

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

۲	FILE #: 5-F-11-UR	AGENDA ITEM # 35							
		AGENDA DATE: 5/12/2011							
۲	APPLICANT:	OPTIMA TOWERS IV, LLC KEITH POWELL							
	OWNER(S):	Robert Smith							
	TAX ID NUMBER:	100 010							
	JURISDICTION:	County Commission District 8							
►	LOCATION:	North side of Dave Smith Rd., east of Smith School Rd. along the Sevier County line.							
۲	APPX. SIZE OF TRACT:	48.97 acres							
	SECTOR PLAN:	East County							
	GROWTH POLICY PLAN:	Rural Area							
	ACCESSIBILITY:	Access is via Dave Smith Rd., a local street with a 16' pavement width within a 40' right-of-way.							
	UTILITIES:	Water Source: Knoxville Utilities Board							
		Sewer Source: Knoxville Utilities Board							
	WATERSHED:	Holston and French Broad & Tuckahoe Creek							
►	ZONING:	A (Agricultural)							
۲	EXISTING LAND USE:	Agriculture							
۲	PROPOSED USE:	270' Commercial Telecommunications Lattice Tower							
	HISTORY OF ZONING:	None noted							
	SURROUNDING LAND	North: Woods / A (Agricultural)							
	USE AND ZONING:	South: Pasture and rural residential / A (Agricultural) and Sevier County							
		East: Pasture and rural residential / Sevier County							
		West: Woods / A (Agricultural)							
	NEIGHBORHOOD CONTEXT:	The proposed site is located in an agricultural/rural residential area of eastern Knox County.							

#### **STAFF RECOMMENDATION:**

# APPROVE the request for a 270' telecommunications lattice tower in the A zoning district subject to 6 conditions.

1. Meeting all applicable requirements of the Knox County Zoning Ordinance.

2. The access drive for the tower site shall be paved to a width of 16 feet meeting the utility access driveway standards (copy attached) of the Knox County Fire Prevention Bureau. A revised plan for the access drive and turnaround area shall be submitted to the Knox County Fire Marshal and the Knox County Department of Engineering and Public Works for review and approval prior to any permits being issued.

Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
 Installing an evergreen landscaping screen around the fenced enclosure, as required by the Zoning Ordinance, within six months of the tower becoming operational.

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5. Meeting FAA requirements for required lighting for the tower.

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 for a new 270 foot lattice telecommunications tower to be located within a 10,000 square foot lease area located on a portion of a 48.97 acre tract. The subject property is zoned A (Agricultural) and telecommunication towers are considered as a use on review in this district.

The proposed tower site will have access to Dave Smith Road by a driveway that currently serves a couple of barns. The driveway will have to be upgraded to meet utility access driveway standards of the Knox County Fire Prevention Bureau which requires at a minimum a 16' wide paved driveway. The vertical driveway transition from Dave Smith Rd. will have to be corrected and documentation will be required on compliance with all turning radii.

The proposed tower is required to be located 297 feet (110% of the tower height) from the nearest residence. The proposed tower far exceeds that minimum standard since the nearest residence is 618' from the proposed tower. The applicant is proposing an 8' high security fence around the tower and equipment area. Due to the height of the tower, FAA does require lighting for the tower.

The applicant states that there are no existing structures in the area that can be used for antenna placement to obtain the required coverage. The tower will support up to 4 telecommunication carrier antenna arrays. AT&T will be the principal client for the tower. An agreement has been submitted stating that Optima Towers agrees to make all of its facilities available to other wireless providers.

Attached to the staff report are several support documents, including a report from MPC's tower consultant, Mr. Larry E. Perry. Mr. Perry's report describes the proposal and highlights his findings. Mr. Perry concludes that the 270' lattice tower is technically justified by the materials submitted by the applicant (see attached report).

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

1. The proposed development will have minimal impact on local services since utilities are available to serve this site.

2. The tower site, being located in an area made up of primarily large tracts should have minimal impact on 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 (Agricultural) zoning district.

2. The proposed tower is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan, East County Sector Plan and Wireless Communications Facility Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. Since this site is in a rural area, 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 agricultural and rural residential uses on this property. With the minimal site alteration required for the proposed tower (access drive also serves as a driveway for existing barns), the proposed development is consistent with this land designation.

2. Under the guidelines for tower placement in the Wireless Communications Facility Plan this proposed tower falls within the "Opportunity Area". The proposed tower site is locate on the edge of a rural/heavily wooded area and is adjacent to pasture. The plan considers both rural/heavily wooded areas and pasture areas to be "Opportunity Areas" for the location of telecommunication towers. The Plan takes a neutral

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position on lattice towers located in a rural/heavily wooded area but discourages lattice towers that are located in pasture areas. Moving the tower further into the wooded area would require more site alteration and move the tower closer to a stream protection area, therefore, staff supports the proposed location. While located on a small hill, the site is not located in any slope protection area.

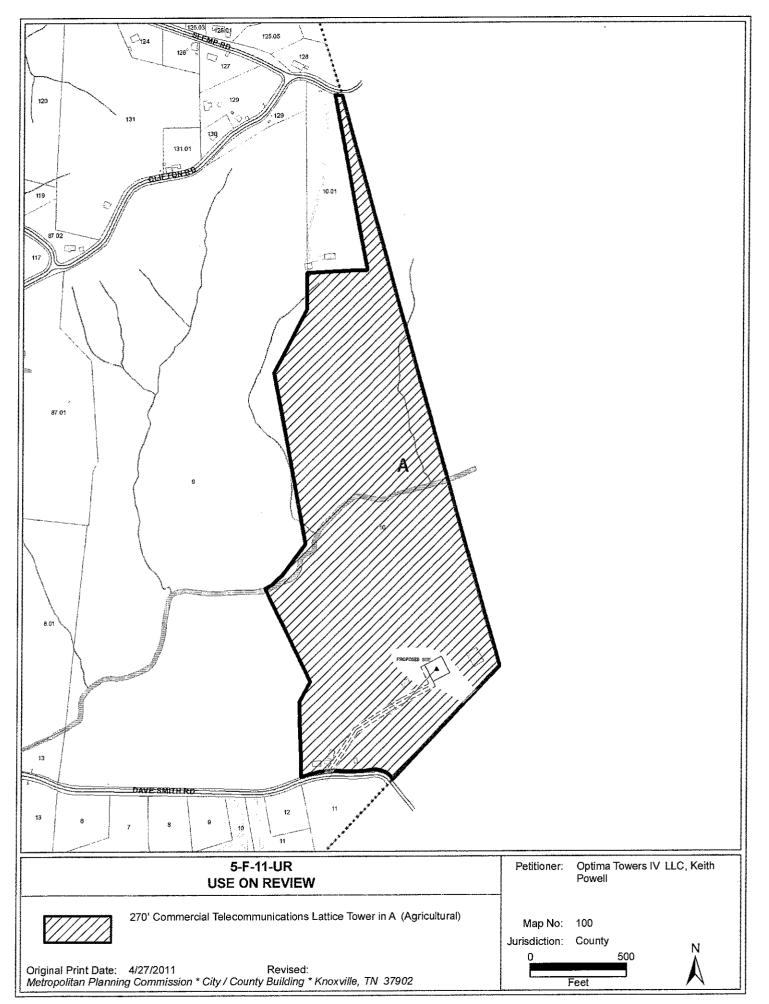
3. The site is located within the Rural Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

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.

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## MPC May 12, 2011

## Optima Towers IV, LLC/ATT MOBILITY

**Telecommunications Tower Site Review** 

5-F-11-UR

## CONSULTANT'S SUMMARY

## DAVID SMITH ROAD TN-2002 SITE

### East Knox County (Kodak Community)

Location: 2404 Dave Smith Road, Kodak Community, Knox County

Proposed Tower Height: 270 foot Monopole

Address: 2404 Dave Smith Road Kodak, Tennessee 37764

**District:** # East Knox County **Deed Book:** 1674 Page 973 (Knox County)

**Use**: Telecommunications antenna tower structure

**Zoning:** A (Agricultural)/**RR** (Rural Development and Resource conservation)

Variances and waivers: None required or requested

**Need:** The applicant is Optima Tower IV LLC for ATT Mobility a licensed PCS carrier by the Federal Communications Commission and possibly other users.

**Instant Proposal:** Construct a 270 foot lattice tower type support structure.

**Consultant's Recommendation**: The site and application meets the requirements of the Ordinance and the spirit of the Facilities Plan. The applicant has proven a need for the site to comply with its FCC mandated coverage requirements.

Jon Sil

MPC May 12, 2011

### **REPORT TO**

## METROPOLITAN PLANNING COMMISSION

for

Proposed Telecommunications Tower Site Located at 2404 Dave Smith Road Kodak, TN known as

## TN 2002 Dave Smith Road

### ATT MOBILITY

## **UOR 5-F-11-UR**

### **COMPLIANCE WITH**

## THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

4/25/2011

The proposed site for the applicant is a 270 foot lattice tower (including antennas and lightning rod) to be located near 2404 Dave Smith Road, Kodak in East Knox County. It is located off Smith School Road and Kodak Road in the Kodak community. The location borders Knox County and Sevier County with the tower on the Knox County side of line. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance as well as with the Knoxville City Wireless Communication Facilities Plan from 2002. This is a new telecommunications site.

### REQUESTED

1 Location. The location is within the **County** of Knox in the **East** District and is in **Deed book 1574** at **Page 973** in the Knox County Register of Deeds Office.

2. **Zoning.** A (Agricultural)/**RR** (Rural Development and Resource conservation)

3 **Tower height.** The requested height is 270 feet above ground level will support up to 4 additional telecommunications carrier antennas for a total of 5 users. Lighting will be required on this structure.

4. Variances. The set back requirements in Article 4.92 of the Ordinance for Knox County for "A" sites requires that the structure be set back a minimum distance of 110% of the structure height or in this case 297 feet from the nearest dwelling unit. The proposed site is an estimated 618 feet from the nearest residential unit, thus a variance will not be

required.

5. **Site**. This application is for the construction of a new lattice type tower to be located at the edge of an open field with woods on the north portion of the parcel.

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 Optima Towers IV, LLC for ATT Wireless and there are 4 possible additional telecommunications users for the facility.

7. **Setbacks**. The setback requirements are that the facility must be 110% height of the tower from any dwelling unit. A variance will not be required as the site is located more than 600 feet from the nearest dwelling unit.

8. **Height** The proposed structure is for 270 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)

Knoxville City 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.

The site elevation at this location is about 1100 feet. It is located on a partially wooded parcel on the north and southwest and open field to the east and southeast.

The request is for a 270 foot self supported lattice tower of which ATT will use the top 15 feet and the additional usable next area is for other carriers' expansion.

The site is a good elevation location and by the addition of a cell site here, it would probably eliminate the need for other sites nearby.

The proposed structure should not affect adjacent property as it is on a parcel of land that is agricultural and is heavily wooded and more than 750 feet from the nearest road. The site would be screened from any area roads to the north by the woods but would be seen on the south looking north.

It is located in an A zoned area that is adjacent to a RR (Rural Residential) Area

The access road has a grade of 12 1/2% for the last several hundred feet.

There are no variances required as the landowner owns all the property on all sides for more than 700 feet from the tower base. The tower will require lighting.

The FAA has approved the site as No Hazard to Air Navigation in study number 2010-ASO-5968-OE copy attached.

There are other similar towers located to the northeast, east and southwest of the proposed location, but all are more than 2 miles away, thus the height required. The terrain in the area is rugged and rolling hills and pastures.

### 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**--The structure, 270 foot lattice tower, is to be located at the edge of a wooded area to the north, northeast and southwest and open fields to the south and south east. There is a line of lattice towers about 2 miles apart running along a line that closely parallels the I40 Expressway. The local view protection will be provided by landscaping by the applicant that conforms to the MPC recommendations.

(2) **Land Use Compatibility**---The proposed site is on a hill in a partially wooded field. The structure and associated building/facilities would be compatible with the local land use and the surrounding area is wooded to the east. 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 is the least obtrusive type antenna support structures.

(A) **Opportunity Areas**---This proposed site is in an area zoned Agricultural (A). While it is in a field near a wooded parcel, it borders both a Neutral (Rural/heavily wooded area) and in my opinion would be considered a Neutral Opportunity area.

(B) **Sensitive Area**---This site is not in a sensitive area as it is isolated wooded to the north and located more than 750 feet from a residence to the southwest and there are very few residences in the area and none in the immedate area.

(C) **Avoidance Areas**---This location is not in an avoidance area although on a slight hill, but the surround area is rolling hills.

Under the matrix it would be considered a NEUTRAL Site.

#### SUMMARY

(1) The proposed antenna support structure is a 270 foot monopole including antennas. There **are lighting requirements** for this structure required by the FAA

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(2) A review of the structure stress analysis on the proposed structure and specifications support the use of the monopole by possible 4 other potential users in the future.

(3) The structure design meets or exceeds FCC and EIA requirements.

(4) The area surrounding the site is slightly wooded and zoned Agricultural and Rural Residential. There are no residences within 500 feet of the tower.

(5) There is no general use technology (such as satellite communications) that is available at the present time nor in the immediate future that would negate the need for the structure. However, should such a technology become available and the structure of no further use, the Ordinance at Article 4.92 requires it to be removed.

(6) 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 will be surrounded by wooded vegetation to north and southwest and will be bordered on the southeast and northeast by new landscaping by the applicant.

(7) The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, and the Federal Aviation Administration to provide communication service to the citizens of Knoxville, Tennessee.

(8) The requested site will have little impact on the community involved when compared with the benefits to be derived from the advanced service offered by the applicant.

(9) There are no other antenna support structures within 1 mile of the proposed site that are usable for the coverage required.

(10) There are no waivers requested or required.

(11) The proposed site and structure will have no environmental impact within the federal guidelines.

(12) The nature of the development in the surrounding area is not such as to pose a potential hazard to the proposed tower or to create an undesirable environment for the proposed structure.

(13) Assuming that there are 5 carriers operating cellular or PCS transmitters/receivers at this site and all are operating at the same time, the radiation produced by the combination of all the users

at the same time using the standards and protocols proposed and used by the carriers today, will be considerably below that established by the Federal Communications Commission and the EPA as creating any danger to humans or animals.

(14) There is a need for the structure in this area to provide for the wide spectrum wireless internet service and for other wireless voice and data services to be provided under government regulation by the various proposed carriers who plan to use the site.

(15) The applicant has proven a need for the site and coverage to be provided by this location.

#### RECOMMENDATION

In light of the analysis and review of documents, it is my professional opinion that the applicant meets all requirements of the Ordinance and the spirit of the Facilities Plan as discussed above and is required for the applicant to meet their coverage requirements for the County of Knox.

Respectfully submitted, Larry Perrv

Consultant to MPC

EVHIE								
	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
	Industrial/Business Park							
	Industrial Use							
5B9'	Pre-approved Government-owned Property							
IA Y	Urban Expressway Corridor							
tinı	Rural/Heavily Wooded						*	
orte	Pasture o.						*	
ddC	Central Business District						AN A	
	Office/Commercial Corridor							
	Shopping Center							
の言語のないの							a resource and the resource of	
SB	Within 500' of a residence							
Jre.	Rural Residential							
, əvit	Non-residential Properties In a Residential Area (church, cemetery, library, etc.)							
isua	Multi-family Residential							
PS	On Hill Below Ridgeline 🛛 👦							
	Conservation Open Space							
SI	Scenic Highway							
9 res	Public Park							
v əp	Ridge Top/Ridge Line							
uep	Scenic Vista							
iov	Historic District/Site							
1	Single-family Residential							
	Vacant Residential Lot							
			Encouraged		Neutral	Iral		Discouraged

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## **Utility Access Driveways**

Plans submitted require both a plan view and a profile and sometimes a grading plan is needed as well.

The plan view needs to show:

- 1. stationing,
- 2. radii of centerline horizontal curves,
- 3. points of curvature and tangency of the horizontal curves,
- 4. horizontal curves that tie the driveway to the roadway,
- 5. width of the pavement,
- 6. width of the easement,
- 7. and the turnaround area for the fire truck.

The minimum width of pavement permitted is 16 feet.

**Turning templates** are needed to show that the fire truck can make the necessary movements. The design vehicle is a BUS-40 as it is similar to the fire truck in that it has a 40 foot length and a 25 foot wheelbase. The turning templates should be applied on a separate plan view.

For layouts and dimensions of the **turn around area**, use Appendix C of the International Fire Code (IFC) as a guideline.

The **profile** needs to show:

- 1. stations,
- 2. grades,
- 3. vertical curves,
- 4. points of vertical intersection of the grades,
- 5. and no grade shall exceed 15%.

The **typical cross section** of pavement to be provided meets the driveway requirements of what Knox County uses for business driveways on capital projects. The section is as follows:

1. a compacted subgrade with 4 inches of base (mineral aggregate type "A", grade "D",

2. 1-3/4 inches binder (bituminous hot mix grade B-M),

3. and 1-1/4 inches topping (asphaltic concrete surfacing grade "D". This cross-section provides 7 inches of material.

The need for a **grading plan** is decided on a case by case basis. The effects of stormwater runoff on the side slopes of the proposed access driveway may require curbs, culverts, catch basins or road side swales. Once again the need for these items is decided on a case by case basis.

**Previously approved sites**: If a utility wishes to co-locate with a previously approved utility site, then the access driveway will need to meet the conditions listed above.



Federal Aviation Administration Air Traffic Airspace Branch, ASW-520 2601 Meacham Blvd Fort Worth, TX 76137-0520 Aeronautical Study No. 2010-ASO-5968-OE

Issued Date: 12/10/2010

Keith Powell Optima Towers IV, LLC P.O. Box 2041 Mt Pleasant, SC 29465

## \*\* DETERMINATION OF NO HAZARD IO AIR NAVIGATION \*\*

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

Structure:	Antenna Tower IN-2002 Midway-Kodak
Location:	Midway, IN
Latitude:	35-58-20.13N NAD 83
Longitude:	83-39-23.06W
Heights:	290 feet above ground level (AGL)
-	1377 feet above mean sea level (AMSL)

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

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

At least 10 days prior to start of construction (7460-2, Part I)

X Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 06/10/2012 unless:

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

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

MPC May 12, 2011

## SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

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

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

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

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

If we can be of further assistance, please contact our office at (847) 294-8084. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-ASO-5968-OE.

## Signature Control No: 132600232-134273282 Carole Bernacchi

Attachment(s) Frequency Data

Technician

cc: FCC

(DNE)



Optima Towers IV LLC PO Box 2041 Mount Pleasant, SC 29465

#### Via Hand Delivery

March 30, 2011

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

#### Re: Proposed wireless communications facility at 2404 Dave Smith Road

Dear MPC Staff and Commissioners,

I hope this letter finds you well Please accept this package as the submittal by Optima Towers for its proposed wireless telecommunications facility located at 2404 Dave Smith Road. The following information package describes in detail of the required Knox County MPC application form, applicable site information and required materials, and detailed site plans for approval of Optima Towers' (Optima) proposed wireless communications facility located at 2404 Dave Smith Road. This checklist below provides the respective code requirements (§§4.92.02 and §§4.92.03) and the methods and measures of compliance by Optima. Specifically included with this [Application Submittal] are the following required multiple attachments:

- 1 MPC Use on Review application
- 2. Site Plans by SSOE, Site Design Engineers, dated 3/30/11
- 4. Supplemental Addendum data package, dated 3/30/11

Optima answers and addresses each specific requirement of the Knox County ordinance for Communication Towers in the margin below each requirement. These answers are written in **BOLD** type.

Section 4.92.02	Development Standards	

1. Co-Location Requirements

The following regulations regarding co-location of antennae shall apply:

a A new commercial telecommunications tower proposed for construction must accommodate a minimum of two antenna arrays if the tower is less than 130 feet in height, and at least three antenna arrays if the tower is 130 feet in height or greater.

# Optima complies with this requirement. The proposed structure will accommodate a minimum of 4 antenna arrays. Please see Exhibit 1, Tower Drawings illustrating the compliance.

b Applicants requesting a building permit or use on review approval for a new tower shall simultaneously file a letter of intent committing the tower owner and his/her successors to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use However, this section shall not obligate the owner of an existing tower to co-locate additional antennas on such tower, nor is it intended to limit the

rights of parties to set rent or establish other terms and conditions for the shared use of a telecommunications tower or other structure

# Optima complies with this requirement. Please see Exhibit 2, Letter of Intent by Optima Towers IV, LLC.

- c. Applications for a building permit or use on review approval for a new tower shall include maps of the intended coverage area, the corresponding search radius for tower sites, and existing facilities within that search radius. Existing facilities shall include towers, buildings, and other structures of such height as to meet the engineering needs of the applicant. The applicant shall also provide written evidence that location on an existing structure is not feasible due to at least one of the following reasons:
  - (1) No suitable facilities exist that would allow service to be provided to the proposed coverage area
  - (2) The planned equipment would exceed the capacity of existing and approved structures, considering existing and planned use of those structures Applicants citing this reason shall provide certification by a licensed engineer qualified in the design and installation of wireless communications facilities.
  - (3) The planned equipment would result in technical or physical interference with or from other existing or planned equipment, or would result in a violation of standards promulgated by the Federal Communications Commission.
  - (4) Other reasons that make it impracticable to co-locate the proposed antenna(e) on an existing facility, including, but not limited to, a failure to reach agreement with the owner of an existing facility on a rental amount or other material terms of a lease, after negotiating in good faith for a period of at least sixty (60) days. Said negotiation period shall commence on the date that the applicant submits his first written inquiry about co-location to the owner of the existing facility. Letters from owners of existing facilities or other evidence of good faith attempts to negotiate with said owners may be submitted to satisfy the certification requirements of 4 92 02 Part 1 c(4) of this Section. The submission of an affidavit by the applicant stating that the applicant and the owner of the existing facility have been unable to reach agreement during said sixty (60) day period, and stating the reasons they were unable to agree, shall be deemed sufficient written evidence to establish good faith negotiations as contemplated herein.

Optima complies with this requirement. Please see Exhibit 3. Included are, 1) Map depicting the existing lacking coverage; and 2) Map depicting the area with the proposed coverage; and 3) Search ring of deficient area "search area" and 4) A map depicting a 1 mile and 3 mile search for existing towers accompanied by the related FCC website search. The applicable towers are numbered to match the respective map. The FCC search information and map depicts that <u>NO</u> existing structures exist in or near search area.

The existing facility map in Exhibit 3D illustrates, Optima complies with the requirement due to reason # (1), "No suitable facilities exist that would allow service to be provided to the proposed coverage area."

d. If the applicant is not a licensed provider of commercial telecommunications services, the application shall, in addition to meeting all the other requirements of this section, include at least one letter from such a licensed provider indicating intent to locate on the proposed tower. The maps and written evidence required in 4.92 02 Part 1.c. of this Section shall be based on the needs of the licensed provider(s) who furnishes said letter of intent.

Optima complies with this requirement. Please see Exhibit 4, Letter of Intent to collocate by AT&I.

e. Plans and drawings submitted as part of a use on review application for a new tower site shall be certified by a licensed, professional engineer, or architect

# Optima complies with this requirement. Please see Chapter 2 of this Application Submittal, Site Plans by SSOE, Dated 3/30/11

f The professional planning staff of the Metropolitan Planning Commission shall refer technical engineering aspects of the administration and enforcement of this section to a registered professional engineer qualified in the design and installation of wireless communications facilities to provide advice and assistance. Any use on review application for a new communications tower of sixty feet or more feet in height shall, at the discretion of the professional planning staff of the Metropolitan Planning Commission, be referred to the engineering consultant for review and report Any reasonable costs not to exceed One Ihousand Five Hundred and No/100 Dollars (\$1,500) incurred for the engineering consultant's review and recommendation shall be reimbursed by the applicant to the Metropolitan Planning Commission All such applications shall, in addition to any fee charged for the use on review application, include an escrow fee in the amount of five hundred dollars (\$500). Within thirty (30) days after a use on review determination has been made, the Metropolitan Planning Commission shall reimburse the applicant for any excess escrow amount or, where the escrow does not cover the full costs of the engineering consultant's review and report, the applicant shall reimburse the Metropolitan Planning Commission for the shortage before the Director of Code Administration and Inspection acts on a permit application In no event shall an applicant be obligated to reimburse the Metropolitan Planning Commission more than fifteen hundred dollars (\$1,500) per application for the same proposal.

Optima complies with this requirement. Optima has provided payment in the amount of \$3,900.00 (Check#1068). This total includes the Third (3<sup>rd</sup>) party review by Mr. Perry. A copy of the check is attached in Chapter 1 of MPC Use on Review Application by Optima Towers IV, LLC.

#### 2 Setbacks

a. Except as otherwise noted in this section, all towers shall be set back from any Dwelling Unit located on all properties zoned A, E, RA, RAE, RB, PR, or TC, any Dwelling Unit located on all properties with an HZ overlay, and any Dwelling Unit located on any residentially or agriculturally zoned property within the Town of Farragut or the City of Knoxville, a minimum distance equal to 110% of the height of the tower, or the minimum principal use setbacks of the zoning district in which the tower is located, whichever is greater. Guy wires for towers, and above ground supports for guy wires, shall be set back from side and rear property lines a minimum of ten (10) feet. No guy wire shall be located in a required front yard.

Optima complies with this requirement. The nearest Dwelling Unit is located no nearer than approximately 618-ft from the proposed tower. Minimum setback is 297-ft. See Exhibit 5 depicting the location and dwelling setback from the proposed tower.

b. The following setbacks shall apply to towers located on the site of a substation owned or leased by an electric utility company or district:

(1) Towers located outside the existing security fence shall be set back consistent with the requirements of paragraph 2 a above.

(2) Towers located within the existing security fence are not required to comply with the setbacks set forth in this Ordinance.

This requirement is NOT APPLICABLE to this application.

c. Upon notarized written agreement between the commercial telecommunications tower applicant and all of the property owner(s) whose property lines fall within the setback specified under either 2 a. or 2 b. of this section, the minimum setback may be reduced to the principal use setback in the zoning district in which the tower is located, if approved by the Metropolitan Planning Commission as part of the use on review application for the new tower.

Optima complies with this requirement. The property owner, Robert Smith, owns all property within the tower +10% (297-ft). He is a party to this application. Please See Chapter 1, page 2 of this Submittal Package.

d Setback requirements may be modified by the Board of Zoning Appeals (BZA), consistent with the requirements for the granting of a variance listed in Article 6, Section 6 60 of these regulations

#### This requirement is NOT APPLICABLE to this application.

e. If a tower is torn down and a replacement tower constructed, the replacement tower maybe constructed at any place on the parcel, so long as it meets the setback requirements in effect at the time the original tower was constructed; provided, however, if construction of such tower on the relevant parcel requires approval as a Use on Review, the replacement tower shall be permitted, so long as it is constructed within 200 feet of the original tower site.

#### This requirement is NOT APPLICABLE to this application.

#### 3 Height

a. The height of a tower shall not be calculated to include any antennae erected in compliance with the applicable building regulations.

Optima complies with this requirement. Optima proposes a 270-ft structure and does not make any reference to a differing size structure. No antenna will be attached to a section higher than 270-ft above ground level. Please see Exhibit 1 Tower Drawings.

b. An existing tower may be modified or rebuilt to a taller height, not to exceed thirty (30) feet over the tower's existing height, to accommodate the co-location of an additional antenna or similar transmission equipment. No additional setbacks shall be required This height change shall be permitted only one time per tower. However, if the proposed modification or replacement would cause the tower's height to equal or exceed 200 feet, it shall not be constructed without the approval of the Planning Commission as a Use on Review, except when the construction of such towers is a permitted use pursuant to this Ordinance.

This requirement is NOT APPLICABLE to this application. No structure currently exists.

#### 4 Landscaping

a. For all towers, at least one row of evergreen trees or shrubs capable of forming a continuous hedge at least five feet in height and screening the base of the tower from public view within two years of planting shall be planted and maintained in healthy condition. A break in the hedge, not to exceed 12 feet in width, shall be allowed for access for maintenance personnel and vehicles.

Optima complies with this requirement. Please see page C-6 of Chapter 2, Site Plans by SSOE, dated 3/30/11.

b New or existing vegetation, earth berms, existing topographic features, walls, fences, building and features other than those described above may be used to meet the requirements of these regulations if the code administrator finds that they achieve the same degree of screening as 4 a. No screening shall be required if the base of the tower is not visible from adjoining property or is not otherwise visible from a dedicated public right of way, or if waiver of this requirement is necessary for the continued operation of agricultural or forestry uses. No screening shall be required when this screening is explicitly prohibited by Federal Communications Commission regulations.

# This requirement is NOT APPLICABLE to this application. Optima does not seek any exemption of the landscape requirements of 4(a), above.

c. Any required new vegetation shall be in place within 30 days of the completion of the installation of any tower and its appurtenances, except that this deadline shall be extended by the codes administrator if necessary to delay planting to the next planting season

#### Optima accepts and acknowledges this requirement.

5 Security Fencing

The base of the tower, including any accessory structures, shall be enclosed by a minimum 6 ft. high chain link fence. Any landscaping, as required under section 4.92.02, paragraph 4., shall be installed outside the fenced enclosure

# Optima complies with this requirement. Please see page C-2 and C-4 of Chapter 2, Site Plans by SSOE, dated 3/30/11.

#### 6 Exceptions

a 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.

#### This requirement is NOT APPLICABLE to this application.

#### Section 4.92.03 Removal of Abondoned Towers

The following regulations shall apply to ensure the removal of abandoned towers:

1. The owner of any telecommunications tower shall provide written notification to the Director of the Department of Code Administration and Inspection within thirty (30) days of the occurrence of either or both of the following:

- a The tower has changed ownership
- b Use of all telecommunications antennas on the tower has ceased

# Optima complies with this requirement. Please see attached Exhibit 6, Letter of notice to MPC and Department of Code Administration.

2 All towers permitted under the requirements of these regulations that are not operated for telecommunications purposes for a continuous twelve (12) month period shall be considered abandoned, and the owner of such tower shall remove same within 90 days of receiving notice from the Director of the Department of Code Administration and Inspection Failure to do so shall be deemed a violation of these regulations. The owner of the tower may appeal the decision of the Director of the Department of Code Administration to the Board of Zoning Appeals. At such hearing the owner shall be required to show just cause why the tower should not be considered abandoned and subject to removal.

# Optima complies with this requirement. Please see attached Exhibit 6, Letter of removal to MPC and Department of Code Administration.

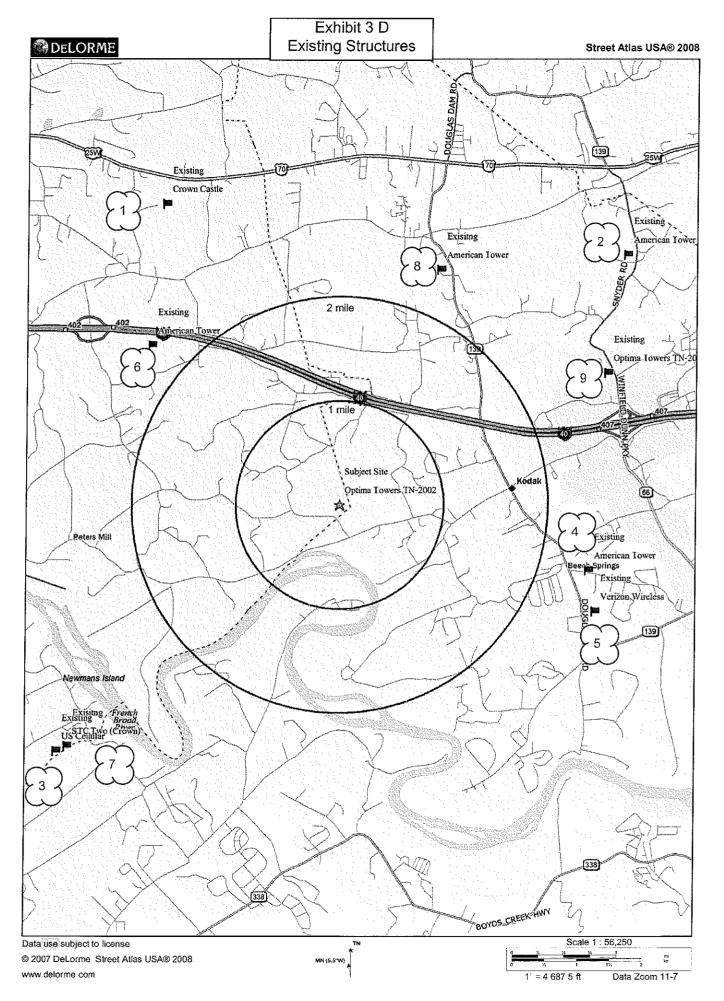
3. At the time a request for a building permit is made, the applicant shall provide proof of the establishment of a financially secured and legally enforceable method of removing a telecommunications tower when it ceases to be used for a period of twelve (12) months. This may be in the form of a bond, a letter of credit or some other financial arrangement approved by the County Finance Director for financial adequacy and the County Law Director for legal enforceability Such bond or other approved financial surety shall be maintained by the owner of the tower so long as the tower exists.

#### Optima acknowledges and complies with this requirement. Please see same attached Exhibit 6.

Upon approval of the Use on Review application, Optima will provide the remaining required items, as stated in the supplemental information, prior to its submission for building permit. If you have any questions, please feel free to give me a call at 843-324-9745.

Sincerely,

Keith Powell Managing Member Optima Towers IV, LLC



## MPC May 12, 2011

3 mile Tower search list

## ASR Registration Search Registration Search Results

**Displayed Results** 

**PA** = Pending Application(s)

#### Specified Search

Latitude='35-58-20.1 N', Longitude='83-39-23.0 W', Radius=4.8 Kilometers

	Registration Number	Status	File Number	Owner Name	Latitude/Longitude	Structure City/State	Overall Height Above Ground (AGL)
1	1037161	Constructed	A0536311	CROWN CASTLE GT COMPANY LLC	36-00-48.0N 083-41-13.0W	KNOXVILLE, TN	90.8
2	1038434	Constructed	A0605147	American Towers, Inc.	36-00-15.6N 083-38-22.9W	KODAK, TN	88.4
3	1041721	Constructed	A0221607	United States Cellular Corporation	35-56-14.0N 083-42-19.0W	BOYDS CREEK, TN	57.9
4	1053004	Constructed	A0605296	American Towers, Inc.	35-57-45.0N 083-36-51.0W	SEVIERVILLE, TN	85.3
5	1065020	Constructed	A0526339	Verizon Wireless Tennessee Partnership	35-57-24.0N 083-36-47.0W	KODAK, TN	91.2
6	1205882	Constructed	A0605586	American Towers, Inc.	35-59-37.3N 083-41-22 0W	Strawberry Plains, TN	86.5
7	1215703	Constructed	A0704443	STC Two LLC	35-56-17.0N 083-42-12.2W	Knoxville, TN	61.1
8	1225592	Constructed	A0603830	American Towers, Inc.	36-00-22.7N 083-36-28.6W	KODAK, TN	104.2
9	1277126	Granted	A0707989	Optima Towers IV, LLC	35-59-23.9N 083-36-42.0W	Sevierville, TN	85.3

(CLOSE WINDOW)

wireless2 fcc gov/.../asrResults.jsp?sear MPC May 12, 2011

## <sup>1/1</sup> Agenda Item # 35



Erika Helle RF Design Engineer East TN 3585 Workman Road Knoxville, TN 37921 (865) 824-2231

March 28, 2011

Keith Powell Optima Towers IV, LLC PO Box 2041 Mount Pleasant, SC 29464

Re: AT&T collocation on Optima proposed facility at 2404 Dave Smith Rd, Kodak, IN

Dear Mr. Powell,

Thank you for your information concerning your proposed site located at 2404 Dave Smith Road, Kodak, TN. Your proposed site meets  $\underline{AI\&I}$ 's radio frequency and network design requirements for improving its coverage and capacity needs south of Interstate 40, Midway Road, Smith School Road, Kodak Road, and providing needed coverage to the Kodak-Midway Area There are no facilities that exist to provide the needed coverage of the area.  $\underline{AI\&I}$  is collocated on all the adjacent sites Please accept this letter of intent for  $\underline{AI\&I}$ 's interest to collocating on your proposed structure upon approval of the Use on Review by Knoxville MPC.

Sincerely,

Erika Helle RF Design Engineer

MPC May 12, 2011



February 24, 2011

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

Re: Proposed wireless communications facility at 2404 Dave Smith Road

Dear MPC Staff and Commissioners,

In accordance with §4 92 02, sub section (1) (b) of The Knox County Zoning Ordinance:

Please accept this letter of intent by Optima Towers IV, LLC;

Optima I owers IV commits the aforesaid tower and facility located at 2404 Dave Smith Road, its successors and/or assigns, to allow the shared use of the tower if an additional user agrees in writing to meet reasonable terms and conditions for shared use However, this letter of intent shall not obligate Optima Towers IV, its successors or assigns, or limit its rights, or any tenant, to set rent or establish other terms and conditions for the shared use of this tower facility.

By: Optima Iowers IV, LLC, a South Carolina limited liability company

Acknowledged and Accepted

By: Keith Powell

Its: Managing Member



February 24, 2011

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

Re: Proposed wireless communications facility at 2404 Dave Smith Road

Dear MPC Staff and Commissioners,

In accordance with §4 92 03, sub section (1) of The Knox County Zoning Ordinance:

Please accept this letter of acknowledgement by Optima Towers IV, LLC;

Optima Towers IV, or its successor and/or assigns, shall provide written notification to the Director of the Department of Code Administration and Inspection within thirty (30) days of the occurrence of; (1) The tower has changed ownership; or (2) the use of all telecommunications antennas on the tower has ceased

By: Optima Towers IV, LLC, a South Carolina limited liability company

Acknowledged and Accepted

By: Keith Powell

Its: Managing Member



February 24, 2011

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

Re: Proposed wireless communications facility at 2404 Dave Smith Road

Dear MPC Staff and Commissioners,

In accordance with §4.92 03, sub section (2) of The Knox County Zoning Ordinance:

Please accept this letter of acknowledgement by Optima Towers IV, LLC;

Optima Towers IV, or its successor and/or assigns, shall remove the tower located at 2404 Dave Smith Road, within ninety (90) days of receiving notice from the Director of the Department of Code Administration and Inspection that the site has been determined abandoned or not in operation for a continuous period of twelve (12) months. Optima Towers IV, or its successor and/or assigns, also acknowledges that it may appeal the decision of the Director of the Department of Code Administration and Inspection to the Board of Zoning Appeals to show just cause why the tower should not be considered abandoned and subject to removal.

By: Optima Towers IV, LLC, a South Carolina limited liability company

Acknowledged and Accepted

By: Keith Powell

Its: Managing Member



February 24, 2011

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

Re: Proposed wireless communications facility at 2404 Dave Smith Road

Dear MPC Staff and Commissioners,

In accordance with §4 92.03, sub section (3) of The Knox County Zoning Ordinance:

Please accept this letter of acknowledgement by Optima Towers IV, LLC;

Optima Towers IV, or its successor and/or assigns, shall provide proof of the establishment of a financially secured and legally enforceable method of removing a telecommunications tower when the facility is determined to be abandoned or ceases to be used for a period of twelve (12) months. This may be in the form of a bond, a letter of credit or some other financial arrangement approved by the County Finance Director for financial adequacy and the County Law Director for legal enforceability Such bond or other approved financial surety shall be maintained by Optima Towers IV, LLC or its successors and/or assigns, for the tower so long as the tower exists. This bond (or other instrument) will be provided at the time Optima Towers IV applies for its building permit.

By: Optima Towers IV, LLC, a South Carolina limited liability company

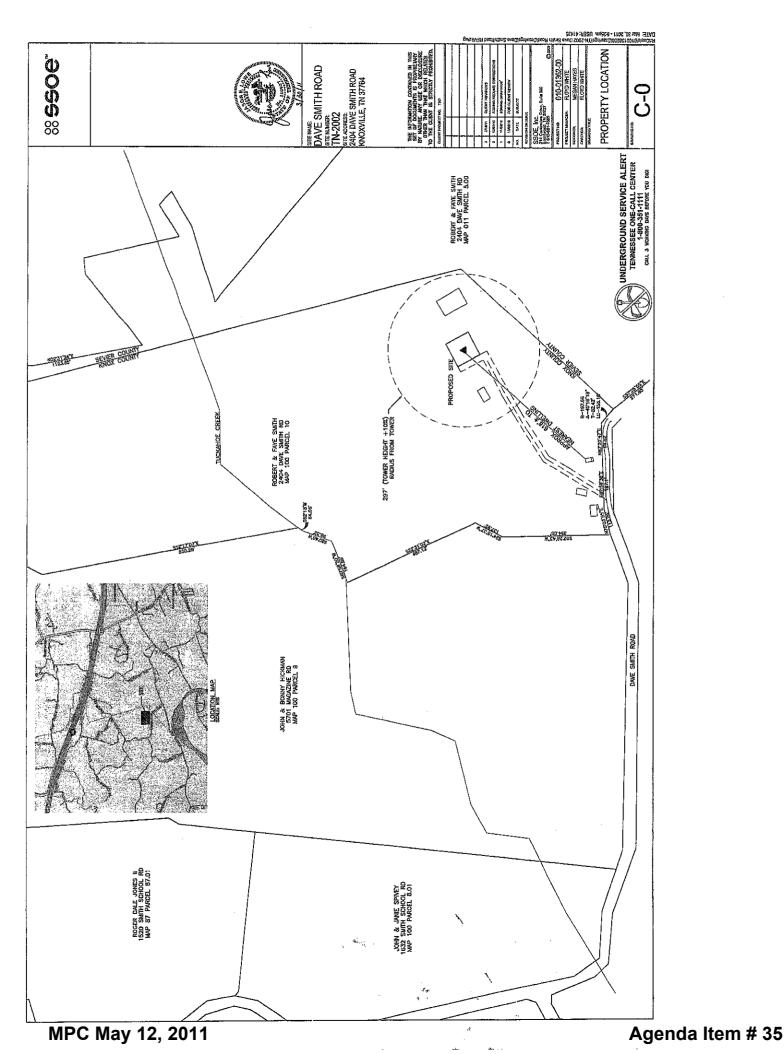
Acknowledged and Accepted

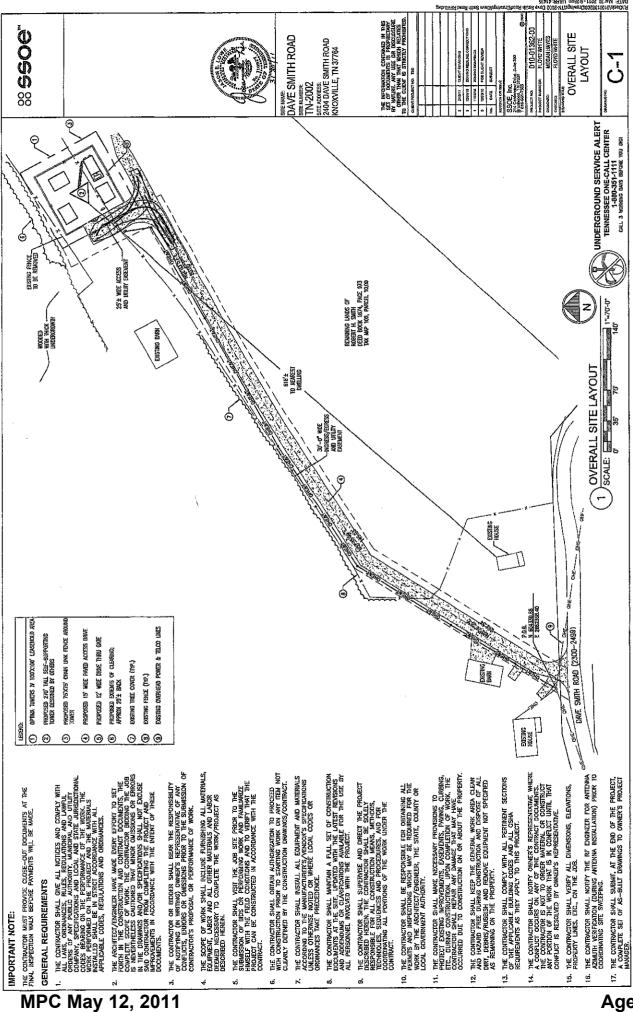
By: Keith Powell

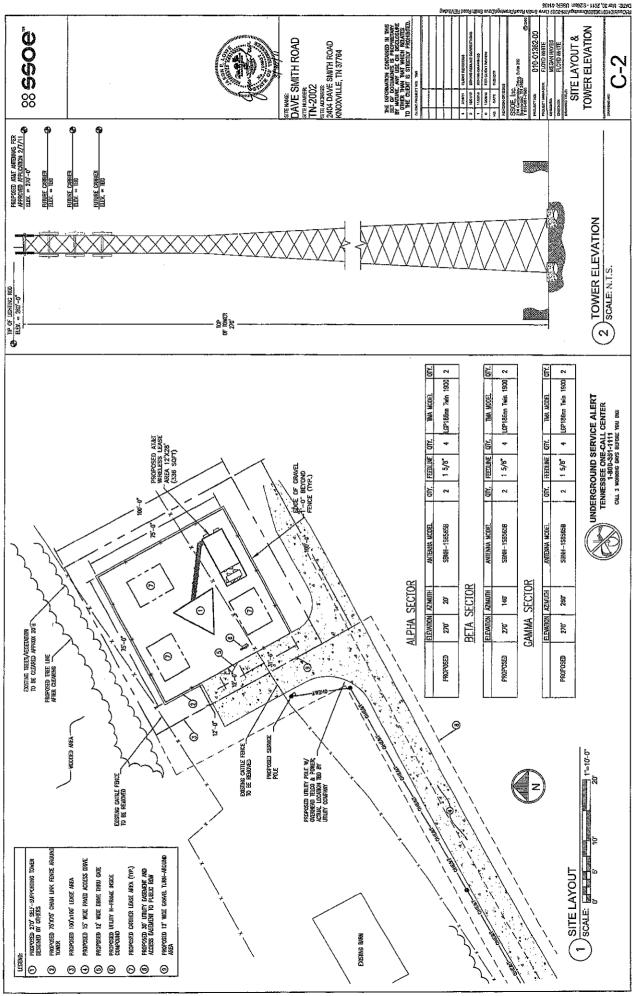
Its: Managing Member

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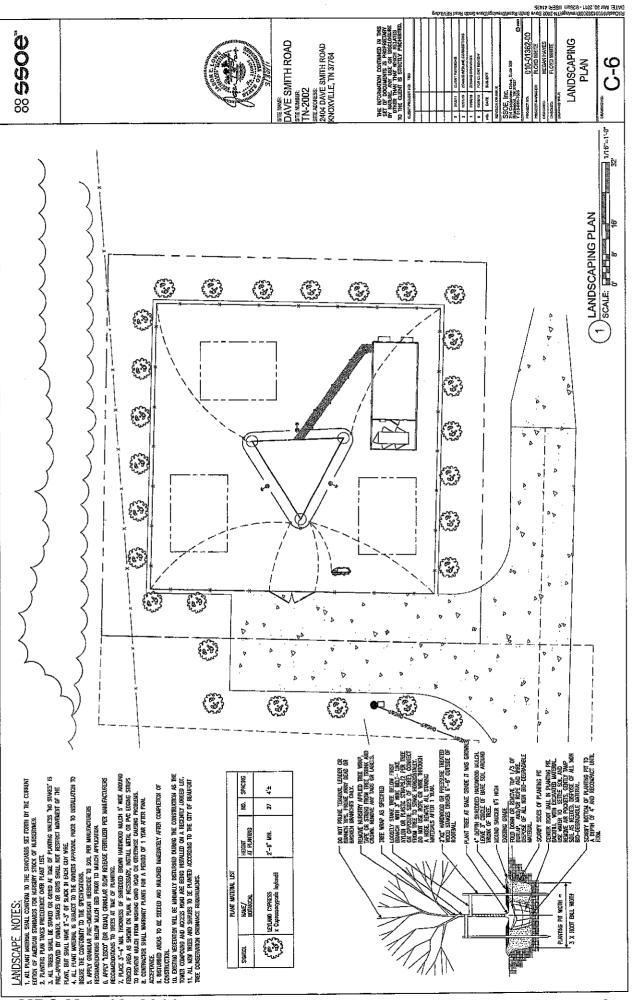
## MPC May 12, 2011

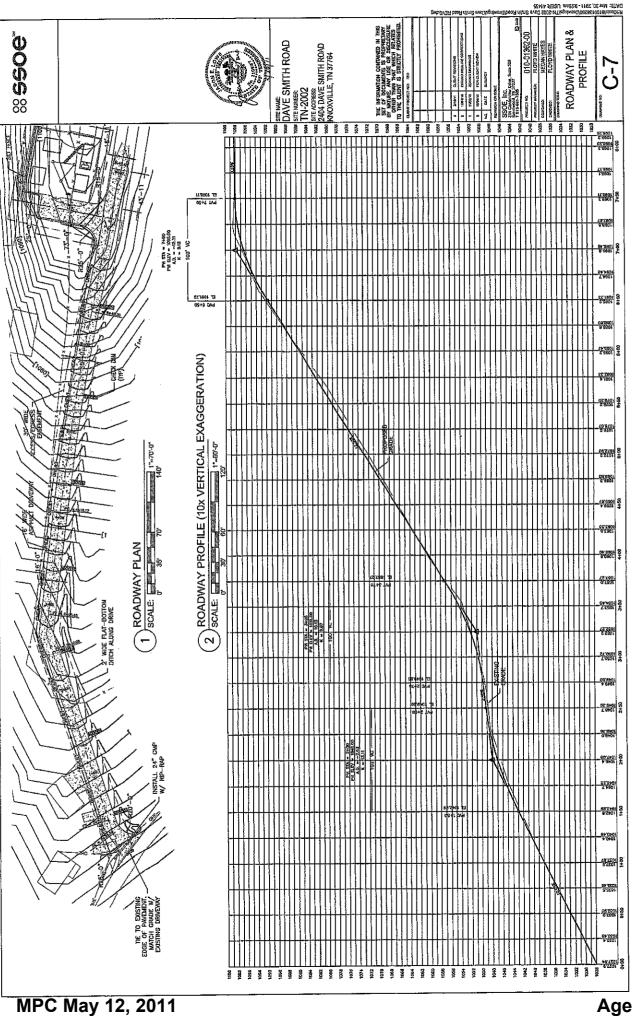




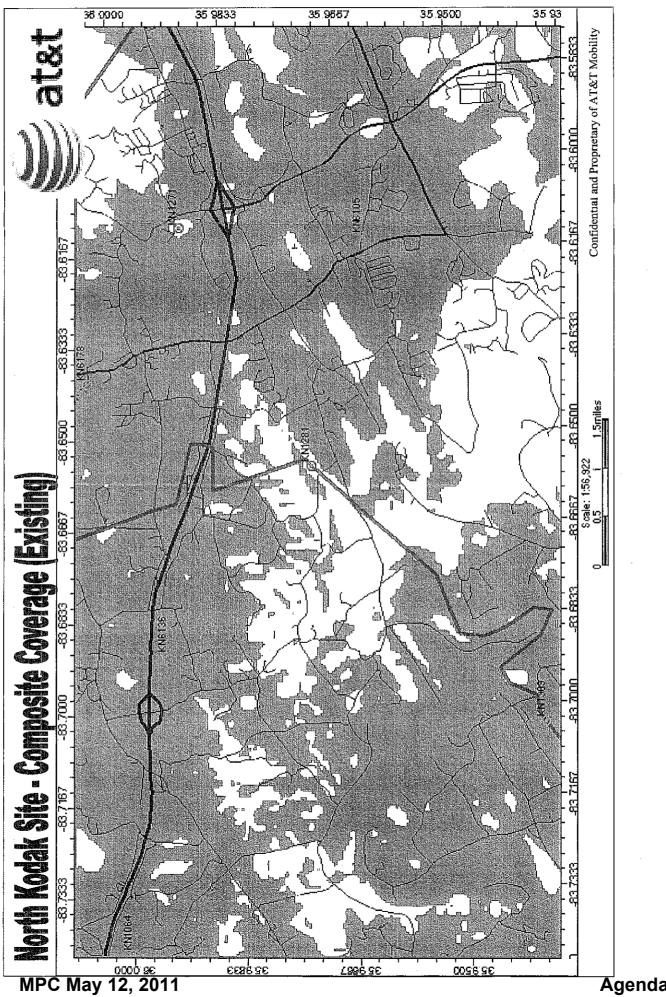


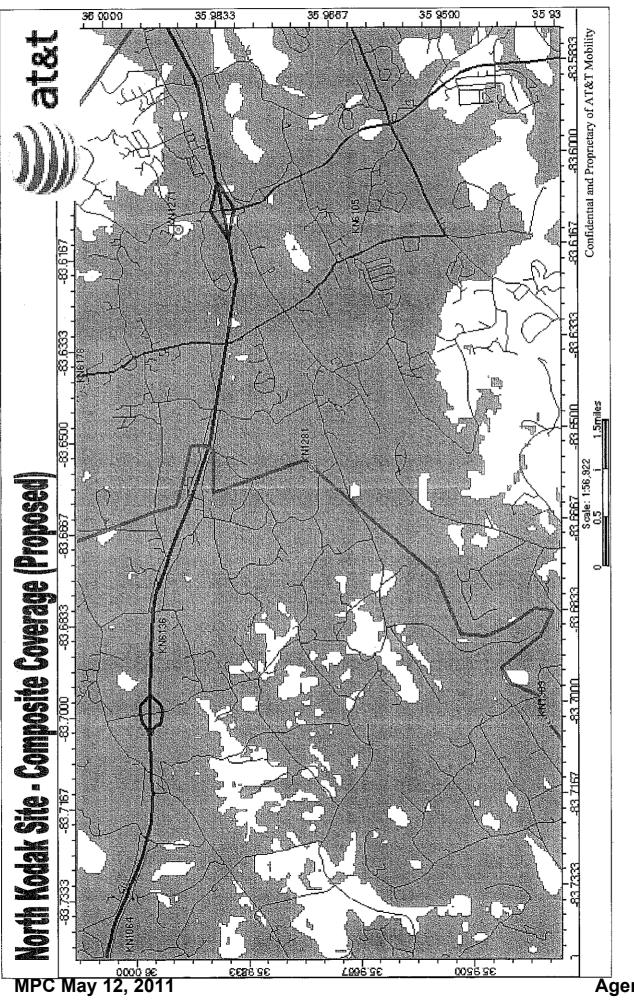
## MPC May 12, 2011





Agenda Item # 35





Agenda Item # 35



MPC May 12, 2011

Agenda Item # 35