### **BRIGGS LAW OFFICE, PSC**

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223
Telephone [502] 412-9222 | Facsimile [866] 333-4563
todd@briggslawoffice.net

TODD R. BRIGGS

also admitted in Colorado

December 8, 2010

Via FedEx Overnight Delivery

DEC 09 2010

PUBLIC SERVICE
COMMISSION

Kentucky Public Service Commission Attn: Linda Faulkner Director, Division of Filings 211 Sower Boulevard Frankfort, KY 40602

RE:

**Application to Construct Wireless Communications Facility** 

Case Number: 2010-00435

Dear Ms. Faulkner,

On behalf of my client, New Cingular Wireless PCS, LLC, we are hereby submitting an original and five (5) copies of an Application for Certificate of Public Convenience and Necessity to Construct a Wireless Communications Facility.

Please contact me if you require any further documentation or have any questions concerning this application.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

**Enclosures** 

### COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

DEC 09 2010
PUBLIC SERVICE

APPLICATION OF NEW CINGULAR WIRELESS PCS, LLC )

FOR ISSUANCE OF A CERTIFICATE OF PUBLIC )

CONVENIENCE AND NECESSITY TO CONSTRUCT )

A WIRELESS COMMUNICATIONS FACILITY AT )CASE: 2010-00435

7330 STATE ROUTE 464, MAYFIELD )

GRAVES COUNTY, KENTUCKY, 42066 )

SITE NAME: BREWERS (EV3161)

## APPLICATION FOR CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A WIRELESS COMMUNICATIONS FACILITY

New Cingular Wireless PCS, LLC, a Delaware limited liability company, ("Applicant"), by counsel, pursuant to (i) KRS §§ 278.020, 278.040, 278.665 and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting the 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 telecommunication services. In support of this Application, Applicant respectfully provides and states the following:

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

- 2. Applicant is a Delaware limited liability company and copies of its Delaware Certificate of Formation and Certificate of Amendment are attached as **Exhibit A**. A copy of the Certificate of Authorization to transact business in the Commonwealth of Kentucky is also included as a part of **Exhibit A**.
- 3. Applicant proposes construction of an antenna tower in Graves County, Kentucky, in an area which is outside the jurisdiction of a planning commission and Applicant submits the Application to the PSC for a CPCN pursuant to KRS §§ 278.020(1), 278.650, and 278.665. Graves County has one city independent planning commission—the City of Mayfield Planning Commission. The proposed WCF is not located within the jurisdictional boundaries of the City of Mayfield Planning Commission. This information was verified by the Office of the Graves County Judge Executive and the City of Mayfield Planning Commission.
- 4. 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 enhancing coverage and/or capacity and thereby increasing the public's access to wireless telecommunication services. A statement from Applicant's RF Design Engineer outlining said need is attached as **Exhibit N**. 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.
- 5. To address the above-described service needs, Applicant proposes to construct a WCF at 7730 State Route 464, Mayfield, Kentucky 42066 (36.71792° North Latitude, 88.51525° West Longitude (NAD 83)), in an area entirely within Graves County. The property in which the WCF will be located is currently owned by Michael S. Adkison, pursuant to that Deed of record in Deed Book 427, Page 201 in the Office of the Graves County Clerk. The proposed WCF will consist of a 195 foot monopole with an approximately 4-foot tall lightning arrestor attached to the top of the tower for a total height of 199 feet. The WCF will also include concrete foundations to accommodate the placement

of a prefabricated equipment shelter. The WCF compound will be fenced and all access gate(s) will be secured. A detailed site development plan and survey, signed and sealed by a professional land surveyor registered in Kentucky is attached as **Exhibit B**.

- 6. A detailed description of the manner in which the WCF will be constructed is included in the site plan and a vertical tower profile signed and sealed by a professional engineer registered in Kentucky is attached as **Exhibit C**. Foundation design plans and a description of the standards according to which the tower was designed which have been signed and sealed by a professional engineer registered in Kentucky are attached as **Exhibit D**.
- 7. A geotechnical engineering report was performed at the WCF site by Environmental Corporation of America of Alpharetta, Georgia, dated November 8, 2010 and is attached as **Exhibit E**. The name and address of the geotechnical engineering firm and the professional engineer registered in Kentucky who prepared the report are included as part of **Exhibit E**.
- 8. A list of public utilities, corporations, and/or persons with whom the proposed WCF is likely to compete is attached as **Exhibit F**. Maps of suitable scale showing the location of the proposed WCF as well as the location of any like facilities owned by others located anywhere within the map area are also included in **Exhibit F**.
- 9. Filing with the Federal Aviation Administration ("FAA") is not necessary due to the height of the proposed tower. The Airspace Study is attached as **Exhibit G**. The Kentucky Airport Zoning Commission does not require a permit for the proposed tower. Verification from John Houlihan, Administrator for the Kentucky Airport Zoning Commission, is included as part of **Exhibit G**.
- 10. The Applicant operates on frequencies licensed by the Federal Communications Commission ("FCC") pursuant to applicable federal

requirements. Copies of the license(s) are attached as **Exhibit H**. The WCF has been designed, and will be built and operated in accordance with all applicable FCC and FAA regulations as indicated in the statement from Applicant's RF Design Engineer included as **Exhibit N**. Appropriate FCC required signage will be posted on the site.

- 11. Based on the review of Federal Emergency Management Agency Flood Insurance Rate Map, the licensed, professional land surveyor has noted in **Exhibit B** that the Flood Insurance Rate Map (FIRM) No. 21083C0275C dated December 3, 2009, indicates that the proposed WCF is not located within any flood hazard area.
- 12. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced. Project Manager for the site is Chad Goughnour, of Nsoro, Inc.
- 13. Clear directions to the proposed WCF site from the county seat are attached as **Exhibit I**, including the name and telephone number of the preparer. A copy of the lease for the property on which the tower is proposed to be located is included as part of **Exhibit I**.
- 14. Applicant has notified, by certified mail, return receipt requested, every person of the proposed construction who, according to the records of the Graves County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or is contiguous to the site property. Applicant included in said notices the docket number under which the Application will be processed and informed each person of his or her right to request intervention. A list of the property owners who received notices along with the notices are attached as **Exhibit J**.
- 15. Applicant has notified the Graves County Judge Executive by certified mail, return receipt requested, of the proposed construction. The notice included the docket number under which the Application will be processed and

informed the Graves County Judge Executive of his right to request intervention. A copy of the notice is attached as **Exhibit K**.

- 16. Pursuant to 807 KAR 5:063, Applicant affirms that two notice signs measuring at least two feet by four feet in size with all required language in letters of required height have been posted in a visible location on the proposed site and on the nearest road. Copies of the signs are attached as **Exhibit L**. Such signs shall remain posted for at least two weeks after filing the Application. Notice of the proposed construction has been posted in a newspaper of general circulation in the county in which the construction is proposed (*Mayfield Messenger*)
- 17. The site of the proposed WCF is located in an undeveloped, rural area near Golo, Kentucky.
- 18. Applicant has considered the likely effects of the proposed construction on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate service to the area can be provided. Applicant carefully evaluated locations within the search area for co-location opportunities and found no suitable towers or other existing structures that met the requirements necessary in providing adequate service to the area. A statement from Applicant's RF Design Engineer is attached as **Exhibit N**. When suitable towers or structures exist, Applicant has attempted to co-locate on towers designed to host multiple wireless service providers' facilities or existing structures, such as a telecommunications tower or another suitable structure capable of supporting the Applicant's facilities.
- 19. A map of the area in which the proposed WCF is located, that is drawn to scale and that clearly depicts the search area in which a site should, pursuant to radio frequency requirements, be located is attached as **Exhibit M**.
- 20. Correspondence and communication with regard to this Application should be directed to:

Todd R. Briggs Briggs Law Office, PSC 1301 Clear Springs Trace Suite 205 Louisville, KY 40223 (502) 412-9222 todd@briggslawoffice.net

WHEREFORE, Applicant respectfully requests that the PSC accept the foregoing application for filing and enter an order granting a Certificate of Public Convenience and Necessity to Applicant for construction and operation of the proposed WCF and providing for such other relief as is necessary and appropriate.

Respectfully submitted,

Todd R. Briggs

Briggs Law Office, PSC 1301 Clear Springs Trace

Suite 205

Louisville, KY 40223

Telephone 502-412-9222

Counsel for New Cingular Wireless PCS, LLC

Mary K. Keyer General Attorney AT&T Kentucky 601 W. Chestnut Street Room 407 Louisville, KY 40203

### **LIST OF EXHIBITS**

Exhibit A Certificate of Authorization

Exhibit B Site Development Plan and Survey

Exhibit C Vertical Tower Profile

Exhibit D Structural and Foundation Design Report

Exhibit E Geotechnical Engineering Report

Exhibit F Competing Utilities List and Map of Like Facilities,

General Area

Exhibit G FAA Airspace Study

**KAZC** Documentation

Exhibit H FCC Documentation

Exhibit I Directions to Site and Copy of Lease Agreement

Exhibit J Notification Listing and Copy of Property Owner

**Notifications** 

Exhibit K Copy of County Judge Executive Notice

Exhibit L Copy of Posted Notices

Exhibit M Map of Search Area

Exhibit N RF Engineer Statements

Exhibit A

## Commonwealth of Kentucky Trey Grayson, Secretary of State

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

#### **Certificate of Authorization**

Authentication number: 104309

Visit http://apps.sos.ky.gov/business/obdb/certvalidate.aspx to authenticate this certificate.

I, Trey Grayson, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

### **NEW CINGULAR WIRELESS PCS, LLC**

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

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 275.190 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 30<sup>th</sup> day of September, 2010, in the 219<sup>th</sup> year of the Commonwealth.



Trey Grayson
Secretary of State
Commonwealth of Kentucky
104309/0481848



I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "ATET WIRELESS PCS, LLC", CHANGING ITS NAME FROM "AT&T WIRELESS PCS, LLC" TO "NEW CINGULAR WIRELESS PCS, LLC", FILED IN THIS OFFICE ON THE TWENTY-SIXTH DAY OF OCTOBER, A.D. 2004, AT 11:07 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE TWENTY-SIXTH DAY OF OCTOBER, A.D. 2004, AT 7:30 O'CLOCK P.M.

2445544 8100 040770586

Garnet Smith Hundar

AUTHENTICATION: 3434823

חזמה. זה מב-חו

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:20 MM 10/26/2004
FILED 11:07 MM 10/26/2004
CERTIFICATE OF AMENDMENT SRV 040770586 - 2445544 FILE

# CERTIFICATE OF AMENDMENT SRV 040770586 - 2445 TO THE CERTIFICATE OF FORMATION OF AT&T WIRELESS PCS, LLC

- The name of the limited liability company is AT&T Wireless PCS, LLC (the "Company").
- 2. The Certificate of Formation of the Company is amended by deleting the first paragraph in its entirety and replacing it with a new first paragraph to read as follows:
  - "FIRST: The name of the limited liability company is New Cingular Wireless PCS, LLC."
- 3. The Certificate of Amendment shall be effective at 7:30 p.m. EDT on October 24 2004.

[Signature on following page]

IN WITNESS WHEREOF, AT&T Wireless PCS, LLC has caused this Certificate of Amendment to be executed by its duly authorized Manager this 20th day of October, 2004.

AT&T WIRELESS PCS, LLC

By: Cingular Wireless LLC, its Manager

me: Joanne Tod

Title: Assistant Secretary

# STATE OF DELAWARE CERTIFICATE OF FORMATION OF AT&T WIRELESS PCS, LLC

The undersigned authorized person hereby executes the following Certificate of Formation for the purpose of forming a limited liability company under the Delaware Limited Liability Company Act.

FIRST

The name of the limited liability company is AT&T Wireless PCS, LLC.

SECOND:

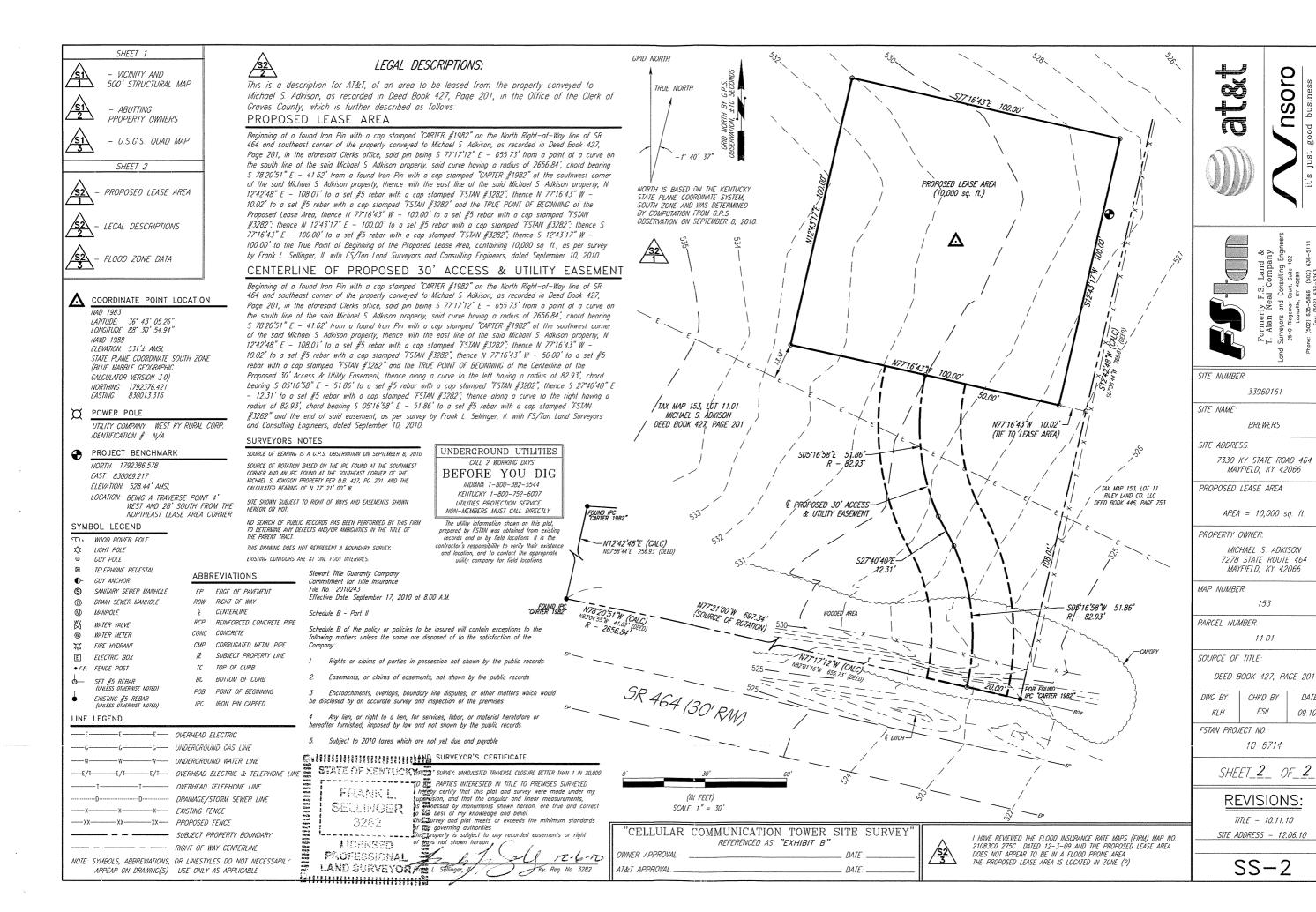
The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

DATED this \_\_\_\_\_ day of September, 1999.

AT&T WIRELESS SERVICES, INC., As Authorized Person

Mark U. Thomas, Vice President

Exhibit B



nsoro

33960161

BREWERS

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CHKD RY

FS//

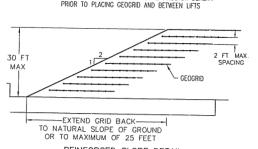
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TITLE - 10.11.10

SS-2

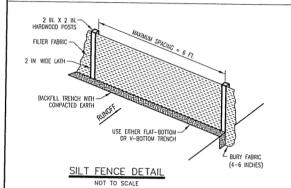
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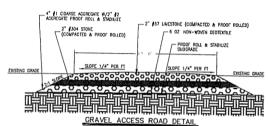
09.10.10



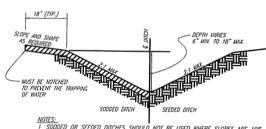
COMPACT SOILS TO 95% OF STANDARD PROCTOR DENSITY

REINFORCED SLOPE DETAIL (USE ONLY AS APPLICABLE)





NOTE: CONTRACTOR TO INSTALL PRIST 6" OF STORE TO BE USED AS A CONSTRUCTOR WHEN CONSTRUCTOR IS COMPLETE, CONTRACTOR TO PRICE ROLLED, A SHOWED YEARNESS AS USED TO BE RECONSTRUCTED TO PLAN GRADE TO BE CONSTRUCTED TO PLAN GRADE TO PLAN GRADE TO BE CONSTRUCTED TO PLAN GRADE TO PLAN GRADE



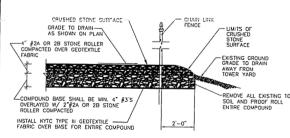
NOTES:

1 SODDED OR SEEDED DITCHES SHOULD NOT BE USED WHERE SLOPES ARE 10% OR GREATER OR WHERE THE VELOCITY IS GREATER THAN 4 FEET PER SECOND.

2 SOD SHALL BE PLACED SO THAT DITCHES SHALL BE FREE-DRAWNING AT THE EDGE OF ALL PAYEMENTS AND DRIVEWAYS.

3 DITCH LINING SHALL BE DESIGNED FOR FULL BANK FLOW.

### EARTH "V" DITCH DETAIL



SECTION THROUGH COMPOUND AND PARKING PAD

POWER POLE UTILITY COMPANY WEST KY RURAL CORP. IDENTIFICATION #: N/A

PROJECT BENCHMARK

NORTH. 1792386.578 EAST: 830069.217 ELEVATION: 528.44' AMSL

LOCATION: BEING A TRAVERSE POINT 4' WEST AND 28' SOUTH FROM THE NORTHEAST LEASE AREA CORNER

NORTH IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM SOUTH ZONE AND WAS DETERMINED BY COMPUTATION FROM GPS OBSERVATION ON SEPTEMBER 8, 2010

GRID NORTH

TRUE NORTH

COORDINATE POINT LOCATION

NAD 1983 LATITUDE: 36' 43' 05.26" LONGITUDE: 88' 30' 54 94" NAVO 1988 ELEVATION. 531'± AMSL STATE PLANE COORDINATE SOUTH ZONE (BLUE MARBLE GEOGRAPHIC CALCULATOR VERSION 30) NORTHING 1792376.421 EASTING: 830013 316

UNDERGROUND UTILITIES CALL 2 WORKING DAYS BEFORE YOU DIG INDIANA 1-800-382-5544

KENTUCKY 1-800-752-6007

UTILITIES PROTECTION SERVICE

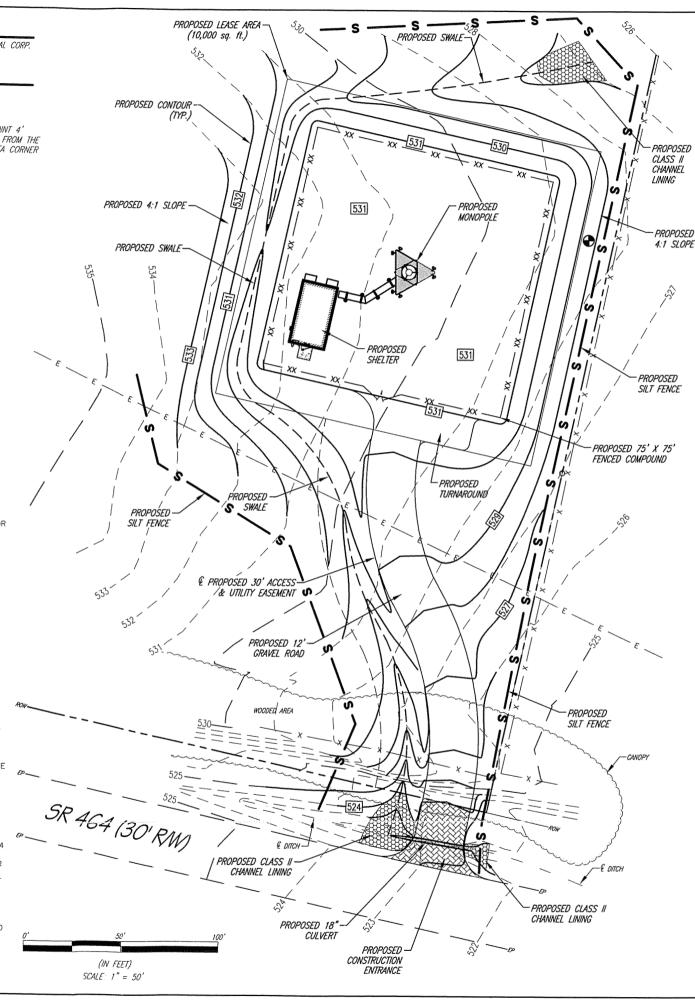
NON-MEMBERS MUST CALL DIRECTLY

The utility information shown on this plat, prepared by FSTAN was obtained from existing records and or by field locations. It is the contractor's responsibility to verify their existence and location, and to contact the appropriate utility company for field locations.

GRADING NOTES:

1. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE SHOWN AT TOP OF CRUSHED STONE, TOP OF FOUNDATION OR TOP OF TOPSOIL. SEE DETAILS FOR THICKNESS OF CRUSHED STONE. MASS GRADED AREAS AND CRUSHED STONE SHALL BE FINISHED WITHIN 4" OF GRADES SHOWN. FOUNDATIONS SHALL BE FINISHED WITHIN 0.5" OF GRADES SHOWN

- 2. ALL TREES, ROOTS, BRUSH AND ORGANIC MATTER (TOPSOIL) SHALL BE REMOVED BEFORE BEGINNING FILL. FILL MATERIAL SHALL BE CLEAR SOIL CONTAINING NO ROCKS LARGER THAN 3 INCHES.
- 3. ALL AREAS TO RECEIVE FILL SHALL FIRST BE PROOF ROLLED UNDER THE SUPERVISION OF THE ENGINEER OR TESTING LAB PERSONNEL. ANY AREAS WHICH EXHIBIT "PUMPING" SHALL BE UNDERCUT (OR OTHERWISE STABILIZED) TO A FIRM SOIL BEFORE PLACING FILL. ALL FINAL SUBGRADES, WHETHER IN CUT OR FILL, SHALL BE PROOF ROLLED PRIOR TO CONSTRUCTING SLABS OR PAVEMENTS. CONTACT ENGINEER FOR DIRECTION IN SITUATIONS WHERE SOIL COMPACTION OR BEARING CAPACITY MAY BE INADEQUATE.
- FILLS SHALL BE FORMED OR SATISFACTORY MATERIAL PLACED IN SUCCESSIVE HORIZONTAL LAYERS OF NO MORE THAN 8 INCHES IN LOOSE DEPTH FOR THE FULL WIDTH OF EACH STRIP.
- FILL SOIL SHALL BE PLACED AT A MOISTURE CONTENT THAT IS WITHIN MINUS 1% OR PLUS 3% POINTS OF THE OPTIMUM MOISTURE CONTENT AND TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM 698 (STANDARD PROCTOR) THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO 98%.
- 6. STANDARD PROCTOR TESTS (ASTM 698) SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY EMPLOYED BY THE CONTRACTOR. IN-PLACE DENSITY TEST SHALL BE PERFORMED ON EACH LIFT TO ENSURE PROPER PLACEMENT OF FILL MATERIAL
- 7. ALL DISTURBED AREAS SHALL RECEIVE GROUND COVER. ALL AREAS TO RECEIVE GROUND COVER SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL. ALL FOREIGN DEBRIS SHALL BE REMOVED BEFORE PLACING TOPSOIL. AREAS WITH LESS THAN A 4:1 SLOPE SHALL BE SEEDED WITH FOUR POUNDS OF KENTUCKY 31 FESCUE AND ONE POUND OF ANNUAL RYE PER 1,000 SQUARE FEET SLOPES STEEPER THAN 4:1 SHALL BE SEEDED WITH A MIXTURE OF 1/4 POUND SCARIFIED SERICEA LESPEDEZA; 1/4 POUND CROWN VETCH; AND ONE POUND KENTUCKY 31 FESCUE PER 1,000 SQUARE FEET WITH 30 POUNDS PER 1,000 SQUARE FEET OF 6-12-12 FERTILIZER. SLOPES 3:1 OR STEEPER SHALL BE COVERED WITH NORTH AMERICAN CREEN EROSION CONTROL BLANKET P300 INSTALLED PER MANUFACTURERS SPECIFICATIONS (OR ENGINEER P300 INSTALLED PER MANUFACTURERS SPECIFICATIONS (OR ENGINEER APPROVED EQUAL) TO PREVENT EROSION. CONTRACTOR SHALL WARRANTY GROUND COVER AND SLOPES FOR A PERIOD OF 1 YEAR
- 8. CONFINE ALL CONSTRUCTION ACTIVITY TO PROPERTY OWNER'S PARCEL DO NOT ENTER ADJACENT PROPERTY WITHOUT OBTAINING APPROVAL THROUGH
- 9. CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FENCE AND OTHER TEMPORARY EROSION CONTROL MEASURES AFTER GRASS IS ESTABLISHED AND





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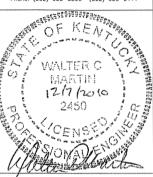
it's just good business A+M a S T e c COMPANY



F.S. Land Company T Alan Neal Company

and Surveyors and Consulting Engineers PO Box 17546 2313/2315 Crittenden Drive Louisville, KY 40217

Phone: (502) 635-5866 (502) 636-5111



SITE NUMBER

33960161 SITE NAME

RRFWFRS

SITE ADDRESS

DWG BY

JMW

7330 KY STATE ROAD 464

MAYFIELD. KY 42066

CHKD BY.

WCM

DATE

09.29.10

PROPERTY OWNER

MICHAEL S ADKISON

7278 STATE ROUTE 464 MAYFIELD, KY 42066

FSTAN PROJECT NO.

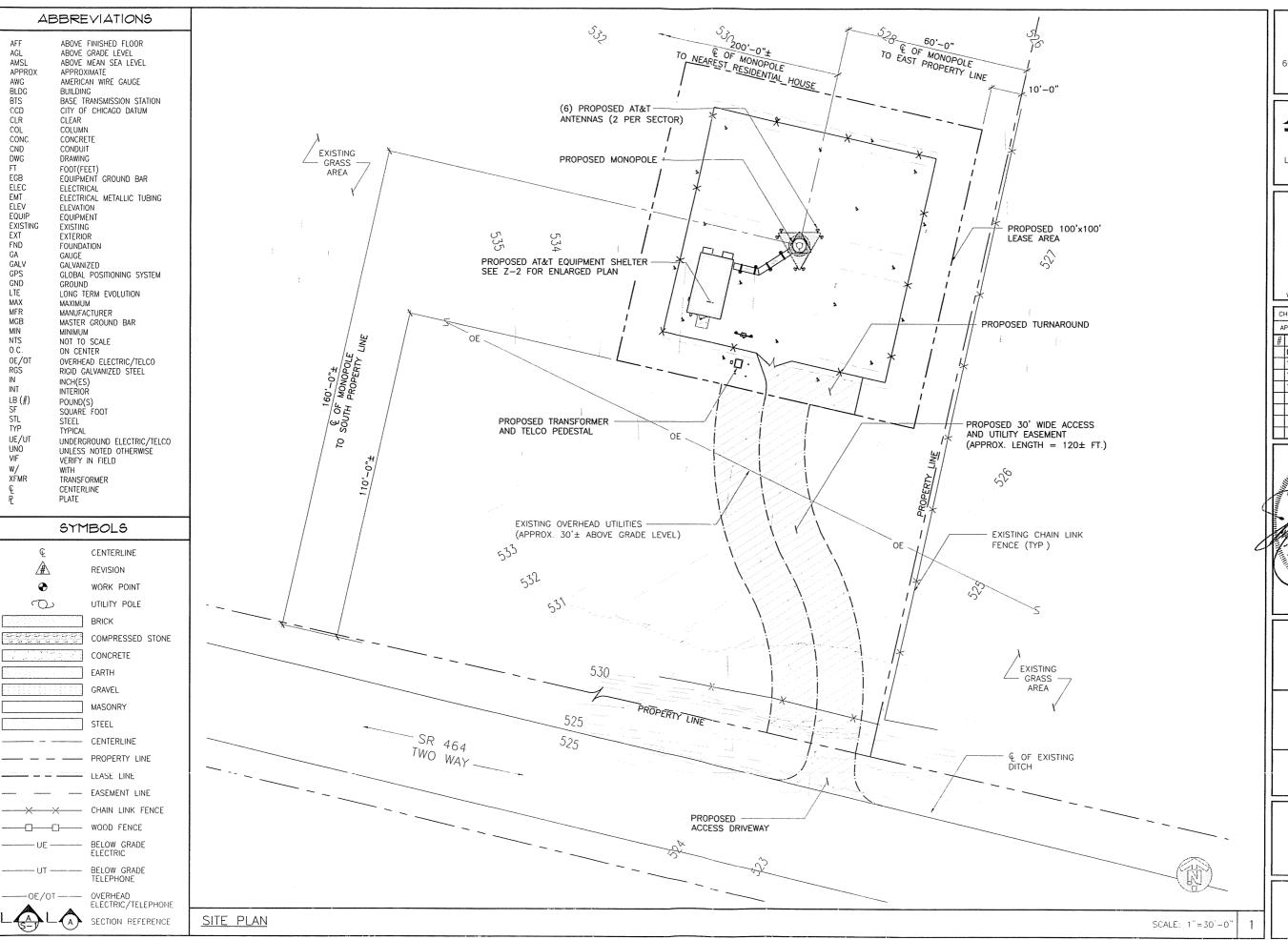
10-6716

SHEET \_\_1\_ OF\_1\_ **REVISIONS:** 

TOWER TYPE - 10.26.10

SITE ADDRESS - 12.06.10

SS-3





601 W. CHESTNUT ST. 1 EAST LOUISVILLE, KY 40203 TEL: (502) 779-5950

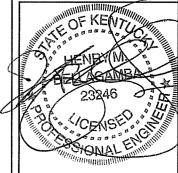
## It's just good business.

10830 PENION DRIVE LOUISVILLE, KENTUCKY 40299 TEL: (866) 501-8356



Fullerton Engineering Consultants 9600 W BRYN MAWR AVE SUITE 200 ROSEMONT, ILLINOIS 60018 TEL: (847) 292-0200 FAX: (847) 292-0206 www.FullertonEngineering.com

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SITE NAME

**BREWERS** 

SITE NO.

EV3161

SITE ADDRESS

7330 KY STATE ROAD 464 MAYFIELD, KY 42066

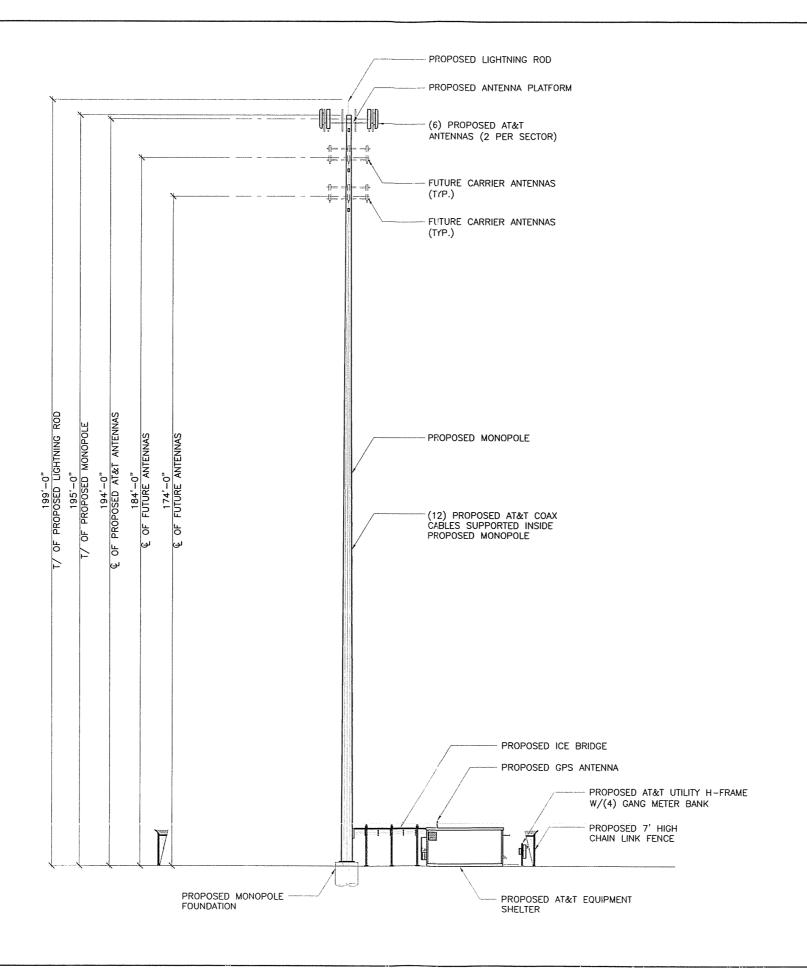
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SITE PLAN

SHEET NUMBER

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601 W CHESTNUT ST. 1 EAST LOUISVILLE, KY 40203 TEL: (502) 779-5950

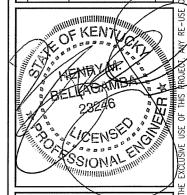
## nsoro

10830 PENION DRIVE LOUISVILLE, KENTUCKY 40299 TEL: (866) 501-8356



Fullerton Engineering Consultants 9600 W. BRYN MAWR AVE. SUITE 200 ROSEMONT, ILLINOIS 60018
TEL: (847) 292-0200
FAX: (847) 292-0206
www.FullertonEngineering.com

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BREWERS

SITE NO

EV3161

SITE ADDRESS

7330 KY STATE ROAD 464 MAYFIELD, KY 42066

SHEET NAME

SITE ELEVATION

SHEET NUMBER

SITE ELEVATION

SCALE: NTS

Exhibit D



### Structural Design Report

195' Monopole located at: Brewers, KY

prepared for: NSORO MASTEC LLC by: Sabre Towers & Poles TM

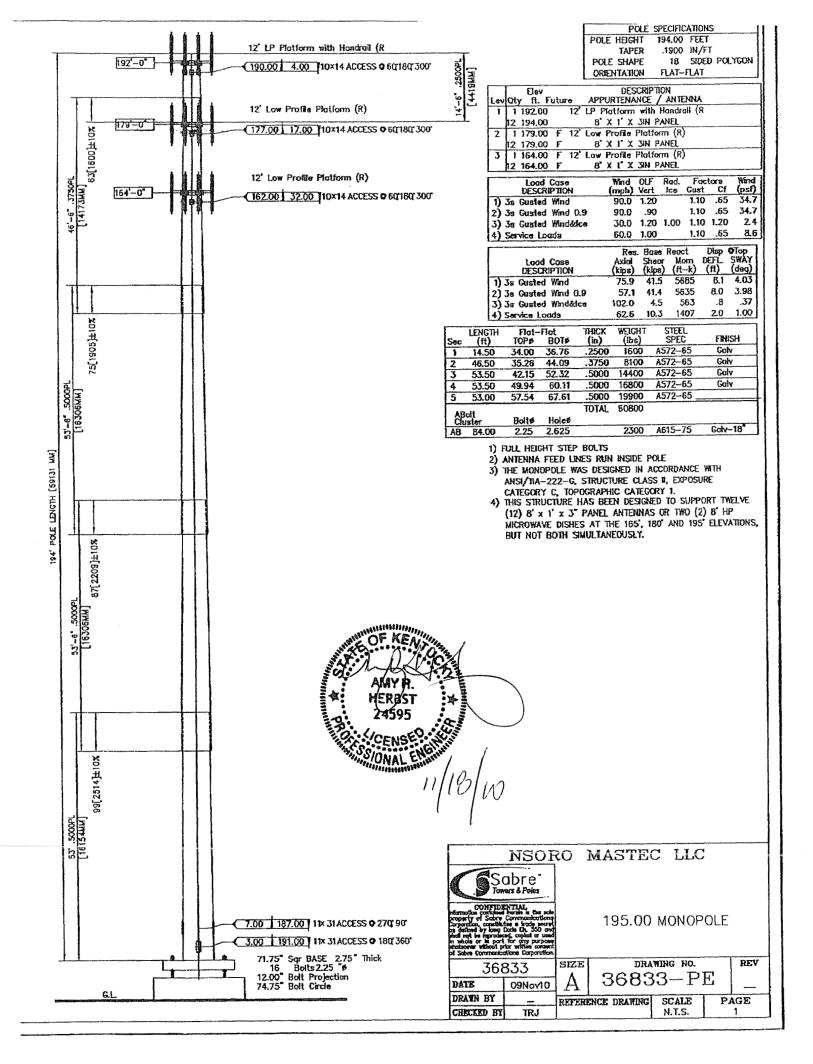
Job Number: 36901 Revision A November 18, 2010

Monopole Profile	1
Foundation Design Summary (Option 1)	2
Foundation Design Summary (Option 2)	3
Pole Calculation	C1-C6
Foundation Calculations	A1-A13

Prepared by

Approved by

AMY A
HERBST
14595
CENSEO



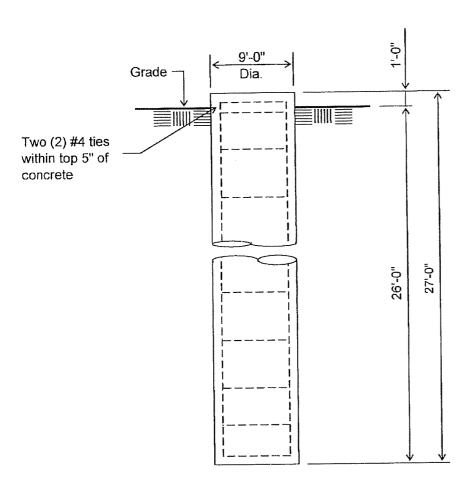


No.: 36901 Page: 2 Date: 11/18/10 By: REB

Revision A

### Customer: NSORO MASTEC LLC Site: Brewers, KY

195' Monopole at 90 mph Wind with no ice and 30 mph Wind with 1 in. Ice per ANSI/TIA-222-G-2005. Antenna Loading per Page 1



### **ELEVATION VIEW**

(63.62 Cu. Yds. each) (1 REQUIRED; NOT TO SCALE)

### Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-05.
- 2). Rebars to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical report by ECA project no. L-1106-4, dated: 11/8/10
- 6). See the geotechnical report for drilled pier installation requirements, if specified.
- 7). The foundation is based on the following factored loads:
  Moment (kip-ft) = 5685
  Axial (kips) = 75.9
  Shear (kips) = 41.5

WERDST BERSST LICENSELLATION FSSIONAL LICENSELLATION F	)
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	Rebar Schedule per Pier
Pier	(46) #9 vertical rebar w/#4 ties, two within top
	5" of pier then 12" C/C

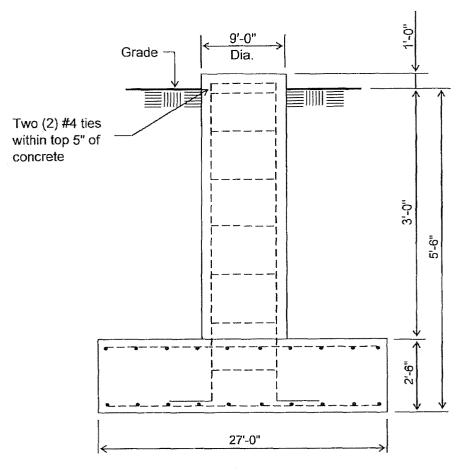


No.: 36901 Page: 3

Date: 11/18/10 By: REB Revision A

### Customer: NSORO MASTEC LLC Site: Brewers, KY

195' Monopole at 90 mph Wind with no ice and 30 mph Wind with 1 in. Ice per ANSI/TIA-222-G-2005. Antenna Loading per Page 1



#### **ELEVATION VIEW**

(76.92 Cu. Yds. each) (1 REQUIRED; NOT TO SCALE)

### Notes:

- 1). Concrete shall have a minimum 28-day compressive strength of 4000 PSI, in accordance with ACI 318-05
- 2). Rebar to conform to ASTM specification A615 Grade 60.
- 3). All rebar to have a minimum of 3" concrete cover.
- 4). All exposed concrete corners to be chamfered 3/4".
- 5). The foundation design is based on the geotechnical report by ECA project no. L-1106-4, dated: 11/8/10
- 6). See the geotechnical report for compaction requirements, if specified.
- 7). The foundation is based on the following factored loads:
  Moment (kip-ft) = 5685
  Axial (kips) = 75.9
  Shear (kips) = 41.5

ANY THE REST	FEER #
LICENSE SONAL	11/18/10

	Rebar Schedule per Pad and Pier					
	(46) #9 vertical rebar w/hooks at bottom					
Pier	w/#4 ties, two within top 5" of top of pier then					
	12" C/C					
Pad	(31) #8 horizontal rebar evenly spaced each					
Pau	way top and bottom (124 Total)					

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TOP BOTTOM POLE BASE	DIAMETER DIAMETER HEIGHT HEIGHT	67.61 194.00 1.00	in. ft. ft.	[	ABOVE GROU	Point FLAT UND	-Point] ORIENTATION
E-MODULU:	S	29000	ksi	{	12000 ksi	SHEAR	MODULUS]

APPURTENANCES -

Status Initial Appurt Future Appurt Future Appurt X,ft Qty 192.00 2 179.00 2 164.00 2 Description
Pipe Mount (8' -10' Dishes)
Pipe Mount (8' -10' Dishes)
Pipe Mount (8' -10' Dishes) ATTACH POINTS: NO.

Some wind forces may have been derived from full-scale wind tunnel tests.

Pole	Bottom	Thick	Connect	LAP	Taper	Length	Weight	Steel	Pole
Section	X,ft.	in.	Type	in.	in/ft	ft.	<u>lbs</u>	Spec	<u>Finish</u>
1	14.50	.25000	SLIP-JNT	63.	.1900	14.50	1375	A572-65	GALVANIZE
2	55.75	.37500	SLIP-JNT	75.	.1900	46.50	7401	A572-65	GALVANIZE
3	103.00	.50000	SLIP-JNT	87.	.1900	53.50	13502	A572-65	GALVANIZE
4	149.25	.50000	SLIP-JNT	99.	.1900	53.50	15752	A572-65	GALVANIZE
5	194.00	.50000	C-WELD		.1900	53.00	17765	A572-65	Special

SECTION	PROPE	RTIES .			Érbos des que Cr. ( y					
X, ft	UP,ft	D,in	T,in	Area in <sup>2</sup>	Iz in <sup>4</sup>	IxIy in <sup>4</sup>	SxSy in <sup>3</sup>	w/t	d/t	F <sub>y</sub> (ksi)
4.75	113.00 118.00 123.00 128.00 133.00 138.00 141.00	083616505050511494949494927272727491616161616 083636221109132211100998832211100995411616161616 10836165050505011494949494949272727274916161616161616161616161616161616161616	.5000	8837502581470219001233445789901311234455670 22272244245666695050505050505616162100505050505050505050505050505050505050	7768 89722888888 138993815633993620 138993815633993620 1389936608 1789203100268 1789203156608 1789203156608 1789203156608 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 1789203 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 178920 1	344766449988044152344429888146996598667865786913302202333333334444680355867801111557689123022222222223333333444468033586	22221222761167933666389847777007131653367513300458 22241767990246690868159407429802864839520874 2222222233333344468903888899990048767802864839520874 8888999904876781111111111111111111111111111111111	2966668382726114426693603370837048158868259269368 222333555566677788833344445555666677788888999900011112 222222111111111111111111111	0530679505161427655432109865432109102109876542 6713666924792466880246880112457780223579135 1104668024668024111111111111111111111111111111111111	65.00 TOP 65.00 P01 65.00 Slip-B01 65.00 Slip-T02 65.00 P03 65.00 F03 65.00 Slip-B02 65.00 Slip-B02 65.00 Slip-T03 65.00 Slip-T03 65.00 Slip-T03 65.00 Slip-B03 65.00 Slip-B03 65.00 Slip-B03 65.00 Slip-B03 65.00 Slip-T04 65.00 Slip-T04 65.00 Slip-T05 65.00 Slip-B03 65.00 Slip-T05 65.00 Slip-B03 65.00 Slip-T05 65.00 Slip-B04

09-Nov-10 14:12 Ph 712.258.6690 Fx 712.258.8250

```
-ANSI-TIA-222-G
CASE - 1: 3s Gusted Wind -
                                                            GUSTED WIND (3sec)
EXP-CAT/STRUC CLASS
                                             1.60
                                                                                               90.0 mph 144.8 kph
            WIND OLF
VERTICAL OLF
DESIGN ICE
                                                                                                C-II
.2105
                                            1.20
                                                            EXP-POWER COEFF.
REFERENCE HEIGHT
           LACTOR (Gh)
LORCE COEFF (Cf)
IMPORTANCE FAC (I)
DIRECTION FAC (Kd)
TOPOGRAPHIC CAT
NANCES
                                             .00 in
                                                                                             900.0 ft
                                             1.10
                                                            PRESSURE @ 32.7 ft 34.7 psf 1659.0 Pa
                                             . 65
                                                     BASE ABOVE Grd
CREST HEIGHT
                                                                                                1.0
                                            1.00
95
i
                                                                                                 .0 ft
                                                                                                                   -Sabre Areas
APPURTENANCES -
                                                                                                                         FORCES
                                                                                                                                      MOM.
                                                                                           Tx-CABLE
                                                         Center WEIGHT AREA
                                                                                                             WIND Tra-Y Ax-Z Lg-X
                                                                              each
Ft^2
                                                           Line each
                                                                                                Qty #/Ft Psf Kips Kips Ft-K
                                                                                      Туре
                                                         Elev-Ft
                                                                     Lbs
# Qty
         Description
        Pipe Mount (8' -10' Dishes) 192.0
HP 8' MICROWAVE (2.00 Ghz) 194.0
Pipe Mount (8' -10' Dishes) 179.0
HP 8' MICROWAVE (2.00 Ghz) 179.0
                                                                                                                        .01 -.2
                                                                                                              50.4
                                                                        79
                                                                                                                       6.41 -2.4
.01 -.2
6.30 -2.3
.01 -.2
6.18 -2.3
                                                                                                   4 1.04 50.5
                                                                              63.4 1 5/8"
                                                                       600
79
         HP 8' MICROWAVE (2.00 Ghz) 179.0
Pipe Mount (8' -10' Dishes) 164.0
HP 8' MICROWAVE
                                                                                 . 1.
                                                                              63.4 1 5/8"
                                                                                                    4 1.04 49.7
                                                                       600
                                                                                                                                         .0
                                                                              63.4 1 5/8"
                                                                                                              48.8
                                                                        79
                                       ( 2.00 Ghz) 164.0
                                                                                                   4 1.04 48.8
                                                                      600
  RESULTS -
                                                :--- FORCES, kips ---:---MOMENTS, ft-kips---: | ShearY ShearY AxiaZ| BendX BendY TorqZ|
                                                                                                                           Inter
                                      ICE
                              WIND
                                                                                                                            4.8.2
                                                                                                                  ksi
75.25
74.93
                            psf
32.83
32.76
      X, ft
194.00
192.00
                   Kzt
                                       in
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6.95
7.43
                  1.00
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-48.2
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       184.75
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-106.2
-110.3
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8.17
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      138.25
133.25
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108.25
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                   1.00
                             19.16
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SABRE COMMUNICATIONS CORP 2101 Murray Street Sioux City, IA 51101

NSORO MASTEC LLC

U9-NOV-10 14:12 Ph 712.258.6690 Fx 712.258.8250

DISPLACEMENTS -

09-Nov-10 14:12 Ph 712.258.6690 Fx 712.258.8250

```
-ANSI-TIA-222-G
TASE - 2: 3s Gusted Wind 0.9 Dead -
                                                                    GUSTED WIND (3sec) 90.0 mph 144.8 kph
EXP-CAT/STRUC CLASS C-II
EXP-POWER COEFF. 2105
REFERENCE HEIGHT 900.0 ft
PRESSURE @ 32.7 ft
BASE ABOVE Grd 1.0
CREST HEIGHT 0 ft
               WIND OLF 1.60
VERTICAL OLF .90
DESIGN ICE .00 in
GUST FACTOR (Gh) 1.10
FORCE COEFF (Cf) .65
IMPORTANCE FAC (I) 1.00
DIRECTION FAC (Kd) .95
TOPOGRAPHIC CAT 1
                                                           1.60
                WIND
                                 OLF
                                                                                                                                                      --- Sabre Areas
APPURTENANCES -
                                                                                                                                                                FORCES
                                                                                                                         Tx-CABLE
                                                                          Center WEIGHT AREA
                                                                                                                 Type Qty #/Ft Psf Kips Kips Ft-K
                                                                                                      each
Ft^2
                                                                           Line each
Elev-Ft Lbs
# Qty Description
          Pipe Mount (8' -10' Dishes) 192.0 79 .1 50.4 .01 -.1 HP 8' MICROWAVE (2.00 Ghz) 194.0 600 63.4 1 5/8" 4 1.04 50.5 6.41 -1.8 HP 8' MICROWAVE (2.00 Ghz) 179.0 600 63.4 1 5/8" 4 1.04 49.7 .01 -.1 HP 8' MICROWAVE (2.00 Ghz) 179.0 600 63.4 1 5/8" 4 1.04 49.7 6.30 -1.8 Pipe Mount (8' -10' Dishes) 164.0 79 .1 48.8 .01 -.1 HP 8' MICROWAVE (2.00 Ghz) 164.0 600 63.4 1 5/8" 4 1.04 48.8 6.18 -1.7
                                                                                                                                                                                      .0
                                                                                                                                                                                      .0
   RESULTS -
                                      WIND ICE :--- FORCES, kips ---: --- MOMENTS, ft-kips---: F'y Inter psf in | ShearX ShearY AxiaZ| BendX BendY TorqZ| ksi 4.8.2 32.83 .00 .0 .01 -.1 .0 .0 .0 .0 .75.25 .000 32.76 .00 .0 .6.90 .1.9 .13.0 .0 .0 .0 .74.93 .011 32.58 .00 .0 .7.36 .2.2 .48.0 .0 .0 .74.14 .037 32.49 .00 .0 .7.75 .2.7 .64.5 .0 .0 .74.14 .037 32.31 .00 .0 8.04 .3.2 .103.3 .0 .0 82.55 .045 32.30 .00 .0 8.08 .3.2 .105.3 .0 .0 82.55 .046 32.28 .00 .0 14.80 .5.1 .105.3 .0 .0 82.55 .046 32.28 .00 .0 15.35 .5.7 .183.3 .0 .0 82.55 .048 32.09 .00 .0 15.35 .5.7 .183.3 .0 .0 82.55 .076 31.89 .00 .0 15.91 .6.4 .260.2 .0 .0 82.30 .102 31.69 .00 .0 22.77 .8.6 .339.7 .0 .0 81.78 .128 31.49 .00 .0 23.34 .9.3 .453.5 .0 .0 81.25 .163
                     , Kzţ
                                      psf
32.83
32.76
        X, ft
194.00
                       1.00
                     1.00
        192.00
        187.00
                                      32.58
                       1.00
        184.75
                        1.00
                                      32.31
32.30
32.28
32.09
        179.75
179.50
                        1.00
                        1.00
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SABRE COMMUNICATIONS CORP 2101 Murray Street Sioux City, IA 51101

NSORO MASTEC LLC

Ph 712.258.6690 Fx 712.258.8250

U9-NOV-1U 14:12 Ph 712.258.6690 Fx 712.258.8250

LASE - 3: 3s Gusted Wind&Ice	Names and the second control of the second c	—ANSI-TIA-222-G
WIND OLF 1.0 VERTICAL OLF 1.2 DESIGN ICE 1.0 GUST FACTOR (Gh) 1.1 FORCE COEFF (Cf) 1.2 IMPORTANCE FAC (I) 1.0 DIRECTION FAC (Kd) .9 TOPOGRAPHIC CAT 1	GUSTED WIND (3sec) 30.0 mph EXP-CAT/STRUC CLASS C-II EXP-POWER COEFF. 2105 REFERENCE HEIGHT 900.0 ft PRESSURE @ 32.7 ft 2.4 psf BASE ABOVE Grd 1.0 CREST HEIGHT .0 ft	48.3 kph  115.2 Pa  Sabre Areas
APPURTENANCES -	C - FIRTOUR ADEA THE CADIF	FORCES MOM
# Qty Description	Center WEIGHT AREA Tx-CABLE Line each each Elev-Ft Lbs Ft^2 Type Qty #/Ft	WIND Tra-Y Ax-Z Lg-X Psf Kips Kips Ft-K
2 HP 8' MICROWAVE (2.0 2 Pipe Mount (8' -10' Dishes) 2 HP 8' MICROWAVE (2.0 3 Pipe Mount (8' -10' Dishes) 2 HP 8' MICROWAVE (2.0	192.0 86 .1 Ghz) 194.0 1501 64.7 1 5/8" 4 1.04 179.0 86 Ghz) 179.0 1501 64.7 1 5/8" 4 1.04 164.0 86 .1 Ghz) 164.0 1501 64.7 1 5/8" 4 1.04	4 3 5 .45 -2.4
RESULTS WIND ICE :	FORCES, kips:MOMENTS, ft-kips-	: F'y Inter
194.0C       1.00       4.21       2.39         192.00       1.00       4.20       2.38         187.00       1.00       4.18       2.38         184.75       1.00       4.17       2.38         179.75       1.00       4.14       2.37         179.00       1.00       4.14       2.37         174.00       1.00       4.11       2.36         169.00       1.00       4.06       2.35         159.00       1.00       4.04       2.34         154.00       1.00       4.01       2.33         149.00       1.00       3.98       2.33         149.00       1.00       3.98       2.33         139.50       1.00       3.93       2.31         133.25       1.00       3.89       2.30         128.25       1.00       3.89       2.29         123.25       1.00       3.79       2.27         113.25       1.00       3.79       2.27         108.25       1.00       3.69       2.24         98.25       1.00       3.65       2.23         93.25       1.00       3.59       2.22         <	FORCES, kips:	Red   Red

SABRE COMMUNICATIONS CORP 2101 Murray Street Sioux City, IA 51101

NSORO MASTEC LLC

09-Nov-10 14:12 Ph 712.258.6690 Fx 712.258.8250

DISPLACEMENTS

# SABRE COMMUNICATIONS CORP 09-Nov-10 14:12 2101 Murray Street NSORO MASTEC LLC Ph 712.258.6690 Sioux City, IA 51101 Fx 712.258.8250

STOUX CITY, IA 3	) T T O T			EX /12.230.0.	200
CASE - 4: Servic	e Loads			ANSI-TIA-22	2-G
GUST FACTO FORCE COEFI IMPORTANCE DIRECTION TOPOGRAPHIO	LF 1.0 CE .0 DR (Gh) 1.1 F (Cf) .6 FAC (I) 1.0 FAC (Kd) .8	00 EXP-CA 00 in EXP-PO .0 REFERE 55 PRESSO 00 BASE A	AT/STRUC CLASS OWER COEFF. ENCE HEIGHT	60.0 mph 96.6 kph C-II .2105 900.0 ft 8.6 psf 412.3 Pa 1.0 .0 ft	.036
\PPURTENANCES -				Sabre Ar	
# Qty Description	1	Line Elev-Ft		Qty #/Ft Psf Kips Kips	5 Ft-K
2 HP 8' MICRO	DWAVE ( 2.0 3' -10' Dishes) DWAVE ( 2.0 3' -10' Dishes) DWAVE ( 2.0	00 Ghz) 194.0 179.0 00 Ghz) 179.0	600 63.4 1 5/8 79 .1	12.3 .002 " 4 1.04 12.3 1.57 -1.9	) 2 .0 9 2 .0
X, ft Kzt 194.00 1.00 192.00 1.00 187.00 1.00 187.00 1.00 179.75 1.00 179.75 1.00 179.50 1.00 179.00 1.00 169.00 1.00 169.00 1.00 159.00 1.00 149.00 1.00 139.50 1.00 139.50 1.00 138.25 1.00 138.25 1.00 138.25 1.00 138.25 1.00 138.25 1.00 118.25 1.00 118.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 108.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00 118.25 1.00	WIND ICE :	ShearX ShearY 00 00 1.72 00 1.84 00 1.94 00 2.01 00 3.70 00 3.84 00 5.69 00 5.84 00 5.98 00 6.127 00 6.46 00 6.62 00 6.77 00 6.46 00 6.62 00 7.23 00 7.23 00 7.51 00 7.82	ips:MOMENT BendX	S,ft-kips: F'y Inter	

SABRE COMMUNICATIONS CORP 2101 Murray Street

NSORO MASTEC LLC

09-Nov-10 14:12 Ph 712.258.6690 Fx 712.258.8250

U9-Nov-10 14:12 Ph 712.258.6690 Fx 712.258.8250

SHAPE: 18 SIDED POLYGON with FLAT-FLAT ORIENTATION BOLTS: QUADRANT SPACED BOLTS 6.00 in. ON CENTER LOCATE: POLE DATA --75.9 kips 26.9 kips DIAMETER = 67.61 in. BASE AXIAL FORCE= Vert .5000 in. .1900 in/ft kips PLATE == ACTIONS SHEAR X = Long 31.6 kips Tran 4019.9 ft-kips Tran 4019.9 ft-kips Long TAPER = SHEAR Y \_\_ X-AXIS MOM = Y-Axis MOM = 65.00 ksi POLE Fy = Z-Axis MOM = .0 ft-kips Verf DESIGN CASE = 1 3s Gusted Wind = Design: ANY Orientation Reactions at 45.00 deg to X-AXIS BOLT LOADS AXIAL - COMPRESSION AXIAL - TENSION 232.94 kips 223.45 kips 3.65 kips 71.67 ksi SHEAR AXIAL STRESS 1.19 ksi 75.00 ksi SHEAR STRESS STRENGTH FY YIELD == Interaction = 100.00 ksiSTRENGTH Fu ULT. .80 x 1.00] STRESS Fa [ .80 x Fv [ .80 x Fa 80.00 ksi .926 TIA-G ALLOW .401 32.00 ksi SHEAR 2.91 in^2 TENSION AREA REQUIRED = 3.25 in^2 3.07 in^2 TENSION AREA FURNISHED = ROOT AREA FURNISHED A615 ::: ANCHOR BOLT DESIGN USED 74.750 in. Bolt Circle SHIP 16 Bolts on a 2.250 in. Diameter 67.13 in. Embedded (lbs) 2225 12.00 84.00 in. Total Length in. Exposed CONCRETE - Fc= 4000 psi ANCHOR BOLTS are STRAIGHT w\ UPLIFT NUT

### BASE PLATE -

[Bend Model: Flat-17]
YIELD STRENGTH = 50.0 ksi
BEND LINE WIDTH = 34.0 in.
PLATE MOMENT = 2584.6 in-k
THICKNESS REQD = 2.600 in.
BENDING STRESS = 40.2 ksi
ALLOWABLE STRESS = 45.0 ksi
[Fy x .90 x 1.00]

ĺ		BAS	SE PLATE	USED	
	2.75	in.	THICK		SHIP
١	71.75	in.	SQUARE		(lbs)
l	55.00	in.	CENTER	HOLE	1780
I	14.00	in.	CORNER	CLIP	

#### LOAD CASE SUMMARY

						ABolt-Str		Plate-Str			
	FORCES-(kips)		MOMENTS-(ft-k)		Allow		_Actual Allow		Design		
LC	Axial	ShearX	ShearY	X-axis	Y-axis	TorQ	CSR	ksi	ksi	ksi	Code
1	75.9	26.9	31.6	3684	4330	0	.926	75.00	40.22	45.00	TIA-G
2	57.1	26.9	31.6	3651	4291	0	.913	75.00	39.66	45.00	TIA-G
3	102.0	2.9	3.4	365	429	0	.115	75.00	5.03	45.00	TIA-G
4	62.6	6.7	7.9	912	1071	0	.240	75.00	10.44	45.00	TIA-G

LPILE Plus for Windows, Version 5.0 (5.0.39)

Analysis of Individual Piles and Drilled Shafts Subjected to Lateral Loading Using the p-y Method

(c) 1985-2007 by Ensoft, Inc. All Rights Reserved

```
This program is licensed to:
Rob Beacom
Sabre Towers and Poles
                                        C:\Progra~1\Ensoft\LpileP5\
Path to file locations:
Name of input data file:
Name of output file:
Name of plot output file:
Name of runtime file:
                                        3636901P.lpd
                                        3636901P.lpo
3636901P.lpp
                                        3636901P.lpr
                                  Time and Date of Analysis
                    Date: November 18, 2010 Time: 10:38:27
                                           Problem Title
195' Monopole NSORO MASTEC LLC Brewers, KY (36901) 11-18-10 REB
                                            Program Options
   Units Used in Computations - US Customary Units: Inches, Pounds
Basic Program Options:
Analysis Type 3:
  Computation of Nonlinear Bending Stiffness and Ultimate Bending Moment
   Capacity with Pile Response Computed Using Nonlinear EI
Computation Options:
- Only internally-generated p-y curves used in analysis
- Analysis does not use p-y multipliers (individual pile or shaft action only)
- Analysis assumes no shear resistance at pile tip
- Analysis for fixed-length pile or shaft only
- No computation of foundation stiffness matrix elements
- Output summary table of values for pile-head deflection, maximum bending moment, and shear force only
- Analysis assumes no soil movements acting on pile
- No additional p-y curves to be computed at user-specified depths
Solution Control Parameters:
- Number of pile increments
                                                                     100
 - Maximum number of iterations allowed =
                                                                     300
                                                           1.0000E-05 in
- Deflection tolerance for convergence =
```

.00 deg.

- Maximum allowable deflection

Slope angle of ground surface

Printing Options:

Only summary tables of pile-head deflection, maximum bending moment, and maximum shear force are to be printed in output file.

## Pile Structural Properties and Geometry

324.00 in Pile Length

Depth of ground surface below top of pile = 12.00 in

Structural properties of pile defined using 2 points

Point	Depth X in	Pile Diameter in	Moment of Inertia in**4	Pile Area Sq.in	Modulus of Elasticity lbs/Sq.in
		~ - ~			
1	0.0000	108.00000	6678285.	9160.9000	3604997.
2	324.0000	108.00000	6678285.	9160.9000	3604997.

Please note that because this analysis makes computations of ultimate moment capacity and pile response using nonlinear bending stiffness that the above values of moment of inertia and modulus of are not used for any computations other than total stress due to combined axial loading and bending.

## Soil and Rock Layering Information

The soil profile is modelled using 4 layers

Layer 1 is stiff clay without free water
Distance from top of pile to top of layer =
Distance from top of pile to bottom of layer = 12.000 in 84.000 in

Layer 2 is stiff clay without free water Distance from top of pile to top of layer = Distance from top of pile to bottom of layer = 84.000 in 156.000 in

Layer 3 is sand, p-y criteria by Reese et al., 1974
Distance from top of pile to top of layer =
Distance from top of pile to bottom of layer =
p-y subgrade modulus k for top of soil layer =
p-y subgrade modulus k for bottom of layer = 156.000 in 336.000 in

225.000 lbs/in\*\*3 225.000 lbs/in\*\*3

336.000 in

Layer 4 is sand, p-y criteria by Reese et al., 1974
Distance from top of pile to top of layer =
Distance from top of pile to bottom of layer =
p-y subgrade modulus k for top of soil layer =
p-y subgrade modulus k for bottom of layer = 492.000 in 225.000 lbs/in\*\*3 225.000 lbs/in\*\*3

(Depth of lowest layer extends 168.00 in below pile tip)

Effective Unit Weight of Soil vs. Depth

3636901P. Tpo

Effective unit weight of soil with depth defined using 8 points

Point No.	Depth X in	Eff. Unit Weight lbs/in**3
1	12.00	.06660
2	84.00	.06660
3	84.00	.06660
4	156.00	.06660
5	156.00	.06660
6	336.00	.06660
7	336.00	.06660
8	492.00	.06660

#### Shear Strength of Soils

Shear strength parameters with depth defined using 8 points

Point No.	Depth X in	Cohesion c lbs/in**2	Angle of Friction Deg.	E50 or k_rm	RQD %
1	12.000	13.89000	.00	.00700	.0
2	84.000	13.89000	.00	.00700	.0
3	84.000	17.36000	.00	.00500	.0
4	156.000	17.36000	.00	.00500	.0
5	156.000	.00000	36.00		
6	336.000	. 00000	36.00		
7	336.000	.00000	42.00		
8	492.000	.00000	42.00		

#### Notes:

- Cohesion = uniaxial compressive strength for rock materials.
- Values of E50 are reported for clay strata.

  Default values will be generated for E50 when input values are 0.

  RQD and k\_rm are reported only for weak rock strata.

### Loading Type الي. ووز من من من حد وين زين أمن من من من ويد يوم ينا شما سن حد من ودر 100 شد مدر سا عدر دو 100 ش1 شا شار من ومد 100 سا 100 سا

Static loading criteria was used for computation of p-y curves.

Pile-head Loading and Pile-head Fixity Conditions

Number of loads specified = 1

Load Case Number 1

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Shear force at pile head = 55333.333 lbs
Bending moment at pile head = 90960000.000 in-lbs
Axial load at pile head = 101200.000 lbs

#### 3636901P. Tpo

Non-zero moment at pile head for this load case indicates the pile-head may rotate under the applied pile-head loading, but is not a free-head (zero moment) condition.

Computations of Nominal Moment Capacity and Nonlinear Bending Stiffness

Number of sections = 1

Pile Section No. 1

The sectional shape is a circular drilled shaft (bored pile).

Outside Diameter = 108.0000 in

Material Properties:

4.000 kip/in\*\*2 Compressive Strength of Concrete 60. kip/in\*\*2 Yield Stress of Reinforcement Modulus of Elasticity of Reinforcement = 29000 kip/in\*\*2 Number of Reinforcing Bars 46 1.00000 in\*\*2 Area of Single Bar = Number of Rows of Reinforcing Bars 23 == Area of Steel Area of Shaft 46.000 in\*\*2 = 9160.884 in\*\*2 == Percentage of Steel Reinforcement .502 percent = 4.064 in Cover Thickness (edge to bar center)

Unfactored Axial Squash Load Capacity = 33750.61 kip

#### Distribution and Area of Steel Reinforcement

Row Number	Area of Reinforcement in**2	Distance to Centroidal Axis in
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	in**2 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	49.820 48.892 47.053 44.337 40.796 36.495 31.514 25.946 19.895 13.473 6.800 0.000 -6.800 -13.473 -19.895 -25.946 -31.514 -36.495 -40.796 -44.337 -47.053
22 23	2.000 2.000	-48.892 -49.820

Axial Thrust Force = 101200.00 3636901P.lpo

Bending Max. Steel	Bending	Bending	Maximum	Neutral Axis M	Max. Concrete
Moment	Stiffness	Curvature	Strain	Position	Stress
Stress in-1bs	lb-in2	rad/in	in/in	inches	psi
psi					r
12944432. 810.64941	2.588886E+13	5.000000E-07	.00003004	60.08726853	106.76915
25772904.	2.577290E+13	.00000100	.00005717	57.17142516	201.55859
1536.73937 38478130. 2261.72459	2.565209E+13	.00000150	.00008426	56.17408115	294.83148
51068666.	2.553433E+13	.00000200	.00011143	55.71372396	386.98650
2988.93207 63536998. 3714.47104	2.541480E+13	.00000250	.00013854	55.41449565	477.55938
63536998.	2.117900E+13	.00000300	.00008159	27.19692510	280.84357
6666.17164 63536998.	1.815343E+13	.00000350	.00009318	26.62348384	319.53052
7835.40454 63536998.	1.588425E+13	.00000400	.00010450	26.12510794	357.03628
9012.55965 63536998.	1.411933E+13	.00000450	.00011583	25.73986763	394.34903
10189.40346 63536998.	1.270740E+13	.00000500	.00012717	25.43382543	431.46812
11365.93552 63536998.	1.155218E+13	.00000550	.00013860	25.20000011	468.66438
12539.82421 63536998.	1.058950E+13	.00000600	.00015026	25.04334515	506.39511
13707.06620 63536998.	9.774923E+12	.00000650	.00016156	24.85552078	542.68388
14884.72661 63536998.	9.076714E+12	.00000700	.00017287	24.69620079	578.78244
16062.04753 63536998.	8.471600E+12	.00000750	.00018420	24.55969137	614.69022
17239.02744 63536998.	7.942125E+12	.00000800	.00019553	24.44173104	650.40689
18415.66274	7.474941E+12				685.93169
63536998. 19591.95342		.00000850	.00020688	24.33904642	
63536998. 20767.89612	7.059666E+12	.00000900	.00021824	24.24910444	721.26424
63536998. 21943.48898	6.688105E+12	.00000950	.00022961	24.16989988	756.40398
63536998. 23118.73070	6.353700E+12	.00001000	.00024100	24.09982663	791.35028
63536998.	6.051143E+12	.00001050	.00025239	24.03758758	826.10261
24293.61902 63536998.	5.776091E+12	.00001100	.00026380	23.98212057	860.66042
25468.15200 63536998. 26642.32701	5.524956E+12	.00001150	.00027522	23.93255013	895.02320
63536998.	5.294750E+12	.00001200	.00028666	23.88814563	929.19039
27816.14183 63536998. 28989.59457	5.082960E+12	.00001250	.00029810	23.84829229	963.16141
63536998.	4.887461E+12	.00001300	.00030956	23.81246871	996.93559
30162.68384 63536998.	4.706444E+12	.00001350	.00032103	23.78023392	1030.51241
31335.40699 63536998. 32507.76209	4.538357E+12	.00001400	.00033252	23.75120813	1063.89126

		3636901P			
63536998. 33679.74625	4.381862E+12	.00001450	.00034401	23.72506624	1097.07162
63536998. 34851.35864	4.235800E+12	.00001.500	.00035552	23.70152181	1130.05275
63536998. 36022.59477	4.099161E+12	.00001550	.00036705	23.68033344	1162.83428
63536998. 37193.45371	3.971062E+12	.00001600	.00037858	23.66128224	1195.41546
63536998 <i>.</i>	3.850727E+12	.00001650	.00039013	23.64417833	1227.79567
38363.93336 64924752.	3.819103E+12	.00001700	.00040169	23.62885755	1259.97443
39534.02994 66710510.	3.812029E+12	.00001750	.00041327	23.61516863	1291.95096
40703.74266 68494676.	3.805260E+12	.00001800	.00042485	23.60297960	1323.72462
41873.06941 70277245.	3.798770E+12	.00001850	.00043646	23.59217459	1355.29484
43042.00711 72058216.	3.792538E+12	.00001900	.00044807	23.58265060	1386.66107
44210.55232 73837573.	3.786542E+12	.00001950	.00045970	23.57431108	1417.82255
45378.70391 77391431.	3.775192E+12	.00002050	.00048300	23.56086034	1479.52890
47713.81339 80938743.	3.764593E+12	.00002150	.00050635	23.55123657	1540.40846
50047.31690 84479437.	3.754642E+12	.00002250	.00052976	23.54496020	1600.45582
52379.19442 88013462.	3.745254E+12	.00002350	.00055323	23.54163855	1659.66571
54709.42232 91540747.	3.736357E+12	.00002450	.00057675	23.54094011	1718.03256
57037.97909 95061214.	3.727891E+12	.00002550	.00060034	23.54258484	1775.55059
59364.84359 98136206.	3.703253E+12	.00002650	.00062305	23.51118046	1829.91249
60000.00000 1.005819E+08	3.657524E+12	.00002750	.00064446	23.43479866	1880.19085
60000.00000 1.025382E+08	3.597830E+12	.00002850	.00066690	23.39999861	1932.11876
60000.00000 1.045310E+08	3.543425E+12	.00002950	.00068764	23.30992466	1979.14995
60000.00000 1.062143E+08	3.482437E+12	.00003050	.00070713	23.18472558	2022.52009
60000.00000 1.076626E+08	3.417861E+12	.00003150	.00072600	23.04766577	2063.79577
60000.00000 1.090406E+08	3.355096E+12	.00003250	.00074471	22.91410464	2104.08348
60000.00000 1.102876E+08	3.292166E+12	.00003350	.00076305	22.77767891	2142.95177
60000.00000 1.113952E+08	3.228846E+12	.00003350	.00078100	22.63778991	2180.37388
60000.00000 1.125004E+08	3.169026E+12	.00003550	.00079898	22.50656551	2217.29017
60000.00000 1.134850E+08	3.109178E+12	.00003550	.00073650	22.37234777	2252.85411
60000.00000 1.143574E+08	3.049531E+12	.00003750	.00083385	22.23605400	2287.15480
60000.00000					
1.152277E+08 60000.00000	2.992927E+12	.00003850	.00085114	22.10748500	2320.98571
1.160959E+08 60000.00000	2.939137E+12	.00003950	.00086845	21.98606461	2354.34530
1.168341E+08 60000.00000	2.884792E+12	.00004050	.00088530	21.85932702	2386.27145
1.175078E+08 60000.00000	2.831514E+12	.00004150	.00090194	21.73356146	2417.28597

1 101707- 00	2 700500 12	3636901P.			
1.181797E+08 60000.00000	2.780699E+12	.00004250	.00091861	21.61424929	2447.86240
1.195924E+08 60000.00000	2.749252E+12	.00004350	.00093960	21.60000032	2486.14060
1.196100E+08 60000.00000	2.687866E+12	.00004450	.00095629	21.48963922	2515.66627
1.201765E+08 60000.00000	2.641242E+12	.00004550	.00097206	21.36390907	2543.02820
1.206719E+08	2.595094E+12	.00004650	.00098751	21.23676270	2569.38990
60000.00000 1.211658E+08	2.550859E+12	.00004750	.00100298	21.11539382	2595.37541
60000.00000 1.216583E+08	2.508419E+12	.00004850	.00101847	20.99944514	2620.98302
60000.00000 1.221494E+08	2.467665E+12	.00004950	.00103399	20.88859159	2646.21130
60000.00000 1.226391E+08	2.428496E+12	.00005050	.00104952	20.78253382	2671.05881
60000.00000 1.231273E+08	2.390821E+12	.00005150	.00106507	20.68099183	2695.52374
60000.00000 1.234993E+08	2.352367E+12	.00005250	.00108000	20.57136458	2718.54976
60000.00000 1.238623E+08	2.315183E+12	.00005350	.00109490	20.46536475	2741.15287
60000.00000 1.242241E+08	2.279340E+12	.00005450	.00110982	20.36359745	2763.40415
60000.00000 1.245846E+08	2.244768E+12	.00005550	.00112475	20.26583737	2785.30237
60000.00000 1.249439E+08	2.211396E+12	.00005650	.00113971	20.17186886	2806.84575
60000.00000 1.253019E+08	2.179163E+12	.00005750	.00115469	20.08149880	2828.03315
60000.00000 1.256587E+08	2.148011E+12	.00005850	.00116968	19.99454695	2848.86338
60000.00000 1.260142E+08	2.117885E+12	.00005950	.00118469	19.91083950	2869.33473
60000.00000 1.261245E+08	2.050805E+12	.00006150	.00121770	19.79999882	2913.22029
60000.00000 1.272906E+08	2.004576E+12	.00006350	.00125040	19.69141120	2954.81698
60000.00000 1.277781E+08	1.950811E+12	.00006550	.00127795	19.51069039	2988.05145
60000.00000 1.282618E+08	1.900175E+12	.00006750	.00130556	19.34166294	3020.07754
60000.00000 1.287416E+08	1.852397E+12	.00006950	.00133324	19.18333751	3050.88672
60000.00000 1.292175E+08	1.807237E+12	.00007150	.00136099	19.03481930	3080.46904
60000.00000 1.296664E+08	1.764168E+12	.00007350	.00138859	18.89231998	3108.58046
60000.00000 1.300011E+08	1.721869E+12	.00007550	.00141519	18.74419767	3134.38779
60000.00000 1.303324E+08	1.681709E+12	.00007750	.00144185	18.60453397	3159.05987
60000.00000 1.306603E+08	1.643525E+12	.00007950	.00146858	18.47269481	3182.58786
60000.00000 1.309846E+08	1.607173E+12	.00008150	.00149537	18.34811693	3204.96346
60000.00000 1.313054E+08	1.572520E+12	.00008350	.00152223	18.23027891	3226.17728
60000.00000 1.316226E+08	1.539446E+12	.00008550	.00154915	18.11871725	3246.22054
60000.00000 1.319362E+08	1.507842E+12	.00008750	.00157614	18.01301032	3265.08421
60000.00000 1.331828E+08	1.488076E+12	.00008950	.00161100	18.00000054	3287.97176
60000.00000	<del> </del>				

1 221020=.00	1 4555505.13	3636901P		17 00700115	2207 65210
1.331828E+08 60000.00000	1.455550E+12	.00009150	.00164405	17.96780 <b>1</b> 15	3307.65310
1.331828E+08 60000.00000	1.424415E+12	.00009350	.00166861	17.84605247	3320.78585
1.331828E+08 60000.00000	1.394584E+12	.00009550	.001.69310	17.72877771	3332.88131
1.332846E+08	1.367022E+12	.00009750	.00171765	17.61690384	3344.00212
60000.00000 1.334684E+08	1.341391E+12	.00009950	.00174226	17.51011223	3354.14094
60000.00000 1.336494E+08	1.316742E+12	.00010150	.00176692	17.40810674	3363.29018
60000.00000 1.338276E+08	1.293020E+12	.00010350	.00179165	17.31062025	3371.44239
60000.00000 1.340030E+08	1.270170E+12	.00010550	.00181644	17.21739846	3378.58967
60000.00000 1.341755E+08	1.248145E+12	.00010750	.00184128	17.12820965	3384.72413
60000.00000 1.343452E+08	1.226897E+12	.00010950	.00186619	17.04283816	3389.83773
60000.00000 1.345120E+08	1.206386E+12	.00011150	.00189116	16.96108443	3393.92232
60000.00000 1.346758E+08	1.186571E+12	.00011350	.00191619	16.88276178	3396.96958
60000.00000 1.348367E+08	1.167418E+12	.00011550	.00194129	16.80769962	3398.97112
60000.00000 1.349946E+08	1.148891E+12	.00011750	.00196645	16.73574024	3399.91834
60000.00000 1.351239E+08	1.130744E+12	.00011950	.00199128	16.66340750	3396.33832
60000.00000 1.352121E+08	1.112857E+12	.00012150	.00201542	16.58784002	3390.43399
60000.00000 1.352995E+08	1.095542E+12	.00012350	.00203963	16.51520795	3384.51374
60000.00000 1.353859E+08	1.078772E+12	.00012550	.00206389	16.44536644	3379.60412
60000.00000 1.354716E+08	1.062522E+12	.00012750	.00208822	16.37819642	3384.58671
60000.00000 1.355563E+08	1.046767E+12	.00012950	.00211261	16.31357235	3388.88531
60000.00000 1.356402E+08	1.031484E+12	.00013150	.00213706	16.25138801	3392.49339
60000.00000 1.356402E+08	1.016031E+12	.00013350	.00216270	16.19999903	3395.55388
60000.00000 1.356402E+08	1.001035E+12	.00013550	.00219510	16.19999903	3398.39571
60000.00000 1.356402E+08	9.864740E+11	.00013750	.00222750	16.19999903	3399.81974
60000.00000					
1.357549E+08 60000.00000	9.731537E+11	.00013950	.00225990	16.19999903	3396.46445
1.362618E+08 60000.00000	9.495598E+11	.00014350	.00231231	16.11363620	3385.47062
1.363921E+08 60000.00000	9.246921E+11	.00014750	.00235929	15.99521881	3375.90865
1.365207E+08 60000.00000	9.011267E+11	.00015150	.00240646	15.88423008	3379.51033
1.366476E+08 60000.00000	8.787630E+11	.00015550	.00245381	15.78012282	3386.95807
1.367728E+08 60000.00000	8.575100E+11	.00015950	.00250134	15.68240136	3392.76187
1.368963E+08 60000.00000	8.372863E+11	.00016350	.00254907	15.59062797	3396.89027
1.369866E+08 60000.00000	8.178302E+11	.00016750	.00259567	15.49652106	3399.24036
1.370458E+08	7.991010E+11	.00017150	.00264120	15.40059239	3399.99993
60000.00000					

		3636901P.	1po		
1.371000E+08 60000.00000	7.811968E+11	.00017550	.00268726	15.31204408	3392.69550
1.371536E+08 60000.00000	7.640870E+11	.00017950	.00273343	15.22802442	3385.25300
1.372066E+08 60000.00000	7.477200E+11	.00018350	.00277970	15.14821154	3377.78414
1.372590E+08 60000.00000	7.320481E+11	.00018750	.00282606	15.07234150	3370.28865
1.373094E+08 60000.00000	7.170203E+11	.00019150	.00287266	15.00085849	3362.73156
1.373464E+08 60000.00000	7.025393E+11	.00019550	.00292054	14.93881899	3368.14966
1.373827E+08 60000.00000	6.886349E+11	.00019950	.00296854	14.87988228	3375.66846
1.374181E+08 60000.00000	6.752733E+11	.00020350	.00301666	14.82388419	3382.20978
1.374527E+08 60000.00000	6.624228E+11	.00020750	.00306491	14.77066058	3387.75695
1.374865E+08 60000.00000	6.500545E+11	.00021150	.00311329	14.72006661	3392.29327
1.375195E+08 60000.00000	6.381413E+11	.00021550	.00316181	14.67196709	3395.80139
1.375424E+08 60000.00000	6.266167E+11	.00021950	.00321142	14.63059777	3398.34125
1.375606E+08 60000.00000	6.154835E+11	.00022350	.00326157	14.59313911	3399.74008
1.375762E+08 60000.00000	6.047307E+11	.00022750	.00331206	14.55850321	3397.63774
1.375886E+08 60000.00000	5.943352E+11	.00023150	.00336299	14.52695721	3390.83879
1.376005E+08 60000.00000	5.842909E+11	.00023550	.00341401	14.49685639	3384.01659
1.376120E+08 60000.00000	5.745803E+11	.00023950	.00346512	14.46813637	3377.17064
1.376230E+08 60000.00000	5.651870E+11	.00024350	.00351632	14.44073600	3370.30050
1.376336E+08 60000.00000	5.560953E+11	.00024750	.00356761	14.41459411	3363.40597
1.377643E+08	5.477706E+11	.00025150	.00362160	14.40000075	3355.79926
60000.00000 1.380538E+08	5.403281E+11	.00025550	.00367920	14.40000075	3347.23818
1.383868E+08 60000.00000	5.332824E+11	.00025950	.00373680	14.40000075	3346.28944
	5.332824E+11	.00025950	.00373680	14.40000075	3346.28944

Unfactored (Nominal) Moment Capacity at Concrete Strain of 0.003 = 137405.83726 in-kip

```
Computed Values of Load Distribution and Deflection
for Lateral Loading for Load Case Number 1
```

Pile-head boundary conditions are Shear and Moment (BC Type 1)
Specified shear force at pile head = 55333.333 lbs
Specified moment at pile head = 90960000.000 in-lbs
Specified axial load at pile head = 101200.000 lbs

Non-zero moment for this load case indicates the pile-head may rotate under the applied pile-head loading, but is not a free-head (zero moment )condition.

Output Verification:

#### 3636901P.lpo

Computed forces and moments are within specified convergence limits.

# Summary of Pile Response(s)

#### Definition of Symbols for Pile-Head Loading Conditions:

```
Type 1 = Shear and Moment,
Type 2 = Shear and Slope,
Type 3 = Shear and Rot. Stiffness,
Type 4 = Deflection and Moment,
Type 5 = Deflection and Slope,
Type 5 = Deflection and Slope,
Type Condition
Type
```

The analysis ended normally.

#### 1805.7.2.1 (2006 IBC) & 1807.3.2.1 (2009 IBC)

#### $d = A/2*(1+(1+(4.36*h/A))^0.5)$

#### Monopole

Moment (ft-k)	5685
Shear (k)	41.5
Caisson Diameter, b (ft)	9
Caisson Height Above Ground (ft)	1
Caisson Height Below Ground (ft)	26
Lateral soil pressure per foot (lb/ft3)	338

Applied lateral force, P (lbs) 41500 Dist. from ground to application of P, h (ft) 137.99 A = 2.34\*P/(S1\*b) 3.68

Min. Depth of Embedment Required, d (ft) 25.45

R. All

#### MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES

195' Monopole NSORO MASTEC LLC Brewers, KY (36901) 11-18-10 REB

Overall Loads:			
Factored Moment (ft-kips)	5685		
Factored Axial (kips)	75.9		
Factored Shear (kips)	41.5		
Bearing Design Strength (ksf)	9	Max. Net Bearing Press. (ksf)	3.30
Water Table Below Grade (ft)	999		
Width of Mat (ft)	27	Ultimate Bearing Pressure (ksf)	12.00
Thickness of Mat (ft)	2.5	Bearing Фs	0.75
Depth to Bottom of Slab (ft)	5.5		
Quantity of Bolts in Bolt Circle	16		
Bolt Circle Diameter (in)	74.75		
Top of Concrete to Top			
of Bottom Threads (in)	60		
Diameter of Pier (ft)	9	Minimum Pier Diameter (ft)	7.73
Ht. of Pier Above Ground (ft)	1	Equivalent Square b (ft)	7.98
Ht. of Pier Below Ground (ft)	3		
Quantity of Bars in Mat	31		
Bar Diameter in Mat (in)	1		
Area of Bars in Mat (in <sup>2</sup> )	24.35		
Spacing of Bars in Mat (in)	10.57	Recommended Spacing (in)	6 to 12
Quantity of Bars Pier	46		
Bar Diameter in Pier (in)	1.128		
Tie Bar Diameter in Pier (in)	0.5		
Spacing of Ties (in)	12	2	
Area of Bars in Pier (in <sup>2</sup> )	45.97	Minimum Pier A <sub>s</sub> (in <sup>2</sup> )	45.80
Spacing of Bars in Pier (in)	6.82	Recommended Spacing (in)	6 to 12
fc (ksi)	4		
fy (ksi)	60		
Unit Wt. of Soil (kcf)	0.115		
Unit Wt. of Concrete (kcf)	0.15		
Volume of Concrete (yd3)	76.92		
Two-Way Shear Action:			
Average d (in)	26		
φV <sub>c</sub> (kips)	2076.7	V <sub>u</sub> (kips)	121.7
$\phi V_c = \phi (2 + 4/\beta_c) f_c^{1/2} b_o d$	3115.1		
$\phi V_c = \phi(\alpha_s d/b_o + 2) f_c^{1/2} b_o d$	2321.0		
$\phi V_c = \phi 4 f_c^{1/2} b_o d$	2076.7		
Shear perimeter, b <sub>o</sub> (in)	420.97		
$eta_{\mathtt{c}}$	1		
One-Way Shear:			
		•	
$\phi V_c$ (kips)	905.7	V <sub>u</sub> (kips)	274.4
Stability:			
Overturning Design Strength (ft-k)	6247.1	Total Applied M (ft-k)	5954.8
3 3 3 3 6 4 6 6 7		, , , , ,	Name of the last o

MAT FOUNDATION DESIGN BY SABRE TOWERS & POLES (CONTINUED)
195' Monopole NSORO MASTEC LLC Brewers, KY (36901) 11-18-10 REB

Pier Design:			
φV <sub>n</sub> (kips)	1007.4	V <sub>u</sub> (kips)	41.5
$\phi V_c = \phi 2(1 + N_u/(2000A_g)) f_c^{1/2} b_w d$	1007.4	-	
V <sub>s</sub> (kips)	0.0	*** $V_s$ max = 4 $f_c^{1/2}b_w d$ (kips)	2360.6
Maximum Spacing (in)	4.36	(Only if Shear Ties are Required)	
Actual Hook Development (in)	25.00	Req'd Hook Development I <sub>dh</sub> (in)	14.98
		*** Ref. To Spacing Requirements ACI	11.5.4.3

F	lexu	re	in	SI	lab	:
---	------	----	----	----	-----	---

2776.0	M <sub>u</sub> (ft-kips)	2704.4
1.33		***
0.00289		
0.85		
0.0214		
0.0018 159.00	Required Development in Pad (in)	46.18
	1.33 0.00289 0.85 0.0214 0.0018	1.33 0.00289 0.85 0.0214 0.0018

Condition	1 is OK, 0 Fails
Maximum Soil Bearing Pressure	1
Pier Area of Steel	1
Pier Shear	1
Interaction Diagram Visual Check	1
Two-Way Shear Action	1
One-Way Shear Action	1
Overturning	1
Flexure	1
Steel Ratio	1
Length of Development in Pad	1
Hook Development	1

Exhibit E



#### **ENVIRONMENTAL CORPORATION OF AMERICA**

November 8, 2010

AT&T Mobility 10830 Penion Drive Louisville, Kentucky 40299

Attention:

Ms. Michelle Ward

Subject:

**Report of Geotechnical Investigation** 

AT&T Site AL6502 BREWERS

**7278 State Route 464** 

ECA Project No. L-1106-4

Dear Ms. Ward:

Environmental Corporation of America (ECA) is pleased to submit this report of our investigation for the proposed project. Our services were provided as authorized by purchase order on August 25, 2010.

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 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:

- One soil test boring was drilled to a depth of 40 feet below the ground surface (bgs). Figure 1 shows the boring location. Standard penetration tests (SPTs) were conducted to obtain soil samples and SPT (N) values, in accordance with ASTM D1586.
- The depth to groundwater, if any, was measured in the boring after drilling was completed.

Ms. Michelle Ward Page 2

• 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 the SPT (N) values, an examination of the soil samples, and our experience with similar soil conditions and structures.

#### **Project Information**

We were provided with a survey of the Property by FS Tan dated September 10, 2010. The Property is located in a grassed area.

We understand that plans call for the construction of a 195-foot monopole tower on the site. We assume that the equipment building/cabinets will be pre-fabricated structures supported on a perimeter grade beam or spread footing.

#### **Site Conditions**

The fieldwork was conducted on November 3, 2010. Information obtained from the boring was used to help us evaluate the subsurface conditions and to assist in formulating our recommendations.

#### **Subsurface Conditions**

The subsurface conditions were explored with one soil test boring, B-1, drilled approximately as shown on Figure 1. The site had been staked prior to our visit.

Soils encountered in the boring graded with depth from silt, to silty clay, to clayey sand, and finally silty sand with rounded gravel. These soils classified as ML, CL, SC, and SM soil types based on the Unified Soil Classification System (USCS). N-values were relatively high and ranged from 19 to over 100 blows per foot (bpf).

Groundwater was not present in the boring at the time the boring was completed and the moisture content of the deepest soil samples did not indicate the presence of groundwater.

#### Recommendations

<u>Tower Foundations</u>: The subsurface conditions are suitable for support of the tower using a mat or caisson foundation.

For a <u>mat</u> foundation, we recommend that the mat be supported at a depth of about 5 feet minimum and be designed for a maximum net allowable soil bearing pressure of 6 kips per square foot (ksf). Total and differential settlements should be less than about 1-inch and ½-inch, respectively.

For <u>caisson</u> foundation design, we recommend a friction design with the depth of the caisson dependent on the capacity required. Soil parameters that may be of use in design are as follows:

	Depth below ground surface			
	0 <u>-6 ft</u>	6-12 ft	12-27 ft	27-40 ft
Coefficient of passive earth pressure	1.0	1.0	3.9	5.0
Unit weight of soil (pcf)	115	115	115	115
Lateral subgrade modulus (pci)	200	200	275	300
Cohesion, psf	2000	2500	0	0
Angle of internal friction, degrees	0	0	36	42
Allowable skin friction (ksf)	0.3	0.4	0.65	1.3
Allowable end bearing (ksf)	6	6	7	8

Groundwater was not encountered after the completion of drilling. Therefore, the contractor should be able to place concrete "in the dry". However, the sand below about 17 feet has the potential to cave if not cased.

<u>Building Foundations:</u> The proposed equipment cabinet(s) can be supported on a spread footing foundation. A maximum allowable net bearing pressure of 3.0 kips per ft<sup>2</sup> 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.

<u>Foundation Excavations</u>: 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.

<u>Fill Placement</u>: 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 represents 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.

Ms. Michelle Ward 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 Almerica

RHUDY

J. Richard Rhudy, P.E. Principal Engineer

KY Reg. # 27450

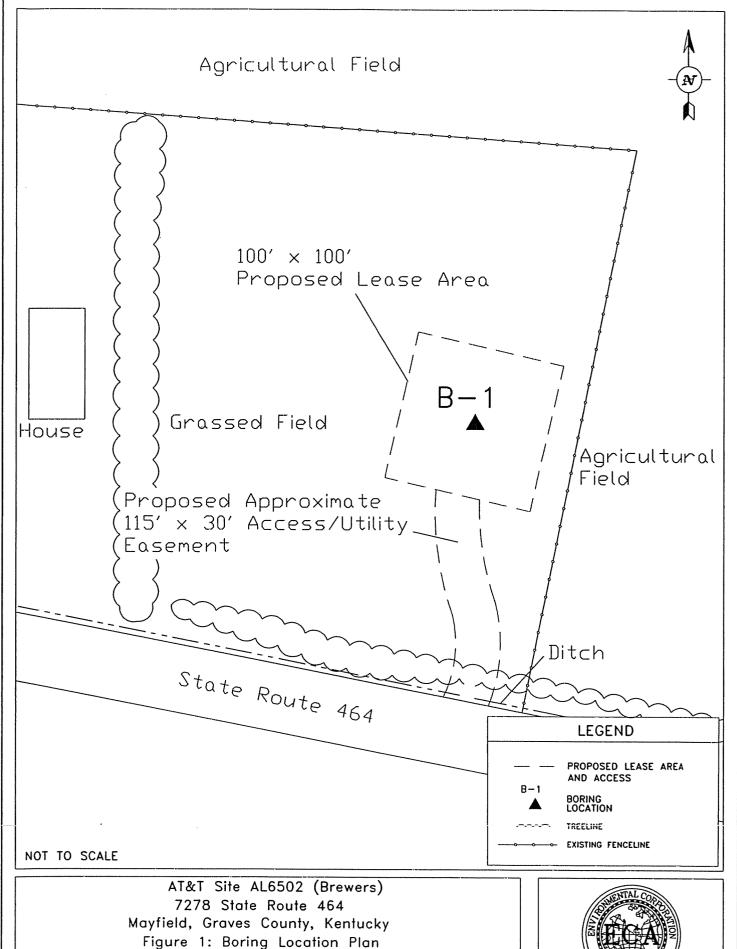
Kelby L. Williams
Project Manager

Appendix A Boring Location Plan

Appendix B Boring Log

# APPENDIX A FIGURE

143



SOURCE: ECA Site Visit, Survey & 2008 Google Earth Image

DRAWN BY: JXD/KLW DATE: 11/5/10 FILE NAME: F:\%\L1107.dwg

ECA Project #: L-1106-4

APPENDIX B

**BORING LOG** 

Project: AT&T AL6502 - (Brewers)

City, State Brewers, KY

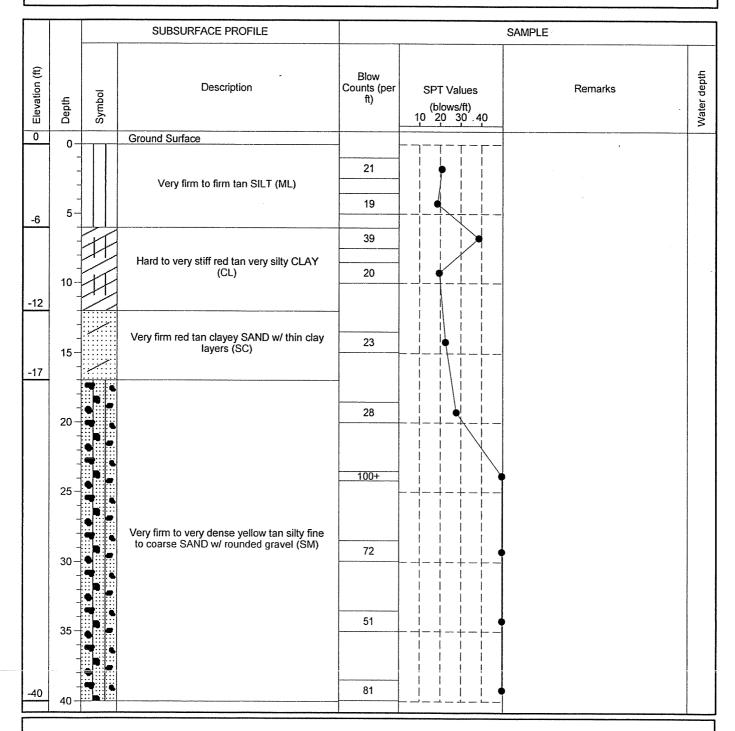
Client: Nsoro Mas Tec

ECA Job No: L-1106-4

### Log of Boring: B1

Drill Date: November 3, 2010

Field Rep: Butler



Drilled By: Tri-State Drilling

Depth to Water: N/A

Borehole Size: 2.25" ID

Total Depth: 40 ft

Drill Method: Hollow Stem Auger

Sheet: 1 of 1

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

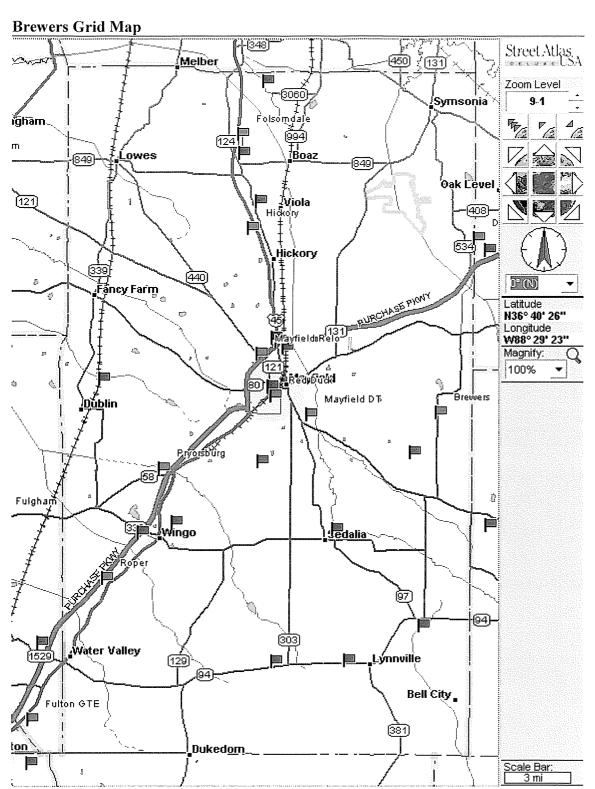




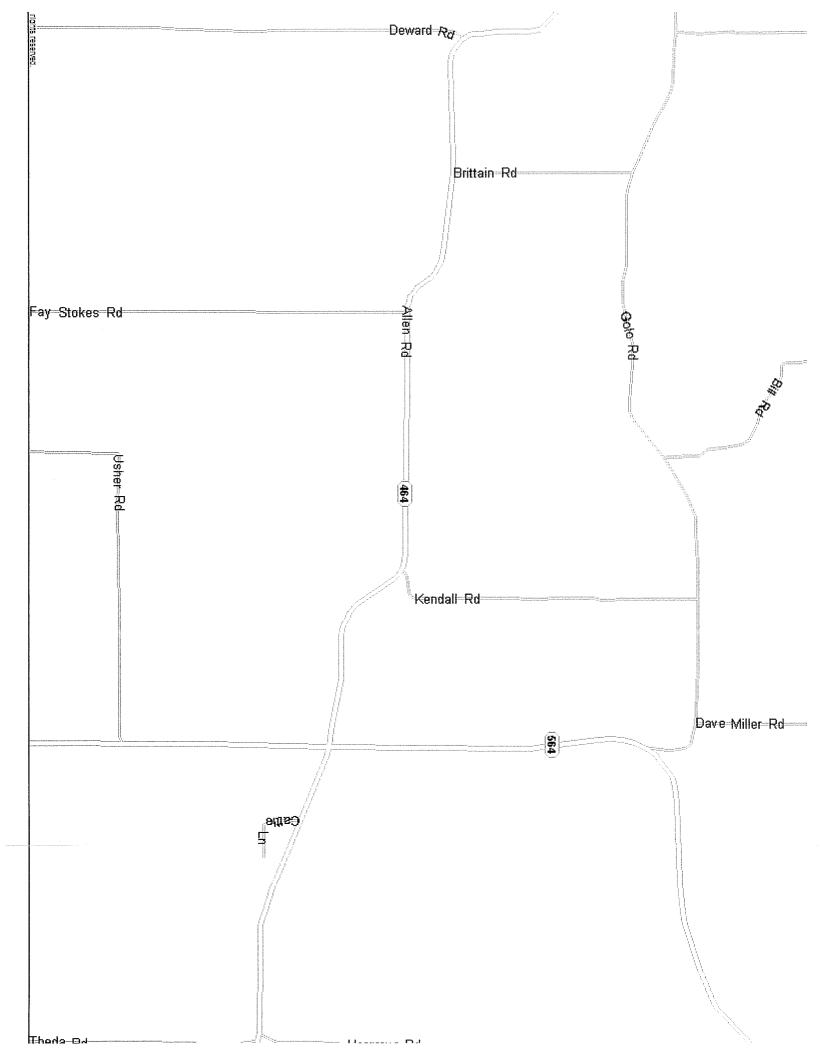
## Competing Utilities, Corporations or Persons

Crown Communication	
SBA Towers	
Verizon	
Sprint / Nextel	
T-Mobile	
Bluegrass Cellular	
Shared Sites	
Cricket	
Pegasus Towers	

**American Towers** 



Red Flags indicate AT&T existing and proposed locations.
Blue Flags indicate non-AT&T existing towers.





\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Federal Airways & Airspace **Summary Report: New Construction** \*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Airspace Specialist: Nicholas Mears File: BREWERS Location: Mayfield, KY Distance: 7.4 Statute Miles Direction: 279° (true bearing) Latitude: 36°-43'-05.26" Longitude: 88°-30'-54.94" SITE ELEVATION AMSL.....531 ft. STRUCTURE HEIGHT......199 ft. OVERALL HEIGHT AMSL.....730 ft. NOTICE CRITERIA FAR 77.13(a)(1): NNR (DNE 200 ft AGL) FAR 77.13(a)(2): NNR (DNE Notice Slope) FAR 77.13(a)(3): NNR (Not a Traverse Way) FAR 77.13(a)(4): NNR FAR 77.13(a)(4) Notice Criteria for M25 FAR 77.13(a)(4): NNR FAR 77.13(a)(4) Notice Criteria for CEY FAR 77.13(a)(5): NNR (Off Airport Construction) NR = Notice Required NNR = Notice Not Required PNR = Possible Notice Required (depends upon actual IFR procedure) Notice to the FAA is not required at the analyzed location and height. **OBSTRUCTION STANDARDS** FAR 77.23(a)(1): DNE 500 ft AGL FAR 77.23(a)(2): DNE - Airport Surface FAR 77.25(a): DNE - Horizontal Surface FAR 77.25(b): DNE - Conical Surface FAR 77.25(c): DNE - Primary Surface FAR 77.25(d): DNE - Approach Surface FAR 77.25(e): DNE - Transitional Surface VFR TRAFFIC PATTERN AIRSPACE FOR: M25: MAYFIELD GRAVES COUNTY DNE DNE - Height Less Than 200 feet AGL.

Type: A RD: 26189.87 RE: 519.7

FAR 77.23(a)(1):

FAR 77.23(a)(2):

VFR Horizontal Surface: DNE VFR Conical Surface: DNE VFR Approach Slope: DNE VFR Transitional Slope: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: CEY: KYLE-OAKLEY FIELD

Type: A RD: 44889.35 RE: 576.4

FAR 77.23(a)(1): DNE

FAR 77.23(a)(2): DNE - Greater Than 6 NM.

VFR Horizontal Surface: DNE VFR Conical Surface: DNE VFR Approach Slope: DNE VFR Transitional Slope: DNE

#### TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)

FAR 77.23(a)(3) Departure Surface Criteria (40:1)

**DNE Departure Surface** 

#### MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)

FAR 77.23(a)(4) MOCA Altitude Enroute Criteria The Maximum Height Permitted is 2000 ft AMSL

#### PRIVATE LANDING FACILITIES

No Private Landing Facilites Are Within 6 NM

#### AIR NAVIGATION ELECTRONIC FACILITIES

FAC ST

T DIST DELTA

IDNT TYPE AT FREQ VECTOR (ft) ELEVA ST LOCATION ANGLE

GGK NDB ON 0401. 246.34 24682 +240 KY MAYFIELD .56

#### FCC AM PROOF-OF-PERFORMANCE

NOT REQUIRED: Structure is not near a FCC licensed AM radio station Proof-of-Performance is not required. Please review AM Station Report for details.

Nearest AM Station: WNGO @ 11993 meters.

Airspace® Summary Version 2010.9

AIRSPACE® and TERPS® are registered ® trademarks of Federal Airways & Airspace® Copyright © 1989 - 2010

10-05-2010 15:11:48

#### **Patrick Bardone**

From:

Houlihan, John (KYTC) [John.Houlihan@ky.gov]

Sent:

Friday, October 01, 2010 7:59 AM

To:

Patrick Bardone

Subject:

RE: AT&T Site EV3161 (Brewers) - KAZC TC 56-50 Filing - 09/30/10

Importance:

Low

Mr. Bardone,

This proposed antenna does not require a permit from the Kentucky Airport Zoning Commission, it does not meet any of the following jurisdiction criteria. Please save this email for your records.

#### 602 KAR 50:030. Jurisdiction of the Kentucky Airport Zoning Commission.

RELATES TO: KRS 183.861, 183.865, 183.867, 183.870

STATUTORY AUTHORITY: KRS 183.861

NECESSITY, FUNCTION, AND CONFORMITY: KRS 183.867 specifies that the commission has jurisdiction over zoning for all public use and military airports. This administrative regulation defines the areas over which the Kentucky Airport Zoning Commission has jurisdiction for the purpose of zoning in accordance with KRS Chapter 183 and specifics when the owner or person who has control over a structure which encroaches on the jurisdiction of the Kentucky Airport Zoning Commission shall apply for a permit.

Section 1. The commission has zoning jurisdiction over that airspace over and around the public use and military airports within the Commonwealth which lies above the imaginary surface that extends outward and upward at one (1) of the following slopes:

(1) 100 to one (1) for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each public use and military airport with at least one (1) runway 3,200 feet or more in length; or

(2) Fifty (50) to one (1) for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each public use and military airport with its longest runway less than 3,200 feet in actual length.

Section 2. The commission has zoning jurisdiction over the use of land and structures within public use airports within the state.

Section 3. The commission has jurisdiction from the ground upward within the limits of the primary and approach surfaces of each public use and military airport as depicted on Airport Zoning Maps approved by the Kentucky Airport Zoning Commission.

Section 4. The commission has jurisdiction over the airspace of the Commonwealth that exceeds 200 feet in height above ground level.

Section 5. The owner or person who has control over a structure which penetrates or will penetrate the airspace over which the commission has jurisdiction shall apply for a permit from the commission in accordance with 602 KAR 50:090. (KAV-9-1; 1 Ky.R. 807; eff. 5-14-75; Am. 2 Ky.R. 306; eff. 3-10-76; 5 Ky.R. 599; eff. 3-7-79; 10 Ky.R. 445; eff. 1-4-84; 14 Ky.R. 267; eff. 9-10-87; 19 Ky.R. 800; eff. 11-4-92; 27 Ky.R. 2228; 2774; eff. 4-9-2001.)

Kentucky Airport Zoning Commission John Houlihan, Administrator 90 Airport Road, Building 400 Frankfort, KY 40601 Desk 502.564.0310 Cell 502.330.3955

#### http://transportation.ky.gov/aviation/kyzoning.html

CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail or call (502) 564-0310 and destroy all copies of the original message.

From: Patrick Bardone [mailto:PBardone@sbasite.com]

Sent: Thursday, September 30, 2010 4:28 PM

To: Houlihan, John (KYTC)

Cc: Stephani Leadingham; Richard S. Elms; Terrance Sullivan; Patrick Bardone; Billy England; Vicki Hollis

Subject: AT&T Site EV3161 (Brewers) - KAZC TC 56-50 Filing - 09/30/10

Good afternoon John,

As per my voicemail message, attached please find a copy of the above-mentioned KAZC TC 56-50 Submittal Package which includes the following supporting documentation for your review and approval:

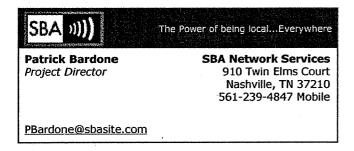
- 1) KAZC Form 56-50;
- 2) Site Area Map;
- 3) 1A Letter;
- 4) FAA Form 7460;

AT&T is proposing the placement of a 190' SST with a overall AGL equal to 199' located in Graves County, Kentucky.

If you have any questions or need any additional information, please feel free to contact me.

Thank you in advance for your continued cooperation.

Regards,





#### **ULS License**

## Cellular License - KNKN830 - NEW CINGULAR WIRELESS PCS, LLC

Call Sign KNKN830

Radio Service CL - Cellular

Status Active

Auth Type Regular

Market

Market CMA443 - Kentucky 1 - Fulton Channel Block A
Submarket 0 Phase 2

**Dates** 

Grant 08/21/2001 Expiration 10/01/2011

Effective 03/16/2010 Cancellation

**Five Year Buildout Date** 

02/11/1997

**Control Points** 

1 1650 Lyndon Farms Court, LOUISVILLE, KY

P: (502)332-4700

Licensee

FRN 0003291192 Type Limited Liability Company

Licensee

NEW CINGULAR WIRELESS PCS, LLC

5601 LEGACY DRIVE, MS: A-3
P:(469)229-7471
PLANO, TX 75024
F:(469)229-7297
E:LG5201@ATT.COM

**Contact** 

AT&T MOBILITY LLC Michael P Goggin 1120 20th Street, NW, Suite 1000 Washington, DC 20036

P:(202)457-2055 F:(202)457-3074 E:MG7268@att.com

ATTN Michael P. Goggin

Ownership and Qualifications

Radio Service Mobile

Type

Regulatory Status Common Carrier Interconnected Yes

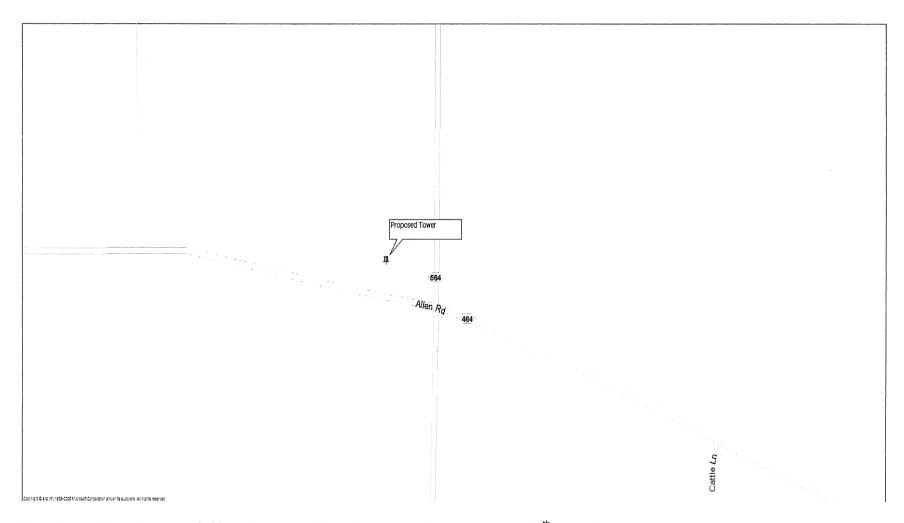
Alien Ownership

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

**Basic Qualifications** 

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





Directions to Site: From Mayfield at the corner of South Street and State Route 121 (6<sup>th</sup> Street), proceed South on State Route 121 (6th Street) approximately 0.5 miles to State Route 464 (Backusburg Street). Turn left onto State Route 464 and proceed approximately 7.50 miles to proposed site on left; 7330 State Route 464.

Prepared by: Briggs Law Office, PSC (502) 412-9222

Market: Evansville
Cell Site Number: EV3161
Cell Site Name: Brewers
Fixed Asset Number10134036

#### **OPTION AND LEASE AGREEMENT**

THIS OPTION AND LEASE AGREEMENT ("Agreement"), dated as of the latter of the signature dates below (the "Effective Date"), is entered into by Michael S. Adkison, a single person, having a mailing address of 7278 State Road 464 Mayfield, Kentucky 42066 ("Landlord") and New Cingular Wireless PCS, LLC, a Delaware limited liability company, having a mailing address of 12555 Cingular Way, Suite 1300, Alpharetta, GA 30004 ("Tenant").

#### BACKGROUND

Landlord owns or controls that certain plot, parcel or tract of land, together with all rights and privileges arising in connection therewith, located at 7278 State Road 464 Mayfield, in the County of Graves, State of Kentucky (collectively, the "Property"). Tenant desires to use a portion of the Property in connection with its federally licensed communications business. Landlord desires to grant to Tenant the right to use a portion of the Property in accordance with this Agreement.

The parties agree as follows:

#### 1. **OPTION TO LEASE.**

- (a) Landlord grants to Tenant an option (the "Option") to lease a certain portion of the Property containing approximately 10,000 square feet including the air space above such ground space for the placement of Tenant's Communication Facility as described on attached Exhibit 1(the "Premises").
- During the Option Term (as defined below), and during the term of this Agreement, Tenant and its agents, engineers, surveyors and other representatives will have the right to enter upon the Property to inspect. examine, conduct soil borings, drainage testing, material sampling, radio frequency testing and other geological or engineering tests or studies of the Property (collectively, the "Tests"), to apply for and obtain licenses, permits, approvals, or other relief required of or deemed necessary or appropriate at Tenant's sole discretion for its use of the Premises and include, without limitation, applications for zoning variances, zoning ordinances, amendments, special use permits, and construction permits (collectively, the "Government Approvals"), initiate the ordering and/or scheduling of necessary utilities, and otherwise to do those things on or off the Property that, in the opinion of Tenant, are necessary in Tenant's sole discretion to determine the physical condition of the Property, the environmental history of the Property, Landlord's title to the Property and the feasibility or suitability of the Property for Tenant's Permitted Use, all at Tenant's expense. Tenant will not be liable to Landlord or any third party on account of any pre-existing defect or condition on or with respect to the Property, whether or not such defect or condition is disclosed by Tenant's inspection. Tenant will restore the Property to its condition as it existed at the commencement of the Option Term, reasonable wear and tear and casualty not caused by Tenant excepted. In addition, Tenant shall indemnify, defend and hold Landlord harmless from and against any and all injury, loss, damage or claims arising directly out of Tenant's Tests.
- (c) In consideration of Landlord granting Tenant the Option, Tenant agrees to pay Landlord the sum of vithin thirty (30) business days of the Effective Date. The Option will be for an initial term of one (1) year commencing on the Effective Date (the "Initial Option Term") and may be renewed by Tenant for an additional one (1) year (the "Renewal Option Term") upon written notification to Landlord and the payment of an additional One Thousandand No/100 Dollars (\$1,000.00) no later than ten (10) days prior to the expiration date of the Initial Option Term. The Initial Option Term and any Renewal Option Term are collectively referred to as the "Option Term."
- (d) The Option may be sold, assigned or transferred at any time by Tenant to an Affiliate of Tenant or to any third party agreeing to be subject to the terms hereof. Otherwise, the Option may not be sold, assigned

11-02-10;10:54AM;

or transferred without the written consent of Landlord, such consent not to be unreasonably withheld, conditioned or delayed. From and after the date the Option has been sold, assigned or transferred by Tenant to a third party agreeing to be subject to the terms hereof, Tenant shall immediately be released from any and all liability under this Agreement, including the payment of any rental or other sums due, without any further action.

- (e) During the Option Term, Tenant may exercise the Option by notifying Landlord in writing. If Tenant exercises the Option then Landlord leases the Premises to Tenant subject to the terms and conditions of this Agreement. If Tenant does not exercise the Option during the Initial Option Term or any extension thereof, this Agreement will terminate and the parties will have no further liability to each other.
- (f) If during the Option Term, or during the term of this Agreement if the Option is exercised, Landlord decides to subdivide, sell, or change the status of the zoning of the Premises, Property or any of Landlord's contiguous, adjoining or surrounding property (the "Surrounding Property,") or in the event of foreclosure, Landlord shall immediately notify Tenant in writing. Any sale of the Property shall be subject to Tenant's rights under this Agreement. Landlord agrees that during the Option Term, or during the Term of this Agreement if the Option is exercised, Landlord shall not initiate or consent to any change in the zoning of the Premises, Property or Surrounding Property or impose or consent to any other restriction that would prevent or limit Tenant from using the Premises for the Permitted Use.
- Tenant may use the Premises for the transmission and reception of 2. PERMITTED USE. communications signals and the installation, construction, maintenance, operation, repair, replacement and upgrade of its communications fixtures and related equipment, cables, accessories and improvements, which may include a suitable support structure, associated antennas, equipment shelters or cabinets and fencing and any other items necessary to the successful and secure use of the Premises (collectively, the "Communication Facility"), as well as the right to test, survey and review title on the Property; Tenant further has the right but not the obligation to add, modify and/or replace equipment in order to be in compliance with any current or future federal, state or local mandated application, including, but not limited to, emergency 911 communication services, at no additional cost to Tenant or Landlord (collectively, the "Permitted Use"). Landlord and Tenant agree that any portion of the Communication Facility that may be conceptually described on Exhibit 1 will not be deemed to limit Tenant's Permitted Use. If Exhibit 1 includes drawings of the initial installation of the Communication Facility, Landlord's execution of this Agreement will signify Landlord's approval of Exhibit 1. For a period of ninety (90) days following the start of construction, Landlord grants Tenant, its subtenants, licensees and sublicensees, the right to use such portions of Landlord's contiguous, adjoining or Surrounding Property as described on Exhibit 1 as may reasonably be required during construction and installation of the Communications Facility. Tenant has the right to install and operate transmission cables from the equipment shelter or cabinet to the antennas, electric lines from the main feed to the equipment shelter or cabinet and communication lines from the Property's main entry point to the equipment shelter or cabinet, and to make Property improvements, alterations, upgrades or additions appropriate for Tenant's use ("Tenant Changes"). Tenant Changes include the right to construct a fence around the Premises and undertake any other appropriate means to secure the Premises at Tenant's expense. Tenant agrees to comply with all applicable governmental laws, rules, statutes and regulations relating to its use of the Communication Facility on the Property. Tenant has the right to modify, supplement, replace, upgrade, expand the equipment, increase the number of antennas or relocate the Communication Facility within the Premises at any time during the term of this Agreement. Tenant will be allowed to make such alterations to the Property in order to accomplish Tenant's Changes or to insure that Tenant's Communication Facility complies with all applicable federal, state or local laws, rules or regulations. In the event Tenant desires to modify or upgrade the Communication Facility, and Tenant requires an additional portion of the Property (the "Additional Premises") for such modification or upgrade, Landlord agrees to lease to Tenant the Additional Premises, upon the same terms and conditions set forth herein, except that the Rent shall increase, in conjunction with the lease of the Additional Premises by the amount equivalent to the then-current per square foot rental rate charged by Landlord to Tenant times the square footage of the Additional Premises. Landlord agrees to take such actions and enter into and deliver to Tenant such documents as Tenant reasonably requests in order to effect and memorialize the lease of the Additional Premises to Tenant.

#### 3. TERM.

- (a) The initial lease term will be five (5) years (the "Initial Term"), commencing on the effective date of written notification by Tenant to Landlord of Tenant's exercise of the Option (the "Term Commencement Date"). The Initial Term will terminate on the fifth (5<sup>th</sup>) anniversary of the Term Commencement Date.
- (b) This Agreement will automatically renew for four (4) additional five (5) year term(s) (each five (5) year term shall be defined as an "Extension Term"), upon the same terms and conditions unless Tenant notifies Landlord in writing of Tenant's intention not to renew this Agreement at least sixty (60) days prior to the expiration of the existing Term.
- (c) If, at least sixty (60) days prior to the end of the final Extension Term, either Landlord or Tenant has not given the other written notice of its desire that the term of this Agreement end at the expiration of the final Extension Term, then upon the expiration of the final Extension Term this Agreement shall continue in force upon the same covenants, terms and conditions for a further term of one (1) year, and for annual terms thereafter ("Annual Term") until terminated by either party by giving to the other written notice of its intention to so terminate at least six (6) months prior to the end of any such Annual Term. Monthly rental during such annual terms shall be equal to the rent paid for the last month of the final Extension Term. If Tenant remains in possession of the Premises after the termination of this Agreement then Tenant will be deemed to be occupying the Premises on a month-to-month basis (the "Holdover Term"), subject to the terms and conditions of this Agreement.
- (d) The Initial Term, any Extension Terms, any Annual Terms and any Holdover Term are collectively referred to as the Term (the "Term").

#### 4. RENT.

- (a) Commencing in the month following the date that Tenant commences construction (the "Rent Commencement Date"), Tenant will pay Landlord on or before the fifth (5<sup>th</sup>) day of each calendar month in advance f (the "Rent"), at the address set forth above. In any partial month occurring after the Rent Commencement Date, Rent will be prorated. The initial Rent payment will be forwarded by Tenant to Landlord within forty-five (45) days after the Rent Commencement Date.
- (b) In year one (1) of each Extension Term, the monthly Rent will increase by self percent over the Rent paid during the previous Term.
- (c) All charges payable under this Agreement such as utilities and taxes shall be billed by Landlord within one (1) year from the end of the calendar year in which the charges were incurred; any charges beyond such period shall not be billed by Landlord, and shall not be payable by Tenant. The foregoing shall not apply to monthly Rent which is due and payable without a requirement that it be billed by Landlord. The provisions of this subsection shall survive the termination or expiration of this Agreement.

#### 5. APPROVALS.

- (a) Landlord agrees that Tenant's ability to use the Premises is contingent upon the suitability of the Premises and Property for Tenant's Permitted Use and Tenant's ability to obtain and maintain all Government Approvals. Landlord authorizes Tenant to prepare, execute and file all required applications to obtain Government Approvals for Tenant's Permitted Use under this Agreement and agrees to reasonably assist Tenant with such applications and with obtaining and maintaining the Government Approvals.
- (b) Tenant has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice and to have the Property surveyed by a surveyor of its choice.
- (c) Tenant may also perform and obtain, at Tenant's sole cost and expense, soil borings, percolation tests, engineering procedures, environmental investigation or other tests or reports on, over, and under the Property, necessary to determine if Tenant's use of the Premises will be compatible with Tenant's engineering specifications, system, design, operations or Government Approvals.

- **6. TERMINATION.** This Agreement may be terminated, without penalty or further liability, as follows:
- (a) by either party on thirty (30) days prior written notice, if the other party remains in default under Section 15 of this Agreement after the applicable cure periods;
- (b) by Tenant upon written notice to Landlord, if Tenant is unable to obtain, or maintain, any required approval(s) or the issuance of a license or permit by any agency, board, court or other governmental authority necessary for the construction or operation of the Communication Facility as now or hereafter intended by Tenant; or if Tenant determines, in its sole discretion that the cost of or delay in obtaining or retaining the same is commercially unreasonable;
- (c) by Tenant, upon written notice to Landlord, if Tenant determines, in its sole discretion, due to the title report results or survey results, that the condition of the Premises is unsatisfactory for its intended uses;
- (d) by Tenant upon written notice to Landlord for any reason or no reason, at any time prior to commencement of construction by Tenant; or
- (e) by Tenant upon sixty (60) days' prior written notice to Landlord for any reason or no reason, so long as Tenant pays Landlord a termination fee equal to three (3) months' Rent, at the then-current rate, provided, however, that no such termination fee will be payable on account of the termination of this Agreement by Tenant under any one or more of Sections 5 Approvals, 6(a) Termination, 6(b) Termination, 6(c) Termination, 8 Interference, 11(d) Environmental, 18 Condemnation, 19 Casualty or 24(l) Severability of this Agreement.
- 7. **INSURANCE.** During the Term, Tenant will carry, at its own cost and expense, the following insurance: (i) "All Risk" property insurance for its property's replacement cost; (ii) Workers' Compensation Insurance as required by law; and (iii) commercial general liability (CGL) insurance with respect to its activities on the Property, such insurance to afford minimum protection of Three Million Dollars (\$3,000,000) combined single limit, per occurrence and in the aggregate, providing coverage for bodily injury and property damage. Tenant's CGL insurance shall contain a provision including Landlord as an additional insured to the extent of the indemnity provided by Tenant under this Agreement. Notwithstanding the foregoing, Tenant shall have the right to self-insure against the risks for which Tenant is required to insure against in this Section. In the event Tenant elects to self-insure its obligation to include Landlord as an additional insured as permitted by the previous sentence, the following provisions shall apply: (1) Landlord shall promptly and no later than seven (7) days after notice thereof provide Tenant with written notice of any claim, demand, lawsuit, or the like for which it seeks coverage pursuant to this Section and provide Tenant with copies of any demands, notices, summonses, or legal papers received in connection with such claim, demand, lawsuit, or the like; (2) Landlord shall not settle any such claim, demand, lawsuit, or the like without the prior written consent of Tenant; (3) Landlord shall fully cooperate with Tenant in the defense of the claim, demand, lawsuit, or the like; (4) Tenant's self-insurance obligation for Landlord shall not extend to claims for punitive damages, exemplary damages, or gross negligence; and (5) such obligation shall not apply when the claim or liability arises from the negligent or intentional act or omission of Landlord, its employees, agents, or independent contractors.

#### 8. INTERFERENCE.

- (a) Where there are existing radio frequency user(s) on the Property, Landlord will provide Tenant, upon execution of this Agreement, with a list of all existing radio frequency user(s) on the Property to allow Tenant to evaluate the potential for interference. Tenant warrants that its use of the Premises will not interfere with existing radio frequency user(s) on the Property so disclosed by Landlord, as long as those existing radio frequency user(s) operate and continue to operate within their respective frequencies and in accordance with all applicable laws and regulations.
- (b) Landlord will not grant, after the date of this Agreement, a lease, license or any other right to any third party for the use of the Property, if such use may in any way adversely affect or interfere with the Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will notify Tenant in writing prior to granting any third party the right to install and operate communications equipment on the Property.
- (c) Landlord will not use, nor will Landlord permit its employees, tenants, licensees, invitees, agents or independent contractors to use, any portion of the Property in any way which interferes with the

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Communication Facility, the operations of Tenant or the rights of Tenant under this Agreement. Landlord will cause such interference to cease within twenty-four (24) hours after receipt of notice of interference from Tenant. In the event any such interference does not cease within the aforementioned cure period, Landlord shall cease all operations which are suspected of causing interference (except for intermittent testing to determine the cause of such interference) until the interference has been corrected.

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

#### 9. INDEMNIFICATION.

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

#### 10. WARRANTIES.

- (a) Tenant and Landlord each acknowledge and represent that it is duly organized, validly existing and in good standing and has the right, power and authority to enter into this Agreement and bind itself hereto through the party set forth as signatory for the party below.
- (b) Landlord represents, warrants and agrees that: (i) Landlord solely owns the Property as a legal lot in fee simple, or controls the Property by lease or license; (ii) the Property is not and will not be encumbered by any liens, restrictions, mortgages, covenants, conditions, easements, leases, or any other agreements of record or not of record, which would adversely affect Tenant's Permitted Use and enjoyment of the Premises under this Agreement; (iii) as long as Tenant is not in default then Landlord grants to Tenant sole, actual, quiet and peaceful use, enjoyment and possession of the Premises; (iv) Landlord's execution and performance of this Agreement will not violate any laws, ordinances, covenants or the provisions of any mortgage, lease or other agreement binding on Landlord; and (v) if the Property is or becomes encumbered by a deed to secure a debt, mortgage or other security interest, Landlord will provide promptly to Tenant a mutually agreeable subordination, non-disturbance and attornment agreement.

#### 11. ENVIRONMENTAL.

- (a) Landlord represents and warrants that, except as may be identified in Exhibit 11 attached to this Agreement, (i) the Property, as of the date of this Agreement, is free of hazardous substances, including asbestos-containing materials and lead paint, and (ii) the Property has never been subject to any contamination or hazardous conditions resulting in any environmental investigation, inquiry or remediation. Landlord and Tenant agree that each will be responsible for compliance with any and all applicable governmental laws, rules, statutes, regulations, codes, ordinances, or principles of common law regulating or imposing standards of liability or standards of conduct with regard to protection of the environment or worker health and safety, as may now or at any time hereafter be in effect, to the extent such apply to that party's activity conducted in or on the Property.
- (b) Landlord and Tenant agree to hold harmless and indemnify the other from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of the indemnifying party for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any action, notice, claim, order, summons, citation, directive, litigation, investigation or proceeding ("Claims"), to the extent arising from that party's breach of its obligations or representations under Section 11(a). Landlord agrees to hold harmless and

indemnify Tenant from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Landlord for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from subsurface or other contamination of the Property with hazardous substances prior to the effective date of this Agreement or from such contamination caused by the acts or omissions of Landlord during the Term. Tenant agrees to hold harmless and indemnify Landlord from, and to assume all duties, responsibilities and liabilities at the sole cost and expense of Tenant for, payment of penalties, sanctions, forfeitures, losses, costs or damages, and for responding to any Claims, to the extent arising from hazardous substances brought onto the Property by Tenant.

- (c) The indemnifications of this Section 11 specifically include reasonable costs, expenses and fees incurred in connection with any investigation of Property conditions or any clean-up, remediation, removal or restoration work required by any governmental authority. The provisions of this Section 11 will survive the expiration or termination of this Agreement.
- (d) In the event Tenant becomes aware of any hazardous substances on the Property, or any environmental, health or safety condition or matter relating to the Property, that, in Tenant's sole determination, renders the condition of the Premises or Property unsuitable for Tenant's use, or if Tenant believes that the leasing or continued leasing of the Premises would expose Tenant to undue risks of liability to a government agency or other third party, Tenant will have the right, in addition to any other rights it may have at law or in equity, to terminate this Agreement upon written notice to Landlord.
- 12. ACCESS. At all times throughout the Term of this Agreement, and at no additional charge to Tenant, Tenant and its employees, agents, and subcontractors, will have twenty-four (24) hour per day, seven (7) day per week pedestrian and vehicular access ("Access") to and over the Property, from an open and improved public road to the Premises, for the installation, maintenance and operation of the Communication Facility and any utilities serving the Premises. As may be described more fully in Exhibit 1, Landlord grants to Tenant an easement for such access and Landlord agrees to provide to Tenant such codes, keys and other instruments necessary for such access at no additional cost to Tenant. Landlord acknowledges that in the event Tenant cannot access the Premises, Tenant shall incur significant damage. If Landlord fails to provide the access granted by this Section 12, such failure shall be a default under this Agreement. In connection with such default, in addition to any other rights or remedies available to Tenant under this Agreement or at law or equity, Landlord shall pay Tenant, as liquidated damages and not as a penalty, \$500.00 per day in consideration of Tenant's damages until Landlord cures such default. Landlord and Tenant agree that Tenant's damages in the event of a denial of access are difficult, if not impossible, to ascertain, and the liquidated damages set forth above are a reasonable approximation of such damages. Upon Tenant's request, Landlord will execute a separate recordable easement evidencing this right. Landlord shall execute a letter granting Tenant access to the Property substantially in the form attached as Exhibit 12; upon Tenant's request, Landlord shall execute additional letters during the Term.
- by Tenant will be and remain Tenant's personal property and, at Tenant's option, may be removed by Tenant at any time during the Term. Landlord covenants and agrees that no part of the Communication Facility constructed, erected or placed on the Premises by Tenant will become, or be considered as being affixed to or a part of, the Property, it being the specific intention of Landlord that all improvements of every kind and nature constructed, erected or placed by Tenant on the Premises will be and remain the property of Tenant and may be removed by Tenant at any time during the Term. Within one hundred twenty (120) days of the termination of this Agreement, Tenant will remove all of Tenant's above-ground improvements and Tenant will, to the extent reasonable, restore the Premises to its condition at the commencement of this Agreement, reasonable wear and tear and loss by casualty or other causes beyond Tenant's control excepted. Notwithstanding the foregoing, Tenant will not be responsible for the replacement of any trees, shrubs or other vegetation, nor will Tenant be required to remove from the Premises or the Property any structural steel or any foundations or underground utilities.

#### 14. MAINTENANCE/UTILITIES.

- (a) Tenant will keep and maintain the Premises in good condition, reasonable wear and tear and damage from the elements excepted. Landlord will maintain and repair the Property and access thereto and all areas of the Premises where Tenant does not have exclusive control, in good and tenantable condition, subject to reasonable wear and tear and damage from the elements. Landlord will be responsible for maintenance of landscaping on the Property, including any landscaping installed by Tenant as a condition of this Agreement or any required permit.
- Tenant will be responsible for paying on a monthly or quarterly basis all utilities charges for (b) electricity, telephone service or any other utility used or consumed by Tenant on the Premises. In the event Tenant cannot secure its own metered electrical supply, Tenant will have the right, at its own cost and expense, to submeter from Landlord. When submetering is required under this Agreement, Landlord will read the meter and provide Tenant with an invoice and usage data on a monthly basis. Landlord agrees that it will not include a markup on the utility charges. Landlord further agrees to provide the usage data and invoice on forms provided by Tenant and to send such forms to such address and/or agent designated by Tenant. Tenant will remit payment within forty-five (45) days of receipt of the usage data and required forms. As noted in Section 4(c) above, any utility fee recovery by Landlord is limited to a twelve (12) month period. If Tenant submeters electricity from Landlord, Landlord agrees to give Tenant at least twenty-four (24) hours advanced notice of any planned interruptions of said electricity. Landlord acknowledges that Tenant provides a communication service which requires electrical power to operate and must operate twenty-four (24) hours per day, seven (7) days per week. If the interruption is for an extended period of time, in Tenant's reasonable determination, Landlord agrees to allow Tenant the right to bring in a temporary source of power for the duration of the interruption. Landlord will not be responsible for interference with, interruption of or failure, beyond the reasonable control of Landlord, of such services to be furnished or supplied by Landlord.
- (c) Landlord hereby grants to any utility company providing utility services to Tenant an easement over the Property, from an open and improved public road to the Premises, and upon the Premises, for the purpose of constructing, operating and maintaining such lines, wires, circuits, and conduits, associated equipment cabinets and such appurtenances thereto, as such utility companies may from time to time require in order to provide such services to the Premises. Upon Tenant's or a utility company's request, Landlord will execute a separate recordable easement evidencing this grant, at no cost to Tenant or the public utility.

#### 15. DEFAULT AND RIGHT TO CURE.

- (a) The following will be deemed a default by Tenant and a breach of this Agreement: (i) non-payment of Rent if such Rent remains unpaid for more than thirty (30) days after receipt of written notice from Landlord of such failure to pay; or (ii) Tenant's failure to perform any other term or condition under this Agreement within forty-five (45) days after receipt of written notice from Landlord specifying the failure. No such failure, however, will be deemed to exist if Tenant has commenced to cure such default within such period and provided that such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Tenant. If Tenant remains in default beyond any applicable cure period, Landlord will have the right to exercise any and all rights and remedies available to it under law and equity.
- (b) The following will be deemed a default by Landlord and a breach of this Agreement: (i) failure to provide access to the Premises or to cure an interference problem within twenty-four (24) hours after receipt of written notice of such default; or (ii) Landlord's failure to perform any term, condition or breach of any warranty or covenant under this Agreement within forty-five (45) days after receipt of written notice from Tenant specifying the failure. No such failure, however, will be deemed to exist if Landlord has commenced to cure the default within such period and provided such efforts are prosecuted to completion with reasonable diligence. Delay in curing a default will be excused if due to causes beyond the reasonable control of Landlord. If Landlord remains in default beyond any applicable cure period, Tenant will have: (i) the right to cure Landlord's default and to deduct the costs of such cure from any monies due to Landlord from Tenant, and (ii) any and all other rights available to it under law and equity.

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

#### 17. NOTICES.

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

If to Tenant:

New Cingular Wireless PCS, LLC

Attn: Network Real Estate Administration

Re: Cell Site # EV3161; Cell Site Name: Brewers, KY\_(

Fixed Asset No: 10134036

12555 Cingular Way, Suite 1300

Alpharetta, GA 30004

With a copy to:

New Cingular Wireless PCS, LLC Attn: AT&T Legal Department

Re: Cell Site #: EV3161; Cell Site Name: Brewers, KY (State Abbreviation)

Fixed Asset No: 10134036

1025 Lenox Park Blvd., 5th floor

Atlanta, GA 30319

The copy sent to the Legal Department is an administrative step which alone does not constitute legal notice.

If to Landlord:

Michael S. Adkison 7278 State Road 464 Mayfield, Kentucky 42066

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

- (b) In the event of a change in ownership, transfer or sale of the Property, within ten (10) days of such transfer, Landlord or its successor will send the documents listed below in this subsection (b) to Tenant. Until Tenant receives all such documents, Tenant shall not be responsible for any failure to make payments under this Agreement and reserves the right to hold payments due under this Agreement.
  - i. Old deed to Property
  - ii. New deed to Property
  - iii. Bill of Sale or Transfer
  - iv. Copy of current Tax Bill
  - v. New IRS Form W-9
  - vi. Completed and Signed AT&T Payment Direction Form
  - vii. Full contact information for new Landlord including phone number(s)
- 18. <u>CONDEMNATION.</u> In the event Landlord receives notification of any condemnation proceedings affecting the Property, Landlord will provide notice of the proceeding to Tenant within forty-eight (48) hours. If

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a condemning authority takes all of the Property, or a portion sufficient, in Tenant's sole determination, to render the Premises unsuitable for Tenant, this Agreement will terminate as of the date the title vests in the condemning authority. The parties will each be entitled to pursue their own separate awards in the condemnation proceeds, which for Tenant will include, where applicable, the value of its Communication Facility, moving expenses, prepaid Rent, and business dislocation expenses. Tenant will be entitled to reimbursement for any prepaid Rent on a prorata basis.

- CASUALTY. Landlord will provide notice to Tenant of any casualty or other harm affecting the Property within forty-eight (48) hours of the casualty or other harm. If any part of the Communication Facility or Property is damaged by casualty or other harm as to render the Premises unsuitable, in Tenant's sole determination, then Tenant may terminate this Agreement by providing written notice to Landlord, which termination will be effective as of the date of such casualty or other harm. Upon such termination, Tenant will be entitled to collect all insurance proceeds payable to Tenant on account thereof and to be reimbursed for any prepaid Rent on a prorata basis. Landlord agrees to permit Tenant to place a temporary transmission and reception facilities on the Property, but only until such time as Tenant is able to activate a replacement transmission facility at another location; notwithstanding the termination of the Agreement, such temporary facilities will be governed by all of the terms and conditions of this Agreement, including Rent. If Landlord or Tenant undertakes to rebuild or restore the Premises and/or the Communication Facility, as applicable, Landlord agrees to permit Tenant to place temporary transmission and reception facilities on the Property at no additional Rent until the reconstruction of the Premises and/or the Communication Facility is completed. If Landlord determines not to rebuild or restore the Premises, Landlord will notify Tenant of such determination within thirty (30) days after the casualty or other harm. If Landlord does not so notify Tenant, then Landlord will promptly rebuild or restore the Premises to substantially the same condition as existed before the casualty or other harm. Landlord agrees that the Rent shall be abated until the Premises are rebuilt or restored, unless Tenant places temporary transmission and reception facilities on the Property.
- 20. WAIVER OF LANDLORD'S LIENS. Landlord waives any and all lien rights it may have, statutory or otherwise, concerning the Communication Facility or any portion thereof. The Communication Facility shall be deemed personal property for purposes of this Agreement, regardless of whether any portion is deemed real or personal property under applicable law; Landlord consents to Tenant's right to remove all or any portion of the Communication Facility from time to time in Tenant's sole discretion and without Landlord's consent.
- TAXES. Landlord shall be responsible for payment of all ad valorem taxes levied upon the lands, improvements and other property of Landlord. Tenant shall be responsible for all taxes levied upon Tenant's leasehold improvements (including Tenant's equipment building and tower) on the Premises. Landlord shall provide Tenant with copies of all assessment notices on or including the Premises immediately upon receipt, along with sufficient written documentation detailing any assessment increases attributable to the leasehold improvements, but in no event later than thirty (30) days after receipt by Landlord. If Landlord fails to provide such notice within such time frame, Landlord shall be responsible for all increases in taxes for the year covered by the assessment, and all subsequent years to the extent (a) Landlord continues to fail in providing notice, or (b) Tenant is precluded from challenging such assessment with the appropriate government authorities. Tenant shall have the right to contest, in good faith, the validity or the amount of any tax or assessment levied against the Premises by such appellate or other proceedings as may be appropriate in the jurisdiction, and may defer payment of such obligations, pay same under protest, or take such other steps as Tenant may deem appropriate. This right shall include the ability to institute any legal, regulatory or informal action in the name of Landlord, Tenant, or both, with respect to the valuation of the Premises. Landlord shall cooperate in the institution and prosecution of any such proceedings and will execute any documents required therefor. The expense of any such proceedings shall be borne by Tenant and any refunds or rebates secured as a result of Tenant's action shall belong to Tenant.

#### 22. SALE OF PROPERTY

- (a) Landlord shall not be prohibited from the selling, leasing or use of any of the Property or the Surrounding Property except as provided below.
- (b) If Landlord, at any time during the Term of this Agreement, decides to rezone or sell, subdivide or otherwise transfer all or any part of the Premises, or all or any part of the Property or Surrounding Property, to a purchaser other than Tenant, Landlord shall promptly notify Tenant in writing, and such rezoning, sale, subdivision or transfer shall be subject to this Agreement and Tenant's rights hereunder. In the event the Property is transferred, the new landlord shall have a duty at the time of such transfer to provide Tenant with a completed IRS Form W-9, or its equivalent, and other related paperwork to effect a transfer in Rent to the new landlord.
- (c) Landlord agrees not to sell, lease or use any areas of the Property or Surrounding Property for the installation, operation or maintenance of other wireless communications facilities if such installation, operation or maintenance would interfere with Tenant's Permitted Use or communications equipment as determined by radio propagation tests performed by Tenant in its sole discretion, any such testing to be at the expense of Landlord or Landlord's prospective purchaser, and not Tenant. If the radio frequency propagation tests demonstrate levels of interference unacceptable to Tenant, Landlord shall be prohibited from selling, leasing or using any areas of the Property or the Surrounding Property for purposes of any installation, operation or maintenance of any other wireless communications facility or equipment.
- (d) The provisions of this Section shall in no way limit or impair the obligations of Landlord under this Agreement, including interference and access obligations.
- 23. <u>RENTAL STREAM OFFER.</u> If at any time after the date of this Agreement, Landlord receives a bona fide written offer from a third party seeking an assignment of the rental stream associated with this Agreement ("Rental Stream Offer"), Landlord shall immediately furnish Tenant with a copy of the Rental Stream Offer. Tenant shall have the right within twenty (20) days after it receives such copy and representation to match the Rental Stream Offer and agree in writing to match the terms of the Rental Stream Offer. Such writing shall be in the form of a contract substantially similar to the Rental Stream Offer. If Tenant chooses not to exercise this right or fails to provide written notice to Landlord within the twenty (20) day period, Landlord may assign the rental stream pursuant to the Rental Stream Offer, subject to the terms of this Agreement.

#### 24. MISCELLANEOUS.

- (a) Amendment/Waiver. This Agreement cannot be amended, modified or revised unless done in writing and signed by Landlord and Tenant. No provision may be waived except in a writing signed by both parties. The failure by a party to enforce any provision of this Agreement or to require performance by the other party will not be construed to be a waiver, or in any way affect the right of either party to enforce such provision thereafter.
- (b) Memorandum/Short Form Lease. Contemporaneously with the execution of this Agreement, the parties will execute a recordable Memorandum or Short Form of Lease substantially in the form attached as Exhibit 24b. Either party may record this Memorandum or Short Form of Lease at any time during the Term, in its absolute discretion. Thereafter during the Term of this Agreement, either party will, at any time upon fifteen (15) business days' prior written notice from the other, execute, acknowledge and deliver to the other a recordable Memorandum or Short Form of Lease.
- (c) Limitation of Liability. Except for the indemnity obligations set forth in this Agreement, and otherwise notwithstanding anything to the contrary in this Agreement, Tenant and Landlord each waives any claims that each may have against the other with respect to consequential, incidental or special damages, however caused, based on any theory of liability.
- (d) Bind and Benefit. The terms and conditions contained in this Agreement will run with the Property and bind and inure to the benefit of the parties, their respective heirs, executors, administrators, successors and assigns.
- (e) Entire Agreement. This Agreement and the exhibits attached hereto, all being a part hereof, constitute the entire agreement of the parties hereto and will supersede all prior offers, negotiations and

agreements with respect to the subject matter of this Agreement. Exhibits are numbered to correspond to the Section wherein they are first referenced.

- (f) Governing Law. This Agreement will be governed by the laws of the state in which the Premises are located, without regard to conflicts of law.
- (g) Interpretation. Unless otherwise specified, the following rules of construction and interpretation apply: (i) captions are for convenience and reference only and in no way define or limit the construction of the terms and conditions hereof; (ii) use of the term "including" will be interpreted to mean "including but not limited to"; (iii) whenever a party's consent is required under this Agreement, except as otherwise stated in this Agreement or as same may be duplicative, such consent will not be unreasonably withheld, conditioned or delayed; (iv) exhibits are an integral part of this Agreement and are incorporated by reference into this Agreement; (v) use of the terms "termination" or "expiration" are interchangeable; (vi) reference to a default will take into consideration any applicable notice, grace and cure periods; (vii) to the extent there is any issue with respect to any alleged, perceived or actual ambiguity in this Agreement, the ambiguity shall not be resolved on the basis of who drafted the Agreement; and (viii) the singular use of words includes the plural where appropriate.
- (h) Affiliates. All references to "Tenant" shall be deemed to include any Affiliate of New Cingular Wireless PCS, LLC using the Premises for any Permitted Use or otherwise exercising the rights of Tenant pursuant to this Agreement. "Affiliate" means with respect to a party to this Agreement, any person or entity that (directly or indirectly) controls, is controlled by, or under common control with, that party. "Control" of a person or entity means the power (directly or indirectly) to direct the management or policies of that person or entity, whether through the ownership of voting securities, by contract, by agency or otherwise.
- (i) Survival. Any provisions of this Agreement relating to indemnification shall survive the termination or expiration hereof. In addition, any terms and conditions contained in this Agreement that by their sense and context are intended to survive the termination or expiration of this Agreement shall so survive.
- (j) W-9. Landlord agrees to provide Tenant with a completed IRS Form W-9, or its equivalent, upon execution of this Agreement and at such other times as may be reasonably requested by Tenant.
- (k) No Electronic Signature/No Option. The submission of this Agreement to any party for examination or consideration does not constitute an offer, reservation of or option for the Premises based on the terms set forth herein. This Agreement will become effective as a binding Agreement only upon the handwritten legal execution, acknowledgment and delivery hereof by Landlord and Tenant.
- (I) Severability. If any provision of this Agreement is held invalid, illegal or unenforceable by a court or agency of competent jurisdiction, (a) the validity, legality and enforceability of the remaining provisions of this Agreement are not affected or impaired in any way if the overall purpose of the Agreement is not rendered impossible and the original purpose, intent or consideration is not materially impaired; and (b) the parties shall negotiate in good faith in an attempt to agree to another provision (instead of the provision held to be invalid, illegal or unenforceable) that is valid, legal and enforceable and carries out the parties' intentions to the greatest lawful extent. If any such action or determination renders the overall performance of this Agreement impossible or materially impairs the original purpose, intent or consideration of this Agreement, and the parties are, despite the good faith efforts of each, unable to amend this Agreement to retain the original purpose, intent and consideration in compliance with that court or agency determination, either party may terminate this Agreement upon sixty (60) days' prior written notice to the other party.
- (m) Counterparts. This Agreement may be executed in two (2) or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties. All parties need not sign the same counterpart.
- (n) WAIVER OF JURY TRIAL. EACH PARTY, TO THE EXTENT PERMITTED BY LAW, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ITS RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING UNDER ANY THEORY OF LIABILITY ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR THE TRANSACTIONS IT CONTEMPLATES.

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

, "LANDLORD"

Michael S. Adkison, a single person

By: //// Michael S. Adkison

Print Name: Michael S. Adkison

"TENANT"

New Cingular Wireless PCS, LLC,

By: AT&T Mobility Corporation

Its: Manager

Its: Manager, Real Estate and Construction

Date:

[ACKNOWLEDGMENTS APPEAR ON THE NEXT.PAGE]

#### TENANT ACKNOWLEDGMENT

STATE OFTENNESSEE)
COUNTY OF _WILLIAMSON)  On the _2511 day of OCTOBER
LANDLORD ACKNOWLEDGMENT
Name: Michael S. Adkison
STATE OF LINTUCKS COUNTY OF GVW65
The foregoing instrument was acknowledged before me this day of, 20_10, by
Name: Jaral I. Brown Notary Public
Serial No.:
[NOTARIAL SEAL]

#### **EXHIBIT 1**

#### **DESCRIPTION OF PREMISES**

Page 1 of

to the Agreement dated OCTOBER 25, 2010, by and between Michael S. Adkison, a single person, as Landlord, and New Cingular Wireless PCS, LLC, a Delaware limited liability company, as Tenant.

The Premises are described and/or depicted as follows:

SEE ATTACHED

#### 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 LINES ARE ILLUSTRATIVE ONLY, ACTUAL TYPES, NUMBERS AND MOUNTING POSITIONS MAY VARY FROM WHAT IS SHOWN ABOVE.

SPEEL !

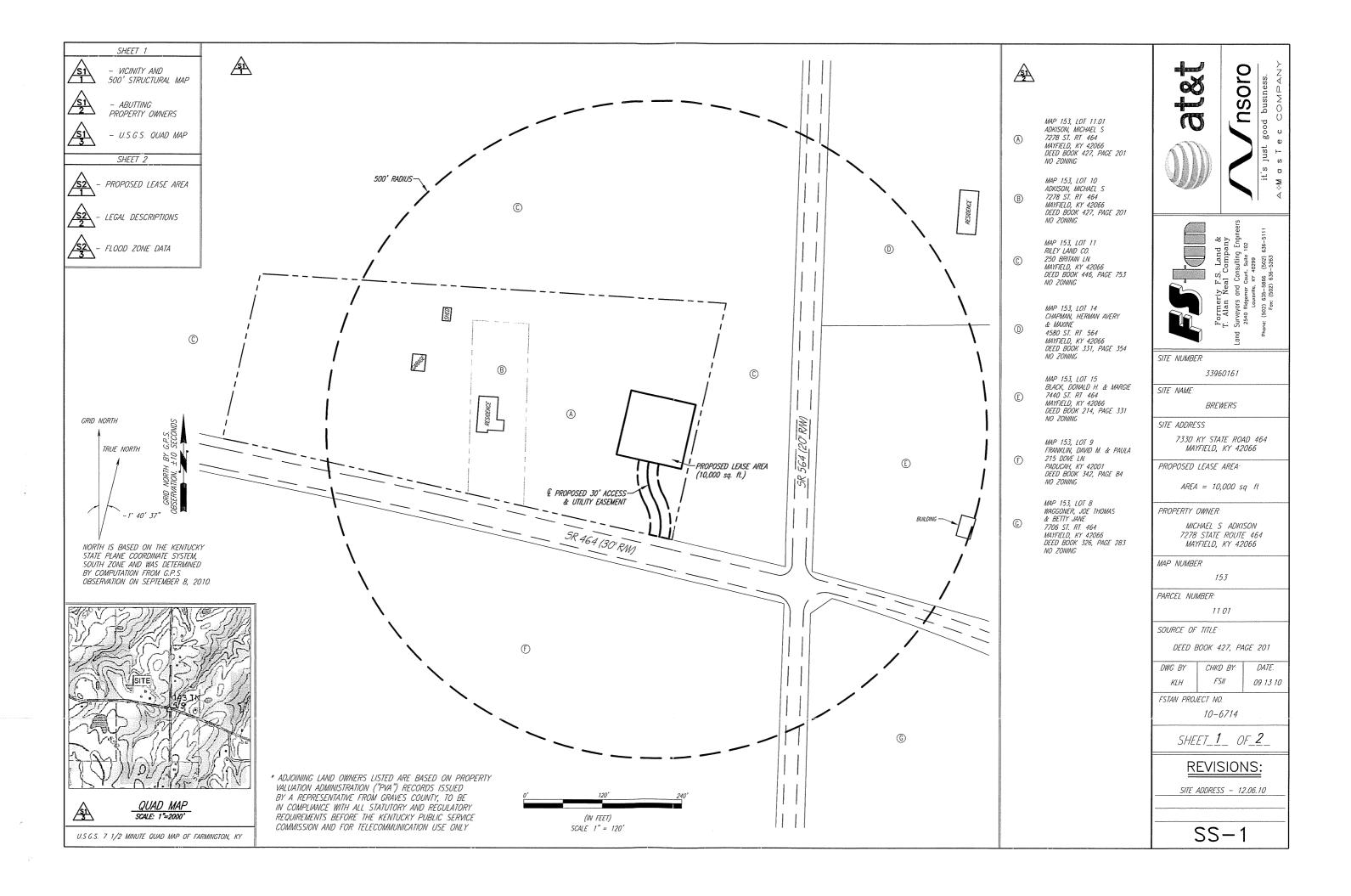
- PECHATY AND

500" STRUCTURAL ASSP

CRE NORTH

LEGAL DESCRIPTIONS:

54AM; 10: Exhibit J



1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223
Telephone [502] 412-9222 | Facsimile [866] 333-4563
todd@briggslawoffice.net

TODD R. BRIGGS

also admitted in Colorado

Notice of Proposed Construction Wireless Telecommunications Facility

Riley Land Co. 250 Britain Lane Mayfield, KY 42066

#### Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Graves County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site <u>OR</u> is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00435 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223

Telephone [502] 412-9222 | Facsimile [866] 333-4563

todd@briggslawoffice.net

TODD R. BRIGGS

also admitted in Colorado

# Notice of Proposed Construction Wireless Telecommunications Facility

Herman Avery & Maxine Chapman 4580 State Route 564 Mayfield, KY 42066

#### Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

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Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223
Telephone [502] 412-9222 | Facsimile [866] 333-4563
todd@briggslawoffice.net

TODD R. BRIGGS

Notice of Proposed Construction

Wireless Telecommunications Facility

Donald H. & Margie Black 7440 State Route 464 Mayfield, KY 42066

#### Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

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Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223

Telephone [502] 412-9222 | Facsimile [866] 333-4563

todd@briggslawoffice.net

TODD R. BRIGGS

also admitted in Colorado

#### Notice of Proposed Construction Wireless Telecommunications Facility

David M. & Paula Franklin 215 Dove Lane Paducah, KY 42001

#### Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

This notice is being sent to you because the Graves County Property Valuation Administrator's records indicate that you own property that is within a 500' radius of the proposed tower site <u>OR</u> is contiguous to the property on which the tower is to be constructed.

The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00435 in any correspondence.

Sincerely,

Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

Will By

1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223
Telephone [502] 412-9222 | Facsimile [866] 333-4563
todd@briggslawoffice.net

TODD R. BRIGGS
also admitted in Colorado

#### Notice of Proposed Construction Wireless Telecommunications Facility

Joe Thomas & Betty Jane Waggoner 7706 State Route 464 Mayfield, KY 42066

#### Via Certified Mail Return Receipt Requested

Dear Landowner:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

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The Commission invites your comments regarding the proposed construction and wants you to be aware of your right to intervene in the Commission's proceedings on this application. Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00435 in any correspondence.

Sincerely,

Todd R. Briggs

MUKS

Counsel for New Cingular Wireless PCS, LLC



1301 Clear Springs Trace | Suite 205 | Louisville, Kentucky 40223 Telephone [502] 412-9222 | Facsimile [866] 333-4563 todd@briggslawoffice.net

> TODD R. BRIGGS also admitted in Colorado

#### Via Certified Mail Return Receipt Requested

Honorable Tony Smith Graves County Judge Executive 101 East South Street Mayfield, KY 42066

RE: Notice of Proposal to Construct Wireless Telecommunications Facility Kentucky Public Service Commission--Case No. 2010-00435

Dear Judge Jones:

New Cingular Wireless PCS, LLC is applying to the Kentucky Public Service Commission (the "Commission") for a Certificate of Public Convenience and Necessity to construct and operate a new wireless telecommunications facility located at 7330 State Route 464, Mayfield, Kentucky 42066. A map showing the location is attached. The proposed facility will include a 195 foot monopole tower, plus related ground facilities.

You have a right to submit comments regarding the proposed construction to the Commission or to request intervention in the Commission's proceedings on this application.

Your comments and request for intervention should be addressed to: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2010-00435 in any correspondence.

Sincerely.

While of Todd R. Briggs

Counsel for New Cingular Wireless PCS, LLC

Exhibit L

# PUBLIC NOTICE

New Cingular Wireless PCS, LLC proposes to construct a telecommunications

# TOWER

near this site. If you have any questions please contact:

Briggs Law Office, PSC 1301 Clear Springs Trace Or Suite 205 Louisville, KY 40223 (502) 412-9222

Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Please refer to Commission's

Case #2010-00435

in your correspondence.

# PUBLIC NOTICE

New Cingular Wireless PCS, LLC proposes to construct a telecommunications

# IOWER

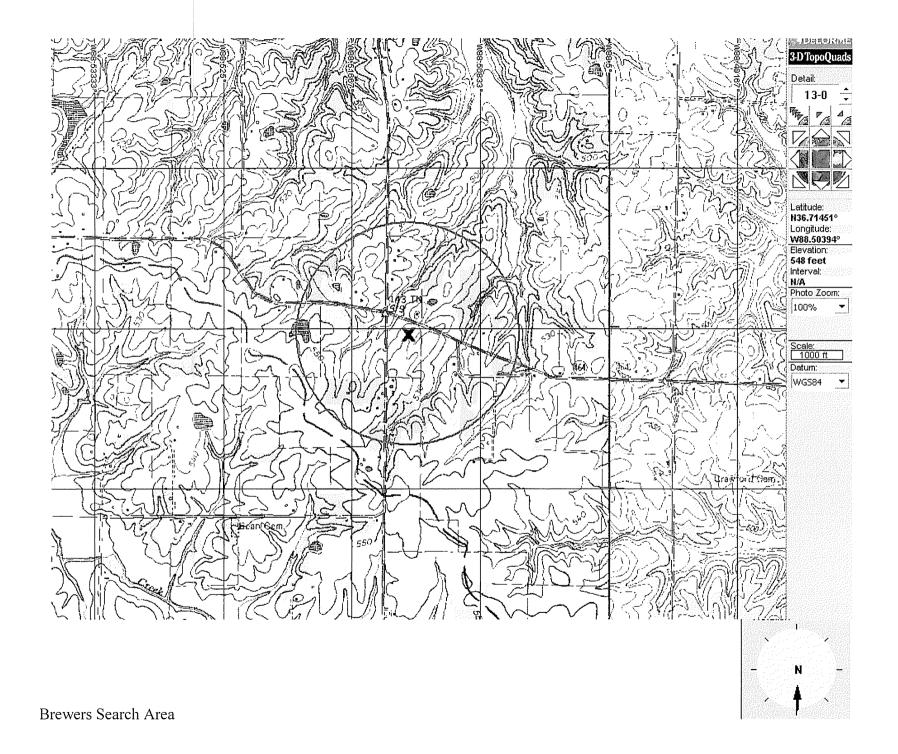
on this site. If you have any questions please contact:

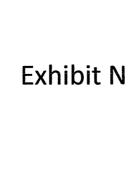
Briggs Law Office, PSC 1301 Clear Springs Trace or Suite 205 Louisville, KY 40223 (502) 412-9222 Executive Director
Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602

Please refer to Commission's

Case #2010-00435 in your correspondence.









AT&T Mobility 3231 N. Green River Rd. Evansville, IN 47715

#### **Sherri A Lewis**

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715

Phone: 812-457-3327

December 6, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to state the need of the proposed AT&T site called Brewers, to be located in Graves County, KY. The Brewers site is necessary to improve coverage and eliminate interference in eastern Graves County. This site will improve the coverage and reduce interference on Hwy 564, SR464, and the surrounding area. Our closest existing site to this area is over 5.5 miles away; thus, there is currently no dominant server in this area. This lack of a dominant server causes many quality issues for the customers. Currently customers in this area experience high dropped calls and may experience poor call quality or areas of no service. With the addition of this site, the customers in this area of Graves County will experience improved reliability, better in-building coverage, and improved access to emergency 911 services.

Sherri A Lewis

RF Design Engineer



AT&T Mobility 3231 N. Green River Rd. Evansville, IN 47715

#### **Sherri A Lewis**

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715

Phone: 812-457-3327

December 6, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to state that there is no more suitable location reasonably available from which adequate service can be provided in the area of the proposed Brewers site. There are no collocation opportunities available as there are no tall structures located within this site's search area.

Sherri A Lewis

RF Design Engineer



AT&T Mobility 3231 N. Green River Rd. Evansville, IN 47715

#### **Sherri A Lewis**

RF Design Engineer - Kentucky 3231 North Green River Road Evansville, IN 47715 Phone: 812-457-3327

December 6, 2010

To Whom It May Concern:

Dear Sir or Madam:

This letter is to serve as documentation that the proposed AT&T site called Brewers, to be located in Graves County, KY at Latitude 36-43-05.26 North, Longitude 088-30-54.90 West, has been designed, and will be built and operated in accordance with all applicable FCC and FAA regulations.

Sherri A Lewis

RF Design Engineer