

STAFF REPORT

11

CASE NUMBER: P.D. 10-313 **L.U.C.B. MEETING:** October 14, 2010

DEVELOPMENT NAME: GERMANTOWN-KNIGHT ARNOLD PLANNED DEVELOPMENT, 2nd Amend

LOCATION: Western terminus of Nonconnah View Cove; +/-465 west of Germantown Road

COUNCIL DISTRICT(S): District 2-Super District 9-Positions 1, 2 & 3

OWNERS: Boyle Trust & Investment Co., Inc.

APPLICANTS: TV6-W, LLC

REPRESENTATIVE: Prime Development Group, Inc.

REQUEST: Plan amendment to allow a cellular communications tower one-hundred fifty(150) feet in height of concealed canister monopole design with a capacity to accommodate a minimum of five(5) antennae in Area ‘D’

LEASED AREA: 3,600 sq. ft. of 8.70 acres

EXISTING LAND USE & ZONING: Currently governed by Germantown-Knight Arnold P.D. 91-329

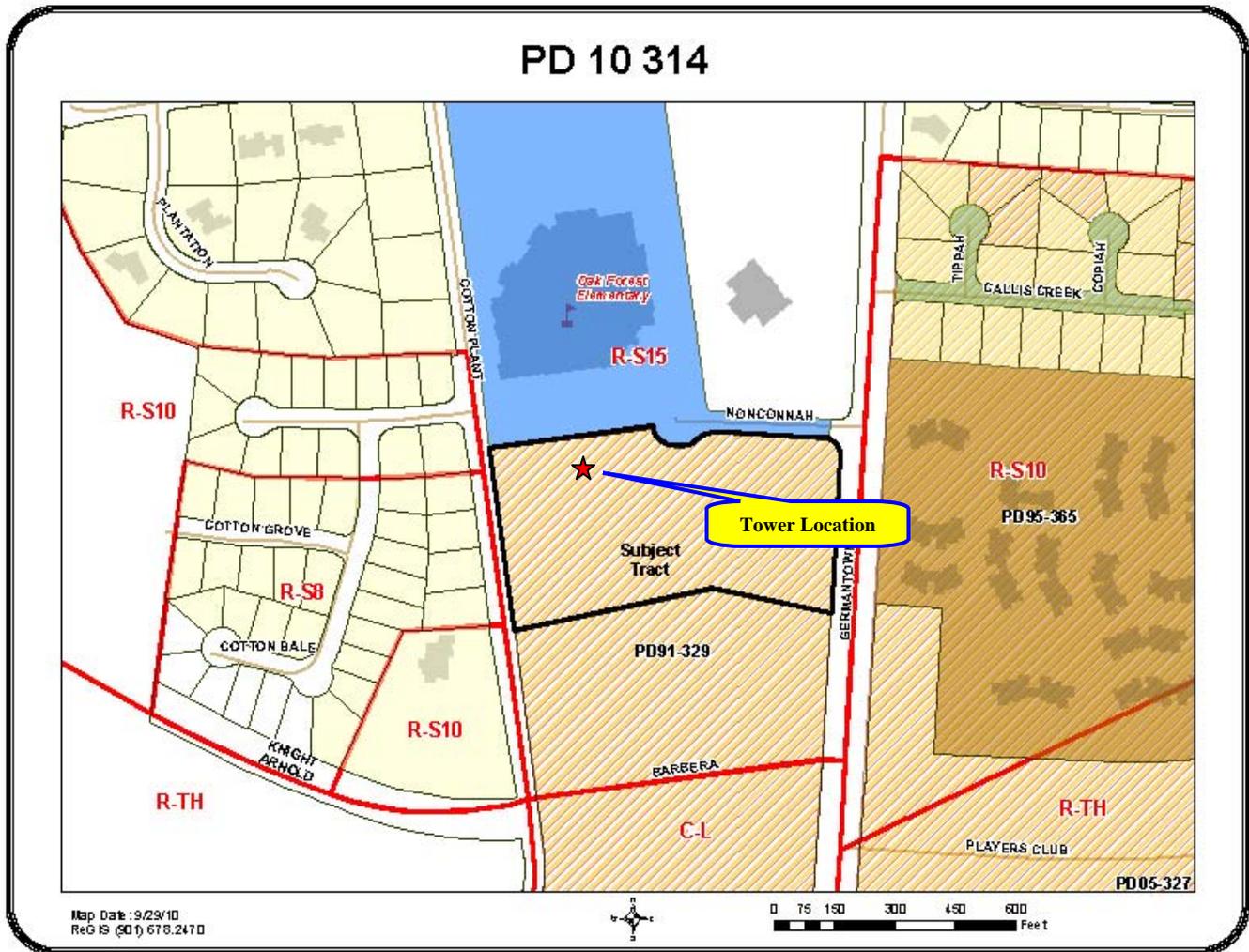
CONCLUSIONS:

1. The applicant is proposing to construct the tower in Area ‘D’ of the Outline Plan that allows single family homes with a private drive crossing Area ‘C’ that allows residential and office.
2. The tracts are large enough for development of new buildings to create an office park with orientation of future residential development in Area ‘D’ to Cotton Plant Road.
3. The placement of the tower in Area ‘D’ could possibly work against the future residential development of this tract and would place limitations on any residential development by complicating design standards.
4. The tower and compound should be located exclusively in Area ‘C’—the office parcel. The placement of the tower in Area ‘C’ would extend the horizontal separation to 400 feet from single family homes.
5. This amendment to allow a cell tower of concealed canister monopole design in Area ‘C’ instead of Area ‘D’ is supported as an accessory structure with landscaping and compound screening.

OFFICE OF PLANNING AND DEVELOPMENT RECOMMENDATION:

Approval with Conditions

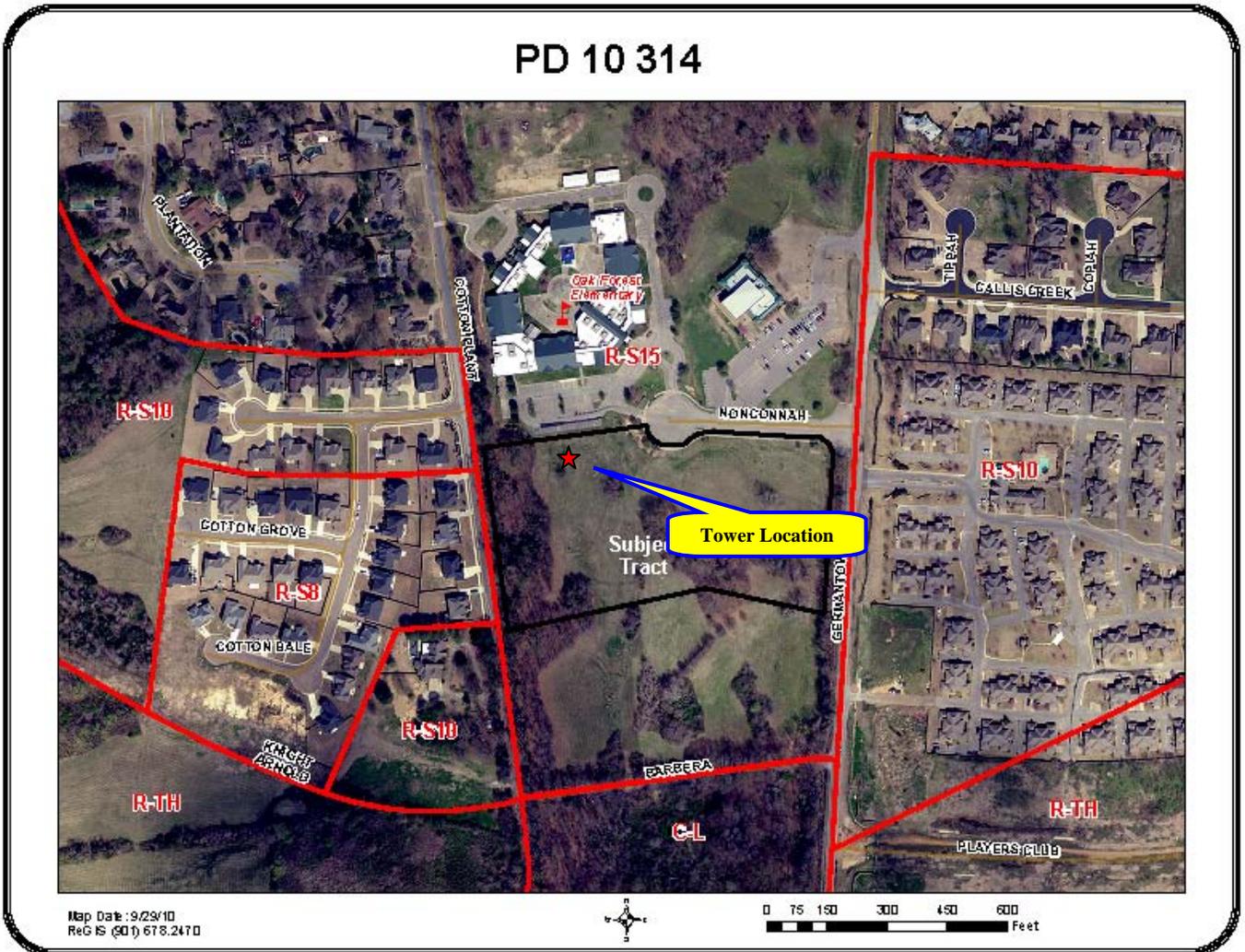
Zoning & Land Use



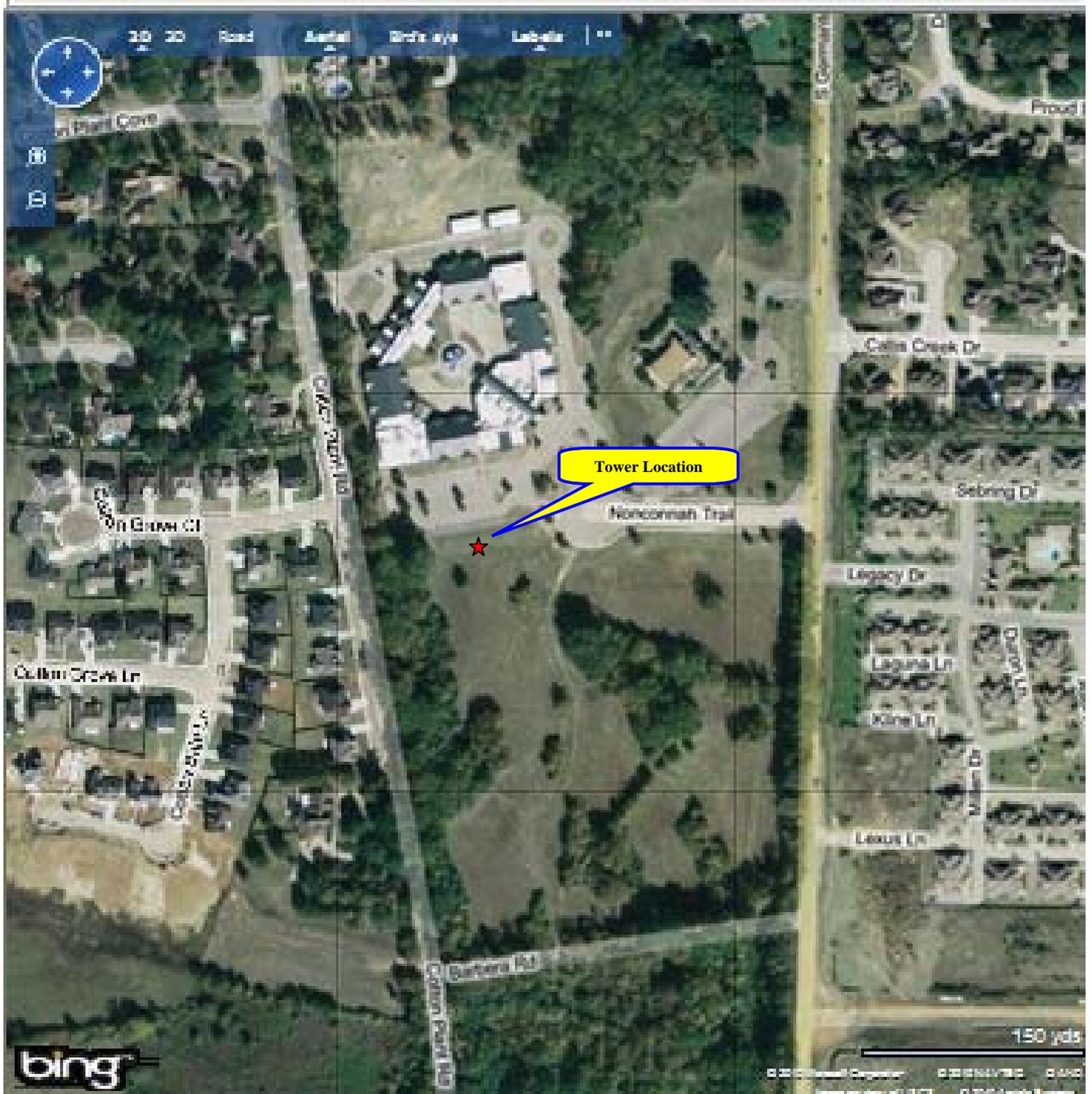
SURROUNDING LAND USES AND ZONING:

- North:** Oak Forest Elementary School and South Woods Baptist Church in Single Family Residential(R-S15) District.
- East:** Vacant land within this Outline Plan approved for R-ML & O-G District land uses and 'Wyndham' apartments in Callis Cutoff PD 95-365.
- South:** Vacant land within this Outline Plan approved for R-S8 District land uses.
- West:** Single family homes in 'Cotton Plant Grove' & 'Cotton Plant Plantation' Subdivisions in Single Family Residential(R-S8 & R-S15) Districts.

Zoning Aerial Map



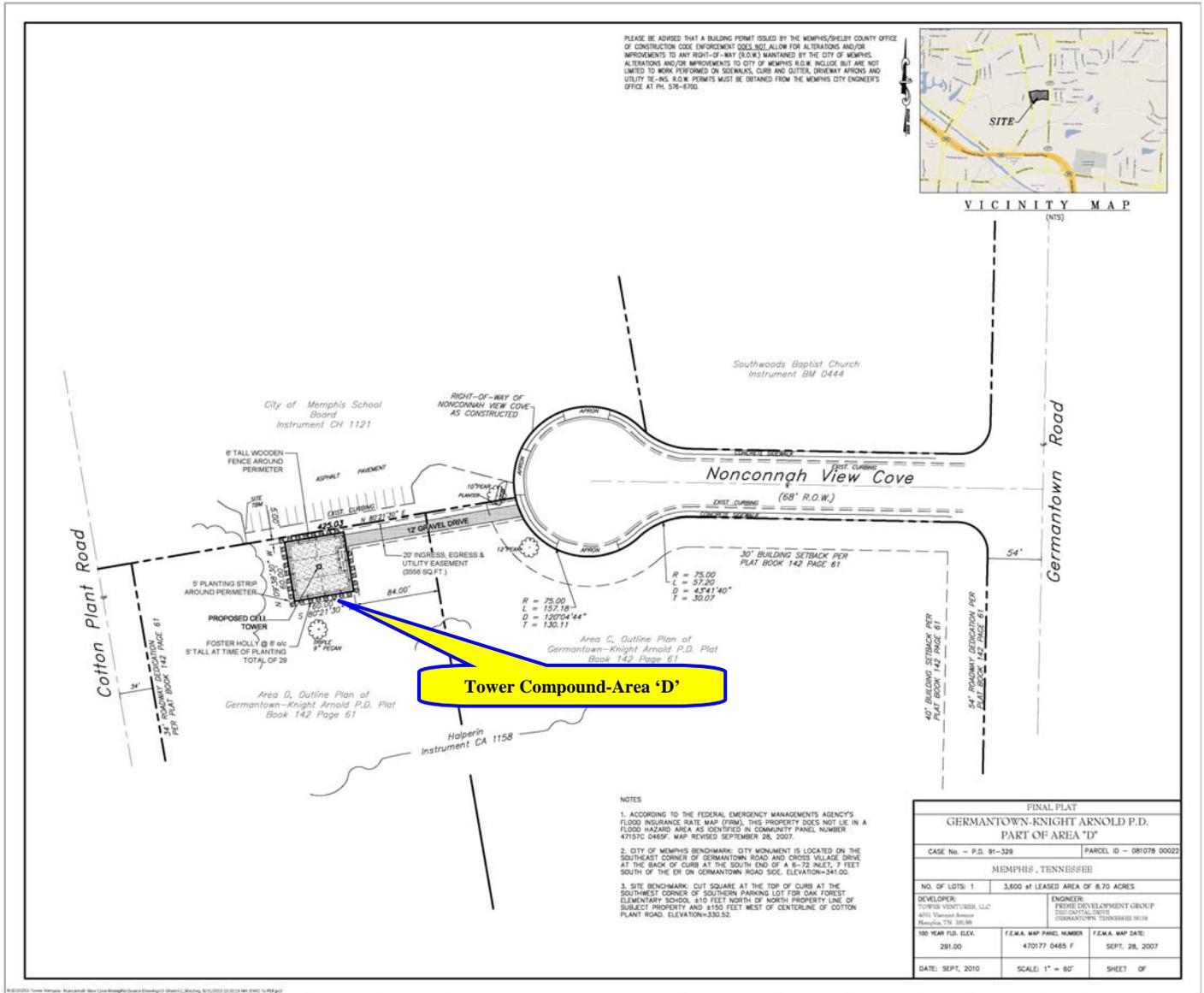
Aerial View



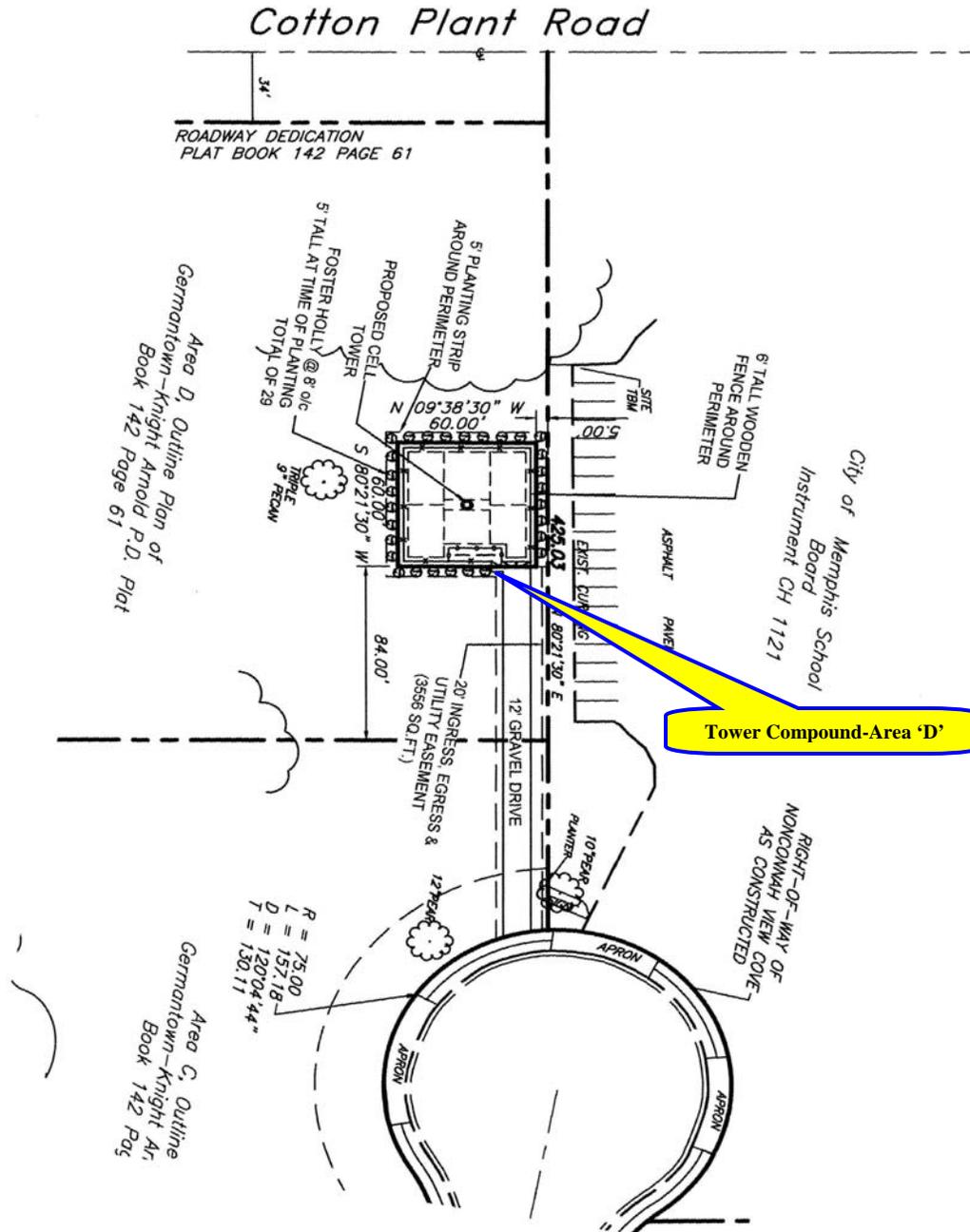
Bird's Eye View



Tower Site Plan



Tower Site & Landscape Plan(Close-Up View)



Tower Elevation Plan

Customer Name: TOWER VENTURES V. LLC
Site: PLAYERS CLUB PARKWAY - SHELBY COUNTY- TN



P.O. BOX 8597 FORT WORTH, TX 76124-0597
PHONE: (800) 433-1816 FAX: (817) 255-8656

JOB DATA			
Page 1 of 1	Job No.	J100301002	
By HD/tw	Design No.	M10-0087-A	
Chk'd By TW	Date	Mar 3 2010	
Rev. No.	0	Rev. Date	
Structure 150-FT DISCLOSED MONOPOLE			
Ref. No. 10-0000\M10-0087\J100301002\J100301002.out			
Design Standard ANSI/TIA-222-G-2005 Addendum 2			

GENERAL DESIGN CONDITIONS	
Design Wind Speed: 90.00(mph)	Structure Class: II
Iced Wind Speed: 30.00(mph)	Exposure Category: C
Service Wind Speed: 80.00(mph)	Topographic Category: 1
Ice Thickness: 1.00(in)	--

POLE SPECIFICATIONS	
Pole Shape Type:	18-SIDED
Taper:	0.12125 IN/FT
Shaft Steel:	ASTM A572 GRADE 65
Base PL Steel:	ASTM A572 (50 KSI)
Anchor Rods:	2 1/4" X 7'-0" LONG #18J ASTM A615 GRADE 75

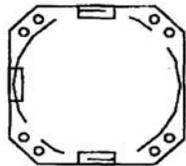
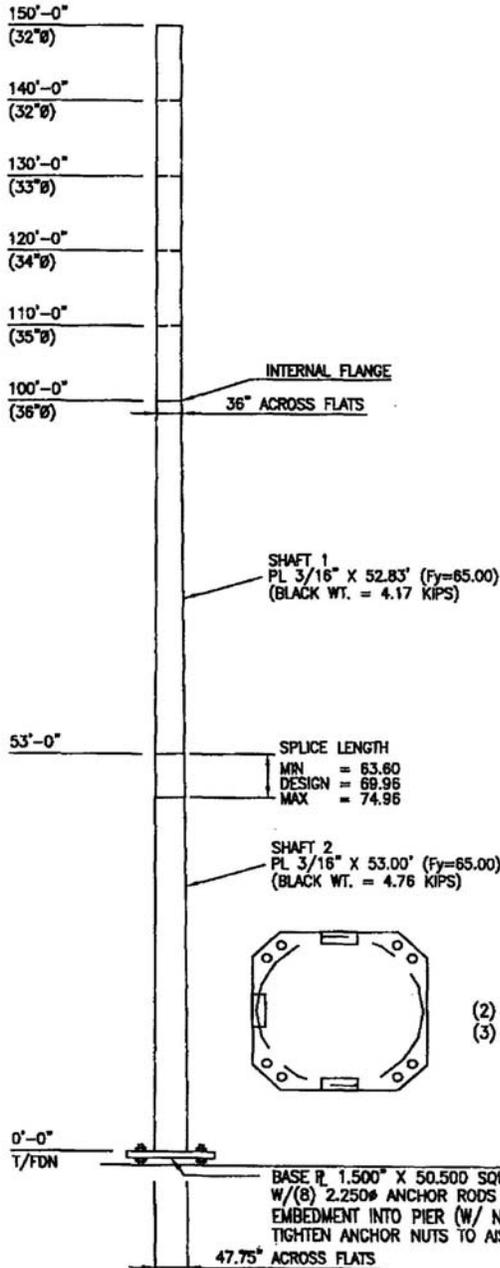
** SHALL MEET CHAMPPY V-NOTCH TEST: 15 FT.LBS @ -20F

ANTENNA LIST					
No.	Elev.(FT)	Antenna	Mount type	AZ (°)	COAX
1	145	(3)ADA-638363103 (95"X16.7"WX4.9"D) - SHIELDED			12\DF7P-50A
2	135	(3)APX160WV-160WVS (56"X13.3"WX3.2"D) - SHIELDED			12\DF5P-50A
3	125	(3)72"X10"WX4"D PANEL ANTENNAS - SHIELDED			6\DF7P-50A
4	118	(3)1P3X10R (43"X11.8"WX4.6"D) - SHIELDED			3\DF4P-50A
-	115	(3)WAP450 (28"X7"WX6"D) - SHIELDED			3\DF4P-50A
-	112	(2)PTP800 (15"X14.5"WX3.8"D) - SHIELDED			2\DF4P-50A
5	105	(3)72"X10"WX4"D PANEL ANTENNAS - SHIELDED			6\DF7P-50A

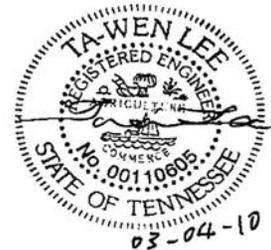
Elevation	90 MPH WIND		60 MPH WIND	
	Lateral Deflection (inches)	Rotation (degrees)	Lateral Deflection (inches)	Rotation (degrees)
120'	48.1	3.37	12	0.83
100'	36.9	3.04	9.2	0.75

SHAFT SECTION DATA					
Shaft Section	Section Length (feet)	Plate Thickness (in.)	Lap Splice (in.)	Diameter Across Flats (inches)	
				Top	Bottom
1	52.83	0.1875		36.00	42.41
2	53.00	0.1875	69.96	41.32	47.75

NOTE: DIMENSIONS SHOWN DO NOT INCLUDE GALVANIZING TOLERANCES.
THIS STRUCTURE WAS ALSO DESIGNED FOR USE WITH A 20'X30' FLAG.
ANTENNA FEED LINES RUN INSIDE OF POLE
MIN SPLICE LENGTH = 1.5 * THE INSIDE WIDTH OF THE BASE OF THE UPPER SECTION



- (2) 10.5X25.5 PORTS AT 7' - 0" & 180'
- (3) 10.5X25.5 PORTS AT 3.5' - 0', 90' & 180'



FACTORED BASE REACTION
MOMENT: 1223.57 FT-KIPS.
SHEAR: 14.30 KIPS
AXIAL: 18.80 KIPS
EST. SHAFT + BASE PLATE WEIGHT: 9.5 KIPS (BLACK WEIGHT)

STAFF ANALYSIS:

Site Description

The subject property is 3,600 sq. ft. of leased area of an 8.70 acre parcel designated Area 'D' of an approved Outline Plan for Germantown-Knight Arnold Planned Development(P.D 91-329). This parcel is the northern one-third of an area use plan approved in May, 1993 for residential, office and planned commercial development. The location of the site is at the western terminus of a public cove—Nonconnah View Cove with curb, gutter and sidewalk. The leased area is higher in elevation than the roadway and slopes west to Cotton Plant Road. This parcel is approved for single family residential which coincides with single family density at the west side of Cotton Plant Road in 'Cotton Plant Grove' Subdivision.

There is a mature buffer of trees along the western boundary of this parcel as well as the southern boundary adjacent to Barbara Road—a cutoff to access Cotton Plant Road from Germantown Road. There has been no development occurring in this area for some time and this Outline Plan does not have an expiration date. Therefore, the applicant is proposing to construct a cell tower to serve area residents within one-quarter mile of this location. The private drive crosses Area 'C' of the Outline Plan approved for residential and office land uses. This tower being located in an area approved for single family homes could pose a problem in the future if the owner decides to develop a new residential subdivision.

Area Overview

The immediate area is located in the southwest area of Shelby Farms-Germantown Planning District at the southern edge of the City of Germantown, but within the City of Memphis. The dominant land use in the area is residential with a mix of residential densities—both existing and approved development for single family and multifamily residential. The residential to the north is separated from this parcel by Oak Forest Elementary School and South Woods Baptist Church in R-S15 District zoning.

The infrastructures for public improvements are planned for Germantown Road, but not in place at this time. The planned right-of-way for Germantown Road is 54 feet from centerline and has been dedicated the entire length of Areas 'A', 'B' & 'C' by the Outline Plan. Nonconnah View Cove is improved with curb, gutter and sidewalk with 68 feet of right-of-way to serve the school site and this development plan. The land use along the major road, Germantown Road is primarily undeveloped at this segment of the roadway with the exception of Callis Cutoff PD for single family homes and 'Wyndham' apartments. Farther north are single family homes in 'Cotton Plant Woods', 'Rosé Leigh' and 'Cotton Plant Plantation' Subdivisions in R-S15 District zoning.

The land uses west of the site are single family homes in R-S8 & R-S10 District zoning in 'Cotton Plant Grove' Subdivision with homes along Cotton Plant Road facing into this property and the elementary school. The properties to the south of this location are primarily large, vacant tracts of land approved for Callis Cutoff Planned Development and tracts within this Outline Plan. The undeveloped land extends south of the overpass for Nonconnah Parkway with the exception of the immediate corners of Winchester and Germantown roads.

Land Use Area Plan vs. Accessory Structure

The request is for a planned development amendment to allow the placement and construction of a cellular communications tower one-hundred fifty(150) feet in height of concealed canister monopole design with a capacity to accommodate a minimum of five(5) antennae. The applicant is proposing to construct the tower in Area 'D' of the Outline Plan that allows single family homes with a private drive crossing Area 'C' that allows residential and office. The approved Outline Plan is undeveloped with surplus land available for future development of an area plan that allows residential, office and commercial land uses.

The tracts are large enough for development of new buildings to create an office park with orientation of future residential development in Area 'D' to Cotton Plant Road. The dedication and improvement of Knight Arnold is also planned in this development to connect Germantown Road in the southern third of the entire development tract. The placement of the tower in Area 'D' currently approved for single family homes could possibly work against the future residential development of this tract and place non-residential property directly in front of single family homes. The location of the tower within this area would place limitations on future residential development by further complicating design standards of any new residential development.

The tower and compound should be located exclusively in Area 'C'—the office parcel. Although residential is also approved in this area, it is more likely to develop as a small office plaza due to its location near a school and an apartment community. The design of the tower with concealed antennae would be more appropriate in a non-residential area, instead of being located in a future residential area within 260 feet of single family homes. The placement of the tower in Area 'C' would extend the horizontal separation to 400 feet from single family homes and place the tower exclusively in future non-residential development. This would alleviate the need for a new curb-cut for private drive access by utilizing the existing curb-cut at the south radii. Furthermore, the tower would eventually become an accessory structure to future principal office buildings with compound screening and landscaping.

This amendment to allow a cellular communications tower one-hundred fifty(150) feet in height of concealed canister monopole design in Area 'C' instead of Area 'D' would meet the minimum standards of the zoning ordinance for landscaping, screening and co-location, except for required distances to residential. A cell tower with concealed antennae to be accessory to approved office development can co-exist on the same property and would not interfere with parking, access and circulation, including design standards. The tower is supported as an accessory structure with landscaping and compound screening.

RECOMMENDATION: Approval with Conditions

- B. Maximum Building Height:
 - 1. 35 Ft.
 - 2. Within Area A only, one additional foot of maximum building height shall be permitted for each additional two feet of building setback from Cotton Plant Road, beyond the minimum described above, up to a maximum height of 60 feet.
- C. The maximum Floor Area Ratio (F.A.R.) permitted by mixed use development within areas A, B and C shall be calculated such that the number of trips generated by the proposed development in either the a.m. or p.m. peak traffic hour does not exceed the number of trips generated during the corresponding peak traffic hours by a general office development with a 0.30 F.A.R. All trip generation calculations shall be based on the trip rate data published in the Institute of Transportation Engineers (ITE) TRIP GENERATION, 5th EDITION or more current edition thereto.
- D. The maximum residential density Area C is 10 dwelling units per acre.
- E. The maximum residential density for Area D is 6 dwelling units per acre.

III. Parking, Access and Circulation:

- A. Germantown Road shall be dedicated to 54 feet from the centerline and improved in accordance with the Subdivision Regulations.
- B. Cotton Plant Road shall be dedicated and improved to 34 feet from the centerline in accordance with the Subdivision Regulations.
- C. Knight Arnold Road shall be dedicated and improved to 54 feet from the centerline in accordance with the Subdivision Regulations.
- D. The proposed cove along the north boundary of the property shall be dedicated as indicated on the Outline Plan.
- E. Vehicular access shall be provided between adjoining similar and compatible phases of development.
- F. Barbara Road shall be closed prior to the approval of any final plan on the southern portion of Areas B and D.
- G. A three-centered radius shall be dedicated at the intersection of Germantown and Knight Arnold Roads.

H. The following curb cuts are permitted on the Knight Arnold Road frontage:

1. Three curb cuts on the north side between Germantown Road and Cotton Plant Road.
2. Three curb cuts on the south side between Germantown Road and Cotton Plant Road. Any curb cut located less than 300 feet from the centerline of Germantown Road shall be physically limited to right-in, right-out use only.

I. The following curb cuts are permitted on the Germantown Road frontage:

1. A maximum of one curb cut is permitted south of Knight Arnold Road, located within 100 feet of the south property line, subject to the approval of the City Engineer.
2. A maximum of three curb cuts are permitted north of Knight-Arnold Road, provided that any curb cut providing access by left turn shall be not less than 300 feet from the centerline of Knight Arnold Road. Any curb cut located less than 300 feet from the centerline of Knight Arnold Road shall be physically limited to right-in, right-out use only.

J. The following curb cuts are permitted on the Cotton Plant Road Frontage:

1. A maximum of two curb cuts are permitted between the north boundary of Parcel D and intersection of proposed Knight Arnold Road.
2. A maximum of two curb cuts are permitted between the south boundary of Parcel A and intersection of proposed Knight Arnold Road.

IV. Landscaping and Buffering:

- A. The frontage of all dedicated streets shall be landscaped with Plat A-2, A-3 or a modified landscape approved by Office of Planning and Development.
- B. The frontage along Knight Arnold Road adjacent to Area D shall be landscaped with Plat RV2, or a modified landscape approved by Office of Planning and Development.
- C. Existing trees shall be retained wherever possible.
- D. A minimum 15 foot wide planting screen shall be provided and maintained along the north and west boundary of Area B, subject to the approval of the Office of Planning and Development.
- E. Internal landscaping will be provided at a ratio of 300 square feet of landscaped area and one shade tree per every 20 parking spaces.
- F. Equivalent landscaping may be subscribed for that required above, subject to the approval of the Office of Planning and Development.
- G. Lighting shall be directed so as to not glare unto residential property.
- H. Refuse containers shall be completely screened from view from adjacent property.

- I. Landscaping for the tower shall be installed adjacent to the fence outside the leased area with shrubs of foster hollies planted eight(8) feet on center and five(5) feet at time of planting for a total of 29 plants with two(2) small tree Type 'C' or 'D' planted ten(10) feet on center along Nonconnah View Cove, subject to the approval of Office of Planning & Development.

V. Signs:

- A. Signs within Area A and B shall conform to the requirements of the C-P District.
- B. Signs within Area C shall conform to the requirements of the R-ML District or O-G District based on property use.
- C. Signs within Area D shall conform to the requirements of the R-ML District.
- D. Signs shall be setback a minimum of 15 feet.
- E. No signs shall be allowed for the tower site, except for the necessary decal sign for displaying the name, address and phone numbers of the owner and operators of the facilities. The decals shall be placed on and outside the fence.

VI. Drainage:

- A. All drainage plans shall be submitted to the City Engineer for review.
- B. Design and construction of the storm water conveyance and management facilities for this project shall be in accordance with the Subdivision Regulations and the "City of Memphis Drainage Design Manual". Adequate non-buildable areas shall be provided on each final plan for required on-site storm water detention facilities as determined by drainage calculations performed in accordance with the Drainage Manual and approved by the City Engineer.

- VII. The Land Use Control Board may modify the building setback. Building height, access, parking, landscaping, and sign requirements if equivalent alternatives are presented.

VIII. Site Plan Review:

- A. A site plan shall be submitted for the review comment and recommendations of the Office of Planning and Development (OPD) and appropriate City agencies and approval of the Land Use Control Board prior to the approval of any final plan.
- B. The site plan shall be submitted at least twenty days prior to a Land Use Control Board meeting and shall include the following:
1. The location, dimensions and floor area of all buildings, structures and parking areas, and the total number of dwelling units;
 2. The location of streets and private drives;
 3. A tree survey differentiating between those trees to be preserved and those to be removed or the location of large groups of trees;

4. The location of pedestrian systems;
5. The location and use of open space;
6. Internal and perimeter landscaping;
7. Drainage date as required by the City Engineer;

C. The site plan shall be reviewed based upon the following criteria:

1. Conformance with the outline plan conditions;
2. Conformance to the standards and criteria for commercial planned developments contained in Sections 14.C, 14.D and 14.E of the Zoning Regulations.

IX. Any final plan shall include the following:

- A. The Outline Plan Conditions;
- B. A standard subdivision contract as defined by the Subdivision Regulations for any needed public improvements;
- C. The exact location and dimensions including height, of all buildings or buildable areas, parking areas, drives, required landscaping;
- D. The number of parking spaces.
- E. The location and ownership, whether public or private, of any easement;
- F. A statement conveying all common facilities and areas to a property owners' association, or other entity, for ownership and maintenance purposes;
- G. The location, diameter and species name of all existing trees over 8 inches in diameter and differentiations between those trees to be preserved and those to be removed;
- H. The following note shall be placed on the final plat of any development requiring on-site storm water detention facilities: The areas denoted by "Reserved for Storm Water Detention" shall not be used as a building site or filled without first obtaining written permission from the City or County Engineer, as applicable. The storm water detention systems located in these areas, except for those parts located in a public drainage easement, shall be owned and maintained by the property owner and/or property owners' association. Such maintenance shall be performed so as to ensure that the system operates in accordance with the approved plan on file in the City/County Engineer's Office. Such maintenance shall include, but not be limited to: removal of sedimentation, fallen objects, debris and trash; mowing; outlet cleaning; and repair of drainage structures.

- X. Any subsequent owner of property within this planned development may request amendment to the property controlled by him without the consent of other owners of property within the planned development.

- XI. *The Outline Plan reflecting this amendment shall be recorded with the Office of Shelby County Register prior to the recording of any final plan of development.*

P.D. 10-313(formerly P.D. 91-329)
Germantown-Knight Arnold Planned Development, 2nd Amendment
3924U

GENERAL INFORMATION:

Street Frontage: Nonconnah View Cove-----20 curvilinear feet.

Planning District: Shelby Farms-Germantown

Zoning Atlas Page: 2350

Parcel ID: 081078 00022

Zoning History: The Germantown-Knight Arnold Planned Development (P.D. 91-329) was amended and approved by the Memphis City Council on May 25, 1993 for an Area Plan of residential, office and commercial development. Prior to this date, the Single Family Residential(R-S15) and Local Commercial(C-L) District zoning of the site dated to the adoption of the 1980 zoning map amendments.

DEPARTMENTAL COMMENTS:

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

City Engineer:

Curb Cuts/Access:

1. The City Engineer shall approve the design, number and location of curb cuts.
2. Drainage improvements, including on-site detention, shall be provided under a Standard Subdivision contract in accordance with Subdivision Regulations and the City of Memphis Drainage Design Manual.

Site Plan Notes:

3. Provide internal circulation between adjacent phases, lots, and sections. Common ingress/egress easements shall be shown on the final plats.
4. Prior to recording, the following note shall be placed on the plat:

No permits for construction shall be granted for (lot #?/this property) except for the installation of a communications tower/off-premise sign). Any other use of this property will require re-recording of the plat, the payment of sewer development fees and the installation of the sewer connection to this property.

General Notes:

5. All commons, open areas, lakes, drainage detention facilities, private streets, private sewers and private drainage systems shall be owned and maintained by a Property Owner's Association. A statement to this effect shall appear on the final plat.
6. Required landscaping shall not be placed on sewer or drainage easements.

Memphis Fire Services: No comments.

Memphis & Shelby County Health Department:

Water Quality Branch: No comments.

Septic Tank Program: No comments.

Memphis Board of Education: No comment.

Construction Code Enforcement: No comments received.

Memphis Light, Gas and Water:

MLGW has reviewed the referenced application, and has no objection, subject to the following conditions:

- **It is the responsibility of the owner/applicant** to identify any utility easements, whether dedicated or prescriptive (electric, gas, water, CATV, telephone, sewer, drainage, etc.), which may encumber the subject property, including underground and overhead facilities. No permanent structures will be allowed within any utility easements.
- **It is the responsibility of the owner/applicant** to pay the cost of any work performed by MLGW to install, remove or relocate any facilities to accommodate the proposed development.
- **It is the responsibility of the owner/applicant** to comply with the **National Electric Safety Code (NESC)** and maintain minimum horizontal/vertical clearances between existing overhead electric facilities and any proposed structures.
- **Landscaping is prohibited** within any MLGW utility easement without prior MLGW approval. It is the responsibility of the owner/applicant to comply with Memphis/Shelby County Zoning Ordinance - Landscape and Screening Regulations.
- **It is the responsibility of the owner/applicant** to contact **TN-1-CALL @ 1.800.351.1111**, before digging, and to determine the location of any underground utilities including electric, gas, water, CATV, telephone, etc.
- **It is the responsibility of the owner/applicant** to submit a detailed plan to MLGW Engineering for the purposes of determining the availability and capacity of existing utility services to serve any proposed or future development(s). Application for utility service is necessary before plats can be recorded.
 - All residential developers must contact MLGW's Residential Engineer at 901-528-4855 for application of utility services.
 - All commercial developers must contact MLGW's Builder Services at 901-367-3343 to initiate the utility installation process.
- **It is the responsibility of the owner/applicant** to pay the cost of any utility system improvements necessary to serve the proposed development with electric, gas or water utilities.

AT&T: AT&T Tennessee has no comment.

Memphis Area Transit Authority (MATA): No comments received.

OPD-Regional Services: No comments received.

OPD-Plans Development: No comments received.

TN Dep't of Environment & Conservation:

Be advised, it is the responsibility of the individual developer/builder/land owner to obtain the proper permits through the Corps of Engineers or TDEC. If there are no waterways or wetland areas on this property, no ARAP or 404 permits are required. If surface waterways or any areas that stay wet for long periods of time exist on the property, the responsible party should contact this office for a proper determination.

Neighborhood Associations/Organizations:

Roseleigh Neighborhood Association – stan.jones@bellsouth.com:
Southwind Homeowners Association – danhardesty@bellsouth.net:
Southeast Shelby County Coalition – rufuswashington@bellsouth.net:

No comments received as of 10/8/10.

“ “

No comments received as of 10/8/10.

Staff: bb