



MIDDLE TENNESSEE CONNECTED

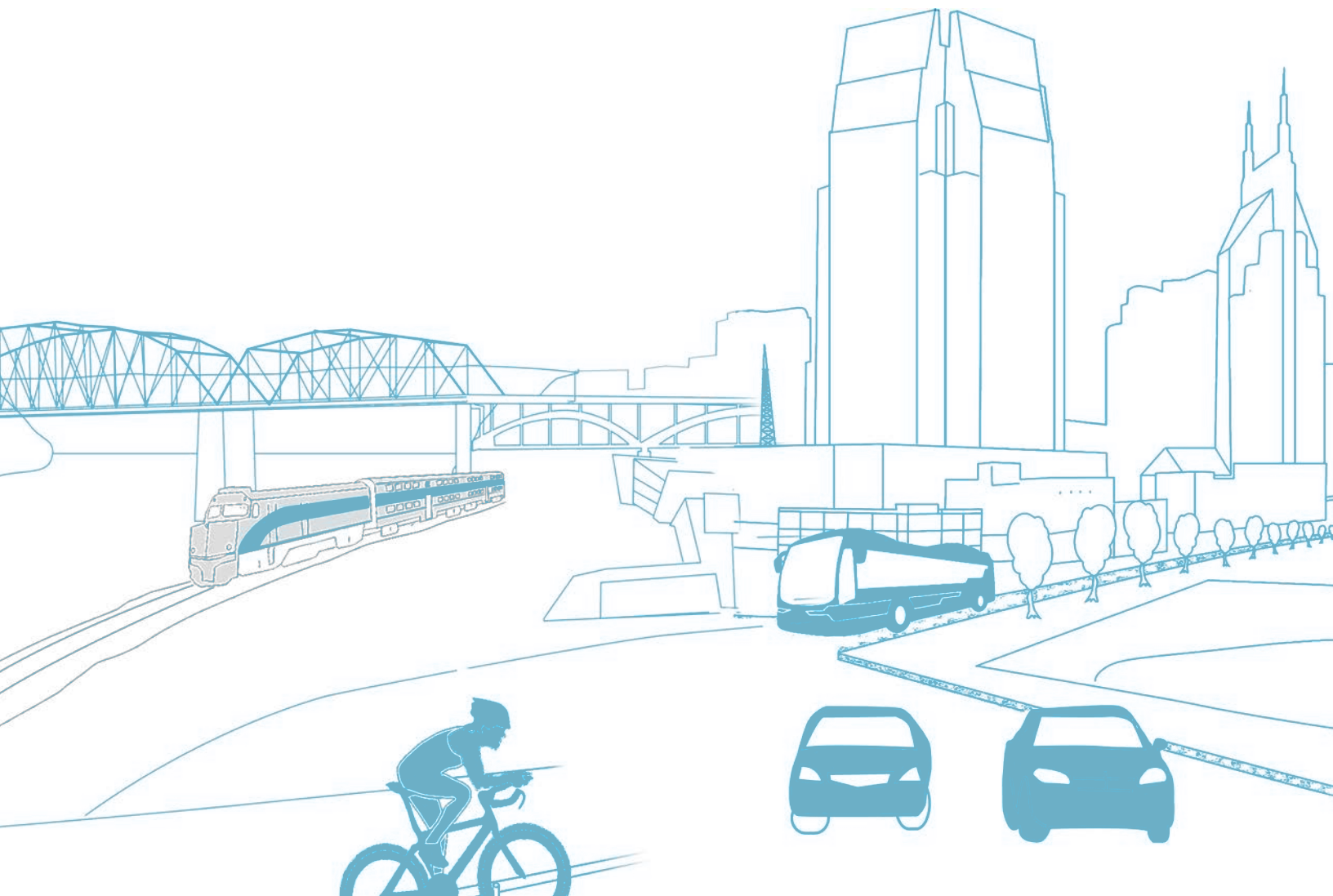
A Unified Plan for Transportation Improvements adopted
by Mayors and Transportation Officials

HIGHLIGHTS AND
RECOMMENDATIONS
OF THE 2016 PLAN





A UNIFIED PLAN FOR THE NEXT 25 YEARS



THE REGIONAL TRANSPORTATION PLAN IS MIDDLE TENNESSEE'S GATEWAY TO FEDERALLY-FUNDED TRANSPORTATION PROJECTS AND SERVICES.

REPRESENTS THE REGION'S COLLECTIVE PRIORITIES FOR STATE AND FEDERAL FUNDS

Prepared by the Greater Nashville Regional Council (GNRC) on behalf of its Transportation Policy Board members, the Regional Transportation Plan (RTP), titled in 2016 as "Middle Tennessee Connected," spans the next quarter century and represents the collective transportation goals of city and county governments, transit agencies, and the Tennessee Department of Transportation (TDOT). Its purpose is to identify how those partners intend to improve mobility across **Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson** counties with federal grants and matching funding. The plan also represents the region's top priorities for state funding as the Tennessee Governor and TDOT prepare the annual work programs for the Tennessee General Assembly.

A FISCALLY-CONSTRAINED PLAN

The Plan includes a balanced budget. It presents a list of transportation improvements that can be constructed or implemented over the next 25 years with anticipated federal funding, based on current annual appropriations. The plan schedules projects over three planning horizons including a short-term (2016-2020), mid-term (2021-2030), and long-term (2031-2040). Projects included in the short-term horizon also comprise the region's Transportation Improvement Program (TIP) which authorizes implementation.

KEEPS TDOT AND LOCAL AGENCIES ELIGIBLE FOR FEDERAL FUNDING

Since the 1962 Federal-aid Highway Act, federal legislation has required transportation plans to be developed for each metropolitan area across the nation through a continuing, cooperative, and comprehensive planning process. This plan serves to satisfy federal regulations outlined in 23 CFR 450, for the Nashville metropolitan area, and ensures that TDOT, transit agencies, and local governments are eligible to use federal transportation funds to construct or implement improvements to roadways and transit routes.

SUPERSEDES THE 2035 REGIONAL TRANSPORTATION PLAN

Federal law requires the regional transportation plan to be updated every five years to account for changes in transportation needs that result from shifts in regional economic conditions, real estate development trends, funding availability, and public policies. The 2040 RTP supersedes the 2035 RTP which was adopted in December 2010. A new plan is scheduled for adoption in early 2021.

WHAT'S INSIDE?

What can I find in the plan?	3
What is the current state of transportation?	5
What will the future look like?	9
What does the plan recommend?	17
How can I provide input?	29
About GNRC and Regional Coordination	30



WHAT CAN I FIND IN THE PLAN?

Introduction and Plan Highlights	Describes the purpose of the plan, federal requirements, and coordination with stakeholders and the public.
Regional Issues and Thinking	Identifies the issues currently framing transportation decisions, describes related planning efforts, and presents recent public opinions and attitudes towards transportation.
Trends and Forecasts	Provides population and employment projections, land development forecasts, and commodity forecasts used in freight planning.
Transportation System	Describes existing transportation infrastructure including roadways, bridges, intersections, public transit, and walking and bicycling facilities.
Conditions and Performance	Presents maps and statistical information to illustrate how transportation system performance is expected to change over the next 25 years based on the region's continued growth and development.
Goals, Vision, and Strategies	Lays out regional goals and objectives, a long-term vision for a multi-modal transportation system, and describes the region's transportation priorities.
Tools and Options	Provides an overview of the tools available for improving transportation and presents a menu of options for transit, access management, managed lanes and roadway safety, among others.
Scheduled Investments and Financial Plan	Present a formal revenue forecast, a summary of the cost of all identified transportation needs, an overview of the process to evaluate and select projects for available funding, a list of cost-feasible projects, and a discussion of additional investment options.
Monitoring Impacts	Describes how proposed transportation projects could potentially impact vulnerable populations and the natural environment along with a discussion of mitigation strategies, and presents a discussion of how the region should track its progress towards implementing the plan.
Technical Appendices	Provides documentation related to regional planning models, the call-for-projects process, projects proposed on congested corridors, projects with potential social or environmental impacts, public comments documented during the development of the plan, and key acronyms commonly used in the transportation planning process.


The Greater Nashville Regional Council is responsible for convening local governments, TDOT, WeGo Public Transit, and other transit and highway officials to develop a regional transportation plan.

The plan is updated every five years to account for growth trends, emerging technologies, funding levels, and shifts in community preferences.

Projects adopted into the plan will be designed and constructed by TDOT, public transit agencies, or local governments as grants are authorized through the region's Transportation Improvement Program.

For more information about the current plan and Transportation Improvement Program, visit **GNRC.org/Transportation**.





WHAT IS THE CURRENT STATE OF TRANSPORTATION?

The following statistics present information from the seven-county planning area as of the adoption of the 2016 Plan, unless otherwise noted. The GNRC and its planning partners use these and other indicators to benchmark future performance of the transportation system.

**For more regional trends and information
visit GNRC.org/data**

26,000

Miles of vehicle
travel lanes

13,000

Miles of roadway

1.7 MILLION

Residents

972,000

Occupied jobs

3,270

Miles of major roadways
(collectors, arterials and freeways)

1.2 MILLION

Licensed drivers

1.4 MILLION

Registered motor vehicles

48
MINUTES

Spent traveling
per capita each day

47 MPH

Average travel speed
along major roadways

70,000

Number of heavy trucks on
area roadways each day

TWENTY-THREE

Percent of total miles traveled by freight trucks
that are along congested roadways

1,589

Bridges in the region

24

Percent of bridges that are
structurally deficient
or functionally obsolete

49
MILLION

Miles traveled on
major roadways
each day

33.2

Total vehicle miles
traveled per person,
per day

15

Percent of all miles
traveled that are along
congested roadways

505

Miles of major roadways
that have sidewalks

13

Percent of major roadways
that have bicycle facilities

33,000

Daily transit trips

3.98

One-way trips per
capita each day

71,685

Roadway crashes
in 2018

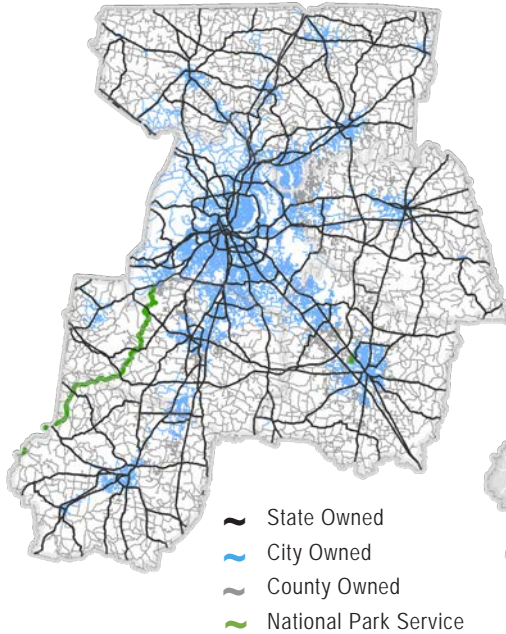
185

Crashes with fatalities
in 2018

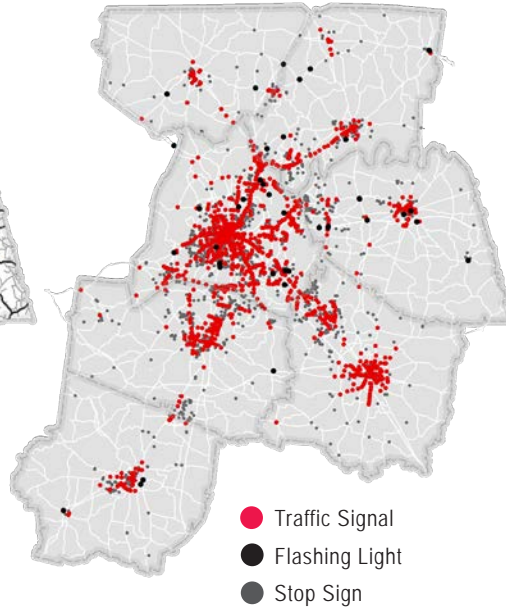
TRANSPORTATION SYSTEMS

ROADWAYS AND BRIDGES

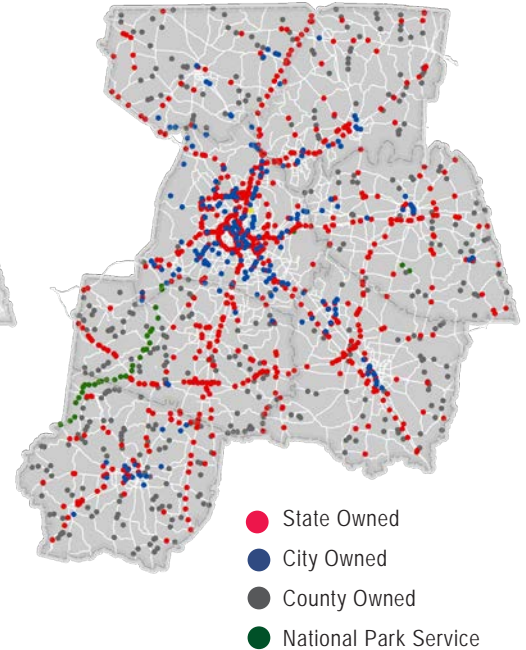
Roadway Network



Controlled Intersections

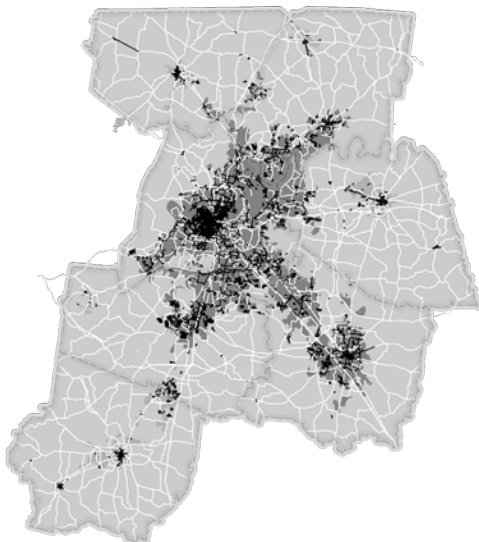


Bridge Locations

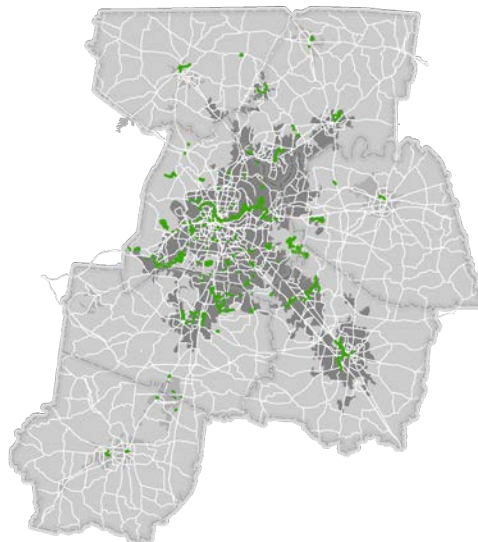


BICYCLE AND PEDESTRIAN FACILITIES

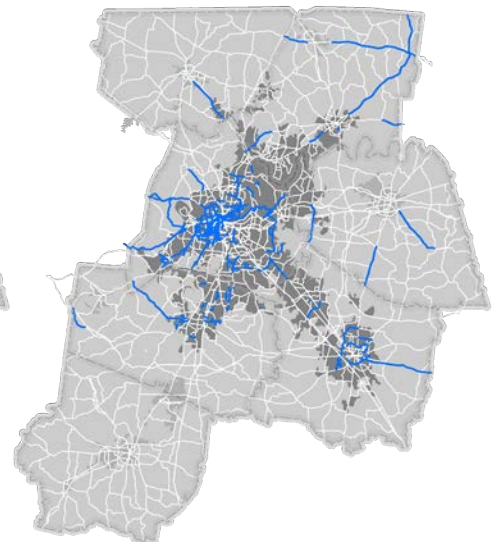
Sidewalk Network



Greenways and Multi-Use Pathways

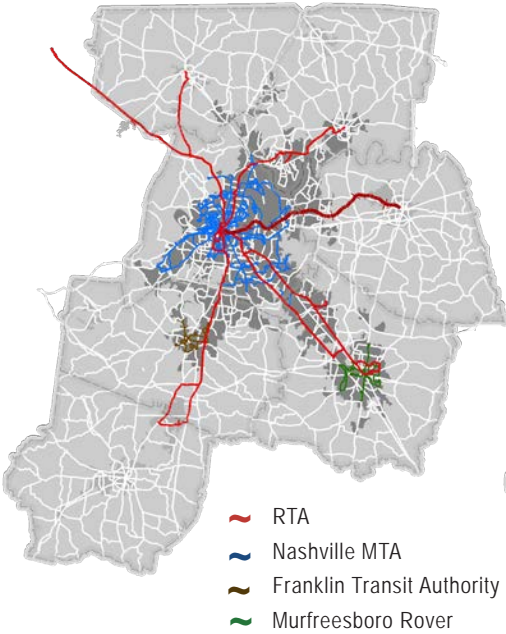


On-Road Bicycle Routes

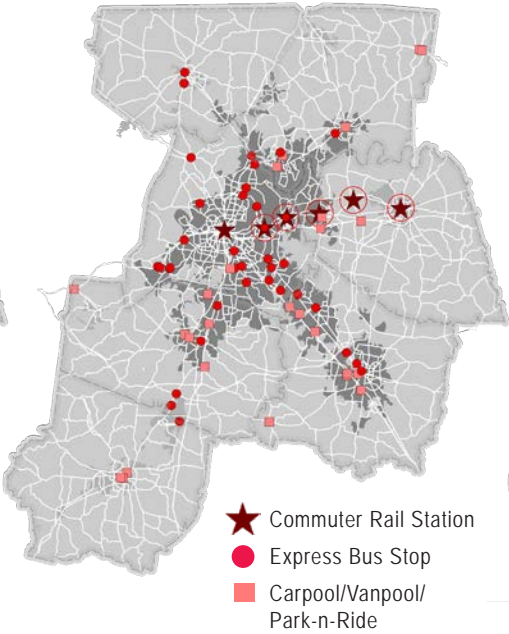


PUBLIC TRANSPORTATION

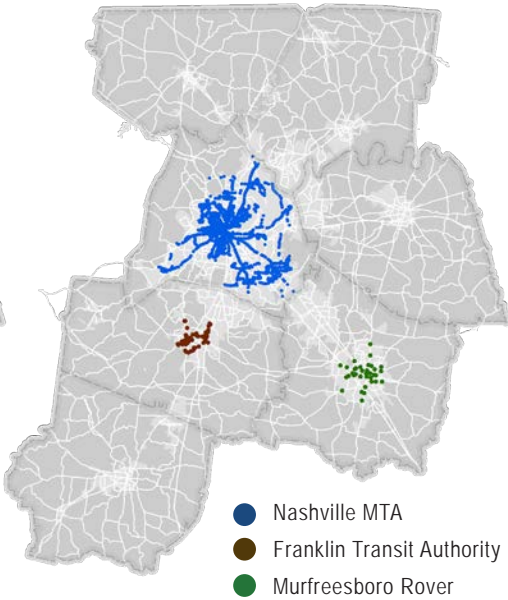
Transit Routes



Rail Station and Park-n-Ride

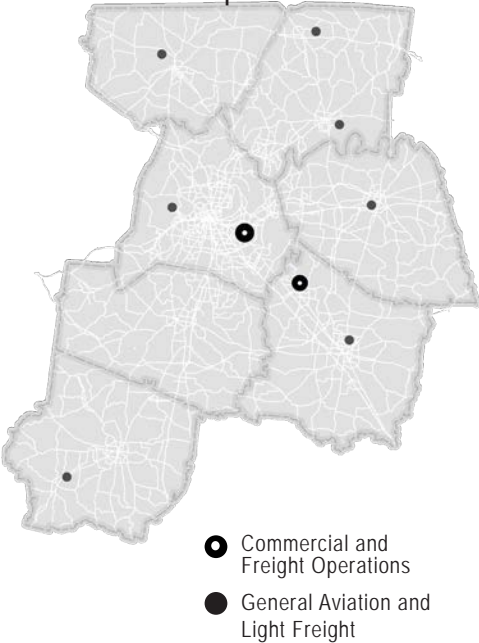


Local Bus Stops

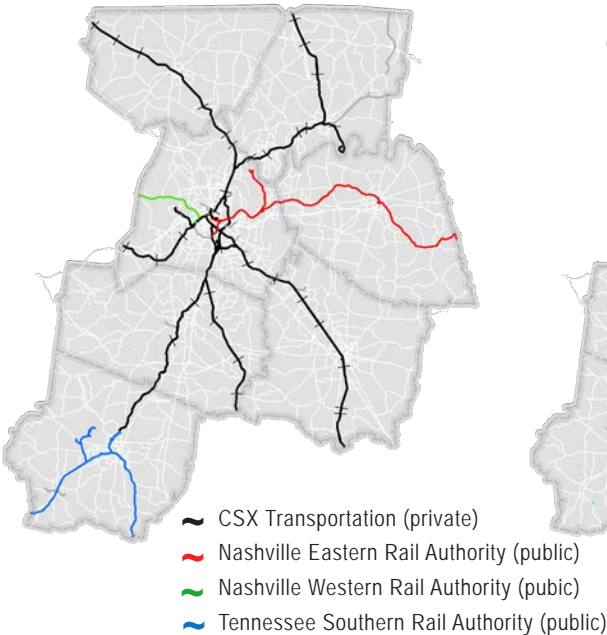


FREIGHT AND RAIL

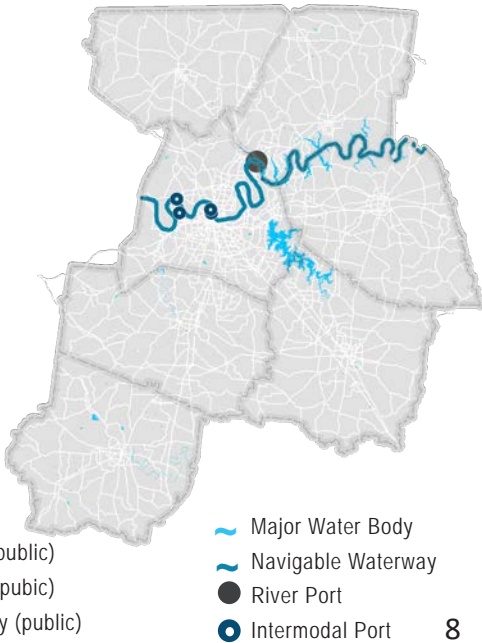
Airports



Rail Lines



Water Ports





WHAT WILL THE FUTURE LOOK LIKE?

A LOT MORE PEOPLE

The seven-county Nashville metropolitan planning area has added approximately 30,000 people per year since 2010 and is poised for continued growth over the next two decades. By 2040, the region will welcome nearly one million additional people. While each metro area county is among the fastest growing in the state, Rutherford and Williamson counties are each on pace to leapfrog Chattanooga-Hamilton in size to become nearly as large as present-day Nashville-Davidson County.

MORE DIVERSITY

The cultural diversity of a region is a hallmark of economic competitiveness and promotes talent attraction and retention. By 2040 it is expected that a combined 40 percent of the population in the metropolitan planning area will be Hispanic/Latino, Black, or Asian/Pacific Islander, with Nashville-Davidson County becoming a majority-minority community.

MORE BUILDINGS AND INCREASING DENSITY

National trends show both Millennials and Baby Boomers have a growing preference for smaller living quarters in walkable communities with access to transit. This aspiration has caused many, especially younger people, to leave traditional suburban neighborhoods for environments which offer proximity to amenities such as shopping, entertainment and transportation options. These attitudes toward driving and housing options have led planners to develop strategies for neighborhood infill and explore retrofitting suburban areas to become more walkable and transit-friendly.

A LOT MORE TRAFFIC

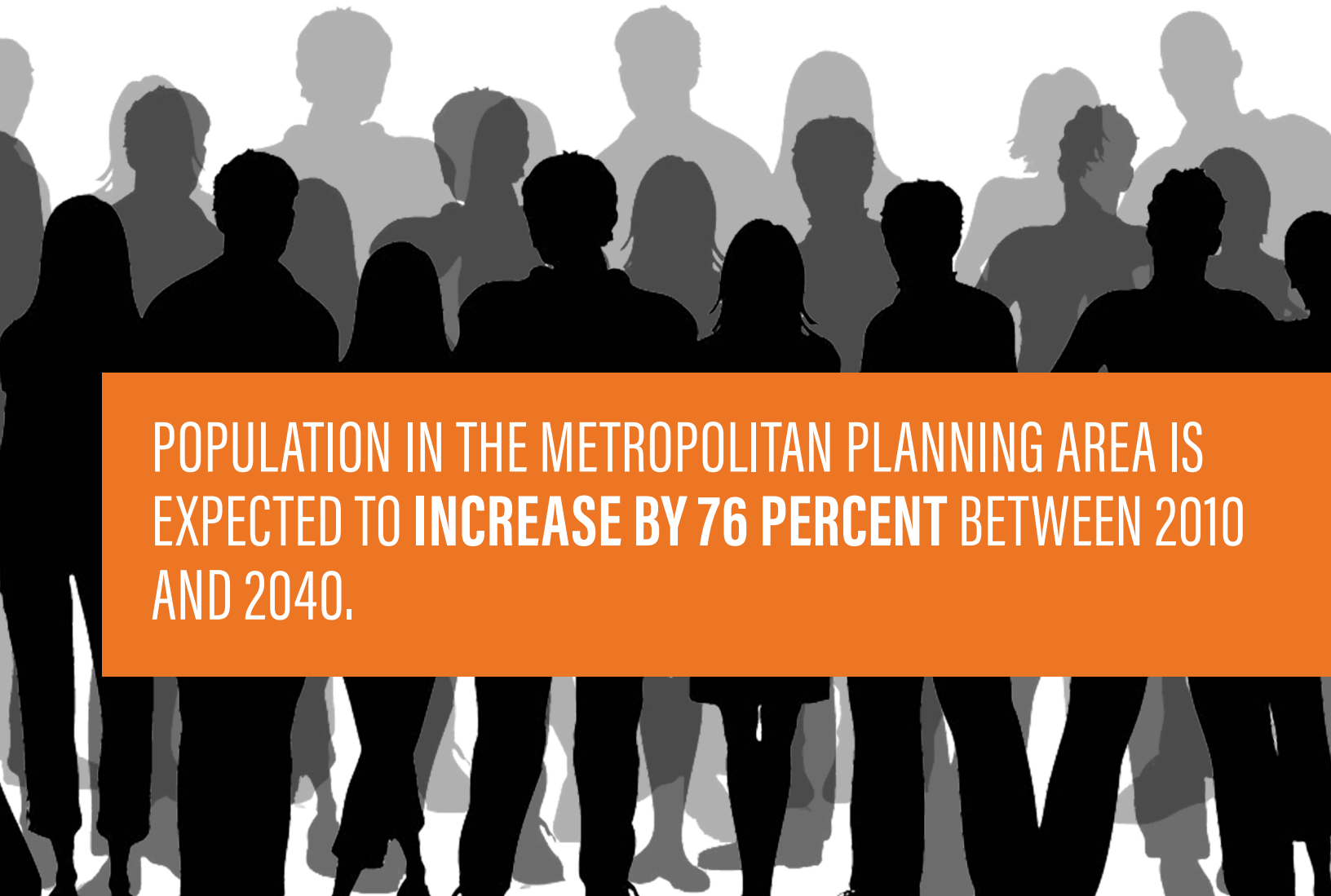
Traffic congestion is rising sharply across the region, due in large part to the growing economy. With a history of sprawling land development patterns and long cross-county commuting, residents enjoy very few options to get around that congestion. Matters are on track to be worse by 2040, when the amount of congestion on area roadways is expected to more than double as a result of continued growth and development. Many metropolitan areas around the nation have begun building high-capacity rapid transit options to give their residents a more convenient option.

HIGHER COST OF LIVING

The cost of housing in urban centers has risen in recent years, pushing many lower income families to seek housing further from their work. As a whole, this segment of the population is often transit dependent and are disproportionately affected by this trend. For Middle Tennesseans struggling with poor transportation access, decreasing the proximity to their source of income can limit their ability to keep a job. This affects both those attempting to climb out of poverty and businesses needing access to workforce.

BETTER TECHNOLOGY AND SELF-DRIVING CARS

It is hard to envision the future without thinking about mobile technologies and self-driving cars. As advancements in technology continue to redefine the way people connect, these changes will have an enormous impact on the development of transportation systems. Recent innovations have improved fuel efficiency, led to the creation of connected vehicles, spurred widespread use of real time traffic data, and the deployment of intelligent traffic signals.



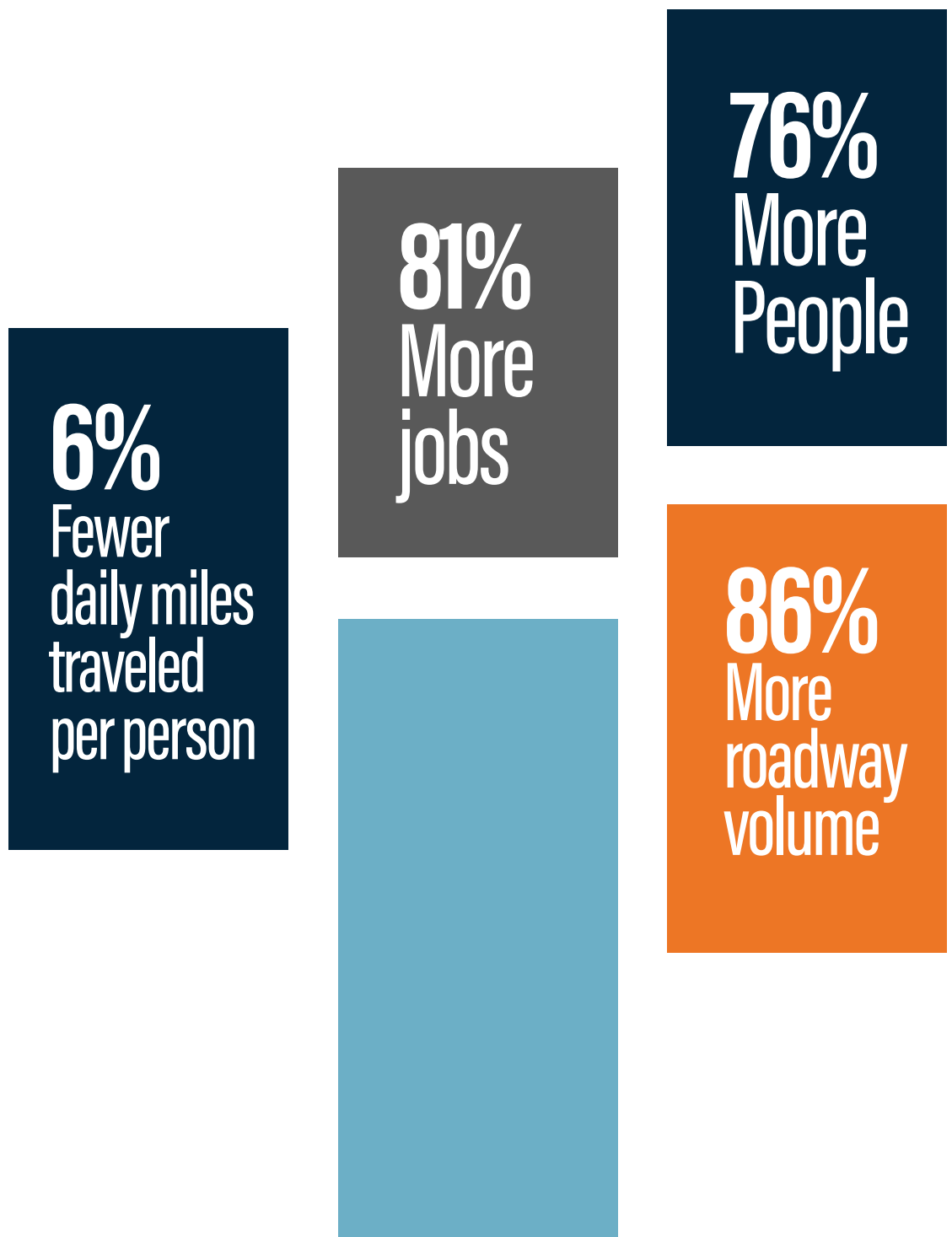
POPULATION IN THE METROPOLITAN PLANNING AREA IS
EXPECTED TO INCREASE BY 76 PERCENT BETWEEN 2010
AND 2040.

TRENDS AND FORECASTS



Performance measurement is an important part of transportation planning, not only because it enriches the decision-making process, but also because it provides a measure of accountability to the public by ensuring that planned investments achieve community-based goals.

The information shown here indicates the change in performance measures from 2010 to 2040 based on GNRC forecasts for growth and development used in the 2016 Plan.





26%
Slower
travel
speeds

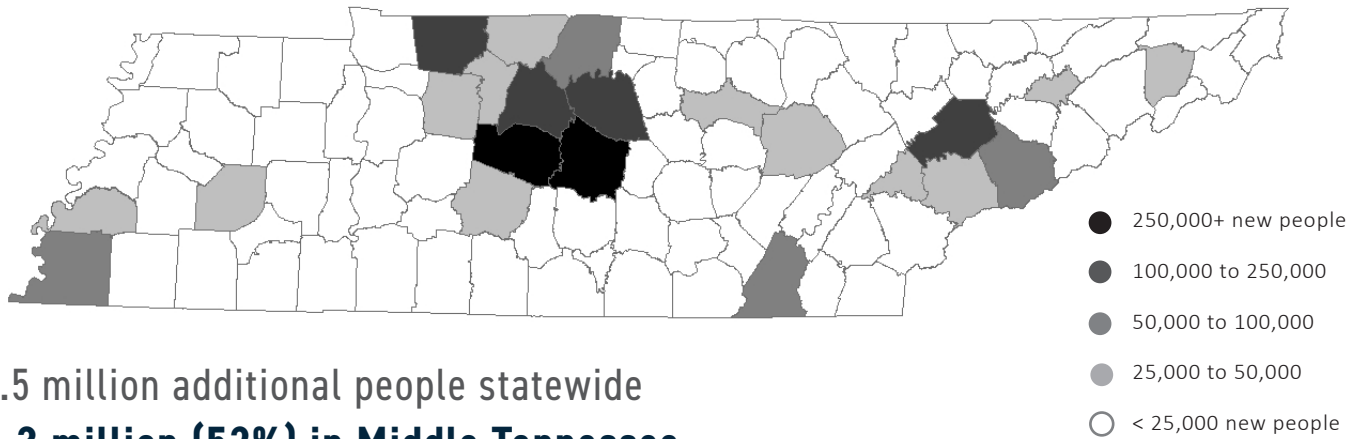
162%
Increase in
miles traveled
on congested
routes

113%
More
time spent
in the car

141%
More freight
trucks stuck
in traffic

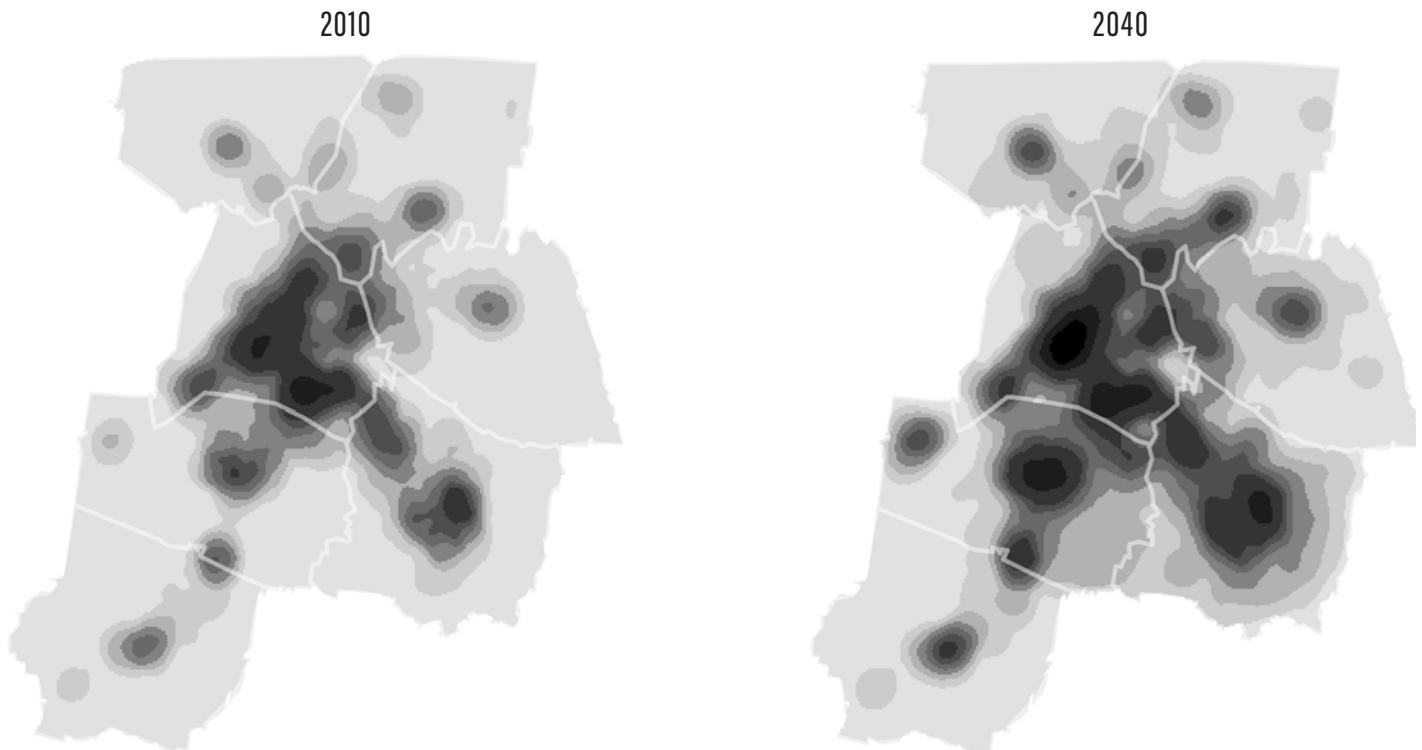
STATEWIDE GROWTH TRENDS, 2010-2040

More than half of the state's population growth between 2010 and 2040 is expected to occur in 10 Middle Tennessee counties. Rutherford and Williamson counties are each on pace to leapfrog Chattanooga-Hamilton County on the list of most populous counties by 2040.



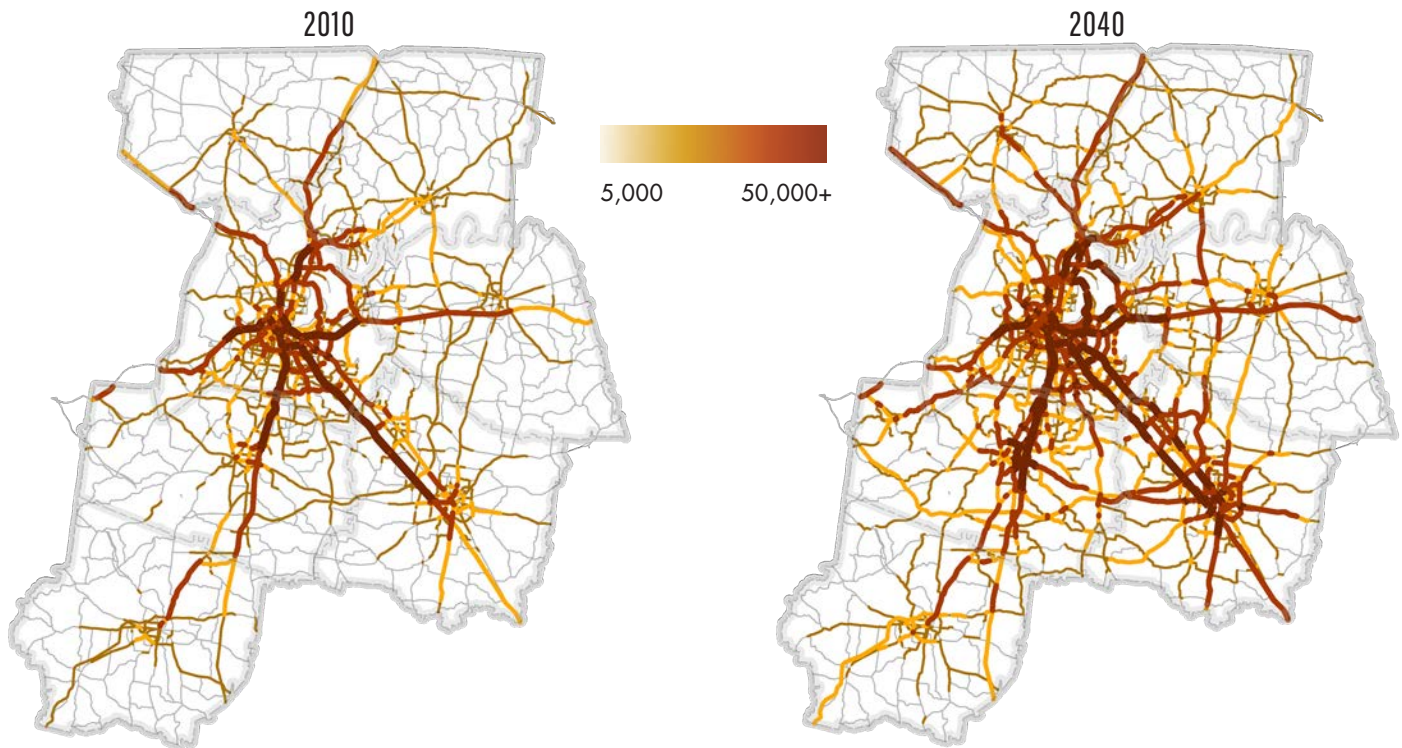
2.5 million additional people statewide
1.3 million (52%) in Middle Tennessee

REGIONAL LAND DEVELOPMENT PATTERNS

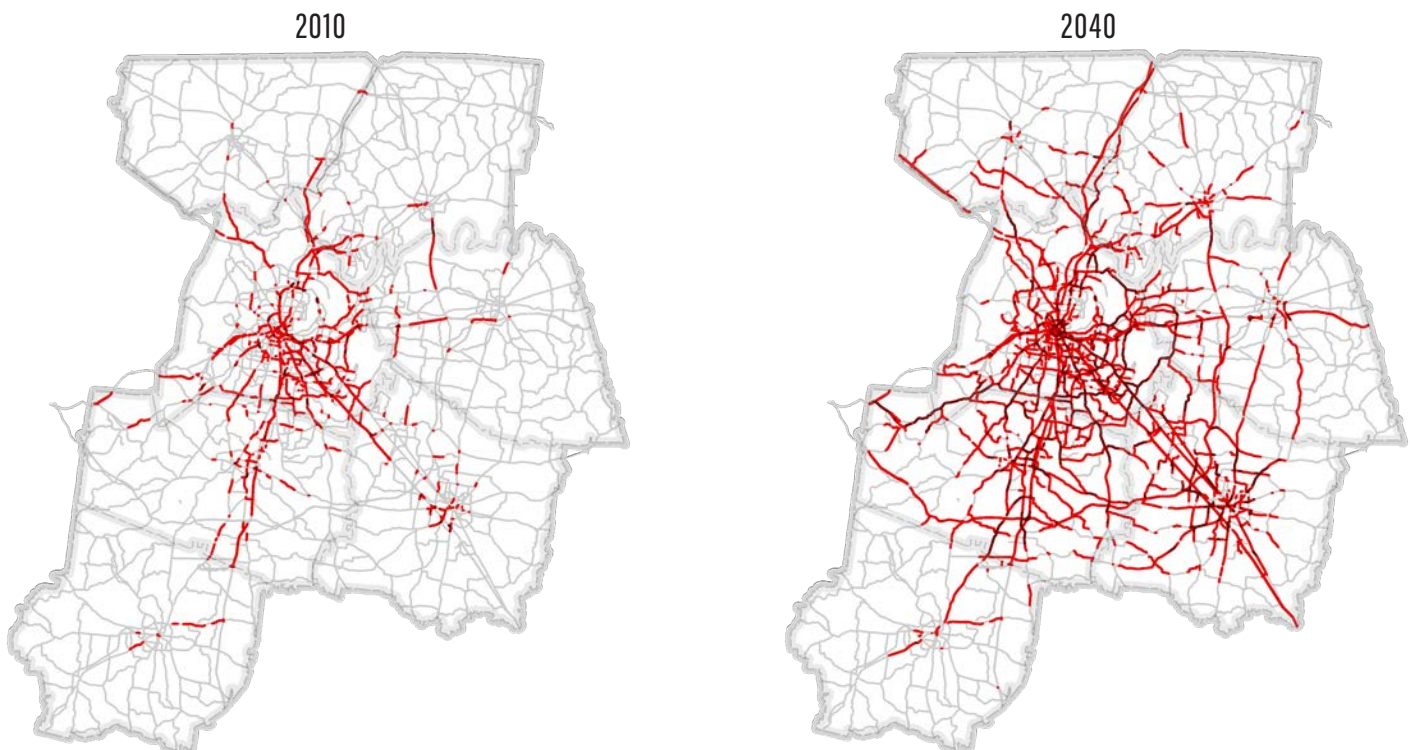


Based on GNRC's land use model which incorporates local land use policies and real estate market trends.

VEHICLES PER DAY

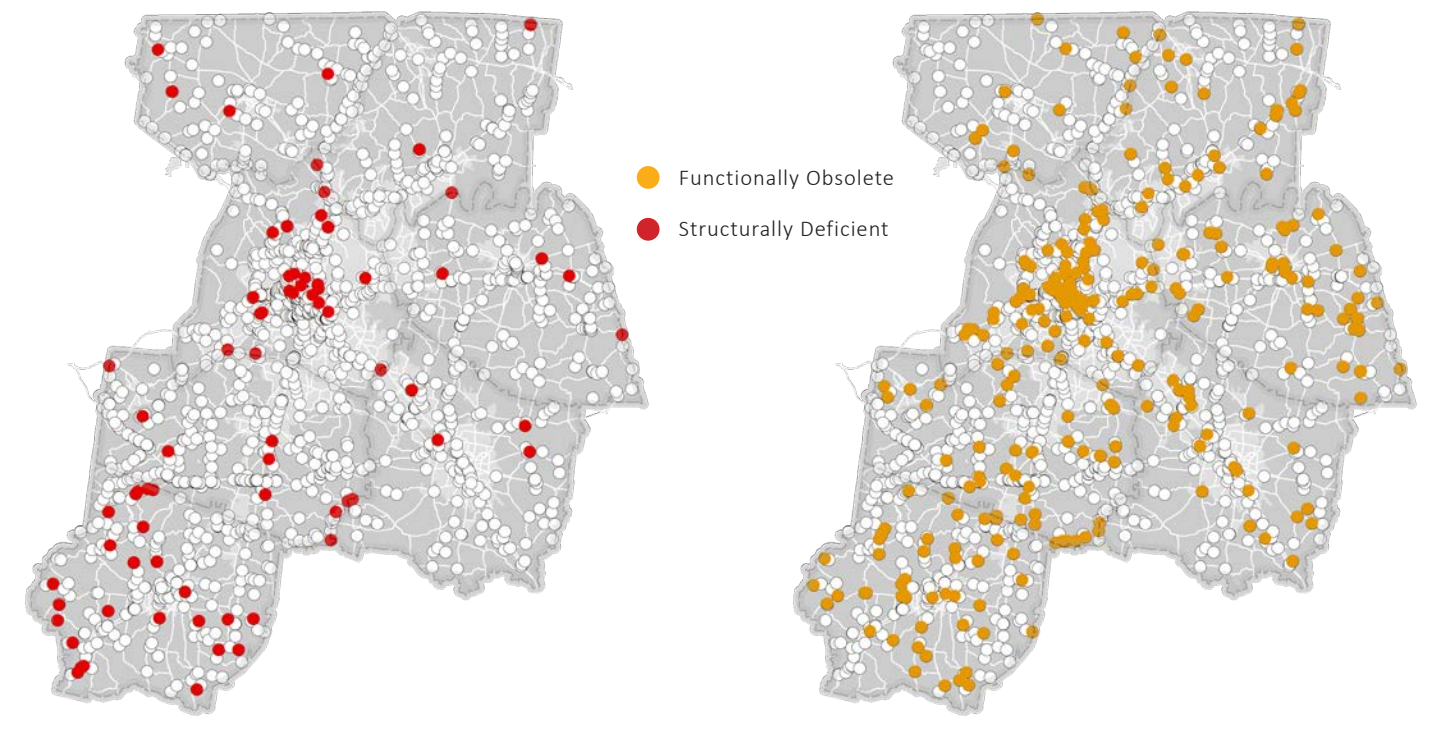


TRAFFIC CONGESTION

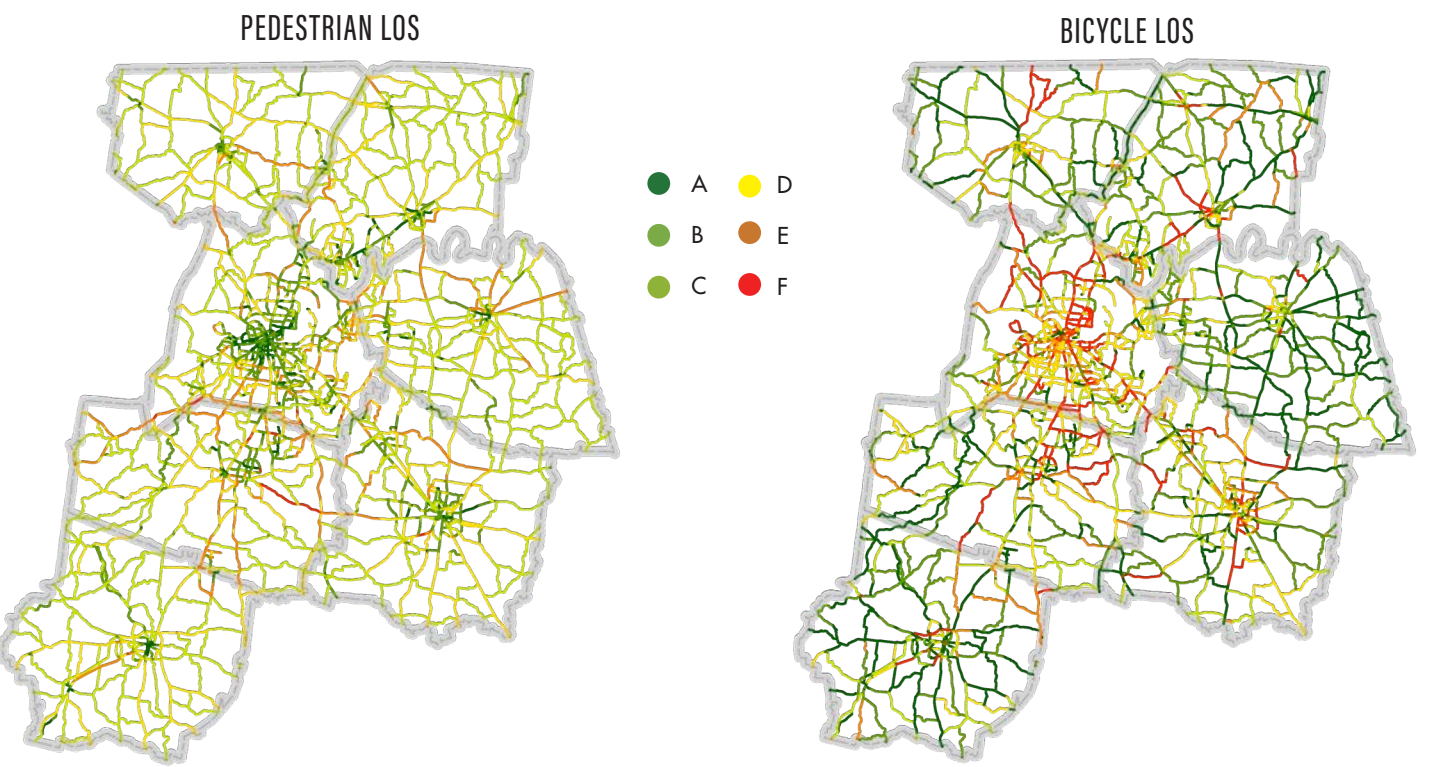


Based on GNRC's traffic model which incorporates growth and development forecasts. Daily recurring congestion based on roadway volumes and travel speeds.

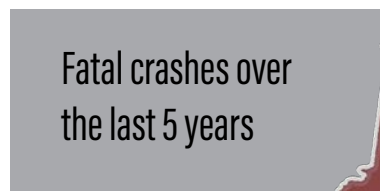
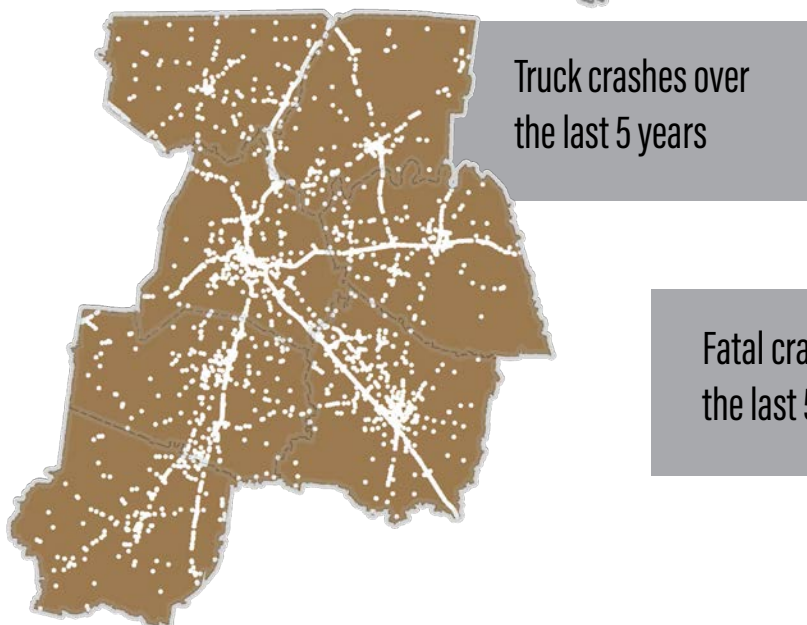
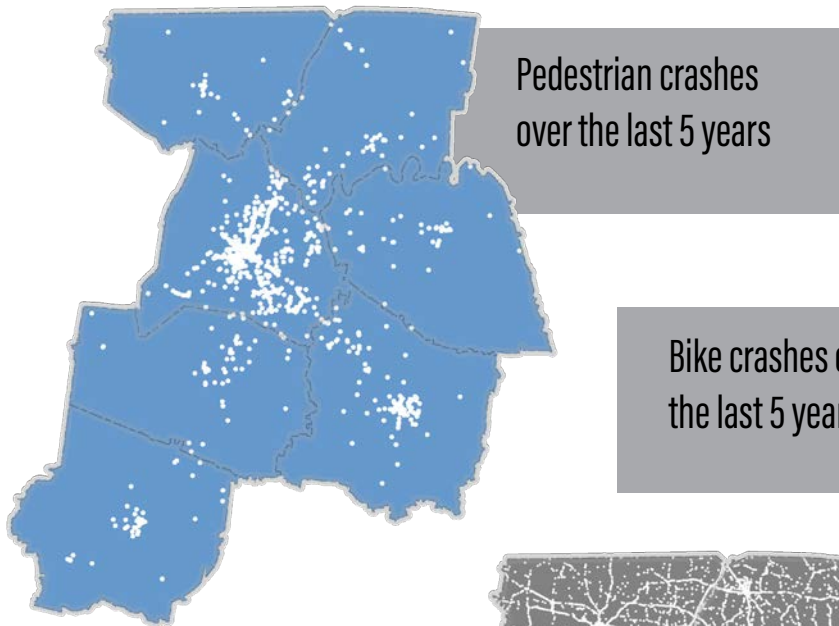
BRIDGE CONDITIONS



BICYCLE AND PEDESTRIAN LEVEL OF SERVICE (LOS)



VEHICLE CRASH LOCATIONS, 2010-2014





WHAT DOES THE PLAN RECOMMEND?

The development of Middle Tennessee Connected provided an opportunity to identify and document community and regional transportation needs for the next 25 years. Through a collaborative effort which included its member governments, area non-profit organizations, the business community, and local residents, the Plan identifies a long-term vision for transportation, along a set of goals and objectives to guide the prioritization of potential investments.

The following presents the policy framework of the plan, its core strategies, and funding recommendations.

PROJECT SCORING CRITERIA

Each project submitted for consideration underwent an extensive review process by GNRC staff and the Technical Coordinating Committee. The following merit based factors were weighed to ensure projects aligned with the goals and objectives of the overall plan.

SYSTEM
PRESERVATION



QUALITY
GROWTH



MULTI-MODAL
OPTIONS



CONGESTION
MANAGEMENT



SAFETY &
SECURITY



FREIGHT & GOODS
MOVEMENT



HEALTH &
ENVIRONMENT



PROJECT
HISTORY



GOALS & OBJECTIVES

MAINTAIN A SAFE AND RELIABLE TRANSPORTATION SYSTEM FOR PEOPLE AND GOODS

Integrate a “fix-it-first” mentality to keep existing infrastructure in a state of good repair.

Reduce the number and severity of crashes by designing roadways to accommodate all users.

Incorporate information technologies to improve traffic operations and help optimize traveler decisions.

Manage the negative impact of traffic congestion by providing alternatives to driving.

Designate and implement a regional freight network to efficiently move goods and minimize negative impacts to local communities.

HELP LOCAL COMMUNITIES GROW IN A HEALTHY AND SUSTAINABLE WAY

Align transportation decisions with economic development initiatives, land use planning, and open space conservation efforts.

Integrate healthy community design strategies and active transportation to improve the public health outcomes of the built environment.

Encourage the deployment of context-sensitive solutions to ensure that community values are not sacrificed for a mobility improvement.

Pursue solutions that promote social equity and contain costs for transportation and housing.

Incorporate the arts and creative placemaking into planning and public works projects to foster innovative solutions and to enhance the sense of place and belonging.

ENHANCE ECONOMIC COMPETITIVENESS BY IMPROVING PRIVATE SECTOR PERFORMANCE

Recognize major shifts in demographics and market preferences for transportation and housing and response with solutions that keep Middle Tennessee an attractive place to live and do business.

Improve the connectivity between workforce and jobs by offering a range of options to manage commuting distances and travel times.

Improve mobility within and between centers of commerce across the region by providing a diversified transportation system, rather than relying solely on roadway capacity.

Keep the region connected to national and global markets by improving travel times on U.S. Interstates, upgrading intermodal connections to water, air, and rail freight systems, and by ensuring Middle Tennessee is included in plans for national high speed passenger rail.

SPEND PUBLIC FUNDS WISELY BY ENSURING A RETURN ON INVESTMENT

Increase public ownership in the planning process to help identify the most significant problems.

Foster regional interdisciplinary collaboration to prioritize the most effective solutions.

Evaluate the full costs and benefits of public investment in infrastructure and strive for quality over quantity by implementing all elements of priority projects to maximize value.

Consider public-private partnerships to encourage innovative approaches to project design and delivery.

Accelerate project delivery schedules by involving the public early and often, minimizing bureaucratic delay, and ensuring that funding is available to implement projects once designed.

Monitor and track the performance of public investments to demonstrate accountability.

Find ways to bridge the gap between revenue shortfalls and the growing cost of transportation needs.

LONG-TERM VISION

Expanded and Modernized Transit Options

It is critical that the region place significant emphasis on improving public transit in the years to come. This will provide alternatives to congested roadways, and ensure Middle Tennessee remains a livable marketplace that can compete on a national and global scale.

More Active and Walkable Communities

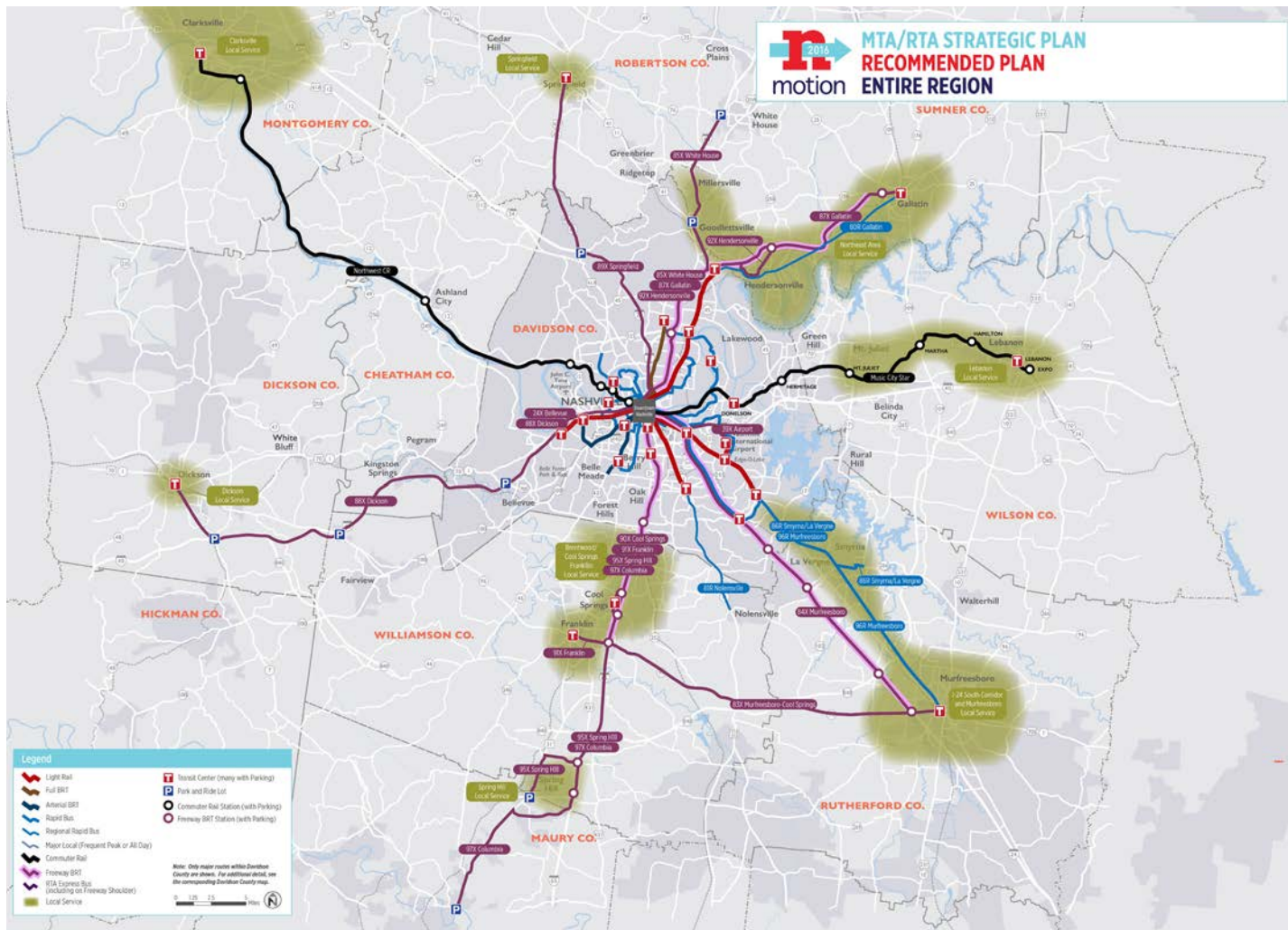
People are demanding safer and more walkable streets. Investments in infrastructure for pedestrians and bicyclists will enhance local commerce, foster healthier lifestyles, and serve as the backbone for transit expansion.

Reimagined Corridors with Integrated Technology

Reinvestment in existing roadways will maximize the benefit of limited transportation dollars and ensure that infrastructure is not overextended beyond the region's ability to maintain a state of good repair. Emphasis should be placed on bringing roadways to design standards and integrating technologies to improve traffic operations and real-time travel

The public transit element of the long range vision calls for connecting communities across a 10-county area with a combination of rapid transit, commuter rail, express coach, local fixed-route bus, vanpools, and rural paratransit services. To support the vision's implementation, GNRC is responsible for carrying out detailed studies that will answer specific questions about ridership, economic benefits, construction costs, and general project design details like the alignment and technologies to be used in each of the corridors.

The Regional Transportation Authority and the Nashville MTA (renamed WeGo Public Transit) adopted a strategic investment plan called, “nMotion,” in 2016 as a major step towards implementing the regional vision.



See a larger version of this map and learn more at nMotion.info.



The total estimated capital cost for building out the transit system is between \$3 billion and \$8 billion depending on the type of guideway, vehicle technology, and alignment selected for each corridor.

The Denver region, which is about the size that the Nashville area is expected to be by the year 2040, has invested billions in their game-changing transit system over the last 15 to 20 years, with a total price tag upon completion surpassing \$10 billion. Funding comes from a dedicated one percent regional sales tax approved by voters which in turn has leveraged significant federal grants.

The process used to design the specific type of service for each corridor involves significant public input through detailed corridor studies which provide an estimate of cost and benefit for each possible option.

CORE STRATEGIES

1

MAINTAIN THE SAFETY AND RELIABILITY OF THE EXISTING SYSTEM

In order to keep the regional transportation system in a state of good repair, the RTP recommends that state and local agencies prioritize maintenance activities over capital expansion projects, and budget sufficient funding for ongoing maintenance of the system. It is likely that current funding levels will need to be increased to meet new federal standards, and to address aging facilities. RTP capital projects also contribute to the safety and reliability of area infrastructure as roadways are reconstructed to meet design standards or improved to include accommodations for pedestrians and bicyclists. Most roadway projects will feature resurfacing as part of the scope of work, and bridges will be repaired or replaced as appropriate.

2

INCREASE COORDINATION BETWEEN TRANSPORTATION, ECONOMIC DEVELOPMENT DECISIONS

Economic development and transportation infrastructure have a symbiotic relationship. Development locations influence regional travel patterns and infrastructure investments, and in turn, the degree of access provided by the transportation system can influence land development trends. Given the area's rapid growth and limited transportation funding, it is becoming increasingly important that development decisions do not place demand in areas where infrastructure is not planned. It is also important that transportation facilities are built to appropriately serve their markets.

Establish corridor management agreements among TDOT and local elected officials along key state routes to coordinate access management and land development decisions.

Commission a study to review best practices for land development impact fees for transportation.

Conduct a comprehensive review of local parking policies, pricing, and management.

Convene periodic meetings among state and local ECD officials and transportation planners to evaluate potential sites for development.

3

FOCUS SHORT- AND MID-TERM INVESTMENTS ON COMPLETE STREETS AND THE DEPLOYMENT OF NEW TECHNOLOGIES TO IMPROVE SAFETY, TRAFFIC OPERATIONS, AND CUSTOMER INFORMATION

Complete streets not only improve safety and promote healthier activity, but also increase access to local commerce. With decades of auto-oriented investments behind us, the time is now for retrofitting roadways to include options for all. Reinvestment in streets also should include the deployment of technology to upgrade traffic signals, improve parking management, and provide real-time information about transportation choices to customers.

Encourage the adoption of local complete streets policies and design guidelines.

Dedicate funds through an Active Transportation grant program to assist with the implementation of projects.

Commission a study to inventory existing technology and evaluate options for implementing "smart cities" innovations.

Establish a dedicated grant program to help accelerate the deployment of technology upgrades.

Coordinate with FHWA, TDOT, and local agencies to establish the necessary agreements for the sharing of data and communications systems to improve traffic operations and real-time information.

4

ENCOURAGE A COMBINATION OF PROJECTS, INCENTIVES, AND REGULATIONS TO REDUCE TRANSPORTATION COSTS FOR FREIGHT CARRIERS, AND MINIMIZE THE IMPACTS OF HEAVY TRUCK AND RAIL ON THE URBAN CORE AND SURROUNDING COMMUNITIES

Middle Tennessee benefits tremendously from freight transportation related assets and infrastructure. Nashville is at the nexus of three major Interstate highways, Interstates 24, 40, and 65, and three major limited access bypasses, Interstate 440, Briley Parkway, and State Route 840. The Cumberland River provides barge access to the Mississippi River system and the Gulf of Mexico. One Class I (CSX) and two Class II rail carriers operate within the region along with a major rail classification yard, an intermodal ramp, an automotive ramp, and bulk and break bulk terminals. It is important that the region balance freight movement with local neighborhood concerns.

Formally adopt a regional truck network and design standards to ensure ease of movement for freight and to minimize conflicts with adjacent land uses.

Commission a study to explore the benefits and costs of restricting truck movements on less desirable routes including the Interstate loop during rush hour periods.

Commission a study to evaluate opportunities to realign freight rail lines and relocate the Radnor Yard intermodal facility to ease congestion in the urban core, and to promote the clustering of freight operations.

5

ESTABLISH CONSENSUS TO FUND AND IMPLEMENT PROJECTS OF REGIONAL SIGNIFICANCE INCLUDING MULTI-MODAL UPGRADES TO KEY CORRIDORS AND MAJOR IMPROVEMENTS TO AGING INTERSTATE LOOP AROUND DOWNTOWN NASHVILLE

The region is served by seven major corridors connecting downtown Nashville with traditional town centers and emerging activity centers. Each serves a significant role in Middle Tennessee's overall economic development strategy.

Refine and implement transit recommendations of the "nMotion" the strategic investment plan adopted by the RTA and Nashville MTA (now known as WeGo Public Transit).

Pursue local/regional dedicated funding to build and operate high capacity transit projects.

Begin design work on major capacity projects including upgrades to the downtown Nashville Interstate loop.

6

ENGAGE THE PUBLIC IN NEW AND INNOVATIVE WAYS, INCLUDING CREATIVE PLACEMAKING, TO ENHANCE COMMUNITY BUY-IN AND TO MINIMIZE IMPACTS OF CONSTRUCTION ON NEIGHBORHOODS

The GNRC and implementing agencies can improve the methods used to communicate with the public during the planning process and find creative ways of offsetting the potentially negative impacts of construction projects. The plan recommends the following actions to help communities get the most out of their transportation improvements.

Simplify opportunities for the public to provide input on transportation problems through the development of mobile applications to document issues and concerns.

Improve access to information about programmed projects including budgets, schedules, proposed improvements, and progress.

Establish a creative placemaking program to employ an artist-in-residence during the design/engineering and construction phases of projects.

Improve real-time information about to construction projects and street closures.

REVENUE FORECASTS

The federal government is the largest source of funding for improvements to the region's major roadway network identified in this RTP. Generally, program funds come from a motor fuels tax and are administered by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA).

The following programs are included in the Highway Trust Fund, some as part of the Trust Fund's embedded Mass Transit Account.

Federal Grants and Matching Funds

National Highway Performance Program (NHPP)

Provides funding to maintain, improve, or expand routes on the National Highway System (NHS) including U.S. Interstates, freeways, and principal arterials.

Surface Transportation Program (STP)**

Provides flexible funding that may be used to preserve and improve the conditions of federal-aid roadways or make improvements to bridges, public transit, facilities for pedestrians bicyclists.

Highway Safety Improvement Program (HSIP)

Aimed at projects that can reduce traffic fatalities and serious injuries on public roads.

Congestion Mitigation Air Quality Program (CMAQ)

Provides funding to implement projects that help to reduce overall vehicular emissions with a focus on solutions that mitigate congestion through public transit and non-motorized modes of transportation.

Transportation Alternatives Program (TA)**

Provides funding to expand access to a host of alternative transportation options including safe walking and bicycling facilities.

Federal Transit Programs (FTA)**

A series of grants distributed by formula to improve urban and rural transit services, facilities, and equipment including the FTA 5307, 5310, 5311, 5337, and 5339 programs.

Fixed Guideway Capital Investment Program "New Starts" (FTA 5309)

A competitive grant program aimed at building or expanding fixed-guideway transit options including light rail or bus rapid transit.

Transportation Investment Generating Economic Recovery Program (TIGER)

Initially created through the American Recovery and Reinvestment Act of 2009, the program provides an opportunity to compete for funding to implement transportation projects that help improve economic conditions.

State and Local Matching Funds

Most federal grants require a 20 percent non-federal match. State dollars come from the Tennessee motor fuels tax. Local dollars come from a variety of sources including local general funds.

TOTALS

**A portion or all of this grant program is directly sub-allocated to the Urbanized Areas (UZAs)

Annual Congressional Apportionments (Millions)

U.S.*	Tenn.	REGION**	
\$21,900.0	\$492.9	\$109.0	
\$10,100.0	\$226.8	\$59.2	
\$2,400.0	\$49.5	\$11.80	
\$2,200.0	\$37.0	\$8.9	
\$800.0	\$18.9	\$5.0	
\$7,900.0	\$81.8	\$30.1	
\$1.9			
\$600.0			
		\$56.0	
\$47,800.0	\$906.9	\$280.0	

Planning Area Revenue Forecast (Millions)

5 YEAR	10 YEAR	25 YEAR	
\$426.0	\$2,745.6	\$3,171.6	
\$391.2	\$1,491.4	\$1,882.6	
\$156.3	\$239.3	\$395.6	
\$106.3	\$162.9	\$269.2	
\$59.7	\$91.4	\$151.0	
\$156.9	\$759.3	\$916.2	
Administered Competitively			
Administered Competitively			
\$324.1	\$1,372.5	\$1,696.6	
\$1,620.5	\$6,862.4	\$8,482.9	

Revenue forecasts are based on the FY 2014 annual apportionment and assume an average rate of growth of 4.4 percent per year for the life of the plan.

FUNDING RECOMMENDATIONS*

\$1.2 Billion

Regional Fixed-Guideway Transit Projects

Dedicated lanes for transit along regional corridors and within the urban core.

The 2040 RTP marks the first time the region has elected to dedicate a portion of its formula grant funding from the Federal Highway Administration to help engineer and construct fixed-guideway transit along major roadway corridors connecting Nashville to Franklin, Gallatin, and Murfreesboro.

\$916 Million

Local and Regional Transit Improvements

Preventative maintenance, vehicle acquisition and replacement, transit facilities, vanpool programs, and rural services.

Those funds can be combined with local dedicated revenue to help leverage additional federal discretionary grants to build out the regional transit vision.

\$206 Million

Dedicated to Active Transportation Projects

Expanded access to safe walking and bicycling facilities.

\$132 Million

Dedicated to Technology Upgrades

Deployment of new solutions to manage traffic and provide real-time travel information about parking and transportation options.

\$396 Million

Dedicated to Safety Improvements

Intersection and roadway safety improvements as they arise over the next several years.

\$8.5 Billion

Based on current funding levels authorized by U.S. Congress, the Nashville area is expected to receive approximately \$8.5 billion over the next 25 years from federal transportation grants that are distributed by formula to states and metropolitan areas. This amount includes the required non-federal matching dollars. The figures below present recommendations for how those dollars should be directed to projects through 2040.

\$2.7 Billion

U.S. Interstate Improvements

New and improved interchanges, additional general purpose lanes, and designated lanes for carpools and transit where appropriate.

\$3.2 Billion

Roadway Capacity Expansion

Roadway extensions and additional lanes on interstates, state routes, and other federal-aid streets, incorporating new sidewalks and bicycle lanes where appropriate.

\$269 Million

Improvements to Reduce Vehicle Emissions

Diesel engine retrofits and the expansion of non-motorized modes and public transit to address air quality concerns.

\$1.0 Billion

Roadway Reconstruction and Multi-Modal Upgrades

*Recommendations for how to direct anticipated federal grants over the next 25 years. It is important to note that revenue shortfalls continue to delay the delivery of projects, limiting the reach of improvements. Regional needs out pace available revenue by 2 to 1. Categories are not mutually exclusive and cannot be summed to a total.

PROPOSED PROJECTS

TOP PRIORITIES FOR FUNDING (~•)

There are nine major capital projects identified by local communities and transit agencies that top the list of priorities for the region. The RTP allocates significant funding to these projects, but a few will require additional revenue to be fully implemented. They include:

- Upgrading the aging interstate loop in downtown Nashville;
- Incorporating rapid transit technology into the corridors between Nashville and Franklin, Murfreesboro, and Gallatin;
- Modernizing the commuter rail service between Davidson and Wilson counties,
- Providing a new transit option to serve commuters between Nashville and Clarksville which would also benefit the residents in North Nashville; and
- Improving state routes in fast growing areas of Maury, Robertson, Williamson, and Wilson counties.

COST-FEASIBLE IMPROVEMENTS (~•)

There are approximately 200 projects proposed for implementation throughout the life of the RTP. These improvements are scheduled in either a short-term horizon (2016-2020), a mid-term horizon (2021-2030), or a long-term horizon (2031-2040) based on funding availability. While many of these projects are needed today to address safety, traffic congestion, or economic development needs, they will have to wait years due to funding shortfalls, adding to their overall cost as inflation takes its toll.

ILLUSTRATIVE NEEDS (~•)

There are another 100 projects submitted by local jurisdictions that cannot be implemented at current levels of federal funding during the 25-year span. Options to move these projects forward are generally limited to state or local funds, though a handful of projects necessary for improving safety could be funded out of discretionary programs that are administered on an ongoing basis.

ADDITIONAL FUNDING OPTIONS

In order to speed up project delivery and to address more of our transportation challenges, legislators at all levels of government should consider the following options for plugging the gap in revenue. The existing federal gasoline and fuel tax rates have not been adjusted in more than 20 years.

INDEX GASOLINE TAX TO INFLATION OR CONVERT TO SALES TAX

One of the fundamental flaws of the gasoline tax is that it is currently levied at a static per gallon rate. Since the amount of revenue generated does not increase with the price of gasoline, the tax is not able to sustain its value over the long-term due to inflation. One solution could be to index the per gallon rate to inflation so that it automatically increases over time, or to convert all or portions of the tax to a sales tax.

DISTANCE-BASED OR VEHICLE MILES TRAVELED TAX

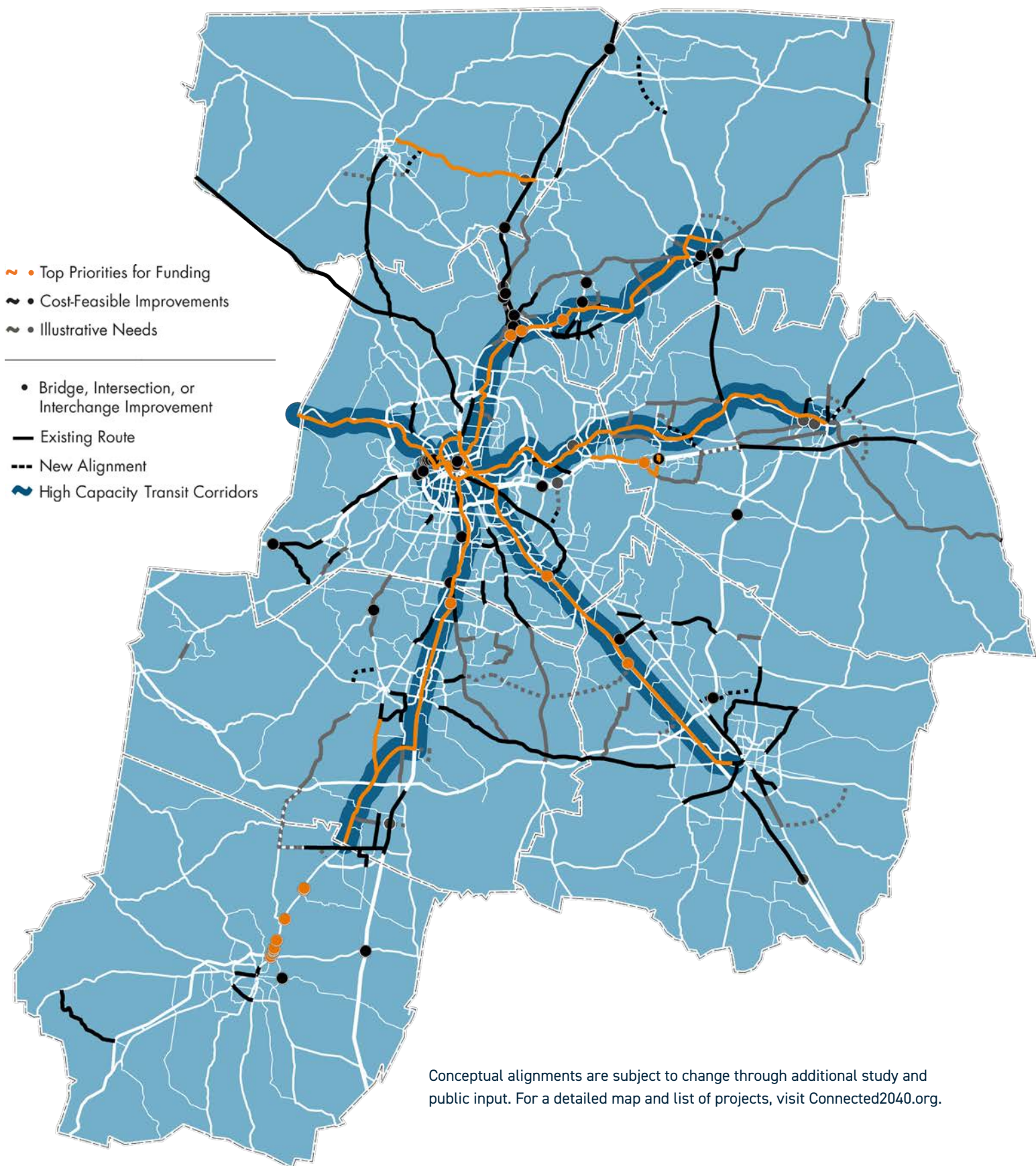
Taxing gasoline will not be a viable option as hybrid and electric vehicles grow in market share. Instead of relying on fuel consumption to generate revenue, a distance-based tax would make it possible for users to pay for their amount of travel. This type of fee could be calculated using existing technology including odometers. With GPS technology, the rate could vary by route, time-of-day, or congestion levels.

ROADWAY TOLLS

Some states and regional authorities charge tolls on roadways that help generate revenue for maintenance, and in some cases to pay for construction. Tolling typically is used on new roadways, but can also be implemented along existing routes with the most common application being the conversion of HOV lanes to toll lanes.

LOCAL/REGIONAL DEDICATED FUNDING FOR TRANSIT

What do places like Denver, Austin, and Charlotte have in common with places like Kalamazoo (MI) and Lakeland (FL)? They all have local taxes dedicated to public transit, often approved by voters. The Nashville area is one of the largest metros in the nation without it.



Conceptual alignments are subject to change through additional study and public input. For a detailed map and list of projects, visit Connected2040.org.

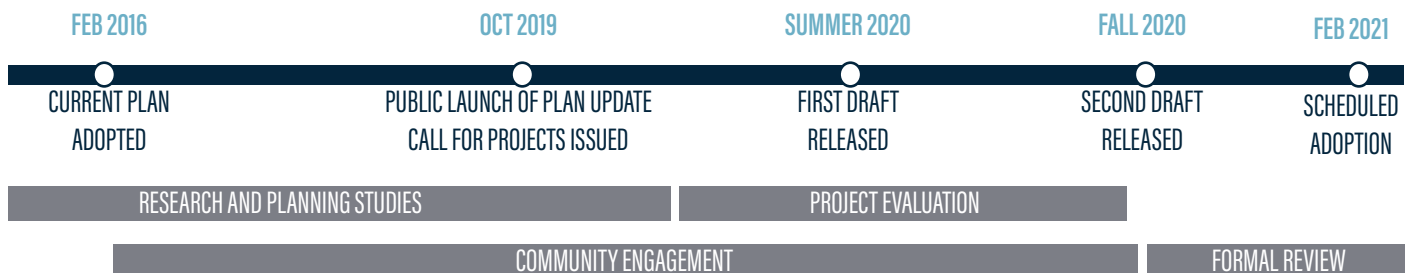
HOW CAN I PARTICIPATE IN THE NEW PLAN?

Join the thousands of people who have already provided input through local planning efforts, transportation studies, opinion polling and public workshops.

Continue to stay engaged even after the plan is adopted to provide feedback in the design and engineering of proposed improvements.

**IT'S NEVER TOO LATE TO
TELL PUBLIC OFFICIALS
WHAT YOU THINK!**

To share your thoughts, visit SolveThisTogether.org



REGIONAL COORDINATION

GNRC was established by the TN General Assembly as an association of municipal and county governments empowered to convene local and state leaders for the purposes of planning and programming state and federal investments into a range of social services and public infrastructure. GNRC serves as the region's federally-recognized Metropolitan Planning Organization (MPO), Area Agency on Aging and Disability (AAAD), and Economic Development District (EDD).

GNRC's role in transportation planning is governed by its Transportation Policy Board which convenes local, state, and federal public officials to oversee the development of plans and programs for the Nashville metropolitan planning area.

COLLABORATIVE TRANSPORTATION DECISIONS

The Transportation Policy Board, formerly called the MPO Executive Board, is empowered by federal law to serve as the primary forum for collaboration among local elected officials, public transit operators, TDOT, and other state and federal agencies in order to negotiate a mutually beneficial plan to invest in roadways, bridges, public transit, and other transportation facilities across the greater Nashville area.

The collaborative decision-making of the Transportation Policy Board membership is showcased every five years in the form of a regional transportation plan. The purpose of the plan is to direct the investment of public funds and other actions in a way that will provide for a safe and reliable transportation system, help local communities thrive over the long-term, and support the economic productivity of the region and State.

The plan is guided by four key principles that embody the shared philosophy and a set of core values that are defined by GNRC's transportation planning partners and the community at-large.

GUIDING PRINCIPLES

Livability

Enhance quality of life by prioritizing actions that increase opportunities for housing, learning, employment, recreation, and civic involvement while maintaining affordability.

Sustainability

Encourage growth and prosperity without sacrificing the health, natural environment, historical and cultural assets, or financial stability of this or future generations.

Prosperity

Contribute to the region's economic well-being by targeting solutions that attract talent, connect workforce with jobs, reduce the cost of doing business and leverage additional investment.

Diversity

Respect the multitude of backgrounds and the variety of perspectives of Middle Tennesseans by pursuing an array of strategies that are customized to local community needs and character.



GREATER NASHVILLE
REGIONAL COUNCIL

Connecting Communities. Empowering People.

200 Athens Way, Ste. 200 | Nashville, TN 37228
GNRC.ORG/Transportation