

MEMPHIS AND SHELBY COUNTY OFFICE OF PLANNING AND DEVELOPMENT
STAFF REPORT

#21

[emended 3/1/2010]

CASE NUMBER: S.U.P. 10-203

L.U.C.B. MEETING: February 11, 2010

LOCATION:

North side of Knight Arnold Road; ± 150 ft. west of Mendenhall Road

CITY COUNCIL DISTRICT:

#3

COUNCIL SUPER DISTRICT:

#8

OWNER:

American Property Company, LP

APPLICANT:

Tower Ventures V, LLC & TV6-W, LLC

REQUEST:

Cell tower, 140 ft. monopole, standard design

AREA:

Site: 1,250 sq. ft. leased area on a 41,600 sq. ft (0.95 acre) lot

EXISTING LAND USE & ZONING:

Retail store in the Local Commercial (C-L) District

SURROUNDING USES AND ZONING:

North: Apartment complex.

East: The same apartment complex and a gas station

South: Across, Knight Arnold Road, commercial uses.

West: Gas station / convenience store and a financial services business

Zoning: All of the above properties are in the Local Commercial (C-L) District

[FINAL] OFFICE OF PLANNING AND DEVELOPMENT RECOMMENDATION

~~HOLD~~ → Rejection

(Land Use Control Board recommended: Approval, with Conditions)

CONCLUSIONS

1. A lead carrier is trying to introduce a new type of communications coverage in the Memphis area, and has provided documentation of the proposed service area to be covered from this location. Apparently an ideal site would have been located farther east, nearer Clark Road.
2. The selected siting is very adverse in its close proximity to an apartment building, and except for the plantings prescribed by the zoning ordinance, the tower base compound would, at least for several years, have minimal screening from Knight Arnold Road and the businesses facing the parking lot on the south side of the street.
3. Alternative locations in the vicinity of the subject property are extremely limited; a reconsideration of possible sites in the area to the east might turn up additional alternative sites.

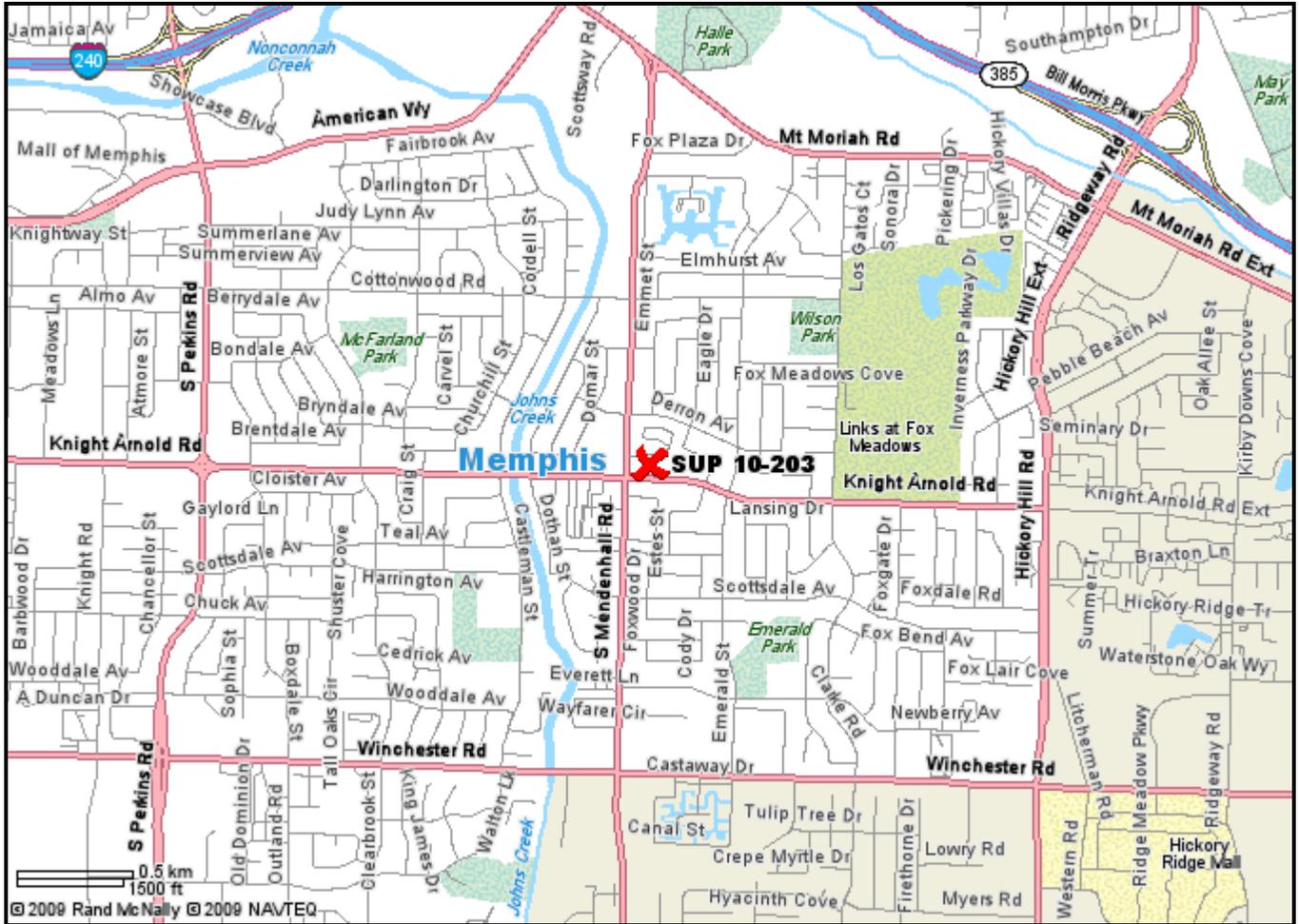


Figure 1: Location Map
(Copyrighted material licensed for limited distribution)

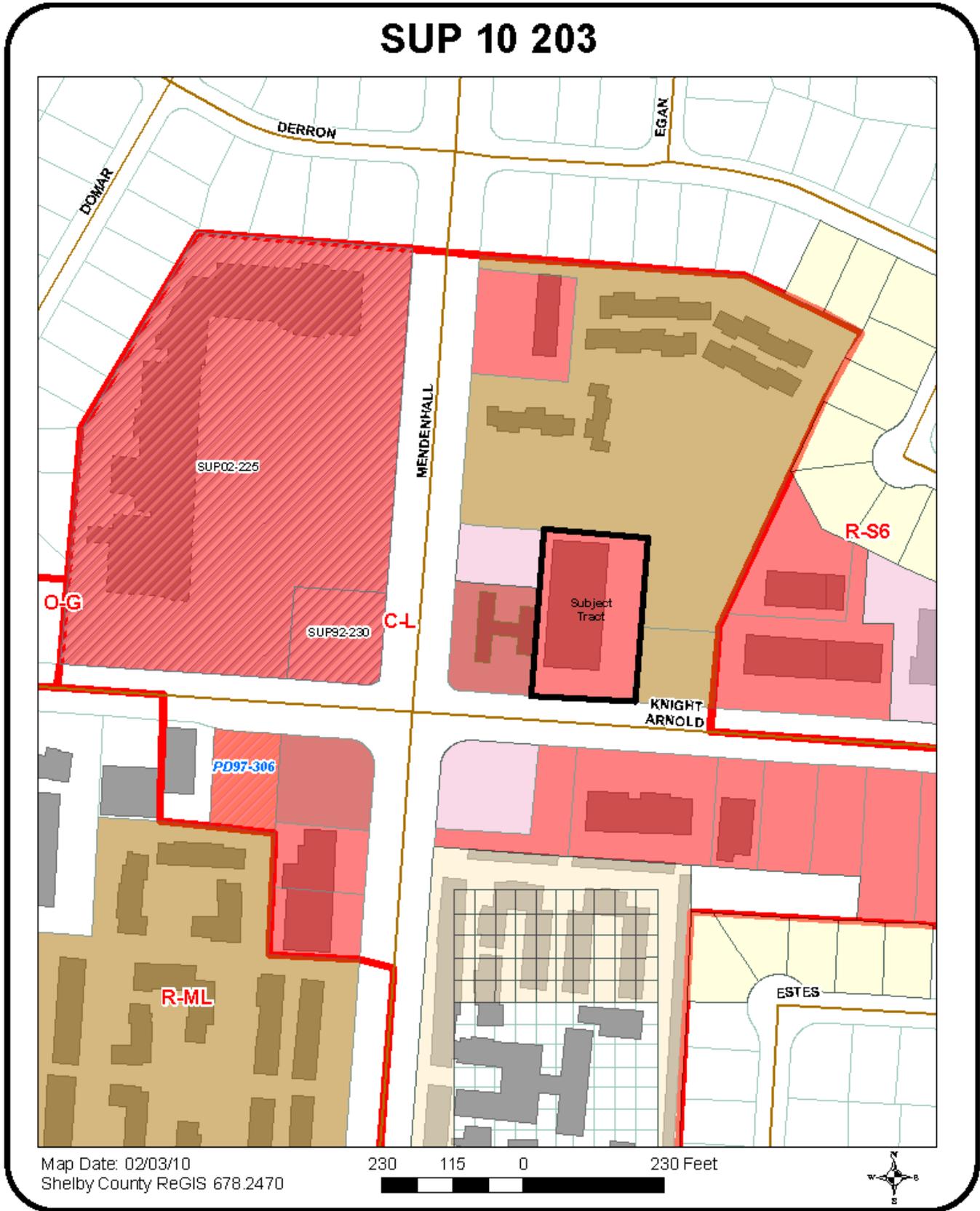


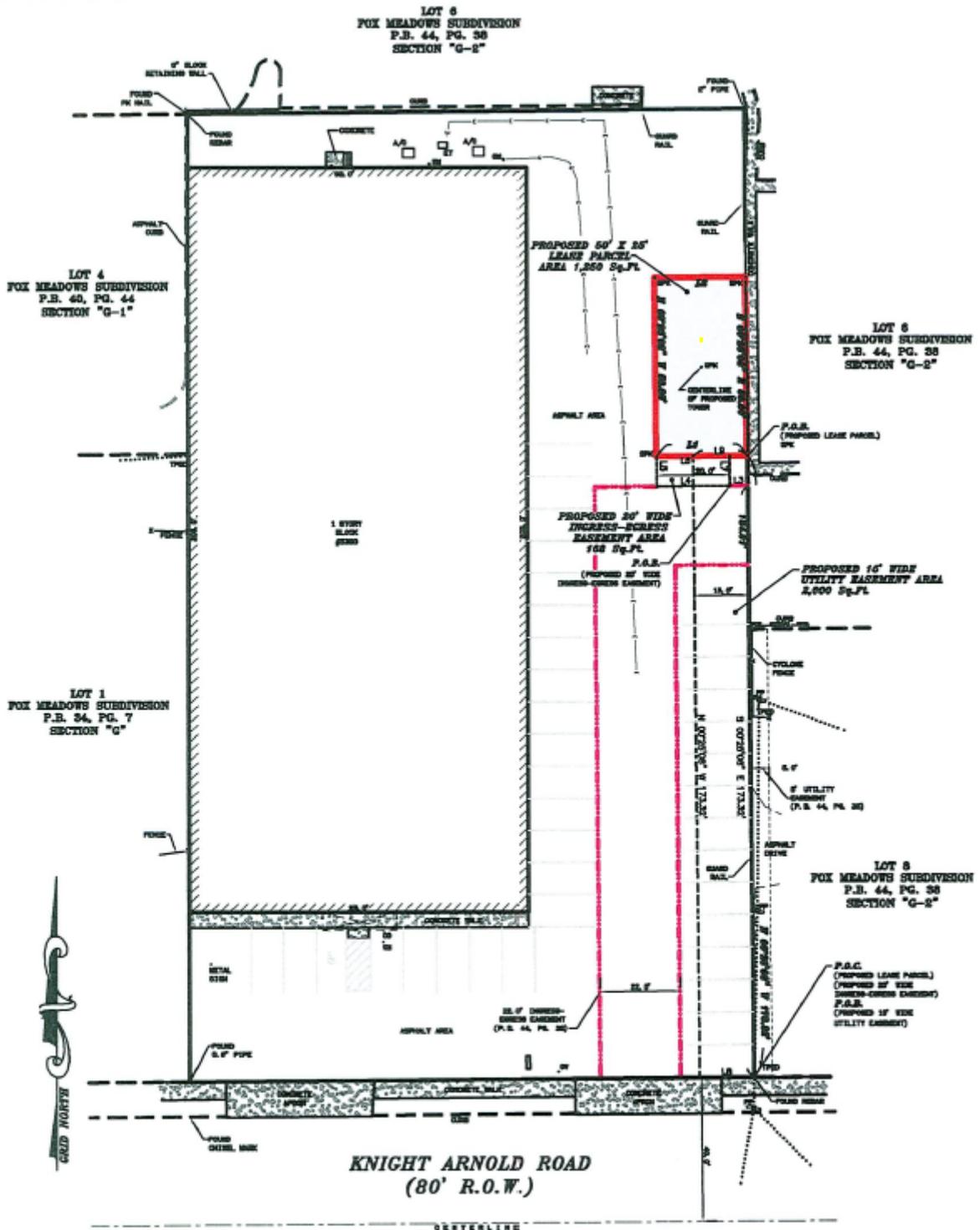
Figure 2: Zoning and Land Use in the Vicinity of the Subject Property



Figure 3: Overhead view of vicinity



Figure 4: Subject property



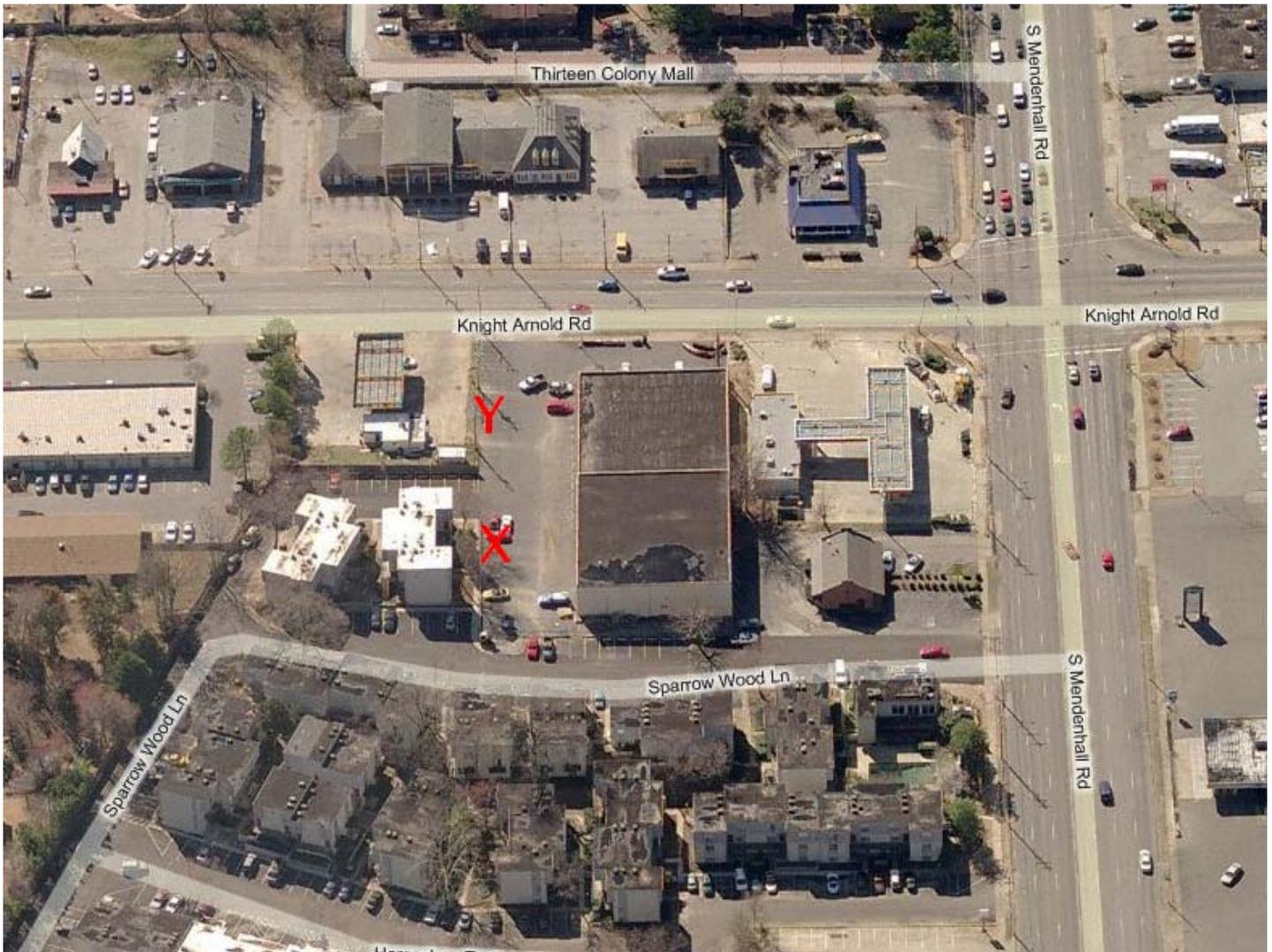
MILESTONE LAND SURVEYING, INC.
 10300 HIGHWAY 70, SUITE F1
 LAKELAND, TN 38002
 PHONE: (501) 867-8671
 FAX: (501) 867-8699

CERTIFICATE:
 I hereby certify that this is a Category I Survey and that the ratio of precision of the unadjusted survey is 1:110,000 or greater.

MILESTONE LAND SURVEYING, INC.

BY: _____ Date: _____
 Daryl Marwood, RLS
 President
 Tennessee Certificate No. 2135

Figure 5A: Plot / Site Plan as Originally Proposed



**Figure 6: Birds Eye View of the immediate vicinity
(looking southward, in the opposite direction from the previous graphics)**

**[The letter symbols show the approximate location of the cell tower
as originally proposed (X) and as considered by the Land Use Control Board (Y)]**



Figure 7: This store is the primary structure on the subject property



Figure 8: The proposed cell tower site would be along the eastern property line. [As originally proposed,] it would be near the closest apartment building in this view. [In the revised site plan the tower site would be behind the van shown here at the right, which is parked next to the property of a gas station that is mostly out of the picture in this view.]



Figure 9: This is a close up view of the location [originally] proposed for the lease area and tower site --- directly in front of this apartment. (The red door of an upper story apartment entrance may be seen in this view.)



Figure 10: This shopping center on the south side of Knight Arnold Road would be opposite the entrance to the parking lot and would have a direct view of the proposed tower site.



Figure 11: The applicant indicates that this existing cell tower residence, at the rear of a property near the southwest corner of Knight Arnold and Mendenhall, may not be technically capable of supporting another carrier and is considered very much on the fringe of the target area for this service.

STAFF ANALYSIS

Site and Location

The subject property consists of a parcel that is slightly smaller than one acre, located on the north side of Knight Arnold Road, just 150 feet east of Mendenhall Road. This intersection is the focus of a neighborhood shopping area, featuring the Fox Meadow shopping center on the northwest corner of the intersection. There are also three apartment complexes in relative proximity to this intersection, including the 171-unit Fox Lair complex abutting the subject property on the north side and north half of its eastern side. The subject property contains a 19,300 sq. ft. retail store constructed in 1972 and in use as a furniture store.

Proposed Development

The applicant has proposed to erect a 140-foot standard cell tower with the equipment compound set back about 172 feet from the Knight-Arnold Road right of way. The 50' x 25' foot equipment compound would be located adjacent to the guard rail fence separating the parking lot from an apartment building on the adjoining property. The setback distance to the apartment building appears to be about 15 feet.

[In the revised plan, a 20' x 75' equipment compound would be located along the east property line adjacent to a gas station. The compound would have a setback of approximately 40 feet from the Knight Arnold right of way, and the tower itself would setback 84 feet from the right of way.]

No screening is shown in the lot plan, although the zoning ordinance does require plantings, and appropriate fencing to screen the equipment compound at the tower base.

Neighborhood Context

As noted above, this property adjoins businesses that are part of a neighborhood commercial activity center around the nearby intersection, and it also adjoins residential property, although that property is not appropriately zoned. (The Board of Adjustment may well have granted a use variation many years ago to permit this development.)

Special Use Permit Standards

In the current City of Memphis zoning ordinance, cell towers may be permitted in the Local Commercial (C-L) District subject only to an administrative site plan review. However, if a proposed cell tower site is within 500 feet of a residential zoning district, as in this case, the tower is permissible only subject to a site plan approval by the Memphis City Council through the special use permit process.

The zoning ordinance sets forth five general standards of compatibility established for all special use

permits¹, and in addition, the zoning ordinance does specify certain standards for commercial mobile

1 General standards of applicability

1. That the proposed building or use will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other matters affecting the public health, safety and general welfare.
2. That the proposed building or use will be constructed, arranged and operated so as to be compatible with the immediate vicinity and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations.
3. That the proposed building or use will be served adequately by essential public facilities and services such as highways, streets, parking spaces, drainage structures, refuse disposal, fire protection, water and sewers; or that the persons or agencies responsible for the establishment of the proposed use will provide adequately for such services.
4. That the proposed building or use will not result in the destruction, loss or damage of any feature determined by the legislative body to be of significant natural, scenic or historic importance.
5. That the proposed building or use complies with all additional standards imposed on it by the particular provision of this section authorizing such use.

2 CMCS facilities subject to the following additional standards:

- (1) Within residential zoning districts, CMCS facilities, support structures and associated attachments shall be encouraged to locate on publicly owned and/or leased properties, public/private utility owned properties, or institutional uses.
- (2) The location, size and design of such facilities shall be such that minimal negative impact results from the facility. Any application for a new CMCS tower shall not be approved nor shall any building permit for a new CMCS tower be issued unless the applicant certifies that the CMS equipment planned for the proposed tower cannot be accommodated on an existing or approved tower or other structure due to one or more of the following reasons:
 - (a) The planned equipment would exceed the structural capacity of existing and approved structures, considering existing and planned use of those structures, and those structures cannot be reinforced to accommodate planned or equivalent equipment at a reasonable cost.
 - (b) The planned equipment would result in technical or physical interference with or from other existing or planned equipment and the interference cannot be prevented at a reasonable cost.
 - (c) There are no appropriate existing or pending structures to accommodate the planned equipment, taking into account, among other factors, the applicant's system requirements.
 - (d) Other reasons that make it impractical to place equipment planned by the applicant on existing and approved structures.
- (3) Applications for CMCS facilities to be located on publicly owned and/or leased properties, including without limitations, public parks, the following criteria shall apply:
 - (a) The CMCS facility will not unduly interfere with the functions or aesthetics of the city park or property.
 - (b) A CMCS facility shall not be located on any public park less than ten acres in size.
 - (c) Minimum distance between any CMCS facility and any playground shall be equal to 1 1/2 times the height of the tower.
 - (d) The use of an existing tower or existing support structure is not technically, structurally, economically and/or financially feasible.
 - (e) The proposed facility has adequate capacity to handle a minimum of three additional users.
 - (f) All towers shall be a "stealth" application or consistent with the natural or built environment or the site. Landscaping and screening may be required in addition to the minimum requirements of this ordinance.
 - (g) Obstruction lighting and/or marking shall not be permitted in public parks or on public school properties. On other public properties, proposed lighting may be approved by the city council and/or county commission as an element of the special use permit site plan and conditions.
 - (h) Any CMCS facility which has ceased operations for a period of 180 continuous days shall be dismantled and removed from the site at the owners expense. Prior to the issuance of a building permit for such CMCS facility, adequate financial security not to exceed \$20,000.00 shall be posted with the building official to assure the dismantling, removing and restoring of the public property/park upon which the CMCS facility will be located.
 - (i) The planned equipment will not interfere with emergency communications including without limitation those of the Memphis Fire and Police Departments, the county fire department and/or the county sheriff's department as substantiated through a RF (radio frequency) study. If interference occurs, proper remediation steps shall be taken.
- (4) Any proposed tower shall be structurally designed to accommodate at least three additional CMCS sectorized antennae array if at least 100 feet in height, at least five additional CMCS sectorized antennas if at least 150 feet in height or at

communication service CMCS towers, which are commonly described as cell towers.²

Review of this Proposal

Alternative locations in the immediate vicinity are few. The search for alternatives is complicated

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- least six additional CMCS sectorized antennas if at least 170 feet in height. Colocated CMCS antennas shall be placed on a structure in such a manner as to avoid interference with or impairment of operations of existing antennae or other uses.
- (5) Nothing in these rules and regulations shall obligate the owner of an existing tower to collocate additional antennas on such tower or be construed to interfere with or limit the rights of parties to set rent or establish other terms and conditions of the shared use of a CMCS tower or facility.
 - (6) The minimum setback requirement for support structures including associated attachments shall correspond to the zoning district in which they are located, except that a minimum buffer equal to the height of the tower shall be maintained between any support structure (excepting sites incorporating stealth design) and any single-family residentially zoned or used property line.
 - (7) Accessory facilities shall be permitted but may not include offices, long-term vehicle storage, other outdoor storage, or broadcast studios, except for emergency purposes or other uses that are not needed to send or receive transmissions.
 - (8) Existing on-site vegetation shall be preserved to the maximum extent practicable and shall be supplemented as required by the office of planning and development as necessary. Where the site abuts residentially developed land, residential zoning districts, the residential portion of an approved planned development, or public land or streets, the site perimeter shall be landscaped with at least one row of deciduous trees, not less than two inches in diameter, measured three feet above the grade, spaced not more than 20 feet apart within 25 feet of the site boundary, as well as at least one row of evergreen trees and shrubs, at least five feet high when planted and spaced not more than five feet apart to form a solid shrub screen and within 40 feet of the site boundary. Alternatives such as walls or fences may be permitted based on security or other reasons.
 - (9) Security fencing shall be required around the base and guy anchors of any towers.
 - (10) Towers shall not be artificially lighted unless:
 - (a) Required by the Federal Aviation Administration or other governmental authority;
 - (b) Circumstances make lighting appropriate for safety or other reasons unique to a specific application that are set forth in that application, but in no case shall any lighting shine into adjacent residential structures.
 - (11) The application for a special use permit approval shall include the following:
 - (a) A site plan drawn showing the property boundaries, tower, guy wire anchors (if any), existing structures, proposed transmission buildings and/or other accessory uses, access, parking, fences, a landscaping plan and existing abutting land uses around the site.
 - (b) A study from a professional engineer which specifies the tower height and design, including a cross-section of the structure, demonstrates the tower's compliance with applicable structural standards, including a certification that the tower will withstand at a minimum sustained winds in accordance with the appropriate building code, and a description of the tower's capacity, including the number and type of antennas which it can accommodate.
 - (c) Written statements that the proposed tower will comply with regulations administered by the Federal Aviation Administration, Federal Communications Commission, and all applicable governmental bodies, or that the tower is exempt from those regulations.
 - (d) A letter of intent committing the tower owner and his or her successors to allow shared use of the tower, if capacity exists, based on existing and planned use, and if a future applicant agrees in writing to pay any reasonable charge of shared use, the potential use is technically compatible and the future applicant is in good standing.
 - (12) The minimum setback requirements of chart 2 shall apply to the equipment, structures, and other buildings which are auxiliary to functions of the CMCS tower except as specified in 9v.(6) of this ordinance. Exceptions to the minimum setback requirements may be permitted. The tower height shall not be used to calculate the minimum setback requirements. The height restrictions of chart 2 do not apply to tower height and the height permitted for each new application shall be set on the basis of its own merits.
 - (13) Any CMCS tower and equipment shall be removed no later than 180 days after ceasing operations.

hereby by the lead carrier's coverage plan. This application is on behalf of Clearwire, which is in the process of trying to set up a brand new coverage throughout the Memphis area. According to their representative, the preferred search area was farther to the east. The site being proposed here is at the western limits of the gap in the planned coverage to be filled from this tower site.

OPD staff asked the applicant to indicate the feasibility of two new and one existing alternative locations in the immediate vicinity. In staff's opinion, the most promising location would have been on the north side of the 20,000 ft store building on subject property. This would have substantially improved the relationship to the adjoining apartment complex, and would have screen much less of an issue. However, the applicant indicated that space was insufficient for a tower at that location. Two other proposed locations including an existing cell tower would have technical issues, including borderline coverage. The applicant's complete response may be read in Exhibit A of this report.

OPD staff believes that the proposed siting would have severely adverse effects on the adjoining apartment building; and cannot recommend this site. Instead the review needs to take the following steps:

- 1) Get a definite technical assessment of the feasibility for placed the desired coverage on the existing nearby cell tower.
- 2) Reconsider the availability of properties farther to east, closer to, or on the opposite fringe of the coverage capability needed by this carrier.
- 3) Consider single-carrier low-profile options that would have a more limited impact, in the general category that includes church steeples.
- 4) As a last resort, on the subject property, find a way to mitigate the adverse impacts on the apartment building though a combination of finding a different site on the property and exceptionally effective landscaping.

RECOMMENDATION: **Hold for further review of alternate sites**
[Changed to "Rejection" as the alternative to a "Hold"]

SITE PLAN CONDITIONS
CMCS Tower at 5360 Knight Arnold Road
S.U.P. 10-203

As Proposed by OPD Staff
For February 11, 2010 LUCB Meeting

A Special Use Permit is hereby granted to Tower Ventures, LLC to permit the installation of a CMCS tower on the property at 5360 Knight Arnold Road, (*Instrument Number U21U231. , Shelby County Register's Office*),, in accordance with a site plan approved by the Office of Planning and Development with the following conditions:

1. The maximum tower height shall be 140 feet.
- 2. The tower shall be built with a stealth design.**

3. The tower shall be free of all lighting, including aircraft hazard lighting, and shall be designed so as to avoid the necessity of such lighting under currently federal regulations.
4. The tower shall be structurally designed to accommodate **three (3)** additional sectorized antenna arrays.
5. The ground area occupied by the tower and ancillary equipment shall be enclosed with a six foot sight-proof fence in addition to a chain link security fence. In order to reduce expose to graffiti, the sight proof fence shall be fence shall be of a shadow box design located inside the security fence.
6. Subject to Condition Number 7, the tower operator shall install and maintain perimeter screening as follows: The site perimeter shall be landscaped with at least one row of deciduous trees, not less than two inches in diameter, measured three feet above the grade, spaced not more than 20 feet apart within 25 feet of the site boundary, as well as at least one row of evergreen trees and shrubs, at least five feet high when planted and spaced not more than five feet apart to form a solid shrub screen and within 40 feet of the site boundary. An equivalent alternative may be substituted with the approval of the Office of Planning and Development.
7. **Trees and shrub planted on the east side of the equipment compound, pursuant to Condition Number 6, shall be of the largest practical size at planting as determined by the Office of Planning and Development, so as to provide the maximum feasible screening effect for the residence of the adjacent apartment building.**
8. The tower and related equipment shall be removed within one-hundred eighty (180) days of ceasing operations.

GENERAL INFORMATION

Coordinates:	35° 03' 45"N, 89° 53' 05"W
Parcel Number:	074074 00029
Street Address:	5360 Knight Arnold Road, 38115
Street Frontage:	155 ft. on Knight Arnold Road , a five-lane major arterial street with an 80 ft. right-of-way.
Planning District:	Oakhaven

Census Tract: 107.20

Annexation Status: Annexed by Memphis, effective Jan 1, 1965

Zoning Atlas Page: 2345

Zoning History: 1955 – Zoned “C-1” Neighborhood Shopping in the 1955 ordinance
1981 – Converted to the Local Commercial (C-L) District with adoption of the current zoning ordinance

DEPARTMENTAL COMMENTS

The following comments were provided by agencies to which this application was referred:

City Engineer: No comments

City Fire Department: No comments received.

City/County Health Department: Water Quality Branch has no comments

Memphis Light, Gas and Water: No comments received.

AT&T: ATT Tennessee has no comment regarding this new development.

OPD-Regional Services: No comments received.

County Board of Education: No comments received.

Construction Code Enforcement: No comments received.

City Real Estate No comments received

County Real Estate No comments received

OPD-Plans Development: No comments received.

Neighborhood Associations / Organizations: No comments received.

Southeast Memphis Betterment Association:
Mendenhall Estates Neighborhood Association



4400 Carillon Point
Kirkland, WA 98033

p: 425-216-7600
f: 425-216-7900
www.clear.com

December 31, 2009

Memphis and Shelby County Office of Planning and Development
City Hall
125 North Mid-American Mall
Memphis, Tennessee 38103-2084
Attn: Office of Planning and Department

SUBJECT:

**Deed Instrument # 074074 00029
Fox Meadows Site
140ft Telecommunications Tower and Equipment
(Clear Wire site: TN-MEM0532)**

To Whom It May Concern:

On behalf of Clearwire LLC we are submitting a letter to assist Tower Ventures in its efforts of siting a telecommunications tower with the City of Memphis, TN. The proposed cell site (Fox Meadows) is required to improve coverage and provide adequate RF signal strength for the Clear Wire network in Memphis, Tennessee as indicated on the enclosed maps indicating proposed Clear Wire service with the addition of this tower.

The Clear Wire Engineering Team has determined that the proposed site TN-MEM0532 will give indoor coverage to the residential area within one mile radius from the site including golf course. Also, we need to cover RT385, Ridgeway Rd, Winchester rd and Mendenhall rd
The Clear Wire Engineering Team has determined that the proposed site TN-MEM0532 will provide coverage to 16,595 potential new customers.

If you have any technical questions you may contact Denis Sequeira, RF Engineer for Clear Wire, at 972-375-2494 or for general questions, contact myself at 678-230-3078.

Sincerely,

Richard Owens

Richard Owens
Project Manager
Clearwire - WFI Memphis

678-230-3078
richard.owens@wfinet.com

5575 Poplar Ave., Suite 420
Memphis, TN 38119
Fax: 901-730-1640
www.wfinet.com

Coverage Objective: The objective is to give indoor coverage to the residential area within one mile radius from the site. Also, we need to cover RT385, Ridgeway Rd, Winchester rd and Mendenhall rd.

Coverage Plot:

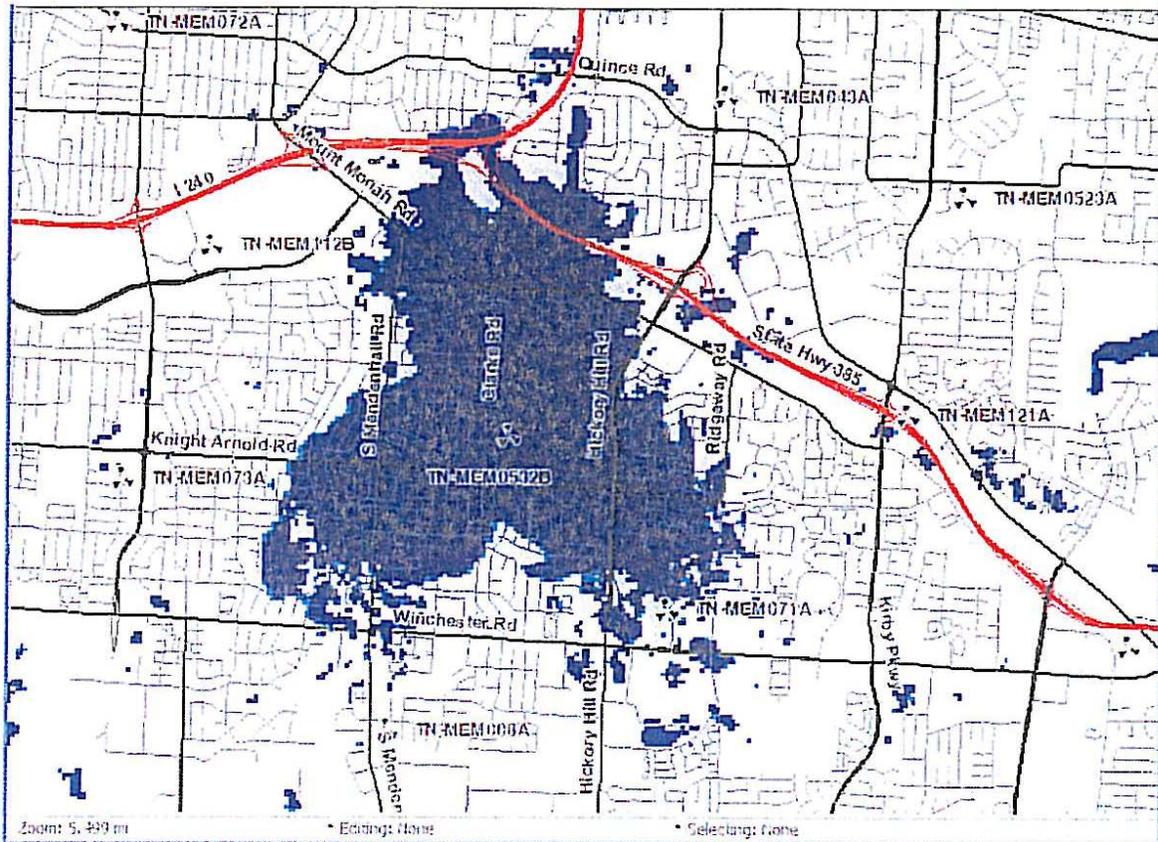


EXHIBIT A.2 – COVERAGE OBJECTIVE FROM LEAD CARRIER

ALTERNATIVE SITES FOR ASSESSMENT OF CELL TOWER LOCATION --- SUP 10-203 (KNIGHT ARNOLD)

Map Ref	Parcel #	Other ID	Principal Issues
X	074074 00029	Furniture Depot - East side of lot	Highly visible from street; difficult to screen appropriately; very close to apartment entrances
=====			
Map Ref	Parcel #	Other ID	Opportunity
X2	074074 00029	Furniture Depot - North of building	Less exposure to street, better relationship to apartments, less supplemental screening needed
=====			
A	057017 00007C	McLemore Property	Appropriate only as an alternative to subject location. It should look better in comparison to existing cell tower (Y on map) located on lot immediately to the northwest.

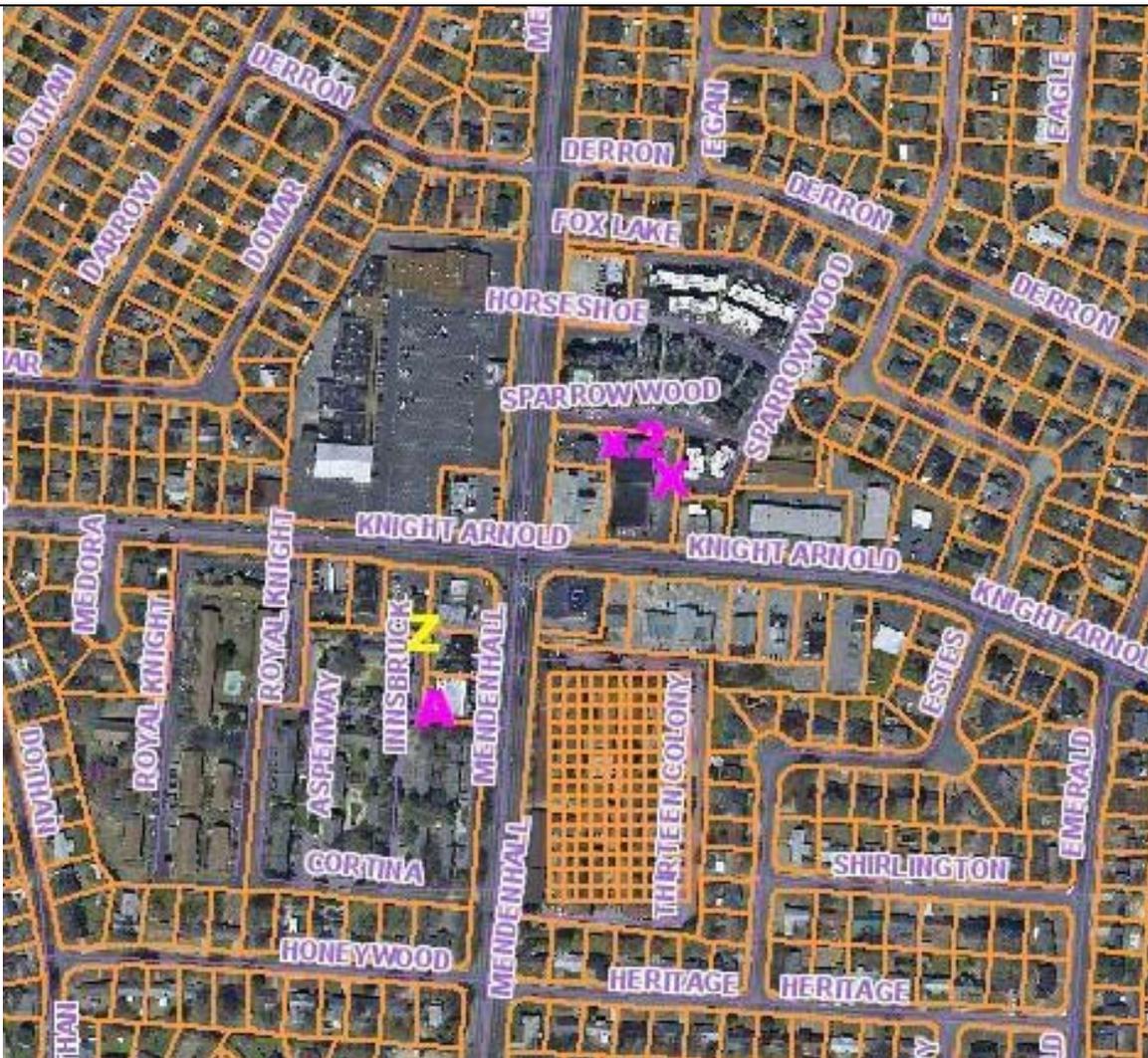


EXHIBIT B – Possible Alternative Sites Proposed for Discussion by OPD
 (Note: Z is an existing cell tower not included on the list.)



Alternative Sites Review

SUP 10-203 Fox Meadows

Submitted By:

Lou Katzerman
Tower Ventures
TV6-W

Cell: 901.239.3892
Fax: 901.366.5736
4091 Viscount Ave

Memphis, TN 38118
lou@towerventures.com



David G. Adams
Principal Planner,
Memphis and Shelby County
Office of Planning and Development
125 N Main Street, Suite 468
Memphis, TN 38103-2030

2/2/10

RE: SUP # 10-203, TV6 W Site Fox Meadows, PPN# 074074 00029 (American Properties Company, LP)

Dear Mr. Adams,

Thank you for your comments concerning the above referenced site. It is our pleasure to assist you with your request.

Currently, no structure exists that will provide the Coverage that our Tenant, Clearwire, is seeking. The original Search was centered approximately $\frac{3}{4}$ of a mile east of the American Properties Site. The proposed site is about as far west as Clearwire's RF Engineers would allow.

The nearby Crown Tower is possibly at maximum capacity. With a total of seven cellular licenses in Memphis, potentially four other carriers could the proposed tower.

In the next few pages, I will explain the reasons why the American Properties Company LP site was chosen by Tower Ventures and approved by Clearwire's Network Engineers.

Very Truly Yours,

Lou Katzerman

Tower Ventures

TV6-W

Cell: 901.239.3892

Fax: 901.366.5736

4091 Viscount Ave

Memphis, TN 38118

lou@towerventures.com



Alternative Site #X2:

X2 074074 00029 Furniture Depot - North of building

The rear of the Furniture Depot building is simply too small to locate the tower. The rear area is only 14' wide from building to property line. This area contains two HVAC units, an electric transformer and an exit door. The doorway is also a fire exit.

Please see photo below.





Alternative Site # A:

A 057017 00007C McLemore Property

To begin, this location is too far west of the carrier's search area. Secondly, there is an MLGW Utility Easement running down the west property line that is approximately 15' wide. To the north, there is an existing access easement for the Crown Tower. And last, ingress and egress to the backdoors of the building maybe impacted.

In summary, even without the easements, this alternative location is too far west of the carrier's target bulls-eye.





Alternative Tower Site

Crown Site # 812443

This is a short tower that already has two tenants located upon it. Very little ground space is available. This candidate Tower shows obvious signs that the Tower is at maximum capacity. Crown apparently had to modify the tower to allow their most recent tenant to collocate on the Tower. Due to these strengthening modifications, it is doubtful that another carrier could locate or extend the tower. Please see the attached photo of this modification.

Bottom-line - even if the tower had no issues, the location of this existing tower is too far west to provide the coverage needed by the anchor tenant, Clearwire.





Other Candidates Considered:

Home | Contact | Ethics | F. A. Q. | Filing Calculator | Filing Requirements | Forms | Glossary | History | Links | Mortgage Calculator

Tom Leatherwood Shelby County Register of Deeds

Property Data

Owner: KELLEY JEFFREY L
 Property Address: 3140 S WINDYHILL RD
 Tax Parcel: L820948
 Parcel ID: 018014 00001
 Tax Map: 187C DEECE
 Year Built: 2008
 Lot Number: 01
 Dimensions: 100 M, 432 W, 100 M
 Dimensions: 100' x 432'
 Land Total: 0.33
 Owner's address: 3140 S WINDYHILL RD, SUITE 101, INDEPENDENCE, MO 64646
 Class: 000000 0000
 Use: OFFICE/LOD
 Building: 01
 Census: County Tax Map, Property Tax Map, Assessed Value
 Record and Consider a Sales Tax

Property Transactions

Parcel: 018014
 Parcel Type: WARRANTY DEED
 Parcel Owner: 01/13/2008
 Sales Price: 100,000
 Parcel: W32801
 Parcel Type: UNRECORDED

Map navigation tools: Search, Home, Previous, Next, Full Screen, Print, Layers, Legend

Address: 3140 S WINDYHILL RD Search
 KHELLEY JEFFREY L Search
 018014 00001 Search
 187C Search

To optimize search, leave street direction and type off (e.g., MAIN instead of N MAIN ST)

This candidate is located to the west of the Furniture Depot Site. A letter was sent to this landowner proposing a Lease. No response from Landowner.

