAMBERT ROAD (67666)

City: MOUNT VERNON **County:** ROCKCASTLE **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	132.000	123.500	30.000	52.900	101.900	117.900	108.700	136.400
Transmitting ERP (watts)	74.600	66.500	10.300	0.900	0.149	0.200	2.100	19.600

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	132.000	123.500	30.000	52.900	101.900	117.900	108.700	136.400
Transmitting ERP (watts)	0.500	0.500	11.300	108.100	236.600	118.500	7.800	1.100

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820								
Azimuth(from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	132.000	123.500	30.000	52.900	101.900	117.900	108.700	136.400
Transmitting ERP (watts)	45.200	1.900	0.433	0.433	2.600	47.700	216.900	210.000

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
18	37-06-28.8 N	083-58-14.2 W	429.8	59.7	1251801

Address: 1250 Lick Fork Road (114153)
City: London **County:** LAUREL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	133.300	116.400	135.500	105.700	114.900	136.800	115.700	116.100
Transmitting ERP (watts)	26.000	16.100	1.700	0.200	0.100	0.200	2.000	16.100

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	133.300	116.400	135.500	105.700	114.900	136.800	115.700	116.100
Transmitting ERP (watts)	1.800	20.600	105.700	127.100	29.900	2.900	0.300	0.400

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	133.300	116.400	135.500	105.700	114.900	136.800	115.700	116.100
Transmitting ERP (watts)	2.100	0.423	0.423	7.600	63.000	211.700	160.900	17.400

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
19	37-06-39.3 N	084-02-46.7 W	463.2	30.5	1229456

Address: 102 STONEHENGE DRIVE (37535)
City: LONDON **County:** LAUREL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	144.000	126.500	122.000	126.400	140.600	130.100	134.900	129.600
Transmitting ERP (watts)	70.300	32.900	3.500	0.200	0.140	0.200	4.500	36.900

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	144.000	126.500	122.000	126.400	140.600	130.100	134.900	129.600
Transmitting ERP (watts)	4.500	36.900	70.300	32.900	3.500	0.200	0.140	0.200

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	144.000	126.500	122.000	126.400	140.600	130.100	134.900	129.600
Transmitting ERP (watts)	0.249	0.300	3.500	32.800	124.700	111.200	17.200	1.500

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	37-06-03.7 N	084-46-43.5 W	340.2	106.4	1247464

Address: 499 Happy Ridge Road (86919)
City: Nancy **County:** PULASKI **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	113.200	126.700	136.700	137.900	142.000	130.800	101.800	102.000
Transmitting ERP (watts)	16.300	10.100	1.100	0.100	0.100	0.100	1.200	10.100

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	113.200	126.700	136.700	137.900	142.000	130.800	101.800	102.000
Transmitting ERP (watts)	2.800	38.100	190.900	224.300	48.000	2.100	0.500	0.500

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	113.200	126.700	136.700	137.900	142.000	130.800	101.800	102.000
Transmitting ERP (watts)	0.100	0.100	0.100	0.300	1.300	1.700	1.900	0.700

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
21	37-11-18.1 N	084-08-34.4 W	377.0	75.0	1227530

Address: 233 US 25 North (37533)
City: East Bernstadt **County:** LAUREL **State:** KY **Construction Deadline:**

Antenna: 1
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	109.000	105.900	96.400	83.500	90.300	96.500	101.200	103.800
Transmitting ERP (watts)	116.900	5.400	1.300	0.706	2.000	31.400	227.900	353.200

Antenna: 2
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	109.000	105.900	96.400	83.500	90.300	96.500	101.200	103.800
Transmitting ERP (watts)	8.800	72.700	203.500	125.800	12.400	1.500	0.407	0.407

Antenna: 3
Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	109.000	105.900	96.400	83.500	90.300	96.500	101.200	103.800
Transmitting ERP (watts)	0.100	0.200	0.400	1.700	2.700	2.800	1.300	0.200

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
22	37-14-13.8 N	084-13-43.8 W	369.7	97.5	1201300

Address: Route #1, Box 119V (37534)

City: East Bernstadt **County:** LAUREL **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	110.700	99.200	115.800	90.900	91.900	120.600	111.300	82.000
Transmitting ERP (watts)	64.700	126.200	53.800	5.500	0.300	0.300	0.300	8.900

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	110.700	99.200	115.800	90.900	91.900	120.600	111.300	82.000
Transmitting ERP (watts)	2.000	31.000	224.800	348.300	115.300	5.300	1.200	0.700

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	110.700	99.200	115.800	90.900	91.900	120.600	111.300	82.000
Transmitting ERP (watts)	147.600	9.500	1.600	0.600	0.600	14.000	128.700	295.600

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
23	37-09-08.0 N	084-18-58.5 W	350.8	106.7	1229865

Address: 31 Laddie (37716)

City: Somerset **County:** PULASKI **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.200	125.000	89.000	126.700	144.700	130.600	152.500	128.900
Transmitting ERP (watts)	11.500	89.000	176.600	74.200	6.100	0.800	0.400	0.400

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.200	125.000	89.000	126.700	144.700	130.600	152.500	128.900
Transmitting ERP (watts)	0.400	0.400	11.700	89.800	178.200	74.900	6.100	0.800

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	123.200	125.000	89.000	126.700	144.700	130.600	152.500	128.900
Transmitting ERP (watts)	13.600	1.600	0.331	0.331	5.900	49.200	165.500	125.700

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
24	37-08-25.1 N	084-32-06.1 W	427.9	59.4	1279127

Address: 740 Fire Tower Rd (37718)

City: Somerset **County:** PULASKI **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	167.000	183.000	156.400	168.700	182.300	193.800	178.100	149.400
Transmitting ERP (watts)	52.800	159.300	116.300	17.200	0.800	0.318	0.318	4.000

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	167.000	183.000	156.400	168.700	182.300	193.800	178.100	149.400
Transmitting ERP (watts)	0.300	0.300	2.000	31.300	143.100	142.000	30.400	1.500

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	167.000	183.000	156.400	168.700	182.300	193.800	178.100	149.400
Transmitting ERP (watts)	84.900	4.800	0.600	0.700	1.900	34.400	225.900	292.800

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	37-01-12.7 N	084-34-43.7 W	398.4	77.7	1234225

Address: 1025 Hill Road (39215)

City: Somerset **County:** PULASKI **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.600	159.800	160.600	194.400	199.300	176.400	199.200	183.200
Transmitting ERP (watts)	219.200	70.600	3.800	0.900	0.438	1.300	17.700	131.500

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.600	159.800	160.600	194.400	199.300	176.400	199.200	183.200
Transmitting ERP (watts)	0.300	1.700	14.200	43.300	50.200	49.700	10.000	3.300

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	172.600	159.800	160.600	194.400	199.300	176.400	199.200	183.200
Transmitting ERP (watts)	3.200	0.200	0.200	0.400	8.600	56.400	93.500	32.500

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNKN965 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
26	37-02-20.6 N	084-38-44.1 W	341.4	29.3	

Address: 1399 W. HWY 914 (110483)

City: Somerset **County:** PULASKI **State:** KY **Construction Deadline:**

Antenna: 1

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	39.000	70.700	66.600	85.100	87.700	103.300	69.700	85.600
Transmitting ERP (watts)	193.600	81.300	6.600	0.900	0.400	0.500	12.700	97.600

Antenna: 2

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	39.000	70.700	66.600	85.100	87.700	103.300	69.700	85.600
Transmitting ERP (watts)	2.600	27.000	144.400	181.000	38.100	3.500	0.500	0.600

Antenna: 3

Maximum Transmitting ERP in Watts: 140.820

Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	39.000	70.700	66.600	85.100	87.700	103.300	69.700	85.600
Transmitting ERP (watts)	1.800	0.400	0.400	6.500	53.800	181.000	137.600	14.900

Control Points:

Control Pt. No. 3

Address: 500 W. Dove Rd.

City: Southlake **County:** TARRANT **State:** TX **Telephone Number:** (800)264-6620

Waivers/Conditions:

NONE

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WPOI255	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
05-27-2015	03-12-2020	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA026	A	19

Market Name
Louisville-Lexington-Evansvill

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255 **File Number:** **Print Date:**

This license is conditioned upon compliance with the provisions of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004).

Spectrum Lease Associated with this License. See Spectrum Leasing Arrangement Letter dated 12/06/2004 and File # 0001918558.

The Spectrum Leasing Arrangement, which became effective upon approval of application file number 0001918558, was terminated on 04/14/2005. See file number 0002135370.

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOI255 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WPOK659	0008716070
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
09-12-2019	09-12-2019	09-29-2029	09-13-2019

Market Number	Channel Block	Sub-Market Designator
BTA423	C	1

Market Name
Somerset, KY

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
09-29-2004	09-29-2009		

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPOK659 **File Number:** 0008716070 **Print Date:** 09-13-2019

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WPXT205	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
06-02-2015	08-31-2018	06-23-2025	

Market Number	Channel Block	Sub-Market Designator
MTA026	A	8

Market Name
Louisville-Lexington-Evansvill

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-23-2000	06-23-2005		

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPXT205 **File Number:** **Print Date:**

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WPXT205 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1015
DALLAS, TX 75202

Call Sign	File Number
WQGD755	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
12-18-2006	08-31-2018	12-18-2021	

Market Number	Channel Block	Sub-Market Designator
BEA047	C	9

Market Name
Lexington, KY-TN-VA-WV

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

FCC 601-MB
October 2017

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQGD755 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: CECIL J MATHEW
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST. RM 1015
DALLAS, TX 75202

Call Sign	File Number
WQUZ670	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
09-26-2014	02-20-2019	11-29-2021	

Market Number	Channel Block	Sub-Market Designator
REA004	D	10

Market Name
Mississippi Valley

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQUZ670 **File Number:** **Print Date:**

The license is subject to compliance with the provisions of the January 12, 2001 Agreement between Deutsche Telekom AG, VoiceStream Wireless Corporation, VoiceStream Wireless Holding Corporation and the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI), which addresses national security, law enforcement, and public safety issues of the FBI and the DOJ regarding the authority granted by this license. Nothing in the Agreement is intended to limit any obligation imposed by Federal law or regulation including, but not limited to, 47 U.S.C. Section 222(a) and (c)(1) and the FCC's implementing regulations. The Agreement is published at VoiceStream-DT Order, IB Docket No. 00-187, FCC 01-142, 16 FCC Rcd 9779, 9853 (2001).

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQUZ670 **File Number:** **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

EXHIBIT B

SITE DEVELOPMENT PLAN:

500' VICINITY MAP
LEGAL DESCRIPTIONS
FLOOD PLAIN CERTIFICATION
SITE PLAN
VERTICAL TOWER PROFILE

FA NUMBER: 15145564 / SITE ID: KYLEX2038
PACE #: MRTNK047951
PROJECT TRACKING #: 10115694
SITE NAME: HAPPY RIDGE RELO

240 HAPPY RIDGE RD
NANCY, KY 42544
PULASKI COUNTY

PROPOSED 305' GUYED TOWER

ZONING DRAWINGS

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
UNITI TOWERS PROP:		
UNITI TOWERS CONST. MGR.:		
INTERCONNECT:		
UNITI TOWERS SITE DEV. MGR.:		
PROPERTY OWNER:		

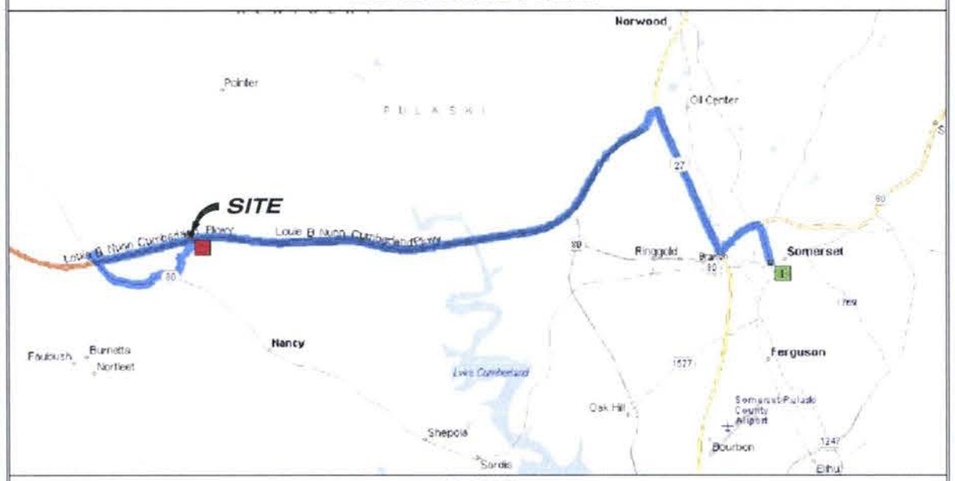
STATUS CODE:		
1		ACCEPTED: WITH OR NO COMMENTS, CONSTRUCTION MAY PROCEED
2		NOT ACCEPTED: RESOLVE COMMENTS AND RESUBMIT

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

PROJECT SUMMARY

SITE NAME:	HAPPY RIDGE RELO
SITE NUMBER:	FA 15145564
TAX MAP PROPERTY ID:	019-0-0-32
SITE ADDRESS:	240 HAPPY RIDGE ROAD NANCY, KY 42544
JURISDICTION:	PULASKI COUNTY
TOWER OWNER:	UNITI TOWERS 10802 EXECUTIVE CENTER DRIVE LITTLE ROCK, AR 72211
NAD83	
LATITUDE:	37.100211° N
LONGITUDE:	84.776783° W
APPLICANT:	NEW CINGULAR WIRELESS, PCS, LLC, A DELAWARE LIMITED LIABILITY COMPANY d/b/a AT&T MOBILITY MEIDINGER TOWER 462 S/ 4th STREET, SUITE 2400 LOUISVILLE, KY 40202
CO-APPLICANT:	N/A
OCCUPANCY TYPE:	UNMANNED
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

LOCATION MAP



NO SCALE

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
1-3	SURVEY
C-1	500' RADIUS & ADJOINER'S DRAWING
C-2	OVERALL SITE LAYOUT
C-3	ENLARGED COMPOUND LAYOUT
C-4	TOWER ELEVATION

DESIGN INFORMATION

A&E FIRM:	B+T GROUP 1717 S. BOULDER, SUITE 300 TULSA, OK 74119 MIKE A. SPEEDIE, PE (918) 587-4630	ELECTRIC PROVIDER:	SO. KENTUCKY RECC 606-678-4121
SURVEYOR:	POINT TO POINT 100 GOVERNORS TRACE, STE #103 PEACHTREE CITY, GA 30269 PH. (678) 565-4440	TELCO PROVIDER:	WINDSTREAM XXX-XXX-XXXX

DRIVING DIRECTIONS

DEPART COUNTY JUDGE EXECUTIVE'S OFFICE ON KY-1247 [100 N MAIN ST] (NORTH) 0.6 MI
TURN LEFT (WEST) ONTO KY-80 [E HIGHWAY 80] 0.7 MI
KEEP RIGHT ONTO LOCAL ROAD(S) 65 YDS
BEAR RIGHT (NORTH) ONTO US-27 [N HIGHWAY 27] 2.4 MI
TURN LEFT (WEST) ONTO LOCAL ROAD(S)21 YDS
TAKE RAMP ONTO LOUIE B NUNN CUMBERLAND PKWY 9.7 MI BOWLING GREEN / LOUIE B NUNN CUMBERLAND PKY WEST
AT EXIT 78, KEEP RIGHT ONTO RAMP 0.4 MI KY-80 / NANCY
ROAD NAME CHANGES TO LOCAL ROAD(S) 10 YDS
TURN LEFT (SOUTH-EAST) ONTO KY-80 [W HIGHWAY 80] 1.6 MI
TURN LEFT (NORTH) ONTO KY-2993 [COLDWEATHER CHURCH RD] 0.7 MI
ARRIVE: HAPPY RIDGE RELO

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING/DWELLING	IBC 2015
STRUCTURAL	IBC 2015
MECHANICAL	IMC 2015
ELECTRICAL	NEC 2017

PROJECT DESCRIPTION

THE ZONING DRAWINGS INCLUDES:

- CONSTRUCT (1) NEW 305' GUYED TOWER
- CONSTRUCT FENCED GRAVEL UTILITY COMPOUND WITH LOCKING ACCESS GATE, 80' x 80' WITHIN 100' x 100' LEASE AREA.
- INSTALL (1) H-FRAME W/ UTILITY EQUIPMENT.
- INSTALL NEW POWER & TELCO UTILITY SERVICES.
- CONSTRUCT 12' WIDE GRAVEL ACCESS ROAD

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS
HAPPY RIDGE RELO
FA# 15145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO: G013733(0)01
CHECKED BY: MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

B&T ENGINEERING, INC.
COA 4011
Expires 12/31/20

STATE OF KENTUCKY
BRAD P. PILAKOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

TITLE SHEET

SHEET NUMBER:
T-1

PARENT PARCEL

OWNER: VIRL & GLADYS MOLDEN

SITE ADDRESS: 240 HAPPY RIDGE RD, NANCY, KY 42544

PARCEL ID: 019-0-0-32

AREA: 12.000 ACRES (PER TAX ASSESSOR)

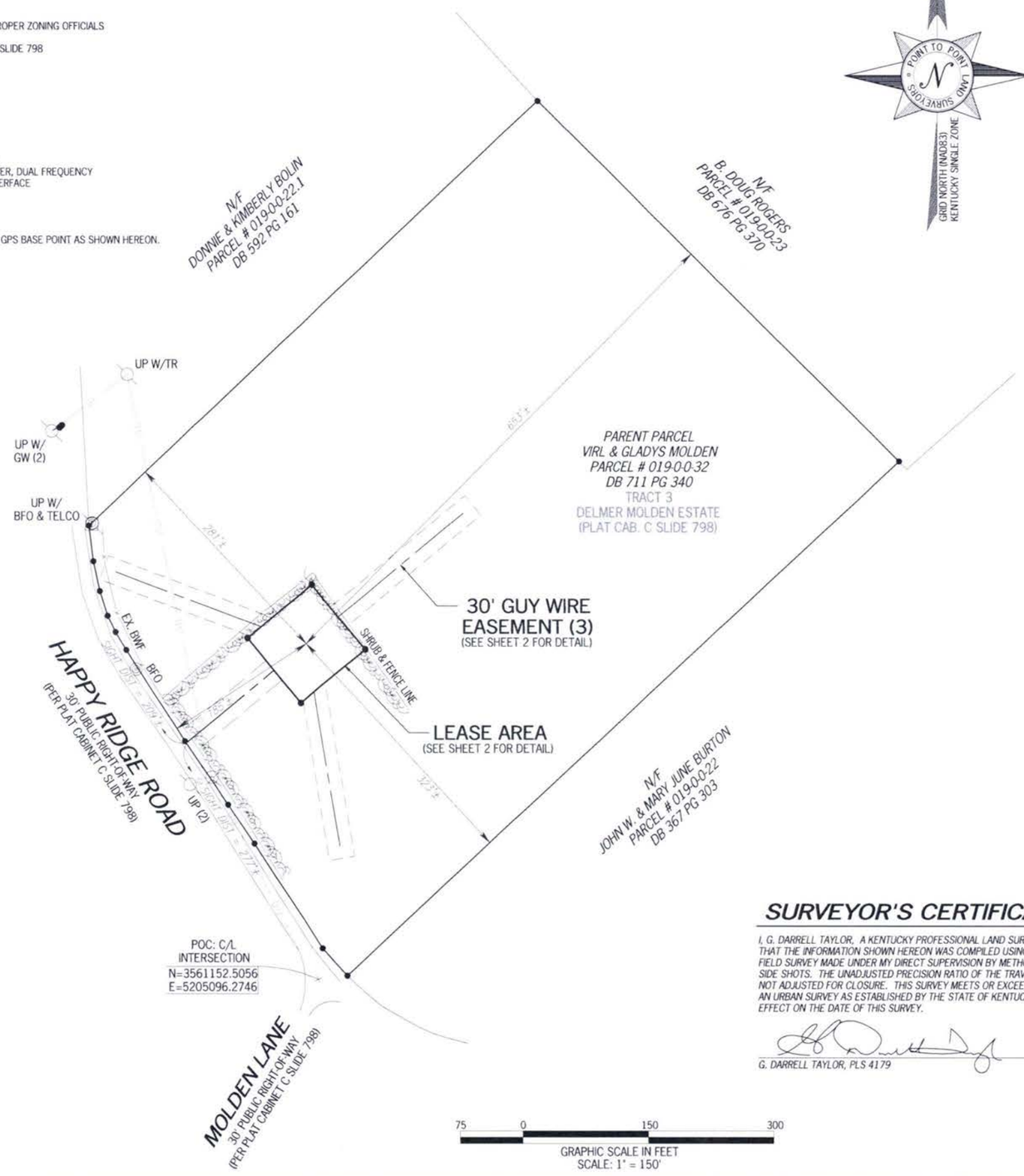
ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS

REFERENCE: DEED BOOK 711 PAGE 340 & PLAT CABINET C SLIDE 798

GPS NOTES

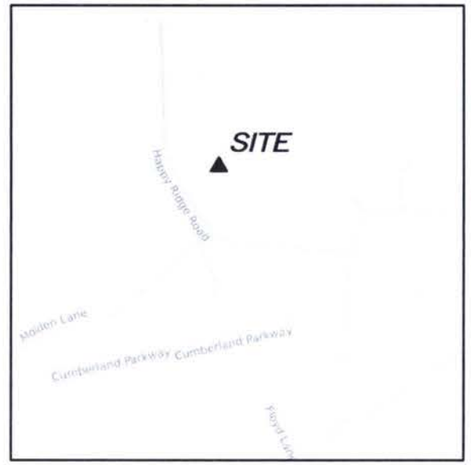
THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:

POSITIONAL ACCURACY: 0.01 FEET (HORZ) 0.15 FEET (VERT)
TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY
TYPE OF GPS FIELD PROCEDURE: ONLINE POSITION USER INTERFACE
DATES OF SURVEY: 1/8/20
DATUM / EPOCH: NAD_83(2011)(EPOCH:2010.0000)
PUBLISHED / FIXED CONTROL USE: N/A
GEOID MODEL: 18
COMBINED GRID FACTOR(S): 0.99994667 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
CONVERGENCE ANGLE: 0.59752500°



LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
OU	OVERHEAD UTILITY
UE	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
SWCB	SINGLE WING CATCH BASIN
DWCB	DOUBLE WING CATCH BASIN
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
N/F	NOW OR FORMERLY
TBM	TEMPORARY BENCHMARK
BWF	BARB WIRE FENCE
BFO	BURIED FIBER OPTIC
RB	REBAR



VICINITY MAP

NOT TO SCALE

GENERAL NOTES

* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF UNITI TOWERS, LLC AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE PROPOSED LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN EXHIBIT OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,000+ FEET AND AN ANGULAR ERROR OF 5.0' PER ANGLE POINT AND WAS NOT ADJUSTED FOR CLOSURE.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & GEOMAX ZENITH 35. [DATE OF LAST FIELD VISIT:1/8/20]

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ± 0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) KENTUCKY SINGLE ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. : 21199C0275C DATED: 07/22/2010.

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.

SURVEYOR'S CERTIFICATE

I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:10,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR AN URBAN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

G. DARRELL TAYLOR, PLS 4179 — 01/28/2020 DATE

SURVEY NOT VALID WITHOUT SHEETS 2 & 3

Know what's **below.**
Call before you dig.

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	6/22/2020	E911 ADDRESS

* SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

HAPPY RIDGE RELO

KYLEX2038

PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL	SHEET: 1
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: JANUARY 28, 2020	
P2P JOB #: 200014KY	OF 3

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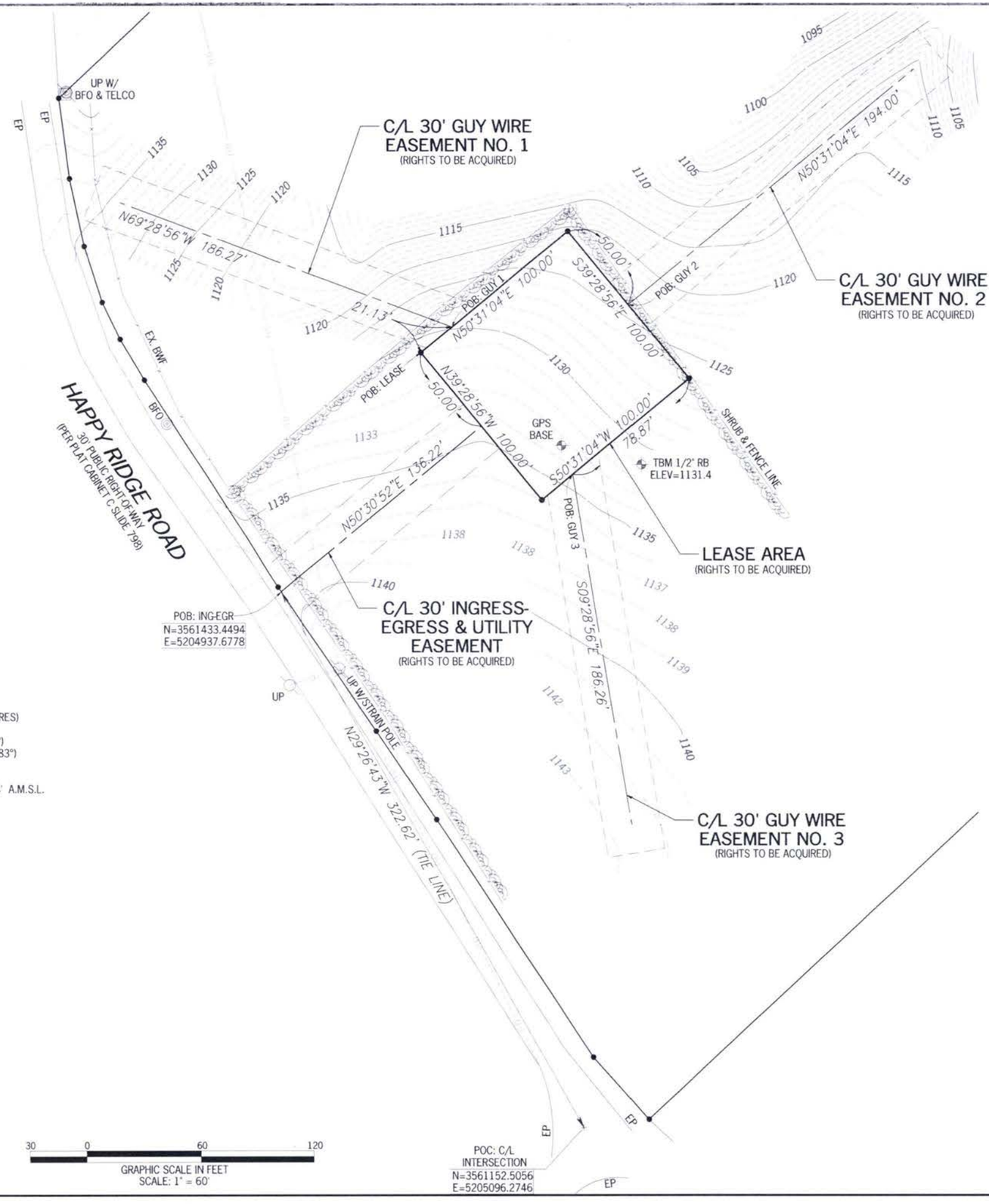

SITE INFORMATION

LEASE AREA = 10,000 SQUARE FEET (0.2296 ACRES)

LATITUDE = 37°06'00.76" (NAD 83) (37.100211°)
LONGITUDE = -84°46'36.42" (NAD 83) (-84.776783°)
AT CENTER LEASE AREA

ELEVATION AT CENTER OF LEASE AREA = 1130.3' A.M.S.L.

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
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TR	TRANSFORMER
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DWCB	DOUBLE WING CATCH BASIN
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE
N/F	NOW OR FORMERLY
TBM	TEMPORARY BENCHMARK
BWF	BARB WIRE FENCE
BFO	BURIED FIBER OPTIC
RB	REBAR

SURVEY NOT VALID WITHOUT SHEETS 1 & 3

STATE of KENTUCKY
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4179
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KYLEX2038

PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL	SHEET:
CHECKED BY: JKL	2
APPROVED: D. MILLER	
DATE: JANUARY 28, 2020	OF 3
P2P JOB #: 200014KY	

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LEGAL DESCRIPTION SHEET

30' INGRESS-EGRESS & UTILITY EASEMENT

TOGETHER WITH A 30-FOOT WIDE INGRESS-EGRESS AND UTILITY EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778 AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO THE ENDING AT A POINT ON THE LEASE AREA.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 50°31'04" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 39°28'56" WEST, 100.00 FEET TO A POINT AND THE POINT OF BEGINNING.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

SAID TRACT CONTAINS 0.2296 ACRES (10,000 SQUARE FEET), MORE OR LESS.

30' GUY WIRE EASEMENT NO. 1

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 21.13 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 69°28'56" WEST, 186.27 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

30' GUY WIRE EASEMENT NO. 2

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 50.00 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 50°31'04" EAST, 194.00 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

30' GUY WIRE EASEMENT NO. 3

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 50°31'04" WEST, 78.87 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, SOUTH 09°28'56" EAST, 186.26 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

SURVEY NOT VALID WITHOUT SHEETS 1 & 2

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
1	6/22/2020	E911 ADDRESS

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SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

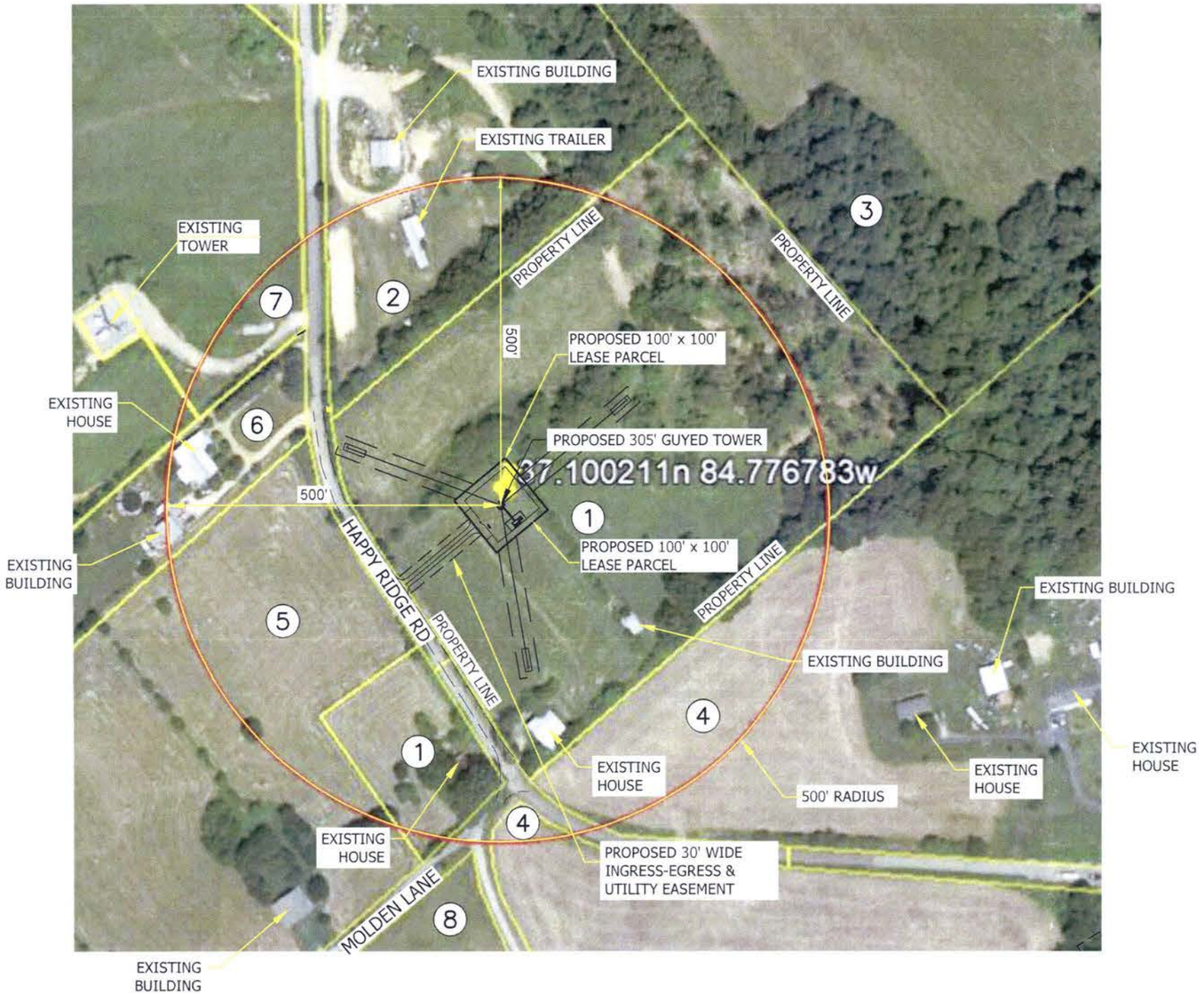
HAPPY RIDGE RELO

KYLEX2038

PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL	SHEET: 3
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: JANUARY 28, 2020	
P2P JOB #: 200014KY	OF 3

E:\Dropbox (Point To Point)\P2P Current Jobs\2020\200014KY-KYLEX2038 Happy Ridge Relo KY\200014KY.prj



#	OWNER	ADDRESS	PID	REF
1	VIRL & GLADYS MOLDEN	2128 HWY 2993 NANCY, KY 42544	019-0-0-32	DB 711 PG 340
2	DONNIE & KIMBERLY BOLIN	380 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-22.1	DB 592 PG 161
3	B. DOUG ROGERS	626 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-23	DB 676 PG 370
4	JOHN W. & MAY JUNE BURTON	757 HWY 2993 NANCY, KY 42544	019-0-0-22	DB 367 PG 303
5	VERTREES & SHIRLEY MOLDEN	3185 HWY 80 SOMERSET, KY 42501	019-0-0-32.1	DB 711 PG 458
6	SHANNON & LESIA COOK	303 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-30	DB 775 PG 706
7	RONNY BOLIN	499 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-29	DB 635 PG 033
8	DONALD & JANET TARTER	82 N FLOYD LN NANCY, KY 42544	019-0-0-31	DB 633 PG 601

NOTE:

1. PVA INFORMATION WAS OBTAINED ON 5/31/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.

FLOOD ZONE NOTE:

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. 21199C0275C DATED: 07/22/2010

1 500' RADIUS & ADJOINER'S DRAWING

SCALE: 0' 100' 200' 300' 400' 1"=200'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

811

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS
HAPPY RIDGE RELO
FA# 15145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	G0137330.00
CHECKED BY:	MAS

ISSUED FOR:

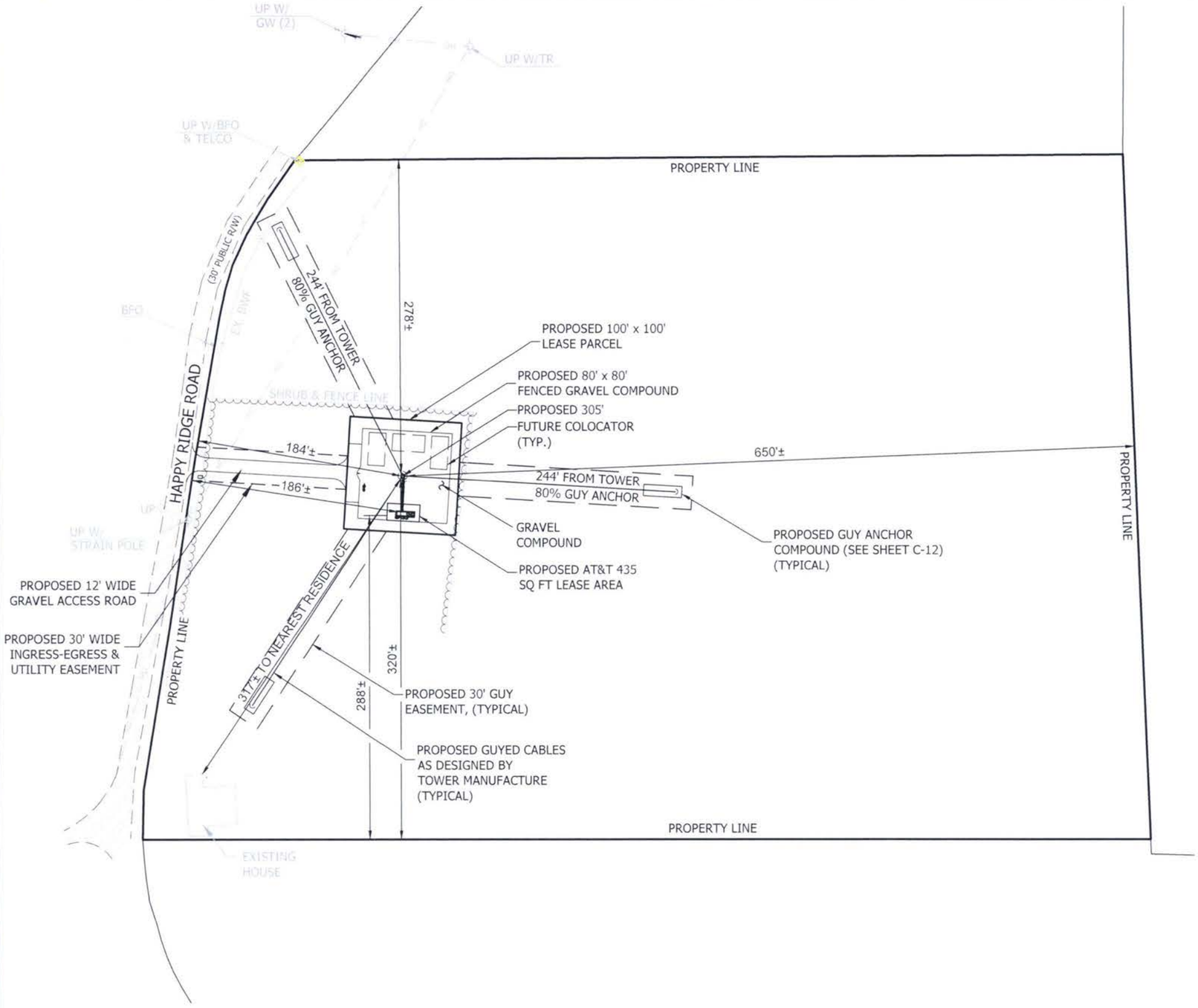
REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

B&T ENGINEERING, INC.
COA 4011
Expires 12/31/20

STATE OF KENTUCKY
BRAD D. PILAROWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1



NOTES:

1. TOWER LATITUDE, LONGITUDE & ELEVATION MEET FAA"1-A" ACCURACY REQUIREMENTS.

2. CENTER OF TOWER:

LATITUDE: NORTH 37°06'00.76" (37.100211) NAD 83
LONGITUDE: WEST -84°46'36.42" (-84.776783) NAD 83
GROUND ELEVATION @ 1130.3' A.M.S.L. NAVD 88

3. THE APPROXIMATE PERPENDICULAR DISTANCES FROM THE OUTER EDGE OF THE PROPOSED TOWER TO PARENT TRACT NEAREST PROPERTY LINE ARE AS FOLLOWS:

NORTHWEST:	278'±
SOUTHWEST:	184'±
SOUTHEAST:	320'±
NORTHEAST:	650'±

1 OVERALL SITE LAYOUT
SCALE: 0' 50' 100' 150' 200' 1"=100'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS
HAPPY RIDGE RELO
FA# 15145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	G013733(00)
CHECKED BY:	MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

B&T ENGINEERING, INC.
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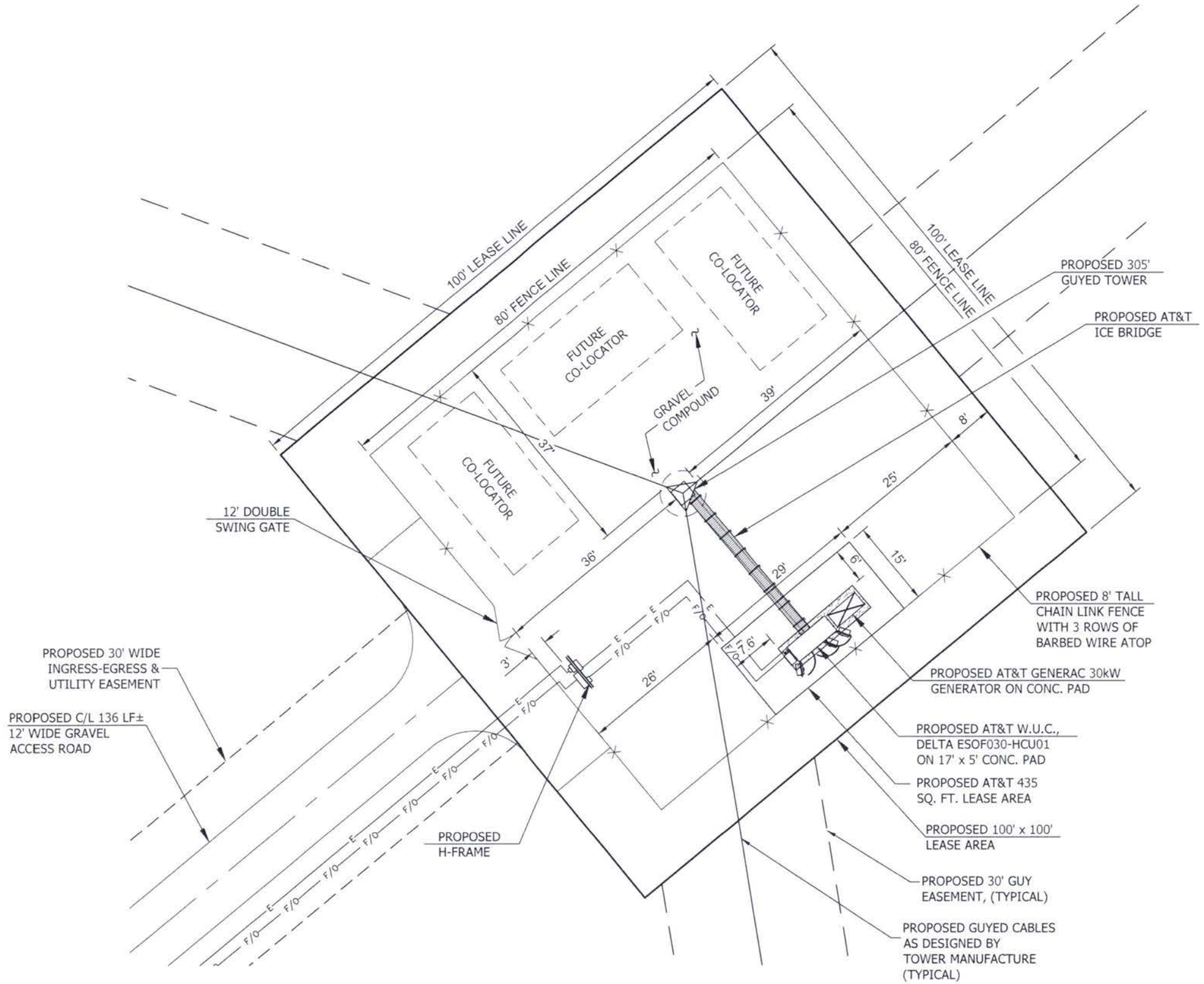
Expires 12/31/20

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

OVERALL SITE LAYOUT

SHEET NUMBER:
C-2



1 PROPOSED IMPROVEMENT PLAN

SCALE: 0' 10' 20' 30' 40' 1"=20'

N

THE CONTRACTOR SHALL VISIT THE SITE BEFORE BIDDING ON THE WORK CONTAINED WITHIN THIS DESIGN PACKAGE. DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO BIDDING.

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS BEFORE YOU DIG!

811

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS

HAPPY RIDGE RELO

FA# 15145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY

PROPOSED 305' GUYED TOWER

PROJECT NO:	G0137330.00
CHECKED BY:	MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

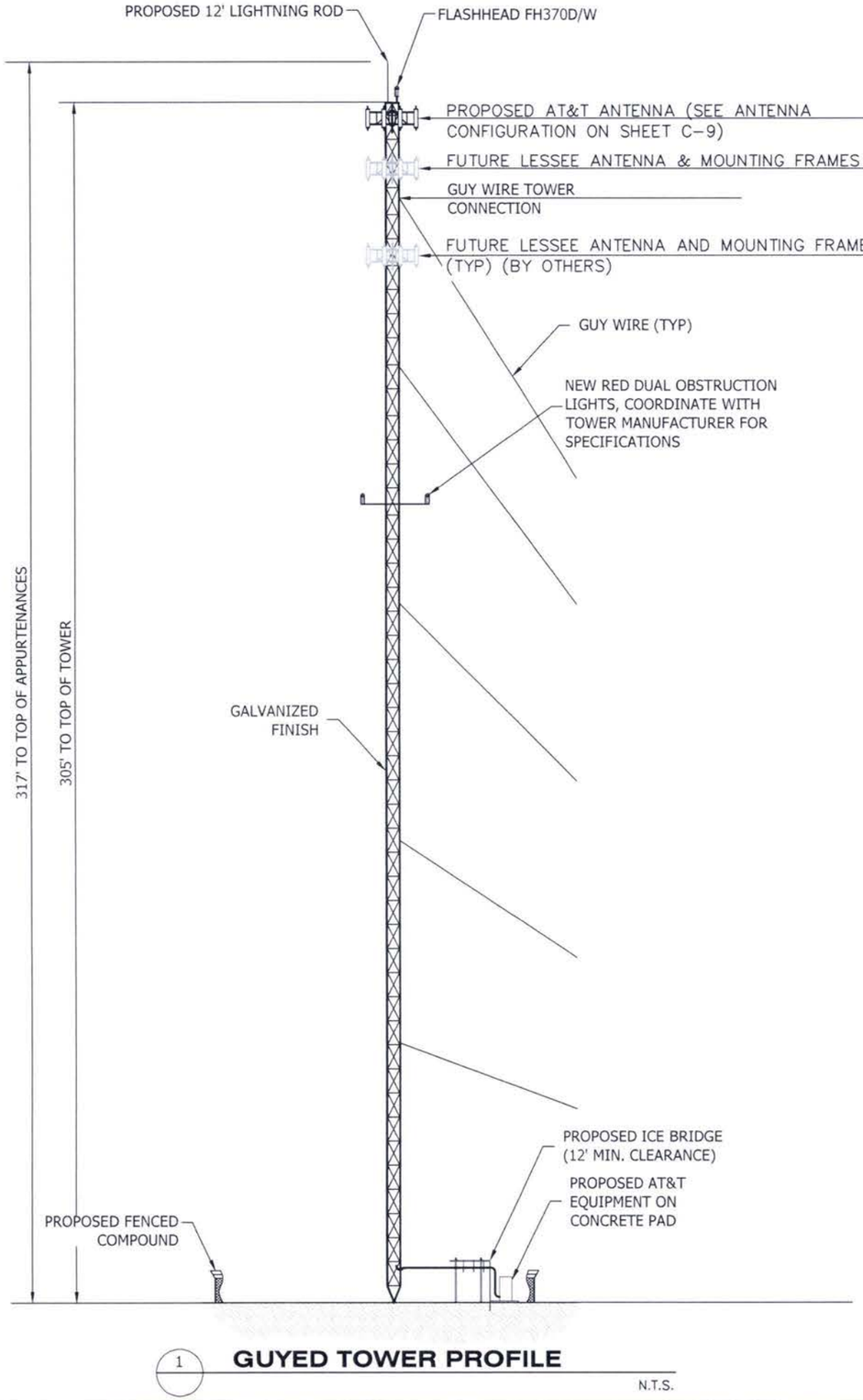
B&T ENGINEERING, INC.
COA 4011
Expires 12/31/20

STATE OF KENTUCKY
BRAD P. MILAKOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

ENLARGED COMPOUND LAYOUT

SHEET NUMBER:

C-3



1 **GUYED TOWER PROFILE**

N.T.S.

STRUCTURAL ANALYSIS NOTES:

1. ANTENNA PLACEMENT WAS DETERMINED WITHOUT VERIFICATION OF STRUCTURAL ANALYSIS.
2. REFER TO STRUCTURAL ANALYSIS OR STRUCTURAL LETTER FOR APPROVAL OF ADDITIONAL NEW APPURTENANCES.
3. TOWER SHALL HAVE A GALVANIZED FINISH IN ACCORDANCE WITH FAA AND LOCAL REGULATIONS.

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS

HAPPY RIDGE RELO

FA# 15145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY

PROPOSED 305' GUYED TOWER

PROJECT NO:	G013733000
CHECKED BY:	MAS

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

B&T ENGINEERING, INC.
COA 4011
Expires 12/31/20

STATE OF KENTUCKY
BRAD D. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

TOWER ELEVATION

SHEET NUMBER:

C-4

EXHIBIT C
TOWER AND FOUNDATION DESIGN

Uniti Group Corporate Headquarters
10802 Executive Center Drive
Benton Building, Ste. 300
Little Rock, AR 72211
501.850.0820 | uniti.com

July 16,2020

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

RE: Site Name – Happy Ridge Relo
Proposed Cell Tower
37.100211 North Latitude, 84.776783 West Longitude

Dear Commissioners:
The Construction Manager for the proposed new communications facility will be Jeremy Culpepper. His contact information is (985) 707-6175 or Jeremy.Culpepper@uniti.com.
Jeremy has been in the industry completing civil construction and constructing towers since 1998. He has worked at Uniti Towers LLC since 2018 completing project and construction management on new site build projects.

Thank you,

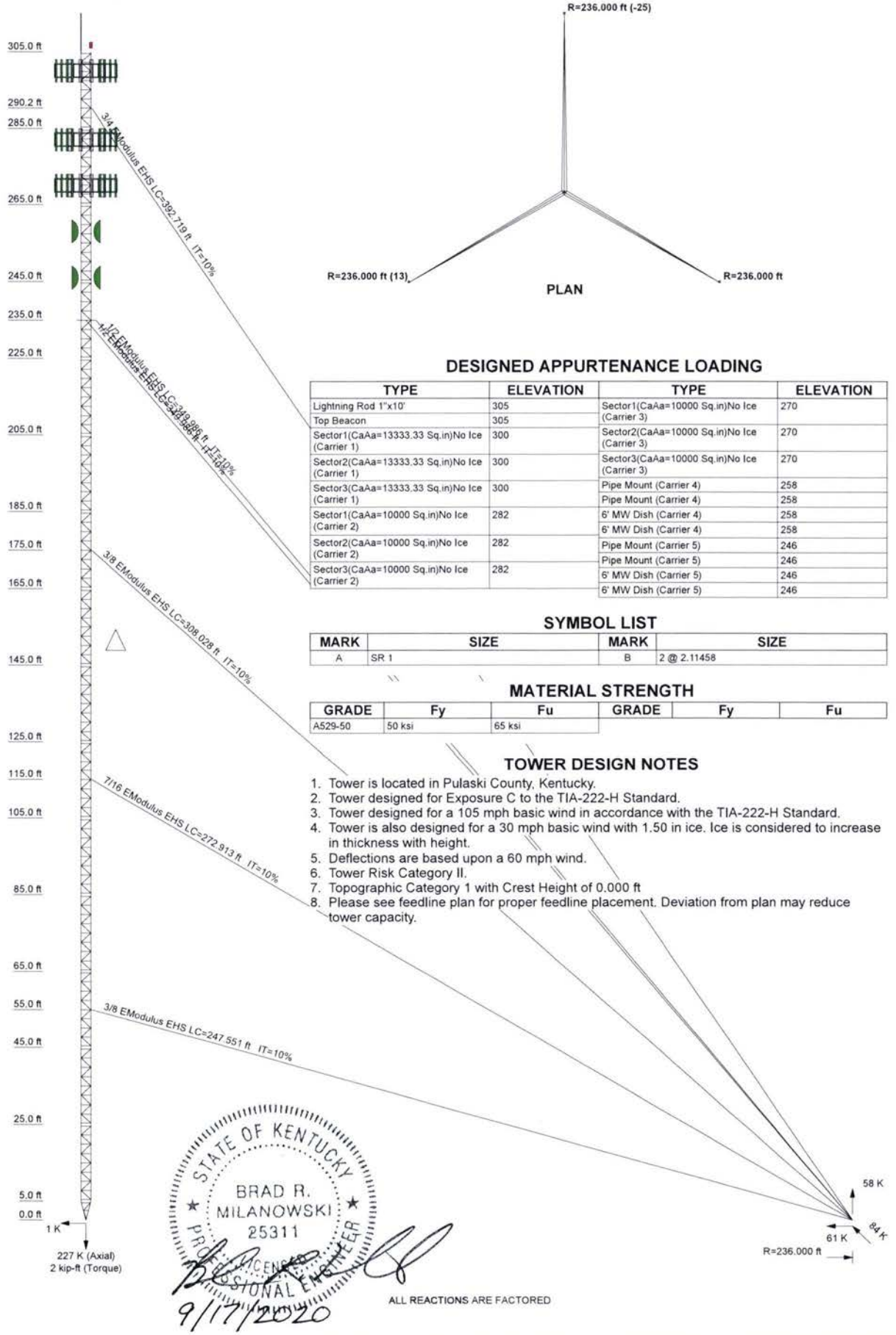
Jeremy Culpepper Digitally signed by Jeremy Culpepper
Date: 2020.07.16 09:08:39 -05'00'

Jeremy Culpeper
Construction Manager – Tennessee/Kentucky Market
Uniti Towers LLC
(985) 707-6175

Uniti Fiber Division Headquarters
107 St. Francis Street, Ste. 1800
Mobile, AL 36602
251.662.1170 | unitifiber.com
New Orleans | Birmingham | Jackson | St. Petersburg | Dallas | Monroe

Uniti Towers Division Headquarters
10801 Executive Center Drive, Shannon Bldg., Ste. 100
Little Rock, AR 72211
501.850.0820| unititowers.com
Domestic | International

Section	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs		SR 2					SR 1 3/4				SR 1 1/2	SR 1 3/4	SR 2	SR 1 3/4	SR 1 1/2	
Leg Grade									A529-50							
Diagonals	A			SR .75			SR .875			SR .75		SR .875		SR 1		
Diagonal Grade									A529-50							
Top Girts									SR 3/4							
Bottom Girts									SR 3/4							
Horizontals									SR 3/4							
Top Guy Pull-Offs		N.A.		4x5/8		N.A.	4x5/8	N.A.		4x5/8	N.A.		4x5/8	N.A.		4x5/8
Face Width (ft)																3
# Panels @ (ft)	B								120 @ 2.40365							
Weight (K)	12.9	0.2	0.9	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.6	0.8	1.5	0.9	0.7	0.8



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 1"x10'	305	Sector1(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Top Beacon	305	Sector2(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Sector1(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	Sector3(CaAa=10000 Sq.in)No Ice (Carrier 3)	270
Sector2(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	Pipe Mount (Carrier 4)	258
Sector3(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	300	Pipe Mount (Carrier 4)	258
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 2)	282	6' MW Dish (Carrier 4)	258
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 2)	282	6' MW Dish (Carrier 4)	258
Sector3(CaAa=10000 Sq.in)No Ice (Carrier 2)	282	Pipe Mount (Carrier 5)	246
		Pipe Mount (Carrier 5)	246
		6' MW Dish (Carrier 5)	246
		6' MW Dish (Carrier 5)	246

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	SR 1	B	2 @ 2.11458

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A529-50	50 ksi	65 ksi			

TOWER DESIGN NOTES

1. Tower is located in Pulaski County, Kentucky.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 105 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 30 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.000 ft
8. Please see feedline plan for proper feedline placement. Deviation from plan may reduce tower capacity.

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
PROFESSIONAL ENGINEER
9/17/2020

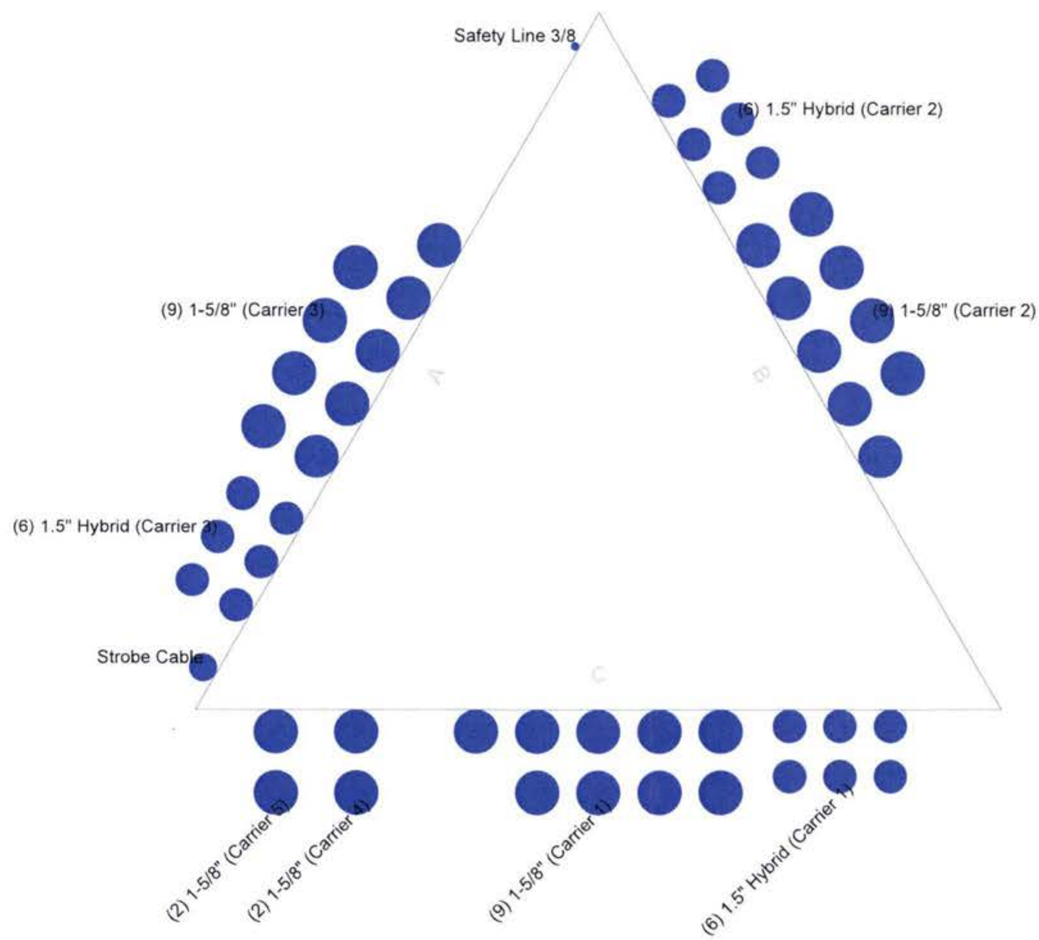
ALL REACTIONS ARE FACTORED

ARCOSA
TELECOM STRUCTURES

B+T Group	Job: Arcosa #8592 - Happy Ridge Rd (Site# KYLEX203		
1717 S. Boulder	Project: 305' 36G/37.100211, -84.776783		
Tulsa, OK 74119	Client: UNITI Towers	Drawn by: jbrock	App'd:
Phone: 918.587.4630	Code: TIA-222-H	Date: 09/16/20	Scale: NTS
FAX:	Path:		Dwg No. E-1

Feed Line Plan

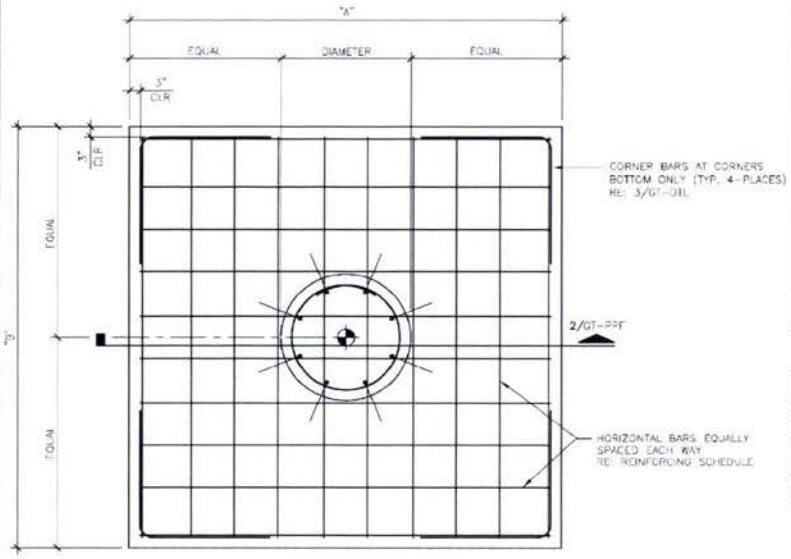
Round | Flat | App In Face | App Out Face



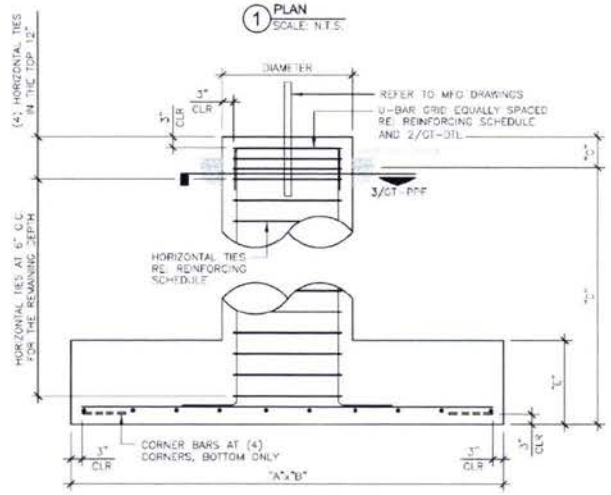
STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
9/17/2020

ARCOSA
TELECOM STRUCTURES

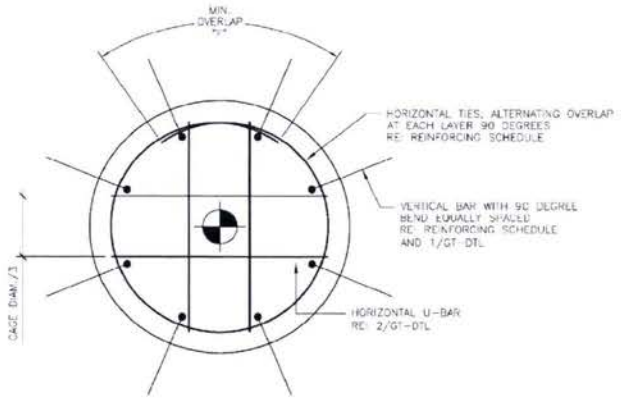
B+T Group 1717 S. Boulder Tulsa, OK 74119 Phone: 918.587.4630 FAX:	Job: ***Arcosa #8592 - Happy Ridge Rd (Site# KYLEX203***		
	Project: ***305' 36G/37.100211, -84.776783***		
	Client: UNITI Towers	Drawn by: jbrock	App'd:
	Code: TIA-222-H	Date: 09/16/20	Scale: NTS
	Path:		Dwg No. E-7



1 PLAN
SCALE: N.T.S.



2 SECTION
SCALE: N.T.S.



3 SECTION
SCALE: N.T.S.

NOTES:

1. REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENT OF ASTM A-615 (GRADE 60) EXCEPT THAT TIES MAY BE ASTM-615 (GRADE 40) WITH 3" MINIMUM CLEAR COVER.
2. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE GEOTECH REPORT FOR THIS PROJECT AND FOLLOW THE RECOMMENDATIONS IN THAT REPORT WHEN CONSTRUCTING THE FOUNDATION.
   GEOTECHNICAL PROPERTIES BY: DELTA OAKS GROUP
   PROJECT NUMBER: GEO20-06844-08 REV. 0
   DATE: AUGUST 18, 2020
3. THIS FOUNDATION HAS BEEN DESIGNED, IN ACCORDANCE WITH THE TIA 222-H STANDARD, SPECIFICALLY FOR THE TOWER AND SOIL CONDITION REFERENCED ABOVE. IF ANYTHING DIFFERS THIS DESIGN SHALL BE CONSIDERED INVALID AND MUST BE REDESIGNED PRIOR TO CONSTRUCTION.
4. CONCRETE VOLUME IN CUBIC YARDS: 4.98
5. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
6. CONCRETE MIXTURES SHALL MEET DURABILITY REQUIREMENTS OF CHAPTER 19 OF THE ACI 318-14.
7. ALL CONCRETE TESTING SHALL BE IN ACCORDANCE WITH ACI 318-14. A MINIMUM OF (2) 6"X12" OR (3) 4"X8" CONCRETE CYLINDERS PER INDIVIDUAL FOUNDATION AND A MINIMUM OF (6) 6"X12" OR (6) 4"X8" CYLINDERS PER BATCH REQUIRED.
8. SLUMP TEST SHALL BE MADE IN ACCORDANCE WITH ASTM C143. THE ALLOWABLE CONCRETE SLUMP SHALL BE 4 INCHES (±1") UNLESS ADMIXTURES ARE USED. ADMIXTURE SHALL BE IN ACCORDANCE WITH ASTM C494 STANDARD TYPES A, B, C, D OR E. THE ENGINEER SHALL PRE-APPROVE SUPER PLASTICIZER USE. DO NOT USE CHLORIDE-CONTAINING ADMIXTURES. AIR ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260.
9. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM UNIT WEIGHT SPECIFIED IN GEOTECH REPORT. THE SOIL SHALL BE INSTALLED IN 6" TO 8" LIFTS AND COMPACTED THOROUGHLY TO ACHIEVE APPROPRIATE UNIT WEIGHT UNLESS GEOTECH SPECIFIES OTHER COMPACTION REQUIREMENTS.
10. VERIFY ALL DIMENSIONS AGAINST MANUFACTURER'S DRAWINGS.

STIPULATION FOR REUSE:

1. THIS DRAWING WAS SPECIFICALLY DESIGNED FOR USE BY THE CUSTOMER ON THIS DRAWING AT THE SPECIFIED LOCATION. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF A PROPERLY LICENSED ENGINEER.

DIMENSIONING SCHEDULE	
A	7' 6"
B	7' 6"
C	0' 6"
D	6' 0"
E	2' 0"
MIN. OVERLAP "F"	2' 3"
DIAMETER	2' 6"

REINFORCING SCHEDULE	SIZE	TOTAL QTY
VERTICAL BARS	#7	7
HORIZONTAL TIES	#4	14
U-BAR HORIZONTAL (PEDESTAL)	#4	4
BOTTOM HORIZONTAL BARS	#8	16
CORNER BARS	#4	4

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	227	KIPS
HORIZONTAL	1	KIPS

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES
4020 TULL AVE, MUSKOGEE, OK 74403

ISSUED FOR:

REV.	DATE	DESCRIPTION
0	09/17/20	ISSUED FOR CONSTRUCTION

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
PROFESSIONAL ENGINEER
9/17/2020

PROJECT INFORMATION:

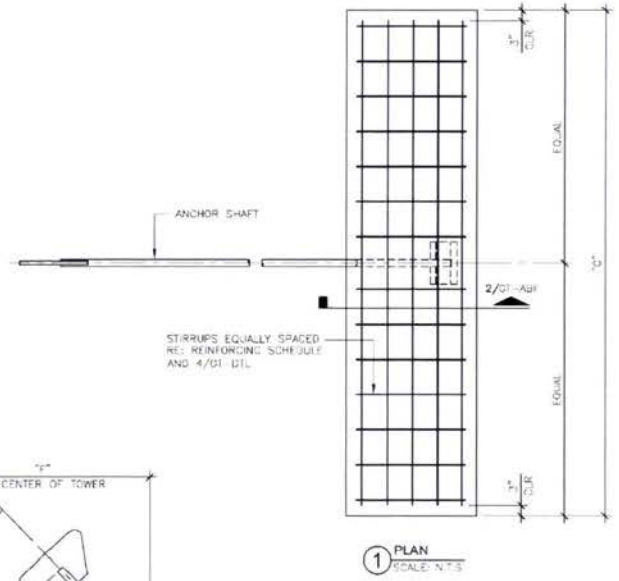
PROJECT NO: 145172.001
SITE NAME: HAPPY RIDGE ROAD
SITE NO: 8592
CLIENT NAME: ARCOSA TELECOM STRUCTURES

DRAWN BY: JB
CHECKED BY: TC

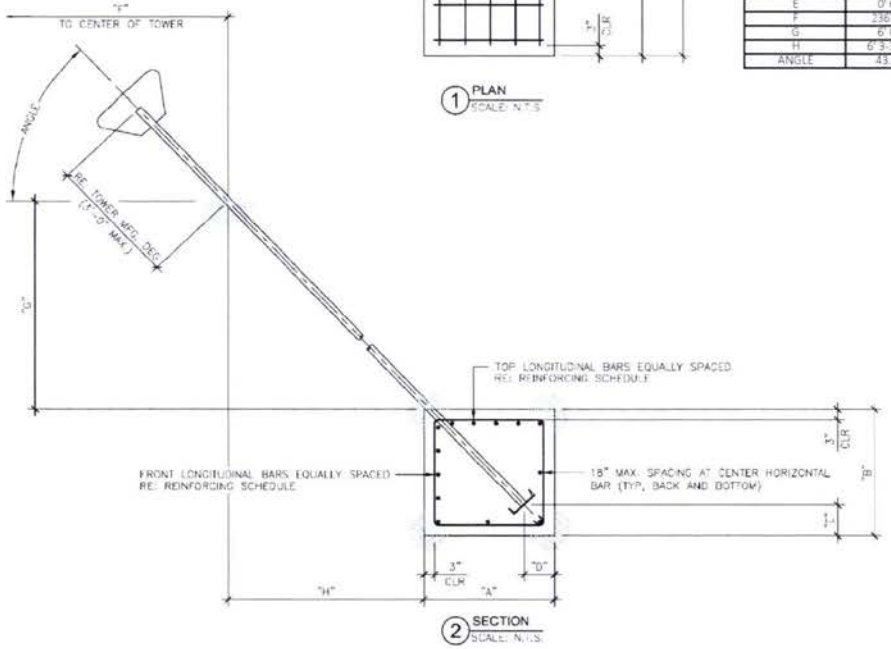
SHEET TITLE:

PIER AND PAD FOUNDATION

SHEET NUMBER:	REVISION:
GT-PPF	0



1 PLAN
SCALE: N.T.S.



2 SECTION
SCALE: N.T.S.

NOTES:

1. REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENT OF ASTM A-615 (GRADE 60) EXCEPT THAT TIES MAY BE ASTM-615 (GRADE 40) WITH 3" MINIMUM CLEAR COVER.
2. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE GEOTECH REPORT FOR THIS PROJECT AND FOLLOW THE RECOMMENDATIONS IN THAT REPORT WHEN CONSTRUCTING THE FOUNDATION.
   GEOTECHNICAL PROPERTIES BY: DELTA OAKS GROUP
   PROJECT NUMBER: GEO.20-06844-08 REV. 0
   DATE: AUGUST 18, 2020
3. THIS FOUNDATION HAS BEEN DESIGNED, IN ACCORDANCE WITH THE TIA 222-H STANDARD, SPECIFICALLY FOR THE TOWER AND SOIL CONDITION REFERENCED ABOVE. IF ANYTHING DIFFERS THIS DESIGN SHALL BE CONSIDERED INVALID AND MUST BE REDESIGNED PRIOR TO CONSTRUCTION.
4. TOTAL CONCRETE VOLUME FOR (3) ANCHOR BLOCKS IN CUBIC YARDS: 4.89
5. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
6. CONCRETE MIXTURES SHALL MEET DURABILITY REQUIREMENTS OF CHAPTER 19 OF THE ACI 318-14.
7. ALL CONCRETE TESTING SHALL BE IN ACCORDANCE WITH ACI 318-14. A MINIMUM OF (2) 6"X12" OR (3) 4"X8" CONCRETE CYLINDERS PER INDIVIDUAL FOUNDATION AND A MINIMUM OF (6) 6"X12" OR (6) 4"X8" CYLINDERS PER BATCH REQUIRED.
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9. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM UNIT WEIGHT SPECIFIED IN GEOTECH REPORT. THE SOIL SHALL BE INSTALLED IN 6" TO 8" LIFTS AND COMPACTED THOROUGHLY TO ACHIEVE APPROPRIATE UNIT WEIGHT UNLESS GEOTECH SPECIFIES OTHER COMPACTION REQUIREMENTS.
10. VERIFY ALL DIMENSIONS AGAINST MANUFACTURER'S DRAWINGS.
11. ANCHOR SHAFT: BY TOWER MANUFACTURER

STIPULATION FOR REUSE:

1. THIS DRAWING WAS SPECIFICALLY DESIGNED FOR USE BY THE CUSTOMER ON THIS DRAWING AT THE SPECIFIED LOCATION. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES THE SERVICES OF A PROPERLY LICENSED ENGINEER.

DIMENSIONING SCHEDULE	
A	2'-0"
B	2'-0"
C	11'-0"
D	0'-6"
E	0'-6"
F	236'-0"
G	6'-0"
H	6'-3-3/4"
ANGLE	43.6°

REINFORCING SCHEDULE	SIZE	TOTAL QTY 3 ANCHORS
STIRRUPS	# 8	39
LONGITUDINAL BARS TOP	# 8	9
LONGITUDINAL BARS FRONT	# 8	9
LONGITUDINAL BARS BACK	# 8	3
LONGITUDINAL BARS BOTTOM	# 8	3

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	58	KIPS
HORIZONTAL	61	KIPS

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES
4020 TULL AVE, MUSKOGEE, OK 74403

ISSUED FOR:

REV.	DATE	DESCRIPTION
0	09/17/20	ISSUED FOR CONSTRUCTION

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
9/17/2020

PROJECT INFORMATION:

PROJECT NO: 145172.001
SITE NAME: HAPPY RIDGE ROAD
SITE NO: 8592
CLIENT NAME: ARCOSA TELECOM STRUCTURES

DRAWN BY: JB
CHECKED BY: TC

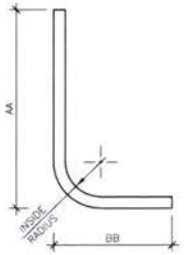
SHEET TITLE:

ANCHOR BLOCK FOUNDATION

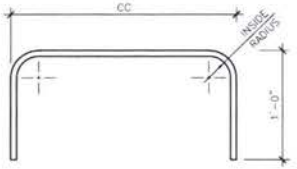
SHEET NUMBER: GT-ABF

REVISION: 0

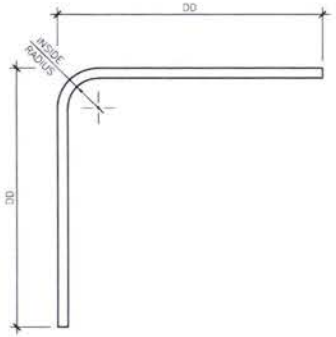
DIMENSIONING SCHEDULE	
AA	4'-8"
BB	1'-1-1/8"
CC GT-PPF	1'-10-5/8"
DD	3'-0"
EE	1'-6"
FF	1'-6"
GG	0'-6"
INSIDE RADIUS DETAIL 1	0'-2-5/8"
INSIDE RADIUS DETAIL 2	0'-1-7/8"
INSIDE RADIUS DETAIL 3	0'-1-1/2"
INSIDE RADIUS DETAIL 4	0'-2"



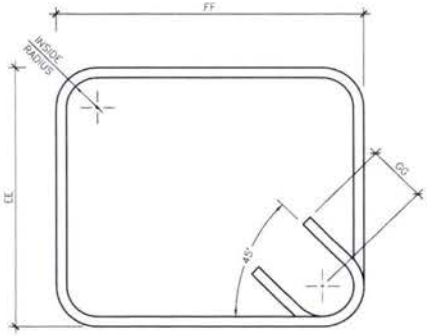
1 L-BAR
SCALE: N.T.S.



2 HORIZONTAL U-BAR
SCALE: N.T.S.



3 CORNER BAR
SCALE: N.T.S.



4 STIRRUP
SCALE: N.T.S.

B+T GRP
1717 S BOULDER AVE #300, TULSA, OK 74119
(918) 587-4630

ARCOSA
TELECOM STRUCTURES
4020 TULL AVE, MUSKOGEE, OK 74403

ISSUED FOR:

REV	DATE	DESCRIPTION
0	09/17/20	ISSUED FOR CONSTRUCTION

STATE OF KENTUCKY
BRAD R. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
9/17/2020

PROJECT INFORMATION:

PROJECT NO: 145172.001
SITE NAME: HAPPY RIDGE ROAD
SITE NO: 8592
CLIENT NAME: ARCOSA TELECOM STRUCTURES

DRAWN BY: JB
CHECKED BY: TC

SHEET TITLE:

DIMENSIONING DETAIL

SHEET NUMBER:	REVISION:
DTL	0

Pier and Pad Foundation

TIA-222 Revision:	H
Tower Type:	Guyed

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐

Superstructure Analysis Reactions		
Compression, P_{comp}:	227	kips
Base Shear, Vu_comp:	1	kips
Moment, M_u:		ft-kips
Tower Height, **H**:	305	ft
BP Dist. Above Fdn, bp_{dist}:	6	in
Bolt Circle / Bearing Plate Width, **BC**:		in

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, **dpier**:	2.5	ft
Ext. Above Grade, **E**:	0.5	ft
Pier Rebar Size, **Sc**:	7	
Pier Rebar Quantity, **mc**:	7	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	10	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties		
Depth, **D**:	6	ft
Pad Width, **W**:	7.5	ft
Pad Thickness, **T**:	2	ft
Pad Rebar Size (Bottom), **Sp**:	8	
Pad Rebar Quantity (Bottom), **mp**:	8	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, **δc**:	150	pcf

Soil Properties		
Total Soil Unit Weight, **γ**:	105	pcf
Ultimate Net Bearing, Qnet:	12.960	ksf
Cohesion, **Cu**:	1.250	ksf
Friction Angle, **ϕ**:		degrees
SPT Blow Count, N_{blows}:		
Base Friction, **μ**:	0.3	
Neglected Depth, **N**:	2.50	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral (Sliding) (kips)	88.78	1.00	**1.1%**	**Pass**
Bearing Pressure (ksf)	8.15	4.98	**61.0%**	**Pass**
*Overturning (kip*ft)*	387.33	7.00	**1.8%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	362.10	4.50	**1.2%**	**Pass**
Pier Compression (kip)	2343.24	230.98	**9.9%**	**Pass**
*Pad Flexure (kip*ft)*	531.08	97.02	**18.3%**	**Pass**
Pad Shear - 1-way (kips)	144.19	27.24	**18.9%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.034	**20.8%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	1062.17	2.70	**0.3%**	**Pass**

Soil Rating:	**61.0%**
Structural Rating:	**20.8%**

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

TIA-222 Revision:	H

Design Reactions		
Shear, **S**:	61.00	kips
Uplift, **Ua**:	58.00	kips
Resultant Force, **Rf**:	84.2	kips
Tower Height, **H**:	305.00	ft
Guy Anchor Radius, **R**:	236.00	ft
Resultant Angle to Horizontal, **θ**:	43.6	deg

Guy Anchor Properties		
Depth to Bottom of Deadman, **Da**:	8	ft
Anchor Width, **Wa**:	2	ft
Anchor Thickness, **Ta**:	2	ft
Anchor Length, **La**:	11	ft
Concrete Volume, **Vc**:	1.6	yd^3
Toe Width, **toe**:		ft
Guyed Anchor Top Rebar Size, **Sat**:	8	
No. of Bars in Top of Block:	3	
Guyed Anchor Front Rebar Size, **Saf**:	8	
No. of Bars in Front of Block:	3	
Stirrup Size:	4	

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Strength, **F'c**:	4	ksi
Wt. Avg.Concrete Density, **δx**:	0.150	kcf
Clear Cover, **cc**:	3	in

Design Checks				
	Capacity	**Demand**	**Rating**	**Check**
Lateral Capacity (kips):	66.29	61.00	**92.0%**	**Pass**
Uplift Capacity (kips):	90.46	58.00	**64.1%**	**Pass**
*Lateral Flexural Capacity (ft*kips)*:	204.01	83.88	**41.1%**	**Pass**
*Uplift Flexural Capacity (ft*kips)*:	204.01	79.75	**39.1%**	**Pass**

Soil Rating:	**92.0%**
Structural Rating:	**41.1%**
Anchor Shaft Rating:	**N/A**

Neglect Depth, **Neg**:	2.5	ft
Groundwater Level, **gw**:	None	ft

Soil Properties:	**No. of Soil Layers?**			6		
Layer	**φ, deg**	**cu, ksf**	**δ, pcf**	**d, ft**	**Ultimate fs (ksf)**	**N (blows/ft)**
1		0.000	105	0.60		
2		1.000	110	1.50		
3		2.000	115	2.50		
4		2.000	115	4.00		
5		1.500	110	6.50		
6		1.000	110	8.00		

*key: *φ = Internal Angle of Friction*
cu = Cohesion / Undrained Shear Strength
δ = Buoyant Soil Unit Weight
d = Depth to Bottom of Layer
Ultimate fs = Geotechnical Report-provided skin friction / adhesion
N = SPT Blow Count

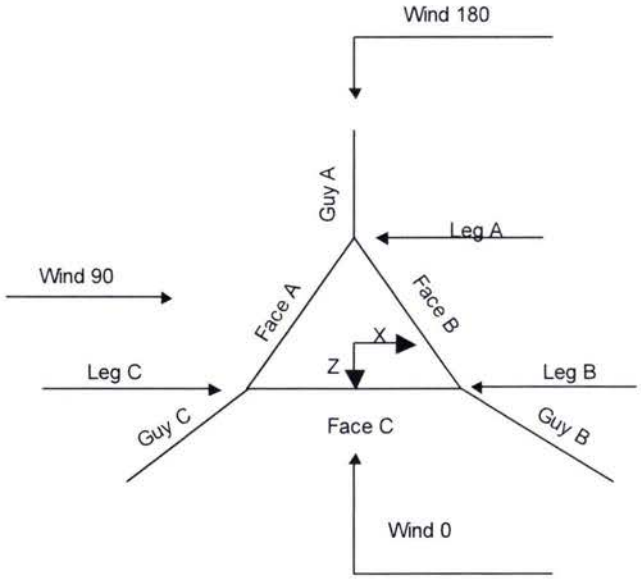
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 305.000 ft above the ground line.
The base of the tower is set at an elevation of 0.000 ft above the ground line.
The face width of the tower is 3.000 ft at the top and tapered at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

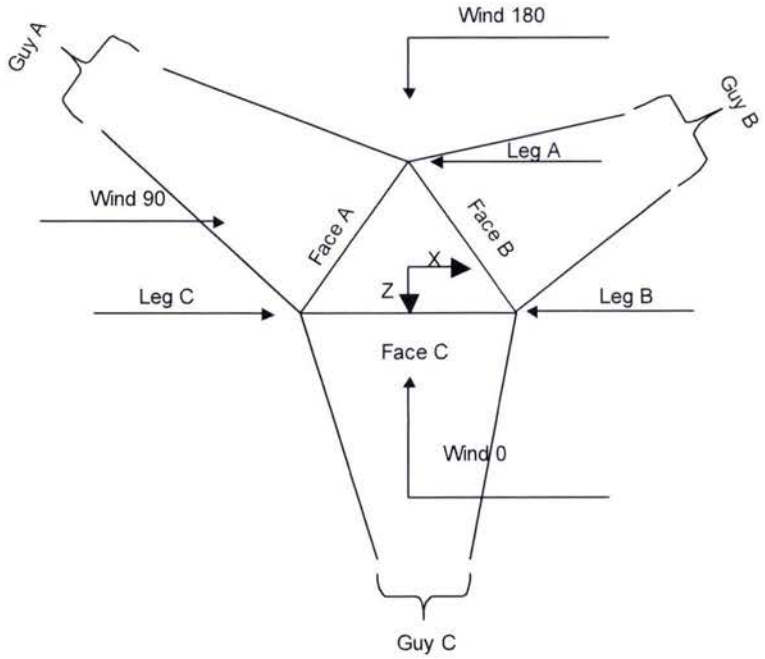
Tower is located in Pulaski County, Kentucky.
Tower base elevation above sea level: 1130.000 ft.
Basic wind speed of 105 mph.
Risk Category II.
Exposure Category C.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.000 ft.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 30 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
Please see feedline plan for proper feedline placement. Deviation from plan may reduce tower capacity..
Pressures are calculated at each section.
Safety factor used in guy design is 1.
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.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	√ SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt	Use TIA-222-H Bracing Resist. Exemption
√ Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
√ Leg Bolts Are At Top Of Section	Add IBC 6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are Known



Corner & Starmount Guyed Tower



Face Guyed

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	305.000-285.000			3.000	1	20.000
T2	285.000-265.000			3.000	1	20.000
T3	265.000-245.000			3.000	1	20.000
T4	245.000-225.000			3.000	1	20.000
T5	225.000-205.000			3.000	1	20.000
T6	205.000-185.000			3.000	1	20.000
T7	185.000-165.000			3.000	1	20.000
T8	165.000-145.000			3.000	1	20.000
T9	145.000-125.000			3.000	1	20.000
T10	125.000-105.000			3.000	1	20.000
T11	105.000-85.000			3.000	1	20.000
T12	85.000-65.000			3.000	1	20.000
T13	65.000-45.000			3.000	1	20.000
T14	45.000-25.000			3.000	1	20.000
T15	25.000-5.000			3.000	1	20.000
T16	5.000-0.000			3.000	1	5.000

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	305.000-285.000	2.404	K Brace Right	No	Yes	4.625	4.625
T2	285.000-265.000	2.404	K Brace Right	No	Yes	4.625	4.625
T3	265.000-245.000	2.404	K Brace Right	No	Yes	4.625	4.625
T4	245.000-225.000	2.404	K Brace Right	No	Yes	4.625	4.625
T5	225.000-205.000	2.404	K Brace Right	No	Yes	4.625	4.625
T6	205.000-185.000	2.404	K Brace Right	No	Yes	4.625	4.625
T7	185.000-165.000	2.404	K Brace Right	No	Yes	4.625	4.625
T8	165.000-145.000	2.404	K Brace Right	No	Yes	4.625	4.625
T9	145.000-125.000	2.404	K Brace Right	No	Yes	4.625	4.625
T10	125.000-105.000	2.404	K Brace Right	No	Yes	4.625	4.625
T11	105.000-85.000	2.404	K Brace Right	No	Yes	4.625	4.625
T12	85.000-65.000	2.404	K Brace Right	No	Yes	4.625	4.625
T13	65.000-45.000	2.404	K Brace Right	No	Yes	4.625	4.625
T14	45.000-25.000	2.404	K Brace Right	No	Yes	4.625	4.625
T15	25.000-5.000	2.404	K Brace Right	No	Yes	4.625	4.625
T16	5.000-0.000	2.115	K Brace Right	No	Yes	4.625	4.625

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 305.000-285.000	Solid Round	1 1/2	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T2 285.000-265.000	Solid Round	1 1/2	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T3 265.000-245.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T4 245.000-225.000	Solid Round	2	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 ksi)
T5 225.000-205.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T6 205.000-185.000	Solid Round	1 1/2	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T7 185.000-165.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T8 165.000-145.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T9 145.000-125.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T10 125.000-105.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.875	A529-50 (50 ksi)
T11 105.000-85.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T12 85.000-65.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T13 65.000-45.000	Solid Round	1 3/4	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)
T14 45.000-25.000	Solid Round	2	A529-50 (50 ksi)	Solid Round	.75	A529-50 (50 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T15 25.000-5.000	Solid Round	2	A529-50 (50 ksi)	Solid Round	75	A529-50 (50 ksi)
T16 5.000-0.000	Solid Round	2	A529-50 (50 ksi)	Solid Round	1	A529-50 (50 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 305.000-285.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T2 285.000-265.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T3 265.000-245.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T4 245.000-225.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T5 225.000-205.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T6 205.000-185.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T7 185.000-165.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T8 165.000-145.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T9 145.000-125.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T10 125.000-105.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T11 105.000-85.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T12 85.000-65.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T13 65.000-45.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T14 45.000-25.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T15 25.000-5.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T16 5.000-0.000	Solid Round	3/4	A529-50 (50 ksi)	Solid Round	3/4	A529-50 (50 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
T1 305.000-285.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T2 285.000-265.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T3 265.000-245.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T4 245.000-225.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T5 225.000-205.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T6 205.000-185.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T7 185.000-165.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T8 165.000-145.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T9 145.000-125.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T10 125.000-105.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T11 105.000-85.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T12 85.000-65.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T13 65.000-45.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T14 45.000-25.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T15 25.000-5.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)
T16 5.000-0.000	None	Flat Bar		A36 (36 ksi)	Solid Round	3/4	A529-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	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
T1 305.000-285.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T2 285.000-265.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T3 265.000-245.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T4 245.000-225.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T5 225.000-205.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T6 205.000-185.0	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	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
00									
T7 185.000-165.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T8 165.000-145.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T9 145.000-125.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T10 125.000-105.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T11 105.000-85.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T12 85.000-65.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T13 65.000-45.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T14 45.000-25.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T15 25.000-5.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000
T16 5.000-0.000	0.000	0.000	A36 (36 ksi)	1	1	1	36.000	36.000	36.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 305.000-285.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 285.000-265.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 265.000-245.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 245.000-225.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T5 225.000-205.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T6 205.000-185.000	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T7 185.000-165.0	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
00										
T8	No	Yes	1	1	1	1	1	1	1	1
165.000-145.0				1	1	1	1	1	1	1
00										
T9	No	Yes	1	1	1	1	1	1	1	1
145.000-125.0				1	1	1	1	1	1	1
00										
T10	No	Yes	1	1	1	1	1	1	1	1
125.000-105.0				1	1	1	1	1	1	1
00										
T11	No	Yes	1	1	1	1	1	1	1	1
105.000-85.00				1	1	1	1	1	1	1
0										
T12	No	Yes	1	1	1	1	1	1	1	1
85.000-65.000				1	1	1	1	1	1	1
T13	No	Yes	1	1	1	1	1	1	1	1
65.000-45.000				1	1	1	1	1	1	1
T14	No	Yes	1	1	1	1	1	1	1	1
45.000-25.000				1	1	1	1	1	1	1
T15	No	Yes	1	1	1	1	1	1	1	1
25.000-5.000				1	1	1	1	1	1	1
T16	No	Yes	1	1	1	1	1	1	1	1
5.000-0.000				1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	U	Diagonal Net Width Deduct in	U	Top Girt Net Width Deduct in	U	Bottom Girt Net Width Deduct in	U	Mid Girt Net Width Deduct in	U	Long Horizontal Net Width Deduct in	U	Short Horizontal Net Width Deduct in	U
T1	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
305.000-285.0														
00														
T2	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
285.000-265.0														
00														
T3	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
265.000-245.0														
00														
T4	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
245.000-225.0														
00														
T5	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
225.000-205.0														
00														
T6	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
205.000-185.0														
00														

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	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
T7 185.000-165.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T8 165.000-145.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T9 145.000-125.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T10 125.000-105.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T11 105.000-85.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T12 85.000-65.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T13 65.000-45.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T14 45.000-25.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T15 25.000-5.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	0.75
T16 5.000-0.000	0.000	1	0.000	1	0.000	1	0.000	1	0.000	0.75	0.000	1	0.000	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 305.000-285.000	Flange	0.750 A325N	0	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T2 285.000-265.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T3 265.000-245.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T4 245.000-225.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T5 225.000-205.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T6 205.000-185.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0

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.
T7 185.000-165.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T8 165.000-145.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T9 145.000-125.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T10 125.000-105.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T11 105.000-85.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T12 85.000-65.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T13 65.000-45.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T14 45.000-25.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T15 25.000-5.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0
T16 5.000-0.000	Flange	0.750 A325N	3	0.000 A325N	0	0.000 A325N	0	0.000 A325N	0	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension K	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
55	EHS	A	3/8	1.540	10%	21000.000	0.273	247.338	236.000	0.000	-25.000	100%
		B	EModulus	1.540	10%	21000.000	0.273	240.431	236.000	0.000	0.000	100%
		C	3/8 EModulus 3/8 EModulus	1.540	10%	21000.000	0.273	237.799	236.000	0.000	13.000	100%
115	EHS	A	7/16	2.080	10%	21000.000	0.399	272.699	236.000	0.000	-25.000	100%
		B	EModulus	2.080	10%	21000.000	0.399	260.768	236.000	0.000	0.000	100%
		C	7/16 EModulus 7/16 EModulus	2.080	10%	21000.000	0.399	255.310	236.000	0.000	13.000	100%
175	EHS	A	3/8	1.540	10%	21000.000	0.273	307.760	236.000	0.000	-25.000	100%
		B	EModulus	1.540	10%	21000.000	0.273	292.161	236.000	0.000	0.000	100%
		C	3/8 EModulus 3/8 EModulus	1.540	10%	21000.000	0.273	284.578	236.000	0.000	13.000	100%

235	EHS	A	1/2	2.690	10%	21000.000	0.517	349.708	236.000	0.000	-25.000	100%
		B	EModulus	2.690	10%	21000.000	0.517	331.573	236.000	0.000	0.000	100%
		C	1/2 EModulus 1/2 EModulus	2.690	10%	21000.000	0.517	322.505	236.000	0.000	13.000	100%
290.193	EHS	A	3/4	5.830	10%	19000.000	1.155	392.382	236.000	0.000	-25.000	100%
		B	EModulus	5.830	10%	19000.000	1.155	372.633	236.000	0.000	0.000	100%
		C	3/4 EModulus 3/4 EModulus	5.830	10%	19000.000	1.155	362.619	236.000	0.000	13.000	100%

Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
55	Corner						
115	Corner						
175	Corner						
235	Torque Arm	6.000	0.000	Channel	A529-50 (50 ksi)	Channel	C12x20.7
290.193	Corner						

Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
55.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
115.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
175.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
235.000	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8
290.193	A572-50 (50 ksi)	Solid Round			Yes	A529-50 (50 ksi)	Flat Bar	4x5/8

Guy Data (cont'd)

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
55	0.068	0.066	0.065		5.390 4.0 sec/pulse	5.104 3.9 sec/pulse	4.999 3.9 sec/pulse	

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
115	0.109	0.104	0.102		7.045 4.6 sec/pulse	6.458 4.4 sec/pulse	6.198 4.3 sec/pulse	
175	0.084	0.080	0.078		8.258 5.0 sec/pulse	7.458 4.7 sec/pulse	7.084 4.6 sec/pulse	
235	0.181	0.171	0.167		11.478 5.8 sec/pulse	10.343 5.6 sec/pulse	9.797 5.4 sec/pulse	
290.193	0.453	0.430	0.419		14.806 6.6 sec/pulse	13.385 6.3 sec/pulse	12.692 6.2 sec/pulse	

Guy Data *(cont'd)*

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
55	No	No			0.8	0.8	1	1
115	No	No			0.8	0.8	1	1
175	No	No			0.8	0.8	1	1
235	No	No	1	1	0.8	0.8	1	1
290.193	No	No			0.8	0.8	1	1

Guy Data *(cont'd)*

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
55	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
115	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
175	0.000 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
235	0.000 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1
290.193	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	1	0.625 A325N	0	0.000	1

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z ksf	q_z Ice ksf	Ice Thickness in
55	A	15.000	0.020	0.002	1.386
	B	27.500	0.022	0.002	1.473
	C	34.000	0.023	0.002	1.504
115	A	45.000	0.025	0.002	1.547
	B	57.500	0.026	0.002	1.586

Guy Elevation ft	Guy Location	z ft	q_z ksf	q_z Ice ksf	Ice Thickness in
	C	64.000	0.027	0.002	1.603
175	A	75.000	0.027	0.002	1.628
	B	87.500	0.028	0.002	1.654
	C	94.000	0.029	0.002	1.666
235	A	105.000	0.029	0.002	1.684
	B	117.500	0.030	0.002	1.703
	C	124.000	0.030	0.002	1.712
290.193	A	132.596	0.031	0.003	1.724
	B	145.096	0.032	0.003	1.739
	C	151.596	0.032	0.003	1.747

Guy-Mast Forces (Excluding Wind) - No Ice

Guy Elevation ft	Guy Location	Chord Angle °	Guy Tension Top Bottom K	F_x K	F_y K	F_z K	M_x kip-ft	M_y kip-ft	M_z kip-ft
55	A	18.854	1.562 1.540	0.000	0.535	-1.467	-0.927	0.000	0.000
	B	13.212	1.555 1.540	1.304	0.386	0.753	0.335	0.000	-0.580
	C	10.164	1.551 1.540	-1.317	0.305	0.761	0.264	0.000	0.458
			Sum:	**-0.013**	1.227	**0.046**	**-0.327**	0.000	**-0.122**
115	A	30.863	2.136 2.080	0.000	1.136	-1.809	-1.967	0.000	0.000
	B	26.146	2.126 2.080	1.634	0.979	0.944	0.848	0.000	-1.468
	C	23.528	2.121 2.080	-1.667	0.889	0.963	0.770	0.000	1.334
			Sum:	**-0.033**	3.004	**0.097**	**-0.349**	0.000	**-0.134**
175	A	40.488	1.595 1.540	0.000	1.060	-1.192	-1.835	0.000	0.000
	B	36.760	1.588 1.540	1.085	0.976	0.626	0.845	0.000	-1.464
	C	34.664	1.584 1.540	-1.112	0.927	0.642	0.803	0.000	1.391
			Sum:	**-0.028**	2.963	**0.077**	**-0.187**	0.000	**-0.073**
235	A	47.978	2.824 2.690	-0.024	2.138	-1.845	-3.704	5.575	-6.415
	A	47.978	2.824 2.690	0.024	2.138	-1.845	-3.704	-5.575	6.415
	B	45.087	2.811 2.690	1.694	2.034	0.949	7.044	5.866	0.000
	B	45.087	2.811 2.690	1.669	2.034	0.992	-3.522	-5.866	-6.101
	C	43.457	2.805 2.690	-1.714	1.973	1.019	-3.417	6.024	5.919
	C	43.457	2.805 2.690	-1.739	1.973	0.975	6.834	-6.024	0.000
			Sum:	**-0.091**	12.290	**0.245**	**-0.468**	0.000	**-0.182**
290.193	A	53.378	6.194 5.830	0.000	5.051	-3.584	-8.749	0.000	0.000
	B	51.087	6.165 5.830	3.261	4.881	1.883	4.227	0.000	-7.322
	C	49.797	6.150 5.830	-3.347	4.784	1.932	4.143	-0.000	7.176

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
			Sum:	-0.086	14.717	0.231	-0.379	0.000	-0.146

Guy-Mast Forces (Excluding Wind) - Ice

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top Bottom K	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
55	A	18.854	4.371 4.111	0.000	1.771	-3.996	-3.068	0.000	0.000
	B	13.212	4.565 4.368	3.749	1.452	2.164	1.257	0.000	-2.178
	C	10.164	4.628 4.472	-3.861	1.245	2.229	1.078	-0.000	1.867
			Sum:	-0.112	4.468	0.397	-0.732	0.000	-0.310
115	A	30.863	5.978 5.398	0.000	3.480	-4.861	-6.028	0.000	0.000
	B	26.146	6.050 5.554	4.491	3.117	2.593	2.699	0.000	-4.675
	C	23.528	6.076 5.629	-4.627	2.894	2.671	2.507	-0.000	4.341
			Sum:	-0.136	9.491	0.403	-0.823	0.000	-0.333
175	A	40.488	5.333 4.484	0.000	3.837	-3.704	-6.646	0.000	0.000
	B	36.760	5.357 4.594	3.427	3.611	1.978	3.127	0.000	-5.416
	C	34.664	5.364 4.649	-3.541	3.472	2.044	3.007	-0.000	5.208
			Sum:	-0.114	10.920	0.318	-0.512	0.000	-0.208
235	A	47.978	7.780 6.480	-0.061	6.167	-4.743	-10.681	14.334	-18.500
	A	47.978	7.780 6.480	0.061	6.167	-4.743	-10.681	-14.334	18.500
	B	45.087	7.785 6.589	4.401	5.929	2.466	20.540	15.245	0.000
	B	45.087	7.785 6.589	4.336	5.929	2.578	-10.270	-15.245	-17.788
	C	43.457	7.784 6.644	-4.476	5.786	2.661	-10.021	15.736	17.357
	C	43.457	7.784 6.644	-4.543	5.786	2.546	20.042	-15.736	0.000
			Sum:	-0.281	35.763	0.765	-1.071	0.000	-0.431
290.193	A	53.378	12.827 10.824	0.000	10.733	-7.023	-18.591	0.000	0.000
	B	51.087	12.810 10.943	6.434	10.436	3.715	9.037	0.000	-15.653
	C	49.797	12.799 11.004	-6.627	10.259	3.826	8.885	-0.000	15.389
			Sum:	-0.193	31.428	0.518	-0.668	0.000	-0.264

Guy-Mast Forces (Excluding Wind) - Service

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom	F_x	F_y	F_z	M_x	M_y	M_z
ft		°	K	K	K	K	kip-ft	kip-ft	kip-ft
55	A	18.854	1.562 / 1.540	0.000	0.535	-1.467	-0.927	0.000	0.000
	B	13.212	1.555 / 1.540	1.304	0.386	0.753	0.335	0.000	-0.580
	C	10.164	1.551 / 1.540	-1.317	0.305	0.761	0.264	0.000	0.458
			Sum:	-0.013	1.227	0.046	-0.327	0.000	-0.122
115	A	30.863	2.136 / 2.080	0.000	1.136	-1.809	-1.967	0.000	0.000
	B	26.146	2.126 / 2.080	1.634	0.979	0.944	0.848	0.000	-1.468
	C	23.528	2.121 / 2.080	-1.667	0.889	0.963	0.770	0.000	1.334
			Sum:	-0.033	3.004	0.097	-0.349	0.000	-0.134
175	A	40.488	1.595 / 1.540	0.000	1.060	-1.192	-1.835	0.000	0.000
	B	36.760	1.588 / 1.540	1.085	0.976	0.626	0.845	0.000	-1.464
	C	34.664	1.584 / 1.540	-1.112	0.927	0.642	0.803	0.000	1.391
			Sum:	-0.028	2.963	0.077	-0.187	0.000	-0.073
235	A	47.978	2.824 / 2.690	-0.024	2.138	-1.845	-3.704	5.575	-6.415
	A	47.978	2.824 / 2.690	0.024	2.138	-1.845	-3.704	-5.575	6.415
	B	45.087	2.811 / 2.690	1.694	2.034	0.949	7.044	5.866	0.000
	B	45.087	2.811 / 2.690	1.669	2.034	0.992	-3.522	-5.866	-6.101
	C	43.457	2.805 / 2.690	-1.714	1.973	1.019	-3.417	6.024	5.919
	C	43.457	2.805 / 2.690	-1.739	1.973	0.975	6.834	-6.024	0.000
			Sum:	-0.091	12.290	0.245	-0.468	0.000	-0.182
290.193	A	53.378	6.194 / 5.830	0.000	5.051	-3.584	-8.749	0.000	0.000
	B	51.087	6.165 / 5.830	3.261	4.881	1.883	4.227	0.000	-7.322
	C	49.797	6.150 / 5.830	-3.347	4.784	1.932	4.143	-0.000	7.176
			Sum:	-0.086	14.717	0.231	-0.379	0.000	-0.146

Guy-Tensioning Information

Guy Elevation		H	V	Temperature At Time Of Tensioning: 0 F Initial Tension	0 F Intercept	20 F Initial Tension	20 F Intercept	40 F Initial Tension	40 F Intercept	60 F Initial Tension	60 F Intercept	80 F Initial Tension	80 F Intercept	100 F Initial Tension	100 F Intercept	120 F Initial Tension	120 F Intercept
ft		ft	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft
55	A	234.27	80.00	2.069	4.02	1.888	4.40	1.712	4.85	1.540	5.39	1.376	6.03	1.221	6.79	1.079	7.67
	B	234.27	55.00	2.101	3.74	1.909	4.12	1.722	4.57	1.540	5.10	1.367	5.75	1.204	6.52	1.057	7.43
	C	234.27	42.00	2.114	3.64	1.918	4.02	1.726	4.46	1.540	5.00	1.363	5.65	1.198	6.42	1.048	7.34

Guy Elevation ft		H ft	V ft	Temperature At Time Of Tensioning: 0 F Initial Tension K	0 F Intercept ft	20 F Initial Tension K	20 F Intercept ft	40 F Initial Tension K	40 F Intercept ft	60 F Initial Tension K	60 F Intercept ft	80 F Initial Tension K	80 F Intercept ft	100 F Initial Tension K	100 F Intercept ft	120 F Initial Tension K	120 F Intercept ft
115	A	234.27	140.00	2.698	5.44	2.486	5.90	2.280	6.43	2.080	7.05	1.889	7.75	1.709	8.55	1.542	9.47
	B	234.27	115.00	2.758	4.88	2.525	5.33	2.299	5.85	2.080	6.46	1.872	7.17	1.677	7.99	1.499	8.93
	C	234.27	102.00	2.789	4.63	2.545	5.07	2.308	5.59	2.080	6.20	1.863	6.91	1.661	7.74	1.477	8.70
175	A	234.27	200.00	1.878	6.79	1.763	7.23	1.650	7.71	1.540	8.26	1.432	8.87	1.326	9.56	1.227	10.33
	B	234.27	175.00	1.916	6.01	1.788	6.43	1.663	6.91	1.540	7.46	1.421	8.07	1.307	8.77	1.198	9.55
	C	234.27	162.00	1.937	5.65	1.802	6.07	1.669	6.54	1.540	7.08	1.415	7.70	1.295	8.41	1.181	9.21
235	A	234.29	260.00	3.171	9.77	3.007	10.29	2.847	10.86	2.690	11.48	2.537	12.15	2.389	12.89	2.246	13.69
	B	234.29	235.00	3.227	8.65	3.044	9.16	2.865	9.72	2.690	10.34	2.520	11.02	2.357	11.77	2.200	12.59
	C	234.29	222.00	3.258	8.11	3.065	8.62	2.875	9.18	2.690	9.80	2.511	10.48	2.339	11.24	2.174	12.07
290.193	A	234.27	315.19	6.601	13.12	6.340	13.64	6.083	14.21	5.830	14.81	5.582	15.45	5.339	16.13	5.103	16.85
	B	234.27	290.19	6.687	11.71	6.396	12.23	6.110	12.79	5.830	13.39	5.556	14.03	5.288	14.72	5.028	15.46
	C	234.27	277.19	6.735	11.02	6.428	11.54	6.126	12.09	5.830	12.69	5.541	13.34	5.259	14.03	4.985	14.78

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 klf
1-5/8" (Carrier 1)	C	No	No	Ar (CaAa)	300.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 1) **	C	No	No	Ar (CaAa)	300.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
1-5/8" (Carrier 2)	B	No	No	Ar (CaAa)	282.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 2) **	B	No	No	Ar (CaAa)	282.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
1-5/8" (Carrier 3)	A	No	No	Ar (CaAa)	270.000 - 10.000	0.000	0	9	5	0.750	1.980		0.001
1.5" Hybrid (Carrier 3) **	A	No	No	Ar (CaAa)	270.000 - 10.000	0.000	-0.3	6	3	0.750	1.500		0.001
1-5/8" (Carrier 4) **	C	No	No	Ar (CaAa)	258.000 - 10.000	0.000	0.3	2	1	0.750	1.980		0.001
1-5/8" (Carrier 5) **	C	No	No	Ar (CaAa)	246.000 - 10.000	0.000	0.4	2	1	0.750	1.980		0.001
Safety Line 3/8	A	No	No	Ar (CaAa)	305.000 - 10.000	0.000	0.45	1	1	0.375	0.375		0.000
Strobe Cable	A	No	No	Ar (CaAa)	305.000 - 10.000	0.000	-0.45	1	1	1.250	1.250		0.001

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
T1	305.000-285.000	A	0.000	0.000	3.250	0.000	0.018
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	40.230	0.000	0.182
T2	285.000-265.000	A	0.000	0.000	16.660	0.000	0.079

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	45.594	0.000	0.206
		C	0.000	0.000	53.640	0.000	0.242
T3	265.000-245.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	59.184	0.000	0.263
T4	245.000-225.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T5	225.000-205.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T6	205.000-185.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T7	185.000-165.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T8	165.000-145.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T9	145.000-125.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T10	125.000-105.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T11	105.000-85.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T12	85.000-65.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T13	65.000-45.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T14	45.000-25.000	A	0.000	0.000	56.890	0.000	0.261
		B	0.000	0.000	53.640	0.000	0.242
		C	0.000	0.000	69.480	0.000	0.300
T15	25.000-5.000	A	0.000	0.000	42.667	0.000	0.196
		B	0.000	0.000	40.230	0.000	0.182
		C	0.000	0.000	52.110	0.000	0.225
T16	5.000-0.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	305.000-285.000	A	1.867	0.000	0.000	18.189	0.000	0.263
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	58.003	0.000	1.074
T2	285.000-265.000	A	1.854	0.000	0.000	37.374	0.000	0.616
		B		0.000	0.000	65.584	0.000	1.211
		C		0.000	0.000	77.158	0.000	1.424
T3	265.000-245.000	A	1.840	0.000	0.000	94.939	0.000	1.673
		B		0.000	0.000	76.966	0.000	1.416

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		C		0.000	0.000	94.679	0.000	1.677
T4	245.000-225.000	A	1.825	0.000	0.000	94.613	0.000	1.661
		B		0.000	0.000	76.761	0.000	1.408
		C		0.000	0.000	127.161	0.000	2.144
T5	225.000-205.000	A	1.809	0.000	0.000	94.262	0.000	1.649
		B		0.000	0.000	76.539	0.000	1.399
		C		0.000	0.000	126.714	0.000	2.126
T6	205.000-185.000	A	1.792	0.000	0.000	93.880	0.000	1.635
		B		0.000	0.000	76.298	0.000	1.389
		C		0.000	0.000	126.229	0.000	2.107
T7	185.000-165.000	A	1.772	0.000	0.000	93.462	0.000	1.620
		B		0.000	0.000	76.033	0.000	1.378
		C		0.000	0.000	125.697	0.000	2.085
T8	165.000-145.000	A	1.751	0.000	0.000	92.997	0.000	1.603
		B		0.000	0.000	75.740	0.000	1.366
		C		0.000	0.000	125.107	0.000	2.062
T9	145.000-125.000	A	1.727	0.000	0.000	92.476	0.000	1.585
		B		0.000	0.000	75.410	0.000	1.352
		C		0.000	0.000	124.445	0.000	2.035
T10	125.000-105.000	A	1.699	0.000	0.000	91.879	0.000	1.564
		B		0.000	0.000	75.033	0.000	1.337
		C		0.000	0.000	123.687	0.000	2.005
T11	105.000-85.000	A	1.667	0.000	0.000	91.181	0.000	1.539
		B		0.000	0.000	74.593	0.000	1.319
		C		0.000	0.000	122.801	0.000	1.971
T12	85.000-65.000	A	1.628	0.000	0.000	90.336	0.000	1.510
		B		0.000	0.000	74.059	0.000	1.297
		C		0.000	0.000	121.727	0.000	1.929
T13	65.000-45.000	A	1.579	0.000	0.000	89.257	0.000	1.473
		B		0.000	0.000	73.378	0.000	1.270
		C		0.000	0.000	120.358	0.000	1.876
T14	45.000-25.000	A	1.509	0.000	0.000	87.744	0.000	1.421
		B		0.000	0.000	72.423	0.000	1.232
		C		0.000	0.000	118.438	0.000	1.804
T15	25.000-5.000	A	1.386	0.000	0.000	63.815	0.000	1.000
		B		0.000	0.000	53.060	0.000	0.874
		C		0.000	0.000	86.301	0.000	1.260
T16	5.000-0.000	A	1.159	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	305.000-285.000	1.151	4.439	0.062	1.658
T2	285.000-265.000	2.228	-0.927	1.040	-0.478
T3	265.000-245.000	-0.279	-1.240	-0.811	-0.431
T4	245.000-225.000	-0.845	-0.255	-1.441	0.604
T5	225.000-205.000	-0.881	-0.264	-1.545	0.644
T6	205.000-185.000	-0.897	-0.269	-1.577	0.657
T7	185.000-165.000	-0.861	-0.260	-1.492	0.624
T8	165.000-145.000	-0.886	-0.265	-1.562	0.651
T9	145.000-125.000	-0.886	-0.265	-1.563	0.651
T10	125.000-105.000	-0.858	-0.259	-1.490	0.623
T11	105.000-85.000	-0.886	-0.265	-1.567	0.653

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T12	85.000-65.000	-0.886	-0.265	-1.568	0.653
T13	65.000-45.000	-0.861	-0.260	-1.510	0.631
T14	45.000-25.000	-0.874	-0.262	-1.551	0.646
T15	25.000-5.000	-0.824	-0.248	-1.404	0.587
T16	5.000-0.000	0.000	0.000	0.000	0.000

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	1-5/8"	285.00 - 300.00	0.6000	0.4092
T1	2	1.5" Hybrid	285.00 - 300.00	0.6000	0.4092
T1	14	Safety Line 3/8	285.00 - 305.00	0.6000	0.4092
T1	15	Strobe Cable	285.00 - 305.00	0.6000	0.4092
T2	1	1-5/8"	265.00 - 285.00	0.6000	0.4389
T2	2	1.5" Hybrid	265.00 - 285.00	0.6000	0.4389
T2	4	1-5/8"	265.00 - 282.00	0.6000	0.4389
T2	5	1.5" Hybrid	265.00 - 282.00	0.6000	0.4389
T2	7	1-5/8"	265.00 - 270.00	0.6000	0.4389
T2	8	1.5" Hybrid	265.00 - 270.00	0.6000	0.4389
T2	14	Safety Line 3/8	265.00 - 285.00	0.6000	0.4389
T2	15	Strobe Cable	265.00 - 285.00	0.6000	0.4389
T3	1	1-5/8"	245.00 - 265.00	0.6000	0.4352
T3	2	1.5" Hybrid	245.00 - 265.00	0.6000	0.4352
T3	4	1-5/8"	245.00 - 265.00	0.6000	0.4352
T3	5	1.5" Hybrid	245.00 - 265.00	0.6000	0.4352
T3	7	1-5/8"	245.00 - 265.00	0.6000	0.4352
T3	8	1.5" Hybrid	245.00 - 265.00	0.6000	0.4352
T3	10	1-5/8"	245.00 - 258.00	0.6000	0.4352
T3	12	1-5/8"	245.00 - 246.00	0.6000	0.4352
T3	14	Safety Line 3/8	245.00 - 265.00	0.6000	0.4352
T3	15	Strobe Cable	245.00 - 265.00	0.6000	0.4352
T4	1	1-5/8"	225.00 -	0.6000	0.4058

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T4	2	1.5" Hybrid	225.00 - 245.00	0.6000	0.4058
T4	4	1-5/8"	225.00 - 245.00	0.6000	0.4058
T4	5	1.5" Hybrid	225.00 - 245.00	0.6000	0.4058
T4	7	1-5/8"	225.00 - 245.00	0.6000	0.4058
T4	8	1.5" Hybrid	225.00 - 245.00	0.6000	0.4058
T4	10	1-5/8"	225.00 - 245.00	0.6000	0.4058
T4	12	1-5/8"	225.00 - 245.00	0.6000	0.4058
T4	14	Safety Line 3/8	225.00 - 245.00	0.6000	0.4058
T4	15	Strobe Cable	225.00 - 245.00	0.6000	0.4058
T5	1	1-5/8"	205.00 - 225.00	0.6000	0.4459
T5	2	1.5" Hybrid	205.00 - 225.00	0.6000	0.4459
T5	4	1-5/8"	205.00 - 225.00	0.6000	0.4459
T5	5	1.5" Hybrid	205.00 - 225.00	0.6000	0.4459
T5	7	1-5/8"	205.00 - 225.00	0.6000	0.4459
T5	8	1.5" Hybrid	205.00 - 225.00	0.6000	0.4459
T5	10	1-5/8"	205.00 - 225.00	0.6000	0.4459
T5	12	1-5/8"	205.00 - 225.00	0.6000	0.4459
T5	14	Safety Line 3/8	205.00 - 225.00	0.6000	0.4459
T5	15	Strobe Cable	205.00 - 225.00	0.6000	0.4459
T6	1	1-5/8"	185.00 - 205.00	0.6000	0.4607
T6	2	1.5" Hybrid	185.00 - 205.00	0.6000	0.4607
T6	4	1-5/8"	185.00 - 205.00	0.6000	0.4607
T6	5	1.5" Hybrid	185.00 - 205.00	0.6000	0.4607
T6	7	1-5/8"	185.00 - 205.00	0.6000	0.4607
T6	8	1.5" Hybrid	185.00 - 205.00	0.6000	0.4607
T6	10	1-5/8"	185.00 - 205.00	0.6000	0.4607
T6	12	1-5/8"	185.00 - 205.00	0.6000	0.4607
T6	14	Safety Line 3/8	185.00 - 205.00	0.6000	0.4607
T6	15	Strobe Cable	185.00 - 205.00	0.6000	0.4607
T7	1	1-5/8"	165.00 - 185.00	0.6000	0.4318
T7	2	1.5" Hybrid	165.00 -	0.6000	0.4318

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	4	1-5/8"	165.00 - 185.00	0.6000	0.4318
T7	5	1.5" Hybrid	165.00 - 185.00	0.6000	0.4318
T7	7	1-5/8"	165.00 - 185.00	0.6000	0.4318
T7	8	1.5" Hybrid	165.00 - 185.00	0.6000	0.4318
T7	10	1-5/8"	165.00 - 185.00	0.6000	0.4318
T7	12	1-5/8"	165.00 - 185.00	0.6000	0.4318
T7	14	Safety Line 3/8	165.00 - 185.00	0.6000	0.4318
T7	15	Strobe Cable	165.00 - 185.00	0.6000	0.4318
T8	1	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	2	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	4	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	5	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	7	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	8	1.5" Hybrid	145.00 - 165.00	0.6000	0.4622
T8	10	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	12	1-5/8"	145.00 - 165.00	0.6000	0.4622
T8	14	Safety Line 3/8	145.00 - 165.00	0.6000	0.4622
T8	15	Strobe Cable	145.00 - 165.00	0.6000	0.4622
T9	1	1-5/8"	125.00 - 145.00	0.6000	0.4671
T9	2	1.5" Hybrid	125.00 - 145.00	0.6000	0.4671
T9	4	1-5/8"	125.00 - 145.00	0.6000	0.4671
T9	5	1.5" Hybrid	125.00 - 145.00	0.6000	0.4671
T9	7	1-5/8"	125.00 - 145.00	0.6000	0.4671
T9	8	1.5" Hybrid	125.00 - 145.00	0.6000	0.4671
T9	10	1-5/8"	125.00 - 145.00	0.6000	0.4671
T9	12	1-5/8"	125.00 - 145.00	0.6000	0.4671
T9	14	Safety Line 3/8	125.00 - 145.00	0.6000	0.4671
T9	15	Strobe Cable	125.00 - 145.00	0.6000	0.4671
T10	1	1-5/8"	105.00 - 125.00	0.6000	0.4426
T10	2	1.5" Hybrid	105.00 - 125.00	0.6000	0.4426
T10	4	1-5/8"	105.00 -	0.6000	0.4426

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T10	5	1.5" Hybrid	125.00 105.00 -	0.6000	0.4426
T10	7	1-5/8"	125.00 105.00 -	0.6000	0.4426
T10	8	1.5" Hybrid	125.00 105.00 -	0.6000	0.4426
T10	10	1-5/8"	125.00 105.00 -	0.6000	0.4426
T10	12	1-5/8"	125.00 105.00 -	0.6000	0.4426
T10	14	Safety Line 3/8	125.00 105.00 -	0.6000	0.4426
T10	15	Strobe Cable	125.00 105.00 -	0.6000	0.4426
T11	1	1-5/8"	125.00 85.00 - 105.00	0.6000	0.4793
T11	2	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	4	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	5	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	7	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	8	1.5" Hybrid	85.00 - 105.00	0.6000	0.4793
T11	10	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	12	1-5/8"	85.00 - 105.00	0.6000	0.4793
T11	14	Safety Line 3/8	85.00 - 105.00	0.6000	0.4793
T11	15	Strobe Cable	85.00 - 105.00	0.6000	0.4793
T12	1	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	2	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	4	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	5	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	7	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	8	1.5" Hybrid	65.00 - 85.00	0.6000	0.4874
T12	10	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	12	1-5/8"	65.00 - 85.00	0.6000	0.4874
T12	14	Safety Line 3/8	65.00 - 85.00	0.6000	0.4874
T12	15	Strobe Cable	65.00 - 85.00	0.6000	0.4874
T13	1	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	2	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	4	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	5	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	7	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	8	1.5" Hybrid	45.00 - 65.00	0.6000	0.4727
T13	10	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	12	1-5/8"	45.00 - 65.00	0.6000	0.4727
T13	14	Safety Line 3/8	45.00 - 65.00	0.6000	0.4727
T13	15	Strobe Cable	45.00 - 65.00	0.6000	0.4727
T14	1	1-5/8"	25.00 - 45.00	0.6000	0.5048
T14	2	1.5" Hybrid	25.00 - 45.00	0.6000	0.5048
T14	4	1-5/8"	25.00 - 45.00	0.6000	0.5048
T14	5	1.5" Hybrid	25.00 - 45.00	0.6000	0.5048
T14	7	1-5/8"	25.00 - 45.00	0.6000	0.5048
T14	8	1.5" Hybrid	25.00 - 45.00	0.6000	0.5048
T14	10	1-5/8"	25.00 - 45.00	0.6000	0.5048
T14	12	1-5/8"	25.00 - 45.00	0.6000	0.5048
T14	14	Safety Line 3/8	25.00 - 45.00	0.6000	0.5048
T14	15	Strobe Cable	25.00 - 45.00	0.6000	0.5048
T15	1	1-5/8"	10.00 - 25.00	0.6000	0.5303
T15	2	1.5" Hybrid	10.00 - 25.00	0.6000	0.5303
T15	4	1-5/8"	10.00 - 25.00	0.6000	0.5303
T15	5	1.5" Hybrid	10.00 - 25.00	0.6000	0.5303
T15	7	1-5/8"	10.00 - 25.00	0.6000	0.5303
T15	8	1.5" Hybrid	10.00 - 25.00	0.6000	0.5303
T15	10	1-5/8"	10.00 - 25.00	0.6000	0.5303

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T15	12	1-5/8"	10.00 - 25.00	0.6000	0.5303
T15	14	Safety Line 3/8	10.00 - 25.00	0.6000	0.5303
T15	15	Strobe Cable	10.00 - 25.00	0.6000	0.5303

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Lightning Rod 1"x10'	C	From Leg	0.000 0.000 5.000	0.000	305.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.000 2.017 3.050 5.148	1.000 2.017 3.050 5.148	0.040 0.049 0.065 0.116
Top Beacon	B	From Leg	0.000 0.000 1.000	0.000	305.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.700 3.100 3.500 4.300	2.700 3.100 3.500 4.300	0.050 0.070 0.090 0.130
**									
Sector1(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	A	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.600 115.750 138.900 185.200	62.040 77.550 93.060 124.080	0.700 1.400 2.100 3.500
Sector2(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	B	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.600 115.750 138.900 185.200	62.040 77.550 93.060 124.080	0.700 1.400 2.100 3.500
Sector3(CaAa=13333.33 Sq.in)No Ice (Carrier 1)	C	From Leg	4.000 0.000 0.000	0.000	300.000	No Ice 1/2" Ice 1" Ice 2" Ice	92.600 115.750 138.900 185.200	62.040 77.550 93.060 124.080	0.700 1.400 2.100 3.500
**									
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 2)	A	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.440 86.800 104.160 138.880	46.525 58.156 69.787 93.050	0.700 1.400 2.100 3.500
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 2)	B	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.440 86.800 104.160 138.880	46.525 58.156 69.787 93.050	0.700 1.400 2.100 3.500
Sector3(CaAa=10000 Sq.in)No Ice (Carrier 2)	C	From Leg	4.000 0.000 0.000	0.000	282.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.440 86.800 104.160 138.880	46.525 58.156 69.787 93.050	0.700 1.400 2.100 3.500
**									
Sector1(CaAa=10000 Sq.in)No Ice (Carrier 3)	A	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.440 86.800 104.160 138.880	46.525 58.156 69.787 93.050	0.700 1.400 2.100 3.500
Sector2(CaAa=10000 Sq.in)No Ice (Carrier 3)	B	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice	69.440 86.800 104.160	46.525 58.156 69.787	0.700 1.400 2.100

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						2" Ice	138.880	93.050	3.500
Sector3(CaAa=10000 Sq.in)No Ice	C	From Leg	4.000 0.000 0.000	0.000	270.000	No Ice 1/2" Ice 1" Ice 2" Ice	69.440 86.800 104.160 138.880	46.525 58.156 69.787 93.050	3.500 0.700 1.400 2.100 3.500
(Carrier 3)									
**									
Pipe Mount (Carrier 4)	C	From Leg	0.500 0.000 0.000	0.000	258.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.650 2.207 2.543 3.241	1.650 2.207 2.543 3.241	0.057 0.074 0.094 0.148
Pipe Mount (Carrier 4)	B	From Leg	0.500 0.000 0.000	0.000	258.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.650 2.207 2.543 3.241	1.650 2.207 2.543 3.241	0.057 0.074 0.094 0.148
**									
Pipe Mount (Carrier 5)	C	From Leg	0.500 0.000 0.000	0.000	246.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.650 2.207 2.543 3.241	1.650 2.207 2.543 3.241	0.057 0.074 0.094 0.148
Pipe Mount (Carrier 5)	B	From Leg	0.500 0.000 0.000	0.000	246.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.650 2.207 2.543 3.241	1.650 2.207 2.543 3.241	0.057 0.074 0.094 0.148
**									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
6' MW Dish (Carrier 4)	C	Paraboloid w/o Radome	From Leg	1.000 0.000 0.000	0.000		258.000	6.000	No Ice 1/2" Ice 1" Ice 2" Ice	28.270 29.050 29.830 31.390	0.140 0.290 0.440 0.740
6' MW Dish (Carrier 4)	B	Paraboloid w/o Radome	From Leg	1.000 0.000 0.000	0.000		258.000	6.000	No Ice 1/2" Ice 1" Ice 2" Ice	28.270 29.050 29.830 31.390	0.140 0.290 0.440 0.740
**											
6' MW Dish (Carrier 5)	C	Paraboloid w/o Radome	From Leg	1.000 0.000 0.000	0.000		246.000	6.000	No Ice 1/2" Ice 1" Ice 2" Ice	28.270 29.050 29.830 31.390	0.140 0.290 0.440 0.740
6' MW Dish (Carrier 5)	B	Paraboloid w/o Radome	From Leg	1.000 0.000 0.000	0.000		246.000	6.000	No Ice 1/2" Ice 1" Ice 2" Ice	28.270 29.050 29.830 31.390	0.140 0.290 0.440 0.740
**											

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy
5	1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy
14	1.2 Dead+1.0 Ice+1.0 Temp+Guy
15	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
16	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
17	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
18	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
19	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
20	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
21	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
22	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
23	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
24	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
25	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
26	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	305 - 285	Leg	Max Tension	8	21.047	-0.013	0.023
			Max. Compression	2	-23.462	0.033	-0.300
			Max. Mx	11	-17.895	1.207	0.051
			Max. My	2	-16.348	-0.069	1.182
			Max. Vy	11	3.126	1.207	0.051
			Max. Vx	2	3.023	-0.069	1.182
		Diagonal	Max Tension	5	8.322	0.000	0.000
			Max. Compression	11	-8.417	0.000	0.000
			Max. Mx	16	0.875	0.014	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	13	2.905	0.000	0.000
			Max. Vy	16	-0.015	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	8	2.228	0.000	0.000
			Max. Compression	2	-2.226	0.000	0.000
			Max. Mx	14	0.246	0.009	0.000
			Max. My	13	0.345	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	9	0.077	0.000	0.000
			Max. Compression	3	-0.076	0.000	0.000
			Max. Mx	14	0.001	0.009	0.000
			Max. My	13	-0.043	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	12	3.745	0.000	0.000
			Max. Compression	10	-3.436	0.000	0.000
			Max. Mx	14	0.054	0.009	0.000
			Max. My	13	-2.316	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	9	30.541		
			Top Tension	9	30.898		
			Top Cable Vert	9	24.913		
			Top Cable Norm	9	18.276		
			Top Cable Tan	9	0.032		
			Bot Cable Vert	9	-24.185		
			Bot Cable Norm	9	18.646		
			Bot Cable Tan	9	0.363		
		Guy B	Bottom Tension	13	29.510		
			Top Tension	13	29.840		
			Top Cable Vert	13	23.343		
			Top Cable Norm	13	18.589		
			Top Cable Tan	13	0.013		
			Bot Cable Vert	13	-22.646		
			Bot Cable Norm	13	18.918		
			Bot Cable Tan	13	0.327		
		Guy C	Bottom Tension	3	29.040		
			Top Tension	3	29.355		
			Top Cable Vert	3	22.549		
			Top Cable Norm	3	18.795		
			Top Cable Tan	3	0.021		
			Bot Cable Vert	3	-21.869		
			Bot Cable Norm	3	19.103		
			Bot Cable Tan	3	0.326		
		Top Guy Pull-Off	Max Tension	3	9.637	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	14	3.118	0.027	0.000
			Max. My	13	8.206	0.000	-0.000
			Max. Vy	14	-0.036	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T2	285 - 265	Leg	Max Tension	10	8.554	-0.049	-0.014
			Max. Compression	11	-39.472	0.075	0.054
			Max. Mx	5	-4.891	1.229	-0.096
			Max. My	2	-10.959	-0.069	-1.177
			Max. Vy	11	3.125	0.003	-0.032
			Max. Vx	2	3.024	0.018	0.017
		Diagonal	Max Tension	11	8.282	0.000	0.000
			Max. Compression	5	-8.415	0.000	0.000
			Max. Mx	16	0.550	0.014	0.000
			Max. My	13	0.199	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	16	-0.015	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	4	2.624	0.000	0.000
			Max. Compression	10	-2.527	0.000	0.000
			Max. Mx	14	0.402	0.009	0.000
			Max. My	13	0.659	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	10	3.485	0.000	0.000
			Max. Compression	12	-3.695	0.000	0.000
			Max. Mx	14	0.000	0.009	0.000
			Max. My	13	2.356	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	1.376	0.000	0.000
			Max. Compression	8	-1.410	0.000	0.000
			Max. Mx	14	0.071	0.009	0.000
			Max. My	13	1.376	0.000	-0.000
			Max. Vy	14	-0.012	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T3	265 - 245	Leg	Max Tension	8	9.771	0.118	0.847
			Max. Compression	9	-41.614	0.246	-0.224
			Max. Mx	5	-30.687	1.140	-0.210
			Max. My	2	-35.643	-0.255	-0.985
			Max. Vy	5	4.070	-0.428	0.035
			Max. Vx	2	-3.599	-0.030	0.402
		Diagonal	Max Tension	11	8.394	0.000	0.000
			Max. Compression	5	-8.614	0.000	0.000
			Max. Mx	16	0.393	0.014	0.000
			Max. My	12	-0.450	0.000	0.000
			Max. Vy	16	-0.014	0.000	0.000
			Max. Vx	12	0.000	0.000	0.000
		Horizontal	Max Tension	4	1.447	0.000	0.000
			Max. Compression	10	-1.071	0.000	0.000
			Max. Mx	23	0.452	0.009	0.000
			Max. My	13	0.620	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	8	1.681	0.000	0.000
			Max. Compression	13	-1.495	0.000	0.000
			Max. Mx	14	0.022	0.009	0.000
			Max. My	13	-1.495	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	2	3.132	0.000	0.000
			Max. Compression	12	-2.938	0.000	0.000
			Max. Mx	14	0.097	0.009	0.000
			Max. My	13	2.095	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T4	245 - 225	Leg	Max Tension	8	38.584	0.017	-0.003
			Max. Compression	2	-77.201	0.241	0.000
			Max. Mx	11	3.605	2.029	-0.061
			Max. My	2	-45.849	0.198	1.775
			Max. Vy	5	4.037	-1.984	0.279
			Max. Vx	2	-3.564	0.198	1.775
		Diagonal	Max Tension	5	11.293	0.000	0.000
			Max. Compression	11	-11.593	0.000	0.000
			Max. Mx	15	0.695	0.014	0.000
			Max. My	12	-1.664	0.000	0.000
			Max. Vy	15	-0.014	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	12	0.000	0.000	0.000
		Horizontal	Max Tension	3	1.653	0.000	0.000
			Max. Compression	13	-1.650	0.000	0.000
			Max. Mx	14	0.705	0.008	0.000
			Max. My	13	1.180	0.000	-0.000
			Max. Vy	14	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	12	4.347	0.000	0.000
			Max. Compression	2	-3.975	0.000	0.000
			Max. Mx	14	0.051	0.008	0.000
			Max. My	13	-2.247	0.000	-0.000
			Max. Vy	14	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	2.089	0.000	0.000
			Max. Compression	6	-2.090	0.000	0.000
			Max. Mx	15	0.295	0.008	0.000
			Max. My	13	-0.901	0.000	-0.000
			Max. Vy	15	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	7	14.672		
			Top Tension	7	14.803		
			Top Cable Vert	7	11.070		
			Top Cable Norm	7	9.829		
			Top Cable Tan	7	0.013		
			Bot Cable Vert	7	-10.736		
			Bot Cable Norm	7	9.998		
			Bot Cable Tan	7	0.170		
		Guy B	Bottom Tension	13	14.622		
			Top Tension	13	14.741		
			Top Cable Vert	13	10.512		
			Top Cable Norm	13	10.334		
			Top Cable Tan	13	0.014		
			Bot Cable Vert	13	-10.196		
			Bot Cable Norm	13	10.480		
			Bot Cable Tan	13	0.158		
		Guy C	Bottom Tension	3	14.115		
			Top Tension	3	14.228		
			Top Cable Vert	3	9.862		
			Top Cable Norm	3	10.256		
			Top Cable Tan	3	0.011		
			Bot Cable Vert	3	-9.555		
			Bot Cable Norm	3	10.389		
			Bot Cable Tan	3	0.156		
		Top Guy Pull-Off	Max Tension	3	9.352	0.000	0.000
			Max. Compression	13	-9.338	0.000	0.000
			Max. Mx	14	0.211	0.026	0.000
			Max. My	13	2.525	0.000	-0.000
			Max. Vy	14	0.035	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Torque Arm Top	Max Tension	11	11.504	0.000	0.000
			Max. Compression	11	-5.539	0.000	0.000
			Max. Mx	9	-0.191	-32.240	0.000
			Max. My	13	-2.426	-15.169	-0.000
			Max. Vy	9	10.784	-32.240	0.000
			Max. Vx	13	-0.000	-15.169	-0.000
T5	225 - 205	Leg	Max Tension	8	4.061	-0.057	-0.153
			Max. Compression	2	-62.575	-0.135	-0.429
			Max. Mx	6	-60.747	0.569	-0.022
			Max. My	7	-25.981	0.288	0.591
			Max. Vy	6	-1.766	-0.111	-0.159
			Max. Vx	7	-1.840	-0.010	-0.117

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	12	4.030	0.000	0.000
			Max. Compression	6	-4.600	0.000	0.000
			Max. Mx	15	-0.444	0.012	0.000
			Max. My	13	-2.285	0.000	0.000
			Max. Vy	15	-0.013	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	2	1.053	0.000	0.000
			Max. Compression	2	-1.053	0.000	0.000
			Max. Mx	24	0.796	0.008	0.000
			Max. My	13	0.919	0.000	-0.000
			Max. Vy	24	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	6	2.004	0.000	0.000
			Max. Compression	13	-1.712	0.000	0.000
			Max. Mx	15	-0.066	0.008	0.000
			Max. My	13	0.905	0.000	-0.000
			Max. Vy	15	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	1.220	0.000	0.000
			Max. Compression	7	-1.250	0.000	0.000
			Max. Mx	18	0.158	0.008	0.000
			Max. My	13	-0.278	0.000	-0.000
			Max. Vy	18	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T6	205 - 185	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	15	-49.194	-0.124	0.004
			Max. Mx	11	-27.380	-0.281	0.010
			Max. My	7	-26.784	0.194	0.352
			Max. Vy	6	-0.796	-0.041	-0.092
			Max. Vx	7	-1.034	-0.014	-0.046
		Diagonal	Max Tension	13	1.903	0.000	0.000
			Max. Compression	7	-2.281	0.000	0.000
			Max. Mx	15	-0.142	0.011	0.000
			Max. My	13	-0.352	0.000	0.000
			Max. Vy	15	-0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	15	0.846	0.000	0.000
			Max. Compression	15	-0.846	0.000	0.000
			Max. Mx	19	0.842	0.008	0.000
			Max. My	13	0.600	0.000	-0.000
			Max. Vy	19	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	7	1.138	0.000	0.000
			Max. Compression	13	-0.901	0.000	0.000
			Max. Mx	18	-0.022	0.008	0.000
			Max. My	13	0.289	0.000	-0.000
			Max. Vy	18	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	0.409	0.000	0.000
			Max. Compression	7	-0.420	0.000	0.000
			Max. Mx	22	0.054	0.008	0.000
			Max. My	13	0.409	0.000	-0.000
			Max. Vy	22	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T7	185 - 165	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	15	-53.935	0.231	0.002
			Max. Mx	5	-34.011	-0.415	-0.054
			Max. My	2	-36.012	0.030	0.466
			Max. Vy	6	-0.926	-0.307	-0.178
			Max. Vx	2	0.970	0.030	0.466
		Diagonal	Max Tension	3	2.488	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	6	-3.100	0.000	0.000
			Max. Mx	18	-0.033	0.010	0.000
			Max. My	13	-1.915	0.000	0.000
			Max. Vy	18	0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	15	0.934	0.000	0.000
			Max. Compression	15	-0.934	0.000	0.000
			Max. Mx	21	0.909	0.008	0.000
			Max. My	13	0.612	0.000	-0.000
			Max. Vy	21	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	7	0.659	0.000	0.000
			Max. Compression	13	-0.411	0.000	0.000
			Max. Mx	22	0.071	0.008	0.000
			Max. My	13	-0.411	0.000	-0.000
			Max. Vy	22	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	13	1.079	0.000	0.000
			Max. Compression	6	-1.055	0.000	0.000
			Max. Mx	21	0.286	0.008	0.000
			Max. My	13	-0.488	0.000	-0.000
			Max. Vy	21	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	7	8.207		
			Top Tension	7	8.260		
			Top Cable Vert	7	5.407		
			Top Cable Norm	7	6.244		
			Top Cable Tan	7	0.011		
			Bot Cable Vert	7	-5.237		
			Bot Cable Norm	7	6.318		
			Bot Cable Tan	7	0.090		
		Guy B	Bottom Tension	11	8.170		
			Top Tension	11	8.216		
			Top Cable Vert	11	4.960		
			Top Cable Norm	11	6.550		
			Top Cable Tan	11	0.001		
			Bot Cable Vert	11	-4.802		
			Bot Cable Norm	11	6.609		
			Bot Cable Tan	11	0.094		
		Guy C	Bottom Tension	5	7.966		
			Top Tension	5	8.009		
			Top Cable Vert	5	4.599		
			Top Cable Norm	5	6.557		
			Top Cable Tan	5	0.002		
			Bot Cable Vert	5	-4.447		
			Bot Cable Norm	5	6.608		
			Bot Cable Tan	5	0.090		
		Top Guy Pull-Off	Max Tension	7	3.378	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	21	2.022	0.026	0.000
			Max. My	13	2.922	0.000	-0.000
			Max. Vy	21	-0.034	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T8	165 - 145	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	22	-56.659	-0.176	0.001
			Max. Mx	11	-34.728	-0.403	-0.012
			Max. My	7	-32.211	0.226	0.419
			Max. Vy	6	-0.918	0.050	-0.086
			Max. Vx	2	0.981	0.054	0.093
		Diagonal	Max Tension	3	2.014	0.000	0.000
			Max. Compression	6	-2.496	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	20	-0.277	0.010	0.000
			Max. My	13	-0.068	0.000	0.000
			Max. Vy	20	-0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	22	0.975	0.000	0.000
			Max. Compression	22	-0.975	0.000	0.000
			Max. Mx	21	0.974	0.008	0.000
			Max. My	13	0.733	0.000	-0.000
			Max. Vy	21	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	6	1.067	0.000	0.000
			Max. Compression	13	-0.796	0.000	0.000
			Max. Mx	21	-0.067	0.008	0.000
			Max. My	13	0.547	0.000	-0.000
			Max. Vy	21	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	4	0.327	0.000	0.000
			Max. Compression	12	-0.209	0.000	0.000
			Max. Mx	17	0.157	0.008	0.000
			Max. My	13	0.224	0.000	-0.000
			Max. Vy	17	0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T9	145 - 125	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	23	-58.132	-0.184	0.000
			Max. Mx	5	-32.777	0.553	-0.110
			Max. My	8	-28.201	-0.003	0.524
			Max. Vy	5	1.333	0.039	-0.087
			Max. Vx	8	1.196	0.047	0.064
		Diagonal	Max Tension	12	2.973	0.000	0.000
			Max. Compression	5	-3.447	0.000	0.000
			Max. Mx	20	-0.114	0.010	0.000
			Max. My	13	1.706	0.000	0.000
			Max. Vy	20	0.011	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	23	1.002	0.000	0.000
			Max. Compression	23	-1.002	0.000	0.000
			Max. Mx	24	0.995	0.008	0.000
			Max. My	13	0.723	0.000	-0.000
			Max. Vy	24	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	12	0.484	0.000	0.000
			Max. Compression	4	-0.269	0.000	0.000
			Max. Mx	14	0.062	0.008	0.000
			Max. My	13	-0.169	0.000	-0.000
			Max. Vy	14	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	6	1.296	0.000	0.000
			Max. Compression	12	-1.284	0.000	0.000
			Max. Mx	23	0.084	0.008	0.000
			Max. My	13	0.942	0.000	-0.000
			Max. Vy	23	-0.011	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T10	125 - 105	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	23	-65.870	-0.208	-0.001
			Max. Mx	11	-35.380	0.624	-0.092
			Max. My	2	-38.950	0.008	0.669
			Max. Vy	11	1.461	0.624	-0.092
			Max. Vx	2	1.442	0.008	0.669
		Diagonal	Max Tension	3	3.492	0.000	0.000
			Max. Compression	3	-4.091	0.000	0.000
			Max. Mx	20	-0.682	0.011	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	13	1.530	0.000	0.000
			Max. Vy	20	-0.012	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	23	1.132	0.000	0.000
			Max. Compression	23	-1.132	0.000	0.000
			Max. Mx	18	1.105	0.008	0.000
			Max. My	13	0.718	0.000	-0.000
			Max. Vy	18	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	12	1.545	0.000	0.000
			Max. Compression	6	-1.262	0.000	0.000
			Max. Mx	23	0.139	0.008	0.000
			Max. My	13	-0.866	0.000	-0.000
			Max. Vy	23	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	4	1.569	0.000	0.000
			Max. Compression	6	-1.419	0.000	0.000
			Max. Mx	15	-0.037	0.008	0.000
			Max. My	13	-1.092	0.000	-0.000
			Max. Vy	15	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	7	11.696		
			Top Tension	7	11.751		
			Top Cable Vert	7	6.074		
			Top Cable Norm	7	10.060		
			Top Cable Tan	7	0.007		
			Bot Cable Vert	7	-5.901		
			Bot Cable Norm	7	10.098		
			Bot Cable Tan	7	0.091		
		Guy B	Bottom Tension	11	11.428		
			Top Tension	11	11.473		
			Top Cable Vert	11	5.103		
			Top Cable Norm	11	10.276		
			Top Cable Tan	11	0.017		
			Bot Cable Vert	11	-4.945		
			Bot Cable Norm	11	10.303		
			Bot Cable Tan	11	0.096		
		Guy C	Bottom Tension	5	11.173		
			Top Tension	5	11.213		
			Top Cable Vert	5	4.524		
			Top Cable Norm	5	10.260		
			Top Cable Tan	5	0.016		
			Bot Cable Vert	5	-4.374		
			Bot Cable Norm	5	10.281		
			Bot Cable Tan	5	0.092		
		Top Guy Pull-Off	Max Tension	7	5.382	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	17	2.384	0.025	0.000
			Max. My	13	4.589	0.000	-0.000
			Max. Vy	17	-0.033	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T11	105 - 85	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	21	-72.352	-0.218	0.006
			Max. Mx	5	-30.117	0.592	-0.066
			Max. My	9	-30.524	-0.238	0.551
			Max. Vy	11	1.469	0.061	-0.100
			Max. Vx	2	1.459	0.064	0.114
		Diagonal	Max Tension	3	3.436	0.000	0.000
			Max. Compression	13	-3.542	0.000	0.000
			Max. Mx	22	-0.653	0.010	0.000
			Max. My	13	-0.451	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	22	0.010	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	21	1.242	0.000	0.000
			Max. Compression	21	-1.242	0.000	0.000
			Max. Mx	15	1.152	0.008	0.000
			Max. My	13	0.898	0.000	-0.000
			Max. Vy	15	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	6	1.458	0.000	0.000
			Max. Compression	4	-1.315	0.000	0.000
			Max. Mx	15	0.240	0.008	0.000
			Max. My	13	1.175	0.000	-0.000
			Max. Vy	15	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	4	0.653	0.000	0.000
			Max. Compression	13	-0.396	0.000	0.000
			Max. Mx	16	0.150	0.008	0.000
			Max. My	13	-0.396	0.000	-0.000
			Max. Vy	16	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T12	85 - 65	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	21	-75.031	-0.227	0.006
			Max. Mx	11	-41.863	-0.356	-0.012
			Max. My	7	-41.662	0.205	0.436
			Max. Vy	6	0.710	0.067	-0.087
			Max. Vx	7	0.820	0.061	0.120
		Diagonal	Max Tension	12	1.677	0.000	0.000
			Max. Compression	6	-2.068	0.000	0.000
			Max. Mx	22	-0.198	0.009	0.000
			Max. My	13	1.255	0.000	0.000
			Max. Vy	22	0.010	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	21	1.294	0.000	0.000
			Max. Compression	21	-1.294	0.000	0.000
			Max. Mx	16	1.142	0.007	0.000
			Max. My	13	0.930	0.000	-0.000
			Max. Vy	16	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	0.451	0.000	0.000
			Max. Compression	4	-0.388	0.000	0.000
			Max. Mx	16	0.052	0.007	0.000
			Max. My	13	0.451	0.000	-0.000
			Max. Vy	16	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	0.895	0.000	0.000
			Max. Compression	12	-0.716	0.000	0.000
			Max. Mx	18	0.071	0.007	0.000
			Max. My	13	0.287	0.000	-0.000
			Max. Vy	18	0.010	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T13	65 - 45	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	21	-78.655	-0.244	0.010
			Max. Mx	19	-75.777	0.337	0.002
			Max. My	13	-39.452	0.180	0.391
			Max. Vy	6	0.718	-0.209	-0.144
			Max. Vx	7	0.844	-0.087	-0.204
		Diagonal	Max Tension	12	2.099	0.000	0.000
			Max. Compression	6	-2.715	0.000	0.000
			Max. Mx	22	-0.385	0.009	0.000
			Max. My	13	1.151	0.000	0.000
			Max. Vy	22	0.009	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	21	1.353	0.000	0.000
			Max. Compression	21	-1.353	0.000	0.000
			Max. Mx	18	1.282	0.007	0.000
			Max. My	13	0.895	0.000	-0.000
			Max. Vy	18	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	12	0.992	0.000	0.000
			Max. Compression	7	-0.864	0.000	0.000
			Max. Mx	18	0.167	0.007	0.000
			Max. My	13	-0.224	0.000	-0.000
			Max. Vy	18	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	0.869	0.000	0.000
			Max. Compression	13	-0.564	0.000	0.000
			Max. Mx	26	0.165	0.007	0.000
			Max. My	13	-0.564	0.000	-0.000
			Max. Vy	26	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Guy A	Bottom Tension	9	6.430		
			Top Tension	9	6.452		
			Top Cable Vert	9	2.120		
			Top Cable Norm	9	6.093		
			Top Cable Tan	9	0.004		
			Bot Cable Vert	9	-2.029		
			Bot Cable Norm	9	6.101		
			Bot Cable Tan	9	0.041		
		Guy B	Bottom Tension	11	6.229		
			Top Tension	11	6.244		
			Top Cable Vert	11	1.462		
			Top Cable Norm	11	6.070		
			Top Cable Tan	11	0.003		
			Bot Cable Vert	11	-1.379		
			Bot Cable Norm	11	6.074		
			Bot Cable Tan	11	0.042		
		Guy C	Bottom Tension	5	6.095		
			Top Tension	5	6.106		
			Top Cable Vert	5	1.112		
			Top Cable Norm	5	6.004		
			Top Cable Tan	5	0.005		
			Bot Cable Vert	5	-1.034		
			Bot Cable Norm	5	6.006		
			Bot Cable Tan	5	0.041		
		Top Guy Pull-Off	Max Tension	7	3.333	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	18	2.430	0.024	0.000
			Max. My	13	2.803	0.000	-0.000
			Max. Vy	18	0.032	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T14	45 - 25	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	21	-79.349	-0.284	0.007
			Max. Mx	12	-27.654	-0.405	-0.187
			Max. My	7	-42.185	0.183	0.414
			Max. Vy	12	0.631	-0.405	-0.187
			Max. Vx	13	-0.693	0.076	0.101
		Diagonal	Max Tension	7	1.812	0.000	0.000
			Max. Compression	13	-2.224	0.000	0.000
			Max. Mx	22	-0.179	0.009	0.000
			Max. My	13	-0.090	0.000	0.000
			Max. Vy	22	0.009	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Horizontal	Max Tension	21	1.373	0.000	0.000
			Max. Compression	21	-1.373	0.000	0.000
			Max. Mx	26	1.247	0.007	0.000
			Max. My	13	0.951	0.000	-0.000
			Max. Vy	26	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	0.717	0.000	0.000
			Max. Compression	7	-0.640	0.000	0.000
			Max. Mx	26	0.119	0.007	0.000
			Max. My	13	0.716	0.000	-0.000
			Max. Vy	26	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	0.805	0.000	0.000
			Max. Compression	13	-0.494	0.000	0.000
			Max. Mx	26	0.230	0.007	0.000
			Max. My	13	0.002	0.000	-0.000
			Max. Vy	26	-0.009	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T15	25 - 5	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	21	-79.353	-0.238	-0.054
			Max. Mx	24	-76.096	3.764	2.146
			Max. My	22	-76.716	-0.013	-4.375
			Max. Vy	18	11.678	-3.737	2.182
			Max. Vx	22	13.562	-0.013	-4.375
		Diagonal	Max Tension	12	2.970	0.000	0.000
			Max. Compression	6	-3.420	0.000	0.000
			Max. Mx	22	0.275	0.008	0.000
			Max. My	13	0.957	0.000	0.000
			Max. Vy	22	0.008	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	21	1.371	0.000	0.000
			Max. Compression	21	-1.371	0.000	0.000
			Max. Mx	26	1.295	0.006	0.000
			Max. My	13	0.911	0.000	-0.000
			Max. Vy	26	0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	13	0.833	0.000	0.000
			Max. Compression	7	-0.676	0.000	0.000
			Max. Mx	26	0.139	0.006	0.000
			Max. My	13	0.160	0.000	-0.000
			Max. Vy	26	0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	23	8.162	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	26	7.741	0.006	0.000
			Max. My	13	4.227	0.000	-0.000
			Max. Vy	26	0.008	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
T16	5 - 0	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	20	-81.342	0.155	0.465
			Max. Mx	22	-76.846	4.375	-0.013
			Max. My	7	-47.402	-0.285	2.069
			Max. Vy	23	12.819	-0.864	0.069
			Max. Vx	7	-3.954	-0.202	2.034
		Diagonal	Max Tension	7	1.830	0.000	0.000
			Max. Compression	20	-12.180	0.000	0.000
			Max. Mx	23	-0.168	0.005	0.000
			Max. My	13	-2.372	0.000	0.000
			Max. Vy	23	-0.007	0.000	0.000
			Max. Vx	13	-0.000	0.000	0.000
		Horizontal	Max Tension	20	1.469	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	20	-1.469	0.000	0.000
			Max. Mx	26	1.430	0.001	0.000
			Max. My	13	0.822	0.000	-0.000
			Max. Vy	26	-0.003	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Top Girt	Max Tension	23	8.145	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	26	7.940	0.004	0.000
			Max. My	13	4.731	0.000	-0.000
			Max. Vy	26	-0.006	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000
		Bottom Girt	Max Tension	7	3.474	0.000	0.000
			Max. Compression	12	-0.066	0.000	0.000
			Max. Mx	26	2.890	0.000	0.000
			Max. Vy	26	-0.001	0.000	0.000
			Max. Vx	13	0.000	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	23	227.317	-0.406	0.434
	Max. H_x	12	103.294	0.617	0.320
	Max. H_z	11	125.035	-0.119	0.537
	Max. M_x	1	0.000	-0.004	0.004
	Max. M_z	1	0.000	-0.004	0.004
	Max. Torsion	13	2.116	0.360	-0.123
	Min. Vert	1	65.137	-0.004	0.004
	Min. H_x	4	101.444	-0.692	0.382
	Min. H_z	8	105.637	0.001	-0.528
	Min. M_x	1	0.000	-0.004	0.004
	Min. M_z	1	0.000	-0.004	0.004
	Min. Torsion	7	-2.321	0.447	0.011
Guy C @ 236 ft Elev 13 ft Azimuth 240 deg	Max. Vert	10	-0.536	-0.493	0.284
	Max. H_x	10	-0.536	-0.493	0.284
	Max. H_z	3	-49.981	-52.920	31.504
	Min. Vert	5	-50.344	-54.414	30.385
	Min. H_x	5	-50.344	-54.414	30.385
	Min. H_z	10	-0.536	-0.493	0.284
Guy B @ 236 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-0.717	0.553	0.319
	Max. H_x	11	-53.632	54.470	30.379
	Max. H_z	13	-53.038	52.805	31.440
	Min. Vert	11	-53.632	54.470	30.379
	Min. H_x	6	-0.717	0.553	0.319
	Min. H_z	6	-0.717	0.553	0.319
Guy A @ 236 ft Elev -25 ft Azimuth 0 deg	Max. Vert	2	-1.102	0.000	-0.786
	Max. H_x	10	-50.038	1.512	-52.311
	Max. H_z	2	-1.102	0.000	-0.786
	Min. Vert	9	-58.363	0.925	-60.735
	Min. H_x	6	-49.848	-1.470	-52.124

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
	Min. H_z	9	-58.363	0.925	-60.735

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	65.137	0.004	-0.004	0.000	0.000	0.092
1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy	130.481	0.043	0.297	0.000	0.000	-0.222
1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy	118.730	0.437	0.051	0.000	0.000	1.129
1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy	101.444	0.692	-0.382	0.000	0.000	0.553
1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy	122.065	0.042	-0.525	0.000	0.000	0.084
1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy	135.243	-0.498	-0.477	0.000	0.000	1.519
1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy	125.386	-0.447	-0.011	0.000	0.000	2.321
1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy	105.637	-0.001	0.528	0.000	0.000	0.662
1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy	127.146	0.517	-0.034	0.000	0.000	-0.523
1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy	138.447	0.661	-0.518	0.000	0.000	0.158
1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy	125.035	0.119	-0.537	0.000	0.000	0.305
1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy	103.294	-0.617	-0.320	0.000	0.000	-1.696
1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy	119.960	-0.360	0.123	0.000	0.000	-2.116
1.2 Dead+1.0 Ice+1.0 Temp+Guy	225.284	0.101	-0.253	0.000	0.000	0.376
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	225.984	0.097	0.026	0.000	0.000	0.265
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	225.483	-0.040	-0.017	0.000	0.000	0.439
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	225.213	-0.151	-0.122	0.000	0.000	0.402
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	225.984	-0.204	-0.271	0.000	0.000	0.395
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	226.818	-0.188	-0.420	0.000	0.000	0.565
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	226.565	-0.056	-0.496	0.000	0.000	0.656
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	226.290	0.110	-0.523	0.000	0.000	0.493
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	226.853	0.275	-0.504	0.000	0.000	0.339
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	227.317	0.406	-0.434	0.000	0.000	0.376
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	226.501	0.415	-0.286	0.000	0.000	0.362
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	225.625	0.353	-0.132	0.000	0.000	0.173
1.2 Dead+1.0 Wind 330	225.708	0.235	-0.020	0.000	0.000	0.081

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
deg+1.0 Ice+1.0 Temp+1.0 Guy						
Dead+Wind 0 deg - Service+Guy	68.229	0.008	-0.359	0.000	0.000	-0.077
Dead+Wind 30 deg - Service+Guy	67.890	0.206	-0.321	0.000	0.000	0.495
Dead+Wind 60 deg - Service+Guy	67.955	0.347	-0.197	0.000	0.000	0.236
Dead+Wind 90 deg - Service+Guy	68.393	0.378	-0.024	0.000	0.000	0.072
Dead+Wind 120 deg - Service+Guy	69.604	0.300	0.151	0.000	0.000	0.658
Dead+Wind 150 deg - Service+Guy	68.698	0.167	0.298	0.000	0.000	0.963
Dead+Wind 180 deg - Service+Guy	68.233	0.002	0.351	0.000	0.000	0.274
Dead+Wind 210 deg - Service+Guy	69.087	-0.157	0.298	0.000	0.000	-0.218
Dead+Wind 240 deg - Service+Guy	70.579	-0.275	0.147	0.000	0.000	0.052
Dead+Wind 270 deg - Service+Guy	68.910	-0.357	-0.021	0.000	0.000	0.119
Dead+Wind 300 deg - Service+Guy	68.156	-0.331	-0.187	0.000	0.000	-0.562
Dead+Wind 330 deg - Service+Guy	68.017	-0.191	-0.313	0.000	0.000	-0.848

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-34.057	0.000	-0.000	34.057	0.001	0.004%
2	-0.019	-40.438	-54.059	0.019	40.438	54.050	0.014%
3	28.119	-40.172	-45.981	-28.119	40.172	45.974	0.011%
4	47.622	-39.920	-27.211	-47.620	39.920	27.216	0.008%
5	54.600	-40.219	-1.278	-54.594	40.219	1.282	0.011%
6	48.352	-40.525	25.416	-48.346	40.525	-25.412	0.012%
7	26.495	-40.297	45.804	-26.488	40.297	-45.799	0.012%
8	0.019	-40.061	52.595	-0.025	40.061	-52.595	0.009%
9	-26.574	-40.327	45.958	26.568	40.326	-45.954	0.011%
10	-48.525	-40.579	25.494	48.518	40.578	-25.489	0.011%
11	-54.600	-40.279	-1.295	54.594	40.279	1.299	0.011%
12	-47.450	-39.974	-27.133	47.447	39.974	27.138	0.008%
13	-28.039	-40.202	-45.827	28.039	40.201	45.819	0.011%
14	0.000	-167.751	0.000	-0.002	167.751	0.004	0.003%
15	-0.015	-167.876	-9.569	0.015	167.876	9.569	0.000%
16	4.841	-167.708	-8.181	-4.840	167.708	8.181	0.001%
17	8.303	-167.547	-4.799	-8.302	167.547	4.800	0.001%
18	9.558	-167.733	-0.109	-9.557	167.733	0.110	0.001%
19	8.383	-167.923	4.661	-8.381	167.923	-4.660	0.001%
20	4.718	-167.776	8.193	-4.717	167.776	-8.192	0.001%
21	0.015	-167.625	9.440	-0.016	167.625	-9.439	0.001%
22	-4.702	-167.793	8.179	4.701	167.793	-8.178	0.001%
23	-8.382	-167.955	4.643	8.380	167.954	-4.642	0.001%
24	-9.558	-167.768	-0.122	9.557	167.768	0.123	0.001%
25	-8.304	-167.578	-4.817	8.303	167.578	4.818	0.001%
26	-4.857	-167.725	-8.195	4.853	167.725	8.196	0.002%
27	-0.006	-34.118	-17.652	0.006	34.118	17.651	0.004%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
28	9.182	-34.032	-15.014	-9.182	34.031	15.012	0.005%
29	15.550	-33.949	-8.885	-15.549	33.949	8.887	0.004%
30	17.828	-34.047	-0.417	-17.827	34.047	0.419	0.005%
31	15.788	-34.147	8.299	-15.787	34.147	-8.298	0.006%
32	8.651	-34.072	14.956	-8.649	34.072	-14.955	0.005%
33	0.006	-33.995	17.174	-0.007	33.995	-17.172	0.005%
34	-8.677	-34.082	15.007	8.676	34.082	-15.006	0.005%
35	-15.845	-34.164	8.324	15.843	34.164	-8.323	0.006%
36	-17.828	-34.067	-0.423	17.827	34.067	0.424	0.004%
37	-15.494	-33.967	-8.860	15.492	33.967	8.862	0.007%
38	-9.156	-34.041	-14.964	9.156	34.041	14.962	0.006%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	11	0.00000001	0.00006560
2	Yes	28	0.00012377	0.00014815
3	Yes	28	0.00011091	0.00011848
4	Yes	26	0.00012915	0.00006233
5	Yes	30	0.00011269	0.00012309
6	Yes	31	0.00009774	0.00012043
7	Yes	30	0.00010816	0.00012585
8	Yes	25	0.00013247	0.00008756
9	Yes	31	0.00010288	0.00011985
10	Yes	32	0.00009435	0.00011786
11	Yes	31	0.00010689	0.00012024
12	Yes	28	0.00012802	0.00006435
13	Yes	28	0.00010998	0.00012087
14	Yes	20	0.00015000	0.00004782
15	Yes	24	0.00000001	0.00003778
16	Yes	19	0.00015000	0.00012692
17	Yes	25	0.00000001	0.00002186
18	Yes	27	0.00013616	0.00002851
19	Yes	27	0.00014129	0.00003598
20	Yes	25	0.00013803	0.00004524
21	Yes	24	0.00010717	0.00002547
22	Yes	27	0.00012057	0.00002812
23	Yes	28	0.00013598	0.00002999
24	Yes	28	0.00012334	0.00002389
25	Yes	26	0.00013471	0.00001875
26	Yes	19	0.00015000	0.00013510
27	Yes	21	0.00000001	0.00004718
28	Yes	19	0.00013150	0.00006203
29	Yes	15	0.00000001	0.00004469
30	Yes	21	0.00011641	0.00005493
31	Yes	23	0.00012896	0.00006601
32	Yes	21	0.00012043	0.00006360
33	Yes	15	0.00000001	0.00005485
34	Yes	22	0.00010382	0.00005461
35	Yes	24	0.00012011	0.00006324
36	Yes	22	0.00010655	0.00005233
37	Yes	15	0.00014032	0.00006957
38	Yes	19	0.00013728	0.00006791

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	305 - 285	8.696	35	0.152	0.770
T2	285 - 265	8.314	35	0.121	0.776
T3	265 - 245	7.871	35	0.193	0.795
T4	245 - 225	7.059	35	0.194	0.765
T5	225 - 205	6.470	35	0.106	0.757
T6	205 - 185	6.227	35	0.065	0.851
T7	185 - 165	6.021	35	0.063	0.944
T8	165 - 145	5.821	35	0.063	1.010
T9	145 - 125	5.539	35	0.094	1.049
T10	125 - 105	5.057	35	0.120	1.055
T11	105 - 85	4.586	35	0.108	1.046
T12	85 - 65	4.095	35	0.146	1.018
T13	65 - 45	3.364	35	0.197	0.962
T14	45 - 25	2.474	35	0.226	0.888
T15	25 - 5	1.463	35	0.260	0.802
T16	5 - 0	0.300	35	0.284	0.695

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
305.000	Lightning Rod 1"x10'	35	8.696	0.152	0.770	200110
300.000	Sector1(CaAa=13333.33 Sq.in)No Ice	35	8.598	0.137	0.770	200110
290.193	Guy	35	8.409	0.119	0.772	67571
282.000	Sector1(CaAa=10000 Sq.in)No Ice	35	8.261	0.127	0.779	122403
270.000	Sector1(CaAa=10000 Sq.in)No Ice	35	8.015	0.174	0.793	9739
258.000	6' MW Dish	35	7.608	0.206	0.789	14802
246.000	6' MW Dish	35	7.099	0.197	0.767	12533
235.000	Guy	35	6.713	0.154	0.750	10758
175.000	Guy	35	5.922	0.061	0.980	135831
115.000	Guy	35	4.814	0.113	1.052	34590
55.000	Guy	35	2.933	0.213	0.950	40211

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	305 - 285	52.238	10	0.884	1.934
T2	285 - 265	49.107	10	0.789	1.960
T3	265 - 245	45.794	10	1.027	2.054
T4	245 - 225	41.404	10	1.046	2.003
T5	225 - 205	37.811	10	0.751	1.923
T6	205 - 185	35.437	10	0.561	2.038
T7	185 - 165	33.363	10	0.488	2.253

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T8	165 - 145	31.444	10	0.469	2.405
T9	145 - 125	29.323	10	0.579	2.495
T10	125 - 105	26.601	10	0.662	2.485
T11	105 - 85	23.939	10	0.628	2.461
T12	85 - 65	21.149	10	0.787	2.415
T13	65 - 45	17.344	10	1.019	2.278
T14	45 - 25	12.716	10	1.183	2.101
T15	25 - 5	7.435	10	1.339	1.895
T16	5 - 0	1.515	10	1.436	1.618

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
305.000	Lightning Rod 1"x10'	10	52.238	0.884	1.934	68659
300.000	Sector1(CaAa=13333.33 Sq in)No Ice	10	51.447	0.837	1.934	68659
290.193	Guy	10	49.908	0.781	1.944	23184
282.000	Sector1(CaAa=10000 Sq in)No Ice	10	48.650	0.811	1.974	38639
270.000	Sector1(CaAa=10000 Sq in)No Ice	10	46.723	0.964	2.037	3137
258.000	6' MW Dish	10	44.315	1.079	2.054	4813
246.000	6' MW Dish	10	41.620	1.055	2.008	3790
235.000	Guy	10	39.431	0.910	1.946	3251
175.000	Guy	10	32.395	0.467	2.335	22146
115.000	Guy	10	25.247	0.639	2.471	10724
55.000	Guy	10	15.114	1.148	2.246	7171

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
T2	285	Leg	A325N	0.750	3	2.096	30.101	0.070 ✔	1	Bolt Tension
T3	265	Leg	A325N	0.750	3	4.139	30.101	0.138 ✔	1	Bolt Tension
T4	245	Leg	A325N	0.750	3	4.625	30.101	0.154 ✔	1	Bolt Tension
T5	225	Leg	A325N	0.750	3	6.953	30.101	0.231 ✔	1	Bolt Tension
T6	205	Leg	A325N	0.750	3	5.300	30.101	0.176 ✔	1	Bolt Tension
T7	185	Leg	A325N	0.750	3	5.466	30.101	0.182 ✔	1	Bolt Tension
T8	165	Leg	A325N	0.750	3	5.955	30.101	0.198 ✔	1	Bolt Tension
T9	145	Leg	A325N	0.750	3	6.296	30.101	0.209 ✔	1	Bolt Tension
T10	125	Leg	A325N	0.750	3	6.459	30.101	0.215 ✔	1	Bolt Tension
T11	105	Leg	A325N	0.750	3	7.319	30.101	0.243 ✔	1	Bolt Tension
T12	85	Leg	A325N	0.750	3	8.039	30.101	0.267 ✔	1	Bolt Tension
T13	65	Leg	A325N	0.750	3	8.337	30.101	0.277 ✔	1	Bolt Tension

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
T14	45	Leg	A325N	0.750	3	8.740	30.101	0.290 ✔	1	Bolt Tension
T15	25	Leg	A325N	0.750	3	8.817	30.101	0.293 ✔	1	Bolt Tension
T16	5	Leg	A325N	0.750	3	8.539	30.101	0.284 ✔	1	Bolt Tension

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T1	290.193 (A) (867)	3/4 EModulus EHS	5.830	58.300	30.898	34.980	1.000	1.132 ✔
	290.193 (B) (866)	3/4 EModulus EHS	5.830	58.300	29.840	34.980	1.000	1.172 ✔
	290.193 (C) (862)	3/4 EModulus EHS	5.830	58.300	29.355	34.980	1.000	1.192 ✔
T4	235.000 (A) (858)	1/2 EModulus EHS	2.690	26.900	14.707	16.140	1.000	1.097 ✔
	235.000 (A) (859)	1/2 EModulus EHS	2.690	26.900	14.803	16.140	1.000	1.090 ✔
	235.000 (B) (854)	1/2 EModulus EHS	2.690	26.900	14.741	16.140	1.000	1.095 ✔
	235.000 (B) (855)	1/2 EModulus EHS	2.690	26.900	14.348	16.140	1.000	1.125 ✔
	235.000 (C) (847)	1/2 EModulus EHS	2.690	26.900	13.959	16.140	1.000	1.156 ✔
	235.000 (C) (848)	1/2 EModulus EHS	2.690	26.900	14.228	16.140	1.000	1.134 ✔
T7	175.000 (A) (846)	3/8 EModulus EHS	1.540	15.400	8.260	9.240	1.000	1.119 ✔
	175.000 (B) (845)	3/8 EModulus EHS	1.540	15.400	8.216	9.240	1.000	1.125 ✔
	175.000 (C) (841)	3/8 EModulus EHS	1.540	15.400	8.009	9.240	1.000	1.154 ✔
T10	115.000 (A) (840)	7/16 EModulus EHS	2.080	20.800	11.751	12.480	1.000	1.062 ✔
	115.000 (B) (839)	7/16 EModulus EHS	2.080	20.800	11.474	12.480	1.000	1.088 ✔
	115.000 (C) (835)	7/16 EModulus	2.080	20.800	11.213	12.480	1.000	1.113 ✔

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T_u K	Allowable ϕT_n K	Required S.F.	Actual S.F.
T13	55.000 (A) (834)	EHS 3/8 EModulus EHS	1.540	15.400	6.452	9.240	1.000	1.432 ✔
	55.000 (B) (833)	EHS 3/8 EModulus EHS	1.540	15.400	6.244	9.240	1.000	1.480 ✔
	55.000 (C) (829)	EHS 3/8 EModulus EHS	1.540	15.400	6.106	9.240	1.000	1.513 ✔

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	1 1/2	20.000	2.404	76.9 K=1.00	1.767	-23.462	51.596	0.455 [1] ✔
T2	285 - 265	1 1/2	20.000	2.404	76.9 K=1.00	1.767	-39.472	51.596	0.765 [1] ✔
T3	265 - 245	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-38.838	78.769	0.493 [1] ✔
T4	245 - 225	2	20.000	2.404	57.7 K=1.00	3.142	-77.201	110.838	0.697 [1] ✔
T5	225 - 205	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-60.787	78.769	0.772 [1] ✔
T6	205 - 185	1 1/2	20.000	2.404	76.9 K=1.00	1.767	-48.866	51.596	0.947 [1] ✔
T7	185 - 165	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-53.935	78.769	0.685 [1] ✔
T8	165 - 145	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-56.298	78.769	0.715 [1] ✔
T9	145 - 125	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-57.828	78.769	0.734 [1] ✔
T10	125 - 105	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-65.356	78.769	0.830 [1] ✔
T11	105 - 85	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-71.713	78.769	0.910 [1] ✔
T12	85 - 65	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-74.717	78.769	0.949 [1] ✔
T13	65 - 45	1 3/4	20.000	2.404	65.9 K=1.00	2.405	-78.110	78.769	0.992 [1] ✔
T14	45 - 25	2	20.000	2.404	57.7 K=1.00	3.142	-79.296	110.838	0.715 [1] ✔
T15	25 - 5	2	20.000	2.404	57.7 K=1.00	3.142	-79.127	110.838	0.714 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T16	5 - 0	2	5.292	2.238	53.7 K=1.00	3.142	-81.342	114.489	0.710 [1] ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	1	3.844	3.684	123.8 K=0.70	0.785	-8.417	11.580	0.727 [1] ✔
T2	285 - 265	1	3.844	3.684	123.8 K=0.70	0.785	-8.415	11.580	0.727 [1] ✔
T3	265 - 245	1	3.844	3.657	122.9 K=0.70	0.785	-8.614	11.750	0.733 [1] ✔
T4	245 - 225	1	3.844	3.631	122.0 K=0.70	0.785	-11.593	11.923	0.972 [1] ✔
T5	225 - 205	.875	3.844	3.657	140.4 K=0.70	0.601	-4.600	6.888	0.668 [1] ✔
T6	205 - 185	.75	3.844	3.684	165.0 K=0.70	0.442	-2.281	3.664	0.623 [1] ✔
T7	185 - 165	.75	3.844	3.657	163.8 K=0.70	0.442	-3.100	3.718	0.834 [1] ✔
T8	165 - 145	.75	3.844	3.657	163.8 K=0.70	0.442	-2.496	3.718	0.671 [1] ✔
T9	145 - 125	.75	3.844	3.657	163.8 K=0.70	0.442	-3.447	3.718	0.927 [1] ✔
T10	125 - 105	.875	3.844	3.657	140.4 K=0.70	0.601	-4.091	6.888	0.594 [1] ✔
T11	105 - 85	.75	3.844	3.657	163.8 K=0.70	0.442	-3.542	3.718	0.953 [1] ✔
T12	85 - 65	.75	3.844	3.657	163.8 K=0.70	0.442	-2.068	3.718	0.556 [1] ✔
T13	65 - 45	.75	3.844	3.657	163.8 K=0.70	0.442	-2.715	3.718	0.730 [1] ✔
T14	45 - 25	.75	3.844	3.631	162.6 K=0.70	0.442	-2.224	3.773	0.589 [1] ✔
T15	25 - 5	.75	3.844	3.631	162.6 K=0.70	0.442	-3.420	3.773	0.907 [1] ✔
T16	5 - 0	1	2.314	1.904	90.1 K=0.99	0.785	-12.180	19.517	0.624 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.875	128.8 K=0.70	0.442	-2.226	6.016	0.370 [1] ✔
T2	285 - 265	3/4	3.000	2.875	128.8 K=0.70	0.442	-2.527	6.016	0.420 [1] ✔
T3	265 - 245	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.071	6.104	0.176 [1] ✔
T4	245 - 225	3/4	3.000	2.833	126.9 K=0.70	0.442	-1.650	6.194	0.266 [1] ✔
T5	225 - 205	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.053	6.104	0.172 [1] ✔
T6	205 - 185	3/4	3.000	2.875	128.8 K=0.70	0.442	-0.846	6.016	0.141 [1] ✔
T7	185 - 165	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.934	6.104	0.153 [1] ✔
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.975	6.104	0.160 [1] ✔
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.002	6.104	0.164 [1] ✔
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.132	6.104	0.185 [1] ✔
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.242	6.104	0.203 [1] ✔
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.294	6.104	0.212 [1] ✔
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.353	6.104	0.222 [1] ✔
T14	45 - 25	3/4	3.000	2.833	126.9 K=0.70	0.442	-1.373	6.194	0.222 [1] ✔
T15	25 - 5	3/4	3.000	2.833	126.9 K=0.70	0.442	-1.371	6.194	0.221 [1] ✔
T16	5 - 0	3/4	1.500	1.333	89.3 K=1.05	0.442	-1.469	11.095	0.132 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.875	128.8 K=0.70	0.442	-0.076	6.016	0.013 [1] ✔
T2	285 - 265	3/4	3.000	2.875	128.8 K=0.70	0.442	-3.695	6.016	0.614 [1] ✔
T3	265 - 245	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.495	6.104	0.245 [1] ✔
T4	245 - 225	3/4	3.000	2.833	126.9 K=0.70	0.442	-3.975	6.194	0.642 [1] ✔
T5	225 - 205	3/4	3.000	2.854	127.9	0.442	-1.712	6.104	0.280 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T6	205 - 185	3/4	3.000	2.875	128.8 K=0.70	0.442	-0.901	6.016	0.150 [1] ✔
T7	185 - 165	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.411	6.104	0.067 [1] ✔
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.796	6.104	0.130 [1] ✔
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.269	6.104	0.044 [1] ✔
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.262	6.104	0.207 [1] ✔
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.315	6.104	0.215 [1] ✔
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.388	6.104	0.064 [1] ✔
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.864	6.104	0.142 [1] ✔
T14	45 - 25	3/4	3.000	2.833	126.9 K=0.70	0.442	-0.640	6.194	0.103 [1] ✔
T15	25 - 5	3/4	3.000	2.833	126.9 K=0.70	0.442	-0.676	6.194	0.109 [1] ✔

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.875	128.8 K=0.70	0.442	-3.436	6.016	0.571 [1] ✔
T2	285 - 265	3/4	3.000	2.875	128.8 K=0.70	0.442	-1.410	6.016	0.234 [1] ✔
T3	265 - 245	3/4	3.000	2.854	127.9 K=0.70	0.442	-2.938	6.104	0.481 [1] ✔
T4	245 - 225	3/4	3.000	2.833	126.9 K=0.70	0.442	-2.090	6.194	0.337 [1] ✔
T5	225 - 205	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.250	6.104	0.205 [1] ✔
T6	205 - 185	3/4	3.000	2.875	128.8 K=0.70	0.442	-0.420	6.016	0.070 [1] ✔
T7	185 - 165	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.055	6.104	0.173 [1] ✔
T8	165 - 145	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.209	6.104	0.034 [1] ✔
T9	145 - 125	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.284	6.104	0.210 [1] ✔
T10	125 - 105	3/4	3.000	2.854	127.9 K=0.70	0.442	-1.419	6.104	0.232 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T11	105 - 85	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.396	6.104	0.065 [1] ✔
T12	85 - 65	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.716	6.104	0.117 [1] ✔
T13	65 - 45	3/4	3.000	2.854	127.9 K=0.70	0.442	-0.564	6.104	0.092 [1] ✔
T14	45 - 25	3/4	3.000	2.833	126.9 K=0.70	0.442	-0.494	6.194	0.080 [1] ✔
T16	5 - 0	3/4	0.231	0.065	4.5 K=1.10	0.442	-0.066	19.850	0.003 [1] ✔

[1] $P_u / \phi P_n$ controls

Top Guy Pull-Off Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T4	245 - 225	4x5/8	3.000	2.833	150.8 K=0.80	2.500	-9.338	24.850	0.376 [1] ✔

[1] $P_u / \phi P_n$ controls

Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T4	245 - 225 (849)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-4.912	238.176	0.021
T4	245 - 225 (850)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-0.148	238.176	0.001
T4	245 - 225 (856)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-5.539	238.176	0.023
T4	245 - 225 (857)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-5.484	238.176	0.023
T4	245 - 225 (860)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-0.162	238.176	0.001
T4	245 - 225 (861)	C12x20.7	3.000	2.917	43.8 K=1.00	6.090	-4.732	238.176	0.020

Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T4	245 - 225 (849)	C12x20.7	-31.925	94.764	0.337	-0.000	9.731	0.000
T4	245 - 225 (850)	C12x20.7	-29.542	94.764	0.312	-0.000	9.731	0.000
T4	245 - 225 (856)	C12x20.7	-30.933	94.764	0.326	-0.000	9.731	0.000
T4	245 - 225 (857)	C12x20.7	-29.165	94.764	0.308	0.000	9.731	0.000
T4	245 - 225 (860)	C12x20.7	-31.177	94.764	0.329	0.000	9.731	0.000
T4	245 - 225 (861)	C12x20.7	-31.527	94.764	0.333	0.000	9.731	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T4	245 - 225 (849)	C12x20.7	0.021	0.337	0.000	0.347 ✔	1.000	4.8.1 ✔
T4	245 - 225 (850)	C12x20.7	0.001	0.312	0.000	0.312 ✔	1.000	4.8.1 ✔
T4	245 - 225 (856)	C12x20.7	0.023	0.326	0.000	0.338 ✔	1.000	4.8.1 ✔
T4	245 - 225 (857)	C12x20.7	0.023	0.308	0.000	0.319 ✔	1.000	4.8.1 ✔
T4	245 - 225 (860)	C12x20.7	0.001	0.329	0.000	0.329 ✔	1.000	4.8.1 ✔
T4	245 - 225 (861)	C12x20.7	0.020	0.333	0.000	0.343 ✔	1.000	4.8.1 ✔

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	1 1/2	20.000	2.404	76.9	1.767	21.047	79.522	0.265 [1] ✔
T2	285 - 265	1 1/2	20.000	2.404	76.9	1.767	8.554	79.522	0.108 [1] ✔
T3	265 - 245	1 3/4	20.000	0.385	10.6	2.405	9.771	108.238	0.090 [1] ✔
T4	245 - 225	2	20.000	2.404	57.7	3.142	38.584	141.372	0.273 [1] ✔
T5	225 - 205	1 3/4	20.000	0.385	10.6	2.405	4.061	108.238	0.038 [1] ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	1	3.844	3.684	176.8	0.785	8.322	35.343	0.235 [1] ✔
T2	285 - 265	1	3.844	3.684	176.8	0.785	8.282	35.343	0.234 [1] ✔
T3	265 - 245	1	3.844	3.657	175.6	0.785	8.394	35.343	0.238 [1] ✔
T4	245 - 225	1	3.844	3.631	174.3	0.785	11.293	35.343	0.320 [1] ✔
T5	225 - 205	.875	3.844	3.657	200.6	0.601	4.030	27.059	0.149 [1] ✔
T6	205 - 185	.75	3.844	3.684	235.8	0.442	1.903	19.880	0.096 [1] ✔
T7	185 - 165	.75	3.844	3.657	234.1	0.442	2.488	19.880	0.125 [1] ✔
T8	165 - 145	.75	3.844	3.657	234.1	0.442	2.014	19.880	0.101 [1] ✔
T9	145 - 125	.75	3.844	3.657	234.1	0.442	2.973	19.880	0.150 [1] ✔
T10	125 - 105	.875	3.844	3.657	200.6	0.601	3.492	27.059	0.129 [1] ✔
T11	105 - 85	.75	3.844	3.657	234.1	0.442	3.436	19.880	0.173 [1] ✔
T12	85 - 65	.75	3.844	3.657	234.1	0.442	1.677	19.880	0.084 [1] ✔
T13	65 - 45	.75	3.844	3.657	234.1	0.442	2.099	19.880	0.106 [1] ✔
T14	45 - 25	.75	3.844	3.631	232.4	0.442	1.812	19.880	0.091 [1] ✔
T15	25 - 5	.75	3.844	3.631	232.4	0.442	2.970	19.880	0.149 [1] ✔
T16	5 - 0	1	3.027	2.616	125.6	0.785	1.830	35.343	0.052 [1] ✔

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.875	184.0	0.442	2.228	19.880	0.112 [1] ✔
T2	285 - 265	3/4	3.000	2.875	184.0	0.442	2.624	19.880	0.132 [1] ✔
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	1.447	19.880	0.073 [1] ✔

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T4	245 - 225	3/4	3.000	2.833	181.3	0.442	1.653	19.880	0.083 [1] ✔
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	1.053	19.880	0.053 [1] ✔
T6	205 - 185	3/4	3.000	2.875	184.0	0.442	0.846	19.880	0.043 [1] ✔
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	0.934	19.880	0.047 [1] ✔
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	0.975	19.880	0.049 [1] ✔
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	1.002	19.880	0.050 [1] ✔
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.132	19.880	0.057 [1] ✔
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	1.242	19.880	0.062 [1] ✔
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	1.294	19.880	0.065 [1] ✔
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	1.353	19.880	0.068 [1] ✔
T14	45 - 25	3/4	3.000	2.833	181.3	0.442	1.373	19.880	0.069 [1] ✔
T15	25 - 5	3/4	3.000	2.833	181.3	0.442	1.371	19.880	0.069 [1] ✔
T16	5 - 0	3/4	1.500	1.333	85.3	0.442	1.469	19.880	0.074 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	3/4	3.000	2.875	184.0	0.442	0.077	19.880	0.004 [1] ✔
T2	285 - 265	3/4	3.000	2.875	184.0	0.442	3.485	19.880	0.175 [1] ✔
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	1.681	19.880	0.085 [1] ✔
T4	245 - 225	3/4	3.000	2.833	181.3	0.442	4.347	19.880	0.219 [1] ✔
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	2.004	19.880	0.101 [1] ✔
T6	205 - 185	3/4	3.000	2.875	184.0	0.442	1.138	19.880	0.057 [1] ✔
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	0.659	19.880	0.033 [1] ✔
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	1.067	19.880	0.054 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	0.484	19.880	0.024 [1]
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.545	19.880	0.078 [1]
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	1.458	19.880	0.073 [1]
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	0.451	19.880	0.023 [1]
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	0.992	19.880	0.050 [1]
T14	45 - 25	3/4	3.000	2.833	181.3	0.442	0.717	19.880	0.036 [1]
T15	25 - 5	3/4	3.000	2.833	181.3	0.442	0.833	19.880	0.042 [1]
T16	5 - 0	3/4	2.769	2.602	166.5	0.442	8.145	19.880	0.410 [1]

[1] P_u / ϕP_n controls

Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	305 - 285	3/4	3.000	2.875	184.0	0.442	3.745	19.880	0.188 [1]
T2	285 - 265	3/4	3.000	2.875	184.0	0.442	1.376	19.880	0.069 [1]
T3	265 - 245	3/4	3.000	2.854	182.7	0.442	3.132	19.880	0.158 [1]
T4	245 - 225	3/4	3.000	2.833	181.3	0.442	2.089	19.880	0.105 [1]
T5	225 - 205	3/4	3.000	2.854	182.7	0.442	1.220	19.880	0.061 [1]
T6	205 - 185	3/4	3.000	2.875	184.0	0.442	0.409	19.880	0.021 [1]
T7	185 - 165	3/4	3.000	2.854	182.7	0.442	1.079	19.880	0.054 [1]
T8	165 - 145	3/4	3.000	2.854	182.7	0.442	0.327	19.880	0.016 [1]
T9	145 - 125	3/4	3.000	2.854	182.7	0.442	1.296	19.880	0.065 [1]
T10	125 - 105	3/4	3.000	2.854	182.7	0.442	1.569	19.880	0.079 [1]
T11	105 - 85	3/4	3.000	2.854	182.7	0.442	0.653	19.880	0.033 [1]
T12	85 - 65	3/4	3.000	2.854	182.7	0.442	0.895	19.880	0.045 [1]

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T13	65 - 45	3/4	3.000	2.854	182.7	0.442	0.869	19.880	0.044 [1] ✔
T14	45 - 25	3/4	3.000	2.833	181.3	0.442	0.805	19.880	0.040 [1] ✔
T15	25 - 5	3/4	3.000	2.833	181.3	0.442	8.162	19.880	0.411 [1] ✔
T16	5 - 0	3/4	0.231	0.065	4.1	0.442	3.474	19.880	0.175 [1] ✔

[1] P_u / ϕP_n controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	305 - 285	4x5/8	3.000	2.875	191.2	2.500	9.637	112.500	0.086 [1] ✔
T4	245 - 225	4x5/8	3.000	2.833	188.4	2.500	9.352	112.500	0.083 [1] ✔
T7	185 - 165	4x5/8	3.000	2.854	189.8	2.500	3.378	112.500	0.030 [1] ✔
T10	125 - 105	4x5/8	3.000	2.854	189.8	2.500	5.382	112.500	0.048 [1] ✔
T13	65 - 45	4x5/8	3.000	2.854	189.8	2.500	3.333	112.500	0.030 [1] ✔

[1] P_u / ϕP_n controls

Torque-Arm Top Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T4	245 - 225 (849)	C12x20.7	3.000	2.917	43.8	4.568	4.992	222.666	0.022
T4	245 - 225 (850)	C12x20.7	3.000	2.917	43.8	4.568	4.394	222.666	0.020
T4	245 - 225 (856)	C12x20.7	3.000	2.917	43.8	4.568	4.590	222.666	0.021
T4	245 - 225 (857)	C12x20.7	3.000	2.917	43.8	4.568	4.784	222.666	0.021
T4	245 - 225 (860)	C12x20.7	3.000	2.917	43.8	4.568	4.137	222.666	0.019
T4	245 - 225 (861)	C12x20.7	3.000	2.917	43.8	4.568	5.294	222.666	0.024

Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T4	245 - 225 (849)	C12x20.7	-27.525	94.764	0.290	-0.000	9.731	0.000
T4	245 - 225 (850)	C12x20.7	-26.721	94.764	0.282	-0.000	9.731	0.000
T4	245 - 225 (856)	C12x20.7	-26.589	94.764	0.281	0.000	9.731	0.000
T4	245 - 225 (857)	C12x20.7	-25.201	94.764	0.266	0.000	9.731	0.000
T4	245 - 225 (860)	C12x20.7	-27.963	94.764	0.295	0.000	9.731	0.000
T4	245 - 225 (861)	C12x20.7	-28.061	94.764	0.296	0.000	9.731	0.000

Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T4	245 - 225 (849)	C12x20.7	0.022	0.290	0.000	0.302 ✔	1.000	4.8.1 ✔
T4	245 - 225 (850)	C12x20.7	0.020	0.282	0.000	0.292 ✔	1.000	4.8.1 ✔
T4	245 - 225 (856)	C12x20.7	0.021	0.281	0.000	0.291 ✔	1.000	4.8.1 ✔
T4	245 - 225 (857)	C12x20.7	0.021	0.266	0.000	0.277 ✔	1.000	4.8.1 ✔
T4	245 - 225 (860)	C12x20.7	0.019	0.295	0.000	0.304 ✔	1.000	4.8.1 ✔
T4	245 - 225 (861)	C12x20.7	0.024	0.296	0.000	0.308 ✔	1.000	4.8.1 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	305 - 285	Leg	1 1/2	3	-23.462	51.596	45.5	Pass
T2	285 - 265	Leg	1 1/2	56	-39.472	51.596	76.5	Pass
T3	265 - 245	Leg	1 3/4	110	-38.838	78.769	49.3	Pass
T4	245 - 225	Leg	2	165	-77.201	110.838	69.7	Pass
T5	225 - 205	Leg	1 3/4	219	-60.787	78.769	77.2	Pass
T6	205 - 185	Leg	1 1/2	273	-48.866	51.596	94.7	Pass
T7	185 - 165	Leg	1 3/4	327	-53.935	78.769	68.5	Pass
T8	165 - 145	Leg	1 3/4	381	-56.298	78.769	71.5	Pass
T9	145 - 125	Leg	1 3/4	435	-57.828	78.769	73.4	Pass
T10	125 - 105	Leg	1 3/4	489	-65.356	78.769	83.0	Pass
T11	105 - 85	Leg	1 3/4	543	-71.713	78.769	91.0	Pass
T12	85 - 65	Leg	1 3/4	597	-74.717	78.769	94.9	Pass
T13	65 - 45	Leg	1 3/4	651	-78.110	78.769	99.2	Pass
T14	45 - 25	Leg	2	705	-79.296	110.838	71.5	Pass
T15	25 - 5	Leg	2	759	-79.127	110.838	71.4	Pass
T16	5 - 0	Leg	2	813	-81.342	114.489	71.0	Pass
T1	305 - 285	Diagonal	1	10	-8.417	11.580	72.7	Pass
T2	285 - 265	Diagonal	1	106	-8.415	11.580	72.7	Pass
T3	265 - 245	Diagonal	1	118	-8.614	11.750	73.3	Pass
T4	245 - 225	Diagonal	1	214	-11.593	11.923	97.2	Pass
T5	225 - 205	Diagonal	875	268	-4.600	6.888	66.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T6	205 - 185	Diagonal	.75	322	-2.281	3.664	62.3	Pass
T7	185 - 165	Diagonal	.75	352	-3.100	3.718	83.4	Pass
T8	165 - 145	Diagonal	.75	430	-2.496	3.718	67.1	Pass
T9	145 - 125	Diagonal	.75	442	-3.447	3.718	92.7	Pass
T10	125 - 105	Diagonal	.875	498	-4.091	6.888	59.4	Pass
T11	105 - 85	Diagonal	.75	593	-3.542	3.718	95.3	Pass
T12	85 - 65	Diagonal	.75	604	-2.068	3.718	55.6	Pass
T13	65 - 45	Diagonal	.75	682	-2.715	3.718	73.0	Pass
T14	45 - 25	Diagonal	.75	755	-2.224	3.773	58.9	Pass
T15	25 - 5	Diagonal	.75	766	-3.420	3.773	90.7	Pass
T16	5 - 0	Diagonal	1	822	-12.180	19.517	62.4	Pass
T1	305 - 285	Horizontal	3/4	44	-2.226	6.016	37.0	Pass
T2	285 - 265	Horizontal	3/4	103	-2.527	6.016	42.0	Pass
T3	265 - 245	Horizontal	3/4	121	-1.071	6.104	17.6	Pass
T4	245 - 225	Horizontal	3/4	193	-1.650	6.194	26.6	Pass
T5	225 - 205	Horizontal	3/4	230	-1.053	6.104	17.2	Pass
T6	205 - 185	Horizontal	3/4	284	-0.846	6.016	14.1	Pass
T7	185 - 165	Horizontal	3/4	339	-0.934	6.104	15.3	Pass
T8	165 - 145	Horizontal	3/4	393	-0.975	6.104	16.0	Pass
T9	145 - 125	Horizontal	3/4	452	-1.002	6.104	16.4	Pass
T10	125 - 105	Horizontal	3/4	500	-1.132	6.104	18.5	Pass
T11	105 - 85	Horizontal	3/4	554	-1.242	6.104	20.3	Pass
T12	85 - 65	Horizontal	3/4	609	-1.294	6.104	21.2	Pass
T13	65 - 45	Horizontal	3/4	668	-1.353	6.104	22.2	Pass
T14	45 - 25	Horizontal	3/4	716	-1.373	6.194	22.2	Pass
T15	25 - 5	Horizontal	3/4	770	-1.371	6.194	22.1	Pass
T16	5 - 0	Horizontal	3/4	824	-1.469	11.095	13.2	Pass
T1	305 - 285	Top Girt	3/4	5	-0.076	6.016	1.3	Pass
T2	285 - 265	Top Girt	3/4	58	-3.695	6.016	61.4	Pass
T3	265 - 245	Top Girt	3/4	113	-1.495	6.104	24.5	Pass
T4	245 - 225	Top Girt	3/4	167	-3.975	6.194	64.2	Pass
T5	225 - 205	Top Girt	3/4	220	-1.712	6.104	28.0	Pass
T6	205 - 185	Top Girt	3/4	274	-0.901	6.016	15.0	Pass
T7	185 - 165	Top Girt	3/4	329	-0.411	6.104	6.7	Pass
T8	165 - 145	Top Girt	3/4	382	-0.796	6.104	13.0	Pass
T9	145 - 125	Top Girt	3/4	437	-0.269	6.104	4.4	Pass
T10	125 - 105	Top Girt	3/4	490	-1.262	6.104	20.7	Pass
T11	105 - 85	Top Girt	3/4	546	-1.315	6.104	21.5	Pass
T12	85 - 65	Top Girt	3/4	600	-0.388	6.104	6.4	Pass
T13	65 - 45	Top Girt	3/4	652	-0.864	6.104	14.2	Pass
T14	45 - 25	Top Girt	3/4	707	-0.640	6.194	10.3	Pass
T15	25 - 5	Top Girt	3/4	760	-0.676	6.194	10.9	Pass
T16	5 - 0	Top Girt	3/4	815	8.145	19.880	41.0	Pass
T1	305 - 285	Bottom Girt	3/4	9	-3.436	6.016	57.1	Pass
T2	285 - 265	Bottom Girt	3/4	62	-1.410	6.016	23.4	Pass
T3	265 - 245	Bottom Girt	3/4	115	-2.938	6.104	48.1	Pass
T4	245 - 225	Bottom Girt	3/4	169	-2.090	6.194	33.7	Pass
T5	225 - 205	Bottom Girt	3/4	223	-1.250	6.104	20.5	Pass
T6	205 - 185	Bottom Girt	3/4	278	-0.420	6.016	7.0	Pass
T7	185 - 165	Bottom Girt	3/4	331	-1.055	6.104	17.3	Pass
T8	165 - 145	Bottom Girt	3/4	385	-0.209	6.104	3.4	Pass
T9	145 - 125	Bottom Girt	3/4	439	-1.284	6.104	21.0	Pass
T10	125 - 105	Bottom Girt	3/4	493	-1.419	6.104	23.2	Pass
T11	105 - 85	Bottom Girt	3/4	548	-0.396	6.104	6.5	Pass
T12	85 - 65	Bottom Girt	3/4	601	-0.716	6.104	11.7	Pass
T13	65 - 45	Bottom Girt	3/4	656	-0.564	6.104	9.2	Pass
T14	45 - 25	Bottom Girt	3/4	709	-0.494	6.194	8.0	Pass
T15	25 - 5	Bottom Girt	3/4	765	8.162	19.880	41.1	Pass
T16	5 - 0	Bottom Girt	3/4	819	3.474	19.880	17.5	Pass
T1	305 - 285	Guy A@290.193	3/4 EModulus	867	30.898	34.980	88.3	Pass
T4	245 - 225	Guy A@235	1/2 EModulus	859	14.803	16.140	91.7	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T7	185 - 165	Guy A@175	3/8 EModulus	846	8.260	9.240	89.4	Pass
T10	125 - 105	Guy A@115	7/16 EModulus	840	11.751	12.480	94.2	Pass
T13	65 - 45	Guy A@55	3/8 EModulus	834	6.452	9.240	69.8	Pass
T1	305 - 285	Guy B@290.193	3/4 EModulus	866	29.840	34.980	85.3	Pass
T4	245 - 225	Guy B@235	1/2 EModulus	854	14.741	16.140	91.3	Pass
T7	185 - 165	Guy B@175	3/8 EModulus	845	8.216	9.240	88.9	Pass
T10	125 - 105	Guy B@115	7/16 EModulus	839	11.474	12.480	91.9	Pass
T13	65 - 45	Guy B@55	3/8 EModulus	833	6.244	9.240	67.6	Pass
T1	305 - 285	Guy C@290.193	3/4 EModulus	862	29.355	34.980	83.9	Pass
T4	245 - 225	Guy C@235	1/2 EModulus	848	14.228	16.140	88.2	Pass
T7	185 - 165	Guy C@175	3/8 EModulus	841	8.009	9.240	86.7	Pass
T10	125 - 105	Guy C@115	7/16 EModulus	835	11.213	12.480	89.8	Pass
T13	65 - 45	Guy C@55	3/8 EModulus	829	6.106	9.240	66.1	Pass
T1	305 - 285	Top Guy Pull-Off@290.193	4x5/8	863	9.637	112.500	8.6	Pass
T4	245 - 225	Top Guy Pull-Off@235	4x5/8	851	-9.338	24.850	37.6	Pass
T7	185 - 165	Top Guy Pull-Off@175	4x5/8	844	3.378	112.500	3.0	Pass
T10	125 - 105	Top Guy Pull-Off@115	4x5/8	838	5.382	112.500	4.8	Pass
T13	65 - 45	Top Guy Pull-Off@55	4x5/8	832	3.333	112.500	3.0	Pass
T4	245 - 225	Torque Arm Top@235	C12x20.7	849	4.992	222.666	34.7	Pass

	Summary	
Leg (T13)	99.2	Pass
Diagonal (T4)	97.2	Pass
Horizontal (T2)	42.0	Pass
Top Girt (T4)	64.2	Pass
Bottom Girt (T1)	57.1	Pass
Guy A (T10)	94.2	Pass
Guy B (T10)	91.9	Pass
Guy C (T10)	89.8	Pass
Top Guy Pull-Off (T4)	37.6	Pass
Torque Arm Top (T4)	34.7	Pass
Bolt Checks	29.3	Pass
RATING =	**99.2**	**Pass**

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

KY Public Service Commission

Master Utility Search

- Search for the utility of interest by using any single or combination of criteria.
- Enter Partial names to return the closest match for Utility Name and Address/City/Contact entries.

Utility ID **Utility Name** **Address/City/Contact** **Utility Type** **Status**

Active

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	D	San Francisco	CA
View	4108300	Air Voice Wireless, LLC	Cellular	B	Bloomfield Hill	MI
View	4110650	Alliant Technologies of KY, L.L.C.	Cellular	D	Morristown	NJ
View	4111900	ALLNETAIR, INC.	Cellular	C	West Palm Beach	FL
View	44451184	Alltel Corporation d/b/a Verizon Wireless	Cellular	A	Lisle	IL
View	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	D	Dunedin	FL
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Virginia Beach	VA
View	4110700	Andrew David Balholm dba Norcell	Cellular	D	Buford	GA
View	4105700	Assurance Wireless USA, L.P.	Cellular	A	Atlanta	GA
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4106000	Best Buy Health, Inc. d/b/a GreatCall d/b/a Jitterbug	Cellular	A	San Diego	CA
View	4110550	Blue Casa Mobile, LLC	Cellular	D	Santa Barbara	CA
View	4111050	BlueBird Communications, LLC	Cellular	D	New York	NY
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY

View	4107600	Boomerang Wireless, LLC	Cellular	D	Hiawatha	IA
View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4111150	Comcast OTR1, LLC	Cellular	C	Phoeniexville	PA
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
View	4111500	CSC Wireless, LLC d/b/a Altice Wireless	Cellular	D	Long Island City	NY
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4111650	DataBytes, Inc.	Cellular	D	Rogers	AR
View	4112000	DISH Wireless L.L.C.	Cellular	C	Englewood	CO
View	4111200	Dynalink Communications, Inc.	Cellular	C	Brooklyn	NY
View	4111800	Earthlink, LLC	Cellular	C	Atlanta	GA
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4110450	Excellus Communications, LLC	Cellular	D	Chattanooga	TN
View	4105900	Flash Wireless, LLC	Cellular	C	Concord	NC
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
View	4111750	Gabb Wireless, Inc.	Cellular	D	Provo	UT
View	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4112050	GLOTELL US, Corp.	Cellular	C	Hallandale	FL
View	4109600	Google North America Inc.	Cellular	A	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4111350	HELLO MOBILE TELECOM LLC	Cellular	D	Dania Beach	FL
View	4103100	i-Wireless, LLC	Cellular	B	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Dallas	TX
View	4111950	J Rhodes Enterprises LLC	Cellular	C	Gulf Breeze	FL
View	22215360	KDDI America, Inc.	Cellular	D	Staten Island	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular	Cellular	A	Elizabethtown	KY

		General				
View	4109550	Kynect Communications, LLC	Cellular	D	Dallas	TX
View	4111250	Liberty Mobile Wireless, LLC	Cellular	D	Sunny Isles Beach	FL
View	4111400	Locus Telecommunications, LLC	Cellular	A	Fort Lee	NJ
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4111700	Mint Mobile, LLC	Cellular	D	Costa Mesa	CA
View	4109650	Mitel Cloud Services, Inc.	Cellular	D	Mesa	AZ
View	4111850	Mobi, Inc.	Cellular	C	Honolulu	HI
View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
View	4000800	Nextel West Corporation	Cellular	D	Overland Park	KS
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	D	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4110750	Onvoy Spectrum, LLC	Cellular	D	Chicago	IL
View	4109050	Patriot Mobile LLC	Cellular	D	Irving	TX
View	4110250	Plintron Technologies USA LLC	Cellular	D	Bellevue	WA
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
View	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	C	Hiawatha	IA
View	4110500	Republic Wireless, Inc.	Cellular	A	Raleigh	NC
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	D	Los Angeles	CA
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Fremont	NE
View	4110150	Spectrotel, Inc. d/b/a Touch Base Communications	Cellular	D	Neptune	NJ
View	4111450	Spectrum Mobile, LLC	Cellular	A	St. Louis	MO
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4111600	STX Group LLC dba Twigby	Cellular	D	Murfreesboro	TN
View	4110200	T C Telephone LLC d/b/a Horizon Cellular	Cellular	D	Red Bluff	CA
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Plano	TX
View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	D	Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4108900	Telrite Corporation	Cellular	D	Covington	GA

View	4108450	Tempo Telecom, LLC	Cellular	B	Atlanta	GA
View	4109000	Ting, Inc.	Cellular	A	Toronto	ON
View	4110400	Torch Wireless Corp.	Cellular	D	Jacksonville	FL
View	4103300	Touchtone Communications, Inc.	Cellular	D	Whippany	NJ
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4110300	UVNV, Inc. d/b/a Mint Mobile	Cellular	D	Costa Mesa	CA
View	4110800	Visible Service LLC	Cellular	D	Basking Ridge	NJ
View	4106500	WiMacTel, Inc.	Cellular	D	Palo Alto	CA
View	4110950	Wing Tel Inc.	Cellular	D	New York	NY

EXHIBIT E
FAA

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

Aeronautical Study No.
2020-ASO-7891-OE

Issued Date: 03/31/2020

Kristy Hurst
B+T Group Holdings, Inc.
1717 S. Boulder Ave.
Suite 300
Tulsa, OK 74119

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

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

Structure:	Antenna Tower KYLEX2038 Happy Ridge Rd
Location:	Nancy, KY
Latitude:	37-06-00.80N NAD 83
Longitude:	84-46-36.40W
Heights:	1131 feet site elevation (SE)
	317 feet above ground level (AGL)
	1448 feet above mean sea level (AMSL)

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

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

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

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

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

This determination expires on 10/01/2021 unless:

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

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

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

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

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

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

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

If we can be of further assistance, please contact our office at (718) 553-2611, or angelique.eersteling@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-ASO-7891-OE.

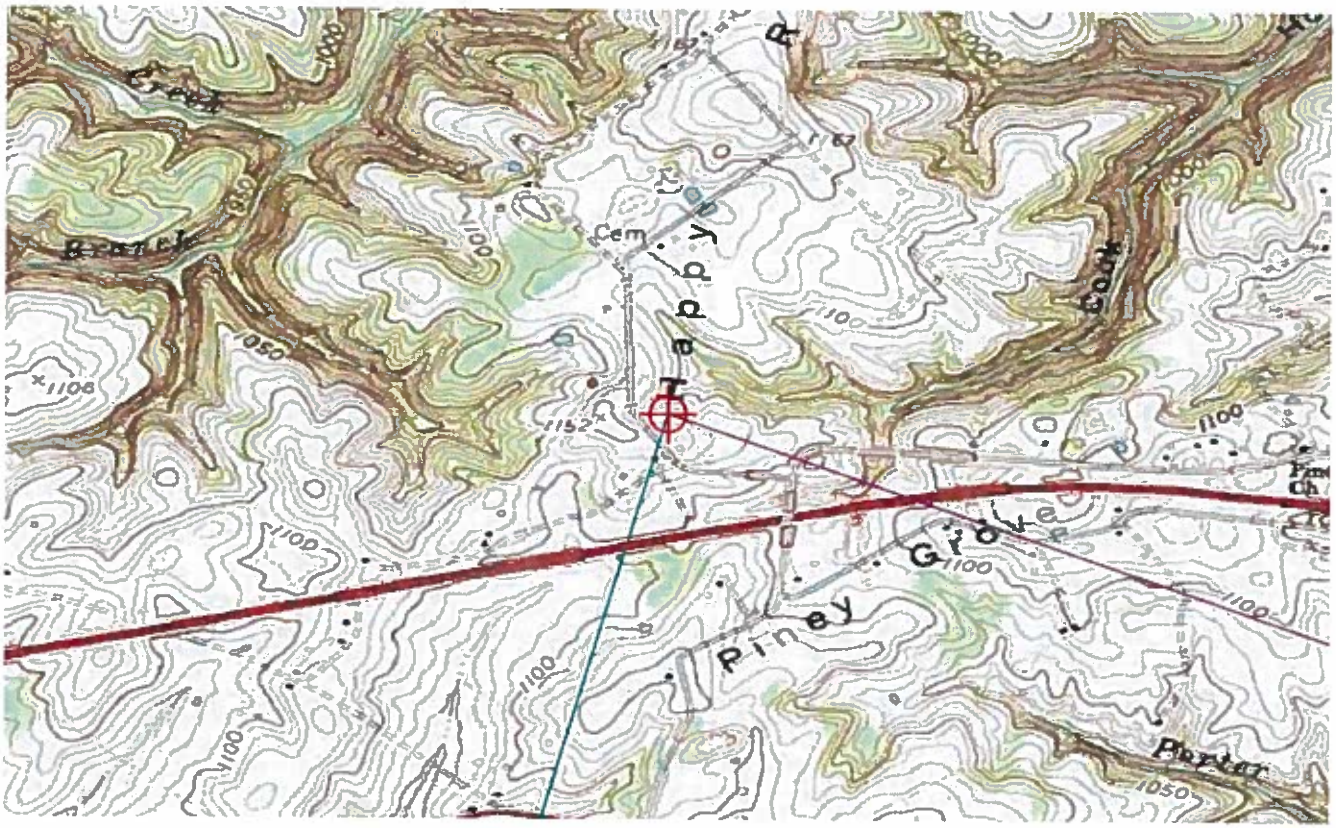
Signature Control No: 433766624-435168743 (DNE)
Angelique Eersteling
Technician

Attachment(s)
Frequency Data
Map(s)

cc: FCC

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

Verified Map for ASN 2020-ASO-7891-OE



TOPO Map for ASN 2020-ASO-7891-OE

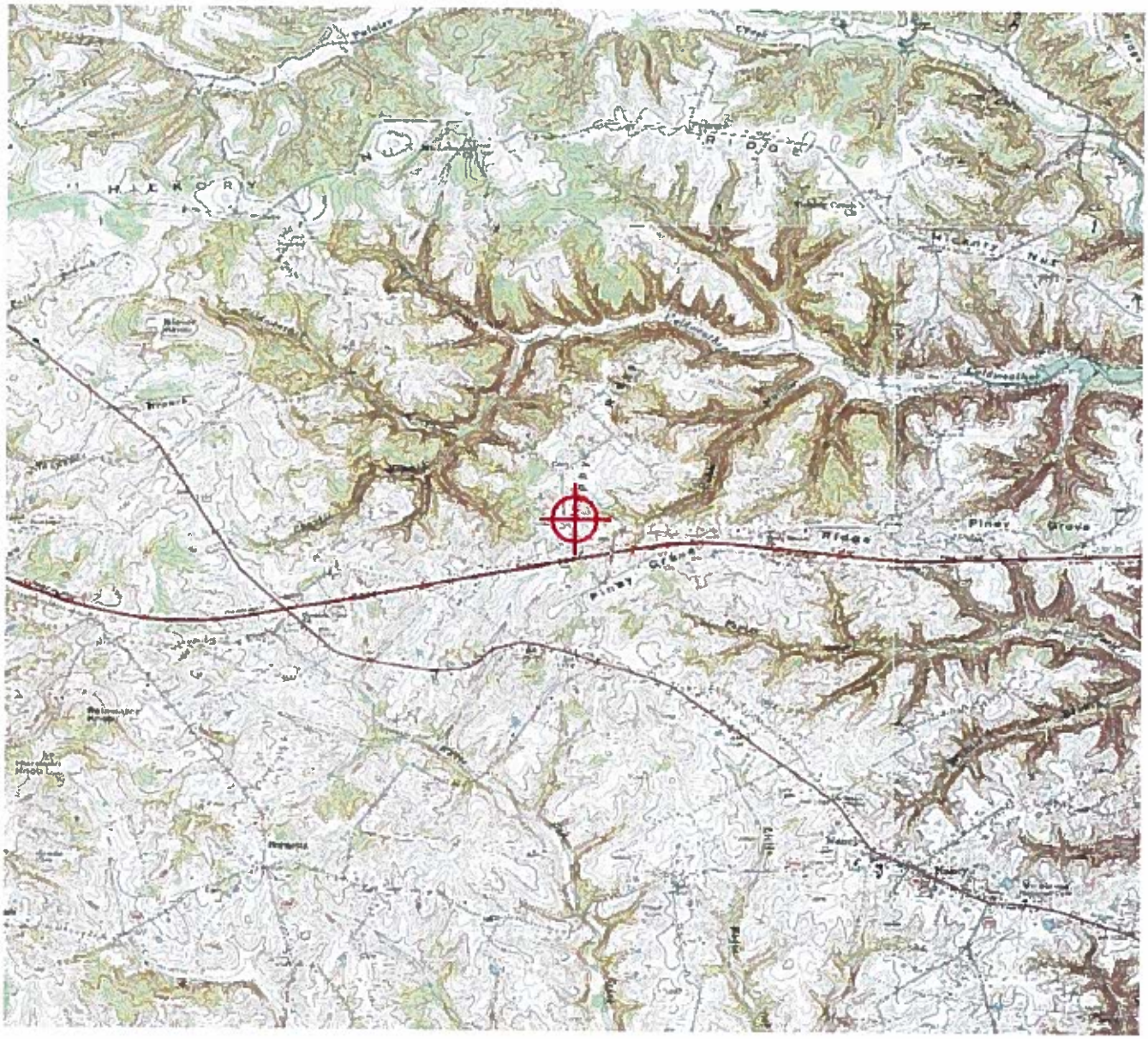


EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION

KENTUCKY AIRPORT ZONING COMMISSION

ANDY BESHEAR
Governor

Office of Audits, 200 Mero Street, 4th floor
Frankfort, KY 40622
www.transportation.ky.gov
502-782-4043

APPROVAL OF APPLICATION

August 13, 2020

APPLICANT
Uniti Towers
B&T Group - Patricia Parr
10802 Executive Center Dr. Ste 300
Little Rock, AR 72211

SUBJECT: AS-PULASKI-SME-2020-099

STRUCTURE:	Antenna Tower
LOCATION:	Nancy, KY
COORDINATES:	37° 6' 0.8" N / 84° 46' 36.4" W
HEIGHT:	317' AGL/1448' AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 317' AGL/1448' AMSL Antenna Tower near Nancy, KY 37° 6' 0.8" N / 84° 46' 36.4" W.

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

Duel - Red & Medium Intensity White Obstruction Lighting Required

Randall S. Royer
Randall S. Royer, Executive Director
Office of Audits
Acting Administrator
Randall.Royer@ky.gov
Jason.Salazar-Munoz@ky.gov

EXHIBIT G
GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION REPORT

August 18, 2020

Prepared For:

B+T Group

B+T GRP

Happy Ridge Road
KYLEX2038
Proposed 305-Foot Guyed Tower
240 Happy Ridge Road, Nancy (Pulaski County), Kentucky 42544
Latitude N 37° 06' 00.8" Longitude W 84° 46' 36.4"

Delta Oaks Group Project GEO20-06844-08
Revision 0
geotech@deltaoaksgroup.com

Performed By:

Justin Brosseau, E.I.

Reviewed By:

Joseph V. Borrelli, Jr., P.E.

INTRODUCTION

This geotechnical investigation report has been completed for the proposed 305-foot, single ring, guyed tower located at 240 Happy Ridge Road in Nancy (Pulaski County), Kentucky. The purpose of this investigation was to provide engineering recommendations and subsurface condition data at the proposed tower location. A geotechnical engineering interpretation of the collected information was completed and utilized to suggest design parameters regarding the adequacy of the structure's proposed foundation capacity under various loading conditions. This report provides the scope of the geotechnical investigation; geologic material identification; results of the geotechnical laboratory testing; and design parameter recommendations for use in the design of the telecommunication facility's foundation and site development.

SITE CONDITION SUMMARY

The proposed tower and compound are located on a grassy hill exhibiting a gradually sloping topography from the southwest to northeast across the tower compound and subject property.

REFERENCES

- Survey Drawings, prepared by Point to Point Land Surveyors, dated January 28. 2020
- TIA Standard (TIA-222-G), dated August 2005

SUBSURFACE FIELD INVESTIGATION SUMMARY

The subsurface field investigation was conducted through the advancement of four mechanical soil test borings to the termination depth of 20.0 feet bgs. Samples were obtained at selected intervals in accordance with ASTM D 1586. The sampling was conducted at the staked centerline of the proposed tower mast and guy anchors. Soil samples were transported to our laboratory and classified by a geotechnical engineer in accordance with ASTM D 2487. A detailed breakdown of the material encountered in our subsurface field investigation can be found in the boring logs presented in the Appendix of this report.

A boring plan portraying the spatial location of the borings in relation to the proposed tower, guy anchors, tower compound and immediate surrounding area can be found in the Appendix.

SUBSURFACE CONDITION SUMMARY

The following provides a general overview of the site's subsurface conditions based on the data obtained during our field investigation.

FILL

Topsoil was encountered during the subsurface field investigation from the existing ground surface to a depth of 0.6 feet bgs in borings B-1 and B-3 and to a depth of 0.8 feet bgs in borings T-1 and B-2.

SOIL

The residual soil encountered in the subsurface field investigation began at a depth of 0.6 feet bgs in borings B-1 and B-3 and to a depth of 0.8 feet bgs in borings T-1 and B-2 and consisted of clayey silt and sandy lean clay. The materials ranged from a firm to very stiff cohesion.

Auger advancement refusal was not encountered during the subsurface field investigation.

ROCK

Rock was not encountered during the subsurface field investigation.

SUBSURFACE WATER

At the time of drilling, subsurface water was not encountered during the subsurface investigation. However, subsurface water elevations can fluctuate throughout the year due to variations in climate, hydraulic parameters, nearby construction activity and other factors.

FROST PENETRATION

The frost penetration depth for Pulaski County, Kentucky is 30 inches (2.5 feet).

CORROSIVITY

Soil resistivity was performed in accordance with ASTM G187 with a test result of 16,000 ohms-cm for the tower base.

FOUNDATION DESIGN SUMMARY

In consideration of the provided tower parameters and the determined soil characteristics, Delta Oaks Group recommends utilizing a shallow foundation and/or drilled shaft foundation for the proposed tower mast structure and concrete blocks or drilled shaft foundations for the guy anchors. The strength parameters presented in the following sections can be utilized for design of the foundation.

GENERAL SUBSURFACE STRENGTH PARAMETERS

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
T-1	0.0 – 0.8	TOPSOIL	105	0	0
	0.8 – 1.5	CL – ML	105	0	750
	1.5 – 4.0	CL	115	0	1,750
	4.0 – 9.0	CL	115	0	2,000
	9.0 – 19.0	CL	110	0	1,500
	19.0 – 20.0	CL	115	0	1,750

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-1	0.0 – 0.6	TOPSOIL	105	0	0
	0.6 – 1.5	CL	110	0	1,000
	1.5 – 4.0	CL	115	0	2,000
	4.0 – 6.5	CL	110	0	1,500
	6.5 – 9.0	CL	110	0	1,000
	9.0 – 14.0	CL	115	0	1,750
	14.0 – 20.0	CL	115	0	2,000

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-2	0.0 – 0.8	TOPSOIL	105	0	0
	0.8 – 1.5	CL – ML	110	0	1,000
	1.5 – 4.0	CL	115	0	1,750
	4.0 – 6.5	CL	110	0	1,500
	6.5 – 9.0	CL	110	0	1,250
	9.0 – 14.0	CL	110	0	1,500
	14.0 – 19.0	CL	115	0	2,000
	19.0 – 20.0	CL	120	0	2,500

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-3	0.0 – 0.6	TOPSOIL	105	0	0
	0.6 – 1.5	CL – ML	105	0	750
	1.5 – 4.0	CL – ML	115	0	2,000
	4.0 – 6.5	CL	115	0	2,000
	6.5 – 9.0	CL	115	0	2,250
	9.0 – 14.0	CL	120	0	2,500
	14.0 – 19.0	CL	120	0	3,000
	19.0 – 20.0	CL	110	0	1,500

- The unit weight provided assumes overburden soil was compacted to a minimum of 95% of the maximum dry density as obtained by the standard Proctor method (ASTM D 698) and maintained a moisture content within 3 percent of optimum
- The values provided for phi angle and cohesion should be considered ultimate.

SUBSURFACE STRENGTH PARAMETERS – SHALLOW TOWER FOUNDATION

Boring	Dimensions (feet)	Depth (feet bgs)	Net Ultimate Bearing Capacity (psf)
T-1	5.0 x 5.0	3.0	12,080
		4.0	14,310
		5.0	14,800
		6.0	15,290
	10.0 x 10.0	3.0	11,440
		4.0	13,320
		5.0	13,570
		6.0	11,600
	15.0 x 15.0	3.0	11,220
		4.0	11,860
		5.0	11,340
		6.0	10,820
	20.0 x 20.0	3.0	11,110
		4.0	11,210
		5.0	10,820
		6.0	10,420
	25.0 x 25.0	3.0	11,050
		4.0	10,820
		5.0	10,500
		6.0	10,190

- Delta Oaks Group recommends the foundation bear a minimum of 3.0 feet bgs.
- A sliding friction factor of 0.30 can be utilized along the base of the proposed tower mast foundation.
- The bearing capacity can be increased by 1/3 for transient loading.
- Ultimate Passive Pressure Tables, for the tower mast and guy anchors, with a reduction due to frost penetration to a depth of 2.5 feet bgs are presented on the following pages.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

ULTIMATE PASSIVE PRESSURE VS. DEPTH - TOWER FOUNDATION

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.8	105	0	0	84.00	1.00	42.00
Top	0.8	105	0	750	84.00	1.00	792.00
Bottom	1.5	105	0	750	157.50	1.00	828.75
Top	1.5	115	0	1750	157.50	1.00	1828.75
Bottom	2.5	115	0	1750	272.50	1.00	1886.25
Top	2.5	115	0	1750	272.50	1.00	3772.50
Bottom	4.0	115	0	1750	445.00	1.00	3945.00
Top	4.0	115	0	2000	445.00	1.00	4445.00
Bottom	9.0	115	0	2000	1020.00	1.00	5020.00
Top	9.0	110	0	1500	1020.00	1.00	4020.00
Bottom	10.0	110	0	1500	1130.00	1.00	4130.00

ULTIMATE PASSIVE PRESSURE VS. DEPTH – NORTHEAST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.6	105	0	0	63.00	1.00	31.50
Top	0.6	110	0	1000	63.00	1.00	1031.50
Bottom	1.5	110	0	1000	162.00	1.00	1081.00
Top	1.5	115	0	2000	162.00	1.00	2081.00
Bottom	2.5	115	0	2000	277.00	1.00	2138.50
Top	2.5	115	0	2000	277.00	1.00	4277.00
Bottom	4.0	115	0	2000	449.50	1.00	4449.50
Top	4.0	110	0	1500	449.50	1.00	3449.50
Bottom	6.5	110	0	1500	724.50	1.00	3724.50
Top	6.5	110	0	1000	724.50	1.00	2724.50
Bottom	9.0	110	0	1000	999.50	1.00	2999.50
Top	9.0	115	0	1750	999.50	1.00	4499.50
Bottom	10.0	115	0	1750	1114.50	1.00	4614.50

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SOUTHWEST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.8	105	0	0	84.00	1.00	42.00
Top	0.8	110	0	1000	84.00	1.00	1042.00
Bottom	1.5	110	0	1000	161.00	1.00	1080.50
Top	1.5	115	0	1750	161.00	1.00	1830.50
Bottom	2.5	115	0	1750	276.00	1.00	1888.00
Top	2.5	115	0	1750	276.00	1.00	3776.00
Bottom	4.0	115	0	1750	448.50	1.00	3948.50
Top	4.0	110	0	1500	448.50	1.00	3448.50
Bottom	6.5	110	0	1500	723.50	1.00	3723.50
Top	6.5	110	0	1250	723.50	1.00	3223.50
Bottom	9.0	110	0	1250	998.50	1.00	3498.50
Top	9.0	110	0	1500	998.50	1.00	3998.50
Bottom	10.0	110	0	1500	1108.50	1.00	4108.50

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SOUTHEAST GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.6	105	0	0	63.00	1.00	31.50
Top	0.6	105	0	750	63.00	1.00	781.50
Bottom	1.5	105	0	750	157.50	1.00	828.75
Top	1.5	115	0	2000	157.50	1.00	2078.75
Bottom	2.5	115	0	2000	272.50	1.00	2136.25
Top	2.5	115	0	2000	272.50	1.00	4272.50
Bottom	4.0	115	0	2000	445.00	1.00	4445.00
Top	4.0	115	0	2250	445.00	1.00	4945.00
Bottom	9.0	115	0	2250	1020.00	1.00	5520.00
Top	9.0	120	0	2500	1020.00	1.00	6020.00
Bottom	10.0	120	0	2500	1140.00	1.00	6140.00

SUBSURFACE STRENGTH PARAMETERS - DRILLED SHAFT FOUNDATION

Boring	Depth (bgs)	Net Ultimate Bearing Capacity (psf)	Ultimate Skin Friction – Compression (psf)
T-1	0.0 – 3.0	–	–
	3.0 – 4.0	16,720	960
	4.0 – 6.0	14,520	1,090
	6.0 – 9.0	13,180	1,100
	9.0 – 14.0	13,020	820
	14.0 – 19.0	13,960	820
	19.0 – 20.0	15,000	960

- The top 3.0 feet of soil should be ignored due to the frost penetration and the potential soil disturbance during construction.
- The bearing capacity can be increased by 1/3 for transient loading.
- The values presented assume the concrete is cast-in-place against earth walls and any casing utilized during construction of the foundation was removed.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

SUBSURFACE STRENGTH PARAMETERS –
NORTHEAST GUY ANCHOR DRILLED SHAFT FOUNDATION

Boring	Depth (bgs)	Ultimate Skin Friction – Uplift (psf)
B-1	0.0 – 3.0	–
	3.0 – 4.0	1,090
	4.0 – 6.0	820
	6.0 – 9.0	640
	9.0 – 14.0	960
	14.0 – 19.0	1,100
	19.0 – 20.0	1,090

SUBSURFACE STRENGTH PARAMETERS –
NORTHWEST GUY ANCHOR DRILLED SHAFT FOUNDATION

Boring	Depth (bgs)	Ultimate Skin Friction – Uplift (psf)
B-2	0.0 – 3.0	–
	3.0 – 4.0	960
	4.0 – 6.0	820
	6.0 – 9.0	730
	9.0 – 14.0	820
	14.0 – 19.0	1,100
	19.0 – 20.0	1,370

SUBSURFACE STRENGTH PARAMETERS –
SOUTHEAST GUY ANCHOR DRILLED SHAFT FOUNDATION

Boring	Depth (bgs)	Ultimate Skin Friction – Uplift (psf)
B-3	0.0 – 3.0	–
	3.0 – 4.0	1,090
	4.0 – 6.0	1,100
	6.0 – 9.0	1,190
	9.0 – 14.0	1,370
	14.0 – 19.0	1,650
	19.0 – 20.0	820

- The top 3.0 feet of soil should be ignored due to the frost penetration and the potential soil disturbance during construction.
- The values presented assume the concrete is cast-in-place against earth walls and any casing utilized during construction of the foundation was removed.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

SUBSURFACE STRENGTH PARAMETERS – SUPPORT STRUCTURE FOUNDATION

Boring	Depth (bgs)	Net Ultimate Bearing Capacity (psf)	Minimum Design Footing Width (ft)	Modulus of Subgrade Reaction (pci)
T-1	2.0	10,900	2.0	350
	3.0	11,810		
	4.0	14,530		400
	5.0	15,000		

- Delta Oaks Group recommends utilizing a slab on grade in conjunction with continuous perimeter footings that bear on residual soil or properly compacted structural fill placed in accordance with the recommendations provided in the *CONSTRUCTION* section of this report.
- The slab on grade should be properly reinforced to prevent concrete cracking and shrinkage.
- The foundation should bear a minimum of 2.0 feet bgs.
- A sliding friction factor of 0.30 can be utilized along the base of the proposed foundation.
- An Ultimate Passive Pressure Table is presented on the following page. An appropriate reduction should be considered in accordance with local building code frost penetration depth.
- Delta Oaks Group recommends an appropriate factor of safety be utilized for the design of the foundation.

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SUPPORT STRUCTURE FOUNDATION

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	105	0	0	0.00	1.00	0.00
Bottom	0.8	105	0	0	84.00	1.00	42.00
Top	0.8	105	0	750	84.00	1.00	792.00
Bottom	1.5	105	0	750	157.50	1.00	828.75
Top	1.5	115	0	1750	157.50	1.00	1828.75
Bottom	2.5	115	0	1750	272.50	1.00	1886.25
Top	2.5	115	0	1750	272.50	1.00	3772.50
Bottom	4.0	115	0	1750	445.00	1.00	3945.00
Top	4.0	115	0	2000	445.00	1.00	4445.00
Bottom	9.0	115	0	2000	1020.00	1.00	5020.00
Top	9.0	110	0	1500	1020.00	1.00	4020.00
Bottom	10.0	110	0	1500	1130.00	1.00	4130.00

CONSTRUCTION

SITE DEVELOPMENT

The proposed access road and tower compound should be evaluated by a Geotechnical Engineer, or their representative, after the removal or "cutting" of the areas to design elevation but prior to the placement of any structural fill material to verify the presence of unsuitable or weak material. Unsuitable or weak materials should be undercut to a suitable base material as determined by a Geotechnical Engineer, or their representative. Backfill of any undercut area(s) should be conducted in accordance with the recommendations provided in the *STRUCTURAL FILL PLACEMENT* section of this report.

Excavations should be sloped or shored in accordance and compliance with OSHA 29 CFR Part 1926, Excavation Trench Safety Standards as well as any additional local, state and federal regulations.

STRUCTURAL FILL PLACEMENT

Structural fill materials should be verified, prior to utilization, to have a minimum unit weight of 110 pcf (pounds per cubic foot) when compacted to a minimum of 95% of its maximum dry density and within plus or minus 3 percentage points of optimum moisture. Materials utilized should not contain more than 5 percent by weight of organic matter, waste, debris or any otherwise deleterious materials. The Liquid Limit should be no greater than 40 with a Plasticity Index no greater than 20. Structural fill material should contain a maximum particle size of 4 inches with 20 percent or less of the material having a particle size between 2 and 4 inches. Backfill should be placed in thin horizontal lifts not to exceed 8 inches (loose) in large grading areas and 4 inches (loose) where small handheld or walk-behind compaction equipment will be utilized. The potential suitability of on-site materials to be utilized as fill should be evaluated by a Geotechnical Engineer, or their representative just prior to construction.

During construction structural fill placement should be monitored and tested. This should include at minimum, visual observation as well as a sufficient amount of in-place field density tests by a Geotechnical Engineer, or their representative. Materials should be compacted to a minimum of 95% of the maximum dry density as determined by ASTM D 698 (standard Proctor method). Moisture contents should be maintained to within plus or minus 3 percentage points of the optimum moisture content.

SHALLOW FOUNDATIONS

Foundation excavation(s) should be evaluated by a Geotechnical Engineer, or their representative, prior to reinforcing steel and concrete placement. This evaluation should include visual observation to verify a level bearing surface; vertical side-walls with no protrusions, sloughing or caving; and the exposed bearing surface is free of deleterious material, loose soil and standing water. Excavation dimensions should be verified and testing performed on the exposed bearing surface to verify compliance with design recommendations. Bearing testing should be conducted in accordance with ASTM STP399 (Dynamic Cone Penetrometer). A 6-inch layer of compacted crushed stone should be installed prior to reinforcing steel and concrete placement. If subsurface water is encountered during excavation dewatering methods such as sump pumps or well points may be required.

DRILLED SHAFT FOUNDATIONS

Drilled shaft foundations (caissons) are typically installed utilizing an earth auger to reach the design depth of the foundation. Specialized roller bits or core bits can be utilized to penetrate boulders or rock. The equipment utilized should have cutting teeth to result in an excavation with little or no soil smeared or caked on the excavation sides with spiral-like corrugated walls. The drilled shaft design diameter should be maintained throughout the excavation with a plumbness tolerance of 2 percent of the length and an eccentricity tolerance of 3 inches from plan location. A removable steel casing can be installed in the shaft to prevent caving of the excavation sides due to soil relaxation. Upon completion of the drilling and casing placement, loose soils and subsurface water greater than 3-inches in depth should be removed from the bottom of the excavation for the "dry" installation method. The drilled shaft installation should be evaluated by a Geotechnical Engineer, or their representative, to verify suitable end bearing conditions, design diameter and bottom cleanliness. The evaluation should be conducted immediately prior to as well as during concrete placement operations.

The drilled shaft should be concreted as soon as reasonably practical after excavation to reduce the deterioration of the supporting soils to prevent potential caving and water intrusion. A concrete mix design with a slump of 6 to 8 inches employed in conjunction with the design concrete compressive strength should be utilized for placement. Super plasticizer may be required to obtain the recommended slump range. During placement, the concrete may fall freely through the open area in the reinforcing steel cage provided it does not strike the reinforcing steel and/or the casing prior to reaching the bottom of the excavation. The removable steel casing should be extracted as concrete is placed. During steel casing removal a head of concrete should be maintained above the bottom of the casing to prevent soil and water intrusion into the concrete below the bottom of the casing.

If subsurface water is anticipated and/or weak soil layers are encountered drilled shafts are typically installed utilizing the "wet" method by excavating beneath a drilling mud slurry. The drilling mud slurry is added to the drilled shaft excavation after groundwater has been encountered and/or the sides of the excavation are observed to be caving or sloughing. Additional inspection by a Geotechnical Engineer, or their representative, during the "wet" method should consist of verifying maintenance of sufficient slurry head, monitoring the specific gravity, pH and sand content of the drilling slurry, and monitoring any changes in the depth of the excavation between initial approval and just prior to concreting.

Concrete placement utilizing the "wet" method is conducted through a tremie pipe at the bottom of the excavation with the drilling mud slurry level maintained at a minimum of 5 feet or one shaft diameter, whichever is greater, above the ground water elevation. The bottom of the tremie should be set one tremie pipe diameter above the excavation. A closure flap at the bottom of the tremie or a sliding plug introduced into the tremie before the concrete is recommended to reduce the potential contamination of the concrete by the drilling mud slurry. The bottom of the tremie must be maintained in the concrete during placement. Additional concrete should be placed through the tremie causing the slurry to overflow from the excavation in order to reduce the potential for the development of "slurry pockets" remaining in the drilled shaft.

QUALIFICATIONS

The design parameters and conclusions provided in this report have been determined in accordance with generally accepted geotechnical engineering practices and are considered applicable to a rational degree of engineering certainty based on the data available at the time of report preparation and our practice in this geographic region. All recommendations and supporting calculations were prepared based on the data available at the time of report preparation and knowledge of typical geotechnical parameters in the applicable geographic region.

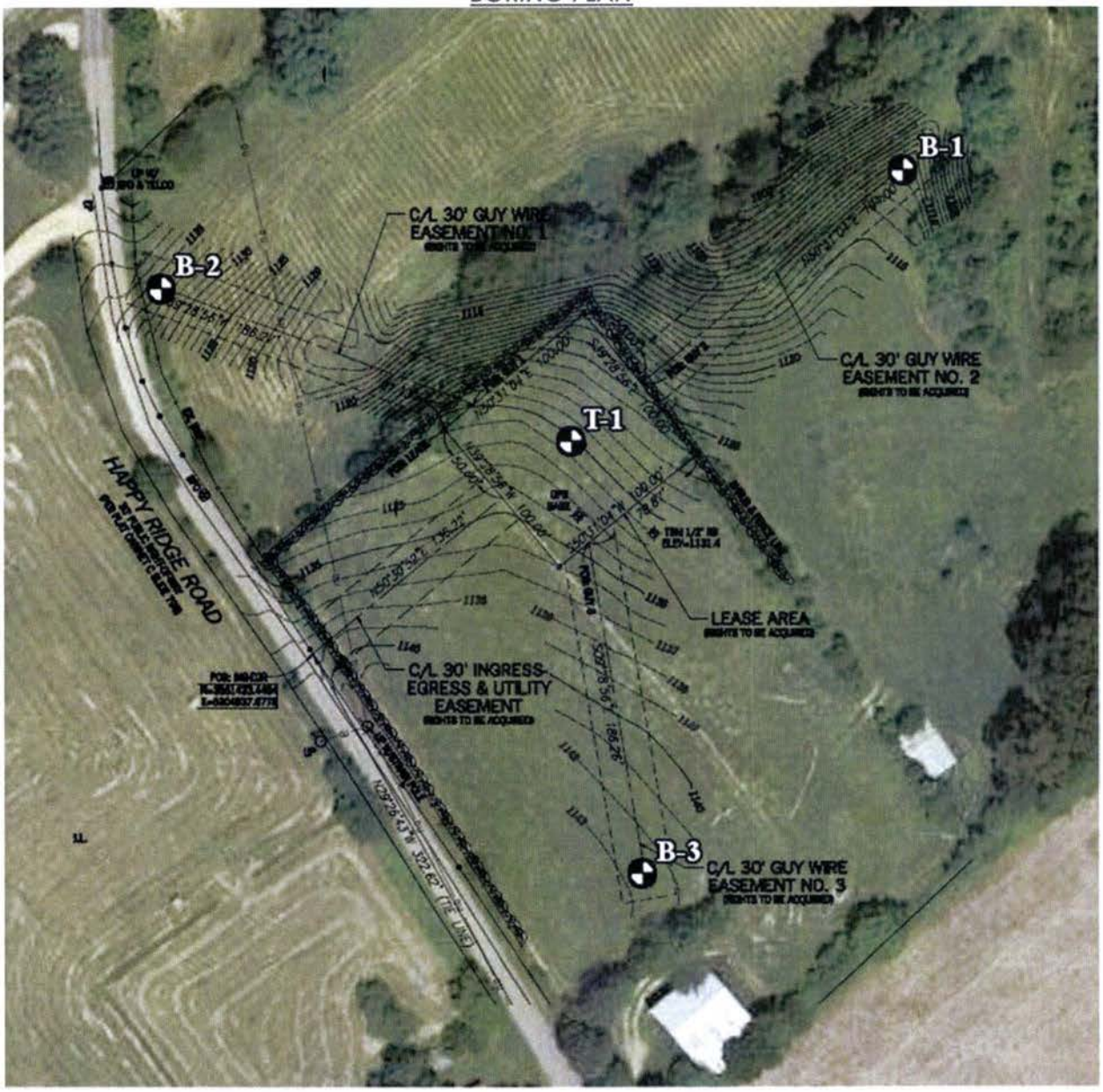
The subsurface conditions used in the determination of the design recommendations contained in this report are based on interpretation of subsurface data obtained at specific boring locations. Irrespective of the thoroughness of the subsurface investigation, the potential exists that conditions between borings will differ from those at the specific boring locations, that conditions are not as anticipated during the original analysis, or that the construction process has altered the soil conditions. That potential is significantly increased in locations where existing fill materials are encountered. Additionally, the nature and extent of these variations may not be evident until the commencement of construction. Therefore, a geotechnical engineer, or their representative, should observe construction practices to confirm that the site conditions do not differ from those conditions anticipated in design. If such variations are encountered, Delta Oaks Group should be contacted immediately in order to provide revisions and/or additional site exploration as necessary

Samples obtained during our subsurface field investigation will be retained by Delta Oaks Group for a period of 30 days unless otherwise instructed by B+T Group. No warranty, expressed or implied, is presented.

Delta Oaks Group appreciates the opportunity to be of service for this Geotechnical Investigation Report. Please do not hesitate to contact Delta Oaks Group with any questions or should you require additional service on this project.

APPENDIX

BORING PLAN


B-1
B-2
T-1
B-3
C/L 30' GUY WIRE EASEMENT NO. 1
C/L 30' GUY WIRE EASEMENT NO. 2
C/L 30' GUY WIRE EASEMENT NO. 3
LEASE AREA
C/L 30' INGRESS-EGRESS & UTILITY EASEMENT
HAPPY RIDGE ROAD

PROJECT NAME Happy Ridge Road

CLIENT B+T Group

PROJECT NUMBER GEO20-06844-08

Boring No.: B-1

PROJECT LOCATION 240 Happy Ridge Road, Nancy (Pulaski County), Kentucky 42544

DATE DRILLED : 8/13/2020

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 1135

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

AT TIME OF DRILLING : --- Not Encountered

AT END OF DRILLING : --- Not Encountered

AFTER DRILLING : --- Not Encountered

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL				3	3	5	8
	SANDY LEAN CLAY (CL), firm, reddish brown, trace gravel, moist		CL					
	-- Very stiff				6	8	8	16
5	-- Stiff				4	6	6	12
	-- Firm				3	4	4	8
10	-- Stiff				4	6	8	14
15	-- Very stiff				6	6	10	16
20	-- With gravel				6	8	8	16
	Bottom of borehole at 20.0 feet.							

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME Happy Ridge Road

CLIENT B+T Group

PROJECT NUMBER GEO20-06844-08

Boring No.: B-2

PROJECT LOCATION 240 Happy Ridge Road, Nancy (Pulaski County), Kentucky 42544

DATE DRILLED : 8/13/2020

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 1135

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

AT TIME OF DRILLING : --- Not Encountered

AT END OF DRILLING : --- Not Encountered

AFTER DRILLING : --- Not Encountered

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL				3	4	5	9
	CLAYEY SILT (CL - ML), stiff, brown, with sand, moist		CL-ML					
	SANDY LEAN CLAY (CL), stiff, reddish brown, trace gravel, moist		CL		5	6	8	14
5					3	4	7	11
					2	4	6	10
10					4	4	7	11
	-- Very stiff				5	8	8	16
15								
	-- With gravel				6	8	12	20
20	Bottom of borehole at 20.0 feet.							

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME Happy Ridge Road

CLIENT B+T Group

PROJECT NUMBER GEO20-06844-08

Boring No.: B-3

PROJECT LOCATION 240 Happy Ridge Road, Nancy (Pulaski County), Kentucky 42544

DATE DRILLED : 8/13/2020

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 1135

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

AT TIME OF DRILLING : --- Not Encountered

AT END OF DRILLING : --- Not Encountered

AFTER DRILLING : --- Not Encountered

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL				2	3	4	7
	CLAYEY SILT (CL - ML), firm, brown, with sand, trace organics, moist		CL-ML					
	-- Trace gravel				6	8	9	17
	SANDY LEAN CLAY (CL), very stiff, reddish brown, trace gravel, moist		CL		4	8	8	16
5								
					5	8	10	18
					4	7	12	19
10								
					6	6	17	23
15								
	-- Stiff				4	4	8	12
20								
	Bottom of borehole at 20.0 feet.							

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

PROJECT NAME Happy Ridge Road

CLIENT B+T Group

PROJECT NUMBER GEO20-06844-08

Boring No.: T-1

PROJECT LOCATION 240 Happy Ridge Road, Nancy (Pulaski County), Kentucky 42544

DATE DRILLED : 8/13/2020

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION : 1135

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

AT TIME OF DRILLING : --- Not Encountered

AT END OF DRILLING : --- Not Encountered

AFTER DRILLING : --- Not Encountered

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE
0	TOPSOIL				3	3	4	7
	CLAYEY SILT (CL - ML), firm, brown, with sand, moist		CL-ML					
	SANDY LEAN CLAY (CL), stiff, reddish brown, trace gravel, moist		CL		6	7	7	14
5	-- Very stiff				5	7	9	16
	-- Stiff				5	6	9	15
10	-- With gravel				3	5	6	11
15	-- Trace gravel				4	5	6	11
20					5	6	8	14
	Bottom of borehole at 20.0 feet.							

▲ SPT N VALUE ▲

10 20 30 40 50 60 70 80 90

EXHIBIT H
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site:

1. Beginning at 100 North Main Street, Somerset, KY, head south on N. Main Street (toward W. Mt. Vernon St) and travel approximately 62 feet.
2. Turn right onto W. Mt. Vernon St and travel approximately 0.3 miles.
3. Stay straight to continue onto Ohio St. and travel approximately 0.2 miles.
4. Make a slight left to continue onto Ogden St. and travel approximately 0.5 miles.
5. Turn right onto US-27 N and travel approximately 377 feet.
6. Turn left onto KY-80 W and travel approximately 2.4 miles.
7. Turn right onto KY-914 and travel approximately 1.0 miles. KY-914 merges into the ramp to the Cumberland Parkway West.
8. Merge onto the Cumberland Parkway West and continue for approximately 7.7 miles.
9. Take exit 78 for Ky-80 toward Nancy. Continue onto the exit ramp for approximately 0.3 miles.
10. Turn left onto KY-80 E and travel approximately 1.6 miles.
11. Turn left onto KY-2993 and travel approximately 0.7 miles.
12. Turn left onto Happy Ridge Road and travel approximately 0.3 miles
13. The site is on the right at 240 Happy Ridge Road.
14. The site coordinates are
    a. 37 deg 06 min 00.76 sec N
    b. 84 deg 46 min 36.42 sec W

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Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293

EXHIBIT I
COPY OF REAL ESTATE AGREEMENT

OPTION AND LEASE AGREEMENT

THIS OPTION AND LEASE AGREEMENT ("**Agreement**"), dated as of the latter of the signature dates below (the "**Effective Date**"), is entered into by Gladys Molden, 1/2 interest, Terry Molden, 1/4 interest and Charlotte Wells 1/4 interest, having a mailing address of 2128 Highway 2993, Nancy, KY 42544, ("**Landlord**") and Uniti Towers LLC, a Delaware limited liability company having a mailing address of 10802 Executive Center Drive, Benton Building, Suite 300, Little Rock AR 72211 ("**Tenant**").

BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, as described on **Exhibit 1,** together with all rights and privileges arising in connection therewith, located at 244 Happy Ridge Road in the City/Town of Nancy, County of Pulaski, State of Kentucky (collectively, the "**Property**"). Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

1. OPTION TO LEASE.

(a) Landlord grants to Tenant an exclusive option (the "**Option**") to lease a certain portion of the Property containing approximately 10,000 square feet including the air space above such ground space, as described on attached **Exhibit 1**, (the "**Premises**"), for the placement of a Communication Facility.

(b) During the Option Term, and during the Term, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect, examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "**Tests**"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "**Government Approvals**"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted.

(c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of within thirty (30) business days after the Effective Date. The Option may be exercised during an initial term of one (1) year commencing on the Effective Date (the "**Initial Option Term**") which term may be renewed by Tenant for an additional one (1) year (the "**Renewal Option Term**") upon written notification to Landlord and the payment of an additional no later than five (5) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "**Option Term**."

(d) The Option may be sold, assigned or transferred at any time by Tenant without the written consent of Landlord. Upon notification to Landlord of such sale, assignment, or transfer, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

(e) During the Option Term, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option, then Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement. If Tenant does not exercise the Option during the Initial Option Term or any extension thereof, this Agreement will terminate, and the parties will have no further liability to each other.

(f) If during the Option Term, or during the Term if the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the **"Surrounding Property**,") or in the event of a threatened foreclosure, Landlord shall immediately notify Tenant in writing. Landlord agrees that during the Option Term, or during the Term if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other use or restriction that would prevent or limit Tenant from using the Premises for the Permitted Use. Any and all terms and conditions of this Agreement that by their sense and context are intended to be applicable during the Option Term shall be so applicable.

2. PERMITTED USE. Tenant may use the Premises for the transmission and reception of communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure ("**Structure**"), associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the "**Communication Facility**"), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the "**Permitted Use**"). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on **Exhibit 1** will not be deemed to limit Tenant's Permitted Use. If **Exhibit 1** includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of **Exhibit 1**. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of the **Surrounding Property** as may reasonably be required during construction and installation of the Communication Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the Property's main entry point to the equipment shelter or cabinet, install a generator and to make other improvements, alterations, upgrades or additions appropriate for Tenant's Permitted Use including the right to construct a fence around the Premises or equipment, install warning signs to make individuals aware of risks, install protective barriers, install any other control measures reasonably required by Tenant's safety procedures or applicable law, and undertake any other appropriate means to secure the Premises or equipment at Tenant's expense. Tenant has the right to modify, supplement, replace, upgrade, expand the Communication Facility (including, for example, increasing the number of antennas or adding microwave dishes) or relocate the Communication Facility within the Premises at any time during the Term. Tenant will be allowed to make such alterations to the Property in order to ensure that the Communication Facility complies with all applicable federal, state or local laws, rules or regulations. In the event Tenant desires to modify or upgrade the Communication Facility, in a manner that requires an additional portion of the Property (the "**Additional Premises**") for such modification or upgrade, Landlord agrees to lease to Tenant the Additional Premises, upon the same terms and conditions set forth herein, except that the Rent shall increase, in conjunction with the lease of the Additional Premises by the amount equivalent to the then-current per square foot rental rate charged by Landlord to Tenant times the square footage of the Additional Premises. Landlord agrees to take such actions and enter into and deliver to Tenant such documents as Tenant reasonably requests in order to effect and memorialize the lease of the Additional Premises to Tenant.

3. TERM.

(a) The initial lease term will be five (5) years (the "**Initial Term**"), commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the "**Term Commencement Date**"). The Initial Term will terminate on the fifth (5^{th}) anniversary of the Term Commencement Date.

(b) This Agreement will automatically renew for seventeen (17) additional five (5) year term(s) (each additional five (5) year term shall be defined as an "**Extension Term**"), upon the same terms and

conditions set forth herein unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the Initial Term or then-existing Extension Term.

(c) Unless (i) Landlord or Tenant notifies the other in writing of its intention to terminate this Agreement at least six (6) months prior to the expiration of the final Extension Term, or (ii) the Agreement is terminated as otherwise permitted by this Agreement prior to the end of the final Extension Term, this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter ("**Annual Term**") until terminated by either party by giving to the other party written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rent during such Annual Terms shall be equal to the Rent paid for the last month of the final Extension Term. If Tenant remains in possession of the Premises after the termination of this Agreement, then Tenant will be deemed to be occupying the Premises on a month-to-month basis (the "**Holdover Term**"), subject to the terms and conditions of this Agreement.

(d) The Initial Term, any Extension Terms, any Annual Terms and any Holdover Term are collectively referred to as the "**Term**".

4. RENT.

(a) Commencing on the first day of the month following the date that Tenant commences construction (the "**Rent Commencement Date**"), Tenant will pay Landlord on or before the fifth (5th) day of each calendar month in advance, (the "**Rent**"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.

(b) In the first year of an Extension Term, the monthly Rent will increase by over the Rent paid during the previous five (5) year term, effective the first day of the month in which the anniversary of the Term Commencement Date occurs.

(c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

5. APPROVALS.

(a) Landlord agrees that Tenant's ability to use the Premises is contingent upon the suitability of the Premises and Property for the Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare, execute and file all required applications to obtain Government Approvals for the Permitted Use and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.

(b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of its choice.

(c) Tenant may also perform and obtain, at Tenant's sole cost and expense, soil borings, percolation tests, engineering procedures, environmental investigation or other tests or reports on, over, and under the Property, necessary to determine if Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system, design, operations or Government Approvals.

6. TERMINATION. This Agreement may be terminated, without penalty or further liability, as follows:

(a) by either party on thirty (30) days prior written notice, if the other party remains in default under Section 15 of this Agreement after the applicable cure periods;

(b) by Tenant upon written notice to Landlord, if Tenant is unable to obtain, or maintain, any required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communication Facility as now or hereafter intended by Tenant; or if Tenant determines, in its sole discretion that the cost of or delay in obtaining or retaining the same is commercially unreasonable;

(c) by Tenant, upon written notice to Landlord, if Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory for its intended uses;

(d) by Tenant upon written notice to Landlord for any reason or no reason, at any time prior to commencement of construction by Tenant; or

(e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee equal

provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any termination provision contained in any other Section of this Agreement, including the following: Section 5 Approvals, Section 6(a) Termination, Section 6(b) Termination, Section 6(c) Termination, Section 6(d) Termination, Section 11(d) Environmental, Section 18 Condemnation or Section 19 Casualty.

7. **INSURANCE.** During the Option Term and throughout the Term, Tenant will purchase and maintain in full force and effect such general liability policy as Tenant may deem necessary. Said policy of general liability insurance will at a minimum provide a combined single limit of

Notwithstanding the foregoing, Tenant shall have the right to self-insure such general liability coverage.

8. **INTERFERENCE.**

(a) Prior to or concurrent with the execution of this Agreement, Landlord has provided or will provide Tenant with a list of radio frequency user(s) and frequencies used on the Property as of the Effective Date. Tenant warrants that its use of the Premises will not interfere with those existing radio frequency uses on the Property, as long as the existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.

(b) Landlord will not grant, after the Effective Date, a lease, license or any other right to any third party, if the exercise of such grant may in any way adversely affect or interfere with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will notify Tenant in writing prior to granting any third party the right to install and operate communications equipment on the Property.

(c) Landlord will not, nor will Landlord permit its employees, tenants, licensees, invitees, agents or independent contractors to interfere in any way with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period, Landlord shall cease all operations which are suspected of causing interference (except for intermittent testing to determine the cause of such interference) until the interference has been corrected.

(d) For the purposes of this Agreement, "interference" may include, but is not limited to, any use on the Property or Surrounding Property that causes electronic or physical obstruction with, or degradation of, the communications signals from the Communication Facility.

9. **INDEMNIFICATION.**

(a) Tenant agrees to indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or liability , costs or expenses in connection with a third party claim (including reasonable attorneys' fees and court costs) arising directly from the installation, use, maintenance, repair or removal of the Communication Facility or Tenant's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Landlord, its employees, invitees, agents or independent contractors.

(b) Landlord agrees to indemnify, defend and hold Tenant harmless from and against any and all injury, loss, damage or liability , costs or expenses in connection with a third party claim (including reasonable attorneys' fees and court costs) arising directly from the actions or failure to act of Landlord, its employees, invitees agents or independent contractors, or Landlord's breach of any provision of this Agreement, except to the extent attributable to the negligent or intentional act or omission of Tenant, its employees, agents or

independent contractors.

(c) The indemnified party: (i) shall promptly provide the indemnifying party with written notice of any claim, demand, lawsuit, or the like for which it seeks indemnification pursuant to this Section and provide the indemnifying party with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (ii) shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of the indemnifying party; and (iii) shall fully cooperate with the indemnifying party in the defense of the claim, demand, lawsuit, or the like. A delay in notice shall not relieve the indemnifying party of its indemnity obligation, except (1) to the extent the indemnifying party can show it was prejudiced by the delay; and (2) the indemnifying party shall not be liable for any settlement or litigation expenses incurred before the time when notice is given.

10. WARRANTIES.

(a) Each of Tenant and Landlord (to the extent not a natural person) acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority or capacity, as applicable, to enter into this Agreement and bind itself hereto through the party or individual set forth as signatory for the party below.

(b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises without hindrance or ejection by any persons lawfully claiming under Landlord ; (iv) Landlord's execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement executed by Landlord and the holder of such security interest in the form attached hereto as **Exhibit 10(b)**.

11. ENVIRONMENTAL.

(a) Landlord represents and warrants, except as may be identified in **Exhibit 11** attached to this Agreement, (i) the Property, as of the Effective Date, is free of hazardous substances, including asbestos-containing materials and lead paint, and (ii) the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Property.

(b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding ("**Claims**"), to the extent arising from that party's breach of its obligations or representations under Section 11(a). Landlord agrees to hold harmless and indemnify Tenant from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Landlord for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from subsurface or other contamination of the Property with hazardous substances prior to the Effective Date or from such contamination caused by the acts or omissions of Landlord during the Term. Tenant agrees to hold harmless and indemnify Landlord from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Tenant for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from hazardous substances brought onto the Property by Tenant.

(c) The indemnification provisions contained in this Section 11 specifically include reasonable costs, expenses and fees incurred in connection with any investigation of Property conditions or any clean-up, remediation, removal or restoration work required by any governmental authority. The provisions of this Section 11 will survive the expiration or termination of this Agreement.

(d) In the event Tenant becomes aware of any hazardous materials on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.

12. ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("**Access**") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in **Exhibit 1**, Landlord grants to Tenant an easement for such Access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such Access at no additional cost to Tenant. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant Access to the Property substantially in the form attached as **Exhibit 12**; upon Tenant's request, Landlord shall execute additional letters during the Term. Landlord acknowledges that in the event Tenant cannot obtain Access to the Premises, Tenant shall incur significant damage. If Landlord fails to provide the Access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of Access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages.

13. REMOVAL/RESTORATION. All portions of the Communication Facility brought onto the Property by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during or after the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of Tenant and may be removed by Tenant at any time during or after the Term. Tenant will repair any damage to the Property resulting from Tenant's removal activities. Any portions of the Communication Facility that Tenant does not remove within one hundred twenty (120) days after the later of the end of the Term and cessation of Tenant's operations at the Premises shall be deemed abandoned and owned by Landlord. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation.

14. MAINTENANCE/UTILITIES.

(a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements. Landlord will be responsible for maintenance of landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.

(b) Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense,

to sub-meter from Landlord. When sub-metering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Tenant shall reimburse Landlord for such utility usage at the same rate charged to Landlord by the utility service provider. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within sixty (60) days of receipt of the usage data and required forms. Landlord shall maintain accurate and detailed records of all utility expenses, invoices and payments applicable to Tenant's reimbursement obligations hereunder. Within fifteen (15) days after a request from Tenant, Landlord shall provide copies of such utility billing records to the Tenant in the form of copies of invoices, contracts and cancelled checks. If the utility billing records reflect an overpayment by Tenant, Tenant shall have the right to deduct the amount of such overpayment from any monies due to Landlord from Tenant.

(c) As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advance notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.

(d) Tenant will have the right to install utilities, at Tenant's expense, and to improve present utilities on the Property and the Premises. Landlord hereby grants to any service company providing utility or similar services, including electric power and telecommunications, to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such service companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or service company's request, Landlord will execute a separate recordable easement evidencing this grant, at no cost to Tenant or the service company.

15. DEFAULT AND RIGHT TO CURE.

(a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) non-payment of Rent if such Rent remains unpaid for more than thirty (30) days after written notice from Landlord of such failure to pay; or (ii) Tenant's failure to perform any other term or condition under this Agreement within forty-five (45) days after written notice from Landlord specifying the failure. No such failure, however, will be deemed to exist if Tenant has commenced to cure such default within such period and provided that such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Tenant. If Tenant remains in default beyond any applicable cure period, Landlord will have the right to exercise any and all rights and remedies available to it under law and equity.

(b) The following will be deemed a default by Landlord and a breach of this Agreement: (i) Landlord's failure to provide Access to the Premises as required by Section 12 within twenty-four (24) hours after written notice of such failure; (ii) Landlord's failure to cure an interference problem as required by Section 8 within twenty-four (24) hours after written notice of such failure; or (iii) Landlord's failure to perform any term, condition or breach of any warranty or covenant under this Agreement within forty-five (45) days after written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have: (i) the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant, and (ii) any and all other rights available to it under law and equity.

16. ASSIGNMENT/SUBLEASE. Tenant will have the right to assign this Agreement or sublease the Premises and its rights herein, in whole or in part, without Landlord's consent. Upon notification to Landlord of such assignment, Tenant will be relieved of all future performance, liabilities and obligations under this Agreement to the extent of such assignment.

17. NOTICES. All notices, requests and demands hereunder will be given by first class certified or registered mail, return receipt requested, or by a nationally recognized overnight courier, postage prepaid, to be effective when properly sent and received, refused or returned undelivered. Notices will be addressed to the parties as follows:

If to Tenant:
Uniti Towers LLC
Attn: Real Estate
10801 Executive Center Drive
Shannon Building, Suite 100
Little Rock AR 72211
501.458.4724

CC:
Uniti Towers LLC
ATTN: Keith Harvey, Deputy General Counsel
10802 Executive Center Drive
Benton Building, Suite 300
Little Rock AR 72211

For Emergencies:
NOC 1-844-398-9716

If to Landlord:
Gladys Molden, Terry Molden, and Charlotte Wells
2128 Highway 2993
Nancy, KY 42544
Telephone: (606) 875-8722

Either party hereto may change the place for the giving of notice to it by thirty (30) days' prior written notice to the other party as provided herein.

18. CONDEMNATION. In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within twenty-four (24) hours. If a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a *pro rata* basis.

19. CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within twenty-four (24) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a *pro rata* basis. Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of this Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or

Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Property, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant and Tenant decides not to terminate under this Section, then Landlord will promptly rebuild or restore any portion of the Property interfering with or required for Tenant's Permitted Use of the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Property and/or the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.

20. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law; Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.

21. TAXES.

(a) Landlord shall be responsible for (i) all taxes and assessments levied upon the lands, improvements and other property of Landlord including any such taxes that may be calculated by a taxing authority using any method, including the income method (ii) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with this Agreement and (iii) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with a sale of the Property or assignment of Rent payments by Landlord. Tenant shall be responsible for (y) any taxes and assessments attributable to and levied upon Tenant's leasehold improvements on the Premises if and as set forth in this Section 21 and (z) all sales, use, license, value added, documentary, stamp, gross receipts, registration, real estate transfer, conveyance, excise, recording, and other similar taxes and fees imposed in connection with an assignment of this Agreement or sublease by Tenant. Nothing herein shall require Tenant to pay any inheritance, franchise, income, payroll, excise, privilege, rent, capital stock, stamp, documentary, estate or profit tax, or any tax of similar nature, that is or may be imposed upon Landlord.

(b) In the event Landlord receives a notice of assessment with respect to which taxes or assessments are imposed on Tenant's leasehold improvements on the Premises, Landlord shall provide Tenant with copies of each such notice immediately upon receipt, but in no event later than thirty (30) days after the date of such notice of assessment. If Landlord does not provide such notice or notices to Tenant in a timely manner and Tenant's rights with respect to such taxes are prejudiced by the delay, Landlord shall reimburse Tenant for any increased costs directly resulting from the delay and Landlord shall be responsible for payment of the tax or assessment set forth in the notice, and Landlord shall not have the right to reimbursement of such amount from Tenant. If Landlord provides a notice of assessment to Tenant within such time period and requests reimbursement from Tenant as set forth below, then Tenant shall reimburse Landlord for the tax or assessments identified on the notice of assessment on Tenant's leasehold improvements, which has been paid by Landlord. If Landlord seeks reimbursement from Tenant, Landlord shall, no later than thirty (30) days after Landlord's payment of the taxes or assessments for the assessed tax year, provide Tenant with written notice including evidence that Landlord has timely paid same, and Landlord shall provide to Tenant any other documentation reasonably requested by Tenant to allow Tenant to evaluate the payment and to reimburse Landlord.

(c) For any tax amount for which Tenant is responsible under this Agreement, Tenant shall have the right to contest, in good faith, the validity or the amount thereof using such administrative, appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as permitted by law. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate with respect to the commencement and prosecution of any such

proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant, to the extent the amounts were originally paid by Tenant. In the event Tenant notifies Landlord by the due date for assessment of Tenant's intent to contest the assessment, Landlord shall not pay the assessment pending conclusion of the contest, unless required by applicable law.

(d) Landlord shall not split or cause the tax parcel on which the Premises are located to be split, bifurcated, separated or divided without the prior written consent of Tenant.

(e) Tenant shall have the right but not the obligation to pay any taxes due by Landlord hereunder if Landlord fails to timely do so, in addition to any other rights or remedies of Tenant. In the event that Tenant exercises its rights under this Section 21(e) due to such Landlord default, Tenant shall have the right to deduct such tax amounts paid from any monies due to Landlord from Tenant as provided in Section 15(b), provided that Tenant may exercise such right without having provided to Landlord notice and the opportunity to cure per Section 15(b).

(f) Any tax-related notices shall be sent to Tenant in the manner set forth in Section 17. Promptly after the Effective Date of this Agreement, Landlord shall provide the Notice address set forth in Section 17 to the taxing authority for the authority's use in the event the authority needs to communicate with Tenant. In the event that Tenant's tax address changes by notice to Landlord, Landlord shall be required to provide Tenant's new tax address to the taxing authority or authorities.

(g) Notwithstanding anything to the contrary contained in this Section 21, Tenant shall have no obligation to reimburse any tax or assessment for which the Landlord is reimbursed or rebated by a third party.

22. SALE OF PROPERTY.

(a) Landlord may sell the Property or a portion thereof to a third party, provided: (i) the sale is made subject to the terms of this Agreement; and (ii) if the sale does not include the assignment of Landlord's full interest in this Agreement, the purchaser must agree to perform, without requiring compensation from Tenant or any subtenant, any obligation of Landlord under this Agreement, including Landlord's obligation to cooperate with Tenant as provided hereunder.

(b) If Landlord, at any time during the Term of this Agreement, decides to rezone or sell, subdivide or otherwise transfer all or any part of the Premises, or all or any part of the Property or Surrounding Property, to a purchaser other than Tenant, Landlord shall promptly notify Tenant in writing, and such rezoning, sale, subdivision or transfer shall be subject to this Agreement and Tenant's rights hereunder. In the event of a change in ownership, transfer or sale of the Property, within ten (10) days of such transfer, Landlord or its successor shall send the documents listed below in this Section 22(b) to Tenant. Until Tenant receives all such documents, Tenant's failure to make payments under this Agreement shall not be an event of default and Tenant reserves the right to hold payments due under this Agreement.

i. Old deed to Property
ii. New deed to Property
iii. Bill of Sale or Transfer
iv. Copy of current Tax Bill
v. New IRS Form W-9
vi. Completed and Signed Tenant Payment Direction Form
vii. Full contact information for new Landlord including phone number(s)

(c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communication facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion. Landlord or Landlord's prospective purchaser shall reimburse Tenant for any costs and expenses of such testing. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communication facility or equipment.

(d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.

23. RIGHT OF FIRST REFUSAL. Notwithstanding the provisions contained in Section 22, if at any time after the Effective Date, Landlord receives a bona fide written offer from a third party seeking any sale, conveyance, assignment or transfer, whether in whole or in part, of any property interest in or related to the Premises, including without limitation any offer seeking an assignment or transfer of the Rent payments associated with this Agreement or an offer to purchase an easement with respect to the Premises ("**Offer**"), Landlord shall immediately furnish Tenant with a copy of the Offer. Tenant shall have the right within ninety (90) days after it receives such copy to match the financial terms of the Offer and agree in writing to match such terms of the Offer. Such writing shall be in the form of a contract substantially similar to the Offer, but Tenant may assign its rights to a third party. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the ninety (90) day period, Landlord may sell, convey, assign or transfer such property interest in or related to the Premises pursuant to the Offer, subject to the terms of this Agreement. If Landlord attempts to sell, convey, assign or transfer such property interest in or related to the Premises without complying with this Section 23, the sale, conveyance, assignment or transfer shall be void. Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement until Landlord complies with this Section 23. Tenant's failure to exercise the right of first refusal shall not be deemed a waiver of the rights contained in this Section 23 with respect to any future proposed conveyances as described herein.

24. MISCELLANEOUS.

(a) **Amendment/Waiver.** This Agreement cannot be amended, modified or revised unless done in writing and signed by Landlord and Tenant. No provision may be waived except in a writing signed by both parties. The failure by a party to enforce any provision of this Agreement or to require performance by the other party will not be construed to be a waiver, or in any way affect the right of either party to enforce such provision thereafter.

(b) **Memorandum.** Contemporaneously with the execution of this Agreement, the parties will execute a recordable Memorandum of Lease substantially in the form attached as **Exhibit 24b**. Either party may record this Memorandum of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term, either party will, at any time upon fifteen (15) business days' prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum of Lease.

(c) **Limitation of Liability**. Except for the indemnity obligations set forth in this Agreement, and otherwise notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.

(d) **Compliance with Law**. Tenant agrees to comply with all federal, state and local laws, orders, rules and regulations ("**Laws**") applicable to Tenant's use of the Communication Facility on the Property. Landlord agrees to comply with all Laws relating to Landlord's ownership and use of the Property and any improvements on the Property.

(e) **Bind and Benefit.** The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.

(f) **Entire Agreement.** This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and agreements with respect to the subject matter of this Agreement. Exhibits are numbered to correspond to the Section wherein they are first referenced. Except as otherwise stated in this Agreement, each party shall bear its own fees and expenses (including the fees and expenses of its agents, brokers, representatives, attorneys, and accountants) incurred in connection with the negotiation, drafting, execution and performance of this Agreement and the transactions it contemplates.

(g) **Governing Law.** This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.

(h) **Interpretation.** Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in the Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; (viii) the singular use of words includes the plural where appropriate and (ix) if any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall remain in full force if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired.

(i) **Affiliates.** All references to "Tenant" shall be deemed to include any Affiliate of Uniti Towers LLC using the Premises for any Permitted Use or otherwise exercising the rights of Tenant pursuant to this Agreement. "Affiliate" means with respect to a party to this Agreement, any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, that party. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise.

(j) **Survival**. Any provisions of this Agreement relating to indemnification shall survive the termination or expiration hereof. In addition, any terms and conditions contained in this Agreement that by their sense and context are intended to survive the termination or expiration of this Agreement shall so survive.

(k) **W-9.** As a condition precedent to payment, Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Tenant, including any change in Landlord's name or address.

(l) **Execution/No Option.** The submission of this Agreement to any party for examination or consideration does not constitute an offer, reservation of or option for the Premises based on the terms set forth herein. This Agreement will become effective as a binding Agreement only upon the handwritten legal execution, acknowledgment and delivery hereof by Landlord and Tenant. This Agreement may be executed in two (2) or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties. All parties need not sign the same counterpart.

(m) **Attorneys' Fees.** In the event that any dispute between the parties related to this Agreement should result in litigation, the prevailing party in such litigation shall be entitled to recover from the other party all reasonable fees and expenses of enforcing any right of the prevailing party, including reasonable attorneys' fees and expenses. Prevailing party means the party determined by the court to have most nearly prevailed even if such party did not prevail in all matters. This provision will not be construed to entitle any party other than Landlord, Tenant and their respective Affiliates to recover their fees and expenses.

(n) **WAIVER OF JURY TRIAL**. EACH PARTY, TO THE EXTENT PERMITTED BY LAW, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING UNDER ANY THEORY OF LIABILITY ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR THE TRANSACTIONS IT CONTEMPLATES.

(o) **Incidental Fees.** Unless specified in this Agreement, no unilateral fees or additional costs or expenses are to be applied by either party to the other party, including review of plans, structural analyses, consents, provision of documents or other communications between the parties.

(p) **Further Acts.** Upon request, Landlord will cause to be promptly and duly taken, executed, acknowledged and delivered all such further acts, documents, and assurances as Tenant may request from time to time in order to effectuate, carry out and perform all of the terms, provisions and conditions of this Agreement and all transactions and permitted use contemplated by this Agreement.

(q) **Force Majeure.** No party shall be liable or responsible to the other party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term

of this Agreement, when and to the extent such failure or delay is caused by or results from acts beyond the affected party's reasonable control, including, without limitation: (a) acts of God; (b) flood, fire, earthquake, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) government order or law; (e) embargoes, or blockades in effect on or after the date of this Agreement; (f) action by any governmental authority; (g) national or regional emergency; and (h) strikes, labor stoppages or slowdowns, or other industrial disturbances. The party suffering a force majeure event shall give written notice to the other party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized.

[SIGNATURES APPEAR ON NEXT PAGE]

IN WITNESS WHEREOF, the parties have caused this Agreement to be effective as of the last date written below.

"LANDLORD"

Gladys Molden, 1/2 interest, Terry Molden, 1/4 interest and Charlotte Wells 1/4 interest

By: Gladys Molden
Print Name: Gladys Molden
Date: 3-2-2020

By: Terry D. Molden
Print Name: Terry Molden
Date: 3-2-2020

By: Charlotte A. Wells
Print Name: Charlotte Wells
Date: 3-2-2020

"TENANT"

Uniti Towers LLC

By: Ginger Majors
Print Name: Ginger Majors
Its: VP-Real Estate
Date: 3/13/2020

[ACKNOWLEDGMENTS APPEAR ON NEXT PAGE]

TENANT ACKNOWLEDGMENT

STATE OF ARKANSAS

COUNTY OF PULASKI

On the 13th day of March, 2020, before me personally appeared Ginger Majors, who acknowledged under oath that he/ she is the VP-Real Estate of Uniti Towers LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

Michelle Sutton

Notary Public: Michelle Sutton
My Commission Expires: 4-30-2028

MICHELLE SUTTON
Pulaski County
Commission Number 12704183
Notary Public - Arkansas
My Commission Expires April 30, 2028

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Pulaski

BE IT REMEMBERED, that on this 2 day of March, 2020 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Gladys Molden** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.

Kody Reynolds

Notary Public: Kody Reynolds
My Commission Expires: 11/5/21

Notary ID: 588755

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Pulaski

BE IT REMEMBERED, that on this 2 day of March, 2020 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Terry Molden** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.

Kody Reynolds

Notary Public: Kody Reynolds

My Commission Expires: 11/5/21

Notary ID: 588755

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky

COUNTY OF Pulaski

BE IT REMEMBERED, that on this 2 day of March, 2020 before me, the subscriber, a person authorized to take oaths in the State of Kentucky, personally appeared **Charlotte Wells** who, being duly sworn on his/her/their oath, deposed and made proof to my satisfaction that he/she/they is/are the person(s) named in the within instrument; and I, having first made known to him/her/them the contents thereof, he/she/they did acknowledge that he/she/they signed, sealed and delivered the same as his/her/their voluntary act and deed for the purposes therein contained.

Kody Reynolds

Notary Public: Kody Reynolds

My Commission Expires: 11/5/21

Notary ID: 588755

EXHIBIT 1

DESCRIPTION OF PREMISES

to the Option and Lease Agreement dated March 13, 2020, by and between Gladys Molden, 1/2 interest, Terry Molden, 1/4 interest and Charlotte Wells 1/4 interest, as Landlord, and Uniti Towers LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:
Tract I:
A certain tract or parcel of land located on the West side of Happy Ridge Road and on the North side of Molden Lane in Pulaski County, Kentucky, at the junction of Happy Ridge Road and Molden Lane, and being more particularly described as follows:
BEING ALL OF TRACT 1 of property designated as Delmer Molden Estate Project having an area of 1.0356 acres, as evidenced by Plat of said property of record in Plat Cabinet C, Slide 798, Pulaski County Court Clerk's Office, Kentucky.
All corners or witness monuments referred to on said Plat as Iron Pins Set, are one-half inch rebar 18 inches long and capped with an orange cap marked LS 1253, except as otherwise noted. All bearings are referenced to the meridian.
This property is subject to any and all Rights of Way and/or easements of record or in existence as this time and regulations that may apply through planning and zoning.
Tract II:
A certain tract or parcel of land located on the East side of Happy Ridge Road in Pulaski County, Kentucky, at the junction of Happy Ridge Road and Molden Lane, and being more particularly described as follows:
BEING ALL OF TRACT 3 of property designated as Delmer Molden Estate Project having an area of 11.6297 acres, as
evidenced by Plat of said property of record in Plat Cabinet C, Slide 798, Pulaski County Court Clerk's Office, Kentucky.
All corners or witness monuments referred to on said Plat as Iron Pins Set, are one-half inch rebar 18 inches long and capped with an orange cap marked LS 1253, except as otherwise noted. All bearings are referenced to the meridian.
This property is subject to any and all Rights of Way and/or easements of record or in existence as this time and regulations that may apply through planning and zoning.
AND BEING the same property conveyed to Virl Dean Molden and Gladys Molden from Virl Dean Molden and Gladys Molden, Vertrees Molden and Shirley Molden, Larry Molden and Rita Molden, Delmer Molden, Jr. and Lynn Molden, Linda Joy Adams and Thomas Jeffrey Adams, Lisa Jill Fothergill and Mark David Fothergill, Debra Molden Carrington and Frank Carrington by Deed dated April 26, 2002 and recorded February 21, 2003 in Deed Book 711, Page 340; AND FURTHER CONVEYED to Gladys Molden, 1/2 interest, Terry Molden, 1/4 interest and Charlotte Wells 1/4 interest from Virl Dean Molden by Affidavit of Descent dated April 23, 2013 and recorded April 23, 2013 in Deed Book 897, Page 539.
Tax Parcel No. 019-0-0-32

The Premises are described and/or depicted as follows:

LEASE AREA
All that tract or parcel of land lying and being in Pulaski County, Kentucky and being a portion of Tract 3 of the Delmer Molden Estate, as recorded in Plat Cabinet C, Slide 798, Pulaski County records, and being more particularly described as follows:

To find the point of beginning, COMMENCE at the centerline intersection of Happy Ridge Road (having a 30-foot right-of-way) and Molden Lane (having a 30-foot right-of-way), said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561152.5056 E: 5205096.2746; thence running along a tie line, North 29°26'43" West, 322.62 feet to a point on the easterly right-of-way line of Happy Ridge Road, said point having a Kentucky Grid North, NAD83, Single Zone

value of N: 3561433.4494 E: 5204937.6778; thence leaving said right-of-way line and running, North 50°30'52" East, 136.22 feet to a point on the Lease Area; thence running along said Lease Area, North 39°28'56" West, 50.00 to a point and the true POINT OF BEGINNING; Thence running, North 50°31'04" East, 100.00 feet to a point; Thence, South 39°28'56" East, 100.00 feet to a point; Thence, South 50°31'04" West, 100.00 feet to a point; Thence, North 39°28'56" West, 100.00 feet to a point and the POINT OF BEGINNING.

Bearings based on Kentucky Grid North, NAD83, Single Zone.

Said tract contains 0.2296 acres (10,000 square feet), more or less, as shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated January 28, 2020.

30' INGRESS-EGRESS & UTILITY EASEMENT
Together with a 30-foot wide Ingress-Egress and Utility Easement (lying 15 feet each side of centerline) lying and being in Pulaski County, Kentucky and being a portion of Tract 3 of the Delmer Molden Estate, as recorded in Plat Cabinet C, Slide 798, Pulaski County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE at the centerline intersection of Happy Ridge Road (having a 30-foot right-of-way) and Molden Lane (having a 30-foot right-of-way), said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561152.5056 E: 5205096.2746; thence running along a tie line, North 29°26'43" West, 322.62 feet to a point on the easterly right-of-way line of Happy Ridge Road, said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561433.4494 E: 5204937.6778 and the true POINT OF BEGINNING; Thence leaving said right-of-way line and running, North 50°30'52" East, 136.22 feet to the ENDING at a point on the Lease Area.

Bearings based on Kentucky Grid North, NAD83, Single Zone.

As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated January 28, 2020.

30' GUY WIRE EASEMENT NO. 1
Together with a 30-foot Guy Wire Easement (lying 15 feet each side of centerline and extending 15 feet beyond the point of termination) lying and being in Pulaski County, Kentucky and being a portion of Tract 3 of the Delmer Molden Estate, as recorded in Plat Cabinet C, Slide 798, Pulaski County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE at the centerline intersection of Happy Ridge Road (having a 30-foot right-of-way) and Molden Lane (having a 30-foot right-of-way), said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561152.5056 E: 5205096.2746; thence running along a tie line, North 29°26'43" West, 322.62 feet to a point on the easterly right-of-way line of Happy Ridge Road, said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561433.4494 E: 5204937.6778; thence leaving said right-of-way line and running, North 50°30'52" East, 136.22 feet to a point on the Lease Area; thence running along said Lease Area, North 39°28'56" West, 50.00 to a point; thence, North 50°31'04" East, 21.13 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, North 69°28'56" West, 186.27 feet to the ENDING at a point.

Bearings based on Kentucky Grid North, NAD83, Single Zone.

As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated January 28, 2020.

30' GUY WIRE EASEMENT NO. 2
Together with a 30-foot Guy Wire Easement (lying 15 feet each side of centerline and extending 15 feet beyond the point of termination) lying and being in Pulaski County, Kentucky and being a portion of Tract 3 of the Delmer Molden Estate, as recorded in Plat Cabinet C, Slide 798, Pulaski County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE at the centerline intersection of Happy Ridge Road (having a 30-foot right-of-way) and Molden Lane (having a 30-foot right-of-way), said point having a Kentucky Grid North, NAD83, Single Zone

value of N: 3561152.5056 E: 5205096.2746; thence running along a tie line, North 29°26'43" West, 322.62 feet to a point on the easterly right-of-way line of Happy Ridge Road, said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561433.4494 E: 5204937.6778; thence leaving said right-of-way line and running, North 50°30'52" East, 136.22 feet to a point on the Lease Area; thence running along said Lease Area, North 39°28'56" West, 50.00 to a point; thence, North 50°31'04" East, 100.00 feet to a point; thence, South 39°28'56" East, 50.00 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, North 50°31'04" East, 194.00 feet to the ENDING at a point.

Bearings based on Kentucky Grid North, NAD83, Single Zone.

As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated January 28, 2020.

30' GUY WIRE EASEMENT NO. 3

Together with a 30-foot Guy Wire Easement (lying 15 feet each side of centerline and extending 15 feet beyond the point of termination) lying and being in Pulaski County, Kentucky and being a portion of Tract 3 of the Delmer Molden Estate, as recorded in Plat Cabinet C, Slide 798, Pulaski County records, and being more particularly described by the following centerline data:

To find the point of beginning, COMMENCE at the centerline intersection of Happy Ridge Road (having a 30-foot right-of-way) and Molden Lane (having a 30-foot right-of-way), said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561152.5056 E: 5205096.2746; thence running along a tie line, North 29°26'43" West, 322.62 feet to a point on the easterly right-of-way line of Happy Ridge Road, said point having a Kentucky Grid North, NAD83, Single Zone value of N: 3561433.4494 E: 5204937.6778; thence leaving said right-of-way line and running, North 50°30'52" East, 136.22 feet to a point on the Lease Area; thence running along said Lease Area, North 39°28'56" West, 50.00 to a point; thence, North 50°31'04" East, 100.00 feet to a point; thence, South 39°28'56" East, 100.00 feet to a point; thence, South 50°31'04" West, 78.87 feet to a point and the true POINT OF BEGINNING; Thence leaving said Lease Area and running, South 09°28'56" East, 186.26 feet to the ENDING at a point.

Bearings based on Kentucky Grid North, NAD83, Single Zone.

As shown in a survey prepared for Uniti Towers, LLC by POINT TO POINT LAND SURVEYORS, INC. dated January 28, 2020.

Notes:

1. THIS EXHIBIT MAY BE REPLACED BY A LAND SURVEY AND/OR CONSTRUCTION DRAWINGS OF THE PREMISES ONCE RECEIVED BY TENANT.
2. ANY SETBACK OF THE PREMISES FROM THE PROPERTY'S BOUNDARIES SHALL BE THE DISTANCE REQUIRED BY THE APPLICABLE GOVERNMENT AUTHORITIES.
3. WIDTH OF ACCESS ROAD SHALL BE THE WIDTH REQUIRED BY THE APPLICABLE GOVERNMENT AUTHORITIES, INCLUDING POLICE AND FIRE DEPARTMENTS.
4. THE TYPE, NUMBER AND MOUNTING POSITIONS AND LOCATIONS OF ANTENNAS AND TRANSMISSION LINES ARE ILLUSTRATIVE ONLY. ACTUAL TYPES, NUMBERS AND MOUNTING POSITIONS MAY VARY FROM WHAT IS SHOWN ABOVE.

PARENT PARCEL

OWNER: VIRL & GLADYS MOLDEN

SITE ADDRESS: 191 HAPPY RIDGE RD, NANCY, KY 42544

PARCEL ID: 019-00-032

AREA: 12.000 ACRES PER TAX ASSESSOR

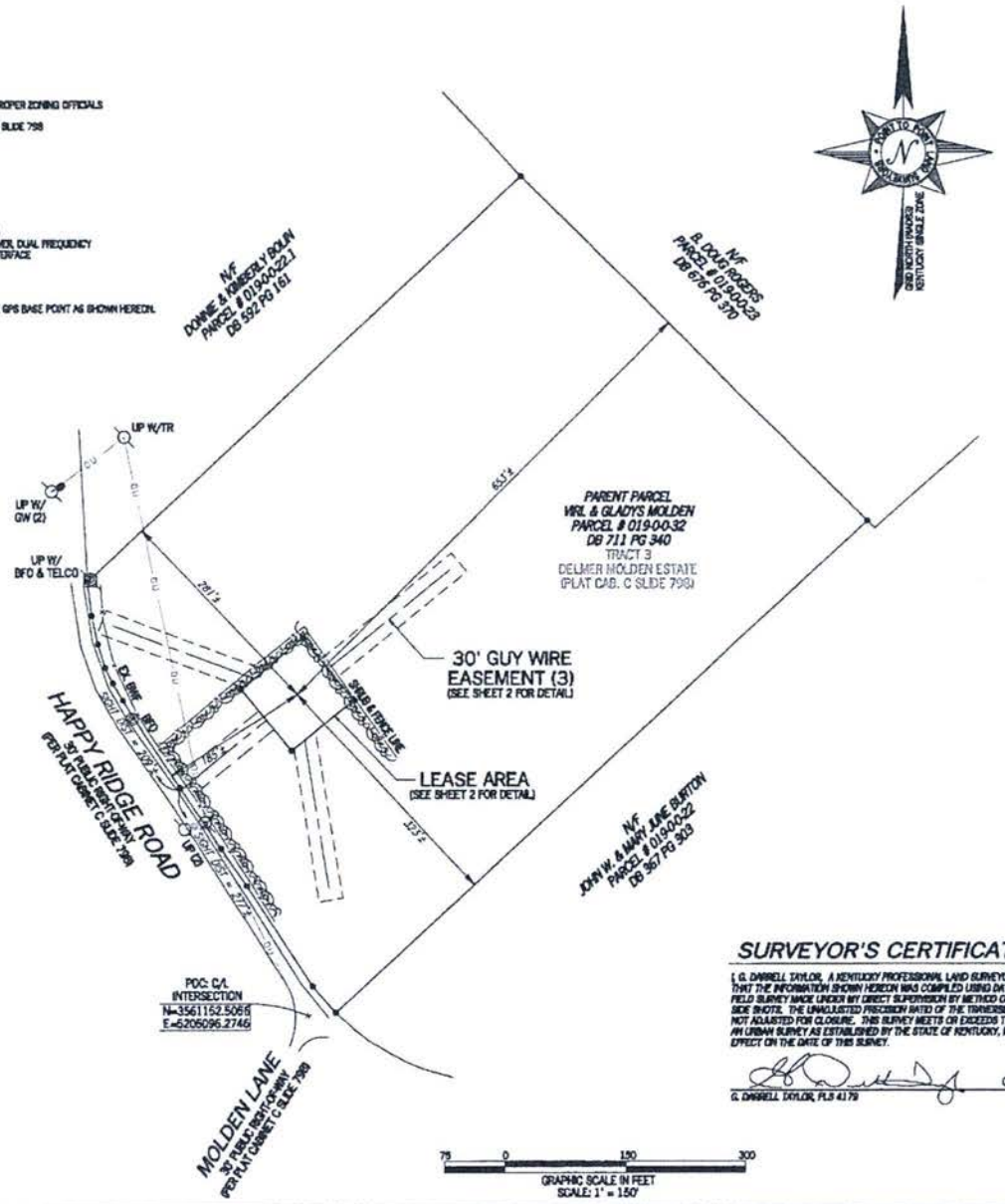
ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS

REFERENCE: DEED BOOK 711 PAGE 340 & PLAT CABINET C SLIDE 798

GPS NOTES

THE FOLLOWING GPS STATISTICS UPON WHICH THIS SURVEY IS BASED HAVE BEEN PRODUCED AT THE 95% CONFIDENCE LEVEL:

POSITIONAL ACCURACY: 0.01 FEET (HORIZ) 0.15 FEET (VERT)
TYPE OF EQUIPMENT: GEOMAX ZENITH35 PRO BASE AND ROVER, DUAL FREQUENCY
TYPE OF GPS FIELD PROCEDURE: ONLINE POSITION USER INTERFACE
DATES OF SURVEY: 1/6/20
DATUM / EPOCH: NAD_1983(2011)EPOCH:2010.0000
PUBLISHED / FIXED CONTROL USE: N/A
GEOID MODEL: 18
COMBINED GRID FACTOR(S): 0.99994667 CENTERED ON THE GPS BASE POINT AS SHOWN HEREON.
CONVERGENCE ANGLE: 0.09752500°



GRAPHIC SCALE IN FEET
SCALE: 1" = 150'

VICINITY MAP

NOT TO SCALE

GENERAL NOTES

* THIS SPECIFIC PURPOSE SURVEY IS FOR THE LEASED PREMISES AND EASEMENTS ONLY. THIS SPECIFIC PURPOSE SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF UNITI TOWERS, LLC AND EXCLUSIVELY FOR THE TRANSFERRAL OF THE PROPOSED LEASED PREMISES AND THE RIGHTS OF EASEMENT SHOWN HEREON AND SHALL NOT BE USED AS AN OPINION OR EVIDENCE IN THE FEE SIMPLE TRANSFERRAL OF THE PARENT PARCEL NOR ANY PORTION OR PORTIONS THEREOF. BOUNDARY INFORMATION SHOWN HEREON HAS BEEN COMPILED FROM TAX MAPS AND DEED DESCRIPTIONS ONLY. NO BOUNDARY SURVEY OF THE PARENT PARCEL WAS PERFORMED.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

THIS SPECIFIC PURPOSE SURVEY WAS PREPARED WITHOUT BENEFIT OF A TITLE REPORT WHICH MAY REVEAL ADDITIONAL CONVEYANCES, EASEMENTS, OR RIGHTS-OF-WAY NOT SHOWN HEREON.

THE FIELD DATA UPON WHICH THIS SPECIFIC PURPOSE SURVEY IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 10,000+ FEET AND AN ANGULAR ERROR OF 5.0" PER ANGLE POINT AND WAS NOT ADJUSTED FOR CLOSURE.

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC & GEOMAX ZENITH 35. (DATE OF LAST FIELD VISIT: 1/6/20)

THE 1' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE ADJUSTED TO NAVD 88 DATUM (COMPUTED USING GEOID18) AND HAVE A VERTICAL ACCURACY OF ± 0.5'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

BEARINGS SHOWN ON THIS SPECIFIC PURPOSE SURVEY ARE BASED ON GRID NORTH (NAD 83) KENTUCKY SINGLE ZONE.

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO.: 21199C0275C DATED: 07/22/2010.

NO WETLAND AREAS HAVE BEEN INVESTIGATED BY THIS SPECIFIC PURPOSE SURVEY.

ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS.

ANY UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM ABOVE GROUND FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEES THAT ANY UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER INDIDENCE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT ANY UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ANY UNDERGROUND UTILITIES.

SURVEYOR'S CERTIFICATE

I, G. DARRELL TAYLOR, A KENTUCKY PROFESSIONAL LAND SURVEYOR, CERTIFY THAT THE INFORMATION SHOWN HEREON WAS COMPILED USING DATA FROM AN ACTUAL FIELD SURVEY MADE UNDER MY DIRECT SUPERVISION BY METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:10,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR AN URBAN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

G. DARRELL TAYLOR, PLS 4179 — DATE: 01/28/2020

(SURVEY NOT VALID WITHOUT SHEETS 2 & 3)

Know what's below. Call before you dig.

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CM	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
INV	INVERT
FH	FIRE HYDRANT
EOP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
OHU	OVERHEAD UTILITY
UGU	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
DWCB	DOUBLE WING CATCH BASIN
CWCB	CURB INLET CATCH BASIN
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEANOUT
GV	GAS VALVE
N/F	NOW OR FORMERLY
TBM	TEMPORARY BENCHMARK
BWF	BARB WIRE FENCE
BFO	BURIED FIBER OPTIC
RB	REBAR

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION

* SPECIFIC PURPOSE SURVEY PREPARED BY:

POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

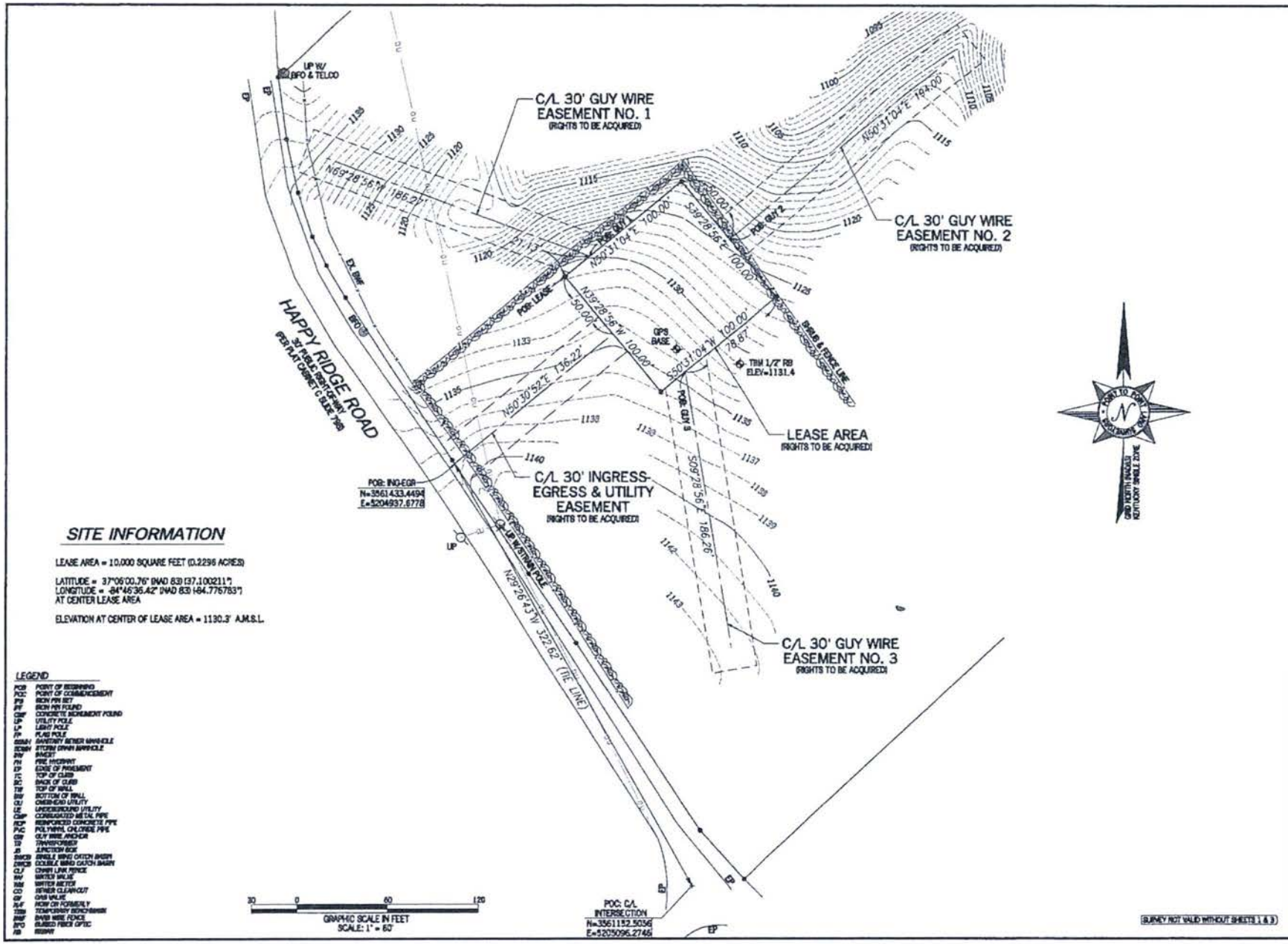
HAPPY RIDGE RELO

KYLEX2038

PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: JANUARY 28, 2020
P2P JOB #: 20001 4KY

SHEET: 1 OF 3



SITE INFORMATION

LEASE AREA = 10,000 SQUARE FEET (0.2296 ACRES)

LATITUDE = 37°06'00.76" (NAD 83) (37.100211°)
LONGITUDE = -84°46'36.42" (NAD 83) (-84.776783°)
AT CENTER LEASE AREA

ELEVATION AT CENTER OF LEASE AREA = 1130.3' A.M.S.L.

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
BM	BENCH MARK
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
OU	OVERHEAD UTILITY
UG	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
SMCB	SINGLE METAL CATCH BASIN
DMCB	DOUBLE METAL CATCH BASIN
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
SO	SEWER CLEAN-OUT
GV	GAS VALVE
R/F	ROW OR FORMERLY
TBM	TEMPORARY BENCHMARK
BWF	BARB WIRE FENCE
BFO	BURIED FIBER OPTIC
HW	HIGHWAY

SURVEY NOT VALID WITHOUT SHEETS 1 & 3

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

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SPECIFIC PURPOSE SURVEY PREPARED FOR:

Uniti Towers

HAPPY RIDGE RELO

KYLEX2038

PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL	SHEET: 2
CHECKED BY: JKL	
APPROVED: D. MILLER	
DATE: JANUARY 28, 2020	
P2P JOB #: 200014KY	OF 3

LEGAL DESCRIPTION SHEET

30' INGRESS-EGRESS & UTILITY EASEMENT

TOGETHER WITH A 30-FOOT WIDE INGRESS-EGRESS AND UTILITY EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778 AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO THE ENDING AT A POINT ON THE LEASE AREA.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

LEASE AREA

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 50°31'04" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 39°28'56" WEST, 100.00 FEET TO A POINT AND THE POINT OF BEGINNING.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

SAID TRACT CONTAINS 0.2296 ACRES (10,000 SQUARE FEET), MORE OR LESS.

30' GUY WIRE EASEMENT NO. 1

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 21.13 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 69°28'56" WEST, 186.27 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

30' GUY WIRE EASEMENT NO. 2

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 50.00 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, NORTH 50°31'04" EAST, 194.00 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

30' GUY WIRE EASEMENT NO. 3

TOGETHER WITH A 30-FOOT GUY WIRE EASEMENT (LYING 15 FEET EACH SIDE OF CENTERLINE AND EXTENDING 15 FEET BEYOND THE POINT OF TERMINATION) LYING AND BEING IN PULASKI COUNTY, KENTUCKY AND BEING A PORTION OF TRACT 3 OF THE DELMER MOLDEN ESTATE, AS RECORDED IN PLAT CABINET C, SLIDE 798, PULASKI COUNTY RECORDS, AND BEING MORE PARTICULARLY DESCRIBED BY THE FOLLOWING CENTERLINE DATA:

TO FIND THE POINT OF BEGINNING, COMMENCE AT THE CENTERLINE INTERSECTION OF HAPPY RIDGE ROAD (HAVING A 30-FOOT RIGHT-OF-WAY) AND MOLDEN LANE (HAVING A 30-FOOT RIGHT-OF-WAY), SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561152.5056 E: 5205096.2746; THENCE RUNNING ALONG A TIE LINE, NORTH 29°26'43" WEST, 322.62 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF HAPPY RIDGE ROAD, SAID POINT HAVING A KENTUCKY GRID NORTH, NAD83, SINGLE ZONE VALUE OF N: 3561433.4494 E: 5204937.6778; THENCE LEAVING SAID RIGHT-OF-WAY LINE AND RUNNING, NORTH 50°30'52" EAST, 136.22 FEET TO A POINT ON THE LEASE AREA; THENCE RUNNING ALONG SAID LEASE AREA, NORTH 39°28'56" WEST, 50.00 TO A POINT; THENCE, NORTH 50°31'04" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 39°28'56" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 50°31'04" WEST, 78.87 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID LEASE AREA AND RUNNING, SOUTH 09°28'56" EAST, 186.26 FEET TO THE ENDING AT A POINT.

BEARINGS BASED ON KENTUCKY GRID NORTH, NAD83, SINGLE ZONE.

SURVEY NOT VALID WITHOUT SHEETS 1 & 2

STATE of KENTUCKY
G. DARRELL TAYLOR
4179
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION

* SPECIFIC PURPOSE SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
100 Governors Trace, Ste. 103
Peachtree City, GA 30269
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SPECIFIC PURPOSE SURVEY PREPARED FOR:
Uniti Towers

HAPPY RIDGE RELO
KYLEX2038
PULASKI COUNTY, KENTUCKY

DRAWN BY: EAL
CHECKED BY: JKL
APPROVED: D. MILLER
DATE: JANUARY 28, 2020
P2P JOB #: 20001KY

SHEET: 3 OF 3

EXHIBIT 12

STANDARD ACCESS LETTER

[FOLLOWS ON NEXT PAGE]

Gladys Molden, Terry Molden and Charlotte Wells
2128 Highway 2993
Nancy, KY 42544
Telephone: (606) 875-8722

February 25, 2020

Building Staff / Security Staff
Landlord, Lessee, Licensee

Re: Authorized Access granted to UNITI Towers LLC
Dear Building and Security Staff,

Please be advised that we have signed a lease with UNITI Towers LLC permitting UNITI Towers LLC to install, operate and maintain telecommunications equipment at the property. The terms of the lease grant UNITI Towers LLC and its representatives, employees, agents and subcontractors ("representatives") 24 hour per day, 7 day per week access to the leased area.

To avoid impact on telephone service during the day, UNITI Towers LLC representatives may be seeking access to the property outside of normal business hours. UNITI Towers LLC representatives have been instructed to keep noise levels at a minimum during their visit.

Please grant the bearer of a copy of this letter access to the property and to leased area. Thank you for your assistance.

Gladys Molden, Jerry D. Molden, Charlotte A. Wells
Landlord Signature

EXHIBIT J
NOTIFICATION LISTING

Happy Ridge Relo – Notice List

Molden Virl & Gladys
2128 Hwy 2993
Nancy, KY 42544

Bolin Donnie & Kimberly
380 Happy Ridge Rd
Nancy, KY 42544

Bolin Jacob
380 Happy Ridge Rd
Nancy, KY 42544

Rogers B Doug
626 Happy Ridge Rd
Nancy, KY 42544

Burton John Wayne & Mary June
757 Hwy 2993
Nancy, KY 42544

Burton Mary
757 Hwy 2993
Nancy, KY 42544

Molden Vertrees & Shirley
3185 W Hwy 80
Somerset, KY 42501

Cook Shannon & Lesia
303 Happy Ridge Rd
Nancy, KY 42544

Bolin Ronnie
499 Happy Ridge Rd
Nancy, KY 42544

Tarter Donald & Janet
82 N Floyd Ln
Nancy, KY 42544

Ronnie Bolin
8051 Congress Avenue
Boca Raton, FL 33487

c/o SBA Infrastructure/Tax Dept
8051 Congress Ave
Boca Raton, FL 33487

Ronnie Bolin
c/o SBA Infrastructure/Tax Dept
8051 Congress Ave
Boca Raton, FL 33487

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION

PIKE
LEGAL

1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

Notice of Proposed Construction of Wireless Communications Facility Site Name: Happy Ridge Relo

Dear Landowner:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Tower LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 240 Happy Ridge Road, Nancy, Kentucky 42544 (37° 06' 00.76" North latitude, 84° 46' 36.42" West longitude). The proposed facility will include a 305-foot tall tower, with an approximately 12-foot tall lightning arrestor attached at the top, for a total height of 317-feet, plus related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2020-00310 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. AT&T Mobility's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us toll free at (800) 516-4293 if you have any comments or questions about this proposal.

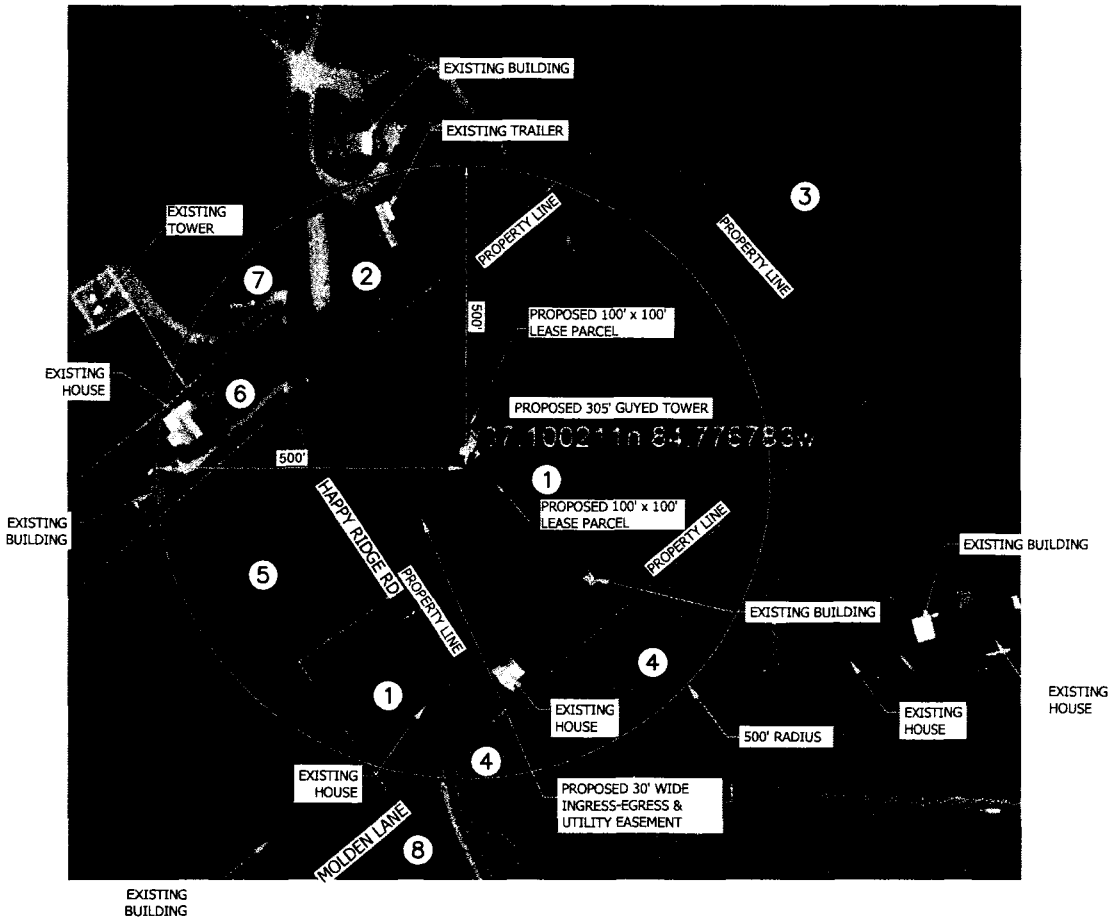
Sincerely,
David A. Pike
Attorney for Applicants

enclosures

Driving Directions to Proposed Tower Site:

1. Beginning at 100 North Main Street, Somerset, KY, head south on N. Main Street (toward W. Mt. Vernon St) and travel approximately 62 feet.
2. Turn right onto W. Mt. Vernon St and travel approximately 0.3 miles.
3. Stay straight to continue onto Ohio St. and travel approximately 0.2 miles.
4. Make a slight left to continue onto Ogden St. and travel approximately 0.5 miles.
5. Turn right onto US-27 N and travel approximately 377 feet.
6. Turn left onto KY-80 W and travel approximately 2.4 miles.
7. Turn right onto KY-914 and travel approximately 1.0 miles. KY-914 merges into the ramp to the Cumberland Parkway West.
8. Merge onto the Cumberland Parkway West and continue for approximately 7.7 miles.
9. Take exit 78 for Ky-80 toward Nancy. Continue onto the exit ramp for approximately 0.3 miles.
10. Turn left onto KY-80 E and travel approximately 1.6 miles.
11. Turn left onto KY-2993 and travel approximately 0.7 miles.
12. Turn left onto Happy Ridge Road and travel approximately 0.3 miles
13. The site is on the right at 240 Happy Ridge Road.
14. The site coordinates are
    a. 37 deg 06 min 00.76 sec N
    b. 84 deg 46 min 36.42 sec W

Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
PO Box 369
Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293



#	OWNER	ADDRESS	PID	REF
1	VIRL & GLADYS MOLDEN	2128 HWY 2993 NANCY, KY 42544	019-0-0-32	DB 711 PG 340
2	DONNIE & KIMBERLY BOLIN	380 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-22.1	DB 592 PG 161
3	B. DOUG ROGERS	626 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-23	DB 676 PG 370
4	JOHN W. & MAY JUNE BURTON	757 HWY 2993 NANCY, KY 42544	019-0-0-22	DB 367 PG 303
5	VERTREES & SHIRLEY MOLDEN	3185 HWY 80 SOMERSET, KY 42501	019-0-0-32.1	DB 711 PG 458
6	SHANNON & LESIA COOK	303 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-30	DB 775 PG 706
7	RONNY BOLIN	499 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-29	DB 635 PG 033
8	DONALD & JANET TARTER	82 N FLOYD LN NANCY, KY 42544	019-0-0-31	DB 633 PG 601

NOTE:

1. PVA INFORMATION WAS OBTAINED ON 5/31/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.

FLOOD ZONE NOTE:

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. 21199C0275C DATED: 07/22/2010

1 500' RADIUS & ADJOINER'S DRAWING

SCALE: 0' 100' 200' 300' 400' 1"=200'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS
BEFORE YOU DIG!

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS
HAPPY RIDGE RELO
FA# 15145564
PACE# MRTNK047951
PI# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO: G0137330.00
CHECKED BY: MAS

ISSUED FOR

REV	DATE	DRWN	DESCRIPTION
A	08/13/20	DLS	ZONING DRAWINGS
B	09/01/20	DLS	ZONING DRAWINGS
0	09/03/20	DLS	ZONING DRAWINGS

B&T ENGINEERING, INC.
COA 4011
Expires 12/31/20

STATE OF KENTUCKY
BRAD D. MILANOWSKI
25311
LICENSED PROFESSIONAL ENGINEER
09/03/20

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

PIKE LEGAL

1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-0369
Phone (502) 955-4400 or (800) 516-4293
Fax (502) 543-4410 or (800) 541-4410

VIA CERTIFIED MAIL

Stephen B. Kelley
County Judge Executive
P.O. Box 712
Somerset, KY 42502

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2020-00310
Site Name: Happy Ridge Relo

Dear Judge/Executive:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Tower LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 240 Happy Ridge Road, Nancy, Kentucky 42544 (37° 06' 00.76" North latitude, 84° 46' 36.42" West longitude). The proposed facility will include a 305-foot tall tower, with an approximately 12-foot tall lightning arrestor attached at the top, for a total height of 317-feet, plus related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2020-00310 in any correspondence sent in connection with this matter.

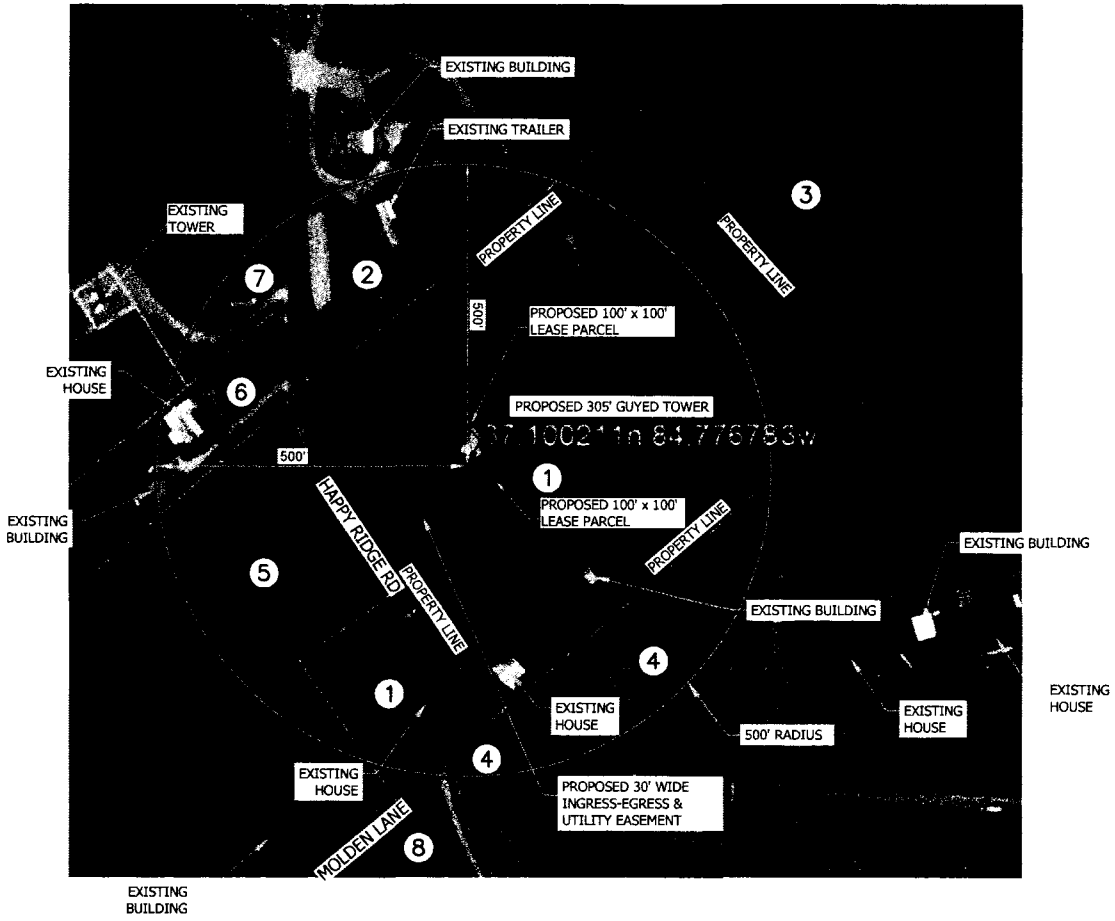
We have attached a map showing the site location for the proposed tower. AT&T Mobility's radio frequency engineers assisted in selecting the proposed site for the facility, and they have determined it is the proper location and elevation needed to provide quality service to wireless customers in the area. Please feel free to contact us with any comments or questions you may have.

Sincerely,
David A. Pike
Attorney for Applicants
enclosures

Driving Directions to Proposed Tower Site:

1. Beginning at 100 North Main Street, Somerset, KY, head south on N. Main Street (toward W. Mt. Vernon St) and travel approximately 62 feet.
2. Turn right onto W. Mt. Vernon St and travel approximately 0.3 miles.
3. Stay straight to continue onto Ohio St. and travel approximately 0.2 miles.
4. Make a slight left to continue onto Ogden St. and travel approximately 0.5 miles.
5. Turn right onto US-27 N and travel approximately 377 feet.
6. Turn left onto KY-80 W and travel approximately 2.4 miles.
7. Turn right onto KY-914 and travel approximately 1.0 miles. KY-914 merges into the ramp to the Cumberland Parkway West.
8. Merge onto the Cumberland Parkway West and continue for approximately 7.7 miles.
9. Take exit 78 for Ky-80 toward Nancy. Continue onto the exit ramp for approximately 0.3 miles.
10. Turn left onto KY-80 E and travel approximately 1.6 miles.
11. Turn left onto KY-2993 and travel approximately 0.7 miles.
12. Turn left onto Happy Ridge Road and travel approximately 0.3 miles
13. The site is on the right at 240 Happy Ridge Road.
14. The site coordinates are
    a. 37 deg 06 min 00.76 sec N
    b. 84 deg 46 min 36.42 sec W

Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
PO Box 369
Shepherdsville, KY 40165-0369
Telephone: 502-955-4400 or 800-516-4293



#	OWNER	ADDRESS	PID	REF
1	VIRL & GLADYS MOLDEN	2128 HWY 2993 NANCY, KY 42544	019-0-0-32	DB 711 PG 340
2	DONNIE & KIMBERLY BOLIN	380 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-22.1	DB 592 PG 161
3	B. DOUG ROGERS	626 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-23	DB 676 PG 370
4	JOHN W. & MAY JUNE BURTON	757 HWY 2993 NANCY, KY 42544	019-0-0-22	DB 367 PG 303
5	VERTREES & SHIRLEY MOLDEN	3185 HWY 80 SOMERSET, KY 42501	019-0-0-32.1	DB 711 PG 458
6	SHANNON & LESIA COOK	303 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-30	DB 775 PG 706
7	RONNY BOLIN	499 HAPPY RIDGE RD NANCY, KY 42544	019-0-0-29	DB 635 PG 033
8	DONALD & JANET TARTER	82 N FLOYD LN NANCY, KY 42544	019-0-0-31	DB 633 PG 601

NOTE:

1. PVA INFORMATION WAS OBTAINED ON 5/31/2020 FROM THE OFFICIAL RECORDS OF THE COUNTY'S PROPERTY VALUATION ADMINISTRATOR.
2. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY.
3. NOT FOR RECORDING OR PROPERTY TRANSFER.

FLOOD ZONE NOTE:

PER THE FEMA FLOODPLAIN MAPS, THE SITE IS LOCATED IN AN AREA DESIGNATED AS ZONE X (AREA OF MINIMAL FLOOD HAZARD). COMMUNITY PANEL NO. 21199C0275C DATED: 07/22/2010

1 500' RADIUS & ADJOINER'S DRAWING
SCALE: 0' 100' 200' 300' 400' 1"=200'

N

CALL KENTUCKY ONE CALL
(800) 752-6007
CALL 3 WORKING DAYS BEFORE YOU DIG!

B+T GRP

at&t mobility corp.

Uniti Towers

UNITI TOWERS
HAPPY RIDGE RELO
FA# 13145564
PACE# MRTNK047951
PT# 10115694
240 HAPPY RIDGE ROAD
NANCY, KY 42544
PULASKI COUNTY
PROPOSED 305' GUYED TOWER

PROJECT NO:	G013330.00
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B&T ENGINEERING, INC.
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500' RADIUS & ADJOINER'S DRAWING

SHEET NUMBER:
C-1

EXHIBIT M
COPY OF POSTED NOTICES
AND NEWSPAPER NOTICE ADVERTISEMENT

SITE NAME: HAPPY RIDGE RELO
NOTICE SIGNS

The signs are at least (2) feet by four (4) feet in size, of durable material, with the text printed in black letters at least one (1) inch in height against a white background, except for the word "**tower**," which is at least four (4) inches in height.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Tower LLC, a Delaware limited liability company propose to construct a telecommunications **tower** on this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2020-00310 in your correspondence.

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Tower LLC, a Delaware limited liability company propose to construct a telecommunications **tower** near this site. If you have questions, please contact Pike Legal Group, PLLC, P.O. Box 369, Shepherdsville, KY 40165; telephone: (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2020-00310 in your correspondence.

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Shepherdsville, KY 40165-0369
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Fax (502) 543-4410 or (800) 541-4410

VIA TELEPHONE: (606) 678-8191
VIA EMAIL: news@somerset-kentucky.com

Somerset Commonwealth Journal
110-112 E. Mt. Vernon Street
Somerset, KY 42501

RE: Legal Notice Advertisement
Site Name: Happy Ridge Relo

Dear Somerset Commonwealth Journal:

Please publish the following legal notice advertisement in the next edition of *The Somerset Commonwealth Journal*:

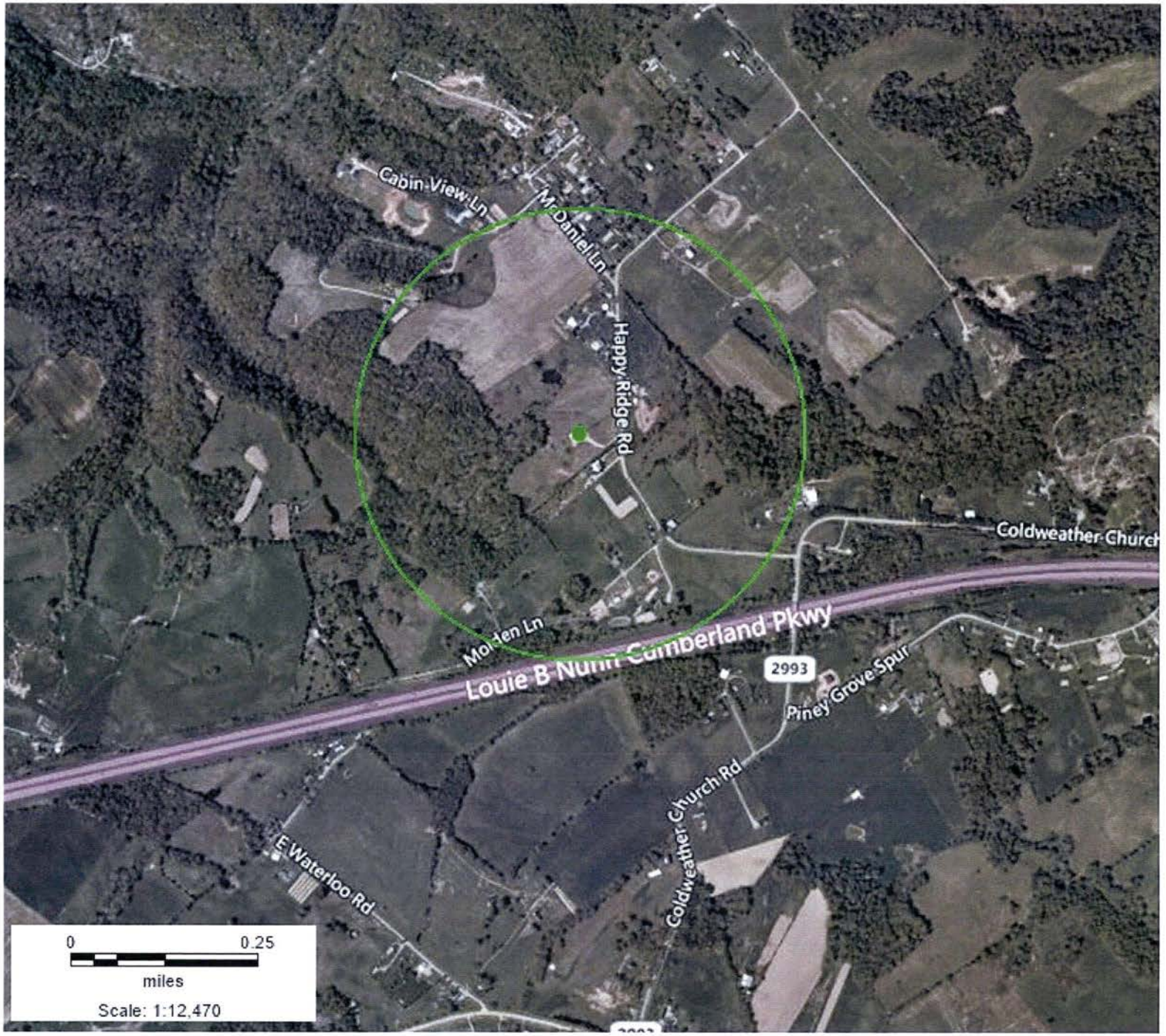
NOTICE

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility and Uniti Tower LLC, a Delaware limited liability company have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on 240 Happy Ridge Road, Nancy, KY 42544 (37° 06' 00.76" North latitude, 84° 46' 36.42" West longitude). You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2020-00310 in any correspondence sent in connection with this matter.

After this advertisement has been published, please forward a tearsheet copy, affidavit of publication, and invoice to Pike Legal Group, PLLC, P. O. Box 369, Shepherdsville, KY 40165. Please call me at (800) 516-4293 if you have any questions. Thank you for your assistance.

Sincerely,
Aaron L. Roof
Pike Legal Group, PLLC

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA



Lat: 37.101028
Lon: -84.77875
Radius: .3 miles

Happy Ridge Relo Search Area