

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

In the Matter of:

THE APPLICATION OF)
APC TOWERS IV, LLC, A DELAWARE)
LIMITED LIABILITY COMPANY)
AND CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS)
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC) CASE NO.: 2024-00291
CONVENIENCE AND NECESSITY TO CONSTRUCT)
A WIRELESS COMMUNICATIONS FACILITY)
IN THE COMMONWEALTH OF KENTUCKY)
IN THE COUNTY OF LIVINGSTON)

SITE NAME: EV SMITHLAND NORTH

* * * * *

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

APC Towers IV, LLC, a Delaware limited liability company and Cellco Partnership d/b/a Verizon Wireless (“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 Verizon Wireless with wireless communications services.

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

- 1. The complete name and address of the Applicants are: APC Towers IV, LLC,

a Delaware limited liability company, having an address of 8601 Six Forks Road, Suite 250, Raleigh, NC 27615 and Cellco Partnership d/b/a Verizon Wireless having an address of 2421 Holloway Road, Louisville, Kentucky 40299.

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. APC Towers IV, LLC is a limited liability company organized in the State of Delaware on March 3, 2022. APC Towers IV's Certificate of Formation and Certificate of Good Standing issued by the State of Delaware are attached as part of **Exhibit A** and hereby incorporated by reference. APC Towers IV, LLC is in good standing in the state in which it is organized and further states that it is authorized to transact business in Kentucky, and a copy of the Certificate of Authorization issued by the Kentucky Secretary of State is attached as part of **Exhibit A** and is hereby incorporated by reference.

4. Cellco Partnership d/b/a Verizon Wireless is a Delaware general partnership, and a copy of the Statement of Good Standing from Delaware and Certificate of Assumed Name on file with the Kentucky Secretary of State are included as part of **Exhibit A**. Verizon Wireless is in good standing in the state in which they are organized and further state that they are authorized to transact business in Kentucky.

5. Cellco Partnership d/b/a Verizon Wireless operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC

requirements. A copy of Celco Partnership d/b/a Verizon Wireless' FCC applications and 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.

6. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve wireless services to an area currently not served or not adequately served 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 Verizon Wireless' 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 Verizon Wireless' network design that must be in place to provide adequate coverage to the service area.

7. To address the above-described service needs, Applicants propose to construct a WCF in a lease area located on Brumitte Road, Smithland, KY 42081 (37° 09' 27.01" North latitude, 88° 23' 45.38" 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 Nancy K. Champion pursuant to a Deed recorded at Deed Book 260, Page 418 in the office of the County Clerk. The proposed WCF will consist of a 250-foot tall guy-wire tower, with an approximately 5-foot tall lightning arrestor attached at the top, for a total height of 255-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of radio electronics equipment and

appurtenant equipment. The 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**.

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

9. 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 the antennas of Verizon Wireless has also been included as part of **Exhibit B**.

10. 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**.

11. 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 antennas on an existing structure. When suitable towers or structures exist, carriers attempt to co-locate on existing structures such as communications towers or other structures capable of supporting carrier's facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site.

12. A Determination of No Hazard to Air Navigation issued by the Federal

Aviation Administration ("FAA") for the proposed tower is attached as **Exhibit E**.

13. Approval documentation issued by the Kentucky Airport Zoning Commission ("KAZC") for the proposed construction is attached as **Exhibit F**.

14. 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.

15. 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.

16. APC Towers IV, LLC, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreement or an abbreviated agreement recorded with the County Clerk is attached as **Exhibit I**.

17. 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.

18. The Construction Manager for the proposed facility is Daniel J. Kunz and the

identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained in **Exhibits B & C**.

19. 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.

20. **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**.

21. Applicants have sent notice to every person who, according to the records of the County Property Valuation Administrator (“PVA”), 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.

22. Copies of the Livingston County PVA records obtained on September 11, 2024 (and re-verified on October 25, 2024) and used to generate the notice list are attached as part of **Exhibit J**.

23. Six notice letters were sent to the landowners on the notice list at the mailing

addresses shown on the County's PVA records. Copies of the "Certified Mail Receipts" confirming the dates on which the letters were sent are attached as part of **Exhibit J**.

24. Six signed United States Postal Service Form 3811 "green cards" have been returned. Copies of the returned "green cards" are attached as a part of **Exhibit J**. There are no unaccountable notices.

25. 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**. A copy of the "Certified Mail Receipt" and a copy of the USPS Form 3811 "green card" for this mailing are also attached as a part of **Exhibit L**.

26. 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 will be published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the text of the newspaper legal notice advertisement is attached as part of **Exhibit M**.

27. The general area where the proposed facility is to be located is rural in character with the Ohio River running approximately one mile west of the site and the

Cumberland River located less than one mile south of the site. The area is composed of large parcels with government-owned parcels just south of the site. There are no residences within 500' of the tower site. The site parcel is large and partially wooded with no existing structures.

28. The process that was used by Verizon Wireless' 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. Verizon Wireless' 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 Verizon Wireless' Radio Frequency Engineers. 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**.

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

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

31. All responses and requests associated with this Application may be directed

to:

David A. Pike and
F. Keith Brown
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
kbrown@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
And



F. Keith Brown

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
Email: kbrown@pikelegal.com
Attorneys for Applicants

LIST OF EXHIBITS

- A - Corporate Documentation & FCC Documentation
- B - Site Development Plan:
 - 500' Vicinity Map
 - Legal Descriptions
 - Flood Plain Certification
 - Site Plan
 - Vertical Tower Profile
- C - Tower and Foundation Design
 - Construction Manager Letter
 - List of Qualified Professionals
 - Tower and Foundation Drawings
- 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, PVA Records & Proof of Notice
- K - Copy of Property Owner Notification
- L - Copy of County Judge/Executive Notice & Proof of Notice
- M - Copy of Posted Notices and Newspaper Notice Advertisement
- N - Copy of Radio Frequency Design Search Area

EXHIBIT A
CORPORATE DOCUMENTATION & FCC LICENSE
DOCUMENTATION

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "APC TOWERS IV, LLC", FILED IN THIS OFFICE ON THE THIRD DAY OF MARCH, A.D. 2022, AT 10:15 O`CLOCK A.M.




Jeffrey W. Bullock, Secretary of State

6650861 8100
SR# 20240209212

Authentication: 202646764
Date: 01-23-24

You may verify this certificate online at corp.delaware.gov/authver.shtml

CERTIFICATE OF FORMATION

OF

APC TOWERS IV, LLC

This Certificate of Formation of APC Towers IV, LLC has been duly executed and is being filed by the undersigned authorized person for the purpose of forming a limited liability company pursuant to the Delaware Limited Liability Company Act, (6 Del. C. §§18-101, et seq.)

1. Name. The name of the limited liability company formed hereby (the "Company") is APC Towers IV, LLC.

2. Registered Office. The address of the registered office of the Company in the State of Delaware is: Corporation Trust Center, 1209 Orange Street, New Castle County, Wilmington, Delaware 19801.

3. Registered Agent. The name and address of the registered agent for service of process on the Company in the State of Delaware is The Corporation Trust Company, 1209 Orange Street, New Castle County, Wilmington, Delaware 19801.

4. Bankruptcy of a Member. For a period of sixty (60) days following the date on which the Company becomes aware that a bankruptcy petition has been filed by or against any member of the Company, the Company shall have the option to purchase all of such member's interests in the Company, exercisable by delivering written notice of its exercise of such option to such member and, if applicable, to the bankruptcy trustee and, provided that within sixty (60) days after its exercise of such option the Company pays to such member or trustee, as applicable, an amount equal to the capital account balance attributable to such member's interests in the Company (calculated pursuant to the Limited Liability Company Agreement of the Company), such member's interests in the Company automatically shall transfer to and vest in the Company without any further action by the Company and without any action by such member or trustee.

IN WITNESS WHEREOF, the undersigned authorized person has caused this Certificate of Formation to be duly executed as of the 3rd day of March, 2022.

/S/ GARRETT D. EVERS

Garrett D. Evers
Authorized Person

Delaware

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "APC TOWERS IV, 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 TWENTY-THIRD DAY OF JANUARY, A.D. 2024.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "APC TOWERS IV, LLC" WAS FORMED ON THE THIRD DAY OF MARCH, A.D. 2022.

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




Jeffrey W. Bullock, Secretary of State

6650861 8300

SR# 20240209212

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202646751

Date: 01-23-24

Commonwealth of Kentucky
Michael G. Adams, Secretary of State

Michael G. Adams
Secretary of State
P. O. Box 718
Frankfort, KY 40602-0718
(502) 564-3490
<http://www.sos.ky.gov>

Authentication number: 309767

Visit <https://web.sos.ky.gov/ftsshow/certvalidate.aspx> to authenticate this certificate.

I, Michael G. Adams, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

APC TOWERS IV, 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 February 22, 2023.

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 22nd day of April, 2024, in the 232nd year of the Commonwealth.



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
309767/1262373

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "CELLCO PARTNERSHIP" 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 TWENTY-SEVENTH DAY OF APRIL, A.D. 2023.

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




Jeffrey W. Bullock, Secretary of State

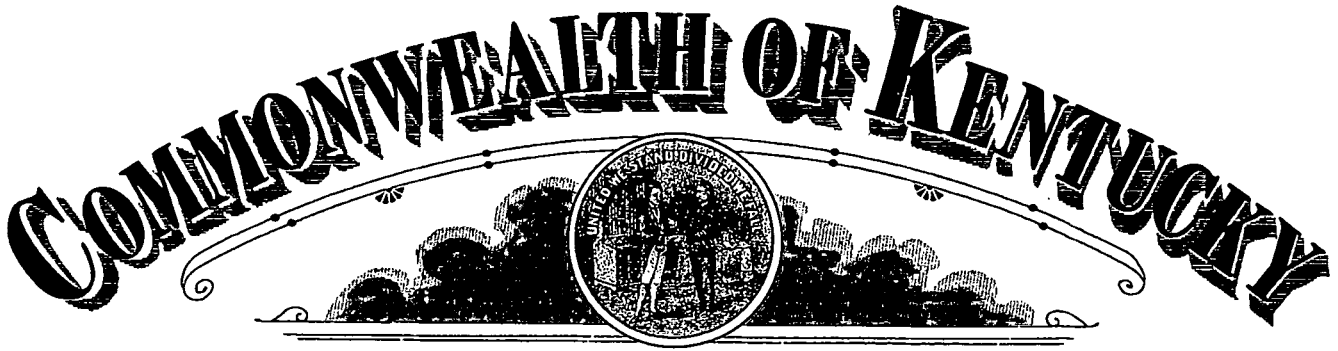
3341134 8300

SR# 20231665976

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 203227418

Date: 04-27-23



Michael G. Adams
Secretary of State

Certificate

I, Michael G. Adams, Secretary of State for the Commonwealth of Kentucky, do hereby certify that the foregoing writing has been carefully compared by me with the original thereof, now in my official custody as Secretary of State and remaining on file in my office, and found to be a true and correct copy of

CERTIFICATE OF ASSUMED NAME OF VERIZON WIRELESS ADOPTED BY
GENERAL PARTNERS OF CELLCO PARTNERSHIP FILED JUNE 21, 2006.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my
Official Seal at Frankfort, Kentucky, this 10th day of May, 2023.



Michael G. Adams

Michael G. Adams
Secretary of State
Commonwealth of Kentucky
kdcoleman/0641227 - Certificate ID: 290787

COMMONWEALTH OF KENTUCKY
TREY GRAYSON
SECRETARY OF STATE



0641227.07

Dcornish
C226

Trey Grayson
Secretary of State
Received and Filed
06/21/2006 12:06:09 PM
Fee Receipt: \$20.00

CERTIFICATE OF ASSUMED NAME

This certifies that the assumed name of
Verizon Wireless

(Name under which the business will be conducted)

has been adopted by See Addendum

(Real name - KRS 365.015(1))

which is the "real name" of (YOU MUST CHECK ONE)

- | | |
|--|---|
| <input type="checkbox"/> a Domestic General Partnership | <input checked="" type="checkbox"/> a Foreign General Partnership |
| <input type="checkbox"/> a Domestic Registered Limited Liability Partnership | <input type="checkbox"/> a Foreign Registered Limited Liability Partnership |
| <input type="checkbox"/> a Domestic Limited Partnership | <input type="checkbox"/> a Foreign Limited Partnership |
| <input type="checkbox"/> a Domestic Business Trust | <input type="checkbox"/> a Foreign Business Trust |
| <input type="checkbox"/> a Domestic Corporation | <input type="checkbox"/> a Foreign Corporation |
| <input type="checkbox"/> a Domestic Limited Liability Company | <input type="checkbox"/> a Foreign Limited Liability Company |
| <input type="checkbox"/> a Joint Venture | |

organized and existing in the state or country of Delaware, and whose address is

One Verizon Way Basking Ridge NJ 07920

Street address, if any

City

State

Zip Code

The certificate of assumed name is executed by

NYNEX PCS Inc.

Jane A. Schapker
Signature
Jane A. Schapker-Assistant Secretary

Print or type name and title

June 15, 2006

Date

Signature

Print or type name and title

Date

Addendum

The full name of the Partnership is Cellco Partnership; a Delaware general partnership with its headquarters located One Verizon Way, Basking Ridge NJ 07920-1097.

General Partners of Cellco Partnership	Address
Bell Atlantic Cellular Holdings, L.P.	One Verizon Way Basking Ridge, NJ 07920
NYNEX PCS Inc.	One Verizon Way Basking Ridge, NJ 07920
PCSCO Partnership	One Verizon Way Basking Ridge, NJ 07920
GTE Wireless Incorporated	One Verizon Way Basking Ridge, NJ 07920
GTE Wireless of Ohio Incorporated	One Verizon Way Basking Ridge, NJ 07920
PCS Nucleus, L.P.	2999 Oak Road, 7 th Floor Walnut Creek, CA 94597
JV PartnerCo, LLC	2999 Oak Road, 7 th Floor Walnut Creek, CA 94597

REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: LICENSING MANAGER
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign KNKN871	File Number 0009611092
Radio Service CL - Cellular	
Market Numer CMA444	Channel Block B
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003290673

Market Name Kentucky 2 - Union
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Grant Date 08-31-2021	Effective Date 08-31-2021	Expiration Date 10-01-2031	Five Yr Build-Out Date	Print Date 08-31-2021
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Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
1	37-30-51.2 N	087-30-18.0 W	139.9	91.4	1030659

Address: 2138 SR 1405

City: SLAUGHTERS **County:** WEBSTER **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)	104.300	99.100	103.400	105.700	89.600	78.600	86.500	103.800
Transmitting ERP (watts)	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

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.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number: 0009611092

Print Date: 08-31-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
2	37-16-53.0 N	087-29-17.0 W	176.8	90.8	1030654

Address: 1369 SAND CUT RD

City: Madisonville County: HOPKINS State: KY Construction Deadline:

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.200	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	208.970	190.560	12.020	1.000	0.500	0.500	0.630	30.910

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.500	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	0.500	0.540	19.950	190.560	208.940	20.420	1.070	0.500

Antenna: 7

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	127.800	138.700	133.500	133.500	121.500	113.200	123.000	142.100
Transmitting ERP (watts)	1.000	1.910	1.000	1.000	6.310	213.810	501.220	190.560

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
4	36-57-17.4 N	087-51-07.6 W	172.2	123.1	1030739

Address: (Hopson) RT 4 BOX 58 814999

City: Princeton County: CALDWELL 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)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	18.030	88.290	65.450	2.610	0.360	0.200	0.200	0.350

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)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	0.420	0.420	2.640	89.540	209.890	79.800	0.420	0.800

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)	135.700	130.000	144.600	143.600	151.900	144.500	138.300	138.900
Transmitting ERP (watts)	55.210	1.870	1.030	0.840	1.150	19.590	283.140	381.940

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number: 0009611092

Print Date: 08-31-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
5	37-19-00.3 N	088-04-34.3 W	237.4	90.5	1030656

Address: (Marion) 11 Brairwood Drive

City: Marion County: CRITTENDEN 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)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	271.010	402.110	56.170	1.380	1.090	1.090	1.090	16.570

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)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	1.090	1.090	54.770	411.390	270.910	18.590	1.090	1.090

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)	162.700	163.300	176.200	156.900	167.800	184.500	160.300	175.600
Transmitting ERP (watts)	2.710	0.550	0.550	0.550	2.110	63.550	191.830	63.550

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
8	37-19-19.5 N	087-30-03.8 W	144.5	99.1	1040639

Address: 54 W LAKE ST

City: Madisonville County: HOPKINS 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)	97.900	120.000	110.700	105.000	90.400	94.900	118.300	102.200
Transmitting ERP (watts)	91.200	87.100	85.110	85.110	89.130	87.100	89.130	89.130

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
9	37-39-38.0 N	087-55-11.5 W	153.6	121.9	1030655

Address: (Morganfield) 996 TP LUCKETTE RD

City: Morganfield County: UNION 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)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	355.170	248.530	31.970	1.840	0.810	0.810	2.870	89.690

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)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	0.890	27.540	263.030	389.050	97.720	5.890	0.810	0.810

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number: 0009611092

Print Date: 08-31-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
9	37-39-38.0 N	087-55-11.5 W	153.6	121.9	1030655

Address: (Morganfield) 996 TP LUCKETTE RD

City: Morganfield County: UNION State: KY Construction Deadline:

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)	130.600	126.500	124.600	100.000	131.200	122.100	129.400	122.600
Transmitting ERP (watts)	0.680	0.680	0.680	2.630	61.490	217.250	146.520	15.150

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	37-02-00.0 N	088-22-10.0 W	105.5	106.7	1040303

Address: (Calvert City) 641 Jary Johnson Rd.

City: Calvert City County: MARSHALL 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)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	23.380	330.300	378.360	36.130	0.970	0.970	0.970	0.970

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)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	0.970	0.970	0.970	14.730	240.930	357.480	49.940	1.230

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)	78.900	77.600	88.100	83.000	68.600	85.300	97.900	93.100
Transmitting ERP (watts)	63.740	2.060	0.660	0.660	0.660	4.020	107.530	274.970

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-36-46.0 N	087-29-35.0 W	118.0	91.0	1034040

Address: EASTWOOD FERRY ROAD

City: SEBREE County: WEBSTER State: KY Construction Deadline: 02-23-2006

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)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	0.560	0.200	0.200	0.280	2.400	42.760	89.330	12.910

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	55.080	0.490	0.200	0.200	0.200	0.200	0.200	39.900

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number: 0009611092

Print Date: 08-31-2021

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	37-36-46.0 N	087-29-35.0 W	118.0	91.0	1034040

Address: EASTWOOD FERRY ROAD

City: SEBREE County: WEBSTER State: KY Construction Deadline: 02-23-2006

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	73.800	88.300	72.700	87.800	81.700	80.900	73.100	79.800
Transmitting ERP (watts)	0.200	0.200	0.200	5.380	97.950	4.910	0.210	0.200

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	36-46-54.2 N	088-03-28.1 W	199.0	126.5	1205551

Address: SR 80/US 68 & Trace

City: Golden Pond County: TRIGG 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)	165.000	178.000	160.000	175.000	171.000	167.000	177.000	184.000
Transmitting ERP (watts)	96.610	96.610	96.610	96.610	96.610	96.610	96.610	96.610

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
17	37-14-55.1 N	088-20-42.2 W	175.8	108.8	1231318

Address: 738 Mitchell Road

City: Burna County: LIVINGSTON State: KY Construction Deadline: 02-23-2006

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)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	50.060	6.450	0.130	0.130	0.130	1.990	13.790	50.060

Antenna: 5

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	4.780	26.880	61.590	32.320	2.880	0.130	0.130	0.600

Antenna: 6

Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	116.800	144.900	144.500	172.100	154.500	163.300	146.900	139.500
Transmitting ERP (watts)	0.130	0.130	0.130	2.750	15.470	52.420	46.720	5.120

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKN871

File Number: 0009611092

Print Date: 08-31-2021

Control Points:

Control Pt. No. 2

Address: 500 West Dove Road

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

Waivers/Conditions:

NONE

Reference Copy

ULS Application

Cellular - 0009611092 - Cellco Partnership

File Number	0009611092	Radio Service	CL - Cellular
Call Sign	KNKN871	Application Status	G - Granted

General Information

Application Purpose	RO - Renewal Only		
Existing Radio Service			
Authorization Type	Regular	Emergency STA	
Receipt Date	07/06/2021	Action Date	08/31/2021
Entered Date	07/06/2021	Requested Expiration Date	
Waiver	No	Number of Rules	
Attachments	No	Grandfathered Privileges	No
Application Fee Exempt	No	Regulatory Fee Exempt	No
Major Request			
Use Question			

Market Data

Market	CMA444 - Kentucky 2 - Union	Channel Block	B
Submarket Designator	0	Phase	2

Applicant Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022 ATTN Licensing Manager		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
Real Party in Interest		FRN of Real Party in Interest	

Contact Information

Name	Verizon Wireless Licensing Manager 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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Qualifications, Ownership

For a geographic license, private systems - licensee in any subsequent term

Applicant certifies that it continues to use its facilities to further its private business or public interest/public safety communications needs at or above the level required to meet its final performance requirement through the end of any subsequent license terms.

For a partitioned or disaggregated license without a performance requirement, for the first renewal application filed after 05/30/2020.

Applicant certifies that the partitioned and/or disaggregated license that is the subject of this renewal application has no separate performance requirement and that this is the first renewal of this license filed subsequent 10/01/2020.

For a partitioned or disaggregated license without a performance requirement, for any subsequent renewal filings

Applicant certifies that it continues to use its facilities to provide service or to further the applicant's private business or public interest/public safety needs.

Discontinuance of Service Certification

Applicant certifies that no permanent discontinuance of service or operation, as applicable, occurred during its current license term.

Regulatory Compliance Certification

Applicant certifies that it has substantially complied with all applicable FCC rules, policies, and the Communications Act of 1934, as amended.

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (KNLH404), File Number, and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNLH404

File Number:

Print Date:

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0009135432 - Verizon Communications Inc.

File Number 0009135432 Application Status Q - Accepted

General Information

Application Purpose	TC - Transfer of Control		
Receipt Date	07/21/2020		
Entered Date	07/21/2020	Action Date	08/13/2020
Waiver	No	Number of Rules	
Attachments	Yes		
Application Fee Exempt	No	Waiver/Deferral Fee	No

Licensee Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership ATTN Regulatory 5055 North Point Pkwy, NP2NE Engineering Alpharetta, GA 30022		P:(770)797-1070 E:Licensing.Compliance@verizonwireless.com
Race		Gender	
Ethnicity			

Licensee Contact Information

Name	Verizon Sarah Trosch 1300 I Street, NW - Suite 500 East Washington, DC 20005	P:(202)515-2453 E:sarah.trosch@verizon.com
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Transferor Information

FRN	0003257094	Type	Corporation
Name	Verizon Communications Inc. ATTN Sarah Trosch 1300 I Street, NW - Suite 500 East Washington, DC 20005	P:(202)515-2453 E:sarah.trosch@verizon.com	
Race		Gender	
Ethnicity			

Transferor Contact Information

Name	Wilkinson Barker Knauer, LLP ATTN Jennifer L. Kostyu	P:(202)783-4141 F:(202)783-5851
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1800 M. St., NW, Suite 800N
Washington, DC 20036

E:jkostyu@wbklaw.com

Transferee Information

FRN	0003257094	Type	Corporation
Name	Verizon Communications Inc. ATTN Sarah Trosch 1300 I Street, NW - Suite 500 East Washington, DC 20005		P:(202)515-2453 E:sarah.trosch@verizon.com
Real Party In Interest	Cellco Partnership	FRN of Real Party in Interest	0003290673
Race		Gender	
Ethnicity			

Transferee Contact Information

Name	Wilkinson Barker Knauer, LLP ATTN Jennifer L. Kostyu 1800 M. St., NW, Suite 800N Washington, DC 20036	P:(202)783-4141 F:(202)783-5851 E:jkostyu@wbklaw.com
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Transferee Qualifications and Ownership Information

Alien Ownership

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

Basic Qualifications

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

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGA718), File Number (0009793647), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz))

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA718

File Number: 0009793647

Print Date: 02-23-2022

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0011116303 - Trace-Tek

File Number	0011116303	Application Status	G - Granted
Application Purpose	LN - New Lease	Classification of Lease	<i>De Facto</i> Transfer Lease

General Information

Application Purpose	LN - New Lease		
Receipt Date	06/13/2024		
Entered Date	06/13/2024	Action Date	10/01/2024
Waiver	No	Number of Rules	
Attachments	Yes		
Application Fee Exempt	No	Waiver/Deferral Fee	No

Licensee Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership ATTN Network Engineering 5055 North Point Pkwy, NP2NE Engineering Alpharetta, GA 30022		P:(770)797-1070 E:Licensing.Compliance@verizonwireless.com
Race		Gender	
Ethnicity			

Licensee Contact Information

Name	Verizon Sarah Trosch 1300 I St, NW- Suite 500 East Washington, DC 20005		P:(202)515-2453 E:sarah.trosch@verizon.com
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Lessee Information

FRN	0030856223	Type	Limited Liability Company
Name	Trace-Tek ATTN licenses@trace-tek.com 2625 Commons Boulevard Beavercreek, OH 45341		P:(972)672-0477 E:licenses@trace-tek.com
Real Party In Interest	Trace-Tek	FRN of Real Party in Interest	0030856223
Race		Gender	
Ethnicity			

Lessee Contact Information

Name	Trace-Tek	P:(972)672-0477
	Garrett Loo	E:licenses@trace-tek.com
	ATTN licenses@trace-tek.com	
	2625 Commons Boulevard	
	Beavercreek, OH 45341	

Lessee Qualifications and Ownership Information

Radio Service
Type

Regulatory Status Interconnected

Alien Ownership

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

Basic Qualifications

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

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGA957), File Number (0009775566), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA957

File Number: 0009775566

Print Date: 12-21-2021

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0010812881 - Trace-Tek

File Number	0010812881	Application Status	G - Granted
Application Purpose	LN - New Lease	Classification of Lease	<i>De Facto</i> Transfer

General Information

Application Purpose	LN - New Lease		
Receipt Date	12/13/2023		
Entered Date	12/13/2023	Action Date	02/24/2024
Waiver	No	Number of Rules	
Attachments	Yes		
Application Fee Exempt	No	Waiver/Deferral Fee	No

Licensee Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership ATTN Regulatory 5055 North Point Pkwy, NP2NE Engineering Alpharetta, GA 30022		P:(770)797-1070 E:Licensing.Compliance@verizonwireless.com
Race		Gender	
Ethnicity			

Licensee Contact Information

Name	Verizon Sarah Trosch 1300 I St, NW- Suite 500 East Washington, DC 20005		P:(202)515-2453 E:sarah.trosch@verizon.com
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Lessee Information

FRN	0030856223	Type	Limited Liability Company
Name	Trace-Tek ATTN licenses@trace-tek.com 2625 Commons Boulevard Beavercreek, OH 45341		P:(972)672-0477 E:licenses@trace-tek.com
Real Party In Interest	Trace-Tek	FRN of Real Party in Interest	0030856223
Race		Gender	
Ethnicity			

Lessee Contact Information

Name	Trace-Tek Garrett Loo ATTN licenses@trace-tek.com 2625 Commons Boulevard Beavercreek, OH 45341	P:(972)672-0477 E:licenses@trace-tek.com
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Lessee Qualifications and Ownership Information

Radio Service
Type

Regulatory Status Interconnected

Alien Ownership

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

Basic Qualifications

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

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGA960), File Number (0009775572), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA960

File Number: 0009775572

Print Date: 01-05-2022

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

AWS (1710-1755 MHz and 2110-2155 MHz) - 0009775572 - Cellco Partnership

File Number	0009775572	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
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Call Sign	WQGA960	Application Status	G - Granted
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General Information

Application Purpose	RO - Renewal Only
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Existing Radio Service	
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Authorization Type	Regular	Emergency STA	
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Receipt Date	10/26/2021	Action Date	01/03/2022
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Entered Date	10/26/2021	Requested Expiration Date	
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Waiver	No	Number of Rules	
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Attachments	Yes	Grandfathered Privileges	No
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Application Fee Exempt	No	Regulatory Fee Exempt	No
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Major Request	
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Use Question	
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Market Data

Market	BEA072 - Paducah, KY-IL	Channel Block	B
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Submarket Designator	0	Associated Frequencies (MHz)	001720.00000000-001730.00000000-002120.00000000-002130.00000000
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Applicant Information

FRN	0003290673	Type	General Partnership
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Name	Cellco Partnership 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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Real Party in Interest		FRN of Real Party in Interest	
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Contact Information

Name	Cellco Partnership Licensing Manager 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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facilities to provide at least the level of operation required by its final performance requirement through the end of the license term.

For a geographic license, private systems - licensee in any subsequent term

Applicant certifies that it continues to use its facilities to further its private business or public interest/public safety communications needs at or above the level required to meet its final performance requirement through the end of any subsequent license terms.

For a partitioned or disaggregated license without a performance requirement, for the first renewal application filed after 05/30/2020.

Applicant certifies that the partitioned and/or disaggregated license that is the subject of this renewal application has no separate performance requirement and that this is the first renewal of this license filed subsequent 10/01/2020.

For a partitioned or disaggregated license without a performance requirement, for any subsequent renewal filings

Applicant certifies that it continues to use its facilities to provide service or to further the applicant's private business or public interest/public safety needs.

Discontinuance of Service Certification

Applicant certifies that no permanent discontinuance of service or operation, as applicable, occurred during its current license term.

Regulatory Compliance Certification

Applicant certifies that it has substantially complied with all applicable FCC rules, policies, and the Communications Act of 1934, as amended.

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGD474), File Number (0009787546), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGD474

File Number: 0009787546

Print Date: 02-10-2022

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

AWS (1710-1755 MHz and 2110-2155 MHz) - 0009787546 - Cellco Partnership

File Number	0009787546	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
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Call Sign	WQGD474	Application Status	G - Granted
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General Information

Application Purpose	RO - Renewal Only
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Existing Radio Service	
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Authorization Type	Regular	Emergency STA	
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Receipt Date	11/05/2021	Action Date	02/09/2022
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Entered Date	11/05/2021	Requested Expiration Date	
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Waiver	No	Number of Rules	
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Attachments	Yes	Grandfathered Privileges	No
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Application Fee Exempt	No	Regulatory Fee Exempt	No
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Major Request	
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Use Question	
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Market Data

Market	BEA096 - St. Louis, MO-IL	Channel Block	C
Submarket Designator	0	Associated Frequencies (MHz)	001730.00000000-001735.00000000-002130.00000000-002135.00000000

Applicant Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 F:(770)797-1036 E:licensingcompliance@verizonwireless.com

Real Party in Interest		FRN of Real Party in Interest	
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Contact Information

Name	Cellco Partnership Licensing Manager 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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facilities to provide at least the level of operation required by its final performance requirement through the end of the license term.

For a geographic license, private systems - licensee in any subsequent term

Applicant certifies that it continues to use its facilities to further its private business or public interest/public safety communications needs at or above the level required to meet its final performance requirement through the end of any subsequent license terms.

For a partitioned or disaggregated license without a performance requirement, for the first renewal application filed after 05/30/2020.

Applicant certifies that the partitioned and/or disaggregated license that is the subject of this renewal application has no separate performance requirement and that this is the first renewal of this license filed subsequent 10/01/2020.

For a partitioned or disaggregated license without a performance requirement, for any subsequent renewal filings

Applicant certifies that it continues to use its facilities to provide service or to further the applicant's private business or public interest/public safety needs.

Discontinuance of Service Certification

Applicant certifies that no permanent discontinuance of service or operation, as applicable, occurred during its current license term.

Regulatory Compliance Certification

Applicant certifies that it has substantially complied with all applicable FCC rules, policies, and the Communications Act of 1934, as amended.

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGD606), File Number (0009565676), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGD606

File Number: 0009565676

Print Date: 07-09-2022

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0010093348 - Cellco Partnership

File Number 0010093348

Application Status Q - Accepted

General Information

Application Purpose NT - Required Notification

Existing Radio Service

Authorization Type

Emergency STA

Receipt Date 06/16/2022

Action Date 06/17/2022

Entered Date 06/16/2022

Requested Expiration Date

Waiver No

Number of Rules

Attachments

Grandfathered Privileges

Application Fee Exempt No

Regulatory Fee Exempt

Major Request

Applicant Information

FRN 0003290673

Type

General Partnership

Name Cellco Partnership
5055 North Point Pkwy, NP2NE
Engineering
Alpharetta, GA 30022
ATTN RegulatoryP:(770)797-1070
E:Licensing.Compliance@verizonwireless.com

Real Party in Interest

FRN of Real Party in Interest

Contact InformationName Verizon
Sarah Trosch
1300 I Street, NW - Suite 500 East
Washington, DC 20005P:(202)515-2453
E:sarah.trosch@verizon.com

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: LICENSING MANAGER
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQGV763), File Number (0009905996), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz))

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGV763

File Number: 0009905996

Print Date: 04-05-2022

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0010157192 - Illinois RSA 6 and 7 Limited Partnership

File Number	0010157192	Application Status	Q - Accepted
Application Purpose	LN - New Lease	Classification of Lease	Spectrum Manager

General Information

Application Purpose	LN - New Lease		
Receipt Date	08/08/2022		
Entered Date	08/08/2022	Action Date	12/03/2022
Waiver	Yes	Number of Rules	
Attachments	Yes		
Application Fee Exempt	No	Waiver/Deferral Fee	No

Licensee Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership ATTN Regulatory 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 E:Licensing.Compliance@verizonwireless.com
Race		Gender	
Ethnicity			

Licensee Contact Information

Name	Verizon Sarah Trosch 1300 I St NW - Suite 500 East Washington, DC 20005	P:(202)515-2453 E:sarah.trosch@verizon.com
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Lessee Information

FRN	0002842334	Type	Limited Partnership
Name	Illinois RSA 6 and 7 Limited Partnership ATTN Regulatory 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 E:licensingcompliance@verizonwireless.com
Real Party In Interest	Cellco Partnership	FRN of Real Party in Interest	0003290673
Race		Gender	
Ethnicity			

Lessee Contact Information

Name	Verizon	P:(202)515-2453
	Sarah Trosch	E:sarah.trosch@verizon.com
	1300 I St Nw - Suite 500 East	
	Washington, DC 20005	

Lessee Qualifications and Ownership Information

Radio Service
Type

Regulatory Status Interconnected

Alien Ownership

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

Basic Qualifications

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

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Call Sign WQHG455	File Number 0009041605
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003290673

Grant Date 06-30-2017	Effective Date 05-29-2020	Expiration Date 07-23-2027	Print Date 08-12-2020
Market Number BTA135	Channel Block C	Sub-Market Designator 5	
Market Name Evansville, IN			
1st Build-out Date 07-23-2012	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQHG455

File Number: 0009041605

Print Date: 08-12-2020

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

0010812881 - Trace-Tek

File Number	0010812881	Application Status	G - Granted
Application Purpose	LN - New Lease	Classification of Lease	<i>De Facto</i> Transfer Lease

General Information

Application Purpose	LN - New Lease		
Receipt Date	12/13/2023		
Entered Date	12/13/2023	Action Date	02/24/2024
Waiver	No	Number of Rules	
Attachments	Yes		
Application Fee Exempt	No	Waiver/Deferral Fee	No

Licensee Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership ATTN Regulatory 5055 North Point Pkwy, NP2NE Engineering Alpharetta, GA 30022		P:(770)797-1070 E:Licensing.Compliance@verizonwireless.com
Race		Gender	
Ethnicity			

Licensee Contact Information

Name	Verizon Sarah Trosch 1300 I St, NW- Suite 500 East Washington, DC 20005		P:(202)515-2453 E:sarah.trosch@verizon.com
------	--	--	---

Lessee Information

FRN	0030856223	Type	Limited Liability Company
Name	Trace-Tek ATTN licenses@trace-tek.com 2625 Commons Boulevard Beavercreek, OH 45341		P:(972)672-0477 E:licenses@trace-tek.com
Real Party In Interest	Trace-Tek	FRN of Real Party in Interest	0030856223
Race		Gender	
Ethnicity			

Lessee Contact Information

Name	Trace-Tek Garrett Loo ATTN licenses@trace-tek.com 2625 Commons Boulevard Beavercreek, OH 45341	P:(972)672-0477 E:licenses@trace-tek.com
------	--	---

Lessee Qualifications and Ownership Information

Radio Service
Type

Regulatory Status Interconnected

Alien Ownership

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

Basic Qualifications

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

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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQJQ692), File Number, and Radio Service (WU - 700 MHz Upper Band (Block C)).

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 2nd Build-out Date, 3rd Build-out Date, 4th Build-out Date.

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ692

File Number:

Print Date:

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

700 MHz Upper Band (Block C) - 0010612840 - Cellco Partnership

File Number	0010612840	Radio Service	WU - 700 MHz Upper Band (Block C)
Call Sign	WQJQ692	Application Status	2 - Pending

General Information

Application Purpose	AM - Amendment	Original Application Purpose	MD - Modification
Existing Radio Service			
Authorization Type	Regular	Emergency STA	
Receipt Date	10/15/2024	Action Date	10/16/2024
Entered Date	10/15/2024	Requested Expiration Date	
Waiver	No	Number of Rules	
Attachments	Yes	Grandfathered Privileges	No
Application Fee Exempt	No	Regulatory Fee Exempt	No
Major Request			

Market Data

Market	REA004 - Mississippi Valley	Channel Block	C
Submarket Designator	0	Associated Frequencies (MHz)	000746.00000000-000757.00000000-000776.00000000-000787.00000000

Applicant Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022 ATTN Regulatory		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
Real Party in Interest		FRN of Real Party in Interest	

Contact Information

Name	Verizon Wireless Licensing Manager 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Table with Call Sign (WQWY363), File Number (0009762545), and Radio Service (AW - AWS (1710-1755 MHz and 2110-2155 MHz))

FCC Registration Number (FRN): 0003290673

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 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.

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.

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).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQWY363

File Number: 0009762545

Print Date: 12-14-2021

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).

Reference Copy

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQWY363

File Number: 0009762545

Print Date: 12-14-2021

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
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Reference Copy

ULS Application

AWS (1710-1755 MHz and 2110-2155 MHz) - 0009762545 - Cellco Partnership

File Number	0009762545	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Call Sign	WQWY363	Application Status	G - Granted

General Information

Application Purpose	RO - Renewal Only	Emergency STA	
Existing Radio Service		Action Date	12/14/2021
Authorization Type	Regular	Requested Expiration Date	
Receipt Date	10/21/2021	Number of Rules	
Entered Date	10/21/2021	Grandfathered Privileges	No
Waiver	No	Regulatory Fee Exempt	No
Attachments	Yes	Major Request Use Question	

Market Data

Market	REA004 - Mississippi Valley	Channel Block	D
Submarket Designator	16	Associated Frequencies (MHz)	001735.00000000-001740.00000000-002135.00000000-002140.00000000

Applicant Information

FRN	0003290673	Type	General Partnership
Name	Cellco Partnership 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 F:(770)797-1036 E:licensingcompliance@verizonwireless.com
Real Party in Interest		FRN of Real Party in Interest	

Contact Information

Name	Verizon Wireless Licensing Manager 5055 North Point Pkwy, NP2NE Network Engineering Alpharetta, GA 30022		P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@VerizonWireless.com
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facilities to provide at least the level of operation required by its final performance requirement through the end of the license term.

For a geographic license, private systems - licensee in any subsequent term

Applicant certifies that it continues to use its facilities to further its private business or public interest/public safety communications needs at or above the level required to meet its final performance requirement through the end of any subsequent license terms.

For a partitioned or disaggregated license without a performance requirement, for the first renewal application filed after 05/30/2020.

Applicant certifies that the partitioned and/or disaggregated license that is the subject of this renewal application has no separate performance requirement and that this is the first renewal of this license filed subsequent 10/01/2020.

For a partitioned or disaggregated license without a performance requirement, for any subsequent renewal filings

Applicant certifies that it continues to use its facilities to provide service or to further the applicant's private business or public interest/public safety needs.

Discontinuance of Service Certification

Applicant certifies that no permanent discontinuance of service or operation, as applicable, occurred during its current license term.

Regulatory Compliance Certification

Applicant certifies that it has substantially complied with all applicable FCC rules, policies, and the Communications Act of 1934, as amended.

EXHIBIT B

SITE DEVELOPMENT PLAN:

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



8601 SIX FORKS ROAD, SUITE 250
RALEIGH, NC 27615

EV SMITHLAND NORTH

APC SITE #: US-KY-5203

BRUMITTE RD
SMITHLAND, KY 42081
LIVINGSTON COUNTY

TENANT: LEGAL BUSINESS ENTITY CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS

Bowman

CONSULTING ENGINEERS,
LANDSCAPE ARCHITECTS, PLANNERS AND
SURVEYORS

3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427



8601 SIX FORKS ROAD, SUITE 250
RALEIGH, NC 27615
PHONE (919) 249-7732

**NEW 250' GUYED TOWER
w/5' LIGHTNING ROD
TOTAL TOWER HEIGHT 255'**

DIRECTIONS CREATED BY:
CONTACT: JEFFREY LASHBROOK
PHONE: 502-459-8402

FROM 800 RUSSELL ROAD CHANDLER, IN 47610: HEAD WEST ON RUSSELL RD (0.2 MI.). TURN RIGHT TO STAY ON RUSSELL RD (0.3 MI.). TURN LEFT ONTO GARDNER RD (1.6 MI.). TURN LEFT ONTO IN-62 (4.2 MI.). USE RIGHT LANE TO -69 S (0.3 MI.). FOLLOW I-69S (8.1 MI.). TAKE EXIT 0 FOR VETERANS MEM PKWY (0.1 MI.). KEEP LEFT AT FORK FOR US-41 A (7.0 MI.). USE RIGHT 2 LANES TO MERGE ONTO US-41/US 60 W (12.6 MI.). TURN LEFT ONTO STATE HWY 1557 (3.2 MI.). TURN LEFT ON PETER CRUZ RD (0.7 MI.). TURN LEFT ONTO BARKER RD (0.8 MI.). TURN LEFT ONTO T L BISHOP RD (0.8 MI.). TURN LEFT ONTO KY-141 S (15.9 MI.). TURN LEFT ONTO US-60 W (15.3 MI.). TURN RIGHT ONTO W GUM ST AND CONTINUE ON US-60 W (25.2 MI.). TURN LEFT ONTO BURMITTE RD (495 FT). DESTINATION WILL BE ON THE LEFT.
FROM COUNTY SEAT, 321 COURT ST, SMITHLAND, KY 42081: HEAD NORTHWEST ON COURT ST (282 FT). TURN RIGHT ONTO US 60E/ E ADAIR ST (1.3 MI.). TURN RIGHT ONTO BURMITTE RD (0.1 MI.). DESTINATION WILL BE ON THE LEFT.

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE

TOWER OWNER SITE
EV SMITHLAND NORTH
SITE #: US-KY-5203

VERIZON WIRELESS SITE
EV SMITHLAND NORTH
PROJECT#: N/A
MARKET ID: EV
MDG#: 5000931481

SITE ADDRESS
BRUMITTE RD
SMITHLAND, KY 42081
LIVINGSTON COUNTY
E911 ADDRESS: TBD

TOWER OWNER
APC TOWERS IV, LLC
8601 SIX FORKS RD, SUITE 250
RALEIGH, NC 27615
CONTACT: PAUL ALVAREZ
PHONE: 919-249-7732
MOBILE: 224-828-3092
E-MAIL: PALVAREZ@APTOWERS.COM

PROPERTY OWNER
NANCY K CHAMPION
985 US HWY 60 E
SMITHLAND, KY 42081
CONTACT: ZACK CHAMPION
PHONE: 270-508-0693
E-MAIL: zchampion07@gmail.com

POLICE
LIVINGSTON COUNTY SHERIFF
321 COURT ST
SMITHLAND, KY 42081
PHONE: 270-928-2122

FIRE
LEDBETTER FIRE DISTRICT
857 CUTOFF RD
SMITHLAND, KY 42081
PHONE: 207-928-2555

GENERAL INFORMATION
LATITUDE - 37° 09' 27.01" N
LONGITUDE - 88° 23' 45.38" W
1983 (NAD83)
ELEVATION - 347.00' AMSL
1988 (NAVD88)

TOWER OWNER LEASE AREA
100'-0" x 100'-0"
(10000 SF)

VERIZON WIRELESS LEASE AREA
20'-0" x 36'-0"
(720 SF)

PROJECT TOTAL DISTURBED AREA
COMPOUND: (10000 SF) = (0.23 ACRE)
ACCESS DRIVE: (4825 SF) = (0.11 ACRE)
GROSS AREA: (14825 SF) = (0.34 ACRE)

PROJECT DESCRIPTION:
NOTE: ALL ITEMS WITHIN THESE CONSTRUCTION DOCUMENTS ARE BY TOWER OWNER'S GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS UNLESS NOTED AS (VZW GC) WHICH SHALL INCLUDE VERIZON WIRELESS GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS. GENERALLY DESCRIBED BELOW:

TOWER OWNER SCOPE:

- INSTALL A NEW 250' GUYED TOWER w/ 5' LIGHTNING ROD (TOTAL 255')
- INSTALL A NEW TOWER FOUNDATION SYSTEM
- INSTALL A NEW 60'X60' FENCED GRAVEL COMPOUND
- INSTALL A NEW ELECTRICAL SERVICE RUN TO SITE UTILITY H-FRAME
- INSTALL A NEW GRAVEL ACCESS DRIVE
- NO WATER OR SEWAGE SERVICES RUN TO SITE
- INSTALL NEW TOWER & SITE GROUNDING SYSTEM
- INSTALL NEW VZW SUBSURFACE GROUNDING SYSTEM
- INSTALL A NEW VZW CONCRETE EQUIPMENT AND GENERATOR PADS
- INSTALL VZW ICE BRIDGE AND FOUNDATIONS
- INSTALL VZW EQUIPMENT H-FRAME AND FOUNDATIONS
- INSTALL ELECTRICAL SERVICE CONDUIT WITH PULL TAPES FROM ILC ENCLOSURE STUB-UP TO UTILITY H-FRAME
- INSTALL NEW CONDUITS WITH PULL TAPES FROM VZW ILC STUB-UP LOCATION TO THE GENERATOR STUB-UP AT VZW GENERATOR PAD
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC 4" PVC CONDUIT WITH (3) 1" SMOOTH WALL HDPE INNERDUCTS WITH PULL TAPES AND TRACER WIRE FROM VZW EQUIPMENT TO NEW "VERIZON WIRELESS ONLY" 24"X36" HAND HOLE OUTSIDE COMPOUND THEN TO NEW "VERIZON WIRELESS ONLY" 24"X36" HAND HOLE AT R.O.W.
- PERMANENT ELECTRIC POWER MUST BE AVAILABLE FOR VERIZON WIRELESS AT THE METER BASE PRIOR TO THE SITE BEING RELEASED AS TENANT READY

VERIZON WIRELESS SCOPE (VZW GC):

- INSTALL VZW PREFABRICATED CANOPY AND FOUNDATIONS
- INSTALL VZW ANTENNA MOUNTING SUPPORT STRUCTURE ON TOWER
- INSTALL VZW ANTENNAS, LINES, COAX, GPS ANTENNA AND RADIO EQUIPMENT
- INSTALL EXISTING SUBSURFACE GROUND LEADS TO VZW EQUIPMENT & FACILITIES
- INSTALL VZW ELECTRIC SERVICE CONDUCTORS FROM UTILITY H-FRAME TO VZW ILC ENCLOSURE
- INSTALL NEW CONDUITS WITH PULL TAPES FROM RF CABINET TO OVP H-FRAME LIT FIBER LOCATION
- INSTALL NEW CONDUITS AND CIRCUITS FROM VZW ILC ENCLOSURE TO EQUIPMENT ENCLOSURES AT VZW EQUIPMENT PAD
- INSTALL VZW GENERATOR CIRCUITS FROM VZW ILC & EQUIPMENT ENCLOSURES TO VZW GENERATOR
- INSTALL NEW OUTDOOR OVPS AND CABLING ON VERIZON EQUIPMENT H-FRAME

ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

BUILDING CODE 2018 KENTUCKY BUILDING CODE (IBC 2015)
STRUCTURAL CODE TIA/EIA-222 - REVISION G (INCLUDES ADDENDUM #2)
MECHANICAL CODE 2015 INTERNATIONAL MECHANICAL CODE (IMC 2015)
PLUMBING CODE KENTUCKY STATE PLUMBING CODE (815 KAR CHAP. 20)
ELECTRICAL CODE 2017 NATIONAL ELECTRICAL CODE (NEC) - NFPA 70
FIRE/LIFE SAFETY CODE 2015 INTERNATIONAL FIRE CODE (2015 IFC)
ENERGY CODE 2012 INTERNATIONAL ENERGY CODE (COMMERCIAL)
GAS CODE 2012 NATIONAL FUEL GAS CODE (NFPA 54)

ACCESSIBILITY REQUIREMENTS:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE 2015 IBC BUILDING CODE.

APPLICABLE CODES

SURVEYOR
SHARONDALE SURVEYING, INC.
161 MARTIN RD, BON AQUA, TN 37025
PHONE: 615-513-0032
EMAIL: SHARNDAL@BELLSOUTH.NET

ARCHITECTURAL
BOWMAN
3001 TAYLOR SPRINGS DR
LOUISVILLE, KY 40220
CONTACT: JEFFREY LASHBROOK
PHONE: 502-459-8402
EMAIL: jlashbrook@bowman.com

ELECTRICAL
JACKSON PURCHASE ENERGY
ADDRESS: 6525 US HWY 60
PADUCAH, KY 42001
CONTACT: ANDY POLLARD
PHONE: 270-519-5123
EMAIL: Andy.Pollard@jpenergy.com

CONSULTANT TEAM

SHEET NUMBER **DESCRIPTION**

T-1 PROJECT INFORMATION, SITE MAPS, SHEET INDEX SURVEY PLAN

CIVIL

C-1 OVERALL SITE PLAN w/AERIAL OVERLAY
C-1A OVERALL SITE PLAN w/PLATFORM DISTANCE TO PROPERTY LINES
C-1B TOWER DISTANCE TO RESIDENTIAL STRUCTURES
C-1C COUNTY TOWER MAP
C-2 GRADING AND E&S CONTROL PLAN
C-3 DETAILED SITE PLAN
C-4 DIMENSIONED SITE PLAN
C-5 DETAILED EQUIPMENT PAD PLAN

SITE DETAILS

D-1-1A FENCE DETAILS AND NOTES

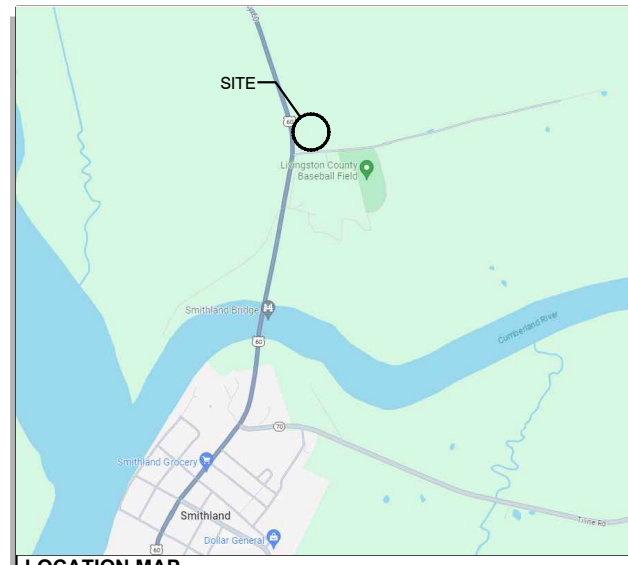
D-4 SIGNAGE (REFERENCE ONLY)
D-5 TOWER OWNER SITE FENCE SIGNAGE (REFERENCE ONLY)

TOWER ELEVATION

TE-1 TOWER ELEVATION

PROJECT SUMMARY

PROJECT DESCRIPTION



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

PROJECT INFORMATION,
SITE MAPS, SHEET INDEX

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

T-1
Mk PAD & CANOPY REV 4 FINAL 04/23/24

FLOOD HAZARD STATEMENT:

THIS COMMUNICATIONS SITE (THE SUBJECT SITE AS SHOWN) IS NOT LOCATED WITHIN THE LIMITS OF A DESIGNATED 100 YEAR FLOOD ZONE PER FEMA FIRM MAP COMMUNITY PANEL NUMBER 21139C 0170 D, LIVINGSTON COUNTY, KENTUCKY. EFFECTIVE DATE SEPTEMBER 10, 2021.

THE NEAREST FLOOD HAZARD AREA IS THE CUMBERLAND RIVER, WHICH LOCATED APPROXIMATELY 2,800 L.F. IN A SOUTHERLY DIRECTION FROM THIS PROPOSED TOWER SITE.

PROJECT BENCHMARK

PROJECT BENCHMARK ELEVATION DATUM IS BASED UPON GPS SURVEY METHODS AND PROCEDURES. TOP OF CAPPED "SHARONDALE NASHVILLE" IRON PIN SET THIS SURVEY ELEVATION = 346.32' N.A.V.D. 88 (SEE PLAN FOR LOCATION)

GPS SURVEY CERTIFICATION:

1. THIS SURVEY WAS PERFORMED USING RTK POSITIONAL DATA.
2. EQUIPMENT USED WAS A SOKKIA GRX3, DUAL FREQUENCY, BASE SERIAL # 1467-10585, ROVER SERIAL # 1467-10590.
3. THE GRID COORDINATES OF THE FIXED STATION(S) SHOWN WERE DERIVED USING A VRS NETWORK OF THE CORPS STATIONS REFERENCING NAD 83 (2011), (EPOCH 2010), GEOID 12B.
4. THE RELATIVE POSITIONAL ACCURACY OF THE GPS VECTORS DOES NOT EXCEED 0.1" H & 0.01" V.
5. BEARINGS ARE RELATIVE TO KENTUCKY STATE PLANE (SOUTH ZONE). ALL REFERENCES TO GRID BEARINGS AND KENTUCKY STATE PLANE (SOUTH ZONE) COORDINATES AS INDICATED ARE UNADJUSTED, NAD 83 SURVEY FEET, WITH CONVERGENCE ANGLE OF -0.84356111 DEGREES, A SCALE FACTOR OF 0.99978940 DEGREES, AND A COMBINED FACTOR OF 0.99977736 DEGREES.

SPECIAL NOTE:

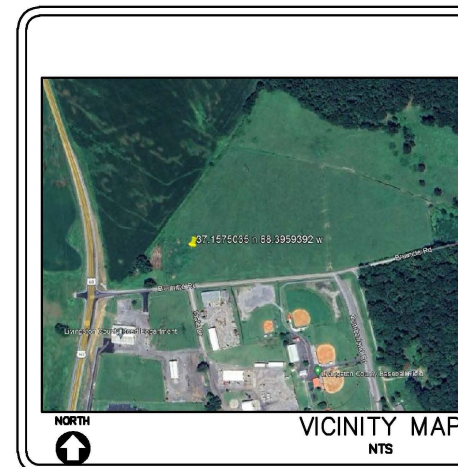
THIS SURVEY PLAN WAS PERFORMED UNDER THE AUTHORITY OF KENTUCKY REVISED STATUTES (201 KAR 18.150), AND IS NOT TO BE CONSIDERED A GENERAL PROPERTY BOUNDARY SURVEY AS DEFINED WITHIN KENTUCKY REVISED STATUTES. DIMENSIONS (IF SHOWN) ALONG THE PERIMETER OF THE LANDOWNER'S PROPERTY ARE PROVIDED UNDER THIS SURVEYOR'S SCOPE OF SERVICES WITH APC TOWERS IV, LLC, AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. THE EXACT LOCATION OF THE LANDOWNER'S PROPERTY MAY DIFFER UPON THE PREPARATION OF A FULL BOUNDARY SURVEY IN ACCORDANCE WITH REQUIREMENTS ESTABLISHED BY THE STATE OF KENTUCKY.

CENTERLINE OF PROPOSED TOWER LEASE AREA
 LATITUDE = 37° 09' 27.01"
 LONGITUDE = 88° 23' 45.38"
 ELEVATION = 347.00' N.A.V.D. 88

KY SPC (SOUTH ZONE)
 NAD 83 GRID NORTH



Scale 1" = 60'
 GRAPHIC SCALE
 (11" X 17" SHEET SIZE)



GENERAL NOTES:

1. I HEREBY CERTIFY THAT THE SURVEY DEPICTED BY THIS PLAT WAS PREPARED BY PERSONS UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION OF THE TRAVERSE RATIO WAS 1:21,240, AND WAS NOT ADJUSTED. THE SURVEY AS SHOWN HEREON IS AN URBAN SURVEY, AND THE ACCURACY AND PRECISION OF SAID SURVEY MEETS ALL THE SPECIFICATIONS OF THIS CLASS.
 FRANK V. NEELEY, P.L.S. # 3093 DATE: FEBRUARY 23, 2024
2. TOPOGRAPHIC ELEVATIONS SHOWN WERE DERIVED FROM GRID CROSS-SECTIONS, USING A TOTAL STATION FOR HORIZONTAL AND VERTICAL CONTROL. ALL DISTANCES MEASURED HAVE BEEN ADJUSTED FOR TEMPERATURE.
4. PARCEL NUMBERS SHOWN THUS (00), REFER TO TAX MAP NO. 60, OF THE PROPERTY VALUATION OFFICE OF NICHOLAS COUNTY, KENTUCKY.
5. BEARINGS SHOWN ARE REFERENCED FROM GLOBALLY POSITIONED SATELLITE MONUMENTS AS ESTABLISHED FOR THIS SURVEY.
6. PROPERTY OWNER:
 NANCY K. CHAMPION
 985 U. S. HIGHWAY 60 EAST
 SMITHLAND, KY 42081
7. IRON PINS SET ARE 18" MINIMUM LENGTH REINFORCING STEEL BARS WITH A PLASTIC CAPPED EMBOSSED "KY PLS #3093", UNLESS ROCK OR OTHER LIKE MATERIAL IS ENCOUNTERED.
8. DATE OF FIELD SURVEY: THURSDAY, FEBRUARY 15, 2024.
9. NOT VALID WITHOUT THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR.

PERIMETER DATA - APC TOWERS IV LLC'S VARIABLE WIDTH JOINT ACCESS & UTILITY EASEMENT

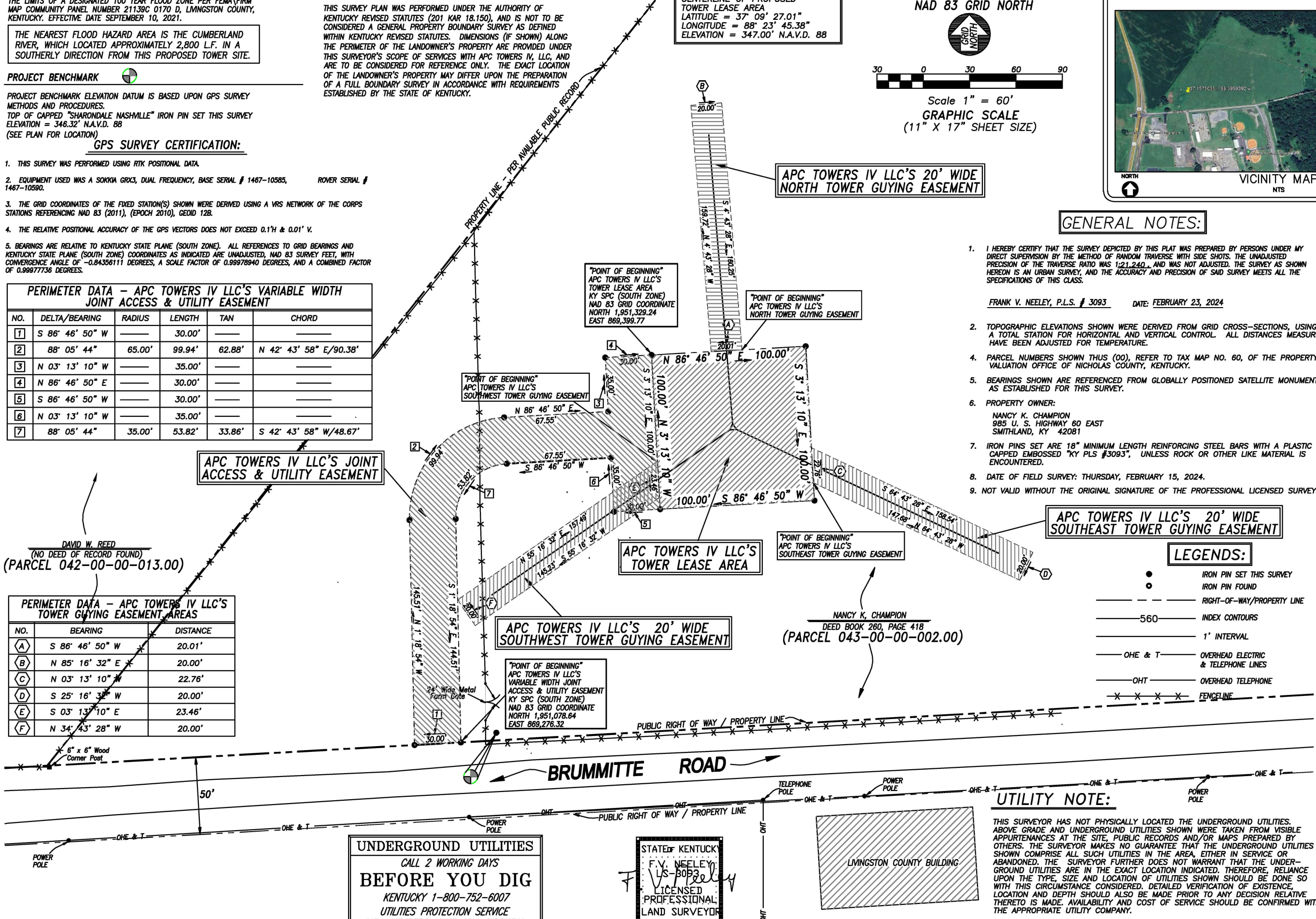
NO.	DELTA/BEARING	RADIUS	LENGTH	TAN	CHORD
1	S 86° 46' 50" W	—	30.00'	—	—
2	88° 05' 44"	65.00'	99.94'	62.88'	N 42° 43' 58" E/90.38'
3	N 03° 13' 10" W	—	35.00'	—	—
4	N 86° 46' 50" E	—	30.00'	—	—
5	S 86° 46' 50" W	—	30.00'	—	—
6	N 03° 13' 10" W	—	35.00'	—	—
7	88° 05' 44"	35.00'	53.82'	33.86'	S 42° 43' 58" W/48.67'

PERIMETER DATA - APC TOWERS IV LLC'S TOWER GUYING EASEMENT AREAS

NO.	BEARING	DISTANCE
A	S 86° 46' 50" W	20.01'
B	N 85° 16' 32" E	20.00'
C	N 03° 13' 10" W	22.76'
D	S 25° 16' 32" W	20.00'
E	S 03° 13' 10" E	23.46'
F	N 34° 43' 28" W	20.00'

DAVID W. REED
 (NO DEED OF RECORD FOUND)
 (PARCEL 042-00-00-013.00)

NANCY K. CHAMPION
 DEED BOOK 260, PAGE 418
 (PARCEL 043-00-00-002.00)



APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE NORTH TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

APC TOWERS IV LLC'S 20' WIDE SOUTHWEST TOWER GUYING EASEMENT

LEGENDS:

- IRON PIN SET THIS SURVEY
- IRON PIN FOUND
- RIGHT-OF-WAY/PROPERTY LINE
- 560 INDEX CONTOURS
- 1' INTERVAL
- OHE & T OVERHEAD ELECTRIC & TELEPHONE LINES
- OHT OVERHEAD TELEPHONE
- X X X X FENCELINE

UTILITY NOTE:

THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE. PUBLIC RECORDS AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY.

UNDERGROUND UTILITIES
 CALL 2 WORKING DAYS
BEFORE YOU DIG
 KENTUCKY 1-800-752-6007
 UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST CALL DIRECTLY

STATE OF KENTUCKY
 F.V. NEELEY, P.L.S. #3093
 LICENSED PROFESSIONAL LAND SURVEYOR

PLOT DATE: JULY 24, 2024

APC Towers

SHARONDALE SURVEYING INC.
 161 MARTIN ROAD
 BON AQUA, TN 37025
 (615) 513-0032
 E-Mail: Sharonda@bellsouth.net

APC TOWERS IV LLC SITE SURVEY: KENTUCKY "EV SMITHLAND NORTH" TOWER SITE
 LOCATED IN: SMITHLAND, LIVINGSTON COUNTY, KENTUCKY
 TOWER LEASE AREA SURVEY
 PREPARED FOR: APC TOWERS IV LLC
 APC TOWERS IV LLC SITE NUMBER: 5000931481

SHEET NUMBER:
1 OF 2

PROJECT NUMBER:
 224.014.20

SPECIAL NOTE:

THIS SURVEY PLAN WAS PERFORMED UNDER THE AUTHORITY OF KENTUCKY REVISED STATUTES (201 KAR 18.150), AND IS NOT TO BE CONSIDERED A GENERAL PROPERTY BOUNDARY SURVEY AS DEFINED WITHIN KENTUCKY REVISED STATUTES. DIMENSIONS (IF SHOWN) ALONG THE PERIMETER OF THE LANDOWNER'S PROPERTY ARE PROVIDED UNDER THIS SURVEYOR'S SCOPE OF SERVICES WITH APC TOWERS, AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. THE EXACT LOCATION OF THE LANDOWNER'S PROPERTY MAY DIFFER UPON THE PREPARATION OF A FULL BOUNDARY SURVEY IN ACCORDANCE WITH REQUIREMENTS ESTABLISHED BY THE STATE OF KENTUCKY.

CERTIFICATION

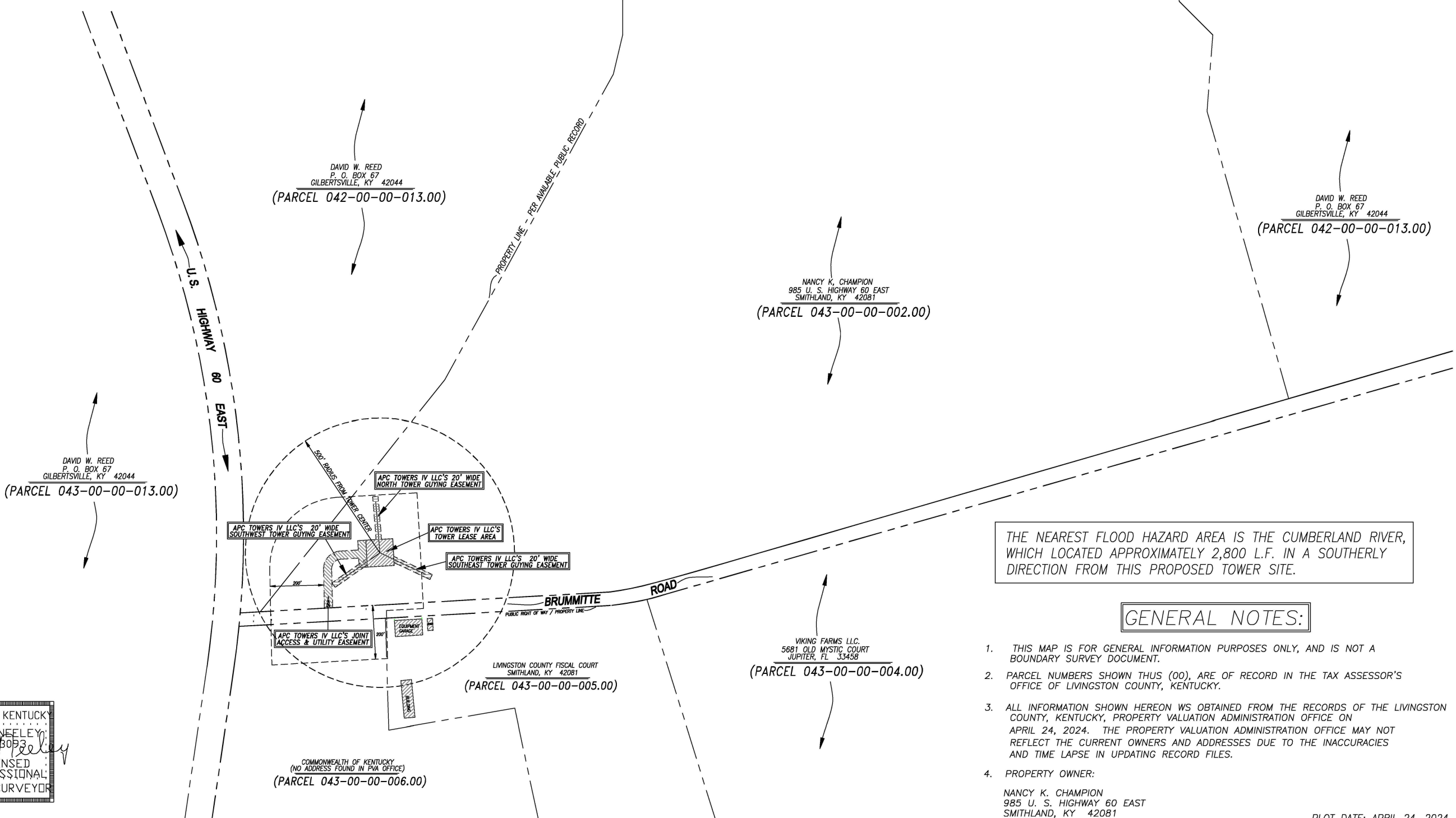
I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING SERVICES HAVE BEEN REQUESTED OR PERFORMED IN THE PREPARATION OF THIS EXHIBIT.

F. V. Neeley APRIL 24, 2024
 FRANK V. NEELEY, PLS #3093V DATE

KY SPC (SOUTH ZONE)
 NAD 83 GRID NORTH



Scale 1" = 400'
 GRAPHIC SCALE
 (11" X 17" SHEET SIZE)

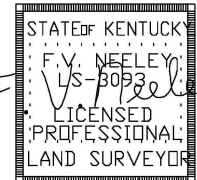


THE NEAREST FLOOD HAZARD AREA IS THE CUMBERLAND RIVER, WHICH LOCATED APPROXIMATELY 2,800 L.F. IN A SOUTHERLY DIRECTION FROM THIS PROPOSED TOWER SITE.

GENERAL NOTES:

1. THIS MAP IS FOR GENERAL INFORMATION PURPOSES ONLY, AND IS NOT A BOUNDARY SURVEY DOCUMENT.
2. PARCEL NUMBERS SHOWN THUS (00), ARE OF RECORD IN THE TAX ASSESSOR'S OFFICE OF LIVINGSTON COUNTY, KENTUCKY.
3. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE LIVINGSTON COUNTY, KENTUCKY, PROPERTY VALUATION ADMINISTRATION OFFICE ON APRIL 24, 2024. THE PROPERTY VALUATION ADMINISTRATION OFFICE MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING RECORD FILES.
4. PROPERTY OWNER:
 NANCY K. CHAMPION
 985 U. S. HIGHWAY 60 EAST
 SMITHLAND, KY 42081

PLOT DATE: APRIL 24, 2024



SHARONDALE SURVEYING INC.
 161 MARTIN ROAD
 BON AQUA, TN 37025
 (615) 513-0032
 E-Mail: Sharonda@bellsouth.net

500' RADIUS & ABUTTER'S MAP
 TAX PARCEL 043-00-00-002.00
 PROPERTY VALUATION ADMINISTRATOR'S OFFICE
 SMITHLAND, LIVINGSTON COUNTY, KENTUCKY
 PREPARED FOR: APC TOWERS IV LLC
 APC TOWERS IV LLC SITE NUMBER: 5000931481

SHEET NUMBER:

1 OF 1

PROJECT NUMBER:

224.014.30

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



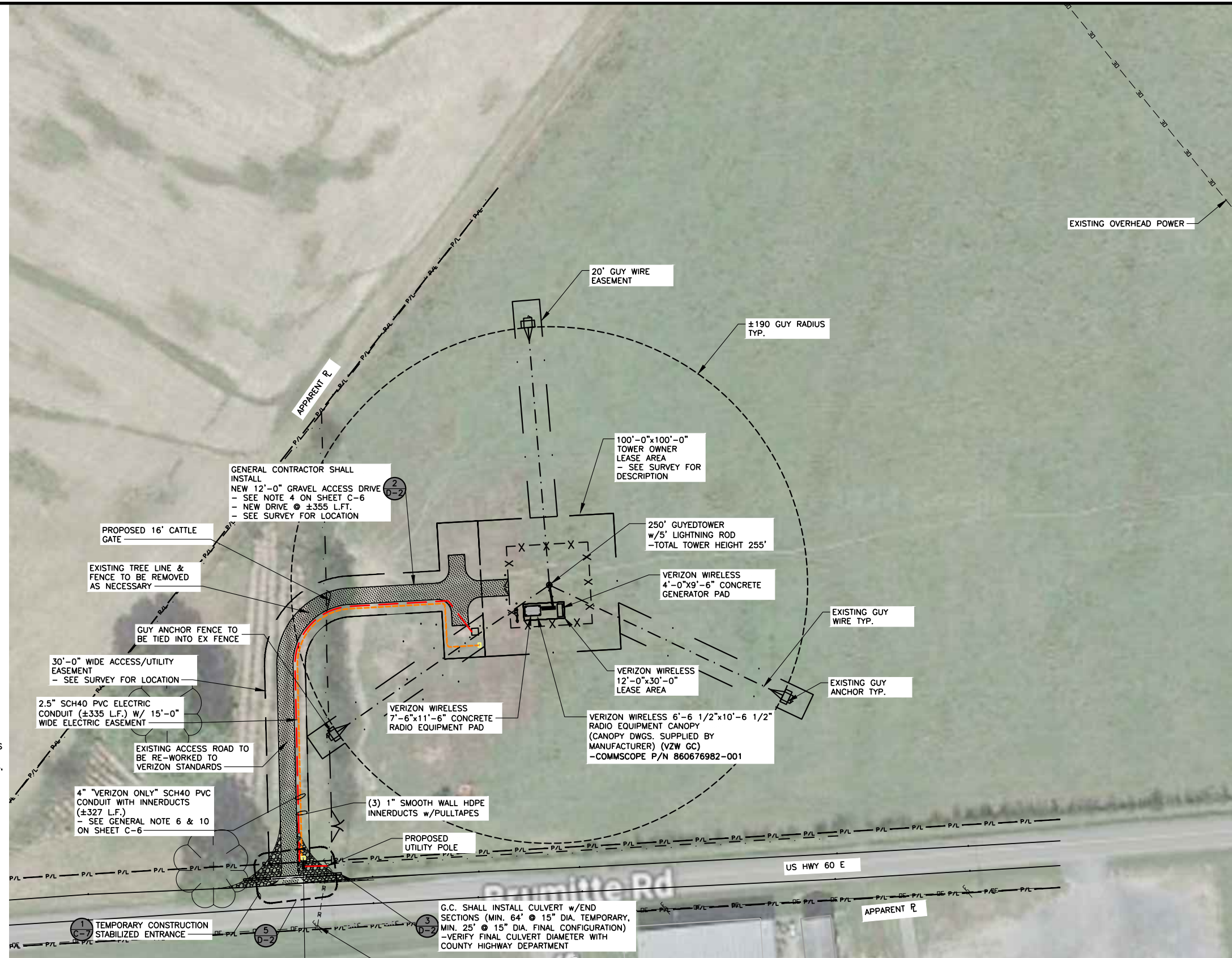
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081
OVERALL SITE PLAN W/
AERIAL OVERLAY

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

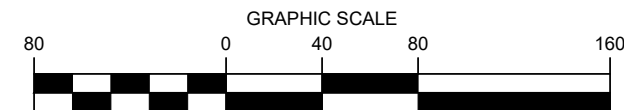
JOB NUMBER
240900-01-004

C-1



APWA UTILITY COLOR CODES

- PROPOSED CONSTRUCTION
- TEMPORARY SURVEY MARKINGS
- ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
- GAS, OIL, STEAM, PETROLEUM OR GASEOUS MATERIALS
- COMMUNICATION, ALARM OR SIGNAL LINES, CABLES OR CONDUIT
- POTABLE WATER
- RECLAIMED WATER, IRRIGATION AND SLURRY LINES
- SEWERS AND DRAIN LINES



OVERALL SITE PLAN
w/AERIAL OVERLAY

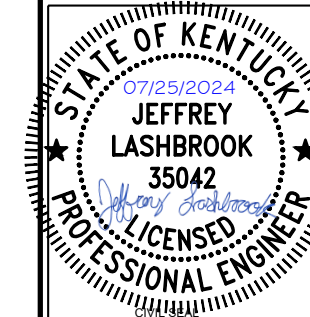
SCALE: 1" = 80'



Know what's below.
Call before you dig.
Call Monday thru Friday - 7 am. to 6 pm.
1-800-752-6007

PER KENTUCKY STATE LAW, IT IS AGAINST THE
LAW TO EXCAVATE WITHOUT NOTIFYING THE
UNDERGROUND LOCATION SERVICE TWO (2)
WORKING DAYS BEFORE COMMENCING WORK.

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

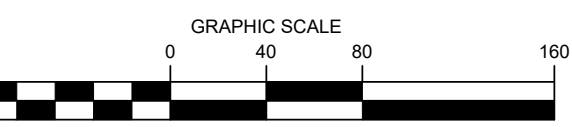
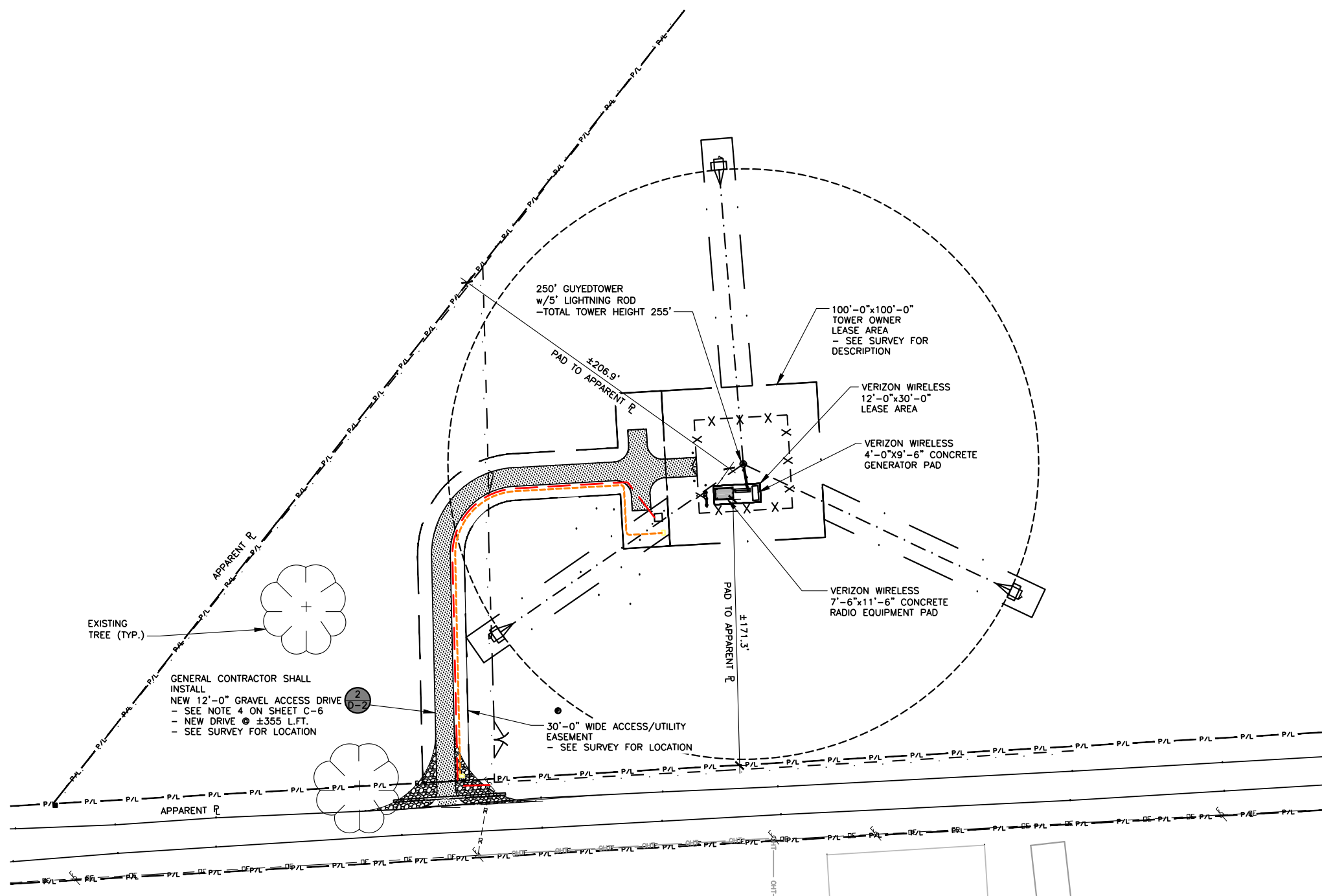
OVERALL SITE PLAN W/
PLATFORM DISTANCE TO
PROPERTY LINES

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

C-1A



OVERALL SITE PLAN w/PAD
DISTANCE TO PROPERTY LINES

SCALE: 1" = 80'



Know what's below.
Call before you dig.
Call Monday thru Friday - 7 am. to 6 pm.
1-800-752-6007

PER KENTUCKY STATE LAW, IT IS AGAINST THE
LAW TO EXCAVATE WITHOUT NOTIFYING THE
UNDERGROUND LOCATION SERVICE TWO (2)
WORKING DAYS BEFORE COMMENCING WORK.

J:\APC Towers\EV Smithland North - Rawland - 240900-01-004\Drawings\EV Smithland North_MIK Rev 3 Final.dwg, C-1A, 7/25/2024 4:06:08 PM, jlashbrook

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

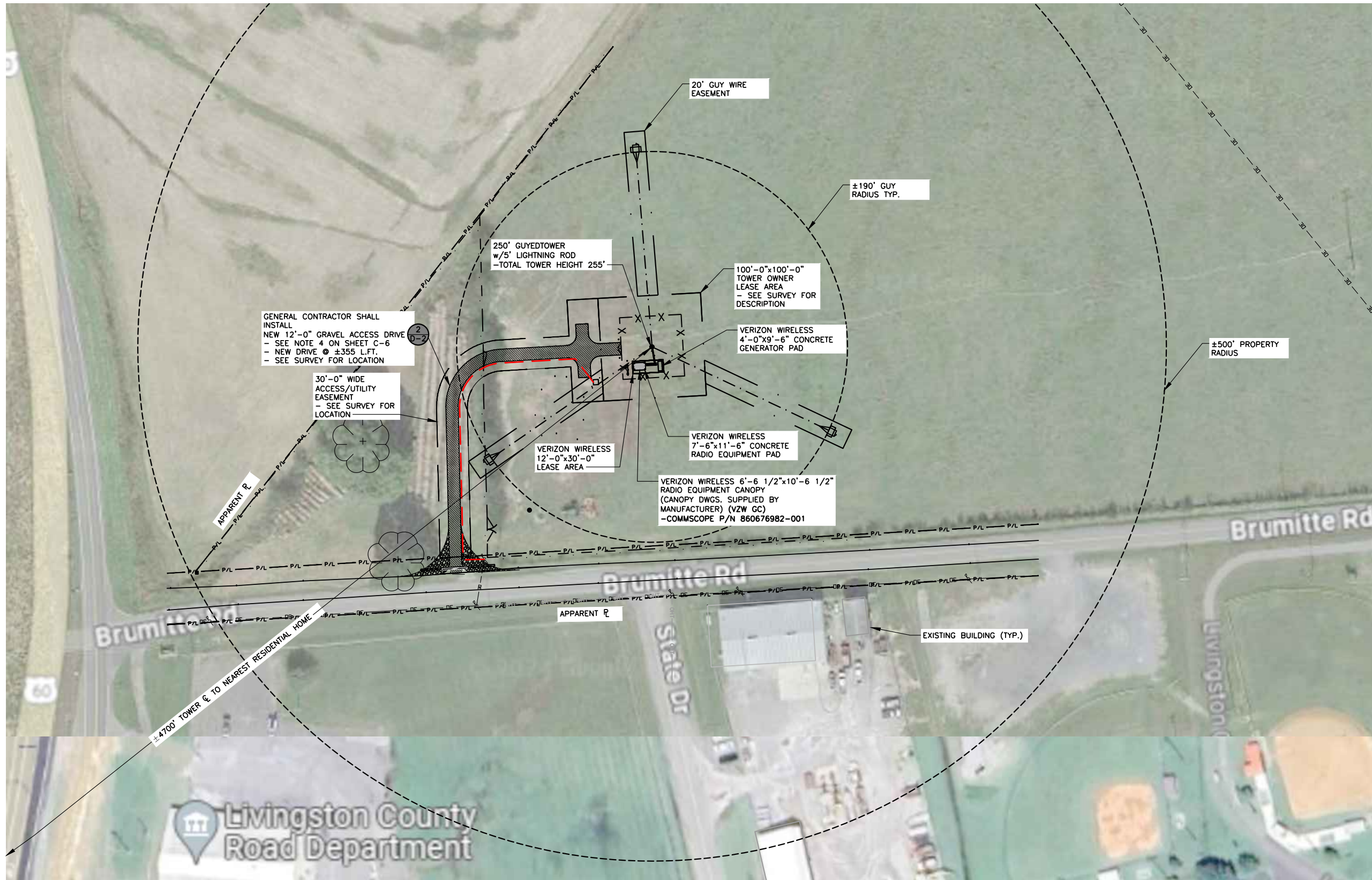
TOWER DISTANCE TO
RESIDENTIAL STRUCTURES

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

C-1B



GENERAL CONTRACTOR SHALL
INSTALL
NEW 12'-0" GRAVEL ACCESS DRIVE
- SEE NOTE 4 ON SHEET C-6
- NEW DRIVE @ ±355 L.F.T.
- SEE SURVEY FOR LOCATION

30'-0" WIDE
ACCESS/UTILITY
EASEMENT
- SEE SURVEY FOR
LOCATION

250' GUYED TOWER
w/5' LIGHTNING ROD
- TOTAL TOWER HEIGHT 255'

100'-0"x100'-0"
TOWER OWNER
LEASE AREA
- SEE SURVEY FOR
DESCRIPTION

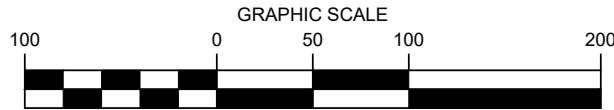
VERIZON WIRELESS
4'-0"x9'-6" CONCRETE
GENERATOR PAD

VERIZON WIRELESS
12'-0"x30'-0"
LEASE AREA

VERIZON WIRELESS
7'-6"x11'-6" CONCRETE
RADIO EQUIPMENT PAD

VERIZON WIRELESS 6'-6 1/2"x10'-6 1/2"
RADIO EQUIPMENT CANOPY
(CANOPY DWGS. SUPPLIED BY
MANUFACTURER) (VZW GC)
- COMMSCOPE P/N 860676982-001

EXISTING BUILDING (TYP.)



**TOWER DISTANCE TO
RESIDENTIAL STRUCTURES**

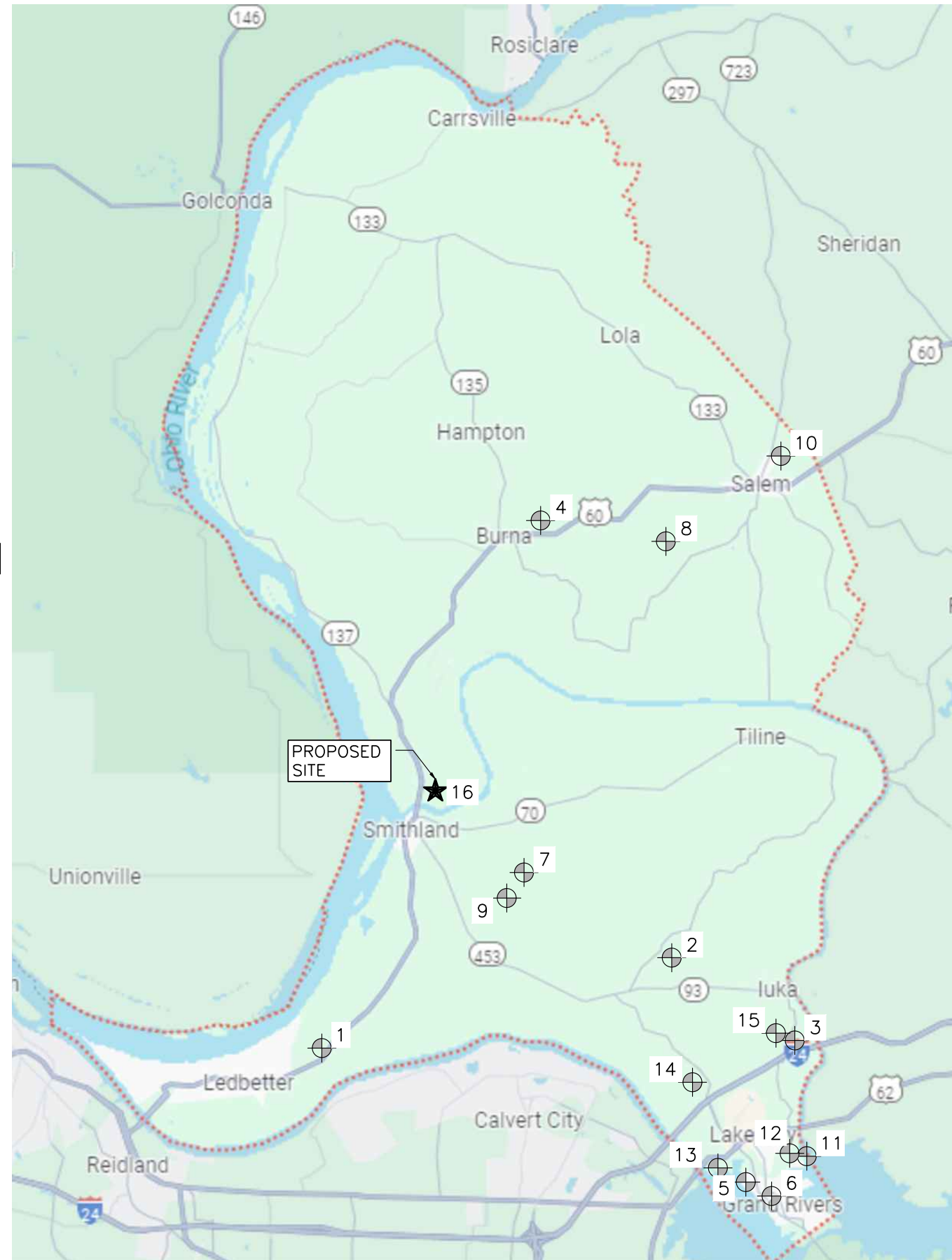
SCALE: 1" = 100'



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WORKING DAYS BEFORE COMMENCING WORK.

**FCC REGISTERED SITES
(LIVINGSTON COUNTY)**

TOWER	ASR	LATITUDE	LONGITUDE	TOWER OWNER
1	1039771	37° 03' 22.7" N	88° 26' 49.1" W	American Towers LLC
2	1201153	37° 05' 27.8" N	88° 17' 17.0" W	American Towers LLC
3	1222154	37° 03' 24.5" N	88° 14' 07.3" W	SBA Properties, LLC
4	1231318	37° 14' 55.1" N	88° 20' 42.2" W	Cellco Partnership LLC (GRANTED)
5	1235865	37° 00' 33.0" N	88° 14' 56.0" W	Tennessee Valley Authority
6	1241571	37° 00' 29.5" N	88° 14' 35.9" W	City of Grand Rivers (GRANTED)
7	1248684	37° 07' 07.7" N	88° 20' 29.0" W	CCATT LLC
8	1261019	37° 14' 15.7" N	88° 17' 41.3" W	Big Rivers Electric Corporation
9	1271446	37° 06' 47.2" N	88° 21' 34.1" W	Freeland, Jim
10	1276270	37° 16' 31.3" N	88° 13' 54.9" W	American Towers LLC
11	1285245	37° 01' 10.6" N	88° 13' 30.9" W	US Army Corps of Engineers
12	1289457	37° 01' 14.4" N	88° 13' 39.6" W	US Army Corps of Engineers
13	1289476	37° 00' 56.2" N	88° 15' 56.3" W	US Army Corps of Engineers
14	1298519	37° 02' 46.2" N	88° 16' 25.4" W	PI Tower Development LLC
15	1315479	37° 03' 29.4" N	88° 14' 10.9" W	Uniti Towers LLC (GRANTED)
16		37° 09' 27.01" N	88° 23' 45.38" W	APC TOWERS (PROPOSED TOWER)



COUNTY TOWER MAP

SCALE: N/A



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FAX: (502) 459-8427

APC Towers

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RALEIGH, NC 27615
PHONE (919) 249-7732

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EV SMITHLAND NORTH
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SMITHLAND, KY 42081
COUNTY TOWER MAP

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

C-1C

MIK PAD & CANOPY REV 4 FINAL 04/23/24

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



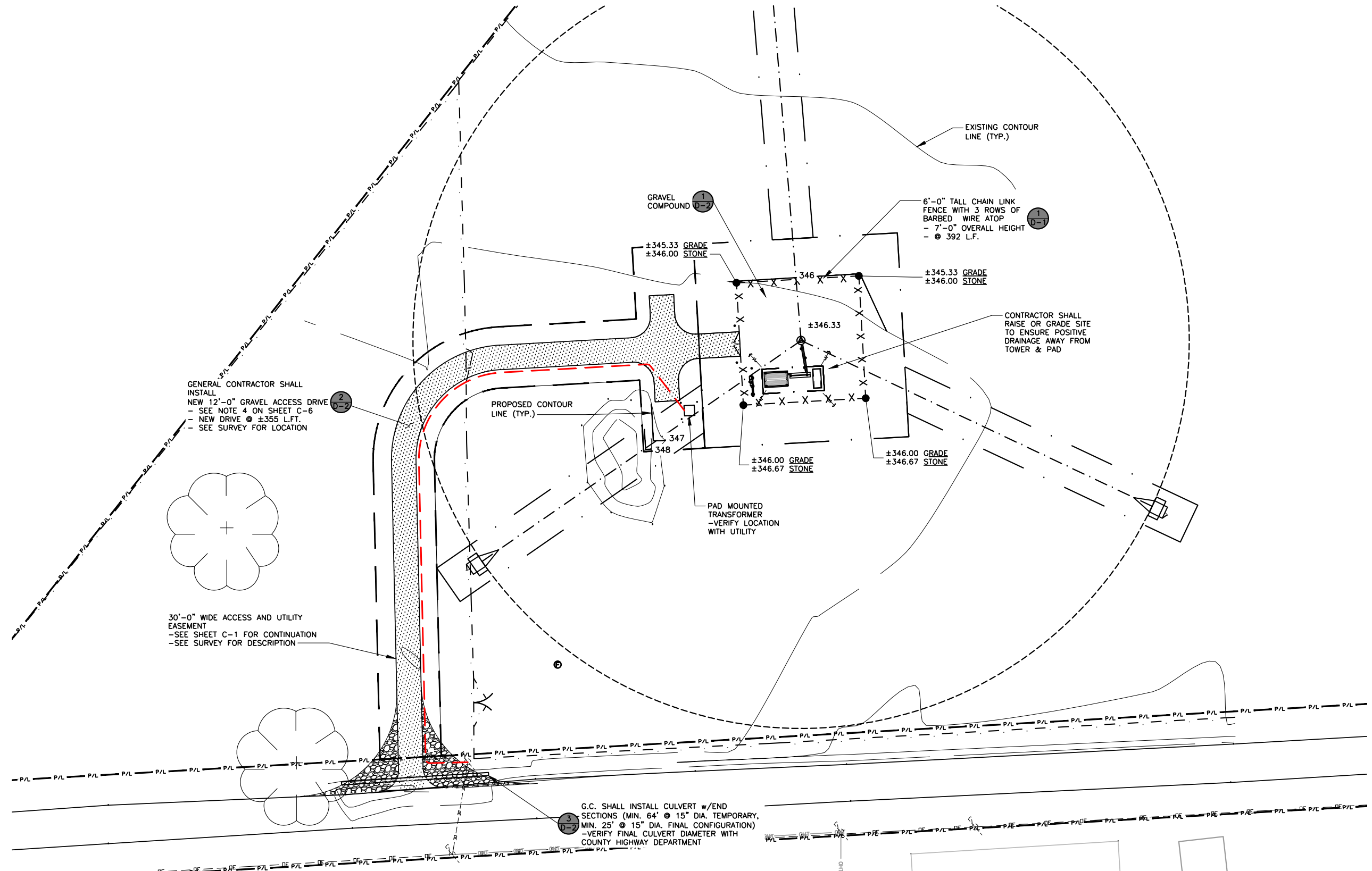
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081
GRADING AND E&S
CONTROL PLAN

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

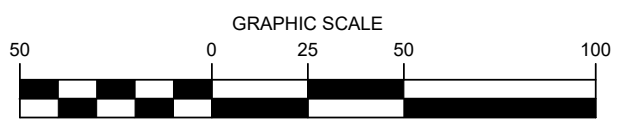
C-2



PER KENTUCKY STATE LAW, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

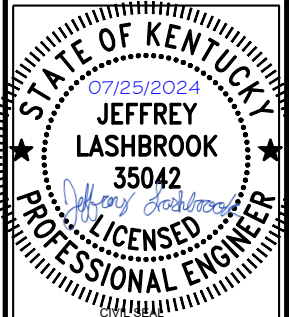
GRADING AND E&S CONTROL PLAN

SCALE: 1" = 50'



J:\APC Towers\EV Smithland North - Rawland - 240900-01-004\Drawings\EV Smithland North_MIK Rev 3 Final.dwg, C-2, 7/25/2024 4:06:17 PM, jlashbrook

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

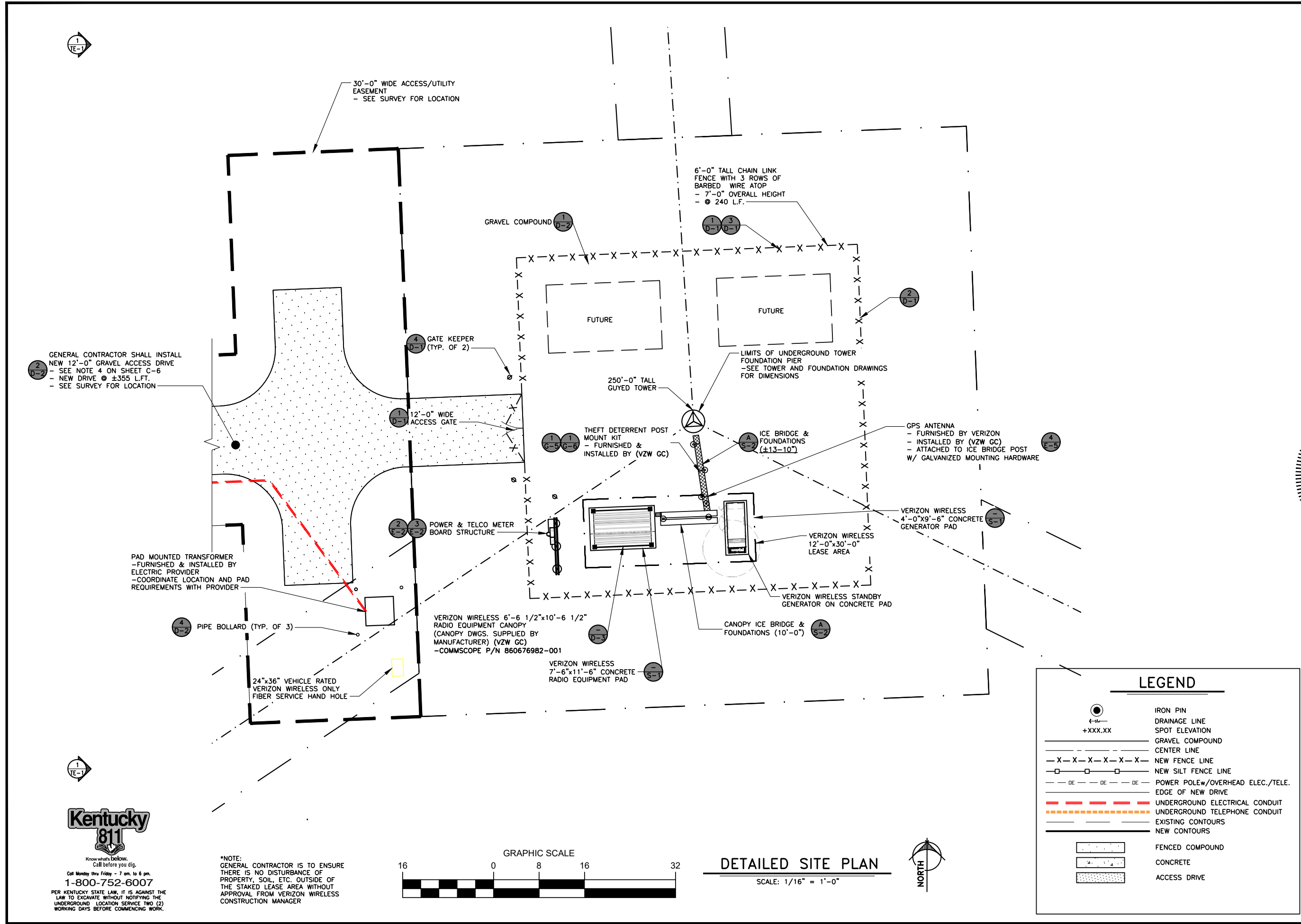
DETAILED SITE PLAN

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

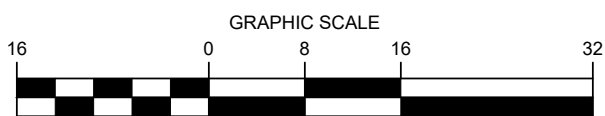
JOB NUMBER
240900-01-004

C-3



LEGEND

	IRON PIN
	DRAINAGE LINE
	SPOT ELEVATION
	GRAVEL COMPOUND
	CENTER LINE
	NEW FENCE LINE
	NEW SILT FENCE LINE
	POWER POLEw/OVERHEAD ELEC./TELE.
	EDGE OF NEW DRIVE
	UNDERGROUND ELECTRICAL CONDUIT
	UNDERGROUND TELEPHONE CONDUIT
	EXISTING CONTOURS
	NEW CONTOURS
	FENCED COMPOUND
	CONCRETE
	ACCESS DRIVE



DETAILED SITE PLAN

SCALE: 1/16" = 1'-0"



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*NOTE:
GENERAL CONTRACTOR IS TO ENSURE THERE IS NO DISTURBANCE OF PROPERTY, SOIL, ETC. OUTSIDE OF THE STAKED LEASE AREA WITHOUT APPROVAL FROM VERIZON WIRELESS CONSTRUCTION MANAGER

GENERAL CONTRACTOR SHALL INSTALL NEW 12'-0" GRAVEL ACCESS DRIVE
- SEE NOTE 4 ON SHEET C-6
- NEW DRIVE @ ±355 L.F.T.
- SEE SURVEY FOR LOCATION

PAD MOUNTED TRANSFORMER
- FURNISHED & INSTALLED BY ELECTRIC PROVIDER
- COORDINATE LOCATION AND PAD REQUIREMENTS WITH PROVIDER

VERIZON WIRELESS 6'-6 1/2"x10'-6 1/2" RADIO EQUIPMENT CANOPY (CANOPY DWGS. SUPPLIED BY MANUFACTURER) (VZW GC) - COMMSCOPE P/N 860676982-001

VERIZON WIRELESS 7'-6"x11'-6" CONCRETE RADIO EQUIPMENT PAD

6'-0" TALL CHAIN LINK FENCE WITH 3 ROWS OF BARBED WIRE ATOP
- 7'-0" OVERALL HEIGHT
- @ 240 L.F.

GPS ANTENNA
- FURNISHED BY VERIZON
- INSTALLED BY (VZW GC)
- ATTACHED TO ICE BRIDGE POST W/ GALVANIZED MOUNTING HARDWARE

VERIZON WIRELESS 4'-0"x9'-6" CONCRETE GENERATOR PAD

VERIZON WIRELESS 12'-0"x30'-0" LEASE AREA

VERIZON WIRELESS STANDBY GENERATOR ON CONCRETE PAD

CANOPY ICE BRIDGE & FOUNDATIONS (10'-0")

THEFT DETERRENT POST MOUNT KIT
- FURNISHED & INSTALLED BY (VZW GC)

POWER & TELCO METER BOARD STRUCTURE

12'-0" WIDE ACCESS GATE

GATE KEEPER (TYP. OF 2)

GRAVEL COMPOUND

FUTURE

FUTURE

LIMITS OF UNDERGROUND TOWER FOUNDATION PIER
- SEE TOWER AND FOUNDATION DRAWINGS FOR DIMENSIONS

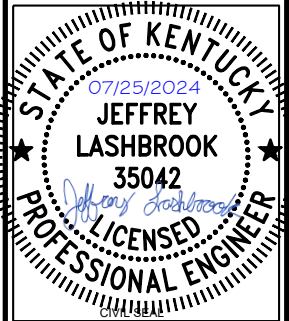
250'-0" TALL GUYED TOWER

30'-0" WIDE ACCESS/UTILITY EASEMENT
- SEE SURVEY FOR LOCATION

PIPE BOLLARD (TYP. OF 3)

24"x36" VEHICLE RATED VERIZON WIRELESS ONLY FIBER SERVICE HAND HOLE

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
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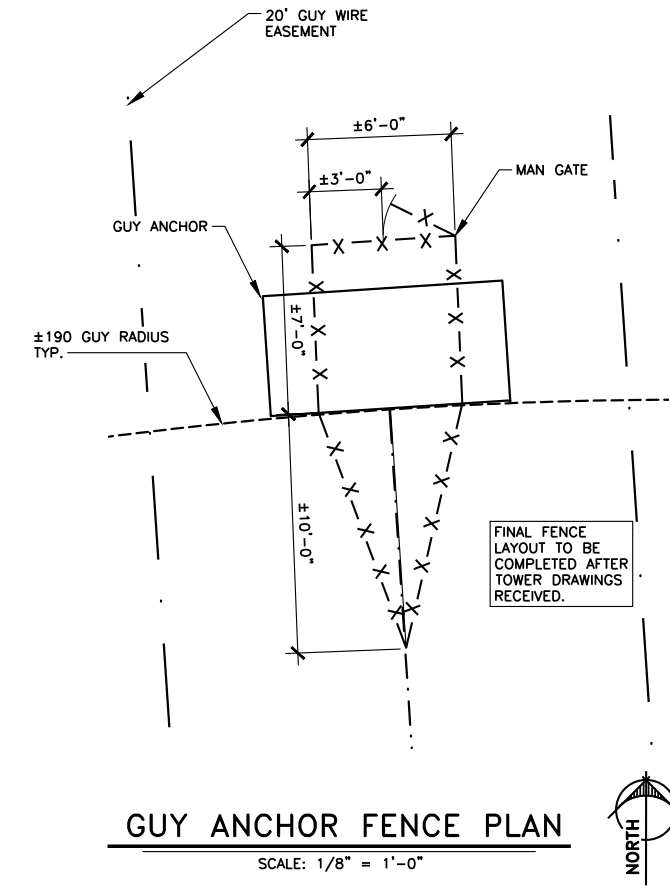
DIMENSIONED SITE PLAN

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

C-4

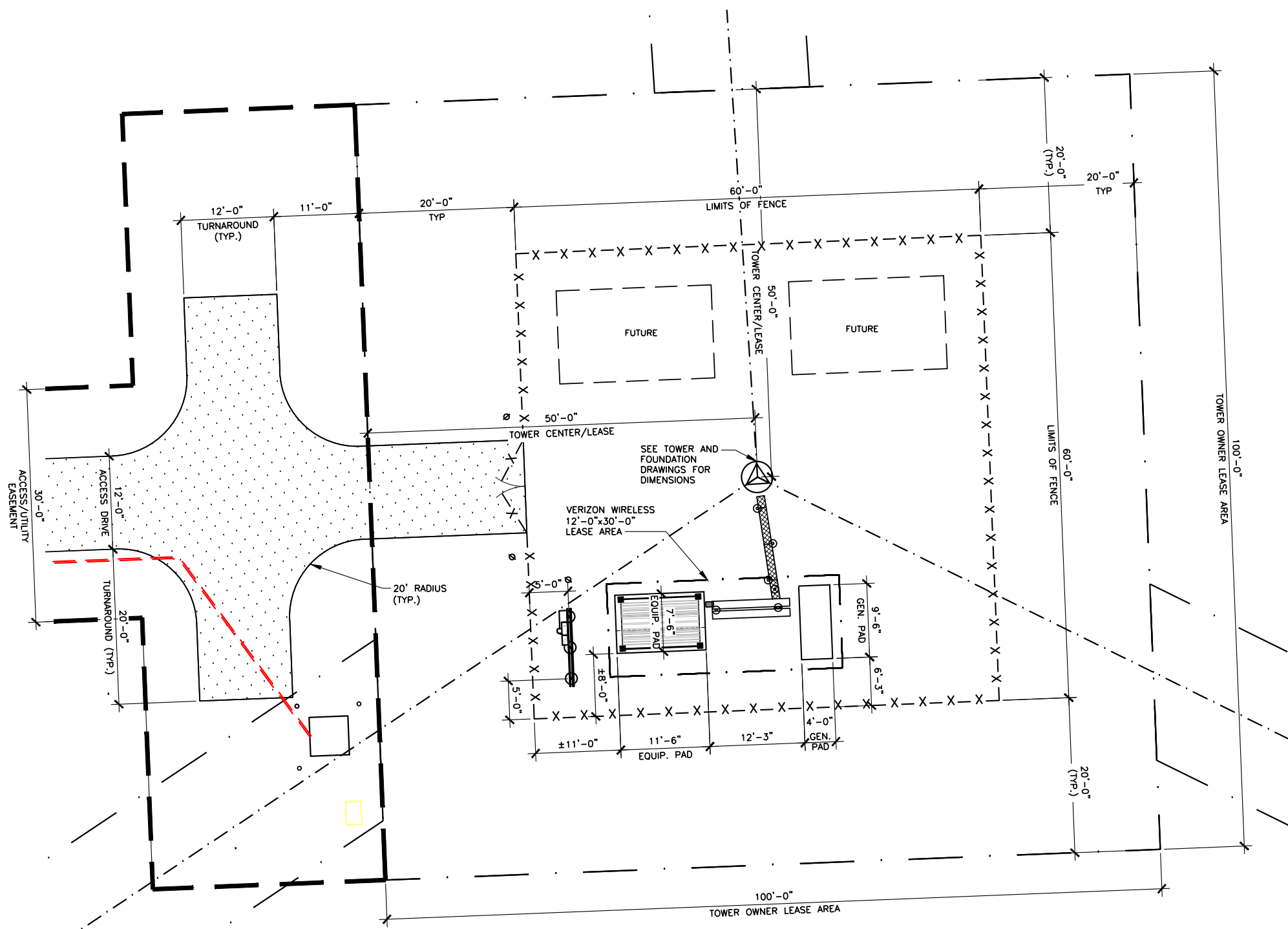


GUY ANCHOR FENCE PLAN

SCALE: 1/8" = 1'-0"

LEGEND

- IRON PIN
- DRAINAGE LINE
- SPOT ELEVATION
- GRAVEL COMPOUND
- CENTER LINE
- NEW FENCE LINE
- NEW SILT FENCE LINE
- POWER POLEw/OVERHEAD ELEC./TELE.
- EDGE OF NEW DRIVE
- UNDERGROUND ELECTRICAL CONDUIT
- UNDERGROUND TELEPHONE CONDUIT
- EXISTING CONTOURS
- NEW CONTOURS
- NEW LEASE AREA AND EASEMENT
- FENCED COMPOUND
- CONCRETE
- ACCESS DRIVE



DIMENSIONED SITE PLAN

SCALE: 1/16" = 1'-0"

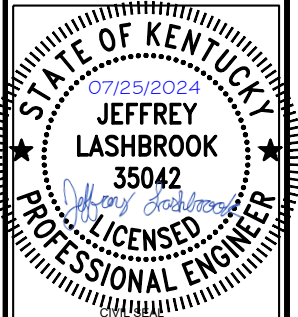


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*NOTE:
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REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



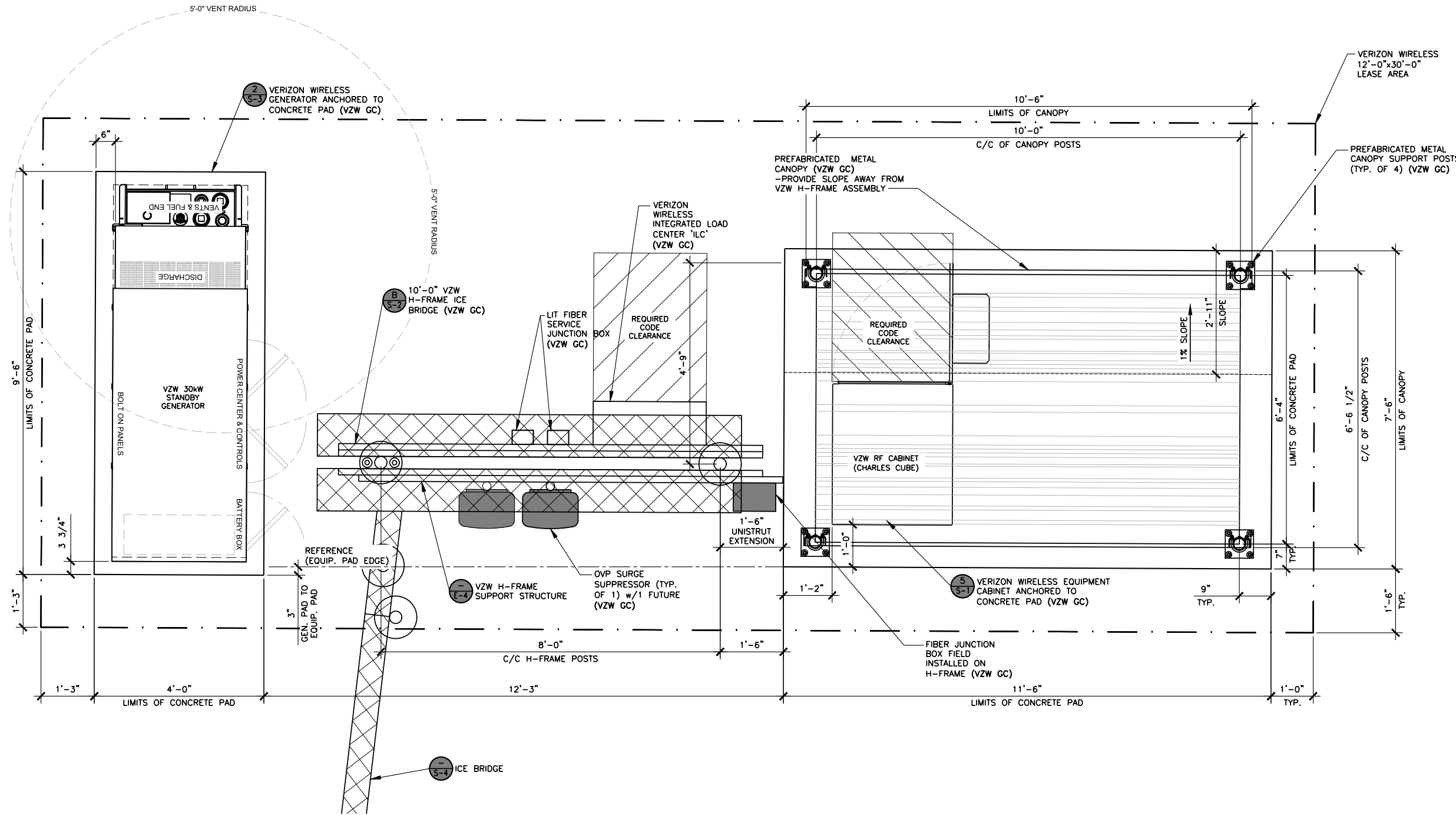
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081
DETAILED EQUIPMENT PAD
PLAN

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

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C-5



DETAILED VZW EQUIPMENT PLAN

SCALE: 3/8" = 1'-0"



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WORKING DAYS BEFORE COMMENCING WORK.

*NOTE:
GENERAL CONTRACTOR IS TO ENSURE
THERE IS NO DISTURBANCE OF
PROPERTY, SOIL, ETC. OUTSIDE OF
THE STAKED LEASE AREA WITHOUT
APPROVAL FROM VERIZON WIRELESS
CONSTRUCTION MANAGER

CHAIN LINK FENCING NOTES

1. ALL FENCE AND FABRIC SHALL BE HOT DIPPED GALVANIZED WITH A MINIMUM OF 2 OZ. PER SQUARE FOOT, 9 GAUGE WIRE (MIN. BREAKING STRENGTH OF 1,290 LBS) WITH 2" MESH. ALL BARBED WIRE SHALL BE ALUMINUM OR COATED PER NOTE #4.
2. BOTTOM EDGE OF FENCE FABRIC SHALL EXTEND TO FINISHED GRADE.
3. SITE FENCE SHALL BE 6'-0" FABRIC W/ 3 STRAND BARBED WIRE FOR TOTAL HEIGHT OF 7'-0".
4. BARBED WIRE SHALL MEET ASTM A 121, CLASS 3 GALV. OR ASTM A 585, TYPE 1, CLASS 2 COATING (NOT LESS THAN 0.8 OZ. PER SQ. FT.) AND SHALL BE THREE STRAND 12.5 GAGE W/4 POINT BARBS AT 5" O/C.
5. BOTTOM OF CONCRETE BASE SHALL BE SET BELOW FROSTLINE (SEE LOCAL CODE). WHERE SOIL BEARING CAPACITY IS LESS THAN 2000 PSF, INCREASE CONCRETE SURROUNDING FENCE POST FOUNDATION DIAMETERS BY 8", PROVIDE CONCRETE WITH A 28 DAY STRENGTH OF 3000 PSI (MIN.)
6. PROVIDE A DIAGONAL BRACE ROD AND TURN BUCKLE ON BOTH GATE LEAFS.
7. ALL RAILS AND BRACES SHALL BE SCHEDULE 40 STEEL PIPE, AND ALL FENCE POSTS SHALL BE SCHEDULE 40 STEEL PIPE, AND BE 2 OZ. GALVANIZED COATED.
8. CONTRACTOR SHALL ENSURE ALL POSTS ARE PLUMB.
9. ALL FENCE SHALL BE FABRICATED AND INSTALLED PER ASTM F2611-15, ASTM F567-14a AND CHAIN LINK FENCE MANUFACTURES INSTITUTE CLFMI-PM 2445.
10. CONTRACTOR SHALL FURNISH AND INSTALL ONE (1) MASTER LOCK LONG SHANK #175LH COMBINATION PADLOCK. COMBINATION TO BE SET AT 7011.

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 FAX: (502) 459-8427

APC Towers
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 RALEIGH, NC 27615
 PHONE (919) 249-7732

REV	DATE	DESCRIPTION
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STATE OF KENTUCKY
 07/25/2024
JEFFREY LASHBROOK
 35042
 LICENSED PROFESSIONAL ENGINEER
 CIVIL

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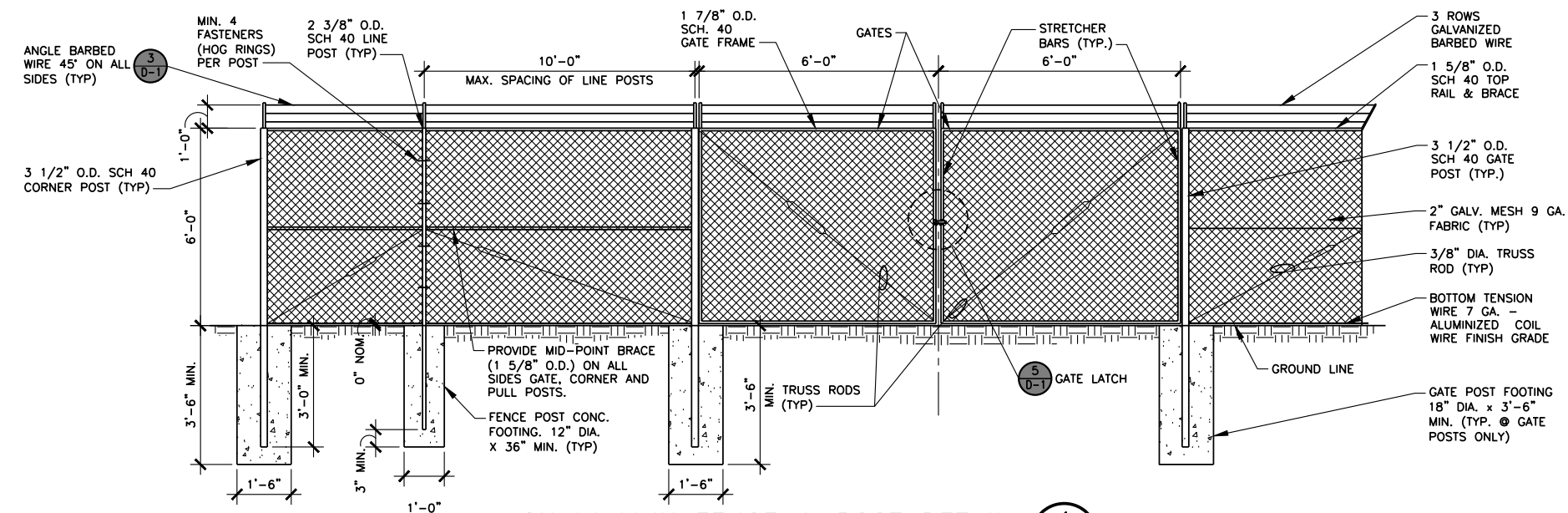
FENCE DETAILS AND NOTES

ISSUED FOR:	
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PERMIT	-
CONSTRUCTION	-
RECORD	-

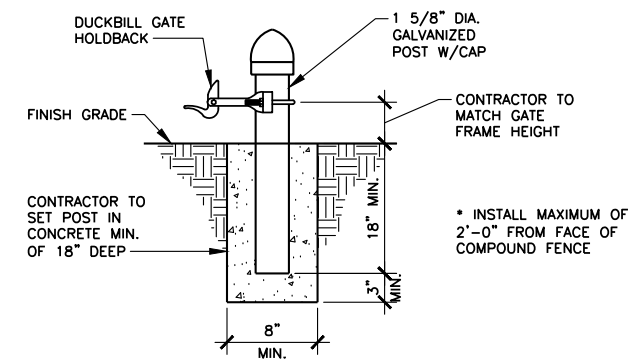
PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
 240900-01-004

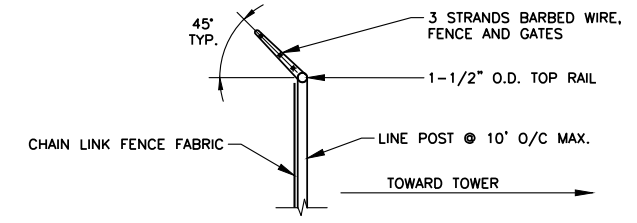
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 MK PAD & CANOPY REV 4 FINAL 04/23/24



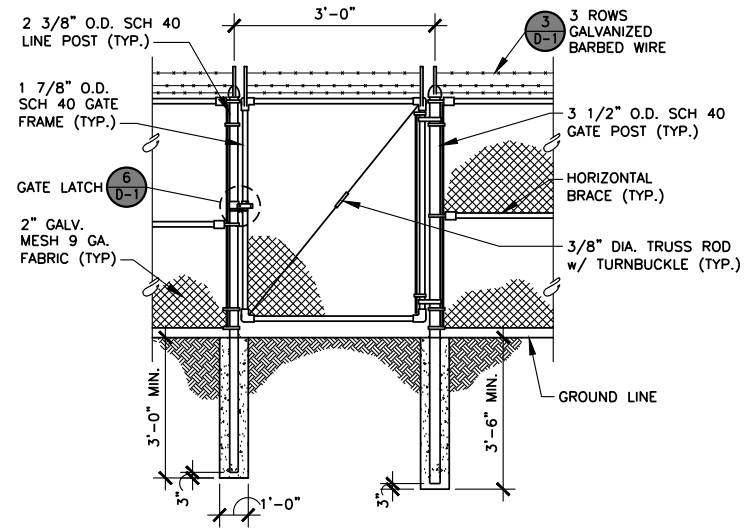
CHAIN LINK FENCE & POST DETAIL 1
 SCALE: N.T.S.



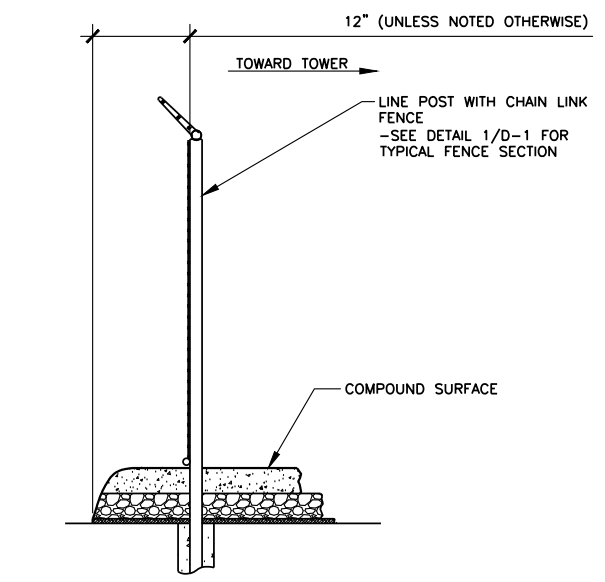
GATE KEEPER DETAIL 4
 SCALE: N.T.S.



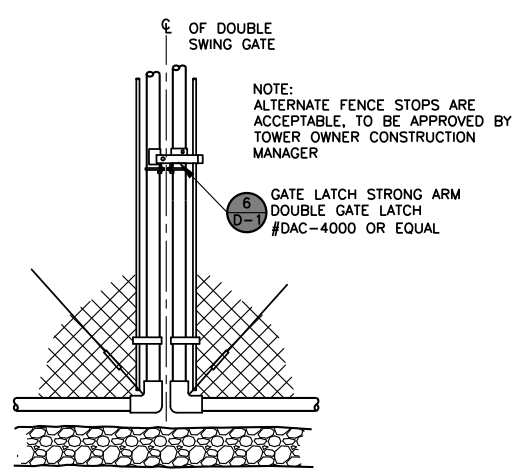
TYPICAL BARBED WIRE DETAIL 3
 SCALE: N.T.S.



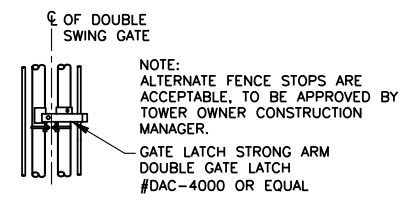
MAN GATE DETAIL 7
 SCALE: N.T.S.



SITE AREA SURFACING 2
 SCALE: N.T.S.



GATE LATCH DETAIL 5
 SCALE: N.T.S.



GATE LATCH DETAIL 6
 SCALE: N.T.S.

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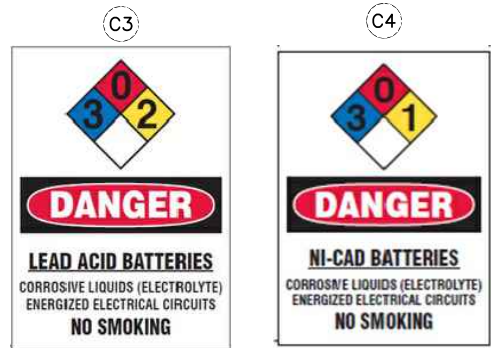
STANDARD SITE SIGNAGE:

REQUIRED SIGNS:	LOCATIONS:
C1 • N.O.C. "IN CASE OF EMERGENCY"	FRONT ACCESS DOOR OF CABINET (SEE FIGURE 1)
C2 • NOTICE (CONTACT INFO)	FRONT ACCESS DOOR OF EACH CABINET WITH BATTERIES (SEE FIGURE 1)
C3 • COMBINATION WARNING (SEE NOTE 2)	FRONT ACCESS DOOR OF EACH CABINET WITH BATTERIES (SEE FIGURE 1)
C4 • COMBINATION WARNING (SEE NOTE 2)	FRONT ACCESS DOOR OF EACH CABINET WITH BATTERIES (SEE FIGURE 1)
C5 • S.D.S.	INSIDE FRONT ACCESS DOOR OF EACH CABINET WITH BATTERIES

-N.O.C. STANDS FOR "NETWORK OPERATIONS CENTER"
 -S.D.S. STANDS FOR "SAFETY DATA SHEET"

NOTES:

- CONTRACTOR SHALL INSTALL ALL SIGNS ON THE FRONT OF EACH CABINET. ALL SIGNS CAN BE PLACED ON THE UPPER DOOR, IF SPACE IS AVAILABLE.
- CONTRACTOR SHALL INSTALL SIGN C3 OR C4 BASED ON THE TYPE OF BATTERY THAT IS BEING INSTALLED.



FRONT REAR
 FIGURE 1 - EQUIPMENT CABINET SIGNAGE

SIGNAGE FOR SITES OWNED BY APC TOWERS:

REQUIRED SIGNS:	LOCATIONS:
S1 • NOTICE "ENVIRONMENT GUIDELINES"	INSTALL ON COMPOUND FENCE
S2 • APC STANDARD TOWER SIGNAGE	INSTALL AT DRIVEWAY
A1 • TEMPORARY/PERMANENT A.S.R.	INSTALL AT TOWER
A1 • PERMANENT A.S.R.	INSTALL AT FENCE
A1 • PERMANENT A.S.R.	INSTALL AT GATE/POST

-A.S.R. STANDS FOR "ANTENNA STRUCTURE REGISTRATION"
 -N.O.C. STANDS FOR "NETWORK OPERATIONS CENTER"

NOTES:

- CONTRACTOR SHALL VERIFY IF A.S.R. SIGNAGE IS REQUIRED WITH THE APC TOWERS CONSTRUCTION MANAGER PRIOR TO SIGNAGE INSTALLATION.
- A.S.R. SIGNAGE TO BE INSTALLED AT A MINIMUM OF TWO LOCATIONS AS FOLLOWS:
 - (1) ALWAYS ON THE TOWER
 - (1) ALWAYS ON THE FENCE
 - (1) ON THE DRIVEWAY ENTRANCE GATE OR STANDALONE POST IF THE A.S.R. SIGN ON THE COMPOUND FENCE CANNOT BE READ FROM THE ROAD.
- IF NO ENTRANCE GATE IS PROPOSED, A.S.R. SIGN SHALL BE INSTALLED ON 4" DIAMETER STEEL POST AT 42" ABOVE EX. GRADE.



FIGURE 2 - APC TOWERS SITE FENCE SIGNAGE

SIGNAGE FOR EACH GENERATOR FUEL TYPE:

DIESEL GENERATOR

REQUIRED SIGNS:	LOCATIONS:
D1 • "DANGER DIESEL FUEL"	INSTALL ON GENERATOR (SEE FIGURE 6)
D2 • HAZARD DIAMOND	
D3 • NOTICE SIGN	INSTALL ON FUEL TANK
D4 • FUEL TANK CAPACITY	

*SIGNS D1 AND D2 MAY BE COMBINED TO A SINGLE SIGN

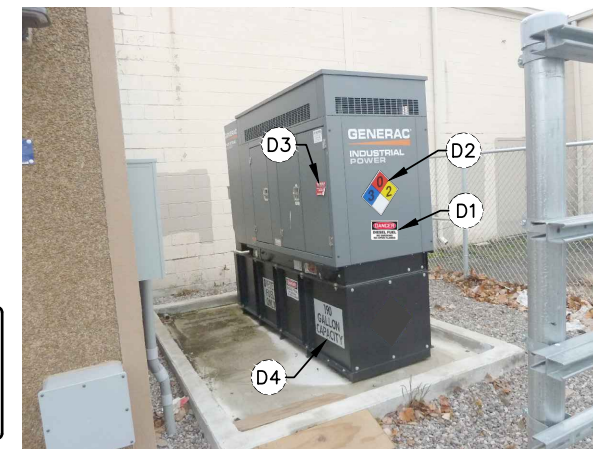


FIGURE 6 - DIESEL GENERATOR SIGNAGE



FIGURE 5 - EME SIGN

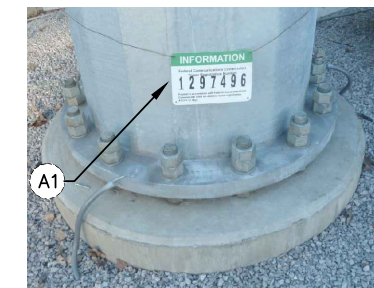


FIGURE 3 - TOWER A.S.R. SIGN



FIGURE 1 - ENVIRONMENT GUIDELINES

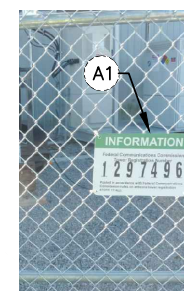


FIGURE 4 - FENCE COMPOUND A.S.R. SIGN



FIGURE 6 - DRIVEWAY A.S.R. SIGN

E.M.E. SIGNAGE NOTES:

VZW GC SHALL VERIFY WITH THE VERIZON CONSTRUCTION MANAGER IF ANY E.M.E. SIGNAGE (SEE FIGURE 9) IF REQUIRED. ANY REQUIRED E.M.E. SIGNAGE WILL BE INSTALLED IN ACCORDANCE WITH THE SITE SPECIFIC PRE-E.M.E. REPORT AND MOUNT AS APPROPRIATE FOR THE SIGN LOCATION.



FIGURE 9 - TYPICAL E.M.E. SIGNAGE

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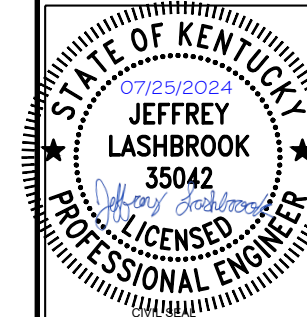
CONSULTING ENGINEERS,
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REV	DATE	DESCRIPTION
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 VERIZON WIRELESS
 SIGNAGE (REFERENCE
 ONLY)

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

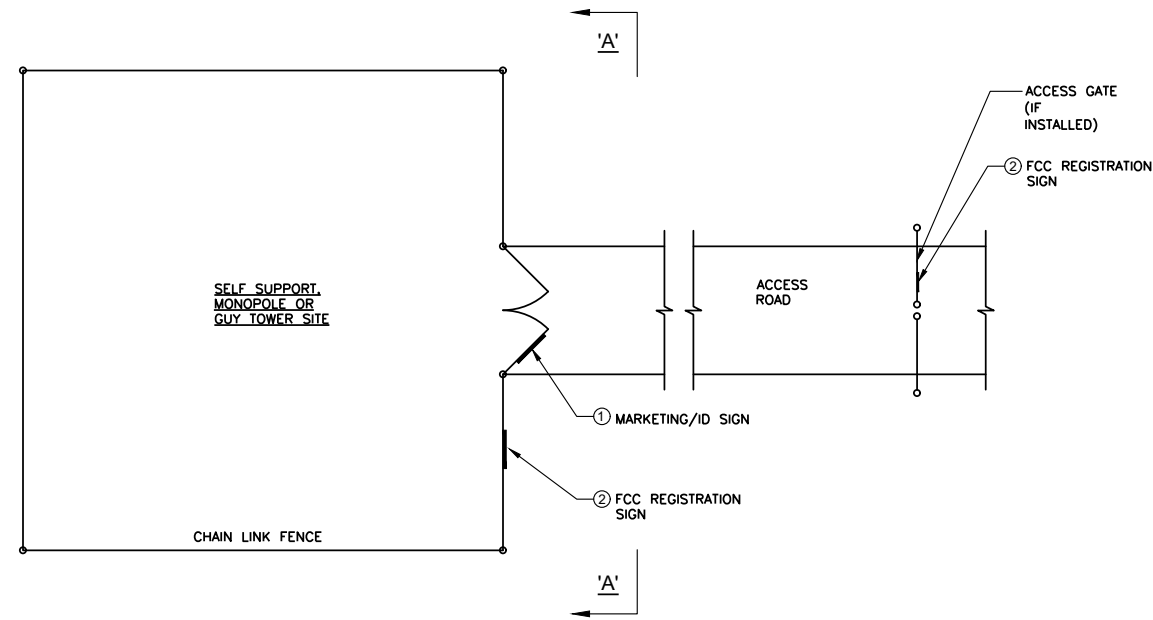
JOB NUMBER
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D-4

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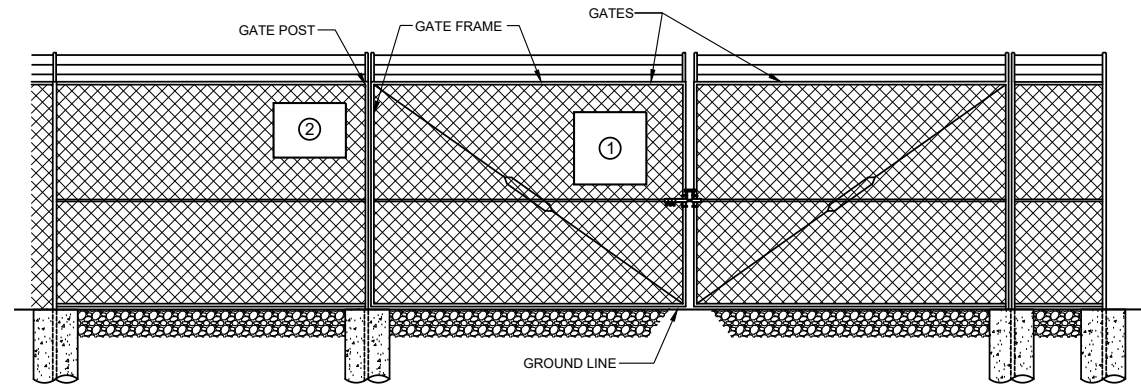
NOTES:

VERIZON WIRELESS SITE ID SIGN, RFE SIGNS, NOC INFORMATION SIGN AND ALL OTHER SIGNAGE NOT REFERENCED IN THIS DRAWING WILL BE FURNISHED AND INSTALLED BY VERIZON WIRELESS PERSONELL PER VERIZON WIRELESS RFC SIGNAGE & DEMARCATION POLICY.



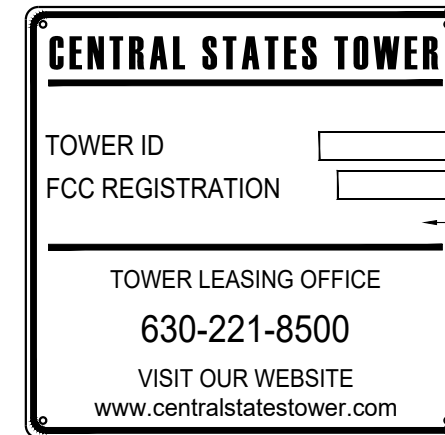
TYPICAL SITE FENCE SIGNAGE PLAN

SCALE: N. T. S.



ELEVATION "A-A"

SCALE: N. T. S.

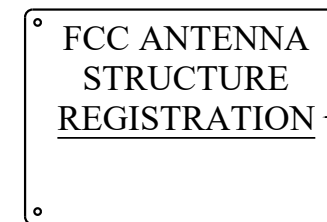


WHITE BACKGROUND w/BLACK LETTERING

MARKETING/ID SIGN

24" WIDE x 24" HIGH

1



WHITE BACKGROUND w/BLACK LETTERING

FCC REGISTRATION SIGN

24" WIDE x 18" HIGH

2

**PLACE HOLDER
EXAMPLE OF BTS
SIGNAGE SUPPLIED BY
TOWER OWNER**

Bowman

CONSULTING ENGINEERS,
LANDSCAPE ARCHITECTS, PLANNERS AND
SURVEYORS

3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427

APC Towers

8801 SIX FORKS ROAD, SUITE 250
RALEIGH, NC 27615
PHONE (919) 249-7732

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

TOWER OWNER SITE FENCE
SIGNAGE (REFERENCE
ONLY)

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

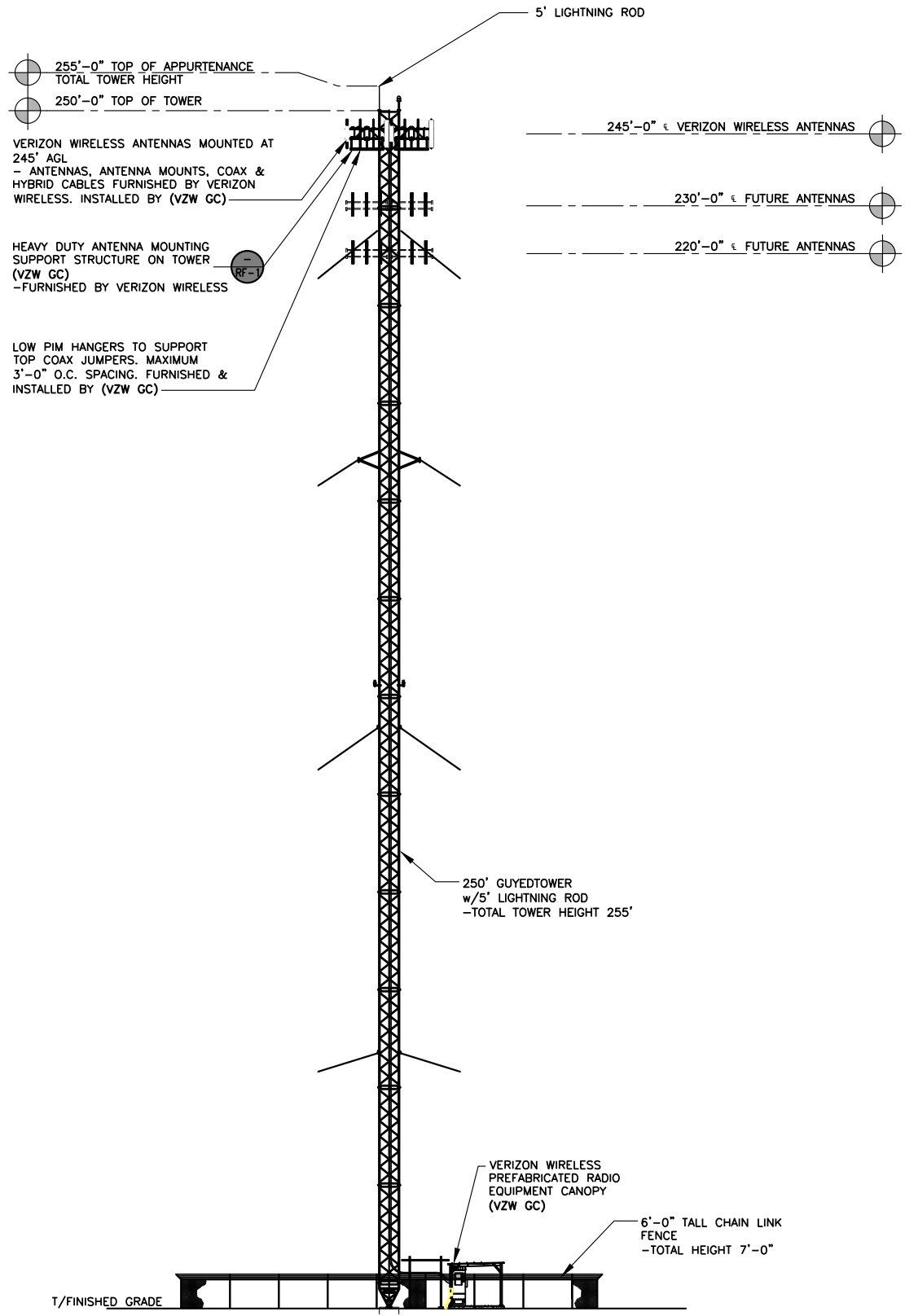
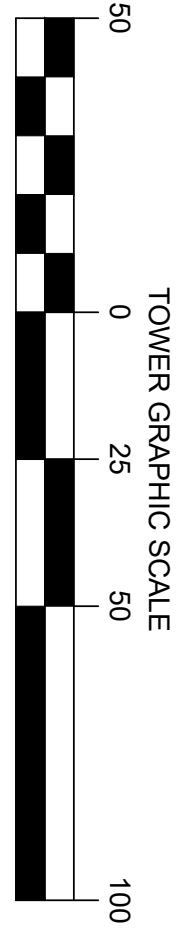
PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

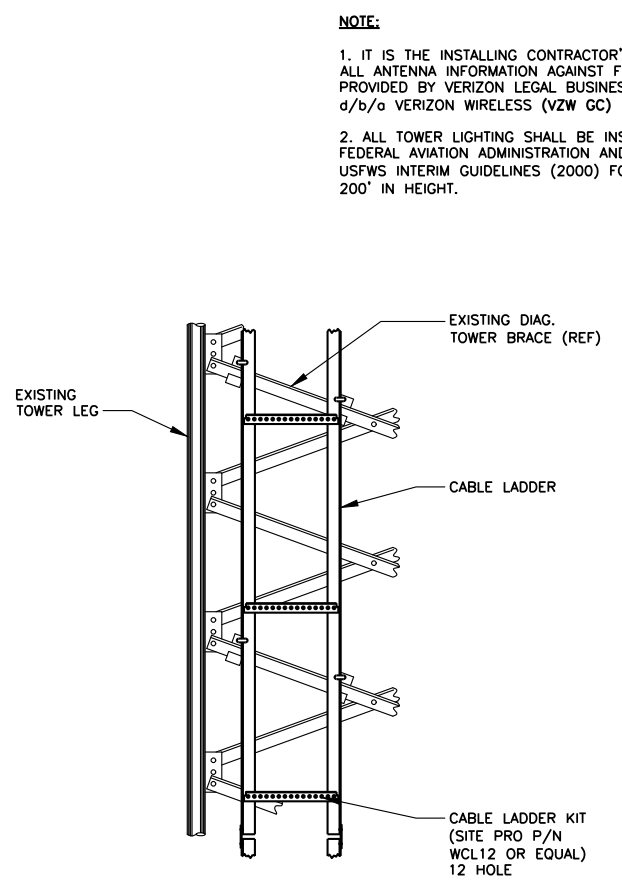
D-5

MIK PAD & CANOPY REV 4 FINAL 04/23/24

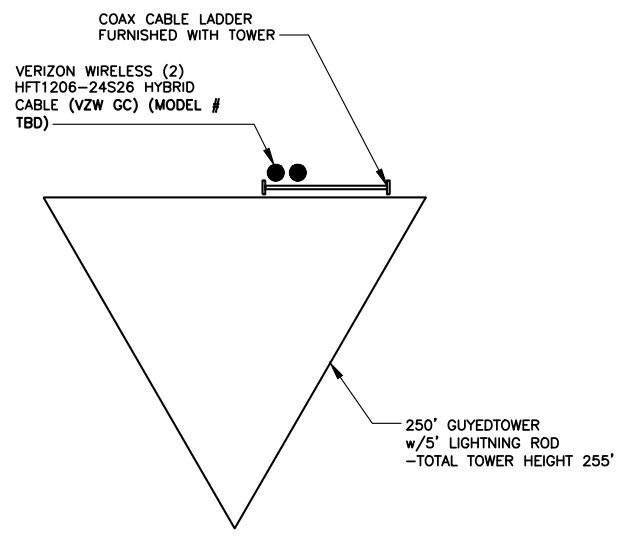
J:\APC Towers\EV Smithland North - Rawland - 240900-01-004\Drawings\EV Smithland North_MIK Rev 3 Final.dwg, TE-1, 7/25/2024, 4:05:59 PM, jlashbrook



TOWER ELEVATION (1)
SCALE: SEE CUSTOM SCALE BAR
TE-1



CABLE LADDER ATTACHMENT DETAIL (2)
SCALE: N.T.S.
TE-1



COAX PLAN
SCALE: N.T.S.

NOTE:

- IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ANTENNA INFORMATION AGAINST FINAL RADIO ENGINEERING PLAN PROVIDED BY VERIZON LEGAL BUSINESS ENTITY d/b/a VERIZON WIRELESS (VZW GC)
- ALL TOWER LIGHTING SHALL BE INSTALLED AS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION AND RECOMMENDED BY THE USFWS INTERIM GUIDELINES (2000) FOR LIGHTING OF TOWERS OVER 200' IN HEIGHT.

Bowman
CONSULTING ENGINEERS,
LANDSCAPE ARCHITECTS, PLANNERS AND SURVEYORS

3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427

APC Towers
8801 SIX FORKS ROAD, SUITE 250
RALEIGH, NC 27615
PHONE (919) 249-7732

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE

STATE OF KENTUCKY
07/25/2024
JEFFREY LASHBROOK
35042
PROFESSIONAL ENGINEER

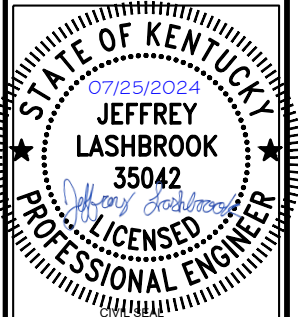
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081
TOWER ELEVATION

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

TE-1
MIK PAD & CANOPY REV 4 FINAL 04/23/24

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



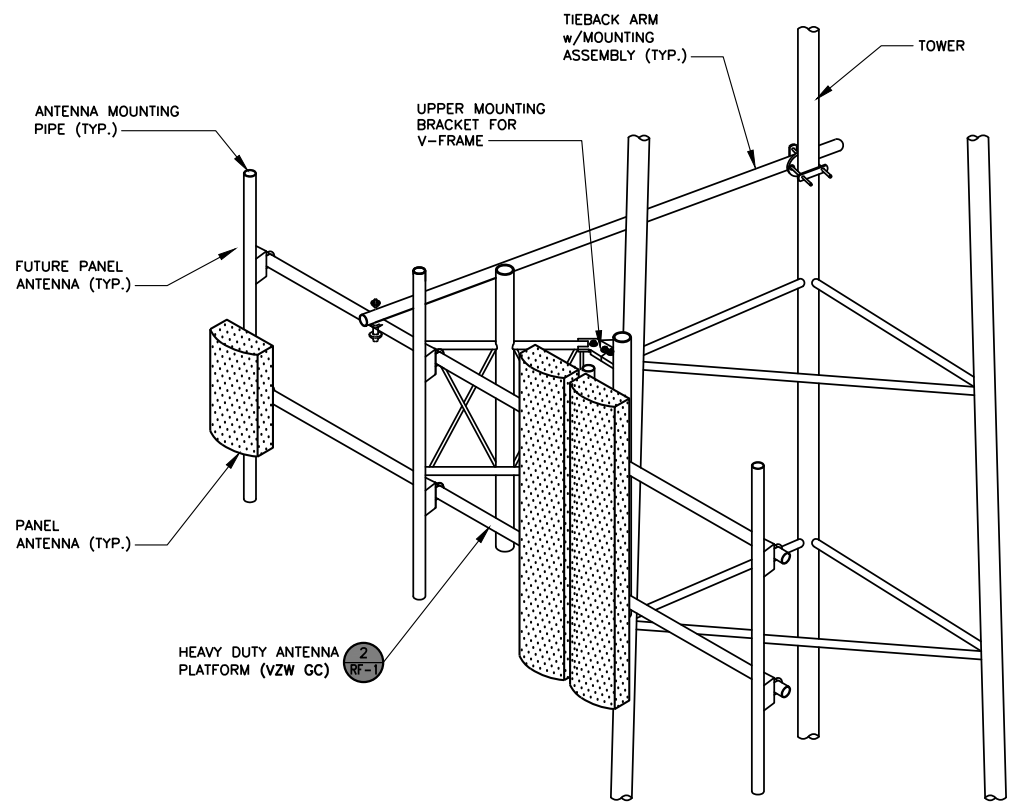
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

ANTENNA PLAN AND
DETAILS (REFERENCE ONLY)

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

RF-1

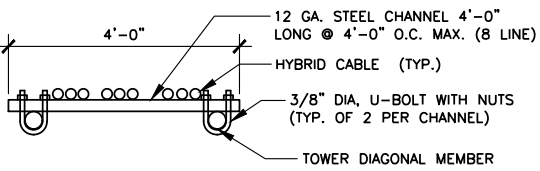


ANTENNA MOUNT 1
SCALE: N.T.S.
(BY VZW GC)

ANTENNA AND HYBRID CABLES

CONTRACTOR MAY SUBSTITUTE AN ALTERNATE METHOD TO SUPPORT THE HYBRID CABLES, BUT SHALL SUBMIT DETAILING OF THE ALTERNATE METHOD TO STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO PROCEEDING WITH THE INSTALLATION OF THE CABLES.

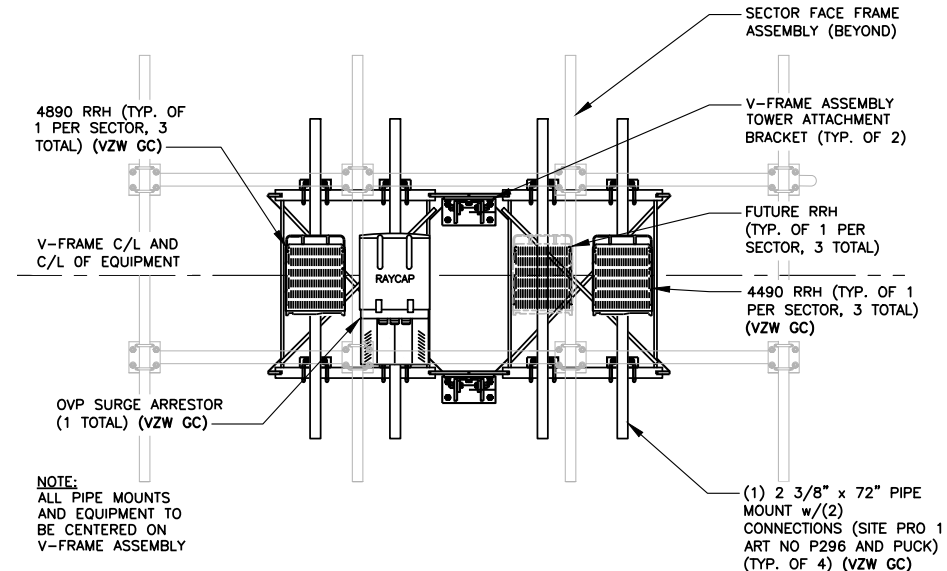
THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE STRUCTURAL ANALYSIS FOR REQUIRED HYBRID CABLE SUPPORT CONFIGURATIONS NOT INDICATED ON THE DETAIL. I.E. BUNDLED CABLES.



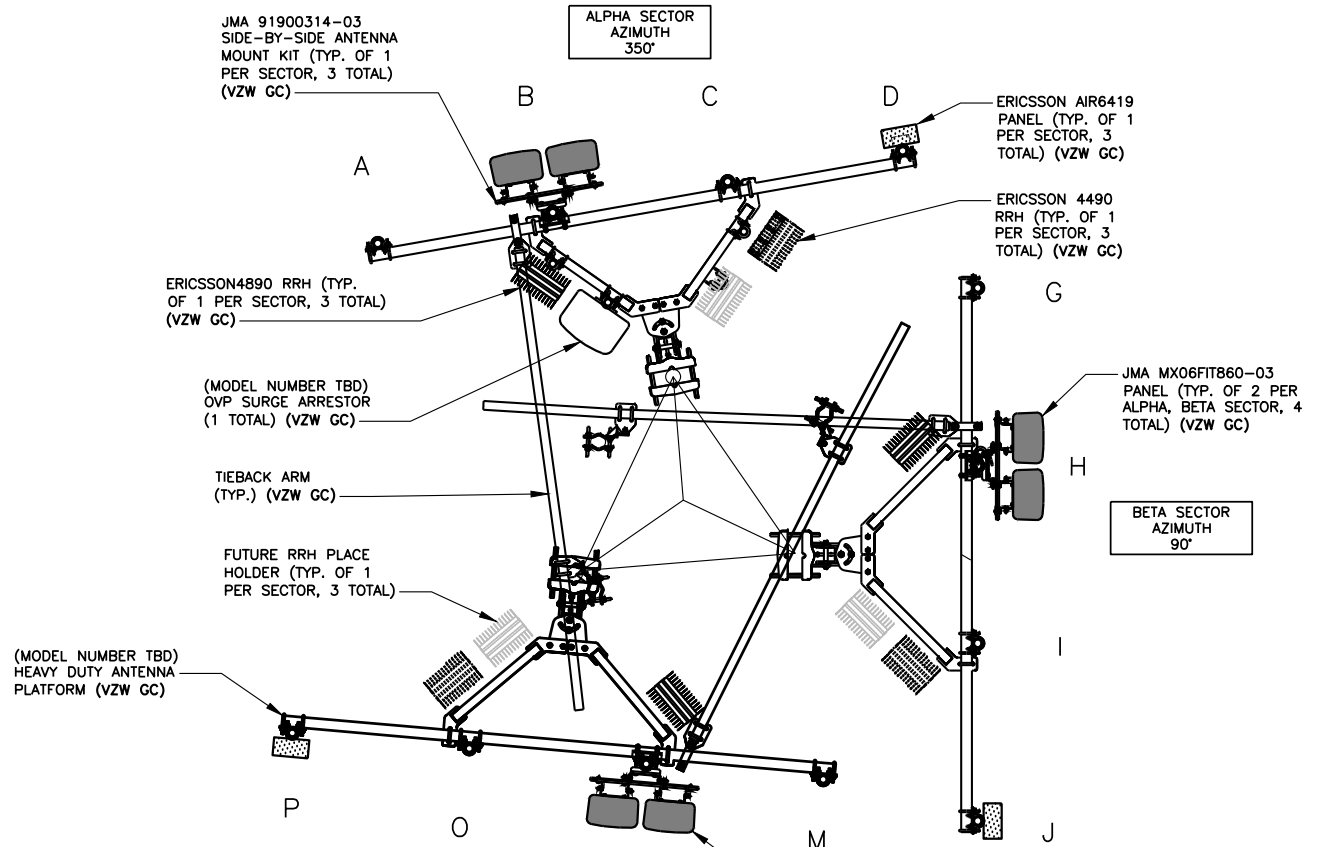
HYBRID CABLE SUPPORT DETAIL

GENERAL NOTES:

- VERIFY EACH HYBRID CABLE LENGTH, DIAMETER, ROUTING, AND ALL MOUNTING APPURTENANCES WITH OWNER PRIOR TO ORDER.
- THE MAXIMUM HYBRID CABLE LENGTH HAS BEEN ESTIMATED AT --- FEET, APPROXIMATELY. ACTUAL ANTENNA CABLE LENGTH MAY VARY FROM ESTIMATED MAXIMUM LENGTH AND MUST BE VERIFIED.
- TAG ALL MAIN CABLES AT TWO (2) LOCATIONS. 1) AT ANTENNAS 2) OUTSIDE EQUIPMENT CABINET NEAR THE WAVEGUIDE ENTRY PORT.
- EACH CABLE SHALL BE GROUNDED AT (3) THREE LOCATIONS. ANTENNA LEVEL ON TOWER, TOWER BASE, AND EQUIPMENT H-FRAME.
- HYBRID CABLES TO BE SUPPORTED EVERY 36" OFF MOUNTING FRAMES WITH STAINLESS STEEL HANGERS.
- JUMPER CABLES TO BE SUPPORTED EVERY 18" WITH STAINLESS STEEL HANGERS.

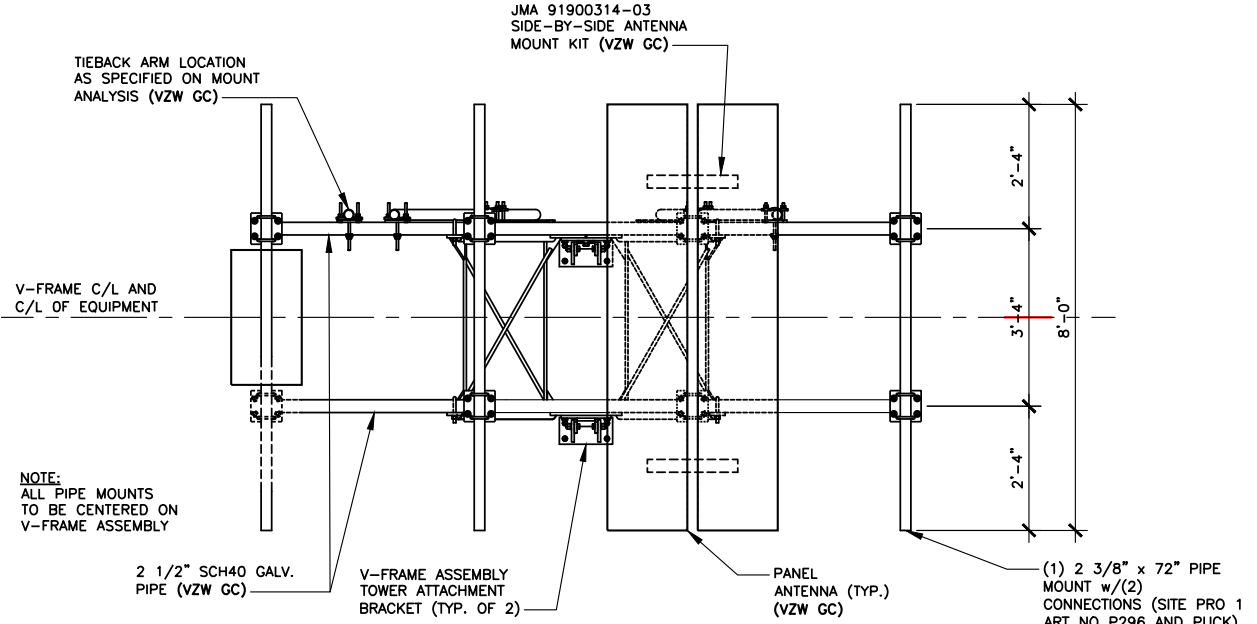


ANTENNA MOUNT - REAR VIEW (FLATTENED) 3
SCALE: N.T.S.
(BY VZW GC)



NOTE:
FINAL ANTENNA LEVEL PLAN AND PASSING MOUNT ANALYSIS MUST MATCH. NOTIFY VZW CONSTRUCTION MANAGER IF DISCREPANCY EXISTS.

ANTENNA LAYOUT - PLAN VIEW 2
SCALE: N.T.S.
(BY VZW GC)

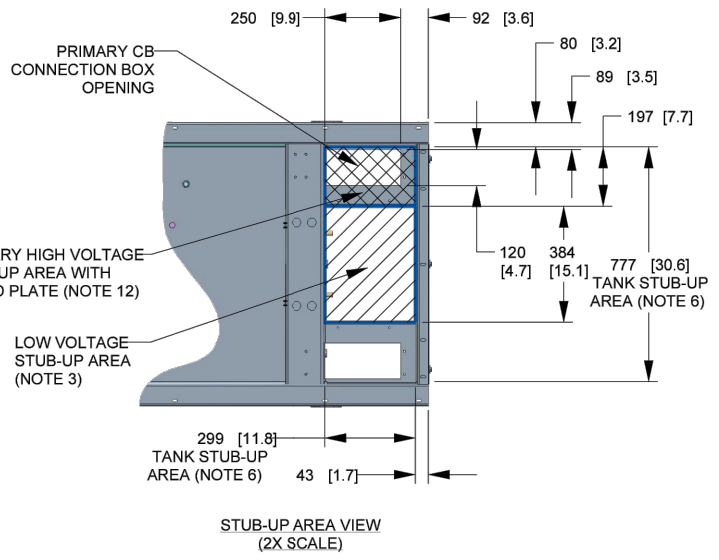
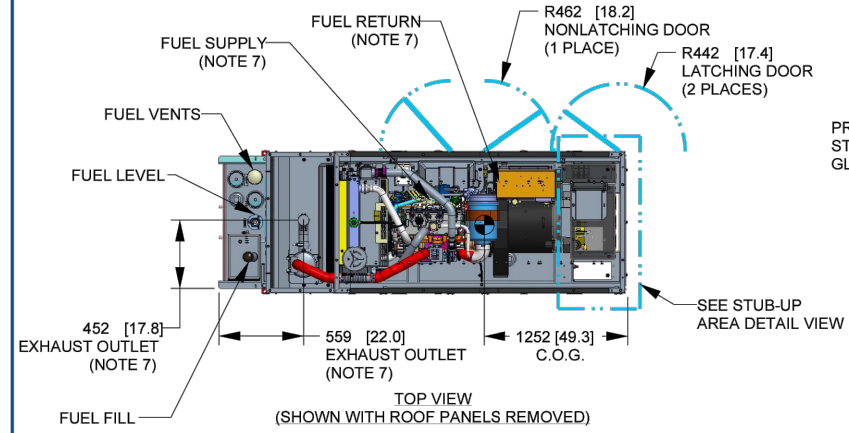


NOTE:
ALL PIPE MOUNTS TO BE CENTERED ON V-FRAME ASSEMBLY

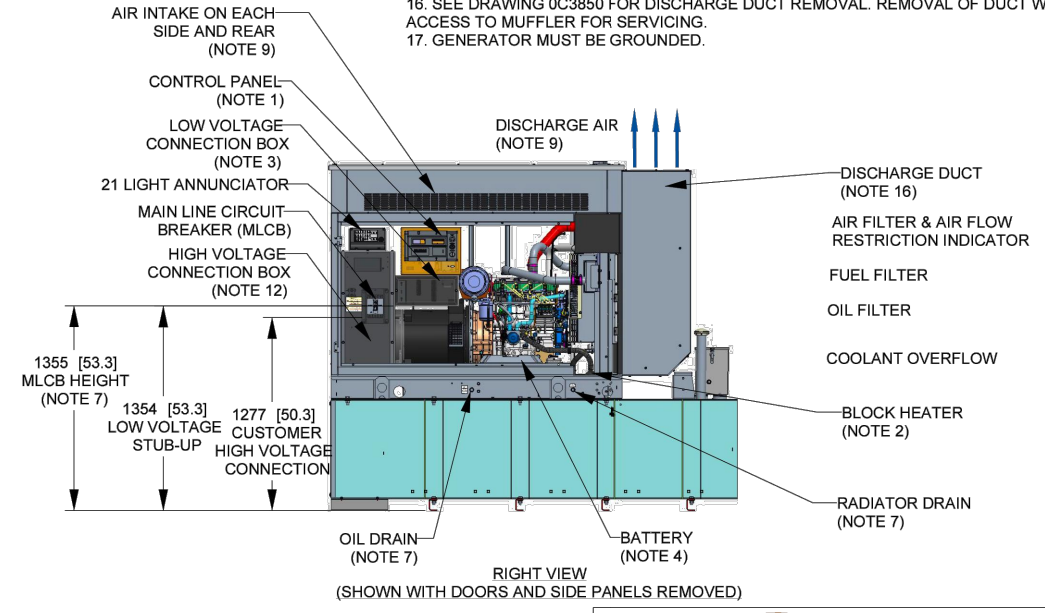
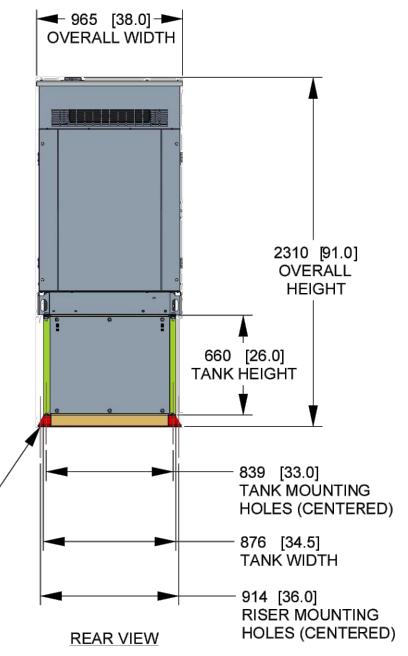
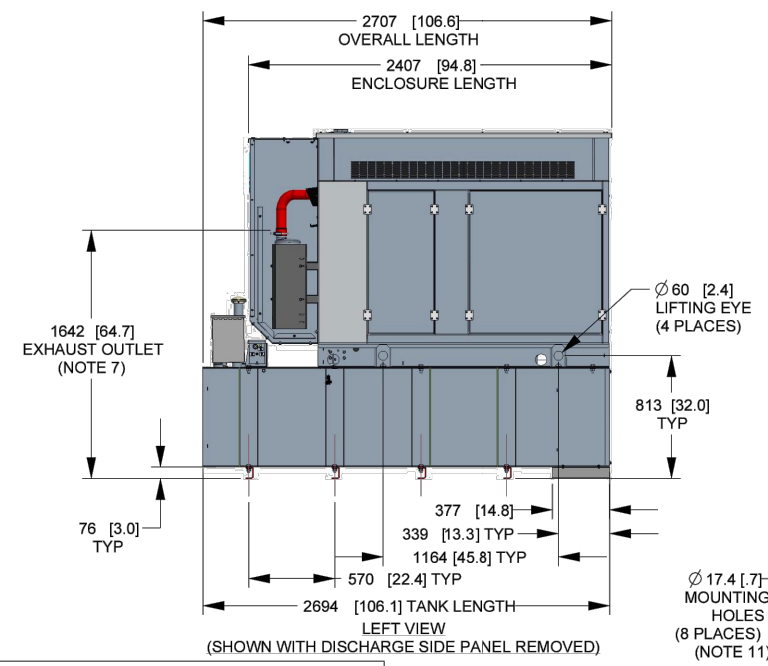
ANTENNA MOUNT - FRONT VIEW 4
SCALE: N.T.S.
(BY VZW GC)

SH	1/1	REV	B	WINDCHILL VERSION	B.3
----	-----	-----	---	-------------------	-----

4	RECOMMENDED ELECTRICAL STUB-UP
	(HIGH VOLTAGE STUB-UP) AC LOAD LEAD CONDUIT
	(LOW VOLTAGE STUB-UP)



- NOTES:**
- CONTROL PANEL INCLUDES BATTERY CHARGER WITH THREE PRONG CORD
 - 1500W 120 VAC ENGINE BLOCK HEATER WITH THREE PRONG CORD.
 - CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX. BOTTOM HAS KNOCKOUTS FOR 1/2" AND 3/4" CONDUIT FITTINGS. (USE LOW VOLTAGE STUB-UP AREA).
 - BATTERY (12 VOLT NEGATIVE GROUND SYSTEM).
 - MAIN LINE CIRCUIT BREAKER (MLCB) (MLCB HEIGHT MAY VARY WITH CB SELECTION) AC LOAD LEADS CONNECT DIRECTLY TO BOTTOM OF BREAKER.
 - CENTER OF GRAVITY & WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS.
 - ENGINE SERVICE CONNECTIONS:
INLET DIESEL = 3/8" NPT
RETURN DIESEL = 3/8" NPT
OIL DRAIN = 1/2" NPT
RADIATOR DRAIN = 1/2" NPT
EXHAUST OUTLET = 2.5" I.D.
 - STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
 - GENERATOR SET MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND DISCHARGE AIR IS NOT RECIRCULATED. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS
 - BOTTOM OF GENERATOR SET MUST BE CLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
 - BOLTS OR STUDS USED TO MOUNT UNIT TO PAD SHALL BE 5/8-11 GRADE 5. USE STANDARD SAE TORQUE SPECS.
 - HIGH VOLTAGE STUB-UP AREA INCLUDES THE AC LOAD LEAD CONNECTIONS TO MLCB, NEUTRAL CONNECTION AND AUXILIARY 120/240V CONNECTION.
 - 190 GALLON USEABLE CAPACITY BASE TANK STANDARD WITH GENERATOR.
 - IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS.
 - UNIT IS SHIPPED WITH FUEL SUPPLY AND RETURN LINES DISCONNECTED AND PLUGGED BETWEEN ENGINE AND FUEL TANK. THIS HAS BEEN DONE TO FACILITATE PRESSURE TESTING OF THE TANK IN THE FIELD. FOR INFORMATION REGARDING CONNECTING THE FUEL SUPPLY AND RETURN LINES PRIOR TO START UP, SEE THE FUEL TANK FIELD TESTING PROCEDURE (0E5082) SUPPLIED IN THE TANK LOOSE VENTS KIT, WHICH IS SHIPPED WITH THIS GENERATOR.
 - SEE DRAWING 0C3850 FOR DISCHARGE DUCT REMOVAL. REMOVAL OF DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
 - GENERATOR MUST BE GROUNDED.



DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

WEIGHT DATA: (INCLUDES FUEL TANK)
GENERATOR: 1358 [2995]
GENERATOR WITH SHIPPING SKID: 1424 [3139]
WEIGHT: KG [LBS]
DIMENSIONS: MM [INCHES]



TITLE			
INSTALL D2.2L G22 30KW SSS L2A Y02 EXT			
ISSUE DATE:		12/18/17	
SIZE	CAGE NO	DWG NO	REV
B	N/A	10000019074	B
SCALE	0.025	WT-KG	SEE ABOVE
SHEET		1 of 1	

INSTALLATION DRAWING

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ELECTRICALLY APPROVED
INSIDE WINDCHILL

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE



EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081

GENERATOR SPECIFICATIONS (REFERENCE ONLY)

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-
PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

REF-1

REV	DATE	DESCRIPTION
0	07/25/24	ZONING ISSUE
1	08/26/24	ZONING ISSUE
2	10/21/24	ZONING ISSUE



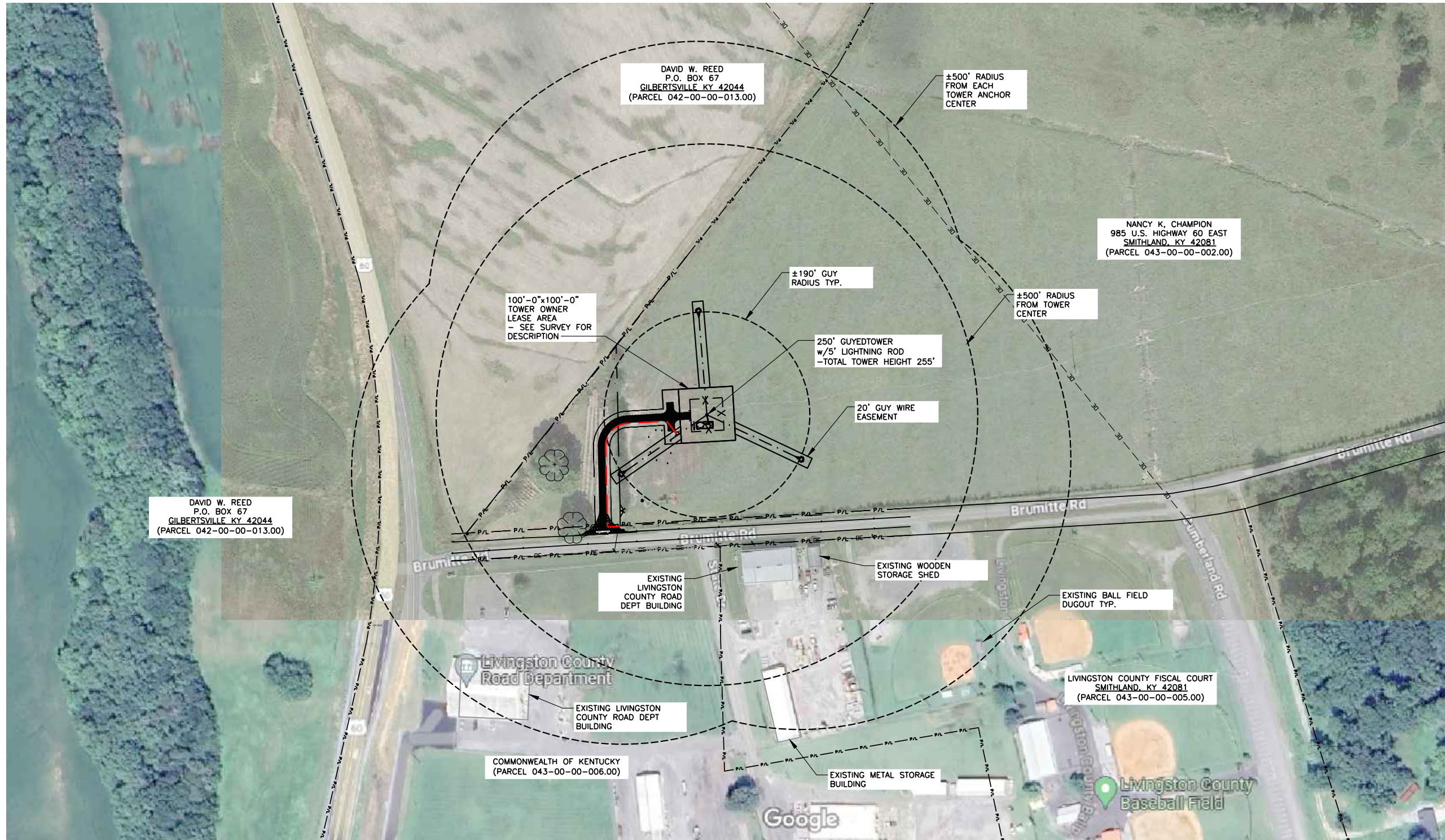
EV SMITHLAND NORTH
BRUMITTE RD
SMITHLAND, KY 42081
500' RADIUS
OWNER/STRUCTURE MAP

ISSUED FOR:	
REVIEW	-
PERMIT	-
CONSTRUCTION	-
RECORD	-

PROJECT MANAGER	DESIGNER
JTL	JTL

JOB NUMBER
240900-01-004

C-1D
MK PAD & CANOPY REV 4 FINAL 04/23/24



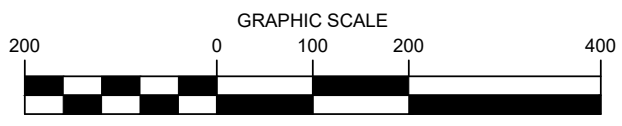
DAVID W. REED
P.O. BOX 67
GILBERTSVILLE KY 42044
(PARCEL 042-00-00-013.00)

DAVID W. REED
P.O. BOX 67
GILBERTSVILLE KY 42044
(PARCEL 042-00-00-013.00)

NANCY K. CHAMPION
985 U.S. HIGHWAY 60 EAST
SMITHLAND, KY 42081
(PARCEL 043-00-00-002.00)

LIVINGSTON COUNTY FISCAL COURT
SMITHLAND, KY 42081
(PARCEL 043-00-00-005.00)

COMMONWEALTH OF KENTUCKY
(PARCEL 043-00-00-006.00)



**500' RADIUS
OWNER/STRUCTURE MAP**

SCALE: 1" = 200'

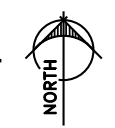


EXHIBIT C

**CONSTRUCTION MANAGER LETTER
LIST OF QUALIFIED PROFESSIONALS
TOWER AND FOUNDATION DESIGN**



October 3, 2024

Daniel J. Kunz
Senior Construction Manager
APC Towers, LLC
8601 Six Forks Road, Suite 250
Raleigh, NC 27501
www.apctowers.com

RE:

To Whom It May Concern,

My name is Daniel J. Kunz "Dan". I have been in the wireless industry since 1996. I have built, designed, dismantled, and constructed all phases of wireless tower construction. I have climbed the structures, poured the concrete, ran/pulled electrical conduit and wires.

Please do not hesitate to contact me with any questions that you may have. My contact information can be found below.

Cordially,
Daniel J. Kunz
Senior Project Manager
APC Towers, LLC
dkunz@apctowers.com
D: (919) 249-7732
C: (919) 796-7240

EV SMITHLAND NORTH – List of Qualified Professionals

Jeffrey Lashbrook
Licensed Professional Engineer
License #35042
Bowman
3001 Taylor Springs Drive
Louisville, KY 40220

F.V. Neeley
Licensed Professional Land Surveyor
License #LS-3093
Sharondale Surveying Inc.
161 Martin Road
Bon Aqua, TN 37025

Daniel J. Kunz
Senior Construction Manager
APC Towers, LLC
8601 Six Forks Road, Suite 250
Raleigh, NC 27501

Robert E. Beacom
Kentucky Licensed Professional Engineer
License #28165
Sabre Industries
7101 Southbridge Drive
P.O. Box 658
Sioux City, IA 51102-0658

Brad R. Milanowski
Kentucky Licensed Professional Engineer
License #25311
B + T GRP
1717 S Boulder Ave #300
Tulsa, OK 74119

Joseph V. Borrelli, Jr., P.E.
Kentucky Licensed Professional Engineer
License #30809
Delta Oaks Group
4904 Professional Court, Second Floor
Raleigh, NC 27609

Sarah C. Russek, P.E.
Delta Oaks Group
4904 Professional Court, Second Floor
Raleigh, NC 27609



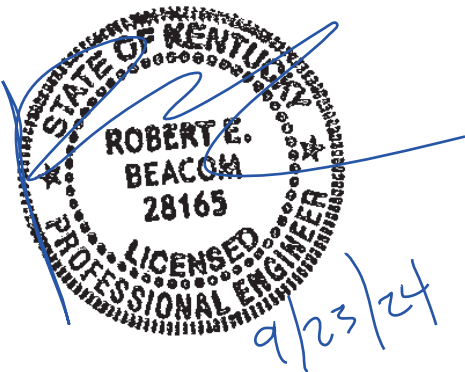
Structural Design Report
250' 3600SRWD Guyed Tower
Site: EV Smithland North, KY
Site Number: KY-1789

Prepared for: APC TOWERS
by: Sabre Industries™

Job Number: 549160

September 23, 2024

Tower Profile.....	1
Line Arrangement.....	2
Foundation Design Summary.....	3-4
Maximum Leg Loads and Face Shears.....	5
Maximum Deflections, Tilts, and Twists.....	6
Maximum Guy Tensions, Anchor Loads, and Base Loads.....	7
Calculations.....	8-29



Designed Appurtenance Loading

Elev	Description	Tx-Line
245	(1) 42,000 Sq. Inches (12,000 lbs) (below top)	(18) 1 5/8"
230	(1) 30,000 Sq. Inches 8,000# (below top)	(12) 1 5/8"
215	(1) 30,000 Sq. Inches 8,000# (below top)	(12) 1 5/8"

Design Criteria - ANSI/TIA-222-H

Wind Speed (No Ice)	106 mph
Wind Speed (Ice)	30 mph
Design Ice Thickness	1.50 in
Risk Category	II
Exposure Category	C
Topographic Factor Procedure	Method 1 (Simplified)
Topographic Category	1
Ground Elevation	346 ft

Base Reactions - Wind/Ice

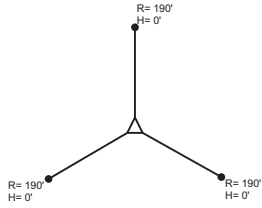
Total Foundation		Guy Anchor	
Axial (kips)	206.77	Max Vertical (kips)	42.59
Shear (kips)	0.94	Max Horizontal (kips)	43.42

Guy Tension Chart

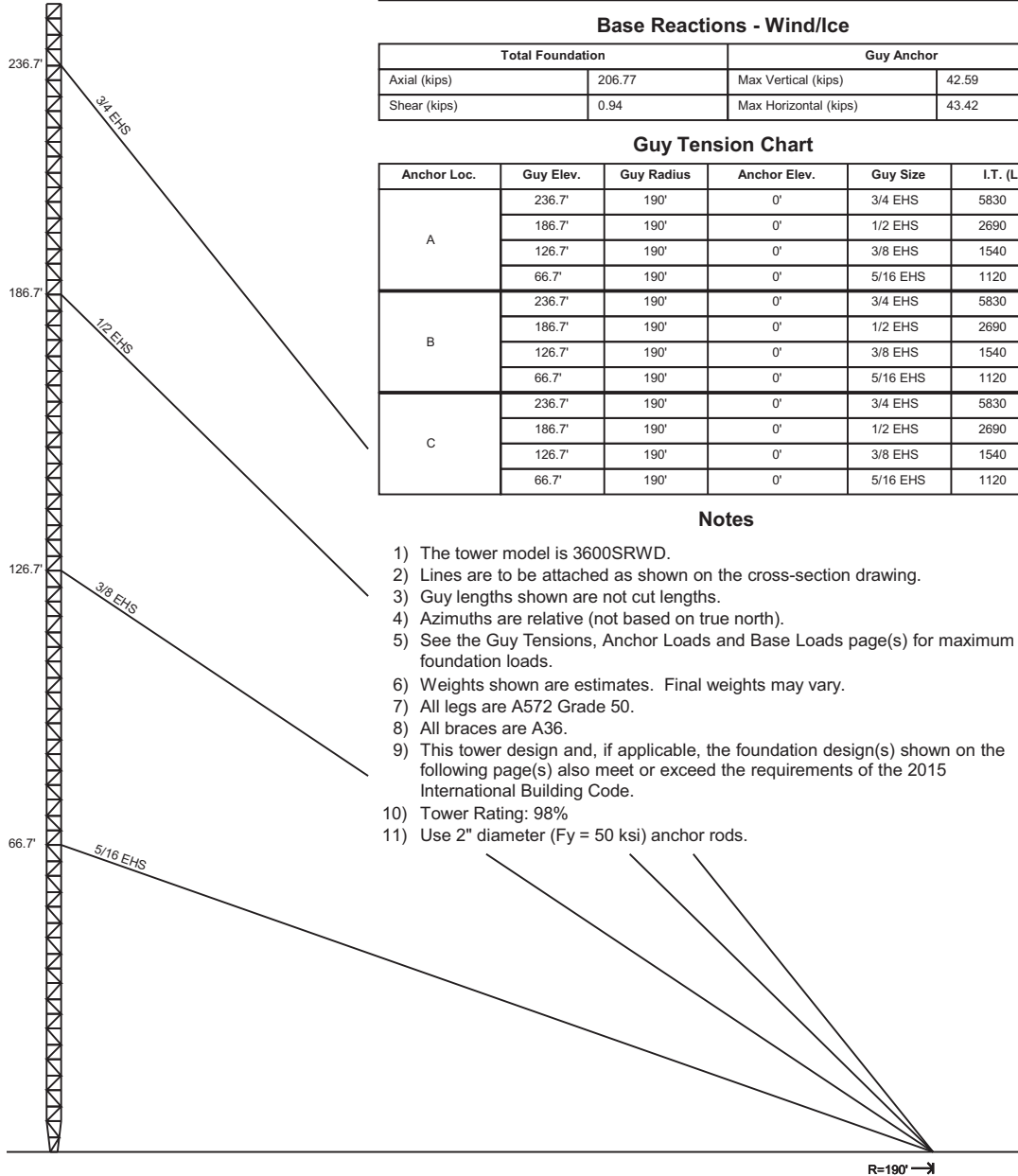
Anchor Loc.	Guy Elev.	Guy Radius	Anchor Elev.	Guy Size	I.T. (Lbs.)
A	236.7'	190'	0'	3/4 EHS	5830
	186.7'	190'	0'	1/2 EHS	2690
	126.7'	190'	0'	3/8 EHS	1540
	66.7'	190'	0'	5/16 EHS	1120
B	236.7'	190'	0'	3/4 EHS	5830
	186.7'	190'	0'	1/2 EHS	2690
	126.7'	190'	0'	3/8 EHS	1540
	66.7'	190'	0'	5/16 EHS	1120
C	236.7'	190'	0'	3/4 EHS	5830
	186.7'	190'	0'	1/2 EHS	2690
	126.7'	190'	0'	3/8 EHS	1540
	66.7'	190'	0'	5/16 EHS	1120

Notes

- The tower model is 3600SRWD.
- Lines are to be attached as shown on the cross-section drawing.
- Guy lengths shown are not cut lengths.
- Azimuths are relative (not based on true north).
- See the Guy Tensions, Anchor Loads and Base Loads page(s) for maximum foundation loads.
- Weights shown are estimates. Final weights may vary.
- All legs are A572 Grade 50.
- All braces are A36.
- This tower design and, if applicable, the foundation design(s) shown on the following page(s) also meet or exceed the requirements of the 2015 International Building Code.
- Tower Rating: 98%
- Use 2" diameter (Fy = 50 ksi) anchor rods.



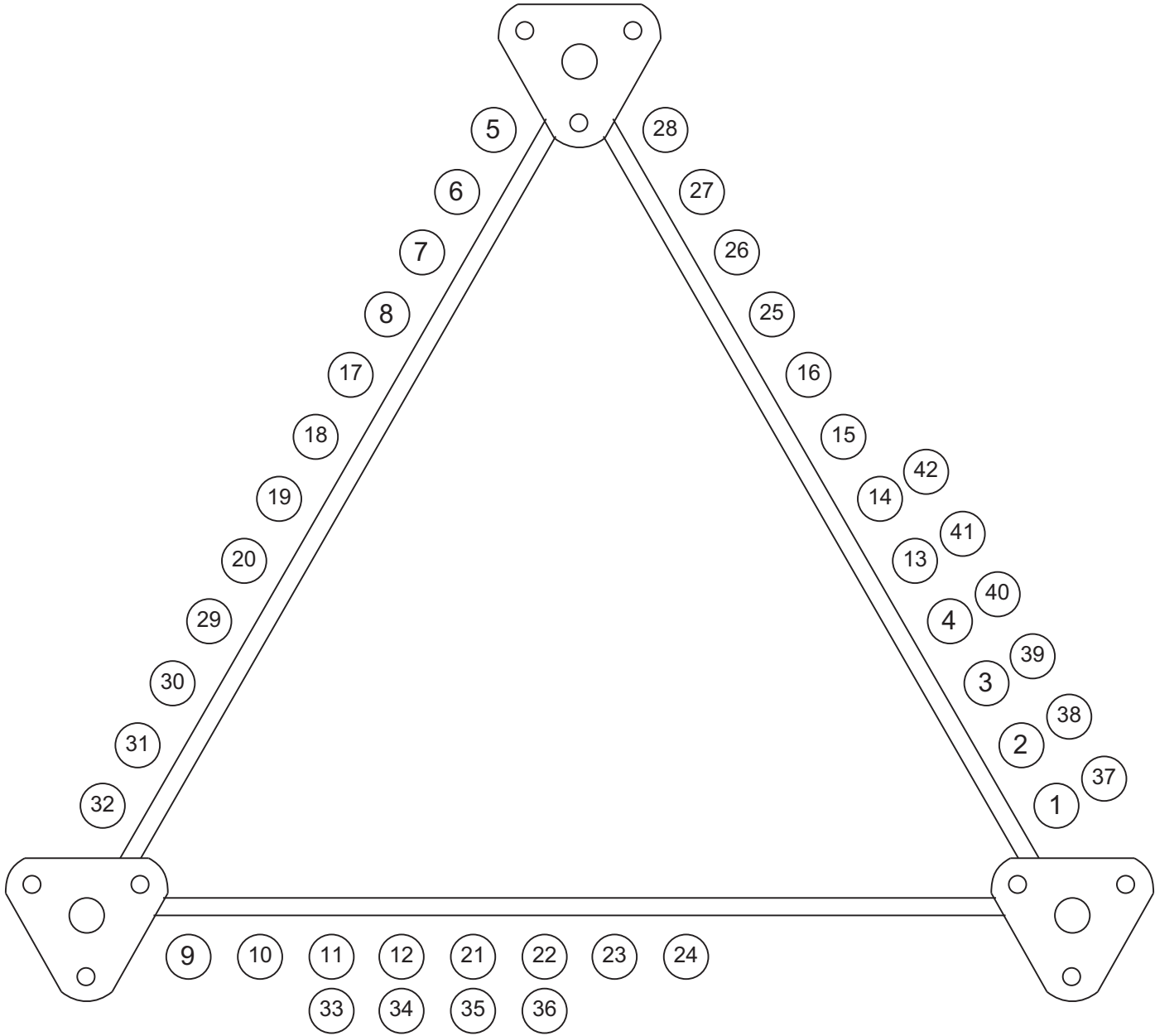
Legs	2.0 S.R.	1.75 S.R.	2.0 S.R.	1.0 S.R.	1.75 S.R.	1.0 S.R.	485
Diagonals	0.875 S.R.	0.875 S.R.	0.875 S.R.	0.875 S.R.	0.875 S.R.	0.875 S.R.	1004
Horizontals	0.75 S.R.	0.75 S.R.	0.75 S.R.	0.75 S.R.	0.75 S.R.	0.75 S.R.	862
Brace Bolts	3"	3"	3"	3"	3"	3"	1111
Face Width	75 @ 3.3333'	75 @ 3.3333'	75 @ 3.3333'	75 @ 3.3333'	75 @ 3.3333'	75 @ 3.3333'	862
Panel Count/Height	1060	1060	1060	1060	1060	1060	1060
Section Weight	1012	1012	1012	1012	1012	1012	1012
	1012	1012	1012	1012	1012	1012	1012
	1281	1281	1281	1281	1281	1281	1281




Sabre Industries
 7101 Southbridge Drive
 P.O. Box 658
 Sioux City, IA 51102-0658
 Phone: (712) 258-6690
 Fax: (712) 279-0814

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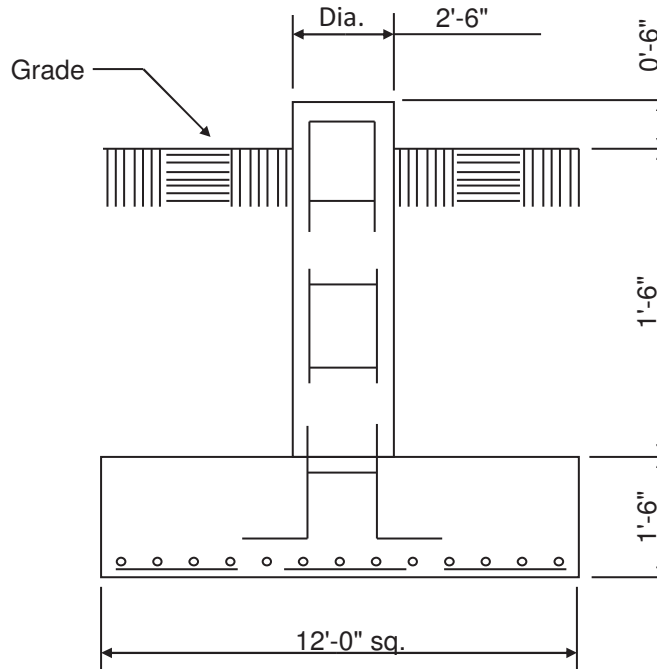
Job:	549160
Customer:	APC TOWERS
Site Name:	EV Smithland North, KY-KY-1789
Description:	250' 3600SRWD
Date:	9/23/2024
By:	REB



NOTE: THE LINES ARE NUMBERED FROM HIGHEST ELEVATION TO LOWEST ELEVATION

 <p>Sabre Industries 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814</p> <p><small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small></p>	Job:	549160
	Customer:	APC TOWERS
	Site Name:	EV Smithland North, KY KY-1789
	Description:	250' 3600SRWD
	Date:	9/23/2024

Customer: APC TOWERS
Site: EV Smithland North, KY KY-1789
250' model 3600 SRWD Guyed Tower (36" face)



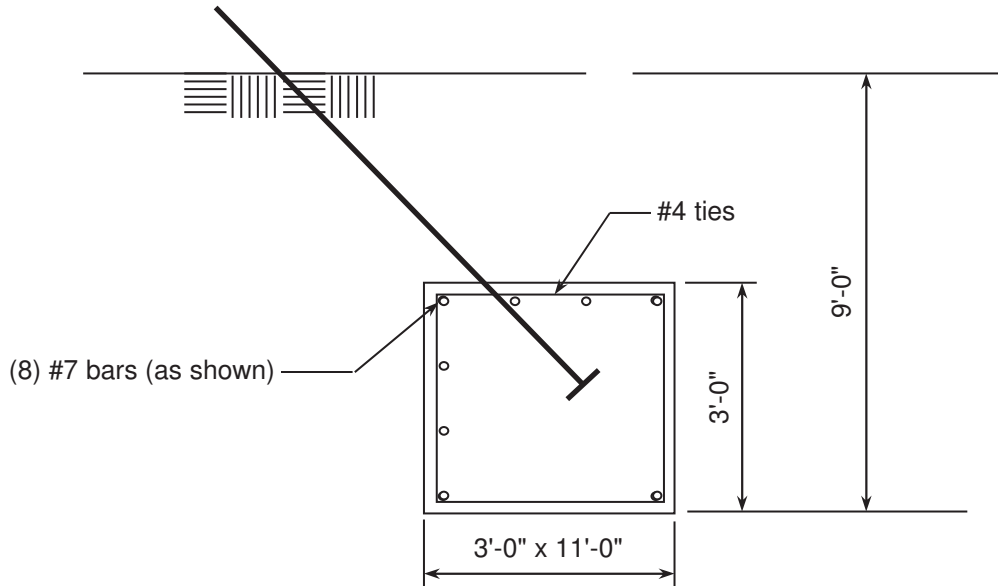
TOWER BASE
(8.36 Cu. Yds.)
(NOT TO SCALE)

Rebar Schedule	
Pier	(6) #7 vertical rebar w/ #3 ties @12" spacing
Pad	(13) #7 horizontal rebar each way, evenly spaced, bottom only

Notes

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-14.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by Delta Oaks Group, Project No. GEO24-22236-08, dated July 15, 2024.
- 6) See the geotechnical report for compaction requirements, if specified.

Customer: APC TOWERS
Site: EV Smithland North, KY KY-1789
250' model 3600 SRWD Guyed Tower (36" face)



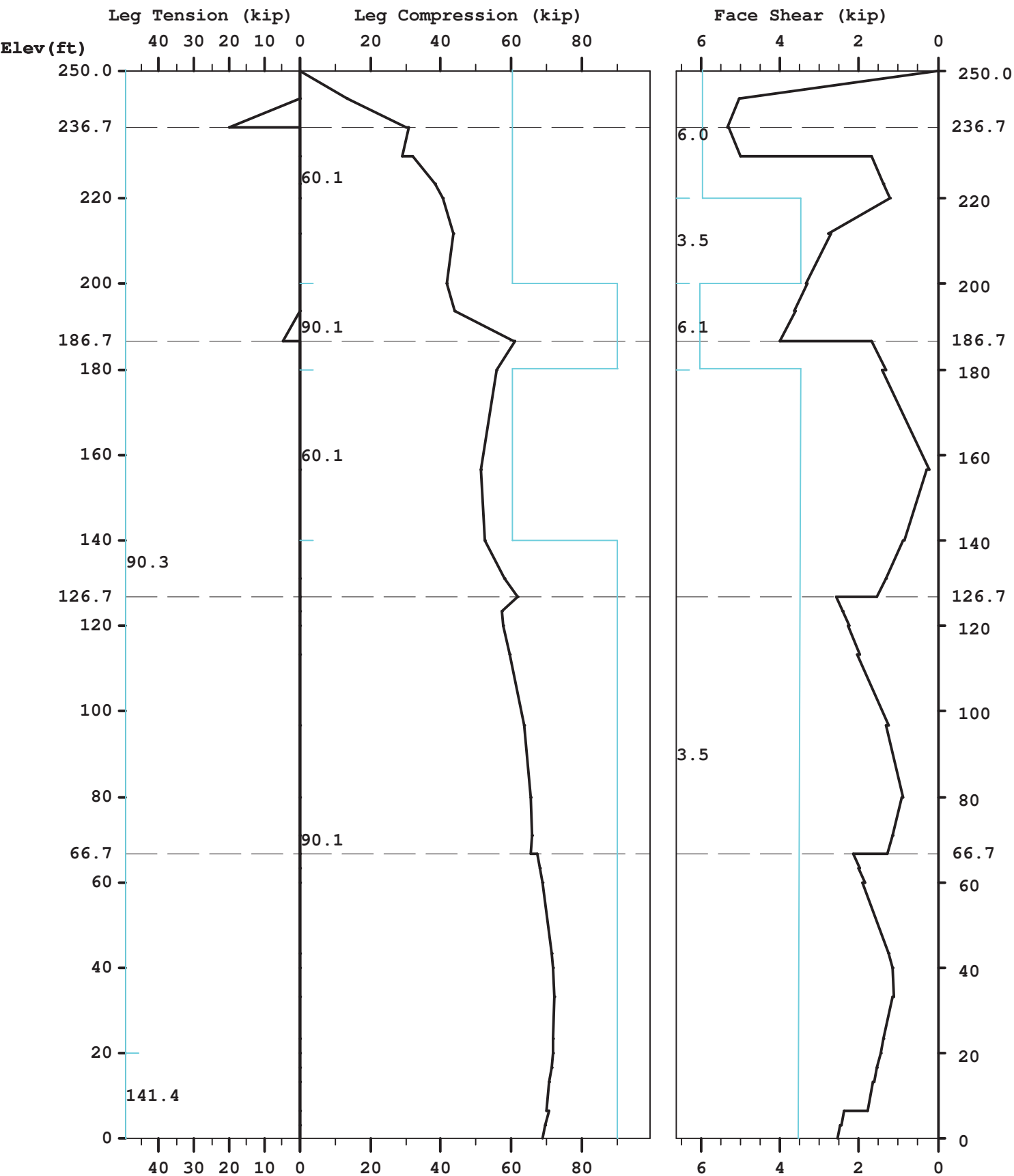
GUY ANCHOR
(3.67 Cu. Yds. Each)
(3 REQUIRED; NOT TO SCALE)

Rebar Schedule Per Anchor	
Guy	(8) #7 horizontal rebar x 10'-6"
Anchor	(12) #4 ties evenly spaced

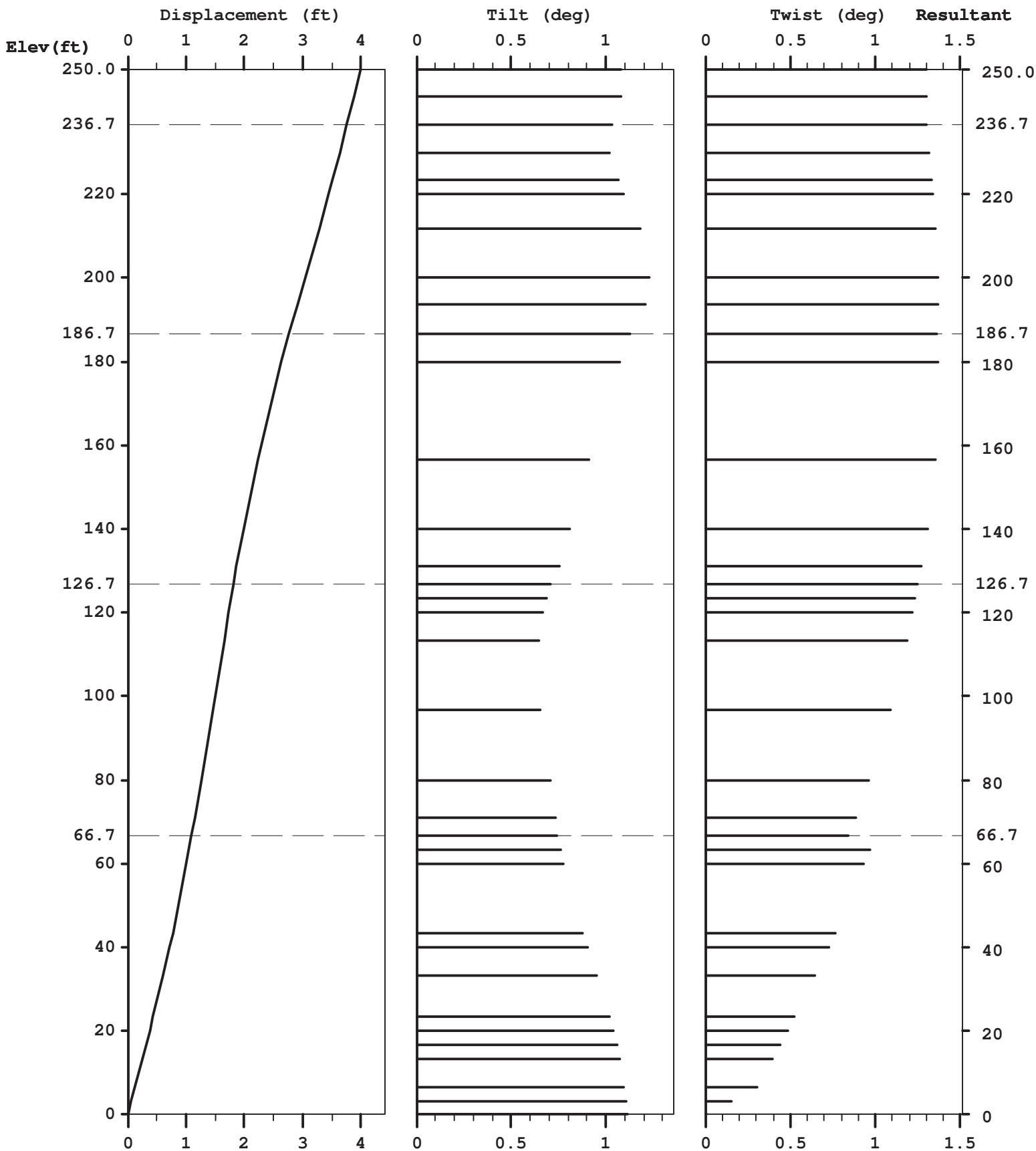
Notes

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-14.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) The foundation design is based on the geotechnical report by Delta Oaks Group, Project No. GEO24-22236-08, dated July 15, 2024.
- 5) When the soil electrical resistivity is less than 50 ohm-m and/or the measured soil pH values are below 3 or greater than 9, additional corrosion control is required. See the geotechnical report for these parameters and compaction requirements, if specified.

Maximum



Maximum



Maximum

Guy Tensions, Anchor Loads and Base Loads

Elev (ft)

250.0

236.7

186.7

126.7

66.7

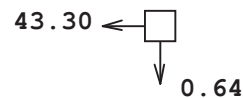
Maximum Values (kip)
EFL/FR - The Effects Of Factored Loads Divided
By The Factored Resistance

EFL/FR = 0.98, Tmax = 34.25

EFL/FR = 0.94, Tmax = 15.12

EFL/FR = 0.86, Tmax = 7.94

EFL/FR = 0.71, Tmax = 4.78



PLAN

Shear
1.05

Bending

0.00

Axial
206.77

Torsion
-3.22

60.69

0.00

44.48

60.69

0.64

43.30

42.52

ELEVATION

Anchor Radius 190.00

Tel:(416)736-7453 Fax:(416)736-4372 Web:www.guymast.com

Processed under license at:

Sabre Towers and Poles on: 23 sep 2024 at: 9:34:18

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MAST DATA

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UPPER ELEV FT	MAST TYPE OF WEB	NO OF LEGS *	FACE WIDTH FT *	GEOM PANEL HEIGHT FT *	X-SECTION-AREA ONE LEG IN.SQ.	AREA ONE DIAG IN.SQ.	BARE WEIGHT K/FT.	ELASTIC MODULUS KIP/IN.SQ	TEMP COEFF /DEG
250.0	4	3	3.000	3.333	2.410	0.790	0.039	29000.0	0.0000117
220.0	4	3	3.000	3.333	2.410	0.600	0.037	29000.0	0.0000117
200.0	4	3	3.000	3.333	3.140	0.790	0.047	29000.0	0.0000117
180.0	4	3	3.000	3.333	2.410	0.600	0.037	29000.0	0.0000117
140.0	4	3	3.000	3.333	3.140	0.600	0.044	29000.0	0.0000117
6.7	4	3	2.000	3.333	3.140	0.600	0.045	29000.0	0.0000117
3.3	4	3	2.000	3.333	3.140	0.600	0.042	29000.0	0.0000117

* If NO OF LEGS is 1 : that part of the mast is assumed to be Cylindrical
 and : FACE WIDTH = outside diameter
 PANEL HEIGHT = thickness
 AREA OF DIAG = Poisson ratio

GUY GEOMETRY

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ELEV FT	GUY AZI DEG	DIAMETER IN.	HEIGHT FT.	RADIUS FT.	MAST ATTACH RADIUS FT.	ATTACH AZI DEG	INITIAL TENSION KIP
236.7	240.0	0.750	236.7	190.0	1.732	240.0	5.830000
236.7	120.0	0.750	236.7	190.0	1.732	120.0	5.830000
236.7	0.0	0.750	236.7	190.0	1.732	0.0	5.830000
186.7	240.0	0.500	186.7	190.0	1.732	240.0	2.690000
186.7	120.0	0.500	186.7	190.0	1.732	120.0	2.690000
186.7	0.0	0.500	186.7	190.0	1.732	0.0	2.690000
126.7	240.0	0.375	126.7	190.0	1.732	240.0	1.540000
126.7	120.0	0.375	126.7	190.0	1.732	120.0	1.540000
126.7	0.0	0.375	126.7	190.0	1.732	0.0	1.540000
66.7	240.0	0.312	66.7	190.0	1.732	240.0	1.120000
66.7	120.0	0.312	66.7	190.0	1.732	120.0	1.120000
66.7	0.0	0.312	66.7	190.0	1.732	0.0	1.120000

GUY MATERIAL PROPERTIES

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ELEV FT	GUY AZI DEG	BREAKING STRENGTH KIP	GUY WEIGHT LBS/FT	GUY AREA IN.SQ	ELASTIC MODULUS KIP/IN.SQ	THERMAL COEFF /DEG	UNSTRESS LENGTH FT
236.7	240.0	58.300	1.180	0.338	19000.0	0.0000117	302.17264
236.7	120.0	58.300	1.180	0.338	19000.0	0.0000117	302.17264
236.7	0.0	58.300	1.180	0.338	19000.0	0.0000117	302.17264
186.7	240.0	26.900	0.525	0.150	20000.0	0.0000117	264.91232
186.7	120.0	26.900	0.525	0.150	20000.0	0.0000117	264.91232
186.7	0.0	26.900	0.525	0.150	20000.0	0.0000117	264.91232
126.7	240.0	15.400	0.270	0.084	21000.0	0.0000117	226.73822

126.7	120.0	15.400	0.270	0.084	21000.0	0.0000117	226.73822
126.7	0.0	15.400	0.270	0.084	21000.0	0.0000117	226.73824
66.7	240.0	11.200	0.222	0.059	21000.0	0.0000117	199.56261
66.7	120.0	11.200	0.222	0.059	21000.0	0.0000117	199.56261
66.7	0.0	11.200	0.222	0.059	21000.0	0.0000117	199.56262

FACTORED LEG AND FACE SHEAR RESISTANCE
 =====

BOTTOM ELEV ft	TOP ELEV ft	LEG COMP kip	FACE SHEAR kip	LEG TENS kip	DIAG COMP kip	DIAG TENS kip
0.00	20.00	90.09	3.54	141.37	0.00	0.00
20.00	40.00	90.09	3.54	90.30	0.00	0.00
40.00	60.00	90.09	3.54	90.30	0.00	0.00
60.00	80.00	90.09	3.54	90.30	0.00	0.00
80.00	100.00	90.09	3.54	90.30	0.00	0.00
100.00	120.00	90.09	3.54	90.30	0.00	0.00
120.00	140.00	90.09	3.54	90.30	0.00	0.00
140.00	160.00	60.09	3.49	90.30	0.00	0.00
160.00	180.00	60.09	3.49	90.30	0.00	0.00
180.00	200.00	90.09	6.05	90.30	0.00	0.00
200.00	220.00	60.09	3.49	90.30	0.00	0.00
220.00	240.00	60.09	5.96	90.30	0.00	0.00
240.00	250.00	60.09	5.96	90.30	0.00	0.00

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 * 12 wind directions were analyzed. Only 2 condition(s) shown in full
 * Some wind loads may have been derived from full-scale wind tunnel testing
 =====

LOADING CONDITION A

106 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING
 =====

LOAD TYPE	ELEV FT	.FORCES (KIP & KIP/FT)			.MOMENTS (FT.K & FT.K/FT)			ANT-ORIENT	
		N	E	DOWN	N	E	TORSION	AZI DEG	VERT DEG
C	245.0	-7.318	0.000	14.400	0.00	0.00	0.00	0.0	0.00
C	230.0	-5.159	0.000	9.600	0.00	0.00	0.00	0.0	0.00
C	215.0	-5.086	0.000	9.600	0.00	0.00	0.00	0.0	0.00
D	250.0	-0.031	0.000	0.059	0.00	0.00	0.00		
D	246.7	-0.031	0.000	0.059	0.00	0.00	0.00		
D	246.7	-0.050	0.000	0.071	0.00	0.00	0.00		
D	243.3	-0.050	0.000	0.071	0.00	0.00	0.00		
D	243.3	-0.069	0.000	0.082	0.00	0.00	0.00		
D	230.0	-0.069	0.000	0.082	0.00	0.00	0.00		
D	230.0	-0.082	0.000	0.097	0.00	0.00	0.00		
D	220.0	-0.082	0.000	0.097	0.00	0.00	0.00		
D	220.0	-0.081	0.000	0.097	0.00	0.00	0.00		
D	200.0	-0.083	0.000	0.113	0.00	0.01	-0.01		
D	200.0	-0.083	0.000	0.121	0.00	0.01	-0.01		
D	180.0	-0.083	0.000	0.121	0.00	0.01	-0.01		
D	180.0	-0.079	0.000	0.109	0.00	0.01	-0.01		
D	160.0	-0.079	0.000	0.109	0.00	0.01	-0.01		
D	160.0	-0.076	0.000	0.109	0.00	0.01	-0.01		
D	140.0	-0.077	0.000	0.109	0.00	0.01	-0.01		
D	140.0	-0.076	0.000	0.118	0.00	0.01	-0.01		
D	123.3	-0.076	0.000	0.118	0.00	0.01	-0.01		
D	123.3	-0.075	0.000	0.118	0.00	0.01	-0.01		
D	100.0	-0.073	0.000	0.118	0.00	0.01	-0.01		
D	100.0	-0.070	0.000	0.118	0.00	0.01	-0.01		
D	80.0	-0.071	0.000	0.118	0.00	0.01	-0.01		
D	80.0	-0.066	0.000	0.118	0.00	0.01	0.00		
D	63.3	-0.067	0.000	0.118	0.00	0.01	-0.01		
D	63.3	-0.065	0.000	0.118	0.00	0.01	0.00		
D	43.3	-0.060	0.000	0.118	0.00	0.01	0.00		
D	43.3	-0.060	0.000	0.118	0.00	0.01	0.00		
D	23.3	-0.053	0.000	0.118	0.00	0.01	0.00		
D	23.3	-0.054	0.000	0.118	0.00	0.01	0.00		
D	6.7	-0.047	0.000	0.118	0.00	0.01	0.00		

D	6.7	-0.050	0.000	0.118	0.00	0.01	0.00
D	0.0	-0.048	0.000	0.115	0.00	0.01	0.00

GUY LOADING
=====

.. WIND LOADING ...		TEMP	.ICE LOAD..		CONV	PROFILES.		.LOAD FACTORS.			
AZI	SPEED	REF	CHANGE	RAD	DENS	TOL	CAB	WIND	WIND	DEAD	ICE
DEG	MPH	PSF	DEG	IN	PCF						
0.0	106.0	0.00	0.00	0.00	56.00	0.0100	1	4	1.00	1.00	1.00

CABLE PROFILE: 1 - CATENARY 2 - PARABOLIC

WIND PROFILE: 1 - EIA 222 default
 2 - Constant Kz=1, Kiz=1
 3 - Step function for Kz, Kiz
 (requires definition of Exposure Factor Kz, Kiz table)
 4 - Special Factors
 5 - Site specific wind formula, Kiz as EIA 222 default
 (requires definition of Exposure Factor Qh formula table)

=====

LOADING CONDITION M =====

30 mph wind with 1.5 ice. Wind Azimuth: 0°

MAST LOADING
=====

LOAD TYPE	ELEV FT	.FORCES (KIP & KIP/FT)			.MOMENTS (FT.K & FT.K/FT)			ANT-ORIENT	
		N	E	DOWN	N	E	TORSION	AZI DEG	VERT DEG
C	245.0	-1.016	0.000	36.396	0.00	0.00	0.00	0.0	0.00
C	230.0	-0.714	0.000	24.171	0.00	0.00	0.00	0.0	0.00
C	215.0	-0.702	0.000	24.073	0.00	0.00	0.00	0.0	0.00
D	250.0	-0.007	0.000	0.152	-0.01	0.01	0.00		
D	246.7	-0.007	0.000	0.152	-0.01	0.01	0.00		
D	246.7	-0.010	0.000	0.203	0.00	0.01	0.00		
D	243.3	-0.010	0.000	0.203	0.00	0.01	0.00		
D	243.3	-0.013	0.000	0.193	0.00	0.01	0.00		
D	240.0	-0.013	0.000	0.193	0.00	0.01	0.00		
D	240.0	-0.013	0.000	0.274	0.01	0.02	0.00		
D	230.0	-0.013	0.000	0.275	0.01	0.02	0.00		
D	230.0	-0.015	0.000	0.283	0.05	0.01	0.00		
D	226.7	-0.015	0.000	0.283	0.05	0.01	0.00		
D	226.7	-0.015	0.000	0.279	0.03	0.01	0.00		
D	223.3	-0.015	0.000	0.279	0.03	0.01	0.00		
D	223.3	-0.015	0.000	0.275	0.02	0.01	0.00		
D	220.0	-0.015	0.000	0.275	0.02	0.01	0.00		
D	220.0	-0.015	0.000	0.297	0.04	0.01	0.00		
D	216.7	-0.015	0.000	0.297	0.04	0.01	0.00		
D	216.7	-0.015	0.000	0.298	0.07	0.01	0.00		
D	200.0	-0.016	0.000	0.308	0.04	0.01	0.00		
D	200.0	-0.015	0.000	0.319	0.08	0.02	0.00		
D	180.0	-0.015	0.000	0.319	0.08	0.02	0.00		
D	180.0	-0.015	0.000	0.303	0.07	0.02	0.00		
D	160.0	-0.015	0.000	0.302	0.07	0.02	0.00		
D	160.0	-0.014	0.000	0.301	0.07	0.02	0.00		
D	140.0	-0.014	0.000	0.300	0.07	0.02	0.00		
D	140.0	-0.014	0.000	0.309	0.07	0.02	0.00		
D	120.0	-0.014	0.000	0.308	0.07	0.02	0.00		
D	120.0	-0.013	0.000	0.306	0.07	0.02	0.00		
D	100.0	-0.014	0.000	0.306	0.07	0.02	0.00		
D	100.0	-0.013	0.000	0.301	0.07	0.02	0.00		
D	80.0	-0.013	0.000	0.302	0.07	0.02	0.00		
D	80.0	-0.012	0.000	0.297	0.07	0.02	0.00		
D	60.0	-0.012	0.000	0.297	0.07	0.02	0.00		
D	60.0	-0.011	0.000	0.292	0.06	0.02	0.00		
D	40.0	-0.011	0.000	0.292	0.07	0.02	0.00		
D	40.0	-0.009	0.000	0.285	0.06	0.02	0.00		
D	20.0	-0.010	0.000	0.284	0.06	0.02	0.00		
D	20.0	-0.007	0.000	0.111	0.00	0.00	0.00		

D	16.7	-0.007	0.000	0.111	0.00	0.00	0.00
D	16.7	-0.007	0.000	0.140	0.01	0.00	0.00
D	13.3	-0.007	0.000	0.140	0.01	0.00	0.00
D	13.3	-0.007	0.000	0.169	0.02	0.01	0.00
D	10.0	-0.007	0.000	0.169	0.02	0.01	0.00
D	10.0	-0.008	0.000	0.198	0.03	0.01	0.00
D	6.7	-0.008	0.000	0.198	0.03	0.01	0.00
D	6.7	-0.008	0.000	0.225	0.04	0.01	0.00
D	3.3	-0.008	0.000	0.225	0.04	0.01	0.00
D	3.3	-0.008	0.000	0.244	0.05	0.01	0.00
D	0.0	-0.008	0.000	0.244	0.05	0.01	0.00

GUY LOADING

=====

.. WIND LOADING ...			TEMP	.ICE LOAD..		CONV	PROFILES.		.LOAD FACTORS.		
AZI	SPEED	REF	CHANGE	RAD	DENS	TOL	CAB	WIND	WIND	DEAD	ICE
DEG	MPH	PSF	DEG	IN	PCF						
0.0	30.0	0.00	-28.00	1.50	56.00	0.0100	1	4	1.00	1.00	1.00

CABLE PROFILE: 1 - CATENARY 2 - PARABOLIC

WIND PROFILE: 1 - EIA 222 default
 2 - Constant Kz=1, Kiz=1
 3 - Step function for Kz, Kiz
 (requires definition of Exposure Factor Kz, Kiz table)
 4 - Special Factors
 5 - Site specific wind formula, Kiz as EIA 222 default
 (requires definition of Exposure Factor Qh formula table)

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MAXIMUM LEG LOADS AND FACE SHEARS (KIP - stress in KSI)

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MAST ELEV FT	MAX LEG LOADS					MAX FACE SHEARS		
	AXIAL	BENDING		TOTAL		TORSN	BEAM	TOTAL
		TENS	COMP	TENS	COMP			
250.00	0.0B	0.0F	0.0C	0.0F	0.0C	0.0A	0.0C	0.0C
243.35	12.5Q	5.0I	5.0C	0.0I	13.3W	0.0B	5.1D	5.0D
236.70	12.5Q	5.0I	5.0C	0.0I	13.3W	0.0B	-5.1J	5.0L
230.00	13.0Q	25.0I	25.1C	19.9I	30.3C	0.1B	-5.4J	5.3J
223.34	21.1S	10.3A	10.0C	0.0A	30.8C	0.3H	5.6J	5.3J
211.70	21.7S	11.6K	11.5I	0.0A	28.9L	0.3H	5.3J	5.0L
200.00	29.8S	11.6K	11.5I	0.0A	32.1L	0.3H	1.8J	1.7A
193.78	30.4S	18.3K	18.4I	0.0A	38.2L	0.2H	1.4J	1.4A
187.00	30.4S	18.3K	18.4I	0.0A	38.2L	0.2H	1.4J	1.4A
180.00	30.7S	21.0K	21.3I	0.0A	40.7L	0.2H	-1.2L	1.2A
173.00	30.7S	21.0K	21.3I	0.0A	40.7L	0.2H	-1.2L	1.2A
166.00	39.5S	19.3K	20.1I	0.0A	43.4Q	0.1H	2.7D	2.8B
159.00	39.5S	19.3K	20.1I	0.0A	43.4Q	0.1H	2.7D	2.7B
152.00	40.7S	2.0B	2.8B	0.0A	41.7P	0.0G	3.3D	3.3D
145.00	40.7S	2.0B	2.8B	0.0A	41.7P	0.0L	3.3D	3.3D
138.00	41.4S	12.2A	15.3C	0.0A	43.9C	-0.1L	3.7D	3.6D
131.00	41.4S	12.2A	15.3C	0.0A	43.9C	-0.1L	3.7D	3.6D
124.00	42.1S	27.6E	31.9C	4.8A	60.8C	0.1B	-4.1J	4.0J

186.70	46.8S	21.8A	25.7C	0.0A	60.9C	0.1H	1.7J	1.7J
	47.5S	16.8A	20.4C	0.0A	55.9C	0.0G	1.3J	1.3J
180.00	47.5S	16.8A	20.4C	0.0A	55.9C	0.1F	1.3J	1.4J
	49.8S	9.3B	12.7B	0.0A	51.2P	-0.2H	-0.1S	0.2H
156.70	49.8S	9.3B	12.7B	0.0A	51.2P	-0.3H	-0.1S	0.3H
	51.5S	12.4B	15.8B	0.0A	52.6C	-0.3H	-0.9F	0.9G
140.00	51.5S	12.4B	15.8B	0.0A	52.6C	-0.4H	-0.9F	0.9G
	52.4S	16.7A	20.8C	0.0A	58.1C	-0.4H	-1.4F	1.3G
131.17	52.4S	16.7A	20.8C	0.0A	58.1C	-0.4H	-1.4F	1.3G
	52.9S	19.9A	24.2C	0.0A	61.7C	-0.5H	-1.6F	1.5G
126.70	55.7S	17.5A	21.6C	0.0A	61.7C	-0.3H	2.2J	2.6H
	56.0S	13.9B	17.1C	0.0A	57.4C	-0.4H	2.1J	2.4H
123.33	56.0S	13.9B	17.1C	0.0A	57.4C	-0.4H	2.1J	2.4H
	56.4S	10.8B	13.9B	0.0A	57.7W	-0.4H	1.9J	2.3H
120.00	56.4S	10.8B	13.9B	0.0A	57.7W	-0.4H	1.9J	2.3H
	57.0S	5.3B	8.2B	0.0A	59.7P	-0.4H	1.5J	2.0H
113.33	57.0S	5.3B	8.2B	0.0A	59.7P	-0.5H	1.5J	2.0H
	58.7S	7.1K	6.2I	0.0A	63.7Q	-0.6H	0.7J	1.3H
96.70	58.7S	7.1K	6.2I	0.0A	63.7Q	-0.7H	0.7J	1.3H
	60.4S	10.1K	7.7I	0.0A	65.6Q	-0.7H	0.2I	0.9H
80.00	60.4S	10.1K	7.7I	0.0A	65.6Q	-0.8H	0.2I	0.9H
	61.3S	8.0K	5.1I	0.0A	65.7Q	-0.8H	-0.6J	1.1H
71.10	61.3S	8.0K	5.1I	0.0A	65.7Q	-0.8H	-0.6J	1.2H
	61.7S	6.0K	4.1Q	0.0A	65.6Q	-0.8H	-0.8J	1.3H
66.70	63.2S	6.9K	4.3Q	0.0A	67.3Q	-0.8H	1.3J	2.1H
	63.5S	9.9K	6.6I	0.0A	68.1Q	-0.8H	1.2J	2.0H
63.33	63.5S	9.9K	6.6I	0.0A	68.1Q	-0.8H	1.2J	2.0H
	63.9S	12.5K	8.9I	0.0A	68.9Q	-0.8H	1.0J	1.9H
60.00	63.9S	12.5K	8.9I	0.0A	68.9Q	-0.9H	1.0J	1.9H
	65.5S	20.1K	16.0I	0.0A	71.5Q	-1.0H	0.3B	1.3H
43.33	65.5S	20.1K	16.0I	0.0A	71.5Q	-1.0H	0.3B	1.3H
	65.8S	20.6K	16.5I	0.0A	71.8Q	-1.0H	0.2B	1.1H
40.00	65.8S	20.6K	16.5I	0.0A	71.8Q	-1.0H	0.2B	1.2H
	66.4S	20.4K	16.5I	0.0A	72.1Q	-1.0H	0.2K	1.1H
33.35	66.4S	20.4K	16.5I	0.0A	72.1Q	-1.1H	0.2K	1.1H
	67.4S	17.5K	14.4I	0.0A	71.9Q	-1.1H	0.6K	1.4H
23.33	67.4S	17.5K	14.4I	0.0A	71.9Q	-1.1H	0.6K	1.4H
	67.7S	15.8K	13.1I	0.0A	71.7Q	-1.1H	0.7K	1.5H
20.00	67.7S	15.8K	13.1I	0.0A	71.7Q	-1.1H	0.7K	1.5H
	67.8S	13.9K	11.5I	0.0A	71.2Q	-1.1H	0.8K	1.5H
16.67								

	67.8S	13.9K	11.5I	0.0A	71.2Q	-1.1H	0.8K	1.5H
13.33	68.0S	11.7K	9.7I	0.0A	70.8Q	-1.2H	-0.9J	1.6H
	68.0S	11.7K	9.7I	0.0A	70.8Q	-1.2H	-0.9J	1.6H
6.67	68.4S	6.4K	5.3I	0.0A	69.8Q	-1.2H	-1.1J	1.8H
	68.4S	9.6K	8.0I	0.0A	70.6Q	-1.8H	-1.1J	2.4H
3.33	68.7S	5.0K	4.2I	0.0A	69.7Q	-1.8H	-1.2J	2.5H
	68.7S	5.0K	4.2I	0.0A	69.7Q	-1.8H	-1.2J	2.5H
0.00	68.9S	0.0C	0.0C	0.0A	68.9S	-1.9H	-1.4J	2.5H

FORCE/RESISTANCE RATIO

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MAST ELEV ft	- LEG COMPRESSION -			--- LEG TENSION ---			---- FACE SHEAR ----		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO	MAX FACE SHEAR	FACE SHEAR RESIST	FORCE/ RESIST RATIO
250.00	0.00	60.09	0.00	0.00	90.30	0.00	0.00	5.96	0.00
	13.26	60.09	0.22	0.04	90.30	0.00	5.05	5.96	0.85
243.35	13.26	60.09	0.22	0.04	90.30	0.00	5.02	5.96	0.84
	21.82	60.09	0.36	10.05	90.30	0.11	5.18	5.96	0.87
240.00	21.82	60.09	0.36	10.05	90.30	0.11	5.18	5.96	0.87
	30.26	60.09	0.50	19.92	90.30	0.22	5.34	5.96	0.90
236.70	30.78	60.09	0.51	0.00	90.30	0.00	5.32	5.96	0.89
	28.93	60.09	0.48	0.00	90.30	0.00	5.01	5.96	0.84
230.00	32.13	60.09	0.53	0.00	90.30	0.00	1.68	5.96	0.28
	38.20	60.09	0.64	0.00	90.30	0.00	1.37	5.96	0.23
223.34	38.20	60.09	0.64	0.00	90.30	0.00	1.37	5.96	0.23
	40.71	60.09	0.68	0.00	90.30	0.00	1.21	5.96	0.20
220.00	40.71	60.09	0.68	0.00	90.30	0.00	1.20	3.49	0.34
	43.39	60.09	0.72	0.00	90.30	0.00	2.77	3.49	0.80
211.70	43.39	60.09	0.72	0.00	90.30	0.00	2.72	3.49	0.78
	41.75	60.09	0.69	0.00	90.30	0.00	3.34	3.49	0.96
200.00	41.75	90.09	0.46	0.00	90.30	0.00	3.31	6.05	0.55
	43.95	90.09	0.49	0.00	90.30	0.00	3.64	6.05	0.60
193.78	43.95	90.09	0.49	0.00	90.30	0.00	3.61	6.05	0.60
	60.78	90.09	0.67	4.80	90.30	0.05	4.00	6.05	0.66
186.70	60.93	90.09	0.68	0.00	90.30	0.00	1.68	6.05	0.28
	55.91	90.09	0.62	0.00	90.30	0.00	1.31	6.05	0.22
180.00	55.91	60.09	0.93	0.00	90.30	0.00	1.41	3.49	0.40
	51.84	60.09	0.86	0.00	90.30	0.00	0.37	3.49	0.11
160.00	51.84	60.09	0.86	0.00	90.30	0.00	0.37	3.49	0.11
	51.17	60.09	0.85	0.00	90.30	0.00	0.20	3.49	0.06
156.70	51.17	60.09	0.85	0.00	90.30	0.00	0.28	3.49	0.08
	52.64	60.09	0.88	0.00	90.30	0.00	0.86	3.49	0.25
140.00	52.64	90.09	0.58	0.00	90.30	0.00	0.87	3.54	0.25
	58.11	90.09	0.65	0.00	90.30	0.00	1.31	3.54	0.37
131.17	58.11	90.09	0.65	0.00	90.30	0.00	1.32	3.54	0.37
	61.69	90.09	0.68	0.00	90.30	0.00	1.55	3.54	0.44
126.70	61.72	90.09	0.69	0.00	90.30	0.00	2.57	3.54	0.73
	57.41	90.09	0.64	0.00	90.30	0.00	2.40	3.54	0.68
123.33	57.41	90.09	0.64	0.00	90.30	0.00	2.42	3.54	0.68
	57.69	90.09	0.64	0.00	90.30	0.00	2.26	3.54	0.64
120.00	57.69	90.09	0.64	0.00	90.30	0.00	2.28	3.54	0.65

113.33	59.67	90.09	0.66	0.00	90.30	0.00	1.97	3.54	0.56
	59.67	90.09	0.66	0.00	90.30	0.00	2.04	3.54	0.58
100.00	62.91	90.09	0.70	0.00	90.30	0.00	1.41	3.54	0.40
	62.91	90.09	0.70	0.00	90.30	0.00	1.41	3.54	0.40
	63.71	90.09	0.71	0.00	90.30	0.00	1.26	3.54	0.36
96.70	63.71	90.09	0.71	0.00	90.30	0.00	1.33	3.54	0.38
	65.60	90.09	0.73	0.00	90.30	0.00	0.87	3.54	0.24
80.00	65.60	90.09	0.73	0.00	90.30	0.00	0.90	3.54	0.25
	65.71	90.09	0.73	0.00	90.30	0.00	1.14	3.54	0.32
71.10	65.71	90.09	0.73	0.00	90.30	0.00	1.16	3.54	0.33
	65.56	90.09	0.73	0.00	90.30	0.00	1.28	3.54	0.36
66.70	67.27	90.09	0.75	0.00	90.30	0.00	2.13	3.54	0.60
	68.14	90.09	0.76	0.00	90.30	0.00	1.98	3.54	0.56
63.33	68.14	90.09	0.76	0.00	90.30	0.00	2.00	3.54	0.56
	68.93	90.09	0.77	0.00	90.30	0.00	1.86	3.54	0.53
60.00	68.93	90.09	0.77	0.00	90.30	0.00	1.92	3.54	0.54
	71.55	90.09	0.79	0.00	90.30	0.00	1.25	3.54	0.35
43.33	71.55	90.09	0.79	0.00	90.30	0.00	1.26	3.54	0.36
	71.81	90.09	0.80	0.00	90.30	0.00	1.13	3.54	0.32
40.00	71.81	90.09	0.80	0.00	90.30	0.00	1.16	3.54	0.33
	72.08	90.09	0.80	0.00	90.30	0.00	1.11	3.54	0.31
33.35	72.08	90.09	0.80	0.00	90.30	0.00	1.14	3.54	0.32
	71.90	90.09	0.80	0.00	90.30	0.00	1.37	3.54	0.39
23.33	71.90	90.09	0.80	0.00	90.30	0.00	1.38	3.54	0.39
	71.69	90.09	0.80	0.00	90.30	0.00	1.45	3.54	0.41
20.00	71.69	90.09	0.80	0.00	141.37	0.00	1.46	3.54	0.41
	71.24	90.09	0.79	0.00	141.37	0.00	1.54	3.54	0.43
16.67	71.24	90.09	0.79	0.00	141.37	0.00	1.54	3.54	0.44
	70.78	90.09	0.79	0.00	141.37	0.00	1.61	3.54	0.46
13.33	70.78	90.09	0.79	0.00	141.37	0.00	1.63	3.54	0.46
	69.78	90.09	0.77	0.00	141.37	0.00	1.77	3.54	0.50
6.67	70.58	90.09	0.78	0.00	141.37	0.00	2.38	3.54	0.67
	69.66	90.09	0.77	0.00	141.37	0.00	2.45	3.54	0.69
3.33	69.66	90.09	0.77	0.00	141.37	0.00	2.47	3.54	0.70
	68.92	90.09	0.77	0.00	141.37	0.00	2.54	3.54	0.72
0.00									

MAXIMUM MAST DEFORMATION CALCULATED

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MAST ELEV FT	DEFLECTIONS (FT)				ROTATIONS (DEG)			TWIST
	NORTH	EAST	TOTAL	DOWN	NORTH	EAST	TOTAL	
250.0	4.00G	-3.42C	4.00G	0.21S	1.07G	-0.96D	1.08C	1.30H
243.4	3.87G	-3.32C	3.87G	0.21S	1.07G	-0.95D	1.08C	1.30H
236.7	3.75G	-3.21C	3.75G	0.20S	1.02G	-0.91D	1.03C	1.30H
230.0	3.63G	-3.11C	3.63G	0.20S	1.01G	-0.89D	1.02C	1.32H
223.3	3.51G	-3.00C	3.51G	0.19S	1.06G	-0.94D	1.07C	1.33H
220.0	3.45G	-2.95C	3.45G	0.19S	1.09G	-0.97D	1.10C	1.34H
211.7	3.29G	-2.81C	3.29G	0.19S	1.17G	-1.06D	1.18C	1.36H
200.0	3.04G	2.60K	3.04G	0.18S	1.22G	-1.10D	1.23C	1.37H
193.8	2.91G	2.48K	2.91G	0.17S	1.21G	-1.08D	1.21C	1.37H
186.7	2.76G	2.36K	2.76G	0.17S	1.12G	-1.00D	1.13C	1.36H

180.0	2.64G	2.25K	2.64G	0.16S	1.07G	-0.95D	1.07C	1.37H
156.7	2.24G	1.91K	2.24G	0.14S	0.91G	-0.78D	0.91G	1.35H
140.0	1.98G	1.70K	1.98G	0.12S	0.81G	-0.69C	0.81G	1.31H
131.2	1.86G	1.60K	1.86G	0.12S	0.75G	-0.64C	0.75G	1.27H

126.7	1.81G	1.55K	1.81G	0.11S	0.71G	-0.60C	0.71G	1.25H

123.3	1.77G	1.52K	1.77G	0.11S	0.68G	-0.58C	0.68G	1.23H
120.0	1.73G	1.48K	1.73G	0.11S	0.67G	-0.56C	0.67G	1.22H
113.3	1.65G	1.42K	1.65G	0.10S	0.65G	-0.55C	0.65G	1.19H
96.7	1.46G	1.26K	1.46G	0.09S	0.65G	0.55K	0.65G	1.09H
80.0	1.27G	1.09K	1.27K	0.07S	0.71G	0.60K	0.71G	0.96H
71.1	1.15G	1.00K	1.16K	0.07S	0.74G	0.63K	0.74G	0.88H

66.7	1.10G	0.95K	1.10K	0.06S	0.74G	0.64K	0.74G	0.84H

63.3	1.05G	0.91K	1.05K	0.06S	0.76G	0.66K	0.76G	0.97H
60.0	1.01G	0.87K	1.01K	0.06S	0.78G	0.67K	0.78G	0.93H
43.3	0.77G	0.67K	0.77K	0.04S	0.88G	0.76K	0.88K	0.76H
40.0	0.72G	0.62K	0.72K	0.04S	0.90G	0.78K	0.90K	0.72H
33.3	0.61G	0.53K	0.61K	0.03S	0.95G	0.82K	0.95K	0.65H
23.3	0.44G	0.38K	0.44K	0.02S	1.02G	0.88K	1.02K	0.53H
20.0	0.38G	0.33K	0.38K	0.02S	1.04G	0.90K	1.04K	0.48H
16.7	0.32G	0.27K	0.32K	0.02S	1.06G	0.92K	1.06K	0.44H
13.3	0.25G	0.22K	0.26K	0.01S	1.07G	0.93K	1.08K	0.40H
6.7	0.13G	0.11K	0.13K	0.01S	1.09G	0.95K	1.10K	0.31H
3.3	0.06G	0.06K	0.06K	0.00S	1.11G	0.96K	1.11K	0.15H
0.0	0.00A	0.00A	0.00A	0.00A	1.11G	0.96K	1.11K	0.00A

MAXIMUM ANTENNA ROTATIONS

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ELEV FT	ORIENTATION	 BEAM DEFLECTIONS (DEG)			
	AZI DEG	ELEV DEG	ROLL	YAW	PITCH	TOTAL
245.0	0.0	0.0	0.954 D	1.304 H	-1.070 G	1.634 H
230.0	0.0	0.0	0.894 D	1.320 H	-1.010 G	1.617 H
215.0	0.0	0.0	1.022 D	1.354 H	-1.140 G	1.709 H

MAXIMUM INTERNAL MAST FORCES

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MAST ELEV FT	TOTAL AXIAL KIPSHEAR.....	MOMENT.....		TORSION FT-KIP
		N - S KIP	E - W KIP	N - S FT-KIP	E - W FT-KIP	
250.0	0.00 B	0.00 B	0.00 C	0.00 B	0.00 C	0.00 A
243.4	37.58 Q	7.59 G	-7.60 D	-12.93 G	-12.95 J	-0.05 B
	37.58 Q	7.59 G	7.60 J	-12.93 G	-12.95 J	-0.11 B
	39.13 Q	8.07 G	8.10 J	-65.04 G	-65.15 J	-0.17 B

236.7	* 46.91 C	+ -18.04 G	+ -17.68 J	& 39.50 G	& 39.15 J	@ -1.09 H
	63.28 S	8.41 A	-8.40 J	26.78 A	-26.33 J	-0.85 H
230.0	65.12 S	7.95 A	-7.89 J	29.87 G	29.32 J	-0.80 H
	89.29 S	2.79 A	-2.73 J	29.87 G	29.32 J	-0.72 H
223.3	91.17 S	2.25 A	-2.15 J	47.05 G	46.40 J	-0.64 H
	91.17 S	2.25 A	-2.15 J	47.05 G	46.40 J	-0.60 H
	92.08 S	1.98 A	-1.85 J	53.99 G	53.31 J	-0.56 H

220.0	92.08 S	1.98 A	-1.85 J	53.99 G	53.31 J	-0.45 H
211.7	118.64 S	3.98 G	-3.99 D	-50.72 A	48.87 J	-0.35 H
	118.64 S	3.98 G	-3.99 D	-50.72 A	48.87 J	-0.20 H
200.0	122.20 S	5.06 G	-5.00 D	-5.96 H	7.21 B	-0.11 G
	122.20 S	5.06 G	-5.00 D	-5.96 H	7.21 B	0.09 L
193.8	124.19 S	5.64 G	-5.54 D	-38.70 G	38.93 D	0.15 L
	124.19 S	5.64 G	-5.54 D	-38.70 G	38.93 D	0.22 L
	126.44 S	6.29 G	6.17 J	-81.39 G	80.72 D	-0.29 B
186.7	* 19.04 K	+ -9.17 G	+ -8.82 J	& 16.04 G	& 15.58 J	@ -0.58 H
	140.32 S	-2.72 G	-2.61 J	-65.35 G	65.26 D	-0.20 H
180.0	142.45 S	-2.10 G	-2.01 J	-51.58 G	52.41 D	-0.13 G
	142.45 S	-2.10 G	-2.01 J	-51.58 G	52.41 D	-0.19 F
156.7	149.49 S	-0.11 S	-0.08 W	-30.81 H	32.19 D	0.46 H
	149.49 S	-0.11 S	-0.08 W	-30.81 H	32.19 D	0.66 H
140.0	154.51 S	1.40 G	1.33 J	-39.55 G	41.25 D	0.86 H
	154.51 S	1.40 G	1.33 J	-39.55 G	41.25 D	0.96 H
131.2	157.24 S	2.15 G	2.04 J	-53.00 G	53.80 D	1.07 H
	157.24 S	2.15 G	2.04 J	-53.00 G	53.80 D	1.12 H
	158.61 S	2.53 G	2.41 J	-61.93 G	62.14 D	1.17 H
126.7	* 8.44 W	+ -5.82 G	+ -5.42 J	& 6.94 G	& 6.51 J	@ -0.32 H
	167.00 S	-3.61 G	-3.37 J	-54.99 G	55.75 D	0.89 H
123.3	168.04 S	-3.32 G	-3.10 J	-43.47 G	45.29 D	0.93 H
	168.04 S	-3.32 G	-3.10 J	-43.47 G	45.29 D	0.97 H
120.0	169.07 S	-3.04 G	-2.83 J	-34.36 H	35.67 D	1.01 H
	169.07 S	-3.04 G	-2.83 J	-34.36 H	35.67 D	1.09 H
113.3	171.11 S	-2.49 G	-2.30 J	-19.48 H	18.75 D	1.16 H
	171.11 S	-2.49 G	-2.30 J	-19.48 H	18.75 D	1.35 H
96.7	176.18 S	-1.13 G	-1.01 J	17.12 G	16.23 K	1.54 H
	176.18 S	-1.13 G	-1.01 J	17.12 G	16.23 K	1.72 H
80.0	181.21 S	-0.34 A	-0.32 E	25.00 G	22.93 K	1.90 H
	181.21 S	-0.34 A	-0.32 E	25.00 G	22.93 K	1.99 H
71.1	183.85 S	-0.93 A	0.88 J	19.58 G	18.04 K	2.08 H
	183.85 S	-0.93 A	0.88 J	19.58 G	18.04 K	2.13 H
	185.16 S	-1.22 A	1.19 J	14.53 G	13.55 K	2.17 H
66.7	* 4.49 W	+ -3.87 G	+ -3.70 J	& 2.43 G	& 2.34 J	@ -0.13 H
	189.63 S	-1.99 G	-2.00 J	16.96 G	15.68 K	2.08 H
63.3	190.62 S	-1.73 G	-1.76 J	24.67 G	22.40 K	2.12 H
	190.62 S	-1.74 G	-1.76 J	24.67 G	22.40 K	2.15 H
	191.61 S	-1.49 G	-1.53 J	31.40 G	28.26 K	2.18 H

60.0	191.61 S	-1.49 G	-1.53 J	31.40 G	28.26 K	2.35 H
	196.48 S	0.39 A	-0.42 J	51.15 G	45.40 K	2.50 H
43.3	196.48 S	0.39 A	-0.42 J	51.15 G	45.40 K	2.53 H
	197.45 S	-0.21 H	0.21 D	52.27 G	46.36 K	2.56 H
40.0	197.45 S	-0.21 H	0.21 D	52.27 G	46.36 K	2.62 H
	199.34 S	0.31 G	0.29 K	51.81 G	45.88 K	2.68 H
33.3	199.34 S	0.31 G	0.29 K	51.81 G	45.88 K	2.77 H
	202.19 S	0.93 G	0.82 K	44.58 G	39.35 K	2.85 H
23.3	202.19 S	0.93 G	0.82 K	44.58 G	39.35 K	2.88 H
	203.14 S	1.14 G	1.00 K	40.45 G	35.69 K	2.91 H
20.0	203.14 S	1.13 G	1.00 K	40.45 G	35.69 K	2.93 H
	203.51 S	1.33 G	1.17 K	35.52 G	31.43 J	2.96 H
16.7	203.51 S	1.33 G	1.17 K	35.52 G	31.43 J	2.99 H
	203.98 S	1.51 G	1.34 J	29.83 G	26.47 J	3.01 H
13.3	203.98 S	1.51 G	1.35 J	29.83 G	26.47 J	3.06 H
	205.20 S	1.88 G	1.69 J	16.31 G	14.54 J	3.11 H
6.7	205.20 S	1.88 G	1.69 J	16.31 G	14.54 J	3.14 H
	205.95 S	2.06 G	1.87 J	8.49 G	7.59 J	3.17 H
3.3	205.95 S	2.06 G	1.87 J	8.49 G	7.59 J	3.19 H
	206.77 S	2.25 G	2.04 J	0.00 G	0.00 C	3.22 H
base	206.77 S	1.05 A	0.94 E	0.00 H	0.00 C	-3.22 H

* VERTICAL GUY LOAD & GUY ECCENTRIC MOMENT
+ HORIZONTAL REACTION @ TORSIONAL RESISTANCE

MAXIMUM GUY FORCES AT MAST
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GUY LEVEL FT	GUY AZICOMPONENTS AT MAST.....				EFL/FR * RATIO	...GUY ANGLES...	
		N KIP	E KIP	DOWN KIP	TOTAL KIP		VERT DEG	HORIZ DEG
236.7	0.0	21.3L	-0.2E	26.9L	34.2L	1.0L	-56.0S	12.2H
	120.0	-10.7F	18.4D	26.8F	34.2F	1.0F	-56.0W	-12.3J
	240.0	-10.7H	-18.4J	26.8H	34.2H	1.0H	-56.0O	12.2D
186.7	0.0	10.6L	0.1I	10.6L	15.0L	0.9L	-50.2S	-11.0F
	120.0	-5.3F	9.2F	10.6F	15.1F	0.9F	-50.2W	-11.1J
	240.0	-5.3H	-9.3J	10.7J	15.1J	0.9J	-50.2O	11.0D
126.7	0.0	6.5L	0.1I	4.4L	7.9L	0.9L	-40.1S	-10.0F
	120.0	-3.3F	5.7F	4.4F	7.9F	0.9F	-40.3W	-10.0J
	240.0	-3.3J	-5.7J	4.5J	7.9J	0.9J	-40.3O	9.9D
66.7	0.0	4.4L	-0.1D	1.7M	4.7L	0.7L	-28.1G	-7.4F
	120.0	-2.2F	3.9F	1.7Q	4.7F	0.7F	-28.2K	-7.5J
	240.0	-2.3J	-3.9J	1.7U	4.8J	0.7J	-28.1C	7.3D

* EFL/FR = EFFECTS OF FACTORED LOADS DIVIDED BY THE FACTORED RESISTANCE

MAXIMUM GUY FORCES AT ANCHOR

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GUY LEVEL FT	GUY AZI	GUY ATT AZICOMPONENTS AT ANCHOR.....				EFL/FR * RATIO
			RAD KIP	LAT KIP	VERT KIP	TOTAL KIP	
236.7	0.0	0.0	21.5L	0.3D	26.3L	34.0L	1.0L
	120.0	120.0	21.5F	-0.3B	26.2F	33.9F	1.0F
	240.0	240.0	21.5H	0.3L	26.2H	33.9H	1.0H
186.7	0.0	0.0	10.7L	-0.2J	10.4L	14.9L	0.9L
	120.0	120.0	10.8F	-0.2B	10.4F	15.0F	0.9F
	240.0	240.0	10.8J	0.2L	10.4J	15.0J	0.9J
126.7	0.0	0.0	6.6L	-0.1J	4.3L	7.9L	0.9L
	120.0	120.0	6.6F	0.1H	4.3F	7.9F	0.9F
	240.0	240.0	6.6J	0.1L	4.4J	7.9J	0.9J
66.7	0.0	0.0	4.4L	-0.1J	1.5L	4.7L	0.7L
	120.0	120.0	4.5F	-0.1B	1.5F	4.7F	0.7F
	240.0	240.0	4.5J	0.1L	1.6J	4.8J	0.7J

MAXIMUM ANCHOR LOADS
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AZI DEG	RADIUS FT	GUY TO ELEV FTANCHOR LOADS.....			SHAFT FORCES.....			ANGLE DEG
			HORIZ KIP	VERT KIP	LATER- AL KIP	AXIAL KIP	...LATERAL... VERT KIP	HORIZ KIP	PLANE KIP	
0.0	190.0	236.7	21.5L	26.3L	0.3D	33.8L	3.7L	0.3D		
		186.7	10.7L	10.4L	-0.2J	14.9L	0.3W	-0.2J		
		126.7	6.6L	4.3L	-0.1J	7.7L	-1.5L	-0.1J		
		66.7	4.4L	1.5L	-0.1J	4.3L	-2.0L	-0.1J		
		-----			43.3L	42.5L	-0.6J	60.7L	0.0B	-0.6J
120.0	190.0	236.7	21.5F	26.2F	-0.3B	33.7F	3.7F	-0.3B		
		186.7	10.8F	10.4F	-0.2B	15.0F	0.3Q	-0.2B		
		126.7	6.6F	4.3F	0.1H	7.7F	-1.5F	0.1H		
		66.7	4.5F	1.5F	-0.1B	4.3F	-2.0F	-0.1B		
		-----			43.3F	42.5F	-0.6B	60.7F	0.0C	-0.6B
240.0	190.0	236.7	21.5H	26.2H	0.3L	33.7H	3.7J	0.3L		
		186.7	10.8J	10.4J	0.2L	15.0J	0.3V	0.2L		
		126.7	6.6J	4.4J	0.1L	7.8J	-1.5J	0.1L		
		66.7	4.5J	1.6J	0.1L	4.3J	-2.0J	0.1L		
		-----			43.4J	42.6J	0.6L	60.8J	0.0H	0.6L

MAXIMUM LOADS ON TOWER PIER
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AXIAL kipSHEAR.....		MOMENT.....			
	NORTH kip	EAST kip	TOTAL kip	NORTH ft-kip	EAST ft-kip	TOTAL ft-kip	TORSIONAL ft-kip
206.7652 S	1.0461 A	0.9428 E	1.0843 I	0.0001 H	-0.0002 C	0.0002 C	-3.2175 H

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Processed under license at:

Sabre Towers and Poles on: 23 sep 2024 at: 9:34:28

250' 3600SRWD / EV Smithland North, KY

***** Service Load Condition *****

* 12 wind directions were analyzed. Only 1 condition(s) shown in full
* Some wind loads may have been derived from full-scale wind tunnel testing

LOADING CONDITION A

60 mph wind with no ice. Wind Azimuth: 0°

MAST LOADING

Table with columns: LOAD TYPE, ELEV FT, .FORCES N, (KIP & KIP/FT) E DOWN, .MOMENTS (FT.K & FT.K/FT) N E TORSION, ANT-ORIENT AZI DEG VERT DEG. Rows include data for C and D load types at various elevations.

GUY LOADING

Table with columns: .. WIND LOADING ... AZI DEG, SPEED MPH, REF PRESS PSF, TEMP CHANGE DEG, .ICE LOAD.. IN, CONV TOL, PROFILES. CAB WIND, .LOAD FACTORS. WIND DEAD ICE. Rows include data for wind loading parameters.

0.0 60.0 0.00 0.00 0.00 56.00 0.0100 1 4 1.00 1.00 1.00

CABLE PROFILE: 1 - CATENARY 2 - PARABOLIC

WIND PROFILE: 1 - EIA 222 default
 2 - Constant Kz=1, Kiz=1
 3 - Step function for Kz, Kiz
 (requires definition of Exposure Factor Kz, Kiz table)
 4 - Special Factors
 5 - Site specific wind formula, Kiz as EIA 222 default
 (requires definition of Exposure Factor Qh formula table)

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MAXIMUM LEG LOADS AND FACE SHEARS (KIP - stress in KSI)

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MAST ELEV FT	MAX LEG LOADS					MAX FACE SHEARS		
	AXIAL	BENDING TENS	COMP	TOTAL TENS	COMP	TORSN	BEAM	TOTAL
250.00	0.0C	0.0J	0.0J	0.0J	0.0J	0.0A	0.0J	0.0J
	4.1G	1.6I	1.6K	0.0A	5.7G	0.0B	1.6D	1.6D
243.35	4.1G	1.6I	1.6K	0.0A	5.7G	0.0B	-1.6J	1.6J
	4.3B	8.1I	8.1C	3.8I	12.3C	0.0B	-1.7J	1.7J
236.70	9.9C	3.2I	3.2K	0.0A	13.1C	0.1H	2.0J	2.0J
	10.0C	4.3C	4.2I	0.0A	13.7J	-0.1B	1.9J	1.8J
230.00	12.7C	4.3C	4.2I	0.0A	16.3J	-0.1B	0.8J	0.8J
	13.0C	8.1C	7.9I	0.0A	20.2I	0.0B	0.6J	0.5J
220.00	13.0C	8.1C	7.9I	0.0A	20.2I	0.0B	0.6J	0.5J
	15.9C	8.1C	7.8I	0.0A	23.0I	0.0D	-0.8B	0.8B
211.70	15.9C	8.1C	7.8I	0.0A	23.0I	0.0D	-0.8B	0.7B
	16.1C	4.1J	3.7J	0.0A	19.6J	0.0D	1.0D	0.9B
203.34	16.1C	4.1J	3.7J	0.0A	19.6J	0.0D	1.0D	0.9B
	16.2C	2.4J	2.0J	0.0A	17.9J	-0.1D	1.1D	1.0D
200.00	16.2C	2.4J	2.0J	0.0A	17.9J	-0.1D	1.1D	1.0D
	16.5C	4.4A	4.5G	0.0A	20.9G	-0.1D	1.3D	1.2D
191.54	16.5C	4.4A	4.5G	0.0A	20.9G	-0.1D	1.3D	1.2D
	16.7C	8.1I	8.1G	0.0A	24.7G	-0.1D	1.4D	1.3D
186.70	19.1C	5.9A	6.0G	0.0A	25.0G	-0.1D	0.8J	0.9J
	19.2C	4.7A	4.8G	0.0A	23.9G	-0.1D	0.7J	0.8J
183.34	19.2C	4.7A	4.8G	0.0A	23.9G	-0.1D	0.7J	0.8J
	19.3C	3.7A	3.7G	0.0A	22.9G	-0.1D	0.6J	0.7J
180.00	19.3C	3.7A	3.7G	0.0A	22.9G	-0.1H	0.6J	0.8J
	20.0C	2.5D	1.7D	0.0A	21.4D	-0.2H	0.0K	0.2J
156.70	20.0C	2.5D	1.7D	0.0A	21.4D	-0.2H	0.0K	0.2J
	20.6C	1.8A	1.5G	0.0A	22.0G	-0.3H	0.4D	0.5D
140.00	20.6C	1.8A	1.5G	0.0A	22.0G	-0.3H	0.4D	0.5D

130.67	20.9C	4.3A	3.9G	0.0A	24.6G	-0.3H	0.7D	0.6D
	20.9C	4.3A	3.9G	0.0A	24.6G	-0.3H	0.7D	0.6D
126.70	21.0C	5.6A	5.2G	0.0A	26.0G	-0.3H	0.8D	0.7D
	22.2C	4.6A	4.2G	0.0A	26.2G	0.3B	0.9J	1.2J
120.00	22.4C	1.8A	1.3G	0.0A	23.6G	0.3B	0.7J	1.0J
	22.4C	1.8A	1.3G	0.0A	23.6G	0.3B	0.7J	1.1J
96.70	23.1C	6.2D	5.3D	0.0A	28.0D	0.4B	-0.2H	0.6H
	23.1C	6.2D	5.3D	0.0A	28.0D	0.4B	-0.2H	0.6H
80.00	23.7C	5.7D	4.9D	0.0A	28.2D	0.5B	0.2D	0.6D
	23.7C	5.7D	4.9D	0.0A	28.2D	0.5B	0.2D	0.6D
72.02	23.9C	4.2D	3.4D	0.0A	27.0D	0.5B	0.4D	0.7D
	23.9C	4.2D	3.4D	0.0A	27.0D	0.5B	0.4D	0.7D
66.70	24.1C	2.8D	2.1D	0.0A	25.8D	0.5B	0.5D	0.8D
	24.6C	3.2D	2.5D	0.0A	26.7D	0.5B	0.6J	1.1J
63.33	24.7C	4.3D	3.5D	0.0A	27.9D	0.5B	0.5J	1.0J
	24.7C	4.3D	3.5D	0.0A	27.9D	0.5B	0.5J	1.0J
43.33	25.4C	7.8C	7.1D	0.0A	32.1D	0.6B	0.1I	0.7H
	25.4C	7.8C	7.1D	0.0A	32.1D	0.6B	0.1I	0.7H
33.35	25.7C	7.8C	7.2D	0.0A	32.5D	0.6B	0.1D	0.6B
	25.7C	7.8C	7.2D	0.0A	32.5D	0.6B	0.1D	0.7B
23.33	26.0C	6.7C	6.2D	0.0A	31.8D	0.6B	0.3D	0.8B
	26.0C	6.7C	6.2D	0.0A	31.8D	0.6B	0.3D	0.8B
6.67	26.6C	2.4C	2.3I	0.0A	28.5J	0.7B	0.6D	0.9D
	26.6C	3.7C	3.4I	0.0A	29.6J	1.0B	0.6D	1.3B
0.00	26.8C	0.0C	0.0C	0.0A	26.8C	1.0B	0.7D	1.3D

FORCE/RESISTANCE RATIO

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MAST ELEV ft	- LEG COMPRESSION -			--- LEG TENSION ---			---- FACE SHEAR ----		
	MAX COMP	COMP RESIST	FORCE/ RESIST RATIO	MAX TENS	TENS RESIST	FORCE/ RESIST RATIO	MAX FACE SHEAR	FACE SHEAR RESIST	FORCE/ RESIST RATIO
250.00	0.00	60.09	0.00	0.00	90.30	0.00	0.00	5.96	0.00
	5.73	60.09	0.10	0.00	90.30	0.00	1.63	5.96	0.27
243.35	5.73	60.09	0.10	0.00	90.30	0.00	1.62	5.96	0.27
	9.06	60.09	0.15	1.92	90.30	0.02	1.67	5.96	0.28
240.00	9.06	60.09	0.15	1.92	90.30	0.02	1.67	5.96	0.28
	12.34	60.09	0.21	3.82	90.30	0.04	1.73	5.96	0.29
236.70	13.10	60.09	0.22	0.00	90.30	0.00	1.95	5.96	0.33
	13.67	60.09	0.23	0.00	90.30	0.00	1.84	5.96	0.31
230.00	16.34	60.09	0.27	0.00	90.30	0.00	0.76	5.96	0.13
	20.22	60.09	0.34	0.00	90.30	0.00	0.53	5.96	0.09
220.00	20.22	60.09	0.34	0.00	90.30	0.00	0.55	3.49	0.16
	23.03	60.09	0.38	0.00	90.30	0.00	0.77	3.49	0.22
211.70	23.03	60.09	0.38	0.00	90.30	0.00	0.75	3.49	0.21
	19.59	60.09	0.33	0.00	90.30	0.00	0.94	3.49	0.27
203.34									

	19.59	60.09	0.33	0.00	90.30	0.00	0.93	3.49	0.27
200.00	17.93	60.09	0.30	0.00	90.30	0.00	1.02	3.49	0.29
	17.93	90.09	0.20	0.00	90.30	0.00	1.00	6.05	0.17
191.54	20.92	90.09	0.23	0.00	90.30	0.00	1.22	6.05	0.20
	20.92	90.09	0.23	0.00	90.30	0.00	1.21	6.05	0.20
186.70	24.75	90.09	0.27	0.00	90.30	0.00	1.33	6.05	0.22
	25.02	90.09	0.28	0.00	90.30	0.00	0.89	6.05	0.15
183.34	23.90	90.09	0.27	0.00	90.30	0.00	0.80	6.05	0.13
	23.90	90.09	0.27	0.00	90.30	0.00	0.81	6.05	0.13
180.00	22.93	90.09	0.25	0.00	90.30	0.00	0.72	6.05	0.12
	22.93	60.09	0.38	0.00	90.30	0.00	0.77	3.49	0.22
160.00	21.60	60.09	0.36	0.00	90.30	0.00	0.28	3.49	0.08
	21.60	60.09	0.36	0.00	90.30	0.00	0.28	3.49	0.08
156.70	21.39	60.09	0.36	0.00	90.30	0.00	0.20	3.49	0.06
	21.39	60.09	0.36	0.00	90.30	0.00	0.23	3.49	0.07
140.00	21.96	60.09	0.37	0.00	90.30	0.00	0.46	3.49	0.13
	21.96	90.09	0.24	0.00	90.30	0.00	0.48	3.54	0.14
130.67	24.60	90.09	0.27	0.00	90.30	0.00	0.62	3.54	0.17
	24.60	90.09	0.27	0.00	90.30	0.00	0.62	3.54	0.18
126.70	26.04	90.09	0.29	0.00	90.30	0.00	0.68	3.54	0.19
	26.17	90.09	0.29	0.00	90.30	0.00	1.18	3.54	0.33
120.00	23.56	90.09	0.26	0.00	90.30	0.00	1.02	3.54	0.29
	23.56	90.09	0.26	0.00	90.30	0.00	1.06	3.54	0.30
100.00	27.39	90.09	0.30	0.00	90.30	0.00	0.63	3.54	0.18
	27.39	90.09	0.30	0.00	90.30	0.00	0.63	3.54	0.18
96.70	28.03	90.09	0.31	0.00	90.30	0.00	0.55	3.54	0.16
	28.03	90.09	0.31	0.00	90.30	0.00	0.59	3.54	0.17
80.00	28.18	90.09	0.31	0.00	90.30	0.00	0.56	3.54	0.16
	28.18	90.09	0.31	0.00	90.30	0.00	0.57	3.54	0.16
72.02	27.03	90.09	0.30	0.00	90.30	0.00	0.67	3.54	0.19
	27.03	90.09	0.30	0.00	90.30	0.00	0.68	3.54	0.19
66.70	25.84	90.09	0.29	0.00	90.30	0.00	0.75	3.54	0.21
	26.73	90.09	0.30	0.00	90.30	0.00	1.06	3.54	0.30
63.33	27.90	90.09	0.31	0.00	90.30	0.00	0.99	3.54	0.28
	27.90	90.09	0.31	0.00	90.30	0.00	1.02	3.54	0.29
60.00	28.60	90.09	0.32	0.00	90.30	0.00	0.96	3.54	0.27
	28.60	90.09	0.32	0.00	90.30	0.00	0.96	3.54	0.27
43.33	32.13	90.09	0.36	0.00	90.30	0.00	0.66	3.54	0.19
	32.13	90.09	0.36	0.00	90.30	0.00	0.68	3.54	0.19
40.00	32.26	90.09	0.36	0.00	90.30	0.00	0.67	3.54	0.19
	32.26	90.09	0.36	0.00	90.30	0.00	0.67	3.54	0.19
33.35	32.52	90.09	0.36	0.00	90.30	0.00	0.65	3.54	0.18
	32.52	90.09	0.36	0.00	90.30	0.00	0.66	3.54	0.19
23.33	31.84	90.09	0.35	0.00	90.30	0.00	0.76	3.54	0.21
	31.84	90.09	0.35	0.00	90.30	0.00	0.78	3.54	0.22
20.00	31.16	90.09	0.35	0.00	90.30	0.00	0.82	3.54	0.23
	31.16	90.09	0.35	0.00	90.30	0.00	0.82	3.54	0.23
6.67	28.48	90.09	0.32	0.00	141.37	0.00	0.95	3.54	0.27
	28.48	90.09	0.32	0.00	141.37	0.00	0.95	3.54	0.27
0.00	29.62	90.09	0.33	0.00	141.37	0.00	1.28	3.54	0.36
	29.62	90.09	0.33	0.00	141.37	0.00	1.28	3.54	0.36
	26.80	90.09	0.30	0.00	141.37	0.00	1.35	3.54	0.38
	26.80	90.09	0.30	0.00	141.37	0.00	1.35	3.54	0.38

MAXIMUM MAST DEFORMATION CALCULATED

=====

MASTDEFLECTIONS (FT)ROTATIONS (DEG).....

ELEV FT	HORIZONTAL			DOWN	TILT			TWIST
	NORTH	EAST	TOTAL		NORTH	EAST	TOTAL	
250.0	0.73G	0.65J	0.73G	0.04C	0.12G	0.07K	0.12G	-0.87B
243.4	0.72G	0.64J	0.72C	0.04C	0.12G	0.07K	0.12G	-0.87B
236.7	0.71G	0.64J	0.71C	0.03C	0.11G	0.06K	0.11G	-0.87B
230.0	0.69G	0.64J	0.71C	0.03C	0.10G	0.06K	0.10G	0.88H
220.0	0.67G	0.63J	0.69C	0.03C	0.13G	0.08K	0.13G	0.88H
211.7	0.65G	0.62J	0.68C	0.03C	0.17G	0.11K	0.17G	-0.89B
203.3	0.63G	0.61J	0.66C	0.03C	0.19G	-0.13C	0.19G	-0.88B
200.0	0.62G	0.60J	0.65C	0.03C	0.19G	-0.14C	0.19G	-0.88B
191.5	0.59G	0.58J	0.62C	0.03C	0.19G	-0.14C	0.19G	-0.88B
186.7	0.57G	0.57J	0.61C	0.03C	0.17G	-0.12C	0.17G	-0.87B
183.3	0.56G	0.57J	0.60C	0.03C	0.16G	-0.11C	0.16G	-0.87B
180.0	0.55G	0.56J	0.59C	0.03C	0.16G	-0.11C	0.16G	-0.87B
156.7	0.49G	0.53J	0.54C	0.02C	0.14G	-0.11C	0.14G	-0.84B
140.0	0.45G	-0.50D	0.51C	0.02C	0.14G	-0.11C	0.14G	-0.80B
130.7	0.43G	-0.48D	0.49C	0.02C	0.13G	0.11J	0.13G	-0.77B
126.7	0.42G	-0.47D	0.48D	0.02C	0.12G	-0.10C	0.12G	-0.75B
120.0	0.41G	-0.46D	0.47D	0.02C	0.11G	-0.10C	0.11C	-0.73B
96.7	0.36G	-0.41D	0.42D	0.02C	0.13G	0.13J	0.14C	-0.64B
80.0	0.32G	-0.37D	0.37D	0.01C	0.16G	-0.17D	0.18C	-0.56B
72.0	0.30G	-0.35D	0.35D	0.01C	0.17G	-0.19D	0.19C	-0.52B
66.7	0.28G	-0.33D	0.33D	0.01C	0.17G	-0.19D	0.20D	-0.49B
63.3	0.27G	-0.32D	0.32D	0.01C	0.18G	-0.20D	0.21D	-0.55B
43.3	0.20G	-0.24D	0.24D	0.01C	0.22G	-0.25D	0.26D	-0.43B
33.3	0.16G	-0.19D	0.19D	0.01C	0.24G	-0.29D	0.29D	-0.37B
23.3	0.12G	-0.14D	0.14D	0.00C	0.27G	-0.31D	0.32D	-0.30B
6.7	0.03G	-0.04D	0.04D	0.00C	0.29G	-0.35D	0.35D	-0.17B
0.0	0.00A	0.00A	0.00A	0.00A	0.30G	-0.35D	0.36D	0.00A

MAXIMUM ANTENNA ROTATIONS
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ELEV FT	ORIENTATION		BEAM DEFLECTIONS (DEG)			
	AZI DEG	ELEV DEG	ROLL	YAW	PITCH	TOTAL
245.0	0.0	0.0	-0.074 K	0.874 B	-0.123 G	0.877 H
230.0	0.0	0.0	-0.058 K	0.879 H	-0.105 G	0.880 H
215.0	0.0	0.0	-0.102 K	0.885 H	-0.153 G	0.890 H

MAXIMUM INTERNAL MAST FORCES
=====

MAST ELEV FT	TOTAL AXIAL KIP	SHEAR		MOMENT		TORSION FT-KIP
		N - S KIP	E - W KIP	N - S FT-KIP	E - W FT-KIP	
250.0	0.00 C	0.00 G	0.00 J	0.00 L	0.00 J	0.00 A
243.4	12.38 G	2.44 G	-2.45 D	-4.18 G	-4.20 J	-0.02 B
	12.38 G	2.44 G	2.45 J	-4.18 G	-4.20 J	-0.04 B
	12.81 C	-2.59 A	2.62 J	20.88 A	-21.07 J	-0.06 B

236.7	* 16.84 C	+ 5.57 A	+ -5.73 J	& -12.64 A	& 12.97 J	@ 0.30 B
	29.65 C	-2.88 G	-3.05 J	-8.34 G	-8.21 J	-0.22 H
230.0	30.11 C	2.71 A	-2.86 J	10.63 G	11.87 J	0.20 B
	38.11 C	1.06 A	-1.21 J	10.63 G	11.87 J	0.15 B
220.0	38.92 C	0.74 A	-0.84 J	-19.87 A	22.40 J	0.09 B
	38.92 C	0.74 A	-0.84 J	-19.87 A	22.40 J	0.05 B
211.7	47.61 C	1.17 G	-1.12 D	-19.54 A	22.68 J	0.01 D
	47.61 C	1.17 G	-1.12 D	-19.54 A	22.68 J	0.06 D
203.3	48.36 C	1.45 G	-1.47 D	8.95 H	11.73 J	0.11 D
	48.36 C	1.45 G	-1.47 D	8.95 H	11.73 J	0.13 D
200.0	48.66 C	1.57 G	-1.61 D	4.48 H	6.51 J	0.14 D
	48.66 C	1.57 G	-1.61 D	4.48 H	6.51 J	0.19 D
191.5	49.51 C	1.86 G	-1.96 D	-11.57 G	-9.74 I	0.24 D
	49.51 C	1.86 G	-1.96 D	-11.57 G	-9.74 I	0.26 D
	50.00 C	2.03 G	-2.16 D	-21.10 G	-18.95 J	0.29 D
186.7	* 7.35 C	+ -3.08 G	+ -3.40 J	& 5.49 G	& 6.05 J	@ 0.16 B
	57.35 C	-1.04 G	-1.24 J	-15.62 G	-13.28 I	0.15 D
183.3	57.69 C	-0.92 G	-1.10 J	-12.40 G	-10.31 I	0.17 D
	57.69 C	-0.92 G	-1.10 J	-12.40 G	-10.31 I	0.19 D
180.0	58.03 C	-0.80 G	-0.96 J	-9.59 G	-7.71 I	0.21 D
	58.03 C	-0.80 G	-0.96 J	-9.59 G	-7.71 I	0.34 H
156.7	60.14 C	-0.03 G	-0.04 K	2.65 H	-6.23 D	0.47 H
	60.14 C	-0.03 G	-0.04 K	2.65 H	-6.23 D	0.56 H
140.0	61.65 C	-0.54 A	-0.63 D	4.80 A	-3.27 I	0.65 H
	61.65 C	-0.54 A	-0.63 D	4.80 A	-3.27 I	0.70 H
130.7	62.57 C	-0.83 A	-0.99 D	11.06 A	-9.22 I	0.75 H
	62.57 C	-0.83 A	-0.99 D	11.06 A	-9.22 I	0.77 H
	62.96 C	-0.96 A	-1.14 D	14.54 A	-12.52 I	0.79 H
126.7	* 3.53 C	+ 2.13 A	+ -2.53 J	& -2.56 A	& 3.03 J	@ 0.09 J
	66.48 C	-1.19 G	-1.36 J	11.98 A	-10.10 I	-0.74 B
120.0	67.14 C	-0.97 G	-1.10 J	4.73 A	-3.37 I	-0.77 B
	67.14 C	-0.97 G	-1.10 J	4.73 A	-3.37 I	-0.89 B
96.7	69.43 C	-0.26 G	-0.25 J	11.77 H	-17.11 D	-1.01 B
	69.43 C	-0.26 G	-0.25 J	11.77 H	-17.11 D	-1.09 B
80.0	71.07 C	0.25 H	-0.36 D	11.25 G	-15.84 D	-1.18 B
	71.07 C	0.25 H	-0.36 D	11.25 G	-15.84 D	-1.21 B
72.0	71.85 C	-0.47 A	-0.63 D	8.19 G	-11.53 D	-1.25 B
	71.85 C	-0.47 A	-0.63 D	8.19 G	-11.53 D	-1.28 B
	72.37 C	-0.62 A	-0.81 D	5.12 G	-7.40 D	-1.30 B

186.7	0.0	0.0	4.2A	0.1D	4.0A	5.8A	0.4A
	120.0	120.0	4.4D	-0.1B	4.2D	6.1D	0.4D
	240.0	240.0	4.4J	0.1L	4.2J	6.1J	0.4J
126.7	0.0	0.0	2.9B	0.0D	1.9B	3.5B	0.4B
	120.0	120.0	3.2D	0.0H	2.1D	3.8D	0.4D
	240.0	240.0	3.2J	0.0F	2.1J	3.8J	0.4J
66.7	0.0	0.0	2.2B	0.0D	0.8B	2.4B	0.4B
	120.0	120.0	2.4D	0.0H	0.8D	2.6D	0.4D
	240.0	240.0	2.4J	0.0L	0.8J	2.6J	0.4J

MAXIMUM ANCHOR LOADS

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AZI DEG	RADIUS FT	GUY TO ELEV FT	... ANCHOR LOADS SHAFT FORCES ...			ANGLE DEG
			HORIZ KIP	VERT KIP	LATER- AL KIP	AXIAL KIP	... LATERAL ... VERT PLANE KIP	HORIZ PLANE KIP	
0.0	190.0	236.7	7.7A	9.4A	0.1D	12.1A	1.5A	0.1D	43.5A
		186.7	4.2A	4.0A	0.1D	5.8A	0.1B	0.1D	
		126.7	2.9B	1.9B	0.0D	3.5B	-0.6B	0.0D	
		66.7	2.2B	0.8B	0.0D	2.1B	-1.0B	0.0D	
			16.9A	16.1A	0.2D	23.3A	0.0C	0.2D	
120.0	190.0	236.7	7.7E	9.4E	-0.1B	12.0E	1.6D	-0.1B	43.0D
		186.7	4.4D	4.2D	-0.1B	6.1D	0.1D	-0.1B	
		126.7	3.2D	2.1D	0.0H	3.8D	-0.6D	0.0H	
		66.7	2.4D	0.8D	0.0H	2.4D	-1.1D	0.0H	
			17.6D	16.4D	-0.2B	24.1D	0.0F	-0.2B	
240.0	190.0	236.7	7.7I	9.4I	0.1L	12.1I	1.6J	0.1L	43.0J
		186.7	4.4J	4.2J	0.1L	6.1J	0.1J	0.1L	
		126.7	3.2J	2.1J	0.0F	3.8J	-0.6J	0.0F	
		66.7	2.4J	0.8J	0.0L	2.4J	-1.1J	0.0L	
			17.6J	16.4J	0.2L	24.1J	0.0I	0.2L	

MAXIMUM LOADS ON TOWER PIER

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AXIAL kip	... SHEAR MOMENT ...			
	NORTH kip	EAST kip	TOTAL kip	NORTH ft-kip	EAST ft-kip	TOTAL ft-kip	TORSIONAL ft-kip
80.4033 C	0.5963 A	0.6856 D	0.6861 D	0.0001 A	-0.0001 C	0.0001 C	1.7931 B

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GUYED TOWER SPREAD FOOTING DESIGN BY SABRE INDUSTRIES

250' 3600 SRWD APC TOWERS EV Smithland North, KY (549160) 2024-09-23 TTW

Factored Axial Load (kips)	206.77
Factored Shear (kips)	0.94
Ultimate Bearing Pressure	2.86
Bearing Φ_s	0.6
Bearing Design Strength (ksf)	1.716
Diameter of Pier (ft)	2.5
Ht. of Pier Above Ground (ft)	0.5
Depth to Bottom of Slab (ft)	3
Ht. of Pier Below Ground (ft)	1.5
Water Table Below Grade (ft)	10
Width of Pad (ft)	12
Thickness of Pad (ft)	1.5
Quantity of Bars in Pad	13
Bar Diameter in Pad (in)	0.875
Area of Bars in Pad (in ²)	7.82
Spacing of Bars in Pad (in)	11.43
Quantity of Bars Pier	6
Bar Diameter in Pier (in)	0.875
Area of Bars in Pier (in ²)	3.61
Spacing of Bars in Pier (in)	11.72
f'c (ksi)	4.5
fy (ksi)	60
Unit Wt. of Soil (kcf)	0.11
Unit Wt. of Concrete (kcf)	0.15
Volume of Concrete (yd ³)	8.36

Two-Way Shear Action:

Average d (in)	14.13
ϕV_c (kips)	394.0
$\phi V_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}b_o d$	591.1
$\phi V_c = \phi(\alpha_s d/b_o + 2)f'_c{}^{1/2}b_o d$	598.5
$\phi V_c = \phi 4f'_c{}^{1/2}b_o d$	394.0
Shear perimeter, b_o (in)	138.62
β_c	1

One-Way Shear:

ϕV_c (kips)	204.7
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Flexure:

ϕM_n (ft-kips)	481.9
a (in)	0.85
Steel Ratio	0.00384
β_1	0.83

Maximum Steel Ratio	0.0197
Minimum Steel Ratio	0.0018

Rebar Development in Pad (in)	55.71
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Allowable Bearing Pressure (ksf)	1.43
Safety Factor	2.00
Maximum Factored Net Soil Bearing Pressure (ksf)	1.54
Equivalent Square b (ft)	2.22

Recommended Spacing (in)	6 to 12
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Minimum Pier Area of Steel (in ²)	3.53
Recommended Spacing (in)	6 to 12

V_u (kips)	192.3
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V_u (kips)	64.7
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M_u (ft-kips)	208.6
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Required Development in Pad (in)	12.00
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Condition	1 is OK, 0 Fails
Two-Way Shear Action	1
One-way Shear	1
Flexure	1
Steel Ratio	1
Pier Area of Steel	1
Maximum Soil Bearing Pressure	1
Length of Development in Pad	1

GUY ANCHOR BLOCK DESIGN BY SABRE INDUSTRIES

250' 3600 SRWD APC TOWERS EV Smithland North, KY (549160) 2024-09-23 TTW

Anchor Block Dimensions:

Length (ft)	11		
Height (ft)	3	Length/Height Ratio	3.7
Width (ft)	3	Length/Width Ratio	3.7
Longitudinal Bar Diameter (in)	0.875	Height/Width Ratio	1.00
Quantity of Bars in Top	4	Width/Height Ratio	1.00
Area of Bars in Top (in ²)	2.41	Vertical Flexure Ratio	0.17
Spacing of Bars in Top (in)	9.38	Horizontal Flexure Ratio	0.17
Quantity of Bars Front	4	Horizontal Force Ratio	0.95
Area of Bars in Front (in ²)	2.41	Vertical Force Ratio	0.69
Spacing of Bars in Front (in)	9.38		
Quantity of Bars in Bottom	2		
Spacing of Bars in Bottom (in)	28.13	Recommended Spacing (in)	5 to 30
Quantity of Bars in Back	2		
Spacing of Bars in Back (in)	28.13	Recommended Spacing (in)	5 to 30
Quantity of Ties	12		
Tie Bar Diameter (in)	0.5		
Factored Uplift (kips)	42.59	Angle from Horizontal (deg)	44
Factored Horizontal Force (kips)	43.42		
Ultimate Passive Pressure	1.86		
Horizontal Φ_s	0.75		
Horizontal Design Strength (ksf)	1.39		
Angle of Internal Friction (deg.)	30		
Unit Wt. of Soil (kcf)	0.110		
Water Table Below Grade (ft)	999		
Depth to Bottom of Block (ft)	9		
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd ³)	3.67		
Horizontal Force:			
Factored Horizontal Force (kips)	43.4	Horizontal Design Strength (kips)	45.9
Uplift:			
Wc, Weight of Concrete (kips)	14.9		
WR, Soil Resistance (kips)	64.3		
Uplift Φ_s (kips)	0.75		
(Φ_s)(WR+Wc) (kips)	61.6		
Factored Uplift (kips)	42.6	Uplift Design Strength (kips)	61.6
Vertical Shear:			
Vu (kips)	21.3	ϕV_n (kips)	165.8
Vc = 2 f'c ^{1/2} bwd (kips)	154.9		
Vs (kips)	66.2	*** Vs max = 4 f'c ^{1/2} bwd (kips)	309.7
Spacing of Ties (in)	11.41		
Max. Spacing (in)	13.09	(Only if Shear Ties are Required)	

*** Ref. To Spacing Requirements ACI 11.5.4.3

GUY ANCHOR BLOCK DESIGN BY SABRE INDUSTRIES (CONTINUED)

250' 3600 SRWD APC TOWERS EV Smithland North, KY (549160) 2024-09-23 TTW

Horizontal Shear

V_u (kips)	21.7	ϕV_n (kips)	165.8
$V_c = 2 f'_c{}^{1/2} b_w d$ (kips)	154.9		
V_s (kips)	66.2	*** $V_s \text{ max} = 4 f'_c{}^{1/2} b_w d$ (kips)	309.7
Spacing of Ties (in)	11.41		
Max. Spacing (in)	13.09	(Only if Shear Ties are Required)	
$(V_u/fV_n)_V + (V_u/fV_n)_H$	0.26		<1 OK

*** Ref. To Spacing Requirements ACI 11.5.4.3

Vertical Flexure:

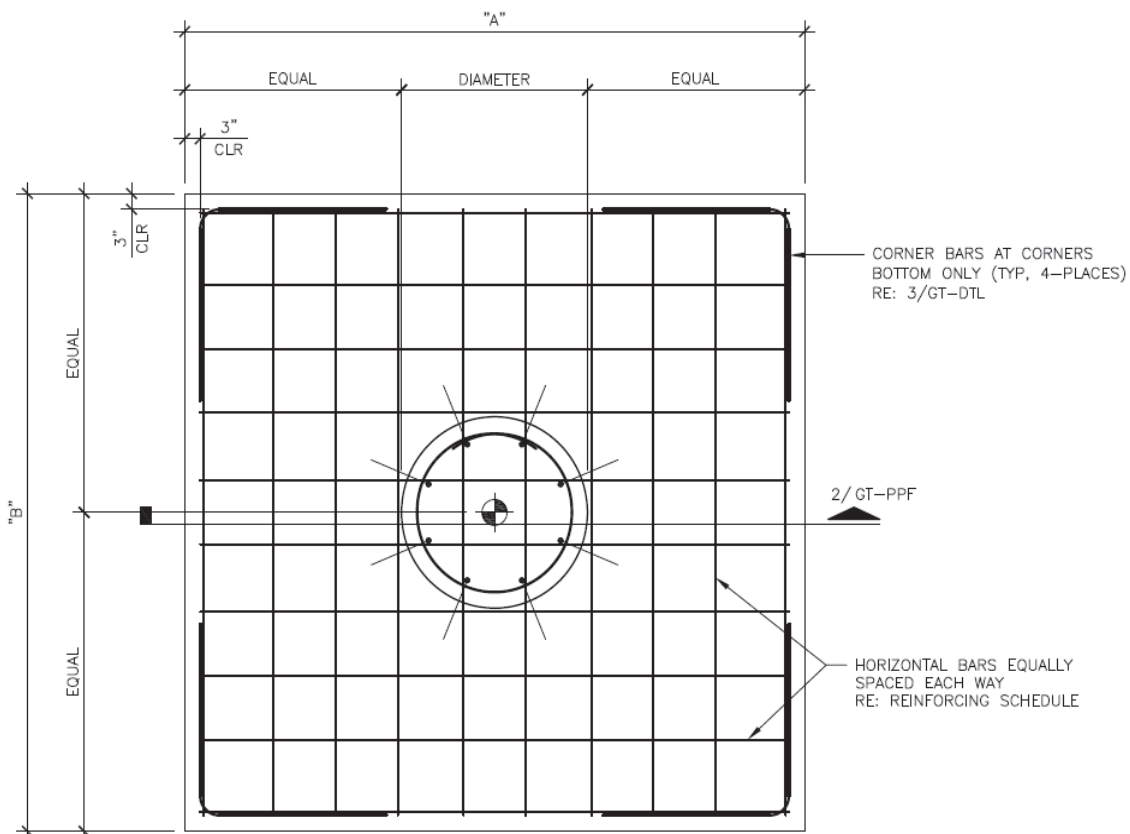
M_u (ft-kips)	58.6	ϕM_n (ft-kips)	341.4
a (in)	1.05		
Steel Ratio	0.0021		
b_1	0.83		
Maximum Steel Ratio	0.0233		
Minimum Steel Ratio	0.0018		
Rebar Development (in)	63.00	Required Rebar Development (in)	2.02

Horizontal Flexure:

M_u (ft-kips)	59.7	ϕM_n (ft-kips)	341.4
a (in)	1.05		
Steel Ratio	0.0021		
Maximum Steel Ratio	0.023		
Minimum Steel Ratio	0.0018		
Rebar Development (in)	63.00	Required Rebar Development (in)	2.06
$(M_u/fM_n)_V + (M_u/fM_n)_H$	0.35	$(M_u/fM_n)_V + (M_u/\phi M_n)_H$	<1 OK

Condition	1 is OK, 0 Fails
Uplift Force	1
Horizontal Force	1
Flexure	1
Shear	1
Length of Development in Block	1
Steel Ratio	1

Calculated Strength > Factored Load O.K.



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 MINIMUM CLEAR COVER.
2. REINFORCEMENT STEEL SHALL BE DETAILED, FABRICATED, BENT, AND PLACED IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE AND THE ACI 315 (LATEST EDITION).
3. 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: GEO24-22236-08
 DATE: JULY 15, 2024
4. 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.
5. CONCRETE VOLUME IN CUBIC YARDS: 9.93
6. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
7. CONCRETE MIXTURES SHALL MEET DURABILITY REQUIREMENTS OF CHAPTER 19 OF THE ACI 318-14.
8. 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.
9. 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.
10. 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.
11. VERIFY ALL DIMENSIONS AGAINST MANUFACTURER'S DRAWINGS.

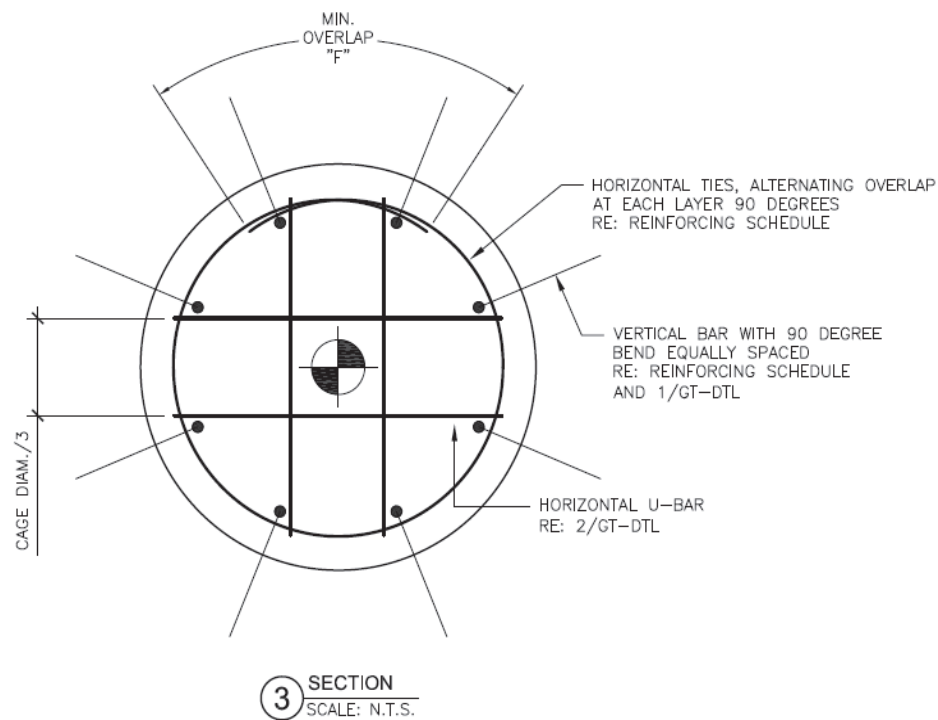
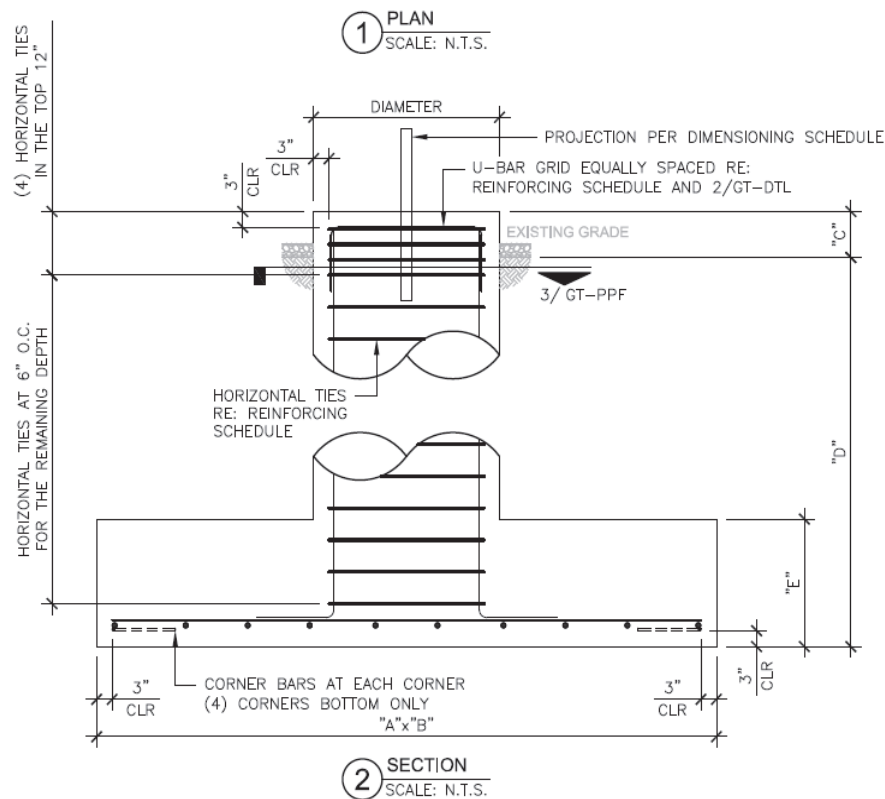
STIPULATION FOR REUSE:

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	13' 0"
B	13' 0"
C	0' 6"
D	4' 0"
E	1' 6"
MIN. OVERLAP "F"	2' 3"
DIAMETER	2' 6"
CENTER PIN PROJ.	REF TO MFG

REINFORCING SCHEDULE	SIZE	TOTAL QTY
VERTICAL BARS	# 6	9
HORIZONTAL TIES	# 4	10
U-BAR HORIZONTAL (PEDESTAL)	# 4	4
BOTTOM HORIZONTAL BARS	# 6	28
CORNER BARS	# 4	4

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	207	KIPS
HORIZONTAL	1	KIPS



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



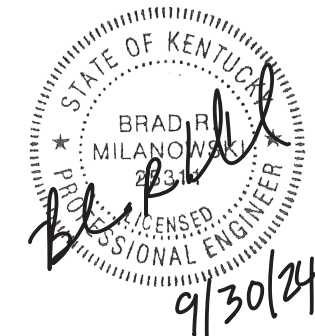
601 SIX FORKS RD., STE. 250, RALEIGH, NC 27611

ISSUED FOR:

REV	DATE	DESCRIPTION
0	09/30/24	ISSUED FOR CONSTRUCTION

COA: 4011

EXPIRES: 12/31/2024



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

PROJECT INFORMATION:

PROJECT NO: 173017.001.01.0001
 SITE NAME: SMITHLAND NORTH
 SITE NO: KY-1789
 CLIENT NAME: APC TOWERS IV, LLC

DRAWN BY: CLINT COODY
 CHECKED BY: JL

SHEET TITLE:

PIER AND PAD FOUNDATION

SHEET NUMBER:

GT-PPF

REVISION:

0



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(918) 587-4630



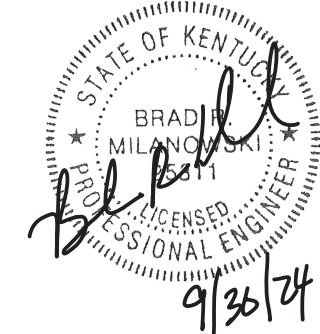
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PROJECT INFORMATION:

PROJECT NO: 173017.001.01.0001
SITE NAME: SMITHLAND NORTH
SITE NO: KY-1789
CLIENT NAME: APC TOWERS IV, LLC

DRAWN BY: CLINT COODY
CHECKED BY: JL

SHEET TITLE:

B2 ANCHOR BLOCK FOUNDATION

SHEET NUMBER:

GT-ABF

REVISION:

0

NOTES:

- REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENT OF ASTM A-615 (GRADE 60) EXCEPT THAT TIES MAY BE ASTM-615 (GRADE 40) WITH MINIMUM CLEAR COVER.
- REINFORCEMENT STEEL SHALL BE DETAILED, FABRICATED, BENT, AND PLACED IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE AND THE ACI 315 (LATEST EDITION).
- 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: GEO24-22236-08
DATE: JULY 15, 2024
- 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.
- CONCRETE VOLUME IN CUBIC YARDS: 2
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- CONCRETE MIXTURES SHALL MEET DURABILITY REQUIREMENTS OF CHAPTER 19 OF THE ACI 318-14.
- 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.
- 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.
- 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.
- VERIFY ALL DIMENSIONS AGAINST MANUFACTURER'S DRAWINGS.
- ANCHOR SHAFT: BY TOWER MANUFACTURER

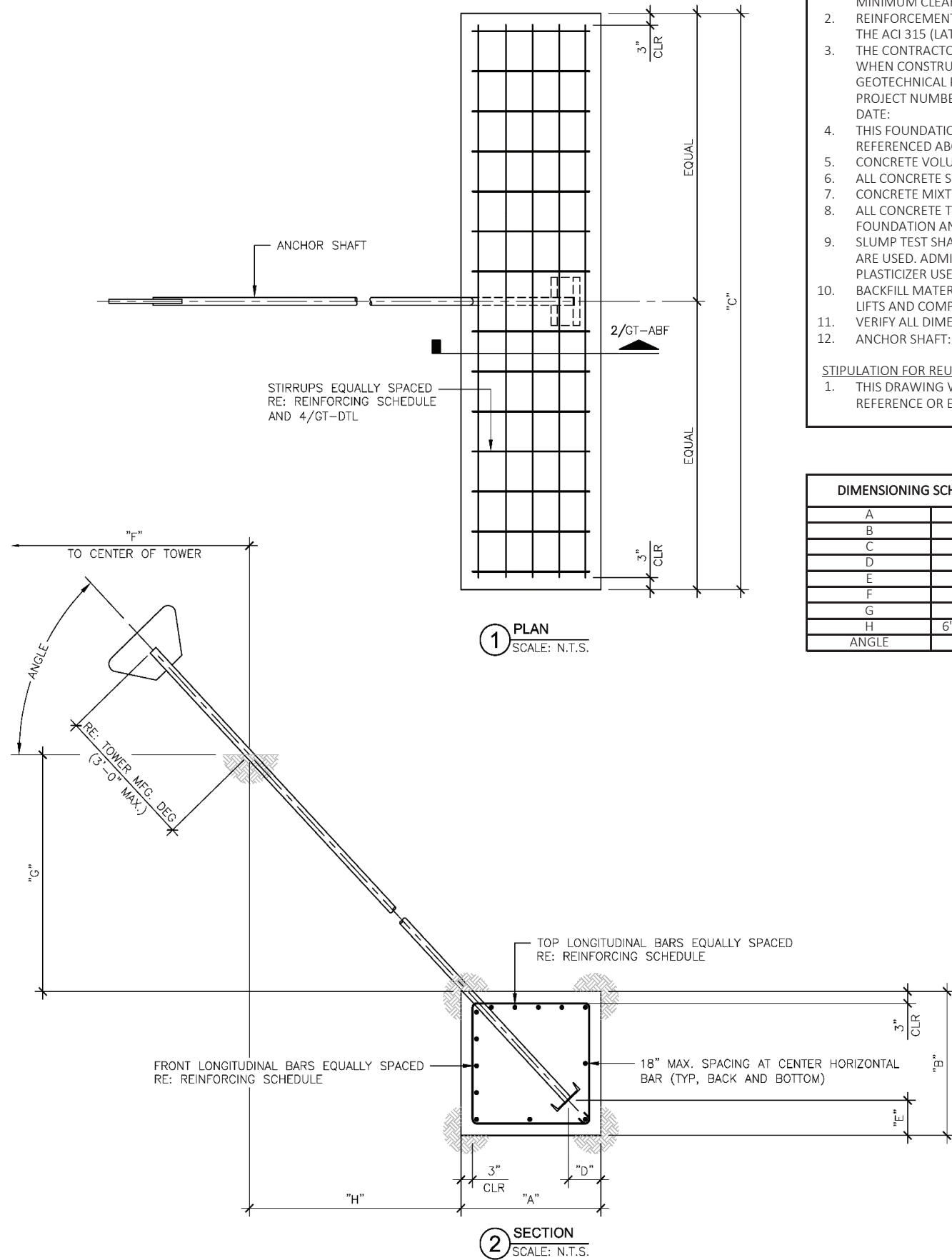
STIPULATION FOR REUSE:

- 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	3' 0"
C	9' 0"
D	0' 6"
E	0' 9"
F	190' 0"
G	6' 0"
H	6' 10-15/16"
ANGLE	44.4°

REINFORCING SCHEDULE	SIZE	TOTAL QTY
STIRRUPS	# 4	11
LONGITUDINAL BARS TOP	# 6	3
LONGITUDINAL BARS FRONT	# 6	4
LONGITUDINAL BARS BACK	# 6	1
LONGITUDINAL BARS BOTTOM	# 6	2

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	43	KIPS
HORIZONTAL	43	KIPS



1 PLAN
SCALE: N.T.S.

2 SECTION
SCALE: N.T.S.



1717 S BOULDER AVE #300, TULSA, OK 74119
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601 SIX FORKS RD., STE. 250, RALEIGH, NC 27611

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COA: 4011

EXPIRES: 12/31/2024



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PROJECT INFORMATION:

PROJECT NO: 173017.001.01.0001
SITE NAME: SMITHLAND NORTH
SITE NO: KY-1789
CLIENT NAME: APC TOWERS IV, LLC

DRAWN BY: CLINT COODY
CHECKED BY: JL

SHEET TITLE:

B3 ANCHOR BLOCK FOUNDATION

SHEET NUMBER:

GT-ABF

REVISION:

0

NOTES:

- REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENT OF ASTM A-615 (GRADE 60) EXCEPT THAT TIES MAY BE ASTM-615 (GRADE 40) WITH MINIMUM CLEAR COVER.
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- 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: GEO24-22236-08
DATE: JULY 15, 2024
- 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.
- CONCRETE VOLUME IN CUBIC YARDS: 0.59
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- CONCRETE MIXTURES SHALL MEET DURABILITY REQUIREMENTS OF CHAPTER 19 OF THE ACI 318-14.
- ALL CONCRETE TESTING 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.
- 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.
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- ANCHOR SHAFT: BY TOWER MANUFACTURER

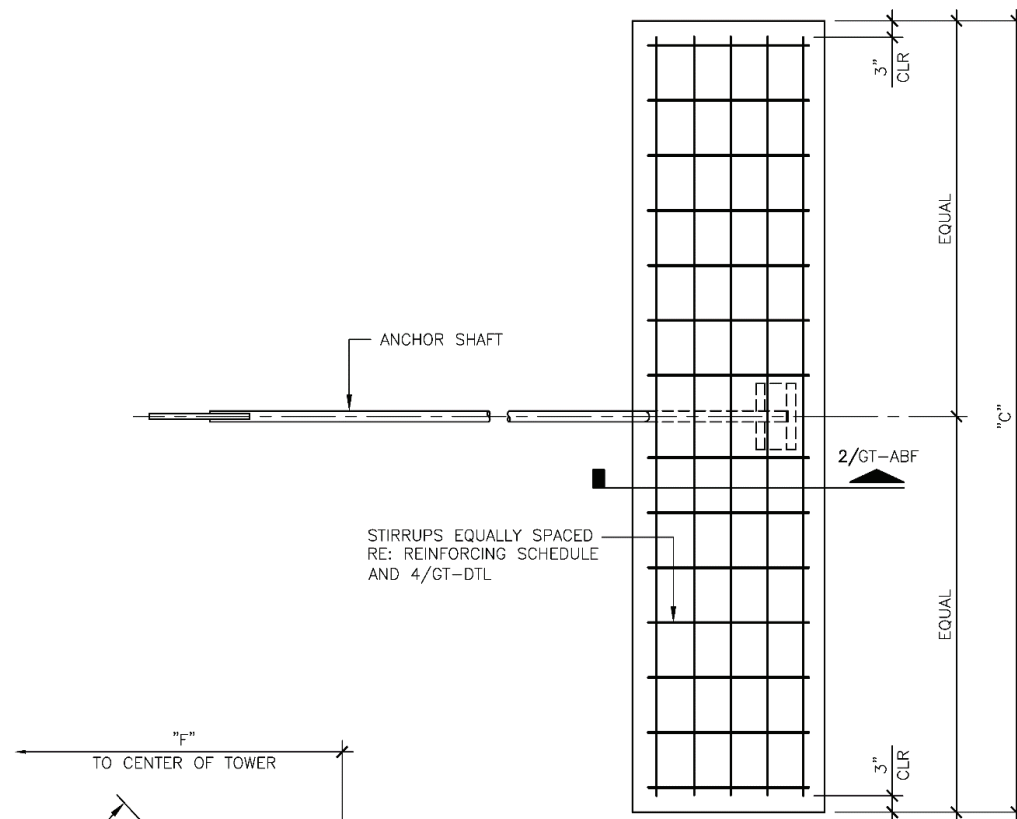
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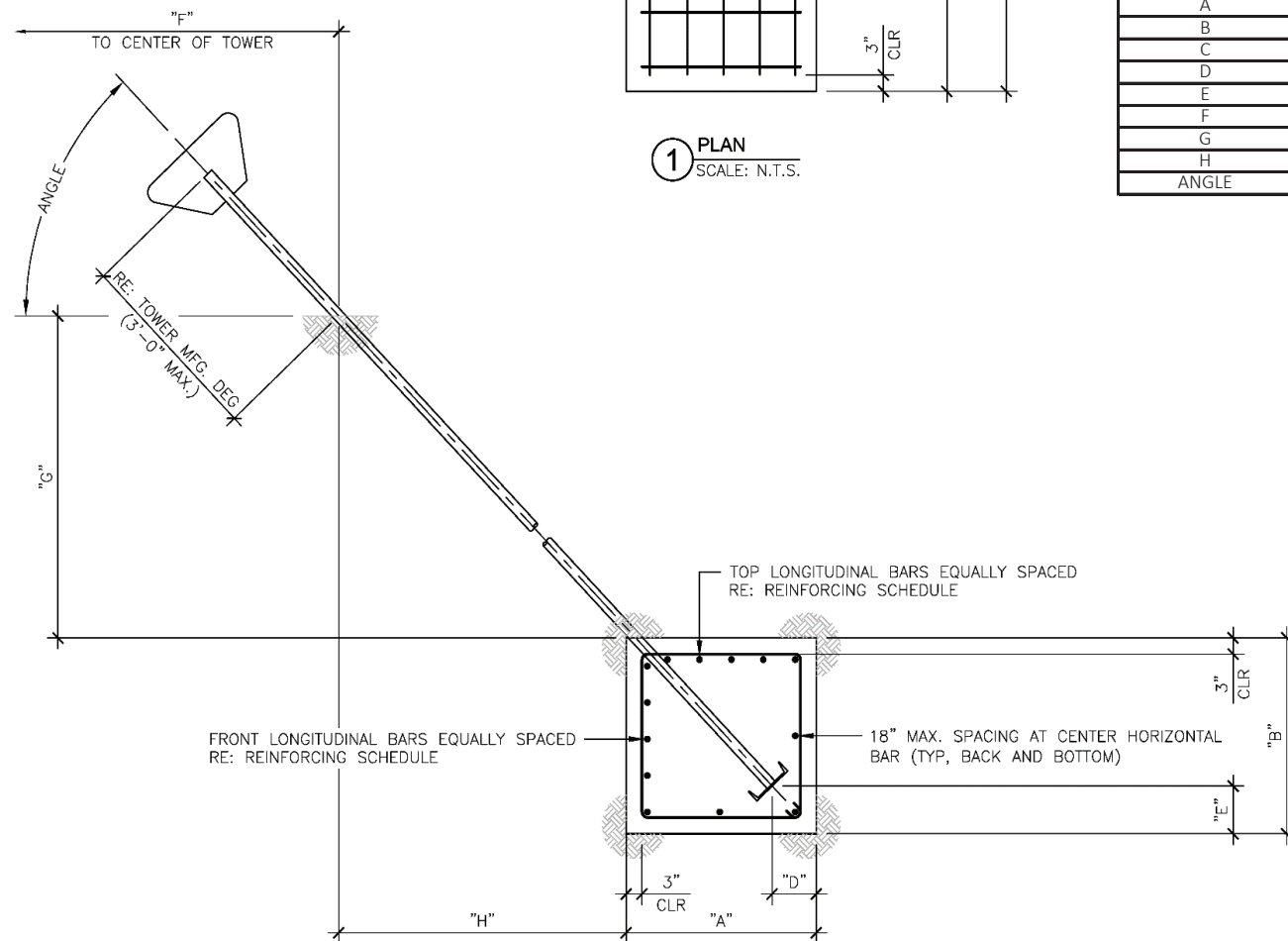
DIMENSIONING SCHEDULE	
A	2' 0"
B	2' 0"
C	4' 0"
D	0' 6"
E	0' 6"
F	190' 0"
G	7' 0"
H	7' 0"
ANGLE	45.0°

REINFORCING SCHEDULE	SIZE	TOTAL QTY
STIRRUPS	# 4	5
LONGITUDINAL BARS TOP	# 6	3
LONGITUDINAL BARS FRONT	# 6	3
LONGITUDINAL BARS BACK	# 6	1
LONGITUDINAL BARS BOTTOM	# 6	2

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	43	KIPS
HORIZONTAL	43	KIPS



1 PLAN
SCALE: N.T.S.



2 SECTION
SCALE: N.T.S.



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



601 SIX FORKS RD., STE. 250, RALEIGH, NC 27611

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REV	DATE	DESCRIPTION
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COA: 4011

EXPIRES: 12/31/2024



9/30/24

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PROJECT INFORMATION:

PROJECT NO: 173017.001.01.0001
SITE NAME: SMITHLAND NORTH
SITE NO: KY-1789
CLIENT NAME: APC TOWERS IV, LLC

DRAWN BY: CLINT COODY
CHECKED BY: JL

SHEET TITLE:

B4 ANCHOR BLOCK FOUNDATION

SHEET NUMBER:

GT-ABF

REVISION:

0

NOTES:

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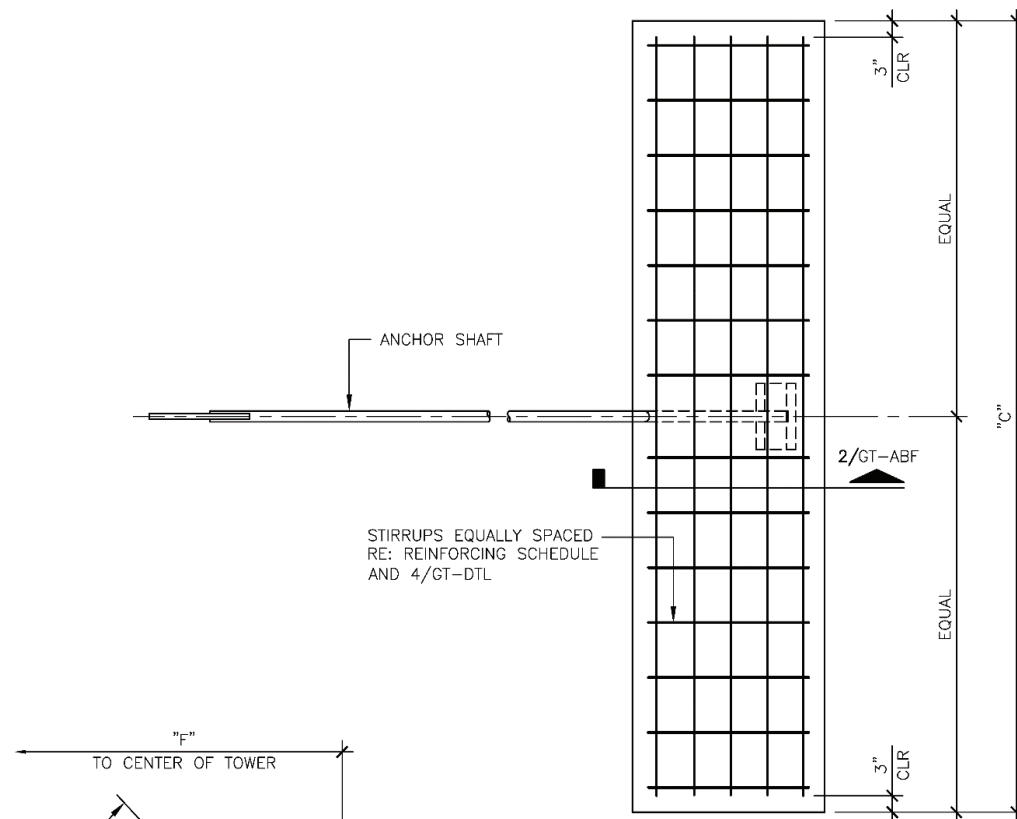
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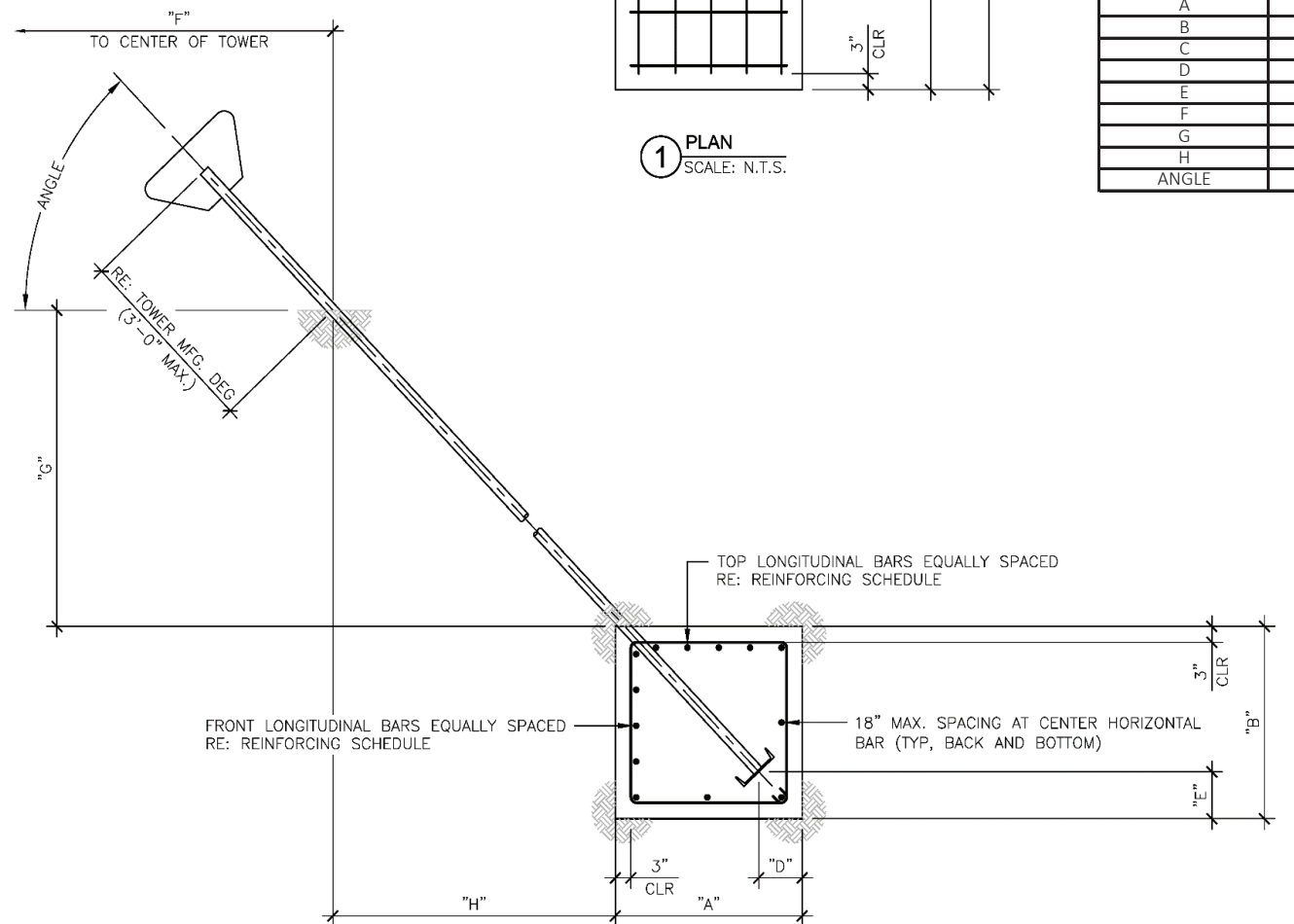
DIMENSIONING SCHEDULE	
A	2' 0"
B	2' 0"
C	7' 0"
D	0' 6"
E	0' 6"
F	190' 0"
G	6' 0"
H	6' 0"
ANGLE	45.0°

REINFORCING SCHEDULE	SIZE	TOTAL QTY
STIRRUPS	# 4	8
LONGITUDINAL BARS TOP	# 6	3
LONGITUDINAL BARS FRONT	# 6	3
LONGITUDINAL BARS BACK	# 6	1
LONGITUDINAL BARS BOTTOM	# 6	2

BASE REACTIONS: (FACTORED LOADS)		
VERTICAL	43	KIPS
HORIZONTAL	43	KIPS



1 PLAN
SCALE: N.T.S.



2 SECTION
SCALE: N.T.S.



1717 S BOULDER AVE #300, TULSA, OK 74119
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601 SIX FORKS RD., STE. 250, RALEIGH, NC 27611

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COA: 4011

EXPIRES: 12/31/2024



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PROJECT INFORMATION:

PROJECT NO: 173017.001.01.0001
SITE NAME: SMITHLAND NORTH
SITE NO: KY-1789
CLIENT NAME: APC TOWERS IV, LLC

DRAWN BY: CLINT COODY
CHECKED BY: JL

SHEET TITLE:

DIMENSIONING DETAIL

SHEET NUMBER:

DTL

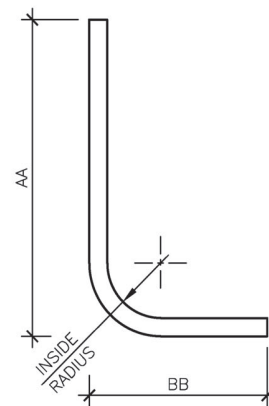
REVISION:

0

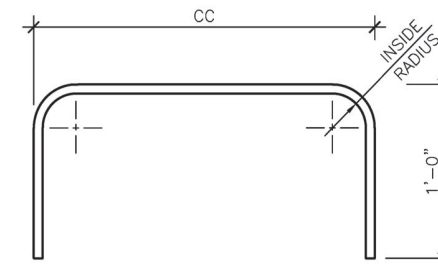
DIMENSIONING SCHEDULE	
AA*	3' 10-1/2"
BB	1' 0"
CC*	1' 10-5/8"
DD	3' 0"

	B2 ANCHOR	B3 ANCHOR	B4 ANCHOR
EE*	2' 6"	1' 6"	1' 6"
FF*	1' 6"	1' 6"	1' 6"
GG	0' 3"	0' 3"	0' 3"

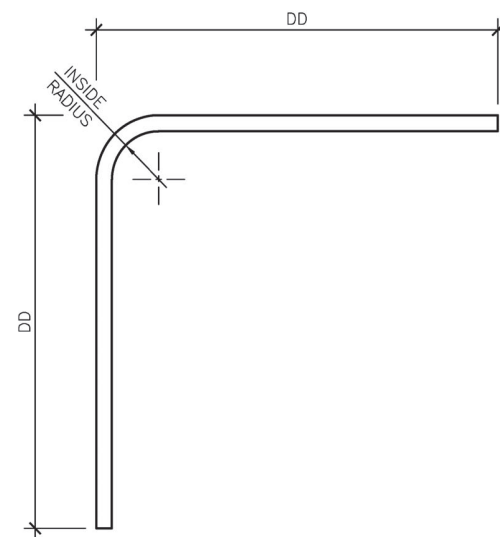
*NOTE: CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO FABRICATION



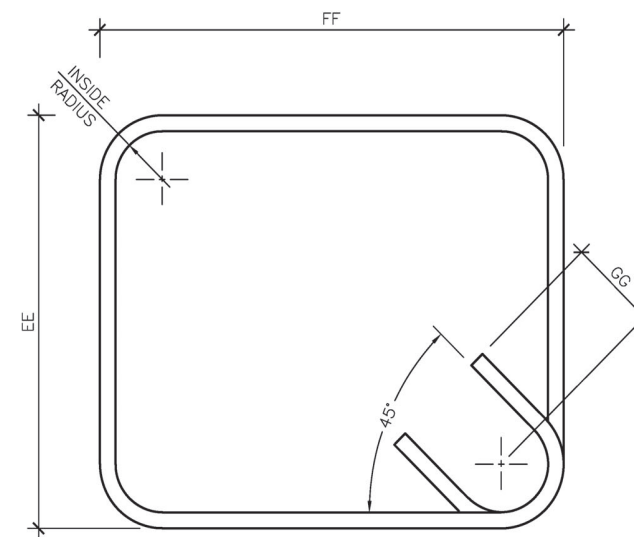
1 L-BAR
SCALE: N.T.S.



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



3 CORNER BAR
SCALE: N.T.S.



4 STIRRUP
SCALE: N.T.S.

Pier and Pad Foundation

Project #: 173017.001.01.000
 Site Name: Smithland North
 Site #: KY-1789

TIA-222 Revision: H
 Tower Type: Guyed

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

Superstructure Analysis Reactions		
Compression, P_{comp} :	206.77	kips
Base Shear, V_{u_comp} :	0.94	kips
Moment, M_u :	0	ft-kips
Tower Height, H :	250	ft
BP Dist. Above Fdn, bp_{dist} :	0	in
Bolt Circle / Bearing Plate Width, BC :	12	in

Foundation Analysis Checks				
	Capacity	Demand	Rating	Check
<i>Lateral (Sliding) (kips)</i>	67.99	0.94	1.4%	Pass
<i>Bearing Pressure (ksf)</i>	1.90	1.84	96.5%	Pass
<i>Overturing (kip*ft)</i>	275.42	4.23	1.5%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	364.24	2.82	0.8%	Pass
<i>Pier Compression (kip)</i>	3124.31	209.42	6.7%	Pass
<i>Pad Flexure (kip*ft)</i>	374.96	221.80	59.2%	Pass
<i>Pad Shear - 1-way (kips)</i>	205.34	65.86	32.1%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.082	43.1%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	392.21	1.69	0.4%	Pass

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$:	2.5	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	6	
Pier Rebar Quantity, mc :	9	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	14	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Structural Rating: 59.2%
 Soil Rating: 96.5%

Pad Properties		
Depth, D :	4	ft
Pad Width, W_1 :	13	ft
Pad Thickness, T :	1.5	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	6	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	14	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	110	pcf
Ultimate Net Bearing, Q_{net} :	2.730	ksf
Cohesion, C_u :	0.575	ksf
Friction Angle, ϕ :	0	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.35	
Neglected Depth, N :	1.70	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	10	ft

<--Toggle between Gross and Net

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	173017.001.01.0001
Site Name:	Smithland North
Site #:	KY-1789
Location:	B2

TIA-222 Revision: H

Design Reactions	
Shear, S:	43.42 kips
Uplift, Ua:	42.59 kips
Resultant Force, Rf:	60.82 kips
Tower Height, H:	250.00 ft
Guy Anchor Radius, R:	190.00 ft
Resultant Angle to Horizontal, θ :	44.4 deg

Guy Anchor Properties	
Depth to Bottom of Deadman, Da:	9 ft
Anchor Width, Wa:	2 ft
Anchor Thickness, Ta:	3 ft
Anchor Length, La:	9 ft
Concrete Volume, Vc:	2.0 yd ³
Toe Width, Toe:	ft
Guyed Anchor Top Rebar Size, Sat:	6
No. of Bars in Top of Block:	3
Guyed Anchor Front Rebar Size, Saf:	6
No. of Bars in Front of Block:	4
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):	45.27	43.42	95.9%	Pass
Uplift Capacity (kips):	50.93	42.59	83.6%	Pass
Lateral Flexural Capacity (ft*kips):	155.97	48.85	31.3%	Pass
Uplift Flexural Capacity (ft*kips):	187.94	47.91	25.5%	Pass

Anchor Shaft Rating:	N/A
Structural Rating:	31.3%
Soil Rating:	95.9%

Neglect Depth, Neg:	1.7 ft
Groundwater Level, gw:	10 ft

Soil Properties:					
Layer	ϕ , deg	cu, ksf	δ , pcf	No. of Soil Layers:	N (blows/ft)
1	0	0.500	110	d, ft	Ultimate fs (ksf)
2	0	0.800	120	3.00	
3	0	0.500	110	6.00	
				9.00	

*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

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	173017.001.01.0001
Site Name:	Smithland North
Site #:	KY-1789
Location:	B3

TIA-222 Revision: H

Design Reactions	
Shear, S:	43.42 kips
Uplift, Ua:	42.59 kips
Resultant Force, Rf:	60.82 kips
Tower Height, H:	250.00 ft
Guy Anchor Radius, R:	190.00 ft
Resultant Angle to Horizontal, θ :	44.4 deg

Guy Anchor Properties	
Depth to Bottom of Deadman, Da:	9 ft
Anchor Width, Wa:	2 ft
Anchor Thickness, Ta:	2 ft
Anchor Length, La:	4 ft
Concrete Volume, Vc:	0.6 yd ³
Toe Width, Toe:	ft
Guyed Anchor Top Rebar Size, Sat:	6
No. of Bars in Top of Block:	3
Guyed Anchor Front Rebar Size, Saf:	6
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):	49.81	43.42	87.2%	Pass
Uplift Capacity (kips):	47.69	42.59	89.3%	Pass
Lateral Flexural Capacity (ft*kips):	116.66	21.71	18.6%	Pass
Uplift Flexural Capacity (ft*kips):	116.66	21.30	18.3%	Pass

Anchor Shaft Rating:	N/A
Structural Rating:	18.6%
Soil Rating:	89.3%

Neglect Depth, Neg:	1.7 ft
Groundwater Level, gw:	10 ft

Soil Properties:					
Layer	ϕ , deg	cu, ksf	δ , pcf	No. of Soil Layers:	N (blows/ft)
1	0	0.600	115	d, ft	Ultimate fs (ksf)
2	0	0.800	120	3.00	
3	0	2.500	120	6.00	
			9.00		

*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

Guyed Anchor Block Foundation

Checks capacity of anchor blocks for a guyed tower.

Project #:	173017.001.01.0001
Site Name:	Smithland North
Site #:	KY-1789
Location:	B4

TIA-222 Revision: H

Design Reactions	
Shear, S:	43.42 kips
Uplift, Ua:	42.59 kips
Resultant Force, Rf:	60.82 kips
Tower Height, H:	250.00 ft
Guy Anchor Radius, R:	190.00 ft
Resultant Angle to Horizontal, θ :	44.4 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:	7 ft
Concrete Volume, Vc:	1.0 yd ³
Toe Width, Toe:	ft
Guyed Anchor Top Rebar Size, Sat:	6
No. of Bars in Top of Block:	3
Guyed Anchor Front Rebar Size, Saf:	6
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):	45.38	43.42	95.7%	Pass
Uplift Capacity (kips):	51.59	42.59	82.6%	Pass
Lateral Flexural Capacity (ft*kips):	116.66	37.99	32.6%	Pass
Uplift Flexural Capacity (ft*kips):	116.66	37.27	31.9%	Pass

Anchor Shaft Rating:	N/A
Structural Rating:	32.6%
Soil Rating:	95.7%

Neglect Depth, Neg:	1.7 ft
Groundwater Level, gw:	10 ft

Soil Properties:					
Layer	ϕ , deg	cu, ksf	δ , pcf	d, ft	Ultimate fs (ksf)
1	0	0.700	115	3.00	
2	0	1.100	120	6.00	
3	0	1.300	120	8.00	
No. of Soil Layers:				3	N (blows/ft)

*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

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
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Active <input type="text"/>
<input type="button" value="Search"/>				

	Utility ID	Utility Name	Utility Type	Class	City	State
<input type="button" value="View"/>	4002000	1GLOBAL Operations (US) Inc.	Cellular	D	Durham	NC
<input type="button" value="View"/>	4111300	2600Hz, Inc. dba ZSWITCH	Cellular	D	Henderson	NV
<input type="button" value="View"/>	4115150	ACN Communication Services, LLC dba Flash Wireless dba Flash Mobile	Cellular	D	Concord	
<input type="button" value="View"/>	4113600	AFNET, LLC	Cellular	D	Alpharetta	GA
<input type="button" value="View"/>	4108300	Air Voice Wireless, LLC d/b/a AirTalk Wireless	Cellular	A	Houston	TX
<input type="button" value="View"/>	4115200	Airespring, Inc.	Cellular	C	Clearwater	FL
<input type="button" value="View"/>	4111900	ALLNETAIR, INC.	Cellular	D	West Palm Beach	FL
<input type="button" value="View"/>	44451184	Alltel Corporation d/b/a Verizon Wireless	Cellular	A	Lisle	IL
<input type="button" value="View"/>	4110850	AltaWorx, LLC	Cellular	D	Fairhope	AL
<input type="button" value="View"/>	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
<input type="button" value="View"/>	4108650	AmeriMex Communications Corp.	Cellular	A	Safety Harbor	FL
<input type="button" value="View"/>	4105100	AmeriVision Communications, Inc.	Cellular	D	Virginia Beach	VA

		d/b/a Affinity 4				
View	4114250	Approved Contact LLC	Cellular	D	Reno	NV
View	4115050	Aquarius Silver LLC	Cellular	C	Sheridan	WY
View	4105700	Assurance Wireless USA, L.P.	Cellular	D	Atlanta	GA
View	4114150	Atlantic Mobile US LLC d/b/a Angel Mobile	Cellular	D	Wilmington	DE
View	4113100	BARK TECHNOLOGIES, INC.	Cellular	D	Charlotte	NC
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	4111050	BlueBird Communications, LLC	Cellular	D	New York	NY
View	4107600	Boomerang Wireless, LLC	Cellular	A	Dallas	TX
View	4115500	CALL CENTERS INDIA INCORPORATED d/b/a Blueconnects	Cellular		Seattle	WA
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Houston	TX
View	4112900	Clear Mobile, LLC	Cellular	D	Tulsa	OK
View	4114550	Cliq Communications LLC d/b/a Cliq Mobile	Cellular	D	Coral Gables	FL
View	4111150	Comcast OTR1, LLC	Cellular	A	Phoeniexville	PA
View	4113550	Comlink Total Solutions Corp	Cellular	D	Fort Myers	FL
View	4101900	Consumer Cellular, Incorporated	Cellular	A	Portland	OR
View	4112700	Cox Wireless, LLC	Cellular	D	Atlanta	GA
View	4108850	Cricket Wireless, LLC	Cellular	A	San Antonio	TX
View	4111500	CSC Wireless, LLC d/b/a Altice Wireless	Cellular	B	Long Island City	NY
View	4114000	Daywalker Mobile Inc.	Cellular	D	Bartlesville	OK
View	4112000	DISH Wireless L.L.C.	Cellular	A	Englewood	CO
View	4111200	Dynalink Communications, Inc.	Cellular	C	Brooklyn	NY
View	4111800	Earthlink, LLC	Cellular	B	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	4113250	Elevate Platforms, LLC	Cellular	D	Nashville	TN

View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4113800	EVOLVE WIRELESS LLC	Cellular	D	Maumee	OH
View	4110450	Excellus Communications, LLC	Cellular	D	Harrisburg	SD
View	4112400	Excess Telecom Inc.	Cellular	D	Beverly Hills	CA
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Herndon	VA
View	4111750	Gabb Wireless, Inc.	Cellular	A	Lehi	UT
View	4109350	Global Connection Inc. of America	Cellular	D	Miami	FL
View	4102200	Globalstar USA, LLC	Cellular	C	Covington	LA
View	4112850	GO TECHNOLOGY MANAGEMENT, LLC	Cellular	D	Atlanta	GA
View	4109600	Google North America Inc.	Cellular	A	Mountain View	CA
View	4113500	GR8 CONNECT Corp.	Cellular	C	Brooklyn	NY
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4114300	Group F Consulting, LLC	Cellular	D		
View	4114050	Helix Wireless Inc.	Cellular	D	Monmouth Junction	NJ
View	4111350	HELLO MOBILE TELECOM LLC	Cellular	D	Dania Beach	FL
View	4112950	Hoop Wireless, LLC	Cellular	D	Lakewood	NJ
View	4103100	i-Wireless, LLC	Cellular	C	Newport	KY
View	4112550	IDT Domestic Telecom, Inc.	Cellular	D	Newark	NJ
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	D	Plano	TX
View	4112650	Insight Mobile, Inc.	Cellular	D	Los Angeles	CA
View	4115300	Interactivetel LLC	Cellular	C	Houston	TX
View	4111950	J Rhodes Enterprises LLC	Cellular	D	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	4112200	Lexvor Inc.	Cellular	D	Irvine	CA
View	4111250	Liberty Mobile Wireless, LLC	Cellular	B	Sunny Isles Beach	FL
View	4114900	Liberty Wireless, LLC	Cellular	C	Rockville	MD
View	4114750	Link Mobile, Inc.	Cellular	C	New York	NY
View	4111400	Locus Telecommunications, LLC	Cellular	D	Fort Lee	NJ
View	4114500	Lux Mobile USA, Inc	Cellular	D	Baton Rouge	LA

View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4112500	Marconi Wireless Holdings, LLC	Cellular	B	Westlake Village	CA
View	4113850	MAXSIP TEL KENTUCKY LLC d/b/a Maxsip Telecom	Cellular	D	Woodmere	NY
View	4114800	Mediacom Wireless LLC	Cellular	C	Mediacom Park	NY
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4111700	Mint Mobile, LLC	Cellular	A	Costa Mesa	CA
View	4111850	Mobi, Inc.	Cellular	D	Honolulu	HI
View	4115100	Mobile 13, Inc	Cellular	C	South Jordan	UT
View	4114100	MVNO Connect LLC	Cellular	D	St. Petersburg	FL
View	4113350	NatWireless, LLC	Cellular	D	Houston	TX
View	4202400	New Cingular Wireless PCS, LLC	Cellular	A	San Antonio	TX
View	4110700	Norcell, LLC	Cellular	D	Clayton	WA
View	4113700	Nova Labs, Inc. dba Helium Mobile	Cellular	D	Las Vegas	NV
View	4110750	Onvoy Spectrum, LLC	Cellular	D	Chicago	IL
View	4114950	Panda Mobile LLC	Cellular	C	Sparks	NV
View	4109050	Patriot Mobile LLC	Cellular	B	Grapevine	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	4114850	POWER MOBILE LLC	Cellular	C	Rockville Centre	NY
View	4112800	Prepaid Wireless Group, LLC dba Prepaid Wireless Wholesale	Cellular	D	Rockville	MD
View	4114350	PRESTO WIRELESS Corp.	Cellular	D	Fair Lawn	NJ
View	4115000	Prosper Wireless LLC	Cellular	D	Sherman Oaks	CA
View	4107700	Puretalk Holdings, Inc.	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	D	Cedar Rapids	IA
View	4113200	Red Pocket Inc.	Cellular	D	Thousand Oaks	CA
View	4114200	Rocstar Wireless LLC	Cellular	D	Bedford	TX
View	4114700	Rocket Mobile LLC	Cellular	C	West Palm Beach	FL
View	4115400	RSCU Mobile, LLC	Cellular	C	Alpine	UT

View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC dba TruConnect	Cellular	A	Los Angeles	CA
View	4113050	Sarver Corporation	Cellular	D	Rancho Cucamonga	CA
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	A	Fremont	NE
View	4110150	Spectrotel of the South LLC dba Touch Base Communications	Cellular	D	Neptune	NJ
View	4111450	Spectrum Mobile, LLC	Cellular	A	St. Louis	MO
View	4114400	Splash Cellular Inc.	Cellular	D	Bountiful	UT
View	4111600	STX Group LLC dba Twigby	Cellular	D	Murfreesboro	TN
View	4115450	Surf Telecom, LLC	Cellular	C	Key Bixcayne	FL
View	4113450	Syntegra North America, LLC	Cellular	D	Denton	TX
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobility, LLC d/b/a TAG Mobile	Cellular	D	Plano	TX
View	4107200	Telefonica Global Solutions USA, Inc.	Cellular	D	Miami	FL
View	4112100	Tello LLC	Cellular	A	Atlanta	GA
View	4108900	Telrite Corporation	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	D	Dallas	TX
View	4113900	TERRACOM Inc. d/b/a Maxsip Tel	Cellular	D	Chattanooga	TN
View	4113950	THE LIGHT PHONE INC.	Cellular	D	Brooklyn	NY
View	4110400	Torch Wireless Corp.	Cellular	C	Bartlett	TN
View	4103300	Touchtone Communications, Inc.	Cellular	D	Cedar Knolls	NJ
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4115350	TREK CELLULAR, LLC	Cellular	C	Stevensville	MD
View	4112250	TROOMI WIRELESS, Inc.	Cellular	D	Orem	UT
View	4114600	TruConnect Communications, Inc.	Cellular	D	Los Angeles	CA
View	4112600	Tube Incorporated dba Reach Mobile	Cellular	D	Atlanta	GA
View	4112750	Unity Wireless, Inc.	Cellular	D	Pembroke Pines	FL
View	4110300	UVNV, Inc. d/b/a Mint Mobile	Cellular	C	Costa Mesa	CA
View	10630	Verizon Americas LLC dba Verizon Wireless	Cellular	A	Basking Ridge	NJ

View	4113300	Via Wireless, LLC	Cellular	D	Houston	TX
View	4110800	Visible Service LLC	Cellular	D	Basking Ridge	NJ
View	4113750	VOLT MOBILE Inc	Cellular	D	Delray Beach	FL
View	4114450	WeIncentivize LLC d/b/a ChosenWireless	Cellular	D	San Diego	CA
View	4113000	Whoop Connect Inc.	Cellular	D	Melbourne	FL
View	4115250	WHOOP MOBILE INC.	Cellular	C	Melbourne	FL
View	4106500	WiMacTel, Inc.	Cellular	D	Calgary, AB	CA
View	4110950	Wing Tel Inc.	Cellular	D	New York	NY
View	4113400	Wrizzle, Inc.	Cellular	D	New Milford	CT
View	4113650	XCHANGE TELECOM LLC	Cellular	D	Brooklyn	NY
View	4112150	Zefcom, LLC	Cellular	C	Wichita Falls	TX

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.
 2024-ASO-12786-OE

Issued Date: 08/26/2024

Jonathan Greene
 APC Towers
 8601 Six Forks Rd
 Suite 250
 Raleigh, NC 27615

**** 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 KY-1789 EV Smithland North
 Location: Smithland, KY
 Latitude: 37-09-27.01N NAD 83
 Longitude: 88-23-45.38W
 Heights: 347 feet site elevation (SE)
 255 feet above ground level (AGL)
 602 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:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

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 Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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

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

See attachment for additional condition(s) or information.

This determination expires on 02/26/2026 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, 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 2024-ASO-12786-OE.

Signature Control No: 625212193-631104208

Angelique Eersteling
Technician

(DNE)

Attachment(s)
Additional Information
Frequency Data
Map(s)

cc: FCC

BASIS FOR DECISION

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band

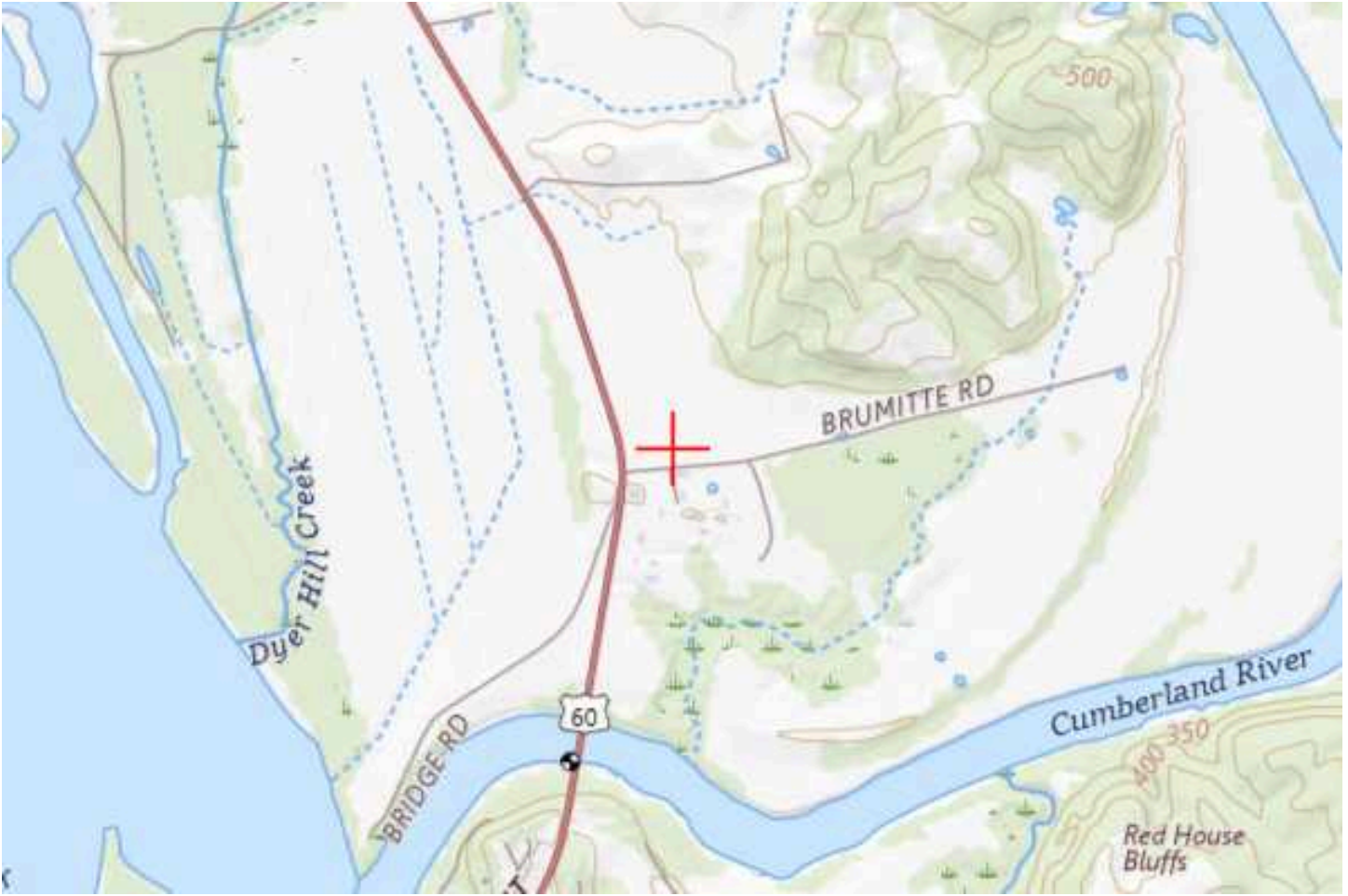
This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

Frequency Data for ASN 2024-ASO-12786-OE

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	2000	W
614	698	MHz	1000	W
698	806	MHz	1000	W
806	824	MHz	500	W
806	901	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
3700	3980	MHz	3280	W
3700	3980	MHz	1640	W



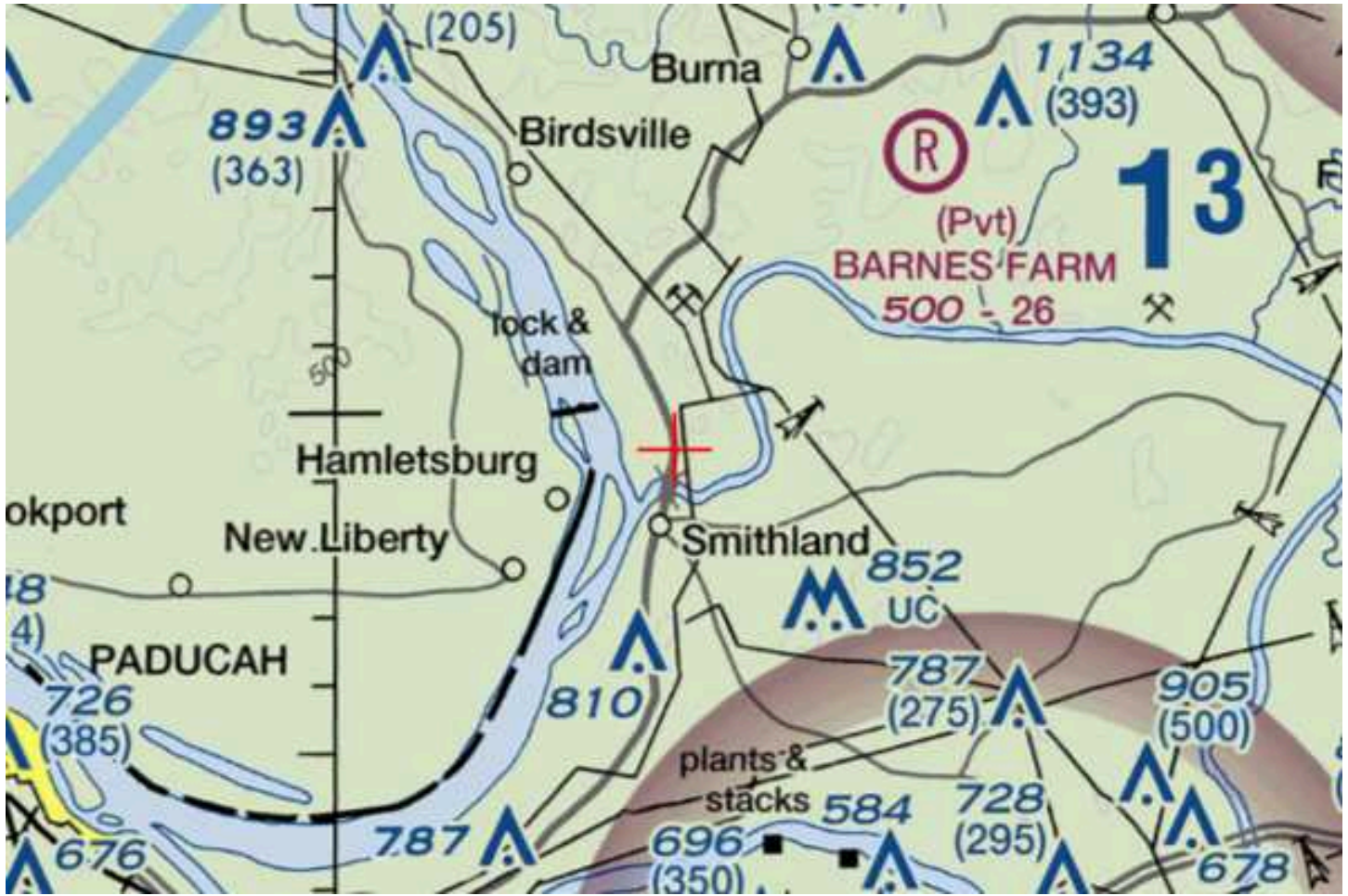


EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION



KENTUCKY AIRPORT ZONING COMMISSION

ANDY BESHEAR
Governor

Department of Aviation, 90 Airport Road
Frankfort, KY 40601
www.transportation.ky.gov
502-564-0151

JIM GRAY
Secretary

APPROVAL OF APPLICATION

Tuesday, August 27, 2024

Jonathan Greene
86001 Six Forks Road. Suite 250
Raleigh, NC 27615

AS-2024-073-M34 **KY Dam State Park Airport**
APPLICANTS NAME: APC Towers, Jonathan Greene
NEAREST CITY: Smithland, KY
LATITUDE/LONGITUDE: 37°09'27.01" N, 88°23'45.38" W
HEIGHT (In Feet): 255' AGL /602' AMSL
CONSTRUCTION PROPOSED: Telecommunications Tower

NOTES: The tower location is approximately 9.9 nm N of M34 and exceeds 200 ft AGL. It penetrates no protected air surfaces.

FAA DETERMINATION: 2024-ASO-12786-OE. No Hazard to Air Navigation. Marking and Lighting required IAW FAA AC 70/7460-1 M, med-dual system – Chapter 4,8(M-Dual)&15.

This letter is to notify you that the Kentucky Airport Zoning Commission approved your permit application for the construction of Structures at the Location, Coordinates, and Height as indicated above. Construction must comply with requirements, if any, listed in the FAA Determination.

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.

An email of this letter was also sent to your representative, Jonathan Greene, at jgreene@apctowers.com. If you have any questions, please contact us.

Respectfully,

Anthony Adams

Airport Zoning Commission Administrator
KY Department of Aviation
502-564-0151 Office
AirportZoning@ky.gov

EXHIBIT G
GEOTECHNICAL REPORT



DELTA OAKS GROUP

GEOTECHNICAL INVESTIGATION REPORT

October 2, 2024

Prepared For:

APC Towers



EV Smithland North

KY-1789

Proposed 250-Foot Guyed Tower

Brumitte Road, Smithland (Livingston County), Kentucky 42081

Latitude N 37° 09' 27.01" Longitude W 88° 23' 45.38"

Delta Oaks Group Project GEO24-22236-08

Revision 1

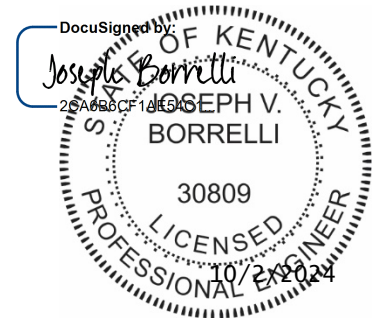
geotech@deltaoaksgroup.com

Performed By:

Sarah C. Russek, P.E.

Reviewed By:

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





DELTA OAKS GROUP

INTRODUCTION

This geotechnical investigation report has been completed for the proposed 250-foot, single ring, guyed tower located at Brumitte Road in Smithland (Livingston 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 an agricultural field exhibiting a generally flat topography across the tower compound and subject property.

REFERENCES

- Lease Exhibit, provided by APC Towers, dated March 14, 2024
- TIA Standard (TIA-222-H), dated October 2017

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 near the proposed tower mast and guy anchors locations. 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.



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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

Fill material was not encountered during the subsurface field investigation.

SOIL

The residual soil encountered in the subsurface field investigation began at the existing ground surface in the borings and consisted of lean clay, sandy silt, sandy lean clay, and poorly graded sand with silt. The materials ranged from a very loose to medium dense relative density and a medium stiff to very stiff consistency.

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

ROCK

Rock was not encountered during the subsurface field investigation.

SUBSURFACE WATER

The driller indicated that at the time of drilling subsurface water was encountered at an approximate depth of 10.0 to 11.0 feet bgs in the borings. The driller did not take groundwater measurements at the end of drilling. A groundwater depth of 10.0 feet bgs was used for analysis purposes in this report. 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 Livingston County, Kentucky is 20 inches (1.7 feet).

CORROSIVITY

Soil resistivity was performed in accordance with ASTM G187 with a test result of 4,820 ohms-cm for the tower base.



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FOUNDATION DESIGN SUMMARY

In consideration of the provided tower parameters and the determined soil characteristics, Delta Oaks Group recommends utilizing a shallow foundation or drilled shaft foundation for the proposed tower mast structure and concrete blocks 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)
B-1	0.0 - 3.0	CL	115	0	600
	3.0 - 6.0	ML	110	0	500
	6.0 - 9.5	CL	110	0	400
	9.5 - 13.0	SP-SM	115 / 53	31	0
	13.0 - 18.0	SP-SM	100 / 38	29	0
	18.0 - 20.0	SP-SM	110 / 48	30	0

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-2	0.0 - 3.0	CL	110	0	500
	3.0 - 6.0	CL	120	0	800
	6.0 - 9.5	CL	110	0	500
	9.5 - 13.0	SP-SM	115 / 53	32	0
	13.0 - 18.0	SP-SM	115 / 53	30	0
	18.0 - 20.0	CL	110 / 48	0	400

Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-3	0.0 - 3.0	CL	115	0	600
	3.0 - 6.0	CL	120	0	800
	6.0 - 9.0	CL	120	0	2,500
	9.0 - 18.0	SP-SM	115 / 53	31	0
	18.0 - 20.0	SP-SM	100 / 38	28	0



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Boring	Depth (bgs)	USCS	Moist/Buoyant Unit Weight (pcf)	Phi Angle (degrees)	Cohesion (psf)
B-4	0.0 - 3.0	CL	115	0	700
	3.0 - 6.0	CL	120	0	1,100
	6.0 - 9.0	CL	120	0	1,300
	9.0 - 13.0	SP-SM	115 / 53	31	0
	13.0 - 18.0	SP-SM	115 / 53	32	0
	18.0 - 20.0	SP-SM	120 / 58	33	0

- The buoyant unit weight of soil should be utilized below a depth of 10.0 feet bgs.
- 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.



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SUBSURFACE STRENGTH PARAMETERS – SHALLOW TOWER FOUNDATION

Boring	Dimensions (feet)	Depth (feet bgs)	Net Ultimate Bearing Capacity (psf)
B-1	5.0 x 5.0	3.0	3,450
		4.0	3,580
		5.0	2,860
		6.0	3,060
	10.0 x 10.0	3.0	3,270
		4.0	2,860
		5.0	2,660
		6.0	2,760
	15.0 x 15.0	3.0	2,860
		4.0	2,730
		5.0	2,600
		6.0	2,660
	20.0 x 20.0	3.0	2,760
		4.0	2,660
		5.0	2,560
		6.0	2,620
	25.0 x 25.0	3.0	2,700
		4.0	2,620
		5.0	2,540
		6.0	2,590

- Delta Oaks Group recommends the foundation bear a minimum of 3.0 feet bgs.
- A sliding friction factor of 0.35 can be utilized along the base of the proposed tower mast foundation.
- Ultimate Passive Pressure Tables, for the tower mast and guy anchors, with a reduction due to frost penetration to a depth of 1.7 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.



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ULTIMATE PASSIVE PRESSURE VS. DEPTH - TOWER FOUNDATION

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	115	0	600	0.00	1.00	600.00
Bottom	1.7	115	0	600	195.50	1.00	697.75
Top	1.7	115	0	600	195.50	1.00	1395.50
Bottom	3.0	115	0	600	345.00	1.00	1545.00
Top	3.0	110	0	500	345.00	1.00	1345.00
Bottom	6.0	110	0	500	675.00	1.00	1675.00
Top	6.0	110	0	400	675.00	1.00	1475.00
Bottom	9.5	110	0	400	1060.00	1.00	1860.00
Top	9.5	115	31	0	1060.00	3.12	3311.48
Bottom	10.0	115	31	0	1117.50	3.12	3491.11

ULTIMATE PASSIVE PRESSURE VS. DEPTH - NORTHERN GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	110	0	500	0.00	1.00	500.00
Bottom	1.7	110	0	500	187.00	1.00	593.50
Top	1.7	110	0	500	187.00	1.00	1187.00
Bottom	3.0	110	0	500	330.00	1.00	1330.00
Top	3.0	120	0	800	330.00	1.00	1930.00
Bottom	6.0	120	0	800	690.00	1.00	2290.00
Top	6.0	110	0	500	690.00	1.00	1690.00
Bottom	9.5	110	0	500	1075.00	1.00	2075.00
Top	9.5	115	32	0	1075.00	3.25	3498.68
Bottom	10.0	115	32	0	1132.50	3.25	3685.82



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ULTIMATE PASSIVE PRESSURE VS. DEPTH – SOUTHEASTERN GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	115	0	600	0.00	1.00	600.00
Bottom	1.7	115	0	600	195.50	1.00	697.75
Top	1.7	115	0	600	195.50	1.00	1395.50
Bottom	3.0	115	0	600	345.00	1.00	1545.00
Top	3.0	120	0	800	345.00	1.00	1945.00
Bottom	6.0	120	0	800	705.00	1.00	2305.00
Top	6.0	120	0	2,500	705.00	1.00	5705.00
Bottom	9.0	120	0	2,500	1065.00	1.00	6065.00
Top	9.0	115	31	0	1065.00	3.12	3327.10
Bottom	10.0	115	31	0	1180.00	3.12	3686.36

ULTIMATE PASSIVE PRESSURE VS. DEPTH – SOUTHWESTERN GUY ANCHOR

Soil Layers (feet)		Moist Unit Weight	Phi Angle	Cohesion	PV	KP	Ph
Top	0.0	115	0	700	0.00	1.00	700.00
Bottom	1.7	115	0	700	195.50	1.00	797.75
Top	1.7	115	0	700	195.50	1.00	1595.50
Bottom	3.0	115	0	700	345.00	1.00	1745.00
Top	3.0	120	0	1,100	345.00	1.00	2545.00
Bottom	6.0	120	0	1,100	705.00	1.00	2905.00
Top	6.0	120	0	1,300	705.00	1.00	3305.00
Bottom	9.0	120	0	1,300	1065.00	1.00	3665.00
Top	9.0	115	31	0	1065.00	3.12	3327.10
Bottom	10.0	115	31	0	1180.00	3.12	3686.36



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SEISMIC DESIGN CONSIDERATIONS

Period (seconds)	Site Coefficients	Mapped Spectral Acceleration Parameters	Adjusted Spectral Acceleration Parameters	Design Spectral Acceleration Parameters
0.2	1.3 (F _a)	S _s = 0.823	S _{ms} = 1.069	S _{Ds} = 0.713
1.0	N/A (F _v)	S ₁ = 0.282	S _{m1} = N/A	S _{D1} = N/A

*Ground motion hazard analysis may be required.

- The site soils should be characterized as Seismic Site Class E
- Design considerations are based on the 2018 International Building Code and the subgrade conditions encountered during this investigation.



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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.



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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.



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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 APC Towers. 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.



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APPENDIX



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BORING PLAN





PROJECT NAME EV Smithland North (KY-1789)

CLIENT APC Towers

PROJECT NUMBER GEO24-22236-08

Boring No.: B-3

PROJECT LOCATION Smithland, Kentucky

DATE DRILLED : 7/8/2024

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION :

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

▽ **AT TIME OF DRILLING :** --- Not measured

▼ **AT END OF DRILLING :** --- Not measured

▼ **AFTER DRILLING :** --- Not measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE	▲ SPT N VALUE ▲													
									10	20	30	40	50	60	70	80	90					
0	Medium stiff, gray, tan, brown, LEAN CLAY (CL), trace sand, moist	[Hatched pattern]	CL		3	2	4	6														
5	-- Very stiff								2	4	4	8										
10	Medium dense, tan, fine to medium grained, POORLY GRADED SAND with silt (SP-SM), moist								[Dotted pattern]	SP-SM		5	7	7	14							
15	-- Brown, tan, gray	6	8	5	13																	
20	-- Very loose, with clay seam	2	2	1	3																	
Bottom of borehole at 20.0 feet.																						



PROJECT NAME EV Smithland North (KY-1789)

CLIENT APC Towers

PROJECT NUMBER GEO24-22236-08

Boring No.: B-4

PROJECT LOCATION Smithland, Kentucky

DATE DRILLED : 7/8/2024

DRILLING METHOD : Hollow Stem Auger

GROUND ELEVATION :

BORING DEPTH (ft) : 20

GROUND WATER LEVELS:

▽ **AT TIME OF DRILLING :** --- Not measured

▼ **AT END OF DRILLING :** --- Not measured

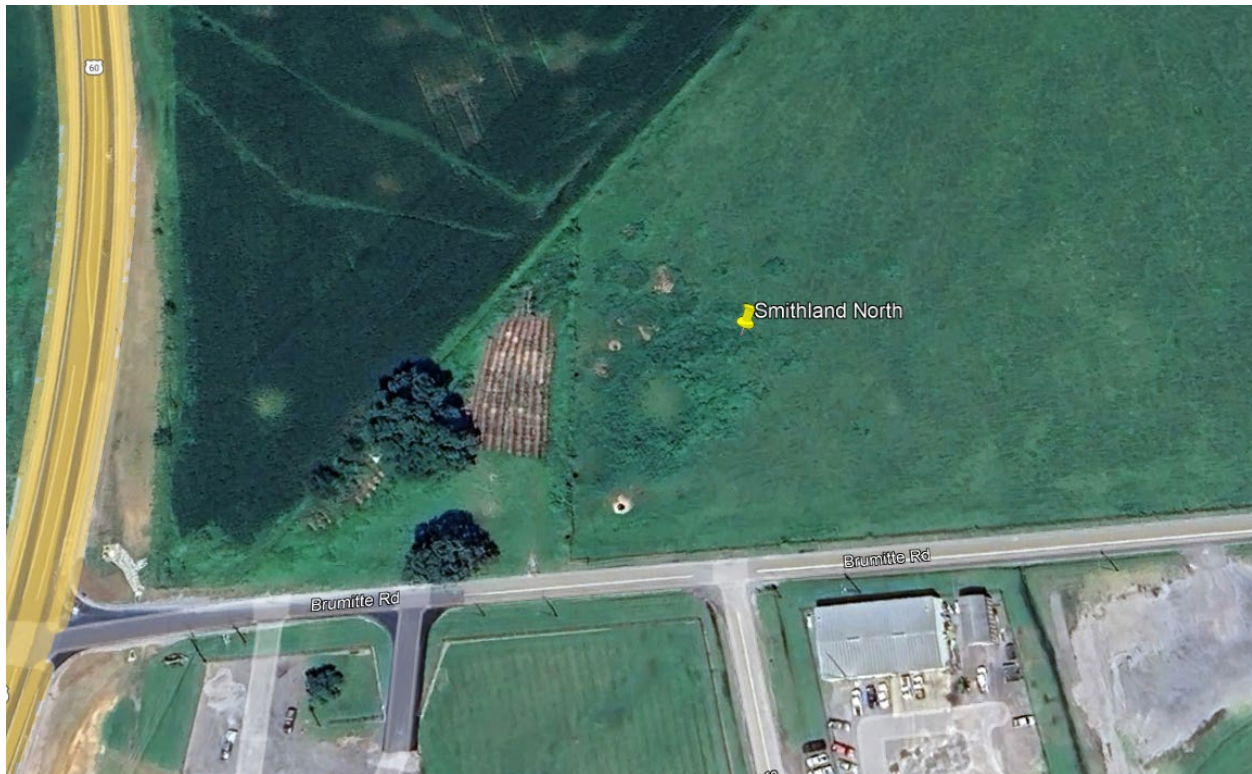
▼ **AFTER DRILLING :** --- Not measured

DEPTH (ft)	MATERIAL DESCRIPTION	SAMPLE TYPE	MATERIAL CLASSIFICATION	Pocket Penetrometer (tsf)	BLOWS 1st	BLOWS 2nd	BLOWS 3rd	N VALUE	▲ SPT N VALUE ▲									
									10	20	30	40	50	60	70	80	90	
0	Medium stiff, tan, gray, brown, LEAN CLAY (CL), trace sand, moist	[Hatched pattern]	CL		3	3	4	7										
	-- Stiff																	
5	-- Trace mica								3	4	7	11						
		[Dotted pattern]	SP-SM		2	6	7	13										
10	Medium dense, tan, fine to medium grained, POORLY GRADED SAND with silt (SP-SM), with clay seam, moist																	
	-- Wet								2	6	8	14						
15		[Dotted pattern]			3	7	9	16										
	-- With clay seam																	
20	Bottom of borehole at 20.0 feet.				7	10	10	20										

**EXHIBIT H
DIRECTIONS TO WCF SITE**

Driving Directions to Proposed Tower Site

1. Beginning at 321 Court Street, Smithland, KY, head northwest on Court Street and travel approximately 282 feet.
2. Turn right onto US-60 E / E Adair Street and travel approximately 1.3 miles.
3. Turn right onto Brumitte Road and travel approximately 0.1 miles.
4. The site is on the left.
5. The site coordinates are
 - a. North 37 deg 09 min 27.01 sec
 - b. West 88 deg 23 min 45.38 sec



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EXHIBIT I
COPY OF REAL ESTATE AGREEMENT

OPTION AND GROUND LEASE AGREEMENT

THIS OPTION AND GROUND LEASE AGREEMENT ("*Agreement*") is made and entered into as of the latter signature date hereto (the "*Effective Date*"), by and between NANCY K. "KAITE" CHAMPION, with a mailing address of 985 US Highway 60 E, Smithland, Kentucky 42081 ("*Lessor*"); and APC TOWERS IV, LLC, a Delaware limited liability company, with a mailing address of 8601 Six Forks Road, Suite 250, Raleigh, North Carolina 27615 ("*Lessee*").

RECITALS

WHEREAS, Lessor is the owner of that certain parcel of land located at 985 US Highway 60 E, Smithland, Kentucky 42081, also known as parcel number 043-00-00-002.00, as more specifically described on Exhibit A hereto (the "*Property*"); and

WHEREAS, Lessor desires to grant to Lessee, and Lessee desires to obtain from Lessor an option to lease from Lessor a portion of the Property comprised of approximately 100' x 100' (10,000 square feet) of ground space (the "*Premises*"), together with an access easement for ingress and egress and the installation and maintenance of utilities (the easements collectively referred to as the "*Easements*") both being approximately located as shown on Exhibit B (the Premises and the Easements are collectively referred to herein as the "*Site*"), for the purpose of establishing and maintaining a communications facility for Lessee's use and that of its subtenants, licensees and customers.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises, the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Lessor and Lessee agree as follows.

1. Option to Lease.

- (a) In consideration of the payment of [REDACTED] (the "*Option Fee*") by Lessee to Lessor, Lessor hereby grants to Lessee an exclusive and irrevocable option to lease the Premises and use the Easements on the terms and conditions set forth herein below (the "*Option*"). The Option has a term of twelve (12) months, commencing on the Effective Date and ending as of midnight on the date before the first anniversary of such date (the "*Option Period*"). Lessee has the right to extend the Option for two (2) additional terms of twelve (12) months (the "*Extended Option Period*"). The Option will automatically be extended for the Extended Option Period unless Lessee provides Lessor with written notice of Lessee's intent not to extend the Option at least ninety (90) days prior to the expiration of the Option Period or the Extended Option Period, as applicable. Lessee will pay Lessor an additional payment (the "*Additional Option Fee*") of [REDACTED] within thirty (30) days of the commencement of the Extended Option Period. The Additional Option Fees paid by Lessee will be credited in full against the Rent payable to Lessor if the Option is exercised by Lessee.
- (b) During the Option Period, the Extended Option Period and the Term, Lessor agrees to cooperate with Lessee in obtaining, at Lessee's expense but for no additional consideration payable to Lessor, all licenses and permits or authorizations required for Lessee's use of the Site from all applicable government and/or regulatory entities (the "*Government Approvals*"). Lessor hereby irrevocably appoints Lessee or Lessee's agent as Lessor's agent to file applications on behalf of Lessor with federal, state and local governmental authorities which applications relate to Lessee's use of the Site, including but not limited to land use and zoning applications. During the Option Period, Extended Option Period and the Term, Lessor agrees to cooperate with Lessee, at no cost to Lessor but for no additional

consideration payable to Lessor, to obtain a title report, zoning approvals and variances, conditional-use permits and perform surveys, soils tests, perform RF engineering studies and other engineering procedures or environmental investigations on, under and over the Property, necessary to determine whether Lessee's use of the Site will be compatible with the Lessee's engineering specifications, intended use, system design, operations and Government Approvals. During the Option Period, Extended Option Period and the Term, Lessor agrees to provide Lessee, at no cost to Lessor but for no additional consideration payable to Lessor, with any documents, materials or other instruments required or requested for Lessee to secure a title policy for the Site, which may include, among others, and each as applicable, the following: (i) a certified copy of the formation documents of Lessor and all amendments thereto from the state in which Lessor is organized; (ii) a certificate of good standing for the Lessor issued by the state where the Lessor is organized, not dated later than five (5) business days from the date requested by Lessee; (iii) a true and complete copy of the names of any shareholders, members or partners of the Lessor; (iv) true and complete copy of any operating agreement, partnership agreement, bylaws or similar document and all amendments thereto together certified as accurate and complete by an officer, director, partner, member or manager of Lessor; (v) a copy of the authorizing resolutions or consent of Lessor's governing body authorizing Lessor to enter into, comply with and perform under this Agreement; and (vi) such other documents that may be reasonably required or requested. Lessor's provision of the foregoing documents, materials or other instruments required for Lessee to secure a title policy for the Site shall be a prerequisite for the payment of any Rent or other monetary amounts payable by Lessee under this Agreement, and notwithstanding anything to the contrary herein and in addition to Lessee's rights and remedies otherwise provided in this Agreement, Lessee shall have no obligation to make any rental or other payments to Lessor until such items have been supplied to Lessee to the reasonable satisfaction of Lessee and Lessee's title insurer.

- (c) During the Option Period and any Extended Option Period, Lessee may exercise the Option by written notice to Lessor.

2. **Premises.** Subject to the terms and conditions of this Agreement, upon Lessee's exercise of the Option Lessor hereby leases to Lessee and Lessee hereby leases from Lessor the Premises together with the use of the Easements for the construction, modification, operation and maintenance of the Telecommunications Facilities (as defined in Section 7(a)).

3. **Permitted Use.** The Site may be used by Lessee for the construction, modification, operation, maintenance, repair, replacement and removal of the Telecommunications Facilities (the "**Permitted Use**"). Lessor may not commit any action or omission that would adversely affect the status of the Site with respect to the Permitted Use.

4. **Term.** The initial term of this Agreement ("**Initial Term**") is five (5) years, beginning on the date Lessee exercises the Option ("**Commencement Date**"), and expiring at midnight on the day prior to the fifth (5th) anniversary of the Commencement Date. Lessee has the right to extend the term of Agreement for nine (9) additional five (5)-year terms (each a "**Renewal Term**"). Each Renewal Term will be on the same terms and conditions set forth in this Agreement. This Agreement will automatically renew for each successive Renewal Term unless Lessee notifies Lessor in writing of Lessee's intention not to renew the Term at least thirty (30) days prior to the expiration of the then current Term. The Initial Term and Renewal Terms are collectively referred to herein as the "**Term**".

5. **Rent.**

- (a) Lessee shall pay Lessor an initial monthly rent of [REDACTED] ("**Rent**"). The Rent is due and payable in advance on the first day of each month during the Term commencing as of the Rent Commencement Date. The "**Rent Commencement Date**" is the earlier of

(i) the date of issuance of a certificate of completion (or comparable certificate) from the applicable governmental authority for the Telecommunications Facilities or (ii) ninety (90) days from the Commencement Date. Rent will be prorated for any partial months, including the months in which the Rent Commencement Date and the expiration or termination of the Term occur. As a condition precedent to Lessee's obligation to remit any payments provided for under this Agreement, Lessor (as well as any successor to Lessor's interest in this Agreement or to such payments) agrees to provide Lessee with a completed IRS Form W-9 upon execution of this Agreement and at such other times as may be reasonably requested by Lessee, including any change in Lessor's name or address. If Lessee elects to remit payments payable under this Agreement by electronic funds transfer, Lessor agrees to provide to Lessee bank routing information for such purpose upon request of Lessee.

- (b) The Rent will increase annually as of each anniversary of the Commencement Date, by an amount equal to [REDACTED] of the Rent in effect immediately prior to the increase.
- (c) Within thirty (30) days of the Commencement Date, Lessee shall pay Lessor a one-time lump sum payment in the sum of [REDACTED] as a Lease Commencement Bonus.

6. Interference. Lessor may not use, nor may Lessor permit its tenants, licensees, employees, invitees or agents to use any portion of the Property in any way that interferes with Lessee's Permitted Use of the Site. Such interference will be a material breach of this Agreement by Lessor and Lessor shall have the responsibility to terminate the interference immediately upon written notice from Lessee. Anything to the contrary in this Agreement notwithstanding, the cure periods provided for in Section 10 will not be applicable to failure by Lessor to fulfill its obligations under this Section 6. If any interference does not cease or is not rectified as soon as possible, but in no event longer than twenty-four (24) hours after Lessee's written notice to Lessor, Lessor acknowledges that the continuing interference will cause irreparable injury to Lessee, as well as Lessee's sublessees and licensees, and Lessee has the right, in addition to any other rights that it may have at law or in equity, to bring action to enjoin such interference or to terminate this Lease immediately upon notice to Lessor. Lessor represents and warrants that it has not sold, leased, licensed or otherwise granted rights in the Property that in any way interfere or could reasonably be likely to interfere with Lessee's rights to use Site for the Permitted Use.

7. Construction of Improvements.

- (a) Lessee may, from time to time during the Term, at its expense, construct, install, operate, maintain, replace, add to, upgrade and remove its (as well as its subtenants, licensees and customers) radio transmitting and receiving antennae, communications equipment, related cables, wires, conduits, air conditioning equipment and other appurtenances, as well as a tower(s) and building(s) or cabinets to house such equipment (collectively, the "*Telecommunications Facilities*"). Although the Telecommunications Facilities may become fixtures under applicable law, they will remain solely the property of Lessee and Lessee's subtenants, licensees and customers, and Lessee (and its subtenants, licensees and customers) has the right to remove any or all of them from time to time during the Term and at the expiration or earlier termination of the Term. If the tower to be constructed by Lessee on the Premises is a guyed tower, Lessor also grants Lessee easements in, over, across and through the Property or any other real property owned by Lessor as may be necessary to Tenant during the Initial Term and any Renewal Terms of this Agreement for the installation and maintenance and removal of and reasonable access to guy wires and guy wire anchors, which may be located outside of the Site.
- (b) The Telecommunications Facilities shall be initially configured as generally set forth in Exhibit C, subject to change by Lessee consistent with Section 7(a).

- (c) Lessee is solely responsible for operations, maintenance, repair and insuring of the equipment owned, constructed and installed by Lessee on the Premises.
- (d) Lessor hereby grants Lessee a non-exclusive, unimpaired landscape easement which includes the right to install vegetation and screening around the exterior of the perimeter of the Premises as necessary to meet the applicable landscaping and buffering requirements of applicable land use laws, rules and regulations, if and when such placement should ever be required (the "**Landscape Easement**").
- (e) Lessee, at its sole discretion, may, without any need to obtain the consent of Lessor, license or sublease all or a portion of the Site and/or the Telecommunications Facilities.

8. Access. During the Term, ingress and egress to the Premises is hereby granted by Lessor to Lessee and its subtenants, licensees and customers, and each of such party's agents, contractors and subcontractors, on a 24-hour a day, 365 days per year basis. This ingress and egress shall include the nonexclusive right to and from the Premises, over and across the Property and an access way from nearby public streets and driveways and parking rights for personnel and equipment. Lessee also has a nonexclusive right of way over and across the Property as necessary for the installation, running, servicing and maintenance of electrical power and other utilities necessary to serve the Telecommunications Facilities.

9. Utilities.

- (a) Lessee has the right to install utilities (including without limitation communications services and power) at Lessee's expense, and to improve the present utilities, if any, on the Premises. Lessee shall, wherever practical, install separate meters for utilities used on the Premises.
- (b) Lessee may utilize the Easements for ingress, egress, and access to the Premises as may be required for the construction, installation and maintenance by the appropriate utility companies for the purpose of servicing the Telecommunications Facilities. In addition to Lessee and its sublessees and licensees, Lessee may grant the right to utilize the Easements to any utility servicing the Site. Lessor agrees to execute, at no cost to Lessee a utility easement between Lessor and any such utility provider, if reasonably necessary.

10. Default. Any breach of a material term hereof that is not cured within thirty (30) days from receipt of written notice from the non-breaching party shall constitute a "**Default**"; provided, however, that if efforts to cure such breach are commenced within said 30-day period and thereafter diligently prosecuted to completion, such period shall be extended for a period of time not to exceed six (6) months. The foregoing notwithstanding, any monetary breach not cured within fifteen (15) days from receipt of written notice thereof from the other party shall constitute a Default by the breaching party.

11. Termination.

- (a) In addition to other termination rights contained in this Agreement, this Agreement may be terminated upon written notice from the non-breaching party to the breaching party upon a Default and as otherwise provided in this section.
- (b) Lessee may terminate this Agreement upon written notice to Lessor if Lessee determines, in Lessee's sole discretion, that the results of any studies, reports, and/or applications for Governmental Approvals contemplated under Section 1(b) of this Agreement are unacceptable.

- (c) Lessee may terminate this Agreement upon thirty (30) days prior written notice to Lessor, if (i) Lessee determines that the Premises are technologically unsuitable, in Lessee's reasonable opinion, for the operation of the Telecommunications Facilities, including but not limited to unacceptable radio signal interference and any addition, alteration or new construction on, adjacent to or in the vicinity of the Premises or the Property that blocks, either partially or totally, transmission or receiving paths used by any of the Telecommunications Facilities; (ii) any Governmental Approval that Lessee reasonably deems necessary or convenient for the construction, operation, maintenance, reconstruction, modification, addition to or removal of the Telecommunications Facilities is not, in Lessee's sole discretion, reasonably obtainable or maintainable in the future; (iii) Lessee determines, in Lessee's commercially reasonable judgment, that that the Premises cease to be economically viable as a telecommunications site; or (iv) Hazardous Substances (as defined in Section 14) are or become present on the Property in violation of Environmental Laws (as defined in Section 14).

12. Condemnation. If all or any part of the Premises or any portion of the Easements, or any roadway to the Premises is taken by eminent domain or other action by any governmental or quasi-governmental body having the legal right to take said lands, and if said taking in the sole discretion of Lessee renders the Premises unsuitable for its intended purpose, then at Lessee's option, Lessee may terminate this Agreement as of the date the title vests in the condemning authority. Lessor and Lessee will share in the condemnation proceeds in proportion to the values of their respective interests in the Site (which for Lessee includes, where applicable, the value of the Telecommunication Facilities, moving expenses, prepaid rent and business dislocation expenses). If Lessee does not terminate this Agreement as provided in this section, this Agreement shall remain in effect, but the Rent shall be reduced by the amount that bears the same proportion to the Rent immediately prior to the partial taking which was applicable to the Premises immediately prior to such taking and thereafter the "Premises" will be deemed to be the remaining portion of the initial Premises.

13. Indemnification.

- (a) Lessor, its heirs, grantees, successors, and assigns shall indemnify and defend Lessee from and against any claims, obligations, liabilities, costs, demands, damages, expenses, suits or causes of action, including costs and reasonable attorney's fees, which may arise out of (i) any injury to or death of any person; or (ii) any damage to property, if such injury, death or damage arises out of or is attributable to or results from the acts or omissions of Lessor, or Lessor's principals, employees, invitees, agents or independent contractors. Lessee, its grantees, successors, and assigns shall indemnify and defend Lessor from and against any claims, obligations, liabilities, costs, demands, damages, expenses, suits or causes of action, including costs and reasonable attorney's fees, which may arise out of (i) any injury to or death of any person; or (ii) any damage to property, if such injury, death or damage arises out of or is attributable to or results from the negligent acts or omissions of Lessee, or Lessee's employees, agents or independent contractors.
- (b) If either party is entitled to indemnification and defense ("**Indemnified Party**") from the other party ("**Indemnifying Party**") pursuant to this Agreement, the Indemnified Party shall notify the Indemnifying Party promptly, in writing, of any claims by any person for which the Indemnified Party alleges that the Indemnifying Party is responsible hereunder and tender the defense of such claim to the Indemnifying Party. The Indemnified Party shall fully cooperate with the defense or settlement of such claim. The Indemnifying Party shall not be liable under this Agreement for settlements by the Indemnified Party of any claim unless the Indemnifying Party has approved the settlement in advance (such approval not to be unreasonably withheld, conditioned or delayed) or unless the defense of the claim has been tendered to the Indemnifying Party, in writing, and the Indemnifying Party has failed promptly to undertake the defense. This Section 13 shall survive the termination or expiration of this Agreement.

14. Hazardous Substances. Lessor represents and warrants to Lessee that Lessor: (i) is not presently engaged in, (ii) does not presently have actual knowledge of, (iii) has not at any time in the past engaged in, and (iv) has no actual knowledge that any third person or entity has engaged in or permitted any operations or activities upon, or any use or occupancy of, the Premises, or any portion of the Property, for the purpose of, or in any way involving the handling, manufacturing, treatment, storage, use, transportation, spillage, leakage, dumping, discharge or disposal (whether legal or illegal), accidental or intentional, of any hazardous substances, materials or wastes ("**Hazardous Substances**") regulated under any local, state, or federal law pertaining to the environment, public health or safety or the handling, manufacturing, treatment storage, use, transportation, spillage, leakage, dumping, discharge or disposal of Hazardous Substances ("**Environmental Laws**"). Lessor indemnifies and defends Lessee from and against any and all claims of liability under any Environmental Laws for Hazardous Substances which were handled, manufactured, treated, stored, used, transported, spilled, leaked, dumped, discharged, disposed of or otherwise introduced into the Property, except for claims arising in whole or in any part out of Lessee's use or occupancy of the Premises. The indemnity obligations contained in this Section 14 shall survive the termination or expiration of this Agreement.

15. Insurance. Lessee will carry during the term of the Agreement the following insurance with customary coverage and exclusions: (i) bodily injury: [REDACTED] for injury to any one person and [REDACTED] for all injuries sustained by more than one person in any one occurrence; and (ii) property damage: full replacement costs of Lessee's property. Lessee agrees to furnish Lessor with certificates of insurance certifying that Lessee has in force and effect the above specified insurance. Lessee shall have Lessor named as additional insured on all policies obtained or maintained by Lessee pursuant to this Section 15, except for workers' compensation policies. Lessor and Lessee mutually covenant and agree that each party, in connection with insurance policies required to be furnished in accordance with the terms of this Agreement, or in connection with insurance policies which they obtain insuring such insurable interest as Lessor or Lessee may have in its own properties, whether personal or real, shall expressly waive any right of subrogation on the part of the insurer against the Lessor or Lessee as the same may be applicable, which right to the extent not prohibited or violative of any such policy is hereby expressly waived. Lessor and Lessee each agree to seek recovery based solely on insurance policies as set forth above, provided such policies are in effect, and each mutually waive all right of recovery against each other, their agents, or employees for any loss, damage or injury of any nature whatsoever to property or person except to the extent either party is required by this Agreement to carry insurance.

16. Taxes. Lessee shall pay any personal property taxes assessed on or attributable to the Telecommunications Facilities. Lessor shall pay when due all real property taxes and all other fees and assessments attributable to the Property, Premises and Easements. Lessee will pay to Lessor within thirty (30) days from Lessor's request, any increase in Lessor's real property taxes which Lessor demonstrates, to Lessee's satisfaction, is directly and solely attributable to any improvements to the Site made by Lessee. If Lessor fails to pay when due any taxes affecting the Property or the Site, Lessee shall have the right, but not the obligation, to pay such taxes and (i) deduct the full amount of the taxes paid by Lessee on Lessor's behalf from future installments of Rent, or (ii) collect such taxes by any lawful means.

17. Quiet Enjoyment, Title and Authority.

- (a) During the Term, Lessee may peaceably and quietly hold and enjoy the Premises, free from disturbance from any person claiming by, through or under Lessor, subject only to those matters of title of record as of the Effective Date.
- (b) Lessor covenants and warrants to Lessee that: (i) Lessor has full right, power and authority to execute this Agreement; (ii) Lessor has good and unencumbered title to the Property, free and clear of any liens or mortgages, except those disclosed to Lessee and of record as of the Effective Date, that will not interfere with Lessee's rights to or use of the Premises; (iii) the 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 Lessor.

- (c) Lessor agrees that, during the Option Period, Extended Option Period and the Term, Lessee will have the exclusive right to lease the Property or any portion thereof from the Lessor for the operation of antennae and telecommunications facilities providing transmission and receiving facilities for wireless providers and users, and that Lessor will not grant a lease, sublease, or other license or right to use any portion of the Property, or any other adjacent property owned by Lessor, to any other party for operation of antenna and/or telecommunications facilities.

18. Notices

- (a) All notices hereunder must be in writing and shall be deemed validly given if sent by hand delivery, a reputable national overnight courier service (such as FedEx or United Parcel Service), or by certified mail, postage prepaid, return receipt requested, to the address shown below (or to any other address that the party to be notified may designate from time to time by written notice to the other party).

If to Lessor to: Nancy K. "Kaite" Champion
985 US HWY 60 E
Smithland, Kentucky 42081
ATTENTION: Katie Champion
Ref. Site ID: KY-1789 EV Smithland North

Telephone: [REDACTED] *(included for information purposes only and not for notices)*
Email: [REDACTED] *(included for information purposes only; not for notices)*

If to Lessee to: APC Towers IV, LLC
8601 Six Forks Road, Suite 250
Raleigh, North Carolina 27615
Attention: Daniel C. Agresta III
Ref. Site ID: KY-1789 EV Smithland North

Telephone: [REDACTED] *(included for information purposes only and not for notices)*
Facsimile: [REDACTED] *(included for information purposes only; not for notices)*

- (b) If there is a change in ownership of the Property and Lessor's agreement is assigned to another party, then within ten (10) days of such transfer, Lessor or its successor will send copies of the documents listed below in this subsection (b) to Lessee. Until Lessee receives all such documents, Lessee shall not be responsible for any failure to make payments under this Agreement and 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. Current Tax Bill
- v. New IRS Form W-9
- vi. Full contact (information purposes only and not for notices) for new Lessor including phone number(s)

19. Estoppel, Non-Disturbance and Attornment.

- (a) Lessor will, from time to time, upon not less than ten (10) days prior written notice from Lessee, execute and deliver to Lessee a written estoppel certificate certifying that as of the date of the certification: (i) this Agreement is a valid enforceable agreement, presently in full force and effect; (ii) whether Lessor has any knowledge of any default or breach by Lessee under any of the terms, conditions, or covenants of this Agreement; (iii) the Term (its commencement and termination dates) and the term of any option or renewal periods granted to the Lessee to extend the Term; (iv) the amount of the then-current Rent payable under the Agreement; (v) attached to the certification is a true and correct copy of the Agreement and all amendments thereto, (vi) and such other facts as Lessee or its prospective mortgagee or purchaser may request.
- (b) Lessor shall obtain for Lessee from the holder of any mortgage and deed of trust now or hereafter encumbering the Property a subordination and non-disturbance agreement in the form attached hereto as **Exhibit E**, providing that so long as Lessee is not in default under this Agreement, its rights as Lessee hereunder shall not be terminated and its access to and possession of the Premises shall not be disturbed by the mortgagee or trustee, or by any proceedings on the debt which any such mortgage or deed of trust secures, and that any sale at foreclosure shall be subject to this Agreement.

20. Assignment. This Agreement is freely assignable by Lessee to any other party upon written notice to Lessor, without the necessity of obtaining Lessor's consent. Upon an assignment, Lessee shall be relieved of all liabilities and obligations arising under this Agreement subsequent to the date of such assignment. Lessee, at its sole discretion, may, without any need to obtain the consent of Lessor, license or sublease all or a portion of the Site and/or the Telecommunications Facilities. Additionally, Lessee may mortgage or grant a security interest in this Agreement and the Telecommunications Facilities and may assign this Agreement and the Telecommunications Facilities to any such mortgagees or holders of security interests including their successors and assigns (hereinafter collectively referred to as "**Secured Parties**"). If requested by Lessee, Lessor shall execute such consent to such financing as may reasonably be required by Secured Parties. In addition, if requested by Lessee, Lessor agrees to notify Lessee and Lessee's Secured Parties simultaneously of any default by Lessee and to give Secured Parties the same right to cure any default as Lessee. If a termination, disaffirmance or rejection of this Agreement by Lessee pursuant to any laws (including any bankruptcy or insolvency laws) occurs, or if Lessor shall terminate this Agreement for any reason, Lessor will give to Secured Parties prompt notice thereof and Secured Parties shall have the right to enter upon the Premises during a 30-day period commencing upon Secured Parties' receipt of such notice for the purpose of removing any Telecommunications Facilities. Lessor acknowledges that Secured Parties are third-party beneficiaries of this Agreement.

21. Limited Right of First Refusal. Notwithstanding anything to the contrary contained herein, this paragraph shall not apply to any fee simple sale of the Property from Lessor to any prospective purchaser that is not a Third-Party Competitor or to Lessee. A Third-Party Competitor as included in this Section is defined as a party that competes, owns, markets or distributes products within the telecommunications industry and is not an affiliate, licensee, or distributor of Lessee. If Lessor receives an offer or desires to offer to: (i) sell or convey any interest (including, but not limited to, leaseholds or easements) in any real property of which the Leased Premises is a part to a Third Party Competitor or (ii) assign all or any portion of Lessor's interest in the Lease to a Third Party Competitor (any such offer, the "Offer"), Lessee shall have the right of first refusal to purchase the real property or other interest being offered by Lessor in connection with the Offer on the same terms and conditions. If Lessee elects, in its sole and absolute discretion, to exercise its right of first refusal as provided herein, Lessee must provide Lessor with notice of its election not later than forty-five (45) days after Lessee receives written notice from Lessor of the Offer. If Lessee elects not to exercise Lessee's right of first refusal with respect to an Offer as provided herein, Lessor may complete the transaction contemplated in the Offer with the Third-Party Competitor on the stated terms and price but with the express condition that such sale is made subject to the terms of the Lease, as modified by this

Amendment. Lessor hereby acknowledges and agrees that any sale or conveyance by Lessor in violation of this Section is and shall be deemed to be null and void and of no force and effect. The terms, provisions, and conditions of this Section shall survive the execution and delivery of this Amendment.

22. Further Assurances. Each party shall take all such further actions and execute all such further documents and instruments as the parties may at any time reasonably determine to be necessary or desirable to carry out and consummate the transactions contemplated by this Agreement.

23. Waiver of Lessor's Lien. Lessor hereby waives any and all lien rights it may have, statutory or otherwise, in and to the Telecommunications Facilities or any portion thereof, regardless of whether or not same is deemed real or personal property under applicable laws.

24. Waiver of Damages. Neither Lessor nor Lessee shall be responsible or liable to the other party for any loss or damage arising from any claim to the extent attributable to any acts of vandalism or for any structural or power failures or destruction or damage to the Telecommunications Facilities except to the extent caused by the negligence or willful misconduct of such party. EXCEPT AS SPECIFICALLY PROVIDED IN THIS AGREEMENT, IN NO EVENT SHALL LESSOR OR LESSEE BE LIABLE TO THE OTHER FOR, AND LESSEE AND LESSOR EACH HEREBY WAIVE THE RIGHT TO RECOVER INCIDENTAL, CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF USE OR LOSS OF BUSINESS OPPORTUNITY), PUNITIVE, EXEMPLARY AND SIMILAR DAMAGES.

25. Miscellaneous.

- (a) This Agreement shall extend to and bind the heirs, executors, administrators, successors and assigns of the parties hereto.
- (b) This Agreement and the performance thereof shall be governed, interpreted, construed and regulated by the laws of the state or commonwealth in which the Site is located, without regard to its conflicts of laws principles.
- (c) For purposes of providing constructive notice hereof and if required by applicable law, Lessor and Lessee hereby agree to execute the Memorandum of Ground Lease Agreement (see form attached hereto as **Exhibit D**), and Lessee shall have the same recorded in the land records of the county and state in which the Premises is located. The cost of any such recording is to be paid for solely by the Lessee.
- (d) Any sale or other conveyance by the Lessor of all or part of the Site shall be under and subject to this Agreement and Lessee's rights hereunder.
- (e) It is hereby mutually agreed and understood that this Agreement contains all agreements, promises and understandings between the Lessor and the Lessee and that no verbal or oral agreements, promises, or understandings shall or will be binding upon either the Lessor or Lessee in any dispute, controversy of proceeding at law, or any addition to, variation, or modification of this Agreement shall be void and ineffective unless in writing signed by the parties hereto.
- (f) If either Lessor or Lessee is represented by a real estate broker in this transaction, that party is fully responsible for any fees due such broker and will hold the other party harmless from any claims for commission by such broker.

- (g) This Agreement may be executed in two or more counterparts, all of which are considered one and the same agreement and become effective when one or more counterparts have been signed by each of the parties, it being understood that all parties need not sign the same counterpart.
- (h) The parties agree that a scanned or electronically reproduced copy or image of this Agreement will be deemed an original and may be introduced or submitted in any action or proceeding as competent evidence of the execution, terms and existence hereof notwithstanding the failure or inability to produce or tender an original, executed counterpart of this Agreement and without the requirement that the unavailability of such original, executed counterpart of this Agreement first be proven.
- (i) In the event of any dispute arising hereunder or a default by Lessor or Lessee, and if litigation is commenced, the prevailing party shall be entitled to recover from the other party all costs and expenses incurred in connection with such litigation, including, but not limited to, reasonable attorneys' fees and costs.

26. Confidentiality. Lessor shall not disclose to any third party the Rent payable by Lessee under this Agreement and shall treat such information as confidential, except that Lessor may disclose such information to prospective buyers, prospective or existing lenders, Lessor's affiliates and attorneys, or as may be required by law or as may be necessary for the enforcement of Lessor's rights under this Agreement. Lessor acknowledges that the disclosure of such information to any other parties may cause Lessee irreparable harm, and in the event of such disclosure, as an additional remedy, Lessee shall have the right to terminate this Agreement upon giving thirty (30) days written notice thereof to Lessor.

(Signature Pages Follow)

IN WITNESS WHEREOF, the parties hereto have executed this OPTION AND GROUND LEASE AGREEMENT as of the dates written below.

LESSOR:

NANCY K. "KAITE" CHAMPION

By: Nancy K. "Kaite" Champion
Name: NANCY K. "KAITE" CHAMPION
Date: 4-23-24

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

LESSOR ACKNOWLEDGMENT

STATE OF Kentucky
COUNTY OF Livingston

On the 23rd day of April in the year 2024 before me, the undersigned, personally appeared Nancy K. "Kaite" Champion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

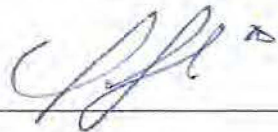
Sunnie Jo Edging, Notary Public
My Commission Expires: 2/17/26



LESSEE:

APC TOWERS IV, LLC,

a Delaware limited liability company

By: 

Name: Daniel C. Agresta III

Title: President and CEO

Date: 5/6/2024

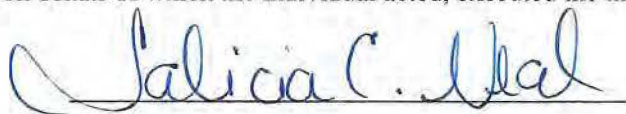
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

LESSEE ACKNOWLEDGMENT

STATE OF NORTH CAROLINA

COUNTY OF WAKE

On the 6th day of May in the year 2024 before me, the undersigned, personally appeared Daniel C. Agresta III, President & CEO of APC Towers IV, LLC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



Talicia C. Neal, Notary Public

My Commission Expires: April 12, 2028.



**EXHIBIT J
NOTIFICATION LIST
PVA RECORDS
PROOF OF NOTICE**

Smithland North – Notice List

Champion Nancy K (Katie)
985 US Hwy 60 East
Smithland, KY 42081

Reed David W
PO Box 67
Gilbertsville, KY 42044

Viking Farms LLC
5681 Old Mystic Court
Jupiter, FL 33458

Liv Co Fiscal Court
321 Court Street
Smithland, KY 42081

Liv Co Fiscal Court
P.O. Box 70
Smithland, KY 42081

Commonwealth of KY
KY Transportation Cabinet
Dept of Hwys
Frankfort, KY

Livingston County, KY PVA

Summary

Parcel Number 043-00-00-002.00
Account Number 11446
Location Address BRUMMITTE RD 0
Description FARM ON CUMBERLAND RIVER
(Note: Not to be used on legal documents)
Class Farm
Tax District 01 County

[View Map](#)

Owner

Primary Owner
[CHAMPION NANCY K \(KATIE\)](#)
 985 U S HWY 60 EAST
 SMITHLAND, KY 42081

Land Characteristics

Condition		Topography	
Plat Book/Page		Drainage	
Subdivision		Flood Hazard	None
Lot		Zoning	
Block		Electric	No
Acres	143.00	Water	No
Front	0	Gas	No
Depth	0	Sewer	No
Lot Size	0x0	Road	Secondary
Lot Sq Ft	0	Sidewalks	No
Shape		Information Source	

Sales

Sale Date	Sale Price	Sale Type	Book-Page	Grantee	Grantor
2/5/2019	\$225,000	Close Relative Sale	260-418	CHAMPION NANCY K (KATIE)	CHAMPION THOMAS D
	\$0		119-44	CHAMPION THOMAS D	

Sales/Transfer Info

[Click Here for Sales/Transfer Information](#)

Valuation

	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
+ Land Value	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$40,100
+ Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
= Total Taxable Value	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$40,100
- Exemption Value	\$0	\$0	\$0	\$0	\$0	\$0
= Net Taxable Value	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$40,100
+ Land FCV	\$314,000	\$314,000	\$314,000	\$225,000	\$225,000	\$225,000
+ Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
= Total FCV	\$314,000	\$314,000	\$314,000	\$225,000	\$225,000	\$225,000
Exemption						
Farm Acres	143.00	143.00	143.00	143.00	143.00	143.00
Fire Protection Acres	69.00	69.00	69.00	69.00	69.00	69.00

Taxes

	2023	2022	2021	2020	2019
Tax	\$418.68	\$388.68	\$390.68	\$395.68	\$316.41

Tax Bill Search

[Click Here for Tax Information](#)

Recent Sales in Area

Sale date range:

From: To:

No data available for the following modules: Improvement Information, Sketches, Photos.

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Livingston County, KY PVA

Summary

Parcel Number 042-00-00-013.00
 Account Number 5995
 Location Address SILVER MINE RD 0
 Description FARM
 (Note: Not to be used on legal documents)
 Class Farm
 Tax District 01 County

[View Map](#)

Owner

Primary Owner
[REED DAVID W](#)
 P O BOX 67
 GILBERTSVILLE, KY 42044

Land Characteristics

Condition		Topography	
Plat Book/Page		Drainage	
Subdivision		Flood Hazard	None
Lot		Zoning	
Block		Electric	No
Acres	1,090.00	Water	No
Front	0	Gas	No
Depth	0	Sewer	No
Lot Size	0x0	Road	Secondary
Lot Sq Ft	0	Sidewalks	No
Shape		Information Source	

Sales

Sale Date	Sale Price	Sale Type	Book-Page	Grantee	Grantor
	\$0		-	REED DAVID W	

Sales/Transfer Info

[Click Here for Sales/Transfer Information](#)

Valuation

	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
+ Land Value	\$529,800	\$529,800	\$529,800	\$395,400	\$395,400	\$395,400
+ Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
= Total Taxable Value	\$529,800	\$529,800	\$529,800	\$395,400	\$395,400	\$395,400
- Exemption Value	\$0	\$0	\$0	\$0	\$0	\$0
= Net Taxable Value	\$529,800	\$529,800	\$529,800	\$395,400	\$395,400	\$395,400
+ Land FCV	\$1,962,000	\$1,962,000	\$1,962,000	\$1,200,000	\$1,200,000	\$1,200,000
+ Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
= Total FCV	\$1,962,000	\$1,962,000	\$1,962,000	\$1,200,000	\$1,200,000	\$1,200,000
Exemption						
Farm Acres	1090.00	1090.00	1090.00	1090.00	1090.00	1090.00
Fire Protection Acres	523.00	523.00	523.00	523.00	523.00	523.00

Taxes

	2023	2022	2021	2020	2019
Tax	\$4,432.17	\$4,114.29	\$3,089.05	\$3,128.58	\$3,116.72

Tax Bill Search

[Click Here for Tax Information](#)

Recent Sales in Area

Sale date range:

From: To:

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Livingston County, KY PVA

Summary

Parcel Number 043-00-00-004.00
 Account Number 13388
 Location Address CUMBERLAND AVE 716
 Description FARM & RESIDENCE
 (Note: Not to be used on legal documents)
 Class Farm
 Tax District 01 County

[View Map](#)



Owner

Primary Owner
 VIKING FARMS LLC
 5681 OLD MYSTIC COURT
 JUPITER, FL 33458

Land Characteristics

Condition	Average	Topography	Level
Plat Book/Page		Drainage	
Subdivision		Flood Hazard	None
Lot		Zoning	
Block		Electric	No
Acres	352.00	Water	No
Front	0	Gas	No
Depth	0	Sewer	No
Lot Size	0x0	Road	Secondary
Lot Sq Ft	0	Sidewalks	No
Shape		Information Source	

Improvement Information

Building Number	1	Kitchens	0
Description	HOUSE & LOT	Dining Rooms	0
Residence Type	Single Family	Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	3
Year Built	0	Full Baths	2
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure	1 Story	Total Rooms	0
Number of Stories	1	Living Sq Ft	1,290
Exterior	Brick Veneer	Fireplaces/Water	0/0
Foundation	Concrete Block	Supplemental Heat	Wood
Construction Type		Mobile Home Model	
Construction Quality	Average/Standard	Mobile Home Manufacturer	
Building Condition	Very Good/Excellent	MH Skirt Foundation	
Roof Type	Gable	Heat	Yes
Roof Cover	Comp.Shingles	Heat Source	Electric
Roof Pitch		Heat Type	Forced Air
Basement Type	None	Air Conditioning	Yes
Basement Finish		AC/Type	Central
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	56
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	266	Value	\$110,000.00
Pool		Driveway	Gravel
Pool Size	0	Fence	0
Tennis Courts			

Building Number	2	Kitchens	0
Description	GRAIN BIN	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	0	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$1,000.00
Pool		Driveway	Gravel
Pool Size	0	Fence	0
Tennis Courts			

Building Number	3	Kitchens	0
Description	SHOP	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	0	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior	Metal	Fireplaces/Water	0/0
Foundation	Slab	Supplemental Heat	
Construction Type	Pole Frame	Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type	Gable	Heat	No
Roof Cover	Metal	Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	30	Concrete Sq Ft	0
Length	50	Farm Bldg Type	
Garage Sq Ft	0	Value	\$37,000.00
Pool		Driveway	Gravel
Pool Size	0	Fence	0
Tennis Courts			

Sales

Sale Date	Sale Price	Sale Type	Book-Page	Grantee	Grantor
3/23/2022	\$948,000	Arms-Length Transaction	270-013	VIKING FARMS LLC	KNOTH STEPHEN P & DEBRA J
10/19/2007	\$362,500	Close Relative Sale	228-366	KNOTH WILLIAM J & MARILYN R	BRUMMITTE EDNA/EDITH KNOTH
9/18/1958	\$0		088-020	BRUMITTE JOE H & EDNA E	GRAY J R & INA
9/10/1926	\$12,600		055-639	GRAY J R	GRAY J O & LEE, MADDUX H G & NELLIE
6/5/1924	\$0		049-293	GRAY J O & LEE	DULEY GEORGE GEORGE W & WIFE
4/25/1904	\$8,000		027-496	DULEY GEORGE W & MARTHA BELL	DUNN D A & ADDIE
11/4/1892	\$0		018-342	DUNN D A	ROGERS GEORGE P & JULIE A
11/6/1890	\$0		017-142	DUNN D A	ROGERS ALFRED P (A P)
11/22/1886	\$3,700		015-285	ROGERS GEORGE PEARSON	ROGERS FLETCHER, CALDER JOHN & FANNI

Sales/Transfer Info

[Click Here for Sales/Transfer Information](#)

Valuation

	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
+ Land Value	\$184,200	\$184,200	\$184,200	\$135,200	\$135,200	\$135,200
+ Improvement Value	\$110,000	\$10,000	\$10,000	\$15,000	\$15,000	\$15,000
+ Ag Improvement Value	\$38,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
= Total Taxable Value	\$332,200	\$195,200	\$195,200	\$151,200	\$151,200	\$151,200
- Exemption Value	\$0	\$0	\$0	\$0	\$0	\$0
= Net Taxable Value	\$332,200	\$195,200	\$195,200	\$151,200	\$151,200	\$151,200
+ Land FCV	\$937,000	\$937,000	\$880,000	\$440,000	\$440,000	\$440,000
+ Improvement FCV	\$110,000	\$10,000	\$10,000	\$15,000	\$15,000	\$15,000
+ Ag Improvement FCV	\$38,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
= Total FCV	\$1,085,000	\$948,000	\$891,000	\$456,000	\$456,000	\$456,000
Exemption						
Farm Acres	352.00	352.00	352.00	352.00	352.00	352.00
Fire Protection Acres	169.00	169.00	169.00	169.00	169.00	169.00

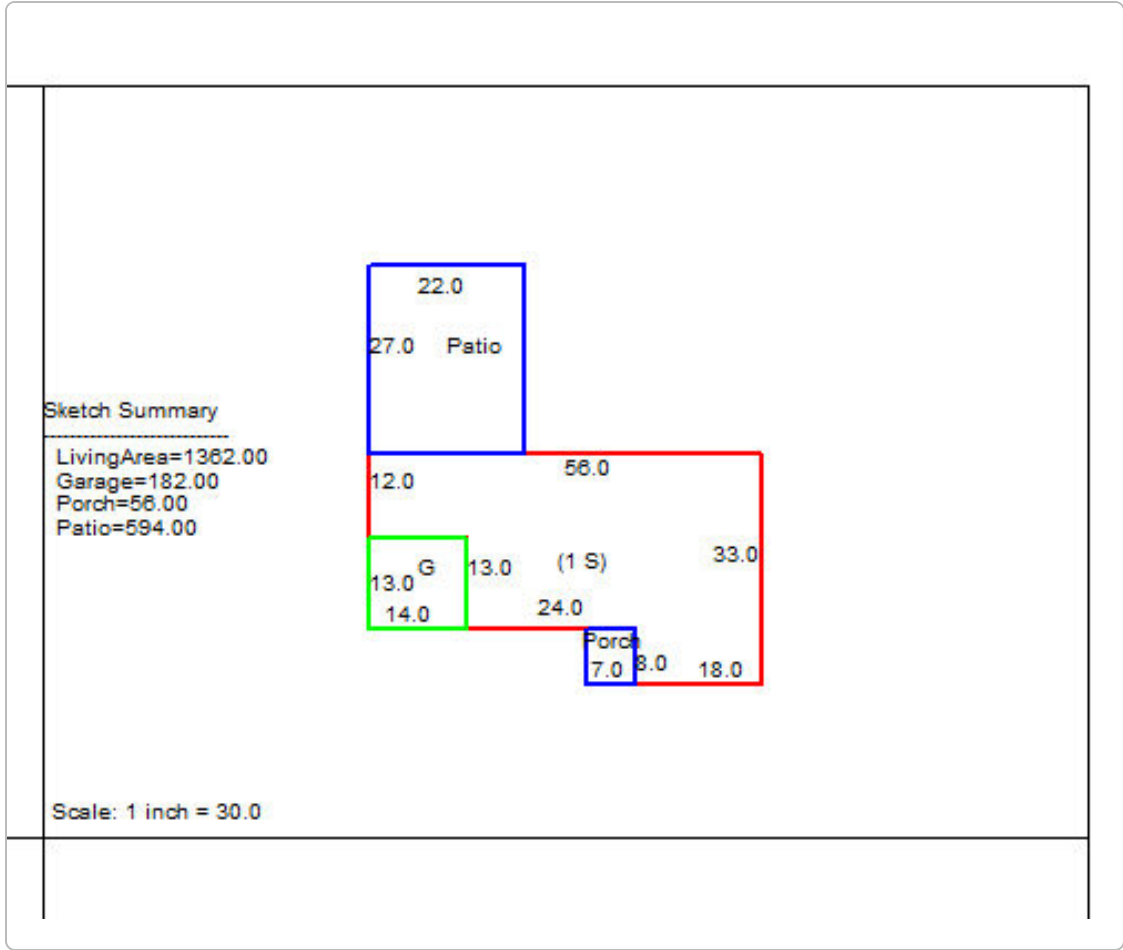
Taxes

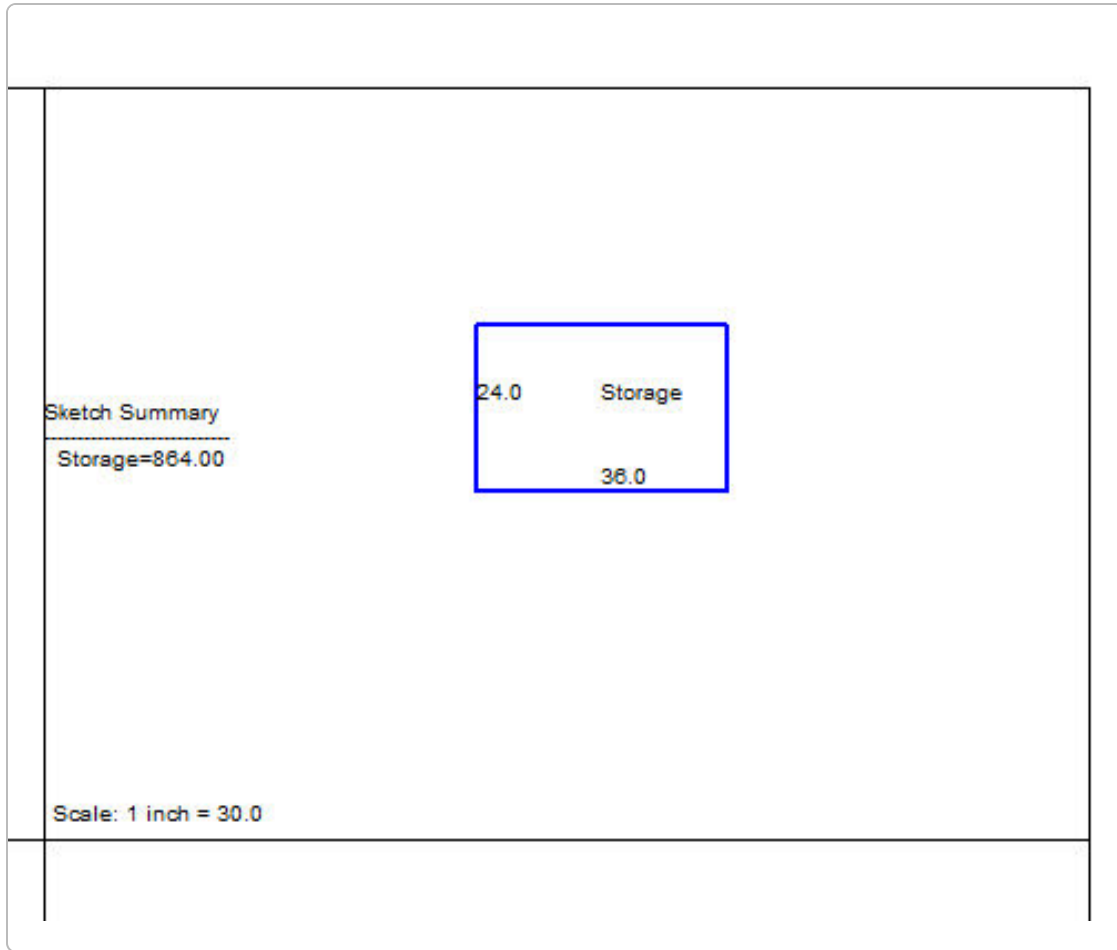
	2023	2022	2021	2020	2019
Tax	\$1,632.52	\$1,515.40	\$1,180.63	\$1,195.74	\$1,191.21

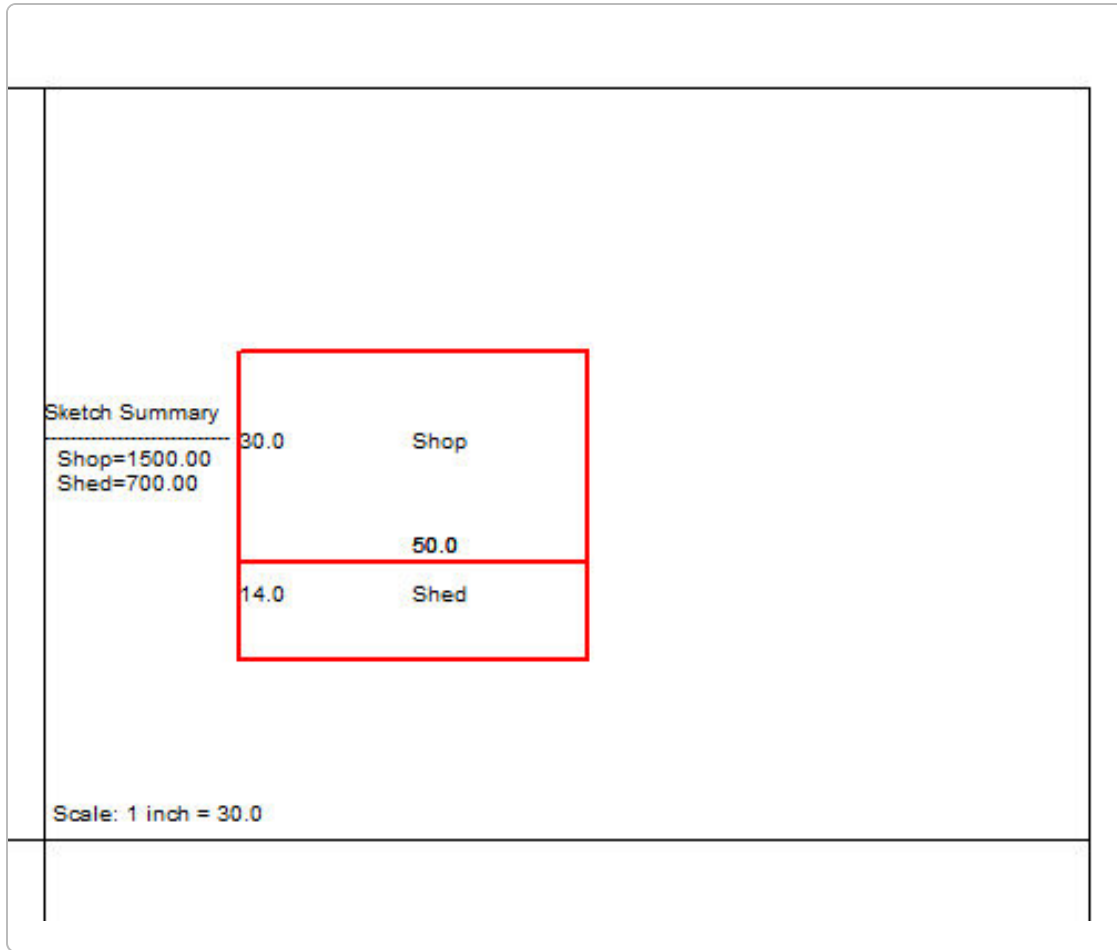
Tax Bill Search

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Sketches







Photos





Recent Sales in Area

Sale date range:

From: To:

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Developed by
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 GEOSPATIAL

Livingston County, KY PVA

Summary

Parcel Number 043-00-00-005.00
 Account Number 8491
 Location Address BRUMITTE RD 769/STATE DR 706
 Description 32.939 ACRES & CO GARAGE
 (Note: Not to be used on legal documents)
 Class Exempt County
 Tax District 01 County

[View Map](#)



Owner

Primary Owner
[LIV CO FISCAL COURT](#)
 PO BOX 70
 321 COURT ST
 SMITHLAND, KY 42081

Land Characteristics

Condition		Topography	
Plat Book/Page		Drainage	
Subdivision		Flood Hazard	
Lot		Zoning	
Block		Electric	No
Acres	0.00	Water	No
Front	0	Gas	No
Depth	0	Sewer	No
Lot Size	0x0	Road	No
Lot Sq Ft	0	Sidewalks	
Shape		Information Source	

Improvement Information

Building Number	1	Kitchens	0
Description	CONCESSION STAND	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1988	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$44,150.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	2	Kitchens	0
Description	PARK SHELTER #1	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1997	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$16,500.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	3	Kitchens	0
Description	PARK SHELTER #2	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2000	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$8,300.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	4	Kitchens	0
Description	GARAGE	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1988	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$15,200.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	5	Kitchens	0
Description	SALT BARN	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	0	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$17,700.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	6	Kitchens	0
Description	EQUIPMENT SHED	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2001	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$49,600.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	7	Kitchens	0
Description	ANNOUNCER BOXES/SM&LG DUGOUTS	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	0	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$40,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	8	Kitchens	0
Description	PUBLIC WORKS GARAGE	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1990	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$235,600.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	9	Kitchens	0
Description	INDOOR BATTING FACILITY	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2014	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior	Metal	Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type	Gable	Heat	No
Roof Cover	Metal	Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$75,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Sales/Transfer Info

[Click Here for Sales/Transfer Information](#)

Valuation

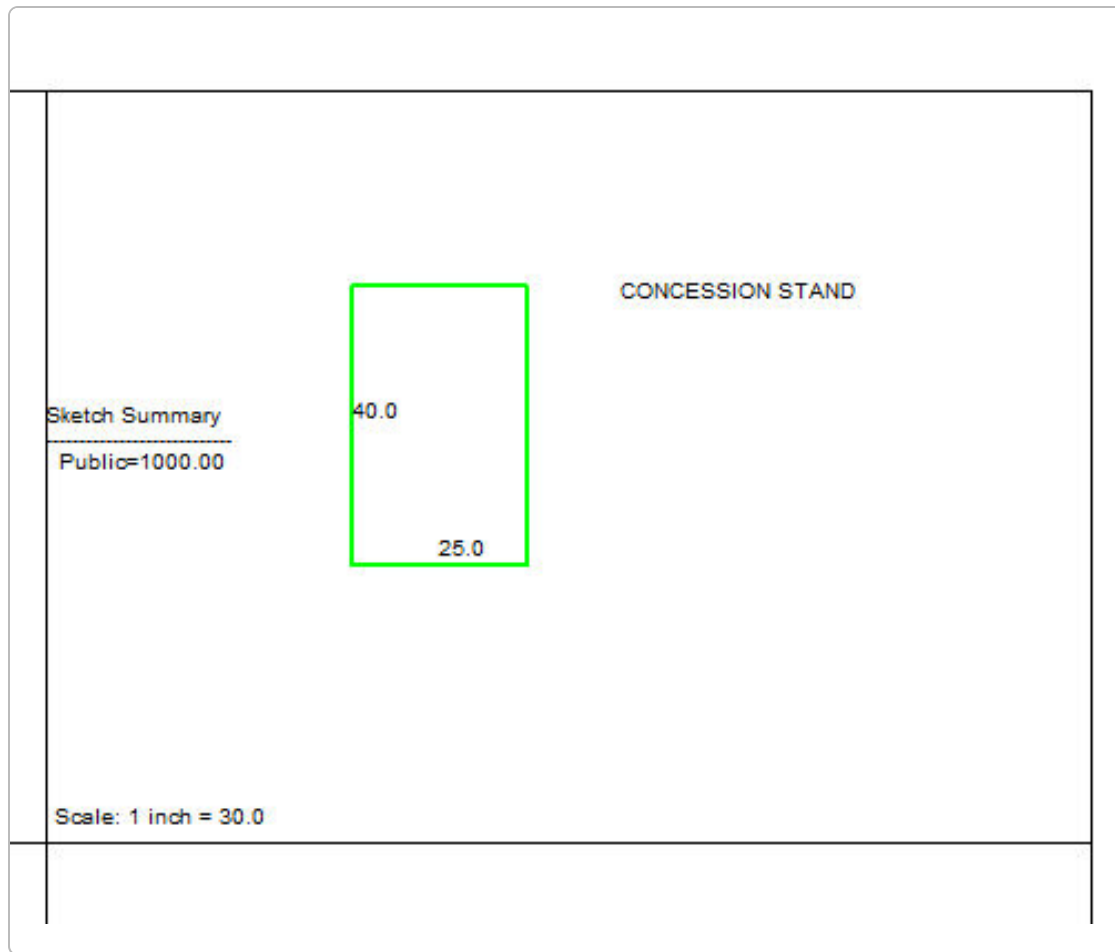
	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
+ Land Value	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
+ Improvement Value	\$502,050	\$502,050	\$502,050	\$502,050	\$502,050	\$502,050
+ Ag Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
= Total Taxable Value	\$752,050	\$752,050	\$752,050	\$752,050	\$752,050	\$752,050
- Exemption Value	\$0	\$0	\$0	\$0	\$0	\$0

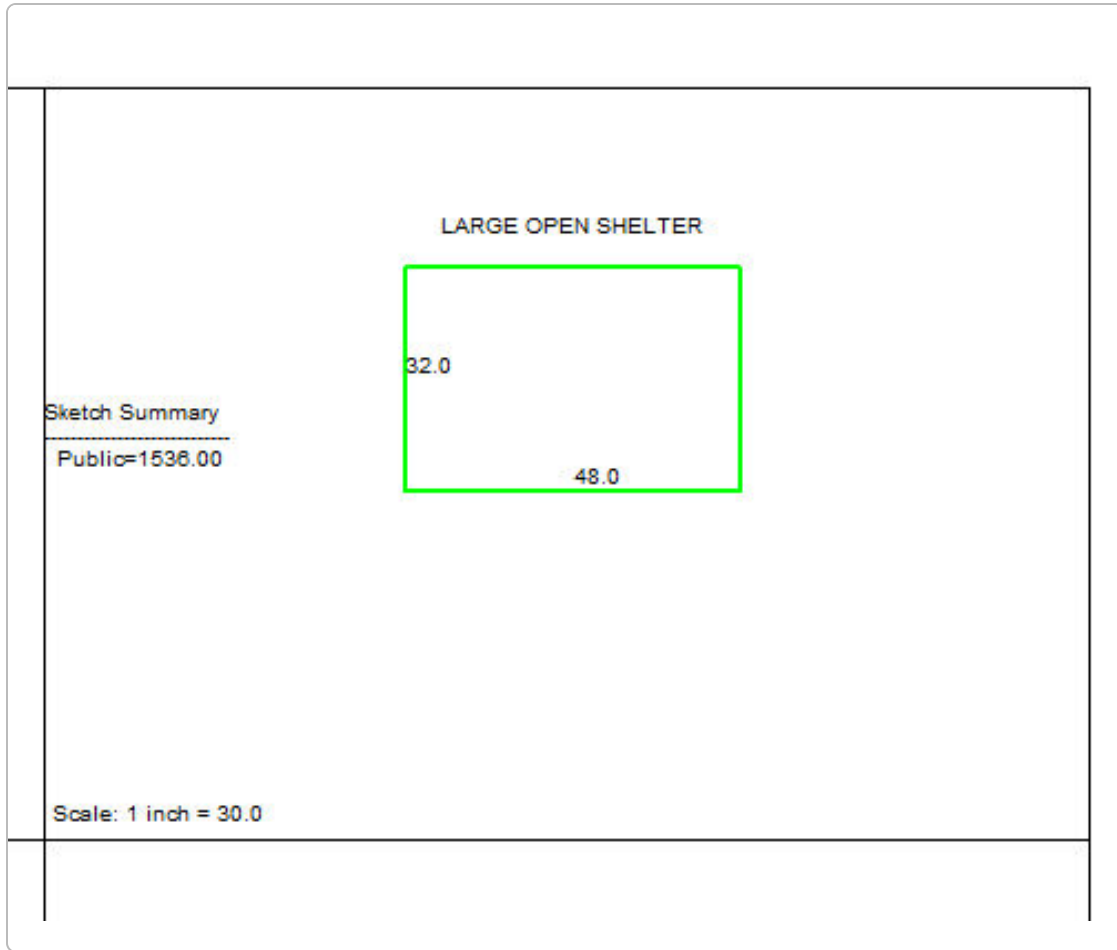
	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
= Net Taxable Value	\$752,050	\$752,050	\$752,050	\$752,050	\$752,050	\$752,050
+ Land FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
= Total FCV	\$0	\$0	\$0	\$0	\$0	\$0
Exemption						
Farm Acres	0.00	0.00	0.00	0.00	0.00	0.00
Fire Protection Acres	0.00	0.00	0.00	0.00	0.00	0.00

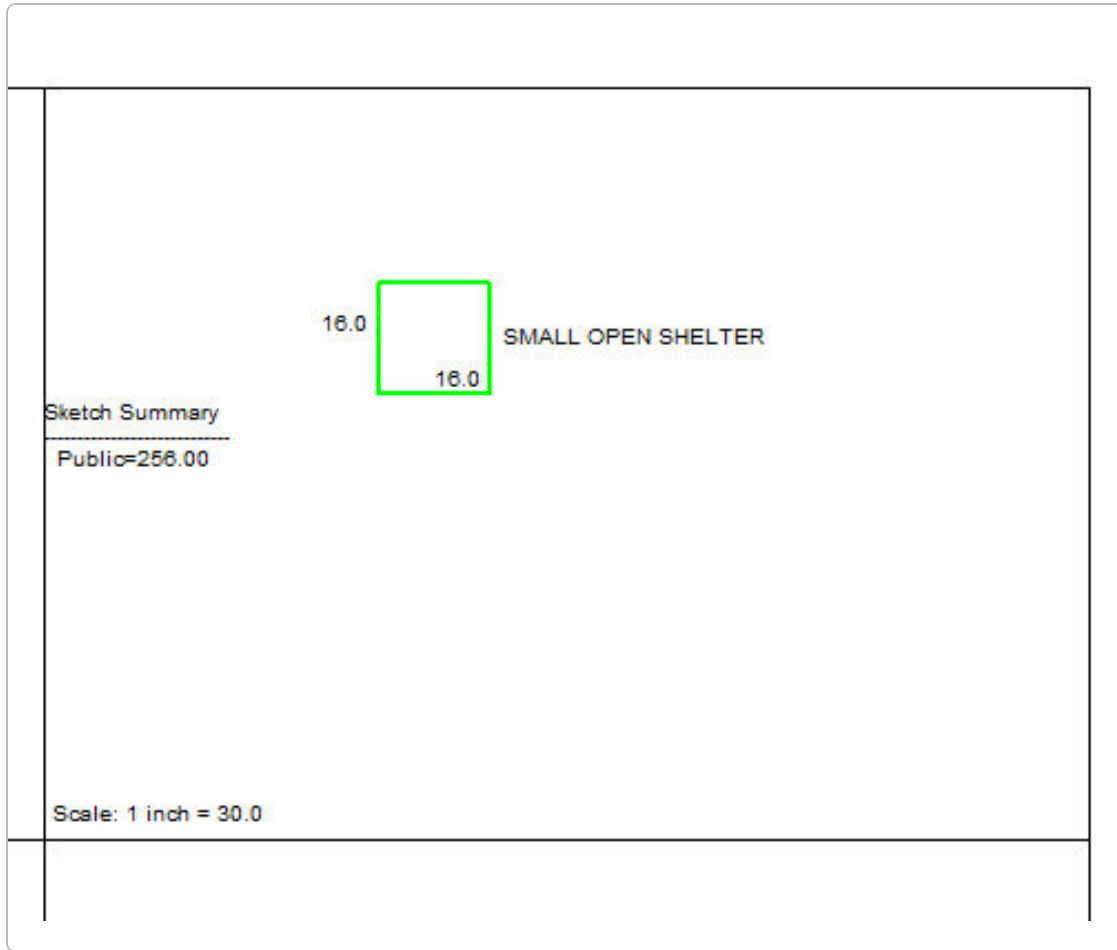
Tax Bill Search

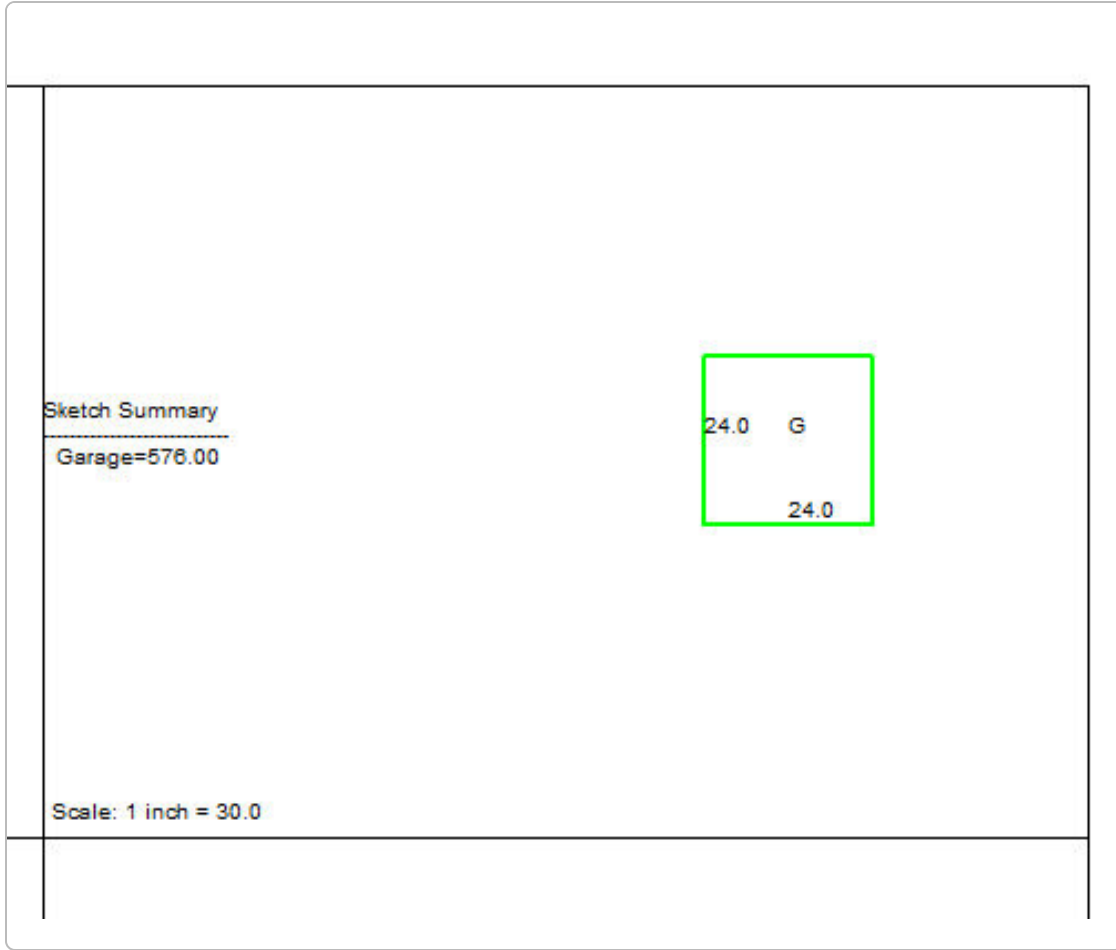
[Click Here for Tax Information](#)

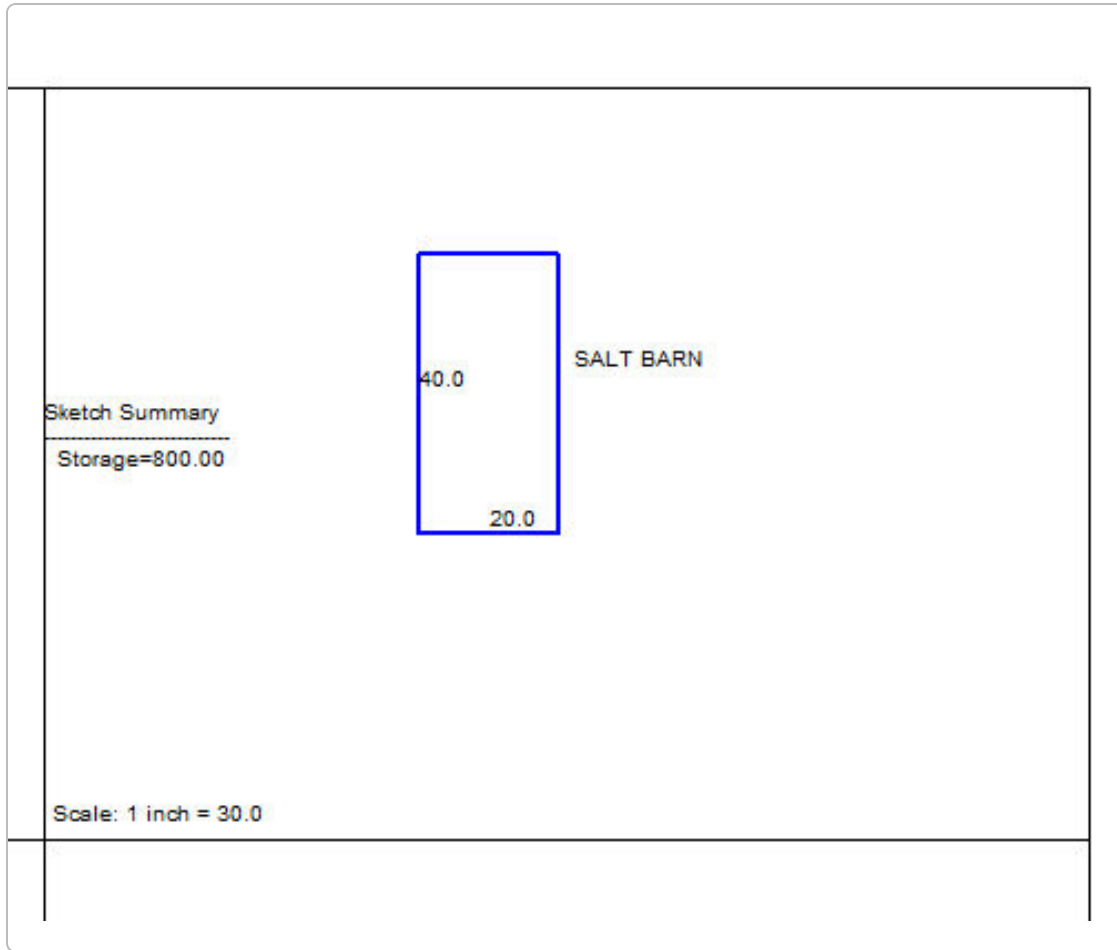
Sketches

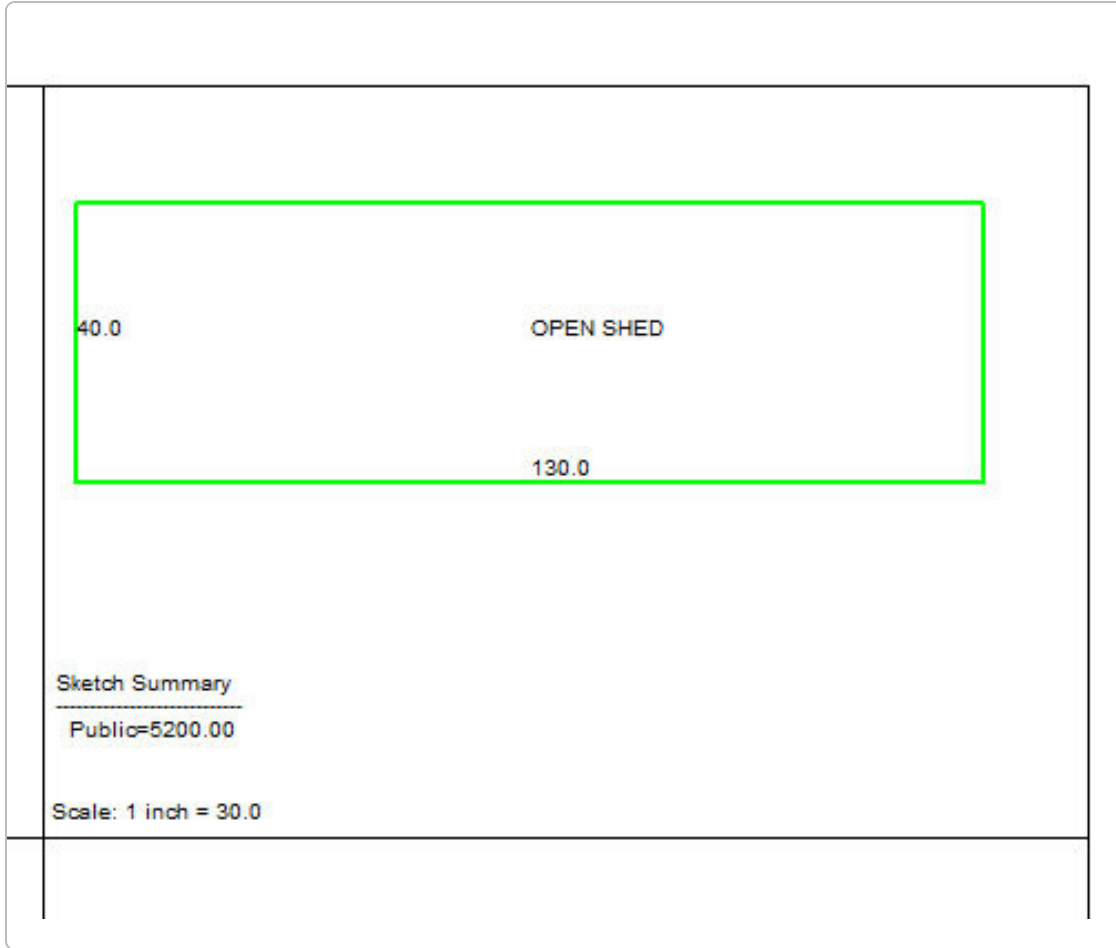


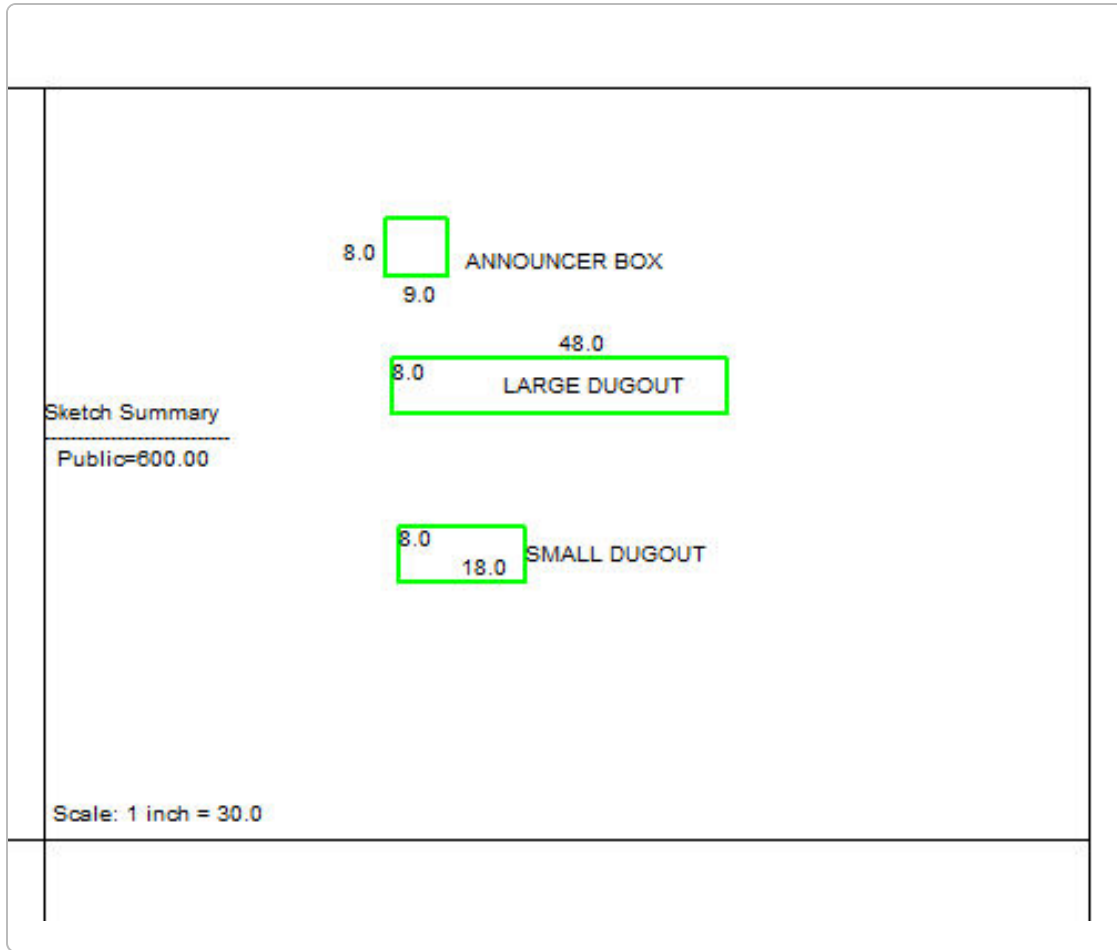


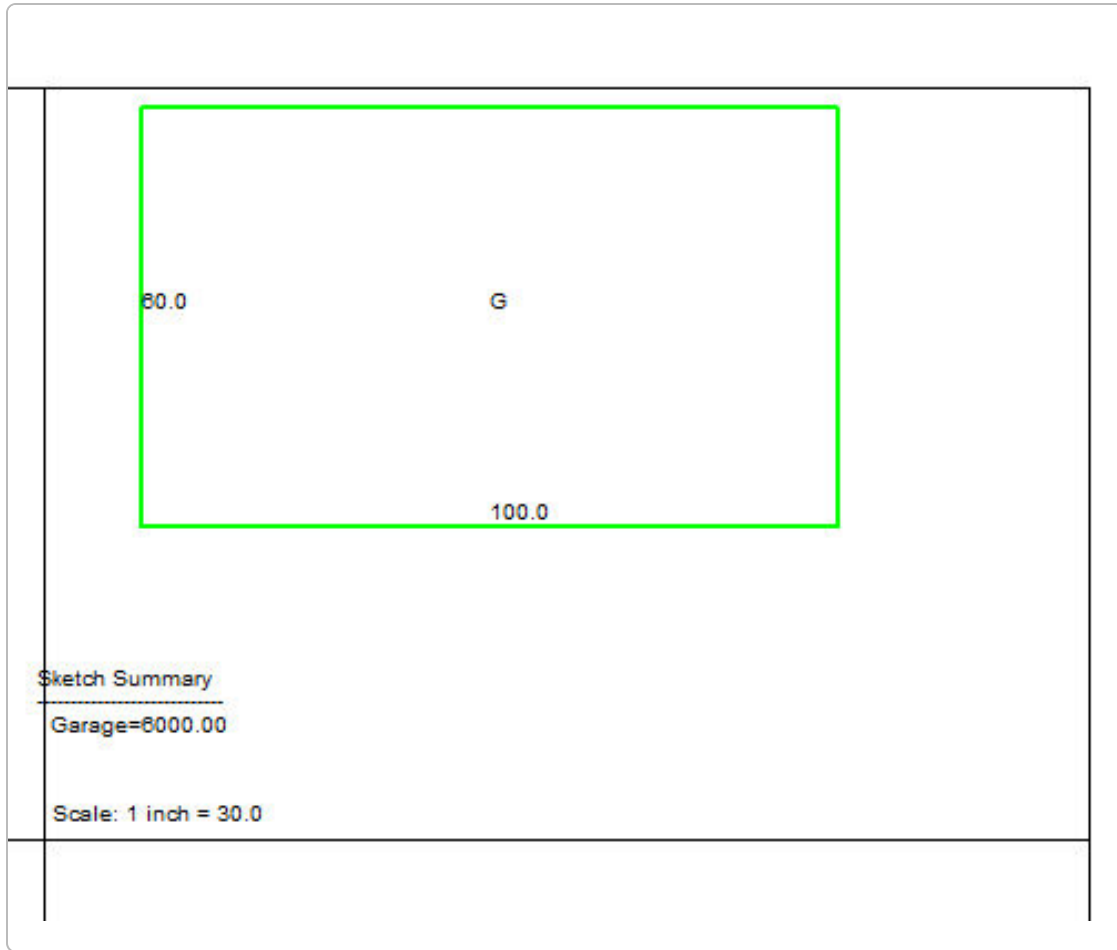


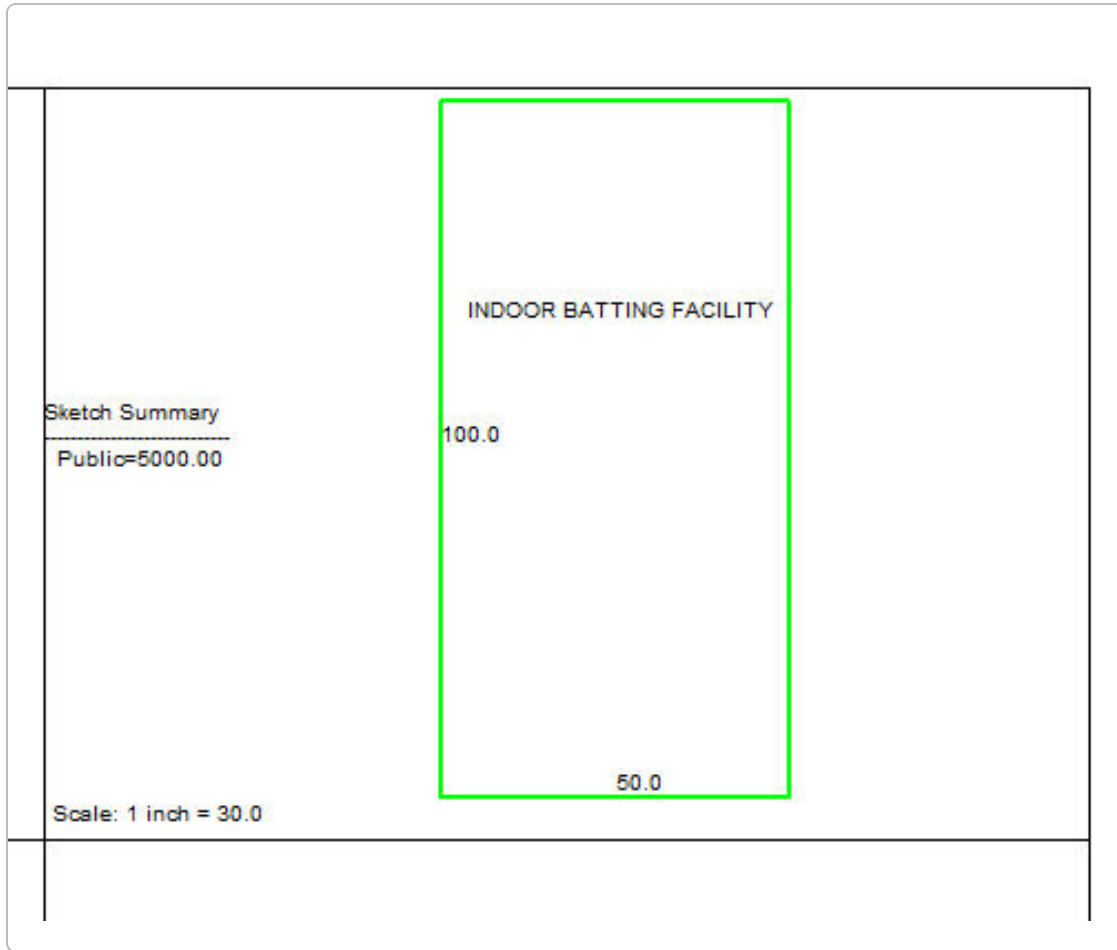












Photos









Recent Sales in Area

Sale date range:

From: To:

No data available for the following modules: Sales, Taxes.

Under Kentucky State Law, KRS 171.410, these records are public information and may appear on the Internet. If you believe any data is inaccurate, or if you have any comments about our site, we would like to hear from you. Comments may be made by telephone at (270) 928-2524. We do our best to ensure that all of our data is accurate, but the PVA does not assume any liability associated with the use or misuse of this data.
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 Last Data Upload: 9/10/2024, 5:29:38 PM

Contact Us



Livingston County, KY PVA

Summary

Parcel Number 043-00-00-006.00
 Account Number 8319
 Location Address U S 60 EAST 811
 Description STATE GAR SALT SHED & HWY DEPT 23.09 AC
 (Note: Not to be used on legal documents)
 Class Exempt State
 Tax District 01 County

[View Map](#)



Owner

Primary Owner
[COMMONWEALTH OF KY](#)
 KY TRANSPORTATION CABINET
 DEPT OF HWYS
 FRANKFORT, KY

Land Characteristics

Condition		Topography	
Plat Book/Page		Drainage	
Subdivision		Flood Hazard	
Lot		Zoning	
Block		Electric	No
Acres	0.00	Water	No
Front	0	Gas	No
Depth	0	Sewer	No
Lot Size	0x0	Road	No
Lot Sq Ft	0	Sidewalks	
Shape		Information Source	

Improvement Information

Building Number	1	Kitchens	0
Description	BRIDGE CREW GARAGE	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2004	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	1	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type	Wood Frame	Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition	Very Good/Excellent	MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	100	Concrete Sq Ft	0
Length	40	Farm Bldg Type	
Garage Sq Ft	0	Value	\$120,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	2	Kitchens	0
Description	SALT STORAGE	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2004	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	1	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$25,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	3	Kitchens	0
Description	DEPT OF TRANSP BLDG	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1978	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$200,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	4	Kitchens	0
Description	SHED	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	0	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$4,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	5	Kitchens	0
Description	STATE GARAGE MAINTENANCE	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	1979	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$50,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Building Number	6	Kitchens	0
Description	EQUIPMENT SHED	Dining Rooms	0
Residence Type		Living Rooms	0
Comm Type		Family Rooms	0
Mobile Home Type		Bedrooms	0
Year Built	2015	Full Baths	0
Effective Age	0	Half Baths	0
Ave. Wall Height	0	Other Rooms	0
Structure		Total Rooms	0
Number of Stories	0	Living Sq Ft	0
Exterior		Fireplaces/Water	0/0
Foundation		Supplemental Heat	
Construction Type		Mobile Home Model	
Construction Quality		Mobile Home Manufacturer	
Building Condition		MH Skirt Foundation	
Roof Type		Heat	No
Roof Cover		Heat Source	
Roof Pitch		Heat Type	
Basement Type		Air Conditioning	No
Basement Finish		AC/Type	
Basement Size		Special Improvements	No
Basement Sq Ft	0	Fire Alarm	No
Garage/Carport		Sprinklers	No
Garage Size		Porch/Deck	
Garage Type		Porch Sq Ft	0
Garage Exterior		Deck Sq Ft	0
Width	0	Concrete Sq Ft	0
Length	0	Farm Bldg Type	
Garage Sq Ft	0	Value	\$15,000.00
Pool		Driveway	
Pool Size	0	Fence	0
Tennis Courts			

Sales/Transfer Info

[Click Here for Sales/Transfer Information](#)

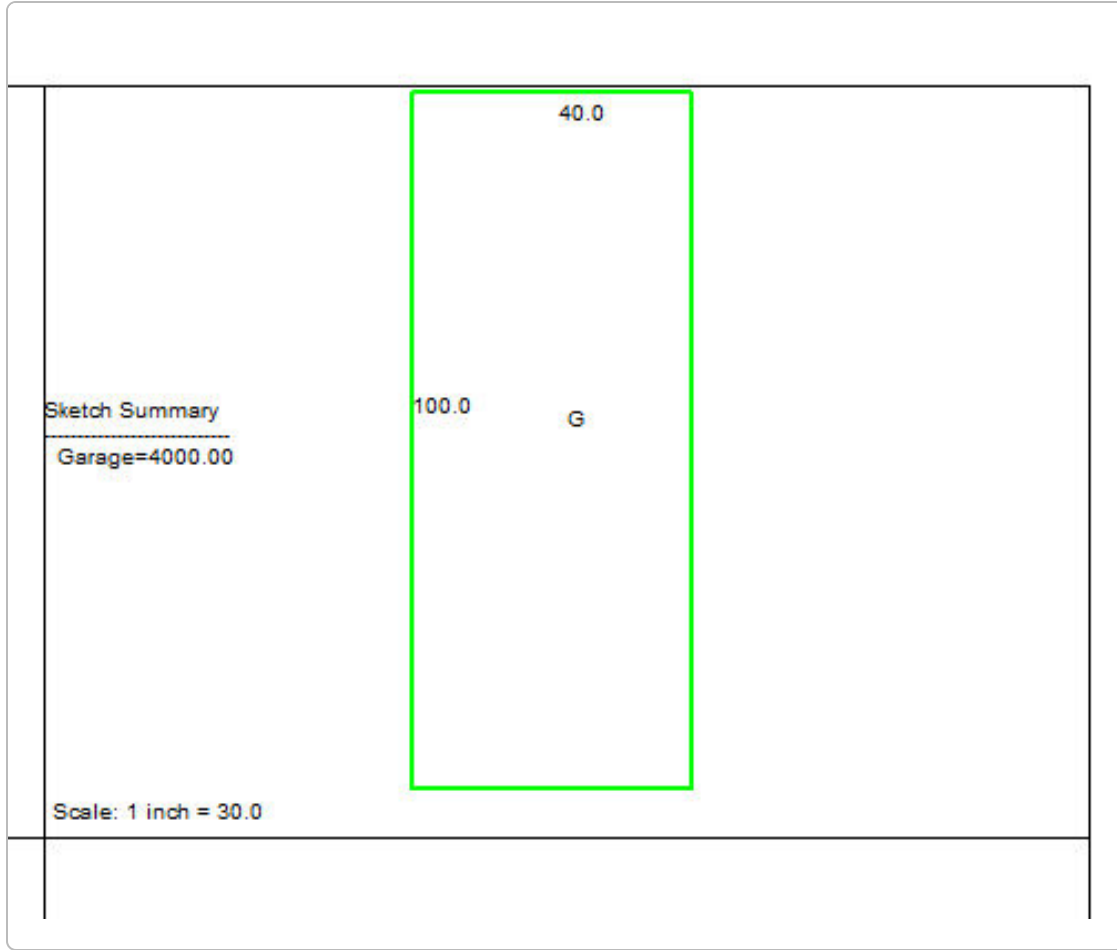
Valuation

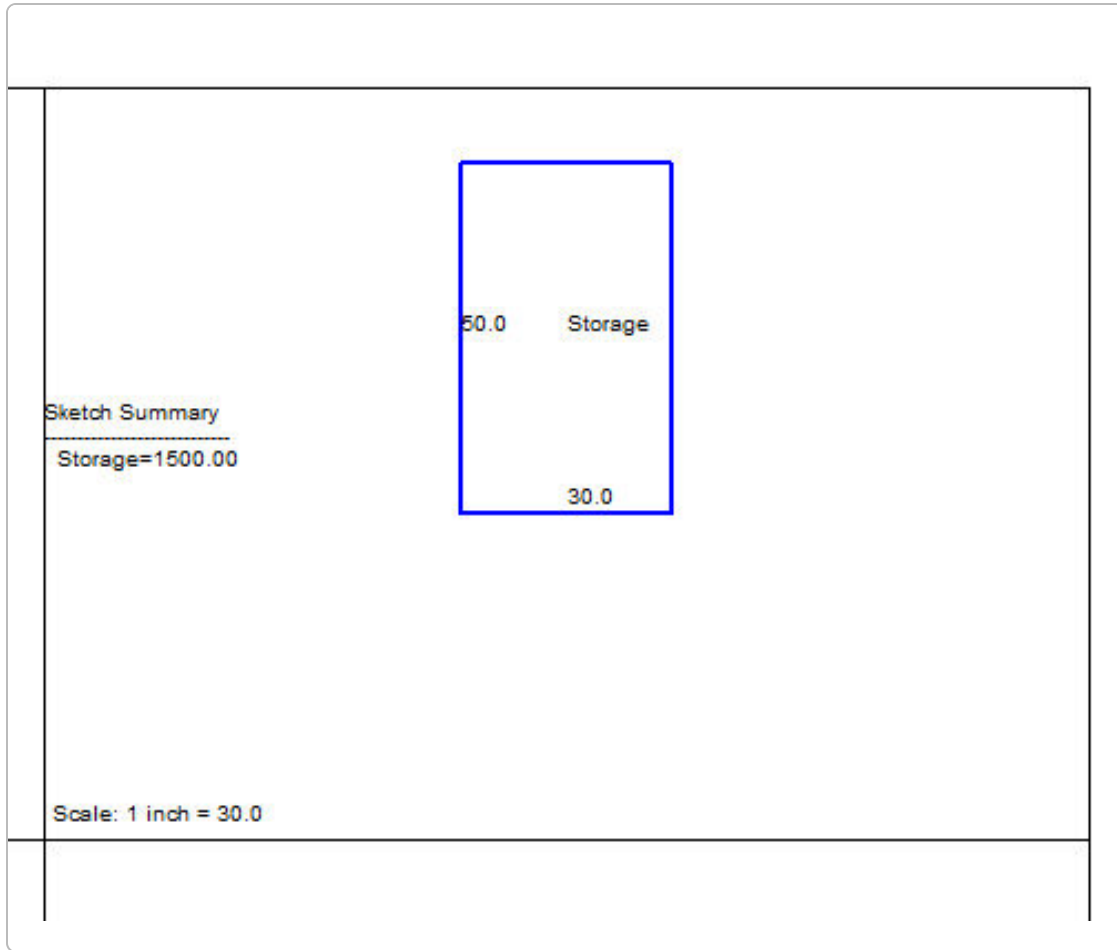
	2024 Working	2023 Certified	2022 Certified	2021 Certified	2020 Certified	2019 Certified
+ Land Value	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000
+ Improvement Value	\$414,000	\$414,000	\$414,000	\$414,000	\$414,000	\$414,000
+ Ag Improvement Value	\$0	\$0	\$0	\$0	\$0	\$0
= Total Taxable Value	\$472,000	\$472,000	\$472,000	\$472,000	\$472,000	\$472,000
- Exemption Value	\$0	\$0	\$0	\$0	\$0	\$0
= Net Taxable Value	\$472,000	\$472,000	\$472,000	\$472,000	\$472,000	\$472,000
<hr/>						
+ Land FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
+ Ag Improvement FCV	\$0	\$0	\$0	\$0	\$0	\$0
= Total FCV	\$0	\$0	\$0	\$0	\$0	\$0
<hr/>						
Exemption						
Farm Acres	0.00	0.00	0.00	0.00	0.00	0.00
Fire Protection Acres	0.00	0.00	0.00	0.00	0.00	0.00

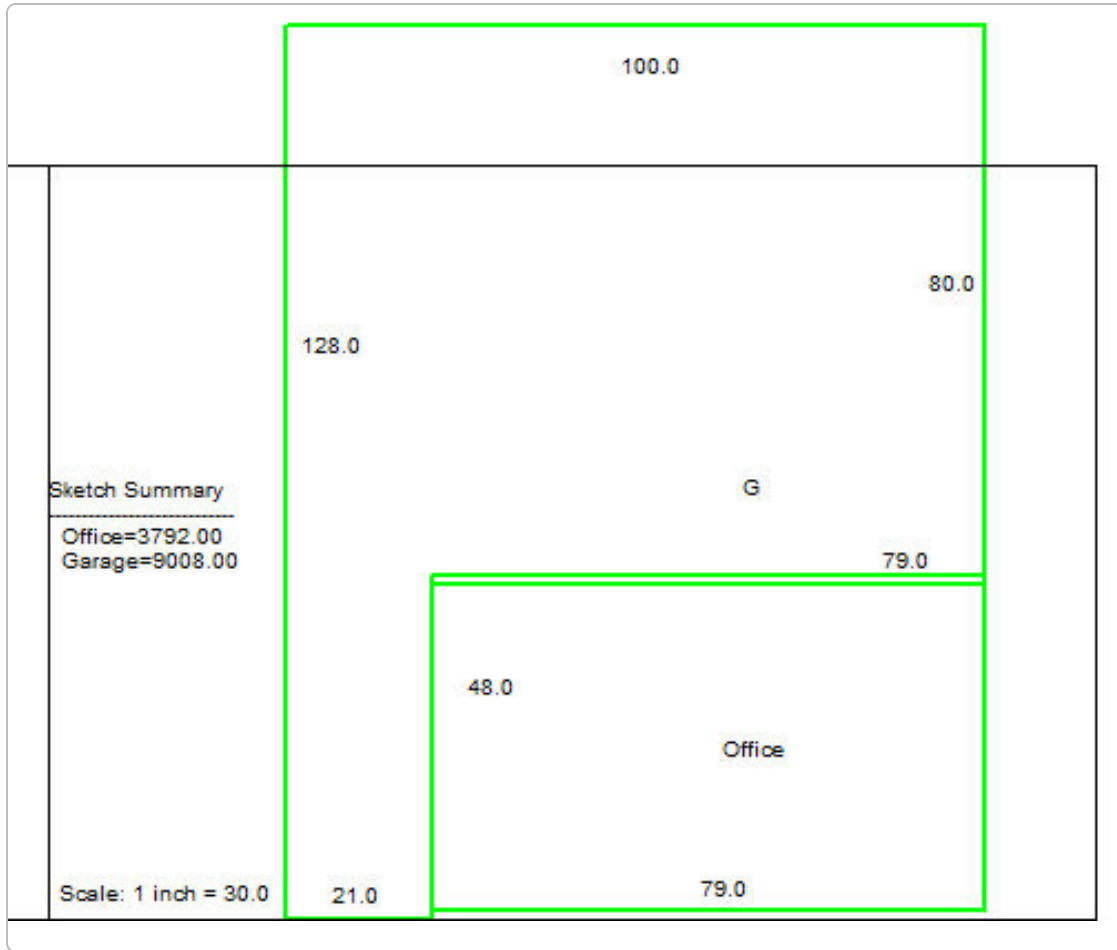
Tax Bill Search

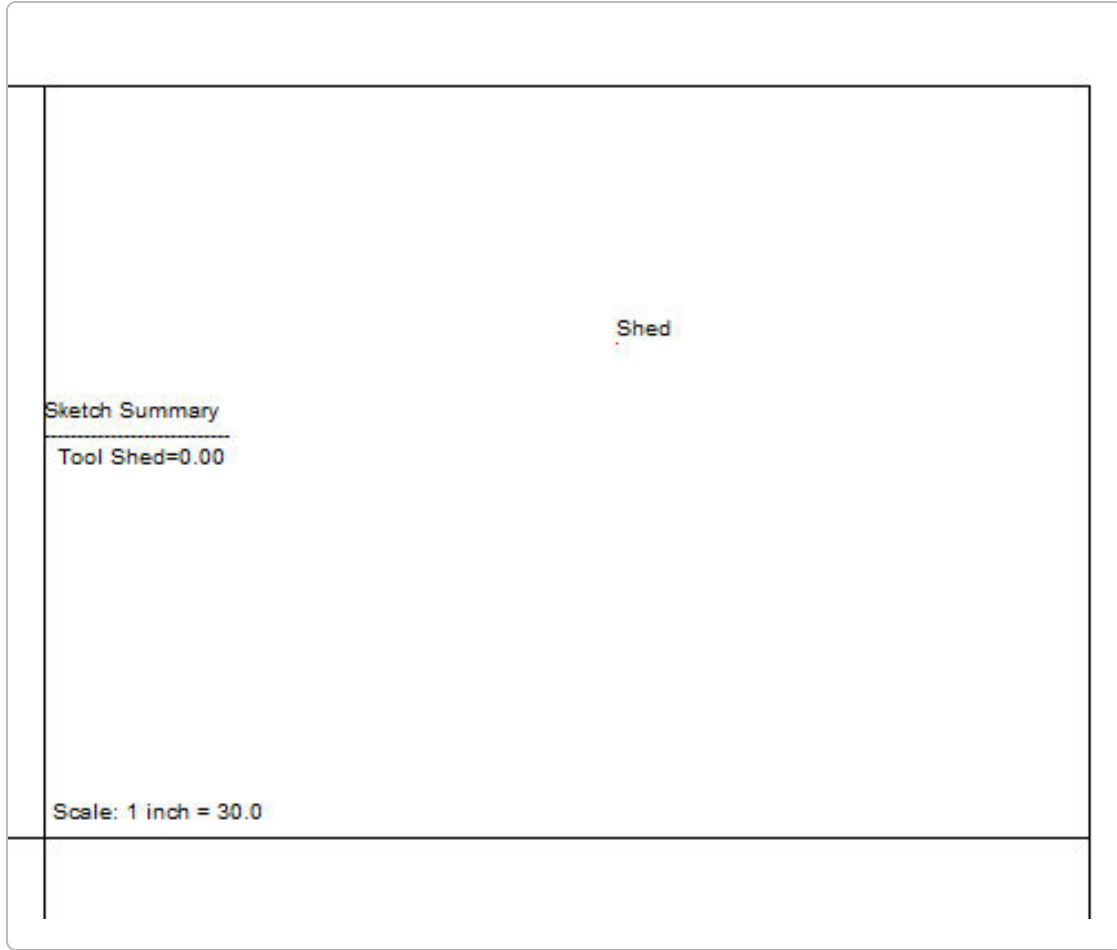
[Click Here for Tax Information](#)

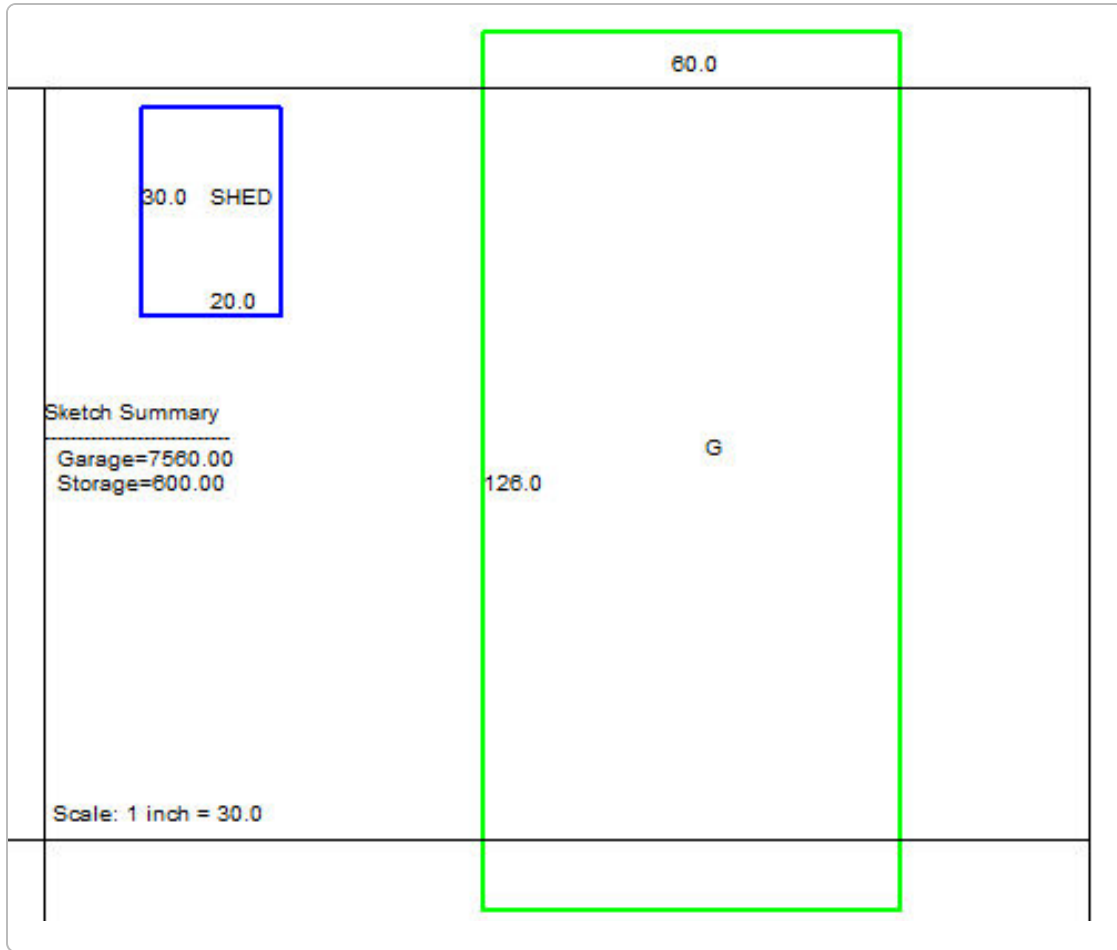
Sketches













Photos





Recent Sales in Area

Sale date range:

From: To:

No data available for the following modules: Sales, Taxes.

Under Kentucky State Law, KRS 171.410, these records are public information and may appear on the Internet. If you believe any data is inaccurate, or if you have any comments about our site, we would like to hear from you. Comments may be made by telephone at (270) 928-2524. We do our best to ensure that all of our data is accurate, but the PVA does not assume any liability associated with the use or misuse of this data.
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Certified Mail Fee
\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage

Reed David W
 PO Box 67
 Gilbertsville, KY 42044

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7022 3330 0000 3636 7030

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage

Champion Nancy K (Katie)
 985 US Hwy 60 East
 Smithland, KY 42081

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7022 3330 0000 3636 7177

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\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage

LIV CO FISCAL COURT
 P.O. BOX 70
 SMITHLAND, KY 42081

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage

Viking Farms LLC
 5681 Old Mystic Court
 Jupiter, FL 33458

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7022 3330 0000 3636 7184

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Certified Mail Fee
\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage

COMMONWEALTH OF KY
 KY TRANSPORTATION CABINET
 DEPT OF HWYS
 FRANKFORT, KY

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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Certified Mail Fee
\$

Extra Services & Fees (check box, add fee as appropriate)


<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$


Postage


LIV CO FISCAL COURT
 321 COURT STREET
 SMITHLAND, KY 42081

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee <i>Nancy Champion</i></p> <p>B. Received by (Printed Name) NANCY CHAMPION</p> <p>C. Date of Delivery 17 SEP 2024</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Champion Nancy K (Katie) 985 US Hwy 60 East Smithland, KY 42081</p>  <p>9590 9402 7926 2305 8809 49</p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>081 7022 3330 0000 3636 7092</p>	
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee <i>David W. Reed</i></p> <p>B. Received by (Printed Name)</p> <p>C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Reed David W PO Box 67 Gilbertsville, KY 42044</p>  <p>9590 9402 7926 2305 8809 56</p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7022 3330 0000 3636 7092</p>	
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee <i>Troy Spuro</i></p> <p>B. Received by (Printed Name) Troy Spuro</p> <p>C. Date of Delivery 9/14/24</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>Viking Farms LLC 5681 Old Mystic Court Jupiter, FL 33458</p>  <p>9590 9402 7926 2305 8809 63</p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™ <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p>7022 3330 0000 3636 7085</p>	
PS Form 3811, July 2020 PSN 7530-02-000-9053	Domestic Return Receipt

<p>SENDER: COMPLETE THIS SECTION</p> <ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. <p>1. Article Addressed to:</p> <p>LIV CO FISCAL COURT P.O. BOX 70 SMITHLAND, KY 42081</p>  <p>9590 9402 7926 2305 8810 69</p> <p>2. Article Number (Transfer from service label) 7022 3330 0000 3636 7177</p>	<p>COMPLETE THIS SECTION ON DELIVERY</p> <p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee <i>Kayalurny</i></p> <p>B. Received by (Printed Name) <i>Kayalurny</i> C. Date of Delivery <i>9/13/24</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p> <p><input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery</p>
PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

<p>SENDER: COMPLETE THIS SECTION</p> <ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. <p>1. Article Addressed to:</p> <p>LIV CO FISCAL COURT 321 COURT STREET SMITHLAND, KY 42081</p>  <p>9590 9402 7926 2305 8810 76</p> <p>2. Article Number (Transfer from service label) 7022 3330 0000 3636 7160</p>	<p>COMPLETE THIS SECTION ON DELIVERY</p> <p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee <i>Kayalurny</i></p> <p>B. Received by (Printed Name) <i>Kayalurny</i> C. Date of Delivery <i>9/13/24</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input type="checkbox"/> Adult Signature <input type="checkbox"/> Adult Signature Restricted Delivery <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Insured Mail <input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</p> <p><input type="checkbox"/> Priority Mail Express® <input type="checkbox"/> Registered Mail™ <input type="checkbox"/> Registered Mail Restricted Delivery <input type="checkbox"/> Signature Confirmation™ <input type="checkbox"/> Signature Confirmation Restricted Delivery</p>
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PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt	

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION



PIKE LEGAL GROUP PLLC
1578 Highway 44 East, Unit 6
PO Box 369
Shepherdsville, KY 40165-0369
Phone: 502-955-4400
Fax: 502-543-4410

VIA CERTIFIED MAIL

**Notice of Proposed Construction of
Wireless Communications Facility
Site Name: EV SMITHLAND NORTH**

Dear Landowner:

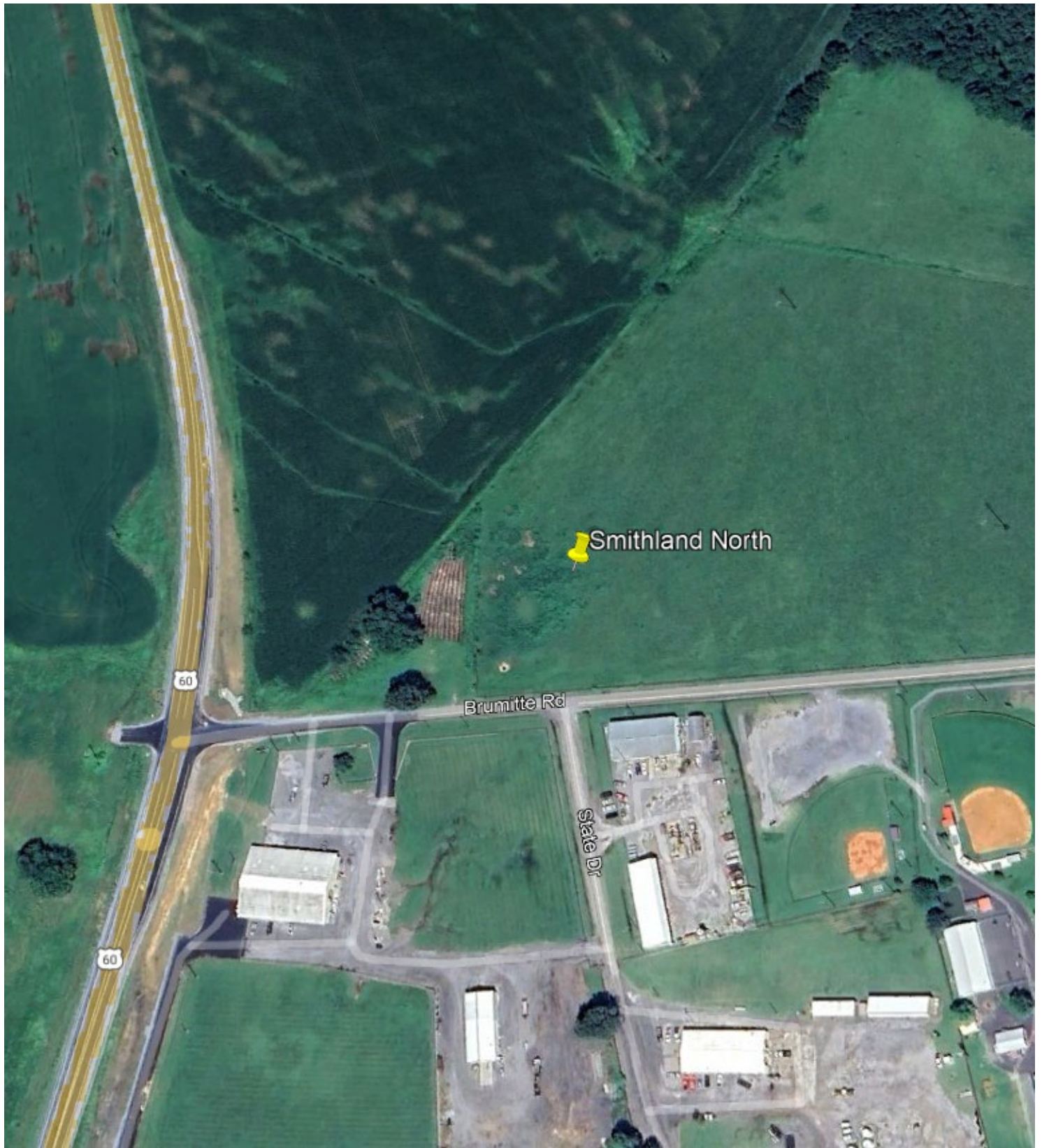
APC Towers IV, LLC, a Delaware limited liability company, and Cellco Partnership d/b/a Verizon Wireless are filing an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on Brumitte Road, Smithland, Kentucky 42081 (37° 09' 27.01" North latitude, 88° 23' 45.38" West longitude). The proposed facility will include a 250-foot tall guyed tower with a 5-foot tall lightning arrestor attached at the top for a total height of 255 feet, plus related ground facilities. This facility is needed to provide improved service 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 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 2024-00291 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Verizon Wireless 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 Applicant

enclosures



FLOOD HAZARD STATEMENT:

THIS COMMUNICATIONS SITE (THE SUBJECT SITE AS SHOWN) IS NOT LOCATED WITHIN THE LIMITS OF A DESIGNATED 100 YEAR FLOOD ZONE PER FEMA/FIRM MAP COMMUNITY PANEL NUMBER 21138C 0170 D, LIVINGSTON COUNTY, KENTUCKY, EFFECTIVE DATE SEPTEMBER 10, 2021.

THE NEAREST FLOOD HAZARD AREA IS THE CUMBERLAND RIVER, WHICH LOCATED APPROXIMATELY 2,800 L.F. IN A SOUTHERLY DIRECTION FROM THIS PROPOSED TOWER SITE.

PROJECT BENCHMARK

PROJECT BENCHMARK ELEVATION DATUM IS BASED UPON GPS SURVEY METHODS AND PROCEDURES. TOP OF CAPPED "SHARONDALE NASHVILLE" IRON PIN SET THIS SURVEY ELEVATION = 346.32' N.A.V.D. 88 (SEE PLAN FOR LOCATION)

GPS SURVEY CERTIFICATION:

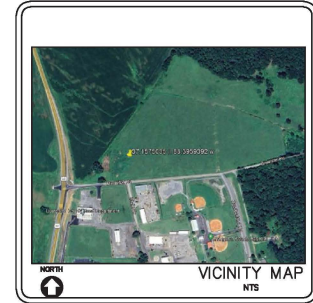
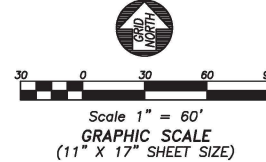
1. THIS SURVEY WAS PERFORMED USING RTK POSITIONAL DATA.
2. EQUIPMENT USED WAS A SOKKIA GRK3, DUAL FREQUENCY, BASE SERIAL # 1467-10565, ROVER SERIAL # 1467-10590.
3. THE GRID COORDINATES OF THE FIXED STATION(S) SHOWN WERE DERIVED USING A VRS NETWORK OF THE CORPS STATIONS REFERENCING NAD 83 (2011), (EPOCH 2010), GEOID 12B.
4. THE RELATIVE POSITIONAL ACCURACY OF THE GPS VECTORS DOES NOT EXCEED 0.1" H & 0.01" V.
5. BEARINGS ARE RELATIVE TO KENTUCKY STATE PLANE (SOUTH ZONE). ALL REFERENCES TO GRID BEARINGS AND KENTUCKY STATE PLANE (SOUTH ZONE) COORDINATES AS INDICATED ARE UNADJUSTED, NAD 83 SURVEY FEET, WITH CONVERGENCE ANGLE OF -0.84358111 DEGREES, A SCALE FACTOR OF 0.99978940 DEGREES, AND A COMBINED FACTOR OF 0.9997736 DEGREES.

SPECIAL NOTE:

THIS SURVEY PLAN WAS PERFORMED UNDER THE AUTHORITY OF KENTUCKY REVISED STATUTES (201 KAR 18.150), AND IS NOT TO BE CONSIDERED A GENERAL PROPERTY BOUNDARY SURVEY AS DEFINED WITHIN KENTUCKY REVISED STATUTES. DIMENSIONS (IF SHOWN) ALONG THE PERIMETER OF THE LANDOWNER'S PROPERTY ARE PROVIDED UNDER THIS SURVEYOR'S SCOPE OF SERVICES WITH APC TOWERS IV, LLC, AND ARE TO BE CONSIDERED FOR REFERENCE ONLY. THE EXACT LOCATION OF THE LANDOWNER'S PROPERTY MAY DIFFER UPON THE PREPARATION OF A FULL BOUNDARY SURVEY IN ACCORDANCE WITH REQUIREMENTS ESTABLISHED BY THE STATE OF KENTUCKY.

CENTERLINE OF PROPOSED TOWER LEASE AREA
 LATITUDE = 37° 09' 27.01"
 LONGITUDE = 88° 23' 45.38"
 ELEVATION = 347.00' N.A.V.D. 88

KY SPC (SOUTH ZONE)
 NAD 83 GRID NORTH

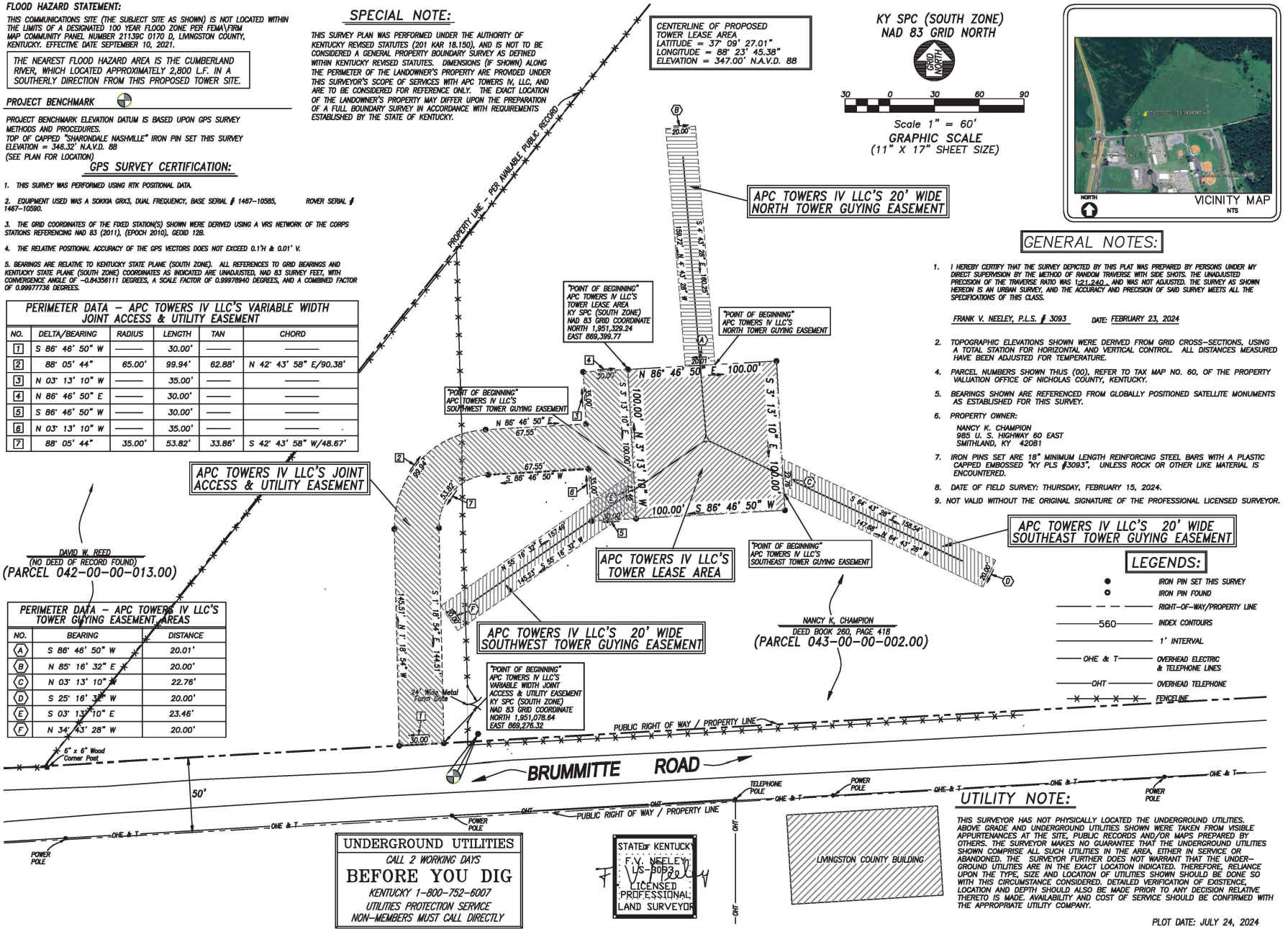


GENERAL NOTES:

1. I HEREBY CERTIFY THAT THE SURVEY DEPICTED BY THIS PLAN WAS PREPARED BY PERSONS UNDER MY DIRECT SUPERVISION BY THE METHOD OF RANDOM TRVERSE WITH SUE SHOTS. THE UNADJUSTED PRECISION OF THE TRVERSE RATIO WAS 1:21,240, AND WAS NOT ADJUSTED. THE SURVEY AS SHOWN HEREIN IS AN URBAN SURVEY, AND THE ACCURACY AND PRECISION OF SAID SURVEY MEETS ALL THE SPECIFICATIONS OF THIS CLASS.
 FRANK V. NEELEY, P.L.S. # 3093 DATE: FEBRUARY 23, 2024
2. TOPOGRAPHIC ELEVATIONS SHOWN WERE DERIVED FROM GRID CROSS-SECTIONS, USING A TOTAL STATION FOR HORIZONTAL AND VERTICAL CONTROL. ALL DISTANCES MEASURED HAVE BEEN ADJUSTED FOR TEMPERATURE.
3. PARCEL NUMBERS SHOWN THUS (00), REFER TO TAX MAP NO. 60, OF THE PROPERTY VALUATION OFFICE OF NICHOLAS COUNTY, KENTUCKY.
4. BEARINGS SHOWN ARE REFERENCED FROM GLOBALLY POSITIONED SATELLITE MONUMENTS AS ESTABLISHED FOR THIS SURVEY.
5. PROPERTY OWNER: NANCY K. CHAMPION 605 U. S. HIGHWAY 60 EAST SMITHLAND, KY 42081
6. IRON PINS SET ARE 18" MINIMUM LENGTH REINFORCING STEEL BARS WITH A PLASTIC CAPPED EMBOSSED "KY PLS #3093", UNLESS ROCK OR OTHER LIKE MATERIAL IS ENCOUNTERED.
7. DATE OF FIELD SURVEY: THURSDAY, FEBRUARY 15, 2024.
8. NOT VALID WITHOUT THE ORIGINAL SIGNATURE OF THE PROFESSIONAL LICENSED SURVEYOR.

PERIMETER DATA - APC TOWERS IV LLC'S VARIABLE WIDTH JOINT ACCESS & UTILITY EASEMENT					
NO.	DELTA/BEARING	RADIUS	LENGTH	TAN	CHORD
1	S 86° 46' 50" W	---	30.00'	---	---
2	88° 05' 44"	65.00'	99.94'	62.88'	N 42° 43' 58" E/90.38'
3	N 03° 13' 10" W	---	35.00'	---	---
4	N 86° 46' 50" E	---	30.00'	---	---
5	S 86° 46' 50" W	---	30.00'	---	---
6	N 03° 13' 10" W	---	35.00'	---	---
7	88° 05' 44"	35.00'	53.82'	33.86'	S 42° 43' 58" W/48.67'

PERIMETER DATA - APC TOWERS IV LLC'S TOWER GUYING AREAS		
NO.	BEARING	DISTANCE
A	S 86° 46' 50" W	20.01'
B	N 85° 16' 32" E	22.00'
C	N 03° 13' 10" W	22.76'
D	S 25° 16' 32" W	20.00'
E	S 03° 13' 10" E	23.46'
F	N 34° 43' 28" W	20.00'



LEGENDS:

- IRON PIN SET THIS SURVEY
- IRON PIN FOUND
- RIGHT-OF-WAY/PROPERTY LINE
- 560 INDEX CONTOURS
- 1' INTERVAL
- OHE & T OVERHEAD ELECTRIC & TELEPHONE LINES
- DHT OVERHEAD TELEPHONE
- × × × × × FENCELINE

UTILITY NOTE:

THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES AT THE SITE, PUBLIC RECORDS AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY.

UNDERGROUND UTILITIES
 CALL 2 WORKING DAYS
BEFORE YOU DIG
 KENTUCKY 1-800-752-6007
 UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST CALL DIRECTLY

STATE OF KENTUCKY
 F. V. NEELEY
 P.L.S. # 3093
 LICENSED PROFESSIONAL
 LAND SURVEYOR

PLOT DATE: JULY 24, 2024

APC Towers

SHARONDALE SURVEYING INC.
 161 MARTIN ROAD
 BOWLING GREEN, KY 40302
 (615) 513-0032
 E-Mail: Sharonda@apctowers.net

KENTUCKY SURVEYING: KENTUCKY "EV SMITHLAND NORTH" TOWER SITE
 LOCATED IN: SMITHLAND, LIVINGSTON COUNTY, KENTUCKY
 TOWER LEASE AREA SURVEY
 PREPARED FOR: APC TOWERS IV LLC
 APC TOWERS IV LLC SITE NUMBER: 5000931481

SHEET NUMBER:
1 OF 2

PROJECT NUMBER:
 224.014.20

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE



PIKE LEGAL GROUP PLLC
1578 Highway 44 East, Unit 6
PO Box 369
Shepherdsville, KY 40165-0369
Phone: 502-955-4400
Fax: 502-543-4410

VIA CERTIFIED MAIL

Teris Swanson
County Judge Executive
P.O. Box 70
Smithland, KY 42081

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2024-00291
Site Name: EV Smithland North

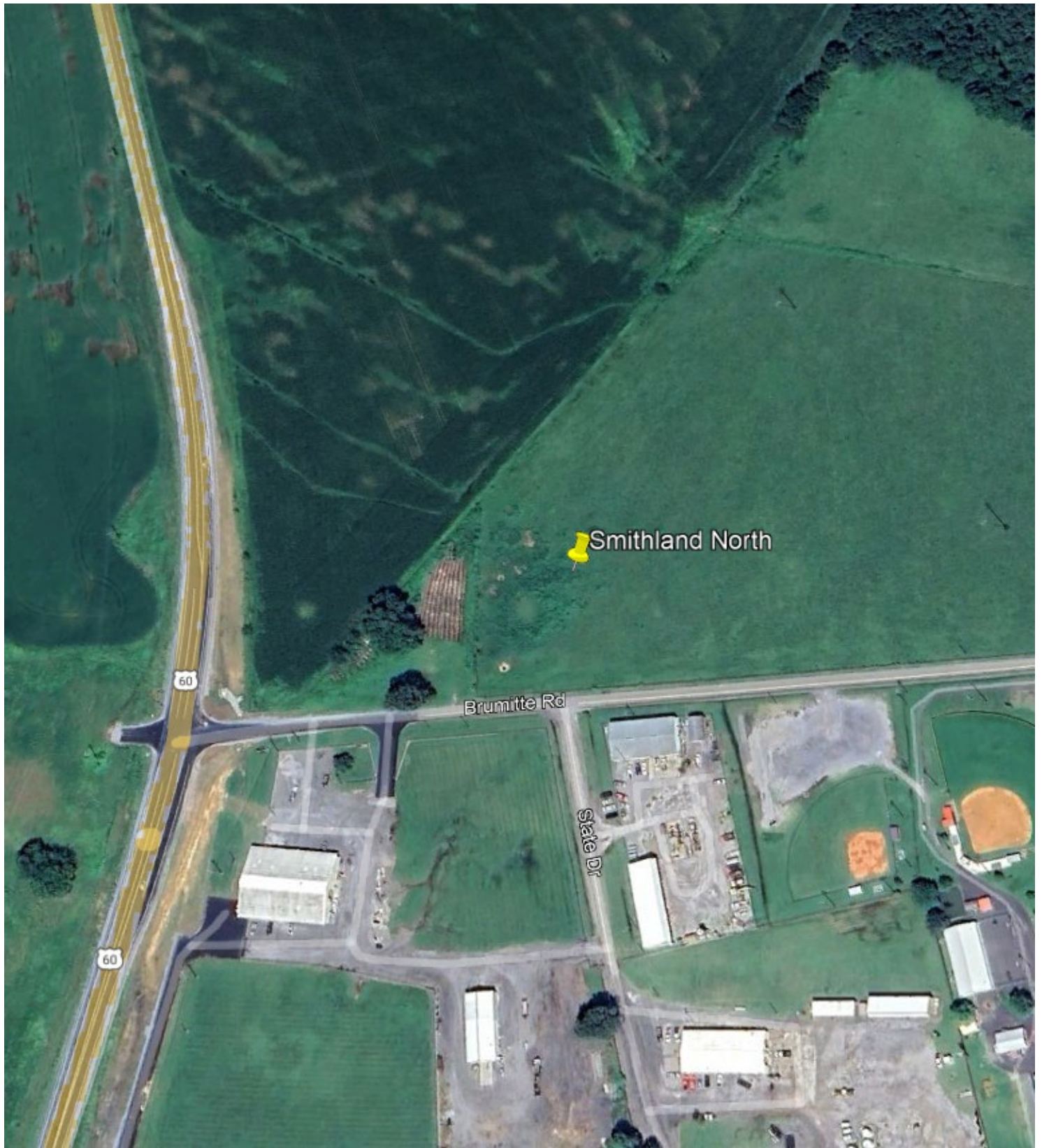
Dear Judge/Executive:

APC Towers IV, LLC, a Delaware limited liability company, and Cellco Partnership d/b/a Verizon Wireless are filing an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on Brumitte Road, Smithland, Kentucky 42081 (37° 09' 27.01" North latitude, 88° 23' 45.38" West longitude). The proposed facility will include a 250-foot tall guyed tower with a 5-foot tall lightning arrestor attached at the top for a total height of 255 feet, plus related ground facilities. This facility is needed to provide improved service 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 2024-00291 in any correspondence sent in connection with this matter.

We have attached a map showing the site location for the proposed tower. Verizon Wireless' 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 Applicant
enclosures



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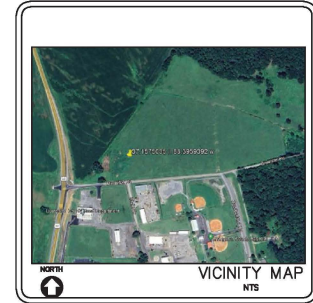
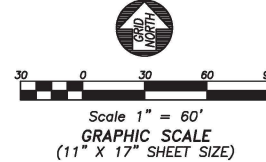
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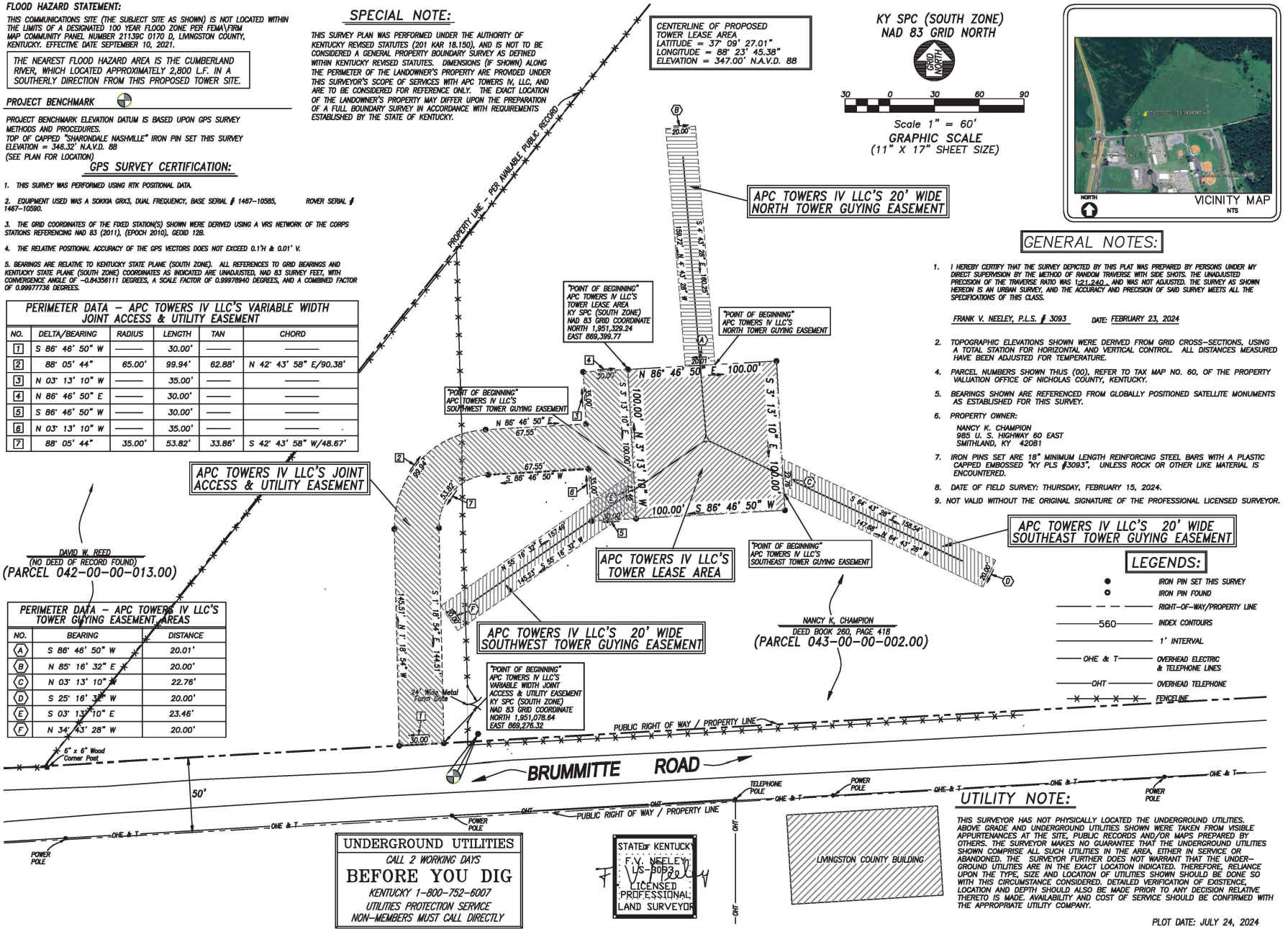


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 FRANK V. NEELEY, P.L.S. # 3093 DATE: FEBRUARY 23, 2024
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- × × × × × FENCELINE

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 NON-MEMBERS MUST CALL DIRECTLY

STATE OF KENTUCKY
 F. V. NEELEY
 P.L.S. # 3093
 LICENSED PROFESSIONAL
 LAND SURVEYOR




SHARONDALE SURVEYING INC.
 161 MARTIN ROAD
 BOWLING GREEN, KY 40302
 (615) 513-0032
 E-Mail: Sharonda@bellsouth.net

APC TOWERS IV LLC SITE SURVEY: KENTUCKY "EV SMITHLAND NORTH" TOWER SITE
 LOCATED IN: SMITHLAND, LIVINGSTON COUNTY, KENTUCKY
 TOWER LEASE AREA SURVEY
 PREPARED FOR: APC TOWERS IV LLC
 APC TOWERS IV LLC SITE NUMBER: 5000931481

SHEET NUMBER:
1 OF 2
 PROJECT NUMBER:
 224.014.20

PLOT DATE: JULY 24, 2024

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY																
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Teris Swanson</i> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Teris Swanson</i> Date of Delivery <i>9/11/24</i></p>																
<p>1. Article Addressed to:</p> <p>Teris Swanson County Judge Executive P. O. Box 70 Smithland, KY 42081</p>  <p>9590 9402 7926 2305 8810 38</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>																
<p>2. Article Number (Transfer from service label)</p> <p>7022 3330 0000 3636 7146</p>	<p>3. Service Type</p> <table border="0"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>	<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®	<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™	<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery	<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Collect on Delivery Restricted Delivery		<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®																
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™																
<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery																
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation™																
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery																
<input type="checkbox"/> Collect on Delivery Restricted Delivery																	
<input type="checkbox"/> Insured Mail																	
<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)																	
<p>PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt</p>																	

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com

OFFICIAL USE
 SEP 11 2024
 40165

Certified Mail Fee	\$	
Extra Services & Fees (check box, add fee as appropriate)		
<input type="checkbox"/> Return Receipt (hardcopy)	\$	
<input type="checkbox"/> Return Receipt (electronic)	\$	
<input type="checkbox"/> Certified Mail Restricted Delivery	\$	
<input type="checkbox"/> Adult Signature Required	\$	
<input type="checkbox"/> Adult Signature Restricted Delivery	\$	
Postage	\$	

7022 3330 0000 3636 7146

Teris Swanson
County Judge Executive
P. O. Box 70
Smithland, KY 42081

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

**EXHIBIT M
COPY OF POSTED NOTICES
AND NEWSPAPER NOTICE ADVERTISEMENT**

SITE NAME: EV SMITHLAND NORTH
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.

APC Towers IV, LLC, a Delaware limited liability company, and Cellco Partnership d/b/a Verizon Wireless 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; (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00291 in your correspondence.

APC Towers IV, LLC, a Delaware limited liability company, and Cellco Partnership d/b/a Verizon Wireless 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; (800) 516-4293, or the Executive Director, Public Service Commission, 211 Sower Boulevard, PO Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2024-00291 in your correspondence.



PIKE LEGAL GROUP PLLC
1578 Highway 44 East, Unit 6
PO Box 369
Shepherdsville, KY 40165-0369
Phone: 502-955-4400
Fax: 502-543-4410

Livingston Ledger
Attn: Public Notice Ad Placement
129 Adair St.
Smithland, KY 42081
(270) 442-7389
Via Email: kpibrenda7@gmail.com
greg007@ky-news.com

RE: Legal Notice Advertisement
Site Name: EV Smithland North

Dear Livingston Ledger:

Please publish the following legal notice advertisement in the next edition of *The Livingston Ledger*:

NOTICE

APC Towers IV, LLC, a Delaware limited liability company, and Cellco Partnership d/b/a Verizon Wireless are filing an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at Brumitt Road, Smithland, KY 42081 (37°09'27.01" North latitude, 88°23'45.38" 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 2024-00291 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



EV Smithland North - SR

EV Smithland North - APC Cand.

Brumitte Rd

954 ft

Image © 2024 Airbus