

RESOLUTION NO. 24621

A RESOLUTION AUTHORIZING THE ADOPTION OF THE
COMPREHENSIVE PLAN 2030.

WHEREAS, the study area for the Comprehensive Plan is Hamilton County, Tennessee;
and

WHEREAS, the purpose of the Plan is to provide a comprehensive approach to local land
use planning; and

WHEREAS, the Plan is required by state legislation; and

WHEREAS, the Plan provides specific goals, policies, and action steps for Housing,
Business and Industry, the Natural Environment, Public Spaces and recreation, Civic Facilities
and Services, and Transportation; and

WHEREAS, the Plan provides alternatives to a one-solution-fits-all approach; and

WHEREAS, the overall goal for the Plan is to provide guidance in creating desirable and
diverse communities within Hamilton County and to encourage and provide for new
development opportunities while protecting neighborhoods, infrastructure, and the environment;
and

WHEREAS, the overall strategy for the Plan is to address each community type on its
own terms and make recommendations that will best integrate new development and land use
changes with existing character and form; and

WHEREAS, the Plan describes various Development Sectors, Development Models, and
Opportunity Areas for Hamilton County; and

WHEREAS, the Plan will be a resource of information for potential developers and residents alike, as well as serve as a guide in the decision-making process for local legislative bodies; and

WHEREAS, the Plan provides a base, a starting point from which to build; flexible and adaptive, able to change as necessary as new and unanticipated development proposals are presented and ultimately resulting in a stronger, more vital economy and a more sustainable quality of life for all who reside in and visit this community; and

WHEREAS, this plan is advisory only, and as such, does not guarantee any zoning changes or the funding for projects or other recommendations contained therein.

NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CHATTANOOGA, TENNESSEE, That the Comprehensive Plan 2030, a copy of which is attached hereto, is hereby adopted.

ADOPTED: January 10, 2006.

/add

COMPREHENSIVE PLAN 2030

Full Version



A Strategy for Good Growth

Regional Planning Agency

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Acknowledgements

The Chattanooga-Hamilton County Regional Planning Agency would like to thank all those from the various local governments and many others who helped contribute either by reviewing the plan or giving input.

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Plan Adoption Dates

October 10, 2005- Chattanooga-Hamilton County Regional Planning Commission

January 4, 2006- Hamilton County Commission

January 10, 2006- Chattanooga City Council

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Assurance of Non-Discrimination

The Regional Planning Agency does not discriminate in its programs, activities, employment policies and procedures against qualified individuals because of race, sex, religion, age, national origin, or handicap. Rehabilitation Act of 1973 29 U.S.C. 794 - "No otherwise qualified individual with a disability in the United States shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI of Civil Rights Act of 1964 42 U.S.C 2000d - "No person in the United States shall, on ground of race, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

This Plan is advisory only. Adoption of this Plan does not guarantee any zoning changes or capital funding.

Executive Summary

Community Choices

This is a Plan about diversity. Community differences provide choice. Choice allows residents and employers to select the community or neighborhood that best suits their needs and preferences *within* Hamilton County. If enough choices are not provided here, the market will find them elsewhere.

A plan that focuses on community diversity must address many land use components, the most fundamental of which are open or protected space, residential neighborhoods, commercial/institutional development and industrial/manufacturing facilities. Having a county that is attractive to both employers and residents is vitally important to growing our population and economy. Improving our quality of life and providing a variety of community types for a variety of consumer preferences helps to achieve this goal. Quality of life does not have to be sacrificed for development or vice versa. This can be achieved through planning for development that is sensitive to the community in which it is placed.

Reference Guide

The Comprehensive Plan is a valuable reference tool. The document provides specific goals, policies, and action steps that can help prepare for change, or if necessary, minimize change while supporting a variety of community types and choices. It is also a plan that takes into consideration not only public opinion and good planning principles, but also the local political environment and the realities of property rights issues. This prevents the Plan from being *created in a vacuum*.

The plan is flexible and always subject to change. Land use in Hamilton County is in a constant state of transition. Requests are made every month to change how property may be used. While most of these changes are gradual and have minimal impact on the surrounding community, some can be sudden and have a great impact. Many factors influence land use changes. Transportation has a great influence on land use. Changes in how we move from one point to another bring about changes in land use patterns and development form. This is a trend that has remained relatively unchanged. That is also why there should be close coordination between the Comprehensive Plan and the Long-Range Transportation Plan.

Whether urban, suburban, or rural, each community in Hamilton County has a different physical form and character. These differences contribute to a community's uniqueness, strengths, and opportunities. These differences also require different solutions. This Plan provides alternatives to a one-solution-fits-all approach.

Goals

Plan Goal- The overall goal for this plan is to provide guidance in creating desirable and diverse residential and business communities in Hamilton County and to encourage and provide for new development opportunities while protecting neighborhoods, infrastructure, and the environment.

Plan Strategy- The overall strategy for the plan is to address each community type on its own terms and make recommendations that will best integrate new development and land use changes with existing character and form.

Additional goals and strategies are provided for the six basic community components: Housing, Business, the Natural Environment, Public Spaces and Recreation, Civic Facilities and Services, and Transportation.

Development Plan

Instead of providing a traditional land use plan and map that was typical of previous Hamilton County Comprehensive Plans, this Plan identifies eight different Development Sectors with recommendations for each. The Development Sectors are: Preserve, Reserve, Rural Growth, Transitional Growth, Outer Suburban Growth, Inner Suburban Infill, Urban Infill, and Urban Core Infill.

Development models are also presented for each sector. The development models are: Traditional Neighborhood Development, Suburban Development, Crossroads Development, Open Space Subdivision Development, Big Box Development, and Mixed Use Development. These models represent recommended development patterns. These models are not exclusive and do not prohibit other development such as manufacturing and industrial development.

Additionally, Economic Opportunity Areas are identified for each sector. These Opportunity Areas vary in scale and have strong potential for current or future development, revitalization, re-use, residential growth, commercial and industrial growth, open space protection, and historic protection. Potential new roadway projects are also indicated as identified in the 2030 Long Range Transportation Plan.

Consideration of all community components is vital to sustaining quality of life and the economic well being of any community, but, it is of particular importance that this plan assist in community efforts to present an image that reflects Hamilton County's and Chattanooga's history as a national leader in encouraging and providing opportunity for major manufacturing development. There have been concerted efforts in this community by City and County government as well as the private sector to create opportunities here for new manufacturing development on an unprecedented scale. There are several industrial sites which have been created or enhanced by these efforts, but, nothing on the scale of Enterprise South, a new, conveniently located and easily accessible industrial park with the capability to accommodate manufacturing facilities of virtually any size. A history and reputation of being a strong manufacturing community is part of our heritage from past generations and through these efforts it will be the legacy of this and future generations. It is our intent that the message will go forth that Hamilton County and Chattanooga will continue to encourage and welcome new manufacturing development of all types and that when those developers and companies take a hard, close look and what we have to offer they will, without hesitation, say "this is where we need to be".

This plan will provide a foundation for the future orderly growth and development of this community. It will be a resource of information for potential businesses, developers and residents alike who are considering Chattanooga and Hamilton County as their home. It will help facilitate new development and at the same time provide a means of protecting the quality of life and investments of all the citizens of the community. The plan provides a base, a starting point from which to build; flexible and adaptive, able to change as necessary as new and unanticipated development proposals are presented and ultimately resulting in a stronger, more vital economy and a more sustainable high quality of life for all who work in, reside in and visit this community. Creating a plan is not just the law, it's a good idea!

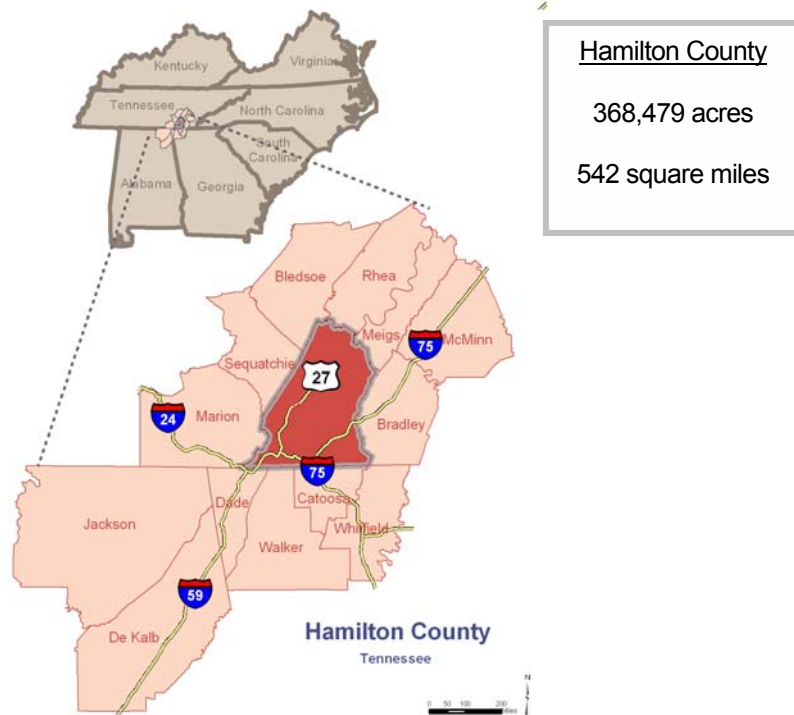


Barry Bennett
Executive Director- Chattanooga-Hamilton County Regional Planning Agency

1. Introduction

Study Area

The focus of this document is Hamilton County, Tennessee for the purpose of providing a comprehensive approach to local planning from both land use and transportation perspectives. Hamilton County is located in southeast Tennessee with its southern border on the Georgia state line. The juncture of Interstate 75 and Interstate 24 lies in southern Hamilton County while the Tennessee River bisects the length of the county from east to west. Chattanooga is the 4th largest city in Tennessee and is the county's largest and oldest city with approximately 156,000 of the county's total 308,000 residents. Hamilton County's other municipalities are Collegedale, East Ridge, Lakesite, Lookout Mountain, Red Bank, Ridgeside, Signal Mountain, Soddy-Daisy, and Walden.



History

The first recorded exploration of the Chattanooga area occurred in 1540 when Desoto passed through searching for gold. The first settlement was a trading post established in 1761. The territory was at that time inhabited by Cherokee and Creek Indians with whom there were fairly constant skirmishes until the Treaty of New Echota in 1835.

Hamilton County was established by the General Assembly of the State of Tennessee in 1819. The town, that became Chattanooga, itself originated about 1810 when Timothy Meigs and John Ross, who later became chief of the Cherokee Nation, established a trading post at the foot of Market Street at the site of the original trading post. In 1817 a mission, later named Brainerd Mission, was established on the Chickamauga Creek, to supervise the removal of the Indians from the area. In 1837 the General

Assembly created the Ocoee Land District which sold the former lands of the Indians from an office in Cleveland for about \$7.50 an acre. About this time the heads of 28 families representing about 200 people living in the Cameron Hill – Georgia Avenue – Ninth Street – Tennessee River area elected a commission to represent them in getting occupancy claims to their land settled. In the summer of 1838, a tract of 240 acres occupying the same area and called the Original Town was subdivided into 100 ft. by 200 ft. lots separated by a grid-iron street pattern. The commissioners gave deeds to the citizens for the land they occupied and sold the rest, except for 40 lots which were dedicated for use as schools and churches.

In December 1839 the town was incorporated and named Chattanooga. The origins of the name is unknown but is supposed to be derived from a Creek word describing Lookout Mountain, “Rock Coming to a Point.”

Extension by subdivision started almost immediately after incorporation. The first railroad connected Chattanooga with Georgia in 1851 and others followed rapidly. In 1859 a tunnel was cut through Missionary Ridge and by 1880 there were railroads connecting to the north, south, east and west.

At the start of the Civil War, the town had a population of about 5,500 and the principal industries were flour milling, distilling, woodworking and the making of iron. During the war it was an important military center and was the scene of bitter fighting culminating in the siege of October-November 1863. Shortly after the siege was raised on November 25th, the Confederate troops withdrew to Atlanta and Sherman began his “March to the Sea.”

By the end of the war the population of Chattanooga had declined to about 2,000. However, the reconstruction period brought a great many men to the area that were attracted by the economic potentiality. In spite of floods, an epidemic of Yellow Fever and financial failures, the city began its steady economic growth. Not all the growth, however, was orderly. In 1868 Colonel Stanton of New York bought some of the railroads and a large amount of land south of the Original Town and tried to shift the business center south onto his property. The economic crisis of 1871 stopped his plans, but the pattern of development in the area- the deflection of Market Street so that it does not meet Rossville Boulevard-reflects his practices. This lack of cooperation between developers, was in varying degrees typical, not only in Chattanooga but in all cities.

By 1880 the city had a population of about 13,000 and manufacturing plants employed about 3,000 people. In 1891 the manufacture of basic steel began and the Walnut Street Bridge was constructed. 1900 saw the start of a 20 year large-scale construction and expansion period. The first “skyscrapers” were erected along with new library, courthouse and city hall. In 1913, Hales Bar Dam was completed providing a nine-foot navigation channel on the Tennessee River.

Throughout its development, the growth of the city has been steady with no extraordinary increases or decreases in any period. Also, industrial growth has maintained a diversity of industrial uses which has enabled the city to survive economic crises much better than many other places. It is today the center of a metropolitan region of over 460,000 people and of a trading area of over a million people. Its location in the center of an area of historical interest and scenic attraction brings thousands of tourists each year.

In 1933 the city became a part of the Tennessee Valley Authority with the added benefits of low-cost electrical power, flood control and water transportation. With the establishment of the Tennessee Valley Authority in the 1930’s the Chattanooga Valley became a power and flood control center for seven states.

The production demands brought on by the World War I war effort, Chattanooga’s prime role as a major rail link, and its location on the river contributed to the city’s development as a major manufacturing center. The 50’s and 60’s brought significant changes in development patterns as the

new highway system and baby boom led to low density suburban expansion with its characteristic single-family housing. In the 70's, the Chattanooga area continued its growth, taking advantage of its wealth of history and natural beauty in its tourist industry. Adding to strong regional attractions centered at Lookout Mountain, and the Chickamauga Battlefield, the Chattanooga Choo-Choo complex grew to attract approximately one million visitors per year.

The Chattanooga downtown began recovering from the rapid de-concentration of the 1960s with landscape design improvements, new office centers, historic adaptive-use projects, a new convention center/hotel complex, and expansion of major employment anchors such as the University of Tennessee at Chattanooga, Erlanger Medical Center, and Provident Insurance Company. In the last few years, the industrial base has undergone many changes as it has in most American municipalities. The regional economic base has experienced effects of the nationwide manufacturing decline. The area's reduced industrial base and the need to modernize and move toward a more diversified economic base is a major concern in planning the highest and best use of land in the region.

Regional Planning Background

This comprehensive plan, Comp Plan 2030, builds on this region's well-established planning legacy. Planning in Chattanooga goes back to 1924 when the firm of Harland, Bartholomew and Associates prepared a plan for the city. However, this plan was never put into operation due to lack of an administrating agency.

Little public planning was done, other than studies of population by TVA which was incidental to its work, until 1943 when the Electric Power Board formed a Resources Utilization Board. This Board was approved by both the City of Chattanooga and Hamilton County in May of that year, and it became a semi-official planning agency. The Board secured the services of George Simons, Planning Consultant of Jacksonville, Florida, and he prepared a plan for the city and county which was submitted in July 1946. Although parts of this plan were used as the basis for zoning in the county, it was never formally adopted or implemented.

Two other major studies for the Chattanooga area followed. In 1947, Lochner and Company of Chicago prepared a traffic plan at the request of the State Highway Department and in 1952 the Tennessee State Planning Commission, in cooperation with the local commission, made a report on recreation possibilities in Hamilton County. In June of 1948, the Resources Utilization Board became the Chattanooga-Hamilton County Regional Planning Commission. This Commission obtained its authority from Chapter 34 of the Municipal Planning Act of the Tennessee State Legislature's Public Action of 1935. Since then, the commission has functioned as the local planning agency. The Planning Commission produced and adopted another plan in 1960, which was amended in 1969. This amended plan, the General Plan for 1985, served as the foundation for the development and adoption of the General Plan for 1990. The 1990 Plan reflected the changes in attitude toward urban renewal. The most recent plan, the Horizon Plan 2010, was completed in 1987.

Regional Planning Agency

The Planning Commission was charged by Tennessee Code Annotated with the responsibility for planning the physical development of the region. Its major responsibilities are to develop a regional land use, zoning, and road plan, as well as to review and approve platting and subdivisions. The Planning Commission is a voluntary body of 15 members from varied social and professional backgrounds. Seven members are appointed by the Chattanooga Mayor, seven by the County Mayor, and one is jointly appointed by Chattanooga and the County. Its role is to make zoning and land use recommendations to the local legislative bodies and to make final decisions on subdivision requests for Hamilton County and all municipal governments, except Collegedale, Red Bank, Signal Mountain, and Soddy-Daisy.

The *Regional Planning Agency* (RPA) operates as staff to the Chattanooga-Hamilton County Regional Planning Commission. Responsibilities include partial staffing and operation of the Planning and Design Studio and staffing of the Transportation Planning Organization (TPO) for the coordination of regional transportation projects. The Regional Planning Agency functions are as follows:

Administration- Interdepartmental Coordination, Budgeting & Finance, Staff Development, Personnel / Policies, Documentation, Intergovernmental Relations, Legal Liaison, Special Projects.

Comprehensive Planning- Land Use Planning, Neighborhood Planning, Special Studies, Transportation Planning support to TPO.

Development Services- Zoning Application Processing, Subdivision Review and Recommendation, Liaison with City & County Board of Appeals, Liaison with City & County Building Inspection & Health Department, Liaison with developers.

Information & Research- Policy Analysis, Research & Evaluation, Data Management & Information Analysis, Public Information / Website, Graphic Design / Simulations, Graphic Presentations, Census Liaison.

Planning & Design Studio- Riverfront & Downtown Planning, Design Advice & Education (Design advice available for any project within Hamilton County).

Transportation Planning Organization (TPO)- Transportation Planning, Regional & Long-Range Transportation Programming, Federal, State & Local Liaison on Transportation Planning Activities, Transportation Project Budgeting, Federal & State Compliance on Transportation.

The RPA is funded by the City of Chattanooga and Hamilton County. The RPA is also funded by federal transportation planning funds, which are matched by the City of Chattanooga, Hamilton County, TDOT, GDOT, and Dade, Catoosa and Walker Counties in Georgia. Except for the TPO, which covers the northern urban area of Georgia, the Planning Agency works inside the Hamilton County boundary. The RPA offices are located on the 2nd floor of the Development Resource Center at 1250 Market Street.



Development Resource Center

Mission Statement

The RPA's mission is to provide a comprehensive vision and guide for the community that enhances the quality of life by integrating growth with the conservation of resources. This vision will include both short and long range goals and strategies that public and private community leaders can use to implement these objectives.

Planning Approach

The RPA encourages wise planning of our region's physical development by recommending policy that integrates land use, transportation, and resource management. Our approach involves making assessments, generating ideas, and creating implementation tools to be used by elected officials and community stakeholders.

Making Assessments- Planners are required to look at the "big picture." We make an assessment of existing conditions for local communities and the region to help determine what impacts a proposed development may have. Careful attention is given to neighborhoods, community facilities and services, parks, commercial and industrial centers, the natural environment, and streets.

Generating Ideas- Planners generate ideas. Planners use public input and staff input combined with traditional and innovative planning techniques to provide possible land use solutions and recommendations. Planners often help to facilitate discussion between elected officials, property owners, and developers to help reach those solutions.

Creating Tools- Planners help to implement land use solutions by developing "planning tools." These tools take the shape of land use plans, studies, policies, and regulations. The effectiveness of the tools is part of a continual monitoring and evaluation process. It has been the experience of the RPA that developers do not want to invest in an area that does not have a plan or regulations that will protect their investments.

RPA Planning Principles

Good planning expresses certain qualities or principles of excellence. Any planning activity should be conducted with these principles in mind. The following principles of good planning help guide the work of the Planning Commission and the RPA staff. Most of these principles were part of the 1996 RPA Strategic Plan. Some are new to the list.

1. Planning should provide for the health, safety, and welfare of the community.
2. Planning should be proactive and visionary.
3. Planning should reflect the integration of comprehensive economic, social, and environmental factors.
4. Planning should promote the wise use of existing resources without compromising our options for the future.
5. Planning should recognize the importance of diversity in our community, including its people, cultures, values, places and natural resources.
6. Citizen involvement in the planning process is essential.
7. Planning should reflect a high ethical standard, free from conflicts of interest.
8. Planning should seek to find a balance between what is good for the community as a whole and the rights of citizens as individuals.
9. Planning should incorporate realistic and flexible implementation components that define specific areas of responsibility.
10. Planning should recognize the importance of the urban, suburban, and rural areas to the economic and cultural vitality of the entire community.
11. Planning should facilitate new growth while protecting neighborhoods, infrastructure, and the environment.
12. Planning should be an ongoing process in which previously developed plans are reviewed periodically and updated or modified as needed if conditions or preferences have changed.

Comprehensive Plan Background

State legislation requires a Comprehensive Plan. Tennessee Code Annotated 13-3-301 states, "It is the function and duty of a regional planning commission to make and adopt a general regional plan for the physical development of the territory of the region." Planning is not required in Tennessee. State legislation allows a region, municipality, or county to set up a planning commission. If a planning commission is formed then a Comprehensive Plan is required.

Other reasons for having a plan:

- A plan creates order from chaos.
- A plan helps lay a solid foundation for physical growth.
- A plan helps in making wise capital expenditure decisions by identifying and prioritizing needs.
- A plan helps integrate and soften the impact of varying land uses.
- A plan helps serve as the focus for coordinating government services and neighborhood association activities.
- A plan helps to maintain property values.
- A plan helps to stabilize neighborhoods and preserve their quality.
- A plan helps to maintain and preserve a community's choice of lifestyle whether that lifestyle is urban, suburban, rural, or something in between.
- A plan helps to provide appropriate regulations throughout each district to protect investments.
- A plan offers good support for positions neighborhoods may wish to take.
- A plan helps foster community leadership.
- Some funding sources may require that a plan be in place.
- A plan can help improve a community's quality of life and overall economic vitality.

The Chattanooga-Hamilton County Comprehensive Plan 2030 recognizes that land use is always in transition. Transition is a key word for this Plan. *Webster's* dictionary defines the word transition as a passage from one state, place, stage, or subject to another. Transition is about change. The Comprehensive Plan is about change and how best to accommodate it or, as in the case of some protected lands, how best to prevent negative impacts from unguided change.

Transition- passage from one state, place, stage, or subject to another: change.

The Comprehensive Plan is a general land use plan and advisory guide for future physical development in Hamilton County. It is a tool to help coordinate regional planning efforts. The word plan is defined as a "method for accomplishing an objective." The Comprehensive Plan, or Comp Plan 2030, is one of the Regional Planning Agency's strategies for achieving its mission.

Plan- method for accomplishing an objective.

The Comprehensive Plan is a proactive set of recommendations about how to improve a given area of the city or county. It is a general policy guide for future development and community improvements. The Plan is not meant to discourage growth, but rather to support quality growth by integrating well-designed development into suitable and appropriate areas and ensuring the most efficient use of tax dollars.

A land use plan approved by the Planning Commission and legislative bodies is not legally binding nor does it trigger or guarantee any kind of zoning change or funding for capital improvements. An approved land use plan becomes only one factor among many that is considered when reviewing zoning requests and development proposals. Each zoning request is reviewed on its own merits. A proposed use or development that is not fully consistent with the Comprehensive Plan does not close the door on that project. The zoning process is the proper forum to discuss the details for proposed projects. The plan serves as a guide to help determine what areas are best suited to different land uses. It separates where necessary and integrates where appropriate. A successful plan is one that is flexible and workable.

Comprehensive Plan Scope

After adoption in 2005, the Comp Plan 2030 will have a 25-year scope extending to the year 2030. The Plan will be reviewed every 5 years for adjustments or updates, keeping a 25-year scope.

Comprehensive Plan Vision

Public Concerns- Past and present public input, collected through various RPA plan processes, reveals that the most common concerns for Hamilton County are:

- **Promote and protect community identity.**
- **Encourage responsible nonresidential development and redevelopment.**
- **Promote diverse housing opportunities while protecting and revitalizing existing residential areas.**
- **Maintain healthy water resources, preserve natural areas and be sensitive to topography.**
- **Improve and expand park and recreational opportunities (including regional and neighborhood parks and greenways).**
- **Improve pedestrian, bike, and transit facilities while strengthening the existing road network.**

This Plan seeks to address these concerns. Growth is inevitable. Growth is necessary for a community's economic health. There are only a few growth options to choose from: no growth, bad growth, or good growth. The Comprehensive Plan is a strategy for good growth.

Plan Goal-The overall goal for this plan is to provide guidance in creating desirable & diverse communities in Hamilton County and to encourage and provide for new business and development opportunities while protecting neighborhoods, infrastructure, and the environment.

Plan Strategy-The overall strategy for this plan is to address each community type on its own terms and provide recommendations that will best integrate new development and land use changes with existing character and form.

Comprehensive Plan Process

Citizens expect to be part of public decisions. A successful plan uses the input and ideas from community constituents or "stakeholders." These stakeholders include kids, adults, retired people, employers, workers, and people with special needs. Planners, other public professionals, and elected officials collaborate with the stakeholders to create a plan. This collaboration is achieved by involving

community stakeholders in public input meetings. Planning is best done *with* a community not just *for* them.

Other reasons for public participation:

- Public participation reflects the needs of the community more accurately.
- Public participation creates a greater sense of plan ownership.
- Public participation empowers people to envision and prepare for their community's future.
- Public participation helps public officials understand their constituents' needs.

Planning Phases

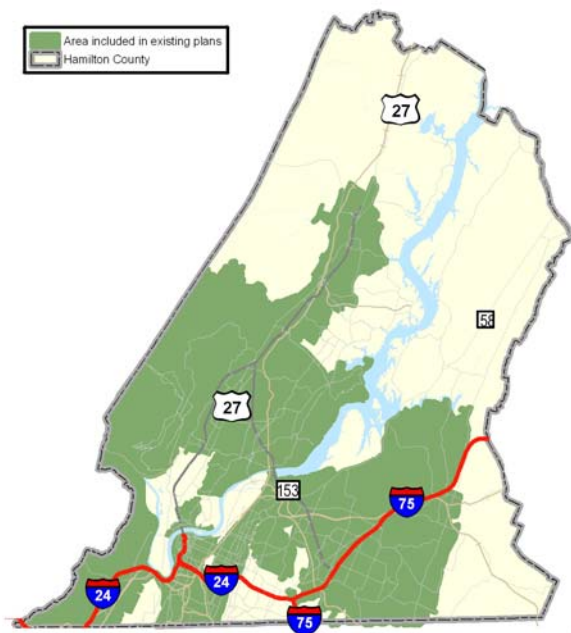
Phase 1- Gathering the Information

Between March and December 2004, RPA staff began collecting data and public comments. One of the goals of the Comp Plan 2030 was to coordinate with the Transportation Planning Organization (TPO) and its Long-Range Transportation Plan. This meant coordination of recommendations as well as coordination of timeline and process. This coordination also involved a sharing of data and public input. Public meetings were used to collect comments that could be used in either plan. The TPO serves Hamilton County and portions of Dade, Catoosa, and Walker counties in north Georgia. For this reason, some of the Transportation Plan public meetings were held in Georgia, as noted below.

Public input was obtained through recently adopted neighborhood and area plans, public comment forms, and public meetings. Input was also solicited from various trade associations including the Chattanooga Manufacturers Association and the local Association of General Contractors.

Recently Adopted Plans

Input was gathered from various neighborhood and small area plans that were adopted within the last five years. These companion planning documents should be used in conjunction with the Comprehensive Plan. The recommendations from those plans represent recent and valid input from various communities.



Shaded area on map indicates areas currently covered by a neighborhood or area plan listed on the previous page.

The following represents a comprehensive list of RPA neighborhood and area plans from 1990 to present:

Alton Park Redevelopment Plan	2000
Avondale Neighborhood Plan.....	2004
Avondale Zoning Study.....	2004
Bike Plan.....	2002
Brainerd Area Zoning Study	1995
Brainerd / Belvoir Zoning Study	1989
Brainerd Hills Neighborhood Plan	2002
Brainerd Town Center / Eastgate Plan.....	1998
Bushtown Neighborhood Plan.....	2000
Downtown Plan.....	2004
East Brainerd Area Study	1990
East Brainerd Corridor Community Plan (1990 study update)	2003
East Chattanooga Area Plan	2004
East Chattanooga Zoning Study	2005
Eastdale Plan.....	1998
East Ridge Zoning Policy.....	1989
Glenwood, Churchville, Orchard Knob Plan	2002
Hamilton Place Community Plan (update of a 1990 study)	2001
Highland Park / Tennessee Temple Master Plan.....	1999
Highway 58 Community Plan	2002
Hill City Neighborhood Plan.....	2003
Hixson- North River Community Plan (update of a 1991 study).....	2002
Hixson / North River Plan Update.....	2004
Lookout Valley Area Plan.....	2003
M.L. King Zoning Study.....	2002
Mountain Creek Greenway Plan	2003
North Brainerd Area Plan.....	2004
North Moore / North Terrace Zoning Policy	2000
North Suburban Area Plan.....	1991
North Shore Development Plan.....	1993
Oak Grove Neighborhood Plan	2004
Ridgedale Plan, (1998 study update).....	2002
Rossville Boulevard Community Plan	2004
Rossville Boulevard Area Zoning Study.....	2005
Shallowford Road / Lee Hwy Area Plan.....	2005
Soddy Daisy Comprehensive Plan.....	2002
South Broad Redevelopment Plan.....	2003
Southside Redevelopment Plan	1997
St. Elmo Plan	2001
St. Elmo Zoning Study	2005
VAAP / Enterprise South Plan	2000
Walden's Ridge Plateau Area Plan	1997
Wolftever Creek Basin Area Study.....	1988

Plans more than five years old can be expected to be re-evaluated for possible updates.

Public Comment Forms (Copy in Appendices)

Public Comment Forms were distributed at the Transportation Plan public meetings and the Community Surveys were distributed at the Comprehensive Plan public meetings. Participants were asked to fill out the forms and return them before the meeting ended or mail them to the RPA at their convenience. The forms were also available online at a page set up for the Comp Plan on the RPA

website. The Public Comment Forms asked about goals and objectives, transportation needs, community and quality of life, live and work, as well as about staying involved in the planning process. The Community Survey and fact sheet solicited responses regarding community living and activity, countywide preferences, housing, business, environment, parks, civic facilities, and transportation.

Public Meetings:

- Long Range Transportation Plan public meetings:
 - March 22, 2004 - Downtown Chattanooga and Fort Oglethorpe, Georgia
 - March 23, 2004 - Red Bank and Collegedale
 - November 8, 2004 – Downtown Chattanooga and Red Bank
 - November 9, 2004 – Fort Oglethorpe, Georgia and Collegedale
- Comprehensive Plan public meetings:
 - October 18, 2004 - Downtown Chattanooga and Ooltewah area
 - October 19, 2004 - Soddy-Daisy and Tyner area
- Land Use Advisory Committee meetings:
 - March 25, 2004
 - May 17, 2005 (Housing)
- Transportation Advisory Committee meetings:
 - Approximately one each month beginning March 9, 2004

RPA strives to be aware of all state, regional and local planning efforts. Part of preparation for this plan involved the review of planning efforts in neighboring counties and their municipalities as growth and development in these areas directly and indirectly impacts Hamilton County.

Dade, Walker and Catoosa counties in Georgia receive the majority of their land use planning assistance from the Coosa Valley Regional Development Center. Plans developed by that agency, often in conjunction with other planning organizations, include: Dade County/City of Trenton: Comprehensive Plan 2010, Catoosa County / Cities of Fort Oglethorpe and Ringgold: Joint County/City Comprehensive Plan, and the Walker County Comprehensive Plan. These plans may be found at www.georgiaplanning.com.

Tennessee counties surrounding Hamilton—Bradley, Meigs, Rhea, Bledsoe, Sequatchie and Marion—are assisted with some planning by the State of Tennessee's Local Planning Assistance Office of the Department of Economic and Community Development. Most of the counties listed have plans from the 1970s while Bradley County's latest plan was completed in the early 1990s.

Reflecting growth in the Cleveland, TN area, the city recently obtained metro status from the federal government. Cleveland completed a Community Development Block Grant Consolidated Plan in 2004. The plan, while comprehensive, focuses on the following goals: provide decent housing, provide a suitable living environment, and expand economic opportunities.

Data Collection

Also, as part of this phase, an inventory of existing conditions and demographics was researched and compiled by the RPA Information and Research staff and the Comprehensive Planning staff. This helped bring to light major changes and trends throughout Hamilton County, making it possible to develop the County Profile section of the Comp Plan 2030.

Phase 2- Creating the Plan

From January to June 2005, RPA staff concentrated on actually writing the recommendations of the Plan. Several meetings were conducted with Land Use Advisory Committees to review draft recommendations before presenting them back to the general public. The Land Use Advisory Committees were comprised of people who volunteered to help give advice and input for the six areas of recommendations: Housing, Business, Natural Environment, Public Spaces and Recreation, Civic, and Transportation. Their role was advisory, not decision making.



Phase 3- Completing the Plan

September 2005 was dedicated to finalizing a draft plan and obtaining approval by the Planning Commission and the City and County legislative bodies.

Comprehensive Plan Structure

The Plan recognizes and respects the different types of communities available in Hamilton County. The Comprehensive Plan provides specific goals, policies, and action steps that can help prepare for change, or if necessary, minimize change while supporting a variety of community types and choices.

The Comprehensive Plan recommendations are grouped under two parts: Community Components and the Development Plan.

Community Components

Community components are the individual pieces that help to create a community. It is difficult, if not impossible, to have a complete community without any of these components. The Plan provides specific goals, policies, and action steps for these six components: Housing, Business, Natural Environment, Public Spaces & Recreation, Civic, and Transportation.

Development Plan

The Development Plan describes how the community components fit together. It recommends how the components may best be integrated while respecting the existing development form and characteristics such as streets, land use patterns, and building types. Recommendations are given for the following Development Sectors: Urban Core Infill, Urban Infill, Inner Suburban Infill, Outer Suburban Growth, Transitional Growth, Rural Growth, Preserve, and Reserve.

Development Models are also described and suggested for the appropriate Development Sector. This approach creates recommendations and solutions that are sensitive to the individual characteristics of each type of neighborhood or community.

2. County Profile / Existing Conditions

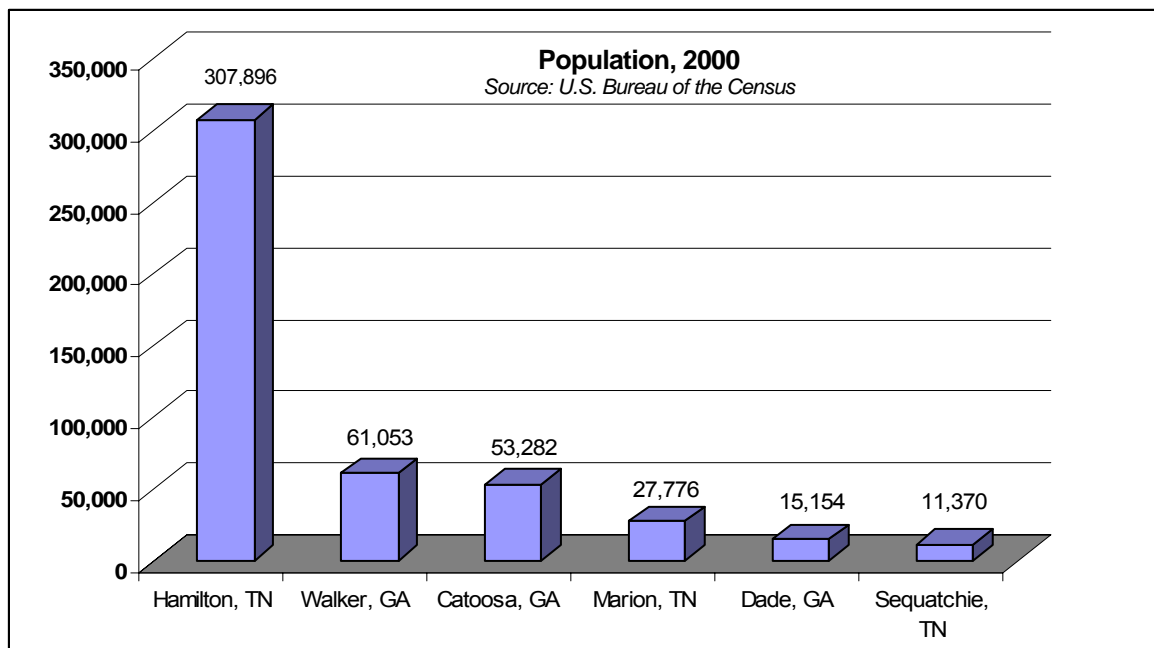
Location

Comprising 542 square miles, Hamilton County is located in the extreme southeast portion of the state, and includes ten municipalities: Chattanooga, Collegedale, East Ridge, Lakesite, Lookout Mountain, Red Bank, Ridgeside, Signal Mountain, Soddy Daisy, and Walden. The Chattanooga-Hamilton County Regional Planning Agency (CHCRPA) provides regional planning services for all municipalities except Collegedale. Multi-jurisdictional transportation planning is performed by the Chattanooga-Hamilton County/ North Georgia Transportation Planning Organization.

Population

Regional Context

Hamilton County is one of Tennessee's largest counties with approximately 542 square miles of area and nearly 310,000 residents. The Chattanooga Metropolitan Statistical Area (MSA) has a total population of 476,531 according to the United States 2000 Census. Of the six counties in the MSA, Hamilton County is the largest with 66 percent of the population.



Chattanooga, Hamilton County's largest city, has half of the county's population with 155,554 people. The second largest city is East Ridge, which has a population of 20,640. The remainder of the population is distributed among the eight remaining municipalities and the unincorporated county.

HAMILTON COUNTY POPULATION AND PERCENT SHARE BY DECADE								
	1970	% of County	1980	% of County	1990	% of County	2000	% of County
Chattanooga	119,082	46.84	169,728	58.99	152,488	53.40	155,554	50.53
Collegedale	3,031	1.19	4,607	1.60	5,048	1.77	6,514	2.12
East Ridge	21,799	8.57	21,236	7.38	21,101	7.39	20,640	6.71
Lakesite	N/A	N/A	651	0.23	781	0.27	1,845	0.60
Lookout Mountain	1,741	0.68	1,886	0.66	1,901	0.67	2,000	0.65
Red Bank	12,715	5.00	13,129	4.56	12,322	4.32	12,418	4.03
Ridgeside	458	0.18	417	0.14	378	0.13	389	0.13
Signal Mountain	4,839	1.90	5,818	2.02	7,034	2.46	7,429	2.41
Soddy-Daisy	7,569	2.98	8,388	2.92	8,240	2.89	11,530	3.75
Walden	N/A	N/A	1,293	0.45	1,523	0.53	1,960	0.64
Unincorporated Hamilton County	83,002	32.65	60,587	21.06	76,243	26.70	87,537	28.44
Hamilton County Total	254,236	100	287,740	100	285,536	100	307,896	100

Source: US Census Bureau, Census of Population

Population Profile

The population of Hamilton County in 2000 was 307,896. Between 1990 and 2000, the county's population grew by 22,280, representing an increase of almost 8 percent. Most of Hamilton County's growth occurred in the unincorporated county and in the municipalities of Collegedale and Soddy Daisy. Unlike county population growth, a portion of the increase in municipal population is attributable to annexation which is a procedure used by cities to expand their jurisdictions. Between 1990 and 2004, the City of Chattanooga annexed over 12,000 acres, although the bulk of this addition consists of the Enterprise South industrial site. The Master Interlocal agreement executed in 2001 prohibits the ten municipalities from annexing new residential parcels until March 2006. After that time, each city may annex additional property as outlined in the agreement.

POPULATION PROFILE					
	City of Chattanooga	Hamilton County	Chattanooga MSA	Tennessee	United States
Population	155,554	307,896	476,531	5,689,283	281,421,906
Rate of Population Growth 1990-2000	2.0	7.8	7.4	16.7	13.2
Percent African American	36.1	20.0	14.2	16.4	12.3
Percent Hispanic	2.1	1.8	1.5	2.2	12.5
Percent Under 18	22.4	23.2	23.8	24.6	25.7
Percent Age 65 and Older	15.2	13.8	13.5	12.4	12.4

Note: The Chattanooga MSA includes all of Hamilton, Marion and Sequatchie Counties in Tennessee and Dade, Catoosa and Walker Counties in Georgia. Source: US Census 2000

Urbanized Area

As defined by the United States Census Bureau, an urbanized area consists of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people.

Due to continued population growth to the north and east of the City of Chattanooga, the urbanized area continues to expand. In 2000, the portion of Hamilton County's population living in Census Bureau-defined urbanized area reached 90%.

Urban/ Rural Population Distribution					
Hamilton County 1970-2000					
	Urban Population	% of Total	Non-Urban Pop.	% of Total	Total Pop.
1950	157,862	76	50,393	24	208,255
1960	188,364	79	49,541	21	237,905
1970	206,092	81	48,972	19	254,236
1980	259,049	90	28,691	10	287,740
1990	250,680	88	34,856	12	285,536
2000	277,882	90	30,014	10	307,896

Source: US Census Bureau, Census of Population

Population Growth

Over the decade between 1990 and 2000, Hamilton County's population growth lagged other major metropolitan counties in Tennessee. New growth tends to concentrate in particular areas instead of dispersing through the whole county. Generally, growth is currently strongest in the Ooltewah/ Harrison areas east of the Tennessee River and along the US 27 corridor west of the river near Soddy Daisy.

HAMILTON COUNTY POPULATION AND PERCENT SHARE BY DECADE								
	1970	% of County	1980	% of County	1990	% of County	2000	% of County
Chattanooga	119,082	46.84	169,728	58.99	152,488	53.40	155,554	50.53
Collegedale	3,031	1.19	4,607	1.60	5,048	1.77	6,514	2.12
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Walden	N/A	N/A	1,293	0.45	1,523	0.53	1,960	0.64
Unincorporated								
Hamilton County	83,002	32.65	60,587	21.06	76,243	26.70	87,537	28.44
Hamilton County Total	254,236	100	287,740	100	285,536	100	307,816	100

Source: US Census Bureau, Census of Population

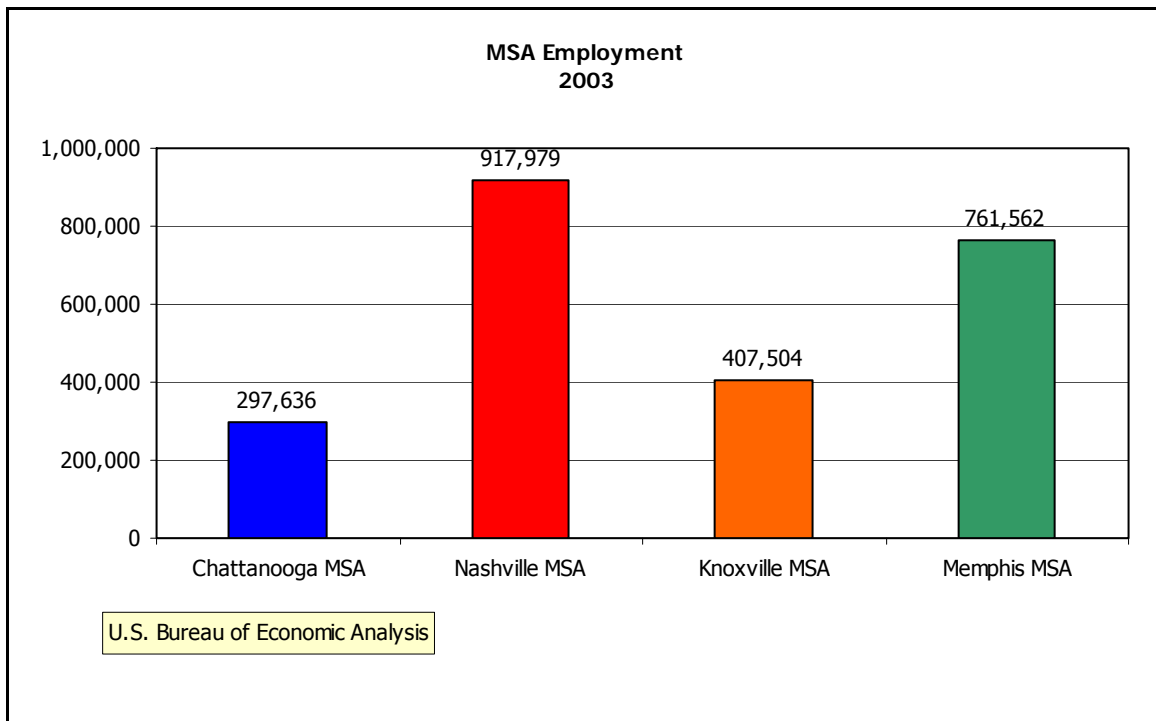
Economic Profile

Changes in the economy are as important as changes to the population for guiding the development of a community. Economic changes can help determine the types of land use patterns that are required to accommodate employment within the community.

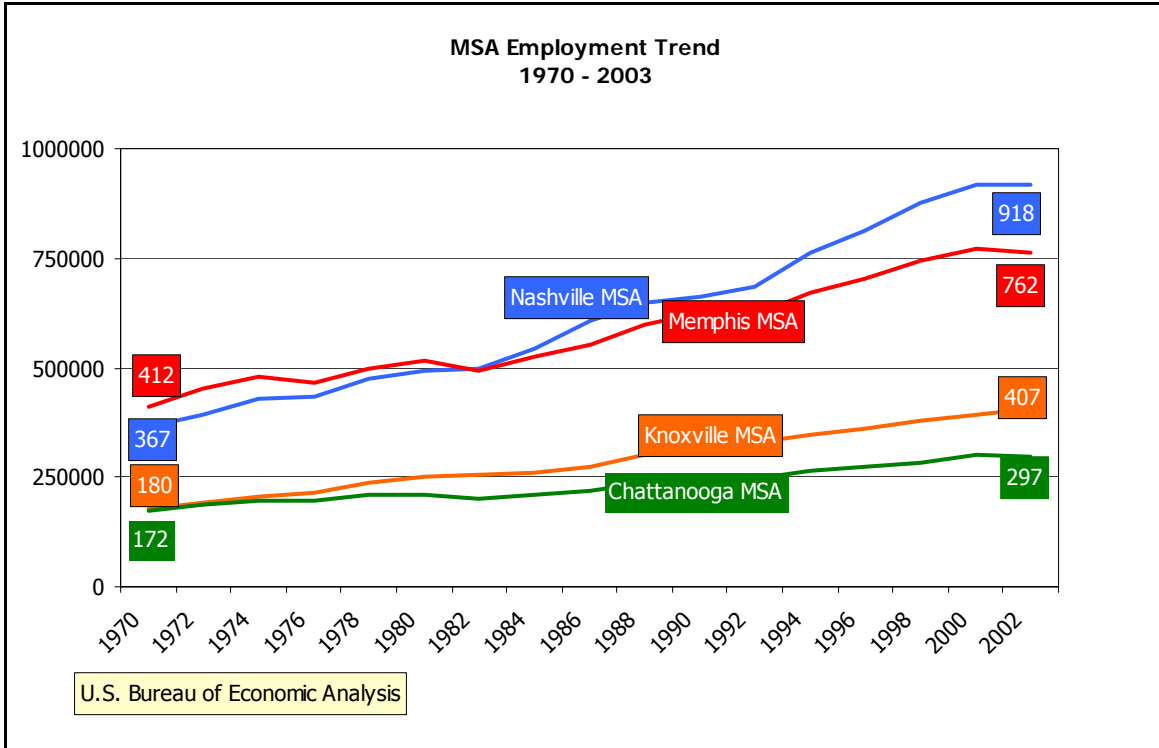
In June 2005, the Information and Research Division of the Chattanooga-Hamilton County Regional Planning Agency prepared a report on recent socio-economic trends in the Chattanooga MSA, and Hamilton County. In order to maintain consistency in reporting socio-economic data, information presented in the recent trends report is incorporated within this section.

Chattanooga MSA Workforce

Annual estimates of employment and wages is provided by the Bureau of Economic Analysis (part of the U.S Department of Commerce). In 2003 there were 297,636 full and part time workers employed within the Chattanooga MSA. Employment in the Chattanooga MSA is significantly lower than the three largest Tennessee MSAs.



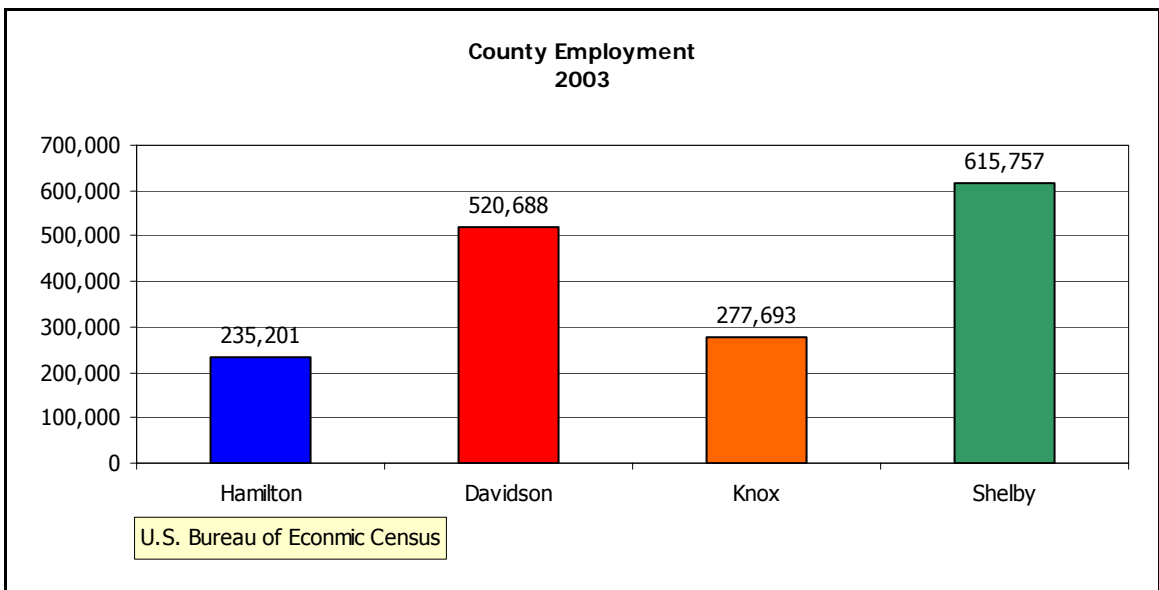
From 1970 to 2003, total full and part time employment in the Chattanooga MSA grew from 172,095 to 297,636 at an average annual growth rate of 1.7%. The comparable annual growth rates for the other large Tennessee MSAs were: Knoxville, 2.5%; Memphis, 1.9%; and Nashville, 2.8%.



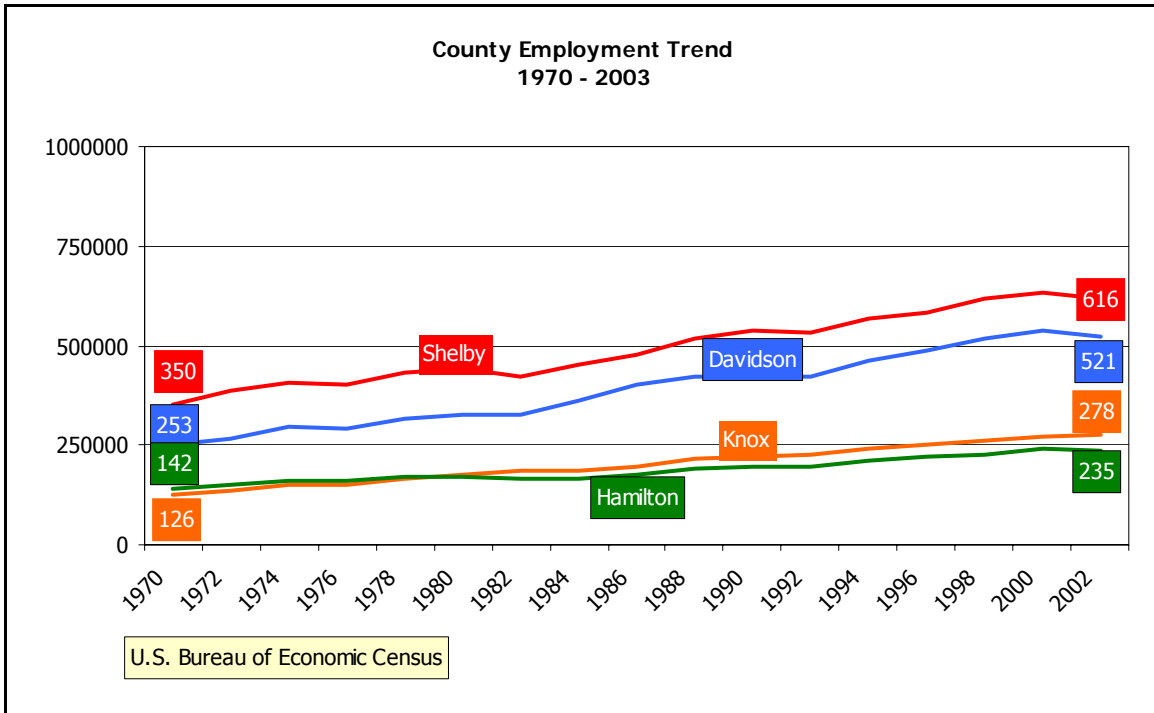
Over the most recent five-year period, from 1999 to 2003, employment in the Chattanooga MSA grew by 1.1%. The growth rate from 1999 to 2003 for the other large Tennessee MSAs was: Nashville 2.3%; Knoxville, 6.2%; and Memphis 0.5%.

Hamilton County Workforce

In 2003 there were 235,201 full and part time workers employed within Hamilton County. As within the Chattanooga MSA, employment in Hamilton County is significantly lower than the three largest Tennessee Counties.



In 2003, 79% of employment within the Chattanooga MSA was in Hamilton County representing 235,201 jobs. The average annual growth rate for Hamilton County over the 1970 to 2003 period was 1.6% compared to 2.4% for Knox County, 1.7% for Shelby County, and 2.2% for Davidson County.



From 1999 to 2003, Hamilton County's employment increased by 0.6%. Knox County's increase was 5.1%, while both Davidson and Shelby had percentage decreases of -1.2% and -0.9% respectively.

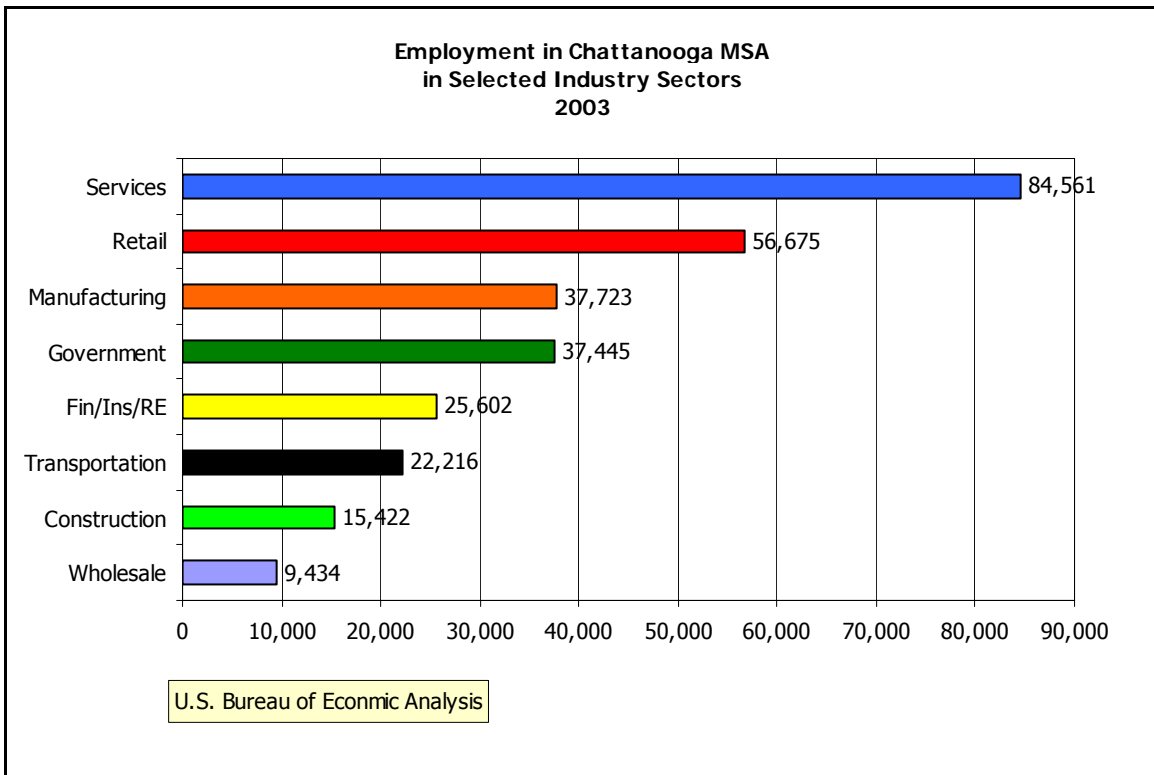
Chattanooga MSA Employment by Sector

From 1990 to 2000, employment within the Chattanooga MSA grew in all employment sectors, except for wholesale trade and government. Employment in wholesale trade experienced an -11% decrease in employment, while employment in the government sector declined by -2%. During the same time period, employment in the transportation and utilities sector experienced the largest amount of growth, from 10,140 workers to 25,546, or a growth rate of approximately 152%. Employment in the construction sector grew by 41%, and finance, insurance and real estate experienced a 40% growth rate, while employment in the services sector grew by 38%.

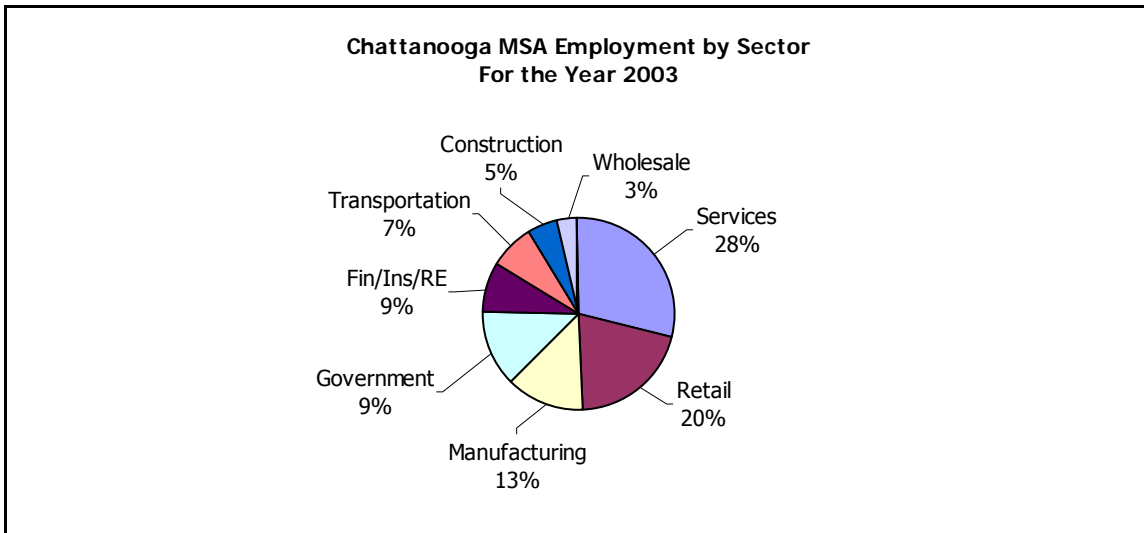
CHATTANOOGA, MSA		1970	% CHG	1980	% CHG	1990	% CHG	2000
EMPLOYMENT	BY							
SECTOR								
Construction		8,187	20	9,794	26	12,340	41	17,456
Manufacturing		57,543	-9	52,197	-7	48,433	0.4	48,613
Transportation/Utilities		6,642	33	8,822	15	10,140	152	25,564
Wholesale Trade		8,009	22	9,767	39	13,523	-11	12,060
Retail Trade		23,505	41	33,193	35	44,758	19	53,337
Finance, Ins, Real Estate		12,030	40	16,796	2	17,193	40	24,025
Services		28,291	32	37,411	55	57,848	38	79,841
Government		24,581	47	36,033	0.4	36,165	-2	35,477

The predominant employment sector in the Chattanooga MSA is the services sector, which includes health care services, professional and technical services, legal services, business services and

personal services and other types of services. In 2003, 84,561 people were employed in this sector in the Chattanooga MSA, which represents approximately 28% of all employment in the Chattanooga MSA.



Retail, which includes food service and accommodation establishments, was the second largest sector in the Chattanooga MSA, approximately 20% of employment in the Chattanooga MSA. The manufacturing sector, once the largest employment sector in the Chattanooga MSA, is now the third largest employment sector in 2003, approximately 13% of employment in the Chattanooga MSA.

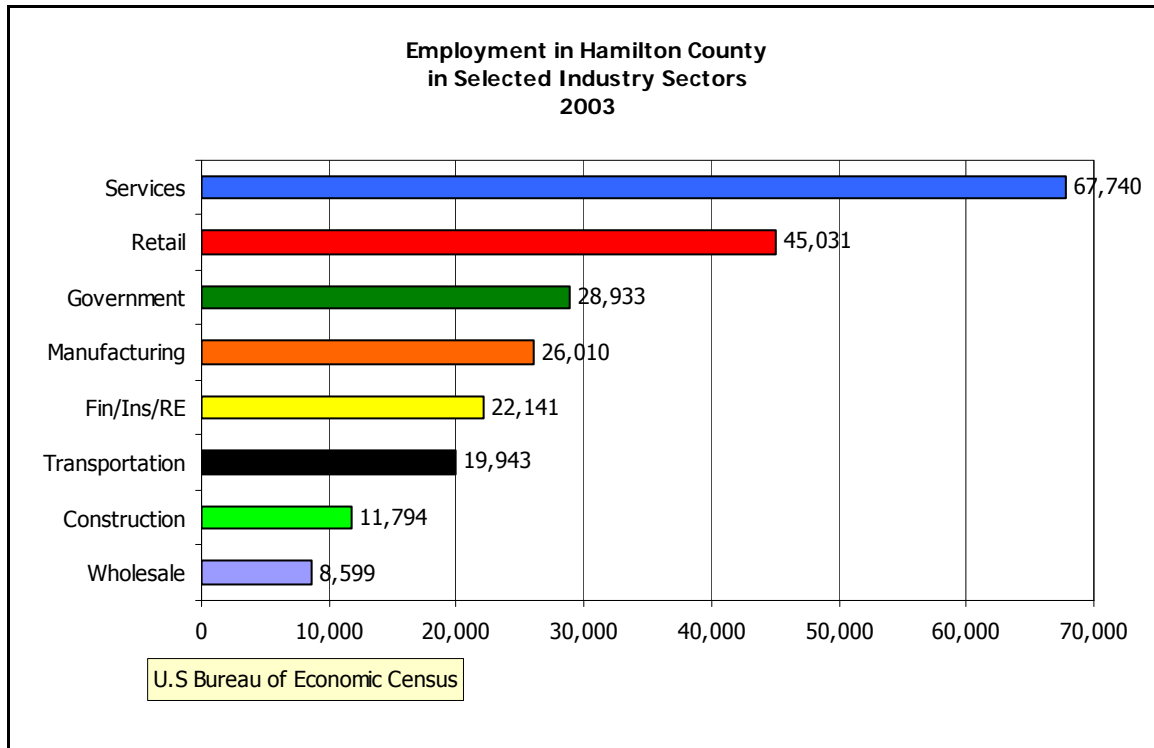


Hamilton County Employment by Sector

From 1990 to 2000, employment within Hamilton County grew in all employment sectors, except for wholesale trade, government, and manufacturing. Employment in the wholesale trade sector experienced the largest decrease in employment, a -9% decrease. During the same time period, employment in the government sector declined by -3%, while manufacturing employment experienced a slight decrease of -0.4%. During the same time period, employment in the transportation and utilities sector experienced the largest amount of growth, from 8,455 workers to 23,675 workers, or a growth rate of approximately 180%. Employment in the construction sector grew by 37%. Employment within the services sector grew by 35%, while finance, insurance and real estate employment experienced a 34% growth rate.

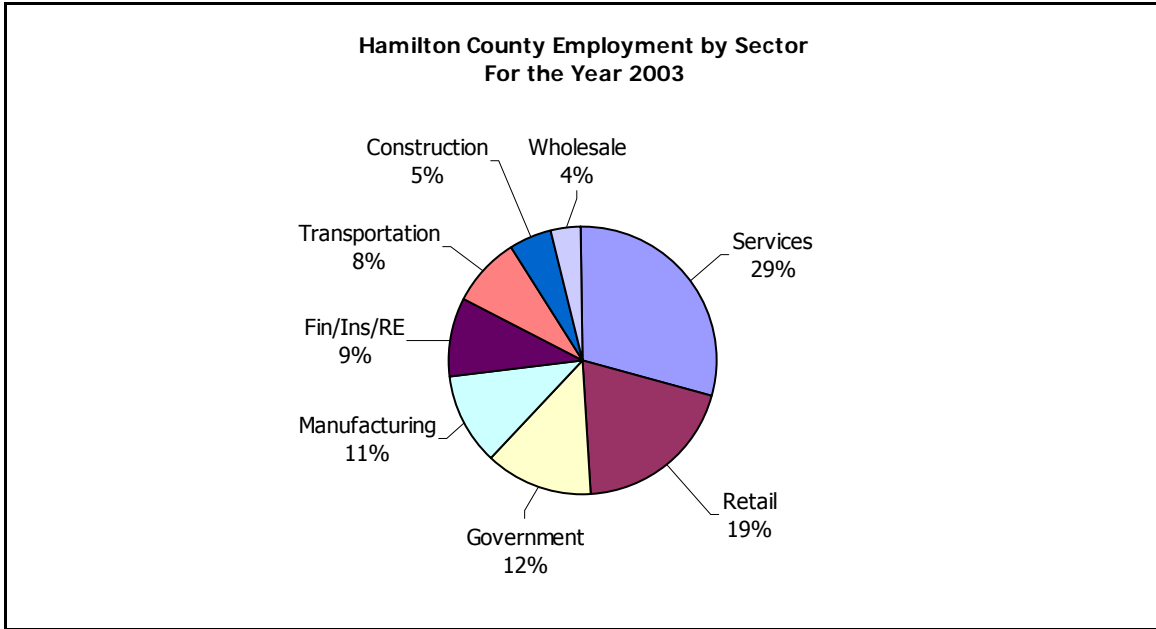
HAMILTON COUNTY							
EMPLOYMENT BY SECTOR	1970	% CHG	1980	% CHG	1990	% CHG	2000
Construction	6,925	17	8,084	20	9,724	37	13,337
Manufacturing	45,953	-9	41,781	-20	33,611	-0.4	33,467
Transportation/Utilities	5,956	29	7,700	10	8,455	180	23,675
Wholesale Trade	7,572	17	8,892	25	11,100	-9	10,074
Retail Trade	19,329	41	27,332	34	36,575	15	41,877
Finance, Ins, and Real Estate	11,022	36	15,016	4	15,649	34	20,913
Services	24,331	31	31,822	53	48,827	35	65,720
Government	19,592	52	29,780	-5	28,401	-3	27,682

The predominant employment sector in Hamilton County is the services sector, which includes health care services, professional and technical services, legal services, business services and personal services and other types of services. In 2003, 67,740 people were employed in this sector in Hamilton County, which represents approximately 29% of all employment in the county.



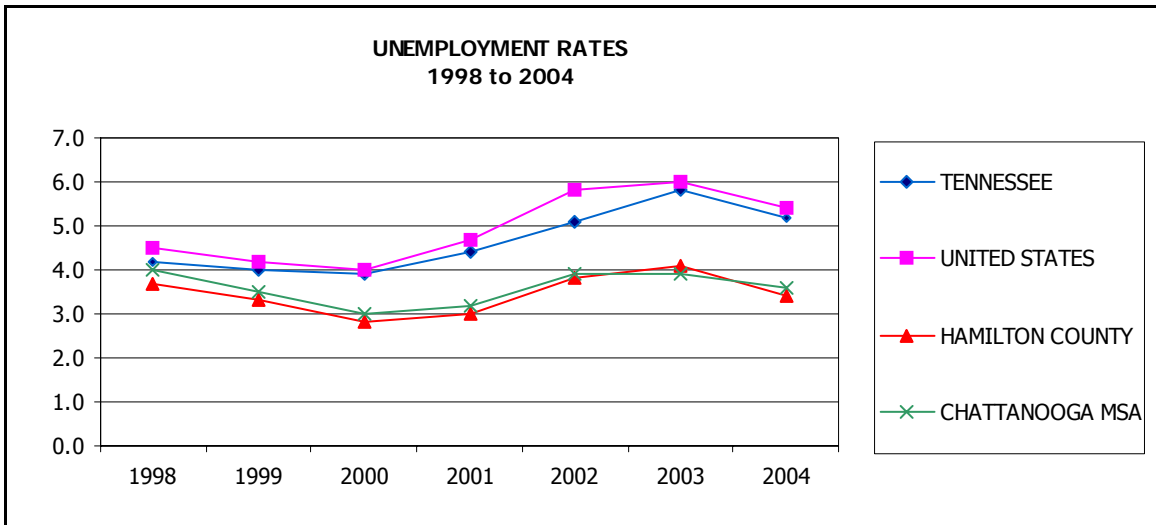
Retail, which includes food service and accommodation establishments, was the second largest sector in Hamilton County, approximately 19% of employment in Hamilton County. The manufacturing sector,

once the largest employment sector in Hamilton County, was only the fourth largest in 2003, approximately 11% of employment in Hamilton County.



Unemployment Rates

Since 1998 the unemployment rate for the Chattanooga MSA and Hamilton County have consistently mirrored the unemployment rate of the State of Tennessee and the United States. During the same time, the unemployment rate for the Chattanooga MSA and Hamilton County has been notably below the unemployment rate for the State of Tennessee and the United States. The 2004 unemployment rate for the Chattanooga MSA and Hamilton County was 3.6% and 3.4% respectively. These unemployment rates are significantly lower than the 5.2% for the State of Tennessee and the 5.4% for the United States.



Environment

Topographical Features

A variety of natural assets including the Tennessee River, significant slopes, flood lands and wetlands, recharge areas and forests comprise 70% of all Hamilton County. The Tennessee river and its tributaries alone account for 6% of total county area (see Water Features map). The county is bisected from northeast to southwest by the Tennessee River, the northern half of which comprises Chickamauga Lake. To the west of the River the main land mass is Walden's Ridge, at the south end of which is Signal Mountain rising to an elevation of 1,200 feet above the river. In the southwest part of the county is Lookout Mountain, Missionary Ridge, and the City of Chattanooga (see *Topographic Features map*).

Chattanooga is located on both banks of the Tennessee River in the narrowest portion of the river valley just above its entrance into the Tennessee River Gorge. The portion on the north bank, about 10% of the gross area of the city, is quite high and rolling, rising about 400 feet above the river.

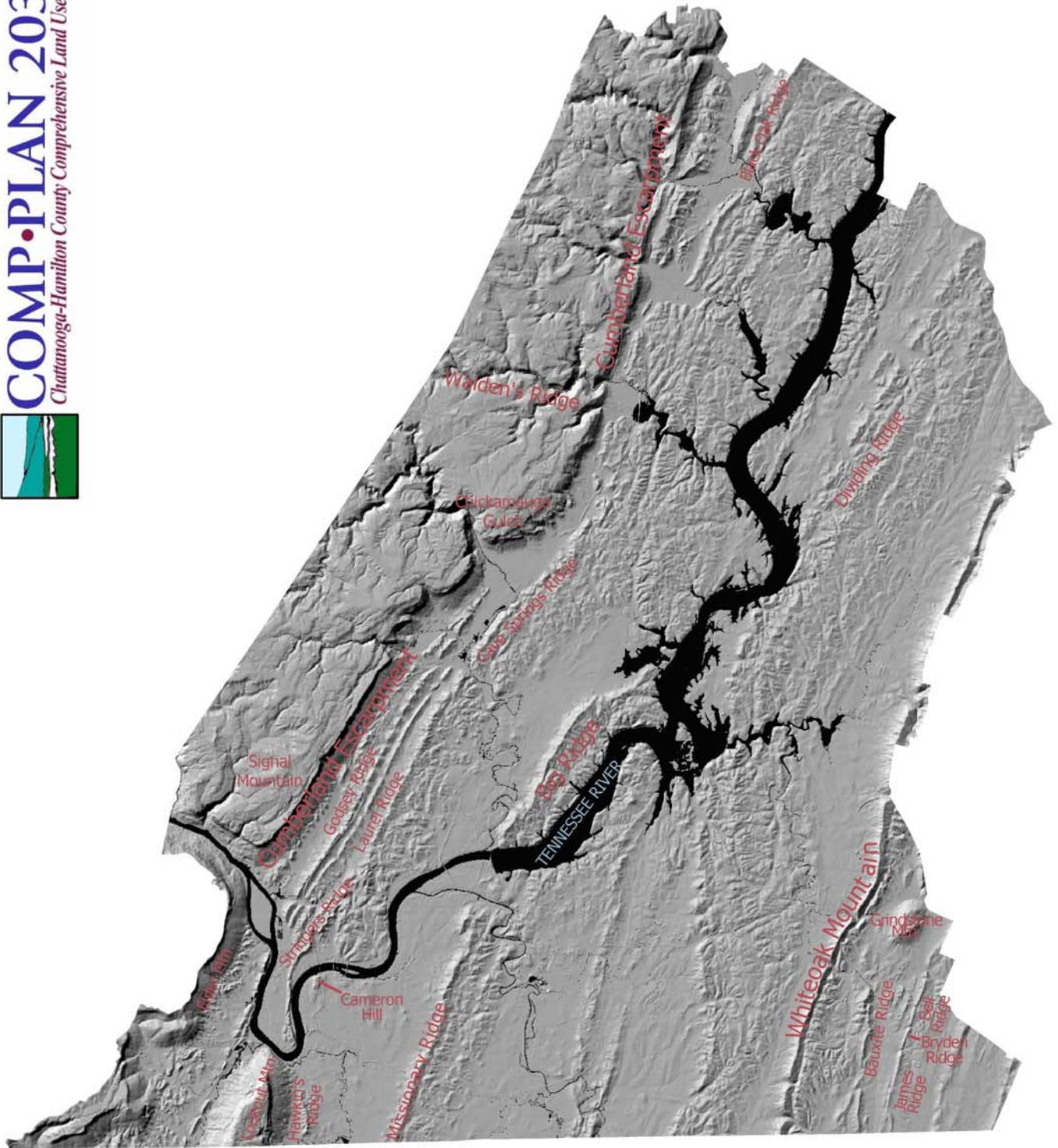
Downtown Chattanooga is south of the Tennessee River and is relatively flat at an elevation of about 621 feet above sea level. Cameron Hill is on the east bank of the river and rises about 340 feet. Cameron Hill was one of the earliest residential sections in downtown Chattanooga, but has recently been targeted for development of a new office campus.

From Market Street to the east the land rises gradually about 100 feet to Georgia Avenue and flattens out into a plateau extending as far as Central Avenue where it drops to an elevation of 40 feet above the river. This was also an early residential section. It now contains the University of Tennessee at Chattanooga, Chattanooga School for the Arts and Sciences, Erlanger Hospital, several large churches, apartments and businesses.

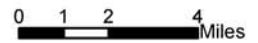
In the north central part of the city Orchard Knob rises about 120 feet. On its summit is a cemetery and National Park of historical interest in connection with the siege of Chattanooga.

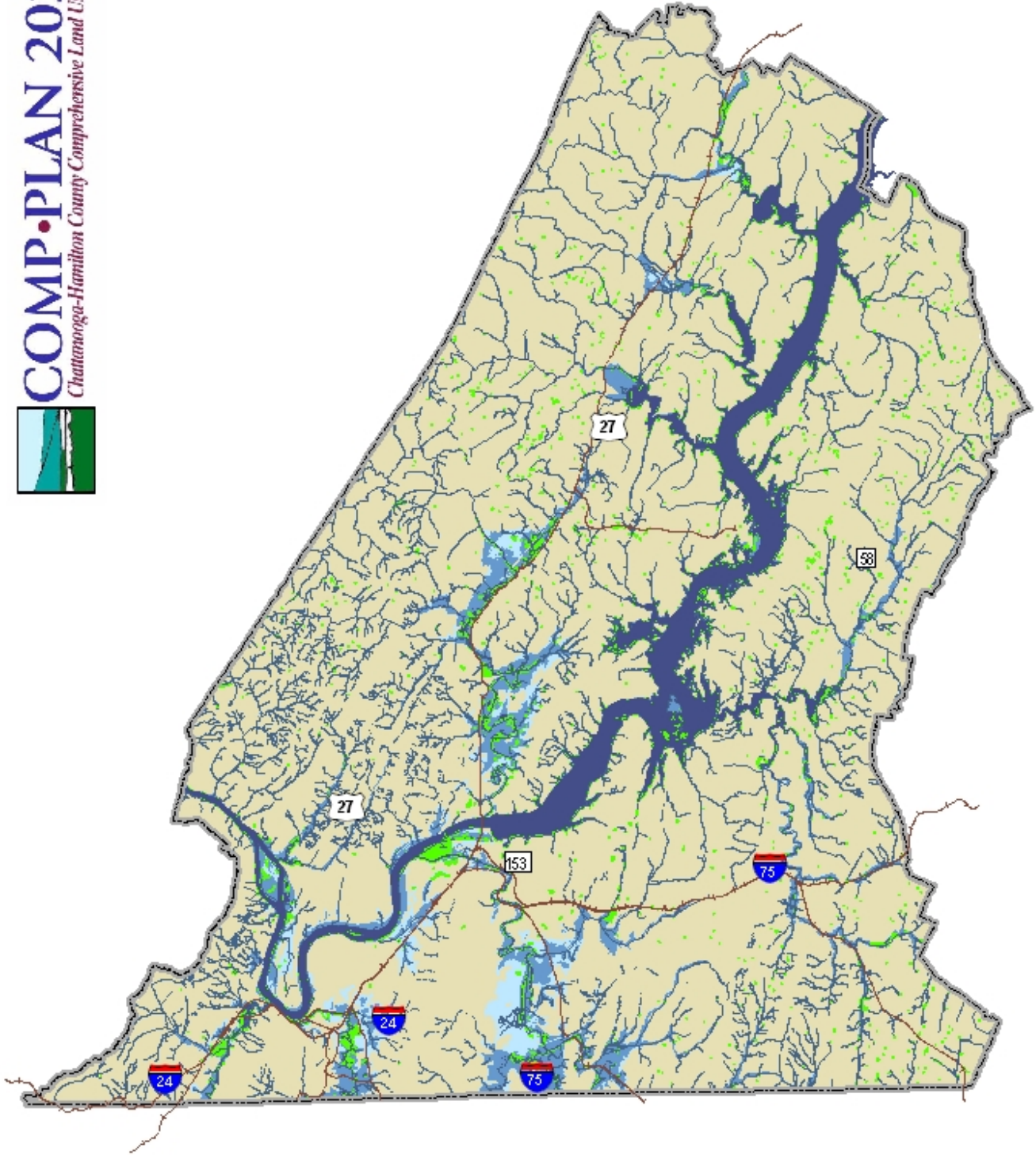
Missionary Ridge crosses the city approximately northeast to southwest and has a maximum elevation of 480 feet above the river. It is mainly developed with good quality residential properties. To the east of it lies the Brainerd area, mainly rolling in character averaging about 80 feet above the river and rising to an elevation of 160 feet in some places. It is a residential area.




About 1.5 miles south of Central Avenue is the meandering Chattanooga creek, which generally overflows during high water periods. South of it lies the Saint Elmo-Alton Park area which is mainly flat but which rises steeply farther south near the TN/GA state line where it becomes the foot of Lookout Mountain.



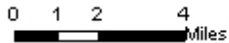
Hamilton County
**Topographic
Features**

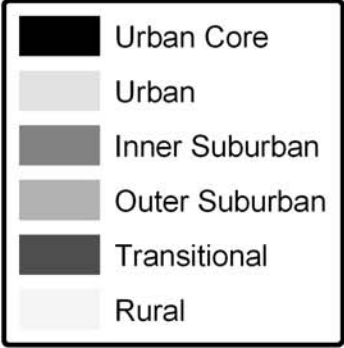
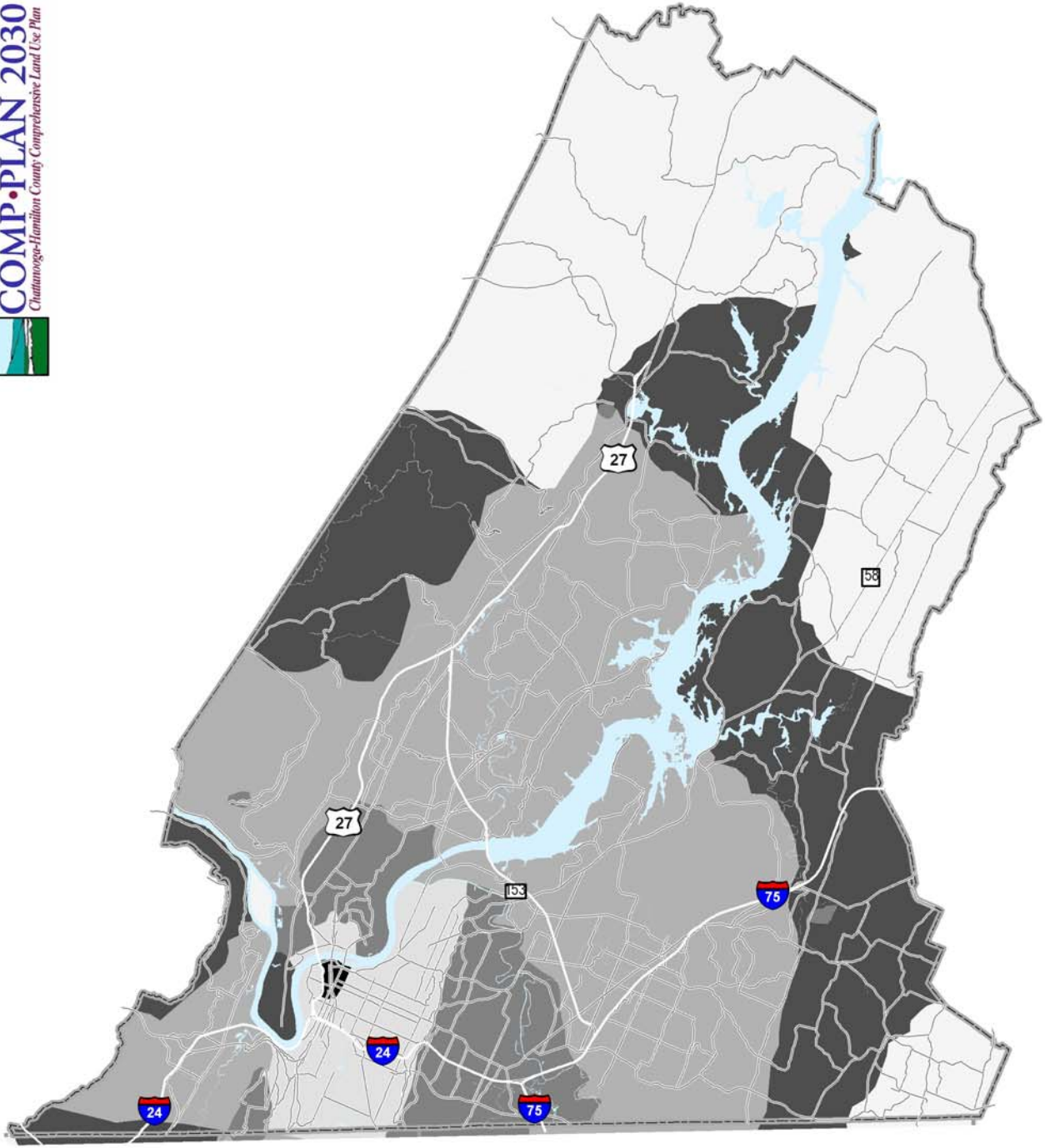




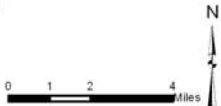
	Wetlands
	Tennessee River and Streams
	100 Year Flood Zone
	500 Year Flood Zone

Hamilton County
Water Features





Existing Development Form



Existing Development Form

Downtown / Urban Core



This area is generally defined as the core of Chattanooga's urban area. Roughly equivalent to the central business district, the Downtown / Urban Core features high intensity commercial, residential, cultural, office, civic and similar uses intended to serve the immediate community and the larger region surrounding the city.

Land uses are well-integrated with each other; building form is dense and vertical in nature. The full-range of city infrastructure and services are available and easily utilized. Due to the intensity and variety of land uses within close proximity to each other, very careful planning and design consideration should be made.

In summary:

- Single-family detached housing very rare
- Residential uses tend to be high density
- Vertical building form is expected
- Extensive sidewalk coverage
- Point of convergence for many public transportation & bicycle routes
- Wide range of uses in very close proximity
- Often contains highest land values in region
- Absence of large-scale Industrial uses
- Average Residential Density: 26.1 Dwelling Units / Acre

Urban



Urban areas typically offer dense development of a variety of uses. The more compact form dictates an integration of land uses. Residential uses range from single-family dwellings to multi-family apartments. Overall density is generally high. Almost without exception, these areas receive full municipal services such as sewer, sidewalks, bike facilities, and public transit. Due to the high level of land use integration, careful attention and planning is necessary to ensure development compatibility in terms of scale and impact.

In summary:

- Small lots (5,000-7,500 sq. ft.)
- High number of structures per acre
- Grid / Modified Grid street network
- Sidewalks prevalent
- Public transportation and bicycle networks
- Mix of residential and non-residential uses in close proximity
- Average Residential Density: 6.5 Dwelling Units / Acre

Inner Suburban



The Inner Suburban area marks a shift away from the high density development forms found in the Downtown Core and Urban areas. However, small lot sizes with setback requirements that create density levels higher than the development forms found farther from the Downtown Core. Generally, a full complement of municipal services is available in this area. The separation of residential and non-residential uses is maintained. Commercial and industrial uses are usually located along major arterial corridors.

The street network is also indicative of the transition between the urban and suburban forms. While a grid network typical of more urban forms is present in many areas, many cul-de-sacs and dead end streets are also apparent. Sidewalks are encountered occasionally, although many may have been added long after the initial development in the area began.

In summary:

- Small lots (5,000-7,500 sq. ft.)
- High number of structures per acre
- Modified grid / No grid street network
- Minimal public transportation
- Separation of residential and non-residential uses
- Few / no sidewalks
- Average Residential Density: 3.0 Dwelling Units / Acre

Outer Suburban



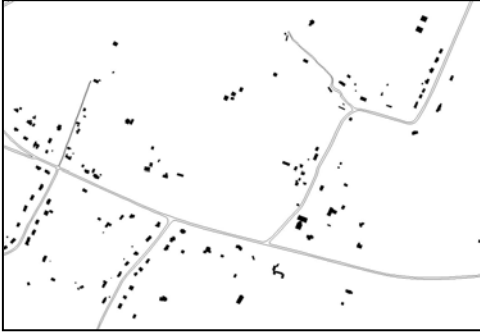
The hallmark of the Outer Suburban area is the distinct separation of residential and non-residential uses. The residential developments are usually single-units which are found on larger lots. Multi-family dwellings such as apartments are also found in select areas, usually as a buffer between more intense commercial uses and lower-density dwellings. Municipal services such as sanitary sewers are present in most parts of the Outer Suburban area; however, some areas are not serviced. The street network, although relatively dense in some locations, does not usually adhere to a

grid pattern. Commercial uses are usually found along major arterial roadways while industrial uses are often concentrated in industrial parks.

In summary:

- Larger lot sizes (7,500 sq. ft. and greater)
- Distinct, clearly-defined separation of residential and non-residential uses
- No sidewalks and no street grid
- Limited public transportation
- Single-unit residential dominates
- Little connection between subdivisions
- Greater distance between public recreational facilities
- Average Residential Density: 1.2 Dwelling Units / Acre

Transitional



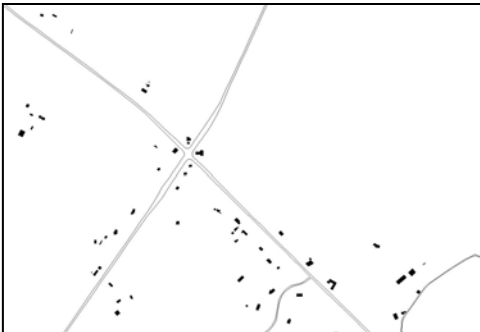
The Transitional area serves as a general buffer between the low-intensity rural areas and more intense uses found in the outer suburban areas. Still, the full complement of municipal services is not usually available. The density of the street network remains fairly low. Sidewalks and sewers are rarities. Newer residential uses are interspersed with established agricultural and silvicultural activities. Smaller-scale commercial and industrial uses may be present as well. Large-scale employment centers are generally not found in this area.

The Transitional area is by nature one where new and varied land uses are most likely to conflict with older, more established agricultural uses.

In summary:

- Land development transition area
- High potential for zoning and land use conflicts
- More isolated subdivision form development
- Large tracts of agricultural, residential and vacant land
- Sparse small-scale commercial and industrial uses
- Few urban services; very limited public transportation
- Average Residential Density: 0.4 Dwelling Units / Acre

Rural



Rural areas are characterized by large tracts of open land, vacant land, forest, and cultivated agricultural fields. Urban features and services such as sanitary sewers, sidewalks and a dense street network are not present. Residential development is sparse; densities are typically below one dwelling unit per acre. Commercial and manufacturing uses may be present in isolated pockets, particularly near major roadways. Typically, the commercial uses serve the immediate population only.

In summary:

- Large tracts of vacant and agricultural land
- Agriculture and residential mix
- Fewer higher classification of streets
- Few urban services; very limited public transportation
- Fewer commercial and manufacturing uses
- Low-density residential uses are expected
- Recreation sites are larger, more passive, not locally developed, and more regional
- Average Residential Density: 0.2 Dwelling Units / Acre

Development Activity

Zoning Background

Regulations on building construction can be found in America as early as 1791 with George Washington ordering brick to be used within portions of what is now Washington DC. Since that time regulations moved from restricting the use of combustible materials (early 19th century), to regulating the location of laundries (1885), to the placement of industrial plants (1909). In 1922, the U.S. Department of Commerce published the Model Standard State Zoning Enabling Act that set out uniform standards that localities could use to guide land development practices. A Supreme Court ruling that stated zoning did not violate the due process clause of the federal Constitution furthered the adoption of the Act by all the states.

Zoning authority is derived from the Constitution's police power provision that allows government to enforce controls to protect public health, safety, convenience and welfare.

Since 1940, zoning has been the most common means of regulating land use in the United States. According to the *Planning Commissioner Journal* "the primary goal of zoning is to avoid or minimize disruptive land use patterns involving incompatible land uses". Zoning describes how land can be used or developed and is a legal and enforceable part of a City Code or County Regulations. It is used to regulate the use of land and the type, scale and intensity of development on that land.

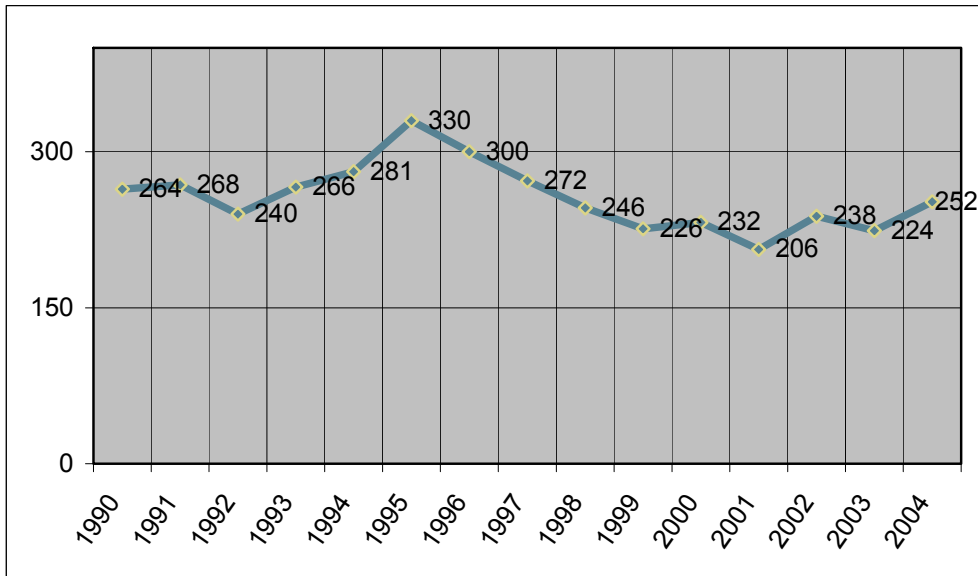
Zoning is also the legislative process by which the local governing body divides the city or county into districts or zones and adopts regulations on buildings and the use of land for each zone. A zoning ordinance consists of the maps detailing the zones and a text document that lays out the rules for each zone and the procedures for administering them. Hamilton County and each of its ten municipalities has its own zoning regulations and every parcel of land and street, water and railroad right-of-way carries a zoning designation.

HAMILTON COUNTY ZONING BY CATEGORY- May, 2005		
Zone Type	Acres	% of Total
Total parcel area	321,967	100.00
Agricultural (A-1)	192,030	59.64
Commercial (all)	7,068	2.20
Manufacturing/Industrial (all)	21,176	6.58
Office (O-1)	399	0.12
Residential	98,226	30.51
Special Zones (R-4, U-1)	2,069	0.64
Source: RPA, May 2005		

Zoning Trends (A complete *Zoning Trends Report* is provided in the Appendix)

The Chattanooga-Hamilton County zoning process is an extremely thorough two-month procedure. It begins when an application is filed with the RPA office requesting a change in zoning for a specified piece of property. Between 1990 and 2004, an average of 256 zoning cases were processed yearly. The number of rezoning requests peaked in 1995 with the past five years having on average 230 cases a year.

Zoning Request Trends 1990-2004



57% of the rezoning requests were in the City of Chattanooga and 35% from unincorporated Hamilton County. The smaller municipalities account for less than 9% of the requests. Requests for commercial rezoning accounted for 26% of cases during the past fifteen years. Special Permits and Low/Moderate Density Residential requests comprised another 26% of requests.

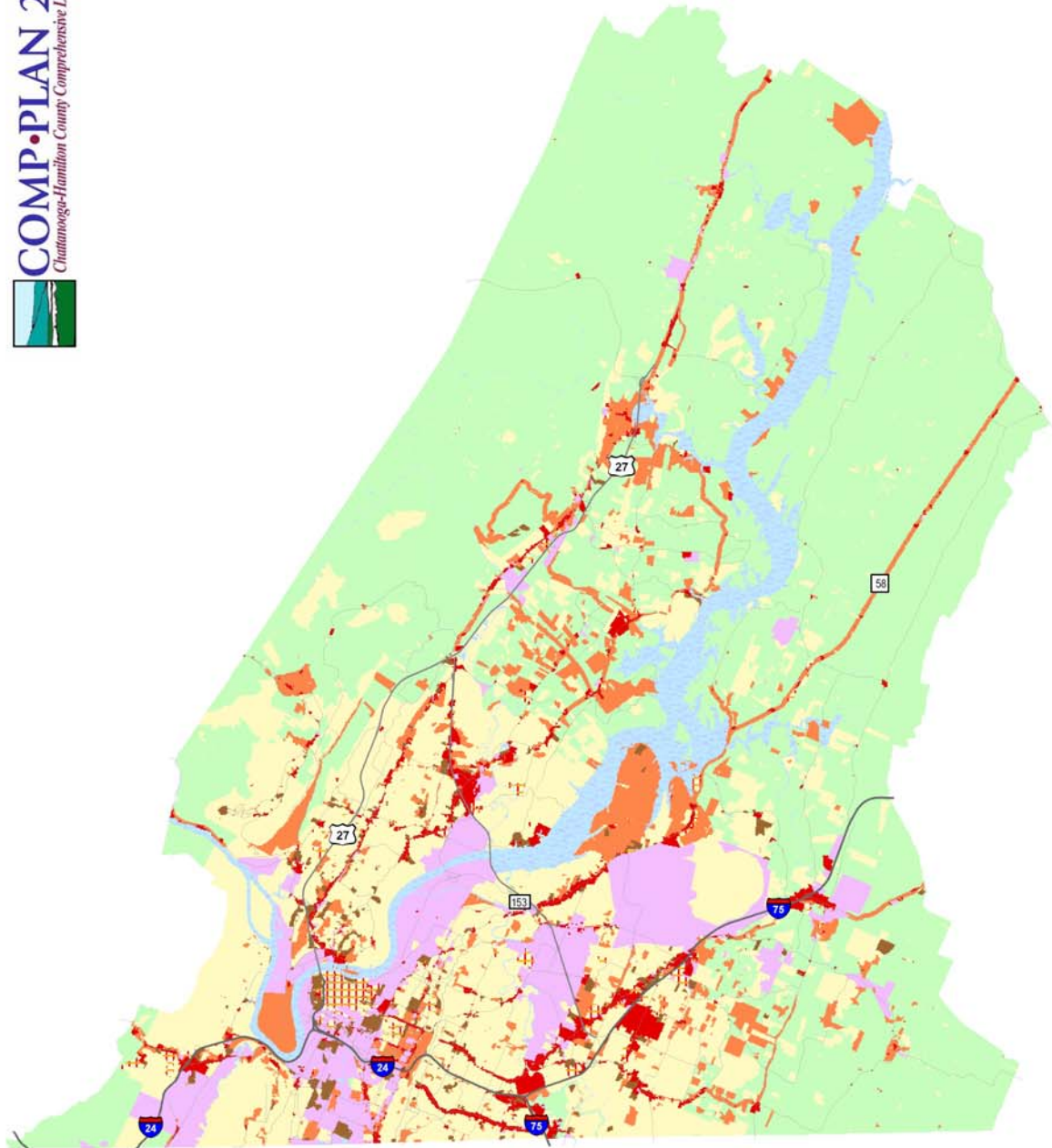
Requested zoning change 1990-2004








Requested Zoning Changes*	Total # of Requests	% of Total
Agricultural	16	0.5%
Low/Moderate Density Residential	386	12.3%
High Density Residential	204	6.5%
R-4 Special Zone	244	7.8%
R-5	360	11.4%
Office	150	4.8%
Commercial	834	26.5%
Manufacturing	291	9.2%
Amend/Lift Conditions	100	3.2%
Annex/Zoning Study	43	1.4%
Multiple Zones	44	1.4%
PUD	31	1.0%
Special Ex/Special/Cond Permit	434	13.8%
Other	10	0.3%
Total	3147	100.0%

Low/Moderate Density Residential includes R-1 Residential, R-2 Residential, R-3MD Residential and R-T/Z Residential and similar zones.

High Density Residential includes R-3, RT-1 and RZ-1 Residential and similar zones.

*Does not include the 692 Mandatory Referral/Name Change cases handled during this period.

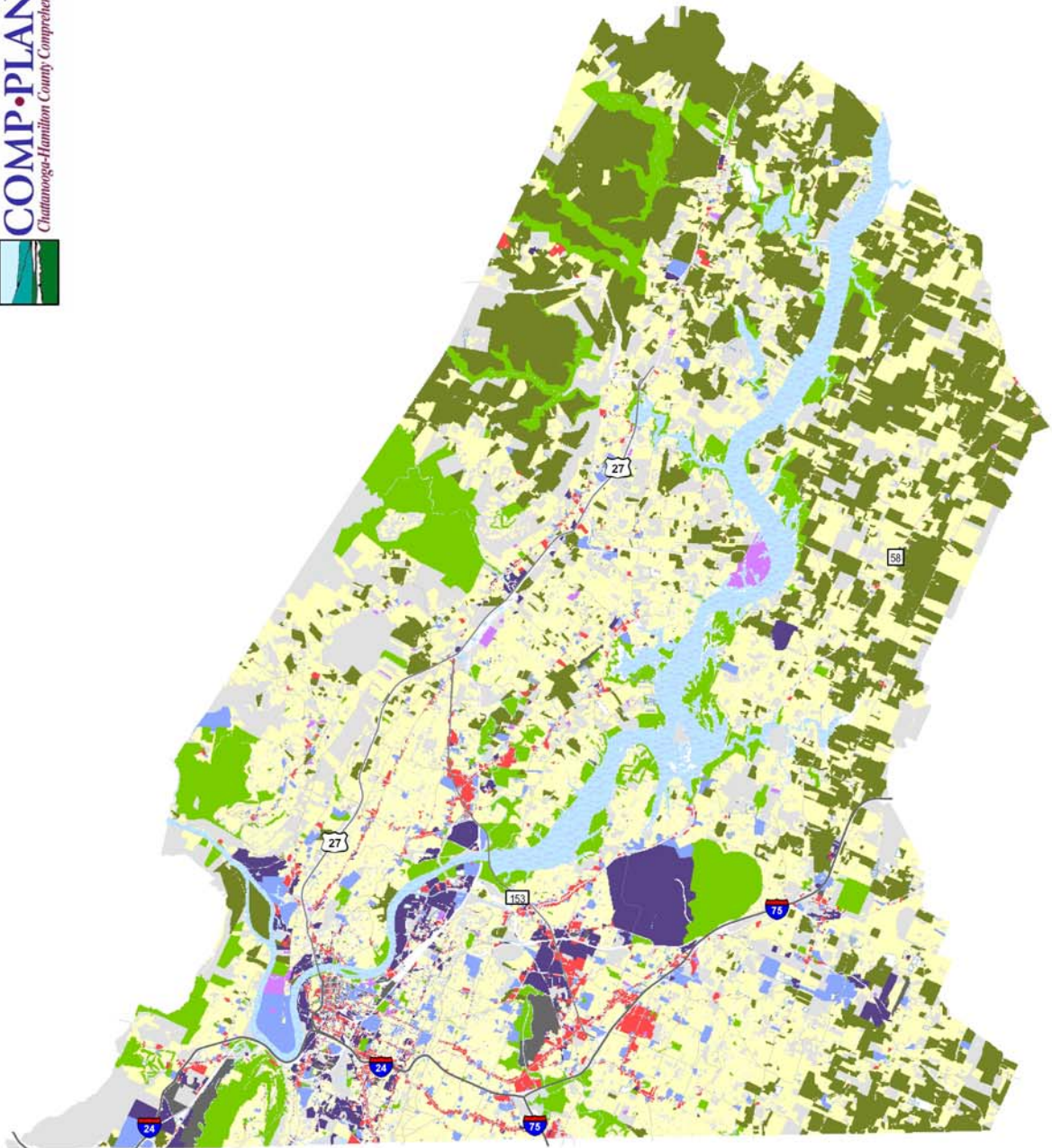













Zoning (Percent of Total Acreage)	
	AGRICULTURE (56.9%)
	COMMERCIAL/OFFICE (2.4%)
	MANUFACTURING (7.0%); LM-1
	LOW-DENSITY RESIDENTIAL (24.1%)
	MEDIUM-DENSITY RESIDENTIAL (7.6%)
	HIGH-DENSITY RESIDENTIAL (1.1%)
	MIXED-USE (0.9%)

Hamilton County Existing Zoning

(Current to May 5, 2005)





Land Use (Percent of Total Acreage)	
 Agricultural (23.1%)	 Recreational (10.7%)
 Commercial (2.0%)	 Transportation (0.8%)
 Industrial (3.4%)	 Utilities (0.5%)
 Institutional (3.0%)	 Vacant (19.6%)
 Mixed-Use (0.0%)	 Not determined (0.5%)
 Residential (36.6%)	

Hamilton County
**Existing
Land Use**
(Summer 2004 Survey)



Current Land Use

Land Use is a description of how land is occupied or utilized. The Regional Planning Agency maintains a countywide database that designates the type of activity occurring on a parcel or within a building located on a parcel. Knowing what types of activity are occurring and their location in the community and the relations between those different uses is essential for current and future land use planning.

HAMILTON COUNTY CURRENT LAND USE- May, 2005		
Category	Acres	% of Total
Residential	117,966.605	36.54
Commercial-Office	6,446.441	2.00
Industrial	11,110.285	3.44
Transportation	2,407.648	0.75
Institutional	9,647.908	2.99
Public Utility	1,533.779	0.48
Park-Open Space	34,427.939	10.66
Farm-Agricultural	74,566.820	23.09
Vacant	63,293.962	19.60
Other-Unknown	1,478.802	0.46
Source: RPA May, 2005		

Housing Trends

By early 2005 there were 134,437 housing units in Hamilton County. Single family residential dwellings account for the majority of the total housing stock in the County. The prevalence of other dwelling forms is detailed below:

RESIDENTIAL LAND USE				
RESIDENCE TYPE	ACRES	PARCELS	DWELLING UNITS	% TOTAL (units)
Single-family	108,436	98,995	98,995	73.64
Duplex	1,373	4,131	8,262	6.15
Multi-family	2,207	786	22,291	16.58
Group Quarters	133	30	559	0.42
Manufactured Home	5,065	2,304	2,153	1.60
Trailer Park	872	154	2,177	1.62
TOTAL	118,086	106,400	134,437	100.00
Source: Chattanooga-Hamilton County Regional Planning Agency (May 2005)				

Although the number of residential building permits has increased since 2000, the median housing construction date in Hamilton County is 1970 (2000 Census). The majority of the structures built before 1970 are located in the urban/downtown core, urban and inner suburban areas. However, the number of recent permits issued for new residential construction in some of these areas has increased. Still, the majority of new residential construction is occurring in the outer suburban, transitional and rural areas.

Countywide, 66% of the residential dwellings are owner-occupied. Based on 2000 census data, the median home value is \$94,700, though appreciation since that time has pushed that figure over \$100,000. Recent data (2004) from the Chattanooga Association of Realtors indicate the median sales

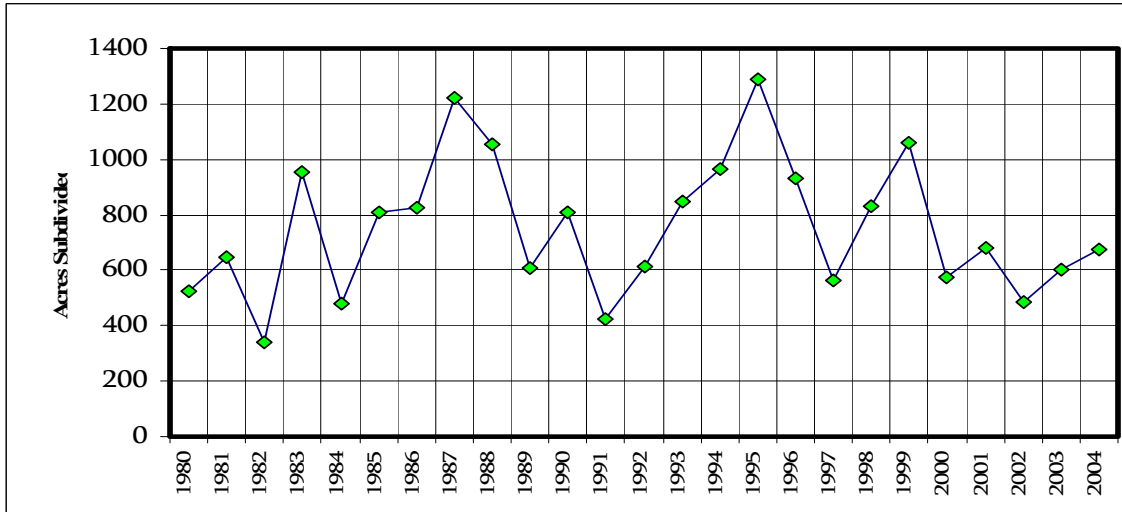
price in the Chattanooga market is now around \$129,000. This figure represents an increase of 8.1% from the previous year.

Subsidized Housing- There are approximately 3,000 renter-occupied multi-family dwelling units subsidized by federal, state and local government housing programs and administered by the Chattanooga Housing Authority. In addition, the CHA administers another 3,000 Section 8 vouchers which allow low income families to lease or purchase privately-owned housing.

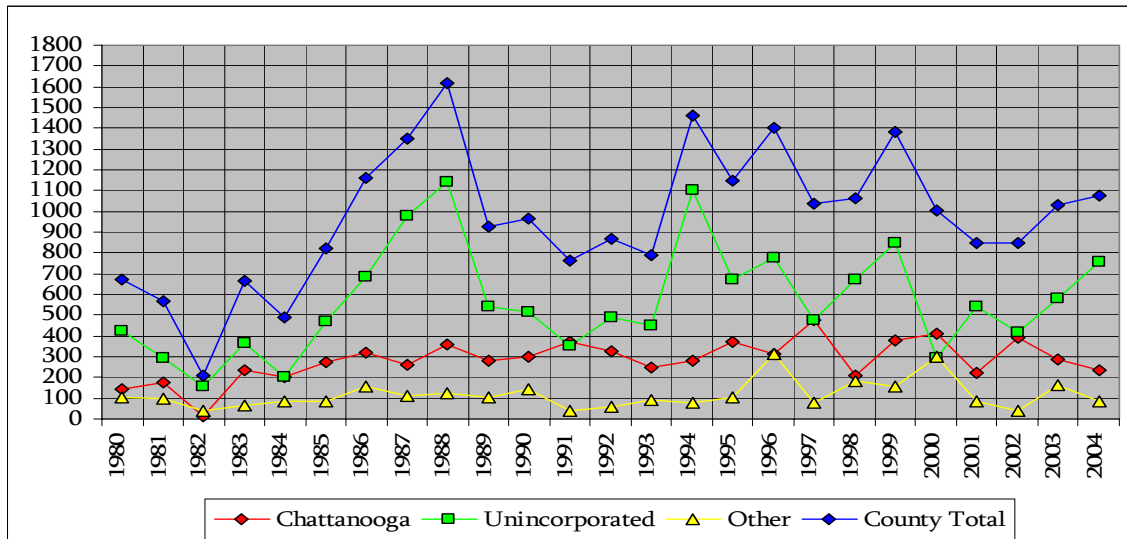
Manufactured Housing/ Mobile Homes- Within the county, there are about 4,300 mobile home units. Generally, these dwellings are located in the more rural areas in the northern and eastern sections of Hamilton County. Some are in mobile home parks, some are on individual lots.

Land Subdivision- Subdivision of land for residential lots continues to be most prevalent in unincorporated areas of Hamilton County. In 2004, 68% of residential subdivision occurred in unincorporated areas of the county. Chattanooga's share of residential subdivisions fell from 28% in 2003 to 24% in 2004. Soddy-Daisy has decreased from a high of 246 new lots in 2000 to 63 in 2004. Countywide in 2004, 675 acres were subdivided. This is 11% below the 25-year average of 753 acres. The following charts depict the year-to-year variability in the number of lots created.

Total Acreage Subdivided for Residential Lots

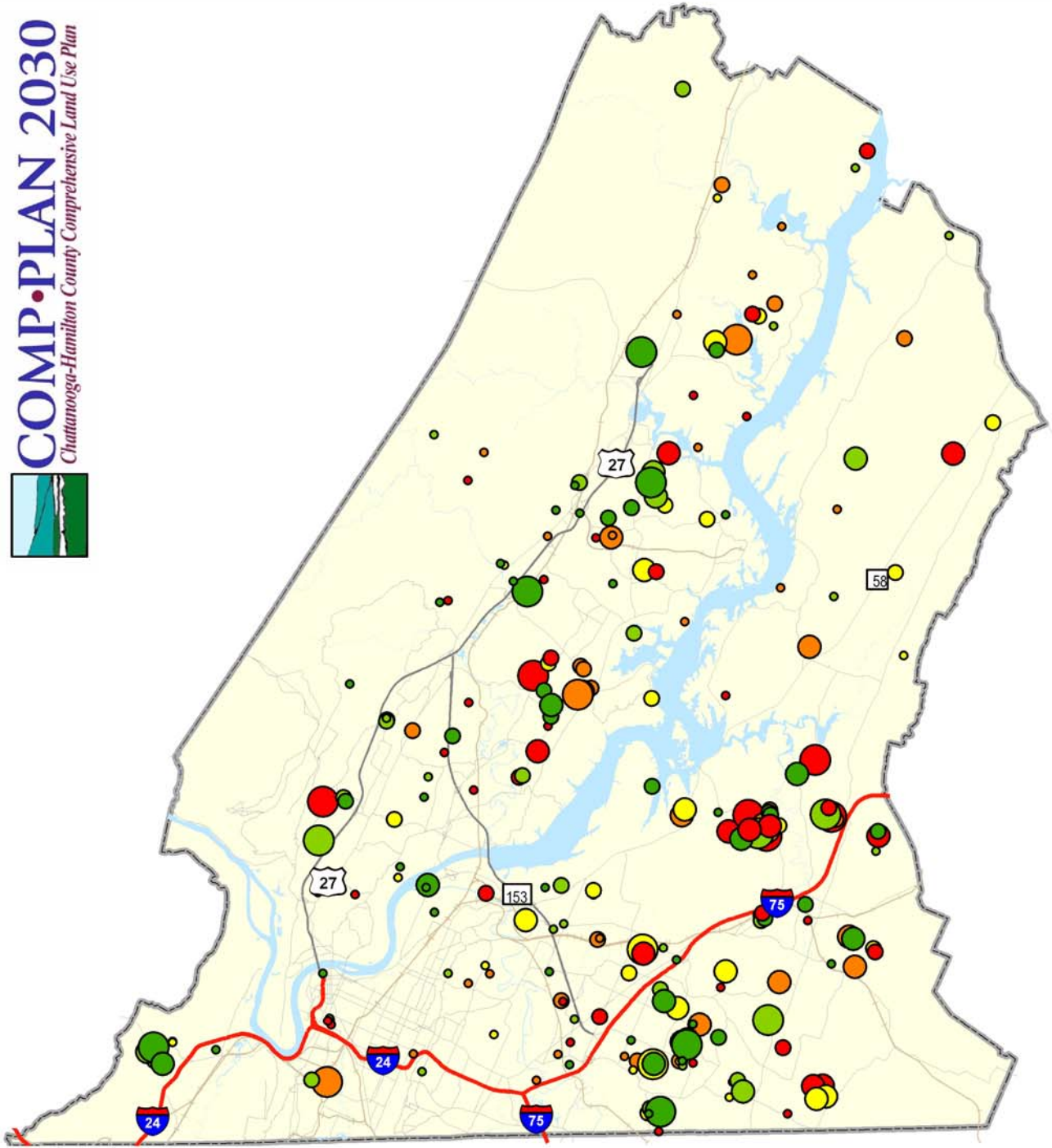


Major Residential Subdivision Lots by Jurisdiction 1980 to 2004



COMP·PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan



Year Subdivision Approved (color)		Number of Lots in Subdivision (size)	
● 2000		● 4 - 10	
● 2001		● 11 - 25	
● 2002		● 26 - 50	
● 2003		● 53 - 117	
● 2004			

Hamilton County Major Subdivisions

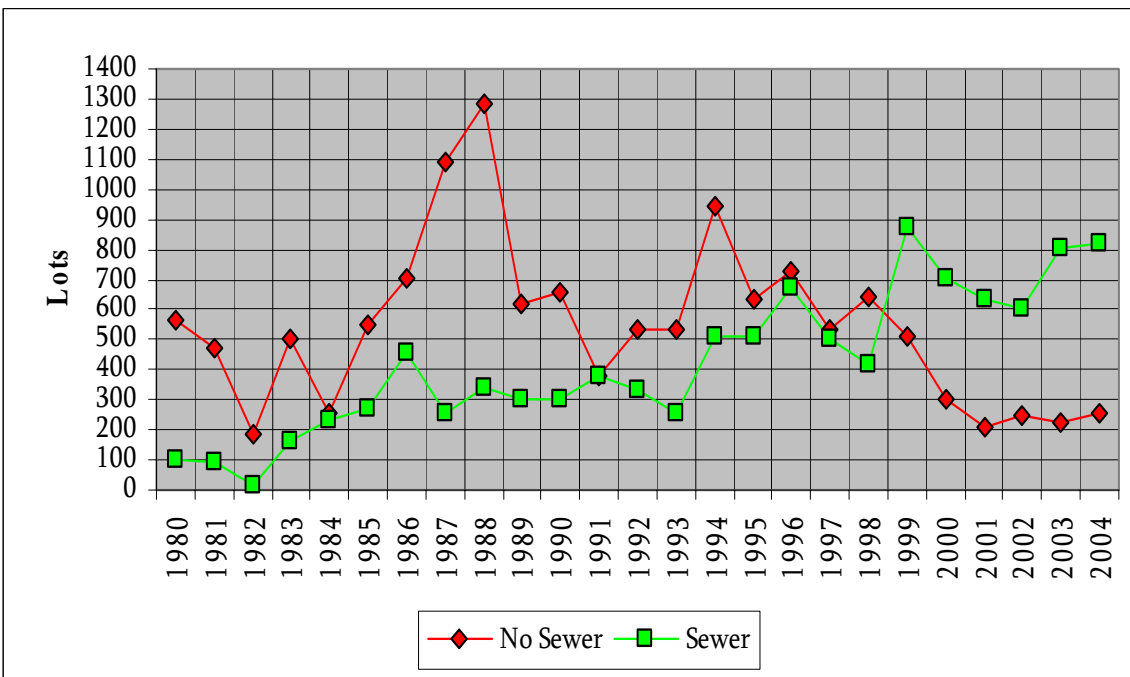


Sanitary Sewer Service- The number of residential lots subdivided that do not have access to public sewer service has decreased significantly since 1998. On-site subsurface disposal of household wastewater has the potential to contaminate groundwater resources. In addition, the provision of public sewer service allows areas that do not have suitable soils for the installation and proper functioning of on-site disposal systems to undergo residential development at higher densities.

Between 1980 and 2004, Signal Mountain, Walden, the northern, and northeastern areas of the county contained the largest percentage of lots with no sewer service.

Between 2000 and 2004, 74% of new residential subdivision lots had public sewer service available. During the same period, northern areas of the county once again had the most newly recorded lots (755) with no sewer service available. By 1999, the number of new subdivided lots on sewer exceeded those without service. The following chart displays trends in sewer service status.

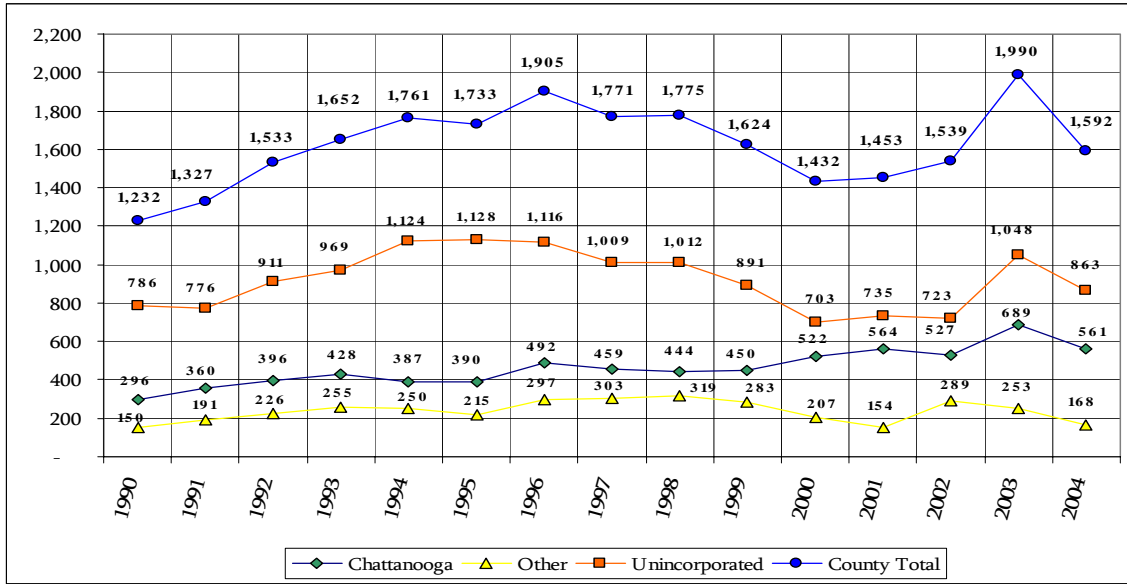
Residential Subdivision Lots Sewer Service Status 1980 to 2004



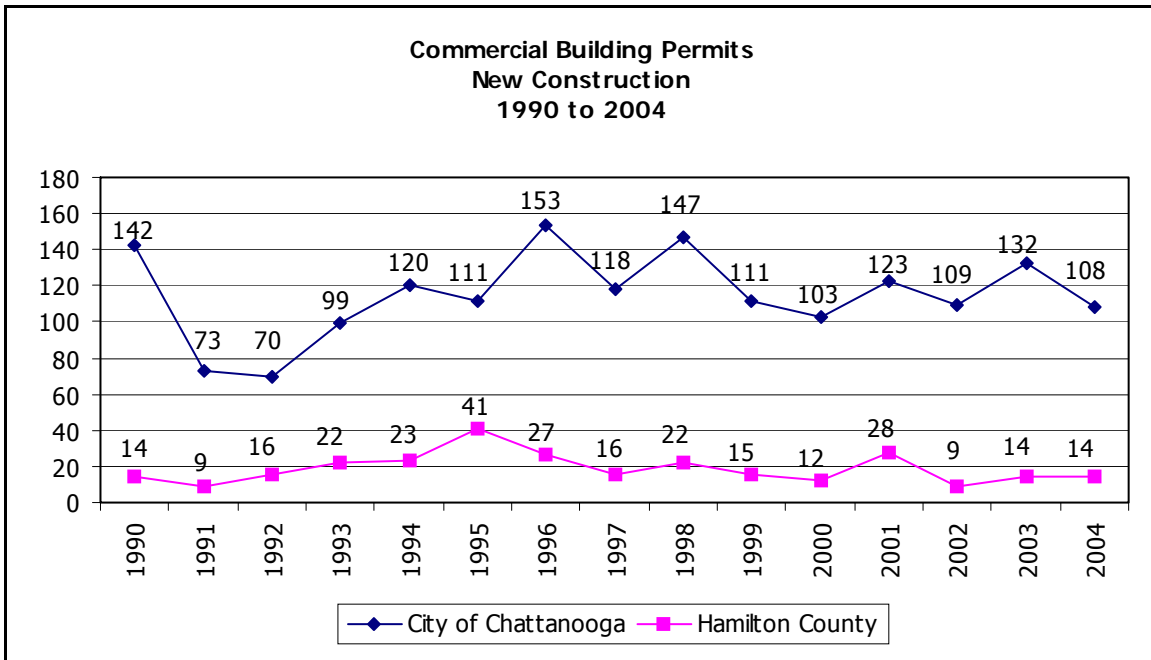
Building Permits

Residential- Over the past fifteen years, unincorporated areas of Hamilton County have averaged a 56.8% share of total county building permits for new residential construction. During the same period, Chattanooga averaged a 28.7% share. Soddy-Daisy and Collegedale have maintained a smaller but significant share of new residential building permit activity. From 2000 to 2004, Chattanooga’s share of residential building permit activity increased to almost 36%. This increase includes a small, but growing, residential investment in Chattanooga’s downtown core, Alton Park, and the North Shore. The majority of building permits issued for new residential construction are for single-family residences. Since 2000, an annual average of 1,576 single-family and 400 multi-family dwelling units were approved. In 2004, 1,587 single-family and 193 multi-family dwelling units were approved.

Residential Building Permits 1990-2004 (Source: RPA Development Trends Report, 2004)



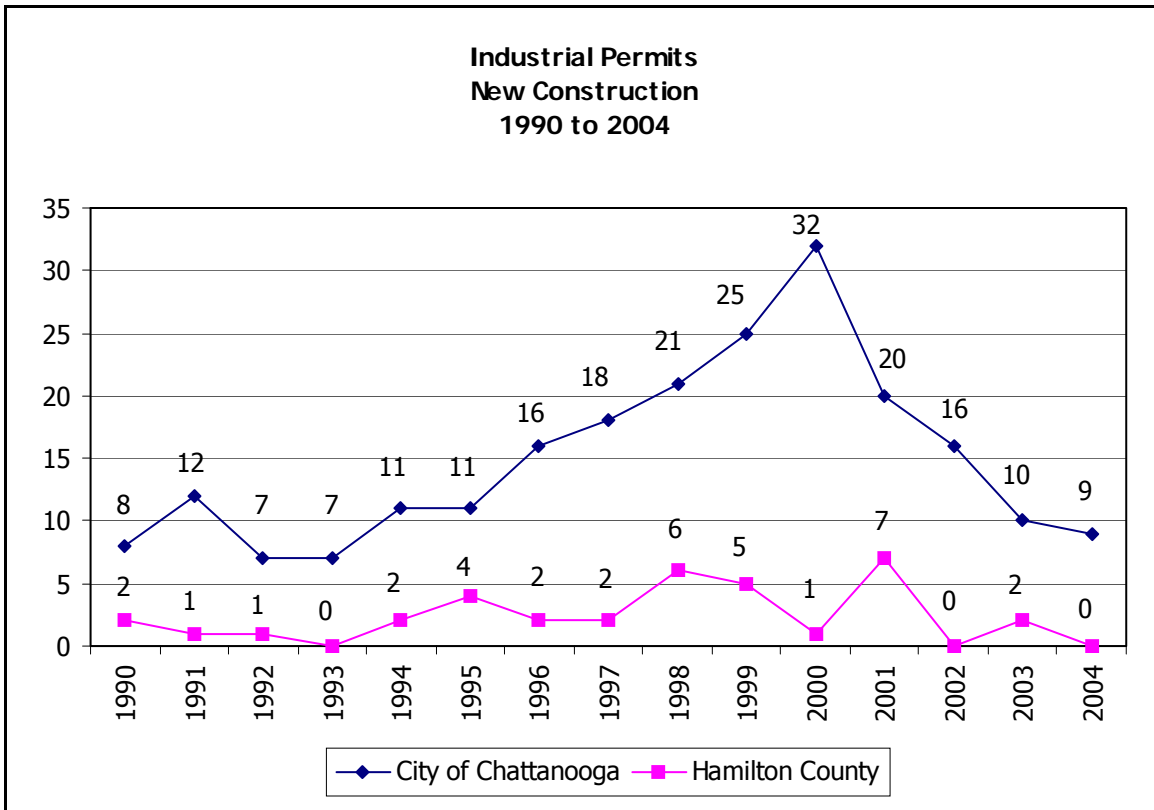
Commercial- Development activity within the City of Chattanooga has proceeded at a healthy pace over the past several years. Between 1990 and 2004, the City of Chattanooga issued 1,719 building permits for new commercial construction. These permits total over \$1 billion investment in new commercial development within the corporate limits of Chattanooga. The City of Chattanooga experienced a decrease in the number of permits issued from 1990 to 1992; however, since 1993, the city has experienced increases and decreases in the number of building permits issued from year to year for the construction of new commercial development. The highest number of building permits issued for the construction of new commercial development was 153 permits issued in 1996, followed by 147 permits issued in 1998.



Between 1990 and 2004, the number of building permits issued for the construction of new commercial development within unincorporated Hamilton County totaled 282 permits. These permits total over \$61

million investment in new commercial development within unincorporated Hamilton County. During this same time period, unincorporated Hamilton County has experienced a consistent number of building permits issued for new commercial construction, with the highest number of building permits issued in 1995, and the lowest number of permits issued in years 1991 and 2002.

Industrial- Between 1990 and 2004, the City of Chattanooga issued 223 building permits for the construction of new industrial development. These permits total over \$1.8 million in new industrial investment within the corporate limits of Chattanooga. However, during this same time period, the city experienced inconsistency in the number of building permits issued from year to year. The city experienced a steady increase in the number of building permits issued for new industrial development between 1993 and 2000. The number of building permits issued peaked in 2000 with 32 building permits issued. The city experienced a decrease in the number of building permits issued from 2000 to 2004, with 32 building permits issued in 2000, and 9 permits issued in 2004.



Between 1990 and 2004, the number of building permits issued within unincorporated Hamilton County for the construction of new industrial development totaled 35 permits. These permits total over \$11 million in new industrial investment within unincorporated Hamilton County. During this same time period, unincorporated Hamilton County experienced a consistent trend in the number of building permits issued for the construction of new industrial development; however, the number of building permits issued each year is relatively small when compared with the number of building permits issued within the City of Chattanooga. The number of building permits issued for the construction of new industrial development peaked in 2001 with 7 permits issued.

Public Facilities & Services

Public Safety

Public safety includes police protection, fire protection, and emergency medical services. Emergency services provide a needed response to a wide variety of situations including medical emergencies, fires, traffic emergencies, rescue and extradition, hazardous materials incidents, and natural and manmade disasters. The agencies and organizations discussed here supplement the wide-range of work undertaken by other federal, state and local agencies.

Police Protection

The Hamilton County Sheriff's Department covers the largest area in the county and patrols and services the unincorporated county, the City of Lakesite and Town of Walden. Chattanooga, Collegedale, Lookout Mountain, Red Bank, Soddy-Daisy, Signal Mountain and East Ridge all provide police protection for their municipalities. Ridgeside contracts with the East Ridge Police Department to provide full services for its residents.

The main location for the Hamilton County Sheriff's Department is at the administration branch offices in downtown Chattanooga at the corner of 6th and Market streets. The Departments also maintains two satellite locations to carry out its law enforcement functions: one on Bonny Oaks Dr. and the other on Dayton Blvd.

Fire Protection

The City of Chattanooga, City of Soddy-Daisy, City of Red Bank, Town of Signal Mountain and City of East Ridge provide fire protection to their incorporated residents. Protection is also provided by several volunteer fire departments: Dallas Bay, Highway 58, Tri Community, Sale Creek, Walden's Ridge, Sequoyah, Mowbray and Flat Top Volunteer Fire Departments. The volunteer fire departments, funded by user contributions and fees, as well as some County and/or municipality contributions, provide fire protection to both incorporated and unincorporated residents. Hamilton County government does not provide *public* fire protection to the citizens in unincorporated areas.

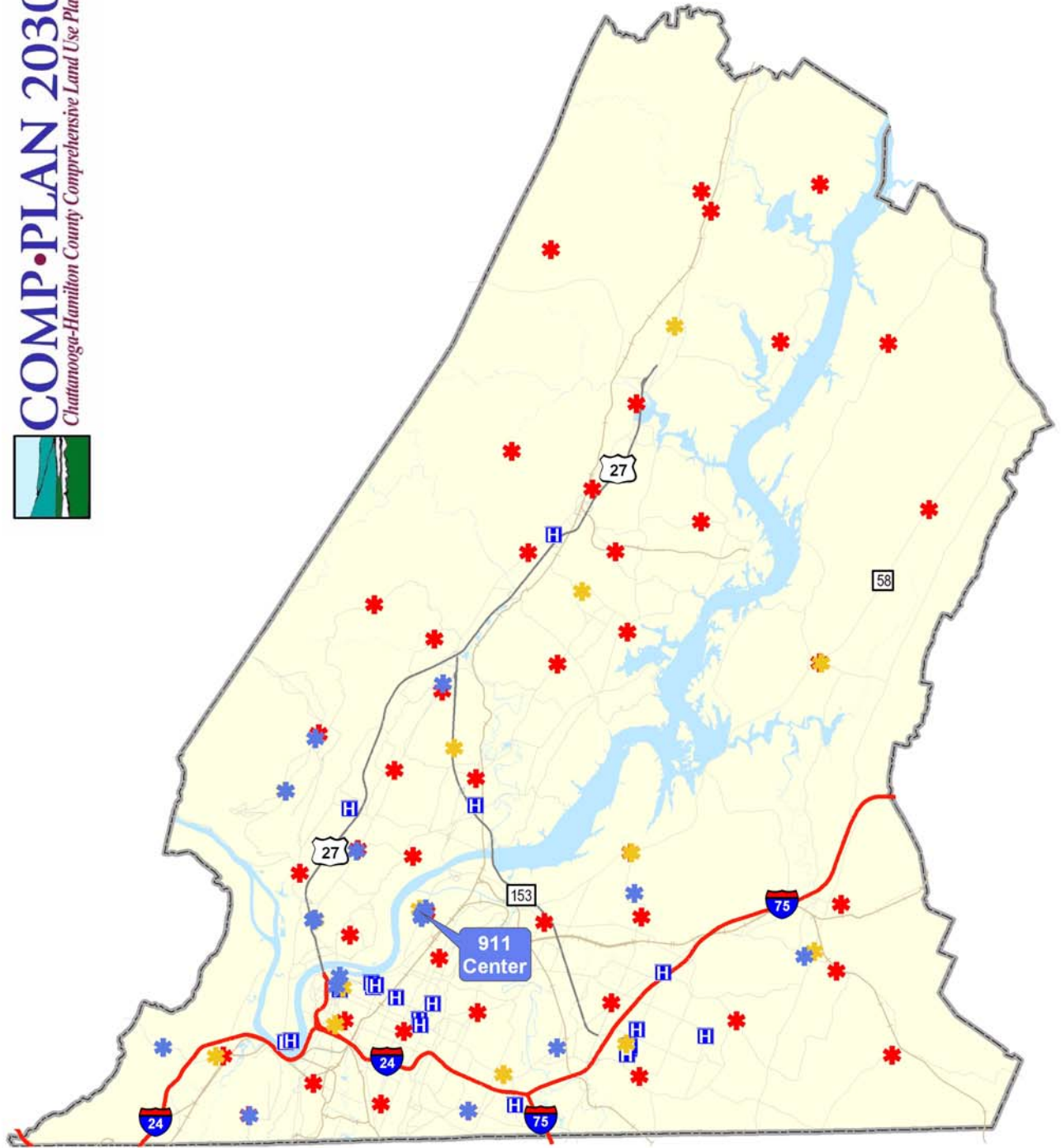
Fire protection providers also play an important role in enforcing fire codes, in educating the public about fire safety and investigating arson and other causes of fire.

The Insurance Service Office (ISO) conducts independent evaluations on fire departments throughout the United States. This evaluation reviews how the fire department receives and dispatches its fire alarms, where the department's fire stations are located throughout the city, what equipment is carried on the department's fire apparatus, the training received by fire personnel and the availability of water supply to conduct fire operations. Numerical scores are assigned to each of the above based on the evaluation and a grade is determined. Based on this grade a public protection classification is determined for the department. These classifications range from 1 to 10. A Class 1 denotes exemplary public protection and Class10 denotes not meeting ISO minimum criteria. The classifications are used to help establish appropriate insurance premiums.

The City of Chattanooga has obtained property for a new fire station at the Enterprise South Industrial Park and has plans to provide a new station in the Big Ridge (Hixson) area. Both stations are slated for funding in the City's Capital Improvement Program.

COMP•PLAN 2030

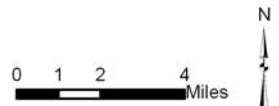
Chattanooga-Hamilton County Comprehensive Land Use Plan



- Emergency Medical Stations
- Fire Stations
- Police Stations
- Hospitals

*Chattanooga FD has proposed new Fire Station in Big Ridge area.

Hamilton County Public Safety



Fire Department ISO Ratings (Source: Hamilton County Emergency Services & City of Chattanooga Fire Department)		
Department	Service Area Acreage	ISO
Chattanooga Fire Department*	97377	2
Dallas Bay Volunteer Fire Department	21585	7/9
East Ridge Fire Department	5398	4
Flattop Volunteer Fire Department	11088	9
Highway 58 Volunteer Fire Department	73414	7/9
Lookout Mountain Fire Department	862	4
Mowbray Mountain Volunteer Fire Department	13318	9
Red Bank Fire Department	4205	4
Sale Creek Volunteer Fire Department	51110	5/9
Sequoyah Volunteer Fire Department	4955	9
Signal Mountain Fire Department	4335	5
Soddy Daisy Volunteer Fire Department	14888	4
Tri-Community Volunteer Fire Department	42045	4
Walden's Ridge Emergency Services	24313	7

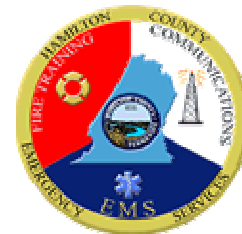
*Includes contract area for Unincorporated area
 ISO rating as of June 2005: Class 1 denotes exemplary public protection, two numbers reflects hydrant availability.

911 Services

The staff of the Communications Division of Hamilton County Emergency Services is located in the 911 Center on Annicola Highway. The 911 Center provides dispatch services for over 18 agencies that combined respond to almost 40,000 calls a year.

Emergency Medical Services

The Hamilton County Emergency Medical Services (EMS) Department provides emergency services to a coverage area of 571 square miles and 300,000 citizens through 14 ambulance stations and 100 employees. EMS provides on-site extended hospital emergency care, cardiac monitoring, critical care medications and other advanced therapies. All ambulances are advanced life support vehicles staffed by licensed Emergency Medical Technicians (EMT) and EMT-Paramedics.

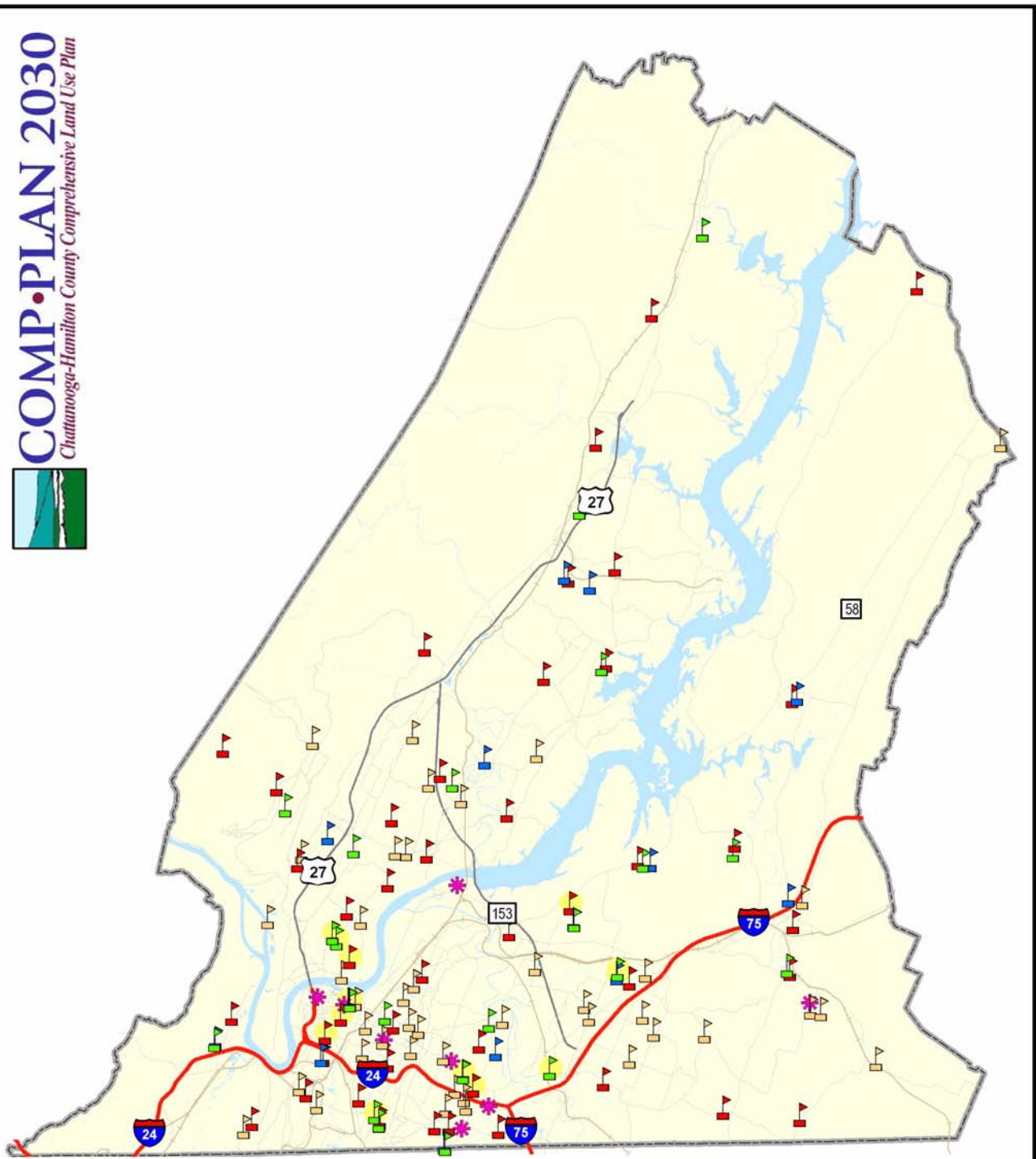







EMS is funded through County general revenue. Charges for service are assessed to the patient in an attempt to recover operating costs and enable the Service to be self-sufficient. Each municipal fire department, and most County volunteer fire departments, provides first responder coverage within their own response district.

Schools

Prior to 1997, two public school systems operated in the county: the Hamilton County school system and the City of Chattanooga school system. Eight years ago, the City of Chattanooga system was consolidated into the Hamilton County Board of Education.

Hamilton County provides education services to over 40,000 students through its 9 high schools, 7 schools serving students in grades six-12 or K-12, 14 middle and 45 elementary schools. The table on the following pages shows the 20th day enrollment for the past four years.



-  Public Elementary Schools
-  Public Middle Schools
-  Public High Schools
-  Magnet Schools
-  Private Schools K-12
-  Colleges

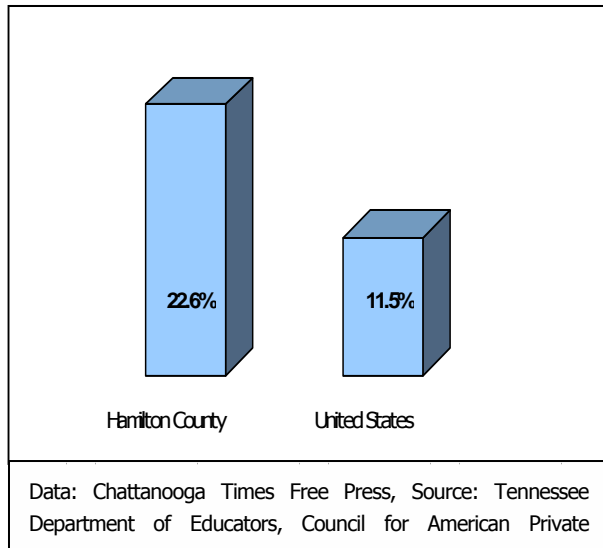
Hamilton County Schools



The Hamilton County Commission has funded the school system through an allocation of the local property tax and through use of 50% of its collections of the County's local option sales tax. Since the merger, the Hamilton County Commission has increased the percentage of the local property tax dollar allocated to operating the Hamilton County public schools by 13.8%.

The other major source of local funding for education has come from the local option sales tax, from which State law mandates that the County Commission provide at least 50% of the collections to the school system. [Hamilton County Department of Education, Education Summit Comprehensive Report 2004, Financial Statistical Resource Task Force]

Nearly 12,000 students attend the 43 private schools in Hamilton County. The number of students enrolled in private school is double the national average, and many are enrolled in church-supported institutions.



Libraries

The Chattanooga-Hamilton County Bicentennial Library provides a valuable resource to the local community. The downtown location is the largest library while four branch locations- Eastgate, Northgate, Ooltewah-Collegedale and South Chattanooga- provide easy access for many residents. The Library has also partnered with the Shepherd Recreation Center to house a small library branch staffed by the center.

Diverse programs are offered at many of the locations and include book groups, a Saturday Cinema, genealogy classes, a music series and a variety of children's programs.

The library is funded by the City of Chattanooga and Hamilton County. The Friends of the Library provide further support with funds and volunteer services. This citizen group's efforts include time and money to support literacy programs, contributions to special library events and building special collections of materials. The Friends have supplemented the library's collections by purchasing additional printed material and digital music and movies.

The Town of Signal Mountain provides a library that is independently funded and receives no annual subsidy from the State of Tennessee or any other local governments. Library resources include a reference center, computer lab, and over 20,000 print and non-print items. Library cards are free to Town of Signal Mountain residents. Non-residents must pay a fee.

The East Ridge City Library is free of charge to all residents and offers Internet access to its patrons.

Solid Waste Services

A clean environment is essential for a healthy county. Proper solid waste disposal- household trash, appliances, tires, chemicals- is necessary to keep litter off the streets and to prevent dumping in inappropriate locations. Leaf and brush pickup offers an alternative to yard waste burning and helps to prevent the spread of fire and pollution of the air. Recycling programs help to reduce the amount of solid waste being disposed, thereby extending the life of the local landfill. Although yard waste is not garbage, it takes up needed space in the landfill.

Yard waste makes up about 18% of the waste collected by a community. - Pennsylvania Department of Environmental Protection

Hamilton County

Hamilton County government does not provide solid waste collection services to either incorporated or unincorporated residents. Residents of the unincorporated areas pay to receive service from one of several private waste haulers or may dispose of household trash at the Birchwood Landfill.

Hamilton County has six recycling centers: Middle Valley, Standifer Gap, Sequoyah, East Ridge, Red Bank, and Highway 58. Additionally, the Hamilton County Highway Department (on Standifer Gap Rd.) accepts tires and gas tanks for disposal if they are cut in half or are mashed flat.

City of Chattanooga

Chattanooga provides a wide variety of solid waste facilities and services. Curbside refuse pickup is provided weekly. As of Spring 2005, the citywide curbside recycling program switched to a volunteer enrollment program. Residents' recyclables will only be collected if they enroll either online or through the City's one-call 311 program.

Unwanted items may also be disposed of at three Refuse Collection Centers. These drop-off facilities provide a way for residents to dispose of household waste that is not easily processed through normal methods.

Additional facilities include:

The North Hawthorne Wood Waste Recycling Facility accepts logs, pallets, brush, and non-construction wood waste. Residents may dispose of brush and wood waste at no charge while commercial dumping of brush and wood waste is accepted for a charge.

The Warner Park Recycle Center is a manned drop-off center, operated by Orange Grove, Inc. The center also offers a special collection service called Recycle Express. This is a free service that is available to businesses, non-profit and government agencies. The center also provides tours and environmental education programs.

Household hazardous waste is collected from the city and county residents once a month at the Wood Waste Recycling Facility. The disposal facility will accept household hazardous waste (cleaners, grease and rust solvents, air conditioning refrigerants, herbicides, pesticides, etc.) for disposal at no charge.

Sway Cars are city-driven trailers used to haul loads to the landfill. The trailers can be used to collect brush, light construction scrap, old clothing, grass cuttings, leaves, small metal scrap, glass, plastic, and bulky trash such as a stove, refrigerator, water heater, broken furniture or mattresses. They are assigned on a first come first serve basis and residents are allowed to have one twice a year. Sway Cars are not available to for-profit businesses, landlords, contractors, and real estate agencies.

Trash Flash removes by appointment, sofas, appliances, mattresses, etc. This service is not available to commercial businesses, nor is it available for the removal of building materials.

Landfill- The City of Chattanooga operates a landfill in Birchwood and is free to city residents, from the house they live in, as long as it is not bigger than a pickup truck size load. Bagged garbage is collected from county residents at this location. Currently, filling is occurring in a 33-acre area that has

remaining capacity of about 2½ years as of Spring 2005. Permitting is underway for a 50-acre area that would provide additional capacity of approximately 25-30 years.

Smaller Municipalities

All municipalities offer residential garbage disposal services with most also offering brush and leaf removal and either curbside or drop-off recycling facilities.

Sewers

Service Providers-

Sanitary Sewer Service in Hamilton County is provided by four entities: the Hamilton County Wastewater Treatment Authority (WWTA), the City of Chattanooga, the City of Collegedale, and the Town of Lookout Mountain, TN.

Hamilton County Wastewater Treatment Authority (WWTA)

The WWTA provides sewer service to over 24,000 commercial, industrial and residential customers. WWTA will expand its current system to accommodate any needed additional flow. The costs of sewer service provided by the WWTA are borne entirely by the private sector. No public tax money is spent on sewer service although the County or other government entities may choose to contribute money to WWTA for governmental purposes. WWTA's average cost to provide service depends on how far the land is from an existing line, how the property is being developed, and several other factors. Currently, the funds used to install new sewers are provided by private lending institutions and are repaid from the fees paid by each user. In instances where a developer requires sewer service for a new development, the developer funds 100% of all on-site sewer installation costs. Off-site sewer costs, if any, are funded either by the developer, or by a shared cost arrangement between the developer and WWTA. In all instances, WWTA's costs are recouped from fees paid by the users. Therefore, expansion of sewer service in the County should occur with no net long-term cost to the County.

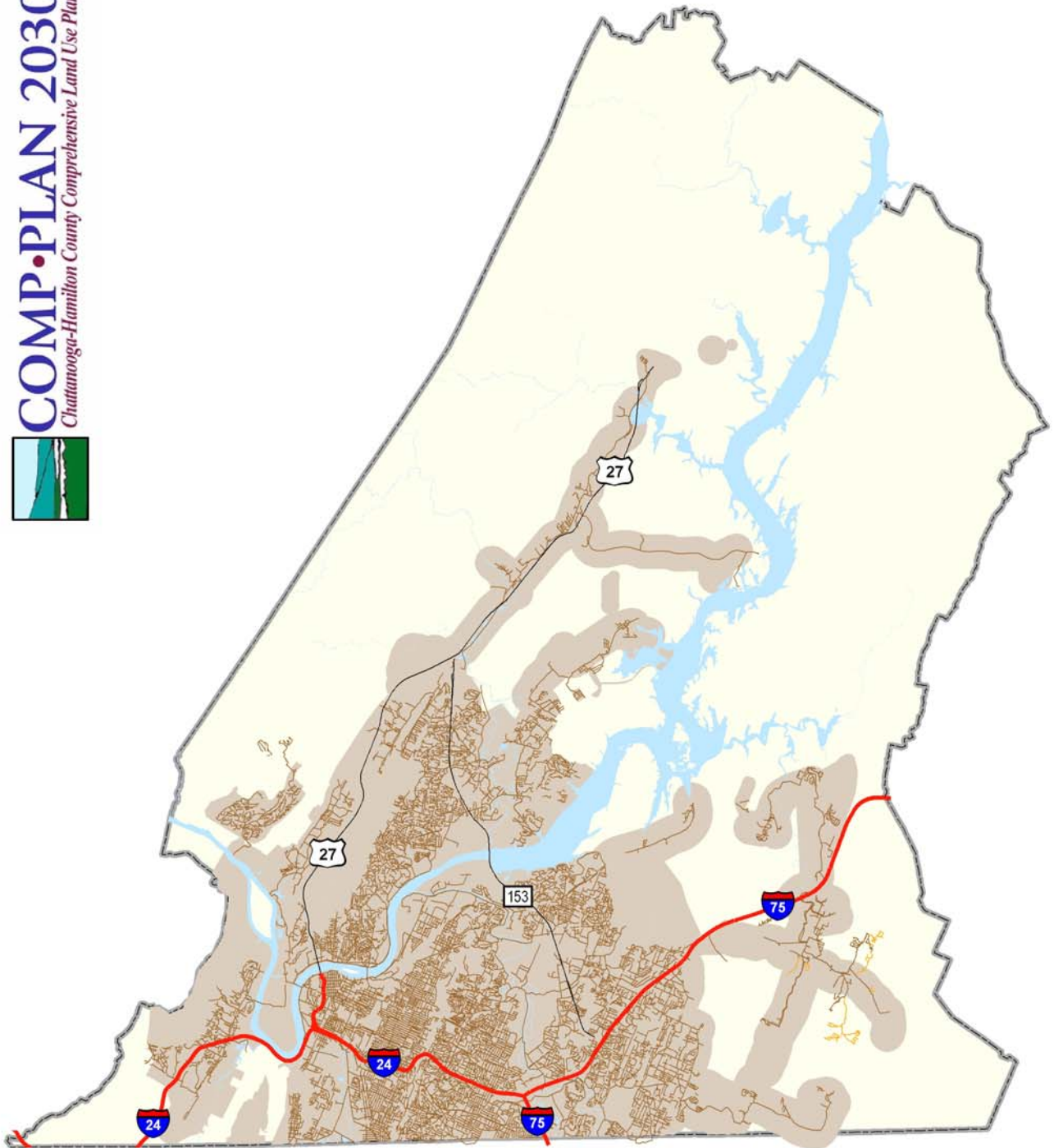
City of Chattanooga

The City of Chattanooga's interceptor sewer system encompasses approximately 1,200 miles of sewer lines, 7 large custom-built pumping stations, 7 custom-built storm stations, 53 underground, wet-well mounted, submersible pumping stations, approximately 130 residential/grinder stations, 7 combined sewer overflows (CSO) facilities and one (1) major regional wastewater treatment plant (Moccasin Bend).

Built in 1952, the City's interceptor sewer system—including Moccasin Bend Treatment Plant—serves the City and a surrounding metropolitan area which together have a population of approximately 400,000 encompassing about 200 miles. In addition to the City, the System serves the following seven suburban areas: City of Collegedale, Tennessee; part of Hixson Utility District service area in Hamilton County, Tennessee; area of Red Bank, Tennessee; City of East Ridge, Tennessee; City of Soddy Daisy, Tennessee; City of Rossville, Georgia; Town of Lookout Mountain, Tennessee; Lookout Mountain, Georgia; and portions of Walker County, Georgia, Fort Oglethorpe, Georgia; as well as Catoosa County, Georgia. (All data provided by the City of Chattanooga.)

City of Collegedale and Town of Lookout Mountain

Collegedale and Lookout Mountain install and maintain their own wastewater lines. Moccasin Bend receives and treats the wastewater from these systems also.



- Existing Sewer Lines
- Planned Sewer Lines
- Sewer Service Areas Feb. 2005

Hamilton County **Sewer Lines**



Moccasin Bend Treatment Plant

Moccasin Bend is a regional facility that serves Chattanooga, the sewered portions of Hamilton County, parts of Walker, Catoosa and Dade counties and municipalities in both Georgia and Tennessee. The plant treats an average of 68 million gallons of wastewater per day and generates 150,000 wet tons of biosolids per year. Upgrades to the facility include an improvement (completed in 2001) in the liquid handling facilities to meet more stringent EPA treatment standards and to expand capacity at the cost of approximately \$34.7 million. In 2004, the facility completed approximately \$36.3 million in improvements in the solids handling facilities which will allow for a reduction of 50% in biosolids generation. (All data from City of Chattanooga, Public Works Department)

Sanitary Sewer Rate Calculation		
	Chattanooga	Waste Water Treatment Authority
Wheelage and treatment rate per 1000 gallons	\$0.86	\$0.86
Local government collection system rate per 1000 gallons	\$3.18	\$2.78
Total Charges	\$4.04	\$3.64

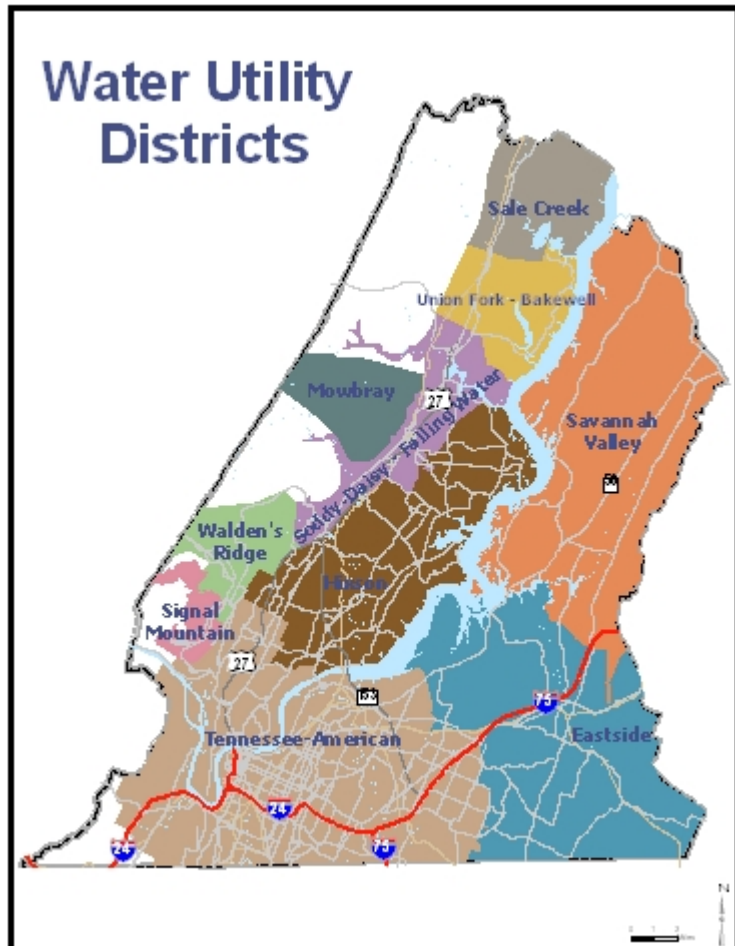
Note: Rate as of spring 2005

Sewer lines cost on average \$100 a linear foot along a roadway and \$70 a linear foot elsewhere. (Hamilton County WWTA)

Water Supply

In Tennessee, drinking water sources vary considerably across the state. In Hamilton County, as in most of East Tennessee, the majority of our drinking water comes from a mixture of ground water and surface water. The most common ground water source for East Tennessee is commonly a large spring although drinking water comes from a variety of sources: rivers, lakes, streams, ponds, reservoirs, and wells.

Most Hamilton County residents receive their potable water from one of the ten major providers active in the county. These utility districts are Hixson, Sale Creek, Savannah Valley, Soddy-Daisy/Falling Water, Tennessee-American, Tennessee-American, Eastside,



American, Union Fork-Bakewell, Walden's Ridge, Signal Mountain, Mowbray and Eastside. Tennessee-American Water, the major provider of public water services in Hamilton County, draws surface water from the Tennessee River.

A high quality and reliable source of water is critical for the health of any community. Currently, additional water treatment capacity is not a critical issue for Hamilton County at this time

Most residents are aware of the discussion regarding Atlanta's water problems and the diversion of water from the Tennessee River to alleviate Georgia's water shortages. The extent of these problems and their implications for the County and surrounding areas are not clear at this time.

Water System*	Population Served	Primary Water Source Type
Hixson Utility District	52,914	Ground water
Sale Creek Utility District	1,499	Ground water, Surface water
Savannah Valley Utility District	14,342	Ground water, Surface water
Soddy-Daisy - Falling Water Utility District	9,597	Surface water
Tennessee American Water Co.	171,679	Surface water
Union Fork - Bakewell Utility District	3,386	Ground water, Surface water
Walden Ridge Utility District	6,227	Ground water, Surface water
Signal Mountain Water System	7,553	Surface water
Mowbray Mountain Utility District	2,875	Surface water
Eastside Utility District	37,261	Surface water

Note: Does not include community water systems with purchased water as the primary water source type. Source: Tennessee Department of Environment and Conservation, Division of Water Supply

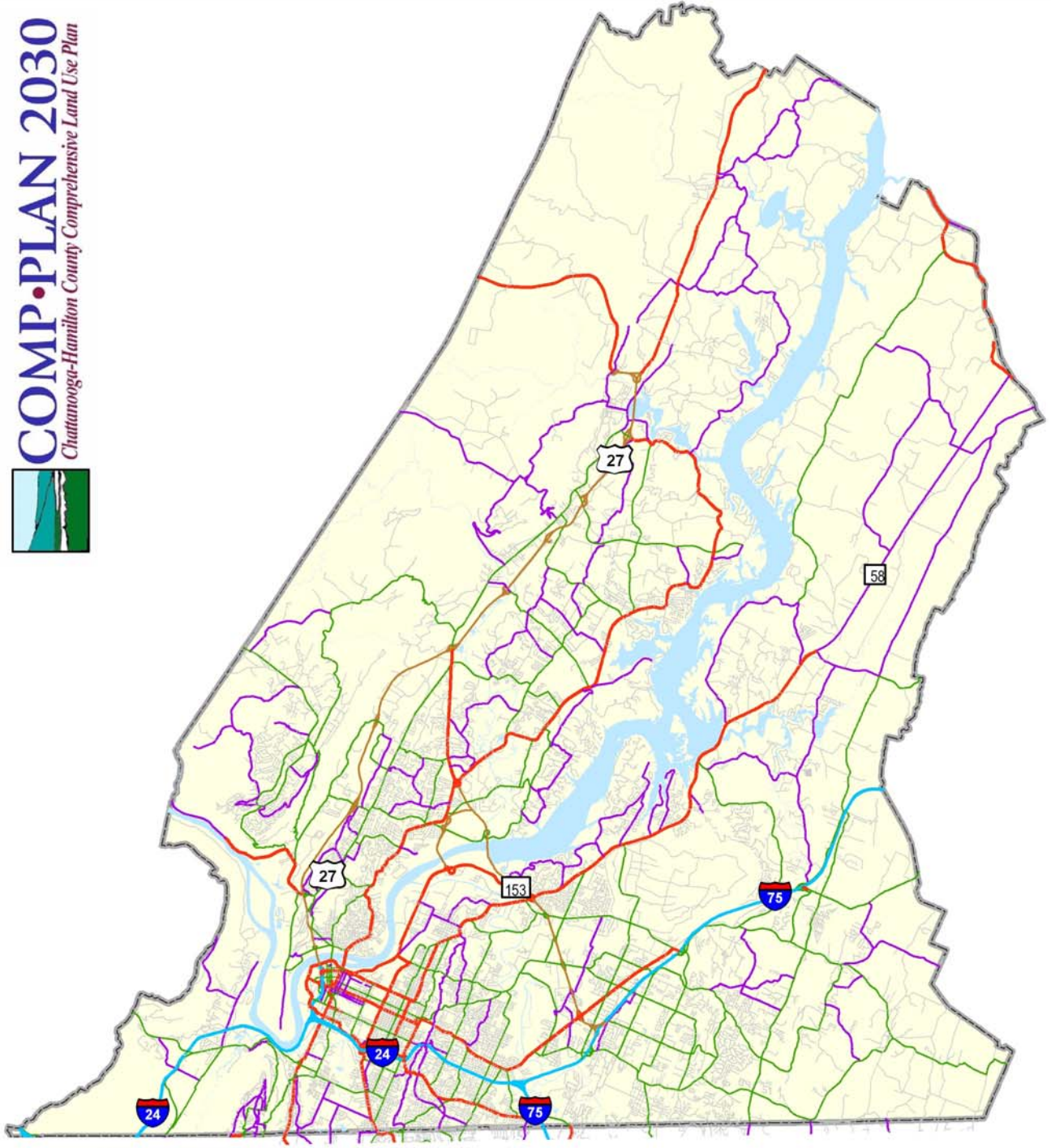
Transportation

Roadway Classification

The Federal Functional Classification System is used to classify roads in the study area. Functional classification assists in describing the existing road network by categorizing the role of various types of roads in the network. Classifications used and their major features are described below.

Interstates and Expressways – Defined as significant highways featuring limited access and continuous, high-speed movements for a wide variety of traffic types. Interstates and expressways account for 96 miles (2 percent) of the total 4,504 miles in the Chattanooga / Hamilton County / North Georgia roadway system. This mileage consists of 57 miles of Interstate highways and 39 miles of non-Interstate expressways. The Annual Average Daily Traffic (AADT) on these roadways is 62,370 vehicles per day (vpd) on Interstates and 35,440 vehicles on other expressways. Examples of Interstates and expressways in the region include I-24, I-59, I-75, and portions of US 27 and SR 153.

Arterials – Classified as major or minor, these roads connect activity centers and carry large volumes of traffic at moderate speeds. The arterial system in the study area totals approximately 425 miles (9 percent) of the total roadway miles, consisting of 115 miles of divided major arterials, 96 miles of undivided major arterials, and 215 miles of minor arterials. Examples of major arterials in the study area include SR 319/Hixson Pike, SR 320/Brainerd Road, US 27/Rossville Boulevard, and US 11/Lee



Functional Classifications

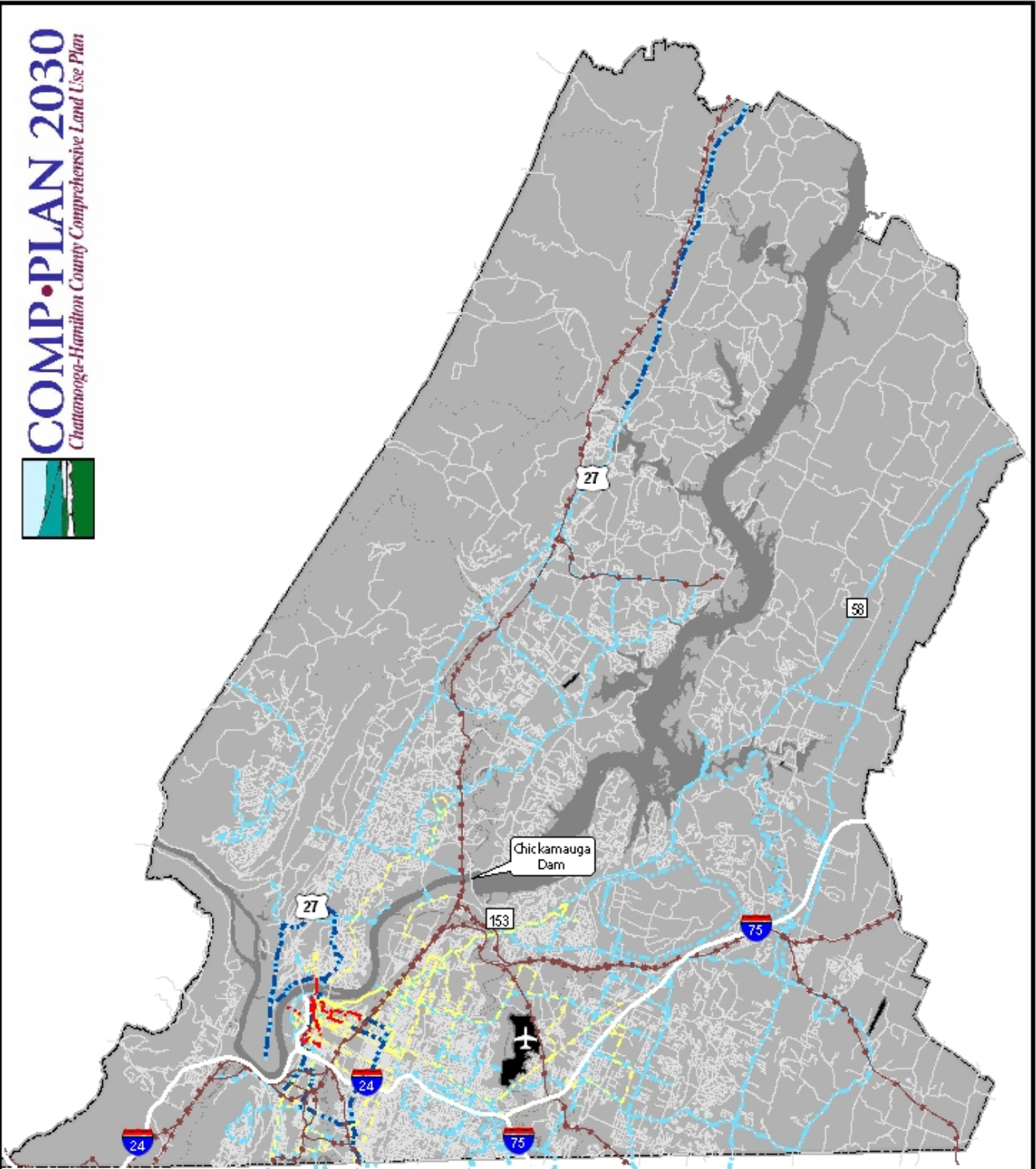
- Principal Arterial
- Minor Arterial
- Interstate
- Collector Road
- Other Freeway or Expressway
- Local Road

Hamilton County
Transportation
Functional Classification
of Streets



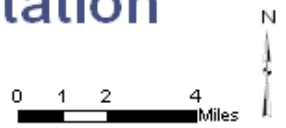
COMP•PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan



Existing Bike Route	Electric Shuttle Route
Planned Bike Route	Rail Road Track
CARTA Bus Route	Streets
	Airport

Hamilton County Transportation



Highway. The AADT on arterial roadways in the study area averages 19,570 vpd on major divided arterials, 9,220 vpd on major undivided arterials, and 7,490 vpd on minor arterials.

Collectors – Typically allow access to activity centers from residential areas. Their purpose is to collect traffic from streets in residential and commercial areas and distribute it to the arterial system. The collector system in the study area incorporates 407 miles (9 percent) of the total roadway system. The AADT on collector roadways in the study area averages 3,000 vpd.

Local Streets – Feed the collector system from low volume residential and commercial areas. Local streets are usually found in subdivisions and rural areas. Local streets account for 3,523 miles (78 percent) of all roadways in the study area. Neither TDOT nor GDOT collects AADT volumes for local roadways.

Level of Service (LOS): a subjective measure of user perception of roadway conditions. Roads are rated on scale from A to F, with A representing the best operating conditions and F the worst.	
A	Free Flow: Users unaffected by others in the traffic stream.
B	Stable Flow: Slight decline in the freedom to maneuver from LOS "A"
C	Stable Flow: Operation of the vehicle becomes significantly affected by the interaction of others in the traffic system.
D	Approaching Unstable Flow: High volumes of traffic, speeds adversely affected, and the freedom to maneuver is severely restricted.
E	Unstable Flow: Operating conditions are at, or very near capacity. All speeds are low and the freedom to maneuver is extremely difficult.
F	Exceeding Capacity: Point at which arrival flows exceed discharge flows causing queuing delays. Stoppages may occur for long periods of time because of the downstream congestion. Travel times are also substantially increased.

Transit

Public transportation has been an important component of mobility in Chattanooga for many years. Public transit systems generally include both fixed route transit and paratransit components. The fixed route transit system links the various neighborhoods throughout the system with major activity and destination points. Fixed route transit is operated on a defined routes and schedules. On the other hand, paratransit modes have routes and schedules that respond to user demand. Paratransit is a flexible, demand-responsive transportation service that is designed to carry passengers from their origins to specific destinations (often door-to-door) by immediate request or prior reservation. Transit service in the county and surrounding counties is a developing and critical resource for all residents.

Specifically, transit services in the Chattanooga area are provided by the following agencies:

- Chattanooga Area Regional Transportation Authority (CARTA)
- Hamilton County Rural Transportation (HCRT)
- Catoosa County Transit (Catoosa Trans-Aid)
- Dade Transit (DT)
- Walker County Transit (WCT)

CARTA primarily provides services to the City of Chattanooga. CARTA's bus services are divided into two route types: Main Line and Neighborhood. Nine (9) Main Line routes provide regular service between downtown Chattanooga and other locations within the city. The Main Line routes also provide direct connections to many of the eight Neighborhood routes, which give more frequent service to local

destinations such as shopping, employment, day care, health care, and recreational facilities. Also, the fixed route buses are equipped with bicycle racks to encourage alternative transportation.

CARTA's on-demand shuttle service provides "curb-to-curb" service to over 30,000 riders annually who are unable to ride CARTA's fixed bus routes. Eligible riders must first complete an application and receive a medical authorization release to verify eligibility in compliance with the ADA. All vehicles are equipped with wheelchair lifts. CARTA currently has 20 vehicles available for operation as part of its Care-A-Van program, with 16 in use during maximum service. To encourage senior and disabled residents to use CARTA's fixed route system, a "travel trainer" is available upon request to educate seniors and those with disabilities on how to ride the fixed route bus, read the schedules, and develop a comfort level with the system. The trainer travels with the riders to answer any questions and provide ridership training.

CARTA's free electric shuttle service within downtown Chattanooga provides frequent service (approximately five-minute headways) between the Chattanooga Choo-Choo and Tennessee Aquarium. The shuttle is also served by two pay parking facilities (Shuttle Park North and Shuttle Park South). With over 23 vehicles, the system is the largest electric shuttle system in the United States. CARTA currently has plans to expand the electric fleet into regular passenger bus service.

CARTA provides transit services within the City of Chattanooga and direct connections with HCRT for the following routes:

- East Ridge Route connects HCRT to CARTA at Eastgate Town Center
- Red Bank Route connects HCRT to CARTA at 6th and Market Street

There are no plans for short-term expansion of the system. CARTA is currently undertaking a visioning process that includes participation from community leaders, riders, and local governments. The result of this process is expected to identify transit initiatives for the region. Additional connections with other service providers are desirable for a seamless and more efficient transit service.

Hamilton County Rural Transportation (HCRT) provides on-demand (call ahead) transit service to all citizens and locations within unincorporated Hamilton County. Service is only available on weekdays (not weekends or holidays), and times of service vary by location. The HCRT fleet currently consists of eleven 15-passenger paratransit buses, two lift-equipped 15-passenger vans, and one 15-passenger vans, for a total of 14 vehicles in the fleet.

The Hamilton County "Flexride" system is an extension of the Hamilton County Social Services Department. Flexride is available in three service areas:

- Soddy-Daisy, Sale Creek, Falling Water, Bakewell, and Lakesite
- Apison, Harrison, Ooltewah, Collegedale, Birchwood, Meadowview and Snowhill Area
- East Ridge Area (connects to CARTA at Eastgate Town Center)

Flexride fares are \$0.50 within each of the above service areas. One-way connecting fares to Chattanooga or other service areas are \$1.50.

The Southeast Tennessee Human Resource Agency (SETHRA) provides a valuable public transportation service to rural residents living outside of the CHCNGA region. This service is provided for all ages, but first priority is given to the elderly, handicapped and economically disadvantaged with medical needs. SETHRA serves the counties of Bledsoe, Bradley, Grundy, Marion, McMinn, Meigs, Polk, Rhea, and Sequatchie. Fares range from \$0.75 for intra-county service to \$4.00 for one-way service to Chattanooga.

North Georgia

Transit services within the north Georgia portion of the CHCNGA region are provided by individual counties. Catoosa County's "Trans-Aid" service provides on-demand service for elderly and disabled residents for medical appointments, shopping, and employment trips. Dade Transit and Walker County Transit provide similar on-demand services to residents of their respective counties.

Pedestrian Facilities

In recent years, it has become more widely recognized that providing for safe and convenient foot travel is an essential part of creating a lively community, neighborhood commercial area, or downtown district. Pedestrian facilities are vital to a successful and accessible transit system.

Federal transportation policy promotes walking as a viable transportation mode. TEA-21 legislation (as well as FHWA and FTA regulations) stipulates inclusion of pedestrian walkways and trails as part of metropolitan comprehensive transportation plans. Projects such as the picturesque Riverwalk have played a pivotal role in the rebirth of Chattanooga's downtown, an area now considered one of the Southeast's major regional tourist destinations.

One of the cornerstones of current and future pedestrian project development within the CHCNGA region is the *Chattanooga Urban Area Sidewalk-Streetscape Policy Guide* completed in August 2003. The goal of the policy guide is "to help municipalities and counties within the Chattanooga Urban Area Metropolitan Planning Organization policy area to provide a transportation system where pedestrians can safely and conveniently walk to destinations within a reasonable distance." The guide provides a general set of strategies for the placement of sidewalk and streetscaping elements. It recommends (but does not provide detail regarding) pedestrian education and encouragement for individual jurisdictions.

There are gaps within the study area's sidewalk network which hinder safe pedestrian movement between existing sidewalk links and along major roadways. Most of the downtown areas have sidewalks to accommodate pedestrian travel; however, discussions with local citizens and stakeholders have revealed that the CHCNGA region is not adequately providing safe and accessible pedestrian facilities as required by the Americans with Disabilities Act (ADA). All collectors and arterials within urban areas should be constructed or retrofitted with sidewalks and ADA compliant intersections. In addition, all fixed transit routes should have sidewalks leading to and from the stops. While sidewalk improvements are usually performed by property owners, the responsibility of installing and maintaining curb ramps generally falls to those who build and maintain the roadways.

Bicycle Facilities

Within the past decade, there has been a renewed interest in bicycling as an effective mode of transportation within the CHCNGA region. In 1995, a Bicycle Task Force was created (as recommended in the 1995 LRTP). The task force has since been instrumental in bringing to fruition the bike route between the Tennessee Aquarium and the Incline Railway at the base of Lookout Mountain. The City of Chattanooga also sponsors a Bike-to-Work program one day each month in an effort to increase bicycle ridership within the region.

The Bicycle Task Force developed the objectives for the 2002 Chattanooga Urban Area Bicycle Facilities Master Plan, which is the first comprehensive bicycle plan developed for the region in over 20 years. The bicycle plan provides a detailed inventory of existing conditions, as well as recommended projects for implementation within the region. The plan was completed over a seven-month period and included a detailed assessment of four distinct planning areas: Central City, west Hamilton County, east Hamilton County, and north Georgia. Public involvement and analytical tasks included identification of trip generators and attractors, identification of barriers to bicycling, and completion of a road inventory of existing conditions (including 621 miles of local roads). A Bicycle Advisory Committee (BAC) was created in each planning area to guide the planning process and provide a conduit for disseminating information to the public.

The bicycle plan's primary objectives included:

- Expand the multimodal perspective of the LRTP.
- Establish bicycle projects that will address air quality issues.
- Expand education and safety programs related to bicycling.

- Provide incentives for the provision of bicycle amenities in conjunction with economic development projects.
- Invigorate neighborhoods.
- Incorporate transportation enhancement plans.
- Involve local municipalities and citizens in the planning and development of the plan.
- Enhance the region's potential for recreation and bicycle use.
- As of April 2002, there were approximately 140 miles of existing and previously planned greenways within the planning area. Currently, 13.5 miles are in place. The *5-Year Greenways Strategic Plan* identifies the region's top priority greenway projects, including:
 - North Chickamauga Greenway extension
 - South Chickamauga Greenway connection
 - Alton Park Safewalk extension/Chattanooga Creek Greenway
 - Guild Trail extension

To expand upon the existing and planned projects, a bicycle suitability analysis was conducted as part of the bicycle plan's development. The analysis was based upon 15 evaluation criteria, and the results of the analysis were used to rank the 621 miles of roads inventoried into one of five categories. Analysis results (by percentage of road miles inventoried) for each of the five categories of "existing road segment bicycle suitability" are summarized below:

- Most Suitable 7%
- More Suitable 24%
- Suitable 36%
- Less Suitable 26%
- Least Suitable 7%

As of October 2004, several of the projects recommended in the bicycle plan (such as bike racks on all CARTA Main Line and Neighborhood routes, in addition to the Inclined Railway) have been implemented.

Rail

There is currently no intercity passenger rail service to the CHCNGA region. The Tennessee Valley Railroad Museum operates passenger train excursions along the East Chattanooga Belt Railway and on the Chattooga and Chickamauga Railway into Georgia (*Tennessee Rail System Plan*). Two of the nation's largest rail networks currently serve the CHCNGA region: CSX Transportation, Inc. (CSX) and Norfolk Southern Corporation (NS). CSX operates a rail line from Chattanooga to the Tyner area, where it services several industries. The track from the Tyner area to the old Volunteer Army Ammunition Plant is still in place but dormant. The facility was built in 1961 and is composed of a flat switching yard with an approximate capacity of 1,400 cars. The CSX facility serves as a crew change point for trains traveling between Nashville and Atlanta.

The largest railroad presence in the region is Norfolk Southern. The Debutts Yard, which is visible from the Bailey Avenue Bridge to Wilcox Boulevard, contains approximately 230 linear miles of track divided into 1,150 individual tracks. The track breaks down to: 12 receiving tracks that hold between 80 and 150 rail cars; 60 classification tracks that hold between 30 and 80 rail cars; and 10 forwarding tracks that hold between 80 and 150 rail cars. The Debutts Yard processes approximately 50 regularly scheduled trains each day. This facility serves five of the railroad's major trunk lines: north to Cincinnati; west to Memphis; east to Knoxville, Bristol and the Carolinas; south to Atlanta, Macon and Florida; and southwest to Birmingham and beyond (*TransPlan 2025*).

Several short lines also serve the area. The Chattooga and Chickamauga Railway Company railroad connects Lyerly and Hedges in northwest Georgia to Chattanooga, Tennessee, via two rail lines. The principal Class I connection in Chattanooga is to Norfolk Southern railway. The company operates a total of 68 miles, with only 2.4 miles in Tennessee. With an office and a majority of its line in Georgia, the railroad has no employees in Tennessee (*Tennessee Rail System Plan*).

Formed in April 2001, the East Chattanooga Belt Railway operates 4.37 miles of railroad track leased from Norfolk Southern in Hamilton County. This railway serves three shippers and currently handles

about two rail cars per week. It has a connection with Norfolk Southern (NS) in Chattanooga and ends at the Railroad Museum.

Aviation

According to the Executive Director of the Chattanooga Metropolitan Airport, as of June 2004, the airport has suffered a 27 percent decrease in enplanements since September 11, 2001. On the positive side, enplanements have begun to recover, increasing from 237,000 in 2002 to 250,000 in 2003 and projected to rise to 270,000 in 2004. Facility improvements at the Chattanooga Metropolitan Airport have included the construction of a new west side runway and the design of a new second runway. Planned improvements include three new corporate hangars and the acquisition of a 12.4-acre parcel to accommodate future parking demands.

The Barwick Lafayette Airport provides private general aviation air service, including fuel sales and aircraft storage. The airport is located one mile south of Lafayette, Georgia and is outside the CHCNGA study area. However, this general aviation airport provides a valuable service to local residents within the CHCNGA region. The airport's main runway is 5,412 feet long by 50 feet wide. There are plans to widen and lengthen the runway to 5,500 feet by 100 feet. Currently, the runway can accommodate single wheel aircraft with a maximum weight of 20,000 pounds. With 48 based aircraft, the airport averages approximately 125 operations per week, of which 62 percent are local general aviation and 38 percent are transient general aviation (www.aimav.com/airport/9A5).

Waterways

According to the report *Economic Impact of Commercial Navigation on the Chattanooga Metropolitan Statistical Area* (February 1991), the Tennessee River system plays a major role in the overall freight transport network within the region. There are currently 16 barge terminals and two fleet operators located along a 17-mile stretch of the river within the study area.

The Tennessee River from Knoxville to Paducah is often referred to as an "open river road," greatly contributing to the economic vitality of the region since the 1930s. Nine main river dams controlled by the Tennessee Valley Authority (TVA) regulate navigation within the inland waterway, which drops over 500 feet in elevation from Knoxville until its terminus at the Ohio River. The movement of raw materials such as lime, salt, asphalt, and others along the Tennessee River continues today.

The Tennessee River is a key part of Chattanooga's economy. The river is an important resource for generating electric power and for navigation. The river is managed by TVA and the Army Corps of Engineers (ACOE), who work together to mitigate flooding and to ensure a reliable water supply for residents and industry.

Navigation on the Tennessee River is facilitated by a series of nine main and four auxiliary locks. Almost all of these locks are in operation 24 hours a day, 365 days a year. They are available for use without charge. Barge traffic is one of the most economical forms of freight transportation. Shippers profit from savings estimated at \$400 million from reduced freight charges annually (*Tennessee Valley Authority, River System Performance 2003*). Barge transportation's economy stems from having superior capacity to rail or truck. The cargo capacity of a single barge is 15 times greater than one rail car and 60 times greater than one semi-truck.

Coal is by far the commodity most frequently shipped up and down the Tennessee River: around 20 million tons (40 percent of total shipments) are delivered by barge to TVA fossil plants each year. TVA ratepayers also benefit from navigation. Delivering coal by barge to TVA fossil plants results in significant savings over shipping by rail, helping to keep generation costs (and electric bills) low.

River freight is handled at approximately 33 public-use and 150 private-use terminals at locations all across the Tennessee Valley. The public-use terminals are equipped to handle all kinds of commodities, and they actively solicit business from a variety of shippers. The private-use terminals are designed for the specific needs of their owners and are usually equipped to handle only one kind of commodity, such as coal, grain, or liquid chemicals.

The location of ports is determined mainly by centers of industrial activity. In many cases, the river itself was the catalyst for industrial growth. Chattanooga is one of a string of ports connecting the region's economy and providing affordable transportation to industrial customers.

Chickamauga Lock and Dam is located at mile 471 of the Tennessee River in the port of Chattanooga. The lock was placed in temporary operation in 1938 and completed in 1940. The lock chamber measures 360 feet by 60 feet, and the project also includes a hydroelectric plant and highway bridge. According to the ACOE Waterborne Commerce Statistics for 2001, almost 1.9 million tons of commodities were shipped through Chickamauga Lock, with a combined value of \$562 million. The leading commodity shipped through Chickamauga Lock was corn.

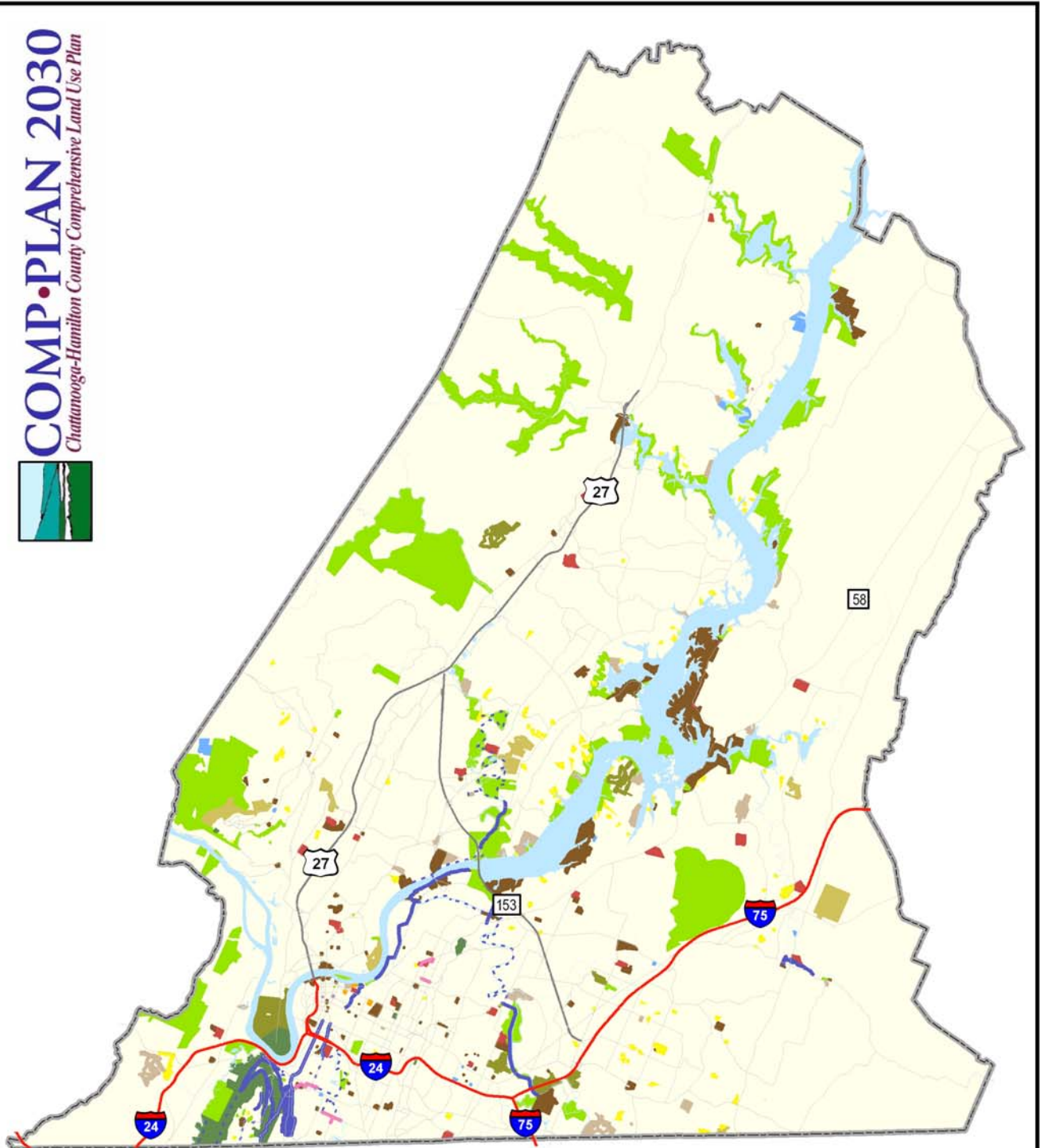
Since all of the Tennessee River above Chickamauga Lock is in Tennessee, the state's docks shipped and received all 1.9 million tons which used the lock. Almost one-half million tons of Chickamauga traffic, such as animal feed grains, left the state, while 1.2 million tons of nonmetallic minerals, corn, asphalt and other commodities came in. Almost 170 thousand tons of cargo such as zinc, chlorine and gypsum moved between docks in Tennessee.

The Tennessee River provides for recreational activities as well as being a source of economic growth. Since 1988, boat manufacturing operations and dealerships have increased about 16 percent in counties adjacent to the river. The number of marinas in the same Tennessee River counties more than doubled during this time period. Employment associated with boating-related industries provides jobs for about 4,000 people, and boat manufacturing, marinas, and retail dealerships pump approximately \$25 million into the Valley's economy each year (*Tennessee Valley Authority, 2004*).

Public Spaces & Recreation

Public spaces come in all shapes and sizes to meet the needs of the communities for which they are built. The governments of Hamilton County and its ten municipalities operate a variety of parks and recreation systems. The largest park systems in Hamilton County are the City of Chattanooga Parks & Recreation Department, with 53 parks and 15 recreation centers covering over 3400 acres (includes acreage for Enterprise South Passive Park, which is currently under development), and facilities operated by Hamilton County Parks & Recreation, with 27 parks and joint-operated school facilities covering 895 acres. Most of Hamilton County's smaller municipalities also have parks & recreation systems.

A complete listing of all federal, state, and local government public parks and recreation facilities is provided in the Appendices.



	National Military Park		Private- Golf Course
	Municipal Facility		Religious Facility
	Public Recreation		School Recreation
	Private Recreation		UTC
	Open Space		Existing Trails\Greenways
	Community Lot / Assn.		Planned Trails \Greenways
	Public- Golf Course		Safe Walks

Hamilton County Parks, Recreation, Open Space, & Greenways



Districts

Historic Districts

There are currently 13 National Register Historic Districts in Hamilton County and over 70 individually listed Historic Places and archaeological sites. According to the National Park Service, the department that administers the National Register, the National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. The Register is part of a nationwide program to support public and private efforts to identify and protect historic and archaeological resources. This distinctive listing brings national recognition and helps to increase local awareness of historic structures. National Register listing does not ensure protection of buildings from demolition or abusive alterations.

On January 24, 1989, the Chattanooga City Council approved the creation of a Chattanooga Historic Zoning Commission (CHZC). The CHZC is comprised of nine members appointed by the Mayor of Chattanooga and is staffed by the Design Review division of the City of Chattanooga Public Works Department.

The City of Chattanooga is designated as a Certified Local Government by the state historic preservation office, the Tennessee Historical Commission. Both the Tennessee Historical Commission and the National Park Service provide grant opportunities and technical assistance. Four areas, all within the City of Chattanooga, have been designated as Local Historic Districts and 1 individual landmark. This designation is, in part, a result of the creation of the Historic Zoning Commission and the designation of locally-zoned historic districts or landmarks. Generally, the purpose of the local designation is to protect historically and architecturally significant neighborhoods and districts from insensitive alterations and demolition and to ensure that new buildings are compatible with the old. More specifically, the goals of the Local Historic designation are:

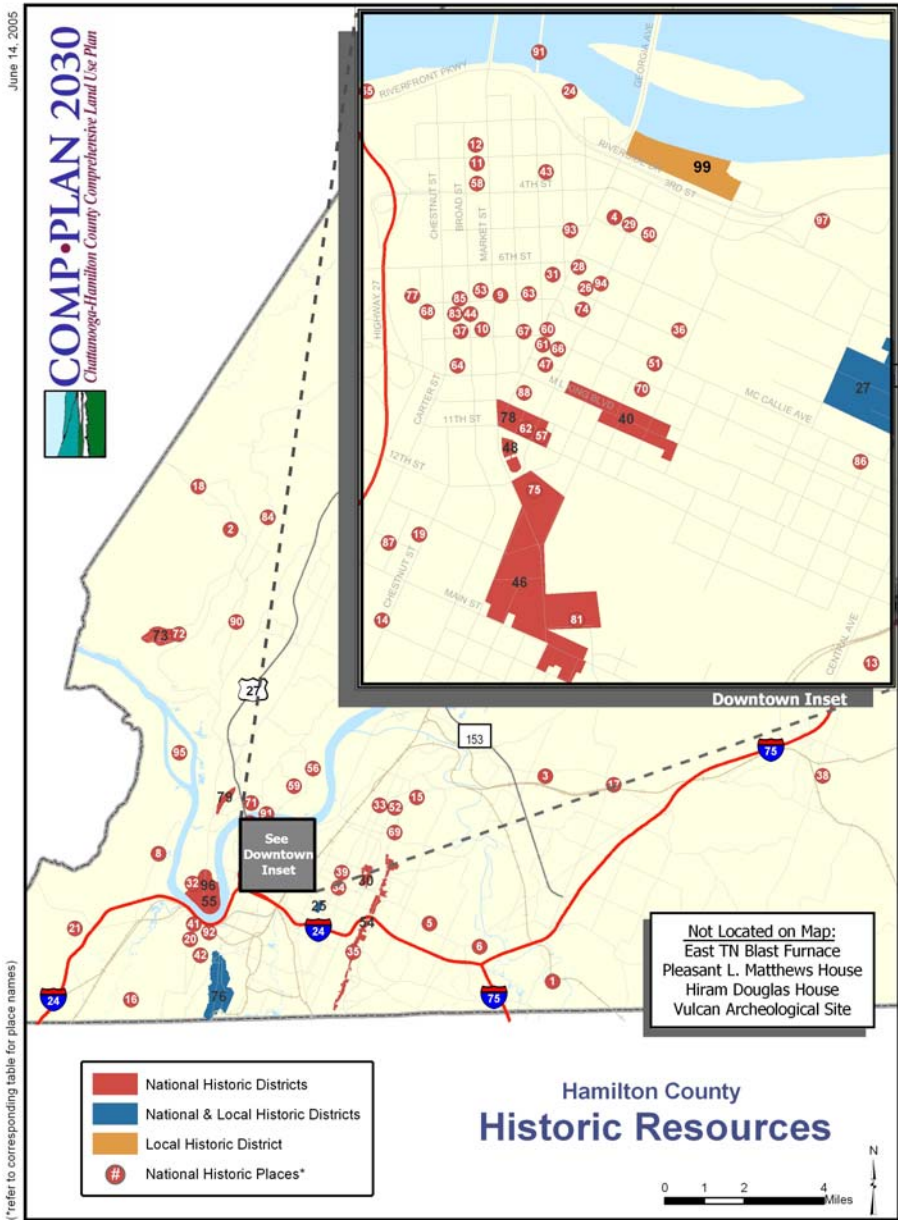
- To preserve and protect the historical and/or architectural value and cultural heritage of buildings, landmarks, and historic districts;
- To review exterior design, arrangement, texture, and materials proposed to be used within the historic district to ensure compatibility;
- To stabilize and improve property values;
- To strengthen the local economy;
- To promote the use of local historic districts for the education, pleasure, and welfare of present and future citizens;
- To promote neighborhood pride in the awareness of the beauty and significant accomplishments of the past;
- To protect and enhance the city's attraction to residents, tourists, and visitors and serve as a support and stimulus to business and industry;
- To foster and encourage preservation, restoration, and rehabilitation of structures, areas, and neighborhoods, thereby preventing future urban blight and preserving existing housing stock;
- To prevent intrusions of newly-developed structures into the district that would be incompatible with the established character of the neighborhood or district.

In order to meet the goals of each district, the Historic Zoning Commission must approve any new construction, alteration, or demolition of designated structures within the districts. Historic zoning does not review or regulate paint color or work performed on the interior. Regulations pertaining to landscaping and routine maintenance vary by district.

Currently, 3 neighborhoods are considering historic district designation: Highland Park as a National Register Historic District; Glenwood and Missionary Ridge as a Local Historic District.



- Local Historic Districts**
- St. Elmo
 - Fort Wood
 - Battery Place
 - Ferger Place



Special Districts

Several special development districts exist in the county. Most of these have been created to address issues such as design review or to encourage commercial development in a certain area.

North Shore Commercial/Mixed Use Zone

The North Shore Commercial/Mixed Use Zone, also known as the C-7 District, is intended to promote development that is consistent with the North Shore Area Plan. The North Shore Review Committee, created by Chattanooga City Council, assesses site and design proposals within the designated zone based on adopted plans and general standards and principles.

Downtown Residential/Mixed Use District

The Downtown Residential/Mixed Use District, often referred to as the Downtown Overlay Zone, was created in 1993 to promote residential and mixed use development in the downtown area. The voluntary requirements of this district promote and encourage the revitalization and growth of downtown as a desirable residential area by maximizing use of all available resources, ensure a high degree of compatibility between new and existing uses, minimize the review and approval of mixed use development and generally ensure quality development that is in keeping with the traditional urban fabric.

Urban Overlay Zone

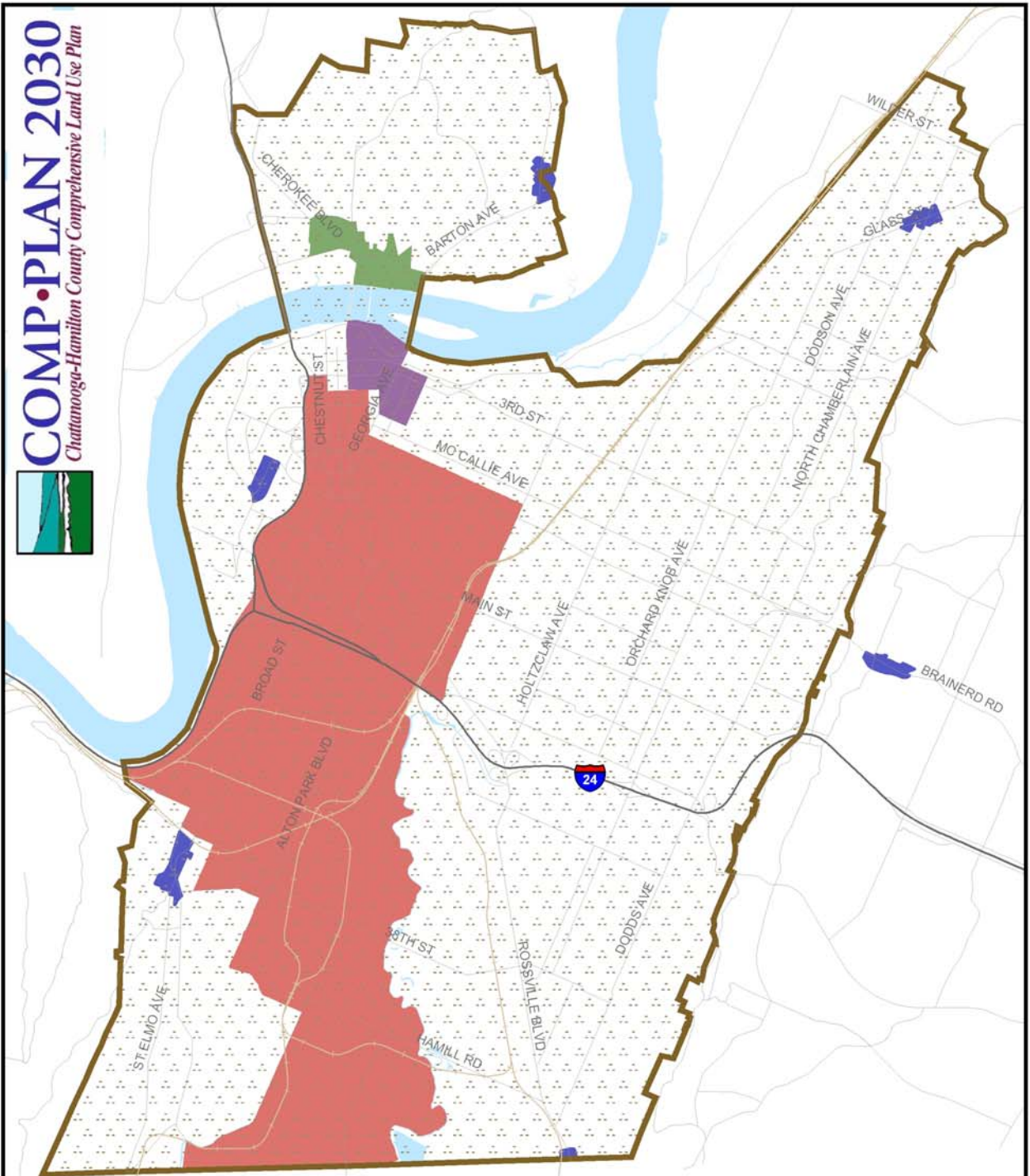
Added to the Chattanooga Zoning Ordinance in 2003, the Urban Overlay Zone alters certain underlying zoning requirements in order to help preserve the existing physical layout of the older urban portion of downtown Chattanooga and surrounding neighborhoods. This physical layout generally includes the presence of sidewalks, public transit routes, available on-street parking and smaller lot sizes. Currently, under certain conditions, a reduction in required parking for both residential and commercial uses may be applied within the overlay zone.

Shared Parking Districts

The intent of the Shared Parking regulations is to provide a method to promote shared parking facilities among diverse uses in order to reduce the amount of land dedicated to surface parking. Certain areas within the City of Chattanooga are allowed to potentially have all required parking off-site. Shared parking in these six districts may be applied when land uses have different parking demand patterns and are able to use the same parking spaces/areas throughout the day.

Renewal Community Zone

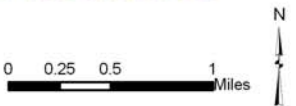
In 2002, Chattanooga was awarded a special federal designation that entitles businesses located inside the Renewal Community (RC) Zone to receive special federal tax benefits. Some of the major tax incentives available for businesses locating in the RC Zone include employment wage credits, 0% Capital Gains and a deduction for commercial revitalization of buildings in the Zone.



Special Districts

- Shared Parking Districts
- Downtown Overlay Zone
- North Shore Commercial District
- Renewal Community Zone
- Urban Overlay Zone

Chattanooga Special Districts



3. Community Goals, Policies, Action Steps

Community components are the individual pieces that help to create a community. It is difficult, if not impossible, to have a complete community without any of these components. The Plan provides specific goals, policies, and action steps for each of the following components:

Housing- Housing encompasses all of the places we call home, from single-family homes to apartments, from modular units to townhouses. The housing community component examines where we live, why we live there, and how those places are changing over time.

Business- Business includes commercial, industrial and manufacturing concerns that are involved in the production or distribution of goods and services for profit. The business community component examines current business trends and the challenges and opportunities facing business in Hamilton County in the years to come.

Natural Environment- The natural environment is all of the land, air, water, minerals, flora, and fauna that exist within and outside the built environment. The natural environment community component examines the current state of Hamilton County's natural environment, its interactions with the built environment, and the short- and long-term implications of those interactions.

Public Spaces & Recreation- Parks are those areas developed either for passive or active recreational activities, while recreation is the refreshment of body and mind through forms of play, amusement, or relaxation. The parks & recreation community component looks at Hamilton County's existing parks and recreational assets and the challenges and opportunities that face those and future assets.

Civic- The civic realm includes the provision of those services and goods that are traditionally the responsibility of government, including schools, public utilities, roads, emergency services, zoning and land use, public health, and the like. Communities are distinct places and the people who reside in them, both sharing a common identity. This community component looks at the provision of those civic services not included in the other components and the ways in which government and communities can work together for the good of all.

Transportation- Transportation includes all modes of human transportation, including pedestrian, bike, automobile, bus, train, air, and boat. The location of existing and future transportation improvements is a major determining factor in how our land use patterns take shape. The Comprehensive Plan addresses general transportation issues. The transportation community component is addressed in full detail by the Chattanooga-Hamilton County / North Georgia Long-Range Transportation Plan 2030.

Housing

Housing Analysis

Hamilton County offers a broad range of housing choices for its citizens ranging from large-lot rural residences to condominiums, apartments, and townhouses near Chattanooga's urban core. The variety of housing types and locations available within the county is a strength that should be nurtured in the future. Since private sector developers produce a vast majority of the housing supply in Hamilton County, particular care must be taken to accurately gauge the public's demand for style and location.



Historically, the natural environment helped create the mosaic of residential development in the county. The topography of parallel ridges, waterways and the extensive Cumberland Escarpment largely dictated the routing of early transportation corridors within the county. These original patterns are still evident in the network of modern streets, highways, and railroads. These development patterns in turn adapted in response to evolving transportation technologies.

Before automobile use became common, development clung to the rail lines. Homes, stores and other businesses formed clusters around interurban rail lines. The development form remained compact, since most uses needed to remain in close proximity to transportation routes. As the automobile ascended to prominence, rail and streetcar services dwindled as routes were cut back. With the loss of rail connectivity, residential communities such as St. Elmo and East Chattanooga were connected by road rather than rail. The expansion and improvement of roadways along with concurrent service delivery improvements facilitated new development in the surrounding countryside.

The impact the interstate system had on development patterns in Hamilton County and the rest of the country as a whole cannot be understated. An accelerated de-centralization process began that is still impacting the region today. As vast stretches of the county became accessible, residential development quickly followed. Prevailing conditions at the time helped make an indelible imprint on the general character and form of these residential developments.

The role of sewer line expansion is second only to transportation in terms of influence on development extent and form. Since its formation in the mid-1990s, Hamilton County's Water and Wastewater Treatment Authority (WWTA) has engaged in an ambitious program of sewer line expansion in unincorporated portions of the county. The poor soils that limit growth in many sections of the county no longer impede development once sewer lines reach those areas. Like highway construction of the prior generation, the expansion of WWTA sewer lines will have a tremendous impact on Hamilton County's residential development form over the next thirty years.

Current Housing Choices

Everyone needs a place to live regardless of income, age, race, or disability. Care in choosing locations for housing can help protect residents from detrimental and incompatible land uses, provide job and school accessibility, and protect home values. Local planners, developers, and elected officials are charged with ensuring the availability of housing stock of different types in a wide range of prices and locations that is affordable to all citizens of Hamilton County.

Single-Family Detached- Though they are rare within the Urban Core Infill sector, the quintessential detached “house” is the most common dwelling type in the rest of the county. Within most of the Urban Infill and Inner Suburban Infill sectors, they are usually located on relatively small lots.

As new infrastructure improvements made additional land in the Outer Suburban and Transitional Growth sectors available for development, single-family homes were often built on larger lots.

In recent years, smaller lots became more common as sewer lines reached farther into the countryside and as the cost of raw land rose considerably. Most single-family homes in the Rural Growth sector are still located on large-lots due to soil and sewer limitations and/or homeowner choice.

The single-family detached home remains appropriate in most areas of the county, however, as population densities increase in the Transitional and Rural Growth sectors, certain measures should be taken to help preserve the natural environment and character of these areas. Specific recommendations such as the following should be considered:

- Encourage the use of an Open Space Subdivision (OSS) option.
- Utilize Traditional Neighborhood Development (TND) concepts.

Single-Family Detached:
A single structure situated on a single lot exclusively designed for and occupied by a single household.



More detailed recommendations may be found in the Development Plan section.

Density= Number of Units/ Net Acreage
Housing density is a measure of land use intensity; it is also an economic indicator of land value.

Patio Home- Patio homes are single-family units located on a reduced-size lot. Often the lot is zoned for “zero-lot line” construction that allows the dwelling to be situated on the edge of the parcel. The reduced size of the structure and lot often lessen the maintenance burden for the owner. For this reason, they are popular with older residents.

Due to the relative high densities that small lots can create, care must be taken to design and site the development in a manner that protects the existing character of the surrounding community. Ideally suited for denser areas such as the Urban Core Infill, Urban Infill, Inner Suburban Infill, and Outer Suburban Growth sectors, patio homes can be, with some adaptations, appropriate in most areas of the county. In Transitional and Rural Growth sectors, patio homes may be used as part

Patio Home:
A single-family detached unit located on a reduced size, zero-lot line parcel and situated to provide for efficient use of available land.



of a Planned Unit Development (PUD) or Open Space Subdivision that allows higher densities in exchange for conservation of community open space.

Townhouse- Differing from patio homes in that the dwelling units are attached to each other, townhouses are similar in most other respects. The compact form attracts older residents and younger people who have little time to devote to maintenance. Like patio homes, the densities townhouses create can negatively affect the surrounding properties if the development is not carefully situated.

Townhouse:
A residential structure on its own separate lot containing one household dwelling unit that occupies space from the ground to the roof, and is attached to one or more townhouse dwelling units by at least one common wall. "Fee simple" ownership encourages owner-occupancy.

In recent years, townhouses have become popular with developers and buyers. Objections from those already living near proposed and newly built townhouse developments have increased as well. To mitigate potential negative impacts on the existing community form, dwellings such as townhouses and patio homes should generally be located in or near transitional areas or areas that are more urban in character.



Transitional areas are typically located between business and residential districts and can act as a buffer between uses of different density, intensity, or compatibility.

Patio homes and attached dwellings such as townhouses may also be considered in areas which are primarily considered low-density single-family if they are part of a Planned Unit Development (PUD), sited to the interior of that development and either served by sewers or are approved by the Health Department.

Planned Unit Development (PUD)

A PUD is not a zone; rather it is a Special Exception in a zone. A Special Exception is a use that would not be appropriate generally without restriction throughout a district, but which, if controlled through additional regulations, can be appropriate within that district. All PUD requests receive the same public hearing process as a rezoning request.

The intent of a Planned Unit Development is to provide opportunities for flexible and diversified land development standards under the guidance of a comprehensive plan. Often, a residential developer pursues a PUD Special Exceptions permit in order to construct a variety of housing types in one development.

Duplex- Originally designed to allow a tenant in a separate dwelling unit to help defray a homeowner's expenses, duplexes in Hamilton County now largely serve exclusively as rental units. Although duplexes are scattered throughout the county, particular concentrations are present in many urban neighborhoods to the west of Missionary Ridge.

Many duplexes provide an affordable alternative to traditional apartment living. Since most duplexes are rental properties, they should be closely monitored for code violations to help maintain an ample supply of well-maintained and affordable housing.

Considered low-density housing, duplexes are appropriate for many of the same locations as single-family houses, however, undue concentrations are not desirable since this situation reduces the number of homeowners. Superior duplex design emulates the character of surrounding single-family detached homes.

Duplex:

A building designed as a single structure on one lot, containing two separate dwelling units divided by a firewall, each of which is to be occupied by separate households.



Triplex- Like duplexes, triplex units are primarily available on a rental basis. Since triplexes can introduce additional density into a community, some locations within the county are more appropriate than others.

Typically, these dwelling types fit best in the denser Inner Suburban and Urban Infill sectors. Outside these areas, triplexes should be located in transitional areas between lower-density residences and commercial districts. Excessive concentrations of triplexes are not desirable.

Triplex:

A building designed as a single structure on one lot, containing three separate dwelling units divided by a firewall, each of which is to be occupied by separate households.



Quadplexes- Quadplexes can make efficient use of scarce property in appropriate areas, particularly in the Downtown Core and Urban Infill sectors. Since densities (and impact) can increase rapidly with quadplexes, design and site selection are critical to successful integration into an existing community.

Quadplex:
A building designed as a single structure on one lot, containing four separate dwelling units divided by a firewall, each of which is to be occupied by separate households.



Multi-Family Dwelling- Although the term “multi-family dwelling” technically includes triplexes and quadplexes, it generally refers to larger structures containing a greater number of units. Since this category may include large parcels of land with multiple buildings, the impact can be tremendous in terms of infrastructure requirements, noise pollution, and traffic generation.

Multi-Family Dwelling (Apartment):
A structure or portion thereof designed as a residence for three or more households living independently of each other.

In this case, sites appropriate for multi-family dwellings must be carefully selected. The Downtown Core Infill sector is ideally suited for developments of this impact since surrounding uses are already relatively intense. Vertical development here is preferable to the typical sprawling suburban “apartment complex.”



Multi-family dwellings could be appropriate in other areas as well. Like other forms of dense housing, apartments are usually well suited for use in transitional areas between commercial and low-density residential districts. The creation of large “multi-family” districts should be avoided. Apartments should be distributed throughout appropriate areas rather than concentrated in any one location.

Planning staff and elected officials should ensure that multi-family housing does not impose excessive strain or impact on the existing infrastructure and surrounding neighborhood. Careful, context-sensitive

design can help alleviate some of these concerns by addressing issues such as building appearance, parking, landscaping, lighting, traffic, and access.

Condominium- A condominium is a form of property ownership. The term does not accurately describe any particular style of development since a wide variety of building types can be included in the definition.

Because of the variability in style and scale, condominiums should reflect the prevailing dwelling types nearby. Condominiums are generally appropriate throughout the county so long as the dwellings do not adversely affect the existing character of the area in which they are built. Vertical development of this housing form is preferred in the Downtown Core Infill sector.

Larger and more intrusive developments are appropriate in and along major corridors, and as a buffer between intense and light density land uses. Like apartments of similar size, the impact in terms of traffic, storm water runoff, lighting, appearance, and access must be adequately addressed to reduce the adverse impacts on surrounding properties.

Group Home- The Federal Fair Housing Amendments Act of 1988 prohibits zoning practices that discriminate against community based housing for people with developmental disabilities.

Those facilities housing more than eight individuals, or those that are operated commercially should be designed and sited so that impacts on surrounding residential areas are minimized.

Manufactured Home- Manufactured homes provide a more affordable housing option for many residents. In Hamilton County, manufactured homes are usually located in less-densely populated areas. Outside of mobile home parks, these structures are to be situated on individual lots with provisions for service delivery. Single-wide manufactured homes are allowed by special permit.

Under Tennessee State law, local zoning ordinances must treat “double-wide” manufactured homes as single-family dwellings. However, many subdivisions contain deed restrictions or covenants that prohibit these structures.

Generally, manufactured homes and mobile home parks are most appropriate in Transitional and Rural Growth sectors on larger lots with ample setbacks.

Condominium:
A form of property ownership providing for individual ownership of space in a structure along with joint ownership in the buildings, common areas, and facilities. A condominium may range in size from a single building to a large assembly of several buildings.



Group Home:
Group Homes provide housing opportunities for mentally retarded, mentally handicapped, and physically handicapped persons in normal residential surroundings.

These homes (when not operated for commercial purposes) in which eight (8) or fewer individuals live are classified as single-family residences by the Tennessee Code (T.C.A., Section 13-2402). As such, these homes are viewed as single-unit residences by all county zoning laws and ordinances. Group homes operated on a commercial basis are regulated by local zoning codes and usually require a Special Exceptions Permit or other special permit.

Mobile Home (manufactured home):
A factory-built structure is designed as a residence capable of transport in one or more sections to a site where it is placed on a permanent foundation.

Mobile Home Park:
Any plot of land upon which two or more mobile homes, occupied for dwelling or sleeping purposes are located, provided that the plot cannot be subdivided so that each mobile home unit is situated on its own standard lot.

Rural Residential, Farming, and Agriculture

Over the past several years citizens of northern Hamilton County have expressed concerns that the rural countryside in which they live is threatened by growth of suburban residential development. As part of this comprehensive document and the need to respond to such community concerns, the Regional Planning Agency has addressed rural character as well as downtown character and quality of life characteristics of other areas in all of Hamilton County as important existing development forms. These various forms provide choices and such choices should be retained for existing residents and new populations coming into Hamilton County.



In attempting to plan for future retention of rural community, the vast array of definitions for farm, agriculture, and rural cause confusion in discussions about farming and agricultural practice. This confusion may be the result of a possible shift of rural lands once used for the business of farming and agriculture to single-family residences simply preserving those lands of pasture and/or livestock and gardens for enjoyment. In 1997 the United States Department of Agriculture (USDA) created a new category "rural residential" to account for pasture, fields, and wetlands no longer used for agricultural production purposes. Due to the decrease in agricultural business and desire of the community to retain lands with farm appeal, both aspects will be addressed in this section since the very character of rural evolved from the presence of farming or agricultural business.

Today, in areas of Hamilton County and many others across the U.S., agricultural and farm practices may be decreasing, but the land is being sought for other uses. While current residents may want to retain the existing rural character, others see the potential for residential subdivision development. The terms rural, countryside, and farmland generate a visual image which includes a few acres of pasture, some large trees, an old or renovated farm home, and livestock or gardens. This type of land use, as clear as it may seem in thought, is difficult to describe when discussing land development patterns and even more difficult when suggesting the creation of policy to preserve a community character that at first glance appears to have no economic value.

Current Housing Trends

Recently, Hamilton County's housing market has followed national trends with ample construction and robust sales rates coupled with healthy median price gains. Reports from national housing journals suggest that Hamilton County, along with the nation as a whole, is undergoing a dramatic shift in housing demand as low interest rates and socio-demographic changes combine to lead a boom in new housing. As these trends continue, it is imperative that local elected officials and planners accurately anticipate future housing needs to adequately anticipate the effects this growth will have on the county.

In the past decade, new residential land subdivision and construction outpaced actual growth in population. According to the 2000 Census, Hamilton County gained 12,104 housing units between 1990 and 2000 for a total increase of 9.9%. Population during the same period increased only 7.8%. The 2003 American Community Survey produced by the Bureau of Census estimated Hamilton County added another 4,328 housing units in the three years after the census surveys were completed. The latter figure indicates an additional increase of 3.2%. Data from the 2003 American Community Survey also indicate that housing vacancy rates in the county increased from 7.6% in 2000 to 11.7% in 2003.

Key Housing Demand Factors

Although the factors contributing to the apparent disconnect between population growth, housing growth and vacancy increases are not entirely understood, several research papers have uncovered a number of trends occurring on a nationwide scale that may account for some of the housing demand.

The State of the Nation's Housing 2005 produced by the Joint Center for Housing Studies of Harvard University identified several key factors that are driving current housing demand:

Baby Boomer Demand- Due to its size, the Baby Boomer generation continues to dominate housing markets. Members of this group accumulated vast amounts of home equity and now use it to acquire different types of housing as their needs change. The record amount of equity held by this group may also be used to purchase second homes.

Increase in Nontraditional Families- Although married couples make up a bare majority of American households, divorced and never-married singles constitute a greater percentage of households than in previous generations. Households headed by unmarried women have accounted for nearly a third of the growth in homeowners since 1994 (JCHS 11). Unlike past generations, the current population of singles is much more likely to purchase a home than to rent.

Second-Generation Americans- The population of new immigrants is surging. Nationally, Hispanics make up about half of second-generation heads of households age 40 and under. While this group has lower home ownership rates overall, its demand for housing is nonetheless strong.

Minority Presence in Housing Markets- Accompanying increases in income, minority households are increasingly seeking rental housing as well as “starter” homes for purchase.

Housing Demand Assumptions

In most respects, Hamilton County's housing market mirrors national trends; however, the relatively slow population growth fails to account for all of the recent demand for housing. Although the factors contributing to the discrepancy between local population growth rates, housing growth and vacancy increases are unclear, several assumptions of possible causes and/or potential effects can be made:

1) Since 2000, mortgage rates have reached historic lows and remained there for a prolonged period. The extended era of inexpensive mortgage options has enabled a larger segment of renters to afford a first home. Although vacancy rates from apartment and other rental housing owners are not publicly available, the local market may experience an increase in vacant units. Anecdotal evidence such as the prevalence of leasing incentives and stable or declining rents indicate this is currently happening.

2) The housing market in Hamilton County could be overbuilt; there is a surplus of newly built and existing dwellings in Hamilton County. If this scenario is true, “speculative” housing projects will remain unsold for longer periods and price increases will level off as inventory mounts. Currently, the county is not experiencing widespread housing price deflation; however, a rise in mortgage rates could precipitate stagnation in areas currently enjoying robust sales.

3) Growth in Hamilton County's housing market is unevenly distributed. Population within the county is likely shifting from one area to another. According to the local Board of Realtors, home sales are generally healthy throughout the county. Even so, certain areas such as Snow Hill Road in Ooltewah, waterfront property on either side of the river, and outlying areas along the US 27 corridor are experiencing greater than average sales and greater than average price appreciation. Other areas experiencing sales increases include North Chattanooga and Highland Park close to the urban core. Since Hamilton County is experiencing moderate population growth from in-migration, the uneven distribution of housing sales may indicate a change in housing preferences among existing residents. In effect, residents are “trading up” from older housing stock, to newly constructed homes farther from

certain areas within the traditional Urban and Inner Suburban areas that constituted the bulk of housing development immediately after World War II.

This assumption implies that a series of land use planning challenges will arise in the future. Planners, service providers, and elected officials must coordinate efforts to anticipate growth in the recipient areas. At the same time, the donor areas may require specialized attention as this population shift occurs. If population densities fall, there may be a corresponding decline in the commercial sector, causing additional blight and decay.

4) The average household size in Hamilton County is becoming smaller. In 1980, the average household size was 2.71 persons per dwelling unit. Ten years later, the figure was 2.56 persons per unit. By the 2000 census, the average size had declined to 2.41 persons per unit.

Although the county's population grew about 8 percent between 1990 and 2000, the rate of household creation was nearly 12 percent. This mirrors a nationwide trend toward smaller American households. Since Hamilton County's population growth is modest, the relatively robust increase in household creation is helping to drive a portion of the housing demand.

Hamilton County, like the rest of the nation is experiencing a period of active real estate sales and development. Consequently, not all of the long-term effects of this activity are clear at this time. Given the modest gains in population and employment, much of the housing demand seems to be internal. That is, the housing market is driven by internal migration from one section of the county to another. Without an increase in population growth, this demand could be limited. A dramatic increase in mortgage rates could quickly squelch the strong demand experienced over the last ten years.

Housing Goals

Goal: Upgrade or eliminate existing deteriorated housing.

Policy: **Inventories of substandard housing should be maintained.**

Action: *Recommend the creation and maintenance of a database of areas containing concentrated pockets of substandard housing.*

Policy: **Encourage public and private rehabilitation of substandard housing.**

Action: *Provide incentives for the redevelopment or rehabilitation of deteriorated housing.*

Policy: **Increase the effectiveness of the county and municipal codes enforcement staff.**

Action: *Recommend the consideration of adding staff inspectors to codes enforcement staff as warranted.*

Action: *Recommend quick enforcement of condemnation orders.*

Action: *Support new initiatives that will ensure property owners upgrade their properties so that they meet minimum standards for health and safety.*

Goal: Provide new housing opportunities for residents of all income levels.

Policy: **Encourage construction of new housing in appropriate areas.**

Action: Identify those areas of the county appropriate for new housing development.

Policy: Support infill development.

Action: Target key locations appropriate for residential infill.

Action: Identify flexible zoning techniques to ease the infill process in terms of permitting, zoning and impact on existing neighborhoods.

Policy: Locate high-density residential development in appropriate areas within Hamilton County.

Action: Identify areas appropriate for high-density residential development.

Goal: Provide for consistent and compatible development to preserve the character of existing neighborhoods.

Policy: Protect existing residential areas from incompatible land uses.

Action: Examine the zoning ordinance for shortcomings that may allow incompatible uses in residential areas.

Policy: Discourage the creation of small flag lots.

Action: Recommend an increase in the minimum lot size needed for flag lot creation in the unincorporated county.

Policy: The WWTA should create and maintain a master sewer expansion plan to better inform the public, elected officials and other government agencies of potential growth areas.

Action: Coordinate with WWTA and Hamilton County officials to create a master sewer expansion plan for the unincorporated areas of Hamilton County.

Goal: Maintain a diverse housing stock which is vital in meeting the wide range of consumer preferences and needs.

Policy: Support preservation of existing viable housing stock.

Action: Initiate the study of an urban infill zone that will allow context-sensitive housing development.

Policy: Support efforts to increase the number of owner-occupied properties.

Action: Recommend the investigation of government-aided programs to rehabilitate duplex dwellings and convert them into either owner-occupied single-family dwellings or owner-occupied duplex dwellings.

Policy: Preserve open space in Transitional and Rural areas.

- Action:* Formulate new zoning tools that will allow higher density or small lot developments in exchange for the preservation of substantial areas of open space.
- Action:* Conduct a detailed study of housing supply and demand within Hamilton County.
- Policy:** **Preserve rural communities as a future rural residential choice for Hamilton County residents as well as opportunities for choices in farming and/or agricultural practices to continue in Hamilton County.**
- Action:* Encourage education of the public for the compatibility of uses.
- Action:* Strengthen coordination with other agencies involved in farmland preservation, farming and agricultural practices, and rural residential development.
- Action:* Provide rural development options that cluster density while preserving the open nature of the rural environment and important features such as woodlands, hillsides, prime farmland and view-sheds.
- Policy:** **Area elected officials should ensure that Hamilton County’s housing base continues to meet the needs and expectations of current and prospective residents.**

Business

Business Analysis

The City of Chattanooga has long been the economic hub for the region, a position it would like to maintain far into the future. In order to continue to be a leader in the region and to provide jobs, products, and services needed by citizens of the community, a vibrant economy must be maintained. A vibrant economy generates jobs and income for a substantial number of households, as well as a stream of tax revenues that contribute to public facilities and services that the citizens of Hamilton County and surrounding areas enjoy.

Economic development can be defined as the process of creating and maintaining a healthy local economy. Economic development is the collaboration of public, private, and non-profit sectors to deliver a high quality of life and an attractive business environment for the community. An effective economic development process yields two products: high-quality jobs that produce incomes for a high standard of living, and public and private financial resources necessary to keep the community’s asset base healthy. These assets are the real wealth of the community and include educational, entrepreneurial, technological, environmental, social heritage, and natural resources.

The key to sustainable, long-term economic development lies in nurturing and supporting existing businesses while attracting new ones. The cities and county should seek to foster an environment conducive to the growth, competitiveness, and expansion of established businesses, business start-



ups, and business spin-offs. The ability to address transportation needs is crucial to accommodate existing businesses and to attract new businesses to the community. In order to help ensure an increasing quality of life, the City of Chattanooga and Hamilton County should endeavor to maintain certain economic development corridors where synergies of location, transportation and communication infrastructure will promote business concentration. This action should help to maintain the value of business investments in those corridors and will help ensure the highest and best use of those areas. Economic development goals and policies should be coordinated with civic, housing, transportation, and land use in order to retain a healthy and vibrant economy. The goals, policies, and action steps contained within the 2030 Comprehensive Plan can help shape how the cities and county may grow in the future.

Business and employment districts are economic engines of the community. They provide jobs for citizens, enhance property values, and provide economic activity for the tax base. Business and employment districts contribute to the overall tax base of the county; however, each is quite different in terms of development issues and characteristics, so they are discussed separately.

Commercial Areas

Commercial zoning comprises about 7,068 acres, or approximately 2.2 percent of the county area. Of the 7,068 commercially-zoned acres, approximately 6,403 acres are presently used as commercial development. Land use devoted to commercial development accounts for approximately 2 percent of the county's total parcel area. In addition to the larger commercial districts located in downtown Chattanooga and the Hamilton Place and Northgate Mall areas, numerous small-scale shopping centers and strip commercial areas line major thoroughfares. Commercial districts described within this section are based on location, intensity, scale and compatibility with their environment.

Historically, the central business district has traditionally been the economic center of the community. The central business district was once the only place available for the most important offices and the best retailing. Prior to World War II, commercial uses tended to locate in the central business district or areas convenient to public transportation. The high price of real estate in the central business district required that structures be many stories in height to provide a mix of land uses. Retail shopping was pedestrian oriented and organized along a main street.

Development within the central business district is characterized as having multi-story buildings, adjacent to the sidewalk with a clear pedestrian orientation, streets in front and alleys to the rear, a predominance of on-street parking, modest signage mounted directly on the buildings, and a diverse mixture of retail businesses, eating establishments, civic uses, and multi-family dwellings. Access in the central business district reflects a balance of transportation modes, including automobiles, public transportation, and walking.

After World War II, retail trade expanded, relocated to the suburbs, and underwent a marked transformation in function and appearance. Commercial uses located along stretches of major thoroughfares, as well as single use developments such as open-air shopping malls. Cities and suburbs across the country began to expand with the rise of the automobile as the preferred mode of travel. The 1970s saw the rise of the indoor shopping mall, and the 1990s brought big-box developments and then in 2001, the power center, and shortly after the power center came the lifestyle center development. The move of shoppers toward big-box development has made many of the smaller shopping malls, shopping centers and central business districts obsolete for meeting daily consumer needs and conveniences.

It is possible to distinguish between pre-war and post war commercial growth areas, as the urban grid pattern transitions to a more curvilinear suburban pattern of local streets. The influence of highway access can be readily seen today with commercial uses lining highway corridors such as Rossville Boulevard; Brainerd Road; Highway 58; Lee Highway; Dayton Boulevard; and Ringgold Road. In

addition to strip commercial developments, concentrations of community and regional scale shopping centers were built between the 1950's and 1990's such as Hamilton Place Mall, Northgate Mall, and Brainerd Town Center. Also during this time period, several neighborhood and community-scaled shopping centers developed within many areas throughout Hamilton County. In addition to the strip and shopping center developments, concentrations of commercial development located along the quadrants of the interstate interchanges of the two major interstates that traverse the county, the I-75 and I-24 interstate corridors.

As is typical in most communities, the older commercial areas are generally compact and concentrated within the urban core and urban areas. Some urban commercial areas are compact and concentrated within well-defined boundaries while other urban commercial areas are dispersed along major thoroughfares such as along Rossville Boulevard. After World War II, growth in the suburbs began to occur, and in conjunction with the transformation in the function and appearance of retail development, commercial uses shifted from the urban core and urban areas to the suburbs. Commercial uses in the inner and outer suburban areas are typically dispersed along major thoroughfares, specifically within the inner suburban areas such as along Dayton Boulevard, Brainerd Road, Lee Highway, and Ringgold Road. Commercial uses in the outer suburban areas are also located along major thoroughfares. However, commercial uses in the suburbs also developed in compact and well-defined areas such as shopping mall developments, such as Hamilton Place and Northgate Mall. The transitional areas contain commercial uses. However, commercial uses are typically dispersed along major thoroughfares, such as along Highway 58. Commercial uses in the rural areas are not as prevalent as within the other areas. Commercial uses in the rural areas are dispersed and are generally located at major intersections such as the intersection of Mahan Gap and Ooltewah-Georgetown Road; the intersection of State Highway 58 and State Highway 60. Commercial uses are also located along U.S. Highway 27 corridor within the Sale Creek Community, as well as near U.S. Highway 111 and Jones Gap Road.

Urban Core- The urban core serves as the key economic hub of the region. The urban core contains the major concentration of governmental, commercial, residential, and other employment activities, including the University of Tennessee at Chattanooga campus. The urban core is typically pedestrian oriented with a variety of transportation choices. The urban core also serves as an important gathering place for celebration and special community events. As the center of business, finance, culture and government, a thriving urban core can be an indicator of a thriving region, and the tax revenue generated by this business center helps to fund schools, police and fire services, and other service related programs.



The Chattanooga Downtown Plan, produced by the Regional Planning Agency in 2004, divides the urban core into eight districts, including the river as a district. The eight districts are as follows: the Central Business District, North Shore District, East Downtown District, South Side District, South Broad District, West Side District, Riverfront District, and the River District. A detailed description of each district within the urban core can be viewed within the Downtown Plan.

Strip Commercial- Strip commercial is a series of detached, automobile-oriented commercial establishments usually located along a major street, each commercial facility with its own parking facilities and primary access on the major street. Commercial strips create the effect of rows of

buildings with no beginning and no ending, instead of buildings grouped around a common center. Strip commercial is usually characterized by a linear series of one-story retail establishments located along a major thoroughfare and provide countywide and regional products and services outside the urban core.

Strip commercial development typically has the following problematic issues: multiple curb cuts onto adjacent streets creating traffic problems and congestion, dense signage, minimal landscaping, large parking areas, and an overall scale and style of architecture that is sometimes incompatible with residential areas.



Examples of strip commercial development include Rossville Boulevard; Brainerd Road; Highway 58; Lee Highway; Dayton Boulevard; and Ringgold Road.

Shopping Centers- This category designates a group of retail and other commercial establishments that are planned, developed, owned and managed as a single property, with on-site parking provided. The size and orientation of shopping centers is generally determined by market characteristics of the trade area served by the shopping center.

The definition of shopping centers has been evolving since the early 1950's. Originally there were four basic terms to describe shopping centers: neighborhood, community, regional, and super-regional shopping centers. As the industry matured and became auto-dependent, the four basic terms were no longer considered to be adequate. The International Council of Shopping Centers (ICSC) defines seven principal shopping center types:

1. Super-Regional Center: Super-regional shopping centers are similar to regional centers, in terms of typical retail uses; however, super-regional centers are generally larger in scale, contain a larger number of anchors with a wider selection of merchandise, and draw from a larger regional market. As with regional shopping centers, the typical configuration of a super-regional center is an enclosed mall, frequently with multi-levels. Parking may also be structured to accommodate the size of the center.



Super-regional shopping centers are generally located with easy access from an interstate/freeway interchange. They are usually served by a major radial and/or circumferential arterial street ringed by an arterial street network. The highest level of mass public transportation generally serves regional shopping centers. An example of a super-regional center is Hamilton Place Mall.

2. Regional Center: Regional shopping centers provide general merchandise, convenience goods and services on a citywide and regional scale. Regional centers generally have a combination of anchors, including big-box retail stores, department stores, automobile related uses, strip shopping

centers, and numerous specialty stores. Typically regional centers are enclosed with an inward orientation of the stores connected by a common walkway. Large amounts of parking surround the outside perimeter of the regional center. Regional centers have a scale and a magnitude that serve a regional market and are destination locations for shoppers.

Regional shopping centers are generally located with easy access from an interstate/freeway interchange. Regional centers are usually served by a major radial and/or circumferential arterial street ringed by an arterial street network. The highest level of public transportation service generally serves regional shopping centers. An example of a regional center is Northgate Mall.

3. Community Center:

Community shopping centers generally include commercial activities that serve a portion of a region comprised of numerous neighborhood or employment areas. Typically land uses include the uses found within a neighborhood activity center such as a grocery store, but typically include a small department store or specialty variety store as an additional anchor.



Community centers generally provide a wider range of goods and services than neighborhood centers.

Community centers are usually configured in a straight line, similar to a strip development pattern, or they may be configured in a L or U shape depending on the size and design of the community center. Community shopping centers are usually located at the intersection of one or more major arterial streets.

4. Neighborhood Center:

Neighborhood shopping centers generally provide convenience shopping for the day-to-day needs of consumers in nearby residential neighborhoods. Neighborhood centers are generally anchored and supported by retail stores (e.g. grocery stores, shops, entertainment, and convenience stores), personal and business services and offices, community facilities and similar uses.



Neighborhood centers are generally configured in a straight-line strip fashion with no enclosed walkway or enclosed shopping area, and with large amounts of parking located within the front of retail stores. Typically, neighborhood shopping centers locate near residential neighborhoods at the intersection of two collector streets, or at the intersection of an arterial and a collector street.

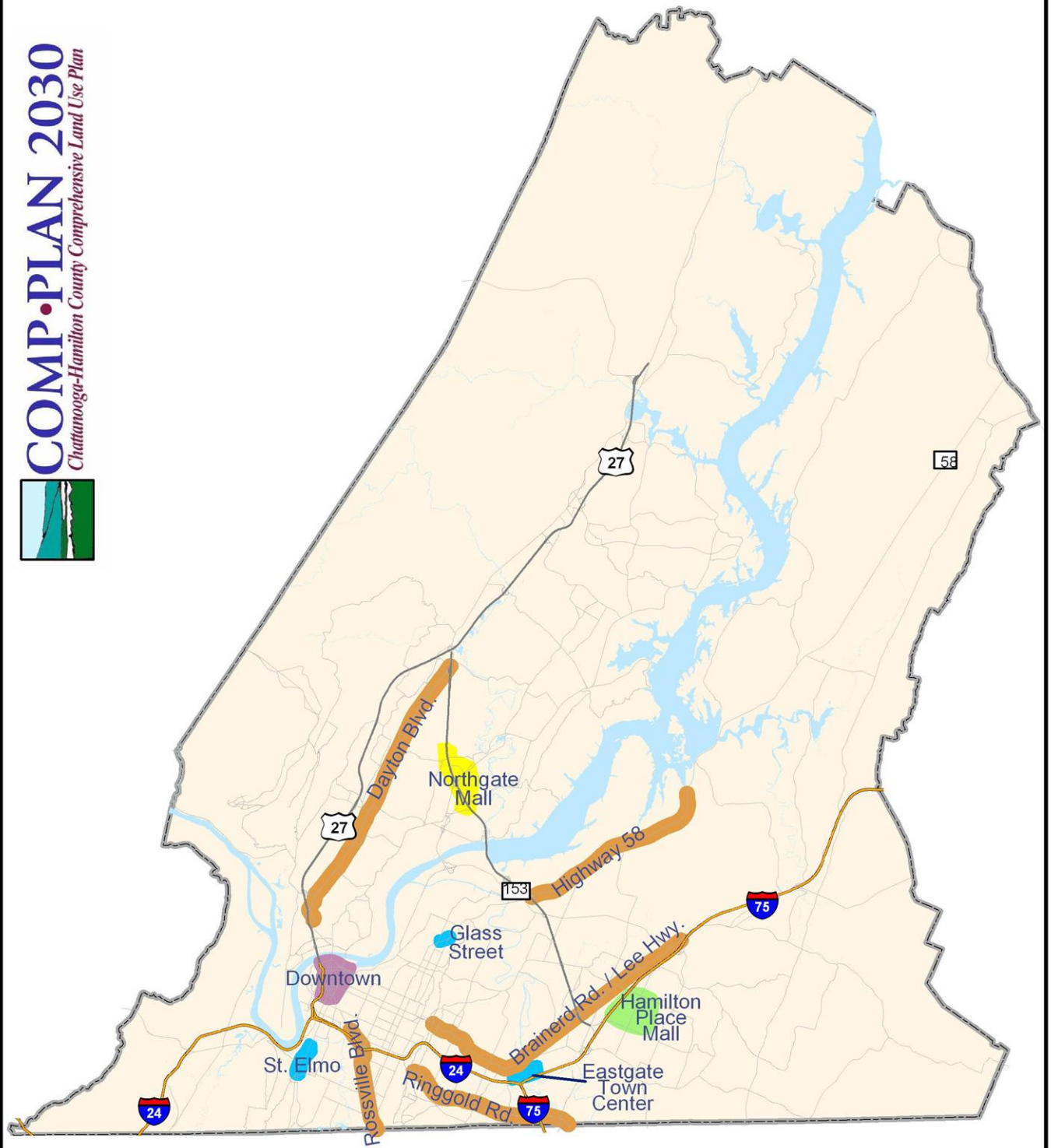
5. Power Center: Power centers are characterized as having several large anchors, including discount department stores, warehouse clubs, or stores that offer a vast selection of merchandise at very competitive retail prices. The power center typically consists of several anchors, some of which may be freestanding, structurally attached to another retailer, or a combination of both, and only a minimum amount of small specialty tenants. The term power center often is used to describe groupings of the various forms of big-box retailers. Oak Park Town Center in Hixson, and the Brainerd Wal-Mart shopping center are examples of power centers.

6. **Outlet Center:** Outlet centers typically consist of manufacturer and retail outlet stores selling brand-name goods at a discount. These centers are typically not anchored, although certain brand-name stores may serve as magnet tenants. Outlet centers are often open-air, configured either in a strip or cluster; however, some new outlet centers are enclosed in a similar fashion as regional and super-regional malls. Warehouse Row in downtown Chattanooga is an example of an outlet center.
7. **Lifestyle Center:** Lifestyle centers are generally located near affluent residential neighborhoods, with this center catering to the retail needs of consumers in its trading area. Lifestyle centers are generally utilize an open-air configuration and are typically anchored by upscale national chain specialty stores. Lifestyle centers serve as a destination point for leisure time, including eating establishments, entertainment, and design ambience and amenities such as fountains and street furniture that are conducive to casual browsing. Hamilton Corner located on Gunbarrel Road is an example of a lifestyle center.



Shopping Center Types

TYPE	TYPICAL LAND USES	SQUARE FEET	ACRES	PRIMARY TRADE AREA
Super-Regional	Shopping Centers or Malls that contain three or more full line department stores, large office buildings, and entertainment	800,000 +	6 - 120	5 – 25 Miles
Regional	Shopping Centers or Malls/One or Two Department Stores- Entertainment and Offices	400,000 - 800,000	30 - 100	5 – 15 Miles
Community Center	Small department stores, discount stores, variety stores that provide convenience goods	100,000 – 350,000	10 – 40	3 – 6 Miles
Neighborhood	Supermarkets, small retail that provide convenience goods	30,000 – 150,000	3 – 15	3 Miles
Power Center	Category-dominant anchors; few small tenants	250,000 – 600,000	25 – 80	5 – 10 Miles
Outlet Center	Manufacturer’s outlet stores	50,000 – 400,000	10 – 50	25 – 75 Miles
Lifestyle Center	Upscale national chain specialty stores; dining and entertainment	Typically 150,00 - 500,000 ; can be smaller	10 – 40	8 – 12 Miles
Source: International Council of Shopping centers				



Hamilton County Generalized Commercial Areas



Mixed Use Commercial- Mixed-use commercial is intended to promote a mix of uses, of which various commercial uses remain predominate, but where residential, office, and personal and business service establishments serve and complement one another. The mix of uses should be mutually supporting and pedestrian and transit oriented. The intent is to allow for vertical or horizontal mix of uses on the site, including higher density residential.

Interstate Interchanges- Interstate interchanges generally provide the first image to the entrance of any community. Interstate interchanges provide conveniently accessible goods and services for those arriving or passing through the community via Interstate 75 or Interstate 24. An important influence on the image and/or development of interstate interchanges is land uses that locate along interstate interchanges.



Motorists generally seek five basic services: gasoline, rest room facilities, food, relaxation, and lodging. Three primary reasons account for the motorist stopping at a particular interchange to satisfy these needs, namely: advance notice, visibility and accessibility, and brand loyalty. To obtain maximum benefits from interstate interchange development, it should be noted that appeal rests largely on the convenience of exiting and re-entry to the highway. As a result, most businesses try to locate close to the exit ramps, and, at the same time, adjacent to complementary services.

Big Box Retail- The term “big box” is used to describe large-scale, stand alone retail establishments with general building footprints between 20,000 and 300,000 square feet with lot sizes from 5 to 25 acres depending on the presence of out parcels. Big box retail structures are characterized as being large-scale, industrial style structures, uniform in architecture and appearance. Big box retailers cater to automobile-dependent consumers. They typically have acres of parking, little or no access to public transportation. Big-box developments may also have a measurable impact on traffic, air, and stormwater management.



In an attempt to mitigate issues associated with big box developments, communities have drafted ordinances to help address the impacts of big-box developments. Tools available to communities include developing design standards, encouraging mixed-use developments, establishing maximum retail size limits, encouraging large-scale development to locate into existing retail areas, plan for the reuse of abandoned or vacated big-boxes, and require proper planning studies such as traffic, environmental, and economic impact studies.

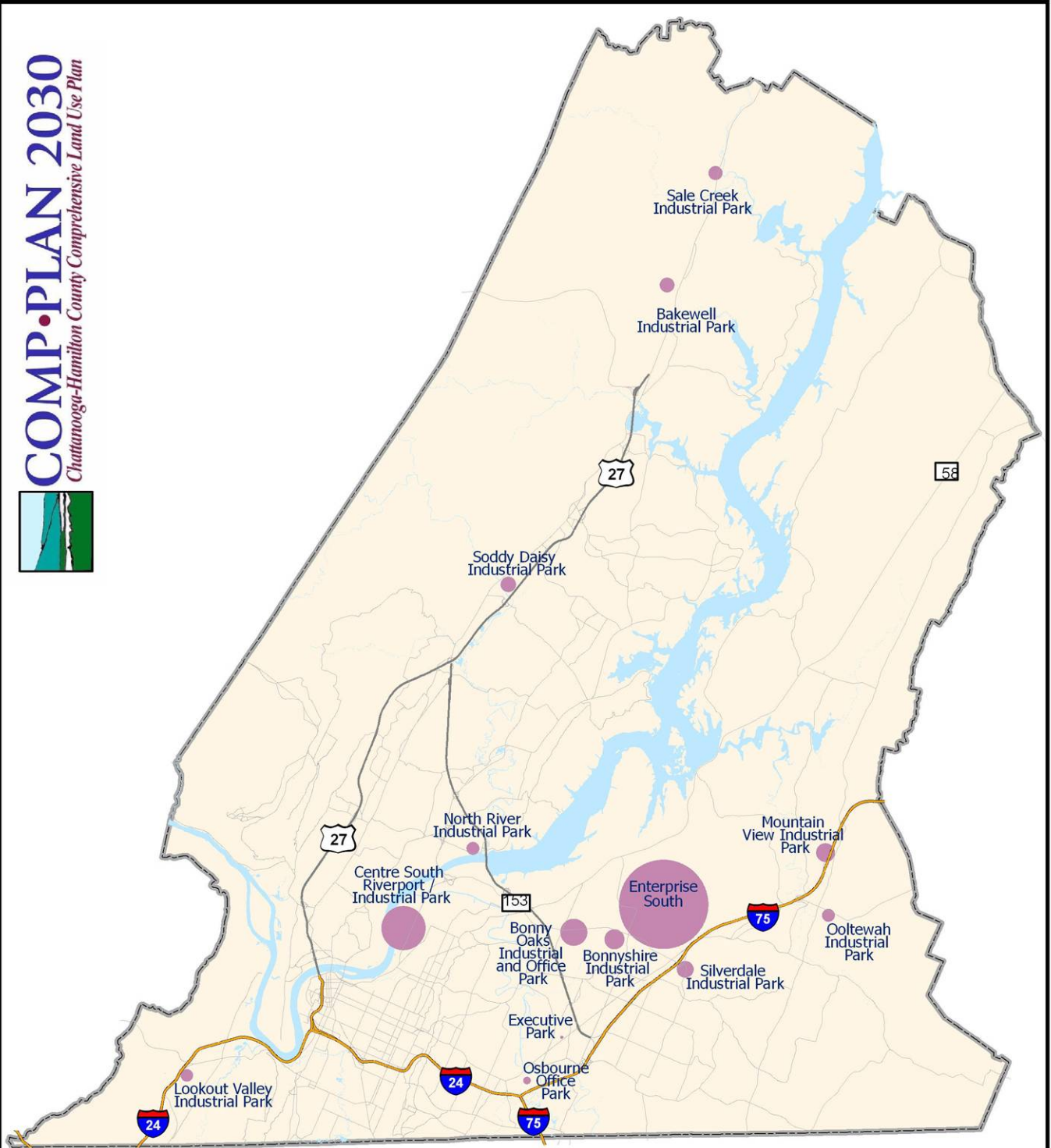
Employment Areas

Employment districts are large areas devoted to accommodating employment such as industrial, manufacturing, research and development, distribution, warehouse and wholesale, and office uses.



COMP·PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan



 Industrial & Office Parks

Hamilton County Generalized Employment Areas



There have been concerted efforts in this community by City and County government as well as the private sector to create opportunities here for new manufacturing development. A history and reputation of being a strong manufacturing community is part of our heritage from past generations. Hamilton County and Chattanooga will continue to encourage and welcome new manufacturing development of all types.

Employment districts should be reserved for high quality uses that generate high economic returns for the community and the region, with the primary purpose of providing jobs. These areas are specifically targeted by local government and private sector job development organizations that offer special incentives to attract large scale businesses with public improvements, tax incentives, expedited development review or other considerations. While *commercial* districts can accommodate substantial amounts of employment, they usually cannot accommodate sites for *all* types of employment.

Historically, older industrial districts were primarily manufacturing structures and/or sites that developed in close proximity to railroad lines. Older industrial/manufacturing areas had little or no parking areas for automobiles because most workers either walked or used public transportation to get to work. Manufacturing plants generally located within close proximity, or immediately adjacent, to residential areas which facilitated walking from home to work. It was not uncommon to find a corner store, barbershop, post office, and other personal or business service establishments within walking distance of industrial/manufacturing facilities. Industrial/manufacturing development in the late 19th and early 20th century was relegated to large tracts of land in within or very near the community. Examples of late 19th and early 20th century industrial developments include the former Standard Coosa Thatcher Mill, and the Buster Brown sites. Both of these industrial sites are still located within or immediately adjacent to residential neighborhoods and are really not conducive to modern industrial recruitment.

Unfortunately, the same characteristics of these older industrial sites that made them so well suited to the railroad era render them functionally obsolete today. Urban core locations on small sites make parking for today's automobile-dependent labor force in short supply or lacking altogether. Urban core locations are also less convenient for truck access, the transportation mode of choice for many industries today.



The increased use of heavy trucks led to the departure of many urban core industries to suburban locations just as the automobile led to the departure of downtown residents after World War II. Shipping by truck made it possible for many industries to cut their dependency on the railroad. In addition, the widespread use of the automobile enabled workers to move further away from industrial locations. Post World War II industrial operations favor large suburban tracts of land. Assembly line operations and modern methods of handling materials require expansive, single-story structures rather than the traditional pre-World War II traditional multi-story industrial structures. The need for more land area provided a push for existing industrial operations to move out of the urban areas and into the suburbs.

Industrial and manufacturing uses are generally concentrated within industrial parks; however, industrial and manufacturing uses not located within industrial parks do exist, mainly within the urban

and outer suburban areas. Industrial and manufacturing uses within the urban areas are concentrated along Riverfront Parkway, Manufacturers Road, and within the South Broad area. Industrial and manufacturing uses within the urban sector are also concentrated in the Centre South Industrial Park. In addition, small-scale industrial and manufacturing uses are dispersed throughout the urban area. Industrial and manufacturing uses in the inner and outer suburban areas are typically concentrated within industrial parks such as Lookout Valley, Bonny Oak Industrial and Office Park, Enterprise South, and the Soddy Daisy Industrial Park. In addition to the industrial and manufacturing uses, a concentrated area along Shallowford Road contains warehousing and distribution uses. Industrial and manufacturing uses within the transitional area are located within industrial parks such as Mountain View; Silverdale Industrial Park, Ooltewah Industrial Park. In addition, industrial and manufacturing uses are also concentrated within the corporate limits of Collegedale. Industrial and manufacturing uses within the rural areas are concentrated within the Sale Creek and Bakewell Industrial Parks.

Land currently devoted to manufacturing/industrial uses accounts for approximately 2.33 percent of the county's total parcel area, or 7,504 acres. Zoning for manufacturing/industrial, accounts for approximately 6.58 percent of county zoning, or approximately 21,176 acres. A review of the current land use and zoning for manufacturing and industrial uses indicates that the county has an abundant amount of manufacturing and industrial zoned land. Of the 21,176 acres of manufacturing and industrial zoned land, approximately 35 percent, or 7,504 acres are used as manufacturing and/or industrial sites. The remaining 13,672 acres, or approximately 65 percent of manufacturing and industrial zoned land is vacant or contains abandoned and vacated manufacturing/industrial structures.

The following categories describe the various types of manufacturing, warehousing and wholesale distribution, industrial and office districts that are present within the community.

Manufacturing, Warehouse and Wholesale Distribution Facilities-

This land use category is used to describe those establishments primarily engaged in the mechanical and chemical transformation of materials or substance into new products. Typical manufacturing, warehouse and wholesale distribution facilities include bulk storage, wholesale or bulk sale, and distribution facilities and related activities. Some offer retail sales of goods, which are extremely large, including tractor-trailer dealers, boat dealers, wholesalers, linen services, and solid fuel and ice dealers. Examples of warehouse and wholesale distribution facilities include those areas along Shallowford Road and within the South Broad area.



New manufacturing, warehouse and distribution facilities are generally one-story structures, including a mix of manufacturing plants, research and development laboratories, wholesaling, office-warehouses, and some office buildings. Because of infrastructure and operational impacts associated with some manufacturing, warehousing and distribution facilities, there are distinct benefits for these facilities to be located within existing or proposed industrial parks.

Some older manufacturing and warehouse facilities are functionally obsolete, multi-story structures, with limited parking and expansion areas. Older manufacturing/warehousing facilities were established in the era prior to the construction of interstates; therefore, older manufacturing facilities relied heavily upon rail lines. Environmental issues, lack of easy regional and truck accessibility, and difficulties in complying with modern fire codes hamper older industrial buildings and/or sites. As a result, many old industrial structures within the urban areas can no longer function for their intended purpose. The challenge is to find ways to revitalize or to rehabilitate these buildings and/or sites, such as the SCT Mill and Buster Brown area into uses that are compatible with and appropriate with adjacent

neighborhoods. There are areas within the urban sector where manufacturing uses are still in existence such as the area around Riverfront Parkway area and South Broad.

Industrial Parks- Industrial parks are defined as tracts of land that are planned, developed, and operated as an integrated facility for a number of individual industrial uses, with special attention to traffic circulation, parking, utility needs, aesthetics, and compatibility. Typical activities within industrial parks include light to heavy “non-hazardous” manufacturing, assembly, fabrication; and wholesaling and distribution. Industrial parks are classified into two categories or districts: light/high-tech industrial districts and heavy industrial districts. Generally, industrial parks contain only those uses that are industry-related or are compatible with industrial uses; however, some light/high-tech industrial parks may contain a mix of industrial uses and corporate offices. The Bonny Oak Industrial and Office Park is an example of a mixed-use corporate park. Mixed-use corporate parks are discussed in a separate category.

The most restrictive industrial park or district is the light/high-tech industrial district, generally restricted to land uses that involve the manufacturing, production, processing, fabrication, and storage of “non-hazardous” materials, research and development activities, warehousing/wholesaling, distribution, and office and administrative activities. In addition, certain commercial service related uses may be permitted within the light/high-tech industrial district such as banks, personal services, day-care centers, and laundry and dry cleaning establishments. The least restrictive industrial district is the heavy industrial district. Typical facilities within a heavy industrial district include steel plants, stockyards, foundries, chemical companies cement and concrete plants, and asphalt plants. Nationally, the average size of an industrial park is between 300 and 350 acres; however, industrial parks can be significantly larger based on the availability of suitable, vacant land, and the goals and preference of the community. The desire of some communities is to have as much acreage as possible devoted to industrial parks.

Industrial parks should be accessible from outlying service areas and near primary routes for shipping and receiving goods (highways, rail, and air). Good regional accessibility is essential for industrial parks because of the high volume of overall traffic generated by industrial uses and/or the high truck volume they may generate. Access to industrial parks should be by way of an arterial or major collector with easy accessibility to an interstate or freeway interchange. Individual sites located within industrial parks should be accessed from the local street network system within the industrial park. Adequate utilities, including electricity, gas, sources of processed water and specialized methods for disposal of industrial wastes should be considered as well.

The following industrial parks are managed by the Hamilton County Real Property Office, which serves as the real estate department for Hamilton County Government. Responsibilities include managing all sales and lease agreements for county-owned property, administrating the sale of industrial park property, and selling county-owned and jointly-owned (City/County) surplus property.

- Centre South Riverport/Industrial Park: The Centre South Industrial Park located on Amnicola Highway on the Tennessee River began development in early 1986. The park is comprised of 300 total acres with approximately 104 acres sold, with 90 remaining acres. The first company to locate within the park was NA Industries. The park is served by a 2,400 foot fleeting area for public use of the general cargo docks. Centre South is served by rail access from Norfolk Southern Railway. Each project that is constructed within the park is reviewed by the Hamilton County Development Review Committee to ensure that certain standards are met. As of June 2005, approximately 599,408 square feet of development has been constructed within the park, with a total employment of 299. The park has



generated approximately \$12 million in total taxes.

- Mountain View Industrial Park: Mountain View Industrial Park began in 1993. It is located on Mountain View Road north of Ooltewah High School. The park is comprised of 31 acres and is currently full. Each project that is constructed within the park is reviewed by the Hamilton County Development Review Committee to ensure that certain standards are met.

As of June 2005, approximately 205,000 square feet of development has been constructed within the park, with a total employment of 229. The park has generated \$892,000 in total taxes.

- Silverdale Industrial Park: The Silverdale Industrial Park located adjacent to the Hamilton County Nursing Home and Lane Funeral Home began development in 1997. The park is partly in the city and partly in the county. The park is comprised of 70 acres and is currently full. In 1997, U.S. Express purchased 30 acres within the park for the construction of their corporate headquarters. In 2005, U.S. Express purchased the remaining 40 acres to construct two additional buildings and smaller offices. Each project that is constructed within the park is reviewed by the Hamilton County Development Review Committee to ensure that certain standards are met.

As of June 2005, approximately 208,000 square feet of development, has been constructed within the park, with a total employment of 770. The proposed expansion will add an additional 50,000 square feet of development with 1,000 additional employees, bringing U.S. Express total employment to 1,770 employees. The park has generated \$1.3 million in total taxes. Interstate 75 (I-75) interchange at Bonny Oaks Drive has been redesigned to provide a connector road to facilitate traffic and growth of the area near Standifer Gap and Jenkins Road.

- Ooltewah Industrial Park: The Ooltewah Industrial Park located within Ooltewah adjacent to Main Street was the first industrial park developed by the Hamilton County Government in 1983. The park consists of 37 acres and is presently full.



As of June 2005, approximately 123,000 square feet of development has been constructed within the park, with a total employment of 221 employees. The park has generated \$1.2 million in total taxes.

- Soddy Daisy Industrial Park: The Soddy-Daisy Industrial Park is located within the corporate limits of Soddy Daisy. The park began development in 1982 and consists of 65 acres and is presently full.

As of June 2005, the Soddy Daisy Industrial Park has a total employment of 344 employees. The park has generated \$1.9 million in total taxes. The City of Soddy Daisy has handled all land sales.



- Lookout Valley Industrial Park: The Lookout Valley Industrial Park is located between Interstate 24 (I-24), Birmingham Highway, and Wauhatchie Pike. Tenants within the park involve warehousing and distribution, while others are more manufacturing in nature.

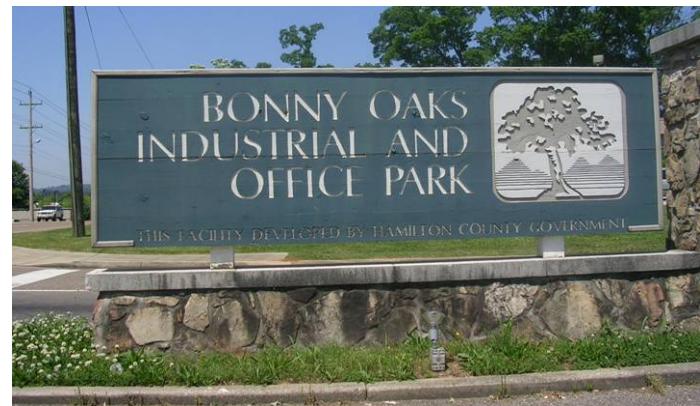
- Enterprise South Industrial Park: Enterprise South, formerly known as the Volunteer Army Ammunition Plant (VAAP) adjacent to Bonny Oaks and Interstate 75, began development in 2002. The park contains 1,600, developable acres surrounded by a 2,800 acre recreational buffer to the east and 128 acre buffer to the west. A total of 21.57 acres have been sold or leased for development, with a total of 1,178 remaining acres for development.



As of June 2005, approximately 177,000 square feet of development has been constructed, with a total employment of 32 employees. The strategy for the entire site is to attract major industrial companies and to incorporate a variety of industrial and business tracts into a planned industrial development park. Currently, an interchange from I-75 that will lead directly to the park is under construction with a completion date of December 2006.

The Enterprise South Industrial Park was recently certified as a mega-site by Tennessee Valley Authority (TVA) Officials. The mega-site certification states that Enterprise South property is suitable for a major automotive manufacturer. The mega-site certification is the first certification site in Tennessee. Minimum criteria for certification included land availability, transportation access, labor capacity, and acreage of at least 700 to 1,000 contiguous acres. Enterprise South's proximity to I-75 and other major transportation facilities as well as availability of on-site rail and all public utilities makes Enterprise South a premier economic development site.

- Bonny Oaks Industrial and Office Park: The Bonny Oaks Industrial and Office Park is located off of Jersey Pike and Bonny Oaks is primarily a distribution/light industry park developed in a campus like setting. Each project that is constructed within the park is reviewed by the Hamilton County Development Review Committee to ensure that certain standards are met.



Tenants within the park specialize in warehousing, customer services, and light manufacturing. Park tenants are internationally, nationally, and local known companies such as Federal Express, UPS, DHL, Frito-Lay, Brock Candy Company, Regis Corporation, Keno Group, ThyssenKrupp Elevator, Trane Company, Walter Champion, Haisten Group, and Sexton Construction Company. UPS was the first tenant to buy property in the park in 1986.

The park began development in the early 1980's and has a total acreage of 313 acres with 199 acres being sold with no available acreage for development. Remaining park acreage consists of the following: 42 acre buffer; 19.41 acre detention; 21.18 acres used by the county; and 22.25 acres for roads. The park contains a preservation area in the center of the industrial park. The preservation area is set-aside as green space, which includes a small park, landscaping, water fountain, and historical markers. The old Bonny Oaks School Administration building was renovated by the Hamilton County Government to become the Agriculture Service Center. Private investment in the park is over \$73 million with development of over 1,902,436 square feet of building construction, with a total employment of 2,290 employees. The park has generated over \$13 million in total taxes.

Office Parks- Office Parks are planned concentrations of office development, having interconnected internal street networks and shared open spaces. The individual buildings are sited so that they relate well to one another, and are of compatible design and materials. The predominant uses within office parks are large and mid-sized corporate offices, as well as office space for smaller firms and research and development offices. Large office parks should generally contain certain types of commercial or support services that cater to office workers, such as eating establishments, office supplies stores, reproduction services, convenience stores, and lodging. Osborne Park and Executive Park are examples of office parks.

Typically office parks are developed in a corporate campus-like setting with generous, linked open space to promote visual quality and compatibility with the surrounding area. Office parks have an average size of 50 acres; however, much like industrial parks, the size of office parks depends on the availability of suitable, vacant land, and the goals and preferences of the community. Office parks are more flexible in their locational requirements than industrial or retail activities. Good accessibility to office parks is essential because of the high volume of overall traffic generated by office parks. Office parks should have direct access to an arterial classified street. Office parks benefit greatly from being served by locations that are or will be accessible by public transportation. Access to individual sites within the office park should be from the local street network system within the office park.



Mixed-Use Corporate Parks- Mixed-use corporate parks are intended for large tracts of undeveloped land that is appropriate for well planned, larger scale business/employment parks. Typical uses include offices, technology research and development facilities, light manufacturing distribution facilities, assembly, and small scale retail. Lodging is also encouraged within some corporate parks. Mixed-use corporate parks are developed in a campus like setting with generous, linked open space to maximize value and to promote visual quality and compatibility with the surrounding area. Pedestrian-friendly features such as buildings placed near the street, sidewalks, and walking trails leading to nearby uses such as retail should be encouraged. Bonny Oaks Industrial and Executive Park are examples of a mixed-use corporate park.

Good accessibility to mixed-use corporate parks is essential because of the high volume of overall traffic they generate. Mixed-use corporate parks typically have direct access to an arterial street. They can benefit greatly from being served by locations that are or will be accessible by public transportation. Individual sites within the mixed-use corporate park are usually accessed from an internal street network system.

Business Goals

To adequately plan and accommodate growth during the 25-year planning period, it is necessary to establish general development goals and policies. The goals, policies, and action steps outlined below should serve as a general guide for the future development of Hamilton County

Goal: Create community-sensitive business development.

Policy: Development should integrate with desired existing character and form (scale, connectivity, and buffering).

Action: Review and re-evaluate definitions of, and criteria for, various scale and intensity level of retail developments and shopping centers.

Policy: In order to provide sufficient flexibility to meet the needs of various types of business activities that are similar and/or complementary, mixed-use or multi-use activity centers should be encouraged.

Activity centers promote an efficient, viable and orderly use of land and infrastructure.

Action: Define various scales and intensity levels of mixed-use or multi-use activity centers. The scale and intensity level of these activity centers should be appropriate for the population and area they serve such as neighborhood, community, and regional scaled activity centers.

Action: Identify appropriate locations for future mixed-use, or multi-use neighborhood, community, and regional scale activity centers.

Action: Identify appropriate locations for rural commercial development. Rural commercial development should be of a scale and intensity level that is consistent with the population and area it serves.

Action: Identify appropriate locations in future neighborhood land use plans to support new industrial, office, and commercial development.

Policy: New industries that adjoin existing residential uses should provide and maintain adequate screening and buffering. New residential development moving into an area adjoining an existing industrial use should have the burden of providing its own screening and buffering.

Policy: New industries located along major thoroughfares should provide landscaping that enhances the overall image of the development. New industries not located along major thoroughfares should be encouraged to provide landscaping material consistent with their location.

Policy: Employment and commercial developments should contribute aesthetically to a positive sense of place that respects cultural identity and the natural environment.

Policy: Encourage commercial development to preserve and enhance natural features such as vegetation, wildlife, waterways, wetlands, topography, and scenic views.

Policy: Continue to encourage appropriate landscaping in and the reconfiguration of, large unlandscaped parking areas.

Policy: Introduce landscaping and pedestrian walkways into larger parking areas to soften the impact of the automobile dominant environment created by commercial strip centers.

Pedestrian walkways located in parking area median dividers can get people out of driving lanes and onto shaded walkways.

Action: Periodically review the landscape ordinance for effectiveness and areas of possible amendment.

Goal: Provide for a variety of business development opportunities.

Industrial

Policy: Maintain a strong and viable industrial/manufacturing sector.

Policy: Continue to promote and attract high-tech and other industries that are appropriate and desirable for Hamilton County and its municipalities.

Policy: Continue to invest in and identify appropriate sites for the location of new industrial parks as well as the expansion of existing industrial parks where deemed necessary and appropriate.

Policy: Promote economic development by ensuring that adequate zoning and infrastructure is in place for new industrial/manufacturing development, and/or the expansion of existing industry/manufacturing.

Action: To ensure the appropriate distribution of manufacturing and warehouse/distribution opportunities within the county, continue to review and monitor the amount of land and zoning devoted to such uses.

Action: Review the industrial zoning district regulations relating to the establishment or expansion of industries so that they are compatible with the public health, safety, and welfare, and promote the economic prosperity of existing and future businesses.

Action: Review the industrial zoning district regulations for possible amendments to permit accessory uses such as; day care centers, personal service establishments, and eating establishments designed to serve on-site employees.

Action: Recommend continued investment in infrastructure improvements and expansions where deemed necessary and appropriate for economic development.

Policy: New and expanding industries and businesses shall be encouraged which: (1) are compatible with the long term quality of life of the area's natural and cultural resources; (2) match up well with the area's infrastructure and services; and (3) employ and develop the skills of area workers.

Policy: Brownfield sites and underutilized/abandoned properties and buildings should be identified and funding pursued to expedite opportunities for development.

Action: Work with local government to assist appropriate groups in using and understanding the Brownfield's Redevelopment Program to encourage redevelopment of areas with real and/or perceived environmental contamination.

Policy: New industrial parks should have access from major arterial classified streets with easy access to interstate/freeway system. Every attempt should be made to avoid access for industrial parks through residential areas.

Re-Use and Rehabilitation

Policy: Encourage and support growth within areas already prepped for business development.

Policy: Large-scale office park developments and research and development facilities are encouraged to locate within existing or proposed office or office/industrial parks.

Policy: Professional and administrative offices should be encouraged to locate within or adjacent to existing or proposed mixed-use or multi-use activity centers.

Policy: Property already zoned for commercial development should be considered before rezoning additional property for commercial use.

Future economic development can be concentrated in existing commercial areas. This concentration can help maintain and strengthen those areas and also promote efficient and orderly growth that minimizes impacts and service expansions costs.

Policy: Underutilized, vacant employment and commercial development areas should be preserved, reused, revitalized, or rehabilitated.

Policy: Strip commercial developments, vacant and abandoned big-box stores, and vacant warehouse/manufacturing developments should be revitalized or redeveloped into uses that are compatible with adjacent land uses.

Redevelopment or revitalization of existing developments/structures makes use of existing infrastructure and brings jobs and needed services to adjoining neighborhoods that have possibly experienced a decline due to the abandonment or underutilization of warehouse/manufacturing structures and/or big-box stores.

Action: Recommend all local governments be an active participant, facilitator, and partner in the revitalization, rehabilitation, or adaptive reuse of vacant warehouse/manufacturing structures, and big-box stores.

Abandoned warehouse/manufacturing structures may be converted into residential uses; others may be adaptable for office, institutional uses, or retail developments. Some may best work as a mixture of uses such as retail, office and residential uses located together in a single structure or location. New structures may be built in a way that easily facilitates re-use.

Action: Research and explore the possibility of revisions to zoning ordinance, permitting process, and other applicable policies, codes, and design guidelines to encourage the revitalization or the retrofitting of existing and

underutilized activity centers, and strip commercial developments into mixed-use or multi-use activity centers.

Retrofitting commercial strip centers through a redesign plan could gradually transform strip centers into mixed-use or multi-use activity centers that are pedestrian friendly.

Policy: **Infill development should be designed in such a way that is sensitive to adjacent uses.**

Action: *Create appropriate infill development guidelines.*

Action: *Explore the option of providing incentives for the reintroduction of neighborhood businesses and services into underserved, older neighborhoods (assistance with market studies, site assembly, environmental clearances, business capital investment, employee training, etc).*

Policy: **Encourage urban infill development to locate across the front of existing parking lots that front major thoroughfares.**

Excess parking lots within strip commercial shopping centers afford an opportunity to place new commercial buildings along the street face; thereby, providing a sense of place to the street and visually containing off-street parking to the interior of the building cluster.

Mixed-Use and Multi-Use

Policy: **Encourage the development of mixed-use or multi-use activity centers that are lively and attractive, pedestrian oriented with a human scale.**

Policy: **Encourage pedestrian travel to and within commercial developments.**

Action: *Establish guidelines that encourage safe and attractive walkways, close groupings of stores and offices, structured and underground parking to reduce walking distances and provide overhead weather protection, and placement of off-street parking to the rear or to the side of structures to maximize pedestrian access from sidewalks.*

Policy: **Encourage the consolidation of curb cuts onto major thoroughfares and encourage the connection of adjacent parking lots.**

The number of curb cuts entering a major thoroughfare has a direct impact on the ability of the street to move traffic. The consolidation of curb cuts is one method to improve traffic movement along major thoroughfares. This can be as simple as a single business replacing the existing apron of extra driveway with a vertical curb. In other cases it may call for businesses working together to share a common driveway.

It is important to reduce turning movements onto major thoroughfares by encouraging adjoining businesses to connect their parking lots. This connection allows consumers the ability to travel from establishment to establishment without having to enter the major thoroughfare.

Policy: Employment centers should provide an array of amenities on-site for employees such as walking trails and eating areas.

Policy: Explore options of phasing out signage clutter along major thoroughfares, as well as, encouraging businesses to replace existing, non-conforming signage with more attractive, conforming signage.

Policy: Bicycle and pedestrian access to existing and new commercial development areas should be encouraged.

Policy: Ensure appropriate tools are available to enable residential to locate within mixed-use or multi-use activity centers.

Diversity

Policy: Encourage diverse business and employment opportunities.

Policy: Continue to encourage and promote the development of entrepreneurial activity and business start up of small locally-owned businesses by continuing to staff and manage Chattanooga-Hamilton County Business Development Center.

Policy: Encourage minority and women-owned businesses.

These efforts include:

- Facilitating access to affordable capital.
- Providing technical and management assistance.
- Matching minority businesses with private and public sector purchasers of goods and services.
- Promoting networking opportunities.
- Preparing marketing and promotional packages.

Policy: Hamilton County and its municipalities should attract a multitude of industries so that the cities and county are not entirely dependent upon any single employer or employment sector.

Goal: Provide for new economic development opportunities.

Policy: Maintain and expand upon existing partnerships with public/private partnerships, economic development departments, municipalities, and agencies.

Expanding partnerships among governmental agencies, economic development organizations, and private sector businesses is essential to achieving economic development. The city and county should play a role in promoting economic development by making sure adequate zoning and infrastructure is in place, expediting the review and approval process, and providing financial incentives.

Action: Recommend that all local governments provide needed assistance to:

- *Adult education/worker training (build on efforts of the Chattanooga Chamber of Commerce).*
- *Small business development (build on current efforts of the Chattanooga Business Incubator).*
- *University related research and development opportunities with UTC and Chattanooga State Technical Community College.*
- *Retention of young persons and college graduates in the community (sponsoring job matching and career placement programs to make young persons aware of the opportunities).*

Policy: Continue to encourage and support the efforts of the Chattanooga Area Convention and Visitors Bureau to strengthen the area economy by expanding upon convention and tourism activities.

Policy: Encourage economic development by continuing to invest in infrastructure and services that sustain and enhance the area’s already high quality of life, image, and cultural identity.

Policy: The Chattanooga Chamber of Commerce and other appropriate departments should continue to provide for increased training and employment opportunities for those segments that experience constant unemployment.

Goal: Increase citizen access to high quality jobs.

Policy: Continue to promote economic investment activities that provide financial incentives for business expansion and development that creates livable wage jobs in low-income neighborhoods through the Renewal Community tax initiative program.

Policy: The City of Chattanooga should use available resources and training to make sure that lower income residents have needed skills to get and retain jobs, such as the Workforce Development Program offered through the Chamber of Commerce.

Policy: Continue to encourage the development of high-quality public education, higher education, and training opportunities, and promote enhanced relationships between the business community, universities, and the public school system to address workforce needs.

Natural Environment

Natural Environment Analysis

This component provides basic background of the natural environment and examines the current state of Hamilton County's natural resources. Discussion on the interactions of the built and natural environments is provided as well as recommendations to minimize negative short- and long-term implications of those interactions.

The natural environment is not only a visually apparent physical characteristic in which people live, it is everything that exists amongst and outside the built environment. It represents the functioning system of nature. Nature is comprised of air, soil including rocks and minerals, water, and living beings. All plants and animals, including man, need healthy air, soil, and water to grow and prosper. For man, each of these necessities is valued as a natural resource from which specific commodities and/or amenities may be derived.



The air we breathe may well be the resource most taken for granted, but in recent years it has gained national attention due to increased concentrations of pollutants released from automobiles, industries, and coal-fired power plants. The Environmental Protection Agency (EPA) cited that between 1980 and 1997 total vehicle miles traveled (VMT) in the U.S. increased 63%. This increase indicates that the rate of growth in VMT has exceeded the rate of population growth significantly over the last decade. Increases in vehicular travel have negatively affected the environment in numerous ways. Growth in single-occupancy vehicular travel degrades air quality, impairs water quality, and increases traffic noise. The rise in air pollutants and new air quality standards for such pollutants implemented by the EPA has had noticeable impacts on the nation's new industries and direction in transportation efforts. Local industries are turning to innovative technology with little or no pollutant emissions and transportation planning is re-evaluating mass transit options and promoting more pedestrian and bicycle facilities with better connectivity.

Water, though seemingly abundant and clean, is becoming increasingly threatened as indicated in many states' groundwater and stream quality reports. Humans rely on aquifers, groundwater, rivers and rain to yield an unlimited supply of water for an array of purposes from necessity, such as potable public drinking water, to recreation opportunities such as fishing and boating. In addition, water is a unique resource because when it accumulates it demands infrastructure and maintenance. Such demands require capital improvements and planning for both waste water and stormwater run-off.

Stormwater Runoff: *Water and associated material that drains into streams, lakes, or storm drains as the result of heavy rains or storm events.*

Stormwater runoff has been identified as one of the major contributors to ongoing water quality problems in the United States (EPA Report: Our Built and Natural Environments, A Technical Review

of the Interactions between Land Use, Transportation, and Environmental Quality). Also noted in the same report was a citation from the Water Quality Inventory: 1996 Report to Congress identifying impacts of increased imperviousness due to development on rivers across the U.S. Two reported impacts having local significance were:

- 36% of the total river miles recently assessed by states are still impaired, with urban runoff causing about 12% of the problem
- 39% of assessed lake acres are impaired with urban runoff causing 21% of the impairment



Impervious Surface: Any non-permeable surface including but not limited to roads, parking lots, rooftops, and sidewalks.

Soil is the foundation of land upon which humans can farm, build homes and businesses, and enjoy recreation and wildlife. Land is also considered a commodity in which money can be invested. A variety of soils and habitats can provide the opportunity for viewing unique mountainous scenery, prime farming, diverse wildlife interaction from forests to wetlands, and development. As a commodity, land sales are driven by the real estate market. The market for vacant lands considers the availability of urban services including infrastructure, waste removal, and alternative transportation choices in addition to proximity of economic activity - the more public services and the closer the business activity, the higher the price of the land. Due in large part to this service-driven market and the decline of agricultural production during the 1970's, the amount of land used for farming has been decreasing since the 1960s. "Since 1967 an average of 1.5 million acres of farmland have been converted to other uses each year" as calculated by the United States Department of Agriculture (USDA) and acknowledged by the USDA Secretary in a report to the United States Senate Committee on Agriculture, Nutrition, and Forestry July 21, 1999 then again by the Associate Chief of the Natural Resources Conservation Service September 18, 2000. Due to the separation of farm lands from urban services, abandoned farm land is cheaper thus resulting in a majority of use conversions to housing developments. According to recent studies, population growth is not keeping pace with this new

housing trend, but as vacant farm and forested lands diminish, residents seek areas even further from urbanization to live amidst scenic beauty and natural amenities. This development pattern makes it increasingly difficult to conserve and/or protect such desired scenic



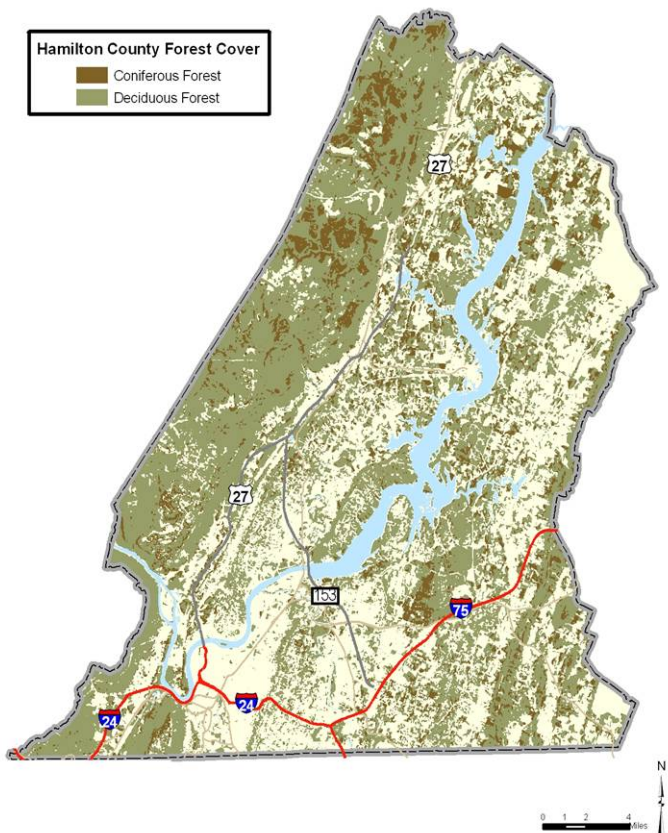
character of the nation's communities. This character includes wildlife habitats, outdoor recreation destinations, and rural/country farm lands. In 2002 the United States enacted Farm Bill 2002 to place emphasis "on the conservation of working lands, ensuring that land remain both healthy and productive". Tennessee was among the 11 states listed by the USDA in March 2005 to offer the Small-Scale/Limited Resource Farmers Initiative focused on helping "to better serve small farmers who play an important role in ensuring a safe, abundant and affordable food supply, while conserving land". These efforts, while improving farm practice across the nation, may not improve efforts of open space/rural character protection in counties not relying on farm production as a major contributor to their economy. Protection of these natural and scenic areas may best be accomplished through the coordination of local non-profit land trusts, planning agencies, and jurisdictional stormwater and zoning codes when applicable.

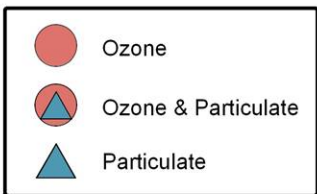
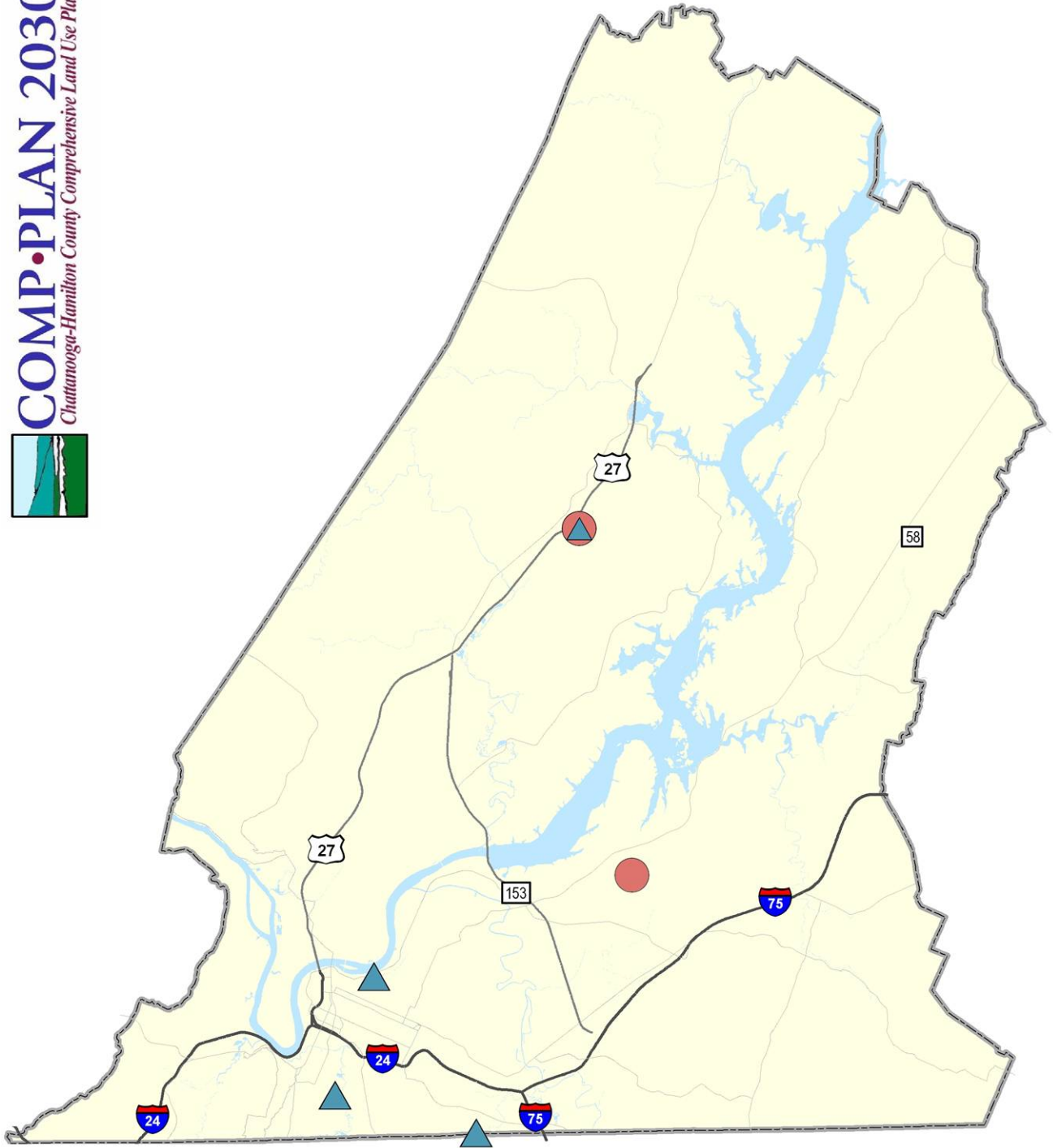
People often consider air, water, and land as infinite resources, but *clean* air and *clean* water as well as the availability of uncontaminated land could be finite. Dependent on the manner in which these resources are managed in the future, their quality, quantity, and availability may be surprisingly limited. Non-renewable resources have been studied on a global scale to determine their capacity to support the various products and activities of societies across the world. Even with such knowledge of these declining resources, differing scientific data of future capacities are debated at national levels therefore making it increasingly difficult to assess at the local level. Resource management, though controversial, provides the opportunity to explore creative planning efforts which seek to protect the natural environment while improving investment quality for both residents and entrepreneurs.

Assessment

Several mountains, numerous aquatic areas, and mixed deciduous and coniferous forests comprise Hamilton County's natural resources. Approximately half of those resources are comprised of forested mountainous terrain consisting of 15% or greater slopes (see Forests & Slopes Map). Many of these slopes are currently protected by the State of Tennessee or local non-profit organizations. In addition, the Tennessee River and groundwater recharge areas account for another fourth of those resources and serve as sources for Hamilton County's potable water supply (see Water Features Map in the County Profile section).

Air - In 2004 Hamilton County was, along with several other counties in the state of Tennessee, designated non-Attainment by the Environmental Protection Agency (EPA) for particulate pollution. At the same time, the county entered an Early Action Compact agreement to reduce ozone emissions threatening an additional non-attainment designation in 2005 (See Air Quality Map on next page). The county immediately underwent conformity measures for the particulate emissions and has developed plans under the Early Action Compact to reduce ozone levels for compliance by 2007. Detailed plans and programs related to air quality conformity can be obtained from the Chattanooga-Hamilton County Air Pollution Control Bureau.





Air Quality Monitoring



Non-Attainment: Areas of the country where air pollution levels persistently exceed the national ambient air quality standards.

Particulate Pollution: Air pollutants called particulate matter include dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Fine particulate matter is classified as particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM_{2.5}). Studies have shown significant associations between exposure to PM_{2.5} and premature death from heart or lung disease. Fine particles can also aggravate heart and lung diseases and have been linked to effects such as cardiovascular symptoms, cardiac arrhythmias, heart attacks, respiratory symptoms, asthma attacks, and bronchitis.



Ozone Pollution: Ozone (O₃), a photochemical oxidant and the major component of smog, is the result of complex chemical reactions between precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) in the presence of sunlight. While O₃ in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O₃ at ground level are a major health and environmental concern. O₃ is not emitted directly into the air but is formed through reactions between compounds within the air.

Water- Hamilton County residents rely on ground water and surface water as their primary drinking water sources. Certain land uses can contaminate groundwater recharge areas and pollute surface water sources such as rivers (see Watershed map). The Environmental Protection Agency, the Tennessee Department of Environment and Conservation, Division of Water Supply and the

Tennessee Association of Utility Districts provide further assistance in ensuring the safety of these water sources.

Regulations are often enacted to ensure the protection of watersheds surrounding current or potential drinking water sources. Other tools are available for managing the land around public utility wells to protect them from contamination. These options include adoption of zoning restrictions or ordinances, development of contamination contingency plans, working with facilities within the county to minimize potential pollution problems, purchasing property around its wells and conducting public educational programs.

Current protection methods for these water resources include local ordinances, utility districts' water source protection and education programs, state and federally owned or managed properties, conservation easements, deed restricted properties owned or managed by non-profit organizations, and some local government programs such as community outreach and education. A listing of organizations is provided in the Appendices. However, despite these existing protection efforts, attaining clean air and water are major environmental concerns in Hamilton County. Proactive attention to these resources now is essential to successful economic growth in the future.

Land- Hamilton County is topographically divided into 19 sub-watersheds of the Chickamauga and Nickajack Lakes Watershed (extending north beyond Hamilton County) part of the larger Tennessee River Basin (extending throughout much of the State) as documented by the United States Geological Survey (USGS) and supported by the State of Tennessee Department of Environment and Conservation (TDEC). These subwatersheds naturally contribute to three major groundwater recharge areas (see Watershed map on next page). Watersheds, because of their physical shape and composition, naturally filter, absorb, and direct water to rivers, streams, lakes, and/or other naturally occurring bodies of water. Land development patterns and disturbance can dramatically affect water quality and drainage patterns in a watershed.

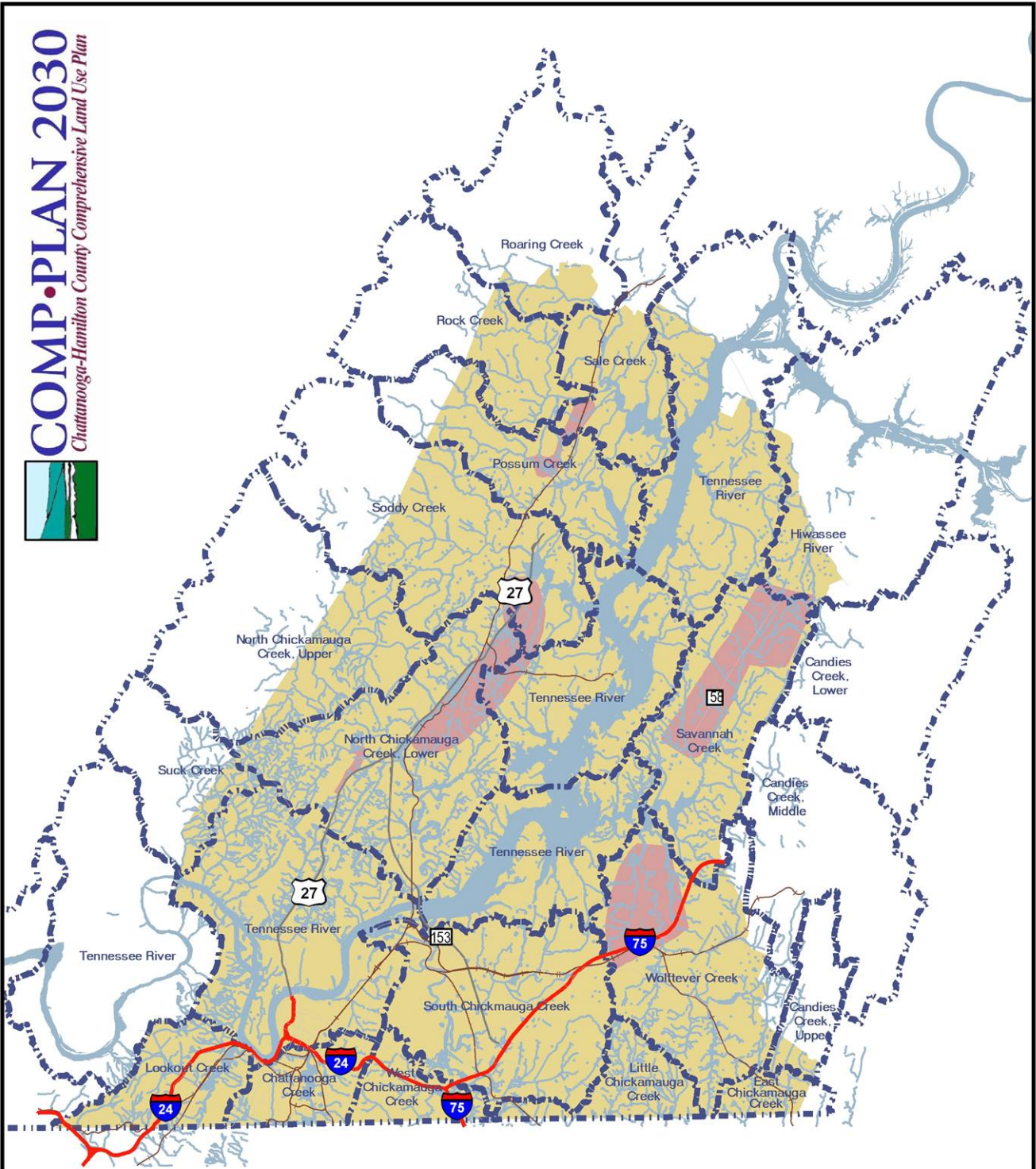
Watershed: *The area or region from which water drains into a river, river system, or other body of water.*

Local Case Study:

Impact of past mining operations in the North Chickamauga Creek Watersheds has degraded North Chickamauga Creek to "non-supporting" criteria under Tennessee's 303d List of Impaired Streams. Following extensive research by the Tennessee Department of Environment and Conservation (TDEC) in conjunction with the University of Tennessee at Chattanooga, findings indicate low pH levels resulting from nearby abandoned mines and hydromodification (alteration of the naturally occurring properties of water) resulting in extremely poor water quality and substantial habitat alteration. As of 17 March 2005, the combined North Chickamauga Creek subwatersheds were approved for acid pollutant discharge restrictions by the Environmental Protection Agency. These restrictions are referred to as a Total Maximum Daily Load (TMDL) regulation. Fortunately in this case, passive reclamation measures are probable and procedures from other similar situations have proved successful. More information on TMDLs for the State of Tennessee can be found at <http://www.state.tn.us/environment/wpc/tmdl/program.php>.

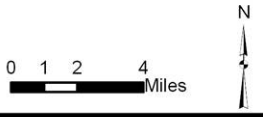
COMP•PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan



	Watershed Boundaries
	Approximate Areas of Recharge
	Hamilton County

Hamilton County Watersheds



303d List: is a compilation of the streams and lakes in Tennessee that are “water quality limited” or are expected to fall short of safe water quality standards in the next two years and need pollution controls.

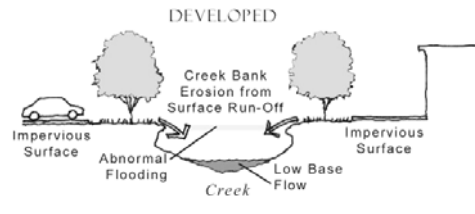
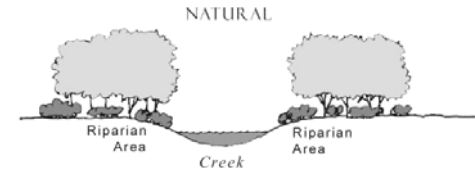
Hydromodification: *the alteration of the naturally occurring properties of water.*

In addition, land development such as buildings, driveways, parking lots, new roads and widened roads can rapidly increase the ratio of impervious to pervious surface area within a particular watershed. Impervious surfaces increase the rate and volume of stormwater run-off and carry pollutants such as petroleum products, metals, and debris directly to rivers and streams. When impervious areas are separated by grass strips, yards, landscape areas, and/or vegetated culverts and riparian buffers, filtration occurs whereby removing some or all of the pollutants prior to entry and accumulation into rivers, creeks, and streams. In 1999, the Regional Planning Agency (RPA) facilitated a workgroup referred to as the Resource Management Task Force¹ to, in addition to other tasks, define and evaluate the effects of impervious coverage in a watershed. The Task Force reported that “as the imperviousness [of a sub-watershed] increases beyond 10-15% the stream becomes impacted. Fish and aquatic insect species (food for many fish, amphibians, and birds) are lost, as the temperatures increase and stream channels become unstable”. It was also noted that “above 25% impervious coverage, most if not all fish are gone, stream channels are very unstable [erosion results] and pollutant loadings have increased to levels that threaten any downstream lakes”.

To assist local governments in monitoring water quality, the TDEC conducts routine sampling and presents a 305b Water Quality Report. This report specifies that Tennessee water bodies are either “fully supporting”, “partially supporting”, or “not supporting” of its designated use. If a water body is designated as impaired, not fully meeting the designated use, it will then be listed in a supplementary 303d List report of impaired waters in Tennessee. As of September 2004, Hamilton County has 18 water bodies or segments listed. This totals approximately 130 miles of impaired waters resulting from various State named pollutants/causes including, but not limited to, pathogens, siltation, dioxins, acidity, pesticides, and temperature. The 303d List also designates streams in need of restriction for Total Maximum Daily Load; these are classified as Category 5. All 130 miles of impaired streams in Hamilton County are listed as Category 5 with segments of Chattanooga

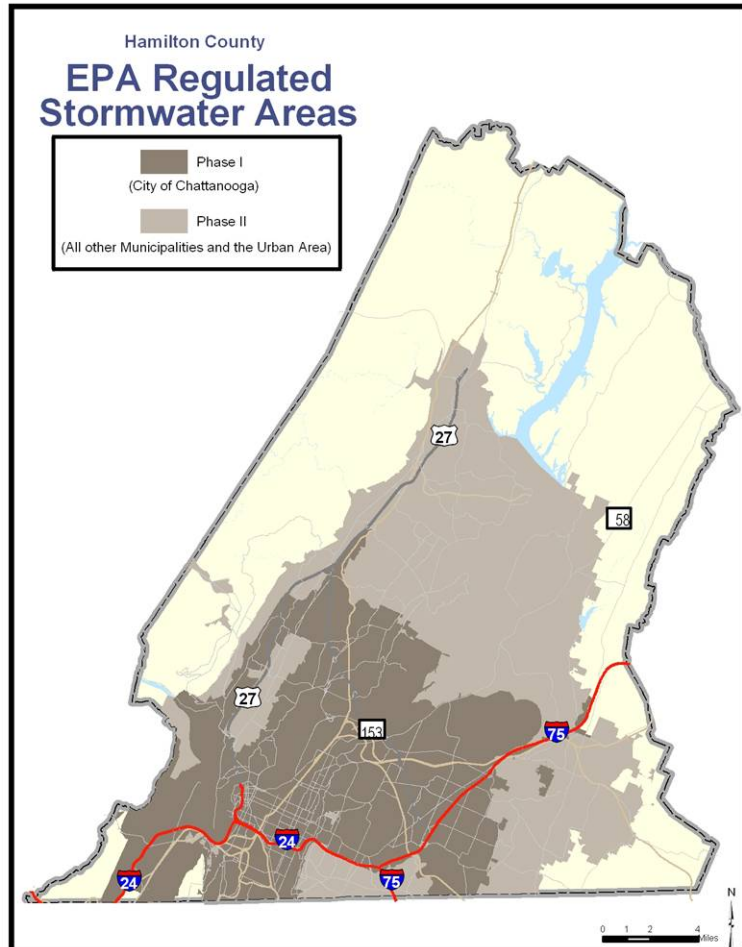
Riparian Buffer: an area of trees, shrubs, or herbaceous vegetation adjacent to or upslope from surface water bodies that:

- Intercepts non-point source pollution in shallow ground water and surface run-off.
- Controls the physical and chemical environment of adjacent aquatic ecosystems.



Creek, Citico Creek, McFarland Springs Branch, and South Chickamauga Creek being priority recommendations for TMDL regulation. (See Impaired Waterbodies on next page).

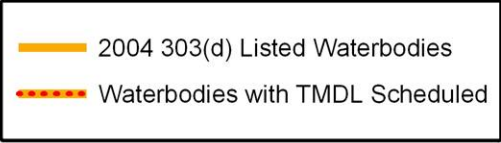
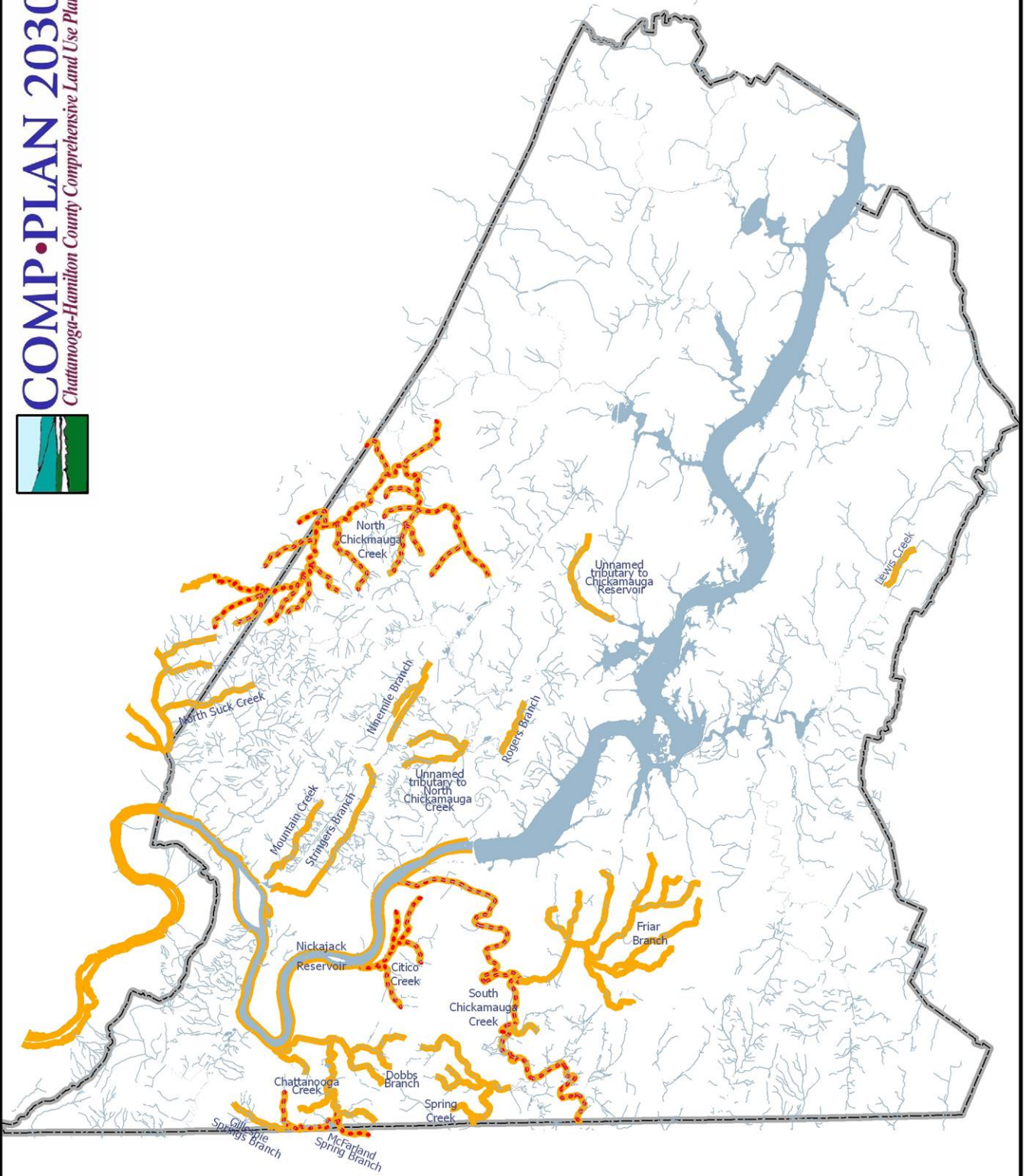
The City of Chattanooga is going a step further to minimize water pollution and more adequately address stormwater issues. In March of 2005, the Department of Public Works Stormwater Management Division completed a Comprehensive Stormwater Pilot Master Plan for North Chickamauga Creek Watershed. This document reflects an effort to reevaluate the existing methods for stormwater management by providing a proposal for a “comprehensive watershed plan to provide an implementation guideline to prevent or reduce long-term impacts at the watershed scale”. The document also cites the possibility of specific follow-up studies for example one which would examine the “effects of current and future land uses on stream quality at sub-watershed level”. Chattanooga also has plans to complete a Watershed Master Plan for Citico Creek. Although this will be an important step in restoring and maintaining healthy waters in Hamilton County, efforts throughout the county have yet to be identified. Detailed stormwater programming for the 2002 Phase II stormwater designations by EPA are expected to take shape in late 2005. Those designated include the unincorporated county and municipalities of Collegedale, East Ridge, Lakesite, Lookout Mountain, Red Bank, Ridgeside, Signal Mountain, Soddy Daisy and Walden. While the Towns of Signal Mountain and Walden are actively managing these new requirements through their own programs, the remaining seven have partnered to create the Hamilton County Storm Water Pollution Control Program. As specified by the EPA, the county designees must meet Phase II requirements only for the urbanized portions, whereas municipalities must meet requirements for entire city bounds. Signal Mountain and Walden have stormwater review boards and promote EPA Best Management Practices (BMP), education, and implementation. The City of Chattanooga is not mentioned here as it already operates under previously designated 1990 Phase I requirements. In addition to these stormwater quality improvements, responsibly managing floodplains and slope lands will be crucial to delisting the 130 miles of Hamilton County water resources over the next several years.



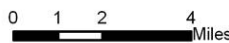
Impervious surface is not the only contributor to increased stormwater run-off and pollutant loading. Alteration of slopes can significantly increase the amount and velocity of stormwater. This run-off can cause unexpected flooding, septic tank intrusion, severe erosion, and stream channel alteration. Such increased speed and volume also carries exposed soil, sediment, and pollutants down the slopes into streams causing sedimentation and damage to aquatic life and habitat.



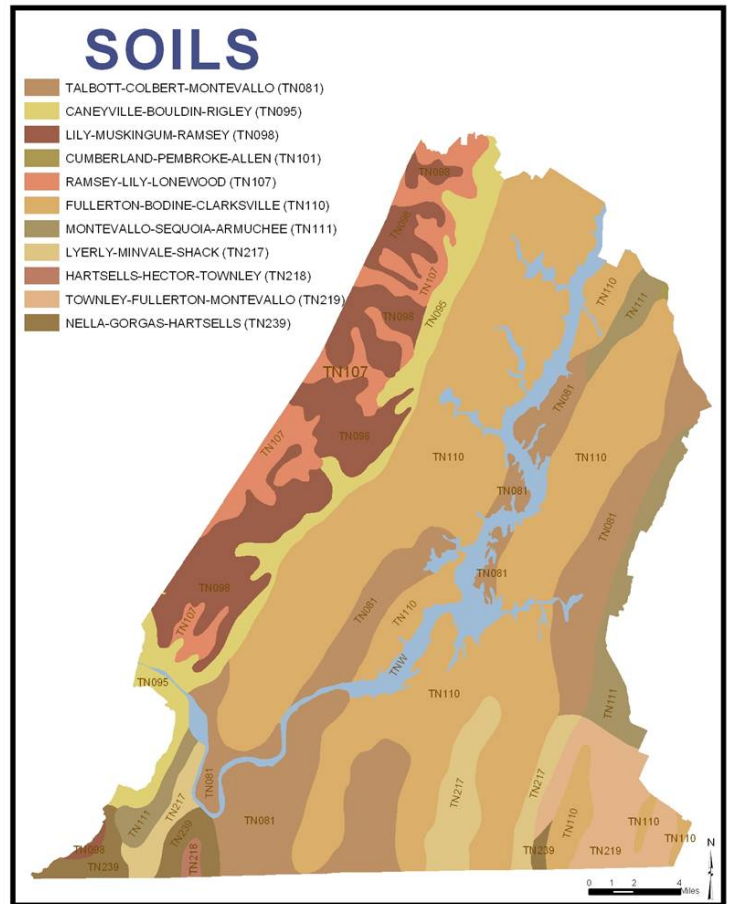
*Not Mapped: North Market Street Branch and a portions of North Chickamauga Creek



Hamilton County Impaired Waterbodies

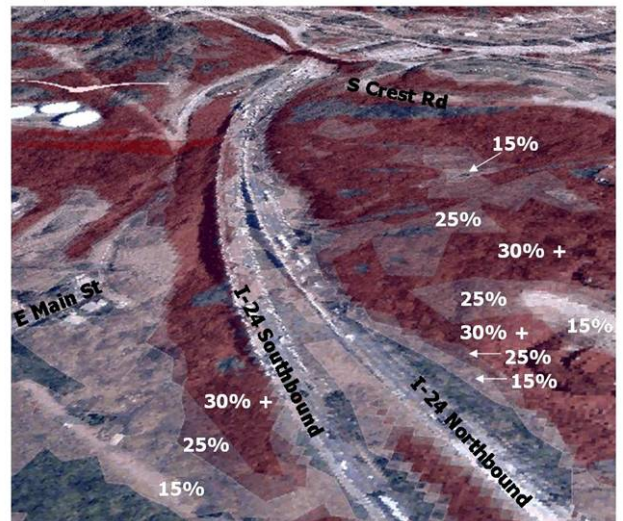


Since the 1970s, staff to the Chattanooga-Hamilton County Regional Planning Commission has remained consistent in recommending minimal development and encouraged recreation, wildlife, and forestry uses on steep slopes. Certain slopes are referenced as “steep” and “unbuildable”, “unsuitable for development”, or “recommended for recreation and/or conservation” in every version of the Hamilton County Soil Conservation District’s *Soils of Hamilton County, Tennessee* document since 1968. Many past and current plans also reference such language including, but not limited to Hamilton County Comprehensive/General Plans, the *Land Capability Study vol. 1 of 1969 in partnership with the University of Tennessee at Chattanooga’s Geology Department*, several community and neighborhood plans between 1970 and present, and the Tennessee Agricultural Experiment Station’s *Soil Survey Hamilton County, Tennessee Series 1937, No. 22*. Although slope concerns have been mentioned repeatedly over the last few decades, Hamilton County continues to wrestle with ways to minimize and responsibly manage development on steep slopes as growth pressures rise.






The previously mentioned Resource Management Task Force was also charged to describe, define, and prioritize areas most suitable for development and highlight sensitive areas in need of careful consideration and review prior any development proposal. Of the sensitive areas, certain slopes were defined as “steep” and described as “areas [that] pose severe limitations to development”. The report also detailed that “development in these areas could be detrimental to public welfare, health, and safety and development in these areas could negatively impact the scenic identity of the County”. This characterization was supported by the recently adopted countywide 2004 *Hamilton County Natural Hazards Mitigation Plan*² which acknowledged that steep slopes were vulnerable to landslides as well as contributing to flash flooding when improperly developed or cleared. Key points of the 2004 Tree Protection Resource Management

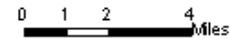
Slopes of Missionary Ridge





	Slopes 25% and greater
	Hamilton County
	Chattanooga
(58,426 Acres; 15.8% of Hamilton County)	

Hamilton County
Slopes
25 Percent and Greater



Advisory Committee *Final Report*³ also supported concerns for steep slopes by indicating that “special attention should be given to steep slopes” and that “erosion and aesthetic problems increase when irresponsible site clearing and land disturbance is combined with slope and hillside issues”. In an attempt to better manage and protect steep slopes, the RPA began researching policies for steep slope protection and steep slope development options. Following a regional peer city review, the Knoxville-Knox County Metropolitan Planning Organization’s *Design Guidelines for Stream Bank Development and Water Quality Protection* was found to be a simplified compilation of the differing Best Management Practices (BMPs) across the southeast.

Lastly, contaminants from various sources of pollution including, but not limited to construction activity, commercial and industrial land uses, application of pesticides and herbicides, and all types of waste collection and detainment facilities can accumulate and become unsafe for human contact and result in groundwater contamination which may result in an unsafe drinking water supply. Although most soil contamination exists as remnants from past industrial and/or military activity, some contaminants may still pose significant health hazards and should be carefully monitored. Presently, Hamilton County has 18 active Superfund sites with one of those identified as a Final Priority under the National Priority List (NPL). These sites are listed in the table below.

EPA CERCLA Superfund Data Base
10-Aug-05

Search Criteria:
 County: HAMILTON
 State: Tennessee NPL: N=Not a priority, D=Deleted priority, F=Final Priority

Found 18 site(s) that match above search criteria:

EPA ID	Site Name	City	County	State	NPL
TNN000407384	ALCO CHEMICAL RELEASE	CHATTANOOGA	HAMILTON	TN	N
TND980729172	AMNICOLA DUMP	CHATTANOOGA	HAMILTON	TN	D
TND079023149	C F INDUSTRIES INC	HARRISON	HAMILTON	TN	N
TND030675441	CLASSIC REFINERY	CHATTANOOGA	HAMILTON	TN	N
TND980845960	ELECTRO-LITE BATTERY	CHATTANOOGA	HAMILTON	TN	N
TND980844229	HOOKER ROAD BRIDGE DUMP	CHATTANOOGA	HAMILTON	TN	N
TND987766482	MORNINGSIDE CHEMICAL CO	CHATTANOOGA	HAMILTON	TN	N
TND981474950	NATIONAL MICRODYNAMICS	CHATTANOOGA	HAMILTON	TN	N
TNN000407224	NORFOLK/SOUTHERN DERAILMENT	RED BANK	HAMILTON	TN	N
TNN000407570	PINEY WOODS SCHOOL	CHATTANOOGA	HAMILTON	TN	N
TND000113985	SAS METAL CORP	CHATTANOOGA	HAMILTON	TN	N
TNSFND0407114	SCHWERMAN TRUCKING CO.	CHATTANOOGA	HAMILTON	TN	N
TND071516959	TENNESSEE PRODUCTS (Chattanooga Creek)	CHATTANOOGA	HAMILTON	TN	F
TNN000407474	TIDEWATER TRANS CHEM RELEASE	CHATTANOOGA	HAMILTON	TN	N
TN5640020504	TVA SEQUOYAH NUCLEAR PLANT	DAISY	HAMILTON	TN	N
TNN000407846	US PIPE & FOUNDRY BENZINE	CHATTANOOGA	HAMILTON	TN	N
TND640090023	US TVA CONCORD SUBSTATION	CHATTANOOGA	HAMILTON	TN	N
TN6210020933	VOLUNTEER ARMY AMMUNITION PLANT	CHATTANOOGA	HAMILTON	TN	N

More information on the above mentioned sites and specific contaminants may be found on the EPA website at <http://www.epa.gov/superfund/sites/cursites/index.htm> .

Recommendations

In creating this comprehensive document it became apparent that one fundamental aspect of planning is identifying the status of any resource(s) for which you need to plan and the capacity for future supply. In terms of environment, the last 10 years have been momentous in the highly accurate digital mapping of natural resources and subsequent analysis. However, these technologies still provide little or no determinate for future resource thresholds. Sustaining non-renewable resources involves resource specific studies over time. Local research may be the most successful method for quantifying supply and demand for a specific resource. Once the baseline data has been established, projection models may be used to indicate resource capacity. Identifying the capacity threshold will allow planning efforts to focus more knowledgeably on a healthy balance between a successful growing economy where people desire to work and a healthy environment where people desire to live. This balance is *good growth*.

Good growth requires planners to assess costs and benefits related to the form of our built and natural environments. For instance, in a city's downtown area there is obviously more built environment than natural and in the rural area of a county there is obviously more natural environment than built. The health of the existing natural environment is dependent on a healthy ratio of built to natural environment. Equally important is the reverse. The success of the built environment, consisting also of the social community, is dependent on that same healthy ratio which provides clean air, water, and land to sustain growth. If, through planning, planners guide development to concentrate as intensity and density increase, then both built and natural environments prosper. The relationship then, between the built and natural environments, becomes a balancing act to maintain adequate natural areas and vibrant communities. This planning process takes advantage of the dense natural areas within the rural parts of the community by preserving open space, encouraging retention of farmlands, and creating greenbelts to link the natural areas to the more populated urban areas where natural environment is most limited. In turn the process allows increases in development density when natural environment is preserved and acknowledges the need to provide natural environment amenities within the urban areas. Such amenities could be in the form of small neighborhood parks, street trees, window and rooftop gardens and adequate landscaping to reduce contiguous impervious surfaces.

For the purposes of this Plan, the goals, policies, and action steps will focus upon attainable and measurable recommendations with which the Regional Planning Agency has the ability to engage in the creation of and/or assist in the creation of solutions to environmental issues herein either qualified or quantified. Responsibility for the implementation of such recommendations may vary from community/neighborhood organizations, private agencies, government agencies and/or a combination. Although, any entity charged with an action step will require both public and private partnerships as well as community support.

Part of the mission of the Regional Planning Agency is to ***protect, conserve, and wisely manage our valuable natural resources***

The agency will continue efforts to promote community awareness of natural resources as well as maintain a comprehensive approach to resource management through proactive planning, maintenance of resource inventories, and multi-agency coordination. At present these issues are addressed separately by separate departments, but many issues need a more comprehensive approach to effectively address the problem. A comprehensive Sensitive Areas Study is proposed for RPA's 2005-2006 Work Program. Such a study would provide direction in achieving the following goals as well as implementation guidance for several of the listed policies. In addition, it is recommended that the Regional Planning Agency assist the City of Chattanooga and Hamilton County governments in creating a Comprehensive Resource Management Review Board. This board would work closely with state and federal environmental agencies, internal government departments, and other municipalities to adequately address all environmental impacts as they relate to future land use decisions including but not limited to drainage, flooding, air quality, water quality, slopes and erosion, recyclable and landfill waste, and recreation.

To best address RPA's comprehensive mission for future environmental planning efforts, this section has been broken into the following goals which improve land use planning as it relates to land, air, and water resources. For each goal, polices and suggested action steps have been provided. Due to the interconnected relationship of all natural resources, some policies may be similar or repetitive for differing goals and action steps have been summarized under the Priorities section.

Natural Environment Goals

Goal: Protect, conserve, and wisely manage the natural resources of Hamilton County.

Policy: Continue planning efforts that respect a healthy balance of environmental quality and economic growth.

Policy: Continue to protect, monitor, and evaluate sensitive resource areas.

Policy: Encourage responsible development that maintains the quality and integrity of existing natural resources.

Policy: Maintain awareness of state and federal regulations related to the quality of the natural environment.



Goal: Retain the scenic beauty and diverse wildlife of Hamilton County.

Policy: Conserve forested land.

Policy: Encourage woodland and forest management and harvest methods that maintain sustainable yields of forest products.

Policy: Protect open spaces in the rural areas.

Policy: Preserve wildlife habitat by retaining a variety of habitat types including forests, wetlands, fields, floodplains, and slopes.

Policy: Encourage low-impact development where appropriate and sustainable building practices.

Policy: Coordinate acquisition of open spaces with other natural resource protection programs to create Greenbelt corridors which allow for contiguous wildlife habitat.

Policy: Encourage and support retention of existing farm/agricultural practices to serve as open space.



Goal: Maintain healthy rivers, creeks, and streams.

Policy: Continue to research and discuss watershed planning.

Policy: Support water quality monitoring and encourage land use studies for TMDL and proposed TMDL watersheds.

- Policy:** Retain and expand riparian buffers.
- Policy:** Encourage retention of existing tree canopy cover buffering creeks and streams to maintain healthy water temperature.
- Policy:** Minimize development adjacent to impaired streams.
- Policy:** Encourage “Pay-As-You-Throw” waste program implementation.
- Policy:** Support greenway programs.



Goal: Protect community from flash-flooding and maintain adequate floodplain areas.

Flooding issues are much more prevalent in the urbanized areas where the built environment dominates the landscape and engineered methods of stormwater detention and collection are required. Flash-flooding, often a result of inadequate stormwater management methods, also threatens investment and infrastructure in areas of a community where the natural floodplain has been altered. Filling and other alterations of the floodplain cause displacement of large volumes of water into areas outside of the natural absorption boundary known as the 100-year floodplain. This results in flooding during a short period of heavy rains. As part of the Federal Emergency Management Agency (FEMA), the National Flood Insurance Program (NFIP) encourages local governments to reduce development activity in the 100-year floodplain and provides credit incentives for “more restrictive regulations, acquisition, relocation, or flood-proofing of flood-prone buildings, preservation of open space, and other measures that reduce flood damages or protect the natural resources and functions of floodplains” under its Community Rating System (CRS). Under the CRS, cities and counties can receive credits for reductions in insurance premiums. More information on the NFIP and CRS visit: <http://www.fema.gov/nfip/> . Portions of these regulations can be met by the following policies and action steps.

- Policy:** Encourage protection of the 100-year floodplain.
- Policy:** Encourage cluster development and floodplain preservation.
- Policy:** Encourage reductions in impervious coverage. (i.e. parking lot design and alternate building materials)
- Policy:** Encourage comprehensive stormwater management.
- Policy:** Encourage the protection of sensitive and scientifically important aquatic resources.
- Policy:** Retain and expand riparian buffers.
- Policy:** Encourage low-impact development where appropriate and sustainable building practices.



Goal: Wisely manage sloping topography.

The RPA has chosen the following policies from Knoxville's BMP manual as a point to initiate discussion. Developing the tools to meet these policies would be part of the larger Sensitive Areas Study. Such a study is expected to engage appropriate stakeholders and agency representatives regarding reasonable development policies and principals. Staff of the RPA would review available GIS data of developed and undeveloped slope sensitive areas. In addition, the study's partners would assist in the creation of a map to identify focus areas for priority attention.



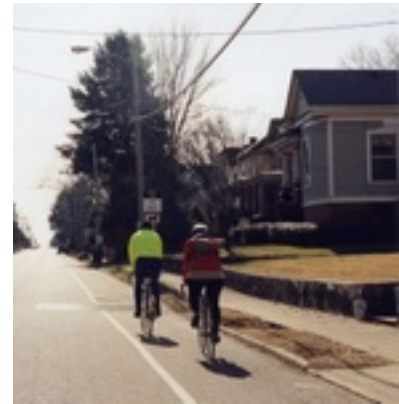
Policy: Encourage development that is sensitive to steep slopes and additional protective measures where needed.

Goal: Maintain healthy air quality.

Policy: Encourage alternative transportation plans, programs, and projects.

Policy: Continue interagency partnerships to facilitate education.

Policy: Encourage reforestation and tree canopy protection.



Natural Environment Priorities

Following an extensive evaluation of the goals and policies mentioned above, it was found that a few of the policies provide opportunity to move towards more than one goal. Due to the added benefits achieved by these policies, they are highlighted as the most important policies of this component. To achieve maximum benefit, they should be addressed first and foremost during early stages of implementation for this plan. These are:

Goal: Protect, conserve, and wisely manage the natural resources of Hamilton County.

Policy: Continue to protect, monitor, and evaluate sensitive resource areas.

Action: Conduct a comprehensive countywide Sensitive Areas Study to designate areas of protection, conservation, and future management.

Action: Assist local governments in creating a Resource Management Review Board to review development projects and/or land use changes in designated Sensitive Areas or that significantly impact air, land, or water quality.

Goal: Retain the scenic beauty and diverse wildlife of Hamilton County.

Policy: **Coordinate acquisition of open spaces with other natural resource protection programs and existing areas of protection to create Greenbelt corridors which help to reduce air and water pollution and allow for contiguous wildlife habitat.**

***Greenbelt:** A contiguous band of recreational parks, farmland, or uncultivated land surrounding a community.*

Action: *Develop a Resource Conservation District and/or contiguous greenbelt area. This may be subsidized by local government and/or local private preservation trusts.*

Action: *Recommend creation of a public/private trust to fund the purchase of local scenic and environmentally sensitive lands.*

Action: *Monitor and maintain current status of farm contracts in partnership with the Hamilton County Soil Conservation District as farm lands provide wildlife habitat.*

Action: *Improve and incentivize existing open space subdivision regulations.*

Action: *Establish riparian buffer areas as streams, creeks, and the river traverse large portions of the county.*

Goal: Maintain healthy rivers, creeks, and streams and protect the community from flash-flooding and maintain adequate floodplain.

Policy: **Encourage protection of the 100-year floodplain.**

Action: *Develop language for local government ordinances to restrict development in the 100-year floodplain.*

Action: *Assist in watershed planning projects including a citywide Watershed Master Plan.*

Action: *Discuss possibility of watershed planning with Hamilton County and its municipalities.*

Action: *Monitor and, if necessary, develop additional regulations to require riparian buffers and minimize stream bank alteration and erosion.*

Policy: **Encourage development that is sensitive to steep slopes and additional protective measures where needed.**

Action: *Conduct a study to determine what is considered "steep slopes" for Hamilton County relative to land capabilities based on soil types.*

Action: Develop a slope management ordinance and/or regulation encouraging development that is sensitive to steep topography.

Action: Identify areas appropriate for low-density and/or compact cluster developments adjacent to steep slopes.

Action: Identify ways to improve the subdivision regulations and zoning ordinance to reflect the importance of slope conservation including options such as expedited process for including protection provisions in the development site plan.

Action: Create a minimum standard for retaining existing tree cover on steep slopes.

Goal: Maintain healthy air quality.

Policy: Encourage alternative transportation plans, programs, and projects.

Action: Assist the TPO in conducting routine data collection for the Congestion Management System.

Action: Continue to promote and assess the need for new alternative transportation projects in community land use, recreation, and transportation plans.

Action: Assist local transportation related agencies in providing educational programming, events, activities, and publications.

To most adequately address planning recommendations related to the first three priority policies listed above, existing areas under current protection and areas appropriate for future protection have been identified as preserved and reserved, respectively. For the fourth priority policy, detailed recommendations have been provided in the transportation component section of this document.

Natural Environment Future Action Steps

The following tasks have been provided to acknowledge additional actions that will help to achieve all the goals and maintain all of the policies set forth in this component section.

- Conduct a study to assess the need for a canopy coverage ordinance and create BMPs for tree protection.
- Create an impervious coverage scale for all watersheds and threshold percentages for targeted reduction in impaired watersheds.
- Develop minimum open space requirements for residential Planned Unit Developments.
- Implement boating best management practices.
- Create tree canopy and re-planting ordinance for both commercial and residential activity in environmentally sensitive areas, especially those areas completely void of canopy coverage.
- Create a pamphlet detailing slope-sensitive development plans.
- Work with City of Chattanooga Public Works Department to develop a comprehensive Watershed Master Plan for the entire city.
- Explore opportunities of watershed planning as a tool for improving current land use planning practices and zoning regulations.
- Provide a descriptive brochure of low-impact development types and sustainable building practices.
- Create a new Excellence Award category to recognize outstanding environmentally sensitive developments and/or building practices.

Public Spaces & Recreation

Public Spaces & Recreation Analysis

Why Do We Have Public Spaces? Hamilton County is a place of great public spaces. From Miller Plaza, Ross's Landing and Coolidge Park downtown, to Harrison Bay State Park on Lake Chickamauga, from the Tennessee Riverpark along the riverbank of the Tennessee River to Enterprise South Passive Park, Chattanooga and Hamilton County's system of federal, state, and local parks, greenways, and civic spaces provide local citizens with a tremendous array of public spaces to enjoy.

The development of public parks did not begin in earnest in the United States until the mid-19th century. Initially developed in the cities, parks were seen as relief from the noise, dust, and confusion of crowded urban areas. The system of patronage that so dominated city politics in that time saw new parks as opportunities to provide rewards and jobs to loyal constituencies, and surrounding property owners, then as now, viewed new parks as assets that would boost property values.



When Frederick Law Olmstead, the well-known American landscape architect, was creating the plan for Central Park in New York City, the nation's first major public park, two of his central goals were (1) to create an aesthetically attractive physical environment and, (2) more importantly, to create the conditions under which diverse populations could thrive and under which a community could knit itself together out of a collection of diverse populations.

Frederick Law Olmsted (April 26, 1822–August 28, 1903) was an American landscape architect, famous for designing many well known parks and spaces, including Central Park in New York City New York, Louisville, Kentucky's park and greenway system, and the grounds of Biltmore Estate in Asheville, North Carolina.

The strength of those principles endures today. Every public space, whether designed for passive or active recreation, should further the building of a community by acting as a community focal point. The importance of public spaces as community focal points cannot be understated. In an age of inwardness, where entertainment (and nearly anything else we desire) is delivered directly to our homes and we often do not know our next-door neighbors, too frequently "community focal point" becomes synonymous with "big-box retail." But private retail developments are created first and foremost for the express purpose of selling people goods; they are not substitutes for quality public spaces.

What are the traits of a quality public space? Below is a partial list. However, one common denominator in every successful, quality public space is also the most important: the presence of people.

Principles for Quality Public Spaces.

- Quality public spaces can operate in concert with other civic uses to create centers of critical mass: new town centers, for example.

- Quality public spaces promote a sense of ownership, comfort and identity.
- Quality public spaces are for people; they should be planned by the people who will use them.
- Quality public spaces provide for a diverse range of activities important to the life of communities. The role of public spaces is not truly filled by the private spaces that take their place in the suburban environment: malls and shopping centers, mandated open space in subdivisions, and individual yards.
- Quality public spaces must be accessible and linked to the surrounding community.
- Quality public space should support a wide variety of uses and activities.
- Quality public spaces promote a sense of community by drawing people into the community life they promote.

Existing Conditions

Parks- Public spaces come in all shapes and sizes to meet the needs of the communities for which they are built. The governments of Hamilton County and its ten municipalities operate parks and recreation systems of varying sizes to meet the needs of their citizens. The largest park systems in Hamilton County are the City of Chattanooga Parks & Recreation Department, with 53 parks and 15 recreation centers covering over 3400 acres (includes acreage for Enterprise South Passive Park, which is currently under development), and facilities operated by Hamilton County Parks & Recreation, with 27 parks and joint-operated school facilities covering 895 acres. Most of Hamilton County's smaller municipalities also have parks & recreation systems. A complete federal, state, and local parks & recreation inventory may be found in the Appendices.



Parks in Hamilton County may be classified as one of the following:

Regional Park- Regional parks are the largest type of park. Often operated at the state or federal level, regional parks are typically 1,000 acres or more in size and have a service area extending to a one hour drive or more. Because of their size, planning for these parks, including land acquisition, typically takes place over a number of years. Uses can be passive or active in nature, and may include hiking, biking, and equestrian trails, picnic facilities, play areas, interpretive facilities, camping, or other special uses. Examples: Enterprise South Park, Harrison Bay State Park.



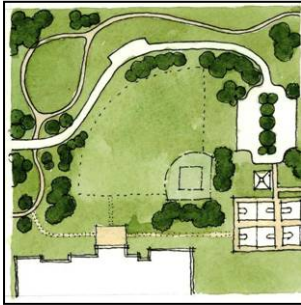
Community Park- These parks, optimally 20-50 acres in size, are intended to meet community-based recreation needs and may also serve to protect and preserve unique landscapes and open spaces. These types of parks are intended to serve the needs of more than one neighborhood and may have service areas several miles in radius. Active and passive uses coexist, and such uses should be sufficiently present to distinguish a community park from a natural resource area. Community parks may offer recreational opportunities that are not feasible or desirable at the neighborhood level. Placement of these

parks should be contingent upon a quality, accessible site with good road and greenway/trail access and provision of recreational opportunities that do not duplicate those of other parks in its service area. Examples: Camp Jordan, Greenway Farm, Coolidge and Renaissance Parks, Warner Park.



Neighborhood Park- Neighborhood parks are typically the lynchpin and basic element of any park system. Ideally 5-10 acres in size, neighborhood parks and attendant facilities should provide a gathering place that can act as the social and recreational focus of a neighborhood, and typically have a service area between ¼ and ½ mile

in radius. Like all parks, neighborhood parks should serve a diverse demographic range and provide recreational opportunities for both young and old. Parks of this scale provide an opportunity to promote a strong sense of place in the neighborhood by bringing together both the character of the site and the neighborhood. Neighborhood parks should be centrally located to the neighborhood they are serving, and should be accessible via greenways and trails as well as residential streets that provide safe access to the site. The presence of busy non-residential streets serves to reduce the effective size of the park's service area. Examples: East Lake Park, Heritage Park.

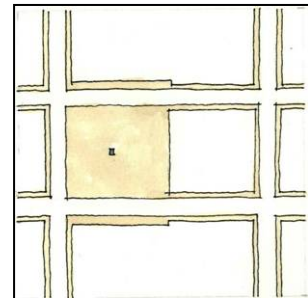


School-Park- School-park sites are joint-use park facilities used by public schools during school hours and available for public use at other times. These facilities vary greatly in size and facilities with the school type they are attached to, and, where neighborhood schools exist, they provide an economical and efficient method of providing neighborhood parks at the same time. Many of Hamilton County's park facilities are school-parks.

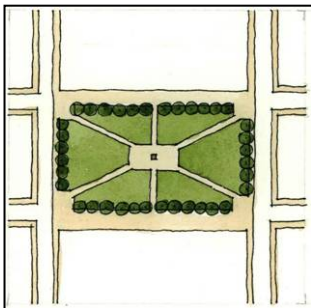
Pocket Park- Pocket parks are the smallest of park facilities at 2,500 square feet to one acre in size, but extending up to five (5) acres. These parks can provide limited recreational opportunities for a small area. Historically oriented toward active recreation through the provision of playground equipment, pocket parks can serve a wide variety of active and passive uses, including playgrounds, overlooks, picnic areas, and the like. As with other parks, connectivity via multi-use paths and sidewalks provides significant enhancement. Example: Park City Park.

Plazas & Squares- Before there were parks, plazas and squares were the open-air gathering places of cities. Central to the development of many older cities, plazas, squares and greens are less common to Chattanooga and Hamilton County, largely due to the predominant suburban development patterns present here. Downtown Chattanooga's revitalization has seen the development of several examples of these types of civic space, some of which have become important focal points and gathering places for residents of Hamilton County.

Plaza- An area generally open to the public on a controlled basis and used for passive recreational activities and relaxation. Plazas are paved areas for use by pedestrians typically provided with amenities, such as seating, drinking and ornamental fountains, art, trees, and landscaping, though those elements are not required. Plazas are typically defined spatially by building or street frontages. Example: Ross's Landing Plaza, Warehouse Row Commons.



Green- An open space available for unstructured recreation, its landscaping consisting of grassy areas and trees. Example: Chattanooga Green



Square- Open space that may encompass an entire block, is located at the intersection of important streets, and is set aside for civic purposes, with landscape consisting of paved walks, lawns, trees, and monuments or public art.

Multi-Use Paths- A multi-use path is a linear park located in a right-of-way or easement. Often, but by no means exclusively, located adjacent to waterways in the floodplain, multi-use paths are multi-purpose, though some types serve one purpose to a greater extent than others. Multi-use paths provide protection for environmental areas, recreational opportunities for the community, and, frequently, enhanced neighborhood connectivity for walkers, runners, and bikers. Chattanooga has three differing types of multi-use paths:



Riverwalk- The Tennessee Riverwalk is Chattanooga's most popular greenway. Stretching from Chickamauga Dam to downtown and across the river to the North Shore, the Riverwalk consists of a series of waterfront parks connected via a lighted, 10-foot concrete path. Designed to serve in a regional capacity, the Riverwalk has the most highly-developed infrastructure of the greenway types with significant landscaping, water fountains and restrooms, picnic and interpretive areas, fishing piers along its length, and even an in-park restaurant. The Riverwalk is patrolled by Hamilton County park rangers and is jointly-maintained by Hamilton County and the City of Chattanooga.

Safewalk- Safewalks such as the Alton Park Safewalk serve to connect neighborhood amenities such as recreation centers and schools with housing areas. Constructed in established areas, safewalks may take advantage of the existing street network as well as available access easements to provide superior, safer connections than sidewalks alone, as well as offering a medium-level of infrastructure, typically consisting of street furniture as well as lighting and street trees.



Greenway- Greenways such as the North Chickamauga Greenway, while used for recreational purposes, exist predominantly for environmental protection, helping to protect the watersheds of the waterways they are located along. While greenways may have onsite restrooms or other facilities, typically greenways will have the lowest level of infrastructure.

Hamilton County has one of the most extensive and growing urban greenway systems in the country. In cooperation with the Trust for Public Land, Chattanooga, Hamilton County, and East Ridge have completed 28 miles of greenways, with 36 additional miles of greenway planned or proposed.

Public Spaces & Recreation Goals

Goal: Provide a high-quality, well-maintained system of public parks and recreational facilities.

Park Facilities

Policy: **Approach recreation holistically, providing both traditional (playgrounds, athletic fields) and non-traditional (skate parks, climbing walls) recreational opportunities.**

Historically, the recreation component of most parks and recreation departments has focused predominantly on the provision of facilities for what might be termed “traditional” recreational activities. These have included athletic fields for sports such as baseball, basketball, and football, or playgrounds and the like. As the idea of recreation has evolved to include a wider array of recreational opportunities (kayaking, skateboarding, climbing, disc golf), so should the approach park systems take to providing facilities evolve to include what users are requesting.

Policy: **Maximize use of new and existing facilities by including multiple (and where possible complementary) uses at all sites.**

Multi-function facilities serve to maximize the use of existing resources and also help create centers of critical mass, a key component in creating a great public space. Use of existing facilities should be reviewed to identify new or modified use possibilities; new facilities should be designed with the intent of providing complementary uses.

Action: *Complete a public space and recreation facility review to identify those facilities where complementary uses may be most appropriate.*

Policy: **Plan and provide for new park facilities as new development occurs.**

In many cities, the creation of parkland and associated facilities has lagged behind residential and commercial development, especially as those uses have moved into previously undeveloped areas. Parks and recreation facilities are and should be considered a vital part of civic infrastructure, just as roads and schools are.

Action: *Require greenway and parkland dedications in new Planned Unit Developments and Open Space Subdivisions.*

Action: *Complete code revisions to allow in-lieu-of dedications of open space or parkland, permitting higher-density development with less open space in return for dedicated lands elsewhere.*

Action: *Work with local governments and other partners to maintain up-to-date parks and recreation and greenway master plans.*

Policy: **Promote the ongoing expansion of system of multi-use paths in Hamilton County.**

Hamilton County's extensive system of multi-use paths is an important asset that has required significant planning and investment from the county's citizens. Multi-use paths provide a number of important benefits to communities:

- Environmental/Floodplain Protection: The area reserved for multi-use paths can protect the floodplain and riparian zones, improving water quality in the process.
- Connectivity/Transportation: Multi-use paths can be an important element in a regional non-motorized transportation network, offering an alternative to driving by connecting homes, parks, schools, offices, commercial areas and workplaces.
- Recreation: Multi-use paths provide recreational opportunities for citizens of all ages, as well as providing linkages between parks and other community facilities.
- Health: Multi-use paths provide opportunities for moderate exercises such as walking and bicycling, activities that when performed regularly can have significant health benefits.
- Education: Multi-use paths may incorporate natural, historic, and cultural resources along their routes into interpretive programs to educate the community.
- Economic and Quality of Life: Multi-use paths are significant community assets that increase the attractiveness and desirability of communities for current and potential residents.

--- *Mountain Creek Community Greenway Plan, RPA, 2003.*

The *Hamilton County Greenway Master Plan* identifies locations for expansion of the multi-use path network. The plan should serve as the blueprint for future expansion of the network. The Mountain Creek Greenway is not currently a component of the plan, but the Trust for Public Land and the Regional Planning Agency continue to work in partnership to explore possibilities for creation of this greenway.

Action: *Work with the Trust for Public Land and other partners to continue expansion of the network of multi-use paths.*

Action: *As development occurs, work to secure easements for multi-use path network expansion as part of the development process.*

Facilities Maintenance

Policy: **Where maintenance backlogs exist, allocate additional funding for immediate relief of the most neglected parks and recreation facilities.**

Parks and recreational facilities require constant, ongoing maintenance to combat deterioration. Wear and tear from constant use, the environment, and time take their toll, and frequently parks and recreation budgets are not sufficient to maintain all parks and recreation facilities at functional levels.

The result, deferred maintenance of deteriorating facilities, is never a desirable outcome, and bring facilities back from the brink is much more expensive than keeping them maintained at functional levels. Unsafe conditions can also result from deferred maintenance; everything from playgrounds in need of mulch to doors that don't meet fire code. Protecting facility users by providing safe, well-maintained facilities should be a high priority.

Action: Recommend identification of facilities with severe maintenance needs and consider providing one-time emergency funds for repair of those facilities.

Action: Prioritize repair of those public spaces and recreational facilities that have identified safety issues.

Policy: Assess facility maintenance requirements annually and provide sufficient funding to meet requirements when possible.

The importance of facility maintenance cannot be overstated. Identifying maintenance needs and planning for how to meet them is critical to the functioning of a quality system of public spaces.

Action: Recommend creation of a maintenance needs database of one-time and recurring needs, organized by priority, and use this database for budgeting prioritization.

Policy: Design new and renovated public spaces and recreational facilities to minimize ongoing maintenance requirements while incorporating excellence in aesthetic and functional design.

In order to maximize investment and minimize ongoing maintenance, new public spaces should be designed to last, built of high-quality materials and with low-maintenance landscaping. New and renovated facilities should also incorporate excellence in aesthetic and functional design. A city's public spaces are its front yards and living rooms; a great city needs great spaces.

Action: Recommend incorporation of a low-maintenance requirement for materials and design in the bidding process.

Action: Explore conducting design competitions for significant new or renovated facilities.

Action: Explore requiring new recreational facilities to be LEED-certified. The LEED (Leadership in Energy and Environmental Design) Green Building Rating System[®] is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

Goal: Provide parks and recreational facilities that encompass a variety of scales and are accessible to all citizens.

Policy: Provide the greatest access possible to disabled citizens in new and existing facilities.

Disabled citizens should enjoy equal access to public spaces whenever possible. Enhancements to increase access for the disabled should be explored at existing facilities and new facilities should be designed with the disabled in mind.

Action: Explore the formation of a disabled citizens advisory panel to provide recommendations for enhancing access to public spaces for the disabled.

Action: Explore the possibility of constructing a Boundless playground for public use in Hamilton County. Boundless playgrounds provide opportunities for children with and without disabilities to play together without barriers. More information is available at www.boundlessplaygrounds.org.

Action: Continue to expand ADA compliance in all public spaces and recreational facilities.

Policy: Provide appropriate levels of facility concentration and intensity across the spectrum of community form, from urban core to rural, with an emphasis on provision of neighborhood-scale facilities.

A key concept of Comp Plan 2030 is community form. Just as varying densities and intensities of commercial and residential use are appropriate in different development sectors, so are different types and sizes of public spaces and recreational facilities appropriate in different areas. In the walkable urban core, with smaller lots and higher-intensity uses, formal public spaces (such as plazas and squares) and smaller parks at more regular intervals are appropriate, while in the outer suburbs, with larger lots and greater separation between uses, larger parks with concentrations of facilities may be more appropriate. *Recreate 2008*, the City of Chattanooga's Parks & Recreation Master Plan, recommends facility consolidation of many neighborhood-scale facilities into larger, regional facilities, a recommendation inconsistent with Chattanooga's emphasis on neighborhoods. The importance of neighborhood-scale public spaces and recreation facilities in the urban core, urban, and inner suburban areas should not be overlooked; a great disservice is done in attempts to strengthen neighborhoods when the hearts of those neighborhoods, their public spaces and recreation facilities, are consolidated into larger facilities often far removed from the neighborhood.

Action: Recommend adoption of guidelines and a plan for provision of facilities based on community form, including facility classifications and level-of-service (LOS) guidelines.

Action: Explore formalization of a policy of maintaining, expanding, and constructing neighborhood-scale facilities in the urban core, urban, and inner suburban areas wherever feasible.

Policy: Distribute public spaces & recreation facilities on a demographically- and geographically-equitable basis.

Public spaces are for everyone, but all citizens do not have equal access to public spaces and recreational facilities. Just as there are appropriate levels of facility concentration based on community form, so are there appropriate levels of facility concentration based on demographics and geography. An

area with a high concentration of senior citizens may be a good candidate for a senior center if there is not one in close proximity; a lack of neighborhood soccer fields in neighborhoods where the sport is popular may mean the possibility of providing such fields in those neighborhoods should be explored.

Action: *Work with partners to use Geographic Information System mapping and data base software, Census data, and citizen input to identify appropriate locations for new or expanded facilities. (The Chattanooga Department of Parks, Recreation, Arts, and Culture has identified a lack of soccer facilities in neighborhood settings as a possible need.)*

Policy: **Provide connectivity between parks and neighborhoods, public facilities and commercial centers via sidewalks, bicycle facilities as identified in the Chattanooga Urban Area Bicycle Facilities Master Plan, and multi-use paths as identified in the Hamilton County Greenway Master Plan.**

One of the keys to a walkable and healthy community is non-vehicular connectivity between the places we live, work and play. Connectivity of this kind provides alternatives to vehicular travel and allows those who do not have or choose not to use vehicles to have equal access to community facilities.

Action: *Incorporate the Bicycle and Greenway Master Plans when designing new or renovated park facilities.*

Goal: Build strong partnerships with the parks & recreation community of users.

Community

Policy: **Promote park/community group partnerships, partnering park user groups with the parks they use and encourage user group responsibility for some aspects of park maintenance, upkeep or enhancement.**

While some parks, such as Coolidge Park or the Tennessee Riverpark, are used by the entire community, neighborhood parks and other parks dominated by sports facilities typically serve more defined groups of users. Because these groups, whether they be neighborhood associations, sports leagues, or some other type of group, use facilities with greater frequency, they typically have a greater understanding of the facility's needs as well as an increased sense of ownership of the facility. Partnering that understanding and sense of ownership with partial responsibility for the facility is a natural, cost-effective outcome.

Action: *Create a formal partnership program, identifying potential user groups to target, appropriate parks and recreation facilities for inclusion, and rules delineating partner responsibilities.*

Policy: **Renovate public spaces and recreational facilities incrementally by introducing short-term design changes and evaluating the success or failure of those changes.**

Public spaces are not static. As they age, they can begin to show the effects of wear and tear. The purposes for which they are used, too, change; demands change over time. Accommodating these demands while maintaining the integrity of quality public spaces and recreational facilities can be difficult, especially if significant renovations are needed. Incremental renovation in consultation with users can be part of the answer, especially in the context of renovations of older public spaces and recreational facilities. Such renovations should be short-term, and be adopted permanently only after going through an evaluation of their effectiveness by staff and facility users.

Action: Explore creation of a short-term public space and recreational facility renovation program. Include a formal review process to evaluate the effectiveness of renovations before they are adopted and/or expanded.

Policy: Incorporate public input into the facility design process.

Facility design is sometimes viewed as solely the realm of consultants and other design professionals. While design professionals certainly are important to facility design, the input of those who use public facilities is even more vital to their proper functioning. Ongoing input from the public space & recreation community of users should be an integral part of the facility design process.

Action: Conduct a public input process when planning new facilities or significant renovations to existing facilities.

Goal: Promote knowledgeable, safe and environmentally respectful participation in outdoor recreation activities at quality outdoor venues while providing access and benefits to all citizens.

Policy: Support existing outdoor recreation organizations.

Chattanooga, Hamilton County and its municipalities are gifted with a number of strong, visionary organizations that support outdoor recreation. With a quality organizational infrastructure in place, the best stewardship of limited resources is to support and work with those organizations to promote participation in outdoor recreation.

Action: Maintain and build upon existing partnerships with Outdoor Chattanooga and other outdoor recreation organizations.

Policy: Provide educational resources to promote knowledgeable, safe, and environmentally respectful recreation participation.

Outdoor recreation differs from other organized recreational activities because its participants are operating in the natural environment, frequently with specialized equipment. This provides opportunities as well as challenges for safe participation and good environmental stewardship. Participants in outdoor recreation should be aware of the potential impacts of their activities on themselves and their surroundings. Education, whether via class, educational materials, or participation with those more knowledgeable than oneself, is an important means to that end.

Action: Recommend establishment of an outdoor recreation lending library, with educational resources and materials to promote knowledgeable, safe, and environmentally respectful recreation participation.

Action: Partner with outdoor recreation organizations and enthusiasts to offer classes and recreation opportunities to better educate participants, from beginner to expert.

Civic Facilities & Services

Civic Analysis

The location and quality of public and private infrastructure is critical to quality of life issues and to the manner in which the land in the county develops. An understanding of the fiscal impacts of growth is critical to developing sound, well-integrated land use and capital improvement planning. Hamilton County has had relatively slow, but stable, growth in the past decades. It is not the rate of growth in this case that is the issue, but rather the type of growth and how the cost of that growth is paid for.

Investments in roads and sewers are two of the most powerful methods available to local government that influence the timing and location of growth. Residential and commercial development tends to follow road improvements and sewer extensions. The demand for schools, parks, fire protection and other public services and facilities follow that development. Location and timing of new facilities can be used to influence private development. However, if not planned for properly, private development can also place stress on the existing infrastructure that must be alleviated immediately through expensive improvements.



Other factors that influence the character of a community and its quality of life include an actively involved citizenry, a diverse culture, and formal and informal community organizations along with the aspects introduced in the other community component sections. The elements discussed here consider the physical and social environment, where the County has been and where it is going. The goals support the other community components by establishing policies that ensure that public services are adequate to support anticipated growth while acknowledging the County and Cities' role in contributing to community character.

Regional Management and Fiscal Efficiency

Coordination of planning and services- Consistency among land use regulations, comprehensive plans, capital improvements plans and implementation is, in part, key to good growth. Although Hamilton County has ten municipalities and a large unincorporated area and a number of neighboring counties, all governmental bodies provide similar services. Each wants to provide a high quality of infrastructure and services in the most efficient, cost-effective manner. Most face similar growth challenges and several municipalities currently, or in the future, are slated to abut each other. Coordinating land use decision making, transportation planning, and cooperating with each other as service providers can prove beneficial

The Tennessee State legislature will hear amendments to various aspects of the state growth plan—Public Chapter 1101 (T.C.A. § 6-58-101 et seq.)—during its 2005 session. Appropriate local government representatives should stay updated on any possible changes to the growth plan legislation. The Tennessee Advisory Commission on Intergovernmental Relations will most likely release an informational document on any amendments, but a representative from that organization could be contacted for a visit to update County and City representatives.

Growth puts pressure on local governments to provide additional infrastructure and public services to meet the increased level of need. Traditionally, these needs are met through property taxes and local sales taxes although these methods may need to be offset by additional revenue streams or other alternative funding methods.

The County and its municipalities should look for opportunities to make efficient use of existing facilities and save on the costs of building new facilities or funding new programs. This could be very beneficial to an organization such as the Bicentennial Library. They should work in partnership with entities like the YMCA or other community centers to consider mixed-use facilities that incorporate services to both children and adults both during and after normal work hours.

Infrastructure funding- Local governmental bodies may wish to consider impact fees and/or user fees so that new development shall pay for its impact on facility development/redevelopment. The Tennessee General Assembly can directly or indirectly grant counties and municipalities the power to levy impact fees or development taxes. The following is an analysis by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) on the two categories of levies available in Tennessee:

Impact fees are user charges and must be reasonably related to the actual additional costs of serving a new development. They are based upon a standard formula and a pre-determined fee schedule. Standards for evaluating the legality of impact fees have developed out of case law:

- The need for new facilities must be generated by new development;
- The amount of the fee must not exceed a proportional fair share of the cost of serving the new development;
- Revenues from the fee must be spent within a reasonable period of time and benefit the fee-paying development;
- Revenues cannot be used for operating costs or for pre-existing deficiencies;
- Credits must be applied to account for other revenues generated by the new development and for the value of land dedications and other developer improvements or contributions; and Governments cannot charge an impact fee and require developer extractions for the same development.

Impact fees are typically phased in over a one to two-year period and collections are usually earmarked and accounted for separately in case of legal challenge. Determining the maximum justifiable fee is a complex process involving meticulous empirical data collection and the application of nationwide service standards. Virtually every local impact fee ordinance is preceded by a study to determine, and to document, the actual additional costs of providing services to new residents. Most impact fee levies are for streets and roads, parks, or fire protection services. The actual rate of the fee is set by the local governing body, often at a level that is less than the maximum that could be supported.

The Town of Walden is the only municipality in Hamilton County that has been given the power (directly or indirectly) to levy an impact fee. This is because the Town was incorporated under the Mayor-Aldermanic Charter.

Development taxes, also known as construction or adequate facilities taxes, are privilege taxes on the development industry that are intended to raise revenue for general government purposes. These levies differ from impact fees in several ways:

- They are primarily a tool for raising revenue instead of financing facilities for specific developments;
- Revenues do not have to be earmarked or accounted for separately;
- Revenues are not restricted—they can be used for pre-existing deficiencies or for operation and maintenance;
- The fee schedule need not be based upon studies to document burdens and benefits; and
- Legal authority for development taxes comes from general municipal taxing powers—not police powers.

Development/adequate facilities taxes are simpler to enact, administer, and update, and are not usually subject to legal challenge. Development taxes promote housing affordability by taxing all development, whereas some impact fees are assessed only on residential development. Development taxes are also more progressive because they are based upon square footage without having to document how the development impact is related to the size and use of the building.

Sewers- As mentioned previously, sewers are a powerful driver of and for the location and timing of growth. The City of Chattanooga’s current plan for its sewer system is to service and maintain existing facilities. Should that entity’s plan change, any proposed expansions will be addressed in future updates to this Comprehensive Plan.

Sewers in the unincorporated areas of Hamilton County were built and maintained by the County prior to 1993. In 1994, the County’s sewer facilities were transferred to the newly created Hamilton County Waste and Wastewater Authority (WWTA). Currently, WWTA maintains the existing sewer facilities and builds new facilities in both incorporated and unincorporated areas of Hamilton County.

Hamilton County implemented recommendations of a 1972 master sewer plan [NEED NAME]. That plan identified growth areas—Hixson, Middle Valley, parts of Ooltewah—that were suitable for development. At this time, WWTA does not have a detailed plan for expansion of its services although it does have a designated service area. This area is roughly the unincorporated portion of the county outside the existing city limits.

Currently, the main drivers for sewers in WWTA’s service area are septic tank failures and subsequent health concerns and sewers as an economic development tool. Much of the expansion of WWTA’s system is developer-driven. WWTA will expand sewer lines to a site with all associated costs being funded by the developer.

Collaboration between the City of Chattanooga and the Water and Wastewater Treatment Authority (WWTA) should occur to collaborate on future needs and upgrades. This is particularly true in regards to the provisions of the Growth Plan Master Interlocal Agreement. Section 6(c) of the Agreement carries this language:

As additional consideration for the Urban Growth Boundaries approved by Hamilton County, the City of Chattanooga further agrees to provide available sewer connections to any area involuntarily annexed by the City of Chattanooga, within three (3) years of the effective date of any involuntary annexation by ordinance. All parties agree that a three (3) year time period for sewer connections shall constitute material and substantial compliance with any plan of services proposed by the City of Chattanooga for any annexation area in question as required by T.C.A. § 6-51-108. In the event sewer connections are not available to any residential property owner within three years of annexation, upon request of the property owner the City of Chattanooga will deannex such property owner’s property. (To the extent that the Wastewater and Water Treatment Authority (WWTA) pursuant to T.C.A. § 5-6-120 does not cede all

service areas within the Urban Growth Areas of any municipality as set forth in paragraphs 3 and 6 of this Agreement, to any annexing municipality within thirty (30) days of the date of annexation, all provisions of this Section requiring the City of Chattanooga to provide sewer services for such areas and/or for the deannexation of property within such areas shall be void).

Previous to any annexation proposals by the City of Chattanooga, sewer service provision needs to be discussed as part of the proposed service area.

Schools- As residential development grows in conjunction with expanded sewer lines, the subsequent rise in population creates a capacity demand in schools that often aren't prepared for the increased need.

A Spring 2005 preliminary report by the Hamilton County Schools administration showed that most county schools are under their enrollment capacity. According to the survey, 42 county schools are 100 students or more under capacity, 23 are fewer than 100 students under capacity, and 10 schools are over their enrollment limits. Based on the survey, the five most crowded schools are Soddy-Daisy High, Central High, East Ridge Middle, Hunter Middle, and Ooltewah High. The five least crowded schools are Sequoyah Vocational, Howard Elementary, Orchard Knob Middle, Chattanooga Middle, and Lookout Elementary. (Data from Chattanooga Times Free Press, February 18, 2005). While discussion continues on the best way to determine capacity and other issues surrounding facility conditions, the study, in part, can be used to inform the process of deciding about new school demand or school consolidations.

The Hamilton County School Board's list of school building needs includes a new high school for East Brainerd/Ooltewah—on property already purchased on Ooltewah-Ringgold Rd.—and a new high school on Signal Mountain. A January 2005 "immediate needs" list, produced by the Board of Education Facilities Committee, includes a new Orchard Knob Elementary School, and additions to Wallace A. Smith Elementary and Hunter Middle School. The need for the schools in the Hunter area is predominately due to residential growth. "We are facing an absolute crisis with all the new growth near Hunter Middle School and Wallace A. Smith Elementary. There are 1,200 new homes being built,"- Assistant Superintendent Gary Waters. (Chattanooga.com, May 17, 2005)

The Regional Planning Agency analyzed the impact of proposed new subdivision developments on school facilities for a 2004 report for the School Facilities Committee. The report predicts an increased demand and capacity concerns for those schools on the urban fringe while some of the existing facilities will remain or become under-capacity.

A 2002 study for the Chattanooga Area Chamber of Commerce mentions education as part of its economic development action plan for Hamilton County. The report mentioned a well-educated population as a key asset for the area. "The percentage of residents with a college degree matches the national average, while the percentage of residents with some post-secondary education (including a two-year degree) exceeds the national average." However, one of the principal challenges is that "Public education in the area has a poor image, despite recent improvements. The county public school system needs to prove, document, and market its successes." The plan stated a specific goal, that "Continued attention on the public schools is necessary, since the quality of schools is a major factor for successfully recruiting managers, professionals, technicians, and mobile entrepreneurs to the area." (Locational Audit and Business Recruitment Strategy for the Chattanooga Area, The Wadley-Donovan Group, October 2002)

In locating new schools and upgrading existing educational facilities, the first priority is children and their educational needs and to assure equal access to a quality education for all students. In our county the provision of neighborhood schools is a key strategy for overall community development and this translates directly into increased parental and community involvement. This philosophy has been the

guiding principle related to the development of the public education system and the provision of quality education for all our students.

New schools should be built in our community based on growth trends, change in population distribution and overcrowding of existing facilities or lack of facilities with replacement schools given equal consideration with schools in growth areas. In developing new or replacement schools, consideration should be given to the school's relationship to the surrounding community both in site and building design.

Some basic assumptions in determining where schools are improved or located:

- New schools often serve as an attraction for new housing locations
- Locating several schools on the same campus or nearby sites can result in cost savings in providing infrastructure costs such as utilities, support facilities and possibly transportation costs.
- Schools should be located to make the best use of existing facilities and other public properties such as parks and recreations facilities.
- Elementary schools should be neighborhood-based.
- The development of the schools within a school concept allows for the configuration of consolidated middle and high schools within the same building eliminating the need for separate campuses.
- In order to promote sustained communication and planning among teachers and other school personnel, schools should be located so as to best implement the feeder patterns from elementary school and middle school to high schools.
- The availability of building lots provides a strong indicator of future community service demands, particularly school facilities. The growth of new residential subdivisions correlates directly with increase/decrease of population as detailed in the Census.
- Housing development and revitalization within established urban areas normally represents in-fill type development. This type of growth is generally not on the same scale as suburban tract development, as a result the absolute population growth and resulting impact on the school system is relatively minor.
- Private primary and secondary schools continue to attract students both from within Hamilton County and from the region.

Needs analysis- Land use patterns, including density, location and type and mix of uses, affect the demands on all public facilities. The challenge is keeping up with the demands for new or enhanced facilities as growth occurs or as needs change. One tool that is very important in needs analysis is a Geographic Information System (GIS). GIS is a way to visualize, manipulate, analyze and display geographic information. The system can provide detailed land use and population information and, due to its ability to pinpoint the exact location of facilities, is necessary for meaningful infrastructure analysis. Without a clearinghouse for GIS data such as Hamilton County GIS, data availability and acquisition becomes fragmented and increases the time required for decision-making.

Public Services and Planning- This section provides a general discussion on county and municipal services. While very few specific recommendations are made here for these services, the County and its municipalities are encouraged to conduct their own long-range planning efforts and provide implementation for those plans. Particular attention should be directed at potential annexation areas if, and when, the time occurs that these areas convert from county to municipal service provision and to ensure the current level of police and fire service for the cities is maintained as they expand.

In 1991 the Tennessee state legislature enacted a mandate that would require every county in Tennessee to reduce or divert their waste by 25 percent. The mission of the Hamilton County Recycling Program is to meet and ultimately exceed the 25% waste reduction goals. One of the

program's major efforts to achieve this mandate is the collection of recyclables from households and businesses.

In spring 2005, the City of Chattanooga Public Works Department decided to change its curbside recycling program to a subscription service. Although the recycling program has been in place for more than 10 years, only 18% of city households participate. The switch to a subscription service will cut costs per ton and, since Chattanooga's landfill has a lifetime expectancy of approximately 30 more years, there is not an immediate need to limit the amount of solid waste. However, the landfill capacity timeframe could be extended if the city commits to and engages citizens in a citywide recycling effort. Some studies have shown that as much as half of everything put in the landfill could be recycled. If this is true of Chattanooga's landfill, a well-promoted and utilized program could delay the need for a new landfill location. (Chattanooga Times Free Press, March 20, 2005)

Social Equity and Community Building

By creating an environment where diversity—cultural, recreational, economic, education—is encouraged, citizens are more likely to become active in their community. A vibrant community with a high quality of life is characterized by citizens that are actively involved in their community. Opportunities to do this include business and homeowner associations, local chambers of commerce, and social, volunteer and recreational organizations. Sometimes an organization can be several stakeholders who have combined their efforts to resolve a specific issue. Other agencies also help citizens feel at home in their community. Service providers include religious facilities, schools, day cares, senior-citizen support groups and the many other public, semi-public and private organizations that provide citizens with information and resources to help meet daily needs.

Cultural activities provide a way for people to individually express themselves and the community to express itself as a whole. As the City of Chattanooga's 2002 Public Arts meetings demonstrated, citizens believe that public art can contribute an important element that adds to community livability. The community's shared vision is for a diverse range of art, of the highest quality, to be installed at the most visible sites. The Riverbend Festival, the Nightfall concert series and the myriad of events held at the Tivoli Theater, Memorial Auditorium, Bessie Smith Hall and other venues demonstrate the community's commitment to public and private support of the arts.

Historic resources provide residents with another way of connecting with their community. Historic places help "tell the story" of a community's origins and significant events. Protection of these places saves valuable resources while providing a link to the past. According to the National Trust of Historic Preservation: rehabilitation and adaptive use of historic building creates profits as well as appealing places to live and work, cities that protect their historic areas attract more visitors and those people stay and spend more, and the style and the variety of historic places makes communities more attractive.

Other advantages of historic preservation include:

- Preservation and protection of the historical and /or architectural value and cultural heritage of buildings, landmarks, and historic districts.
- Stabilization and improvement of property values.
- An increase in neighborhood pride and awareness of the beauty and noble accomplishments of the past.
- Enhancement of the area's attraction to residents, tourists and visitors through the protection and preservation of historically significant areas which serve as a support and stimulus to business and industry.
- The fostering and encouragement of preservation, restoration and rehabilitation of structures, areas and neighborhoods and therefore the prevention of urban blight.

High-quality public buildings also enhance a community. Outside their more specific functions, they serve as meeting places and community landmarks and their placement in a neighborhood or community should be given the highest consideration. Site and building design, accessibility, pedestrian connectivity and other design factors should be carefully considered.

Streetscaping: A term referring to all the elements that constitute the physical makeup of the street and that, as a group, define its character, including building frontage, sidewalks, street paving, street furniture, landscaping, including trees and other plantings, awnings, signs and lighting.

The creation of quality public spaces extends to pedestrian and transportation corridors. The Chattanooga-Hamilton County-North Georgia Transportation Planning Organization (CHCNGA TPO) completed the *Chattanooga Urban Area Sidewalk-Streetscape Policy Guide* in August 2003. One component of the guide is to help prioritize sidewalk construction by identifying high priority locations for their development. The criteria refer to existing pedestrian use (i.e., are there worn paths present and high numbers pedestrians using the paths) and upon the following common pedestrian trip generators:

- Schools
- Parks/recreation facilities
- Development activity centers (areas of dense commercial development)
- Greenway proximity
- Existing sidewalk proximity/connectivity
- Mass transit stop proximity
- Special needs facilities (i.e., access for the disabled)
- Other factors (e.g., infrastructure such as curb and gutter and location of utilities)
- Other trip generators (such as civic institutions, moderate to large office complexes, and traffic volumes)

As part of the guide, streetscaping components and intensity is discussed. Not all areas within the county are appropriate for a full-scale streetscape. It is important that the intensity and character of streetscape look and feel appropriate to its location. For instance, rural areas—with an abundance of trees—cause the planting of street trees for environmental and aesthetic reasons to be largely unnecessary. In the urban core, street trees are needed to create a more pleasant pedestrian environment and help contribute to the 15% tree coverage goal as recommended in the Chattanooga Downtown Plan to help cleanse the air and reduce stormwater runoff and urban heat buildup. The dense multi-level, multi-use development found in the urban core, combined with high pedestrian use and many activity generators, potentially make this area also suitable for wider sidewalks, street furniture, and pedestrian level lighting.

Hamilton County's Wayfinding Signage Program was instituted in 2004 to help improve visitors' experiences and promote area attractions by linking visitor destinations in a unique and functional manner through a comprehensive wayfinding signage system. The planned system of attractive and informative signs will provide better directional information for motorists and pedestrians and enhance the visual quality of the community. Future phases will extend the program beyond the urban core.

Civic Goals

Regional Management and Fiscal Efficiency

Goal: Encourage public/private partnerships to support desired development.

Policy: Continue efforts to strengthen partnerships with other local, state and regional agencies, as well as with nonprofit and private enterprises.

Action: Identify potential new partners and develop a coordination process.

Policy: Consider joint siting and use of facilities.

Policy: For new residential developments, consider alternative fee policies for new capital facilities or the expansion of existing facilities. One option could entail requiring developers to pay impact fees to cover the costs of new roads, schools, and sewer lines.

Action: Explore alternative fee requirements.

Goal: Encourage intergovernmental coordination and cooperation.

Policy: Continue coordination with businesses and surrounding communities regarding land use decisions, municipal services and address other issues of mutual concern.

Action: The Chattanooga-Hamilton County Regional Planning Commission shall continue to act as the planning advisory board for Hamilton County and its municipalities and the Regional Planning Agency shall continue to act as the administrative body in planning efforts.

Goal: Make strategic community investments.

Policy: Continue efforts to improve the quality of life in Hamilton County through the planned provision of public capital facilities and utilities.

Action: Recommend a plan for school facilities' renovations, replacements and new construction, as well as relief from overcrowding and equitable provision of educational programs.

Action: The Regional Planning Agency shall continue to track population growth for the county and all its communities. The RPA shall maintain records to illustrate the impact that rezoning and subdivision growth on school enrollment and capacity.

Action: Coordinate planning for the provision of public capital facilities and utilities, including those supporting new and existing businesses.

Action: Plan sanitary sewer collection systems in coordination with planned development.

- Policy:** **Build on the success of Hamilton County’s Geographic Information System (GIS).**
- Policy:** **Assess the impact that new development/redevelopment may have on community facilities.**
- Policy:** **Encourage new development or redevelopment where public facilities already exist which may alleviate the need for constructing new facilities.**
- Policy:** **Ensure that capital planning efforts are consistent with other city, local, regional or state adopted plans.**
- Action:* *Assist Hamilton County and its municipalities with capital improvements programming.*
- Action:* *Coordinate transportation and land use planning efforts with recommendations and proposed projects in TransPlan 2030.*
- Policy:** **Ensure adequate fire protection, emergency medical services, and police service to the community through a cost-effective and efficient delivery system to maintain a safe environment to the public.**

Social Equity and Community Building

Goal: Preserve the historical resources of Hamilton County.

- Policy:** **Preserve historic resources and community landmarks of recognized significance.**
- Action:* *Historic Resources Inventory: Continue to maintain and update inventories of Hamilton County’s historic resources.*
- Action:* *Maintain the designation of and continue to implement guidelines for the City of Chattanooga’s local historic districts*
- Action:* *The Regional Planning Agency, in partnership with other organizations, shall continue to identify potential historic districts and landmarks.*
- Policy:** **Increase community awareness of historic zoning and the role of the Historic Zoning Commission. Encourage citizen education about the importance of the County’s historic resources.**

Goal: Enhance Hamilton County and its many neighborhoods’ sense of community.

- Policy:** **Support formal and informal community organizations.**
- Action:* *Establish partnerships with service providers to meet the County’s cultural, educational, economic and social needs.*
- Policy:** **Create a supportive environment for cultural activities.**

Policy: Tailor development regulations to fit unique circumstances.

Action: Support municipalities' desire to enact design guidelines if applicable.

Policy: Maintain and enhance the appearance of streets and other public spaces.

Action: Use the Chattanooga Urban Area Sidewalk-Streetscape Policy Guide, in conjunction with other adopted plans, to provide streetscape recommendations countywide.

Action: Recommend implementation of the Chattanooga Area Wayfinding Plan (See Appendix).

Policy: Civic buildings such as government offices, schools, post offices, libraries and community centers reflect a community's social values and should convey a sense of permanence and importance through their location, materials and architectural features.

Action: Designate appropriate locations and designs for civic buildings such as schools and government buildings.

Transportation

Transportation Analysis

In the year 2000, 88% of us either drove or carpoled to work (U.S. Census Bureau American Community Survey, 2000). The places we live have now been designed for decades with the intent of providing cars and other motor-driven vehicles with the fastest, most efficient means of getting from point "a" to point "b." From an engineering standpoint, this makes sense. But the places we live, whether they be cities and towns, suburbs or farms, all have one thing in common: they are places of *human* habitation, and the automobile is not the only mode by which humans move from place to place. Transportation includes all modes of human transportation, including pedestrian, bike, automobile, bus, train, air, and boat. Transportation planning in Chattanooga examines each of these modes, planning predominantly for automobile, pedestrian, and bike facilities.

The location of existing and future transportation improvements is a major determining factor in how our land use patterns take shape.

The land use-transportation connection, as it is sometimes referred to, primarily functions in two ways. Transportation policies and the resulting investment in transportation infrastructure shape how development occurs; this can be seen in strip commercial development along highway corridors such as East Brainerd Rd and Hixson Pike or the clustering of commercial development around new highway interchanges, such as Hamilton Place. Development also influences travel patterns, which in turn influences transportation investment: separated land uses and low-density development inhibit walking and encourage increased vehicle trips. Understanding the influence of development patterns



on transportation and vice-versa is essential as we plan for the future of the communities in which we live.

Transportation is an integral part of the Comprehensive Plan as it provides for the mobility of goods and people in a way that supports the goals and policies of the other components. The transportation Community component has two sections. The first is a brief overview—with goals and objectives stated—for the larger region that is guided by the Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (CHCNGA TPO). The second section discusses localized goals at a finer detail than the TPO planning effort provides. The Comprehensive Plan addresses general transportation issues. The transportation community component is addressed in full detail by the Chattanooga-Hamilton County Long-Range Transportation Plan 2030.

Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (CHCNGA TPO) Transportation Plan 2030

In June 2005, a major update the CHCNGA Long-range Transportation Plan (LRTP) was adopted by the TPO. The purpose of this LRTP is to promote the efficient movement of people and goods, while also supporting the CHCNGA TPO area's land use and economic development goals. *TransPlan 2030* seeks to identify improvements and establish transportation policy that will be needed by the target year 2030. Assuming continued economic and population growth in the CHCNGA area, these improvements will be needed to maintain acceptable levels of transportation service.

Long range transportation planning is *comprehensive* (including all modes), *cooperative* (involving a broad array of stakeholders and other interested parties), and *continuous*. The planning process is established by federal statute and is required for areas designated as “urbanized” (population 50,000 and above). The Long Range Transportation Plan (LRTP) is one of the key products of the planning process.

The Transportation Equity Act for the 21st Century (TEA-21) modified the planning factors developed in the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) to guide metropolitan planning. As part of TEA-21, Congress adopted into law seven planning factors, which target national priorities. The revised planning factors are considered in the transportation planning process conducted by the TPO and reflected in the updated 2030 LRTP. They include:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety and security of the transportation system for motorized and nonmotorized users.
- Increase the accessibility and mobility options available to people and for freight.
- Protect and enhance the environment, promote energy conservation, and improve quality of life.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system (Public Law 105-178 §1203(f), 23 USC 134).

Transportation Goals

The LRTP update addressed each of these factors in the technical evaluations and/or plan process. *TransPlan 2030* builds on the transportation planning process and reflects state, federal and local planning efforts for the region. The Chattanooga-Hamilton County North Georgia Long Range Transportation Plan goals and policies are as follows:

Goal: Provide a balanced Multimodal Transportation System that provides for the *efficient* movement of people and goods.

Policy: Identify areas with potential for transit use.

Policy: Continue to work for rail passenger service initiation.

Policy: Improve national highway connectors.

Goal: Develop and maintain a multimodal system which provides for the safe, efficient and convenient movement of people and goods.

Policy: Identify safety issues and potential solutions.

Policy: Identify areas needing traffic operations improvements.

Policy: Expand implementation of ITS.

Goal: Coordinate the transportation system with existing development and the planned growth of the study area consistent with specific land use plans.

Policy: Coordinate with the Comprehensive Plan update to identify areas for Smart Growth applications

Goal: Provide viable travel choices to ensure mobility and sustain the quality of the environment.

Policy: Protect environmentally sensitive areas from adverse impacts of transportation projects

Goal: Develop financially feasible multimodal transportation system that supports the development of all sectors of the study area's economy.

Policy: Evaluate locations targeted for transportation project improvements to ensure equity of investments

Policy: Consider freight transportation system interconnectivity to road systems for improvements

Goal: Increase cooperative intergovernmental programs that enhance the safety, convenience and efficiency of motorized and non-motorized travel throughout the study area.

Policy: Establish land use/transportation bi-state committee of the TPO to evaluate potential opportunities for bi-state cooperation

Goal: Develop operations and maintenance strategies that maximize the life of the transportation system.

Policy: Evaluate pavement quality

Policy: Evaluate bridge conditions

TransPlan 2030 contains much more detail regarding the goals and policies and further recommendations. The document also provides a financial plan component that is consistent with all ready available and projected revenue sources. The plan may be accessed at www.chcrpa.org.

Hamilton County

Travel within Hamilton County is dominated by single-family vehicles. County residents own approximately 221,611 vehicles according to the 2000 Census. Less than 4% of county commuters took public or alternative transportation as a means to get to work. This pattern reflects the reliance of county residents on individual vehicles for most of their trips.

TRAVEL TO WORK: Eighty-two percent of Hamilton County workers drove to work alone in 2003, 12 percent carpooled, 2 percent took public transportation, and 2 percent used other means. The remaining 3 percent worked at home. Among those who commuted to work, it took them on average 21 minutes to get to work.- U.S. Census Bureau

Roadway Capacity

If the county meets projected population estimates, an additional 35,000+ residents by the year 2020 will put substantial stress on the existing system. Employment growth which generates work trips and creates commuting patterns can also result in congestion of the transportation system. The Long Range Transportation Plan’s forecast for 2030 shows much greater demand than available capacity on many of the existing roadways. As demand exceeds capacity—often measured as a Level of Service that approaches “F” as demand outstrips capacity—traffic movement and safety become compromised.

Level of Service (LOS): a subjective measure of user perception of roadway conditions. Roads are rated on scale from A to F, with A representing the best operating conditions and F the worst.	
A	Free Flow: Users unaffected by others in the traffic stream.
B	Stable Flow: Slight decline in the freedom to maneuver from LOS "A"
C	Stable Flow: Operation of the vehicle becomes significantly affected by the interaction of others in the traffic system.
D	Approaching Unstable Flow: High volumes of traffic, speeds adversely affected, and the freedom to maneuver is severely restricted.
E	Unstable Flow: Operating conditions are at, or very near capacity. All speeds are low and the freedom to maneuver is extremely difficult.
F	Exceeding Capacity: Point at which arrival flows exceed discharge flows causing queuing delays. Stoppages may occur for long periods of time because of the downstream congestion. Travel times are also substantially increased.

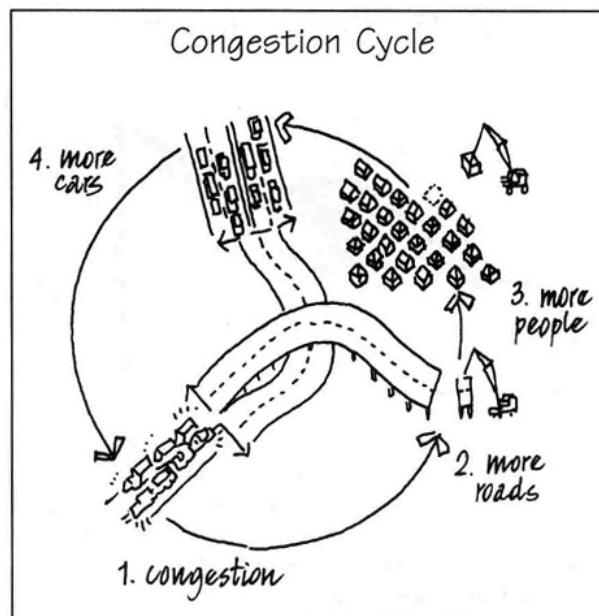
The most severe congestion is expected on St. Elmo Avenue, US 127, Ooltewah-Ringgold Road, Old Lee Highway, and East Brainerd Road. TransPlan 2030 recommends that while increased transit opportunities and other strategies are needed to reduce single occupancy vehicle (SOV) travel, capacity additions will still be needed for the most congested roadway facilities.

Diagram depicts “Rebound Effect” of road widening.
-Diagram source: *Transportation & Land Use Innovations*, Reid Ewing, American Planning Association, 1997.

Traffic congestion is considered one of the main urban transportation problems. In this case “urban” includes suburbs-
Victoria Transport Policy Institute

Unfortunately, in an impact known as a “rebound effect”, increasing roadway capacity, most often by adding one or more traffic lanes, significantly reduces short-term congestion, but traffic volumes grow over time so congestion nearly returns to its previous level within a few years. (Victoria Transport Policy Institute)

TransPlan 2030 identifies other methods of facilitating traffic operations, one of which is a series of possible bypass loops, with a recommendation for a bypass around Chattanooga. The importance of coordinating land use planning and transportation planning is readily apparent in any proposed increase in roadway capacity and in any bypass discussions.



Another means of dealing with greater demand on the roadway network is greater street connectivity. When the street system is interconnected, traffic is distributed, and fewer streets are responsible for carrying the majority of vehicles. This idea is not always popular as cul-de-sacs and dead-end streets are the preferred option for the residents that live on them. However, street connectivity can be positive for a community. A higher level of access for emergency services, reduced traffic on arterial streets, a continuous and more direct route, and greater utility connections are all benefits of an increased network.

“The street layout determines, in a very large degree, how the people shall live, how they shall travel to and fro, how they shall work and play; it has a direct influence upon the character of the home and its surroundings, upon the safety, comfort, and convenience of the people, and upon the efficiency of government and the public service...The modern city...requires a layout of its streets quite different from that of any city of the past.” B. Antrim Haldeman, The Street Layout, 1914

Transit

Transit is not just a means to battle traffic congestion. Its benefits are wide-ranging: economic, providing mobility for those without a car or otherwise unable to drive due to disabilities, and for children and the elderly, and providing a choice to the single-occupancy vehicle trip.

Hamilton County has several transit providers as identified in the County Profile. Currently, neither the Chattanooga Area Regional Transit Authority (CARTA) nor any of the rural transit providers have any planned expansions. The providers’ main emphasis is maintaining the current service area in the face of limited funding.

Pedestrian and Bicycle Facilities

In addition to its transportation value, pedestrian and bicycle facilities offer additional benefits to a community. Encouraging and promoting walking and biking reduces the incidence of chronic disease (including obesity), reduces air and noise pollution, and reduces the need for additional roads. Improving conditions for these activities also improves the livability of communities as numerous recommendations in RPA community, area and neighborhoods plans show.

Everyone is a pedestrian at some point and walking is an important mode of transportation. For trips less than one mile, walking ranks second (39% of all trips) to private vehicle trips (55% of all trips). (University of North Carolina Highway Safety Research Center)

The CHCNGA TPO adopted the Chattanooga Urban Area Sidewalk-Streetscape Policy Guide in August 2003. The primary goal of the guide is to help municipalities and counties in the TPO area to provide a transportation system where pedestrians can safely and conveniently walk to destinations. The policy provides guidance for sidewalk construction with the highest priority locations being those currently having high pedestrian use and/or situated near schools, recreation centers, parks, greenways, and other activity generators.

TransPlan 2030 lists a variety of planned pedestrian projects. Listed below, the projects range from large-scale such as the Tennessee Riverwalk to a number of sidewalks in several of the smaller municipalities:

- Tennessee Riverwalk
- Lookout Mountain sidewalks
- James Boulevard (Signal Mountain) sidewalks
- Amnicola segment of Riverwalk
- Signal Mountain sidewalks
- Dayton Boulevard streetscape
- Chattanooga sidewalks
- Chattanooga streetscape
- Chattanooga urban neighborhood traffic calming
- Signal Mountain sidewalks
- East Ridge streetscape/sidewalks

The projects in the Long-range Transportation Plan will be provided with additional funding outside of solely local government funds. However, a municipality may choose to provide further funding for pedestrian facilities. The City of Chattanooga has been using the policy to provide guidance, and to help prioritize, planned sidewalk improvements. The result is a more streamlined process for handling requests and responding to needs.

The Chattanooga Urban Area Bicycle Facilities Master Plan, a TPO project completed in 2002, recommends and prioritizes over 377 miles of facilities. Additional recommendations, as provided by TransPlan 2030 and emphasized in this plan, include:

- Incorporate the goals from the adopted bicycle plans as part of the LRTP update.
- Ensure that roadway improvements accommodate bikes to some degree.
- Need better signage on identified routes.
- Review existing routes for usage and safety.
- Coordinate routes with greenways and connectivity to parks.
- Ensure that connections occur to the facilities where people to go. The primary focus is currently recreation.
- Designate Highway 319 (CB Robinson Bridge), which is now posted as a non-bike route, for bikes.
- Consider Broad Street and Cummings Highway for bike route.
- Consider signals for tunnels that indicate when bikes are present.
- Improve east-west connectivity in suitable geographic areas.
- Consider showers, accommodations, and bike security at end route destinations.
- Need safe routes to schools and places to secure bikes.
- Coordinate the Georgia and Tennessee state plans.
- Consider major bike destinations in Hamilton County:
 - Lookout Mountain
 - Lookout Valley
 - Red Bank

As always, the Regional Planning Agency, as part of regular planning activities and in conjunction with the TPO and private and public organizations, will continue to identify needs and provide planning assistance and staff guidance for pedestrian and bicycle facilities.

Other Systems

Rail, Aviation, Waterways, Freight

Rail, aviation, waterways and freight, like the roadway and alternative transportation systems, provide a means for travel by goods and/or people. Needs are identified for each of these categories in TransPlan 2030 and other existing plans, and this Comprehensive Plan is not providing further recommendations for these systems.

Refer to TransPlan 2030 for discussion on the following: Intelligent Transportation System, Congestion Management System, and Travel Demand Management.

Additional Transportation Goals

The goals, policies and action steps presented here represent strategies that support the Development Plan and integrate with the efforts of the regional long-range transportation plan and the ideas presented in numerous area, community and neighborhood plans.

Goal: Maintain/Improve the quality, functionality and safety of existing roads.

Policy: **Monitor traffic volumes and capacity as part of the Congestion Management System under the auspices of the CHCNGA TPO.**

Policy: **Encourage the reduction of curb cuts.**

Action: *Reduce the amount of curb-cuts through organized development efforts to enable controlled access and avoid excessive and dangerous turning motions.*

Policy: **Support the needed maintenance and assist in identifying areas of improvement in the roadway network.**

Action: *Through area and neighborhood planning, identify needed alley maintenance, areas requiring improved street lighting, methods to accommodate truck traffic in appropriate areas, and other areas of community concern.*

Action: *Identify opportunities for visual improvements along major corridors.*

Policy: **Promote innovative parking solutions.**

Action: *Continue to explore and implement alternatives to off-street surface parking: reduced required parking where appropriate, shared parking, on-street parking, park and ride and other transportation demand management tools.*

Policy: **Improve signage/wayfinding.**

Action: *Recommend utilization of the Chattanooga Area Signage and Wayfinding Plan to strengthen wayfinding efforts for visitors and residents.*

Policy: Support the limitation of cul-de-sac development to places where connections, due to topography, environment, or other factors, would be impractical.

Goal: Improve street connectivity/circulation.

Policy: Maximize street connectivity within and between subdivisions to reduce congestion, to distribute traffic evenly, and maximize mobility and accessibility for all residents.

Policy: Continue to consider traffic calming techniques in existing and new residential areas where slower traffic is desired.

Action: Use local planning efforts to identify locations where traffic calming may be necessary to create a safer roadway for vehicles and residents.

Policy: Enable and encourage developers to build narrower streets to slow traffic through new residential neighborhoods, minimize construction and maintenance costs, and maximize safety for residents.

Goal: Provide a balanced, multi-modal transportation system that plans for increased transportation choices.

Policy: Continue to identify areas and methods to improve pedestrian facilities and safety.

Policy: Provide convenient pedestrian access to community facilities such as schools, parks and libraries.

Action: Through the TPO and other capital planning efforts, use the construction and maintenance of sidewalks as the predominant strategy for improving pedestrian movements.

Action: Implement specific recommendations of the long-range transportation plan in regards to pedestrians including: provide more signalized crosswalk locations, install countdown pedestrian signals and pedestrian-scale lighting where appropriate, and continue adherence to American with Disabilities Act (ADA) guidelines.

Policy: Consider potential long-term plans for interconnected greenway systems in land use decisions

Policy: Encourage further implementation of the Chattanooga Urban Area Bicycle Facilities Master Plan.

Action: Through the TPO and other capital planning efforts, provide funding for planned bicycle facilities.

Goal: Promote integrated land use and transportation planning for residential, business, manufacturing and industrial areas.

Policy: Utilize the transportation and land use planning and development process to continuously update, monitor and implement the Development Plan and to coordinate all aspects with the Long Range Transportation Plan and other Comprehensive Plan recommendations.

Policy: Arrange land uses in a manner that can be adequately supported by existing or planned transportation infrastructure.

Policy: Roadway improvements and widening projects should be completed before large-scale developments are completed.

4. Development Plan

Background

Good planning strives to first identify and then seek balance in implementing a wide range of common goals. A land use plan seeks to address future growth in the community while addressing these goals. Historically, the land use plan element has been viewed as the most important component of the Comprehensive Plan as it expresses the consideration of all available input and considerable research and how they apply to land development in Hamilton County.

*“Growth is inevitable and desirable, but destruction of community character is not.
The question is not whether your part of the world is going to change.
The question is how.”*

- Edward T. McMahon, The Conservation Fund

“NAHB [National Association of Home Builders] supports comprehensive land-use planning that clearly identifies land to be made available for residential, commercial, recreational and industrial uses as well as land to be set aside as meaningful open space. Such plans should protect environmentally sensitive areas as well as take into account a community’s projected economic growth rate, demand for new housing and expanded infrastructure – road, schools and other facilities – required to serve a growing population.” - National Association of Home Builders’ Smart Growth Policy principle

Community Concerns

Our community is blessed with abundant natural resources. These resources provide beauty, recreational opportunities and economic advantages and should not be taken for granted. Development must be balanced with the natural environment. As seen from the table at right, Hamilton County residents expressed a strong desire in a 1997 survey to target appropriate areas for new development and limit development in others. This follows a nationwide trend identified in a 2000 survey by the Pew Trust for Journalism. When asked what respondents think is the most important problem facing the community where they live, the most frequent answer (along with “Crime/Violence”) was the complex of issues “Development/Sprawl/Traffic/Roads”.

Which of the following is most important for managing growth and development?	
Improve the quality and character of commercial, retail, office and industrial areas.	9%
Control the character of single-family residential development.	5%
Develop higher quality standards for multi-family and mixed use projects.	6%
Improve the quality and character of streets, sidewalks, street lighting, and street trees.	9%
Protection of the natural environment while allowing development.	16%
All of the above.	52%
No controls, allow people to build what they want.	3%

Neighborhoods are the primary building blocks of any community. Over the years, our more traditional neighborhoods have gradually given way to subdivisions with wide curving streets and no sidewalks. Development proposals for new subdivisions, shopping centers, or apartments often generate strong opposition from the existing neighborhoods because of concerns about traffic, flooding or increased density of development. These problems can often be alleviated with good design and development patterns that are more sensitive to the natural environment and to existing neighborhoods. New residential developments can have stronger connections to shopping, employment, other neighborhoods and recreational destinations that will reduce daily commutes. They can have pedestrian-friendly streets that slow traffic and promote neighborliness. Apartment buildings can even be designed to fit in with the neighborhoods, offering more housing options. The groupings of these land use combinations conserve resources thus maintaining healthy air and water quality as a community grows.

Our historic built environment is also a valuable resource. Older buildings and historic sites contribute to a community's identity and uniqueness. Much of what has been built in recent years lacks that unique visual quality. As a result, preserving our historic resources becomes even more important.

Most Hamilton County residents depend on the car for transportation, but many realize that other transportation options must be considered if we are to maintain good mobility in the future. By bringing most of the activities of daily living into walking distance, everyone (especially the young and elderly) can gain independence of movement.

Construction costs for new roads continue to climb and the widening of roads has not proven to be a lasting solution to traffic congestion. Other potential travel modes, such as transit, don't work unless a coordinated set of policy decisions is taken to support them. For instance, while suburban districts may desire transit services, the "spread out" nature of subdivisions and the separation of residential areas from shopping and other destinations make a widely-used transit system difficult to support. By providing appropriate density at easy walking distances from transit stops, public transit becomes a viable alternative to the automobile.

Similarly, walking or riding a bike, which many people would prefer for short local trips, is difficult if sidewalks or bike facilities do not exist. Street character is an important contributor to any trip regardless of the transportation choice. Allan Jacobs, a respected planner who has done extensive research on streets, says "Great streets make great cities." Are our streets great streets?

During recent decades, commercial development has taken a different form from that of pre-World War II town centers. Centrally located town centers with unique shopfronts have been replaced with national chain stores that line our major streets, are similar in appearance, and are surrounded by parking lots. While earlier commercial centers were an integral part of a mixed use and compact town and were accessible by public transit or on foot, today's retail and office centers are usually separated from residential areas and are almost exclusively accessed by car. The spacing and separation of uses in commercial strips often require drivers to make multiple stops. However, there is a growing trend of returning commercial development to a mixed-use town center form, while still accommodating the vehicle.

We cannot ignore the car in planning for future development, or control the national trend of regional shopping malls, strip centers, and "big box" retailers. We can encourage new development patterns that will support a diverse transportation system; and we can develop standards for commercial buildings that will complement the unique character of our communities and support economic development at the same time. We can also designate and market appropriate sites for new industrial and manufacturing development that can be conveniently accessed by the workforce, but which do not adversely affect the environment or surrounding neighborhood.

*“The definition of sustainability is the insuring of the viability of growth.”
-Joe Molinaro National Association of Home Builders*

Plan Guidance

Growth is necessary for a viable, healthy community. Hamilton County has three options for growth: no growth, bad growth or good growth. The Development Plan is a strategy for good growth. Three main factors shape the recommendations found in this development plan:

1. Community Preference

Diversity is important. Investment advisors tell us that diversifying our portfolios makes good economic sense. Cultural diversity makes our community stronger and should be promoted in neighborhoods and schools. Biological diversity, or biodiversity, forms the web of life of which humans are an integral part and upon which we so fully depend. One of Hamilton County’s assets is its diversity of community types. Maintaining diversity in community types gives Hamilton County a competitive edge over nearby counties in the real estate market by offering a variety of lifestyle choices.

There will always be a preference among county residents to live in one type of community or area over another. This Plan supports Hamilton County’s continuing ability to provide that choice to its residents.

Traditionally, people settled in cities for economic reasons, needing to cluster residential, business and social uses due to a lack of transportation options or to reduce the cost of using the available transportation system. However, since World War II, expansion of the roadway network (aided by the Interstate Highway Act in 1956), cheaper gasoline and a shift to an information-based economy have reduced these traditional incentives. (Benfield, F. Matthew D. Raimi, Donald D.T. Chen. *Once There Were Greenfields: How Urban Sprawl is Undermining America’s Environment, Economy and Social Fabric*. New York: National Resources Defense Council, 1999.) Americans moved out of the inner city to take advantage of the availability of open, affordable land and embraced the use of the car.

Today, with the low cost and accessibility provided by automobile travel and the relatively high cost of residential housing, consumers are continuing to move farther away from the urban core to take advantage of lower housing costs even if they have to drive farther. In a recent (2004) survey of people who had recently moved to North Georgia, housing-related factors such as “cheaper housing” or “more house for the money” were mentioned most frequently by former Hamilton County residents as reasons for moving to North Georgia.

As this outward growth pattern continues to develop, both residential and non-residential development tends to look the same regardless of where it is occurring. Houses, businesses and stores are disconnected from each other; a result of zoning that assumes that residences should be separate from other activities and even from other housing types of differing densities. This pattern of development—generally referred to as the suburbs—is where the majority of Hamilton County residents currently reside. However, people should have the choice to live in an area that has a different look and feel if they choose.

Families often move to new homes in outlying areas to take advantage of the rural character, mountain view or access to rivers and streams. As more development in these areas occurs, and the area becomes incorporated into the suburbs, the very character that drives growth destroys these assets.

Bad Growth

- Uncontrolled/Out-of-control
- Negative impacts
- Abandoned infrastructure
- Insensitive development
- Degrades natural environment

Good Growth

- Planned and prepared for
- Potential negative impacts mitigated
- Infrastructure timed with development
- Community-sensitive design
- Respects natural and historic resources

Development in the rural areas does not need to stop. It just needs to be done differently in order to preserve the character that initially draws people. Chattanooga’s downtown housing renaissance, with its diversity of housing types, reflects the desire of many residents to embrace an urban lifestyle. Guidelines for future development in the downtown should continue to promote the energetic live, work, play experience that makes that area such an attractive choice.

There are at least three ways to direct development to meet future housing needs.			
Ranked as most preferred, second most preferred or third most preferred.			
	Most Preferred	Second most preferred	Third most preferred
Build new homes in outlying areas	29%	26%	45%
Build new homes in existing, partially developed suburban areas	37%	51%	12%
Build new homes on vacant land in the central city or inner suburbs	35%	23%	42%

Source: National Home Builder’s Assn. and National Association of Realtors, Consumers’ Survey on Smart Choices for Home Buyers 2002

2. Outward Population Shift

Hamilton County is mirroring a nationwide trend with a decline of population in urban areas while the suburban ring continues to grow and new development is attracted to the previously rural areas. Often times, revitalization is occurring in some older parts of the city as has happened in Chattanooga with initiatives aimed at encouraging downtown living.

The most recent Census report shows that the city of Chattanooga and Hamilton County’s oldest suburbs—East Ridge, Red Bank, Signal Mountain and Lookout Mountain—all lost population from 2000 to 2004. In fact, according to a Chattanooga Times Free Press article (June 30, 2005), Chattanooga lost more than 700 residents since Census 2000 and has 14,661 fewer residents than a quarter century ago.

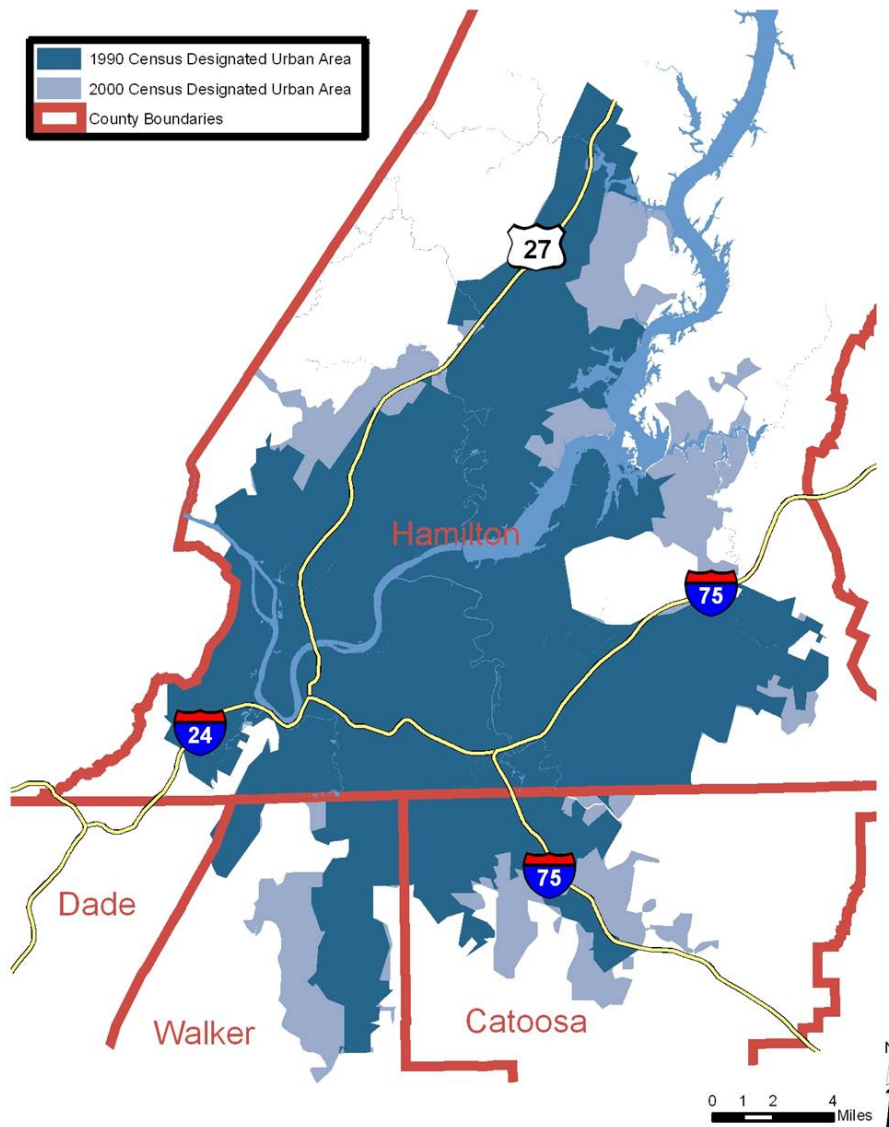
Two trends are particularly relevant to the outward development pattern. One is the decline in the average number of persons per household and the other is the rise in the amount of land claimed per household. American society has evolved to include a higher number of single, single-parent households, smaller families and “empty nesters”. 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 Hamilton County was 2.41 people.

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 County’s 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.

Another factor in the outward development pattern is the increase in overall land consumption—including roads, parking lots, and residential and nonresidential development. The average size of new homes increased from 1,100 sq. ft. in the 1940s and 1950s to 2,340 sq. ft. in 2002. (Journal of Industrial

Ecology, Volume 9, Winter-Spring 2005) This increase in average house size of single-family homes corresponds to not only greater land consumption, but also an increase in stormwater runoff from greater impervious surface area and greater overall resource consumption.

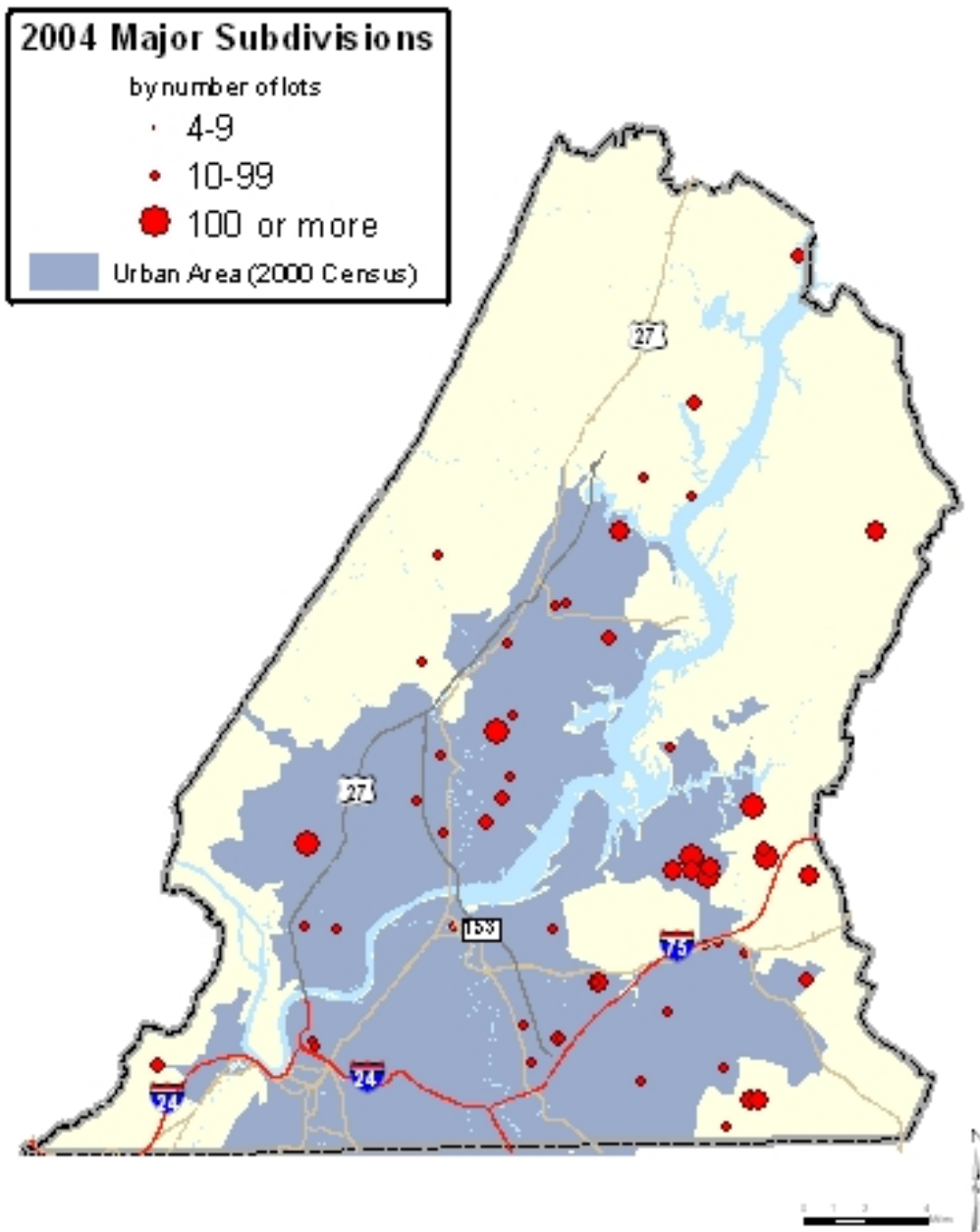
In 2000, the urbanized area of Chattanooga TN/GA had a population density of 1,184.5 people per sq. mile of land area. Knoxville's urbanized area is somewhat denser at 1,236.7 people/sq. mile while Nashville-Davidson had a density of 1,740.9 people/sq. mile in 2000. The most densely populated urbanized area in the state is Memphis which includes portions of TN, AR and MS at 2,431.3 people/sq. mile. Of the four major cities in Tennessee, the Chattanooga urbanized area has the overall lowest population density. This data demonstrates that urbanization in the Chattanooga area might not be accommodating population growth but could be pulling population from existing urban and suburban areas. Between 1970 and 1990, Hamilton County's population grew by 12 percent. In that same 20-year period, the amount of land developed increased by 93 percent. (Chattanooga Area Chamber of Commerce, Advancing a Regional Growth Strategy for Economic and Community Development, 1998.)



Urbanized area (Combines the urban area and the area often referred to as the "suburbs")
An area consisting of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people. The Census Bureau uses published criteria to determine the qualification and boundaries of UAs.- United States Census Bureau

In 2004, 1,075 new lots were permitted in Hamilton County through the subdivision process. Many of these fall just outside the existing suburban edge. Using several assumptions that hold true for the county, an estimate of the number of new housing units expected to appear on the market can be provided. Assuming that 75% of the preliminary subdivisions lots will be recorded and 88% of recorded lots will be built, the permitted subdivision from 2004 alone could provide an additional 615 houses.

According to Census data, Hamilton County's housing vacancy rate is just under 12%. This is higher than the other counties in Tennessee with large cities and other comparable cities in the region. With Hamilton County's current low population growth rate, will new residents be able to populate these new neighborhoods without leaving vacant residential properties in existing neighborhoods?



County	Total Population	Estimated Housing Units	Occupied Units	Vacancy Rate
Hamilton, TN	300,929	139,020	122,732	12%
Knox, TN	380,498	179,945	163,638	9%
Shelby, TN	887,128	379,174	347,354	8%
Davidson, TN	545,210	262,261	235,660	10%
Madison (Huntsville), AL	282,345	124,786	117,359	6%

Source: US Census Bureau,
Community Survey 2003

When subdivisions and new dwellings are built at the urban fringe, citizens often relocate there, leaving behind older, established residential areas. Many businesses also choose locations away from the traditional urban areas. They often follow their consumers who have migrated, or to pursue a need for lower land costs and proximity to freeway interchanges. The commercial properties left behind often remain vacant for long periods, and are considered blight by the surrounding residents.

The impact of urbanization and the subsequent loss of open space, including rural areas, can be hard to quantify but it is very real. Open space preserves critical environmental areas, provides recreational opportunities, and guides new growth into existing communities. Preservation of open space can have a profound impact on a community's quality of life. In the 1997 visual preference survey, Futurescape, county residents gave high ratings to images of open space, pastureland and subdivisions that preserved open space while images of typical subdivision development scored much lower.

3. Preserve viable community components/Preserve existing infrastructure

Most development is occurring outside the central city, particularly evident when viewing zoning requests and building permits. This development tends to spur new roads and schools which in turn encourage more people to move still farther out. This pattern leaves existing—and already paid for—infrastructure behind. It also perpetuates an endless road-widening cycle.

The existence, location, and extent of public and private infrastructure is critical to the manner in which the land in a county develops. One of the fundamental roles of planning is ensuring the provision of basic infrastructure that provides and enhances the health, safety and welfare of all community residents. Infrastructure is usually thought of in its physical form: roads, schools, recreation centers, sewers, wastewater treatment plants, etc. Needed services are the *output* of this infrastructure. The efficient movement of people and goods, the provision of clean water, and a well-educated workforce are the *result* of infrastructure investments.

Directing development towards communities already served by infrastructure seeks to utilize the resources that existing neighborhoods offer and to maintain the value of public and private investment. By encouraging development in existing urban areas, communities benefit from a stronger tax base, closer proximity of jobs and services, increased efficiency of infrastructure, reduced development pressure in fringe areas, and preservation of farmland and open space. In addition, the process of increasing development in existing communities can maximize the use of existing impervious surfaces, thereby improving local and regional water quality, and can create opportunities for more transportation options. (Getting to Smart Growth: 100 Policies for Implementation. International City/County Management Association)

The demand for new infrastructure increases as the urban area increases in size or density. It is important to ensure that the new growth areas and infill/redevelopment areas of the community both have adequate capacity and are maintained. With continued population movement to the exurban/transitional area, stress is placed on the infrastructure. A decline in the level of service in school infrastructure in many of the urban fringe areas is an example of financial stress that can arise

when a county/municipality needs to provide costly public services with limited financial resources. One of the best example of this is the overcapacity of schools in these areas; a situation that is found in Hamilton County with a system that is not keeping up with demand. The schools that are at the highest capacity, including Ooltewah, Soddy Daisy and Central High, are those that include the urban fringe areas.

High School Capacity			
High Schools	Student Capacity	2003-2004 Enrollment	Capacity Surplus/(Deficit)
Ooltewah High	1394	1729	(335)
Soddy Daisy High	1295	1661	(366)
Hixson High	1374	1032	342
Central High	876	1130	(254)
Red Bank High	1195	1322	(127)
Howard School of Academics & Technology	1534	764	770
Tyner Academy	817	536	281
Brainerd High	1255	1008	247
Sale Creek Middle/High	378	163	215
Lookout Valley Middle/High	268	241	127
East Ridge High	1076	915	161

Note: When facility combines middle and high schools, half of the capacity is assumed for high school.

It is important to keep in mind that the construction of new schools is not necessarily due to the addition of more students to the school system. The number of students enrolled in the Hamilton County school system has had a 5.3% decrease in total middle school enrollment and a 3.4% decrease in total elementary school enrollment from the 2001 school year to the 2004 school year while total high school enrollment has had a minimal increase.

Development Plan

The underlying (and recurring) theme of this plan is based on the idea that different types of communities require different approaches to development.

This section addresses methods to ensure viable, healthy communities. The Development Plan presented here takes the place of the traditional land use plan. It is not a traditional land use plan in that specific land uses are not recommended for locations throughout the county. That approach is more appropriate for specific area studies or neighborhood plans. Rather, this Plan proposes a flexible approach to the interaction of land uses and provides further discussion on intensities and densities depending on location. As a tool to reach the Comprehensive Plan's vision, the Development Plan balances the predicted demand for growth with the need to preserve our quality of life.

One critical element to the plan is "intensity." In general, the intensity of a land use is the amount of impact that the land use would have on surrounding land uses, transportation network, and supporting community facilities. Most agricultural uses have minimal impact on surrounding uses, while heavy industry generally has very significant impact on surrounding uses. A particular use may be more intense due to one or more characteristics, such as traffic generated, amount of impervious surface, bulk of structures, density or other factors such as noise, light, etc.

The Development Plan combines a countywide map and text to describe Development Sectors, Development Models, and Opportunity Areas for Hamilton County. The Plan should be used in conjunction with the other recommendations presented in this plan in order to ensure that the intent of the Comprehensive Plan is best met.

Development Sectors

The Development Plan identifies eight different Development Sectors: Preserve, Reserve, Rural Growth, Transitional Growth, Outer Suburban Growth, Inner Suburban Infill, Urban Infill, and Urban Core Infill. Each successive sector identifies a higher level of urbanization and describes how the Community Components (Housing, Business, Environment, Parks, Civic, and Transportation) relate and interact with each other. As this is a 25-year plan, some portions of some sectors may evolve into more intense sectors as population growth and infrastructure development warrants.

Development Models. For each Development Sector, appropriate Development Models are recommended. These models represent a recommended development pattern(s) for that sector. Several models are appropriate in most sectors while some are most appropriate for only one or two sectors. The development models are:

- Traditional Neighborhood Development
- Suburban Development
- Crossroads Development
- Open Space Subdivision Development
- Big Box Development
- Mixed Use Development

The Development Model descriptions are located at the end of this section following the Urban Core Infill sector discussion.

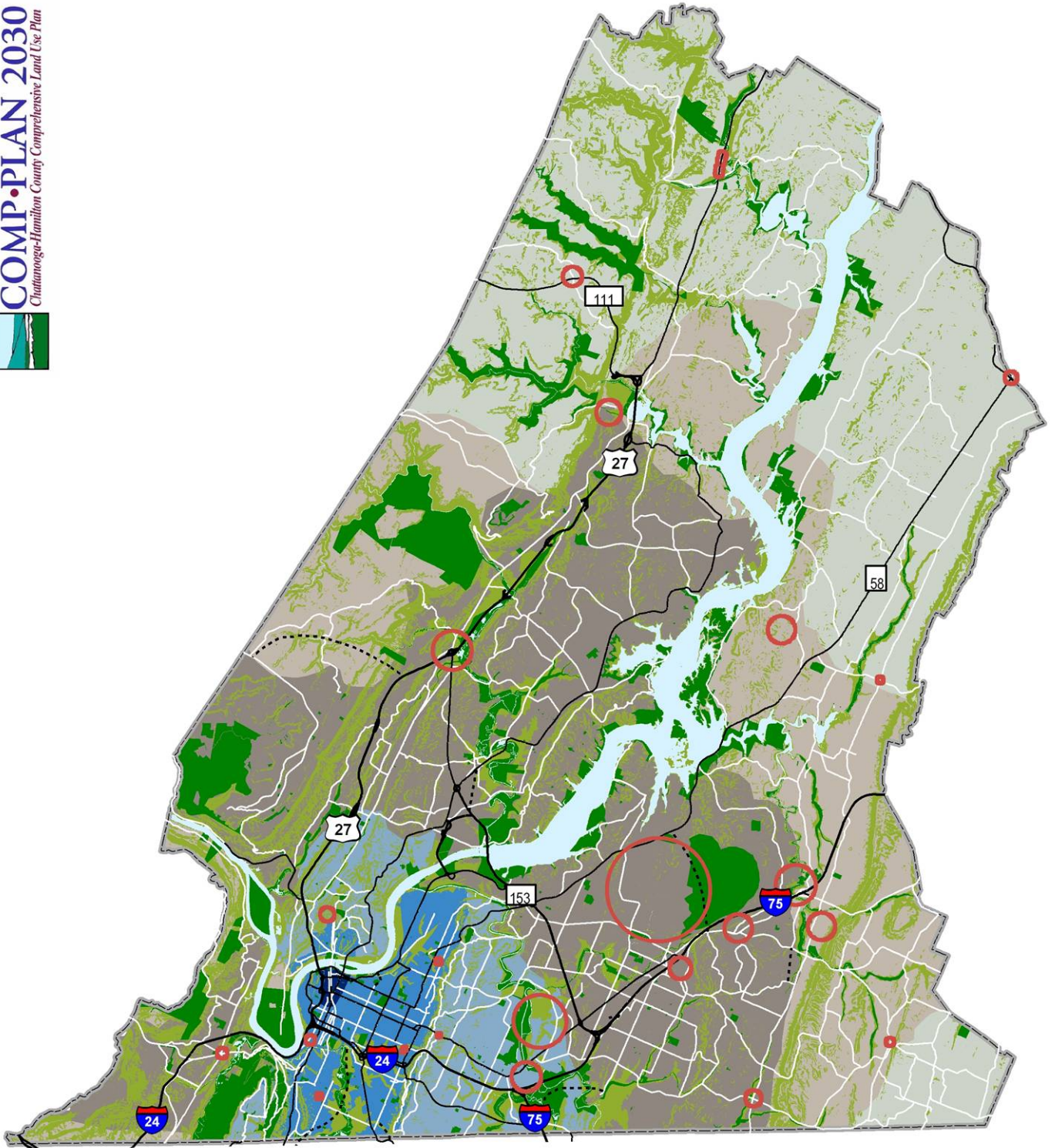
Manufacturing and industrial development is not specifically described in any specific Development Sector or any specific Development Model. Further discussion of this form of development is found at the end of the Development Models section.

Opportunity Areas. Opportunity Areas are identified for each sector. Most of the specified locations have a strong potential for mixed-use or multi-use development in the short or long term. Several of these areas have been previously mentioned in other RPA plans as suitable for focused development efforts. Other areas were identified by staff, and through public input, as future areas for development or redevelopment. A short description discusses possible opportunities and provides a plan reference should further information be desired. Any future development must address environmental concerns such as flooding and topography as well as deal with any potential environmental issues of soil and water contamination that may exist from previous development. Additionally, while no timeframe is given for projects to occur in the Opportunity Areas, development may need to either occur in phases or be delayed until sufficient infrastructure is in place.

Characteristics of opportunity areas:

- Activity Center potential.
- Strong current or future development potential.
- Revitalization and redevelopment potential.
- Reuse potential.
- Residential growth potential.
- Commercial and industrial/manufacturing economic growth potential.
- Open space protection potential.
- Historic protection potential.
- New roadway potential.

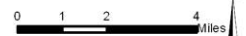
Long Range Transportation Plan 2030 Potential Projects. Changes to our circulation system can greatly effect growth and the character of some communities. Potential roadway projects are listed for each sector as identified in the 2030 Long Range Transportation Plan and depicted on the Development Plan map. While the projects are potential and have not received funding, if the projects are completed, opportunities for growth can possibly occur at locations along the new corridors.



Development Sectors:

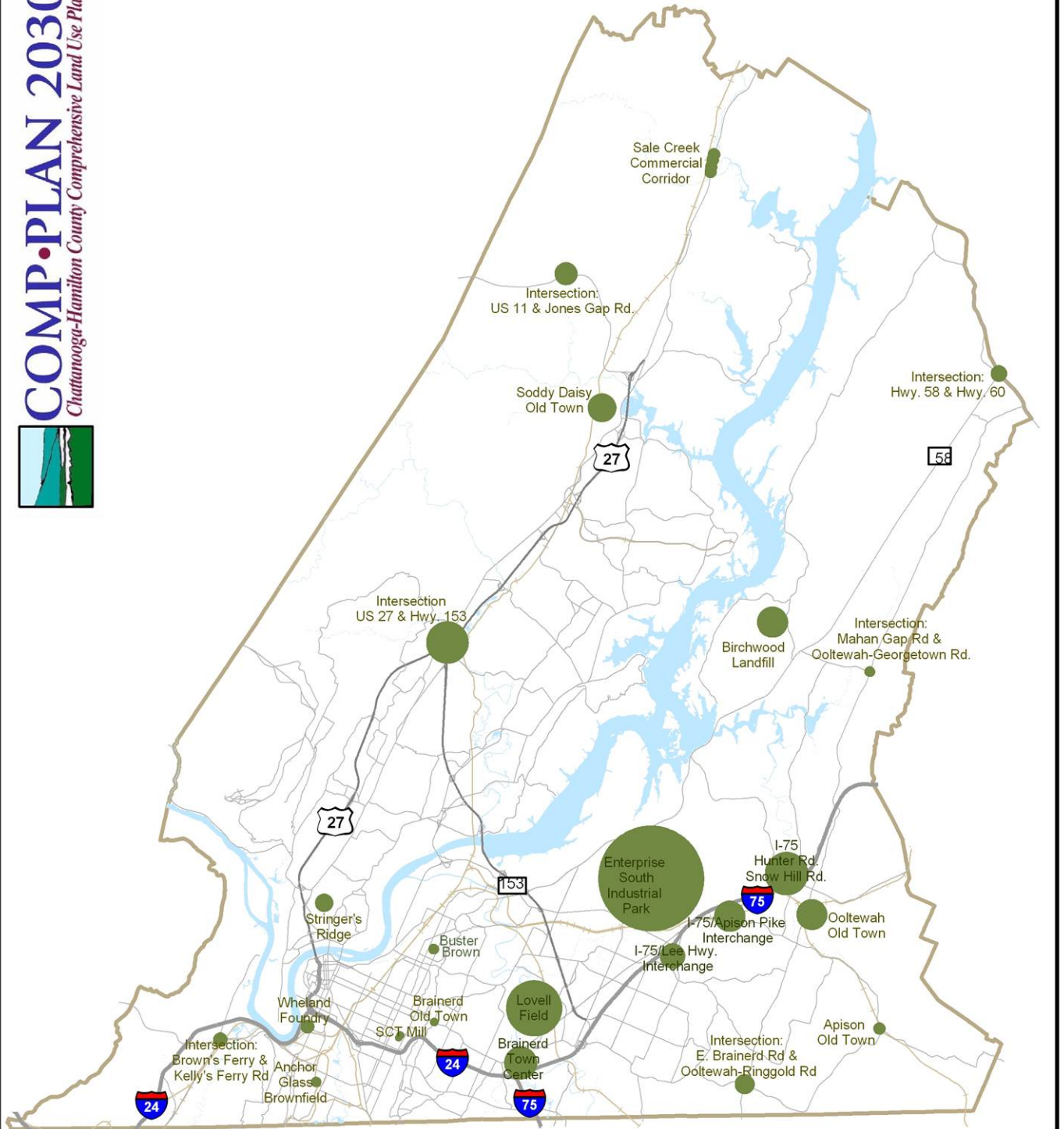
- | | |
|-----------------------|---|
| Urban Core Infill | Preserved |
| Urban Infill | Reserved |
| Inner Suburban Infill | Opportunity Areas |
| Outer Suburban Growth | L RTP 2030 Potential New Roadway Projects |
| Transitional Growth | Principal Arterials |
| Rural Growth | Interstates & Highways |


Hamilton County Development Plan



COMP·PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan



 Opportunity Areas

Hamilton County Opportunity Areas

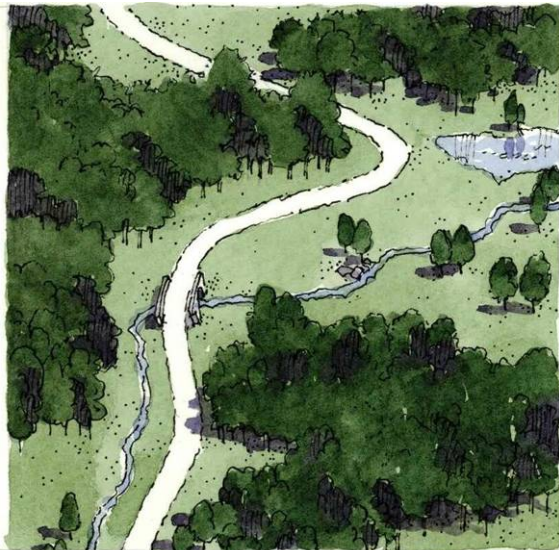


PRESERVE Development Sector



Preservation areas consist of open space that is currently protected from development. It includes areas under environmental protection by law or standard, as well as land acquired for conservation through purchase, or by easement. The Preservation category includes surface water bodies, protected wetlands, protected habitats, purchased open space with riparian corridors, conservation easements, and open space development. Appropriate uses in this sector would be parks, natural preserves, recreation, camping, and utilities. (*A list of preserved and protected land is available in the Appendices*).

RESERVE Development Sector



Reservation areas consist of open space and other sensitive areas that are not currently protected from development. These areas may have some special requirements for development. However, additional requirements are needed. This category includes 100-year floodplains, steep slopes, open space and corridors intended for acquisition, and required buffers.

Appropriate Development:

Development and construction within this area should be limited and carefully determined on an individual project basis.

Opportunity Areas:

Although no specific locations are identified, reservation areas identified on the map may have also been identified in RPA or private and public conservancy plans as needing protection. Through continued efforts, many of these reservation areas are expected to become Preservation Sectors.

RURAL GROWTH Development Sector



Rural Growth areas consist of lands in open or cultivated state or sparsely settled. It includes woodlands and agricultural lands. It is assigned to areas that have the least amount of streets per square mile and are not currently, but may be planned to be served by sewers in the future. These areas are suitable for farm land trust protection and forest conservation efforts. The Rural Growth category is provided to encourage the development of neighborhoods that set aside significant natural vistas and landscape features for permanent conservation.

Recommendations:

Housing: Housing development in Rural Growth areas should be particularly sensitive to existing densities. Housing of greater densities should be clustered around the periphery of small-scale commercial development. Greater residential density is suitable in an open space subdivision which preserves significant open space to maintain the rural characteristic of the community. Outside of these clusters, estate lots are preferred. In addition, manufactured homes with large setbacks are also appropriate in these areas.

Business: Commercial development within the Rural Growth sector is encouraged to follow the design principles of the Crossroads Development model contained within the Development Plan. In order to protect the character and natural views of the rural area, non-residential development is encouraged to develop in a comprehensive and coordinated manner. Non-residential development should be small-scale, low-intensity land uses, compact and clustered at intersections of major thoroughfares. Non-residential development should generally be about the same scale and intensity level (building size, shape, and footprint) as residential development within the Rural Growth sector. Non-residential development should be appropriately located within those areas that form the four quadrants of the intersection of two arterial classified streets, or the intersection of an arterial and collector classified streets. These locations should be served by appropriate existing and planned infrastructure improvements such as an adequate water supply system. Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Non-residential development areas are intended to provide retail and personal service establishments desired by residents to fulfill basic daily needs. Non-residential development in the Rural Growth sector is not intended to serve the general traveling public. Typical land uses include small convenience stores, small grocery stores, restaurants, and a variety of smaller scale retail shops. In addition to retail uses, small-scale, low-intensity personal and business service establishments such as beauty/barbershops, laundry/drycleaners, and traditional financial institutions may be permitted.

Activity Centers- Commercial activity centers in the Rural Growth sector should begin as low to medium-intensity neighborhood or community-scale centers. Over time, they may emerge to become larger or possibly regional in scale. They should be located at the intersections of major travel routes.

Environment: Respect of natural areas is highly encouraged as it reflects the rural character desired by the community.

Parks: May include regional serving passive parks such as state and local parks and campgrounds. Local active parks are encouraged in conjunction with schools to serve public as well as school needs. Planned unit developments and traditional neighborhood developments should dedicate land for neighborhood-serving active and passive facilities.

Civic: Civic buildings should be distinctive and serve as important landmarks in the community. Civic facilities should be located in prominent locations and made accessible by multiple modes, including automobiles, transit, walking, and bicycling. Septic systems predominate; sewer development desired to occur only through the planned provision of services.

Transportation: Two lane roads are most common, bus service is limited to special needs, sidewalks are unnecessary unless part of a school campus development plan, and share-the-road bicycle facilities should be encouraged on all roads. Identify scenic rural roads and develop proposals to preserve these vistas.

Appropriate Development Models:

- Traditional Neighborhood Development
- Crossroads Development
- Open Space Subdivision Development
- Mixed Use Development

Opportunity Areas:

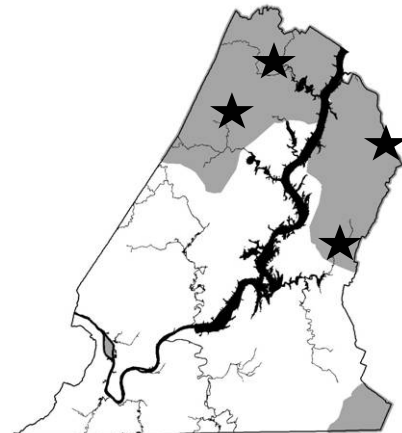
Highway 111 and Jones Gap Road: As population growth continues to increase in counties to the west and north of Hamilton County, the Jones Gap Road exit off of Highway 111 can expect to see increasing demand for retail needs. Although there are no plans specifically detailing land use in that area, several commercial businesses are already established.

Sale Creek Commercial Corridor: The portion of US 27 that passes through Sale Creek in northwest Hamilton County is flanked predominately by commercial and manufacturing zoning. New businesses and several rezonings in the past years have created the potential for an expanded commercial node at this location.

Crossroads at Mahan Gap Road and Ooltewah-Georgetown

Road: Several businesses currently exist at the intersection of these thoroughfares. Rapid residential growth in the surrounding area is expected to increase the need for expanded retail, and perhaps higher-density residential and civic uses, at this location.

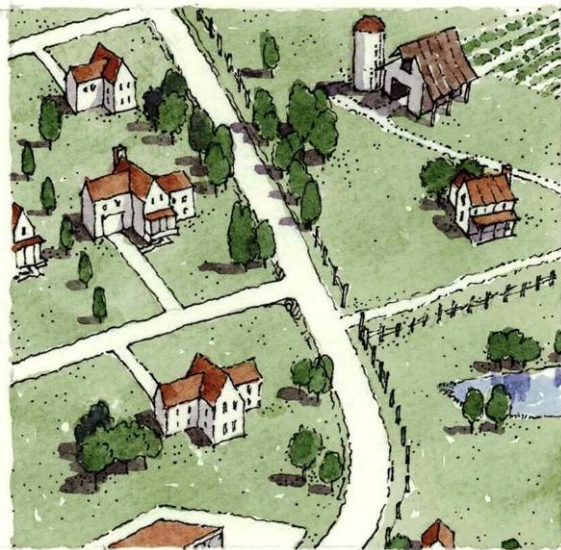
Crossroads at Highway 58 and Highway 60: The intersection of these two higher-capacity thoroughfares has remained a small commercial crossroads. While only the southern portion of the node is in the county, an opportunity exists for growth of this commercial node in both Hamilton and Meigs County.



Long Range Transportation Plan 2030 Potential Projects:

No streets and/or intersections are identified for the Rural Growth sector in the TransPlan 2030 as needing a TPO project.

TRANSITIONAL GROWTH Development Sector



Transitional Growth areas serve as a bridge between rural zones and more urbanized or suburban development. Because of potential land use conflicts, development in this area should be carefully examined for adverse impacts on surrounding properties. Thoughtful planning and community input will help mitigate negative impacts while providing opportunities for growth. Low-density residential development is encouraged in these areas. Neighborhoods and open space subdivisions and clusters that set aside significant natural vistas and landscape features in exchange for higher densities as well as traditional neighborhood development are preferred over conventional subdivisions. Permitted densities may rise with increased open space preservation. These are also areas where new communities, including residential and commercial components, may develop. Mixed-

use commercial centers are recommended in proximity to major transportation corridors, intersections, or existing activity centers.

Recommendations:

Housing: Unlike the Rural Growth sector, the Transitional Growth sector will tolerate somewhat higher levels of housing density. Appropriate forms may include scale-compatible multi-family dwellings and traditional neighborhood developments. Since open spaces and open vistas are a key component of the Transitional Growth sector, new housing developments should feature cluster-type development of higher densities in exchange for open space and natural vista preservation. As in the Rural Growth sector, more densely-developed housing that does not provide significant open space and vista preservation should be located near the periphery of commercial nodes.

Business: Low to medium-intensity (neighborhood and community scale) commercial should be clustered at the intersection of an arterial and collector street or the intersection of two collector streets. Neighborhood and community scale commercial centers typically include retail uses such as convenience stores, laundromats, video rental stores, personal service establishments, etc.

Activity Centers- Non-residential development in the Transitional Growth sector is encouraged to locate within mixed-use or multi-use activity centers that are of an appropriate scale and intensity. Appropriate types of centers include the Neighborhood Activity Center and the Community Activity Center. The Development Models Section of the Development Plan defines the scale, intensity level, and appropriate locations for these two types.

This plan encourages non-residential development to locate within mixed-use or multi-use activity centers; however, not all non-residential uses are appropriate for activity centers, nor are all arterial intersections appropriate for mixed-use or multi-use activity centers. Non-residential development that is not located within activity centers should develop as small scale, low-intensity land uses that are compact and clustered at the intersection of two arterial classified streets, or the intersection of an arterial and a collector classified street.

Non-residential development not located within activity centers should generally be about the same scale and intensity (building size, shape, and footprint) as residential development within the

Transitional Growth sector. Commercial areas are intended to provide retail and personal service establishments desired by residents to fulfill basic daily convenience goods and services. Commercial land uses not located within neighborhood or community activity centers typically include small convenience stores, small grocery store, eating establishments, and a variety of smaller scale retail shops. In addition to retail uses, small-scale, low-intensity personal and business service establishments such as beauty/barbershops, laundry/drycleaners, and traditional financial institutions may be permitted.

Non-residential development within the Transitional Growth sector, including non-residential developments located within neighborhood and community activity centers should be designed in accordance with the design principles of the Traditional Neighborhood Development model, or the Conventional Suburban Development model with modifications, as outlined within the development model section of the Development Plan. Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Environment: Unlike the Rural Growth sector, this area is much more pressured by urbanization. Efforts should be taken to retain belts/corridors of forested land which link to larger tracks of open space in the Rural Growth and Preserved areas. This will help maintain wildlife diversity and minimize habitat fragmentation. Stormwater detention is primarily contained in ditches; concentrated development areas can require underground retention facilities.

Parks: Local active parks are encouraged in conjunction with the schools to serve public as well as school needs. Planned unit developments, Traditional Neighborhood Developments, and subdivisions with required open space should dedicate land for neighborhood-serving active and passive facilities. Neighborhoods should be connected by a multi-use path system wherever possible. Regional and community parks with concentrations of facilities are encouraged to serve the area as a whole.

Civic: Civic buildings should be distinctive and serve as important landmarks in the community. Civic facilities should be located in prominent locations and made accessible by multiple modes, including automobiles, walking, and bicycling. Sewer development is common, but further expansion is desired through the planned provision of services.

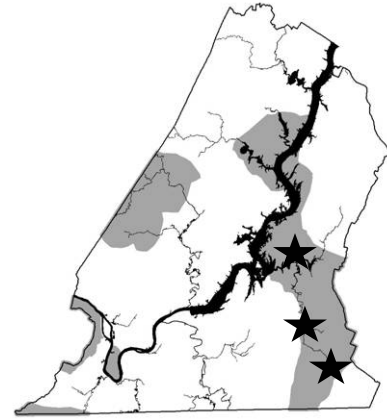
Transportation: Two lane roads are most common. Bus service is limited to special needs. Sidewalks may be needed as part of a school development or activity center, and share-the-road bicycle facilities should be encouraged on all roads. New streets should be designed to match the intended function and speed. Future road-widening projects should be carefully selected to accommodate streets that are over capacity.

Appropriate Development Models:

- Traditional Neighborhood Development
- Suburban Development
- Crossroads Development
- Open Space Subdivision Development
- Big Box Development
- Mixed Use Development

Opportunity Areas:

Apison Old Town: This area has the potential for redevelopment as the traditional mixed-use neighborhood it once was in the late 1800s. The compact street grid is still in place with a small retail center that could be revitalized. This historic framework could be used to create a new Apison Town Center following the recommendations for Traditional Neighborhood Development in the development model section of the Development Plan.



Landfill: The City of Chattanooga's active landfill is located on Birchwood Pike and is expected to be in operation for at least 25-30 more years. While the closed landfill in Apison remains vacant, other landfills in the area have been reused as parks or as sites for civic uses.

Ooltewah Old Town: The original town of Ooltewah near Main St. retains much of its historic character. The James County Courthouse, a reminder of when what is now Hamilton County was divided into Hamilton and James Counties, is currently used as a health center. The physical layout of the streets and other remaining older structures provide a community type found in few other places in the county.

Long Range Transportation Plan 2030 Potential Projects:

The following streets and/or intersections are identified for this sector in TransPlan 2030 as needing transportation improvement. The most appropriate, context-sensitive solution is encouraged to resolve the specific transportation need identified. (Reference TransPlan2030 for identified potential project consideration.)

- Old Lee Highway from I-75 to SR 317
- Snow Hill Rd. from I-75 to SR 312/Mahan Gap Road
- Wauhatchie Pike from US 11 to US 41/US 64
- US 11/US 64/Lee Hwy. from Mountainview Rd. to SR 321
- Old Lee Highway from SR 317 to Little Debbie Parkway
- Signal Mountain Bypass from US 127 to US 27
- SR 58 from Champion Road to SR 312
- Mahan Gap Road/ SR 312 from SR 58 to Snow Hill Road
- US 11/US 64 Lee Highway from Ooltewah Industrial Park to Hamilton County Line
- Ooltewah-Georgetown Road from US 11/Lee Hwy to Mountain View Rd
- Dayton Pike from Tsati Terrace to US 27
- SR 317/Apison Pike from Old Lee Highway to E. College Drive
- US 11 from SR 299 to Wauhatchie Pike
- SR 193 from Central Ave. Extension to SR 341
- I-24 from I-75 to US 27
- I-24 from I-59 to I-124
- SR 321(TN)/SR 151(GA) Ooltewah-Ringgold Road from Lee Highway to US 41/US 76
- I-75 in GA from Study Area Boundary to I-24

OUTER SUBURBAN GROWTH Development Sector



Outer Suburban Growth areas provide both infill and outward growth opportunities for conventional low-density development. These areas are appropriate for the separation of residential and non-residential uses. However, in addition to using conventional suburban development methods, the Suburban Infill areas support Traditional Neighborhood Development and both mixed and multi-use developments.

Recommendations:

Housing: Residential areas may continue to be kept separate from non-residential areas. Conventional residential subdivisions with some improvements are appropriate here. Single-family residential is separated from multi-family residential. However, Traditional Neighborhood

Development is also encouraged. Medium and perhaps some high-density residential may be appropriate if incorporated in single-family residential development. Higher-density residential should be adjacent to a commercial center.

Business: Generally, the mix of retail and office uses is encouraged. New mixed and multi-use development sites should be located at the intersection of significant thoroughfares and existing activity centers reused or revitalized as town centers. Older shopping centers and malls have good potential for revitalizing, reusing, or retro-fitting as town centers that are mixed-use, compact and walkable. Neighborhood-scale activity centers should be provided at appropriate locations such as the intersection of an arterial and a collector street, or two collector streets. Neighborhood scale centers include those retail activity centers that provide routinely needed goods and services such as small grocery stores, video rental stores, restaurants, dry cleaners, personal service establishments, and other similar uses.

Activity Centers- Non-residential development in the Outer Suburban Growth sector is encouraged to develop as mixed-use or multi-use activity centers that are of an appropriate scale and intensity level. Appropriate types of mixed-use or multi-use activity centers within the outer suburban sector include the Neighborhood Activity Center, the Community Activity Center, and the Regional Activity Center. The development models section of the Development Plan defines the scale, intensity level, and appropriate locations for neighborhood, community, and regional activity centers.

Non-residential development within the Outer Suburban Growth sector should be designed in accordance with the design principles of the Traditional Neighborhood Development model, or the Suburban Development model with modifications, as outlined within the Development Model section. Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Environment: Alteration of the natural conditions should respect areas adjacent to the Preserve and Reserve sectors and provide smooth transition for the evolution of natural greenbelts. Stormwater detention primarily contained in vegetative culverts or ditches; concentrated development areas may require underground retention facilities.

Parks: Local active parks in conjunction with schools are encouraged to serve public as well as school needs. Planned unit developments, Traditional Neighborhood Developments, and subdivisions with

required open space should dedicate land for neighborhood-serving active and passive facilities. Neighborhoods should be connected by a multi-use path system wherever possible. Regional and community parks with concentrations of facilities are encouraged to serve the area as a whole.

Civic: Civic buildings should be distinctive and serve as important landmarks in the community. Civic facilities should be located in prominent locations and made accessible by multiple modes, including automobiles, transit, walking, and bicycling. Sewers predominate.

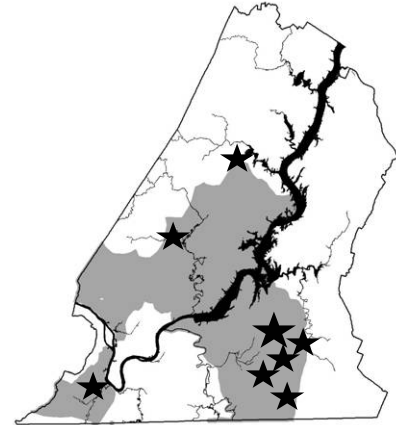
Transportation: The Outer Suburban Growth areas are serviced by a hierarchy of street function classifications. The blocks in these areas are large and the roads are irregular to accommodate site conditions. Cul-de-sacs are widely used in Outer Suburban Growth areas. They are typically used when topography, water bodies or other major barriers preclude connected streets. They are also used to help control traffic through residential areas. Future use of cul-de-sacs should be carefully considered to help avoid any additional traffic congestion. Streets should be designed to match the intended function and speed. Future road-widening projects should be carefully selected to accommodate streets that are over capacity. Completing major street connections is recommended to help improve vehicular traffic flow in congested areas. Transit service should be expanded, if warranted, to help alleviate vehicular congestion. Dry, well-designed transit shelters should be provided at activity centers.

Appropriate Development Models:

- Traditional Neighborhood Development
- Suburban Development
- Open Space Subdivision Development
- Big Box Development
- Mixed Use Development

Opportunity Areas:

Enterprise South Industrial Park (formerly Volunteer Army Ammunition Plant): A Certified Automotive Megasite, this 1,600 acre top-tier industrial park offers the opportunity for dramatic job growth for this region. The site, 12 miles from downtown Chattanooga, if fully developed, could cause an increase in population in the surrounding area. Workers wishing to live close to their workplace will create a demand for houses and a need for retail east of the Tennessee River. The recommendations in the sector plan reflect a slow, but steady population growth rate. Should a sharp increase in job growth occur at this location, the Apison/Hwy. 58/Ooltewah area could expect to see a higher rate of suburbanization than reflected on the current Development Plan map. It may become necessary in the future to re-examine an east-west county connector from Highway 58 to Highway 27.



I-75 at Apison Pike (New interchange location): The interchange at I-75 will provide access to the Enterprise South Industrial Park. The Tennessee Department of Transportation project will involve multi-phase construction with one potential project providing access to Apison Pike for Collegedale traffic. The completion of this interchange will provide new opportunities for growth in an area previously limited by the roadway network.

Highway 153 & US 27 Interchange: The existing land use at this interchange includes several vacant parcels, service retail, and a mobile home park. This area is identified in two plans—Soddy-Daisy Comprehensive Plan 2020 and the Hixson-North River Community Plan—as appropriate for mixed and multi-use development to serve both existing residents and pass through traffic.

Brown's Ferry Rd./Kelly's Ferry Rd./Cummings Hwy Intersection: This area was traditionally the center of social and economic activity for Lookout Valley, and it still contains a mix of commercial, residential, religious and public land uses. The Lookout Valley Area Plan recommends a mixed-use plan in order to strengthen the social, physical, and economic value of this existing community center.

Lee Hwy/Bonny Oaks/I-75: Approximately 28 acres in the Silverdale Industrial Park will accommodate office facilities for the transportation company US Xpress. The remaining 12 acres will be developed for commercial enterprises such as restaurants, a day care center, a bank, a convenience store, or similar operations that would complement the office complex.

East Brainerd Rd./Ooltewah-Ringgold Rd.: This intersection is identified in the East Brainerd Corridor Community Plan as a potential location for a concentration of medium to high-intensity, mixed-use developments. These developments are intended to be planned and constructed as a unit to serve the diverse needs of the entire community.

Soddy-Daisy: Soddy-Daisy contains one of the oldest developed areas in Hamilton County. While the majority of the historic structures no longer exist in the old town, several noteworthy buildings are still standing along with a traditional grid street network in downtown Soddy.

Interchange I-75 and Hunter Rd. (including intersection of Snow Hill Rd. and Mountain View Rd.): This I-75 exit and surrounding area will be directly impacted by a reworking of the Hunter Rd. intersection and increasing residential and commercial development along Snow Hill Rd., Mountain View Rd., and Ooltewah-Ringgold Rd. Memorial Hospital purchased land on Mountain View Rd. for a new community clinic which could also create a market for a variety of related services.

Long Range Transportation Plan 2030 Potential Projects:

The following streets and/or intersections are identified for this sector in TransPlan 2030 as needing transportation improvement. The most appropriate, context-sensitive solution is encouraged to resolve the specific transportation need identified. (Reference TransPlan2030 for identified potential project consideration.)

- Dayton Pike from Tsati Terrace to US 27
- Little Debbie Parkway Extension from Bill Reed Road to SR 317
- Gadd Rd. from Norcross Road to SR 153
- Shallowford Road from East of Moore Road to West of SR 153 (Airport Road)
- SR 317/Bonny Oaks Drive from SR 58 to I-75
- SR 317/Apison Pike from Old Lee Highway to E. College Drive
- US 11/US 64/Lee Highway from McCutcheron Road to SR 317
- Volunteer Site Connector from SR 317 TO SR 58
- Wauhatchie Pike from US 11 to US 41/US 64
- Camp Jordan Pkwy Extension from Camp Jordan Road to Gunbarrel Road
- E. Brainerd from Banks Road to SR 321/Oolewah-Ringgold Road
- Gadd Rd. from Dayton Blvd. to Norcross Road
- Sequoyah Nuclear Plan Road from Dayton Pike to Dallas Hollow Road
- Ashland Terrace from Dayton Blvd. to Ely Rd. (CST Only)
- SR 153 from US 27 to Roberts Mill Rd.
- SR 153 from Gothard Rd. to Dayton Blvd.
- Campbell Street from Glass Street to Bonny Oaks Drive
- Jersey Pike from SR 58 to Shallowford Road
- Old Lee Highway from SR 317 to Little Debbie Parkway
- Walker Rd. from Lee Highway to Standifer Gap
- Standifer Gap from Walker Rd. to Bill Reed Rd.
- Jenkins Rd. from Standifer Gap to Shallowford Rd.

- Signal Mountain Bypass from US 127 to US 27
- Hixson Pike from Hamill Road to Middle Valley Road
- Middle Valley Road from 0.3 miles north of Hixson to Thrasher
- SR 58 from Champion Road to SR 312
- Hamilton Place Connector
- Airport-Connector Road from SR 153 to Airport Road
- Dallas Daisy Road from Hale Road to SR 319/Hixson Pike
- DuPont Parkway Extension from SR 153 to Hixson Pike
- SR 320/East Brainerd Road from E. of Graysville Road to Bel Air Road
- Hixson Pike from Dallas Hallow Road to Lyons Lane
- US 41/Ringgold Rd from .62 km E of Ga. SR 146 to N of Frawley Rd.
- I-75 from 1.2 south of SR 2 (US 11) to north of SR 2 (US 11) to the right.
- SR 153 from Hixson Pike (SR 319) to SR 17/SR 58
- I-75 from I-24
- Amnicola Highway from Riverport Road to SR 153
- Central Ave. Extension from Lee St. to SR 193
- SR 193 from Central Ave. Extension to SR 341
- Graysville Road, from Ringgold Road to East Brainerd Road
- Mack Smith Road, from Ringgold Road to Cloud Springs Road and extend to Mineral Avenue
- I-24 from I-75 to US 27
- I-24 from I-59 to I-124
- SR 321(TN)/SR 151(GA) Ooltewah-Ringgold Road from Lee Highway to US 41/US 76
- I-75 in GA to I-24

INNER SUBURBAN INFILL Development Sector



Development in this sector differs from Outer Suburban development mostly by existing character and conditions such as smaller lots and homes that tend to lead to a higher residential density than the Outer Suburban Growth sector. Other characteristics include neighborhood parks scattered throughout much of the community and few “big box” commercial buildings. Inner Suburban Infill areas provide for continuation of residential, commercial, institutional and office purposes. Commercial corridors and small to mid-size nodes provide retail opportunities for both the surrounding neighborhoods and pass through traffic. The street network integrates the traditional street grid with curving streets that fit topographic conditions.

Recommendations:

Housing: The increased segregation of uses after World War II led to distinct residential districts of single-family houses on moderately-sized lots, duplex communities, and multi-family apartments. Significant redevelopment projects should require substantial parcel accumulation and/or consolidation. Infill development on vacant and underutilized lots in these areas should respect the prevailing scale of existing residences. Compatible infill housing on housing on vacant or under-utilized property within the

residentially developed portions of the community should help reinforce the existing residential character.

Business: Non-residential development in the inner suburban sector has generally developed as strip commercial along major transportation corridors. Strip commercial is a series of detached, automobile-oriented commercial establishments that create the effect of rows of buildings with no beginning and no ending. Strip commercial development typically has the following problematic issues: multiple curb cuts onto adjacent streets creating traffic problems and congestion, dense signage, minimal landscaping, large parking areas, and an overall scale and style of architecture that is sometimes incompatible with residential areas.

Activity Centers- Existing strip commercial developments generally cannot compete with large, new retail shopping malls and revived downtown areas. Many of the older strip commercial developments are showing signs of deterioration that once occurred within many older downtowns with older, obsolete structures with empty storefronts. These existing strip commercial developments should be retrofitted, or revitalized into mixed-use or multi-use activity centers that are pedestrian-oriented, creating a “park once” district that is dense enough to support public transportation.

The Neighborhood or Community Activity Centers are encouraged to be mixed-use or multi-use and designed in accordance with the design principles of the Suburban Development models with modifications, Traditional Neighborhood Development model, or the Urban Infill Redevelopment model, as described within the Development Models section of the Development Plan. Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Environment: Alteration of the natural conditions should respect areas adjacent to Preserve and Reserve areas and provide smooth transition for the evolution of natural greenbelts. Stormwater detention primarily contained in ditches; concentrated development areas may require underground retention facilities.

Parks: Each neighborhood should have access to neighborhood parks and recreation facilities. Smaller pocket parks may also be appropriate on individual lots. Neighborhoods should be connected by a multi-use path system, wherever possible.

Civic: Civic buildings should be distinctive and serve as important landmarks in the community. Civic facilities should be located in prominent locations and made accessible by multiple modes, including automobiles, transit, walking, and bicycling. Sewers predominate.

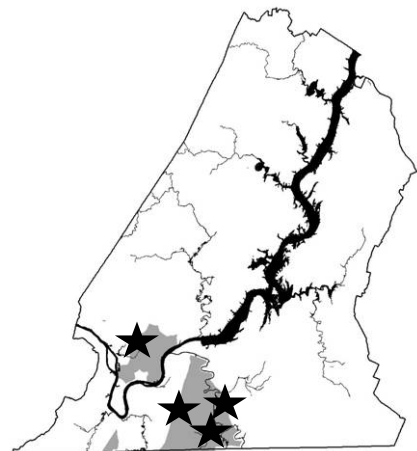
Transportation: Transit service should continue to be a priority in this sector. The existing network should be maintained with no major breaks or interruptions. Maintenance of existing streets is a priority over new roadway development in this sector.

Appropriate Development Models:

- Traditional Neighborhood Development
- Suburban Development
- Mixed Use Development

Opportunity Areas:

Lovell Field: Lovell Field is the county’s metropolitan airport and a potential site for a stop along the proposed high-speed rail corridor between Chattanooga and Atlanta. An alternative transportation system, with a transit center, that connects the county to other regional population centers could change the overall development of the area and the Lovell Field location more specifically.



Brainerd Town Center (formerly Eastgate Mall, also called Eastgate Town Center): Brainerd Town Center is a reuse of a 630,000 gross square foot shopping center that is anchored by a clothing retailer and a call center. Brainerd Town Center and its surrounding retail are located approximately nine miles east of downtown Chattanooga. The property offers the chance to realize the vision described in the Brainerd Town Center Plan for a complete mixed-use Town Center.

Brainerd Old Town: The businesses flanking Brainerd Road just east of the Brainerd Tunnels still maintain the traditional commercial look that point to this area being one of the earliest parts of Brainerd Road's development. The unique urban character includes little or no building setback from the sidewalk, pedestrian-oriented businesses and a dense street frontage development much like a small downtown.

Stringer's Ridge: This location just south of Red Bank provides an opportunity on one of the last undeveloped sites in North Chattanooga. Development options include clustering of residential units to preserve the steep slope, limit the amount of stormwater and protect the natural wildlife habitat.

Long Range Transportation Plan 2030 Potential Projects:

The following streets and/or intersections are identified for this sector in TransPlan 2030 as needing transportation improvement. The most appropriate, context-sensitive solution is encouraged to resolve the specific transportation need identified. (Reference TransPlan2030 for identified potential project consideration.)

- Shallowford Road from East of Moore Road to West of SR 153 (Airport Road)
- Wilcox Blvd. Tunnel Rehabilitation
- Spring Creek Road, from Ringgold Road to East Brainerd Road
- Ringgold Road/US 41 from Spring Creek Road to Fred Pruett Parkway (east of I-75)
- Ringgold Road/US 41 from Spring Creek Road to Fred Pruett Parkway (east of I-75)
- Camp Jordan Pkwy Extension from Camp Jordan Road to Gunbarrel Road
- Ashland Terrace from Dayton Blvd. to Ely Rd. (CST Only)
- Campbell Street from Glass Street to Bonny Oaks Drive
- Brainerd Road from Dodds Avenue to Moore Road
- Moore Road from Ringgold Road to N. Terrace Road
- Airport-Connector Road from SR 153 to Airport Road
- US 41/Ringgold Rd from .62 km E of Ga. SR 146 to N of Frawley Rd.
- I-75 from I-24 to Study Area Boundary
- I-124/US 27 North of Tennessee River Bridge to SR 8/Signal Mountain Blvd.
- Bypass around Rossville - Reroute US 27 along General Thomas Avenue and 45th Street
- Mack Smith Road, from Ringgold Road to Cloud Springs Road and extend to Mineral Avenue
- I-24 from I-75 to US 27
- SR 321(TN)/SR 151(GA) Ooltewah-Ringgold Road from Lee Highway to US 41/US 76
- I-75 in GA at the TPO boundary to I-24

URBAN INFILL Development Sector

Well defined neighborhoods with identifiable edges are the building blocks of urban neighborhood infill areas. Urban neighborhoods have a denser and primarily residential urban fabric. Mixed uses including offices and retail are usually confined to certain corner locations with housing density increasing adjacent to those commercial centers. New development should follow urban patterns with smaller blocks, a connected street grid, alleys, smaller lots, and shallow building setbacks. Suburban development patterns are not appropriate for these areas.

Recommendations:

Housing: Housing is predominantly detached, although a diversity of housing types with medium to high densities is encouraged, including single-family detached, duplexes, apartments, multi-family, live-work buildings, and row houses. Accessory buildings, such as detached garages with apartments, are also appropriate in urban neighborhoods.

The average density in the Urban Infill sector should be high enough to support transit and neighborhood commercial services. Alleys should be retained to provide rear parking and access for services and utilities. Residential and non-residential uses in this sector may be mixed in the same block or same building.

Business: Neighborhood commercial centers should generally be located at intersections although home occupations are appropriate. Commercial centers should be within a 5-10 minute walking distance of adjacent urban residential areas. Neighborhood centers should contain some retail and office space, ideally in mixed-use buildings. Parking requirements should be reduced to account for on-street parking availability, nearby public parking, transit, and the sharing of spaces due to complementary parking schedules. Parking should be located behind buildings. Where it is physically impossible to locate parking behind the buildings, low street walls should be used to maintain the street frontage and screen the parked cars from the public street. Surface parking should be planted with shade trees with a minimum 15% tree canopy coverage.

Activity Centers- Non-residential development within the Urban Infill sector is more integrated and mixed with multiple uses integrated both vertically and horizontally. The Urban Infill sector contains a diverse mixture of land uses and the high intensity level of development. This sector is characterized as having mixed-use structures, containing offices, personal and business service establishments, eating establishments, retail uses, civic, institutional, public parks and open spaces, and high density residential.

Strip commercial is a series of detached, automobile-oriented commercial establishments that create the effect of rows of buildings with no beginning and no ending. Strip commercial development typically has the following problematic issues: multiple curb cuts onto adjacent streets creating traffic problems and congestion, dense signage, minimal landscaping, large parking areas, and an overall scale and style of architecture that is sometimes incompatible with residential areas.

Existing strip commercial developments generally cannot compete with large, new retail shopping malls and revived downtowns. Many of the older strip commercial developments are showing signs of deterioration that once occurred within many older downtowns with older, obsolete structures with empty storefronts. These existing strip commercial developments should be retrofitted or revitalized into mixed-use or multi-use neighborhood or community activity centers that are pedestrian oriented, creating a park once district that is also dense enough to support public transportation.

Existing strip commercial developments are encouraged to redevelop or be retrofitted into mixed-use or multi-use neighborhood or community activity centers rather than the typical conventional suburban



development pattern. The neighborhood or community activity centers should be designed in accordance with the design principles of the Traditional Neighborhood Development model or the urban infill redevelopment model contained within the Development Plan.

Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Environment: The continuity of the urbanized form should take precedence over the natural environment. Continuous natural corridors should be located between neighborhoods or pass through neighborhoods as greenways or safewalks. Trees should be planted along streets and alleys. Storm water management should be primarily through underground storm drainage channeled by raised curbs. Retention and detention ponds should not be required on individual lots.

Parks: Each neighborhood should have access to neighborhood parks and recreation facilities. Smaller pocket parks may also be appropriate on individual lots. Neighborhoods should be connected by a multi-use path system, wherever possible. Formal public spaces such as greens, squares, and plazas are also appropriate.

Civic: Civic buildings should be distinctive and serve as important landmarks in the community. Civic facilities should be located in prominent locations and made accessible by multiple modes, including automobiles, transit, walking, and bicycling. Complete sewer development is found in this sector.

Transportation: The Urban Infill areas should be serviced by a well-connected street grid with sidewalks and street trees. Cul-de-sacs are not appropriate unless necessary to accommodate natural conditions. An extensive sidewalk network is appropriate due to the dense development pattern and the mix of uses found in the Urban Infill sector. Streets should be fronted by buildings and include on-street parking wherever possible to slow traffic speeds. Transit that is frequent and predictable should be a priority for these areas. Dry, well-designed transit shelters should be provided at activity centers. Due to limited physical space, bicycle facilities are generally signed shared routes.

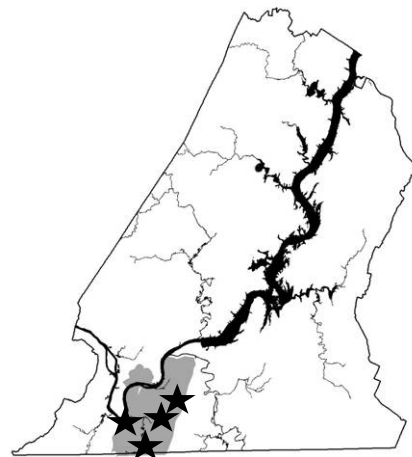
Appropriate Development Models:

- Traditional Neighborhood Development
- Mixed Use Development

Opportunity Areas:

SCT Mill site (located in Oak Grove): The defunct Standard Coosa Thatcher Mill complex, as described in the Oak Grove Neighborhood Plan (2004), offers approximately 20 acres of property for a creative reuse. Beyond traditional manufacturing, the site could also accommodate a sizeable live-work development for artisans, a mixed-use community, light industrial facilities, or serve a variety of residential infill needs.

Buster Brown site (located in Avondale): This underutilized property offers over 20 acres of manufacturing-zoned land suitable for a variety of redevelopment options. The Avondale Community Plan (2004) provides additional recommendations for this site.



Wheland Foundry: Wheland Foundry, sitting on 22 acres near Interstate 24 and the Tennessee River, was purchased in 2004 for demolition, cleanup and redevelopment. The Downtown Plan (2004) recommends that the site be redeveloped as a mixed-use district that includes light industry.

Anchor Glass Brownfield Site: The Alton Park Master Plan (2000) identifies this location as a potential regional activity center. The existing industrial buildings could support a mixed-use project which would allow a high density/intensity development. Proposed uses include an amphitheater for community performances, residential loft apartments, full-service restaurants, office space, business incubator space, and an indoor community playhouse.

Long Range Transportation Plan 2030 Potential Projects:

The following streets and/or intersections are identified for this sector in TransPlan 2030 as needing transportation improvement. The most appropriate, context-sensitive solution is encouraged to resolve the specific transportation need identified. (Reference TransPlan2030 for identified potential project consideration.)

- Central Avenue Extension from SR 58 to 3rd Street
- Riverside Drive/Amnicola Highway from Central Avenue Extension to Riverport Road
- Wilcox Blvd. Tunnel Rehabilitation
- US 27/Rossville Boulevard from I-24 to Hamill Road
- Dodds Rd. from US 27 to 37th St.
- Dodson Avenue from Wilcox Boulevard to Glass Street
- Campbell Street from Glass Street to Bonny Oaks Drive
- Brainerd Road from Dodds Avenue to Moore Road
- Wilson Road extension from Hamill Road to Central Avenue
- Holtzclaw Avenue from Main Street to I-24
- US 27/I-124 widening from I-24 to south of the Tennessee River
- 3rd Street from Hampton Street to Riverfront Parkway (CST only)
- I-124/US 27 North of Tennessee River bridge to SR 8/Signal Mountain Blvd.
- Bypass around Rossville - Reroute US 27 along General Thomas Avenue and 45th Street
- Central Ave. Extension from Lee St. to SR 193
- I-24 from I-75 to US 27
- I-24 from I-59 to I-124
- SR 321(TN)/SR 151(GA) Ooltewah-Ringgold Road from Lee Highway to US 41/US 76

URBAN CORE INFILL Development Sector



The Urban Core is the equivalent of a Downtown and is often the economic, cultural, and administrative heart of a city or region. It is the densest part of the city and contains the tallest buildings and the greatest variety of uses. Individual buildings often contain multiple uses and are generally masonry, multi-story, and attached.

Maintaining a continuous street frontage is one of the most important elements in promoting pedestrian activity and establishing a quality “face” to the public realm. Deep setbacks, often found in suburban locations, are not appropriate in the downtown. Generally, buildings should be similar in height and configuration to neighboring buildings on the same block and side of the street to create continuity, balance and scale. They should also be of sufficient height to frame the street. Parking should be located to the rear of buildings and curb cuts limited to secondary streets.

Recommendations:

Housing: Residential and non-residential uses in the Urban Core should be well-integrated. Housing should include medium- and high-rise apartment buildings, townhouses, live-work units, converted loft apartments, and condominium buildings. Housing is often located on the upper floors with retail or offices on the ground floor. Housing densities must be maintained at an absolute minimum of 12 units per acre, and preferably higher, to support transit and to make the best use of limited land resources, therefore detached single-family houses are not appropriate in the Urban Core. Alleys should be retained, where possible, to provide rear vehicular access to buildings.

Business: The downtown area contains the traditional central business district and, as such, is the activity center for the Urban Core. A variety of businesses are both appropriate and desirable in the Urban Core. Auto-dependent businesses such as car sales lots, drive-throughs, or businesses that require deliveries by large trucks are not appropriate in the Urban Core because they have a negative impact on pedestrian activity. A diverse mix of businesses, and particularly retail shops on the ground floor, are needed to support pedestrian activity. Industrial and manufacturing opportunities should be encouraged and designed in such a way that is sensitive to the character of the community and adjacent uses.

Environment: While the continuity of the urbanized form generally takes precedence over the natural environment, innovative natural solutions to storm water management should be encouraged. Storm water management should be primarily through underground storm drainage channeled by raised curbs. Retention and detention ponds should not be required on individual lots. Continuous natural corridors should be located between neighborhoods or pass through neighborhoods as greenways or safewalks. Trees should be planted along all streets and in all surface parking lots to achieve a minimum 15% canopy coverage.

Parks: Parks and green space are particularly important in the Urban Core to provide relief from the hard surfaces, reduce urban heat build-up, and provide urban residents with recreational opportunities close to home. A connected system of neighborhood parks and plazas, pocket parks, cemeteries, mid-block cut-throughs and district parks should be strategically located throughout the downtown so no residence or office is further than a five-minute walk from a green space.

Civic: Important civic buildings are often located in downtown and should be given prominent, visible sites to reflect their status as public institutions and to serve as place-makers and form-givers in the Urban Core.

Transportation: The Urban Core should be serviced by a well-connected formal street grid with sidewalks and street trees. A balance needs to be created between the pedestrian and the car by paying close attention to streetscape and sidewalk art, and by creating narrower street widths, tighter turning radii, and limiting curb cuts – all of which enhance pedestrian safety. Transit should be viewed as an integral part of the city's infrastructure, particularly in the Urban Core, where densities are high enough to support it. Mass transit helps reduce the number of parking lots in the urban core by allowing land otherwise dedicated to parking automobiles to be returned to mixed-use development. Dry, well-designed transit shelters should be provided throughout the Urban Core.

Parking must also be treated as a critical part of the urban infrastructure, and should be integrated with the shuttle and other transit. Parking facilities should be screened from the public right-of-way with liner buildings for built structures and street walls or landscaping for surface lots.

Shared bicycle routes and marked bicycle lanes (where space allows) should be included on all downtown streets.

Appropriate Development Model:

- Traditional Neighborhood Development
- Mixed use development

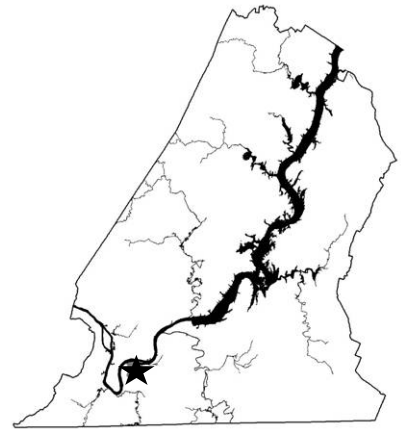
Opportunity Areas:

Many development/redevelopment projects exist in Chattanooga's downtown and are further detailed in The Downtown Plan (Chattanooga 2025).

Long Range Transportation Plan 2030 Potential Projects:

The following streets are identified for the Urban Core sector in TransPlan 2030 as needing transportation improvement. The most appropriate, context-sensitive solution is encouraged to resolve the specific transportation need identified. (Reference TransPlan2030 for identified potential project consideration.)

- Riverside Drive/Amnicola Highway from Central Avenue Extension to Riverport Road
- US 27 from I-24 to south of the Tennessee River.



Recommended Development Models

The following pages summarize existing development models found in Hamilton County and introduce development patterns, which although new to the county, are used nationwide as a development tool. Existing models are the Traditional Neighborhood Development and Conventional Suburban Development forms found in our downtown and suburban areas. The benefits of the Open Space Subdivision, a form used presently in only one location in the county, are further discussed here. Being introduced are new models that provide infill opportunities in the existing urban areas while providing a new tool for development in the transitional and rural areas.

The models are suggested to best implement the recommendations of the Development Plan and not all models are appropriate for all Development Sectors. A map depicting the most appropriate location for each Development Model is provided with each model discussion.

The Recommended Development Models are:

- Traditional Neighborhood Development
- Suburban Development
- Crossroads Development
- Open Space Subdivision Development
- Big-Box Development
- Mixed Use Development

Activity Centers. Activity Centers are an integral part of each Development Model. Activity Centers are discussed at length at the beginning of this section. Then each Development Model describes how an Activity Center functions in relation to it.

Activity Centers

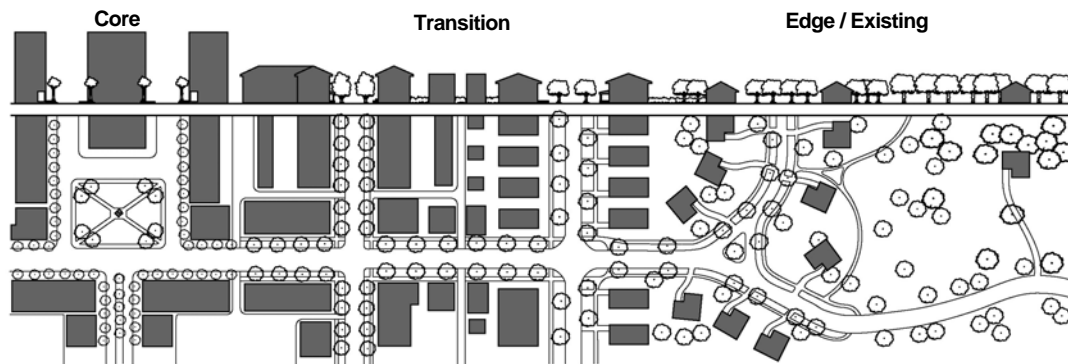
Most development models either contain or are part of an activity center. Activity centers are key components of a community. They are concentrations of mixed-use or multi-use areas containing commercial, office, civic and institutional uses, parks and open spaces, and medium to high-density residential dwellings arranged in a walkable, compact, pedestrian and transit friendly environment. Activity centers can be magnets for activity and development that affect urban form, environmental quality and the transportation network in a positive way. Activity centers can provide focus for the community and convenient access to employment, goods and services. Activity centers promote the efficient use of land and public services such as water, sanitation, fire and police protection, recreation and open space, and transportation.

Some activity centers are pedestrian-friendly environments that are supportive of public transportation. Other activity centers feature an automobile-dominated development pattern and often have little or no relationship to surrounding residential neighborhoods. These types of activity centers generally feature buildings that are set far back from streets with parking between the building and the street, or are completely surrounded by parking. Conventional commercial development is generally aligned along major thoroughfares in a strip pattern, with large concentrations frequently found at major intersections.

Activity Centers should be connected by public transit or major travel routes such as interstates, freeways, and arterials.

Activity Center Components

Activity centers are generally composed of three areas: the core, the transition, and the edge.



Core. The core consists of the most intense urban buildings in both mass and in land use, and is considered to be the center of pedestrian activity. Buildings in the core are often vertically mixed-use, providing opportunities for housing and office uses above ground level retail. Like most main streets, retail and eating establishments should be physically concentrated in the core, providing the critical mass of shopping and pedestrian activities that identifies it as an activity center or a destination point.

Transition Area. The transition area serves as the transition from the high intensity level of the core to the surrounding and supporting neighborhood areas. The transition area, due to its physical proximity to the core is the ideal location for medium-density residential. Housing is supported by the commercial core and vice-versa, along well-connected, pedestrian-scaled streets. In addition, where transit stops are located, or proposed to be located, there is a significant user population within walking distance to the transit stop.

Edge. While these areas are seamlessly connected to the core by pedestrian-oriented streets, transitions from the neighborhood to the core of the activity center should be accomplished through proper design of the street, appropriate massing, scale, and architectural design of the buildings.

Activity Center Types

Activity centers vary in development size and intensity levels. An activity center's scale affects how it is linked economically and physically with other activity centers in the community. The activity centers identified within this plan represent three relative scales and intensity levels: neighborhood, community, and regional.

Neighborhood Activity Center-

Neighborhood activity centers are small, compact, 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.

Neighborhood activity centers are encouraged to develop as mixed-use or multi-use centers that are generally within a five-minute walk of the surrounding neighborhoods they serve. The core of the activity center should radiate 1/4 a mile, or an area equivalent to a 5-minute walk from the core to the edge. Neighborhood activity centers generally serve a few neighborhoods within a 5-mile radius.

***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.*

Land uses within Neighborhood Activity Centers typically include uses found in a grocery store anchored shopping center, even though they front on a pedestrian-friendly grid of streets rather than a parking lot. They may also contain a variety of small-scale retail shops, small drug store, convenience stores, eating establishments, offices, and personal and business service establishments. Civic and institutional uses, as well as open spaces, neighborhood parks, greens, and squares should also be included within the core. Medium to high-density housing is also appropriate within the core, either in mixed-use structures, or in single-use developments. Housing densities generally should be the highest within the core, transitioning to progressively lower densities moving outward from the core to the edge.

The actual amount and types of land uses within the core will likely vary according to different circumstances such as physical constraints of the site and the free market. Generally, as a guide, the core of the neighborhood activity center should be between 5 and 30 acres in size. Building heights in the core of the neighborhood activity center should be the highest and transitioning to lower heights moving outward from the core to the edge. Buildings at the edge of the activity center should be

comparable in height and mass to adjacent and nearby properties, as well as surrounding neighborhoods. The maximum height of any structure located within the core of the Neighborhood Activity Center is typically two stories.

Neighborhood Activity Centers are appropriate for those areas divided into four quadrants by the intersection of two arterial classified streets, or the intersection of an arterial and a collector classified street.

Neighborhood Activity Centers should be designed in accordance with the design principles of the traditional neighborhood development model, or the conventional suburban development model with modifications, as outlined within the Development Model section of the Development Plan.

Community Activity Center- Community Activity Centers are dense, compact, medium-scale and medium-intensity areas designed to provide convenient goods and services for a number of surrounding neighborhoods. The core of the Community Activity Center should contain a diverse mix of land uses and intensity levels. Community Activity Centers should balance pedestrian and automobile needs with pedestrian access being an integral element of the commercial core and the surrounding residential neighborhood. 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.

Community Activity Centers are encouraged to develop as mixed-use or multi-use centers with the core of the center generally radiating a 1/2 mile, or an area equivalent to a 10-minute walk from the core to the edge. They generally serve several neighborhoods within a 10-mile radius.

Land uses within Community Activity Centers typically include large-scale supermarkets, community sized drug stores, discount retail stores (big-box), convenience stores, eating establishments, and entertainment uses (movie theaters, bowling alleys). Employment intensive offices and personal service establishments such as beauty/barbershops, financial services, and dry cleaners are appropriate uses. Parks, open spaces, greens, plazas and squares, civic, and institutional uses are appropriate land uses within the core. Medium and high-density housing should also be located within the core in either mixed-use structures, or as single use developments. Housing densities should be highest within the core, transitioning to progressively lower densities moving outward from the core to the edge.

The actual amount and types of land uses in the core will likely vary according to different circumstances, such as physical constraints and the free market. Generally, as a guide, the core of the Community Activity Center is typically between 30 and 100 acres in size. Building heights should be greatest in the core and should transition to lower heights moving outward from the core to the edge. Buildings at the edge of the activity center should be comparable in height and mass to adjacent and nearby properties as well as surrounding neighborhoods. The maximum height of any structure located within the core of the Community Activity Center is typically six stories.

Generally, Community Activity Centers are appropriate for those areas divided into four quadrants by the intersection of two arterial classified streets. These centers also benefit from being located along major public transportation routes.

Community Activity Centers should be designed in accordance with the design principles of the Traditional Neighborhood Development model, or the Suburban Development model with modifications, as outlined within the Development Plan.

Regional Activity Center - Regional Activity Centers are existing and planned large concentrated centers of mixed-use or multi-use areas that are generally anchored by a regional mall. Regional Activity Centers provide goods and services citywide and regionally. Regional Activity Centers contain a diverse collection of retail uses such as general retail uses, large big-box retailers, convenience stores, eating establishments, offices, institutional and civic uses, entertainment uses, high-density residential, and automotive related uses. A regional activity center has the potential for a more diverse mixture of land uses and intensity levels than either community or neighborhood activity centers.

The actual amount and types of land uses in a Regional Activity Center will likely vary according to different circumstances such as physical constraints of the site and the free market. However, as a guide, Regional Activity Centers will likely contain 30 or *more* acres in size, and contain enclosed shopping malls, strip shopping centers, and freestanding stores. They generally serve many communities within a 30-mile radius or greater.

Due to the overall size of these centers, regional orientation, and traffic generating characteristics, Regional Activity Centers should have a high level of accessibility to and within the center, including public transportation. Regional Activity Centers should be located with easy accessibility from interstate/freeway interchanges. Ideally, Regional Activity Centers should be close to or directly served by a major radial and/or circumferential arterial street and should be ringed by an arterial street network. They should be served by a high level of public transportation service.

Regional Activity Centers were originally designed for automobile access and circulation. Existing centers should redevelop over time to give equal attention to pedestrian access and circulation so they evolve into truly integrated mixed-use or multi-use centers. Intensification should take place within the current boundaries of the Regional Activity Center rather than spread outward. Regional Activity Centers should be designed in accordance with the design principles of the traditional neighborhood development model or the conventional suburban development model with modifications, as outlined within the Development Plan.

Traditional Neighborhood Development

Typical development form found in the pre-World War II parts of the city.

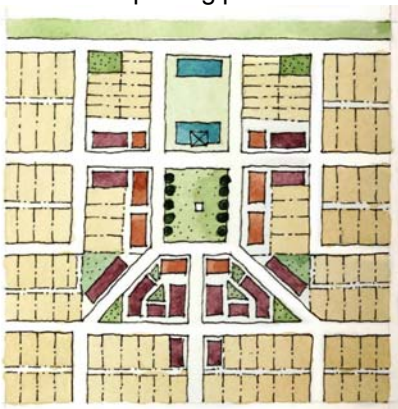


Activity Centers

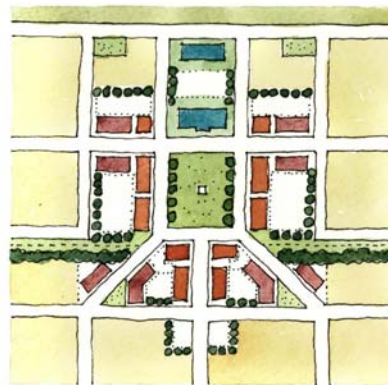
- Well-defined and centrally located as neighborhood or town centers.
- Concentrated mix of non-residential and residential uses.

Typical Features

- Well-defined neighborhood edges.
- Used for building new neighborhoods or redeveloping old ones.
- Primarily residential with a mixture of uses.
- Compact development patterns for both residential and non-residential uses correspond with smaller lots.
- Prominence of public spaces, pocket parks, plazas and squares.
- Wide range and mix of housing styles, types and sizes to accommodate households of all ages, sizes and incomes.
- Moderate to high residential densities.
- Public transit often available.
- Interconnected street grid or network of streets, sidewalks, alleys, and paths that facilitate walking, bicycling and driving.
- Streets and rights-of-way are shared between vehicles, bicycles and pedestrians.
- On-street parking.
- Surface parking placed behind or to the side of buildings.

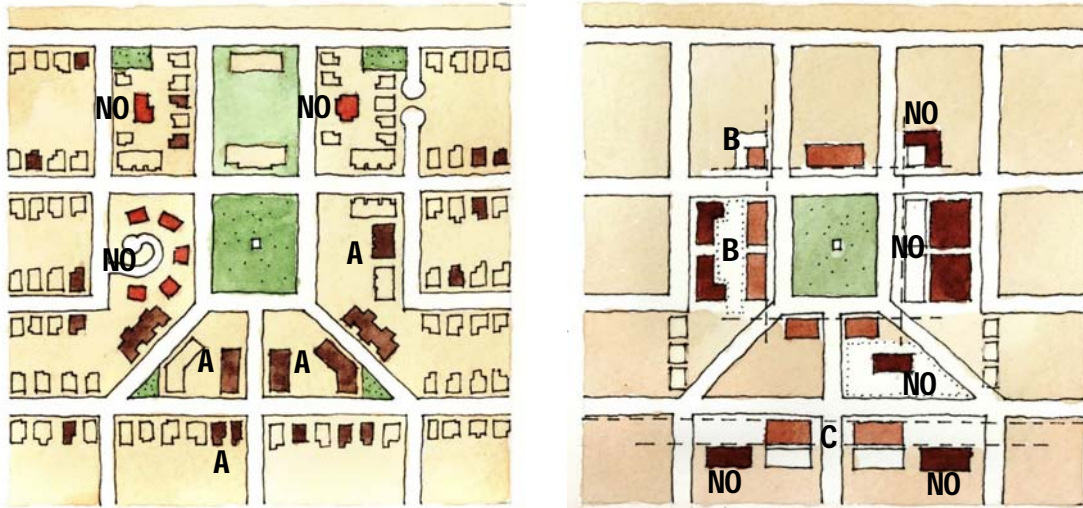


Traditional Neighborhood Development Model



Updated TND model reflects need for parking

Urban Infill Development/Redevelopment:



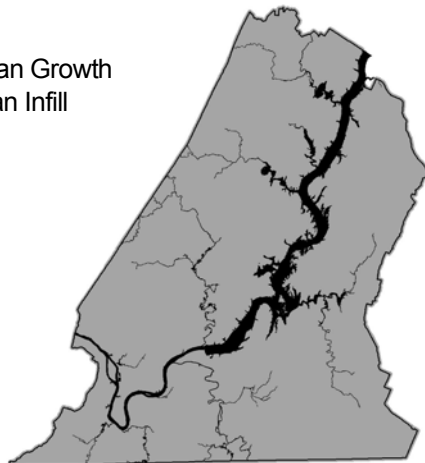
Recommended Improvements (refer to diagrams above)

- A. Match new buildings with appropriate existing scale.
- B. Parking predominately to rear and/or side of buildings.
- C. Match setbacks to those neighboring existing structures.



Appropriate Development Sectors for Traditional Neighborhood Development:

- Rural
- Transitional
- Outer Suburban Growth
- Inner Suburban Infill
- Urban
- Urban Core



Suburban Development

Typical development form found in the post- War II parts of the city.

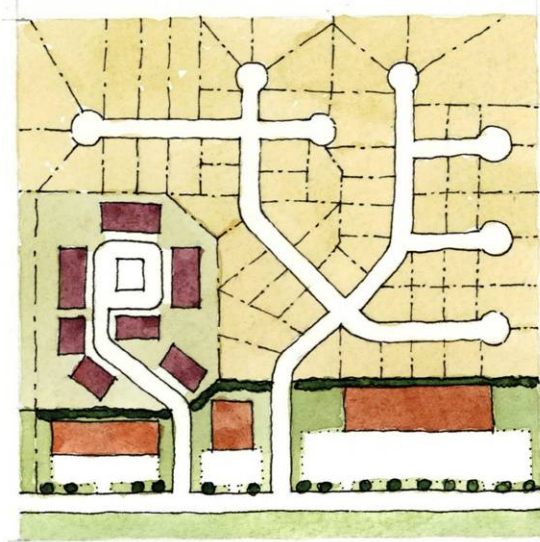
Conventional Suburban Development:

Activity Centers

- Less defined and dispersed throughout community or neighborhood.
- Multi-use instead of mixed use.

Typical Features

- Separation of single uses such as shopping centers, office parks, and subdivisions.
- Uses are generally inaccessible from each other except by car.
- Housing is segregated in large clusters containing units of similar type and costs.
- High proportion of cul-de-sacs and looping streets that limit through traffic.
- Streets are wide and dedicated to automobile uses.
- Parking lots are dominant in non-residential uses.
- All traffic is channeled to a single collector or arterial street.
- Traffic can be measured and predicted accurately.
- Single-story retail strip centers and malls are common.
- Low pedestrian activity.
- Larger lots correspond with low density.
- More open space, less civic space
- Uses developed over time by different developers.
- More private green space.
- Alleys are rare or non-existent.

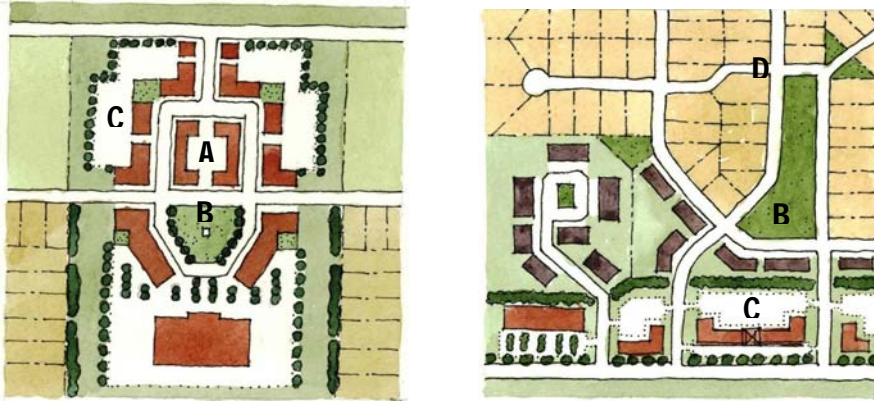


Recommended Improvements

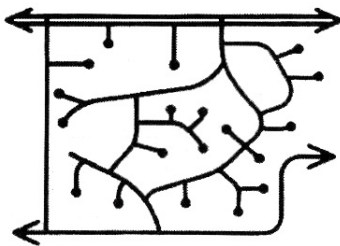
The Suburban Development pattern will most likely continue to be the most common development form in the County. However, this Plan recommends revisions to certain components of the existing form. The potential for an improved suburban commercial strip is demonstrated in the sketch below. Future development and/or redevelopment of the Suburban Development pattern should include the recommended improvements on the following page.



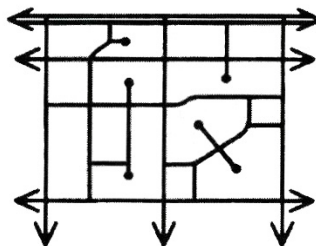
Recommended Improvements for Suburban Development:



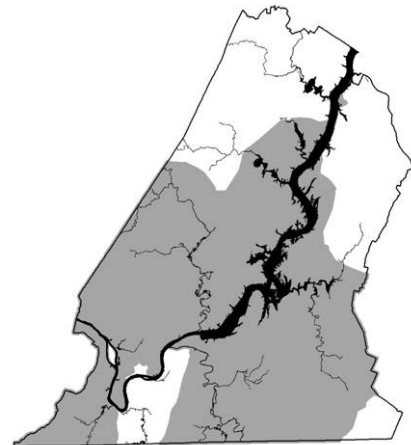
- A. Greater integration of uses either through Mixed-Use and/or Multi-Use development.
- B. More public green space.
- C. Parking lots that do not dominate the site.
- D. Greater street connectivity to provide a variety of routes for daily trips. Improved street connectivity can reduce traffic on arterial streets, provide for continuous and more direct routes, provide greater emergency vehicle access and improve the quality of utility connections.
- E. Better pedestrian access.
- F. More attention to architectural details and landscaping.



Conventional street pattern:
If more connections are desired.



Alternative street pattern:
If fewer connections are desired.



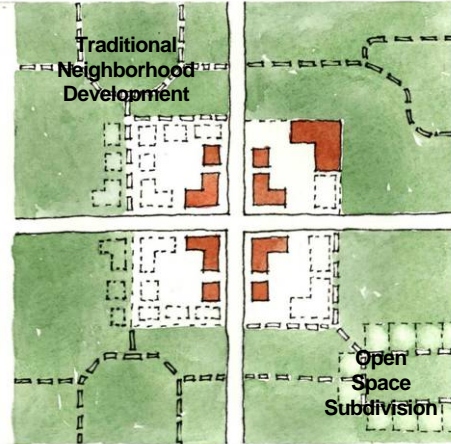
Appropriate Development Sectors for Suburban Development:

- Transitional Growth
- Outer Suburban Growth
- Inner Suburban Infill



Examples of good pedestrian access.

Crossroads Development



Activity Centers

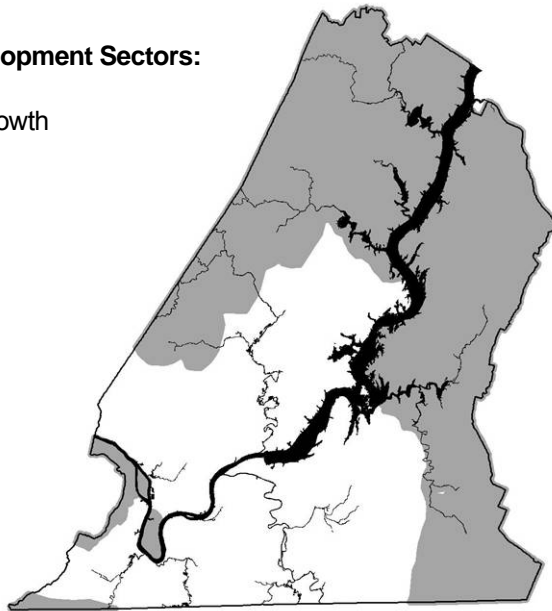
- Emerging center that may grow to become neighborhood, community, or regional in scale.
- Focused at intersection of major travel routes.

Typical Features

- Contains both Mixed-Use and Multi-Use developments.
- Commercial development is small-scale and neighborhood oriented such as personal service and eating establishments.
- Develops at the intersection of arterial and/or collector streets.
- Develops in an emerging growth area.
- Includes pedestrian connections to the surrounding development.

Appropriate Development Sectors:

- Rural Growth
- Transitional Growth



Open Space Subdivision Development

Also known as a cluster or conservation subdivision.



Activity Centers

- Usually located *away from* development.

Typical Features

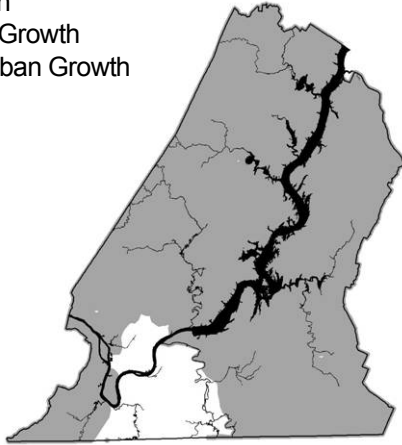
- Used to maintain the rural character of an area.
- Solely residential.
- Houses sited on smaller parcels of land in exchange for preserving large portions of open space.
- Overall density on a given acreage does not necessarily increase over that allowed in a conventional subdivision.
- Townhouses and other attached dwellings should generally be located in or near business areas or medium to high-density residential areas.
- Townhouses and other attached dwellings may also be considered in areas consisting primarily of low-density, single-family dwellings if they are part of a unified development, sited to the interior of that development, and either served by sewers or pre-approved by the Hamilton County Health Department.
- From 30% to 80% of the project may be in open space.
- Reduces the impacts of development on watersheds.
- Infrastructure costs can be lower due to less extensive construction of roads and water/sewer infrastructure.
- Open space areas protected by conservation easements. A land trust or a public agency should maintain permanent control over this land.
- Homeowners' association is usually responsible for protecting and maintaining the open space.



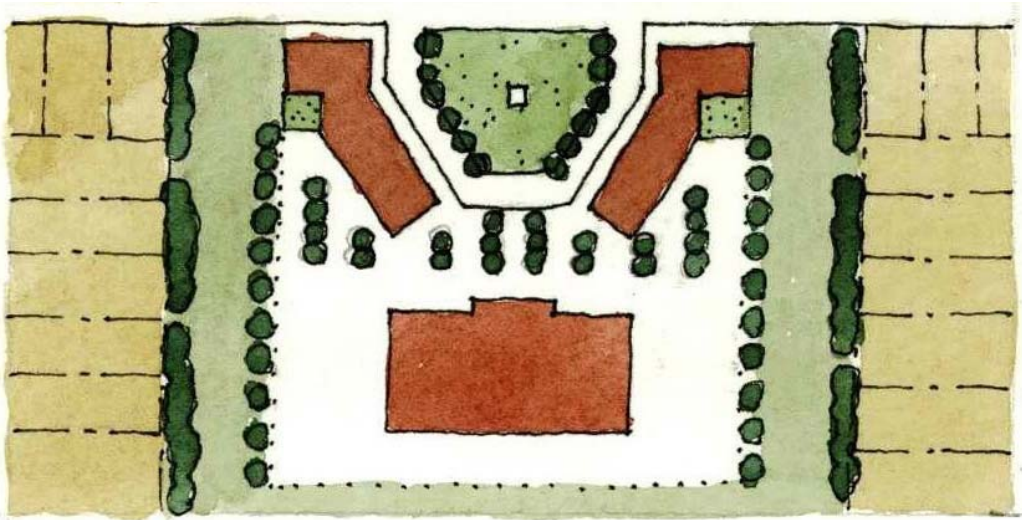
- Open space can provide community members with larger recreation areas and create a sense of openness that many people desire.

Appropriate Development Sectors for Open Space Subdivision Development:

- Rural Growth
- Transitional Growth
- Outer Suburban Growth



Big Box Development



During the past decade, the trend in retail development has dramatically changed from developing enclosed shopping malls to developing large-scale structures, commonly called “big box” retailers. Big-box retail establishments provide consumers with broad selection and low prices due to high volume sales. Depending on the product they sell and the market they are aiming for, big-box retailers may fit into one or more categories: discount department stores, category killers, and warehouse clubs.

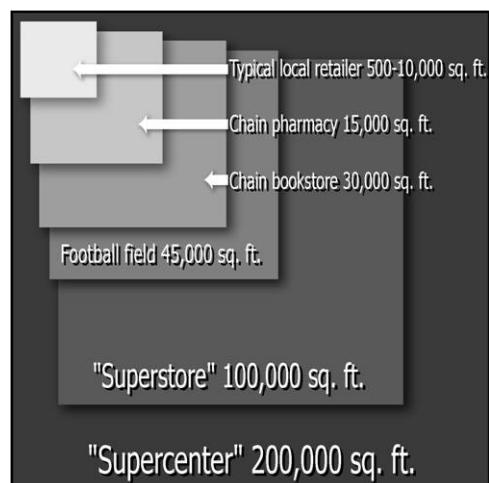
Discount department stores include retailers such as Kmart, Target, and Wal-Mart. Discount department stores offer a wide array of goods, sold in regular quantities at low prices. “Category killers” include retailers such as Toy’s R’ Us, Home Depot, Best Buy, Barnes & Noble, and Lowe’s. Category killers are high volume specialty stores that offer a wide selection of one category of product. Category killers are more frequently found in clusters known as power centers, but they also may be freestanding structures. Warehouse clubs include retailers such as Sam’s Club and Costco. Warehouse clubs are member-based, bulk purchase stores that sell everything from groceries to home furnishings to auto parts. Customers are usually given the option to buy only large quantities of any product. The original market for these stores was home-based and small businesses, now most offer memberships to anyone.

Activity Centers

- May be integrated within activity centers that are community or regional in scale.

Typical Features

- Generally stand-alone structures or integrated into stand-alone shopping center developments.
- Lot sizes range from 5 to 25 acres depending on the presence of out parcels or other anchors in a power center setting.
- Range in size from 15,000 square feet and can go as high as 200,000 square feet of building footprint.
- Prefer to locate on land with easy access to interstate highways and adjacent to major thoroughfares.
- Large rectangular industrial style structures that are standardized in architecture and appearance.
- Generally designed with blank and windowless facades, flat roofs, lack of architectural detail, and hard to see entry points.



- Single story layout so the stores spread out over several acres.
- Generally inaccessible to pedestrians. The design and layout of the center or development discourages walking from one store to another.
- Little or no pedestrian amenities such as sidewalks and crosswalks.
- Little or no landscaping provided.
- Increased traffic congestion and stormwater management issues.
- Large surface parking lots serve automobile oriented shoppers

Various tools such as temporary moratoriums, square footage limitations, materials requirements, conditional use permits, design review, and environmental and economic impact assessments are being utilized in some parts of the country to help mitigate issues associated with big-box retail establishments. The Chattanooga-Hamilton County Regional Planning Agency recognizes that the development of big-box retail establishments will most likely continue as a development pattern into the future. Therefore, at this time, this Comprehensive Plan cautiously supports the accommodation of big-box retail establishments, but in a fashion that is sensitive to the character of the community that will help ensure that these developments remain assets for the community for many years.

Recommended Improvements

This plan provides guidance for the site and structural development of big-box retail establishments within the community. These recommended improvements are intended to be used for two purposes: first, as a design aid by developers proposing big-box retail establishments, and second, as an evaluation tool for Hamilton County and its municipalities' planners. The recommended improvements should respect human-scale development features; preserve open space and critical environments; create a strong sense of place; and, provide a variety of transportation options. These recommended improvements were adapted from research material presented by the National Trust for Historic Preservation, and design review guidelines adopted by the City of Sequim, Washington, and the City of Fort Collins, Colorado. Although these guidelines are intended primarily for big-box retail establishments, they may just as easily be applied to any large-scale development. The recommended improvements presented are divided into two categories: building design, and site design and relationship to the surrounding community.

Site Design & Relationship to the Surrounding Community

- **Location Requirements:** Big-box retail establishments that are stand-alone structures, or integrated into stand-alone shopping center developments, should generally locate along major arterial classified streets or on property with easy access to interstate highways. In addition to the stand-alone structures or stand-alone shopping center developments, big-box retail establishments can be integrated into mixed-use or multi-use activity centers. The activity center development model should be reviewed for the appropriate location requirements for the mixed-use or multi-use activity centers.
- **Landscaping and Buffering:** Big-box retail establishments should ensure that parking, lighting, circulation and landscaping aspects are well designed with regard to safety, efficiency and convenience for vehicles, bicycles, pedestrians and transit, both within the development and to and from surrounding areas. Landscape and buffering should contribute to visual quality and continuity within and between developments, provide screening and mitigation of potential conflicts between activity areas and site elements, enhance outdoor spaces, reduce erosion and stormwater runoff and mitigate air pollution.
- The rear or sides of buildings often present an unattractive view of blank walls, loading areas, storage areas, HVAC units, garbage receptacles, and other such features. Architectural and landscaping features should mitigate these impacts. Whenever possible, the landscape design should provide open spaces that preserve or take advantage of natural features such as the view and waterways.

- Entrances: Large retail buildings should feature entrances that coordinate with the pedestrian sidewalk system and encourage pedestrian connectivity to and throughout the entire development site.
- Parking Lot Design and Orientation: Off-street parking should be designed to minimize the visual impact of the parking lot. Parking areas should provide safe and efficient ingress and egress for vehicles and public transit. Parking lots should be configured and designed to reduce the overall mass of paved surfaces. For example, no more than 50% of an off-street parking lot for the entire property should be located between the front façade of the principal building(s) and the adjacent public street.

Whenever possible, permeable paving systems should be evaluated and utilized within the developments. To reduce impervious surfaces, one-way drive aisles should be encouraged. Stormwater management systems should be incorporated into the design and development of parking lots.

Parking lots should be “graded so that runoff drains to filter strips, perimeter swales and to a central detention basin” (Knoxville Water Quality BMPs). Detention basins and grassy swales are encouraged in appropriate locations. “On small sites where detention facilities are not required, consider adding an infiltration trench or swale filled with sand or gravel that directs runoff to a storm sewer” (Knoxville).

- Pedestrian Flows: Sidewalks/walkways should be provided along all sides of the lot that abut a public street and should provide human-scale lighting to create a safe and attractive pedestrian atmosphere.

Continuous internal pedestrian walkways should be provided from the parking areas or the public right-of-way to the customer entrance of all buildings on the site. Walkways should connect pedestrian activity such as, but not limited to, transit stops, street crossings, buildings and store entryways, and community spaces. Walkways should feature landscaped areas that include trees, shrubs, benches, ground covers, or other such materials.

Walkways should be provided for the full length of the building featuring a customer entrance, and along any façade abutting public parking areas. All pedestrian amenities shall meet ADA guidelines.

- Outdoor Storage, Trash Collection, and Loading Areas: Loading areas and outdoor storage areas exert visual and noise impacts on surrounding neighborhoods and should be designed so that delivery and loading operations do not disturb adjoining neighborhoods. These areas, when visible and audible from adjoining properties and/or public streets, should be screened, recessed or enclosed.
- Central Features and Community Spaces: Buildings should offer attractive and inviting human scale features, public spaces, and amenities. Entrances and parking lots should be configured to be functional and inviting with walkways conveniently tied to logical destination points. Transit stops and drop-off/pick-up points should be considered integral parts of the configuration. The pedestrian sidewalk system should be anchored by special design features that enhance the building and the shopping center as integral parts of the community.
- Environmental sensitivity: Building placement should respect adjacent slopes and rivers, creeks, and streams by maintaining existing tree and vegetated buffers. A minimum of 60 feet for riparian areas is encouraged where possible, and steep slopes should be left undeveloped with moderate slopes being minimally disturbed. All development should avoid filling and building within the 100-year floodplain. When unavoidable, elevated buildings should be considered instead of filling to meet local floodplain requirements. Developments should make efforts to provide beneficial easements and connections to adjoin existing and/or planned greenways, protected natural areas,

riparian buffers, and parks. Tree canopy coverage should be used in all developments to provide aesthetic green space, shade which minimizes the heat island effect, and pervious surface area to reduce stormwater runoff. All landscaping should be done with native plant species to avoid invasive species propagation.

- **Transportation:** The development should provide appropriate street, curb and gutters, sidewalks, and traffic signaling both on-site and off-site as necessary to accommodate the increased traffic caused by the development.
- **Other Requirements:** Vacant or abandoned properties, including but not limited to, buildings, stormwater, parking, landscaping, should be maintained for the safety of the community, the local environment, and the visual impact to surrounding properties.

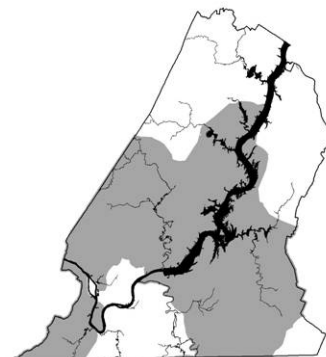
Building Design

The following list of features is not a mandatory requirement but rather guidelines to help encourage and promote desirable development:

- **Facades, exterior walls and entryways:** Facades should provide visual interest, identity, character and scale. Facades, exterior walls, and entryways should provide consistent architectural treatment. Blank walls should not be allowed in any first-story building wall abutting public pathways, except as required for structural integrity of the building.
- **Back and Side Facades:** All facades of the building, visible to residentially zoned properties and/or public streets, should contribute to the scale features of the building and encourage community integration by featuring characteristics similar to the front façade.
- **Smaller retail stores:** The presence of smaller retail stores should give a center a “friendlier” appearance by creating variety, breaking up large expanses, and exhibiting the variety of retail sites.
- **Detail Features:** Buildings should have architectural features and patterns that provide visual interest, are scaled to the pedestrian, reduce massive visual effects, and recognize local character of the community.
- **Roof:** Variations in rooflines should be used to add interest to and reduce the massive scale of large buildings.
- **Materials and Colors:** Exterior building materials and colors comprise a significant part of the visual impact of a building. Therefore, they should be aesthetically pleasing and compatible with materials and colors used in adjoining properties.
- **Architectural style** should be consistent with the character of the community. Design elements to be considered include, but are not limited to, strong base materials, varying storefront treatments, and generous amounts of windows.
- Buildings should provide protection for pedestrians from adverse weather conditions and utilize overhangs, marquees, and awnings at entrances, along pedestrian pathways, and at transportation waiting areas.

Appropriate Development Sectors for Big Box Development:

- Transitional Growth
- Outer Suburban Growth
- Big-Box Developments may be appropriate for other development sectors if they are integrated into community or regional scale activity centers.



Community-Sensitive Big Box & Fast Food Examples



Lake Forest, Illinois McDonalds



Cathedral City, California Burger King



Worcester, Maryland Pizza Hut



Chesterfield, Virginia Burger King



Gaithersburg, Maryland: 2- story Target



Bethesda, Maryland: Multi-story Barnes & Noble



Evergreen, Colorado Wal-Mart



Gaithersburg, Maryland



Jackson Hole, Wyoming Kmart



Brookline, Mass. Walgreens



Tacoma, Washington Rite Aid drug store



Baltimore, Maryland CVS drug store

Mixed Use Development



Mixed-use and multi-use developments are intended to encourage an integrated, diverse blend of compatible land use that will accommodate concentrations of opportunities for living, working, and shopping. Land uses within these developments include commercial, recreational, civic, office, and residential. Other types of uses may be appropriate if they can be successfully integrated with other land uses, such as big box retail establishments.

Mixed-use refers to 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 refers to developments that consist 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, rather, residential is separated from office and from retail.

Mixed-use and multi-use developments are intended to:

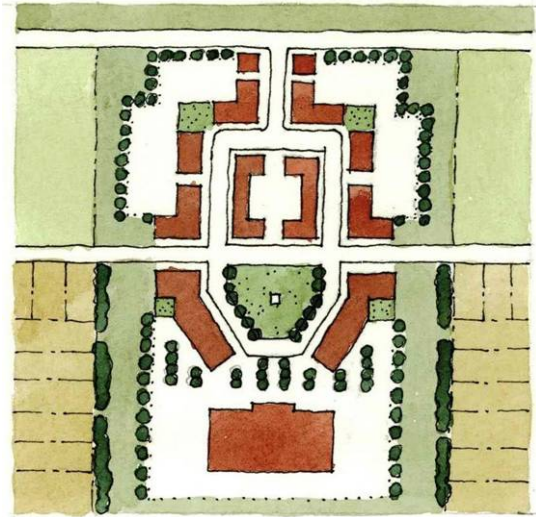
- Reduce commercial strip development along major thoroughfares by concentrating retail uses within activity centers that are spaced apart from one another.
- Promote an efficient pattern of land uses and provide most of the goods and services needed by citizens in a coordinated, concentrated manner.
- Reduce the number and length of automobile trips by placing higher density housing adjacent to shopping and employment.
- Improve the quality of life for those living in high and medium-density housing by placing daily conveniences, shops, and employment within walking distance.
- Facilitate auto, pedestrian, bicycle and transit travel, both within the development, and to surrounding neighborhoods.
- Soften the impact of large-scale developments on the community by incorporating a mix of land uses.

Activity Centers

- Mixed-use and multi-use developments should be integrated within activity centers that are well defined and centrally located as neighborhood or town centers.

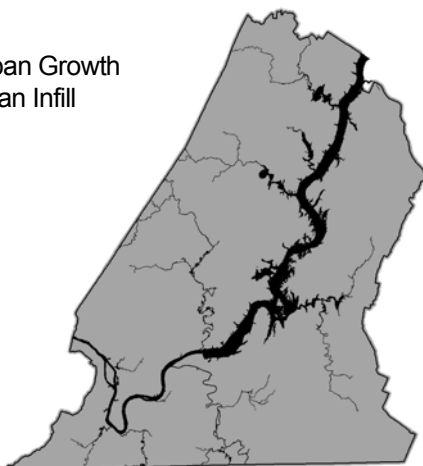
Typical Features

- Concentrated mix of non-residential and residential land uses in convenient locations.
- Good accessibility to and within mixed-use or multi-use developments is of particular importance due to the amount of traffic generated by the uses located within these developments.
- Generally locate along arterial or collector streets, or with easy accessibility to interstate highways.
- Buildings should be encouraged to accommodate a mixture of uses both vertically (e.g., apartments or offices over retail uses; live/work units) and horizontally (e.g., housing adjacent to institutional or other uses).
- Emphasize pedestrian scale and urban character by having buildings directly facing the street with active ground floor uses.
- Prominence of parks, open spaces, greens, plazas and squares.
- Encourage diverse housing types and density. Moderate to high residential densities should be incorporated within the development.
- Circulation systems should be designed to efficiently facilitate traffic flow yet discourage speeds and volumes that impede pedestrian activity and safety.
- Encourage public transportation by incorporating transit stops within the overall development.
- The design of streets, pedestrian ways, landscaping, lighting and street furniture should be coordinated and integrated throughout the site.
- Encourage connectivity by incorporating a coordinated pedestrian system throughout the development, including connections between uses on the site and between the site and adjacent properties and rights-of-way.
- Parking should be arranged in a less dominant manner, such as to the rear or to the side of buildings.
- Commercial and office development should be concentrated at nodes around intersections of arterial and collector streets.
- Protect and enhance environmental quality by the preservation of natural areas.
- Mixed-use or multi-use development should be designed in accordance with an overall master plan.



Appropriate Development Sectors for Mixed Use development

- Rural
- Transitional
- Outer Suburban Growth
- Inner Suburban Infill
- Urban
- Urban Core



Manufacturing and Industrial Development

Manufacturing and industrial development is not specifically described in any specific Development Sector or any specific Development Model. Promoting and facilitating positive manufacturing and industrial growth is an objective of this Plan. Positive growth in the manufacturing and industrial areas requires sites which have adequate infrastructure, adequate transportation and compatibility with surrounding residential and non-residential developments. Accordingly, manufacturing and industrial development would not occur in the Preserve and Reserve Sectors and would not generally be appropriate in the Rural Growth and Urban Core Infill Sectors. Manufacturing and industrial growth areas would likely occur, in accordance with good planning principles, in the Transitional Growth, Outer Suburban Growth, Inner Suburban Infill and the Urban Infill Sectors.

The lack of a Development Model relating to manufacturing and industrial growth is not an indication of the lack of importance but simply reflects that a development model for these type of uses has not been created under present planning principles.

Opportunities for manufacturing and industrial growth are set forth in pages 75 through 95 of the Community Goals, Policies and Action Steps section of this Plan.

Finally, while theoretically manufacturing and industrial development could take place in any Activity Center, it would be more likely to occur in the Regional Activity Center and less likely to occur in the Neighborhood Activity Center.















Implementation Plan










This implementation plan provides Regional Planning Agency actions for future implementation of the plan's goals and policies. The actions are presented in two parts, priority areas and a table of individual steps. Below are the seven priority action areas. These areas represent a culmination of the most important action items that will best achieve the goals and policies set forth in this comprehensive plan over the next 10-20 years.













Priority Action Areas







- * Sewers & Infrastructure
- * Integration of Land Use & Transportation Planning
 - * Visual Improvements along Corridors
 - * Residential Density Trade-offs for Open Space
- * Sensitive Areas Study to include Slope & Floodplain Management
- * Development Standards to include Form, Impact, and Connectivity
- * Expand & Improve Bicycle & Pedestrian Connectivity

Action Step Table

Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
H O U S I N G	Recommend the creation and maintenance of a database of areas containing concentrated pockets of substandard housing.	Local Governments, Chattanooga Neighborhood Services, and Hamilton County GIS	
	Provide incentives for the redevelopment or rehabilitation of deteriorated housing.	All Local Governments and Housing Related Agencies	
	Recommend the consideration of adding inspectors to codes enforcement staff as warranted.	All Local Governments	
	Recommend quick enforcement of condemnation orders.	All Local Governments	
	Support new initiatives that will ensure property owners upgrade their properties so that they meet minimum standards for health and safety.	All Local Governments	
	Identify those areas of the county appropriate for new housing development.	All Local Governments	
	Target key locations appropriate for residential infill.	All Local Governments	
	Identify flexible zoning techniques to ease the infill process in terms of permitting, zoning and impact on existing neighborhoods.	All Local Governments	
	Identify areas appropriate for high density residential development.	All Local Governments	
	Examine the zoning ordinance for shortcomings that may allow incompatible uses in residential areas.	All Local Governments	

Community Component	RPA Action	Suggested Partners	Suggested Process	
			Coordination	Special Project
			Plan Update	New Plan
H O U S I N G	Recommend an increase in the minimum lot size needed for flag lot creation in the unincorporated county.	Hamilton County		
	Coordinate with WWTA and Hamilton County officials to create a master sewer expansion plan for the unincorporated areas of Hamilton County.	Hamilton County and WWTA		
	Initiate the study of an urban infill zone that will allow context-sensitive housing development.	All Local Governments		
	Recommend the investigation of government-aided programs to rehabilitate duplex dwellings and convert them into either owner-occupied single-family dwellings or owner-occupied duplex dwellings.	All Municipalities		
	Formulate new zoning tools that will allow higher density or small lot developments in exchange for the preservation of substantial areas of open space.	All Local Governments		
	Conduct a detailed study of housing supply and demand within Hamilton County.	All Local Governments		
	Encourage education of the public for the compatibility of uses.	All Local Governments		
	Strengthen coordination with other agencies involved in farmland preservation, farming and agricultural practices, and rural residential development.	Soil Conservation District and Related Stakeholders		
	Provide rural development options that cluster density while preserving the open nature of the rural environment and important features such as woodlands, hillsides, prime farmland and view-sheds.	Related Stakeholders		

Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
B U S I N E S S	Review and re-evaluate definitions of, and criteria for, various scale and intensity level of retail developments and shopping centers.	Related Stakeholders	
	Define various scale and intensity levels of mixed-use, or multi-use activity centers. The scale and intensity level of these activity centers should be appropriate for the population and area they serve such as neighborhood, community, and regional scaled activity centers.	Related Stakeholders	
	Identify appropriate locations for future mixed-use, or multi-use neighborhood, community, and regional scale activity centers.	Related Stakeholders	
	Identify appropriate locations for rural commercial development. Rural commercial development should be of a scale and intensity level that is consistent with the population and area it serves.	Related Stakeholders	
	Identify appropriate locations in future neighborhood land use plans to support new industrial, office, and commercial development.	Related Stakeholders	
	Periodically review the landscape ordinance for effectiveness and areas of possible amendment.	All Local Governments & Related Stakeholders	
	To ensure the appropriate distribution of manufacturing and warehouse/distribution opportunities within the county, continue to review and monitor the amount of land and zoning devoted to such uses.	All Local Governments	
	Review the industrial zoning district regulations relating to the establishment or expansion of industries so that they are compatible with the public health, safety, and welfare, and promote economic prosperity of existing and future business.	All Local Governments	

Community Component	RPA Action	Suggested Partners	Suggested Process
BUSINESS	Review the industrial zoning district regulations for possible amendments to permit accessory uses such as; day care centers, personal service establishments, and eating establishments designed to serve on-site employees.	All Local Governments	
	Recommend continued investment in infrastructure improvements and expansions where deemed necessary and appropriate for economic development.	All Local Governments	
	Work with local governments to assist appropriate groups in using and understanding the Brownfield's Redevelopment Program to encourage redevelopment of areas with real and/or perceived environmental contamination.	All Local Governments	
	Recommend all local governments be an active participant, facilitator, and partner in the revitalization, rehabilitation, or adaptive reuse of vacant warehouse/manufacturing structures, and big-box stores.	All Local Governments	
	Research and explore the possibility of revisions to zoning ordinance, permitting process, and other applicable policies, codes, and design guidelines to encourage the revitalization, or the retrofitting of existing and underutilized activity center	Related Stakeholders	
	Create appropriate infill development guidelines.	Related Stakeholders	

Coordination



Special Project








Plan Update



New Plan



Community Component	RPA Action	Suggested Partners	Suggested Process
BUSINESS	Explore the option of providing incentives for the reintroduction of neighborhood businesses and services into under-served, older neighborhoods (assistance with market studies, site assembly, environmental clearances, business capital investment, employee training, etc.)	All Local Governments	
	Establish guidelines that encourage safe and attractive walkways, close groupings of stores and offices, structured and underground parking to reduce walking distances and provide overhead weather protection, and placement of off-street parking to the rear or to the side of structures to maximize pedestrian access from sidewalks.	Related Stakeholders	
	Recommend that all local governments provide needed assistance to: *Adult education/worker training *Small business development *University related research and development *Retention of young persons and college graduates in the community.	All Local Governments	
ENVIRONMENT	Conduct a comprehensive county wide Sensitive Areas Study to designate areas of protection, conservation, and future management.	Related Stakeholders	
	Assist local governments in creating a Resource Management Review Board to review development projects and/or land use changes in designated Sensitive Areas or that significantly impact air, land, or water quality.	All Local Governments	

Coordination



Special Project


























Plan Update





























New Plan

























Community Component	RPA Action	Suggested Partners	Suggested Process
E N V I R O N M E N T	Develop a Resource Conservation District and/or contiguous greenbelt area.	All Local Governments	Coordination  Special Project  Plan Update  New Plan 
	Recommend creation of a public/private trust to fund the purchase of local scenic and environmentally sensitive lands.	Community Stakeholders and Local Non-Profits	
	Monitor and maintain current status of farm contracts in partnership with the Hamilton County Soil Conservation District as farm lands provide wildlife habitat.	Hamilton County and Related Stakeholders	
	Improve and incentivize existing open space subdivision regulations.	All Local Governments	
	Establish riparian buffer areas as streams, creeks, and the river traverse large portions of the county.	All Local Governments	
	Develop language for local government ordinances to restrict development in the 100 year floodplain.	Related Stakeholders	
	Assist in watershed planning projects including a citywide Watershed Master Plan.	All Local Governments	
	Discuss possibility of watershed planning with Hamilton County and its municipalities.	All Local Governments	
	Monitor and, if necessary, develop additional regulations to require riparian buffers and minimize stream bank alteration and erosion.	All Local Governments	













Community Component	RPA Action	Suggested Partners	Suggested Process
E N V I R O N M E N T	Conduct a study to determine what is considered "steep slopes" for Hamilton County related to land capabilities based on soil types.	Related Stakeholders	Coordination  Special Project  Plan Update  New Plan 
	Develop a slope management ordinance and/or regulation encouraging development that is sensitive to steep topography.	Related Stakeholders	
	Identify areas appropriate for low-density and/or compact cluster developments adjacent to steep slopes.	Related Stakeholders	
	Identify ways to improve the subdivision regulations and zoning ordinance to reflect the importance of slope conservation including options such as expedited process for including protection provisions in the development site plan.	Related Stakeholders	
	Create a minimum standard for retaining existing tree cover on steep slopes.	Related Stakeholders	
	Assist the TPO in conducting routine data collection for the Congestion Management System.	TPO	
	Continue to promote and assess the need for new alternative transportation projects in community land use, recreation, and transportation plans.	Related Stakeholders	
	Assist local transportation related agencies in educational programming, events, activities, and publications.	TPO and Transportation Stakeholders	













Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
PUBLIC SPACES & RECREATION	Complete a public space & recreation facility review to identify those facilities where complementary uses may be most appropriate.	All Local Governments	
	Require greenway and parkland dedications in new Planned Unit Developments and Open Space Subdivisions.	Related Stakeholders	
	Complete code revisions to allow in-lieu-of dedications of open space or parkland, permitting higher-density development with less open space in return for dedicated lands elsewhere.	Related Stakeholders	
	Work with local governments and other partners to maintain up-to-date parks & recreation and greenway master plans.	All Local Governments and Community Stakeholders	
	Work with the Trust for Public Land and other partners to continue expansion of the network of multi-use paths.	Related Stakeholders	
	As development occurs, work to secure easements for multi-use path network expansion as part of the development process.	TPL and Local Governments	
	Recommend identification of facilities with severe maintenance needs and consider providing one-time emergency funds for repair of those facilities.	All Local Governments	
	Recommend incorporation of a low-maintenance requirement for materials and design in the bidding process.	All Local Governments	
	Prioritize repair of those public spaces and recreational facilities that have identified safety issues.	All Local Governments	
	Explore conducting design competitions for significant new or renovated facilities.	All Local Governments	






Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
PUBLIC SPACES & RECREATION	Explore requiring new recreational facilities to be LEED-certified. The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.	All Local Governments	
	Recommend creation of a maintenance needs database of one-time and recurring needs, organized by priority, and use of the database for budgeting prioritization.	All Local Governments	
	Explore formation of a disabled citizens advisory panel to provide recommendations for enhancing access to public spaces for the disabled.	All Local Governments	
	Continue to expand ADA compliance in all public spaces and recreational facilities.	Related Stakeholders	
	Explore the possibility of constructing a Boundless playground for public use in Hamilton County. Boundless playgrounds provide opportunities for children with and without disabilities to play together without barriers.	City of Chattanooga, Siskin Children's Institute, and Related Stakeholders	
	Recommend adoption of guidelines and a plan for provision of facilities based on community form, including facility classifications and level-of-service (LOS) guidelines.	Related Stakeholders	
	Explore formalization of a policy of maintaining, expanding, and constructing neighborhood-scale facilities in the urban core, urban, and inner suburban areas wherever feasible.	All Local Governments	
	Work with partners to use Geographic Information System mapping and database software, Census data, and citizen input to identify appropriate locations for new or expanded facilities.	Related Stakeholders	

Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
PUBLIC SPACES & RECREATION	Incorporate the Bicycle and Greenway Master Plans when designing new or renovated park facilities.	All Local Governments	
	Create a formal partnership program, identifying potential user groups to target, appropriate parks & recreation facilities for inclusion, and rules delineating partner responsibilities.	All Local Governments	
	Explore creation of a short-term park renovation program. Include a formal review process to evaluate the effectiveness of renovations before they are adopted and/or expanded.	All Local Governments	
	Conduct a public input process when planning new facilities or significant renovations to existing facilities.	All Local Governments	
	Maintain and build upon existing partnerships with Outdoor Chattanooga and other outdoor recreation organizations.	All Local Governments and Community organizations	
	Recommend establishment of an outdoor recreation lending library, with educational resources and materials to promote knowledgeable, safe, and environmentally respectful recreation participation.	Outdoor Chattanooga and Related Stakeholders	
	Partner with outdoor recreation organizations and enthusiasts to offer classes and recreation opportunities to better educate participants, from beginner to expert.	All Local Governments and Community	

Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
C I V I C	Identify potential new partners and develop a coordination process.	All Local Governments and Community Stakeholders	
	Explore alternative fee requirements	All Local Governments	
	The Chattanooga-Hamilton County Regional Planning Commission shall continue to act as the planning advisory board for Hamilton County and its municipalities and the Regional Planning Agency shall continue to update existing plans, create new plans, and act as the administrative body in planning efforts.	Related Stakeholders	
	Recommend a plan for school facilities' renovations, replacements and new construction, as well as relief from overcrowding and equitable provision of educational programs.	All Local Governments	
	The Regional Planning Agency will continue to track population growth for the county and all its communities. The RPA shall maintain records to illustrate the impact that rezoning and subdivision growth on school enrollment and capacity.	Related Stakeholders	
	Coordinate planning for the provision of public capital facilities and utilities, including those supporting new and existing businesses.	All Local Governments	
	Plan sanitary sewer collection systems in coordination with planned development.	All Local Governments and Related Stakeholders	

Community Component	RPA Action	Suggested Partners	Suggested Process
			Coordination  Special Project  Plan Update  New Plan 
C I V I C	Assist Hamilton County and its municipalities with capital improvements programming.	All Local Governments	
	Coordinate transportation and land use planning efforts with recommendations and proposed projects in TransPlan 2030.	TPO and All Local Governments	
	Historic Resources Inventory: Continue to maintain and update inventories of Hamilton County's historic resources.	Related Stakeholders	
	Maintain the designation of and continue to implement guidelines for the City of Chattanooga's local historic districts	All Local Governments	
	The Regional Planning Agency, in partnership with other organizations, shall continue to identify potential historic districts and landmarks.	All Local Governments and Community Stakeholders	
	Establish partnerships with service providers to meet the County's cultural, educational, economic and social needs.	Related Stakeholders	
	Support municipalities' desire to enact design guidelines if applicable.	Related Stakeholders	
	Use the Chattanooga Urban Area Sidewalk-Streetscape Policy Guide, in conjunction with other adopted plans, to provide streetscape recommendations countywide.	All Local Governments	

Community Component	RPA Action	Suggested Partners	Suggested Process
CIVIC	Recommend implementation of the Chattanooga Area Wayfinding Plan.	Chattanooga	Coordination  Special Project  Plan Update  New Plan 
	Designate appropriate locations and designs for civic buildings such as schools and government buildings	Related Stakeholders	
TRANSPORTATION	Reduce the amount of curb-cuts through organized development efforts to enable controlled access and avoid excessive and dangerous turning motions.	All Local Governments	
	Through area and neighborhood planning, identify needed alley maintenance, areas requiring improved street lighting, methods to accommodate truck traffic in appropriate areas, and other areas of community concern.	Related Stakeholders	
	Identify opportunities for visual improvements along major corridors.	TPO	
	Continue to explore and implement alternatives to off-street surface parking: reduced required parking where appropriate, shared parking, on-street parking, park and ride and other transportation demand management tools.	All Local Governments	
	Recommend utilization of the Chattanooga Area Signage and Wayfinding Plan to strengthen wayfinding efforts for visitors and residents.	All Local Governments and TPO	
	Use local planning efforts to identify locations where traffic calming may be necessary to create a safer roadway for vehicles and residents.	TPO	
	Through the TPO and other capital planning efforts, use the construction and maintenance of sidewalks as the predominant strategy for improving pedestrian movements.	TPO and Local Governments	

Community Component	RPA Action	Suggested Partners	Suggested Process
TRANSPORTATION	Implement specific recommendations of the long-range transportation plan in regards to pedestrians including: provide more signalize crosswalk locations, install countdown pedestrian signals and pedestrian-scale lighting where appropriate, and continue adherence to Americans with Disabilities Act (ADA) guidelines.	TPO and Local Governments	<ul style="list-style-type: none"> Coordination  Special Project  Plan Update  New Plan 
	Through the TPO and other capital planning efforts, provide funding for planned bicycle facilities.	TPO and Local Governments	

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Infrastructure

Facilities and services needed to sustain development and land-use activities including utility lines, fire and police stations, parks, schools, and other public facilities.

Infill Development

The development of vacant or underutilized parcels which are surrounded by or in close proximity to areas that are either substantially or fully developed.

Inner Suburban

A community form primarily developing after World War II; featuring relatively small residential lots with less-stringent setback requirements. Land uses are generally segregated into separate distinct districts.

Inner Suburban Infill

A development sector that provides opportunity for context-sensitive development or re-development. Because the Inner Suburban sector often serves as a transition between urban and suburban development forms, several development models may be used, depending on the character of each particular site.

Interchange

A grade-separated, bridged system of access to and from highways where vehicles may move from one roadway to another without crossing streams of traffic.

Interstate (freeway)

Controlled-access divided highways, allowing for safe high-speed driving when traffic permits. They are assigned a special level of funding at the Federal level.

Land Use Plan

A long-range plan for the desirable use of land in a municipality as officially adopted and amended from time-to-time by the planning commission and elected body.

Level of Service (LOS)

A scale that measures the amount of traffic that a roadway or intersection can accommodate, based on such factors as maneuverability, driver dissatisfaction, and delay.

Lifestyle Center

A retail center generally arranged open-air configuration and typically anchored by upscale national chain specialty stores. Other characteristics of lifestyle centers is that they serve as a destination point for leisure time, including eating establishments, entertainment, and design ambience and amenities such as fountains and street furniture that are conducive to casual browsing. They are usually located near affluent residential areas.

Local Street

Roadway that provides direct access to the adjacent land. The roadway typically accommodates a low volume of traffic.

Lot of Record

A parcel of land with dimensions of which are shown on a document or map on file with the Register of Deeds.

L RTP

Long Range Transportation Plan. *TransPlan 2030* seeks to identify improvements and establish transportation policy that will be needed by the target year 2030. Adopted in June 2005, the plan's goal is to promote the efficient movement of people and goods, while also supporting the CHCNGA TPO area's land use and economic development goals.

Mixed Use Development

Developments intended to encourage an integrated, diverse blend of compatible land uses.

Mobile Home Park

Any plot of land upon which two or more mobile homes, occupied for sleeping or dwelling purpose, are located, provided that the plot cannot be subdivided so that each mobile home unit is situated on its own standard lot.

Multi-Use Development

The development of a tract of land or building with two or more different uses such as but not limited to residential, office, retail, public, or entertainment in a compact urban form.

Multi-use path

A linear park located in a right-of-way or easement. Often but by no means exclusively located adjacent to waterways in the floodway, multi-use paths are multi-purpose, though some types serve one purpose to a greater extent than others. Multi-use paths provide protection for environmental areas, recreational opportunities for the community, and, frequently, enhanced neighborhood connectivity for walkers, runners, and bikers.

Neighborhood Association

A group of citizens who are residents, property owners, and business owners who are organized with the intent of discussing and acting on a broad range of issues concerning the neighborhood.

Neighborhood Center

Neighborhood shopping centers generally provide convenience shopping for the day-to-day needs of consumers in nearby residential neighborhoods.

Neighborhood Park

Neighborhood parks are typically the lynchpin and basic element of any park system. Optimally 5-10 acres in size, neighborhood parks and attendant facilities provide a gathering place that can act as the social and recreational focus of a neighborhood, and typically have a service area between ¼ and ½ mile in radius. Neighborhood parks ideally serve a diverse demographic range and provide recreational opportunities for both young and old.

Node

Discrete concentrations of relatively higher-density development. Nodes are often appropriate at major intersections.

Non-attainment area

A geographic region of the United States that the U.S. Environmental Protection Agency (EPA) has designated as not attaining the federal air quality standards for one or more air pollutants, such as ozone and carbon monoxide.

Non-point Pollution

Generalized discharge of waste that cannot easily be traced to a particular source. Likely sources cover broad areas of land and may include a variety of pollutants.

Office Park

A planned concentration of office development, having interconnected internal street networks and shared open spaces

Open Space

Any parcel of land or portion thereof essentially unimproved and dedicated or reserved for public or private use.

Open Space Subdivision

A site design technique that concentrates dwelling units in a compact area in one portion of the development site in exchange for providing open space and natural areas elsewhere on the site. The minimum lot sizes, setbacks, and frontage distances for the residential zone are relaxed in order to create additional open space at the site.

Opportunity Area

Locations identified as having potential development opportunity under certain conditions.

Outer Suburban

The community form representing continued development farther from the initial urban center. Outer Suburban development is typically characterized by a very distinct separation of land uses, larger residential lots, and a lack of a grid street network.

Outer Suburban Infill

An area suitable for the extension, completion, connection, and conformity of conventional low-density development.

Outlet Center

A collection of retail stores selling brand-name goods at a discount. These centers are typically not anchored, although certain brand-name stores may serve as magnet tenants.

Ozone Pollution

Ozone is a molecule consisting of three atoms of elemental oxygen. It is damaging to the human respiratory system and is formed primarily in the lower urban atmosphere (0 to 3 meters above the ground) during the summer when pollutants from automobiles and other sources react to the presence of sunlight.

Paratransit

Comparable transportation service required by the Americans With Disabilities Act for people with disabilities who are unable to use fixed-route transportation systems.

Parcel

A piece of land that can be owned, sold, and developed. Parcels have legal descriptions which not only describe their boundaries but also contain information concerning rights and interests.

Particulate Pollution

Particulate matter includes dust, soot and other tiny bits of solid materials that are released into the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, and other processes. Particulate pollution can cause eye, nose and throat irritation and other health problems.

Passive Park

A park featuring recreational pursuits such as interpretive programs and trail systems that take advantage of the natural setting within its boundaries; not including recreational facilities such as swimming pools, playing fields, or playground equipment.

Patio Home

A single-family detached unit located on a reduced size, zero-lot line parcel and situated to provide for efficient use of available land.

Pattern Book

A portfolio of building designs expressing the unique local character and the best qualities of the forms and styles inherent in a region.

Plaza

An area generally open to the public on a controlled basis and used for passive recreational activities and relaxation. Plazas are paved areas typically provided with amenities, such as seating, drinking, and ornamental fountains, art, trees, and landscaping, for use by pedestrians, though those elements are not required. Plazas are typically defined spatially by building or street frontages.

Pocket Park

The smallest of park facilities, pocket parks can serve a wide variety of active and passive uses, including playgrounds, overlooks, and picnic areas.

Policy

The principles, plan or procedures established by an agency, institution, or government, generally with the intent of reaching a long-term goal.

Power Center

A commercial center featuring a small collection of anchor tenants that are usually the dominant retailers in the markets they serve.

Preserve

Open space that is currently protected from development. It includes areas under environmental protection by law or standard, as well as land acquired for conservation through purchase, or by easement.

Regional Center

Regional shopping centers generally have a combination of anchors, including big-box retail stores, department stores, automobile related uses, strip shopping centers, and numerous specialty stores. The mix of retailers and arrangement of extensive parking facilities draw customers from greater distances than smaller-scale centers.

Regional Park

The largest type of park. Often operated at the state or federal level, regional parks are typically 1,000 acres or more in size and have a service area extending to a one-hour drive or more. Uses can be passive or active in nature, and may include hiking, biking, and equestrian trails, picnic facilities, play areas, interpretive facilities, camping, or other special uses.

Reserve

Environmentally sensitive areas such as the 100-year flood plain and steep slopes that may require special considerations for development. Additionally, through special efforts, many of these areas could be added to the Preserve category in the future.

Riparian Habitat

Lands comprised of the vegetative and wildlife areas adjacent to perennial and intermittent streams. Riparian habitats are delineated by the natural existence of plant species normally found near freshwater.

Runoff - Water, often containing pollutants, that runs off roofs, roads, and other urban surfaces and drains directly into waterways.

Rural

A relatively sparsely developed area where the land is primarily used for agricultural, forestry, resource extraction, and very low density residential uses.

Rural Growth

Rural Growth areas consist of lands in an open or cultivated state, woodlands, or those that are sparsely settled. These areas are suitable for farm land trust protection and forest conservation efforts. The Rural Growth category is provided to encourage the development of neighborhoods that set aside significant natural vistas and landscape features for permanent conservation.

Safewalk

Safewalks serve to connect neighborhood amenities such as recreation centers and schools with housing areas. Constructed in established areas, safewalks may take advantage of the existing street network as well as available access easements to provide superior, safer connections than sidewalks alone.

Sanitary Sewer

A system usually operated by a municipality, consisting of a system of conduits, pumps and underground pipes designed to convey wastewater from its source to a treatment center before discharge into open waterways.

Scale

The relative size of a development when compared to others of its kind, to its environment, or to humans.

School Park

School-park sites are joint-use park facilities used by public schools during school hours and available for public use at other times.

Septic System

A subsurface wastewater treatment system commonly found in rural areas consisting of a settling tank and a subsurface disposal field.

Setback

The minimum distance any building or structure must be separated from the lot lines of the parcel on which it is located.

Shared Parking

The development and use of parking areas on two or more separate properties for joint use by the businesses or residents on those properties.

Shared Parking Districts

Certain areas within the City of Chattanooga that allow businesses and other establishments to share parking facilities in order to reduce the amount of land dedicated to surface parking.

Slope

The deviation of a land surface from horizontal, usually expressed in percent or degrees. Many municipalities consider slopes of 25% or greater to be *steep slopes*.

Solid Waste

Garbage, refuse, sludge, and other discarded solid materials, including those from industrial, commercial, and residential activities.

Square

Open space that may encompass an entire block, is located at the intersection of important streets, and is set aside for civic purposes, with landscape consisting of paved walks, lawns, trees, and monuments or public art.

Streetscape

The combination of building facades, signage, landscaping, street furnishings, sidewalks, and other elements along a street.

Strip Commercial

A form of commercial land use in which each establishment is afforded direct access to a major thoroughfare; generally associated with intensive use of signage.

Stormwater - That portion of rainfall *runoff* that does not infiltrate into the soil, but instead flows through culverts, ditches and streams into progressively larger channels until it reaches a larger body of water such as the Tennessee River.

Subdivision

The division of a tract of land into two or more lots.

Substandard Housing

Residential dwellings that, because of their physical condition, do not provide safe and sanitary housing.

Suburban Development

A form of development, generally beginning after World War II that is characterized by a distinct separation of land uses. The street network deviates from the historical grid system as cul-de-sacs and curvilinear routes are common.

Super-regional Center

Super-regional shopping centers are similar to regional centers, in terms of typical retail uses; however, super-regional centers are generally larger in scale, feature a larger number of anchors, and draw from an even larger regional market.

TDEC

Tennessee Department of Environment and Conservation.

303(d) List

The [list](#) of streams and lakes that are not meeting their designated uses (impaired waters) because of excess pollutants. States must update this list every two years.

TMDL

Total Maximum Daily Load. A TMDL is a calculation of the greatest amount of a pollutant that a water body can receive without violating water quality standards

Traditional Neighborhood Development

A type of development that emulates early 20th Century urban conventions in the United States by diversifying and integrating land uses while attempting to preserve a human-scale design.

Transitional (sector)

A region undergoing transformation from a rural character to one more closely resembling a denser, more intensely used Outer Suburban form.

Transition Area

An area in, near, or between a significant change in land uses.

Transitional Growth

Areas that lie between rural zones and more urbanized or suburban development. Because of potential land use conflicts, development in this area should be carefully examined for adverse impacts on surrounding properties.

Total Maximum Daily Load

The maximum level (plus a margin of safety) of a particular pollutant a waterway can withstand without endangering its designated use.

Townhome

A residential structure on its own separate lot containing one household dwelling unit that occupies space from the ground to the roof, and is attached to one or more townhouse dwelling units by at least one common wall.

TPO

Transportation Planning Organization. A policymaking board comprised of representatives from local government and transportation authorities who review transportation issues and develop transportation plans and programs for the metropolitan area. Analogous to Metropolitan Planning Organization (MPO).

Urban

Of, relating to, characteristic of, or constituting a city. Urban areas are characterized by moderate and higher density residential development closely integrated with commercial and industrial development. In addition, urban areas offer an availability of public services required for such relatively dense development such as streets, central water, public transit, and sewer.

Urban Core Infill

The Urban Core is the equivalent of a Downtown and is often the economic, cultural, and administrative heart of a city or region. Generally, buildings should be similar in height and configuration to neighboring buildings on the same block and side of the street to create continuity, balance and scale.

Urban Infill

Urban neighborhoods have a denser and primarily residential urban fabric. Mixed uses including offices and retail are usually confined to certain corner locations with housing density increasing adjacent to those commercial centers. New development should follow urban patterns with smaller blocks, a connected street grid, alleys, smaller lots, and shallow building setbacks.

Urban Overlay Zone

The Urban Overlay Zone alters certain underlying zoning requirements in order to help preserve the existing physical layout of the older urban portion of downtown Chattanooga and surrounding neighborhoods.

Urbanized Area

As defined by the United States Census Bureau, an urbanized area consists of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people.

Vehicle Miles Traveled (VMT)

Miles of travel by all types of motor vehicles as determined by the states based on actual traffic counts and established estimating procedures.

Viewshed

Those segments of a landscape that can be seen from a particular point.

Watershed

The land area from which surface runoff drains into a stream, channel, lake, reservoir, or other body of water; also called a drainage basin.

Zoning

The legal mechanism for the creation of districts in certain specified areas within a municipality land uses with other limitations such as height, lot coverage, density, and other stipulations in order to protect the health, safety and welfare of residents.

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The development of vacant or underutilized parcels which are surrounded by or in close proximity to areas that are either substantially or fully developed.

Inner Suburban

A community form primarily developing after World War II; featuring relatively small residential lots with less-stringent setback requirements. Land uses are generally segregated into separate distinct districts.

Inner Suburban Infill

A development sector that provides opportunity for context-sensitive development or re-development. Because the Inner Suburban sector often serves as a transition between urban and suburban development forms, several development models may be used, depending on the character of each particular site.

Interchange

A grade-separated, bridged system of access to and from highways where vehicles may move from one roadway to another without crossing streams of traffic.

Interstate (freeway)

Controlled-access divided highways, allowing for safe high-speed driving when traffic permits. They are assigned a special level of funding at the Federal level.

Land Use Plan

A long-range plan for the desirable use of land in a municipality as officially adopted and amended from time-to-time by the planning commission and elected body.

Level of Service (LOS)

A scale that measures the amount of traffic that a roadway or intersection can accommodate, based on such factors as maneuverability, driver dissatisfaction, and delay.

Lifestyle Center

A retail center generally arranged open-air configuration and typically anchored by upscale national chain specialty stores. Other characteristics of lifestyle centers is that they serve as a destination point for leisure time, including eating establishments, entertainment, and design ambience and amenities such as fountains and street furniture that are conducive to casual browsing. They are usually located near affluent residential areas.

Local Street

Roadway that provides direct access to the adjacent land. The roadway typically accommodates a low volume of traffic.

Lot of Record

A parcel of land with dimensions of which are shown on a document or map on file with the Register of Deeds.

L RTP

Long Range Transportation Plan. *TransPlan 2030* seeks to identify improvements and establish transportation policy that will be needed by the target year 2030. Adopted in June 2005, the plan's goal is to promote the efficient movement of people and goods, while also supporting the CHCNGA TPO area's land use and economic development goals.

Mixed Use Development

Developments intended to encourage an integrated, diverse blend of compatible land uses.

Mobile Home Park

Any plot of land upon which two or more mobile homes, occupied for sleeping or dwelling purpose, are located, provided that the plot cannot be subdivided so that each mobile home unit is situated on its own standard lot.

Multi-Use Development

The development of a tract of land or building with two or more different uses such as but not limited to residential, office, retail, public, or entertainment in a compact urban form.

Multi-use path

A linear park located in a right-of-way or easement. Often but by no means exclusively located adjacent to waterways in the floodway, multi-use paths are multi-purpose, though some types serve one purpose to a greater extent than others. Multi-use paths provide protection for environmental areas, recreational opportunities for the community, and, frequently, enhanced neighborhood connectivity for walkers, runners, and bikers.

Neighborhood Association

A group of citizens who are residents, property owners, and business owners who are organized with the intent of discussing and acting on a broad range of issues concerning the neighborhood.

Neighborhood Center

Neighborhood shopping centers generally provide convenience shopping for the day-to-day needs of consumers in nearby residential neighborhoods.

Neighborhood Park

Neighborhood parks are typically the lynchpin and basic element of any park system. Optimally 5-10 acres in size, neighborhood parks and attendant facilities provide a gathering place that can act as the social and recreational focus of a neighborhood, and typically have a service area between ¼ and ½ mile in radius. Neighborhood parks ideally serve a diverse demographic range and provide recreational opportunities for both young and old.

Node

Discrete concentrations of relatively higher-density development. Nodes are often appropriate at major intersections.

Non-attainment area

A geographic region of the United States that the U.S. Environmental Protection Agency (EPA) has designated as not attaining the federal air quality standards for one or more air pollutants, such as ozone and carbon monoxide.

Non-point Pollution

Generalized discharge of waste that cannot easily be traced to a particular source. Likely sources cover broad areas of land and may include a variety of pollutants.

Office Park

A planned concentration of office development, having interconnected internal street networks and shared open spaces

Open Space

Any parcel of land or portion thereof essentially unimproved and dedicated or reserved for public or private use.

Open Space Subdivision

A site design technique that concentrates dwelling units in a compact area in one portion of the development site in exchange for providing open space and natural areas elsewhere on the site. The minimum lot sizes, setbacks, and frontage distances for the residential zone are relaxed in order to create additional open space at the site.

Opportunity Area

Locations identified as having potential development opportunity under certain conditions.

Outer Suburban

The community form representing continued development farther from the initial urban center. Outer Suburban development is typically characterized by a very distinct separation of land uses, larger residential lots, and a lack of a grid street network.

Outer Suburban Infill

An area suitable for the extension, completion, connection, and conformity of conventional low-density development.

Outlet Center

A collection of retail stores selling brand-name goods at a discount. These centers are typically not anchored, although certain brand-name stores may serve as magnet tenants.

Ozone Pollution

Ozone is a molecule consisting of three atoms of elemental oxygen. It is damaging to the human respiratory system and is formed primarily in the lower urban atmosphere (0 to 3 meters above the ground) during the summer when pollutants from automobiles and other sources react to the presence of sunlight.

Paratransit

Comparable transportation service required by the Americans With Disabilities Act for people with disabilities who are unable to use fixed-route transportation systems.

Parcel

A piece of land that can be owned, sold, and developed. Parcels have legal descriptions which not only describe their boundaries but also contain information concerning rights and interests.

Particulate Pollution

Particulate matter includes dust, soot and other tiny bits of solid materials that are released into the air. Particulates are produced by many sources, including burning of diesel fuels by trucks and buses, incineration of garbage, and other processes. Particulate pollution can cause eye, nose and throat irritation and other health problems.

Passive Park

A park featuring recreational pursuits such as interpretive programs and trail systems that take advantage of the natural setting within its boundaries; not including recreational facilities such as swimming pools, playing fields, or playground equipment.

Patio Home

A single-family detached unit located on a reduced size, zero-lot line parcel and situated to provide for efficient use of available land.

Pattern Book

A portfolio of building designs expressing the unique local character and the best qualities of the forms and styles inherent in a region.

Plaza

An area generally open to the public on a controlled basis and used for passive recreational activities and relaxation. Plazas are paved areas typically provided with amenities, such as seating, drinking, and ornamental fountains, art, trees, and landscaping, for use by pedestrians, though those elements are not required. Plazas are typically defined spatially by building or street frontages.

Pocket Park

The smallest of park facilities, pocket parks can serve a wide variety of active and passive uses, including playgrounds, overlooks, and picnic areas.

Policy

The principles, plan or procedures established by an agency, institution, or government, generally with the intent of reaching a long-term goal.

Power Center

A commercial center featuring a small collection of anchor tenants that are usually the dominant retailers in the markets they serve.

Preserve

Open space that is currently protected from development. It includes areas under environmental protection by law or standard, as well as land acquired for conservation through purchase, or by easement.

Regional Center

Regional shopping centers generally have a combination of anchors, including big-box retail stores, department stores, automobile related uses, strip shopping centers, and numerous specialty stores. The mix of retailers and arrangement of extensive parking facilities draw customers from greater distances than smaller-scale centers.

Regional Park

The largest type of park. Often operated at the state or federal level, regional parks are typically 1,000 acres or more in size and have a service area extending to a one-hour drive or more. Uses can be passive or active in nature, and may include hiking, biking, and equestrian trails, picnic facilities, play areas, interpretive facilities, camping, or other special uses.

Reserve

Environmentally sensitive areas such as the 100-year flood plain and steep slopes that may require special considerations for development. Additionally, through special efforts, many of these areas could be added to the Preserve category in the future.

Riparian Habitat

Lands comprised of the vegetative and wildlife areas adjacent to perennial and intermittent streams. Riparian habitats are delineated by the natural existence of plant species normally found near freshwater.

Runoff - Water, often containing pollutants, that runs off roofs, roads, and other urban surfaces and drains directly into waterways.

Rural

A relatively sparsely developed area where the land is primarily used for agricultural, forestry, resource extraction, and very low density residential uses.

Rural Growth

Rural Growth areas consist of lands in an open or cultivated state, woodlands, or those that are sparsely settled. These areas are suitable for farm land trust protection and forest conservation efforts. The Rural Growth category is provided to encourage the development of neighborhoods that set aside significant natural vistas and landscape features for permanent conservation.

Safewalk

Safewalks serve to connect neighborhood amenities such as recreation centers and schools with housing areas. Constructed in established areas, safewalks may take advantage of the existing street network as well as available access easements to provide superior, safer connections than sidewalks alone.

Sanitary Sewer

A system usually operated by a municipality, consisting of a system of conduits, pumps and underground pipes designed to convey wastewater from its source to a treatment center before discharge into open waterways.

Scale

The relative size of a development when compared to others of its kind, to its environment, or to humans.

School Park

School-park sites are joint-use park facilities used by public schools during school hours and available for public use at other times.

Septic System

A subsurface wastewater treatment system commonly found in rural areas consisting of a settling tank and a subsurface disposal field.

Setback

The minimum distance any building or structure must be separated from the lot lines of the parcel on which it is located.

Shared Parking

The development and use of parking areas on two or more separate properties for joint use by the businesses or residents on those properties.

Shared Parking Districts

Certain areas within the City of Chattanooga that allow businesses and other establishments to share parking facilities in order to reduce the amount of land dedicated to surface parking.

Slope

The deviation of a land surface from horizontal, usually expressed in percent or degrees. Many municipalities consider slopes of 25% or greater to be *steep slopes*.

Solid Waste

Garbage, refuse, sludge, and other discarded solid materials, including those from industrial, commercial, and residential activities.

Square

Open space that may encompass an entire block, is located at the intersection of important streets, and is set aside for civic purposes, with landscape consisting of paved walks, lawns, trees, and monuments or public art.

Streetscape

The combination of building facades, signage, landscaping, street furnishings, sidewalks, and other elements along a street.

Strip Commercial

A form of commercial land use in which each establishment is afforded direct access to a major thoroughfare; generally associated with intensive use of signage.

Stormwater - That portion of rainfall *runoff* that does not infiltrate into the soil, but instead flows through culverts, ditches and streams into progressively larger channels until it reaches a larger body of water such as the Tennessee River.

Subdivision

The division of a tract of land into two or more lots.

Substandard Housing

Residential dwellings that, because of their physical condition, do not provide safe and sanitary housing.

Suburban Development

A form of development, generally beginning after World War II that is characterized by a distinct separation of land uses. The street network deviates from the historical grid system as cul-de-sacs and curvilinear routes are common.

Super-regional Center

Super-regional shopping centers are similar to regional centers, in terms of typical retail uses; however, super-regional centers are generally larger in scale, feature a larger number of anchors, and draw from an even larger regional market.

TDEC

Tennessee Department of Environment and Conservation.

303(d) List

The [list](#) of streams and lakes that are not meeting their designated uses (impaired waters) because of excess pollutants. States must update this list every two years.

TMDL

Total Maximum Daily Load. A TMDL is a calculation of the greatest amount of a pollutant that a water body can receive without violating water quality standards

Traditional Neighborhood Development

A type of development that emulates early 20th Century urban conventions in the United States by diversifying and integrating land uses while attempting to preserve a human-scale design.

Transitional (sector)

A region undergoing transformation from a rural character to one more closely resembling a denser, more intensely used Outer Suburban form.

Transition Area

An area in, near, or between a significant change in land uses.

Transitional Growth

Areas that lie between rural zones and more urbanized or suburban development. Because of potential land use conflicts, development in this area should be carefully examined for adverse impacts on surrounding properties.

Total Maximum Daily Load

The maximum level (plus a margin of safety) of a particular pollutant a waterway can withstand without endangering its designated use.

Townhome

A residential structure on its own separate lot containing one household dwelling unit that occupies space from the ground to the roof, and is attached to one or more townhouse dwelling units by at least one common wall.

TPO

Transportation Planning Organization. A policymaking board comprised of representatives from local government and transportation authorities who review transportation issues and develop transportation plans and programs for the metropolitan area. Analogous to Metropolitan Planning Organization (MPO).

Urban

Of, relating to, characteristic of, or constituting a city. Urban areas are characterized by moderate and higher density residential development closely integrated with commercial and industrial development. In addition, urban areas offer an availability of public services required for such relatively dense development such as streets, central water, public transit, and sewer.

Urban Core Infill

The Urban Core is the equivalent of a Downtown and is often the economic, cultural, and administrative heart of a city or region. Generally, buildings should be similar in height and configuration to neighboring buildings on the same block and side of the street to create continuity, balance and scale.

Urban Infill

Urban neighborhoods have a denser and primarily residential urban fabric. Mixed uses including offices and retail are usually confined to certain corner locations with housing density increasing adjacent to those commercial centers. New development should follow urban patterns with smaller blocks, a connected street grid, alleys, smaller lots, and shallow building setbacks.

Urban Overlay Zone

The Urban Overlay Zone alters certain underlying zoning requirements in order to help preserve the existing physical layout of the older urban portion of downtown Chattanooga and surrounding neighborhoods.

Urbanized Area

As defined by the United States Census Bureau, an urbanized area consists of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people.

Vehicle Miles Traveled (VMT)

Miles of travel by all types of motor vehicles as determined by the states based on actual traffic counts and established estimating procedures.

Viewshed

Those segments of a landscape that can be seen from a particular point.

Watershed

The land area from which surface runoff drains into a stream, channel, lake, reservoir, or other body of water; also called a drainage basin.

Zoning

The legal mechanism for the creation of districts in certain specified areas within a municipality land uses with other limitations such as height, lot coverage, density, and other stipulations in order to protect the health, safety and welfare of residents.

Comprehensive Plan 2030

Reference Addendum

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Appendix A:
Community Survey



COMP-PLAN 2030

Chattanooga-Hamilton County Comprehensive Land Use Plan

COMMUNITY SURVEY

October, 2004

Introduction

The Regional Planning Agency will use the answers to the following questions in updating the Chattanooga-Hamilton County Comprehensive Land Use Plan. The Plan is expected to be complete in the spring of 2005. A public meeting will be held at that time to review the Comp-Plan 2030 recommendations. Thank you for your participation.

Community Living

1. In what community or neighborhood do you live? _____
2. Using the attached Planning District Map on page 4, check below which Planning District you live in:
q North Plateau q West River q Northeast County q South Plateau q North River
q Southeast River q Southwest County q Central City q Southwest Creek q Southeast County
3. What is your present housing situation?
q rent q own
4. In what type of housing do you live.
q house q apartment q condominium q duplex q townhouse q other _____
5. What are the two best aspects of day-to-day life in your community? (Likes)

6. What are the major disadvantages, if any, of living in your community? (Dislikes)

7. What is the major change, if any, that you have seen occur in your community over the past 5 years?

8. What is the one major improvement that would make living in your community better for you?

9. What part of your community would you most want to preserve?

10. Would you like to see more business areas built near where you live? q yes q no q no opinion

Community Activity

If it applies, place one check in the box that best describes *where* you **usually go** for the following activities.

ACTIVITY	Hamilton County Planning District										Different County											
	Does Not Apply	1- North Plateau / Mowbray Mountain	2- West River / Soddy-Daisy	3- Northeast / Birchwood	4- South Plateau / Signal & Walden	5- North River / Hixson-Northgate Mall	6- Southeast River / Highway 58	7- Southwest / Lookout Valley	8- Central City / Downtown	9- Southwest Creek / Brainerd	10- Southeast / East Brainerd- Ham. Place Mall	Dade	Walker	Catoosa	Marion	Sequatchie	Bledsoe	Rhea	Meigs	Bradley	Other	
Work																						
School																						
Shopping																						
Appliances																						
Clothing																						
Furniture																						
Grocery / Drug Store																						
Lawn & Garden																						
Services																						
Auto Repairs																						
Banking																						
Beauty / Barber																						
Dry Cleaning / Laundry																						
Medical																						
Entertainment																						
Restaurant																						
Bicycling																						
Youth Sports																						
Fitness Walking																						
Hiking																						
Swimming																						
Picnicking																						

Countywide Preferences

1. How do you think commercial areas could be improved?

- no needed improvement
- more landscaping & trees
- bike paths & trails
- more sidewalks, walking paths, etc.
- safer entrances & exits
- other _____

2. Where would you consider moving?

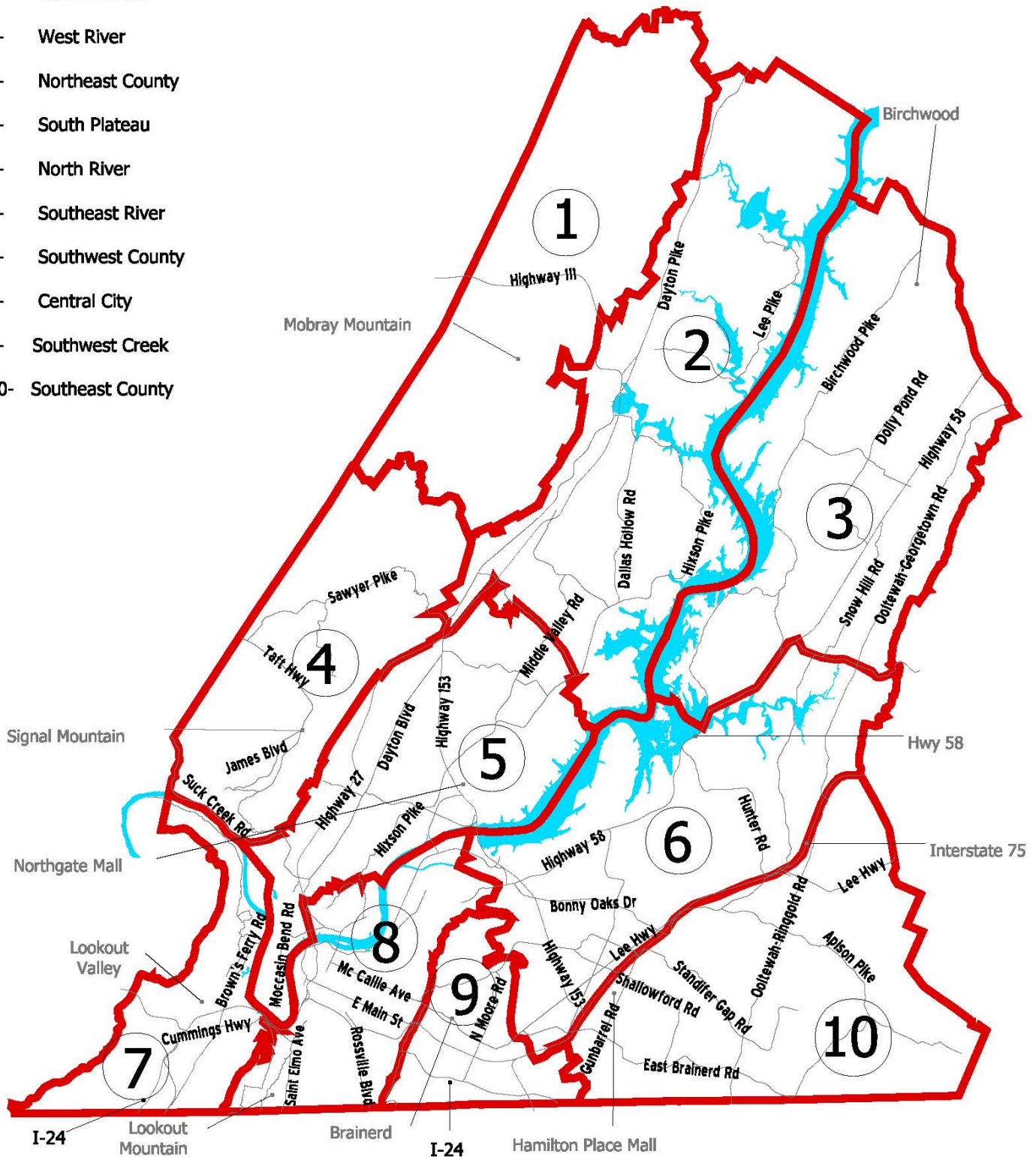
- Nowhere, I like where I am.
- Planning Sector: _____
- Other County or City _____

3. If you were to move, why would you want to move?
 different school closer to stores and doctor different housing
 different job closer to work other _____
4. If you were to move, what type of housing would you prefer?
 house apartment condominium retirement home or community
 duplex townhouse other _____
5. How concerned are you about the impacts of new building construction on steep hillsides?
 very concerned somewhat concerned not concerned
6. How concerned are you about creeks, streams, and water quality?
 very concerned somewhat concerned not concerned
7. Do you think there should be more public nature preserves, such as parks or greenways, in Hamilton County?
 yes no
8. How would you rate the County at providing services to residents?
 Excellent Good Fair Poor
9. If you live in a city or town, how would you rate it at providing services to residents?
 Excellent Good Fair Poor
10. Does your household use sewers or a septic tank system?
 Sewers Septic Tank Don't Know
11. Considering various priorities facing local governments, do you think expanding sewer lines in the county should be a high priority, a moderate priority, or a low priority?
 High Moderate Low
12. Considering various priorities facing local government, do you think expanding public *non-school* bus services should be a high priority, a moderate priority, or a low priority?
 High Moderate Low
13. Considering various priorities facing local governments, do you think widening roads should be a high priority, a moderate priority, or a low priority?
 High Moderate Low
14. Considering various priorities facing local governments, do you think constructing new roads should be a high priority, a moderate priority, or a low priority?
 High Moderate Low
15. Considering various priorities facing local governments, do you think putting in more sidewalks should be a high priority, a moderate priority, or a low priority?
 High Moderate Low
16. What other major transportation improvements do you think are needed in Hamilton County?

Additional Comments:

RPA PLANNING DISTRICTS

- 1- North Plateau
- 2- West River
- 3- Northeast County
- 4- South Plateau
- 5- North River
- 6- Southeast River
- 7- Southwest County
- 8- Central City
- 9- Southwest Creek
- 10- Southeast County



Please return completed survey to:
 Chattanooga-Hamilton County Regional Planning Agency (RPA)
 1250 Market Street, Suite 2000- Development Resource Center
 Chattanooga, TN 37402
 (423) 757-5216

www.chcrpa.org

Appendix B:

Environmental Agencies

Organizations & Agencies Involved in Local Environmental Protection

Name	Function	Phone number	Web Address
Chattanooga-Hamilton County Air Pollution Control Bureau	Regulatory government agency which provides information on the Air Quality Index, allowable emissions for various air pollutants, respond to citizens' concerns regarding both indoor and outdoor air quality.	(423) 643-5989	www.pollutionsolution.org
Chattanooga Nature Center	Non-profit agency focusing on environmental education and awareness.	(423) 821-1160	www.chattanature.org
Chattanooga-Hamilton County Regional Planning Agency	Government agency responsible for the development and maintenance of communities' short and long range land use and transportation plans as well as monthly zoning and special projects.	(423) 757-5216	www.chcrpa.org
Chattanooga Audubon Society	Non-profit agency promoting environmentally sound policies and legislation, major focuses on conservation, environmental education and cultural history.	(423) 892-1499	www.audubonchattanooga.org
City of Chattanooga Public Works Department	Department of city government which handles waste water treatment, sewer issues, landfill concerns, construction permitting, stormwater and water quality issues, transportation concerns, and waste collection.	(423) 757-5110	www.chattanooga.gov
Environmental Protection Agency (EPA) Region 4: Southeast	Federal regulating agency charged with coordinating improvements of environmental problems nationwide.	(800) 241-1754	www.epa.gov/region4
Katuah Earth First Valley Faction	Non-profit earth advocacy organization.	(706) 355-9904	www.fortunecity.com/greenfield/bnfl/527/
North Chickamauga Creek Conservancy	citizen-created nonprofit organization that provides a structured, dedicated framework for constructive, pro-active citizen involvement and support in conserving the significant natural, historic, and cultural resources located within and near the watershed area of North Chickamauga Creek.	(423) 842-1163	www.northchick.org
South Chickamauga Creek Greenway Alliance	A non-profit alliance made up of citizens interested in advocating for the protection, preservation, conservation and improvement of the watershed.	(423) 265-5229	www.enviocity.org/sccga
Chattanooga Hiking Club	Non-profit member-supported organization that promotes a program of hiking adventures to outdoor enthusiasts of all social and economic backgrounds and of all skill levels.	unavailable	http://hiking.chattanooga.net
City of Chattanooga Parks & Recreation Department	Chattanooga city government department which provides an excellent variety of leisure, fitness, and educational opportunities to individuals of all abilities in attractive and many well maintained parks and facilities.	(423) 757-5167	www.chattanooga.gov
Hamilton County Parks & Recreation Department	Government agency provides recreational programming for Hamilton County residents, including River Park and Chester Frost park activities.	(423) 842-0177	www.hamiltontn.gov

Organizations & Agencies Involved in Local Environmental Protection

Name	Function	Phone number	Web Address
National Park Service Rivers, Trails, and Conservation Assistance Southeast TN	Federal Rivers, Trails and Conservation Assistance Program, also known as Rivers & Trails or RTCA, works with community groups and local, State, and federal government agencies to conserve rivers, preserve open space, and develop trails and greenways.	(423) 266-2359	http://www.nps.gov/ncrc/programs/rtca/contactus/regions/southeast.html
Scenic Cities Beautiful Commission	Local government agency working in partnership with other community groups to promote environmental stewardship.	(423) 757-0061	www.ktnb.org/scenic.htm
Hamilton County Soil Conservation District	State agency responsible for implementing a program of natural resource conservation in Hamilton County, TN.	(423) 894-1687 Ext. 3	www.hamiltontn.gov/SCD/default.htm
Tennessee River Gorge Trust	Non-profit dedicated to the conservation of the Tennessee River Gorge through land protection, education, and good land stewardship.	(423) 266-0314	www.trgt.org
Lula Lake Land Trust	Non-profit organization that seeks to create a network of conservation properties within the watershed that will ensure protection and enhancement of local water quality, protect areas which maintain contiguous forest cover and scenic views, provide opportunities for research and education programs and designate areas suitable for public access, use and enjoyment.	(423) 821-2424	www.lulalake.org
Southeastern Cave Conservancy	Non-profit dedicated to helping preserve caves and cave access in the southeast	unavailable	www.scci.org
Trust for Public Land	A nonprofit, land conservation organization that conserves land for people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places, ensuring livable communities for generations to come.	(423) 265-5229	www.tpl.org
Tennessee Wildlife Resources Agency	A state government funded organization of more than 600 professionals dedicated to the preservation, conservation and enhancement of Tennessee's fish and wildlife.	(615) 781-6500	www.state.tn.us/twra
Tennessee Stream Mitigation Program	Mitigation fund created to offset adverse stream impacts, which are regulated by both federal and state agencies, by providing meaningful compensatory stream mitigation for permittee's by experienced and knowledgeable environmental professionals. The goal of the TSMP is to both improve water quality and riparian habitat in and along Tennessee 's degraded aquatic resources.	(615) 831-9311	www.tnstreammitigationprogram.com

Organizations & Agencies Involved in Local Environmental Protection

Name	Function	Phone number	Web Address
Tennessee Department of Environment and Conservation Chattanooga Field Office	State government agency charged with protecting the state's land, air and water resources while also promoting the tremendous recreational opportunities across Tennessee communities. From the 54 state parks that provide a full range of outdoor opportunities and experiences for nearly 30 million visitors a year to the department's 32 environmental programs, all Environment and Conservation staff are committed to protecting, preserving and improving Tennessee's vital natural resources.	(423) 634-5745	www.state.tn.us/environment
Tennessee Aquarium	The Aquarium is a non-profit facility that was funded by private donations and foundations. The aquarium's mission is to inspire wonder and appreciation for the natural world.	(800) 262-0695	www.tennis.org
Tennessee Environmental Council	A non-profit organization whose purpose is to educate and to advocate for the protection of the environment and public health in Tennessee.	(615) 248-6500	www.techtn.org
Tennessee Forestry Association	The purpose of this non-profit association shall be to serve as "The Voice of Forestry" in Tennessee, and to conduct public relations, government affairs, communications and education	(615) 883-3832	http://tnforestry.com
City of Chattanooga Tree Commission	Local government appointed commission tasked to study the problems and determine the needs of the City of Chattanooga in connection with its urban forestry program and report from time to time to the Governing Body of the City as to desirable legislation concerning the tree program and related activities for the City.	unavailable	www.chattanooga.gov/Public_Works/70_563.htm

Organizations & Agencies Involved in Local Environmental Protection

Name	Function	Phone number	Web Address
UTC Biological and Environmental Sciences	The Department of Biological and Environmental Sciences is housed on the Chattanooga, Tennessee campus in Holt Hall. In addition to classroom and office space, the department has research and teaching laboratories, a scanning electron microscope, a GIS computer laboratory, animal quarters, greenhouse, and an Aquatic Field Station on the Tennessee River. The department is affiliated with the Gulf Coast Research Laboratories in Ocean Springs, Mississippi, which provides facilities and equipment for formal classroom studies in marine biology and oceanography and Highlands Biological Station in North Carolina which is a regional field station for biological research and education in the southern Appalachian Mountains.	(423) 425-4341	www.utc.edu/Academic/BiologicalAndEnvironmentalSciences
Chattanooga Zoo	A local government funded organization whose mission is to provide an educational and recreational opportunity for all. The educational mission stresses understanding of and respect for all living things. A strong commitment to conservation for generations to come is implicit in this mission. The Chattanooga Zoo seeks to provide a dignified and aesthetically pleasing environment for the animals.	(423) 697-1322	www.chattanooga.gov/PRAC/30_953.htm
Environmental City Task Force	A non-profit grassroots organization whose mission is to bring about a future Chattanooga, TN existing in harmony with its ecological support system and living sustainably with the environment.	(423) 877-0633	www.envirocity.org
Tennessee Chapter of the Nature Conservancy, The	A non-profit that seeks to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.	(615) 383-9909	www.nature.org
Chattanooga Farmers Market	OPEN-AIR/SEASONAL April-December Sundays	(423) 266-9270	www.ams.usda.gov/farmersmarkets/States/Tennessee.htm
Chattanooga's Homegrown Farmers Market	OPEN-AIR/SEASONAL June-September Saturdays	(706) 861-0248	www.ams.usda.gov/farmersmarkets/States/Tennessee.htm
The Original Chattanooga Farmers Market	YEAR-ROUND Saturdays & Sundays	(423) 227-7200	www.ams.usda.gov/farmersmarkets/States/Tennessee.htm
11th Street Farmers Market	SEASONAL	(423) 267-9556	www.ams.usda.gov/farmersmarkets/States/Tennessee.htm

Organizations & Agencies Involved in Local Environmental Protection

Name	Function	Phone number	Web Address
Tennessee Egg & Poultry Association Chattanooga	Nonprofit works in partnership with growers, producers, companies, educators, researchers, The University of Tennessee, the Tennessee Department of Agriculture, and agribusiness to promote the egg and poultry industry in the state.	(423) 266-0351	www.tnpoultry.org

Appendix C:
Public Meeting Schedule

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Monthly Public Meeting Schedule

Revised 2/9/2005

	Mon	Tue	Wed	Thu	Fri
1st week	6:00 p.m. Collegedale City Commission	6:00 p.m. Chattanooga City Council 7:30 p.m. Red Bank City Commission	9:30 a.m. Hamilton County Commission	7:00 p.m. Soddy-Daisy Board of Commissioners	
2nd week	1:00 p.m. Chattanooga-Hamilton County Regional Planning Commission 7:00 p.m. Signal Mountain Town Council	4:30 p.m. Lookout Mountain, TN Town Commission 6:00 p.m. Chattanooga City Council 7:30 Walden Board of Mayor & Aldermen (exc. Feb.)	10:00 a.m. Chattanooga City Zoning Board of Appeals for Variances and Special Permits 12:00 noon Soddy-Daisy Planning Commission	1:30 p.m. Transportation Planning Organization (TPO) Staff Meeting 6:30 p.m. East Ridge City Council	
3rd week	6:00 p.m. Collegedale City Commission	1:30 p.m. Transportation Planning Organization (TPO) Board Meeting 6:00 p.m. Chattanooga City Council 7:00 p.m. Lakesite Commission 7:00 p.m. Ridgeside City Commission (Jan., Apr., July, Oct.) 7:30 p.m. Red Bank City Commission	9:30 a.m. Hamilton County Commission	5:30 p.m. Chattanooga Historic Zoning Commission 6:00 p.m. Red Bank Planning Commission 7:00 p.m. Soddy-Daisy Board of Commissioners	
4th week	5:00 p.m. Board of Sign Appeals	6:00 p.m. Chattanooga City Council		5:00 p.m. North Shore Review Committee 6:30 p.m. East Ridge City Council	

Appendix D:

**Parks & Recreation
Existing Facilities**

Jurisdiction/Name	Location	Size/Length	Facility Type	Walking Path	Playground	Restrooms	Pavilion
National							
Trail of Tears National Historic Trail			National Historic Trail				
Chattanooga & Chickamauga National Military Park Subareas:							
Lookout Mountain Battlefield	Lookout Mountain	1667 ac	National Military Park				
Point Park	112 Point Park Rd	11.72 ac	National Military Park				
Signal Point Reservation	Signal Point Rd	5 ac	National Military Park				
Bragg Reservation	169 South Crest Rd	1 ac	National Military Park				
Ohio Reservation	North Crest Rd	1.6 ac	National Military Park				
Turchin Reservation	North Crest Rd	<1 ac	National Military Park				
Phelps Monument	North Crest Rd		National Military Park				
Sherman Reservation	Durand Ave	47 ac	National Military Park				
73rd Pennsylvania Reservation	Campbell St	<1	National Military Park				
Orchard Knob Reservation	East 4th St	6 ac	National Military Park				
Moccasin Bend National Archaeological District	Moccasin Bend Rd	331 ac	National Military Park				
State							
Booker T. Washington State Park	5801 Champion Rd	353 ac	Public Recreation				
Harrison Bay State Park	8411 Harrison Bay Rd	1200 ac	Public Recreation				
Justin P. Wilson Cumberland Trail State Park	Begins at		Public Recreation				
City of Chattanooga							
Aquarium Plaza	1 Broad St.	1 ac	Plaza	no	no	yes	no
Avondale Park	1301 Dodson Av.	5 ac	Public Recreation	no	yes	yes	no
Benham - Williams Park	405 Williams Dr.	1 ac	Public Recreation	no	yes	no	yes
Boynton Park	200 Cameron Hill Cir.	1.2 ac	Open Space	no	no	no	no
Braingerd Park	1010 North Moore Rd.	22 ac	Public Recreation	no	no	yes	no
Caruthers Park	3330 Brannon Av.	4.7 ac	Public Recreation	yes	yes	yes	yes
Carver Park	600 North Orchard Knob Av.	15 ac	Public Recreation	yes	yes	yes	yes
Chew-Chew Canine Park	1801 Carter St.	1 ac	Public Recreation	no	no	no	no
Choo-Choo Park	Market St. at West 13th St.	1 ac	Plaza	no	no	no	no
Church Street Park	3701 Church Street		Public Recreation	n/a	n/a	n/a	n/a
Coolidge Park	150 River St.	13 ac	Public Recreation	yes	no	yes	yes
Crye-Lieke Park	Market St. at West 12th St.	1 ac	Plaza	no	no	no	no
DuPont Park	4500 Access Rd.	93 ac	Public Recreation	no	yes	yes	yes
East Chattanooga Park	2409 Dodson Av.	5 ac	Public Recreation	no	yes	yes	yes
East Lake Park	3000 East 34th St.	17.4 ac	Public Recreation	yes	yes	yes	yes
East Lake Park (Ed Evans Park)	3601 Dodds Av.	7 ac	Public Recreation	no	yes	yes	no
Eastdale Park	1314 Moss Dr.	5 ac	Public Recreation	yes	yes	yes	yes
Enterprise South Passive Park (under development)	Enterprise South	2800 ac	Open Space	yes	no	yes	yes
Frances B. Wyatt Park	406 Colville St	2 ac	Public Recreation	no	yes	yes	no
Glenwood Park	2610 East Third St.	0.95 ac	Public Recreation	no	no	yes	no
Greenway Farm	5051 Gann Store Rd.	183 ac	Public Recreation/Open	yes	no	yes	no
Harris-Johnson Park	41 West 28th Street	6.1 ac	Public Recreation	yes	yes	no	yes

Jurisdiction/Name	Location	Size/Length	Facility Type	Walking Path	Playground	Restrooms	Pavilion
City of Chattanooga							
Heritage Park	1428 Jenkins Rd.	22 ac	Public Recreation	yes	yes	yes	no
Hill City Park	18 Trewwhitt St.	1 ac	Public Recreation	no	yes	no	no
Jefferson Park	1800 Jefferson St.	2 ac	Public Recreation	no	yes	no	yes
John A. Patten Park	3202 Kelley's Ferry Rd	9.66 ac	Public Recreation	no	no	yes	no
Lake Hills Park	4395 Bellview Av.	5.1 ac	Public Recreation	yes	no	no	no
Lakeside Park	4800 Swan Rd.	8.2 ac	Public Recreation	no	no	yes	no
Lookout Valley Park	370 Warren Pl.	8 ac	Public Recreation	no	yes	yes	no
Miller Park	910 Market St.	1 ac	Public Recreation	no	no	no	no
Miller Plaza	850 Market St.	1 ac	Plaza	no	no	yes	yes
Mountain Creek Park	1102 Mountain Creek Rd.	3 ac	Public Recreation	yes	no	no	no
North Chattanooga Park	406 May St.	2 ac	Public Recreation	no	yes	yes	no
Overlook Park	South Crest Rd. at Sherwood Av.	1 ac	Public Recreation	no	no	no	no
Park City Park	2606 Cannon Av.	1 ac	Public Recreation	no	yes	no	no
Park Place Park	1003 East 10th St.	1 ac	Public Recreation	no	yes	yes	no
Patten Parkway	1 Patten Parkway	1 ac	Open Space	no	no	no	no
Perkins Park	900 Vine Street	2.2 ac	Public Recreation	no	no	no	no
Phillips Park	100 McCallie Avenue	1 ac	Open Space	no	no	no	no
Portland Park	409 Signal Mountain Rd.	7.6 ac	Open Space	no	no	no	yes
Pringle Park	2613 Long St.	1 ac	Public Recreation	no	yes	no	no
Renaissance Park	Manufacturer's Rd.	25 ac	Open Space	yes	no	yes	yes
Rivermont Park	3400 Lupton Dr.	45.4 ac	Public Recreation	yes	yes	yes	yes
Riverside Park	1004 Crutchfield St.	1 ac	Public Recreation	no	yes	yes	yes
Riverview Bird Sanctuary	1621 Riverview Rd.	7.6 ac	Open Space	no	no	no	no
Riverview Park	1000 Barton Av.	1 ac	Public Recreation	no	yes	yes	yes
Ross' Landing Park	Riverfront Pkwy. at Ross' Landing	3 ac	Public Recreation	yes	no	no	no
Roy Nelms Park	1609 West 41st St.	1 ac	Public Recreation	no	no	no	yes
Sanctuary Skate Park	1801 Carter St.	1.8 ac	Public Recreation	no	no	yes	yes
Shepherd Park	2124 Shepherd Rd.	10 ac	Public Recreation	no	yes	yes	yes
South Chattanooga Park	1151 West 40th St.	12 ac	Public Recreation	yes	no	yes	no
Sylvan Park	600 Franklin St.	2.1 ac	Public Recreation	no	no	no	no
Tacoa Circle Park	5205 Tacoa Circle	2.5 ac	Public Recreation	yes	yes	no	yes
Tatum Park	1501 Union Av.	1.3 ac	Public Recreation	yes	no	no	yes
Tyner Park	6900 Ty Hi Dr.	20 ac	Public Recreation	no	no	yes	yes
Warner Park	1254 East 3rd St.	51.3 ac	Public Recreation	no	yes	yes	yes
Washington Hills Park	4628 Oakwood Dr.	2 ac	Public Recreation	yes	yes	yes	no
Westside Park	1200 Grove St.	1 ac	Public Recreation	yes	yes	no	yes
Whiteside Park	MLK Blvd	0.85 ac	Open Space	yes	no	no	no
Hamilton County							
Alpine Crest Elementary	4700 Stagg Rd						
Apison Elementary School	10433 East Brainerd Rd	14 ac	Public Recreation	yes	no	yes	yes
Bachman Elementary	2815 Anderson Pike		Public Recreation	n/a	n/a	n/a	n/a
Bakewell Park	109 McCallie Ferry Rd	5 ac	Public Recreation	yes	no	yes	no
Bakewell Head Start School	9531 West Ridge Trail Rd	2 ac	Public Recreation	no	no	no	no

Jurisdiction/Name	Location	Size/Length	Facility Type	Walking Path	Playground	Restrooms	Pavilion
Hamilton County							
Birchwood Elementary	5623 Highway 60	10 ac	Public Recreation	yes	no	no	no
Central High School	5728 Highway 58	50 ac	Public Recreation	yes	no	no	no
Chester Frost Park	2318 N. Gold Point Circle	455 ac	Public Recreation	n/a	n/a	n/a	n/a
Daisy Elementary	620 Sequoyah Road		Public Recreation	n/a	n/a	n/a	n/a
Dalewood Elementary	1300 Shallowford Road		Public Recreation	n/a	n/a	n/a	n/a
East Ridge High School	4320 Bennett Road	33 ac	Public Recreation	yes	no	yes	no
Harrison Recreation Association	5637 Highway 58	10 ac	Public Recreation	no	no	yes	yes
John Allen Elementary	9811 Dallas Hollow Road	13 ac	Public Recreation	yes	no	no	no
McConnell Elementary	8629 Columbus Road	50 ac	Public Recreation	yes	no	no	no
Meadowview Park	Meadowview Rd	13 ac	Public Recreation	yes	yes	no	no
Middle Valley Recreation Park	1900 Crabtree Rd	56 ac	Public Recreation	no	yes	yes	yes
Mowbray Mountain Recreation Park	1709 Mowbray Rd	10 ac	Public Recreation	yes	yes	yes	yes
Ooltewah Elementary School	9232 Lee Highway	2 ac	Public Recreation	no	no	yes	no
Ooltewah Middle School	5100 Ooltewah-Ringgold Rd	15 ac	Public Recreation	no	no	yes	no
Ooltewah High School	6123 Mountain View Rd	50 ac	Public Recreation	yes	no	no	no
Red Bank High School	640 Morrison Springs Rd	12 ac	Public Recreation	yes	no	yes	no
Redoubt Soccer Complex	6900 Bonny Oaks Dr	70 ac	Public Recreation	yes	no	yes	no
Sale Creek High School	211 Patterson Road	11 ac	Public Recreation	no	no	yes	no
Thrasher Elementary School	1301 James Blvd	17 ac	Public Recreation	no	no	yes	no
Shackleford Ridge Road Park	445 Shackleford Ridge Rd	295 ac	Public Recreation	yes	no	yes	yes
Snow Hill Recreation Assoc.	9042 Career Lane	61 ac	Public Recreation	yes	no	yes	yes
Soddy Daisy High School	618 Sequoyah Access Road	53 ac	Public Recreation	yes	no	no	no
Standifer Gap Park	8237 Standifer Gap Road	15 ac	Public Recreation	yes	yes	yes	no
Tree of Life Park	Bonny Oaks Dr @ Preservation Lane		Open Space	n/a	n/a	n/a	n/a
Summit Head Start School	4821 Pattentown Rd	8 ac	Public Recreation	no	no	yes	no
Vandergriff Park	312 Gadd Road	5 ac	Public Recreation	yes	yes	yes	yes
Westview Elementary	9629 East Brainerd Rd	10 ac	Public Recreation	no	no	no	no
40th Street (Ben Miller) Park	1171 West 40th Street	5 ac	Public Recreation	yes	yes	no	no
Lookout Mountain							
Town Common	700 Scenic Hwy	15.25 ac	Public Recreation				
Signal Mountain							
Horticulture Parks							
Charles B. Adams Park	Ridgeway & Carlin St.						
Lena Givens Park	Signal Mtn. Blvd. at Mississippi						
Memorial Park	James Blvd. & Timberlinks						
Wishing Well Park	Texas & Tenn. Ave.						
Boy Scout Park	James Blvd., Texas & Maryland						
James Park	Ridgeway & Signal Mtn. Blvd.						
Wilder Triangle Park	North & South Palisades						
Scenic Parks							
Overlook Park	300 N. Palisades Dr.						
Sunrise Lookout Park	100 N. Palisades Dr.						

Jurisdiction/Name	Location	Size/Length	Facility Type	Walking Path	Playground	Restrooms	Pavilion
Signal Mountain							
Wilderness Parks							
Coolidge Park	700 Ridgeway Ave.						
Patten Park	Signal Mountain Blvd.						
Rainbow Lake	Ohio Ave.						
Natural Areas							
Woodland Park	Wilder & Palisades						
Norvell Park	Palisades Dr. & Norvell						
Wildflower Park	Fern Trail & N. Palisades						
Robin Hood Park	Robin Hood & Arrow						
Playground Areas							
Andy Anderton	Valewood & Dunsinane Lane						
Althaus Park	James Blvd behind Golf Club						
Town Center	1111 Ridgeway Ave.						
Timberlinks Park	600 Timberlinks						
Norris Field	Signal Road, Raccoon Lane & Pipers Path						
Walden							
Pumpkin Patch	1842 Taft Highway	4.7 ac	Public Recreation				
Sylvan City Park	East Brow Rd	5.9 ac	Public Recreation				
Mabbitt Springs Park	Wilson Ave	16.26 ac	Open Space				
Red Bank							
White Oak Park	728 Midvale Ave	28.49 ac	Public Recreation				
White Oak Ballfields	2226 James Ave	4.71 ac	Public Recreation				
Morrison Springs Park	Morrison Springs Road	47.15 ac	Public Recreation				
Redding Road Park	3800 blk Redding Road	2.55 ac	Public Recreation				
Soddy-Daisy							
Kids Club Park	Dayton Pike @ Soddy Lake	85 ac	Public Recreation				
State Park	Dayton Pike @ Osage Dr	4 ac	Open Space				
Veteran's Park	9009 Dayton Pike	17 ac	Public Recreation				
Scramble Alley Park	9835 Dayton Pike	7 ac	Public Recreation				
Holly Park	11600 blk Holly Circle	29 ac	Open Space				
Lakesite							
Lakesite Park	Blue Ridge Dr @ Thrasher Trail	<3 ac	Public Recreation				
East Ridge							
Camp Jordan Park	Camp Jordan Parkway	257 ac	Public Recreation				
Springvale Park	1610 Springvale Rd		Open Space				
Collegedale							
Imagination Station	4910 Swinyar Dr	1 ac	Public Recreation				
Mini-Park	Tallant Rd @ Apison Pike	1.11 ac	Public Recreation				
Nature Nook	Tallant Rd @ Apison Pike	2.39 ac	Open Space				
Veteran's Memorial Park	Adjacent to greenway	1 ac	Open Space				
Ridgeside							
Crescent Park	300 blk Tunnel Blvd	3 ac	Public Recreation				

Jurisdiction/Name	Location	Size/Length	Facility Type	Walking Path	Playground	Restrooms	Pavilion
Multi-Use Paths							
Tennessee Riverwalk Greenway	Downtown/Chickamauga Dam	10.5 mi					
North Chickamauga Creek Greenway	Greenway Farm/Chickamauga Dam	3 mi					
South Chickamauga Creek Greenway/Levee	Shallowford Rd/Brainerd Rd	5 mi					
Guild Trail Greenway	Ox Highway	5 mi					
University Greenway	UTC Campus/Brown Academy	1 mi					
Wolftever Greenway	Collegedale/	1.5 mi					
Alton Park Safewalk	Market St/	1 mi					
Ridgedale Safewalk		<1 mi					
Blue Blaze Trail Greenway	Pineville Rd/Moccasin Bend	1 mi					

Appendix E:

**Preserve & Reserve
Sector Compositions**

Preserve & Reserve Sector Compositions

The maps of the Preserve and Reserve sectors were compromised using the following information.

Preserve Sector

- Parcels previously identified as recreation/preservation by RPA staff
- Parcels identified as "community lots" or "open space", or "former greenspace" by the Tax Assessor's office
- Parcels identified as "County owned", "City owned", "State owned", or "Federally owned" by the Tax Assessor's office which were matched with RPA's land use or the legal description mentions a park/recreation/preservation/conservation use
- Also includes any property in change of ownership such as Moccasin Bend N.P. property

Reserve Sector

- Land area existing as 25% or greater slopes
- Land area contained within the 100 year flood zone

Appendix F:

School Enrollment

Schools Enrollment

20th Day Enrollment*

High School	2001-2002	2002-2003	2003-2004	2004-2005
21st Century Prep	142	119	132	134
Arts and Sciences	435	465	446	453
Brainerd	957	981	962	990
Central	1,057	1,094	1,105	1,078
Chattanooga Performing Arts	274	334	334	329
East Ridge	908	867	914	907
Hixson	930	952	1,000	971
Howard	796	808	763	808
Lookout Valley	252	251	240	249
Ooltewah	1,494	1,629	1,729	1,681
Red Bank	1,238	1,264	1,302	1,232
Sale Creek	136	147	163	196
Soddy-Daisy	1,712	1,681	1,661	1,584
Tyner	519	510	536	524
Middle College (Chattanooga State)	0	61	84	98
High School Total	10,850	11,163	11,371	11,234

Middle School	2001-2002	2002-2003	2003-2004	2004-2005
21st Century	147	149	147	132
Arts and Sciences	229	220	217	218
Brown	610	569	554	538
Chattanooga High	224	235	217	220
Chattanooga Middle	290	351	331	292
Dalewood	457	475	397	332
East Lake	407	452	429	398
East Ridge	743	708	741	729
Franklin/Change to Howard for 2004	454	476	367	420
Hixson	645	625	651	548
Hunter	802	790	872	807
Liberal Arts	137	128	129	128
Loftis	770	781	774	769
Lookout Valley	212	211	250	222
Ooltewah	938	1,007	1,050	1,019
Orchard Knob	524	518	346	351
Red Bank	633	648	642	594
Sale Creek	136	150	151	198
Signal Mountain	360	353	358	329
Soddy-Daisy	657	663	654	622
Tyner	436	396	385	429
Middle School Total	9,811	9,905	9,662	9,295

Elementary School	2001-2002	2002-2003	2003-2004	2004-2005
21st Century	229	220	233	211
Allen	449	476	523	507
Alpine Crest	353	347	322	331
Apison	317	347	366	441
Arts & Sciences	375	381	378	380
Barger	437	414	415	391
Battle Academy		312	361	375

Big Ridge	518	500	484	476
Birchwood	205	185	194	172
Brown Academy		285	314	339
Clifton Hills	406	378	391	391
Daisy	509	479	452	454
Dawn			46	
Donaldson	376	268	234	214
DuPont	299	303	310	295
East Brainerd	464	460	478	453
East Lake	405	365	307	263
East Ridge	300	275	273	261
Eastside	465	461	490	509
Falling Water	250	243	234	223
Ganns-Middle Valley	449	450	452	446
Garber	128			
Hardy	537	636	564	486
Harrison	456	509	473	442
Hillcrest	389	307	286	290
Hixson	394	395	412	426
Howard	361	240	227	211
Lakeside	558	491	477	466
Liberal Arts	241	252	252	250
Lookout Mountain	199	195	204	193
Lookout Valley	317	311	282	270
McBrien	499	464	452	450
McConnell	612	605	589	632
Nolan	525	536	512	510
Normal Park	223	232	264	269
North Hamilton	353	361	334	352
Ooltewah	234	296	338	356
Orchard Knob	456	466	366	311
Red Bank	635	598	568	519
Rivermont	306	239	249	240
Shepherd	518	493	492	490
Smith	616	615	625	672
Snow Hill	556	571	545	536
Soddy	357	347	322	327
Spring Creek	523	497	489	468
Thrasher	522	519	500	535
Westview	519	568	593	634
White Oak	310	293	283	227
Wolftever	477	432	441	413
Woodmore	541	494	449	402
Elementary School Total	19,168	19,111	18,845	18,509

Appendix G:

**Urban Design
Elements & Diagrams**

Urban Design Elements

Attractive site and building design can create a cohesive and functional development that reflects local character and fits well with surrounding uses.

Size: the size of the project relative to its site;

Scale: the scale of the building relative to its site;

Massing: the proportion of the building's various parts to each other;

Fenestration: the placement of windows and doors;

Rhythm: the rhythm of the fenestration, recesses and projections;

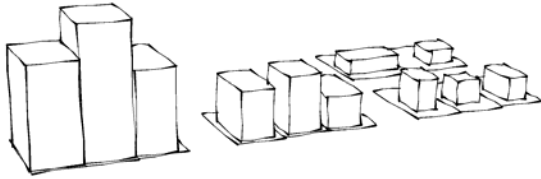
Setbacks: the setback of the development relative to the setbacks of other properties in the immediate area;

Materials: their compatibility with materials used on existing properties in the area;

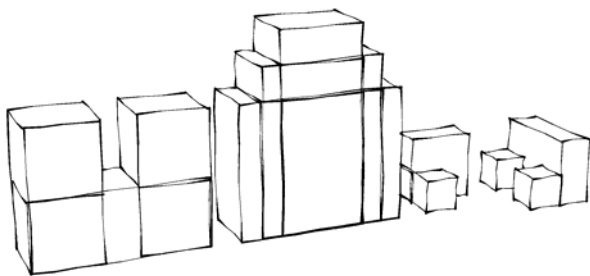
Context: the overall relationship of the project to its surroundings;

Landscaping: as a tool to soften and blend the project within the area.

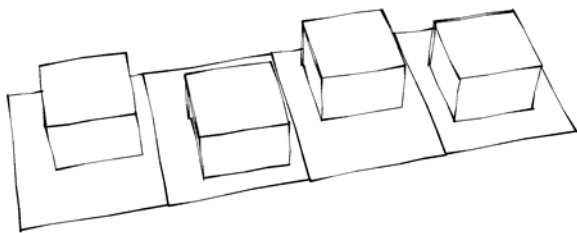
Urban Design Elements



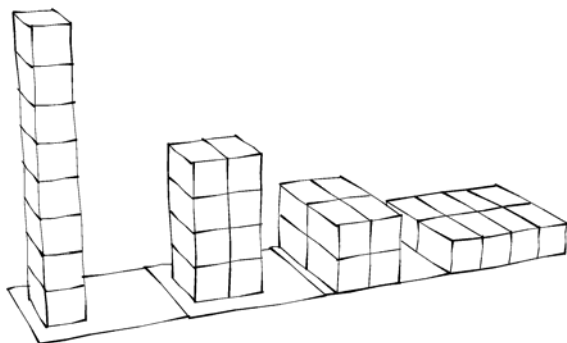
Scale refers to the size and shape of a building compared to other buildings.



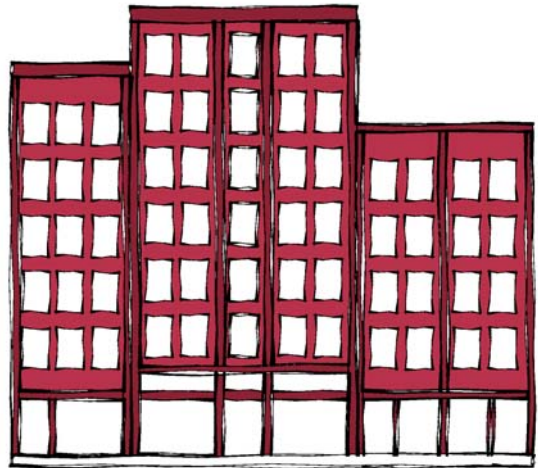
Massing refers to the external shape and form of a building.



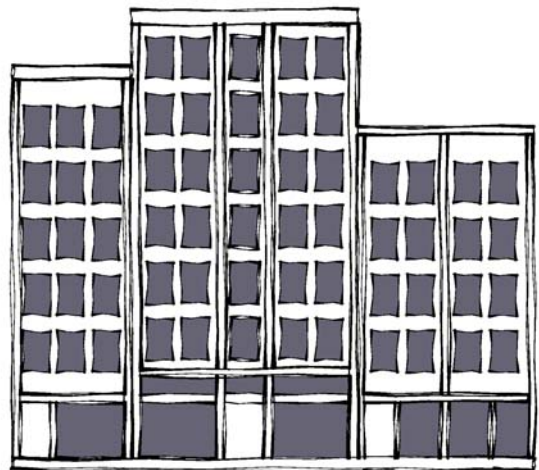
Setback refers to the distance between a property boundary and a building.



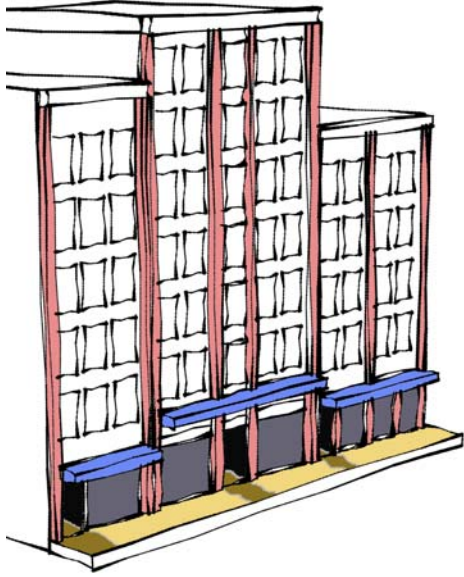
Size refers to the volume of a building. All of the buildings above are the same size.



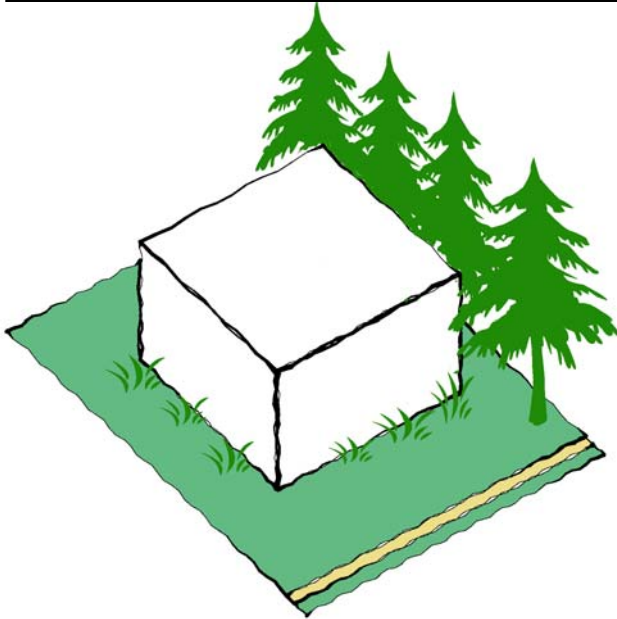
Materials refers to the materials used on the exterior of a buildings.



Fenestration refers to the size and arrangement of windows and doors on the exterior of a building.

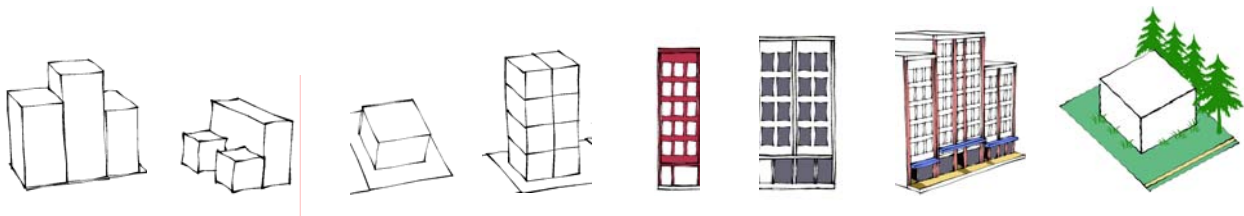


Rhythm refers to the repetition of elements within a building or group of buildings.



Landscaping refers to the alteration of the ground to blend a project within an area.

Context refers to the general characteristics of surrounding development.



Appendix H:
**Wayfinding Program
Summary**

CHATTANOOGA AREA SIGNAGE AND WAYFINDING PLAN



In the last decade, Chattanooga has seen significant increases in its tourism industry. Over eight million annual visits generate in excess of \$500,000,000 in revenue in Hamilton County.

Recently, the Convention and Visitor's Bureau, the Planning & Design Studio, and other partners, embarked on an initiative to improve the visitor's experience and promote area attractions by linking these visitor destinations in a unique and functional manner through a comprehensive "wayfinding" signage system. A consistent system of attractive and informative signs will not only provide better directional information for motorists and pedestrians, but will also enhance the visual quality of our community and set the Chattanooga area apart from other cities in the southeast.

While the study appropriately focuses on the primary visitor destinations in downtown Chattanooga and Lookout Mountain all of Hamilton County and parts of north Georgia will be addressed. Numerous stakeholders have been involved in the process including representatives from the visitor attractions, downtown businesses, CARTA, the University of Tennessee at Chattanooga, and local government.

The Wayfinding Plan:

- Identifies key locations for signage
- Develops a design vocabulary for signs including color, type, size, and materials
- Establishes guidelines for the number and types of messages to be placed on signs
- Estimates costs for implementation

Districts

To better orient motorists and pedestrians, a system of "district" signage has been developed for the downtown area. The districts are the North Shore, Riverfront, Bluff View, Central Business District, Southside, South Broad, and Lookout Mountain. Distinctive "icons" will be designed to represent each of these districts. The icons will be incorporated on each sign.

Placement of Signs

Signs will be placed along city streets. Signs will not be placed on the interstate. The Tennessee Department of Transportation has very restrictive standards for interstate signage. Our new signage system will be used to direct motorists and pedestrians after they exit the interstate.

Sign Types

Illustrations of the various sign types are attached. Based on community preferences, the base sign colors will be green and blue representing the mountains, river, and streams

which identify this community as a special place. Signs are divided into two basic types: vehicular and pedestrian.

Phasing

Phase One will only include vehicular and pedestrian signs in the North Shore, Riverfront, and Bluff View districts. Interpretive signs and signs for additional districts will be implemented in future phases.

Criteria for Signing Destinations

The intent of this signage system is to direct motorists and pedestrians first to districts and then to major destinations. Individual for-profit businesses will not be included on the signs. Criteria have been established to determine priorities for placing destinations on signs. When public parking facilities are associated with a particular destination, parking will be indicated on the signs in the form of a symbol.

Appendix I:

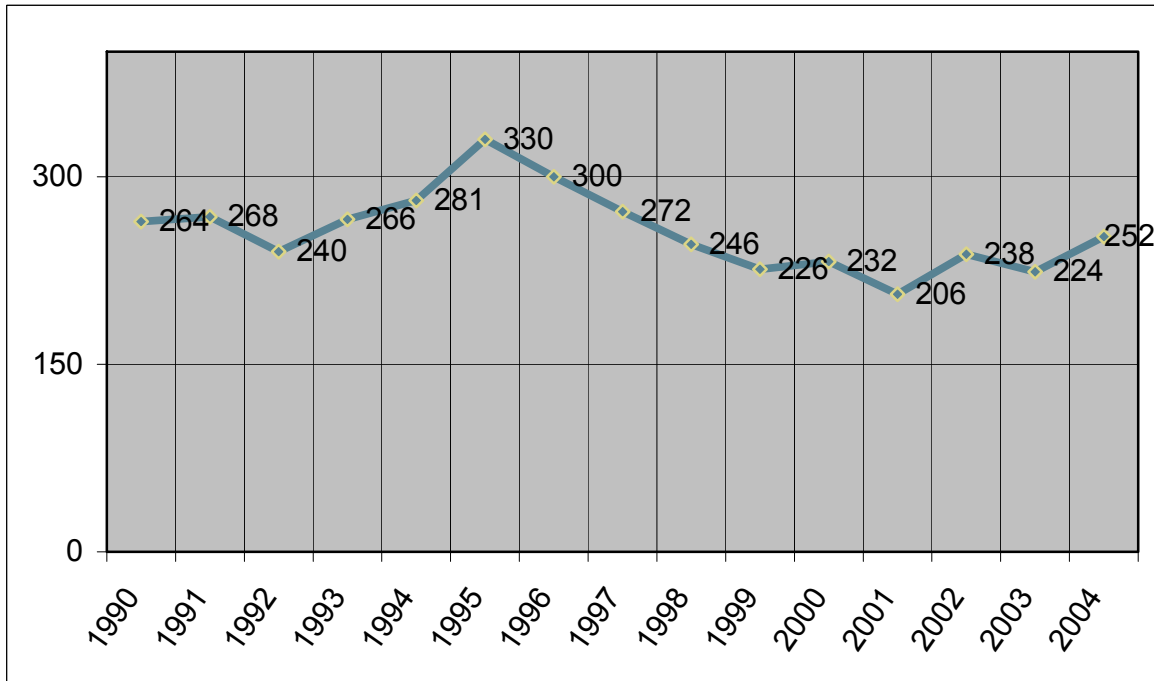
**Zoning Request
Analysis**

Zoning Request Trends

This report analyses zoning requests and recommendations from 1990-2004 for Hamilton County, Tennessee.

The Chattanooga-Hamilton County zoning process is an extremely thorough two-month procedure. It begins when an application is filed with the RPA office requesting a change in zoning for a specified piece of property. Over this 15-year period, on average 256 zoning cases were processed yearly. The number of rezoning requests peaked in 1995 with the past five years having on average 230 cases a year.

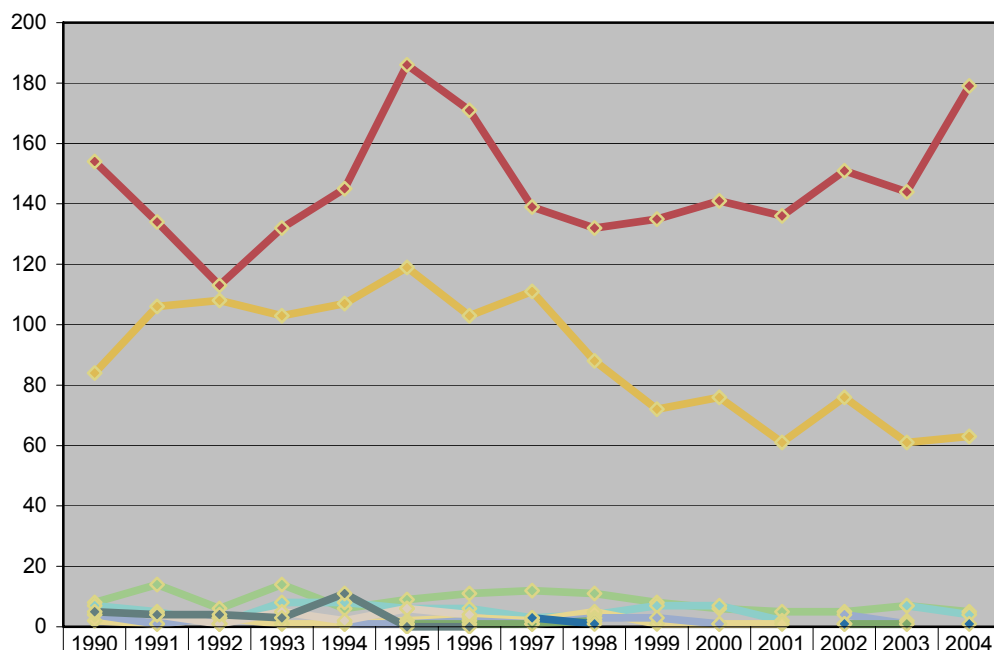
**Zoning Request Trends
1990-2004**



As depicted in the following chart, 57% of the rezoning requests were in the City of Chattanooga and 35% from unincorporated Hamilton County. The smaller municipalities account for less than 9% of the requests.

Zoning cases for Soddy Daisy have not been processed by the Regional Planning Agency since 1995 when the Soddy Daisy Planning Commission was created. Red Bank also was not part of the Chattanooga-Hamilton County Regional Planning Commission from 2001 to 2002. Collegedale has not had its cases processed through the Regional Planning Agency since 1997, and that municipality currently receives planning assistance from the State of Tennessee.

**Zoning Requests by Jurisdiction
1990-2004**

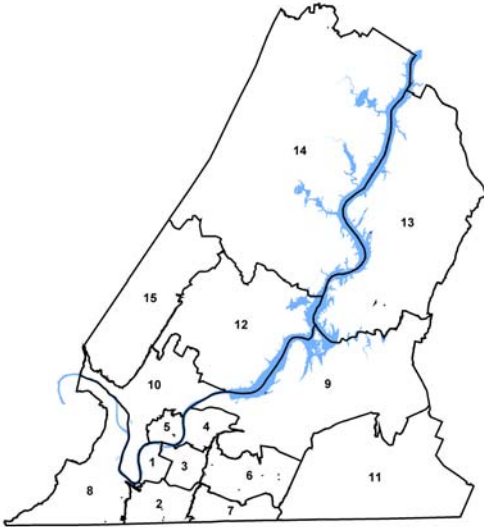


	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
CHATTANOOGA	154	134	113	132	145	186	171	139	132	135	141	136	151	144	179
COUNTY	84	106	108	103	107	119	103	111	88	72	76	61	76	61	63
EAST RIDGE	8	14	6	14	6	9	11	12	11	8	6	5	5	7	5
RED BANK*	7	5	1	8	8	6	6	3	4	7	7	2		7	4
SIGNAL MOUNTAIN	2	1	3	1	1	2	3	2	5	1	1	1		2	
WALDEN	4	1	3		1	1	2	1	3	3	1		4	1	
LAKESITE			1			1	1	1	2				1	1	
LOOKOUT MOUNTAIN								3	1				1		1
COLLEGEDALE*		4	1	5	2	6	4								
SODDY DAISY*	5	4	4	3	11	0	0								

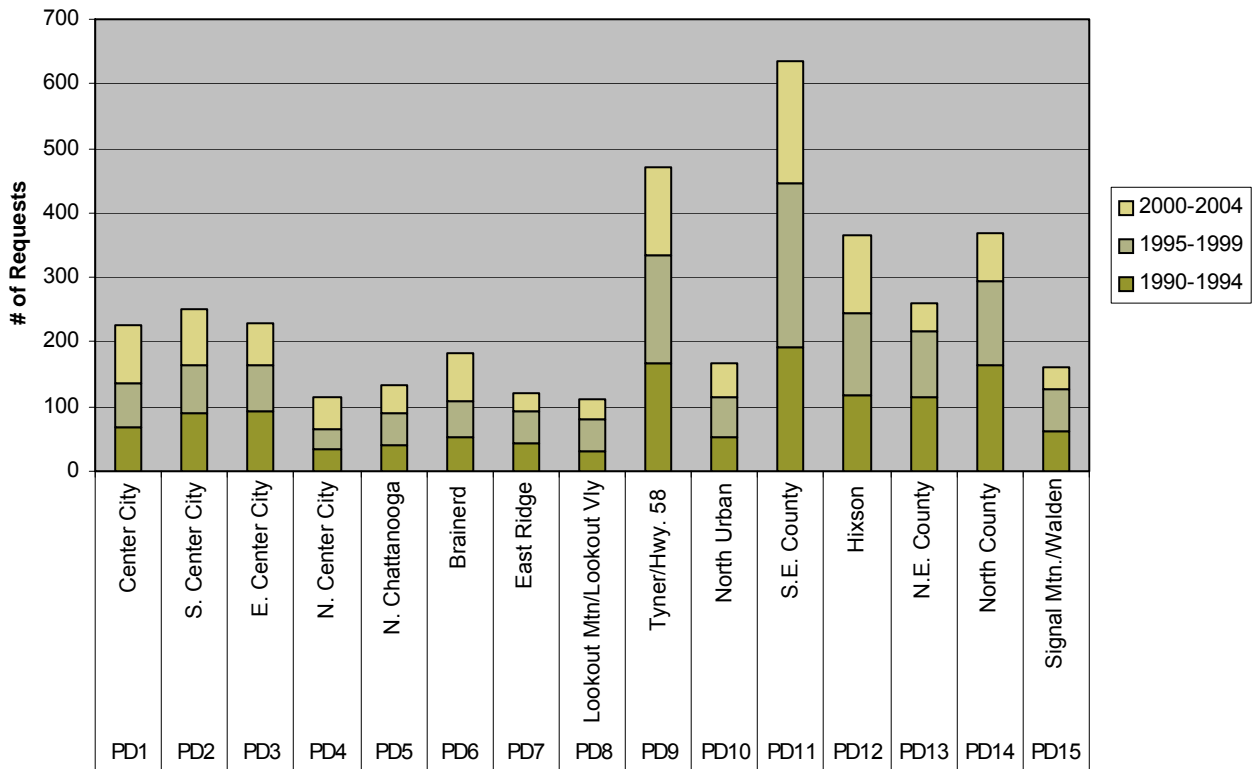
*Zoning requests not handled continuously by the RPA during this period

Note: The number of cases above does not always equal the number of cases taken yearly if a case was voided or withdrawn before being issued a jurisdiction.

Zoning Requests by Planning District 1990-2004



The Regional Planning Agency divides the County into Planning Districts as a way to track trends and assign zoning cases to planning staff.



From the data above it is interesting to note that most of the planning districts maintained a relatively low number of cases and did not receive a noticeable increase or decrease in the number of zoning cases over this period. There are a few exceptions however. The Center City Planning District recorded the greatest overall increase in the number of requests in the past 15 years. Meanwhile, North County and N.E. County, which had a higher number of rezoning requests in the 1990s than most of the other planning districts, received a dramatic reduction in the number of requests in the past years.

Southeast County has continually had a high number of cases yearly although a reduction in the number of rezoning requests in 2003 and 2004 cause a downward trend in the number of cases for this Planning

District. Hixson, also traditionally an active area for rezoning requests, has seen a very slight increase in the number of requests since 1990.

Zoning Request by Type

From 1990-2004, 18% of all cases were Mandatory Referrals. Mandatory Referrals are delegated by state law and generally cover interests in rights-of-way by abandonment/closures/name changes or by buying or selling property. The mandatory referral process verifies/approves/disapproves governmental interest and does not fall within the realms of zoning uses or requirements. The following data does not include Mandatory Referrals.

From 1990-1995, one-fourth of the all zoning requests were for factory-manufactured homes. This number drops dramatically in 1995 when the Hamilton County Zoning Regulations allowed single-wide manufactured homes by Special Permit rather than just by a rezoning to R-5 Single-wide Manufactured Home District. This correlates to the rise in the number of requests in the Special/Special Exceptions/Conditional Permit category.

Requests for a commercial rezoning accounted for 26% of cases during the past fifteen years. Special Permits and Low/Moderate Density Residential requests comprised another 26% of requests.

Requested zoning change 1990-2004

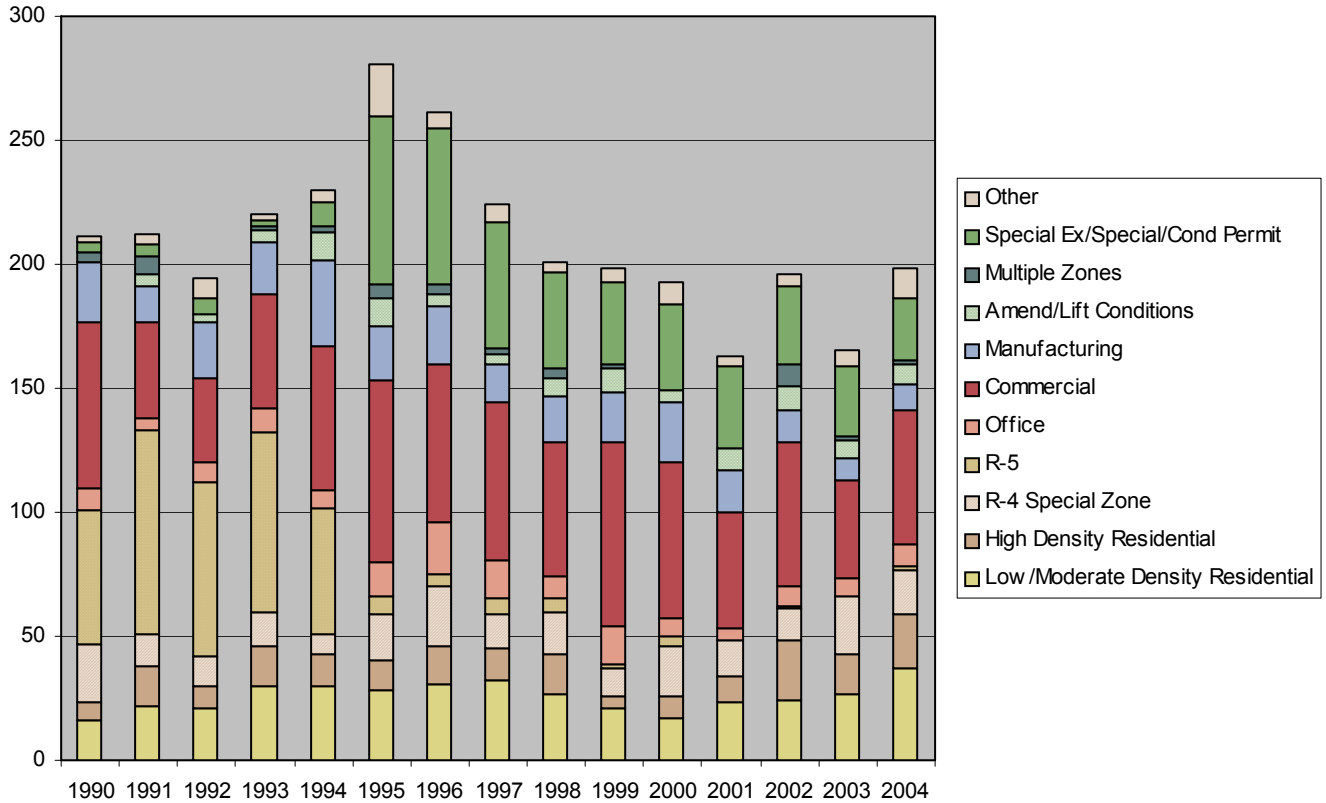
Requested Zoning Changes*	Total # of	
	Requests	% of Total
Agricultural	16	0.5%
Low/Moderate Density Residential	386	12.3%
High Density Residential	204	6.5%
R-4 Special Zone	244	7.8%
R-5	360	11.4%
Office	150	4.8%
Commercial	834	26.5%
Manufacturing	291	9.2%
Amend/Lift Conditions	100	3.2%
Annex/Zoning Study	43	1.4%
Multiple Zones	44	1.4%
PUD	31	1.0%
Special Ex/Special/Cond Permit	434	13.8%
Other	10	0.3%
Total	3147	100.0%

Low/Moderate Density Residential includes R-1 Residential, R-2 Residential, R-3MD Residential and R-T/Z Residential and similar zones.

High Density Residential includes R-3, RT-1 and RZ-1 Residential and similar zones.

*Does not include the 692 Mandatory Referral/Name Change cases handled during this period.

Hamilton County and Municipality Zoning Requests by Type 1990-2004



*Does not include the 692 Mandatory Referral/Name Change cases handled during this period.

Zoning Request by Action

As mentioned previously, the Planning Commission is a voluntary body of appointees that, in part, make zoning recommendations to the local legislative bodies for Hamilton County and all municipal governments, except Collegedale, Red Bank, Signal Mountain, and Soddy-Daisy. The Planning Commission is staffed by the Regional Planning Agency which, along with other City and County departments, provides an initial recommendation to the Commission for its review. The Planning Commission then reviews the case with a public hearing and provides a recommendation to the appropriate legislative body. It is the decision of the legislative body that becomes the final action on the zoning request.

As seen on the following page, Regional Planning Agency staff, the Chattanooga-Hamilton County Regional Planning Commission and the legislative body usually agree- almost 82% of the time over the past 15 years- on an appropriate recommendation for each individual case.

Comparison of Staff, Planning Commission and Legislative Body Recommendations/Actions for Hamilton County Zoning Requests										
Planning Staff	Planning Commission	Government	1990-1994		1995-1999		2000-2004		1990-2004	
			# of Cases	% of Total	# of Cases	% of Total	# of Cases	% of Total	# of Cases	% of Total
Approve	Approve	Approve	643	71.9%	518	65.5%	441	67.8%	1602	68.6%
Approve	Approve	Deny	23	2.6%	15	1.9%	16	2.5%	54	2.3%
Approve	Deny	Approve	6	0.7%	10	1.3%	9	1.4%	25	1.1%
Approve	Deny	Deny	18	2.0%	11	1.4%	19	2.9%	48	2.1%
Deny	Approve	Approve	67	7.5%	87	11.0%	51	7.8%	205	8.8%
Deny	Approve	Deny	16	1.8%	34	4.3%	12	1.8%	62	2.7%
Deny	Deny	Approve	25	2.8%	37	4.7%	22	3.4%	84	3.6%
Deny	Deny	Deny	96	10.7%	79	10.0%	80	12.3%	255	10.9%
Total Cases Decided			894	100.0%	791	100.0%	650	100.0%	2335	100.0%

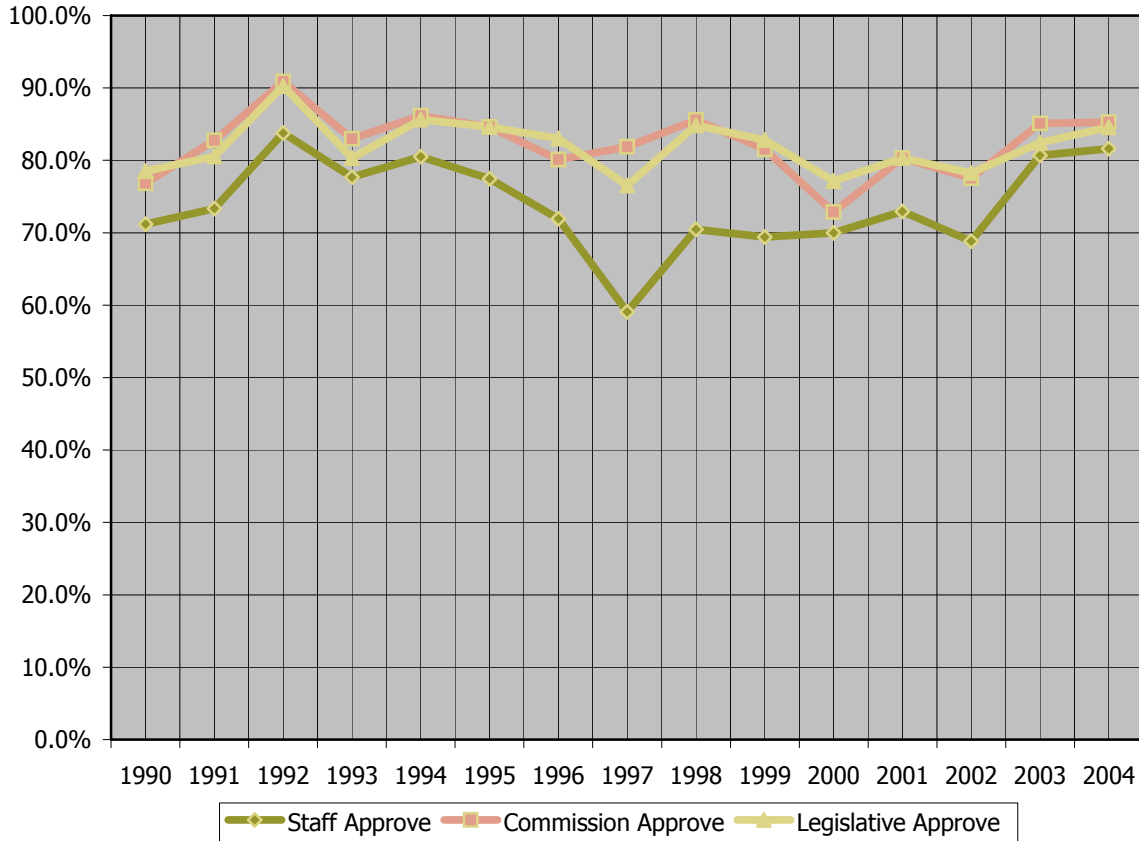
Note: Approval may be with or without conditions or for a different zone. Does not include Mandatory Referrals/Name Change cases.

Summary of Staff, Planning Commission, and Legislative Body Agreement on Hamilton County Zoning Request Decisions						
			1990-1994	1995-1999	2000-2004	1990-2004
Planning Staff	Planning Commission	Government	82.7%	75.5%	80.2%	79.5%
Planning Staff	Planning Commission		88.0%	82.0%	86.0%	85.4%
Planning Staff		Government	85.1%	81.0%	83.4%	83.3%
	Planning Commission	Government	92.2%	87.9%	90.9%	90.4%

Note: Does not include Mandatory Referrals/Name Change cases.

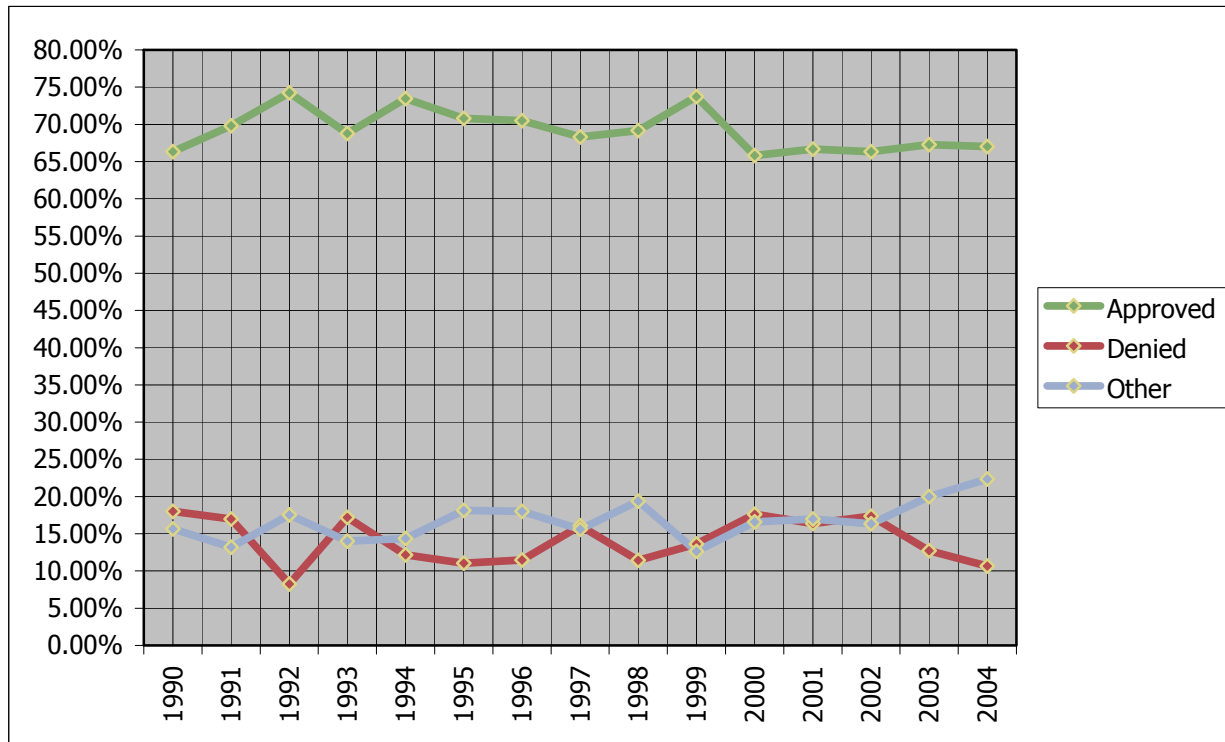
Generally, the Planning Commission recommends Approval for rezoning cases and Legislative Bodies make a final decision of Approval for rezoning cases at a slightly higher rate than the Regional Planning Agency staff recommends.

RPA Staff, CHCRPA Planning Commission and Legislative Body Approval Recommendation and Final Action Rate



Over the past 15 years, 69% of all rezoning cases have been approved while 14% of the time a rezoning request is denied.

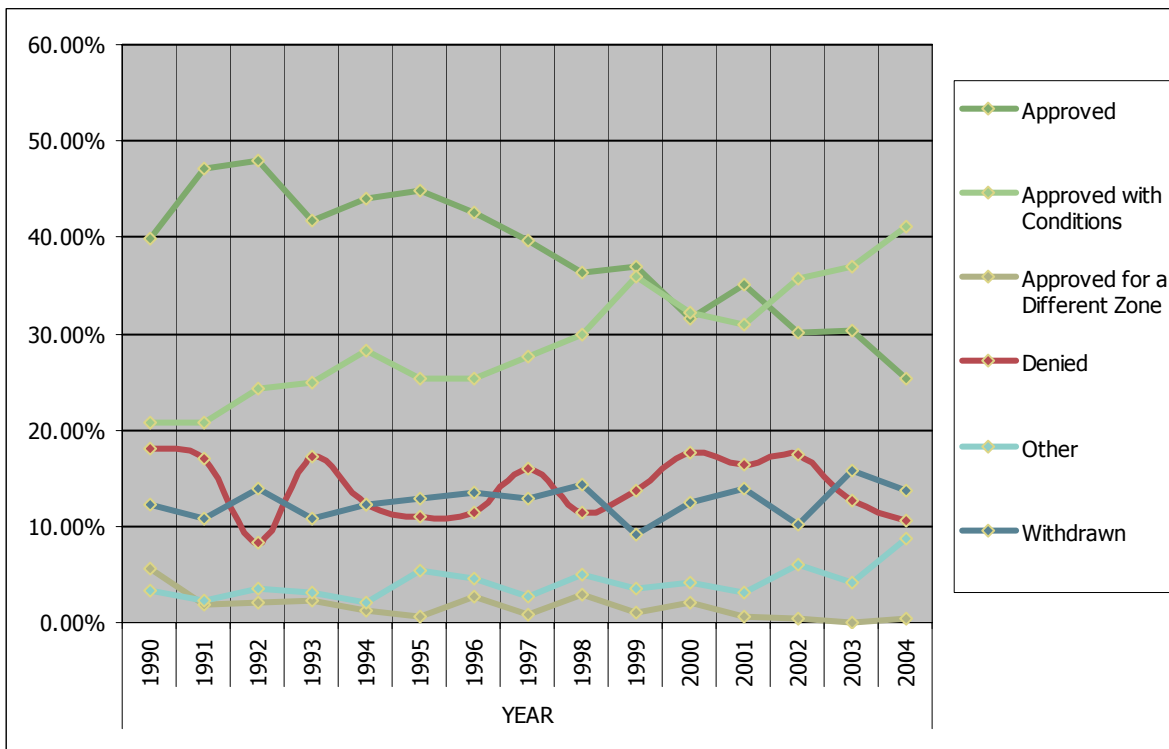
Hamilton County and Municipality Zoning Requests by General Action 1990-2004



Note: "Other" category includes cases that have been withdrawn, voided, deferred indefinitely or deferred until the applicant takes further action. Does not include data on Mandatory Referrals/Name Changes.

An approval does not always reflect an applicant's exact request. Rezoning can be approved, approved with conditions, or approved for a different zone. In 1985, the State of Tennessee gave Hamilton County and its municipalities the ability to rezone property conditionally. Since about 1995, a notable shift has occurred in the reduction of cases approved and an increase in cases approved with conditions. In the past five years, almost 29% of all cases have been approved with conditions.

Hamilton County and Municipality Zoning Requests by Specific Action 1990-2004



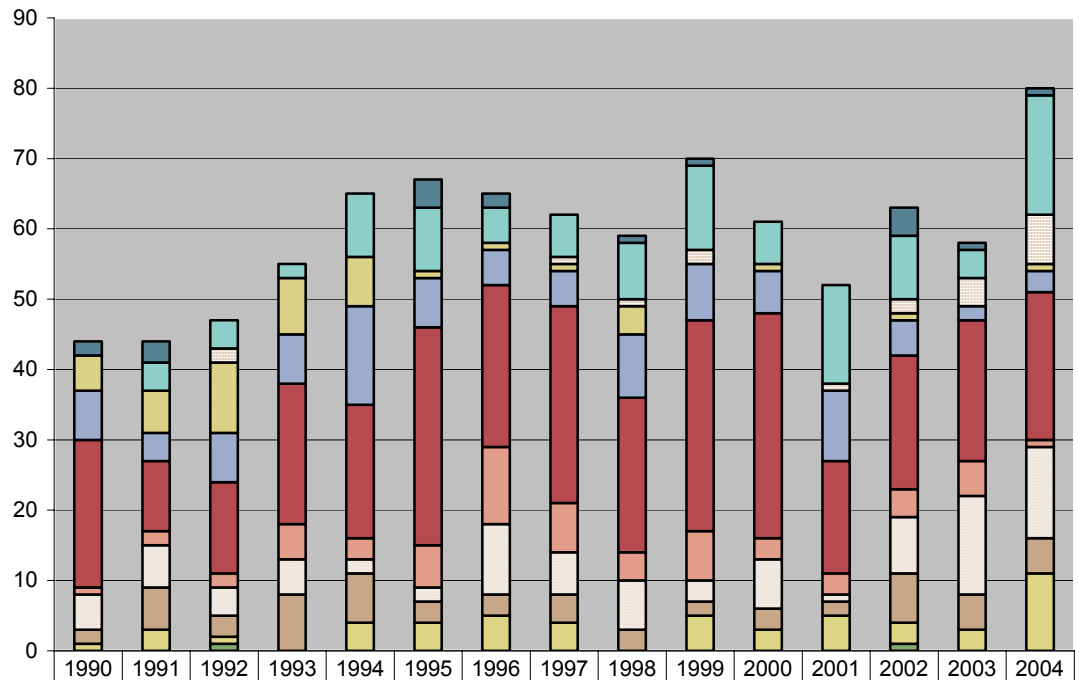
Note: "Other" category includes cases that have been withdrawn, voided, deferred indefinitely or deferred until the applicant takes further action.

Hamilton County and Municipality Zoning Requests by Specific Action 2000-2004

	2000	2001	2002	2003	2004	Grand Total
Approved	31.6%	35.2%	30.1%	30.3%	25.4%	38.7%
Approved with Conditions	32.1%	30.9%	35.7%	37.0%	41.1%	28.9%
Approved for a Different Zone	2.1%	0.6%	0.5%	0.0%	0.5%	1.7%
Denied	17.6%	16.4%	17.3%	12.7%	10.7%	14.0%
Other	4.1%	3.0%	6.1%	4.2%	8.6%	4.1%
Withdrawn	12.4%	13.9%	10.2%	15.8%	13.7%	12.5%

Commercial and industrial rezonings account for 47% of all conditional approvals in the past 15 years and for 42% of all conditional approvals in the past five years. As in the past, most of these conditions are requirements for buffers, site plans, restrictions to specific uses, and design requirements.

Type of Rezoning Approved with Condition(s)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Multiple	2	3				4	2		1	1			4	1	1
Other		4	4	2	9	9	5	6	8	12	6	14	9	4	17
PUD- Residential/Insti.			2					1	1	2		1	2	4	7
R-5 Manufactured Home	5	6	10	8	7	1	1	1	4		1		1		1
Manufacturing/Industrial	7	4	7	7	14	7	5	5	9	8	6	10	5	2	3
Commercial	21	10	13	20	19	31	23	28	22	30	32	16	19	20	21
Office	1	2	2	5	3	6	11	7	4	7	3	3	4	5	1
R-4 Special Zone	5	6	4	5	2	2	10	6	7	3	7	1	8	14	13
High-density Residential	2	6	3	8	7	3	3	4	3	2	3	2	7	5	5
Low and Moderate-density Residential	1	3	1	0	4	4	5	4		5	3	5	3	3	11
Agricultural			1										1		

Note: Does not include Mandatory Referral cases. "Other" category includes Cases where conditions were amended or lifted, Conditional, Special and Special Exceptions Permits, Zoning and Annexation Studies. "Multiple" category includes requests that were a combination of a variety of zones.

The most prevalent reason for denial by all bodies was incompatible use. Often the site proposed for rezoning was surrounded by residential property or was deemed to be a spot zoning. Concerns were mentioned that rezonings in these areas would encourage similar requests to the detriment of the surrounding area. Requests were turned down in part because they were against adopted plans and policies. Traffic, storm water and access concerns were also cited.

Appendix J:

**Low-Impact Development
Options (LID)**

Rain Garden Design & Installation

and other Storm Water Initiatives at UGA



Dexter Adams, UGA Grounds Department
UGA Facilities Planning

What is a Rain Garden?

“Shallow stormwater basin or landscaped area that utilizes engineered soils and vegetation to capture and treat runoff.”



“Bioretention Areas”
Defined in Georgia Stormwater Manual

... A Functional Landscape Amenity

(& non-point source water pollution control)



What are the benefits?

1: Filtration of Stormwater Runoff



1: Filtration of Stormwater Runoff



Runoff Filtration

80% Total Suspended Solids
60% Total Phosphorous
50% Total Nitrogen
80% Heavy Metals
Fecal Coliform?



2: Infiltration:
Groundwater Recharge & increased Stream Base Flows



3: Flooding and Erosion Control



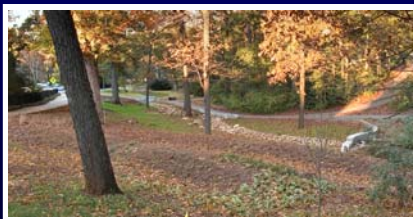
4: Wildlife Habitat Creation



5: Environmental Education



6: Attractive Landscape Amenity

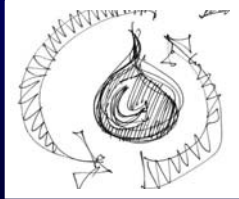


7: Economic Incentive

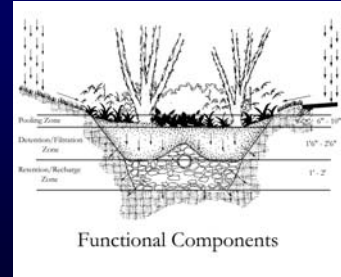


How do they Work?

Mimic Natural Hydraulic Cycle



Components



Filter Strip



Filter Strip: Reduces incoming runoff velocity

Ponding Area



Filter Strip: Reduces incoming runoff velocity

Ponding Area: Provides temporary storage prior to evaporation, infiltration or uptake

Mulch Layer



Filter Strip: Reduces incoming runoff velocity

Ponding Area: Provides temporary storage prior to evaporation, infiltration or uptake

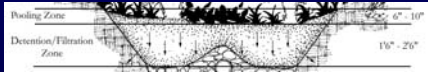
Mulch Layer: Supports micro-organisms that degrade hydrocarbons / organic materials

Soil



Planting Soil: Provides filtration and supports plant growth
(Clay in soil also absorbs pollutants)

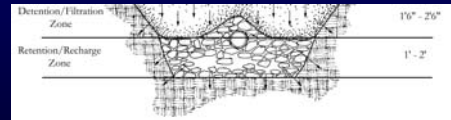
Plant Types



Planting Soil: Provides filtration and supports plant growth
(Clay in soil also absorbs pollutants)

Woody & Herbaceous Plants: Provide vegetative uptake of runoff and pollutants while stabilizing soil

Bedding



Sand / Gravel Bedding: Promotes positive drainage and aerobic soil conditions

Design Guidelines

Drainage Area:

Limited to 5 Acres or less - preferably less than 1 Acre

"Smaller is better"

Rain Garden should be sized at approximately 5% of the tributary impervious area



Design Guidelines

Ponding Depth:

Typically 6" Maximum
(for soils with infiltration rate of 2+ inches/hour)

Designed to drain within 4-6 hours



Design Guidelines

Plants:

Must be able to tolerate variable soil moisture - plan for wetness zones

Native Species are recommended

Use of multiple species and "layers" is recommended for habitat diversity

Establish plantings before accepting runoff



Design Guidelines

Soil:

2'-4' Depth Homogenous Mix of approximately
50% Sand, 20-30% Topsoil (<15% clay) and 20-30% Organic Compost

Mulch:

3" Depth Shredded Hardwood recommended



Design Guidelines

Slope:

Not recommended on slopes greater than 15%
Actual Rain Garden side slopes should not exceed 2:1

Groundwater:

Depth below rain garden should be at least 2 feet
Avoid application in "Hot Spot" areas



Design Guidelines

Underdrain:

Optional sock-wrapped perforated pipe in gravel/sand bed,
located above zone of saturation, can be tied into overflow system

Overflow:

Design for overflow – discharge slowly into grassy area, drainage swale or existing pipe system
Avoid overflow into structural footings or roadway base material



Rain Garden Maintenance



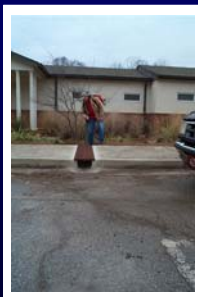
Pick Up Large Debris by Hand

Rain Garden Maintenance



Blow Vegetative Debris

Rain Garden Maintenance



Clean Out Channel

Rain Garden Maintenance



Remove Fine Particles

Rain Garden Maintenance



Remove & Replace Soil ???

Examples on UGA's Campus

Intramural Fields Parking Area



Examples on UGA's Campus

Intramural Fields Parking Area



Adjacent Intramural Parking Area
(standard curb & gutter island)



Intramural Parking Lot Rain Garden

Examples on UGA's Campus

Soccer Softball Complex – North Parking Lot



Examples on UGA's Campus

Soccer Softball Complex – North Parking Lot



Examples on UGA's Campus

Grounds Department



Grounds Department Rain Garden

Implementation Begins!



Grounds Department Rain Garden

Topsoil Removed



Grounds Department Rain Garden

Begin Excavation



Grounds Department Rain Garden

Install Overflow



Grounds Department Rain Garden

Install Gravel and Filter Fabric



Grounds Department Rain Garden

Here Comes The Compost!



Grounds Department Rain Garden

Spreading Amended Soil



Grounds Department Rain Garden

Fine Grading Topsoil



Grounds Department Rain Garden

Install River Rock Swale / Cut Overflow



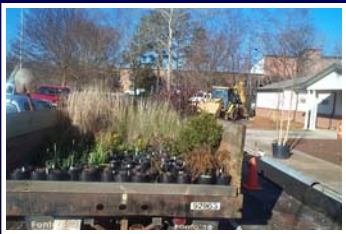
Grounds Department Rain Garden

Runnel Installation



Grounds Department Rain Garden

Bring on the Plants!



Grounds Department Rain Garden

B&B Tree Installation



Grounds Department Rain Garden

Planting Installation



Grounds Department Rain Garden

Rain - The Real Test!



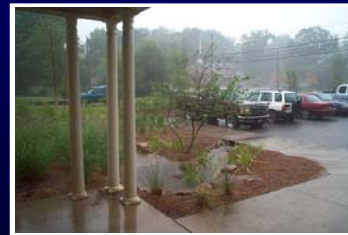
Grounds Department Rain Garden

Spring Growth



Grounds Department Rain Garden

Spring Rain!



Grounds Department Rain Garden

An Ecological, Educational and Aesthetic Amenity...



Grounds Department Rain Garden



Grounds Department Rain Garden



Grounds Department Rain Garden



Examples on UGA's Campus

Lumpkin Street Drainage Improvements



Lumpkin Street Drainage Improvements

The Problem



Lumpkin Street Drainage Improvements

Reference Urban Watershed Quality Projects



Waterford, CT 2003
BMP Subdivision, Jordan Cove Urban Watershed Project



Seattle, WA 2003
Seattle Street Edge Alternatives



Prince George's County, Maryland 2003
Adephi Road Median Strip

Lumpkin Street Drainage Improvements

Incorporates 15 Rain Gardens over 1.3 miles



UGA / A-CC
Town - Gown Collaboration



Tanyard Watershed - Athens, GA
Approx. 75% Impervious



Water Quality Design
First-Flush Treatment (1.2" Rain)

Lumpkin Street Drainage Improvements

Implementation (Underway)



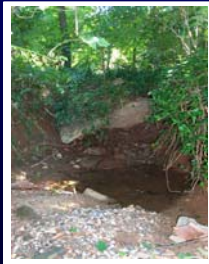
Lumpkin Street Drainage Improvements

Lumpkin Woods Bioretention Areas (Before)



Lumpkin Street Drainage Improvements

Existing Stormwater Discharge Into Lumpkin Woods



Lumpkin Street Drainage Improvements

New Settling Pond and Weir



Lumpkin Street Drainage Improvements

Lumpkin Woods – Rain Garden Planting Zones



Lumpkin Street Drainage Improvements

Lumpkin Woods – Rock Swale w/ Gravel and Filter Fabric



Lumpkin Street Drainage Improvements

Lumpkin Woods – Rock Swale w/ Pea Gravel and River Stone



Lumpkin Street Drainage Improvements

Lumpkin Woods



Pharmacy Pocket Raingarden



Pharmacy Pocket Raingarden

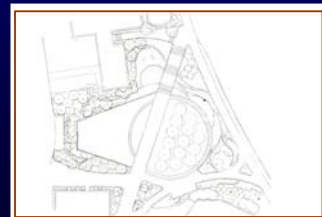


Pharmacy Pocket Raingarden



What else is UGA doing currently?

**Rainwater Harvesting
(UGA Memorial Garden)**



What else is UGA doing currently?

**Rainwater / Groundwater Harvesting
(Paul D. Coverdell Building)**



What else is UGA doing currently?

Stream Monitoring



What else is UGA doing currently?

Storm Drain Stenciling



What else is UGA doing currently?

Porous Paving



What else is UGA doing currently?

Street Sweeping



PVAC Pedestrian Corridor?



**Tanyard Branch & "Stinky" Creek
Stream Restorations?**



Tanyard Branch in Central Campus



"Stinky Creek" on East Campus

Rainwater & Condensate Water Harvesting?



Natural Landscaped Solutions for Water Quality and Stormwater Management

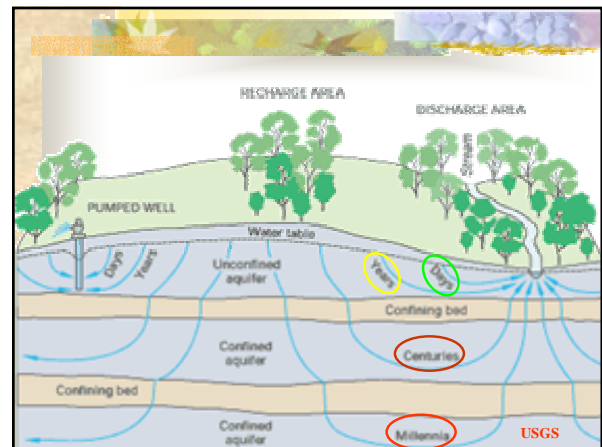
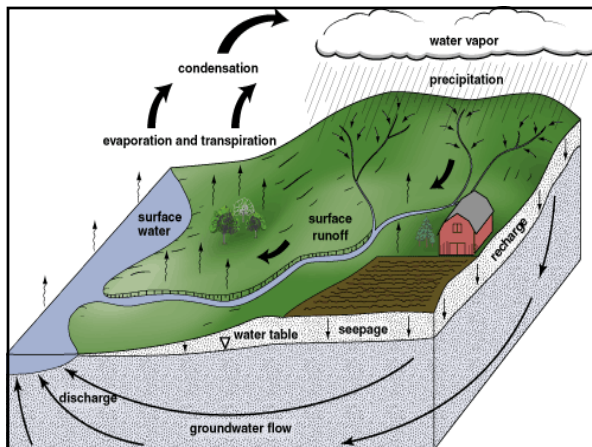
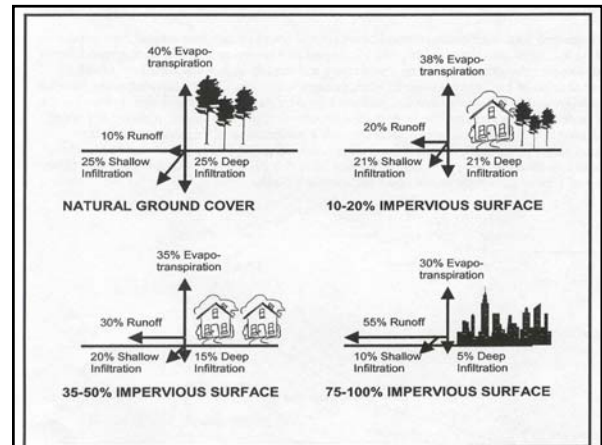
G. Dodd Galbreath
Tennessee Department of Agriculture

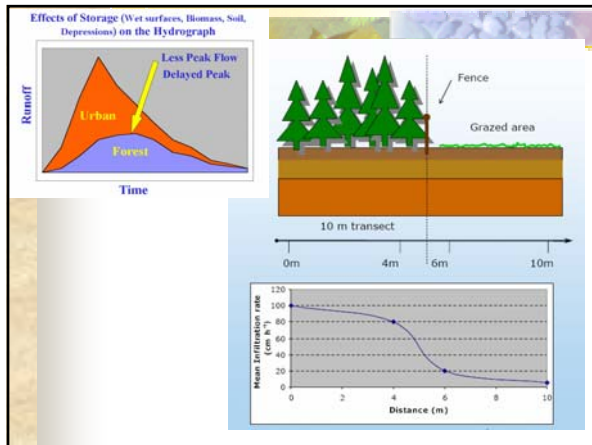
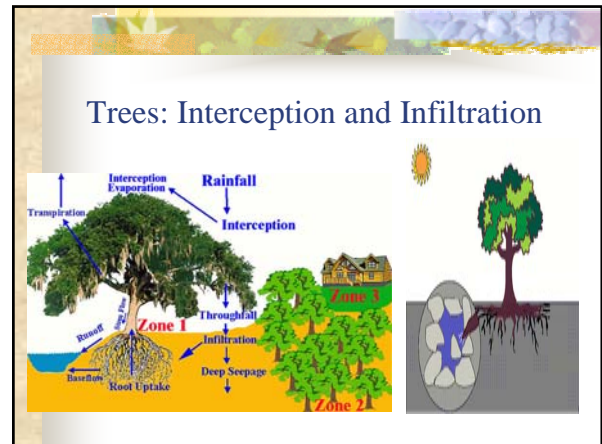
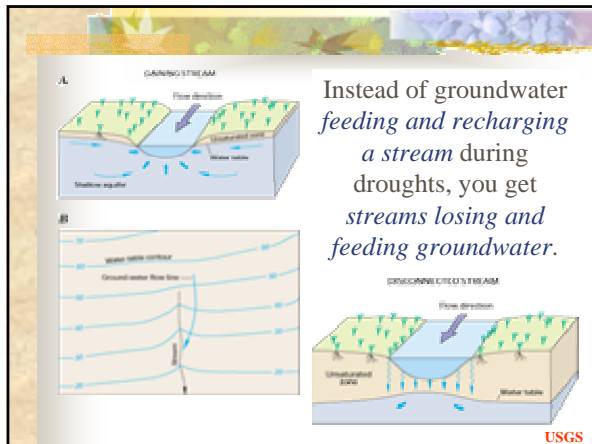
Why consider natural solutions?

- You create **pleasure, aesthetics, quality, value** and help other professions present their landscapes in a professional manner.
- How would you like to create other functions, services, "fun" and a **growth industry** for you that will enable your life and profession to prosper AND have a lasting impact.
- Short Term:** Add natural landscaped solutions to the services you offer.
- Long Term:** Replace most landscaping with natural landscaped solutions for water and a growth market.

Outline

- Review principles of water quality and stormwater management and characteristics of native plants
- Examine current trends and innovations toward natural solutions
- Share our Vision for embodying natural drainage principles at Ellington Agricultural Center





Trees Mean Less Runoff
Some Statistics – Univ. of Wisconsin

- Fayetteville, Arkansas found increasing tree canopy from 27-40% reduced their storm water runoff by 31%
- South Miami residential study found that a 21% existing tree canopy reduces the storm water runoff by 15%
- For every 5% of tree cover added to a community, storm water is reduced by approximately 2%

Trees: Natural Stormwater Devices

- Coniferous trees intercept 25-35% of annual precipitation
- Deciduous trees intercept 15-25% of annual precipitation, but just as much as coniferous trees during the growing season
- A typical community forest of 10,000 trees will retain approximately 10 million gallons of rainwater per year
- One large deciduous tree in coastal southern California reduces stormwater runoff by over 4,000 gallons per year.

Sources: *Journal of Arboriculture* and Center for Urban Forest Research

Status and Trends

Status of Urban Runoff

- Most modern water pollution is *decentralized* and has a *cumulative impact*
- 11 percent of all 303(d) listed stream miles are affected by *urban runoff*
- Roughly *90 cities and counties* will have to implement new stormwater regulations and TMDL's



What has not changed?

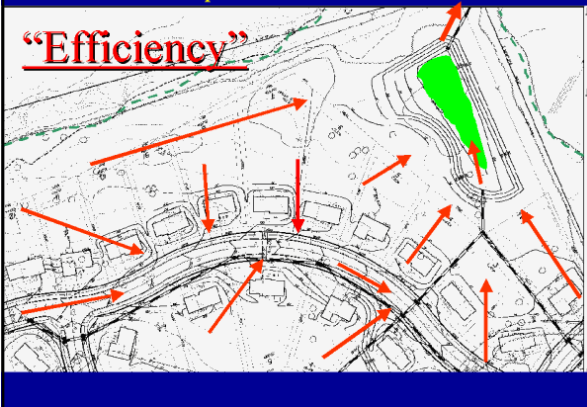


Answer: Stormwater Management



Conventional Pipe and Pond Centralized Control

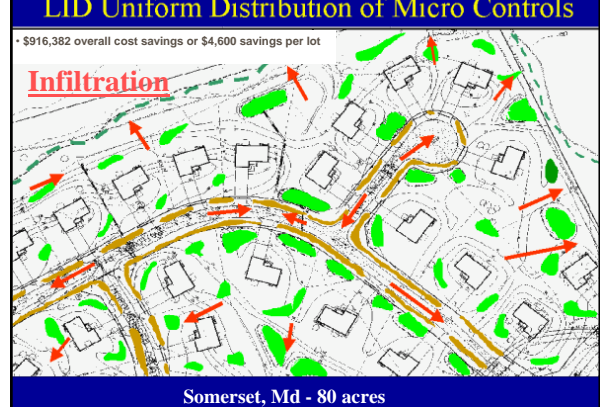
“Efficiency”



LID Uniform Distribution of Micro Controls

• \$916,382 overall cost savings or \$4,600 savings per lot

Infiltration



Somerset, Md - 80 acres

Trends:

UNIFIED FACILITIES CRITERIA (UFC)

DESIGN: LOW IMPACT DEVELOPMENT MANUAL

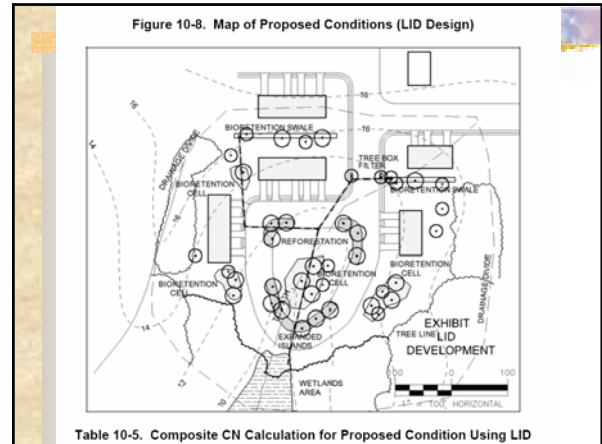
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Naval Facilities Engineering Command

Kathleen T. Ferguson
KATHLEEN T. FERGUSON, P.E.
The Deputy Civil Engineer
DCS/Installations & Logistics
Department of the Air Force

Dr. Bret Worley
DR. BRETT WORLEY, P.E.
Director, Installations Requirements and Management
Office of the Deputy Under Secretary of Defense
(Installations and Environment)



The Present and Future of Stormwater Mgt:
Infiltration and Re-Use

Design Objectives for Permeable Asphalt with Subsurface Infiltration

RIVERACKS OPEN INTO RECHARGE BED

UNCOMPACTED SUBGRADE IS CRITICAL FOR PROPER INFILTRATION

FILTER FABRIC LINES THE SUBSURFACE BED

POURED ASPHALT TREATMENT

UNIFORMLY GRADED STONE AGGREGATE

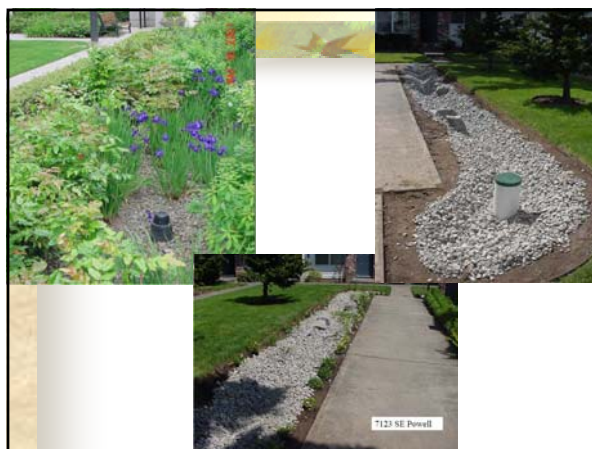
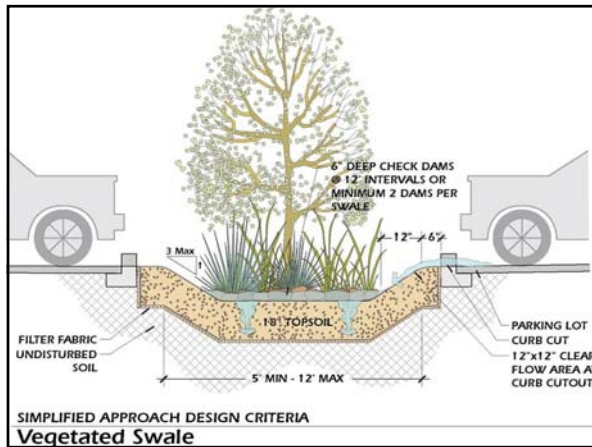
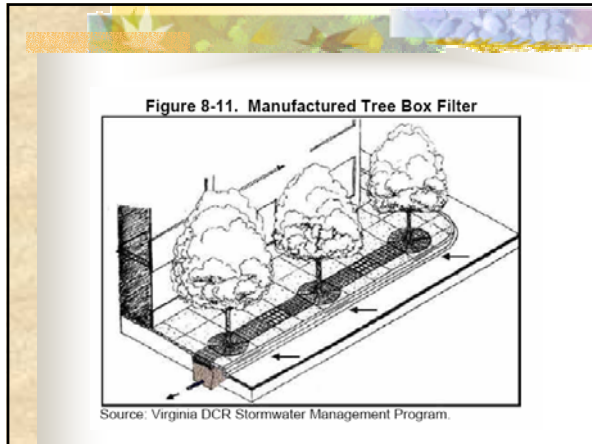
40% VOID SPACE FOR STORMWATER STORAGE AND RECHARGE

Figure 1: Typical Porous Pavement Schematic Design (Courtesy Cahill Associates)

“One body of disciplines is emerging.”

Modern solutions are integrating **biology**, **engineering**, **soil science**, **plant science**, **horticulture**, **landscape architecture**, **city planning** and **other sciences and the arts**.







You can create ditches that not only convey water but that also absorb water.



Seattle Cascades:
Grade Control
AND
Infiltration

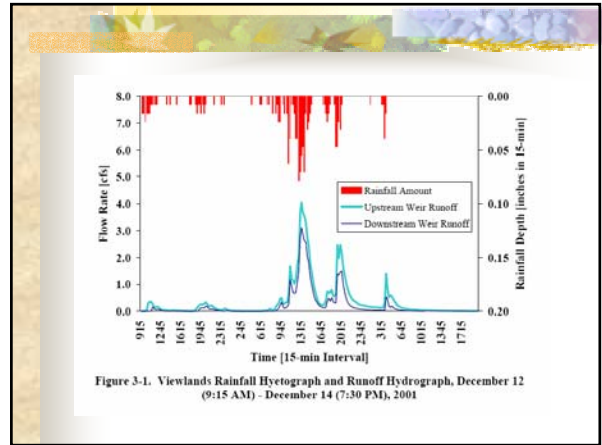
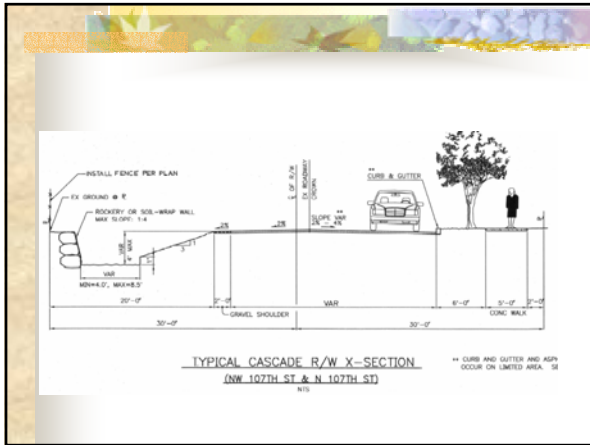


Figure 3-1. Viewlands Rainfall Hyetograph and Runoff Hydrograph, December 12 (9:15 AM) - December 14 (7:30 PM), 2001

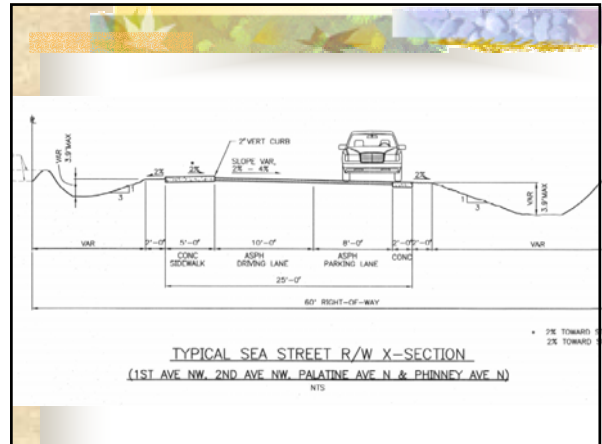
Street Type	Collector street Cascade	Collector street Traditional
Community Benefits	<ul style="list-style-type: none"> no street improvement moderate neighborhood aesthetic 	<ul style="list-style-type: none"> no street improvement no neighborhood aesthetic
Ecological Benefits	<ul style="list-style-type: none"> high water quality protection some flood protection 	<ul style="list-style-type: none"> high protection from flooding some water quality protection
% impervious area	35%	35%
Cost per block (330 linear feet)	\$285,000	\$520,400



Seattle's Street Edge Alternatives Program



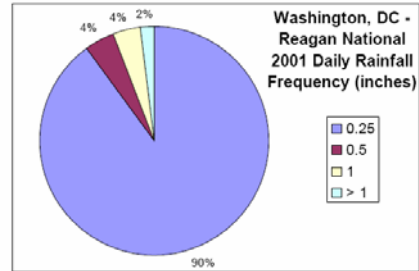
After Completion - January 2001



Two years of monitoring says it stores 98% of a 2 year storm.



Figure 4-3. Frequency of Small Storms



Source: NOAA.



Infiltration on Steeper Slopes



Street Type	Local street SEA Street	Local street Traditional
Community Benefits	<ul style="list-style-type: none"> one sidewalk per block new street paving traffic calming high neighborhood aesthetic 	<ul style="list-style-type: none"> two sidewalks per block new street paving no traffic calming no neighborhood aesthetic
Ecological Benefits	<ul style="list-style-type: none"> high protection for aquatic biota mimics natural process bio-remediate pollutants 	<ul style="list-style-type: none"> high protection from flooding some water quality
% impervious area	35%	35%
Cost per block (330 linear feet)	\$325,000	\$425,000

Broadview Green Grid
15 block area

- both 'SEA Street' and 'Cascade' types
- one sidewalk per block
- new paving
- high neighborhood aesthetic
- high water quality & aquatic biota protection
- some flood protection
- excellent monitoring opportunity

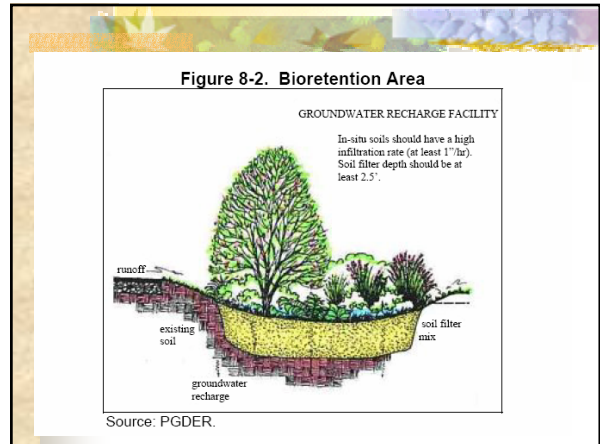
35%

Average per block:
\$280,000

MAPLEWOOD

Rainwater Gardens
Environmental Utility
Erosion and Sediment Control
Met Council Urban Small Sites Best Management Practice Manual
Illicit Discharge and Detection
NPDES Permit/Surface Water Pollution Prevention Plan
Environmental Utility Best Management Practices Credit Policy and Application

Somerset,
Maryland



Traditional

Somerset, Md - 80 acres

-\$300,000 savings on LID vs. storm water ponds
 LID Cost: \$100,000
 Conventional Cost: \$400,000

-\$240,000 additional revenue on 6 additional lots (space previously allocated to ponds) 6 lots x \$40,000 Net

-\$916,382 overall cost savings or \$4,600 savings per lot

Same density with 20 percent cost savings

LID Site
 Reduced Imperviousness

Conservation of trees
 Porous Pavement
 Open Drainage
 Rain Barrel
 Amended Soils
 Rain Gardens

Create a Hydrologically Functional Lot

Beal College (SE 28th Ave.)
 BES Water Pollution Control Lab (6543 N. Burlington)

SW 2nd Ave. and SW Market St. Roof Garden

Stormwater pipe into a sand filter

Figure 8-12. Vegetated Roof Cross-Section

Vegetation
 Growing Medium
 Drainage, Aeration, Water Storage and Root Barrier
 Insulation
 Membrane Protection and Root Barrier
 Roofing Membrane
 Structural Support

Source: American Wick Drain Corp.

Figure 8-15. Drainage in Both Types of Pavement

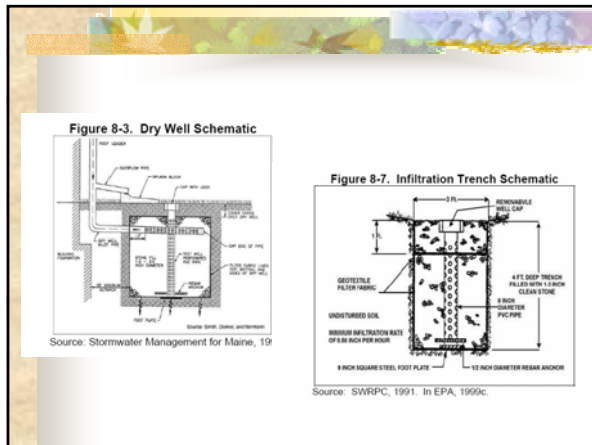
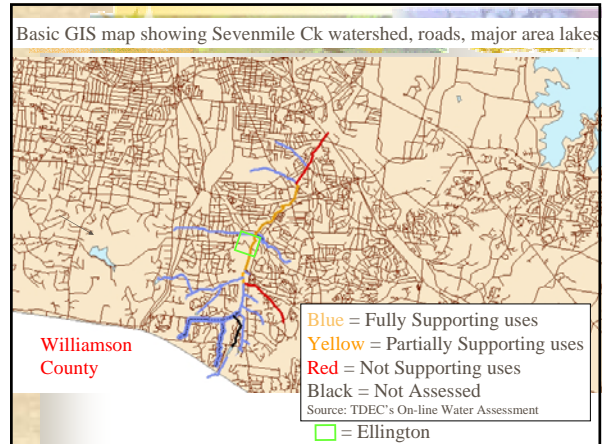


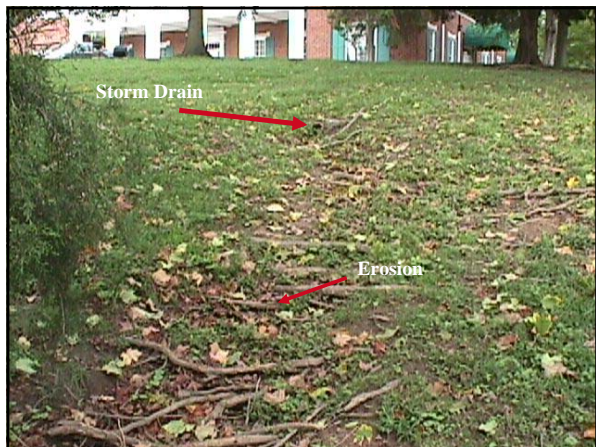
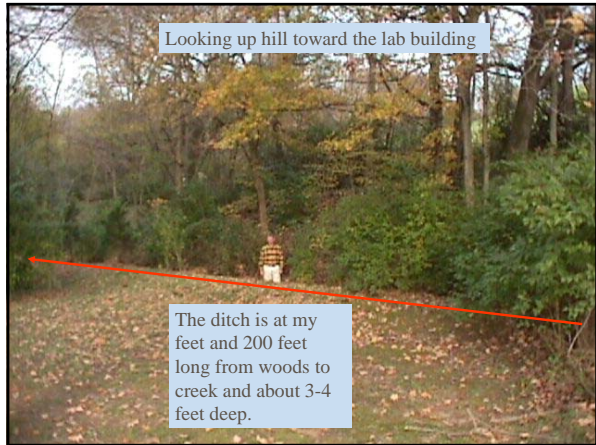
Table 6-1. Functions of LID Features

Feature	Effect or Function				
	Slower Runoff	Infiltration	Retention	Detention	Water Quality Control
Soil Amendments		X			
Bioretention		X	X	X	X
Dry Wells		X	X		X
Filter Strips	X				X
Vegetated Buffers	X				X
Grassed Swales	X				X
Infiltration Trenches		X			X
Inlet Devices					X
Rain Barrels			X		
Cisterns			X		
Tree Box Filters					X
Vegetated Roofs	X			X	X
Permeable Pavers		X			X

Our Vision for Ellington:

Use Natural Solutions



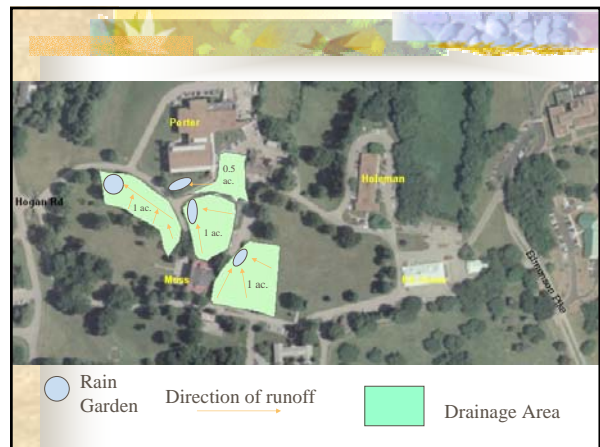
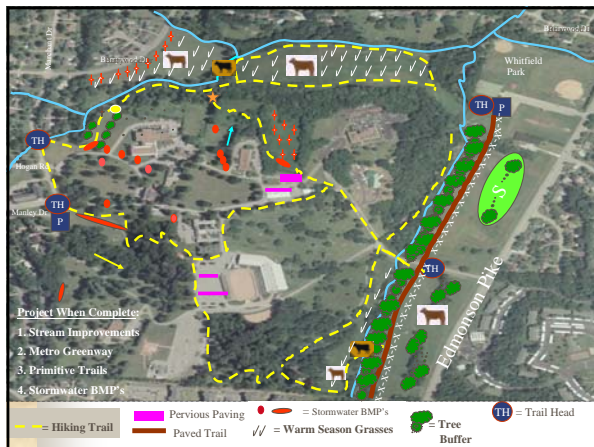
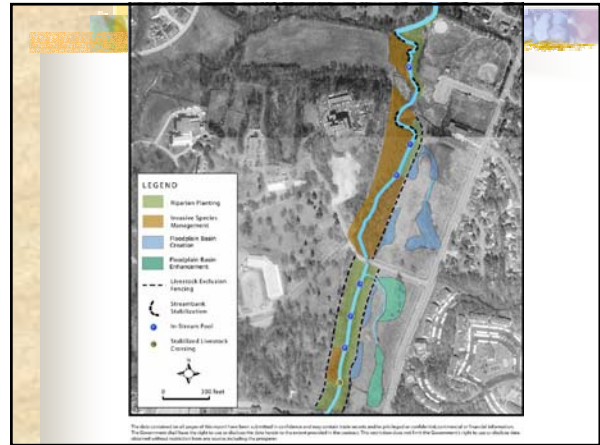
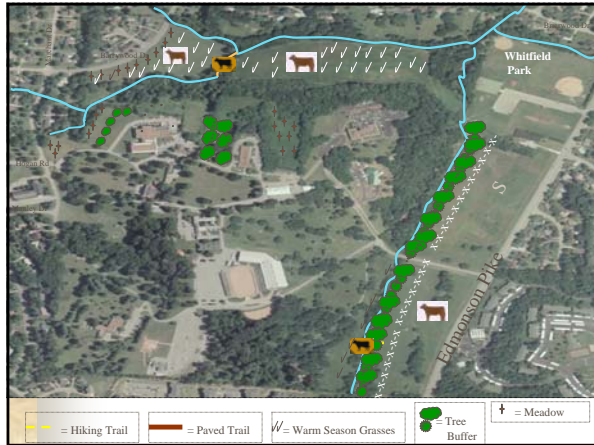


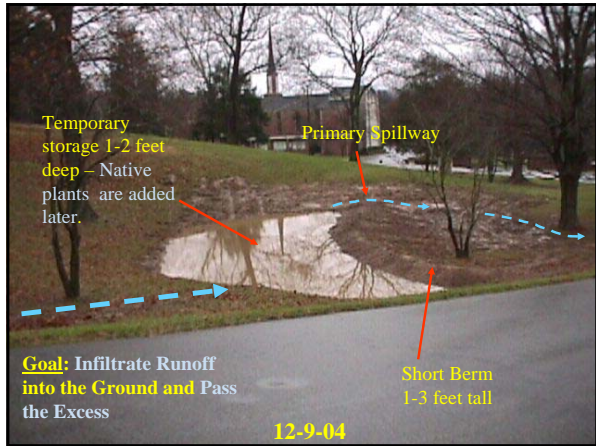


Our Plan

1. Stormwater Infiltration
2. Land Cover Conversion
3. Stream Mitigation
4. Recreation, Demonstration and Education

All are designed to improve water quality leaving Ellington.









Desired Site Characteristics

- Higher elevations are best (floodplains least effective)
- Natural drainways
- Clear of tree drip lines
- Berms are more cost effective but more structural

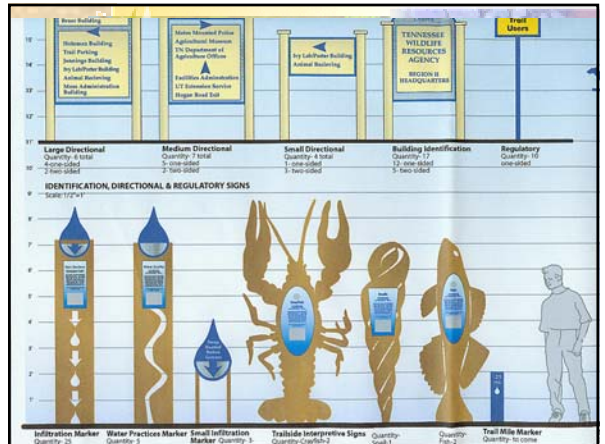
Construction Steps

- Problem ID and site review
- Field survey structures (3 feet deep max - earthen principle spillways are critical – avoid pipes and sub-drains if possible)
- Remove managed surface to top soil (bind berm to soil)
- Construct and smooth/re-shape to preference
- Monitor for 3-4 weeks with runoff



Steps (continued)

- Does it drain within 3-4 days?
- Yes: Landscape according to pool levels
- No: Add sand and compost to create sponge
- Monitor and improve



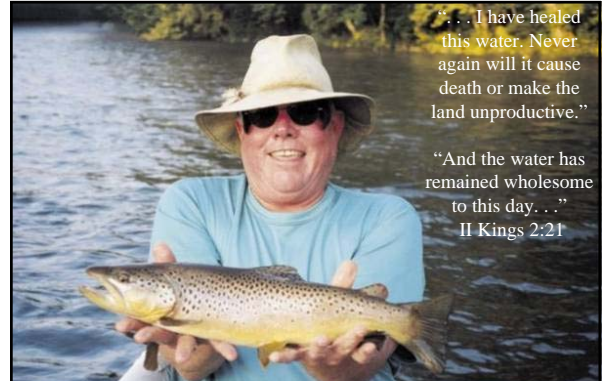


One Question

Do you want to expand your industry's services, markets and profits

AND

contribute to cleaner and healthier communities?



“... I have healed this water. Never again will it cause death or make the land unproductive.”

“And the water has remained wholesome to this day...”

II Kings 2:21

TENNESSEE.GOV
The Official Web Site of the State of Tennessee

Department of Agriculture
Ken Givens, Commissioner

Appendix K:
Letters of Support


City of Chattanooga

DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT RESOURCE CENTER
1250 MARKET STREET, 2ND FLOOR

Chattanooga, Tennessee 37402-2713

MEMORANDUM

Date: August 19, 2005

From: Mounir (Mo) Minkara, Ph.D., P.E., Water Quality Manager, 
Stormwater Management

Subject: CompPlan 2030

To: Greg Haynes, Director of Comprehensive Planning

Cc: William C. Payne, P.E., Acting City Engineer

I have reviewed the entire CompPlan 2030 and I gave special attention to information on environment protection and water quality. I found it to be very comprehensive. It is great effort that your team had put up into this document. I am very supportive to your recommendations in this plan (especially the steep slopes initiative and the need to preserve our natural environment at all phases of development) and I am glad to work with you on achieving those goals. As you know I have provided my comments (about Low Impact Development) to Ms. Dickinson-Taylor and I am hoping that you can incorporate some of them into the final product.

I can be reached at 757-5115 or minkara_m@mail.chattanooga.gov.

Regards.



South Chickamauga Creek Greenway Alliance
3701 Skylark Trail...Chattanooga, TN 37416

Phone: 423.892.5237

423.893.9276

September 28, 2005

Mr. Greg Haynes
Regional Planning Agency
Development Resource Center
1250 Market Street
Chattanooga, TN 37402

Dear Greg,

South Chickamauga Creek Greenway Alliance (SCCGA) is pleased to be able to endorse the Hamilton County Comprehensive Plan especially in those areas that support the protection of watersheds and our area creeks.

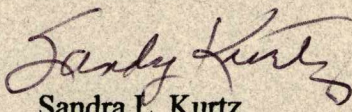
The policy recommendations to conserve forested land, to preserve wildlife habitat, to encourage responsible development, and create Greenbelt corridors certainly speak to many of our ongoing concerns in protecting the watershed.

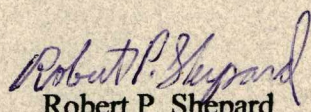
We are especially pleased to see goals to *maintain healthy rivers, creeks and streams* and *protect community from flash flooding and maintain adequate floodplain areas*. As everyone knows, South Chickamauga Creek is highly floodable. SCCGA has long advocated that development be kept out of floodplains. We urge implementation of the policies associated with these goals as part of all the environmental goals in CompPlan 2030

Of course, as our name implies, SCCGA is in favor of greenway corridors not only for recreational and cultural amenities, but for environmental and alternative transportation benefits as well.

SCCGA asks for adoption of the plan.

Yours truly,


Sandra L. Kurtz
SCCGA Co-Chairman


Robert P. Shepard
SCCGA Co-Chairman

September 30, 2005

Mr. Greg Haynes
Director, Comprehensive Planning
Chattanooga-Hamilton County
Regional Planning Agency
1250 Market Street, Suite 2000
Chattanooga, TN 37402



Dear Mr. Haynes:

On behalf of the Chattanooga Urban Area Bicycle Task Force, I would like to endorse adoption of the Chattanooga-Hamilton County Comprehensive Plan 2030.

As indicated in the Comprehensive Plan, the 2002 Chattanooga Urban Area Bicycle Facilities Master Plan provides an excellent foundation for guidance and as such was incorporated into the Chattanooga-Hamilton County-North Georgia Long Range Transportation Plan (TransPlan 2030). Continued implementation of the programs and facilities identified in the Bicycle Facilities Master Plan will enhance our community's quality of life, reduce traffic congestion and air pollution, and provide important opportunities for citizens to live an active and healthy lifestyle.

In addition, I would recommend that the Comprehensive Plan include a routine accommodation policy to provide complete streets for all road users. Streets are not complete until they are safe and convenient for travel by all users, whether on foot, bicycle or transit, people with disabilities, and people in automobiles. The Tennessee Department of Transportation has endorsed this need for complete streets in its 2003 Bicycle and Pedestrian Policy.

Specifically recognized and funded in SAFETEA-LU, Safe Routes to School is also an important element to be considered for the Comprehensive Plan 2030. Safe Routes to School (SRTS) programs will make it safer for children to walk and bicycle to school. They fix hazards and slow traffic near schools while increasing safety through focused enforcement and education programs. SRTS programs in several states have improved safety, encouraged thousands of children get healthy physical activity on the way to school, and reduced school-related traffic congestion. The number of children walking or bicycling to school has declined dramatically in recent decades, increasing school busing costs as well as traffic congestion.

Bicycling directly benefits our community as an important means of transportation, recreation and active living. Thank you for recognizing these benefits and needs as part of Comprehensive Plan 2030.

Sincerely,

Philip Pugliese
Chairperson, Chattanooga Urban Area Bicycle Task Force

Development Resources Center
1250 Market Street, Suite 3050
Chattanooga, TN 37402-2713

(423) 209-7851
(423) 209-7811 Fax

Hamilton County Storm Water Pollution Control Program

Collegedale
Soddy Daisy

Lake Site
Red Bank

East Ridge
Ridgeside

Hamilton County
Lookout Mountain

10/3/2005

Mr. Greg Haynes
Comprehensive Planning Director
1250 Market Street, Suite 2000, DRC
Chattanooga, TN 37402

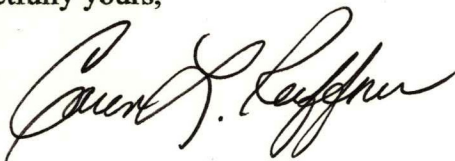
Re: Comprehensive Plan 2030

Dear Mr. Haynes:

I am writing this letter in support of the slope management policies in the *Comprehensive Plan 2030*. As the Manager for the Hamilton County Storm Water Pollution Control Program, I have a responsibility to identify and support measures that will enhance the storm water quality in the program area. Development that includes steep slopes has an increased potential for causing negative impacts on the storm water quality in the downstream area. Through my past experiences as an Environmental Specialist for Tennessee's Division of Water Pollution Control and as Director of Stormwater Management for East Ridge, I found that violations of General NPDES Permit for Discharges of Storm Water Associated with Construction Activities were common for development sites that included even moderate slopes.

I appreciate the opportunity to review the *Comprehensive Plan 2030* and to express concern relating to slope development.

Respectfully yours,



Caren L. Ruffner
Manager
Hamilton County Storm Water Pollution Control Program

Cc: Mike Howard, PE



City of Chattanooga

DEPARTMENT OF PARKS, RECREATION, ARTS & CULTURE
1102 SOUTH WATKINS STREET (423) 643-6050

Chattanooga, Tennessee 37404

October 4, 2005

Hamilton County Regional Planning Agency
1250 Market Street
Suite 2000, Development Resource Center
Chattanooga, TN 37402

Dear Colleagues,

We are writing to express support for the initiatives outlined in your agency's CompPlan 2030. The Department of Parks and Recreation, in conjunction with Outdoor Chattanooga, is committed to providing a safe, clean environment for the citizens of Chattanooga to participate in the many recreational opportunities in and around our city.

As a dedicated partner of the Greenways Task Force, the Department of Parks and Recreation is particularly supportive of the greenway-related goals in the areas of the environment, public spaces and recreation, and transportation. Without sustaining a high level of environmental protection and preserving the unique topography of our region, many of the Outdoor Chattanooga programs that utilize our mountains, water, and green space would simply not be possible. Maintaining Chattanooga's "Scenic City" designation is critically important to our success and growth in the future.

We are pleased to have been included in the development of the CompPlan 2030, and look forward to its adoption by the appropriate legislative bodies within the city and county. Please do not hesitate to contact us if we may be of further assistance.

Respectfully,

Rob Healy
Administrator

Dan Kral
Director of Parks



6183 Adamson Circle, Chattanooga, TN 37416 • 423/ 894-1687 ext. 3

October 5, 2005

**Greg Haynes, Director
Comprehensive Planning
Regional Planning Authority
1250 Market Street, Suite 2000 DRC
Chattanooga, TN 37402**

Mr. Haynes:

RE: Comprehensive Plan 2030 Draft

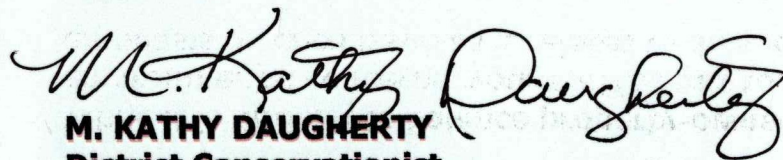
This letter is to commend the RPA staff for the Natural Environment Analysis portion of the Draft Comprehensive Plan 2030.

This section demonstrates an obvious amount of foresight and boldness in conservation and preservation. I was impressed with the importance placed upon Best Management Practices (BMP's) in dealing with difficult environmental situations.

While it is difficult to balance property-owners rights with environmental concerns, your staff seems to have placed the proper emphasis on each issue as it relates to development.

I applaud the result as a wonderful tool for the cities and Hamilton County Government to utilize as they move forward progressively both as an urban community and one with many natural resources that need protection.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Kathy Daugherty". The signature is fluid and cursive, written over the printed name and title.

**M. KATHY DAUGHERTY
District Conservationist**



October 6, 2005

Greg Haynes
Director, Comprehensive Planning
Chattanooga-Hamilton County Regional
Planning Agency
Development Resource Center
Chattanooga, TN

Department of Biological and
Environmental Sciences
Dept 2653
615 McCallie Avenue
Chattanooga, TN 37403-2598
(423)425-4341
FAX: (423)425-2285

Dear Mr. Haynes:

As a member of the Chattanooga-Hamilton County Land Use Advisory Committee, I have reviewed the Draft Comprehensive Plan developed by the Regional Planning Agency. First, I would like to commend the Regional Planning Agency staff for producing a well researched and supported document that creates a comprehensive framework to promote the economic, environmental, and social values of the Chattanooga region. Clearly, substantial time and effort have been devoted to producing this plan.

Importance of Natural Environment

My specific comments relate to the environmental components of the plan because this is my area of expertise. The Natural Environment Analysis contained in the Community Goals, Policies, and Action Steps correctly lays out the direct relationship between the condition of the natural environment and human health, safety, and quality of life. Chattanooga knows this only too well, having experienced the downside to severe air and water pollution in the 1960s and 70s. Today, society recognizes that important environmental values extend beyond the human health implications of pollution to include the economic and quality of life benefits of clean air and water, scenic vistas, and outdoor recreation. The local proliferation of environment-linked development and activities, such as the Tennessee Aquarium, the Tennessee Riverpark, Coolidge Park, other greenways, outdoor shops, bicycle shops, and Chattanooga's "Outdoor Chattanooga" initiative provide compelling evidence of this truth.

Strengths

A strength of the Comprehensive Plan is that it is the only document that takes a broad comprehensive look at the environmental attributes and needs of the entire Chattanooga region. Because natural resources are often linked together and cross local government boundaries, the comprehensive perspective facilitates effective consideration and protection of environmental attributes.

Other strengths of the Comprehensive Plan in the environmental area are its general policies promoting urban infill, encouraging development in areas where infrastructure already exists, retaining open space, and promoting alternative transportation.

Weaknesses

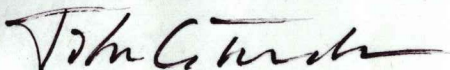
Where the Draft Comprehensive Plan falls short is in identifying specific options for local governments to consider as they go about the business of identifying, considering, and protecting important environmental attributes. For example, the Goals and Policies of the Draft Comprehensive Plan encourages important actions, such as retention and expansion of riparian buffers and protection of steep slopes, but provides few specifics as to appropriate buffer widths and slopes to consider for protection, methodologies to determine appropriate buffer widths and slope sensitivity, and implementation options for local governments to consider.

Another weakness of the Comprehensive Plan is the absence of innovative mechanisms to facilitate sensitive area protection and reduce economic hardship for owners of environmentally sensitive property. A section in the plan explaining how on-site density transfers, off-site density transfers, tax relief, local land acquisition programs, and performance standards can be used to protect environmentally sensitive lands would be useful to local governments and citizens. There are many approaches that can help accomplish the goal of protecting important environmentally sensitive areas while reducing economic hardship and reducing the likelihood of successful legal challenges to local regulations.

The role of the comprehensive plan is to provide useful guidance for local governments as they do the job of protecting the health, safety, and welfare of the community. It is a resource of ideas and documented approaches that local governments can consider, and adopt if desired. Because the plan is only advisory and does not carry the force of law, it should be as comprehensive and inclusive as possible, not vice versa. A plan that is long on general goals and policies but short on details will not serve the community well.

In closing, I'd like to reiterate my general support for the comprehensive plan and commend the RPA and the Commission for its work on the difficult task of comprehensive planning. I appreciate your consideration of these comments.

Sincerely,



John C. Tucker, J.D., LL.M.
Environmental Science Graduate Program Coordinator & Associate Professor



GREENWAYS TASK FORCE
1253 MARKET STREET, SUITE 200
CHATTANOOGA, TN 37402
423-265-5229

October 6, 2005

Mr. William O. Smith
Chairman
Chattanooga-Hamilton County Regional Planning Commission
1250 Market Street
Chattanooga, TN 37402

Dear Mr. Smith and Planning Commissioners:

The Greenways Task Force (GTF) is a networking group comprised of greenway advocacy groups, watershed advocacy groups, land trusts, neighborhood associations, nonprofit organizations and public agency representatives from local, state, and federal government entities. The mission of GTF is to promote a system of greenways, trails, parks and other green spaces in order to encourage a healthy community, to provide alternative transportation choices, and to preserve and enhance the natural treasures and environmental resources of the greater Chattanooga Area. A GTF membership list is attached to this letter.

At a recent meeting of GTF, members reviewed the proposed sections of the Hamilton County Comprehensive Plan 2030 (CompPlan) that relate closely to our areas of interest. Specifically, we reviewed the sections on Natural Environment, Public Spaces & Recreation, and Transportation. This letter offers comments of support and suggestions for changes that reflect the mutual interests of GTF, the community and the Planning Commission in creating a CompPlan that will achieve the greatest good for all concerned.

Natural Environment

GTF advocates that the CompPlan specifically:

1. Retain adequate floodplain areas and ensure accurate delineation of such areas.
2. Protect slopes of 15% or greater.
3. Create riparian buffers to ensure healthy water quality.

Public Spaces and Recreation

Key points that GTF wishes to support are

1. Community spaces should bring people and neighborhoods together. Greenways, by their nature, do this quite effectively.
2. Recreation centers should do more than provide sports programming. They should offer senior programs, after school tutoring, arts and culture, etc.
3. The community of users for recreation centers should be much broader than children and youth.

4. The city and county Departments of Parks and Recreation should explore additional sources of funding for programming and maintenance/stewardship to assure on-going, quality services in spite of tight financial resources.
5. Use greenway trails to explore outdoor environmental education opportunities with interpretive signage, self-guided walks, outdoor educators, etc.
6. Providing adequate restroom facilities is hugely important. New facilities should be planned with restrooms in mind.

Transportation

The CompPlan recommendations for transportation are in keeping with community goals to encourage a lively and healthy pedestrian environment, including connecting neighborhoods, schools and public spaces. Access to an extensive network of greenways, sidewalks, Safewalks, and trails is essential in order for walking to be a viable option for transportation and healthy lifestyle choices.

1. Specifically, the CompPlan should acknowledge the long-range Greenways Master Plan to illustrate the greenway vision for a community of connected neighborhoods and public spaces. The Greenway Master Plan map should be included as a reference, with specific priority projects listed.
2. We recommend adding the following Action statements at the appropriate points in the plan:
 - a. Conduct a community "Walking Audit" or walkability index, develop sidewalk design standards for use by public officials and developers, and promote "Complete Streets", where new roads are designed to accommodate all users when applicable.
 - b. Link transit stops and stations with pedestrian connections.
 - c. Participate in the "Safe Routes to School" program.
 - d. Bring together the Greenways Task Force and development community to study development options that incorporate pedestrian facilities in new developments and provide incentives for their use.

GTF members acknowledge with appreciation the great amount of work that has gone into producing the CompPlan. We were pleased with the overall document and hope you will accept these suggestions in the spirit of collaboration, not criticism.

Thank you for the opportunity to participate in this valuable public process and to be heard. If you have any questions, please don't hesitate to contact me at the number listed above.

Sincerely,



Carla M. Askonas
Convener

Enclosures (2)

Greenways Task Force Members

Mr. Jim Adams

Vice Mayor
City of Soddy Daisy

Ms. Jeannine Alday

Chief of Staff
Hamilton County

Ms. Carla Askonas

Greenways Coordinator
The Trust for Public Land

Mr. Rich Bailey

Ms. Susan BeVile

Intern
American Hiking Society

Ms. Daisy Blanton

Bike Task Force

Mr. Jim Bowen

Vice President
RiverCity Company

Ms. Pam Bracher

Program Officer
The Community Foundation of Greater Chattanooga

Ms. Adelaide D. Bratcher

Executive Director
Lula Lake Land Trust

Mr. Jim Brown

Executive Director
Tennessee River Gorge Trust

Ms. Susan Bryant

North Chickamauga Creek Conservancy

Ms. Alison Bullock

Tennessee Projects Manager
National Park Service

Ms. Colleen Carboni

Bike Task Force

Mr. Benic M. Clark III

Lyndhurst Foundation

Mr. Robert M. Davenport, Jr.

The Trust for Public Land

Ms. Cindy Dawson

Friends of Mountain Creek

Mr. Jim Farmer

President
North Chickamauga Creek Conservancy

Mr. Steve Fry

Ms. Pamela Glaser

Regional Planning Agency

Ms. Linda B. Harris

Tennessee Valley Authority

Mr. Rob Healy

Administrator
City of Chattanooga

Ms. Donna Hertlein

Executive Director
Lookout Mountain Land Trust

Ms. Linda Hixon

Cumberland Trail Conference

Mr. R. C. Hoff

Regional Planning Agency

Mr. Dave Hopkins

Executive Director
Reflection Riding

Ms. Karen Hundt

Regional Planning Agency

Mr. Jeffrey Hunter

Southern Appalachians Initiative
American Hiking Society

Mr. Milton L. Jackson

South Chattanooga Greenway Alliance

Ms. Tricia King

City of Chattanooga

Dr. Neil Kjos

Chairman
Lookout Valley Beautification Committee

Ms. Sandy Kurtz

South Chickamauga Creek Greenway Alliance

Ms. Lynda Logan

Chattanooga Audubon Society

Mr. Phillip Lynn

Mr. Bruce McDuffie

South Chattanooga Greenway Alliance

Ms. Vanessa Mercer

Crabtree Farms

Mr. Jay Mills

Friends of Moccasin Bend National Park

Mr. Eric Myers

Principal Urban Designer
Polis Studio

The Honorable Dan B. Page

City Councilman, District III
Chattanooga City Council

Mr. Jeff Pfitzer

Manager of Capital Planning
City of Chattanooga

Mr. Philip Pugliese

Bike Task Force

Mr. Patrick H. Reed

Superintendent
National Park Service

Mr. Bob Shepard

South Chickamauga Creek Greenway Alliance

Mrs. Mattie C. Shoulders

South Chattanooga Greenway Alliance

Ms. Melissa Taylor

Regional Planning Agency

Mr. Brent C. Warner

St. Elmo Improvement League

Mr. Jim Wigley

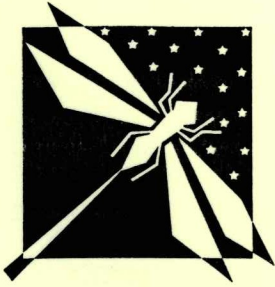
Riverpark Superintendent
Hamilton County Parks & Recreation

Mr. Rick Wood

Project Manager
The Trust for Public Land

Ms. Aleeta Zeller

Regional Planning Agency



GREENWAYS TASK FORCE MISSION STATEMENT

February 2004

The mission of the Greenways Task Force is to promote a system of greenways, trails, parks and other green spaces in order to encourage a healthy community, to provide alternative transportation choices, and to preserve and enhance the natural treasures and environmental resources of the greater Chattanooga Area.

The Task Force is committed to:

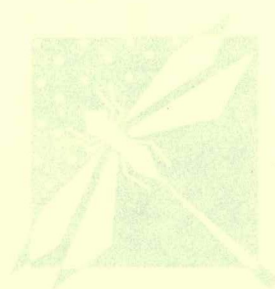
1. Lead and support efforts to plan, design, implement, and fund greenways and related facilities as part of the comprehensive greenspace system.
2. Provide public perspectives to all levels of government on issues ranging from conservation and best management practices to funding and policy-making.
3. Working with all levels of governments to provide expertise and public perspectives on sensitive issues as well as provide progress reports and other needed input.
4. Collaborate with entities that also promote health, active living, neighborhood revitalization, conservation, environmental protection, park development, and related topics.
5. Serve as a clearinghouse for information related to local greenway efforts.
6. Provide members an opportunity to network and learn about area resources.

Staff support for the Greenways Task Force is provided by The Trust for Public Land.

Some of the neighborhoods touched by the Greenway Master Plan include:

Riverpark/University Greenway

Battery Place
East Chattanooga
Fortwood
North Chattanooga
Riverside Park



South Chickamauga Creek Greenway

Battery Heights
Brainerd
Cherokee Woods
Chickamauga Heights
East Chattanooga
Gaylan Heights
King Oak
Kingspoint
Ridgeview
Rollingwood
Woodmore

North Chickamauga Creek Greenway

Arbor Creek
Crescent Garden
Hamillville
Hixson
Preston's Station
Stage Run
Valleybrook

N. Chick Creek Greenway Extension to Rivermont:

Fairfield Hills
Lupton City
Rivermont
Stuart Heights

Chattanooga Creek/Safewalk

Alton Park
Piney Woods
Southside Gardens
South Broad

Guild/Hardy Trail

Lookout Mountain
South Broad
St. Elmo

Lookout Creek

Tiftonia
Wauhatchie