



**KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION  
USE ON REVIEW REPORT**

▶ **FILE #:** 12-J-07-UR

**AGENDA ITEM #:** 119

**AGENDA DATE:** 12/13/2007

▶ **APPLICANT:** CROWNE CASTLE USA C/O SCOTT B. SMITH

**OWNER(S):** BELLSOUTH PERSONNAL COMMUNICATIONS, INC.

**TAX ID NUMBER:** 84 011.01

**JURISDICTION:** County Commission District 8

▶ **LOCATION:** Terminus of Hayeswood Rd., southwest of Pine Grove Rd.

▶ **APPX. SIZE OF TRACT:** 0.129 acres

**SECTOR PLAN:** East County

**GROWTH POLICY PLAN:** Urban Growth Area

**ACCESSIBILITY:** Access is via Hayeswood Rd., a local street with a 10' pavement width within a 50' right-of-way.

**UTILITIES:** Water Source: Knoxville Utilities Board

Sewer Source: Knoxville Utilities Board

**WATERSHED:** Swan Pond Creek

▶ **ZONING:** A (Agricultural)

▶ **EXISTING LAND USE:** Existing 160' monopole telecommunications tower

▶ **PROPOSED USE:** 190' monopole telecommunications tower

**HISTORY OF ZONING:** None noted

**SURROUNDING LAND USE AND ZONING:** North: Rural residential development / A (Agricultural)

South: Rural residential development / A (Agricultural)

East: Rural residential development / A (Agricultural)

West: Rural residential development / A (Agricultural)

**NEIGHBORHOOD CONTEXT:** This site is located in a rural residential area developed under A (Agricultural) zoning. There is an existing water tank located directly east of the tower site.

**STAFF RECOMMENDATION:**

▶ **APPROVE the request for a 190' monopole telecommunications tower in the A zoning district, subject to the following 6 conditions:**

1. Meeting all applicable requirements of the Knox County Zoning Ordinance.
2. Meeting all applicable requirements of the Knox County Department of Engineering & Public Works.
3. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
4. Removal of the existing fence and equipment pad that encroach onto the adjoining property within 60 days of the new tower becoming operational.
5. Removal of the existing 160' tower within 60 days of the new tower becoming operational.
6. At the time of the request for a building permit, posting a bond or other approved financial surety that would ensure the removal of the tower if it is abandoned.

With the conditions noted above, this request meets all criteria for a use-on-review in the A zoning district.

#### **COMMENTS:**

This is a request to replace an existing 160' telecommunications tower with a new 190' monopole telecommunications tower on a 5625 square foot lot. The tower site has access from the terminus of Hayeswood Rd. via an existing access easement. The subject property is zoned A (Agricultural).

The proposed new tower will be located approximately 250' from an existing residence to the south. The next closest residence is approximately 300' to the east. The Knox County Zoning Ordinance requires the tower to be located at least 209' (110% of the towers height) from any residence. The replacement tower exceeds that minimum standard. The survey submitted with the application shows an encroachment of the existing fenced enclosure and equipment pad onto the property that surrounds the site. The plan for the new tower shows that these encroachments will be removed with the new facility.

The tower is designed so it will collapse upon itself in case of a natural disaster or other failure. FAA does not require any lighting for the tower. The tower will support up to 4 telecommunication carrier antenna arrays. Cingular/AT&T Wireless will relocate from the existing tower to the new tower once it is completed. The existing tower will be removed when the new tower is operational.

The MPC's tower consultant, Mr. Larry E. Perry has reviewed the application and has concluded that the proposed tower does not meet the requirements of the Ordinance and spirit of the Facility Plan. Mr. Perry's report describes the proposal and highlights his findings (see attached report).

Mr. Perry's position that the need for the replacement tower has not been justified is tied to the Planning Commission's approval last month of the T-Mobile application for a 190' tower just to the west of this site. That tower is designed for up to 3 telecommunication carrier antenna arrays.

At the Planning Commission's November meeting a representative for the existing tower stated that they would not be in opposition to the T-Mobile tower as long as they would not oppose their plans to replace their existing tower. The T-Mobile representative stated that they would not object. It was also identified that the applicant and T-Mobile had been in discussions concerning the possibility of T-Mobile co-locating on this proposed replacement tower but decided that they could not wait for the owner of the existing tower to go through the process. The existing tower is structurally inadequate to allow for co-location. Following that discussion the Planning Commission approved the T-Mobile application allowing a second tower at this location.

While new telecommunication towers are considered as a use on review in the A (Agricultural) zoning district the applicant had been pursuing approval of a replacement tower with the Knox County Building Codes Department. Under Section 4.92.02 Development Standards, of the Knox County Zoning Ordinance there is an "exceptions" provision that states " A commercial telecommunications tower legally existing as of September 28, 1995 may be rebuilt on the same site without compliance with the height and setback requirements of this Section." When the Building Codes Department made a final determination that this exception would apply, they also made the determination that the replacement tower would be subject to the use-on-review process. That decision was made after the deadline for the November Planning Commission meeting, the meeting at which the T-Mobile application was considered. With their approval for the new tower, T-Mobile has no incentive for negotiating with the owner of the existing tower on co-locating on a replacement tower.

In his report, Mr. Perry had also stated that approving this application for a second new tower was not in keeping with the Facility Plan regarding separation of towers and creating a "tower farm" ("porcupine") appearance. If this was a second new tower, Staff would agree. However, it is a replacement tower and will not increase the number of approved towers for this site.

#### **EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE**

1. The proposed tower will have minimal impact on local services since all utilities are in place to serve this development.
2. Since the proposed tower will replace an existing tower there will be minimal impact to nearby residences.

#### **CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOXVILLE ZONING**

## ORDINANCE

1. With the recommended conditions, the proposed commercial telecommunications tower at this location meets the standards required in the A zoning district.
2. The proposed replace tower is consistent with the general standards for uses permitted on review (see comments above): The proposed development is consistent with the adopted plans and policies of the General Plan and Northeast County Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. Since this is a heavily wooded area and there is an existing telecommunication tower adjacent to the site, the use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

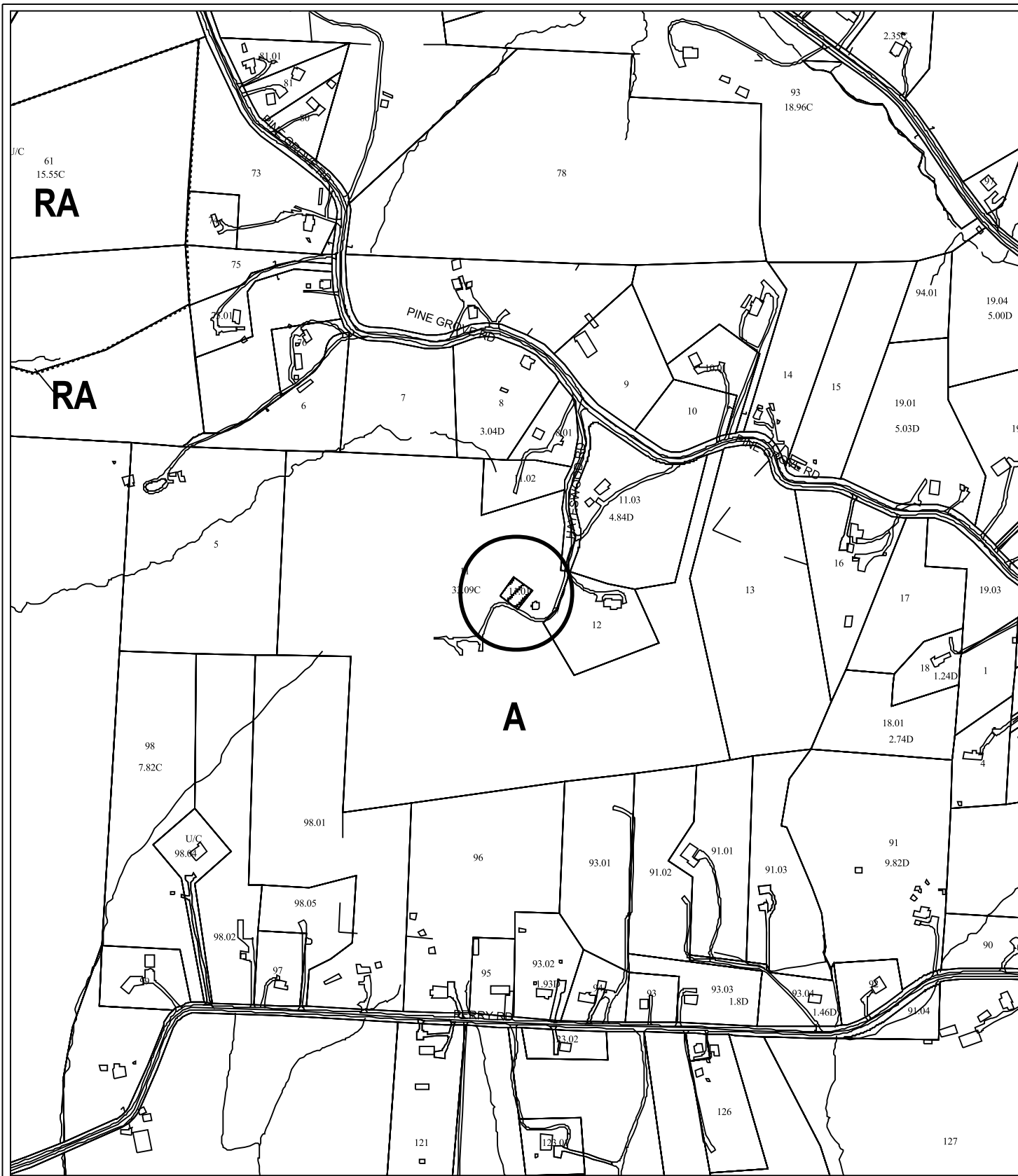
## CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1. The East County Sector Plan proposes low density residential uses and slope protection on this property. The proposed development is consistent with this land designation.
2. The Wireless Communications Facility Plan identifies the proposed 190' monopole as a "tall" monopole. Under the guidelines in the Tower Placement section of the Facility Plan, the proposed tower falls within both the "Opportunity Area" (rural/heavily wooded areas) and "Sensitive Area" (site is located within 500' of a residence) categories. The Plan takes a neutral position on tall monopoles located in "Opportunity Areas" While tall towers are discouraged in residential areas, the required setbacks reduce the impact to nearby residences. (see attached matrix). Since this tower is a replacement tower, it is not in conflict with the Plans separation policy.

ESTIMATED TRAFFIC IMPACT: Not calculated.

ESTIMATED STUDENT YIELD: Not applicable.

MPC's approval or denial of this request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal an MPC decision in the County.




**12-J-07-UR  
USE ON REVIEW**

Petitioner: Crowne Castle USA c/o  
Scott B. Smith

Map No: 84

Jurisdiction: County

 199' monopole telecommunications tower in A (Agricultural)

Original Print Date: 11/28/07    Revised:  
Metropolitan Planning Commission \* City / County Building \* Knoxville, TN 37902





**RUGGLES FERRY**  
**1425 HAYESWOOD RD**  
**KNOXVILLE, TN 37914**  
 SITE #813546

**ZONING DRAWING INDEX**

- 01 TITLE SHEET
- 1 OF 1 SURVEY
- 03 OVERALL SITE LAYOUT PLAN
- 04 DETAILED SITE LAYOUT PLAN
- 05 TOWER ELEVATION & FENCE DETAILS
- 06 GRADING PLAN
- 07 EROSION CONTROL DETAILS

**PROPERTY MANAGEMENT**

CROWN CASTLE USA, INC.  
 370 MAIN STREET STATION RD  
 SUITE 545  
 FRANKLIN, TN 37067  
 CONTACT: BRUCE MORTICUTT  
 (615) 771-4311

**PROPERTY OWNER**  
 BELL SOUTH PERSONAL COMMUNICATIONS, INC.  
 3333 40TH STREET  
 ATLANTA, GA 30326

**PROJECT ENGINEER**  
 EXCELL COMMUNICATIONS, INC.  
 6247 AMBER HILLS ROAD  
 BIRMINGHAM, AL 35173  
 CONTACT: MIKE WOODS  
 PHONE: (205) 958-0188

**SITE INFORMATION**

CROWN CASTLE SITE # 813546  
 CIRCULAR TOWER SITE # 232-088

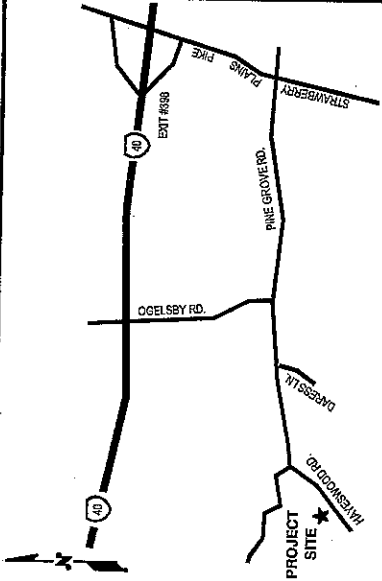
**NEAREST PHONE #:**  
 EXISTING TELEPHONE PEDESTAL # SR 817

**POWER COMPANY:**  
 KNOXVILLE UTILITIES BOARD  
 P.O. BOX 5047  
 KNOXVILLE, TN 37969-9017  
 CONTACT: CUSTOMER SERVICE  
 (603) 924-2811

**TELEPHONE COMPANY**  
 BELL SOUTH  
 CONTACT: CUSTOMER SERVICE  
 PHONE: (888) 624-6000

**POLICE DEPARTMENT**  
 KNOXVILLE POLICE DEPT.  
 (603) 254-4818

**FIRE DEPARTMENT**  
 KNOXVILLE FIRE DEPT.  
 (603) 958-4490



**APPLICABLE BUILDING CODES AND STANDARDS**

CONTRACTORS WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:  
 AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE  
 EDITION 2002  
 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222, REVISION CURRENTLY ENFORCED.  
 STRUCTURAL STANDARDS FOR STEEL TOWER AND ANTENNA SUPPORTING STRUCTURES:  
 TIA 807, COMMERCIAL BUILDING FOUNDINGS AND FOUNDING REQUIREMENTS FOR TELECOMMUNICATIONS  
 INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM  
 IEEE 1100 (1999), RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT  
 IEEE 682.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C" AND "HIGH SYSTEM EXPOSURE")  
 ANSI T-311, FOR TELECOM - DC POWER SYSTEMS - TELECOM ENVIRONMENTAL PROTECTION  
 FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL METHODS OF CONSTRUCTION OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN, WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

		APPROVALS CARRIER _____ LANDLORD _____ LEASING _____ CONSTRUCTION _____	
PROJECT NO.:	DRAWN BY:	CHECKED BY:	APPROVED BY:
MIDL	JUL	JUL	JUL
ISSUED FOR REVIEW DATE: _____ DESCRIPTION: _____			
PROFESSIONAL ENGINEER 			
(NOT VALID WITHOUT SIGNATURE & SEAL)			
		EXCELL COMMUNICATIONS, INC. 6247 AMBER HILLS ROAD BIRMINGHAM, ALABAMA 35173 PHONE: (205) 958-0188 FAX: (205) 958-2833	
RUGGLES FERRY SITE #813546		SITE ADDRESS 1425 HAYESWOOD RD. KNOXVILLE, TN 37914	
SHEET TITLE TITLE SHEET		SHEET NUMBER 01	

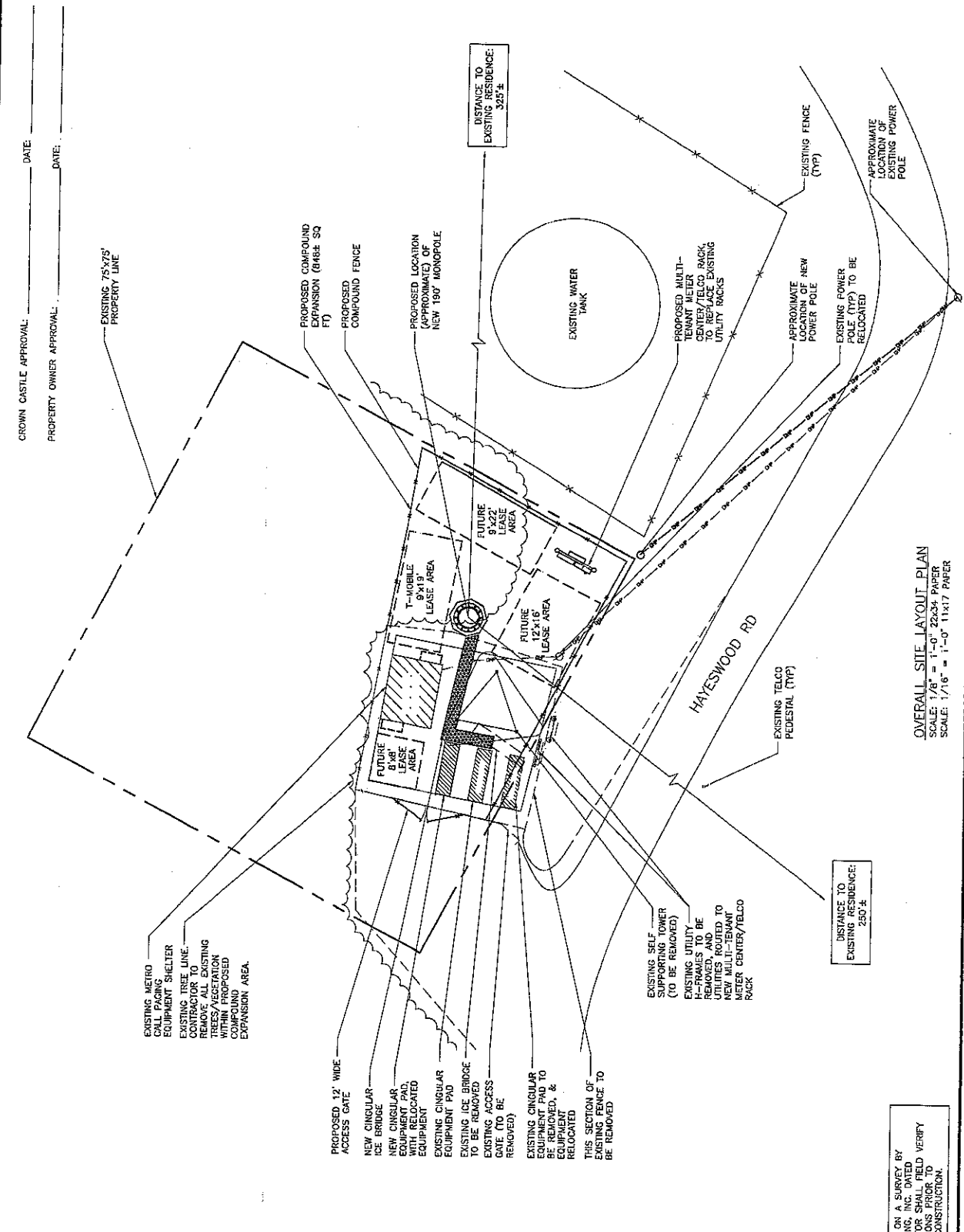
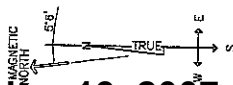
**PERMITTING**

KNOXVILLE - KNOX COUNTY, TN METROPOLITAN PLANNING COMMISSION  
 SUITE 403 CITY COUNTY BUILDING  
 400 MAIN STREET  
 KNOXVILLE, TN 37902  
 (603) 215-2500

**SITE COORDINATES**  
 12-J-07-UR  
 11/1/07

LAT: 35° 58' 46.4" N  
 LONG: 83° 48' 30.7" W





CROWN CASTLE APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROPERTY OWNER APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_

	APPROVALS	CARRIER _____
		LANDLORD _____
		LEASING _____
		CONSTRUCTION _____
PROJECT NO:	DRAWN BY:	MDL _____
CHECKED BY:	JAL _____	
APPROVED BY:	JRW _____	
ISSUED FOR REVIEW	DATE	DESCRIPTION
01/18/07		
PROFESSIONAL ENGINEER		
NOT VALID WITHOUT SIGNATURE & SEAL		
EXCELL COMMUNICATIONS, INC. 6247 AMBER HILLS ROAD BIRMINGHAM, AL 35243-1575 PHONE: 205.861.9138 FAX: 205.856.2832		
RUGGLES FERRY SITE #813546		
SITE ADDRESS 1425 HAYESWOOD RD. KNOXVILLE, TN 37914		
SHEET TITLE		
OVERALL SITE LAYOUT PLAN		
SHEET NUMBER		03

OVERALL SITE LAYOUT PLAN  
 SCALE: 1/8" = 1'-0" 22x34 PAPER  
 SCALE: 1/16" = 1'-0" 11x17 PAPER

DISTANCE TO EXISTING RESIDENCE: 250' ±

DISTANCE TO EXISTING RESIDENCE: 325' ±

THIS PLAN IS BASED ON A SURVEY BY SHANNON SURVEYING, INC. DATED 08/10/06. FOR FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.





APPROVALS

CARRIER \_\_\_\_\_

LANDLOD \_\_\_\_\_

LEASING \_\_\_\_\_

CONSTRUCTION \_\_\_\_\_

PROJECT NO: \_\_\_\_\_

DRAWN BY: MDL \_\_\_\_\_

CHECKED BY: JAL \_\_\_\_\_

APPROVED BY: JRB \_\_\_\_\_

ISSUED FOR REVIEW

REV. DATE DESCRIPTION

1 11/05/07

PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

EXCELL COMMUNICATIONS, INC.

6877 AMBER HILLS ROAD

BIRMINGHAM, AL 35218

PHONE: 205.866.1816

FAX: 205.866.2632

RUGGLES FERRY

SITE #818546

1425 HAYESWOOD RD.

KNOXVILLE, TN 37914

TOWER ELEVATION & FENCE DETAILS

SHEET NUMBER

05

**TOWER ELEVATION**

PROPOSED 190'-0" MONOPOLE

**TYPICAL ELEVATION**

**TYPICAL SECTION**

**WOVEN WIRE CORNER GATE, END OR PULL POST**

**TYPICAL ELEVATION**

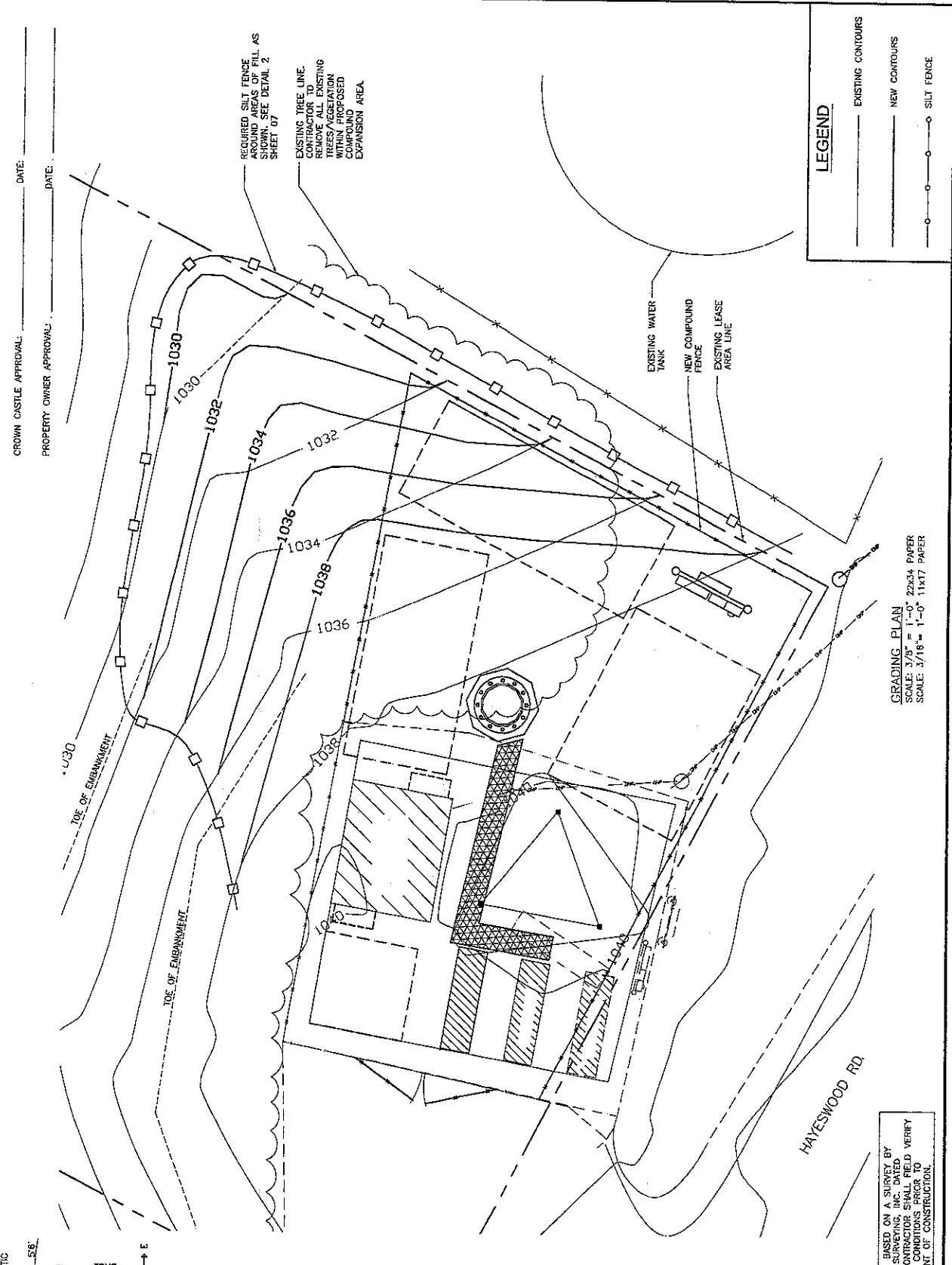
**WOVEN WIRE SWING GATE, DOUBLE**

**NOTES:**

(INSTALL FENCING PER ASTM F567, SWING GATES PER ASTM F800)

- GATE POST, CORNER, TERMINAL OR PULL POST SHALL BE 2 7/8" SCHEDULE 40 PIPE WITH RISER UP THROUGH 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM F1083.
- LINE POST: 2-3/8" SCHEDULE 40 PIPE PER ASTM F1083.
- GATE FRAME: 1 1/2" SCHEDULE 40 PIPE PER ASTM F1083.
- TOP RAIL & BRACE RAIL: 1 1/4" SCHEDULE 40 PIPE PER ASTM F1083.
- FABRIC: 9 GA. CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM A392 CLASS 1.
- TIE WIRE: MINIMUM 11 GA GALVANIZED STEEL INSTALL A SINGLE WRAP TIE WIRE AT POSTS AND RAILS AT MAX. 24" INTERVALS. INSTALL HOC RINGS ON TENSION WIRE AT 24" INTERVALS.
- TENSION WIRE: 7 GA. GALVANIZED STEEL.
- BARBED WIRE: 3 STRANDS OF DOUBLE STRANDED 12-1/2 GAUGE TWISTED WIRE, 4 PT. BARBS SPACED ON APPROXIMATELY 5" CENTERS.
- GATE LATCH: 1-3/8" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH AND LOCK (KEYED ALIKE FOR ALL SITES OR COMBINATION AS SPECIFIED BY LESSEE).
- LOCAL ORDINANCE FOR BARBED WIRE PERMIT SHALL GOVERN INSTALLATION.
- COMPOUND FENCE HEIGHT = 6" VERTICAL + 1' BARBED WIRE VERTICAL DIMENSION.
- ALL WORK SHALL CONFORM WITH THE PROJECT SPECIFICATIONS.

	APPROVALS	
	CARRIER	
	LANDLORD	
	LEASING	
	CONSTRUCTION	
PROJECT NO.:		
DRAWN BY:	M.D.L.	
CHECKED BY:	J.A.L.	
APPROVED BY:	J.W.V.	
REV	DATE	DESCRIPTION
0	11/02/07	ISSUED FOR REVIEW
PROFESSIONAL ENGINEER		
<small>NOT VALID WITHOUT SIGNATURE &amp; SEAL</small>		
EXCEL COMMUNICATIONS, INC. 1425 HAYESWOOD RD. BIRMINGHAM, ALABAMA 35213 PHONE: 205.566.0798 FAX: 205.962.2832		
<b>RUGGLES FERRY</b> SITE #819546		
8195460000 1425 HAYESWOOD RD. KNOXVILLE, TN 37914		
SHEET TITLE <b>GRADING PLAN</b>		SHEET NUMBER <b>06</b>



CROWN CASTLE APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROPERTY OWNER APPROVAL: \_\_\_\_\_ DATE: \_\_\_\_\_  
 REQUIRED SILT FENCE AROUND AREAS OF FILL AS SHOWN, SEE DETAIL 2 SHEET 07  
 EXISTING TREE LINE. REMOVE ALL EXISTING TREES/VEGETATION WITHIN PROPOSED COMPOUND EXPANSION AREA.  
 MAGNETIC NORTH  $\swarrow$  5.8'  $\searrow$  TRUE  $\uparrow$  S  $\downarrow$  E  $\leftarrow$  W

THIS PLAN IS BASED ON A SURVEY BY SHAWDALE SURVEYING, INC. DATED 09/14/07. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

**CROWN CASTLE USA**

**Telecommunications Tower Site Review**

**USE ON REVIEW APPLICATION # 12-J-07-UR**

**CONSULTANT'S SUMMARY**

**Ruggles Ferry Site**

**Knox County**

**Location:** Hayeswood Road near Pine Grove Road (East Knox County)

**Proposed Tower Height:** 195 foot Monopole

**Address:** 1425 Hayeswood Road  
Knoxville, Tennessee

**District:** # 8th County **Map Number:** 84 **Parcel** 011

**Use:** Telecommunications antenna support structure

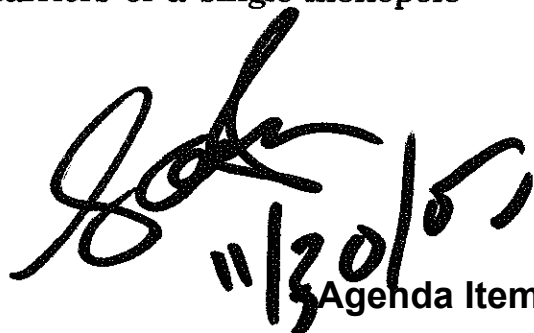
**Zoning:** A (Agricultural/Urban Growth)

**Variances and waivers:** None required

**Need:** The applicant is Crown Castle an independent owner and operator of share wireless structures, not a licensed carrier by the Federal Communications Commission, although there are licensed carriers using the present facility on the Crown Castle structure, but there is no showing that any need the additional space or space that is not available on the previously granted structure at this same location by T Mobile.

**Instant Proposal:** Construct a 195 foot monopole type support structure.

**Consultant's Recommendation:** The site and application does not meet the requirements of the Ordinance and the spirit of the Facilities Plan. The MPC previously granted T Mobile authority to erect an identical or very similar structure at this same location. Both are not needed. It is recommended that both parties work out a suitable arrangement between themselves for the erection an joint use with the other existing carriers of a single monopole structure at this location and not two!

Handwritten signature and date: 11/30/07

**REPORT TO  
METROPOLITAN PLANNING COMMISSION**

for

Proposed Telecommunications Tower Site  
Located at 1435 Hayeswood Road  
Knoxville, TN known as

**RUGGLES FERRY SITE #813546**

**CROWN CASTLE USA, INC.**

**UOR 12-J-07-UR**

**COMPLIANCE WITH**

**THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE**

11/28/2007

The proposed site for the applicant is a 195 foot monopole antenna support structure (including antennas and lightning rod) to be located just off Pine Grove Road at 1425 Hayeswood Road. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance As well as with the Knox County Wireless Communication Facilities Plan from 2002. This is an extension of an existing telecommunications site.

**REQUESTED**

1. **Location.** The location is within the **County** of Knox limits in **District 8** and is located on **Tax Map Number 84 Parcel 011**

2. **Zoning.** A (Agricultural/Urban Growth)

3. **Tower height.** The requested height is 195 feet above ground level will support up to 3 additional telecommunications carrier antennas for a total of 4 users. Lighting will not be required on this structure.

4. **Variances.** This is a preexisting site in which the support structure is requested to be increased from 160 feet to 195 feet. There are no additional variances required.

5. **Site.** This application is for the construction of a new monopole type antenna support structure to replace an existing 160 foot self supported tower.

**6. Use.** This antenna support structure will be used for telecommunications with the present state of the art communications technology using PCS and cellular communication sources. The applicant is Crown Castle USA, a non carrier independent provider that leases vertical space to the various PCS and Cellular carriers. There are 3 or 4 possible telecommunications users for the facility based on the design.

**7. Setbacks.** The setback requirements are that the facility must be 110% height of the tower from any dwelling unit or 209 feet in this case. The applicant meets that requirement. (Art. 4 Section 4.92.02(2)(a). The landowner's house is located within this area, but by signing an agreement with Crown Castle, he has waived the requirement. Also, I discussed this with the landowner on my site review and he acknowledged that he was aware of the requirement and had no objection to same.

**8. Height.** The proposed structure is for 195 feet. (Note: The request is for a 190 foot tower plus lightning rod or approximately 195 feet.)

## **EVALUATION**

The following is a list of items reviewed:

Zoning Ordinance for Knoxville Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru October 1, 2004)

Knox County Wireless Communications Facilities Plan dated 2002.

Check for other existing towers capable of supporting the load and elevation clearance requested by the applicant herein and within 1 mile radius of site.

Check for Antenna Support Structure stress analysis for co-location users' equipment support

Review support structure drawings and specifications with applicant

Review FAA lighting and marking requirements and proposals

Review FCC requirements regarding signal coverage, towers and lighting

Review applicant's justification for site in compliance with the FCC's requirements for telecommunication company providers compliance with required coverage for the use of the general public.

Review Site plan by applicant  
Check Zoning

Check setbacks for building and antenna support structure

Check for compliance with Wireless Communication Facility Plan

Check proximity to other structures and district boundaries

Check nature of surrounding land uses

Check surrounding foliage and tree coverage

Check design of tower for esthetic changes

Check height requirements necessary for coverage

Check separation from other towers

Check frequencies proposed for possible interference to TV and radio reception in the immediate vicinity of the structure.

## **DISCUSSION**

I visited the proposed tower site that is a part of this review and discussed the area with the applicant. I also met with Mr. McGrimsley, owner of the parcel of land.

I have a serious problem with this application. First, last month the MPC approved a request by T-Mobile in 11-M-07 UR for a 195 foot monopole structure exactly or very similar to the instant application to be located only about 30 feet from the instant applicant. Second, there is no need nor did the present applicant show a need for the additional height. The present applicant is a vertical space provider and not a carrier. The carriers on the applicant's current tower at the present have not presented any need for additional height for added coverage. Therefore, the applicant has not made a showing of need for the structure.

Ideally, T Mobile, who was granted the 195 foot monopole at the same basic location in last month's MPC meeting, would get together with Crown Castle and work out a sharing arrangement or some other arrangement such that only one 195 foot structure would be used for all the carriers at this location. It doesn't make any difference who the ultimate provider would be, but both should not be permitted at this location. If T Mobile's structure is completed, then Crown Castle could not additionally comply with the "no other structure within a reasonable radius" to accommodate additional users policy. To have two structures located side by side with only 1 carrier on 1 and 3 on the other, when either structure will support all of the carriers, is not in keeping with the policy of the MPC or the Facilities Plan. The purpose of the Plan and the MPC policy is to prevent a "Porcupine" effect at siting and aesthetic view of the area in the county. A grant of this application would run against both the policy and the plan.

## **DISCUSSION RE FACILITIES PLAN**

*The Facilities plan is a guideline adopted by the MPC in 2002 for the placement and appearance of wireless communications facilities. The following discussion is based on this application and how it relates to the Plan. The plan is an advisory plan and not a legal requirement.*

(1) **View Protection**--One structure (195 feet) coupled with no lighting requirements and located in a fairly isolated wooded area should present no problems as to view, however, two side by side structures would run against the intent of this facet of the Facilities Plan when they are not necessary.

(2) **Land Use Compatibility**---The proposed site is on a slightly wooded parcel of land immediately adjacent to a utility water tank on a ridge in East Knox county. The structure and associated building/facilities would be compatible with the local land use and the surrounding area is wooded. The site will be unmanned and will have no impact on noise, traffic or air pollution.

(3) **Design Compatibility**---The proposed landscaping and facility design would blend in with surrounding agricultural land usage and design. The new structure will be a monopole type structure which are the least obtrusive type antenna support structures, however, again two identical or very similar structures side by side when both are not needed would run against the intent of this compatibility issue.

(A) **Opportunity Areas**---This proposed site is in an area zoned Agricultural/Urban Growth and is wooded and meets the requirements of an opportunity area. One structure is unlikely to become a blighting influence on the surrounding area, however, two would obviously become a blighting influence.

(B) **Sensitive Areas**---This site is not in a sensitive area as it is isolated and surrounded by woods.

(C) **Avoidance Areas**---This location is not in an avoidance area.

## **SUMMARY**

(1) The proposed antenna support structure is a 195 foot monopole including antennas. There are no lighting requests for this structure nor are any required by the FAA.

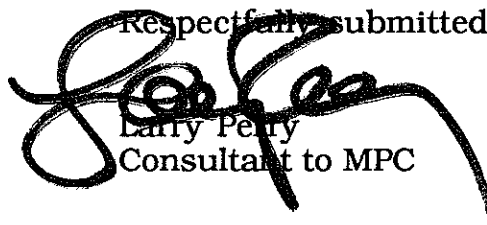
(2) A review of the structure stress analysis on the proposed structure and specifications support the use of the monopole by three or four other potential users in the future.

- (3) The structure design meets or exceeds FCC and EIA requirements.
- (4) The area surrounding the site is wooded and zoned Agricultural. There are no residences in the immediate area.
- (5) The proposed equipment housing facility is an outdoor cabinet and will have no impact on the aesthetics of the adjacent land uses. The landscape plan indicates that the fenced area is surrounded by wooded vegetation that is presently existing.
- (6) The requested facility will have an impact on the community from a practical and aesthetic view and is discouraged.
- (7) The just granted structure by T Mobile negates the need for this application and it is highly recommended that the two parties, T Mobile and Crown Castle resolve the one tower issue between themselves as it is in the best interest of the citizens of Knoxville/Knox County to permit only one 195 foot structure at this location to serve all of the carriers.
- (8) A variance to the Knox County Ordinance is not required.
- (9) There is no showing of a need for the structure in this area to provide any additional coverage from this structure that could not be provided by a single structure of the same height.

### **RECOMMENDATION**

In light of the analysis and review of documents, it is my professional opinion that the applicant does NOT meet all requirements of the Ordinance and the spirit of the Facilities Plan as discussed above and is not required for the various carriers on the present self supported tower to meet their coverage requirements for the County of Knox. I would recommend that the applicant work out an arrangement with T Mobile who has received a grant for a structure at this location for some joint use arrangement and that this application be DENIED.

Respectfully submitted,



Larry Perry  
Consultant to MPC





12-J-07-WR

November 5, 2007

Metropolitan Planning Commission  
Knoxville-Knox County, Tennessee  
400 Main Street, Suite 403  
City County Building  
Knoxville, Tennessee 37902

**SUBJECT:** Proposed Replacement of Existing 160' Self-Support Tower  
With a New 190' Monopole Tower  
1425 Hayeswood Road, Knoxville, TN  
(Map 084; Parcel 011.01) Ruggles Ferry Site #813546

Dear Commission Members:

I represent Crown Castle USA and on their behalf I hereby submit the attached application for a Use On Review hearing scheduled for the December 13<sup>th</sup>, 2007 Metropolitan Planning Commission meeting.

Crown Castle currently owns a 160' self-support tower located at 1425 Hayeswood Road in Knox County which has antennas owned by Cingular/AT&T Wireless located on it. This tower is not structurally capable of additional antenna loading and Crown Castle respectfully requests your consideration to replace this tower with a new 190' monopole tower capable of accommodating at least three (3) additional telecommunications providers.

The existing tower was constructed in the late 80's and as stated previously is no longer structurally capable of accommodating additional antenna loading. Under Article 4.92 - *Standards for Commercial Telecommunication Facilities*, Section 4.92.02 (6) [a] - *Exceptions*, "A commercial telecommunications tower legally existing as of September 28, 1995 may be rebuilt on the same site without compliance with the height and setback requirements of this Section".

The existing facility and proposed replacement monopole is located in a rural area of the county and on a heavily wooded parcel of land. The new monopole will be located approximately 15' northwest of the existing self-support tower, and minimal clearing of the existing vegetation will be necessary in order to expand the compound to the east. Expansion of the compound will enable Crown Castle to market this site to at least three (3) additional telecommunications providers. The remainder of the property is heavily wooded to the north and therefore continues to provide sufficient screening from neighboring parcels.

223 Highway 70 E, Suite 150-I, Garner, NC 27529  
919-771-1961 (0) 919-771-1962 (Fax)

Planning Commission Members  
Knox County MPC  
November 5, 2007  
Page two

We believe the replacement of the existing self-support tower will:

- Be compatible with the character of the neighborhood;
- Be consistent with the General Plan, the Land Use/Wireless Facilities Matrix, the One Year Plan, the East County Sector Plan and other adopted plans;
- Not significantly injure the value of adjacent properties;
- Not substantially increase the level of traffic into the neighborhood when the project is complete.

We are attaching the following items to this application:

- 10 sets of the development plans
- Forward Prediction Map of Wireless Coverage
- Collocation Letter from Crown Castle USA

We hereby submit our application based on the above referenced part of the Knox County Ordinance and assure the new tower will meet all local, state and federal requirements in its design, construction and operation.

Please feel free to contact me if you have questions or need additional information. I can be reached at (919) 771-1961.

Sincerely,



Scott B. Smith  
Director of Services, Carolinas Region  
Excell Communications, Inc.

Enclosures



November 5 2007

Crown Castle USA Inc  
South Area  
370 Mallory Station Road Suite 505  
Franklin TN 37067

Tel: 615 771 1240  
Fax: 615 771 1241  
www.crowncastle.com

Metropolitan Planning Commission  
Knoxville-Knox County Tennessee  
400 Main Street Suite 403  
City County Building  
Knoxville Tennessee 37902

SUBJECT: Letter of Commitment for Collocation  
Proposed Replacement of an Existing 160' Self-Support Tower  
With a New 190' Monopole Tower  
1425 Hayeswood Road, Knoxville, TN

Dear Commission Members:

Crown Castle International (CCI) is the leading independent owner and operator of shared wireless infrastructure. The core business of CCI's United States subsidiary Crown Castle USA involves the engineering, deployment, marketing, ownership, operation and leasing of shared wireless communications sites. The sharing of infrastructure among multiple services lies at the heart of Crown Castle's business philosophy. CCI's portfolio of wireless communication sites, including existing towers and rooftops, enables their customers to serve their markets more efficiently and with sensitivity to local planning and zoning jurisdictions. Crown Castle designs all their facilities for multiple collocation opportunities for their customers. CCI endeavors to assist communities in reducing the number of towers in a given jurisdiction by supplying their customers with locations that meet their coverage design and wireless performance needs. As one of the largest tower companies in the world, Crown has master lease agreements, negotiated at arms-length, with all major wireless carriers licensed throughout the United States.

This letter is to pledge to the MPC that if approval of the replacement of the existing 160' self support tower with a 190' monopole at 1425 Hayeswood Road in Knox County is granted, Crown Castle will make the new tower available to up to three (3) or more additional telecommunication providers for collocation, provided such facilities are structurally and technically capable of accommodating such providers.

If you require additional information or have questions, please do not hesitate to contact me at (615) 771-1565.

Sincerely,

A handwritten signature in black ink that reads 'Tom Scobie'.

Tom Scobie  
District Manager  
Crown Castle International

**EXHIBIT 7.  
LAND USE/WIRELESS FACILITIES MATRIX**

	Co-Location	Stealth Structure	Low Monopole Below 90'	Moderate Monopole 90'-150'	Tall Monopole 150'-199'	Lattice Tower	Guyed Tower
<b>Opportunity Areas</b>	Industrial/Business Park						
	Industrial Use						
	Pre-approved Government-owned Property						
	Urban Expressway Corridor						
	Rural/Heavily Wooded						
	Pasture						
	Central Business District						
	Office/Commercial Corridor						
	Shopping Center						

<b>Sensitive Areas</b>	Within 500' of a residence						
	Rural Residential						
	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)						
	Multi-family Residential						
	On Hill Below Ridgeline						

<b>Avoidance Areas</b>	Conservation Open Space						
	Scenic Highway						
	Public Park						
	Ridge Top/Ridge Line						
	Scenic Vista						
	Historic District/Site						
	Single-family Residential						
	Vacant Residential Lot						

 Encouraged
  Neutral
  Discouraged