

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 12 2016

PUBLIC SERVICE
COMMISSION

In the Matter of:

THE APPLICATION OF)
NEW CINGULAR WIRELESS PCS, LLC)
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC) CASE NO.: 2016-00076
CONVENIENCE AND NECESSITY TO CONSTRUCT)
A WIRELESS COMMUNICATIONS FACILITY)
IN THE COMMONWEALTH OF KENTUCKY)
IN THE COUNTY OF MORGAN)

SITE NAME: INDEX

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

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility ("Applicant"), 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 submits this Application requesting issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Applicant with wireless communications services.

Applicants state that the within Application is substantially similar to the Application filed by Applicants previously in Case Number 2014-00074. A Certificate of Public Convenience and Necessity was issued for Case Number 2014-00074 on

August 14, 2014. The previously proposed tower has not been constructed based upon intervening changes to Applicants' deployment schedule for the subject facility. Applicant AT&T Mobility now requires for the subject facility to be constructed presently to address an existing service need, as discussed further herein.

In support of this Application, Applicant respectfully provides and states the following information:

1. The complete name and address of the Applicant: New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility, having a local address of 601 West Chestnut Street, Louisville, Kentucky 40203.

2. Applicant proposes construction of an antenna tower for communications services, which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits 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 Authority filed with the Kentucky Secretary of State for the Applicant entity was attached to a prior application and is part of the case record for PSC case number 2011-00473 and is hereby incorporated by reference.

4. The Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable FCC requirements. A copy of the Applicant's 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.

5. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring or improve the Applicant's 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 the Applicant's communications network that is designed to meet the increasing demands for wireless services in Kentucky's wireless communications service area. The WCF is an integral link in the Applicant's network design that must be in place to provide adequate coverage to the service area.

6. To address the above-described service needs, Applicant proposes to construct a WCF at 1999 Highway 460 West, West Liberty, KY 41472 (37° 53' 33.996" North latitude, 83° 17' 14.131" 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 Sarah G. Fannin, Robin Fannin and Farrell Fannin pursuant to a Deed recorded at Deed Book 173, Page 113 in the office of the Morgan County Clerk. The proposed WCF will consist of a 255-foot tall tower, with an approximately 10-foot tall lightning arrestor attached at the top, for a total height of 265-feet. The WCF will also include concrete foundations and a shelter or cabinets to accommodate the placement of the Applicant's radio electronics equipment and appurtenant equipment. The Applicant's 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 of the Applicant has also been included as part of **Exhibit B**.

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. Applicant has considered the likely effects of the installation of the proposed WCF on nearby land uses and values and has 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 Applicant's antennas on an existing structure. When suitable towers or structures exist, Applicant attempts to co-locate on existing structures such as communications towers or other structures capable of supporting Applicant's facilities; however, no other suitable or available co-location site was found to be located in the vicinity of the site.

11. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration ("FAA") is attached as **Exhibit E**. Please note that the FAA approval documentation reflects a total structure height of 275'. This additional structure

height is based on a varying lightning arrestor height. Prior to construction, a revised FAA application will be filed reflecting a height no greater than 265' as approved by the Kentucky Airport Zoning Commission.

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

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 G**. The name and address of the geotechnical engineering firm and the professional engineer registered in the Commonwealth of Kentucky who supervised the examination of this WCF site are included as part of this exhibit.

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

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

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 Kyle Ballard, 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. Applicant has 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 J** and **Exhibit K**, respectively.

21. Applicant has notified the applicable County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC

docket number under which the application will be processed and informed the County Judge/Executive of his/her right to request intervention. A copy of this notice is attached as **Exhibit L**.

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

23. The general area where the proposed facility is to be located is on a mountaintop. No residential structures are located within a 500-foot radius of the proposed tower location.

24. The process that was used by the Applicant's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for selecting all other existing and proposed WCF facilities within the proposed network design area. Applicant's radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to handle voice and data traffic in the service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference

to these radio frequency studies was considered by the Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached as **Exhibit N**.

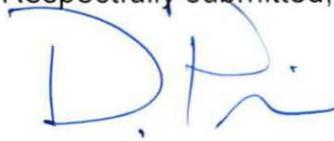
25. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

26. 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, Applicant 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 New Cingular Wireless PCS, LLC
d/b/a AT&T Mobility

LIST OF EXHIBITS

- A - FCC License Documentation
- B - Site Development Plan:
 - 500' Vicinity Map
 - Legal Descriptions
 - Flood Plain Certification
 - Site Plan
 - Vertical Tower Profile
- C - Tower and Foundation Design
- D - Competing Utilities, Corporations, or Persons List
- E - FAA
- F - Kentucky Airport Zoning Commission
- G - Geotechnical Report
- H - Directions to WCF Site
- I - Copy of Real Estate Agreement
- J - Notification Listing
- K - Copy of Property Owner Notification
- L - Copy of County Judge/Executive Notice
- M - Copy of Posted Notices
- N - Copy of Radio Frequency Design Search Area

EXHIBIT A
FCC LICENSE DOCUMENTATION

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGD755 - New Cingular Wireless PCS, LLC

Call Sign	WQGD755	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Market			
Market	BEA047 - Lexington, KY-TN-VA-WV	Channel Block	C
Submarket	0	Associated Frequencies (MHz)	001730.00000000- 001735.00000000- 002130.00000000- 002135.00000000

Dates

Grant	12/18/2006	Expiration	12/18/2021
Effective	12/05/2014	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

Licensee

FRN	0003291192	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

New Cingular Wireless PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood	P:(855)699-7073 F:(972)907-1131 E:FCCMW@att.com
--	---

Contact

AT&T Mobility LLC 1120 20th Street, NW - Suite 1000 Washington, DC 20036 ATTN Michael P. Goggin	P:(202)457-2055 F:(202)457-3073 E:michael.p.goggin@att.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

ULS License

PCS Broadband License - WPOI255 - NEW CINGULAR WIRELESS PCS, LLC

Call Sign	WPOI255	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

Market

Market	MTA026 - Louisville-Lexington-Evansvill	Channel Block	A
Submarket	19	Associated Frequencies (MHz)	001850.00000000-001865.00000000-001930.00000000-001945.00000000

Dates

Grant	05/27/2015	Expiration	06/23/2025
Effective	05/27/2015	Cancellation	

Buildout Deadlines

1st	06/23/2000	2nd	06/23/2005
-----	------------	-----	------------

Notification Dates

1st	07/07/2000	2nd	02/17/2005
-----	------------	-----	------------

Licensee

FRN	0003291192	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

NEW CINGULAR WIRELESS PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood	P:(855)699-7073 F:(972)907-1131 E:FCCMW@att.com
--	---

Contact

AT&T MOBILITY LLC Michael P Goggin 1120 20th Street, NW - Suite 1000 Washington, DC 20036 ATTN Michael P. Goggin	P:(202)457-2055 F:(202)457-3073 E:michael.p.goggin@att.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

ULS License

AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGA822 - New Cingular Wireless PCS, LLC

Call Sign	WQGA822	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Market			
Market	CMA451 - Kentucky 9 - Elliott	Channel Block	A
Submarket	0	Associated Frequencies (MHz)	001710.00000000- 001720.00000000- 002110.00000000- 002120.00000000

Dates

Grant	11/29/2006	Expiration	11/29/2021
Effective	02/12/2014	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

Licensee

FRN	0003291192	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

New Cingular Wireless PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood	P:(855)699-7073 F:(972)907-1131 E:FCCMW@att.com
--	---

Contact

AT&T Mobility LLC Michael P Goggin 1120 20th Street, NW - Suite 1000 Washington, DC 20036 ATTN Michael P. Goggin	P:(202)457-2055 F:(202)457-3073 E:michael.p.goggin@att.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

ULS License

Cellular License - KNKN861 - NEW CINGULAR WIRELESS PCS, LLC

Call Sign	KNKN861	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

Market

Market	CMA451 - Kentucky 9 - Elliott	Channel Block	A
Submarket	0	Phase	2

Dates

Grant	08/30/2011	Expiration	10/01/2021
Effective	06/09/2014	Cancellation	

Five Year Buildout Date

02/04/1997

Control Points

- 1 1650 Lyndon Farms Court, LOUISVILLE, KY
P: (502)329-4700
- 2 707 CONCORD ROAD, KNOXVILLE, TN

Licensee

FRN	0003291192	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

NEW CINGULAR WIRELESS PCS, LLC 3300 E. Renner Road, B3132 Richardson, TX 75082 ATTN Reginald Youngblood	P:(855)699-7073 F:(972)907-1131 E:FCCMW@att.com
--	---

Contact

AT&T MOBILITY LLC Michael P Goggin 1120 20th Street, NW - Suite 1000 Washington, DC 20036 ATTN Michael P. Goggin	P:(202)457-2055 F:(202)457-3073 E:michael.p.goggin@att.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

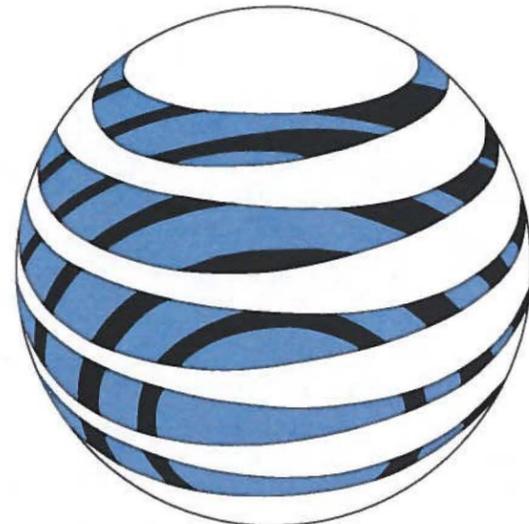
Ethnicity

Gender

EXHIBIT B

SITE DEVELOPMENT PLAN:

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



at&t

INDEX

SITE ID: KYALU6170

1999 HWY 460 WEST
MORGAN COUNTY
WEST LIBERTY, KENTUCKY 41472

PROPOSED 255' SELF-SUPPORT
WITH MULTIPLE EQUIPMENT LOCATIONS

SCOPE OF WORK:

CONSTRUCTION DRAWINGS FOR:
CONSTRUCTION OF A NEW UNMANNED TELECOMMUNICATIONS FACILITY.

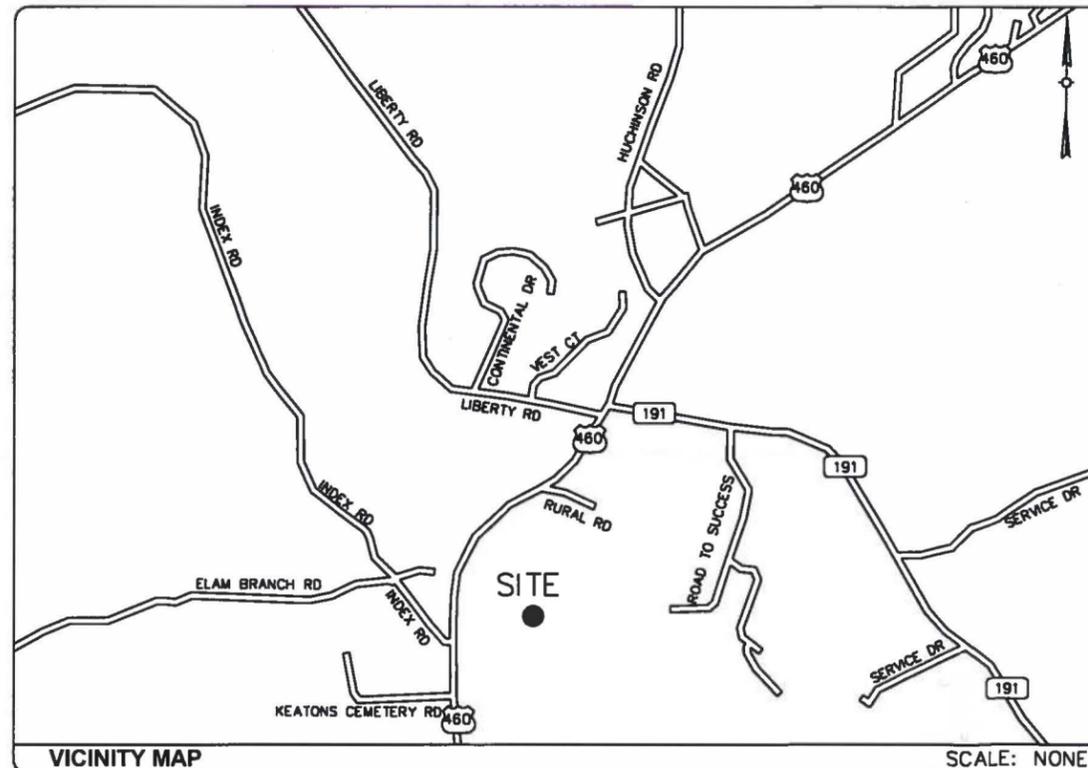
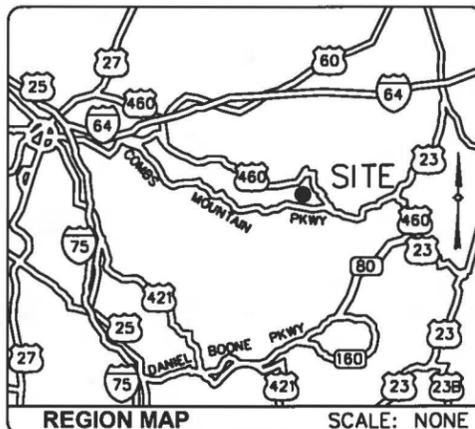
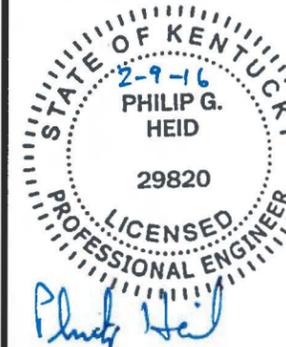
SITE WORK: NEW SELF-SUPPORT TOWER, UNMANNED EQUIPMENT SHELTER AND GENERATOR ON A CONCRETE FOUNDATION, AND UTILITY INSTALLATIONS.

UTILITY PROTECTION NOTE

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE UTILITY PROTECTION CENTER, WHICH WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. ALL NEW SERVICE AND GROUNDING TRENCHES PROVIDE A WARNING TAPE @ 12 INCHES ABOVE THE UNDERGROUND INSTALLATION (SEE NEC 300.5).

Mastec

BTM Engineering, Inc.
CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,
PLANNERS & SURVEYORS
3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427



BTM Engineering, Inc.
Consulting Engineers, Landscape Architects, Planners & Surveyors
"Serving the Bluegrass and Beyond"
3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220 (502) 459-8402 PHONE (502) 459-8427 FAX
DESIGN ENGINEER

BTM Engineering, Inc.
3001 TAYLOR SPRINGS DRIVE
LOUISVILLE, KENTUCKY 40220
(502) 459-8402 PHONE
(502) 459-8427 FAX
SURVEYOR

DIRECTIONS FROM COUNTY SEAT: FROM WEST LIBERTY AT THE CORNER OF US 460 (MAIN ST) AND US 460/SR 7 (PRESTONSBURG AVE), PROCEED SOUTH ON US 460 (MAIN ST) APRX 2.5 MILES TO ACCESS RD AND TURN LEFT. FOLLOW ACCESS RD TO SITE APRX .30 MILES ON THE RIGHT.

DIRECTIONS FROM WINCHESTER AT&T MTSO: STARTING AT 3800 CORPORATE DR WINCHESTER, KY, PROCEED TO THE COMBS MOUNTAIN PKWY FOR APRX 56.5 MILES TO EXIT 57 (SR 191/205) AND TURN LEFT. PROCEED ON SR 191/205 APRX 9.0 MILES TO US 460 AND TURN RIGHT. CONTINUE ON US 460 APRX 2.20 MILES TO ACCESS RD AND TURN RIGHT. FOLLOW ACCESS RD TO SITE APRX .30 MILES ON THE RIGHT.

DIRECTIONS TO SITE

AT&T _____
MASTEC _____ CONSTRUCTION MANAGER
MASTEC _____ SITE ACQUISITION
SIGNATURE BOX

SITE NAME
INDEX
SITE ID NUMBER
KYALU6170
SITE ADDRESS
1999 HWY 460 WEST
WEST LIBERTY, KY 41472
1A COORDINATES
LAT: 37° 53' 33.998"
LONG: 83° 17' 14.131"
ELEV: ±1029' AMSL (NAVD 88)
PROPERTY OWNER
SARAH G. ROBIN & FARRELL FANNIN
2140 HWY 460 W
WEST LIBERTY, KY 41472
PHONE: (606) 743-3343

APPLICANT
AT&T
601 W. CHESTNUT ST. 1 EAST
LOUISVILLE, KENTUCKY 40203
CONTACT: MICHELLE WARD
PHONE: (502) 779-5950
TAX MAP NUMBER
N/A
PARCEL NUMBER
089-00-00-017.00
SOURCE OF TITLE
DEED BOOK 173, PAGE 113
LEASE AREA
4,000 SF
PROJECT INFORMATION

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
C-1	500' RADIUS VICINITY MAP
C-1A	500' RADIUS VICINITY MAP
C-2	COMMUNICATIONS SITE SURVEY
C-2A	COMMUNICATIONS SITE SURVEY
Z-2	OVERALL SITE PLAN
Z-2A	OVERALL SITE PLAN (DIMENSIONS)
Z-3	SITE LAYOUT
Z-4	AT&T SHELTER LAYOUT
Z-5	NORTH/SOUTH TOWER ELEVATIONS
Z-6	EAST/WEST TOWER ELEVATIONS

SHEET INDEX

POLICE DEPARTMENT
MORGAN CO SHERIFF
PHONE: (606) 743-9935
FIRE DEPARTMENT
WHITE OAK VOL FD
PHONE: (606) 743-5200
ELECTRIC COMPANY
LICKING RIVER RECC
CONTACT: CUSTOMER SERVICE
PHONE: (606) 743-3179
TELEPHONE COMPANY
MOUNTAIN TELEPHONE COMPANY
CONTACT: CUSTOMER SERVICE
PHONE: (606) 743-3121
CONTACT INFORMATION

SITE NAME: INDEX
SITE NUMBER: KYALU6170
SITE ADDRESS: 1999 HWY 460 WEST
WEST LIBERTY, KY 41472
AREA: 4,000 SF
PROPERTY OWNER: SARAH, ROBIN, AND FARRELL FANNIN
2140 HWY 460 W
WEST LIBERTY, KY 41472
TAX MAP #: N/A **PARCEL NUMBER:** 089-00-00-017.00
SOURCE OF TITLE: DEED BOOK 173 PAGE 113
LATITUDE: N 37° 53' 33.998" **LONGITUDE:** W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE		PH	PH
			1	2		
1	LMD	ISSUE FOR COMMENT	01/26/16			
2	LMD	ISSUE FOR ZONING	02/09/16			

TITLE: TITLE SHEET
SHEET: T-1



THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY

GENERAL NOTE:

All information shown hereon was obtained from records of the Morgan County, Kentucky, Property Valuation Administration Office on 2/03/2016. The Property Valuation Administration records may not reflect the current owners and address due to the inaccuracies and time lapse in updating files. The Morgan County Property Valuation Administration expressly disclaims any warranty for the content and any errors contained in their files.

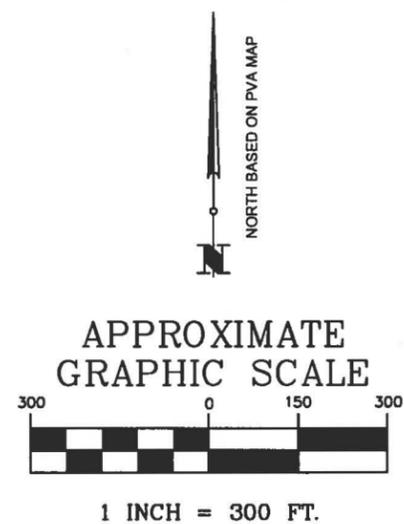
Mastec

BTM Engineering, Inc.
 CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,
 PLANNERS & SURVEYORS
 3001 TAYLOR SPRINGS DRIVE
 LOUISVILLE, KENTUCKY 40220
 PHONE: (502) 459-8402
 FAX: (502) 459-8427

STATE of KENTUCKY
 GEORGE BRIAN WYATT
 2328
 LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME: INDEX
 SITE NUMBER: KYALU6170
 SITE ADDRESS: 1999 HWY 460 WEST
 WEST LIBERTY, KY 41472
 AREA: 4,000 SF
 PROPERTY OWNER: SARAH, ROBIN, AND FARRELL FANNIN
 2140 HWY 460 W
 WEST LIBERTY, KY 41472
 TAX MAP #: N/A PARCEL NUMBER: 089-00-00-017.00
 SOURCE OF TITLE: DEED BOOK 173 PAGE 113
 LATITUDE: N 37° 53' 33.996" LONGITUDE: W 83° 17' 14.131"

REVISIONS		CHK	DATE	PH	PH	PH
NO.	BY DESCRIPTION					
1	BW UPDATE PVA DATA		01/13/16	PH		
2	BW UPDATE PVA DATA		02/03/16	PH		
3	BW UPDATE ADDRESSES		02/09/16	PH		



TITLE: 500' RADIUS VICINITY MAP

SHEET: C-1

① PARCEL NUMBER: 089-00-00-017.00
Sarah G., Robin & Farrell Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472

② PARCEL NUMBER: 089-00-00-017.01
Appalachian Wireless East KY Network
101 Technology Trail
Ivel, Kentucky 41642

③ PARCEL NUMBER: 089-00-00-025.00
Samuel Long
P.O. Box 456
West Liberty, Kentucky 41472

④ PARCEL NUMBER: 089-00-00-021.00
Alex Goodpaster & Hillary Murray
c/o Allan Goodpaster
P.O. Box 503
West Liberty, Kentucky 41472

⑤ PARCEL NUMBER: 089-00-00-016.01
Sarah & Robin Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472

⑥ PARCEL NUMBER: 089-00-00-019.00
William G. Holbrook DVM
P.O. Box 66
West Liberty, Kentucky 41472

⑦ PARCEL NUMBER: 089-00-00-016.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472

⑦A PARCEL NUMBER: 089-00-00-014.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472

⑧ PARCEL NUMBER: 089-00-00-015.00
David Stacy
2144 Highway 460 W
West Liberty, Kentucky 41472

⑨ PARCEL NUMBER: 089-00-00-009.00
Betty Lou Elam & Linda Blackburn
309 Larkwood Drive
Lexington, Kentucky 40509

⑩ PARCEL NUMBER: 089-00-00-008.00
Woodford B. Gevedon & Mary Beth Popplewell
173 Index Road
West Liberty, Kentucky 41472

and

Fairanna Nickell
173 Index Road
West Liberty, Kentucky 41472

⑪ PARCEL NUMBER: 089-00-00-007.00
Caney Farms c/o Buford Sherman
12094 Highway 437
West Liberty, Kentucky 41472

⑫ PARCEL NUMBER: 089-00-00-024.00
David Earl & Susan May
1042 Liberty Road
West Liberty, Kentucky 41472

⑬ PARCEL NUMBER: 089-00-00-024.01
K & M Rentals
P.O. Box 273
West Liberty, Kentucky 41472

⑬A PARCEL NUMBER: 089-03-00-002.00
K & M Rentals (Tim Keller & John Motley)
P.O. Box 273
West Liberty, Kentucky 41472

⑭ PARCEL NUMBER: 089-03-00-011.00
Mt. Holiness Kentucky
Box 2
VanCleave, Kentucky 41385

and

Ky, Mt. Holiness
c/o Index Community Church
1749 W. Main St.
West Liberty, KY 41472

⑮ PARCEL NUMBER: 089-03-00-012.00
Anthony Frederick
2919 Highway 1000
West Liberty, Kentucky 41472

⑯ PARCEL NUMBER: 089-03-00-013.00
No online PVA data found for this parcel

THIS MAP IS FOR GENERAL
INFORMATIONAL PURPOSES ONLY
AND IS NOT A BOUNDARY SURVEY

GENERAL NOTE:

All information shown hereon was obtained from records of the Morgan County, Kentucky, Property Valuation Administration Office on 2/03/2016. The Property Valuation Administration records may not reflect the current owners and address due to the inaccuracies and time lapse in updating files. The Morgan County Property Valuation Administration expressly disclaims any warranty for the content and any errors contained in their files.



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



STATE of KENTUCKY
GEORGE BRIAN
WYATT
2328
LICENSED
PROFESSIONAL
LAND SURVEYOR

SITE NAME: INDEX

SITE NUMBER: KYALU6170

SITE ADDRESS: 1999 HWY 460 WEST
WEST LIBERTY, KY 41472

AREA: 4,000 SF

PROPERTY OWNER:
SARAH, ROBIN, AND FARRELL FANNIN
2140 HWY 460 W
WEST LIBERTY, KY 41472

TAX MAP #: N/A PARCEL NUMBER:
089-00-00-017.00

SOURCE OF TITLE:
DEED BOOK 173 PAGE 113

LATITUDE: N 37° 53' 33.996" LONGITUDE:
W 83° 17' 14.131"

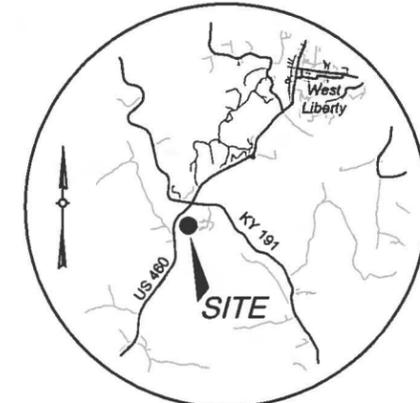
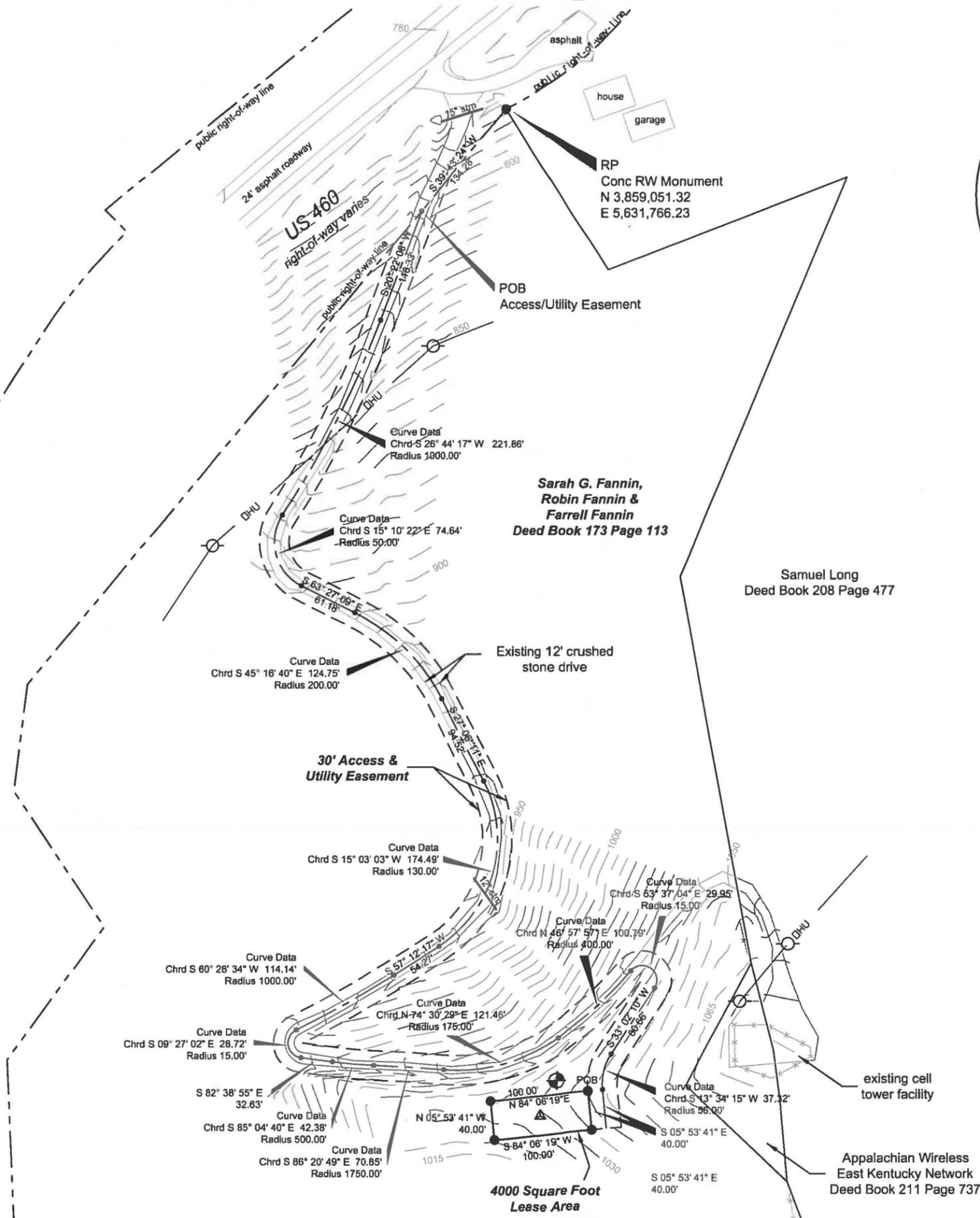
NO.	BY	DESCRIPTION	DATE	CHK	PH		
					01/13/16	02/03/16	02/09/16
1	BW	UPDATE PVA DATA	01/13/16				
2	BW	UPDATE PVA DATA	02/03/16				
3	BW	UPDATE ADDRESSES	02/09/16				

TITLE:
500' RADIUS
VICINITY MAP

SHEET:
C-1A

LEGEND

- LEASE AREA LINE
- - - - ACCESS EASEMENT LINE
- PROPERTY LINE
- OHU ——— OVERHEAD UTILITIES
- UTILITY POLE
- SET #5 REBAR WITH CAP STAMPED "G. BRIAN WYATT PLS #2328" UNLESS OTHERWISE NOTED
- RP REFERENCE POINT
- POB POINT OF BEGINNING



LOCATION MAP
West Liberty, Morgan County, Kentucky

NOTE
THE PROPOSED TOWER CENTERLINE, DENOTED BY THIS SYMBOL IS LOCATED AS FOLLOWS:

NAD 1983
 LATITUDE: 37°53' 33.996"N
 LONGITUDE: 83°17' 14.131"W
 ELEVATION: 1029.0 (NAVD 88)
 STATE PLANE COORDINATE
 NORTHING: 3,858,025.838
 EASTING: 5,631,804.637

BENCHMARK
 NORTH: 3,858,061.82
 EAST: 5,631,820.81
 ELEVATION: 1030.42 (NAVD 88)
 LOCATION: Iron Pin w/Cap

NOTE
This communications site survey is subject to all existing easements, restrictions, exceptions, servitudes, rights of way and prior leases whether shown hereon or not. A title report may reveal easements or other defects whether shown hereon or not.

FLOOD PLAIN CERTIFICATION
According to Flood Insurance Rate Map (FIRM) Map No. 21175C0170C, dated August 19, 2008, the Lease Area is situated in Zone X and does not appear to be in a flood hazard area.

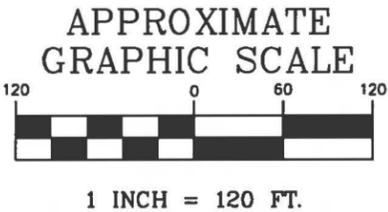
LAND SURVEYORS CERTIFICATE
I hereby certify that this Communications Site Survey was made under my supervision, and that the angular and linear measurements as witnessed by monuments shown hereon are true and correct to the best of my knowledge and belief. This plat does not represent a boundary survey and is not intended for land transfer.

GEORGE BRIAN WYATT, PLS 2328 February 3, 2016
 _____ DATE

OWNER APPROVAL: DATE

OWNER APPROVAL: DATE

CLIENT APPROVAL: DATE



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STATE of KENTUCKY
 GEORGE BRIAN WYATT
 2328
 LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME:	INDEX
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AREA:	4,000 SF
PROPERTY OWNER:	SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
TAX MAP #:	N/A
PARCEL NUMBER:	089-00-00-017.00
SOURCE OF TITLE:	DEED BOOK 173 PAGE 113
LATITUDE:	N 37° 53' 33.996"
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NO.	BY	DESCRIPTION	REVISIONS		
			DATE	CHK	PH
1	BW	UPDATE PVA DATA	01/13/16	PH	
2	BW	UPDATE PVA DATA	02/03/16	PH	
3	BW	UPDATE ADDRESSES	02/09/16	PH	

TITLE:
COMMUNICATIONS SITE SURVEY

SHEET:
C-2

LEGAL DESCRIPTIONS

These are the descriptions of a Lease Area for telecommunications equipment, and an Access/Utility easement, located entirely on the tract of land conveyed to Sarah G. Fannin, Robln Fannin, and Farrell Fannin by deed of record in Deed Book 173 at Page 113 in the Office of the County Clerk of Morgan County, Kentucky and further described as follows:

DESCRIPTION OF GRANTOR'S TRACT

As recorded in Deed Book 173 at page 113, in the Office of the County Clerk of Morgan County, Kentucky.

Beginning at the mouth of Little Caney creek; thence up Little Caney creek with its meanders to the line and land of Bill Elam (formerly Kola Noble); thence with the line of Bill Elam to the line of Kola Noble; thence with Kola Noble's line to the line of J.T. Thomas' thence with J.T. Thomas' line to the Lewis Henry line; thence with Lewis Henry's line around to Big Caney Creek just above the ford opposite Isaac Henry's (now Henry's Heirs) line; thence down Big Caney creek with its meanders to the place of beginning, containing 40 acres, more or less, and to contain and include all of the land in the above described boundary with the exception of two lots that have been previously deeded to S.S. Oldfield and wife, of Index, Kentucky.

There is excepted from the foregoing described tract of land a tract of land heretofore conveyed by Stella D. Fannin and others to L. Clifford Long and Aleene F. Long, by deed dated October 19, 1956, and recorded in Deed Book 93, Page 204, Morgan County Court Clerk's records, and reference is hereby made to said deed of conveyance for a more particular description of the portion of land excepted from the above described tract.

LESS AND EXCEPT Deed of Conveyance dated February 27, 2007, from Sarah Fannin-Holliday and Noah Shane Holliday, Robin L. Fannin, Erma Fannin, and Grover Farrell Fannin, as Grantor to East Kentucky Network, LLC, d/b/a Appalachian Wireless, as Grantee, recorded in Volume 211, Page 737 of the Official Public Records of Morgan County, Kentucky.

DESCRIPTION OF LEASE AREA FOR TELECOMMUNICATIONS EQUIPMENT

NOTE: All bearings and distances are based on grid north Kentucky State Plane Coordinate System Single Zone NAD 1983

A Lease Area for telecommunications equipment, described as follows:

Beginning at a point in the Grantor's tract, as recorded in Deed Book 173 at Page 113 in the Morgan County Court Clerk's Office, said point being a set iron pin with cap stamped G. Brian Wyatt PLS 2328, having NAD 83 Single Zone coordinates of: North 3,858,050.87 and East 5,631,849.82; thence South 05 degrees 53 minutes 41 seconds East, a distance of 40.00 feet to a set iron pin; thence South 84 degrees 06 minutes 19 seconds West, a distance of 100.00 feet to a set iron pin; thence North 05 degrees 53 minutes 41 seconds West, a distance of 40.00 feet to a set iron pin; thence North 84 degrees 06 seconds 19 seconds East, a distance of 100.00 feet to the point of beginning containing 4000 square feet, or 0.092 acres.

DESCRIPTION OF ACCESS/UTILITY EASEMENT

NOTE: All bearings and distances are based on grid north Kentucky State Plane Coordinate System Single Zone NAD 1983

The right to use for Access and Utilities, to the above-described Telecommunications Lease Area, an easement, the centerline of which is described as follows:

Beginning, for reference, at a point in the Grantor's northerly property line, as recorded in Deed Book 173 at Page 113 in the Morgan County Court Clerk's Office, said point being the northwesterly corner of the Samuel Long tract, as recorded in Deed Book 208 at Page 477 in the aforesaid Clerk's office, and further being a found concrete right-of-way marker located in the southeasterly line of Highway 460, having NAD 83 Single Zone coordinates of: North 3,859,051.32 and East 5,631,766.23; thence running with the aforesaid line of US 460, South 39 degrees 43 minutes 24 seconds West, a distance of 134.28 feet to the TRUE POINT OF BEGINNING in the centerline of the 30-foot wide Access/Utility Easement herein described; thence on, over and across lands of the grantor for the following nineteen (19) calls: 1) South 20 degrees 22 minutes 08 seconds West, a distance of 118.33 feet to a point; 2) with a curve to the right of radius 1000.00 feet, the chord of which bears South 26 degrees 44 minutes 17 seconds West, a distance of 221.86 feet to a point; 3) with a curve to the left of radius 50.00 feet, the chord of which bears South 15 degrees 10 minutes 22 seconds East, a distance of 74.64 feet to a point; 4) South 63 degrees 27 minutes 09 seconds East, a distance of 61.18 feet to a point; 5) with a curve to the right of radius 200.00 feet, the chord of which bears South 45 degrees 16 minutes 40 seconds East, a distance of 124.75 feet to a point; 6) South 27 degrees 06 minutes 11 seconds East, a distance of 94.52 feet to a point; 7) with a curve to the right of radius 130.00 feet, the chord of which bears South 15 degrees 03 minutes 03 seconds West, a distance of 174.49 feet; 8) South 57 degrees 12 minutes 17 seconds West, a distance of 54.27 feet to a point; 9) with a curve to the right of radius 1000.00 feet, the chord of which bears South 60 degrees 28 minutes 34 seconds West, a distance of 114.14 feet to a point; 10) with a curve to the left of radius 15.00 feet, the chord of which bears South 09 degrees 27 minutes 02 seconds East, a distance of 28.72 feet; 11) South 82 degrees 38 minutes 55 seconds East, a distance of 32.63 feet to a point; 12) with a curve to the left of radius 500.00 feet, the chord of which bears South 85 degrees 04 minutes 40 seconds, a distance of 42.38 feet to a point; 13) with a curve to the right of radius 1750.00 feet, the chord of which bears South 86 degrees 20 minutes 49 seconds East, a distance of 70.85 feet to a point; 14) with a curve to the left of radius 175.00 feet, the chord of which bears North 74 degrees 30 minutes 29 seconds East, a distance of 121.46 feet to a point; 15) with a curve to the left of radius 400.00 feet, the chord of which bears North 46 degrees 57 minutes 57 seconds East, a distance of 100.79 feet to a point; 16) with a curve to the right of radius 15.00 feet, the chord of which bears South 53 degrees 37 minutes 04 seconds East, a distance of 29.95 feet to a point; 17) South 33 degrees 02 minutes 10 seconds West, a distance of 80.66 feet to a point; 18) with a curve to the left of radius 56.00 feet, the chord of which bears South 13 degrees 34 minutes 15 seconds West, a distance of 37.32 feet to a point; 19) South 05 degrees 53 minutes 41 seconds East, a distance of 40.00 feet to a point.

TITLE COMMITMENT

Schedule B - Section II

Item 1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the Effective Date but prior to the date the proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by the Commitment. **BTM Engineering, Inc did not examine or address this item.**

Item 2. Facts which would be disclosed by an accurate and comprehensive survey of the premises herein described. **The land title lines shown hereon represent those called for in Item 2**

Item 3. Rights or claims of parties in possession. **BTM Engineering, Inc did not examine or address these items.**

Item 4. Construction, mechanic's, contractors' or materialmen's lien claims, if any, where no notice thereof appears of record. **BTM Engineering, Inc did not examine or address this item.**

Item 5. Easements or claims of easements not shown by the public records. **BTM Engineering, Inc did not examine or address this item.**

Item 6. Any adverse ownership claim by the state of KY by right of sovereignty to any portion of the lands insured hereunder, including submerged, filled and artificially exposed lands and lands accredited to such lands. **BTM Engineering, Inc did not examine or address this item.**

Item 7. State road right reservation(s), if any. **BTM Engineering, Inc did not examine or address this item.**

Item 8. Oil, gas and mineral right reservations, if any. **BTM Engineering, Inc did not examine or address this item.**

Item 9. Any lien arising, in favor of any city, town, village or port authority for unpaid service charges for service by any water system, sewer system or gas system servicing the lands described herein. **BTM Engineering, Inc did not examine or address this item.**

Item 10. Lands lie within various county special assessment districts and municipal taxing districts and are subject to liens for any unpaid special assessments by virtue of the ordinances and resolutions creating these districts. The special assessments are payable with the ad valorem taxes. **BTM Engineering, Inc did not examine or address this item.**

Item 11. Covenants, conditions, restrictions, easements and reservations or leases of minerals or mineral rights, if any, appearing of public record. This policy insures that the use of the land for residential one to four family dwelling purposes is not affected or impaired by reason of the aforementioned matters. **BTM Engineering, Inc did not examine or address this item.**

Item 12. Subject to Memorandum of Lease between Sarah George Fannin, unmarried, Robin Fannin, unmarried, Erma Fannin, unmarried, Farrell Fannin, unmarried and Kelly Kristen Fannin Koenig and Chris Koenig, husband and wife and New Cingular Wireless PCS, LLC, a Delaware limited liability company dated October 15, 2010 and filed on January 24, 2014 in (book) 55, (page) 155, of the official property records of Morgan County, Kentucky. **Affects the subject property, and is shown hereon as 4000 SF Lease Area and 30' Access & Utility Easement.**

Item 13. Subject to Articles of Merger between East Kentucky Network, LLC and Mountaineer Cellular, LLC and Appalachian Cellular, LLC dated December 15, 1999 and filed on March 7, 2000 in (book) A15, (page) 11, of the official property records of Morgan County, Kentucky. **Affects the subject property, but not the 4000 SF Lease Area, and is shown hereon.**

Item 14. Subject to Order Appointing Fiduciary dated May 16, 1995 and filed on May 16, 1995 in (book) IUB7, (page) 773, of the official property records of Morgan County, Kentucky. **BTM Engineering, Inc did not examine or address this item.**



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1000 W. LITTLE KENTUCKY DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427



SITE NAME: INDEX	
SITE NUMBER: KYALU6170	
SITE ADDRESS: 1999 HWY 460 WEST WEST LIBERTY, KY 41472	
AREA: 4,000 SF	
PROPERTY OWNER: SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472	
TAX MAP #: N/A	PARCEL NUMBER: 089-00-00-017.00
SOURCE OF TITLE: DEED BOOK 173 PAGE 113	
LATITUDE: N 37° 53' 33.996"	LONGITUDE: W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE	CHK	PH	REVISIONS	
						PH	PH
1	BW	UPDATE PVA DATA	01/13/16				
2	BW	UPDATE PVA DATA	02/03/16				
3	BW	UPDATE ADDRESSES	02/09/16				

TITLE: COMMUNICATIONS SITE SURVEY

SHEET: C-2A

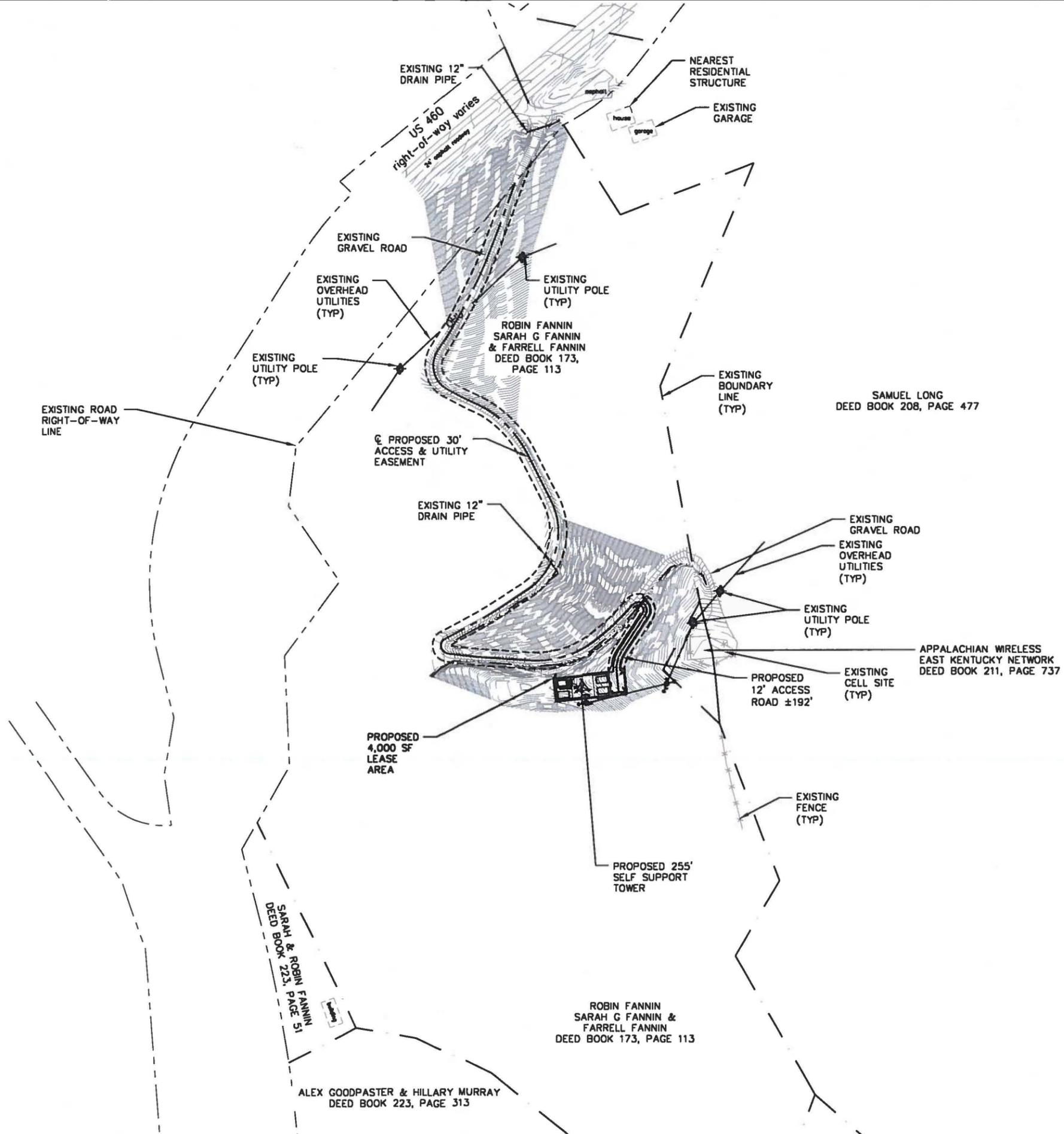
SITE PLAN NOTES

1. THE PROPOSED DEVELOPMENT IS FOR A 255 FOOT SELF-SUPPORT TOWER AND MULTIPLE EQUIPMENT LOCATIONS. THE LOCATION IS 1999 HIGHWAY 460 WEST, WEST LIBERTY, KY 41472.
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6. LOCATE ALL U.G. UTILITIES PRIOR TO ANY CONSTRUCTION.
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- UGE — EXISTING UNDERGROUND ELECTRIC
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- x - x - FENCE LINE
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- ⊙ TELE PED TELEPHONE PEDESTAL
- ⊙ WATER VALVES
- ⊙ FIRE HYDRANTS
- ⊙ BOLLARDS
- ⊙ GAS VALVES

GRAPHIC SCALE



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STATE OF KENTUCKY
 2-9-16
 PHILIP G. HEID
 29820
 LICENSED PROFESSIONAL ENGINEER

Philip Heid

SITE NAME:	INDEX
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NO.	BY	DESCRIPTION	REVISIONS	
			DATE	CHK
1	LMD	ISSUE FOR COMMENT	01/26/16	PH
2	LMD	ISSUE FOR ZONING	02/09/16	PH

TITLE:
OVERALL SITE PLAN

SHEET:
Z-2

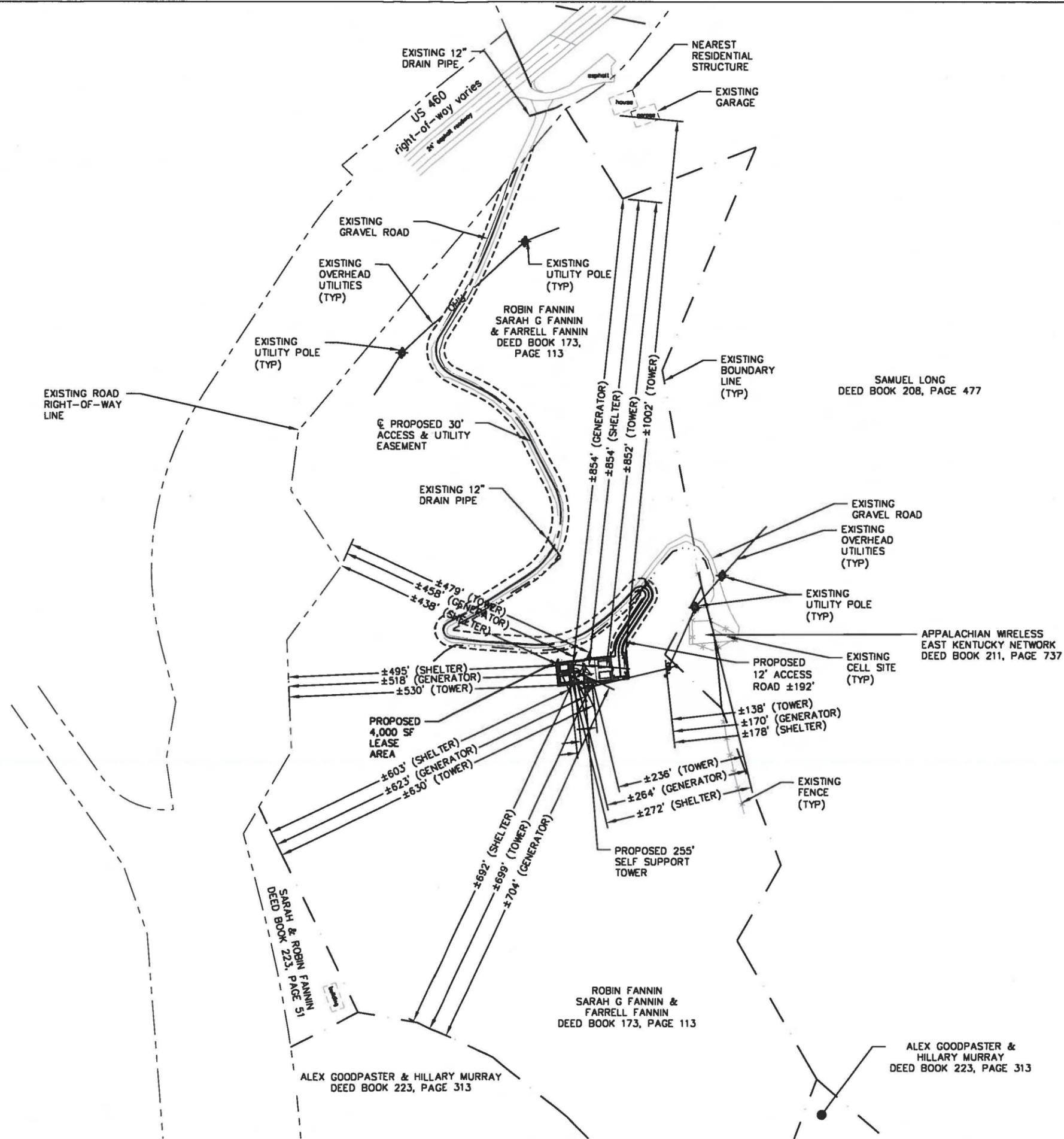
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GRAPHIC SCALE



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2	LMD	ISSUE FOR ZONING				

TITLE:
OVERALL SITE PLAN (DIMENSIONS)

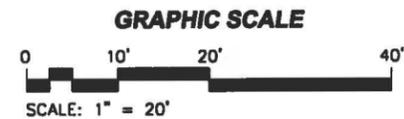
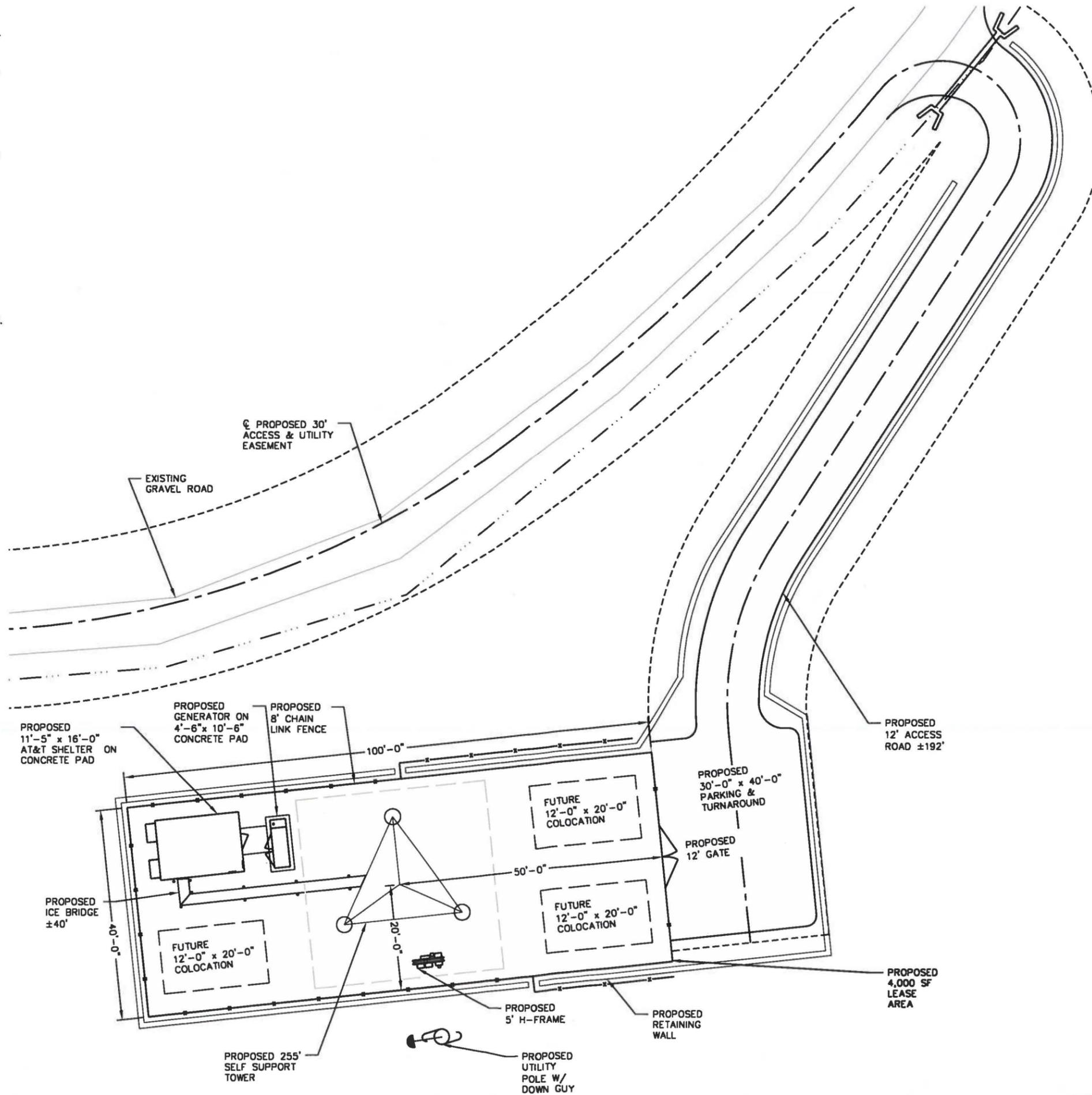
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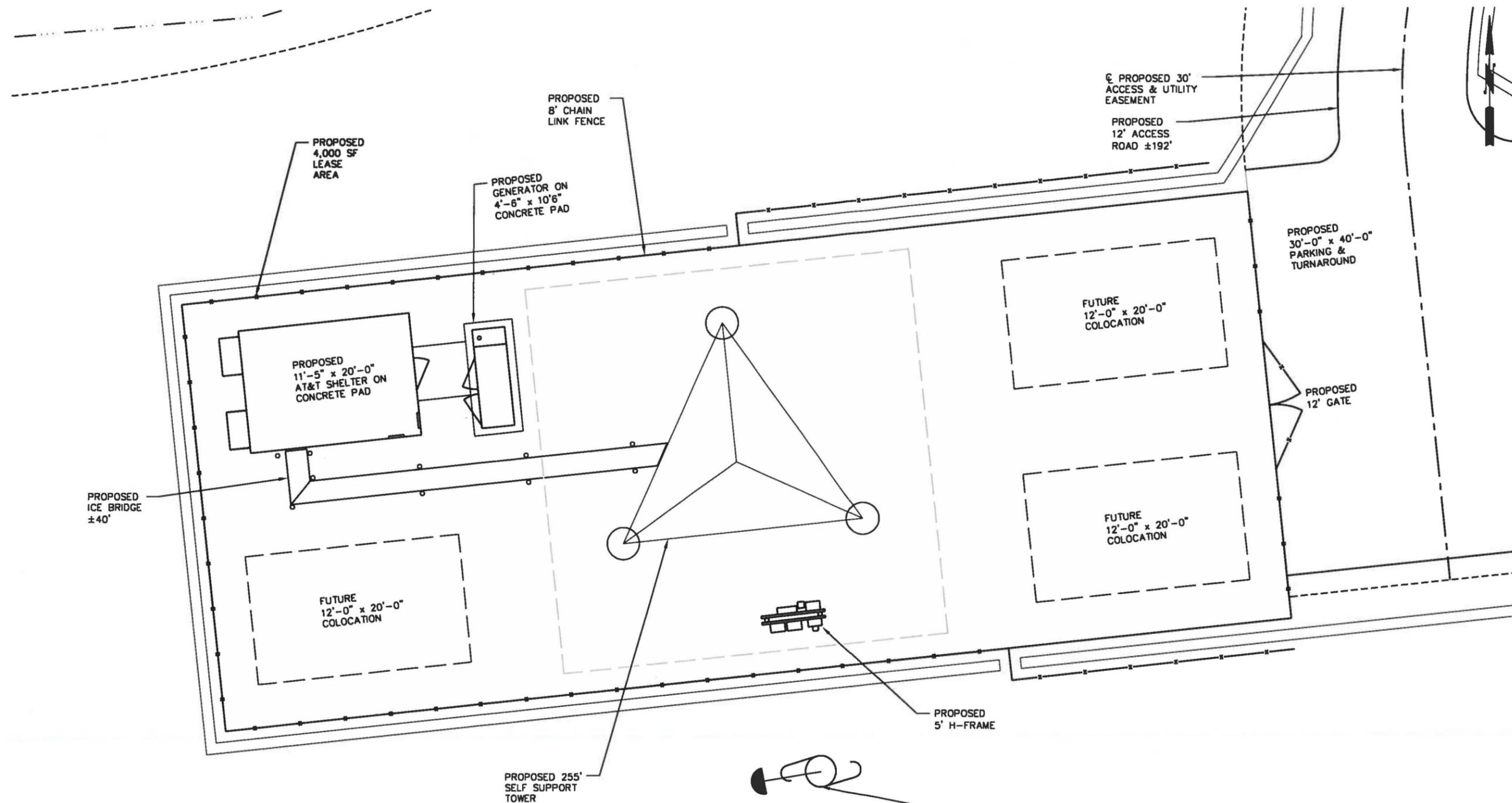
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AREA:	4,000 SF
PROPERTY OWNER:	SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
TAX MAP #:	PARCEL NUMBER: N/A 089-00-00-017.00
SOURCE OF TITLE:	DEED BOOK 173 PAGE 113
LATITUDE:	LONGITUDE:
N 37° 53' 33.996"	W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE		PH
			CHK	PH	
1	LMD	ISSUE FOR COMMENT	01/26/16	PH	
2	LMD	ISSUE FOR ZONING	02/09/16	PH	

TITLE:
SITE LAYOUT

SHEET:
Z-3



LEGEND

—E—	EXISTING OVERHEAD ELECTRIC
—T—	EXISTING OVERHEAD TELEPHONE
—UE—	EXISTING UNDERGROUND ELECTRIC
—UT—	EXISTING UNDERGROUND TELEPHONE
—UE—UE—	PROPOSED UNDERGROUND ELECTRIC
—UT—UT—	PROPOSED UNDERGROUND TELEPHONE
-x-x-x-	FENCE LINE
○	POWER POLE
□	TELEPHONE PEDESTAL
○	WATER VALVES
○	FIRE HYDRANTS
●	BOLLARDS

Mastec

BTM Engineering, Inc.
 CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,
 PLANNERS & SURVEYORS
 3001 TAYLOR SPRINGS DRIVE
 LOUISVILLE, KENTUCKY 40220
 PHONE: (502) 499-8402
 FAX: (502) 499-8427

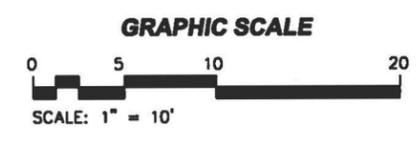
STATE OF KENTUCKY
 2-9-16
 PHILIP G. HEID
 29820
 LICENSED PROFESSIONAL ENGINEER
Philip Heid

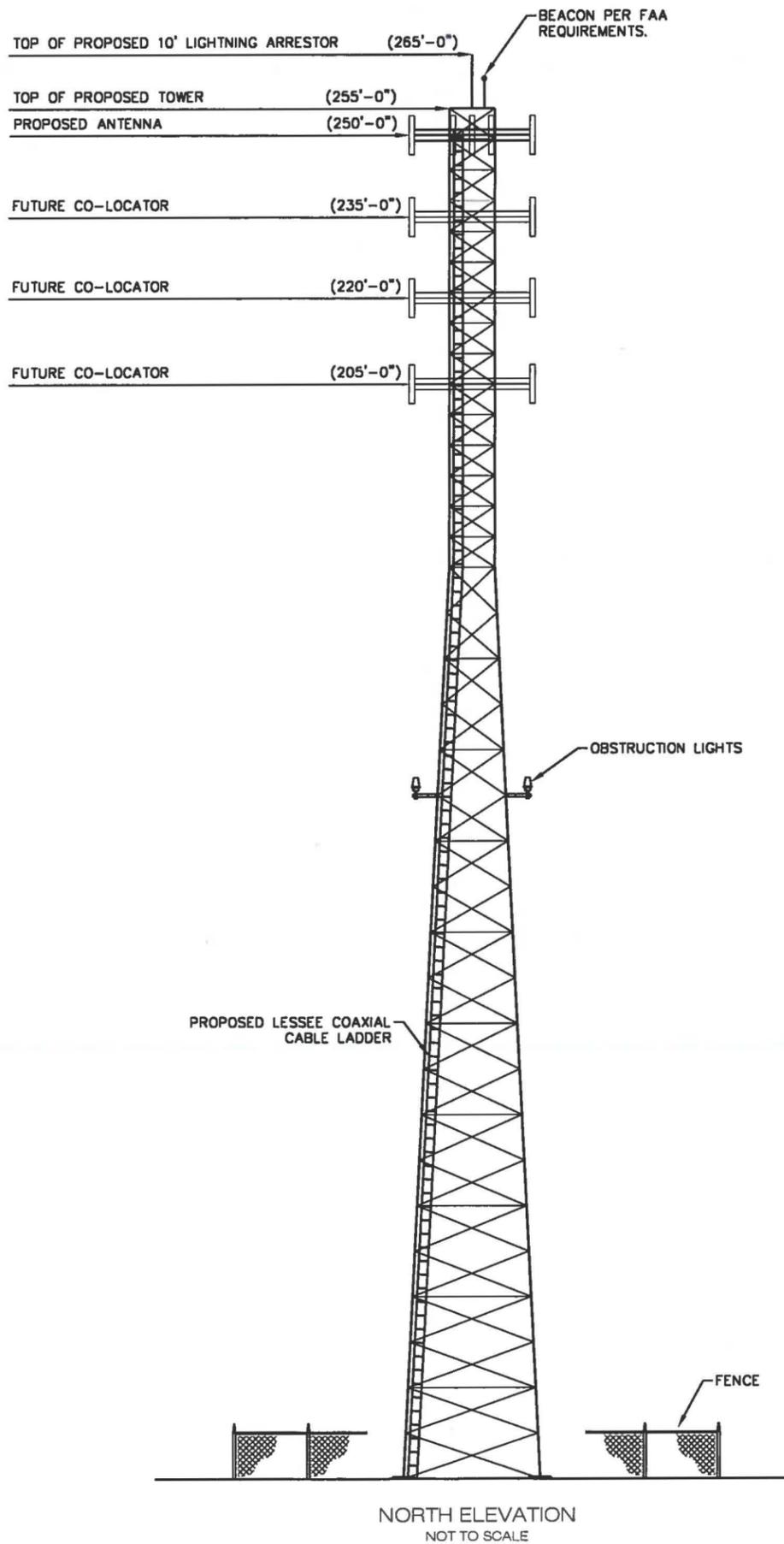
SITE NAME:	INDEX
SITE NUMBER:	KYALU6170
SITE ADDRESS:	1999 HWY 460 WEST WEST LIBERTY, KY 41472
AREA:	4,000 SF
PROPERTY OWNER:	SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
TAX MAP #:	N/A
PARCEL NUMBER:	089-00-00-017.00
SOURCE OF TITLE:	DEED BOOK 173 PAGE 113
LATITUDE:	N 37° 53' 33.996"
LONGITUDE:	W 83° 17' 14.131"

NO.	BY	DESCRIPTION	CHK	DATE	PH	PH
1	LMD	ISSUE FOR COMMENT		01/26/16		
2	LMD	ISSUE FOR ZONING		02/09/16		

TITLE:
AT&T SHELTER LAYOUT

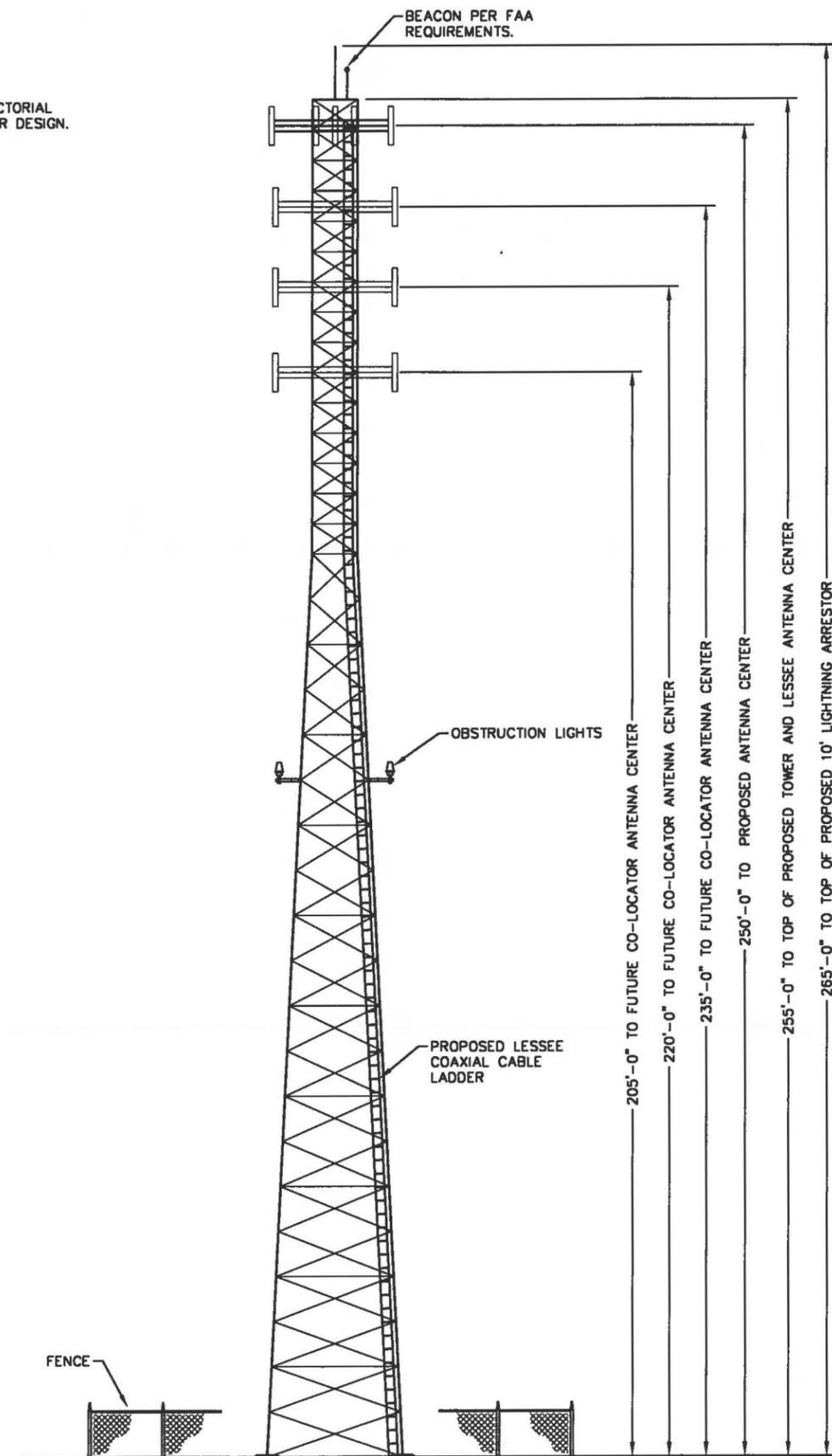
SHEET:
Z-4





NORTH ELEVATION
NOT TO SCALE

NOTE:
THE ELEVATIONS SHOWN ON THIS SHEET ARE FOR PICTORIAL PURPOSES ONLY. REFER TO TOWER PLANS FOR TOWER DESIGN.



SOUTH ELEVATION
NOT TO SCALE

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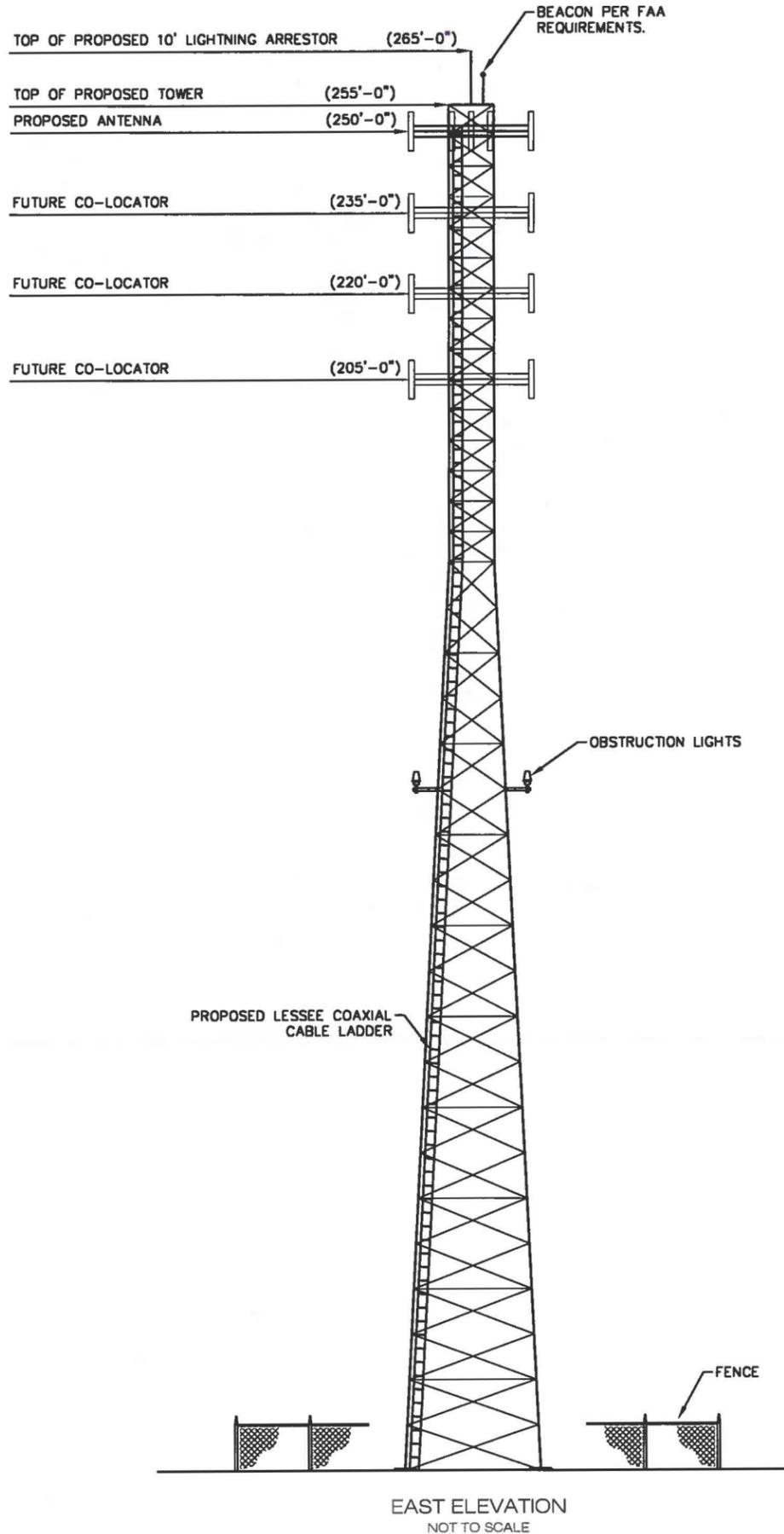


SITE NAME:	INDEX
SITE NUMBER:	KYALU6170
SITE ADDRESS:	1999 HWY 460 WEST WEST LIBERTY, KY 41472
AREA:	4,000 SF
PROPERTY OWNER:	SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
TAX MAP #:	N/A
PARCEL NUMBER:	089-00-00-017.00
SOURCE OF TITLE:	DEED BOOK 173 PAGE 113
LATITUDE:	N 37° 53' 33.996"
LONGITUDE:	W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE	CHK	
				PH	PH
1	LMD	ISSUE FOR COMMENT	01/26/16		
2	LMD	ISSUE FOR ZONING	02/09/16		

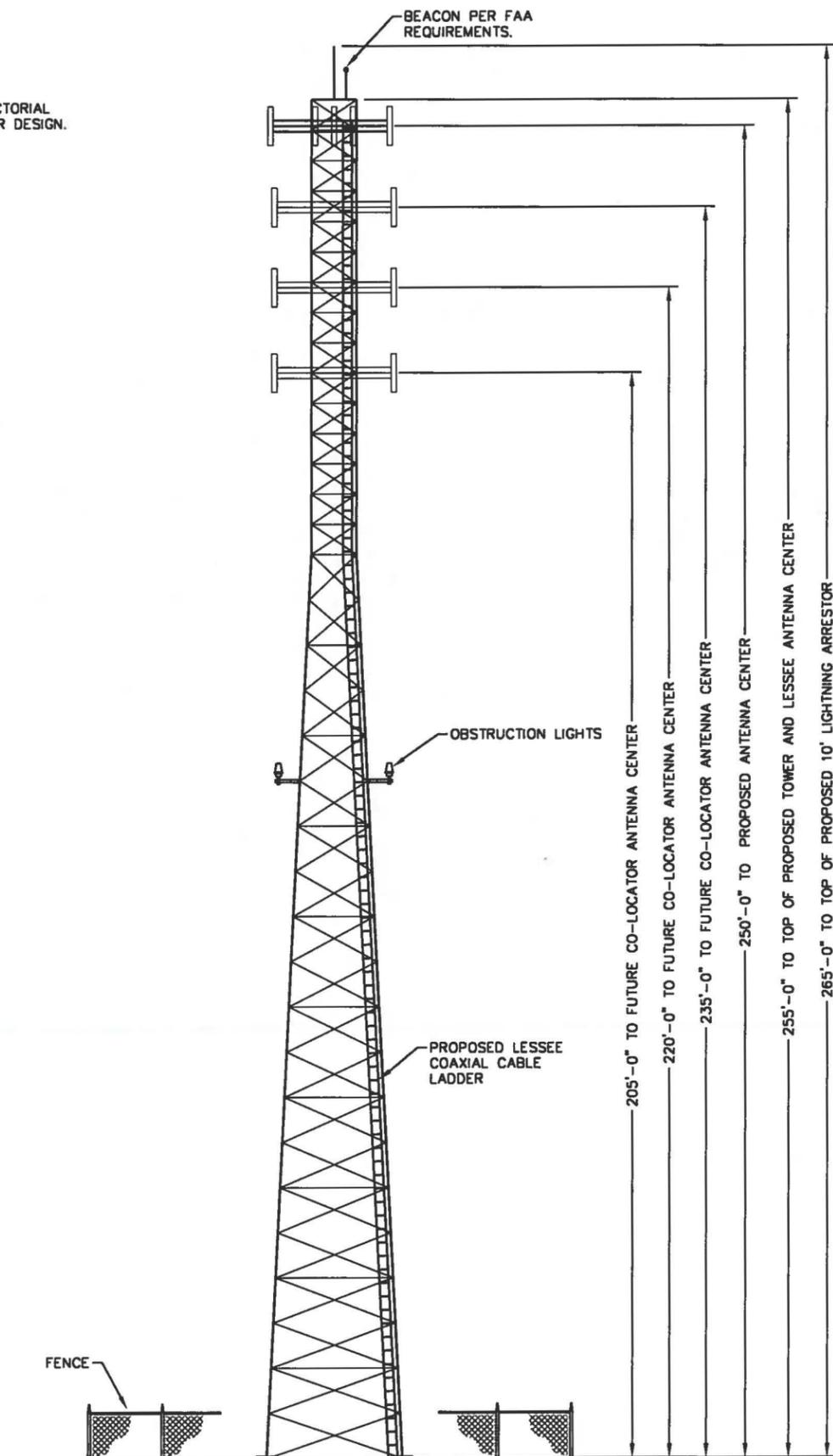
TITLE:
NORTH/SOUTH
TOWER ELEVATIONS

SHEET:
Z-5



EAST ELEVATION
NOT TO SCALE

NOTE:
THE ELEVATIONS SHOWN ON THIS SHEET ARE FOR PICTORIAL PURPOSES ONLY. REFER TO TOWER PLANS FOR TOWER DESIGN.



WEST ELEVATION
NOT TO SCALE

Mastec

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CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,
PLANNERS & SURVEYORS
100 WATKINS DRIVE
LOUISVILLE, KENTUCKY 40220
PHONE: (502) 459-8402
FAX: (502) 459-8427



SITE NAME:	INDEX
SITE NUMBER:	KYALU6170
SITE ADDRESS:	1999 HWY 460 WEST WEST LIBERTY, KY 41472
AREA:	4,000 SF
PROPERTY OWNER:	SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
TAX MAP #:	PARCEL NUMBER: N/A 089-00-00-017.00
SOURCE OF TITLE:	DEED BOOK 173 PAGE 113
LATITUDE:	LONGITUDE:
N 37° 53' 33.996"	W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE	CHK	
				PH	PH
1	LMD	ISSUE FOR COMMENT	01/26/16		
2	LMD	ISSUE FOR ZONING	02/09/16		

TITLE:
**EAST/WEST
TOWER ELEVATIONS**

SHEET:
Z-6

EXHIBIT C
TOWER AND FOUNDATION DESIGN



December 3, 2013

American Tower Corp.

Attn: Mr. Ron Rohr

SUBJECT: Valmont File #239816 Model V-29.0 x 255' Self Supporting Tower
Site: #282100 Index – Index, KY

Thank you for your inquiry concerning tower design codes and practices as they relate to your requested tower designs.

Valmont Structures has been designing and building guyed and self-supporting towers and monopoles since the early 1950's. During this time, we have sold thousands of towers ranging in height from as little as 50' high to in excess of 1400'. These towers were individually engineered to accommodate the loading requirements imparted by the design wind speed, ice considerations, antenna loading, and other factors dictated by the national code requirements existing at the time the tower was built.

The present National Tower code, the TIA-222-G, represents the latest refinement of specific minimum requirements for tower engineers and manufacturers to follow to help assure that the tower structure and its foundation are designed to meet the most realistic conditions for local weather while assuring that the tower is designed to stringent factors of safety.

The TIA-222-G code incorporates an escalating wind factor based on tower height. If 90 MPH 3 second gust is the basic design wind speed at the 10 meter height, then per the specification, this speed is then increased in stages up the tower. "Meeting the code" implies that the design will have all of the code requirements for safety factors intact at the wind speed specified. Thus, the ultimate survival speed would be considerably higher.

While failure is extremely rare in any kind of tower, it is especially so for self supported towers and monopoles. In fact, only if a tower or monopole were subjected to a direct hit from a tornado or the severest of hurricanes would failure be predicted, and then usually only if hit by flying debris.

We are aware of only a very few documented instances of a self supporting tower or monopole failure. Self supporting towers and monopoles can be designed such that the most common mode of failure is in the upper middle region of the tower, with the upper portion of the tower remaining connected and "bending and bowing over" against the base of the tower or pole. The fact that the wind is normally greater on the upper portion of the structure contributes to the likelihood of this type of failure.





This particular Tower is designed such that its first point of predicted failure is in the region above the 180' level. The predicted mode of wind induced failure would be a buckling of the tower legs above the 180' level with the top sections of the tower folding over on to the intact base sections. This would then affect a "zero fall zone" at ground level.

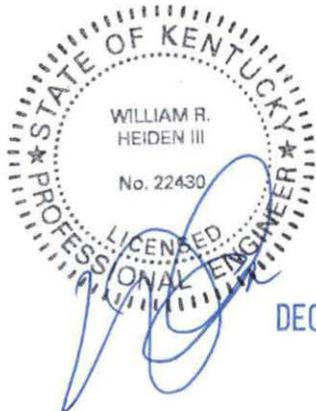
As Chief Engineer of the company and a registered P.E. in 49 states, I oversee all engineering and application of our towers. I am a graduate engineer from Purdue University and am assisted by other registered professional engineers on our staff.

Valmont Structures is an AISC approved shop. All Valmont Structures welders are AWS and CWB qualified. Mathematical and physical tests are performed routinely on tower sections and designs as required. Our total design, engineer and build process has been quality audited by our customers including public utilities, telephone companies, government agencies, and of course AISC.

We trust the above and the attached will be helpful to you. If you should need anything else, please let us know at your convenience.

Sincerely,

William Heiden, P.E.
Senior Engineer
Ext. #5243



DEC 03 2013



UNIT BASE FOUNDATION SUMMARY

ATC Index, KY

V- 29.0 255
A- 239816

V 2.0

Foundation Dimensions	
Pad width, W:	41.0 ft
Depth, D:	7.0 ft
Ext. above grade, E:	0.5 ft
Pier diameter, d _i :	6.5 ft
Pad thickness, T:	1.50 ft
Depth neglected, N:	7.0 ft
Volume, V _o :	115.51 cy

Soil Information Per:	
Assumed as Clay Per TIA-222-G Annex F.	

Material Properties	
Steel tensile str, F _y :	60000 psi
Conc. Comp. str, F' _c :	4000 psi
Conc. Density, δ:	150 pcf
Clear cover, cc:	3.00 in

Reinforcement Design	
pad, m _p :	72 bars *
size, s _p :	9
vertical, m _v :	31 verticals
size, s _v :	8 6' cage
ties, m _t :	7 ties
size, s _t :	4 w/ overlap

Soil Parameters	
Soil unit weight, γ:	110 pcf
Ultimate Bearing, B _c :	5.000 ksf
Cohesion, C _u :	1.000 ksf
Friction angle, φ:	0.0 degrees
Ult. Passive P., P _p :	0.396 pcf
Base sliding, μ:	0.20
Seismic Zone:	1
Water at:	none ft

Backfill Compaction	
Lift thickness:	12 in
Compaction:	97 %
Standard Proctor:	ASTM D698

Tower design conforms to the following:

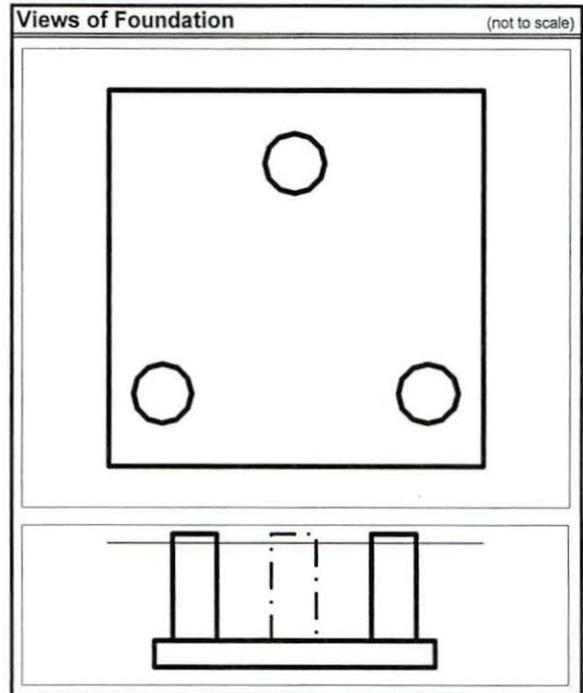
- * 1997 Uniform Building Code (UBC)
- * 2000 & 2003 International Building Code (IBC)
- * ANSI TIA-222-G
- * Building Code Requirements for Reinforced Concrete (ACI 318-05)

Anchor Steel Selection	
Part Number, P/N:	109881 <small>Dia = 1.25 Length = 80</small>

Note: The centroid of the tower is offset from the centroid of the foundation

* Rebar to be equally spaced, both ways, top & bottom
* Use standees to support top rebar above bottom rebar in mat

Foundation Loading			
Load Case 1 stress ratio: 99.6% mark up: 0.4%			
Shear (total), S:	142.00 kips	x 1.004 =	142.57 kips
Moment, M:	18730.00 ft-kips	x 1.004 =	18804.92 ft-kips
Compression/Leg, C:	782.00 kips	x 1.004 =	785.13 kips
Uplift/Leg, U:	698.00 kips	x 1.004 =	700.79 kips
Tower Weight, W _t :	107.00 kips	=	107.00 kips
Load Case 2 stress ratio: 99.6% mark up: 0.4%			
Shear (total), S:	142.00 kips	x 1.004 =	142.57 kips
Moment, M:	18730.00 ft-kips	x 1.004 =	18804.92 ft-kips
Compression/Leg, C:	782.00 kips	x 1.004 =	785.13 kips
Uplift/Leg, U:	698.00 kips	x 1.004 =	700.79 kips
Tower Weight, W _t :	107.00 kips	=	107.00 kips



Additional Notes:

- * No foundation modifications listed.
- * See attached "Foundation Notes" for further information.

UNIT BASE FOUNDATION SUMMARY

**ATC
Index, KY**

**V- 29.0 255
A- 239816**

V 2.0

Foundation Dimensions		
Pad width, W:	41.0	ft
Depth, D:	7.0	ft
Ext. above grade, E:	0.5	ft
Pier diameter, d _i :	6.5	ft
Pad thickness, T:	1.50	ft
Depth neglected, N:	7.0	ft
Volume, V _o :	115.51	cy

Soil Information Per:
Assumed as Clay Per TIA-222-G Annex F.

Material Properties		
Steel tensile str, F _y :	60000	psi
Conc. Comp. str, F' _c :	4000	psi
Conc. Density, δ:	150	pcf
Clear cover, cc:	3.00	in

Soil Parameters		
Soil unit weight, γ:	110	pcf
Ultimate Bearing, B _c :	5.000	kSF
Cohesion, C _u :	1.000	kSF
Friction angle, φ:	0.0	degrees
Ult. Passive P., P _p :	0.396	pcf
Base sliding, μ:	0.20	
Seismic Zone:	1	
Water at:	none	ft

Backfill Compaction		
Lift thickness:	12	in
Compaction:	97	%
Standard Proctor:	ASTM	D698

Reinforcement Design		
pad, m _p :	72	bars *
size, s _p :	9	
vertical, m _c :	31	verticals
size, s _c :	8	6' cage
ties, m _t :	7	ties
size, s _t :	4	w/ overlap

Anchor Steel Selection		
Part Number, P/N:	109881	<small>Dia = 1.25" Length = 80"</small>

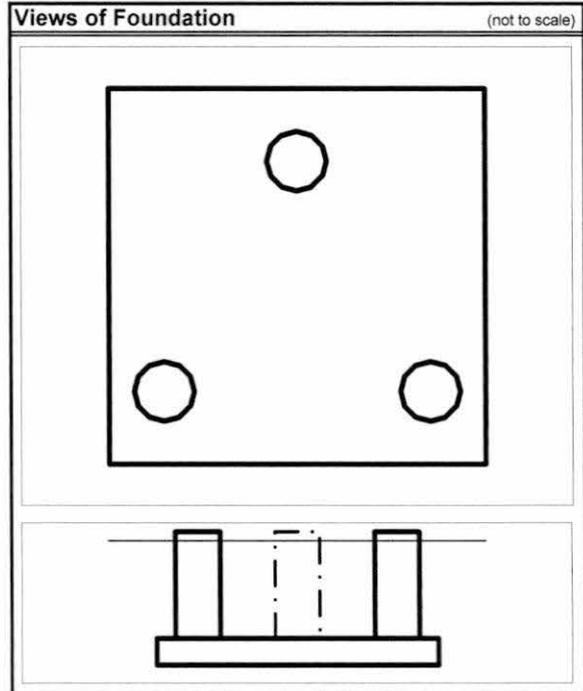
Tower design conforms to the following:

- * 1997 Uniform Building Code (UBC)
- * 2000 & 2003 International Building Code (IBC)
- * ANSI TIA-222-G
- * Building Code Requirements for Reinforced Concrete (ACI 318-05)

Note: The centroid of the tower is offset from the centroid of the foundation

* Rebar to be equally spaced, both ways, top & bottom
* Use standees to support top rebar above bottom rebar in mat

Foundation Loading			
Load Case 1			
Load Case 2			
	stress ratio: 99.6%	mark up: 0.4%	
Shear (total), S:	142.00 kips	x 1.004 =	142.57 kips
Moment, M:	18730.00 ft-kips	x 1.004 =	18804.92 ft-kips
Compression/Leg, C:	782.00 kips	x 1.004 =	785.13 kips
Uplift/Leg, U:	698.00 kips	x 1.004 =	700.79 kips
Tower Weight, W _t :	107.00 kips	=	107.00 kips



Additional Notes:

- * No foundation modifications listed.
- * See attached "Foundation Notes" for further information.

FOUNDATION NOTES

- 1 IN THE ABSENCE OF A GEOTECHNICAL REPORT, THE FOLLOWING PRESUMPTIVE SOIL PARAMETERS WERE USED: AN ULTIMATE BEARING PRESSURE OF 5000 PSF, A COHESION OF 1000 PSF, A SOIL UNIT WEIGHT OF 110 PCF, AN ANGLE OF INTERNAL FRICTION OF 0 DEGREES AND NO GROUNDWATER ENCOUNTERED. THESE SOIL PARAMETERS ARE IN COMPLIANCE WITH THE REQUIREMENTS OF ANSI/TIA-222-G-2005 AND CAN BE FOUND IN ANNEX F OF THIS STANDARD.

UNIT BASE FOUNDATION (Load Case 2)

ATC
Index, KY

V- 29.0 255
A- 239816

V 2.0

Reactions	stress ratio	99.6%	mark up:	0.4%
Shear, S:	142.00 kips	x 1.004 =	142.57 kips	
Moment, M:	18730.00 ft-kips	x 1.004 =	18804.92 ft-kips	
Compression / leg, C:	782.00 kips	x 1.004 =	785.13 kips	
Uplift / leg, U:	698.00 kips	x 1.004 =	700.79 kips	
Tower weight, W _t :	107.00 kips	=	107.00 kips	

Soil per: Assumed as Clay Per TIA-222-G Annex F.

Ultimate bearing: 5.000 ksf
Ultimate Pp: 0.396 kcf

Load Case 2 = 0.9*D + 1.0*Dg + 1.6*Wo

Physical Parameters:

Concrete volume:	$V = T * W^2 + 3 * (di^2 / 4 * \pi) * (D + E - T)$	V = 115.5 cy
Concrete weight:	$W_c = V * \delta$	W _c = 467.8 kips
Soil weight:	$W_s = (D - T) * (W^2 - 3 * (di^2 / 4 * \pi)) * \gamma$	W _s = 956.8 kips
Total weight:	$P = W_c + W_s + W_t$	P = 1531.60 kips

Passive Pressure:

Pp coefficient:	$K_p = \text{TAN}(45 + \phi / 2)^2$	K _p = 1.000
	$P_{pn} = K_p * \gamma * N + 2 * C_o * \sqrt{(K_p)}$	P _{pn} = 2.770 ksf
	$P_{pt} = K_p * \gamma * (D - T) + 2 * C_o * \sqrt{(K_p)}$	P _{pt} = 2.605 ksf
	$P_{pb} = K_p * \gamma * D + 2 * C_o * \sqrt{(K_p)}$	P _{pb} = 2.770 ksf
	$P_{ptop} = \text{IF}(N < (D - T), P_{pt}, P_{pn})$	P _{ptop} = 2.8 ksf
	$P_p' = (P_{ptop} + P_{pb}) / 2$	P _p ' = 2.770 ksf
Shear area:	$T_{pp} = 0$	T _{pp} = 0.0 ft
	$A_{pp} = T_{pp} * W$	A _{pp} = 0.00 ft ²
Shear Capacity:	$S_{actual} = (P_p' * A_{pp} + \mu * P) * \phi_r$	S _{actual} = 229.740 kips
$\phi_r = 0.75$		

Check S_{actual} = 229.74 kips >= S = 142.57 kips OK

Overturning Moment Resistance at Toe:

Wt of soil wedge:	$W_{sw} = D * (D * \text{TAN}(\phi)) / 2 * W * \gamma$	W _{sw} = 0.0 kips
Dist. from leg to edge:	$O = (W - 0.866 * w) / 2$	O = 7.943 ft
Additional offset of Wt:	$O_a = (2 / 3 * 0.866 * w + O) - W / 2$	O _a = 4.186 ft
Resisting moments:	$M_{rwt} = P * W / 2 - W_t * O_a$	M _{rwt} = 30949.87 ft-kips
	$M_p = P_p' * A_{pp} * (D - N) / 3$	M _p = 0.00 ft-kips
	$M_{rsw} = W_{sw} * (W + D * \text{TAN}(\phi) / 3)$	M _{rsw} = 0.00 ft-kips
	$M_{rt} = (M_{rwt} + M_p + M_{rsw}) * \phi_r$	M _{rt} = 23212.40 ft-kips
Total resisting:		
$\phi_r = 0.75$		
Total overturning:	$M_o = M + S * (D + E)$	M _o = 19874.18 ft-kips

Check M_{rt} = 23212.40 ft-kips >= M_o = 19874.18 ft-kips OK

Bearing Resistance due to Pressure Distribution:

Area of mat:	$\text{area} = W^2$	area = 1681.0 ft ²
Section modulus:	$SM = W^3 / 6$	SM = 11486.8 ft ³
Factored total weight:	$P' = W_t + 0.9 * (W_c + W_s)$	P' = 1389.1 kip
Pressure exerted:	$P_{pos} = P' / \text{area} + M_o / SM$	P _{pos} = 2.557 ksf
	$P_{neg} = P' / \text{area} - M_o / SM$	P _{neg} = -0.904 ksf

Note: The stress resultant is NOT within the kern. Bearing area has been adjusted below.

Load eccentricity:	$e_c = M_o / P'$	e _c = 14.31 ft
	$P_{adj} = 2 * P' / (3 * W * (W / 2 - e_c))$	P _{adj} = 3.6 ksf
Adj. applied pressure:	$q_a = \text{IF}(P_{neg} >= 0, P_{pos}, P_{adj})$	q _a = 3.647 ksf
$\phi_r = 0.75$		

Check q_a = 3.647 ksf <= B_c * φ_r = 3.750 ksf OK

Concrete Shear Strength:

One way beam action at d_l from tower

Effective depth:	$d_c = T - cc - db_p / 2$	d _c = 14.436 in
Factored Intensity:	$q_s = C / \text{area}$	q _s = 0.467 ksf
Required shear:	$V_{n1} = q_s * (O - di / 2 - dc) * W / \phi_s$	V _{n1} = 89.11 kips
$\phi_s = 0.75$ [ACI 9.3.2.3]		
Available shear:	$V_{c1} = 2 * \sqrt{F_c'} * W * dc$	V _{c1} = 898.40 kips
[ACI 12.2.4]		

Check V_{c1} = 898.40 kips >= V_{n1} = 89.11 kips OK

Two way beam action at $d_i / 2$ from tower

Perimeter:	$P_o = (d_i + d_c) * \pi$	$P_o = 24.20$	ft
Required shear: $\phi_s = 0.75$ [ACI 9.3.2.3]	$V_{n2} = q_s / \phi_s * (\text{area} - (d_i + d_c)^2 * \pi / 4)$	$V_{n2} = 1017.82$	kips
Available shear: [ACI 12.2.2]	$V_{c2} = 4 * \sqrt{F'c} * P_o * d_c$	$V_{c2} = 1060.54$	kips
Check		$V_{c2} = 1060.54$ kips	$\geq V_{n2} = 1017.82$ kips OK

Column Compression Capacity:

Compression reaction: $\phi_c = 0.65$ [ACI 9.3.2.2]	$P_c = \phi_c * 0.8 * F'c * (d_i^2 / 4 * \pi)$	$P_c = 9939.0$	kips
Check		$P_c = 9938.99$ kips	$\geq C = 785.13$ kips OK

Pier Reinforcement:

Cross-sectional area:	$A_g = d_i^2 * \pi / 4$	$A_g = 4778.36$	in ²
Min. area of steel (pier): [ACI 10.9.1] & [ACI 10.8.4]	$A_{st,c} = A_g * 0.005$	$A_{st,c} = 23.89$	in ²
Cage circle:	$d_o = d_i - 2 * cc$	$d_o = 72.00$	in
Rebar:	$s_c = 8$ $m_c = 31$	$d_{b,c} = 1$ in $A_{b,c} = 0.79$ in ²	
	$A_{s,c} = A_{b,c} * m_c$	$A_{s,c} = 24.49$	in ²
Check		$A_{s,c} = 24.49$ in ²	$\geq A_{st,c} = 23.89$ in ² OK
Actual moment:	$M_{max} = (D - T + E) * S / 2$	$M_{max} = 427.70$	ft-kips
Pier moment capacity:	M_{allow} per Maxmomnt.xls (see attached)	$M_{allow} = 775.25$	ft-kips
Check		$M_{allow} = 775.25$ ft-kips	$\geq M_{max} = 427.70$ ft-kips OK
Bar separation:	$B_{s,c} = (d_o * \pi) / m_c - d_{b,c}$	$B_{s,c} = 6.30$	in
Check		11 $\geq B_{s,c} = 6.30$ in	$\geq 4.5"$ OK

Vertical Rebar Development Length:

Reinforcement location: [ACI 12.2.4]	$\psi_{t,c} =$ if the space under the rebar > 12 in, use 1.3, else use 1.0	$\psi_{t,c} = 1.3$
Epoxy coating: [ACI 12.2.4]	$\psi_{e,c} =$ if epoxy-coated bars are not used, use 1.0; but if epoxy-coated bars are used, then if $B_s < 6 * d_b$ or $cc < 3 * d_b$, use 1.5, else 1.2	$\psi_{e,c} = 1.0$
Max term: [ACI 12.2.4]	$\psi_t \psi_{e,c} =$ the product of ψ_t & ψ_e , need not be taken larger than 1.7	$\psi_t \psi_{e,c} = 1.3$
Reinforcement size: [ACI 12.2.4]	$\psi_{s,c} =$ if the bar size is 6 or less, then use 0.8, else use 1.0	$\psi_{s,c} = 1$
Light weight concrete: [ACI 12.2.4]	$\lambda_c =$ if lightweight concrete is used, 1.3, else use 1.0	$\lambda_c = 1.0$
Spacing/cover: [ACI 12.2.4]	$c_c =$ the smaller of: half the bar spacing or the concrete edge distance	$c_c = 3.50$ in
Transverse bars: [ACI 12.2.3]	$k_{tr,c} = 0$ in (per simplification)	$k_{tr,c} = 0$ in
Max term: [ACI 12.2.3]	$c_c' = \text{MIN}(2.5, (c_c + k_{tr,c}) / d_{b,c})$	$c_c' = 2.500$
Excess reinforcement: [ACI 12.2.5]	$R_c = M_{max} / \text{Mallow}$	$R_c = 0.55$
Development (tensile): [ACI 12.2.2]	$L_{dt,c} = (3 / 40) * (F_y / \sqrt{F'c}) * (\psi_t \psi_{e,c} * \psi_{s,c} * \lambda_c * R_c / c_c) * d_{b,c}$	$L_{dt,c} = 20.41$ in
Minimum length: [ACI 12.2.1]	$L_{d,min} = 12$ inches	$L_{d,min} = 12.0$ in
Development length:	$L_{dt,c} = \text{MAX}(L_{d,min}, L_{dt,c})$	$L_{dt,c} = 20.41$ in
Development (comp.): [ACI 12.3.2]	$L_{dc,c} = 0.02 * d_{b,c} * F_y * R_c / \sqrt{F'c}$	$L_{dc,c} = 10.47$ in
	$L_{dc,c} = 0.0003 * d_{b,c} * F_y * R_c$	$L_{dc,c} = 9.93$ in
Development length:	$L_{dc,c} = \text{MAX}(8, L_{dc,c}, L_{dc,c})$	$L_{dc,c} = 10.47$ in
Length available in pier:	$L_{vc} = D - T + E - cc$	$L_{vc} = 69.0$ in
Check		$L_{vc} = 69.0$ in $\geq L_{dt,c} = 20.4$ in OK
Check		$L_{vc} = 69.0$ in $\geq L_{dc,c} = 10.5$ in OK
Length available in pad:	$L_{vp} = T - cc$	$L_{vp} = 15.0$ in
Check		$L_{vp} = 15.0$ in $\geq L_{dt,c} = 20.4$ in HOOKS
Check		$L_{vp} = 15.0$ in $\geq L_{dc,c} = 10.5$ in OK

Vertical Rebar Hook Ending:

Bar size & clear cover: [ACI 12.5.3]	α_h if the bar size ≤ 11 and side cc $\geq 2.5"$, use 0.7, else use 1.0	$\psi_{LH} = 0.7$
Epoxy coating: [ACI 12.5.2]	β_h if epoxy-coated bars are used, use 1.2, else use 1.0	$\psi_{e,h} = 1.0$
Light weight concrete: [ACI 12.5.2]	λ_h if lightweight concrete is used, 1.3, else use 1.0	$\lambda_h = 1.0$
Development (hook): [ACI 12.5.2]	$L_{dh}' = 0.02 * \psi_{LH} * \psi_{e,h} * \lambda_h * F_y / \sqrt{F'c} * db_c$	$L_{dh}' = 13.3$ in
Minimum length: [ACI 12.5.1]	$L_{dh_{min}}$ the larger of: 8 * db or 6 in	$L_{dh_{min}} = 8.0$ in
Development length:	$L_{dh} = \text{MAX}(L_{dh_{min}}, L_{dh}')$	$L_{dh} = 13.3$ in
	Check $L_{vp} = 15.0$ in \geq	$L_{dh} = 13.3$ in OK
Hook tail length:	$L_{h_{tail}} = 12 * db$ beyond the bend radius	$L_{h_{tail}} = 16.0$ in
Length available in pad:	$L_{h_{pad}} = (W - w' - di) / 2$	$L_{h_{pad}} = 33$ in
	Check $L_{h_{pad}} = 33.0$ in \geq	$L_{dh_{tail}} = 16.0$ in OK

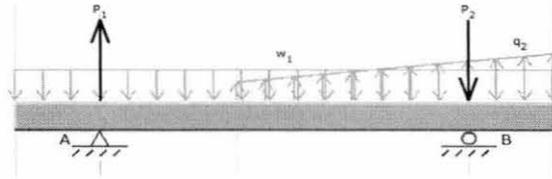
Pier Ties:

Minimum size: [ACI 7.10.5.1]	$s_{t_{min}} = \text{IF}(s_c \leq 10, 3, 4)$	$s_{t_{min}} = 3$
z factor:	$z = 0.5$ if the seismic zone is less than 2, else 1.0	$z = 0.5$
Tie parameters:	$s_t = 4$	$d_{b,t} = 0.5$ in
	$m_t = 7$	$A_{b,t} = 0.2$ in ²
Allowable tie spacing:		
per vertical rebar [ACI 7.10.5.2] & [ACI 21.3.3.2]	$B_{s,t_{max1}} = 8 / z * db_c$	$B_{s,t_{max1}} = 16$ in
per tie size [ACI 7.10.5.2] & [ACI 21.3.3.2]	$B_{s,t_{max2}} = 24 / z * db_t$	$B_{s,t_{max2}} = 24$ in
per pier diameter [ACI 7.10.5.2] & [ACI 21.3.3.2]	$B_{s,t_{max3}} = di / (4 * z^2)$	$B_{s,t_{max3}} = 78$ in
per seismic zone [ACI 7.10.5.2] & [ACI 21.3.3.2]	$B_{s,t_{max4}} = 12"$ in active seismic zones, else 18"	$B_{s,t_{max4}} = 18$ in
	$B_{s,t_{max}} = \text{MIN}(B_{s,t_{max1}}, B_{s,t_{max2}}, B_{s,t_{max3}}, B_{s,t_{max4}})$	$B_{s,t_{max}} = 16$ in
	$m_{t_{min}} = (D - T + E) / B_{s,t_{max}} + 2$	$m_{t_{min}} = 6.5$
	Check $m_t = 7.0$ \geq	$m_{t_{min}} = 6.5$ OK

Anchor Steel:

A/S parameters:	$P_{as} = 109881$	$L_{as} = 80$ in
	$d_{as} = 1.25$ in	$E_{as} = 71.50$ in
Development available:	L_{das} per Anchor Bolts (see attached)	$L_{das} = 43.50$ in
Required development:	$L_{das_{min}}$ per Anchor Bolts (see attached)	$L_{das_{min}} = 20.41$ in
	Check $L_{das} = 43.50$ in \geq	$L_{das_{min}} = 20.41$ in OK
To bottom rebar grid:	$E_{as_{max}} = D + E - cc - 2 * db_p$	$E_{as_{max}} = 84.744$ in
	Check $E_{as} = 71.50$ in \leq	$E_{as_{max}} = 84.74$ in OK
To top rebar grid:	rebar @ = D + E - T + cc	rebar @ = 75.00 in
	Check 75 + 6 in \geq	$E_{as} = 71.50$ in or \leq 75 in OK
Min. cage dia:	$d_{o_{min}}$ per ancsteel.xls (see attached)	$d_{o_{min}} = 36.20$ in
	Check $d_o = 72.00$ in \geq	$d_{o_{min}} = 36.20$ in OK

Pad Reactions:



MDSolids Geometry Input (Option 1)			
Total Beam Length:	$B_{L2_1} = W$	$B_{L2_1} =$	41 ft
Location of Left Support:	$S_{L2_1} = 0$	$S_{L2_1} =$	7.943 ft
Location of Right Support:	$S_{R2_1} = W - 0$	$S_{R2_1} =$	33.06 ft
MDSolids Geometry Input (Option 2)			
Total Beam Length:	$B_{L2_2} = W$	$B_{L2_2} =$	41.0 ft
Location of Left Support:	$S_{L2_2} = (W - w) / 2$	$S_{L2_2} =$	6.00 ft
Location of Right Support:	$S_{R2_2} = S_{L1_2} + w$	$S_{R2_2} =$	35.00 ft
MDSolids Load Input (Option 1 & Option 2)			
Uplift:	$P_{2_1} = U$	$P_{2_1} =$	700.8 kips
Compression:	$P_{2_2} = C$	$P_{2_2} =$	785.13 kips
Weight of Overburden: (Distributed)	$w_{2_1} = 0.9 * (W_c + W_s) / W$	$w_{2_1} =$	31.27 klf
<i>Applied over the beam starting at 0' and ending at W=41ft.</i>			
Distributed Soil Pressure: (Linearly Increasing)	$q_{2_2L} = 0$	$q_{2_2L} =$	0.00 klf
	$q_{2_2R} = q_a * W$	$q_{2_2R} =$	149.53 klf
<i>This linearly increasing load is applied from e=14.31ft to W=41ft</i>			
MDSolids Design Result			
Option 1:	$M_{max2_1} = M_{max2_1}$ (Max. Moment calculated from MDSolids for Option 1)	$M_{max2_1} =$	3263.00 ft*kips
Option 2:	$M_{max2_2} = M_{max2_2}$ (Max. Moment calculated from MDSolids for Option 2)	$M_{max2_2} =$	1927.00 ft*kips
Max moment:	$M_{maxp} = \text{Max}(M_{max2_1}, M_{max2_2})$	$M_{maxp} =$	3263.00 ft*kips
Required moment: $\phi_t = 0.9$ [ACI 9.3.2.1]	$M_n = M_{maxp} / \phi_t$	$M_n =$	3625.56 ft*kips

Pad Reinforcement:

	$\beta = \text{IF}(F'c \leq 4000, 0.85, \text{IF}(F'c >= 8000, 0.65, 0.85 - (F'c - 4000) * 0.05))$	$\beta = 0.85$	
Effective width:	$W_e = w * 0.866 + d_i$	$W_e = 31.614$ ft	
	$A_{st_p} = Mn / (0.9 * F_y * dc)$	$A_{st_p} = 55.810$ in ²	
	$a_p = A_{st_p} * F_y / (\beta * F'c * We)$	$a_p = 2.60$ in	
Required steel:	$A_{st_p_st} = Mn / (F_y * (dc - a_p / 2)) * (W / We)$	$A_{st_p_st} = 71.578$ in ²	
Shrinkage:	$\rho_{sh} = \text{IF}(F_y >= 60000, 0.0018, 0.002)$	$\rho_{sh} = 0.0018$	
	$A_{st_p_sh} = \rho_{sh} * W * T / 2$	$A_{st_p_sh} = 7.970$ in ²	
	$A_{st_p} = \text{MAX}(A_{st_p_st}, A_{st_p_sh})$	$A_{st_p} = 71.578$ in ²	
Rebar:	$s_p = 9$ Equally spaced, top and bottom, both directions.	$d_{b_p} = 1.128$ in	
	$m_p = 72$	$A_{v_p} = 1$ in ²	
	$A_{s_p} = A_{b_p} * m_p$	$A_{s_p} = 72.00$ in ²	
	Check $A_{s_p} = 72.00$ in ² \geq $A_{st_p} = 71.58$ in ²		OK
Bar separation:	$B_{s_p} = (W - 2 * cc - db_p) / (m_p - 1) - db_p$	$B_{s_p} = 5.70$ in	
	Check $10.87 \geq B_{s_p} = 5.70$ in $\geq 4.5"$		OK

Pad Development Length:

Reinforcement location:	$\psi_{t_p} = \text{if the space under the rebar} > 12 \text{ in, use } 1.3, \text{ else use } 1.0$	$\psi_{t_p} = 1$	
[ACI 12.2.4]			
Epoxy coating:	$\psi_{e_p} = \text{if epoxy-coated bars are not used, use } 1.0; \text{ but if epoxy-coated bars are used, then if } Bs < 6 * db \text{ or } cc < 3 * db, \text{ use } 1.5, \text{ else } 1.2$	$\psi_{e_p} = 1.0$	
[ACI 12.2.4]			
Max term:	$\psi_t \psi_{e_p} = \text{the product of } \psi_t \text{ \& \ } \psi_{e_p}, \text{ need not be taken larger than } 1.7$	$\psi_t \psi_{e_p} = 1$	
[ACI 12.2.4]			
Reinforcement size:	$\psi_{s_p} = \text{if the bar size is } 6 \text{ or less, then use } 0.8, \text{ else use } 1.0$	$\psi_{s_p} = 1$	
[ACI 12.2.4]			
Light weight concrete:	$\lambda_p = \text{if lightweight concrete is used, } 1.3, \text{ else use } 1.0$	$\lambda_p = 1.0$	
[ACI 12.2.4]			
Spacing/cover:	$c_p = \text{the smaller of: half the bar spacing or the concrete edge distance}$	$c_p = 3.56$ in	
[ACI 12.2.4]			
Transverse bars:	$k_{tr_p} = 0$ in (per simplification)	$k_{tr_p} = 0$ in	
[ACI 12.2.3]			
Max term:	$c_p' = \text{MIN}(2.5, (c_p + k_{tr_p}) / db_p)$	$c_p' = 2.500$	
[ACI 12.2.3]			
Excess reinforcement:	$R_p = A_{st_p} / A_{s_p}$	$R_p = 0.99$	
[ACI 12.2.5]			
Development (tensile):	$L_d = (3 / 40) * (F_y / \sqrt{F'c}) * \psi_t \psi_{e_p} * \psi_{s_p} * \lambda_p * R_p * db_p / c_p'$	$L_{dp}' = 31.9$ in	
[ACI 12.2.2]			
Minimum length:	$L_{d_min} = 12$ inches	$L_{d_min} = 12.0$ in	
[ACI 12.2.1]			
Development length:	$L_{dp} = \text{MAX}(L_{d_min}, L_{dp}')$	$L_{dp} = 31.9$ in	
Length available in pad:	$L_{pad} = (W / 2 - w' / 2) - cc$	$L_{pad} = 69.0$ in	
	Check $L_{pad} = 69.00$ in \geq $L_{dp} = 31.92$ in		OK

**THIS SPREADSHEET IS SET UP FOR A MAXIMUM OF 56 BARS.
MAXIMUM FACTORED MOMENT OF A CIRCULAR SECTION**

Loading	
(negative for compression)	
Axial load =	700.79 kips

Foundation	
<i>Concrete</i>	
Pier diameter =	6.50 ft
Pier area =	4778.4 in ²
<i>Reinforcement</i>	
Clear cover =	3.00 in
Cage diameter =	5.92 ft
Bar size =	8
Bar diameter =	1.000 in
Bar area =	0.785 in ²
Number of bars =	31

Material Strengths		
Concrete compressive strength =	4000	psi
Reinforcement yield strength =	60000	psi
Modulus of elasticity =	29000	ksi
Reinforcement yield strain =	0.00207	
Limiting compressive strain =	0.003	

(per ACI 10.3.5 - OK)

For 1.0k

Seismic	
Seismic Zone =	1
Are hooks required?	no

Minimum Area of Steel

Required area of steel = 23.89 in²
 Actual area of steel = 24.35 in² OK
 Bar spacing = 6.30 in

Axial Loading

Load factor = 1.00
 Reduction factor = 0.65575 (per ACI 9.3.1 & 2)
 Factored axial load = 1068.69 kips

Neutral Axis

Distance from extreme edge to neutral axis = 3.92 in
 Equivalent compression zone factor = 0.85 (per ACI 10.2.7.3)
 Distance from extreme edge to
 Equivalent compression zone factor = 3.33 in
 Distance from centroid to neutral axis = 35.08 in

Compression Zone

Area of steel in compression zone = 0.00 in²
 Angle from centroid of pier to intersection of
 equivalent compression zone and edge of pier = 23.86 deg
 Area of concrete in compression = 70.73 in²
 Force in concrete = $0.85 * f_c * Acc = 240.48$ kips (per ACI 10.3.6.2)
 Total reinforcement forces = -1309.17 kips
 Factored axial load = 1068.69 kips
 Force in concrete = -240.48 kips

 Sum of the forces in concrete = 0.00 kips OK

Maximum Moment

First moment of the concrete area in compression about the centroid = 2617.33 in³
 Distance between centroid of concrete in compression and centroid of pier = 37.01 in
 Moment of concrete in compression = 8898.91 in-kips
 Total reinforcement moment = 5287.91 in-kips
 Nominal moment strength of column = 14186.81 in-kips
 Factored moment strength of column = 9302.96 in-kips 775.25 ft-kips

Maximum allowable moment of the pier = 775.25 ft-kips
--

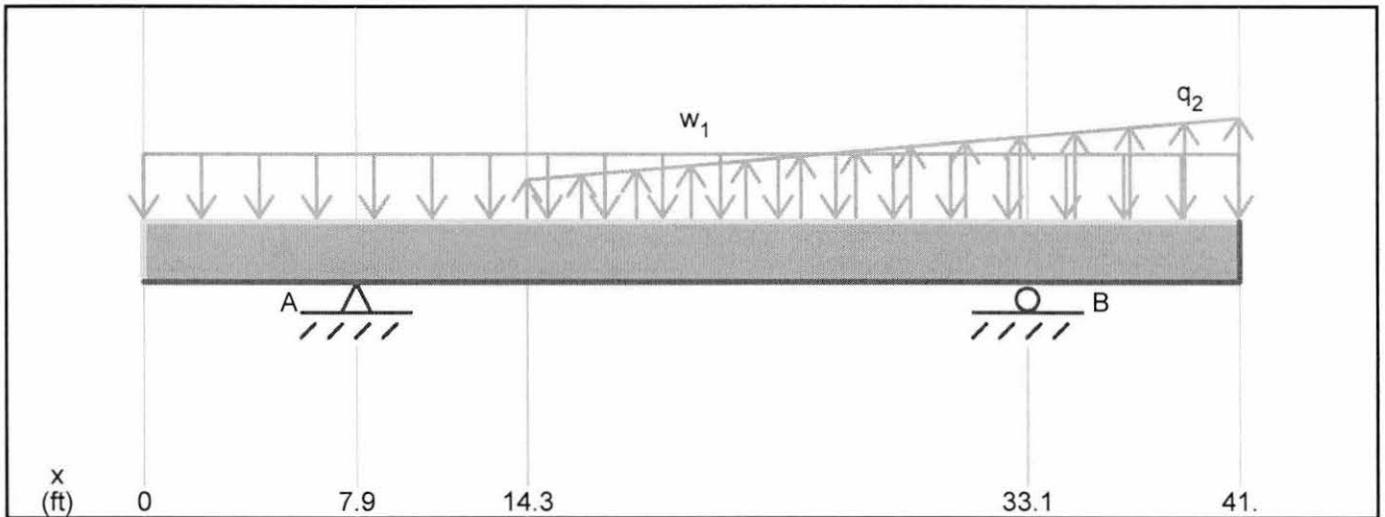
Individual Bars

Bar #	Angle from first bar (deg)	Distance to centroid (in)	Distance to neutral axis (in)	Distance to equivalent comp. zone (in)	Strain	Area of steel in compression (in ²)	Axial force (kips)	Moment (in-kips)
1	0.00	0.00	-35.08	-35.67	-0.02684	0.00	-47.12	0.00
2	11.61	7.15	-27.93	-28.52	-0.02137	0.00	-47.12	-336.75
3	23.23	14.00	-21.08	-21.67	-0.01613	0.00	-47.12	-659.72
4	34.84	20.28	-14.80	-15.39	-0.01132	0.00	-47.12	-955.67
5	46.45	25.73	-9.35	-9.94	-0.00715	0.00	-47.12	-1212.50
6	58.06	30.13	-4.95	-5.54	-0.00379	0.00	-47.12	-1419.70
7	69.68	33.29	-1.79	-2.38	-0.00137	0.00	-31.17	-1037.58
8	81.29	35.09	0.01	-0.58	9E-06	0.00	0.21	7.23
9	92.90	35.45	0.38	-0.21	0.00029	0.00	6.55	232.07
10	104.52	34.37	-0.71	-1.30	-0.00054	0.00	-12.41	-426.43
11	116.13	31.87	-3.21	-3.79	-0.00245	0.00	-47.12	-1501.94
12	127.74	28.07	-7.01	-7.59	-0.00536	0.00	-47.12	-1322.89
13	139.35	23.12	-11.96	-12.54	-0.00915	0.00	-47.12	-1089.68
14	150.97	17.23	-17.85	-18.44	-0.01366	0.00	-47.12	-811.86
15	162.58	10.63	-24.45	-25.04	-0.01871	0.00	-47.12	-500.80
16	174.19	3.59	-31.49	-32.08	-0.02409	0.00	-47.12	-169.24
17	185.81	-3.59	-38.67	-39.26	-0.02959	0.00	-47.12	169.24
18	197.42	-10.63	-45.71	-46.29	-0.03497	0.00	-47.12	500.80
19	209.03	-17.23	-52.31	-52.90	-0.04002	0.00	-47.12	811.86
20	220.65	-23.12	-58.20	-58.79	-0.04453	0.00	-47.12	1089.68
21	232.26	-28.07	-63.15	-63.74	-0.04832	0.00	-47.12	1322.89
22	243.87	-31.87	-66.95	-67.54	-0.05122	0.00	-47.12	1501.94
23	255.48	-34.37	-69.45	-70.03	-0.05313	0.00	-47.12	1619.49
24	267.10	-35.45	-70.53	-71.12	-0.05396	0.00	-47.12	1670.75
25	278.71	-35.09	-70.17	-70.76	-0.05368	0.00	-47.12	1653.61
26	290.32	-33.29	-68.37	-68.96	-0.05231	0.00	-47.12	1568.76
27	301.94	-30.13	-65.21	-65.79	-0.04989	0.00	-47.12	1419.70
28	313.55	-25.73	-60.81	-61.40	-0.04652	0.00	-47.12	1212.50
29	325.16	-20.28	-55.36	-55.95	-0.04235	0.00	-47.12	955.67
30	336.77	-14.00	-49.08	-49.67	-0.03755	0.00	-47.12	659.72
31	348.39	-7.15	-42.22	-42.81	-0.03231	0.00	-47.12	336.75

DEVELOPMENT LENGTH CHECK OF PIER REINFORCEMENT				
Foundation:	Pier diameter =	6.5 ft	Cover between side of pier and cage =	3.00 in.
	Cage diameter =	6 ft	Cover between top of pier and cage =	3.00 in.
	Rebar size =	9	Compressive strength of concrete =	4000 psi
	Number of bars =	72	Rebar yield strength =	60000 psi
	Clear spacing =	5.70 in.		
	Are there hooks?	n		
	Check Compression?	n		
Anchor Steel:	Part number:	109881 ▼	Actual Bending Moment =	427.70 ft-kips
	Embedment length =	71.5 in.	Allowable Bending Moment =	775.25 ft-kips
	Bolt Diameter =	1.25" ▼	Excess Reinforcement Ratio =	0.552
Anchor Plate:	Part number:	212009 ▼		
	Plate width =	22 in.		
	Required development length (compression) =	999.00 in.		
	Required development length (tension) =	37.00 in.		
	Required development length (tension) =	20.41 in.	(reduced)	
	Available development length =	43.500 in.		
OK				
The length available in the pier for the development of the vertical reinforcement exceeds the required length (ACI 318-02, section 12.2).				

CHECK EMBEDMENT PLATE CLEARANCE IN THE PIER				
Foundation:	Pier diameter =	6.5 ft	Cover between side of pier and cage =	3.00 in.
	Cage diameter =	6 ft	Minimum cover between AVS and cage =	3.00 in.
Anchor Steel:	Part number:	109881	Angle of anchor steel in foundation =	3.3 degrees
	Embedment length =	71.5 in.		
Anchor Plate:	Part number:	212009		
	Largest plate width =	22.00 in.		
	Bolt Diameter =	1.25 in.		
	Minimum cage diameter =	36.20 in.		
	Actual cage diameter =	72 in.		
OK				
The available space exceeds the minimum cage diameter required for anchor steel installed in the pier at an angle.				

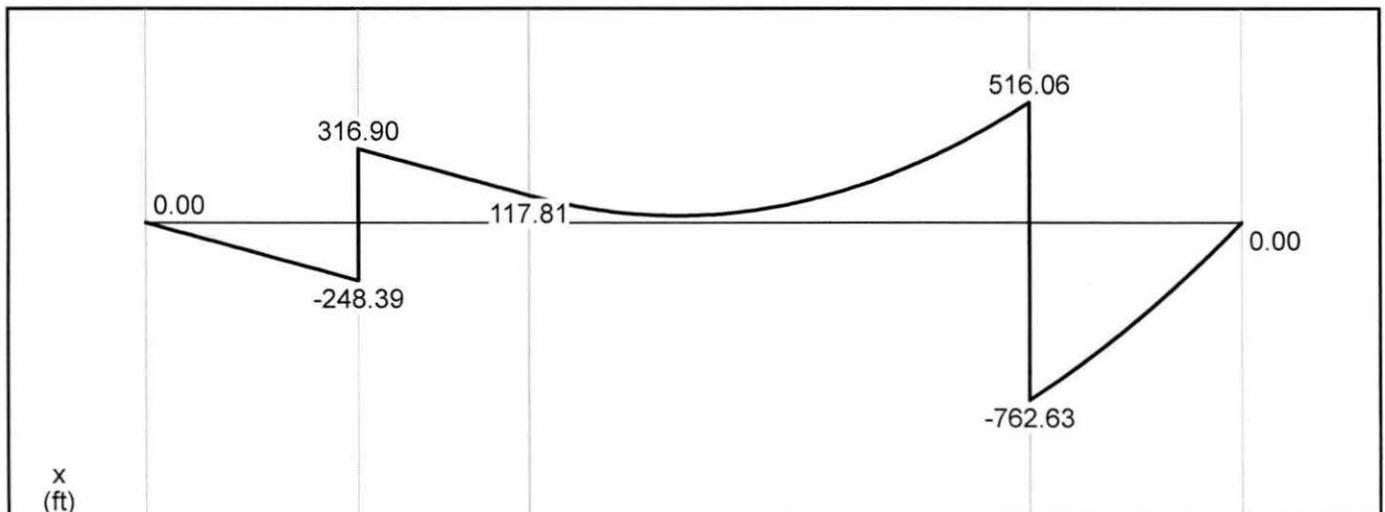
LC2- Option 1



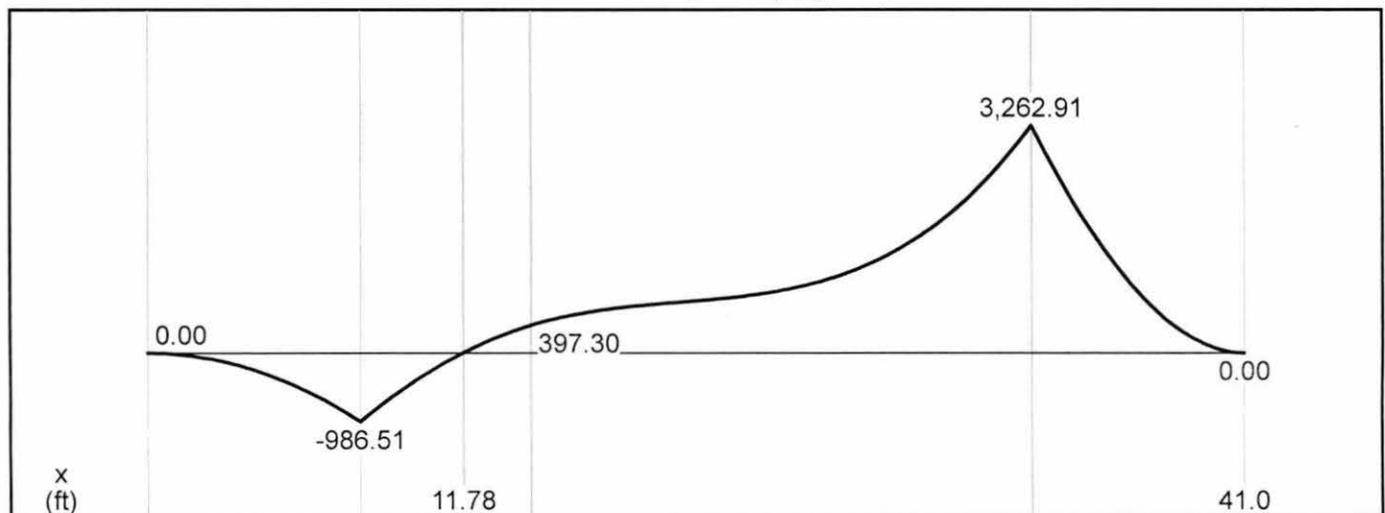
Load Diagram

$w_1 = 31.27$ kip/ft (down)
 $q_2 = 0.0$ to 149.53 kip/ft (up)

$A_y = 565.28$ kip (up)
 $B_y = 1,278.69$ kip (down)

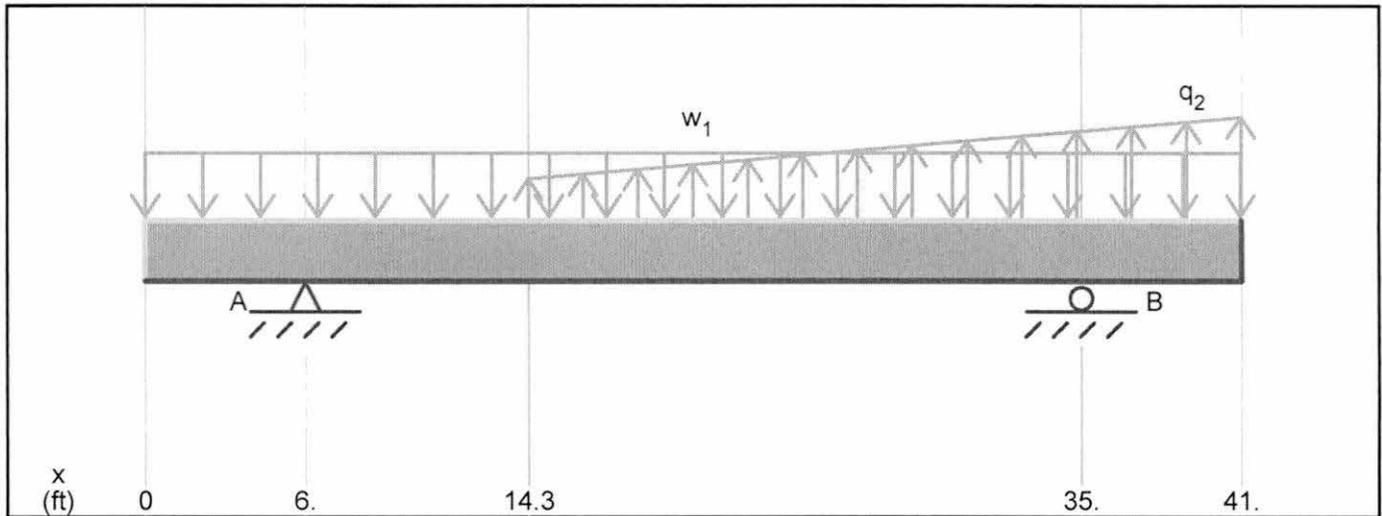


Shear Diagram (kip)



Moment Diagram (kip-ft)

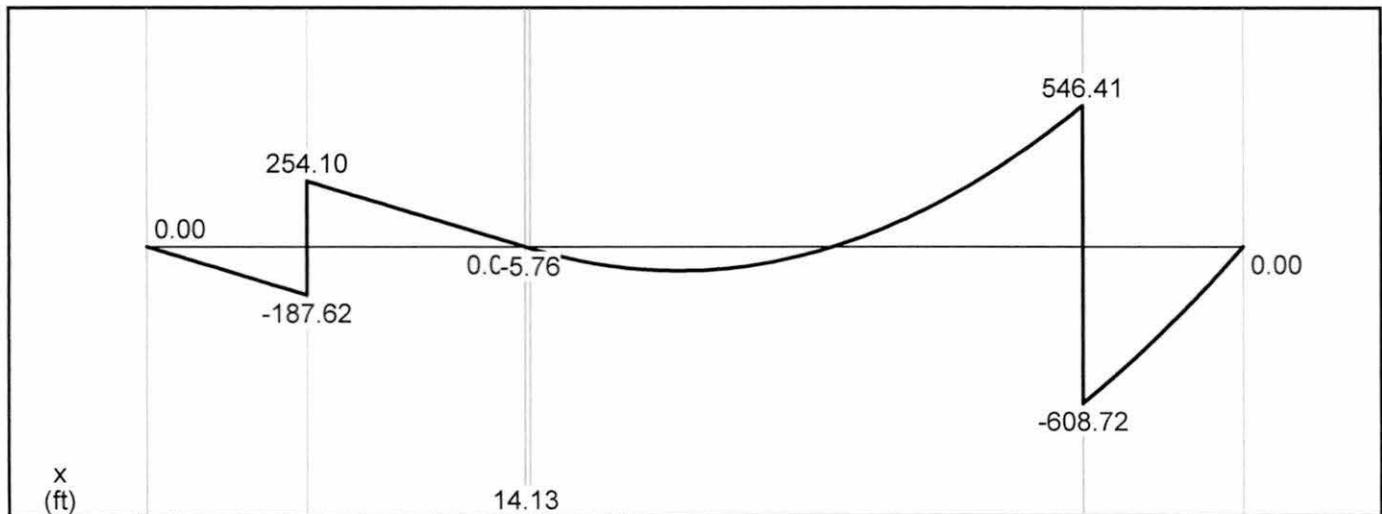
LC2- Option 2



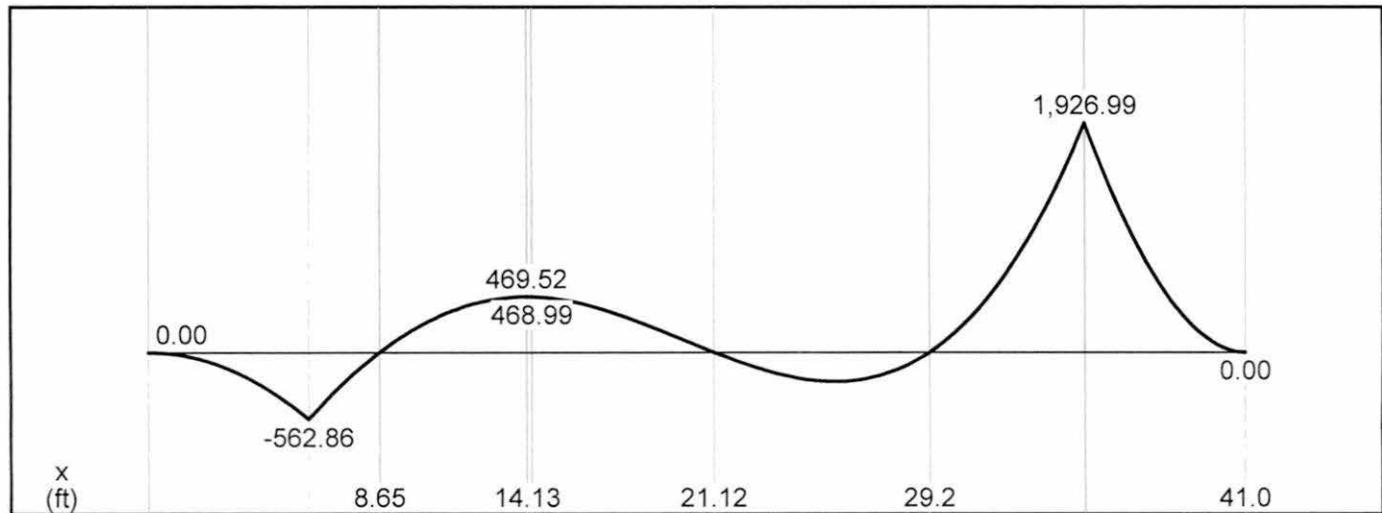
Load Diagram

$w_1 = 31.27$ kip/ft (down)
 $q_2 = 0.0$ to 149.53 kip/ft (up)

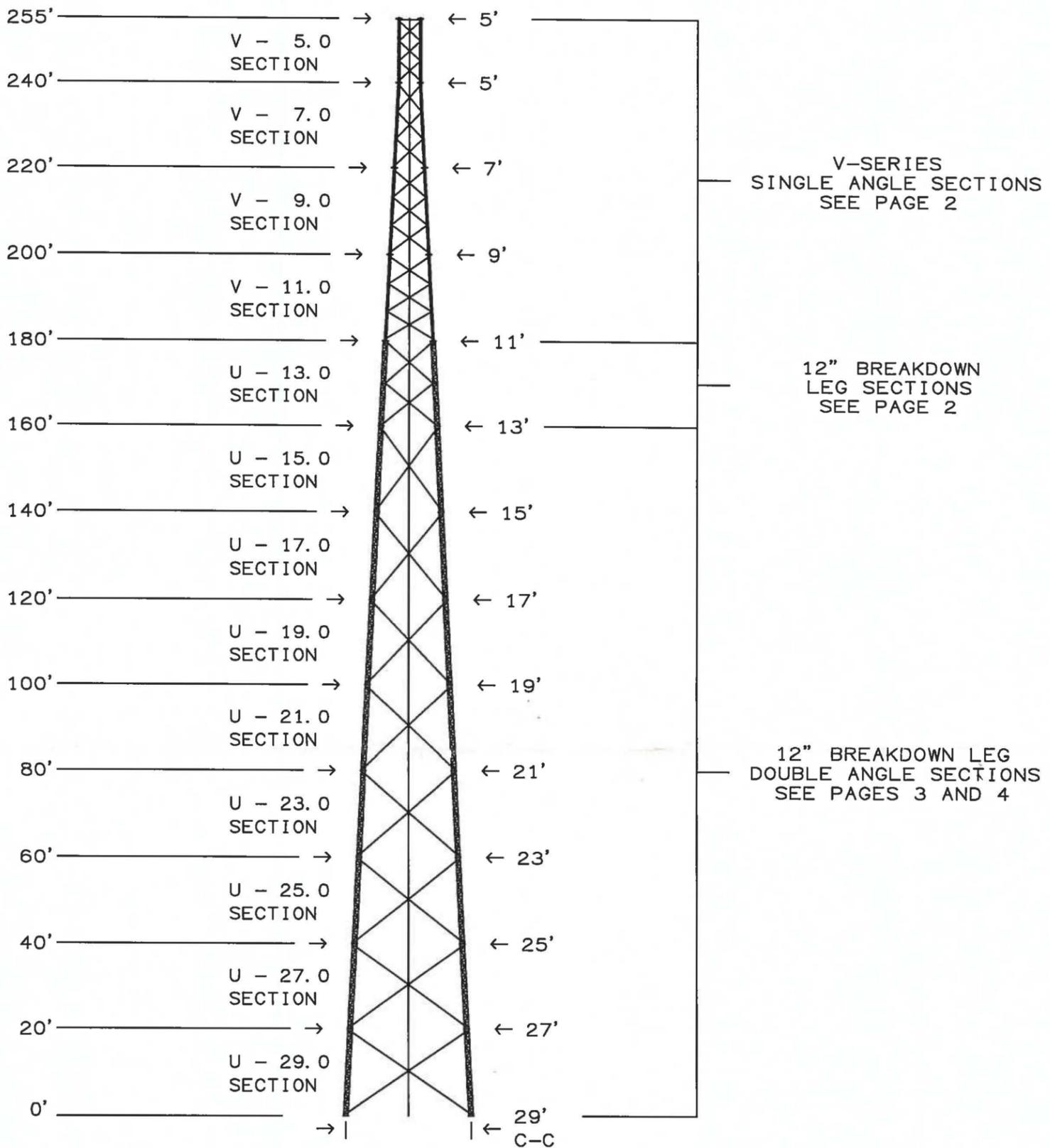
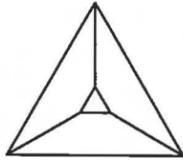
$A_y = 441.72$ kip (up)
 $B_y = 1,155.12$ kip (down)



Shear Diagram (kip)



Moment Diagram (kip-ft)



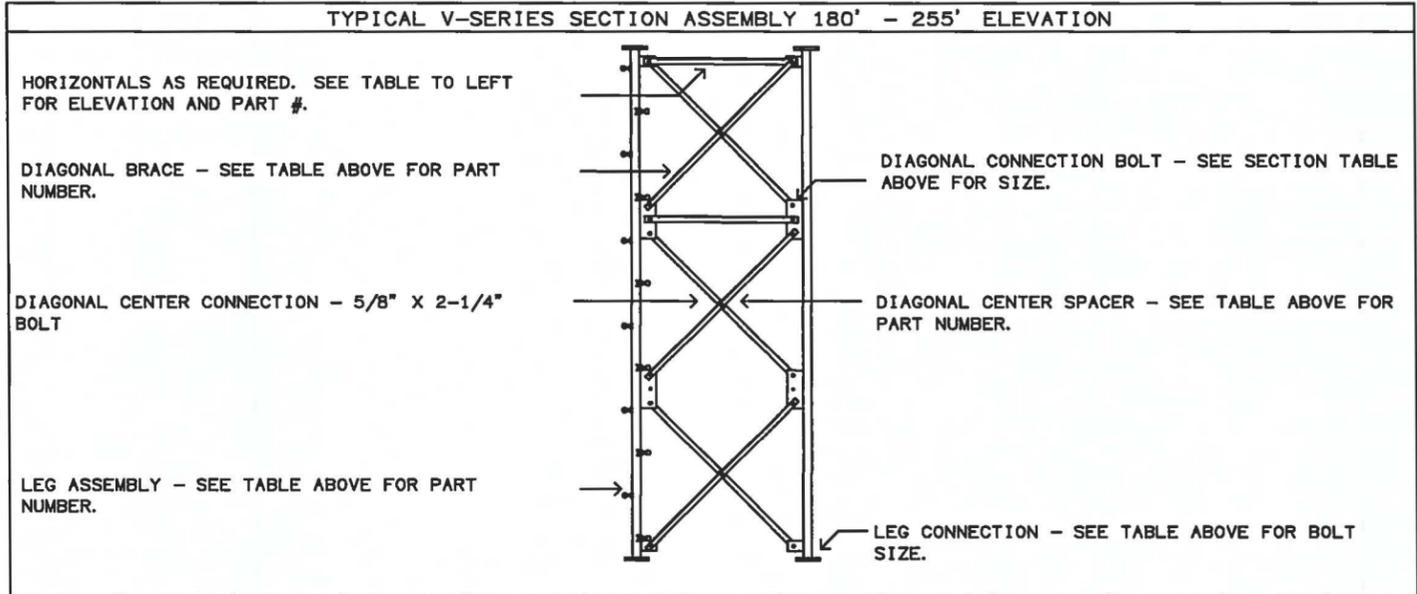
William R. Heiden III, KY Professional Engineer # 22430

				AMERICAN TOWER CORP. #282100 INDEX, KY V-29.0 X 255'	
				KENTUCKY C. O. A. 1542	
A	ADDED FOUNDATIONS	MS	12/11/2013	APPROVED/ENG.	M_S 12/11/2013
REV	DESCRIPTION OF REVISIONS	INI	DATE	APPROVED/FOUND.	N/A
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				PAGE 1 OF 10	

V-SERIES LEG SECTION DATA 180' - 255' ELEVATION																				
SECTION			LEG										DIAGONAL BRACE						HOR	
#	LENGTH	* WEIGHT	NOM SIZE	WALL	GRADE	CLIMBING		NON-CLIMB		CONNECT BOLT+		PART NUMBER **			ANGLE		CONNECT BOLT		CENTER SPACER	QTY
						QTY	PART#	QTY	PART#	DIAM	LENGTH	#1	#2	#3	FACE	THICK	DIAM	LENGTH		
V- 5.0	15'	1013#	4"	0.237	A572-50	1	228175	2	228176	3/4"	3-1/2"	227077	227077	227077	2"	1/8"	3/4"	2-1/4"	116467	1
V- 7.0	20'	1609#	5"	0.258	A572-50	1	226200	2	226201	3/4"	3-1/2"	226190	226189	231342	2"	3/16"	3/4"	2-1/4"	116467	
V- 9.0	20'	1861#	5"	0.258	A572-50	3	226192			3/4"	3-1/2"	225035	225034	231345	2-1/2"	3/16"	3/4"	2-1/4"	116467	
V-11.0	20'	2390#	6"	0.280	A572-50	3	229377			1"	4-3/4"	225038	225037	231347	2-1/2"	3/16"	3/4"	2-1/4"	116467	

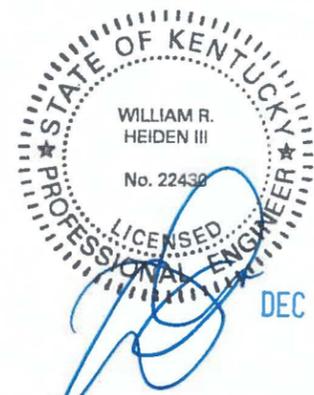
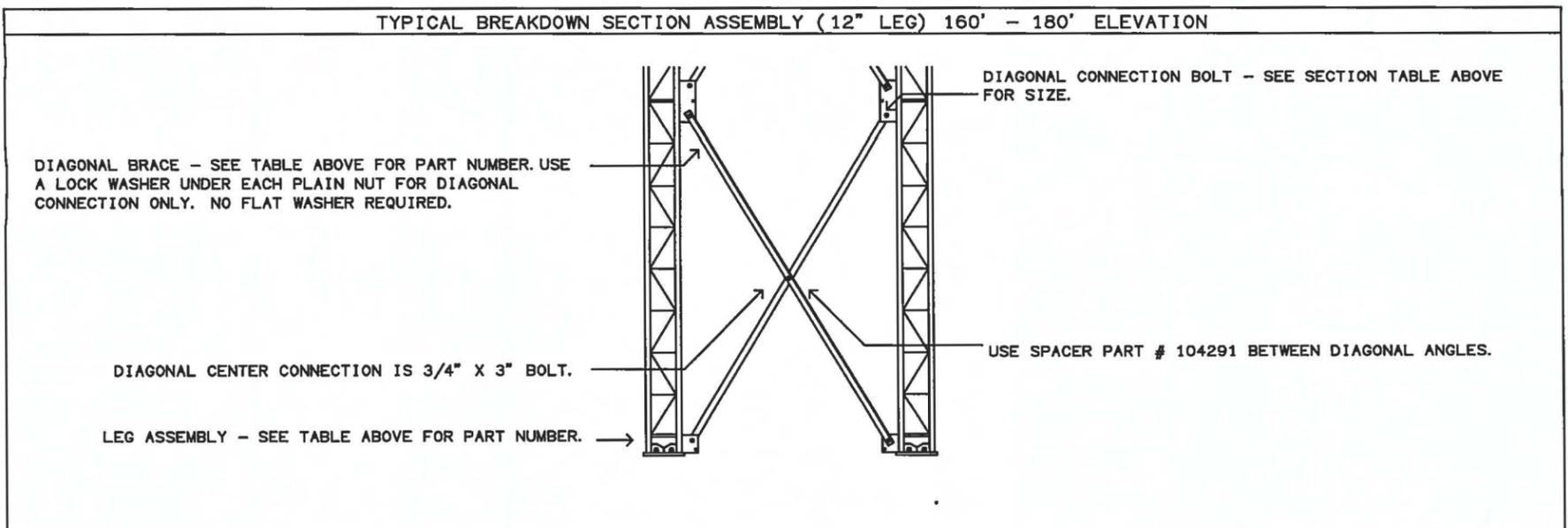
+ AT BOTTOM OF SECTION
* THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO ERECTION.
** PANELS ARE NUMBERED BEGINNING AT THE TOP OF THE SECTION.

HORIZONTAL DATA		
HORIZ HT	IN SEC#	HORIZ PART#
255	V- 5.0	227584



BREAKDOWN SECTION DATA (12" LEG) 160' - 180' ELEVATION														
SEC #	SECTION LENGTH	LEG SIZE	LEG PART#	TOP DIAG PART#	BOT DIAG PART#	DIAGONAL FACE	ANGLE THICK	SECTION WEIGHT	LEG CONNECT DIAM	LEG CONNECT LENGTH	DIAG CONNECT DIAM	DIAG CONNECT LENGTH		
U-13.0	20'	1- 3/4"	229588	105575	105577	3"	5/16"	3468#	1"	4-3/4"	1"	2-1/4"		

* THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO ERECTION.
+ USE 1 FLAT WASHER UNDER EACH LOCK WASHER FOR LEG CONNECTION ONLY.



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William R. Heiden III, KY Professional Engineer # 22430

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	KENTUCKY C. O. A. 1542		
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BREAKDOWN SECTION LEG DATA (12" LEG WITH DOUBLE ANGLES) 0' - 160' ELEVATION

SECTION				LEG		LEG CONNECT @ BOTTOM+		
#	MODEL	LENGTH	WEIGHT*	SIZE	PART #	DIAM	LENGTH	#
8	U-15.0	20'	4545#	2 "	208332	1"	4-3/4"	12
7	U-17.0	20'	5237#	2- 1/4 "	208334	1"	4-3/4"	12
6	U-19.0	20'	5916#	2- 1/2 "	208335	1"	4-3/4"	12
5	U-21.0	20'	6016#	2- 1/2 "	208335	1"	4-3/4"	12
4	U-23.0	20'	6899#	2- 3/4 "	208337	1"	4-3/4"	12
3	U-25.0	20'	7007#	2- 3/4 "	208337	1"	4-3/4"	12
2	U-27.0	20'	8421#	3 "	208336	1-1/4"	5"	12
1	U-29.0	20'	8211#	3 "	208338			

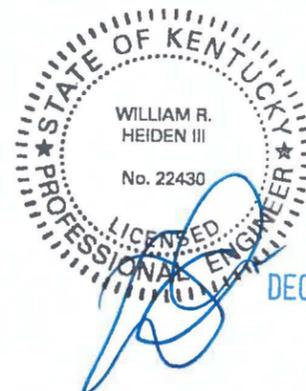
* THE WEIGHTS LISTED ARE THEORETICAL. THE ACTUAL WEIGHTS WILL VARY. ALL WEIGHTS SHOULD BE CONFIRMED IN THE FIELD PRIOR TO ERECTION.

+ QTY IS PER LEG. USE 1 LOCK WASHER AND 1 FLAT WASHER UNDER EACH PLAIN NUT.

BREAKDOWN SECTION DIAGONAL DATA (12" LEG WITH DOUBLE ANGLES) 0' - 160' ELEVATION

SECTION		DIAGONAL PART #			DIAG ANGLE		DIAG END BOLT		DIAG CENTER & SPACER BOLT		CENTER PLATE	SPACER	
#	MODEL	UPPER	LOWER	LONG	FACE	THICK	DIAM	LENGTH	DIAM	LENGTH	PART #	PART #	**
8	U-15.0	215273	215277	215358	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	5
7	U-17.0	215281	215285	215362	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	6
6	U-19.0	215289	215293	215365	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	7
5	U-21.0	215296	215300	215369	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	8
4	U-23.0	215304	215308	215373	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	8
3	U-25.0	215312	215316	215377	3-1/2"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	8
2	U-27.0	215321	215325	215381	4"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	8
1	U-29.0	215328	215331	215384	4"	1/4"	7/8"	2-1/2"	5/8"	2-1/4"	211833	104291	8

* QUANTITY IS PER PANEL PER FACE. USE 1 LOCK WASHER UNDER EACH PLAIN NUT.



DEC 11 2013

William R. Heiden III, KY Professional Engineer # 22430

AMERICAN TOWER CORP.
#282100 INDEX, KY
V-29.0 X 255'

KENTUCKY C. O. A. 1542

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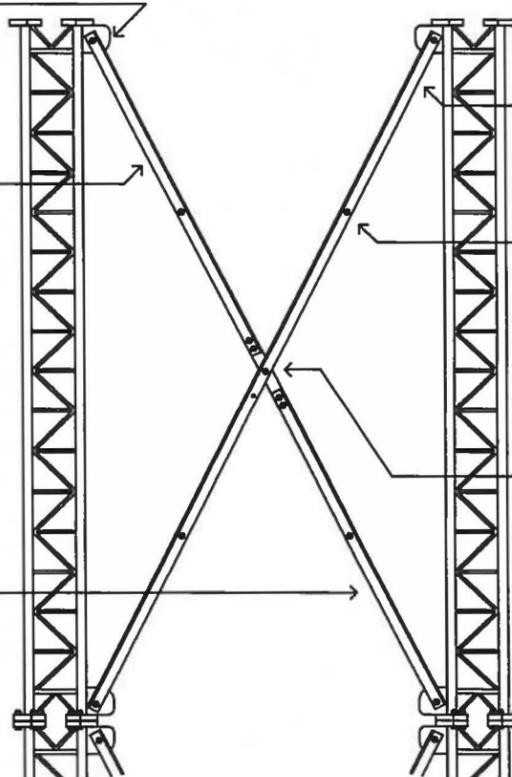
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TYPICAL BREAKDOWN SECTION ASSEMBLY (12" LEG WITH DOUBLE ANGLES) 0' - 160' ELEVATION

DIAGONAL END BOLTS - SEE DIAGONAL TABLE ON PAGE 3 FOR SIZE. NO FLAT WASHER REQUIRED.

"UPPER" DIAGONAL BRACES (BACK TO BACK ANGLES) - SEE TABLE ON PG. 3 FOR PART #.

"LOWER" DIAGONAL BRACES (BACK TO BACK ANGLES) - SEE TABLE ON PG. 3 FOR PART #.



"LONG" DIAGONAL BRACE (BACK TO BACK ANGLES) - SEE TABLE ON PG. 3 FOR PART #.

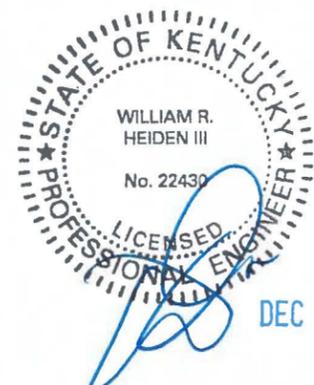
INTERMEDIATE DIAGONAL BOLTS WITH SPACER - SEE TABLE ON PG. 3 FOR SIZE, SPACER PART # AND NUMBER OF LOCATIONS PER PANEL ON EACH FACE. USE 1 SPACER PER BOLT. SEE DRAWING # 214823 FOR DETAILS.

DIAGONAL CENTER PLATE - SEE DIAGONAL TABLE ON PAGE 3 FOR PART # AND BOLT SIZE.

LEG CONNECTION - SEE TABLE ON PAGE 3 FOR BOLT SIZE. USE 1 LOCK WASHER AND 1 FLAT WASHER UNDER EACH PLAIN NUT FOR LEG CONNECTION.

ATTENTION ERECTOR:

- EXTRA CARE MUST BE TAKEN WHEN STANDING BREAKDOWN LEG SECTIONS FROM A FLAT "ASSEMBLY" POSITION ON THE GROUND TO AN UPRIGHT POSITION FOR STACKING. POOR RIGGING AND/OR LIFTING PROCEDURES MAY DAMAGE THE ANGLE BRACES AND/OR BREAKDOWN LEGS. IT IS THE RESPONSIBILITY OF THE TOWER CONTRACTOR TO ENSURE BREAKDOWN LEGS AND ANGLES ARE NOT DAMAGED DURING THE TOWER ASSEMBLY AND ERECTION.
- WHEN LIFTING ("FLYING") SINGLE PANEL TOWER SECTIONS TO PLACE THEM ON PREVIOUSLY ERECTED SECTIONS, A MINIMUM OF TWO (2) FULL SECTIONS (TYPICALLY 40') MUST BE ASSEMBLED TOGETHER TO PROVIDE ADEQUATE STABILITY TO THE TOWER LEGS AND ANGLE BRACES. IT IS THE RESPONSIBILITY OF THE TOWER CONTRACTOR TO ENSURE BREAKDOWN LEGS AND ANGLES ARE NOT DAMAGED DURING THE TOWER ASSEMBLY AND ERECTION.



DEC 11 2013

William R. Heiden III, KY Professional Engineer # 22430

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	KENTUCKY C. O. A. 1542			
	APPROVED/ENG.	M_S	12/11/2013	
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GENERAL NOTES

1. TOWER DESIGN CONFORMS TO STANDARD TIA-222-G UTILIZING AN 90 MPH 3-SEC GUST BASIC WIND SPEED WITH A STRUCTURE CLASS OF II, TOPOGRAPHIC CATEGORY OF 3 AND EXPOSURE C CRITERIA WITH NO ICE.
TOWER DESIGN CONFORMS TO STANDARD TIA-222-G UTILIZING AN 30 MPH 3-SEC GUST BASIC WIND SPEED WITH A STRUCTURE CLASS OF II, TOPOGRAPHIC CATEGORY OF 3 AND EXPOSURE C CRITERIA WITH .75" RADIAL ICE.
CREST HEIGHT OF 240 FEET
2. NO TWIST AND SWAY LIMITATIONS SPECIFIED OR USED FOR THIS TOWER.
3. MATERIAL: (A) SOLID RODS TO ASTM A572 GRADE 50. (B) ANGLES TO ASTM A36. (C) PIPE TO ASTM A500 GRADE B. (D) STEEL PLATES TO ASTM A36. (E) CONNECTION BOLTS TO ASTM A325 OR ASTM A449 (Fu=120 KSI AND Fy=92 KSI) AND ANCHOR BOLTS TO ASTM F1554 (Fu=150 KSI AND Fy=105 KSI). (F) TOWER LEG PIPE TO BE ASTM A500 GRADE B/C WITH 50KSI MIN. YIELD STRENGTH
4. BASE REACTIONS PER TIA-222-G FOR 90 MPH BASIC WIND SPEED WITH NO ICE (REACTIONS INCLUDE TIA-222-G LOAD FACTORS): TOTAL WEIGHT = 107.0 KIPS. MAXIMUM COMPRESSION = 782.0 KIPS PER LEG. MOMENT = 18730.0 KIP-FT. MAXIMUM UPLIFT = 898.0 KIPS PER LEG. MAXIMUM SHEAR = 142.0 KIPS TOTAL.
5. BASE REACTIONS PER TIA-222-G FOR 30 MPH BASIC WIND SPEED WITH 0.75" RADIAL ICE (REACTIONS INCLUDE TIA-222-G LOAD FACTORS): TOTAL WEIGHT = 331.0 KIPS. MOMENT = 2204.0 KIP-FT. MAXIMUM SHEAR = 16.0 KIPS TOTAL.
6. FINISH: ALL BOLTS ARE GALVANIZED IN ACCORDANCE WITH ASTM A153 (HOT DIPPED) OR ASTM B695 CLASS 50 (MECHANICAL). ALL OTHER STRUCTURAL MATERIALS ARE GALVANIZED IN ACCORDANCE WITH ASTM 123.
7. ANTENNAS: 255'-135 SQ. FT. AREA WITH 3,000# WITH ICE/115 SQ. FT. AREA WITH 2,000# NO ICE AND (18) 1-5/8" LINES.
245'-135 SQ. FT. AREA WITH 3,000# WITH ICE/115 SQ. FT. AREA WITH 2,000# NO ICE AND (18) 1-5/8" LINES.
235'-135 SQ. FT. AREA WITH 3,000# WITH ICE/115 SQ. FT. AREA WITH 2,000# NO ICE AND (18) 1-5/8" LINES.
225'-135 SQ. FT. AREA WITH 3,000# WITH ICE/115 SQ. FT. AREA WITH 2,000# NO ICE AND (18) 1-5/8" LINES.
NOTE: (A) ELEVATIONS ARE TO THE BOTTOM OF THE ANTENNAS EXCEPT FOR MICROWAVE DISHES, WHICH ARE TO THE CENTERLINE. (B) ALL TRANSMISSION LINES MUST BE PLACED ON PIROD SUPPLIED LINE BRACKETS.
8. REMOVE FOUNDATION TEMPLATE PRIOR TO ERECTING TOWER. INSTALL BASE SECTION WITH MINIMUM OF 2" CLEARANCE ABOVE CONCRETE. SEE BASE SECTION PLACEMENT PAGE FOR MORE INFORMATION. PACK NON-SHRINK STRUCTURAL GROUT UNDER BASE SECTION AFTER LEVELING TOWER.
9. MIN. WELDS 5/16" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS D1.1 SPECIFICATIONS .
10. THIS DRAWING DOES NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, SEQUENCES AND PROCEDURES.
11. ALL BOLTS AND NUTS MUST BE IN PLACE BEFORE THE ADJOINING SECTIONS ARE INSTALLED.
12. ALL STRUCTURAL BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC SPECIFICATION UNLESS OTHERWISE NOTED.
13. ATTENTION TOWER ERECTOR: COAT ALL BOLT ASSEMBLIES THAT USE PIN LOCK NUTS WITH ZINC RICH COLD GALVANIZING COMPOUND AFTER FINAL TIGHTENING.
14. TIA-222-G GROUNDING FOR TOWER.
15. TOWER LIGHTING SUPPLIED BY OTHERS.



William R. Heiden III, KY Professional Engineer # 22430

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		KENTUCKY C. O. A. 1542 APPROVED/ENG. M_S 12/11/2013 APPROVED/FOUND. N/A COPYRIGHT 2013 DRAWN BY KWD	 1-877-467-4763 Plymouth, IN 1-888-880-9191 Salem, OR STRUCTURES
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FOUNDATION NOTES

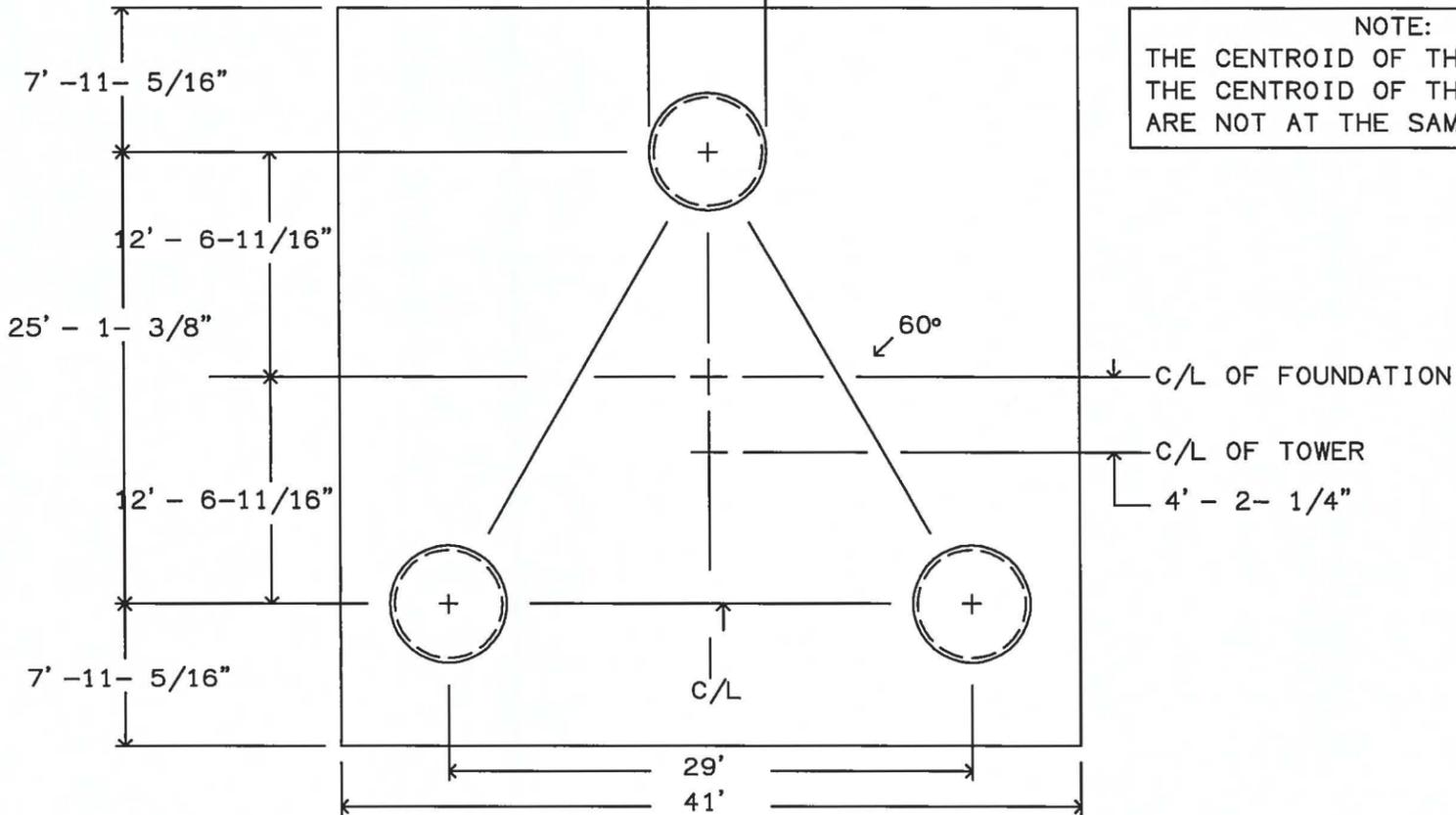
1. ULTIMATE SOIL PRESSURE ASSUMED TO BE 5000 PSF. ULTIMATE PASSIVE PRESSURE ASSUMED TO BE 400 LB PCF. THE PURCHASER & OWNER/CONTRACTOR MUST VERIFY THAT THE ACTUAL SITE SOIL PARAMETERS MEET OR EXCEED THE ASSUMED SOIL PARAMETERS PER THIS NOTE AND/OR SHOULD OBTAIN A SOIL REPORT TO DETERMINE THE SOIL CONDITIONS AT THE SITE. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE FOR THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED.
2. CONCRETE TO BE 4000 PSI @ 28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 (2008) BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. A COLD JOINT IS PERMISSIBLE UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
4. ALL FILL SHOULD BE PLACED IN LOOSE LEVEL LIFTS OF NO MORE THAN 12" THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGANIC AND FROZEN MATERIALS OR ANY OTHER DELETERIOUS MATERIALS. COMPACT FILL TO 97% OF STANDARD PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698.
5. BENDING, STRAIGHTENING OR REALIGNING (HOT OR COLD) OF THE ANCHOR BOLTS BY ANY METHOD IS PROHIBITED.
6. CROWN TOP OF FOUNDATION FOR PROPER DRAINAGE.
7. IN THE ABSENCE OF A GEOTECHNICAL REPORT, THE FOLLOWING PRESUMPTIVE SOIL PARAMETERS WERE USED: AN ULTIMATE BEARING PRESSURE OF 5000 PSF, A COHESION OF 1000 PSF, A SOIL UNIT WEIGHT OF 110 PCF, AN ANGLE OF INTERNAL FRICTION OF 0 DEGREES AND NO GROUNDWATER ENCOUNTERED. THESE SOIL PARAMETERS ARE IN COMPLIANCE WITH THE REQUIREMENTS OF ANSI/TIA-222-G-2005 AND CAN BE FOUND IN ANNEX F OF THIS STANDARD.



William R. Heiden III, KY Professional Engineer # 22430

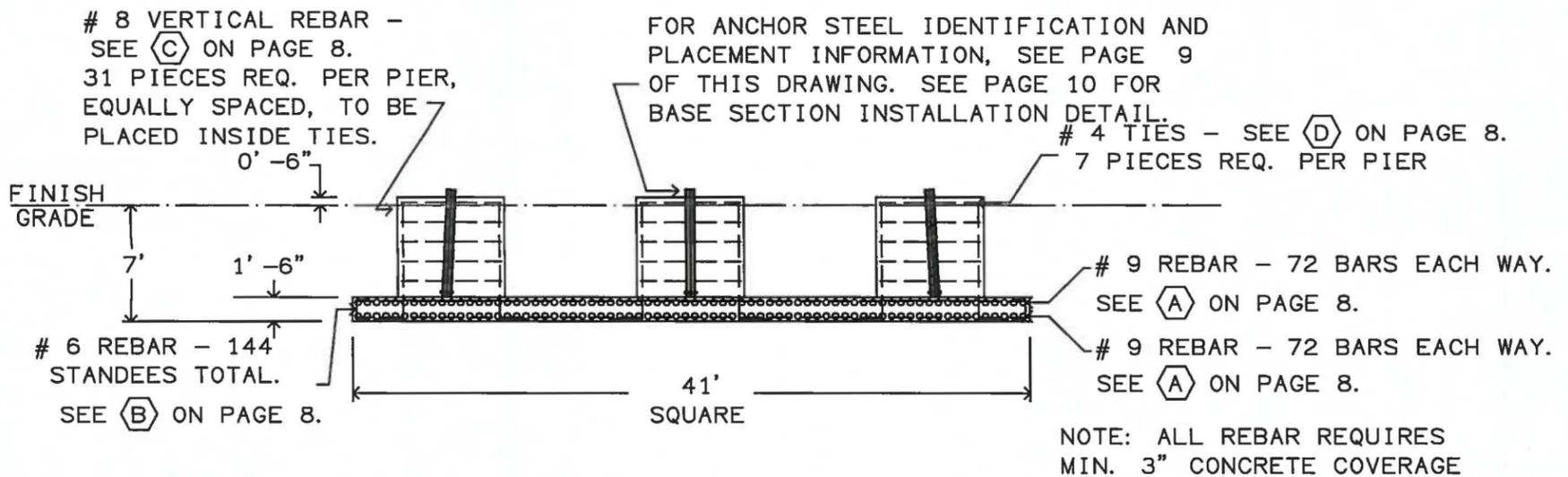
				AMERICAN TOWER CORP. #282100 INDEX, KY V-29.0 X 255'			
				KENTUCKY C. O. A. 1542			
A	ADDED FOUNDATIONS	MS	12/11/2013	APPROVED/ENG.	M_S	12/11/2013	 <small>1-877-467-4763 Plymouth, IN 1-888-880-9191 Salem, OR</small>
REV	DESCRIPTION OF REVISIONS	INI	DATE	APPROVED/FOUND.	M_S	12/11/2013	
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				PAGE 6 OF 10			

6' - 6" ROUND, CENTERED AROUND
THE CIRCULAR REBAR CAGE



NOTE:
THE CENTROID OF THE TOWER AND
THE CENTROID OF THE FOUNDATION
ARE NOT AT THE SAME POINT!

NOTE: THE FOUNDATIONS DEPICTED ON THIS DRAWING WERE DESIGNED PER ASSUMED SOIL PARAMETERS. ALTHOUGH, IT IS OUR EXPECTATION THAT THE SOIL WILL EXHIBIT SUFFICIENT STRENGTH TO COMPLY WITH THE ASSUMED STRENGTHS, IT IS POSSIBLE THAT THE SOIL MAY NOT EXHIBIT THE REQUIRED STRENGTHS. THEREFORE, IT IS HIGHLY RECOMMENDED THAT THE ASSUMED PROPERTIES BE CONFIRMED BY A GEOTECHNICAL ENGINEER VIA A SOIL REPORT OR AN ON-SITE INSPECTION DURING INSTALLATION.



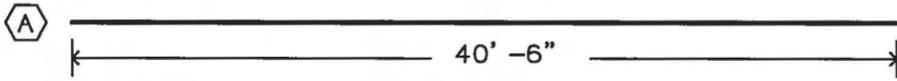
TOWER FOUNDATION

115.5 CUBIC YARDS CONCRETE REQUIRED
FOR INSTALLATION SPECIFICATIONS AND
ADDITIONAL INFORMATION, SEE PAGE 6
OF THIS DRAWING.



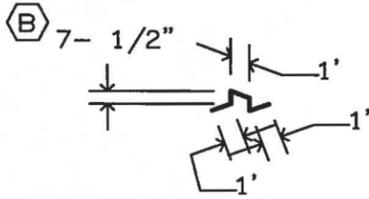
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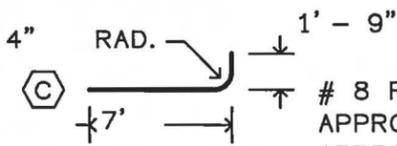


9 REBAR - 288 PIECES REQ. TOTAL
 APPROX WT = 137.7# EACH, 39658# TOTAL

REBAR SUPPORTS MAY CONSIST OF ANY ACCEPTABLE MEANS OF SECURELY SUPPORTING THE TOP REINFORCEMENT GRID ABOVE THE BOTTOM REINFORCEMENT GRID WHILE MAINTAINING A SEPARATION OF 1' (OUTSIDE REBAR TO OUTSIDE REBAR).



6 REBAR - 144 PIECES REQUIRED TOTAL
 TYPE 26 STANDEE PLACED BETWEEN REBAR GRIDS ON NOMINAL 4' SPACING THROUGHOUT
 APPROX UNBENT LENGTH = 4' - 2- 5/8"
 APPROX WT = 6.3# EACH, 907# TOTAL



8 REBAR - 93 PIECES REQUIRED TOTAL
 APPROX UNBENT LENGTH = 8' - 7- 3/8"
 APPROX WT = 23.0# EACH, 2139# TOTAL



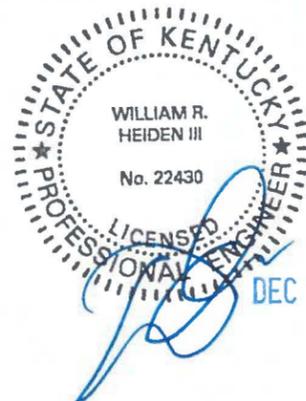
4 REBAR - 21 PIECES REQUIRED TOTAL
 APPROX UNBENT LENGTH = 20' - 4- 3/4"
 APPROX WT = 13.6# EACH, 286# TOTAL

LAP DIMENSION: 1' - 6- 1/2"
 PLACE CIRCULAR TIES SO THAT LAPS ON ADJACENT TIES ARE 180 DEGREES APART. PLACE ONE TIE AT TOP OF PAD AND TWO TIES AT TOP OF PIER REBAR. EQUALLY SPACE REMAINING TIES ALONG PIER.

NOTE: THE FOUNDATIONS DEPICTED ON THIS DRAWING WERE DESIGNED PER ASSUMED SOIL PARAMETERS. ALTHOUGH, IT IS OUR EXPECTATION THAT THE SOIL WILL EXHIBIT SUFFICIENT STRENGTH TO COMPLY WITH THE ASSUMED STRENGTHS, IT IS POSSIBLE THAT THE SOIL MAY NOT EXHIBIT THE REQUIRED STRENGTHS. THEREFORE, IT IS HIGHLY RECOMMENDED THAT THE ASSUMED PROPERTIES BE CONFIRMED BY A GEOTECHNICAL ENGINEER VIA A SOIL REPORT OR AN ON-SITE INSPECTION DURING INSTALLATION.

REBAR DETAIL

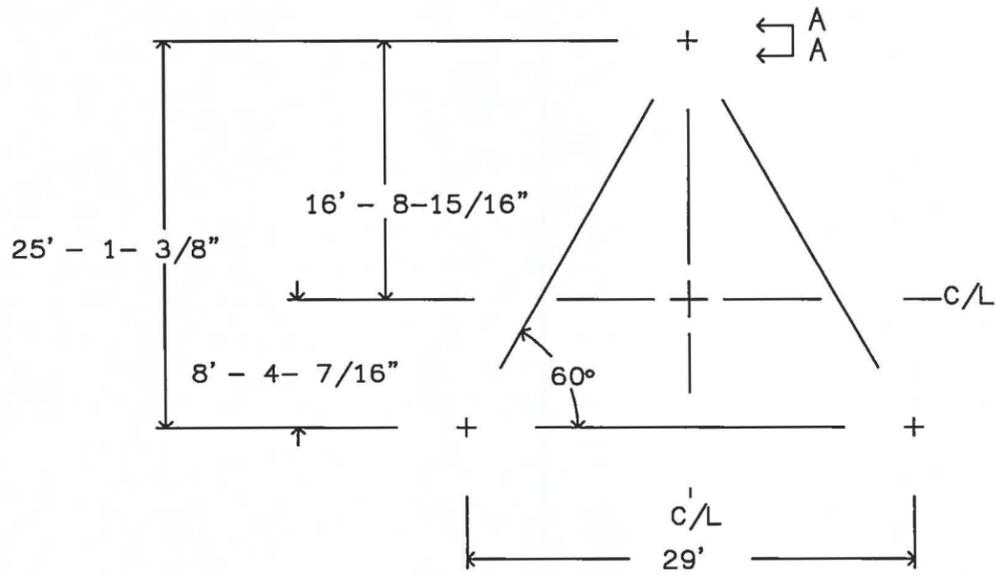
TOTAL APPROX REBAR WEIGHT = 42990#
 REINFORCING BAR TO CONFORM TO
 ASTM A615 GRADE 60 SPECIFICATIONS.



William R. Heiden III, KY Professional Engineer # 22430

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REV	DESCRIPTION OF REVISIONS	INI	DATE	APPROVED/FOUND.	M_S	12/11/2013
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From: F1015796.DFT - 12/11/2013 09:01				DRAWN BY		M_S
Printed from 252261_080A.DWG * 12/11/2013 09:37 @ 12/11/2013 10:06				ENG. FILE NO. A-239816-		DRAWING NO. 252261
				ARCHIVE F-1015796		PAGE 8 OF 10

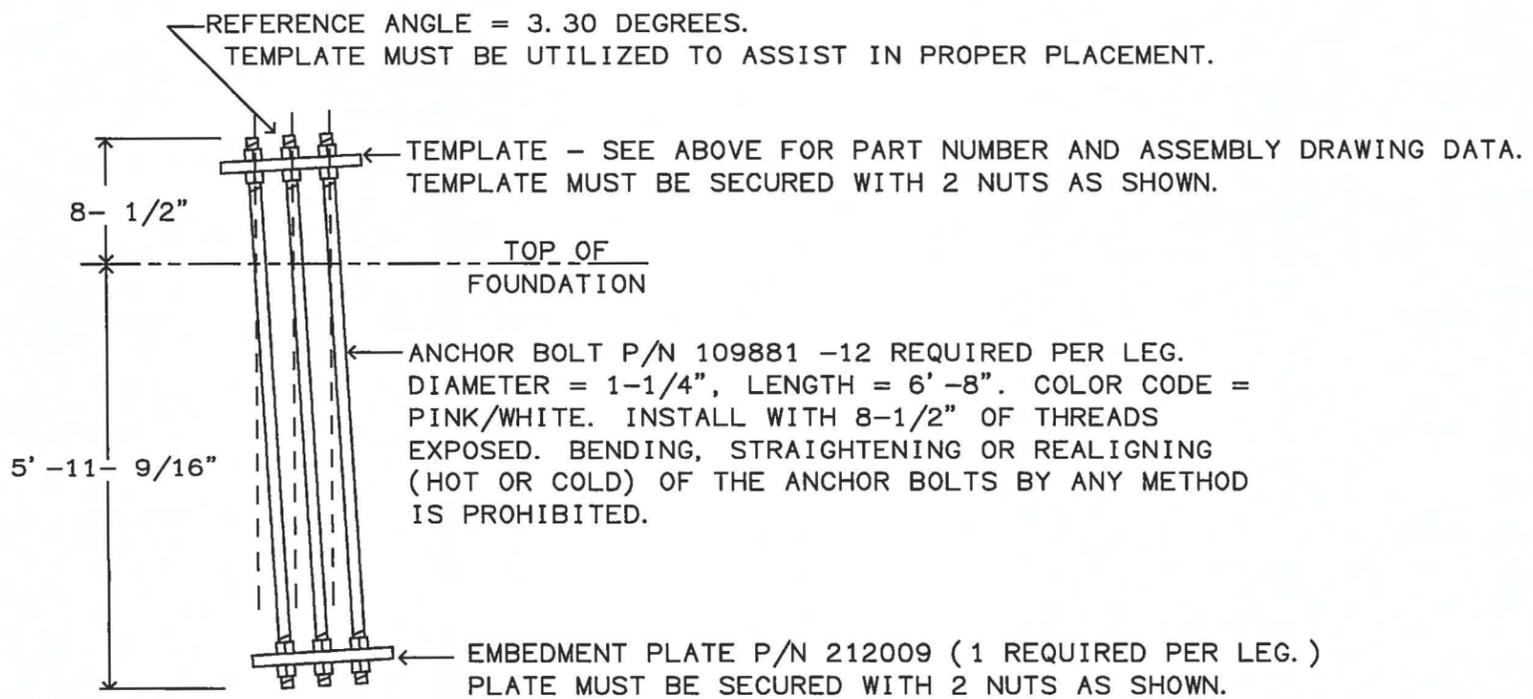




TOWER ANCHOR STEEL PLACEMENT - TOP VIEW

TEMPLATE ASSEMBLY P/N 216165 INCLUDES CORNER PLATE P/N 211904, IS REQUIRED FOR INSTALLATION AND MUST BE PLACED AS SHOWN. SEE DRAWING # 211875 FOR TEMPLATE ASSEMBLY DETAILS. SEE PAGE 7 FOR TOWER C/L LOCATION RELATIVE TO THE FOUNDATION LAYOUT. TEMPLATE PLACEMENT +/- 3". EACH LEG MUST BE CENTERED IN PIER WITHIN +/- 10% OF PIER DIAMETER. TEMPLATE MUST BE LEVEL +/- 1 DEGREE. INSTALL TEMPLATE WITH SUFFICIENT SPACE BENEATH (2" MINIMUM) TO PERMIT FINISHING OF CONCRETE AND TO FACILITATE TEMPLATE REMOVAL PRIOR TO TOWER ERECTION.

SEE PAGE 10 FOR BASE SECTION INSTALLATION DETAIL.



VIEW A - A - ANCHOR BOLT INSTALLATION DETAIL (NOT TO SCALE)

ATTENTION CONTRACTOR INSTALLING THE ANCHOR BOLTS!

1-1/4" DIAMETER ANCHOR BOLTS FOR TAPERED TOWER.

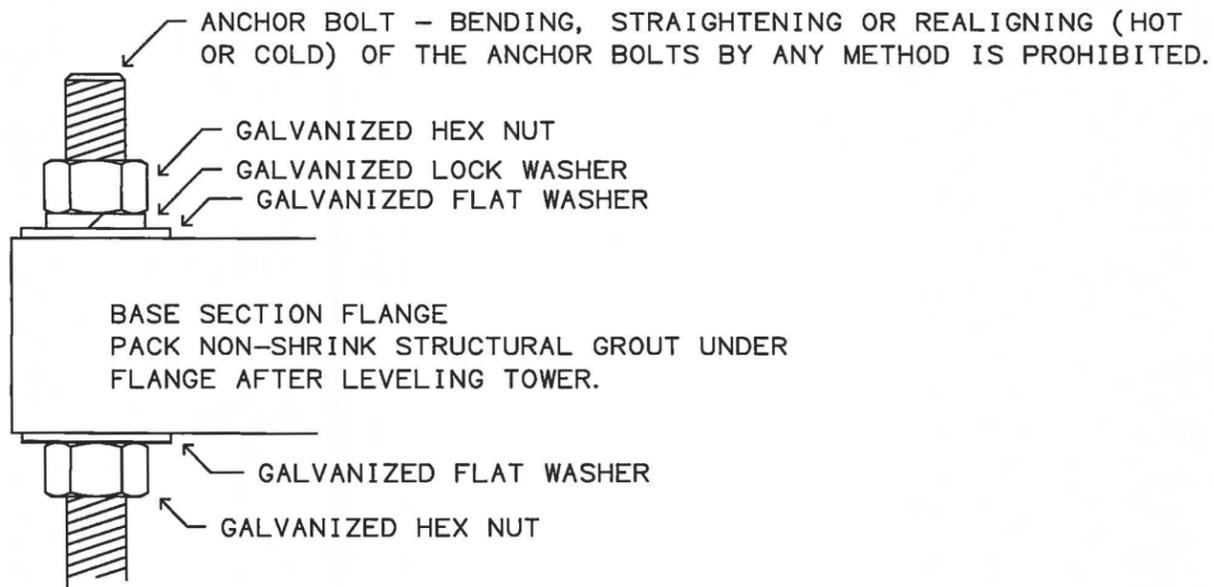
VERIFY THE PART NUMBERS AND SIZES FOR ALL COMPONENTS ON THIS PAGE AND PAGE 10.

IF THERE ARE ANY DISCREPANCIES, PLEASE NOTIFY PIROD, INC. PRIOR TO INSTALLATION!!



William R. Heiden III, KY Professional Engineer # 22430

				AMERICAN TOWER CORP. #282100 INDEX, KY V-29.0 X 255'		
				KENTUCKY C. O. A. 1542		
A	ADDED FOUNDATIONS	MS	12/11/2013	APPROVED/ENG.	M_S	12/11/2013
REV	DESCRIPTION OF REVISIONS	INI	DATE	APPROVED/FOUND.	M_S	12/11/2013
VALMONT STRUCTURES IS A DIVISION OF VALMONT INDUSTRIES, INC. ENGINEERING PROVIDED BY PIROD, INC., WHOLLY OWNED BY VALMONT INDUSTRIES, INC.				COPYRIGHT 2013		valmont 1-877-467-4763 Plymouth, IN 1-888-880-9191 Salem, OR STRUCTURES
From: F1015796.DFT - 12/11/2013 09:01				DRAWN BY M_S		
Printed from 252261_090A.DWG - 12/11/2013 09:04 @ 12/11/2013 10:06				ENG. FILE NO. A-239816- ARCHIVE F-1015796		PAGE 9 OF 10



BASE SECTION INSTALLATION DETAIL



William R. Heiden III, KY Professional Engineer # 22430

				AMERICAN TOWER CORP. #282100 INDEX, KY V-29.0 X 255'		
				KENTUCKY C. O. A. 1542		
A	ADDED FOUNDATIONS	MS	12/11/2013	APPROVED/ENG.	M_S	12/11/2013
REV	DESCRIPTION OF REVISIONS	INI	DATE	APPROVED/FOUND.	M_S	12/11/2013
VALMONT STRUCTURES IS A DIVISION OF VALMONT INDUSTRIES, INC. ENGINEERING PROVIDED BY PIROD, INC., WHOLLY OWNED BY VALMONT INDUSTRIES, INC.				COPYRIGHT 2013		
From: F1015796.DFT - 12/11/2013 09:01				DRAWN BY		M_S
Printed from 252261_100A.DWG - 12/11/2013 09:04 @ 12/11/2013 10:06				ENG. FILE NO. A-239816- ARCHIVE F-1015796		DRAWING NO. 252261 PAGE 10 OF 10
						

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

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



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

Aeronautical Study No.
 2016-ASO-473-OE

Issued Date: 01/28/2016

JOHN MONDAY (DC)
 AT&T MOBILITY
 3300 E. RENNER ROAD, B3132
 RICHARDSON, TX 75082

**** 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 Index
Location:	West Liberty, KY
Latitude:	37-53-33.99N NAD 83
Longitude:	83-17-14.13W
Heights:	1029 feet site elevation (SE)
	275 feet above ground level (AGL)
	1304 feet above mean sea level (AMSL)

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

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

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

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

This determination expires on 07/28/2017 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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

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

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

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

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

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

If we can be of further assistance, please contact our office at (816) 329-2523. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2016-ASO-473-OE.

Signature Control No: 277290686-279100514

(DNE)

Steve Phillips
Specialist

Attachment(s)
Frequency Data
Map(s)

cc: FCC

Frequency Data for ASN 2016-ASU-4/3-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

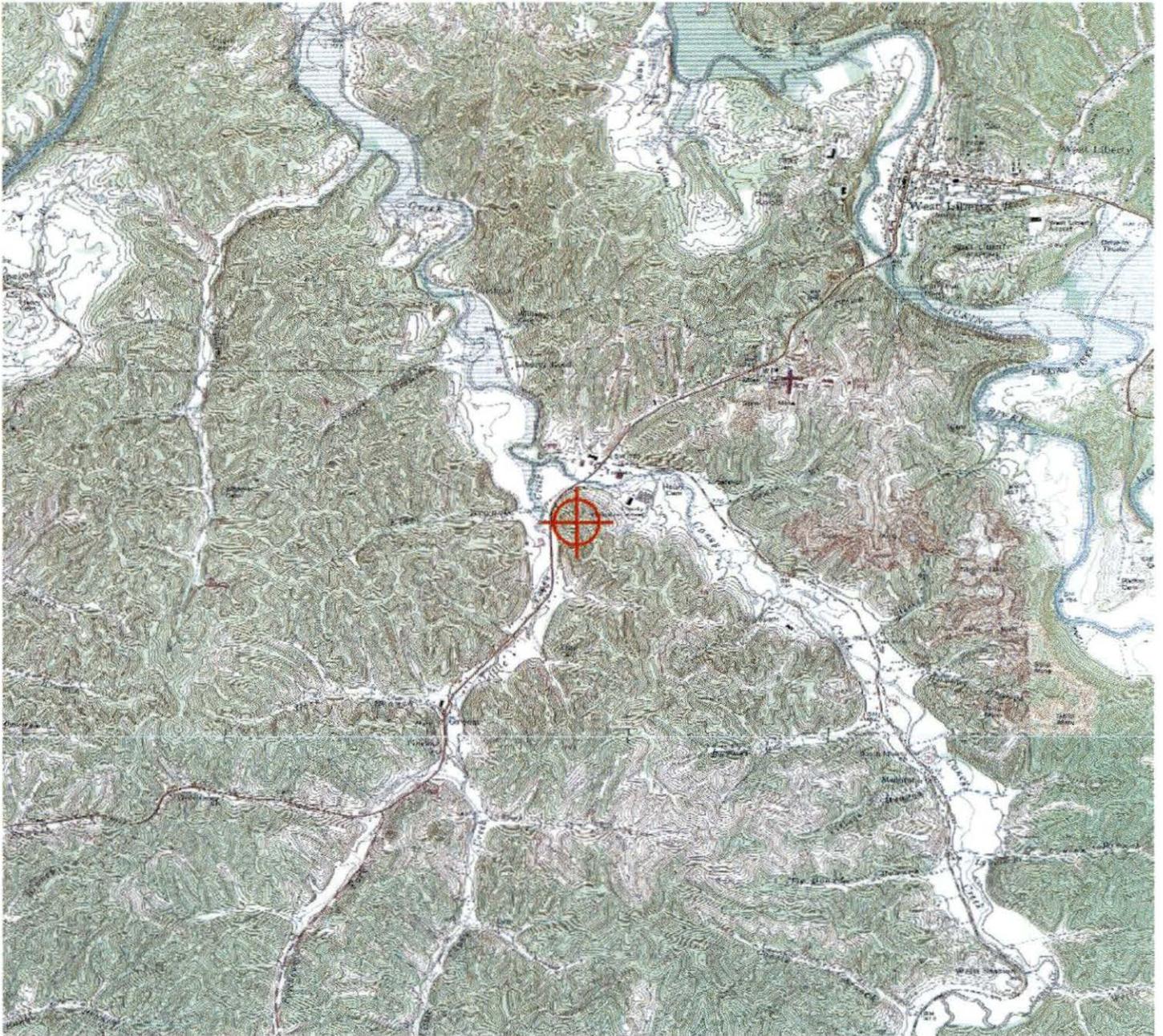




EXHIBIT F
KENTUCKY AIRPORT ZONING COMMISSION



KENTUCKY AIRPORT ZONING COMMISSION

STEVEN BESHEAR
Governor

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

October 16, 2015

APPROVAL OF APPLICATION EXTENSION

APPLICANT:

A T & T MOBILITY LLC
AT&T MOBILITY
601 WEST CHESTNUT STREET
LOUISVILLE, KY 40203

SUBJECT: AS-088-913-2014-038

STRUCTURE: Antenna Tower
LOCATION: West Liberty, KY
COORDINATES: 37° 53' 33.99" N / 83° 17' 14.13" W
HEIGHT: 265' AGL/1294' AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct 265' AGL/ 1294' AMSL Antenna Tower near West Liberty, KY 37° 53' 33.99" N / 83° 17' 14.13" 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.

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

A handwritten signature in blue ink, appearing to read "John Houlihan".

John Houlihan
Administrator



An Equal Opportunity Employer M/F/D



KENTUCKY AIRPORT ZONING COMMISSION

STEVEN BESHEAR
Governor

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

CONSTRUCTION/ALTERATION STATUS REPORT

October 16, 2015

AERONAUTICAL STUDY NUMBER: AS-088-913-2014-038

A T & T MOBILITY LLC
AT&T MOBILITY
601 WEST CHESTNUT STREET
LOUISVILLE, KY 40203

This concerns the permit extension which was issued to you by the Kentucky Airport Zoning Commission on October 16, 2015. 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: West Liberty, KY
COORDINATES: 37° 53' 33.99" N / 83° 17' 14.13" W
HEIGHT: 265' AGL /1294' AMSL

CONSTRUCTION/ALTERATION STATUS

- The project () is abandoned. () is not abandoned.
- 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 _____



An Equal Opportunity Employer M/F/D

EXHIBIT G
GEOTECHNICAL REPORT



ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

Geotechnical Investigation

AT&T Site (Index)

2140 Highway 460 W
West Liberty, Kentucky
Morgan County

ECA Project No. P1247



SUBMITTED TO:

WesTower Communications
10400 Linn Station Road, Suite 225
Louisville, KY 40223

PREPARED BY:

Environmental Corporation of America
1375 Union Hill Industrial Court, Suite A
Alpharetta, GA 30004



ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

March 4, 2014

WesTower Communications
10400 Linn Station Road, Suite 225
Louisville, KY 40223

Attention: Mr. John Boud

Subject: **Report of Geotechnical Investigation
AT&T Site INDEX
2140 Highway 460 W
West Liberty, Morgan County, Kentucky
ECA Project No. P1247**

Dear Mr. Boud:

Environmental Corporation of America (ECA) is pleased to submit this report of our investigation for the proposed project. Our services were provided as authorized via purchase order dated October 1, 2013.

This report presents a review of the information provided to us, a description of the site and subsurface conditions, and our recommendations. The appendices contain a Boring Location Plan and a Boring Log.

Purpose and Scope of Work

The purpose of this exploration was to obtain specific subsurface data at the site and to provide geotechnical-related design parameters and construction recommendations for the proposed tower.

Our scope of work included the following:

- Due to very steep terrain, our ATV drill rig could not access the proposed tower and level up to facilitate drilling. Therefore, two hand auger borings were drilled to a depth of 5.7 and 5.9 feet below the ground surface (bgs). Figure 1 shows the approximate boring locations.
- The depth to groundwater, if any, was measured in the borings after drilling was completed.

- The soil samples were visually classified and a boring log was prepared. The soil conditions were evaluated by a registered professional engineer and this geotechnical report was prepared with our recommendations.

No physical testing of soil samples has been conducted to calculate site specific bearing capacities or settlements. We have recommended design parameters and settlements based on an examination of the soil samples, and our experience with similar soil conditions and structures.

Project Information

We were provided with an undated survey of the Property by BTM Engineering. The Property is located in a wooded area.

We understand that plans call for the construction of a 255-foot self-supporting lattice tower on the site. We assume that the equipment building/cabinets will be pre-fabricated structures supported on a turned-down slab foundation.

Site Conditions

The fieldwork was conducted on February 25, 2014. Information obtained from the borings was used to help us evaluate the subsurface conditions and to assist in formulating our recommendations.

Subsurface Conditions

The subsurface conditions were explored with two borings drilled approximately as shown on Figure 1. Several rock outcroppings were noted at the project site. The ground surface at the tower center slopes about 20 percent.

The boring encountered sandy silt and gravel overlying apparent bedrock at approximately 5.9 feet. The soil classified as ML soil type based on the Unified Soil Classification System (USCS). Auger refusal was encountered in boring B-1 at 5.9 feet and in boring B-1A at 5.7 feet. It is possible that the material at 5.9 feet represents a boulder; however, based on our observations, solid rock is very close to the surface. In order to drill deeper, coring would be needed. Also, significant clearing and leveling of the tower center would be needed.

Groundwater was not present in the borings at the time of completion.

Recommendations

Tower Foundations: The subsurface conditions are suitable for support of the tower using a mat foundation. Due to the shallow depth to bedrock, a caisson foundation would not be feasible.

For a mat foundation design, we recommend the foundation base be supported on the apparent rock surface. If bearing on weathered rock, a net allowable bearing pressure of 8 ksf may be used. Other soil parameters that may be needed are as follows:

Cohesion	1500 psf
Angle of internal friction	0°
Unit weight of soil	115 pcf

Total and differential settlement should be less than 1-inch and ½-inch, respectively. Due to the shallow rock, it may be necessary to excavate some depth of the rock to accommodate a below-ground foundation pad, or raise the ground surface and the tower foundation to provide sufficient concrete mass and overturning resistance, and/or use rock anchors.

Groundwater should not be encountered in a mat foundation excavation.

Building Foundations: The proposed equipment cabinet(s) can be supported on a spread footing foundation. A maximum allowable net bearing pressure of 2.0 kips per ft² should be used to design the building/cabinet foundation. Total and differential settlements should be less than 1/2-inch and 1/4-inch, respectively.

Foundation Excavations: To avoid softening of the shallow soils exposed at the foundation bearing level, excavations should not be left open for extended periods, prior to placing reinforcing steel and concrete. If rain or freezing weather is expected, excavations should not be completed. Leaving the excavations at least 1 ft above final grade should protect the bearing soils from deterioration.

If the excavation must remain open overnight or if rainfall becomes imminent while the bearing soils are exposed, we recommend that a 2 to 4-inch thick "mud-mat" of "lean" (2000 psi) concrete be placed on the bearing soils before the placement of reinforcing steel. If the bearing soils are softened by surface water intrusion or exposure, the softened soils must be removed from the foundation excavation bottom immediately prior to placement of concrete.

Fill Placement: The amount of fill required for this project depends on the planned final grades, but we expect it to be minimal. Any required fill should be placed in maximum 8-inch thick lifts. The soil moisture content should be close to the optimum moisture content. The soil should be compacted to at least 98% of the maximum dry density, as determined by the standard Proctor method (ASTM D-698).

In areas supporting floor slabs or pavements, the upper 18 inches of fill should be compacted to 100% of the standard Proctor density. As no laboratory testing has been conducted, we do not know the capability of the surficial soil to support pavements. However, we suggest that the upper soils be replaced by granular fill in areas of heavy traffic to improve the subgrade support capabilities and moisture sensitivity.

Field density tests should be conducted at routine intervals, as the fill is being placed, to verify that adequate compaction is achieved.

Prior to placing any new fill, any soft or loose near surface soils should be removed and the area proofrolled with a heavy vehicle to confirm that any unsuitable soil conditions have been discovered.

Basis for Recommendations

The subsurface conditions encountered at the boring location are shown on the Boring Log in Appendix B. This Boring Log represents our interpretation of the subsurface conditions based on the field logs and visual examination of field samples by an engineer. The lines designating the interface between various strata on the Boring Log represent the approximate interface locations. In addition, the transition between strata may be gradual. The water level shown on the Boring Log, if any, represents the condition only at the time of our exploration.

The recommendations contained herein are based in part on project information provided to us and only apply to the specific project and site discussed in this report. If the project information section in this report contains incorrect information or if additional information is available, please let us know so that we may review the validity of our recommendations.

Regardless of the thoroughness of a geotechnical investigation, there is always a possibility that conditions between borings will be different from those at specific boring locations and that conditions will not be as anticipated by the designers or contractors. In addition, the construction process may itself alter soil conditions. Therefore, experienced geotechnical personnel should observe and document the construction procedures used and the conditions encountered. Unanticipated conditions and inadequate procedures should be reported to the design team along with timely recommendations to solve the problems created. ECA is best qualified to provide this service based on our familiarity with the project, the subsurface conditions, and the intent of the recommendations and design.

We wish to remind you that we will store the soil samples for 30 days. The samples will then be discarded unless you request otherwise.

Mr. Boud
Page 5

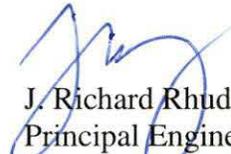
We will be happy to discuss our recommendations with you and look forward to providing the additional studies or services necessary to complete this project. We appreciate the opportunity to be of service. Please call us with any questions at (770) 667-2040.

Sincerely,
Environmental Corporation of America

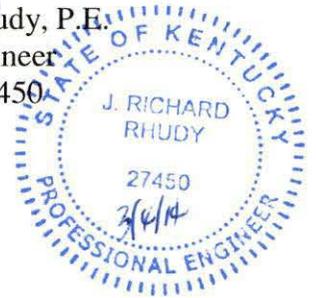


Kelby Williams, EIT
Project Engineer

Appendix A Boring Location Plan
Appendix B Boring Log

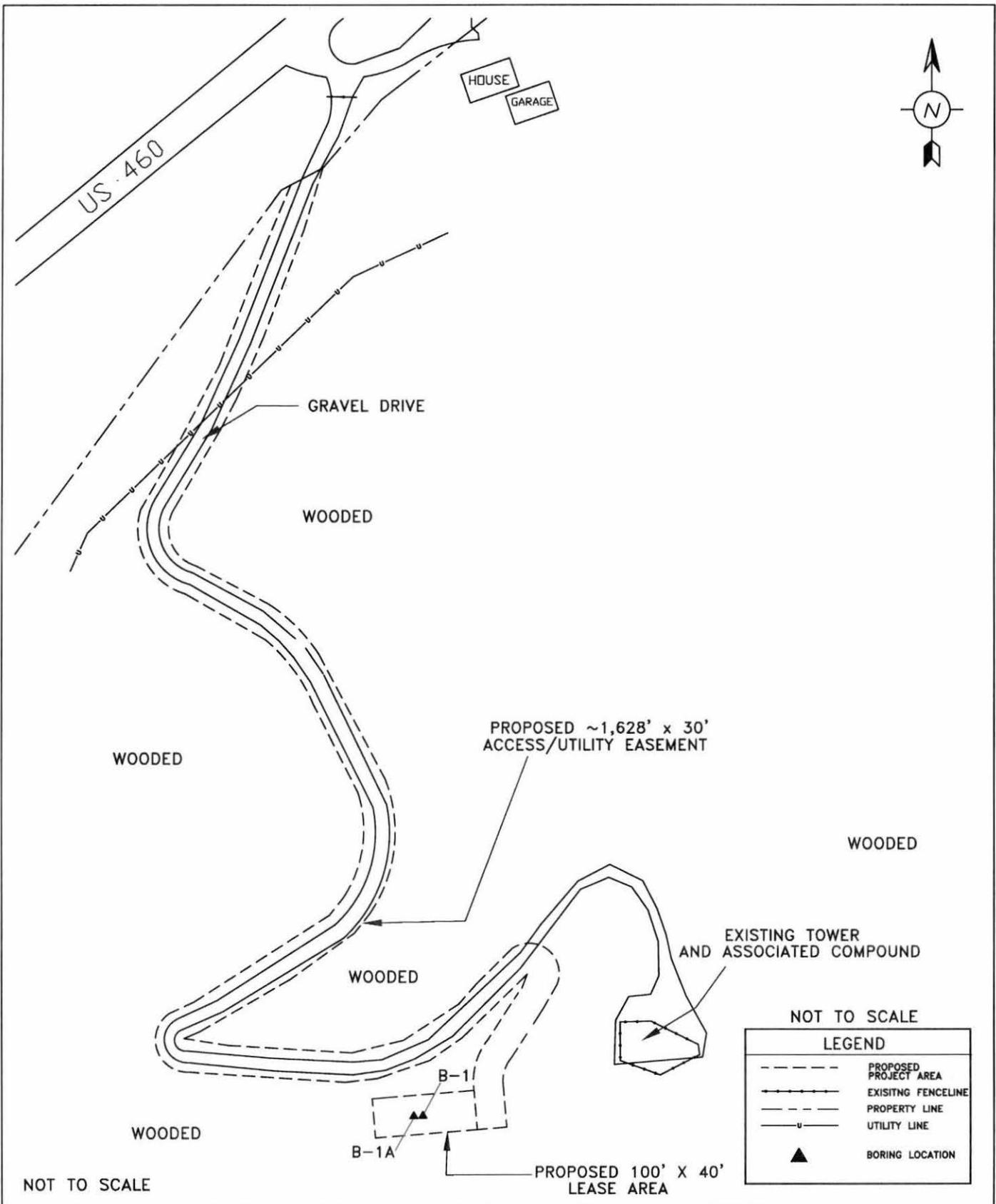


J. Richard Rhudy, P.E.
Principal Engineer
KY Reg. # 27450



APPENDIX A

Boring Location Plan



AT&T Site KYALU6170 (Index)
 2140 US Highway 460W
 West Liberty, Morgan County, Kentucky
 Figure 1: Boring Location Plan

SOURCE: 9/18/13 ECA Site Visit and Site Survey

DRAWN BY: JLD/KLW DATE: 3/3/2014
 FILE NAME: F:\%P1247.dwg



ECA Project # P1247

APPENDIX B

Boring Log

Project: AT&T Site (Index)

Log of Boring: B-1/B-1A

City, State West Liberty, Kentucky

Client: Westower

Drill Date: February 25, 2014

ECA Job No: P1247

Field Rep: Tyler

Elevation (ft)	Depth	SUBSURFACE PROFILE		SAMPLE				Water depth		
		Symbol	Description	Blow Counts (per ft)	SPT Values (blows/ft)				Remarks	
					10	20	30			40
0	0		Ground Surface							
	5		Very dense tan sandy SILT (ML) with gravel							
-5.9	5.9		Boring Terminated						Auger refusal at 5.9 feet Boring B-1A Offset 5 feet west Auger refusal at 5.7 feet	
	10									
	15									
	20									
	25									
	30									
	35									
	40									

Drilled By: Tri-State Drilling

Depth to Water: N/A

Borehole Size: 3" OD

Total Depth: 5.9 ft

Drill Method: Hand Auger

Sheet: 1 of 1

Environmental Corp. of America
1375 Union Hill Indus. Ct., Ste A
Alpharetta, GA 30004
(770) 667-2040



EXHIBIT H
DIRECTIONS TO WCF SITE

Driving Directions to Proposed Tower Site:

1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonsburg Street in West Liberty, KY, head northwest on KY-7.
2. Turn left onto US-460 W / Main Street and travel for 2.5 miles.
3. The site is on the left at 1999 Highway 460 West.
4. site coordinates are
 - a. 37 deg 53 min 33.996 sec N
 - b. 83 deg 17 min 14.131 sec W



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

EXHIBIT I
COPY OF REAL ESTATE AGREEMENT

2.900 pd

LOGGED FOR RECORD
MORGAN COUNTY CLERK

JAN 24 2014
TIME: 3:30 PM
RANDY WILLIAMS, CLERK

MEMORANDUM OF LEASE

3
2

Prepared by: *Kit Nickel*
Kit Nickel
PBM Wireless
13714 Smokey Ridge Overlook
Carmel, IN 46033

Return to:
New Cingular Wireless PCS, LLC
Attn: Network Real Estate Administration
575 Morosgo Drive NE,
Suite 13-F West Tower,
Atlanta, GA 30324

Re: Cell Site # KYALU6170; Cell Site Name: INDEX
Fixed Asset # 12568763
State: KENTUCKY
County: MORGAN

MEMORANDUM
OF
LEASE

This Memorandum of Lease is entered into on this 15th day of October, 2012, by and between SARAH GEORGE FANNIN, UNMARRIED, ROBIN FANNIN, UNMARRIED, ERMA FANNIN, UNMARRIED, FARRELL FANNIN, UNMARRIED AND KELLY KRISTEN FANNIN KOENIG AND CHRIS KOENIG, HUSBAND AND WIFE, having a mailing address of 2140 HWY 460 W, WEST LIBERTY, KY 41472 (hereinafter referred to as "**Landlord**") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 575 Morosgo Drive NE, Suite 13-F West Tower, Atlanta, Ga 30324 (hereinafter referred to as "**Tenant**").

1. Landlord and Tenant entered into a certain Option and Lease Agreement ("**Agreement**") on the 15th day of October, 2012, for the purpose of installing, operating and maintaining a communications facility and other improvements. All of the foregoing is set forth in the Agreement.

2. The initial lease term will be five (5) years commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of its option, with four (4) successive five (5) year options to renew.
3. The portion of the land being leased to Tenant and associated easements are described in **Exhibit 1** annexed hereto.
4. This Memorandum of Lease is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed. In the event of a conflict between the provisions of this Memorandum of Lease and the provisions of the Agreement, the provisions of the Agreement shall control. The Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Agreement.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Lease as of the day and year first above written.

"LANDLORD"

SARAH GEORGE FANNIN, UNMARRIED, ROBIN FANNIN, UNMARRIED, ERMA FANNIN, UNMARRIED, FARRELL FANNIN, UNMARRIED AND KELLY KRISTEN FANNIN KOENIG AND CHRIS KOENIG, HUSBAND AND WIFE

By: *Sarah George Fannin*
 Print Name: Sarah George Fannin
 Its: Owner
 Date: 9-28-13

By: *Robin Fannin*
 Print Name: Robin Fannin
 Its: Owner
 Date: 9-28-13

By: *Farrell Fannin*
 Print Name: Farrell Fannin
 Its: Owner
 Date: 9-28-13

By: *Erma Fannin*
 Print Name: Erma Fannin
 Its: Owner
 Date: 9-28-13

[SIGNATURES CONTINUE ON NEXT PAGE]

By: Kelly Kristen Fannin Koenig
Print Name: Kelly Kristen Fannin Koenig

Its: Owner
Date: 9/30/2013

By: Chris Kochig
Print Name: Chris Kochig

Its: Owner
Date: 9/30/2013

"TENANT"

New Cingular Wireless PCS, LLC,
a Delaware limited liability company
By: AT&T Mobility Corporation
Its: Manager

By: Terry R. Kilgore
Print Name: Terry R. Kilgore

Its: Area Manager, C&E
Date: 10/15/13

[ACKNOWLEDGMENTS APPEAR ON THE NEXT PAGE]

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky)
) ss:
COUNTY OF Morgan)

On the 28 day of September, 2013 before me, personally appeared Farrell Fannin, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Notary Public: Harry Fritch
My Commission Expires: 4-19-2016

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky)
) ss:
COUNTY OF Morgan)

On the 28 day of September, 2013 before me, personally appeared Erma Fannin, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Notary Public: Harry Fritch
My Commission Expires: 4-19-2014

LANDLORD ACKNOWLEDGMENT

STATE OF Missouri)
) ss:
COUNTY OF Greene)

On the 30th day of September 2013 before me, personally appeared Kelly Kristen Fannin Koenig and Chris Koenig, who acknowledged under oath, that they are the persons named in the within instrument, and that they executed the same in their stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

DIANA ROYSTON
Notary Public - Notary Seal
State of Missouri
Commissioned for Greene County
My Commission Expires: December 11, 2016
Commission Number: 12408220

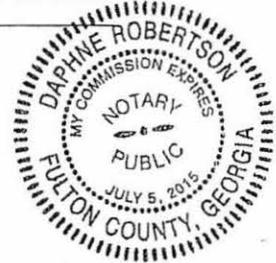
Notary Public: Diana Royston
My Commission Expires: 12-11-2016

TENANT ACKNOWLEDGMENT

STATE OF Georgia)
) ss:
COUNTY OF Fulton)

On the 15th day of October, 2013, before me personally appeared Terry R. Kilgore, and acknowledged under oath that he/she is the Area Manager, C&E of AT&T Mobility Corporation, the Manager of New Cingular Wireless PCS, LLC, the Tenant named in the attached instrument, and as such was authorized to execute this instrument on behalf of the Tenant.

Daphne Robertson
Notary Public: DAPHNE ROBERTSON
My Commission Expires: 7/5/15



LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky)
) ss:
COUNTY OF Morgan)

On the 28 day of September, 2013 before me, personally appeared Sarah George Fannin, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Harry Frisk
Notary Public: Harry Frisk
My Commission Expires: 4-19-2014

LANDLORD ACKNOWLEDGMENT

STATE OF Kentucky)
) ss:
COUNTY OF Morgan)

On the 28 day of September, 2013 before me, personally appeared Robin Fannin, who acknowledged under oath, that he/she is the person/officer named in the within instrument, and that he/she executed the same in his/her stated capacity as the voluntary act and deed of the Landlord for the purposes therein contained.

Harry Frisk
Notary Public: Harry Frisk
My Commission Expires: 4-19-2014

EXHIBIT 1

DESCRIPTION OF PREMISES

Page 1 of 2

to the Option and Lease Agreement dated October 15, 2013, by and between SARAH GEORGE FANNIN, UNMARRIED, ROBIN FANNIN, UNMARRIED, ERMA FANNIN, UNMARRIED, FARRELL FANNIN, UNMARRIED AND KELLY KRISTEN FANNIN KOENIG AND CHRIS KOENIG, HUSBAND AND WIFE, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Property is legally described as follows:

Beginning at the mouth of Little Caney creek; thence up Little Caney creek with its meanders to the line and land of Bill Elam (formerly Kola Noble); thence with the line of Bill Elam to the line of Kola Noble; thence with Kola Noble's line to the line of J.T. Thomas' thence with J.T. Thomas' line to the Lewis Henry line; thence with Lewis Henry's line around to Big Caney Creek just above the ford opposite Isaac Henry's (now Henry's Heirs) line; thence down Big Caney creek with its meanders to the place of beginning, containing 40 acres, more or less, and to contain and include all of the land in the above described boundary with the exception of two lots that have been previously deeded to S.S. Oldfield and wife, of Index, Kentucky.

There is excepted from the foregoing described tract of land a tract of land heretofore conveyed by Stella D. Fannin and others to L. Clifford Long and Aleene F. Long, by deed dated October 19, 1956, and recorded in Deed Book 93, Page 204, Morgan County Court Clerk's records, and reference is hereby made to said deed of conveyance for a more particular description of the portion of land excepted from the above described tract.

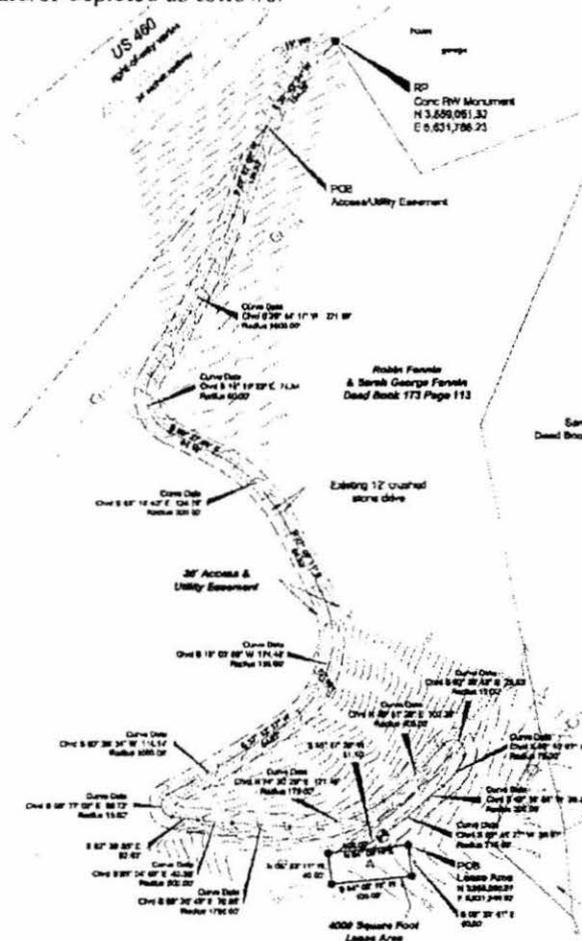
EXHIBIT 1

DESCRIPTION OF PREMISES

Page 2 of 2

to the Option and Lease Agreement dated October 13, 2013, by and between SARAH GEORGE FANNIN, UNMARRIED, ROBIN FANNIN, UNMARRIED, ERMA FANNIN, UNMARRIED, FARRELL FANNIN, UNMARRIED AND KELLY KRISTEN FANNIN KOENIG AND CHRIS KOENIG, HUSBAND AND WIFE, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Premises are described and/or depicted as follows:



Notes:

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

I, the undersigned, do hereby certify that the foregoing is a true and correct copy of the original as recorded in my office.
 Given under my hand this 30th day of Jan, 2014
 Randy Williams, Clerk

Misc BR 57 page 155

BY: [Signature] D.C.

**EXHIBIT J
NOTIFICATION LISTING**

Index – Notice List

Sarah G, Robin and Farrell Fannin
2140 Hwy 460 W
West Liberty, KY 41472

Appalachian Wireless East Kentucky Network
101 Technology Trail
Ivel, KY 41642

Samuel Long
P.O. Box 456
West Liberty, KY 41472

Alex Goodpaster & Hillary Murray
c/o Allan Goopaster
P.O. Box 503
West Liberty, KY 41472

Alex Goodpaster & Hillary Murray
c/o Allan Goodpaster
P.O. Box 503
West Liberty, KY 41472

Sarah & Robin Fannin
2140 Hwy 460 W
West Liberty, KY 41472

William G Holbrook DVM
P.O. Box 66
West Liberty, KY 41472

George Elam, Walter Elam and Sharlene Copas
c/o George Elam
3832 Hwy 711
West Liberty, KY 41472

David Stacy
2144 Hwy 460 W
West Liberty, KY 41472

Betty Lou Elam and Linda Blackburn
309 Larkwood Dr
Lexington, KY 40509

Woodford B. Gevedon & Mary Beth Popplewell
173 Index Rd
West Liberty, KY 41472

Fairanna Nickell
173 Index Rd
West Liberty, KY 41472

Caney Farms c/o Buford Sherman
12094 Hwy 437
West Liberty, KY 41472

David Earl & Susan May
1042 Liberty Rd
West Liberty, KY 41472

K&M Rentals
P.O. Box 273
West Liberty, KY 41472

K&M Rentals
Tim Keller & John Motley
P.O. Box 273
West Liberty, KY 41472

Ky. Mt. Holiness
Box 2
Vancleave, KY 41385

Ky. Mt. Holiness
c/o Index Community Church
1749 W. Main Street
West Liberty, KY 41472

Anthony Frederick
2919 Hwy 1000
West Liberty, KY 41472

Alex Goodpaster & Hillary Murray
437 Henry Clay Blvd
Lexington, KY 40502

Kentucky State Right of Way
Jackson, KY

EXHIBIT K
COPY OF PROPERTY OWNER NOTIFICATION



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: Index**

Dear Landowner:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 1999 Highway 460 West, West Liberty, Kentucky 41472 (37°53'33.996" North latitude, 83°17'14.131" West longitude). The proposed facility will include a 255-foot tall antenna tower, plus a 10-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 Morgan 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 2016-00076 in any correspondence sent in connection with this matter.

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

Sincerely,
David A. Pike
Attorney for AT&T Mobility

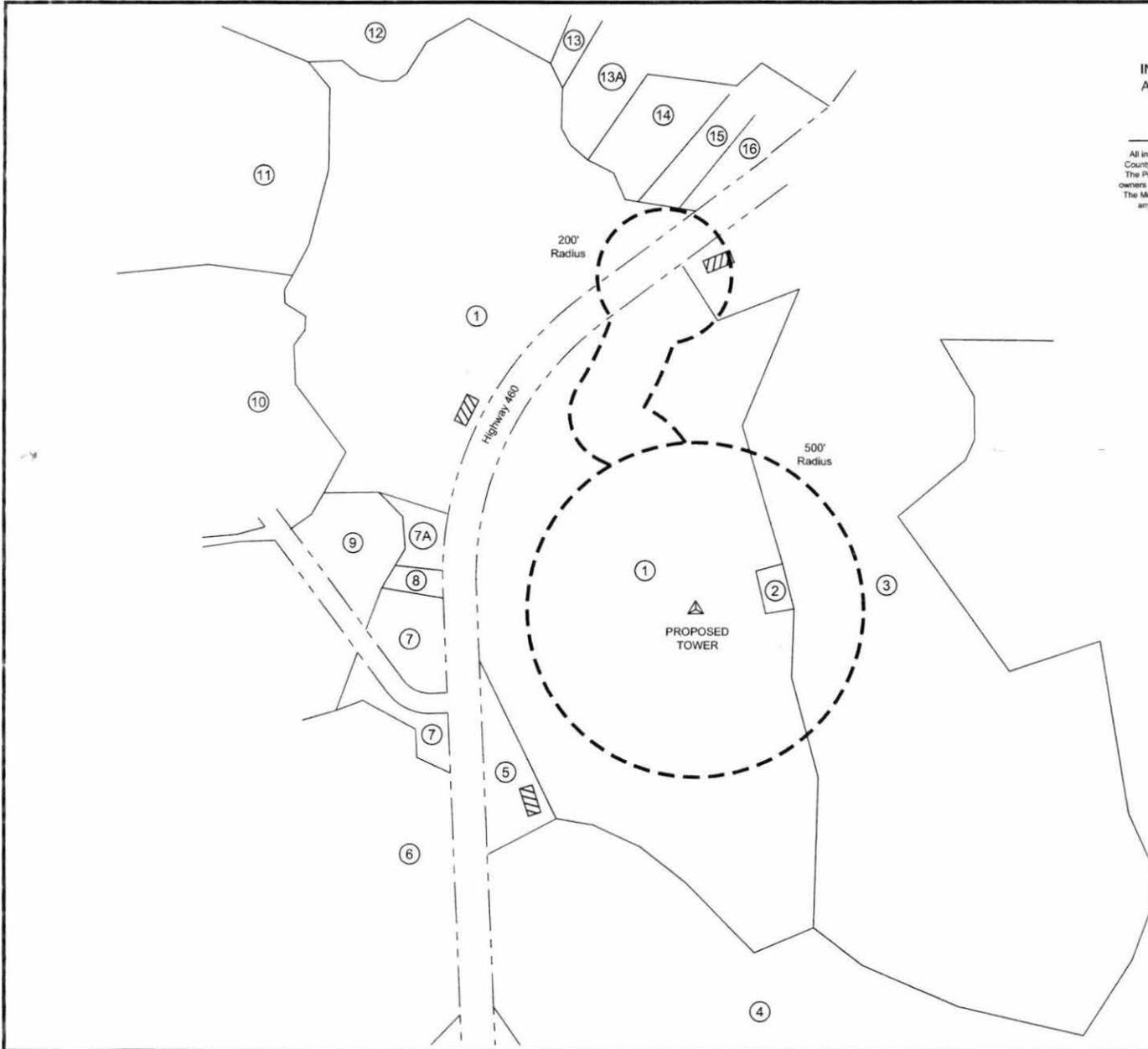
enclosure

Driving Directions to Proposed Tower Site:

1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonsburg Street in West Liberty, KY, head northwest on KY-7.
2. Turn left onto US-460 W / Main Street and travel for 2.5 miles.
3. The site is on the left at 1999 Highway 460 West.
4. site coordinates are
 - a. 37 deg 53 min 33.996 sec N
 - b. 83 deg 17 min 14.131 sec W



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



THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY

GENERAL NOTE:

All information shown hereon was obtained from records of the Morgan County, Kentucky, Property Valuation Administration Office on 2/03/2016. The Property Valuation Administration records may not reflect the current owners and address due to the inaccuracies and time lapse in updating files. The Morgan County Property Valuation Administration expressly disclaims any warranty for the content and any errors contained in their files.

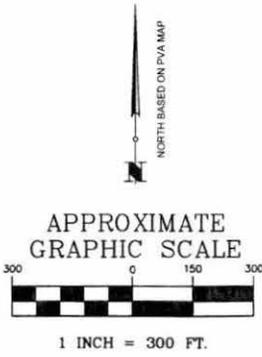
Mastec

BTM Engineering, Inc.
 CONSULTING ENGINEERS, LANDSCAPE ARCHITECTS,
 3001 TAYLOR SPRINGS DRIVE
 LOUISVILLE, KENTUCKY 40220
 PHONE: (502) 459-8422
 FAX: (502) 459-8427

STATE OF KENTUCKY
 GEORGE BRIAN WYATT
 2528
 LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME: INDEX
 SITE NUMBER: KYALU6170
 SITE ADDRESS: 1999 HWY 460 WEST WEST LIBERTY, KY 41472
 AREA: 4,000 SF
 PROPERTY OWNER: SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
 TAX MAP #: N/A PARCEL NUMBER: 089-00-00-017.00
 SOURCE OF TITLE: DEED BOOK: 173 PAGE: 113
 LATITUDE: N 37° 53' 33.996" LONGITUDE: W 83° 17' 14.131"

REVISIONS		DATE	CHK
NO.	BY / DESCRIPTION	DATE <td>CHK</td>	CHK
1	BM UPDATE PVA DATA	01/13/16	PH
2	BM UPDATE PVA DATA	02/20/16	PH
3	BM UPDATE ADDRESSES	02/09/16	PH



TITLE: 500' RADIUS VICINITY MAP
 SHEET: C-1

① PARCEL NUMBER: 089-00-00-017.00
Sarah G., Robin & Farrell Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472

② PARCEL NUMBER: 089-00-00-017.01
Appalachian Wireless East KY Network
101 Technology Trail
Ivel, Kentucky 41642

③ PARCEL NUMBER: 089-00-00-025.00
Samuel Long
P.O. Box 456
West Liberty, Kentucky 41472

④ PARCEL NUMBER: 089-00-00-021.00
Alex Goodpaster & Hillary Murray
c/o Allan Goodpaster
P.O. Box 503
West Liberty, Kentucky 41472

⑤ PARCEL NUMBER: 089-00-00-016.01
Sarah & Robin Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472

⑥ PARCEL NUMBER: 089-00-00-019.00
William G. Holbrook DVM
P.O. Box 66
West Liberty, Kentucky 41472

⑦ PARCEL NUMBER: 089-00-00-016.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472

⑦A PARCEL NUMBER: 089-00-00-014.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472

⑧ PARCEL NUMBER: 089-00-00-015.00
David Stacy
2144 Highway 460 W
West Liberty, Kentucky 41472

⑨ PARCEL NUMBER: 089-00-00-009.00
Betty Lou Elam & Linda Blackburn
309 Larkwood Drive
Lexington, Kentucky 40509

⑩ PARCEL NUMBER: 089-00-00-008.00
Woodford B. Gevedon & Mary Beth Popplewell
173 Index Road
West Liberty, Kentucky 41472

and

Fairanna Nickell
173 Index Road
West Liberty, Kentucky 41472

⑪ PARCEL NUMBER: 089-00-00-007.00
Caney Farms c/o Buford Sherman
12094 Highway 437
West Liberty, Kentucky 41472

⑫ PARCEL NUMBER: 089-00-00-024.00
David Earl & Susan May
1042 Liberty Road
West Liberty, Kentucky 41472

⑬ PARCEL NUMBER: 089-00-00-024.01
K & M Rentals
P.O. Box 273
West Liberty, Kentucky 41472

⑬A PARCEL NUMBER: 089-03-00-002.00
K & M Rentals (Tim Keller & John Motley)
P.O. Box 273
West Liberty, Kentucky 41472

⑭ PARCEL NUMBER: 089-03-00-011.00
Mt. Holiness Kentucky
Box 2
VanCleave, Kentucky 41385

and

Ky. Mt. Holiness
c/o Index Community Church
1749 W. Main St.
West Liberty, KY 41472

⑮ PARCEL NUMBER: 089-03-00-012.00
Anthony Frederick
2919 Highway 1000
West Liberty, Kentucky 41472

⑯ PARCEL NUMBER: 089-03-00-013.00
No online PVA data found for this parcel

THIS MAP IS FOR GENERAL
INFORMATIONAL PURPOSES ONLY
AND IS NOT A BOUNDARY SURVEY

GENERAL NOTE:

All information shown herein was obtained from records of the Morgan County, Kentucky, Property Valuation Administration Office on 2/03/2016. The Property Valuation Administration records may not reflect the current owners and address due to the inaccuracies and time lapse in updating files. The Morgan County Property Valuation Administration expressly disclaims any warranty for the content and any errors contained in their files.

Mastec

BTM Engineering, Inc.

LANDSCAPE ARCHITECTS
2000 TAYLOR SPRINGS DRIVE
PHOENIX, ARIZONA 85020
PHONE: (520) 459-8400
FAX: (520) 459-8427

STATE OF KENTUCKY
GEORGE BRIAN
WYATT
2328
LICENSED
PROFESSIONAL
LAND SURVEYOR

SITE NAME: INDEX
SITE NUMBER: KYALU6170
SITE ADDRESS: 1999 HWY 460 WEST
WEST LIBERTY, KY 41472
AREA: 4,000 SF
PROPERTY OWNER:
SARAH, ROBIN, AND FARRELL FANNIN
2140 HWY 460 W
WEST LIBERTY, KY 41472
TAX MAP #: N/A PARCEL NUMBER:
089-00-00-017.00
SOURCE OF TITLE:
DEED BOOK 173 PAGE 113
LATITUDE: N 37° 53' 33.996" LONGITUDE: W 83° 17' 14.131"

NO.	BY	DESCRIPTION	DATE	CHK	
				DATE	BY
1	EM	UPDATE PVA DATA	01/13/16	PH	
2	EM	UPDATE PVA DATA	02/03/16	PH	
3	EM	UPDATE ADDRESSES	02/09/16	PH	

TITLE:
500' RADIUS
VICINITY MAP

SHEET:
C-1A

EXHIBIT L
COPY OF COUNTY JUDGE/EXECUTIVE NOTICE



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. Stanley Franklin
Morgan County Judge Executive
450 Prestonsburg Street
West Liberty, KY 41472

RE: Notice of Proposal to Construct Wireless Communications Facility
Kentucky Public Service Commission Docket No. 2016-00076
Site Name: Index

Dear Judge Franklin:

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 1999 Highway 460 West, West Liberty, Kentucky 41472 (37°53'33.996" North latitude, 83°17'14.131" West longitude). The proposed facility will include a 255-foot tall antenna tower, plus a 10-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 2016-00076 in any correspondence sent in connection with this matter.

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

Sincerely,

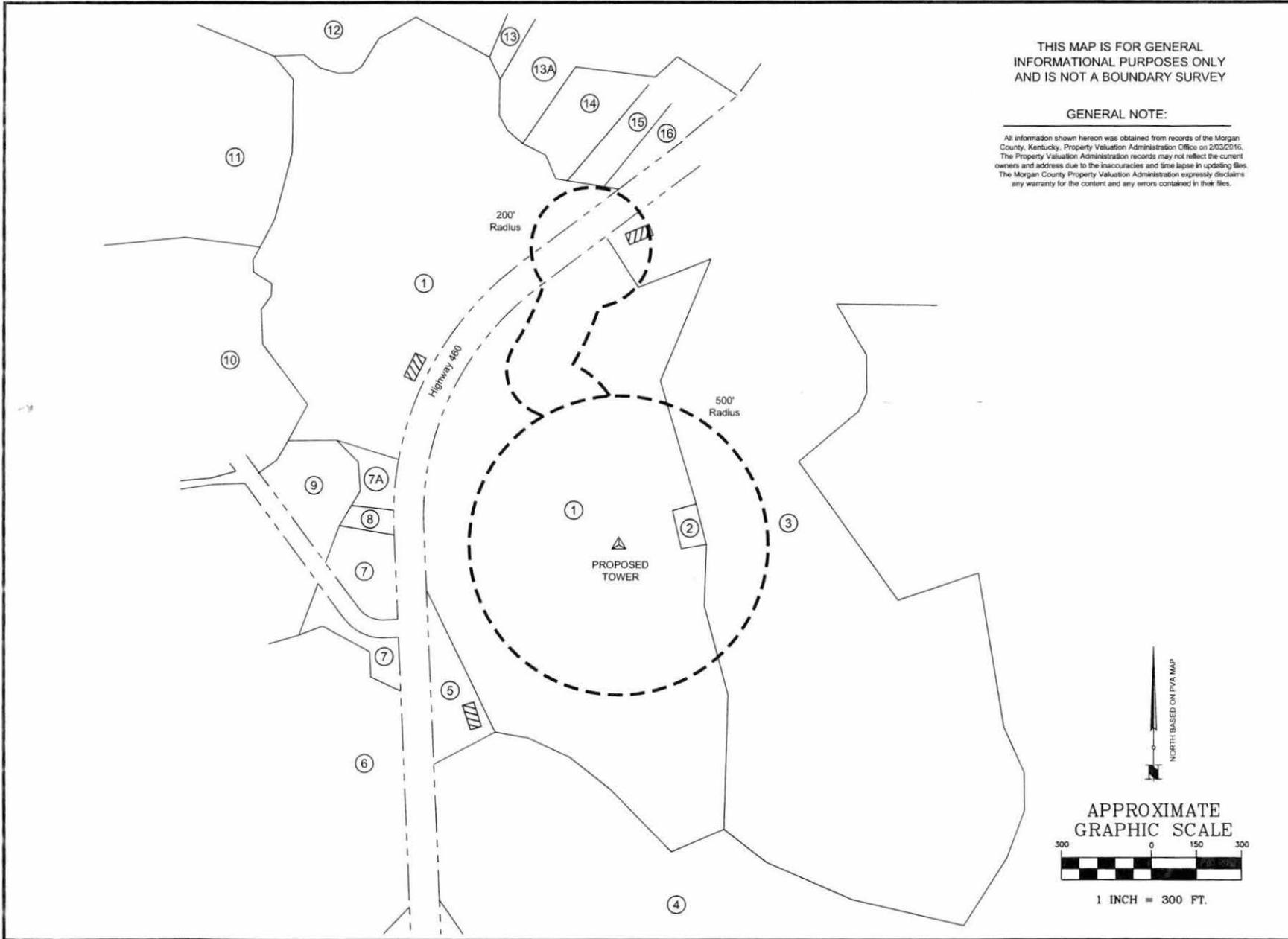
David A. Pike
Attorney for AT&T Mobility
enclosure

Driving Directions to Proposed Tower Site:

1. Beginning at the offices of the Morgan County Clerk, located at 450 Prestonsburg Street in West Liberty, KY, head northwest on KY-7.
2. Turn left onto US-460 W / Main Street and travel for 2.5 miles.
3. The site is on the left at 1999 Highway 460 West.
4. site coordinates are
 - a. 37 deg 53 min 33.996 sec N
 - b. 83 deg 17 min 14.131 sec W



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



THIS MAP IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT A BOUNDARY SURVEY

GENERAL NOTE:

All information shown hereon was obtained from records of the Morgan County, Kentucky, Property Valuation Administration Office on 2/23/2016. The Property Valuation Administration records may not reflect the current owners and address due to the inaccuracies and time lapse in updating files. The Morgan County Property Valuation Administration expressly disclaims any warranty for the content and any errors contained in their files.

Mastec
 Consulting Engineers, Landscape Architects
 BTM Engineering, Inc.
 3001 TAYLOR SPRINGS DRIVE
 LOUISVILLE, KY 40220
 PHONE: (502) 435-8400
 FAX: (502) 435-8427

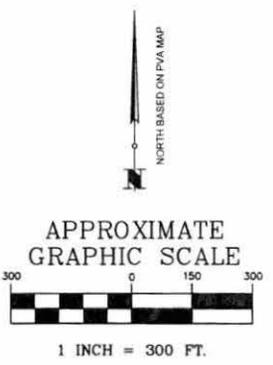
STATE OF KENTUCKY
 GEORGE BRIAN WYATT
 2328
 LICENSED PROFESSIONAL LAND SURVEYOR

SITE NAME: INDEX
 SITE NUMBER: KYALU617D
 SITE ADDRESS: 1999 HWY 460 WEST WEST LIBERTY, KY 41472
 AREA: 4,000 SF
 PROPERTY OWNER: SARAH, ROBIN, AND FARRELL FANNIN 2140 HWY 460 W WEST LIBERTY, KY 41472
 TAX MAP #: N/A PARCEL NUMBER: 089-00-00-017.00
 SOURCE OF TITLE: DEED BOOK 173 PAGE 113
 LATITUDE: N 37° 53' 33.996" LONGITUDE: W 83° 17' 14.131"

NO.	BY	DESCRIPTION	REVISIONS		
			DATE	CHK	PH
1	BW	UPDATE PVA DATA	01/13/16	PH	
2	BW	UPDATE PVA DATA	02/03/16	PH	
3	BW	UPDATE ADDRESSES	02/09/16	PH	

TITLE: 500' RADIUS VICINITY MAP

SHEET: C-1



- ① PARCEL NUMBER: 089-00-00-017.00
Sarah G., Robin & Farrell Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472
- ② PARCEL NUMBER: 089-00-00-017.01
Appalachian Wireless East KY Network
101 Technology Trail
Ivel, Kentucky 41642
- ③ PARCEL NUMBER: 089-00-00-025.00
Samuel Long
P.O. Box 456
West Liberty, Kentucky 41472
- ④ PARCEL NUMBER: 089-00-00-021.00
Alex Goodpaster & Hillary Murray
c/o Allan Goodpaster
P.O. Box 503
West Liberty, Kentucky 41472
- ⑤ PARCEL NUMBER: 089-00-00-016.01
Sarah & Robin Fannin
2140 Highway 460 W
West Liberty, Kentucky 41472
- ⑥ PARCEL NUMBER: 089-00-00-019.00
William C. Holbrook DVM
P.O. Box 66
West Liberty, Kentucky 41472
- ⑦ PARCEL NUMBER: 089-00-00-016.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472
- ⑦A PARCEL NUMBER: 089-00-00-014.00
Sharlene Copas & Walter & George Elam
c/o George Elam
3832 Highway 711
West Liberty, Kentucky 41472
- ⑧ PARCEL NUMBER: 089-00-00-015.00
David Stacy
2144 Highway 460 W
West Liberty, Kentucky 41472

- ⑨ PARCEL NUMBER: 089-00-00-009.00
Betty Lou Elam & Linda Blackburn
309 Larkwood Drive
Lexington, Kentucky 40509
- ⑩ PARCEL NUMBER: 089-00-00-008.00
Woodford B. Gevedon & Mary Beth Popplewell
173 Index Road
West Liberty, Kentucky 41472
- and
Fairanna Nickell
173 Index Road
West Liberty, Kentucky 41472
- ⑪ PARCEL NUMBER: 089-00-00-007.00
Caney Farms c/o Buford Sherman
12094 Highway 437
West Liberty, Kentucky 41472
- ⑫ PARCEL NUMBER: 089-00-00-024.00
David Earl & Susan May
1042 Liberty Road
West Liberty, Kentucky 41472
- ⑬ PARCEL NUMBER: 089-00-00-024.01
K & M Rentals
P.O. Box 273
West Liberty, Kentucky 41472
- ⑬A PARCEL NUMBER: 089-03-00-002.00
K & M Rentals (Tim Keller & John Motley)
P.O. Box 273
West Liberty, Kentucky 41472
- ⑭ PARCEL NUMBER: 089-03-00-011.00
Mt. Holiness Kentucky
Box 2
VanCleave, Kentucky 41385
- and
Ky. Mt. Holiness
c/o Index Community Church
1749 W. Main St.
West Liberty, KY 41472
- ⑮ PARCEL NUMBER: 089-03-00-012.00
Anthony Frederick
2919 Highway 1000
West Liberty, Kentucky 41472
- ⑯ PARCEL NUMBER: 089-03-00-013.00
No online PVA data found for this parcel

THIS MAP IS FOR GENERAL
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AND IS NOT A BOUNDARY SURVEY

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BTM Engineering, Inc.
CORPORATE ENGINEERS, LANDSCAPE ARCHITECTS,
PLANNERS & SURVEYORS
3001 TAYLOR SPRINGS DRIVE
WEST LIBERTY, KY 40380
PHONE: (502) 459-8402
FAX: (502) 459-8427



STATE OF KENTUCKY
GEORGE BRIAN
WYATT
2328
LICENSED
PROFESSIONAL
LAND SURVEYOR

SITE NAME:		INDEX																																
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TITLE: 500' RADIUS VICINITY MAP																																		
SHEET: C-1A																																		

EXHIBIT M
COPY OF POSTED NOTICES

SITE NAME: INDEX
NOTICE SIGNS

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

New Cingular Wireless PCS, LLC d/b/a AT&T Mobility proposes 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 2016-00076 in your correspondence.

New Cingular Wireless PCS, LLC d/b/a AT&T Mobility 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 2016-00076 in your correspondence.



VIA TELEFAX: 606-743-3565

The Licking Valley Courier
Attn: Greg Kinner
142 Prestonsburg Street
P.O. Box 187
West Liberty, KY 41472

RE: Legal Notice Advertisement
Site Name: Index

Dear Jamie:

Please publish the following legal notice advertisement in the next edition of *The Licking Valley Courier*:

NOTICE

New Cingular Wireless PCS, LLC, a Delaware limited liability company, d/b/a AT&T Mobility has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on a site located at 1999 Highway 460 West, West Liberty, Kentucky 41472 (37°53'33.996" North latitude, 83°17'14.131" 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 2016-00076 in any correspondence sent in connection with this matter.

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

Sincerely,

Aaron L. Roof
Pike Legal Group, PLLC

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

EXHIBIT N
COPY OF RADIO FREQUENCY DESIGN SEARCH AREA

