



FINAL REPORT

TENNESSEE LONG-RANGE TRANSPORTATION PLAN

GOALS, OBJECTIVES, AND POLICIES

DECEMBER 2005



Prepared by
The PBS&J Consultant Team



Tennessee Long-Range Transportation Plan

**Goals, Objectives, and Policies
Final Report**

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Executive Summary

The mission of the Tennessee Department of Transportation (TDOT) is to plan, implement, maintain, and manage an integrated transportation system for the movement of people and products, with emphasis on quality, safety, efficiency, and the environment. Like many transportation agencies of the 21st century, TDOT faces the challenges of a complex enterprise that embraces a diversity of stakeholders, focuses on systemic improvement as well as individual project completion, and strives to serve the millions of people who use the system daily. Specifically, population growth, land use and development patterns, economic expansion, and environmental and energy issues will all contribute to a major increase in the demand for varied transportation services in Tennessee. Based on these trends, TDOT's main challenge will be to maintain and preserve the existing transportation system while implementing system improvements to serve growing needs. TDOT has therefore commissioned the development of a Long-Range Transportation Plan (LRTP) that will outline a 25-year transportation vision for the state. This long-range vision will be linked to a 10-year plan for strategic transportation programs and investments and an annually updated 3-year program of specific transportation projects. The LRTP analyzes the state's existing and future transportation needs at a statewide multimodal level. The assessment includes all modes of transportation: highway, rail, public transportation, ports and waterways, aviation, bicycle, and pedestrian.

ES.1 Role of Goals, Objectives, and Policies

One of the first steps in the long-range planning process is for the state and its stakeholders to agree on a set of Guiding Principles that will shape the state's actions over the long term. Guiding principles are simply overarching standards that the state values and which federal surface transportation legislation, Transportation Equity Act of the 21st Century (TEA-21), endorses. Using input from the public and other stakeholders, goal statements have been drafted. These goal statements are consistent with the Guiding Principles and represent the long-term end toward which programs and activities are ultimately directed. Objectives were also drafted to provide specific intermediate ends that mark progress toward meeting the goals. Ultimately, specific policies derived from these principles and goals will guide Tennessee's future transportation investments.

The establishment of goals, objectives, and policies is important because they provide a statewide response to identified long-term challenges and opportunities. Recognizing the amount of growth and change anticipated in the next 25 years, the goals, objectives, and policies will be the road map to achieve the state's vision. To ensure successful long-term implementation of the LRTP's goals, objectives, and policies, an evaluation and continuous monitoring process must be established with a set of performance measures to identify those programs having the greatest impact on meeting the state's long-term vision.

ES.2 Development of Goals, Objectives, and Policies

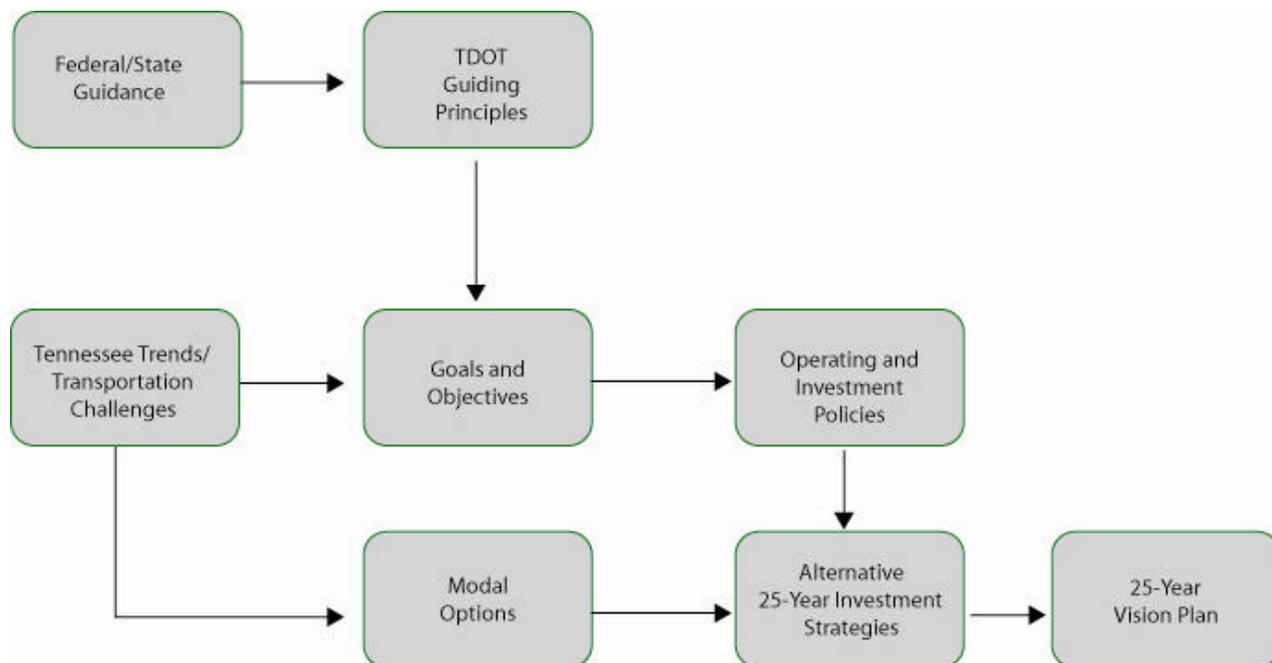
Federal and state guidelines provided a baseline from which to establish Guiding Principles, goals, objectives, and policies. Both sets of guidelines address issues relating to safety, mobility, economic development, the environment, and current system preservation. These guidelines

were supplemented with information from peer states, other regional and state plans, and existing modal plans for Tennessee. Modal plans refer to specific plans developed for TDOT that outline the needs within various transportation services and activities such as aviation, rail, and transit. Each modal plan outlined certain goals, objectives, and policies for their respective area. Peer state plans refer to statewide planning processes completed in states with similar population sizes, transportation facilities, and growth challenges. The peer state plans reviewed were Florida, Maryland, North Carolina, Washington, and Wisconsin. Regional and state plans refer to Metropolitan Planning Organizations, Economic Development Districts, and other agencies that in their long-range planning processes also develop goals, objectives, and policies. Finally, and most importantly, the public was given an opportunity to help draft the statewide goals, objectives, and policies through participation in Regional Working Groups, public meetings, and a Statewide Steering Committee, and by responding to surveys.

This Goals, Objectives, and Policies report is one in a series of reference documents that should be consulted to help users of the Tennessee transportation network in making choices about its future. This report provides an overview of the federal and state transportation planning regulatory requirements and presents the Guiding Principles, goals, objectives, and policies for continued public consideration.

Generally, the process for developing goals and objectives and for using those goals to define and evaluate alternatives is shown below.

Goals and Objectives Development Process



ES.3 Long-Range Transportation Plan Goals and Objectives

In response to identified social and economic trends and the resultant transportation challenges, TDOT has proposed a series of goals and objectives that, if realized, should create a transportation system that will efficiently move people and freight, provide mobility options, and preserve critical infrastructure. These goals and objectives will serve to drive the definition of long-term investment strategies, develop performance measures by which the extent of goals achievement can be measured, and identify project evaluation criteria by which short-term projects will be prioritized. The LRTP goals and objectives are shown in Table ES-1.

ES.4 Implementing Policies

Policies are the principles or procedures established by an agency, institution, or government, generally with the intent of reaching a long-term goal. The final task of the goals, objectives, and policies element of the LRTP was to develop and recommend policies by which TDOT could implement its adopted goals and objectives.

Building upon the Guiding Principles, goals, and objectives, policy statements that could define how TDOT invests its funds in transportation infrastructure and service and how it operates to develop those infrastructure projects and services were developed. These proposed policies are shown in Table ES-2. The policies were drafted and reviewed by stakeholders as part of the public involvement process. The statements are written to reflect TDOT's intent and implementation strategy as it pursues LRTP goals and objectives in the coming years.

Table ES-1. Guiding Principles, Goals, and Objectives

Guiding Principle	Goal	Objectives
Preserve and Manage the Existing Transportation System	Maintain the efficiency, integrity, and effectiveness of the existing transportation system.	<p>Develop cost-effective management and operation strategies to extend life of existing roads, bridges, railroad crossings, public transportation facilities, and other transportation equipment and assets.</p> <p>Use new technologies and other strategies to move people and freight faster and more safely throughout existing transportation network.</p>
Move a Growing, Diverse, and Active Population	Provide the transportation resources and services necessary to optimize the movement of people and goods by providing greater access to transportation services and better connections between different transportation modes.	<p>Increase mobility for all people, including traditionally underserved populations, by supporting different modes of transportation appropriate to density, employment, and land use patterns.</p> <p>Implement affordable strategies that reduce bottlenecks, congestion, and travel times for all modes.</p> <p>Provide the appropriate facilities to improve connections between airports, bicycles, highways, pedestrians, public transportation, railways, and waterways.</p>

Table ES-1. Guiding Principles, Goals, and Objectives (Continued)

Guiding Principle	Goal	Objectives
Support the State's Economy	Make transportation investments to support economic growth, economic competitiveness, and tourism in Tennessee.	<p>Provide aviation, highway, public transportation, rail, and waterway capacity to meet interstate and intrastate passenger and freight traffic needs.</p> <p>Ensure infrastructure and transportation services are available to increase access to employment opportunities.</p> <p>Through partnerships of communities and regions, make transportation investments that support economic development by linking commercial/retail areas, tourist destinations, and other activity centers.</p>
Maximize Safety and Security	Provide a safe and secure transportation system for residents, visitors, and commerce.	<p>Reduce injuries, fatalities, and property damage in all modes of transportation.</p> <p>Minimize security risks at airports, water ports, rail stations, rest areas, roadways, bikeways, and public transportation facilities throughout the state.</p> <p>Improve disaster, emergency, and incident response preparedness and recovery.</p> <p>Minimize construction-related safety impacts.</p> <p>Assess security vulnerabilities and create redundancies where applicable in all modes.</p>
Build Partnerships for Livable Communities	Establish strong, ongoing collaborative partnerships with other state and federal agencies, city and county governments, and regional organizations.	<p>Provide timely and early opportunities for comprehensive public input into the development of plans and programs.</p> <p>Establish regular collaborative decision making opportunities with Metropolitan Planning Organizations, Economic Development Districts, cities, and counties to develop plans and programs and increase coordination of land use and transportation.</p> <p>Collaborate with other state and local agency efforts and/or private sector efforts to enhance the transportation system.</p>

Table ES-1. Guiding Principles, Goals, and Objectives (Continued)

Guiding Principle	Goal	Objectives
Promote Stewardship of the Environment	Protect, preserve, and enhance the social, historic, and natural environments of the state.	<p>Develop transportation infrastructure and services that minimize adverse impacts to people, communities, and cultural and historical resources.</p> <p>Implement transportation strategies that minimize impacts to natural resources and that conserve energy.</p> <p>Develop a transportation network that minimizes land consumption, including the reuse or redevelopment of areas.</p>
Emphasize Financial Responsibility	Provide responsibility, accountability, and sustainability in the expenditure of transportation funds to produce tangible transportation benefits with minimal waste, and maximize the use of available transportation resources.	<p>Increase Tennessee's share of federal transportation funding.</p> <p>Select and program projects, in all modes of transportation, based on identified regional needs and effectiveness.</p> <p>Develop alternative funding strategies for transportation investments.</p> <p>Monitor and report to the public transportation system investment and performance.</p> <p>Allow flexibility in local management of projects where feasible.</p>

Table ES-2. Proposed Policies

A.	Actively engage minority and disadvantaged communities in identifying transportation needs, developing alternative strategies to meet those needs, and implementing solutions that are affordable and sensitive to a community's heritage and supportive of local economic institutions.
B.	Build new and stronger partnerships, public and private, to develop and finance transportation projects that maximize public investments and support community and regional growth strategies.
C.	Consider alternative transportation solutions to relieve congestion and accommodate customer choice for movement of people, goods, and freight in high-growth corridors.
D.	Coordinate transportation investment strategies with other state agencies to support balanced economic growth across Tennessee with particular focus on tourism and similar industries that are highly dependent on the transportation system.
E.	Demonstrate leadership in environmental stewardship by reducing TDOT fleet emissions and fuel consumption, increasing TDOT's use of non-petroleum fuels and technologies, and improving public awareness of these efforts.
F.	Develop and use robust management and performance monitoring systems to evaluate the condition and performance of statewide transportation assets and incorporate techniques to extend service life and quality.
G.	Efficiently manage the existing transportation system by reducing delay and congestion caused by weather events and incidents and by implementing intelligent transportation systems and relatively low-cost improvements such as signal operation and maintenance and travel demand management.
H.	Ensure that all planning studies and design standards for future facilities incorporate specific features that are known to reduce crashes, fatalities, or injuries.
I.	Systematically and periodically seek customer input about Tennessee's transportation system; follow strategies in TDOT's Public Involvement Plan for evaluating and prioritizing transportation projects and services across all modes, understanding that decisions will be made in accordance with adopted professional standards.
J.	Identify and build high-impact projects that connect transportation modes seamlessly so that people and freight can move efficiently around and through the state. Coordinate projects with surrounding states.
K.	Identify and rank critical transportation assets and their vulnerabilities; develop plans and strategies to protect these assets and/or minimize the consequences of potential threats or disasters.
L.	Identify, protect, and/or acquire future right-of-way as early as possible to minimize negative impacts on communities and the natural environment.
M.	Improve access to all modes in the transportation system.
N.	Improve the real-time information available to travelers, freight carriers, pilots, and TDOT personnel.
O.	Improve the well-being of rural Tennessee by building critical highway links, increasing rural transit operations, and expanding bicycle and pedestrian opportunities.
P.	Invest resources so that preservation of existing system assets in all modes receives the highest priority in annual and multi-year budgeting and programming processes.
Q.	Minimize impacts of construction and major maintenance activities on traffic flow, especially during peak-period travel, and promote safety for work crews and the traveling public.

Table ES-2. Proposed Policies (Continued)

R.	Promote and implement Context Sensitive Solutions, taking into consideration safety, mobility, community, and environmental goals in all projects.
S.	Promote competitive freight options by improving existing transportation facilities in strategic corridors.
T.	Reduce the impact of transportation facilities on air and water quality, watersheds, and ecosystems, working to identify and avoid or mitigate impacts to irreplaceable natural resources.
U.	Seek consistency among local land use policies and strategies, TDOT's efforts to manage access and provide transportation choices, and the state's efforts to preserve and protect private and public open space.
V.	Strengthen partnerships with the Department of Safety, local law enforcement and safety agencies, safety advocates, and legislative leaders to enact and enforce appropriate and effective safety laws; deploy at strategic locations technologies and safety systems that have demonstrated benefits.
W.	Support ridesharing programs, park-and-ride programs, telecommuting programs, and transit benefit programs to increase peak-period travel options and reduce the rate of growth of vehicle miles traveled.
X.	Target the highest risk locations and/or segments for system safety, including large truck safety and driver safety programs focused on high risk groups such as teenagers and seniors.

Contents

	Page
Executive Summary	i
Glossary of Terms	ix
1. Introduction.....	1
2. Transportation Planning Guidelines	3
2.1. Federal Guidelines	3
2.2. State Guidelines	4
2.3. Tennessee Long-Range Transportation Plan Guiding Principles	4
3. Tennessee Context for Goals and Objectives	5
3.1. Tennessee Transportation Trends and Challenges.....	5
3.2. Regional and State Plan Goals and Policies	10
3.2.1. Metropolitan Planning Organization Goals	10
3.2.2. Other Regional and State Plan Goals and Policies	11
3.3. Existing Modal Plans	12
3.4. Peer State Plans	13
4. Guiding Principles, Goals, and Objectives	15
5. Policy Development	18
6. Public Participation.....	21
7. Next Steps	22
7.1. Performance Measures	22
7.2. Performance Measures and Plan Implementation.....	22

Tables

1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee.....	6
2. Guiding Principles, Goals, and Objectives	15
3. Proposed Policies	19

Appendices

A. Comparison of Metropolitan Planning Organization Plans	A-1
B. Comparison of Existing Modal Plans	B-1
C. Comparison of Statewide Plans	C-1

Glossary of Terms

Air Quality Conformity

The Clean Air Act of 1990, as amended, established specific allowances for air pollution in each state. In addition to allowances for point source pollution emissions from utilities such as power plants, the Act also established allowances for emissions of mobile sources such as those emitted from vehicles. To meet the overall statewide air quality targets, a “budget allowance” for vehicle emissions of oxides of nitrogen and volatile organic compounds is set. Metropolitan Planning Organizations and the state must regularly verify to the federal government that these allowances have not been exceeded.

Economic Development District (EDD)

An agency responsible for furthering economic development opportunities in both urbanized and non-urbanized areas of the state. Tennessee has nine EDDs.

Federal Aviation Administration (FAA)

The federal agency responsible for aviation safety and other rules and regulations relating to aviation. The FAA provides funding to states and local governments for rehabilitation of airport facilities, pavement, maintenance, upgrades, and new construction. It also provides guidance on maximizing safety and adequate traffic control.

Federal Highway Administration (FHWA)

The federal agency responsible for administering roadway programs and funds. The FHWA implements transportation legislation approved at the congressional level that appropriates all federal funds to states and local governments. The FHWA works closely with state departments of transportation.

Federal Transit Administration (FTA)

The federal agency responsible for administering transit programs and funds. The FTA works with state and local governments to select new transit systems for implementation and guides capital, operating, and transit methodology decisions.

Goal

A long-term end toward which all programs and activities are aimed.

Guiding Principle

Overarching focus area that represents Tennessee Department of Transportation values.

Incident Management Plan

A plan that outlines strategies for clearing incidents quickly to prevent highway congestion. An incident can be a vehicle crash or stall on a highway or interstate.

Intelligent Transportation System (ITS)

Activities that enable the transportation system to operate more efficiently, such as the use of variable message signs, cameras, and transportation control centers that are used to manage

traffic congestion. ITS is also implemented to maximize the use of transit via “smart” cards and signal prioritization for buses along arterials and high-occupancy vehicle lanes on highways.

Long-Range Transportation Plan (LRTP)

The end product of a process of assessing existing and future transportation needs for every mode of transportation by technical, system-wide evaluation and public input.

Metropolitan Planning Organization (MPO)

A government agency responsible for transportation planning in urban areas with populations over 50,000. MPOs are mandated by federal legislation. Tennessee has 11 MPOs.

Modal Plan

A mode is a specific transportation service such as aviation, bicycle/pedestrian, highway, public transportation, rail, and waterways. Modal plans specify needs within each transportation service.

Multimodal

More than one type of transportation service.

Objective

A specific end that marks progress toward meeting a goal.

Performance Measures

Indicators of transportation system performance that are related to important issues or concerns of those making investment decisions. These measures can be used as a means of providing accountability on transportation spending and often are used as part of the criteria to select projects or strategies.

Policy

The principles, plans, or procedures established by an agency, institution, or government, generally with the intent of reaching a long-term goal.

Statewide Transportation Improvement Program (STIP)

A short-range (3- to 5-year) list of funded transportation projects scheduled for implementation.

Traditionally Underserved Populations

Minority, elderly, and low-income populations that in the past may have had challenges with accessing transportation services.

Transportation Equity Act for the 21st Century (TEA-21)

The federal legislation that in 1998 authorized a national surface transportation funding program for a 6-year period and established rules and regulations by which expenditures are made. TEA-21 includes goals and policies that all states must address.

Chapter 1

Introduction

The purpose of this report is to define goals, objectives, and policies that reflect the values of the State of Tennessee and the challenges facing the state in providing a transportation infrastructure and transportation services for current and future residents. These goals are the basic building blocks for developing Tennessee's Long-Range Transportation Plan (LRTP).

To develop these goals, federal, state, and local guidelines were reviewed to assure statewide consistency. Goals adopted by other state, regional, and local transportation agencies were also examined.

To promote consistency with local preferences, the goals and objectives were presented at public forums and were shaped by public response. A summary of the public comments and how they were incorporated into the development of the goals and objectives is provided in this report.

In addition to creating a consistent statewide approach, establishing goals, objectives, and policies during the LRTP process is important because they should relate to the state's long-term transportation challenges and opportunities. As such, they form the road map to achieve the state's vision, given the anticipated growth over the next 25 years. This report describes how each of the goals, objectives, and policies respond to identified challenges or opportunities.

Before this multimodal LRTP was developed, modal needs plans specific to transportation services (such as aviation, rail, transit, and bicycle and pedestrian) were created for the Tennessee Department of Transportation (TDOT). During the needs identification process, goals and objectives specific to each transportation mode were identified. This report summarizes the similarities between the statewide goals, objectives, and policies, and those embodied in the modal plans. This report also discusses the general themes and principles represented in the statewide goals that address all modes.

To refine the statewide goals, objectives, and policies, and to include innovative opportunities in the planning process, several peer state plans were reviewed to assure that the TDOT LRTP conformed to "state-of-the-practice" long-range planning strategies. The peer state review summary compares TDOT's standing among peer state plans and identifies future opportunities for the continued development of plans and programs that are consistent with the LRTP goals.

Finally, for the successful long-term implementation of the LRTP's recommended programs and policies, an evaluation and continuous monitoring process must be established. The next steps in the LRTP process will be to develop performance measures that will both identify those programs having the desired impact on meeting the state's long-term vision and those where new or modified approaches may be necessary to achieve that vision. Policies that describe how the state invests its resources and how TDOT conducts its business are also discussed in this report.

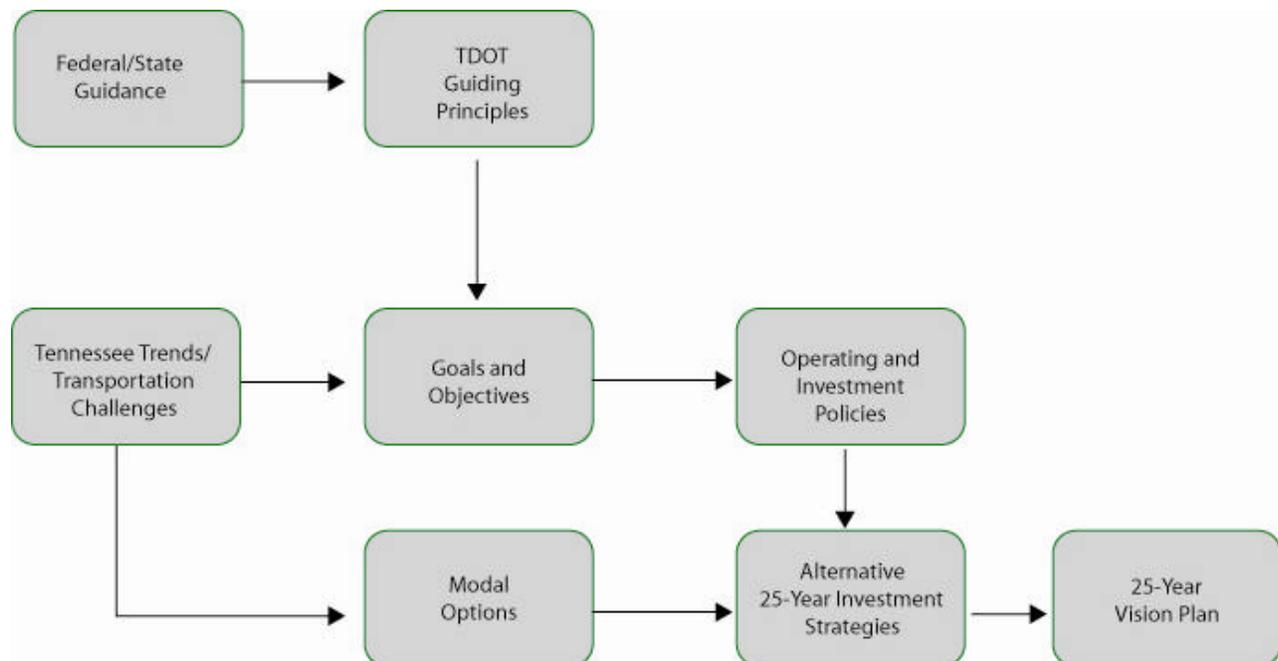
The first steps in the LRTP process brought TDOT and its stakeholders to an understanding of the core principles that will help guide TDOT's actions over the long term, provided specific intermediate objectives that mark progress in meeting the long-term goals, and established

policies that define how programs and activities are conducted to achieve identified goals. Ultimately, these policies will guide the state’s future transportation investments in the long-range (25-year), intermediate-range (10-year), and short-range programs (3-year State Transportation Improvement Program).

The LRTP vision emphasizes linkages among transportation choices and other economic and social goals of Tennessee, such as fostering a robust state economy linked to global markets, providing affordable housing, revitalizing Tennessee’s urban and rural areas, promoting a sense of community, and preserving natural areas and open space.

The proposed Guiding Principles are designed to describe the foundation for Tennessee’s transportation system. The goals are broad concepts that, when realized, will create the state transportation system embodied in the LRTP. The objectives nested within each goal are specific, achievable improvements that advance a particular goal. When linked with performance monitoring systems, they will form the basis for evaluating progress in implementing the plan and moving Tennessee toward its goals and the “Vision for 2030.”

The relationship of the Guiding Principles to the goals and objectives is shown below.



Chapter 2

Transportation Planning Guidelines

The TDOT LRTP must be responsive to both federal guidelines and state regulations; both of these serve to form a framework for the plan and to define the basic plan content.

2.1 Federal Guidelines

In providing mobility for people and goods, all levels of government are confronted with a rapidly changing environment and constraints. The Transportation Equity Act for the 21st Century (TEA-21), coupled with the Clean Air Act Amendments of 1990, provide an impetus for change in transportation planning and project implementation. This legislation directed the focus of transportation planning away from providing capacity for vehicles to efficiency for multimodal movement of people and goods, use of management systems in decision making, an enhanced role for Metropolitan Planning Organizations (MPO), air quality considerations, and similar elements.

Statewide and metropolitan transportation planning processes, required if federal highway or transit funds are used for transportation investments, are specified by federal law (23 USC 134 and 135). These federal planning regulations are codified in 23 CFR 450.

Statewide transportation plans integrate planning for multiple transportation modes to balance the mobility needs of the state with future revenue sources. To support this requirement, the Federal Highway Administration and the Federal Transit Administration have issued statewide transportation planning guidelines. These guidelines identify the following seven factors to be addressed in statewide plans:

- Support the economic vitality of the nation, the state, and metropolitan areas, particularly by enabling global competitiveness, productivity, and efficiency.
- Increase the safety and security of the transportation system for both motorized and non-motorized users.
- Increase the accessibility and mobility options available to people and for freight.
- Protect and enhance the environment, promote energy conservation, and improve the quality of life.
- Enhance the integration and connectivity of the transportation system, across and between modes, throughout the state, for people and freight.
- Promote efficient systems management and operation.
- Emphasize the preservation of the existing transportation system.

The federal guidelines provide latitude to accommodate individual state needs and experiences. In creating its own set of Guiding Principles, TDOT has adopted these guidelines and planning factors to suit its own unique circumstances. This convergence is described in this report.

2.2 State Guidelines

State regulation (TCA 4-3-2303[13]) requires that TDOT prepare a “long-range and coordinated statewide transportation plan with specific plans, goals, and performance criteria for all transportation modes,” and revise that plan every 2 years. This statewide transportation plan should be the basis for recommending projects for funding in the annual budgeting process.

TDOT has not revised its LRTP since 1994; as a result, state highway projects have been identified from year to year based on internal TDOT priority-setting discussions. Without an updated LRTP, TDOT has been subject to criticism from officials and the public who believe that transportation decisions are not based on objective criteria and identified needs, and to concerns that TDOT does not effectively spend state and federal funds for transportation purposes.

TDOT is also required to work closely with local county road departments, public transportation agencies, airport authorities, and other public and private organizations to coordinate transportation facilities and services in Tennessee (TCA 4-3-2303 [12]). This working relationship is extended to the state’s 11 MPOs: Bristol, Chattanooga, Clarksville, Cleveland, Jackson, Johnson City, Kingsport, Knoxville, Lakeway, Memphis, and Nashville.

Part of the LRTP effort has been to identify ways to strengthen and enhance TDOT’s partnership with these other public and private entities so that Tennessee’s overall transportation enterprise advances as rapidly as possible. Without such strong partnerships, TDOT cannot meet the spirit or the letter of the regulations cited above.

2.3 Tennessee’s Long-Range Transportation Plan Guiding Principles

Reflecting both the federal and state guidance, TDOT has identified a set of Guiding Principles, which the Department has come to view as the basic building blocks for the LRTP. From these Guiding Principles, goals, objectives, and policies have been derived, also reflecting perceived trends and resulting challenges. The Guiding Principles are also helping to shape performance measures and the alternative investment scenarios that will shape the 25-Year Vision Plan. The seven Guiding Principles of the Tennessee LRTP are:

- Preserve and Manage the Existing Transportation System
- Move a Growing, Diverse, and Active Population
- Support the State’s Economy
- Maximize Safety and Security
- Build Partnerships for Livable Communities
- Promote Stewardship of the Environment
- Emphasize Financial Responsibility

Chapter 3

Tennessee Context for Goals and Objectives

To create a context for the development of LRTP goals and objectives, and to reflect the Guiding Principles defined in Section 2.3, it is helpful to draw on the work of other states that have recently completed their statewide planning process. Similarly, the goals should reflect the transportation challenges facing Tennessee, and to the extent practical, should reflect and build upon the work done by the planning agencies of the state and by TDOT itself.

In preparing the draft goals and objectives, LRTPs for five peer states were reviewed. Several elements of those plans (relating to efficiency, mobility, and safety) are highlighted, and several applicable sections were incorporated in the TDOT statewide goals. Other significant planning documents at the state and regional level were also reviewed to ensure consistency with the multimodal transportation system vision. These documents included mode-specific plans recently completed for TDOT. Finally, state MPO transportation planning documents were reviewed to make certain that the statewide initiatives were consistent with current MPO plans.

3.1 Tennessee Transportation Trends and Challenges

The proposed TDOT Guiding Principles, goals, and objectives help to express a statewide vision, reach beyond the minimum state and federal planning guidelines, and respond specifically to identified state social and economic trends and the transportation challenges and opportunities posed by those trends.

As part of the Challenges and Opportunities element of this study, TDOT examined trends likely to influence the extent and magnitude of transportation services required to drive the state's economy and to meet social mobility needs. Trends were identified in the following areas:

- Demographics and Income
- Employment
- Personal Transportation
- Goods Movement
- Technology
- Land Use
- Energy
- Air Quality
- Financial Resources

These trends, and the challenges they imply, are documented in the Challenges and Opportunities report. Table 1 summarizes the trends that were observed and the associated challenges that must be addressed.

Table 1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee

Demographic and Income Trends	Challenges
<p>Overall population growth both within the state and in surrounding states will continue to make increasing demands on the state's transportation system.</p>	<p>Maintaining and preserving the transportation network for current and future generations.</p> <p>Balancing the demands of high-growth suburban areas with the economic development needs of lower-growth rural areas and central cities.</p> <p>Improving limited infrastructure.</p> <p>Coordinating highway improvements into neighboring states.</p>
<p>Population growth in suburban and rural areas and the dispersed development patterns that require longer travel distances to meet daily needs will create greater demand for transportation services.</p>	<p>Improving the effectiveness and efficiency of the transportation system.</p>
<p>Tennessee's population will become more diverse and continue to age, with increasing numbers of older adults unable to rely on a personal automobile and who will require improved transportation options.</p>	<p>Meeting the transportation needs of a diverse population such as the elderly, youth, low-income persons, and persons with disabilities.</p> <p>Recognizing how future trends may vary from straight-line projections.</p> <p>Providing more project information and public involvement for elderly, young, disabled, and non-English speaking groups.</p> <p>Recognizing the shift from manufacturing to service employment that is resulting in changing regional needs.</p>
Employment Trends	Challenges
<p>Suburban job expansion will increase reverse commute levels, generating bi-directional, peak-hour highway congestion and accentuating the need for suburban job access for workers residing in center cities.</p>	<p>Developing a program that encourages mode choice changes; one that reduces number of commuters driving alone and increases the use of public transportation, walking, bicycling, and carpooling.</p> <p>Creating employment opportunities closer to population centers.</p> <p>Creating employment opportunities in counties with high unemployment rates.</p> <p>Addressing intercounty commuting patterns, which are creating some of the longest commute distances in the country.</p> <p>Addressing different travel patterns for employees and visitors around tourist destinations.</p> <p>Decreasing traditional work hours creates a strain on public transportation (e.g., shift work hours at restaurants).</p>

Table 1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee (Continued)

Personal Transportation Trends	Challenges
<p>Both nationally and within Tennessee, the average annual number of miles that vehicles travel each day continues to grow. People drive longer distances and make more trips. In Tennessee, suburb-to-suburb and other long-distance commuting trips have exacerbated peak-period congestion.</p>	<p>Slowing growth in vehicle miles traveled per capita over time.</p> <p>Managing congestion on the state's busiest stretches of highways through traffic and roadway monitoring, incident management, traveler information, traffic management, and system integration and communication.</p> <p>Improving the quality of life for users of the transportation network and those affected by its use.</p> <p>Providing convenient and safe transportation alternatives, such as bicycle and pedestrian facilities with access to major routes.</p> <p>Reducing congestion caused by farm equipment on narrow roads.</p> <p>Associating cars with independence.</p> <p>Providing safe routes to schools.</p> <p>Competing with goods movements; truck volume and lane sharing.</p>
<p>Public transportation systems, while their riderships are increasing, are moving a smaller percentage of the state's total travelers.</p>	<p>Increasing public transportation ridership to 90 million trips per year by 2025.</p> <p>Providing mobility and accessibility with transportation choices.</p> <p>Programming necessary capital funds over the next 25 years to expand the public transportation service market.</p> <p>Changing the mindset of the public about their choices in transportation through public education.</p> <p>Making public transportation faster, more convenient, and comfortable.</p> <p>Making public transportation safer and perceived as being safer.</p> <p>Accommodating the needs of commuters and tourists on light rail and trolley projects where appropriate or feasible.</p> <p>Overcoming gaps in the transportation system that discourage public transportation use.</p> <p>Addressing the cost effectiveness of public transportation in rural areas.</p>
<p>The dominance of low-density suburban development patterns will make walking and bicycling more difficult without changes in the way transportation facilities are built to serve those developments.</p>	<p>Providing technical assistance to local communities in establishing bicycle and pedestrian guidelines as an alternative transportation mode.</p>

Table 1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee (Continued)

Goods Movement Trends	Challenges
<p>Tennessee will continue to serve as a conduit for interstate and international freight and goods movement. The role of heavy trucks is expected to increase, adding to highway congestion and maintenance challenges.</p>	<p>Maintaining highway network at acceptable operating levels .</p> <p>Managing the diversion of major highway traffic onto local routes.</p> <p>Improving the process of providing transportation facilities and services not at the expense of the environment.</p> <p>Improving four-lane roads that are restricted to lower speeds within city limits, thus negating their effectiveness.</p> <p>Building bypasses around cities and connectors tying cities to other cities and interstates.</p>
<p>The state’s freight system is becoming more intermodal, increasing the need for efficient connections between various freight movement modes (e.g., truck, rail, water, and air).</p>	<p>Providing adequate vessel berths, cranes, and cargo storage space (open and closed), as well as safe and efficient channels, roadways, and rail networks to accommodate future increases in freight movement.</p> <p>Maintaining security of trucks traveling through urban areas ; reducing truck accidents.</p>
<p>The growth in rail freight traffic and faster trains will raise concerns about grade crossings, traffic delays, and safety.</p>	<p>Determining the role rail freight should play in Tennessee’s transportation and economic future.</p> <p>Developing a policy and program that actively promotes grade crossing safety (e.g., “Operation Lifesaver”); easing rail congestion/conflicts.</p>
<p>With the growth of airfreight service, the use of “just-in-time” inventory practices will increase.</p>	<p>Developing a system of airports, including roads and intermodal freight and passenger connections, to meet future growth demands.</p> <p>Remaining competitive in the national market to strengthen and boost the state’s economy.</p> <p>Re-evaluating funding; TDOT should use tons shipped/area, not just population/area when considering projects.</p> <p>Supporting economic development in rural communities.</p>
Technology Trends	Challenges
<p>High-tech solutions, such as intelligent transportation systems, will continue to evolve for managing transportation systems.</p>	<p>Implementing intelligent transportation systems and traffic incident management infrastructure to facilitate more efficient operations of major transportation investments.</p> <p>Improving voice and data communication for use in emergency situations along primary transportation corridors.</p> <p>Improving integration of transportation system operations management with emergency management operations.</p> <p>Involving emergency management and law enforcement agencies in all stages of transportation planning, design, construction, operations, and maintenance.</p> <p>Improving unsafe rural roads (cars, large farm equipment, and increased traffic).</p> <p>Defining the role and responsibility of technology in handling freight; addressing new technology that creates modes that cause other issues such as sidewalk congestion (scooters).</p>

Table 1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee (Continued)

Land Use Trends	Challenges
<p>As cities lose their prominence as regional centers, commuting patterns have shifted from the suburb-to-city commute to suburb-to-suburb and city-to-suburb commutes. A consequence of the land development pattern and increased automobile use is transportation-related air quality problems. Development patterns often do not recognize the special travel needs of young, elderly, or handicapped persons, or the travel needs of those without automobiles.</p>	<p>Structuring land development plans to minimize sprawl, identify secondary land use impacts, and improve commuting patterns.</p> <p>Designing and coordinating transportation projects that reinforce land use plans and economic development strategies.</p> <p>Forming strong partnerships between local governments to assist local agencies in planning for development, thereby reducing pressures on the transportation system and lessening environmental impact.</p> <p>Preserving farmland and planning transportation infrastructure without dividing farms.</p> <p>Coordinating political input in the project evaluation process.</p> <p>Understanding trade-offs between prime farmland and wetlands in transportation planning.</p> <p>Addressing subdivision development and the demands it places on infrastructure.</p> <p>Improving the connectivity of communities.</p> <p>Addressing large increases in through traffic.</p> <p>Understanding the multi-state character of projects.</p> <p>Improving communication between transportation and land use planners.</p>
Energy Trends	Challenges
<p>Tennessee's transportation system will continue to be driven by petroleum, despite growing global concerns over the supply and price of oil. Increasing cost adversely impacts the budgets of all Tennesseans, and uncertain long-term supplies may affect both personal and commercial travel.</p>	<p>Controlling energy costs to prevent negative impacts to operating budgets for existing and expanded public transportation services.</p> <p>Increasing the efficiency of the transportation networks and enhancing their safety and security and facilitating the use of public transportation.</p> <p>Building infrastructure for alternative energies .</p> <p>Addressing idling trucks and cars (that consume more energy) in congested areas.</p> <p>Providing public education on alternative fuel sources.</p>
Air Quality Trends	Challenges
<p>Tennessee's population growth and the resulting increase in motor vehicle travel have contributed to worsening air quality. Air quality requirements may slow or stop some road projects from being built if the project is located in an urban area that does not currently conform to the allowable air quality emissions.</p>	<p>Reducing transportation's share of total emissions due to traffic and congestion.</p> <p>Improving construction zones that create waste and pollution.</p> <p>Convincing the public to embrace more environmentally friendly habits.</p> <p>Understanding natural constraints, such as topography, that influence air pollution.</p>

Table 1. 25-Year Trends and Transportation Challenges and Opportunities in Tennessee (Continued)

Financial Resource Trends	Challenges
<p>Continued diversion of transportation revenue to support the state's general fund obligations will exacerbate the challenge of meeting transportation needs.</p> <p>Increasing demand for transportation services and for transportation system operation and maintenance will require more flexibility in using available funding and access to new sources of capital funding.</p> <p>As gasoline consumption per unit of transportation begins to drop, changes in technology and the energy supply will likely significantly impact Tennessee's transportation revenues. This will create the need to investigate new sources of transportation revenue.</p>	<p>Identifying needed funding sources through a combination of existing revenues, increased federal dollars, and prudent cash management and gradual revenue increases.</p> <p>Funding identified improvements by not decreasing the funds available for other support programs.</p> <p>Developing regional funding strategies for projects.</p> <p>Considering geographical challenges that cause some portions of the state to require more capital for transportation projects.</p>

3.2 Regional and State Plan Goals and Policies

The sections below discuss the various regional and state plan goals and policies.

3.2.1 Metropolitan Planning Organization Goals

Pursuant to TEA-21, MPOs are required to prepare LRTPs every 5 years for urbanized areas with populations over 50,000. For MPOs classified in non-attainment of federal air quality standards, the LRTPs are required to be updated every 3 years. As part of the LRTP process, MPOs also develop goals and objectives with input from the public and their respective local government members. The goals are used to measure the MPO area transportation system performance and to guide the programming of projects into the State Transportation Improvement Program. The LRTPs of 10 of Tennessee 11 MPOs were reviewed (the Lakeway MPO did not have an LRTP). Not surprisingly, themes more commonly associated with urbanized areas were more prevalent in MPO plans than in other peer statewide plans. For example:

- MPOs had a greater concentration of bicycle and pedestrian goals and objectives.
- MPO plans commonly referred to the promotion of environmental justice. Environmental justice reaffirms the spirit of Title VI of the Civil Rights Act, which prohibits discrimination in the delivery of services based on race, color, or national origin. Environmental justice policies direct federal agencies, and federal dollar recipients, to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Agencies must avoid adversely affecting these populations; must prevent the denial, reduction, or delay in benefits received; and ensure full and fair participation of affected populations in transportation decision making.

- The MPO plans generally supported objectives and policies that coordinate land use and transportation decisions.

To maximize statewide consistency, many of these themes are addressed in the proposed Guiding Principles, goals, and objectives of the statewide plan. The statewide goals put bicycle and pedestrian issues on an equal footing with other modes, encourage access and connectivity between these facilities and other modes, and specify policies that coordinate state and local efforts to implement these facilities.

To address environmental justice issues, the statewide goal and objectives highlight traditionally underserved populations in the mobility goals and objectives. Additionally, the statewide goals and objectives for building partnerships address the coordination of land use and transportation initiatives. Additional MPO plan information is in Appendix A.

3.2.2 Other Regional and State Plan Goals and Policies

Economic Development Districts

Although Economic Development Districts (EDD) did not have specific long-range transportation plans and written goals for transportation, EDD personnel were interviewed to obtain input into the long-range planning process. The EDDs expressed a desire to connect people in rural areas to employment and activities via four-lane highways. The issue of maximizing connections between modes was prevalent in the overall discussions with EDD personnel. It was also recognized that, in rural areas, public transportation was needed for elderly and minority populations with limited access to transportation services. As in the urban areas, the EDDs were concerned with congestion and its negative impact on economic development. Finally, a recurring issue during the interviews was the desire to reduce truck traffic on highways by diverting freight or goods movement to other modes.

The proposed statewide goals and objectives address issues relating to economic development by proposing an increase in capacity in all modes to reduce congestion and maximize connections between modes. Specifically, under supporting the state's economy, the goals encourage increased funding to address transportation service improvements that impact economic development.

Tennessee State Recreation Plan

The Tennessee State Recreation Plan was prepared for a 5-year period (2003 to 2008) by the Tennessee Department of Environment and Conservation, Recreation Educational Services Division. The primary objectives stated in the Recreation Plan are to preserve and protect the state's natural resources and to promote recreation participation across the state. The goals of the Tennessee LRTP support the Recreation Plan by protecting, preserving, and enhancing the natural, social, and historic environment of the state; making transportation investments to support tourism in the state; and establishing strong, ongoing collaborative partnerships with other state agencies.

The Tennessee Greenways and Trails Plan is a supporting document to the State Recreation Plan. The vision of the Greenways and Trails Plan includes providing for environmental stewardship

and conservation of natural resources and promoting alternative transportation and sustainable growth. The LRTP goals and objectives support this vision of the Greenways and Trails Plan. The Governor's Council Goals for the Greenways and Trails Plan include working with TDOT to establish dedicated full-time greenways and trails support positions within TDOT to provide technical and educational assistance to agencies and organizations implementing the Greenways and Trails Plan.

Tennessee Department of Tourist Development

The 2004–2005 Annual Report and Marketing Plan produced by the Tennessee Department of Tourist Development lists several initiatives implemented in the past year. The initiatives included Strategic Partners, Regional Marketing and Public Relations, and Advertising. These initiatives would be supported by the LRTP by making transportation investments to support tourism in the state.

Tennessee Growth Policy—Public Chapter 1101

In 1998 the General Assembly passed legislation charging local governments with the responsibility of cooperatively shaping growth policy by developing long-range growth plans that established urban growth boundaries, planned growth areas, and rural areas. All 95 counties in the Tennessee have state-approved growth plans. TDOT requires that counties have approved plans in order to receive federal and state funds. Each local government must make land use decisions consistent with the approved growth plans. TDOT policies and programs should be coordinated with the county-adopted growth plans. The TDOT goals and objectives for building partnerships and encouraging land use/transportation coordination can be the framework to establish the coordinating policies necessary to help local governments implement some of their infrastructure improvements consistent with their approved growth plans.

3.3 Existing Modal Plans

TDOT has completed five modal plans in the last 5 years:

- Tennessee Airport System Plan (completed in 2001 and updated in 2005)
- Intelligent Transportation System Strategic Plan (completed in 1998; updated in 2002)
- Tennessee Rail System Plan (completed in 2003)
- Strategic Plan for Highway Incident Management in Tennessee (completed in 2003)
- Tennessee Transit Tomorrow Plan (completed in 2004)

Additionally, the Bicycle and Pedestrian Plan was completed as part of the current LRTP process.

Each modal plan included a needs assessment and specific goals, objectives, and strategies for implementing the respective plan. The proposed statewide overarching goals and objectives naturally emanated from common themes identified in these modal plans. As an example, for supporting the state's economy, the Rail System Plan calls for promoting economic growth and job development within the state. The Airport System Plan addresses reliability, accessibility, and the state's economy.

A goal included in all the modal plans and consistently found in Tennessee's past and current planning practices is to focus on promoting safety throughout the transportation system. The Intelligent Transportation System Strategic Plan calls for improving the safety of the traveling public through freeway service patrol programs and statewide/regionwide incident management systems. The Rail System Plan suggested improving safety by rerouting and bypassing traffic around local municipalities. The Airport System Plan promotes the protection of Federal Aviation Administration (FAA) safety zones. Similarly, the primary goal of the Strategic Plan for Highway Incident Management is to reduce the number and severity of highway incidents.

The Transit Tomorrow Plan addresses environmental issues most frequently. For example, one goal is to increase transit services to improve air quality. Partnerships are also mentioned in the transit plan by encouraging transit-oriented development with support from the public and private sectors. The airport plan, however, is also sensitive to environmental and land use issues and seeks to minimize environmental impacts and non-compatible land uses adjacent to airport facilities.

Many key common phrases found in the modal plans have been translated into the statewide goals and objectives. Collaboration, cooperation, and partnerships are all encouraged in the plans. Strategies include working with local governments and the different regions to achieve desired modal changes statewide. Other common themes include reducing congestion and increasing capacity. These issues are also addressed in the statewide goals relating to improving mobility and providing modal capacity to serve sustained economic growth. Finally, many of the modal plans address efficiency and effectiveness in the delivery of transportation services. These issues are also incorporated in the draft statewide goals, as are goals for financial responsibility and existing system preservation. Additional information on the existing modal plans goals and objectives is in Appendix B.

3.4 Peer State Plans

TDOT identified five peer states (Florida, Maryland, North Carolina, Washington, and Wisconsin) to compare their long-range planning processes. These states were selected based on regional proximity, similarity of population and demographics, and a traditional commitment to long-range planning. The long-range plans were reviewed with special attention on the goals, objectives, and policies development and their implementation process. Four of the five peer state plans had succinct, broad statewide goals and objectives. Policy development was closely tied to short-term strategic plans.

- Florida's LRTP goals relate to safety, existing system management, economic competitiveness, and quality of life. Under quality of life, Florida addressed the long-range plan's compatibility with land use, local and MPO plans, and adjacent communities. Florida completed an extensive public involvement process and collaborated with the MPOs during the development of their statewide plan and their goal setting process. The state used their multimodal goals and objectives to develop a short-term strategic program with specific performance measures that are reviewed annually.

- Maryland's long-range plan concentrates on four core goals: efficiency, mobility, safety and security, and productivity and quality. Efficiency addressed existing system maintenance, mobility focused on building varied modal capacity, safety and security concentrated on meeting federal requirements for transportation facilities, and productivity and quality concentrated on organizational process improvements. Maryland was the only peer state reviewed that included internal process improvements as part of the goal setting process in the LRTP. Maryland also developed their plan with extensive public involvement and used their goals and objectives to develop specific performance measures that are reviewed annually.
- North Carolina recently completed its long-range multimodal planning process and, as with the other peer states, it includes goals for safety, mobility, system preservation, environmental stewardship, fiscal stewardship, coordinated and balanced community growth, and development. Fiscal stewardship goals were found only in the North Carolina plan. North Carolina intends to use performance measures to help with project selection.
- Washington's plan has the most detailed goals and objectives. The plan addresses the basic TEA-21 issues of safety, system preservation, supporting the state's economy, and stewardship of the environment. It also includes goals for building communities by providing for community-based design and collaborative decision making. Washington's is the only plan that specifically addresses water quality, watershed quality, and the reuse and recycling of resource materials in the provision of transportation services. Although the Washington goals do not specifically mention all modes, it is apparent in the plan discussion on overall transportation services that all modes were part of the goal setting process. Washington uses their goals and objectives to produce detailed quarterly performance assessment reports for the public.
- Wisconsin's plan is generally a highway system improvement plan focusing on system preservation, traffic movement, and safety. Although Wisconsin did not focus on specific objectives, they did outline some performance measures, such as bridge ratings and pavement condition ratings, to meet their goals.

Additional examples of peer state plan goals and objectives are in Appendix C.

Chapter 4

Guiding Principles, Goals, and Objectives

The Guiding Principles presented earlier are designed to provide the bedrock foundation for Tennessee’s transportation system. The goals are broad concepts that, when realized, will create the state transportation system embodied in the LRTP. The objectives nested within each goal are more specific, achievable improvements that advance a particular goal. When linked with performance monitoring systems, they will be the basis for evaluating progress in implementing the plan, moving Tennessee toward its goals and the “Vision for 2030.” The Guiding Principles, goals and objectives are shown in Table 2.

Table 2. Guiding Principles, Goals, and Objectives

Guiding Principle	Goal	Objectives
Preserve and Manage the Existing Transportation System	Maintain the efficiency, integrity, and effectiveness of the existing transportation system.	<p>Develop cost-effective management and operation strategies to extend the useful life of existing roads, bridges, railroad crossings, public transportation facilities, and other transportation equipment and assets.</p> <p>Use new technologies and other strategies to move people and freight faster and more safely throughout Tennessee’s existing transportation network.</p>
Move a Growing, Diverse, and Active Population	Provide the transportation resources and services necessary to optimize the movement of people and goods by providing greater access to transportation services and better connections between the different modes of transportation.	<p>Increase mobility for all people, including traditionally underserved populations, by supporting different modes of transportation appropriate to density, employment, and land use patterns across the state.</p> <p>Implement affordable strategies that reduce bottlenecks, congestion, and travel times for all modes.</p> <p>Provide the appropriate facilities for improving connections among airports, bicycles, highways, pedestrians, public transportation, railways, and waterways.</p>

Table 2. Guiding Principles, Goals, and Objectives (Continued)

Guiding Principle	Goal	Objectives
Support the State's Economy	Make transportation investments to support economic growth, economic competitiveness, and tourism in Tennessee.	<p>Provide aviation, highway, public transportation, rail, and waterway capacity to meet interstate and intrastate passenger and freight traffic needs.</p> <p>Ensure infrastructure and transportation services are available to increase access to employment opportunities for Tennessee residents.</p> <p>Through partnerships of communities and regions, make transportation investments that support economic development by linking commercial/retail areas, tourist destinations, and other activity centers.</p>
Maximize Safety and Security	Provide a safe and secure transportation system for residents, visitors, and commerce.	<p>Reduce injuries, fatalities, and property damage in all modes of transportation.</p> <p>Minimize security risks at airports, water ports, rail stations, rest areas, roadways, bikeways, and public transportation facilities throughout the state.</p> <p>Improve disaster, emergency, and incident response preparedness and recovery.</p> <p>Minimize construction-related safety impacts.</p> <p>Assess security vulnerabilities and create redundancies where applicable in all modes.</p>

Table 2. Guiding Principles, Goals, and Objectives (Continued)

Guiding Principle	Goal	Objectives
Build Partnerships for Livable Communities	Establish strong, ongoing collaborative partnerships with other state and federal agencies, city and county governments, and regional organizations.	<p>Provide timely and early opportunities for comprehensive public input into the development of plans and programs.</p> <p>Establish regular collaborative decision making opportunities with MPOs, EDDs, cities, and counties to develop plans and programs and increase coordination of land use and transportation.</p> <p>Identify and collaborate with other state and local agency efforts and/or private sector efforts that enhance the transportation system.</p>
Promote Stewardship of the Environment	Protect, preserve, and enhance the state's social, historic, and natural environment.	<p>Develop transportation infrastructure and services that minimize adverse impacts to people, communities, and cultural and historical resources.</p> <p>Implement transportation strategies that minimize impacts on natural resources and conserve energy.</p> <p>Develop a transportation network that minimizes land consumption, including the reuse/redevelopment of areas.</p>
Emphasize Financial Responsibility	Provide responsibility, accountability, and sustainability in the expenditure of transportation funds to produce tangible transportation benefits with minimal waste, and maximize the use of available transportation resources.	<p>Increase Tennessee's share of federal transportation funding.</p> <p>Select and program projects, in all modes of transportation, based on identified regional needs and effectiveness.</p> <p>Develop alternative funding strategies for transportation investments.</p> <p>Monitor and report transportation system investment and performance to the public.</p> <p>Allow flexibility in local management of projects where feasible.</p>

Chapter 5

Policy Development

Policies are the principles or procedures established by an agency, institution, or government, generally with the intent of reaching a long-term goal. The final element of the Goals, Objectives, and Policies task of the LRTP was to develop and recommend a set of policies by which TDOT could act to implement its adopted goals and objectives.

Building upon the Guiding Principles, goals, and objectives, policy statements that could define how TDOT invests its funds in transportation infrastructure and service and how it operates to develop those infrastructure projects and services were developed. These proposed policies are shown in Table 3. They were drafted and reviewed by study stakeholders as part of the public involvement process. The statements are written to reflect TDOT's intent and implementation strategy as it pursues LRTP goals and objectives in the coming years.

Table 3. Proposed Policies

A.	Actively engage minority and disadvantaged communities in identifying transportation needs, developing alternative strategies to meet those needs, and implementing solutions that are affordable and sensitive to a community's heritage and supportive of local economic institutions.
B.	Build new and stronger partnerships, public and private, to develop and finance transportation projects that maximize public investments and support community and regional growth strategies.
C.	Consider alternative transportation solutions to relieve congestion and accommodate customer choice for movement of people, goods, and freight in high-growth corridors.
D.	Coordinate transportation investment strategies with other state agencies to support balanced economic growth across Tennessee with particular focus on tourism and similar industries that are highly dependent on the transportation system.
E.	Demonstrate leadership in environmental stewardship by reducing TDOT fleet emissions and fuel consumption, increasing TDOT's use of non-petroleum fuels and technologies, and improving public awareness of these efforts.
F.	Develop and use robust management and performance monitoring systems to evaluate the condition and performance of statewide transportation assets, and incorporate techniques to extend service life and quality.
G.	Efficiently manage the existing transportation system by reducing delay and congestion caused by weather events and incidents, and by implementing intelligent transportation systems and relatively low-cost improvements, such as signal operation and maintenance and travel demand management.
H.	Ensure that all planning studies and design standards for future facilities incorporate specific features that are known to reduce crashes, fatalities, or injuries.
I.	Systematically and periodically seek customer input about Tennessee's transportation system; follow strategies in TDOT's Public Involvement Plan for evaluating and prioritizing transportation projects and services across all modes, understanding that decisions will be made in accordance with adopted professional standards.
J.	Identify and build high-impact projects that connect transportation modes seamlessly so that people and freight can move efficiently around and through the state. Coordinate projects with surrounding states.
K.	Identify and rank critical transportation assets and their vulnerabilities; develop plans and strategies to protect these assets and/or minimize the consequences of potential threats or disasters.
L.	Identify, protect, and/or acquire future right-of-way as early as possible to minimize negative impacts on communities and the natural environment.
M.	Improve access to all modes in the transportation system.
N.	Improve the real-time information available to travelers, freight carriers, pilots, and TDOT personnel.
O.	Improve the well-being of rural Tennessee by building critical highway links, increasing rural transit operations, and expanding bicycle and pedestrian opportunities.
P.	Invest resources so that preservation of existing system assets in all modes receives the highest priority in annual and multi-year budgeting and programming processes.
Q.	Minimize impacts of construction and major maintenance activities on traffic flow, especially during peak-period travel, and promote safety for work crews and the traveling public.

Table 3. Proposed Policies (Continued)

R.	Promote and implement Context Sensitive Solutions, taking into consideration safety, mobility, community, and environmental goals in all projects.
S.	Promote competitive freight options by improving existing transportation facilities in strategic corridors.
T.	Reduce the impact of transportation facilities on air and water quality, watersheds, and ecosystems, working to identify and avoid or mitigate impacts to irreplaceable natural resources.
U.	Seek consistency among local land use policies and strategies, TDOT's efforts to manage access and provide transportation choices , and the state's efforts to preserve and protect private and public open space.
V.	Strengthen partnerships with the Department of Safety, local law enforcement and safety agencies, safety advocates, and legislative leaders to enact and enforce appropriate and effective safety laws; deploy at strategic locations, technologies and safety systems that have demonstrated benefits.
W.	Support ridesharing programs, park-and-ride programs, telecommuting programs , and transit benefit programs to increase peak-period travel options and reduce the rate of growth of vehicle miles traveled.
X.	Target the highest risk locations and/or segments for system safety, including large truck safety and driver safety programs focused on high-risk groups such as teenagers and seniors.

Chapter 6

Public Participation

To ensure broad involvement from a range of stakeholders, TDOT created nine Regional Working Groups and a 60-member Statewide Steering Committee. The Regional Working Groups were configured along the geographic boundaries of Tennessee's EDDs.

The nine Regional Working Groups and the Statewide Steering Committee met in September and November of 2004 to discuss and refine the LRTP Guiding Principles, goals, and objectives. The Guiding Principles were generally supported by all groups as a set of overarching guidelines for future transportation investments.

The public input positively improved the proposed goals and objectives. For example, to address mobility, the Regional Working Groups stressed that strategies to reduce bottlenecks and congestion be realistic and affordable. To support the state's economy, the Regional Working Groups recommended that economic partnerships be established between communities and regions of the state. Moreover, to build successful partnerships to create livable communities, the Regional Working Groups felt that private sector efforts must also be included. To promote stewardship of the environment, TDOT included Regional Working Group suggestions on minimizing land consumption while developing transportation improvements and encouraging redevelopment. Finally, for financial responsibility, the Regional Working Groups expressed a strong desire that project selection should include all modes of transportation and that TDOT should allow flexibility in managing projects at the local level.

Similarly, the Statewide Steering Committee also contributed to the refinement of the principles, goals, and objectives. Public comments and suggestions focused on maintaining system performance, expanding modal choices, building new partnerships, and preparing for continued growth in freight movements.

Finally, TDOT received public input at trade fairs, conventions, annual meetings, and other venues where citizens were asked their opinions on issues or concerns about transportation in Tennessee. The TDOT Web site also received a broad range of comments from the public.

Chapter 7

Next Steps

7.1 Performance Measures

The LRTP goals and objectives reflect the input of Tennessee residents and transportation professionals. As a next step, TDOT should identify specific performance measures for each goal. Performance measures are critical tools that can be used to determine whether TDOT is successfully meeting its LRTP goals. Specifically, performance measures are developed to:

- Rate system performance against established benchmarks that define expected performance standards.
- Identify system problems or deficiencies and opportunities for improvement.
- Guide allocation of resources.
- Assess success of resource allocation.

Many states have incorporated performance measures into their transportation planning and program development processes. While the measures differ depending upon the needs and unique circumstances of each state's transportation program, some lessons are relevant; for example:

- The number of performance measures should be kept manageable and maintain a clear purpose (e.g., reflect established goals, objectives, and Guiding Principles). The performance measures should be periodically reviewed for relevance and refined or modified as appropriate to reflect changing economic conditions, new technologies, additional resources, and similar external factors.
- Stakeholders should be involved in the development of performance measures. Stakeholders might include consumers, the transportation private sector, and local or regional government agencies.
- Performance measures should focus on gauging the progress of achieving specific goals and objectives and on improvement measured against established benchmarks.

7.2 Performance Measures and Plan Implementation

Performance measures are critical to the successful implementation of the LRTP for several reasons:

- They are linked closely to selection criteria for future system investment strategies because both are derived from the LRTP Guiding Principles; however, selection criteria are part of the decision making process on individual transportation projects, while performance measures are focused on system-level standards and objectives.

- They are closely linked with performance standards included in TDOT strategic planning processes. Standards are a pre-set threshold level of a given measure (e.g., 75 percent of all bridges within a certain condition).

Once TDOT has established its performance measurement system, it will produce a periodic report card. The system performance results demonstrated by this report card may then be used to revise and update the TDOT 10-Year Strategic Investments Program.

Appendix A

**Comparison of Metropolitan Planning
Organization Plans**

Appendix A

Comparison of Metropolitan Planning Organization Plans

Table A-1 compares the existing Metropolitan Planning Organization (MPO) plans for Jackson, Bristol, Knoxville, Johnson City, and Clarksville/Montgomery County; Table A-2 compares existing MPO plans for Cleveland, Chattanooga, Kingsport, Nashville, and Memphis.

Table A-1. Jackson, Bristol, Knoxville, Johnson City, and Clarksville/Montgomery County MPO Comparisons

TDOT Guiding Principle	Jackson MPO	Bristol MPO	Knoxville MPO	Johnson City MPO	Clarksville/Montgomery County MPO
Support the State's Economy	<p>Goal:</p> <p>Implement a plan that facilitates development, management, and operation of an integrated, intermodal transportation system that enables the safe, efficient, and economical movement of people and goods.</p>	(Not addressed.)	(Not addressed.)	<p>Goal:</p> <p>Support the economic vitality of the metropolitan area, particularly by enabling global competitiveness, productivity, and efficiency.</p>	(Not addressed.)
Maximize Safety and Security	<p>Objective :</p> <p>Undertake a program of safety and drug control within the transit operation.</p>	<p>Goal:</p> <p>User safety.</p> <p>Objectives :</p> <p>Reduce transportation-related accidents, injuries, and fatalities.</p> <p>Minimize bicycle, pedestrian, rail, and motor vehicle conflicts.</p> <p>Focus on high accident areas for transportation improvements.</p>	<p>Goal:</p> <p>Provide a safe transportation system for users of any mode.</p> <p>Objectives :</p> <p>Reduce transportation-related accidents, injuries, and deaths.</p> <p>Minimize bicycle, pedestrian, and motor vehicle conflicts.</p> <p>Develop safety evacuation plans for the urban area.</p>	<p>Goal:</p> <p>Increase the safety and security of the transportation system for motorized and non-motorized users.</p>	(Not addressed.)

Table A-1. Jackson, Bristol, Knoxville, Johnson City, and Clarksville/Montgomery County MPO Comparisons (Continued)

TDOT Guiding Principle	Jackson MPO	Bristol MPO	Knoxville MPO	Johnson City MPO	Clarksville/Montgomery County MPO
Promote Stewardship of the Environment and Build Partnerships for Livable Communities	<p>Objectives:</p> <p>Provide the necessary framework to achieve an efficient, effective, and functional transportation system to serve all persons in the Jackson urban area.</p> <p>Support local access management programs that are designed to protect the integrity of the existing development.</p>	<p>Goal:</p> <p>Develop a transportation system to preserve and enhance the natural environment.</p> <p>Objectives:</p> <p>Minimize adverse environmental impacts of the urban transportation system.</p> <p>Reduce vehicle emissions to improve air quality.</p> <p>Coordinate and improve the provision of alternative modes of transportation.</p>	<p>Goal:</p> <p>Develop a transportation system to preserve and enhance the natural environment.</p> <p>Objective:</p> <p>Reduce transportation source contributions (vehicle emissions) to improve air quality and minimize adverse environmental impacts of the urban transportation system.</p>	<p>Goals:</p> <p>Protect and enhance the environment.</p> <p>Promote energy conservation.</p> <p>Improve quality of life.</p>	<p>Objectives:</p> <p>Integrate land use planning and transportation project planning.</p> <p>Develop neighborhood access management guidelines that balance the desire for safe residential streets with the need for additional mobility.</p>

Table A-1. Jackson, Bristol, Knoxville, Johnson City, and Clarksville/Montgomery County MPO Comparisons (Continued)

TDOT Guiding Principle	Jackson MPO	Bristol MPO	Knoxville MPO	Johnson City MPO	Clarksville/Montgomery County MPO
Move a Growing, Diverse, and Active Population	<p>Objectives:</p> <p>Where possible, include sidewalks and bikeways in all new road construction.</p> <p>Identify new locations for bikeways and greenways.</p> <p>Provide alternative connections between land uses via bikeways and greenways.</p> <p>Encourage private enterprise participating in the preparation of plans and in the provision of transit services.</p> <p>Assist in assessing the Jackson transit authority's financial capacity to provide efficient transit operations.</p>	(Not addressed.)	<p>Goal:</p> <p>Develop a transportation system that provides opportunities for a choice of mode.</p> <p>Objectives:</p> <p>Maximize the availability of alternative forms of travel and transport.</p> <p>Facilitate linkages among modes.</p> <p>Increase information to the public about available transportation options.</p>	<p>Goals:</p> <p>Increase accessibility and mobility options available to people and freight.</p> <p>Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.</p>	<p>Goals:</p> <p>Promote the use of alternative transportation modes.</p> <p>Develop an integrated multimodal transportation system that balances the needs of both passengers and freight traffic.</p> <p>Objectives:</p> <p>Include alternative transportation modes as part of future infrastructure projects.</p> <p>Improve accessibility of park-and-ride lots to encourage ridesharing and transit trips within the planning area.</p> <p>Design future roadways and bridges to accommodate the appropriate level of traffic.</p> <p>Improve capacity and maintain pavement.</p>

Table A-1. Jackson, Bristol, Knoxville, Johnson City, and Clarksville/Montgomery County MPO Comparisons (Continued)

TDOT Guiding Principle	Jackson MPO	Bristol MPO	Knoxville MPO	Johnson City MPO	Clarksville/Montgomery County MPO
Preserve and Manage the Existing Transportation System	<p>Objectives:</p> <p>Provide a comprehensive, cooperative, and continuing transportation planning program and process.</p> <p>Identify needed transportation planning activities and provide coordination of these activities.</p> <p>Provide the necessary framework to create an efficient, effective, and functional transportation system to serve all persons in the Jackson urban area.</p> <p>Support local access management programs that are designed to protect the integrity of the existing development.</p>	<p>Goal:</p> <p>Maintain system efficiency.</p> <p>Objectives:</p> <p>Minimize traffic congestion and maximize cost effectiveness of transportation investments.</p> <p>Identify and maintain corridors that can efficiently handle the movement of goods.</p>	<p>Goals:</p> <p>Develop a transportation system to move people and goods at an effective level of public and private cost.</p> <p>Develop transportation policies that will enhance the preservation and timely maintenance of the urban area's transportation resources.</p> <p>Objectives:</p> <p>Maximize street network efficiency with improved spacing of facilities.</p> <p>Minimize traffic congestion and maximize cost effectiveness.</p> <p>Maximize the useful life of existing elements of the transportation system.</p>	<p>Goals:</p> <p>Promote efficient system management and operation.</p> <p>Emphasize preservation of the existing transportation system.</p>	<p>Goals:</p> <p>Manage the local thoroughfare system to minimize congestion.</p> <p>Enhance and maintain an efficient, safe highway and street network.</p> <p>Objectives:</p> <p>Coordinate with private developers to maintain adequate transportation system capacity as new development occurs.</p> <p>Cooperate with the county school board and transit systems.</p>

Table A-2. Cleveland, Chattanooga, Kingsport, Nashville, and Memphis MPO Comparisons

TDOT Guiding Principle	Cleveland MPO	Chattanooga MPO	Kingsport Area MPO	Nashville Area MPO	Memphis MPO
Support the State's Economy	<p>Goal:</p> <p>Transportation planning activities within the Cleveland metropolitan area will support and promote growth of the urbanized area economy by improving accessibility to developing properties and improving traffic flow in congested areas.</p>	<p>Goals:</p> <p>Provide viable choices to all area citizens and promote economic development.</p> <p>Balance all modes in the transportation system.</p>	<p>Goal:</p> <p>Develop transportation network that enhances economic growth.</p> <p>Objectives:</p> <p>Offer opportunities for new and/or expanded businesses through improved transportation facilities.</p> <p>Offer improved access of employer locations for labor force.</p>	(Not addressed.)	<p>Goals:</p> <p>Promote efficient land use and development patterns to ensure safety, economic vitality, and ability to meet existing and future transportation needs.</p> <p>Encourage improvements to, and the expansion of, freight facilities to ensure that Memphis maintains its status as a premier port for goods movement.</p>
Maximize Safety and Security	<p>Goals:</p> <p>Emphasize safety on existing facilities and planning and designing safety features for new roadways and modes of travel.</p> <p>Work with local, state, and federal law enforcement agencies to emphasize security.</p>	<p>Goals:</p> <p>Provide a pleasing, safe environment.</p> <p>Enhance streets and highways with sidewalks, trees, lighting, transit shelters, and other streetscape elements.</p>	<p>Goal:</p> <p>Improve the safe flow of traffic within the metropolitan area.</p> <p>Objectives:</p> <p>Reduce traffic accident rates.</p> <p>Reduce potential for traffic accidents.</p>	(Not addressed.)	<p>Goal:</p> <p>Increase the safety and security of the transportation system for motorized and non-motorized users.</p> <p>Objectives:</p> <p>Develop right-of-way cross sections that permit the separation of sidewalks and travel lanes.</p> <p>Enhance safety on mass transit systems.</p>

Table A-2. Cleveland, Chattanooga, Kingsport, Nashville, and Memphis MPO Comparisons (Continued)

TDOT Guiding Principle	Cleveland MPO	Chattanooga MPO	Kingsport Area MPO	Nashville Area MPO	Memphis MPO
Promote Stewardship of the Environment	Goal: Emphasize the importance of protecting the environment and quality of life in planning new and/or improving existing transportation facilities, while supporting energy conservation.	Goals: Provide a pleasing, safe environment. Enhance streets and highways with sidewalks, trees, lighting, transit shelters, and other streetscape elements. Encourage a transportation system that supports and leads growth patterns and that concentrates development where infrastructure already exists.	(Not addressed.)	Goal: Link land use and transportation. Objective: Encourage local governments to develop land use policies and plans that enhance the quality of life and that recognize the relationship between land use and the transportation system.	Goal: Encourage conservation. Objectives: Promote the concentration of future employment and other activity centers along existing and planned major travel corridors. Promote infill development that reuses existing resources such as buildings, utilities, and roads.
Build Partnerships for Livable Communities					

Table A-2. Cleveland, Chattanooga, Kingsport, Nashville, and Memphis MPO Comparisons (Continued)

TDOT Guiding Principle	Cleveland MPO	Chattanooga MPO	Kingsport Area MPO	Nashville Area MPO	Memphis MPO
Move a Growing, Diverse, and Active Population	<p>Goals:</p> <p>Search for alternate modes of transportation for people and goods and enhance the accessibility and movement of people and freight in a coordinated manner.</p> <p>Ensure that connectivity and integration is maintained or enhanced as a part of the short- and long-range planning processes.</p>	<p>Goals:</p> <p>To provide viable choices to all area citizens and to promote economic development, a balance of all modes should be reflected in the transportation system.</p> <p>Streets should accommodate multiple uses including pedestrians, bicycles, transit, and parking.</p> <p>Objectives:</p> <p>Through marketing and education, promote existing transit options in the urban area.</p> <p>Use alternative methods to reduce the levels of congestion.</p>	(Not addressed.)	<p>Goal:</p> <p>Achieve enhanced mobility by providing an intermodal and multimodal transportation system that supports safe, efficient, and convenient travel options for the movement of people and goods.</p>	<p>Goals:</p> <p>Increase accessibility and mobility for people using the MPO regional transportation network.</p> <p>Continue to ensure that the MPO enforces and promotes adherence to Title VI.</p> <p>Objectives:</p> <p>Improve transit services to meet additional needs and demands.</p> <p>Market and promote Memphis area rideshare and van lease program in employment centers and to traffic management associations.</p> <p>Promote the use of employer-subsidized transit passes.</p> <p>Increase the inventory of demand responsive types of transit.</p>

Table A-2. Cleveland, Chattanooga, Kingsport, Nashville, and Memphis MPO Comparisons (Continued)

TDOT Guiding Principle	Cleveland MPO	Chattanooga MPO	Kingsport Area MPO	Nashville Area MPO	Memphis MPO
Preserve and Manage the Existing Transportation System	<p>Goals:</p> <p>Seek suggestions for improvements to effectively manage traffic, safety needs, and multimodal services .</p> <p>Provide opportunities for the effective movement of traffic and goods.</p>	<p>Goal:</p> <p>Arrange streets to form an interconnected network to disperse traffic and provide multiple routes, rather than funnel traffic onto a few large arterial streets where congestion occurs.</p> <p>Objectives:</p> <p>Evaluate efficiency, safety, and accessibility of existing transit systems .</p> <p>Research, test, and implement intelligent transit systems and clean fueled vehicles.</p> <p>Identify deficient areas in the roadway system.</p>	<p>Goal:</p> <p>Improve travel times along 2025 Network thoroughfares.</p> <p>Objectives:</p> <p>Reduce travel times by reducing level of congestion at identified locations .</p> <p>Improve access between metropolitan sub-areas where restrictions currently exist.</p>	<p>Goals:</p> <p>Manage financial resources efficiently.</p> <p>Reduce congestion.</p> <p>Objectives:</p> <p>Base the regional transportation plan and the implementation of the Transportation Improvement Program on an effective evaluation and screening process that considers cost constraints in selecting the highest priority short- and long-range projects.</p> <p>Address traffic congestion through strategies that seek first to reduce vehicle-trip demand and, second, to increase the operating capacity of the existing and planned transportation system.</p>	<p>Objectives:</p> <p>Support efforts to secure a permanent and sustainable source of local funding for mass transit.</p> <p>Improve coordination between engineering, planning, and enforcement agencies involved in transportation activities .</p> <p>Continue modernization of rail signals.</p> <p>Continue to explore the concept of using existing rail lines for transit service.</p> <p>Promote street networks that ensure minimal congestion by reducing travel delays in accordance with CMS plan guidelines.</p> <p>Work with federal and state departments of transportation.</p>

Appendix B

Comparison of Existing Modal Plans

Appendix B

Comparison of Existing Modal Plans

TDOT Guiding Principle	Aviation Plan	Transit Plan	Intelligent Transportation System Plan	Rail Plan	Incident Management Plan	Waterways	Bicycle/Pedestrian Plan
Move a Growing, Diverse, and Active Population	<p>Objective:</p> <p>Ensure convenient accessibility to commercial service airports and Georgia airports.</p>	<p>Goal:</p> <p>Triple ridership in state by 2025.</p> <p>Objectives:</p> <p>Increase mobility by providing a range of transit service options and choices appropriate to the population, density, employment, and land use patterns of the area.</p> <p>Ensure access.</p>	(Not addressed.)	<p>Goals:</p> <p>Promote access of state industries to the national freight networks and markets.</p> <p>Divert trucks from highways.</p> <p>Implement intercity passenger rail.</p> <p>Objective:</p> <p>Develop a standardized engineering basis for the current track and bridge rehabilitation programs.</p>	(Not addressed.)	<p>Goal:</p> <p>Increase accessibility and mobility options for people and freight.</p> <p>Objectives:</p> <p>Increase commerce movement by promoting more facilities and increasing the efficiency of existing facilities.</p> <p>Develop better access to ports and multimodal facilities.</p>	<p>Goal:</p> <p>Provide alternative modes of transportation in bicycle/pedestrian facilities.</p>
Preserve and Manage the Existing Transportation System	<p>Goal:</p> <p>Provide an efficient airport system capable of meeting existing and future demand.</p> <p>Objective:</p> <p>Develop airport facilities using concepts that provide the flexibility to respond to changes in FAA standards, changes in the nature of air service, or the changing role of aviation.</p>	<p>Objectives:</p> <p>Provide useful, reliable, current information to riders in the form of printed schedules, maps, Web sites, kiosks, and other materials.</p> <p>Provide proper training for all operators and maintenance staff.</p>	<p>Goals:</p> <p>Improve operating efficiency.</p> <p>Improve reliability.</p> <p>Reduce congestion.</p> <p>Objectives:</p> <p>Implement freeway service patrol program and region-wide interagency incident management teams.</p> <p>Implement ITS elements in selected freeway locations.</p>	<p>Goals (Intercity Passenger Rail):</p> <p>Add capacity to existing transportation system.</p> <p>Reduce need to expand existing highway facilities.</p> <p>Establish intercity passenger rail corridors to carry the greatest number of riders at an affordable cost.</p>	<p>Goals:</p> <p>Promote measures to reduce the number and severity of highway incidents.</p> <p>Better inform and educate motorists to reduce incident-related congestion and improve safety.</p> <p>Expand and enhance resources for systematic management of highway incidents.</p>	<p>Goal:</p> <p>Promote efficient system management and operation.</p> <p>Objectives:</p> <p>Develop a statewide program to organize the existing waterway stakeholders.</p> <p>Incorporate waterway growth to complement multimodal needs of rail and truck growth.</p>	(Not addressed.)

TDOT Guiding Principle	Aviation Plan	Transit Plan	Intelligent Transportation System Plan	Rail Plan	Incident Management Plan	Waterways	Bicycle/Pedestrian Plan
Support the State's Economy	(Not addressed.)	<p>Goals:</p> <p>Triple ridership in state by 2025.</p> <p>Develop public transit systems and services that promote state's quality and compatible land use.</p> <p>Objective:</p> <p>Document economic benefits of transit to state.</p>	(Not addressed.)	<p>Goals:</p> <p>Promote economic growth and jobs in state.</p> <p>Implement intercity passenger rail to enhance economic development and tourism.</p> <p>Join with neighboring states to advance regional partnerships.</p> <p>Objective:</p> <p>Develop performance measures for rail/track rehabilitation programs.</p>	(Not addressed.)	<p>Goal:</p> <p>Support the economic vitality of the country, the state, and the Metropolitan Planning Organizations by enabling global competitiveness, productivity, and efficiency.</p> <p>Objective:</p> <p>Develop a statewide waterways commission. Sponsor projects that promote waterway commerce usage and efficiency.</p>	<p>Goal:</p> <p>Increase tourism via bicycle/pedestrian alternate mode.</p>
Maximize Safety and Security	<p>Goal:</p> <p>Maintain a safe, reliable airport system.</p> <p>Objective:</p> <p>Ensure airport facilities meet federal/state design criteria and safety areas, runway protection zones, and other clear areas.</p>	<p>Goal:</p> <p>Provide safe, reliable transit systems and services.</p> <p>Objectives:</p> <p>Provide a safe environment for transit patrons.</p> <p>Enhance/increase safety and security by implementing additional surveillance equipment such as cameras on buses and transit facilities.</p>	<p>Goal:</p> <p>Improve safety.</p> <p>Objectives:</p> <p>Implement freeway service patrol program and region-wide interagency incident management teams.</p> <p>Implement statewide roadside weather station system.</p> <p>Provide a statewide incident management system.</p>	<p>Objectives:</p> <p>Mitigate potential capacity, operating speed, and safety issues associated with increased intermodal traffic.</p> <p>Alleviate congestion.</p>	Better inform and educate motorists to reduce incident-related congestion and improve safety.	<p>Goal:</p> <p>Increase safety and security of the transportation system for motorized and non-motorized users.</p> <p>Objective:</p> <p>Develop state-sponsored waterway safety education programs. Ensure that Tennessee Wildlife personnel are protecting safety zones around barges.</p>	<p>Goals:</p> <p>Reduce bicycle/pedestrian crashes.</p> <p>Achieve ADA compliance for bicycle/pedestrian facilities.</p> <p>Objectives:</p> <p>Develop a safety campaign.</p> <p>Develop a program for blind visitors.</p>

TDOT Guiding Principle	Aviation Plan	Transit Plan	Intelligent Transportation System Plan	Rail Plan	Incident Management Plan	Waterways	Bicycle/Pedestrian Plan
Build Partnerships for Livable Communities Promote Stewardship of the Environment	<p>Goal:</p> <p>Minimize environmental impacts and non-compatible land uses to the extent feasible.</p> <p>Objectives:</p> <p>Minimize the number of people exposed to noise levels above DNL 65.</p> <p>Minimize impacts identified in the Airport Environmental Handbook.</p> <p>Encourage local plans to incorporate compatible land uses adjacent to airports.</p>	<p>Objectives:</p> <p>Ensure that access and mobility needs of youth, the elderly, persons with disabilities, and low-income groups are addressed.</p> <p>Provide additional and improved transit facilities (such as shelters, benches, and transit centers) for a more comfortable experience.</p>	(Not addressed.)	<p>Goals:</p> <p>Implement intercity passenger rail to improve air quality and the environment.</p> <p>Implement intercity passenger rail to reduce societal costs.</p> <p>Provide adequate intercity passenger rail service to intermediate stations along the corridors.</p>	(Not addressed.)	<p>Objective:</p> <p>Encourage and promote downtown riverfront developments.</p> <p>Goals:</p> <p>Protect and enhance the environment.</p> <p>Promote energy conservation; improve quality of life.</p>	(Not addressed.)

Appendix C

Comparison of Statewide Plans

Appendix C

Comparison of Statewide Plans

Peer States: Florida, Maryland, North Carolina, Washington, and Wisconsin
Other States Studied: Minnesota and Pennsylvania

Goals and Objectives

- System Maintenance and Preservation/System Management and Preservation
States Addressing: Florida, Maryland, Minnesota, North Carolina, Pennsylvania, Wisconsin
 - Protect the public investment.
 - Ongoing maintenance and repair of existing pavement and bridges.
- Mobility/Traffic Movement
States Addressing: Florida, Maryland, Minnesota, North Carolina, Pennsylvania, Wisconsin
 - Provide the infrastructure necessary to optimize mobility and reliability.
 - Traffic movement performance thresholds/establish needs.
- Safety
States Addressing: Florida, Maryland, North Carolina, Pennsylvania, Wisconsin
 - Promote safety in a cost-effective manner.
 - Demonstrate the importance of enhancing current engineering, education, and enforcement efforts.
- Intermodal Efficiency and Connectivity
States Addressing: Maryland, Minnesota, North Carolina, Pennsylvania
 - Increase the efficiency of the overall transportation system by facilitating the interconnection of transportation modes.
- Environmental Stewardship
States Addressing: Maryland, North Carolina, Pennsylvania, Wisconsin
 - Maximize compatibility of the transportation system with environmental considerations, as well as with state historical and cultural resources.
 - Avoid, minimize, and mitigate environmental impacts; strive to achieve cost-effective, responsible balance between environmental and transportation needs.
- Economic Development and Efficiency/Economic Competitiveness
States Addressing: Florida, North Carolina, Pennsylvania
 - Provide transportation investments to support economic development.

- **Modal Options**
States Addressing: Minnesota, North Carolina, Pennsylvania
 - Provide a variety of transportation options.
- **Coordination**
States Addressing: Florida, North Carolina, Pennsylvania
 - Provide increased responsibility and continuing cooperation, coordination, and participation with the public, stakeholders, private sector, and local, regional, state, and federal governments.
- **Efficient and Balanced Community Growth and Development**
States Addressing: North Carolina, Pennsylvania
 - Encourage the development of growth management mechanisms intended to coordinate infrastructure investment with development.
- **Fiscal Stewardship/Financing**
States Addressing: North Carolina, Wisconsin
 - Provide strong fiscal stewardship that maximizes the cost efficiency of transportation system investment and ensures adequate resources for transportation through traditional and non-traditional sources.
 - Fully fund proposed projects over the planning period.
- **Quality of Life**
State Addressing: Florida
 - Transportation system that enhances the quality of life.
- **Productivity**
State Addressing: Maryland
 - Making efficient use of limited resources while maintaining high customer satisfaction.
- **Provide Maximum Service to Customers**
State Addressing: Minnesota
 - To improve customer satisfaction ratings of transportation agencies
- **Advanced Regional and Corridor Based Planning**
State Addressing: Pennsylvania
 - To identify corridors of regional significance and concentrate planning efforts on those corridors.

Number of Goals, Objectives, and Policies

State	Goals	Objectives	Performance Measures
Florida	4	3 to 6 under each goal	Separate performance measures report specifically related to goals.
Georgia	7		22 performance measures, some specific.
Maryland	4	2 under each goal	31
Minnesota	10	None	37 performance measures broken out by mode: highways/bridges; passenger miles/bicycle-pedestrian; freight (motor carrier, railroad, waterways); aeronautics.
North Carolina	10	3 to 6 under each goal	None
Pennsylvania	10	30	More than 60
Utah	4	None	None
Washington	17	25	Separate performance measures document not necessarily directly related to goals and objectives.
Wisconsin	3	None	6