COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF	)	
PI TELECOM INFRASTRUCTURE V, LLC	)	
AND CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS	)	
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC	)	CASE NO.: 2016-00078
CONVENIENCE AND NECESSITY TO CONSTRUCT	)	
A WIRELESS COMMUNICATIONS FACILITY	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY OF LIVINGSTON	)	

SITE NAME: VULCAN MATERIALS

RECEIVED
MAR 29 2016
PUBLIC SERVICE COMMISSION

* * * * * * *

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

PI Telecom Infrastructure V, LLC, and Cellco Partnership, a Delaware General 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, Applicant respectfully provides and states the following information:

1. The complete names and addresses of the Applicants are PI Telecom

Infrastructure V, LLC, having an address of 7411 Fullerton Street, Suite 110, Jacksonville, FL 32256 and Cellco Partnership, a Delaware general partnership, d/b/a Verizon Wireless, having an address of 2421 Holloway Road, Louisville, KY 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. The Certificate of Formation for PI Telecom Infrastructure V, LLC and the Certificate of Authorization issued by the Kentucky Secretary of State for Verizon Wireless are attached as part of **Exhibit A**. Both Applicants are in good standing in the state in which they are organized and are authorized to transact business in Kentucky.

4. Verizon Wireless operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Verizon Wireless' FCC license to provide wireless services is 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. PI Telecom Infrastructure V, LLC will build, own and manage the tower and tower compound where Verizon Wireless will place its equipment building, antennas, radio electronics equipment and appurtenances.

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

6. To address the above-described service needs, Applicants propose to construct a WCF at 751 Forrest Road, Grand Rivers, KY 42045 (37°02'46.21" North latitude, 88°16'25.36" 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 Jack L. Cothran, Jr. and Shirley Cothran pursuant to a Deed recorded at Deed Book 237, Page 715 in the office of the Livingston County Clerk. The proposed WCF will consist of a 290-foot tall tower, with an approximately 5-foot tall lightning arrestor attached at the top, for a total height of 295-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of Verizon Wireless' radio electronics equipment and appurtenant equipment. Verizon Wireless' 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**.

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

8. 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 has also been included as part of **Exhibit B**. As shown on this exhibit, the site has been designed to accommodate the co-location of future antennas.

9. 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**.

10. 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 Verizon Wireless' antennas on an existing structure. When suitable towers or structures exist, Applicants attempt to co-locate on existing structures such as communications towers or other structures capable of supporting Applicants' facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site. A report detailing Applicant's site selection process for the subject site (including documentation as to why co-location is not possible for this site) is attached as **Exhibit E**.

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

12. A copy of the Kentucky Airport Zoning Commission ("KAZC") Approval to construct the tower is attached as **Exhibit G**.

13. 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 H**. 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.

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

15. Applicants, pursuant to a written agreement, have 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 J**.

16. 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.

17. The Construction Manager for the proposed facility is Don Hall, and the identity and qualifications of each person directly responsible for design and construction of the proposed tower are contained **Exhibits B & C**.

18. 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.

19. **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**.

20. Applicants have notified every person who, according to the records of the County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. Each notified property owner has been provided with a map of the location of the proposed construction, the telephone number and 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 K** and **Exhibit L**, respectively.

21. 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 M**.

22. 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 N**. Notice of the location of the proposed facility has been published in a newspaper of general circulation in the county in which the WCF is proposed to be located.

23. The general area where the proposed facility is to be located is rural with an interstate highway, rock quarry and the Tennessee River in the general area of the site.

24. 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 Applicant when searching for sites for its antennas that would provide the coverage deemed necessary Verizon Wireless. 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 O**.

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

prepared by a radio frequency engineer that describes the need for the proposed facility is attached as **Exhibit P**.

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

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

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

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

Respectfully submitted,

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

LIST OF EXHIBITS

A - FCC License Documentation and Corporate Documents

B - Site Development Plan:

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

C - Tower and Foundation Design

D - Competing Utilities, Corporations, or Persons List

E - Site Selection Report

F - FAA

G - Kentucky Airport Zoning Commission

H - Geotechnical Report

I - Directions to WCF Site

J - Copy of Real Estate Agreement

K - Notification Listing

L - Copy of Property Owner Notification

M - Copy of County Judge/Executive Notice

N - Copy of Posted Notices

O - Copy of Radio Frequency Design Search Area

P - Radio Frequency Report

EXHIBIT A
FCC LICENSE DOCUMENTATION
AND CORPORATE DOCUMENTS

0926695.06 amcray ADD

Alison Lundergan Grimes
Kentucky Secretary of State
Received and Filed:
7/8/2015 10:09 AM
Fee Receipt: $90.00

COMMONWEALTH OF KENTUCKY
ALISON LUNDERGAN GRIMES, SECRETARY OF STATE

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

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

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

2. The name of the entity is PI TELECOM INFRASTRUCTURE V, LLC
(The name must be identical to the name on record with the Secretary of State.)

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

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

5. The date of organization is 7/11/2014 and the period of duration is _____
(If left blank, the period of duration is considered perpetual.)

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

2855 Le Jeune Rd., 4th Floor	Coral Gables	FL	33134
Street Address	City	State	Zip Code

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

421 West Main Street	Frankfort	KY	40601
Street Address (No P.O. Box Numbers)	City	State	Zip Code

and the name of the registered agent at that office is Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company

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

Name	Street or P.O. Box	City	State	Zip Code
Yannis Macheras (P)	Same as Principal Office			
Kolleen Cobb (VP, S)	Same as Principal Office			
Juan Godoy (VP, T, AS)	Same as Principal Office			

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

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

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

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

PI Telecom Infrastructure V, LLC
By: [signature] Caroline M. Kriz Asst Vice President | Kolleen Cobb, Vice President | _____
Signature of Authorized Person | Printed Name & Title | Date

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

[signature] | Caroline M. Kriz | Asst Vice President | 6/26/15
Signature of Registered Agent | Printed Name | Title | Date

(01/12)

COMMONWEALTH OF KENTUCKY
TREY GRAYSON
SECRETARY OF STATE

0641227.07 Doornish C226

Trey Grayson
Secretary of State
Received and Filed
08/21/2006 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]

- ☐ a Domestic General Partnership
- ☐ a Domestic Registered Limited Liability Partnership
- ☐ a Domestic Limited Partnership
- ☐ a Domestic Business Trust
- ☐ a Domestic Corporation
- ☐ a Domestic Limited Liability Company
- ☐ a Joint Venture
- ☑ a Foreign General Partnership
- ☐ a Foreign Registered Limited Liability Partnership
- ☐ a Foreign Limited Partnership
- ☐ a Foreign Business Trust
- ☐ a Foreign Corporation
- ☐ a Foreign Limited Liability Company

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

One Verizon Way	Basking Ridge	NJ	07920
(Street Address, P.O.B.)	(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)

SOS-228 (7/96)

(See attached sheet for instructions)

ULS License

Cellular License - KNKN871 - Cellco Partnership

PA This license has pending applications: 0007100612

Call Sign	KNKN871	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

Market

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

Dates

Grant	08/30/2011	Expiration	10/01/2021
Effective	08/20/2013	Cancellation	

Five Year Buildout Date

02/24/1997

Control Points

2 500 West Dove Road, TARRANT, Southlake, TX
P: (800)264-6620

Licensee

FRN	0003290673	Type	General Partnership

Licensee

Cellco Partnership
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Contact

Verizon Wireless
Licensing Manager
LicensingCompliance@VerizonWireless.com
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

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

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

Demographics

Race

Ethnicity

Gender

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA718 - Cellco Partnership

PA This license has pending applications: 0007100612, 0007100093

Call Sign	WQGA718	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular

Market

Market	REA004 - Mississippi Valley	Channel Block	F
Submarket	13	Associated Frequencies (MHz)	001745.00000000-001755.00000000 002145.00000000-002155.00000000

Dates

Grant	11/29/2006	Expiration	11/29/2021
Effective	12/11/2015	Cancellation	

Buildout Deadlines

1st	2nd

Notification Dates

1st	2nd

Licensee

FRN	0003290673	Type	General Partnership

Licensee

Cellco Partnership
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Contact

Verizon Wireless
Licensing - Manager
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No

Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**

The Alien Ruling question is not answered.

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

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA960 - Cellco Partnership

This license has pending applications: 0007100612

Call Sign	WQGA960	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular

Market

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

Dates

Grant	11/29/2006	Expiration	11/29/2021
Effective	01/04/2014	Cancellation	

Buildout Deadlines

1st	2nd

Notification Dates

1st	2nd

Licensee

FRN	0003290673	Type	General Partnership

Licensee

Cellco Partnership
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Contact

Verizon Wireless
Licensing Manager
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Non-Common Carrier	Interconnected	No

Alien Ownership

Is the applicant a foreign government or the representative of	No

any foreign government?	
Is the applicant an alien or the representative of an alien?	No
Is the applicant a corporation organized under the laws of any foreign government?	No
Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	No
Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country?	**Yes**
If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application?	**Yes**

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

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

ULS License

700 MHz Upper Band (Block C) License - WQJQ692 - Cellco Partnership

This license has pending applications: 0007100612, 0007099667, 0007100057, 0007100093, 0007100208, 0007097638, 0007097563, 0005826927

Call Sign	WQJQ692	Radio Service	WU - 700 MHz Upper Band (Block C)
Status	Active	Auth Type	Regular

Market

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

Dates

Grant	11/26/2008	Expiration	06/13/2019
Effective	12/30/2015	Cancellation	

Buildout Deadlines

1st	06/13/2013	2nd	06/13/2019

Notification Dates

1st	2nd

Licensee

FRN	0003290673	Type	General Partnership

Licensee

Cellco Partnership
1120 Sanctuary Pkwy, #150 GASA5REG
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Contact

Verizon Wireless
Licensing Manager
LicensingCompliance@VerizonWireless.com
Alpharetta, GA 30009-7630
ATTN Regulatory

P:(770)797-1070
F:(770)797-1036
E:LicensingCompliance@VerizonWireless.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

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

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

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

EXHIBIT B

SITE DEVELOPMENT PLAN:

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

VULCAN MATERIALS, GRAND RIVERS, KY

751 FORREST ROAD
GRAND RIVERS, KY 42045
LIVINGSTON COUNTY
TENANT: CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS
"EV VULCAN MATERIALS"

Parallel INFRASTRUCTURE
7411 FULLERTON ST, SUITE 110
JACKSONVILLE, FL 32256

NEW 290' LATTICE TOWER
w/ 5' LIGHTNING ROD
TOTAL TOWER HEIGHT 295'

FROM SWITCH ADDRESS 900 RUSSELL RD, CHANDLER, IN 47610: DEPART ON RUSSELL RD [S COUNTY ROAD 675 W] (NORTH) 0.4 MI, TURN LEFT (WEST) ONTO GARDNER RD 0.5 MI, KEEP STRAIGHT ONTO GARDNER RD [W COUNTY ROAD 50 S] 1.1 MI, BEAR LEFT (WEST) ONTO IN-62 [STATE ROUTE 62 W] 4.2 MI, TAKE RAMP (RIGHT) ONTO I-164 8.3 MI, I-164 S AT EXIT 0, TURN RIGHT ONTO RAMP 0.2 MI, US-41 / VINCENNES / HENDERSON KY. KEEP LEFT TO STAY ON RAMP 0.5 MI, US-41 S / KENTUCKY AVE. / HENDERSON KY. KEEP RIGHT TO STAY ON RAMP 0.1 MI, US-41 S / KENTUCKY AVE. / HENDERSON KY. TAKE RAMP (RIGHT) ONTO US-41 8.5 MI, US-41 S / HENDERSON KY. ENTERING KENTUCKY, ROAD NAME CHANGES TO PENNYRILE PKWY 13.5 MI, ROAD NAME CHANGES TO EDWARD T BREATHITT PENNYRILE PKWY 20.7 MI, ROAD NAME CHANGES TO US-41 [EDWARD T BREATHITT PENNYRILE PKWY] 10.2 MI, AT EXIT 34B, TAKE RAMP (RIGHT) ONTO WENDELL H FORD WESTERN KENTUCKY PKWY 38.4 MI, WENDELL H. FORD WESTERN KENTUCKY PARKWAY WEST / PADUCAH AT EXIT 1B, TAKE RAMP (RIGHT) ONTO I-24 10.7 MI, I-24 W / JULIAN M CARROLL PURCHASE PARKWAY / PADUCAH AT EXIT 31, TURN RIGHT ONTO RAMP 0.2 MI, KY-453 / SMITHLAND / GRAND RIVERS TURN RIGHT (NORTH) ONTO KY-453 [DOVER RD] 0.6 MI, TURN LEFT (SOUTH-WEST) ONTO ACCESS DRIVE 0.2 MI, ARRIVE AT SITE.

FROM 335 COURT ST, SMITHLAND, KY 42081: DEPART ON KY-453 [COURT ST] (EAST) 0.3 MI, KEEP STRAIGHT ONTO KY-453 [IUKA RD] 7.0 MI, TURN RIGHT (SOUTH-EAST) ONTO KY-453 [DOVER RD] 3.2 MI, TURN RIGHT (SOUTH-WEST) ONTO ACCESS DRIVE 0.2 MILES, ARRIVE AT SITE

PROJECT SUMMARY

TOWER OWNER SITE
SITE NAME: VULCAN MATERIALS, GRAND RIVERS, KY
SITE #: PI3KY 00014.A

VERIZON WIRELESS SITE
EV VULCAN MATERIALS
PROJECT#: 20151215232 (NMICH)
MARKET ID: KY RSA 2
LOCATION CODE: 382047

SITE ADDRESS
751 FORREST ROAD
GRAND RIVERS, KY 42045
LIVINGSTON COUNTY
E911 ADDRESS: TBD

TOWER OWNER
PI TELECOM INFRASTRUCTURE V, LLC
7411 FULLERTON ST, SUITE 110
JACKSONVILLE, FL 32256
CONTACT: ALEJANDRA STINSON
PHONE: 513-259-3673
E-MAIL: alejandra.stinson@pitowers.com

PROPERTY OWNER
JACK L. COTHRAN JR. AND SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045
PHONE: 270-508-0298

POLICE
CALVERT CITY POLICE DEPARTMENT
861 E 5TH AVE
CALVERT CITY, KY 42029
PHONE: 270-395-4545

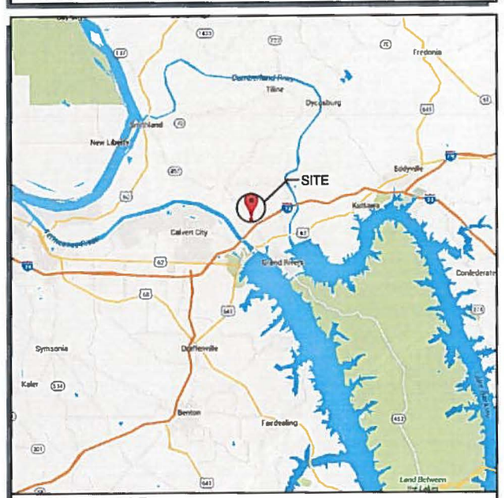
FIRE
GRAND LAKES FIRE DEPARTMENT
118 W CUMBERLAND AVE
GRAND RIVERS, KY 42045
PHONE: 270-362-4085

GENERAL INFORMATION
LATITUDE – 37° 02' 46.21" N
LONGITUDE – 88° 18' 25.36" W
1983 (NAD 83)
ELEVATION – 432.9'± AMSL
1983 (NAVD 83)

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

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

VICINITY MAP



PROJECT DESCRIPTION

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:

PI TELECOM INFRASTRUCTURE V, LLC SCOPE:
- INSTALL A NEW 290' TYPE TOWER w/ 5' LIGHTNING ROD (TOTAL 295')
- INSTALL A NEW TOWER FOUNDATION SYSTEM
- INSTALL A NEW 98'X98' FENCED GRAVEL COMPOUND
- INSTALL A NEW ELECTRICAL SERVICE RUN TO SITE 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 (6) NEW CONCRETE PIER FOUNDATIONS AND CONCRETE STOOP
- INSTALL ELECTRICAL SERVICE CONDUIT WITH PULL TAPES FROM EQUIPMENT PLATFORM TO UTILITY H-FRAME
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE AND TRACER WIRE FROM VZW EQUIPMENT TO NEW "VERIZON WIRELESS ONLY" HAND HOLE OUTSIDE COMPOUND
- INSTALL (1) NEW "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT WITH PULL TAPE FROM NEW "VERIZON WIRELESS ONLY" HAND HOLE AND STUB UP AT FUTURE FIBER PEDESTAL LOCATION

VERIZON WIRELESS SCOPE (VZW GC):
- INSTALL A NEW 10'-0"x17'-6" PREFABRICATED RADIO EQUIPMENT PLATFORM ON EXISTING CONCRETE PIER FOUNDATIONS
- INSTALL VZW ICE BRIDGE AND FOUNDATIONS
- INSTALL VZW ANTENNA MOUNTING SUPPORT STRUCTURE ON TOWER
- INSTALL VZW ANTENNAS, LINES, COAX, GPS ANTENNAS AND RADIO EQUIPMENT
- INSTALL EXISTING SUBSURFACE GROUND LEADS TO VZW EQUIPMENT & FACILITIES
- INSTALL VZW ELECTRIC SERVICE CONDUCTORS FROM UTILITY H-FRAME TO VZW EQUIPMENT PLATFORM
- INSTALL (2) 1-1/4" & (1) 1" INNERDUCTS WITH PULL TAPES AND TRACER WIRE WITHIN OWNER INSTALLED "VERIZON WIRELESS ONLY" FIBER OPTIC CONDUIT

LOCATION MAP

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	2013 KENTUCKY BUILDING CODE (KBC 2012)
STRUCTURAL CODE	TIA/EIA-222 – REVISION G (INCLUDES ADDENDUM #2)
MECHANICAL CODE	2012 INTERNATIONAL MECHANICAL CODE (IMC 2012)
PLUMBING CODE	KENTUCKY STATE PLUMBING CODE (815 KAR CHAP. 20)
ELECTRICAL CODE	2014 NATIONAL ELECTRICAL CODE (NEC) – NFPA 70
FIRE/LIFE SAFETY CODE	2012 INTERNATIONAL FIRE CODE (2012 IFC)
ENERGY CODE	2012 INTERNATIONAL ENERGY CODE (COMMERCIAL)
GAS CODE	2009 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 2009 IBC BUILDING CODE.

APPLICABLE CODES

SURVEYOR
POINT TO POINT LAND SURVEYORS
1010 PENNSYLVAINA AVENUE
McDONOUGH, GA 30253
PHONE: 678-565-4440

ELECTRICAL
JACKSON PURCHASE ENERGY
CUSTOMER SRV #4
ADDRESS: 2900 IRVIN COBB DRIVE
PADUCAH, KY 42033
PHONE: 800-633-4044

ARCHITECTURAL
JACOBS ENGINEERING GROUP, INC.
5449 BELLS FERRY
ACWORTH, GA, 30102
CONTACT: KARL KRATINA
PHONE: 678-460-1416
EMAIL: KARL.KRATINA@JACOBS.COM

ELECTRICAL UTILITY COORDINATION IS NOT FINALIZED. DO NOT PROCEED WITH CONSTRUCTION.

CONSULTANT TEAM

AERIAL

SHEET NUMBER	DESCRIPTION
T-1	PROJECT INFORMATION, SITE MAPS, SHEET INDEX
SURVEY	
1	SURVEY (BY OTHERS)
2	SURVEY (BY OTHERS)
3	SURVEY (BY OTHERS)
TOWER ELEVATION	
TE-1	TOWER ELEVATION
CIVIL	
C-1	OVERALL SITE PLAN w/AERIAL OVERLAY
C-1A	ACCESS ROAD DETAIL
C-3	DETAILED SITE PLAN
SITE DETAILS	
D-1	FENCE DETAILS AND NOTES
D-4	SITE FENCE SIGNAGE (REFERENCE ONLY)

NOT FOR CONSTRUCTION

PREPARED FOR:
verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:
Parallel INFRASTRUCTURE

PREPARED BY:
JACOBS
Jacobs Engineering Group, Inc.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

ENGINEER SEAL:
STATE OF KENTUCKY
WALTER M. PRATHER
20824
3-24-16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISION:

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

VERIZON SITE ID:
EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

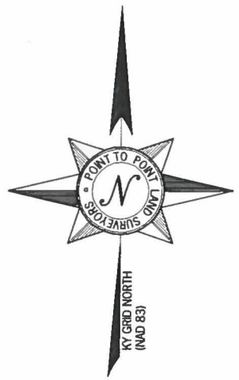
PROPOSED PI SITE ID:
PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:
PROJECT INFORMATION, SITE MAPS, SHEET INDEX

SHEET NUMBER:
T-1



PARENT PARCEL

FEE OWNER: JACK L. COTHRAN JR. & SHIRLEY COTHRAN

FEE OWNERS ADDRESS: 905 DOVER RD, GRAND RIVERS, KY 42045

SITE ADDRESS: 751 FORREST ROAD, GRAND RIVERS, KY 42045

PARCEL ID: 080-00-00-017.00

AREA: 236.21 ACRES (PER TAX ASSESSOR)

ZONED: NO ZONING IN COUNTY

1) THERE ARE NO SETBACK REQUIREMENTS
2) THERE ARE NO LANDSCAPING OR BUFFER REQUIREMENTS

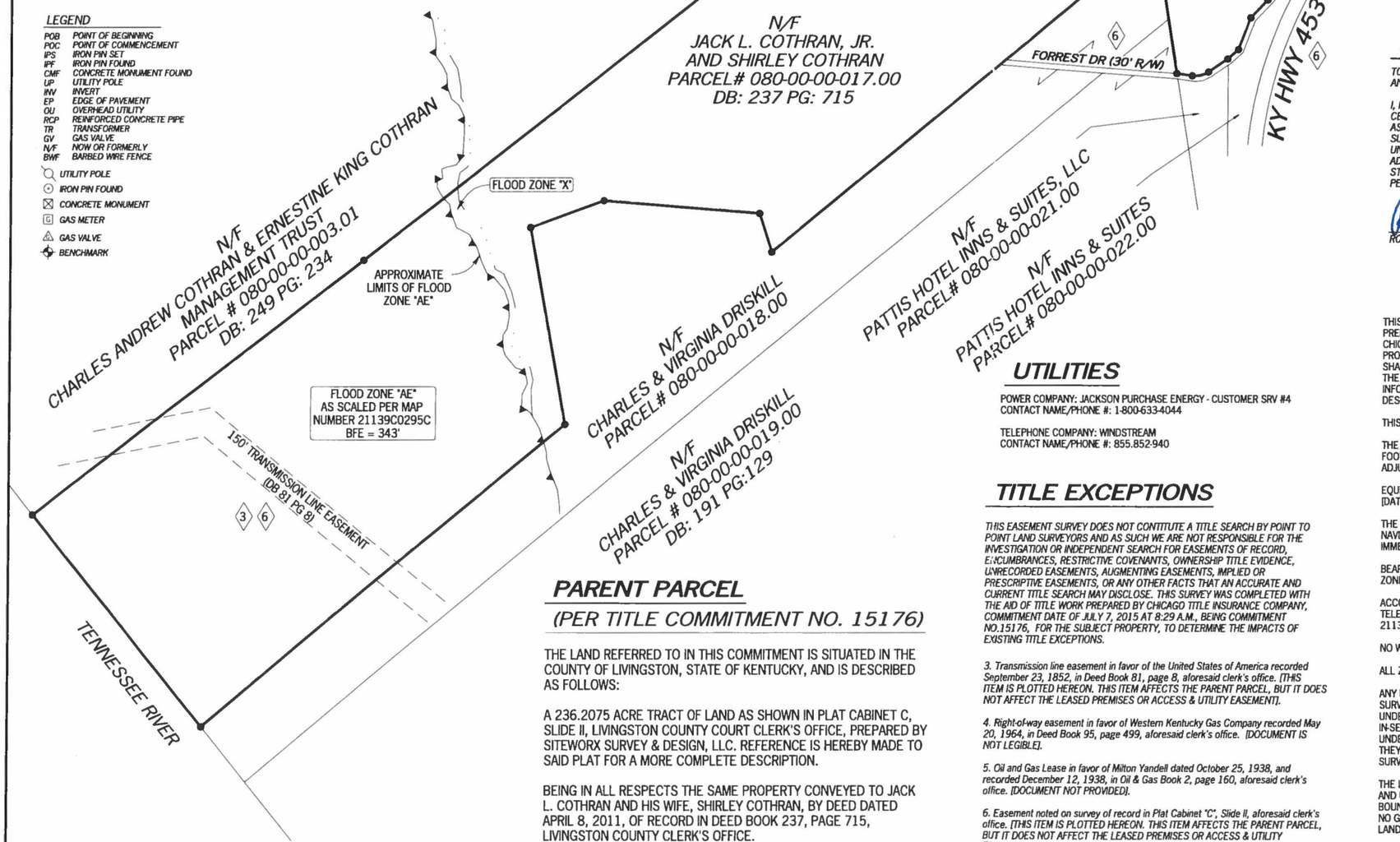
ALL ZONING INFORMATION SHOULD BE VERIFIED WITH THE PROPER ZONING OFFICIALS

REFERENCE: DEED BOOK 237 PAGE 715 & PLAT CABINET C SLIDE 11

JURISDICTION: LIVINGSTON COUNTY

350 0 700 1400

GRAPHIC SCALE IN FEET
SCALE: 1" = 700'



LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
INV	INVERT
EP	EDGE OF PAVEMENT
OU	OVERHEAD UTILITY
RCP	REINFORCED CONCRETE PIPE
TR	TRANSFORMER
GV	GAS VALVE
N/F	NOW OR FORMERLY
BWF	BARBED WIRE FENCE

UTILITY POLE
IRON PIN FOUND
CONCRETE MONUMENT
GAS METER
GAS VALVE
BENCHMARK

PARENT PARCEL

(PER TITLE COMMITMENT NO. 15176)

THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE COUNTY OF LIVINGSTON, STATE OF KENTUCKY, AND IS DESCRIBED AS FOLLOWS:

A 236.2075 ACRE TRACT OF LAND AS SHOWN IN PLAT CABINET C, SLIDE II, LIVINGSTON COUNTY COURT CLERK'S OFFICE, PREPARED BY SITEWORX SURVEY & DESIGN, LLC. REFERENCE IS HEREBY MADE TO SAID PLAT FOR A MORE COMPLETE DESCRIPTION.

BEING IN ALL RESPECTS THE SAME PROPERTY CONVEYED TO JACK L. COTHRAN AND HIS WIFE, SHIRLEY COTHRAN, BY DEED DATED APRIL 8, 2011, OF RECORD IN DEED BOOK 237, PAGE 715, LIVINGSTON COUNTY CLERK'S OFFICE.

UTILITIES

POWER COMPANY: JACKSON PURCHASE ENERGY - CUSTOMER SRV #4
CONTACT NAME/PHONE #: 1-800-633-4044

TELEPHONE COMPANY: WINDSTREAM
CONTACT NAME/PHONE #: 855.852-940

TITLE EXCEPTIONS

THIS EASEMENT SURVEY DOES NOT CONTITUTE A TITLE SEARCH BY POINT TO POINT LAND SURVEYORS AND AS SUCH WE ARE NOT RESPONSIBLE FOR THE INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, UNRECORDED EASEMENTS, AUGMENTING EASEMENTS, IMPLIED OR PRESCRIPTIVE EASEMENTS, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE. THIS SURVEY WAS COMPLETED WITH THE AID OF TITLE WORK PREPARED BY CHICAGO TITLE INSURANCE COMPANY, COMMITMENT DATE OF JULY 7, 2015 AT 8:29 A.M., BEING COMMITMENT NO.15176, FOR THE SUBJECT PROPERTY, TO DETERMINE THE IMPACTS OF EXISTING TITLE EXCEPTIONS.

3. Transmission line easement in favor of the United States of America recorded September 23, 1852, in Deed Book 81, page 8, aforesaid clerk's office. [THIS ITEM IS PLOTTED HEREON. THIS ITEM AFFECTS THE PARENT PARCEL, BUT IT DOES NOT AFFECT THE LEASED PREMISES OR ACCESS & UTILITY EASEMENT].

4. Right-of-way easement in favor of Western Kentucky Gas Company recorded May 20, 1964, in Deed Book 95, page 499, aforesaid clerk's office. [DOCUMENT IS NOT LEGIBLE].

5. Oil and Gas Lease in favor of Milton Yandell dated October 25, 1938, and recorded December 12, 1938, in Oil & Gas Book 2, page 160, aforesaid clerk's office. [DOCUMENT NOT PROVIDED].

6. Easement noted on survey of record in Plat Cabinet "C", Slide II, aforesaid clerk's office. [THIS ITEM IS PLOTTED HEREON. THIS ITEM AFFECTS THE PARENT PARCEL, BUT IT DOES NOT AFFECT THE LEASED PREMISES OR ACCESS & UTILITY EASEMENT].

VICINITY MAP

NOT TO SCALE

SURVEYOR'S CERTIFICATE

TO: PI TELECOM INFRASTRUCTURE V, LLC, A DELAWARE LIMITED LIABILITY COMPANY AND CHICAGO TITLE INSURANCE COMPANY

I, ROLAND D. MCCANN, A KENTUCKY PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THE SURVEY OF THE PROPOSED LEASED PREMISES AND EASEMENTS AS DEPICTED BY THIS SURVEY, WAS PERFORMED BY PERSONS UNDER MY DIRECT SUPERVISION, BY THE METHOD OF RANDOM TRAVERSE WITH SIDE SHOTS. THE UNADJUSTED PRECISION RATIO OF THE TRAVERSE EXCEEDED 1:5,000 AND WAS NOT ADJUSTED FOR CLOSURE. THIS SURVEY MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR AN URBAN SURVEY AS ESTABLISHED BY THE STATE OF KENTUCKY, PER 201 KAR 18:150 AND IN EFFECT ON THE DATE OF THIS SURVEY.

Roland D. McCann 3/22/2016

ROLAND D. MCCANN, PLS 1546 DATE

GENERAL NOTES

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

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

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

EQUIPMENT USED FOR ANGULAR & LINEAR MEASUREMENTS: LEICA TPS 1200 ROBOTIC. [DATE OF LAST FIELD VISIT: 6/15/15]

THE 2' CONTOURS AND SPOT ELEVATIONS SHOWN ON THIS SURVEY ARE ADJUSTED TO NAVD 88 DATUM AND HAVE A VERTICAL ACCURACY OF ± 1'. CONTOURS OUTSIDE THE IMMEDIATE SITE AREA ARE APPROXIMATE.

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

ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", COMMUNITY PANEL NO. 21139C0295C, DATED AUGUST 16, 2012.

NO WETLANDS AREA HAVE BEEN INVESTIGATED BY THIS SURVEY.

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

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

THE LEASED PREMISES IS CONTIGUOS ALONG ITS COMMON BOUNDARIES TO THE ACCESS AND UTILITY EASEMENT, WHICH IN TURN IS CONTIGUOUS ALONG ITS COMMON BOUNDARIES TO THE DOVER ROAD (KY HWY 453) RIGHT OF WAY, AND THAT THERE ARE NO GAPS, GORES, SPACES OR OVERLAPS BETWEEN OR AMONG ANY OF SAID PARCELS OF LAND.

SURVEY NOT VALID WITHOUT SHEETS 2 & 3

STATE of KENTUCKY
ROLAND D. McCANN
1546
LICENSED PROFESSIONAL LAND SURVEYOR

Roland D. McCann

NO.	DATE	REVISION
4	09/24/2015	CLIENT COMMENTS - NRW
5	02/04/2016	CLIENT COMMENTS - NRW
6	03/21/2016	REVISE ACCESS/ADD UTILITY-NRW
7	03/22/2016	CLIENT COMMENTS - KLS

SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SURVEY PREPARED FOR:

Parallel INFRASTRUCTURE
PI TELECOM INFRASTRUCTURE V, LLC & CHICAGO TITLE INSURANCE COMPANY

verizon wireless

"EV VULCAN MATERIALS"

LIVINGSTON COUNTY, KENTUCKY

DRAWN BY: EAL/NRW	SHEET: 1
CHECKED BY: KL	
APPROVED: C. INER	
DATE: JUNE 30, 2015	OF 3
P2P JOB #: G150335	

K:\2015\G150335\EV Vulcan Materials\G150335.pro

40' ACCESS & UTILITY EASEMENT

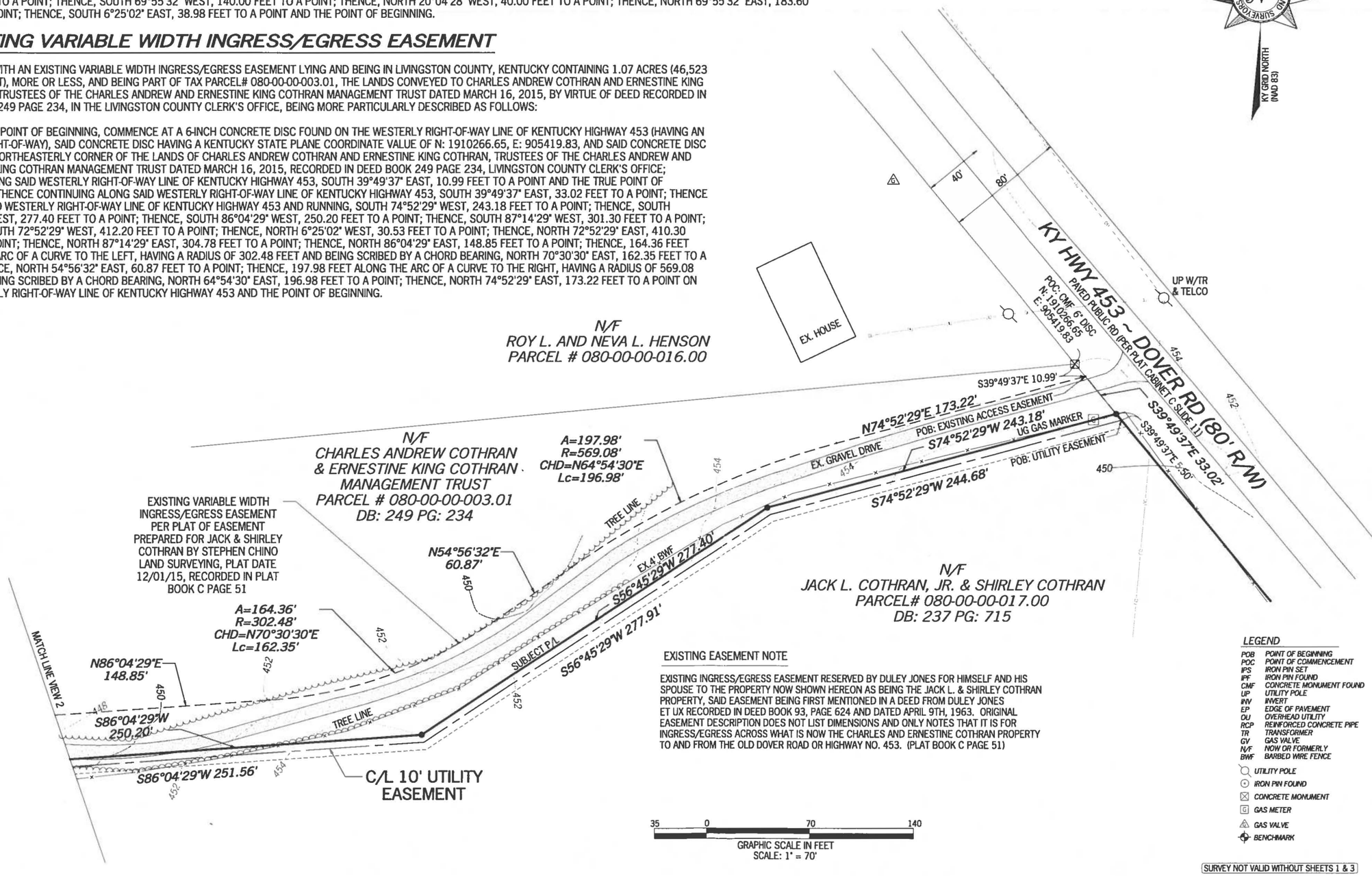
TOGETHER WITH A 40-FOOT WIDE ACCESS AND UTILITY EASEMENT LYING AND BEING IN LIVINGSTON COUNTY, KENTUCKY CONTAINING 0.163 ACRES (7,114 SQUARE FEET), MORE OR LESS, AND BEING PART OF TAX PARCEL# 080-00-00-017.00, THE LANDS CONVEYED TO JACK L. COTHRAN AND SHIRLEY COTHRAN BY VIRTUE OF DEED RECORDED IN DEED BOOK 237 PAGE 715, IN THE LIVINGSTON COUNTY CLERK'S OFFICE, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A 6-INCH CONCRETE DISC FOUND ON THE WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 (HAVING AN 80-FOOT RIGHT-OF-WAY), SAID CONCRETE DISC HAVING A KENTUCKY STATE PLANE COORDINATE VALUE OF N: 1910266.65, E: 905419.83, AND SAID CONCRETE DISC BEING THE NORTHEASTERLY CORNER OF THE LANDS OF CHARLES ANDREW COTHRAN AND ERNESTINE KING COTHRAN, TRUSTEES OF THE CHARLES ANDREW AND ERNESTINE KING COTHRAN MANAGEMENT TRUST DATED MARCH 16, 2015, RECORDED IN DEED BOOK 249 PAGE 234, LIVINGSTON COUNTY CLERK'S OFFICE; THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453, SOUTH 39°49'37" EAST, 10.99 FEET TO A POINT; THENCE, SOUTH 39°49'37" EAST, 33.02 FEET TO A POINT; THENCE LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 AND RUNNING, SOUTH 74°52'29" WEST, 243.18 FEET TO A POINT; THENCE, SOUTH 56°45'29" WEST, 277.40 FEET TO A POINT; THENCE, SOUTH 86°04'29" WEST, 250.20 FEET TO A POINT; THENCE, SOUTH 87°14'29" WEST, 301.30 FEET TO A POINT; THENCE, SOUTH 72°52'29" WEST, 412.20 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, SOUTH 66°23'37" WEST, 34.46 FEET TO A POINT; THENCE, SOUTH 69°55'32" WEST, 140.00 FEET TO A POINT; THENCE, NORTH 20°04'28" WEST, 40.00 FEET TO A POINT; THENCE, NORTH 69°55'32" EAST, 183.60 FEET TO A POINT; THENCE, SOUTH 6°25'02" EAST, 38.98 FEET TO A POINT AND THE POINT OF BEGINNING.

EXISTING VARIABLE WIDTH INGRESS/EGRESS EASEMENT

TOGETHER WITH AN EXISTING VARIABLE WIDTH INGRESS/EGRESS EASEMENT LYING AND BEING IN LIVINGSTON COUNTY, KENTUCKY CONTAINING 1.07 ACRES (46,523 SQUARE FEET), MORE OR LESS, AND BEING PART OF TAX PARCEL# 080-00-00-003.01, THE LANDS CONVEYED TO CHARLES ANDREW COTHRAN AND ERNESTINE KING CONTHRAN, TRUSTEES OF THE CHARLES ANDREW AND ERNESTINE KING COTHRAN MANAGEMENT TRUST DATED MARCH 16, 2015, BY VIRTUE OF DEED RECORDED IN DEED BOOK 249 PAGE 234, IN THE LIVINGSTON COUNTY CLERK'S OFFICE, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A 6-INCH CONCRETE DISC FOUND ON THE WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 (HAVING AN 80-FOOT RIGHT-OF-WAY), SAID CONCRETE DISC HAVING A KENTUCKY STATE PLANE COORDINATE VALUE OF N: 1910266.65, E: 905419.83, AND SAID CONCRETE DISC BEING THE NORTHEASTERLY CORNER OF THE LANDS OF CHARLES ANDREW COTHRAN AND ERNESTINE KING COTHRAN, TRUSTEES OF THE CHARLES ANDREW AND ERNESTINE KING COTHRAN MANAGEMENT TRUST DATED MARCH 16, 2015, RECORDED IN DEED BOOK 249 PAGE 234, LIVINGSTON COUNTY CLERK'S OFFICE; THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453, SOUTH 39°49'37" EAST, 10.99 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453, SOUTH 39°49'37" EAST, 33.02 FEET TO A POINT; THENCE LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 AND RUNNING, SOUTH 74°52'29" WEST, 243.18 FEET TO A POINT; THENCE, SOUTH 56°45'29" WEST, 277.40 FEET TO A POINT; THENCE, SOUTH 86°04'29" WEST, 250.20 FEET TO A POINT; THENCE, SOUTH 87°14'29" WEST, 301.30 FEET TO A POINT; THENCE, SOUTH 72°52'29" WEST, 412.20 FEET TO A POINT; THENCE, NORTH 6°25'02" WEST, 30.53 FEET TO A POINT; THENCE, NORTH 72°52'29" EAST, 410.30 FEET TO A POINT; THENCE, NORTH 87°14'29" EAST, 304.78 FEET TO A POINT; THENCE, NORTH 86°04'29" EAST, 148.85 FEET TO A POINT; THENCE, 164.36 FEET ALONG THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 302.48 FEET AND BEING SCRIBED BY A CHORD BEARING, NORTH 70°30'30" EAST, 162.35 FEET TO A POINT; THENCE, NORTH 54°56'32" EAST, 60.87 FEET TO A POINT; THENCE, 197.98 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 569.08 FEET AND BEING SCRIBED BY A CHORD BEARING, NORTH 64°54'30" EAST, 196.98 FEET TO A POINT; THENCE, NORTH 74°52'29" EAST, 173.22 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 AND THE POINT OF BEGINNING.



EXISTING EASEMENT NOTE

EXISTING INGRESS/EGRESS EASEMENT RESERVED BY DULEY JONES FOR HIMSELF AND HIS SPOUSE TO THE PROPERTY NOW SHOWN HEREON AS BEING THE JACK L. & SHIRLEY COTHRAN PROPERTY, SAID EASEMENT BEING FIRST MENTIONED IN A DEED FROM DULEY JONES ET UX RECORDED IN DEED BOOK 93, PAGE 624 AND DATED APRIL 9TH, 1963. ORIGINAL EASEMENT DESCRIPTION DOES NOT LIST DIMENSIONS AND ONLY NOTES THAT IT IS FOR INGRESS/EGRESS ACROSS WHAT IS NOW THE CHARLES AND ERNESTINE COTHRAN PROPERTY TO AND FROM THE OLD DOVER ROAD OR HIGHWAY NO. 453. (PLAT BOOK C PAGE 51)

35 0 70 140
GRAPHIC SCALE IN FEET
SCALE: 1" = 70'

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
INV	INVERT
EP	EDGE OF PAVEMENT
OU	OVERHEAD UTILITY
RCP	REINFORCED CONCRETE PIPE
TR	TRANSFORMER
GV	GAS VALVE
N/F	NOW OR FORMERLY
BWF	BARBED WIRE FENCE

UTILITY POLE
IRON PIN FOUND
CONCRETE MONUMENT
GAS METER
GAS VALVE
BENCHMARK

SURVEY NOT VALID WITHOUT SHEETS 1 & 3

STATE of KENTUCKY
ROLAND D. McCANN
1546
LICENSED PROFESSIONAL LAND SURVEYOR

NO.	DATE	REVISION
4	09/24/2015	CLIENT COMMENTS - NRW
5	02/04/2016	CLIENT COMMENTS - NRW
6	03/21/2016	REVISE ACCESS/ADD UTILITY-NRW
7	03/22/2016	CLIENT COMMENTS - KLS

SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SURVEY PREPARED FOR:
Parallel INFRASTRUCTURE
PI TELECOM INFRASTRUCTURE V, LLC & CHICAGO TITLE INSURANCE COMPANY

verizon wireless

"EV VULCAN MATERIALS"

LIVINGSTON COUNTY, KENTUCKY

DRAWN BY: EAL/NRW	SHEET: 2 OF 3
CHECKED BY: KL	
APPROVED: C. INER	
DATE: JUNE 30, 2015	
P2P JOB #: G150335	

K:\2015\G150335-EV Vulcan Materials\G150335.pro

LINE TABLE

LINE	BEARING	DISTANCE
L1	S66°23'37"W	34.46'
L2	S69°55'32"W	140.00'
L3	N20°04'28"W	40.00'
L4	N69°55'32"E	183.60'
L5	S06°25'02"E	38.98'
L6	S20°04'28"E	100.00'
L7	S69°55'32"W	100.00'
L8	N20°04'28"W	100.00'
L9	N69°55'32"E	100.00'

SITE INFORMATION

LEASED PREMISES = 10,000 SQUARE FEET (0.2296 ACRES)

LATITUDE = 37°02'46.21" (NAD 83)
AT CENTER OF PROPOSED TOWER
LONGITUDE = -88°16'25.36" (NAD 83)

ELEVATION AT CENTER OF PROPOSED TOWER = 432.9' A.M.S.L.

10' UTILITY EASEMENT

TOGETHER WITH A 10-FOOT WIDE UTILITY EASEMENT LYING AND BEING IN LIVINGSTON COUNTY, KENTUCKY CONTAINING 0.35 ACRES (15,206 SQUARE FEET), MORE OR LESS, AND BEING PART OF TAX PARCEL# 080-00-00-017.00, THE LANDS CONVEYED TO JACK L. COTHRAN AND SHIRLEY COTHRAN BY VIRTUE OF DEED RECORDED IN DEED BOOK 237 PAGE 715, IN THE LIVINGSTON COUNTY CLERK'S OFFICE, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A 6-INCH CONCRETE DISC FOUND ON THE WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 (HAVING AN 80-FOOT RIGHT-OF-WAY), SAID CONCRETE DISC HAVING A KENTUCKY STATE PLANE COORDINATE VALUE OF N: 1910266.65, E: 905419.83, AND SAID CONCRETE DISC BEING THE NORTHEASTERLY CORNER OF THE LANDS OF CHARLES ANDREW COTHRAN AND ERNESTINE KING COTHRAN, TRUSTEES OF THE CHARLES ANDREW AND ERNESTINE KING COTHRAN MANAGEMENT TRUST DATED MARCH 16, 2015, RECORDED IN DEED BOOK 249 PAGE 234, LIVINGSTON COUNTY CLERK'S OFFICE; THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453, SOUTH 39°49'37" EAST, 10.99 FEET TO A POINT; THENCE, SOUTH 39°49'37" EAST, 33.02 FEET TO A POINT; THENCE, SOUTH 39°49'37" EAST, 5.50 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 AND RUNNING, SOUTH 74°52'29" WEST, 244.68 FEET TO A POINT; THENCE, SOUTH 56°45'29" WEST, 277.91 FEET TO A POINT; THENCE, SOUTH 86°04'29" WEST, 251.56 FEET TO A POINT; THENCE, SOUTH 87°14'29" WEST, 300.72 FEET TO A POINT; THENCE, SOUTH 72°52'29" WEST, 411.37 FEET TO A POINT; THENCE, SOUTH 66°22'40" WEST, 34.41 FEET TO THE ENDING AT A POINT.

LEASED PREMISES

ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LIVINGSTON COUNTY, KENTUCKY CONTAINING 0.2296 ACRES (10,000 SQUARE FEET), MORE OR LESS, AND BEING PART OF TAX PARCEL# 080-00-00-017.00, THE LANDS CONVEYED TO JACK L. COTHRAN AND SHIRLEY COTHRAN BY VIRTUE OF DEED RECORDED IN DEED BOOK 237 PAGE 715, IN THE LIVINGSTON COUNTY CLERK'S OFFICE, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TO FIND THE POINT OF BEGINNING, COMMENCE AT A 6-INCH CONCRETE DISC FOUND ON THE WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 (HAVING AN 80-FOOT RIGHT-OF-WAY), SAID CONCRETE DISC HAVING A KENTUCKY STATE PLANE COORDINATE VALUE OF N: 1910266.65, E: 905419.83, AND SAID CONCRETE DISC BEING THE NORTHEASTERLY CORNER OF THE LANDS OF CHARLES ANDREW COTHRAN AND ERNESTINE KING COTHRAN, TRUSTEES OF THE CHARLES ANDREW AND ERNESTINE KING COTHRAN MANAGEMENT TRUST DATED MARCH 16, 2015, RECORDED IN DEED BOOK 249 PAGE 234, LIVINGSTON COUNTY CLERK'S OFFICE; THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453, SOUTH 39°49'37" EAST, 10.99 FEET TO A POINT; THENCE, SOUTH 39°49'37" EAST, 33.02 FEET TO A POINT; THENCE LEAVING SAID WESTERLY RIGHT-OF-WAY LINE OF KENTUCKY HIGHWAY 453 AND RUNNING, SOUTH 74°52'29" WEST, 243.18 FEET TO A POINT; THENCE, SOUTH 56°45'29" WEST, 277.40 FEET TO A POINT; THENCE, SOUTH 86°04'29" WEST, 250.20 FEET TO A POINT; THENCE, SOUTH 87°14'29" WEST, 301.30 FEET TO A POINT; THENCE, SOUTH 72°52'29" WEST, 412.20 FEET TO A POINT; THENCE, SOUTH 66°23'37" WEST, 34.46 FEET TO A POINT AND THE TRUE POINT OF BEGINNING; THENCE RUNNING, SOUTH 20°04'28" EAST, 100.00 FEET TO A POINT; THENCE, SOUTH 69°55'32" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 20°04'28" WEST, 100.00 FEET TO A POINT; THENCE, NORTH 69°55'32" EAST, 100.00 FEET TO A POINT AND THE POINT OF BEGINNING.

SURVEY NOT VALID WITHOUT SHEETS 1 & 2

LEGEND

POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
INV	INVERT
EP	EDGE OF PAVEMENT
OU	OVERHEAD UTILITY
RCP	REINFORCED CONCRETE PIPE
TR	TRANSFORMER
GV	GAS VALVE
N/F	NOW OR FORMERLY
BWF	BARBED WIRE FENCE

UTILITY POLE
IRON PIN FOUND
CONCRETE MONUMENT
GAS METER
GAS VALVE
BENCHMARK

35 0 70 140
GRAPHIC SCALE IN FEET
SCALE: 1" = 70'

STATE of KENTUCKY
ROLAND D. McCANN
1546
LICENSED PROFESSIONAL LAND SURVEYOR

Roland McCann

NO.	DATE	REVISION
4	09/24/2015	CLIENT COMMENTS - NRW
5	02/04/2016	CLIENT COMMENTS - NRW
6	03/21/2016	REVISE ACCESS/ADD UTILITY-NRW
7	03/22/2016	CLIENT COMMENTS - KLS

SURVEY PREPARED BY:
POINT TO POINT LAND SURVEYORS
1010 Pennsylvania Avenue
McDonough, GA 30253
(p) 678.565.4440 (f) 678.565.4497
(w) pointtopointsurvey.com

SURVEY PREPARED FOR:
Parallel INFRASTRUCTURE
PI TELECOM INFRASTRUCTURE V, LLC
& CHICAGO TITLE INSURANCE COMPANY

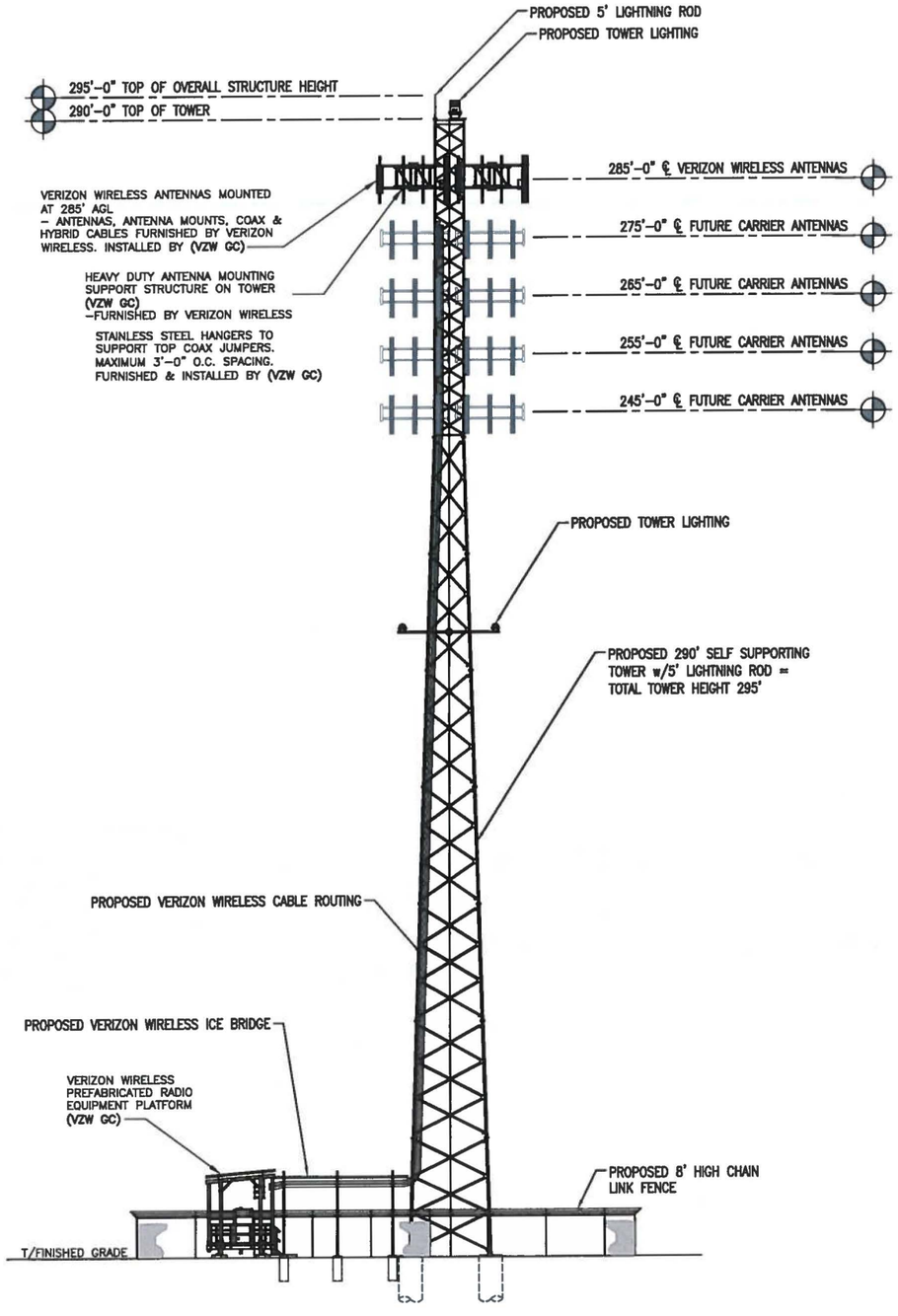
verizon wireless

"EV VULCAN MATERIALS"

LIVINGSTON COUNTY, KENTUCKY

DRAWN BY: EAL/NRW	SHEET: 3
CHECKED BY: KL	
APPROVED: C. INER	
DATE: JUNE 30, 2015	
P2P JOB #: G150335	OF 3

K:\2015\G150335-EV Vulcan Materials\G150335.pro

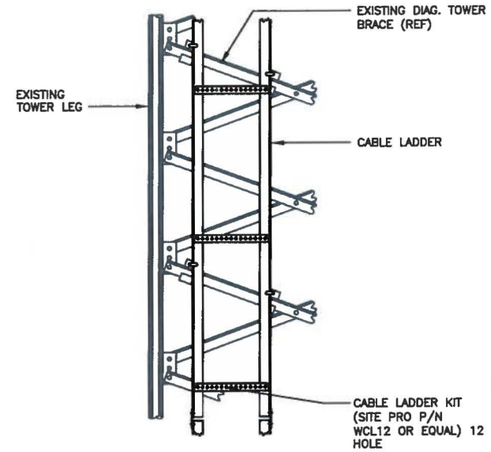


TOWER ELEVATION (1 / TE-1)
SCALE: N.T.S.

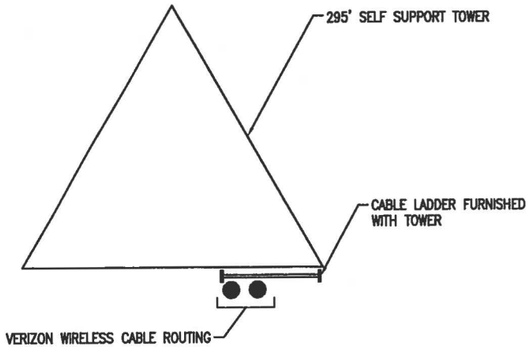
NOTE:

1. IT IS THE INSTALLING CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL ANTENNA INFORMATION AGAINST FINAL RADIO ENGINEERING PLAN PROVIDED BY CELLCO PARTNERSHIP d/b/a VERIZON WIRELESS (VZW GC)

2. 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.



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



COAX PLAN
SCALE: N.T.S.

NORTH

NOT FOR CONSTRUCTION

PREPARED FOR:
verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:
Parallel INFRASTRUCTURE

PREPARED BY:
JACOBS
Jacobs Engineering Group, Inc.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

ENGINEER SEAL:
STATE OF KENTUCKY
WALTER M. PRATHER
20824
3-24-16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISION:

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

VERIZON SITE ID:
EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

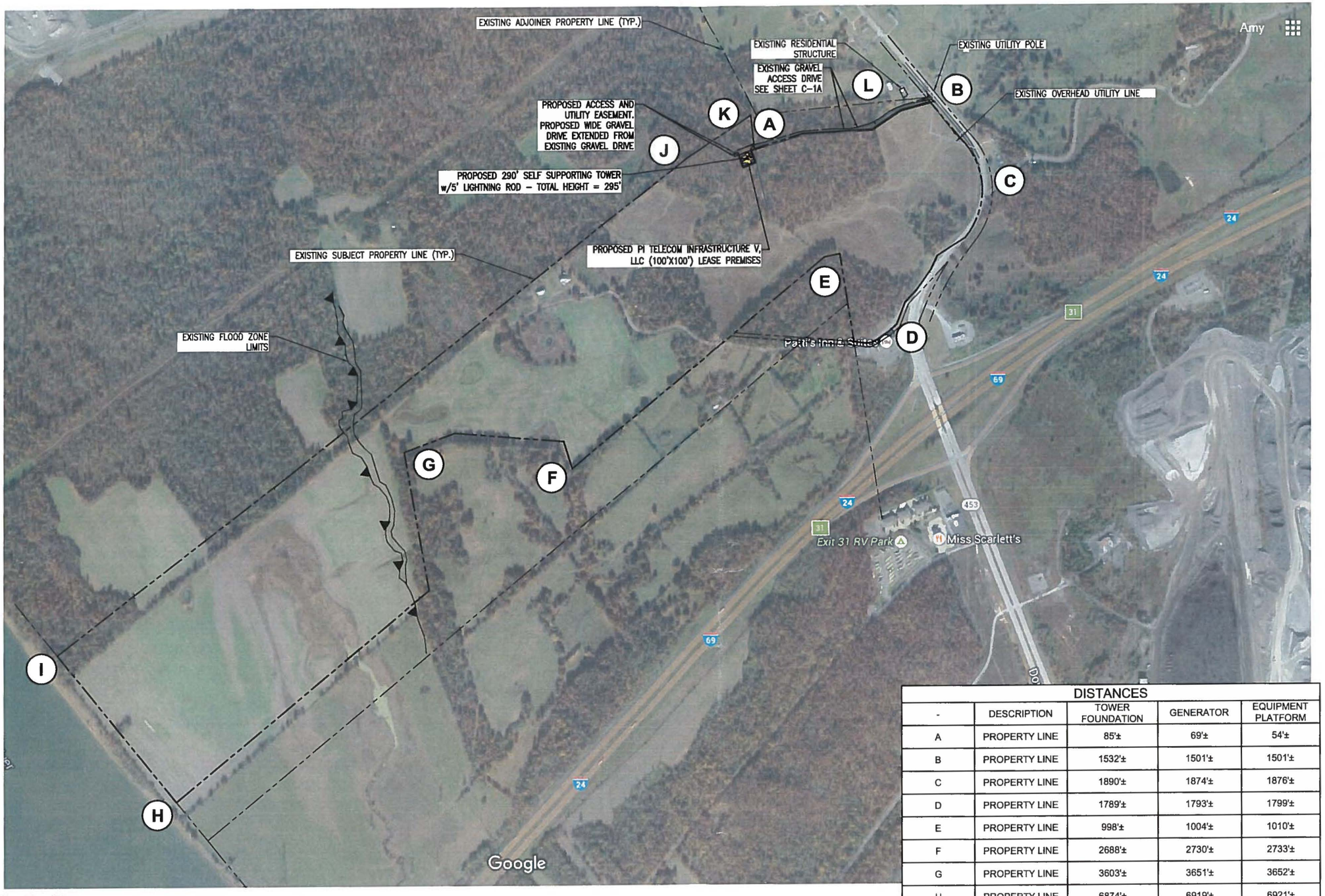
PROPOSED PI SITE ID:
PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:
TOWER ELEVATION

SHEET NUMBER:
TE-1



DISTANCES				
-	DESCRIPTION	TOWER FOUNDATION	GENERATOR	EQUIPMENT PLATFORM
A	PROPERTY LINE	85'±	69'±	54'±
B	PROPERTY LINE	1532'±	1501'±	1501'±
C	PROPERTY LINE	1890'±	1874'±	1876'±
D	PROPERTY LINE	1789'±	1793'±	1799'±
E	PROPERTY LINE	998'±	1004'±	1010'±
F	PROPERTY LINE	2688'±	2730'±	2733'±
G	PROPERTY LINE	3603'±	3651'±	3652'±
H	PROPERTY LINE	6874'±	6919'±	6921'±
I	PROPERTY LINE	6796'±	6844'±	6845'±
J	PROPERTY LINE	473'±	518'±	510'±
K	PROPERTY LINE	259'±	279'±	258'±
L	NEAREST RESIDENTIAL STRUCTURE	1337'±	1307'±	1306'±

Kentucky 811
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.

GRAPHIC SCALE
800 0 400 800 1600

OVERALL SITE PLAN w/AERIAL OVERLAY

SCALE: 1" = 800'

NORTH

NOT FOR CONSTRUCTION

PREPARED FOR:
verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:
Parallel INFRASTRUCTURE

PREPARED BY:
JACOBS
Jacobs Engineering Group, Inc.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-704-2501

ENGINEER SEAL:
STATE OF KENTUCKY
WALTER M. PRATHER
20824
3-24-16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISION:

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

VERIZON SITE ID:
EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

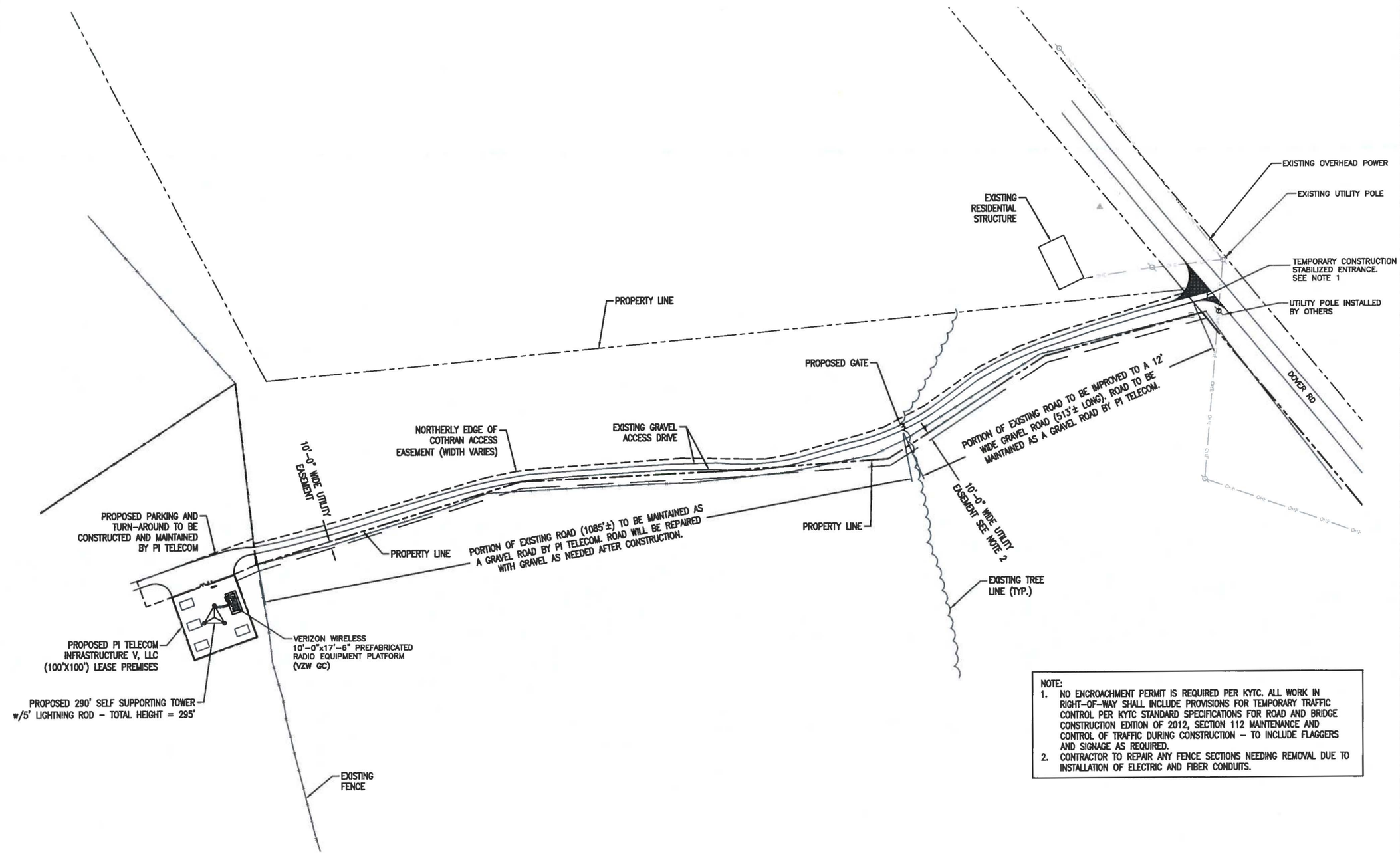
PROPOSED PI SITE ID:
PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:
OVERALL SITE PLAN W/AERIAL OVERLAY

SHEET NUMBER:
C-1



GRAPHIC SCALE

150 0 75 150 300

SITE PLAN - ACCESS TO TOWER

SCALE: 1" = 150'

NORTH

NOTE:
1. NO ENCROACHMENT PERMIT IS REQUIRED PER KYTC. ALL WORK IN RIGHT-OF-WAY SHALL INCLUDE PROVISIONS FOR TEMPORARY TRAFFIC CONTROL PER KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION EDITION OF 2012, SECTION 112 MAINTENANCE AND CONTROL OF TRAFFIC DURING CONSTRUCTION - TO INCLUDE FLAGGERS AND SIGNAGE AS REQUIRED.
2. CONTRACTOR TO REPAIR ANY FENCE SECTIONS NEEDING REMOVAL DUE TO INSTALLATION OF ELECTRIC AND FIBER CONDUITS.

Kentucky 811
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NOT FOR CONSTRUCTION

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verizonwireless
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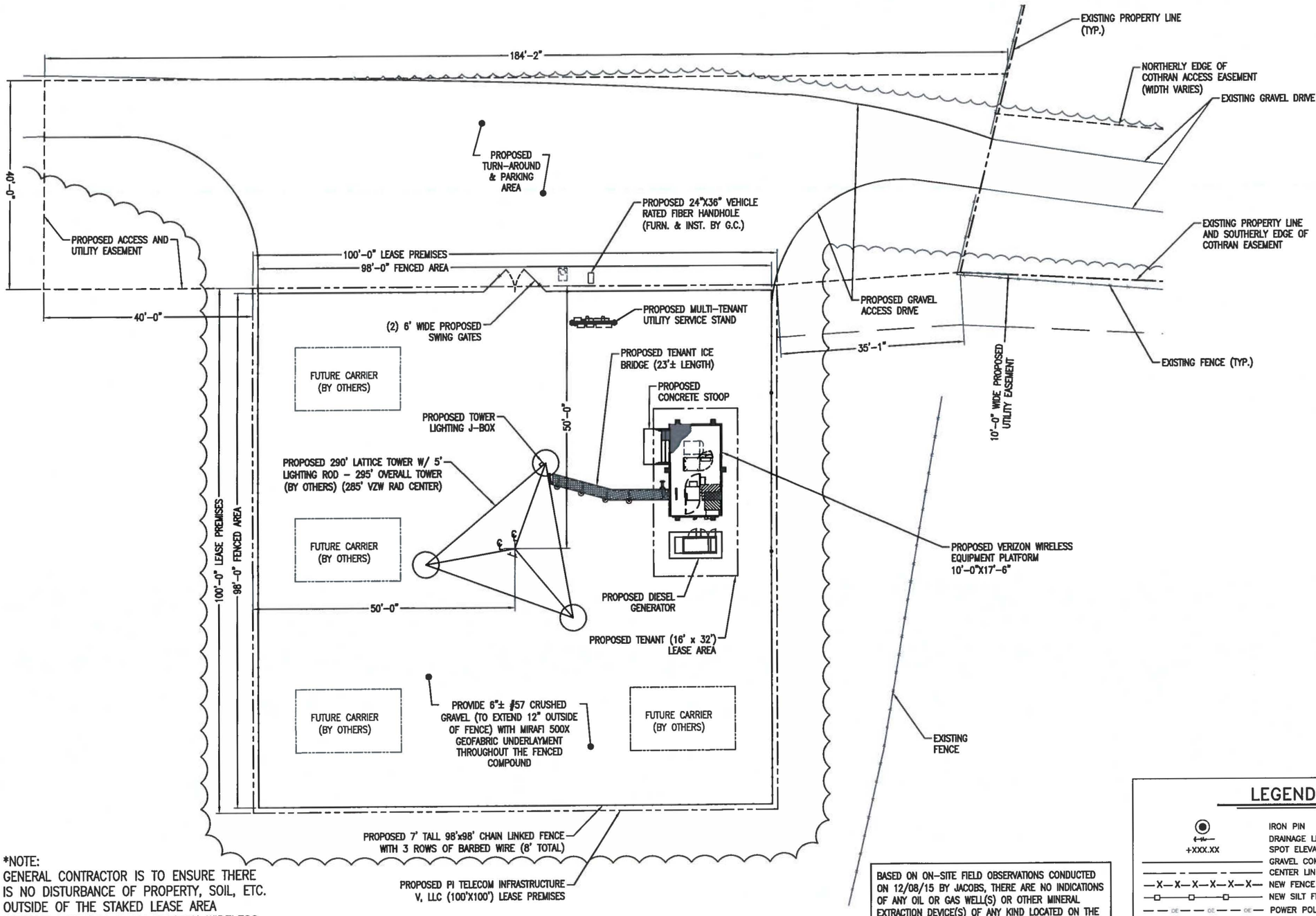
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:
ACCESS ROAD DETAIL

SHEET NUMBER:
C-1A



NOT FOR CONSTRUCTION

*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

Kentucky 811
Know what's below. Call before you dig.
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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.

GRAPHIC SCALE
20' 0 10' 20' 40'

DETAILED SITE PLAN
SCALE: 1" = 20'-0"

NORTH

BASED ON ON-SITE FIELD OBSERVATIONS CONDUCTED ON 12/08/15 BY JACOBS, THERE ARE NO INDICATIONS OF ANY OIL OR GAS WELL(S) OR OTHER MINERAL EXTRACTION DEVICE(S) OF ANY KIND LOCATED ON THE SUBJECT PROPERTY, AND THERE ARE NO INDICATIONS OF ANY PRESENT PRODUCTION OF OIL, GAS, AND/OR OTHER MINERALS FROM THE SUBJECT REAL PROPERTY AS OF THE DATE OF SUCH FIELD OBSERVATION.

NOTE:
TREE CLEARANCE IS PROHIBITED BETWEEN JUNE 1ST AND JULY 31ST WITHOUT SPECIAL PERMISSION FROM THE USFWS.

LEGEND

- IRON PIN
- +XXX.XX — DRAINAGE LINE / SPOT ELEVATION
- GRAVEL COMPOUND
- CENTER LINE
- NEW FENCE LINE
- NEW SILT FENCE LINE
- POWER POLE w/OVERHEAD ELEC./TELE.
- EDGE OF NEW DRIVE
- UNDERGROUND ELECTRICAL CONDUIT
- UNDERGROUND TELEPHONE CONDUIT
- EXISTING CONTOURS
- NEW CONTOURS
- FENCED COMPOUND
- NEW PREFABRICATED RADIO EQUIPMENT BUILDING
- CONCRETE
- ACCESS DRIVE

PREPARED FOR:
verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:
Parallel INFRASTRUCTURE

PREPARED BY:
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ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

ENGINEER SEAL:
STATE OF KENTUCKY
WALTER M. PRATHER
20824
2-24-16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISIONS:

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

VERIZON SITE ID:
EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

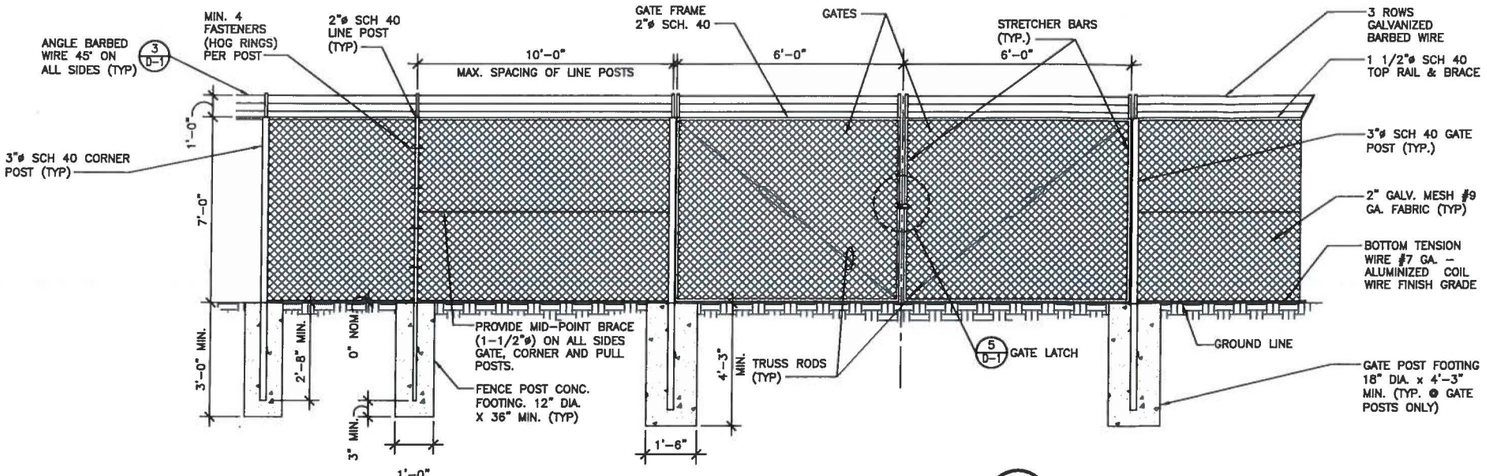
PROPOSED PI SITE ID:
PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:
DETAILED SITE PLAN

SHEET NUMBER:
C-3

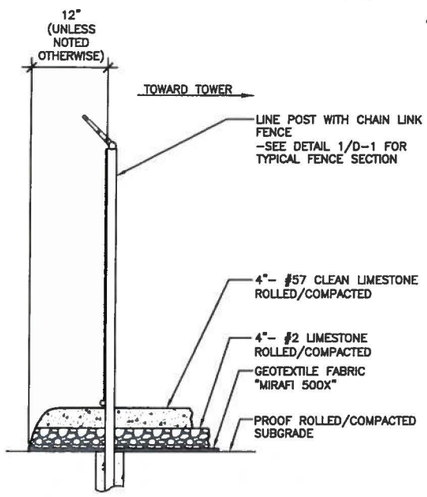


CHAIN LINK FENCE & POST DETAIL 1 D-1

SCALE: N.T.S.

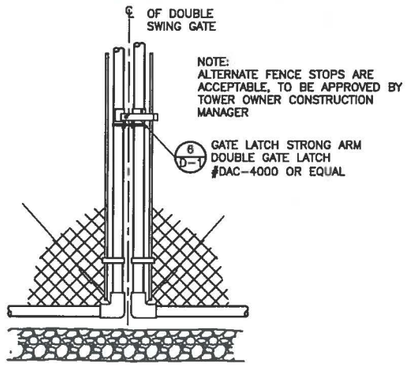
CHAIN LINK FENCING NOTES

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 7'-0" FABRIC W/ 3 STRAND BARBED WIRE FOR TOTAL HEIGHT OF 8'-0".
4. BARBED WIRE SHALL MEET ASTM A 121, CLASS 3 GALV. OR ASTM A 585, TYPE I, 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, AND ALL FENCE POSTS SHALL BE SCHEDULE 40, AND BE 2 OZ. GALVANIZED COATED.
8. CONTRACTOR SHALL ENSURE ALL POSTS ARE PLUMB.



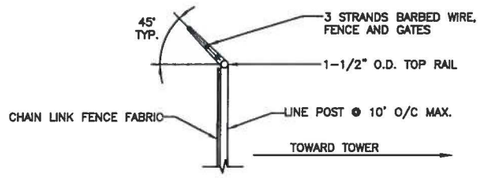
SITE AREA SURFACING 2 D-1

SCALE: N.T.S.



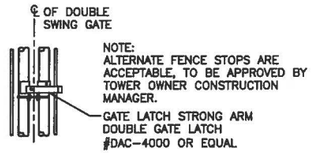
GATE LATCH DETAIL 5 D-1

SCALE: N.T.S.



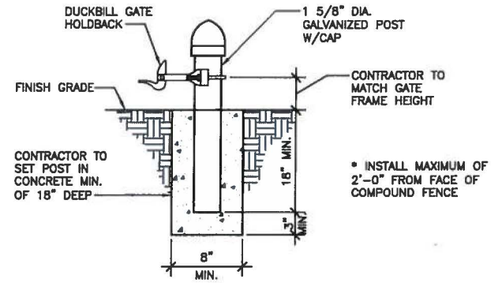
TYPICAL BARBED WIRE DETAIL 3 D-1

SCALE: N.T.S.



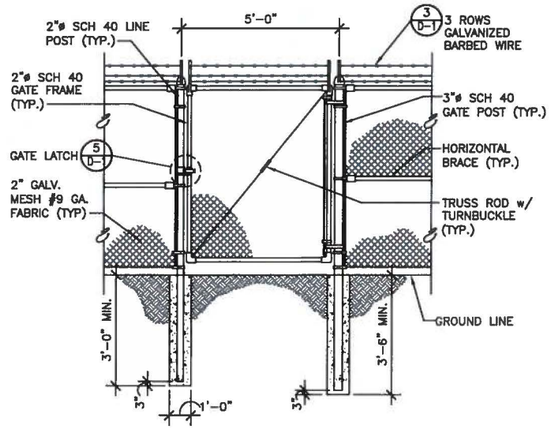
GATE LATCH DETAIL 6 D-1

SCALE: N.T.S.



GATE KEEPER DETAIL 4 D-1

SCALE: N.T.S.



MAN GATE DETAIL 7 D-1

SCALE: N.T.S.

NOT FOR CONSTRUCTION

PREPARED FOR:
verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:
Parallel INFRASTRUCTURE

PREPARED BY:
JACOBS
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5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

ENGINEER SEAL:
STATE OF KENTUCKY
WALTER M. PRATHER
20824
3/24/16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISIONS

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

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EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

PROPOSED PI SITE ID:
PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

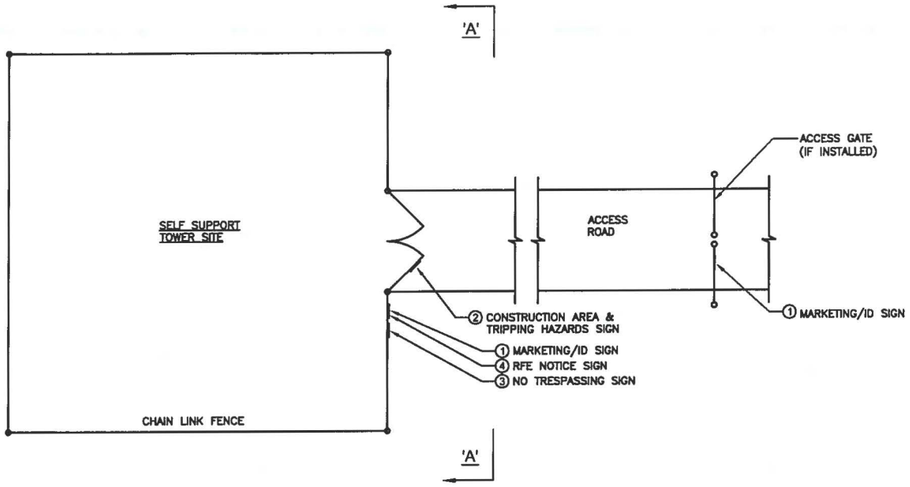
SHEET NAME:
FENCE DETAILS AND NOTES

SHEET NUMBER:
D-1

NOTES:

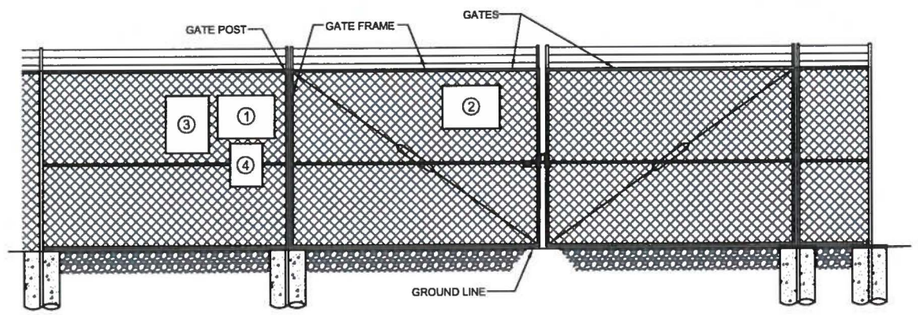
⑤ CAUTION – RFE SIGN (BLACK, YELLOW, WHITE) TO BE MOUNTED NEAR TOWER LEG W/CLIMBING CABLE. DO NOT RESTRICT CLIMBING ACCESS.

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 PERSONNEL PER VERIZON WIRELESS RFC SIGNAGE & DEMARCATION POLICY.



TYPICAL SITE FENCE SIGNAGE PLAN

SCALE: N. T. S.



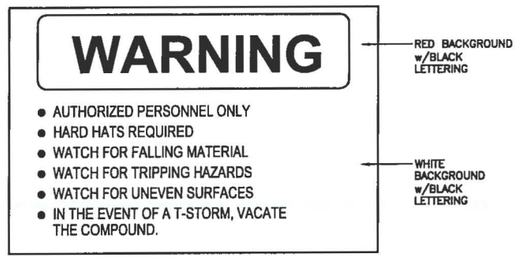
ELEVATION "A–A"

SCALE: N. T. S.

NOT FOR CONSTRUCTION

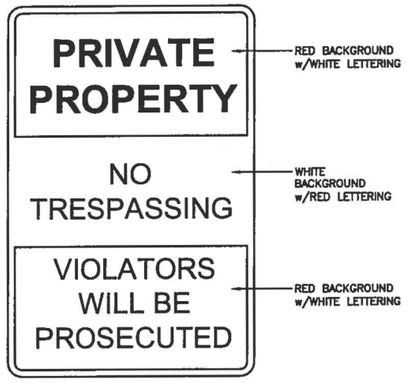
MARKETING/ID SIGN ①

24" WIDE x 18" HIGH



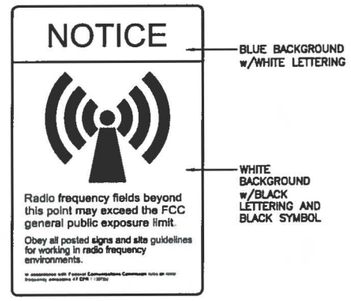
CONSTRUCTION AREA & TRIPPING HAZARDS SIGN ②

24" WIDE x 18" HIGH



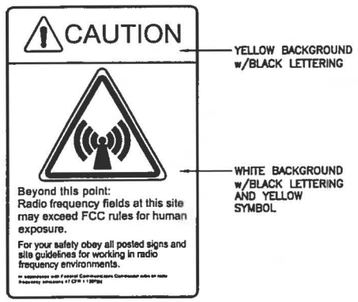
NO TRESPASSING SIGN ③

18" WIDE x 24" HIGH



RFE NOTICE SIGN ④

12" WIDE x 18" HIGH



RFE CAUTION SIGN ⑤

12" WIDE x 18" HIGH

PREPARED FOR:

verizonwireless
250 E. 96TH ST., STE. 175
INDIANAPOLIS, IN 46240

PREPARED FOR:

Parallel INFRASTRUCTURE

PREPARED BY:

JACOBS
Jacobs Engineering Group, Inc.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

ENGINEER SEAL:

STATE OF KENTUCKY
WALTER M. PRATHER
20824
3-24-16
LICENSED PROFESSIONAL ENGINEER

DESIGN REVISION:

NO.	DATE	REVISIONS	BY
B	03/14/16	ISSUED FOR ZONING	AJM
A	01/27/16	ISSUED FOR ZONING	AJM

NOT VALID WITHOUT SIGNATURE AND DATE

VERIZON SITE ID:

EV VULCAN MATERIALS
751 FORREST ROAD
GRAND RIVERS, KY 42045

PROPOSED PI SITE ID:

PI3KY 00014.A
VULCAN MATERIALS
GRAND RIVERS, KY

PREPARED BY:

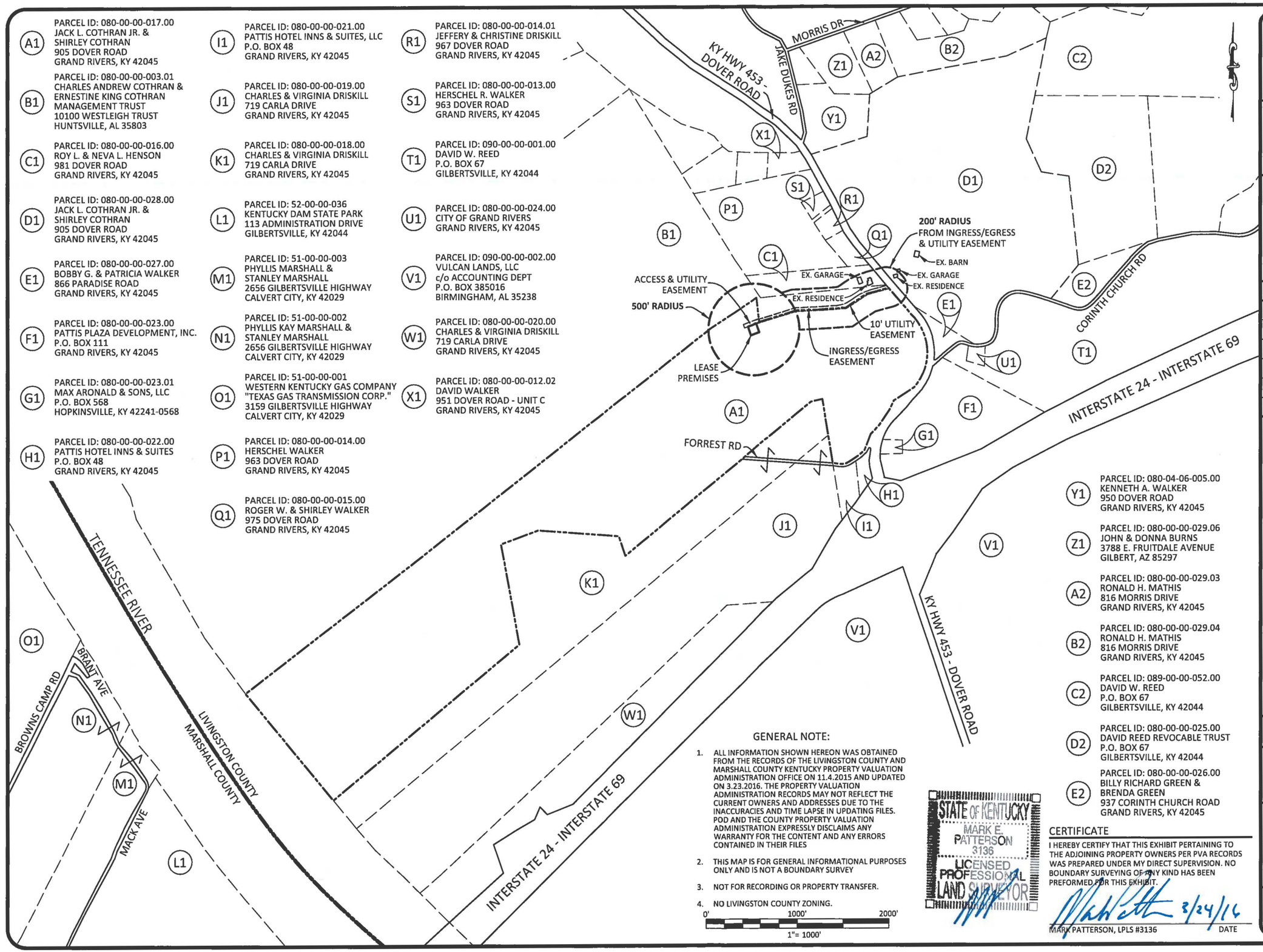
APPROVED BY:	K. KRATINA
DESIGNED BY:	A. MCLAUGHLIN
PROJECT NO:	ER001500
DATE:	01/27/16

SHEET NAME:

SITE FENCE SIGNAGE (REFERENCE ONLY)

SHEET NUMBER:

D-4



A1 PARCEL ID: 080-00-00-017.00
JACK L. COTHRAN JR. &
SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045

B1 PARCEL ID: 080-00-00-003.01
CHARLES ANDREW COTHRAN &
ERNESTINE KING COTHRAN
MANAGEMENT TRUST
10100 WESTLEIGH TRUST
HUNTSVILLE, AL 35803

C1 PARCEL ID: 080-00-00-016.00
ROY L. & NEVA L. HENSON
981 DOVER ROAD
GRAND RIVERS, KY 42045

D1 PARCEL ID: 080-00-00-028.00
JACK L. COTHRAN JR. &
SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045

E1 PARCEL ID: 080-00-00-027.00
BOBBY G. & PATRICIA WALKER
866 PARADISE ROAD
GRAND RIVERS, KY 42045

F1 PARCEL ID: 080-00-00-023.00
PATTIS PLAZA DEVELOPMENT, INC.
P.O. BOX 111
GRAND RIVERS, KY 42045

G1 PARCEL ID: 080-00-00-023.01
MAX ARONALD & SONS, LLC
P.O. BOX 568
HOPKINSVILLE, KY 42241-0568

H1 PARCEL ID: 080-00-00-022.00
PATTIS HOTEL INNS & SUITES
P.O. BOX 48
GRAND RIVERS, KY 42045

I1 PARCEL ID: 080-00-00-021.00
PATTIS HOTEL INNS & SUITES, LLC
P.O. BOX 48
GRAND RIVERS, KY 42045

J1 PARCEL ID: 080-00-00-019.00
CHARLES & VIRGINIA DRISKILL
719 CARLA DRIVE
GRAND RIVERS, KY 42045

K1 PARCEL ID: 080-00-00-018.00
CHARLES & VIRGINIA DRISKILL
719 CARLA DRIVE
GRAND RIVERS, KY 42045

L1 PARCEL ID: 52-00-00-036
KENTUCKY DAM STATE PARK
113 ADMINISTRATION DRIVE
GILBERTSVILLE, KY 42044

M1 PARCEL ID: 51-00-00-003
PHYLLIS MARSHALL &
STANLEY MARSHALL
2656 GILBERTSVILLE HIGHWAY
CALVERT CITY, KY 42029

N1 PARCEL ID: 51-00-00-002
PHYLLIS KAY MARSHALL &
STANLEY MARSHALL
2656 GILBERTSVILLE HIGHWAY
CALVERT CITY, KY 42029

O1 PARCEL ID: 080-00-00-001
WESTERN KENTUCKY GAS COMPANY
"TEXAS GAS TRANSMISSION CORP."
3159 GILBERTSVILLE HIGHWAY
CALVERT CITY, KY 42029

P1 PARCEL ID: 080-00-00-014.00
HERSCHEL WALKER
963 DOVER ROAD
GRAND RIVERS, KY 42045

Q1 PARCEL ID: 080-00-00-015.00
ROGER W. & SHIRLEY WALKER
975 DOVER ROAD
GRAND RIVERS, KY 42045

R1 PARCEL ID: 080-00-00-014.01
JEFFERY & CHRISTINE DRISKILL
967 DOVER ROAD
GRAND RIVERS, KY 42045

S1 PARCEL ID: 080-00-00-013.00
HERSCHEL R. WALKER
963 DOVER ROAD
GRAND RIVERS, KY 42045

T1 PARCEL ID: 090-00-00-001.00
DAVID W. REED
P.O. BOX 67
GILBERTSVILLE, KY 42044

U1 PARCEL ID: 080-00-00-024.00
CITY OF GRAND RIVERS
GRAND RIVERS, KY 42045

V1 PARCEL ID: 090-00-00-002.00
VULCAN LANDS, LLC
c/o ACCOUNTING DEPT
P.O. BOX 385016
BIRMINGHAM, AL 35238

W1 PARCEL ID: 080-00-00-020.00
CHARLES & VIRGINIA DRISKILL
719 CARLA DRIVE
GRAND RIVERS, KY 42045

X1 PARCEL ID: 080-00-00-012.02
DAVID WALKER
951 DOVER ROAD - UNIT C
GRAND RIVERS, KY 42045

Y1 PARCEL ID: 080-04-06-005.00
KENNETH A. WALKER
950 DOVER ROAD
GRAND RIVERS, KY 42045

Z1 PARCEL ID: 080-00-00-029.06
JOHN & DONNA BURNS
3788 E. FRUITDALE AVENUE
GILBERT, AZ 85297

A2 PARCEL ID: 080-00-00-029.03
RONALD H. MATHIS
816 MORRIS DRIVE
GRAND RIVERS, KY 42045

B2 PARCEL ID: 080-00-00-029.04
RONALD H. MATHIS
816 MORRIS DRIVE
GRAND RIVERS, KY 42045

C2 PARCEL ID: 089-00-00-052.00
DAVID W. REED
P.O. BOX 67
GILBERTSVILLE, KY 42044

D2 PARCEL ID: 080-00-00-025.00
DAVID REED REVOCABLE TRUST
P.O. BOX 67
GILBERTSVILLE, KY 42044

E2 PARCEL ID: 080-00-00-026.00
BILLY RICHARD GREEN &
BRENDA GREEN
937 CORINTH CHURCH ROAD
GRAND RIVERS, KY 42045

GENERAL NOTE:

1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE LIVINGSTON COUNTY AND MARSHALL COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON 11.4.2015 AND UPDATED ON 3.23.2016. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
3. NOT FOR RECORDING OR PROPERTY TRANSFER.
4. NO LIVINGSTON COUNTY ZONING.

0' 1000' 2000'
1"= 1000'

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

CERTIFICATE

I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PREFORMED FOR THIS EXHIBIT.

3/24/16
MARK PATTERSON, LPLS #3136 DATE

POD
POWER OF DESIGN
11490 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
502.437.5252

JACOBS
Jacobs Engineering Group, Inc.
5449 BELLS FERRY ROAD
ACWORTH GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

Parallel INFRASTRUCTURE
4601 TOUCHTON ROAD EAST
BUILDING 300, SUITE 3200
JACKSONVILLE, FL 32246

REV.	DATE	DESCRIPTION
A	11.6.15	ISSUED FOR REVIEW
B	3.23.16	UPDATED PVA & ESMT'S

PROJECT INFORMATION:

VULCAN MATERIALS,

751 FORREST ROAD
GRAND RIVERS, KY 42045
LIVINGSTON COUNTY

TAX PARCEL NUMBER:
080-00-00-017.00

PROPERTY OWNER:
JACK L. COTHRAN JR. &
SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045

SOURCE OF TITLE:
DEED BOOK 237, PAGE 715

CURRENT ZONING:
NONE

TOWER CENTROID:
NAD 83: LAT.: 37° 02'46.21"
LON.: 88° 16'25.36"
NAVD 88: ELEV.: 432.9'+/-AMSL

SITE NUMBER:

POD NUMBER: 15-6939
DRAWN BY: DAP
CHECKED BY: MEP
DATE: 11.6.15

SHEET TITLE:

500' RADIUS & ABUTTERS MAP

SHEET NUMBER:

B-2

EXHIBIT C
TOWER AND FOUNDATION DESIGN

Don Hall
Construction Manager
1511 Kamer Drive
LaGrange, KY 40031
Phone: 502-724-2088
Email: donhall064@twc.com

Dear Commissioners,

My name is Don Hall, and I am the construction manager for the proposed tower referenced within this application. I have been involved in the construction of wireless communications facilities for 25 years. I have worked with carriers such as AT&T, Cricket, Verizon, T-Mobile and Sprint building their communications infrastructure in Kentucky, Indiana, Ohio, New York, Arkansas, Tennessee, Georgia, North Carolina and South Carolina. My construction management responsibilities include overseeing the installation of the compound's grading, foundations, tower installations, equipment installation, shelter installation and the utility services per the engineered drawings and specifications. Prior to the communications field, I spent 10 years with an engineering firm working with Architects, Structural Engineers, Electrical Engineers and Civil Engineers. I learned valuable engineering skills while drafting and designing hospitals, schools, churches and communications facilities that I reference regularly in the field of construction and the installations of communication facilities.

If you have any further questions about this site, please feel free to contact me, and I will be glad to offer my comments. My contact information is noted above.

Sincerely,

Don Hall

Construction Manager

Sabre Industries™
Towers and Poles

February 10, 2016

Ms. Alejandra Stinson
PI TELECOM INFRASTRUCTURE V, LLC
4601 Touchton Rd.
Bldg. 300, Suite 3200
Jacksonville, FL 32246

RE: Proposed 290 ft Sabre Self-Supporting Tower at Vulcan Materials, KY (Sabre #136498)

Dear Ms. Stinson,

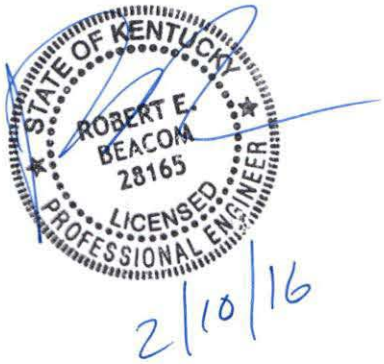
As shown in our Structural Design Report #135850 dated January 25, 2016, the above referenced tower was designed for a basic wind speed of 90 mph with no ice and 30 mph with 1" ice, Structure Class II, Exposure Category C, Topographic Category 1, in accordance with ANSI/TIA-222-G, to support the equipment shown on page 2 of that report.

We have reviewed our calculations and have determined that the tower has sufficient strength and stability to support the equipment shown below with the aforementioned design criteria:

- Six (6) HT4C6318R000G antennas, three (3) WWX063X19G00 antennas, three (3) RRUS B13 units, three (3) RRUS 12 B4 units, three (3) RRUS A2 B4 units, three (3) RRUS A2 B13 units, and two (2) RHSDC-3315-PF-48 units on a Commscope mount (MTC3623) at 285', with two (2) 85010028 cables
- One (1) 8' solid dish with radome at 275', with one (1) 1-5/8" line

Sincerely,

Robert E. Beacom, P.E., S.E.
Senior Design Engineer



2/10/16

Sabre Industries™
Towers and Poles

Structural Design Report

290' S3TL Series HD1 Self-Supporting Tower
Site: Vulcan Materials, KY, KY
Site Number: PI3KY00014.A

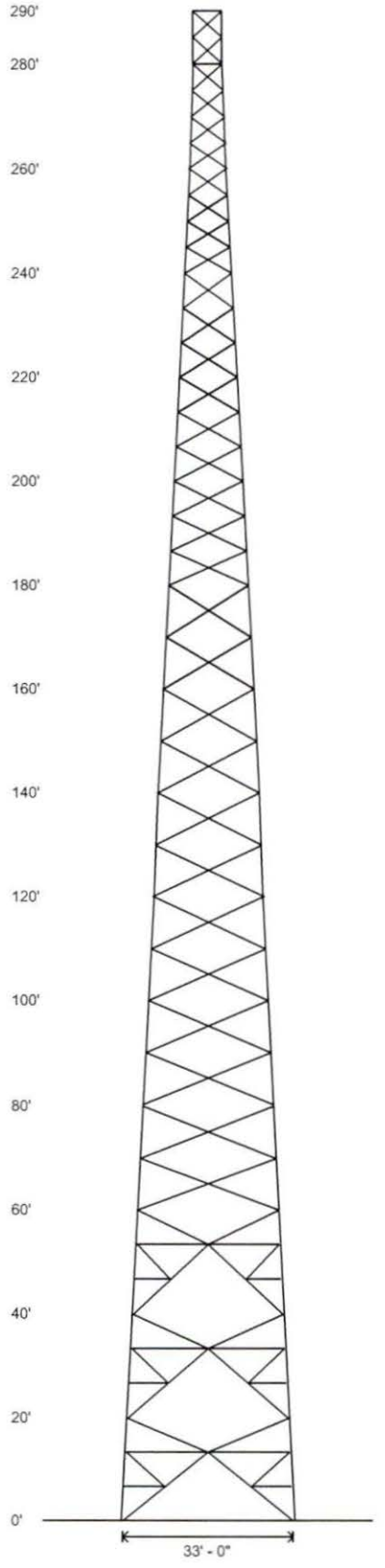
Prepared for: PI TELECOM INFRASTRUCTURE V, LLC
by: Sabre Towers & Poles ™

Job Number: 136498
Revision A

February 10, 2016

2/10/16

Legs	14.00 OD X .500				12.75 OD X .500			10.75 OD X .500		8.625 OD X .500		A	B	C	D	E
Diagonals	F	G	F	H	L 5 X 5 X 5/16		L 4 X 4 X 3/8	I	J	K	L	L 3 X 3 X 1/4	M	N	O	P
Horizontals	H	Q	I	Q	I					NONE						O Q P
Internals	R	Q	S	Q	S					NONE						
Sub-Diagonals	T	Q	S	Q	L					NONE						
Sub-Horizontals	T	Q	S	Q	S					NONE						
Brace Bolts	(2) 3/4"				(2) 5/8"			(1) 3/4"				(1) 5/8"	(1) 3/4"	(1) 5/8"		
Top Face Width	31'		29'		27'		25'	23'	21'	19'	17'	15'	13'	11'	9'	7'	5'
Panel Count/Height	U	V	U	V	U	V	12 @ 10'					9 @ 6.6667'			10 @ 5'		
Section Weight	10591		9857		9266		8235	7842	7119	6478	6111	4794	4594	3365	3087	2119	1207	408



Base Reactions

Total Foundation		Individual Footing	
Shear (kips)	157.41	Shear (kips)	94.94
Axial (kips)	491.05	Compression (kips)	971
Moment (ft-kips)	26199	Uplift (kips)	852
Torsion (ft-kips)	135.69		

Material List

Display	Value
A	8.625 OD X .322
B	5.563 OD X .500
C	4.500 OD X .337
D	3.500 OD X .216
E	2.375 OD X .154
F	L 6 X 4 X 3/8
G	L 5 X 5 X 3/8
H	L 5 X 5 X 5/16
I	L 4 X 4 X 5/16
J	L 4 X 3 1/2 X 5/16 (SLV)
K	L 4 X 3 1/2 X 1/4 (SLV)
L	L 3 1/2 X 3 X 1/4 (SLV)
M	L 2 1/2 X 2 1/2 X 5/16
N	L 2 1/2 X 2 1/2 X 1/4
O	L 2 X 2 X 3/16
P	L 2 X 2 X 1/8
Q	NONE
R	L 3 1/2 X 3 1/2 X 1/4
S	L 3 X 3 X 1/4
T	L 3 X 3 X 5/16
U	1 @ 13.333'
V	1 @ 6.667'

Notes

1) All brace bolts are A325-X.
2) The tower model is S3TL Series HD1.
3) Transmission lines are to be attached to 15 hole waveguide ladders with stackable hangers.
4) Azimuths are relative (not based on true north).
5) Foundation loads shown are maximums.
6) (6) 1 3/4" dia. F1554 grade 105 anchor bolts per leg. Minimum 65.5" embedment from top of concrete to top of nut.
7) All unequal angles are oriented with the short leg vertical.
8) Weights shown are estimates. Final weights may vary.
9) This tower was designed for a basic wind speed of 90 mph with 0" of radial ice, and 30 mph with 1" of radial ice, in accordance with ANSI/TIA-222-G, Structure Class II, Exposure Category C, Topographic Category 1.
10) The foundation loads shown are factored loads.
11) All legs are A500 (50 ksi Min. Yield).
12) All braces are A572 Grade 50.

Sabre Industries Towers and Poles

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

Job:	136498A
Customer:	PI TELECOM INFRASTRUCTURE V, LLC
Site Name:	Vulcan Materials, KY, KY PI3KY00014.A
Description:	290' S3TL
Date:	2/10/2016 By: REB

Designed Appurtenance Loading

Elev	Description	Tx-Line
285	3T-Boom - 14ft Face - 3ft Standoff	
285	(12) RRUS A2 Module	
285	(6) AIR 32	(6) 1 5/8"
285	(4) RxxDC-3315-PF-48	(4) 1 1/2"
285	(12) 80010866	(12) 1 5/8"
285	(6) TMA	
285	(12) RRUS 12	
280	Leg Dish Mount	
280	(1) 8' Solid Dish W/ Radome	(1) 1 5/8"
275	3T-Boom(R) - 12ft Face - 3ft Standoff	
275	(4) DC6-48-60-18-8F	(4) 1 1/2"
275	(24) RRH2x40-HW	
275	(12) R2V4PX310R	(24) 1 5/8"
270	Leg Dish Mount	
270	(1) 4' Solid Dish w/ Radome	(1) 1 5/8"
265	3T-Boom(R) - 12ft Face - 3ft Standoff	
265	(24) RRH2x40-HW	

Elev	Description	Tx-Line
265	(4) DC6-48-60-18-8F	(4) 1 1/2"
265	(12) R2V4PX310R	(24) 1 5/8"
260	Leg Dish Mount	
260	(1) 4' Solid Dish w/ Radome	(1) 1 5/8"
255	3T-Boom(R) - 12ft Face - 3ft Standoff	
255	(4) DC6-48-60-18-8F	(4) 1 1/2"
255	(24) RRH2x40-HW	
255	(12) R2V4PX310R	(24) 1 5/8"
250	Leg Dish Mount	
250	(1) 4' Solid Dish w/ Radome	(1) 1 5/8"
245	3T-Boom(R) - 12ft Face - 3ft Standoff	
245	(24) RRH2x40-HW	
245	(4) DC6-48-60-18-8F	(4) 1 1/2"
245	(12) R2V4PX310R	(24) 1 5/8"
240	Leg Dish Mount	
240	(1) 4' Solid Dish w/ Radome	(1) 1 5/8"

Sabre Industries
Towers and Poles

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

Job:	**136498A**
Customer:	PI TELECOM INFRASTRUCTURE V, LLC
Site Name:	Vulcan Materials, KY, KY PI3KY00014.A
Description:	290' S3TL
Date:	2/10/2016 By: REB

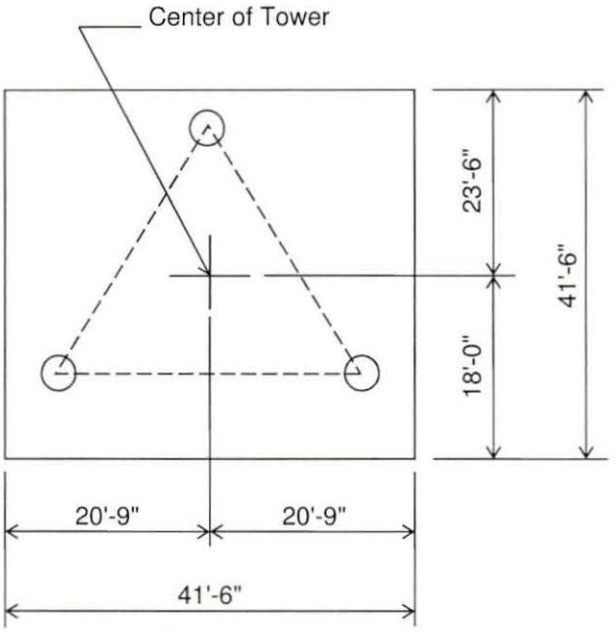
Sabre Industries™
Towers and Poles

No.: 136498

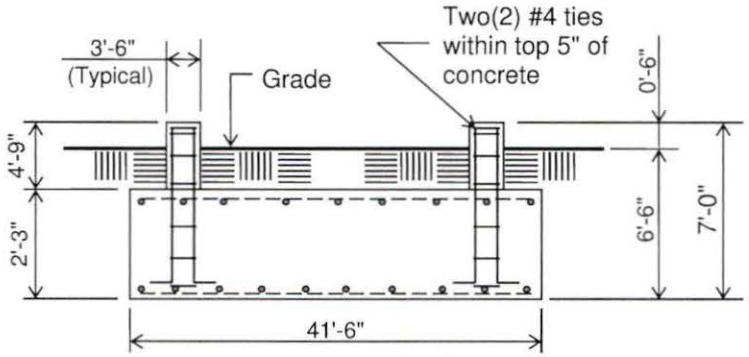
Date: 2/10/16
By: BD

Customer: PI TELECOM INFRASTRUCTURE V, LLC
Site: Vulcan Materials, KY, KY PI3KY00014.A

290 ft. Model S3TL Series HD1 Self Supporting Tower At
90 mph Wind with no ice and 30 mph Wind with 1 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



PLAN VIEW



ELEVATION VIEW

(148.6 Cu. Yds.)
(1 REQD.; NOT TO SCALE)

CAUTION: Center of tower is not in center of slab.

Notes:

1). Concrete shall have a minimum 28-day compressive strength of 4500 PSI, in accordance with ACI 318-05.

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 EG Sci, Project No. 2015.P13KY00014.A, dated November 13, 2015

6). See the geotechnical report for compaction requirements, if specified.

7). The foundation is based on the following factored loads:
Factored download (kips) = 168.06
Factored overturn (kip-ft) = 26198.66
Factored shear (kips) = 157.41

Rebar Schedule per Mat and per Pier	
Pier	(16) #11 vertical rebar w/ hooks at bottom w/ #4 Rebar ties, two (2) within top 5" of pier then 7" C/C
Mat	(70) #11 horizontal rebar evenly spaced each way top and bottom. (280 total)

8). 4.25 ft of soil cover is required over the entire area of the foundation slab.

7101 Southbridge Dr - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.258.8250

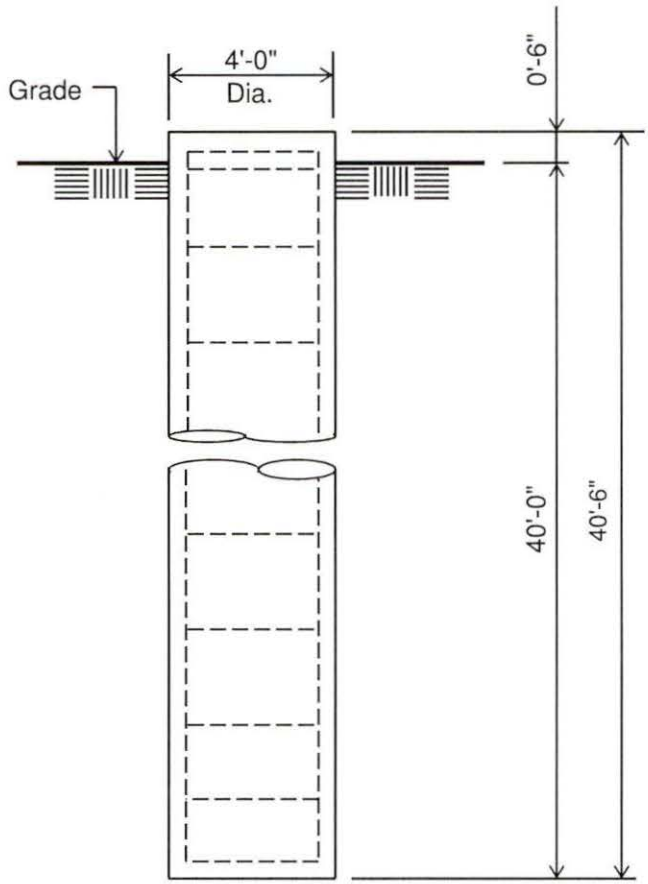
Sabre Industries™
Towers and Poles

No.: 136498

Date: 2/10/16
By: BD

Customer: PI TELECOM INFRASTRUCTURE V, LLC
Site: Vulcan Materials, KY, KY PI3KY00014.A

290 ft. Model S3TL Series HD1 Self Supporting Tower At
90 mph Wind with no ice and 30 mph Wind with 1 in. Ice per ANSI/TIA-222-G.
Antenna Loading per Page 1



ELEVATION VIEW
(18.85 Cu. Yds. each)
(3 REQUIRED; NOT TO SCALE)

Notes:

1). Concrete shall have a minimum 28-day compressive strength of 4500 PSI, in accordance with ACI 318-05.

2). Rebars 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 EG Sci, Project No. 2015.P13KY00014.A, dated November 13, 2015

6). See the geotechnical report for drilled pier installation requirements, if specified.

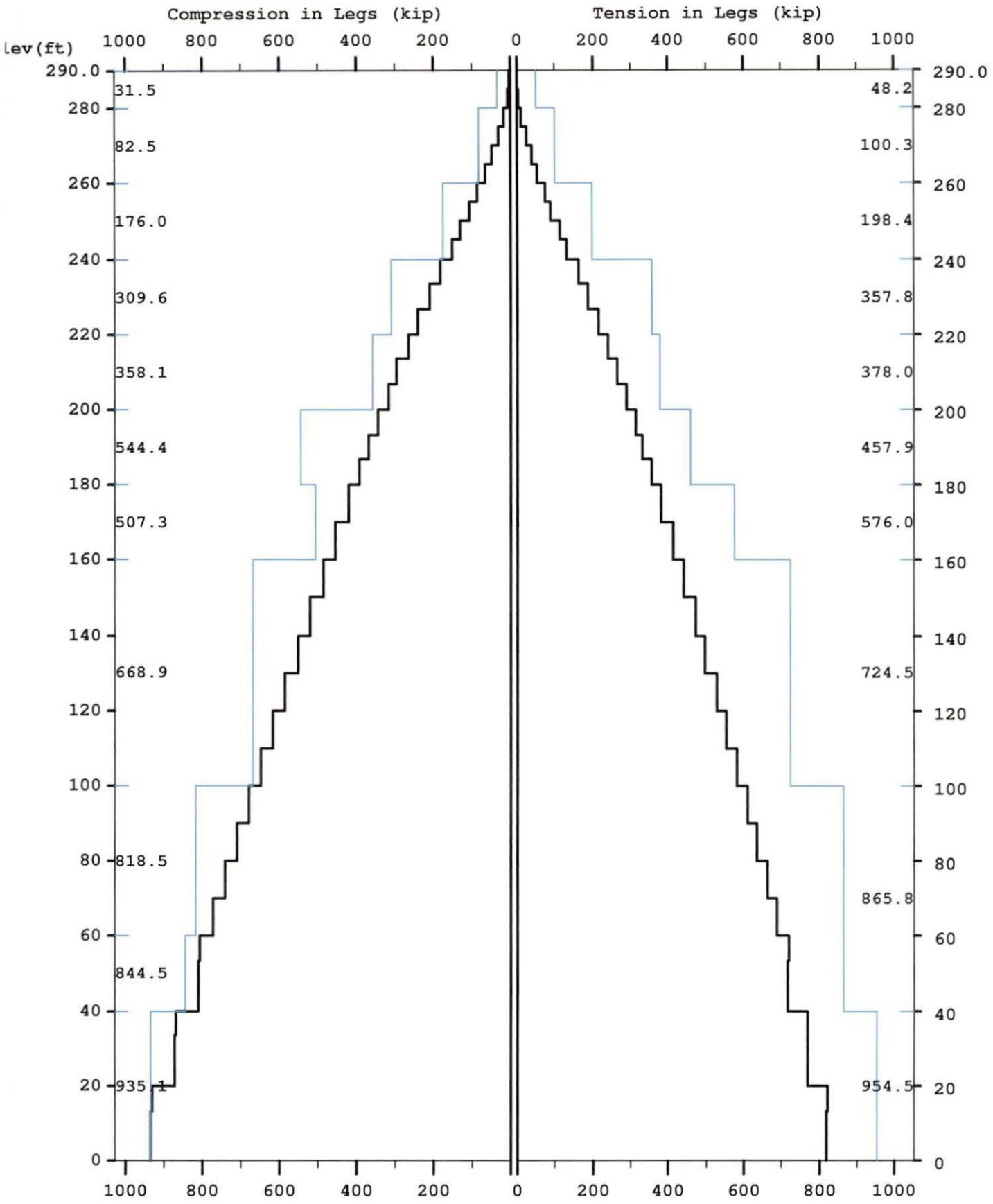
7). The foundation is based on the following factored loads:
Factored uplift (kips) = 852
Factored download (kips) = 971
Factored shear (kips) = 95

Rebar Schedule per Pier	
Pier	(20) #11 vertical rebar w/#4 ties, two (2) within top 5" of pier then 9" C/C

7101 Southbridge Dr - P.O. Box 658 - Sioux City, IA 51102-0658 - Phone 712.258.6690 - Fax 712.258.8250

10 feb 2016
14:44:59

Maximum



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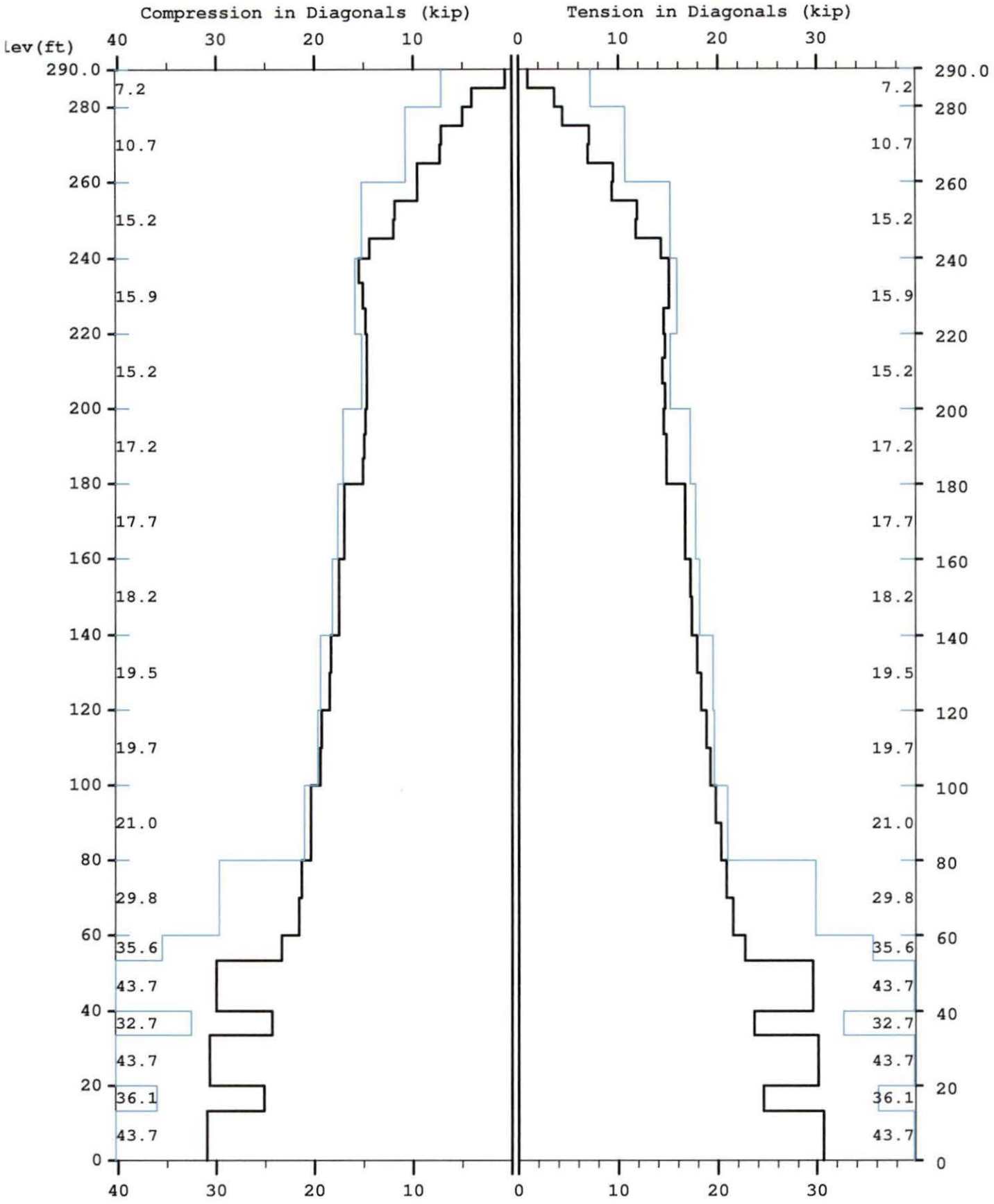
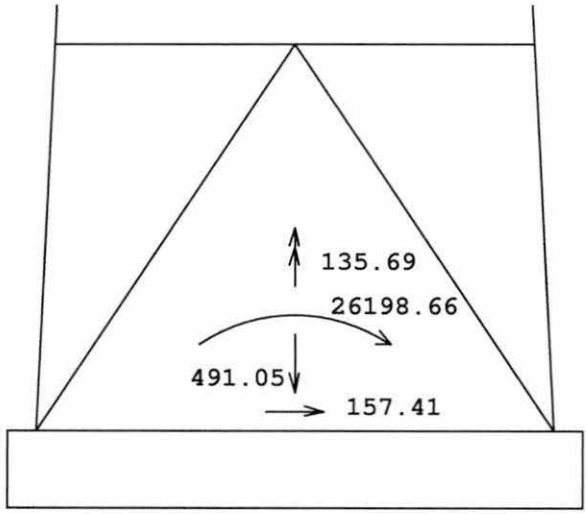
Maximum

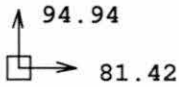


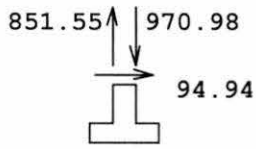
Maximum

TOTAL FOUNDATION LOADS (kip, ft-kip)



INDIVIDUAL FOOTING LOADS (kip)





Latticed Tower Analysis (Unguyed) (c)2013 Guymast Inc. 416-736-7453
Processed under license at:

Sabre Towers and Poles on: 10 feb 2016 at: 14:44:59

MAST GEOMETRY (ft)

PANEL TYPE	NO.OF LEGS	ELEV.AT BOTTOM	ELEV.AT TOP	F.W..AT BOTTOM	F.W..AT TOP	TYPICAL PANEL HEIGHT
X	3	285.00	290.00	5.00	5.00	5.00
X	3	280.00	285.00	5.00	5.00	5.00
X	3	275.00	280.00	5.50	5.00	5.00
X	3	260.00	275.00	7.00	5.50	5.00
X	3	240.00	260.00	9.00	7.00	5.00
X	3	220.00	240.00	11.00	9.00	6.67
X	3	200.00	220.00	13.00	11.00	6.67
X	3	180.00	200.00	15.00	13.00	6.67
X	3	160.00	180.00	17.00	15.00	10.00
X	3	140.00	160.00	19.00	17.00	10.00
X	3	120.00	140.00	21.00	19.00	10.00
X	3	100.00	120.00	23.00	21.00	10.00
X	3	80.00	100.00	25.00	23.00	10.00
X	3	60.00	80.00	27.00	25.00	10.00
V	3	53.33	60.00	27.67	27.00	6.67
A	3	40.00	53.33	29.00	27.67	13.33
V	3	33.33	40.00	29.67	29.00	6.67
A	3	20.00	33.33	31.00	29.67	13.33
V	3	13.33	20.00	31.67	31.00	6.67
A	3	0.00	13.33	33.00	31.67	13.33

MEMBER PROPERTIES

MEMBER TYPE	BOTTOM ELEV ft	TOP ELEV ft	X-SECTN AREA in.sq	RADIUS OF GYRAT in	ELASTIC MODULUS ksi	THERMAL EXPANSN /deg
LE	280.00	290.00	1.075	0.787	29000.	0.0000116
LE	260.00	280.00	2.228	0.787	29000.	0.0000116
LE	240.00	260.00	4.407	0.787	29000.	0.0000116
LE	220.00	240.00	7.952	0.787	29000.	0.0000116
LE	200.00	220.00	8.399	0.787	29000.	0.0000116
LE	160.00	200.00	12.763	0.787	29000.	0.0000116
LE	100.00	160.00	16.101	0.787	29000.	0.0000116
LE	40.00	100.00	19.242	0.787	29000.	0.0000116
LE	0.00	40.00	21.206	0.787	29000.	0.0000116
DI	280.00	290.00	0.484	0.626	29000.	0.0000116
DI	260.00	280.00	0.715	0.626	29000.	0.0000116
DI	240.00	260.00	1.188	0.626	29000.	0.0000116
DI	220.00	240.00	1.465	0.626	29000.	0.0000116
DI	200.00	220.00	1.438	0.626	29000.	0.0000116
DI	180.00	200.00	1.562	0.626	29000.	0.0000116
DI	160.00	180.00	1.812	0.626	29000.	0.0000116
DI	140.00	160.00	2.246	0.626	29000.	0.0000116
DI	120.00	140.00	2.402	0.626	29000.	0.0000116
DI	80.00	120.00	2.859	0.626	29000.	0.0000116
DI	53.33	80.00	3.027	0.626	29000.	0.0000116
DI	40.00	53.33	3.609	0.626	29000.	0.0000116
DI	33.33	40.00	3.027	0.626	29000.	0.0000116
DI	20.00	33.33	3.609	0.626	29000.	0.0000116
DI	13.33	20.00	3.609	0.626	29000.	0.0000116
DI	0.00	13.33	3.609	0.626	29000.	0.0000116
HO	285.00	290.00	0.484	0.626	29000.	0.0000116
HO	275.00	280.00	0.715	0.626	29000.	0.0000116
HO	40.00	53.33	2.402	0.626	29000.	0.0000116
HO	20.00	33.33	2.402	0.626	29000.	0.0000116
HO	0.00	13.33	3.027	0.626	29000.	0.0000116
BR	40.00	53.33	1.438	0.000	29000.	0.0000116
BR	20.00	33.33	1.438	0.000	29000.	0.0000116
BR	0.00	13.33	1.688	0.000	29000.	0.0000116

FACTORED MEMBER RESISTANCES

BOTTOM ELEV	TOP ELEV	LEGS COMP	LEGS TENS	DIAGONALS COMP	DIAGONALS TENS	HORIZONTALS COMP	HORIZONTALS TENS	INT BRACING COMP	INT BRACING TENS

ft	ft	kip	kip	kip	kip	kip	kip	kip	kip
285.0	290.0	31.48	48.15	7.16	7.16	5.82	5.82	0.00	0.00
280.0	285.0	31.48	48.15	7.16	7.16	0.00	0.00	0.00	0.00
275.0	280.0	82.52	100.35	10.74	10.74	8.46	8.46	0.00	0.00
260.0	275.0	82.52	100.35	10.74	10.74	0.00	0.00	0.00	0.00
240.0	260.0	175.98	198.45	15.19	15.19	0.00	0.00	0.00	0.00
220.0	240.0	309.64	357.75	15.89	15.89	0.00	0.00	0.00	0.00
200.0	220.0	358.08	378.00	15.19	15.19	0.00	0.00	0.00	0.00
180.0	200.0	544.40	457.90	17.21	17.21	0.00	0.00	0.00	0.00
160.0	180.0	507.33	576.00	17.74	17.74	0.00	0.00	0.00	0.00
140.0	160.0	668.86	724.50	18.22	18.22	0.00	0.00	0.00	0.00
120.0	140.0	668.86	724.50	19.51	19.51	0.00	0.00	0.00	0.00
100.0	120.0	668.86	724.50	19.70	19.70	0.00	0.00	0.00	0.00
80.0	100.0	818.52	865.80	21.03	21.03	0.00	0.00	0.00	0.00
60.0	80.0	818.52	865.80	29.77	29.77	0.00	0.00	0.00	0.00
53.3	60.0	844.46	865.80	35.60	35.60	0.00	0.00	0.00	0.00
40.0	53.3	844.46	865.80	43.74	43.74	19.11	19.11	7.41	7.41
33.3	40.0	935.10	954.45	32.65	32.65	0.00	0.00	0.00	0.00
20.0	33.3	935.10	954.45	43.74	43.74	17.13	17.13	6.59	6.59
13.3	20.0	935.10	954.45	36.10	36.10	0.00	0.00	0.00	0.00
0.0	13.3	935.10	954.45	43.74	43.74	28.16	28.16	9.00	9.00

==========

* Only 3 condition(s) shown in full
* RRUs/TMAs were assumed to be behind antennas

==========

LOADING CONDITION A ==========

90 mph wind with no ice. Wind Azimuth: 0♦

MAST LOADING
============

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	285.0	0.00	0.0	0.0	6.88	6.11	0.00	0.00
C	275.0	0.00	0.0	0.0	6.96	5.04	0.00	0.00
C	265.0	0.00	0.0	0.0	6.90	5.04	0.00	0.00
C	255.0	0.00	0.0	0.0	6.85	5.04	0.00	0.00
C	245.0	0.00	0.0	0.0	6.79	5.04	0.00	0.00
D	290.0	0.00	180.0	0.0	0.07	0.04	0.00	0.00
D	285.0	0.00	180.0	0.0	0.07	0.04	0.00	0.00
D	285.0	0.00	35.5	0.0	0.16	0.06	0.06	0.10
D	280.0	0.00	35.5	0.0	0.16	0.06	0.06	0.10
D	280.0	0.00	36.8	0.0	0.17	0.10	0.06	0.10
D	275.0	0.00	36.8	0.0	0.17	0.10	0.06	0.10
D	275.0	0.00	84.2	0.0	0.21	0.13	0.07	0.13
D	265.0	0.00	83.6	0.0	0.21	0.13	0.07	0.14
D	265.0	0.00	46.5	0.0	0.25	0.17	0.01	0.04
D	260.0	0.00	46.5	0.0	0.25	0.17	0.01	0.04
D	260.0	0.00	37.2	0.0	0.27	0.22	0.01	0.04
D	255.0	0.00	37.2	0.0	0.27	0.22	0.01	0.04
D	255.0	0.00	7.2	0.0	0.36	0.26	0.08	0.14
D	245.0	0.00	7.6	0.0	0.37	0.27	0.08	0.14
D	245.0	0.00	48.9	0.0	0.41	0.31	0.08	0.19
D	240.0	0.00	48.9	0.0	0.41	0.31	0.08	0.19
D	240.0	0.00	50.7	0.0	0.40	0.36	0.08	0.20
D	220.0	0.00	51.4	0.0	0.41	0.36	0.07	0.18
D	220.0	0.00	48.8	0.0	0.43	0.37	0.11	0.21
D	200.0	0.00	49.4	0.0	0.44	0.38	0.09	0.20
D	200.0	0.00	47.6	0.0	0.43	0.44	0.13	0.23
D	180.0	0.00	48.0	0.0	0.44	0.45	0.11	0.21
D	180.0	0.00	46.7	0.0	0.42	0.44	0.15	0.24
D	160.0	0.00	47.0	0.0	0.43	0.44	0.14	0.23
D	160.0	0.00	46.0	0.0	0.43	0.51	0.17	0.25
D	140.0	0.00	46.3	0.0	0.44	0.51	0.16	0.24
D	140.0	0.00	45.5	0.0	0.44	0.52	0.19	0.26
D	120.0	0.00	45.7	0.0	0.44	0.53	0.18	0.26
D	120.0	0.00	45.1	0.0	0.43	0.56	0.21	0.27
D	100.0	0.00	45.2	0.0	0.44	0.57	0.20	0.27
D	100.0	0.00	44.7	0.0	0.43	0.61	0.23	0.28
D	80.0	0.00	44.9	0.0	0.44	0.62	0.22	0.28
D	80.0	0.00	44.5	0.0	0.45	0.64	0.25	0.28
D	60.0	0.00	44.6	0.0	0.45	0.64	0.24	0.28
D	60.0	0.00	44.2	0.0	0.41	0.60	0.28	0.28

D	53.3	0.00	44.2	0.0	0.41	0.60	0.28	0.28
D	53.3	0.00	44.3	0.0	0.44	0.71	0.27	0.28
D	40.0	0.00	44.3	0.0	0.44	0.71	0.27	0.28
D	40.0	0.00	44.0	0.0	0.38	0.64	0.30	0.27
D	33.3	0.00	44.0	0.0	0.38	0.64	0.30	0.27
D	33.3	0.00	44.1	0.0	0.42	0.74	0.29	0.28
D	20.0	0.00	44.1	0.0	0.42	0.74	0.29	0.28
D	20.0	0.00	43.8	0.0	0.33	0.68	0.32	0.25
D	13.3	0.00	43.8	0.0	0.33	0.68	0.32	0.25
D	13.3	0.00	43.9	0.0	0.37	0.79	0.31	0.25
D	0.0	0.00	43.9	0.0	0.37	0.79	0.31	0.25

ANTENNA LOADING
==========

.....ANTENNA.....			ATTACHMENT		.....ANTENNA FORCES.....			
TYPE	ELEV	AZI	RAD	AZI	AXIAL	SHEAR	GRAVITY	TORSION
	ft		ft		kip	kip	kip	ft-kip
STD+R	280.0	0.0	4.4	0.0	1.63	0.00	0.40	0.00
STD+R	270.0	0.0	5.0	0.0	0.41	0.00	0.16	0.00
STD+R	260.0	0.0	5.5	0.0	0.40	0.00	0.16	0.00
STD+R	250.0	0.0	6.1	0.0	0.40	0.00	0.16	0.00
STD+R	240.0	0.0	6.7	0.0	0.40	0.00	0.16	0.00

SUPPRESS PRINTING
==========

	...FOR THIS LOADING..			.....MAXIMUMS.....			
LOADS INPUT	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

==========

LOADING CONDITION M ==========

90 mph wind with no ice. Wind Azimuth: 0♦

MAST LOADING
==========

LOAD	ELEV	APPLY..LOAD..AT		LOAD	......FORCES......		......MOMENTS......	
TYPE		RADIUS	AZI	AZI	HORIZ	DOWN	VERTICAL	TORSNAL
	ft	ft			kip	kip	ft-kip	ft-kip
C	285.0	0.00	0.0	0.0	6.88	4.58	0.00	0.00
C	275.0	0.00	0.0	0.0	6.96	3.78	0.00	0.00
C	265.0	0.00	0.0	0.0	6.90	3.78	0.00	0.00
C	255.0	0.00	0.0	0.0	6.85	3.78	0.00	0.00
C	245.0	0.00	0.0	0.0	6.79	3.78	0.00	0.00
D	290.0	0.00	180.0	0.0	0.07	0.03	0.00	0.00
D	285.0	0.00	180.0	0.0	0.07	0.03	0.00	0.00
D	285.0	0.00	35.5	0.0	0.16	0.05	0.04	0.10
D	280.0	0.00	35.5	0.0	0.16	0.05	0.04	0.10
D	280.0	0.00	36.8	0.0	0.17	0.07	0.05	0.10
D	275.0	0.00	36.8	0.0	0.17	0.07	0.05	0.10
D	275.0	0.00	84.2	0.0	0.21	0.10	0.05	0.13
D	265.0	0.00	83.6	0.0	0.21	0.10	0.05	0.14
D	265.0	0.00	46.5	0.0	0.25	0.13	0.01	0.04
D	260.0	0.00	46.5	0.0	0.25	0.13	0.01	0.04
D	260.0	0.00	37.2	0.0	0.27	0.17	0.01	0.04
D	255.0	0.00	37.2	0.0	0.27	0.17	0.01	0.04
D	255.0	0.00	7.2	0.0	0.36	0.20	0.06	0.14
D	245.0	0.00	7.6	0.0	0.37	0.20	0.06	0.14
D	245.0	0.00	48.9	0.0	0.41	0.23	0.06	0.19
D	240.0	0.00	48.9	0.0	0.41	0.23	0.06	0.19
D	240.0	0.00	50.7	0.0	0.40	0.27	0.06	0.20
D	220.0	0.00	51.4	0.0	0.41	0.27	0.05	0.18
D	220.0	0.00	48.8	0.0	0.43	0.28	0.08	0.21
D	200.0	0.00	49.4	0.0	0.44	0.28	0.07	0.20
D	200.0	0.00	47.6	0.0	0.43	0.33	0.09	0.23
D	180.0	0.00	48.0	0.0	0.44	0.34	0.08	0.21
D	180.0	0.00	46.7	0.0	0.42	0.33	0.11	0.24
D	160.0	0.00	47.0	0.0	0.43	0.33	0.10	0.23
D	160.0	0.00	46.0	0.0	0.43	0.38	0.13	0.25
D	140.0	0.00	46.3	0.0	0.44	0.38	0.12	0.24
D	140.0	0.00	45.5	0.0	0.44	0.39	0.14	0.26
D	120.0	0.00	45.7	0.0	0.44	0.40	0.13	0.26

D	120.0	0.00	45.1	0.0	0.43	0.42	0.16	0.27
D	100.0	0.00	45.2	0.0	0.44	0.43	0.15	0.27
D	100.0	0.00	44.7	0.0	0.43	0.46	0.17	0.28
D	80.0	0.00	44.9	0.0	0.44	0.46	0.17	0.28
D	80.0	0.00	44.5	0.0	0.45	0.48	0.19	0.28
D	60.0	0.00	44.6	0.0	0.45	0.48	0.18	0.28
D	60.0	0.00	44.2	0.0	0.41	0.45	0.21	0.28
D	53.3	0.00	44.2	0.0	0.41	0.45	0.21	0.28
D	53.3	0.00	44.3	0.0	0.44	0.53	0.20	0.28
D	40.0	0.00	44.3	0.0	0.44	0.53	0.20	0.28
D	40.0	0.00	44.0	0.0	0.38	0.48	0.22	0.27
D	33.3	0.00	44.0	0.0	0.38	0.48	0.22	0.27
D	33.3	0.00	44.1	0.0	0.42	0.56	0.22	0.28
D	20.0	0.00	44.1	0.0	0.42	0.56	0.22	0.28
D	20.0	0.00	43.8	0.0	0.33	0.51	0.24	0.25
D	13.3	0.00	43.8	0.0	0.33	0.51	0.24	0.25
D	13.3	0.00	43.9	0.0	0.37	0.60	0.23	0.25
D	0.0	0.00	43.9	0.0	0.37	0.60	0.23	0.25

ANTENNA LOADING
==========

.....ANTENNA.....			ATTACHMENT		.....ANTENNA FORCES.....			
TYPE	ELEV ft	AZI	RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	280.0	0.0	4.4	0.0	1.63	0.00	0.30	0.00
STD+R	270.0	0.0	5.0	0.0	0.41	0.00	0.12	0.00
STD+R	260.0	0.0	5.5	0.0	0.40	0.00	0.12	0.00
STD+R	250.0	0.0	6.1	0.0	0.40	0.00	0.12	0.00
STD+R	240.0	0.0	6.7	0.0	0.40	0.00	0.12	0.00

SUPPRESS PRINTING
==========

	...FOR THIS LOADING..			.....MAXIMUMS.....			
LOADS INPUT	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

==========

LOADING CONDITION Y ==========

30 mph wind with 1 ice. Wind Azimuth: 0♦

MAST LOADING
==========

LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	......FORCES..... HORIZ kip	DOWN kip	......MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	285.0	0.00	0.0	0.0	0.86	15.56	0.00	0.00
C	275.0	0.00	0.0	0.0	0.85	14.45	0.00	0.00
C	265.0	0.00	0.0	0.0	0.84	14.42	0.00	0.00
C	255.0	0.00	0.0	0.0	0.83	14.38	0.00	0.00
C	245.0	0.00	0.0	0.0	0.82	14.34	0.00	0.00
D	290.0	0.00	180.0	0.0	0.01	0.25	0.00	0.00
D	285.0	0.00	180.0	0.0	0.01	0.25	0.00	0.00
D	285.0	0.00	35.5	0.0	0.02	0.35	0.29	0.01
D	280.0	0.00	35.5	0.0	0.02	0.35	0.29	0.01
D	280.0	0.00	36.8	0.0	0.02	0.44	0.28	0.01
D	275.0	0.00	36.8	0.0	0.02	0.44	0.28	0.01
D	275.0	0.00	93.8	0.0	0.02	0.56	0.29	0.01
D	270.0	0.00	93.8	0.0	0.02	0.56	0.29	0.01
D	270.0	0.00	92.1	0.0	0.02	0.58	0.31	0.01
D	265.0	0.00	92.1	0.0	0.02	0.58	0.31	0.01
D	265.0	0.00	337.2	0.0	0.02	0.75	0.06	0.00
D	260.0	0.00	337.2	0.0	0.02	0.75	0.06	0.00
D	260.0	0.00	334.6	0.0	0.03	0.83	0.07	0.00
D	255.0	0.00	334.6	0.0	0.03	0.83	0.07	0.00
D	255.0	0.00	10.9	0.0	0.03	1.01	0.37	0.01
D	250.0	0.00	10.9	0.0	0.03	1.01	0.37	0.01
D	250.0	0.00	10.6	0.0	0.03	1.02	0.40	0.01
D	245.0	0.00	10.6	0.0	0.03	1.02	0.40	0.01
D	245.0	0.00	63.6	0.0	0.04	1.20	0.32	0.01
D	240.0	0.00	63.6	0.0	0.04	1.20	0.32	0.01
D	240.0	0.00	64.1	0.0	0.04	1.23	0.34	0.02

D	233.3	0.00	64.1	0.0	0.04	1.23	0.34	0.02
D	233.3	0.00	64.9	0.0	0.04	1.24	0.31	0.01
D	226.7	0.00	64.9	0.0	0.04	1.24	0.31	0.01
D	226.7	0.00	65.6	0.0	0.04	1.25	0.28	0.01
D	220.0	0.00	65.6	0.0	0.04	1.25	0.28	0.01
D	220.0	0.00	61.4	0.0	0.04	1.30	0.43	0.02
D	213.3	0.00	61.4	0.0	0.04	1.30	0.43	0.02
D	213.3	0.00	62.0	0.0	0.04	1.32	0.40	0.02
D	206.7	0.00	62.0	0.0	0.04	1.32	0.40	0.02
D	206.7	0.00	62.5	0.0	0.04	1.33	0.37	0.02
D	200.0	0.00	62.5	0.0	0.04	1.33	0.37	0.02
D	200.0	0.00	59.6	0.0	0.04	1.41	0.51	0.02
D	193.3	0.00	59.6	0.0	0.04	1.41	0.51	0.02
D	193.3	0.00	60.0	0.0	0.04	1.42	0.49	0.02
D	186.7	0.00	60.0	0.0	0.04	1.42	0.49	0.02
D	186.7	0.00	60.4	0.0	0.04	1.44	0.46	0.02
D	180.0	0.00	60.4	0.0	0.04	1.44	0.46	0.02
D	180.0	0.00	58.4	0.0	0.04	1.37	0.59	0.02
D	170.0	0.00	58.4	0.0	0.04	1.37	0.59	0.02
D	170.0	0.00	58.9	0.0	0.04	1.39	0.55	0.02
D	160.0	0.00	58.9	0.0	0.04	1.39	0.55	0.02
D	160.0	0.00	57.4	0.0	0.04	1.47	0.68	0.02
D	150.0	0.00	57.4	0.0	0.04	1.47	0.68	0.02
D	150.0	0.00	57.8	0.0	0.04	1.49	0.64	0.02
D	140.0	0.00	57.8	0.0	0.04	1.49	0.64	0.02
D	140.0	0.00	56.6	0.0	0.04	1.51	0.76	0.02
D	130.0	0.00	56.6	0.0	0.04	1.51	0.76	0.02
D	130.0	0.00	56.9	0.0	0.04	1.53	0.72	0.02
D	120.0	0.00	56.9	0.0	0.04	1.53	0.72	0.02
D	120.0	0.00	55.9	0.0	0.04	1.56	0.84	0.02
D	110.0	0.00	55.9	0.0	0.04	1.56	0.84	0.02
D	110.0	0.00	56.2	0.0	0.04	1.57	0.80	0.02
D	100.0	0.00	56.2	0.0	0.04	1.57	0.80	0.02
D	100.0	0.00	55.3	0.0	0.04	1.63	0.92	0.02
D	80.0	0.00	55.6	0.0	0.04	1.64	0.88	0.02
D	80.0	0.00	54.8	0.0	0.04	1.71	0.99	0.02
D	60.0	0.00	55.1	0.0	0.04	1.73	0.96	0.02
D	60.0	0.00	54.3	0.0	0.04	1.58	1.06	0.02
D	53.3	0.00	54.3	0.0	0.04	1.58	1.06	0.02
D	53.3	0.00	54.5	0.0	0.04	1.91	1.03	0.02
D	40.0	0.00	54.5	0.0	0.04	1.91	1.03	0.02
D	40.0	0.00	53.7	0.0	0.03	1.61	1.12	0.02
D	33.3	0.00	53.7	0.0	0.03	1.61	1.12	0.02
D	33.3	0.00	54.1	0.0	0.04	1.93	1.10	0.02
D	20.0	0.00	54.1	0.0	0.04	1.93	1.10	0.02
D	20.0	0.00	53.3	0.0	0.03	1.68	1.28	0.02
D	13.3	0.00	53.3	0.0	0.03	1.68	1.28	0.02
D	13.3	0.00	54.1	0.0	0.03	2.23	1.64	0.02
D	0.0	0.00	54.1	0.0	0.03	2.23	1.64	0.02

ANTENNA LOADING
==========

.....ANTENNA.....			ATTACHMENT		.....ANTENNA FORCES.....			
TYPE	ELEV ft	AZI	RAD ft	AZI	AXIAL kip	SHEAR kip	GRAVITY kip	TORSION ft-kip
STD+R	280.0	0.0	4.4	0.0	0.13	0.00	1.97	0.00
STD+R	270.0	0.0	5.0	0.0	0.03	0.00	0.50	0.00
STD+R	260.0	0.0	5.5	0.0	0.03	0.00	0.50	0.00
STD+R	250.0	0.0	6.1	0.0	0.03	0.00	0.50	0.00
STD+R	240.0	0.0	6.7	0.0	0.03	0.00	0.50	0.00

SUPPRESS PRINTING
==========

	...FOR THIS LOADING..				.....MAXIMUMS.....			
LOADS INPUT	DISPL	MEMBER FORCES	FOUNDN LOADS		ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes		no	no	no	no

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MAXIMUM MAST DISPLACEMENTS:
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ELEV ft	------DEFLECTIONS (ft)----- NORTH	EAST	DOWN	--TILTS (DEG)--- NORTH	EAST	TWIST DEG
290.0	4.137 G	-3.789 D	0.058 e	1.757 G	-1.613 D	0.233 D
285.0	3.984 G	-3.648 D	0.058 e	1.758 G	-1.614 D	0.233 D
280.0	3.828 G	-3.505 D	0.057 e	1.746 G	-1.602 D	0.234 D

275.0	3.675 G	-3.365 D	0.056 e	1.729 G	-1.587 D	0.218 D
270.0	3.522 G	-3.224 D	0.055 e	1.696 G	-1.557 D	0.206 D
265.0	3.374 G	-3.088 D	0.054 e	1.649 G	-1.514 D	0.192 D
260.0	3.227 G	-2.954 D	0.053 e	1.586 G	-1.457 D	0.179 D
255.0	3.090 G	-2.828 D	0.052 e	1.548 G	-1.422 D	0.171 D
250.0	2.952 G	-2.701 D	0.051 e	1.501 G	-1.379 D	0.164 D
245.0	2.823 G	-2.582 D	0.050 e	1.450 G	-1.332 D	0.157 D
240.0	2.692 G	-2.462 D	0.048 e	1.390 G	-1.276 D	0.149 D
233.3	2.532 G	-2.314 D	0.047 e	1.342 G	-1.232 D	0.141 D
226.7	2.372 G	-2.168 D	0.046 e	1.288 G	-1.182 D	0.133 D
220.0	2.224 G	-2.032 D	0.045 e	1.231 G	-1.130 D	0.126 D
213.3	2.078 G	1.898 J	0.043 e	1.173 G	-1.076 D	0.118 D
206.7	1.941 G	1.772 J	0.042 e	1.113 G	-1.021 D	0.111 D
200.0	1.809 G	1.651 J	0.040 e	1.051 G	-0.963 D	0.104 D
193.3	1.686 G	1.538 J	0.039 e	1.010 G	-0.925 D	0.098 X
186.7	1.566 G	1.429 J	0.038 e	0.968 G	-0.887 D	0.094 X
180.0	1.452 G	1.324 J	0.037 e	0.926 G	-0.848 D	0.089 X
170.0	1.288 G	1.175 J	0.036 e	0.859 G	-0.786 D	0.084 X
160.0	1.139 G	1.038 J	0.034 e	0.792 G	-0.725 D	0.077 X
150.0	1.000 G	0.911 J	0.032 e	0.738 G	-0.675 D	0.072 X
140.0	0.871 G	0.793 J	0.030 e	0.684 G	-0.625 D	0.067 X
130.0	0.751 G	0.683 J	0.029 e	0.628 G	-0.574 D	0.061 X
120.0	0.641 G	0.583 J	0.027 e	0.573 G	-0.523 D	0.056 X
110.0	0.539 G	0.490 J	0.025 e	0.517 G	-0.472 D	0.051 X
100.0	0.449 G	0.408 J	0.023 e	0.461 G	-0.420 D	0.046 X
90.0	0.367 G	0.333 J	0.021 e	0.414 G	0.377 J	0.041 X
80.0	0.293 G	0.265 J	0.019 e	0.367 G	0.334 J	0.035 X
70.0	0.212 G	0.193 J	0.016 e	0.316 G	0.288 J	0.030 X
60.0	0.147 G	0.134 J	0.014 e	0.267 G	0.244 J	0.025 X
53.3	0.121 G	-0.110 D	0.013 Y	0.237 G	0.216 J	0.022 X
40.0	0.068 G	-0.062 D	0.009 Y	0.173 G	0.157 J	0.016 X
33.3	0.053 G	-0.048 D	0.008 f	0.146 G	-0.133 D	0.013 X
20.0	0.020 G	-0.018 D	0.005 Y	0.087 G	-0.079 D	0.008 X
13.3	0.009 G	-0.008 D	0.003 j	0.058 G	-0.053 D	0.005 X
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:

ELEV ft	AZI deg	TYPE *	.....BEAM DEFLECTIONS (deg)..... PITCH	YAW	ROLL	TOTAL
280.0	0.0	STD+R	1.602 D	0.234 V	-1.746 G	1.619 D
270.0	0.0	STD+R	1.557 D	0.206 V	-1.696 G	1.571 D
260.0	0.0	STD+R	1.457 D	0.180 P	-1.586 G	1.468 D
250.0	0.0	STD+R	1.379 D	0.164 V	-1.501 G	1.389 D
240.0	0.0	STD+R	1.276 D	0.150 V	-1.390 G	1.285 D

MAXIMUM TENSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
290.0	----------		0.43 M	0.00 A
	0.27 S	0.91 G		
285.0	----------		0.10 G	0.00 A
	2.41 M	3.60 M		
280.0	----------		1.87 A	0.00 A
	11.05 M	4.45 U		
275.0	----------		0.12 c	0.00 A
	23.14 M	7.14 B		
270.0	----------		0.18 A	0.00 A
	38.71 M	6.98 T		
265.0	----------		0.10 i	0.00 A
	52.86 M	9.54 N		
260.0	----------		0.25 A	0.00 A
	73.10 M	9.34 T		
255.0	----------		0.11 G	0.00 A
	88.98 M	11.86 N		
250.0	----------		0.30 A	0.00 A
	112.68 M	11.71 H		
245.0	----------		0.10 G	0.00 A
	130.41 M	14.36 M		
240.0	----------		0.28 A	0.00 A
	160.83 M	15.13 F		
233.3	----------		0.05 B	0.00 A
	185.90 M	15.04 X		
226.7	----------		0.23 A	0.00 A
	216.20 M	14.53 F		
220.0	----------		0.03 Y	0.00 A
	239.30 M	14.67 X		
213.3	----------		0.15 A	0.00 A

	266.15 M	14.40 F			
206.7	----------		0.03 C	0.00 A	
	287.94 M	14.67 X			
200.0	----------		0.13 A	0.00 A	
	312.47 M	14.58 F			
193.3	----------		0.07 E	0.00 A	
	333.20 M	14.87 X			
186.7	----------		0.11 A	0.00 A	
	356.07 M	14.90 F			
180.0	----------		0.05 E	0.00 A	
	380.81 M	16.70 X			
170.0	----------		0.16 A	0.00 A	
	412.95 M	16.75 F			
160.0	----------		0.06 A	0.00 A	
	441.55 M	17.18 X			
150.0	----------		0.11 A	0.00 A	
	471.65 M	17.40 F			
140.0	----------		0.06 A	0.00 A	
	499.25 M	17.93 X			
130.0	----------		0.10 A	0.00 A	
	528.09 M	18.26 F			
120.0	----------		0.05 A	0.00 A	
	555.03 M	18.84 X			
110.0	----------		0.09 A	0.00 A	
	582.91 M	19.23 G			
100.0	----------		0.05 A	0.00 A	
	609.27 M	19.82 L			
90.0	----------		0.07 A	0.00 A	
	636.36 M	20.32 G			
80.0	----------		0.22 S	0.00 A	
	662.38 M	20.90 L			
70.0	----------		0.08 S	0.00 A	
	688.81 M	21.46 G			
60.0	----------		0.37 E	0.00 A	
	719.34 M	22.69 X			
53.3	----------		1.65 M	0.00 T	
	717.66 M	29.48 L			
40.0	----------		0.37 A	0.00 A	
	770.72 M	23.64 X			
33.3	----------		1.56 M	0.00 C	
	768.95 M	30.07 L			
20.0	----------		0.12 A	0.00 C	
	820.92 M	24.57 L			
13.3	----------		1.36 M	0.00 E	
	819.02 M	30.58 G			
0.0	----------		0.00 A	0.00 A	

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)

ELEV ft	LEGS	DIAG	HORIZ	BRACE
290.0	----------		-0.60 G	0.00 A
	-0.83 Y	-0.65 M		
285.0	----------		-0.06 M	0.00 A
	-5.85 e	-3.96 G		
280.0	----------		-1.60 S	0.00 A
	-15.40 G	-4.88 C		
275.0	----------		0.00 A	0.00 A
	-30.81 G	-7.14 B		
270.0	----------		-0.16 S	0.00 A
	-46.65 G	-7.26 B		
265.0	----------		-0.02 M	0.00 A
	-64.13 G	-9.50 H		
260.0	----------		-0.22 S	0.00 A
	-85.10 G	-9.61 B		
255.0	----------		-0.10 M	0.00 A
	-104.50 G	-11.91 G		
250.0	----------		-0.26 S	0.00 A
	-129.26 G	-12.02 B		
245.0	----------		-0.09 M	0.00 A
	-150.66 G	-14.48 G		
240.0	----------		-0.24 S	0.00 A
	-182.59 G	-15.50 L		
233.3	----------		-0.04 M	0.00 A
	-209.05 G	-15.12 G		
226.7	----------		-0.20 S	0.00 A
	-240.87 G	-14.83 L		
220.0	----------		-0.01 R	0.00 A

	-265.57 G	-14.73 G	
213.3	----------	-0.14 S	0.00 A
	-294.10 G	-14.66 L	
206.7	----------	-0.01 W	0.00 A
	-317.61 G	-14.76 G	
200.0	----------	-0.11 S	0.00 A
	-344.06 G	-14.80 L	
193.3	----------	-0.05 S	0.00 A
	-366.84 G	-15.04 G	
186.7	----------	-0.10 S	0.00 A
	-391.88 G	-15.08 L	
180.0	----------	-0.04 W	0.00 A
	-419.23 G	-17.04 G	
170.0	----------	-0.14 S	0.00 A
	-454.67 G	-16.96 L	
160.0	----------	-0.05 S	0.00 A
	-486.76 G	-17.57 G	
150.0	----------	-0.10 S	0.00 A
	-520.66 G	-17.59 L	
140.0	----------	-0.05 S	0.00 A
	-552.10 G	-18.37 G	
130.0	----------	-0.08 S	0.00 A
	-584.95 G	-18.44 L	
120.0	----------	-0.04 S	0.00 A
	-616.01 G	-19.33 G	
110.0	----------	-0.08 S	0.00 A
	-648.20 G	-19.39 L	
100.0	----------	-0.04 S	0.00 A
	-679.04 G	-20.37 G	
90.0	----------	-0.06 S	0.00 A
	-710.83 G	-20.42 L	
80.0	----------	-0.24 A	0.00 A
	-741.66 G	-21.35 G	
70.0	----------	-0.09 A	0.00 A
	-773.01 G	-21.65 G	
60.0	----------	-0.33 W	0.00 A
	-807.96 G	-23.43 G	
53.3	----------	-1.90 G	0.00 J
	-810.21 G	-30.07 G	
40.0	----------	-0.32 S	0.00 A
	-869.83 G	-24.37 G	
33.3	----------	-1.81 G	0.00 G
	-872.19 G	-30.67 G	
20.0	----------	-0.10 S	0.00 G
	-931.12 G	-25.17 G	
13.3	----------	-1.62 G	0.00 X
	-933.65 G	-31.03 G	
0.0	----------	0.00 A	0.00 A

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

----------LOAD---COMPONENTS----------				TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
94.94 G	81.42 K	970.98 G	-851.55 M	94.94 G

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

------HORIZONTAL-----			DOWN	---------OVERTURNING---------			TORSION
NORTH	EAST	TOTAL @ 0.0		NORTH	EAST	TOTAL @ 150.1	
157.4 G	142.0 V	157.4 G	491.0 f	26148.5 G	-23783.3 D	26198.7 L	135.7 X

Latticed Tower Analysis (Unguyed) (c)2013 Guymast Inc. 416-736-7453
Processed under license at:

Sabre Towers and Poles on: 10 feb 2016 at: 14:45:07

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

==========
* Only 1 condition(s) shown in full
* RRUs/TMAs were assumed to be behind antennas

==========
LOADING CONDITION A ==========

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

MAST LOADING
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LOAD TYPE	ELEV ft	APPLY..LOAD..AT RADIUS ft	AZI	LOAD AZI	.....FORCES..... HORIZ kip	DOWN kip	.....MOMENTS..... VERTICAL ft-kip	TORSNAL ft-kip
C	285.0	0.00	0.0	0.0	1.91	5.09	0.00	0.00
C	275.0	0.00	0.0	0.0	1.93	4.20	0.00	0.00
C	265.0	0.00	0.0	0.0	1.92	4.20	0.00	0.00
C	255.0	0.00	0.0	0.0	1.90	4.20	0.00	0.00
C	245.0	0.00	0.0	0.0	1.89	4.20	0.00	0.00
D	290.0	0.00	180.0	0.0	0.02	0.03	0.00	0.00
D	285.0	0.00	180.0	0.0	0.02	0.03	0.00	0.00
D	285.0	0.00	35.5	0.0	0.04	0.05	0.05	0.03
D	280.0	0.00	35.5	0.0	0.04	0.05	0.05	0.03
D	280.0	0.00	36.8	0.0	0.05	0.08	0.05	0.03
D	275.0	0.00	36.8	0.0	0.05	0.08	0.05	0.03
D	275.0	0.00	84.2	0.0	0.06	0.11	0.06	0.04
D	265.0	0.00	83.6	0.0	0.06	0.11	0.06	0.04
D	265.0	0.00	46.5	0.0	0.07	0.14	0.01	0.01
D	260.0	0.00	46.5	0.0	0.07	0.14	0.01	0.01
D	260.0	0.00	37.2	0.0	0.07	0.19	0.01	0.01
D	255.0	0.00	37.2	0.0	0.07	0.19	0.01	0.01
D	255.0	0.00	7.2	0.0	0.10	0.22	0.06	0.04
D	245.0	0.00	7.6	0.0	0.10	0.22	0.07	0.04
D	245.0	0.00	48.9	0.0	0.11	0.26	0.07	0.05
D	240.0	0.00	48.9	0.0	0.11	0.26	0.07	0.05
D	240.0	0.00	50.7	0.0	0.11	0.30	0.07	0.05
D	220.0	0.00	51.4	0.0	0.12	0.30	0.06	0.05
D	220.0	0.00	48.8	0.0	0.12	0.31	0.09	0.06
D	200.0	0.00	49.4	0.0	0.12	0.31	0.08	0.05
D	200.0	0.00	47.6	0.0	0.12	0.37	0.11	0.06
D	180.0	0.00	48.0	0.0	0.12	0.37	0.09	0.06
D	180.0	0.00	46.7	0.0	0.12	0.36	0.12	0.07
D	160.0	0.00	47.0	0.0	0.12	0.37	0.11	0.06
D	160.0	0.00	46.0	0.0	0.12	0.42	0.14	0.07
D	140.0	0.00	46.3	0.0	0.12	0.43	0.13	0.07
D	140.0	0.00	45.5	0.0	0.12	0.44	0.16	0.07
D	120.0	0.00	45.7	0.0	0.12	0.44	0.15	0.07
D	120.0	0.00	45.1	0.0	0.12	0.47	0.18	0.08
D	100.0	0.00	45.2	0.0	0.12	0.47	0.17	0.07
D	100.0	0.00	44.7	0.0	0.12	0.51	0.19	0.08
D	80.0	0.00	44.9	0.0	0.12	0.52	0.18	0.08
D	80.0	0.00	44.5	0.0	0.12	0.53	0.21	0.08
D	60.0	0.00	44.6	0.0	0.13	0.54	0.20	0.08
D	60.0	0.00	44.2	0.0	0.11	0.50	0.23	0.08
D	53.3	0.00	44.2	0.0	0.11	0.50	0.23	0.08
D	53.3	0.00	44.3	0.0	0.12	0.59	0.22	0.08
D	40.0	0.00	44.3	0.0	0.12	0.59	0.22	0.08
D	40.0	0.00	44.0	0.0	0.11	0.53	0.25	0.08
D	33.3	0.00	44.0	0.0	0.11	0.53	0.25	0.08
D	33.3	0.00	44.1	0.0	0.12	0.62	0.24	0.08
D	20.0	0.00	44.1	0.0	0.12	0.62	0.24	0.08
D	20.0	0.00	43.8	0.0	0.09	0.57	0.27	0.07
D	13.3	0.00	43.8	0.0	0.09	0.57	0.27	0.07
D	13.3	0.00	43.9	0.0	0.10	0.66	0.26	0.07
D	0.0	0.00	43.9	0.0	0.10	0.66	0.26	0.07

ANTENNA LOADING
===============

.....ANTENNA..... TYPE	ELEV	AZI	ATTACHMENT RAD	AZI	.....ANTENNA FORCES..... AXIAL	SHEAR	GRAVITY	TORSION

	ft		ft		kip	kip	kip	ft-kip
STD+R	280.0	0.0	4.4	0.0	0.45	0.00	0.34	0.00
STD+R	270.0	0.0	5.0	0.0	0.11	0.00	0.13	0.00
STD+R	260.0	0.0	5.5	0.0	0.11	0.00	0.13	0.00
STD+R	250.0	0.0	6.1	0.0	0.11	0.00	0.13	0.00
STD+R	240.0	0.0	6.7	0.0	0.11	0.00	0.13	0.00

SUPPRESS PRINTING
==========

...FOR THIS LOADING..				.....MAXIMUMS.....			
LOADS INPUT	DISPL	MEMBER FORCES	FOUNDN LOADS	ALL	DISPL	MEMBER FORCES	FOUNDN LOADS
no	yes	yes	yes	no	no	no	no

==========

MAXIMUM MAST DISPLACEMENTS:
==========

ELEV ft	------DEFLECTIONS (ft)----- NORTH	EAST	DOWN	--TILTS (DEG)--- NORTH	EAST	TWIST DEG
290.0	1.160 G	-1.063 D	0.018 G	0.493 G	0.452 J	0.065 D
285.0	1.117 G	-1.023 D	0.018 G	0.493 G	0.452 J	0.065 D
280.0	1.074 G	-0.983 D	0.018 G	0.490 G	0.449 J	0.065 D
275.0	1.031 G	-0.944 D	0.017 G	0.485 G	0.445 J	0.061 D
270.0	0.988 G	-0.904 D	0.017 G	0.476 G	0.436 J	0.057 D
265.0	0.946 G	-0.866 D	0.017 G	0.462 G	0.424 J	0.053 D
260.0	0.905 G	-0.829 D	0.016 G	0.445 G	0.408 J	0.050 D
255.0	0.867 G	-0.793 D	0.016 G	0.434 G	0.398 J	-0.048 J
250.0	0.828 G	-0.758 D	0.015 G	0.421 G	0.386 J	0.046 D
245.0	0.792 G	-0.725 D	0.015 G	0.406 G	0.373 J	0.044 D
240.0	0.755 G	-0.691 D	0.014 G	0.389 G	0.358 J	-0.042 J
233.3	0.710 G	-0.650 D	0.014 G	0.376 G	0.345 J	-0.039 J
226.7	0.666 G	-0.609 D	0.013 G	0.361 G	0.331 J	-0.037 J
220.0	0.624 G	-0.570 D	0.013 G	0.345 G	0.317 J	-0.035 J
213.3	0.583 G	-0.533 D	0.013 G	0.329 G	0.302 J	-0.033 J
206.7	0.545 G	-0.498 D	0.012 G	0.312 G	0.286 J	-0.031 J
200.0	0.508 G	-0.464 D	0.012 G	0.295 G	0.270 J	-0.029 J
193.3	0.473 G	-0.432 D	0.011 G	0.283 G	0.260 J	0.027 L
186.7	0.439 G	-0.401 D	0.011 G	0.272 G	-0.249 D	0.026 L
180.0	0.407 G	-0.372 D	0.011 G	0.260 G	-0.238 D	0.025 L
170.0	0.362 G	-0.330 D	0.010 G	0.241 G	-0.221 D	0.023 L
160.0	0.320 G	-0.292 D	0.010 G	0.222 G	-0.203 D	0.021 L
150.0	0.281 G	-0.256 D	0.009 G	0.207 G	-0.189 D	0.020 L
140.0	0.245 G	-0.223 D	0.009 G	0.192 G	-0.175 D	0.019 L
130.0	0.211 G	-0.192 D	0.008 G	0.176 G	-0.161 D	0.017 L
120.0	0.180 G	-0.164 D	0.008 G	0.161 G	-0.147 D	0.015 L
110.0	0.151 G	-0.138 D	0.007 G	0.145 G	-0.132 D	0.014 L
100.0	0.126 G	-0.115 D	0.006 G	0.129 G	-0.118 D	0.013 L
90.0	0.103 G	-0.094 D	0.006 G	0.116 G	-0.106 D	0.011 L
80.0	0.082 G	-0.075 D	0.005 G	0.103 G	-0.094 D	0.010 L
70.0	0.059 G	-0.054 D	0.005 G	0.089 G	-0.081 D	0.008 L
60.0	0.041 G	-0.037 D	0.004 G	0.075 G	-0.068 D	0.007 L
53.3	0.034 G	-0.031 D	0.004 L	0.067 G	-0.061 D	0.006 L
40.0	0.019 G	-0.017 D	0.003 A	0.048 G	-0.044 D	0.004 L
33.3	0.015 G	-0.013 D	0.002 H	0.041 G	-0.037 D	0.004 L
20.0	0.006 G	-0.005 D	0.001 L	0.024 G	-0.022 D	0.002 L
13.3	0.003 G	0.002 J	0.001 L	0.016 G	-0.015 D	0.001 L
0.0	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A	0.000 A

MAXIMUM ANTENNA AND REFLECTOR ROTATIONS:
==========

ELEV ft	AZI deg	TYPE *	.....BEAM DEFLECTIONS (deg)..... PITCH	YAW	ROLL	TOTAL
280.0	0.0	STD+R	-0.449 J	0.065 D	-0.490 G	0.454 J
270.0	0.0	STD+R	-0.436 J	0.057 D	-0.476 G	0.440 J
260.0	0.0	STD+R	-0.408 J	0.050 D	-0.445 G	0.411 J
250.0	0.0	STD+R	-0.386 J	0.046 D	-0.421 G	0.389 J
240.0	0.0	STD+R	-0.358 J	0.042 J	-0.389 G	0.360 J

MAXIMUM TENSION IN MAST MEMBERS (kip)
==========

ELEV ft	LEGS	DIAG	HORIZ	BRACE

290.0	----------		0.06	A	0.00	A
	0.00	A 0.34 G				
285.0	----------		0.04	G	0.00	A
	0.00	A 0.91 A				
280.0	----------		0.61	A	0.00	A
	1.62	I 1.20 A				
275.0	----------		0.03	B	0.00	A
	3.75	A 2.01 B				
270.0	----------		0.06	A	0.00	A
	7.95	A 1.90 H				
265.0	----------		0.03	A	0.00	A
	10.71	A 2.63 B				
260.0	----------		0.08	A	0.00	A
	16.01	A 2.57 H				
255.0	----------		0.04	C	0.00	A
	19.19	A 3.27 B				
250.0	----------		0.10	A	0.00	A
	25.40	A 3.26 H				
245.0	----------		0.03	C	0.00	A
	29.08	A 3.96 A				
240.0	----------		0.09	A	0.00	A
	37.01	A 4.23 F				
233.3	----------		0.02	B	0.00	A
	43.60	A 4.18 L				
226.7	----------		0.07	A	0.00	A
	51.53	A 4.06 F				
220.0	----------		0.01	L	0.00	A
	57.54	A 4.09 L				
213.3	----------		0.05	A	0.00	A
	64.52	A 4.04 F				
206.7	----------		0.01	K	0.00	A
	70.15	A 4.09 L				
200.0	----------		0.04	A	0.00	A
	76.45	A 4.09 F				
193.3	----------		0.03	E	0.00	A
	81.69	A 4.15 L				
186.7	----------		0.03	A	0.00	A
	87.48	A 4.19 F				
180.0	----------		0.02	E	0.00	A
	93.73	A 4.67 L				
170.0	----------		0.05	A	0.00	A
	101.84	A 4.71 F				
160.0	----------		0.02	E	0.00	A
	108.95	A 4.81 L				
150.0	----------		0.04	A	0.00	A
	116.36	A 4.89 F				
140.0	----------		0.02	E	0.00	A
	123.07	A 5.02 L				
130.0	----------		0.03	A	0.00	A
	130.09	A 5.12 F				
120.0	----------		0.02	E	0.00	A
	136.54	A 5.27 L				
110.0	----------		0.03	A	0.00	A
	143.21	A 5.39 G				
100.0	----------		0.02	E	0.00	A
	149.40	A 5.55 L				
90.0	----------		0.02	A	0.00	A
	155.74	A 5.69 G				
80.0	----------		0.06	K	0.00	A
	161.74	A 5.86 L				
70.0	----------		0.02	G	0.00	A
	167.83	A 6.00 G				
60.0	----------		0.12	E	0.00	A
	175.34	A 6.33 L				
53.3	----------		0.41	A	0.00	B
	173.47	A 8.25 L				
40.0	----------		0.12	A	0.00	A
	186.95	A 6.59 L				
33.3	----------		0.38	A	0.00	C
	184.98	A 8.40 L				
20.0	----------		0.04	A	0.00	C
	198.04	A 6.86 L				
13.3	----------		0.32	A	0.00	G
	195.94	A 8.54 G				
0.0	----------		0.00	A	0.00	A

MAXIMUM COMPRESSION IN MAST MEMBERS (kip)
==========

ELEV ft	LEGS	DIAG	HORIZ	BRACE
290.0			-0.23 G	0.00 A
	-0.33 A	-0.09 A		
285.0			0.00 A	0.00 A
	-2.69 G	-1.21 G		
280.0			-0.36 G	0.00 A
	-5.70 G	-1.46 C		
275.0			0.00 A	0.00 A
	-11.11 G	-1.99 B		
270.0			-0.04 C	0.00 A
	-15.68 G	-2.08 B		
265.0			0.00 A	0.00 A
	-21.62 G	-2.66 H		
260.0			-0.05 G	0.00 A
	-27.72 G	-2.69 B		
255.0			-0.02 A	0.00 A
	-34.23 G	-3.36 G		
250.0			-0.06 K	0.00 A
	-41.51 G	-3.37 B		
245.0			-0.02 A	0.00 A
	-48.62 G	-4.08 G		
240.0			-0.05 G	0.00 A
	-58.03 G	-4.32 L		
233.3			-0.01 A	0.00 A
	-65.80 G	-4.25 G		
226.7			-0.05 G	0.00 A
	-75.16 G	-4.15 L		
220.0			0.00 A	0.00 A
	-82.49 G	-4.15 G		
213.3			-0.03 K	0.00 A
	-90.96 G	-4.11 L		
206.7			0.00 A	0.00 A
	-97.98 G	-4.16 G		
200.0			-0.03 G	0.00 A
	-105.92 G	-4.16 L		
193.3			-0.01 G	0.00 A
	-112.84 G	-4.24 G		
186.7			-0.02 G	0.00 A
	-120.43 G	-4.24 L		
180.0			-0.01 G	0.00 A
	-128.76 G	-4.82 G		
170.0			-0.03 G	0.00 A
	-139.56 G	-4.79 L		
160.0			-0.01 G	0.00 A
	-149.44 G	-4.97 G		
150.0			-0.02 G	0.00 A
	-159.94 G	-4.97 L		
140.0			-0.01 G	0.00 A
	-169.72 G	-5.19 G		
130.0			-0.02 G	0.00 A
	-179.94 G	-5.20 L		
120.0			-0.01 G	0.00 A
	-189.66 G	-5.46 G		
110.0			-0.02 G	0.00 A
	-199.76 G	-5.47 L		
100.0			-0.01 G	0.00 A
	-209.49 G	-5.75 G		
90.0			-0.01 G	0.00 A
	-219.57 G	-5.76 L		
80.0			-0.08 A	0.00 A
	-229.37 G	-6.01 G		
70.0			-0.03 A	0.00 A
	-239.36 G	-6.08 G		
60.0			-0.07 G	0.00 A
	-250.09 G	-6.61 G		
53.3			-0.57 G	0.00 I
	-251.96 G	-8.45 G		
40.0			-0.07 G	0.00 A
	-269.94 G	-6.87 G		
33.3			-0.54 G	0.00 B
	-271.91 G	-8.62 G		
20.0			-0.02 G	0.00 B
	-289.76 G	-7.08 G		
13.3			-0.49 G	0.00 B
	-291.87 G	-8.71 G		
0.0			0.00 A	0.00 A

MAXIMUM INDIVIDUAL FOUNDATION LOADS: (kip)

LOAD---COMPONENTS				TOTAL
NORTH	EAST	DOWN	UPLIFT	SHEAR
28.31 G	24.29 K	303.27 G	-203.99 A	28.31 G

MAXIMUM TOTAL LOADS ON FOUNDATION : (kip & kip-ft)

HORIZONTAL			DOWN	OVERTURNING			TORSION
NORTH	EAST	TOTAL @ 0.0		NORTH	EAST	TOTAL @ 150.0	
43.9 G	-39.7 D	43.9 G	140.1 K	7333.0 G	-6674.2 D	7344.8 L	37.7 L

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

Tower Description 290' S3TL Series HD1
Customer PI TELECOM INFRASTRUCTURE V, LLC
Project Number 136498
Date 2/10/2016
Engineer BD

Overall Loads:			
Factored Moment (ft-kips)	26198.66	Anchor Bolt Count (per leg)	6
Factored Axial (kips)	491.05		
Factored Shear (kips)	157.41		
Individual Leg Loads:		Tower eccentric from mat (ft)=	2.75
Factored Uplift (kips)	852.00		
Factored Download (kips)	971.00		
Factored Shear (kips)	95.00		
Width of Tower (ft)	33	Allowable Bearing Pressure (ksf)	**5.00**
Ultimate Bearing Pressure	15.00	Safety Factor	**3.00**
Bearing Φs	0.75		
Bearing Design Strength (ksf)	11.25	Max. Factored Net Bearing Pressure (ksf)	10.34
Water Table Below Grade (ft)	**999**		
Width of Mat (ft)	41.5	Minimum Mat Width (ft)	40.26
Thickness of Mat (ft)	2.25		
Depth to Bottom of Slab (ft)	6.5		
Bolt Circle Diameter (in)	19		
Top of Concrete to Top of Bottom Threads (in)	65.5		
Diameter of Pier (ft)	3.5	Minimum Pier Diameter (ft)	2.92
Ht. of Pier Above Ground (ft)	0.5	Equivalent Square b (ft)	3.10
Ht. of Pier Below Ground (ft)	4.25		
Quantity of Bars in Mat	70		
Bar Diameter in Mat (in)	1.41		
Area of Bars in Mat (in^2)	109.30		
Spacing of Bars in Mat (in)	7.11	Recommended Spacing (in)	6 to 12
Quantity of Bars Pier	16		
Bar Diameter in Pier (in)	1.41		
Tie Bar Diameter in Pier (in)	0.5		
Spacing of Ties (in)	7		
Area of Bars in Pier (in^2)	24.98	Minimum Pier A_s (in^2)	6.93
Spacing of Bars in Pier (in)	6.55	Recommended Spacing (in)	5 to 12
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.12		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd^3)	148.60		

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES (CONTINUED)

Two-Way Shear:

Average d (in)	22.59		
ϕV_c (kips)	1045.5	V_u (kips)	915.9
$\phi V_c = \phi(2 + 4/\beta_c)f'_c{}^{1/2}b_o d$	1568.2		
$\phi V_c = \phi(\alpha_s d/b_o + 2)f'_c{}^{1/2}b_o d$	1686.6		
$\phi V_c = \phi 4 f'_c{}^{1/2}b_o d$	1045.5		
Shear perimeter, b_o (in)	202.92		
β_c	1		

Stability:

Overturning Design Strength (ft-k)	29527.1	Factored Overturning Moment (ft-k)	27300.5

One-Way Shear:

ϕV_c (kips)	1282.9	V_u (kips)	1251.0

Pier Design:

Design Tensile Strength (kips)	1349.1	Tu (kips)	852.0
ϕV_n (kips)	96.1	V_u (kips)	95.0
$\phi V_c = \phi 2(1 + N_u/(500A_g))f'_c{}^{1/2}b_w d$	0.0		
V_s (kips)	113.1	*** V_s max = 4 $f'_c{}^{1/2}b_w d$ (kips)	378.7
Maximum Spacing (in)	11.15	(Only if Shear Ties are Required)	
Actual Hook Development (in)	21.18	Req'd Hook Development l_{dh} (in)	14.93
		*** Ref. ACI 11.5.5 & 11.5.6.3	

Anchor Bolt Pull-Out:

$\phi P_c = \phi\lambda(2/3)f'_c{}^{1/2}(2.8A_{SLOPE} + 4A_{FLAT})$	209.0	P_u (kips)	852.0
Pier Rebar Development Length (in)	55.21	Required Length of Development (in)	39.82

Flexure in Slab:

ϕM_n (ft-kips)	10264.4	M_u (ft-kips)	10144.4
a (in)	3.44		
Steel Ratio	0.00972		
β_1	0.825		
Maximum Steel Ratio (ρ_t)	0.0197		
Minimum Steel Ratio	0.0018		
Rebar Development in Pad (in)	117.30	Required Development in Pad (in)	27.99

Condition	1 is OK, 0 Fails
Minimum Mat Width	1
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Two-Way Shear	1
Overturning	1
Anchor Bolt Pull-Out	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Interaction Diagram Visual Check	1
One-Way Shear	1
Hook Development	1
Minimum Mat Depth	1

DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES

Tower Description 290' S3TL Series HD1
Customer Name PI TELECOM INFRASTRUCTURE V, LLC
Job Number 136498
Date 2/10/2016
Engineer BD

Factored Uplift (kips)	852	Anchor Bolt Count (per leg)	6
Factored Download (kips)	971		
Factored Shear (kips)	95		
Ultimate Bearing Pressure	30		
Bearing Φs	0.75		
Bearing Design Strength (ksf)	22.5		
Water Table Below Grade (ft)	999		
Bolt Circle Diameter (in)	19		
Top of Concrete to Top of Bottom Threads (in)	65.5		
Pier Diameter (ft)	4	Minimum Pier Diameter (ft)	2.92
Ht. Above Ground (ft)	0.5		
Pier Length Below Ground (ft)	40		
Quantity of Bars	20		
Bar Diameter (in)	1.41		
Tie Bar Diameter (in)	0.5		
Spacing of Ties (in)	9		
Area of Bars (in^2)	31.23	Minimum Area of Steel (in^2)	9.05
Spacing of Bars (in)	6.22		
f'c (ksi)	4.5		
fy (ksi)	60		
Unit Wt. of Concrete (kcf)	0.15		
Download Friction Φs	0.75		
Uplift Friction Φs	0.75		
Volume of Concrete (yd^3)	18.85		
Skin Friction Factor for Uplift	1	Length to Ignore Download (ft)	
Ignore Bottom Length in Download?	☐	0	

Depth at Bottom of Layer (ft)	Ult. Skin Friction (ksf)	(Ult. Skin Friction)*(Uplift Factor)	γ (kcf)
3.5	0.00	0.00	0.11
5.5	1.65	1.65	0.11
8.3	2.10	2.10	0.11
13.5	1.70	1.70	0.11
31.5	2.20	2.20	0.11
41.5	3.00	3.00	0.11
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0
0	0.00	0.00	0

Download:

Factored Net Weight of Concrete (kips)	1.1		
Bearing Design Strength (kips)	282.7		
Skin Friction Design Strength (kips)	783.4		
Download Design Strength (kips)	1066.1	Factored Net Download (kips)	972.1

DRILLED STRAIGHT PIER DESIGN BY SABRE TOWERS & POLES (CONTINUED)

Uplift:

Nominal Skin Friction (kips)	1044.5		
Wc, Weight of Concrete (kips)	76.3		
W_R, Soil Resistance (kips)	3095.9		
ΦsWr+0.9Wc (kips)	2390.6		
Uplift Design Strength (kips)	852.1	Factored Uplift (kips)	852.0

Pier Design:

Design Tensile Strength (kips)	1686.4	Tu (kips)	852.0
ϕV_n (kips)	97.7	V_u (kips)	95.0
$\phi V_c=\phi 2(1+N_u/(500A_g))f'_c{}^{1/2}b_w d$ (kips)	12.3		
V_s (kips)	100.5	*** V_s max = 4 $f'_c{}^{1/2}b_w d$ (kips)	494.6
Maximum Spacing (in)	9.76	(Only if Shear Ties are Required)	
		*** Ref. ACI 11.5.5 & 11.5.6.3	

Anchor Bolt Pull-Out:

$\phi P_c=\phi\lambda(2/3)f'_c{}^{1/2}(2.8A_{SLOPE}+ 4A_{FLAT})$	272.8	P_u (kips)	852.0
Rebar Development Length (in)	52.21	Required Length of Development (in)	31.86

Condition	1 is OK, 0 Fails
Download	1
Uplift	1
Area of Steel	1
Shear	1
Anchor Bolt Pull-Out	1
Interaction Diagram Visual Check	1

EXHIBIT D
COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST

KY Public Service Commission

Master Utility Search

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

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

[▼] [Active ▼]

Search

	Utility ID	Utility Name	Utility Type	Class	City	State
View	4107900	365 Wireless, LLC	Cellular	D	Atlanta	GA
View	4109300	Access Point, Inc.	Cellular	D	Cary	NC
View	4108300	Air Voice Wireless, LLC	Cellular	D	Bloomfield Hill	MI
View	44451184	Alltel Communications, LLC	Cellular	A	Basking Ridge	NJ
View	4107800	American Broadband and Telecommunications Company	Cellular	D	Toledo	OH
View	4108650	AmeriMex Communications Corp.	Cellular	B	Roswell	GA
View	4105100	AmeriVision Communications, Inc. d/b/a Affinity 4	Cellular	D	Norfolk	VA
View	4107400	Bandwidth.com, Inc.	Cellular	B	Raleigh	NC
View	4108600	BCN Telecom, Inc.	Cellular	D	Morristown	NJ
View	4108750	Blue Jay Wireless, LLC	Cellular	D	Addison	TX
View	4202300	Bluegrass Wireless, LLC	Cellular	A	Elizabethtown	KY
View	4107600	Boomerang Wireless, LLC	Cellular	D	Hiawatha	IA
View	4105600	Budget PrePay, Inc. dba Budget Mobile	Cellular	A	Bossier City	LA
View	4105500	BullsEye Telecom, Inc.	Cellular	D	Southfield	MI
View	4110050	CampusTVs, Inc.	Cellular	C	Weston	MA
View	4100700	Cellco Partnership dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4106600	Cintex Wireless, LLC	Cellular	D	Rockville	MD
View	4101900	Consumer Cellular,	Cellular	A	Portland	OR

		Incorporated				
View	4104900	Credit Union Wireless, LLC	Cellular	D	Salem	OR
View	4106400	Credo Mobile, Inc.	Cellular	A	San Francisco	CA
View	4108850	Cricket Wireless, LLC	Cellular	D	Alpharetta	GA
View	4001900	CTC Communications Corp. d/b/a EarthLink Business I	Cellular	D	Marlborough	MA
View	10640	Cumberland Cellular Partnership	Cellular	A	Elizabethtown	KY
View	4109250	Defense Mobile Corporation	Cellular	D	Westport	CT
View	4101000	East Kentucky Network, LLC dba Appalachian Wireless	Cellular	A	Ivel	KY
View	4002300	Easy Telephone Service Company dba Easy Wireless	Cellular	D	Ocala	FL
View	4109500	Enhanced Communications Group, LLC	Cellular	D	Bartlesville	OK
View	4109050	EOS Mobile Holdings, LLC	Cellular	D	Southlake	TX
View	4105900	Flash Wireless, LLC	Cellular	D	Concord	NC
View	4107100	Flatel Wireless, Inc dba Zing PCS	Cellular	D	Royal Palm Bch	FL
View	4104800	France Telecom Corporate Solutions L.L.C.	Cellular	D	Oak Hill	VA
View	4109350	Global Connection Inc. of America	Cellular	D	Norcross	GA
View	4102200	Globalstar USA, LLC	Cellular	B	Covington	LA
View	4109600	Google North America Inc.	Cellular	C	Mountain View	CA
View	33350363	Granite Telecommunications, LLC	Cellular	D	Quincy	MA
View	4106000	GreatCall, Inc. d/b/a Jitterbug	Cellular	A	San Diego	CA
View	10630	GTE Wireless of the Midwest dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4103100	i-Wireless, LLC	Cellular	A	Newport	KY
View	4109800	IM Telecom, LLC d/b/a Infiniti Mobile	Cellular	C	Tulsa	OK
View	22215360	KDDI America, Inc.	Cellular	C	New York	NY
View	10872	Kentucky RSA #1 Partnership	Cellular	A	Basking Ridge	NJ
View	10680	Kentucky RSA #3 Cellular General	Cellular	A	Elizabethtown	KY
View	10681	Kentucky RSA #4 Cellular General	Cellular	A	Elizabethtown	KY
View	4109750	Konatel, Inc. dba telecom.mobi	Cellular	C	Johnstown	PA
View	4107300	Lycamobile USA, Inc.	Cellular	D	Newark	NJ
View	4108100	MCC Telephony of the South, LLC	Cellular	D	Mediacom Park	NY
View	4108800	MetroPCS Michigan, LLC	Cellular	A	Bellevue	WA
View	4109650	Mitel Cloud Services, Inc.	Cellular	C	Mesa	AZ
View	4109400	NetZero Wireless, Inc.	Cellular	D	Woodland Hills	CA

View	4202400	New Cingular Wireless PCS, LLC dba AT&T Mobility, PCS	Cellular	A	San Antonio	TX
View	10900	New Par dba Verizon Wireless	Cellular	A	Basking Ridge	NJ
View	4000800	Nextel West Corporation	Cellular	A	Overland Park	KS
View	4104500	Nexus Communications, Inc.	Cellular	D	Columbus	OH
View	4001300	NPCR, Inc. dba Nextel Partners	Cellular	A	Overland Park	KS
View	4001800	OnStar, LLC	Cellular	A	Detroit	MI
View	4109450	Pix Wireless, LLC	Cellular	D	Boca Raton	FL
View	4109850	PLATINUMTEL COMMUNICATIONS, LLC d/b/a Care Wireless	Cellular	C	Justice	IL
View	33351182	PNG Telecommunications, Inc. dba PowerNet Global Communications	Cellular	D	Cincinnati	OH
View	4202100	Powertel/Memphis, Inc. dba T-Mobile	Cellular	A	Bellevue	WA
View	4107700	Puretalk Holdings, LLC	Cellular	A	Covington	GA
View	4106700	Q Link Wireless, LLC	Cellular	A	Dania	FL
View	4108700	Ready Wireless, LLC	Cellular	C	Hiawatha	IA
View	4106200	Rural Cellular Corporation	Cellular	A	Basking Ridge	NJ
View	4108550	Sage Telecom Communications, LLC	Cellular	D	Dallas	TX
View	4109150	SelecTel, Inc. d/b/a SelecTel Wireless	Cellular	D	Freemont	NE
View	4110000	Senior Tech, LLC d/b/a Snapfon	Cellular	C	Chattanooga	TN
View	4106300	SI Wireless, LLC	Cellular	A	Carbondale	IL
View	4109100	Solavei, LLC	Cellular	C	Bellevue	WA
View	4200100	Sprint Spectrum, L.P.	Cellular	A	Atlanta	GA
View	4200500	SprintCom, Inc.	Cellular	A	Atlanta	GA
View	4109550	Stream Communications, LLC	Cellular	C	Dallas	TX
View	4202200	T-Mobile Central, LLC dba T-Mobile	Cellular	A	Bellevue	WA
View	4002500	TAG Mobile, LLC	Cellular	D	Carrollton	TX
View	4109700	Telecom Management, Inc. dba Pioneer Telephone	Cellular	C	South Portland	ME
View	4107200	Telefonica USA, Inc.	Cellular	D	Miami	FL
View	4108900	Telrite Corporation dba Life Wireless	Cellular	D	Covington	GA
View	4108450	Tempo Telecom, LLC	Cellular	D	Kansas City	MO
View	4109950	The People's Operator USA, LLC	Cellular	C	New York	NY
View	4109000	Ting, Inc.	Cellular	B	Toronto	ON
View	4103900	Total Call Mobile, Inc.	Cellular	A	Gardena	CA
View	4103300	Touchtone Communications,	Cellular	D	Whippany	NJ

		Inc.				
View	4104200	TracFone Wireless, Inc.	Cellular	D	Miami	FL
View	4002000	Truphone, Inc.	Cellular	D	Durham	NC
View	4105700	Virgin Mobile USA, L.P.	Cellular	A	Atlanta	GA
View	4104100	WDT Wireless Telecommunications, Inc.	Cellular	D	Dallas	TX
View	4200600	West Virginia PCS Alliance, L.C.	Cellular	A	Waynesboro	VA
View	4106500	WiMacTel, Inc.	Cellular	D	Omaha	NE
View	4110100	Windward Wireless LLC	Cellular	C	Suwanee	GA
View	4109900	Wireless Telecom Cooperative, Inc. dba theWirelessFreeway	Cellular	C	Louisville	KY

EXHIBIT E
SITE SELECTION REPORT

JACOBS

February 12, 2016

Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

RE: Alternate Site Analysis Report
Application for a Wireless Communications Facility
Applicant: Verizon Wireless
Site Location: 751 Forrest Road, Grand Rivers, KY 42045
Site Name: EV Vulcan Materials

Dear Commissioners:

This report is provided to explain the site development process used by the Applicant to identify the site selected for the new wireless communications facility proposed in the accompanying uniform application for a Communications Facility.

PI Telecom Infrastructure V, LLC and
Verizon Wireless Site Development Process

Step 1: Problem Identification. Verizon Wireless radio frequency engineers first identified a growing coverage and/or capacity gap in the area of I-69 and SR 453 in Livingston County, KY.

Step 2: Search Ring. To help guide the site development team's task of identifying a suitable location for a new wireless communications facility site, Verizon Wireless radio frequency engineers identified the geographic area where the antenna site must be located in order to close the gap and issued a map (called a search area) that identified the general area in which a new site must be located. In this case, the search area has a diameter of 1 mile from North to South and is centered near the intersection of I-69 and SR 453. A copy of the search map is shown below:

EV Vulcan Materials – New Build SARF Map

Step 3: Co-location Review. The site development team first reviewed the area within the search area for a suitable tall structure for co-location. In this case, there were no towers within the search area. The nearest FCC-registered structure is over one mile outside of the search area. Antenna placement on the any existing FCC-registered tower would not resolve the service gap in this area. The only tall structure within the search area is a water tower owned by the city of Grand Rivers. A site acquisition vendor contacted Tom Moodie, Mayor of Grand Rivers. Mayor Moodie stated that the tower was not fit for antenna placement due to age, and the city would not be interested in leasing space. Further, the tank is only 80' and did not offer sufficient elevation to resolve the coverage gap in this area. Finally, ground space near the water tower was limited and left limited room for placement of the Applicants' ground equipment.

Step 4: Review of the Area's Zoning Classification. Once the site development team determines that there are no available existing tall structures which are technically feasible and suitable for co-location, the team next reviews local zoning requirements to identify parcels located within the search area that might be suitable from a land use perspective to host an antenna site. In this case, the search area is located outside of the jurisdiction of a planning commission, so there are no local zoning regulations. The surrounding properties are used for commercial and farm purposes. In the absence of specific zoning regulations, site acquisition vendors searched for large parcels that have ample space to

accommodate a telecommunications tower and would have the least intrusive impact on surrounding properties.

Step 5: Preliminary Inspection and Assessment of Suitable Parcels. Once suitable parcels are identified, the site development team visits the parcels and performs a preliminary inspection. The purpose of the preliminary inspection is: (1) to confirm the availability of sufficient land space for the proposed facility; (2) to identify a specific location for the facility on the parcel; (3) to identify any recognized environmental conditions that would disqualify the parcel from consideration; (4) to identify any construction issues that would disqualify the candidate; and, (5) to assess the potential impact of the facility on neighboring properties. In this case, the site acquisition agent first researched Livingston County Property Valuation Administrator records and identified four parcels that were potential candidates for the construction of a telecommunication tower. Inquiry letters were sent and phone call inquiries were made to the landowners discussed below.

Two property owners in the area owned property potentially suitable for tower placement but were not interested in leasing space for tower placement. Dreamworld Properties owns a parcel near the BP gas station at the intersection of I-69 and Highway 453. Chip Tullar of Dreamworld Properties indicated that the company was not interested in leasing property for tower placement due to existing gas, power and underground water lines on their property. Vulcan Materials owns property southeast of the intersection of I-69 and Highway 453. A site acquisition vendor spoke with Ken Haislip of Vulcan Materials. Mr. Haislip indicated that tower placement was inappropriate at this time due to the possibility of expansion of the existing Vulcan Materials facilities.

Two of the landowners contacted were interested in leasing space for tower placement. Charles and Virginia Driskill were willing to lease a portion of their 135-acre parcel for tower placement. Jack L. and Shirley Cothan own a 236-acre parcel and were willing to lease space for a wireless communications facility.

Step 6: Candidate Evaluation and Selection. After the preliminary site assessments were performed, the site development team ranked the candidates based on the availability of ground space, topography, applicable environmental conditions, construction feasibility and the potential impact of the facility on neighboring properties. In this case, the Driskill and Cothran properties were further reviewed for tower placement.

Driskill Property – The site is 135 acres and is located just inside the western edge of the search area. The Driskills live on this parcel. An abandoned house is also located on this parcel.

Cothran Property – The Cothrans own a 236 acre parcel inside the search area. The proposed compound site is flat and would have a natural tree buffer on all four sides. Verizon Wireless radio frequency engineers determined that this property was the optimal location for tower placement to resolve the existing significant coverage gap.

Step 7: Leasing and Due Diligence. Once a suitable candidate was selected, lease negotiations were commenced and site due diligence steps were performed, as described below.

Leasehold Due Diligence:

- A Title Report was obtained and reviewed to ensure that there are no limitations on the landowner's capacity to lease and to address any title issues.
- A site survey was obtained to identify the location of parcel features, boundaries, easements and other encumbrances revealed by the title search.
- Review of environmental conditions.

Engineering Due Diligence:

- Utility access identified.
- Grounding plan designed.
- Geotechnical soil analysis performed to determine foundation requirements.
- Foundations designed to meet the Kentucky Building Code lateral and subjacent support requirements.
- Site plan developed.

Federal Regulatory Due Diligence

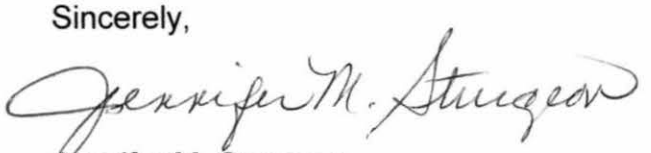
- Federal Aviation Administration ("FAA")
- Federal Communication Commission ("FCC")

Step 8: Application. Once a lease was obtained and all site due diligence was completed, Verizon Wireless and PI Telecom Infrastructure V, LLC prepared and filed the accompanying application for a Certificate of Public Convenience and Necessity to construct, maintain and operate a communications facility.

Conclusion

Applicants' site identification and selection process aims to identify the least intrusive of all the technically feasible parcels in a service need area. In this case, the Applicants have considered the likely effect of the installation on nearby land uses and values and have concluded that there is no more suitable location reasonably available from which adequate service can be provided to this area, and there is no reasonably available opportunity for co-location. The selected site is appropriate from a planning perspective as the site parcel is large enough to easily accommodate tower placement and dense, existing natural vegetation will screen the ground compound from adjoining properties. Also, Verizon Wireless radio frequency engineers determined that the proposed candidate would provide optimum coverage for their wireless service. Based on the site location, a 290' self-support tower with a 5' lightning arrestor at this location would best meet the coverage objectives.

Sincerely,



Jennifer M. Sturgeon
Site Acquisition Specialist
Jacobs Engineering
2310 Valletta Lane
Louisville, KY 40205
502-817-1964

EXHIBIT F
FAA

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

Aeronautical Study No.
2015-ASO-15801-OE

Issued Date: 01/14/2016

Alejandra Stinson
Pl Tower Development, LLC - AS
7411 Fullerton St, Suite 110
Jacksonville, FL 32256

**** 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 EV Vulcan Materials
Location:	Grand Rivers, KY
Latitude:	37-02-46.21N NAD 83
Longitude:	88-16-25.36W
Heights:	433 feet site elevation (SE)
	295 feet above ground level (AGL)
	728 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

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

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

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ 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 07/14/2017 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 13, 2016. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager, Airspace Policy & Regulation, Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on February 23, 2016 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

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

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

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

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

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

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 Steve Phillips, at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-ASO-15801-OE.

Signature Control No: 266910193-277619592 (DNH)
Mike Helvey
Manager, Obstruction Evaluation Group

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

cc: FCC

Additional information for ASN 2015-ASO-15801-OE

Abbreviations:
AGL, Above Ground Level
AMSL, Above Mean Sea Level
CAT, Category
CFR, Code of Federal Regulations
IFR, Instrument Flight Rules
RWY, Runway
TPA, Traffic Pattern Airspace
VFR, Visual Flight Rules

The proposed structure would be located approximately 14,640 feet north of the RWY 27 threshold for the Kentucky Dam State Park Airport (M34), Gilbertsville, KY. It would exceed the obstruction standards of 14 CFR Part 77 as follows as applied to M34:

Section 77.17(a)(2): by 95 feet; A height that exceeds 633 feet AMSL within 3 nautical miles of the established reference point of M34.

The proposal was circularized on December 3, 2015, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. No letters of objection were received as a result of the circularization.

Aeronautical study disclosed that the proposed structure would have no effect on any existing or proposed arrival, departure, or en route IFR operations or procedures.

Study for possible VFR effect revealed the proposal would lie within the M34 TPA climb and descent area for RWY 09/27 for CAT D aircraft. It would lie beyond the TPA climb and descent area for RWY 09/27 for CAT A/B/C aircraft. The proposal would be located beyond the lateral limits of the TPA conical surface and in the climb and descent area that is the greater of 350 feet above the airport elevation of 350 feet or the section 77.17 (a)(2) calculation. It would exceed the M34 TPA climb and descent area by 28 feet.

Note: Aircraft categories are based on approach speed, CAT A = less than 91 knots, CAT B = 91-120 knots, CAT C = 121-140 knots, CAT D = 141-165 knots.

Records indicate that M34 has approximately 15,980 aircraft operations per year on a 4, 000 foot long RWY. Although records indicate a small number of Air Taxi operations, no information was received to indicate the use of this airport by CAT D aircraft. No information was received to indicate this proposed structure would be a problem for aircraft operating in the traffic pattern.

Therefore, the proposal would not have a substantial adverse effect on VFR traffic pattern operations at M34 or any other known public use or military airports. At 295 feet AGL, the structure would not have a substantial adverse effect on en route VFR flight operations.

The proposed structure would be appropriately obstruction marked/lighted to make it more conspicuous to airmen should circumnavigation be necessary.

The cumulative impact of the proposed structure, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any significant adverse effect on existing or proposed

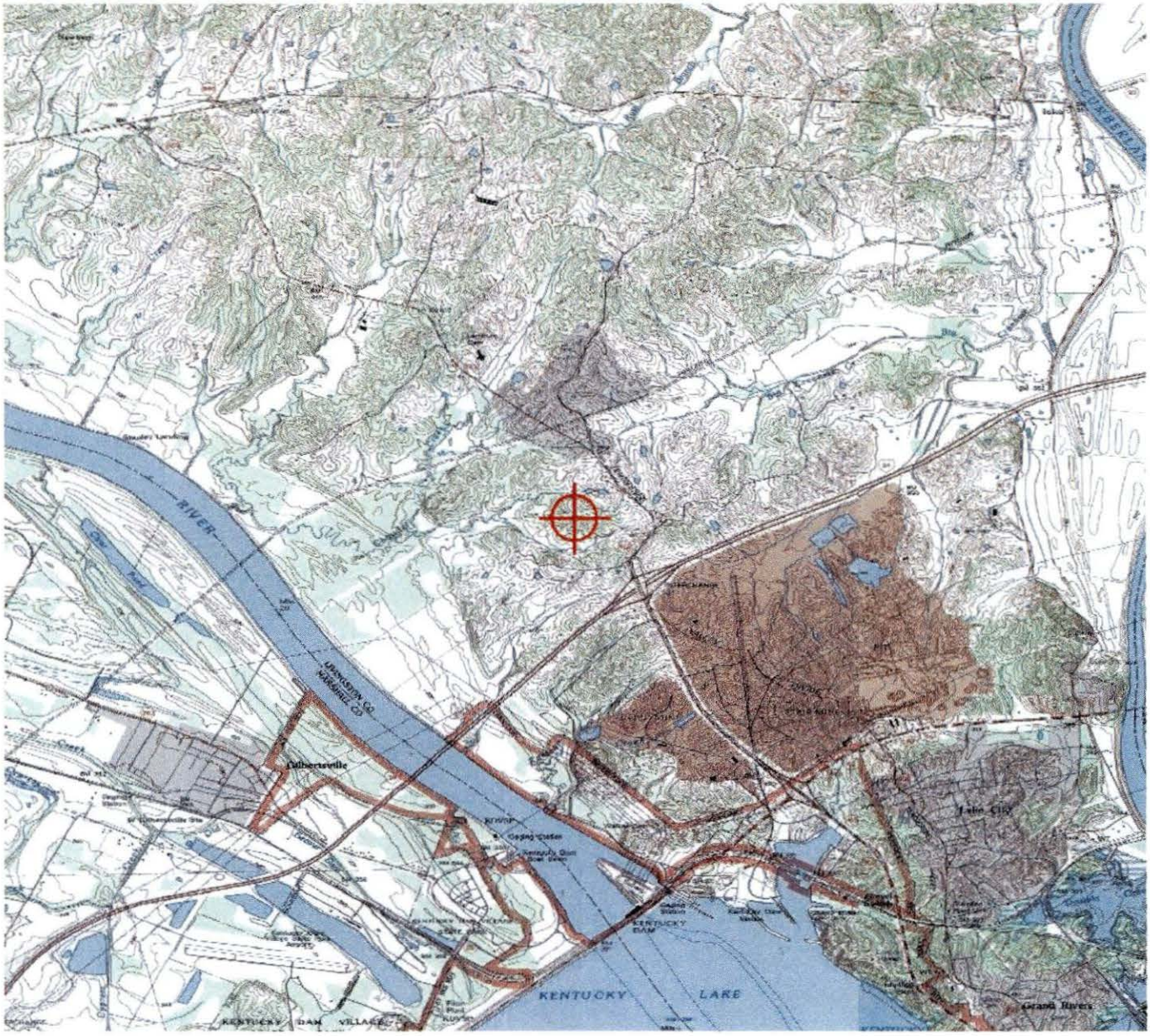
public-use or military airports or navigational facilities, nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed construction would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

Frequency Data for ASN 2015-ASO-15801-OE

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

TOPO Map for ASN 2015-ASO-15801-OE



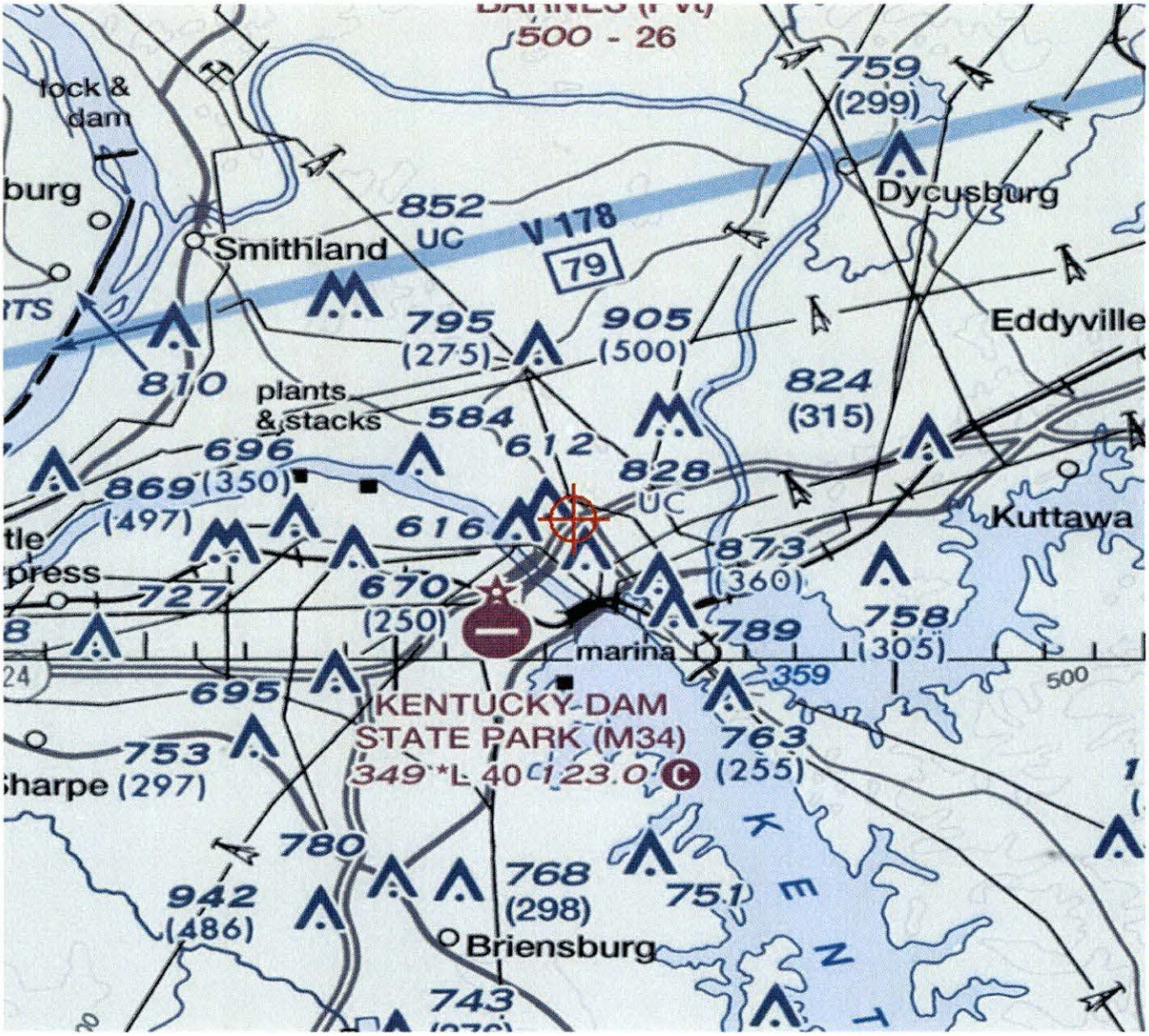

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EXHIBIT G
KENTUCKY AIRPORT ZONING COMMISSION

KENTUCKY AIRPORT ZONING COMMISSION

MATTHEW G. BEVIN
Governor

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

January 14, 2016

APPROVAL OF APPLICATION

APPLICANT:
PL Telecom Infrastructure LLC
PL Telecom Infrastructure LLC
4601 Touchton Rd East
Jacksonville , FL 32246

SUBJECT: AS–070-M34–2015-102

STRUCTURE:	Antenna Tower
LOCATION:	Grand Rivers, KY
COORDINATES:	37° 2' 46.21" N / 88° 16' 25.36" W
HEIGHT:	295' AGL/728'AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 295'AGL/ 728'AMSL Antenna Tower near Grand Rivers, KY 37° 2' 46.21" N / 88° 16' 25.36" W.

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

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

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

John Houlihan
Administrator

KENTUCKY AIRPORT ZONING COMMISSION
MATTHEW G. BEVIN
Governor
90 Airport Road, Bldg 400
Frankfort, KY 40601
www.transportation.ky.gov
502 564-4480

CONSTRUCTION/ALTERATION STATUS REPORT

January 14, 2016

AERONAUTICIAL STUDY NUMBER: AS-070-M34-2015-102

PL Telecom Infrastructure LLC
PL Telecom Infrastructure LLC
4601 Touchton Rd East
Jacksonville , FL 32246

This concerns the permit which was issued to you by the Kentucky Airport Zoning Commission on January 14, 2016. This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within the said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit. When appropriate, please indicate the status of the project in the place below and return this letter to John Houlihan, Administrator, Kentucky Airport Zoning Commission, 90 Airport Road, Bldg 400, Frankfort, KY, 40601. 502 564-4480.

STRUCTURE:	Antenna Tower
LOCATION:	Grand Rivers, KY
COORDINATES:	37° 2' 46.21" N / 88° 16' 25.36" W
HEIGHT:	295' AGL /728'AMSL

CONSTRUCTION/ALTERATION STATUS

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

2. Construction status is as follows:
   Structure reached its greatest height of _____ ft. AGL
   _____ ft. AMSL on _____ (date).

   Date construction was completed. _____

   Type of obstruction marking/painting. _____

   Type of obstruction lighting. _____

   As built coordinates. _____

   Miscellaneous Information. _____

   DATE _____

   SIGNATURE/TITLE _____

KENTUCKY TRANSPORTATION CABINET

KENTUCKY AIRPORT ZONING COMMISSION

TC 56-50
Rev. 07/2010

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

APPLICANT (*name*) PL Telecom Infrastructure V, LLC	**PHONE** 904-450-4830	**FAX**	**KY AERONAUTICAL STUDY #** AS-070-M34-2015-102	
ADDRESS (*street*) 4601 Touchton Rd East	**CITY** Jacksonville		**STATE** FL	**ZIP** 32246
APPLICANT'S REPRESENTATIVE (*name*) Wireless Applications Corp	**PHONE** 425-643-5000	**FAX**		
ADDRESS (*street*) 111 108th Ave NE, Suite 160	**CITY** Bellevue		**STATE** WA	**ZIP** 98004
APPLICATION FOR ☒ New Construction ☐ Alteration ☐ Existing **DURATION** ☐ Permanent ☐ Temporary (*months* *days*)			**WORK SCHEDULE** Start 11/10/2015 End 11/10/2016	
TYPE ☐ Crane ☐ Building ☒ Antenna Tower ☐ Power Line ☐ Water Tank ☐ Landfill ☐ Other	**MARKING/PAINTING/LIGHTING PREFERRED** ☐ Red Lights & Paint ☐ White- medium intensity ☐ White- high intensity ☒ Dual- red & medium intensity white ☐ Dual- red & high intensity white ☐ Other			
LATITUDE 37°02'46.21"	**LONGITUDE** 088°16'25.36"		**DATUM** ☒ NAD83 ☐ NAD27 ☐ Other	
NEAREST KENTUCKY City Grand Rivers County Livingston	**NEAREST KENTUCKY PUBLIC USE OR MILITARY AIRPORT** M34: KENTUCKY DAM STATE PARK			
SITE ELEVATION (AMSL, *feet*) 433	**TOTAL STRUCTURE HEIGHT** (AGL, *feet*) 295		**CURRENT** (*FAA aeronautical study #*) 2015-ASO-15801-OE	
OVERALL HEIGHT (*site elevation plus total structure height, feet*) 728			**PREVIOUS** (*FAA aeronautical study #*)	
DISTANCE (*from nearest Kentucky public use or Military airport to structure*) 2.409 nm			**PREVIOUS** (*KY aeronautical study #*)	
DIRECTION (*from nearest Kentucky public use or Military airport to structure*) 209.51 degrees				

DESCRIPTION OF LOCATION (*Attach USGS 7.5 minute quadrangle map or an airport layout drawing with the precise site marked and any certified survey.*)
Proposed site located on West side of State Highway 453, Livingston County, Grand Rivers, KY , 42045.

DESCRIPTION OF PROPOSAL
Proposed site is a 295 ft AGL Self Support tower, including all antennas and lightning rod.

FAA Form 7460-1 (*Has the "Notice of Construction or Alteration" been filed with the Federal Aviation Administration?*)
☒ No ☐ Yes, when? 9/25/2015

CERTIFICATION (*I hereby certify that all the above entries, made by me, are true, complete, and correct to the best of my knowledge and belief.*)
PENALITIES (*Persons failing to comply with KRS 183.861 to 183.990 and 602 KAR 050 are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Noncompliance with FAA regulations may result in further penalties.*)

NAME	**TITLE**	**SIGNATURE**	**DATE**
Ronald W. Lageson, Jr	Manager		09/25/2015

COMMISSION ACTION

☐ Chairperson, KAZC
☒ Administrator, KAZC

☒ Approved
☐ Disapproved

SIGNATURE

DATE 1-14-16

EXHIBIT H
GEOTECHNICAL REPORT

EGSci
consulting inc
Engineering, Geophysics & Geosciences

1455 Lincoln Parkway, Suite 500
Atlanta, Georgia 30346
Phone: (770) 379-8590
Fax: (770) 379-8594
www.egsci.com

November 13, 2015

EGSci Project #: 2015.PI3KY00014.A

GEOTECHNICAL INVESTIGATION FOR A PROPOSED TOWER SITE

Project: Proposed Tower Site: EV Vulcan Materials

Location: Grand Rivers, Kentucky

Prepared For:

Jacobs
5449 Bells Ferry Road
Acworth, GA 30102

Prepared By:

EGSci Consulting Inc.
1455 Lincoln Parkway, Suite 500
Atlanta, GA 30346

EGSci
consulting inc
Engineering, Geophysics & Geosciences

1455 Lincoln Parkway, Suite 500
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November 13, 2015

EGSci Project #: 2015.PI3KY00014.A

Jacobs
5449 Bells Ferry Road
Acworth, GA 30102

Re: Geotechnical Investigation
Site: EV Vulcan Materials
751 Forrest Road
Grand Rivers, KY 42045
Latitude: N37.046169
Longitude: W88.273711

Type of Tower: Proposed Self-Support

EGSci Consulting Inc. (EGSci) is pleased to submit to Jacobs this letter report summarizing our limited geotechnical investigation of a proposed telecommunication site in Livingston County, Kentucky. The objective of the investigation, as outlined in our proposal, was to:

- Complete a subsurface investigation at the project site to characterize and evaluate the subsurface soil and groundwater conditions in support of the proposed tower foundation design and analysis.

PROJECT AND SITE DESCRIPTION

The proposed wireless site referred to as "the project site" is located at 751 Forrest Road in Grand Rivers, Livingston County, Kentucky. Figure 1 shows the project site location, as indicated on the USGS's Calvert City, Kentucky 7.5-minute topographic quadrangle map.

GEOTECHNICAL INVESTIGATION

The geotechnical investigation consisted of one soil test boring, located at the center of the proposed tower. The tower center was staked in the field, by others, prior to EGSci's field work.

The soil test boring was advanced to auger refusal, which was encountered at 31.5 feet below ground surface (BGS). Rock coring was then performed from 31.5 feet to a depth of 41.5 feet BGS. Groundwater conditions were observed in the borehole during drilling. Soil samples were collected and transported to our facility for further examination. Soil samples are discarded thirty days after completion of fieldwork. The soil boring location is shown on Figure 1. Soil test boring logs are attached to this letter.

Field and Laboratory Procedures

Standard Penetration Test (SPT) Borings: All SPT borings were performed in accordance with the American Society for Testing and Materials (ASTM) Standard D1586: Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils. This sampling technique involves driving a split spoon (split-barrel) sampler into the soil using a 140-pound hammer, free falling 30 inches. The number of hammer blows required to drive the sampler one foot (after an initial seating of six inches) is termed the N-value or penetration resistance. The penetration resistance provides a general indication of soil density and/or consistency. The boring was advanced utilizing hollow stem auger techniques.

Soil Classification: The samples retrieved were visually examined and classified in general accordance with the guidelines of ASTM D2487: Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

Subsurface Conditions

The subsurface soil and groundwater conditions encountered in the boring drilled at the site are shown in detail on the boring log attached to this letter. Soil boundaries indicated have been inferred from the results of non-continuous sampling and observations of drilling resistance, which can typically represent transitions from one soil type to another, rather than exact planes of stratigraphic change. The conditions summarized in the boring logs are specific to the location of the borehole; conditions may differ beyond the boring location.

According to the USGS digital geologic map of the State of Kentucky, the geology of the area is characterized by the Upper Cretaceous Tuscaloosa Formation conglomerates. Conglomerates are coarse-grained, clastic, sedimentary rock comprised of rounded to subangular rock fragments larger than 2 millimeters in diameter, typically containing fine-grained particles in the interstices, and often cemented by calcium carbonate, iron oxide, silica, or hardened clay (USGS.gov).

No groundwater was observed during drilling; however, seasonal precipitation may affect the groundwater levels at the site.

Encountered Rock: Rock coring procedures were utilized in the boring to determine the nature and continuity of the materials causing refusal to soil drilling procedures. Small zones or seams a few inches to a few feet thick of weathered rock often exist within the relatively sound rock. The rock observed in the cores was characterized as white, tan, and gray, fine- to very-coarse-grained, intensely fractured, very weak to medium-strong Conglomerate with seams of hard, light gray Clay containing varying amounts of Sand and Gravel. The rock core run had recovery of 25% with Rock Quality Designation (RQD) of 9%.

Geotechnical Analysis and Recommendations

The soil design parameters presented below are to assist in analyzing the proposed foundation of the tower and shelter. These design values are based on in-situ conditions observed in the soil

test borings and evaluation of the soil samples. The following is our general design and construction recommendations:

Ancillary Structures

Ancillary structures (such as equipment shelters) may be constructed on shallow foundations bearing at a minimum of 20 inches below ground surface. The maximum allowable bearing pressure shall be 2.0 kips per square foot (ksf). We recommend undercutting to remove any soft soil layer and replacing with structural fill as described below. The shelter foundation should be designed in accordance with the various applicable codes.

Tower Foundation

Based on the geotechnical investigation performed by EGSci, a typical soil profile was developed for the subsurface conditions at the project site. A shallow foundation system, such as a spread footing, or a deep foundation system, such as a drilled shaft, are feasible foundation options for supporting the proposed self-support tower. The selected foundation system should be designed and constructed in accordance with the various applicable codes. The recommended geotechnical design parameters are presented in Tables 1 and 2:

Table 1: Recommended Soil Parameters for a Drilled Shaft Tower Foundation (B-1)

Depth		Soil Type For Analysis Purposes	Angle of Internal Friction	Saturated Soil Unit Weight	Buoyant Soil Unit Weight	Undrained Shear Strength	Coefficient of Passive Pressure	Ultimate Skin Friction for Drilled Shafts: Concrete to Soil	Net Allowable Bearing Pressure
From	To								FS = 3
(feet)	(feet)		(Degrees)	(pcf)	(pcf)	(psf)		(psf)	(psf)
0	3.5	Cohesive	0	120	-	2000	1.0	-	-
3.5	5.5	Cohesive	0	125	-	3000	1.0	1650	-
5.5	8.3	Cohesive	0	130	-	4000	1.0	2100	-
8.3	13.5	Cohesionless	40	130	-	-	4.6	1700	-
13.5	31.5	Cohesionless	40	130	-	-	4.6	2200	8,000
31.5	41.5	Conglomerate	40	130	-	-	4.6	3000	10,000

[1] Skin friction for depths above 3 feet BGS should be neglected.

[2] Nominal skin friction values are provided above; the appropriate reduction factors should be applied per applicable design code.

Table 2: Recommended Soil Parameters for a Shallow Tower Foundation (B-1)

Depth		Soil Type for Analysis Purposes	Angle of Internal Friction	Saturated Soil Unit Weight	Buoyant Soil Unit Weight	Undrained Shear Strength	Coefficient of Passive Pressure	Ultimate Skin Friction	Net Allowable Bearing Pressure
From	To								FS = 3
(feet)	(feet)		(Degrees)	(pcf)	(pcf)	(psf)		(psf)	(psf)
0	3.5	Cohesive	0	120	-	2000	1.0	-	-
3.5	5.5	Cohesive	0	125	-	3000	1.0	1200	4,000
5.5	8.3	Cohesive	0	130	-	4000	1.0	1600	5,000
8.3	13.5	Cohesionless	40	130	-	-	4.6	411	5,000

[1] Skin friction for depths above 3 feet BGS should be neglected.

[2] Nominal skin friction values are provided above; the appropriate reduction factors should be applied per applicable design code.

- As only minor cuts and fill will be made at the equipment building site, compaction of the upper soils in the building area, as well as any fill placed, is recommended to provide uniformity and limit settlement.

- General site fill necessary for site grading or backfill material should be placed in 8-inch thick layers, moisture conditioned, and compacted to a minimum of 98% of the Standard Proctor Maximum Density. All imported fill should be clean soil (free of roots and debris and should contain less than 10% by dry weight passing #200).

- Spread footings for the ancillary structures placed on natural soils and new structural fill compacted to at least 98% of the Standard Proctor Maximum Dry Density should be designed for a maximum allowable bearing pressure of 2.0 ksf. These bearing pressures are based on an allowable settlement of up to 1 inch.

- We recommend that the groundwater be kept at least 3 feet below the excavation until the structure has been installed.

Shallow footings designed and constructed based on these recommendations should experience total settlements less than 1 inch. Differential settlements are expected to be one-third to one-half of the total settlements. Most of the total settlement should occur shortly after the dead loads are applied with little settlement after construction.

The footing excavations should be inspected prior to placing reinforcement steel or concrete. Foundation areas should be level and free of loose soil, standing water, and debris. Loose or soft soils should be removed and replaced with suitable fill material. If the footing excavations are kept open for a long time, the bearing soils may be softened by water intrusion or exposure. If bearing soils are softened, they must be removed and replaced before placement of concrete.

In general, the recommended bearing pressures are contingent upon inspection by a geotechnical engineer or experienced designated inspector at the time of construction. This inspection should include observations for compliance with recommendations presented above as well as cone penetrometer tests (ASTM STP-399), or in-place density tests, as required.

QUALIFICATION OF RECOMMENDATIONS

This report is for the exclusive use of Jacobs and the designers of the project described herein and is applicable to this project. The conclusions and recommendations have been prepared by the generally accepted standards of Geotechnical Engineering practice in the State of Kentucky practicing under similar conditions subject to the time limits, and financial and physical constraints applicable to the services. No other warranty is expressed or implied. EGSci is not responsible for the conclusions, opinions and recommendations of others. Any re-use of this document, particularly by third parties, without our express written permission is solely at their own risk.

The analysis and recommendations presented in this report are based on the data obtained from the soil borings, exploration and testing program performed at the location shown in Figure 1 and past experience. Soil conditions may differ beyond those at the boring location and are not

reflected in this report. If variations in soil conditions become apparent during excavation, the recommendations and conclusions presented herein may need to be re-evaluated based on on-site observations. We recommend that the contractor notify EGSci as soon as possible regarding variations in soil conditions from those presented herein.

If the design or location of the structure presented herein changes, the recommendations and conclusions presented in this report will not be valid. EGSci must review the changes and modify or approve the recommendations and conclusions.

EGSci Consulting Inc. appreciates the opportunity to work with Jacobs on this project. If you have any questions or require additional information regarding this report, please do not hesitate to contact us.

Very truly yours,

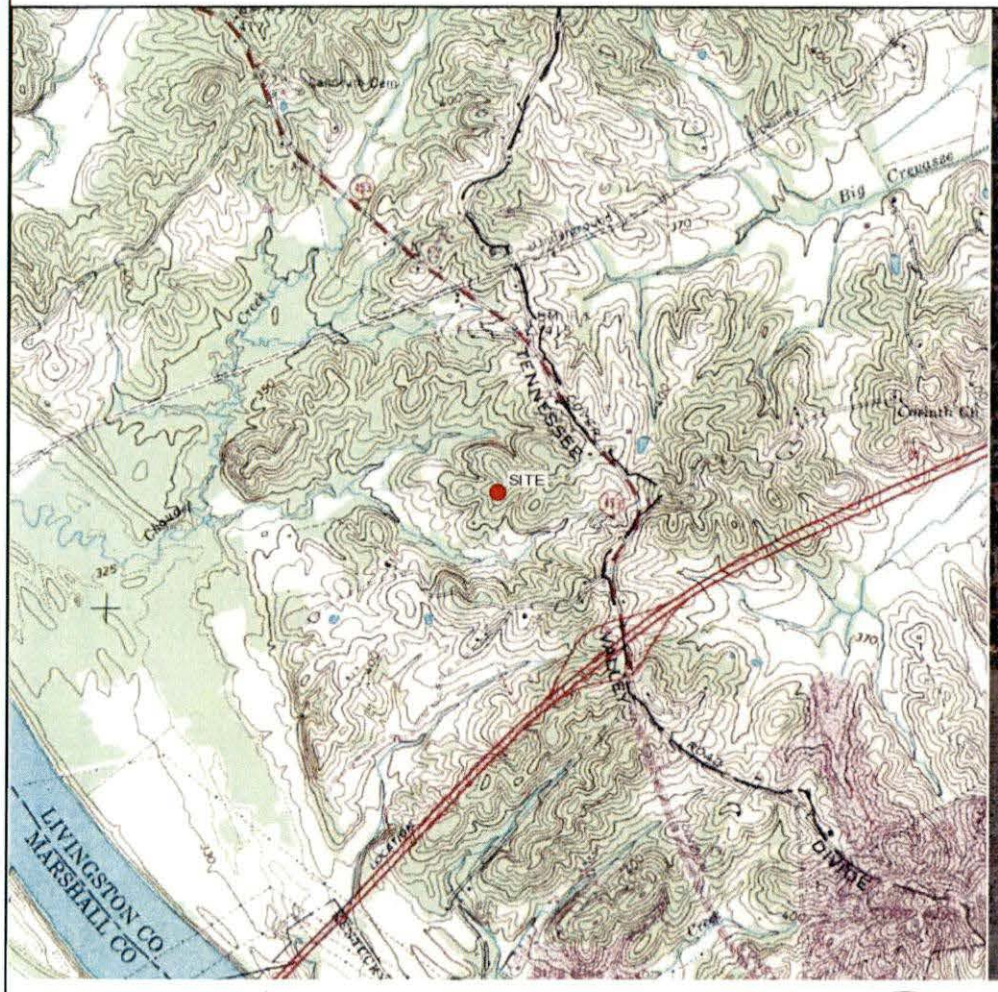
EGSci Consulting Inc.

Shelly Keary, M.Sc.
Project Geotechnical Engineer

Mike Khalil, M.Sc., P.E. (KY#24975) 11/13/2015
Principal Engineer

Attachments
Figure 1 – Site Location Map and Boring Location Plan
Key to Soil Classification
Soil Boring Logs

Note: Locations and features shown below are for reference only and should be considered approximate. Proposed tower location was surveyed and staked, by others, prior to EGSci's field investigation.



Source USGS Topographic Map
Calvert City, Kentucky, Year 1996
Scale 1:25,000

Source: Google Earth Imagery
Scale: N.T.S.
Boring Location

CONSULTANT

EGSci
consulting inc
1455 Lincoln Parkway - Suite 500
Atlanta, GA 30346

CLIENT

JACOBS
5449 Bells Ferry Road
Acworth, GA 30102

Geotechnical Investigation

FIGURE 1

SITE: EV Vulcan Materials

Site Location Map and Boring Location Plan

KEY TO SOIL CLASSIFICATION

TERMS AND DESCRIPTIONS

Soil Description	Range of Proportion
Trace	0 – 5 %
Little	5 – 12 %
Some	12 - 30 %
And	30 – 50 %

Relative Density of Cohesionless Soils	SPT N-value
Very Loose	0 to 4
Loose	4 to 10
Compact	10 to 30
Dense	30 to 50
Very Dense	Over 50

Consistency of Cohesive Soils	Undrained Shear Strength (psf)
Very soft	Less than 250
Soft	250 to 500
Firm	500 to 1,000
Stiff	1,000 to 2,000
Very stiff	2,000 to 4,000
Hard	Over 4,000

SAMPLE TYPES

AS	Auger Sample
DO	Drive Open
DS	Denison sample
PS	Pitcher sample
RC	Rock core
TO	Thin-walled, open
TP	Thin-walled, piston
WS	Wash sample

SOIL TESTS

Moisture Content	M
Atterberg Limits	A
Grain Size	G
Unconfined Compression	U
Triaxial Shear (UU,CU,CD)	T
Direct Shear	D
Organic	O
pH	PH
Permeability	P
Consolidation	C
Specific Gravity	SG
Compaction	Com
Pinhole Dispersion	PD

PENETRATION RESISTANCE

Standard Penetration Resistance (ASTM D1586) "N" = the number of blows required to drive a 2 inch OD split spoon sampler one foot using a 140 lb. hammer falling 30 inches.

Unified Soil Classification System

Criteria for Assigning Group Symbols and Names			Soil Classification Generalized Group Descriptions	
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No.4 Sieve	CLEAN GRAVELS Less than 5% fines	GW	Well-graded Gravels
			GP	Poorly-graded Gravels
		GRAVELS WITH FINES More than 12% fines	GM	Gravel and Silt Mixtures
			GC	Gravel and Clay Mixtures
	SANDS 50% or more of coarse fraction passes No.4 Sieve	CLEAN SANDS Less than 5% fines	SW	Well-graded Sands
			SP	Poorly-graded Sands
		SANDS WITH FINES More than 12% fines	SM	Sand and Silt Mixtures
			SC	Sand and Clay Mixtures
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50	INORGANIC	CL	Low-plasticity Clays
			ML	Non-plastic and Low-Plasticity Silts
		ORGANIC	OL	Non-plastic and Low-Plasticity Organic Clays Non-plastic and Low-Plasticity Organic Silts
	SILTS AND CLAYS Liquid limit greater than 50	INORGANIC	CH	High-plasticity Clays
			MH	High-plasticity Silts
		ORGANIC	OH	High-plasticity Organic Silts and Clays
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor		PT	Peat

RECORD OF BOREHOLE B-1

SHEET 1 of 2

PROJECT: EV Vulcan Materials
PROJECT LOCATION: 751 Forrest Road; Grand Rivers, KY 42045
CLIENT: Jacobs

DEPTH (ft)	BORING METHOD	SOIL PROFILE DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLES NUMBER	TYPE	BLOWS per 6 in (ASTM D1586) or CORE REC and RQD	N (uncorr)	PENETRATION RESISTANCE BLOWS / ft ■ (20 40 60 80)	NOTES
0	Hollow Stem Auger	0.0 - 0.6 Topsoil			0.0						
		0.6 - 3.5 Moist, hard, brown and tan, Silty CLAY with little Sand	CL		0.6	1	DO	4-15-19	34	■	
		3.5 - 5.5 Slightly moist, hard, brown and tan, fine Sandy CLAY	CL		3.5	2	DO	9-12-17	29	■	
5		5.5 - 8.3 Hard, orange and red, fine Sandy CLAY	CL		5.5	3	DO	12-20-29	49	■	
		8.3 - 13.5 Very dense, orange and tan, Clayey fine SAND	SC		8.3	4	DO	18-24-36	60	■	
10											
		13.5 - 31.5 Very dense, tan and orange, fine SAND with little Fines	SP		13.5	5	DO	16-30-41	71	■	
15											
						6	DO	18-27-45	72	■	
20											
						7	DO	20-24-47	71	■	
25		Log continued on next page									

VERTICAL SCALE: 1 in to 3 ft

DRILLING METHOD: Hollow Stem Auger
DRILLING DATE: November 4, 2015
DRILL RIG: CME 550 ATV with Auto Hammer

RECORD OF BOREHOLE B-1

PROJECT: EV Vulcan Materials
PROJECT LOCATION: 751 Forrest Road; Grand Rivers, KY 42045
CLIENT: Jacobs

DEPTH (ft)	BORING METHOD	SOIL PROFILE: DESCRIPTION	USCS	GRAPHIC LOG	ELEV. / DEPTH (ft)	SAMPLES: NUMBER	TYPE	BLOWS per 6 in (ASTM D1586) or CORE REC and RQD	N (uncorr)	PENETRATION RESISTANCE BLOWS / ft ■ (20, 40, 60, 80)	NOTES
25	Hollow Stem Auger	13.5 - 31.5 Very dense, tan and orange, fine SAND with little Fines*(Continued)*	SP								
		29.0: S8: tan, orange, and light gray				8	DO	19-30-50/5"	50/5"		■
30											
	Rock Core	31.5 - 41.5 Tuscaloosa Formation: CONGLOMERATE. White, tan, and gray, fine- to very coarse-grained, intensely fractured, very weak to medium strong, CONGLOMERATE with seams of hard, light gray CLAY containing varying amounts of Sand and Gravel			31.5		DO	50/0"	50/0"		■ No groundwater encountered during drilling.
35						9	RC	REC: 25% RQD: 9%			
40											
		Boring terminated at 41.5 ft. BGS									
45											
50											

VERTICAL SCALE: 1 in to 3 ft

DRILLING METHOD: Hollow Stem Auger
DRILLING DATE: November 4, 2015
DRILL RIG: CME 550 ATV with Auto Hammer

EXHIBIT I
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site

1. Beginning at the Livingston County Judge Executive's Office, located at 335 Court Street in Livingston, KY head south on Court Square toward State Street.
2. Continue onto KY-453 S / Iuka Rd and travel approximately 6.9 miles.
3. Turn right onto KY-453 S / Dover Rd and travel approximately 3.3 miles.
4. The site will be accessed via an existing gravel drive off of Dover Rd. The site will be located south of the access drive. The site coordinates are
    a. North 37^0 02' 46.21"
    b. West 88^0 16' 25.36"

Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293

EXHIBIT J
COPY OF REAL ESTATE AGREEMENT

Site Name: Vulcan Materials, Grand Rivers, KY

Site Number: PI3KY00014.A

GROUND LEASE AGREEMENT

THIS GROUND LEASE AGREEMENT (the "Lease") is made this 21st day of September, 2015 (the "Commencement Date"), by and between **Jack L. Cothran and Shirley Cothran**, his wife, having an address of 905 Dover Road, Grand Rivers, KY 42045 ("Lessor"), and **PI TELECOM INFRASTRUCTURE V, LLC**, a Delaware limited liability company ("Lessee") having an address of 4601 Touchton Road, Bldg. 300, Suite 3200, Jacksonville, FL 32246.

1. **Leased Premises**. Lessor hereby leases to Lessee and Lessee hereby leases from Lessor under the terms and conditions set forth in this Lease [a portion of] that certain parcel of real property, located at Dover Road Grand Rivers, KY 42045 ("Site"), as more particularly described on **Exhibit "A"** and the survey or site plan shown on **Exhibit "A-1"** attached hereto and made a part hereof ("Leased Premises"), together with an easement, or easements, for ingress, egress, utilities, and any other easements required by the local governing authorities, including, without limitation, a landscape buffer or "Fall Zone" (if applicable), for the duration of the lease on the property which is more particularly described on **Exhibit "B"** attached hereto and made a part hereof ("Easement(s)"). The easement rights herein granted include the right and authority of Lessee to grant or assign to third parties all or some of the easement rights granted to Lessee herein. Lessor agrees and acknowledges that Lessee may, at Lessee's sole cost and expense, have a metes and bounds survey prepared of the Leased Premises and the Easement(s), and that the legal description of the Leased Premises and the Easement(s), as shown on the survey, shall thereafter become the legal description of the Leased Premises and the Easement(s). Lessor represents and warrants that Lessor has good and marketable title to the Leased Premises and the Easement(s) free and clear of all liens and encumbrances, other than those liens and encumbrances shown on **Exhibit "C"** attached hereto and made a part hereof. Lessor further represents and warrants that there are no easements, licenses, rights of use or other encumbrances on the Leased Premises or the Easement(s) which will interfere with or constructively prohibit Lessee's Intended Use (as herein defined) of the Leased Premises.

2. **Lessor's Representations and Warranties**. Lessor represents and warrants that Lessee's intended use of the Leased Premises as a site for the transmission and receipt of wireless communication signals and for the construction and maintenance of towers, antennas or buildings and related facilities ("Intended Use") is not prohibited by any covenants, restrictions, reciprocal easements, servitudes, subdivision rules or regulations. Lessor further represents and warrants that (i) the execution of this Lease by Lessor will not cause a breach or an event of default of any other agreement to which Lessor is a party, (ii) there are no pending or threatened administrative actions, including bankruptcy or insolvency proceedings under the state or federal law, suits, claims or causes of action against Lessor or which may otherwise affect the Leased Premises and the Easement(s), (iii) the Leased Premises and the Easement(s) are not presently subject to an option, lease or other contract which may adversely affect Lessor's ability to fulfill its obligations under this Lease, and (iv) Lessor shall not grant an option or enter any contract which will affect the Leased Premises or the Easement(s) until this Lease expires or is terminated be Lessee.

3. **Lessee's Due Diligence Period.**

(a) Within twenty (20) business days following the Commencement Date, Lessee shall pay to Lessor the amount of [redacted] (the "Due Diligence Fee"), which Due Diligence Fee shall be paid to Shirley Cothran on behalf of the Lessor and is nonrefundable to Lessee, except in the event that this Lease is terminated by Lessee prior to the Rent Commencement Date (as herein defined) due to a default by Lessor. Provided that construction of the Tower Facilities (as hereinafter defined) has not commenced, it is understood that Lessee shall have the right to terminate this Lease for any reason or no reason at all, without any further liability or obligation to Lessor except those obligations which specifically survive the expiration or termination of this Lease, by delivery of written notice of termination to Lessor prior to the Rent Commencement Date.

(b) Lessee shall have the right, at its cost and expense, to have the Leased Premises and the Easement(s) surveyed and to obtain a title report or commitment for a leasehold title policy covering the Leased Premises and the Easement(s) from the title insurance company of its choice prior to the Rent Commencement Date. Lessor shall remove any survey or title defects, which will adversely affect Lessee's leasehold title or its ability to mortgage its leasehold interest. In the event Lessor shall fail to cure any such defects, Lessee shall have the right to terminate this Lease upon written notice to Lessor.

(c) In the event of a termination of the Lease pursuant to subparagraph 3(a) or 3(b) above or Paragraph 8 below, within thirty (30) days of such termination Lessee will file a release or other appropriate instrument with the local recording office to remove the Memorandum of Lease from the title record. If said removal is not performed by Lessee within such thirty (30) day period, Lessee appoints Lessor, as Lessee's agent and at Lessee's cost and expense, to file the necessary release or other instrument to cause the Memorandum of Lease to be released from title.

4. Attorney-In-Fact and Cooperation. Lessor hereby irrevocably appoints Lessee or Lessee's agent as Lessor's agent to file such applications on behalf of Lessor with federal, state and local governmental authorities which relate to Lessee's Intended Use of the Leased Premises, including, but not limited to, land use and zoning applications. Lessor agrees to cooperate with Lessee in obtaining, at Lessee's expense, all licenses and permits required for Lessee's use of the Leased Premises (the "Governmental Approval").

5. Use. The Leased Premises may be used by Lessee for the transmission and receipt of wireless communication signals in any and all frequencies and the construction and maintenance of a communications tower, antennas, buildings, and related facilities and activities, and all other uses permitted under applicable zoning regulations. Lessee may construct additional improvements, demolish and reconstruct improvements, or restore, replace and reconfigure improvements at any time during the Term (as herein defined) of this Lease.

6. Initial Term. The initial term of this Lease shall be **five (5) years** commencing on the Commencement Date and terminating on the fifth (5th) anniversary of the Commencement Date ("Initial Term"). The parties agree that a memorandum of lease in the form attached hereto as **Exhibit "D"**, evidencing the Commencement Date and other matters, shall be executed and recorded.

7. Renewal Terms. Lessee shall have the right to extend the Initial Term of this Lease for **five (5) additional five (5) year terms** ("Renewal Terms"). Each Renewal Term shall be on the same terms and conditions as set forth in this Lease. This Lease shall automatically be renewed for each successive Renewal Term unless Lessee notifies Lessor of Lessee's intention not to renew the Lease at least thirty (30) days prior to the expiration of the Initial Term or the Renewal Term which is then in effect. The Initial Term and each Renewal Term shall collectively be referred to herein as the "Term".

8. **Rent**. Commencing on the Rent Commencement Date, during the Term of this Lease, Lessee shall pay to Lessor an annual rental amount of [redacted] to be paid in equal monthly installments of [redacted] ("Rent"), which shall be deemed to include any applicable State, County or local sales or use tax. Rent shall be paid to Shirley Cothran on behalf of Lessor. Rent shall be payable in advance on or before the fifteenth (15th) day of each calendar month, and shall be remitted to the address shown for Lessor in this Lease, or such other address as Lessor may direct by written notice to Lessee. It shall be the sole responsibility of the Lessor to remit payment of any applicable State, County or local sales, rent or use tax to the appropriate taxing authority. If the Rent Commencement Date or the date of termination (the "Termination Date") of this Lease is other than the first (1st) day of a calendar month, Rent shall be prorated. The "Rent Commencement Date" shall mean the date the Lessee commences construction of the Tower Facilities; provided, however, in the event that Lessee has not commenced construction of the Tower Facilities within three (3) **years** following the Commencement Date, this Lease shall automatically terminated the parties shall be released from further liability or obligation hereunder except those obligations which specifically survive the expiration or termination of this Lease. The Rent shall increase by [redacted] on the fifth (5^{th}) anniversary of the Rent Commencement Date and each fifth (5^{th}) year thereafter.

9. **Conditions Subsequent**. In the event that Lessee's Intended Use of the Leased Premises is actually or constructively prohibited through no fault of Lessee or the Leased Premises or the Easement(s) are, in Lessee's opinion, unacceptable to Lessee, then upon notice from Lessee, this Lease shall terminate and be of no further force or effect and Lessee shall be entitled to a refund from Lessor of any deposits or Rent paid in advance to Lessor.

10. **Interference**. Lessor shall not use, nor shall Lessor permit its lessees, licensees, invitees or agents to use, any portion of adjacent real property owned by Lessor in any way which interferes with the wireless communications operation of Lessee. Such interference shall be deemed a material breach of this Lease by Lessor and Lessor shall have the responsibility to terminate said interference at its sole cost and expense. In the event any such interference does not cease or is not promptly rectified, Lessor acknowledges that continuing interference will cause irreparable injury to Lessee, and Lessee shall have 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.

11. **Improvements; Utilities, Access and Other Easements**.

(a) Lessee shall have the right at Lessee's sole cost and expense, to erect and maintain on the Leased Premises improvements, personal property and facilities, including without limitation, a communications tower, a structural tower base, radio transmitting and receiving antennas, communications equipment, equipment cabinet and/or shelters, and related facilities(collectively the "Tower Facilities"). The Tower Facilities shall remain the exclusive property of the Lessee throughout the Term and upon termination of this Lease. All or any portion of the Tower Facilities may be removed by the Lessee from the Leased Premises at any time during the Term. Lessee shall, upon expiration of the Term, or within ninety (90) days after any earlier termination of the Lease, remove its building(s), antenna structure(s) (except footings), equipment, conduits, fixtures and all personal property placed thereon by or through Lessee and restore the Leased Premises to their original condition, reasonable wear and tear and casualty damage excepted. Lessor grants Lessee the right to clear all trees, undergrowth, or other obstructions and to trim, cut, and keep trimmed and cut all tree limbs which may interfere with or fall upon Lessee's tower or Lessee's other improvements, communications equipment, or Easement rights. Lessor grants Lessee a non-exclusive easement in, over, across and through other real property owned by Lessor as reasonably required for construction, installation, maintenance, and operation of the Tower Facilities. The Lessor agrees that any property of the Lessee that remains on the Leased Premises

after ninety (90) days following the expiration or earlier termination of this Lease shall be deemed abandoned by the Lessee and shall be thereafter owned by the Lessor without further consent of the Lessee.

(b) Lessee shall have the right to install utilities, at Lessee's expense, and to improve present utilities on the Leased Premises (including but not limited to the installation of emergency power generators). Lessee shall have the right to permanently place utilities on (or to bring utilities across or under) the Easement(s) to service the Leased Premises and the Tower Facilities. In the event that utilities necessary to serve the equipment of Lessee or the equipment of Lessee's licensee(s) or sublessee(s) cannot be located within the Easement(s) for ingress and egress, Lessor agrees to cooperate with Lessee and to act reasonably in allowing the location of utilities on other real property owned by Lessor without requiring additional compensation from Lessee or Lessee's licensee(s) or sublessee(s). Lessor shall, upon Lessee's request, execute a separate written easement to the utility company providing the service for Lessee in a form which may be filed of record evidencing this right. Any Easement Agreement entered into for the purpose of providing utility service to the leased area will terminate upon the termination of Ground Lease Agreement at the discretion of Lessee.

(c) Lessor represents and warrants to Lessee that Lessee shall, at all times during this Lease, enjoy ingress, egress, and access from the Leased Premises to an open and improved public road which presently exists, and which Easement(s) shall be adequate to service the Leased Premises and the Tower Facilities. If no such public road exists, or ceases to exist in the future, Lessor will grant an appropriate easement to Lessee and its sublessees and assigns so that Lessee may, at its own expense, construct a suitable private access drive to the Leased Premises and the Tower Facilities. Lessor acknowledges and agrees that any new access drive constructed by Lessee may be used by Lessor, its tenants, licensees, agents or other invitees so long as any damage caused by Lessor, its tenants, licensees, agents or invitees shall be paid by such party at no cost to Lessee. To the extent such access is across other property owned by Lessor, Lessor shall execute an easement evidencing this right and Lessor shall maintain access to the Easement(s) in a free and open condition so that no interference is caused by Lessor or by other lessees, licensees, invitees or agents of the Lessor which may utilize the Easement(s). Lessor shall provide such access to the Leased Premises across Lessor's adjacent property, and over all paved or unpaved roads owned or controlled by Lessor, to allow Lessee, or its sublessees, to use, maintain and repair the improvements located on the Leased Premises. Such access shall be provided twenty-four (24) hours per day, seven (7) days per week.

(d) If governmental authorities require a landscape buffer easement or any other type of easement to grant approval for the construction of the Tower Facilities ("Additional Easement(s)"), and if such Additional Easements cannot be located within the Leased Premises or the Easement(s) for ingress and egress, Lessor agrees to cooperate with Lessee and to act reasonably in allowing the location of such Additional Easement(s) on other real property owned by Lessor without requiring additional compensation from Lessee or Lessee's licensee(s) or sublessee(s). Lessor shall, upon Lessee's request, execute a separate written easement for such Additional Easement(s) in a form which may be filed of record evidencing this right.

12. Termination. Except as otherwise provided herein, this Lease may be terminated without any penalty or further liability upon written notice as follows:

(a) By either party upon a default of any covenant or term hereof by the other party, which default is not cured within sixty (60) days of receipt of written notice of default (without however, limiting any other rights available to the parties pursuant to any other provisions hereof); provided, that if the defaulting party commences efforts to cure the default within such period and diligently pursues curing of the default to completion within a reasonable time period, the non-defaulting party shall no

longer be entitled to declare a default;

(b) Upon thirty (30) days' written notice by Lessee to Lessor, if Lessee is unable to obtain or maintain through no fault of Lessee, any license, permit or other Governmental Approval necessary for the construction and operation of the Tower Facilities or Lessee's business; or

(c) By Lessee after the Initial Term of the Lease, for any reason, upon one (1) year's advance written notice from the Lessee to the Lessor: or

(d) By Lessee pursuant to Paragraph 3 of this Lease.

13. Sublessee's Improvements. Lessee's licensee(s) and sublessee(s) shall be entitled to modify the Tower Facilities and to erect additional improvements on the Leased Premises, including, but not limited to antennas, dishes, cabling, additional storage buildings or equipment shelters as are reasonably required for the operation and maintenance of the communications equipment, together with rights of ingress and egress to the Leased Premises and the right to install utilities to and on the Leased Premises and Easement(s) as if said licensee or sublessee were the Lessee under this Lease.

14. Taxes. Lessee shall pay any personal property taxes assessed on, or any portion of such taxes attributable to, the Tower Facilities. Lessee shall pay, as additional Rent, any increase in real property taxes levied against the Leased Premises which are directly attributable to Lessee's use of the Leased Premises (the "Telecom Increase") within thirty (30) days of receipt of Lessor's written request provided that Lessor agrees to furnish proof of the Telecom Increase to Lessee within ninety (90) days from the issuance of the tax bill from the local taxing authority. If the Lessor fails to provide Lessee with such proof of the Telecom Increase within ninety (90) days of the issuance of the tax bill from the local taxing authority, then Lessee shall have no obligation to reimburse Lessor for, or to pay such Telecom Increase. In the event that Lessor fails to pay, when due, any taxes affecting the Leased Premises or the Easement(s), Lessee shall have the right, but not the obligation, to pay such taxes and deduct the full amount of the taxes paid by Lessee on Lessor's behalf from future installments of Rent. Lessor hereby represents and warrants that Lessor's property on which the Leased Premises and Easement(s) are located is not subject to any "Conservation Use Covenant", "Greenbelt Covenant", agricultural or timberland covenant, or any other conservation use program which restricts or limits development of Lessor's property. Lessor agrees to be solely responsible for payment of any penalties, roll-back or additional taxes, special assessments or other monetary amounts now or hereafter payable to any county, city, state or other party as a result of the breach of any conservation use tax program affecting the property on which the Leased Premises and Easement(s) are located or resulting from the change in the nature or character of the use of the property from its present use to a communications tower facility. Lessor does hereby covenant and agree to indemnify, defend and hold Lessee forever harmless from any and all liabilities, claims, demands, actions or causes of action arising from or relating to a breach of any such covenants, whether such breach occurs because of the erection of the Tower Facilities on the Leased Premises or otherwise.

15. Destruction of Premises. If the Leased Premises or the Tower Facilities are destroyed or damaged, so as to hinder the effective use of the Tower Facilities in Lessee's judgment, Lessee may elect to terminate this Lease as of the date of the damage or destruction by so notifying the Lessor. In such event, all rights and obligations of Lessee to Lessor shall cease as of the date of the damage or destruction, and Lessee shall be entitled to the reimbursement of any Rent prepaid by the Lessee.

16. Condemnation. If a condemning authority takes all of the Leased Premises or Easement(s), or a portion sufficient in Lessee's determination to render the Leased Premises or the Easement(s), in the opinion of Lessee, unsuitable for the use which Lessee was then making of the Leased

Premises and Easement(s), this Lease shall terminate as of the date the title vests in the condemning authority. Lessee shall be entitled to file its own claims against the condemning authority for the value of its Tower Facilities, moving expenses, prepaid rent and business dislocation expenses. A sale of all or part of the Leased Premises and/or Easement(s) to a purchaser with the power of eminent domain, in the face of the exercise of eminent domain power, shall be treated as taking by condemnation for the purpose of this paragraph.

17. **Insurance**. Lessee shall purchase and maintain in full force and effect throughout the Term, public liability and property damage policies. The policy of general liability insurance shall provide a combined single limit of $1,000,000 and shall name Lessor as an additional insured. Lessee shall provide Lessor with proof of insurance within thirty (30) days after the Commencement Date and within thirty (30) days following any change or modification to the policy. Said proof of insurance shall include thirty (30) days advance notice to Lessor in the event of cancellation of the insurance policy.

18. **Lessee's Environmental Covenants and Indemnity.** As used in this Lease, the term "Hazardous Materials" shall mean any hazardous or toxic substance, material or waste which is, or becomes designated as such in the future or is regulated by any agency of the United States Government or by any local governmental authority having jurisdiction, including, without limitation, any substance, material or waste that is defined or designated as a hazardous substance pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act or the Clean Water Act. During the Term of this Lease, Lessee shall cause the presence, use, storage and/or disposal of any Hazardous Material, on or under the Leased Premises by Lessee, its agents, employees, business invitees, contractors or sublessees to be in compliance with all applicable laws, rules, regulations and orders. Lessee shall not install or permit the installation of any underground storage tanks on the Leased Premises. Lessee shall defend, indemnify, protect and hold Lessor harmless from and against all claims, costs, fines, judgments and liabilities, including, without limitation, reasonable attorney's fees and costs, arising out of or in connection with the presence, storage, use or disposal of Hazardous Materials on or under the Leased Premises to the extent caused by the acts, omissions or negligence of Lessee, its employees, business invitees, contractors or sublessees. The foregoing indemnity shall survive the expiration or earlier termination of this Lease.

19. **Lessor's Environmental Representation and Indemnity.** Lessor represents and warrants that no Hazardous Materials have been generated, stored, disposed of or are present on or under the Leased Premises and the Easement(s) prior to the Commencement Date of this Lease. Lessor shall indemnify, defend, protect and hold Lessee harmless from and against any and all claims, costs, fines, judgments, liability, actions, causes of action, liens and expenses, including, without limitation, penalties and reasonable attorneys' fees, incurred or suffered by or asserted against Lessee, to the extent arising out of or in any way relating to any one or more of the following which are not caused by Lessee: (a) the presence of any Hazardous Materials in, on, or under the Leased Premises; (b) any past, present or threatened release of Hazardous Materials in, on, under or from the Leased Premises; (c) any activity by Lessor in connection with any actual, proposed or threatened use, treatment, storage, existence, disposition or other release, production, manufacturing, management, abatement, removal, handling, transfer or transportation to or from the Leased Premises of any Hazardous Materials at any time located in, under or on the Leased Premises; (d) any testing and/or remediation costs in connection with any Hazardous Materials alleged to be located in, under, on or above the Leased Premises; (e) any past or present non-compliance with or violations of any environmental laws in connection with the Leased Premises or operations thereon, including but not limited to, any failure by Lessor to comply with any order of any governmental authority in connection with any environmental laws; and (f) the imposition, recording or filing or the threatened imposition, recording or filing of any environmental lien encumbering the Leased Premises. The foregoing representations and indemnities shall survive the expiration or earlier termination of this Lease.

20. **Mutual Indemnification**. Lessor shall indemnify and hold harmless Lessee from and against any and all claims, liabilities, loss or damage, penalties or judgments to the extent arising from injury to person or property sustained by anyone in and about the Leased Premises and Easement(s) resulting from any act(s) or omissions(s) of Lessor, or Lessor's officers, agents, servants, employees, contractors, or sublessees. Further, Lessor shall, at its own cost and expense, defend any and all suits or actions (just or unjust) which may be brought against Lessee or in which Lessee may be impleaded with others upon any such matter, claim or claims, except as may result from the acts described in the following paragraph. This indemnification obligation shall survive the expiration or earlier termination of the Lease.

Lessee shall indemnify and hold harmless Lessor from and against any and all claims, liabilities, loss or damage, penalties or judgments to the extent arising from injury to person or property sustained by anyone in and about the Leased Premises and Easement(s) resulting from any act(s) or omissions(s) of Lessee, or Lessee's officers, agents, servants, employees, contractors, or sublessees. Further, Lessee shall, at its own cost and expense, defend any and all suits or actions (just or unjust) which may be brought against Lessor or in which Lessor may be impleaded with others upon any such matter, claim or claims, except as may result from the acts described in the preceding paragraph. This indemnification obligation shall survive the expiration or earlier termination of the Lease.

The Lessor hereby releases the Lessee, any assigns and sublessees, and Lessee and any assigns or sublessee releases Lessor from and against any and all claims, demands, liabilities or obligations whatsoever for damage to the property or loss of rents or profits of either Lessor/Lessee and assigns resulting from or in any way connected with fire, accident or other casualty in the building whether or not such fire, accident or other casualty shall have been caused by the negligence or contributory negligence of the Lessor/Lessee or assigns, to the extent that such damage or loss is either insured under any insurance contract, which at the time of such damage or loss permits waiver of subrogation rights prior to the loss thereunder or was to be insured against by the provisions of this Lease.

21. **Notices**. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery, or three (3) days after being deposited in the U.S. Mail, registered or certified, and postage prepaid, or one (1) day after being deposited with a recognized overnight delivery service. Such notices shall be addressed to the applicable party at its address shown below, or at such other address or addresses as either party shall designate to the other in writing in accordance with this paragraph:

As to Lessor: Jack L. Cothran and Shirley Cothran, his wife
905 Dover Road
Grand Rivers, KY 42045
Phone: 270-508-0298
E-mail address: jhcothran@att.net
Federal ID / SS No.: _____

As to Lessee : PI Telecom Infrastructure V, LLC
4601 Touchton Road

Bldg. 300, Suite 3200
Jacksonville, Florida 32246
Attention: Contracts Administrator

With a copy to: PI Telecom Infrastructure V, LLC
2855 LeJeune Road
4th Floor
Miami, Florida 33134
Attention: Legal Department

22. Title and Quiet Enjoyment. Lessor warrants and represents that (i) it has the full right, power, and authority to execute this Lease; (ii) it has good and marketable fee simple title to the Leased Premises and the Easement(s); and (iii) the Leased Premises constitute a legal lot that may be leased without the need for any subdivision or platting approval. Lessor covenants that Lessee shall have the quiet enjoyment of the Leased Premises during the Term of the Lease. Lessor shall indemnify, defend and hold harmless Lessee from and against any loss, cost, expense or damage, including attorneys fees associated with a breach of the foregoing covenant of quiet enjoyment. This Lease shall be an estate for years and not a usufruct. Lessor shall not use, nor shall Lessor permit its lessees, licensees, invitees, or agents to use any portion of any property owned or controlled by Lessor in any way which interferes with the operations of Lessee. Such interference shall be deemed a material breach by Lessor, and Lessee shall have the right, in addition to any other rights that it may have in law or equity, to enjoin such interference or to terminate this Lease.

23. Subordination and Non-Disturbance. This Lease shall be subject to and subordinate to any mortgage or deed to secure debt (collectively referred to as a "Mortgage") made by Landlord which may now or hereafter encumber the Leased Premises and Easement(s), provided that no such subordination shall be effective unless the holder of every such Mortgage shall in a separate agreement with Lessee agree that in the event of a foreclosure, or conveyance in lieu of foreclosure of Lessor's interest in the Leased Premises and Easement(s), such holder shall recognize and confirm the validity and existence of this Lease and that Lessee shall have the right to continue its use and occupancy of the Leased Premises and Easement(s) in accordance with the provisions of this Lease as long as Lessee is not in default of this Lease beyond applicable notice and cure periods. Lessee shall execute in timely fashion such instruments as may reasonably be requested to evidence the provisions of this paragraph. In the event the Leased Premises and/or Easement(s) are encumbered by a Mortgage on the Commencement Date, Lessor, no later than ten (10) days after the Commencement Date, shall obtain and furnish Lessee with a non-disturbance agreement in recordable form from the holder of each Mortgage.

24. Assignments and Subleases.

(a) Lessee may, upon notice to Lessor, mortgage or grant a security interest in Lessee's leasehold estate and the Tower Facilities, and may make a conditional assignment of this Lease and the Tower Facilities to any such mortgagees or holders of security interests, including their successors and assigns (hereinafter, collectively referred to as "Secured Parties"). In such event, Lessor shall execute such consent to leasehold financing as may reasonably be required by any Secured Party. Lessor agrees to notify Lessee and Lessee's Secured Parties simultaneously of any default by Lessee, and to give to the Secured Parties the same right to cure any default as Lessee except that the cure period for any Secured Party shall not be less than ten (10) days after the receipt of the default notice. If a termination, disaffirmation or rejection of the Lease, pursuant to any laws (including any bankruptcy or insolvency laws), by Lessee shall occur, or if Lessor shall terminate this Lease for any reason as provided for in

Paragraph 12, herein, Lessor will give the Secured Parties prompt notice thereof and Lessor will give each Secured Party the right to enter upon the Leased Premises during a thirty (30) day period commencing upon such Secured Party's receipt of such notice for the purpose of removing any Tower Facilities. Lessor acknowledges that the Secured Parties shall be third-party beneficiaries of this Lease.

(b) Lessee shall have the right to license, sublease or assign its rights under this Lease, without the consent of Lessor, upon any of the following conditions:

i. any conditional assignment of this Lease to a Secured Party as described in subparagraph (a) above;

ii. any license or sublease of a portion of the Tower Facilities in the ordinary course of Lessee's business;

iii. an assignment or sublease to an affiliate entity of Lessee; or

iv. an assignment to an entity in the business of developing or owning telecommunication towers, provided that any such assignee shall have a net worth equal to or greater than Lessee's.

Any license, sublease or assignment by Lessee of its rights under this Lease which is not set forth in (i) – (iv) above shall require the consent of the Lessor, which shall not be unreasonably withheld, delayed and/or conditioned. Any license, sublease or assignment pursuant to this subparagraph (b) shall be subject to all terms and conditions of this Lease. Upon assignment of all of its rights pursuant to this Lease, and the execution of a written assumption of all of the terms and conditions of the Lease by the assignee, Lessee shall be released from any further liability under this Lease.

25. **Successors and Assigns**. This Lease shall run with the Leased Premises described on **Exhibit "A"** and shall be binding upon and inure to the benefit of the parties, their respective heirs, successors, personal representatives and assigns.

26. **Subordination of Lessor's Lien.** Lessor hereby subordinates any lien that Lessor may have upon the Tower Facilities, any fixtures, equipment or other personal property of Lessee (or any subtenant) to be installed and/or used upon the Leased Premises. In this regard, within seven (7) days following the request of Lessee and/or a subtenant and/or their respective creditors, Lessor agrees to evidence such subordination by executing and delivering a subordination of any liens that Lessor may have upon such property. Such evidence of subordination will be on a commercially reasonable form provided by Lessee and/or a subtenant and/or the creditor, authorizing the creditor to enter upon the Leased Premises and remove such property in the event of default under the terms of the security agreement and/or lease, provided that such secured creditor or lessor repairs any damage caused by such removal.

27. **Waiver of Incidental and Consequential Damages**. Lessor will not assert any claim whatsoever against Lessee for loss of anticipatory profits or any other indirect, special, incidental or consequential damages incurred by Lessor as a result of the construction, maintenance, operation or use of the Leased Premises or the Easement(s) by Lessee.

28. **Lessee's Exclusivity**. Lessor agrees not to lease any of Lessor's property within a radius of **two (2) miles** from the Leased Premises for construction of a tower, for the construction or for use as a communications facility or for the operation of an antenna site leasing business which competes directly or indirectly with Lessee.

29. **Right of First Refusal**. During the Term of this Lease, in the event that the Lessor receives and desires to accept a bona fide offer to sell and convey the Site, including the Leased Premises, to a third party not related to the Lessor by at least 51% common ownership, then the Lessor shall first provide the Lessee with a written offer to sell and convey the Site to Lessee upon the same terms and conditions as the offer made by the third party. The notice to Lessee shall include a copy of the third party's offer. Lessee shall have twenty (20) business days from the receipt from the Lessor's notice to accept the offer to purchase the Site. If Lessee desires to accept the offer, it shall notify the Lessor in writing within the said twenty (20) business day period and closing thereon shall occur within ninety (90) days of the date of Lessee's written acceptance of the offer. In the event that the Right of First Refusal is exercised, Lessee shall purchase all of the property offered for sale. Transfer of title shall be by Special Warranty Deed and a Bill of Sale that warrants title to the Site without exception or encumbrance. If Lessee does not elect to accept the offer to purchase the Site, then the Lessor may proceed with selling the Site to the third party upon the same terms and conditions as offered to Lessee, which sale shall be made subject to the terms of this Lease. Should the third party not complete the purchase transaction, then this Right of First Refusal shall continue in effect for any future offers received by the Lessor.

30. **Certifications**. Either party may request, in writing, that the other party certify information to a prospective mortgagee or purchaser. Such certification shall be transmitted within ten (10) days after receipt of written request and may be relied upon by the party who requested it, and the contents of the certificate shall be binding upon the party executing it. The certificate may include (i) the validity, force and effect of this Lease; (ii) the extent to which this Lease has been supplemented or amended; (iii) the existence of any default; (iv) the existence of any offsets, counter-claims or defenses on the part of the other party; (v) the commencement and expiration dates of the Term, (vi) the amount of any prepaid rent; and (vii) any other matter as may reasonably be requested.

31. **Self Help**. Without limiting Lessee's **right** to terminate this Lease pursuant to Paragraph 12(a) hereof, in case of a breach of any covenant or term hereof by the Lessor, the Lessee may, in its sole discretion, elect to remedy the Lessor's breach, which remedy shall not operate or be construed as a waiver of the Lessee's rights herein to recover the cost of such remedy from the Lessor by setoff or otherwise, and the Lessor shall indemnify the Lessee from any and all costs, expenses, reasonable attorney fees and litigation expenses as may be incurred by the Lessee in performing the Lessor's obligations hereunder.

32. **Miscellaneous**.

(a) The substantially prevailing party in any litigation arising hereunder shall be entitled to its reasonable attorney's fees and court costs, including appeals and post-judgment proceedings, if any.

(b) Each party agrees to furnish to the other, within ten (10) days after request, such truthful estoppel information as the other may reasonably request.

(c) This Lease constitutes the entire agreement and understanding of Lessor and Lessee with respect to the subject matter of this Lease, and supersedes all offers, negotiations and other agreements. There are no representations or understandings of any kind not set forth herein. Any amendments to this Lease must be in writing and executed by Lessor and Lessee.

(d) If either Lessor or Lessee is represented by a broker in this transaction, that party shall be fully responsible for any fees due such broker and shall hold the other party harmless from any claims for commission by such broker.

(e) This Lease shall be construed in accordance with the laws of the state in which the Leased Premises is situated.

(f) If any term of this Lease is found to be void or invalid, such invalidity shall not affect the remaining terms of this Lease, which shall continue in full force and effect.

(g) Lessor shall cooperate with Lessee in executing any documents necessary to protect Lessee's rights under this Lease or Lessee's use of the Leased Premises and the Easement(s), and to take such action as Lessee may reasonably require to effect the intent of this Lease.

(h) This Lease may be executed in two or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties, it being understood that all parties need not sign the same counterpart. The parties agree that a scanned or electronically reproduced copy or image of this Lease shall be deemed an original.

(i) Lessor agrees that the terms of this Lease shall be strictly confidential and that Lessor shall not disclose any of the terms hereof to any third party, except with Lessee's prior written consent. Notwithstanding the foregoing, Lessor is permitted to disclose the terms of this Lease to its attorneys, financial consultants, accountants and lenders.

(SIGNATURE PAGES FOLLOWING)

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date first written above.

LESSOR:

WITNESS:

Jack L. Cothran

George E Long II
Print Name

Print Name: Jack L. Cothran By Shirley Cothran POA

Date: 9/4/15

Print Name

LESSOR:

George E Long II
Print Name

Print Name: Shirley Cothran

Date: 9/4/15

Print Name

LESSEE:

WITNESS:

PI TELECOM INFRASTRUCTURE V, LLC,
a Delaware limited liability company

Lynette Ivy
Print Name

By:

Print Name:

Sama Carstens
Print Name

Title: Yannis Macheras
President

Date: 9/21/15

EXHIBIT "A"

Description of Real Property (Leased Premises)

A **100' by 100'** parcel of land for the tower compound being located around the base of the tower, all being a portion of the parent tract (see attached warranty deed for legal description of parent tract, if available). The legal description of the Leased Premises shall be determined by survey and shall thereafter replace this **Exhibit "A"**.

Tax Parcel I.D. # of parent tract: 080-00-00-017.00

Physical Address of parent tract: Dover Road
Grand Rivers, KY 42045

JC
SC

LEASED PREMISES
PI TELECOM INFRASTRUCTURE V, LLC
"EV VULCAN MATERIALS"

All that tract or parcel of land lying and being in Livingston County, Kentucky containing 0.2296 acres (10,000 square feet), more or less, and being part of Tax Parcel# 080-00-00-017.00, the lands conveyed to Jack L. Cothran and Shirley Cothran by virtue of Deed recorded in Deed Book 237 Page 715, in the Livingston County Clerk's Office, being more particularly described as follows:

To find the point of beginning, commence at a 6-inch concrete disc found on the westerly right-of-way line of Kentucky Highway 453 (having an 80-foot right-of-way), said concrete disc having a Kentucky State plane coordinate value of N: 1910266.65, E: 905419.83, and said concrete disc being the northeasterly corner of the lands of Charles Andrew Cothran and Ernestine King Cothran, Trustees of the Charles Andrew and Ernestine King Cothran Management Trust Dated March 16, 2015, recorded in Deed Book D249 Page 234, Livingston County Clerk's Office; thence along said westerly right-of-way line of Kentucky Highway 453, South 39°49'37" East, 44.03 feet to a point; thence leaving said westerly right-of-way line of Kentucky Highway 453 and running, South 74°52'29" West, 246.39 feet to a point; thence, South 61°46'55" West, 85.11 feet to a point; thence, South 56°45'04" West, 132.12 feet to a point; thence, 68.52 feet along the arc of a curve to the right, having a radius of 220.00 feet and being scribed by a chord bearing, South 65°40'23" West, 68.24 feet to a point; thence, South 74°35'43" West, 115.51 feet to a point; thence, 75.75 feet along the arc of a curve to the right, having a radius of 320.00 feet and being scribed by a chord bearing, South 81°22'37" West, 75.57 feet to a point; thence, South 88°09'30" West, 281.35 feet to a point; thence, 63.87 feet along the arc of a curve to the left, having a radius of 280.00 feet and being scribed by a chord bearing, South 81°37'25" West, 63.73 feet to a point; thence, South 75°05'21" West, 287.61 feet to a point; thence, South 37°49'25" West, 111.26 feet to a point; thence, South 69°55'32" West, 20.46 feet to a point; thence, South 20°04'28" East, 30.00 feet to a point; thence, South 69°55'32" West, 40.00 feet to a point and the true POINT OF BEGINNING; Thence running, South 85°19'39" West, 100.00 feet to a point; Thence, North 04°40'21" West, 100.00 feet to a point; Thence, North 85°19'39" East, 100.00 feet to a point; Thence, South 04°40'21" East, 100.00 feet to a point and the POINT OF BEGINNING.

As shown in a survey prepared for PI Telecom Infrastructure V, LLC by POINT TO POINT LAND SURVEYORS, INC dated June 30, 2015, and last revised July 2, 2015.

EXHIBIT "A-1"

Survey or Site Plan

Location of the Leased Premises shall be determined by survey, and upon completion shall replace this **Exhibit "A-1"**.

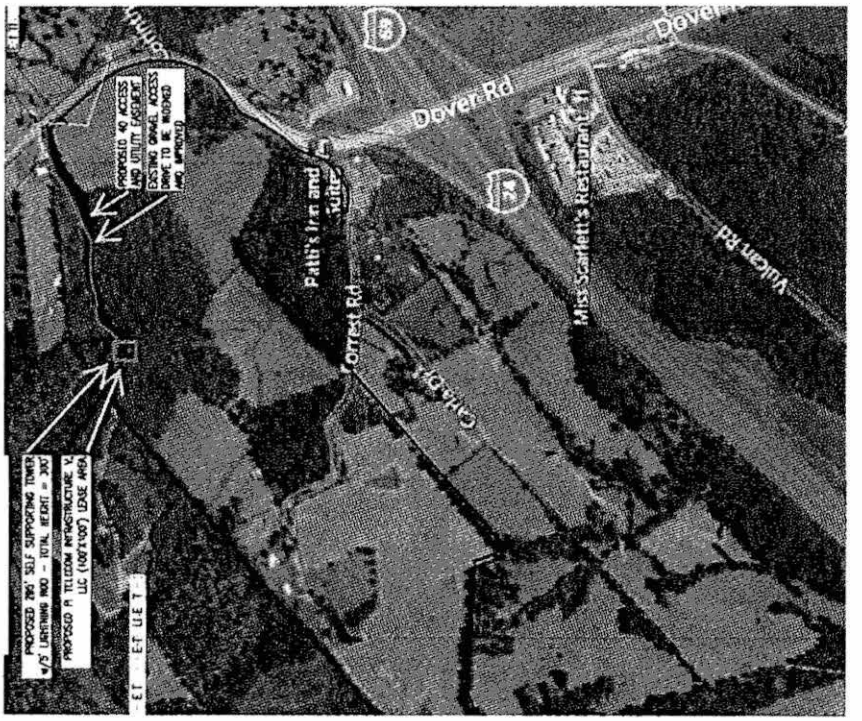


EXHIBIT "B"

Easement(s)

(i) An easement from the Leased Premises to an open and improved public road in a minimum width of either 25 feet or the minimum width necessary to comply with any applicable governmental requirements, whichever is greater, to allow for ingress to and egress from the Leased Premises by vehicle;

(ii) An easement as may be required to provide utilities to the Leased Premises from the utility providers' preferred connection point;

(iii) if required by governmental authorities, an easement for a "Fall Zone" centered on the location of the Lessee's tower and extending outward in a circle for the number of feet as may be required by local zoning authorities (typically equal to the height of the Lessee's tower but could be more); and

(iv) if required by governmental authorities, an easement for a landscape buffer zone or any such additional easement(s) as may be required by local zoning authorities, each to be determined by survey, and upon completion of survey, shall replace this **Exhibit "B"**.

EXHIBIT "C"

Liens and Encumbrances

Holder of 1st Mortgage: _____

Address: _____

Contact Name: _____

Phone Number: _____

Loan Number: _____

Holder of 2nd Mortgage: _____

Address: _____

Contact Name: _____

Phone Number: _____

Loan Number: _____

Other Liens/Encumbrances

(Please Describe): _____

_____

_____

If No Mortgage(s), check here: _____

EXHIBIT "D"

MEMORANDUM OF GROUND LEASE AGREEMENT

See Attached

Prepared by and upon recording return to:
PI Telecom Infrastructure _V, LLC
4601 Touchton Road
Bldg. 300, Suite 3200
Jacksonville, Florida 32246
Attention: Contracts Administrator

Sama Carstens

Site Name: Vulcan Materials, Grand Rivers, KY
Site Number: PI3KY00014.A

MEMORANDUM OF GROUND LEASE AGREEMENT

This Memorandum of Ground Lease Agreement is made on _____, 201___, by and between **Jack L. Cothran and Shirley Cothran** , his wife, as Lessor, whose mailing address is 905 Dover Road, Grand Rivers, KY and **PI TELECOM INFRASTRUCTURE V, LLC**, a Delaware limited liability company, as Lessee, whose address is 4601 Touchton Road, Building 300, Suite 3200, Jacksonville, Florida 32246.

1. Lessor and Lessee are parties to a Ground Lease Agreement dated as of _____, 201__ (the "Lease "), the terms and provisions of which are incorporated herein by this reference. The premises covered by the Lease are located in **LivingstonCounty, Kentucky**, as more fully described in the legal description attached hereto as **Exhibit "A"** ("Leased Premises").

2. Pursuant to the Lease, the Lessor has granted, and by these presents does grant, to the Lessee easements for ingress, egress, utilities, "Fall Zone" (if applicable), and any other easements required by Lessee or governmental authorities for the duration of the Lease Agreement a more particularly described on **Exhibit "A"** hereto. The easement rights herein granted include the right and authority of Lessee to grant or assign to third parties all or some of the easement rights granted to Lessee herein.

3. The Lease provides for an initial term of five (5) years (the "Initial Term") which commenced on _____. The Lease also provides for five (5) additional five (5) year renewal terms (each, a "Renewal Term"). The Lease shall automatically renew for each such Renewal Term unless Lessee delivers written notice of intent not to renew to Lessor at least thirty (30) days prior to the expiration of the Initial Term, or the Renewal Term then in effect.

4. The Lease provides that during the term of the Lease neither Lessor nor any tenant or person or entity claiming by or through Lessor shall be allowed to install or operate a communications facility, including a telecommunications transmission tower, or operate an antenna site leasing business which competes directly or indirectly with Lessee on the lands of Lessor within a radius of two (2) miles of the Leased Premises.

5. The Lease provides that during the term of the Lease, in the event that the Lessor receives and desires to accept a bona fide offer to sell and convey the Site to a third party not related to the Lessor by at least 51% common ownership, then the Lessor shall first provide the Lessee with a written offer to sell and convey the Site to Lessee upon the same terms and conditions as the offer made by the third party, and Lessee shall have twenty (20) business days in which to accept the offer.

6. All of the terms and conditions of the Lease are incorporated herein by reference. In the event of

a conflict between the terms hereof and the terms of the Lease, the terms of the Lease shall govern.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Lease as of the date first written above.

WITNESS

_____

_____
Print Name

_____

_____
Print Name

_____

_____
Print Name

_____

_____
Print Name

LESSOR:

_____

Print Name: Jack L. Cothran

Date: _____

LESSOR:

_____

Print Name: Shirley Cothran

Date: _____

STATE OF _____

COUNTY OF _____

I,_____ a Notary Public of the County and State aforesaid, certify that _____personally came before me this day and acknowledged that (s)he executed the foregoing instrument. He/She is personally known to me or produced _____ as identification.

WITNESS my hand and notarial seal, this ___ day of _____, 201__.

Notary Public: _____

Print Name: _____

My Commission Expires: _____

STATE OF _____

COUNTY OF _____

I,_____ a Notary Public of the County and State aforesaid, certify that _____personally came before me this day and acknowledged that (s)he executed the foregoing instrument. He/She is personally known to me or produced _____ as identification.

WITNESS my hand and notarial seal, this ___ day of _____, 201__.

Notary Public: _____

Print Name: _____

My Commission Expires: _____

LESSEE:

PI TELECOM INFRASTRUCTURE V, LLC,
a Delaware limited liability company

Witness:

_____

Print Name:_____

By: _____

Print Name: _____

Title: _____

_____

Print Name:_____

STATE OF FLORIDA

COUNTY OF _____

I, _____the undersigned Notary Public for said County and State, do hereby certify that _____, as _____ of PI Telecom Infrastructure V, LLC, a Delaware limited liability company, personally appeared before me this day, and acknowledged the due execution of the foregoing instrument on behalf of said company. He/She is personally known to me or produced _____ as identification.

WITNESS my hand and notarial seal, this ___ day of _____, 201___.

Notary Public: _____

Print Name: _____

My Commission Expires: _____

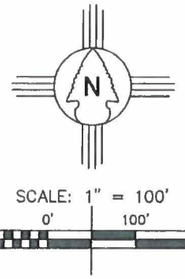
EXHIBIT "A"

LEASED PREMISES AND EASEMENTS

The 100' x 100' Leased Premises and Easements are located within the land legally described as follows:

A **236.2075 acre** tract of land as shown on ~~Slide~~ Plat Cabinet C Slide 11, Livingston County Court Clerk's Office, prepared by Siteworx Survey & Design, LLC. Reference is hereby made to said plat for a more complete description.

And being the same property conveyed to Chester Jones and Forrest Jones from D. F. Jones by deed dated August 31, 1977, of record in Deed Book 129, page 175; with the interest of Chester Jones in 61 acres, more or less, having been conveyed to Forrest Jones and Margaret Jones, his wife by deed dated September 1, 1977, of record in Deed Book 129, page 184; and being the same property conveyed to Forrest Jones and Margaret Jones, his wife, by deed dated June 1, 1944, of record in Deed Book 67, page 193, having subsequently been placed in survivorship between Forrest Jones and Margaret Jones by deed dated December 30, 1974, of record in Deed Book 121, page 85; and conveyed to Forrest Jones and Margaret Jones, his wife, from D. F. Jones et al by deed dated September 1, 1977, of record in Deed Book 129, page 182, all of record in the Livingston County Court Clerk's Office. The interest of Forrest Jones in all tracts vested in Margaret R. Jones at his death pursuant to the survivorship provision contained in the aforesaid deeds.



LEGEND

- ● 1/2" X 2'-0" REBAR W/CAP NO. 3861, EXISTING OR AS NOTED
- ℄ CENTERLINE
- R.O.W. RIGHT-OF-WAY
- R. PROPERTY LINE
- o NO CORNER SET
- -x-x- FENCE LINE
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT

LEGAL DESCRIPTION OF 1.01 ACRES
INGRESS/EGRESS EASEMENT
FOR JACK + SHIRLEY COTHRAN

Lying on the Westerly side of Kentucky Highway 453 and lying North of Interstate 24 in Livingston County, Kentucky and more particularly bounded and described as follows to wit:

Beginning at a 1/2 inch rebar with cap No. 3861 (found), said point being the northeasterly corner of the Jack & Shirley Cothran property recorded in Deed Book 237, Page 715 and also being the southeasterly corner of the Charles & Ernestine Cothran Trust Property recorded in Deed Book 249, Page 234, and also being S 50°11'30" W a distance of 40 feet from a point in the center line of Kentucky Highway 453 as measured perpendicularly to said highway, said center line point being approximately 895 feet as measured along said center line from its intersection with Corinth Church Road THENCE FROM SAID POINT OF BEGINNING S 74°53'36" W along the northerly line of the aforesaid Jack & Shirley Cothran property a distance of 243.18 feet to a 1/2 inch rebar with cap No. 3861 (found); thence continuing in an easterly direction with said Northerly line for the following four calls: S 56°46'36" W a distance of 277.40 feet to a 1/2 inch rebar with cap No. 3861 (found), S 86°05'36" W a distance of 250.20 feet to a 1/2 inch rebar with cap No. 3861 (found), S 87°15'36" W a distance of 301.30 feet to a 1/2 inch rebar with cap No. 3861 (found), S 72°53'36" W a distance of 412.20 feet to a 10 inch diameter oak with a nail and cap No. 3861 (found) at head height and corner to said Jack & Shirley Cothran property; thence N 06°23'55" W in a northerly direction with the line of said Cothran property and crossing an existing gravel drive, a distance of 30.53 feet to a point; thence N 72°53'36" E and slightly north of said gravel drive a distance of 410.30 feet to a point; thence continuing in an easterly direction and just north of said gravel drive for the following two calls: N 87°15'36" E a distance of 304.78 feet to a point and N 86°05'36" E a distance of 148.85 feet to a point; thence meandering along the northerly edge of said gravel drive and with a curve turning to the left with an arc length of 164.36 feet, with a radius of 302.48 feet, with a chord bearing of N 70°31'37" E, with a chord length of 162.35 feet to a point,; thence N 54°57'38" E a distance of 60.87 feet to a point; thence with a curve turning to the right with an arc length of 197.98 feet, with a radius of 569.08 feet, with a chord bearing of N 64°55'37" E, with a chord length of 196.98 feet to a point,; thence N 74°53'36" E a distance of 173.21 feet to a point in the westerly right-of-way line of Kentucky Highway 453 (40 feet from the center line thereof, as measured perpendicularly),; thence S 39°48'30" E with the said westerly right-of-way line a distance of 33.02 feet to a 1/2 inch rebar with cap No. 3861 (found); which is the point of beginning, having an area of 46,535.2 square feet, 1.07 acres as shown on "Plat of Easement for Jack & Shirley Cothran" prepared by Stephen Chino Land Surveying, dated December 1st, 2015.

The above legal description was written by Stephen C. Chino, Jr., Kentucky Professional Land Surveyor, on February 20th, 2016, in conformance with 201 KAR 18:150.

Stephen C. Chino
Kentucky Licensed Professional Land Surveyor No. 3861

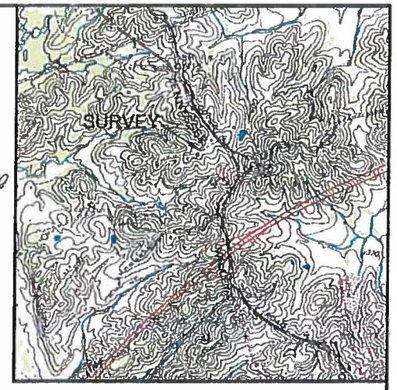
CERTIFICATE OF RECORDING

STATE OF KENTUCKY
COUNTY OF LIVINGSTON
I Sonya Williams CLERK OF THE COURT OF THE COUNTY AND STATE AFORESAID DO HEREBY CERTIFY THAT THIS PLAT OF SURVEY WAS THIS DAY LODGED IN MY OFFICE FOR RECORDING AND I HAVE RECORDED SAME, WITH THIS AND THE FOREGOING CERTIFICATE IN MY OFFICE.

GIVEN UNDER MY HAND AND SEAL, THIS THE 15 DAY OF March 2016

S Williams — LIVINGSTON COUNTY COURT CLERK
A Bruce — DEPUTY COURT CLERK

RECORDED IN PLAT SECTION C, PAGE 51

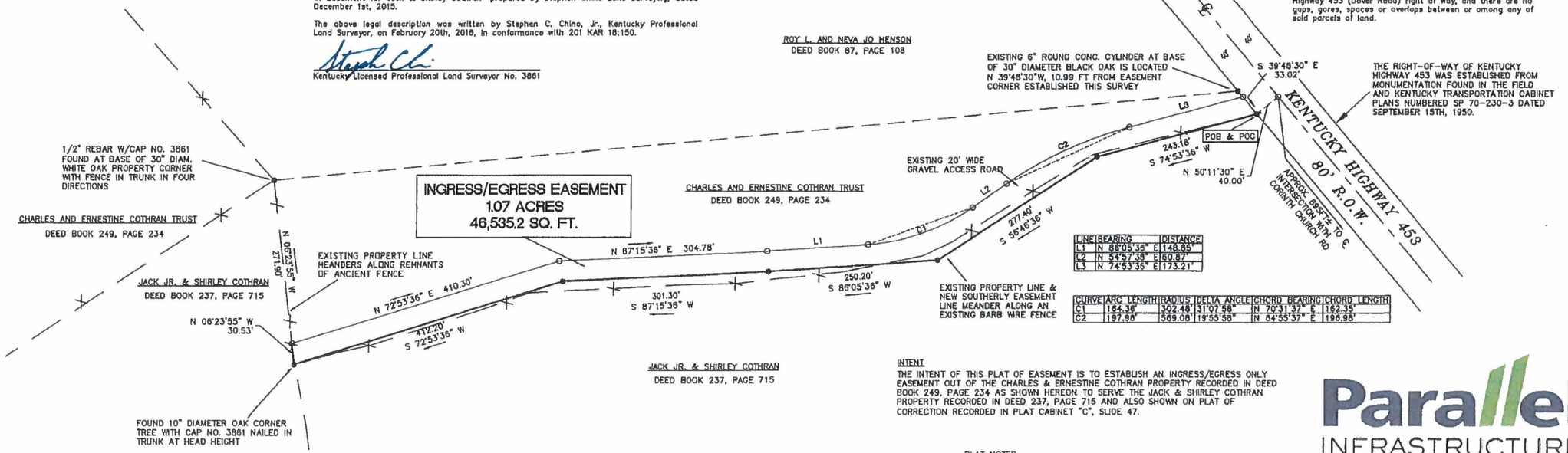


LOCATION MAP SCALE : 1 INCH = 2,000 FEET

SOURCE OF TITLE
DEED BOOK 249, PAGE 234
PLAT SECTION "C", SLIDE 47

EXISTING EASEMENT NOTE
THERE IS AN EXISTING INGRESS/EGRESS EASEMENT RESERVED BY DULEY JONES FOR HIMSELF AND HIS SPOUSE TO THE PROPERTY NOW SHOWN HEREON AS BEING THE JACK SR. & SHIRLEY COTHRAN PROPERTY, SAID EASEMENT BEING FIRST MENTIONED IN A DEED FROM DULEY JONES ET UX RECORDED IN DEED BOOK 93, PAGE 624 AND DATED APRIL 9TH, 1983. ORIGINAL EASEMENT DESCRIPTION DOES NOT LIST DIMENSIONS AND ONLY NOTES THAT IT IS FOR INGRESS/EGRESS ACROSS WHAT IS NOW THE CHARLES AND ERNESTINE COTHRAN PROPERTY TO AND FROM THE OLD DOVER ROAD OR HIGHWAY NO. 453.

CONTIGUITY NOTE
The Leased Premises is contiguous along its common boundaries to the Access and Utility Easement, which in turn is contiguous along its common boundaries to the KY Highway 453 (Dover Road) right of way, and there are no gaps, gores, spaces or overlaps between or among any of said parcels of land.



LINE	BEARING	DISTANCE
L1	N 86°05'36" E	148.85'
L2	N 54°57'38" E	60.87'
L3	N 74°53'36" E	173.21'

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	164.36'	302.48'	31°07'58"	N 70°31'37" E	162.35'
C2	197.98'	569.08'	19°55'58"	N 64°55'37" E	196.98'

INTENT
THE INTENT OF THIS PLAT OF EASEMENT IS TO ESTABLISH AN INGRESS/EGRESS ONLY EASEMENT OUT OF THE CHARLES & ERNESTINE COTHRAN PROPERTY RECORDED IN DEED BOOK 249, PAGE 234 AS SHOWN HEREON TO SERVE THE JACK & SHIRLEY COTHRAN PROPERTY RECORDED IN DEED 237, PAGE 715 AND ALSO SHOWN ON PLAT OF CORRECTION RECORDED IN PLAT CABINET "C", SLIDE 47.

NOTARY CERTIFICATE

STATE OF Alabama
COUNTY OF Madison

I, Jermaine M. Fletcher A NOTARY PUBLIC IN AND FOR THE STATE AND COUNTY AFORESAID, DO HEREBY CERTIFY THAT THE FOREGOING PLAT OF SURVEY WAS THIS DAY PRESENTED TO ME

BY Charles Cothran TITLE Owner, KNOWN TO ME, TOGETHER WITH THE CERTIFICATE OF OWNERSHIP SHOWN HEREON, WHICH WAS EXECUTED IN MY PRESENCE AND ACKNOWLEDGE TO BE THEIR FREE ACT AND DEED.

WITNESS MY HAND AND SEAL, THIS 11th DAY OF March 2016.

NOTARY PUBLIC

10/26/2016
MY COMMISSION EXPIRES

FLOOD ZONE NOTE
According to Federal Emergency Management Agency Maps, the proposed Easement site is located in Zone "X" (areas determined to be outside the 0.2% annual chance floodplain), Community Panel No. 21139C0295C, dated 8/15/12.

No Wetlands Areas have been investigated by this Survey.

CERTIFICATE OF OWNERSHIP
I do hereby certify that I am the owner of the property shown hereon and I hereby adopt this Plat of Easement with my free will and consent.

Date: March 11, 2016
Charles A. Cothran

SURVEYOR'S STATEMENT
State of Kentucky }
County of Livingston } ss

I, Stephen C. Chino, Jr. a Kentucky Professional Land Surveyor, certify that the information shown hereon was compiled using data from an actual field survey made under my direct supervision and that the field survey and the compilation of information shown hereon were conducted in accordance with the Kentucky Standards of Practice; and that the relative positional accuracy of this survey meets or exceeds the requirements for a rural partial boundary survey as defined under Section 4(b) and Section 12 of 201 KAR 18:150 as published by the Kentucky State Board of Licensure for Professional Engineers and Land Surveyors.

Date: March 7th 2016

Stephen C. Chino
Stephen C. Chino, Jr., Kentucky Professional Surveyor No. 3861

STATE OF KENTUCKY
STEPHEN C. CHINO, JR.
3861
LICENSED PROFESSIONAL LAND SURVEYOR

PLAT NOTES
1) No visible easements or claims of easements were found through physical inspection of the property other than those shown hereon.
2) Boundary lines were established per deed and plat records in direct correlation with existing monuments and physical evidence found through inspection and may not depict actual rights of occupancy.
3) All bearings shown are correlated with Plat of Correction found in Plat Cabinet "C", slide 47.
4) Adjoining property owners and their source of titles were taken from Livingston County Court Clerk office records.
5) The survey shown hereon is a Rural Class Survey and the accuracy and precision of said survey meets all the specifications of this class.
6) Property lines were surveyed by random traverse with side shots. The unadjusted closure is 1:29,633 and is not adjusted for closure.
7) No utilities (underground or overhead) were located per this survey other than those shown hereon.

Parallel INFRASTRUCTURE

PLAT OF EASEMENT

FOR:
JACK & SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KENTUCKY 42045

PROPERTY:
KENTUCKY HIGHWAY 453
GRAND RIVERS, KENTUCKY 42045

DRAWN BY:	SURVEY DATE:	PLAT DATE:
SCC	7/15/15	12/01/15

THIS SURVEY COMPLIES WITH 201 KAR 18:150

SURVEY BY:
STEPHEN CHINO LAND SURVEYING
STEPHEN C. CHINO, JR., P.L.S.
3860 PLYMOUTH DRIVE
PADUCAH, KENTUCKY 42001
(270) 210-8926

SHEET 1 OF 2

FILE: COTHRAN 2015-008

LEGAL DESCRIPTION OF 1.01 ACRES
INGRESS/EGRESS EASEMENT
FOR JACK + SHIRLEY COTHRAN

Lying on the Westerly side of Kentucky Highway 453 and lying North of Interstate 24 in Livingston County, Kentucky and more particularly bounded and described as follows to wit:

Beginning at a 1/2 inch rebar with cap No. 3861 (found), said point being the northeasterly corner of the Jack & Shirley Cothran property recorded in Deed Book 237, Page 715 and also being the southeasterly corner of the Charles & Ernestine Cothran Trust Property recorded in Deed Book 249, Page 234, and also being S 50°11'30" W a distance of 40 feet from a point in the center line of Kentucky Highway 453 as measured perpendicularly to said highway, said center line point being approximately 895 feet as measured along said center line from its intersection with Corinth Church Road THENCE FROM SAID POINT OF BEGINNING S 74°53'38" W along the northerly line of the aforesaid Jack & Shirley Cothran property a distance of 243.18 feet to a 1/2 inch rebar with cap No. 3861 (found); thence continuing in an easterly direction with said Northerly line for the following four calls: S 56°46'38" W a distance of 277.40 feet to a 1/2 inch rebar with cap No. 3861 (found), S 86°05'38" W a distance of 250.20 feet to a 1/2 inch rebar with cap No. 3861 (found), S 87°15'38" W a distance of 301.30 feet to a 1/2 inch rebar with cap No. 3861 (found), S 72°53'38" W a distance of 412.20 feet to a 10 inch diameter oak with a nail and cap No. 3861 (found) at head height and corner to said Jack & Shirley Cothran property; thence N 06°23'55" W in a northerly direction with the line of said Cothran property and crossing an existing gravel drive, a distance of 30.53 feet to a point; thence N 72°53'38" E and slightly north of said gravel drive a distance of 410.30 feet to a point; thence continuing in an easterly direction and just north of said gravel drive for the following two calls: N 87°15'38" E a distance of 304.78 feet to a point and N 86°05'38" E a distance of 148.85 feet to a point; thence meandering along the northerly edge of said gravel drive and with a curve turning to the left with an arc length of 184.36 feet, with a radius of302.48 feet, with a chord bearing of N 70°31'37" E, with a chord length of 182.35 feet to a point,; thence N 54°57'38" E a distance of 60.87 feet to a point; thence with a curve turning to the right with an arc length of 197.98 feet, with a radius of 569.08 feet, with a chord bearing of N 64°55'37" E, with a chord length of 196.98 feet to a point,; thence N 74°53'38" E a distance of 173.21 feet to a point in the westerly right-of-way line of Kentucky Highway 453 (40 feet from the center line thereof, as measured perpendicularly),; thence S 39°48'30" E with the said westerly right-of-way line a distance of 33.02 feet to a 1/2 inch rebar with cap No. 3861 (found); which is the point of beginning, having an area of 46,533.2 square feet, 1.07 acres as shown on "Plat of Easement for Jack & Shirley Cothran" prepared by Stephen Chino Land Surveying, dated December 1st, 2015.

The above legal description was written by Stephen C. Chino, Jr., Kentucky Professional Land Surveyor, on February 20th, 2016, in conformance with 201 KAR 18:150.

Kentucky Licensed Professional Land Surveyor No. 3861

STATE OF KENTUCKY
STEPHEN C. CHINO, JR. 3861
LICENSED PROFESSIONAL LAND SURVEYOR

TITLE EXCEPTIONS

Stephen Chino Land Surveying has received and reviewed the Title Commitment prepared by Chicago Title Insurance Company, dated effective February 10, 2016 at 8:29am, and being Commitment No.15418 for the subject property, to determine the impacts of existing title exceptions.

SCHEDULE B -- SECTION II
Title No.: 15418
EXCEPTIONS

Any Policy we issue will have the following exceptions unless they are taken care of to our satisfaction.

1. The aforementioned general exceptions.

2. Taxes for the Commonwealth of Kentucky, County of Livingston, for 20 16 and subsequent years which are not yet due and payable.

3. Right-of-Way easement in favor of Texas Gas Transmission Corporation, a Delaware corporation, recorded April 22, 1948, in Deed Book 71, page 640, aforesaid clerk's office. Does not affect easement.

4. Agreement and Receipt between Texas Gas Transmission Corporation and Cleva Ingram Barnett recorded March 23, 1964, in Deed Book 95, page 257, aforesaid clerk's office. Does not affect easement.

5. Header and Valve Site Agreement in favor of Texas Gas Transmission Corporation recorded March 23,1964, in Deed Book 95, page 268, aforesaid clerk's office. Does not affect easement.

6. Agreement and Receipt between Texas Gas Transmission Corporation and Cleva Ingram Barnett recorded June 14, 1967, in Deed Book 102, page 100, aforesaid clerk's office. Does not affect easement.

7. Header and Valve Agreement in favor of Texas Gas Transmission Corporation recorded June 14, 1967, in Deed Book 102, page 102, aforesaid clerk's office. Does not affect easement.

8. Reservation of Easement for access to Dover Road or Highway 453 of record in Deed Book 232, page 490, aforesaid clerk's office. Easement description in deed is vague and identifies neither width nor location, therefore it is noted on the plat but is not shown.

STATE OF KENTUCKY COUNTY OF LIVINGSTON
I, Sonya Williams, Clerk of the County for the County and State aforesaid, certify that the foregoing instrument was on the 15 day of March 2016 at 10:41 o'clock A M., lodged for record, whereupon the same, with the foregoing, and this certificate, have been duly recorded in my office in Book C page 497.
Given under my hand the 15 day of March 2016.
SONYA WILLIAMS By _____ D.C.
Pd. Recording Fee 20.00 Deed Tax _____

Parallel INFRASTRUCTURE

PLAT OF EASEMENT

FOR: JACK & SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KENTUCKY 42045

PROPERTY:
KENTUCKY HIGHWAY 453
GRAND RIVERS, KENTUCKY 42045

DRAWN BY:	SURVEY DATE:	PLAT DATE:
SCC	7/15/15	12/01/15

THIS SURVEY COMPLIES WITH 201 KAR 18:150

SURVEY BY:
STEPHEN CHINO LAND SURVEYING
STEPHEN C. CHINO, JR., P.L.S.
3860 PLYMOUTH DRIVE
PADUCAH, KENTUCKY 42001
(270) 210-8926

SHEET 2 OF 2

FILE: COTHRAN 2015-008

EXHIBIT K
NOTIFICATION LISTING

Vulcan Materials – Notice List

Jack L. Cothran Jr. & Shirley Cothran
905 Dover Road
Grand Rivers, KY 42045

Charles Andrew Cothran & Ernestine King Cothran Management Trust
10100 Westleigh Trust
Huntsville, AL 35803

Roy L. & Neva Jo Henson
981 Dover Road
Grand Rivers, KY 42045

Bobby G. & Patricia Walker
866 Paradise Road
Grand Rivers, KY 42045

Pattis Plaza Development, Inc.
P.O. Box 111
Grand Rivers, KY 42045

Max Arnold & Sons LLC
P.O. Box 568
Hopkinsville, KY 42241-0568

Pattis Hotel Inns & Suites
P.O. Box 48
Grand Rivers, KY 42045

Pattis Hotel Inns & Suites, LLC
P.O. Box 48
Grand Rivers, KY 42045

Charles & Virginia Driskill
719 Carla Drive
Grand Rivers, KY 42045

Kentucky Dam State Park
113 Administration Drive
Gilbertsville, KY 42044

Kentucky Dam State Park
166 Upper Village Drive
Gilbertsville, KY 42044

Phyllis Kay Marshall & Stanley Marshall
2656 Gilbertsville Highway
Calvert City, KY 42029

Phyllis Marshall & Stanley Marshall
2656 Gilbertsville Highway
Calvert City, KY 42029

Western Kentucky Gas Company
"Texas Gas Transmission Corp."
3159 Gilbertsville Highway
Calvert City, KY 42029

Western Kentucky Gas Company
3159 Gilbertsville Highway
Calvert City, KY 42029

Herschel Walker
963 Dover Road
Grand Rivers, KY 42045

Roger W. & Shirley Walker
975 Dover Road
Grand Rivers, KY 42045

Jeffery & Christine Driskill
967 Dover Road
Grand Rivers, KY 42045

Herschel R. Walker
963 Dover Road
Grand Rivers, KY 42045

David W. Reed
P.O. Box 67
Gilbertsville, KY 42044

David Reed Revocable Trust
David Reed Trustee
P.O. Box 67
Gilbertsville, KY 42044

City of Grand Rivers
Grand Rivers, KY 42045

City of Grand Rivers
122 W. Cumberland Avenue
Grand Rivers, KY 42045

Vulcan Lands Inc
c/o Accounting Dept
P.O. Box 385016
Birmingham, AL 35238

David Walker
951 Dover Road – Unit C
Grand Rivers, KY 42045

Kenneth A. Walker
950 Dover Road
Grand Rivers, KY 42045

John & Donna Burns
3788 E. Fruitdale Avenue
Gilbert, AZ 85297

Ronald H. Mathis
816 Morris Drive
Grand Rivers, KY 42045

Billy Richard Green & Brenda Green
937 Corinth Church Road
Grand Rivers, KY 42045

EXHIBIT L
COPY OF PROPERTY OWNER NOTIFICATION

PIKE LEGAL

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

Notice of Proposed Construction of Wireless Communications Facility Site Name: Vulcan Materials

Dear Landowner:

PI Telecom Infrastructure V, LLC and Cellco Partnership d/b/a Verizon Wireless filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located on 751 Forrest Road in Grand Rivers, KY 42045 (37° 02' 46.21" North latitude, 88° 16' 25.36" West longitude). The proposed facility will include a 290-foot tall antenna tower, plus a 5-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

This notice is being sent to you because the Livingston County Property Valuation Administrator's records indicate that you may own property that is within a 500' radius of the proposed tower site or contiguous to the property on which the tower is to be constructed. You have a right to submit testimony to the Kentucky Public Service Commission ("PSC"), either in writing or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2016-00078 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.

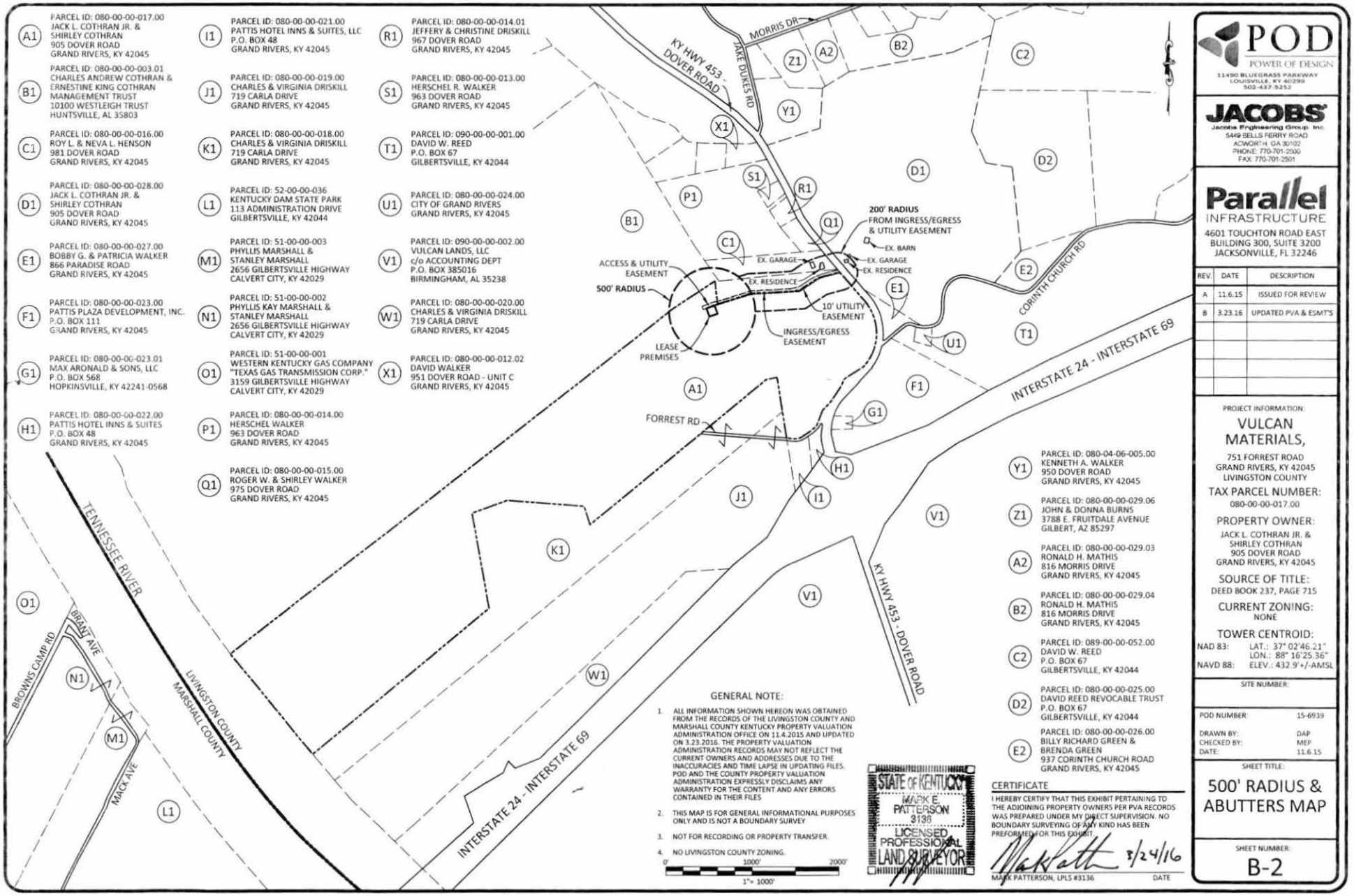
Sincerely,
David A. Pike
Attorney for Applicants

enclosure

Driving Directions to Proposed Tower Site

1. Beginning at the Livingston County Judge Executive's Office, located at 335 Court Street in Livingston, KY head south on Court Square toward State Street.
2. Continue onto KY-453 S / Iuka Rd and travel approximately 6.9 miles.
3. Turn right onto KY-453 S / Dover Rd and travel approximately 3.3 miles.
4. The site will be accessed via an existing gravel drive off of Dover Rd. The site will be located south of the access drive. The site coordinates are
    a. North 37^0 02' 46.21"
    b. West 88^0 16' 25.36"

Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293



GENERAL NOTE:

1. ALL INFORMATION SHOWN HEREON WAS OBTAINED FROM THE RECORDS OF THE LIVINGSTON COUNTY AND MARSHALL COUNTY KENTUCKY PROPERTY VALUATION ADMINISTRATION OFFICE ON 11.4.2015 AND UPDATED ON 3.23.2016. THE PROPERTY VALUATION ADMINISTRATION RECORDS MAY NOT REFLECT THE CURRENT OWNERS AND ADDRESSES DUE TO THE INACCURACIES AND TIME LAPSE IN UPDATING FILES. POD AND THE COUNTY PROPERTY VALUATION ADMINISTRATION EXPRESSLY DISCLAIMS ANY WARRANTY FOR THE CONTENT AND ANY ERRORS CONTAINED IN THEIR FILES
2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
3. NOT FOR RECORDING OR PROPERTY TRANSFER.
4. NO LIVINGSTON COUNTY ZONING.

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

CERTIFICATE

I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PREFORMED FOR THIS EXHIBIT.

3/24/16

MARK PATTERSON, LPLS #3136 DATE

POD
POWER OF DESIGN
11490 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
502-437-5252

JACOBS
Jacobs Engineering Group Inc.
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

Parallel INFRASTRUCTURE
4601 TOUCHTON ROAD EAST
BUILDING 300, SUITE 3200
JACKSONVILLE, FL 32246

REV.	DATE	DESCRIPTION
A	11.6.15	ISSUED FOR REVIEW
B	3.23.16	UPDATED PVA & ESMT'S

PROJECT INFORMATION:

VULCAN MATERIALS,

751 FORREST ROAD
GRAND RIVERS, KY 42045
LIVINGSTON COUNTY

TAX PARCEL NUMBER:
080-00-00-017.00

PROPERTY OWNER:
JACK L. COTHRAN JR. & SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045

SOURCE OF TITLE:
DEED BOOK 237, PAGE 715

CURRENT ZONING:
NONE

TOWER CENTROID:
NAD 83: LAT.: 37° 02'46.21"
LON.: 88° 16'25.36"
NAVD 88: ELEV.: 432.9'+/-AMSL

SITE NUMBER:

POD NUMBER: 15-6939
DRAWN BY: DAP
CHECKED BY: MEP
DATE: 11.6.15

SHEET TITLE:

500' RADIUS & ABUTTERS MAP

SHEET NUMBER:

B-2

EXHIBIT M
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE

PIKE LEGAL

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

VIA CERTIFIED MAIL

Hon. Chris Lasher
335 Court Street
Smithland, KY 42081

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2016-00078
Site Name: Vulcan Materials

Dear Judge Lasher:

PI Telecom Infrastructure V, LLC and Cellco Partnership d/b/a Verizon Wireless filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 751 Forrest Road, Grand Rivers, Kentucky 42045 (37° 02' 46.21" North latitude, 88° 16' 25.36" West longitude). The proposed facility will include a 290-foot tall antenna tower, plus a 5-foot lightning arrestor and related ground facilities. This facility is needed to provide improved coverage for wireless communications in the area.

You have a right to submit comments to the PSC or to request intervention in the PSC's proceedings on the application. You may contact the PSC at: Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to docket number 2016-00078 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 Applicants
enclosure

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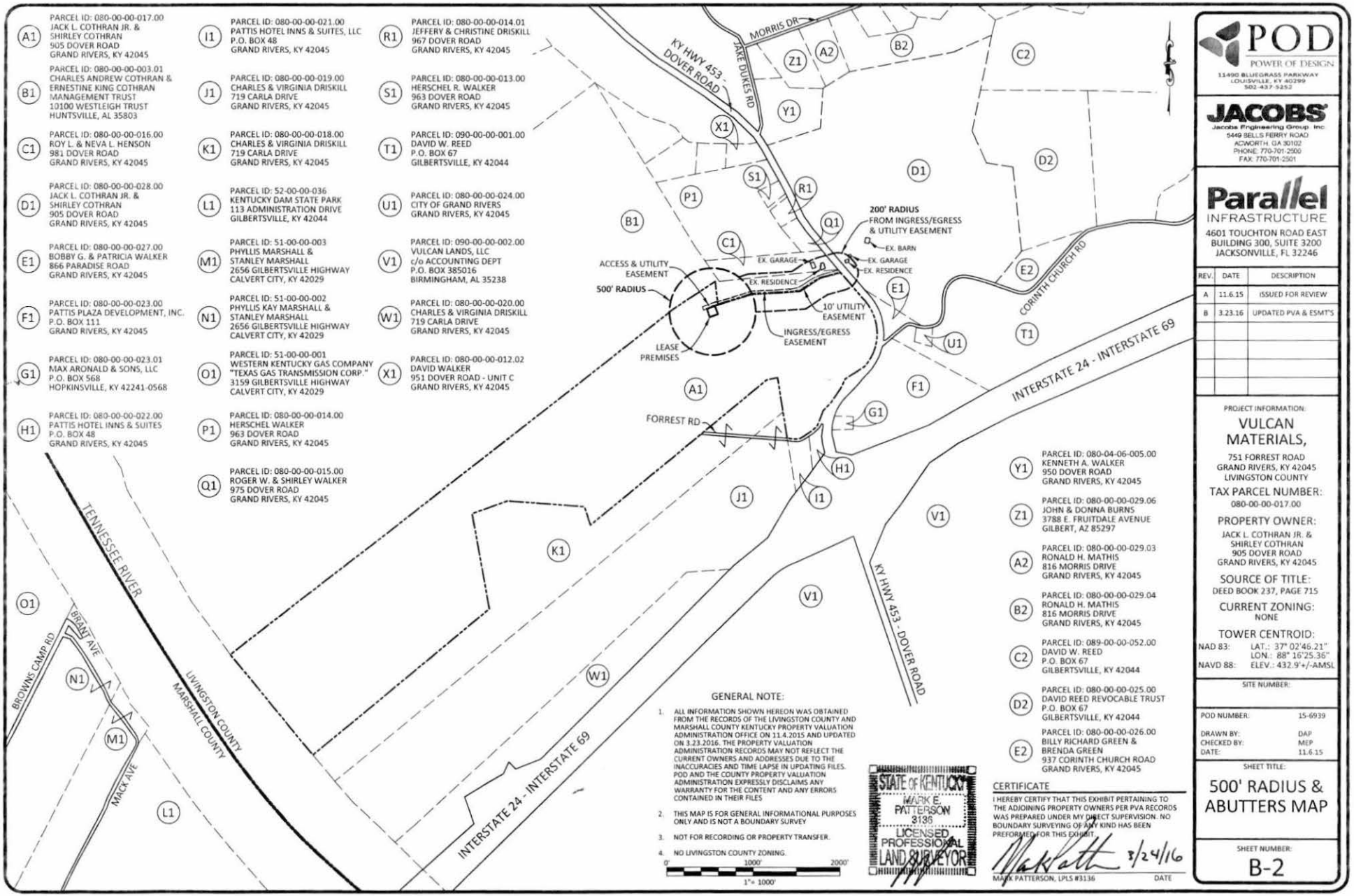
4. The site will be accessed via an existing gravel drive off of Dover Rd. The site will be located south of the access drive. The site coordinates are
    a. North 37^0 02' 46.21"
    b. West 88^0 16' 25.36"

Prepared by:
Aaron L. Roof
Pike Legal Group PLLC
1578 Highway 44 East, Suite 6
P.O. Box 369
Shepherdsville, KY 40165-3069
Telephone: 502-955-4400 or 800-516-4293



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2. THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY
3. NOT FOR RECORDING OR PROPERTY TRANSFER.
4. NO LIVINGSTON COUNTY ZONING.

0' 1000' 2000'
1"= 1000'

STATE OF KENTUCKY
MARK E. PATTERSON
3136
LICENSED PROFESSIONAL LAND SURVEYOR

CERTIFICATE

I HEREBY CERTIFY THAT THIS EXHIBIT PERTAINING TO THE ADJOINING PROPERTY OWNERS PER PVA RECORDS WAS PREPARED UNDER MY DIRECT SUPERVISION. NO BOUNDARY SURVEYING OF ANY KIND HAS BEEN PREFORMED FOR THIS EXHIBIT.

3/24/16
MARK PATTERSON, LPLS #3136 DATE

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POWER OF DESIGN
11490 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
502-437-5252

JACOBS
Jacobs Engineering Group Inc
5449 BELLS FERRY ROAD
ACWORTH, GA 30102
PHONE: 770-701-2500
FAX: 770-701-2501

Parallel INFRASTRUCTURE
4601 TOUCHTON ROAD EAST
BUILDING 300, SUITE 3200
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REV.	DATE	DESCRIPTION
A	11.6.15	ISSUED FOR REVIEW
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PROJECT INFORMATION:

VULCAN MATERIALS,

751 FORREST ROAD
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TAX PARCEL NUMBER:
080-00-00-017.00

PROPERTY OWNER:
JACK L. COTHRAN JR. & SHIRLEY COTHRAN
905 DOVER ROAD
GRAND RIVERS, KY 42045

SOURCE OF TITLE:
DEED BOOK 237, PAGE 715

CURRENT ZONING:
NONE

TOWER CENTROID:
NAD 83: LAT.: 37° 02'46.21"
LON.: 88° 16'25.36"
NAVD 88: ELEV.: 432.9'+/-AMSL

SITE NUMBER:

POD NUMBER: 15-6939
DRAWN BY: DAP
CHECKED BY: MEP
DATE: 11.6.15

SHEET TITLE:

500' RADIUS & ABUTTERS MAP

SHEET NUMBER:

B-2

EXHIBIT N
COPY OF POSTED NOTICES

SITE NAME: VULCAN MATERIALS
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.

PI Telecom Infrastructure V, LLC 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 2016-00078 in your correspondence.

PI Telecom Infrastructure V, LLC and Cellco Partnership d/b/a Verizon Wireless proposes 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 2016-00078 in your correspondence.

PIKE LEGAL

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

VIA TELEFAX: 270-442-7389

Livingston Ledger
Attn: Legal Notice Ad Department
130 E. Adair St.
Smithland, KY

RE: Legal Notice Advertisement
Site Name: Vulcan Materials

Dear Ad Department:

Please publish the following legal notice advertisement in the next edition of *The Livingston Ledger*:

NOTICE

PI Telecom Infrastructure V, LLC and Cellco Partnership d/b/a Verizon Wireless have filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 751 Forrest Road, Grand River, KY 42045 (37° 02' 46.21" North latitude, 88° 16' 25.36" 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 2016-00078 in any correspondence sent in connection with this matter.

After this advertisement have 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 O
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA

verizon wireless

EV Vulcan Materials – New Build SARF Map

EXHIBIT P
RADIO FREQUENCY REPORT

Feb 2, 2016

TO: Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

RE: Proposed Verizon Wireless Communications Facility
Site Name: EV VULCAN MATERIALS
Type of Tower: 290' Lattice
Location: 751 Forrest Road, Grand Rivers, KY 42045

To Whom It May Concern:

As a radio frequency engineer for Verizon Wireless, I am providing this letter to state the need for the Verizon Wireless site called EV VULCAN MATERIALS at the total height requested of 295'. The EV VULCAN MATERIALS wireless communications site is necessary to improve coverage and capacity in the city of Grand Rivers. The proposed site will resolve a gap in coverage around the intersection of Hwy I-69-24 & 453 (Dover Rd).

The height requested is necessary to provide continuous coverage to other existing network sites, offload for our existing network and gives Verizon Wireless the opportunity for growth on a structurally sound facility. The proposed tower would connect to four existing Verizon Wireless sites: Smithland, Grand Rivers, Calvert City and Calvert City South.

Verizon Wireless cares about the communities and prefers to collocate on existing structures and no suitable structures were available in the search area of interest. The following existing tower inside the search area was reviewed, but Verizon Wireless determined that this tower would not be adequate for its purposes:

- City of Grand Rivers – Water Tank. As per the Mayor, the tank is very old and the structure would not be able to hold antennas.

The EV VULCAN MATERIALS site will allow Verizon Wireless to provide continuous coverage in a portion of Livingston County and along portions of major roadways in its vicinity. The site will provide the quality coverage our customers expect and rely on. Customers will experience access to mobile voice and wireless data services that may have been previously unavailable, and support Homeland Security through enhanced 911 services.

This wireless communications site has been designed, and will be constructed and operated in a manner that satisfies regulations and requirements of all applicable governmental agencies that have been charged with regulating tower specifications, operation, construction, and placement, including the FAA and FCC.

RF emission readings at this site in the accessible areas would be well below the applicable limits for FCC Uncontrolled/General Population and FCC Controlled/Occupational environments as outlined in 47 CFR 1.1301 through 1.1319. The site would carry appropriate RF emission signage to the public entering the site area.

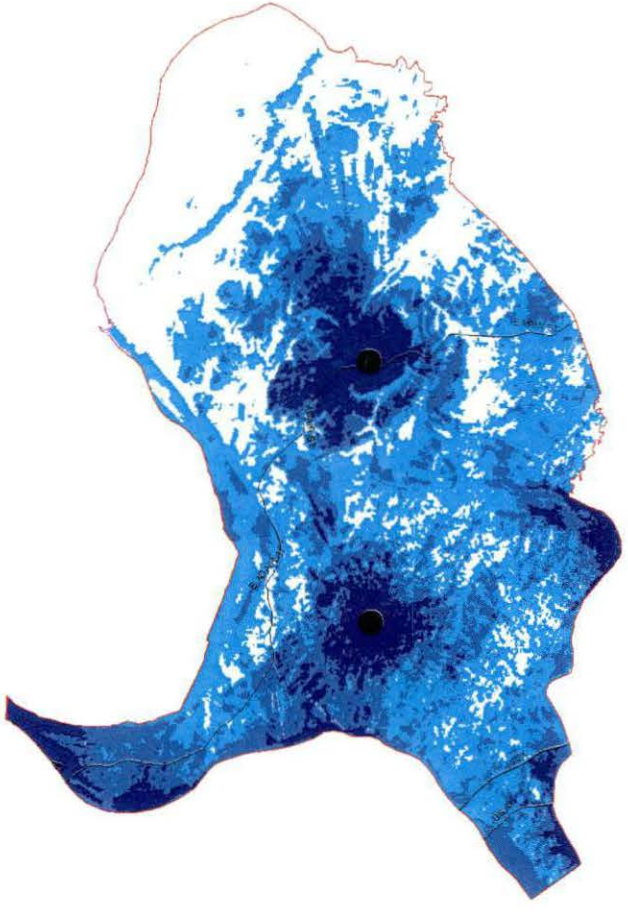
This site would transmit frequencies within the licensed frequency bands and the power limitations set by FCC regulatory authority. The site will go through a complete rigorous regulatory process before it comes on-air to provide service to our customers.

Verizon Wireless currently holds multiple FCC licenses in Livingston County in order to provide multiple forms of wireless services to its current and prospective customers.

Sincerely,

Brian P. Robbins

RF Engineer, Verizon Wireless



These coverage maps depict predicted and approximate wireless coverage. The coverage areas shown do not guarantee service availability, and may include locations with limited or no coverage. Even within a coverage area, there are many factors, including customer's equipment, terrain, proximity to buildings, foliage, and weather that may impact service. Some of the Coverage Areas include networks run by other carriers, the coverage depicted is based on their information and public sources, and we cannot ensure its accuracy.

4G LTE Core Coverage Area: Access the 4G LTE network within the Coverage Area.

4G LTE Border Coverage Area: Access the 4G LTE network within the Border Coverage Area; certain conditions may cause your service to connect to 3G in this Area.

Zoning for Livingston County

Existing Verizon Wireless Coverage

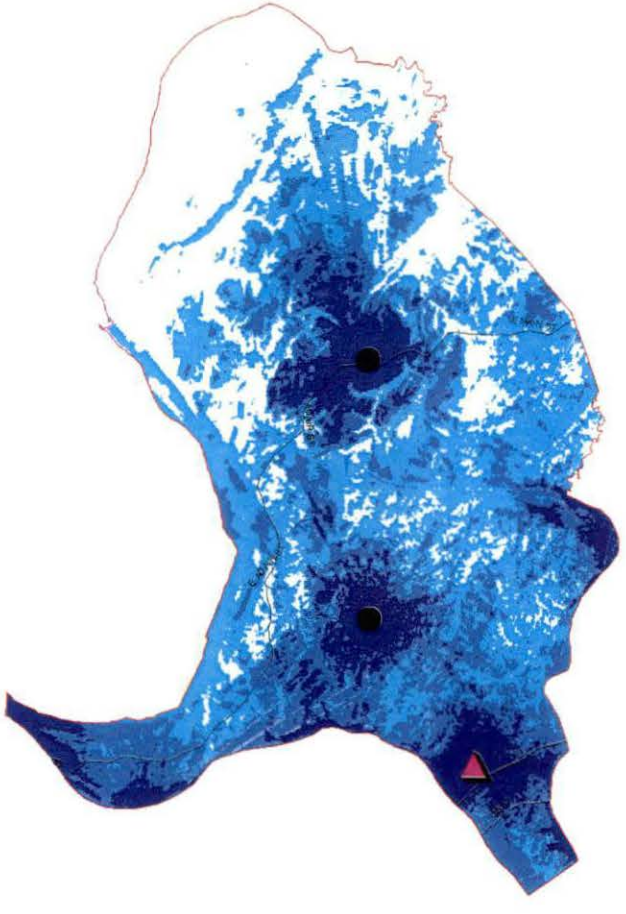
▲ Proposed Site

● On Air Site

Coverage

LTE Core Coverage

LTE Border Coverage



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4G LTE Core Coverage Area: Access the 4G LTE network within the Coverage Area.

4G LTE Border Coverage Area: Access the 4G LTE network within the Border Coverage Area; certain conditions may cause your service to connect to 3G in this Area.

Zoning for Livingston County

Proposed Verizon Wireless Coverage

▲ **Proposed Site**

● **On Air Site**

Coverage

LTE Core Coverage
LTE Border Coverage