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PUBLIC SERVICE  
COMMISSION

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**APPLICATION OF CUMBERLAND CELLULAR  
PARTNERSHIP FOR ISSUANCE OF A CERTIFICATE                      CASE NO. 2008-00316  
OF PUBLIC CONVENIENCE AND NECESSITY TO  
CONSTRUCT A CELL SITE (SULPHUR WELL) IN RURAL  
SERVICE AREA #5 (METCALFE) OF THE COMMONWEALTH  
OF KENTUCKY**

**APPLICATION FOR A CERTIFICATE  
OF PUBLIC CONVENIENCE AND NECESSITY (SULPHUR WELL)**

Cumberland Cellular Partnership (“Cumberland Cellular”), 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 Sulphur Well cell site in and for rural service area (“RSA”) #5 of the Commonwealth of Kentucky, namely the counties of Barren, Monroe, Metcalfe, Adair, Cumberland, Russell, Clinton, Wayne, McCreary and Hart, Kentucky.

1. As required by 807 KAR 5:001 Sections 8(1) and (3), and 807 KAR 5:063, Cumberland Cellular states that it is a Kentucky limited liability partnership whose full name and post office address are: Cumberland Cellular 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 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 submitting 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 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 Exhibit “D”.

6. Pursuant to 807 KAR §1(1)(g), experienced personnel will manage and operate the Sulphur Well cell site. The President of Bluegrass Cellular Inc., Mr. Ron Smith, is ultimately responsible for all construction and operations of the cellular system of Cumberland Cellular, of which system the Sulphur Well cell site will be a part. Bluegrass Cellular Inc. provides management services to Cumberland Cellular 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), World Tower Company 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 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 Exhibit “B”.

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 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 Exhibit “E”.

12. Pursuant to 807 KAR 5:063 § 1 (1)(l), 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 Exhibit “F”.

15. Pursuant to 807 KAR 5:063 § 1 (1)(n), applicant’s legal counsel hereby affirms that the Office of the Metcalfe 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 Metcalfe County Judge 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

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 "***Cumberland Cellular 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 "***Cumberland Cellular 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 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 Edmonton, Kentucky that is mainly used for agricultural purposes and as pasture.

21. Pursuant to 807 KAR 5:063 §1(1)(s), Cumberland Cellular 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. Cumberland Cellular 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 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 Exhibit "K".

24. No reasonably available telecommunications tower, or other suitable structure capable of supporting the cellular facilities of Cumberland Cellular 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  
Holly C. Wallace  
**DINSMORE & SHOHL LLP**  
1400 PNC Plaza  
500 West Jefferson Street  
Louisville, KY 40202  
(502) 540-2300  
(502) 585-2207  
*john.selent@dinslaw.com*  
*holly.wallace@dinslaw.com*

WHEREFORE, Cumberland Cellular Partnership requests the Commission to enter an order:

1. Granting a certificate of public convenience and necessity to construct the Sulphur Well cell site; and
2. Granting all other relief as appropriate.

Respectfully submitted,



---

John E. Selent  
Holly C. Wallace  
**DINSMORE & SHOHL LLP**  
1400 PNC Plaza  
500 West Jefferson Street  
Louisville, KY 40202  
(502) 540-2300  
(502) 540-2207  
*john.selent@dinslaw.com*  
*holly.wallace@dinslaw.com*



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THOMAS GUTIERREZ\*  
ELIZABETH R. SACHS\*  
GEORGE L. LYON, JR.  
PAMELA L. GIST  
DAVID A. LAFURIA  
TODD SLAMOWITZ\*  
TODD B. LANTOR\*  
STEVEN M. CHERNOFF\*  
KATHERINE PATSAS\*

CONSULTING ENGINEERS  
ALI KUZEHKANANI  
LEILA REZANAVAZ  
OF COUNSEL  
LEONARD S. KOLSKY\*  
JOHN CIMKO\*  
J. K. HAGE III\*  
JOHN J. MCAVOY\*  
HON. GERALD S. MCGOWAN\*  
TAMARA DAVIS-BROWN\*

\*NOT ADMITTED IN VA

August 13, 2008

Telephone  
(703) 584-8668

Via Federal Express

Mr. John Houlihan  
Kentucky Airport Zoning Commission  
90 Airport Road  
Building 400  
Frankfort, Kentucky 40601

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 (Sulphur Well) near Edmonton, 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, a non-reduced 7-1/2' U.S. Geological Survey map indicating the exact location of the site, and a 2-C survey report.

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

Sincerely,



Leila Rezanavaz  
Consulting Engineer

Enclosures

CC: Doug Updegraff

Kentucky Transportation Cabinet, Kentucky Airport Zoning Commission, 125 Holmes Street, Frankfort KY 40622

Kentucky Aeronautical Study Number

APPLICATION FOR PERMIT TO CONSTRUCT OR ALTER A STRUCTURE

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

3. Application for:  New Construction  Alteration  Existing

4. Duration:  Permanent  Temporary (Months \_\_\_\_\_ Days \_\_\_\_\_)

5. Work Schedule: Start 9/20/08 End 9/25/08

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 2008-ASO-4584-OE

9. Latitude: 37 ° 5 ' 29 . 09 "

10. Longitude: 85 ° 36 ' 52 . 18 "

11. Datum:  NAD 83  NAD 27  Other \_\_\_\_\_

12. Nearest Kentucky City Edmonton County Metcalf

13. Nearest Kentucky public use or Military airport:  
Columbia-Adair Co. Airport

14. Distance from #13 to Structure: 14.7 Miles

15. Direction from #13 to Structure: West

16. Site Elevation (AMSL): 797 Feet

17. Total Structure Height (AGL): 255 Feet

18. Overall Height (#16 + #17) (AMSL): 1052 Feet

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

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)

Site is located at:  
  
9037 Greensburg Road  
Edmonton, KY 42129

21. Description of Proposal:

Structure: Proposed self supporting tower with top-mounted antennas for overall height of 255' AGL.

Max ERP: 250 watts.

Frequencies: Cellular Band B

22. Has a "NOTICE OF CONSTRUCTION OR ALTERATION" (FAA Form 7460-1) been filed with the Federal Aviation Administration?

No  
 Yes, When 8/13/2008

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.

Leila Rezanavaz / Consulting Engineer Leila Rezanavaz 8/13/2008  
Printed Name Signature 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.

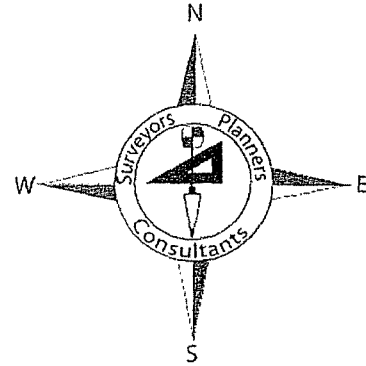
Commission Action:

Chairman, KAZC  Administrator, KAZC

Approved  
 Disapproved \_\_\_\_\_ Date \_\_\_\_\_

# Landmark Surveying Co., Inc.

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



15 N.E. 3rd Street  
Washington, Indiana 47501  
Phone: 812-257-0950  
Fax: 812-257-0953  
Email: landmark97@sbcglobal.net

## 2C Certification

July 29, 2008

Designation: Sulphur Well  
Site ID No.: Not Available  
Tower Type: Proposed Self-Support Tower  
Location: 9037 Greensburg Road, Edmonton, Kentucky 42129

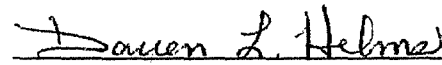
I certify that the latitude, longitude, ground elevation and height of the proposed self-support tower are as follows:

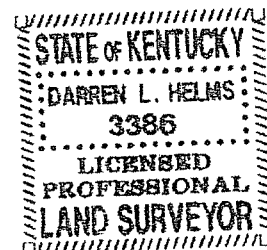
Latitude:	37 degrees 05 minutes 29.09 seconds North	(NAD 1983)
Longitude:	85 degrees 36 minutes 52.18 seconds West	(NAD 1983)
Ground Elevation:	796.5 feet or 242.77 meters	(NAVD 1988)
Proposed Structure Height:	240 feet or 73.2 meters	(above ground level)
Proposed Overall Structure Height:	not available	(above ground level)

The accuracy of the latitude and longitude of the proposed self-support tower is  $\pm 50$  feet or  $\pm 15$  meters. The ground elevation and structure height are accurate to within  $\pm 20$  feet or  $\pm 6$  meters.

The information shown above is based upon field observations made on July 8, 2008 using the National Geodetic Survey monument "GASCON RM 1" and the Kentucky State Plane Coordinate System, South Zone, NAD 1983 (2007). 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 Companion 2008 software.

Landmark Surveying Co., Inc.

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



**Notice of Proposed Construction or Alteration - Off Airport**

Project Name: BLUEG-000101153-08 Sponsor: Bluegrass Cellular, Inc.

**Details for Case : Sulphur Well**

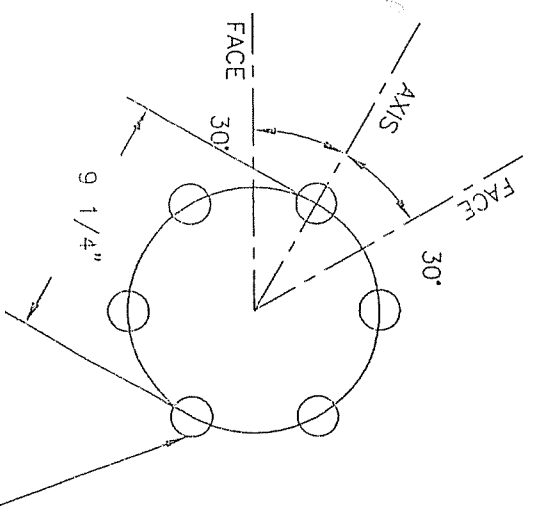
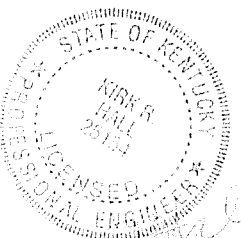
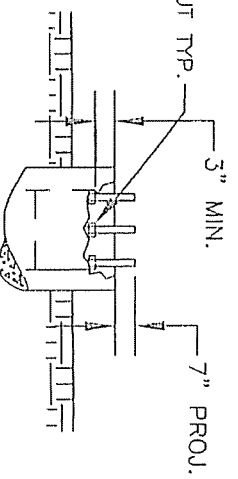
Show Project Summary

<b>Case Status</b>		<b>Structure Summary</b>				
ASN: 2008-ASO-4584-OE	Date Accepted: 08/13/2008	Structure Type: Antenna Tower				
Status: Accepted	Date Determined:	Structure Name: Sulphur Well				
	Letters: None	FCC Number:				
<b>Construction / Alteration Information</b>		<b>Structure Details</b>				
Notice Of: Construction	Duration: Permanent	Latitude: 37° 5' 29.09" N	Longitude: 85° 36' 52.18" W			
Work Schedule - Start: 09/20/2008	Work Schedule - End: 09/25/2008	Horizontal Datum: NAD83	Site Elevation (SE): 797 (nearest foot)			
State Filing: Filed with State		Structure Height (AGL): 255 (nearest foot)	Marking/Lighting: Dual-red and medium intensity			
		Nearest City: Edmonton	Nearest State: Kentucky			
		Description of Location: Site is located at: 9037 Greensburg Road Edmonton, KY 42129	Description of Proposal: Proposed tower with top-mounted antennas for overall height of 255'			
		<b>Common Frequency Bands</b>				
		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
		<b>Specific Frequencies</b>				

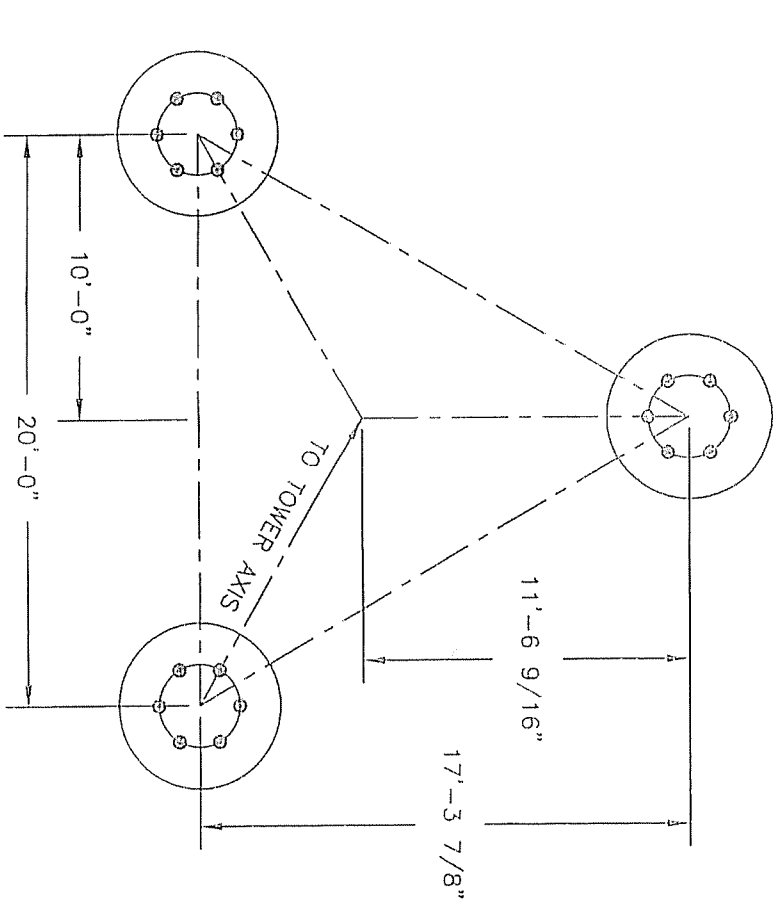








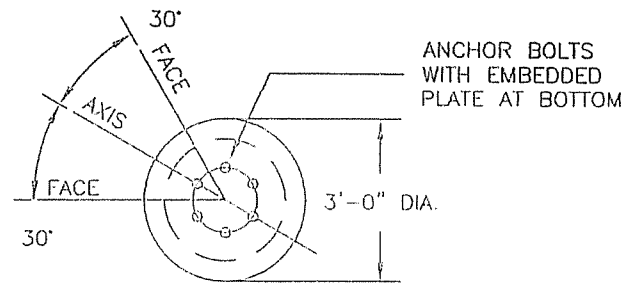
ANCHOR BOLTS 6 (18 TOTAL)  
 1 1/4"Ø X 85" ASTM A354 GR. BC  
 EQUALLY SPACED ON A 9 1/4"  
 DIA. BOLT CIRCLE WITH TOP TEMPLATE  
 AND EMBEDDED PLATE



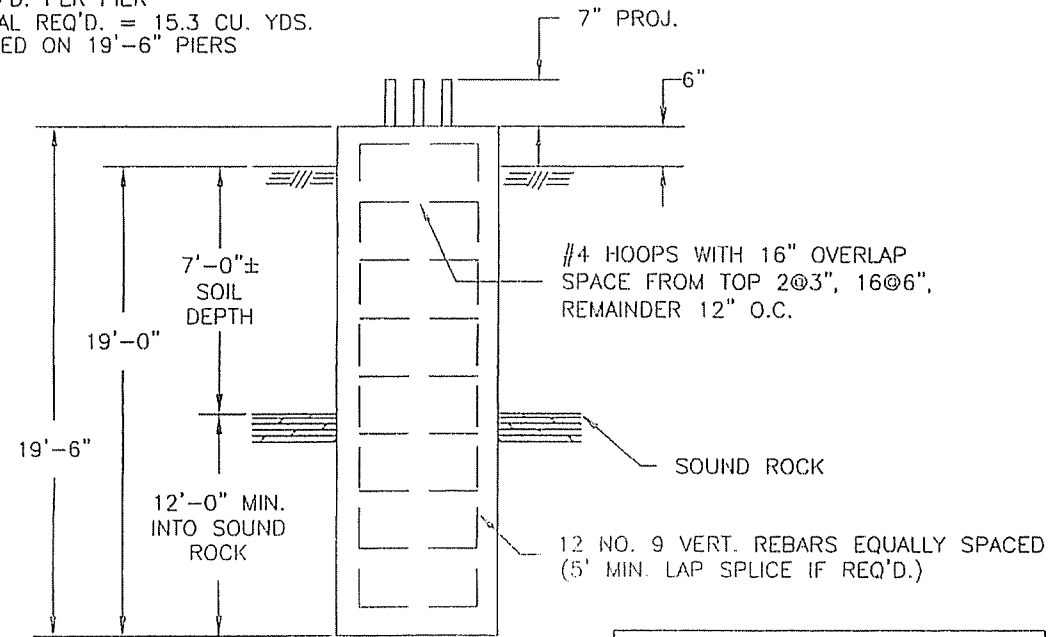
# WORLD TOWER

TITLE: ANCHOR BOLT LAYOUT  
 240' MODEL WSSST TOWER  
 FOR: BLUEGRASS WIRELESS, LLC  
 SITE : SULPHUR WELL, KY

SCALE NONE DWG. NO. Q08689AB  
 LKB CKD. 1/6/08 DATE 8-20-08  
 FILE



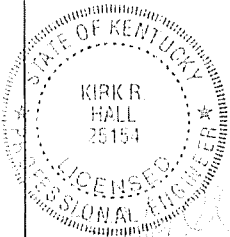
5.1 CU. YDS. CONCRETE  
 REQ'D. PER PIER  
 TOTAL REQ'D. = 15.3 CU. YDS.  
 BASED ON 19'-6" PIERS



BASE REACTIONS	
OTM:	6385.0 FT. KIPS
COMP.	394.0 KIPS
UPLIFT	330.0 KIPS
SHEAR (3 LEGS)	49.0 KIPS
WT. NO ICE	78.0 KIPS
WT. 3/4" ICE	186.0 KIPS

GENERAL NOTES

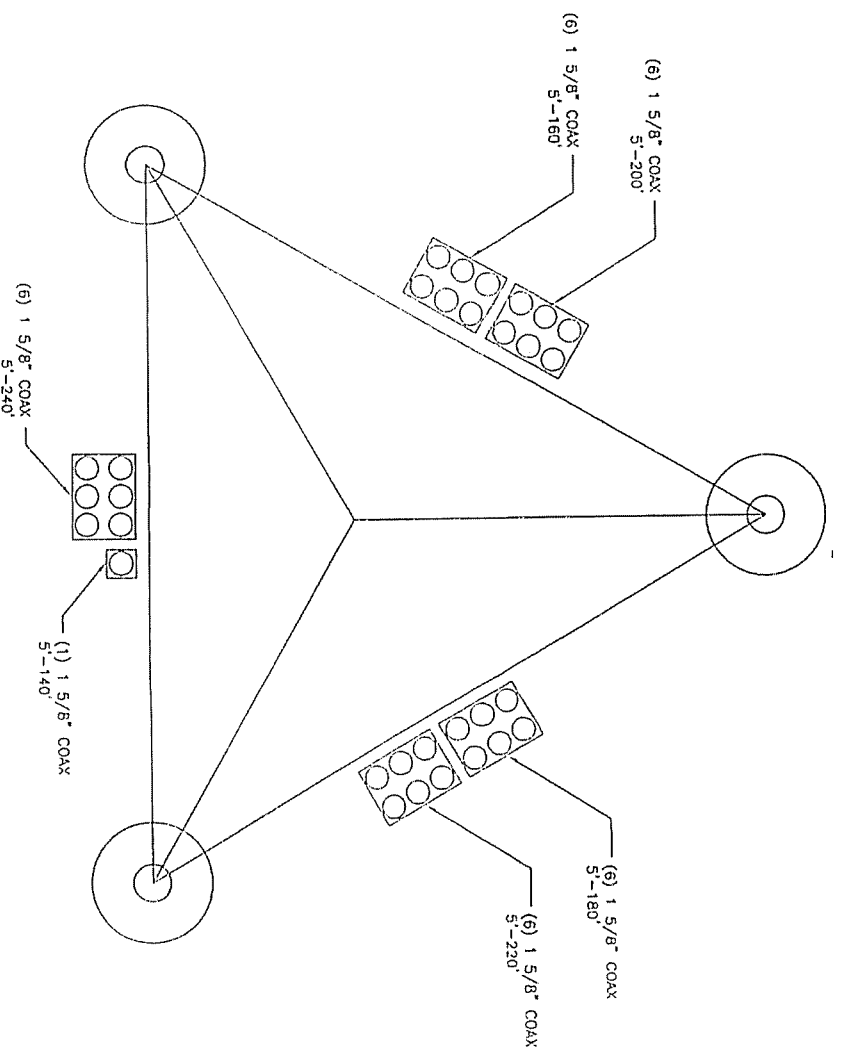
1. CONCRETE TO HAVE 4000 PSI MIN. COMPRESSIVE STRENGTH AFTER 28 DAYS.
2. ALL REINFORCEMENT STEEL IS DEFORMED AND MEETS THE STRENGTH REQUIREMENTS OF ASTM A615 GRADE 60.
3. EMBEDDED STEEL TO HAVE 3" MIN. CONCRETE COVER.
4. FOUNDATION DESIGN IS BASED ON CUSTOMER SUPPLIED SOIL DATA FROM TERRACON PROJECT NO. 57087342 DATED JULY 30, 2008.



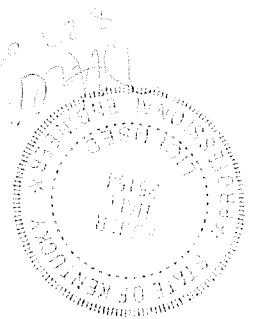
TITLE:  
 ALTERNATE FOUNDATION DETAIL  
 240' MODEL WSST TOWER  
 FOR: BLUEGRASS WIRELESS, LLC  
 SITE : SULPHUR WELL, KY

**WORLD TOWER**

SCALE NONE DWN. LKB CKD. *JJD* DATE 9-2-08  
 FILE DWG. NO. Q08689F2



PLAN VIEW



<b>WORLD TOWER</b>			
TITLE: WAVEGUIDE LOCATION			
240' MODEL WSST TOWER			
FOR: BLUEGRASS WIRELESS, LLC			
SITE : SULPHUR WELL, KY			
SCALE	NONE	DWN.	LKB
FILE		CHKD.	LhJ
		DATE	8-20-08
		DWG. NO.	008689WG

GEOTECHNICAL ENGINEERING REPORT  
PROPOSED SULPHUR WELL TELECOMMUNICATION TOWER  
HIGHWAY 68  
SULPHUR WELL, METCALFE COUNTY, KENTUCKY  
TERRACON PROJECT NO. 57087342  
July 30, 2008

*Prepared For:*

BLUEGRASS CELLULAR  
Elizabethtown, Kentucky

*Prepared by:*

**Terracon**  
Nashville, Tennessee

**Terracon**

July 30, 2008

Bluegrass Cellular Partnership  
2902 Ring Road  
Elizabethtown, Kentucky 42702

Attention: Mr. Doug Updegraff

**Re: Geotechnical Engineering Report  
Proposed Sulphur Well Telecommunication Tower  
Highway 68  
Sulphur Well, Kentucky  
Terracon Project No. 57087342**



Terracon Consultants, Inc.  
5217 Linbar Drive, #309  
Nashville, Tennessee 37211  
Phone 615.333.6444  
Fax 615.333.6443  
www.terracon.com

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 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**

A handwritten signature in black ink, appearing to read "Shaikh Z. Rahman".

Shaikh Z. Rahman, EIT.  
Staff Engineer

A handwritten signature in black ink, appearing to read "Timothy G. LaGrow".

Timothy G. LaGrow, P.E.  
Kentucky No. 17758

n:\projects\2008\57087342\g57087342.doc

Attachments: Geotechnical Engineering Report

Copies: Addressee (4 hard copies, 1 pdf)

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    Boring Location Plan

    Boring Log

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    General Notes – Description of Rock Properties

    Unified Soil Classification System

## GEOTECHNICAL ENGINEERING REPORT

### PROPOSED LAUREL LAKE TELECOMMUNICATION TOWER HIGHWAY 68 SULPHUR WELL, KENTUCKY TERRACON PROJECT NO. 57087342 July 30, 2008

#### 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 foundations and earthwork for the proposed tower. One boring extending to a depth of about 27 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 tower. Exact tower loads are not available, but based on our 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. At the time of the site visit, the property was a gently sloping field covered with short grass and weeds. Existing grades within the 100-foot by 100-foot tower leasehold area were not available as of this writing. According to the site plan, the tower will be constructed at about El. 800. Based on the observed topography, minimal grading operations are anticipated to level the site for construction.

#### 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 27 feet below existing grade. The boring was advanced at the center of the tower, staked by the project surveyor. Ground surface elevation at the tower center was obtained from the site survey prepared by the Landmark Surveying Company. 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.

The boring was drilled with a truck-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 ASTM standard. Due to shallow depth of bedrock, only a limited number of split-barrel samples were obtained. 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 7 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:

**Table 1 – Rock Quality Designation (RQD)**

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

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.



## 4.2 Site Geology

A review of the Geologic Quadrangle Map of East Fork Quadrangle, Kentucky (dated 1965), published by the United States Geological Survey (USGS) indicates that the site is underlain by the Fort Payne Formation, which consists of shale, siltstone and limestone. The shale and siltstone are light gray to brownish gray and the limestone is grayish blue to brown. The Fort Payne Formation is greater than 195 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 drilled piers or on a mat foundation. The lightly loaded equipment building can be supported on shallow spread footings. Drilled pier and shallow foundation recommendations are presented in the following paragraphs.

### 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 on representative soil samples. Representative samples of rock cores were tested for unconfined compressive strength and density. Results of these tests are provided on the boring log at the appropriate horizon.

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.

The boring encountered about 1 to 2 inches of topsoil over native lean clays (CL) extending to auger refusal at about 7 feet below grade. The clays exhibited a very stiff consistency based on standard penetration test (N) values of about 16 and 17 blows per foot.

Below a depth of about 7 feet, rock coring techniques were used to advance the borehole. The bedrock consisted of fine grained, moderately hard, thin to medium bedded limestone. The bedrock appeared to be weathered to a depth of about 10 feet below grade, and slightly weathered below this depth. A few vugs were noted at 19 and 20½ feet below grade. Core recovery ranged from 89 to 98 percent. The quality of rock from 7 to 17 feet is rated as fair based on an RQD value of 68 percent. Below this depth, the quality of rock is rated as excellent based on an RQD value of 91 percent. Coring operations were terminated at a depth of about 27 feet below grade.

### 5.1 Tower Foundation

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

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

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, &sub50 (in/in)
0 - 3	Topsoil and Lean Clay	Ignore	Ignore	Ignore	-	-	Ignore	Ignore
3 - 7	Lean Clay	400	Ignore	1,250	0	1,250	100	0.008
7 - 10	Weathered Limestone	2,000***	20,000	4,000***	0	40,000***	3,000	0.00001
10 - 27	Limestone	7,500	40,000	15,000	0	150,000	3,000	0.00001

\* 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 and limestone, respectively.

\*\*\* The parameters have been reduced to take into account the shallow overburden. The pier should be embedded a minimum of 3 feet into continuous dolomite to mobilize these higher rock strength parameters. Furthermore, it is assumed the rock socket will be extended using coring techniques rather than blasting/shooting.

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 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 drilled piers designed using the above parameters is not anticipated to exceed 1/2 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 uplift and lateral resistance caused by variable bedrock depths and bedrock quality, it is recommended that a minimum pier length and minimum rock socket length be stated on the design drawings. Bedrock was encountered in our boring below a depth of about 7 feet, but could vary between tower legs, or if the tower is moved from the location of our boring. Considering the site geology, variable rock depths should be anticipated if the tower location is moved from the location of the boring. If the tower center is moved from the planned location, Terracon should be notified to review the recommendations and determine whether an additional boring is required. To facilitate pier length adjustments that may be necessary because of variable rock conditions, it is recommended that a Terracon representative observe the drilled pier excavation.

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:** A mat foundation can be designed using the following natural soil/engineered fill parameters. Higher bearing pressures are available if the mat rests entirely on bedrock, however the proposed loading usually does not warrant higher values. These parameters are based on the findings of the boring, a review of published correlation values and Terracon's 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. The relatively shallow overburden may result in slight excavation difficulties to achieve a level bearing pad. These difficulties could include bedrock excavation.

**Table 3 - Mat Foundation Design Parameters**

Depth (feet)	Description	Allowable Contact Bearing Pressure (psf)	Allowable Passive Pressure (psf)	Coefficient of Friction, Tan $\delta$	Vertical Modulus of Subgrade Reaction (pci)
0 - 3	Topsoil and Lean Clays	Ignore	Ignore	-	
$\geq 3$	Lean Clay or Crushed Stone Fill	3,500	Ignore	0.35	150

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 2.0 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 2.0 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 topsoil, or any 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 1 to plus 3 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, 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

**Terracon**







## GENERAL NOTES

### DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon - 1-3/8" 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 Rotary

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
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

<u>Unconfined Compressive Strength, Qu, psf</u>	<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>Consistency</u>
< 500	<2	Very Soft
500 - 1,000	2-3	Soft
1,001 - 2,000	4-6	Medium Stiff
2,001 - 4,000	7-12	Stiff
4,001 - 8,000	13-26	Very Stiff
8,000+	26+	Hard

#### RELATIVE DENSITY OF COARSE-GRAINED SOILS

<u>Standard Penetration or N-value (SS) Blows/Ft.</u>	<u>Relative Density</u>
0 - 3	Very Loose
4 - 9	Loose
10 - 29	Medium Dense
30 - 49	Dense
50+	Very Dense

#### RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 15
With	15 - 29
Modifier	> 30

#### RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 5
With	5 - 12
Modifiers	> 12

#### GRAIN SIZE TERMINOLOGY

<u>Major Component of Sample</u>	<u>Particle Size</u>
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

#### PLASTICITY DESCRIPTION

<u>Term</u>	<u>Plasticity Index</u>
Non-plastic	0
Low	1-10
Medium	11-30
High	30+

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## GENERAL NOTES

### Sedimentary Rock Classification

#### DESCRIPTIVE ROCK CLASSIFICATION:

Sedimentary rocks are composed of cemented clay, silt and sand sized particles. The most common minerals are clay, quartz and calcite. Rock composed primarily of calcite is called limestone; rock of sand size grains is called sandstone, and rock of clay and silt size grains is called mudstone or claystone, siltstone, or shale. Modifiers such as shaly, sandy, dolomitic, calcareous, carbonaceous, etc. are used to describe various constituents. Examples: sandy shale; calcareous sandstone.

LIMESTONE	Light to dark colored, crystalline to fine-grained texture, composed of CaCO <sub>3</sub> , reacts readily with HCl.
DOLOMITE	Light to dark colored, crystalline to fine-grained texture, composed of CaMg(CO <sub>3</sub> ) <sub>2</sub> , harder than limestone, reacts with HCl when powdered.
CHERT	Light to dark colored, very fine-grained texture, composed of micro-crystalline quartz (SiO <sub>2</sub> ), brittle, breaks into angular fragments, will scratch glass.
SHALE	Very fine-grained texture, composed of consolidated silt or clay, bedded in thin layers. The unlaminated equivalent is frequently referred to as siltstone, claystone or mudstone.
SANDSTONE	Usually light colored, coarse to fine texture, composed of cemented sand size grains of quartz, feldspar, etc. Cement usually is silica but may be such minerals as calcite, iron-oxide, or some other carbonate.
CONGLOMERATE	Rounded rock fragments of variable mineralogy varying in size from near sand to boulder size but usually pebble to cobble size (1/2 inch to 6 inches). Cemented together with various cementing agents. Breccia is similar but composed of angular, fractured rock particles cemented together.

#### PHYSICAL PROPERTIES:

##### DEGREE OF WEATHERING

Slight	Slight decomposition of parent material on joints. May be color change.
Moderate	Some decomposition and color change throughout.
High	Rock highly decomposed, may be extremely broken.

##### BEDDING AND JOINT CHARACTERISTICS

Bed Thickness	Joint Spacing	Dimensions
Very Thick	Very Wide	> 10'
Thick	Wide	3' - 10'
Medium	Moderately Close	1' - 3'
Thin	Close	2" - 1'
Very Thin	Very Close	.4" - 2"
Laminated	—	.1" - .4"

Bedding Plane	A plane dividing sedimentary rocks of the same or different lithology.
Joint	Fracture in rock, generally more or less vertical or transverse to bedding, along which no appreciable movement has occurred.
Seam	Generally applies to bedding plane with an unspecified degree of weathering.

##### HARDNESS AND DEGREE OF CEMENTATION

###### Limestone and Dolomite:

Hard	Difficult to scratch with knife.
Moderately Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Soft	Can be scratched with fingernail.

###### Shale, Siltstone and Claystone

Hard	Can be scratched easily with knife, cannot be scratched with fingernail.
Moderately Hard	Can be scratched with fingernail.
Soft	Can be easily dented but not molded with fingers.

###### Sandstone and Conglomerate

Well Cemented	Capable of scratching a knife blade.
Cemented	Can be scratched with knife.
Poorly Cemented	Can be broken apart easily with fingers.

##### SOLUTION AND VOID CONDITIONS

Solid	Contains no voids.
Vuggy (Pitted)	Rock having small solution pits or cavities up to 1/2 inch diameter, frequently with a mineral lining.
Porous	Containing numerous voids, pores, or other openings, which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large.

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# UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests<sup>A</sup>

Soil Classification

Group Symbol    Group Name<sup>B</sup>

Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines <sup>C</sup>	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$	GW	Well-graded gravel <sup>F</sup>	
			$Cu < 4$ and/or $1 > Cc > 3^E$	GP	Poorly graded gravel <sup>F</sup>	
		Gravels with Fines More than 12% fines <sup>C</sup>	Fines classify as ML or MH	GM	Silty gravel <sup>F, G, H</sup>	
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines <sup>E</sup>	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$	SW	Well-graded sand <sup>I</sup>	
			$Cu < 6$ and/or $1 > Cc > 3^E$	SP	Poorly graded sand <sup>I</sup>	
		Sands with Fines More than 12% fines <sup>D</sup>	Fines classify as ML or MH	SM	Silty sand <sup>G, H, I</sup>	
		Fines classify as CL or CH	SC	Clayey sand <sup>G, H, I</sup>		
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silt and Clays Liquid limit less than 50	inorganic	$PI > 7$ and plots on or above "A" line <sup>J</sup>	CL	Lean clay <sup>K, L, M</sup>	
			$PI < 4$ or plots below "A" line <sup>J</sup>	ML	Silt <sup>K, L, M</sup>	
		organic	Liquid limit — oven dried	$< 0.75$	OL	Organic clay <sup>K, L, M, N</sup>
			Liquid limit — not dried		OH	Organic silt <sup>K, L, M, O</sup>
	Silt and Clays Liquid limit 50 or more	inorganic	$PI$ plots on or above "A" line	CH	Fat clay <sup>K, L, M</sup>	
			$PI$ plots below "A" line	MH	Elastic silt <sup>K, L, M</sup>	
	organic	Liquid limit — oven dried	$< 0.75$	OH	Organic clay <sup>K, L, M, P</sup>	
		Liquid limit — not dried		OH	Organic silt <sup>K, L, M, Q</sup>	
Highly organic soils	Primarily 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

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

<sup>F</sup>If soil contains  $\geq 15\%$  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>I</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.

<sup>L</sup>If soil contains  $\geq 30\%$  plus No. 200 predominantly sand, add "sandy" to group name.

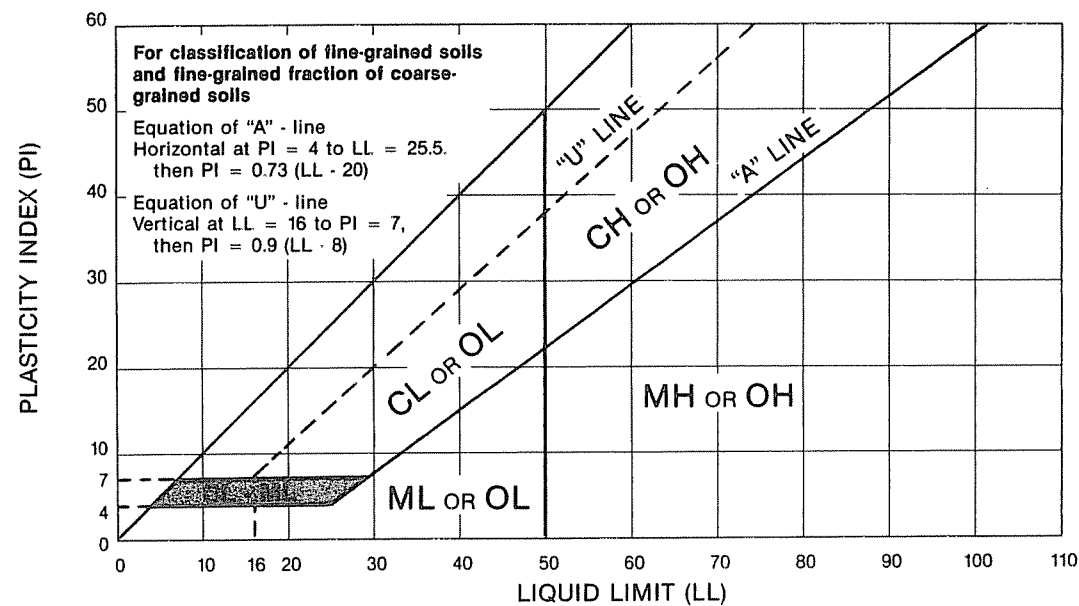
<sup>M</sup>If soil contains  $\geq 30\%$  plus No. 200, predominantly gravel, add "gravelly" to group name.

<sup>N</sup> $PI \geq 4$  and plots on or above "A" line.

<sup>O</sup> $PI < 4$  or plots below "A" line.

<sup>P</sup> $PI$  plots on or above "A" line.

<sup>Q</sup> $PI$  plots below "A" line.

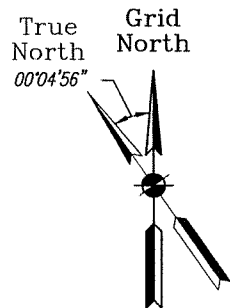


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# Site: Sulphur Well

## Lease Boundary and Topographic Survey

### Metcalf County, Kentucky



#### Basis of Bearings

The bearing system of this survey is based upon G.P.S. observations made on July 8, 2008 using the National Geodetic Survey monument "GASCON RM 1" and the Kentucky State Plane Coordinate System, South Zone, NAD 1983 (2007). This system is grid north.

#### Tower Location Information

Designation: Sulphur Well  
 Site ID#: None  
 Horizontal Datum: NAD 1983 (2007)  
 Latitude: 37°05'29.09" North  
 Longitude: 85°36'52.18" West  
 Vertical Datum: NAVD 1988  
 Ground Elevation: 796.5 feet (242.77 meters)  
 State Plane Coordinates:  
 Northing: 1,916,451.00 feet (584,135.433 meters)  
 Easting: 1,679,939.32 feet (512,046.529 meters)

#### Owner Information

Landowner: J.T. Scroggy and Jean Scroggy  
 Address: 216 Tommy Scroggy Road  
 Sulphur, Kentucky 42129  
 Contact Person: J.T. Scroggy  
 Phone: 270-565-3613  
 PVA Map No. 44-49.03

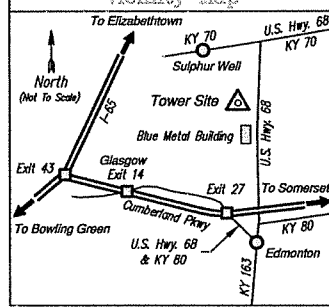
#### Project Bench Mark

Northing: 1,916,536 feet (584,161 meters)  
 Easting: 1,680,051 feet (512,081 meters)  
 Elevation: 787.37 feet (239.991 meters)  
 Description: A railroad spike set in the south side of a utility pole, 12" above grade. The benchmark is approximately 140 feet northeast of the center of the tower.

#### Flood Plain Statement

According to the FEMA web site, this is an unmapped area. No flood information is available for the unincorporated areas of Metcalf County, Kentucky. However, a visual inspection of the site would indicate that the subject site does not lie within a flood prone area.

#### Vicinity Map



#### Directions to Site

From Elizabethtown, Kentucky: travel south on I-65 for about 50 miles to Exit 43 and the Cumberland Parkway; travel east on the Cumberland Parkway for 27 miles to Exit 27 at U.S. Highway 68 and Kentucky Highway 80; travel east on U.S. Highway 68 and Kentucky Highway 80 for about 3 miles to downtown Edmontan and Kentucky Highway 163; turn left and travel north on U.S. Highway 68 and Kentucky Highway 80 for 0.5 miles to the junction of U.S. Highway 68 and Kentucky Highway 80; continue north on U.S. Highway 68 for 8.6 miles to a parking lot at a blue metal building on the west side of the road near the site; turn into the parking lot and follow the stone lane leading north approximately 450 feet to the proposed tower site in a pasture.

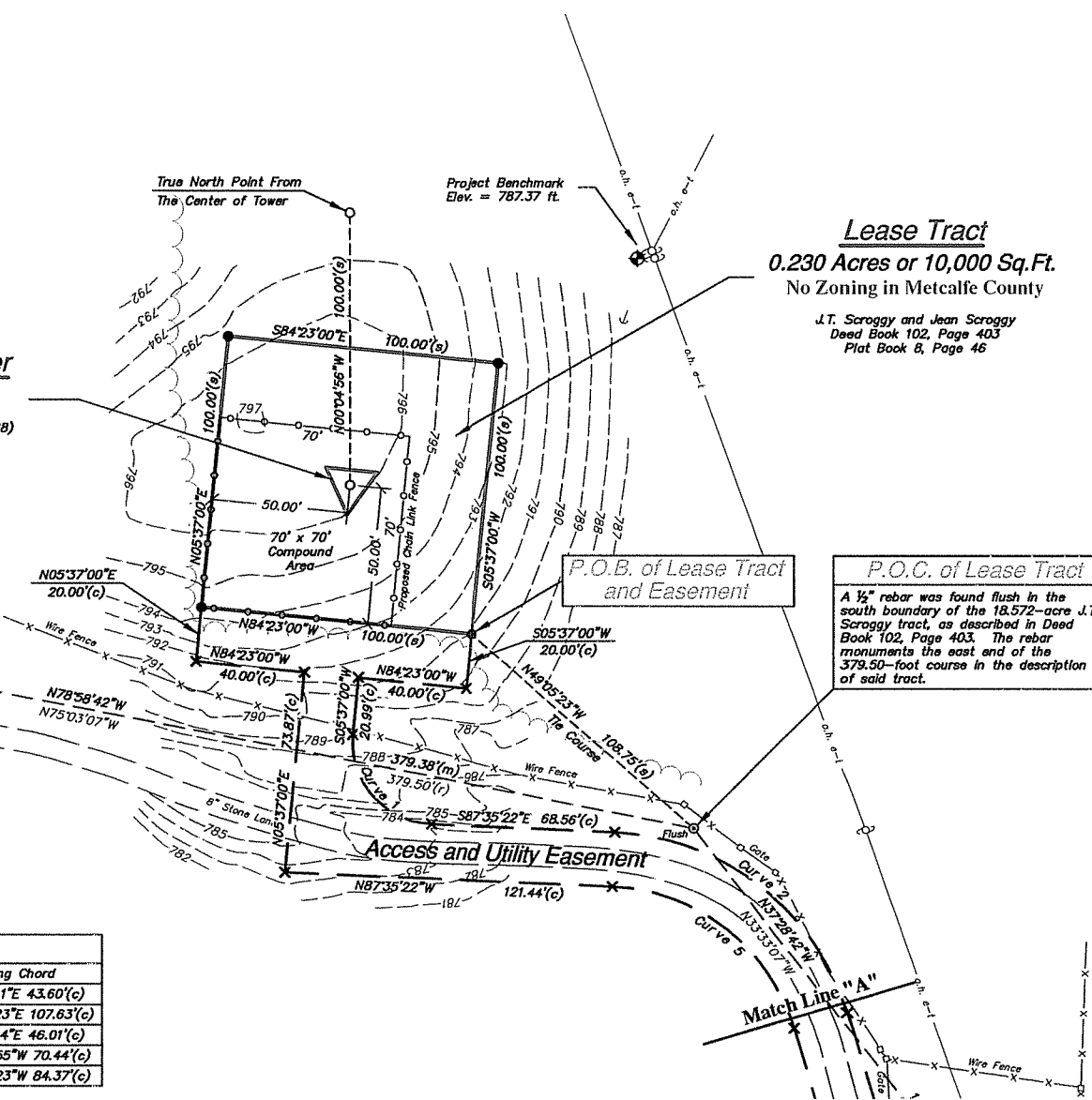
#### Proposed Self-Support Tower

Lat. = 37°05'29.09" North (NAD 1983)  
 Lon. = 85°36'52.18" West (NAD 1983)  
 Ground Elev. = 796.5 ft. or 242.77 m (NAVD 1988)

J.T. Scroggy and Jean Scroggy  
 Deed Book 102, Page 403  
 Plat Book 8, Page 46

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 Deed Book 74, Page 53  
 Plat Book 5, Page 15

Curve No.	Length	Radius	Long Chord
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**Lease Tract**  
 0.230 Acres or 10,000 Sq.Ft.  
 No Zoning in Metcalf County  
 J.T. Scroggy and Jean Scroggy  
 Deed Book 102, Page 403  
 Plat Book 8, Page 46

**P.O.C. of Lease Tract**  
 A 1/2" rebar was found flush in the south boundary of the 18.572-acre J.T. Scroggy tract, as described in Deed Book 102, Page 403. The rebar monuments the east end of the 379.50-foot course in the description of said tract.

#### Lease Boundary and Easement Description

A tract of land that is located 300 feet west of the centerline of U.S. Highway 68 and 1,250 feet south of the intersection of said highway with Kentucky Highway 70 in the Sulphur Well Community of Metcalf County, Kentucky; said tract being described as follows:

COMMENCING AT a 1/2" rebar found flush in the south boundary of the 18.572-acre J.T. Scroggy tract, as described in Deed Book 102, page 403 in the office of the County Clerk of Metcalf County, Kentucky; said rebar monuments the east end of the 379.50-foot course in the description of said tract; thence North 49 degrees 05 minutes 23 seconds West 108.75 feet to a 5/8-inch rebar set flush with a survey cap inscribed "D.L. Helms PLS 3386" (referred to as a rebar in the remainder of this description) at the POINT OF BEGINNING of this description; thence North 84 degrees 23 minutes 00 seconds West 100.00 feet to a rebar set flush; thence North 05 degrees 37 minutes 00 seconds East 100.00 feet to a rebar set flush; thence South 84 degrees 23 minutes 00 seconds East 100.00 feet to a rebar set flush; thence South 05 degrees 37 minutes 00 seconds West 20.00 feet to a rebar set flush; thence South 87 degrees 35 minutes 22 seconds East 68.56 feet; thence Southeasterly 114.86 feet along an arc to the right and having a radius of 92.56 feet and subtended by a long chord having a bearing of South 40 degrees 59 minutes 11 seconds East and a length of 43.60 feet; thence South 87 degrees 35 minutes 22 seconds East 49.02 feet along an arc to the left and having a radius of 40.00 feet and subtended by a long chord having a bearing of South 51 degrees 35 minutes 44 seconds East and a length of 46.01 feet to the west right of way of U.S. Highway 68 (30 feet from the centerline); thence, along said right of way, South 01 degree 42 minutes 42 seconds East 20.05 feet; thence Northwesterly 75.28 feet along an arc to the right and having a radius of 60.00 feet and subtended by a long chord having a bearing of North 52 degrees 25 minutes 55 seconds West and a length of 70.44 feet; thence North 16 degrees 29 minutes 23 seconds West 195.86 feet; thence Northwesterly 90.04 feet along an arc to the left and having a radius of 72.56 feet and subtended by a long chord having a bearing of North 52 degrees 02 minutes 23 seconds West and a length of 84.37 feet; thence North 87 degrees 35 minutes 22 seconds West 121.44 feet; thence North 05 degrees 37 minutes 00 seconds East 40.00 feet; thence North 05 degrees 37 minutes 00 seconds East 20.00 feet to a 5/8-inch rebar set flush with said Helms survey cap at the southwest corner of the above-described 0.230-acre lease tract; thence South 84 degrees 23 minutes 00 seconds East 100.00 feet to the point of beginning.

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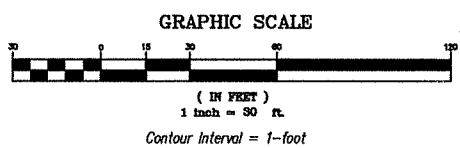
# Reduced Copy

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#### Legend

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- 5/8" Rebar Set Flush - No Cap
- ⊙ 1/2" Rebar Found As Noted Per Survey By Jeffrey D. Nance, P.L.S. 3014
- × Calculated Position - No Monument Found or Set
- Subject Boundaries
- - - Easement Boundaries
- - - Other Boundaries
- - - Right of Way
- Utility Pole
- ⊙ Guy Anchor
- Telephone Pedestal
- (m) Measured
- (r) Recorded
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- (s) Set



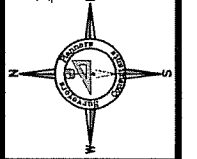
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*Darren L. Helms*  
 Darren L. Helms, P.L.S. 3386  
 July 29, 2008  
 Date

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

Landmark Surveying Co., Inc.  
 15 N.E. 3rd Street  
 Washington, Indiana 47501  
 (812) 237-0950  
 Email: landmark@landmark.net  
 Project No. 08-04-012



Lease Boundary Survey  
 9037 Greensburg Road  
 Edmontan, Kentucky 42129

Bluegrass Cellular  
 2902 Ring Road  
 Elizabethtown, Kentucky 42701

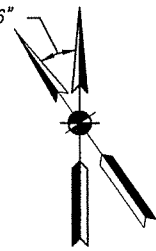
REVISIONS	DATE

DATE: 7-29-08  
 DRAWN BY: A. Winkler  
 CHECKED BY: D.L. Helms

SHEET NO. 1 OF 2 SHEETS  
 FILE NO. sulphur.dwg

Site: Sulphur Well  
Lease Boundary and Topographic Survey  
Metcalf County, Kentucky

True North  
 00°04'56"



GRID NORTH



( IN FEET )  
 1 inch = 90 ft.

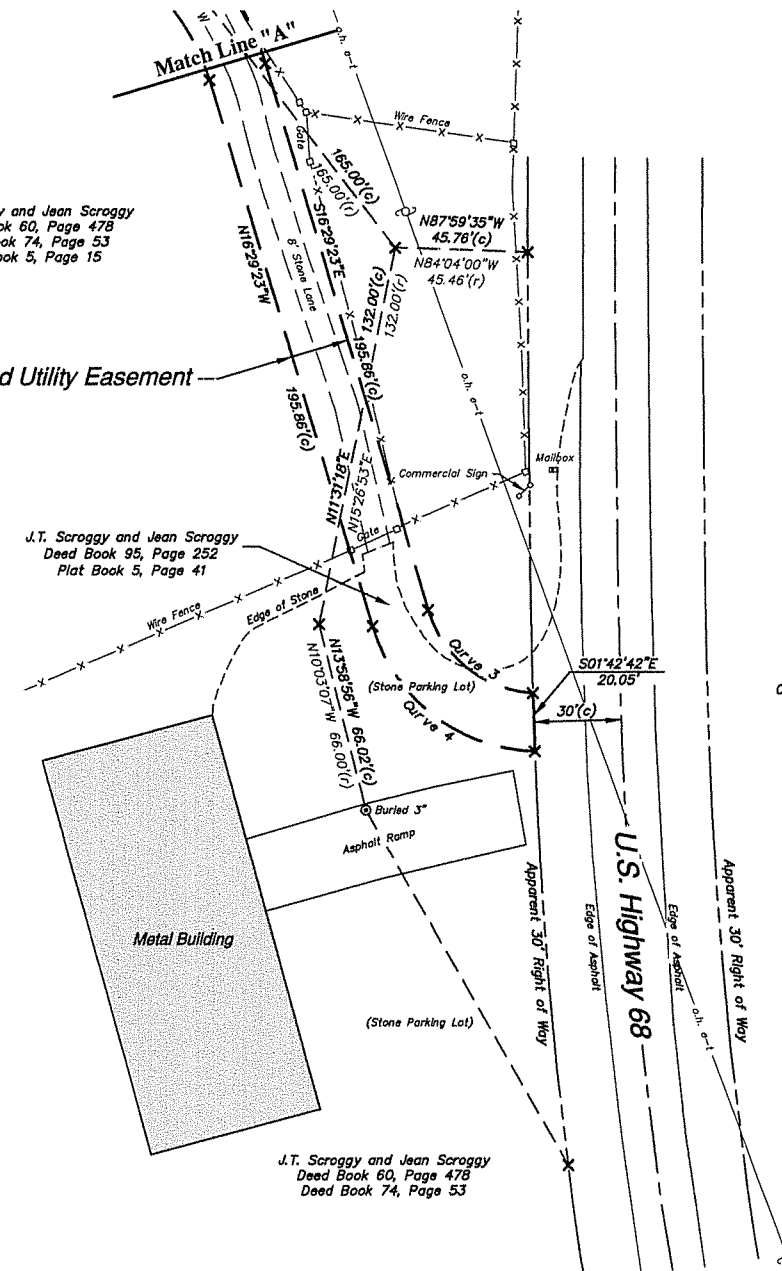
Contour Interval = 1-foot

**Legend**

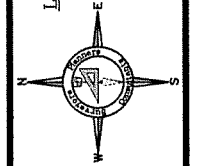
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Curve Table			
Curve No.	Length	Radius	Long Chord
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20' Access and Utility Easement



Landmark Surveying Co., Inc.  
 15 N.E. 3rd Street  
 Washington, Indiana 47301  
 (812) 257-0950  
 Email: jennam@landmark.com  
 Project No. 08-04-0132



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 Edmonton, Kentucky 42129

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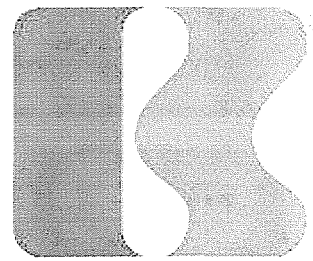
REVISIONS	DATE

DATE: 7-29-08  
 DRAWN BY: A. Winder  
 CHECKED BY: D.L. Helms

SHEET NO.  
 2  
 OF 2 SHEETS

FILE NO.  
 sulphur.dwg

Reduced Copy



# BLUEGRASS CELLULAR

## APPROVAL SIGNATURES

BLUEGRASS CELLULAR  
PROJECT SUPERVISOR: \_\_\_\_\_

DATE: \_\_\_\_\_

CITY REPRESENTATIVE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

PROPERTY OWNER/OWNERS: \_\_\_\_\_

DATE: \_\_\_\_\_

TOWER OWNER/OWNERS: \_\_\_\_\_

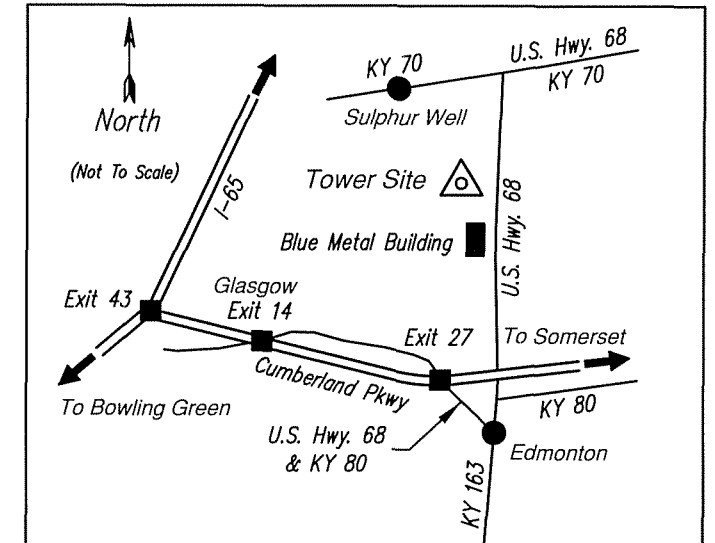
DATE: \_\_\_\_\_

**SITE NAME: SULPHUR WELL**

**911 ADDRESS: 9037 GREENSBURG RD.  
EDMONTON, KY. 42129**

**COUNTY: METCALFE**

**TOWER LATITUDE & LONGITUDE**  
N 37° 05' 29.09" W 85° 36' 52.18"



**VICINITY MAP**  
NOT TO SCALE

### DIRECTIONS TO SITE

From Elizabethtown, Kentucky: travel south on I-65 for about 50 miles to Exit 43 and the Cumberland Parkway; travel east on the Cumberland Parkway for 27 miles to Exit 27 at U.S. Highway 68 and Kentucky Highway 80; travel east on U.S. Highway 68 and Kentucky Highway 80 for about 3 miles to downtown Edmonton and Kentucky Highway 163; turn left and travel north on U.S. Highway 68 and Kentucky Highway 80 for 0.5 miles to the junction of U.S. Highway 68 and Kentucky Highway 80; continue north on U.S. Highway 68 for 8.6 miles to a parking lot at a blue metal building on the west side of the road near the site; turn into the parking lot and follow the stone lane leading north approximately 450 feet to the proposed tower site in a pasture.

## SHEET INDEX

SHEET NO.	DESCRIPTION	REVISION
TITLE SHEET	TITLE SHEET	
SURVEY	SURVEY	
A-1	SITE PLAN	
A-2	FENCE DETAILS	
ANTENNA DETAILS 1	ANT. SPECS/TOWER ELEV.	
ANTENNA DETAILS 2	ANTENNA DETAILS 2	
E-1	SITE PLAN - ELECTRICAL	
E-2	ELECTRICAL DETAILS	
LYNCOLE	LYNCOLE GROUNDING	
E-3	ELEC. PLAN - GROUNDING	
E-4	GROUNDING DETAILS	
S-1	FOUNDATION DETAILS	
GENERATOR DETAIL	GENERATOR DETAIL	
GENERAL NOTES	GENERAL NOTES	

## SITE DATA

PROPERTY OWNER: J.T. SCROGGY & JEAN SCROGGY  
216 TOMMY SCROGGY RD.  
270-565-3613

TOWER OWNER: BLUEGRASS CELLULAR  
(270) 769-0339

POWER COMPANY: FARMERS RECC  
(270) 651-2191

TELEPHONE COMPANY: SOUTH CENTRAL RTC  
(270) 678-2111

BLUEGRASS PROJECT SUPERVISOR: JEFF BREWER  
(270) 734-3436



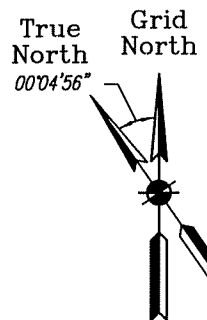
ROBIN BECKER  
(502) 231-3656  
OFFICE/FAX



# Site: Sulphur Well

## Lease Boundary and Topographic Survey

### Metcalf County, Kentucky



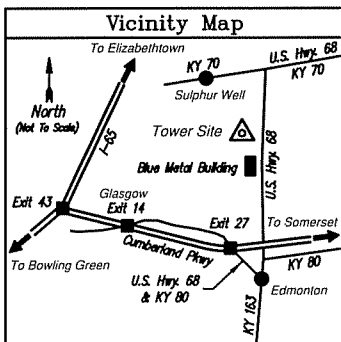
**Basis of Bearings**  
 The bearing system of this survey is based upon G.P.S. observations made on July 8, 2008 using the National Geodetic Survey monument "GASCON RM 1" and the Kentucky State Plane Coordinate System, South Zone, NAD 1983 (2007). This system is grid north.

**Tower Location Information**  
 Designation: Sulphur Well  
 Site ID: None  
 Horizontal Datum: NAD 1983 (2007)  
 Latitude: 37°05'29.09" North  
 Longitude: 85°36'52.18" West  
 Vertical Datum: NAVD 1988  
 Ground Elevation: 796.5 feet (242.77 meters)  
 State Plane Coordinates:  
 Northing: 1,916,451.00 feet (584,135.433 meters)  
 Easting: 1,679,939.32 feet (512,046.529 meters)

**Owner Information**  
 Landowner: J.T. Scroggy and Jean Scroggy  
 Address: 216 Tammy Scroggy Road  
 Sulphur, Kentucky 42129  
 Contact Person: J.T. Scroggy  
 Phone: 270-565-3613  
 PVA Map No. 44-49.03

**Project Bench Mark**  
 Northing: 1,916,536 feet (584,161 meters)  
 Easting: 1,680,051 feet (512,081 meters)  
 Elevation: 787.37 feet (239.991 meters)  
 Description: A railroad spike set in the south side of a utility pole, 12" above grade. The benchmark is approximately 140 feet northeast of the center of the tower.

**Flood Plain Statement**  
 According to the FEMA web site, this is an unmapped area. No flood information is available for the unincorporated areas of Metcalf County, Kentucky. However, a visual inspection of the site would indicate that the subject site does not lie within a flood prone area.



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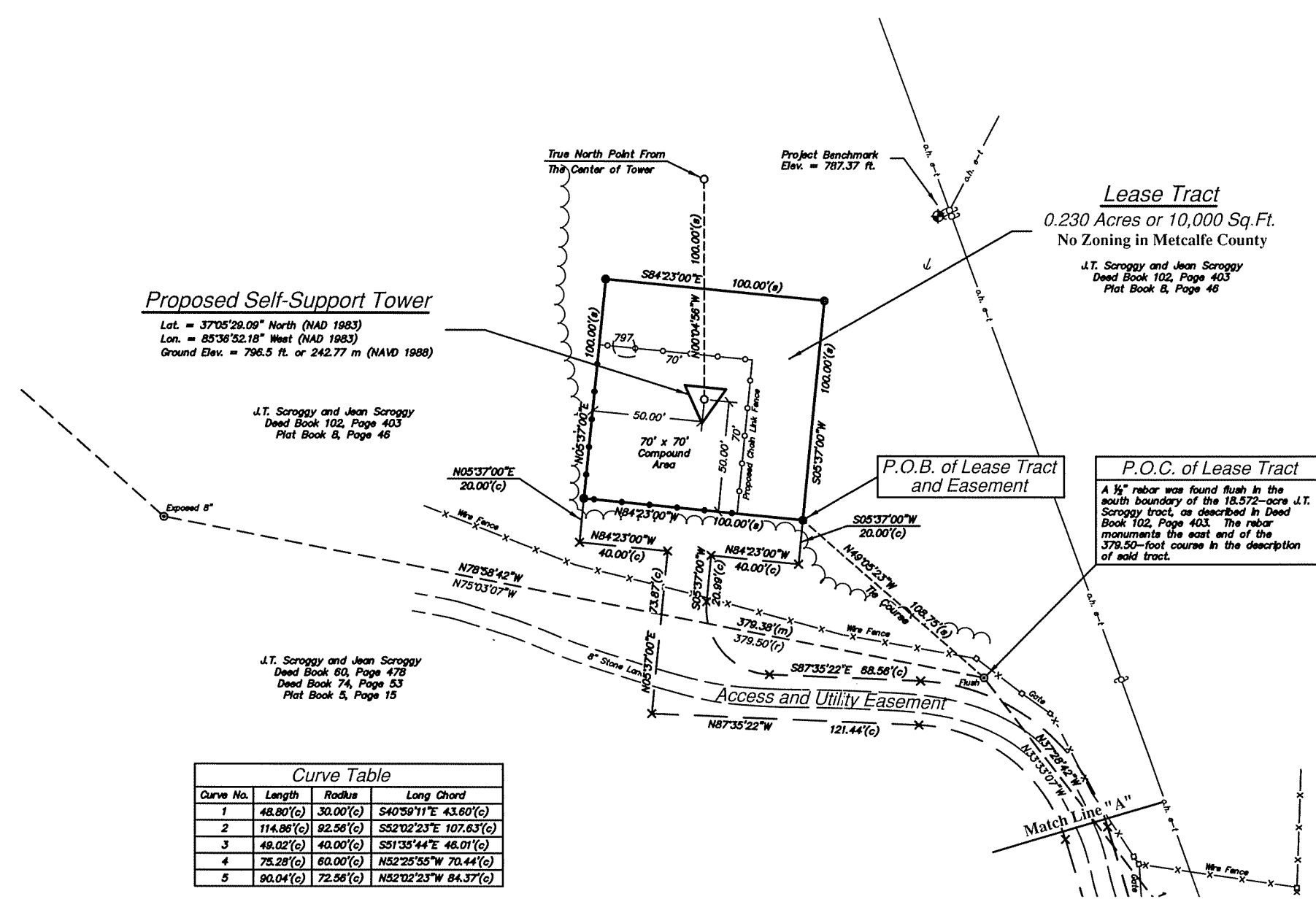
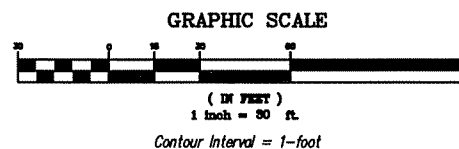
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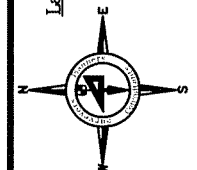
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Date \_\_\_\_\_

Landmark Surveying Co., Inc.  
 15 N.E. 3rd Street  
 Washington, Indiana 47501  
 (812) 257-0850  
 Email: landmark@landmark.com  
 Project No. 08-04-0132



Lease Boundary Survey  
 9037 Greensburg Road  
 Edmonton, Kentucky 42129

**Bluegrass Cellular**  
 2902 Ring Road  
 Elizabethtown, Kentucky 42701

REVISIONS	DATE

DATE 7-29-08  
 DRAWN BY A. Winkler  
 CHECKED BY D.L. Helms

SHEET NO.  
 1  
 OF 2 SHEETS  
 FILE NO.  
 sulphur.dwg



# Site: Sulphur Well

## Lease Boundary and Topographic Survey

### Metcalfe County, Kentucky

Landmark Surveying Co., Inc.  
 15 N.E. 3rd Street  
 Washington, Indiana 47501  
 (812) 257-0850  
 Email: landmark@msurvey.com  
 Project No. 08-04-0132



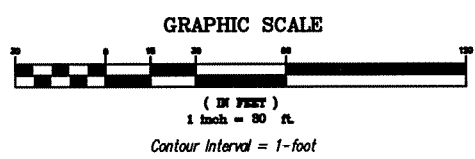
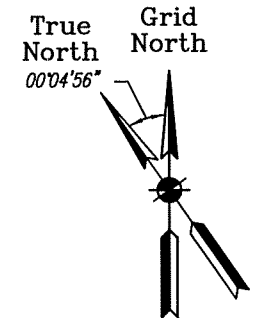
Lease Boundary Survey  
 9037 Greensburg Road  
 Edmonton, Kentucky 42129

**Bluegrass Cellular**  
 2902 Ring Road  
 Elizabethtown, Kentucky 42701

REVISIONS	DATE

DATE: 7-29-08  
 DRAWN BY: A. Whicker  
 CHECKED BY: D.L. Helms

SHEET NO.  
 2  
 OF 2 SHEETS  
 FILE NO.  
 sulphur.dwg



**Legend**

- 5/8" Rebar Set Flush With A Survey Cap Inscribed "D.L. Helms PLS 3386"
- 5/8" Rebar Set Flush - No Cap
- ⊙ 1/2" Rebar Found As Noted Per Survey By Jeffrey D. Nance, P.L.S. 3014
- × Calculated Position - No Monument Found or Set
- Subject Boundaries
- - - Easement Boundaries
- - - Other Boundaries
- - - Right of Way
- ⊕ Utility Pole
- ⊔ Guy Anchor
- ⊞ Telephone Pedestal
- (m) Measured
- (r) Recorded
- (c) Calculated
- (s) Set

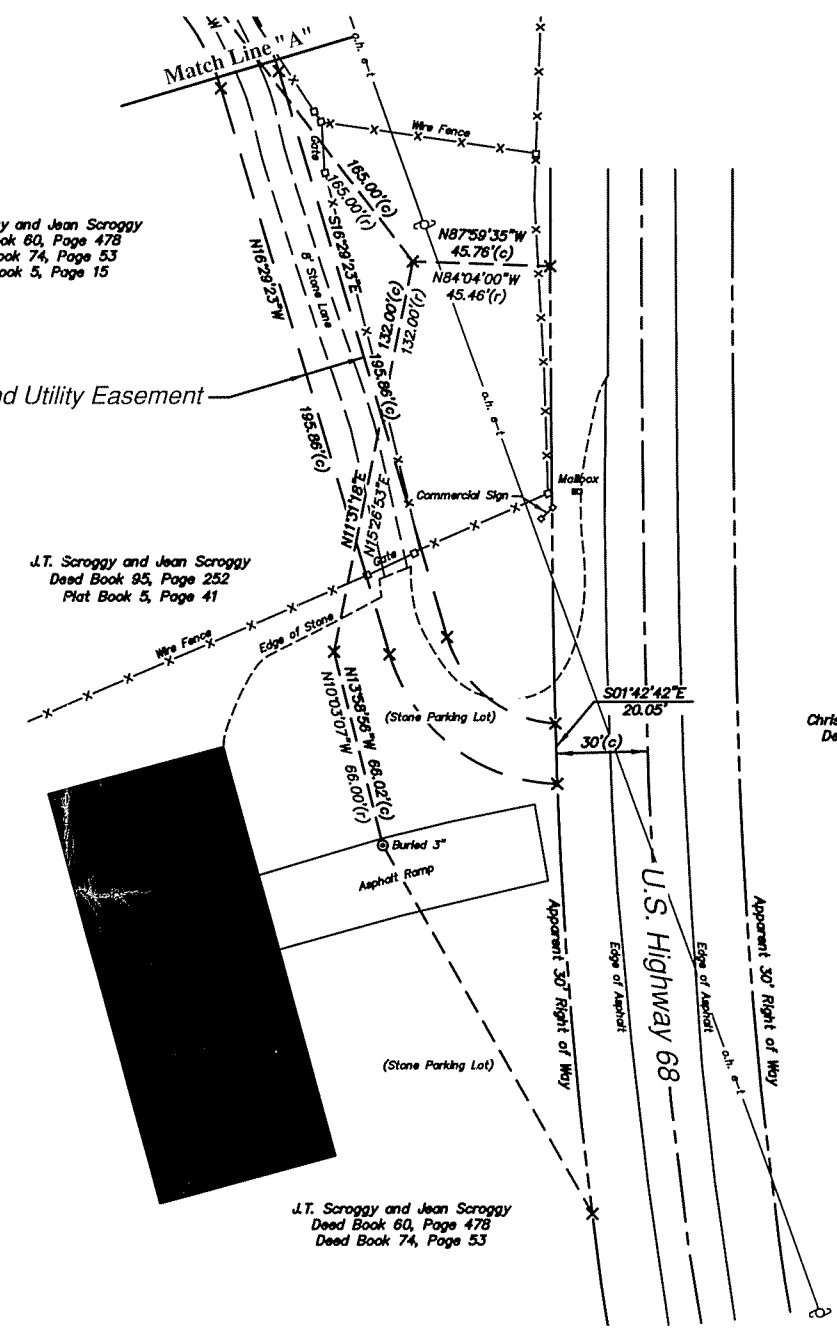
Curve Table			
Curve No.	Length	Radius	Long Chord
1	48.80'(c)	30.00'(c)	S40°59'11"E 43.60'(c)
2	114.86'(c)	82.56'(c)	S52°02'23"E 107.63'(c)
3	48.02'(c)	40.00'(c)	S51°35'44"E 46.01'(c)
4	75.28'(c)	60.00'(c)	N52°25'55"W 70.44'(c)
5	90.04'(c)	72.56'(c)	N52°02'23"W 84.37'(c)

J.T. Scroggy and Jean Scroggy  
 Deed Book 60, Page 478  
 Deed Book 74, Page 53  
 Plat Book 5, Page 15

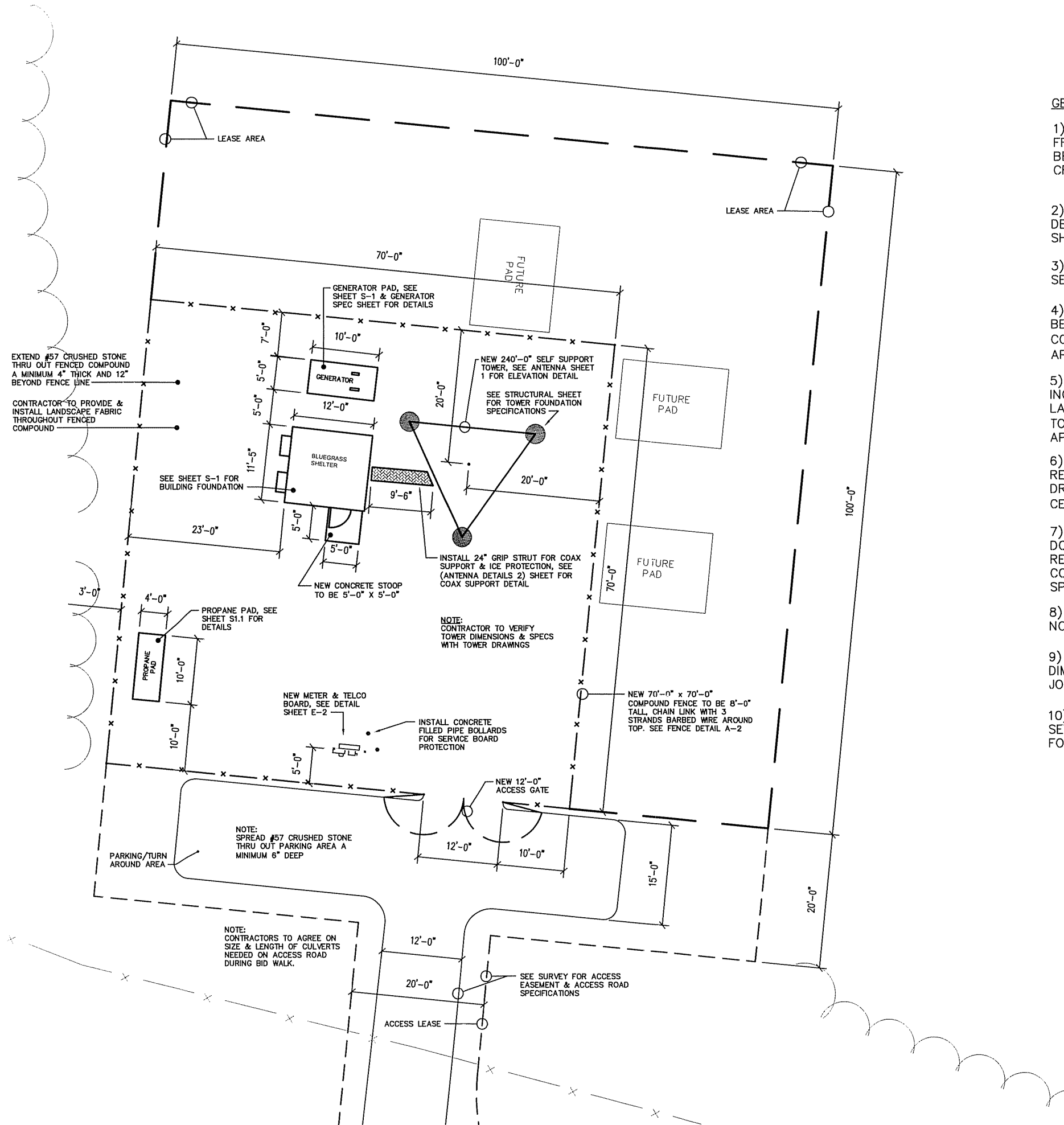
20' Access and Utility Easement

J.T. Scroggy and Jean Scroggy  
 Deed Book 95, Page 252  
 Plat Book 5, Page 41

Chris Tucker and Angie Tucker  
 Deed Book 109, Page 356



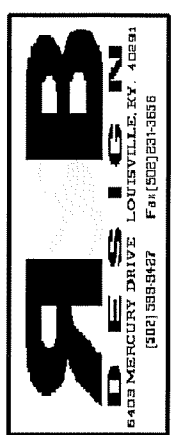
J.T. Scroggy and Jean Scroggy  
 Deed Book 60, Page 478  
 Deed Book 74, Page 53



**GENERAL NOTES:**

- 1) EQUIPMENT PICK-UP AND DELIVERY TO SITE FROM BLUEGRASS CELLULAR STAGING FACILITY TO BE THE CONTRACTORS RESPONSIBILITY, INCLUDING CRANE SET, AND ALL COST INCURRED.
- 2) FOR, BUILDING AND ALL CONCRETE PAD DETAILS REFER TO STRUCTURALS AND SHEET S1.1
- 3) ALL CONCRETE TO HAVE SPECIFIED COATED SEALANT PER STRUCTURAL RECOMMENDATIONS.
- 4) ANY DAMAGE DUE TO CONSTRUCTION, TO BE REPAIRED OR REPLACED TO ORIGINAL CONDITION. (SUBJECT TO BLUEGRASS CELLULAR'S APPROVAL).
- 5) ANY DAMAGE OF NATURAL SURROUNDINGS , INCLUDING BUT NOT LIMITED TO, GRASS, TREES, LANDSCAPING, ETC.. TO BE REPAIRED OR REPLACED TO ORIGINAL CONDITION AT BLUEGRASS CELLULAR'S APPROVAL.
- 6) ROADWAYS TO BE GRADED SMOOTH AND EVEN, REMOVING ALL POTHOLES. ROADS TO HAVE PROPER DRAINAGE AND RUNOFF PER BLUEGRASS CELLULAR'S APPROVAL.
- 7) ANY RELOCATION OF EXISTING UTILITIES TO BE DONE IN ACCORDANCE WITH LOCAL CODES AND RECOMMENDATIONS, CONSULTING ALL UTILITY COMPANIES INVOLVED FOR APPROVAL AND SPECIFICATIONS REQUIRED.
- 8) FOR GRADING DETAILS, SEE GENERAL NOTESHEET
- 9) CONTRACTOR TO FIELD VERIFY ALL TOWER DIMENSIONS WITH TOWER MANUFACTURER PRIOR TO JOB BIDDING OR START OF ANY CONSTRUCTION
- 10) CONTRACTOR RESPONSIBLE FOR APPLYING FOR SERVICE TO SITE AND PAYING ANY FEES REQUIRED FOR PERMITS, HOOKUP, ETC..

**SITE PLAN**  
SCALE: 1/8" = 1'-0"

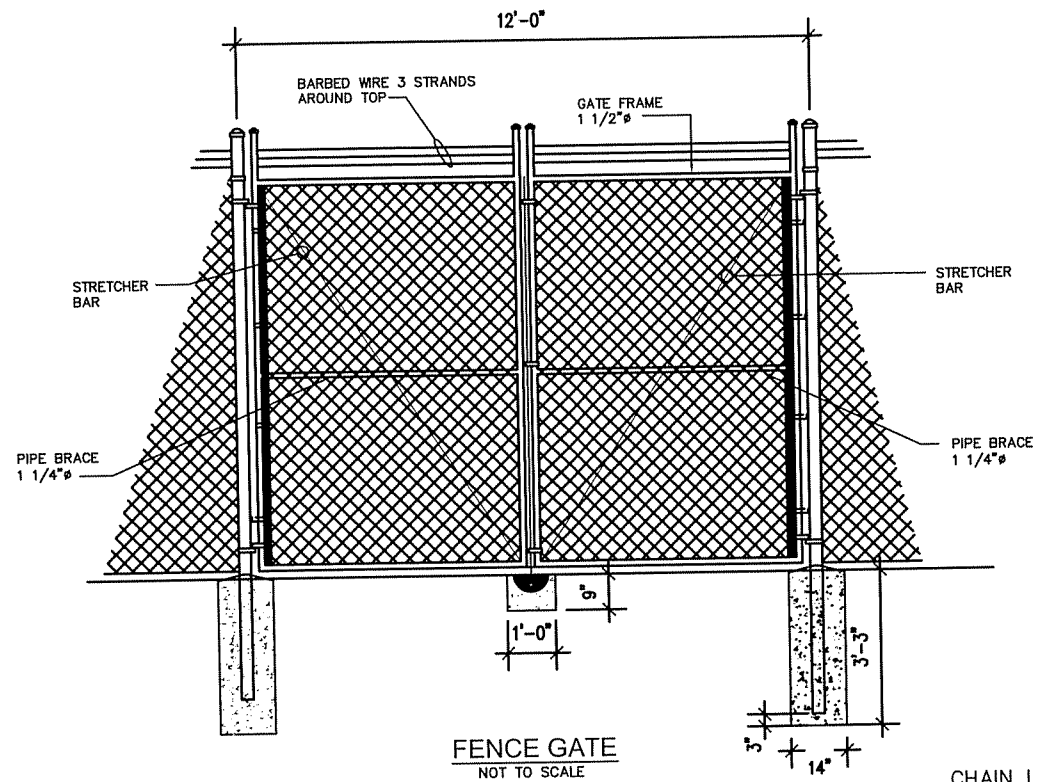


NO.	DATE	REVISION

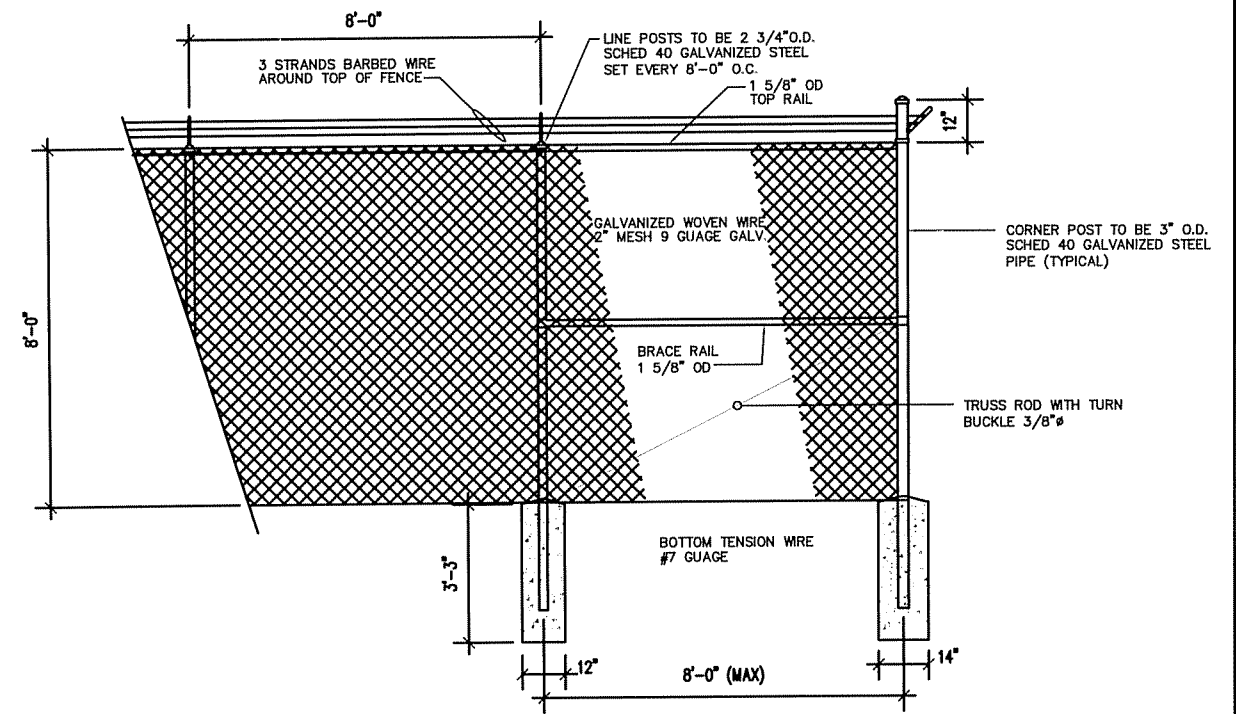
**BLUEGRASS CELLULAR, INC.**  
**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER  
ISSUE DATE: 8-05-08  
SCALE: LISTED

SHEET NUMBER  
A-1



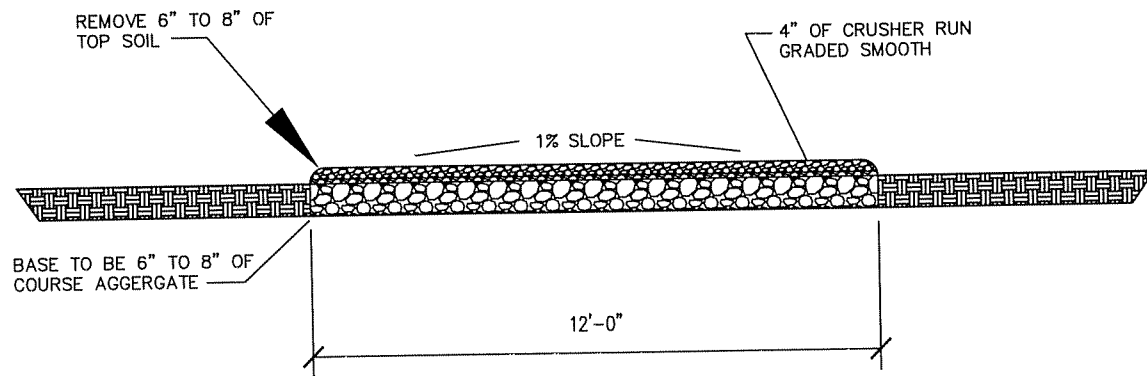
FENCE GATE  
NOT TO SCALE



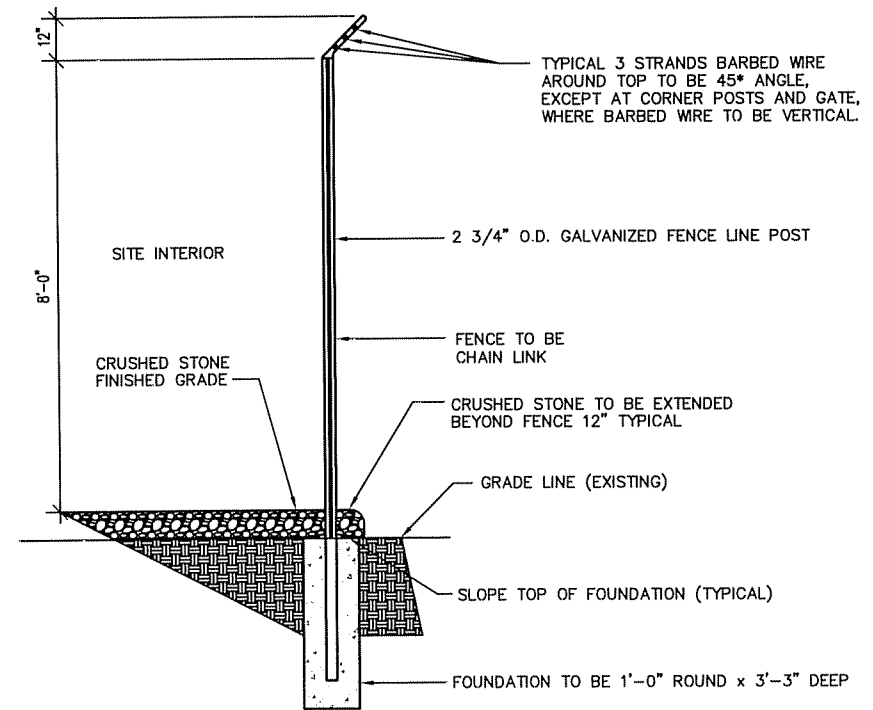
FENCE DETAIL END POLES  
NOT TO SCALE

**CHAIN LINK FENCING NOTES:**

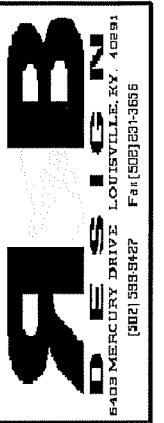
- FABRIC:** THE FABRIC SHALL BE COMPOSED OF INDIVIDUAL HOT DIP GALVANIZED WIRE PICKETS HELICALLY WOUND AND INTERWOVEN FROM NO.9 W & M GAUGE COPPER BEARING STEEL WIRE TO FORM A CONTINUOUS CHAIN LINK FABRIC HAVING A 2" MESH. TOP EDGES SHALL HAVE A TWISTED AND BARBED
- POSTS:** SHALL BE 2 3/4" O.D. SS 40 PIPE HOT GALVANIZED. THESE POSTS SHALL BE SPACED APPROXIMATELY 8'-0" ON CENTERS AND SET FULL 3'-3" IN BELL - SHAPED CONCRETE FOOTING, CROWNED AT TOP TO SHED WATER.
- TOP RAIL:** SHALL BE 1 5/8" O.C. STANDARD PIPE HOT GALVANIZED AND SHALL BE FURNISHED IN RANDOM LENGTHS AVERAGING NOT LESS THAN 20".
- FABRIC TIES:** FOR ATTACHING FABRIC TO LINE POST, TOP RAIL OR TOP WIRE, SHALL BE ALUMINUM STRIP OF WIRE OF APPROVED GAUGE AND DESIGN. USED ON TOP OF RAIL EVERY 24" AND ONE POST EVERY 12".
- EXTENSION ARMS:** CAST STEEL GALVANIZED TO ACCOMODATE 3 STRANDS OF BARB WIRE, SINGLE ARM SLOPED TO 45°, AND VERTICAL ON TOP OF SWING GATES.
- BARBED WIRE (STEEL):** ASTM A121 GALVINIZED STEEL, 12 GAUGE THICK WIRE, 3 STRANDS 4 POINTS AT 3" O.C.
- SWING GATE POSTS:** SHALL BE 3" O.C. STANDARD HOT GALVINIZED, WEIGHING 5.79 LBS. PER FOOT.
- GATES: (a) SWING GATES:** 2" O.C. STANDARD PIPE WITH INTERNAL BRACING OF 1 5/8" O.D. STANDARD PIPE; WELDED AT ALL JOINTS TO PROVIDE RIGID WATERTIGHT CONSTRUCTION. FABRIC SAME AS FENCE.
- FENCE TO BE 100% ERECTED WITHIN TEN(10) DAYS OF COMPLETION OF CONSTRUCTION, IF TIME FRAME CANNOT BE MET, PLEASE NOTIFY PROJECT SUPERVISOR.**



ROAD DETAIL  
NOT TO SCALE



FENCE DETAIL LINE POLES  
NOT TO SCALE



BLUEGRASS CELLULAR, INC.  
STANDARD CELLULAR SITE  
SULPHUR WELL  
9037 GREENSBURG RD. EDMONTON, KY. 42129  
6403 MERCURY DRIVE, LOUISVILLE, KY. 40291  
(502) 959-9427 Fax: (502) 959-3666

NO.	DATE	REVISION

BLUEGRASS CELLULAR, INC.  
STANDARD CELLULAR SITE  
SULPHUR WELL  
9037 GREENSBURG RD. EDMONTON, KY. 42129

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ISSUE DATE: 8-05-08  
SCALE: LISTED

SHEET NUMBER  
A-2

ALL LINES AND ANTENNAS TO BE PROPERLY MOUNTED TO TOWER OR STRUCTURE PER BLUEGRASS CELLULAR SPECIFICATIONS.

ALL GROUND BARS TO BE INSTALLED AND CAD WELDED TO GROUND FIELD (WHERE REQUIRED)

ALL LINES TO BE GROUNDED AT THE TOP AND BASE OF STRUCTURE OR TOWER.

ALL LINES TO BE GROUNDED AT ENTRANCE OF SHELTER BEFORE WAVE GUIDE PORTS. (EXTERIOR OF BUILDING)

LINES ARE TO BE SECURED TO ICE BRIDGE

WAVE-GUIDE BOOTS ARE TO BE INSTALLED ON ALL LINES (BOTH INSIDE AND OUTSIDE)

ALL COAX CONNECTIONS ARE TO BE WEATHER PROOFED.

INVENTORY OF ALL MATERIAL IS TO BE DONE PRIOR TO INSTALLATION BY CONTRACTOR. (LIST WILL BE PROVIDED)

ALL TRASH AND REFUGE IS TO BE PROPERLY DISPOSED OF.

CONTRACTOR TO EXTEND HARDLINES INTO BUILDING 12" & INSTALL POLYPHASERS, PER INSTRUCTION OF PROJECT SUPERVISOR.

CONTRACTORS TO SUPPLY POLYPHASERS OR LIKE UNITS TO BE INSTALLED AND GROUNDED TO GROUND BAR INSIDE BUILDING AT WAVE GUIDE ENTRANCE. GO TO SUPPLY GROUND CABLE & LUGS.

GENERAL CONTRACTOR TO MOUNT ANTENNA MOUNTS AT TOP OF STRUCTURE OR TOWER BY BLUEGRASS CELLULAR SPECIFICATIONS.

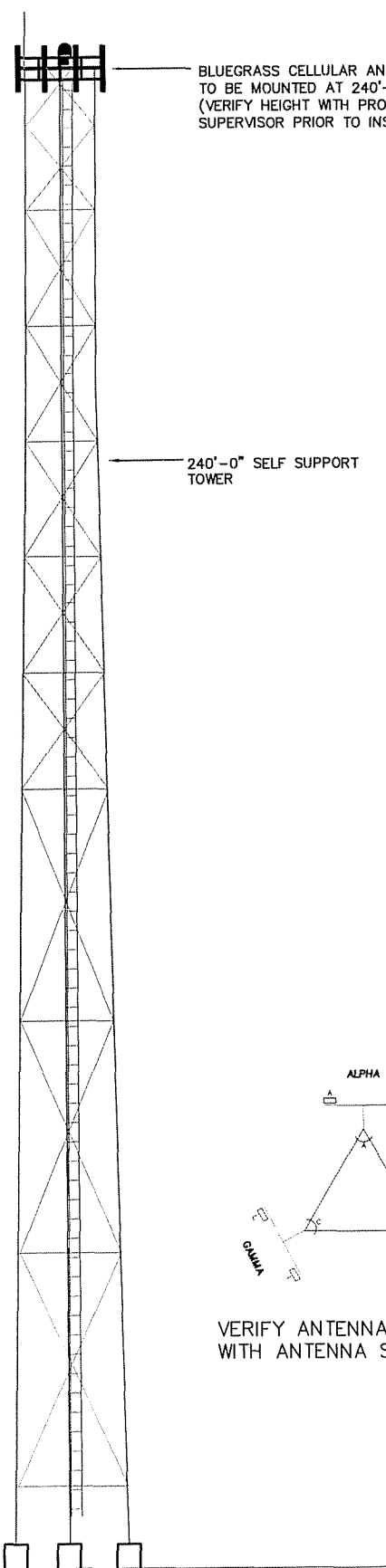
ICE BRIDGE TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR. (Additional Ice Bridge if needed)

TRAPEZE KIT TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.

CONTRACTOR TO INSTALL GPS BRACKET

## BLUEGRASS CELLULAR GENERAL NOTES & ANTENNA SPECS

BLUEGRASS CELLULAR ANTENNAS (6)  
TO BE MOUNTED AT 240'-0" C/L  
(VERIFY HEIGHT WITH PROJECT  
SUPERVISOR PRIOR TO INSTALLATION)



VERIFY ANTENNA ORIENTATION  
WITH ANTENNA SPECIFICATIONS

SELF SUPPORT TOWER ELEVATION (TYPICAL)

### TOWER HEIGHT & TYPE

240'-0" SELF SUPPORT TOWER

### ANTENNA SPECS

	TYPE	SIZE L x W x D	NUMBER	AZIMUTH	MOUNTING HEIGHT
ANTENNA (PRIMARY)	AP13-880-850D ADT-XP	L=78.6 W=10.3 D=4.6	6	45*, 175*, 290*	240'-0" C/L <small>VERIFY WITH CONSTRUCTION SUPERVISOR</small>
ANTENNA (SECONDARY)					

### ANTENNA MOUNTING HARDWARE SPECS

	TYPE	SIZE	NUMBER
MOUNT (PRIMARY)	TRI-SECTOR MOUNT		3
MOUNT (SECONDARY)			

### ANTENNA TRANSMISSION LINES SPECS

	TYPE	SIZE	NUMBER
TRANSMISSION LINE (PRIMARY)	ANDREW	1-5/8"	6
TRANSMISSION LINE (SECONDARY)			

### DISH SPECS

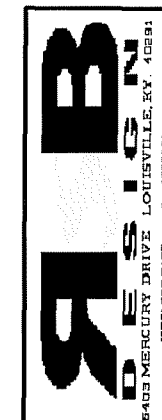
	MICROWAVE/DONOR	SIZE	NUMBER	AZIMUTH	MOUNTING HEIGHT
DISH #1					
DISH #2					

### DISH TRANSMISSION LINES

	TYPE	SIZE	NUMBER
TRANSMISSION LINE #1			
TRANSMISSION LINE #2			

### ANTENNA SYNOPSIS

- \* ANTENNAS TO HAVE A 1\*E X,Y & Z
- \* ANTENNA FREQUENCY 880.00 - 890.00



REVISION

DATE

NO.

BLUEGRASS CELLULAR, INC.  
STANDARD CELLULAR SITE  
**SULPHUR WELL**

9037 GREENSBURG RD. EDMONTON, KY. 42129

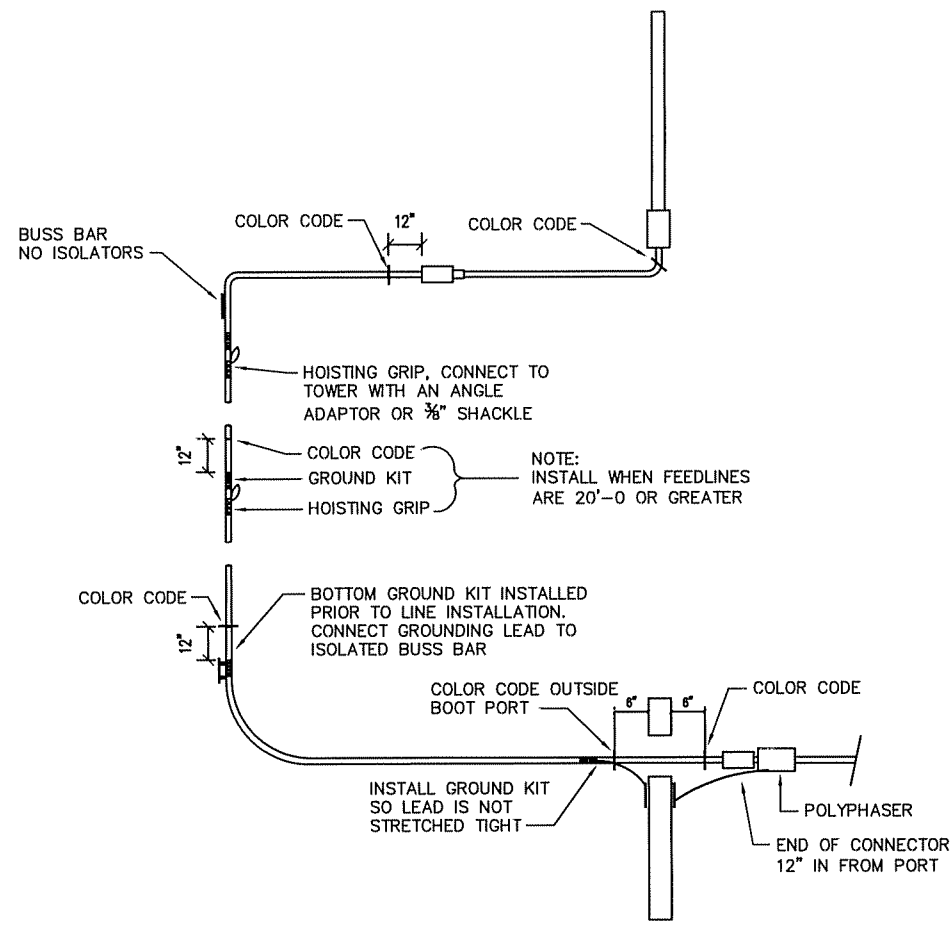
DRAWN BY:  
R. BECKER

ISSUE DATE:  
8-05-08

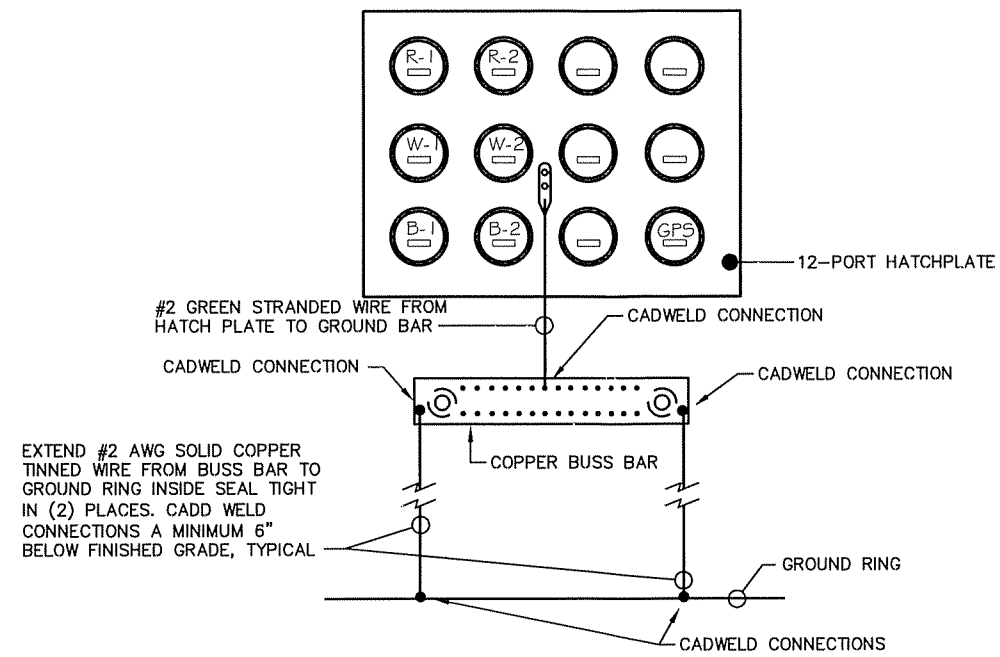
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LISTED

SHEET NUMBER

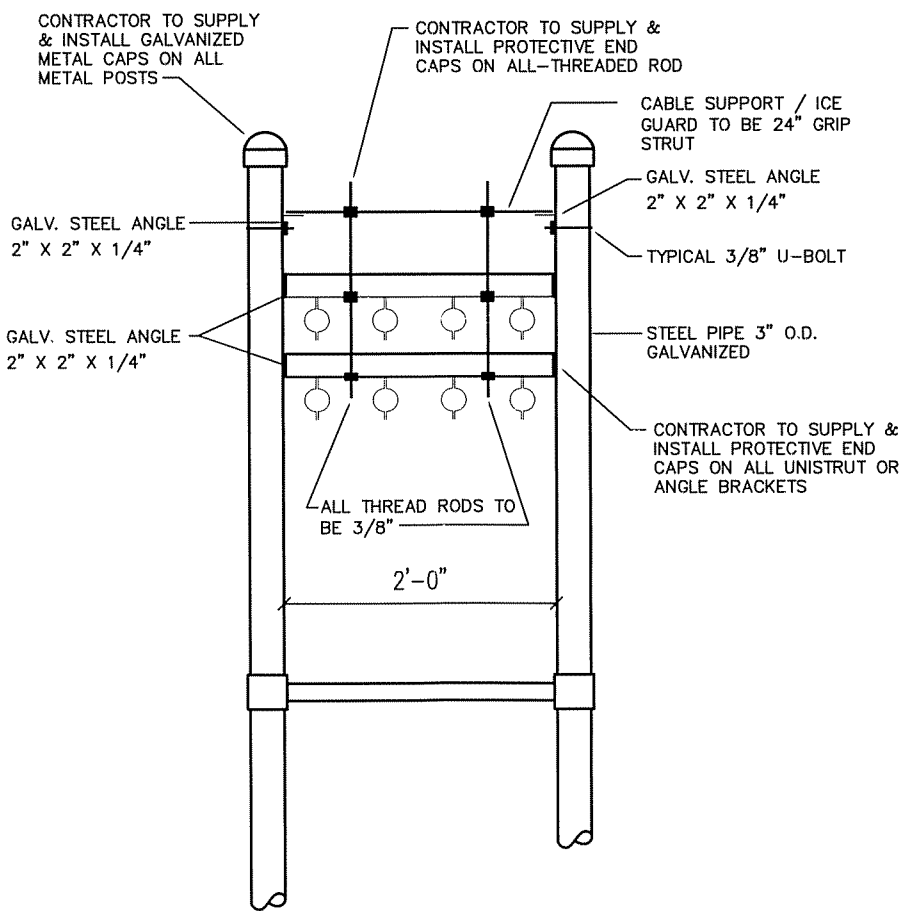
ANTENNA  
DETAILS  
1



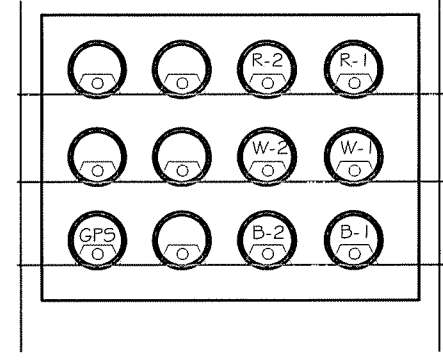
**COLOR CODING DETAIL**  
NO SCALE



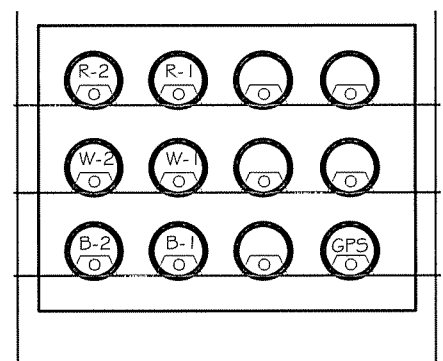
**BOOT PORT GROUNDING DETAIL**  
NO SCALE



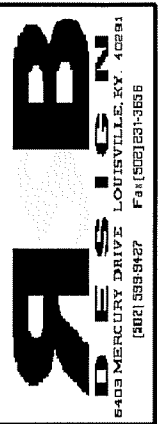
**ICE BRIDGE / COAX SUPPORT DETAIL**  
NO SCALE



**COAX ENTRY DETAIL POWER SIDE (VIEW FROM INSIDE SHELTER)**  
NO SCALE



**COAX ENTRY DETAIL A/C SIDE (VIEW FROM INSIDE SHELTER)**  
NO SCALE



NO.	DATE	REVISION

**BLUEGRASS CELLULAR, INC.**  
**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER  
ISSUE DATE: 8-05-08  
SCALE: LISTED

SHEET NUMBER  
**ANTENNA DETAILS**  
2

NO.	DATE	REVISION

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**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
 9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: **R. BECKER**  
 ISSUE DATE: **8-05-08**  
 SCALE: **LISTED**

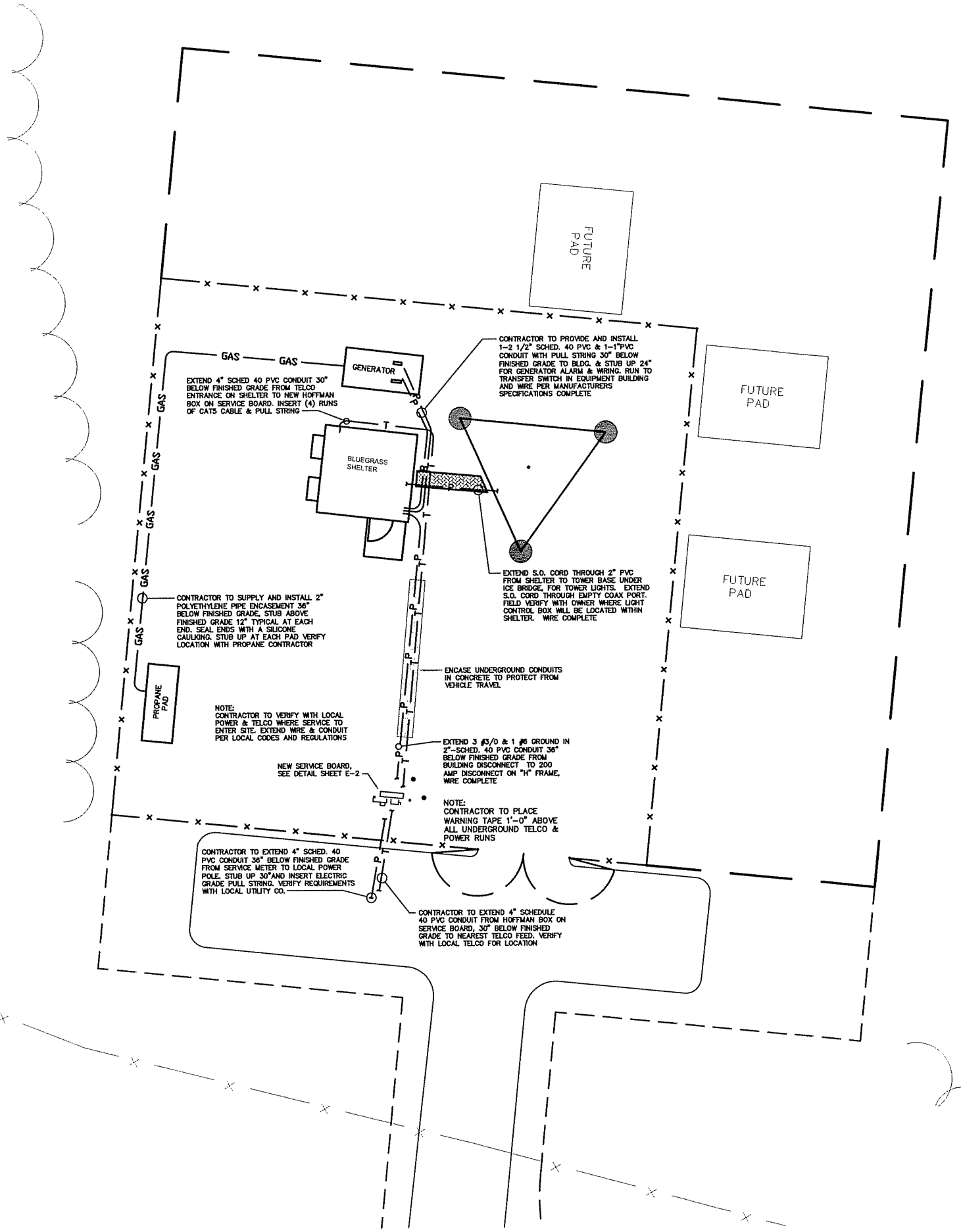
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**E-1**

**GENERAL ELECTRICAL NOTES:**

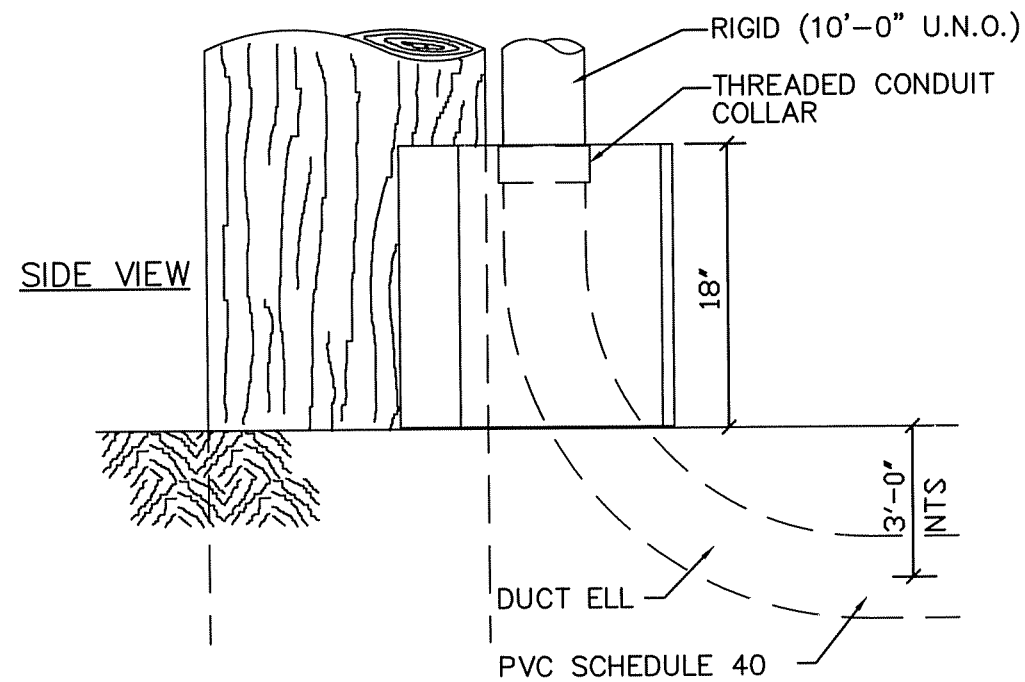
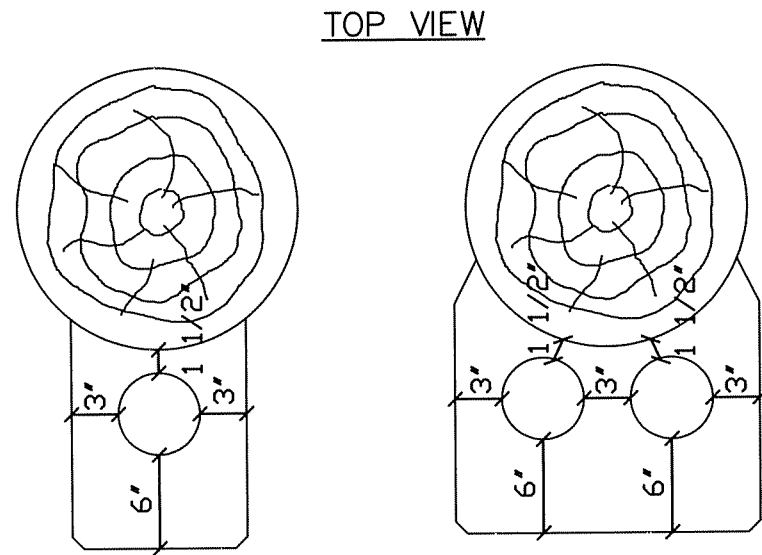
- 1) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL UTILITIES FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
  - 2) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
  - 3) GROUND RING TO BE CONTAINED WITH IN THE COMPOUNDS FENCED AREA.
  - 4) FENCE TO BE GROUNDED FROM GROUND RING TO ALL CORNER POST & GATES. SPACE FENCE GROUNDING APPROXIMATELY 20'-0" O/C. (CAD WELD ALL CONNECTIONS)
  - 5) ALL GROUND RING CONNECTIONS TO BE AS CLOSE AS POSSIBLE, SHARP BENDS WILL NOT BE PERMITTED AS WELL AS "T" CONNECTIONS. ALL CONNECTIONS TO HAVE A SWEEPING RADIUS OF 8" MINIMUM. GROUNDING CONFIGURATION TO BE IN PARALLEL.
  - 6) CONTACT POINTS FOR GROUNDING TO BE CLEANED OF ANY RUST, PAINT, DIRT, ETC. TO CREATE A GOOD BOND FOR CONDUCTOR. AREA THAT HAS BEEN CLEANED TO BE RESEALED TO PREVENT RUSTING.
  - 7) PROPERLY GROUND ANY EXPOSED METAL THAT MAY EXIST ON EXTERIOR OF EQUIPMENT SHELTER OR CABINET.
  - 8) WHERE GROUND CONDUCTORS REQUIRE MECHANICAL BONDING, STAINLESS STEEL CONNECTORS ARE REQUIRED AT EACH CONNECTING POINT USING LOCK WASHERS.
  - 9) CONTRACTOR RESPONSIBLE FOR SEEING THAT UTILITY PERSONNEL MAKE FINAL CONNECTIONS, MAKING SURE THE TOWER ALARM IS CONNECTED AND WORKING. A TELEPHONE NUMBER FOR THE ALARM MUST BE SUPPLIED.
  - 10) CONTRACTOR RESPONSIBLE FOR MEG TESTING THE SITE AND SUPPLYING OWNER WITH FINAL READINGS IN OWNERS SPECIFICATIONS.
- NOTE:**  
 CONTRACTOR TO PROVIDE WARNING TAPE IN TRENCHES FOR ALL POWER AND TELCO RUNS UNDER GROUND. TAPE TO BE INSTALLED 1'-0" ABOVE CONDUIT RUNS.

**SYMBOLS LEGEND**

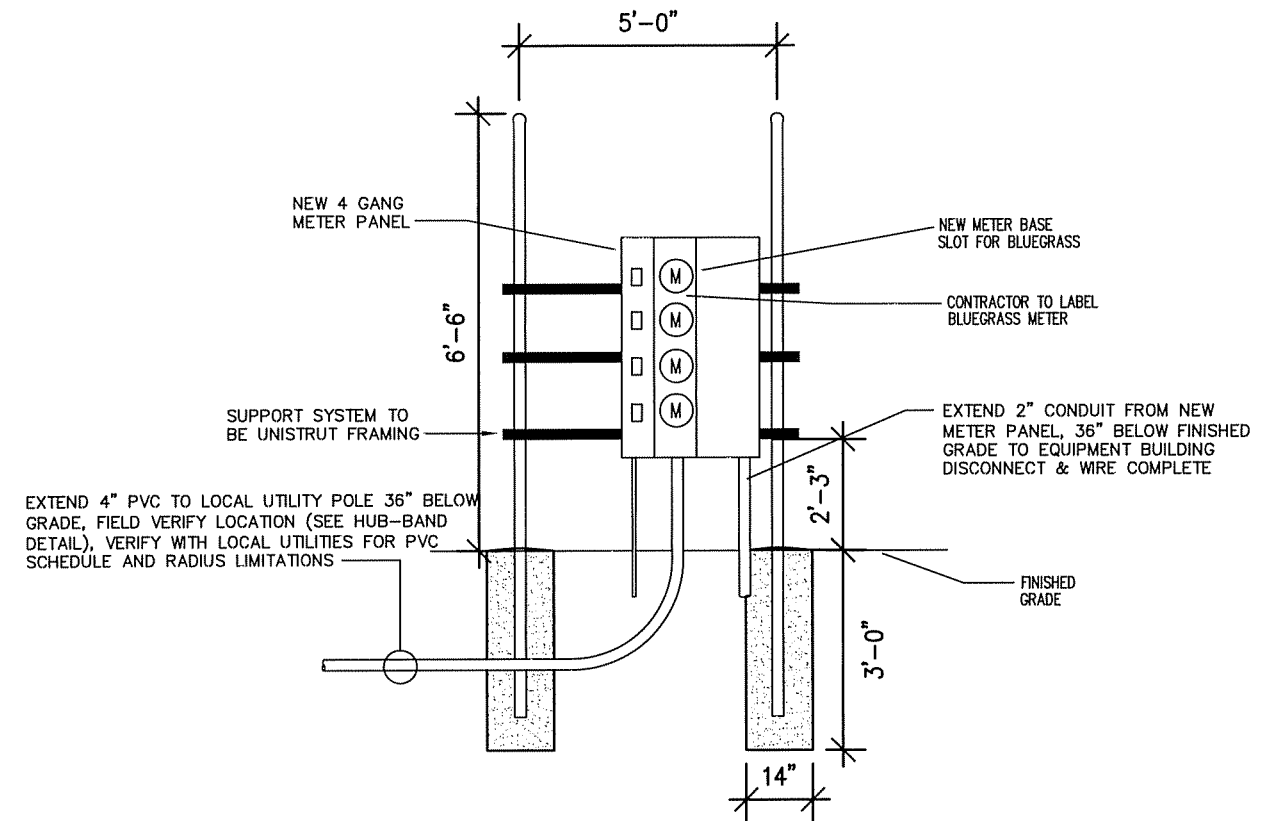
	POWER
	GAS
	TELEPHONE
	FENCE
	SWITCH (DISCONNECT)
	METER PACK



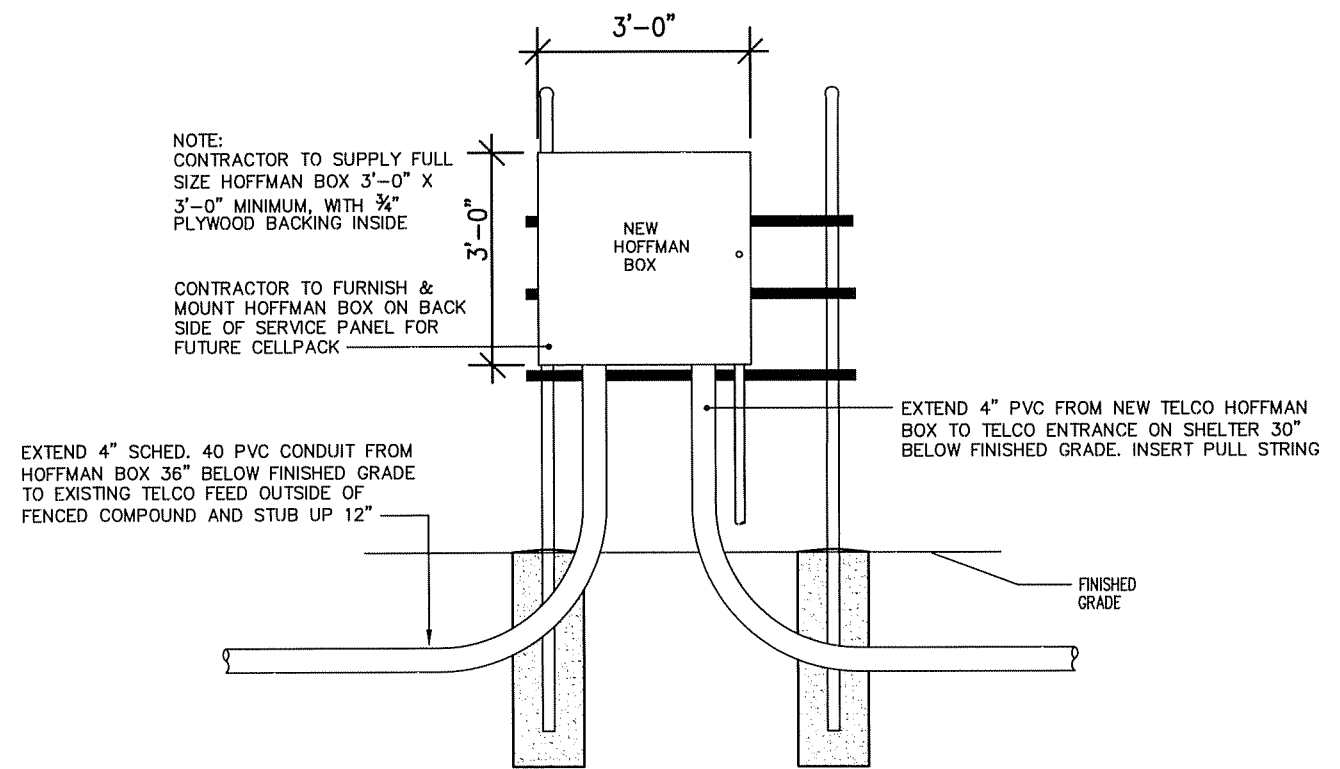
**SITE PLAN- ELECTRICAL**  
 SCALE: 3/32" = 1'-0"



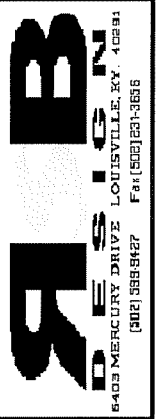
**HUB-BAND DETAIL**  
 NO SCALE



**SERVICE BOARD DETAIL**  
 NO SCALE



**BACKBOARD DETAIL**  
 NO SCALE

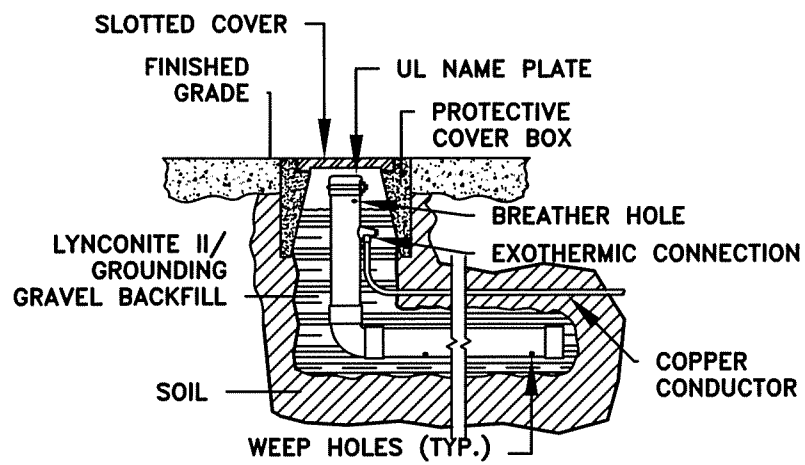


NO.	DATE	REVISION

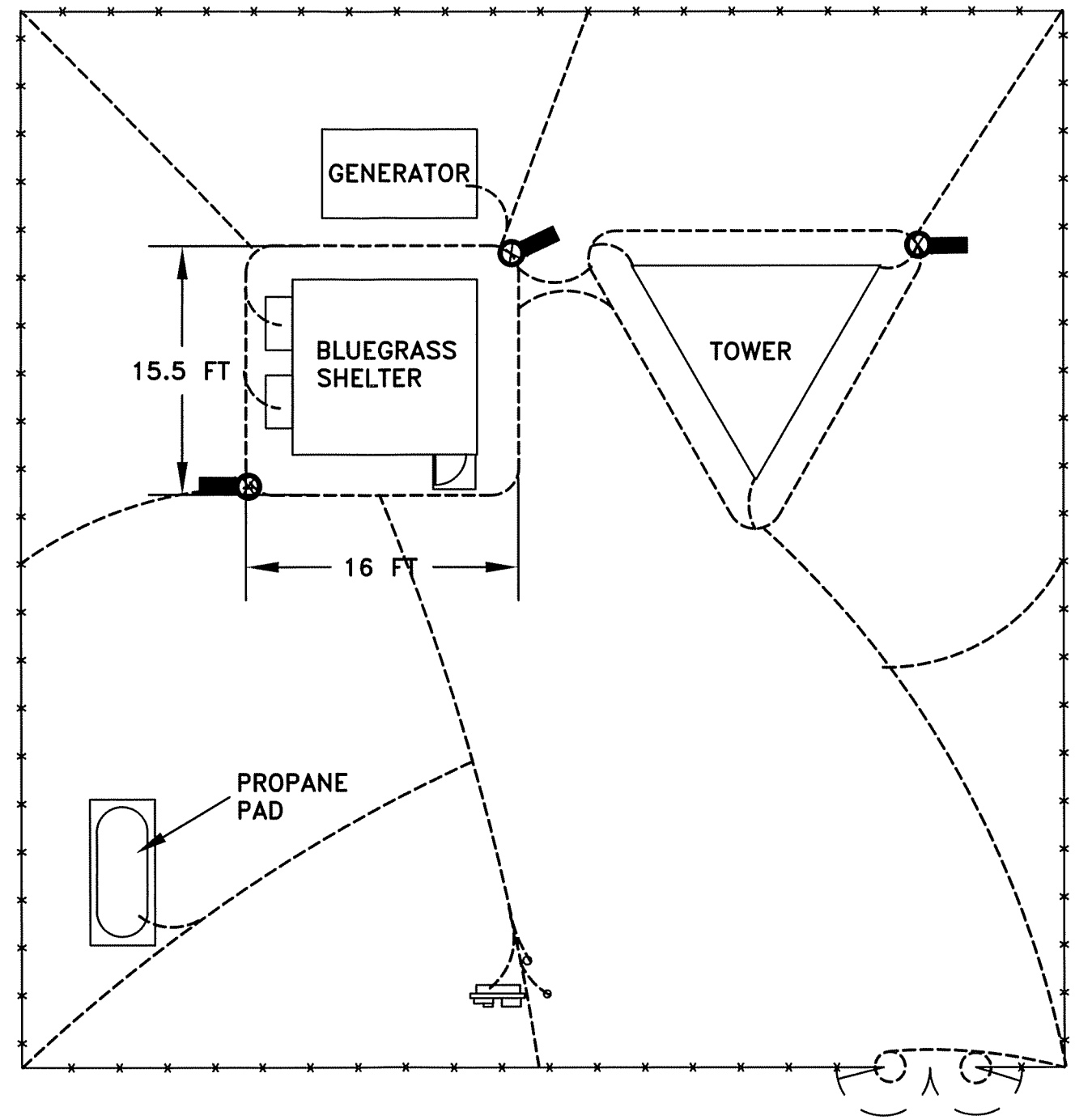
**BLUEGRASS CELLULAR, INC.**  
**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
 9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER  
 ISSUE DATE: 8-05-08  
 SCALE: LISTED

SHEET NUMBER  
 E-2



L-SHAPE MODEL  
 LYNCOLE XIT GROUNDING  
 (800) 962-2610  
**DETAIL A**

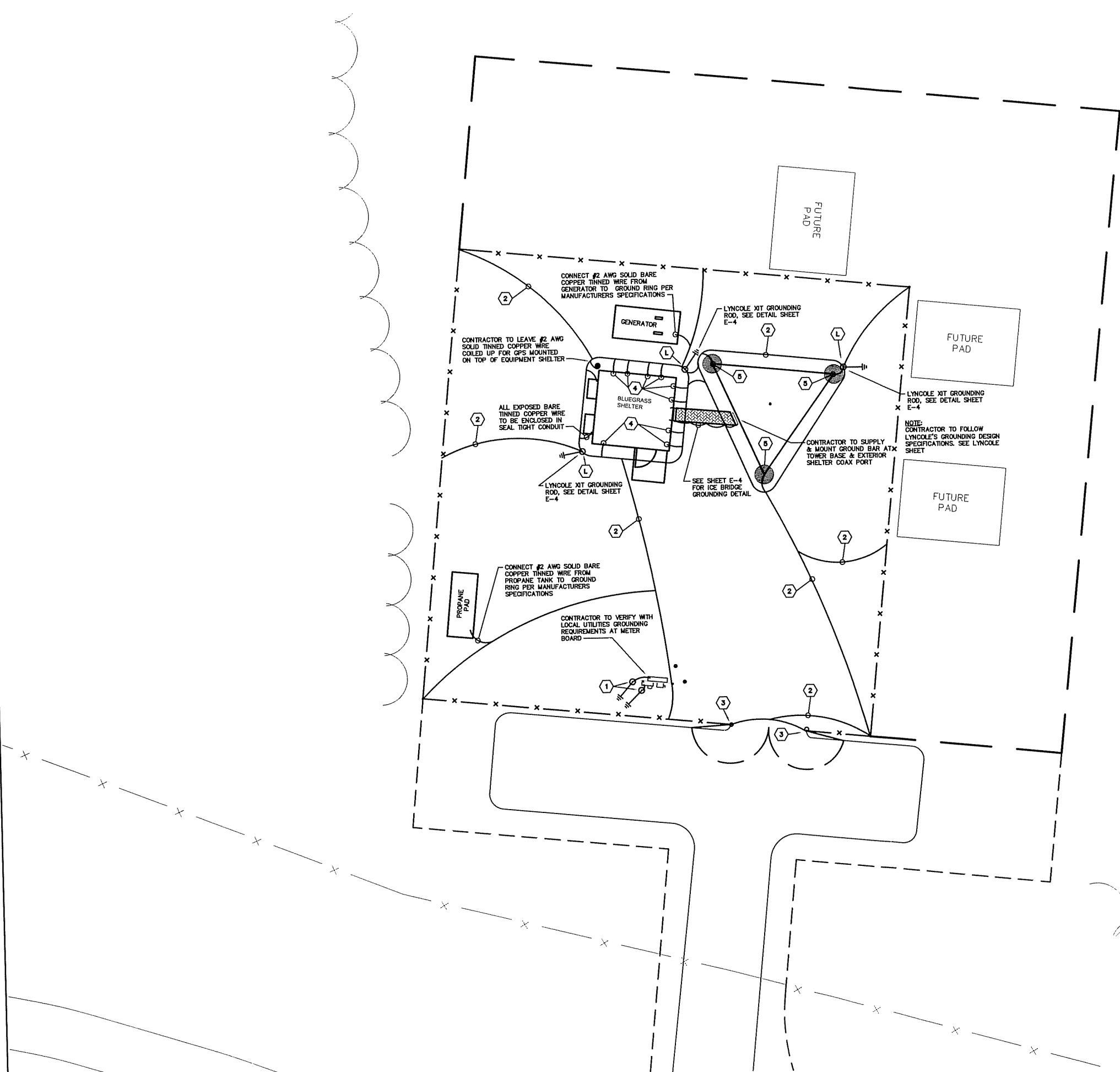


**NOTES:**

- \*—\*—\*— FENCE LINE
- BARE #2 AWG TINNED SOLID COPPER CONDUCTOR BURIED 30 IN. BELOW GRADE OR 6 IN. BELOW FROST LINE
- ALL BENDS IN GROUND CONDUCTORS TO BE MADE WITH 12 IN. RADIUS OR LARGER
- K2L-10CS (SEE DETAIL A)

		CLIENT / END USER	
		RSB DESIGN / BLUEGRASS CELLULAR	
DRAWING	PROJECT NAME		
1	SULPHUR WELL		
TITLE		GROUNDING OPTION	
LOCATION: CITY, STATE		CALCULATED RESISTANCE	
BLUEGRASS SULPHUR WELL		< 5 OHMS	
DRAWN BY	APPROVED BY	DATE	
RQD		08/11/2008	
SOIL DATA PROVIDED BY		REFERENCE NUMBER	SCALE
TERRACON		N/A	NONE
		LTS NUMBER	
			080217





- GENERAL ELECTRICAL NOTES:**
- 1) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL UTILITIES FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
  - 2) CONTRACTOR RESPONSIBLE FOR MAKING ALL ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY FOR SERVICE AND FEE PAYMENTS REQUIRED TO OBTAIN SERVICE.
  - 3) GROUND RING TO BE CONTAINED WITH IN THE COMPOUNDS FENCED AREA.
  - 4) FENCE TO BE GROUNDED FROM GROUND RING TO ALL CORNER POST & GATES. SPACE FENCE GROUNDING APPROXIMATELY 20'-0" O/C. (CAD WELD ALL CONNECTIONS)
  - 5) ALL GROUND RING CONNECTIONS TO BE AS CLOSE AS POSSIBLE, SHARP BENDS WILL NOT BE PERMITTED AS WELL AS "T" CONNECTIONS. ALL CONNECTIONS TO HAVE A SWEEPING RADIUS OF 8" MINIMUM. GROUNDING CONFIGURATION TO BE IN PARALLEL.
  - 6) CONTACT POINTS FOR GROUNDING TO BE CLEANED OF ANY RUST, PAINT, DIRT, ETC. TO CREATE A GOOD BOND FOR CONDUCTOR. AREA THAT HAS BEEN CLEANED TO BE RESEALED TO PREVENT RUSTING.
  - 7) PROPERLY GROUND ANY EXPOSED METAL THAT MAY EXIST ON EXTERIOR OF EQUIPMENT SHELTER OR CABINET.
  - 8) WHERE GROUND CONDUCTORS REQUIRE MECHANICAL BONDING, STAINLESS STEEL CONNECTORS ARE REQUIRED AT EACH CONNECTING POINT USING LOCK WASHERS.
  - 9) CONTRACTOR RESPONSIBLE FOR SEEING THAT UTILITY PERSONNEL MAKE FINAL CONNECTIONS, MAKING SURE THE TOWER ALARM IS CONNECTED AND WORKING. A TELEPHONE NUMBER FOR THE ALARM MUST BE SUPPLIED.
  - 10) CONTRACTOR RESPONSIBLE FOR MEG TESTING THE SITE AND SUPPLYING OWNER WITH FINAL READINGS IN OWNERS SPECIFICATIONS.

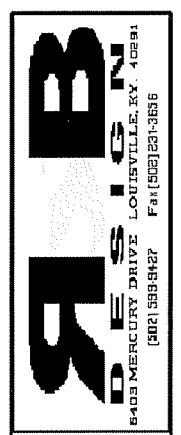
**NOTE:**  
CONTRACTOR TO PROVIDE WARNING TAPE IN TRENCHES FOR ALL POWER AND TELCO RUNS UNDER GROUND. TAPE TO BE INSTALLED AT 9" BELOW GRADE.

**NOTE:**  
CONTRACTOR TO FOLLOW LYNCOLES GROUNDING SPECIFICATIONS WHEN USING THEIR XIT GROUNDING RODS. SEE DETAIL SHEET E-4.

- KEYNOTES:**
- (L) LYNCOLE XIT GROUNDING ROD TO BE INSTALLED WHERE SHOWN AND TO MANUFACTURERS SPECIFICATIONS. (SEE LYNCOLE SPECIFICATIONS)
  - (1) GROUNDING RODS 10'-0" LONG x 3/4" COPPER BONDED GROUND RODS
  - (2) INSTALL AND PROVIDE SOLID BARE TINNED COPPER WIRE #2 AWG, GROUND RING BELOW GRADE 30". USE #2 AWG SOLID BARE TINNED COPPER GROUND "TAP" CONNECTING CONDUCTORS. (CONNECTIONS FOR ALL TAP CONDUCTORS TO BE PARALLEL AND "CAD WELD" CONNECTIONS)
  - (3) FLEXIBLE GROUNDING STRAP TO BE USED TO PROVIDE A COMMON BOND BETWEEN GATE AND CHAIN LINK FENCE, #2 AWG SOLID COPPER BARE TINNED CONDUCTOR FROM GROUND RING TO FENCE USING CAD WELD CONNECTIONS. GROUND TAP TO BE PROVIDED ON EACH 4 SIDES TO GROUND RING AS DESCRIBED ABOVE.
  - (4) BONDED GROUND TO BE PROVIDED TO GROUND RING FOR EACH OF THE FOLLOWING: BUILDING STEEL, HATCH PLATE, EMERGENCY RECEPTACLE, WAVE GUIDE STRUCTURE, FRAME WORK, BUILDING DISCONNECT.
  - (5) FOR TOWER FRAME GROUNDING, REMOVE GALVANIZED COATING COMPLETELY AT SPOT TO "CAD WELD" TO AND CLEAN. #2 AWG SOLID BARE TINNED COPPER CONDUCTOR TO BE CAD WELDED APPROXIMATELY 1'-0" ABOVE FOUNDATION OR AT FLANGE IF PROVIDED BY TOWER MANUFACTURER. EXTEND CONDUCTOR TO GROUND RING. RIGHT ANGLES NOT ACCEPTED ALL BENDS TO BE SWEEPING.

**SITE PLAN-GROUNDING**

SCALE: 3/32" = 1'-0"

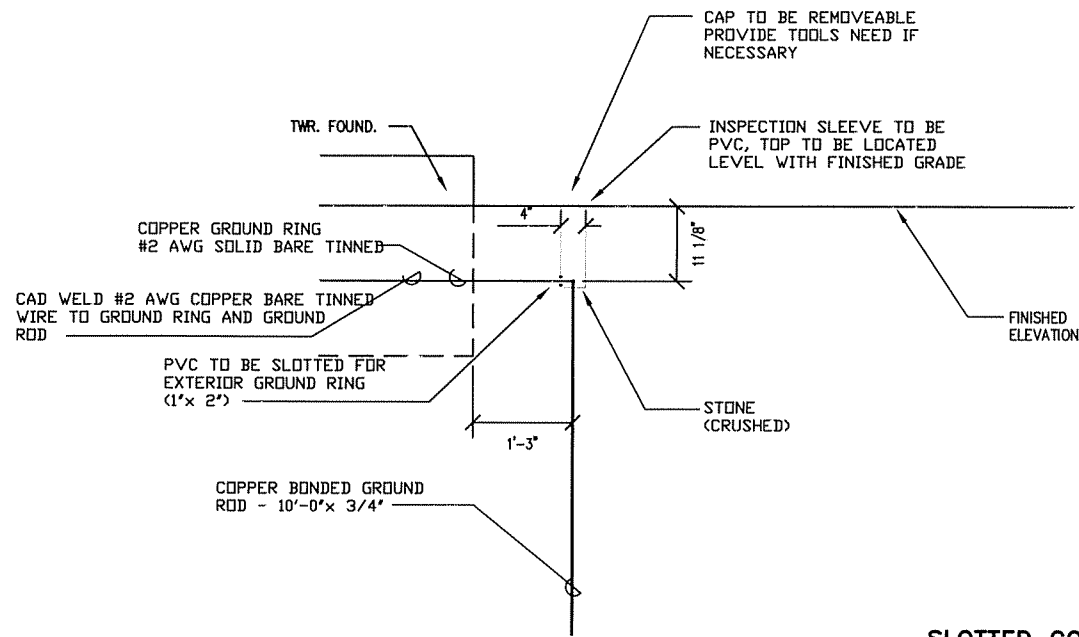


NO.	DATE	REVISION

**BLUEGRASS CELLULAR, INC.**  
**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

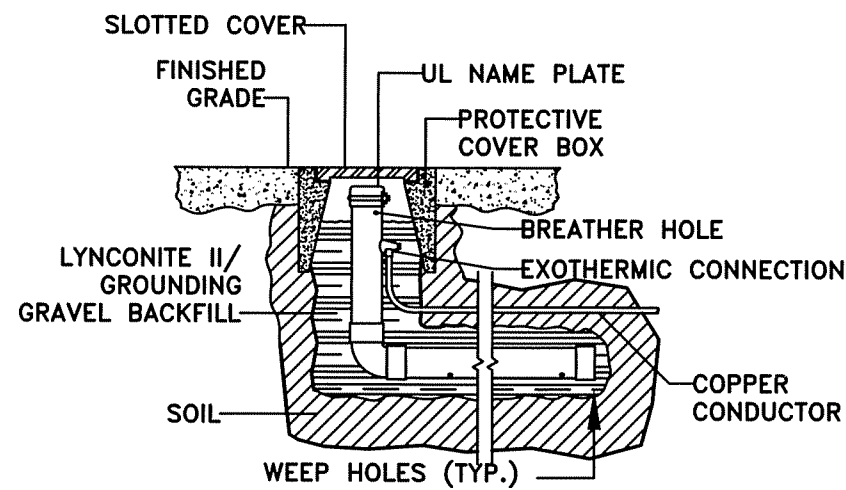
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ISSUE DATE: 8-05-08  
SCALE: LISTED

SHEET NUMBER  
**E-3**



**GROUND ROD DETAIL**

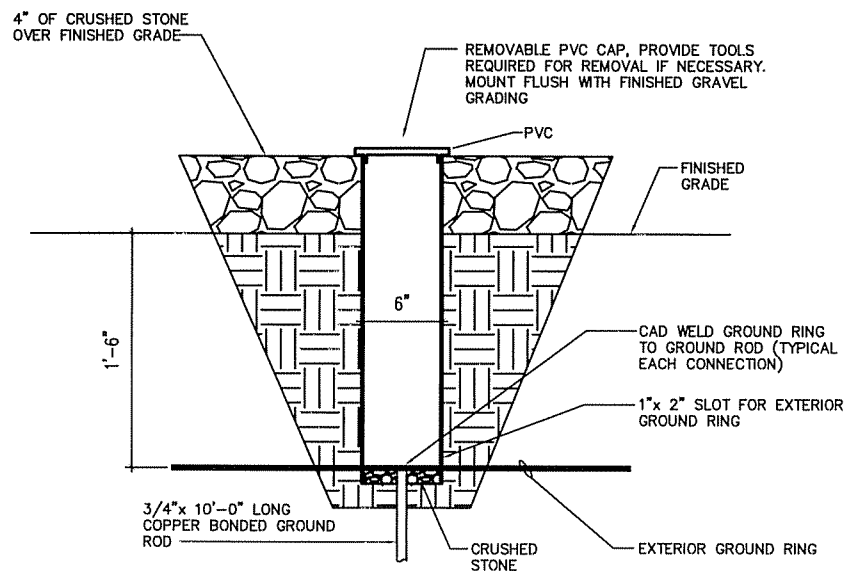
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L-SHAPE MODEL  
LYNCOLE XIT GROUNDING  
(800) 962-2610

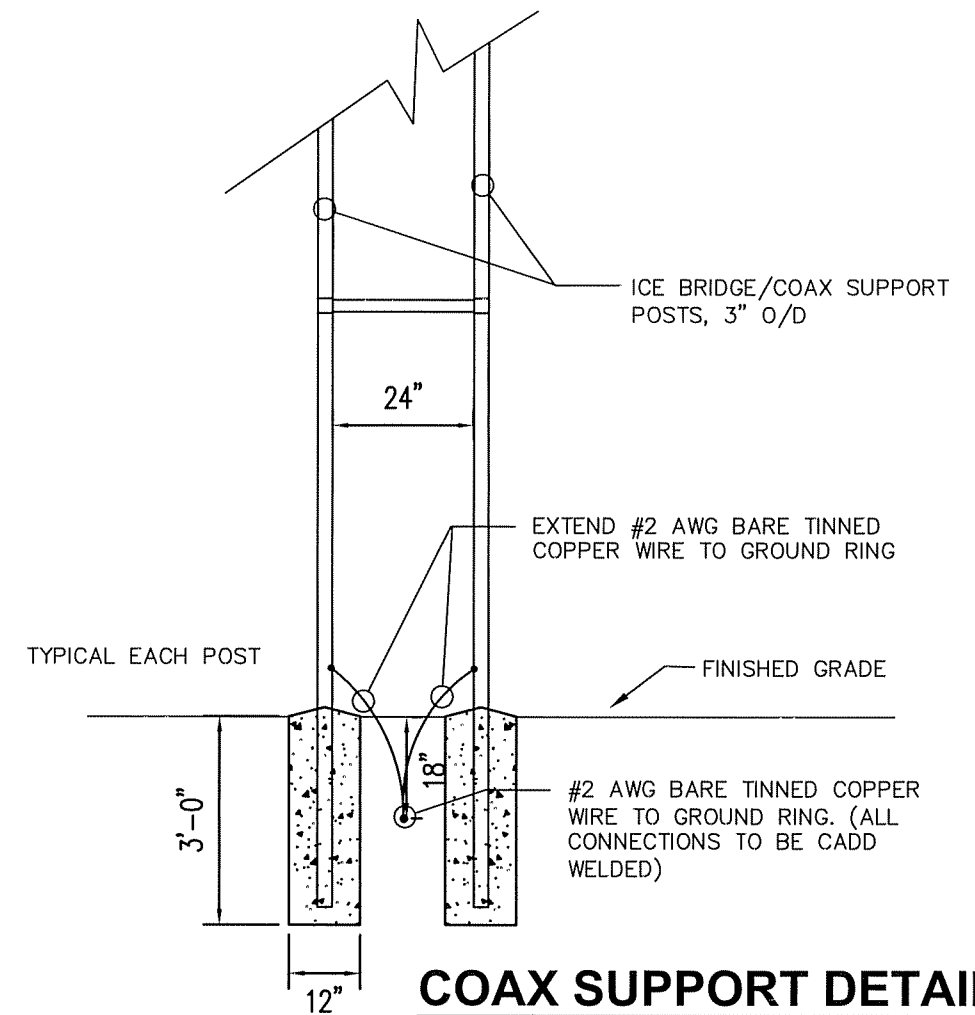
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NO SCALE



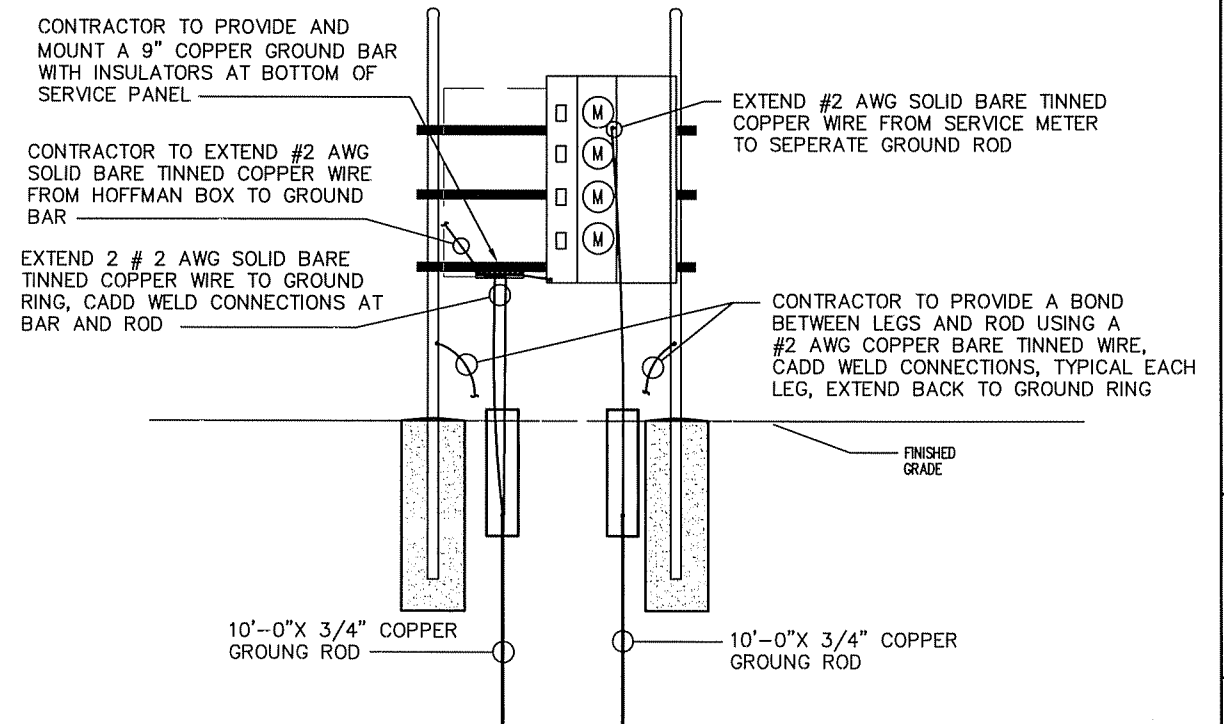
**GROUND SLEEVE DETAIL**

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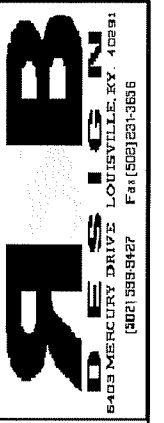
**COAX SUPPORT DETAIL**

NO SCALE



**SERVICE BOARD DETAIL**

NO SCALE

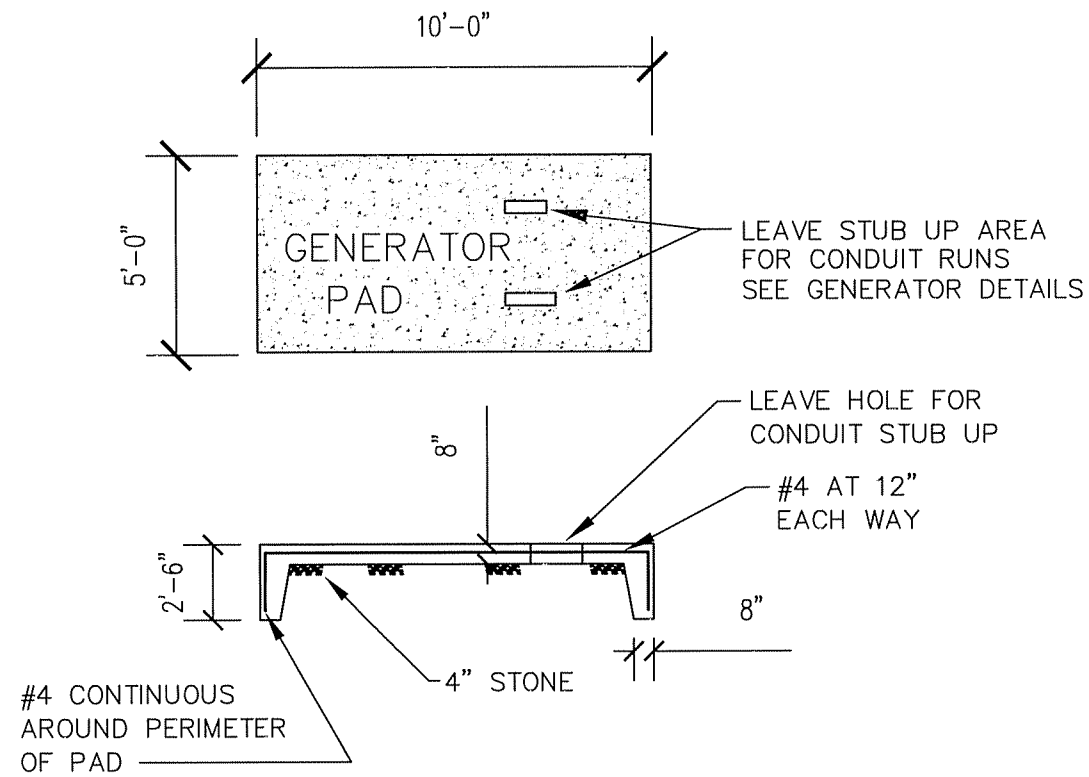


NO.	DATE	REVISION

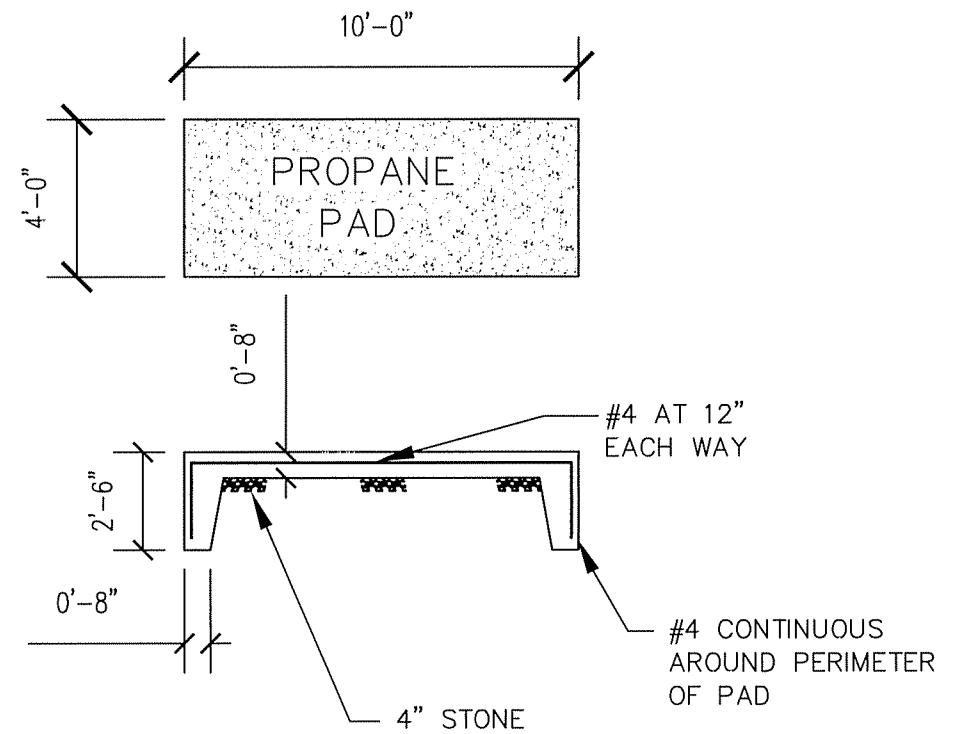
BLUEGRASS CELLULAR, INC.  
STANDARD CELLULAR SITE  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER  
ISSUE DATE: 8-05-08  
SCALE: LISTED

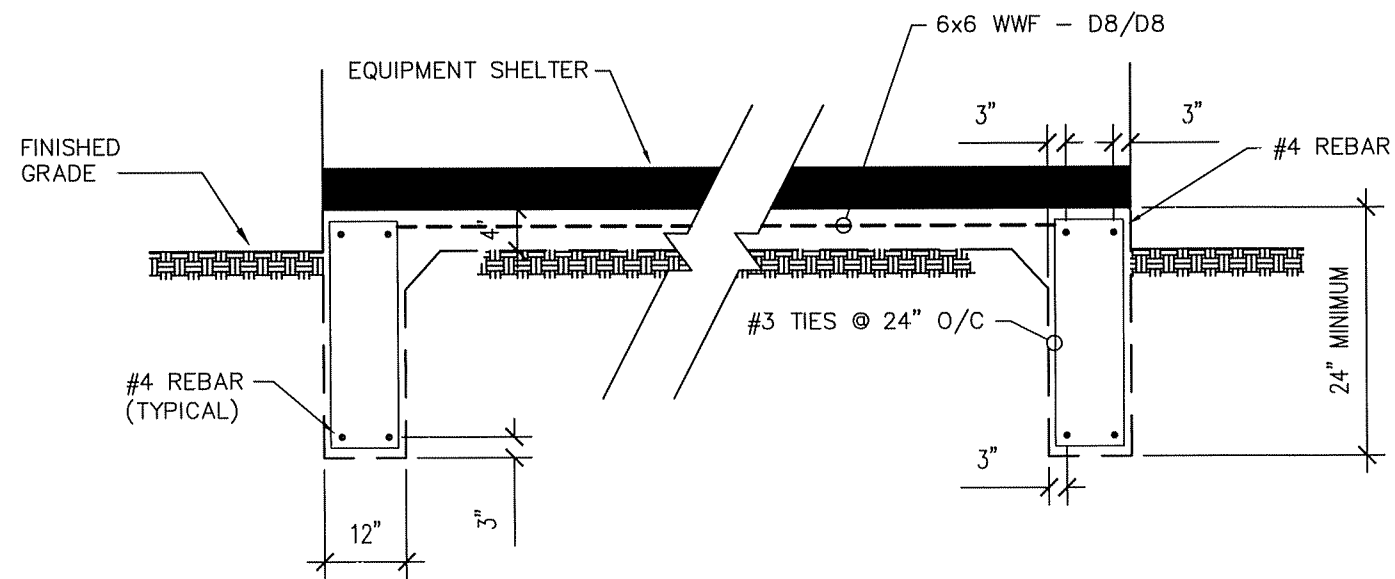
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E-4



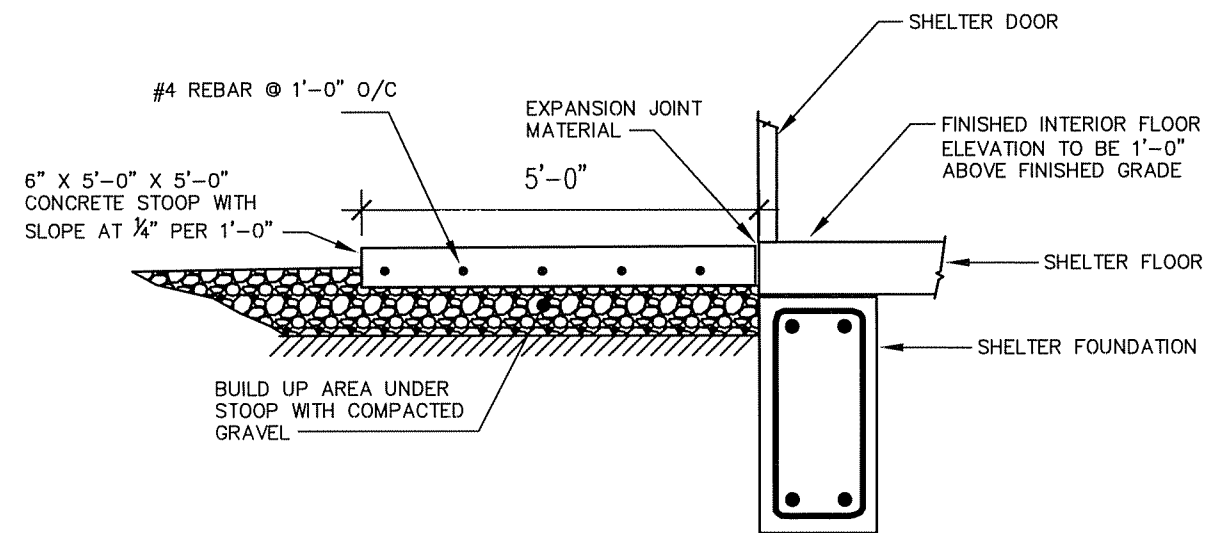
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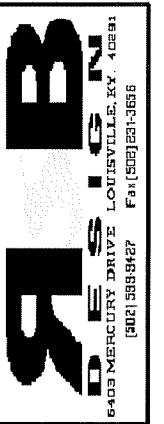
**FOUNDATION DETAIL**  
NO SCALE



**SHELTER FOUNDATION PLAN**  
NO SCALE



**CONCRETE STOOP DETAIL**  
NO SCALE



NO.	DATE	REVISION

BLUEGRASS CELLULAR, INC.  
STANDARD CELLULAR SITE  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER  
ISSUE DATE: 8-05-08  
SCALE: LISTED

SHEET NUMBER  
S-1

**GENERAL NOTES:**

- 1) THE CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT PICK UP DELIVERY TO SITE, ERECTION OF TOWER, AND CRANE SET, ALL COSTS INCURRED.
- 2) THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE PRIOR TO BIDDING AND REVIEWING EXISTING STRUCTURES OR UTILITIES THAT MIGHT BE LOCATED ON OR AROUND THE COMPOUND THAT COULD INTERFERE.
- 3) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING LOCAL AUTHORITIES NECESSARY FOR INSPECTIONS IF REQUIRED, PLEASE PROVIDE AMPLE NOTICE.
- 4) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING PERSONS RESPONSIBLE FOR ANY MATERIALS TESTING, PLEASE PROVIDE AMPLE NOTICE.
- 5) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH FINAL TEST RESULTS ON ALL MATERIALS TESTING. IF ANY PROBLEMS ARE FOUND PRIOR TO FINAL RESULTS PLEASE NOTIFY A&E OR OWNER IMMEDIATELY.
- 6) THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ADJOINING PROPERTY, AND REPAIRING OR REPLACING WHAT IS NECESSARY TO OWNERS APPROVAL.
- 7) THE CONTRACTOR IS TO VERIFY DIMENSIONS ON SITE PRIOR TO CONSTRUCTION STARTING, ANY PROBLEMS OR CHANGE FOUND CONTACT A&E OR OWNER TO VERIFY.
- 8) THE CONTRACTOR IS RESPONSIBLE FOR ANY TEMPORARY LIGHTING ON THE TOWER AND CONTACTING PROPER AUTHORITIES IF ANY LIGHTING PROBLEMS OCCUR, ALL FINAL LIGHTING TO BE MOUNTED ON TOWER DURING CONSTRUCTION, NOTIFY OWNER WHEN TOWER HAS REACHED FINAL HEIGHT.
- 9) THE CONTRACTOR IS RESPONSIBLE FOR ALL ON SITE WORK MEANS AND METHODS.
- 10) CONTRACTOR, ANY CONTRACTOR EMPLOYEES OR REPRESENTATIVES, OR SUB-CONTRACTOR, ANY SUB-CONTRACTOR EMPLOYEES OR REPRESENTATIVES, WILL CONFORM TO ALL LAWS AND REGULATIONS APPLICABLE TO THE WORK BEING PERFORMED, INCLUDING BUT NOT LIMITED TO, ALL OCCUPATIONAL SAFETY AND HEALTH ACT ("OSHA") STATUTES AND REGULATIONS AS WELL AS ALL OTHER FEDERAL, STATE AND/OR LOCAL LAWS OR REGULATIONS APPLICABLE TO THE WORK BEING PERFORMED BY CONTRACTOR.
- 11) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SITE DRAINAGE, AND PROVIDING SILT AND EROSION CONTROL NECESSARY TO MAINTAIN ANY RUN OFF.
- 12) THE CONTRACTOR IS RESPONSIBLE FOR ALL SEED AND STRAW WORK NECESSARY TO REPAIR DAMAGED AREAS.
- 13) CONTRACTOR TO GRADE SMOOTH OR REPAIR ANY POT HOLES OR DITCHING ON PROPERTY OR ROAD THAT HAS OCCURRED DURING CONSTRUCTION AT CONTRACTORS EXPENSE.
- 14) CONTRACTOR'S RESPONSIBILITIES REGARDING BUILD OUT ON FIBREBOND EQUIPMENT SHELTERS TO INCLUDE:
  - \* INSTALLING THE DOOR CANOPY
  - \* INSTALLING EXTERIOR LIGHT ON WALL DETERMINED BY PROJECT SUPERVISOR AND PHOTOCCELL REQUIREMENTS
  - \* INSTALLING INTRUDER ALARMS
  - \* CHECK OPERATIONS OF DOOR AND DOOR HARDWARE
  - \* ADJUST WEATHERSTRIPPING ON DOORS AS NEEDED
  - \* INSPECT ROOF FOR DAMAGE AND POSSIBLE LEAKS
  - \* INSPECT INTERIOR FINISH FOR IMPERFECTIONS AND REPAIR AS NEEDED
  - \* CHECK OPERATION OF LIGHTS AND ELECTRICAL OUTLETS
  - \* CHECK OPERATION OF INTAKE AND EXHAUST LOUVERS AND ADJUST AS NEEDED
  - \* CHECK OPERATION OF ENVIRONMENTAL CONTROLS AND HVAC UNITS
  - \* INSTALL AND PAINT SHELTER TIE-DOWNS TO MATCH
- 15) INSTALL CONCRETE PADS FOR BUILDING, PROPANE TANK, GENERATOR PAD.
- 16) INSTALL ELECTRIC AND GROUND FIELD FOR COMPOUND.

17) GC WILL BE RESPONSIBLE FOR ALL CRANE OPERATIONS IN ORDER TO SET FIBREBOND BUILDING. COORDINATE BUILDING DELIVERY DATE THROUGH BLUEGRASS CELLULAR.

18) GC WILL BE RESPONSIBLE FOR OFF LOADING AND STACKING OF TOWER WHEN APPLICABLE.

19) GC WILL BE RESPONSIBLE FOR MOUNTING ALL LINES AND ANTENNAS.

20) GC WILL BE RESPONSIBLE FOR SUPPLYING AND INSTALLING ICE BRIDGE.

21) GC WILL BE RESPONSIBLE FOR SCHEDULING PROPANE TANK DELIVERY AND HOOK-UP.

22) GC WILL BE RESPONSIBLE FOR COORDINATING THE CLEANING OF THE INSIDE OF THE BUILDING WITH THE PROJECT SUPERVISOR AFTER THE SITE HAS BEEN TURNED OVER TO THE OPERATIONS DEPARTMENT AND ALL TURN-UP PROCEDURES HAVE BEEN COMPLETED. THIS WILL INCLUDE SUPPLYING A 30 GALLON TRASHCAN, 30 GALLON TRASH BAGS, BROOM, DUST PAN AND DOORMAT FOR BUILDING.

23) GC TO VERIFY ALL BLUEGRASS CELLULAR EQUIPMENT DIMENSIONS & SPECIFICATIONS WITH MANUFACTURER'S DRAWINGS, (FIBREBOND, GENERAC, EASTPOINTE ETC.) PRIOR TO CONSTRUCTION. ADDRESS ANY ISSUES WITH PROJECT SUPERVISOR BEFORE WORK BEGINS.

24) ALL WAREHOUSE MATERIAL (LINES, ANTENNAS, MOUNTING HARDWARE, GENERATOR, TOWER FOUNDATION KIT, ETC.) WILL NEED TO BE PICKED UP BY GC.

25) GC WILL BE RESPONSIBLE FOR SCHEDULING GENERATOR START-UP WITH CONTACT SCOTT ANDERSON (EVAPAR) 502-267-6315

26) T1 CONDUIT WILL NEED TO BE PLACED FROM POLE TO BUILDING. (IF A MICROWAVE DISH IS USED, THE T1 CONDUIT WILL STILL BE INSTALLED FOR FUTURE USE.)

27) GC WILL BE RESPONSIBLE FOR INSTALLATION OF ALL FENCING.

28) ALL TRASH AND DEBRIS TO BE REMOVED BY GC

29) GC WILL BE RESPONSIBLE FOR APPLYING FOR ELECTRICAL SERVICE AND PAYING NECESSARY FEES REQUIRED.

30) GC WILL BE RESPONSIBLE FOR SUPPLYING & INSTALLING PROTECTIVE END CAPS ON ANY EXPOSED THREADED ROD OR UNISTRUT USED ON SITE. VERIFY TYPE WITH PROJECT SUPERVISOR PRIOR TO INSTALLATION.

31) GC WILL BE RESPONSIBLE FOR HAVING A CERTIFIED ELECTRICIAN HOOK UP THE BATTERIES (IMMEDIATELY) AFTER POWER HAS BEEN TURNED UP AT THE SITE, PREVENTING THE DELAY OF ANY WORK FOR OPERATIONS. THE GENERAL CONTRACTOR MUST NOTIFY THE PROJECT SUPERVISOR IMMEDIATELY AT THIS TIME SO HE CAN COORDINATE A CELL TECH TO BE ONSITE WHEN THIS OCCURS.

32) GC WILL BE RESPONSIBLE FOR RUNNING (CAT5) FROM THE GENERATOR ALARM PANEL MOUNTED ON THE SIDE OF THE TRANSFER SWITCH (BY THE CONTRACTOR), THROUGH THE TRANSFER SWITCH AND UP TO THE EXISTING CONDUIT BESIDE THE A/C POWER FAIL RELAY. THE (CAT5) WILL BE PULLED THROUGH EXISTING CONDUIT AROUND THE SHELTER AND EXTENDED TO THE ALARM BLOCK. THERE SHOULD BE A MINIMUM 3'-0" OF (CAT5) LEFT HANGING ON EACH END FOR THE CELL TECH TO HOOK UP THE GENERATOR ALARMS.

33) GC MUST SUBMIT A COPY OF THE BUILDING PERMIT AND CONSTRUCTION SCHEDULE TO THE PROJECT SUPERVISOR PRIOR TO RECEIVING (NTP) TO BEGIN CONSTRUCTION (NO EXCEPTIONS).

**GRADING & EXCAVATING NOTES:**

1) ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, ROADS AND PARKING AREAS TO BE REPAIRED OR REPLACED TO OWNERS SATISFACTION.

2) PREPARATION FOR FILL:  
REMOVAL OF ALL DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, TOPSOIL, VEGETATION, AND HARMFUL MATERIALS FROM SURFACE OF GROUND PRIOR TO PLOWING, STRIPPING, PLACING FILLS OR BREAKING UP OF SLOPED SURFACES GREATER THAN 1 VERTICAL TO 4 HORIZONTAL SO MATERIAL FOR FILL WILL BOND TO EXISTING SURFACE. WHEN AREA TO RECEIVE FILL HAS A DENSITY LESS THAN REQUIRED, BREAK UP GROUND SURFACE TO DEPTH REQUIRED, AERATE, MOISTURE - CONDITION, OR PULVERIZE SOIL AND RECOMPACT TO REQUIRED DENSITY.

3) BACK FILLING:  
- EXCAVATED AREA SHALL BE CLEARED FROM STONES OR CLODS OVER 2 1/2" MAXIMUM DIAMETER  
- SHALL BE PLACED IN LAYERS OF 6" AND COMPACTED TO A 95% STANDARD PROCTOR, USE A 90% PROCTOR IN GRASSED / LANDSCAPED AREAS WHERE REQUIRED.  
- SHALL BE APPROVED MATERIALS CONSISTING OF SANDY CLAY, GRAVEL AND SAND, SOFT SHALE, EARTH OR LOAM. CONSULT WITH OWNER PRIOR TO FILL BEING ADDED.

4) ALL MATERIAL FOR FILL TO BE APPROVED BY OWNER AND ALL COMPACTING TEST TO BE COMPLETED TO SPEC'S ALL COMPACTING RESULTS TO BE TURNED OVER TO OWNER.

5) AFTER COMPLETION OF BELOW GRADE EXCAVATING, AREA TO BE CLEANED AND CLEARED OF ANY UNSUITABLE MATERIALS, SUCH AS TRASH, DEBRIS, VEGETATION AND SO FORTH.

6) ANY EXCAVATING IN WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE OF ANY LOOSE MATERIAL AND EXCESS GROUND WATER.

7) IF SOUND SOIL IS NOT REACHED AT DESIGNATED EXCAVATION DEPTH, THE POOR SOIL IS TO BE EXCAVATED TO ITS FULL DEPTH AND EITHER REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION TO BE FILLED WITH THE SAME QUALITY CONCRETE SPECIFIED FOR THE FOUNDATION. PLEASE NOTIFY THE PROJECT SUPERVISOR AND THEY WILL HAVE A 3RD PARTY ENGINEERING FIRM CONTACT YOU WITH RECOMMENDATIONS.

8) MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATIONS TO BE USED IF EXCAVATION EXCEEDED THE OVERALL REQUIRED DEPTH. FOR STABILIZATION OF THE BOTTOM OF THE EXCAVATION, CRUSHED STONE MAY BE USED. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS. PLEASE NOTIFY THE PROJECT SUPERVISOR AND THEY WILL HAVE A 3RD PARTY ENGINEERING FIRM CONTACT YOU WITH RECOMMENDATIONS.

9) EXCAVATION TO COMPOUND TO INCLUDE WEED CONTROL MAT.









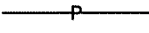
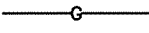
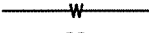
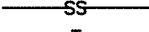
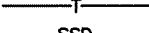


10) SITE TO HAVE PROPER DRAINAGE & EROSION CONTROL (CROWNED FORMATION)

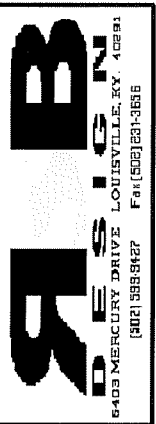
11) GC WILL BE RESPONSIBLE FOR REPAIR OF ALL AREAS DISTURBED DURING CONSTRUCTION. (EXCAVATING ISSUES)

**"BEFORE YOU DIG"**

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE UTILITY PROTECTION CENTER, PHONE 1-800-752-6007, WHICH WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. ALL NEW SERVICE AND GROUNDING TRENCHES PROVIDE A WARNING TAPE @ 12 INCHES BELOW GRADE.

**SYMBOLS LEGEND**

-  KEYNOTE
-  INSPEC. SLEEVE / GRND ROD
-  INSPECTION SLEEVE
-  CAD WELD CONNECTION
-  TRANSFORMER
-  LIGHTNING SUPPRESSOR
-  SWITCH (DISCONNECT)
-  METER PACK
-  POWER
-  GAS LINE
-  WATER LINE
-  SANITARY SEWER
-  TELEPHONE
-  STORM SEWER DRAIN
-  FENCE



NO.	DATE	REVISION

**BLUEGRASS CELLULAR, INC.**  
**STANDARD CELLULAR SITE**  
**SULPHUR WELL**  
9037 GREENSBURG RD. EDMONTON, KY. 42129

DRAWN BY: R. BECKER	ISSUE DATE: 8-05-08	SCALE: LISTED
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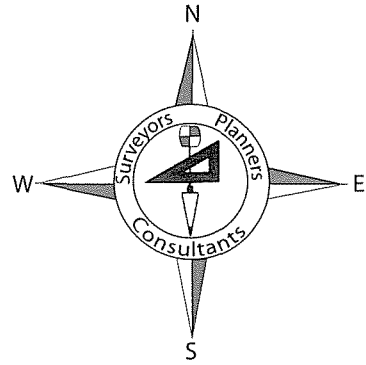
SHEET NUMBER  
**General Notes**

C

TO  
SCAN

# Landmark Surveying Co., Inc.

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



15 N.E. 3rd Street  
Washington, Indiana 47501  
Phone: 812-257-0950  
Fax: 812-257-0953  
Email: landmark97@sbcglobal.net

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

**Sulphur Well Site**  
**Metcalfe County, Kentucky**

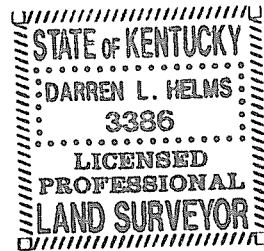
From the courthouse square in downtown Edmonton, Kentucky: travel north on U.S. Highway 68 and Kentucky Highway 80 for 0.5 miles to the junction of said highways; continue north on U.S. Highway 68 for 8.6 miles to a parking lot at a blue metal building on the west side of the road near the site; turn into the parking lot and follow the stone lane leading north approximately 450 feet to the proposed tower site in a pasture. The address of the site is 9037 Greensburg Road, Edmonton, Kentucky 42129.

*Darren L. Helms*

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

July 29, 2008

Date





Site Name: Sulphur Well

## **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 26 day of June, 2008, by and between J.T. Scroggy and his wife, Jean Scroggy whose address is 216 Tommy Scroggy Road, Sulphur Well, KY 42129 (the "Optionor (s)" and Cumberland Cellular Partnership, d/b/a Bluegrass Cellular, a Kentucky general partnership with principal office and place of business at 2902 Ring Road, Elizabethtown, KY 42701 (the "Optionee").

#### **WITNESSETH:**

**WHEREAS**, the Optionor(s) is the owner of certain real property located in Metcalfe 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.



Site Name: Sulphur Well

1. 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 12-25-09, (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.

Site Name: Sulphur Well

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

Site Name: Sulphur Well

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.

Site Name: Sulphur Well

14. For the purposes of giving notice as permitted or required herein, the address of the Optionor(s) shall be: **216 Tommy Scroggy Road, Sulphur Well, KY 42129**; the Optionee's address shall be: **2902 Ring Road, Elizabethtown, KY 42701**. Any inquiry by the Optionor to the Optionee regarding the terms and conditions of the Option Agreement or Lease Agreement, or otherwise related to the Option Agreement or Lease Agreement, shall be made in writing and submitted to the attention of the Optionee's Lease Administrator at the above address.
15. 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 Metcalfe 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 **six (6) 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

Site Name: Sulphur Well

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 **12%**.

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.

Site Name: Sulphur Well

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. Optionee'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.

Site Name: Sulphur Well

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.
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]

Site Name: Sulphur Well

**EXECUTION OF AGREEMENT(S)**

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

J.T. Scroggy  
Date: 6-16-08

Cumberland Cellular Partnership,  
d/b/a Bluegrass Cellular, a Kentucky general  
partnership

Jean B. Scroggy  
Date: 6-16-08  
("Optionor(s)")

Ron Smith  
Date: 6-25-08  
("Optionee")

By: J.T. Scroggy and Jean Scroggy  
Property Owner(s)

By: Ron Smith  
Authorized Representative

STATE OF Kentucky  
COUNTY OF Metcalf

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of June,  
2008, by John T. Scroggy to be his/her free act and deed.

[Signature]

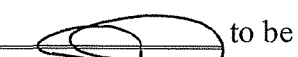
NOTARY PUBLIC STATE AT LARGE

My commission expires: 9-28-09



Site Name: Sulphur Well

STATE OF Kentucky  
COUNTY OF Metcalfe

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of June,  
2008, by Jean B. Scroggy  to be his/her free act and deed.

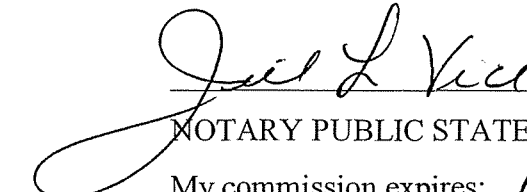
NOTARY PUBLIC STATE AT LARGE

My commission expires: 9-28-09

STATE OF KENTUCKY

COUNTY OF HARDIN

This instrument was acknowledged before me this 26 day of June,  
2008 by Ron Smith of Cumberland Cellular Partnership, d/b/a Bluegrass Cellular on behalf of the  
general partnership

  
NOTARY PUBLIC STATE AT LARGE

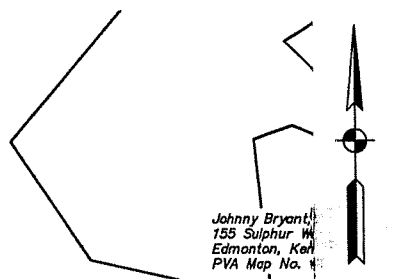
My commission expires: 1-21-09

This instrument prepared by:



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

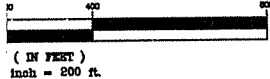




Johnny Bryant  
155 Sulphur W  
Edmonton, Ken  
PVA Map No.

North

GRAPHIC SCALE



Note

shown are approximate, and they are based on information on file in the office of the Surveyor of Metcalfe County, Kentucky.

AS SHOWN

Surveyor's Certification

The information shown is correct to the best of my knowledge and in accordance with the records found in the office of the Surveyor of Metcalfe County, Kentucky on July 9,

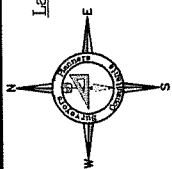
*Helms*

2008

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

I

Landmark Surveying Co., Inc.  
15 N.E. 3rd Street  
Washington, Indiana 47501  
(812) 257-0860  
Email: landmark@lmsurvey.com  
Project No. 08-04-0132



500-Foot Radius Map

9037 Greensburg Road

Edmonton, Kentucky 42129

Bluegrass Cellular

2902 Ring Road

Elizabethtown, Kentucky 42701

REVISIONS	DATE

DATE 7-29-08	DRAWN BY A. Winkler	CHECKED BY DL-Helms
-----------------	------------------------	------------------------

SHEET NO.  
1  
OF 1 SHEETS

FILE NO.  
sulphur-radius.dwg



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

**APPLICATION OF CUMBERLAND CELLULAR  
PARTNERSHIP FOR ISSUANCE OF A CERTIFICATE                      CASE NO. 2008-00316  
OF PUBLIC CONVENIENCE AND NECESSITY TO  
CONSTRUCT A CELL SITE (SULPHUR WELL) IN RURAL  
SERVICE AREA #5 (METCALFE) OF THE  
COMMONWEALTH OF KENTUCKY**

**AFFIDAVIT OF JOHN E. SELENT**

I, John E. Selent, being duly sworn, depose and state as follows:

1. My name is John E. Selent and I am a member of the Kentucky Bar Association.

I am legal counsel to Cumberland Cellular Partnership and am submitting this affidavit in conjunction with the above referenced matter.

2. In order to demonstrate compliance with 807 KAR 5:063 §1(1)(l) & (m), Exhibit 1 identifies, with the exception of the individuals identified in paragraph 4, the names of the resident/tenant and property owners within 500 feet of the proposed tower who have been: (i) notified by written notice of the proposed construction, sufficient postage prepaid, by United States Certified Mail, return receipt requested; (ii) given the Commission docket number under which the application will be processed; and (iii) informed of their right to request intervention.


3. Exhibit 2 is a copy of the United States Certified Mail return receipt that demonstrates proof of service of the written notice of the proposed construction upon: (1) J.T. and Jean Scroggy; (2) Chris and Angie Tucker; (3) Michael and Shane Coffey; (4) Jimmy and Joann Morgan; and (5) Ronnie and Heidi Young. (See Exhibit 1.)

4. Affiant attempted to serve written notice of the proposed construction upon Johnny Bryant Jr. and Frances Ziegler (see Exhibit 1) via United States Certified Mail pursuant to 807 KAR 5:063 §1(1)(l) & (m). Service of the written notice of the proposed construction to

Johnny Bryant Jr. and Frances Ziegler was attempted via United States Certified Mail and was returned marked "Not Deliverable as Address - Unable to Forward" (see attached Exhibit 3).

Therefore, another copy of the written notice of the proposed construction was therefore sent to Johnny Bryant Jr. and Frances Ziegler via United States First Class Mail. (See Exhibit 1.)

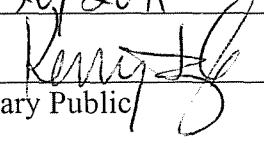
Further Affiant saith not.

  
\_\_\_\_\_  
John E. Selent  
)  
)SS:  
)

COMMONWEALTH OF KENTUCKY )  
COUNTY OF JEFFERSON )

SUBSCRIBED AND SWORN to before me this 30<sup>th</sup> day of September, 2008.

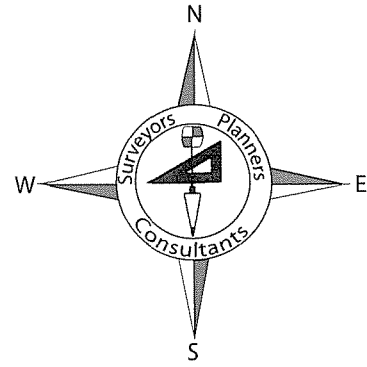
My commission expires: 11/20/2011

  
\_\_\_\_\_  
Notary Public



# Landmark Surveying Co., Inc.

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



15 N.E. 3rd Street  
Washington, Indiana 47501  
Phone: 812-257-0950  
Fax: 812-257-0953  
Email: landmark97@sbcglobal.net

## Landowner and Adjacent Landowner List

Bluegrass Cellular  
Sulphur Well Site  
Metcalfe County, Kentucky

J.T and Jean Scroggy  
216 Tommy Scroggy Road  
Sulphur Well, KY 42129

Johnny Bryant, Jr. and Frances Ziegler  
155 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

Chris and Angie Tucker  
8940 Greensburg Road  
Edmonton, KY 42129

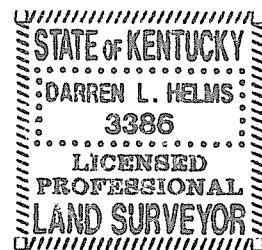
Jimmy F. and Joann Morgan  
256 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

Michael and Shane Coffey  
171 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

Ronnie and Heidi Young  
10 Sulphur Well-Knob Lick Road  
Sulphur Well, KY 42129

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

July 29, 2008  
Date







August 27, 2008

J.T. and Jean Scroggy  
216 Tommy Scroggy Road  
Sulphur Well, KY 42129

## Public Notice

Cumberland Cellular 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 operate a new cell facility to provide cellular telephone service. This facility will include a 240 foot tower to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. 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 2008-00316 in your correspondence.**

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at [www.myblueworks.com](http://www.myblueworks.com))

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"><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></ul>	A. Signature X <i>J. Scroggy</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee
1. Article Addressed to: <i>J.T. &amp; Jean Scroggy 216 Tommy Scroggy Road Sulphur Well, KY 42129</i>	B. Received by (Printed Name) <i>Jean Scroggy</i> C. Date of Delivery
	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
	3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes
2. Article Number (Transfer from service label)	7008 0500 0001 2154 7084

August 27, 2008

Chris and Angie Tucker  
8940 Greensburg Road  
Edmonton, KY 42129

## Public Notice

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1. Article Addressed to: <i>Chris &amp; Angie Tucker 8940 Greensburg Road Edmonton, KY 42129</i>	B. Received by (Printed Name) <i>Angie Tucker</i> C. Date of Delivery
2. Article Number (Transfer from service label) <i>7008 0500 0001 2154 7220</i>	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes

August 27, 2008

Michael and Shane Coffey  
171 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

## Public Notice

Cumberland Cellular 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 operate a new cell facility to provide cellular telephone service. This facility will include a 240 foot tower to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. 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 2008-00316 in your correspondence.**

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at [www.myblueworks.com](http://www.myblueworks.com))

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"><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></ul>	A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee x <i>Shane Coffey</i>
1. Article Addressed to: <i>Michael &amp; Shane Coffey 171 Sulphur Well-Knoblick Rd. Edmonton, KY 42129</i>	B. Received by (Printed Name) <i>Shane Coffey</i> C. Date of Delivery <i>9-4-08</i>
2. Article Number (Transfer from service label) <b>7008 0500 0001 2154 7237</b>	D. Is delivery address different from item 1? If YES, enter delivery address below: <input type="checkbox"/> Yes <input type="checkbox"/> No
	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes

August 27, 2008

Jimmy F. and Joann Morgan  
256 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

## Public Notice

Cumberland Cellular 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 operate a new cell facility to provide cellular telephone service. This facility will include a 240 foot tower to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. 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 2008-00316 in your correspondence.**

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at [www.myblueworks.com](http://www.myblueworks.com))

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> <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> </ul>	<p>A. Signature <input type="checkbox"/> Agent  <input checked="" type="checkbox"/> Addressee  <i>Jimmy F. Morgan</i></p> <p>B. Received by (Printed Name) <input type="checkbox"/> C. Date of Delivery  <i>Jimmy F. Morgan</i></p>
<p>1. Article Addressed to:</p> <p><i>Jimmy F. &amp; Joann Morgan</i>  <i>256 Sulphur Well-Knob Lick Road</i>  <i>Edmonton, KY 42129</i></p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes  <input checked="" type="checkbox"/> No          If YES, enter delivery address below:</p> <p>3. Service Type  <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail  <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise  <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p><i>7008 0500 0001 2154 7305</i></p>

August 27, 2008

Ronnie and Heidi Young  
10 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

## Public Notice

Cumberland Cellular 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 operate a new cell facility to provide cellular telephone service. This facility will include a 240 foot tower to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. 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 2008-00316 in your correspondence.**

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at [www.myblueworks.com](http://www.myblueworks.com))

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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1. Article Addressed to: <i>Ronnie &amp; Heidi Young 10 Sulphur Well-Knoblick Road Edmonton, KY 42129</i>	B. Received by (Printed Name) <i>Ronnie Young</i> C. Date of Delivery  D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
2. Article Number (Transfer from service label)	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. 4. Restricted Delivery? (Extra Fee) <input checked="" type="checkbox"/> Yes

7008 0500 0001 2154 7312



August 27, 2008

Johnny Bryant, Jr. and Frances Ziegler  
155 Sulphur Well-Knob Lick Road  
Edmonton, KY 42129

## **Public Notice**

Cumberland Cellular 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 operate a new cell facility to provide cellular telephone service. This facility will include a 240 foot tower to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. A map showing the location is attached.

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

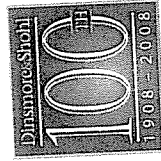
**Please refer to case number 2008-00316 in your correspondence.**

Bluegrass Cellular welcomes the opportunity to serve and provide wireless service in your community! (For more information, please check us out online at [www.myblueworks.com](http://www.myblueworks.com))



1400 PNC Plaza, 500 West Jefferson Street  
Louisville, KY 40202

**Dinsmore & Shohl** LLP  
ATTORNEYS



**CERTIFIED MAIL™**

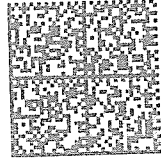


7008 0500 0001 2154 7244



*Handwritten:* JACB  
**NOT DELIVERABLE  
UNLESS ADDRESSED,  
OR RETURN TO FORWARD**

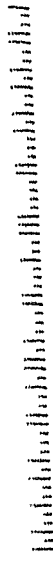
Johnny Bryant, Jr. and Frances Jiegler  
155 Sulphur Well-Knob Lick  
Edmonton, KY 42129



UNITED STATES POSTAGE  
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0004608059 AUG 27 2008  
MAILED FROM ZIP CODE 40202

UTF

4212986406 H0E4







Kerry W. Ingle  
502-540-23254  
kerry.ingle@dinslaw.com

August 27, 2008

Metcalfe County Judge Executive  
Courthouse  
100 East Stockton Street  
Edmonton, KY 42129

RE: Public Notice - Public Service Commission of Kentucky  
Case No. 2008-00316

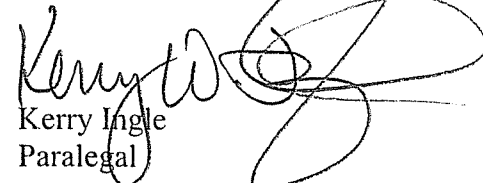
Cumberland Cellular Partnership ("Cumberland Cellular") is a Kentucky general partnership that markets its services as Bluegrass Cellular. Cumberland Cellular is applying to the Public Service Commission of Kentucky (the Commission") for a Certificate of Public Convenience and Necessity to propose construction and operation for a new facility to provide cellular radio telecommunications service in rural service area (RSA) #5 in Metcalfe County. The facility will include a 240 ft. tower and an equipment shelter to be located at 9037 Greensburg Road, Metcalfe County, Edmonton, Kentucky, 42129. 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 2008-00316 in your correspondence.

Very truly yours,

DINSMORE & SHOHL LLP

  
Kerry Ingle  
Paralegal

enclosure

kwi

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Metcalf County Judge  
Executive  
Courthouse  
100 East Stockton St.  
Edmonton, KY 42129

2. Article Number

(Transfer from service label)

7008 0500 0001 2154 7039

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

x *L. Boston*

Agent

Addressee

B. Received by (Printed Name)

Lorrie Boston

C. Date of Delivery

8-29-08

D. Is delivery address different from item 1?  Yes

If YES, enter delivery address below:  No

3. Service Type

Certified Mail

Express Mail

Registered

Return Receipt for Merchandise

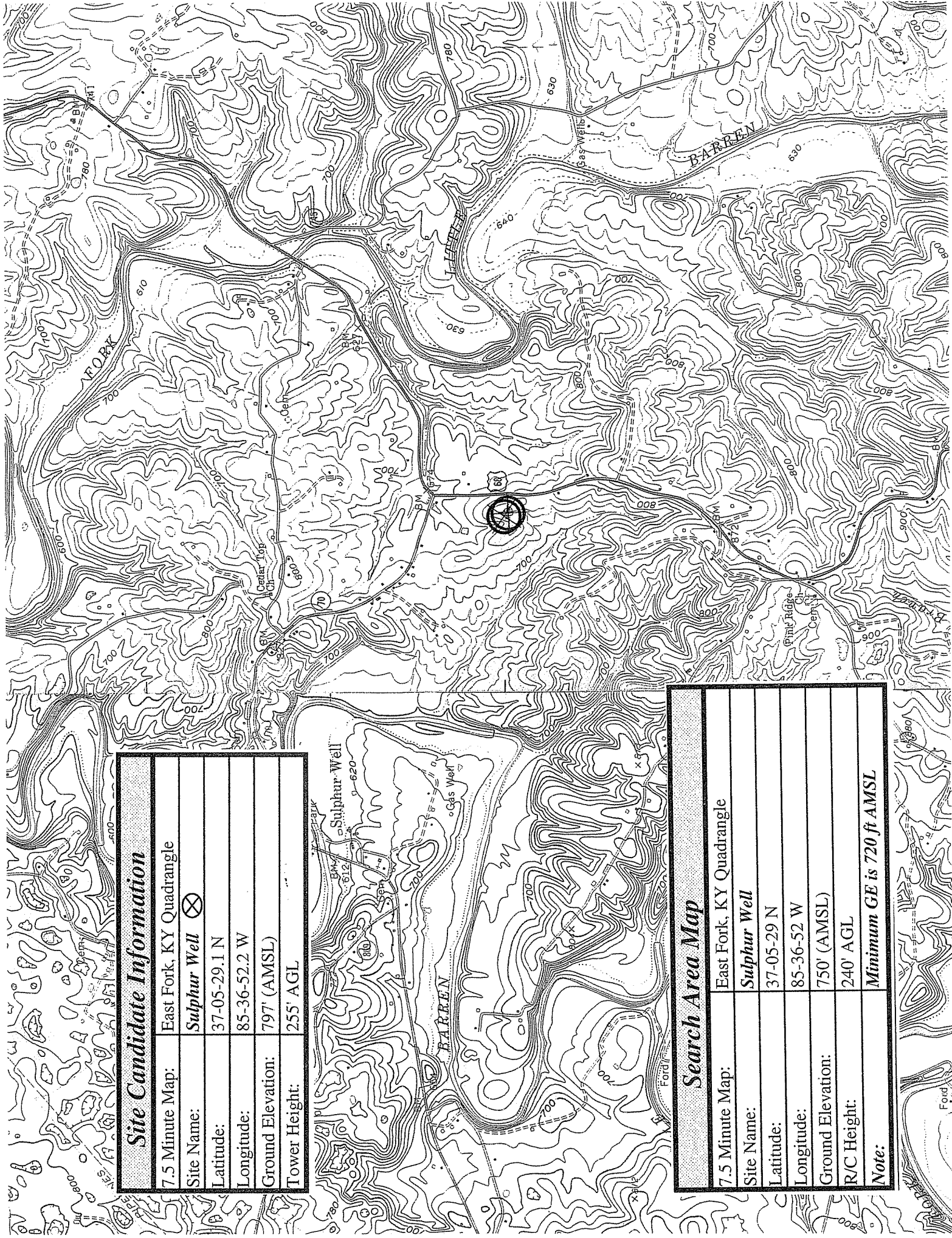
Insured Mail

C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes









<b>Site Candidate Information</b>	
7.5 Minute Map:	East Fork, KY Quadrangle
Site Name:	<b>Sulphur Well</b> ⊗
Latitude:	37-05-29.1 N
Longitude:	85-36-52.2 W
Ground Elevation:	797' (AMSL)
Tower Height:	255' AGL

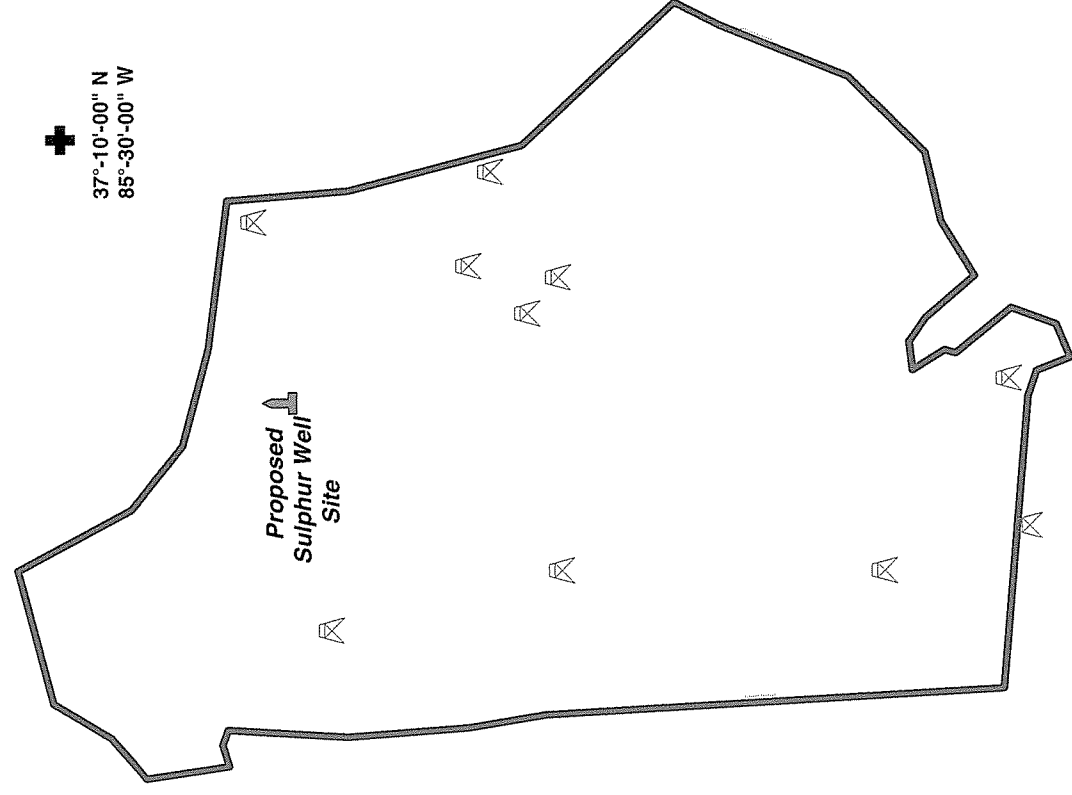
<b>Search Area Map</b>	
7.5 Minute Map:	East Fork, KY Quadrangle
Site Name:	<b>Sulphur Well</b>
Latitude:	37-05-29 N
Longitude:	85-36-52 W
Ground Elevation:	750' (AMSL)
R/C Height:	240' AGL
Note:	<b>Minimum GE is 720 ft AMSL</b>





	Metcalfe County Boundary
	Wireless Tower Locations Registered with the FCC
	Proposed Tower location
	Tick Marks

*Prepared By: LNGS Engineering 9/3/2008*





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

FCC Tower Reg. No.	North Latitude	West Longitude	City, State	Tower Owner
1041300	36-49-56.2	85-40-7.8	Tompkinsville, KY	Texas Eastern Communications, Inc.
1007823	37-0-20	85-34-34	Edmonton, KY	Global Tower, LLC
1043059	36-59-41	85-33-38	Edmonton, KY	Cumberland Cellular Partnership
1044821	37-6-0	85-32-10	Columbia, KY	Kentucky Emergency Warning System
1048812	37-1-32	85-33-20	Edmonton, KY	Hart County Communications, Inc
1214425	36-52-56	85-41-16.8	Summer Shade, KY	Tennessee Valley Authority
1252327	36-59-37.7	85-41-15.5	Edmonton, KY	Shared Sites, LLC
1252869	37-1-4.3	85-30-53.1	Edmonton, KY	Shared Sites, LLC
1260710	37-4-25	85-42-47.2	Knob Lick, KY	Cumberland Cellular Partnership
1261655	36-50-21.2	85-36-18.3	Tompkinsville, KY	Cumberland Cellular Partnership

**PUBLIC NOTICE**

Competition Cabinet Partnership  
Proposed to  
Construct a 1000  
Foot Tower

**TOWER**

on this site. If you have any  
questions please contact

Competition Cabinet Partnership  
1000 Foot Tower  
1000 Foot Tower  
1000 Foot Tower  
1000 Foot Tower

Please refer to P.S.C.  
Case #2008-00316  
in your correspondence



# **PUBLIC NOTICE**

Cumberland Cellular Partnership  
proposes to  
construct a cellular  
communications

# **TOWER**

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

<b>Commercial Contact:</b>	<b>Executive Director:</b>
<b>Partnership</b>	<b>Task Force Services Commission</b>
P.O. Box 5872	211 Swaner Boulevard
20032 Ring Road	P.O. Box 615
Franklinville, NY 12001	Franklinville, NY 12002

Please refer to P.S.C.

**Case #2008-00316**  
in your correspondence.





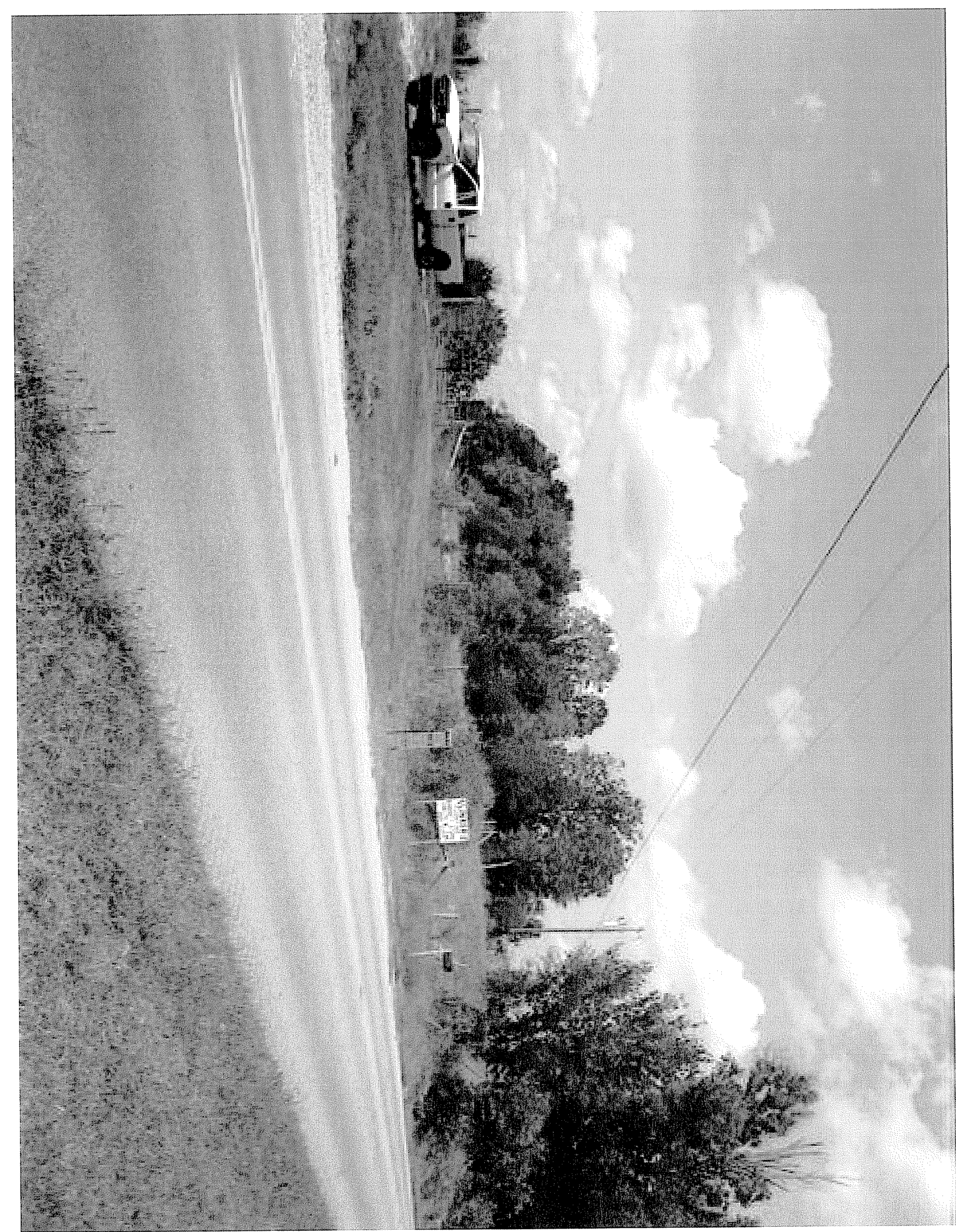




















AFFIDAVIT

This is to certify that the 10 & 17 day of September  
2008 an ad for Dunsmuir & Shohl  
LLP

was published in the regular edition of the Edmonton Herald  
News, a newspaper published for general  
circulation in the City of Edmonton, Metcalfe  
County and adjoining counties.

Pam Wright

COMMONWEALTH OF KENTUCKY

County of Hart

The foregoing was subscribed and sworn to before me by  
Pam Wright on this 26 day of September  
2008 in 2008.

Lesia Logsdon  
Notary Public, Kentucky, State-At-Large  
My commission expires: 02-09-11

BEFORE 3:00 PM, ON OCTOBER 3, 2008

Community Action of Southern Kentucky

1303 West Stockton St

Edmonton, Ky 42129

FOR THE CRISIS PHASE OF THE ENERGY ASSISTANCE PROGRAM, A PUBLIC BID OPENING WILL BE HELD AT COMMUNITY ACTION OF SOUTHERN KENTUCKY, INC ADMINISTRATIVE OFFICE LOCATED AT 921 BEAUTY AVENUE IN BOWLING GREEN, KY., AT 10:00 AM ON OCTOBER 13, 2008

BOTH PHASES OF THE ENERGY ASSISTANCE PROGRAM ARE FEDERALLY FUNDED PROGRAMS. OPERATION OF BOTH PHASES IS CONTINGENT UPON FEDERAL APPROPRIATION, WHICH IS NOW PENDING.

"Equal Opportunity Employer"  
M/F/D/V

## NOTICE

Cumberland Cellular Partnership is applying to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide cellular radio telecommunications service in rural service area #5 of the Commonwealth of Kentucky (Sulphur Well Cell Site). The facility is a 240 foot tower and an equipment shelter to be located at 9037 Greensburg Road, Metcalfe County, Edmonton Kentucky, 42129. Your comments and requests for intervention should be addressed to: Executive Director's Office, Public Service Commission, Post Office Box 615, 211 Sower Boulevard, Frankfort, Kentucky 40602. Please refer to Case No. 2008-00316 in your correspondence.

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## Clerical Support Clerk

(Monroe Co) - Part-time position. Provides clerical and administrative support to the SPF SIG Project Coordinator and Alliance Members. Duties include, but are not limited to, receptionist activities, planning and arranging conferences and special events, drafting non-routine correspondence and memos, and assisting and directing visitors. Qualified applicants must be proficient with computers and have great communication skills. Position requires a high school diploma or equivalent. Previous experience in an office setting preferred.

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[www.lifeskills.com](http://www.lifeskills.com) or call 270-901-5000 x1279

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**1 PAPER \$700** up to 15 words and 20 cents for each word thereafter  
**2 PAPERS \$1100** up to 15 words and 20 cents for each word thereafter  
**4 PAPERS \$485** up to 15 words and 20 cents for each word thereafter  
**3 PAPERS \$455** up to 15 words and 20 cents for each word thereafter  
**9 PAPERS \$2700** up to 15 words and 20 cents for each word thereafter

**Services**

**SLINKERS FURNITURE & VARIETY**  
Hwy. 70 between Sulphur Well and Knob Lick. We buy, sell, and trade furniture and misc. We also take clean furniture consignments. Drive a little and save a lot! Monday through Saturday, 8 a.m. - 5 p.m. Closed on Sundays. Call 270-565-2223 tfn

**CENTRAL AIR SYSTEMS, INC.** - Heating and Air Conditioning, 6304 Edmonton Road, Glasgow. Installation sales and service group. Couple gas of electric heat pump. FREE ESTIMATES! Call 678-3333 day or night. RONNIE HISER, owner. TPN

**FOR SALE**

**CUSTOMBUILT VINYL**  
Windows for older homes Double Hung Sliders, Bay Windows, Vinyl Siding & Custom Doors. We install Free estimates. Cumberland Vinyl, Burkesville, KY 270-433-7755 or 270-459-0806. TPN



**STOCKTON APARTMENTS**  
Rental Assistance Available  
Security Deposit \$150.00  
Call or stop by our office located at 302 Rogers St. Edmonton  
**Monday & Wednesday**  
8:00 AM - 1:30 PM  
Call 432-3455  
2:00 PM - 7:00 PM  
Call 432-4742  
**Tuesday & Thursday**  
Call 270-487-9116  
Income Restrictions Apply

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United Propane Gas  
SALES AND DRIVER  
INSTALLER  
Mammoth Propane Gas in Glasgow has an opening for a local propane gas delivery salesman truck driver and tank installer. Must have CDL-HazMat Tanker, best job with excellent pay and benefits. Please call (270) 651-5261 or 1-800-874-4427 ext. 140 or email us at: info@upgas.com

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312 Munde Court, Edmonton  
Mon. & Wed. 432-3455 or 432-4742  
Other days 270-487-9116

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**HELP WANTED**

**Li**

**2ND FLOOR**

