

RECOMMENDATIONS

Several land use, transportation and visioning plans have been completed for the Town of Signal Mountain and the surrounding area in the past 10 years. These plans and documents were consulted during the development of this study and include:

- ❖ Town of Signal Mountain Land Use and Transportation Plan, 2000
- ❖ Town of Signal Mountain, TN Zoning Regulations
- ❖ Mountain Vision, Strategic Planning Process
- ❖ Walden's Ridge Plateau Area Plan, 1997
- ❖ Town of Signal Mountain Subdivision Regulations
- ❖ Planning documents related to Hamilton County's Urban Growth Plan
- ❖ Signal Mountain High School Business Plan (Friends of Signal Mountain High School)
- ❖ Hamilton County Comprehensive Plan 2030
- ❖ TransPlan 2030

The Town's Land Use and Transportation Plan was completed in 2000. The plan is a compilation of policy statements, standards, and goals for guiding the economic and physical development of the town. It is these goals and policies that are, in part, the framework for this study's recommendations.

The overall goal of the Land Use and Transportation Plan is to provide a quality living and working environment for the residents of the municipality. Eight goals more specific to land development, transportation, and service delivery help support the broader goal:

1. To preserve, protect and enhance the quality of life in the Town while encouraging continued harmonious development to high standards.
2. To ensure that all residential developments provide pleasant and harmonious living environments, are served by adequate vehicular and pedestrian circulation systems, are served by adequate infrastructure, and are properly related to other municipal land uses.
3. To provide for a small number of concentrated commercial centers to serve the needs of Town residents.
4. To provide adequate and efficient public facilities and services, and to provide a diversity of cultural and recreational opportunities.
5. To provide utility services that effectively and efficiently meet the current and anticipated needs of the Town.
6. To provide an efficient and effective transportation system with appropriate linkages and capacities.
7. To encourage the development of vacant land which has less natural restrictions and which has the necessary infrastructure.
8. To carefully review and consider development proposals on land with natural limitations to assure safety and compatibility with the uses of nearby property, with no undue burden on taxpayers.

RECOMMENDATIONS: NATURAL AND MANMADE SYSTEMS

Natural Environment

It is clear from the discussion emanating from the public input process of the Plan formulation that the preservation of existing natural features and the scenic beauty of the Town are paramount concerns of Town residents.— Town of Signal Mountain Land Use and Transportation Plan

Several past plans encompassing the study area point to steep slopes and inadequate soil types for septic use as the most prevalent constraints to future development in the Town's growth area specifically the corridor along Shackleford Ridge Road.

Transportation

It is beyond the scope of this study to provide recommendations for new roadways other than those recommended by the transportation plans mentioned. The Town may wish to conduct a traffic impact analysis study to better define the impact of the joint middle/high school and any other potential development.

The town's Land Use and Transportation Plan strongly encourages and supports the development of a multi-modal system. Multi-modal includes bike and pedestrian facilities, transit and vehicular travel.

That plan states that the overall goal for reducing the burden on existing thoroughfares is the development of a new road accessing the mountain. New access is supported in the Chattanooga-Hamilton County/North Georgia Transportation Planning Organizations (TPO) Long Range Transportation Plan (TransPlan 2030). A Signal Mountain Bypass from US 127 to US 27 is a project contained in the TransPlan 2030 Needs Plan.

Until additional access to the mountain is built, Signal Mountain's transportation plan, along with other multi-modal projects,

proposes several major roadway and intersection improvements one of which is an extension of Timesville Road. This extension is also mentioned in the Walden's Ridge Plateau Area Plan as a connector that could improve the local road network. Further planning can help define needed improvements to the existing network.

Shackleford Ridge Road is currently a two-lane roadway that is one of two principal connectors between Taft Hwy. (by way of Anderson Pike) and the new school site. Timberlinks Drive/Edwards Point Road is the other major connector to the school from Taft Hwy.

A 2005 24-hour traffic count on Timberlinks (south of Sunnybrook Trail) revealed that the current average daily traffic volume is 924 vehicles. As the land adjacent to Shackleford Ridge Road is primarily vacant, any new residential development would most likely impact the Shackleford Ridge Road roadway. Unfortunately, the Tennessee Department of Transportation currently does not conduct counts on this roadway.

The amount of traffic generated by a site, and the subsequent impact on surrounding streets, is often calculated by the number of trips generated by a use. Trip generation rates detail how much traffic a proposed site will produce. The amount of traffic depends on the type(s) and magnitude of land uses. General data on trip generation rates are available from a national database as localized data is not available.

On average, a middle school generates 1.45 trips/student per day. A high school generates 1.9 trips/student per day. The proposed school's capacity is 450 middle school students and 550 high school students. The combined school structure could generate approximately 1,700 trips a day.

The trip generation rate for a residential use is the amount of trips that one household unit will take in a day. For example, a trip from home to work counts as one trip and work to home is counted as another trip. Having an idea of the number of trips an average dwelling unit generates provides a method to determine the amount of traffic generated by the entire residential development. Some forms of residences have on average more trips per day than others.

<p>Average trip generation rate for residential development*: Single-unit detached: 9.57 trips/dwelling unit Single-unit attached (Townhouses): 5.86 trips/dwelling unit Apartments: 6.63 trips/dwelling unit Patio homes: 5.86 trips/dwelling unit *Rates are weekday values for total 24 hr. trips per dwelling unit. Source: City of Chattanooga Traffic Engineering, Highway Capacity Manual</p>

Trip generation rates are also available for commercial and mixed-use developments. Since most trip generation data is collected from primarily automobile-dependent developments like suburban locations, the availability of alternative forms of transportation can reduce the number of trips generated by a use.

Another way of dealing with greater demand on the roadway network is greater street connectivity. Street connectivity, particularly within any new developments, is a method to alleviate traffic congestion from potential new residential development.

When the street system is interconnected, traffic is distributed, and fewer streets are responsible for carrying the majority of vehicles. Street connectivity can also provide a higher level of access for emergency services, reduce traffic on

arterial streets, and provide continuous and more direct routes and more numerous utility connections.

*Lack of connectivity also creates more vehicular traffic on the major routes, restricts interaction between neighborhoods, and reduces convenience of access.–
 Walden's Ridge Plateau Area Plan 1997*

Specific Recommendations

- Monitor traffic counts and congestion rates on Shackleford Ridge Road.
- Explore possibilities for greater street connectivity through Subdivision Ordinance and/or Zoning Regulation revision.
- Consider Traffic Impact Study of the new school and potential residential development to include review of impact on existing roadway network and possible recommendations for new roadways.

Civic

With the construction of a new middle school proposed near the high school site, the facility currently housing Signal Mountain Middle School may become available for another use.

This 15-acre parcel within one block of Taft Hwy. and near the commercial district could provide an interesting redevelopment option for the Town. Vacant schools in the county have been reused as senior living facilities, neighborhood recreation centers, and for religious and commercial purposes.

Specific Recommendation

- Partnership with the Hamilton County Board of Education regarding reuse of the current middle school property.

RECOMMENDATIONS: LAND DEVELOPMENT

Residential

Residential development is expected to be the dominant development trend. – Town of Signal Mountain Land Use and Transportation Plan

American society has evolved to include a higher number of single, single-parent households, smaller families and “empty nesters”. This is true of the Town with its increasing number of one-person households.

The size of the average U.S. household declined from 3.28 in 1940 to 2.59 persons in 2000. In 2000, the average household size in Signal Mountain was slightly lower at 2.5 people per household.

Using the population growth rate predicted by the RPA, the Town’s population is projected to grow by about 669 people from 2000 to 2015. With an average household size of 2.5 people, the estimated number of new households added to the Town from 2000 to 2015 is *approximately 268*. Since the Town has such a low vacancy rate, there is a correlation between the number of households and the number of housing units.

The result is that as the population increases, the number of households seeking residential living space is increasing faster. This trend toward smaller household size means that the housing supply will need to grow in line with this change in the population and the type and size of housing units may need to adjust.

“The shifting age and family composition of households will drive changes in the types of homes and the types of home improvements most in demand. As they move into their preretirement years with peak income and wealth, the baby boomers will continue to support demand for trade-up houses, second homes and high-end improvements

performed by professional contractors. At the same time, the growing number of singles and unmarried couples, as well as the shrinking share of families with children, will drive housing demand toward multifamily units, townhouses and condominiums.” (The State of the Nation’s Housing 2005, Part III: Demographic Trends by Harvard University’s Joint Center for Housing Studies)

The Town’s zoning regulations currently contain provisions for moderate and high density residential and a townhouse district. Planned Unit Developments also provide for higher density residential development.

Although the current zoning ordinance allows as many as two dwelling units per acre to be built in detached single-family residential areas, actual building trends exhibit lower densities in some of the new developments.

Specific Recommendation

- Provide current and future residents of the Town a variety of affordable, diverse housing options to meet the changing needs of the population.

Commercial

The Commercial Land Use areas in the Town should be "neighborhood" in scale and nature (i.e. providing goods and services for Signal Mountain neighborhoods and residential areas). As new households are created within and around the Town, the creation of new shopping venues may be needed. The opportunities to create these developments are included in this Plan, but the creation of these areas shall not infringe on or endanger existing or proposed residential neighborhoods in the vicinity. Extensive commercialization of major streets is strongly discouraged. -The Town of Signal Mountain Land Use and Transportation Plan (2000)

Hamilton County's Comprehensive Plan 2030 also encourages the continued mix of retail and office uses for this section of the county. Generally, new development sites should be located at the intersection of significant thoroughfares and existing activity centers reused or revitalized as neighborhood-scale town centers.

Neighborhood activity centers are small, compact, and clustered, low-intensity and low-traffic generating developments that support the common day-to-day demands of surrounding neighborhoods for goods and services. The core of the neighborhood activity center should contain a diverse mix of land uses and intensity levels. Neighborhood activity centers should balance pedestrian and automobile needs with pedestrian access being an integral element of the commercial core and the surrounding residential neighborhoods. A continuous network of sidewalks in the commercial and residential areas encourages people to walk from their homes to retail shops, parks, and open spaces. To make the commercial core more attractive for pedestrians, landscape amenities and public open spaces should be provided.

Older shopping centers and malls have good potential for revitalizing, reusing, or retrofitting as town centers.

The Comprehensive Plan further recommends that non-residential development within the study area should be designed in accordance with the design principles of the traditional neighborhood development model or the conventional suburban development model with modifications. (See Appendix)

Mixed-Use: A type of land use development that mixes two or more land uses in one structure or in close proximity to one another in an integrated development.

Multi-Use: A development that consists of large areas planned comprehensively in which more than one use is found. Unlike, mixed-use developments, uses are not mixed within buildings or in close proximity. Residential is separated from office and retail.

Specific Recommendation

- Non-residential uses should be contained to low-intensity, neighborhood-scale activity centers.