#### **COMMONWEALTH OF KENTUCKY**

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### In the Matter of:

APPLICATION OF KENTUCKY RSA #3 CELLULAR GENERAL PARTNERSHIP FOR ISSUANCE OF A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A CELL SITE (HANGING ROCK) IN RURAL SERVICE AREA #3 (GRAYSON) OF THE COMMONWEALTH OF KENTUCKY RECEIVED

MAR 0 1 2007

PUBLIC SERVICE COMMISSION

CASE NO. <del>2006</del>-00055 *X*X7-

#### <u>APPLICATION FOR A CERTIFICATE</u> OF PUBLIC CONVENIENCE AND NECESSITY (HANGING ROCK)

Kentucky RSA #3 Cellular General Partnership ("Kentucky RSA #3"), through counsel, pursuant to KRS 278.020 and 278.040, hereby submits this application for a certificate of public convenience and necessity to construct a cell site to be known as the Hanging Rock cell site in and for rural service area ("RSA") #3 of the Commonwealth of Kentucky, namely the counties of Allen, Breckinridge, Butler, Edmonson, Grayson, Hancock, Logan, McLean, Meade, Muhlenberg, Ohio, Simpson, Todd and Warren, Kentucky.

1. As required by 807 KAR 5:001 Sections 8(1) and (3), and 807 KAR 5:063, Kentucky RSA #3 states that it is a Kentucky general partnership whose full name and post office address are: Kentucky RSA #3 Cellular General Partnership, 2902 Ring Road, Elizabethtown, Kentucky, 42701.

2. Pursuant to 807 KAR § 1 (1)(b), a copy of the applicant's applications to the Federal Aviation Administration and Kentucky Airport Zoning Commission are attached as Exhibit "A". Written authorizations from these agencies will be supplied to the Commission upon their approval.

3. Pursuant to 807 KAR 5:063 §1(1)(d), applicant is attaching as Exhibit "B" a geotechnical investigation report, signed and sealed by a professional engineer registered in Kentucky, that includes boring logs, foundation design recommendations, and a finding as to the susceptibility of the area surrounding the proposed site to flood hazard.

4. Pursuant to 807 KAR 5:063 §1(1)(e), clear directions from the county seat to the proposed site, including highway numbers and street names, if applicable, with the telephone number of the person who prepared the directions are attached as Exhibit "C".

5. Pursuant to 807 KAR 5:063 §1(1)(f), a copy of the lease for the property on which the tower is proposed to be located is attached as Exhibit "D".

6. Pursuant to 807 KAR §1(1)(g), experienced personnel will manage and operate the Hanging Rock cell site. The President of Bluegrass Cellular Inc., Mr. Ron Smith, is ultimately responsible for all construction and operations of the cellular system of Kentucky RSA # 3 , of which system the Hanging Rock cell site will be a part. Bluegrass Cellular Inc. provides management services to Kentucky RSA #3 under a management contract, just as it does with three (3) other wireless carriers in the Commonwealth. And, Bluegrass Cellular Inc. has been providing these management services to these other wireless carriers for well over a decade. This extensive management experience with Bluegrass Cellular demonstrates that Bluegrass Cellular Inc.'s management and technical ability to supervise the operations of a wireless carrier.

7. Pursuant to 807 KAR §1(1)(g), Hemphill Corporation is responsible for the design specifications of the proposed tower (identified in Exhibit "B").

8. Pursuant to 807 KAR 5:063 §1(1)(h), a site development plan or survey, signed and sealed by a professional engineer registered in Kentucky, that shows the proposed location of the tower and all easements and existing structures within 500 feet of the proposed site on the property on which the tower will be located, and all easements and existing structures within 200 feet of the access drive, including the intersection with the public street system is attached as Exhibit "B".

9. Pursuant to 807 KAR 5:063 §1(1)(i), a vertical profile sketch of the tower, signed and sealed by a professional engineer registered in Kentucky, indicating the height of the tower and the placement of all antennas is attached as Exhibit "B".

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10. Pursuant to 807 KAR 5:063 §1(1)(j), the tower and foundation design plans and a description of the standard according to which the tower was designed, signed and sealed by a professional engineer registered in Kentucky is attached as Exhibit "B".

11. Pursuant to 807 KAR 5:063 § 1 (1)(k), a map, drawn to a scale no less than one (1) inch equals 200 feet, that identifies every structure and every owner of real estate within 500 feet of the proposed tower is attached as Exhibit "E".

12. Pursuant to 807 KAR 5:063 § 1 (1)(1), applicant's legal counsel hereby affirms that every person who owns property within 500 feet of the proposed tower has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of his or her right to request intervention.

13. Pursuant to KRS 278.665(2), applicant's legal counsel hereby affirms that every person who, according to the records of the property valuation administrator, owns property contiguous to the property where the proposed cellular antenna tower will be located has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of his or her right to request intervention.

14. Pursuant to 807 KAR 5:063 §1(1)(m), a list of the property owners who received the notice together with copies of the certified letters sent to listed property owners is attached as Exhibit "F".

15. Pursuant to 807 KAR 5:063 § 1 (1)(n), applicant's legal counsel hereby affirms that the Grayson County Judge Executive has been: (i) notified by certified mail, return receipt requested, of the proposed construction; (ii) given the commission docket number under which the application will be processed; and (iii) informed of its right to request intervention.

16. Pursuant to 807 KAR 5:063 §1(1)(o), a copy of the notice sent to the Grayson CountyJudge Executive is Exhibit "G".

17. Pursuant to 807 KAR 5:063 § 1 (1)(p), applicant's legal counsel hereby affirms that (i) two written notices meeting subsection two (2) of this section have been posted, one in a visible location

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on the proposed site and one on the nearest public road; and (ii) the notices shall remain posted for at least two weeks after the application has been filed.

18. Pursuant to 807 KAR 5:063 § 1 (2)(a), applicant's legal counsel affirms that:

(a) A written notice, of durable material at least two (2) feet by four (4) feet in size, stating that "*Kentucky RSA #3 Cellular General Partnership proposes to construct a telecommunications tower on this site,*" including the addresses and telephone numbers of the applicant and the Kentucky Public Service Commission, has been posted and shall remain in a visible location on the proposed site until final disposition of the application; and

(b) A written notice, of durable material at least two (2) feet by four (4) feet in size, stating that "*Kentucky RSA #3 Cellular General Partnership proposes to construct a telecommunications tower near this site,*" including the addresses and telephone numbers of the applicant and the Kentucky Public Service Commission, has been posted on the public road nearest the site.

A copy of each sign is attached as Exhibit "H"

19. Pursuant to 807 KAR 5:063 § 1 (1)(q), a statement that notice of the location of the proposed construction has been published in a newspaper of general circulation in the county in which the construction is proposed is attached as Exhibit "I".

20. Pursuant to 807 KAR 5:063 § 1(1)(r), the cell site, which has been selected, is in a relatively undeveloped area in Leitchfield, Kentucky.

21. Pursuant to 807 KAR 5:063 §1(1)(s), Kentucky RSA #3 has considered the likely effects of the installation on nearby land uses and values and has concluded that there is no more suitable location reasonably available from which adequate service to the area can be provided, and that there is no reasonably available opportunity to co-locate. Kentucky RSA #3 has attempted to co-locate on towers designed to host multiple wireless service providers' facilities or existing structures, such as a telecommunications tower, or another suitable structure capable of supporting the utility's facilities.

22. Pursuant to 807 KAR 5:063 § 1(1)(t), a map of the area in which the tower is proposed to be located, that is drawn to scale and that clearly depicts the search area in which a site should, pursuant to radio frequency requirements, be located is attached as Exhibit "J".

23. Pursuant to KRS 100.987(2)(a), a grid map, that is drawn to scale, that shows the location of all existing cellular antenna towers and that indicates the general position of proposed construction sites for new cellular antenna towers is attached as Exhibit "K".

24. No reasonably available telecommunications tower, or other suitable structure capable of supporting the cellular facilities of Kentucky RSA #3 and which would provide adequate service to the area exists.

25. Correspondence and communication with regard to this application should be

addressed to:

John E. Selent Jane W. Prizant **DINSMORE & SHOHL LLP** 1400 PNC Plaza 500 West Jefferson Street Louisville, KY 40202 (502) 540-2300 (502) 585-2207 (facsimile) *john.selent@dinslaw.com jane.prizant@dinslaw.com* 

WHEREFORE, Kentucky RSA #3 Cellular General Partnership requests the Commission to enter

an order:

1. Granting a certificate of public convenience and necessity to construct the Hanging Rock

cell site; and

2. Granting all other relief as appropriate.

Respectfully submitted,

John E. Selent Jane W. Prizant **DINSMORE & SHOHL LLP** 1400 PN Plaza 500 West Jefferson Street Louisville, KY 40202 (502) 540-2300 (502) 585-2207 (facsimile) *john.selent@dinslaw.com jane.prizant@dinslaw.com* 

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# LUKAS, NACE, GUTIERREZ & SACHS

CHARTERED

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CONSULTING ENGINEERS

TAMARA DAVIS-BROWN\*

HON. GERALD S. MCGOWAN\*

January 26, 2007

Telephone (703) 584-8668

#### Via Federal Express

Mr. John Houlihan Kentucky Airport Zoning Commission 200 Mero Street Frankfort, Kentucky 40622

Dear Mr. Houlihan:

Enclosed please find two completed TC 56-50 forms, Application for Permit to Construct or Alter a Structure, for a new tower (Hanging Rock) near Leitchfield, Kentucky. The Structure, including top-mounted antennas will have an overall height of 255 feet Above Ground Level.

Enclosed Form TC 56-50 and the attached exhibit include all the pertinent information for this existing tower structure. Also enclosed are copies of the completed FAA Form 7460-1 for the proposed site and a non-reduced 7-1/2' U.S. Geological Survey map indicating the exact location of the site.

Please do not hesitate to contact the undersigned if there are questions regarding this matter.

Sincerely, Leila Lizanaut Z Leila Rezanavaz

Consulting Engineer

Enclosures

CC: Doug Updegraff

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TC 56-50 (Rev. 08/00) PAGE 1 OF 2

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Kentucky Transportation Cabinet, Kentucky Airport Zoning Commission, 125 H APPLICATION FOR PERMIT TO CONSTRUCT OR						
1. APPLICANT - Name, Address, Telephone, Fax, etc. Scott McCloud Bluegrass Cellular 2902 Ring Road Elizabethtown, KY 42702 Tel: 270-769-0339 Fax: 270-737-0580 2. Representative of Applicant - Name, Address, Telephone, Fax Leila Rezanavaz Lukas, Nace, Gutierrez & Sachs, Chartered 1650 Tysons Blvd., Suite 1500 McLean, VA 22102 T: 703-584-8668	9. Latitude:       37       32       44       12         10. Longitude:       86       18       58       38         11. Datum:       10. NAD 83       NAD 27       Other         12. Nearest Kentucky City Leitchfield       County: Grayson         13. Nearest Kentucky public use or Military airport:         Grayson       County Airport         14. Distance from #13 to Structure:       10.5 miles         15. Direction from #13 to Structure:       NNW         16. Site Elevation (AMSL):       658       Feet         17. Total Structure Height (AGL):       255       Feet					
3. Application for. X New Construction Alteration Existing	17. Total Structure Height (#16 + #17) (AMSL):					
<ul> <li>4. Duration:  Permanent □ Temporary (MonthsDays)</li> <li>5. Work Schedule: Start 3/20/07 _ End 3/25/07</li> <li>6. Type:  Antenna Tower □ Crane □ Building □ Power Line</li> <li>□ Landfill □ Water Tank □ Other</li> <li>7. Marking/Painting and/or Lighting Preferred:</li> <li>□ Red Lights and Paint □ Dual - Red &amp; Medium Intensity White</li> <li>□ White - Medium Intensity □ Dual - Red &amp; High Intensity White</li> <li>□ White - High Intensity □ Other</li> <li>8. FAA Aeronautical Study Number 2007-ASO-377-OE</li> <li>21. Description of Proposal:</li> <li>Structure: Tower including top-mounted an Max. ERP: 250 Watts Frequencies: Cellular Band B</li> </ul>	<ul> <li>19. Previous FAA and/or Kentucky Aeronautical Study Number(s):</li> <li>N/A</li> <li>20. Description of Location: (Attach a USGS 7.5 minute Quadrangle Map or an Airport Layout Drawing with the precise site marked and any certified survey)</li> <li>Site is located at:</li> <li>2408 Hanging Rock Road</li> <li>Leitchfield, KY 42754</li> </ul>					
22. Has a "NOTICE OF CONSTRUCTION OR ALTERATION" (FAA Form 7460-1)       Ino         been filed with the Federal Aviation Administration?       Ino         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.         Leila Rezanavaz / Consulting Engineer       Leila Rezanavas         Printed Name       Signature						
PENALTIES: Persons failing to comply with Kentucky Revised Statutes (KRS 183.8 Series) are liable for fines and/or imprisonment as set forth in KRS 183.990(3). Non further penalties.	-compliance with Federal Aviation Administration Regulations may result in					
Approved       Disapproved	Date					

# Landmark Surveying Co., Inc.

Darren L. Helms, R.L.S., PRESIDENT Dennis N. Helms, R.L.S., VICE PRESIDENT



15 N.E. 3rd Street Washington, Indiana 47501 Phone: 812-257-0950 Fax: 812-257-0953 E-mail: landmark@dmrtc.net

#### **1A Certification**

January 23, 2007

Designation:Hanging RockSite ID No.:Not AvailableTower Type:Proposed Self-Support TowerLocation:2408 Hanging Rock Road, Leitchfield, KY 42754

I certify that the latitude, longitude, ground elevation and height of the proposed self-support tower are as follows:

Latitude:	37 degrees 32 minutes 44.12 seconds North	(NAD 1983)
Longitude:	86 degrees 18 minutes 58.38 seconds West	(NAD 1983)
Ground Elevation:	658.2 feet or 200.6 meters	(NAVD 1988)
Proposed Structure Height:	240 feet or 73.2 meters	(above ground level)
Proposed Overall Structure Height:	not available	(above ground level)

The accuracy of the latitude and longitude of the proposed self-support tower is  $\pm 15$  feet or  $\pm 5$  meters. The ground elevation and structure height are accurate to within  $\pm 3$  feet or  $\pm 1$  meter.

The information shown above is based upon field observations made on January 5, 2007 using the National Geodetic Survey monument "BUCKLER" and the Kentucky State Plane Coordinate System, South Zone, NAD 1983 (1993). The field observations were completed using Sokkia GPS receivers and a Topcon GPT-8005A robotic total station. Geodetic computations were completed using Sokkia's Locus software and Autodesk Land Desktop 2007 software.

Landmark Surveying Co., Inc.

Darren L. Helms, Kentucky Professional Land Surveyor No. 3386



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# Notice of Proposed Construction or Alteration (7460-1)

Project Name: BLUEG-00	00058395-07	Sponsor: Bluegrass Ce	ellular, In	C.		- 651-614-665-6655-6655
	Details for Cas	e : Hanging Rock				
	Show Proj	ect Summary				
Case Status	anna an ann an a staire a r lei, an ann a thann an annaich a stair ann an		anna a suite seat 9 anna anna	annandir das annas formi in an annas, annas suar		بيو يريوه بالمحمودة المراهدة
ASN: 2007-ASO-377-C	DE	Date Accepted:	01/2	26/2007		
Status: Accepted		Date Determin	ed:			
		Letters:	Non	e		
Construction / Alterat	ion Information	Structure Su	mmary			
Notice Of:	Construction	Structure Nam	e: Hang	ing Rock		
Duration:	Permanent	Structure Type	: Anter	na Tower		
if Temporary :	Months: Days:	Other	-:			
Work Schedule - Start:	03/20/2007	FCC Number:				
Work Schedule - End:	03/25/2007	Prior ASN:				
State Filing:	Filed with State					
Structure Details		Common Free	quency I	3ands		
Latitude:	37° 32' 44.12" N	Low Freq H 824	l <b>igh Freq</b> 849	Freq Unit	<b>ERP</b> 500	ERP Unit W
Longitude:	86° 18' 58.38" W	824 851 869	866	MHz	500	W
Horizontal Datum:	NAD83	809	894	MHZ	500	W
Site Elevation (SE):	658 (nearest foot)	Specific Freq	uencies			
Structure Height (AGL):	255 (nearest foot)					
Marking/Lighting:	Dual-red and medium intensity					
Other :						
Nearest City:	Leitchfield					
Nearest State:	Kentucky					
Traverseway:	No Traverseway	•				
Description of Location:	Site is located at: 2408 Hanging Rock Road Leitchfield, KY 42754					
Description of Proposal:	Proposed tower with top- mounted antennas for overall height of 255'.					

#### APPURTENANCE LOADING

- STD. BEACON/STROBE LIGHT W/ 1" CONDUIT AT 240' ELEVATION. 1.
- (3) STD 12' P.S.G. MOUNTS W/ (6) 59210 PANEL ANTENNAS AT 240', 220', 200', 180', & 160' ELEV's FED BY 1 5/8" COAX 2
- (1) 6' DISH W/ MOUNT AT 140' FED BY 1 5/8" COAX. 3

240'

230'

1T

- (3 EA.) WAVEGUIDE LADDERS 4.
- (1 EA.) STEP BOLTS W/ SAFETY CLIMB TO 240' HEIGHT. 5.

40

#### TOWER DESIGN LOADING 1.

- TOWER DESIGNED FOR EXPOSURE CATEGORY B, STRUCTURE CLASS I, TOPOGRAPHIC CATEGORY 3, TO TIA-222-G STANDARD
- 2. TOWER DESIGNED FOR A 90 MPH BASIC WIND IN ACCORDANCE WITH THE TIA-222-G STANDARD.
- 3. TRANSMISSION LADDERS AND LINES MUST BE EVENLY DISTRIBUTED ON ALL (3) FACES

REFERENCE DRAWINGS

1. FOUNDATION DRAWINGS	
TOWER BASE	A-AB24
ANCHOR BOLT	A-A03
BASE GROUT	A–SSTGRT1
GROUNDING	A-GRND13
2. CELL MOUNT	N/A
3. DISH MOUNTS	N/A
4. BRACING LACING	A–INST1
5. SAFETY CLIMB	B-SAFETY
6. ICE SHIELD	N/A
7. LIGHTNING ROD	A-LTROD71
8. WAVEGUIDE LADDER	N/A
9. TX-LINE GROUNDING	B-COAX-SST
10. WAVEGUIDE BRIDGE	N/A
11. BEACON MOUNT	N/A
12. LIGHTING DIAGRAM	N/A
13. SIDE LIGHTS	N/A
14 FOR SECTION ASSEMBLIE	C CEE

FOR SECTION ASSEMBLIES SEE DRAWING A-"ASS'Y NO." 14



PLAN	VIEW

BASE REAC	CTIONS
Overturn	5,328.0 K-FT
Shear	48.0 KIPS
Weight	273.0 KIPS
Uplift	234.0 KIPS
Compression	273.0 KIPS



Rev.	Description			Date	By	
	ГL.	Title 240' Self Support Tower				
		Cust. Kentucky RSA #3 Cellulor				
L.		Site Hanging Rock, KY				
		Dwn By TDB	Job No.	11444		
	Tence	Chk.By BLM	Scale	None		
Tower Division		Date 10/4/06	Dwg.No. B	-11444-	1	

SPECIFICATION E1 DUAL LIGHTING KIT (1) BEACON / STROBE AT 240' ELEVATION ELEVATION RED OBSTRUCTION LIGHTS AT 120' Applicable Applicable Applicable Not Not Not 3 FAA

> LIGHTING PAINT *UNIM*

GIRTS

2nd 2nd LEGS





हामि

2 4'-0

**2**−0'

4'-0'

4'-0



HEMPHILL CORPORATION 3515 DAWSON ROAD

OFFICE: 918-834-2200

### TULSA, OK 74115

FAX: 918-836-7109

# TOWER FOUNDATIONS AND ANCHORS

STANDARD SPECIFICATION

- 1. Foundation designs are in accordance with ANSI/EIA-222-G, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures"
- Work shall comply with local codes, safety regulations, and unless noted otherwise, the most recent edition of ACI 318, "Building Code Requirements for Structural Concrete". Procedures for the protection of excavations, existing construction, and utilities shall be 2. established prior to foundation construction
- 3. Proportions of concrete materials shall be suitable for the placement method utilized and shall yield durable concrete. The durability of concrete shall conform to the requirements of ACI 318 for the conditions expected at the site. Concrete shall develop a minimum compressive strength of 3000 psi within 28 days of placement.
- The maximum size of aggregate shall not exceed the lessor of 1-inch, one-third the clear distance behind or between reinforcing, or the size suitable for the placement method utilized.
- 5. Reinforcing steel shall be deformed, shall conform to ASTM A615, and shall be Grade 60 unless noted otherwise. Splices in reinforcement shall comply with the requirements of ACI 318.
- 6. Reinforcing cages shall be braced to retain dimensions during handling and concrete placement. Welding on steel reinforcement and embedments is strictly prohibited.
- The minimum concrete cover for reinforcement shall be 3-inches unless noted otherwise. Approved spacers shall be less than 3" in length. Spacers shall be attached intermittently throughout the entire length of vertical reinforcing cages to assure cage concentricity within excavations.
- Backfill materials shall be compacted to a minimum unit weight of 100 pcf or the unit weight utilized for the design.
- For self-supporting towers, the foundation at the highest elevation shall be formed to 12-inches above grade. The tops of the foundations 9. for the other two legs shall be constructed level with the first one.
- 10. Foundation construction shall be supervised by personnel knowledgeable and experienced with the foundation type. Construction shall conform to generally accepted construction practices.
- 11. For foundation and anchor detail requirements, refer to the tower manufacturer's drawing.
- 12. Excavations shall be cleared of loose materials and debris prior to concrete placement. Sides of excavations shall be rough and shall be free of loose materials
- 13. Concrete shall be placed in a manner which precludes separation of concrete materials. Free-fall concrete is permitted provided the fall is vertical and does not hit the sides of the excavation, the formwork, reinforcing steel, form ties, cage bracing or other obstructions. Concrete fall through water is strictly prohibited unless the concrete is pumped or tremmied.
- 14. Concrete shall be placed against undisturbed soil where possible. Forms, when required, shall be removed prior to backfilling.
- 15. Construction joints at the base of pedestals for pad-and-pedestal foundations shall be intentionally roughened to a full amplitude depth of 1/4-inch. No other construction joints shall be permitted.
- 16. Outside the limits of the anchor bolt area, the top of the foundation shall be sloped to drain and shall have a floated finish. The area within the anchor bolt limits shall be level and shall have a scratched finish. Exposed edges of concrete foundations shall be finished with a 3/4" chamfer.
- 17. Drilled piers shall be constructed in accordance with ACI 336.3R, "Standard Specification for the Construction of End Bearing Drilled Piers".
- 18. Concrete used in the construction of dry or dewatered piers (less than 2" of water in bottom of pier hole) shall be at least a 6-sack per cubic yard mix and shall be placed at a slump of 5".
- 19. The discharge for concrete placed pumped or tremmied through water shall be maintained at least 5" below the concrete surface. Concrete placement shall be continuous till complete. Concrete placed by this method shall be a 7-sack per cubic yard mix and shall be placed at a slump of 7" to 9".
- For the lessor of 25 cubic yards or one day's placement, a minimum of one set of 4 concrete cylinders shall be cast in accordance with ASTM C-31 and ASTM C-39.
- 21. Tower bases leveled using the double-nut system shall be grouted using Master Builders Embco 636 Grout or equivalent.

TOLERANCES - ALL TOWERS





TULSA 3515 Dawson Road Tulsa, OK 74115 Phone: (918) 834-2200 Fax: (918) 836-7109

# GEOTECHNICAL SUMMARY REPORT SITE LOCATION: HANGING ROCK, KY HEMPHILL PROJECT NO. 11444

**TOWER TYPE :** LATTICED (SELF SUPPORT)

**TOWER HEIGHT ABOVE GROUND LEVEL : 240'** 

MAXIMUM BASE SPREAD (CENTER TO CENTER): 24'-0"

SOIL DESCRIPTION : SEE GEOTECH REPORT

SURFACE WATER : N/A

**DEPTH TO GROUND WATER : N/A** 

**RECOMMENDED TYPE OF FOUNDATION : DRILLED PIERS** 

MINIMUM FOUNDATION BEARING DEPTH : 26' BELOW GROUND LEVEL



# **GEOTECHNICAL ENGINEERING REPORT**

# HANGING ROCK TELECOMMUNICATION TOWER 2414 HANGING ROCK ROAD LEITCHFIELD, KENTUCKY

TERRACON PROJECT NO. 57067407G September 1, 2006

**Prepared For:** 

BLUEGRASS CELLULAR Elizabethtown, Kentucky

Prepared by:

# **Terracon**

Louisville, Kentucky

September 1, 2006

Bluegrass Cellular 2902 Ring Road Elizabethtown, Kentucky 42702

Attention: Mr. Doug Updegraff

Re: Geotechnical Engineering Report Hanging Rock Telecommunication Tower 2414 Hanging Rock Road Leitchfield, Kentucky Terracon Project No. 57067407G

Dear Mr. Updegraff:

The results of our subsurface exploration are attached. The purpose of this exploration was to obtain information on subsurface conditions at the proposed project site and, based on this information, to provide recommendations regarding the design and construction of the foundations for the proposed tower.

The design parameters and recommendations within this report apply to the existing planned tower height and adjustments up to 20% increase or decrease in tower height, as long as the type of tower does not change. If changes in the height of the tower dictate a change in tower type (i.e. – monopole to a self-support, self-support to a guyed tower), Terracon should be contacted to evaluate our recommendations with respect to these changes.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service to you in any way, please feel free to contact us.

Sincerely.

Terracon

Timothy M. Hitchcock, E.I.T.

Staff Engineer ∦imothy G. La

Regional Manager

Erich J. Hoehler Kentucky No. 23

n:\projects\2006\towers\57067407HangingRock\geo57067407G.doc

Attachments: Geotechnical Engineering Report

Copies: (4) Addressee



Consulting Engineers & Scientists

4545 Bishop Lane, Suite 101 Louisville, Kentucky 40218 Phone 502.456.1256 Fax 502.456.1278 www.terracon.com

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Boring Location Plan
Boring Log
General Notes
General Notes – Description of Rock Properties
Unified Soil Classification System

### **GEOTECHNICAL ENGINEERING REPORT**

# HANGING ROCK TELECOMMUNICATION TOWER 2414 HANGING ROCK ROAD LEITCHFIELD, KENTUCKY TERRACON PROJECT NO. 57067407G September 1, 2006

#### **1.0 INTRODUCTION**

The purpose of this report is to describe the subsurface conditions encountered in the boring, analyze and evaluate the test data, and provide recommendations regarding the design and construction of the foundations and earthwork for the proposed tower. One boring extending to a depth of about 31½ feet below the existing ground surface was drilled at the site. An individual boring log and a boring location plan are included with this report.

#### 2.0 PROJECT DESCRIPTION

Terracon understands the proposed project will consist of the construction of a 240-foot self supporting lattice tower. Exact tower loads are not available, but based on our past experience are anticipated to be as follows:

Vertical Load:	600 kips
Horizontal Shear:	80 kips
Uplift:	500 kips

A small, lightly loaded equipment building will also be constructed. Wall and floor loads for this building are not anticipated to exceed 1 kip per linear foot and 100 pounds per square foot, respectively. The subject site consists of a parcel of agricultural land located on at 2414 Hanging Rock Road in Leitchfield, Kentucky. The site is bound by Hanging Rock Church to the west; Hanging Rock Road to the south; a pasture field and Kentucky Highway 259 to the east and a residence and barns to the north. Based on the provided drawings the approximate elevation at the site is EL 650. We have assumed that less than 3 feet of cut and/or fill will be required to reach the planned site grades.

#### 3.0 EXPLORATION PROCEDURES

#### 3.1 Field Exploration

The subsurface exploration consisted of drilling and sampling one boring at the site to a depth of about 31½ feet below existing grade. The boring was advanced at the center of the tower, staked by the project surveyor. The ground surface elevation was reportedly about 650 feet at the time of the exploration. The location and elevation of the boring should be considered accurate only to the degree implied by the means and methods used to define them.

# Terracon

#### Hanging Rock Telecommunication Tower Leitchfield, Kentucky Terracon Project No.: 57067407G September 1, 2006

The boring was drilled with an ATV-mounted rotary drill rig using hollow stem augers to advance the borehole. Representative soil samples were obtained by the split-barrel sampling procedure in general accordance with the appropriate standard. In the split-barrel sampling procedure, the number of blows required to advance a standard 2-inch O.D. split-barrel sampler the last 12 inches of the typical total 18-inch penetration by means of a 140-pound hammer with a free fall of 30 inches, is the standard penetration resistance (SPT) value (N-Value). This value is used to estimate the in-situ relative density of cohesionless soils and the consistency of cohesive soils. The sampling depths, penetration distance, and SPT N-Values are shown on the boring log. The samples were sealed and delivered to the laboratory for testing and classification.

Auger refusal was encountered at a depth of about 20 feet below the existing ground surface. The boring was extended into the refusal materials using a diamond bit attached to the outer barrel of a double core barrel. The inner barrel collected the cored material as the outer barrel was rotated at high speeds to cut the rock. The barrel was retrieved to the surface upon completion of each drill run. Once the core samples were retrieved, they were placed in a box and logged. The rock was later classified by an engineer and the "percent recovery" and rock quality designation (RQD) were determined.

The "percent recovery" is the ratio of the sample length retrieved to the drilled length, expressed as a percent. An indication of the actual in-situ rock quality is provided by calculating the sample's RQD. The RQD is the percentage of the length of broken cores retrieved which have core segments at least 4 inches in length compared to each drilled length. The RQD is related to rock soundness and quality as illustrated below:

Relation of RQD and In-situ Rock Quality				
RQD (%)	Rock Quality			
90 - 100	Excellent			
75 - 90	Good			
50 - 75	Fair			
25 - 50	Poor			
0 -25	Very Poor			

# Table 1 – Rock Quality Designation (RQD)

A field log of the boring was prepared by a subcontract driller. This log included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The final boring log included with this report represents an interpretation of the driller's field log and a visual classification of the soil samples made by the Geotechnical Engineer.

# 3.2 Laboratory Testing

The samples were classified in the laboratory based on visual observation, texture and plasticity. The descriptions of the soils indicated on the boring log are in accordance with the enclosed General Notes and the Unified Soil Classification System. Estimated group symbols according to the Unified Soil Classification System are given on the boring log. A brief description of this classification system is attached to this report.

The laboratory testing program consisted of performing water content tests and an Atterberg Limits test on representative soil samples. Information from these tests was used in conjunction with field penetration test data to evaluate soil strength in-situ, volume change potential, and soil classification. Results of these tests are provided on the boring log.

Classification and descriptions of rock core samples are in accordance with the enclosed General Notes, and are based on visual and tactile observations. Petrographic analysis of thin sections may indicate other rock types. Percent recovery and rock quality designation (RQD) were calculated for these samples and are noted at their depths of occurrence on the boring log.

# 4.0 EXPLORATORY FINDINGS

# 4.1 Subsurface Conditions

Conditions encountered at the boring location are indicated on the boring log. Stratification boundaries on the boring log represent the approximate location of changes in soil types and the transition between materials may be gradual. Water levels shown on the boring log represent the conditions only at the time of our exploration. Based on the results of the boring, subsurface conditions on the project site can be generalized as follows.

Underlying approximately 5 inches of topsoil, our boring encountered lean clay (CL) to a depth of about 8½ feet below existing grade. Weathered shale was encountered below the lean clay to an auger refusal depth of about 20 feet below existing grade. The lean clay exhibited a stiff to very stiff consistency based on SPT N-values ranging from 13 to 20 blows per foot (bpf). SPT N-values in excess of 50 bpf were encountered within the weathered shale from a depth of about 8½ feet below existing grade to the auger refusal depth of about 20 feet below existing grade.

Below a depth of about 20 feet, rock coring techniques were used to advance the borehole. The core samples recovered consisted of completely weathered to weathered, dark to medium gray, very closely to closely jointed, soft to moderately hard shale to a depth of about 30 feet below existing grade. Underlying the shale was slightly weathered, light gray, hard, closely jointed limestone to a depth of about 31½ feet below existing grade. The

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bedrock at the site appears to be relatively continuous below a depth of about 25 feet based on core recoveries of 95 percent for the shale and 100 percent for the limestone. A core recovery of 40 percent was obtained for the first core run from 20 to 25 feet. The quality of the rock is rated at very poor to good based on RQD values of 10, 44 and 80 percent in the second core run. Considering the height of the tower and the quality of the bedrock below 25 feet, coring operations were terminated at a depth of 31½ feet below grade.

# 4.2 Site Geology

A review of the Geologic Map of Madrid Quadrangle published by the United States Geological Survey (USGS), indicates that the site is underlain by the Haney Limestone Member of the Mississippian age. This member is comprised of light- to medium-light-gray limestone and light-gray to light-olive-gray shale and is typically between 20 and 60 feet thick.

# 4.3 Groundwater Conditions

No groundwater was encountered during the auger drilling portion of the borehole. Water was used to advance the borehole during rock coring operations. The introduction of water into the borehole precluded obtaining accurate groundwater level readings at the time of drilling operations. Long term observation of the groundwater level in monitoring wells, sealed from the influence of surface water, would be required to obtain accurate groundwater levels on the site.

It should be recognized that fluctuations of the groundwater table may occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the boring was performed. Therefore, groundwater levels during construction or at other times in the life of the structure may be higher or lower than the levels indicated on the boring log. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

# 5.0 ENGINEERING RECOMMENDATIONS

Based on the encountered subsurface conditions, the tower can be constructed on a drilled pier foundation or a mat foundation. The lightly loaded equipment building can be supported on shallow spread footings. Shallow foundation and drilled pier recommendations are presented in the following paragraphs.

# 5.1 Tower Foundation

**Drilled Pier Alternative:** Based on the results of the boring, the following drilled pier foundation design parameters have been developed:

Depth * (feet)	Description **	Allowable Skin Friction (psf)	Allowable End Bearing Pressure (psf)	Allowable Passive Pressure (psf)	Internal Angle of Friction (Degree)	Cohesion (psf)	Lateral Subgrade Modulus (pci)	Strain, & <sub>50</sub> (in/in)
0-3	Topsoil and Lean Clay	lgnore	lgnore	lgnore		-	Ignore	Ignore
3 - 81/2	Lean Clay	425	Ignore	1,500	0	1,500	125	0.007
81⁄2 -20	Weathered Shale	550	3,500	2,750	0	2,750	220	0.005
20 – 25	Weathered Shale	1,000	5,000	3,000	0	3,000	500	0.004
25 - 31½	Weather Shale / Limestone	3,000	10,000	6,000	0	60,000	3,000	0.00001

#### Table 2 - Drilled Pier Foundation Design Parameters

\* Pier inspection is recommended to adjust pier length if variable soil/rock conditions are encountered.

\*\* A total unit weight of 120 and 150 pcf can be estimated for the lean clay/weathered shale and limestone, respectively.

The above indicated cohesion, friction angle, lateral subgrade modulus and strain values have no factors of safety, and the allowable skin friction and the passive resistances have factors of safety of 2. The cohesion, internal friction angle, lateral subgrade modulus and strain values given in the above table are based on the boring, published correlation values and Terracon's past experience with similar soil/rock types. These values should, therefore, be considered approximate. To mobilize the higher rock strength parameters, the pier should be socketed at least 3 feet into bedrock. Furthermore, it is assumed that the rock socket is developed using coring rather than blasting techniques. The allowable end bearing pressure provided in the table has an approximate factor of safety of at least 3. Total settlement of a drilled pier designed using the above parameters is not anticipated to exceed 1 inch.

The upper 3 feet of topsoil and lean clay should be ignored due to the potential affects of frost action and construction disturbance. To avoid a reduction in lateral and uplift resistance caused by variable subsurface conditions, we recommend that drawings instruct the contractor to notify the engineer if subsurface conditions significantly differ than those encountered in the boring are disclosed during the drilled pier installations. Under these circumstances, it may be necessary to adjust the overall length of the pier. To facilitate these adjustments and assure that the pier is embedded in suitable materials, it is recommended that a Terracon representative observe the drilled pier excavations.

Although the boring was able to penetrate portions of the highly weathered shale, it is likely that larger diameter drilled pier equipment will refuse on this material at higher elevations than shown in our boring. The contractor should recognize the hardness of the material and be prepared to use rock teeth or other means to extend through these layers.

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A drilled pier foundation should be designed with a minimum shaft diameter of 30 inches to facilitate clean out and possible dewatering of the pier excavation. Temporary casing may be required during the pier excavation in order to control possible groundwater seepage and support the sides of the excavation in weak soil zones. Care should be taken so that the sides and bottom of the excavations are not disturbed during construction. The bottom of the shaft should be free of loose soil or debris prior to reinforcing steel and concrete placement.

A concrete slump of at least 6 inches is recommended to facilitate temporary casing removal. It should be possible to remove the casing from a pier excavation during concrete placement provided that the concrete inside the casing is maintained at a sufficient level to resist any earth and hydrostatic pressures outside the casing during the entire casing removal procedure.

**Mat Foundation Alternative**: The mat foundation can be designed using the following natural soil/engineered fill parameters. These parameters are based on the findings of the boring, a review of published correlation values and Terracons experience with similar soil conditions. These design parameters also assume that the base of the mat foundation will rest on natural soils or well-graded crushed stone that is compacted and tested on a full time basis.

Depth (feet)	Description	Allowable Contact Bearing Pressure (psf)	Allowable Passive Pressure (psf)	Coefficient of Friction, Tan $\delta$	Vertical Modulus of Subgrade Reaction (pci)
0-2	Topsoil and Lean Clays	Ignore	lgnore	-	
≥2	Lean Clay or Highly Weathered Shale	3,000	Ignore	0.35	125

Table 3 - Mat Foundation Design Parameters

To assure that soft soils are not left under the mat foundation, it is recommended that a geotechnical engineer observe the foundation subgrade prior to concrete placement. Provided the above recommendations are followed, total mat foundation settlements are not anticipated to exceed about 1 inch. Differential settlement should not exceed 50 percent of the total settlement.

# 5.2 Equipment Building Foundations

The proposed equipment shed may be supported on shallow footings bearing on stiff natural soils. The equipment building foundations should be dimensioned using a net allowable soil bearing pressure of 2,500 pounds per square foot (psf). In using net allowable soil pressures for footing dimensioning, the weight of the footings and backfill over the footings need not be considered. Furthermore, the footings should be at least 12 inches wide and a minimum of 2 feet square.

The geotechnical engineer or a qualified representative should observe the foundation excavations to verify that the bearing materials are suitable for support of the proposed loads. If, at the time of such observation, any soft soils are encountered at the design foundation elevation, the excavations should be extended downward so that the footings rest on stiff soils. If it is inconvenient to lower the footings, the proposed footing elevations may be re-established by backfilling after the undesirable material has been removed.

The recommended soil bearing value should be considered an upper limit, and any value less than that listed above would be acceptable for the foundation system. Using the value given, total settlement would be about 1 inch or less with differential settlements being less than 75 percent of total settlement. Footings should be placed at a depth of 2 feet, or greater, below finished exterior grade for protection against frost damage.

# 5.3 Parking and Drive Areas

The drive that accesses the site will be surfaced with crushed stone. Parking and drive areas that are surfaced with crushed stone should have a minimum thickness of 6 inches and be properly placed and compacted as outlined herein. The crushed stone should meet Kentucky Transportation Cabinet specifications and applicable local codes.

A paved section consisting only of crushed graded aggregate base course should be considered a high maintenance section. Regular care and maintenance is considered essential to the longevity and use of the section. Site grades should be maintained in such a manner as to allow for adequate surface runoff. Any potholes, depressions or excessive rutting that may develop should be repaired as soon as possible to reduce the possibility of degrading the soil subgrade.

# 5.4 Site Preparation

Site preparation should begin with the removal of any topsoil, loose, soft or otherwise unsuitable materials from the construction area. The geotechnical engineer should evaluate the actual stripping depth, along with any soft soils that require undercutting at the time of construction.

Any fill and backfill placed on the site should consist of approved materials that are free of organic matter and debris. Suitable fill materials should consist of well graded crushed stone below the tower foundation and well graded crushed stone or low plasticity cohesive soil elsewhere. Low-plasticity cohesive soil should have a liquid limit of less than 45 percent and a plasticity index of less than 25 percent. The on site soils are considered suitable for re-use as fill. It is recommended that during construction these soils should be further tested and evaluated prior to use as fill. Fill should not contain frozen material and it should not be placed on a frozen subgrade.

The fill should be placed and compacted in lifts of 9 inches or less in loose thickness. Fill placed below structures or used to provide lateral resistance should be compacted to at least 98 percent of the material's maximum standard Proctor dry density (ASTM D-698). Fill should be placed, compacted, and maintained at moisture contents within minus 2 to plus 2 percent of the optimum value determined by the standard Proctor test.

The geotechnical engineer should be retained to monitor fill placement on the project and to perform field density tests as each lift of fill is placed in order to evaluate compliance with the design requirements. Standard Proctor and Atterberg limits tests should be performed on the representative samples of fill materials before their use on the site.

# 6.0 GENERAL COMMENTS

Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide testing and observation during excavation, grading, foundation and construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the boring performed at the indicated location and from other information discussed in this report. This report does not reflect variations that may occur across the site, between tower legs, or due to the modifying effects of weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing. APPENDIX



	LOG OF BOR	RING	NC	). E	3-1					Р	age 1 of 1
CLI	ENT Bluegrass Cellular Partnership										
SIT		PRO	JEC	Т					ж <b>.</b>		
011	Leitchfield, Kentucky				d Ha	nging	Rock	Tele	comn	nunicati	on Tower
						<b>IPLES</b>				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	ATTERBERG LIMITS
	0.4 ¬ TOPSOIL LEAN CLAY, light brown, medium stiff to very stiff		CL	1	SS	12	14	22		4000*	
			CL	2	SS	18	20	14		6000*	LL = 21 PL = 17
		5	CL	3	SS	18	13	21		8000*	PI = 4
	8.5		CL	4	SS	0	50/0				
			CL	5	SS	0	50/0				
				6	SS	0	50/0				
	Auger Refusal at 20 feet, Began Coring <u>SHALE</u> , completely weathered to weathered, dark to medium gray, very closely to closely jointed, soft to moderately hard	20		7			RQD 10%				
		25		8	DB	95%	RQD 44%				
	30 LIMESTONE, slightly weathered, light 31.5 gray, closely jointed, hard Boring Terminated at 31.5 feet	30		9	DB	100%	RQD 80%				
The	stratification lines represent the approximate boundary lines							*(	 Calibra	ted Hand	Penetrometer
betv	ween soil and rock types: in-situ, the transition may be gradual.				T	BOR	ING S	TART	ED		8-24-06
WL							ING C			 ו	8-24-06
WL		20		JI		RIG		CME-5		OREM/	· · · · · · · · · · · · · · · · · · ·
WL	Dry Upon Auger Completion					APPI	ROVE		MH .	JOB # F	70674070

# **GENERAL NOTES**

#### **DRILLING & SAMPLING SYMBOLS:**

SS:	Split Spoon - 1- <sup>3</sup> /8" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., unless otherwise noted	PA:	Power Auger
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud F

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

#### WATER LEVEL MEASUREMENT SYMBOLS:

 WL:	Water Level	WS:	While Sampling	N/E:	Not Encountered
WCI:	Wet Cave in	WD:	While Drilling		
DCI:	Dry Cave in	BCR:	Before Casing Removal		
AB:	After Boring	ACR:	After Casing Removal		

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

**DESCRIPTIVE SOIL CLASSIFICATION:** Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

#### CONSISTENCY OF FINE-GRAINED SOILS

	<b>Standard</b>	
<b>Unconfined</b>	Penetration or	
<u>Compressive</u>	<u>N-value (SS)</u>	
Strength, Qu, psf	Blows/Ft.	<u>Consistency</u>
< 500	<2	Very Soft
500 - 1,000	2-4	Soft
1,001 - 2,000	5-7	Medium Stiff
2,001 - 4,000	8-15	Stiff
4,001 - 8,000	16-30	Very Stiff
8,000+	30+	Hard

**RELATIVE PROPORTIONS OF SAND AND GRAVEL** 

#### **RELATIVE DENSITY OF COARSE-GRAINED SOILS**

Standard Penetration
or N-value (SS)
Blows/Ft.
0 – 3
4 – 9
10 – 29
30 49
50+

High

Relative Density

Rotary

Very Loose Loose Medium Dense Dense Very Dense

#### **GRAIN SIZE TERMINOLOGY**

<u>Descriptive Term(s) of other</u> <u>constituents</u>	Percent of Dry Weight	<u>Major Component</u> <u>of Sample</u>	Particle Size
Trace	< 15	Boulders	Over 12 in. (300mm)
With	15 – 29	Cobbles	12 in. to 3 in. (300mm to 75 mm)
Modifier	> 30	Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
RELATIVE PROPORTIONS	OF FINES	Sand Silt or Clay	#4 to #200 sieve (4.75mm to 0.075mm) Passing #200 Sieve (0.075mm)
Descriptive Term(s) of other	Percent of	PLASTI	CITY DESCRIPTION
constituents	Dry Weight	Term	Plasticity Index
Trace	< 5	Non-plast	ic 0
With	5 – 12	Low	1-10
Modifiers	> 12	Medium	า 11-30



30+

# **GENERAL NOTES**

#### **Description of Rock Properties**

			Description of F	Rock Properties		
WEATHERING						
Fresh	Rock fresh.	crystals br	ight, few joints may s	show slight staining. I	Rock rinas	under hammer if crystalline.
Very slight	Rock genera	ally fresh, j		joints may show thin	-	ngs, crystals in broken face show
Slight	Rock genera In granitoid hammer.	ally fresh, j rocks some	oints stained, and di e occasional feldspa	scoloration extends ir r crystals are dull and	nto rock up 1 discolore	o to 1 in. Joints may contain clay. d. Crystalline rocks ring under
Moderate	dull and disc	colored; so				granitoid rocks, most feldspars are er and shows significant loss of
Moderately severe						s dull and discolored and majority ated with geologist's pick.
Severe						nt, but reduced in strength to ne fragments of strong rock
Very severe			discolored or stainec strong rock remainir		mible, but	mass effectively reduced to "soil"
Complete			Rock "fabric" not dis es or stringers.	scernible or discernib	le only in s	small, scattered locations. Quartz
HARDNESS (for en	gineering des	cription o	f rock – not to be c	onfused with Moh's	scale for	minerals)
Very hard	Cannot be s geologist's p		vith knife or sharp pio	ck. Breaking of hand	specimen	s requires several hard blows of
Hard	Can be scra specimen.	tched with	knife or pick only wi	th difficulty. Hard blov	w of hamm	ner required to detach hand
Moderately hard				es or grooves to ¼ in. s can be detached by		be excavated by hard blow of blow.
Medium				y firm pressure on kn by hard blows of the p		point. Can be excavated in small geologist's pick.
Soft						ted in chips to pieces several broken by finger pressure.
Very soft				ed readily with point o atched readily by fing		ces 1-in. or more in thickness can
		Join	t, Bedding and Foli	iation Spacing in Ro	ock <sup>a</sup>	
	Spacing			nts		Bedding/Foliation
	than 2 in.		Very cl	ose		Very thin
2 in			Close			Thin
1 ft. –				ately close		Medium
3 ft. –			Wide			Thick
	than 10 ft.		Very w		L	Very thick
······	ock Quality De					s Descriptors
RQD, as a p			ostic description	Openness		Descriptor
Exceeding 9	U	Excelle	nt	No Visible Separa		Tight
90 – 75 75		Good		Less than 1/32 in		Slightly Open
75 – 50		Fair		1/32 to 1/8 in.		Moderately Open
50 – 25 Less than 25	,	Poor Very po	or	1/8 to 3/8 in. 3/8 in. to 0.1 ft.		Open Moderately Wide
Less man Zo	,	very po	UI	Greater than 0.1	fi l	Wide

Greater than 0.1 ft. Wide Spacing refers to the distance normal to the planes, of the described feature, which are parallel to each other or nearly so. RQD (given as a percentage) = length of core in pieces 4 in. and longer/length of run. a.

b.

References: American Society of Civil Engineers. Manuals and Reports on Engineering Practice - No. 56. Subsurface Investigation for Design and Construction of Foundations of Buildings. New York: American Society of Civil Engineers, 1976. U.S. Department of the Interior, Bureau of Reclamation, Engineering Geology Field Manual.



# UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria fo	or Assigning Group Symbo	ols and Group Names Us	sing Laboratory Tests <sup>*</sup>		Soil Classification
				Group Symbol	Group Name <sup>®</sup>
Coarse Grained Soils	Gravels	Clean Gravels	$Cu \ge 4$ and $1 \le Cc \le 3^{E}$	GW	Well-graded gravel <sup>F</sup>
More than 50% retained	More than 50% of coarse fraction retained on	Less than 5% fines <sup>c</sup>	Cu < 4 and/or 1 > Cc > 3 <sup>ε</sup>	GP	Poorly graded gravel <sup>F</sup>
on No. 200 sieve	No. 4 sieve	Gravels with Fines	Fines classify as ML or MH	GM	Silty gravel <sup>F.g, H</sup>
		More than 12% fines <sup>c</sup>	Fines classify as CL or CH	GC	Clayey gravel <sup>F.G,H</sup>
	Sands	Clean Sands	$Cu \ge 6$ and $1 \le Cc \le 3^{E}$	SW	Well-graded sand
	50% or more of coarse fraction passes	Less than 5% fines <sup>D</sup>	Cu < 6 and/or 1 > Cc > 3 <sup>E</sup>	SP	Poorly graded sand
	No. 4 sieve	Sands with Fines	Fines classify as ML or MH	SM	Silty sand <sup>G,H,I</sup>
		More than 12% fines <sup>D</sup>	Fines Classify as CL or CH	SC	Clayey sand <sup>G.H.I</sup>
Fine-Grained Soils	Silts and Clays	inorganic	PI > 7 and plots on or above "A" line <sup>1</sup>	CL	Lean clay <sup>K.L.M</sup>
50% or more passes the No. 200 sieve	Liquid limit less than 50		PI < 4 or plots below "A" line'	ML	Silt <sup>KLM</sup>
		organic	Liquid limit - oven dried < 0.75	OL	Organic clay <sup>KLMN</sup>
			Liquid limit - not dried	OL	Organic silt <sup>K,LM,O</sup>
	Silts and Clays	inorganic	PI plots on or above "A" line	СН	Fat clay <sup>ĸ⊥,м</sup>
	Liquid limit 50 or more		PI plots below "A" line	МН	Elastic Silt <sup>K,L,M</sup>
		organic	Liquid limit - oven dried < 0.75	ОН	Organic clay <sup>KLMP</sup>
			Liquid limit - not dried	Un	Organic silt <sup>K.L.M.Q</sup>
Highly organic soils	Primari	ly organic matter, dark in	color, and organic odor	PT	Peat

<sup>A</sup>Based on the material passing the 3-in. (75-mm) sieve

- <sup>B</sup> If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
- <sup>C</sup>Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
- <sup>D</sup>Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

<sup>E</sup>Cu = 
$$D_{60}/D_{10}$$
 Cc =  $\frac{(D_{30})^2}{D_{10} \times D_{60}}$ 

<sup>F</sup> If soil contains ≥ 15% sand, add "with sand" to group name. <sup>G</sup> If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM. <sup>H</sup>If fines are organic, add "with organic fines" to group name.

- <sup>1</sup> If soil contains  $\geq$  15% gravel, add "with gravel" to group name.
- <sup>J</sup> If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
- <sup>K</sup> If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
- $^{\rm L}$  If soil contains  $\geq$  30% plus No. 200 predominantly sand, add "sandy" to group name.
- <sup>M</sup> If soil contains  $\geq$  30% plus No. 200, predominantly gravel, add "gravelly" to group name.
- <sup>N</sup>PI  $\geq$  4 and plots on or above "A" line.
- PI < 4 or plots below "A" line.
- <sup>P</sup>PI plots on or above "A" line.
- <sup>Q</sup> PI plots below "A" line.









	DATE:
	TOWER OWNER /OWNERS:
	DATE:
	PROPERTY OWNER/OWNERS:
	DATE:
911 A	CITY REPRESENTATIVE:
	DATE:
SIT	BLUEGRASS CELLULAR CONSTRUCTION SUPERVISOR:
	APPROVAL SIGNATURES

**DDRESS:** E NAME:

# HANGING ROCK

2408 HANGING ROCK RD. LEITCHFIELD, KY. 42754

OUNTY: GRAYSON

**TOWER LATITUDE & LONGITUDE** N 37\* 32' 44.12" W 86\* 18' 58.38"

Tower Tower Hanging Rock Rd Sile U.S. Hay: 62 U.S. Hay: 62 NOTION SCALE DIRECTIONS TO SITE TransBachtine kelnols the new set on the Median Kenholy Refer 135 is failed the new set on the Median Kenholy Point of Edit To MERCHING WARE: Citicat & Develoy Ammitron and the origination of the shift of the failed in the of a failed of and not for doal 50 het to be how and the failed of and not for doal 50 het to how set o has been and the shift of and was to be how and the failed of and not for doal 50 het to how set o have and the failed of and not for doal 50 het to how set of a failed of and was to be how and the how and the failed of and not for doal 50 het to how set of a failed of and was to how and the how
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	GENERAL NOTES	GENERAL NOTES
	GENERATOR DETAIL	GENERATOR DETAIL
	FOUNDATION DETAILS	S-1
	GROUNDING DETAILS	m4
	ELEC. PLAN - GROUNDING	E-3
	LYNCOLE GROUNDING	LYNCOLE
	ELECTRICAL DETAILS	E-2
	SITE PLAN - ELECTRICAL	E-1
	ANTENNA DETAILS 2	ANTENNA DETAILS 2
	ANT.SPECS/TOWER ELEV.	ANTENNA DETAILS 1
	FENCE DETAILS	A-2
	SITE PLAN	A-1
	SURVEY	SURVEY
	TITLE SHEET	TITLE SHEET
REVISION	DESCRIPTION	SHEET NO.
×	SHEET INDEX	HS










STANDARD CELLULAR SITE

**HANGING ROCK** 

2412 HANGING ROCK RD. LEITHFIELD, KY. 42754

8-21-06

LISTED

CURY DRIVE LOUISVILLE, KY



4	DRAWN BY:	BLUEGRASS CELLULAR, INC.	ND.	DATE	REVISION	
2 AE	R. BECKER					
	ISSUE DATE:	STANDARD CELLULAR SITE			·····	
	8-21-06					
	SCALE:	HANGING ROCK				BAGS MERCURY DRIVE LOUISVILLE K
NP #	LISTED	2412 HANGING ROCK RD. LEITHFIELD, KY. 42754				(302) 358-5487 Far(508) 534-3535

3















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# Landmark Surveying Co., Inc.

Darren L. Helms, R.L.S., PRESIDENT Dennis N. Helms, R.L.S., VICE PRESIDENT



15 N.E. 3rd Street Washington, Indiana 47501 Phone: 812-257-0950 Fax: 812-257-0953 E-mail: landmark@dmrtc.net

### Directions to the Site From the County Seat of Grayson County, Kentucky

### Hanging Rock Site Grayson County, Kentucky

From the Grayson County Courthouse in Leitchfield, Kentucky: travel north on Kentucky Highway 259 for 2.9 miles to Hanging Rock Road; turn left onto Hanging Rock Road and travel northwest for 2.4 miles to an asphalt lane on the right at the top of a hill; turn right onto the lane and travel north for about 500 feet to two barns on the right; turn right and travel east, between the barns, for about 200 feet to the tower site in a pasture. The address of the site is 2408 Hanging Rock Road, Leitchfield, Kentucky 42754.

Darren L. Helms, Kentucky Professional Land Surveyor No. 3386

STATE OF KENTUCKY DARREN L. HELMS 3386 LICETHALED PROFESSIONAL LAND SURVEYOR

JANUARY 23, 2001 Date

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

### I.

### **OPTION TO LEASE REAL PROPERTY**

THIS OPTION TO LEASE REAL PROPERTY (the "Option Agreement") is made and entered into this /3 day of \_\_\_\_\_\_, 2006, by and between <u>Clinton Armstrong and Dorothy</u> <u>Armstrong, husband and wife</u> whose address is <u>2414 Hanging Rock Road, Leitchfield, KY</u> <u>42754</u> (the "Optionor (s)" and <u>Kentucky RSA #3 Cellular General Partnership, d/b/a Bluegrass</u> <u>Cellular, a Kentucky general partnership</u> with principal office and place of business at 2902 Ring Road, Elizabethtown, KY 42701 (the "Optionee").

### $\underline{WITNESSETH}$ :

WHEREAS, the Optionor(s) is the owner of certain real property located in <u>Grayson</u> County, Kentucky as more particularly described on Exhibit A attached hereto and incorporated herein by reference (the "Property"); and

**WHEREAS**, the Optionor(s) wishes to grant to the Optionee, and the Optionee wishes to obtain from the Optionor(s), an option to lease the Property upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the mutuality, receipt and sufficiency of which are hereby acknowledged, the parties hereto do agree as follows.

- In consideration of One Thousand Eight Hundred Dollars and Zero Cents
   (\$1,800.00) paid by the Optionee to the Optionor(s) (the "Option Consideration"), the
   receipt of which is hereby acknowledged by the Optionor(s), the Optionor(s)
   hereby grants to the Optionee an exclusive and irrevocable option to lease the
   Property (the "Option"), upon the terms and conditions hereinafter set forth, upon the
   exercise of the Option at any time before 4:00 p.m. prevailing time on \_/-13-08
   (the "Option Period") as set forth in Paragraph 5 thereof.
- 2. The parties hereto anticipate that the Property comprises approximately a **One Hundred Foot by One Hundred Foot** area, and that a right of way will be given by the Optionor(s) for the purposes of ingress and egress throughout the term of the lease. The Optionee shall obtain an accurate survey of the Property by a registered land surveyor licensed in the Commonwealth of Kentucky at the sole expense of the Optionee. A copy of the survey shall be provided to the Optionor(s). The description of the Property shall include the number of acres determined by the surveyor. The Optionee shall obtain said survey within a reasonable time following the date of the Option Agreement.
- 3. During the term of the Option, the Optionee may enter onto the Property at its own risk to obtain soil samples and to bore soil for the purposes of determining the suitability of the Property for a communications tower.
- 4. Upon the Optionee's proper exercise of the Option in accordance with Paragraph 5 hereof, the Optionor(s) shall be deemed to have immediately executed, acknowledged and delivered to the Optionee the Lease Agreement contained in Section II hereof. The description of the Property shall be that determined by the registered land surveyor in accordance with Paragraph 2 hereof.

- 5. If the Optionee elects to exercise the Option in accordance with the terms hereof, notice of such election shall be deemed sufficient if personally delivered or sent by registered or certified mail, return receipt requested, to the address of the Optionor(s) set forth in Paragraph 14 hereof.
- 6. The Optionor(s) agrees not to sell, lease or offer for sale or lease the Property during the term of this Option or any renewal or extension of the Option.
- 7. In the event the Optionee fails to exercise the Option as set forth herein (unless such failure is due to the discovery of a defect in the Property or other matter unsatisfactory to the Optionee), the Optionor(s) shall have the right to retain the Option Consideration.
- 8. The Optionee may assign this Option with written consent of the Optionor(s), which consent shall not be unreasonably withheld, and upon any assignment such assignee shall have all the rights, remedies and obligations as if it were the original Optionee hereunder. From and after any such assignment, the term "Optionee" shall refer to such assignee.
- 9. Each party hereto shall bear any and all of its own expenses in connection with the negotiation, execution or settlement of this Option.
- 10. Risk of loss with respect to the Property during the term of this Option and during the term of the lease shall be upon the Optionor(s). If, during the term of the Option, any portion of the Property shall be acquired by public authority under the right or threat of eminent domain, the Optionee may, at its sole option, either (i) exercise the

Option, and in such event, all sums received from the public authority by the Optionor(s) by reason of the taking of a portion of the Property shall reduce the rent due under the lease, or (ii) terminate this Option and thereupon the Optionor(s) shall be obligated to return to the Optionee the full amount of the Option Consideration previously paid to the Optionor(s) in "good and collected funds."

- 11. The parties hereto represent to each other that neither has engaged any broker to represent their interests in connection with the transactions contemplated hereby, and each agrees to indemnify the other against any and all claims made by any brokers engaged or purported to be engaged by the other for brokerage commissions or fees in connection with the transactions contemplated hereby.
- 12. The Optionor(s) represents, warrants and covenants to the Optionee that the Optionor(s) has not caused or permitted, and shall not cause or permit, and to the best of Optionor(s)' knowledge no other person has caused or permitted any hazardous material (as defined by any applicable federal, state or local law, rule or regulation) to be brought upon, placed, held, located or disposed of at the Property. In the event any such contamination occurs for which the Optionee becomes legally liable, the Optionor(s) shall indemnify the Optionee against all claims, damages, judgments, penalties and costs and expenses, including reasonable attorneys' fees, which Optionee may incur.
- 13. This Option Agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the Commonwealth of Kentucky.

- For the purposes of giving notice as permitted or required herein, the address of the Optionor(s)shall be: <u>2414 Hanging Rock Rd., Leitchfield, KY 42754</u>; the Optionee's address shall be: <u>2902 Ring Road</u>, Elizabethtown, KY 42701.
- The Optionee shall have the right, in its sole discretion, to record this Option in the
   Office of the Clerk of the County Court of <u>Grayson</u> County, Kentucky.

# II. LEASE AGREEMENT

- 16. In the event the Optionee elects to exercise the Option to lease the Property, the terms of the Lease Agreement ("Lease Agreement" or "Lease") shall become immediately effective upon such exercise and shall be as follows.
  - 1. The term of the Lease shall commence on the date that the Optionor(s) receives proper notice that the Optionee has exercised the Option, pursuant to Paragraph 5 therein. The initial term shall expire five (5) year(s) from the commencement date of the Lease Agreement and shall include three (3) additional five (5)-year terms per the Lease Agreement. Optionee may, by providing written notice at least sixty (60) days prior to the expiration of the original or any renewal Lease term, elect to unilaterally terminate this Lease at the end of any original or renewal Lease term. Such notice must be personally delivered or sent via registered or certified mail, return receipt requested, to the address of the Optioner(s) set forth in Paragraph 14 hereof. The Lease amount shall be adjusted at the end of each term by an increase of

<u> 12%</u>.

- 2. The Optionee shall pay to the Optionor(s) rent for the Property in the sum of Four Thousand Eight Hundred Dollars and Zero Cents (\$4,800.00) yearly, to be paid in advance. All rent payments shall be personally delivered or mailed to the Optionor(s) at the address set forth in Paragraph 14 hereof. Any check payment of the rent due under the Lease shall be payable to the order of Optionor(s).
- 3. The Optionee shall be entitled to use and occupy the Property for the purpose of erecting, maintaining and operating a communications tower and communications facilities thereon and for all such other uses as Optionee may, in its sole discretion, deem necessary in connection therewith.
- 4. The Optionor(s) shall be responsible for the payment of all real estate taxes which shall be assessed against the Property during the term of the lease. The Optionee shall pay all charges for heat, water, gas, electricity, sewer use charges and any other utility used or consumed on the Property. The Optionee shall, at its own cost and expense, maintain and keep in full force and effect during the term of the lease public liability insurance with coverage in the amount of at least one million dollars (\$1,000,000.00) per person for bodily injury, disease, or death and shall maintain property insurance on any property the Optionee located on the Property.
- 5. The Optionee may assign the lease. The Optionee may sublet all or part of the space on the tower or ground space.

- 6. The Optionor(s) covenants that upon the Optionee's payment of the rent agreed upon herein, as well as Optionee's observing and performing all of the covenants and conditions contained in the Lease, the Optionee may peacefully and quietly enjoy the Property subject to the terms and conditions set forth in the Lease.
- 7. The Optionee agrees to maintain an access road in a passable manner for the term of the lease.
- 8. Licensee's Payment of Taxes, Fees and Assessments. Optionee shall pay directly to the applicable federal, state or local governmental unit or agency ("Governmental Entity") or to Optionor if Optionor is invoiced by such Governmental Entity, all taxes, fees, assessments or other charges assessed by any Governmental Entity directly against Optionee's Equipment and/or Optionee's use of the Facility. Optionee shall also pay to Optionor Optionee's Pro Rata Share of all taxes, fees, assessments or charges including, but not limited to, personal property taxes attributable to Optionee's equipment and antenna(s), municipal franchise fees, use fees, municipal application fees, installation fees and increases thereof. "Pro Rata Share" shall mean the fraction of decimal equivalent of dividing one (1) by the total number of then existing users occupying a tower on the last day of the applicable calendar year.
- 17. This Option and Lease Agreement contains the entire agreement between the parties hereto and no modification or amendment shall be binding upon any party unless made in writing and signed by each of the parties hereto.

18. Upon the termination or other end of this Lease Agreement, Optionee shall have the right to remove any and all of its property (real or personal) from the Property regardless of whether or not such property may be considered a fixture thereto.

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19. Upon abandonment of the property, Optionee shall have thirty (30) days to dismantle and remove the cellular antenna tower and any/all equipment located on Optionor's property.

[Remainder of Page Intentionally Left Blank]

# **EXECUTION OF AGREEMENT(S)**

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IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their respective seals.

Clinton aunstrong					
Date: <u>7-13-06</u>	$\square$				
Jonethy armotiong	Capie				
Date: <u>7-13-06</u>	Date: <u>7.19.06</u>				
("Optionor(s)")	("Optionee")				
By: Clinton Armstrong and Dorothy ArmstrongBy: Ron SmithProperty Owner(s)Authorized Representative					
STATE OF KOOLICCH					
STATE OF <u>Kentucky</u> COUNTY OF <u>Grayson</u>					
The foregoing instrument was acknowledged before me this $3^{11}$ day of $3^{11}$ , 2006,					
by <u>Clinton Armstrong</u> to be his her free act and deed.					
m	arsha J. Icholry				
	ARY PUBLIC STATE AT LARGE				
Мус	ommission expires: 12/15/07				

COUNTY OF Grayson	_
The foregoing instrument w	vas acknowledged before me this 13th day of July, 2006,
by Dorothy Armstron	
	Marsha & Hchobry
	NOTARY PUBLIC STATE AT LARGE

COUNTY OF HARDIN The foregoing instrument was acknowledged before me this $\underline{19}$ day of $Q_{ulu}$ ,
The foregoing instrument was acknowledged before me this $19$ day of $Q_{11}$
2006, by <b>Ron Smith</b> , to be his free act and deed.

This instrument prepared by:

• •

Selent John E. Selent

**DINSMORE & SHOHL LLP** 1400 PNC Plaza 500 West Jefferson Street Louisville, KY 40202 (502) 540-2300





# Landmark Surveying Co., Inc.

Darren L. Helms, R.L.S., PRESIDENT Dennis N. Helms, R.L.S., VICE PRESIDENT



15 N.E. 3rd Street Washington, Indiana 47501 Phone: 812-257-0950 Fax: 812-257-0953 E-mail: landmark@dmrtc.net

### Landowner and Adjacent Landowner List

Bluegrass Cellular Hanging Rock Site Grayson County, Kentucky

Troy Armstrong 2131 Hanging Rock Road Leitchfield, KY 42754

Leonard Mattingly 959 Hardin Road Leitchfield, KY 42754

Everett Hines 5115 Brandenburg Road Leitchfield, KY 42754

John C. Morrison and Ronald K. Morrison 268 Morrison-Clifty Road Leitchfield, KY 42754

Jackie Dennison 2427 Hanging Rock Road Leitchfield, KY 42754 Jackie Lee and Anna C. Dennison 2427 Hanging Rock Road Leitchfield, KY 42754

Robert Conder 495 Lashley Quad Road Leitchfield, KY 42754

Stanley Dennison 2041 Hanging Rock Road Leitchfield, KY 42754

Hanging Rock Church 8 Hanging Rock Road (Route 2) Leitchfield, KY 42754

Clinton and Dorothy Armstrong 2414 Hanging Rock Road Leitchfield, KY 42754

Darren L. Helms, Kentucky Professional Land Surveyor No. 3386

IDNUSRY Z3 200 Date

STATE OF KENTUCKY DARREN L. HELMS 3386 LICENSED PROFESSIONAL LAND SURVEYOR

Troy Armstrong 2131 Hanging Rock Road Leitchfield, KY 42754

# **Public Notice**

Kentucky RSA #3 Cellular General Partnership is a Kentucky general partnership that markets its services as Bluegrass Cellular. Bluegrass Cellular has been serving Central Kentucky with wireless communications services for over 15 years.

Bluegrass Cellular is applying to the Public Service Commission of the Commonwealth of Kentucky (the "Commission") for a Certificate of Public Convenience and Necessity to construct and a new cell facility to provide cellular telephone service. This facility will include a 240-foot tower to be located at 2408 Hanging Rock Road, Leitchfield, Kentucky, 42754. A map showing the location is attached.

The Commission invites your comments regarding this proposed construction. Also, the Commission wants you to be aware of your right to intervene in this matter. Your comments and request for intervention should be addressed to:

Executive Director's Office Public Service Commission of Kentucky P.O. Box 615 Frankfort, Kentucky, 40602.

### Please refer to case number 2007-00055 in your correspondence.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul> <li>Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> <li>Article Addressed to:</li> <li>Mon Arm Strong</li> <li>2131 Wansing Noch No.</li> <li>Leitchfield, W. 40754</li> </ul>	A. Signature A. Signature A. Signature A. Agent Addressee B. Received by ( <i>Printed Name</i> ) <i>TRoy</i> <i>ARmStRow</i> D. Is delivery address different from item 1? If YES, enter delivery address below: No
Letteritate, my riors .	3. Service Type         A Certified Mail       Express Mail         Registered       Return Receipt for Merchandise         Insured Mail       C.O.D.         4. Restricted Delivery? (Extra Fee)       Yes
2. Article Number 7005 (Transfer from service label)	2570 0001 5985 6321
PS Form 3811, February 2004 Domestic Ret	urn Receipt 102595-02-M-1540

Leonard Mattingly 959 Hardin Road Leitchfield, KY 42754

# **Public Notice**

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2. Article Number 7005 (Transfer from service label)	5 2570 0001 5985 6338 🐋
PS Form 3811, February 2004 Domestic Ret	urn Receipt 102595-02-M-1540

Everett Hines 5115 Brandenburg Road Leitchfield, KY 42754

# **Public Notice**

Kentucky RSA #3 Cellular General Partnership is a Kentucky general partnership that markets its services as Bluegrass Cellular. Bluegrass Cellular has been serving Central Kentucky with wireless communications services for over 15 years.

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### Please refer to case number 2007-00055 in your correspondence.

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PS Form 3811, February 2004 Domestic Ret	turn Receipt 102595-02-M-1540

John C. Morrison and Ronald K. Morrison 268 Morrison-Clifty Road Leitchfield, KY 42754

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ales Marrison-Cliffy Pid. Leitenfield, My H2754	3. Service Type         Image: Certified Mail       Express Mail         Image: Certified Mail       Return Receipt for Merchandise         Image: Certified Mail       C.O.D.         4. Restricted Delivery? (Extra Fee)       Yes
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PS Form 3811, February 2004 Domestic Ret	um Receipt 102595-02-M-1540

Jackie Dennison 2427 Hanging Rock Road Leitchfield, KY 42754

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PS Form 3811. February 2004 Domestic Ret	urn Receipt 102595-02-M-1540 :

Jackie Lee and Anna C. Dennison 2427 Hanging Rock Road Leitchfield, KY 42754

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Hanging Rock Church 8 Hanging Rock Road (Route 2) Leitchfield, KY 42754

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LeitchField, My 42754	3. Service Type         Ø Certified Mail       Express Mail         Ø Registered       Return Receipt for Merchandise         Insured Mail       C.O.D.         4. Restricted Delivery? (Extra Fee)       Yes
2. Article Number 700.	5 2570 0001 5985 6406
PS Form 3811, February 2004 Domestic Ret	turn Receipt 102595-02-M-1540

Stanley Dennison 2041 Hanging Rock Road Leitchfield, KY 42754

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Robert Conder 495 Lashley Quad Road Leitchfield, KY 42754

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PS Form 3811, February 2004 Domestic Ret	urn Receipt 102595-02-M-1540

Clinton and Dorothy Armstrong 2414 Hanging Rock Road Leitchfield, KY 42754

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PS Form 3811, February 2004 Domestic Retu	urn Receipt 102595-02-M-1540



Kerry Ingle (502)540-2354 (Direct Dial) kerry.ingle@dinslaw.com

February 6, 2007

*Via Certified Mail* Grayson County Judge Executive Courthouse 10 Public Square Leitchfield, KY 42754

> RE Public Notice - Public Service Commission of Kentucky Case No. 2007-00055

Kentucky RSA #3 Cellular General Partnership is applying to the Public Service Commission of Kentucky (the Commission") for a Certificate of Public Convenience and Necessity to propose construction and operation for a new facility to provide cellular radio telecommunications service in rural service area (RSA) #3 in Grayson County. The facility will include a 240 ft. tower and an equipment shelter to be located at 2408 Hanging Rock Road, Leitchfield, Kentucky, 42754. A map showing the location of the proposed new facility is enclosed.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter.

Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission, P.O. Box 615, Frankfort, Kentucky 40602. Please refer to case number 2007-00055 in your correspondence.

Very truly yours,

DINSMORE & SHOHL LLP Kerry Ing Paralega

enclosure

KWI 1347752v2 21963-16

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# PUBLIC NOTICE

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Please relea to P.S.C. Case #2007-00055 In your correspondence.



# Grayson County News-Gazette P. O. Box 305 • 307 W. Market Street • Leitchfield, Ky. 42755 Phone 270-259-9622 Fax 270-259-5537 Toll Free Outside Grayson County 1-877-515-NEWS

## STATE OF KENTUCKY COUNTY OF GRAYSON

I, Gary White, Publisher of the GRAYSON COUNTY NEWS-GAZETTE newspaper of general circulation, published at Leitchfield, Kentucky, do solemnly swear that from my personal knowledge and references to the files of the said publication an advertisement for  $\underline{Dinsmore} \& Shohl LLP$  was inserted on 2-12-07 & 2-15-07

Gary White Publisher

Subscribed and sworn before me this  $154\omega$  day of 12650?

sevenly Que abete

My commission expires: 2/8/09.









Page1 of 1

Prepared By: LNGS Engineering

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1043035	37-24-41	86-32-12	Caneyville, KY	KENTUCKY RSA 3 CELLULAR GENERAL PARTNERSHIP DBA = BLUEGRASS CELLULAR
1043037	37-27-33	86-17-41	Leitchfield, KY	KENTUCKY ASA 3 CELLULAR GENERAL PARTNERSHIP DBA = BLUEGRASS CELLULAR
1043268	37-30-40	86-17-15	Leitchfield, KY	HERITAGE MEDIA OF KENTUCKY INC
1043431	37-24-42.6	86-31-56.6	Caneyville, KY	NEW CINGULAR WIRELESS PCS, LLC
1044618	37-23-59	86-31-47	Caneyville, KY	KENTUCKY UTILITIES COMPANY
1052138	37-25-58	86-01-49	Millerstown, KY	FM 90.1, INC.
1217206	37-29-36	86-11-16.5	Clarkson, KY	Crown Communication Inc.
1217214	37-25-24.5	86-24-14.9	Millwood, KY	Crown Communication Inc.
1217219	37-23-39.9	86-36-37.8	Morgantown, KY	Crown Communication Inc.
1244902	37-31-51.2	86-28-23.9	Short Creek, KY	NEW CINGULAR WIRELESS PCS, LLC
1250554	37-24-17.9	86-14-14.4	Clarkson, KY	Tennessee Valley Authority

in Grayson County and 1/2 Mile Area Outside of the County Boundary Information on Towers Registered with the FCC