

KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION USE ON REVIEW REPORT

▶ FILE #: 10-A-09-UR AGENDA ITEM #: 39

AGENDA DATE: 10/8/2009

► APPLICANT: AT&T MOBILITY (NEW CINGULAR WIRELESS PCS, LLC)

OWNER(S): GEORGE AND GLENDA HAYES

TAX ID NUMBER: 105 154 & 155

JURISDICTION: County Commission District 5

LOCATION: North of Middlebrook Pike, east of Chert Pit Rd. at the northern

terminus of Amburn Ln.

► APPX. SIZE OF TRACT: 7.9 acres

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Planned Growth Area

ACCESSIBILITY: Access is via Amburn Ln., a local street off of Middlebrook Pike with a 14'

pavement width.

UTILITIES: Water Source: West Knox Utility District

Sewer Source: West Knox Utility District

WATERSHED: Ten Mile Creek

► ZONING: A (Agricultural)

EXISTING LAND USE: Residence and vacant land

► PROPOSED USE: 150' monopole telecommunications tower

HISTORY OF ZONING: None noted

SURROUNDING LAND North: Residences and vacant land / PR (Planned Residential) & A

USE AND ZONING: (Agricultural)

South: Residences / A (Agricultural)

East: Residence and vacant land / A (Agricultural)

West: Residences and vacant land / A (Agricultural) & PR (Planned

Residential)

NEIGHBORHOOD CONTEXT: The site is located in an area on the north side of Middlebrook Pike that is

primarily in residential use with some institutional and mixed commercial

uses along Middlebrook Pike.

STAFF RECOMMENDATION:

► APPROVE the development plan for a 150 foot monopole telecommunications tower in an A (Agricultural) zoning district subject to 8 conditions:

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

2. The access drive shall be paved to "minimum duty" road construction standard with a width of 16 feet and shall be provided with a turnaround area meeting the requirements of the Knox County Department of Engineering and Public Works and the Knox County Fire Marshal's Office.

3. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.

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- 4. Since the FAA does not require any lighting for this facility, there shall be no lighting on the tower.
- 5. Clearing of the site shall be limited to the lease area and driveway and utility access area.
- 6. Revised development plans showing the changes to the access drive, turnaround area, utilities and landscape screening (as required by the Zoning Ordinance) shall be submitted to Planning Commission Staff for approval prior to the issuance of any grading permit.
- 7. Installing the proposed landscaping as shown on the revised development plan in compliance with the requirements of the Knox County Zoning Ordinance.
- 8. 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 above conditions, this request meets all requirements for approval of a use on review in the A zone.

COMMENTS:

This is a request for a new 150 foot monopole telecommunications tower to be located within a 10,000 square foot lease area on a 7.9 acre tract (two tax parcels) at the northern terminus of Amburn Ln. The lease area is located on Tax Parcel 154 in the northeast corner of the site. The subject property is zoned A (Agricultural) and telecommunication towers are considered as a use on review in this district.

The lease area is proposed in a wooded area of the site, and with the condition that clearing be limited to the lease area and access drive, a natural wooded buffer will remain around the tower site. At Staff's request, the access drive is being relocated from the eastern side of Parcel 154 to the end of Amburn Ln. (See Attachment B) This change reduces the amount of site grading and the impact to the adjoining property owner. The access drive shall be paved to "minimum duty" road construction standard with a width of 16 feet and shall be provided with a turnaround area meeting the requirements of the Knox County Department of Engineering and Public Works and the Knox County Fire Marshal's Office.

The proposed tower is required to be located 165 feet (110% of the tower height) from the nearest residence. The proposed tower will be located approximately 225 feet from the nearest residence which is southeast of the tower on the adjoining parcel. The nearest residence in Springwood Subdivision located to the northwest is approximately 310 feet.

The visual impact on nearby residences will be reduced due to the existing tree coverage around the lease area. The applicant will be installing a 6 foot high security fence surrounding the tower and equipment area. Staff is recommending a condition that a landscaped evergreen screen be added around the fenced tower and equipment area.

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. AT&T will be the principal client for the tower. A letter has been submitted stating that AT&T agrees to make this facility available to other wireless providers for co-location. There are no other towers within one mile of the proposed tower that could provide the coverage needed by the applicant.

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 150' 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. In addition to the existing tree coverage, a landscaped screen will be required around the tower site which should reduce the impact on nearby residences.

CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOXVILLE ZONING ORDINANCE

- 1. The proposed commercial telecommunications tower at this location meets the standards required in the A 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, Northwest County Sector

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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 wooded area, the use will not significantly injure the value of adjacent property. The use will not draw any significant traffic through residential areas.

CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

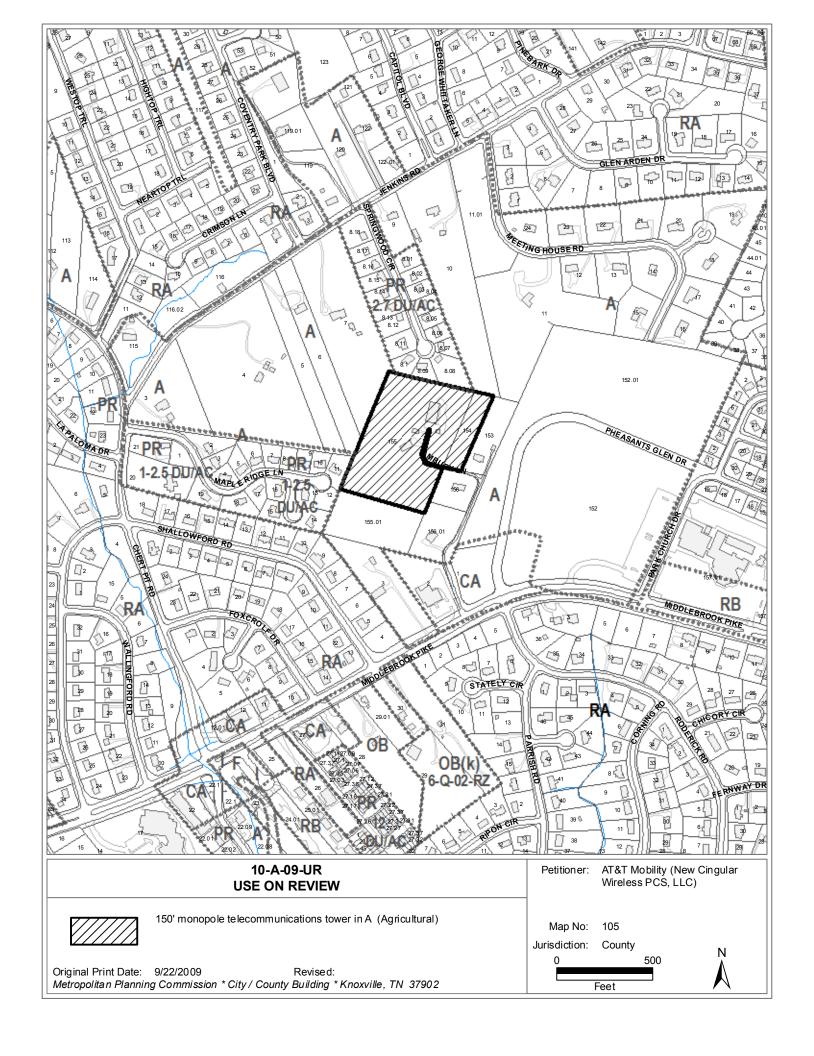
- 1. The Northwest County Sector Plan proposes low density residential uses for this area. The proposed development is consistent with this land designation.
- 2. The Wireless Communications Facility Plan identifies the proposed 150' monopole as a "moderate" monopole. Under the guidelines for Tower Placement section of the Facility Plan, the proposed tower falls within the "Sensitive" category which takes a neutral position on moderate monopoles located within 500' of a residence.
- 3. The site is located within the Planned Growth 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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ATT MOBILITY

Telecommunications Tower Site Review

10-A-09-UR

CONSULTANT'S SUMMARY

CHERT PIT ROAD SITE

Knox County

Location: 1344 Amburn Lane (Northwest Knox County near Chert Pit Road

and south of Jenkins Road)

Proposed Tower Height: 150 foot Monopole

Address: 1344 Amburn Lane

Knoxville, Tennessee

District: # 5 County **Parcel** ID # 10S-155

Use: Telecommunications antenna support structure

Zoning: A (Agricultural)

Variances and waivers: None required or requested

Need: The applicant is ATT Mobility a licensed PCS carrier by the Federal

Communications Commission and possibly other users

Instant Proposal: Construct a 150 foot monopole 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.

REPORT TO

METROPOLITAN PLANNING COMMISSION

for

Proposed Telecommunications Tower Site Located at 1344 Amburn Road Knoxville, TN known as

CHERT PIT SITE #232PO240

ATT MOBILITY

UOR 10-A-09-UR

COMPLIANCE WITH

THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

9/29/2009

The proposed site for the applicant is a 150 foot monopole antenna support structure (including antennas and lightning rod) to be located just east of Chert Pit Road and south of Jenkins Road on Amburn Lane in Northwest Knox County. 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. This site is known as a fill site (explained in the report).

REQUESTED

- 1. **Location.** The location is within the **County** of Knox in **District 5** and is located on **Tax ID # 10S-155** and in **Deed book 2100** at **Page 1027** in the Knox County Register of Deeds Office.
 - 2 Zoning. A (Agricultural)
- 3. **Tower height.** The requested height is 150 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**. 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 165 feet from the nearest dwelling unit. The proposed site is an estimated

75 feet from the northern property line and about 50 feet from the eastern property lines, but more than 165 feet from any dwelling units thus a variance will be not required.

- 5. **Site**. This application is for the construction of a new monopole type antenna support structure to be located in a open field with woods on the north and eastern 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 US Cellular Corporation and there is 3 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 165 feet from the nearest dwelling unit.
 - 8. **Height**. The proposed structure is for 150 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 1124 feet. It is located on a partially wooded parcel surrounded on the north and east by heavily wooded timberland.

The request is for a 150 foot monopole of which ATT will use the top 15 feet and the additional usable next area is for other carriers' expansion.

This a "fill" site. By that is meant that the coverage is inadequate in the area at the present from present facilities in the area and that the site is to be used as primary signal coverage to "fill in" a hole in the present coverage.

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. The site would be screened from any area roads to the south and north by the woods but would be seen by the resident on the southeast side as the acess road as proposed will clear the land between the site and the residence.

It is located in an A zoned area that is adjacent to a RA (Residential) Area to the north and a CA zone to the south.

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 (150 feet) coupled with no lighting requirements and located on a partially wooded land and in an agricultural zone pretty much away from any residences or other structures. This structure should have minimal impact on the view in the area. The way the access road is designed however, the view of the facility will be in fullview of the residence to the south and east of the site that is about 300 feet from the tower base.
- (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 is in a sensitive area
- (B) **Sensitive Areas**---This site is in a sensitive area as it is isolated and surrounded by woods and located **within 500 feet of a residence** to the north and to the south.
- (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 150 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 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. There are residences within 500 feet of the tower but the structure should have minimal impact on the area. The only residence with a view impact will be that to the southeast assuming the access road is prepared as on the plat plan.
- (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 that is presently existing. Should additional landscaping be required, the applicant is agreeable to providing same.
- (7) The applicant has received authorization from the various governmental agencies, including the Federal Communications Commission, 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 4 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.

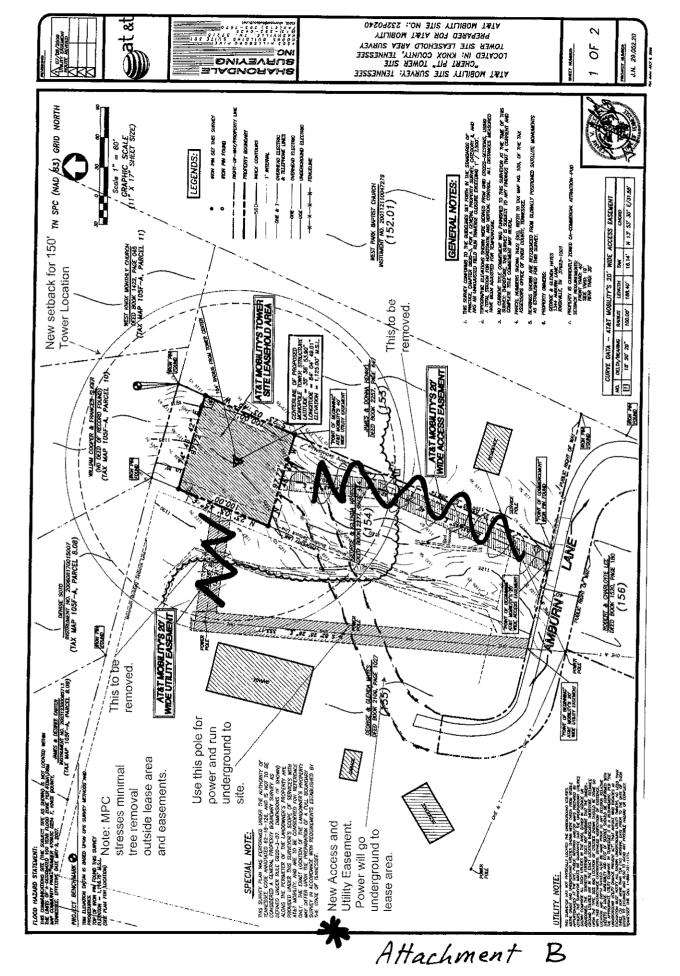
RECOMMENDATION

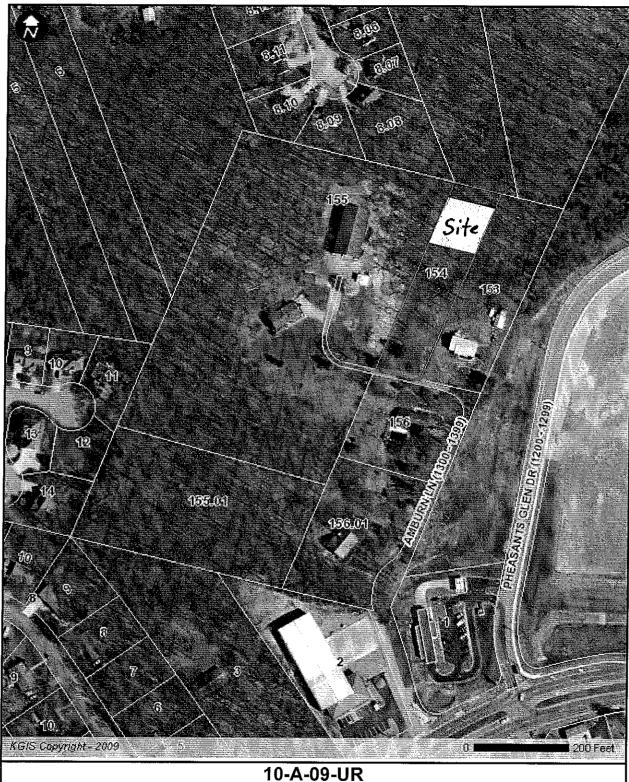
In light of the analysis and review of documents, it is my professional opinion that the applicant meets all requirements of the Ordinance and the spirit of the Facilities Plan as discussed above and is required for the applicant to meet their coverage requirements for the County of Knox.

Respectfully/submitted,

Larry Perry
Consultant to MPC

| HX | XHIBIT 7. AND IISEANIBEI ESS EACH ITIES MATRIV | -ço | Stealth | Low | Moderate | Tall | | - |
|--------|--|--|------------|--|----------------------|-----------------------|-------|----------------|
| | | Location | Structure | Monopole Below 90' | Monopole 90'-150' | Monopole 150'-199' | Tower | Guyed Tower |
| | Industrial/Business Park | | | | | | | |
| 5 | Industrial Use | | | | | | | |
| es | Pre-approved Government-owned Property | | | | | | | |
| Αγ | Urban Expressway Corridor | | | | | | | |
| tinu | Rural/Heavily Wooded | | | | | | | |
| itro | Pasture | | | | | | | |
| ddc | Central Business District | | | | | | | |
| | Office/Commercial Corridor | | | - T | | | | |
| | Shopping Center | | | | | | | |
| SE | Within 500' of a residence | | | | * | | | |
| les | Rural Residential | | | The second secon | • | | | |
| 4 əvit | Non-residential Properties in a Residential Area (church, cemetery, library, etc.) | | | | | | | |
| isu | Multi-family Residential | 200 200 200 200 200 200 200 200 200 200 | | | | | | |
| S | On Hill Below Ridgeline | | | | | | | |
| | The second secon | | | | | | - | |
| | Conservation Open Space | | | | | | | |
| SE | Scenic Highway | | | | | | | |
| :91A | Public Park | | | | | | | |
| eo | Ridge Top/Ridge Line | | | | | | | |
| qsu | Scenic Vista | | | | | | | |
| İΟΛ | Historic District/Site | district the second sec | | | | | | |
| 1 | Single-family Residential | | | | | | | |
| | Vacant Residential Lot | | | | | | | |
| | | | Encouraged | | Neutral | tral | | Discouraged |
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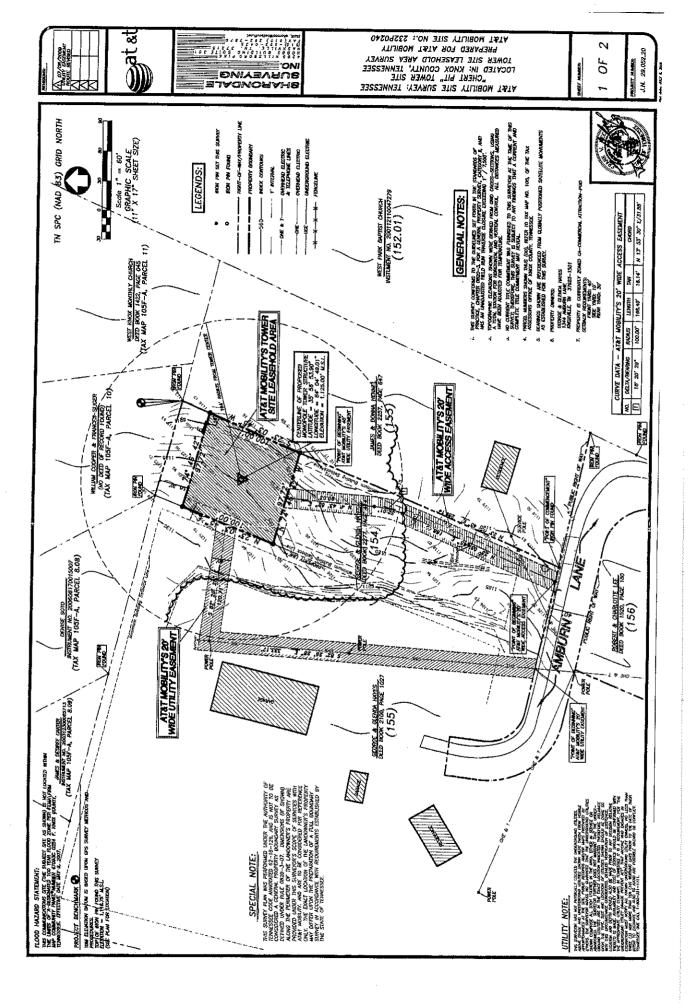


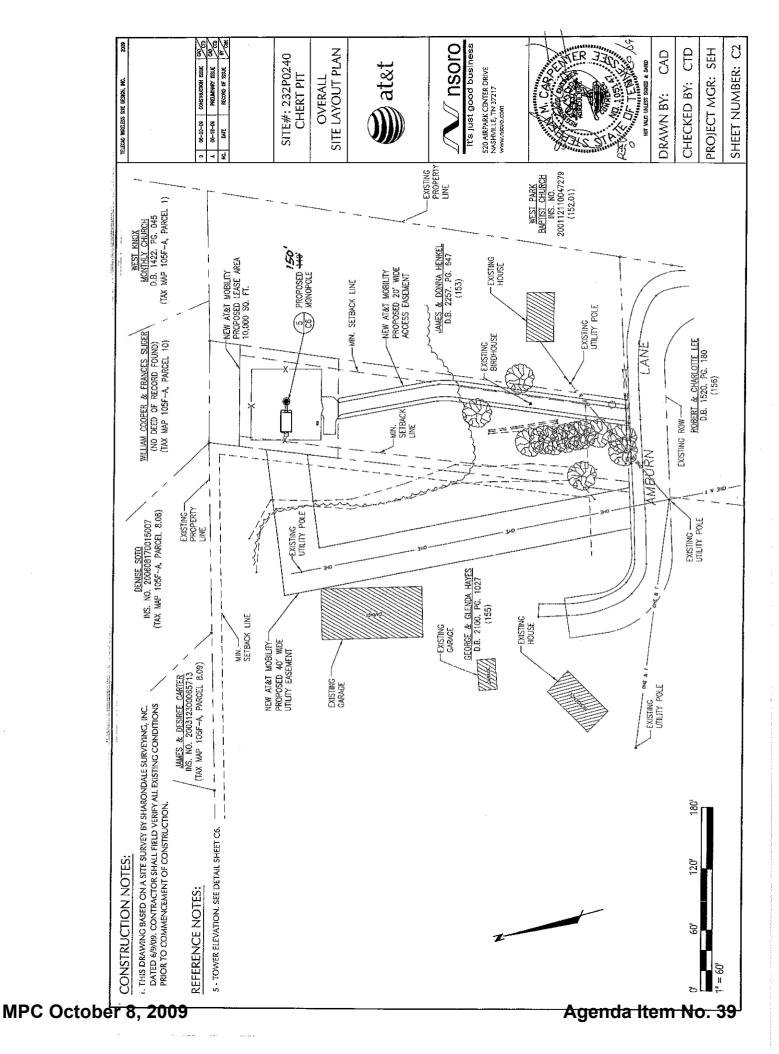
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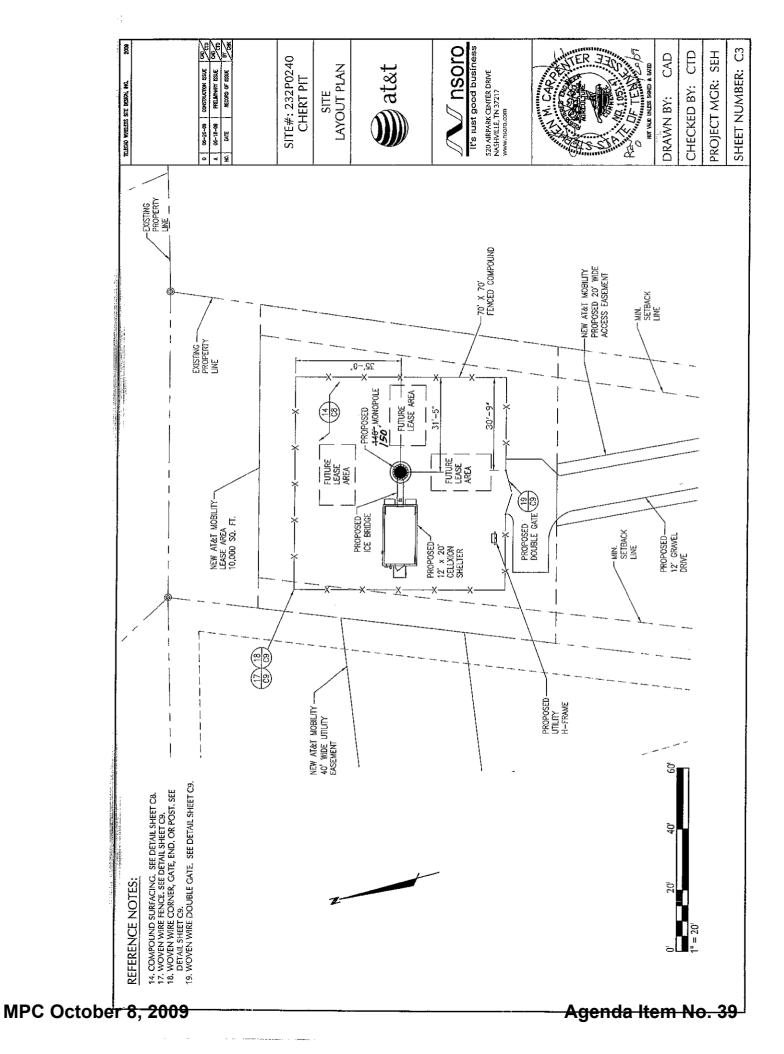
KGIS - 606 Main St - Suite 150 - Knoxville, TN 37772 - www.kgis.org

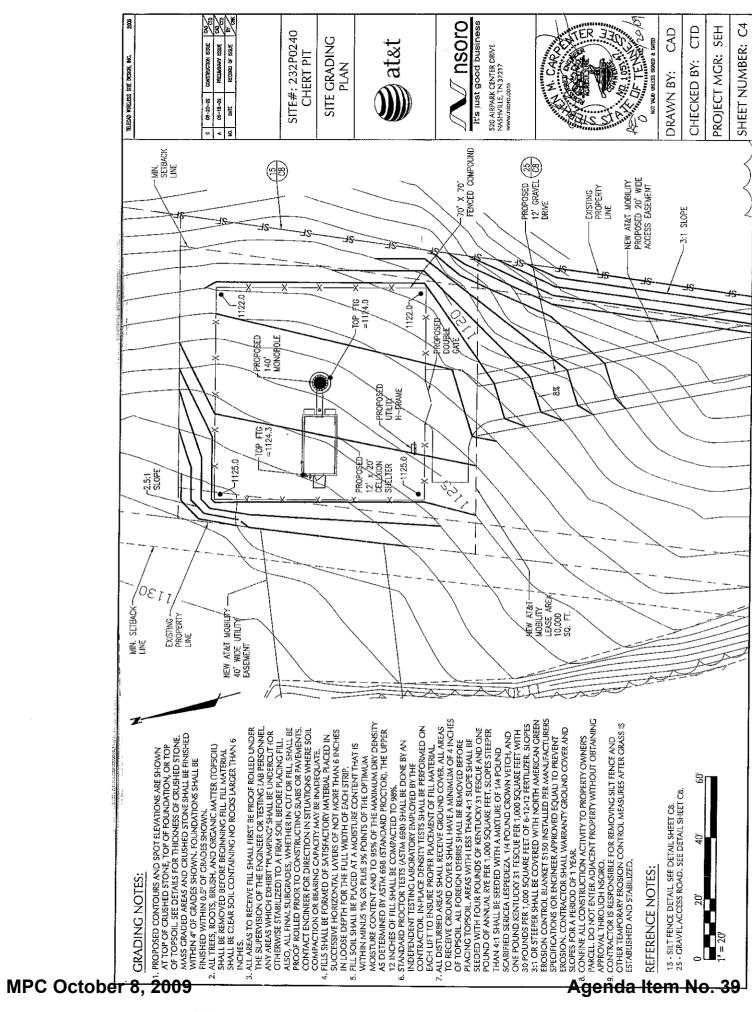
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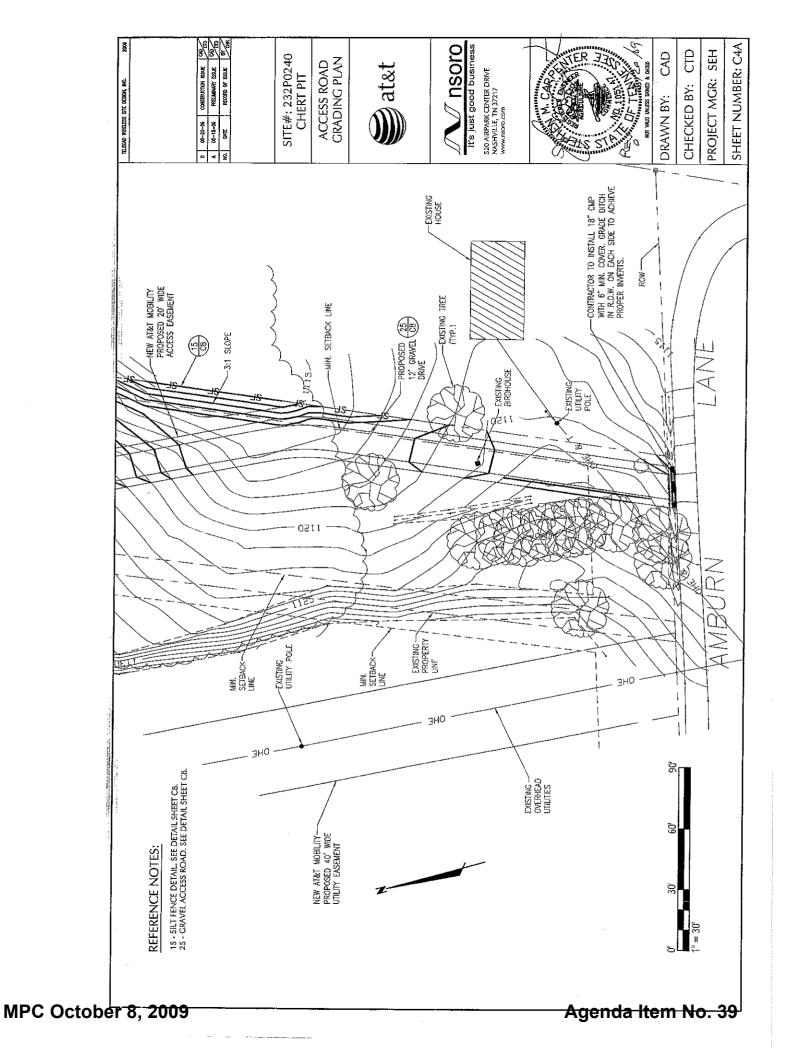
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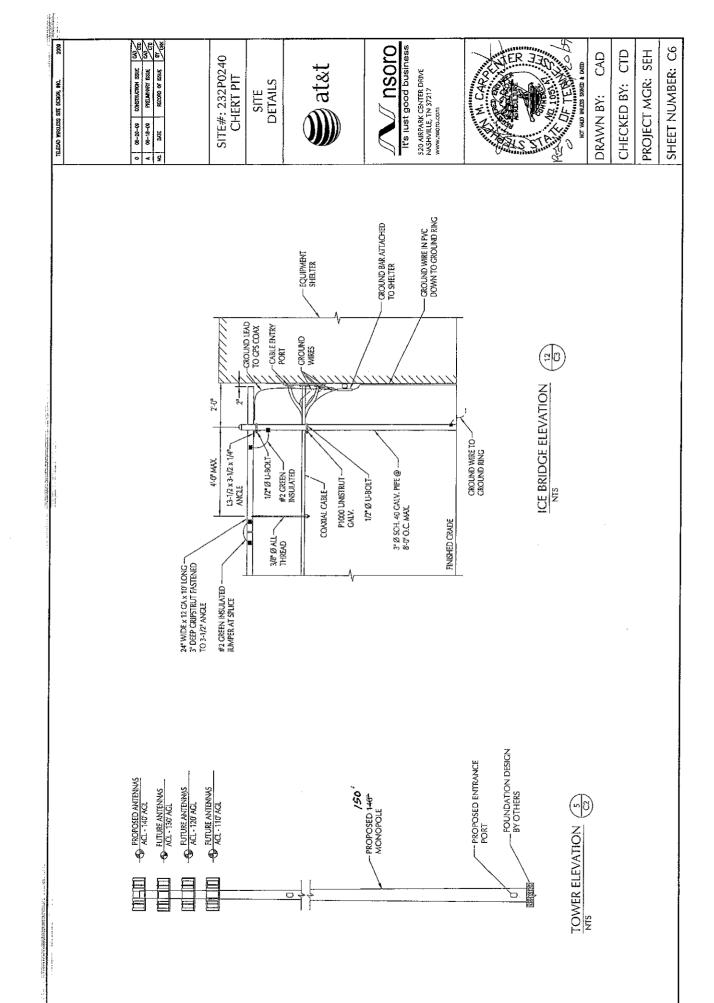














Erika Helle RF Design Engineer East TN and East KY 3585 Workman Road Knoxville, TN 37921 (865) 824-2231

August 19, 2009

Knox County

Re: RF Emissions Compliance Site: 232P0240- Chert Pit

Dear Sir or Madam:

This letter is to serve as documentation that the proposed AT&T site listed above, to be located in Knox County, Tennessee, has been designed and will be built and operated in accordance with all applicable FCC and FAA regulations and will allow for addition collocations from other carriers

Erika Helle RF Design Engineer



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

August 19, 2009

Re: Statement of Need: 232P0240 - Chert Pit

Dear Sir or Madam:

This letter is to state the need of the proposed AT&T site called **Chert Pit**, to be located in Knox County, TN. The **Chert Pit** site will improve coverage and reduce drop calls on the Chert Pit Road and surrounding roads as well as on the few new condominiums and a few more being built in the subdivision. The lack of a dominant server in the area causes many quality issues for the customers. With the addition of this site, the customers in the area will experience improved reliability, retainability, and improved access to emergency 911 services

Erika Helle RF Design Engineer From: James Henkel <henkeljj@gmail.com>
To: <betyjo.mahan@knoxmpc.org>

Date: 9/30/2009 12:47:40 PM **Subject:** Case 10A-09-UR Objection

MS. Mahan,

I currently reside at 1328 Amburn Lane and wish to voice my objection to the proposed towers in the vicinity of Amburn Lane. A tower would ruin this very small but beautiful neighborhood. Case 10A-09-UR is scheduled for a hearing on Oct 8, I will also be present at the hearing to voice my objection.

Thank you for your consideration in this matter.

Sincerely, James Henkel Jr. From: "James Henkel" < jhenkel6@gmail.com>

To: <bettyjo.mahan@knoxmpc.org>

Date: 9/29/2009 8:19:26 PM

Subject: Case 10A-09-UR

MS. Mahan,

I currently reside at 1328 Amburn Lane and wish to voice my objection to the proposed towers in the vicinity of Amburn Lane. A tower would ruin this very small but beautiful neighborhood. Case 10A-09-UR is scheduled for a hearing on Oct 8 and I cannot be present because I will on travel to Russia in support of a Department of Energy program in Oak Ridge.

Thank you for your consideration in this matter.

Please respond to this e mail so I can be assured it was received.

Sincerely,

Jim Henkel