

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

► FILE #: 9-B-10-UR AGENDA ITEM # 38

**AGENDA DATE:** 9/9/2010

► APPLICANT: EXCELL COMMUNICATIONS, INC.

OWNER(S): VALLEY VIEW BAPTIST CHURCH

TAX ID NUMBER: 70 A B 001

JURISDICTION: City Council District 4

► LOCATION: Northwest side of Old Valley View Dr., west of Fairway Rd.

► APPX. SIZE OF TRACT: 5.2 acres

SECTOR PLAN: East City

GROWTH POLICY PLAN: Urban Growth Area (Inside City Limits)

ACCESSIBILITY: Access is via Old Valley View Dr., 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: First Creek

ZONING: RP-1 (Planned Residential)

EXISTING LAND USE: Church

► PROPOSED USE: Approval of a 240' lattice telecommunications tower

NA

HISTORY OF ZONING: None noted

SURROUNDING LAND North: Vacant land / RP-1 (Planned Residential)

USE AND ZONING: South: Mixed residential / RP-1 (Planned Residential)

East: Vacant land and residence / RP-1 (Planned Residential)

West: Vacant land and mixed residential / RP-1 (Planned Residential)

NEIGHBORHOOD CONTEXT: This site is located in an area along Valley View Dr. that has a mix of both

single and multiple dwelling structures.

#### STAFF RECOMMENDATION:

► APPROVE the request for a 240' lattice telecommunications tower in the RP-1 zoning district, subject to the following 6 conditions:

- 1. Meeting all applicable requirements of the Knoxville Zoning Ordinance.
- 2. Submitting a revised plan for the access drive and turnaround area meeting the requirements of the Knoxville Fire Marshal and the Knoxville Department of Engineering.
- 3. Meeting all applicable requirements of the Knoxville Department of Engineering.
- 4. Providing lighting on the tower as required by the FAA.
- 5. Installing an evergreen landscaping screen around the fenced enclosure, as required by the Zoning Ordinance, within six months of the 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.

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With the above conditions, this request meets all requirements for approval of a use on review in the RP-1 zone.

#### **COMMENTS:**

The applicant received a use on review approval on November 13, 2008 for a 240' monopole telecommunication tower located within a 6400 square foot lease area on the northwest side of Old Valley View Dr., west of Fairway Rd. behind the Valley View Baptist Church. The tower will be located behind the church complex in the wooded slope on the south side of Sharps Ridge approximately 480' horizontally from the ridge line for Sharps Ridge and approximately 106' below the average ridge line elevation on the property. The subject property is zoned RP-1 (Planned Residential) and telecommunication towers are considered as a use on review in this district. Proposed access to the lease area will be from a 20' easement utilizing the existing paved driveway to a point that is 175' from the tower site. The access drive must meet the requirements of the Knoxville Fire Marshal's Office for driveway width and design of the turnaround.

The applicant is requesting a revision to the previous approval to allow a change in the tower design from a monopole structure to a lattice tower. The tower will still have a height of 240'. Attached to the staff report are photo simulation views from four different locations that show a monopole tower as originally approved and the proposed lattice tower. The base of the proposed lattice tower has a width of 25' for each of the three faces. While lattice towers are much larger structures, the openness of the lattice design allows the background (trees and sky) to show through which helps to reduce the visual impact of the tower. The approved 240' monopole is a solid structure that has a base diameter of approximately 5.5'. The Knoxville-Knox County Wireless Communications Facility Plan's Land Use/Wireless Facilities Matrix does not list monopole towers exceeding 199' (Tall Monopole 150'-199') but it does list lattice towers.

This property, along with other properties to the east and west are zoned RP-1. According to the Knoxville Zoning Ordinance, all towers shall be setback from all properties zoned residential, 110% of the height of the tower (264'). The proposed tower is located 70' from the property line to the west and 140' from the property line to the east. The applicant obtained setback variances from the Knoxville Board of Zoning Appeals on December 18, 2008. The approved variances still apply to this request.

FAA does require lighting for the tower since it exceeds 200' in height. The tower will support up to 4 telecommunication carrier antenna arrays. T-Mobile will be the principal client for the tower.

When the proposed telecommunications tower was approved in 2008, MPC's tower consultant, Mr. Larry E. Perry concluded that the 240' tower was technically justified by the materials submitted by the applicant. A copy of that report is attached.

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 all utilities are in place to serve this development.
- 2. The tower, being located adjacent to residential property, is required to be heavily screened. The existing woods around the site meets that requirement and will reduce the impact of the proposed tower on existing residential property.

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

- 1. With the stated conditions, the proposed commercial telecommunications tower at this location meets the standards for development within a RP-1 (Planned Residential) Zone and all other requirements of the Zoning Ordinance.
- 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 and One Year Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use will not draw additional traffic through residential areas.

CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

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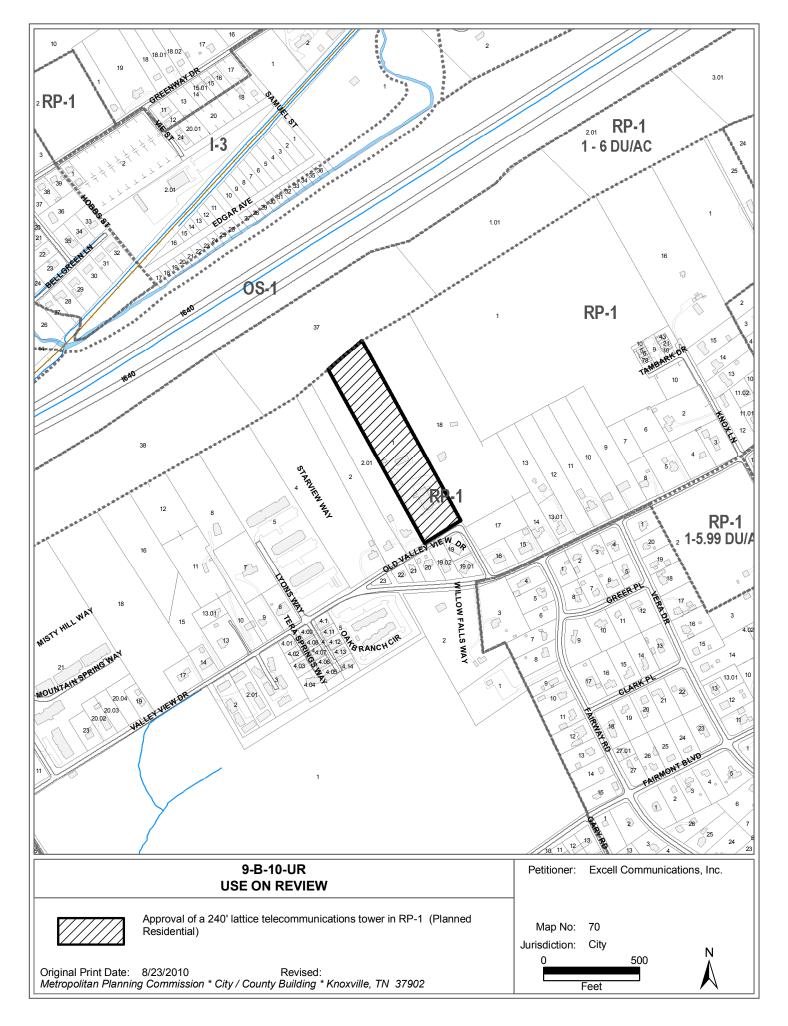
- 1. The East City Sector Plan identifies this property as medium density residential with a slope protection area on the northern third of the site. The Knoxville One Year Plan identifies the property as medium density residential with an open space designation on the northern third of the site. The site is located in the Urban Growth Area of the Growth Policy Plan.
- 2. The Knoxville-Knox County Wireless Communications Facility Plan does not address monopole towers exceeding 199'. Under the guidelines for tower placement section of the Facility Plan, the proposed lattice tower falls within the "Sensitive Area" category because the tower is within 500' of a residence, it is on non-residential property (church site) within a residential area and is on a hillside below a ridgeline (see attached matrix). The Plan discourages lattice towers and tall monopoles within 500' of a residence and on non-residential property (church site) within a residential area. At the proposed location there is only one residence within 500' (approximately 340' from the tower) of the tower and the area between the tower and residence is heavily wooded. The tower is also located behind the church complex in a wooded area. The Plan takes a neutral position on lattice towers that are located on hillsides below the ridgeline. As stated above, the tower is located at an elevation on the hillside that is approximately 106' below the ridgeline.

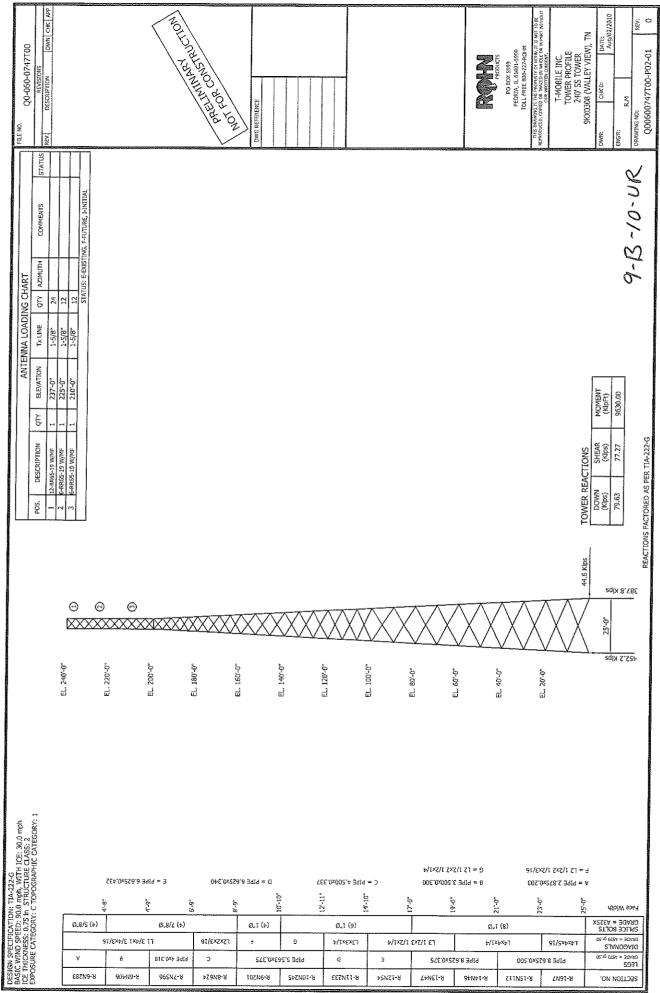
ESTIMATED TRAFFIC IMPACT: Not calculated.

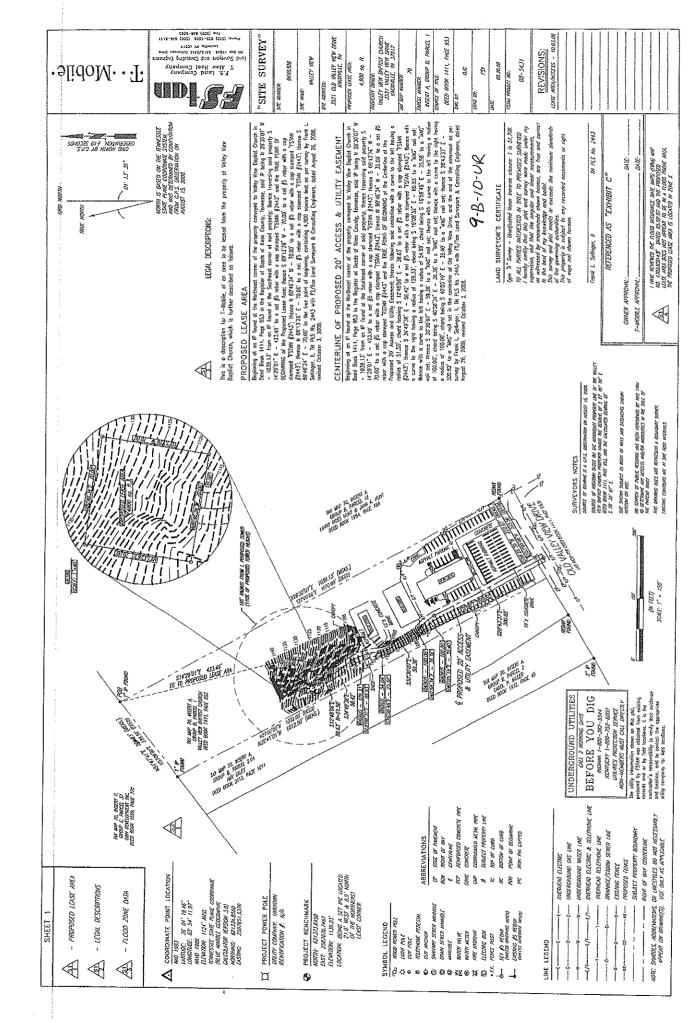
ESTIMATED STUDENT YIELD: Not applicable.

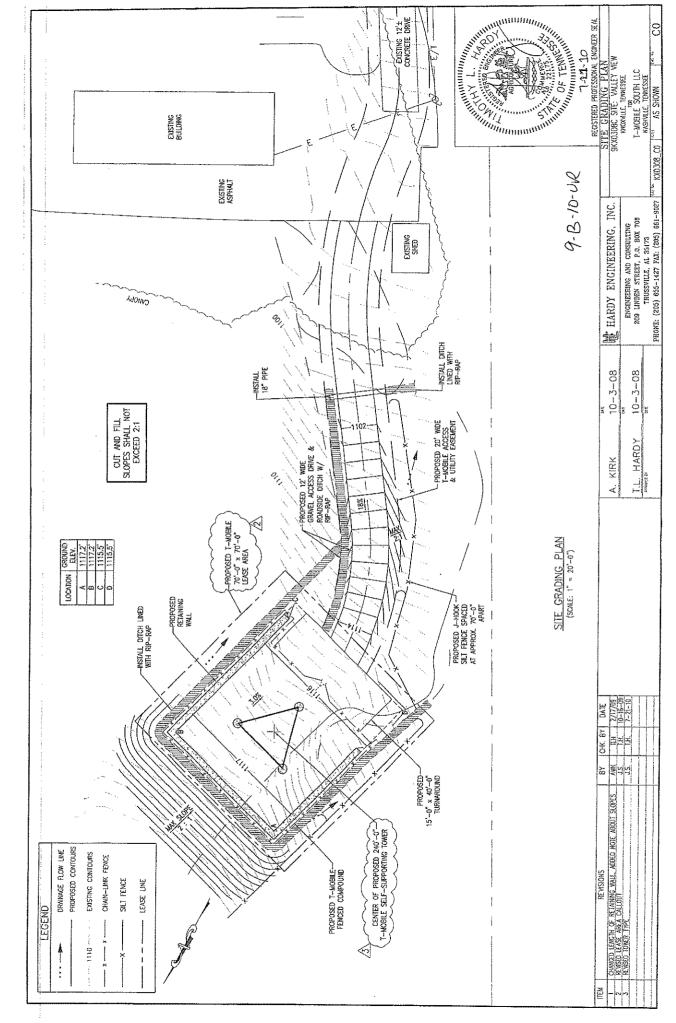
MPC's approval or denial of this request is final, unless the action is appealed to the Knoxville City Council. The date of the Knoxville City Council hearing will depend on when the appeal application is filed. Appellants have 15 days to appeal an MPC decision in the City.

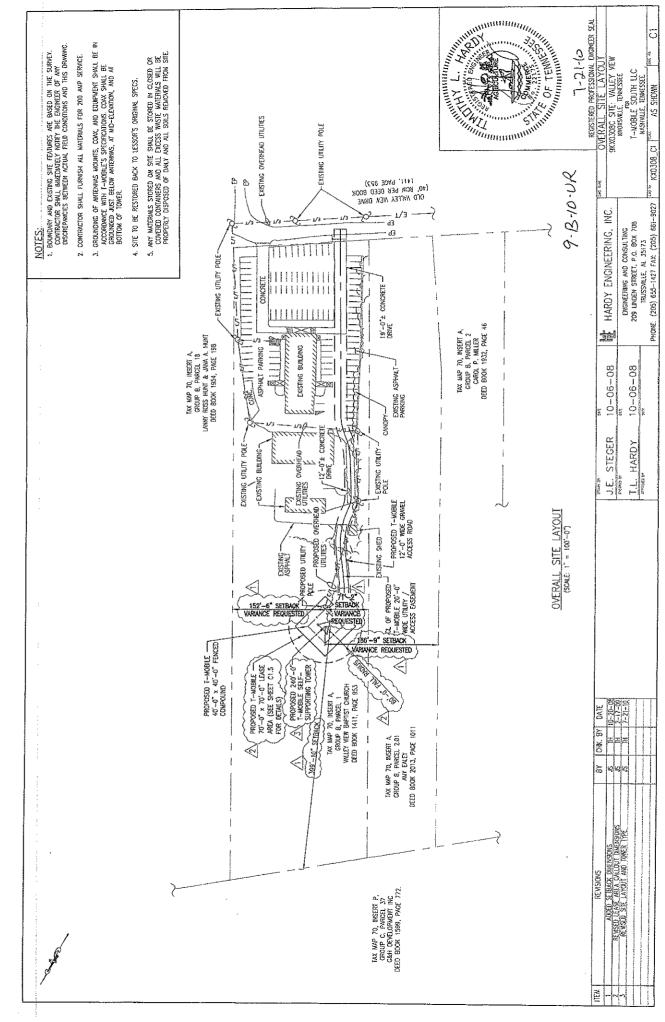
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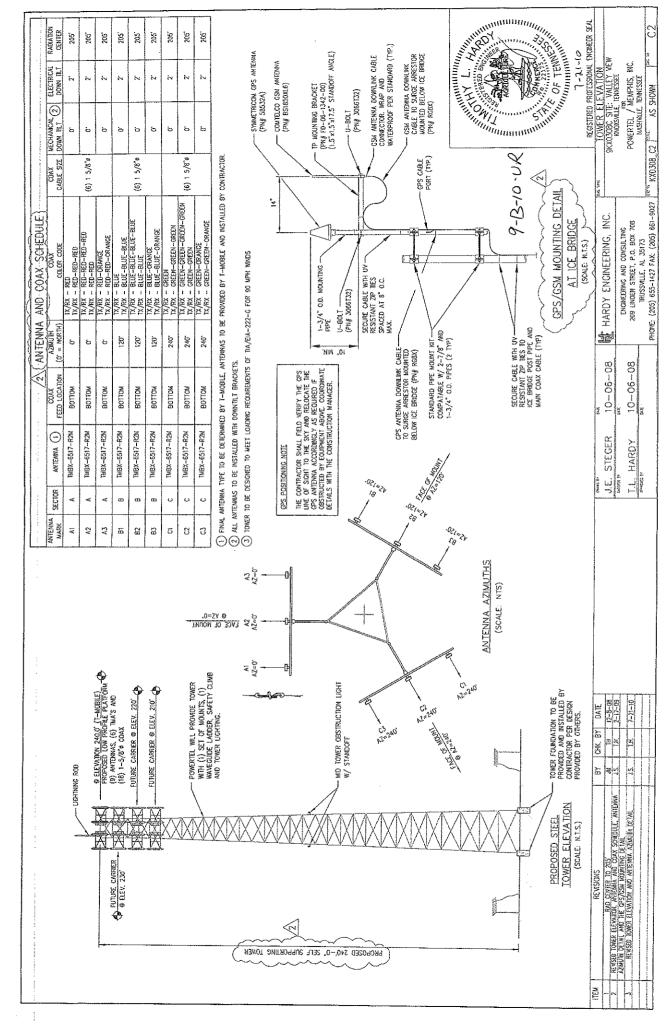


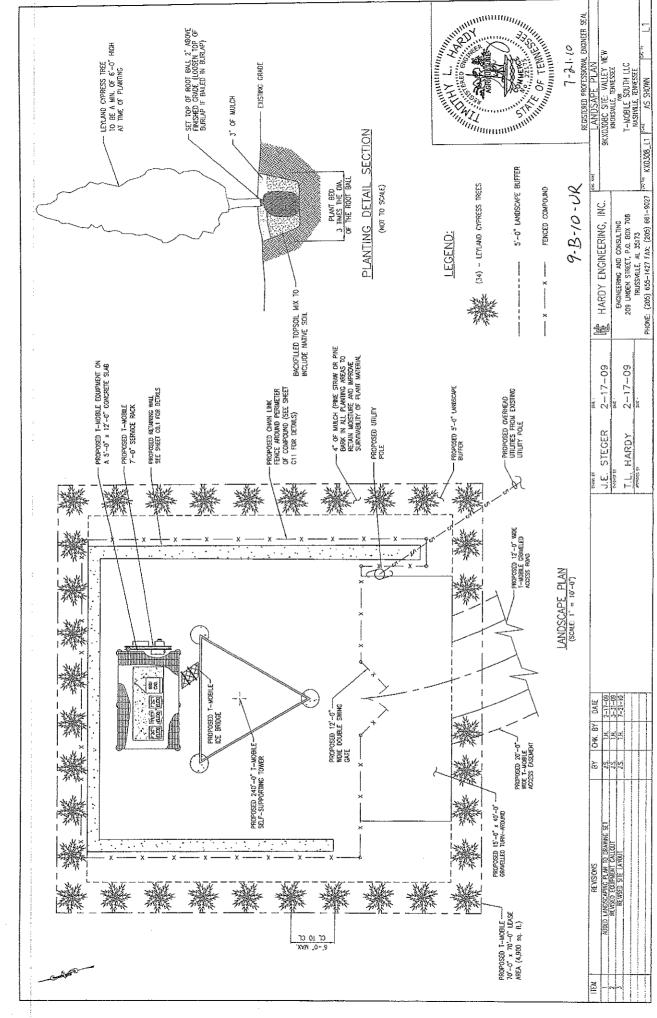




























I WE I	EXHIBIT 7. LAND USE/WIRELESS FACILITIES MATRIX		Stealth	Low	Moderate	Tall	Lames	E E
		- PORTHOLI	Structure	Below 901	90'-150'		Tower	Tower
	Industrial/Business Park							
8	Industrial Use							
12 <del>1</del> )	Pre-approved Government-owned Property							
iA (	Urban Expressway Corridor							
Ma	Rural/Heavily Wooded							
0)1(	Pasture							
odd(	Central Business District							
<b>)</b>	Office/Commercial Corridor							
	Shopping Center							
	ORDER DE LA CONTRACTOR DE							
Si	Within 500' of a residence						2	
(E),(E)	Rural Residential						8	
νемі	Non-residential Properties in a Residential Area (church, cemetery, library, etc.)						2	
iene	Multi-family Residential						8	
S	On Hill Below Ridgeline						>	
							8	
100	Conservation Open Space							
S	Scenic Highway				Part of the Control o	150 150 150 150 150		
ЭЛ;	Public Park							
7 <b>Ə</b> ƏI	Ridge Top/Ridge Line							
nsb	Scenic Vista							
iov <i>i</i>	Historic District/Site							
í	Single-family Residential							
	Vacant Residential Lot							
			Encouraged		Nautral			
			ò		100	B.		Discouraged

#### T MOBILE

# USE ON REVIEW APPLICATION #11-E-08-UR /9-B-1/1-UR

# CONSULTANT'S SUMMARY

## OLD VALLEY VIEW DRIVE SITE REQUEST

Location: 3521 Old Valley View Dr. (City of Knoxville)

Proposed Tower Height: 240 feet (including lightning rod)

Address: 3521 Old Valley View Drive

Knoxville, Tennessee 37917

District: 4th Councilmanic Dist Tax Map#: 70 Tract 001

Use: Telecommunications antenna support structure

Zoning: RP1 (Planned Residential) but is immediately adjacent to an OS zoned area to the northwest.

Variances and waivers: Set back is less than 110% of the tower height to nearest residential property line. The instant application fall zone (110%) overlaps two residential property lines and a variance is required.

Need: The applicant is a communications carrier that provides communication service to area citizens. The applicant in this case is T Mobile, a licensed PCS carrier by the Federal Communications Commission. The carrier has justified a need for service in the area.

Instant Proposal: Construct a 240 foot (maximum) monopole type support structure. Lighting required.

Consultant's Recommendation: The applicant proves adequate justification for the site using a monopole type antenna support structure.

4-08

#### REPORT TO

#### METROPOLITAN PLANNING COMMISSION

for

Proposed Telecommunications Tower Site located on Old Valley View Dr.
Knoxville, TN

#### T-MOBILE SOUTH LLC

UOR 11-E-08-UR /9-B-10-UR

#### COMPLIANCE WITH

#### THE MPC TELECOMMUNICATIONS FACILITY ORDINANCE

11/4/2008

The proposed site for the applicant is on Old Valley View in northeast Knoxville (City) on a hill behind a church. The supporting material from applicant has been reviewed for technical and Federal/State legal compliance.

### REQUESTED

- 1. Location. The location is within the City of Knoxville limits in Councilmanic Dist 4 and is located on Tax Map 70 Tract 01.
  - 2. Zoning. RP-1 (Planned Residential) zone
- 3. **Tower height.** The requested height is greater than 200 feet (240 feet) above ground level. Lighting will be required on this structure.
- 4. Variances. The set back requirements in Article 5 Section 20 of the Ordinance for the City of Knoxville cannot be met at this location just below a ridge line and the applicant has requested a variance of the set back line which is required to be 110% of the tower height or in this case 264 feet from the base of the tower which in this case overlaps two adjacent property lines.
- 5. **Site**. This application is for the construction of a new 240 foot monopole on a hill behind a church just off Old Valley View Drive.
- 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.
- 7. **Setbacks**. The setback requirements in Article 4a Section 4a(D) for RP-1 construction is a minimum 110% of the height of the tower from any property

line. (Art. 4 Section 4.4a(1) see also Article 5 Section 20 (4). A variance is required as two sides of the fall zone circle fall over adjacent property lines. However, both parcels are in a wooded area and not close to any residential homes.

- 8. **Height**. The proposed structure will be up to 240 feet (maximum including lightning rod) overall height. It will require lighting to meet FAA requirements. (*Art.5*, *Section 20 (3) of the Ordinance.*)
- 9. **Alternatives:** There are no other alternative antenna support structures in the area.
- 10. Facilities Plan Compliance: The proposed site is located in Sensitive area in that it is within 500 feet of a residential home, located on a non-residential property (church property) in a residential area, and is located on a hill slightly below the ridgeline. Because of the height (240 feet) and area, this would normally be a Discouraged site, however the fact that the site is located within a wooded area surrounding the base of the tower and that there are no other towers near that could be used to provide the coverage needed by the applicant make this site marginally acceptable when compared with the coverage it will provide with the proposed tower height and will eliminate the need for an additional tower later.

#### **EVALUATION**

The following is a list of items reviewed:

Zoning Ordinance for Knox Tennessee by Metropolitan Planning Commission---Telecommunication Facilities Section (as amended thru July 1, 2006)

The MPC Wireless Facilities Plan dated 2004.

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.

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 landscape 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. Further, I reviewed their specifications and requirements.

The applicant has proposed a site that is located slightly below a ridgeline in a wooded area behind a church but within an RP-1 zoned area. There will be some

impact on the aesthetics of the area.

The location is an area zoned RP-1 (Planned Residential) and is located immediately adjacent to an OS zoned area to the northwest. The area would be characterized as a Sensitive Area area and Discouraged based upon the Land Use/Wireless Facilities Matrix, however, the fact that the site is located within a wooded area surrounding the base of the tower and that there are no other towers near that could be used to provide the coverage needed by the applicant make this site marginally acceptable when compared with the coverage it will provide with the proposed tower height and will eliminate the need for an additional tower later.

Lighting for the structure will be required.

There is a need for the added signal coverage as proposed by the carrier, T Mobile based on the signal contour maps provided and verified by the applicant along the I 640 corridor and the surrounding area along Valley View.

#### SUMMARY

(1) The proposed antenna support structure is a 240 foot (maximum) monopole including antennas. There is lighting required by the FAA.

- (2) The structure design meets or exceeds FCC and EIA requirements.
- (3) The area of the proposed site is zoned RP-1. There is are residences in the immediate area within 500 feet but isolated by tall trees and heavily wooded terrain.
- (4) The proposed equipment housing facility will have no impact on the aesthetics of the adjacent land uses.
- (5) 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.
- (6) 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 and it is only temporary and seasonal.
- (7) There is a variance required for setbacks for the proposed site as the fall zone of the tower (264 feet) does partially lie within two residential property lines, but the overlap is in a wooded area and of no hazard to the residential homes.
- (8) The proposed site and structure will have no environmental impact within the federal guidelines as it is located on an existing Electronic Site.
- (9) 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 tower.
- (10) The proposed frequencies to be used by the various applicants who plan to use the site should present no problem nor any interference to area reception of commercial television or radio signals.
- (11) There is a need for the structure in this area to provide signal coverage for the surrounding area by the applicant.

#### SUMMARY

In light of the analysis and review of documents, it is my professional opinion that the applicant **has justified** the showing for the site on Old Valley View Road adjacent to a church building complex and should have minimal impact on the surrounding land uses.

Respectfully submitted,

Consultant to MPC