GREENEBAUM

GREENEBAUM DOLL & MCDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

Kentucky Public Service Commission
Attn: Renee Smith
Director, Division of Filings
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602-0615

RE: Application to Construct Wireless Communications Facility
Location: 8338 Owensboro Road, Falls of Rough, KY 40119
Applicant: Powertel/Memphis Inc. d/b/a T-Mobile Kentucky
Site Name: Short Creek
Case No.: 2009-00004

Dear Ms. Smith:

On behalf of our client, Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky, we are herewith submitting an original and five (5) copies of an Application for Certificate of Public Convenience and Necessity for Construction of a Wireless Communications Facility in an area of Grayson County, Kentucky outside the jurisdiction of a planning commission. Also enclosed are two (2) additional copies of this cover letter.

Please do not hesitate to contact me if you have any questions or comments concerning this matter, or if you need any additional material.

Sincerely,

Paul B. Whitty
Attorney for T-Mobile

PBW/abf

Enclosures
3209966_1.doc

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3209966_1.doc

UNIFORM APPLICATION AND COMPLIANCE DOCUMENTS
for
Powertel/Memphis, Inc.
d/b/a T-Mobile Kentucky
8338 Owensboro Road
9LV1124B – "Short Creek"
250' Self Support Tower

INDEX

1. Application for Certificate of Public Convenience and Necessity for Construction of a Wireless Communications Facility, with the following Exhibits:

   A. Articles of Incorporation for Powertel/Memphis, Inc.

   B. Documentation of FCC License for Powertel/Memphis, Inc.

   C. Site Plans, Survey & Flood Hazard

   D. Tower Design & Foundation Desigı

   E. Maps of Proposed Tower and Existi

   F. Character of the Area and Co-Locat

   G. FAA Approval Letter

   H. KAZC Application

   I. Geotechnical Engineering Report da

   J. Directions to Site

   K. Site Lease

   L. Identity & Qualifications of Designers & Construction Personnel

   M. Adjoining Property Owner List with Notice Letters

   N. Government Official Notice Letter

   O. Notices to Be Posted On and Near Site

   P. Notices to Be Advertised in Newspaper

   Q. Search Ring Map

Original

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF	)	
POWERTEL/MEMPHIS, INC., D/B/A T-MOBILE	)	
KENTUCKY FOR ISSUANCE OF A CERTIFICATE	)	
OF PUBLIC CONVENIENCE AND NECESSITY TO	)	
CONSTRUCT A WIRELESS COMMUNICATION	)	DOCKET NO.
FACILITY AT 8338 OWENSBORO ROAD,	)	2009-00004
FALLS OF ROUGH, KENTUCKY 40119 IN THE	)	
WIRELESS COMMUNICATIONS LICENSE AREA	)	
IN THE COMMONWEALTH OF KENTUCKY	)	
IN THE COUNTY THE GRAYSON	)	

SITE NAME: SHORT CREEK

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

Powertel/Memphis, Inc., a Delaware corporation, d/b/a T-Mobile Kentucky ("Applicant"), by counsel, pursuant to (i) KRS §§278.020, 278.040, 278.650, 278.665 and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submits this Application requesting issuance of a Certificate of Public Convenience and Necessity ("CPCN") from the Kentucky Public Service Commission ("PSC") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Applicant with wireless telecommunications service.

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

1. The complete name and address of the Applicant:

Powertel/Memphis, Inc., d/b/a T-Mobile Kentucky
Four Concourse Parkway, Suite 300
Atlanta, Georgia 30328

2. Applicant proposes construction of an antenna tower for cellular telecommunications services or personal communications services which is to be located in an area outside the jurisdiction of a planning commission, and Applicant submits this Application to the Commission for a Certificate of Public Convenience and Necessity pursuant to KRS §§278.020 (1), 278.650, and 278.655.

3. The Applicant is authorized to conduct business in the Commonwealth of Kentucky. A copy of the Articles of Incorporation for Powertel/Memphis, Inc. is attached hereto as **Exhibit A**.

4. The Applicant is licensed to provide wireless telecommunications service in the Commonwealth of Kentucky. The proposed WCF will serve an area completely within the Applicant's Federal Communications Commission ("FCC") licensed service area. A copy of documentation evidencing the Applicant's FCC license is attached hereto as **Exhibit B**.

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

6. To address the above-described service needs, Applicant proposes to construct a WCF at 8338 Owensboro Road, Falls of Rough, Kentucky 40119 (37°30'50" North latitude,

86°25'54.58" West longitude), in an area located entirely within the county referenced in the caption of this Application. The property on which the WCF will be located is owned by Willard McCafferty and Barbara A. Thomas pursuant to a Deed recorded at Deed Book 364, Page 491 in the office of the Grayson County Clerk. The proposed WCF will consist of a 250-foot tall tower, with a 5-foot tall lightning arrestor attached at the top, for a total height of 255 feet. The WCF will also include concrete foundations to accommodate the placement of the Applicant's proprietary radio electronics equipment. The equipment will be housed in a prefabricated cabinet or shelter that will contain: (i) the transmitting and receiving equipment required to connect the WCF with the Applicant's users in Kentucky, (ii) telephone lines that will link the WCF with the Applicant's other facilities, (iii) battery back-up that will allow the Applicant to operate even after a loss of outside power, and (iv) all other necessary appurtenances. The Applicant's equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the appropriate building inspector having jurisdiction of the site. The WCF compound will be fenced and all access gate(s) will be secured. Further descriptions of the site layout and construction details of the WCF are shown on the site plans and a survey (which includes a 500' vicinity map and Flood Plain Certification) attached hereto as **Exhibit C**; and Tower Design Drawings and Foundation Design Drawings attached hereto as **Exhibit D**. Periodic inspections will be performed on the WCF in accordance with the applicable regulations or requirements of the PSC.

7. A map showing the proposed WCF and all towers within a 1 mile radius, and a map of all towers in the Grayson County area are attached hereto as **Exhibit E**.

8. The site development plans, a vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a

proposed configuration for the antennas of the Applicant and future antenna mounts, foundation design plans, and a description of the standards according to which the tower was designed, and which likewise have been signed and sealed by professional engineers licensed in Kentucky, are also included in **Exhibits C and D** attached hereto.

9. Applicant has considered the likely effects of the installation of the proposed WCF on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to co-locate Applicant's antennas on an existing structure. Applicant has attempted to co-locate on suitable existing structures such as telecommunications towers or other suitable structures capable of supporting Applicant's facilities, and no other suitable or available co-location site was found to be located in the vicinity of the site. Information regarding the Applicant's efforts to achieve co-location in the vicinity is presented as **Exhibit F** attached hereto.

10. A copy of the Determination of No Hazard to Air Navigation issued by the Federal Aviation Administration on December 22, 2008 ("FAA") is attached hereto as **Exhibit G.**

11. A copy of the Kentucky Airport Zoning Commission ("KAZC") Application for Permit to Construct or Alter a Structure is attached hereto as **Exhibit H.**

12. The WCF will be registered with the FCC pursuant to applicable federal requirements. Appropriate required FCC signage will be posted on the site upon receipt of the tower registration number.

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

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

15. Applicant, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the agreement or an abbreviated agreement recorded with the County Clerk is attached hereto as **Exhibit K.** Also included as part of **Exhibit K** is the portion of the full agreement demonstrating that in the case of abandonment a method is provided to dismantle and remove the cellular antenna tower, including a timetable for removal.

16. Personnel directly responsible for the design and construction of the proposed WCF are well qualified and experienced and are listed in **Exhibit L** attached hereto. All tower designs meet or exceed applicable laws and regulations. Timothy L. Hardy, a professional engineer registered in Kentucky, with Hardy Engineering Inc., prepared the site plans and construction drawings. Ta-Wen Lee, a professional engineer licensed in Kentucky , prepared the tower design standards. Buford H. Evans, Jr., a professional engineer licensed in Kentucky, prepared the foundation drawings.

17. The Construction Management Company for the proposed facility is Mittrix Engineering, and the Project Manager will be Jeremy Potts.

18. Flood Zone data is included and certified by a licensed professional surveyor for the Commonwealth of Kentucky on Page C2 of the Site Survey which is included in **Exhibit C** attached hereto.

19. The possibility of high winds has been considered in the design of this tower. The tower has been designed and engineered by professional engineers using computer assistance and the same accepted codes and standards as are typically used for high-rise building construction.

20. The site development plan signed and sealed by a professional engineer registered in Kentucky was prepared by Timothy L. Hardy. The site survey was performed by Frank L. Selinger, II, a licensed professional surveyor for the Commonwealth of Kentucky, and Page C-1 of the Survey included in **Exhibit C** is drawn to a scale of no less than one inch equals 200 feet, and identifies every owner of real estate within 500 feet of the proposed tower (according to the records maintained by the Grayson County Property Valuation Administrator). Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is illustrated in the Survey included in **Exhibit C.**

21. Applicant has notified every person who, according to the records of the Grayson County Property Valuation Administrator, owns property which is within 500 feet of the proposed tower or contiguous to the site property, by certified mail, return receipt requested, of the proposed construction. All notified property owners have been given the docket number under which the proposed Application will be processed and have been informed of their right to

request intervention. A list of the nearby property owners who received the notices, together with copies of the certified letters, are attached hereto as **Exhibit M**.

22. Applicant has notified the Grayson County Judge/Executive by certified mail, return receipt requested, of the proposed construction. This notice included the PSC docket number under which the Application will be processed and informed the Grayson County Judge/Executive of his/her right to request intervention. A copy of this notice is attached hereto as **Exhibit N.**

23. Two notice signs meeting the requirements prescribed by 807 KAR 5:063, Section 1(2), that measure at least two (2) feet in height and four (4) feet in width and that contain all required language in letters of required height, have been posted, one in a visible location on the proposed site and one on the nearest public road. Such signs shall remain posted for at least two (2) weeks after filing of the Application, and a copy of the posted text is attached hereto as **Exhibit O**.

24. Notice of the location of the proposed facility has also been published in a newspaper of general circulation in the county in which the WCF is proposed to be located. A copy of the wording for the newspaper ad is attached hereto as **Exhibit P**.

25. The general area where the proposed facility is to be located is rural farmland. There are no residential structures located within a 500-foot radius of the proposed tower location.

26. The process that was used by the Applicant's radio frequency engineers in selecting the site for the proposed WCF was consistent with the general process used for

selecting all other existing and proposed WCF facilities within the proposed network design area. Applicants radio frequency engineers have conducted studies and tests in order to develop a highly efficient network that is designed to serve the Federal Communications Commission licensed service area. The engineers determined an optimum area for the placement of the proposed facility in terms of elevation and location to provide the best quality service to customers in the service area. A radio frequency design search area prepared in reference to these radio frequency studies was considered by the Applicant when searching for sites for its antennas that would provide the coverage deemed necessary by the Applicant. Before beginning the site acquisition process, Applicant carefully evaluated locations within the search area for co-location opportunities on existing structures, and no suitable towers or other existing tall structures were found in the immediate area that would meet the technical requirements for the element of the telecommunications network to be provided by the proposed facility. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should be located pursuant to radio frequency requirements is attached hereto as **Exhibit Q.**

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

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

Paul B. Whitty
Greenebaum Doll & McDonald, PLLC
3500 National City Tower
101 South Fifth Street
Louisville, Kentucky 40202
Telephone: (502) 587-3655
Facsimile: (502) 540-2260
pbw@gdm.com

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

Respectfully submitted,

Paul B. Whitty
Greenebaum Doll & McDonald, PLLC
3500 National City Tower
101 South Fifth Street
Louisville, Kentucky 40202
Telephone: (502) 587-3655
Facsimile: (502) 540-2260
Attorney for Powertel/Memphis, Inc.
d/b/a T-Mobile Kentucky

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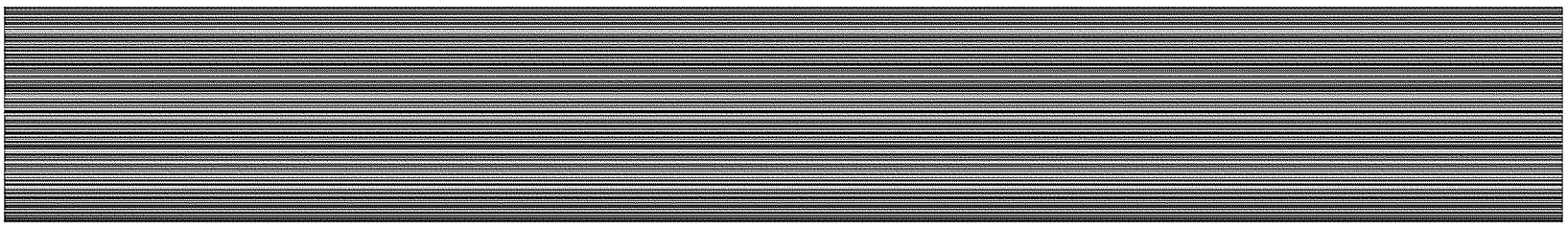


P16

Powertel/Kentucky, Inc. merges into
Powertel/Memphis, Inc.

Delaware

The First State

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 MERGER, WHICH MERGES:

"POWERTEL/KENTUCKY, INC.", A DELAWARE CORPORATION,

WITH AND INTO "POWERTEL/MEMPHIS, INC." UNDER THE NAME OF "POWERTEL/MEMPHIS, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-FIRST DAY OF DECEMBER, A.D. 2005, AT 11:30 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE FIRST DAY OF JANUARY, A.D. 2006, AT 12:30 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

2447268 8100M

051046113

AUTHENTICATION: 4400474

DATE: 12-23-05

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:30 AM 12/21/2005
FILED 11:30 AM 12/21/2005
SRV 051046113 - 2447268 FILE

STATE OF DELAWARE
CERTIFICATE OF MERGER OF
DOMESTIC CORPORATIONS

Pursuant to Title 8, Section 251(c) of the Delaware General Corporation Law, the undersigned corporation executed the following Certificate of Merger:

FIRST: The name of the surviving corporation is Powertel/Memphis, Inc., and the name of the corporation being merged into this surviving corporation is Powertel/Kentucky, Inc.

SECOND: The Agreement of Merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations.

THIRD: The name of the surviving corporation is Powertel/Memphis, Inc., a Delaware corporation.

FOURTH: The Certificate of Incorporation of the surviving corporation shall be its Certificate of Incorporation.

FIFTH: The merger is to become effective on January 1, 2006 at 12:30 a.m.

SIXTH: The Agreement of Merger is on file at 12920 SE 38th Street, Bellevue, WA 98006, the place of business of the surviving corporation.

SEVENTH: A copy of the Agreement of Merger will be furnished by the surviving corporation on request, without cost, to any stockholder of the constituent corporations.

IN WITNESS WHEREOF, said surviving corporation has caused this certificate to be signed by an authorized officer, the 15th day of December A.D., 2005.

By: /S/ David A. Miller
Authorized Officer

Name: David A. Miller
Print or Type

Title: Senior Vice President

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, 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 "INTERCEL MEMPHIS MTA, INC.", CHANGING ITS NAME FROM "INTERCEL MEMPHIS MTA, INC." TO "POWERTEL/MEMPHIS, INC." FILED IN THIS OFFICE ON THE SEVENTEENTH DAY OF JULY, A.D. 1996, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

GREAT SEAL OF THE STATE OF DELAWARE
LIBERTY AND INDEPENDENCE
1793 • 1847 • 1907

Edward J. Freel

Edward J. Freel, Secretary of State

2447268 8100

960207691

AUTHENTICATION: 8030247

DATE: 07-17-96

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION

OF

INTERCEL MEMPHIS MTA, INC.

InterCel Memphis MTA, Inc. (the "Corporation"), a corporation organized and existing under the General Corporation Law of the State of Delaware, does hereby certify as follows:

FIRST: That in accordance with the requirements of Section 242 of the General Corporation Law of the State of Delaware, the Board of Directors of the Corporation, acting by written consent signed by all of the directors of the Corporation pursuant to Section 141(f) of the General Corporation Law of the State of Delaware, duly adopted resolutions: (1) proposing and declaring advisable the changing of the Corporation's name to "Powertel/Memphis, Inc.," (2) proposing and declaring advisable the amendment of the Certificate of Incorporation of the Corporation to reflect such change and (3) recommending that such name change and amendment be submitted to the sole stockholder of the Corporation for consideration, action and approval.

SECOND: That the amendment to the Certificate of Incorporation of the Corporation is as follows:

ARTICLE FIRST of the Certificate of Incorporation of the Corporation is hereby amended to read in its entirety as follows:

"FIRST. The name of the corporation is Powertel/Memphis, Inc. (the "Corporation")."

THIRD: That thereafter, pursuant to resolution of the Board of Directors, the sole stockholder of the Corporation, acting by written consent in accordance with Sections 228 and 229 of the General Corporation law of the State of Delaware, duly approved such name change and the aforesaid amendment to the Certificate of Incorporation of the Corporation to reflect such name change.

FOURTH: That the aforesaid amendment to the Certificate of Incorporation of the Corporation was duly adopted in accordance with the provisions of Sections 141(f), 228, 229 and 242 of the General Corporation Law of the State of Delaware.

FIFTH: That upon this Certificate of Amendment of Certificate of Incorporation becoming effective, the name of the Corporation shall be changed to "Powertel/Memphis, Inc."

IN WITNESS WHEREOF, InterCel Memphis MTA, Inc. has caused this Certificate of Amendment of Certificate of Incorporation to be signed by Allen E. Smith, its President, and attested by Fred G. Astor, Jr., its Secretary, on July 9, 1996.

By: _____
Allen E. Smith
President

Attest:

_____
Fred G. Astor, Jr.
Secretary

Federal Communications Commission
Wireless Telecommunications Bureau

Radio Station Authorization (Reference Copy Only)

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

Licensee: Powertel Memphis Licenses, Inc.

ATTN Dan Menser
Powertel Memphis Licenses, Inc.
12920 SE 38th Street
Bellevue, WA 98006

FCC Registration Number (FRN): 0001832807	
Call Sign: KNLH397	**File Number:** 0002907447
Radio Service: CW - PCS Broadband	

Grant Date	Effective Date	Expiration Date	Print Date
04/25/2007	04/25/2007	04/28/2017	11/21/2007

Market Number: BTA263	**Channel Block:** E	**Sub-Market Designator:** 3
Market Name: Louisville, KY		

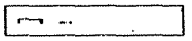
1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
04/28/2002			

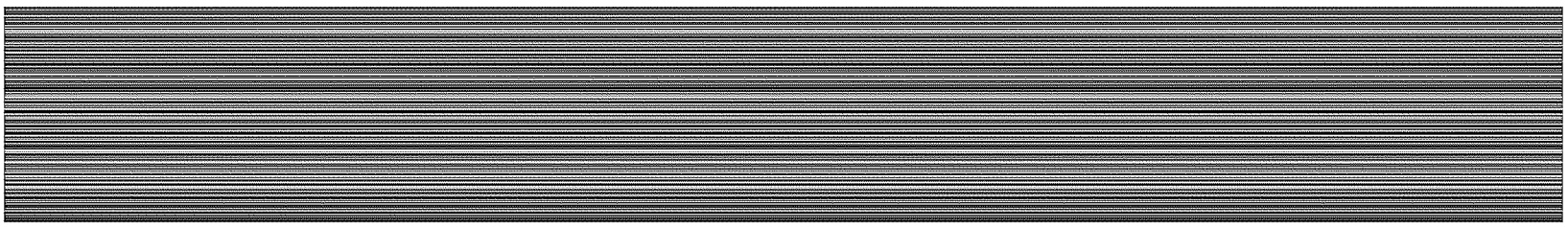
Special Conditions or Waivers/Conditions

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

To view the geographic areas associated with the license, go to the Universal Licensing System (ULS) homepage at http://wireless.fcc.gov/uls/ and select "License Search". Follow the instruction on how to search for license information

FCC 601 - MB
September 2002





GENERAL NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE COUNTY OF **GRAYSON** REGULATIONS.

2. CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST 24 HOURS PRIOR TO START OF CONSTRUCTION TO VERIFY LOCATION OF ALL UTILITIES SHOWN OR NOT SHOWN.

3. ALL UTILITIES WITHIN ROADWAY SHALL BE BACKFILLED WITH STONE.

4. CONTRACTOR SHALL REPAIR AT HIS EXPENSE DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPPING, CURBS, ETC.. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL UNUSABLE MATERIALS FROM THE SITE.

6. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY PROVIDING TEMPORARY SERVICE FOR CONSTRUCTION FACILITIES DURING CONSTRUCTION.

7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED ABOUT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES SHOWN ON THIS DRAWING. THEY ARE BASED UPON RECORDS FROM VARIOUS UTILITY COMPANIES, DEEDS, AND PLATS OF RECORD, AND WHERE POSSIBLE ACTUAL FIELD MEASUREMENTS. THIS INFORMATION IS NOT TO BE TAKEN EXACT OR COMPLETE.

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION OF EXISTING UTILITIES WHICH MAY CONFLICT WITH PROPOSED IMPROVEMENTS.

9. THIS PROJECT WILL NOT REQUIRE WATER OR SEWER SERVICE.

10. CONTRACTOR SHALL REMOVE ANY DIRT OR MUD FROM TIRES OF ANY CONSTRUCTION VEHICLES PRIOR TO LEAVING SITE.

11. REFER TO BUILDING/TOWER PLANS FOR PROPOSED DIMENSIONS AND OTHER SPECIFICS WHICH ARE NOT SHOWN.

12. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A PROPER TRAFFIC CONTROL PLAN FOR PUBLIC SAFETY ADJACENT TO CONSTRUCTION SITE. THE TRAFFIC CONTROL PLAN MUST BE IN ACCORDANCE WITH LATEST MUTCD EDITION.

13. CONTACT LOCAL GOVERNING JURISDICTION FOR TYPE AND SIZE OF GENERATOR FUEL LINE PRIOR TO INSTALLATION.

SITE DEVELOPMENT PLANS FOR
POWERTEL / MEMPHIS, INC.
SITE #: 9LV1124A
SITE NAME: SHORT CREEK
SITE ADDRESS: 8338 OWENSBORO ROAD
FALLS OF ROUGH, KENTUCKY 40119

1

SIGNATURE AUTHORIZATIONS:

RF ENGINEER APPROVAL:
SIGNATURE _____ DATE: _____

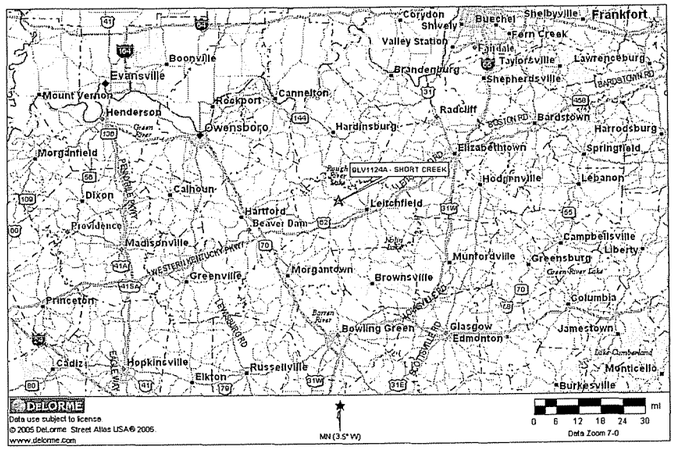
CONSTRUCTION MANAGER APPROVAL:
SIGNATURE _____ DATE: _____

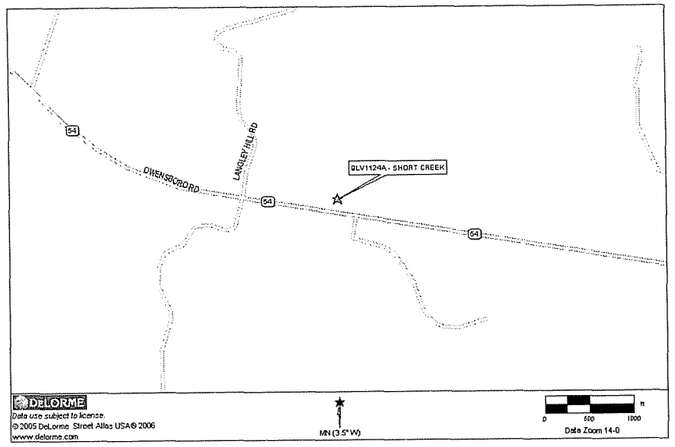
SITE ACQUISITION AGENT APPROVAL:
SIGNATURE _____ DATE: _____

LAND OWNER APPROVAL:
SIGNATURE _____ DATE: _____

OPS APPROVAL:
SIGNATURE _____ DATE: _____

ZONING/PERMITTING APPROVAL:
SIGNATURE _____ DATE: _____





VICINITY MAP

DIRECTIONS:

FROM I-24W VIA THE RAMP TO NASHVILLE; TRAVEL APPROX. 12.4 MILES. CONTINUE ON I-65N TOWARD LOUISVILLE. GO APPROX. 53.8 MILES. TAKE EXIT 20 TO MERGE ONTO GREEN RIVER PKWY./WILLIAM H. NATCHER PKWY. N. TOWARD BOWLING GREEN APPROX. 41.5 MILES. TAKE EXIT 41A TO MERGE ONTO WESTERN KENTUCKY PKWY. E. TOWARD ELIZABETHTOWN APPROX. 17.3 MILES. TAKE EXIT 94 FOR KY-79 TOWARD MORGANTOWN/CANEYVILLE APPRCX. 0.3 MILES. TURN LEFT AT KY-79/MORGANTOWN ST. APPROX. 1.2 MILES. TURN LEFT AT KY-185/KY-79/S. MAIN ST.. CONTINUE TO FOLLOW KY-79 APPROX. 7.6 MILES. TURN RIGHT AT KY-54/OWENSBORO RD. APPROX. 2.5 MILES. FOLLOW KY-54/OWENSBORO RD. TO PROPOSED SITE. PROPOSED SITE IS LOCATED ON THE NORTH SIDE OF KY-54/OWENS. NOTE: ACCESS WILL BE 24/7 WITH NO REQUIRED NOTICE.

SURVEY COORDINATES:

LATITUDE: 37° 30' 50.00" NORTH
LONGITUDE: 86° 25' 54.58" WEST
GROUND ELEV: 766' AMSL

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

ELECTRIC CO.:

PARRIGANS ELECTRIC
185 PINE KNOB RD
CANEYVILLE, KY 42721
CONTACT: CUSTOMER SERVICE
PHONE: (270) 879-3214
(VERIFY)

TELEPHONE CO.:

AT&T
CONTACT: CUSTOMER SERVICE
PHONE: (800) 222-0400
(VERIFY)

PERMIT JURISDICTION:

GRAYSON COUNTY
(NO ZONING REQUIRED)
BUILDING PERMIT
CONTACT: MIKE LIVELY
PHONE: (270) 589-0409

LESSOR:

WILLARD McCAFFERTY
PHONE: (270) 879-8398
8398 OWENSBORO ROAD
FALLS OF ROUGH, KENTUCKY 40119

LESSEE:

powertel

POWERTEL / MEMPHIS, INC.
LOUISVILLE MARKET
11509 COMMONWEALTH DRIVE,
SUITE 9
LOUISVILLE, KENTUCKY 40299
CONTACT: REAL ESTATE

ENGINEER:

HARDY ENGINEERING, INC.

209 LINDEN STREET
TRUSSVILLE, ALABAMA 35173
CONTACT: TIM HARDY
PHONE: (205) 655-1427
MOBILE: (205) 222-7563

INDEX:

SHEET 1

S1/1 – VICINITY AND 500' STRUCTURAL MAP

S1/2 – ABUTTING PROPERTY OWNERS

S1/3 – U.S.G.S. QUAD MAP

SHEET 2

S2/1 – PROPOSED LEASE AREA

S2/2 – LEGAL DESCRIPTIONS

S2/3 – FLOOD ZONE DATA

GRID NORTH

TRUE NORTH

-0° 24' 52"

GRID NORTH BY G.P.S. OBSERVATION ±10 SECONDS

NORTH IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTHERN ZONE AND WAS DETERMINED BY COMPUTATION FROM G.P.S OBSERVATION ON OCTOBER 21, 2008.

S2/1

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.

COORDINATE POINT LOCATION

NAD 1983
LATITUDE: 37° 30' 50.00"
LONGITUDE 86° 25' 54.58"
NAVD 1988
ELEVATION: 766' AMSL
STATE PLANE COORDINATE SOUTHERN ZONE (BLUE MARBLE GEOGRAPHIC CALCULATOR VERSION 3.0)
NORTHING: 2070958.8795
EASTING: 1442660.4810

PROJECT POWER POLE

UTILITY COMPANY: UNKNOWN
IDENTIFICATION #: N/A

PROJECT BENCHMARK

NORTH: 2070915.3806
EAST: 1442696.6824
ELEVATION: 763.99' AMSL
LOCATION: BEING A SET IPC LOCATED AT THE SOUTHEAST CORNER OF THE LEASE AREA.

SYMBOL LEGEND

- WOOD POWER POLE
- TELEPHONE PEDESTAL
- GUY ANCHOR
- MANHOLE
- WV WATER VALVE
- WATER METER
- FIRE HYDRANT
- E ELECTRIC BOX
- F.P. FENCE POST
- SET #5 REBAR (UNLESS OTHERWISE NOTED)
- EXISTING #5 REBAR (UNLESS OTHERWISE NOTED)

ABBREVIATIONS

EP	EDGE OF PAVEMENT
ROW	RIGHT OF WAY
℄	CENTERLINE
RCP	REINFORCED CONCRETE PIPE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
ℓ	SUBJECT PROPERTY LINE
TC	TOP OF CURB
BC	BOTTOM OF CURB
POB	POINT OF BEGINNING
IPC	IRON PIN CAPPED

LINE LEGEND

- E—E—E— OVERHEAD ELECTRIC
- G—G—G— UNDERGROUND GAS LINE
- W—W—W— UNDERGROUND WATER LINE
- E/T—E/T—E/T— OVERHEAD ELECTRIC & TELEPHONE LINE
- T—T— OVERHEAD TELEPHONE LINE
- D—D— DRAINAGE/STORM SEWER LINE
- X—X—X— EXISTING FENCE
- XX—XX—XX— PROPOSED FENCE
- SUBJECT PROPERTY BOUNDARY
- RIGHT OF WAY CENTERLINE

NOTE: SYMBOLS, ABBREVIATIONS, AND LINESTYLES DO NOT NECESSARILY APPEAR ON DRAWING(S) USE ONLY AS APPLICABLE

SURVEYORS NOTES

SOURCE OF BEARING IS A G.P.S. OBSERVATION ON OCTOBER 21, 2008.

SOURCE OF ROTATION BASED ON THE SOUTH PROPERTY LINE OF THE MCCAFFERTY & THOMAS PROPERTY HAVING THE BEARING OF S 87° 58' 00" W PER D.B. 364, PG. 491. AND THE CALCULATED BEARING OF N 84° 44' 20" W.

SITE SHOWN SUBJECT TO RIGHT OF WAYS AND EASEMENTS SHOWN HEREON OR NOT.

NO SEARCH OF PUBLIC RECORDS HAS BEEN PERFORMED BY THIS FIRM TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE PARENT TRACT.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

EXISTING CONTOURS ARE AT ONE FOOT INTERVALS.

S2/2

LEGAL DESCRIPTIONS:

This is a description for T-Mobile, of an area to be leased from the property of Willard McCafferty & Barbara A. Thomas, which is further described as follows

PROPOSED LEASE AREA

Beginning at a fence post located at the Southeast corner of the property conveyed to Willard McCafferty & Barbara A. Thomas, in Deed Book 364, Page 491, in the Office of the County Clerk of Grayson County, KY, being S 79°20'37" E – 182.73', S 82°26'47" E – 139.88', S 80°17'53" E – 619.61', S 84°44'20" E – 192.42' from an IPC found at the Southwest corner of said Willard McCafferty & Barbara A. Thomas property; thence traversing said property N 26°00'58" W – 17.53' to a set #5 rebar with a cap stamped "FSTAN #3282" and the TRUE POINT OF BEGINNING of the Proposed Lease Area; thence N 84°42'58" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 5°17'02" E – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence S 84°42'58" E – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence S 5°17'02" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282" and the true point of beginning containing 3,600 square feet as per survey by Frank L. Sellinger, II, PLS No. 3282 with FS/Tan Land Surveyors & Consulting Engineers, dated October 30, 2008, and revised November 4, 2008.

CENTERLINE OF PROPOSED 20' ACCESS & UTILITY EASEMENT

Beginning at a fence post located at the Southeast corner of the property conveyed to Willard McCafferty & Barbara A. Thomas, in Deed Book 364, Page 491, in the Office of the County Clerk of Grayson County, KY, being S 79°20'37" E – 182.73', S 82°26'47" E – 139.88', S 80°17'53" E – 619.61', S 84°44'20" E – 192.42' from an IPC found at the Southwest corner of said Willard McCafferty & Barbara A. Thomas property, thence traversing said property N 26°00'58" W – 17.53' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 84°42'58" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 5°17'02" E – 50.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 84°42'58" W – 10.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence S 5°17'02" W – 98.33' to a set #5 rebar with a cap stamped "FSTAN #3282" and the end of the easement as per survey by Frank L. Sellinger, II, PLS No. 3282 with FS/Tan Land Surveyors & Consulting Engineers, dated October 30, 2008, and revised November 4, 2008.

0' 40' 80'

(IN FEET)
SCALE: 1" = 40'

LAND SURVEYOR'S CERTIFICATE

Type "A" Survey – Unadjusted linear traverse closure: 1 in 20,400.

TO ALL PARTIES INTERESTED IN TITLE TO PREMISES SURVEYED
I hereby certify that this plat and survey were made under my supervision, and that the angular and linear measurements, as witnessed by monuments shown hereon, are true and correct to the best of my knowledge and belief.
This survey and plat meets or exceeds the minimum standards of the governing authorities.
This property is subject to any recorded easements or right of ways not shown hereon.

Frank L. Sellinger, II Ky. Reg. No. 3282

REFERENCED AS "EXHIBIT C"

OWNER APPROVAL _____ DATE: _____

T-MOBILE APPROVAL _____ DATE: _____

S2/3

I HAVE REVIEWED THE FLOOD INSURANCE RATE MAPS (FIRM) MAP NO. 21033001508 DATED 02.15.91 AND THE PROPOSED LEASE AREA DOES NOT APPEAR TO BE IN A FLOOD PRONE AREA. THE PROPOSED LEASE AREA IS LOCATED IN ZONE X.

T-Mobile

FS land
F.S. Land Company
T. Alan Neal Company
Land Surveyors and Consulting Engineers
PO Box 17546 2313/2315 Crittenden Drive
Louisville, KY 40217
Phone: (502) 635-5866 (502) 636-5111
Fax: (502) 636-5263

"SITE SURVEY"

SITE NUMBER:
9LV1124

SITE NAME:
SHORT CREEK

SITE ADDRESS:
8338 OWENSBORO ROAD
CANEYVILLE, KY 42721

PROPOSED LEASE AREA
AREA = 6,400 sq. ft.

PROPERTY OWNER:
WILLARD MCCAFFERTY & BARBARA A. THOMAS
8398 OWNESBORO ROAD
FALLS OF ROUGH, KY 40119

TAX PARCEL ID NUMBER:
46-15A

SOURCE OF TITLE:
DEED BOOK 364, PAGE 491

DWG BY:
CDT

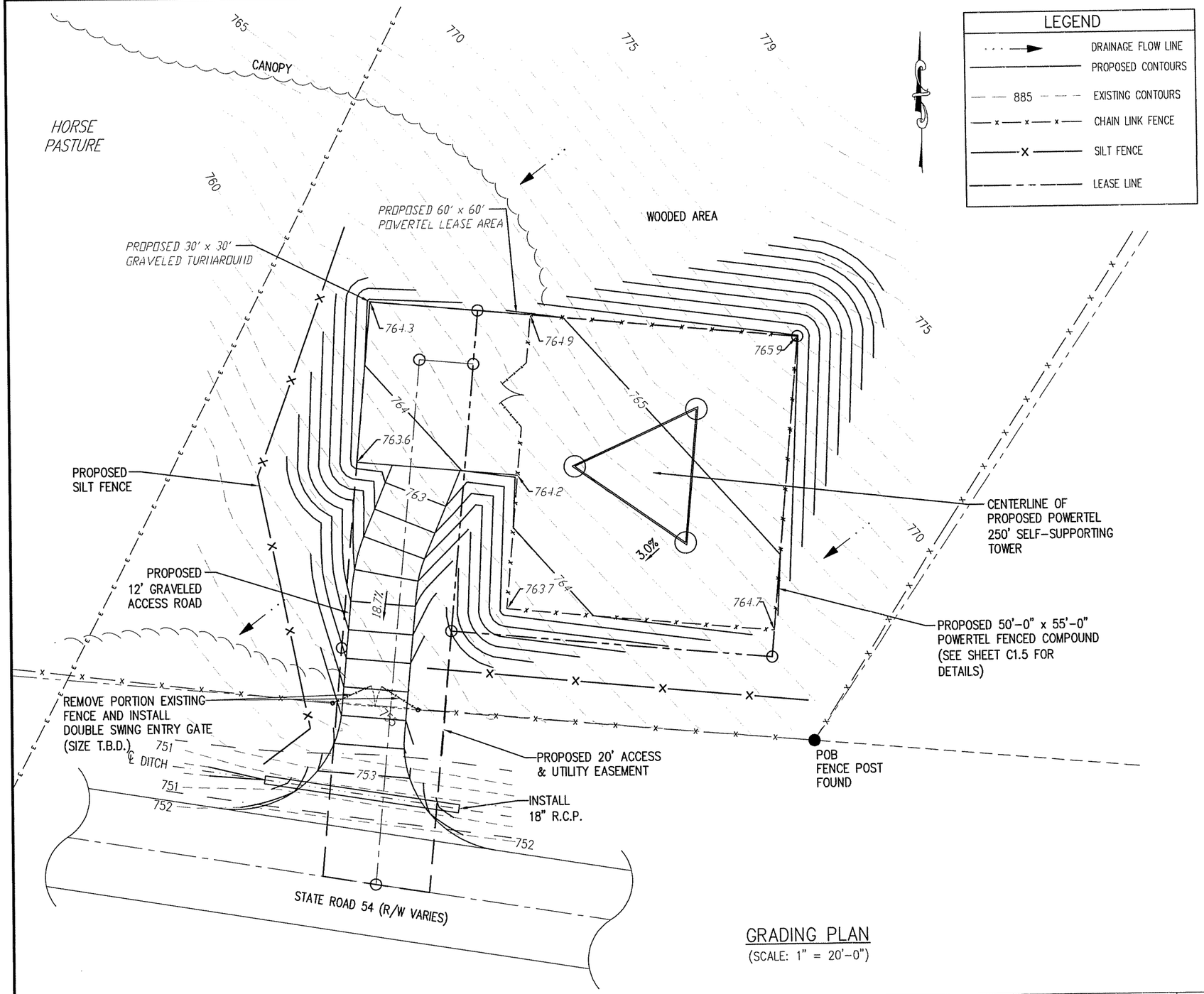
CHKD BY:
FSII

DATE:
10.27.08

FSTAN PROJECT NO.:
08-5697

REVISIONS:

LEASE/ACCESS ESMT – 11.04.08



LEGEND

- DRAINAGE FLOW LINE
- PROPOSED CONTOURS
- 885 EXISTING CONTOURS
- CHAIN LINK FENCE
- SILT FENCE
- LEASE LINE

GRADING NOTES:

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH GRAYSON COUNTY REGULATIONS
2. CONTRACTOR IS RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL TREES AND OBSTRUCTIONS INSIDE THE LEASE AREA AND ACCESS EASEMENT.
3. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS, AND WATERWAYS. USE SILT FENCE WHERE REQUIRED.
4. CONTRACTOR AND/OR DEVELOPER ARE RESPONSIBLE FOR PROVIDING SITE FREE OF DRAINAGE PROBLEMS.
5. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING A PROPER TRAFFIC CONTROL PLAN FOR PUBLIC SAFETY ADJACENT TO CONSTRUCTION SITE. THE TRAFFIC PLAN MUST BE IN ACCORDANCE WITH THE LATEST (KYTCD) EDITION.
6. CONTRACTOR SHALL GRADE SITE LEVEL AND SHALL MAINTAIN A MINIMUM OF 2 TO 1 SLOPE RUNOFF IMMEDIATE SITE AREA.
7. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES FOR CONSTRUCTION TO PREVENT THE DIVERSION OF SEDIMENT LADEN STORM WATER RUNOFF OR ERODED MATERIALS FROM LEAVING THE CONSTRUCTION SITE.
8. CONTRACTOR SHALL CLEAR ENTIRE ACCESS AND UTILITY EASEMENT OF OBSTRUCTIONS AS FIRST ORDER OF CONSTRUCTION TO ALLOW FOR INSTALLATION OF POWER BY POWER COMPANY. CONTRACTOR TO CONTACT POWER COMPANY SO THEY CAN BEGIN INSTALLATION OF POWER LINE ONCE EASEMENT IS CLEARED.

GRADING PLAN

(SCALE: 1" = 20'-0")

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISION	BY	CHK. BY	DATE
1	REVISED SITE ADDRESS	J.S.	T.H.	1-06-09

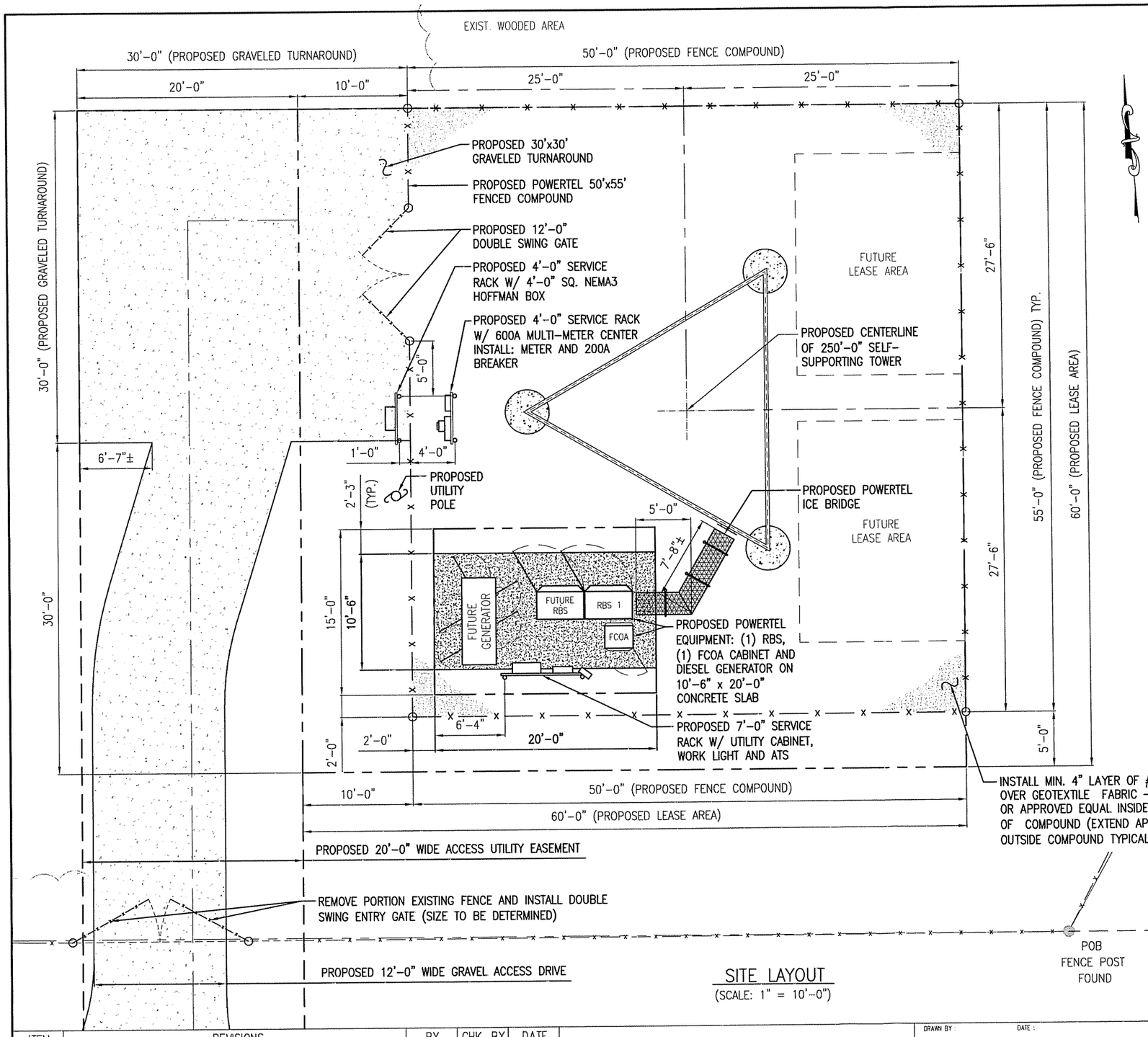
DRAWN BY: A. KIRK — DATE: 12-18-08
CHECKED BY: T.L. HARDY — DATE: 12-18-08
APPROVED BY: — DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

SITE GRADING PLAN

9LV1124A SITE: SHORT CREEK
FALLS OF ROUGH, KENTUCKY 1
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C0 | SCALE: AS SHOWN | DWG No. C0



SITE LAYOUT
(SCALE: 1" = 10'-0")

NOTES:

1. BOUNDARY AND EXISTING SITE FEATURES ARE BASED ON FIELD MEASUREMENTS. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THIS DRAWING.
2. CONTRACTOR SHALL FURNISH ALL MATERIALS FOR 600 AMP SERVICE.
3. GROUNDING OF ANTENNAS MOUNTS, COAX, AND EQUIPMENT SHALL BE IN ACCORDANCE WITH POWERTEL'S SPECIFICATIONS. COAX SHALL BE GROUNDED JUST BELOW ANTENNAS, AT MID-ELEVATION, AND AT BOTTOM OF TOWER.
4. SITE TO BE RESTORED BACK TO **SITE OWNER'S** SPECS.
5. ANY MATERIALS STORED ON SITE SHALL BE STORED IN CLOSED OR COVERED CONTAINERS AND ALL EXCESS WASTE MATERIALS WILL BE PROPERLY DISPOSED OF DAILY AND ALL SOILS REMOVED FROM SITE. NOTE **NO** BURNING ON SITE AT ANYTIME. ACCESS TO OTHER CUSTOMERS ON SITE MUST BE KEPT CLEAR.
6. ALL HARDWARE TO BE STAINLESS STEEL, **NO PLATED METAL TO BE USED.**
7. NO CULVERTS SHALL BE INSTALLED.
8. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR CONSTRUCTION & MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION FOR PROTECTION OF ADJACENT PROPERTIES, ROADWAYS, AND WATERWAYS. SILT FENCE SHOULD BE INSTALLED AROUND WORK AREA TO STOP DAMAGE TO OTHER CUSTOMER'S EQUIPMENT.
9. CONTRACTOR AND/OR DEVELOPER ARE RESPONSIBLE FOR PROVIDING SITE FREE OF DRAINAGE PROBLEMS.
10. CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING A PROPER TRAFFIC CONTROL PLAN FOR PUBLIC SAFETY ADJACENT TO CONSTRUCTION SITE. THE TRAFFIC CONTROL PLAN MUST BE IN ACCORDANCE WITH LATEST (AMUTCO) EDITION. CONTRACTOR IS TO ADHERE TO ALL SAFETY GUIDELINES, AND **OSHA** SPECS WHILE ON WORK SITE.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

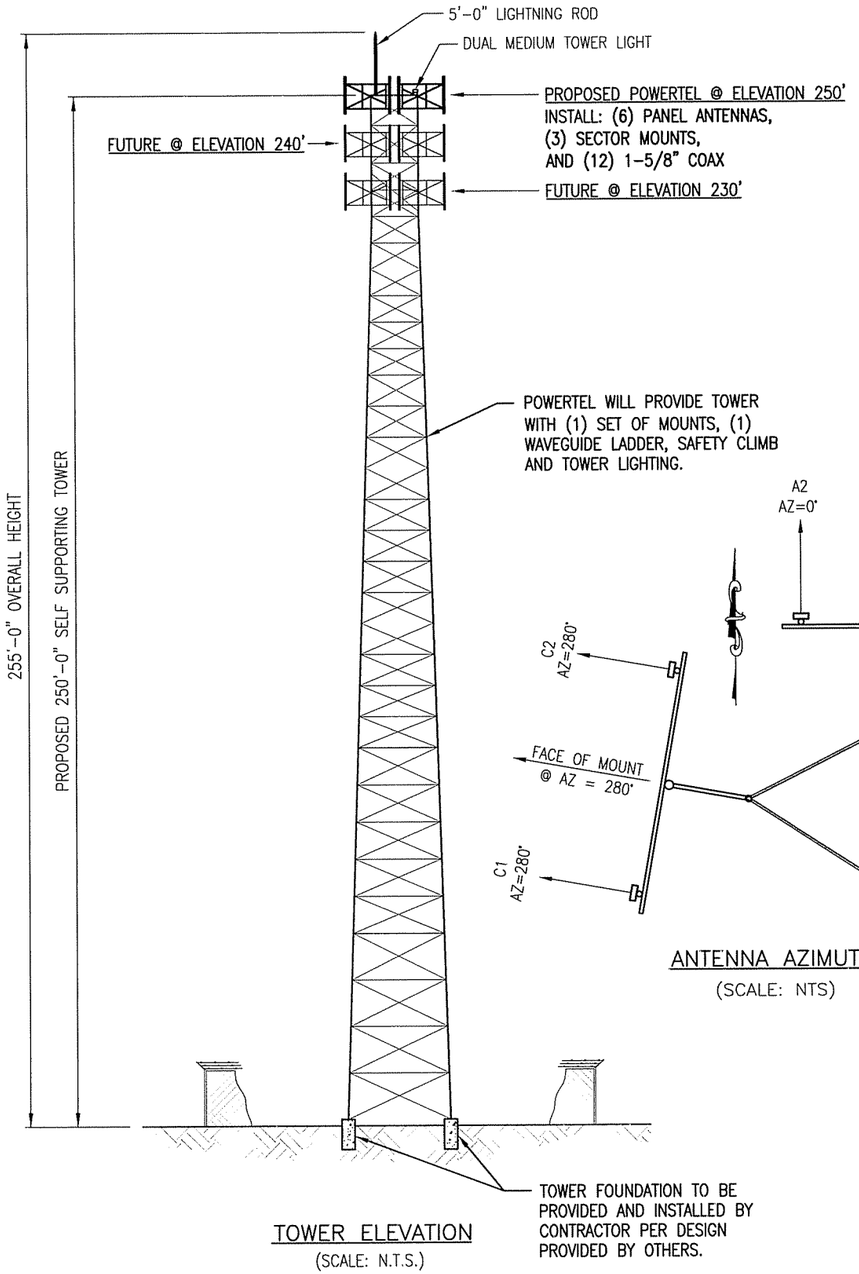
ITEM	REVISIONS	BY	CHK. BY	DATE
1	REVISED SITE ADDRESS	J.S.	T.H.	1-06-09

DRAWN BY: C.E. PERSONS — DATE: 12-18-08
CHECKED BY: T.L. HARDY — DATE: 12-19-08
APPROVED BY: — DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

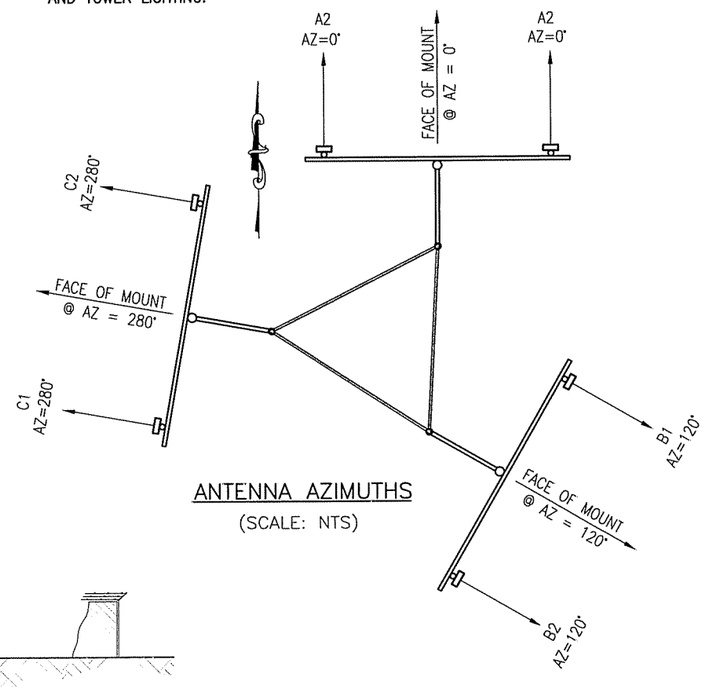
DWG NAME: SITE LAYOUT
9LV1124A SITE: SHORT CREEK
FALLS OF ROUGH, KENTUCKY 1
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C1 | SCALE: AS SHOWN | DWG. No. C1



TOWER ELEVATION

(SCALE: N.T.S.)



ANTENNA AZIMUTHS

(SCALE: NTS)

ANTENNA AND COAX SCHEDULE

ANTENNA MARK	SECTOR	ANTENNA (1)	COAX FEED LOCATION	AZIMUTH (0° = NORTH)	COAX COLOR CODE	COAX CABLE SIZE	MECHANICAL DOWN TILT (2)	ELECTRICAL DOWN TILT	RADIATION CENTER
A1	A	TMBX-6517-R2M	BOTTOM	0°	TX/RX - RED-GRAY TX/RX - RED	(4) 1 5/8"ø	0°	2°	250'
A2	A	TMBX-6517-R2M	BOTTOM	0°	TX/RX - RED-RED TX/RX - RED-RED-GRAY		0°	2°	250'
A3									
B1	B	TMBX-6517-R2M	BOTTOM	120°	TX/RX - BLUE-GRAY TX/RX - BLUE	(4) 1 5/8"ø	0°	2°	250'
B2	B	TMBX-6517-R2M	BOTTOM	120°	TX/RX - BLUE-BLUE TX/RX - BLUE-BLUE-GRAY		0°	2°	250'
B3									
C1	C	TMBX-6517-R2M	BOTTOM	280°	TX/RX - GREEN-GRAY TX/RX - GREEN	(4) 1 5/8"ø	0°	2°	250'
C2	C	TMBX-6517-R2M	BOTTOM	280°	TX/RX - GREEN-GREEN TX/RX - GREEN-GREEN-GRAY		0°	2°	250'
C3									

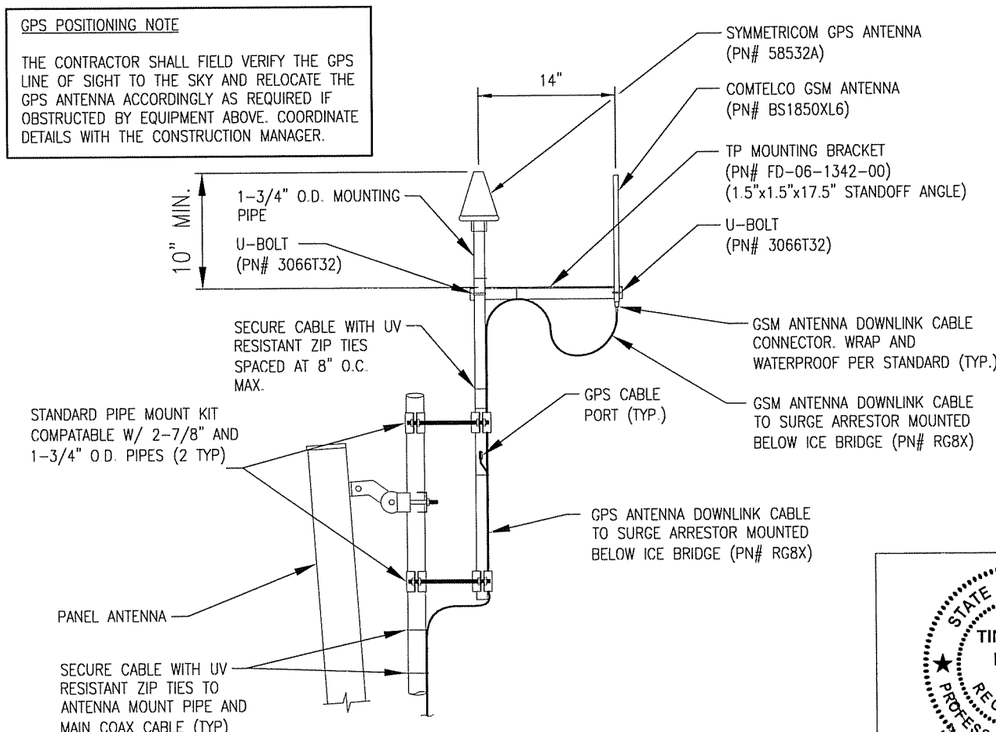
(1) FINAL ANTENNA TYPE TO BE DETERMINED BY POWERTEL, ANTENNAS TO BE PROVIDED BY POWERTEL AND INSTALLED BY CONTRACTOR.

(2) ALL ANTENNAS TO BE INSTALLED WITH DOWNTILT BRACKETS.

(3) POWERTEL RESERVED LOADING: (6) ANTENNAS (AS SHOWN OR EQUIVALENT), (12) 1-5/8" COAX, (6) TMA'S

GPS POSITIONING NOTE

THE CONTRACTOR SHALL FIELD VERIFY THE GPS LINE OF SIGHT TO THE SKY AND RELOCATE THE GPS ANTENNA ACCORDINGLY AS REQUIRED IF OBSTRUCTED BY EQUIPMENT ABOVE. COORDINATE DETAILS WITH THE CONSTRUCTION MANAGER.



GPS/GSM MOUNTING DETAIL AT ANTENNA RAD. CENTER

(SCALE: N.T.S.)

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE
1	REVISED SITE ADDRESS	J.S.	T.H.	1-06-09

DRAWN BY: C.E. PERSONS — DATE: 12-18-08
CHECKED BY: T.L. HARDY — DATE: 12-19-08
APPROVED BY: — DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

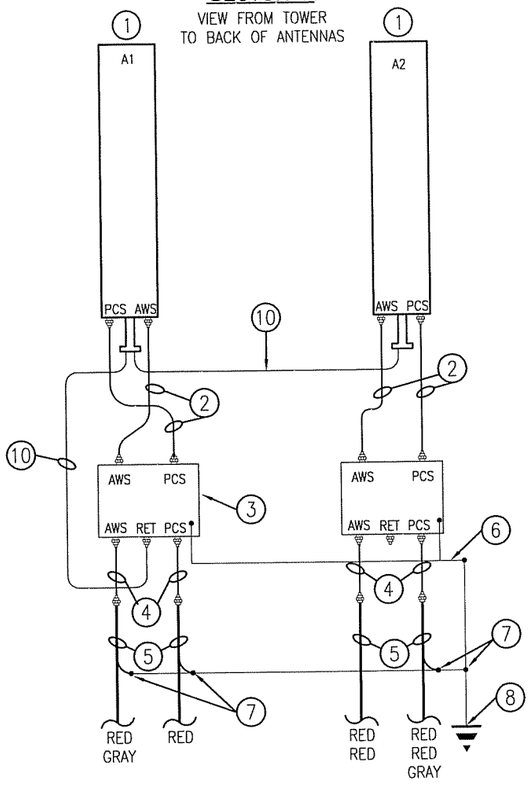
DWG NAME: TOWER ELEVATION
9LV1124A SITE: SHORT CREEK
FALLS OF ROUGH, KENTUCKY (1)
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C2 | SCALE: AS SHOWN | DWG No: C2

REVISED 12-01-2008

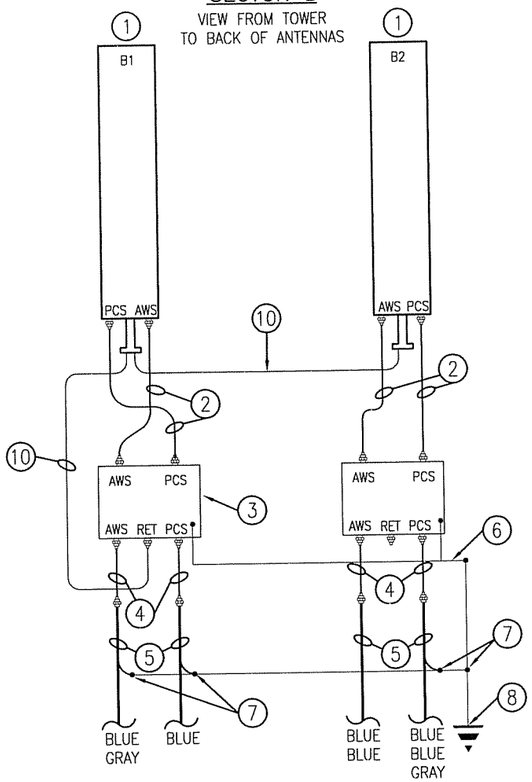
SECTOR A

VIEW FROM TOWER TO BACK OF ANTENNAS



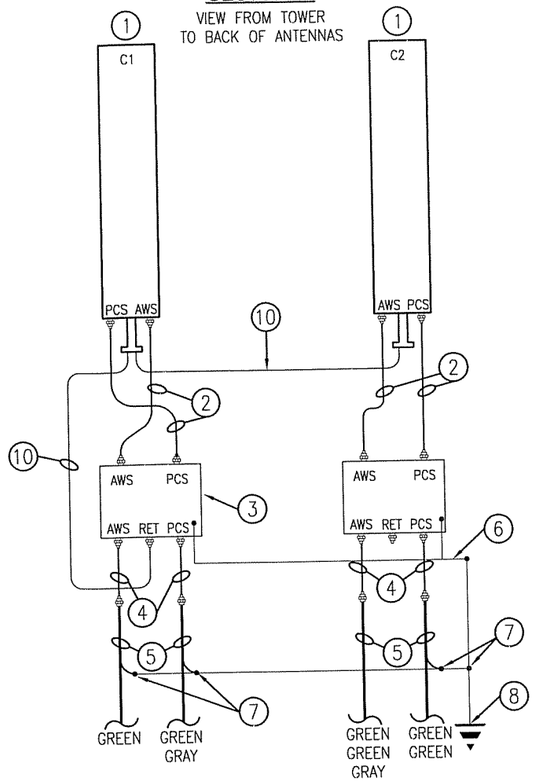
SECTOR B

VIEW FROM TOWER TO BACK OF ANTENNAS



SECTOR C

VIEW FROM TOWER TO BACK OF ANTENNAS

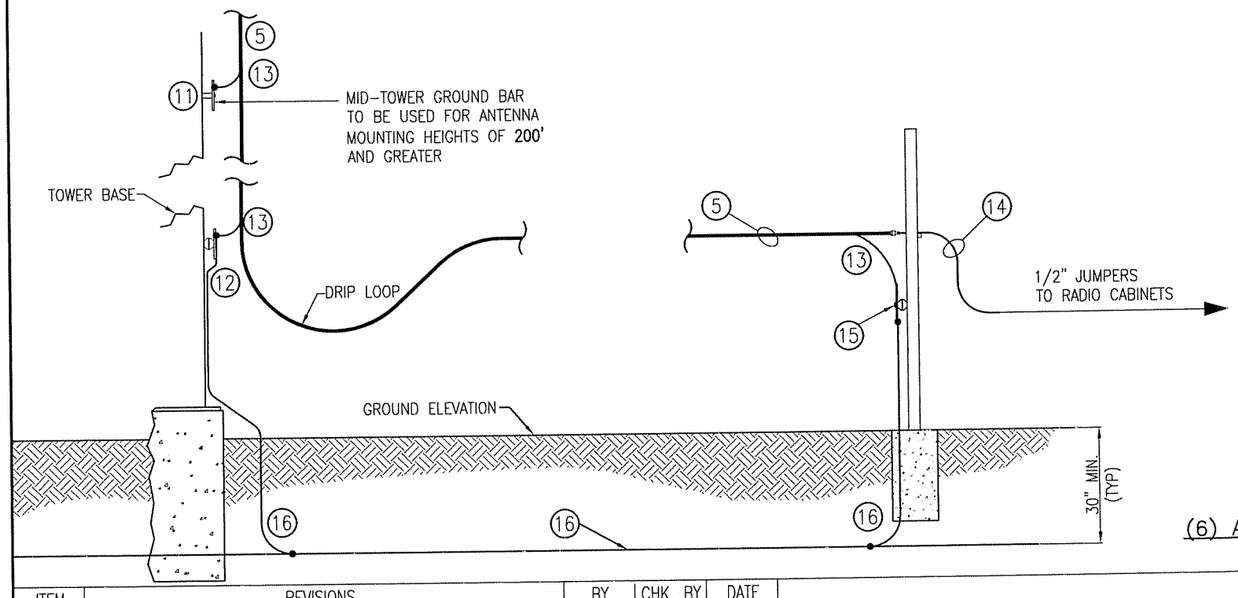


MATERIAL LIST

1. PANEL ANTENNA
2. JUMPER, 1/2"ø x 10'
3. TMA
4. JUMPER, 1/2"ø x 6'
5. COAX, 7/8"ø OR 1 5/8"ø
6. TMA GROUND, #6 THW INSULATED GROUND WIRE
7. COAX GROUND KIT
8. 4" x 14" x 1/4" GROUND BAR MOUNTED TO TOWER
9. (NOT USED)
10. AIS6 CABLE PART NO. ATCB-B01-010
11. GROUND BAR MOUNTED TO TOWER
12. GROUND BAR MOUNTED ON CHERRY INSULATORS
13. COAX GROUND KIT
14. JUMPER, 1/2"ø x 12'
15. GROUND TERMINATION BAR ON CHERRY INSULATORS
16. #2 Cu SOLID TINNED GROUND WIRE

NOTES:

1. FOR EVERYTHING ABOVE THE TOWER BOTTOM BUSS BAR USE SINGLE HOLE LUG WITH HEAT SHRINK ON ANTENNA, TMA, TMA FILTER & 2 HOLE LUG WITH HEAT SHRINK ON BUSS BAR END OF GROUND WIRE.
2. ALL GROUND CONNECTIONS STARTING AT THE TOWER BOTTOM BUSS BAR AND DOWN ARE TO BE EXOTHERMIC WELD OR 2 HOLE CADWELD LUG.
3. NUMBER OF ANTENNAS AND LINES TO BE INSTALLED SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER.
4. GROUNDING OF ANTENNAS, MOUNTS, COAX, AND EQUIPMENT SHALL BE IN ACCORDANCE WITH T-MOBILE'S SPECIFICATIONS.



(6) ANTENNA AND (12) COAX GROUNDING DETAIL

(NOT TO SCALE)

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12/19/8

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE

DRAWN BY: C.E. PERSONS DATE: 12-18-08

CHECKED BY: T.L. HARDY DATE: 12-18-08

APPROVED BY: DATE:

HARDY ENGINEERING, INC.

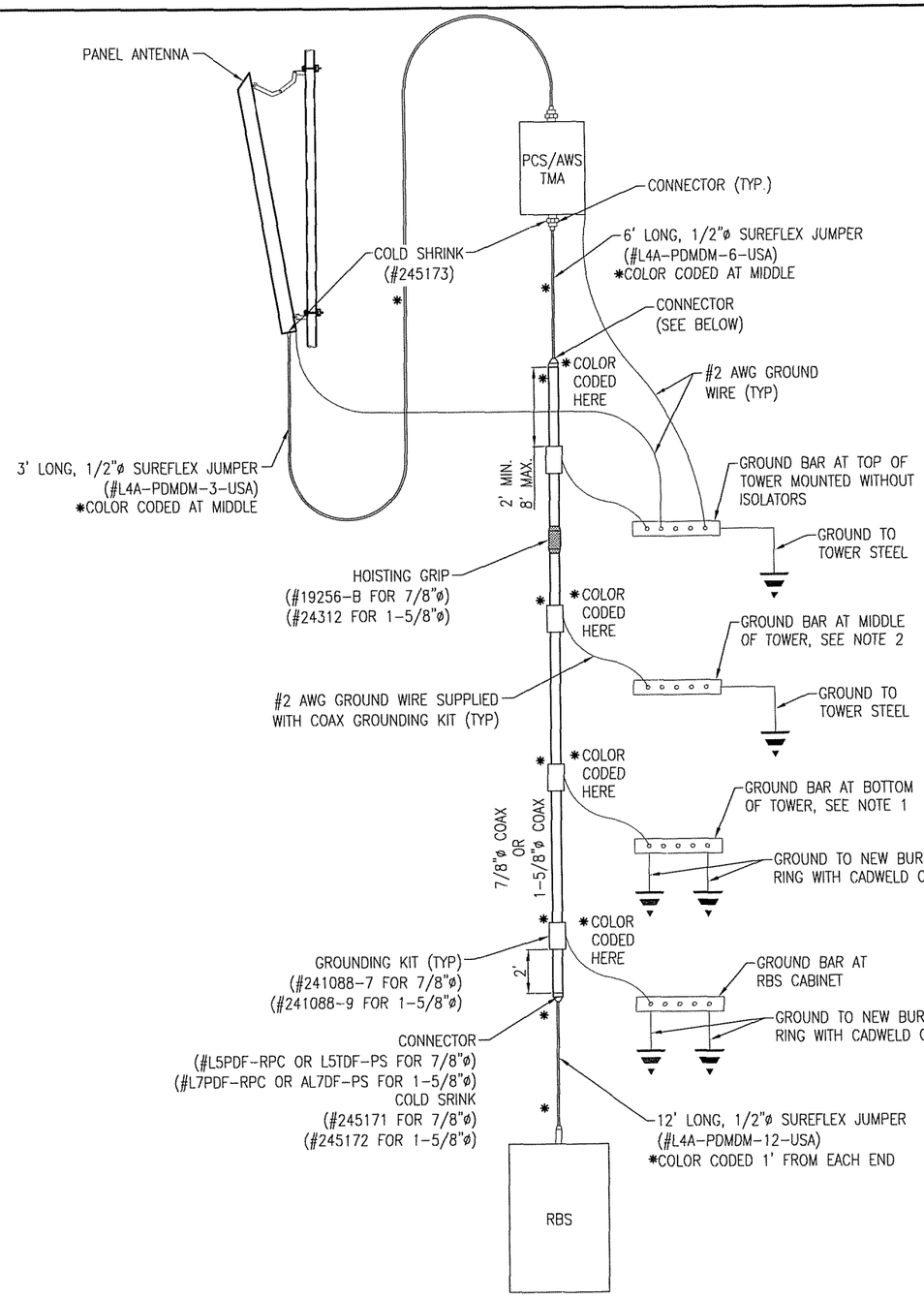
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG NAME: ANTENNA & COAX GROUNDING DETAIL

STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C3 | SCALE: AS SHOWN | DWG No: C3

REVISED 11-26-2008



ANTENNA CABLE GROUNDING SCHEMATIC

(NOT TO SCALE)

NOTES

1. ATTACH GROUND BAR TO THE EXISTING TOWER USING STANDARD ADAPTER (ISOLATORS).
2. ATTACH GROUND BAR TO THE EXISTING TOWER USING STANDARD ADAPTER (WITHOUT ISOLATORS). INSTALL ONLY WHEN RAD CENTERS EXCEEDS 200'. (SELF SUPPORT & GUYED TOWERS ONLY)

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12/19/08

REGISTERED PROFESSIONAL ENGINEER SEAL

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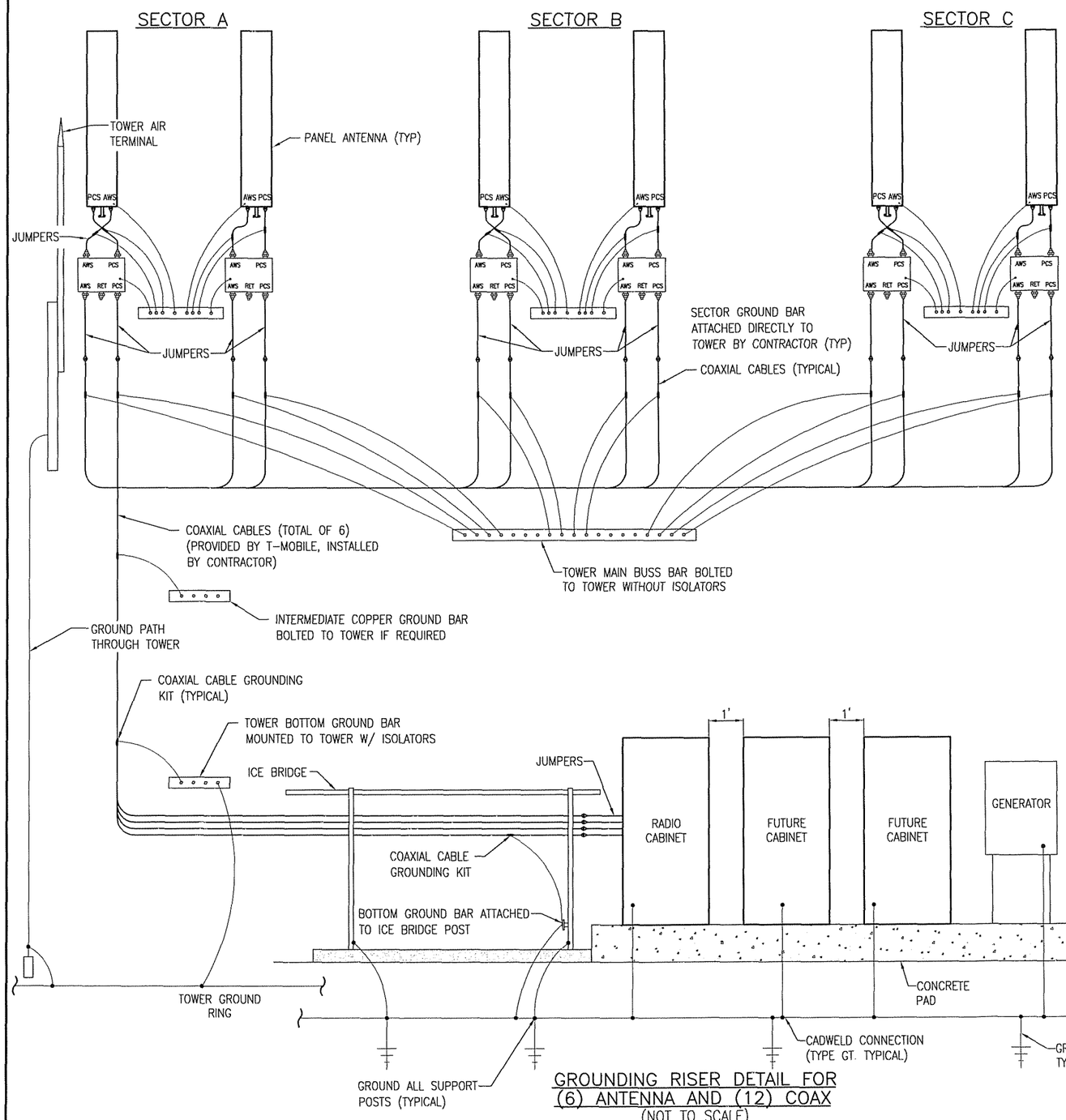
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

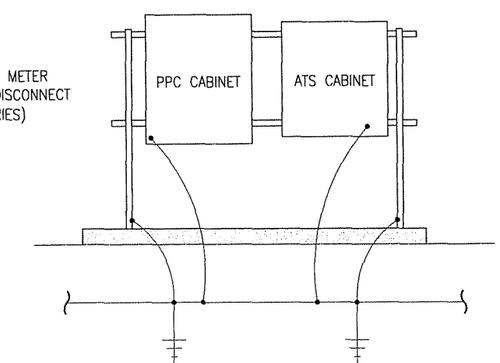
DWG NAME: COAX GROUNDING DETAIL
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No. LV1124_C3.1 | SCALE: AS SHOWN | DWG No C3.1

REVISED 11-26-2008



GROUNDING RISER DETAIL FOR (6) ANTENNA AND (12) COAX
(NOT TO SCALE)



GENERAL GROUNDING NOTES

1. SITE GROUNDING SHALL COMPLY WITH POWERTEL GROUNDING STANDARDS, LATEST ADDITION, AND COMPLY WITH POWERTEL GROUNDING CHECKLIST, LATEST VERSION. WHEN LOCAL AND NATIONAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN. GROUNDING SHALL BE COMPLETED BEFORE ERECTION OF TOWER.

2. GROUND RODS
   A. 5/8"x10' LONG COPPER CLAD STEEL.
   B. MAXIMUM SPACING 10'-0".
   C. TOP SHALL BE A MINIMUM OF 30" BELOW GRADE.

   GROUND CONNECTORS
   A. #2 AWG BARE TINNED SOLID COPPER UNLESS OTHERWISE NOTED.
   B. WHEN DIRECTION OF CONDUCTOR CHANGES, IT SHALL BE DONE GRADUALLY.
   C. ALL GROUNDING CONDUCTORS SHALL RUN THROUGH SEAL TIGHT SLEEVES WHEREVER CONDUCTORS RUN THROUGH CONCRETE SLABS.
   D. GROUND RINGS SHALL BE BURIED A MINIMUM OF 30" BELOW GRADE AND SHALL BE LOCATED A MINIMUM OF 24" FROM THE OUTSIDE EDGE OF A CABINET, TOWER FOUNDATION AND OTHER SITE OBJECTS.
   E. ALL CONNECTIONS SHALL BE EXOTHERMIC (CADWLD OR EQUAL) UNLESS INDICATED OTHERWISE. ALL MATERIALS USED SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS.
   F. CONNECTIONS AT GROUND BARS AND SERVICE DISCONNECTION MEANS SHALL CONSIST OF LUGS CADWELDED TO GROUND CONDUCTORS UNLESS INDICATED OTHERWISE. LUGS SHALL BE ATTACHED TO GROUND BARS USING STAINLESS STEEL OR HOT DIPPED GALVANIZED STEEL BOLTS, NUTS AND LOCK WASHERS.

   COAXIAL TRANSMISSION LINE GROUNDING
   A. VERTICAL RUNS THAT ARE MORE THAN 200' OR LESS SHALL REQUIRE A GROUNDING KIT AT THE TOP AND BOTTOM OF THE TOWER.
   B. VERTICAL RUNS WHICH ARE GREATER THAN 200' SHALL REQUIRE A GROUNDING KIT (IN ADDITION TO THE ABOVE) FROM THE TOP EVERY 150' TOWARDS THE GROUND BAR UNTIL THE DISTANCE IS LESS THAN 150' FROM THE GROUND.
   C. SURGE ARRESTOR IS PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL MAKE ALL CONNECTIONS REQUIRED FOR INSTALLATION.
   D. ALL GROUNDING KITS SHALL BE PROVIDED BY OTHERS AND INSTALLED BY CONTRACTOR.

   MISC. ITEMS TO BE CONNECTED TO GROUNDING SYSTEM
   A. ANY METAL FENCE POST WITHIN 6'-0" OF GROUND ROAD.
   B. TRANSMISSION LINE ENTRANCE HATCH.
   C. METAL CABINET PARTS NOT GROUNDED BY THE INTERNAL GROUND RING.
   D. METAL FUEL STORAGE TANKS.
   E. ANY SIGNIFICANT METAL OBJECT WITHIN 6'-0" OF THE GROUNDING SYSTEM OR ANY OTHER GROUNDED OBJECT.
   F. EXTERIOR ICE SHIELDS.
   G. STEEL EQUIPMENT PLATFORM.

   INSTALLATION AND TESTING
   A. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER IMMEDIATELY IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO FIELD CONDITIONS.
   B. CONTRACTOR SHALL NOT COVER UP GROUND RING AND CONNECTIONS UNTIL AN INSPECTION HAS BEEN PERFORMED. COORDINATE INSPECTION WITH CONSTRUCTION MANAGER.
   C. PROVIDE TESTING OF GROUNDING SYSTEM AS DIRECTED BY THE CONSTRUCTION MANAGER.

   THE MAXIMUM ALLOWABLE RESISTANCE READING SHALL BE 5 OHMS TO THE GROUND. IF THE RESISTANCE OF THE ENTIRE GROUND SYSTEM AS MEASURED AT THE MAIN GROUND TEST WELL EXCEEDS 5.0 OHMS THE ELECTRICAL CONTRACTOR AND OWNERS REPRESENTATIVE SHALL BE NOTIFIED SO THAT ADDITIONAL GROUND LOCATIONS CAN BE UTILIZED.

   ALL EXPOSED GROUND LEADS TO GROUND RING, PLACED IN CONCRETE, SHALL BE ENCASED IN 3/4" FLEXIBLE CONDUIT, SEALTIGHT OR EQUAL.

   ALL GROUND WIRE CONNECTIONS TO EQUIPMENT GROUND RING THAT ARE RUNNING ABOVE GROUND SHALL BE RUN INSIDE SEALTIGHT FLEX CONDUIT.

   ALL CONNECTIONS ABOVE GROUND EXCEPT CONNECTIONS TO GROUND BARS OR ARRESTOR BRACKET SHALL BE WITH DOUBLE LUG CONNECTORS. CONNECTIONS TO GROUND BARS AND ARRESTORS SHALL BE CADWELD.

   ALL GROUNDING RUNS ON TOWER SHALL BE ROUTED ON THE INSIDE FACE OF THE ICE BRIDGE LADDER.

   COMPACT BACKFILL OF ALL TRENCHES FOR GROUND RING. SITE SOIL OR #57 STONE MAY BE USED FOR BACKFILL MATERIALS. CONTRACTOR SHALL OBTAIN APPROVAL FOR BACKFILL MATERIALS FROM CONSTRUCTION MANAGER.

   CONTRACTOR SHALL PROVIDE SS FLAT AND LOCK WASHERS AS REQUIRED FOR COMPLETE INSTALLATION OF GROUND LEADS AT GROUND BUSS.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER
12/19/8
REGISTERED PROFESSIONAL ENGINEER SEAL

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CHECKED BY: T.L. HARDY — DATE: 12-18-08
APPROVED BY: — DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

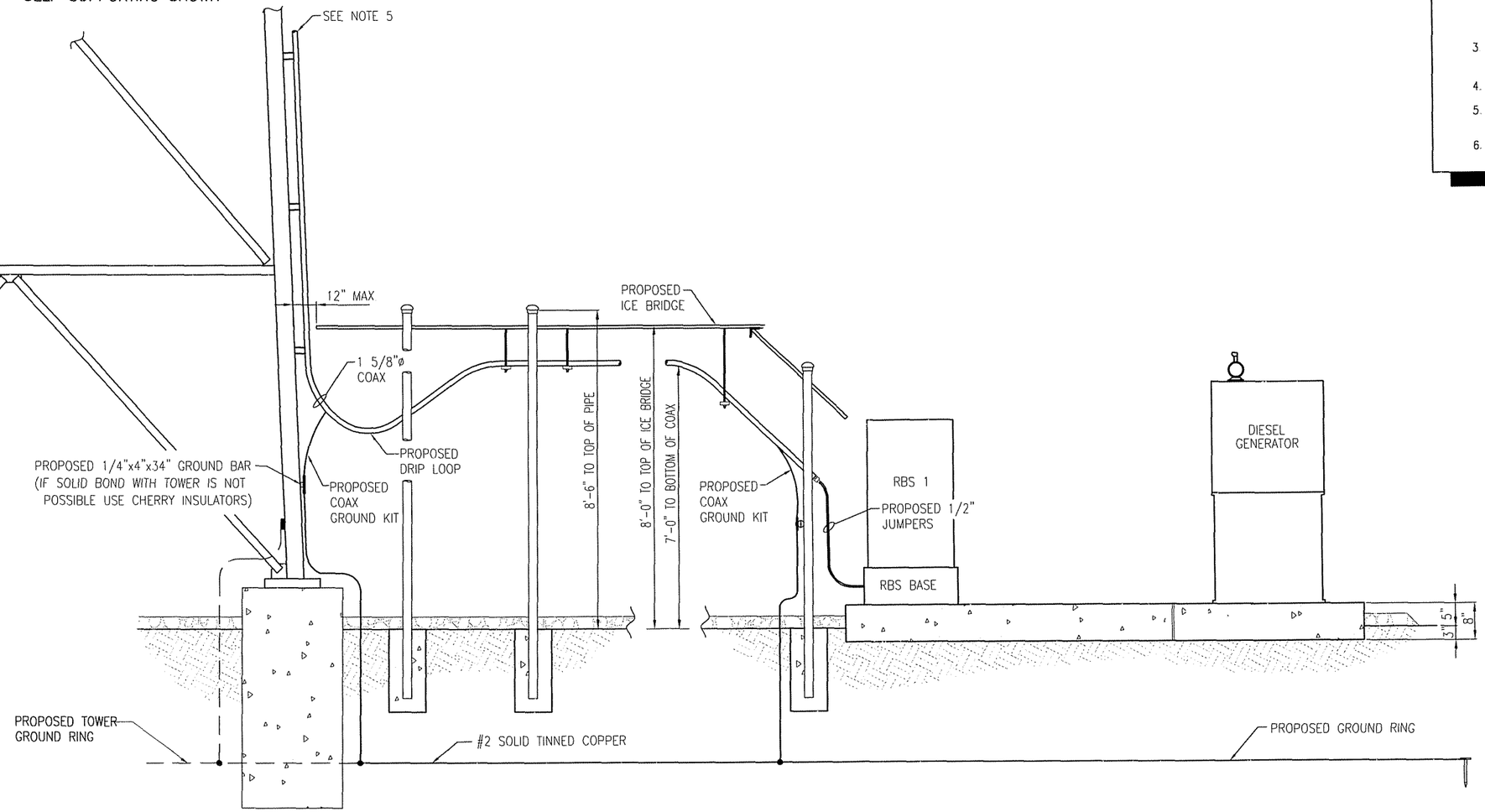
DWG NAME: GROUNDING RISER DIAGRAM
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C3.2 | SCALE: NOT TO SCALE | DWG No: C3.2

NOTES

1. ALL CONDUIT SHALL BE PVC CONDUIT UNLESS OTHERWISE NOTED.
2. ALL CONDUIT PENETRATING EQUIPMENT PANELS SHALL BE SECURED WITH A GROUNDING BUSHING AND GROUNDED TO EQUIPMENT GROUND BUSS WITH A GROUND LUG.
3. ALL CONDUITS TO BE SECURED WITH CONDUIT BEAM CLAMP O-Z / GEDNEY TYPE "J".
4. PROVIDE A SMOOTH TRANSITION AND DRIP LOOP.
5. ANTENNA END OF 1 5/8"ø COAX SHALL BE SUPPORTED NO MORE THAN 1 FOOT FROM END OF CONNECTOR.
6. 1/2"ø COAX SHALL BE SUPPORTED EVERY 2'-0" TO 2'-6" WITH ANGLE ADAPTORS WITH CLAMP OR EQUIVALENT.

SELF SUPPORTING SHOWN



EQUIPMENT ELEVATION

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

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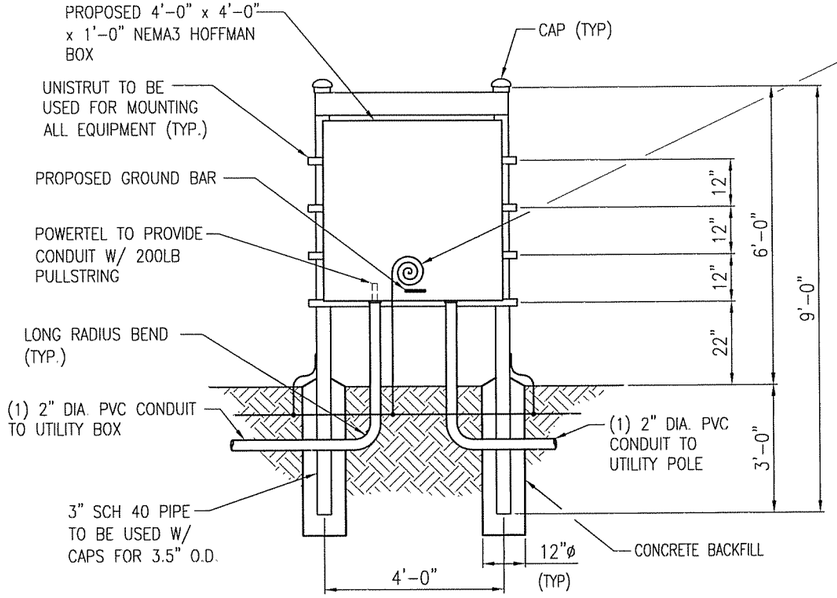
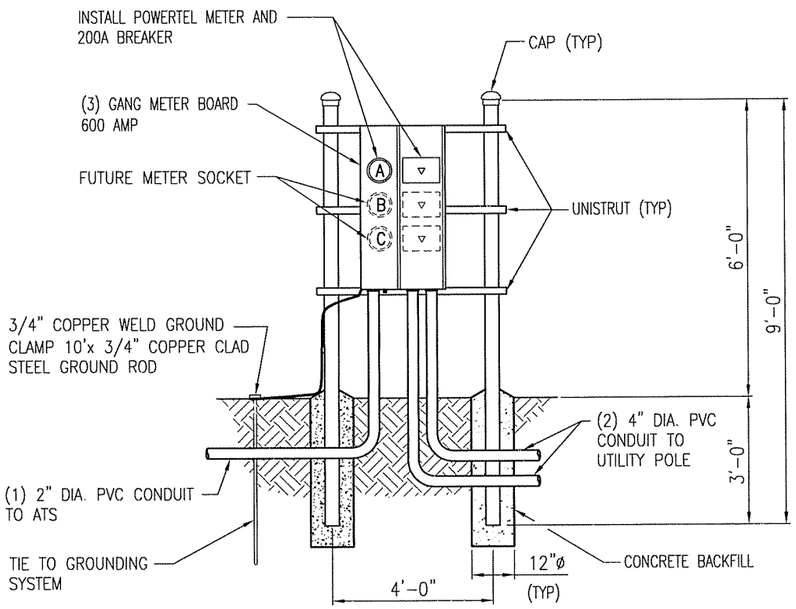
HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG. NAME: EQUIPMENT ELEVATION
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY
CAD No: LV1124C4 | SCALE: NOT TO SCALE | DWG No: C4



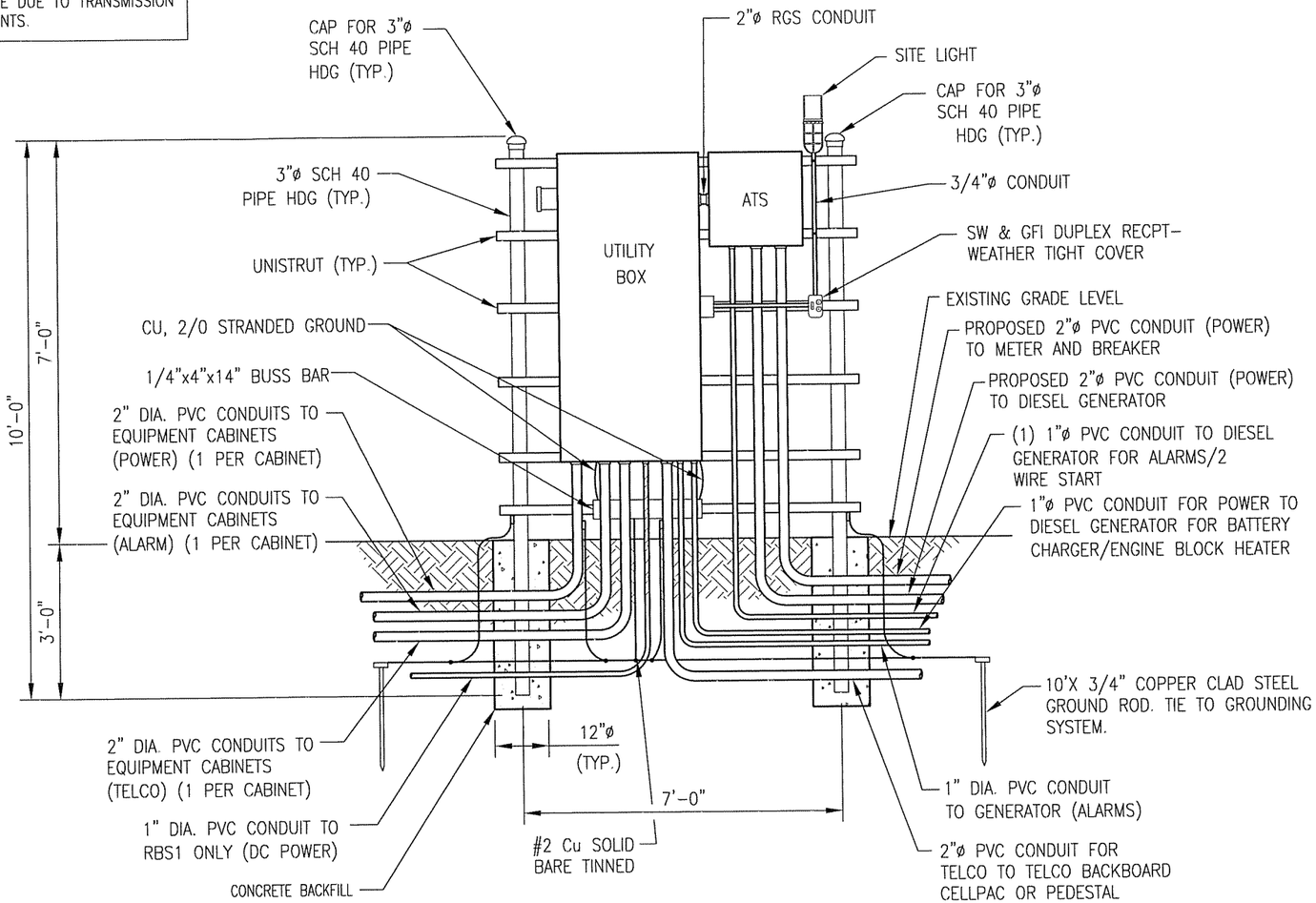
#6 AWG GROUND WIRE (6'-0") WILL BE PLACED & CAD WELDED TO THE GROUND BED OF THE SITE. A GROUND ROD WILL NOT BE ACCEPTABLE DUE TO TRANSMISSION REQUIREMENTS.

(FACING FENCE)



MULTI-TENNANT RACK

(SCALE: N.T.S.)



UTILITY BOX & ATS SERVICE RACK

SCALE: N.T.S.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

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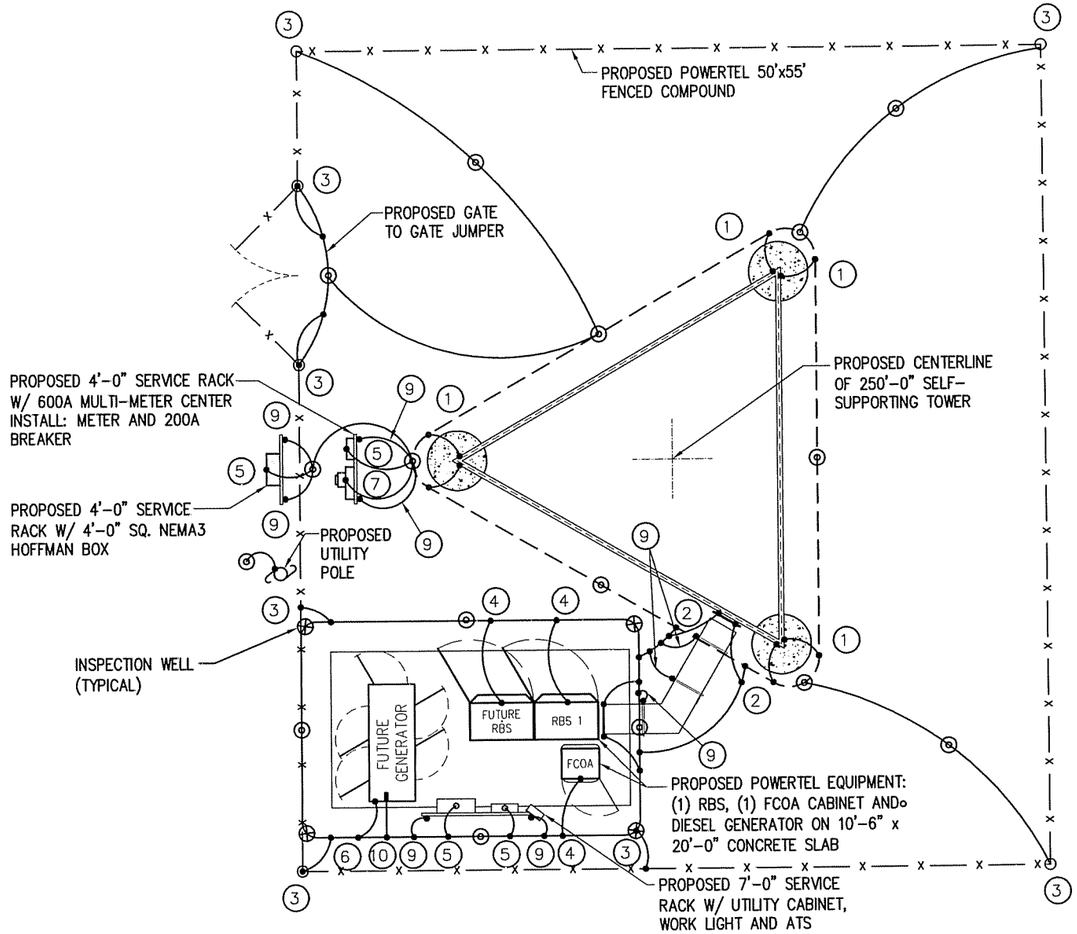
ENGINEERING AND CONSULTING
209 LINDEN STREET
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG NAME: ELECTRICAL DETAILS
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C5 | SCALE: AS SHOWN | DWG No. C5

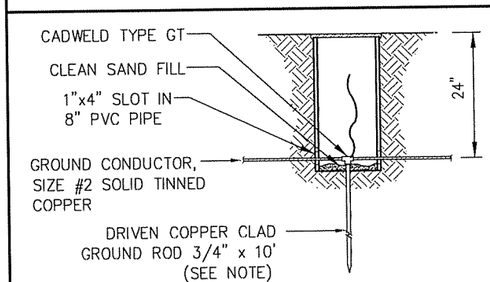


GROUNDING LAYOUT

(SCALE: 1" = 10'-0")

GENERAL NOTES:

1. GROUND RING TO EARTH SHALL BE 5 OHMS OR LESS. ADDITIONAL GROUND RODS MAY HAVE TO BE ADDED TO THE INITIAL 3/4"x10' RODS. USE TEMPORARY BOLTED CONNECTION TO ROD AND PERFORM GROUND RESISTANCE TEST.
2. ALL GROUNDING CONDUCTOR SWEEPS SHALL BE SMOOTH WITH NO SHARP BENDS (8" MIN. BEND RADIUS). SWEEPS SHALL BE CAD-WELDED TO GROUND RING WITH PARALLEL CADWELD.
3. ALL CADWELDS TO BURIED GROUND RING SHALL BE OF PARALLEL TYPE. NO "TEE" CONNECTIONS TO BE USED.
4. USE DE-OX OR NOALOX COMPOUND BETWEEN ALL GROUNDING LUG CONNECTIONS. DO NOT COVER LUGS OR HARDWARE WITH COMPOUND.
5. ALL MOUNTING & CONNECTING HARDWARE FOR GROUNDING TO BE STAINLESS STEEL ONLY, NO PLATED OR GALVANIZED HARDWARE IS TO BE USED.
6. GROUNDING CONDUCTORS TO BE BURIED A MINIMUM OF 30" DEEP UNLESS OTHERWISE SPECIFIED BY LOCAL CODE.
7. ALL GROUNDING CONDUCTORS TO BE BARE STRANDED, SOFT DRAWN COPPER UNLESS OTHERWISE SPECIFIED.
8. USE ONLY 2-HOLE CADWELD LUGS ON ENDS OF GROUNDING CONDUCTORS. DO NOT USE COMPRESSION OR MECHANICAL TYPE LUGS.



INSPECTION WELL DETAIL

VERIFY WITH PROJECT MANAGER FOR NUMBER AND LOCATIONS

CALL-OUT NOTES:

1. PROPOSED TOWER STRUCTURE GROUND RING.
2. CONNECT PROPOSED TOWER RING GROUND TO EQUIPMENT RING GROUND ON BOTH SIDES. KEEP INTERCONNECTING WIRING OF EQUAL LENGTH AND TYPE.
3. FENCE GROUND
4. RBS GROUND, TYP. 2 PLACES, MAIN RBS AND FUTURE. INSTALL: CONTRACTOR TO SUPPLY AND INSTALL LUG IN RBS (2102) AND ATTACH TO #2 STRAND COPPER TYPE THHN (GREEN) WIRE TO CONNECT RBS TO EXTERNAL GROUND RING. REMOVE INSULATION BELOW GRADE.
5. ELECTRICAL AND TELCO EQUIPMENT BUSS BARS.
6. REMOVE PAINT FROM SURFACE OF GENERATOR FRAME BEFORE ATTACHING GROUND CONNECTION. USE DE-OX COMPOUND BETWEEN FRAME AND LUG. AFTER TIGHTENING CONNECTION COVER AREA WITH SPRAY ZINC OR COLD GALVANIZING COMPOUND.
7. NEUTRAL – GROUND BOND AT SERVICE DISCONNECT.
8. MINIMUM SPACING OF EQUIPMENT GROUNDING FROM EQUIPMENT FOUNDATION, 24 INCHES MIN.
9. ICE BRIDGE & SERVICE BOARD POST GROUND, EACH POST TYP.
10. FUEL TANK GROUND

LEGEND

- TOWER GROUND RING
- #2 SOLID TINNED COPPER GROUND CONDUCTOR UNLESS OTHERWISE SPECIFIED.
- EXOTHERMIC WELD CONNECTION
- 3/4" x 10' COPPER CLAD STEEL GROUND ROD UNLESS OTHERWISE SPECIFIED.
- #2 SOLID TINNED COPPER FROM EQUIPMENT OR STEEL TO GROUND RING UNLESS OTHERWISE SPECIFIED

PORTIONS OF SITE LAYOUT HAVE BEEN REMOVED FOR CLARITY. REFER TO SHEET C1 FOR COMPLETE SITE LAYOUT

NOTE: CONTRACTOR TO VERIFY ALL PROPOSED UTILITIES BEFORE DIGGING

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED
PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE
1	REVISED SITE ADDRESS	J.S.	T.H.	1-06-09

DRAWN BY: C.E. PERSONS DATE: 12-18-08
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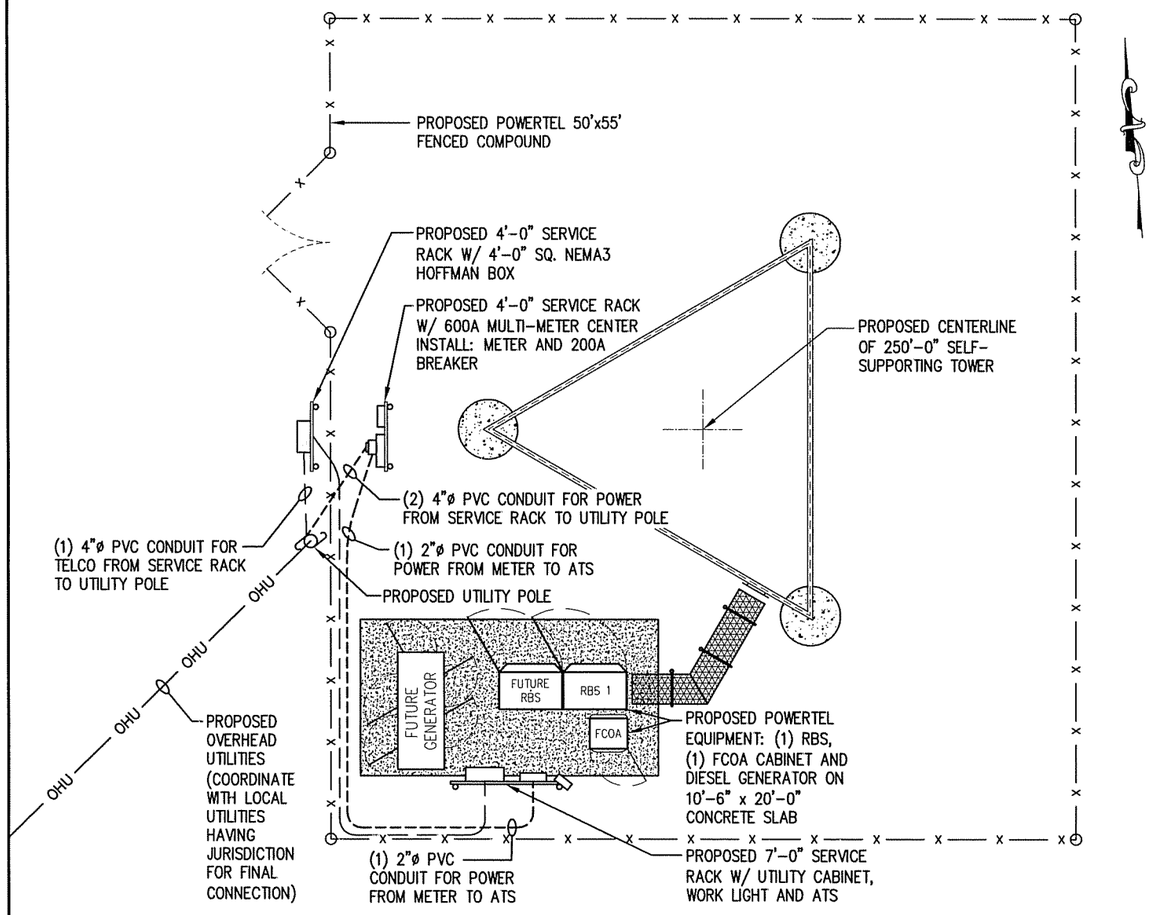
ENGINEERING AND CONSULTING
209 LINDEN STREET
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG NAME: GROUNDING LAYOUT
9LV1124A SITE: SHORT CREEK
FALLS OF ROUGH, KENTUCKY 1
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

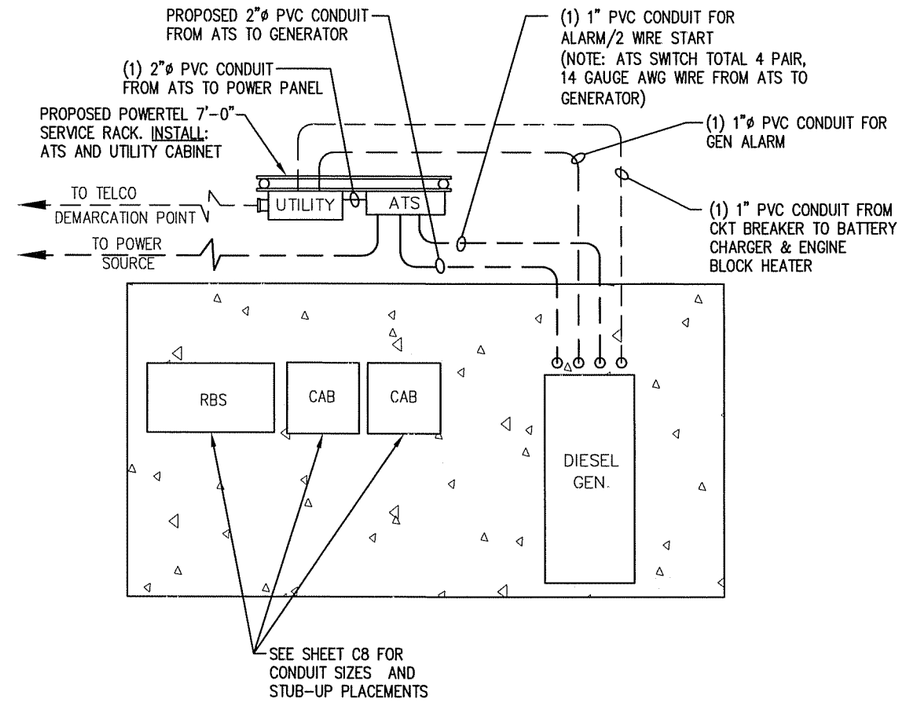
CAD No: LV1124_C6 | SCALE: AS SHOWN | DWG No: C6



ELECTRICAL CONDUIT LAYOUT
(SCALE: 1" = 10'-0")

NOTES:

1. THIS INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES AND ORDINANCES. SEE LOCAL AUTHORITIES FOR ANY REQUIREMENTS BEYOND THESE LISTED.
2. CONTRACTOR SHALL PROVIDE ALL MATERIALS NECESSARY FOR 200 AMP SERVICE.
3. THE LOCAL UTILITY WILL MAKE THE SERVICE CONNECTIONS.
4. CONTRACTOR TO INSTALL 8 PAIR, 24 GAUGE, (16 WIRES) FOR ALARMS.



CONDUIT LAYOUT DETAIL
(N.T.S.)

NOTE: CONTRACTOR TO VERIFY ALL EXISTING UTILITIES BEFORE DIGGING

NOTE:
BOUNDARY AND SITE FEATURES ARE BASED ON FIELD MEASUREMENTS. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THIS DRAWING.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

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ITEM	REVISIONS	BY	CHK. BY	DATE
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TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG. NAME: ELECTRICAL CONDUIT LAYOUT
9LV1124A SITE: SHORT CREEK
FALLS OF ROUGH, KENTUCKY (1)
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C7 | SCALE: AS SHOWN | DWG. No: C7

PANEL MOUNTING
200 AMP MAIN BREAKER 10 KAIC

PANEL PNL

200 AMP BUS
120 / 240 VOLT 1 PHASE 3 WIRE

CIRCUIT NUMBER	DIRECTORY	VA ØA	VA ØB	DEVICE MISC	DEVICE R'CEPT	DEVICE LTG	BKR TRIP	BKR POLE	PHASE A B	BKR POLE	BKR TRIP	DEVICE LTG	DEVICE R'CEPT	DEVICE MISC	VA ØA	VA ØB	DIRECTORY	CIRCUIT NUMBER
1	TVSS SURGE PROTECTOR	0					60	2		1	15				400		INSIDE & OUTSIDE GFI R'CEPT	2
3			0															4
5	COOLING FAN	200					10	1		2	50						SPARE	6
7	OUTSIDE LIGHT		400				20	1										8
9	BLANK									2	50						SPARE	10
11	BLANK																BLANK	12
13	BLANK																BLANK	14
15	BLANK																BLANK	16
17	BLANK																BLANK	18
19	BLANK																BLANK	20
21	BLANK																BLANK	22
23	BLANK																BLANK	24
25	BLANK																BLANK	26
27	BLANK																BLANK	28
29	BLANK																BLANK	30
		200	400												400	0		

CONNECTED LOAD (VA)
PHASE A 600
PHASE B 400

TOTAL CONNECTED LOAD = 1.0 KVA = 4.2 AMPS

CASE 1 – 0 CABINETS INSTALLED

PANEL MOUNTING
200 AMP MAIN BREAKER 10 KAIC

PANEL PNL

200 AMP BUS
120 / 240 VOLT 1 PHASE 3 WIRE

CIRCUIT NUMBER	DIRECTORY	VA ØA	VA ØB	DEVICE MISC	DEVICE R'CEPT	DEVICE LTG	BKR TRIP	BKR POLE	PHASE A B	BKR POLE	BKR TRIP	DEVICE LTG	DEVICE R'CEPT	DEVICE MISC	VA ØA	VA ØB	DIRECTORY	CIRCUIT NUMBER
1	TVSS SURGE PROTECTOR	0					60	2		1	15				400		INSIDE & OUTSIDE GFI R'CEPT	2
3			0													4800	RBS–1	4
5	COOLING FAN	200					10	1		2	50				4800			6
7	OUTSIDE LIGHT		400				20	1								4800	RBS–2	8
9	BLANK									2	50				4800			10
11	BLANK															4800	RBS–3	12
13	BLANK														4800			14
15	BLANK																BLANK	16
17	BLANK																BLANK	18
19	BLANK																BLANK	20
21	BLANK																BLANK	22
23	BLANK																BLANK	24
25	BLANK																BLANK	26
27	BLANK																BLANK	28
29	BLANK																BLANK	30
		200	400												14800	14400		

CONNECTED LOAD (VA)
PHASE A 15000
PHASE B 14800

TOTAL CONNECTED LOAD = 29.8 KVA = 124.2 AMPS

CASE 4 – 3 CABINETS INSTALLED

PANEL MOUNTING
200 AMP MAIN BREAKER 10 KAIC

PANEL PNL

200 AMP BUS
120 / 240 VOLT 1 PHASE 3 WIRE

CIRCUIT NUMBER	DIRECTORY	VA ØA	VA ØB	DEVICE MISC	DEVICE R'CEPT	DEVICE LTG	BKR TRIP	BKR POLE	PHASE A B	BKR POLE	BKR TRIP	DEVICE LTG	DEVICE R'CEPT	DEVICE MISC	VA ØA	VA ØB	DIRECTORY	CIRCUIT NUMBER
1	TVSS SURGE PROTECTOR	0					60	2		1	15				400		INSIDE & OUTSIDE GFI R'CEPT	2
3			0													4800	RBS–1	4
5	COOLING FAN	200					10	1		2	50				4800			6
7	OUTSIDE LIGHT		400				20	1								4800	RBS–2	8
9	BLANK									2	50				4800			10
11	BLANK															4800	RBS–3	12
13	BLANK														4800			14
15	BLANK																BLANK	16
17	BLANK																BLANK	18
19	BLANK																BLANK	20
21	BLANK																BLANK	22
23	BLANK																BLANK	24
25	BLANK																BLANK	26
27	BLANK																BLANK	28
29	BLANK																BLANK	30
		200	400												10000	9600		

CONNECTED LOAD (VA)
PHASE A 10200
PHASE B 10000

TOTAL CONNECTED LOAD = 20.2 KVA = 84.2 AMPS

CASE 3 – 2 CABINETS INSTALLED

PANEL MOUNTING
200 AMP MAIN BREAKER 10 KAIC

PANEL PNL

200 AMP BUS
120 / 240 VOLT 1 PHASE 3 WIRE

CIRCUIT NUMBER	DIRECTORY	VA ØA	VA ØB	DEVICE MISC	DEVICE R'CEPT	DEVICE LTG	BKR TRIP	BKR POLE	PHASE A B	BKR POLE	BKR TRIP	DEVICE LTG	DEVICE R'CEPT	DEVICE MISC	VA ØA	VA ØB	DIRECTORY	CIRCUIT NUMBER
1	TVSS SURGE PROTECTOR	0					60	2		1	15				400		INSIDE & OUTSIDE GFI R'CEPT	2
3			0													4800	RBS–1	4
5	COOLING FAN	200					10	1		2	50				4800			6
7	OUTSIDE LIGHT		400				20	1								4800	RBS–2	8
9	BLANK									2	50				4800			10
11	BLANK															4800	RBS–3	12
13	BLANK														4800			14
15	BLANK																BLANK	16
17	BLANK																BLANK	18
19	BLANK																BLANK	20
21	BLANK																BLANK	22
23	BLANK																BLANK	24
25	BLANK																BLANK	26
27	BLANK																BLANK	28
29	BLANK																BLANK	30
		200	400												14800	14400		

CONNECTED LOAD (VA)
PHASE A 15000
PHASE B 14800

TOTAL CONNECTED LOAD = 29.8 KVA = 124.2 AMPS

CASE 4 – 3 CABINETS INSTALLED

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12/19/08

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE

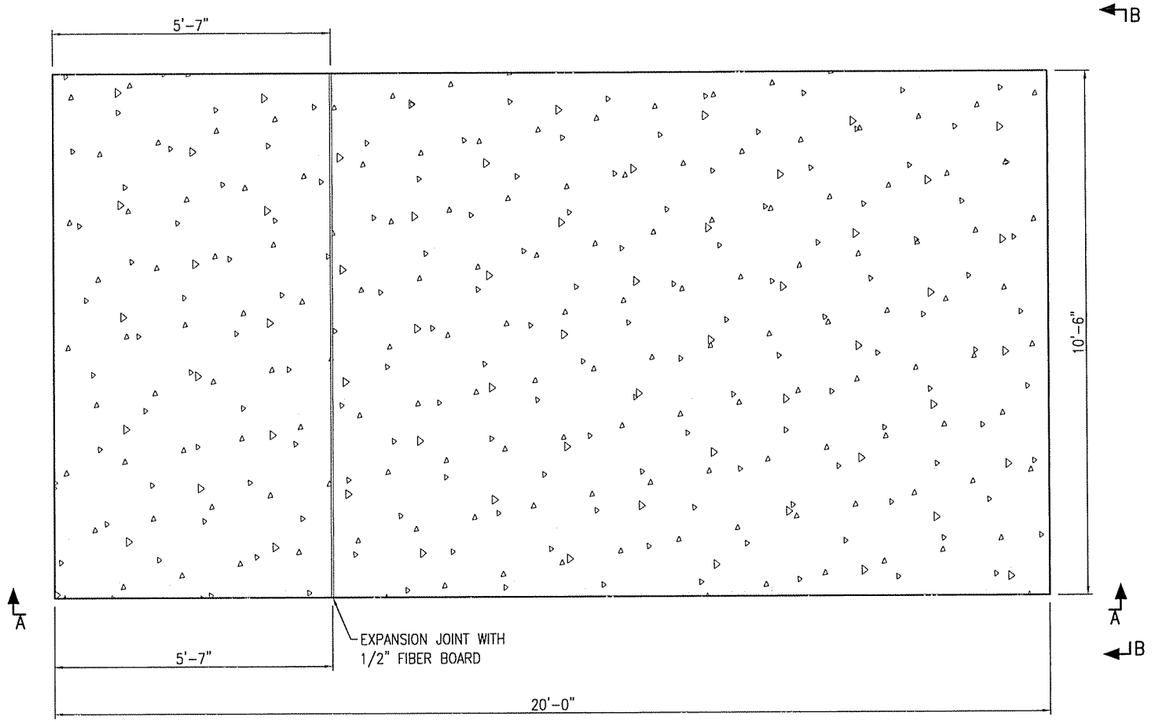
DRAWN BY: C.E. PERSONS DATE: 12–18–08
CHECKED BY: T.L. HARDY DATE: 12–18–08
APPROVED BY: DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655–1427 FAX: (205) 661–9027

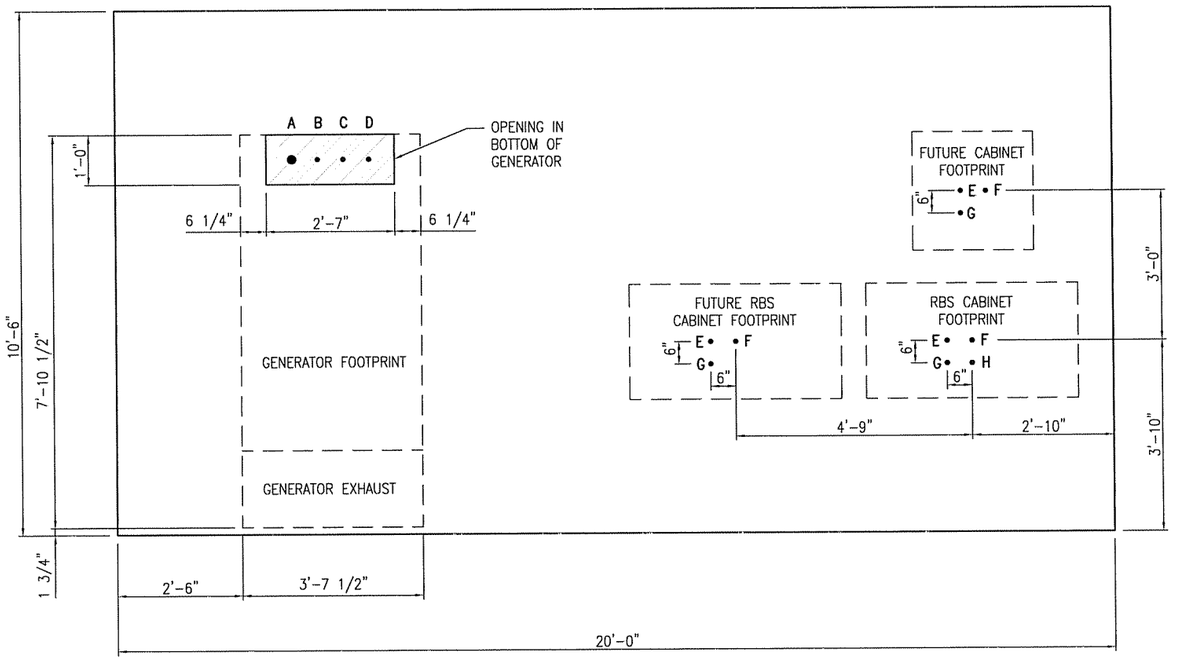
DWG NAME: PANEL BOARD CALCULATIONS
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C7.1 SCALE: AS SHOWN DWG No C7.1

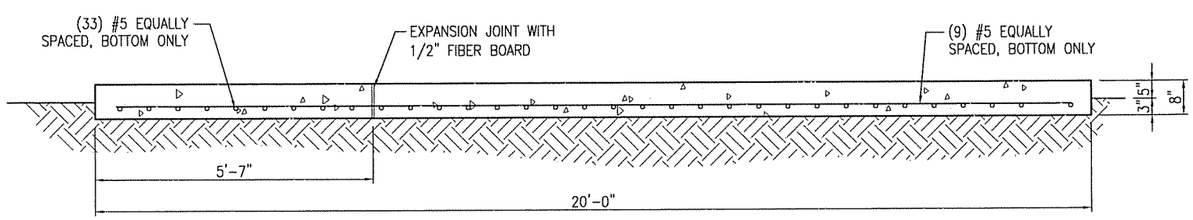
CONDUIT SCHEDULE				
CONDUIT	SIZE (IN.)	FROM	TO	DESCRIPTION
A	2"	GENERATOR	ATS	POWER
B	1"	GENERATOR	UTILITY BOX	BATTERY CHARGER / ENGINE BLOCK HEATER
C	1"	GENERATOR	ATS	ALARMS / 2 WIRE START
D	1"	GENERATOR	UTILITY BOX	ALARMS
E	2"	RADIO CABINET	UTILITY BOX	POWER
F	2"	RADIO CABINET	UTILITY BOX	25 PAIR CABLE / ALARMS
G	1"	RADIO CABINET	UTILITY BOX	ALARMS
H	1"	RADIO CABINET	UTILITY BOX	DC POWER



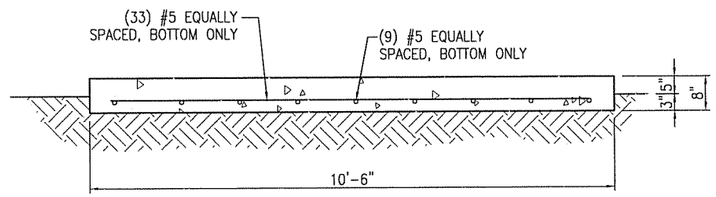
PLAN VIEW
(CONCRETE SLAB)



PLAN VIEW
(GENERATOR AND EQPT PAD)



SECTION A–A



SECTION B–B

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12/19/08

REGISTERED PROFESSIONAL ENGINEER SEAL

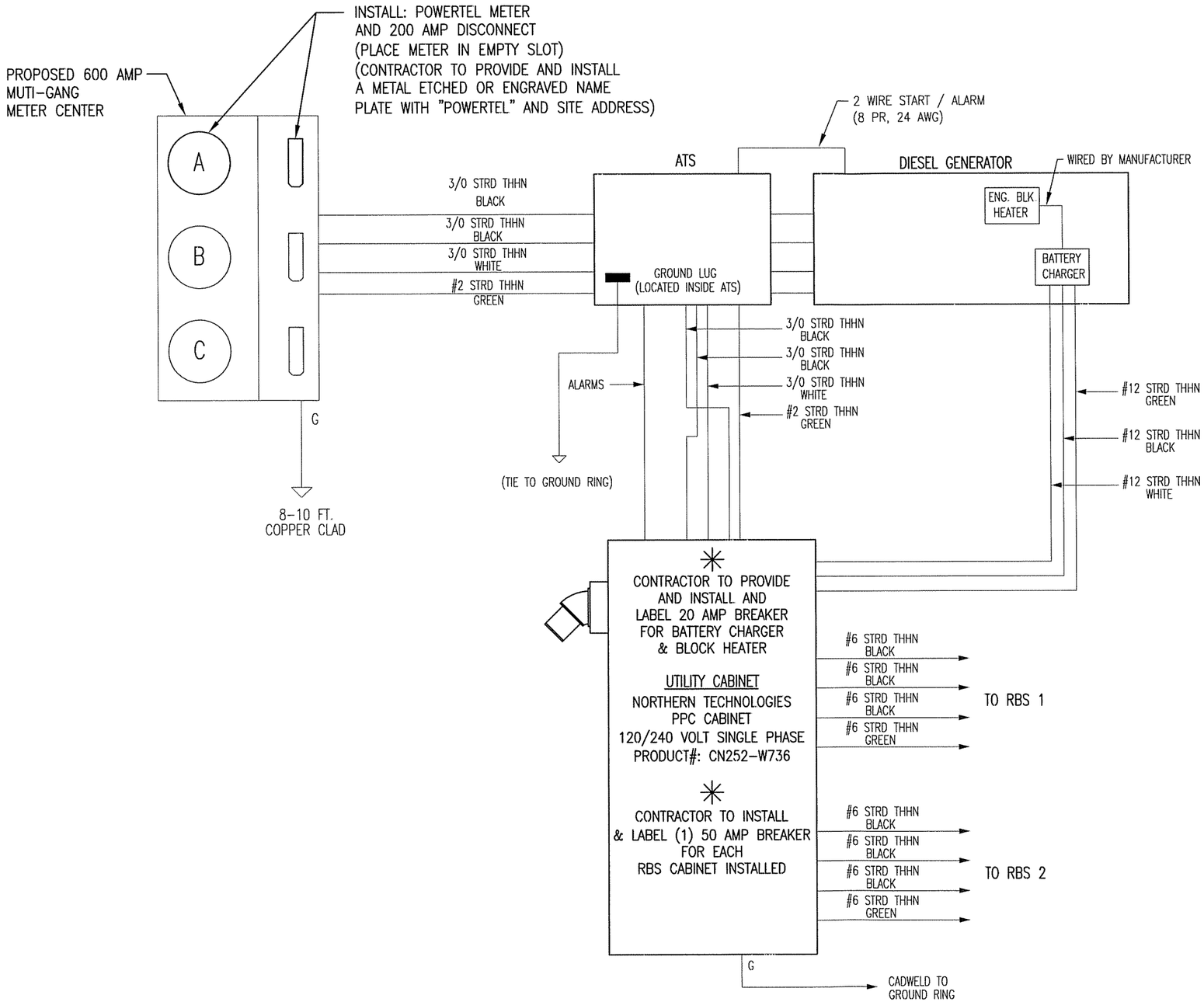
ITEM	REVISIONS	BY	CHK. BY	DATE

DRAWN BY : C.E. PERSONS — DATE : 12–18–08
CHECKED BY : T.L. HARDY — DATE : 12–18–08
APPROVED BY : — DATE :

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655–1427 FAX: (205) 661–9027

DWG NAME: CONCRETE FOUNDATION DETAILS
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C8 | SCALE: NONE | DWG No C8



NOTE 1: WHEN INSTALLING TVSS UNIT, USE 3" LONG 1-1/4" CLOSE NIPPLE. USE LOWEST MOST BREAKER POSITIONS FOR 2P-60A BREAKER AND KEEP ALL WIRING TO TVSS AS SHORT AND DIRECT AS POSSIBLE NO SHARP WIRING BENDS.

NOTE 2: ALL FLEXIBLE OR SEALTITE CONDUITS ARE TO BE METALLIC TYPE ONLY.

NOTE 3: ALL ELECTRICAL NEUTRAL AND GROUNDING CONDUCTORS ARE TO BE SAME SIZE AS CURRENT CARRYING CONDUCTORS.

NOTE 4: USE A GROUNDING BUSHING ON ALL CONDUITS THAT ENTER LOAD CENTERS, GENERATOR AND TELCO ENCLOSURE.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
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12/19/08

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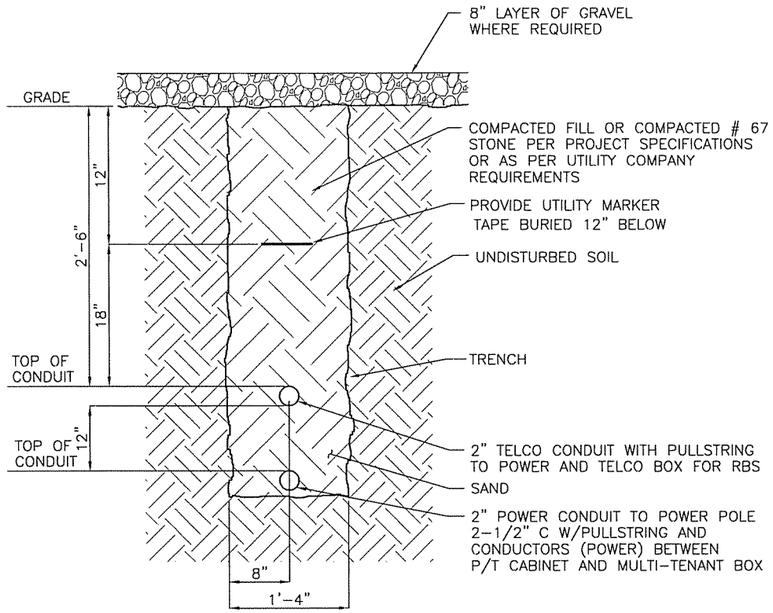
APPROVED BY : — DATE :

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

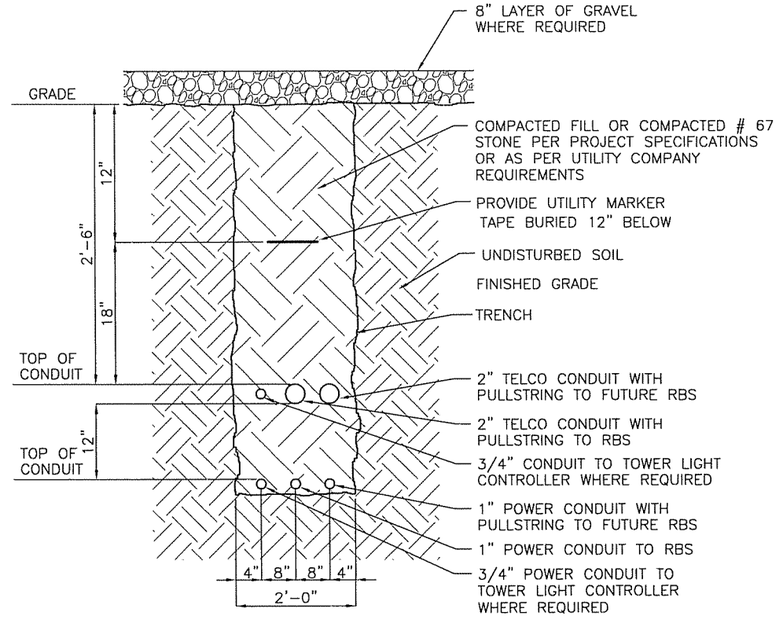
DWG. NAME: WIRING DIAGRAM
STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C9 | SCALE: NOT TO SCALE | DWG No: C9



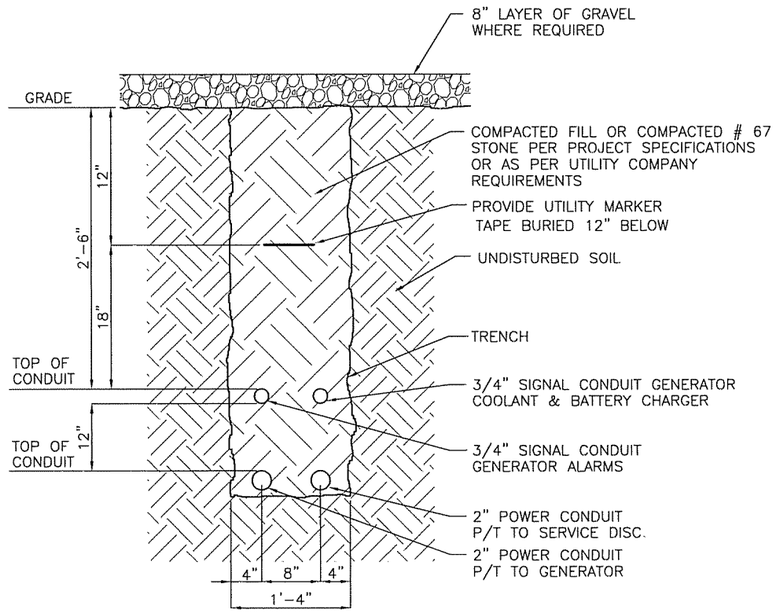
UTILITY TRENCH SECTION

(NOT TO SCALE)



UTILITY TRENCH SECTION

(NOT TO SCALE)



UTILITY TRENCH SECTION

(NOT TO SCALE)

NOTE: ALL BACKFILL IN TRENCH TO BE MECHANICALLY COMPACTED IN LIFTS OF 6 INCHES.

STATE OF KENTUCKY
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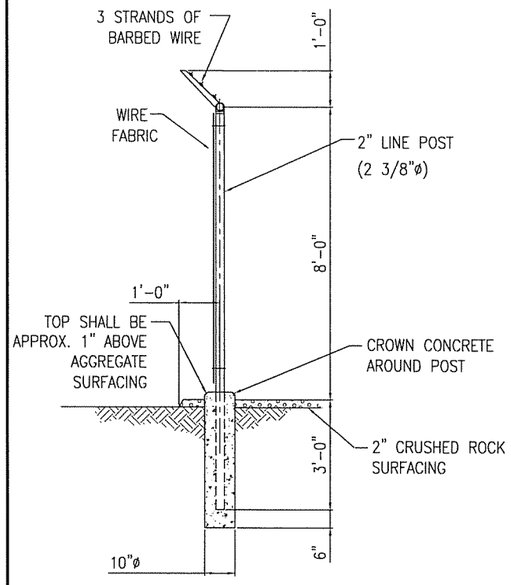
HARDY ENGINEERING, INC.

ENGINEERING AND CONSULTING
209 LINDEN STREET
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

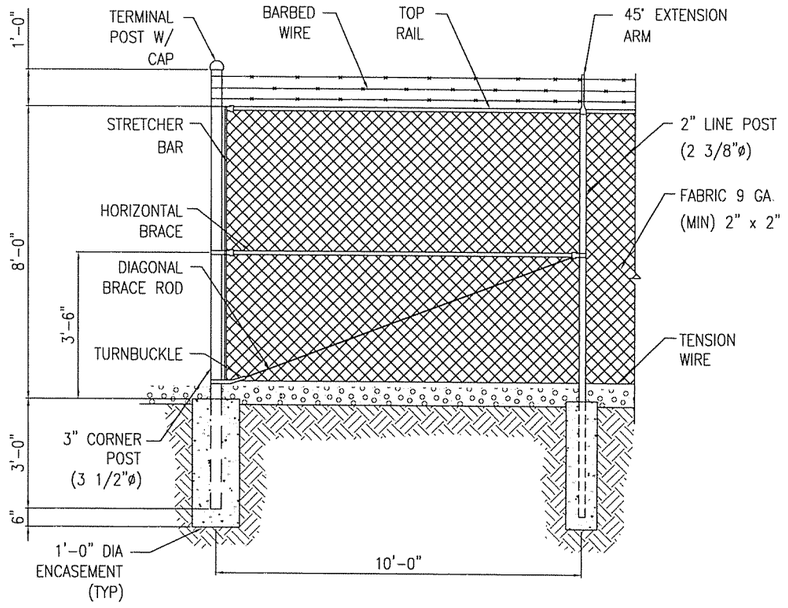
DWG NAME: UTILITY TRENCH DETAIL

STANDARD DRAWING
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C10 SCALE: NONE DWG No C10

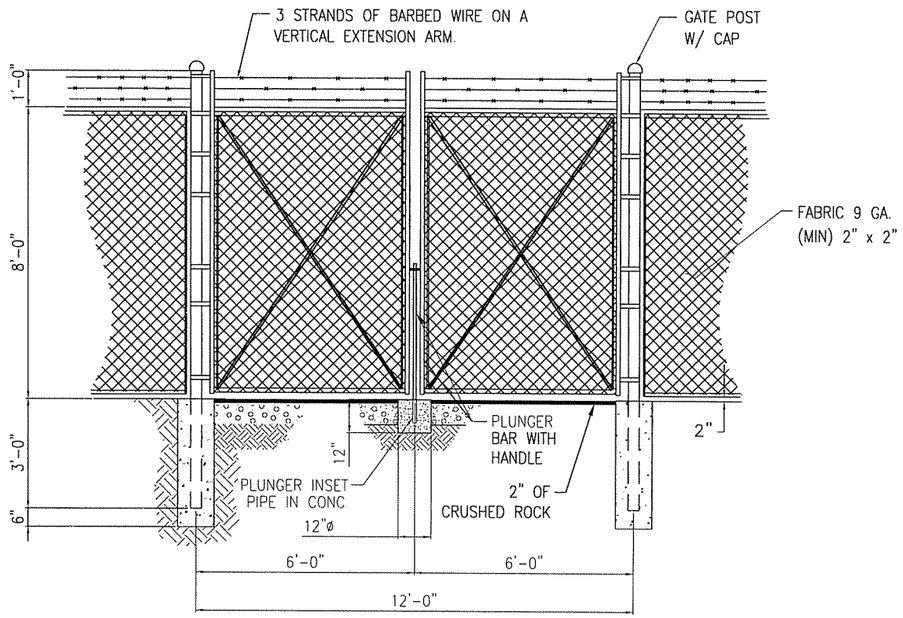


TYPICAL FENCE POST



TYPICAL CORNER POST DETAIL

NOT TO SCALE



12'-0" DOUBLE SWING GATE DETAIL

FENCE TYPE:

SHALL CONSIST OF GALVANIZED STEEL FRAMEWORK AND GALVANIZED STEEL FABRIC WITH A HEIGHT OF 8 FEET AND AN OVERALL HEIGHT OF 9 FEET FROM THE BOTTOM OF THE FABRIC TO THE TOP BARBED WIRE. THE FENCE SHALL HAVE A TOP RAIL, BOTTOM TENSION WIRE, AND THREE STRANDS OF BARBED WIRE MOUNTED ON VERTICAL EXTENSION ARMS. THE UPPER STRAND SHALL BE APPROXIMATLEY 12 INCHES ABOVE THE TOP OF THE FABRIC. POSTS SALL BE SET IN CONCRETE OR IN SLEEVES AS DETAILED.

MATERIALS:

MATERIALS FOR CHAIN LINK FENCING SHALL BE AS FOLLOWS. ALL STEEL OR MALLEABLE IRON PARTS AND ACCESSORIES FOR FRAMEWORK SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH RESIDENTIAL STANDARDS:

FABRIC: RESIDENTIAL FABRIC 11-1/2 GAUGE, 2 1/4 INCH MESH; GALVANIZED ASTM A392, CLASS 2; TWISTED SELVAGE ON TOP, KNUCKLED SELVAGE ON BOTTOM.

COMMERCIAL POST: LINE POST ARE 2ø INCH, SCH. 40, 2 1/2 O.D. PIPE
TERMINAL POSTS (END, CORNER, AND PULL) ARE 2-1/2ø INCH, SCH. 40, 2-7/8 INCH O.D. PIPE
GATE POST (SWING POSTS) ARE GATE OR LEAF 6ft OR LESS, 2-1/2ø INCH, SCH. 40, 2-7/8 INCH O.D. PIPE
GATE OR LEAF OVER 6ft WIDE AND UP TO 13ft, 3-1/2ø INCH, SCH. 40, 4 INCH O.D. PIPE
TOP RAILS ARE 1-5/8 INCH OD (17 GAUGE) PIPE.

MATERIALS: RAIL COUPLINGS: SLEEVE TPE, 6 INCHES EXPANSION SPRING IN EVERY FIFTH COUPLING.
BRACING: PIPE BRACE SAME AS TOP RAIL , WITH 3/8 INCH DIAMETER STEEL ROD TRUSS AND TIGHTENER
POST TOPS: PRESSED STEEL, MALLEABLE IRON WITH PRESSED STEEL EXTENSION ARM, OR ONE-PIECE ALUMINUM CASTING; WITH HOLE FOR TOP RAIL, DESIGNED TO FIT OVER THE OUTSIDE OF THE POST AND TO PREVENT ENTRY OF MOISTURE INTO TUBULAR POST. BARBED WIRE: GALVANIZED, ASTM A121 CLASS 3; THREE 14 GAUGE MINIMUM STEEL WIRES WITH 4 POINT ROUND 14 GAUGE BARBS SPACED 4 INCHES APART.
STRETCHER BARS: STEEL, 3/16 BY 3/4 INCH, OR EQUIVALENT CROSS-SECTIONAL AREA.
FABRIC TIES: ALUMINUM BANDS AND WIRES.
GATE FRAMES: 1-1/2ø INCH, SCH. 40, 1-7/8 INCH OD PIPE.
TENSION WIRE: GALVANIZED OR ALUMINUM COATED COIL SPRING WIRE, 7 GAUGE.

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12/19/08
REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE

DRAWN BY: C.E. PERSONS DATE: 12-18-08
CHECKED BY: T.L. HARDY DATE: 12-18-08
APPROVED BY: DATE:

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655-1427 FAX: (205) 661-9027

DWG NAME: FENCE DETAILS
STANDARD DRAWING FOR POERTEL / MEMPHIS, INC. LOUISVILLE, KENTUCKY
CAD No: LV1124_C11 SCALE: AS SHOWN DWG No: C11

INSTALLATION:

1. THE FENCE SHOULD BE PLACED ACROSS THE SLOPE ALONG A LINE OF UNIFORM ELEVATION (PERPENDICULAR TO THE DIRECTION OF THE FLOW). THE FENCE SHOULD BE LOCATED AT LEAST 10' FEET FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEANOUT.

2. A FLAT–BOTTOM TRENCH APPROXIMATELY 4"–INCHES WIDE AND 8"–INCHES DEEP, OR A V–SHAPED TRENCH 8"–INCHES DEEP SHOULD BE EXCAVATED ON THE DOWN SLOPE SIDE OF THE TRENCH, DRIVE THE 2"–IN. x 2"–IN. WOOD POSTS AT LEAST 18"–INCHES INTO THE GROUND, SPACING THEM **NO FURTHER THAN 6'–FEET APART.**

3. POSTS SHOULD BE INSTALLED, WITH 1" TO 2"–INCHES OF THE POST PROTRUDING ABOVE THE TOP OF THE FABRIC AND NO MORE THAN 3'–FEET OF THE POST SHOULD PROTRUDE ABOVE THE GROUND. THE MINIMUM FENCE HEIGHT (HEIGHT OF FILTER FABRIC ABOVE GRADE) SHALL BE 18"–INCHES. THE MAXIMUM FENCE HEIGHT (HEIGHT OF FILTER FABRIC ABOVE GRADE) SHALL BE 24 INCHES.

4. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6"–INCH OVERLAP.

5. EXTRA–STRENGTH FILTER CLOTH (50 POUNDS / LINEAR INCH MINIMUM TENSILE STRENGTH) SHOULD BE USED. A 2"–INCH WIDE LATHE SHALL BE STAPLED OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF THE POSTS. THE STAPLES USED SHOULD BE 1.5"–INCH HEAVY–DUTY WIRE STAPLES SPACED A MAXIMUM OF 8"–INCHES APART.

6. PLACE THE BOTTOM 12"–INCHES OF THE FILTER FABRIC INTO THE 8"–INCH DEEP TRENCH, EXTENDING THE REMAINING 4"–INCHES TOWARDS THE UPSIDE OF THE TRENCH AND BACK FILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACTED.

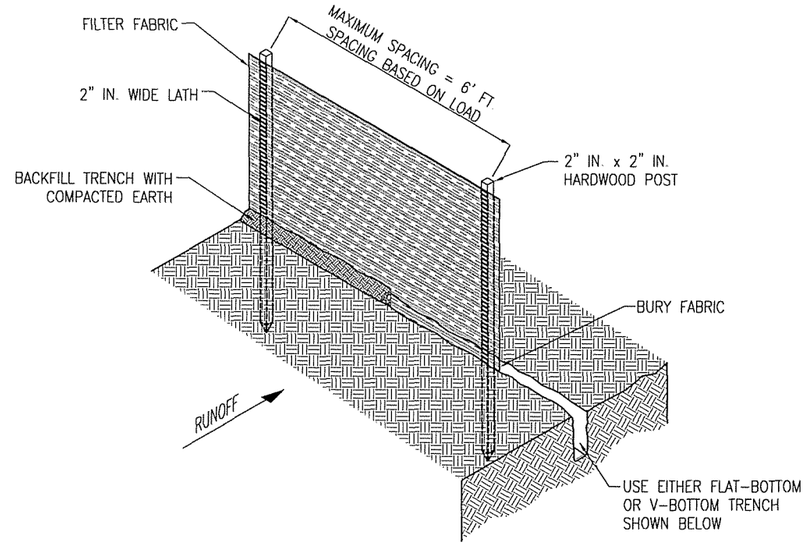
INSPECTION AND MAINTENANCE:

1. INSPECT SILT FENCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24–HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2"–INCH OR MORE OF PRECIPITATION. CHECK FOR AREAS WHERE RUNOFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE WAS CAUSED TO SAG OR COLLAPSE BY RUNOFF OVER TOPPING THE FENCE.

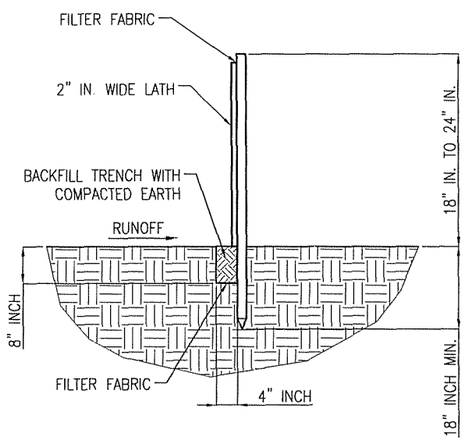
2. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY OTHER WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

3. SEDIMENT MUST BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED.

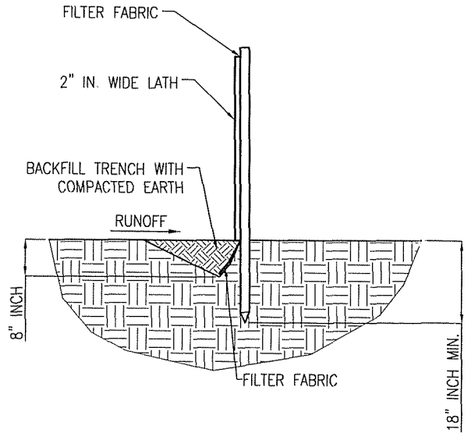
4. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHOULD BE REMOVED OR STABILIZED ON SITE. DISTURBED AREAS RESULTING FROM FENCE REMOVAL SHALL BE PERMANENTLY STABILIZED.



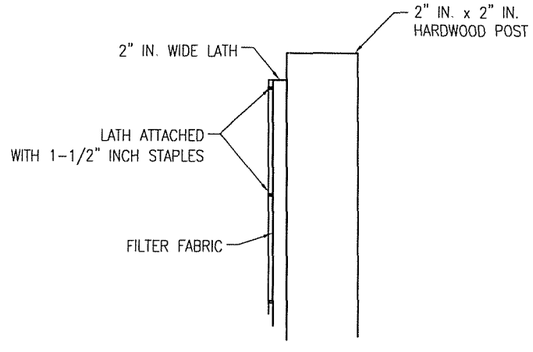
SILT FENCE INSTALLATION



FLAT–BOTTOM TRENCH DETAIL



V–SHAPED TRENCH DETAIL



FABRIC ATTACHMENT DETAIL

STATE OF KENTUCKY
TIMOTHY L. HARDY
20374
REGISTERED PROFESSIONAL ENGINEER

12-18-08

REGISTERED PROFESSIONAL ENGINEER SEAL

ITEM	REVISIONS	BY	CHK. BY	DATE

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CHECKED BY : T.L. HARDY — DATE : 12–18–08
APPROVED BY : — DATE :

HARDY ENGINEERING, INC.
ENGINEERING AND CONSULTING
209 LINDEN STREET, P.O. BOX 708
TRUSSVILLE, AL 35173
PHONE: (205) 655–1427 FAX: (205) 661–9027

DWG NAME: SILT FENCE DETAILS & NOTES
STANDARD DETAILS
FOR
POWERTEL / MEMPHIS, INC.
LOUISVILLE, KENTUCKY

CAD No: LV1124_C12 | SCALE: NTS | DWG No C12

SHEET 1

S1/1 – VICINITY AND 500' STRUCTURAL MAP

S1/2 – ABUTTING PROPERTY OWNERS

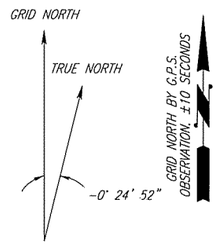
S1/3 – U.S.G.S. QUAD MAP

SHEET 2

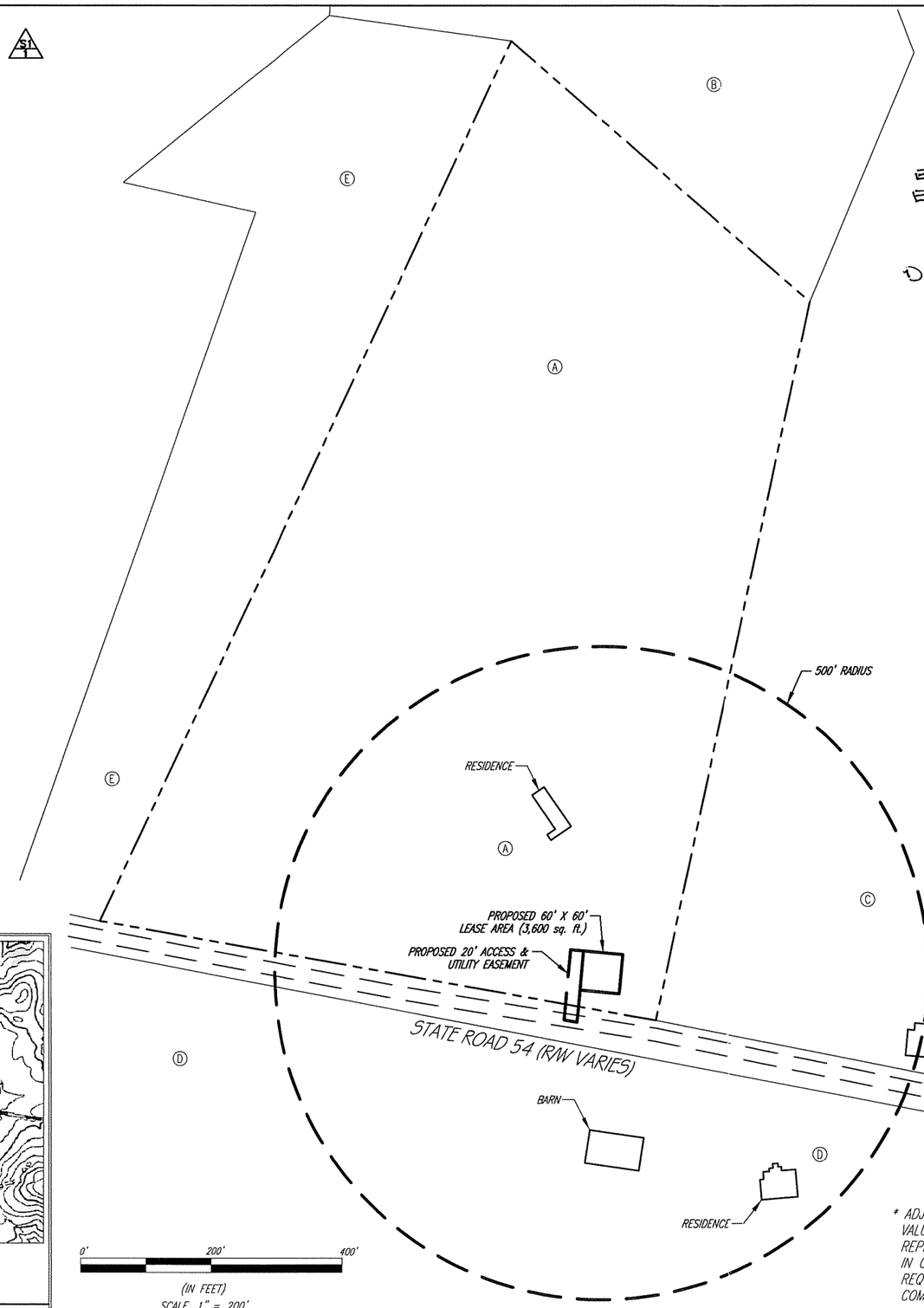
S2/1 – PROPOSED LEASE AREA

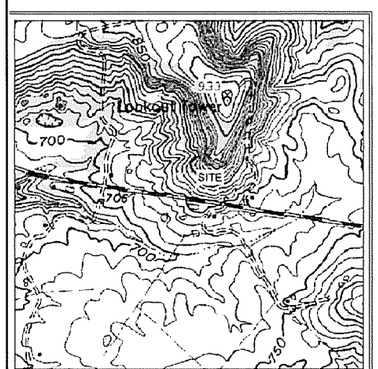
S2/2 – LEGAL DESCRIPTIONS

S2/3 – FLOOD ZONE DATA



NORTH IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTHERN ZONE AND WAS DETERMINED BY COMPUTATION FROM G.P.S OBSERVATION ON OCTOBER 21, 2008





S1/3 QUAD MAP
SCALE: 1"=2000'

U.S.G.S. 7 1/2 MINUTE QUAD MAP OF MCDANIELS, KY

0' 200' 400'
(IN FEET)
SCALE 1" = 200'

S1/2

A MAP NO. 46, LOT 15A
MCCAFFERTY, WILLARD & THOMAS, BARBARA
8398 OWNESBORO ROAD
FALLS OF ROUGH, KY 40119
DEED BOOK 364, PAGE 491
NO ZONING

B ~~MAP NO. 46, LOT 16~~
MATTINGLY, ROWLND & THERESA
61 RONNA MATTINGLY LN.
HARDINSBURG, KY 40143
DEED BOOK 292, PAGE 143
NO ZONING

C MAP NO. 46, LOT 14A
HODGES, ALBERT L.
~~2324 FEASLEE RD.~~
~~LOUISVILLE, KY 40215~~
DEED BOOK 105, PAGE 405
NO ZONING

D MAP NO. 46, LOT 14
ESCUE, HARVEL H. & WILDA
339 CONCORD RD.
FALLS OF ROUGH, KY 40119
DEED BOOK 354, PAGE 72
NO ZONING

E MAP NO. 46, LOT 15C
MCCAFFERTY, WILLARD & THOMAS, BARBARA
8398 OWNESBORO ROAD
FALLS OF ROUGH, KY 40119
DEED BOOK ~~364~~, PAGE ~~491~~
NO ZONING 359 410

* ADJOINING LAND OWNERS LISTED ARE BASED ON PROPERTY VALUATION ADMINISTRATION ("PVA") RECORDS ISSUED BY A REPRESENTATIVE FROM **GRAYSON** COUNTY, TO BE IN COMPLIANCE WITH ALL STATUTORY AND REGULATORY REQUIREMENTS BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION AND FOR TELECOMMUNICATION USE ONLY

T··Mobile·

F.S. Land Company
T. Alan Neal Company
Land Surveyors and Consulting Engineers
PO Box 17546 2313/2315 Crittenden Drive
Louisville, KY 40217
Phone: (502) 635-5865 (502) 636-5111
Fax: (502) 636-5263

"SITE SURVEY"

SITE NUMBER:
9LV1124

SITE NAME:
SHORT CREEK

SITE ADDRESS:
8338 OWENSBORO ROAD
FALLS OF ROUGH, KY 40119

PROPOSED LEASE AREA:
AREA = 3,600 sq. ft.

PROPERTY OWNER:
WILLARD MCCAFFERTY &
BARBARA A. THOMAS
8398 OWNESBORO ROAD
FALLS OF ROUGH, KY 40119

TAX PARCEL ID NUMBER:
46-15A

SOURCE OF TITLE:
DEED BOOK 364, PAGE 491

DWG BY:
DSA

CHKD BY:
FSII

DATE:
11.11.08

FSTAN PROJECT NO.:
08-5697

REVISIONS:
SITE ADDRESS/CO. - 12.29.08
SITE ADDRESS - 01.07.09

C1

SHEET 1

S1/1 – VICINITY AND 500' STRUCTURAL MAP

S1/2 – ABUTTING PROPERTY OWNERS

S1/3 – U.S.G.S. QUAD MAP

SHEET 2

S2/1 – PROPOSED LEASE AREA

S2/2 – LEGAL DESCRIPTIONS

S2/3 – FLOOD ZONE DATA

GRID NORTH

TRUE NORTH

-0° 24' 52"

GRID NORTH BY G.P.S. OBSERVATION, ±10 SECONDS

NORTH IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM, SOUTHERN ZONE AND WAS DETERMINED BY COMPUTATION FROM G.P.S. OBSERVATION ON OCTOBER 21, 2008.

S2/1

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.

S2/2

LEGAL DESCRIPTIONS:

This is a description for T-Mobile, of an area to be leased from the property of Willard McCafferty & Barbara A Thomas, which is further described as follows

PROPOSED LEASE AREA

Beginning at a fence post located at the Southeast corner of the property conveyed to Willard McCafferty & Barbara A. Thomas, in Deed Book 364, Page 491, in the Office of the County Clerk of Grayson County, KY, being S 79°20'37" E – 182.73', S 82°26'47" E – 139.88', S 80°17'53" E – 619.61', S 84°44'20" E – 192.42' from an IPC found at the Southwest corner of said Willard McCafferty & Barbara A Thomas properly, thence traversing said property N 26°00'58" W – 17.53' to a set #5 rebar with a cap stamped "FSTAN #3282" and the TRUE POINT OF BEGINNING of the Proposed Lease Area; thence N 84°42'58" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282"; thence N 5°17'02" E – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282"; thence S 84°42'58" E – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282"; thence S 5°17'02" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282" and the true point of beginning containing 3,600 square feet as per survey by Frank L. Sellinger, II, PLS No 3282 with FS/Tan Land Surveyors & Consulting Engineers, dated October 30, 2008, and revised November 4, 2008.

CENTERLINE OF PROPOSED 20' ACCESS & UTILITY EASEMENT

Beginning at a fence post located at the Southeast corner of the property conveyed to Willard McCafferty & Barbara A. Thomas, in Deed Book 364, Page 491, in the Office of the County Clerk of Grayson County, KY, being S 79°20'37" E – 182.73', S 82°26'47" E – 139.88', S 80°17'53" E – 619.61', S 84°44'20" E – 192.42' from an IPC found at the Southwest corner of said Willard McCafferty & Barbara A. Thomas properly, thence traversing said property N 26°00'58" W – 17.53' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 84°42'58" W – 60.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 5°17'02" E – 50.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence N 84°42'58" W – 10.00' to a set #5 rebar with a cap stamped "FSTAN #3282", thence S 5°17'02" W – 98.33' to a set #5 rebar with a cap stamped "FSTAN #3282" and the end of the easement as per survey by Frank L. Sellinger, II, PLS No. 3282 with FS/Tan Land Surveyors & Consulting Engineers, dated October 30, 2008, and revised November 4, 2008.

COORDINATE POINT LOCATION

NAD 1983
LATITUDE: 37° 30' 50.00"
LONGITUDE: 86° 25' 54.58"
NAVD 1988
ELEVATION: 766' AMSL
STATE PLANE COORDINATE SOUTHERN ZONE
(BLUE MARBLE GEOGRAPHIC
CALCULATOR VERSION 3.0)
NORTHING: 2070958.8795
EASTING: 1442660.4810

PROJECT POWER POLE

UTILITY COMPANY: UNKNOWN
IDENTIFICATION #: N/A

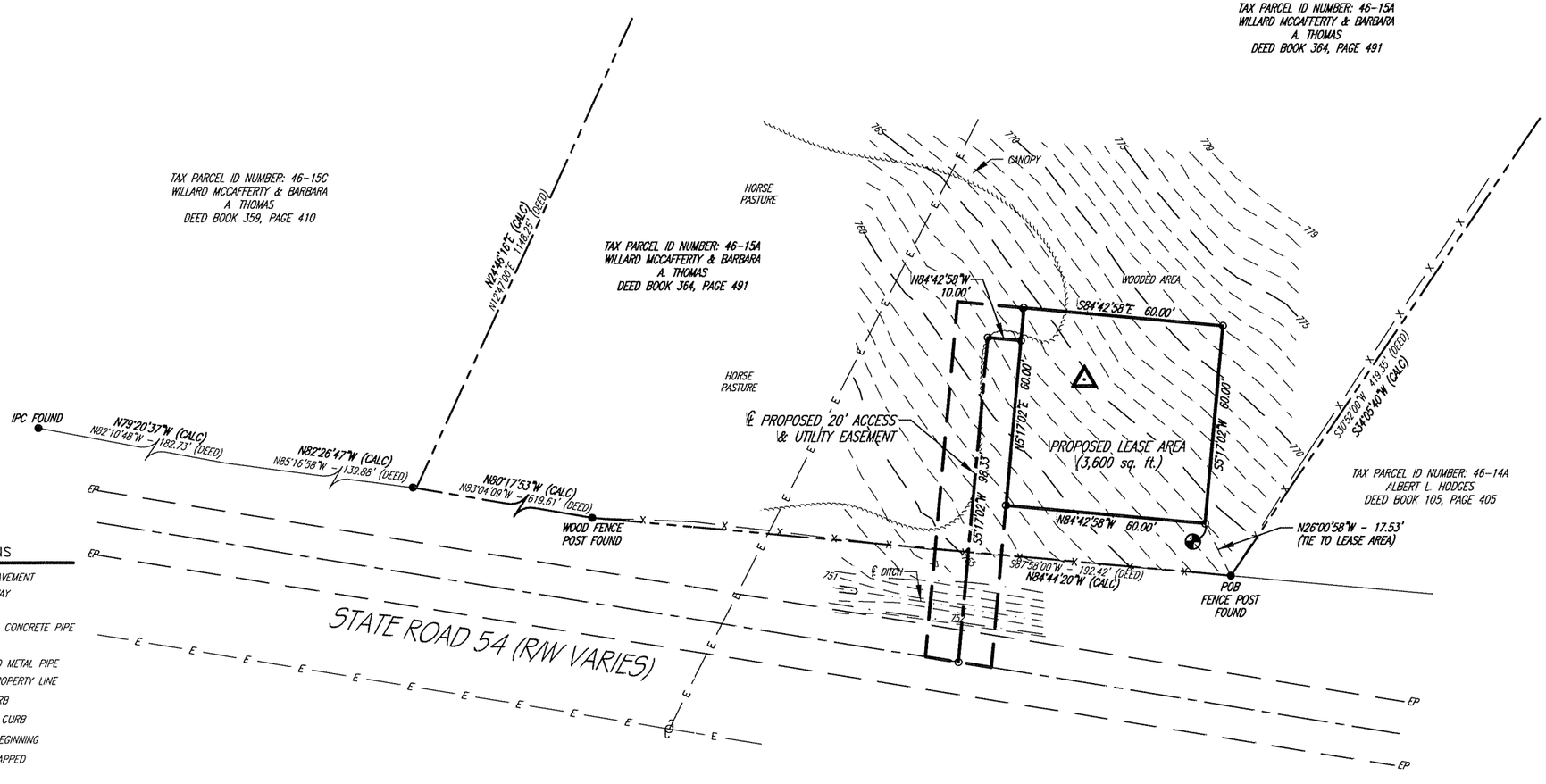
PROJECT BENCHMARK

NORTH: 2070915.3806
EAST: 1442696.6824
ELEVATION: 763.99' AMSL
LOCATION: BEING A SET IPC LOCATED AT THE SOUTHEAST CORNER OF THE LEASE AREA

TAX PARCEL ID NUMBER: 46-15C
WILLARD MCCAFFERTY & BARBARA A. THOMAS
DEED BOOK 359, PAGE 410

TAX PARCEL ID NUMBER: 46-15A
WILLARD MCCAFFERTY & BARBARA A. THOMAS
DEED BOOK 364, PAGE 491

TAX PARCEL ID NUMBER: 46-15A
WILLARD MCCAFFERTY & BARBARA A. THOMAS
DEED BOOK 364, PAGE 491



SYMBOL LEGEND

- WOOD POWER POLE
- TELEPHONE PEDESTAL
- GUY ANCHOR
- MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- ELECTRIC BOX
- F.P. FENCE POST
- SET #5 REBAR (UNLESS OTHERWISE NOTED)
- EXISTING #5 REBAR (UNLESS OTHERWISE NOTED)

ABBREVIATIONS

EP	EDGE OF PAVEMENT
ROW	RIGHT OF WAY
℄	CENTERLINE
RCP	REINFORCED CONCRETE PIPE
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
PL	SUBJECT PROPERTY LINE
TC	TOP OF CURB
BC	BOTTOM OF CURB
POB	POINT OF BEGINNING
IPC	IRON PIN CAPPED

LINE LEGEND

- E E E — OVERHEAD ELECTRIC
- G G G — UNDERGROUND GAS LINE
- W W W — UNDERGROUND WATER LINE
- E/T E/T E/T — OVERHEAD ELECTRIC & TELEPHONE LINE
- T T — OVERHEAD TELEPHONE LINE
- D D — DRAINAGE/STORM SEWER LINE
- X X X — EXISTING FENCE
- XX XX XX — PROPOSED FENCE
- SUBJECT PROPERTY BOUNDARY
- RIGHT OF WAY CENTERLINE

NOTE: SYMBOLS, ABBREVIATIONS, OR LINESTYLES DO NOT NECESSARILY APPEAR ON DRAWING(S) USE ONLY AS APPLICABLE

SURVEYORS NOTES

SOURCE OF BEARING IS A G.P.S. OBSERVATION ON OCTOBER 21, 2008.

SOURCE OF ROTATION BASED ON THE SOUTH PROPERTY LINE OF THE MCCAFFERTY & THOMAS PROPERTY HAVING THE BEARING OF S 87° 58' 00" W PER D.B. 364, PG. 491, AND THE CALCULATED BEARING OF N 84° 44' 20" W.

SITE SHOWN SUBJECT TO RIGHT OF WAYS AND EASEMENTS SHOWN HEREON OR NOT.

NO SEARCH OF PUBLIC RECORDS HAS BEEN PERFORMED BY THIS FIRM TO DETERMINE ANY DEFECTS AND/OR AMBIGUITIES IN THE TITLE OF THE PARENT TRACT.

THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY.

EXISTING CONTOURS ARE AT ONE FOOT INTERVALS.

STATE OF KENTUCKY
FRANK L. SELLINGER
#3282
LICENSED PROFESSIONAL LAND SURVEYOR

LAND SURVEYOR'S CERTIFICATE

Type "A" Survey – Unadjusted linear traverse closure: 1 in 20,400.

TO ALL PARTIES INTERESTED IN TITLE TO PREMISES SURVEYED I hereby certify that this plat and survey were made under my supervision, and that the angular and linear measurements, as witnessed by monuments shown hereon, are true and correct to the best of my knowledge and belief. This survey and plat meets or exceeds the minimum standards of the governing authorities. This property is subject to any recorded easements or right of ways not shown hereon

1-7-09

Frank L. Sellinger, II Ky. Reg. No. 3282

0' 40' 80'

(IN FEET)
SCALE: 1" = 40'

REFERENCED AS "EXHIBIT C"

OWNER APPROVAL: _____ DATE: _____

T-MOBILE APPROVAL: _____ DATE: _____

S2/3

I HAVE REVIEWED THE FLOOD INSURANCE RATE MAPS (FIRM) MAP NO. 21033001508 DATED 02.15.91 AND THE PROPOSED LEASE AREA DOES NOT APPEAR TO BE IN A FLOOD PRONE AREA THE PROPOSED LEASE AREA IS LOCATED IN ZONE X

T-Mobile

FSTAN
F.S. Land Company
T. Alan Neal Company
Land Surveyors and Consulting Engineers
PO Box 17546 2313/2315 Crittenden Drive
Louisville, KY 40217
Phone: (502) 635-5865 (502) 636-5111
Fax: (502) 636-5263

"SITE SURVEY"

SITE NUMBER: 9LV1124

SITE NAME: SHORT CREEK

SITE ADDRESS: 8338 OWENSBORO ROAD FALLS OF ROUGH, KY 40119

PROPOSED LEASE AREA: AREA = 3,600 sq. ft

PROPERTY OWNER: WILLARD MCCAFFERTY & BARBARA A THOMAS 8398 OWNESBORO ROAD FALLS OF ROUGH, KY 40119

TAX PARCEL ID NUMBER: 46-15A

SOURCE OF TITLE: DEED BOOK 364, PAGE 491

DWG BY: CDT

CHKD BY: FSII

DATE: 10.27.08

FSTAN PROJECT NO: 08-5697

REVISIONS:

LEASE/ACCESS ESMT – 11.04.08
SITE ADDRESS/CO. – 12.29.08
SITE ADDRESS – 01.07.09

C2

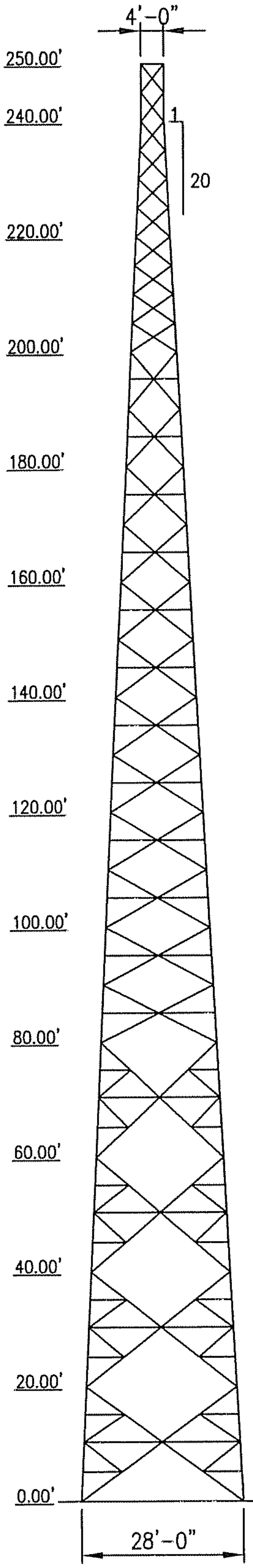
Customer Name: T-MOBILE (TENNESSEE)
Site: 9LV1124 SHORT CREEK, GRAYSON COUNTY, KY

FWT
P.O. BOX 8597 FORT WORTH, TX 76124-0597
PHONE: (800) 433-1816 FAX: (817) 255-8656

LEGS ("ø") 50 KSI	DIAGONALS 36 KSI	GIRTS	INT BRACING	SUB DIAG.	SUB GIRTS	DIAG BOLTS ("ø")	RDNT BOLTS ("ø")	SPLICE BOLTS ("ø")
50 KSI	A36					A325		
2	Y	B	N/R	N/R	N/R	2-1/2	1-5/8	4-5/8
2	Y	N/R	N/R	N/R	N/R	2-1/2	N/R	4-5/8
2 1/4	Y	N/R	N/R	N/R	N/R	2-1/2	N/R	6-5/8
2 1/2	C	B	N/R	N/R	N/R	2-5/8	1-5/8	6-3/4
2 3/4	C	B	N/R	N/R	N/R	2-5/8	1-5/8	6-3/4
3	D	C	N/R	N/R	N/R	2-5/8	1-5/8	6-7/8
3 1/4	D	C	N/R	N/R	N/R	2-5/8	1-5/8	6-1
3 1/4	E	D	N/R	N/R	N/R	2-5/8	1-5/8	6-1
3 1/2	F	D	N/R	N/R	N/R	2-5/8	1-5/8	6-1
3 1/2	CC	E	D	C	B	2-5/8	1-5/8	6-1
3 3/4	DD	F	D	C	C	2-5/8	1-5/8	6-1 1/8
3 3/4	DD	F	F	C	C	2-5/8	1-5/8	6-1 1/8
4	DD	G	F	D	C	2-5/8	1-5/8	N/R

ASTM: ANCHOR RODS ("ø") A36: (6) - 1 3/4ø x 5'-6" TOTAL ANCHOR ROD LENGTH

Note: DOUBLE LETTER SIGNIFY BACK TO BACK ANGLES



JOB DATA			
Page	1 of 1	Job No.	J081119001-E
By	HD/tw	Design No.	S08-0471-E
Chk'd By	TW	Date	Nov 20 2008
		Rev. No. 0	Rev. Date
Structure	250-FT SST		
Ref. No.	...-0400\0471\J081119001-E\J081119001-E.out		
Design Standard	ANSI/TIA-222-G-2005 Addendum 1		

GENERAL DESIGN CONDITIONS	
Design Wind Speed: 90.00(mph)	Structure Class: II
Iced Wind Speed: 30.00(mph)	Exposure Category: C
Service Wind Speed: 60.00(mph)	Topographic Category: 1
Ice Thickness: 0.75(in)	–

ANTENNA LIST

No.	Elev.(FT)	Antenna	Mount Type	AZ (°)	COAX
1	250	(1) Lightning Rod		0	
2	250	(4) TMBX-6517-R2M	AM110-P-12'	0	18)LDF7P-50A
3	250	(4) TMBX-6517-R2M	AM110-P-12'	120	
4	250	(4) TMBX-6517-R2M	AM110-P-12'	240	
5	235	(4) TMBX-6517-R2M	AM110-P-12'	0	12)LDF7P-50A
6	235	(4) TMBX-6517-R2M	AM110-P-12'	120	
7	235	(4) TMBX-6517-R2M	AM110-P-12'	240	
8	220	(4) TMBX-6517-R2M	AM110-P-12'	0	12)LDF7P-50A
9	220	(4) TMBX-6517-R2M	AM110-P-12'	120	
10	220	(4) TMBX-6517-R2M	AM110-P-12'	240	

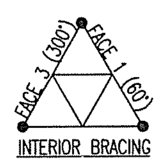
LINEAR APPURTENANCES
STEP BOLTS ON ONE LEG
(1)-Waveguide Ladder: 0'-250' On Tower Face (AZ): 60 deg
(1)-Waveguide Ladder: 0'-235' On Tower Face (AZ): 180 deg
(1)-Waveguide Ladder: 0'-220' On Tower Face (AZ): 300 deg

COAXIAL LINES DISTRIBUTION

HEIGHT	FACE 1	FACE 2	FACE 3	TOTAL
250'	18D	–	–	18
235'	–	12D	–	12
220'	–	–	12D	12

(D = DOUBLE STACKED)

STATE OF KENTUCKY
TA-WEN LEE
24589
LICENSED PROFESSIONAL ENGINEER
11-20-08



INTERIOR BRACING
(1) 5/8"ø BOLT EA. END
(EL. 10' to 70')

MEMBER TABLE LEGEND	
D	L3X3X3/16
G	L4X4X1/4
F	L3 1/2X3 1/2X1/4
C	L2 1/2X2 1/2X3/16
E	L3X3X1/4
B	L2X2X3/16
Y	L1 3/4X1 3/4X3/16

FACTORED BASE REACTIONS

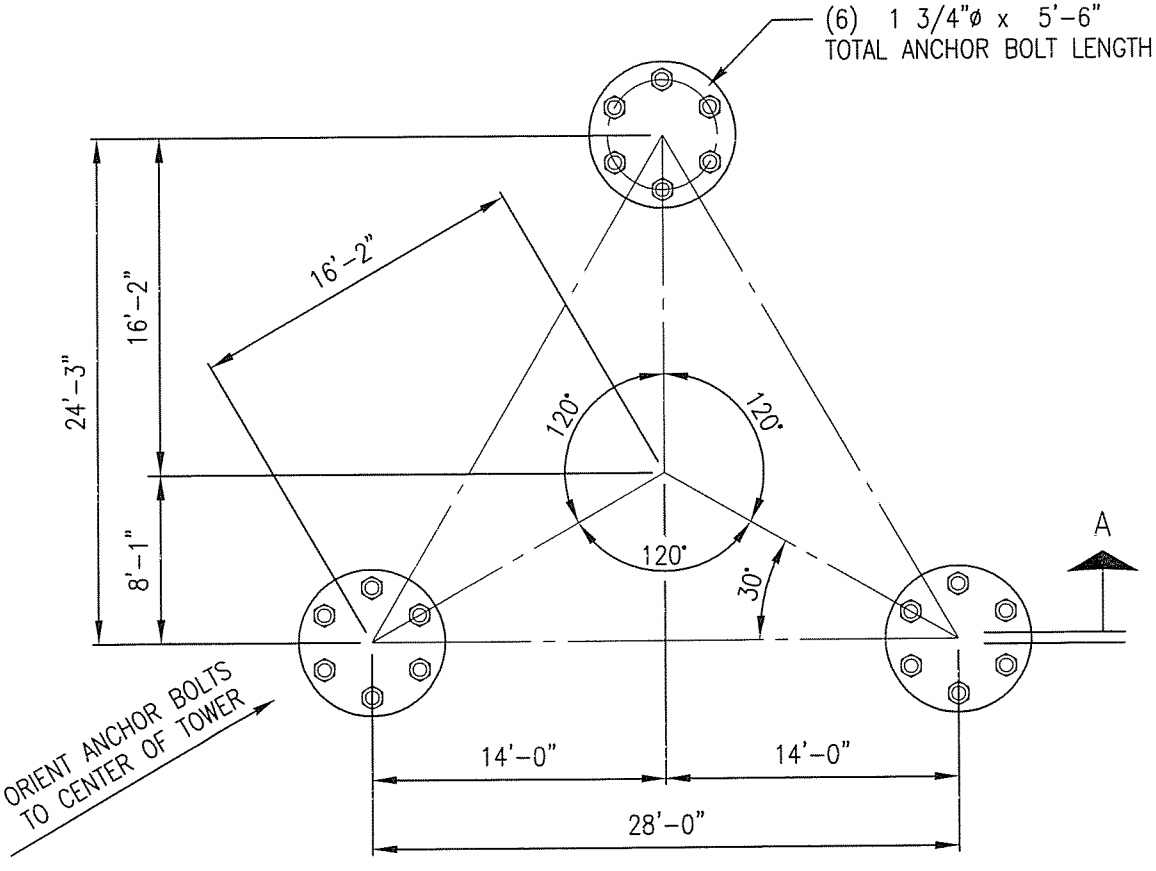
UPLIFT/LEG:	333.7 KIPS.	O.T. MOMENT:	9117.1FT-KIPS.
COMP./LEG:	400.2 KIPS.	MAX. DOWNLOAD:	54.5 KIPS.
HORIZ./LEG:	40.3 KIPS.	TOTAL SHEAR:	68.1 KIPS.
EST.WEIGHT:	37.5KIPS. (No SPL or Gussets)		

FIELD NOTES:

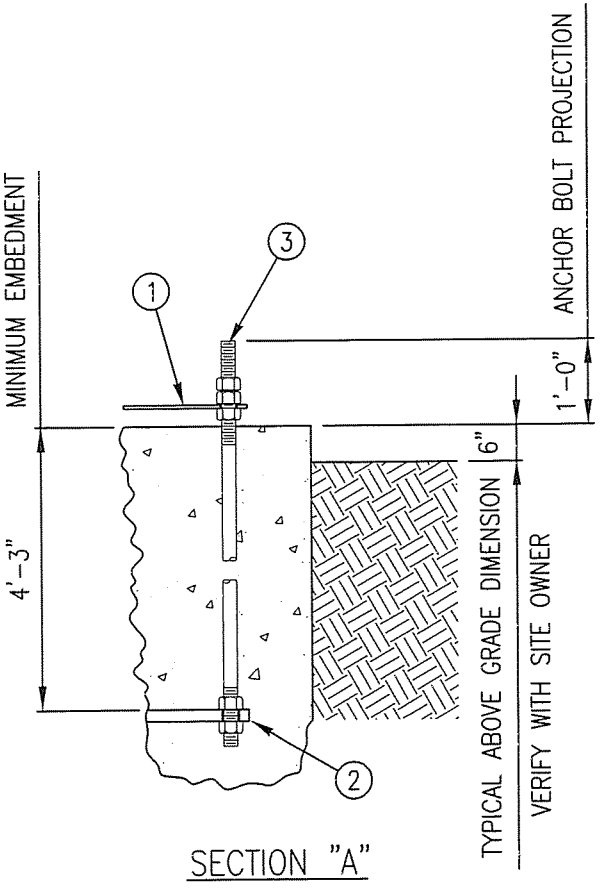
1.) VERIFY TOWER ORIENTATION WITH CUSTOMER.
2.) TOP OF FINISHED CONCRETE MUST BE AT THE SAME ELEVATION UNDER ALL TOWER LEGS.
3.) SEE FOUNDATION DESIGN FOR SPECIFIC INSTALLATION INFORMATION AND DESIGN CRITERIA.
4.) ANCHOR BOLTS TO BE SET WITH FURNISHED ANCHOR BOLT TEMPLATES.
5.) ANCHOR BOLT ORIENTATION – SEE BELOW
6.) ANCHOR BOLT THREADS ABOVE CONCRETE SHOULD BE PROTECTED DURING FOUNDATION INSTALLATION.
7.) REMOVE TOP TEMPLATE PRIOR TO SETTING TOWER BASE SECTION.

BILL OF MATERIAL

ITEM	MARK NO.	QTY.	DESCRIPTION	WEIGHT/lbs
1	------	3	TEMPLATE @ TOP	
2	------	3	ANCHOR PLATE @ BOTTOM	
3	------	18	1 3/4"ø A36 ANCHOR ROD x 5'-6"	
4				
5				
6				
7				
8				
9				
10				
			TOTAL GALVANIZED WEIGHT/lbs	



PLAN VIEW



SECTION "A"

REV.	DATE	BY	INIT.	DESCRIPTION

DRAWN BY: TLEE | CHECKED BY: – | CAD FILE: L:\DESIGNS\08-0400\0471\J0...\J081119001-E-AB.DWG|TL|20NOV08|12:16PM | REV. –

FWT, Inc.
5750 East I-20
Fort Worth, Texas 76119 U.S.A.
(817) 255-3060 FAX (817) 255-8656

SPECIFIC INFORMATION: 9LV1124 SHORT CREEK, GRAYSON COUNTY, KY
DRAWING TITLE: ANCHOR ROD INSTALLATION
SCALE: NONE | DATE: 20-Nov-08 | JOB NO. J081119001-E | SHEET NO. SHEET 1 OF 1 | DRAWING NO. AB0000

File: L:\Designs\08-0400\0471\J081119001-E\J081119001-E.out
Contract: S08-0471-E:J081119001-E
Revision: 0
Project: 250-FT:SST:13-SECTIONS
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

Section A: PROJECT DATA

Project Title:	250-FT:SST:13-SECTIONS
Customer Name:	T-Mobile (Tennessee)
Site:	9LV1124 SHORT CREEK, GRAYSON COUNTY, KY
Contract No.:	S08-0471-E:J081119001-E
Revision:	0
Engineer:	HD/tw
Date:	Nov 20 2008
Time:	12:19:30 PM

Design Standard: ANSI/TIA-222-G-2005 Addendum 1

GENERAL DESIGN CONDITIONS

Start wind direction:	0.00 (Deg)
End wind direction:	330.00 (Deg)
Increment wind direction:	30.00 (Deg)
Elevation above ground:	0.00(ft)
Gust Response Factor Gh:	0.85
Structure class:	II
Exposure category:	C
Topographic category:	1
Material Density:	490.1(lbs/ft^3)
Young's Modulus:	29000.0(ksi)
Poisson Ratio:	0.30
Weight Multiplier:	1.03

Minimum Bracing Resistance as per 4.4.1

WIND ONLY CONDITIONS:

Basic Wind Speed (No Ice):	90.00(mph)
Directionality Factor Kd:	0.85
Importance Factor I:	1.00
Wind Load Factor:	1.60
Dead Load Factor:	1.20
Dead Load Factor for Uplift:	0.90

WIND AND ICE CONDITIONS:

Basic Wind Speed (With Ice):	30.00(mph)
Directionality Factor Kd:	0.85
Importance Factor I:	1.00
Ice Thickness:	0.75(in)
Ice Density:	56.19(lbs/ft^3)
Wind Load Factor:	1.00
Dead Load Factor:	1.20
Ice Load Factor:	1.00

WIND ONLY SERVICEABILITY CONDITIONS:

Serviceability Wind Speed:	60.00(mph)
Directionality Factor Kd:	0.85
Importance Factor I:	1.00
Wind Load Factor:	1.00
Dead Load Factor:	1.00

PATTERN LOADING (IF APPLICABLE) CONDITIONS:

Basic Wind Speed (No Ice):	90.00(mph)
Directionality Factor Kd:	0.85

File: L:\Designs\08-0400\0471\J081119001-E\J081119001-E.out
Contract: S08-0471-E:J081119001-E
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Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Engineer: HD/tw

Section B: STRUCTURE GEOMETRY

TOWER GEOMETRY

Cross-Section	Height (ft)	Tot Height (ft)	# of Section	Bot Width (in)	Top Width (in)
Triangular	250.00	250.00	13	336.00	48.00

SECTION GEOMETRY

Sec #	Sec. Name	Elevation Bottom (ft)	Elevation Top (ft)	Widths Bottom (in)	Widths Top (in)	Masses Legs (lbs)	Masses Brcg. (lbs)	Masses Sec.Brc (lbs)	Masses Int.Brc (lbs)	Masses Sect. (lbs)	Masses Database (lbs)	Brcg. Clear. (in)
13	2X20A000040410	240.00	250.00	48	48	438	197	0	0	634	489	0.787
12	4X20A000040620	220.00	240.00	72	48	847	369	0	0	1217	1101	0.787
11	4X22A000060820	200.00	220.00	96	72	1027	449	0	0	1476	3029	0.787
10	GX25C000081020	180.00	200.00	120	96	1167	510	135	0	1812	3274	0.787
9	GX27C000101220	160.00	180.00	144	120	1403	563	165	0	2130	2114	0.787
8	GX30D000121420	140.00	160.00	168	144	1659	752	246	0	2657	2657	0.787
7	GX32D000141620	120.00	140.00	192	168	1936	827	284	0	3047	3053	0.787
6	GX32E000161820	100.00	120.00	216	192	1954	1194	390	0	3538	4762	0.787
5	GX35F000182020	80.00	100.00	240	216	2252	1527	436	0	4214	5331	0.787
4	BX35CCD0202220	60.00	80.00	264	240	2247	1099	750	120	4215	5816	0.787
3	BX37DDD0222420	40.00	60.00	288	264	2675	1398	916	132	5120	5328	0.787
2	BX37DDF0242620	20.00	40.00	312	288	2541	1468	985	222	5215	8186	0.787
1	BX40DDF0262820	0.00	20.00	336	312	2970	1541	1192	240	5943	7030	0.787
Total Mass:						23116	11893	5497	713	41220	52169	

PANEL GEOMETRY

Sec#	Pnl#	Type	SecBrcg	Mid. Horiz Continuous	Horiz	Height (ft)	Bottom Width (in)	Top Width (in)	Plan Bracing	Hip Bracing	Gusset Plate Area (ft^2)	Gusset Plate Weight (lbs)
13	2	X	(None)		Yes	5.0	48.0	48.0	(None)	(None)	0.850	17.35
13	1	X	(None)		None	5.0	48.0	48.0	(None)	(None)	0.850	17.35
12	4	X	(None)		None	5.0	54.0	48.0	(None)	(None)	0.737	15.02
12	3	X	(None)		None	5.0	60.0	54.0	(None)	(None)	0.737	15.02
12	2	X	(None)		None	5.0	66.0	60.0	(None)	(None)	0.737	15.02
12	1	X	(None)		None	5.0	72.0	66.0	(None)	(None)	0.737	15.02
11	4	X	(None)		None	5.0	78.0	72.0	(None)	(None)	0.753	15.34
11	3	X	(None)		None	5.0	84.0	78.0	(None)	(None)	0.753	15.34
11	2	X	(None)		None	5.0	90.0	84.0	(None)	(None)	0.753	15.34
11	1	X	(None)		None	5.0	96.0	90.0	(None)	(None)	0.753	15.34
10	2	X	2-Subdiv.	No	None	10.0	108.0	96.0	(None)	(None)	1.055	21.54
10	1	X	2-Subdiv.	No	None	10.0	120.0	108.0	(None)	(None)	1.055	21.54
9	2	X	2-Subdiv.	No	None	10.0	132.0	120.0	(None)	(None)	1.200	24.50
9	1	X	2-Subdiv.	No	None	10.0	144.0	132.0	(None)	(None)	1.200	24.50
8	2	X	2-Subdiv.	No	None	10.0	156.0	144.0	(None)	(None)	1.345	27.46
8	1	X	2-Subdiv.	No	None	10.0	168.0	156.0	(None)	(None)	1.345	27.46
7	2	X	2-Subdiv.	No	None	10.0	180.0	168.0	(None)	(None)	1.491	30.42
7	1	X	2-Subdiv.	No	None	10.0	192.0	180.0	(None)	(None)	1.491	30.42
6	2	X	2-Subdiv.	No	None	10.0	204.0	192.0	(None)	(None)	1.636	33.38
6	1	X	2-Subdiv.	No	None	10.0	216.0	204.0	(None)	(None)	1.636	33.38
5	2	X	2-Subdiv.	No	None	10.0	228.0	216.0	(None)	(None)	1.200	36.34
5	1	X	2-Subdiv.	No	None	10.0	240.0	228.0	(None)	(None)	1.200	36.34
4	1	X	4-Subdiv.	Yes	None	20.0	264.0	240.0	2-Subdiv.	(None)	3.488	71.15
3	1	X	4-Subdiv.	Yes	None	20.0	288.0	264.0	2-Subdiv.	(None)	3.681	112.70

File: L:\Designs\08-0400\0471\J081119001-E\J081119001-E.out
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Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

7/1	Leg	SR 3 1/4	A572 gr.50	Tension	6-1.000	A325X					
7/1	Diag	L3x3x3/16	A36	Bolted	2-0.625	A325X	1.250	1.500	0.250	3.000	
7/1	SecH1	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.250	1.875	
6/2	Leg	SR 3 1/4	A572 gr.50	Tension	6-1.000	A325X					
6/2	Diag	L3x3x1/4	A36	Bolted	2-0.625	A325X	1.250	1.500	0.250	3.000	
6/2	SecH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.250	1.875	
6/1	Leg	SR 3 1/4	A572 gr.50	Tension	6-1.000	A325X					
6/1	Diag	L3x3x1/4	A36	Bolted	2-0.625	A325X	1.250	1.500	0.250	3.000	
6/1	SecH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.250	1.875	
5/2	Leg	SR 3 1/2	A572 gr.50	Tension	6-1.000	A325X					
5/2	Diag	L3 1/2x3 1/2x1/4	A36	Bolted	2-0.625	A325X	1.250	1.750	0.250	3.000	
5/2	SecH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.250	1.875	
5/1	Leg	SR 3 1/2	A572 gr.50	Tension	6-1.000	A325X					
5/1	Diag	L3 1/2x3 1/2x1/4	A36	Bolted	2-0.625	A325X	1.250	1.750	0.250	3.000	
5/1	SecH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.250	1.875	
4/1	Leg	SR 3 1/2	A572 gr.50	Tension	6-1.000	A325X					
4/1	Diag	2L2 1/2x2 1/2x3/16	A36	Bolted	2-0.625	A325X	1.250	1.250	0.250	3.000	0.250 4.00
4/1	SecD1	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.250	1.875	
4/1	SecD2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.250	1.875	
4/1	SecH1	L3x3x1/4	A36	Bolted	1-0.625	A325X	1.250	1.500	0.250	1.875	
4/1	SecH2	L2x2x3/16	A36	Bolted	1-0.625	A325X	1.250	0.875	0.250	1.875	
4/1	SecH3	L2x2x3/16	A36	Bolted	1-0.625	A325X	1.250	0.875	0.250	1.875	
4/1	PlanH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.125	1.500	0.375	1.875	
3/1	Leg	SR 3 3/4	A572 gr.50	Tension	6-1.125	A325X					
3/1	Diag	2L3x3x3/16	A36	Bolted	2-0.625	A325X	1.250	1.500	0.375	3.000	0.375 4.00
3/1	SecD1	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
3/1	SecD2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
3/1	SecH1	L3 1/2x3 1/2x1/4	A36	Bolted	1-0.625	A325X	1.250	1.750	0.375	1.875	
3/1	SecH2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
3/1	SecH3	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
3/1	PlanH1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.125	1.500	0.375	1.875	
2/1	Leg	SR 3 3/4	A572 gr.50	Tension	6-1.125	A325X					
2/1	Diag	2L3x3x3/16	A36	Bolted	2-0.625	A325X	1.250	1.500	0.375	3.000	0.375 4.00
2/1	SecD1	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
2/1	SecD2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
2/1	SecH1	L3 1/2x3 1/2x1/4	A36	Bolted	1-0.625	A325X	1.250	1.750	0.375	1.875	
2/1	SecH2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
2/1	SecH3	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
2/1	PlanH1	L3 1/2x3 1/2x1/4	A36	Bolted	1-0.625	A325X	1.125	1.750	0.375	1.875	
1/1	Leg	SR 4	A572 gr.50	Tension	6-1.250	A325X					
1/1	Diag	2L3x3x3/16	A36	Bolted	2-0.625	A325X	1.250	1.500	0.375	3.000	0.375 4.00
1/1	SecD1	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.375	1.875	
1/1	SecD2	L3x3x3/16	A36	Bolted	1-0.625	A325X	1.250	1.500	0.375	1.875	
1/1	SecH1	L4x4x1/4	A36	Bolted	1-0.625	A325X	1.250	2.000	0.375	1.875	
1/1	SecH2	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
1/1	SecH3	L2 1/2x2 1/2x3/16	A36	Bolted	1-0.625	A325X	1.250	1.250	0.375	1.875	
1/1	PlanH1	L3 1/2x3 1/2x1/4	A36	Bolted	1-0.625	A325X	1.125	1.750	0.375	1.875	

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Contract: S08-0471-E:J081119001-E
Revision: 0
Project: 250-FT:SST:13-SECTIONS
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

Section D: TRANSMISSION LINE DATA

Transmission Lines Position

No.	Bot El (ft)	Top El (ft)	Desc.	Radius (ft)	Az.	Orient.	No.	No. of Rows	Part of Face	Vert.	Antenna	User Ka
1	0.00	250.00	LDF7P-50A	13.37	60.00	7.20	18	2		No	TMBX-6517-R2M	
2	0.00	235.00	LDF7P-50A	13.37	180.00	127.20	12	2		No	TMBX-6517-R2M	
3	0.00	220.00	LDF7P-50A	13.37	300.00	247.20	12	2		No	TMBX-6517-R2M	

Transmission Lines Details

No.	Desc.	Width (in)	Depth (in)	Unit Mass (lb/ft)	Line Spacing (in)	Row Spacing (in)
1	LDF7P-50A	2.01	2.01	0.92	2.500	2.000
2	LDF7P-50A	2.01	2.01	0.92	2.500	2.000
3	LDF7P-50A	2.01	2.01	0.92	2.500	2.000

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Contract: S08-0471-E:J081119001-E
Revision: 0
Project: 250-FT:SST:13-SECTIONS
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

Section G: WIND LOAD DATA

Load Combination Wind Only

Wind Direction 0.00 (deg)

Wind Pressure

Section	Panel	Bot Elev (ft)	Top Elev (ft)	Kz	Kzt	Wind Pressure (psf)	Ice Thickness (tiz) (in)
13	2	245.00	250.00	1.53	1.00	36.68	0.000
	1	240.00	245.00	1.53	1.00	36.52	0.000
12	4	235.00	240.00	1.52	1.00	36.36	0.000
	3	230.00	235.00	1.51	1.00	36.20	0.000
	2	225.00	230.00	1.50	1.00	36.03	0.000
	1	220.00	225.00	1.50	1.00	35.87	0.000
11	4	215.00	220.00	1.49	1.00	35.69	0.000
	3	210.00	215.00	1.48	1.00	35.52	0.000
	2	205.00	210.00	1.48	1.00	35.34	0.000
	1	200.00	205.00	1.47	1.00	35.16	0.000
10	2	190.00	200.00	1.46	1.00	34.88	0.000
	1	180.00	190.00	1.44	1.00	34.50	0.000
9	2	170.00	180.00	1.42	1.00	34.10	0.000
	1	160.00	170.00	1.41	1.00	33.68	0.000
8	2	150.00	160.00	1.39	1.00	33.24	0.000
	1	140.00	150.00	1.37	1.00	32.77	0.000
7	2	130.00	140.00	1.35	1.00	32.28	0.000
	1	120.00	130.00	1.33	1.00	31.77	0.000
6	2	110.00	120.00	1.30	1.00	31.21	0.000
	1	100.00	110.00	1.28	1.00	30.62	0.000
5	2	90.00	100.00	1.25	1.00	29.98	0.000
	1	80.00	90.00	1.22	1.00	29.29	0.000
4	1	60.00	80.00	1.17	1.00	28.12	0.000
3	1	40.00	60.00	1.09	1.00	26.19	0.000
2	1	20.00	40.00	0.98	1.00	23.52	0.000
1	1	0.00	20.00	0.85	1.00	20.36	0.000

Calculated Effective Wind Areas

Sec.	Pan.	Flat Area (ft^2)	App.Flat Area (ft^2)	Round Area (ft^2)	App.Round Area (ft^2)	Area Ice (ft^2)	Solid. Ratio	Flat Drag	Round Drag	Flat Dir	Round Dir	Eff. Area (ft^2)
13	2	3.33	0.00	1.67	0.00	0.00	0.24	2.47	1.44	0.80	1.00	8.98
	1	2.68	0.00	1.67	0.00	0.00	0.21	2.57	1.48	0.80	1.00	7.97
12	4	2.61	0.00	1.67	0.00	0.00	0.19	2.62	1.50	0.80	1.00	7.98
	3	2.71	0.00	1.67	0.00	0.00	0.18	2.67	1.52	0.80	1.00	8.34
	2	2.82	0.00	1.67	0.00	0.00	0.17	2.71	1.55	0.80	1.00	8.70
	1	2.93	0.00	1.67	0.00	0.00	0.16	2.75	1.56	0.80	1.00	9.06
11	4	3.05	0.00	1.88	0.00	0.00	0.15	2.76	1.57	0.80	1.00	9.69
	3	3.17	0.00	1.88	0.00	0.00	0.15	2.79	1.58	0.80	1.00	10.04
	2	3.29	0.00	1.88	0.00	0.00	0.14	2.81	1.59	0.80	1.00	10.40
	1	3.41	0.00	1.88	0.00	0.00	0.13	2.83	1.60	0.80	1.00	10.75
10	2	7.86	0.00	4.17	0.00	0.00	0.14	2.82	1.59	0.80	1.00	24.35
	1	8.30	0.00	4.17	0.00	0.00	0.13	2.85	1.61	0.80	1.00	25.68
9	2	8.90	0.00	4.59	0.00	0.00	0.13	2.86	1.62	0.80	1.00	27.82
	1	9.38	0.00	4.59	0.00	0.00	0.12	2.89	1.63	0.80	1.00	29.16
8	2	11.83	0.00	5.01	0.00	0.00	0.13	2.84	1.61	0.80	1.00	34.92

6	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.90	-0.87	1.79	3.10	-6.14
7	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.90	-0.87	1.79	-3.10	6.14
8	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-30.28	0.00	-1.08	-0.87	-3.88	0.00	0.00
9	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.89	-0.87	1.94	3.36	-6.57
10	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.89	-0.87	1.94	-3.36	6.57

Load Combination: Wind Only - Max Tension

Wind Direction: 0.00 (deg)

Wind Pressure

Section	Panel	Bot Elev (ft)	Top Elev (ft)	Kz	Kzt	Wind Pressure (psf)	Ice Thickness (tiz) (in)
13	2	245.00	250.00	1.53	1.00	36.68	0.000
	1	240.00	245.00	1.53	1.00	36.52	0.000
12	4	235.00	240.00	1.52	1.00	36.36	0.000
	3	230.00	235.00	1.51	1.00	36.20	0.000
	2	225.00	230.00	1.50	1.00	36.03	0.000
	1	220.00	225.00	1.50	1.00	35.87	0.000
11	4	215.00	220.00	1.49	1.00	35.69	0.000
	3	210.00	215.00	1.48	1.00	35.52	0.000
	2	205.00	210.00	1.48	1.00	35.34	0.000
	1	200.00	205.00	1.47	1.00	35.16	0.000
10	2	190.00	200.00	1.46	1.00	34.88	0.000
	1	180.00	190.00	1.44	1.00	34.50	0.000
9	2	170.00	180.00	1.42	1.00	34.10	0.000
	1	160.00	170.00	1.41	1.00	33.68	0.000
8	2	150.00	160.00	1.39	1.00	33.24	0.000
	1	140.00	150.00	1.37	1.00	32.77	0.000
7	2	130.00	140.00	1.35	1.00	32.28	0.000
	1	120.00	130.00	1.33	1.00	31.77	0.000
6	2	110.00	120.00	1.30	1.00	31.21	0.000
	1	100.00	110.00	1.28	1.00	30.62	0.000
5	2	90.00	100.00	1.25	1.00	29.98	0.000
	1	80.00	90.00	1.22	1.00	29.29	0.000
4	1	60.00	80.00	1.17	1.00	28.12	0.000
3	1	40.00	60.00	1.09	1.00	26.19	0.000
2	1	20.00	40.00	0.98	1.00	23.52	0.000
1	1	0.00	20.00	0.85	1.00	20.36	0.000

Calculated Effective Wind Areas

Sec.	Pan.	Flat Area (ft^2)	App.Flat Area (ft^2)	Round Area (ft^2)	App.Round Area (ft^2)	Area Ice (ft^2)	Solid. Ratio	Flat Drag	Round Drag	Flat Dir	Round Dir	Eff. Area (ft^2)
13	2	3.33	0.00	1.67	0.00	0.00	0.24	2.47	1.44	0.80	1.00	8.98
	1	2.68	0.00	1.67	0.00	0.00	0.21	2.57	1.48	0.80	1.00	7.97
12	4	2.61	0.00	1.67	0.00	0.00	0.19	2.62	1.50	0.80	1.00	7.98
	3	2.71	0.00	1.67	0.00	0.00	0.18	2.67	1.52	0.80	1.00	8.34
	2	2.82	0.00	1.67	0.00	0.00	0.17	2.71	1.55	0.80	1.00	8.70
	1	2.93	0.00	1.67	0.00	0.00	0.16	2.75	1.56	0.80	1.00	9.06
11	4	3.05	0.00	1.88	0.00	0.00	0.15	2.76	1.57	0.80	1.00	9.69
	3	3.17	0.00	1.88	0.00	0.00	0.15	2.79	1.58	0.80	1.00	10.04

					(ft^2)	(ft^2)						
1	Lightning Rod	1		250	0.00	-0.75	0.00	-0.03	-0.01	0.00	0.00	0.00
2	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-30.28	0.00	-1.11	-0.87	-3.28	0.00	0.00
3	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-24.92	0.00	-0.92	-0.87	1.64	2.84	-5.70
4	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-24.92	0.00	-0.92	-0.87	1.64	-2.84	5.70
5	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-30.28	0.00	-1.10	-0.87	-3.58	0.00	0.00
6	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.90	-0.87	1.79	3.10	-6.14
7	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.90	-0.87	1.79	-3.10	6.14
8	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-30.28	0.00	-1.08	-0.87	-3.88	0.00	0.00
9	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.89	-0.87	1.94	3.36	-6.57
10	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.89	-0.87	1.94	-3.36	6.57

Load Combination Wind and Ice

Wind Direction 0.00 (deg)

Wind Pressure

Section	Panel	Bot Elev (ft)	Top Elev (ft)	Kz	Kzt	Wind Pressure (psf)	Ice Thickness (tiz) (in)
13	2	245.00	250.00	1.53	1.00	2.55	1.836
	1	240.00	245.00	1.53	1.00	2.54	1.832
12	4	235.00	240.00	1.52	1.00	2.53	1.828
	3	230.00	235.00	1.51	1.00	2.51	1.824
	2	225.00	230.00	1.50	1.00	2.50	1.821
	1	220.00	225.00	1.50	1.00	2.49	1.816
11	4	215.00	220.00	1.49	1.00	2.48	1.812
	3	210.00	215.00	1.48	1.00	2.47	1.808
	2	205.00	210.00	1.48	1.00	2.45	1.804
	1	200.00	205.00	1.47	1.00	2.44	1.799
10	2	190.00	200.00	1.46	1.00	2.42	1.793
	1	180.00	190.00	1.44	1.00	2.40	1.783
9	2	170.00	180.00	1.42	1.00	2.37	1.773
	1	160.00	170.00	1.41	1.00	2.34	1.763
8	2	150.00	160.00	1.39	1.00	2.31	1.752
	1	140.00	150.00	1.37	1.00	2.28	1.740
7	2	130.00	140.00	1.35	1.00	2.24	1.728
	1	120.00	130.00	1.33	1.00	2.21	1.715
6	2	110.00	120.00	1.30	1.00	2.17	1.700
	1	100.00	110.00	1.28	1.00	2.13	1.685
5	2	90.00	100.00	1.25	1.00	2.08	1.668
	1	80.00	90.00	1.22	1.00	2.03	1.650
4	1	60.00	80.00	1.17	1.00	1.95	1.618
3	1	40.00	60.00	1.09	1.00	1.82	1.565
2	1	20.00	40.00	0.98	1.00	1.63	1.487
1	1	0.00	20.00	0.85	1.00	1.41	1.332

Calculated Effective Wind Areas

Sec.	Pan.	Flat Area (ft^2)	App.Flat Area (ft^2)	Round Area (ft^2)	App.Round Area (ft^2)	Area Ice (ft^2)	Solid. Ratio	Flat Drag	Round Drag	Flat Dir	Round Dir	Eff. Area (ft^2)
13	2	3.29	0.00	1.67	0.00	7.99	0.62	1.79	1.36	0.80	1.00	17.83

1 1 72.73 26.64 1.57 1.20 0.70 102.12

App. Concentrated Loads

Ant.	Description	Qty	Mount Desc.	Elev. (ft)	CaAc X-Dir E-W (ft^2)	CaAc Y-Dir N-S (ft^2)	XForce E-W (Kips)	YForce N-S (Kips)	ZForce (Kips)	M-x (kipsft)	M-y (kipsft)	M-z (kipsft)
1	Lightning Rod	1		250	0.00	-4.57	0.00	-0.01	-0.01	0.00	0.00	0.00
2	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-52.59	0.00	-0.13	-0.87	-3.28	0.00	0.00
3	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-49.07	0.00	-0.13	-0.87	1.64	2.84	-0.79
4	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-49.07	0.00	-0.13	-0.87	1.64	-2.84	0.79
5	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-52.45	0.00	-0.13	-0.87	-3.58	0.00	0.00
6	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-48.92	0.00	-0.12	-0.87	1.79	3.10	-0.85
7	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-48.92	0.00	-0.12	-0.87	1.79	-3.10	0.85
8	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-52.31	0.00	-0.13	-0.87	-3.88	0.00	0.00
9	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-48.76	0.00	-0.12	-0.87	1.94	3.36	-0.91
10	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-48.76	0.00	-0.12	-0.87	1.94	-3.36	0.91

Load Combination Wind Only - Serviceability

Wind Direction 0.00 (deg)

Wind Pressure

Section	Panel	Bot Elev (ft)	Top Elev (ft)	Kz	Kzt	Wind Pressure (psf)	Ice Thickness (tiz) (in)
13	2	245.00	250.00	1.53	1.00	10.19	0.000
	1	240.00	245.00	1.53	1.00	10.14	0.000
12	4	235.00	240.00	1.52	1.00	10.10	0.000
	3	230.00	235.00	1.51	1.00	10.06	0.000
	2	225.00	230.00	1.50	1.00	10.01	0.000
	1	220.00	225.00	1.50	1.00	9.96	0.000
11	4	215.00	220.00	1.49	1.00	9.92	0.000
	3	210.00	215.00	1.48	1.00	9.87	0.000
	2	205.00	210.00	1.48	1.00	9.82	0.000
	1	200.00	205.00	1.47	1.00	9.77	0.000
10	2	190.00	200.00	1.46	1.00	9.69	0.000
	1	180.00	190.00	1.44	1.00	9.58	0.000
9	2	170.00	180.00	1.42	1.00	9.47	0.000
	1	160.00	170.00	1.41	1.00	9.35	0.000
8	2	150.00	160.00	1.39	1.00	9.23	0.000
	1	140.00	150.00	1.37	1.00	9.10	0.000
7	2	130.00	140.00	1.35	1.00	8.97	0.000
	1	120.00	130.00	1.33	1.00	8.82	0.000
6	2	110.00	120.00	1.30	1.00	8.67	0.000
	1	100.00	110.00	1.28	1.00	8.51	0.000
5	2	90.00	100.00	1.25	1.00	8.33	0.000
	1	80.00	90.00	1.22	1.00	8.14	0.000
4	1	60.00	80.00	1.17	1.00	7.81	0.000
3	1	40.00	60.00	1.09	1.00	7.28	0.000
2	1	20.00	40.00	0.98	1.00	6.53	0.000
1	1	0.00	20.00	0.85	1.00	5.65	0.000

6	2	29.71	0.00	1.58	1.20	0.66	31.14
	1	29.71	0.00	1.58	1.20	0.66	31.14
5	2	29.71	0.00	1.58	1.20	0.66	31.14
	1	29.71	0.00	1.58	1.20	0.66	31.14
4	1	59.41	0.00	1.58	1.20	0.66	62.28
3	1	59.41	0.00	1.58	1.20	0.66	62.28
2	1	59.41	0.00	1.58	1.20	0.66	62.28
1	1	59.41	0.00	1.58	1.20	0.66	62.28

App. Concentrated Loads

Ant.	Description	Qty	Mount Desc.	Elev. (ft)	CaAc X-Dir E-W (ft^2)	CaAc Y-Dir N-S (ft^2)	XForce E-W (Kips)	YForce N-S (Kips)	ZForce (Kips)	M-x (kipsft)	M-y (kipsft)	M-z (kipsft)
1	Lightning Rod	1		250	0.00	-0.75	0.00	-0.01	-0.01	0.00	0.00	0.00
2	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-30.28	0.00	-0.31	-0.87	-3.28	0.00	0.00
3	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-24.92	0.00	-0.25	-0.87	1.64	2.84	-1.58
4	TMBX-6517-R2M	4	AM110-P-12'	250	0.00	-24.92	0.00	-0.25	-0.87	1.64	-2.84	1.58
5	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-30.28	0.00	-0.31	-0.87	-3.58	0.00	0.00
6	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.25	-0.87	1.79	3.10	-1.71
7	TMBX-6517-R2M	4	AM110-P-12'	235	0.00	-24.92	0.00	-0.25	-0.87	1.79	-3.10	1.71
8	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-30.28	0.00	-0.30	-0.87	-3.88	0.00	0.00
9	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.25	-0.87	1.94	3.36	-1.82
10	TMBX-6517-R2M	4	AM110-P-12'	220	0.00	-24.92	0.00	-0.25	-0.87	1.94	-3.36	1.82

33	140.0	8.8	8.7	-0.1	0.56	0.55	-0.01
30	130.0	7.6	7.5	-0.1	0.52	0.52	0.01
27	120.0	6.5	6.4	-0.1	0.46	0.46	-0.01
24	110.0	5.5	5.5	-0.1	0.43	0.42	0.01
21	100.0	4.6	4.6	-0.1	0.37	0.37	-0.01
18	90.0	3.9	3.8	-0.1	0.34	0.34	0.01
15	80.0	3.1	3.1	-0.1	0.31	0.30	-0.01
12	60.0	1.9	1.8	0.0	0.21	0.21	0.03
9	40.0	1.0	0.9	0.0	0.16	0.15	-0.01
6	20.0	0.3	-0.3	0.0	0.07	-0.07	0.03
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind Only - Max Tension

Wind Direction Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
81	250.0	29.1	29.0	-0.1	1.12	1.13	0.03
78	245.0	27.9	27.8	-0.1	1.12	1.13	0.03
75	240.0	26.7	26.7	-0.1	1.10	1.11	-0.03
72	235.0	25.6	25.5	-0.1	1.10	1.10	0.03
69	230.0	24.4	24.3	-0.1	1.08	1.08	-0.03
66	225.0	23.3	23.2	-0.1	1.04	1.05	0.03
63	220.0	22.2	22.1	-0.1	1.03	1.03	-0.02
60	215.0	21.1	21.0	-0.1	1.00	1.00	0.02
57	210.0	20.1	20.0	-0.1	0.97	0.97	-0.02
54	205.0	19.1	19.0	-0.1	0.94	0.94	0.02
51	200.0	18.1	18.0	-0.1	0.89	0.89	-0.02
48	190.0	16.2	16.1	-0.1	0.82	0.82	0.03
45	180.0	14.5	14.4	-0.1	0.77	0.77	-0.02
42	170.0	12.9	12.8	-0.1	0.71	0.71	0.02
39	160.0	11.4	11.3	-0.1	0.65	0.65	-0.01
36	150.0	10.0	9.9	-0.1	0.60	0.60	0.01
33	140.0	8.8	8.7	-0.1	0.56	0.55	-0.01
30	130.0	7.6	7.5	-0.1	0.52	0.52	0.01
27	120.0	6.5	6.4	-0.1	0.46	0.46	-0.01
24	110.0	5.5	5.5	-0.1	0.43	0.42	0.01
21	100.0	4.6	4.6	-0.1	0.37	0.37	-0.01
18	90.0	3.9	3.8	0.0	0.34	0.34	0.01
15	80.0	3.1	3.1	0.0	0.31	0.30	-0.01
12	60.0	1.9	1.8	0.0	0.21	0.21	0.03
9	40.0	1.0	0.9	0.0	0.16	0.15	-0.01
6	20.0	0.3	-0.3	0.0	0.07	-0.07	0.03
3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Load Combination Wind and Ice

Wind Direction Maximum displacements

Node	Elev. (ft)	N-S Disp (in)	W-E Disp (in)	Vert.Disp (in)	N-S Rot (Deg)	W-E Rot (Deg)	Twist (Deg)
81	250.0	3.6	3.6	-0.4	0.14	0.14	0.00
78	245.0	3.5	3.4	-0.4	0.14	0.14	0.00
75	240.0	3.3	3.3	-0.4	0.14	0.14	0.00
72	235.0	3.2	3.1	-0.4	0.14	0.14	0.00

3	0.0	0.0	0.0	0.0	0.00	0.00	0.00

File: L:\Designs\08-0400\0471\J081119001-E\J081119001-E.out
Contract: S08-0471-E:J081119001-E
Revision: 0
Project: 250-FT:SST:13-SECTIONS
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

4	1	60.00	Diag	2L2 1/2x2 1/2x3/16	29.01	182.9	12.2	43.2	11.9	11.8	0.98
3	1	40.00	Diag	2L3x3x3/16	30.48	155.8	20.3	45.7	12.4	12.3	0.61
2	1	20.00	Diag	2L3x3x3/16	32.02	161.5	18.9	45.7	12.9	12.8	0.68
1	1	0.00	Diag	2L3x3x3/16	33.61	167.4	17.6	45.7	13.2	13.2	0.75
13	2	245.00	Horiz	L2x2x3/16	4.00	113.8	11.6	8.3	0.7	0.7	0.08
10	2	190.00	SecH1	L2x2x3/16	4.26	131.1	9.3	8.3	2.2	2.2	0.26
10	1	180.00	SecH1	L2x2x3/16	4.76	146.4	7.5	8.3	2.6	2.6	0.35
9	2	170.00	SecH1	L2x2x3/16	5.26	161.7	6.1	8.3	2.8	2.8	0.45
9	1	160.00	SecH1	L2x2x3/16	5.75	177.0	5.1	8.3	3.1	3.1	0.61
8	2	150.00	SecH1	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	3.3	3.3	0.38
8	1	140.00	SecH1	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	3.6	3.6	0.48
7	2	130.00	SecH1	L2 1/2x2 1/2x3/16	7.25	177.6	6.4	10.9	3.7	3.7	0.57
7	1	120.00	SecH1	L2 1/2x2 1/2x3/16	7.75	189.8	5.6	10.9	4.0	4.0	0.71
6	2	110.00	SecH1	L3x3x3/16	8.25	167.8	8.7	11.1	4.3	4.3	0.49
6	1	100.00	SecH1	L3x3x3/16	8.75	178.0	7.8	11.1	4.6	4.6	0.60
5	2	90.00	SecH1	L3x3x3/16	9.25	188.2	7.0	11.1	4.7	4.7	0.68
5	1	80.00	SecH1	L3x3x3/16	9.75	198.3	6.3	11.1	5.0	5.0	0.80
4	1	60.00	SecH1	L3x3x1/4	10.51	213.8	7.1	14.8	5.4	5.4	0.76
4	1	60.00	SecH2	L2x2x3/16	5.26	161.7	6.1	8.3	5.4	5.4	0.88
4	1	60.00	SecH3	L2x2x3/16	5.26	161.7	6.1	8.3	5.4	5.4	0.88
4	1	60.00	SecD1	L2 1/2x2 1/2x3/16	6.91	169.1	7.1	10.9	3.7	3.7	0.52
4	1	60.00	SecD2	L2 1/2x2 1/2x3/16	7.60	186.0	5.9	10.9	3.7	3.7	0.63
4	1	60.00	PlanH1	L3x3x3/16	10.48	213.1	5.4	9.8	0.1	0.1	0.01
3	1	40.00	SecH1	L3 1/2x3 1/2x1/4	11.51	200.1	9.5	14.8	5.7	5.7	0.60
3	1	40.00	SecH2	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.56
3	1	40.00	SecH3	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.56
3	1	40.00	SecD1	L2 1/2x2 1/2x3/16	7.29	178.5	6.4	10.9	3.8	3.8	0.60
3	1	40.00	SecD2	L2 1/2x2 1/2x3/16	7.95	194.8	5.4	10.9	3.8	3.8	0.71
3	1	40.00	PlanH1	L3x3x3/16	11.48	233.5	4.5	9.8	0.1	0.1	0.02
2	1	20.00	SecH1	L3 1/2x3 1/2x1/4	12.51	217.5	8.1	14.8	6.3	6.3	0.78
2	1	20.00	SecH2	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.3	6.3	0.73
2	1	20.00	SecH3	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.3	6.3	0.73
2	1	20.00	SecD1	L2 1/2x2 1/2x3/16	7.68	188.2	5.7	10.9	4.1	4.1	0.71
2	1	20.00	SecD2	L2 1/2x2 1/2x3/16	8.33	203.9	4.9	10.9	4.1	4.1	0.83
2	1	20.00	PlanH1	L3 1/2x3 1/2x1/4	12.48	217.0	8.1	13.1	0.1	0.1	0.01
1	1	0.00	SecH1	L4x4x1/4	13.51	202.6	10.7	14.8	6.6	6.6	0.62
1	1	0.00	SecH2	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.6	6.6	0.89
1	1	0.00	SecH3	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.6	6.6	0.89
1	1	0.00	SecD1	L3x3x3/16	8.09	164.5	9.1	11.1	4.1	4.1	0.45
1	1	0.00	SecD2	L3x3x3/16	8.71	177.2	7.8	11.1	4.1	4.1	0.53
1	1	0.00	PlanH1	L3 1/2x3 1/2x1/4	13.48	234.5	6.9	13.1	0.1	0.1	0.01

Load Combination: Wind Only
Wind Direction: Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
13	2	245.00	Leg	SR 2	5.00	120.0	49.3	82.3	3.5	1.1	0.07
13	1	240.00	Leg	SR 2	5.00	120.0	49.3	82.3	8.9	6.3	0.18
12	4	235.00	Leg	SR 2	5.01	120.2	49.1	82.3	14.2	11.3	0.29
12	3	230.00	Leg	SR 2	5.01	120.2	49.1	82.3	21.9	16.2	0.45

7	2	130.00	SecH1	L2 1/2x2 1/2x3/16	7.25	177.6	6.4	10.9	3.7	3.7	0.57
7	1	120.00	SecH1	L2 1/2x2 1/2x3/16	7.75	189.8	5.6	10.9	4.0	4.0	0.71
6	2	110.00	SecH1	L3x3x3/16	8.25	167.8	8.7	11.1	4.3	4.3	0.49
6	1	100.00	SecH1	L3x3x3/16	8.75	178.0	7.8	11.1	4.6	4.6	0.60
5	2	90.00	SecH1	L3x3x3/16	9.25	188.2	7.0	11.1	4.7	4.7	0.68
5	1	80.00	SecH1	L3x3x3/16	9.75	198.3	6.3	11.1	5.0	5.0	0.80
4	1	60.00	SecH1	L3x3x1/4	10.51	213.8	7.1	14.8	5.4	5.4	0.76
4	1	60.00	SecH2	L2x2x3/16	5.26	161.7	6.1	8.3	5.4	5.4	0.88
4	1	60.00	SecH3	L2x2x3/16	5.26	161.7	6.1	8.3	5.4	5.4	0.88
4	1	60.00	SecD1	L2 1/2x2 1/2x3/16	6.91	169.1	7.1	10.9	3.7	3.7	0.52
4	1	60.00	SecD2	L2 1/2x2 1/2x3/16	7.60	186.0	5.9	10.9	3.7	3.7	0.63
4	1	60.00	PlanH1	L3x3x3/16	10.48	213.1	5.4	9.8	0.1	0.1	0.01
3	1	40.00	SecH1	L3 1/2x3 1/2x1/4	11.51	200.1	9.5	14.8	5.7	5.7	0.60
3	1	40.00	SecH2	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.56
3	1	40.00	SecH3	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.56
3	1	40.00	SecD1	L2 1/2x2 1/2x3/16	7.29	178.5	6.4	10.9	3.8	3.8	0.60
3	1	40.00	SecD2	L2 1/2x2 1/2x3/16	7.95	194.8	5.4	10.9	3.8	3.8	0.71
3	1	40.00	PlanH1	L3x3x3/16	11.48	233.5	4.5	9.8	0.1	0.1	0.02
2	1	20.00	SecH1	L3 1/2x3 1/2x1/4	12.51	217.5	8.1	14.8	6.3	6.3	0.78
2	1	20.00	SecH2	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.3	6.3	0.73
2	1	20.00	SecH3	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.3	6.3	0.73
2	1	20.00	SecD1	L2 1/2x2 1/2x3/16	7.68	188.2	5.7	10.9	4.1	4.1	0.71
2	1	20.00	SecD2	L2 1/2x2 1/2x3/16	8.33	203.9	4.9	10.9	4.1	4.1	0.83
2	1	20.00	PlanH1	L3 1/2x3 1/2x1/4	12.48	217.0	8.1	13.1	0.1	0.1	0.01
1	1	0.00	SecH1	L4x4x1/4	13.51	202.6	10.7	14.8	6.6	6.6	0.62
1	1	0.00	SecH2	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.6	6.6	0.89
1	1	0.00	SecH3	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.6	6.6	0.89
1	1	0.00	SecD1	L3x3x3/16	8.09	164.5	9.1	11.1	4.1	4.1	0.45
1	1	0.00	SecD2	L3x3x3/16	8.71	177.2	7.8	11.1	4.1	4.1	0.53
1	1	0.00	PlanH1	L3 1/2x3 1/2x1/4	13.48	234.5	6.9	13.1	0.1	0.1	0.01

Load Combination: Wind Only - Max Tension
Wind Direction: Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
13	2	245.00	Leg	SR 2	5.00	120.0	49.3	82.3	3.2	1.4	0.06
13	1	240.00	Leg	SR 2	5.00	120.0	49.3	82.3	8.6	6.7	0.18
12	4	235.00	Leg	SR 2	5.01	120.2	49.1	82.3	13.9	11.6	0.28
12	3	230.00	Leg	SR 2	5.01	120.2	49.1	82.3	21.2	16.8	0.43
12	2	225.00	Leg	SR 2	5.01	120.2	49.1	82.3	30.0	25.1	0.61
12	1	220.00	Leg	SR 2	5.01	120.2	49.1	82.3	36.9	31.6	0.75
11	4	215.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	46.2	38.8	0.59
11	3	210.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	56.0	47.9	0.72
11	2	205.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	64.6	55.9	0.83
11	1	200.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	73.6	64.2	0.95
10	2	190.00	Leg	SR 2 1/2	10.02	101.8	103.6	182.5	85.4	75.1	0.82
10	1	180.00	Leg	SR 2 1/2	10.02	101.2	104.5	182.5	102.0	90.0	0.98
9	2	170.00	Leg	SR 2 3/4	10.02	91.6	144.7	182.5	117.3	103.9	0.81
9	1	160.00	Leg	SR 2 3/4	10.02	91.3	145.4	182.5	133.0	117.8	0.91
8	2	150.00	Leg	SR 3	10.02	83.4	191.5	251.8	148.0	131.1	0.77
8	1	140.00	Leg	SR 3	10.02	83.0	192.2	251.8	163.5	144.5	0.85
7	2	130.00	Leg	SR 3 1/4	10.02	76.5	243.5	330.3	178.7	157.7	0.73

3	1	40.00	SecH2	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.55
3	1	40.00	SecH3	L2 1/2x2 1/2x3/16	5.75	140.9	10.2	10.9	5.7	5.7	0.55
3	1	40.00	SecD1	L2 1/2x2 1/2x3/16	7.29	178.5	6.4	10.9	3.7	3.7	0.59
3	1	40.00	SecD2	L2 1/2x2 1/2x3/16	7.95	194.8	5.4	10.9	3.7	3.7	0.70
3	1	40.00	PlanH1	L3x3x3/16	11.48	233.5	4.5	9.8	0.1	0.1	0.02
2	1	20.00	SecH1	L3 1/2x3 1/2x1/4	12.51	217.5	8.1	14.8	6.2	6.2	0.77
2	1	20.00	SecH2	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.2	6.2	0.72
2	1	20.00	SecH3	L2 1/2x2 1/2x3/16	6.25	153.1	8.7	10.9	6.2	6.2	0.72
2	1	20.00	SecD1	L2 1/2x2 1/2x3/16	7.68	188.2	5.7	10.9	4.0	4.0	0.70
2	1	20.00	SecD2	L2 1/2x2 1/2x3/16	8.33	203.9	4.9	10.9	4.0	4.0	0.82
2	1	20.00	PlanH1	L3 1/2x3 1/2x1/4	12.48	217.0	8.1	13.1	0.1	0.1	0.01
1	1	0.00	SecH1	L4x4x1/4	13.51	202.6	10.7	14.8	6.5	6.5	0.61
1	1	0.00	SecH2	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.5	6.5	0.88
1	1	0.00	SecH3	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	6.5	6.5	0.88
1	1	0.00	SecD1	L3x3x3/16	8.09	164.5	9.1	11.1	4.1	4.1	0.45
1	1	0.00	SecD2	L3x3x3/16	8.71	177.2	7.8	11.1	4.1	4.1	0.52
1	1	0.00	PlanH1	L3 1/2x3 1/2x1/4	13.48	234.5	6.9	13.1	0.1	0.1	0.01

Load Combination Wind and Ice
Wind Direction Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
13	2	245.00	Leg	SR 2	5.00	120.0	49.3	82.3	3.5	0.0	0.07
13	1	240.00	Leg	SR 2	5.00	120.0	49.3	82.3	4.7	0.0	0.10
12	4	235.00	Leg	SR 2	5.01	120.2	49.1	82.3	5.9	0.0	0.12
12	3	230.00	Leg	SR 2	5.01	120.2	49.1	82.3	10.2	0.0	0.21
12	2	225.00	Leg	SR 2	5.01	120.2	49.1	82.3	12.1	0.0	0.25
12	1	220.00	Leg	SR 2	5.01	120.2	49.1	82.3	13.7	0.0	0.28
11	4	215.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	18.3	0.0	0.23
11	3	210.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	20.7	0.0	0.27
11	2	205.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	22.6	0.0	0.29
11	1	200.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	24.9	0.0	0.32
10	2	190.00	Leg	SR 2 1/2	10.02	101.8	103.6	182.5	27.6	0.0	0.27
10	1	180.00	Leg	SR 2 1/2	10.02	101.2	104.5	182.5	32.0	0.0	0.31
9	2	170.00	Leg	SR 2 3/4	10.02	91.6	144.7	182.5	35.9	0.0	0.25
9	1	160.00	Leg	SR 2 3/4	10.02	91.3	145.4	182.5	40.2	0.0	0.28
8	2	150.00	Leg	SR 3	10.02	83.4	191.5	251.8	44.1	0.0	0.23
8	1	140.00	Leg	SR 3	10.02	83.0	192.2	251.8	48.5	0.0	0.25
7	2	130.00	Leg	SR 3 1/4	10.02	76.5	243.5	330.3	52.7	0.0	0.22
7	1	120.00	Leg	SR 3 1/4	10.02	76.4	243.8	330.3	57.1	0.0	0.23
6	2	110.00	Leg	SR 3 1/4	10.02	76.2	244.2	330.3	61.5	0.0	0.25
6	1	100.00	Leg	SR 3 1/4	10.02	76.1	244.7	330.3	66.1	0.0	0.27
5	2	90.00	Leg	SR 3 1/2	10.02	70.5	301.2	330.3	70.6	0.0	0.23
5	1	80.00	Leg	SR 3 1/2	10.02	70.5	301.2	330.3	75.4	0.0	0.25
4	1	60.00	Leg	SR 3 1/2	20.03	68.7	306.8	330.3	82.3	0.0	0.27
3	1	40.00	Leg	SR 3 3/4	20.03	64.1	368.4	416.3	92.0	0.0	0.25
2	1	20.00	Leg	SR 3 3/4	20.03	64.1	368.4	416.3	101.7	0.0	0.28
1	1	0.00	Leg	SR 4	20.03	60.1	434.5	528.0	111.4	0.0	0.26
13	2	245.00	Diag	L1 3/4x1 3/4x3/16	6.40	100.2	11.8	17.9	0.2	0.3	0.02
13	1	240.00	Diag	L1 3/4x1 3/4x3/16	6.40	100.2	11.8	17.9	0.3	0.2	0.03
12	4	235.00	Diag	L1 3/4x1 3/4x3/16	6.56	139.3	7.2	17.9	0.4	0.1	0.05 *

1	1	0.00	SecH3	L2 1/2x2 1/2x3/16	6.75	165.4	7.4	10.9	1.9	1.9	0.26
1	1	0.00	SecD1	L3x3x3/16	8.09	164.5	9.1	11.1	1.2	1.2	0.13
1	1	0.00	SecD2	L3x3x3/16	8.71	177.2	7.8	11.1	1.2	1.2	0.15
1	1	0.00	PlanH1	L3 1/2x3 1/2x1/4	13.48	234.5	6.9	13.1	0.0	0.0	0.00

Note: The asterisk (*) placed after the assessment ratio marks cases where the diagonal's capacity in X-braced panel without support in crossover point is governing due to Tension/Compression ratio below limit.
The slenderness is calculated as per: ANSI/TIA-222-G, Table 4-6

Load Combination: Wind Only - Serviceability
Wind Direction: Maximum

Sec	Pnl	Elev (ft)	MType	Desc.	Len (ft)	kl/r	Gov. comp. cap. (Kips)	Gov. tens. cap. (Kips)	Max Compr. (Kips)	Max Tens. (Kips)	Asses. Ratio
13	2	245.00	Leg	SR 2	5.00	120.0	49.3	82.3	1.6	0.0	0.03
13	1	240.00	Leg	SR 2	5.00	120.0	49.3	82.3	3.2	1.1	0.06
12	4	235.00	Leg	SR 2	5.01	120.2	49.1	82.3	4.7	2.4	0.10
12	3	230.00	Leg	SR 2	5.01	120.2	49.1	82.3	7.5	3.0	0.15
12	2	225.00	Leg	SR 2	5.01	120.2	49.1	82.3	10.1	5.2	0.21
12	1	220.00	Leg	SR 2	5.01	120.2	49.1	82.3	12.1	6.9	0.25
11	4	215.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	15.5	8.1	0.20
11	3	210.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	18.4	10.4	0.24
11	2	205.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	20.9	12.6	0.27
11	1	200.00	Leg	SR 2 1/4	5.01	106.8	77.8	123.5	23.6	14.7	0.30
10	2	190.00	Leg	SR 2 1/2	10.02	101.8	103.6	182.5	27.1	17.5	0.26
10	1	180.00	Leg	SR 2 1/2	10.02	101.2	104.5	182.5	32.1	21.3	0.31
9	2	170.00	Leg	SR 2 3/4	10.02	91.6	144.7	182.5	36.7	24.8	0.25
9	1	160.00	Leg	SR 2 3/4	10.02	91.3	145.4	182.5	41.4	28.2	0.29
8	2	150.00	Leg	SR 3	10.02	83.4	191.5	251.8	46.0	31.5	0.24
8	1	140.00	Leg	SR 3	10.02	83.0	192.2	251.8	50.8	34.8	0.26
7	2	130.00	Leg	SR 3 1/4	10.02	76.5	243.5	330.3	55.5	38.0	0.23
7	1	120.00	Leg	SR 3 1/4	10.02	76.4	243.8	330.3	60.3	41.2	0.25
6	2	110.00	Leg	SR 3 1/4	10.02	76.2	244.2	330.3	65.1	44.3	0.27
6	1	100.00	Leg	SR 3 1/4	10.02	76.1	244.7	330.3	70.1	47.4	0.29
5	2	90.00	Leg	SR 3 1/2	10.02	70.5	301.2	330.3	75.1	50.5	0.25
5	1	80.00	Leg	SR 3 1/2	10.02	70.5	301.2	330.3	80.2	53.6	0.27
4	1	60.00	Leg	SR 3 1/2	20.03	68.7	306.8	330.3	87.8	58.1	0.29
3	1	40.00	Leg	SR 3 3/4	20.03	64.1	368.4	416.3	98.2	64.0	0.27
2	1	20.00	Leg	SR 3 3/4	20.03	64.1	368.4	416.3	108.7	69.7	0.30
1	1	0.00	Leg	SR 4	20.03	60.1	434.5	528.0	119.3	75.1	0.27
13	2	245.00	Diag	L1 3/4x1 3/4x3/16	6.40	100.2	11.8	17.9	0.5	0.5	0.04
13	1	240.00	Diag	L1 3/4x1 3/4x3/16	6.40	100.2	11.8	17.9	0.6	0.6	0.05
12	4	235.00	Diag	L1 3/4x1 3/4x3/16	6.56	107.2	11.0	17.9	0.6	0.5	0.05
12	3	230.00	Diag	L1 3/4x1 3/4x3/16	6.90	112.0	10.4	17.9	1.0	0.9	0.09
12	2	225.00	Diag	L1 3/4x1 3/4x3/16	7.25	117.0	9.8	17.9	0.9	0.9	0.09
12	1	220.00	Diag	L1 3/4x1 3/4x3/16	7.62	122.2	9.1	17.9	0.9	0.9	0.10
11	4	215.00	Diag	L1 3/4x1 3/4x3/16	8.01	127.2	8.6	17.9	1.2	1.2	0.14
11	3	210.00	Diag	L1 3/4x1 3/4x3/16	8.40	132.7	7.9	17.9	1.2	1.2	0.15
11	2	205.00	Diag	L1 3/4x1 3/4x3/16	8.81	138.3	7.3	17.9	1.2	1.1	0.17
11	1	200.00	Diag	L1 3/4x1 3/4x3/16	9.22	144.1	6.7	17.9	1.2	1.2	0.17
10	2	190.00	Diag	L2 1/2x2 1/2x3/16	13.13	146.3	9.5	21.6	1.7	1.6	0.17

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Contract: S08-0471-E:J081119001-E
Revision: 0
Project: 250-FT:SST:13-SECTIONS
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Date and Time: 11/20/2008 12:21:06 PM
Engineer: HD/tw

Section M: SECTION PROPERTIES DATA

Sec	Pan	Memb. Type	Steel Grade	Conn. Type	Bolts	Bolt Size (in)	Bolt Grade	End Dist. (in)	Gusset Thick. (in)	kl/r	Comp Cap. (Kips)	Tens Cap. (Kips)	Bolt Cap. (Kips)	Bear. Cap. (Kips)	Block Shear (Kips)
13	2	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.0	49.3	141.5	82.3T	N/A	N/A
13	2	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	100.2	11.8	17.9	19.4S	20.6	19.1
13	2	Horiz	A36	Bolted	1	0.625	A325X	1.250	0.250	113.8	11.6	20.3	15.2S	11.1	8.3
13	1	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.0	49.3	141.5	82.3T	N/A	N/A
13	1	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	100.2	11.8	17.9	19.4S	20.6	19.1
12	4	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.2	49.1	141.5	82.3T	N/A	N/A
12	4	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	107.2	11.0	17.9	19.4S	20.6	19.1
12	3	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.2	49.1	141.5	82.3T	N/A	N/A
12	3	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	112.0	10.4	17.9	19.4S	20.6	19.1
12	2	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.2	49.1	141.5	82.3T	N/A	N/A
12	2	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	117.0	9.8	17.9	19.4S	20.6	19.1
12	1	Leg	A572 gr.50	Tension	4	0.625	A325X	0.938	N/A	120.2	49.1	141.5	82.3T	N/A	N/A
12	1	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	122.2	9.1	17.9	19.4S	20.6	19.1
11	4	Leg	A572 gr.50	Tension	6	0.625	A325X	0.938	N/A	106.8	77.8	179.0	123.5T	N/A	N/A
11	4	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	127.2	8.6	17.9	19.4S	20.6	19.1
11	3	Leg	A572 gr.50	Tension	6	0.625	A325X	0.938	N/A	106.8	77.8	179.0	123.5T	N/A	N/A
11	3	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	132.7	7.9	17.9	19.4S	20.6	19.1
11	2	Leg	A572 gr.50	Tension	6	0.625	A325X	0.938	N/A	106.8	77.8	179.0	123.5T	N/A	N/A
11	2	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	138.3	7.3	17.9	19.4S	20.6	19.1
11	1	Leg	A572 gr.50	Tension	6	0.625	A325X	0.938	N/A	106.8	77.8	179.0	123.5T	N/A	N/A
11	1	Diag	A36	Bolted	2	0.500	A325X	1.125	0.250	144.1	6.7	17.9	19.4S	20.6	19.1
10	2	Leg	A572 gr.50	Tension	6	0.750	A325X	1.125	N/A	101.8	103.6	221.1	182.5T	N/A	N/A
10	2	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	146.3	9.5	26.5	30.4S	24.2	21.6
10	2	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	131.1	9.3	20.3	15.2S	11.1	8.3
10	1	Leg	A572 gr.50	Tension	6	0.750	A325X	1.125	N/A	101.2	104.5	221.1	182.5T	N/A	N/A
10	1	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	152.7	8.7	26.5	30.4S	24.2	21.6
10	1	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	146.4	7.5	20.3	15.2S	11.1	8.3
9	2	Leg	A572 gr.50	Tension	6	0.750	A325X	1.125	N/A	91.6	144.7	267.5	182.5T	N/A	N/A
9	2	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	159.2	8.0	26.5	30.4S	24.2	21.6
9	2	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	161.7	6.1	20.3	15.2S	11.1	8.3
9	1	Leg	A572 gr.50	Tension	6	0.750	A325X	1.125	N/A	91.3	145.4	267.5	182.5T	N/A	N/A
9	1	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	166.2	7.4	26.5	30.4S	24.2	21.6
9	1	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	177.0	5.1	20.3	15.2S	11.1	8.3
8	2	Leg	A572 gr.50	Tension	6	0.875	A325X	1.313	N/A	83.4	191.5	318.4	251.8T	N/A	N/A
8	2	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	148.4	11.2	32.8	30.4S	24.2	22.8
8	2	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	153.1	8.7	26.5	15.2S	11.1	10.9
8	1	Leg	A572 gr.50	Tension	6	0.875	A325X	1.313	N/A	83.0	192.2	318.4	251.8T	N/A	N/A
8	1	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	154.7	10.3	32.8	30.4S	24.2	22.8
8	1	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	165.4	7.4	26.5	15.2S	11.1	10.9
7	2	Leg	A572 gr.50	Tension	6	1.000	A325X	1.500	N/A	76.5	243.5	373.6	330.3T	N/A	N/A
7	2	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	160.9	9.5	32.8	30.4S	24.2	22.8
7	2	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	177.6	6.4	26.5	15.2S	11.1	10.9
7	1	Leg	A572 gr.50	Tension	6	1.000	A325X	1.500	N/A	76.4	243.8	373.6	330.3T	N/A	N/A
7	1	Diag	A36	Bolted	2	0.625	A325X	1.250	0.250	167.4	8.8	32.8	30.4S	24.2	22.8
7	1	SecHl	A36	Bolted	1	0.625	A325X	1.250	0.250	189.8	5.6	26.5	15.2S	11.1	10.9

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Contract: S08-0471-E:J081119001-E
Project: 250-FT:SST:13-SECTIONS
Date and Time: 11/20/2008 12:21:06 PM

Revision: 0
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Engineer: HD/tw

Section N: LEG REACTION DATA

Load Combination: Max Envelope
Wind Direction: Maximum

Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
400.16	333.72			40.27

Load Combination: Wind Only
Wind Direction: Maximum

Support	Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
	400.16	327.69			40.27

Load Combination: Wind Only - Max Tension
Wind Direction: Maximum

Support	Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
	394.13	333.72			39.94

Load Combination: Wind and Ice
Wind Direction: Maximum

Support	Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
	116.11	0.00			8.55

Load Combination: Wind Only - Serviceability
Wind Direction: Maximum

Support	Force-Y Download (Kips)	Force-Y Uplift (Kips)	Shear-X (Kips)	Shear-Z (Kips)	Max Shear (Kips)
	123.40	78.78			11.87

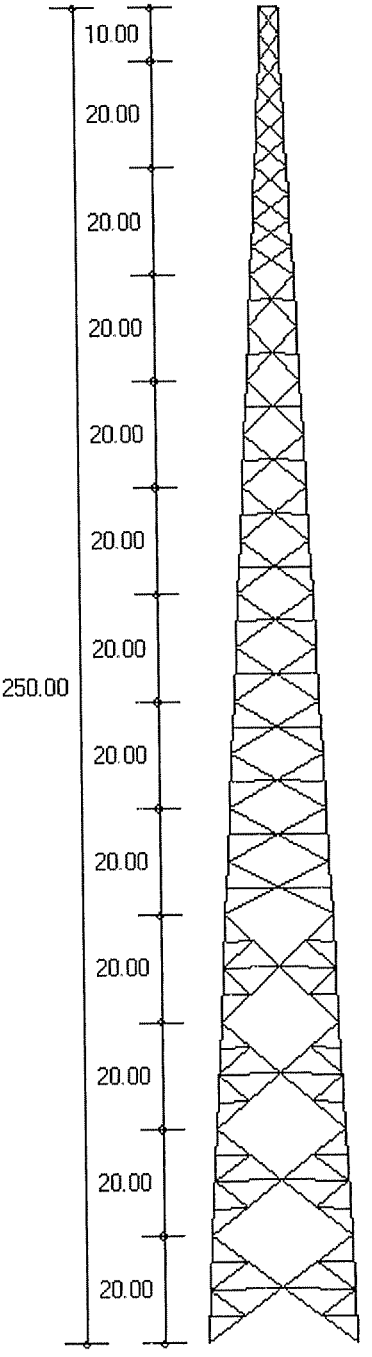
File: L:\Designs\08-0400\0471\J081119001-E\J081119001-E.out
Contract: S08-0471-E:J081119001-E
Project: 250-FT:SST:13-SECTIONS
Date and Time: 11/20/2008 12:21:06 PM

Revision: 0
Site: 9LV1124 SHORT CREEK, GRAYSON COUN
Engineer: HD/tw

DESIGN SPECIFICATION

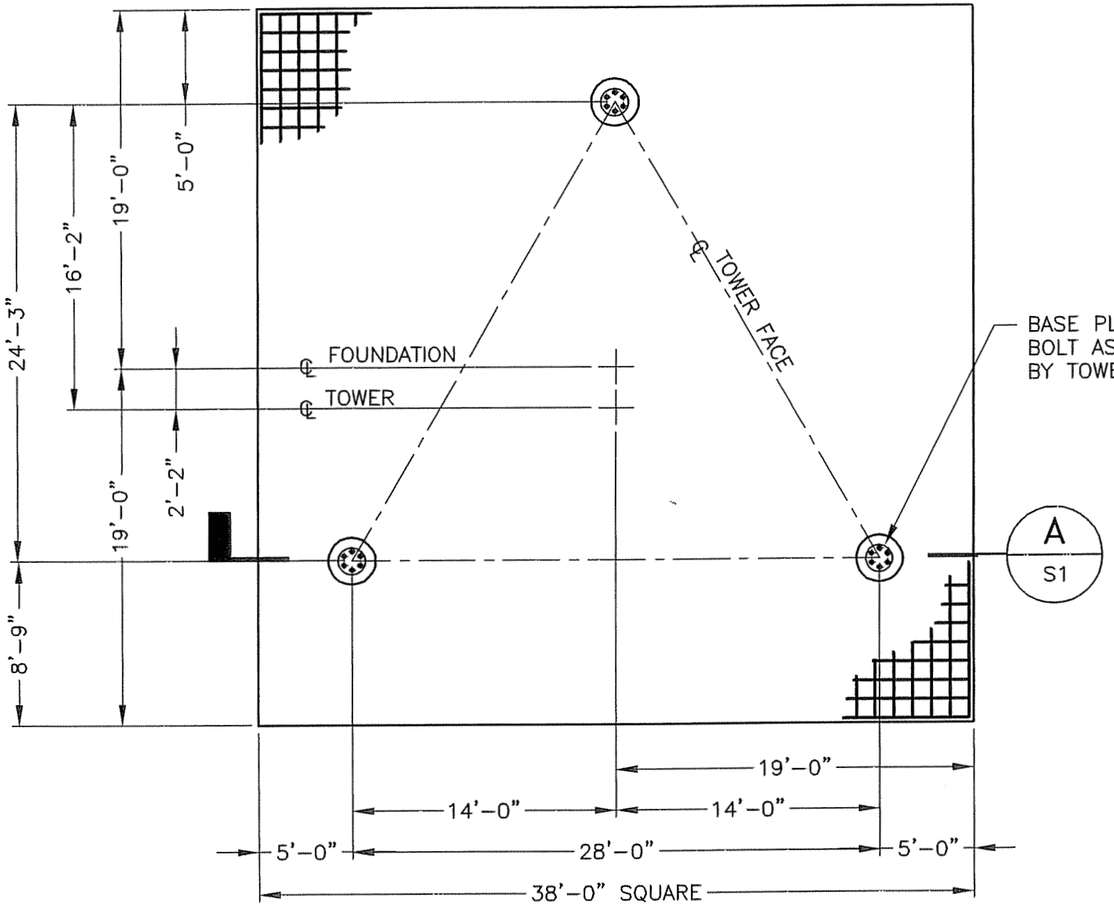
Design Standard: ANSI/TIA-222-G-2005 Add.1
Basic Wind Speed (No Ice) = 90.0 (mph)
Basic Wind Speed (With Ice) = 30.0 (mph)
Design Ice Thickness = 0.75 (in)
Structure Class = II
Exposure Category = C
Topographic Category = 1

Sct.	Length (ft)	Top Width (in)	Bot Width (in)
1	20.00	312.00	336.00
2	20.00	288.00	312.00
3	20.00	264.00	288.00
4	20.00	240.00	264.00
5	20.00	216.00	240.00
6	20.00	192.00	216.00
7	20.00	168.00	192.00
8	20.00	144.00	168.00
9	20.00	120.00	144.00
10	20.00	96.00	120.00
11	20.00	72.00	96.00
12	20.00	48.00	72.00
13	10.00	48.00	48.00



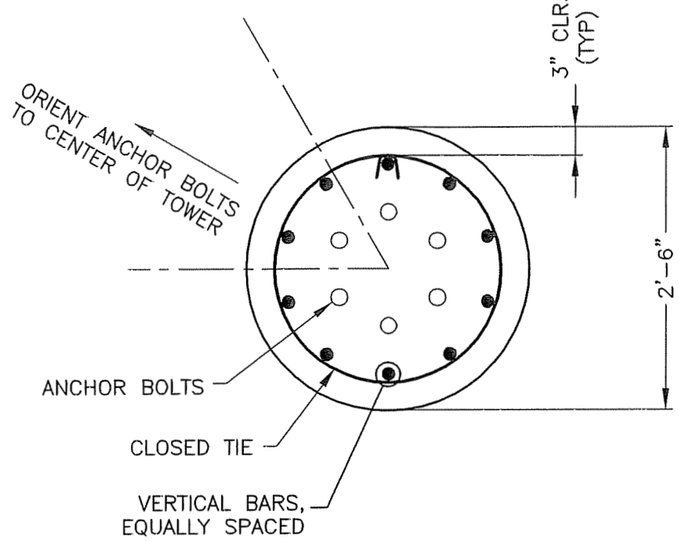
MAXIMUM BASE REACTIONS

	Bare	Iced
Download (Kips)	400.2	116.1
Uplift (Kips)	333.7	0.0
Shear (Kips)	40.3	8.6



FOUNDATION PLAN

1/8"=1'-0"

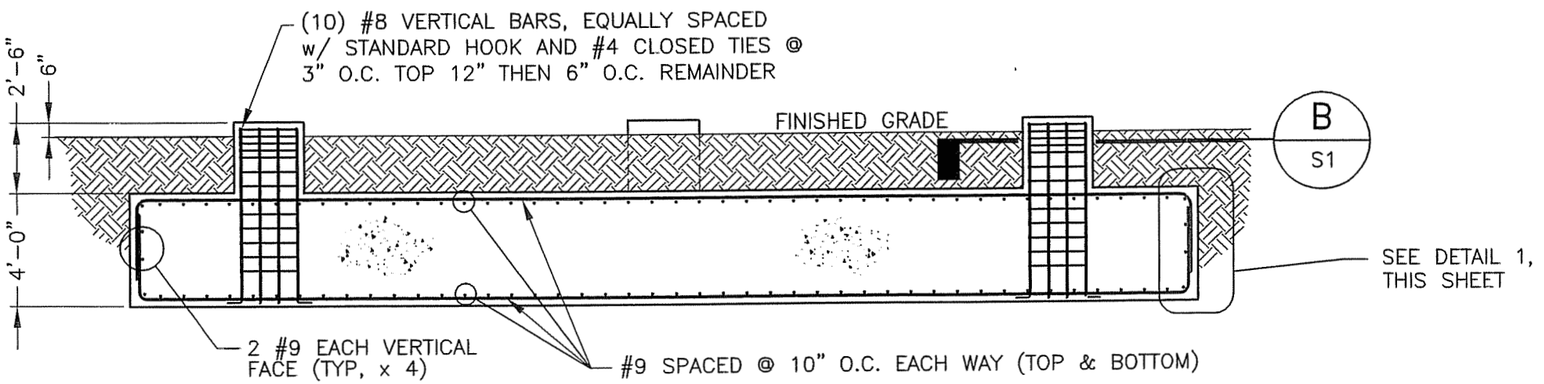


B/S1 SECTION

NTS

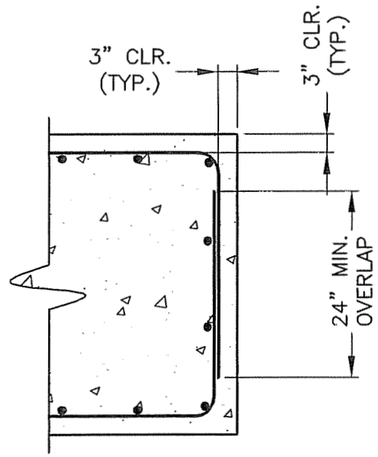
NOTE:

BASE PLATE AND ANCHOR BOLT ASSEMBLY PROVIDED BY TOWER MANUFACTURER AND SET BY CONTRACTOR.



A/S1 SECTION

3/16"=1'-0"



1/S1 DETAIL

NTS

FACTORED FOUNDATION DESIGN LOADS:

OTM = 9,117.1 KIP-FT
TOTAL SHEAR = 68.1 KIPS
MAX. AXIAL = 54.5 KIPS

STATE OF KENTUCKY
BUFORD H. EVANS JR.
19839
LICENSED PROFESSIONAL ENGINEER
12/16/08

WALKER ENGINEERING INCORPORATED
ATLANTA • BIRMINGHAM
8451 Dunwoody Place, Building 8, Sandy Springs, Georgia 30350
(770) 641-7306 Fax: (770) 587-2196 www.walkerengineer.com

REV.	DATE	BY

ENGINEER: CMM
DRAWN BY: DJD
CHECKED BY: BHE
ORIG. ISSUE DATE: 12/15/08

SITE NAME: SHORT CREEK
SITE No: 9LV1124B
WEI JOB No: 0812-560 | -

MITTRIX
250ft FWT SST FOUNDATION
FOUNDATION PLAN, SECTION, & DETAIL

8338 STATE ROAD 54
GRAYSON COUNTY, SHORT CREEK, KY

SCALE: AS NOTED
DRAWING No.: S1
THIS DWG SET CONSISTS OF: 2 SHEETS S1 THRU S2

ACAD FILE: S:\PROJ\TWRS\MITTRIX\DWGS\MITTRIX-298

GENERAL NOTES

G1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

G2. THE SIZE AND SPACING OF STRUCTURAL ELEMENTS SHALL NOT BE CHANGED WITHOUT THE ENGINEER'S APPROVAL.

G3. DETAILS SHOWN ARE TYPICAL; THEREFORE, SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.

G4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

G5. ALL STRUCTURAL AND NON-STRUCTURAL ITEMS SHALL BE TEMPORARILY BRACED DURING CONSTRUCTION UNTIL ALL STRUCTURAL ELEMENTS THAT ARE REQUIRED FOR STABILITY, SUCH AS LATERAL BRACING, ANCHOR BOLTS, ETC., HAVE BEEN INSTALLED.

G6. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF EXISTING UTILITIES, GROUND DRAINS, DRAIN PIPES, VENTS, OR ANY OTHER MECHANICAL DEVICES PRESENT BEFORE COMMENCING WORK. CONTRACTOR SHALL PROTECT EXISTING FACILITIES, UTILITIES, COAX AND UTILITY LINES FROM DAMAGE. NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS ARISING FROM THIS VERIFICATION.

G7. INCORRECTLY FABRICATED, DAMAGED, MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION.

G8. CONTRACTOR(S) SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.

G9. CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS, AND PER THE 2007 KENTUCKY BUILDING CODE (IBC 2006), AND ANSI/TIA-222-G, AND SHALL BE PERFORMED ONLY IN "GOOD WEATHER". GOOD WEATHER MEANS LITTLE OR NO WIND AND RAIN AND MINIMUM TEMPERATURE OF 50 DEGREES F. CONTACT ENGINEER FOR ADDITIONAL INSTRUCTIONS IF "GOOD WEATHER" CANNOT BE ACHIEVED.

G10. DESIGN WIND SPEED IS 90 MPH PER ANSI/TIA--222-G.

SHOP FABRICATION DRAWING SUBMITTAL

F1. THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ASSURING THAT ALL SUBMITTALS COMPLY WITH THE LATEST PROJECT PLANS, SPECIFICATIONS, GOVERNING CODES AND REGULATIONS, AND IS SOLELY RESPONSIBLE FOR CONFIRMING ALL QUANTITIES, DIMENSIONS, FABRICATION TECHNIQUES, AND COORDINATING WORK WITH ALL TRADES.

F2. SHOP DRAWINGS SHALL BE SUBMITTED IN A TIMELY MANNER TO ALLOW ADEQUATE TIME FOR PROCESSING.

F3. ALL SUBMITTALS ARE TO BE ACCOMPANIED BY A LETTER OF TRANSMITTAL.

F4. ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRIOR TO SUBMITTAL.

F5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER PRIOR TO FABRICATION.

REINFORCED CONCRETE NOTES

C1. CONCRETE SHALL CONFORM TO ACI 301 & 318, AND SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AFTER 28 DAYS.

C2. AGGREGATES SHALL BE CLEAN AND WELL-GRADED WITH A MAXIMUM SIZE OF 1-1/2". CONCRETE COMPRESSIVE TESTS SHALL CONFORM TO ASTM C39.

C3. USE NORMAL WEIGHT CONCRETE.

C4. USE ASTM A615 GRADE 60 FOR ALL CONCRETE REINFORCING STEEL.

C5. ALL CONCRETE REINFORCEMENT SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED, AND FIRMLY TIED IN PLACE WITH BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH ACI 301 & 318.

C6. MAXIMUM PERMISSIBLE SLUMP = 4".

C7. APPLY A WATER REPELLENT SEALANT TO ALL EXPOSED CONCRETE SURFACES. USE W.R. MEADOWS "SEAL-TIGHT #1200," OR EQUIVALENT, APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

C8. FIELD-VERIFY SOIL PARAMETERS PRIOR TO CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER. SOIL PARAMETERS FOR FOUNDATION DESIGN WERE OBTAINED FROM THE REPORT BY ASHER, INC. ENVIRONMENTAL & ENGINEERING CONSULTING ON THE "GEOTECHNICAL ENGINEERING STUDY", ASHER PROJECT No. 008-221E, DATED 11/14/2008.

STATE OF KENTUCKY
BRYAN H. WALKER, JR.
19839
LICENSED PROFESSIONAL ENGINEER
12/16/08

WALKER ENGINEERING INCORPORATED
ATLANTA · BIRMINGHAM
8451 Dunwoody Place, Building 8, Sandy Springs, Georgia 30350
(770) 641-7306 Fax: (770) 587-2196 www.walkerengineer.com

REV.	DATE	BY

ENGINEER: CMM
DRAWN BY: DJD
CHECKED BY: BHE
ORIG. ISSUE DATE: 12/15/08

SITE No: 9LV1124B
SITE NAME: SHORT CREEK
WEI JOB No: 0812-560 | -

MITTRIX
250ft FWT SST FOUNDATION
NOTES

8338 STATE ROAD 54
GRAYSON COUNTY, SHORT CREEK, KY

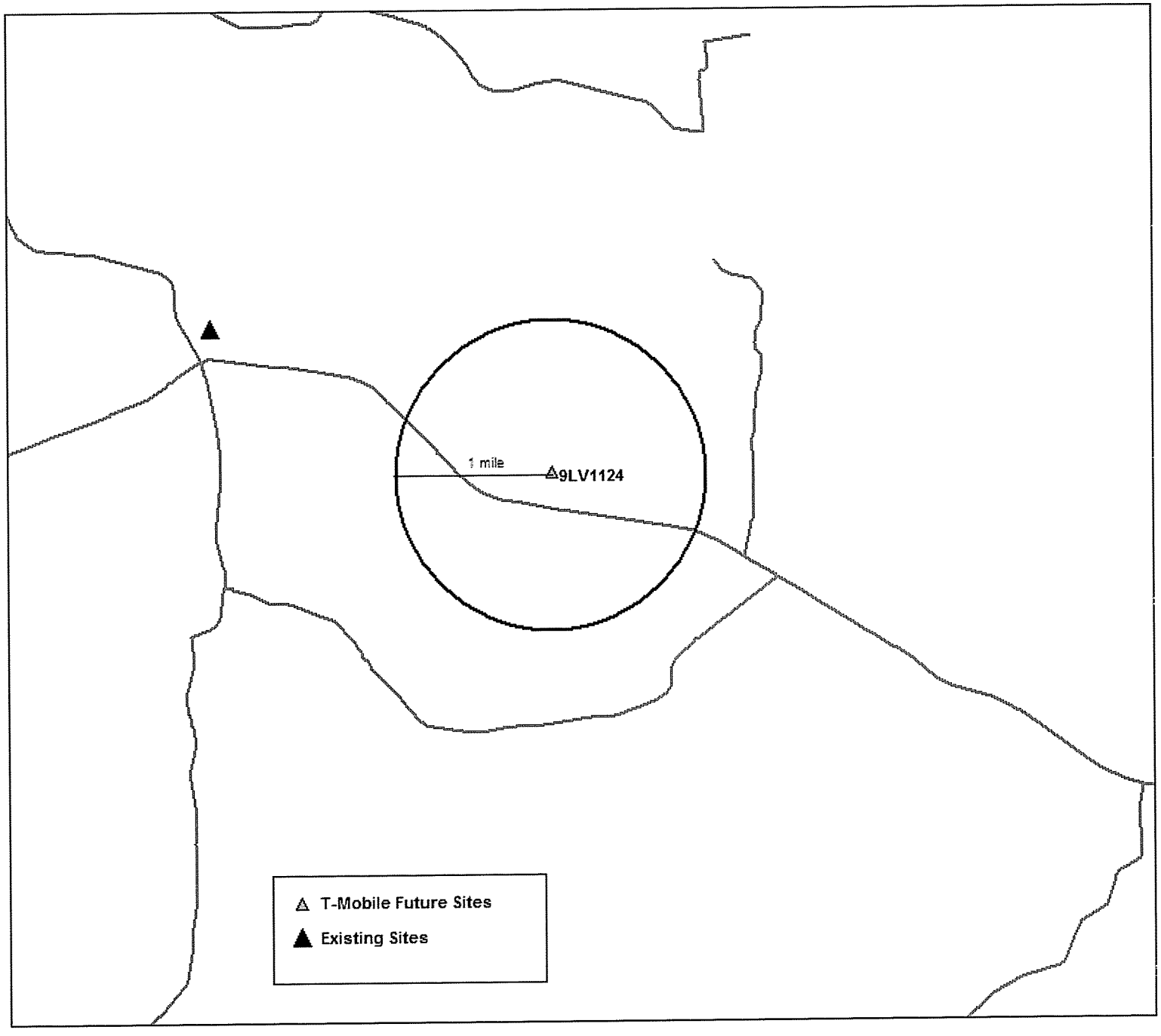
SCALE: AS NOTED

DRAWING No.: S2

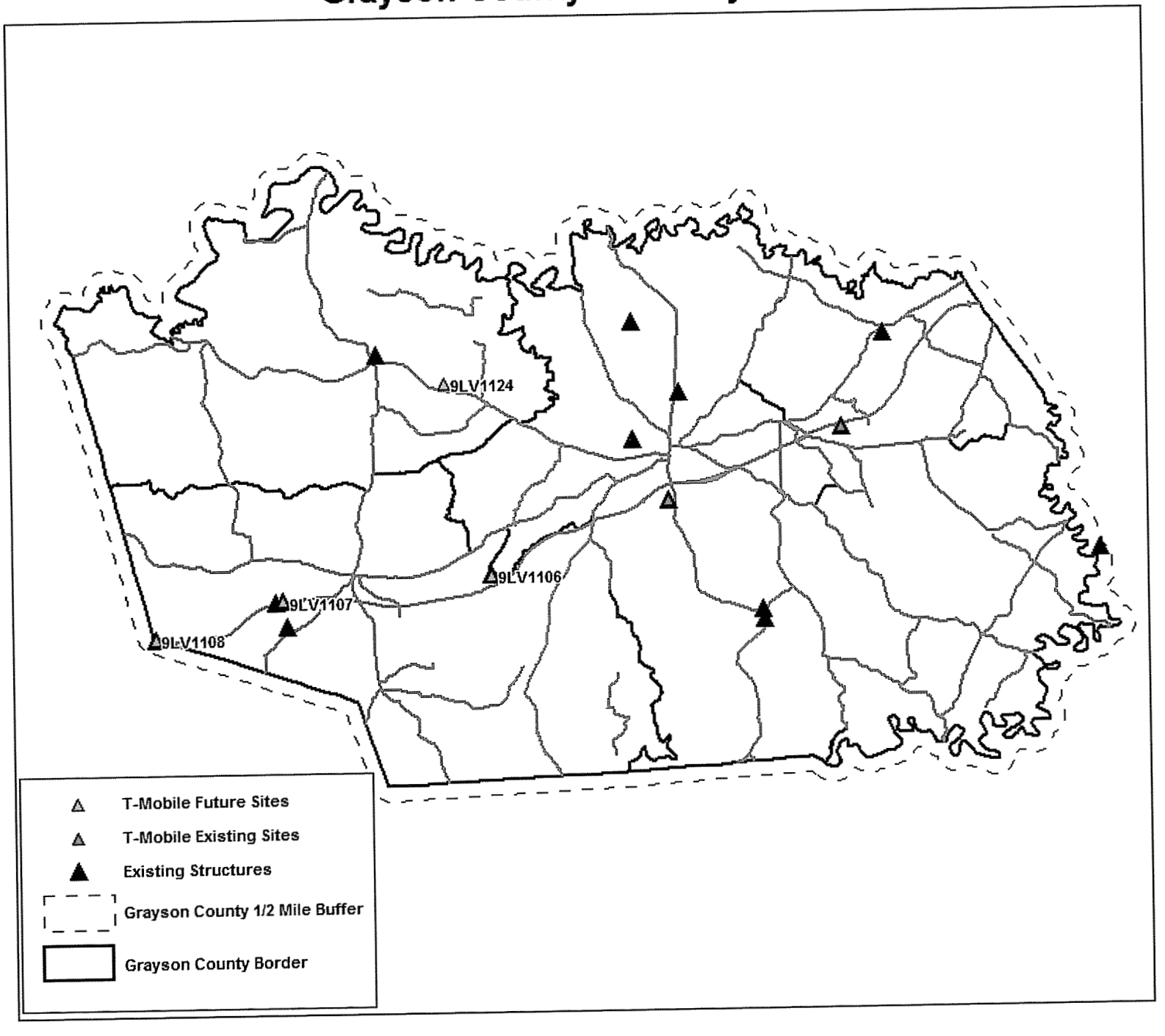
THIS DWG SET CONSISTS OF:
2 SHEETS
S1 THRU S2

ACAD FILE: S:\PROJ\TWRS\MITTRIX\DWGS\MITTRIX-298

T-Mobile USA Sites Map
9LV11124 1 Mile Radius



T-Mobile USA Site Map
Grayson County Kentucky



F

9LV1124/Short Creek
Grayson County, Kentucky
Character of the Area Statement
and Co-Location Report

Powertel/Memphis Inc., d/b/a T-Mobile Kentucky ("T-Mobile"), proposes to construct a 250' Self Support Tower 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119. There are no existing towers or other collocation opportunities located in the search area or within one mile of the proposed site. The character of the land use in the general area is predominately agricultural with some rural residential. The specific property of the proposed tower location is being utilized as agricultural. There is adequate access and utilities at the proposed location. In researching this area, the conclusion is that there is no more suitable location reasonably available from which adequate service to the area can be provided. T-Mobile will meet all notice, publication and posting requirements.

3200640_1.doc

G

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2008-ASO-6500-OE

Issued Date: 12/22/2008

Ken Bischoff
T-Mobile
11509 Commonwealth Drive, Suite 9
Louisville, KY 40299

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

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

Structure:	Antenna Tower 9LV1124B Short Creek
Location:	Caneyville, KY
Latitude:	37-30-50.00N NAD 83
Longitude:	86-25-54.58W
Heights:	260 feet above ground level (AGL)
	1026 feet above mean sea level (AMSL)

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

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

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

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

This determination expires on 06/22/2010 unless:

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

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

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

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

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

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

If we can be of further assistance, please contact our office at (718) 553-4542. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2008-ASO-6500-OE.

Signature Control No: 608396-105175920 (DNE)
Katie Venticinque
Technician

Attachment(s)
Frequency Data

Frequency Data for ASN 2008-ASO-6500-OE

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

Kentucky

TC 56-50E (Rev. 02/05)

Kentucky Transportation Cabinet, Kentucky Airport Zoning Commission, 200 Mero Street, Frankfort, KY 40622

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

INSTRUCTIONS INCLUDED

Kentucky Aeronautical Study Number

1. APPLICANT -- Name, Address, Telephone, Fax, etc.
T-Mobile USA
Attn:Ken Bischoff
11509 Commonwealth Drive
Louisville, KY 40299

2. Representative of Applicant -- Name, Address, Telephone, Fax
T-Mobile USA
Attn:Kevin Blewitt
11509 Commonwealth Drive
Louisville, KY 40299
Phone: (502) 297-6207, Fax (502) 297-6251

3. Application for: ☒ New Construction ☐ Alteration ☐ Existing

4. Duration: ☒ Permanent ☐ Temporary (Months _____ Days _____)

5. Work Schedule: Start 1/1/2009 End 3/31/2009

6. Type: ☒ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other _____

7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint ☒ Dual - Red & Medium Intensity White
☐ White - Medium Intensity ☐ Dual - Red & High Intensity White
☐ White - High Intensity ☐ Other _____

8. FAA Aeronautical Study Number T-MOB-000108641-08

9. Latitude: 37 ° 30 ' 50 . 00 "

10. Longitude: 86 ° 25 ' 54 . 58 "

11. Datum: ☒ NAD83 ☐ NAD27 ☐ Other _____

12. Nearest Kentucky City: Caneyville County Grayson

13. Nearest Kentucky public use or Military airport:
213: Rough River State Park

14. Distance from #13 to Structure: 40164 ft

15. Direction from #13 to Structure: 327.96 degrees

16. Site Elevation (AMSL): 766.00 Feet

17. Total Structure Height (AGL): 260.00 Feet

18. Overall Height (#16 + #17) (AMSL): 1,026.00 Feet

19. Previous FAA and/or Kentucky Aeronautical Study Number(s):

20. Description of Location: (Attach USGS 7.5 minute Quadrangle Map or an Airport layout Drawing with the precise site marked and any certified survey)
8338 Owensboro Road, Caneyville, KY 42721

21. Description of Proposal:
Erection of a 250' tower with a 10' lightning arrestor.

22. Has a "NOTICE OF CONSTRUCTION OR ALTERATION" (FAA Form 7460-1) been filed with the Federal Aviation Administration?
☐ No ☒ Yes, When December 03, 2008

CERTIFICATION: I hereby certify that all the above statements made by me are true, complete and correct to the best of my knowledge and belief.

Kevin Blewitt, Senior RF Engineer — Printed Name and Title
Signature
12/3/2008 — Date

PENALTIES: Persons failing to comply with Kentucky Revised Statutes (KRS 183.861 through 183.990) and Kentucky Administrative Regulations (602 KAR 050:Series) are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Non-compliance with Federal Aviation Administration Regulations may result in further penalties.

Commission Action:

☐ Chairman, KAZC ☐ Administrator, KAZC

☐ Approved
☐ Disapproved _____ Date _____

Notice of Proposed Construction or Alteration - Off Airport

Project Name: T-MOB-000108641-08 **Sponsor:** T-Mobile

Details for Case : 9LV1124B Short Creek

Show Project Summary

Case Status

ASN:	2008-ASO-6500-OE	**Date Accepted:**	12/03/2008
Status:	Accepted	**Date Determined:**	
		Letters:	None
		Documents	None

Construction / Alteration Information

Notice Of:	Construction
Duration:	Permanent
if Temporary :	Months: Days:
Work Schedule - Start:	01/01/2009
Work Schedule - End:	03/31/2009
State Filing:	Filed with State

Structure Summary

Structure Type:	Antenna Tower
Structure Name:	9LV1124B Short Creek
FCC Number:	
Prior ASN:	

Structure Details

Latitude:	37° 30' 50.00" N
Longitude:	86° 25' 54.58" W
Horizontal Datum:	NAD83
Site Elevation (SE):	766 (nearest foot)
Structure Height (AGL):	260 (nearest foot)
Requested Marking/Lighting:	Dual-red and medium intensity
Other :	
Recommended Marking/Lighting:	
Nearest City:	Caneyville
Nearest State:	Kentucky
Description of Location:	Rural Area.
Description of Proposal:	Proposing a 250' self support tower with a 10' lightning arrestor.

Common Frequency Bands

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

Specific Frequencies

FStan

Land Surveyors and Consulting Engineers

Formerly F.S. Land & T. Alan Neal Companies

T-MOBILE

Date: October 28, 2008

T-Mobile
Attn: Hamlet Hope
11509 Commonwealth Drive
Louisville, Ky. 40299

Re:	FAA "2-C" Letter	
	T-Mobile/Louisville PCS Site Name:	Short Creek
	T-Mobile/Louisville PCS Site No.:	9LV1124B
	Property Owner:	Willard McCafferty & Barbara Thomas
	T-Mobile /Louisville PCS Site Locale:	8338 Owensboro Road, Caneyville, KY 42721
	FSTAN Project No:	08-5697

Dear Hamlet,

This is to advise you that we have conducted a Global Positioning System (GPS) Observation for this project in order to establish a geographical position and elevation for the proposed antenna at this location.

The base station used for the GPS observation is described as follows: Station designated "Buckler"and stamped "Buckler 1950", in Grayson, KY.

Horizontal values are based upon the following datum: NAD 83
Vertical values are based upon the following datum: NGVD 29

Geographic Coordinates of the Proposed Self-Support Tower are as follows:

LATITUDE: 37° 30' 50.00" NORTH LONGITUDE: 86° 25' 54.58" WEST

Ground elevation at the site is 766 FEET (AMSL)
Height of proposed monopole is 250 FEET (AGL)
Height of proposed lightning arrestor is 260 FEET (AGL)
Overall height elevation is 1020 FEET (AMSL)

The accuracy of the above stated "Proposed Self-Support Tower" values meet or exceed "2-C" accuracy as required by the Federal Aviation Administration (horizontal accuracy ± 50 feet, vertical accuracy ± 20 feet).

Kentucky State Plane Coordinates (Southern Zone) were established with Trimble Global Positioning Systems (GPS) receivers. This site has ties to the National Geodetic Reference System established by the National Geodetic Survey, formerly the U.S. Coast & Geodetic Survey by measurements to PID Station "HA1474".

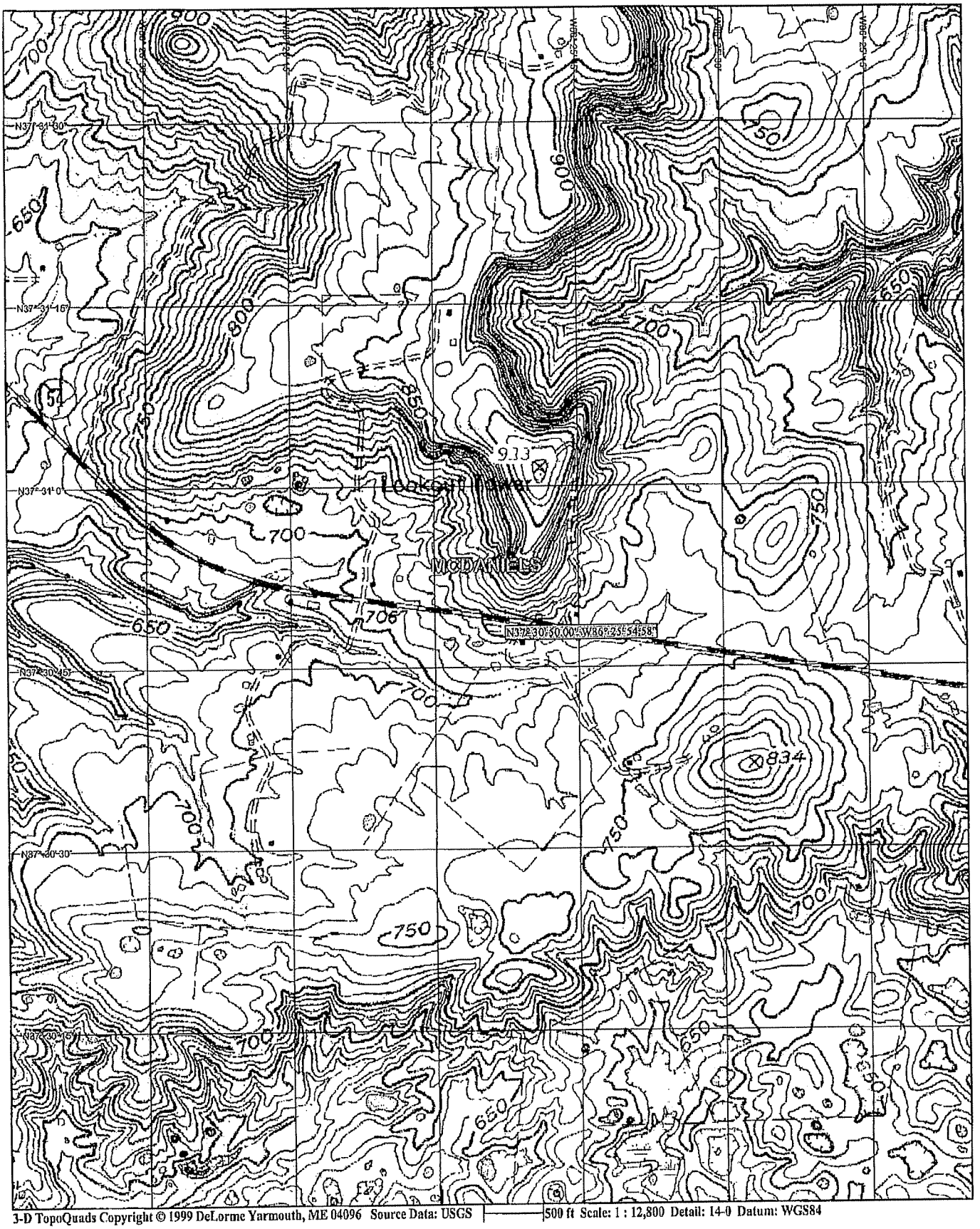
If you have any questions concerning this information please contact us at any time.

Sincerely,

STATE OF KENTUCKY
FRANK L. SELLINGER
#3282
LICENSED PROFESSIONAL LAND SURVEYOR

CONSULTANT

Frank L. Sellinger, PLS No. 3282
FStan Land Surveyors and Consulting Engineers
2315 Crittenden Drive, Louisville, Ky. 40217
Phone: 502-635-5866 Fax: 502-636-5263



500 ft Scale: 1 : 12,800 Detail: 14-0 Datum: WGS84

GEOTECHNICAL ENGINEERING STUDY

PROPOSED COMMUNICATIONS TOWER
SHORT CREEK SITE
CANEYVILLE, KENTUCKY
GRAYSON COUNTY

ASHER PROJECT NO. 008-221E

Prepared For:

Mr. Dean Davis
T-Mobile South, LLC
3800 Ezell Road, Suite 815
Nashville, TN 37211

Prepared By:

Asher, Inc.
1021 S. Floyd Street
Louisville, Kentucky 40203

November 14, 2008

ASHER, INC.
Environmental & Engineering Consulting

November 14, 2008

Mr. Dean Davis
T-Mobile South, LLC
3800 Ezell Road, Suite 815
Nashville, TN 37211

RE: Geotechnical Engineering Study
Proposed Communications Tower
Short Creek Site
Caneyville, Kentucky
Grayson County

Dear Mr. Davis,

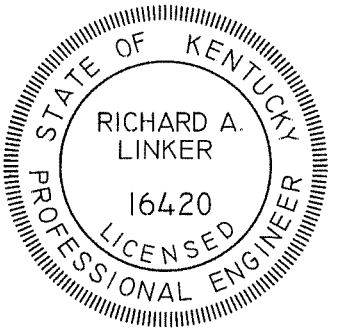
Asher, Inc. has completed a Geotechnical Engineering Study for the above referenced project. This report contains the findings of our subsurface exploration, geotechnical recommendations to aid design of foundations, and construction recommendations with regard to site work; fill placement, and foundation installation and inspection.

We appreciate the opportunity to be of service to you on this project. If we can be of further assistance, or if you have any questions regarding this report, please contact our office.

Sincerely,

Jacob D. Brown, E.I.T.
Staff Engineer

Richard A. Linker, P. E.
President



1021 South Floyd Street • Louisville, KY 40203 • Phone: (502) 589-0073 • Fax: (502) 589-0076

TABLE OF CONTENTS

1.0 PROJECT INFORMATION

The site is located in the front of the residence at 8338 State Road 54 in Short Creek, KY. The proposed lease area is located in a cattle pasture at the southeast corner of the site. The lease area is partially wooded with small trees (less than 6 in. diameter), with the majority of the trees on site having been recently cut down. The new tower area slopes downhill to the southwest. No ponding water was observed on the site.

Proposed for construction is a 250 ft. lattice tower and access road. The tower is expected to have either a mat foundation bearing on soil, or drilled piers bearing on bedrock. The equipment building/cabinets will be pre-fabricated structures supported on conventional shallow foundations.

2.0 SUBSURFACE EXPLORATION

The subsurface conditions were explored by conducting two borings within the proposed lease area. The boring locations are shown on the plan included in the Appendix. The boring logs (also included in the Appendix) describe the materials and conditions encountered at each location.

A 3 to 4 in. layer of topsoil was encountered at each test boring location.
The topsoil is underlain by natural brown and gray lean clay. The lean clay was noted to be firm to very stiff with Standard Penetration Test results (N Values) ranging from 7 to 18 blows per ft. The clay soil is underlain by gray and orange-brown siltstone. The siltstone was encountered to auger refusal at depths ranging from 7.8 to 10.9 ft. A 5 ft. rock core run was advanced in Boring B-1 from 7.8 to 12.8 ft. The rock core revealed intermittent layers of sandstone, siltstone, shale, and limestone.

3.0 DESIGN RECOMMENDATIONS

The following design recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions. Please notify our office if the project description included herein is incorrect, or if the location of the proposed tower is changed. Asher Inc. would then review the new project description to determine if revisions to our recommendations are necessary.

3.1 Site Development and Foundations

Based on the subsurface conditions encountered, the existing soils are suitable for the anticipated loading on shallow mat foundations. Drilled piers bearing on sound continuous bedrock may also be used if deemed to be more economical. However, the drilled shafts may require rock removal in excess of 8 to 10 ft. to encounter sound continuous bedrock.

SHALLOW FOUNDATIONS

If mat foundations are used, the footings can be proportioned using a net allowable bearing capacity of 3,000 psf with the base bearing at a depth of at least 5 ft. below existing grades. Depending on the proposed final grades, rock removal may be required on the northeast portion of the excavation. The siltstone encountered can be removed using an excavator equipped with a ripper bucket. A Caterpillar 245 or equivalent should be used. Site Classification C can be used for seismic design. Based on the results of the field tests, it is estimated that the foundation settlements if mat foundations are used should not exceed about 1 in. Differential settlements should not exceed 3/4 in. Careful field control during construction will help minimizing the actual settlement that occurs.

3.1 Site Development and Foundations (cont.)

DRILLED PIERS

The drilled piers should be sized using a maximum allowable end-bearing pressure of 20 kips per square ft. (10 tons per sq. ft.) for piers bearing on the continuous shale and sandstone layers. Site Classification C can be used for seismic design.

Soil Parameters that may be used in design are as follows:

	0-3 ft.	5-10 ft.
Coefficient of Passive Earth Pressure (Kp)	2.0	3.3
Unit Weight of Soil (pcf)	100	145
Laterial Subgrade Modulus (pci)	125	300
Cohesion (psf)	750	0
Angle of Internal Friction (deg.)	20	32

Our borings encountered about 6 to 8 ft. of siltstone and/or weathered shale and sandstone. Therefore, at least 8 ft. of rock removal will be required to reach sound bedrock. In boring B-1, no sound bedrock was encountered within the 5 ft. rock core run. We recommend that an average of 10 ft. of rock removal per drilled pier location be estimated when conducting a cost analysis of drilled piers vs. shallow foundations.

Total and differential settlements of the tower foundations bearing on competent bedrock, using the recommended bearing pressure would be less than 1/2 in.

The following construction considerations are recommended for drilled shaft construction:

- Provide a minimum drilled shaft diameter of 30 inches to reasonably enter the drilled shaft excavation for cleaning, bottom preparation, and observation.

- Specify concrete slumps ranging from 6 to 8 inches for the drilled shaft construction. These slumps are recommended to fill irregularities along the sides and bottom of the drilled shaft, displace water as it is placed, and permit placement of reinforcing cages into the fluid concrete.

- Install a temporary protective steel casing to prevent side wall collapse, prevent excessive mud and water intrusion, and to allow workers to safely enter, clean and observe the drilled shaft.

3.1 Site Development and Foundations (cont.)

DRILLED PIERS (CONT.)

- Observe the drilled shaft excavation after the bottom of the hole is leveled, cleaned of any mud or extraneous material, and de-watered.

- Clean the socket "face" prior to concrete placements. Cleaning will require hand cleaning or washing if a mud smear forms on the face of the rock. The geotechnical engineer should approve the rock socket surface prior to concrete placement.

- The protective steel casing may be extracted as the concrete is placed provided a sufficient head of concrete is maintained inside the steel casing to prevent soil or water intrusion into the newly placed concrete.

The protective steel casing may be extracted as the concrete is placed provided a sufficient head of concrete is maintained inside the steel casing to prevent soil or water intrusion into the newly placed concrete. Drilled shafts with diameters of 30 inches or greater are large enough to allow a down-hole inspection of the bearing conditions.

A 2-inch diameter probe hole should be drilled to a depth of 5 feet into the rock-bearing material for all drilled piers. These probe holes are usually drilled with a pneumatic percussion drill. The engineer should check the probe hole using a hooked-end steel feeler rod to assess the rock continuity and to check for the presence of voids in the limestone. If this check indicates a discontinuity in the rock, the drilled shaft should be excavated deeper. Additional probe holes may be required by the geotechnical engineer to check foundations supported on marginal material.

Direct the concrete placement into the drilled shaft through a centering chute to reduce side flow or segregation.

3.1 Site Development and Foundations (cont.)

Building Foundation

The proposed equipment cabinet(s) can be supported on conventional shallow foundations. The footings can be proportioned using a net allowable bearing capacity of 3,000 psf. Site Classification C can be used for seismic design. Wall footings must be at least 16 in. wide and column footings must be at least 24 in. wide to provide an adequate factor of safety for bearing capacity. All exterior footings and footings in unheated areas must bear at least 30 inches below final exterior grade for frost protection. Interior footings in heated areas can bear at nominal depths below the floor (at least 12 inches). Upon approval of the subgrade, it is recommended that the cabinet floor slab be supported on a 4-in. layer of KY Dense Graded Aggregate (DGA) crushed limestone compacted to 100 percent of the standard Proctor.

3.2 Pavements

All pavement subgrade surfaces should be uniformly sloped to facilitate drainage and to avoid ponding of water beneath the pavement. Assuming proper subgrade preparation and drainage, a California Bearing Ratio (CBR) value of 3 is recommended.
This value applies for the soil subgrade that is stable under a proofroll inspection, and for soil that is recompacted to 95 percent of the standard Proctor maximum dry density.

We anticipate that the access drive would be limited to automobiles and light trucks on a limited basis. The following asphalt pavement section is recommended.

Light Truck Areas	2.0 in. asphalt concrete base
	8.0 in. KY DGA

All paving material should comply with the current Kentucky Department of Highway Specifications. The DGA granular base should be compacted to at least 98 percent of the standard Proctor maximum dry density (ASTM D-698). It should not be expected that the pavement would be maintenance free. However, the required maintenance work should be within normal limits.

3.2 Pavements (cont.)

If a granular pavement section is used the following section is recommended:

Light Truck Areas	4.0 in. KY DGA 6.0 in. KY No. 3 Crushed Limestone 6 oz. Nonwoven Filter Fabric

4.0 CONSTRUCTION RECOMMENDATIONS

Variations in subsurface conditions must be expected during construction. It is therefore recommended that the geotechnical engineer be retained to review the soils-related phases of the project and to correlate the subsurface data with the soil conditions that are encountered during construction.

4.1 Subgrade Preparation

Prior to construction or the placement of new engineered fill, the exposed subgrade should be evaluated by the project geotechnical engineer. The evaluation should include proofrolling of the exposed subgrade with a loaded dump truck. If unsuitable material were disclosed, the geotechnical engineer would recommend an appropriate remedial measure at that time. The silty clay soils encountered just beneath the pavement surface will be sensitive to moisture and heavy construction equipment, and may require aeration and re-compaction or undercutting to reach firm subgrade. The severity of this potential problem depends to a great extent on the weather conditions prevailing during construction.

The contractor should exercise discretion when selecting equipment sizes and also control surface water while the subgrade soils are exposed. It may be necessary to undercut and stabilize the proposed pavement areas with crushed stone, or use a geotextile fabric to improve the subgrade, especially if the sitework is done during wet weather conditions.

4.2 Engineered Fill

Engineered fill should be placed on a prepared subgrade that has been evaluated by the geotechnical engineer. Engineered fill should be compacted to at least 98 percent of the standard Proctor maximum dry density (ASTM D-698).

Field density tests should be performed on each lift as necessary to insure that the specified compaction is being achieved. Fill should be placed in horizontal lifts and each lift should be compacted to the specified density. Lift thickness of 8 in. and 12 in. should be used for clayey soils and granular soils, respectively. The on site soils are suitable for use as engineered fill.

4.3 Foundation Excavations

All concrete for foundations should be poured the same day the excavation is made. If this is not practical, the foundation excavation should be adequately protected. Soils exposed in the base of all excavations must be protected against rain and freezing. Surface water should be drained away from all excavations and not allowed to pond.

4.4 Construction Dewatering

At the time of our field investigation, no groundwater was encountered in the depths explored by our borings. Therefore, the water level appeared to be below the expected maximum excavation depth at the site for the expected foundations. However, due to seasonal variations in rainfall, local groundwater levels could rise to above the bottom of the excavation. Recommendations for construction dewatering can be made during construction if needed.

5.0 QUALIFICATIONS

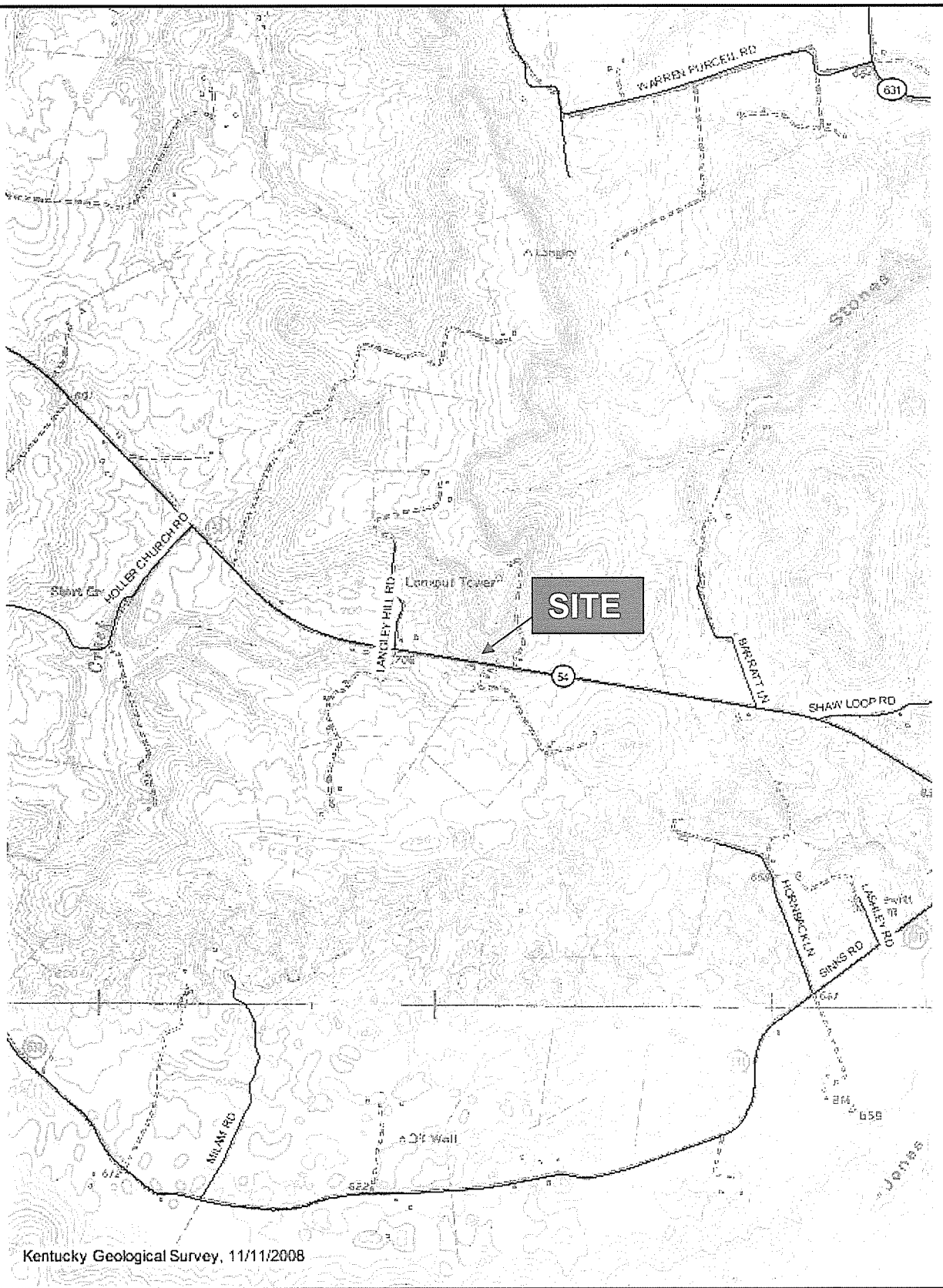
Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either express or implied. Asher, Inc. is not responsible for the independent conclusion, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the geotechnical engineer or his representative is therefore considered necessary to verify the subsurface conditions and to check that the soil connected construction phases are properly carried out. If significant variations or changes are in evidence, it may then be necessary to reevaluate the recommendations of this report.

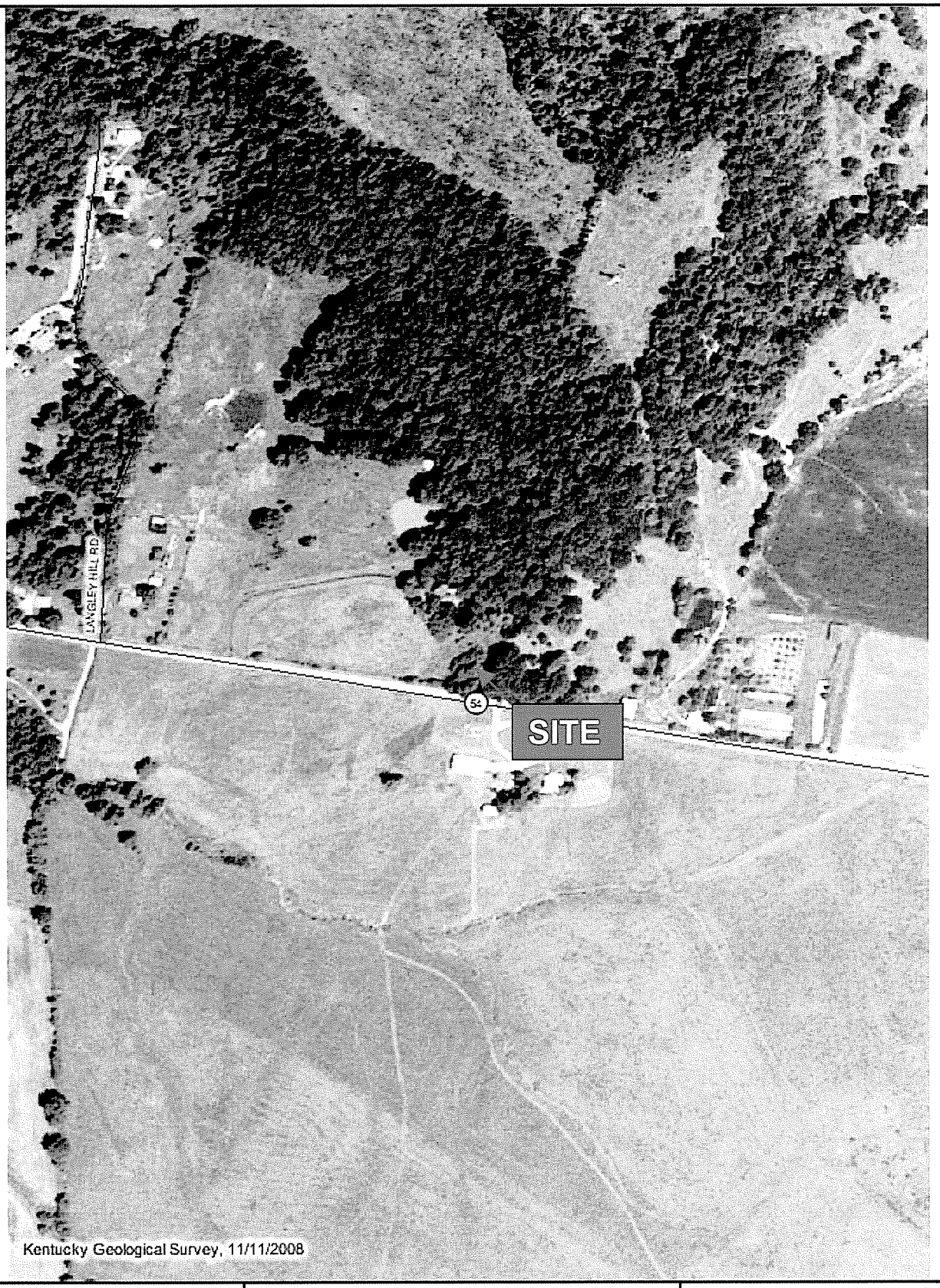
Furthermore, if the project characteristics are altered significantly from those discussed in this report, if the project information contained in this report is incorrect, or if additional information becomes available, a review must be made to determine if any modification in the recommendations will be required.

APPENDIX

Site Location Plan
Aerial Photograph
Geologic Map
Geologic Map Legend
Location of Test Borings
Test Boring Logs



ECA	ASHER, INC.	**Figure 1 - Site Location Plan** Short Creek Tower Site Short Creek, Kentucky Grayson County Asher Project Number: 008-221E



ECA	ASHER, INC.	**Figure 2 – Aerial Photo** Short Creek Tower Site Short Creek, Kentucky Grayson County Asher Project Number: 008-221E

ECA	ASHER, INC.	**Figure 3 – Geologic Map** Short Creek Tower Site Short Creek, Kentucky Grayson County Asher Project Number: 008-221E

Kentucky Geological Survey
Geologic Information Service
Map Legend

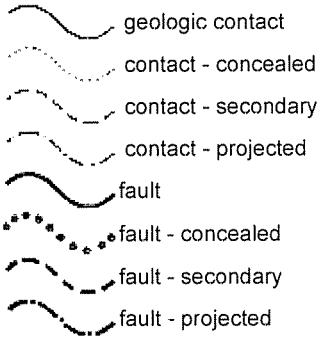
Geologic Units In Current View:

1:24,000 scale data (detailed geology)

Pca	**Caseyville Formation** (Lower Pennsylvanian - Middle Pennsylvanian)
Mbw	**Buffalo Wallow Formation** (Upper Mississippian - Upper Mississippian)
Mts	**Tar Springs Sandstone** (Upper Mississippian - Upper Mississippian)
Mgd	**Glen Dean Limestone** (Upper Mississippian - Upper Mississippian)
Mh	**Hardinsburg Sandstone** (Upper Mississippian - Upper Mississippian)
Mgh	**Haney Limestone Member** (Upper Mississippian - Upper Mississippian)
Mgb	**Big Clifty Sandstone Member** (Upper Mississippian - Upper Mississippian)
Mgc	**Beech Creek Limestone Member** (Upper Mississippian - Upper Mississippian)
Mrs	**Reelsville Limestone and Sample Sandstone** (Upper Mississippian - Upper Mississippian)
Mr	**Reelsville Limestone** (Upper Mississippian - Upper Mississippian)
Mbmt	**Beaver Bend Limestone and Mooretown Formation** (Upper Mississippian - Upper Mississippian)
Msg	**Ste. Genevieve Limestone** (Upper Mississippian - Upper Mississippian)
Msl	**St. Louis Limestone** (Upper Mississippian - Upper Mississippian)
Mfp	**Fort Payne Formation** (Upper Mississippian - Upper Mississippian)

Symbols:

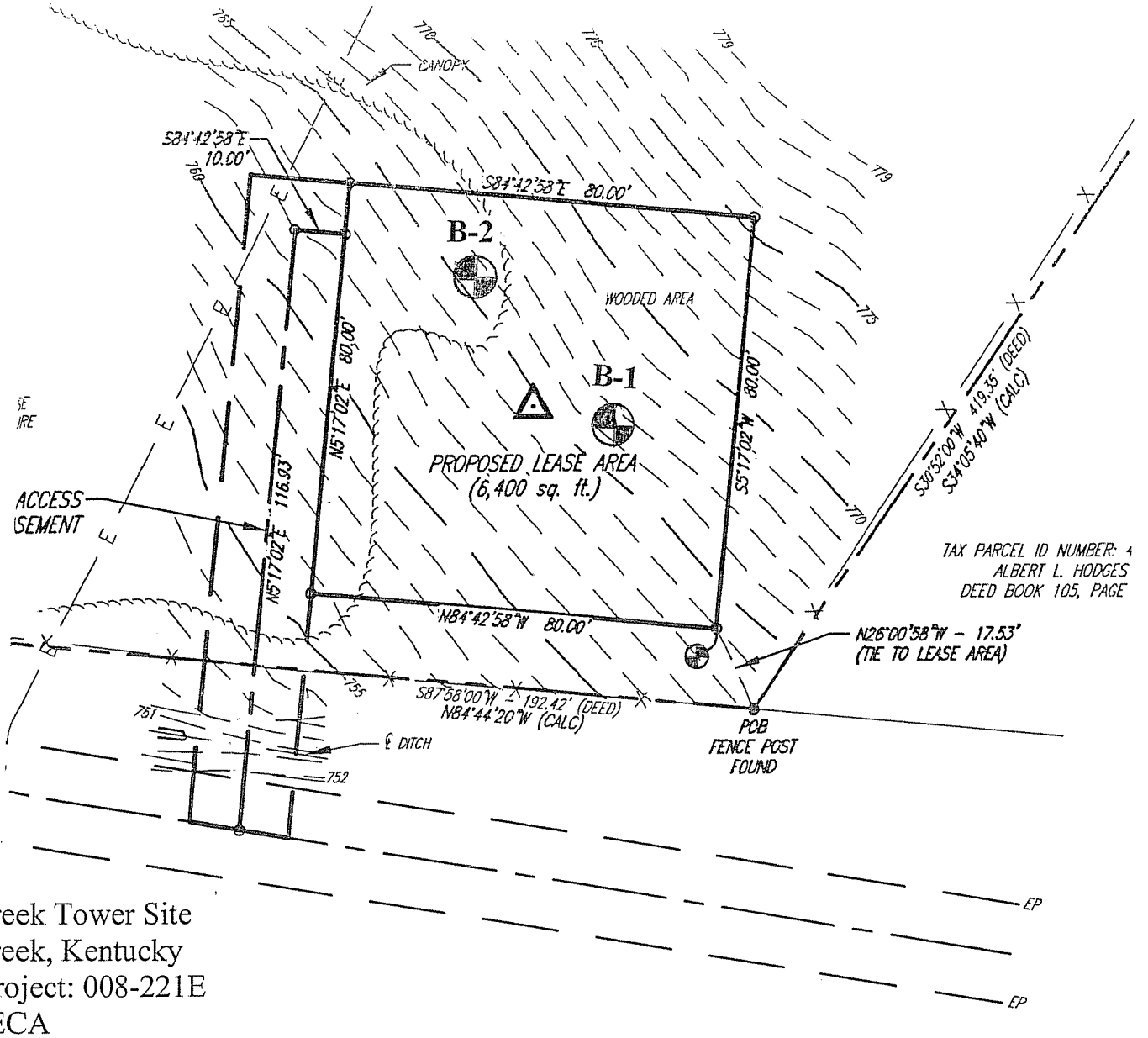
- contacts / structural features:



fossil location

PRINT THIS PAGE

NOTE: in order to print colors, make sure your browser is enabled to print background colors.
Internet Explorer Instructions: Go to Tools --> Internet Options --> Advanced --> Under the "Printing" header, click the "Print background colors and images" box.
Firefox Instructions: Go to File --> Page Setup --> Click the "Print Background (colors & images)" box.



Short Creek Tower Site
Short Creek, Kentucky
Asher Project: 008-221E
Client: ECA

SURVEYOR'S CERTIFICATE

I' Survey – Unadjusted linear traverse closure: 1 in 20,400.

PARTIES INTERESTED IN TITLE TO PREMISES SURVEYED
y certify that this plat and survey were made under my
ision, and that the angular and linear measurements,
iessed by monuments shown hereon, are true and correct
best of my knowledge and belief.
urvey and plat meets or exceeds the minimum standards
governing authorities.
roperty is subject to any recorded easements or right
is not shown hereon.

L. Sellinger, II Ky. Reg. No. 3282

0' 40' 80'

(IN FEET)
SCALE: 1" = 40'

REFERENCED AS "EXHIBIT C"

OWNER APPROVAL: _____ DATE: ___

T-MOBILE APPROVAL: _____ DATE: ___

I HAVE REVIEWED THE FLOOD INSURANCE RATE MAPS (FIRM) MA
NO. 21033001508 DATED 02.15.91 AND THE PROPOSED
LEASE AREA DOES NOT APPEAR TO BE IN A FLOOD PRONE ARE
THE PROPOSED LEASE AREA IS LOCATED IN ZONE X.

BORING LOCATION PLAN (FIGURE 4)

BORING LOG

ASHER, INC.
P.O. Box 17534
Louisville, KY 402017
(502) 589-0073

Boring No.: B-1

ELEV.: 765.5
Project: Short Creek Tower Site **Asher Project No.:** 008-221E
Location: Short Creek, KY
Client: ECA **Date:** November 10, 2008

Elev (feet)	Depth (feet)	Sample Number	SPT Blows / 6"	N	Percent Moisture	Description of Material
		1	4-3-5	8		LEAN CLAY (CL), sandy, w/ oxides, FIRM, orangish brown, moist
		2	9-9-9	18	20.9	FAT CLAY (CH), w/ trace sand, VERY STIFF, reddish brown and gray, moist
	5	3	9-10-12	22	13	SILTSTONE, w/ shale fragments, VERY STIFF to HARD, orangish brown gray and black, dry
		4	8-8-50/.3	50+	15.8	**AUGER REFUSAL AT 7.8 FT.**
			Rec. (%)		RQD (%)	LIMESTONE, w/ interbedded sandstone shale
	10		62		32	
					Poor	Soil Seam and SILTSTONE 10.6'-12.8'
						CORING TERMINATED AT 12.8 FT.
	15					
	20					
	25					

Notes: No groundwater was encountered during drilling.
Topsoil - 3 in.
Elevations were interpolated fro the supplied Topographic Survey performed by FS Tan.
Rock Quality Designation (RQD)

BORING LOG

ASHER, INC.
P.O. Box 17534
Louisville, KY 402017
(502) 589-0073

Boring No.: B-2

ELEV.: 766.5
Project: Short Creek Tower Site **Asher Project No.:** 008-221E
Location: Short Creek, KY
Client: ECA **Date:** November 10, 2008

Elev (feet)	Depth (feet)	Sample Number	SPT Blows / 6"	N	Percent Moisture	Description of Material
		1	3-3-4	7		LEAN CLAY (CL), w/ trace sand, FIRM, orangish brown and gray, moist
		2	4-4-5	9	25.8	SILTSTONE, STIFF to VERY STIFF, gray and orangish brown, moist
	5	3	7-7-15	22	22.1	
		4	3-8-17	25	20.8	
						Weathered Rock SHALE - 8.5'-10.9'
	10	5	8-12-15	27	20.5	
						AUGER REFUSAL AT 10.9 FT.
	15					
	20					
	25					

Notes: No groundwater was encountered during drilling.
Topsoil - 4 in.
Elevations were interpolated fro the supplied Topographic Survey performed by FS Tan.

MAPQUEST

T-Mobile / Short Creek Site / 9LV1124A
Directions from Grayson County Courthouse to Cell Tower Site

Printed by:
Theresa A. Tharp, Paralegal
Greenebaum Doll & McDonald, PLLC
3500 National City Tower
Louisville, Kentucky 40202
(502) 587-3748

Total Time: 11 minutes **Total Distance: 8.41 miles**

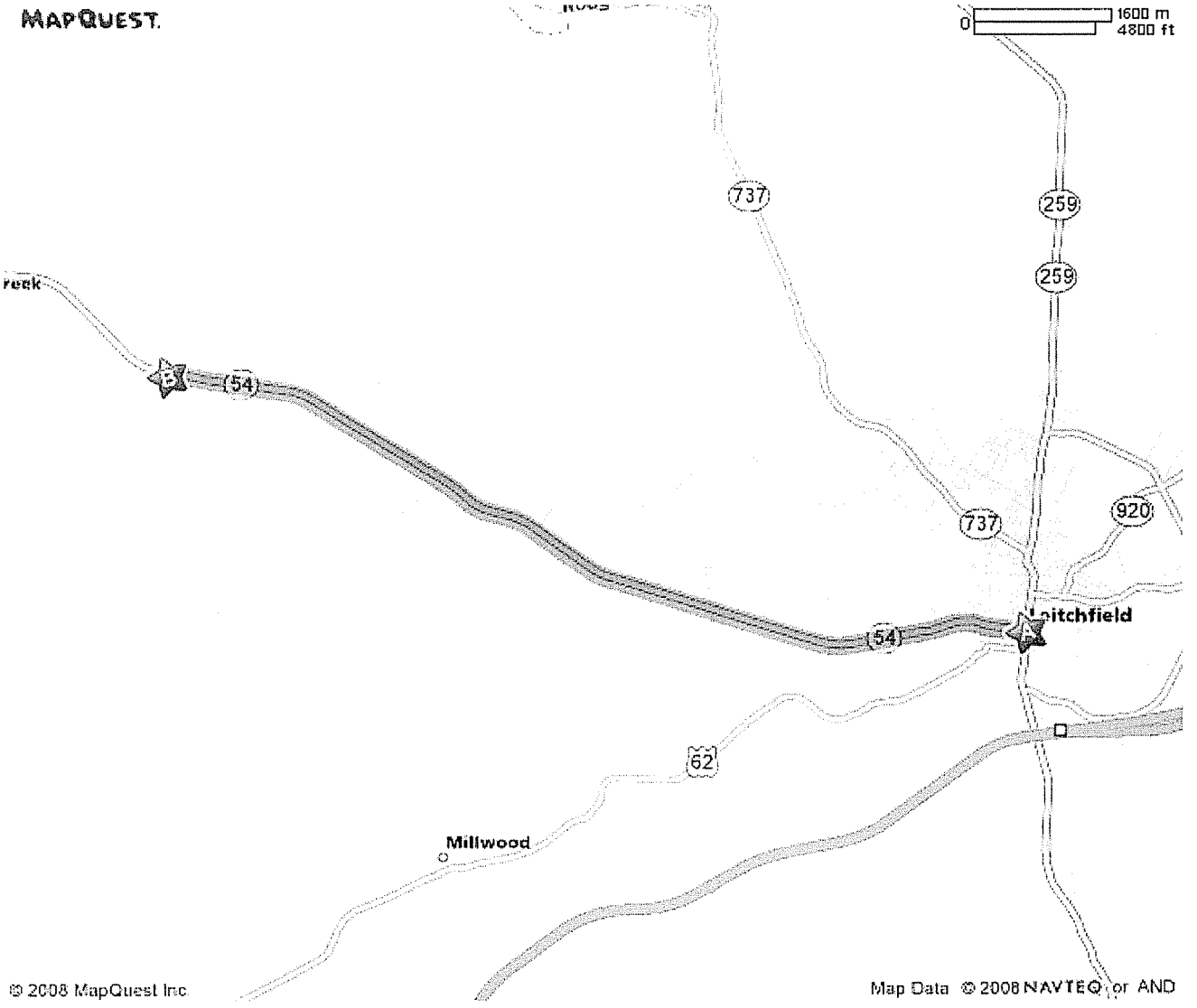
A: 10 Public Sq, Leitchfield, KY 42754-1127

START	1: Start out going WEST on KY-54/W MAIN ST toward N CANNON DR. Continue to follow KY-54.	8.4 mi
END	2: End at 8338 Owensboro Rd Falls of Rough, KY 40119-6720	

B: 8338 Owensboro Rd, Falls of Rough, KY 40119-6720

Total Time: 11 minutes **Total Distance: 8.41 miles**

Need help on the go? Get Voice Activated Directions for free. Call **1-800-FREE411** (1-800-373-3411).



Grayson

SITE LEASE WITH OPTION

THIS SITE LEASE WITH OPTION (this "Lease") is by and between Willard McCafferty and Barbara A. Thomas, a single person ("Landlord") and Powertel Memphis, Inc., a Delaware corporation ("Tenant").

1. Option to Lease.

(a) In consideration of the payment of [redacted] dollars ($[redacted]) (the "Option Fee") by Tenant to Landlord, Landlord hereby grants to Tenant an option to lease a portion of the real property described in the attached Exhibit A (the "Property"), on the terms and conditions set forth herein (the "Option"). The Option shall be for an initial term of twelve (12) months, commencing on the Effective Date (as defined below) (the "Option Period"). The Option Period may be extended by Tenant for an additional twelve (12) months upon written notice to Landlord and payment of the sum of [redacted] no/100 dollars ($100.00) ("Additional Option Fee") at any time prior to the end of the Option Period.

(b) During the Option Period and any extension thereof, and during the Initial Term and any Renewal Term (as those terms are defined below) of this Lease, Landlord agrees to cooperate with Tenant in obtaining, at Tenant's expense, all licenses and permits or authorizations required for Tenant's use of the Premises (as defined below) from all applicable government and/or regulatory entities (including, without limitation, zoning and land use authorities, and the Federal Communications Commission ("FCC") ("Governmental Approvals"), including all land use and zoning permit applications, and Landlord agrees to cooperate with and to allow Tenant, at no cost to Landlord, to obtain a title report, zoning approvals and variances, land-use permits. Landlord expressly grants to Tenant a right of access to the Property to perform any surveys, soil tests, and other engineering procedures or environmental investigations ("Tests") on the Property deemed necessary or appropriate by Tenant to evaluate the suitability of the Property for the uses contemplated under this Lease. During the Option Period and any extension thereof, and during the Initial Term or any Renewal Term of this Lease, Landlord agrees that it will not interfere with Tenant's efforts to secure other licenses and permits or authorizations that relate to other property. During the Option Period and any extension thereof, Tenant may exercise the Option by so notifying Landlord in writing, at Landlord's address in accordance with Section 12 hereof.

(c) If Tenant exercises the Option, then Landlord hereby leases to Tenant that portion of the Property sufficient for placement of the Antenna Facilities (as defined below), together with all necessary space and easements for access and utilities, as generally described and depicted in the attached Exhibit B (collectively referred to hereinafter as the "Premises"). The Premises, located at 8338 Owensboro Rd, Leitchfield, KY 42754, comprises approximately 3,600 square feet.

2. Term. The initial term of this Lease shall be five (5) years commencing on the date of exercise of the Option (the "Commencement Date"), and terminating at midnight on the last day of the initial term (the "Initial Term").

3. Renewal. Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms (each a "Renewal Term") on the same terms and conditions as set forth herein. This Lease shall automatically renew for each successive Renewal Term unless Tenant notifies Landlord, in writing, of Tenant's intention not to renew this Lease, at least thirty (30) days prior to the expiration of the Initial Term or any Renewal Term. If Tenant shall remain in possession of the Premises at the expiration of this Lease or any Renewal Term without a written agreement, such tenancy shall be deemed a month-to-month tenancy under the same terms and conditions of this Lease.

4. Rent.

(a) From and after the Commencement Date, Tenant shall pay Landlord or designee, as rent, [redacted] and no/100 dollars ([redacted]) per month ("Rent"). The first payment of Rent shall be due within twenty (20) days following the Commencement Date and shall be prorated based on the days remaining in the month following the Commencement Date, and thereafter Rent will be payable monthly in advance by the fifth day of each month to Landlord at the address specified in Section 12 below. If this Lease is terminated for any reason (other than a default by Tenant) at a time other than on the last day of a month, Rent shall be prorated as of the date of termination and all prepaid Rent shall be immediately refunded to Tenant. Landlord, its successors, assigns and/or designee, if any, will submit to Tenant any documents required by Tenant in connection with the payment of Rent, including, without limitation, an IRS Form W-9.

(b) During the Initial Term and any Renewal Terms, monthly Rent shall be adjusted, effective on the first day of each year of the Initial or Renewal Term, and on each such subsequent anniversary thereof, to an amount equal to one hundred three percent (103%) of the monthly Rent in effect immediately prior to the adjustment date.

5. Permitted Use. The Premises may be used by Tenant for the transmission and reception of radio communication signals and for the construction, installation, operation, maintenance, repair, removal or replacement of related facilities, including, without limitation, tower and base, antennas, microwave dishes, equipment shelters and/or cabinets and related activities.

6. Interference. Tenant shall not use the Premises in any way which interferes with the use of the Property by Landlord or lessees or licensees of Landlord with rights in the Property prior in time to Tenant's (subject to Tenant's rights under this Lease, including, without limitation, non-interference). Similarly, Landlord shall not use, nor shall Landlord permit its lessees, licensees, employees, invitees or agents to use, any portion of the Property in any way which interferes with the operations of Tenant. Such interference shall be deemed a material breach by the interfering party, who shall, upon written notice from the other, be responsible for terminating said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the injured party shall have the

right, in addition to any other rights that it may have at law or in equity, to bring a court action to enjoin such interference or to terminate this Lease immediately upon written notice.

7. Improvements; Utilities; Access.

(a) Tenant shall have the right, at its expense, to erect and maintain on the Premises improvements, personal property and facilities necessary to operate its communications system, including, without limitation, radio transmitting and receiving antennas, microwave dishes, tower and base, equipment shelters and/or cabinets and related cables and utility lines and a location based system, as such location based system may be required by any county, state or federal agency/department, including, without limitation, additional antenna(s), coaxial cable, base units and other associated equipment (collectively, the "Antenna Facilities"). Tenant shall have the right to alter, replace, expand, enhance and upgrade the Antenna Facilities at any time during the term of this Lease. Tenant shall cause all construction to occur lien-free and in compliance with all applicable laws and ordinances. Landlord acknowledges that it shall neither interfere with any aspects of construction nor attempt to direct construction personnel as to the location of or method of installation of the Antenna Facilities and the Easements (as defined below). The Antenna Facilities shall remain the exclusive property of Tenant and shall not be considered fixtures. Tenant shall have the right to remove the Antenna Facilities at any time during and upon the expiration or termination of this Lease.

(b) Tenant, at its expense, may use any and all appropriate means of restricting access to the Antenna Facilities, including, without limitation, the construction of a fence.

(c) Tenant shall, at Tenant's expense, keep and maintain the Antenna Facilities now or hereafter located on the Property in commercially reasonable condition and repair during the term of this Lease, normal wear and tear and casualty excepted. Upon termination or expiration of this Lease, the Premises shall be returned to Landlord in good, usable condition, normal wear and tear and casualty excepted.

(d) Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Property (including, but not limited to, the installation of emergency power generators). Landlord agrees to use reasonable efforts in assisting Tenant to acquire necessary utility service. Tenant shall, wherever practicable, install separate meters for utilities used on the Property by Tenant. In the event separate meters are not installed, Tenant shall pay the periodic charges for all utilities attributable to Tenant's use, at the rate charged by the servicing utility. Landlord shall diligently correct any variation, interruption or failure of utility service.

(e) As partial consideration for Rent paid under this Lease, Landlord hereby grants Tenant easements on, under and across the Property for ingress, egress, utilities and access (including access for the purposes described in Section 1) to the Premises adequate to install and maintain utilities, including, but not limited to, the installation of power and telephone service cable, and to service the Premises and the Antenna Facilities at all times during the Initial Term of this Lease and any Renewal Term (collectively, the "Easements"). The Easements provided hereunder shall have the same term as this Lease.

(f) Tenant shall have 24-hours-a-day, 7-days-a-week access to the Premises at all times during the Initial Term of this Lease and any Renewal Term, at no charge to Tenant.

(g) Landlord shall maintain and repair all access roadways from the nearest public roadway to the Premises in a manner sufficient to allow vehicular and pedestrian access at all times, at its sole expense, except for any damage to such roadways caused by Tenant.

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

(a) upon thirty (30) days' written notice by Landlord if Tenant fails to cure a default for payment of amounts due under this Lease within such thirty (30) day period;

(b) immediately upon written notice by Tenant if Tenant notifies Landlord of any unacceptable results of any Tests prior to Tenant's installation of the Antenna Facilities on the Premises, or if Tenant does not obtain, maintain, or otherwise forfeits or cancels any license (including, without limitation, an FCC license), permit or any Governmental Approval necessary to the installation and/or operation of the Antenna Facilities or Tenant's business;

(c) upon thirty (30) days' written notice by Tenant if Tenant determines that the Property or the Antenna Facilities are inappropriate or unnecessary for Tenant's operations for economic or technological reasons;

(d) immediately upon written notice by Tenant if the Premises or the Antenna Facilities are destroyed or damaged so as in Tenant's reasonable judgment to substantially and adversely affect the effective use of the Antenna Facilities. In such event, all rights and obligations of the parties shall cease as of the date of the damage or destruction, and Tenant shall be entitled to the reimbursement of any Rent prepaid by Tenant. If Tenant elects to continue this Lease, then all Rent shall abate until the Premises and/or the Antenna Facilities are restored to the condition existing immediately prior to such damage or destruction; or

(e) at the time title to the Property transfers to a condemning authority pursuant to a taking of all or a portion of the Property sufficient in Tenant's determination to render the Premises unsuitable for Tenant's use. Landlord and Tenant shall each be entitled to pursue their own separate awards with respect to such taking. Sale of all or part of the Property to a purchaser with the power of eminent domain in the face of the exercise of the power shall be treated as a taking by condemnation.

9. Default and Right to Cure. Notwithstanding anything contained herein to the contrary and without waiving any other rights granted to it at law or in equity, each party shall have the right, but not the obligation, to terminate this Lease on written notice pursuant to Section 12 hereof, to take effect immediately, if the other party fails to perform any covenant or commits a material breach of this Lease and fails to diligently pursue a cure thereof to its completion after thirty (30) days' written notice specifying such failure of performance or default.

10. Taxes. Landlord shall pay when due all real property taxes for the Property, including the Premises. In the event that Landlord fails to pay any such real property taxes or other fees and assessments, Tenant shall have the right, but not the obligation, to pay such owed amounts and deduct them from Rent amounts due under this Lease. Notwithstanding the foregoing, Tenant shall pay any personal property tax, real property tax or any other tax or fee which is directly attributable to the presence or installation of Tenant's Antenna Facilities, only for so long as this Lease remains in effect. If Landlord receives notice of any personal property or real property tax assessment against Landlord, which may affect Tenant and is directly attributable to Tenant's installation, Landlord shall provide timely notice of the assessment to Tenant sufficient to allow Tenant to consent to or challenge such assessment, whether in a Court, administrative proceeding, or other venue, on behalf of Landlord and/or Tenant. Further, Landlord shall provide to Tenant any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this Section 10. In the event real property taxes are assessed against Landlord or Tenant for the Premises or the Property, Tenant shall have the right, but not the obligation, to terminate this Lease without further liability after thirty (30) days' written notice to Landlord, provided Tenant pays any real property taxes assessed as provided herein.

11. Insurance and Subrogation and Indemnification.

(a) Tenant will maintain Commercial General Liability Insurance in amounts of One Million and no/100 Dollars ($1,000,000.00) per occurrence and Two Million and no/100 Dollars ($2,000,000.00) aggregate. Tenant may satisfy this requirement by obtaining the appropriate endorsement to any master policy of liability insurance Tenant may maintain.

(b) Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damage covered by their respective first party property insurance policies for all perils insured thereunder. In the event of such insured loss, neither party's insurance company shall have a subrogated claim against the other.

(c) Subject to the property insurance waivers set forth in subsection 11(b), Landlord and Tenant each agree to indemnify and hold harmless the other party from and against any and all claims, damages, costs and expenses, including reasonable attorney fees, to the extent caused by or arising out of the negligent acts or omissions or willful misconduct in the operations or activities on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants and/or subtenants of the indemnifying party, or a breach of any obligation of the indemnifying party under this Lease. The indemnifying party's obligations under this section are contingent upon its receiving prompt written notice of any event giving rise to an obligation to indemnify the other party and the indemnified party's granting it the right to control the defense and settlement of the same.

(d) Notwithstanding anything to the contrary in this Lease, the parties hereby confirm that the provisions of this Section 11 shall survive the expiration or termination of this Lease.

(e) Tenant shall not be responsible to Landlord, or any third-party, for any claims, costs or damages (including, fines and penalties) attributable to any pre-existing violations of applicable codes, statutes or other regulations governing the Property.

12. Notices. All notices, requests, demands and other communications shall be in writing and are effective three (3) days after deposit in the U.S. mail, certified and postage paid, or upon receipt if personally delivered or sent by next-business-day delivery via a nationally recognized overnight courier to the addresses set forth below. Landlord or Tenant may from time to time designate any other address for this purpose by providing written notice to the other party.

If to Tenant, to:
T-Mobile USA, Inc.
12920 SE 38th Street
Bellevue, WA 98006
Attn: PCS Lease Administrator

With a copy to:
Attn: Legal Dept.
12920 SE 38th Street
Bellevue, WA 98006

And with a copy to:
Powertel/Memphis, Inc.
3800 Ezell
Nashville, TN 37211
Attn: Lease Administration Manager

If to Landlord, to:
Willard McCafferty
8398 Owensboro Rd
Falls of Rough, KY 40119

And with a copy to:

Send Rent payments to:
Willard McCafferty and Barbara A. Thomas
8398 Owensboro Rd
Falls of Rough, KY 40119

13. Quiet Enjoyment, Title and Authority. As of the Effective Date and at all times during the Initial Term and any Renewal Terms of this Lease, Landlord covenants and warrants to Tenant that (i) Landlord has full right, power and authority to execute and perform this Lease; (ii) Landlord has good and unencumbered fee title to the Property free and clear of any liens or mortgages, except those heretofore disclosed in writing to Tenant and which will not interfere with Tenant's rights to or use of the Premises; (iii) execution and performance of this Lease will not violate any laws, ordinances, covenants, or the provisions of any mortgage, lease, or other agreement binding on Landlord; and (iv) Tenant's quiet enjoyment of the Premises or any part thereof shall not be disturbed as long as Tenant is not in default beyond any applicable grace or cure period.

14. Environmental Laws. Landlord represents that it has no knowledge of any substance, chemical or waste (collectively, "Hazardous Substance") on the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Landlord and Tenant shall not introduce or use any Hazardous Substance on the Property in violation of any applicable law. Landlord shall be responsible for, and shall promptly conduct any investigation and remediation as required by any applicable environmental laws, all spills or other releases of any Hazardous Substance not caused solely by Tenant, that have occurred or which may occur on the Property. Each party agrees to defend, indemnify and hold harmless the other from and against any and all administrative and judicial actions and rulings, claims, causes of action, demands and liability (collectively, "Claims") including, but not limited to, damages, costs, expenses, assessments, penalties, fines, losses, judgments and reasonable attorney fees that the indemnitee may suffer or incur due to the existence of any Hazardous Substances on the Property or the migration of any Hazardous Substance to other properties or the release of any Hazardous Substance into the environment (collectively, "Actions"), that relate to or arise from the indemnitor's activities on the Property. Landlord agrees to defend, indemnify and hold Tenant harmless from Claims resulting from Actions on the Property not caused by Landlord or Tenant prior to and during the Initial Term and any Renewal Term. The indemnifications in this section specifically include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any governmental authority. This Section 14 shall survive the termination or expiration of this Lease.

15. Assignment and Subleasing. Tenant shall have the right to assign or otherwise transfer this Lease and the Easements (as defined above) granted herein upon written notice to Landlord. Upon such assignment, Tenant shall be relieved of all liabilities and obligations hereunder and Landlord shall look solely to the assignee for performance under this Lease and all obligations hereunder. Tenant may sublease the Premises, upon written notice to Landlord.

Landlord shall have the right to assign or otherwise transfer this Lease and the Easements granted herein, upon written notice to Tenant except for the following; any assignment or transfer of this Lease which is separate and distinct from a transfer of Landlord's entire right, title and interest in the Property, shall require the prior written consent of Tenant which may be withheld in Tenant's sole discretion. Upon Tenant's receipt of (i) an executed deed or assignment and (ii) an IRS Form W-9 from assignee, and subject to Tenant's consent, if required, Landlord shall be relieved of all liabilities and obligations hereunder and Tenant shall look solely to the assignee for performance under this Lease and all obligations hereunder.

Additionally, notwithstanding anything to the contrary above, Landlord or Tenant may, upon notice to the other, grant a security interest in this Lease (and as regards the Tenant, in the Antenna Facilities), and may collaterally assign this Lease (and as regards the Tenant, in the Antenna Facilities) to any mortgagees or holders of security interests, including their successors or assigns (collectively "Secured Parties"). In such event, Landlord or Tenant, as the case may be, shall execute such consent to leasehold financing as may reasonably be required by Secured Parties.

16. Successors and Assigns. This Lease and the Easements granted herein shall run with the land, and shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

17. Waiver of Landlord's Lien. Landlord hereby waives any and all lien rights it may have, statutory or otherwise, concerning the Antenna Facilities or any portion thereof, which shall be deemed personal property for the purposes of this Lease, whether or not the same is deemed real or personal property under applicable laws, and Landlord gives Tenant and Secured Parties the right to remove all or any portion of the same from time to time, whether before or after a default under this Lease, in Tenant's and/or Secured Party's sole discretion and without Landlord's consent.

18. Miscellaneous.

(a) The prevailing party in any litigation arising hereunder shall be entitled to reimbursement from the other party of its reasonable attorneys' fees and court costs, including appeals, if any.

(b) This Lease constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations and other agreements with respect to the subject matter and property covered by this Lease. Any amendments to this Lease must be in writing and executed by both parties.

(c) Landlord agrees to cooperate with Tenant in executing any documents necessary to protect Tenant's rights in or use of the Premises. A Memorandum of Lease in substantially the form attached hereto as Exhibit C may be recorded in place of this Lease by Tenant.

(d) In the event the Property is encumbered by a mortgage or deed of trust, Landlord agrees, upon request of Tenant, to obtain and furnish to Tenant a non-disturbance and attornment agreement for each such mortgage or deed of trust, in a form reasonably acceptable to Tenant.

(e) Tenant may obtain title insurance on its interest in the Premises. Landlord agrees to execute such documents as the title company may require in connection therewith.

(f) This Lease shall be construed in accordance with the laws of the state in which the Property is located, without regard to the conflicts of law principles of such state.

(g) If any term of this Lease is found to be void or invalid, the remaining terms of this Lease shall continue in full force and effect. Any questions of particular interpretation shall not be interpreted against the drafter, but rather in accordance with the fair meaning thereof. No provision of this Lease will be deemed waived by either party unless expressly waived in writing by the waiving party. No waiver shall be implied by delay or any other act or omission of either party. No waiver by either party of any provision of this Lease shall be deemed a waiver of such provision with respect to any subsequent matter relating to such provision.

(h) The persons who have executed this Lease represent and warrant that they are duly authorized to execute this Lease in their individual or representative capacities as indicated.

(i) This Lease may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

(j) All Exhibits referred to herein and any Addenda are incorporated herein for all purposes. The parties understand and acknowledge that Exhibits A and B may be attached to this Lease and the Memorandum of Lease, in preliminary form. Accordingly, the parties agree that upon the preparation of final, more complete exhibits, Exhibits A and/or B, as the case may be, may be replaced by Tenant with such final, more complete exhibit(s).

(k) If either party is represented by any broker or any other leasing agent, such party is responsible for all commission fee or other payment to such agent, and agrees to indemnify and hold the other party harmless from all claims by such broker or anyone claiming through such broker.

The effective date of this Lease is the date of execution by the last party to sign (the "Effective Date").

LANDLORD: Willard McCafferty

By: Willard McCafferty

Printed Name: Willard McCafferty

Title:

Date: Nov 15 2008

LANDLORD: Barbara A. Thomas

By: Barbara A. Thomas

Printed Name: Barbara A Thomas

Title:

Date: NOV 15 2008

TENANT: Powertel/Memphis, Inc.

By: _____

Printed Name: Tami Nystrom

Title: Area Director of Engineering

Date: _____

T-Mobile Legal Approval

ADDENDUM TO SITE LEASE WITH OPTION
[Additional Terms]

In the event of conflict or inconsistency between the terms of this Addendum and this Lease, the terms of the Addendum shall govern and control. All capitalized terms shall have the same meaning as in this Lease.

Paragraph 10 will be deleted and replaced with the following:

10.Taxes.
Landlord shall pay when due all real property taxes for the Property, as assessed by the taxing authority of the appropriate jurisdiction. In the event that Landlord fails to pay any such real property taxes or other fees and assessments, Tenant shall have the right, but not the obligation, to pay such owed amounts and deduct them from Rent amounts due under this Lease. Notwithstanding the foregoing, Tenant shall pay any personal property tax, real property tax or any other tax or fee which is directly attributable to the presence or installation of Tenant's Antenna Facilities, only for so long as this Lease remains in effect. If Landlord receives notice of any personal property or real property tax assessment against Landlord, which may affect Tenant and is directly attributable to Tenant's installation, Landlord shall provide timely notice of the assessment to Tenant sufficient to allow Tenant to consent to or challenge such assessment, whether in a Court, administrative proceeding, or other venue, on behalf of Landlord and/or Tenant. Tenant will provide the Grayson County Tax Assessor, Planning and Zoning department and the Permitting Department with a legal description of the Premises as well as Tenants' noticing information. Tenant will not pay any taxes prior to the Commencement of the Lease. Further, Landlord shall provide to Tenant any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this Section 10. In the event real property taxes are assessed against Landlord or Tenant for the Premises or the Property, Tenant shall have the right, but not the obligation, to terminate this Lease without further liability after thirty (30) days' written notice to Landlord, provided Tenant pays any real property taxes assessed as provided herein.

LANDLORD: Willard McCafferty

By: Willard McCafferty
Printed Name: Willard McCafferty
Title:
Date: Nov 15 2008

LANDLORD: Barbara A. Thomas

By: Barbara A. Thomas
Printed Name: Barbara A Thomas
Title:
Date: NOV 15 2008

TENANT: Powertel/Memphis, Inc.

By: _____
Printed Name: Tami Nystrom
Title: Area Director of Engineering
Date: _____

Site Number: 9LV1124
Site Name: Short Creek
Market: Louisville

EXHIBIT A
Legal Description

The Property is legally described as follows:

A certain tract or parcel of land lying and being on the north side of Ky. Hwy. # 54, about 8-1/2 miles west of Leitchfield, Grayson County, Kentucky, and bounded and described as follows, to-wit:

BEGINNING at an iron rod (found) 1 foot south of a steel post in the north right of way of Ky. Hwy # 54 (25 feet from the center of the road,) the southwest corner of subject tract and the southeast corner of a tract conveyed to Harrison Decker and wife by deed dated June 18, 1981, and recorded in Deed Book 175, page 292; thence leaving Hwy. with lines of said Decker, North 12-47 East, 1148.25 feet to a steel post (found) in a fence line at the edge of the woods; thence with fence line, North 78-00 West, 182.56 feet to an iron rod at a 16-inch white oak fence corner, a corner to Hoy Johnson (Deed Book 161, page 98;) thence with fence line, North 46-28 East 341.71 feet (going up over steep cliff at 250 feet) to an iron stake (set) at an 18-inch white oak, an old fence corner and a corner in line of J.S. Conder tract (Deed Book 139, page 291) thence with lines of said Conder South 85-33 East 369.69 feet to an 18 inch walnut; thence south 71-55 East 206.0 feet to an iron stake (set) near a small cedar at the edge of a field; thence south 41-48 East 314.41 feet to an iron stake (set) at an old fence corner in line of Albert Hodges tract (Deed Book 105, page 405;) thence with lines of said Hodges and old fence line south 02-22 west 288.49 feet to an 18 inch white oak; thence south 17-59-1/2 east 206.16 feet to a 16 inch black oak; thence south 39-10 east 105.85 feet to a 16 inch white oak on the ridge; thence south 76-20 east 103.4 feet to a 16 inch post oak fence corner on the edge of a cliff; thence down a wide draw between cliffs south 36-03 west 262.75 feet to a steel post (found) in a fence line about 10 feet east of a fence corner; thence south 30-52 west 419.35 feet to an iron stake (set) at the south base of an old fence corner post on the north side of Ky. Hwy # 54; thence with said Hwy North 87-58 west 192.42 feet to a post; thence north 83-38 west 711.5 feet to the point of beginning, containing 30.56 acres, more or less, with bearing referred to the magnetic meridian according to a survey by D.R. Clemons, Ky. Reg. LS # 1894, on July 1, 1982.

THERE IS EXCEPTED FROM THE FOREGOING 8.98 acres heretofore conveyed to D.C. Foley, et ux, by deed of record in the Grayson County Clerk's office in Deed Book 290, at page 387, together with an easement for ingress and egress being 18 feet in width running parallel and adjacent to the west line of existing driveway.

Being a part of the same land conveyed by Mary Farris, single, to T.C. Barnes by deed dated April 24, 1990, and recorded in the Grayson County Clerk's office in Deed Book 216, at page 264.

EXHIBIT B

The location of the Premises within the Property (together with access and utilities) is more particularly described and depicted as follows:

[Enter Premises description here or on attachment(s).]

EXHIBIT C

Memorandum of Lease

MEMORANDUM OF LEASE

Assessor's Parcel Number: Map 46-15A

Between Willard McCafferty, a single person and Barbara A. Thomas, a single person ("Landlord") and Powertel/Memphis, Inc. ("Tenant")

A Site Lease with Option (the "Lease") by and between Willard McCafferty and Barbara A. Thomas, ("Landlord") and Powertel/Memphis, Inc., a Delaware corporation ("Tenant") was made regarding a portion of the following property:

See Attached Exhibit "A" incorporated herein for all purposes

The Option is for a term of twelve (12) months after the Effective Date of the Lease (as defined under the Lease), with up to one additional twelve (12) month renewal ("Optional Period").

The Lease is for a term of five (5) years and will commence on the date as set forth in the Lease (the "Commencement Date"). Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms.

IN WITNESS WHEREOF, the parties hereto have respectively executed this memorandum effective as of the date of the last party to sign.

LANDLORD: Willard McCafferty

By: Willard McCafferty

Printed Name: Willard McCafferty

Title: _____

Date: Nov 15 2008

LANDLORD: Barbara A. Thomas

By: Barbara A Thomas

Printed Name: Barbara A Thomas

Title: _____

Date: NOV 15, 2008

TENANT: Powertel/Memphis, Inc.

By: _____

Printed Name: Tami Nystrom

Title: Area Director of Engineering

Date: _____

Printed Name: _____

[Notary block for Landlord]

[Landlord Notary block for an Individual]

STATE OF Kentucky)
) ss.
COUNTY OF Grayson)

This instrument was acknowledged before me on 11/15/08 by Willard McCafferty.

Dated: Nov 15, 2008

Karen Jo Crawford
Notary Public
Print Name Karen Jo Crawford
My commission expires March 21, 2010

(Use this space for notary stamp/seal)

[Landlord Notary block for an Individual]

STATE OF Kentucky)
) ss.
COUNTY OF Grayson)

This instrument was acknowledged before me on 11/15/08 by Barbara A. Thomas.

Dated: Nov 15, 2008

Karen Jo Crawford
Notary Public
Print Name Karen Jo Crawford
My commission expires March 21, 2010

(Use this space for notary stamp/seal)

[Notary block for Tenant]

STATE OF _____)
) ss.
COUNTY OF _____)

I certify that I know or have satisfactory evidence that Tami Nystrom is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Area Director of Engineering of Powertel/Memphis, Inc., a Delaware corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____

_____
Notary Public
Print Name _____
My commission expires _____

(Use this space for notary stamp/seal)

Memorandum of Lease Exhibit A
Legal Description

The Property is legally described as follows:

A certain tract or parcel of land lying and being on the north side of Ky. Hwy. # 54, about 8-1/2 miles west of Leitchfield, Grayson County, Kentucky, and bounded and described as follows, to-wit:

BEGINNING at an iron rod (found) 1 foot south of a steel post in the north right of way of Ky. Hwy # 54 (25 feet from the center of the road,) the southwest corner of subject tract and the southeast corner of a tract conveyed to Harrison Decker and wife by deed dated June 18, 1981, and recorded in Deed Book 175, page 292; thence leaving Hwy. with lines of said Decker, North 12-47 East, 1148.25 feet to a steel post (found) in a fence line at the edge of the woods; thence with fence line, North 78-00 West, 182.56 feet to an iron rod at a 16-inch white oak fence corner, a corner to Hoy Johnson (Deed Book 161, page 98;) thence with fence line, North 46-28 East 341.71 feet (going up over steep cliff at 250 feet) to an iron stake (set) at an 18-inch white oak, an old fence corner and a corner in line of J.S. Conder tract (Deed Book 139, page 291) thence with lines of said Conder South 85-33 East 369.69 feet to an 18 inch walnut; thence south 71-55 East 206.0 feet to an iron stake (set) near a small cedar at the

edge of a field; thence south 41-48 East 314.41 feet to an iron stake (set) at an old fence corner in line of Albert Hodges tract (Deed Book 105, page 405;) thence with lines of said Hodges and old fence line south 02-22 west 288.49 feet to an 18 inch white oak; thence south 17-59-1/2 east 206.16 feet to a 16 inch black oak; thence south 39-10 east 105.85 feet to a 16 inch white oak on the ridge; thence south 76-20 east 103.4 feet to a 16 inch post oak fence corner on the edge of a cliff; thence down a wide draw between cliffs south 36-03 west 262.75 feet to a steel post (found) in a fence line about 10 feet east of a fence corner; thence south 30-52 west 419.35 feet to an iron stake (set) at the south base of an old fence corner post on the north side of Ky. Hwy # 54; thence with said Hwy North 87-58 west 192.42 feet to a post; thence north 83-38 west 711.5 feet to the point of beginning, containing 30.56 acres, more or less, with bearing referred to the magnetic meridian according to a survey by D.R. Clemons, Ky. Reg. LS # 1894, on July 1, 1982.

THERE IS EXCEPTED FROM THE FOREGOING 8.98 acres heretofore conveyed to D.C. Foley, et ux, by deed of record in the Grayson County Clerk's office in Deed Book 290, at page 387, together with an easement for ingress and egress being 18 feet in width running parallel and adjacent to the west line of existing driveway.

Being a part of the same land conveyed by Mary Farris, single, to T.C. Barnes by deed dated April 24, 1990, and recorded in the Grayson County Clerk's office in Deed Book 216, at page 264.

Identity and Qualifications of each Person Directly Responsible for the Design of the Wireless Communication Facility

Frank L. Sellinger
Licensed Professional Land Surveyor (KY Lic. #3282)

Jeremy Potts, Construction Manager
Mittrex Engineering

Richard A. Linker, P.E., Geotechnical Engineer
Licensed Professional Engineer (KY Lic. #16420)

Timothy L. Hardy, P.E., Structural Engineer
Registered Professional Engineer (KY Lic. #20374)

Ta-Wen Lee, P.E., Design Engineer
Licensed Professional Engineer (KY Lic. #24589)

Timothy L. Hardy, P.E., A & E Engineer
Registered Professional Engineer (KY Lic. #20374)

Buford H. Evans, Jr., P.E., Foundation Engineer
Licensed Professional Engineer (KY Lic. #19839)

Notice List
T-Mobile/Grayson County
"Short Creek"
8338 Owensboro Road
Falls of Rough, KY 40119
Map 46, Parcel 15A

ALL PROPERTIES WITHIN 500 FEET OF TOWER SITE OR CONTIGUOUS TO PROPERTY ON WHICH TOWER IS TO BE LOCATED

Map 46, Parcel 14A
Albert L. Hodges
8074 Owensboro Road
Leitchfield, KY 42754

Map 46, Parcel 4
Charles & Pauline Edwards
James A. & Anna C. Edwards
173 Megan Way
Falls of Rough, KY 40119

Map 46, Parcel 15C
Willard McCafferty & Barbara Thomas
8398 Owensboro Road
Falls of Rough, KY 40119

Map 46, Parcel 14
Harvel H. & Wilda Escue
339 Concord Road
Falls of Rough, KY 40119

GOVERNMENT OFFICIAL

Hon. Gary Logsdon
Grayson County Judge Executive
10 Public Square
Leitchfield, KY 42754

3206609_1.doc

GREENEBAUM

GREENEBAUM DOLL & McDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Map 46, Parcel 14A
Albert L. Hodges
8074 Owensboro Road
Leitchfield, KY 42754

RE: Notice of Proposed Construction of Wireless Communications Facility
Site Name: Short Creek/9LV1124B
Site Address: 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119
Docket No. 2009-00004

Dear Neighbor:

Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky ("T-Mobile") has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on property located at 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119. The proposed facility will include a 250-foot tall antenna tower, plus a 5-foot lightening rod and related ground facilities.

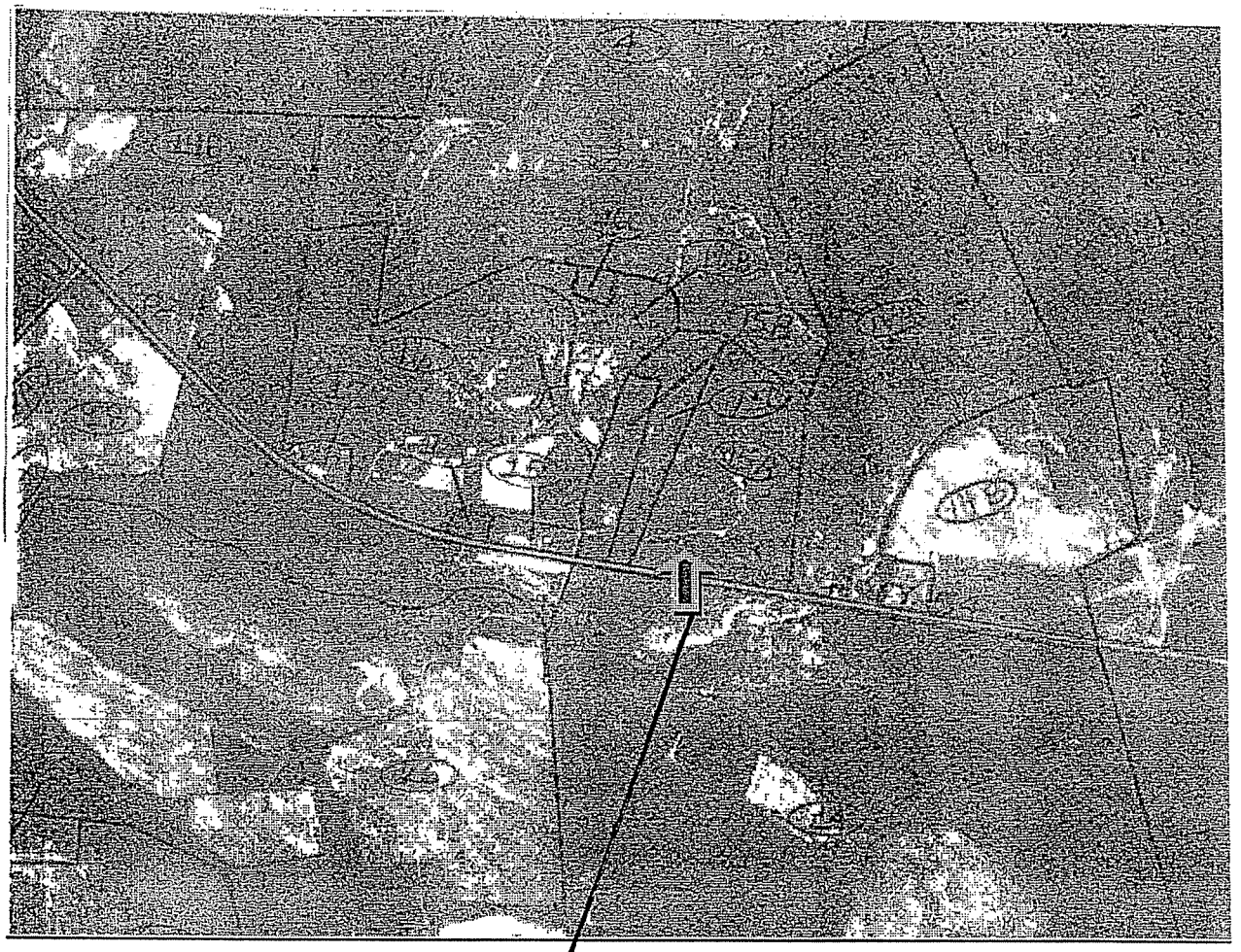
This notice is being sent to you because the Grayson County Property Valuation Administrator's records indicate that you may own property that is within 500' of the proposed tower site or contiguous to the property on which the tower is to be located. You have a right to submit testimony to the PSC in writing, or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602, Phone: (502) 564-3940. Please refer to Docket Number 2009-00004 in your correspondence or telephone calls.

We have attached a map showing the site location for the proposed tower. T-Mobile's radio frequency engineers assisted in selecting the proposed site for the tower, based on location and elevation needed to improve coverage and to provide quality service to wireless communications customers in this area. Please feel free to contact me at (502) 587-3655 with any comments or questions.

Sincerely,

Paul B. Whitty
Attorney for T-Mobile
PBW/abf
Enclosure
3199297_1.doc

T··Mobile·



Proposed Cell Tower Site

8338 Owensboro Road
Falls of Rough, Grayson County, Kentucky 40119

GREENEBAUM

GREENEBAUM DOLL & MCDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Map 46, Parcel 4
Charles & Pauline Edwards
James A. & Anna C. Edwards
173 Megan Way
Falls of Rough, KY 40119

RE: Notice of Proposed Construction of Wireless Communications Facility
Site Name: Short Creek/9LV1124B
Site Address: 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119
Docket No. 2009-00004

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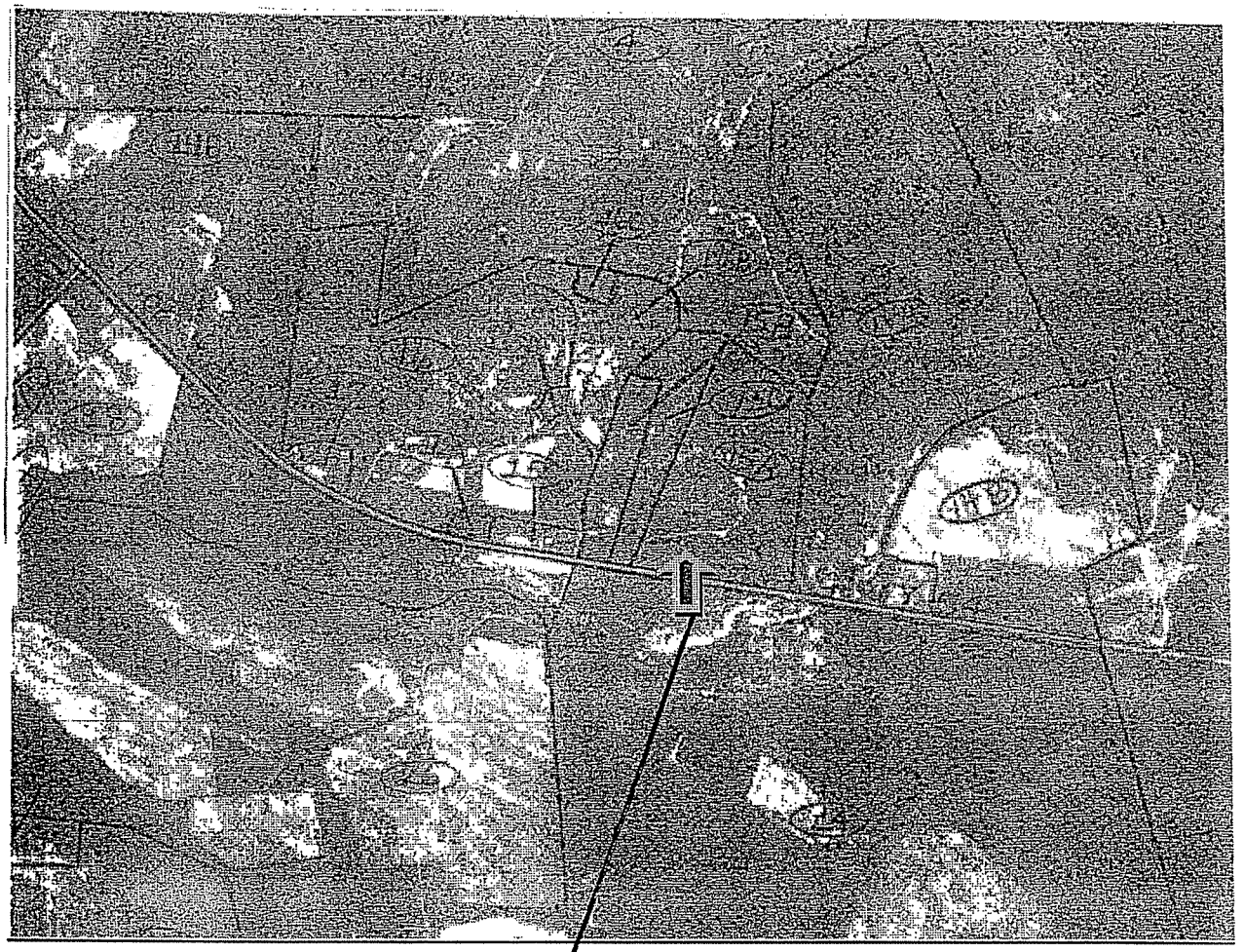
We have attached a map showing the site location for the proposed tower. T-Mobile's radio frequency engineers assisted in selecting the proposed site for the tower, based on location and elevation needed to improve coverage and to provide quality service to wireless communications customers in this area. Please feel free to contact me at (502) 587-3655 with any comments or questions.

Sincerely,

Paul B. Whitty
Attorney for T-Mobile
PBW/abf
Enclosure
3199297_1.doc

T··Mobile·



Proposed Cell Tower Site

8338 Owensboro Road
Falls of Rough, Grayson County, Kentucky 40119

GREENEBAUM

GREENEBAUM DOLL & MCDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Map 46, Parcel 15C
Willard McCafferty & Barbara Thomas
8398 Owensboro Road
Falls of Rough, KY 40119

RE: Notice of Proposed Construction of Wireless Communications Facility
Site Name: Short Creek/9LV1124B
Site Address: 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119
Docket No. 2009-00004

Dear Neighbor:

Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky ("T-Mobile") has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on property located at 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119. The proposed facility will include a 250-foot tall antenna tower, plus a 5-foot lightening rod and related ground facilities.

This notice is being sent to you because the Grayson County Property Valuation Administrator's records indicate that you may own property that is within 500' of the proposed tower site or contiguous to the property on which the tower is to be located. You have a right to submit testimony to the PSC in writing, or to request intervention in the PSC's proceedings on the application. You may contact the PSC for additional information concerning this matter at: Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602, Phone: (502) 564-3940. Please refer to Docket Number 2009-00004 in your correspondence or telephone calls.

We have attached a map showing the site location for the proposed tower. T-Mobile's radio frequency engineers assisted in selecting the proposed site for the tower, based on location and elevation needed to improve coverage and to provide quality service to wireless communications customers in this area. Please feel free to contact me at (502) 587-3655 with any comments or questions.

Sincerely,

Paul B. Whitty
Attorney for T-Mobile
PBW/abf
Enclosure
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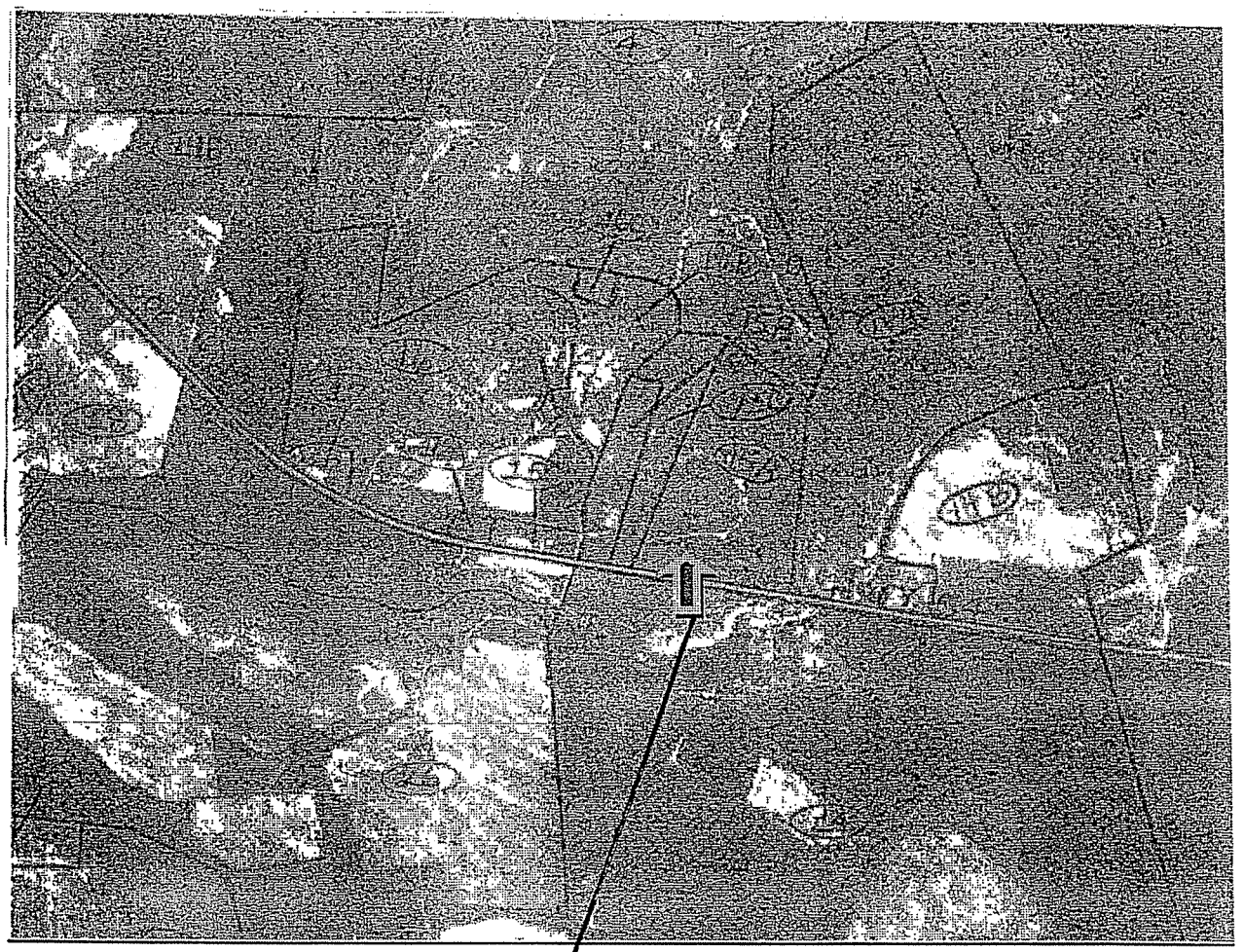
T··Mobile·



Proposed Cell Tower Site

8338 Owensboro Road
Falls of Rough, Grayson County, Kentucky 40119

GREENEBAUM®
GREENEBAUM DOLL & MCDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Map 46, Parcel 14
Harvel H. & Wilda Escue
339 Concord Road
Falls of Rough, KY 40119

RE: Notice of Proposed Construction of Wireless Communications Facility
Site Name: Short Creek/9LV1124B
Site Address: 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119
Docket No. 2009-00004

Dear Neighbor:

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Sincerely,

Paul B. Whitty
Attorney for T-Mobile
PBW/abf
Enclosure
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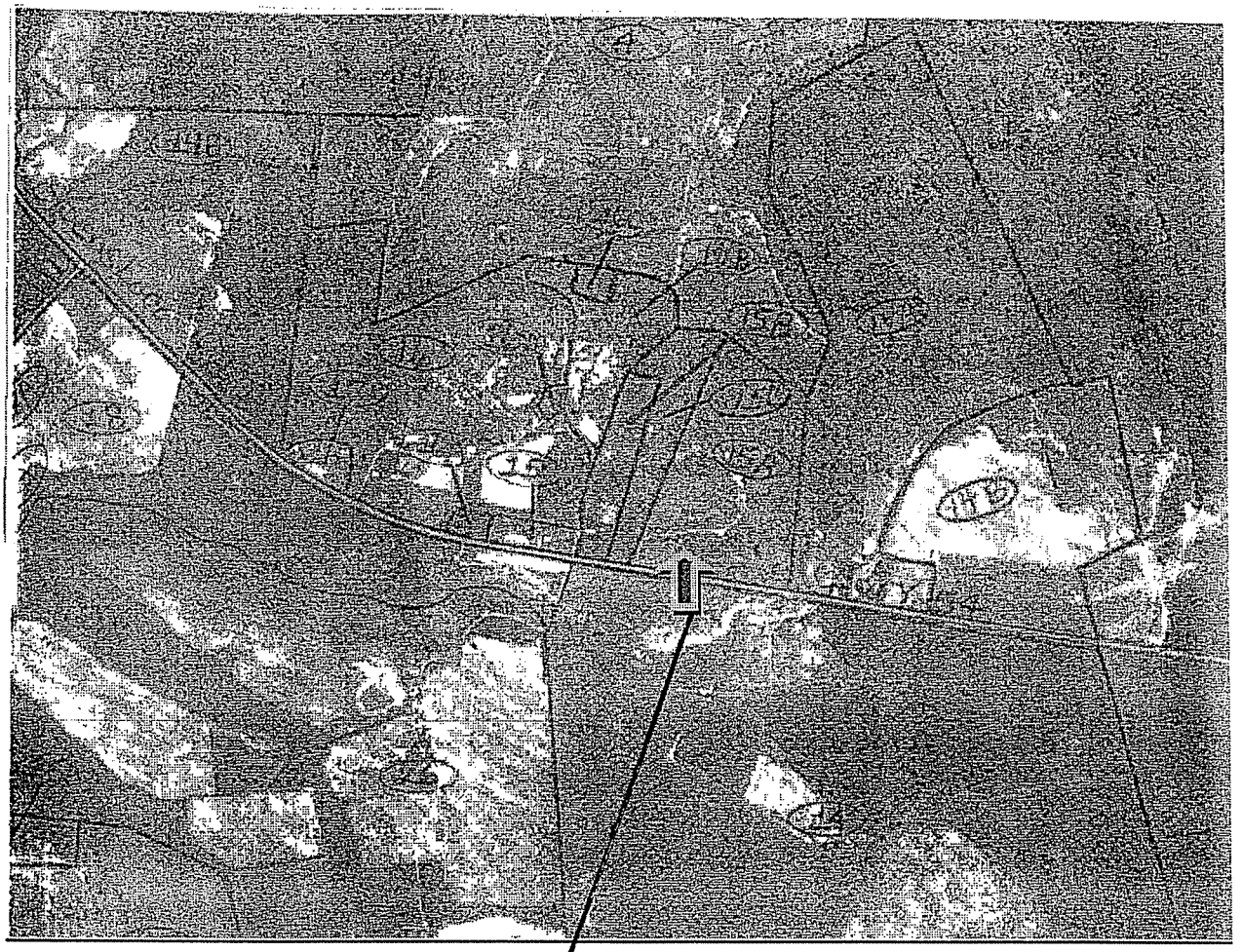
T··Mobile·



Proposed Cell Tower Site

8338 Owensboro Road
Falls of Rough, Grayson County, Kentucky 40119

GREENEBAUM

GREENEBAUM DOLL & MCDONALD PLLC

Paul B. Whitty
Direct (502) 587-3655 Fax (502) 540-2260 E-mail pbw@gdm.com

January 14, 2009

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Hon. Gary Logsdon
Grayson County Judge Executive
10 Public Square
Leitchfield, KY 42754

RE: Notice of Proposed Construction of Wireless Communications Facility
Site Name: Short Creek/9LV1124B
Site Address: 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119
Docket No. 2009-00004

Dear Judge Logsdon:

Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky ("T-Mobile") has filed an application with the Kentucky Public Service Commission ("PSC") to construct a new wireless communications facility on property located at 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky 40119. The proposed facility will include a 250-foot tall antenna tower, plus a 5-foot lightening rod and related ground facilities.

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Sincerely,

Paul B. Whitty
Attorney for T-Mobile

PBW/abf
Enclosure
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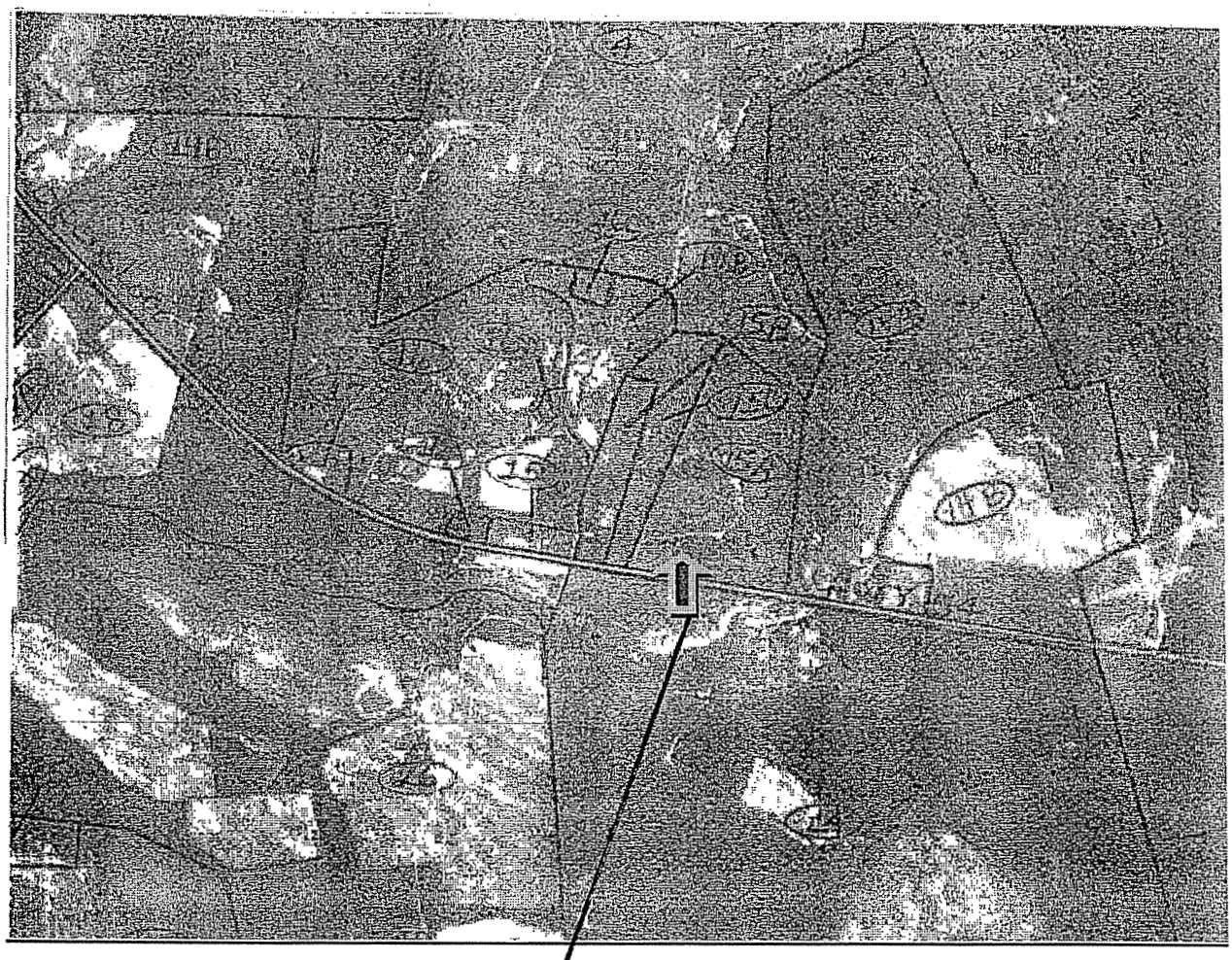
T··Mobile·



Proposed Cell Tower Site

8338 Owensboro Road
Falls of Rough, Grayson County, Kentucky 40119

SITE NAME: SHORT CREEK
8338 Owensboro Road
Falls of Rough, Kentucky 40119

NOTICE SIGNS

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

Sign to be posted on site:

Powertel/Memphis Inc. d/b/a T-Mobile Kentucky proposes to construct a telecommunications **tower** on this site. If you have questions, please contact Paul B. Whitty, Greenebaum Doll & McDonald, PLLC, 3500 National City Tower, Louisville, Kentucky 40202, (502) 587-3655, or the Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky, 40602, (502) 564-3940. Please refer to Docket Number 2009-00004 in your correspondence or telephone calls.

Sign to be posted on nearest public road:

Powertel/Memphis Inc. d/b/a T-Mobile Kentucky proposes to construct a telecommunications **tower** near this site. If you have questions, please contact Paul B. Whitty, Greenebaum Doll & McDonald, PLLC, 3500 National City Tower, Louisville, Kentucky 40202, (502) 587-3655, or the Executive Director, Public Service Commission, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky, 40602, (502) 564-3940. Please refer to Docket Number 2009-00004 in your correspondence or telephone calls.

Tharp, Theresa A.

From: Tharp, Theresa A.
Sent: Tuesday, January 13, 2009 5:12 PM
To: 'vanessa@gcnewsgazette.com'
Subject: Legal Ad for T-Mobile for Grayson County News-Gazette (Grayson County)

Please place the following legal ad in the News-Gazette. We would like for the ad to run on Saturday, January 17, 2009.

Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky proposes to construct a telecommunications tower at 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky. For questions or comments please contact Paul Whitty, Attorney, Greenebaum Doll & McDonald, PLLC, 3500 National City Tower, Louisville, Kentucky 40202; or Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to Docket Number 2009-00004 in your correspondence.

Please send proof of publication, together with the invoice for this ad, to my attention at the address shown below. Thank you.

Theresa A. Tharp
Paralegal
Greenebaum Doll & McDonald, PLLC
3500 National City Tower
Louisville, KY 40202
Office: (502) 587-3748
Fax: (502) 540-2291
Cell: (502) 541-8212
Email: tae@gdm.com

Tharp, Theresa A.

From: Tharp, Theresa A.
Sent: Tuesday, January 13, 2009 5:12 PM
To: 'circulation@graysonrecord.com'
Subject: Legal Ad for T-Mobile for The Record (Grayson County)

Please place the following legal ad in The Record. We would like for the ad to run on Thursday, January 22, 2009.

Powertel/Memphis, Inc. d/b/a T-Mobile Kentucky proposes to construct a telecommunications tower at 8338 Owensboro Road, Falls of Rough, Grayson County, Kentucky. For questions or comments please contact Paul Whitty, Attorney, Greenebaum Doll & McDonald PLLC, 3500 National City Tower, Louisville, Kentucky 40202; or Kentucky Public Service Commission, Executive Director, 211 Sower Boulevard, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to Docket Number 2009-00004 in your correspondence.

Please send proof of publication, together with the invoice for this ad, to my attention at the address shown below. Thank you.

Theresa A. Tharp
Paralegal
Greenebaum Doll & McDonald, PLLC
3500 National City Tower
Louisville, KY 40202
Office: (502) 587-3748
Fax: (502) 540-2291
Cell: (502) 541-8212
Email: tae@gdm.com

T··Mobile·

MAP FROM RF SHOWING SEARCH AREA WITH CANDIDATE DEPICTED

9LV1124