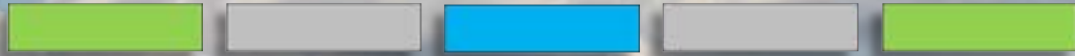


Greater Dalton



2045 Metropolitan Transportation Plan



Prepared in Cooperation With:
Whitfield County, Murray County, City of Dalton, City of Chatsworth, City of Cohutta,
Town of Tunnel Hill, City of Varnell, Town of Eton, Georgia Department of Transportation,
Federal Highway Administration, Federal Transit Administration



Table of Contents

Introduction	2
Purpose of the MTP	2
History of the MPO.....	2
The Planning Process	4
How to Use and Understand the MTP	5
Community Profile	6
Trends in Population.....	6
Trends in Employment	18
Education	24
Land Use and Comprehensive Planning	26
Community Goals	28
Planning Legacies	28
Performance Based Planning Targets	31
Transportation System Goals.....	32
Plan Development.....	34
Community Engagement.....	34
Technical Analysis	46
Evaluation and Implementation Plan	76
Project Development	76
Project Evaluation	92
Financial Considerations	111
Fiscally Constrained Implementation Plan	114
Plan Conclusions	124



Appendices

A | Travel Demand Model Socioeconomic Data Documentation

A-1 | Year 2015 SE Data Documentation

A-2 | Year 2015 SE Data Response to Comments

A-3 | Year 2045 SE Data Documentation

A-4 | Year 2045 SE Data Response to Comments

B | Dalton Metropolitan Planning Organization Transportation Improvement Program System Performance Report

C | Public Engagement Documentation

C-1 | Public Meetings

C-2 | Online Engagement

C-3 | Stakeholder Meetings

C-4 | Public Comments

D | Travel Demand Modeling Documentation

E | Fiscally Constrained Projects

Notable Plan Elements

Financial Plan 111

System Performance Report.....Appendix B

The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Department of Transportation, the State of Georgia, the Federal Highway Administration, or the Federal Transit Administration. No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance

Chapter 1

Introduction

Purpose of the MTP

The 2045 Metropolitan Transportation Plan (MTP) for the Greater Dalton Metropolitan Planning Organization (GDMPO) outlines the goals, objectives, policies, and proposed improvements needed to maintain a safe, effective, and efficient multi-modal transportation system for the movement of people and goods throughout the region which includes all of Whitfield County (including the Cities of Dalton, Tunnel Hill, and Varnell) and the urbanized portion of Murray County (including the Cities of Chatsworth and Eton). Updated every five years, the MTP (previously known as a Long Range Transportation Plan) is one of the required items addressed by the GDMPO to meet Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) standards that in turn enables the GDMPO to utilize and distribute federal transportation funds for use in its member communities. As such, the MTP articulates a multi-year and long range program of transportation improvements that are intended to address the collective transportation needs and enhance the economic, social, and environmental assets for the entire region. A key component of the MTP process is incorporating fiscal considerations so that the program of transportation improvements is realistic based on anticipated transportation funding.

History of the MPO

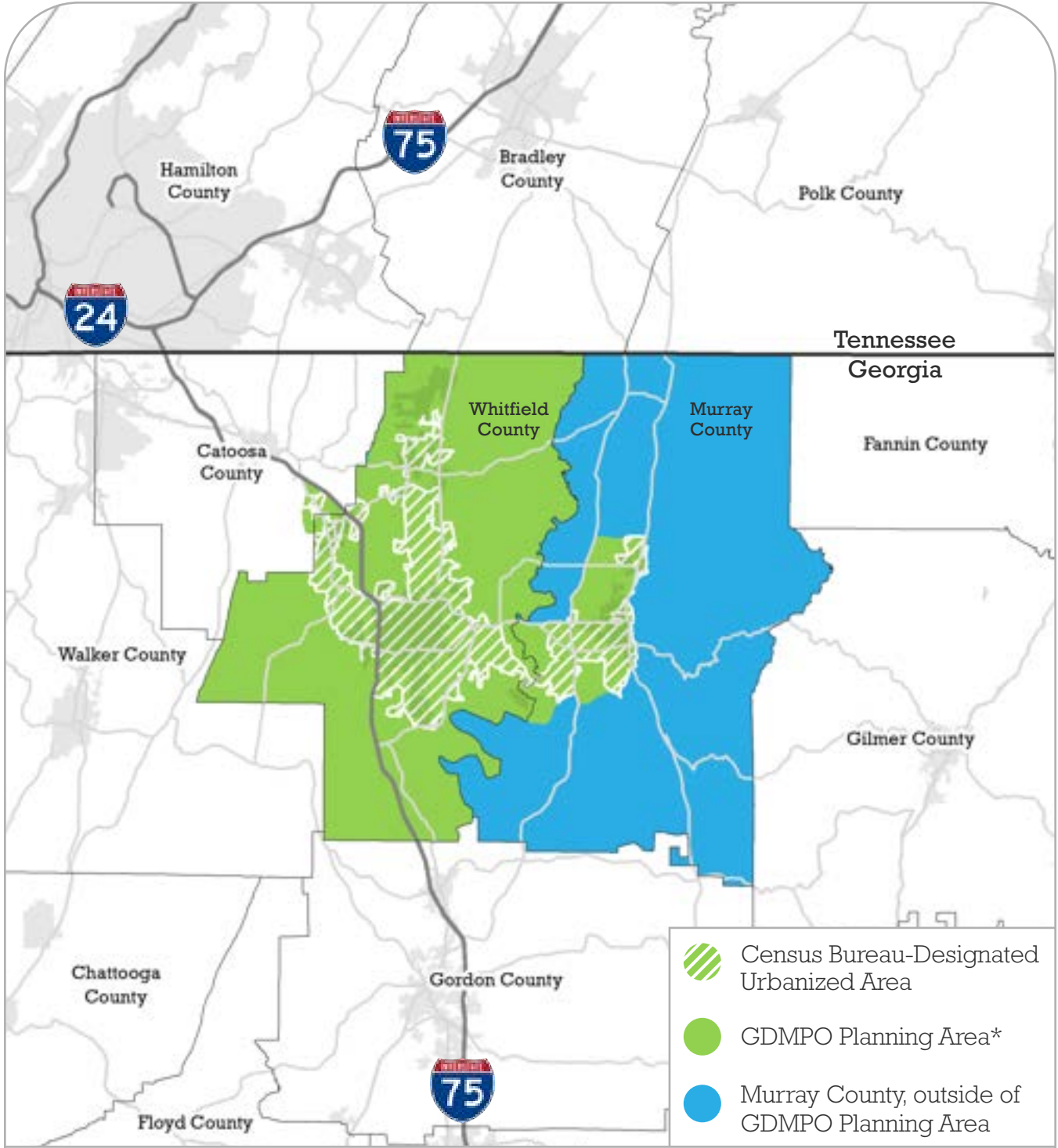
In the 2000 Census, the Dalton area was officially recorded as having an Urbanized Area (UA) population of 57,666 people and classified as a Metropolitan Statistical Area (MSA), defined as a “densely settled territory that contains 50,000 or more people.” This subsequently led to the establishment of a Metropolitan Planning Organization (MPO) in 2003 in compliance with Federal Legislation for urban areas with a population of over 50,000 people or more in order to ensure that transportation investments are based on a comprehensive, cooperative, and continuing (3-C) planning process. The Governor of Georgia initially designated the North Georgia Regional Development Center (NGRDC) as the MPO for Dalton and Whitfield County in March 2003 which was later merged with the Coosa Valley Regional Development Center to form the Northwest Georgia Regional Commission (NWGRC).

On September 30, 2009, the Governor of Georgia approved the designation of the Dalton-Tunnel Hill-Varnell-Whitfield County (Greater Dalton) Urban Transportation Study as the MPO and approved Whitfield County as the entity to staff the MPO. Shortly after, the 2010 Census recorded an UA population of 98,037 people with an expanded geography that includes parts of both Whitfield and Murray Counties as well as a small portion of Catoosa County to the northwest, further expanding the MPO’s boundaries. Transportation planning activities and responsibilities



1 | Introduction

for this part of Catoosa County are carried out by Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (CHCNGATPO) under a Memorandum of Understanding (MOU) with the GDMPO.



*The portion of the planning area in Catoosa County is managed by Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (CHCNGATPO)

The Planning Process

The GDMPO's primary objective is the development of plans and programs that address transportation needs of the MPO area. The planning process is conducted in accordance with 23 CFR, section 450.112 and in cooperation with the Georgia Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, the City of Dalton, Whitfield County, and Murray County. This cooperation and guidance is conducted through the activities of two GDMPO committees as indicated below:

- Policy Committee (PC), which is composed of the principal elected and/or appointed officials of participating governments and agencies that oversee or operate major transportation modes within the GDMPO area. This committee reviews and approves all transportation plans and programs resulting from the GDMPO.
- Technical Coordinating Committee (TCC), which provides professional technical assistance to the PC and recommends transportation plans and programs for consideration and approval by the PC.

The MPO's first Long Range Transportation Plan (LRTP) contemplated a horizon year of 2030 and was adopted in June of 2005, largely informed by the Whitfield County/City of Dalton Municipal Multi-modal Transportation Plan, completed by the Georgia Department of Transportation in September 2003, prior to the creation of the MPO. Subsequent updates of the LRTP were adopted in June 2010 and June 2015 (with horizon years of 2035 and 2040, respectively). Therefore, this GDMPO 2045 MTP serves as the 5 year update to the GDMPO 2040 LRTP.



How to Use and Understand the MTP

The MTP document is organized to largely reflect the process that was used to create the MTP. As such, it includes the following elements:

Chapter 1 Introduction: Introducing the purpose of the MTP and the history of the MPO.

Chapter 2 Community Profile: An exploration of underlying community conditions and trends in the MPO that influences travel behavior, transportation needs, and decision making.

Chapter 3 Community Goals: A description of various transportation and broader community related goals that are used to help guide the transportation planning process. These goals include consideration of federal and state transportation goals, localized goals and performance based planning targets, and systematic goals that describe holistically the local vision for the future of the transportation system.

Chapter 4 Plan Development: A documentation of the various efforts used to inform the plan's recommendations. This includes discussion of the community engagement efforts utilized as well as the various technical analyses utilized to determine the transportation system's existing and future needs.

Chapter 5 Evaluation and Implementation Plan: Further documentation focusing on the plan's recommendations, including the efforts to develop transportation projects and initiatives, evaluate and prioritize those projects and initiatives, and finally documentation of an Implementation Plan that includes fiscal considerations of future transportation funding and anticipated implementation costs.

Chapter 2

Community Profile

A robust transportation planning process is much broader than simply identifying areas of traffic congestion or where a new sidewalk may be needed. Instead, it is based on an understanding and integration with various socio-demographic conditions in the community and trends that may influence future transportation needs. This includes not only understanding future population and employment growth, but also where the locations in the community where that growth is anticipated to be more intense, understanding where vulnerable populations concentrate so that we can be equitable in our transportation decision making, identifying major commuter patterns, understanding the role of education and schools in transportation needs, and the relationship between land use planning and the transportation system.

Trends in Population

Historical and Projected Growth

Population growth in both Whitfield and Murray Counties has occurred steadily and is anticipated to continue through the year 2045 from several sources as shown in the table below. Through a process used to support travel demand modeling technical analyses for the MTP (and documented in **Appendix A**), various projections for population growth in the region were considered and combined to anticipate a year 2045 population in Whitfield County of 135,268 and in Murray County of 48,569 for a combined regional population of 183,837.

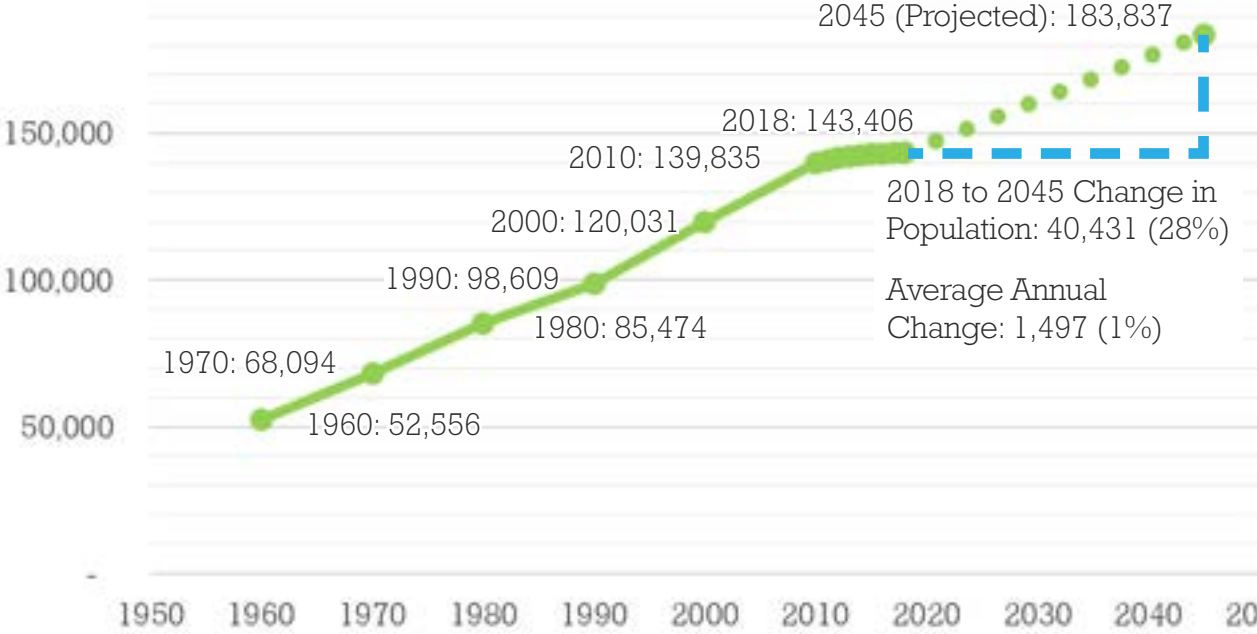
Household Size

Households are a function of population, defined by the US Census as a group of people sharing a dwelling unit. Household sizes in the Dalton region have remained mostly consistent over the years and are anticipated to not dramatically change in future years.



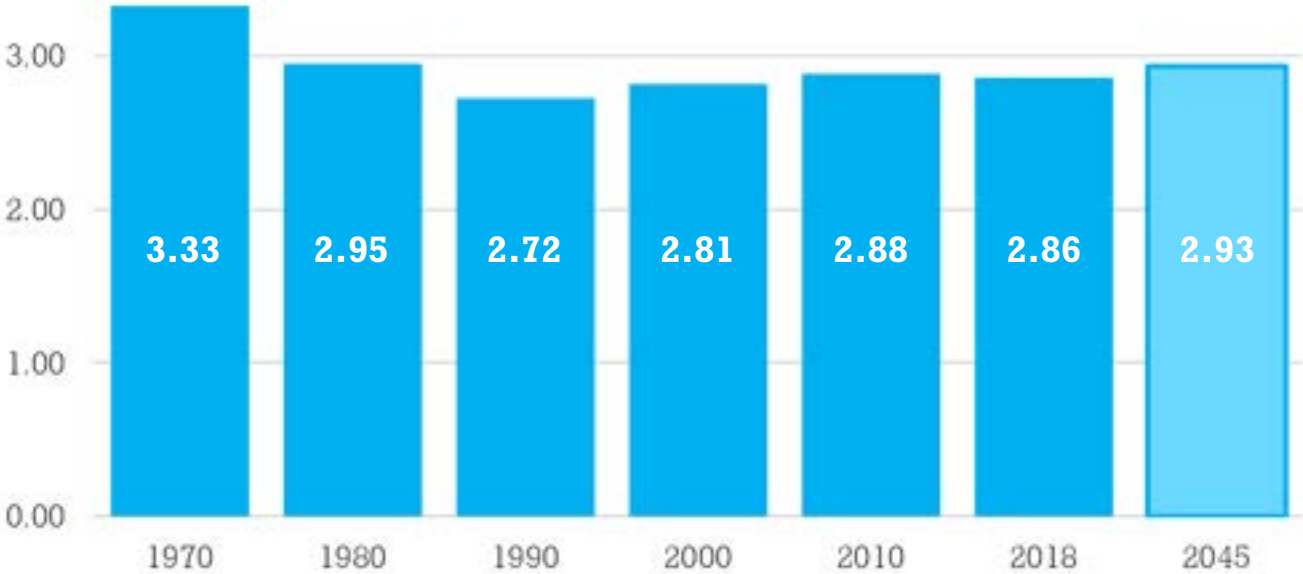
2 | Community Profile

Historic and Projected Population of Whitfield and Murray Counties, 1960-2045



Source: US Census Bureau 1960-2018; Socioeconomic projections 2045

Historic and Projected Household Size of Whitfield and Murray Counties, 1970-2045

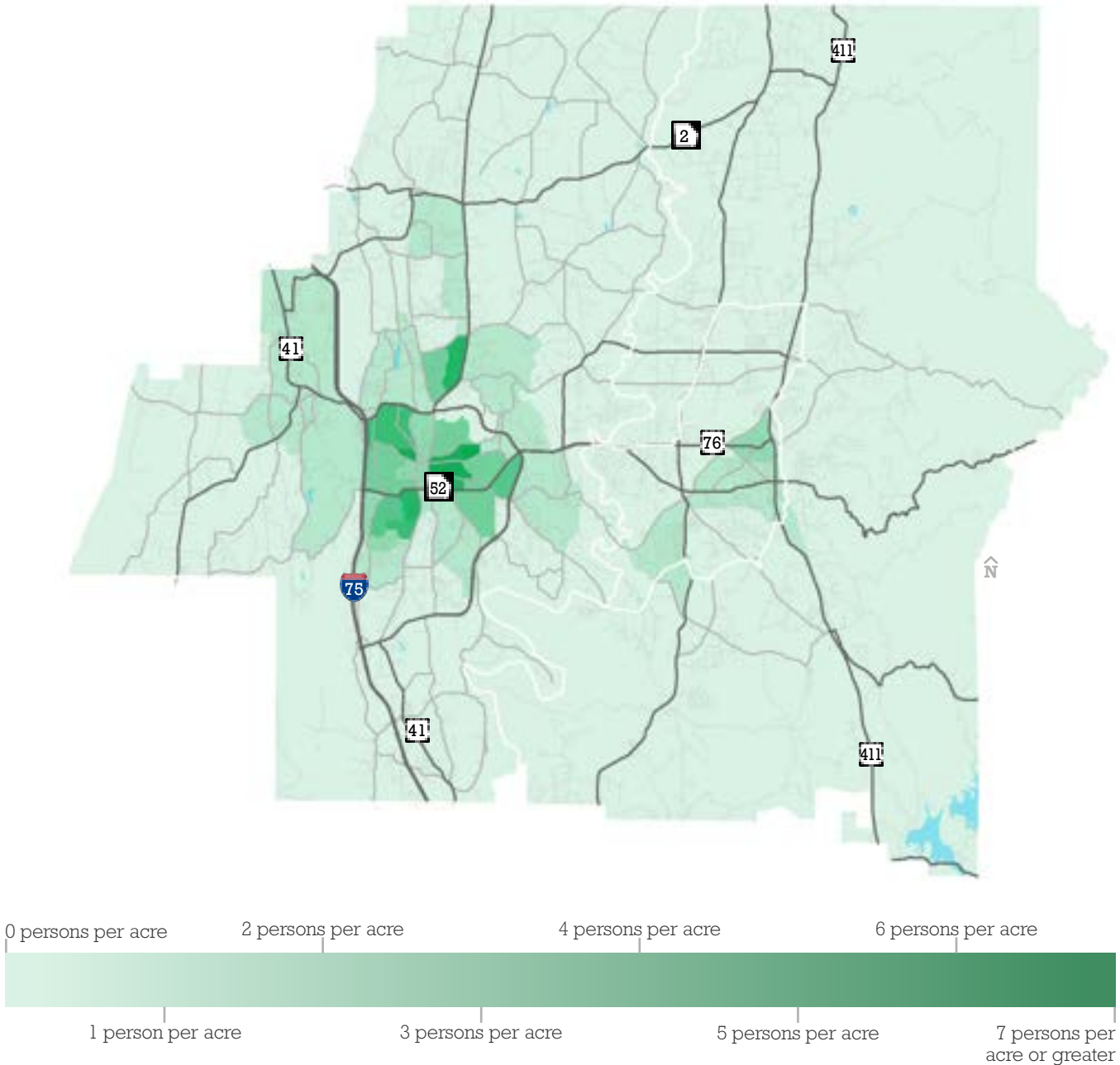


Source: US Census Bureau 1960-108; Socioeconomic projections 2045

Population Density

While total population and households help to define why a region or area may need specialized transportation planning through an MPO process, that planning needs to understand where and how population is clustered in the community. As the largest city in the region, Dalton is home to the most obvious concentration of population in the region, but several other communities (particularly Chatsworth, the seat of Murray County) indicate a noticeable concentration of population as well.

Population Density, Whitfield and Murray Counties, 2018



Source: US Census Bureau 2018



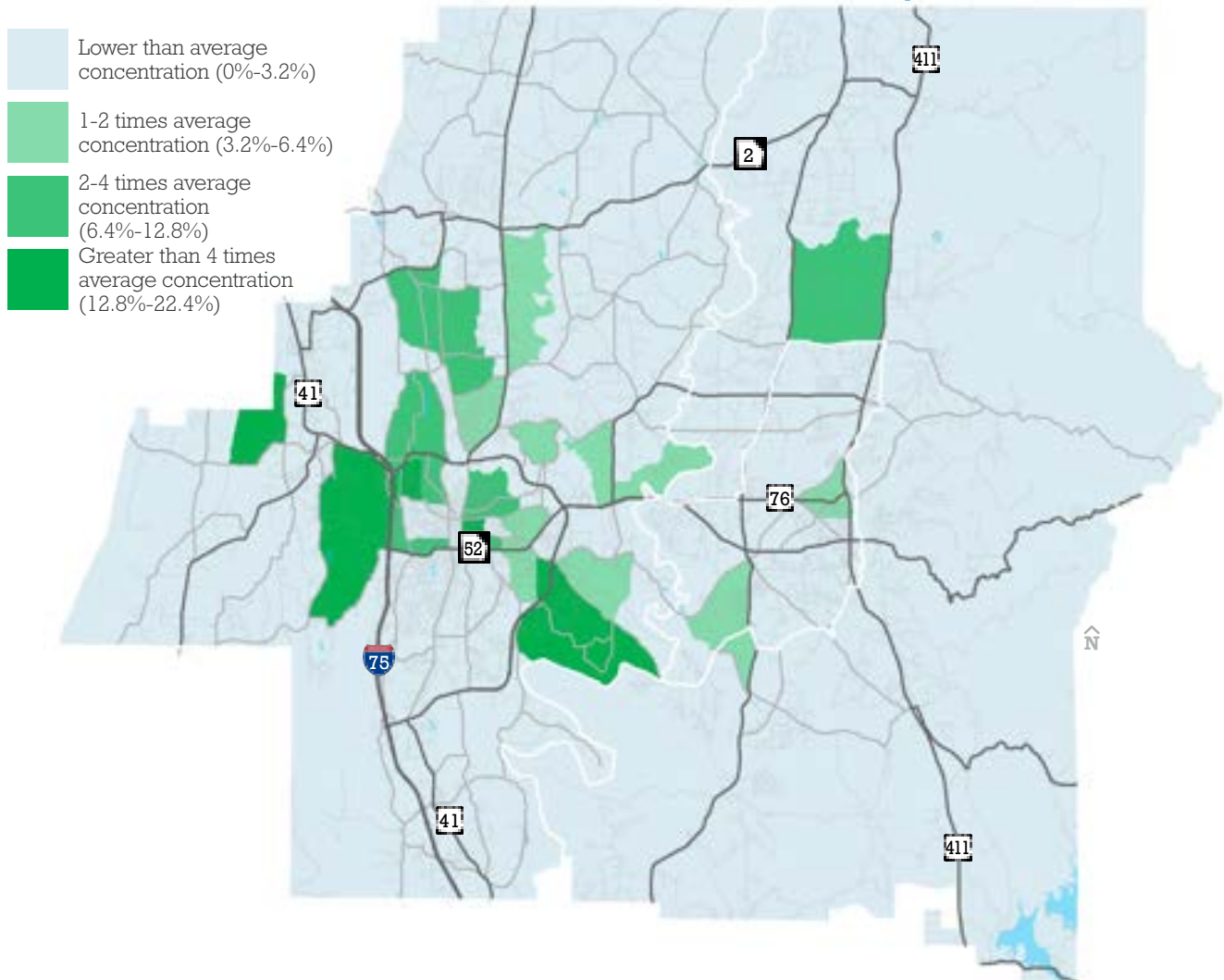
Title VI and Environmental Justice

Title VI of the Civil Rights Act of 1964 states that no person should be subject to discrimination under any program or activity receiving federal financial assistance on the grounds of race, color, or national origin. A related focus on Environmental Justice (EJ) states that federal agencies shall identify and address disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority and low-income populations. As recipients of federal transportation funds, the MPO's planning process must incorporate Title VI and EJ analysis. Using US Census geographies, areas were identified in the MPO region with EJ populations that exceed the regional average in Whitfield and Murray Counties.

Minority Populations

African American: Whitfield and Murray Counties have a combined regional average African American population of 3.2 percent of the total population. Using Census block groups, mapping of the region shows several dispersed areas exceeding the regional average.

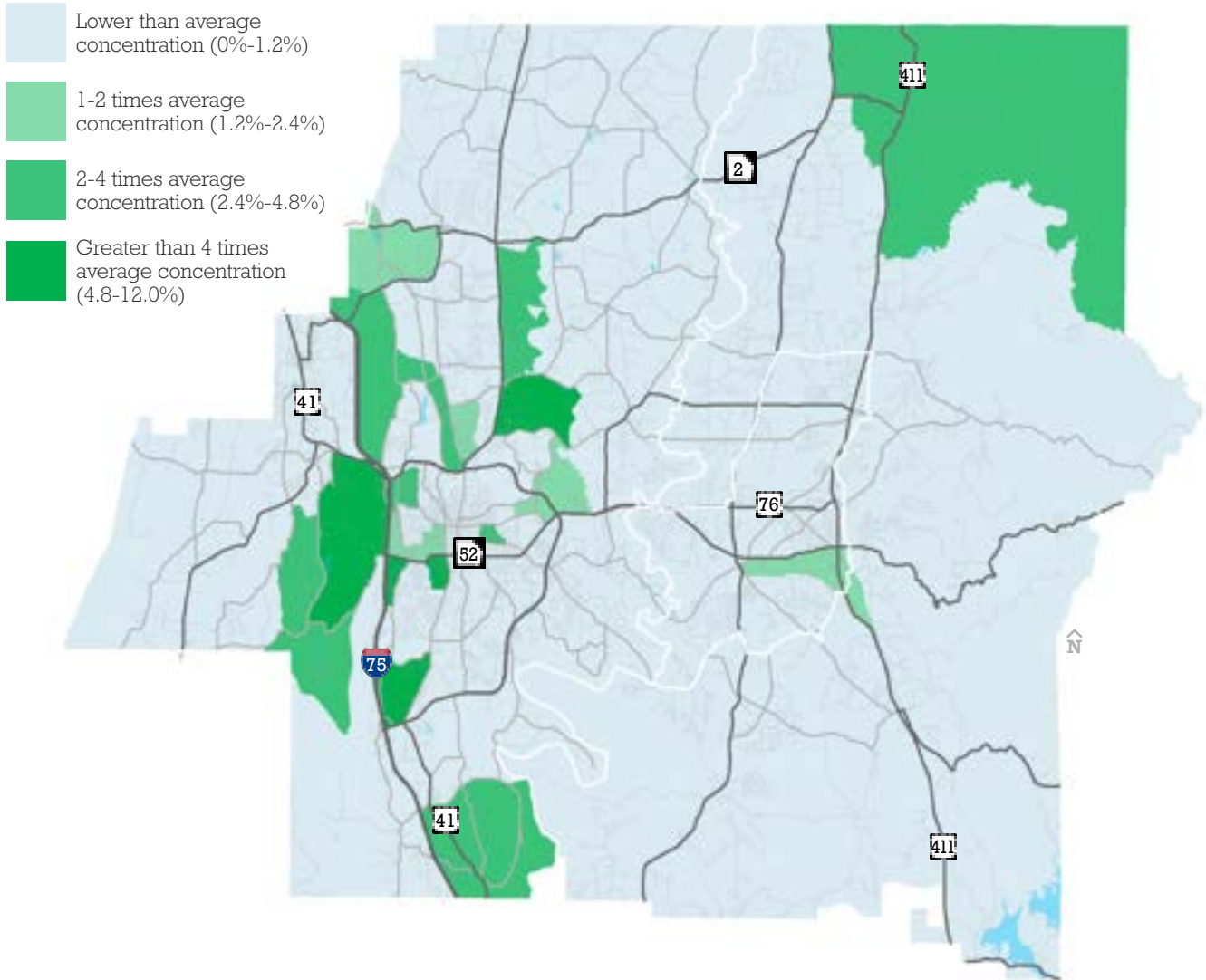
Black or African American Concentration, Whitfield and Murray Counties, 2018



Source: US Census Bureau 2018

Asian: Whitfield and Murray Counties have a combined regional average Asian population of 1.2 percent of the total population. Using Census block groups, mapping of the region shows several areas, many in the areas west of Dalton exceeding the regional average.

Asian Concentration, Whitfield and Murray Counties, 2018

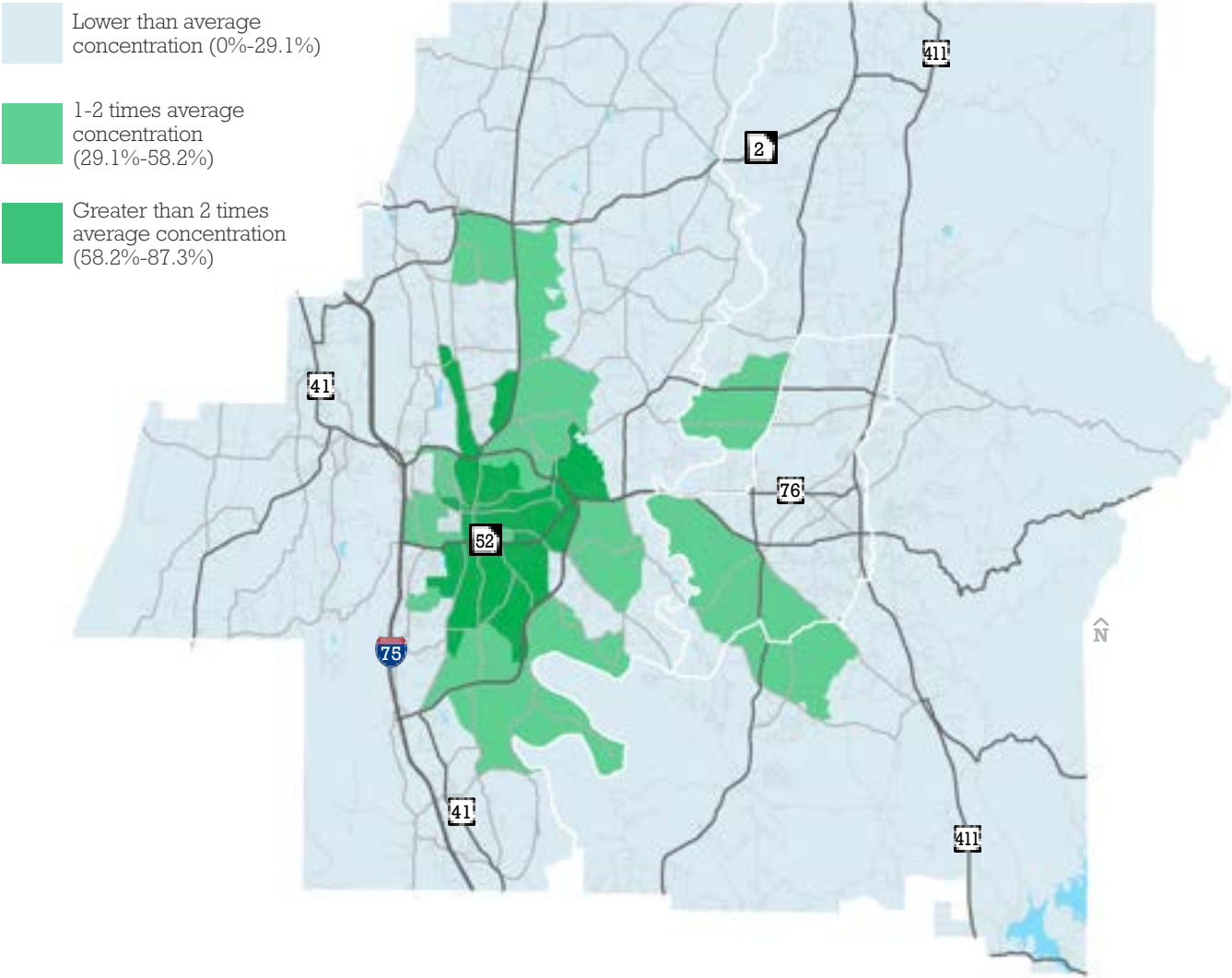


Source: US Census Bureau 2018



Hispanic/Latino: Whitfield and Murray Counties have a combined regional average Hispanic/Latino population of 29.1 percent of the total population. Using Census block groups, mapping of the region shows that much of this population is concentrated in the immediate Dalton area.

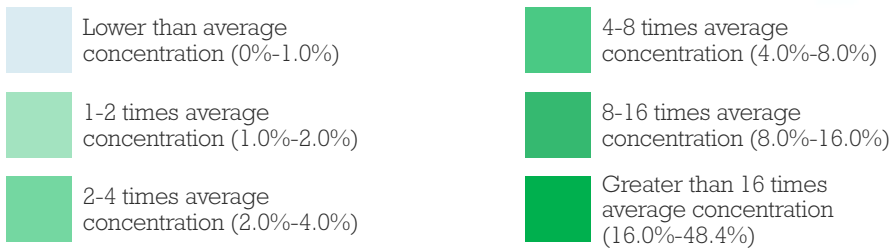
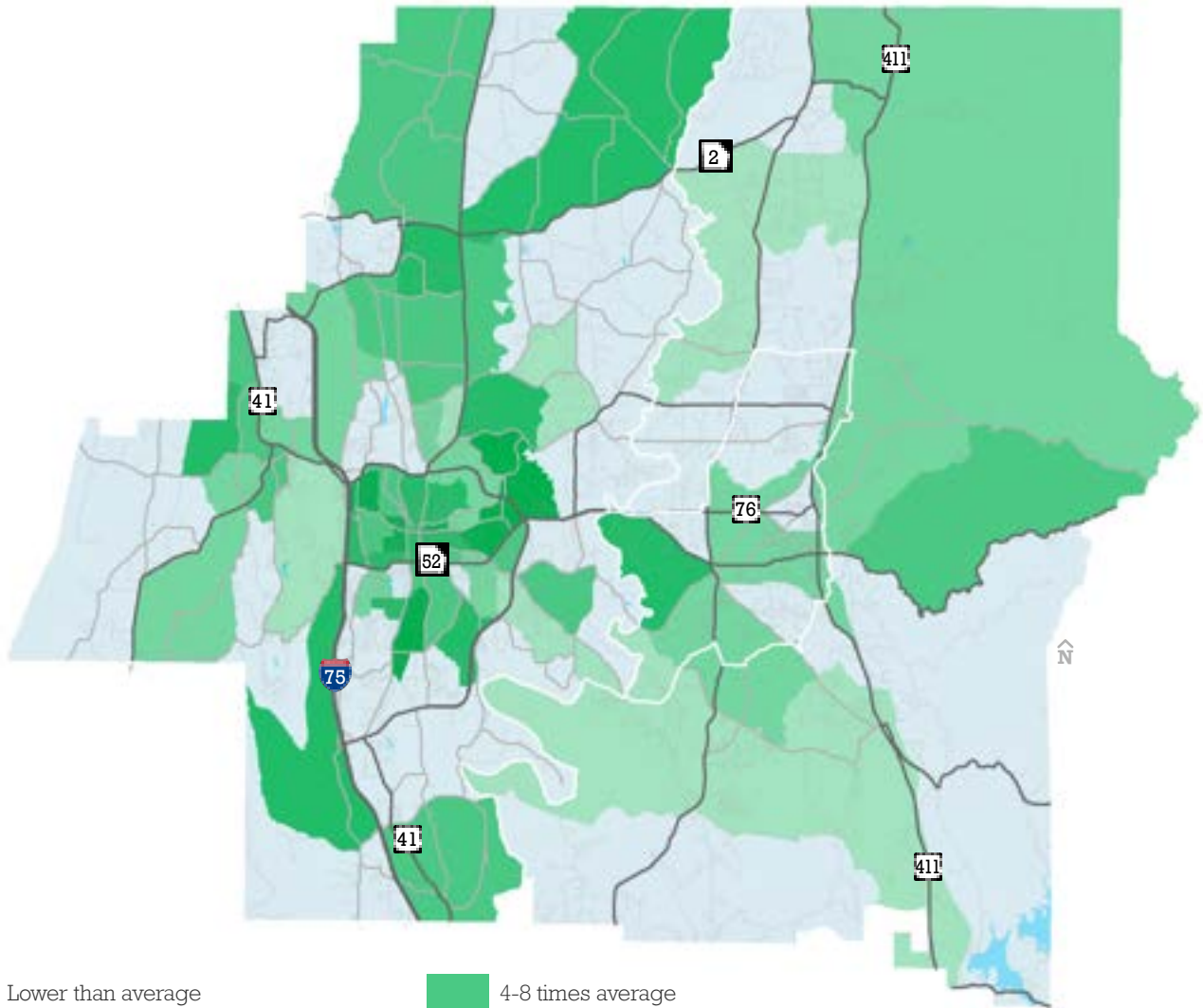
Hispanic or Latino Concentration, Whitfield and Murray Counties, 2018



Source: US Census Bureau 2018

Other Non-White Minorities: Whitfield and Murray Counties have a combined regional average other race population of 1.0 percent of the total population. Using Census block groups, mapping of the region shows several dispersed areas exceeding the regional average.

Other Non-White Concentration, Whitfield and Murray Counties, 2018



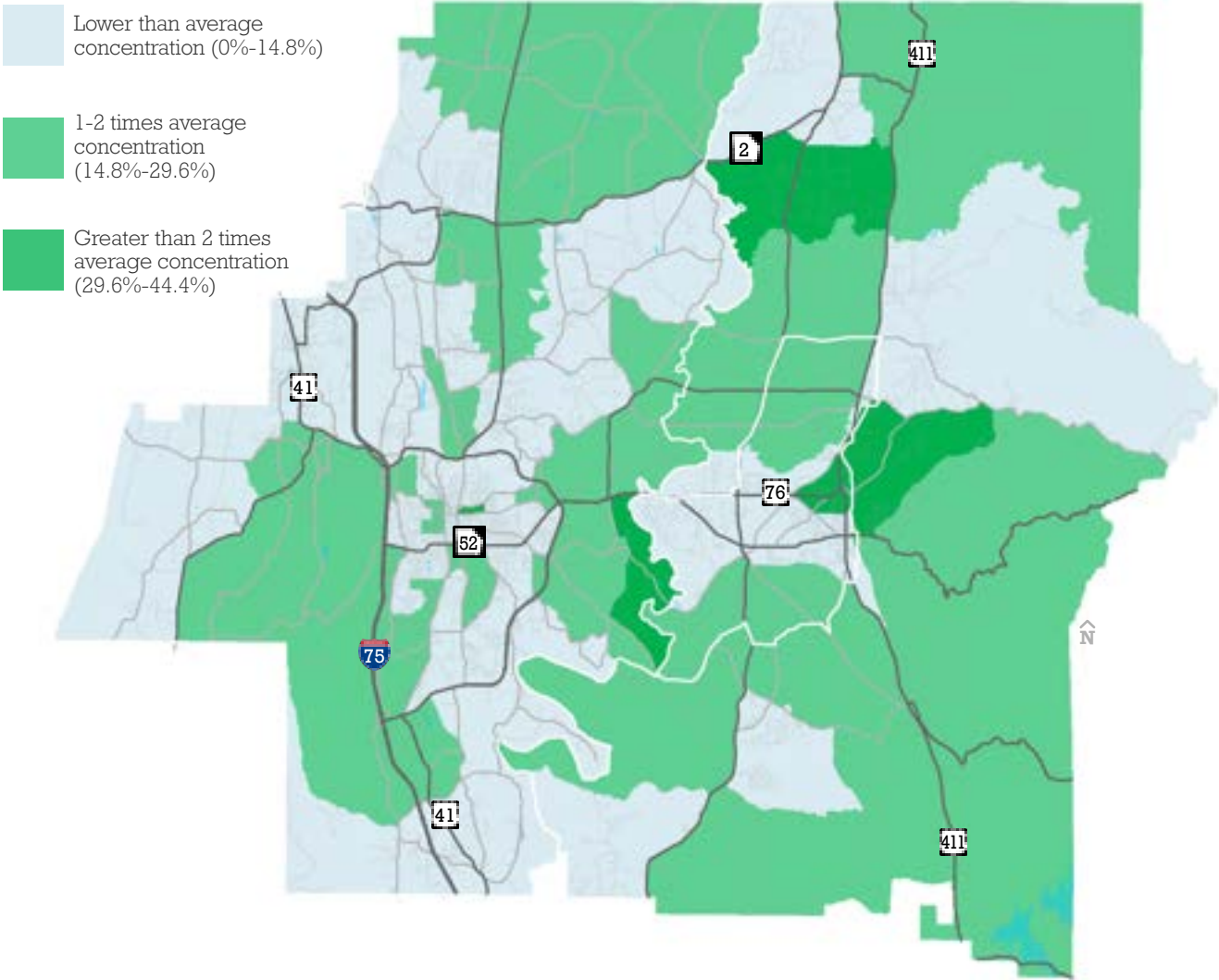
Source: US Census Bureau 2018



Disabled Populations

Whitfield and Murray Counties have a combined regional average disabled population of 14.8 percent of the total population. Using Census block groups, mapping of the region shows several areas exceeding the regional average.

Concentration of Disabled Persons*, Whitfield and Murray Counties, 2018



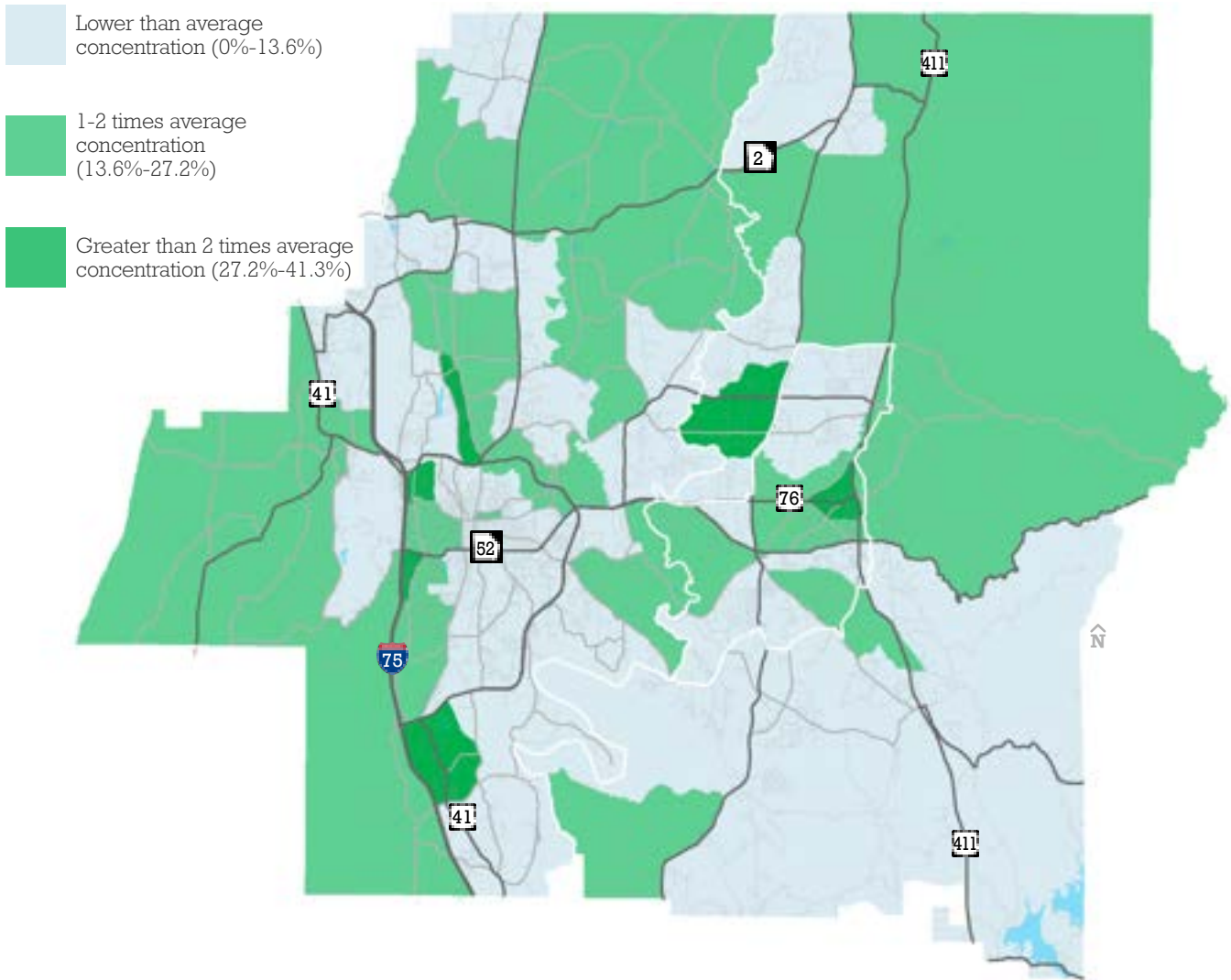
Source: US Census Bureau 2018

*This map shows the percentage of the civilian population over 18 years old that is disabled, due to limitations in Census Bureau data

Elderly Population

Whitfield and Murray Counties have a combined regional average elderly population of 13.6 percent of the total population. Using Census block groups, mapping of the region shows several areas exceeding the regional average, many in the more outlying portions of the community.

Concentration of Elderly (65+) Persons, Whitfield and Murray Counties, 2018



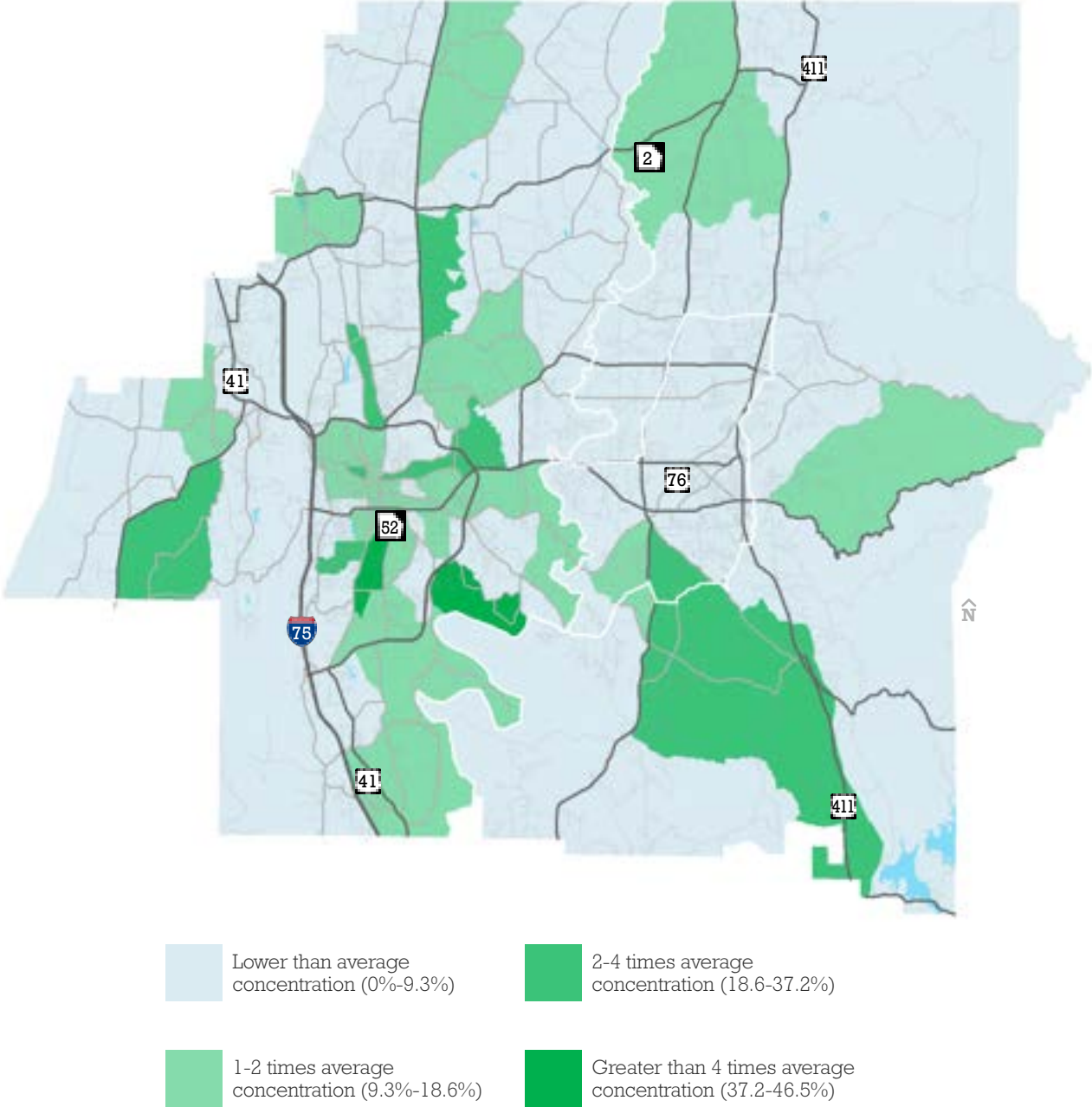
Source: US Census Bureau 2018



Poverty

Whitfield and Murray Counties have a combined regional average impoverished population of 9.3 percent of the total population. Using Census block groups, mapping of the region shows several areas exceeding the regional average, many in the immediate Dalton area and others in surrounding communities.

Concentration of Impoverished Households, Whitfield and Murray Counties, 2018

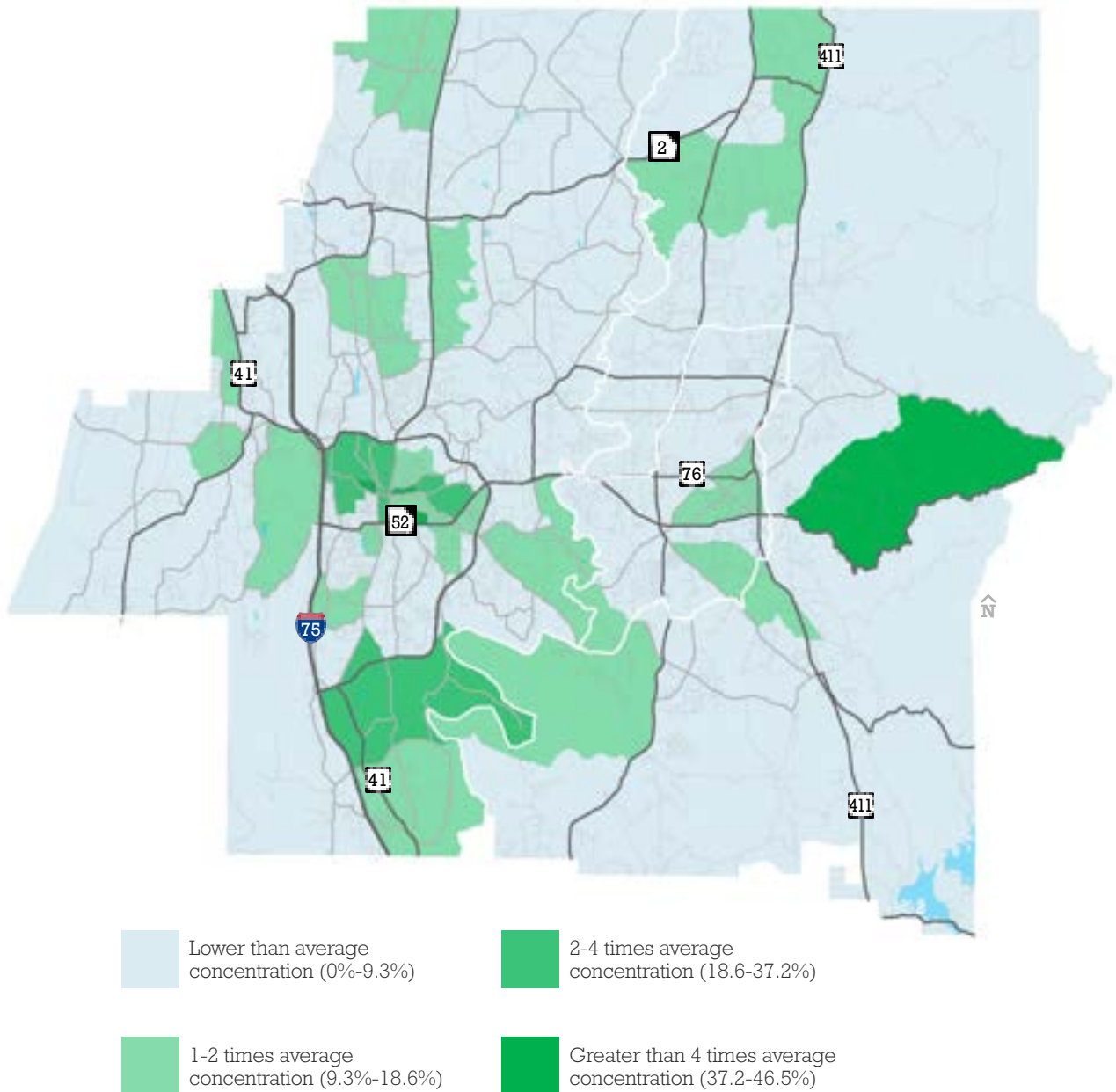


Source: US Census Bureau 2018

Households With No Vehicles

Whitfield and Murray Counties have a combined regional average of households with no access to a vehicle of 5.6 percent of the total population. Using Census block groups, mapping of the region shows several areas exceeding the regional average.

Concentration of Households with No Vehicles, Whitfield and Murray Counties, 2018



Source: US Census Bureau 2018



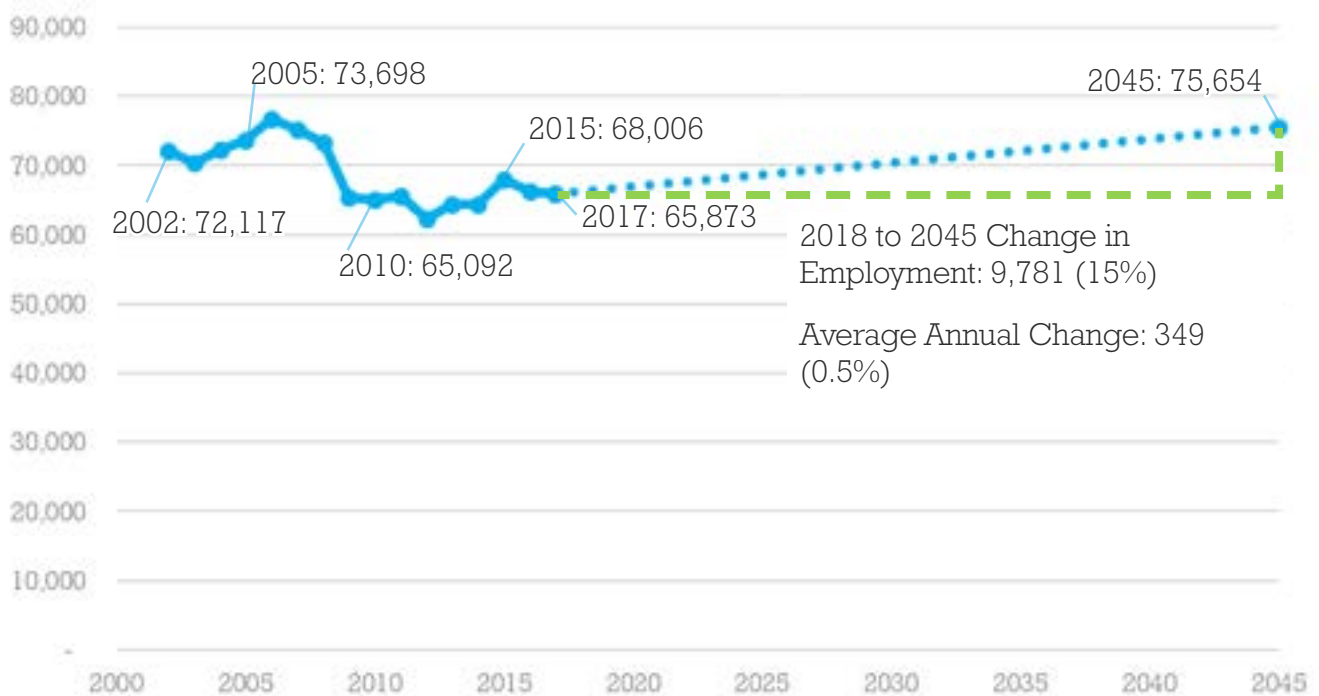
Trends in Employment

Historical and Projected Growth

The Dalton area produces the majority of the world's carpeting in addition to many other types of floor covering. The importance of the floor covering industry in the region extends beyond direct employment since important clusters in the area are largely supported by the industry, including chemicals and plastics firms and wholesaling firms. In recent years, the number of jobs and companies in the floor covering industry has decreased so local leaders in economic development have diversified the region's economy through the development of new industrial parks and attracting industries that can provide support to the Volkswagen plant that opened in nearby Chattanooga in the mid 2010s. This diversification of industry is intended to increase employment in the region between now and 2045.

Similar to our understanding of anticipated population growth, it is important to understand not just the total amount of employment in the region but also where that employment is anticipated to occur in order to further understand how that may impact future travel needs.

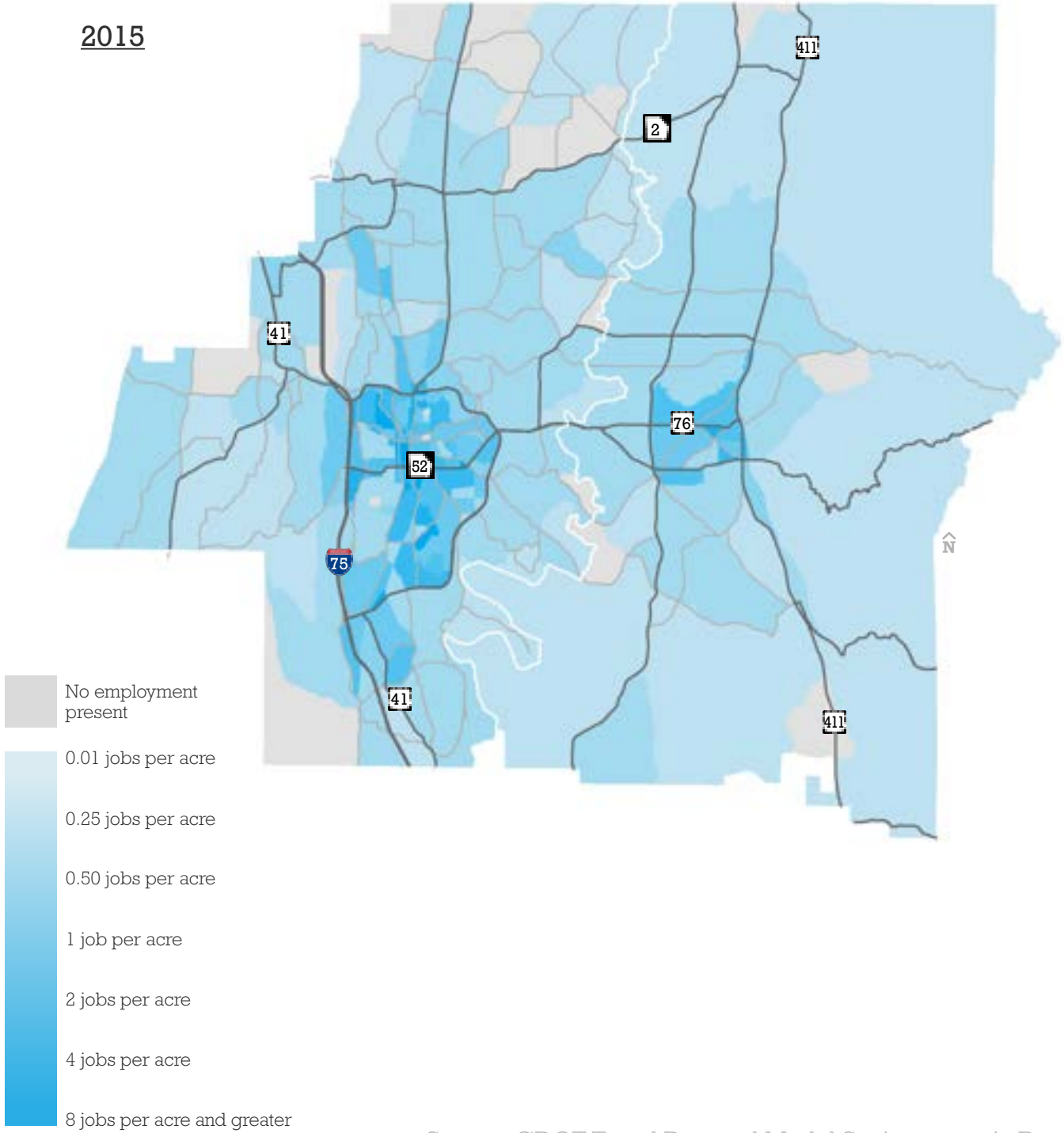
Historical and Projected Employment, Whitfield and Murray Counties, 2002-2045



Source: US Census Bureau 2002-2017; Socioeconomic projections 2045

Employment Density, Whitfield and Murray Counties, 2015

2015

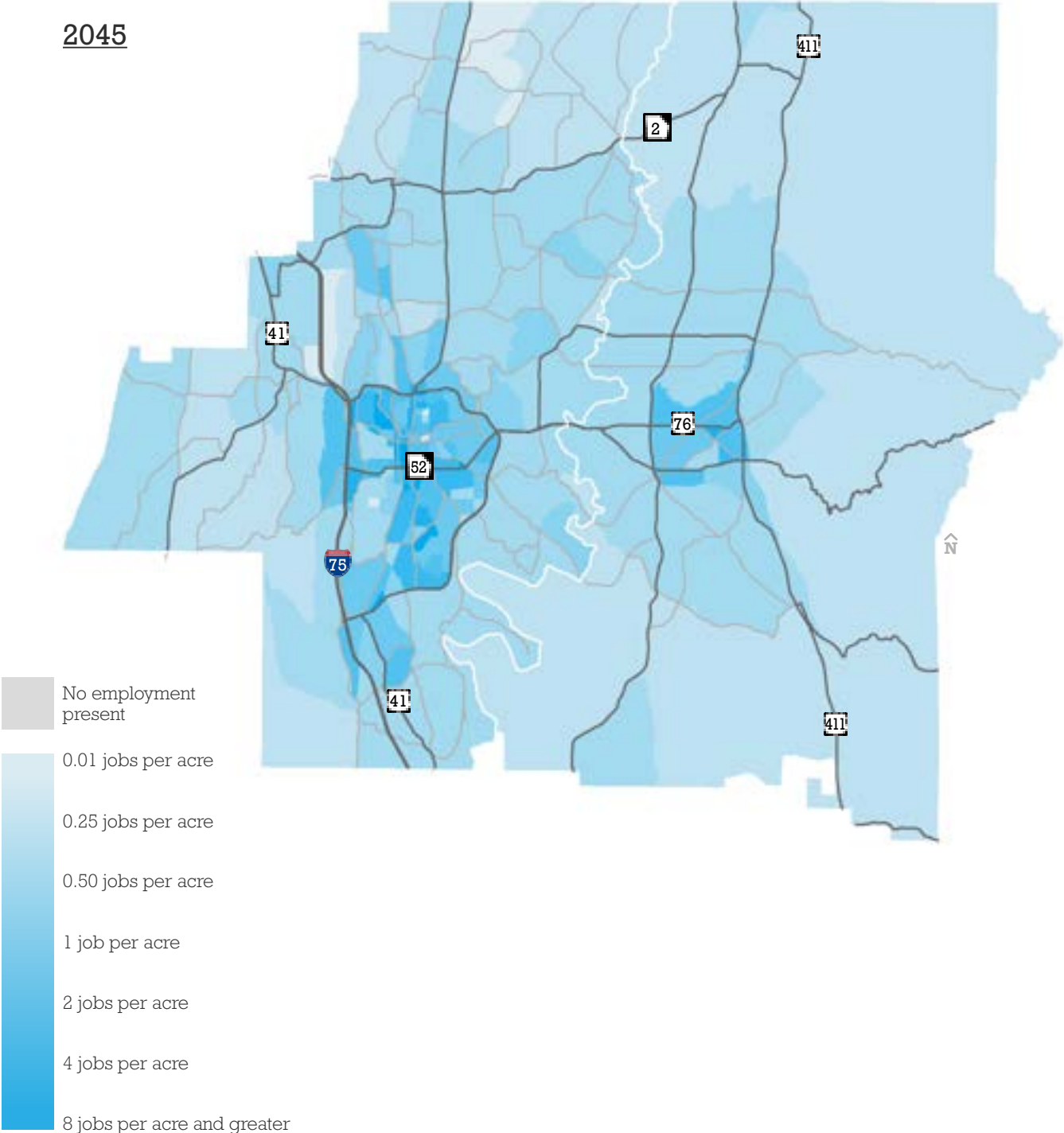


Source: GDOT Travel Demand Model Socioeconomic Data



Employment Densities, Whitfield and Murray Counties, 2045

2045

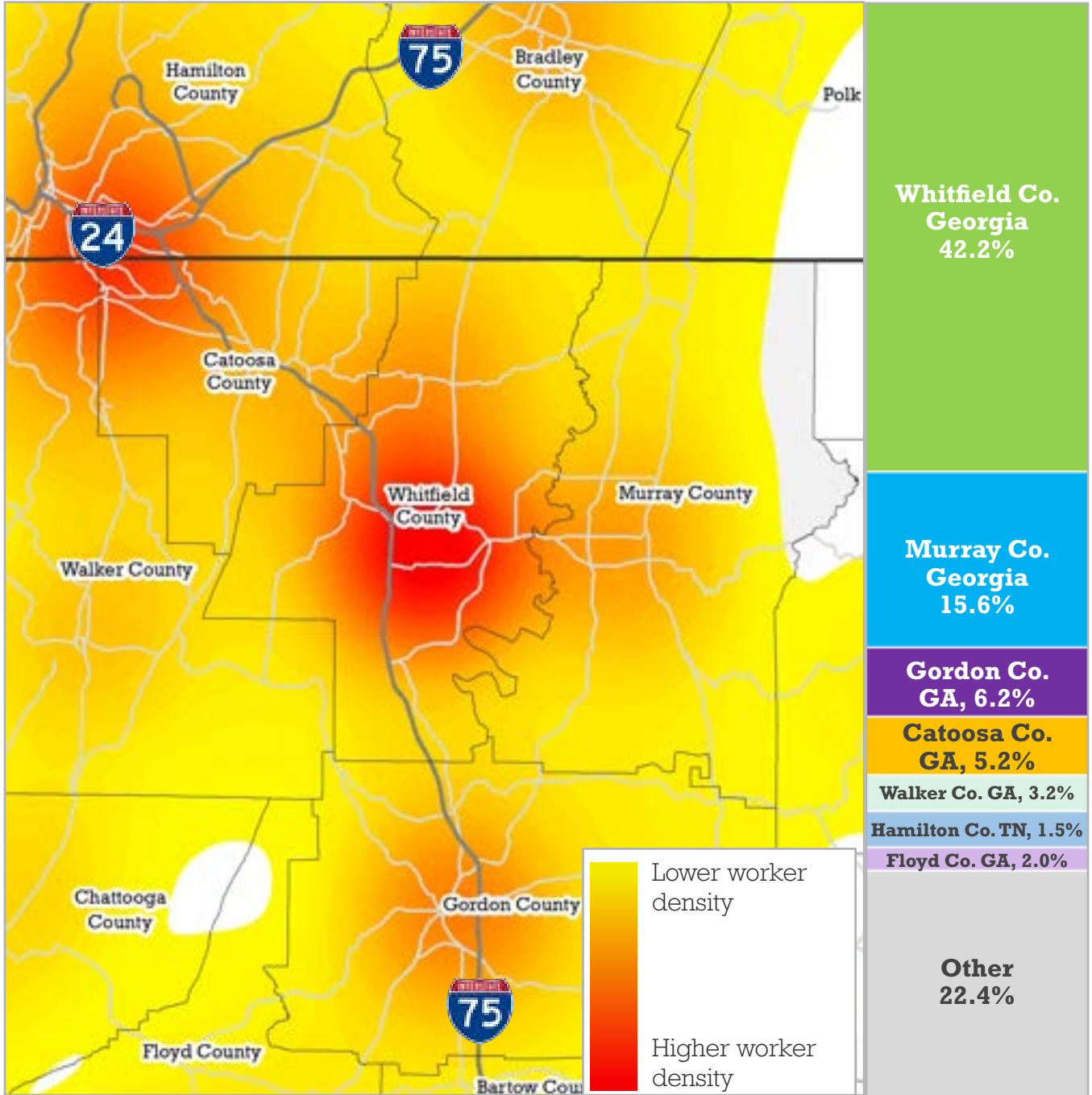


Source: GDOT Travel Demand Model Socioeconomic Data

Commuter Patterns

Longitudinal Employer Household Dynamic (LEHD) data allows us to understand patterns of where commuters travel to, from, and within the Dalton region travel. Focusing specifically on jobs that are located within the Dalton region, data tells us that while many of these jobs are held by people living within the immediate Dalton region there are also many people commuting into the region from surrounding communities such as Chattanooga and Cleveland to the north and Calhoun to the south.

Where Whitfield and Murray County Workers Live, 2017



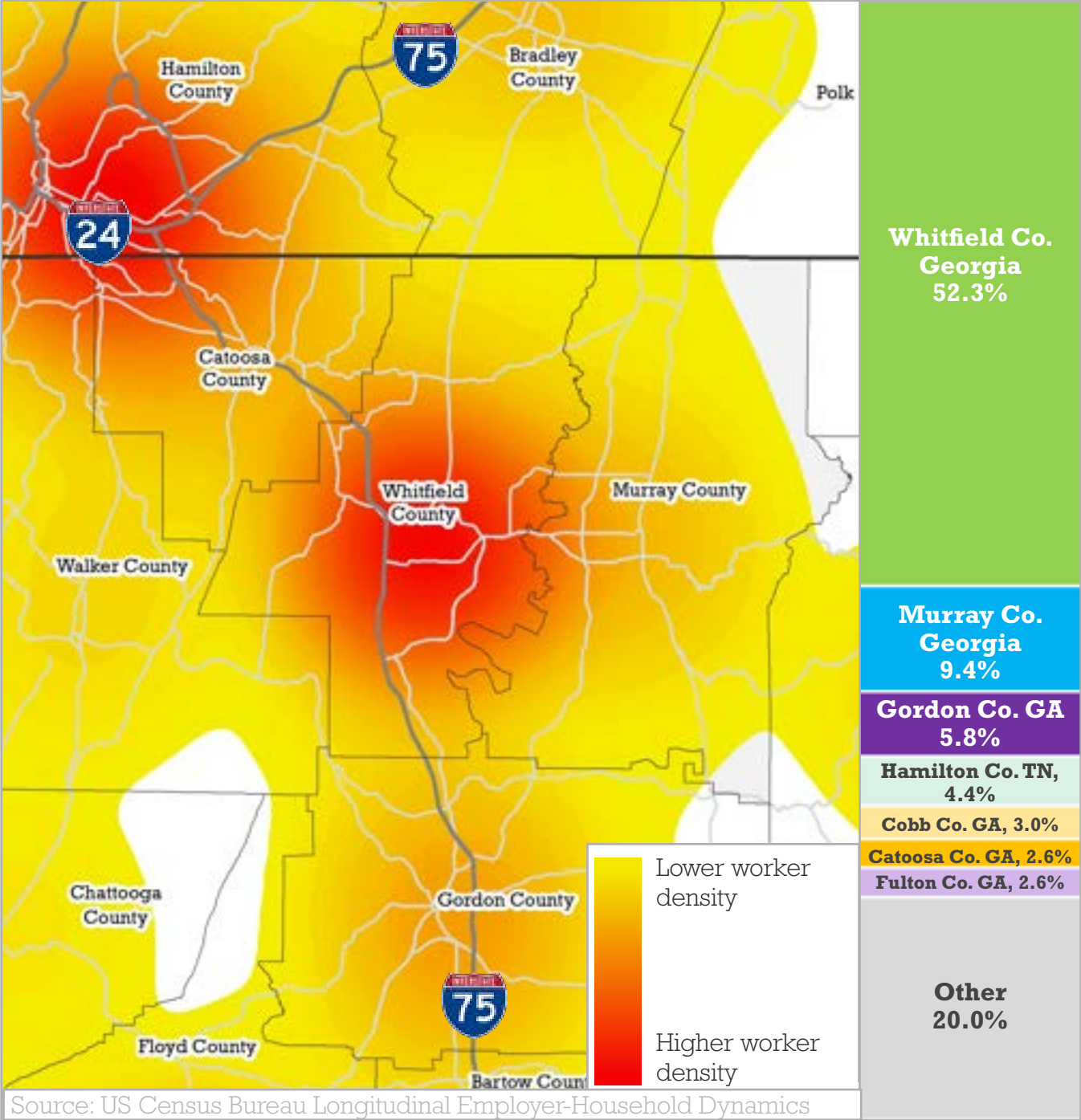
Source: US Census Bureau Longitudinal Employer-Household Dynamics



2 | Community Profile

Focusing on the workforce of the region (that is people who live in the immediate Dalton region), we do see that most people live and work within Whitfield or Murray Counties though there are many who commute to surrounding communities as well.

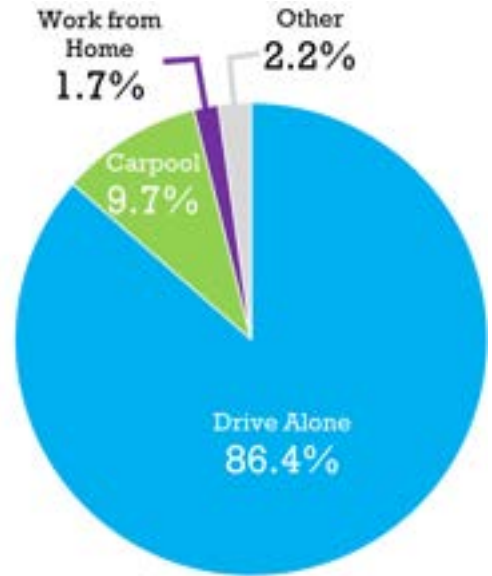
Where Whitfield and Murray County Residents Work, 2017



Commuter Modes of Choice

Using American Community Survey data, we can also understand that the majority of commuters in the Dalton area (86.4 percent) drive alone to work. However, a relatively high amount of people (9.7 percent) indicate that they carpool with others to get to and from their place of work.

Commuter Modes of Choice, Whitfield and Murray Counties, 2018



Source: US Census Bureau

Economic Profile

Employment in Whitfield and Murray Counties

Focusing on jobs that are physically located in Whitfield and Murray Counties, data reveals a large portion (39.1 percent) of jobs are in manufacturing, many directly associated with or supporting the flooring industry. However, employment opportunities are more diversified than just that with many jobs that are in the health care, retail, wholesale trade, and educational service industries as well.

Whitfield and Murray County Workforce

The workforce for the region (that is people who live in Whitfield and Murray Counties who are employed in jobs, regardless of where they are located) show some similar trends with a significant portion (33.7 percent) in the manufacturing industry.



2 | Community Profile

**Jobs by Industry,
Whitfield and Murray
Counties, 2017**



**Workforce by Industry,
Whitfield and Murray
Counties, 2017**



Source: US Census Bureau Longitudinal Employer-Household Dynamics

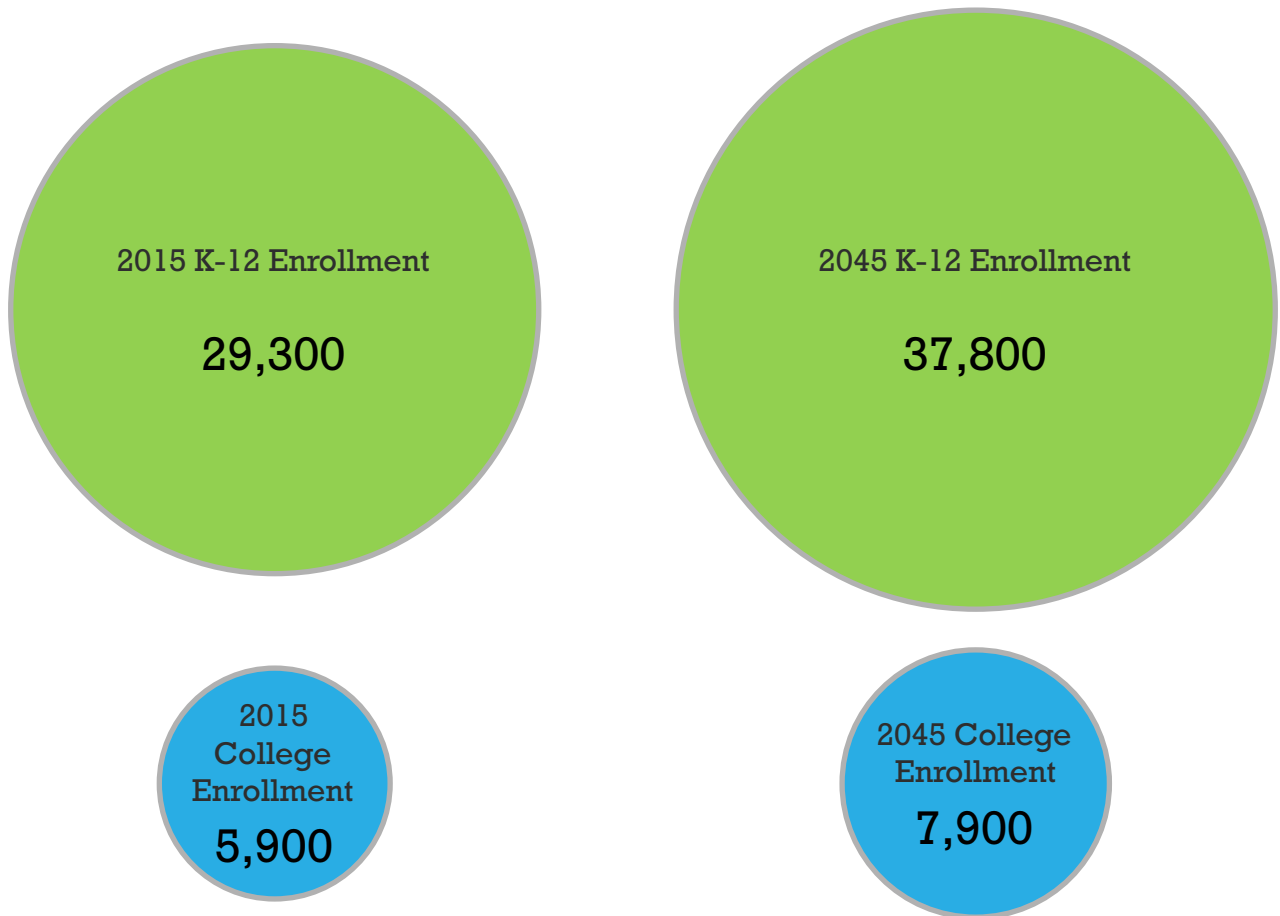
Education

School Locations

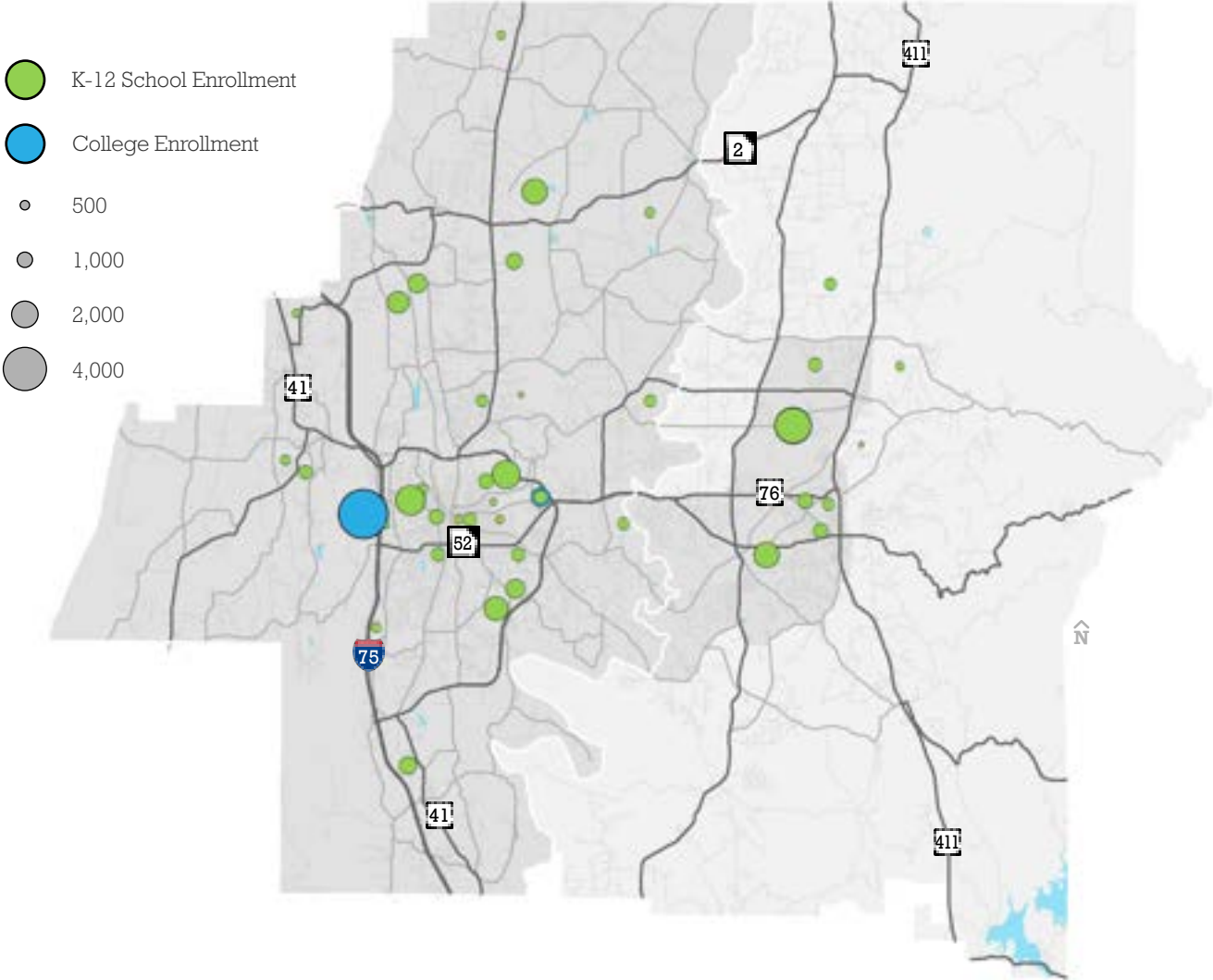
K-12 opportunities in the region include three school districts – Dalton Public Schools, Whitfield County Schools, and Murray County Schools that combined served about 29,300 students in the year 2015. Additional secondary institutions in the region include Dalton State College and Georgia Northwestern Technical College which served about 5,900 students in 2015. The locations of these schools and the relative amount of enrollment at these locations is shown in the map below.

Projected Student Growth

Student enrollment in the region is anticipated to grow in relative proportion to the region's population with an anticipated 37,800 K-12 students and 7,900 college students in the year 2045.



2015 K-12 and College Enrollment in Whitfield and Murray Counties



Land Use and Comprehensive Planning

Much of the anticipated growth in the region is guided by the comprehensive planning being conducted by the county governments in the region with particular emphasis on the elements of these plans focusing on future land use and development.

Whitfield County

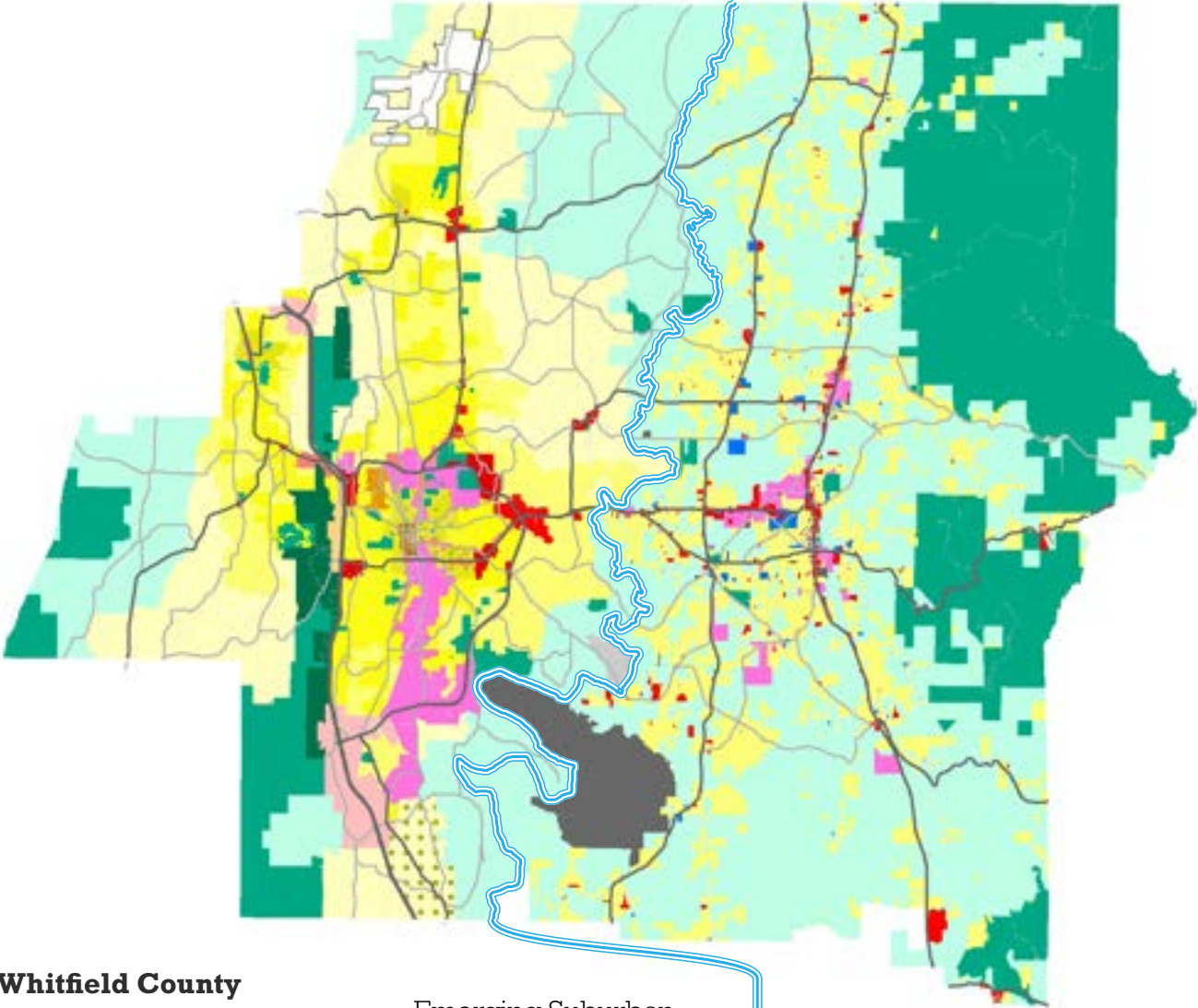
The Whitfield County Comprehensive Plan is a joint plan for the unincorporated portions of the County and the municipalities of Cohutta, Dalton, Tunnel Hill, and Varnell. This plan was prepared by the Northwest Georgia Regional Commission and adopted in 2018. The Joint Land Use Element for this plan identifies several 'Character Areas' that relate to land use and offer narrative descriptions implying the future intensity of development and the overall 'character' intended for these areas.

Murray County

The Murray County Joint Comprehensive Plan addresses the unincorporated portions of the County and the municipalities of Chatsworth and Eton Like the Whitfield County Comprehensive Plan, this plan was prepared by the Northwest Georgia Regional Commission and adopted in 2018. Similarly, the Land Use Element for this plan also identifies several 'Character Areas' that relate to land use and offer narrative descriptions implying the future intensity of development and the overall 'character' intended for these areas.



Future Land Use in Whitfield and Murray Counties



Whitfield County

- Airport
- Interchange
- Commercial
- Community Activity Center
- Regional Activity Center
- Dalton State/College Drive
- Medical District
- Downtown/Town Center
- Rural Residential
- Rural Neighborhood - Revitalization
- Emerging Suburban and Exurban Areas
- Suburban
- Town Neighborhood
- Town Neighborhood - Revitalization
- Industrial
- Rural/Agricultural Reserve
- Preserve
- Ridge Conservation
- Cohutta

Murray County

- Agriculture/Forestry
- Commercial
- Industrial
- Park/Recreation/Conservation
- Public/Institutional
- Residential
- Transportation/Communication/Utilities

Chapter 3

Community Goals

Planning Legacies

In addition to incorporating anticipated changes in population and employment growth and the land use elements of the region's Comprehensive Plans, the MTP is influenced heavily by the legacy of transportation planning and policy for the region. Much of this is articulated in the context of national and state goals as described in the following section.

FAST Act

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act – federal law authorizing \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act states that the metropolitan transportation planning process must address specific factors as described below:

- Support **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
- Increase the **safety** of the transportation system for motorized and non-motorized users
- Increase the **security** of the transportation system for motorized and non-motorized users
- Increase **accessibility and mobility** of people and freight
- **Protect and enhance the environment**, promote energy conservation, **improve the quality of life**, and promote consistency between transportation improvement and state and local planned growth and economic development patterns
- Enhance the **integration and connectivity of the transportation system, across and between modes, for people and freight**
- Promote **efficient system management** and operation
- Emphasize the **preservation of the existing transportation system**
- Improve the **resiliency and reliability** of the transportation system and reduce or mitigate stormwater impacts of surface transportation
- Enhance **travel and tourism**



3 | Community Goals

Further, the national Federal-aid Highway Program performance goals as established by Congress are:

- **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System
- **System Reliability** - To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

Georgia Statewide Strategic Transportation Plan

Similarly, the Georgia Statewide Strategic Transportation Plan (SSTP) Update from 2018 includes several goals that relate to the federal goals as described below.

State and Federal Transportation Goals

SSTP Goal	Related Federal Goal
Improve safety	Safety
Improve reliability	System Reliability
Reduce congestion	Congestion Reduction
Maintain and preserve the system	Infrastructure Condition
Improve freight/economic growth	Freight Movement and Economic Vitality
Improve the environment	Environmental Sustainability

Greater Dalton Metropolitan Transportation Plan

With these considerations, the Greater Dalton MPO has developed an overall goal as follows:

“Develop a guide for the orderly development of a safe and efficient multi-modal transportation system for the movement of people and goods which supports the land use and economic goals of the area and promotes quality of life.”

This overall goal is supported by eight guiding principles as described in the table below with their related SSTP and federal goals.

Greater Dalton MPO Goal	Related SSTP Goal(s)	Related Federal Goal(s)
Include all modes of transportation	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction
Be safe, convenient, and efficient	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction
Serve and enhance existing land use and planned growth	<ul style="list-style-type: none"> • Maintain and preserve the system • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Infrastructure Condition • Freight Movement and Economic Vitality
Sustain the quality of the environment and preserve community values	<ul style="list-style-type: none"> • Improve the environment 	<ul style="list-style-type: none"> • Environmental Sustainability
Be financially feasible, and support all sectors of the area’s economy	<ul style="list-style-type: none"> • Maintain and preserve the system • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Infrastructure Condition • Freight Movement and Economic Vitality
Provide access and connectivity with diverse land uses and modes	<ul style="list-style-type: none"> • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Freight Movement and Economic Vitality
Maintain performance measures to maintain quality of the transportation system	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction
Be maintained through local/ official citizen participation in transportation decision-making		



Performance Based Planning Targets

The FAST Act also includes requirements for performance based planning stating “the metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals”. The Greater Dalton MPO has adopted several performance based planning targets to support these goals using the FHWA SMART principles which state that the measures should be **S**pecific, **M**easurable, **A**greed, **R**ealistic, and **T**ime Bound. **Appendix B** includes the MPO’s most recent System Performance Report addressing these goals.

Targets Supporting the National Goal for Safety (To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

- To maintain the 5 year moving average traffic fatalities under the projected 1,655 (2015-2019) 5 year average
- To maintain the 5 year moving average traffic fatalities per 100 million vehicle miles traveled under the projected 1.31 (2015-2019) 5 year average
- To maintain the 5 year moving average serious traffic injuries under the projected 24,324 (2015-2019) 5 year average
- To reduce the 5 year moving average serious traffic injuries for every 100 million vehicle miles traveled by three percent from a baseline 19.6 (2012-2016) 5 year average to 18.9 (2015-2019) 5 year average
- To maintain the 5 year moving average non-motorist fatalities and serious injuries under the projected 1,126 (2017-2021) 5 year average

Targets Supporting the National Goal for Infrastructure Condition (To maintain the highway infrastructure asset system in a state of good repair)

- Percentage of pavements on the Interstate System in Good condition
- Percentage of pavements on the Interstate System in Poor condition
- Percentage of pavements on the National Highway System (excluding the Interstate System) in Good condition
- Percentage of pavements on the National Highway System (excluding the Interstate System) in Poor condition
- Percentage of National Highway System bridge deck area classified as in Good condition
- Percentage of National Highway System bridge deck area classified as in Poor condition

Targets Supporting National Goal for Congestion Reduction (To achieve a significant reduction in congestion on the National Highway System)

- Annual Hours of Peak-Hour Excessive Delay Per Capita
- Percent of Non-Single-Occupant-Vehicle (SOV) Travel

Targets Supporting the National Goal for System Reliability (To improve the efficiency of the surface transportation system)

- Percent of Person-Miles Traveled on the Interstate System that are reliable
- Percent of Person-Miles Traveled on the Non-Interstate National Highway System that are Reliable

Targets Supporting the National Goal for Freight Movement and Economic Vitality (To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development)

- Percentage of the Interstate System Mileage providing for Reliable Truck Travel Times

Targets Supporting the National Goal for Environmental Sustainability (To enhance the performance of the transportation system while protecting and enhancing the natural environment)

- Percent Change in Tailpipe CO2 Emissions on the National Highway System
- Total Emissions Reduction

Transportation System Goals

In addition to these goals, broader transportation system goals were developed as part of the MTP process in consultation with a stakeholder committee (as described in Chapter 4) to help guide long term transportation investment decisions. These goals are shown correlated with the larger MPO goals.

GDMPO Transportation System Goal	Greater Dalton MPO Goal(s)	Related SSTP Goal(s)	Related Federal Goal(s)
Accommodate Freight Traffic	<ul style="list-style-type: none"> • Be financially feasible, and support all sectors of the area's economy 	<ul style="list-style-type: none"> • Maintain and preserve the system • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Infrastructure Condition • Freight Movement and Economic Vitality
Address North-South Travel	<ul style="list-style-type: none"> • Be safe, convenient, and efficient • Serve and enhance existing land use and planned growth 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction • Freight Movement and Economic Vitality

3 | Community Goals

GDMPO Transportation System Goal	Greater Dalton MPO Goal(s)	Related SSTP Goal(s)	Related Federal Goal(s)
Encourage Downtown Reinvestments	<ul style="list-style-type: none"> • Include all modes of transportation • Serve and enhance existing land use and planned growth 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction • Freight Movement and Economic Vitality
Address East-West Travel	<ul style="list-style-type: none"> • Be safe, convenient, and efficient • Serve and enhance existing land use and planned growth 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction • Freight Movement and Economic Vitality
Develop an Active Mode Network for the Region	<ul style="list-style-type: none"> • Include all modes of transportation 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction
Enhance Connections to I-75	<ul style="list-style-type: none"> • Be safe, convenient, and efficient • Serve and enhance existing land use and planned growth 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction • Freight Movement and Economic Vitality
Provide Connectivity to Neighboring Communities	<ul style="list-style-type: none"> • Serve and enhance existing land use and planned growth 	<ul style="list-style-type: none"> • Improve freight/ economic growth 	<ul style="list-style-type: none"> • Freight Movement and Economic Vitality
Consider Opportunities for Future Transit Service in the Region	<ul style="list-style-type: none"> • Include all modes of transportation 	<ul style="list-style-type: none"> • Improve safety • Improve reliability • Reduce congestion 	<ul style="list-style-type: none"> • Safety • System Reliability • Congestion Reduction

Chapter 4

Plan Development

Leveraging the community data described in Chapter 2 and the overall guidance in goals described in Chapter 3, the development of the Metropolitan Transportation Plan incorporates both community engagement and technical analysis to explore and understand transportation needs. This chapter describes the planning efforts and overall findings from these efforts.

Community Engagement

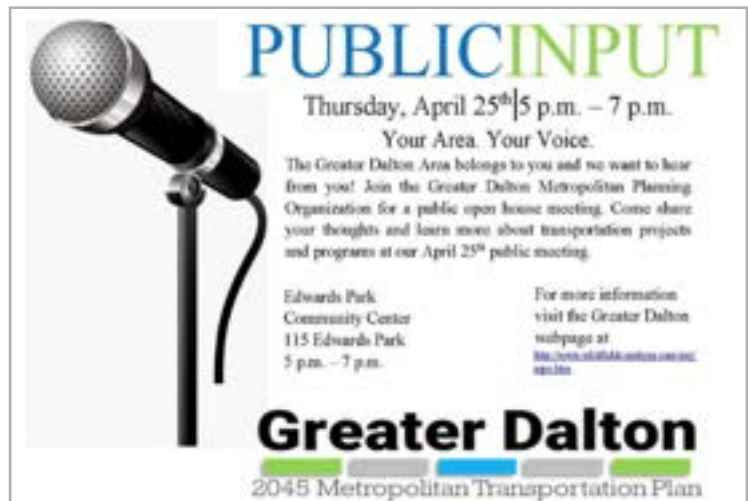
Beyond federal and state requirements for community engagement, the Greater Dalton MPO exercises specific commitment to involving the community in transportation decision-making as referenced in one of its specific goals described in Chapter 3 (“be maintained through local/official citizen participation in transportation decision-making”). During the MTP process, this commitment resulted in several opportunities for the community to provide input. Details of the community engagement process are provided in **Appendix C**.

Community Meetings

Formal community meetings were held in April 2019 to solicit input and feedback to guide the MTP planning process.

April 25, 2019, 5-7 PM
Edwards Park Community Center
(Whitfield County Location)
115 Edwards Park, Dalton, Georgia

April 30, 2019, 5-7 PM
Murray County Community Center
(Murray County Location)
651 Hyden Tyler Road, Chatsworth,
Georgia



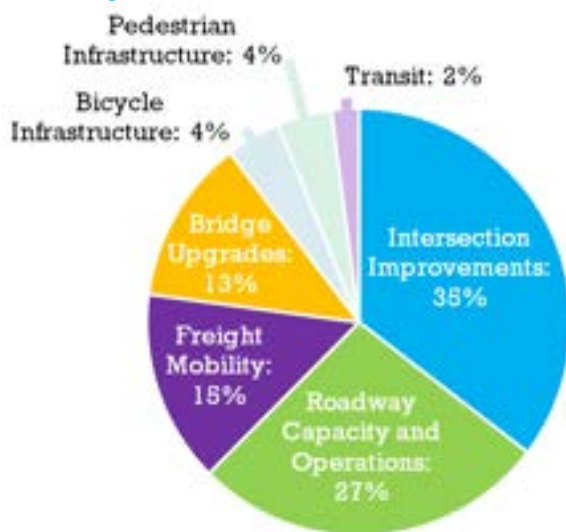
4 | Plan Development

A total of seven people attended these two meetings, both of which included the same material and exercises and input opportunities including:

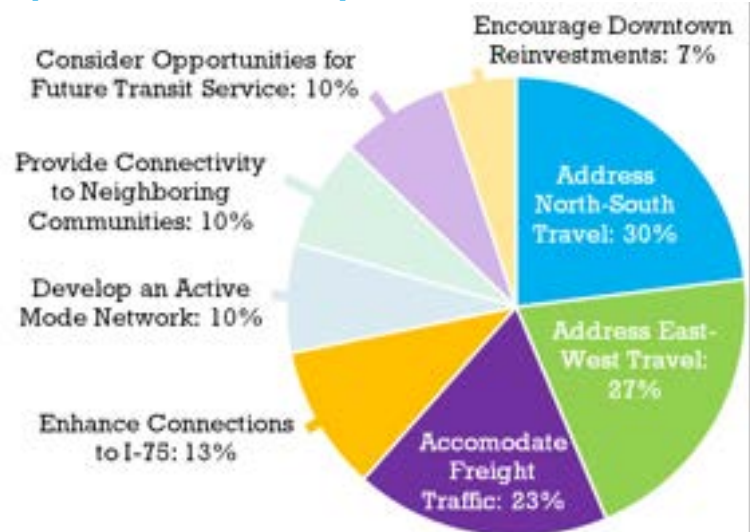
- An Introduction station, including background on the MTP process
- A Background Data station, including initial research on the transportation system (congestion, bridges, safety, etc.) and the community (population density, employment locations, households with no vehicles, etc.).
- An Evaluation Station describing the overall process in which the transportation system would be analyzed and recommendation prioritized
- An 'Exercises' Station where the community could provide facilitated input including:
 - A ranking of which project types would be considered most beneficial to the community, the results presented below on the left
 - An exercise where community members could indicate on a map the areas where they felt transportation improvements were the most critical, the results presented on the following page
 - A ranking of the transportation system goals previously described in Chapter 3, the results presented below on the right



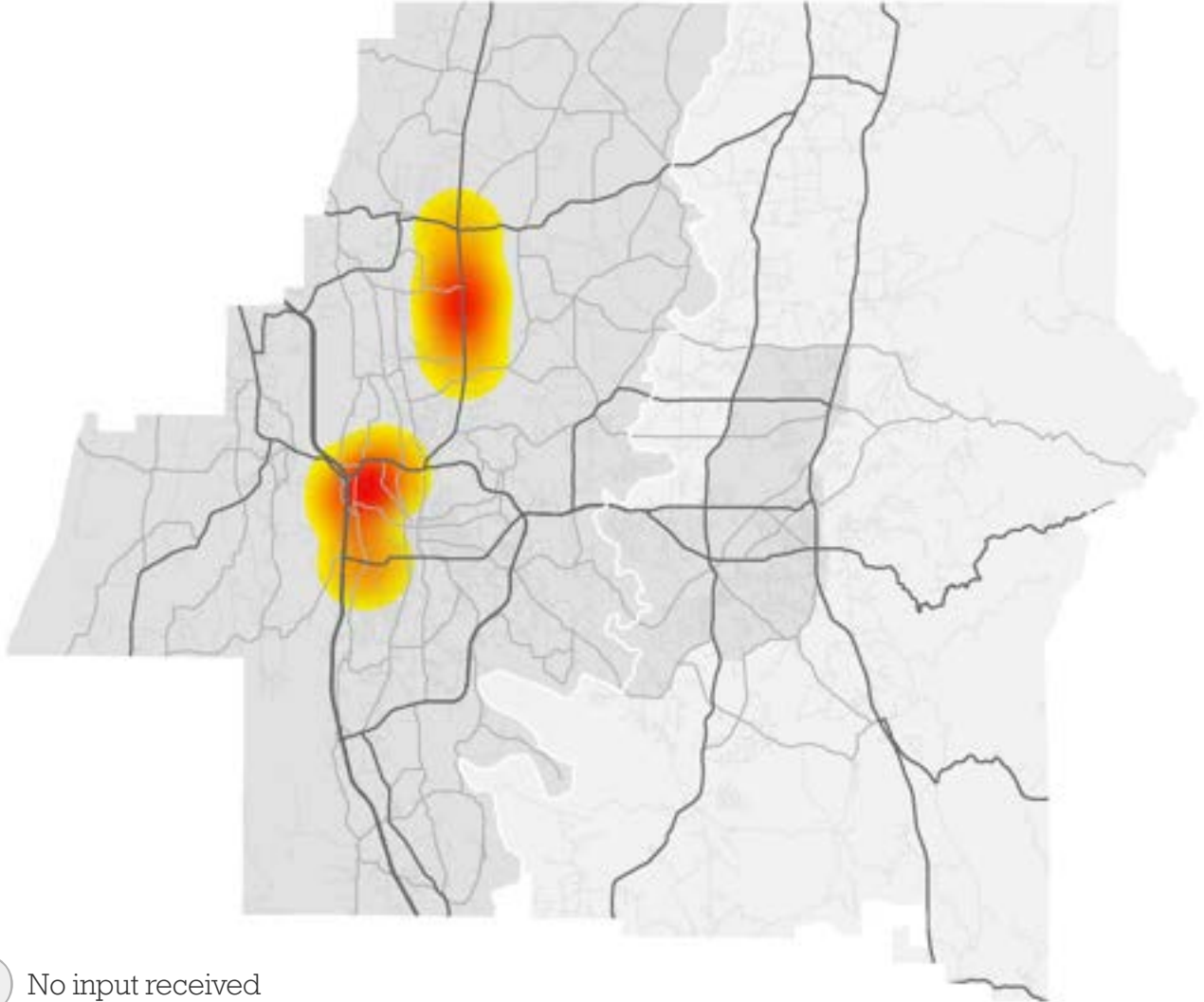
Public Meeting #1 Project Types Activity Results



Public Meeting #1 Transportation System Goals Activity Results



Public Meeting's Map Responses



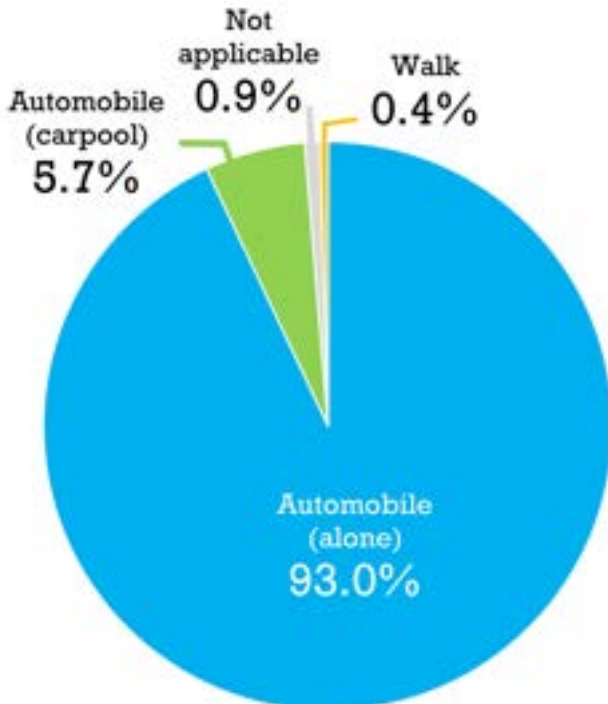
Online Engagement

To supplement the in-person engagement, opportunities for the community to engage online were created through a Social Pinpoint website that included traditional survey formats and an interactive map. This website was publicized in a variety of ways including via social media, e-mail lists, and coordination with planning partners in the region. 231 people participated in the traditional survey component of the site. Additionally, 274 comments were registered on the interactive map.

The online survey was developed to replicate two of the exercises from the traditional community meetings while included a handful of additional demographic questions in order to understand how well responses reflected known transportation conditions in the community. For instance, respondents were asked on their typical commute modes (as shown below) which compares relatively well – in both the number of ‘drive alone’ responses as well the relatively large number of ‘carpoolers’ - to data on the region from the American Community Survey.

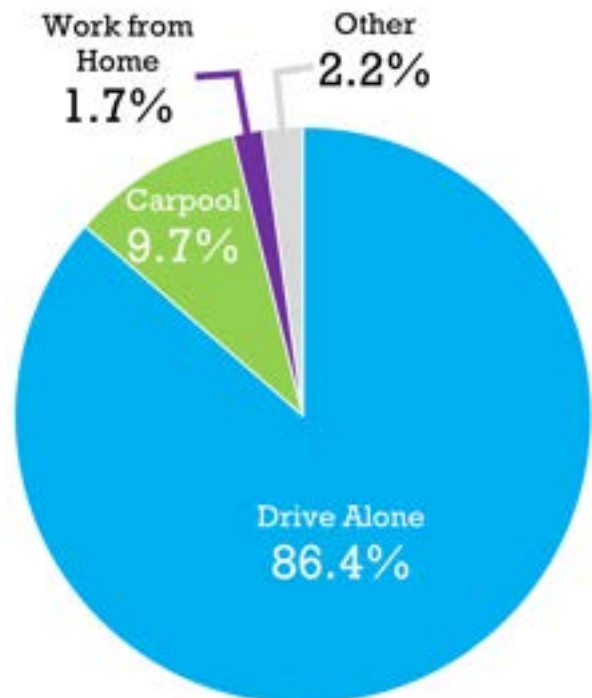


Online Survey Responses to “What is your primary mode of transportation for commuting to work or school?”



Note: Respondents could also select “Private paid service (van, taxi, Uber, Lyft),” or “Bicycle,” but no responses of these were received

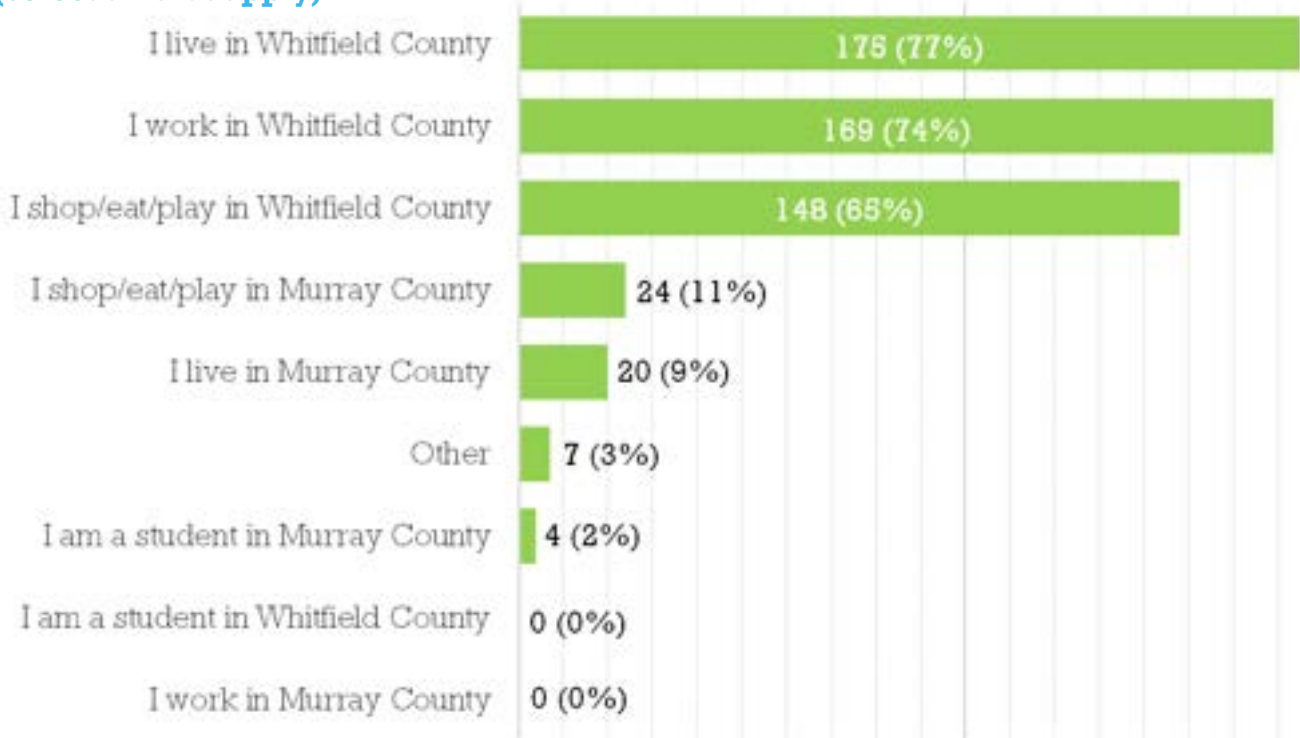
Commuter Modes of Choice, Whitfield and Murray Counties, 2018



Source: US Census Bureau

Similarly, the survey inquired on each respondents relationship to the region. The majority of respondents associate with Whitfield County though some respondents indicated relationships to Murray County as well.

Online Survey Responses to “What is your interest in the Greater Dalton region? (select all that apply)”



Note: A total of 228 individual responses were received to this question. Respondents were able to select multiple options as appropriate

Other questions in the survey focus on overall transportation conditions such as average distance and travel time to/from work.

Online Survey Responses to “How far do you have to travel to get to work or school?”



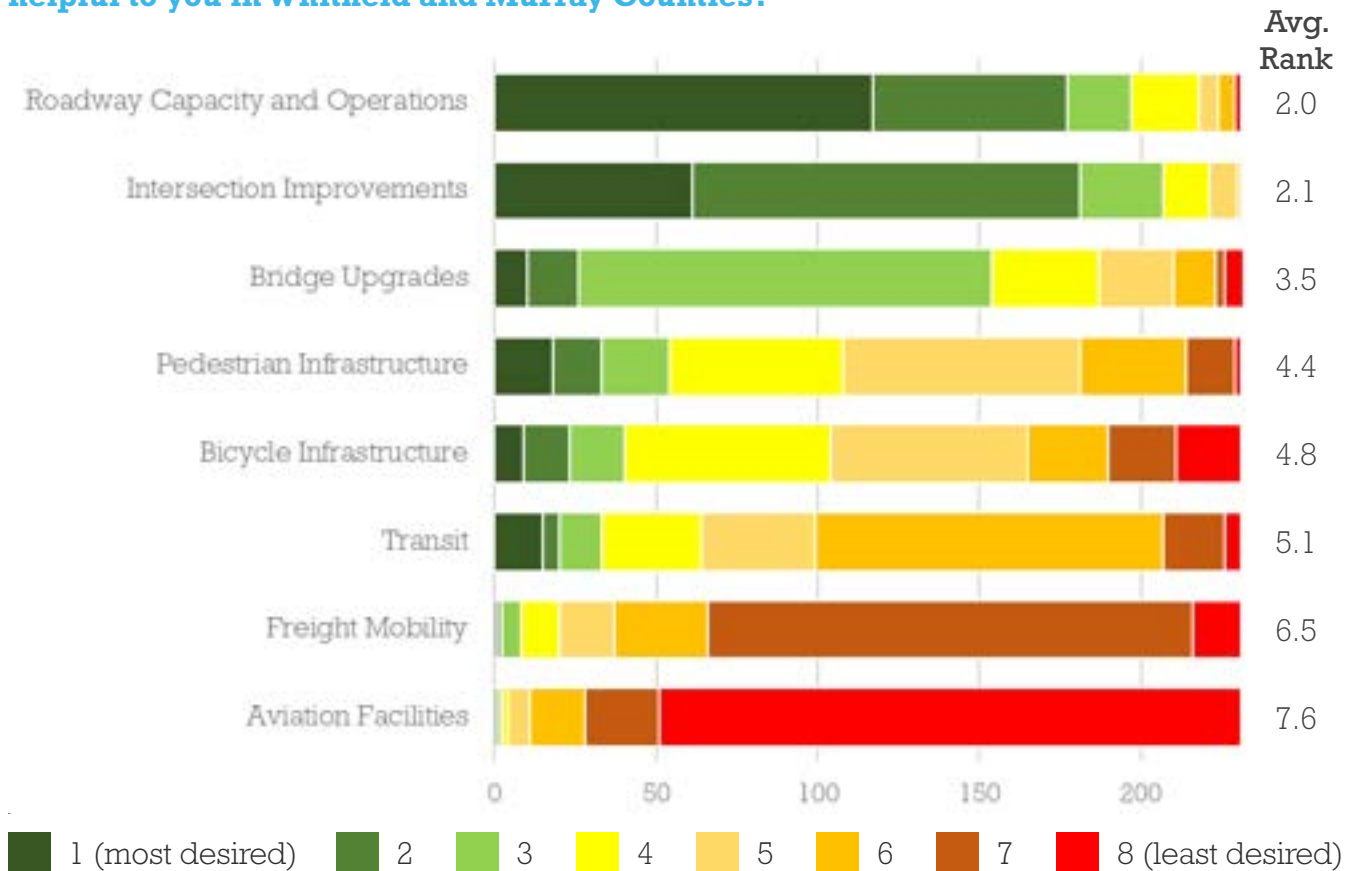
Online Survey Responses to “How long does it typically take you to get to/from work or school?”



4 | Plan Development

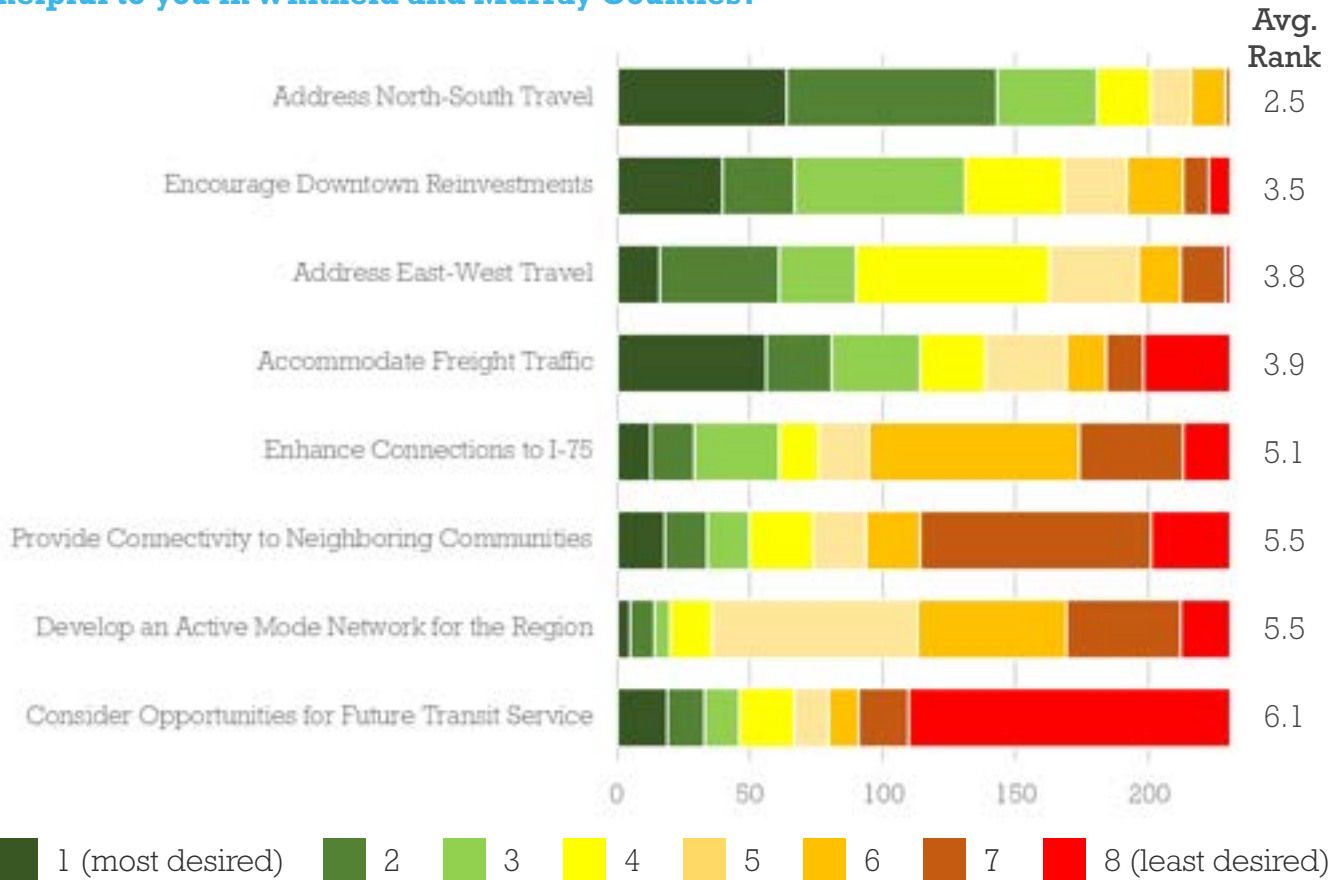
The key part of the survey replicates two of the exercises from the public meetings. One question focuses on the types of transportation projects that would be most helpful. Similar to what was observed in the community meetings, the top categories include 'roadway capacity and operations' and 'intersection improvements.'

Online Survey Responses to “What types of transportation projects would be most helpful to you in Whitfield and Murray Counties?”



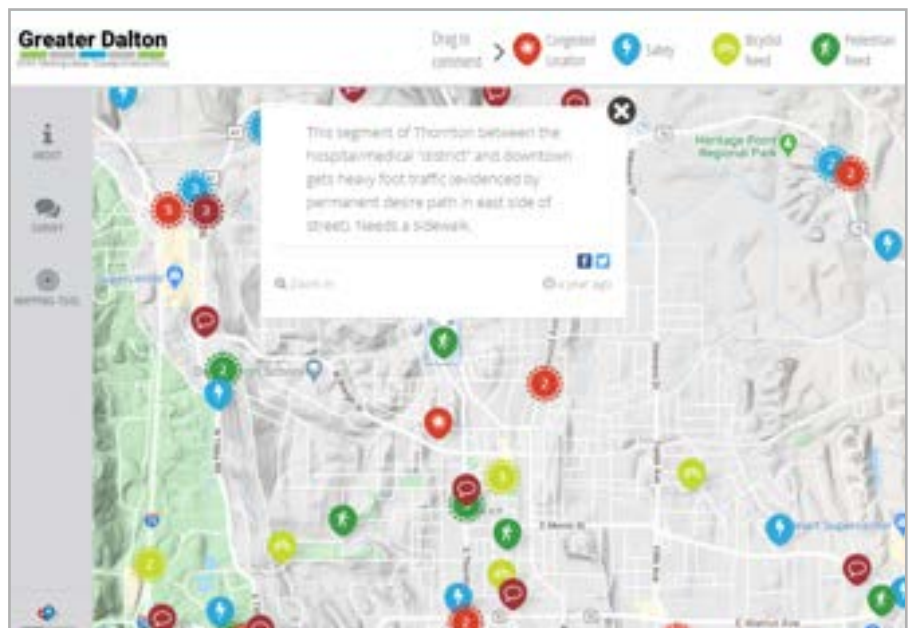
Similarly, respondents were also asked on their preferences for the transportation system goals, showing collective preferences similar to what was observed in the community meetings.

Online Survey Responses to “What types of transportation projects would be most helpful to you in Whitfield and Murray Counties?”



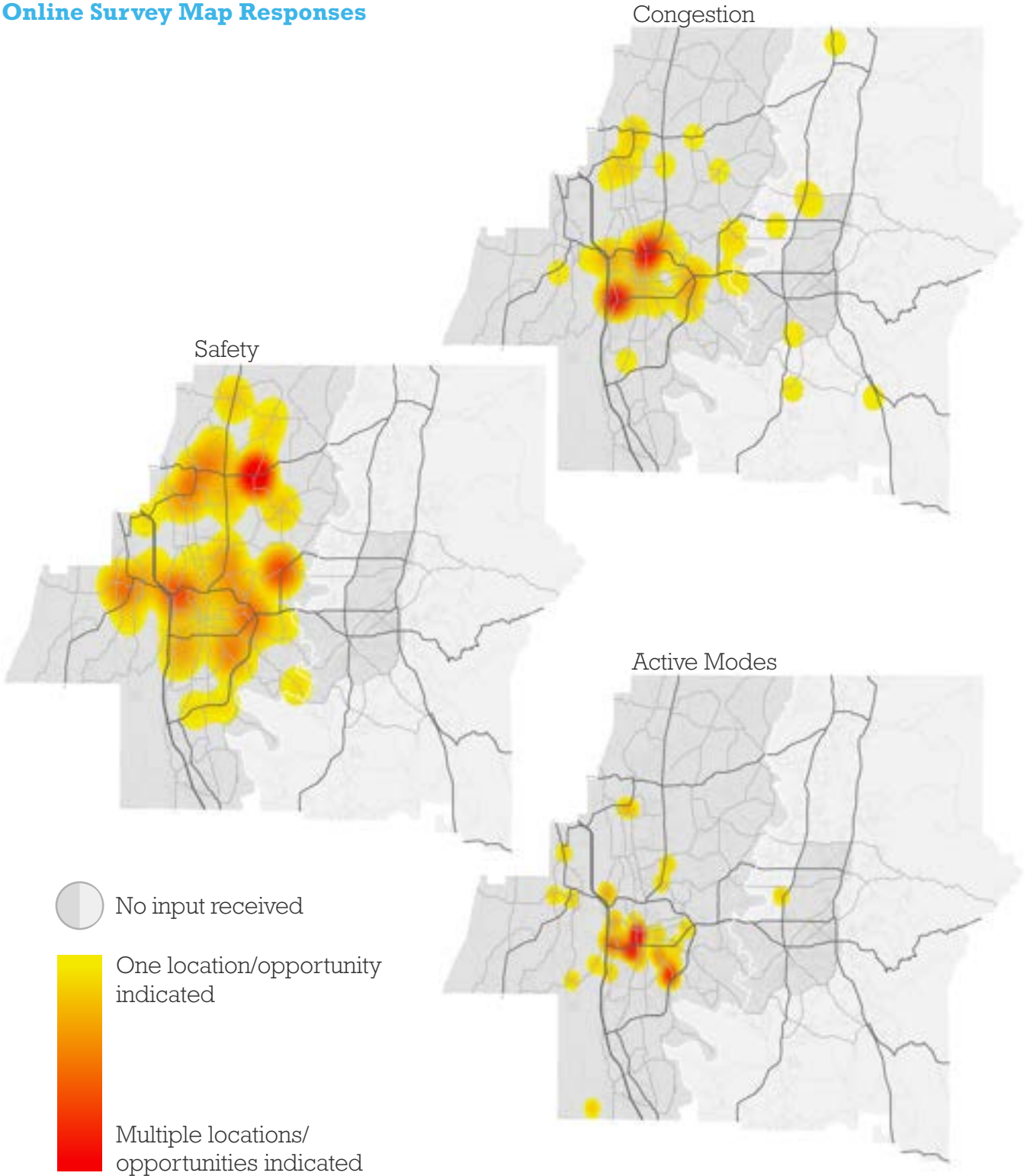
The other component of the online engagement involved the use of an interactive map where respondents could place pins down on a map representing different types of concerns and comments and provide additional commentary as they felt needed. Categories included:

- Congested Location
- Safety
- Bicyclist Need
- Pedestrian Need
- Other Comments



4 | Plan Development

Online Survey Map Responses

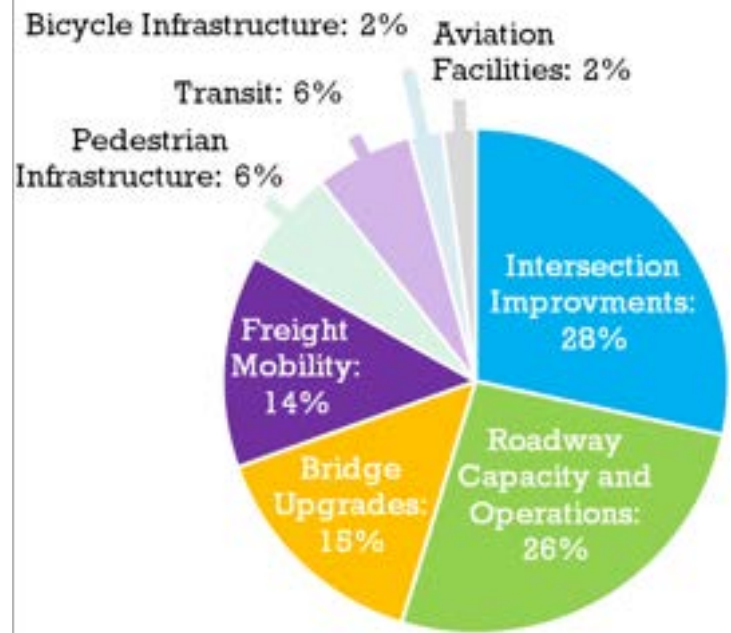


Stakeholder Meetings & MPO Committees

Throughout the process, the planning team also had regular coordination and updates with the Greater Dalton MPO Policy Committee (PC) and Technical Coordinating Committee (TCC). Supplementing these updates were two specific MTP focused Stakeholder Meetings held in conjunction with the normal MPO committee meeting to include both the members of the PC and TCC as well as representation from a few key additional non-transportation focused organizations serving the region.

The first meeting was held **March 26, 2019** and included a presentation summarizing the process, some initial findings, as well as facilitated discussion of goals and objectives including specific discussion to develop the Transportation System Goals that were described in Chapter 3. In addition to these presentations and discussions, the meeting concluded with a series of exercises mimicking those utilized in the Social Pinpoint tool and community meetings as described below.

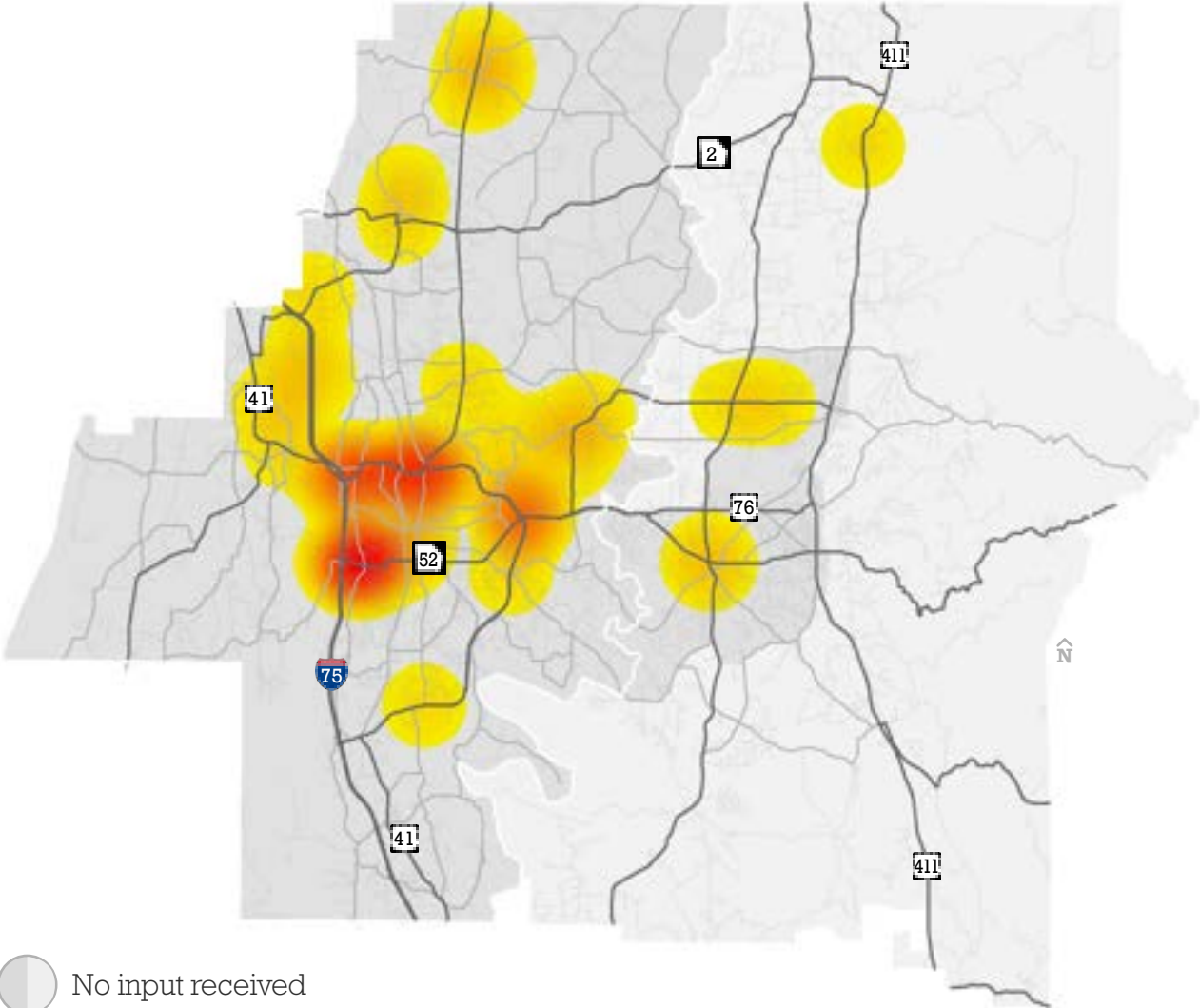
Stakeholder Meeting #1 Project Types Activity Results



- A ranking of which project types would be considered most beneficial to the community, the results presented above, to the right
- An exercise where community members could indicate on a map the areas where they felt transportation improvements were the most critical, the results presented on the facing page

A second meeting was held on **September 26, 2019** and included a presentation updating the group on the progress in the planning process, discussions of the community input received, discussion of the proposed process to prioritize and evaluate transportation projects (and the performance measures that would support this process), and facilitated smaller group discussions to identify key transportation projects for consideration in the MTP.

Stakeholder Map Responses



-  No input received
-  One location/opportunity indicated
-  Multiple locations/opportunities indicated

Public Comment Period

Following the completion of a draft MTP, the plan document was also made available for digital review as part of a 30 day Public Comment period on the Greater Dalton MPO website at <https://www.whitfieldcountyga.com/eng/mpo.htm>. This Public Comment period was advertised through the local newspapers of record, via social media, and through email lists and began on April 15, 2020 and concluded on May 15, 2020. XX public comments were received and are documented in Appendix C. Upon careful review and consideration of the comments received, the planning team determined that the following changes to the draft documented were warranted.

Note: This section will be updated as appropriate for the final document once the Public Comment period closes.

Summary of Community Engagement and Input

Given the disparate sources of community engagement and input, further compilation of results and input was appropriate to understand the collective direction from the community. In particular, this includes the three main exercises and questions held over the course of both the public and stakeholder meetings as well as through the online engagement tools.

- A ranking of which project types would be considered most beneficial to the community, the results presented below
- An exercise where community members could indicate on a map the areas where they felt transportation improvements were the most critical, the results presented on top of the facing page
- A ranking of the transportation system goals previously described in Chapter 3, the results presented at bottom of the facing page

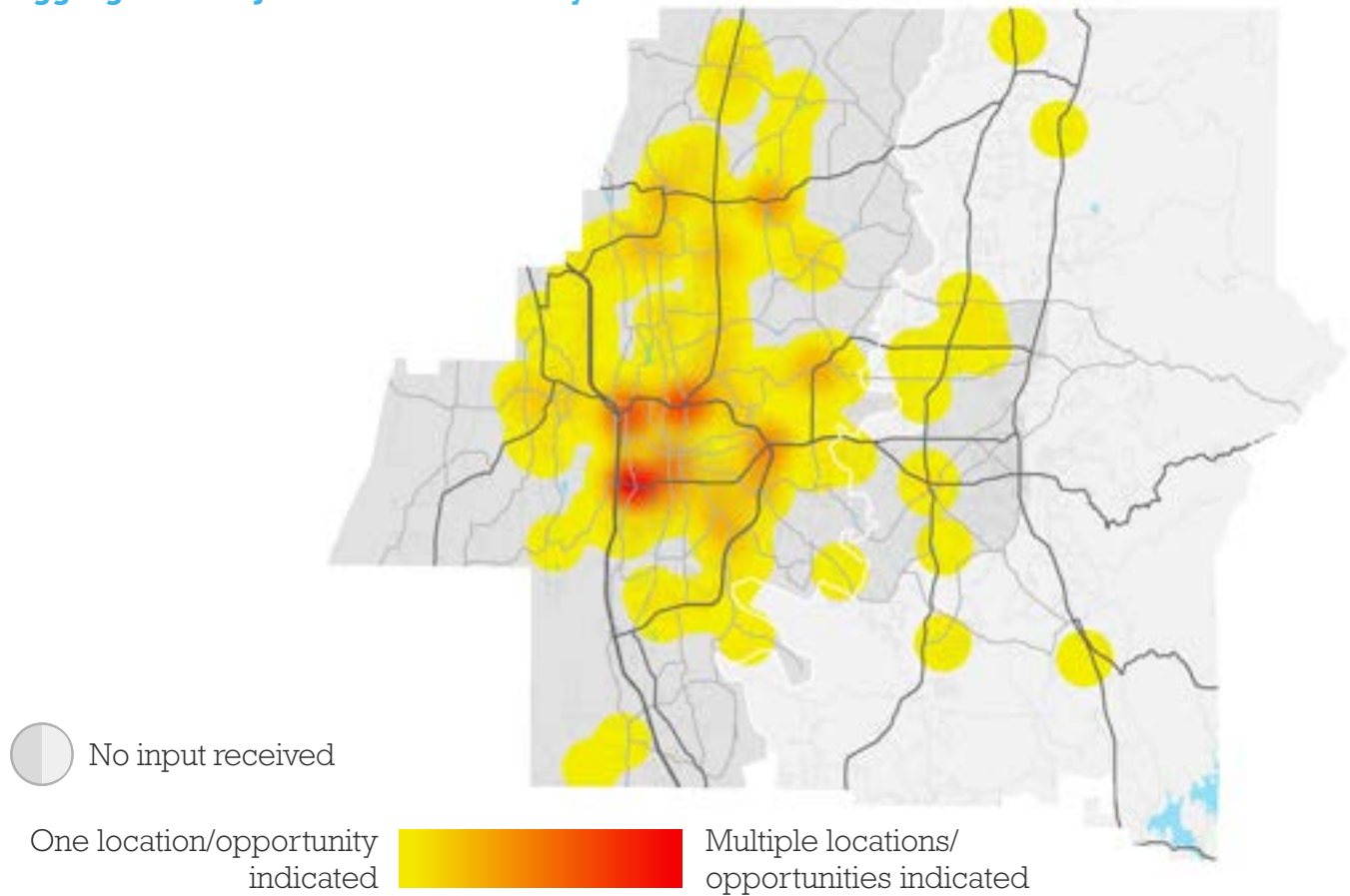
Overall Project Type Ranking

	Stakeholder Meeting (percentage of votes)	Public Meeting (percentage of votes)	Online Survey (rank, out of 8)
Intersection Improvements	28%	35%	2.1
Roadway Capacity and Operations	28%	27%	2.0
Bridge Upgrades	15%	13%	3.5
Freight Mobility	14%	18%	6.5
Pedestrian Infrastructure	6%	4%	4.4
Transit	6%	2%	5.1
Bicycle Infrastructure	2%	4%	4.8
Aviation Facilities	2%	0%	7.6



4 | Plan Development

Aggregated Project Location Activity Results



Overall Project Goal Ranking

	Public Meeting Votes	Public Meeting Percentages	Online Survey Average Rank	Online Survey Weight	Aggregate Weight
Address North-South Travel	9	23%	6.5	18%	20%
Encourage Downtown Reinvestments	2	5%	5.5	15%	16%
Accommodate Freight Traffic	7	18%	5.1	14%	15%
Address East-West Travel	8	21%	5.2	14%	15%
Enhance Connections to I-75	4	10%	3.9	11%	10%
Develop and Active Mode Network for the Region	3	8%	3.5	10%	9%
Provide Connectivity to Neighboring Communities	3	8%	3.5	10%	9%
Consider Opportunities for Future Transit Service in the Region	3	8%	2.9	8%	7%

Transportation System Analysis

Complimenting the community input during the MTP process, the technical analysis was used to evaluate and understand different aspects of the transportation system including establishing existing conditions and needs as well as identify anticipated future conditions.

Roadway Network

Functional Classification

The roadway network for the region includes a combination of different types of roadways categorized by their functional classification.

Interstates are the highest classification of roadway and were designed and constructed with mobility and long-distance travel in mind. Interstates have 'limited access' in which no direct access is provided to properties or land use abutting the roadway. Similarly, other roadways that cross the interstate do so through a grade-separation in which the other roadway crosses either under or over the interstate. In select locations – typically with arterial roadways as defined below – interchanges are built that provide entrance and exit ramps to and from the interstate. The Dalton region includes one interstate, I-75, a major north-south corridor through the Country extending from Michigan to Florida. Locally, I-75 is a major gateway into Whitfield County connecting the Dalton region to Chattanooga to the north and Atlanta to the south.

Arterials are major roadways but are able to serve land uses directly through driveways to specific parcels. Nonetheless, arterials are generally designed with mobility in mind as well and often assist in long-distance travel as well. There are classifications of arterials (principal and minor) relative to their use and important in connecting the region. The majority of major roadways in the Dalton region are classified as arterials including:

- SR 71: Known locally as Cleveland Highway, this corridor connects the North Dalton Bypass to the Tennessee state line and beyond to Cleveland, Tennessee.
- US 76/US 41/SR 3 (Dalton Bypass) and SR 3: These routes collectively serve as a multi-lane bypass on the north, east, and south sides of Dalton. On the west side of Dalton, mountainous terrain and the I-75 corridor precludes the need for a western bypass.
- SR 2: This arterial runs east-west connecting from the Catoosa County line on the west side, extending through the community of Varnell, crossing into Murray County before terminating at US 411.
- SR 201: Running north-south, this corridor enters Whitfield County in the southwest part of the community, extends north to Tunnel Hill and terminates at SR 2 in Varnell.
- SR 3/US 41: Also running north-south, this corridor enters Whitfield County from Gordon County to the south, extends north to the South Dalton Bypass/SR 3 Connector and traverses north through Tunnel Hill and into Catoosa County.
- SR 52/Walnut Avenue/US 76/Chatsworth Highway: Beginning at I-75 on the west side of Dalton and running east-west through Dalton and Whitfield County, this corridor enters into Murray County before joining with US 411 and turning in a southeastern direction and subsequently turning off US 411 at Smyrna Ramhurst Road towards Gilmer County.
- Alt. SR 52: Spurring off of US 76/SR 52 just east of Whitfield County, this corridor traverses

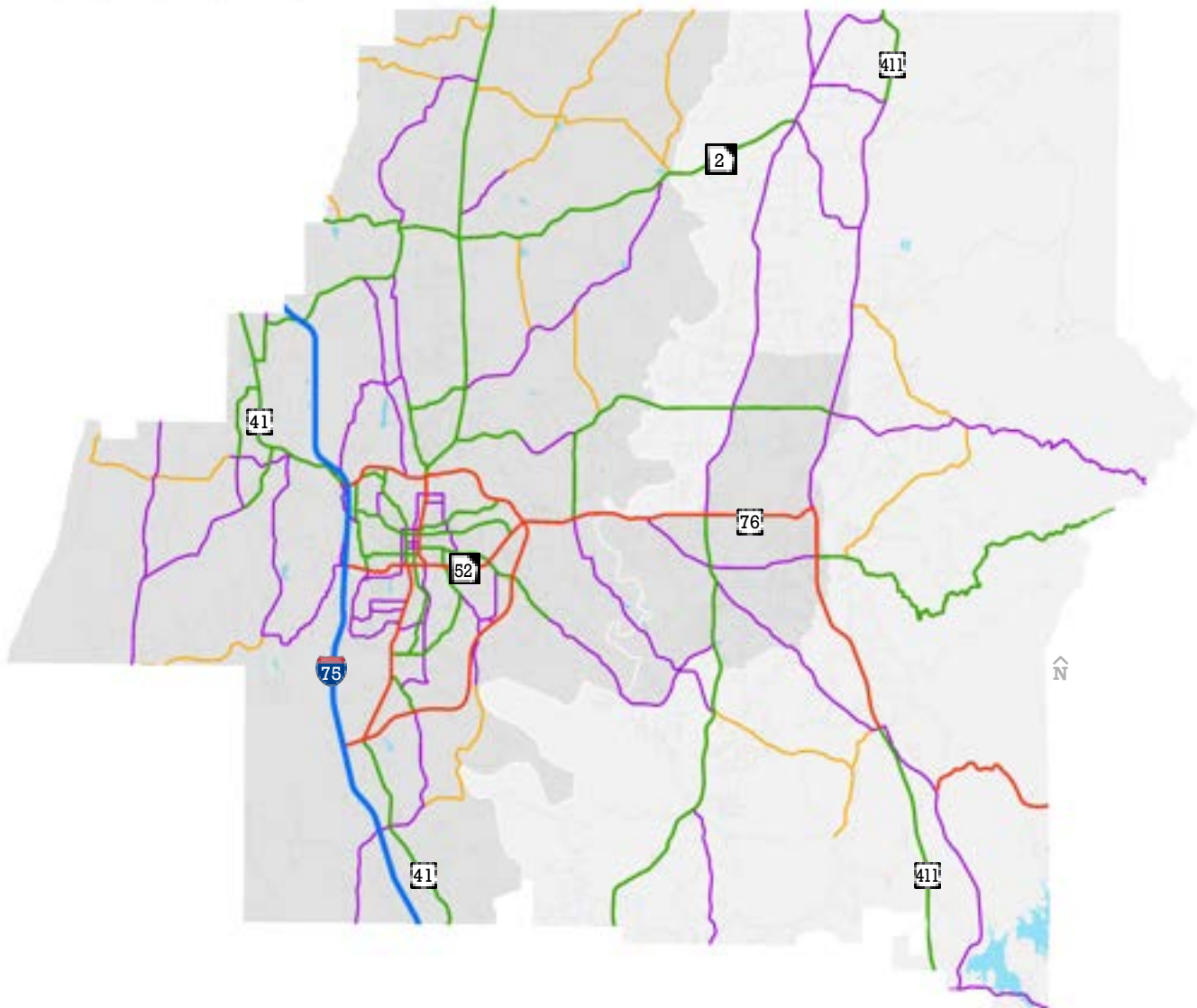


4 | Plan Development

southeasterly through Murray County, through Chatsworth, and towards Gilmer County

- SR 286: Beginning at SR 52/US 76 in Dalton, this corridor runs east-west into Murray County and terminates at US 411 in Eton.
- US 411: This corridor runs north-south from Gordon County to the south through Murray County connecting to Chatsworth and Eton and exiting to the north at the Tennessee state line.
- SR 225: Running north-south, this corridor parallels the western boundary of Murray County and US 411 towards the east.

Functional Classification in Whitfield and Murray Counties



Source: Georgia Department of Transportation

Collectors gather traffic from arterial roadways and distributes them to local roads. While they may serve relatively large volumes of traffic, it is typically less in volume than arterials and they typically run must shorter distances than arterials. Similar to arterials, these roadways are classified as 'major' and 'minor' depending on their traffic volume and connectivity.

Local Roads account for the largest percent of roadways and offer direct access to local properties. They are not intended for long distance travel and in many cases are designed to discourage through traffic.

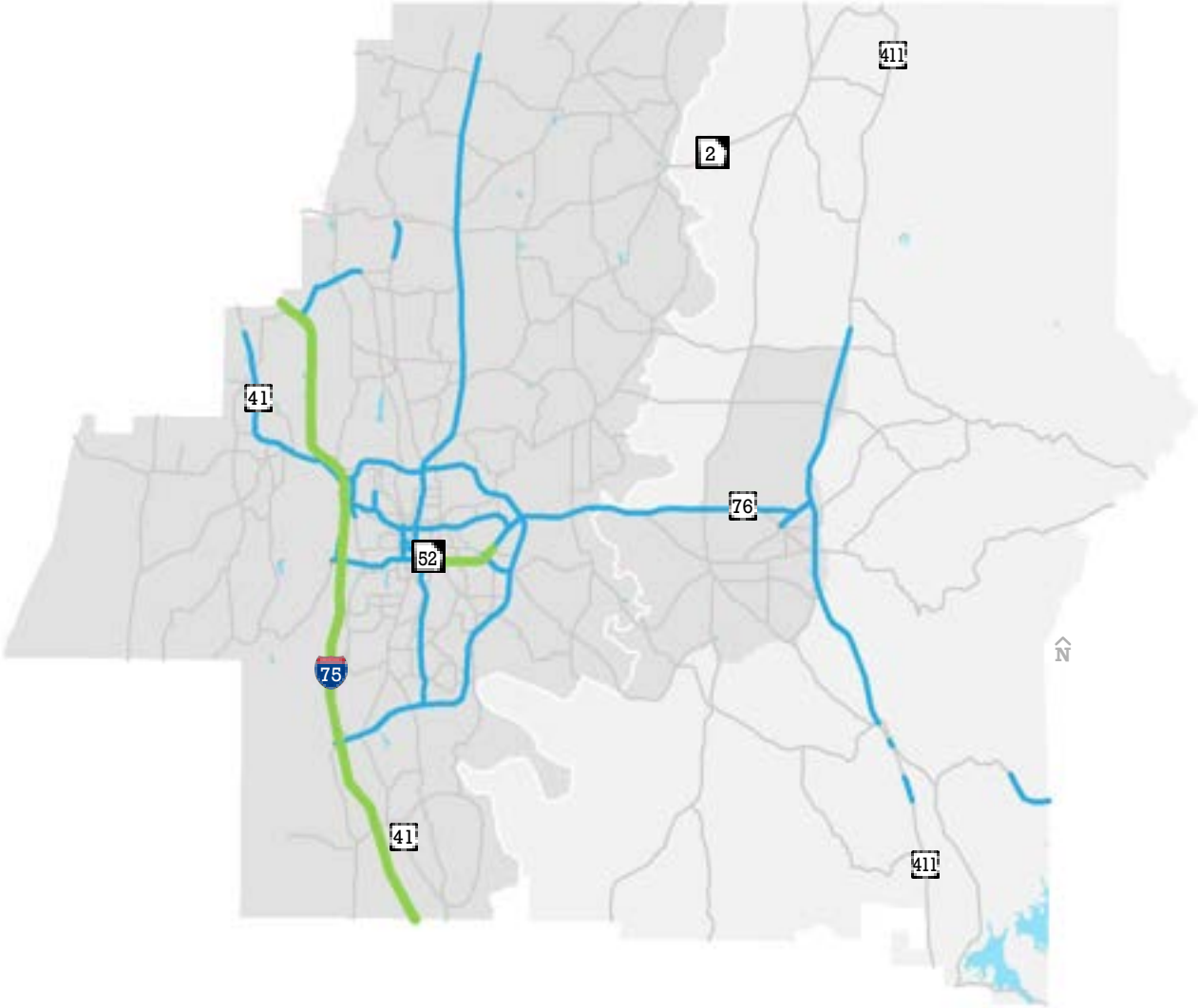
Lane miles in the region by each functional classification are provided in the tables below while the functional classifications in the region are depicted on the map.

Lane Inventory

Similar to functional classification, the number of lanes on roadways through the region influence the amount of travel. The map below depicts the number of lanes on most collectors and higher classified roads in the region, per the travel demand model, a tool developed by GDOT.



Lane Inventory in Whitfield and Murray Counties, 2015



1-2 Lanes

3-4 Lanes

5-6 Lanes

Source: Georgia Department of Transportation

Level of Service & Congestion

Travel demand models are sophisticated tools that can be utilized to determine how changes in the transportation system coupled with development patterns affects travel patterns and congestion. GDOT maintains a travel demand model for the Greater Dalton MPO region which consists of a four-step process as indicated below:

- Trip Generation – Estimates the number of trips likely to be generated based on socioeconomic data such as population, employment, and income data.
- Trip Distribution – Estimates where in the region the generated trips will likely travel to based on the attraction (based on the same socioeconomic characteristics used to determine trip generation) of different parts of the region.
- Mode Split – Estimates, where applicable, the mode of travel a trip will utilize.
- Trip Assignment – Estimates the pattern and route that a trip will take to reach its destination from its origin.

As referenced in Chapter 2, a key component of the travel demand model process was to determine both existing (year 2015) and future anticipated (year 2045) development patterns as represented by various socioeconomic data attributes – a process referred to in detail in **Appendix A**. In turn, this data was utilized to estimate the daily ‘demands’ on the transportation system. In that regard, the travel demand model also include inputs to reflect the ‘supply’ of the transportation system – information such as that already covered including where transportation facilities are and where they connect, their functional classification, and the number of lanes (capacity). These inputs can be edited to create and analyze different scenarios of possible future conditions.

The travel demand model is used in several ways during the MTP process, many of which are discussed in the next chapter of this MTP, Chapter 5. An initial component is to articulate the needs of the transportation system by focusing and comparing the results of the three scenarios described below:

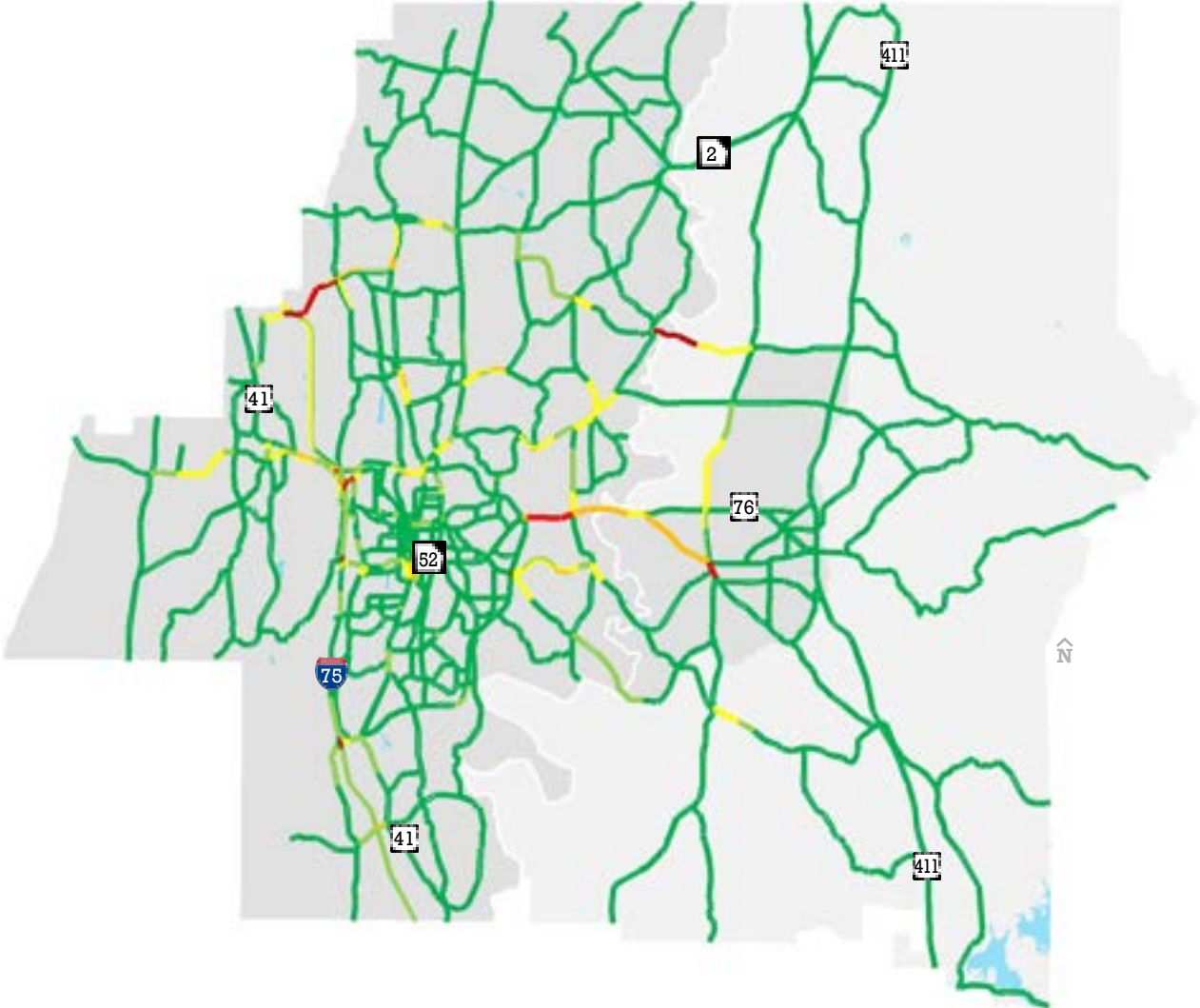
- Base Year – A travel demand modeling scenario built to represent existing conditions. In the case of the RTP, this model was developed for the year 2015 and calibrated for accuracy against actual observed 2015 conditions.
- 2045 Do-Nothing – A scenario intended to indicate what would happen in the year 2045 if no new projects were constructed. This includes projects constructed since the year 2015.
- 2045 Existing + Committed – Scenario intended to indicate what would happen in the year 2045 if only those projects with funds committed for Right-of-Way or Construction were constructed.

Focusing on these three scenarios, the planning team was able to understand generalized existing and potential future congestion in the region – congestion measured in a traffic engineering methodology known as Level of Service (LOS), which assigns letter grades A-F based on the relative amount of capacity being utilized on each roadway in the region.



4 | Plan Development

Base Year (2015) Scenario Travel Demand Model Level of Service

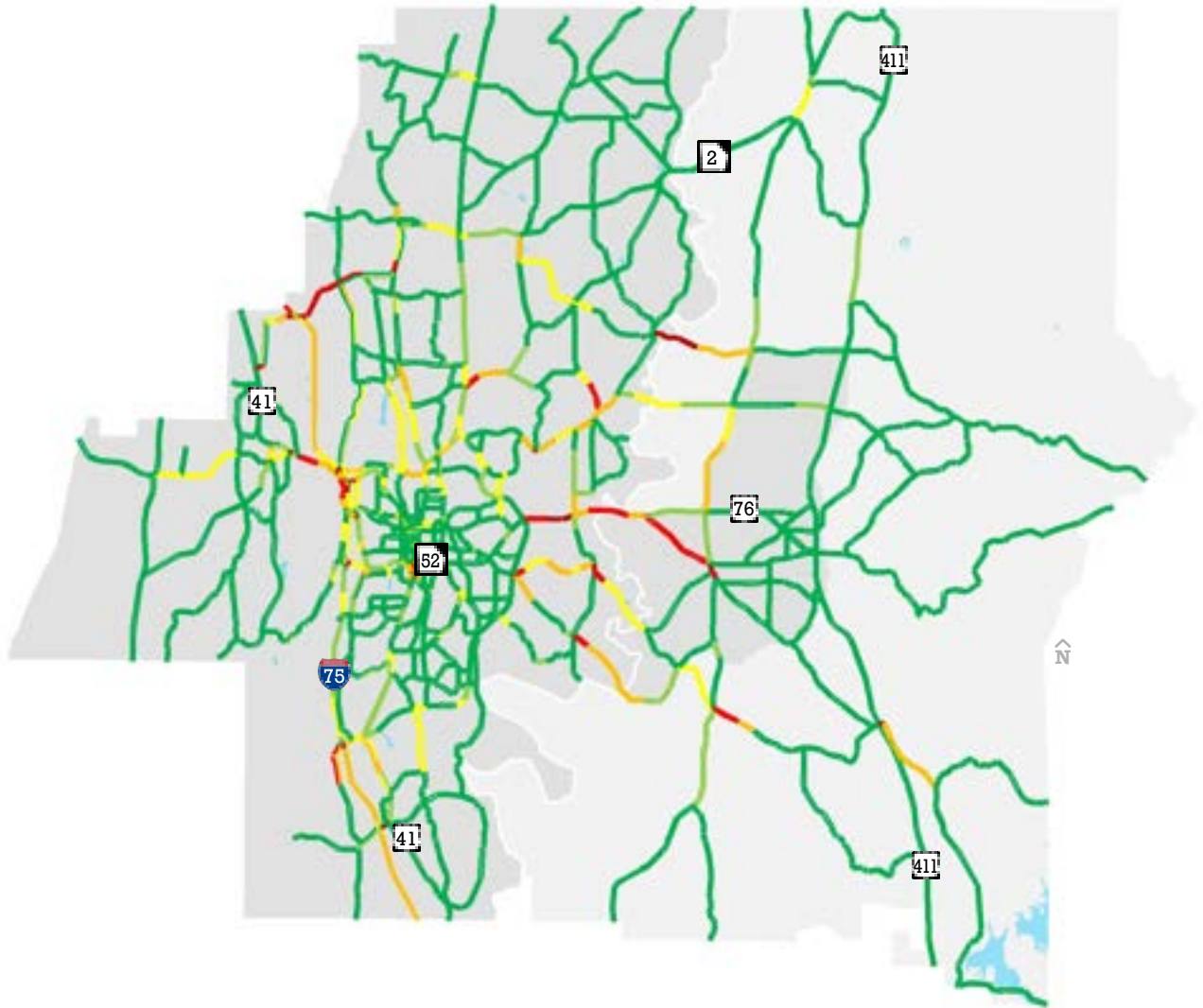


Source: Georgia Department of Transportation

Level of Service Conditions



2045 Do Nothing Scenario Travel Demand Model Level of Service



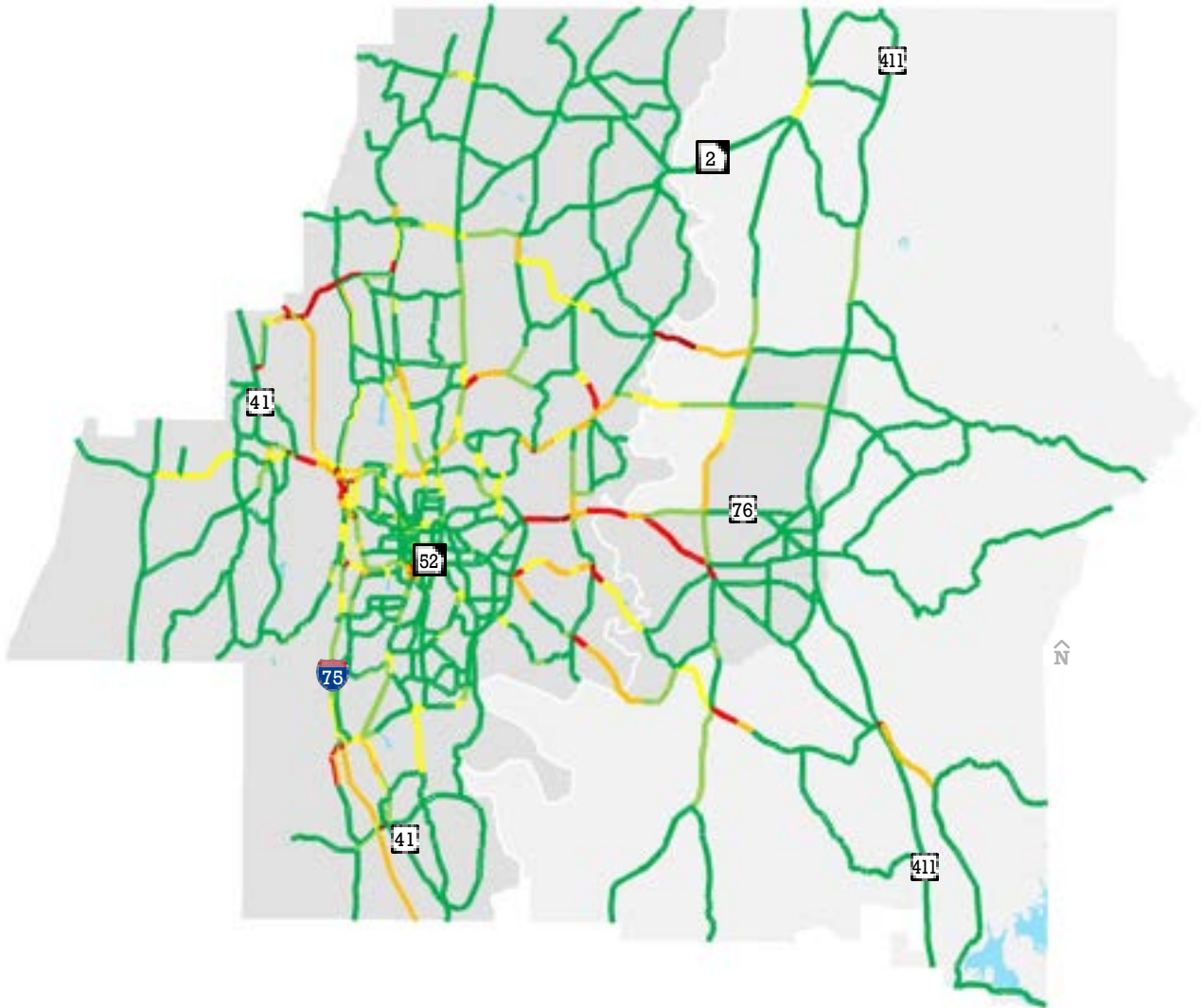
Source: Georgia Department of Transportation

Level of Service Conditions



4 | Plan Development

2045 Existing+Committed Scenario Travel Demand Model Level of Service



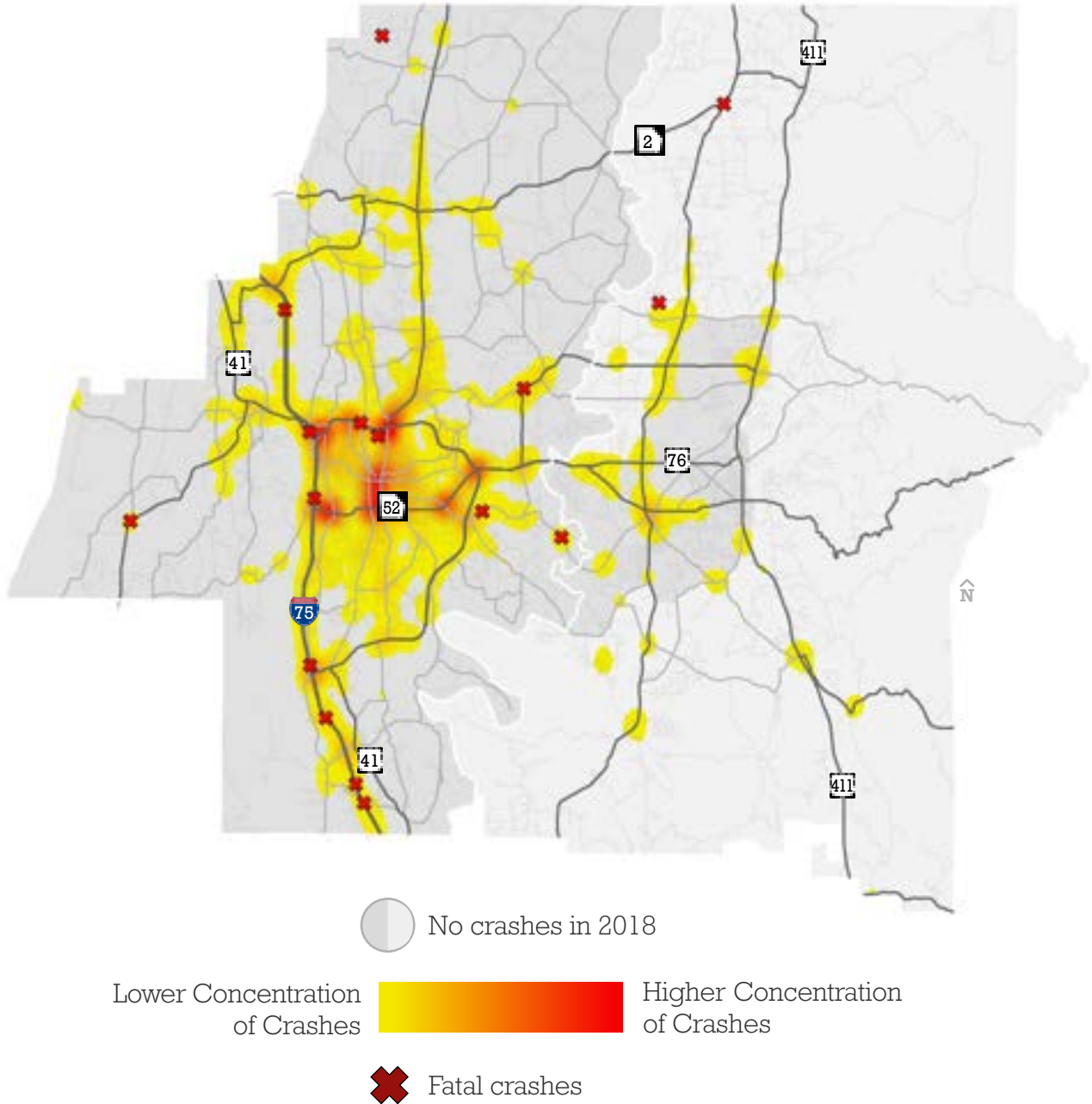
Source: Georgia Department of Transportation

Note: In this case, the “Do Nothing” Scenario and “Existing+Committed” Scenario were identical, and thus have identical results

Safety

As described in many of the federal, state, and local goals, a transportation system that emphasizes safety is just as important as maintaining its efficiency. Therefore, the planning team reviewed safety – as registered by crashes – throughout the region from the years 2013 through 2017 as depicted on the map below.

Crashes in 2018



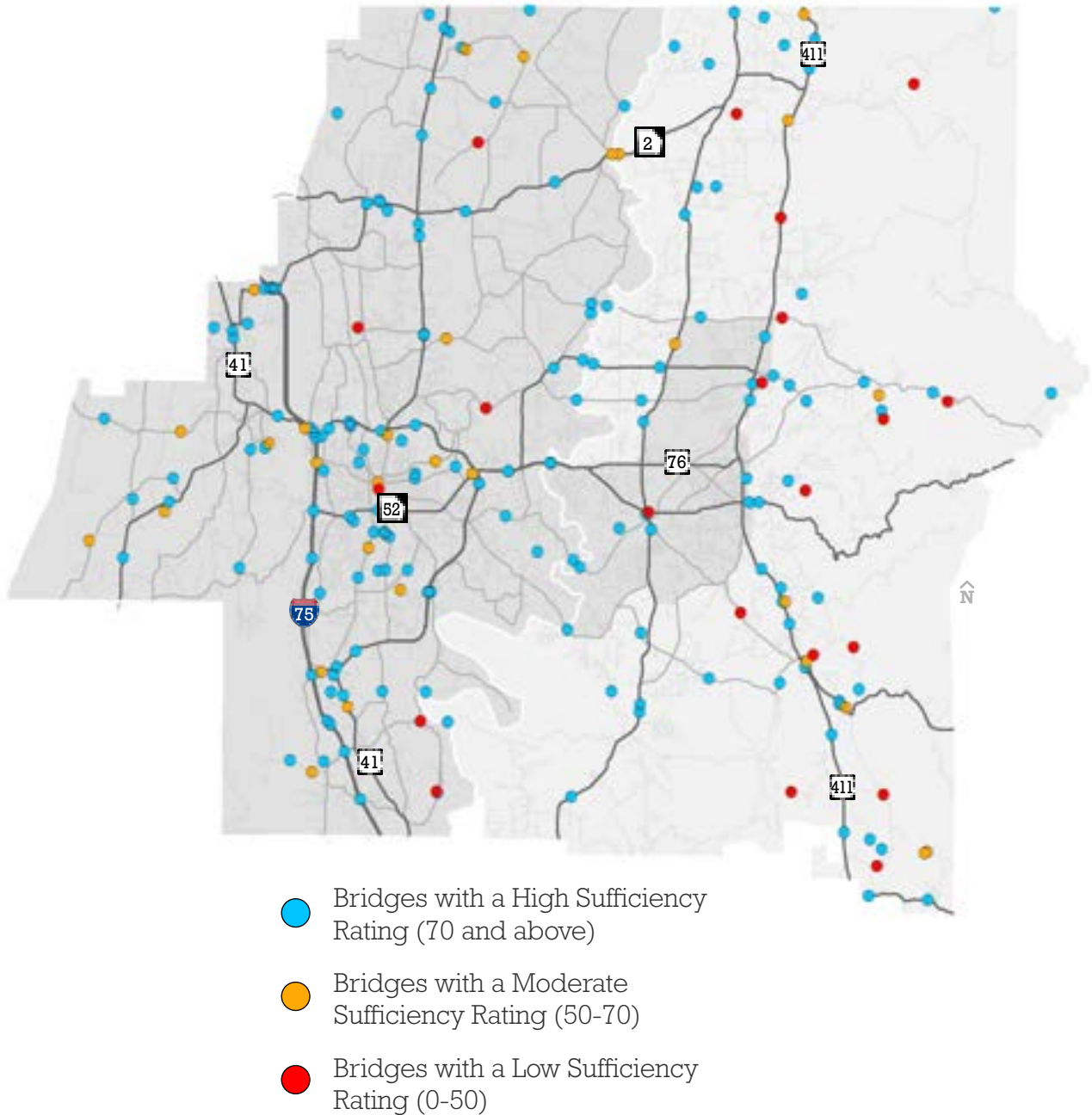
Source: Georgia Department of Transportation



Bridges

GDOT calculates sufficiency ratings for each bridge by evaluating its overall condition, taking into account all factors from low load to filed/visual observation of deficiencies. GDOT's Office of Bridge Maintenance recommends that structures with a sufficiency ratings less than 50 be replaced rather than improved. Bridges with a rating between 60 and 70 are candidates for rehabilitation or reconstruction. Bridges with ratings above 70 should be in acceptable condition over the life of the plan as long as routine maintenance is conducted.

Bridges in Whitfield and Murray Counties by Sufficiency Rating, 2019



Source: National Bridge Inventory, FHWA

Bridges in Whitfield and Murray Counties with Sufficiency Rating of 70 or below, 2019

Bridge ID	County	Name/Location	Sufficiency Score
213-5041-0	Murray	McNelly Road over a Conasauga River Tributary	4.0
213-5004-0	Murray	Dennis Mill Road over Rock Creek	16.0
213-5036-0	Murray	Peeples Spur over Rock Creek	17.5
213-5015-0	Murray	Coniston Road over Sugar Creek	18.6
213-5007-0	Murray	Old Federal Road over Mill Creek	19.7
313-0063-0	Whitfield	Gordon Street over Norfolk-Southern Railroad	21.4
213-5009-0	Murray	Loughridge Road over Mill Creek	22.1
213-0048-0	Murray	CCC Road over Emery Creek	24.3
213-5027-0	Whitfield	Hasslers Mill Road over Mill Creek	27.6
313-5031-0	Whitfield	Reed Pond Road over Poplar Spring Creek	32.4
213-5039-0	Murray	Old SR 2 over a Conasauga River Tributary	33.6
313-5053-0	Whitfield	Nance Springs Circle over a Conasauga River Tributary	35.1
313-0068-0	Whitfield	Dawnville Road over Coahulla Creek	36.3
313-5008-0	Whitfield	Old Tilton Road over Swamp Creek	36.3
313-5050-0	Whitfield	McGaughey Chapel Road over Coahulla Creek	36.8
213-0017-0	Murray	US 411/SR 61 over Sumac Creek	39.8
213-0043-0	Murray	Old US 411 over the Coosawattee River	41.4
213-0044-0	Murray	Old US 411 over Willbanks Branch	41.6
213-0004-0	Murray	Ramhurst Road over Holly Creek	42.4
213-5028-0	Murray	Cool Springs Road over CSX Railroad	45.6
213-0007-0	Murray	SR 52 Alt. over Town Branch	47.4
313-5002-0	Whitfield	Redwine Cove Road over Swamp Creek	52.2
213-5032-0	Murray	Cool Springs Road over Holly Creek	52.9
313-0004-0	Whitfield	SR 2 over the Conasauga River	53.0
313-5039-0	Whitfield	Houston Valley Road over East Chickamauga Creek	53.3
213-0018-0	Murray	US 411/SR 61/SR 2 over CSX Railroad	54.7



4 | Plan Development

Bridge ID	County	Name/Location	Sufficiency Score
313-5033-0	Whitfield	Willowdale Road over Mill Creek	54.9
213-0033-0	Murray	US 76/SR 282 over Rock Reek	55.7
313-5028-0	Whitfield	Putnam Road over Mills Creek	55.9
213-0045-0	Murray	Old Highway 411 over Chicken Creek	57.3
213-0021-0	Murray	US 411/SR 61 over SR 182/CSX Railroad	57.4
313-0020-0	Whitfield	SR 52 over Mill Creek	58.2
213-0001-0	Murray	SR 2 over the Conasauga River Overflow	58.7
313-0009-0	Whitfield	Old US 41 over Tar Creek	59.0
313-5012-0	Whitfield	Cavender Road over Stacy Branch	59.1
313-5041-0	Whitfield	Freeman Springs over East Chickamauga Creek	59.8
313-0025-0	Whitfield	West Waugh Street over Norfolk-Southern Railroad	60.4
213-0035-0	Murray	US 76 over Sugar Creek	60.7
313-0056-0	Whitfield	Beaverdale Road over Coahulla Creek	60.8
CEPSAMG A0000005	Murray	Carters Intake Access over Carters Emergency Spillway	61.0
213-5001-0	Murray	CR 1 over Carters Lake Overflow	61.2
313-0066-0	Whitfield	Tibbs Road over I-75	61.8
313-5015-0	Whitfield	Underwood Street over Mill Creek	63.6
313-0035-0	Whitfield	SR 201 over Tanyard Creek	63.8
313-5043-0	Whitfield	Gordon Springs Road over East Chickamauga Creek	63.9
213-0030-0	Murray	SR 225 over Pinhook Creek	66.2
313-5060-0	Whitfield	Green Valley Drive over a Mill Creek Tributary	68.0
313-0026-0	Whitfield	Glenwood Avenue over Mill Creek	68.3
313-0005-0	Whitfield	US 41 over Swamp Creek	68.6
313-5029-0	Whitfield	Hopewell Road over Coahulla Creek	69.3
313-0016-0	Whitfield	SR 3 Connector over Little Swamp Creek	70.0

Source: National Bridge Inventory, FHWA

Bicycle & Pedestrian Travel

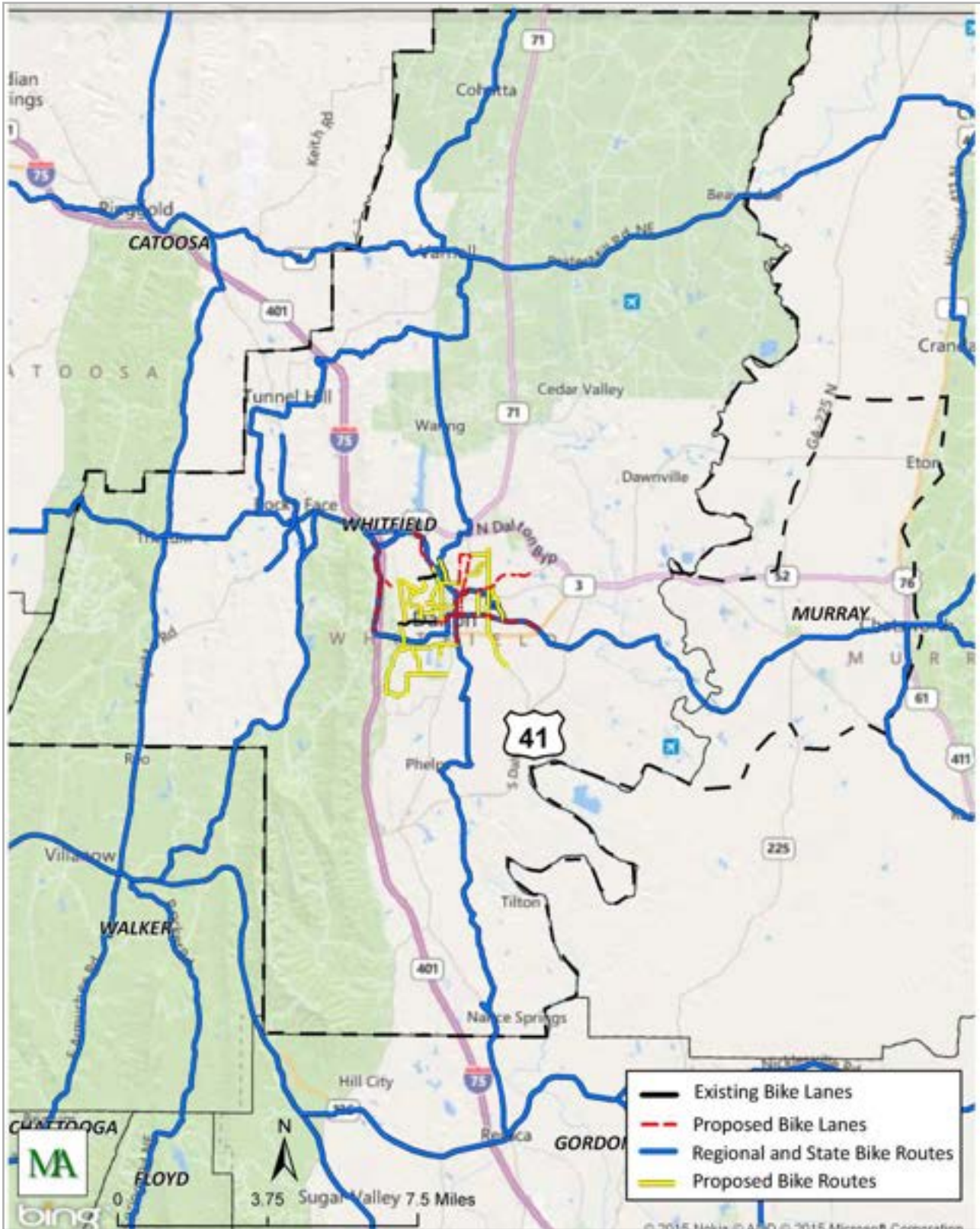
The bicycle and pedestrian network in the region includes both regional and localized, community serving facilities.

At the regional level, two state bicycle routes traverse Whitfield County:

- “March to the Sea” (Route 35) runs northwest/southeast between the Tennessee State line near Chattanooga, TN and downtown Savannah. Within Whitfield County, the route traverse 11.7 miles through Tunnel and Hill and Mount Vernon.
- “Mountain Crossing” (Route 90) runs east/west across the mountains between Walker County, Georgia (south of Chattanooga, TN) and Rabun County in the northeast corner of the state. This route crosses through both Whitfield and Murray County connecting Dalton State College, the City of Dalton, crosses the Conasauga River, and Chatsworth.

The Chattahoochee National Forest in Whitfield County contains a number of hiking and/or biking trails, including the Pinhoti Trail. The Pinhoti Trail is the connecting link between the Appalachian Trail and the Appalachian National Scenic Trail via the Benton MacKaye Trail, making it possible to hike the entire southern Appalachian Range. The completed section of the Georgia Pinhoti Trail follows the Armuchee Ridges near Rome and enters Whitfield County from Mill Creek Mountain along the Walker County line, and continues north along Middle Mountain and Rocky Face Ridge at Dalton, where it effectively ends at Dug Gap Road. Upon completion, it will cross the Great Valley to the Cohuttas and connect to the Benton MacKaye Trail.

Bicycle Facilities in Greater Dalton MPO



Source: GDMPO 2040 LRTP

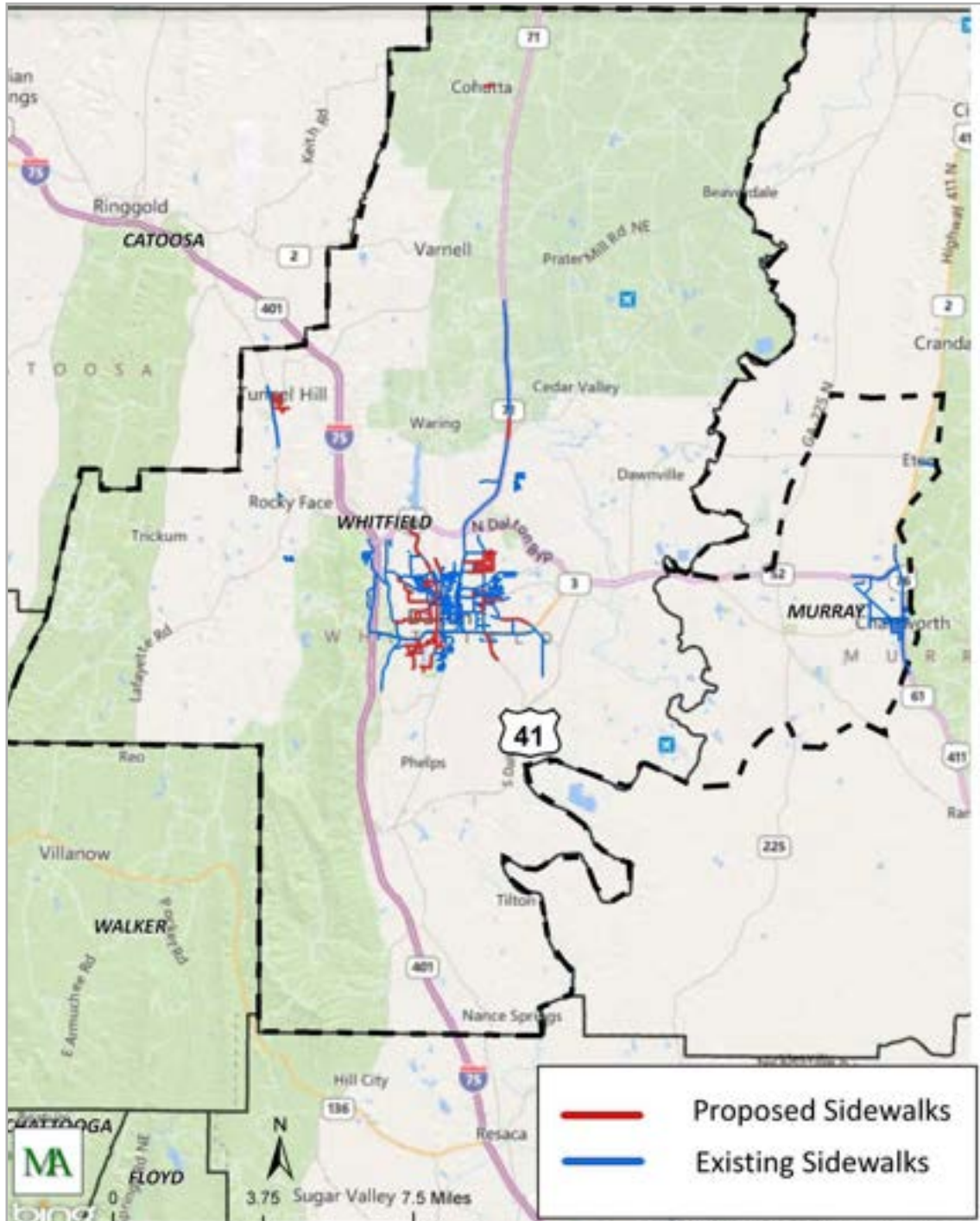
Greater Dalton

2045 Metropolitan Transportation Plan

Whitfield County has a relatively good sidewalk network within downtown Dalton and along SR 71/Cleveland Highway. Portions of the existing sidewalk system covers most of the major activity centers along SR 52/Walnut Avenue, Thornton Avenue, and Glenwood Avenue.

Murray County has mostly excellent and good sidewalks in Chatsworth, but some sidewalks need repair as shown in the image on the following page.

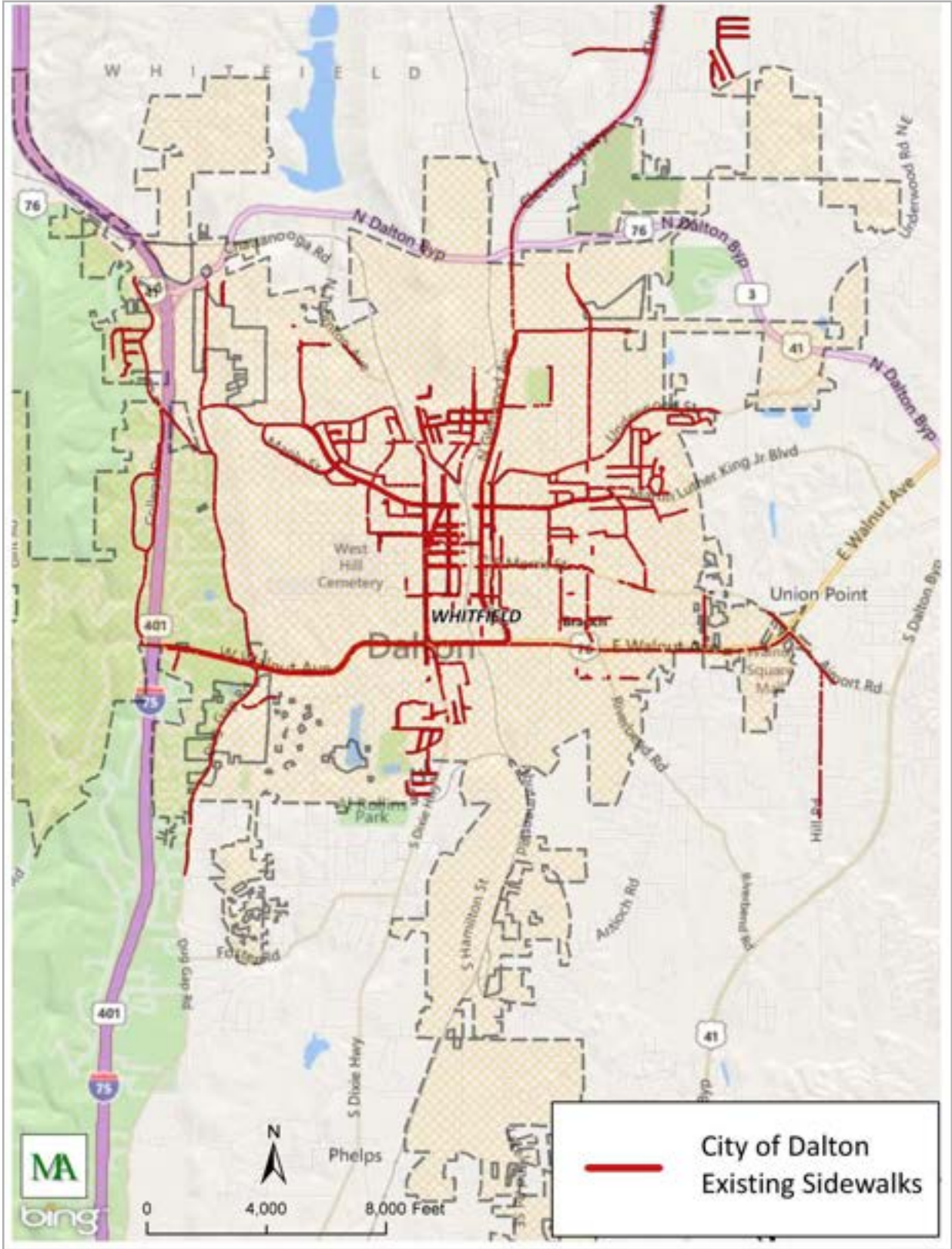
Pedestrian Facilities in Greater Dalton MPO



Source: GDMPO 2040 LRTP

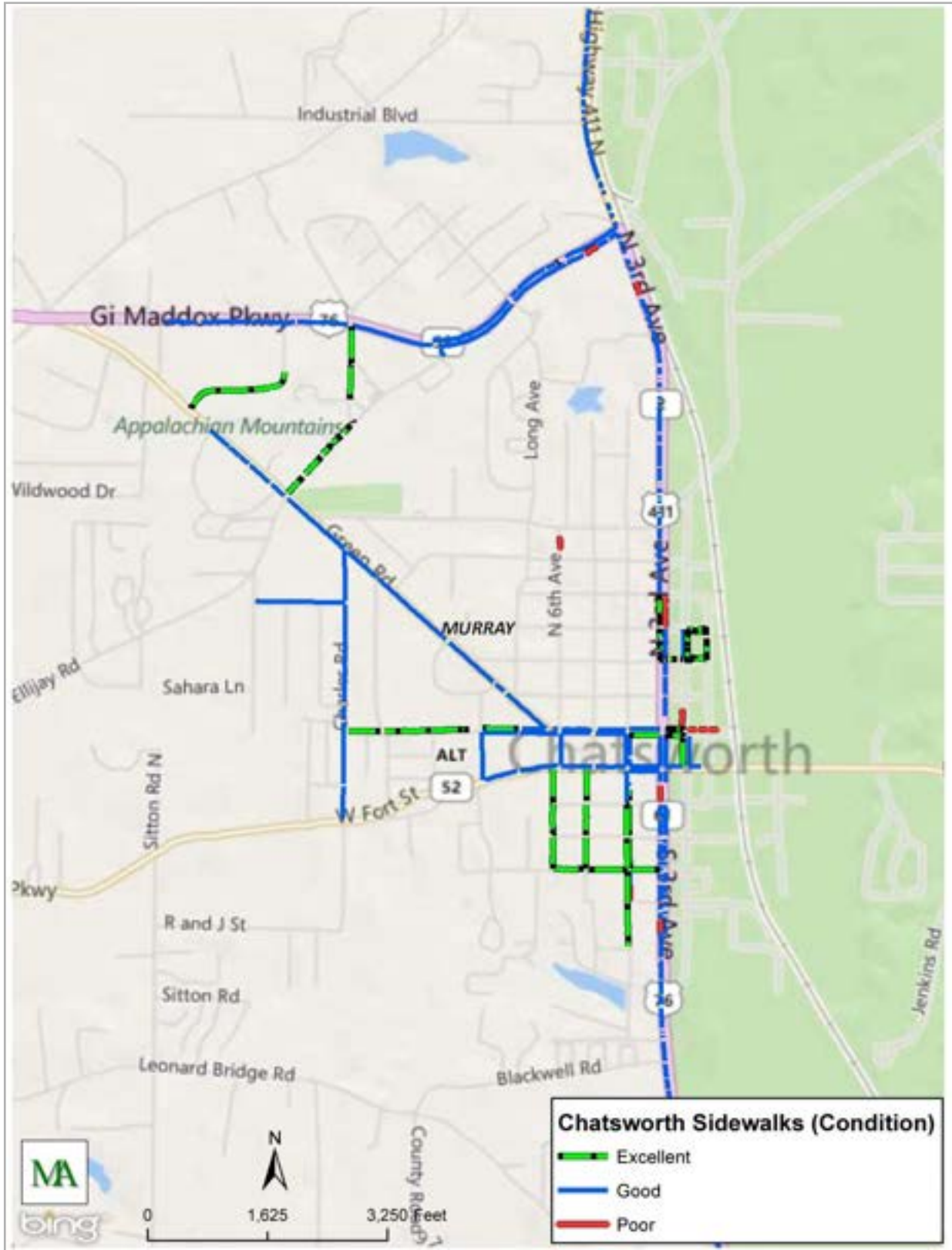


Pedestrian Facilities in Dalton Area



Source: GDMPO 2040 LRTP

Pedestrian Facilities in Dalton Area



Source: GDMPO 2040 LRTP



Transit

Through a Federal Transit Administration (FTA) 5311 grant, the **Whitfield County Transit Service (WCTS)** operates 10 vehicles in their curb-to curb, demand-response, and route-deviation transportation operations with service available Monday through Friday, from 6:30 am. to 6:00 pm. to all County residents for various trip purposes, including medical, nutrition, shopping, education, social, and recreation. In addition, WCTS provides services by a contract agreement through the Georgia Department of Human Services (DHS) with Transit Alliance, Inc., acting as the main contractor for DHS.

The FTA 5311 grant program recipients may use the funding for capital, operating, and administrative expenses on a formula based agreement whereas the Federal share of eligible capital and administrative expenses may not exceed 80 percent of the net project cost. Federal share of operating expenses may not exceed 50 percent of the net project operating costs. Up to 90 percent of Federal match funds may be used for projects that meet the requirements of the American with Disabilities Act, the Clean Air Act, or bicycle access projects.

As of January 1, 2014, Whitfield County provides all operational and administrative services in-house. About 80% of service is provided for trips in Dalton, but this service is available countywide. The cost to ride for general public is \$4.00 for each one-way trip. Reservations for service are required 48 hours in advance.

While service is available to all County residents, primary beneficiaries of the County's transit service are disadvantaged populations such as elderly, handicapped, and persons with low-income status. WCTS is providing this population with improved and affordable accessibility to shopping, educational, and medical and social service centers throughout Whitfield County.

Murray County Transit is the demand-responsive public transportation service in Murray County. The transit service operated with a fleet of six buses which are wheelchair-accessible. This service is available to all residents of Murray County and is open to the general public. Murray County Transit provides transportation to the Senior Citizen Center, to doctor's offices, grocery stores, pharmacies, and anywhere in Murray County. Also transportation service is also available for medical appointments in Dalton. The hours of service are Monday through Friday 8 am. to 5 pm. Murray County Transit operates on an advanced reservation basis at least 24 hours before the requested trip. Wheel chair-accessible service is available upon request. Fares for the service depend on the distance of the requested trip.

The charge for each one-way trip is as follows: \$1.00 for 0 to 5 miles, \$2.00 for 5.1 to 10 miles, and \$3.00 for 10.1 miles and over. Additional stops cost \$1.00. In addition to fares, the transit service receives funds from the Federal Transit Administration (FTA), the Georgia Department of Transportation, and Murray County government.

Transit Service Operations for the year 2017 are provided in the table below.

Transit Service Operations Information, Whitfield County Transit Service and Murray County Transit, 2017

	Whitfield County Transit Service	Murray County Transit
Total Passengers (unlinked passenger trips)	34,756	20,947
Operating Vehicles	10	9
Vehicle Revenue Miles	264,236	159,814
Vehicle Revenue Hours	16,751	10,388
Total Operating Expenses	\$643,431	\$272,428
Fare Revenue	\$34,562	\$17,651
Passenger Per Revenue Hours	2.07	2.02
Revenue Miles Per Hour	15.77	15.38
Passengers Per Revenue Miles	0.13	0.13
Operating Expenses Per Revenue Mile	\$2.44	\$1.70
Fare Revenue to Operating Expenses Ratio	5.37%	6.48%
Operating Cost Per Passenger	\$18.51	\$13.01

Source: National Transit Database (2017)



Regional Transit Planning

Multi-modal transportation options for the Dalton-Whitfield County area have been studied over the last several years. The **2006 Public Transportation Needs Study**, completed in January 2006 investigated the feasibility of a fixed-route transit service. Five service options were developed as part of this study.

Options 1 and 2 were demand-response options to serve all of Whitfield County, expanding upon the existing Whitfield County transit service. Options 3, 4, and 5 were various types of services for the entire urbanized area of Dalton, including a range of possible service levels. Option 5 was recommended which included a fixed route service in the City of Dalton, with complimentary ADA paratransit service. This option included six proposed fixed routes which would operate 12 hours a day, Monday through Friday.

This recommended option included the removal of the current demand responsive service. The plan also outlined four management options:

- Local Government Owned and Operated
- Contract Service
- Local Government Owned/Operations Contracted Out
- Multi-Agency Operating Agreement

Due to the costs involved, neither the City of Dalton nor Whitfield County followed the recommendations of the study.

In July 2012, through a Federal Transit Act (FTA) 5307 grant, a draft **Transit Feasibility Study** was completed. This study investigated 4 alternatives and reviewed 11 candidate routes for a flexible-route system for Alternatives 2, 3, and 4 that would radiate from a multi-modal transit center to be located in the center of the City of Dalton.

- Alternative 1 included maintaining the existing demand-responsive service.
- Alternative 2 maintained the existing service, included a local flexible-route service within the Dalton area, included a paratransit service for eligible persons, and proposed operating Monday through Saturday from 6 am. to 7 pm. with frequency of service at 30 minutes in the am. and pm. peak periods and 60 minutes during midday and off-peak periods. Alternative 2 included seven routes.
- Alternative 3 proposed the same features with the exception of proposing a different set of seven routes.

- Alternative 4, the recommended alternative, keeps the existing service; adds a paratransit service for eligible persons; includes Monday through Friday operations from 6 o'clock in the morning to 7 o'clock in the evening; serves with a frequency of 30 minutes during peak periods and 60 minutes during off-peak periods; and includes 5 routes for the local flexible-route service within the Dalton area. The 5 routes included in the recommended alternative are as follows:
 - Route 1-Dalton State College/W. Walnut Ave., routing from the transit center to W. Cuyler St. to S.Thornton Ave. to W. Walnut Ave. to College Dr. to George Rice Dr. (4.5 miles, one-way length)
 - Route 4-Medical Center/Thornton Ave, routing from the transit center to W. Cuyler St. to the north on Thornton Ave. to Memorial and looping back via Memorial to Broadrick Dr. to Professional to south on Thornton Ave. (2.8 miles, one-way length)
 - Route 5-Bi-Lo/Glenwood Ave., routing from the transit center to N. Hamilton to W. Waugh St. to N. Glenwood Ave. to US 41/N. Dalton Bypass (2.3 miles, one-way length)
 - Route 7-Underwood St., routing from the transit center to W. Morris to N. Glenwood Ave. to east on Underwood St. to North Dalton Bypass (3.3 miles, one-way length)
 - Route 8-Wal-Mart/Walnut Square Mall/E. Walnut Ave., routing from the transit center to W. Morris to south on Glenwood to east on E. Walnut Ave. to the Wal-Mart Super Center (2.7 miles, one-way length)

The system map for this preferred alternative is illustrated in the map below. The detailed analysis of the alternatives considered, including the recommended alternative, are contained in American Consulting Professional, LLC report which can be reviewed on Whitfield County's website, www.whitfieldcountyga.com.

The estimated start-up costs of the recommended alternative outlined in the report are as follows:

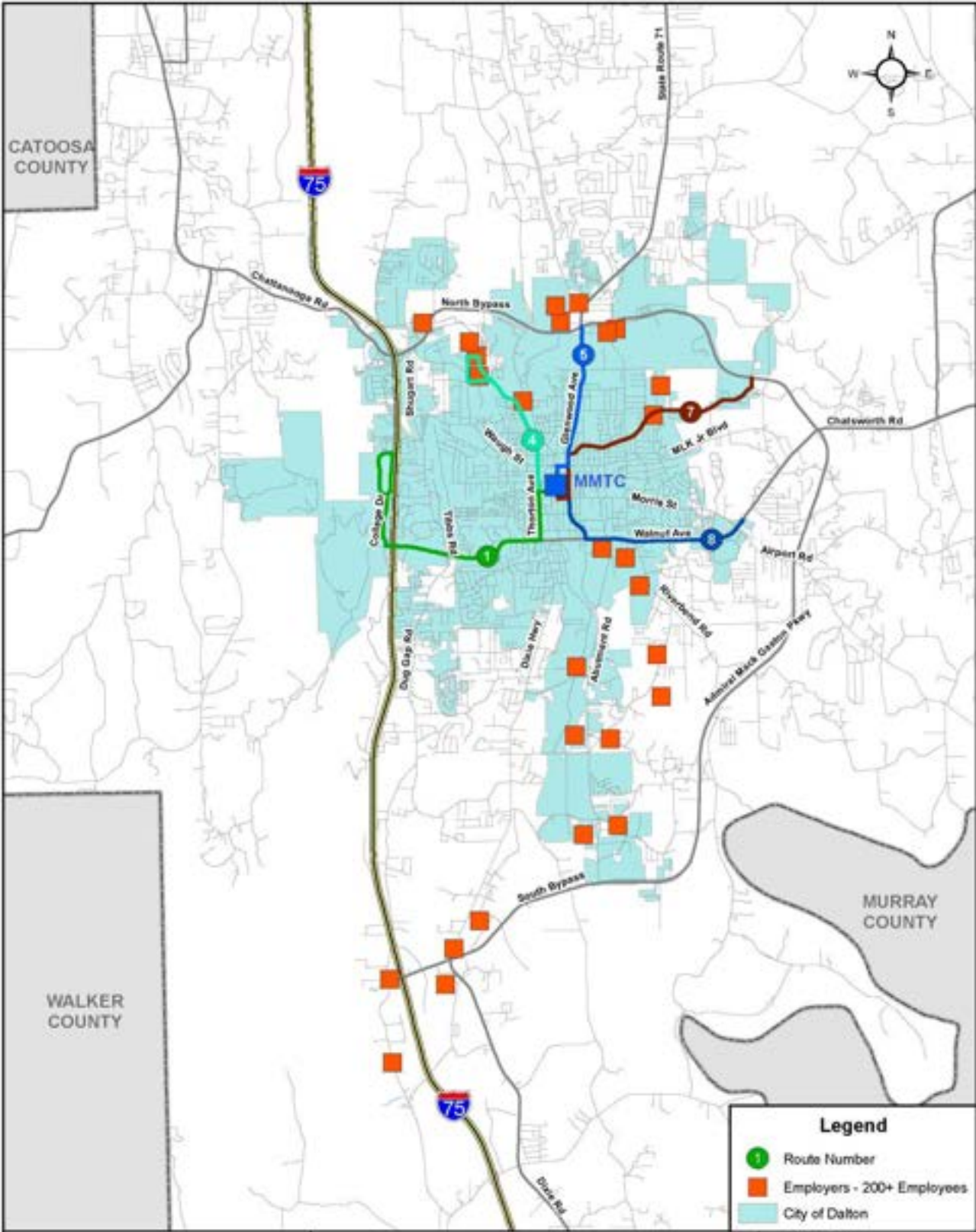
- Annual Operating and Maintenance Costs: \$1,223,861
- Capital Costs:
 - New Vehicles: From \$364,000 to \$1,920,000
 - Bus Maintenance Facility: From \$ 2.4 to \$6 million
 - Transit Center Costs: From \$200 per square foot to \$450 per square foot depending on whether the Transit Center is a new construction or a renovation of an existing facility.

While the final plan was never approved, if pursued further next steps will include the development of an implementation plan that refines and details the preferred transit alternative, including ridership projections, an operating plan, a financial plan, social impacts, and legal/regulatory/institutional considerations. Funding options for implementation of this recommended alternative are included in the public transportation section of VIII Plan Recommendations.



4 | Plan Development

GDMPO Transit Study Service Alternative 4



Source: GDMPO 2040 LRTP

Freight

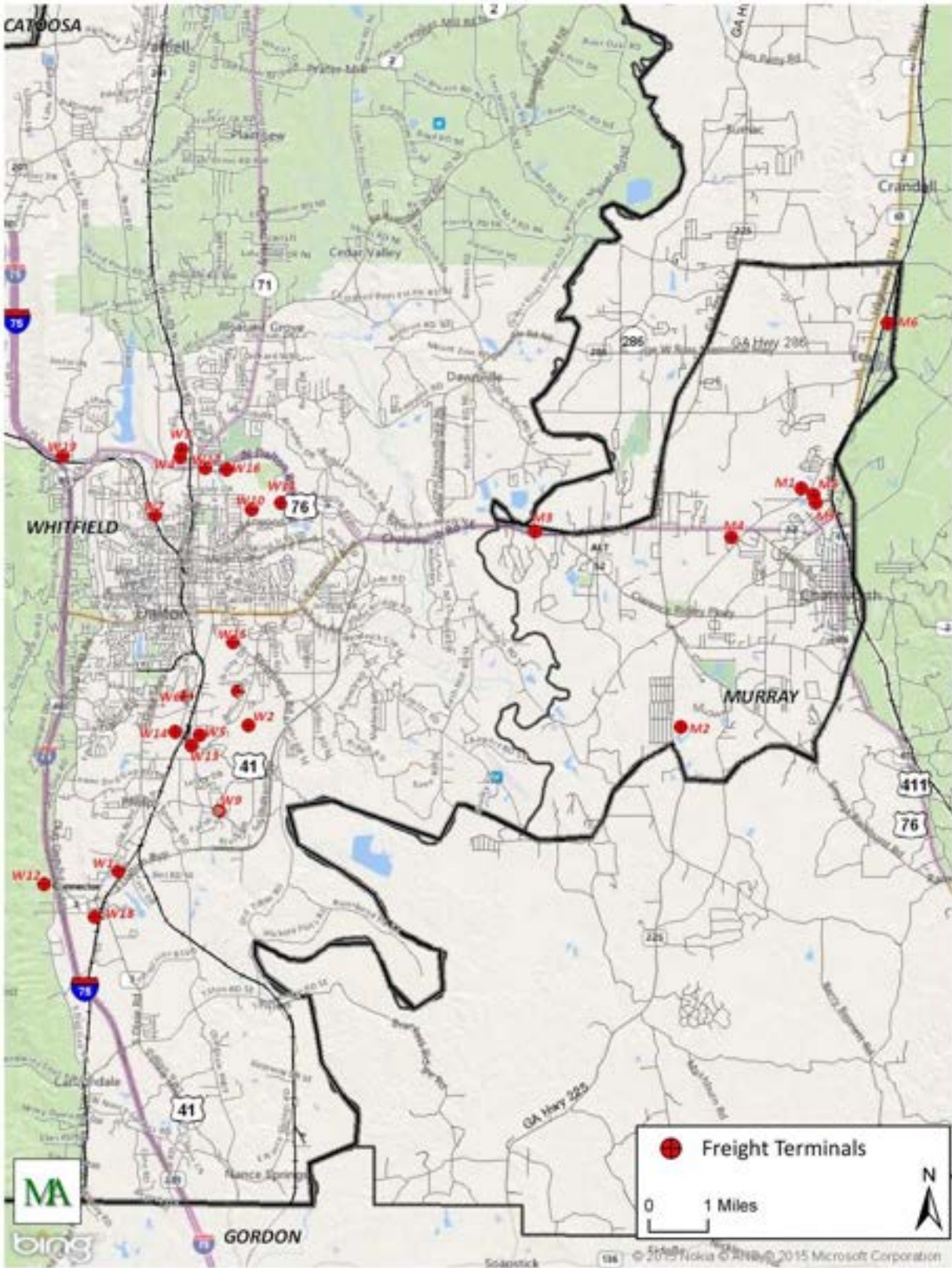
Goods movement by truck is essential for commerce in the Whitfield/Murray urban area, especially for the carpet industry. The four I-75 interchanges provide adequate access to various carpet related businesses. These highway facilities provide excellent linkages to economic markets in the surrounding region and to ocean ports primarily the Savannah port for international connections.

In 2006, Whitfield County had approximately 46 motor freight carriers, including intrastate and interstate freight haulers, liquid/dry bulk carriers, heavy haulers and local cartage. There were 1,337 trucks over 18,000 pounds registered in Whitfield County. This number does not adequately reflect the total number of heavy trucks that travel through the area because the carpet industry in the region have plants in numerous surrounding counties and many of the trucks are registered in those counties. A total of 19 freight terminals were identified in Whitfield County and 7 freight terminals were identified in Murray County. Freight terminals are depicted in the table and map below.

A large percentage of truck traffic in Whitfield County is intra-county trips between carpet manufacturing sites, such as when raw materials are shipped into and stored in Whitfield County and Murray County warehouses before trucks pick them up and deliver them to a carpet tufting plant, followed by trips to the next processing plant for finishing and finally to distribution centers for shipments from Whitfield County to ocean ports and markets worldwide. Shaw Incorporated, the largest manufacturer headquartered in Whitfield County, has 63 manufacturing plants and warehouses in Dalton, Cartersville, Calhoun, Chatsworth and Ringgold, with distribution centers in Dalton, Cartersville and Ringgold. Truck trips generate over 600 intrastate trailer moves each weekday from dry vans, liquid tankers and dry bulk tankers to straight trucks. Shaw Inc. in Dalton generates 120 interstate shipments a day with about 700 interstate shipments a week from all distribution centers to points across the US. The local intrastate trailer moves of Shaw Inc, are made with company trucks based in Dalton. Roughly 50% of Shaw's interstate shipments are made using their company trucks, with the remainder of shipments being made by common carriers.



Freight Terminal Locations



Source: GDMPO 2040 LRTP

Rail

Two freight rail systems operate in Whitfield County. Norfolk Southern (NS) connects Dalton, Varnell and Cohutta with Cleveland, Tennessee and Rome, Georgia. CSX connects Dalton with Chattanooga, TN and Cartersville, GA and operates more than 2,000 piggyback cars per month. A rail yard in Dalton serves both CSX and NS lines running north/south through Dalton. The two railroad lines actually cross in Dalton. At this crossing, one train must wait on the other, adding delays at upstream crossings. Train officials should work with Dalton officials to find solutions such as “breaking the trains” when more than a 15 minute delay is expected.

In addition, the region has benefited by the recent opening (August 2018) of the Appalachian Regional Port (ARP), which is located in the non-MPO portion of Murray County on US 411, north of Eton. The ARP is a joint effort between the state of Georgia, Murray County, the Georgia Ports Authority, and CSX Transportation. The ARP is on the CSX line, providing a direct 388 mile rail route to/from the Garden City Terminal at the Port of Savannah. As a result, the Georgia Ports Authority estimates that each round-trip container moved at the ARP offsets 710 truck miles on Georgia highways. Currently, the facility has a capacity of 50,000 containers per year. That capacity is anticipated to double per a 10 year development plan for the 42 acre site.

As implied by the challenges of the CSX and Norfolk Southern lines merging near downtown Dalton, the rail operations do impact vehicular traffic at locations where the rail lines cross streets. The map below and following tables provide the most current railroad crossing inventories in Whitfield and Murray counties, respectively. There are three grade separations at railroad crossings in Dalton

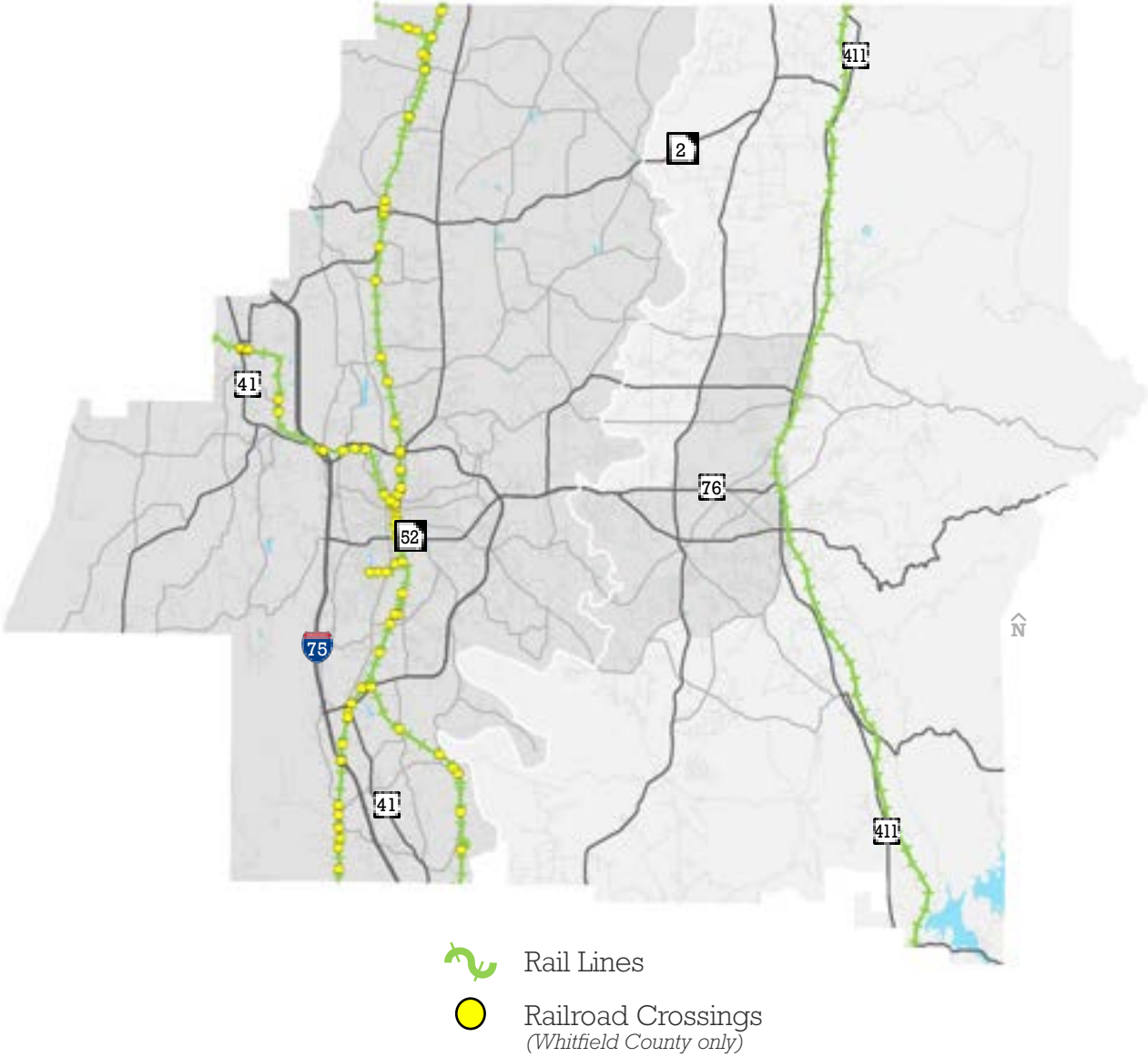


Source: Georgia Ports Authority

at SR 52/Walnut Ave., Gordon St., and Waugh St./MLK Blvd., which provide adequate east-west access in the mid and southern part of Dalton. The northern part of Dalton does not have a grade separation and frequent delays occur in this area. Within Dalton, the NS and CSX railroads run on a common track carrying 50 trains per day with speeds from 15 to 50 miles per hour. Within Tunnel Hill, CSX operates 22-26 trains per day with speeds from 22 to 45 miles per hour. Within Varnell, NS operates 27-36 trains per day with speeds from 5 to 50 miles per hour. Within Cohutta, CSX operates 44 trains per day and Norfolk Southern operates between 18 to 27 trains per day with speeds ranging from 1 to 30 miles per hour and 5 to 50 miles per hour respectively.



Rail Lines in Whitfield and Murray Counties, 2019



Source: US Census Bureau

Aviation

The closest commercial jet air carrier service to Whitfield County is in Chattanooga, Tennessee at Lovell Field. The Dalton Municipal Airport, situated on 554 acres, is located 6 miles southeast of the Central Business District, adjacent to Airport Road.

The operating hours of the airport is 8 am. to 5 pm., 7 days a week. The airport can accommodate aircraft up to the size of a Gulfstream V. There are 28 hangars and four corporate/multiple use hangars that provide space for the storage of one jet, three turbo prop twins, four piston twins and 38 single engine aircraft currently based at the airport. The airport accommodates a variety of aviation related activities including recreational flying, police/law enforcement, corporate/business jets, ultra lights, and experimental aircraft. The airport has one runway (Runway 14/32) 5,496 feet long by 100 feet wide with high intensity runway lighting (HIRL), precision approach path indicators (PAPI), and a full parallel taxiway with medium-intensity taxiway lighting (MITL). The airport has a rotating beacon, segmented circle, wind cone, and an Automated Weather Observation System (AWOS). The airport has a non-directional beacon (NDB), and a geographical positioning system (GPS) approach to runway 14, a GPS approach to Runway 32 and an Instrumental Landing System (ILS) approach for runway 14. Current landside facilities and services include a full-service fixed-base operator (FBO) and maintenance facility with a fuel concession that provides AvGas and Jet A fuels. The airport has a 2,450 square foot terminal/administration building and 75 auto parking spaces, 46 hangar spaces, and 35 apron parking spaces. The airport also provides rental cars. A review of the airport's historic demand levels shows based aircraft decreased from 78 in 1990 to a current level of 47. By 2021, the airport's based aircraft are expected to reach 69. The airport has approximately 22,995 annual aircraft takeoffs and landings divided between local and itinerant operations. This figure is projected to increase to 26,081 by 2021 as shown in the table below which depicts current and forecasted demand levels at the airport.

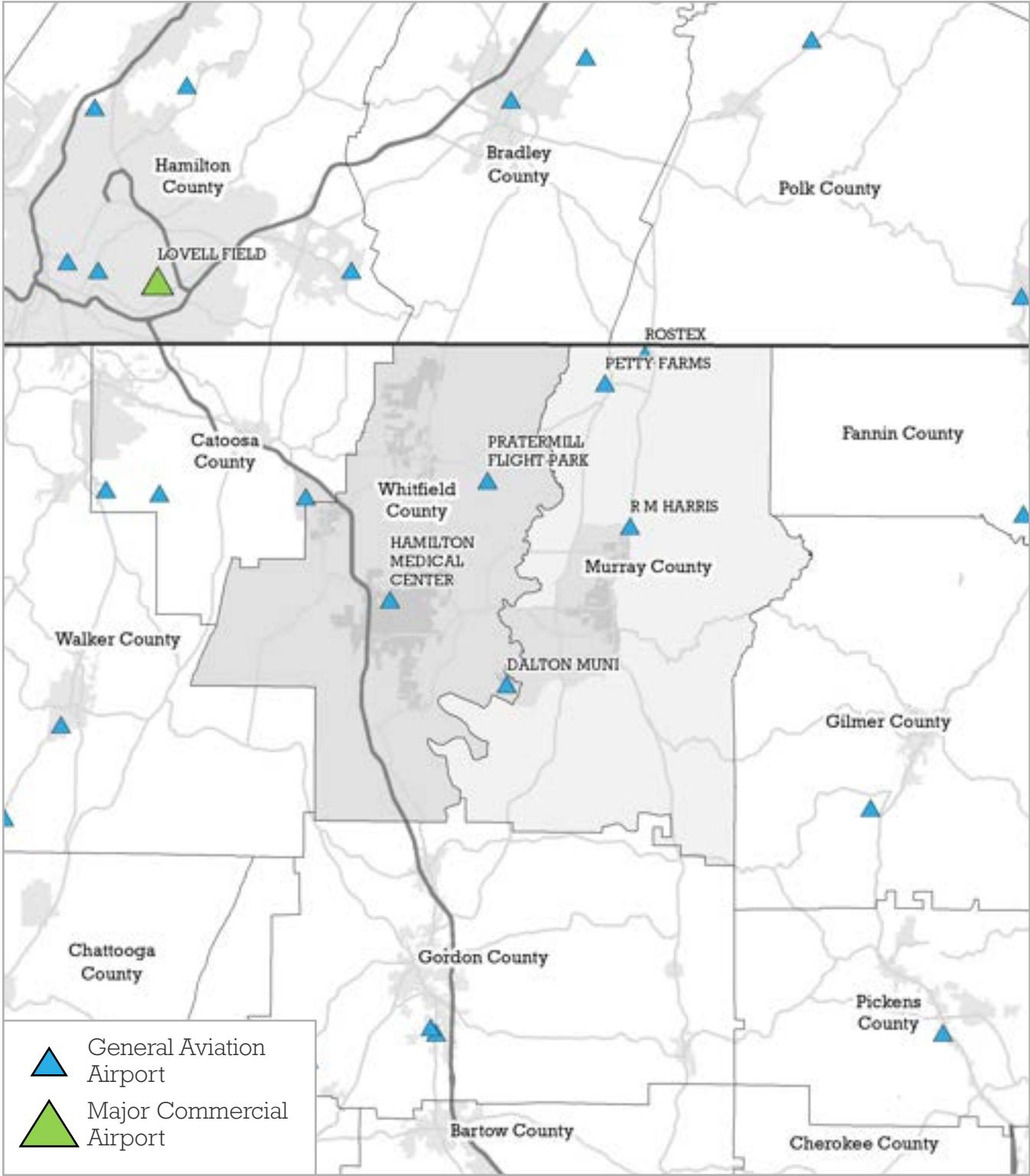
Historical and Forecasted Demand Levels at Dalton Municipal Airport

	2015	2021
Based Aircraft	47	69
Operations	22,995	26,081
Local	11,957	14,490
Itinerant	11,038	11,592
Enplanements	N/A	N/A
Demand/Capacity Ratio	10%	12%

Source: Dalton Municipal Airport



Aviation Facilities



Source: US Department of Transportation

Recent improvements to the Dalton Municipal Airport include:

- Completed a 500 ft runway and parallel taxiway extension for the Runway 14 end in 2004.
- Installed high intensity lighting on new runway extension and parallel taxiway.
- Replaced Automated Weather Observation System (AWOS), lighting system, and control vault.
- Installation of medium intensity approach lights for 2,400 feet off Runway 14.
- Installation of a glide slope antenna and related equipment on Runway 14.
- System was upgraded from Visual Approach Path Indicators (VASI) to PAPI.
- 20 hangars were replaced with new structures.
- Full perimeter security fencing has been completed.
- Replaced the underground avgas farm with an above ground self-serve system
- Acquired and cleared obstacles from approximately 70 acres of land north of the airport which consisted of 50 acres in navigation easements and 20 acres fee simple.



Dalton Municipal Airport Aerial



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Chapter 5

Evaluation and Implementation Plan

Project Development

The analysis and findings discussed in Chapter 4 relate ultimately to the development of specific transportation initiatives for consideration in the Greater Dalton region. Fortunately, through previous regional and local transportation planning efforts there is a large legacy of transportation projects and initiatives already under consideration in the region. In that spirit, the map below documents projects that have been completed since the completion of the last LRTP.

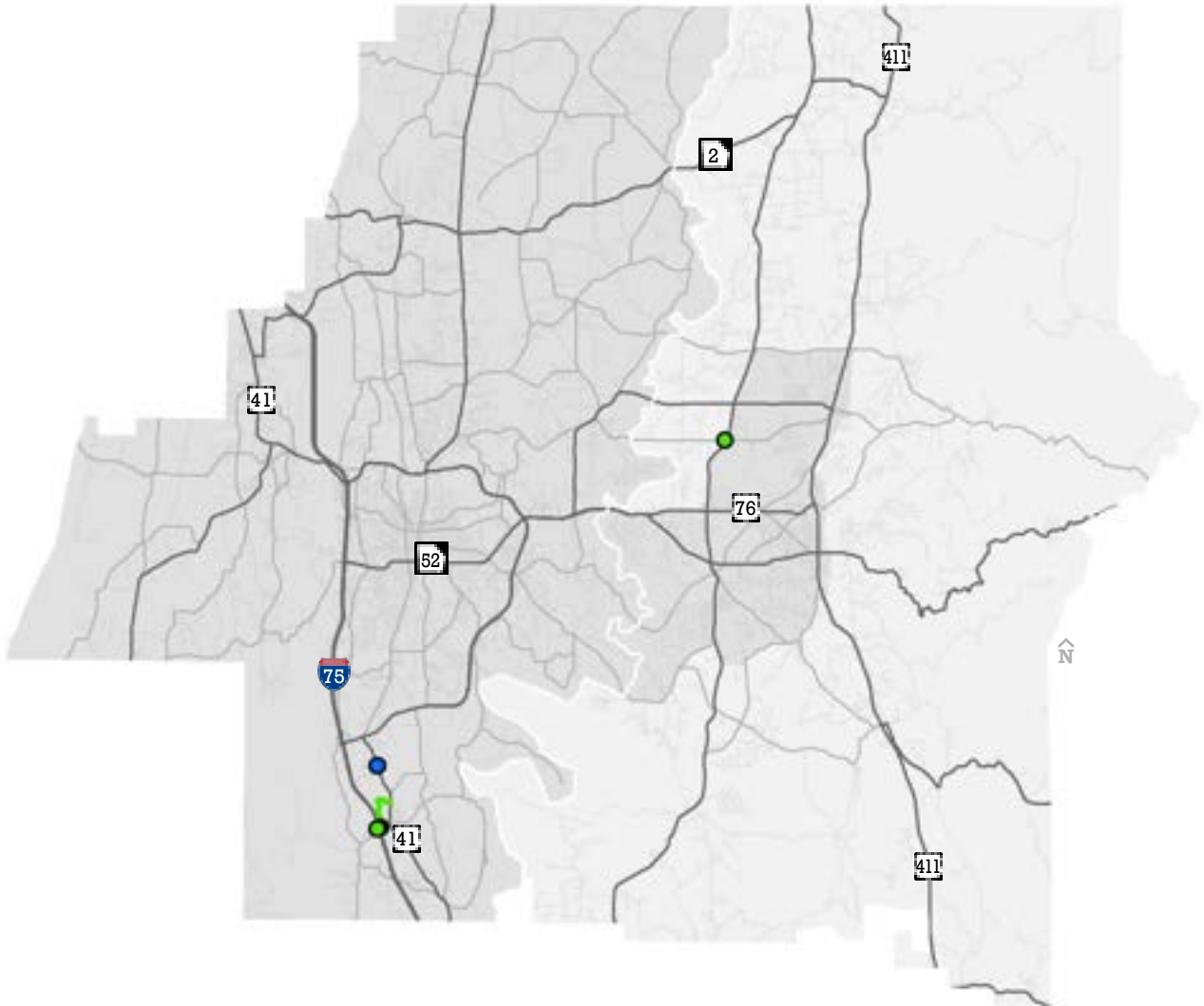
Completed Projects

Project ID	Type	Name/Description
N/A	Roundabout	I-75 at Carbondale Road Interchange Improvements
N/A	Roundabout	SR 225 at Mt. Carmel Church Road Roundabout
N/A	Bridge	SR 3 at Little Swamp Creek
N/A	New Location	Carbondale Business Park Road



5 | Evaluation and Implementation Plan

Projects Completed since Previous LRTP



Projects by Type

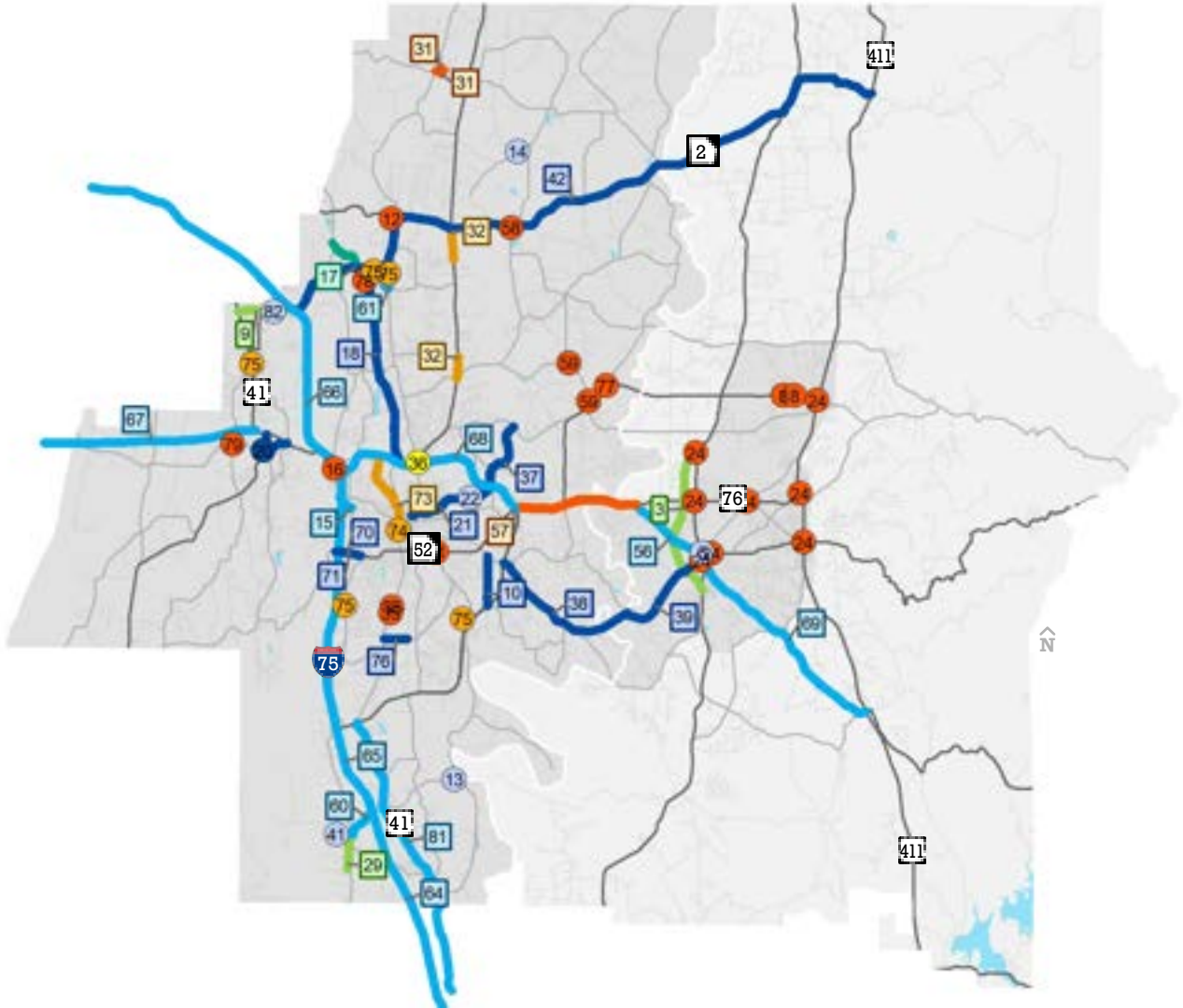
	Alignment			Operational
		Bicycle and/or Pedestrian		New Location
	Bridge			Study
	Grade Separation			Widening
		Intersection(s)		

Greater Dalton

2045 Metropolitan Transportation Plan

Starting with the remaining projects from the past LRTP and incorporating new ideas from the community and stakeholder input discussed in Chapter 4 as well as a handful of projects contemplated by local communities, a refined list of candidate transportation projects for consideration in the MTP was developed as indicated in the table and map below.

All Projects Considered in Greater Dalton 2045 Metropolitan Transportation Plan



Projects by Type

	Alignment			Operational
		Bicycle and/or Pedestrian		New Location
	Bridge			Study
	Grade Separation			Widening
		Intersection(s)		



5 | Evaluation and Implementation Plan

All Projects Considered in Greater Dalton 2045 Metropolitan Transportation Plan

Project ID	Project Type	Name/Location	Extents
2	Widening	SR 225 (GDOT PI 631550)	SR 52 ALT to Spring Place Smyrna Road
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)	SR 225 @ Imperial Blvd to SR 52/US76 & N to SR 225
6	Bridge	SR 52 ALT (GDOT PI 0007047)	Town Branch
8	Intersection	SR 286 (GDOT PI 0006064)	Cobb Road and at Tom Gregory Road
9	New Location	SR 201 Realignment & Improve SR 201	US 41 to I-75 Interchange
10	Operational	Hill Road	Eastbrook Road to Airport Road
11	Intersection	Riverbend Road	Walnut Avenue/US 76
12	Intersection	SR 2 at SR 201	SR 201
13	Bridge	Old Tilton Road	Swamp Creek
14	Bridge	McGaughey Chapel Road	Coahulla Creek
15	Widening	North Tibbs Road	College Drive to Shugart Road
16	Intersection	SR 3 (Chattanooga Road)	North Tibbs Road
17	Alignment	Reed Road	SR 201 to Lake Kathy
18	Multiple Intersections	Reed Road	SR 3 to SR 201
19	Operational	SR 201	SR 3 to Old LaFayette Road
20	Operational	Old LaFayette Road & Intersection w/ SR 201	SR 201 to SR 3
21	Operational	Underwood Street	Glenwood to Bypass
22	Bridge	Underwood Street	Mill Creek
24	Intersection	Intersection Improvements - 8 locations	Various
29	New Location	CR 688/Louise Lane Extension	Eber Road to Redwine Cove

Continued: All Projects Considered in Greater Dalton 2045 Metropolitan Transportation Plan

Project ID	Project Type	Name/Location	Extents
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road	City of Cohutta
32	Bike & Ped	SR 71	Beaverdale Road to Williams Road & Frontier Trail to Prater Mill Road
35	Intersection	South Dixie Highway	W. Industrial Boulevard at Foster Road
36	Grade Separation	North Dalton Bypass	At Cleveland Highway
37	Operational	Underwood Road	North Dalton Bypass to Dawnville Road
38	Operational	Airport Road	South Dalton Bypass to Tibbs Bridge
39	Operational	Airport Road/Brown Bridge Road/ New Hope Road	Tibbs Bridge to SR 225
41	Bridge	Redwine Cove Road	Swamp Creek
42	Operational	SR 201	I-75 Interchange to US 411
56	Widening	SR 52 Alt	SR 225 to SR 52/US 76
57	Intersection	US 76/Chatsworth Highway	SR 3 Bypass to US 76
58	Intersection	Lake Francis Road	SR 2/Prater Mill Road
59	Intersection	Dawnville-Beaverdale Road	SR 286 & Cherokee Estate Road
60	Widening	Carbondale Road	Redwine Cove Road to I-75 Interchange
61	Widening	Rauschengerg Road	Sonya Drive to Waring Road
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)	SR 151 to SR 3
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)	I-75 to SR 2
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)	SR 3 to US 411
70	Study	Walnut Avenue Access Management Study	I-75 to Dug Gap Road



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Extents
71	Operational	Walnut Avenue Access Management Improvements	I-75 to Dug Gap Road
73	Bike & Ped	Thorton Avenue Sidewalks	SR 3 to Waugh Street
74	Bike & Ped	Downtown Sidewalk	Various
75	Bike & Ped	School Sidewalk Program	Various
77	Intersection	Dawnville Rd	At SR 286
81	Widening	SR 3/South Dixie Road (GDOT PI 632670)	SR 136/Gordon to South Dalton Bypass
82	Bridge	SR 201 (GDOT PI 0013816)	Tanyard Creek

Travel Demand Modeling Activities

Throughout the MTP process, travel demand modeling activities were conducted to consider different scenarios of potential future project combinations. The scenarios below were already discussed in Chapter 3 to identify areas of transportation need in the region.

- Base Year – A travel demand modeling scenario built to represent existing conditions. In the case of the RTP, this model was developed for the year 2015 and calibrated for accuracy against actual observed 2015 conditions.
- 2045 Do-Nothing – A scenario intended to indicate what would happen in the year 2045 if no new projects were constructed. This includes projects constructed since the year 2015.
- 2045 Existing + Committed – Scenario intended to indicate what would happen in the year 2045 if only those projects with funds committed for Right-of-Way or Construction were constructed.

Additional scenarios were developed later in the process to include:

- 2045 With STIP Projects – Scenario intended to indicate what would happen in the year 2045 if only those projects currently in the State Transportation Improvement Program (STIP) were constructed.
- 2045 Fiscally Constrained + Aspirations MTP – Scenario intended to indicate what would happen in the year 2045 if all candidate projects conceived for the year 2045 were constructed.
- 2045 Fiscally Constrained RTP – Scenario developed to represent conditions in the year 2045 if only those projects that are predicted to be funded were constructed.

It should be noted that as a tool designed for analyzing regional travel patterns, the travel demand model does have some limitations. The model is not sensitive to relatively-small changes such as intersection improvements, signal timing adjustments, and realignments. Likewise, its predictive capabilities are limited when analyzing any one particular location in the transportation network. Rather, the travel demand model is best utilized in understanding the overall condition of the transportation network and on major regional corridors traversing long distances. As a result, the travel demand model is most effective at determining the ability of major capacity adding transportation projects (such as widenings, new roadways, and new interchanges) to improve the transportation system. Therefore, the models were utilized to determine the relative success of the candidate transportation projects that add major capacity. The table below depicts which transportation projects were incorporated into each model scenario. Additionally, congestion for all six scenarios are depicted as Level of Service in the following maps. Finally, technical documentation related to the travel demand model is provided in **Appendix D**.



5 | Evaluation and Implementation Plan

All Projects by Year 2045 Modeling Scenario

Project ID	Project Type	Name/Location	Do Nothing	E+C	E+STIP	All Projects	MTP
2	Widening	SR 225 (GDOT PI 631550)					
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)					
6	Bridge	SR 52 ALT (GDOT PI 0007047)					
8	Intersection	SR 286 (GDOT PI 0006064)					
9	New Location	SR 201 Realignment & Improve SR 201					
10	Operational	Hill Road					
11	Intersection	Riverbend Road					
12	Intersection	SR 2 at SR 201					
13	Bridge	Old Tilton Road					
14	Bridge	McGaughey Chapel Road					
15	Widening	North Tibbs Road					
16	Intersection	SR 3 (Chattanooga Road)					
17	Alignment	Reed Road					
18	Multiple Intersections	Reed Road					
19	Operational	SR 201					
20	Operational	Old LaFayette Road & Intersection w/ SR 201					
21	Operational	Underwood Street					
22	Bridge	Underwood Street					
24	Intersection	Intersection Improvements - 8 locations					

Continued: All Projects by Year 2045 Modeling Scenario

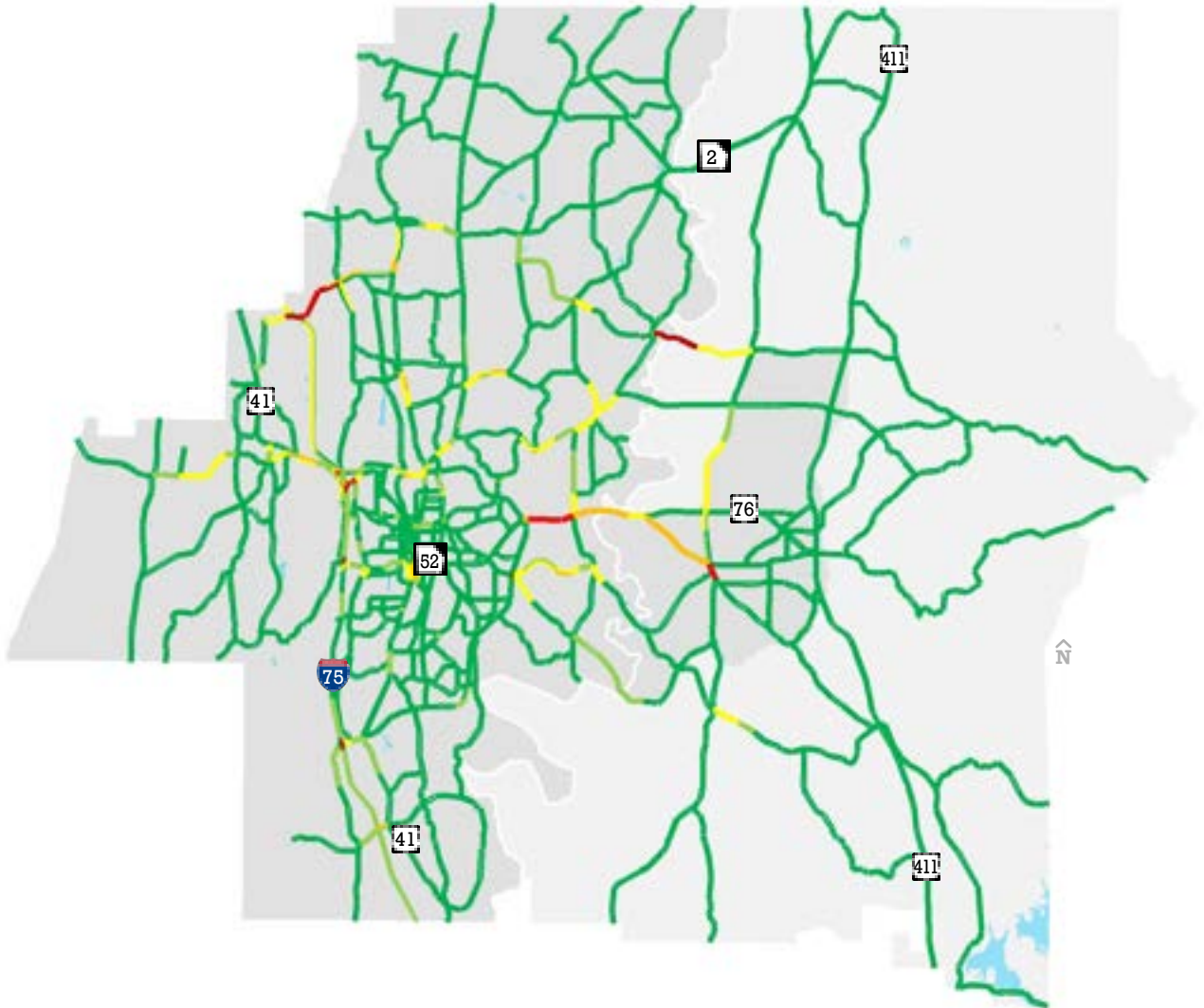
Project ID	Project Type	Name/Location	Do Nothing	E+C	E+STIP	All Projects	MTP
29	New Location	CR 688/Louise Lane Extension					
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road					
32	Bike & Ped	SR 71					
35	Intersection	South Dixie Highway					
36	Grade Separation	North Dalton Bypass					
37	Operational	Underwood Road					
38	Operational	Airport Road					
39	Operational	Airport Road/Brown Bridge Road/New Hope Road					
41	Bridge	Redwine Cove Road					
42	Operational	SR 201					
56	Widening	SR 52 Alt					
57	Intersection	US 76/Chatsworth Highway					
58	Intersection	Lake Francis Road					
59	Intersection	Dawnville-Beaverdale Road					
60	Widening	Carbondale Road					
61	Widening	Rauschengerg Road					
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)					
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)					
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)					



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Do Nothing	E+C	E+STIP	All Projects	MTP
70	Study	Walnut Avenue Access Management Study					
71	Operational	Walnut Avenue Access Management Improvements					
73	Bike & Ped	Thorton Avenue Sidewalks					
74	Bike & Ped	Downtown Sidewalk					
75	Bike & Ped	School Sidewalk Program					
77	Intersection	Dawnville Rd					
81	Widening	SR 3/South Dixie Road (GDOT PI 632670)					
82	Bridge	SR 201 (GDOT PI 0013816)					

Base Year (2015) Scenario Travel Demand Model Level of Service



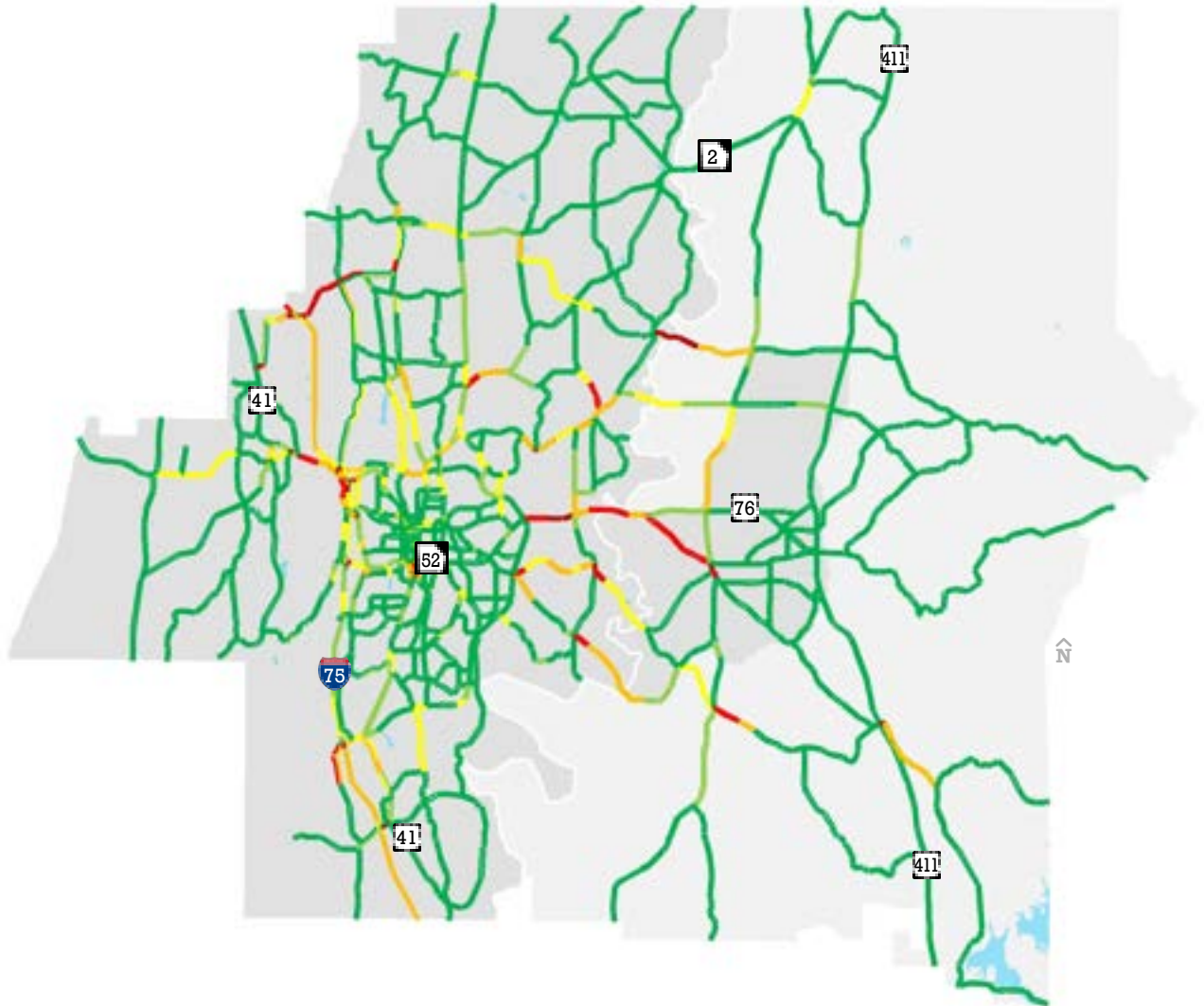
Source: Georgia Department of Transportation

Level of Service Conditions



5 | Evaluation and Implementation Plan

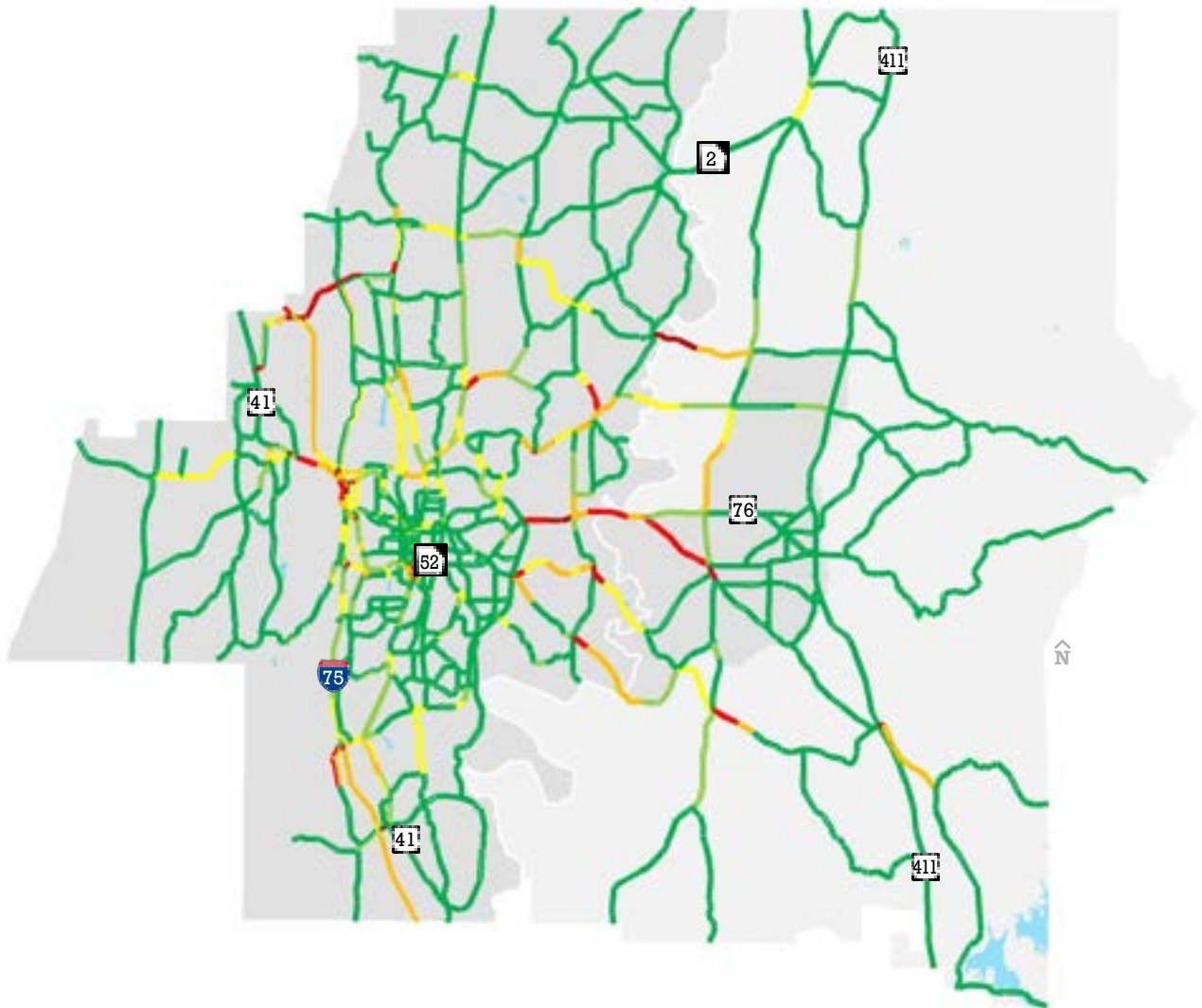
2045 Do Nothing Scenario Travel Demand Model Level of Service



Source: Georgia Department of Transportation

Note: In this case, the “Do Nothing” Scenario and “Existing+Committed” Scenario were identical, and thus have identical results

2045 Existing+Committed Scenario Travel Demand Model Level of Service



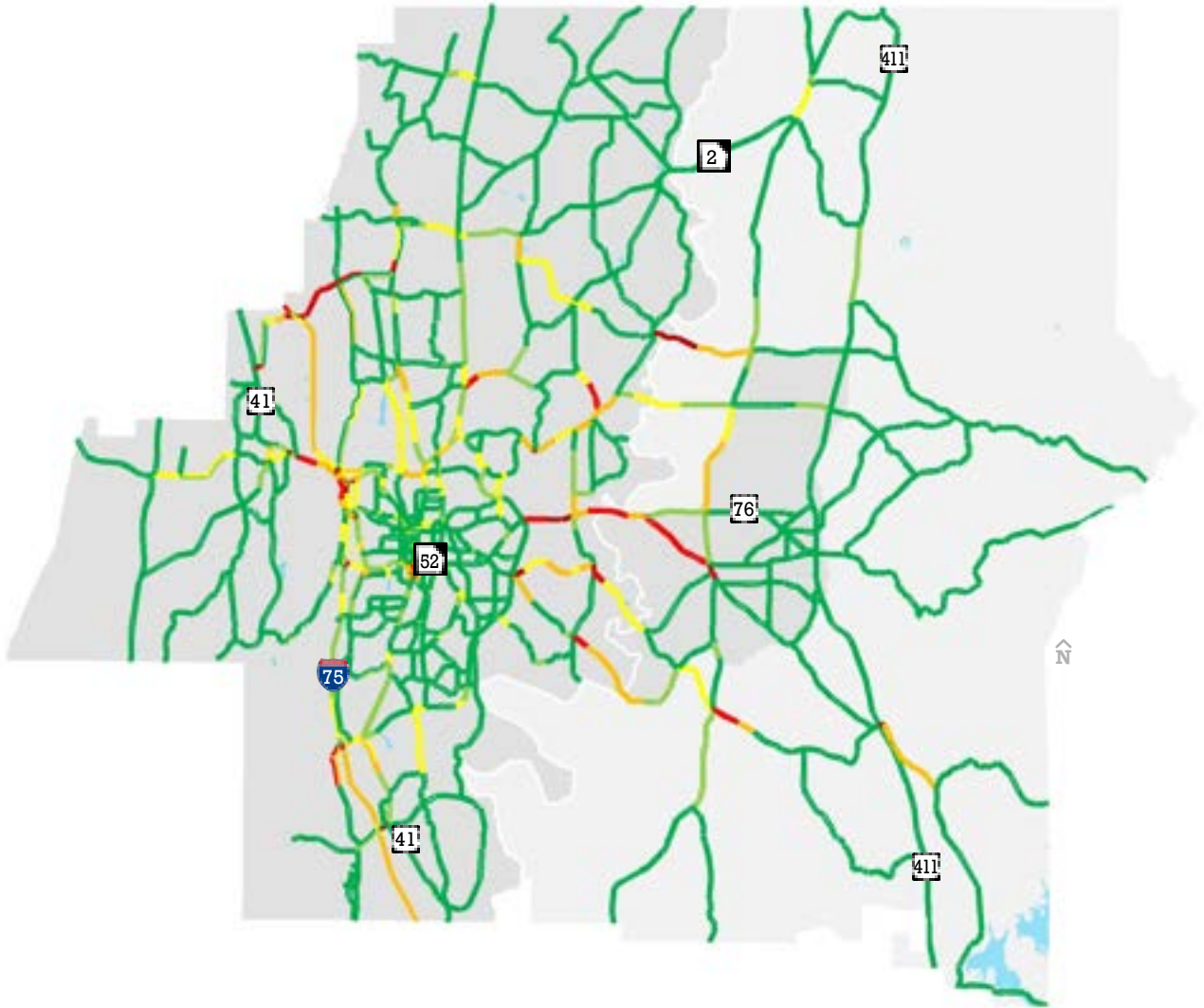
Source: Georgia Department of Transportation

Level of Service Conditions



5 | Evaluation and Implementation Plan

2045 STIP Projects Scenario Travel Demand Model Level of Service

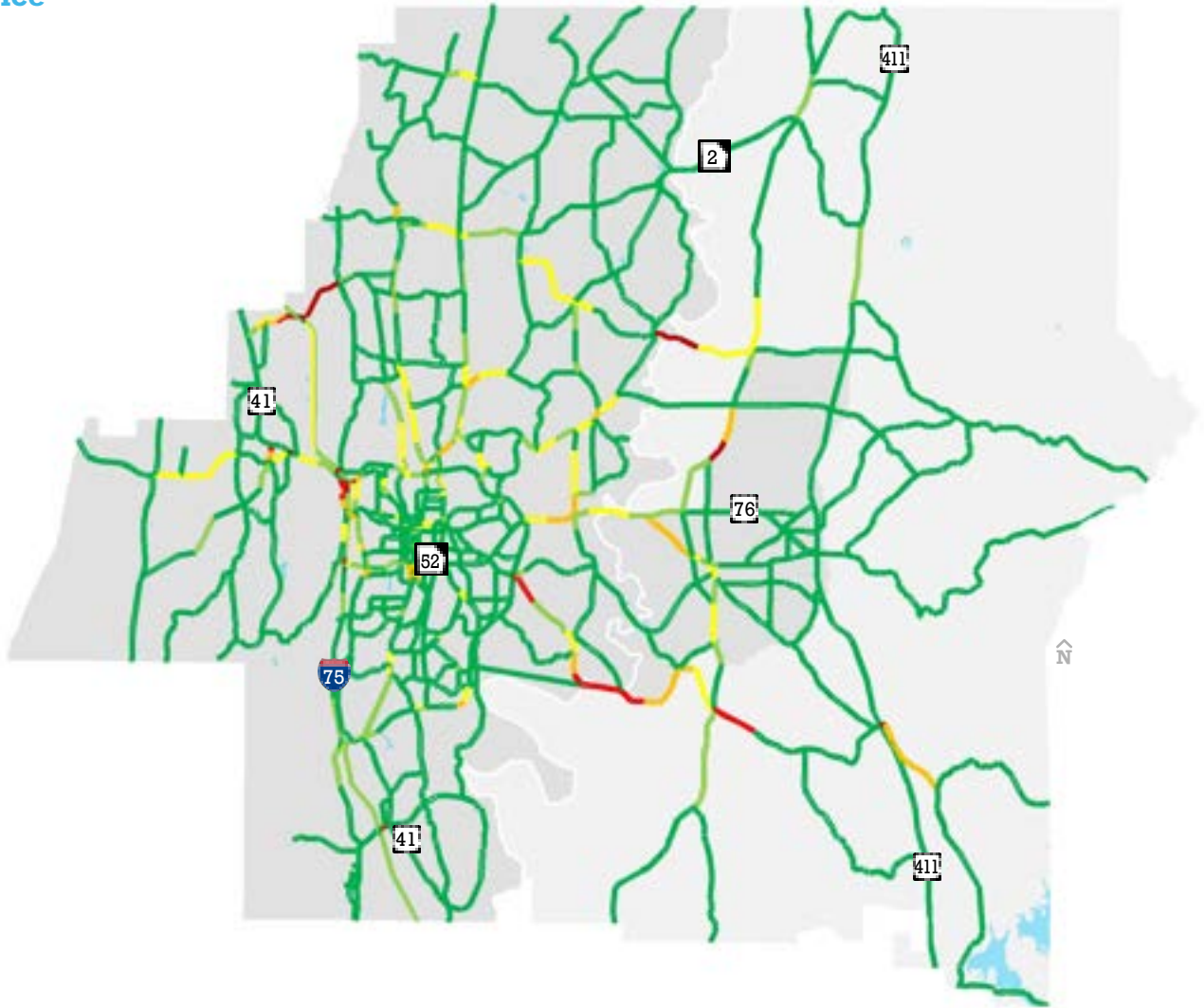


Source: Georgia Department of Transportation

Level of Service Conditions



2045 Fiscally Constrained+Aspirations Scenario Travel Demand Model Level of Service



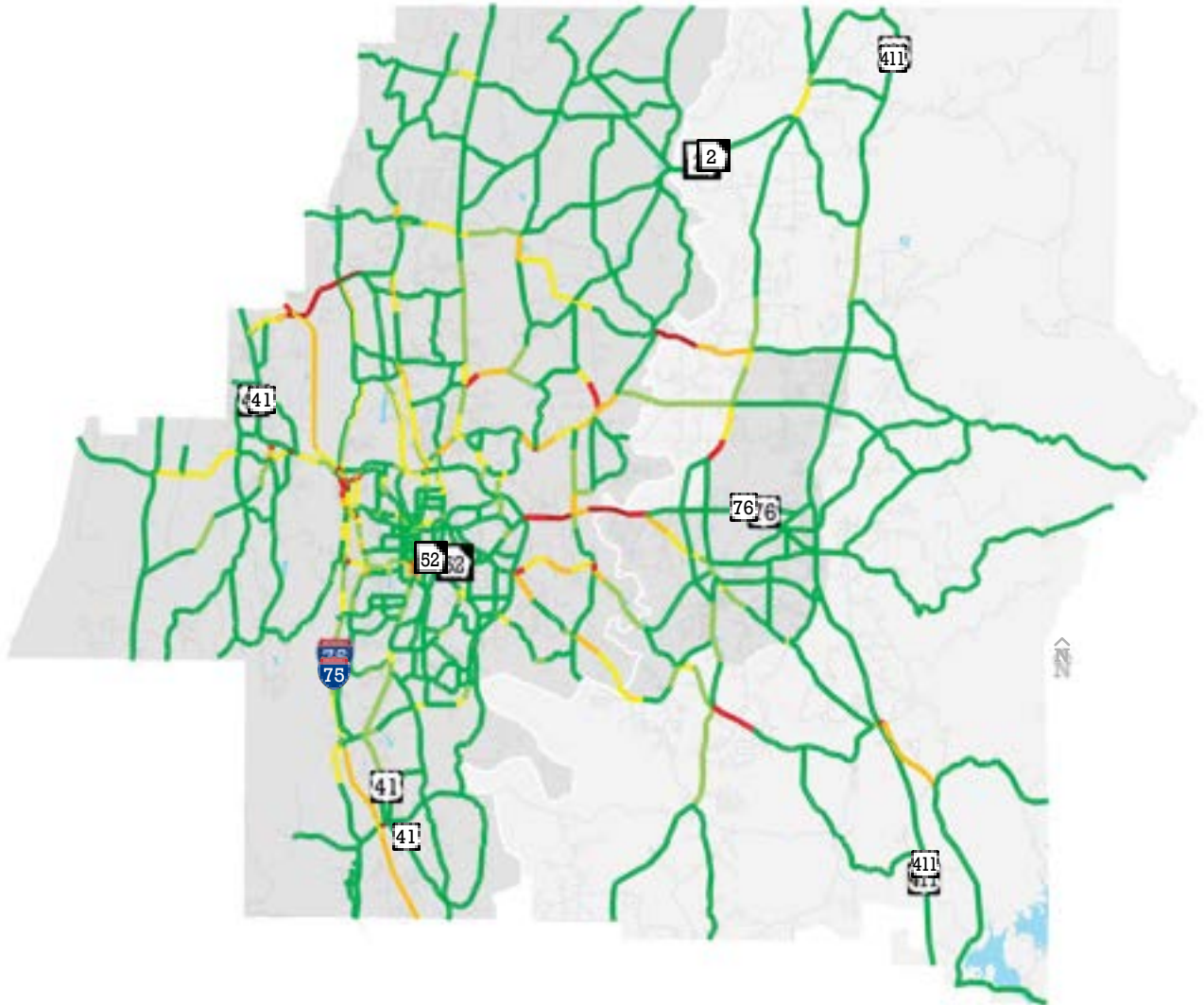
Source: Georgia Department of Transportation

Level of Service Conditions



5 | Evaluation and Implementation Plan

2045 Fiscally Constrained Travel Demand Model Level of Service



Source: Georgia Department of Transportation

Level of Service Conditions

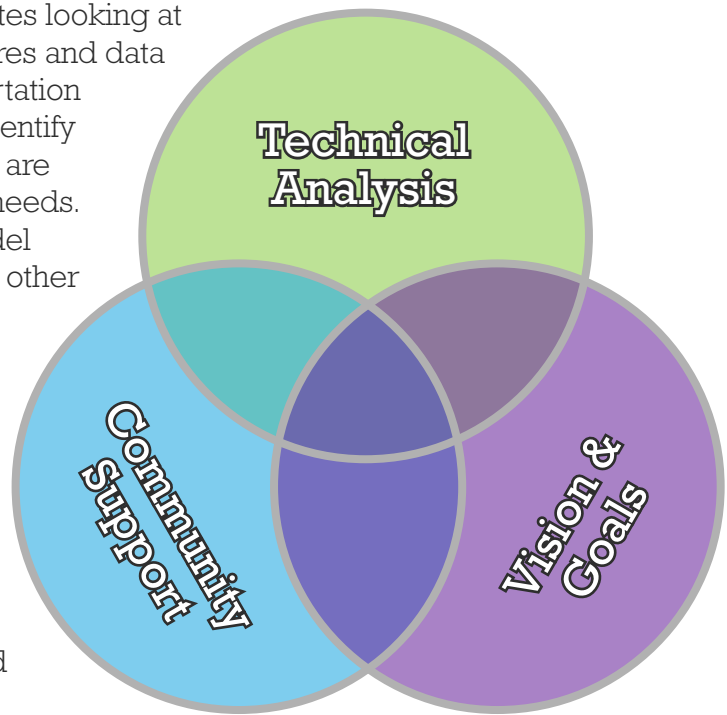


Project Evaluation

As one of the purposes of the MTP is to prioritize and fiscally constrain (determine which projects are likely to be funded within the timeframe of the plan's consideration) the candidate list of projects, an evaluation process was developed to help guide decision making on which projects are likely to be the most beneficial for the Greater Dalton region.

This evaluation process was carefully considered, discussed early on with project stakeholders, and developed to reflect the various federal, state, and regional goals discussed in Chapter 3 in order to evaluate and consider the projects in an objective and equitable way. As a whole, the process considers three points of view:

- **Technical Analysis** – this component of the evaluation process incorporates looking at specific performance measures and data to understand where transportation needs are the greatest and identify which transportation projects are most likely to address those needs. While the travel demand model informs much of this process, other metrics used as well to relate directly to the measurable goals discussed in Chapter 3, reflecting a performance based component to the project evaluation.
- **Community Support** – this component of the evaluation process incorporates comments and input received during the MTP process to identify those projects that reflect stated community needs and concerns the strongest
- **Vision & Goals** – this component of the evaluation process incorporates the Transportation System Goals developed and ranked by the community to identify those projects that reflect stated systematic goals for the transportation system



5 | Evaluation and Implementation Plan

Technical Analysis

Several technical analyses were developed and implemented to evaluate the candidate transportation projects. The overall results of this component of the analysis is indicated in the table below. As different transportation project types have different potential metrics, purposes, and methods for analysis different analysis procedures were developed as discussed below. The total technical score has a maximum value of ten, regardless of project type.

Widenings, New Location, Intersection, Operational, and Study Projects

These projects incorporated four technical analyses procedures to evaluate the relative value of each candidate project. As such, each of these analyses is scored out of a maximum of 2.5 points.

Change in Corridor Congestion: In order to prioritize locations that are likely to experience the most dramatic decreases in congestion if a transportation project is introduced, the travel demand models were used to compare congestion between the 2045 Do-Nothing scenario (which effectively includes none of the candidate projects) and the 2045 Fiscally Constrained + Aspirations MTP scenario, which includes all candidate projects.

Number of Vehicles Served: Locations that are anticipated to serve the most amount of travelers in the future were prioritized by identifying the total number of travelers in the vicinity of each project location in the 2045 Fiscally Constrained + Aspirations MTP scenario in the travel demand model

Level of Existing Congestion: Locations that already suffer from some level of congestion were also prioritized by comparing the amount of congestion observed in the 2015 Existing travel demand model in the locations where projects are being considered.

Crashes: To incorporate potential safety benefits of projects, the volume of crashes in the vicinity of locations where projects are being considered were also compared with the logic that the introduction of new designs (as well as the engineering and study that goes along with these design) can be used to potentially mitigate safety challenges.

Technical Scores: Widening, New Locations, Intersections, Operations, and Study Projects

Project ID	Project Type	Name/Location	Existing Congestion	Change in Congestion	Vehicles Served	Vehicle Crashes	Total Score
2	Widening	SR 225	1.5	1.1	0.3	0.8	3.7
3	New Location	SR 225 Bypass (North & South)	1.6	1.4	0.7	1.0	4.7
8	Intersection	SR 286	0.9	0.7	0.2	0.9	2.1
9	New Location	SR 201 Realignment & Improve SR 201	1.5	1.4	0.7	0.7	4.3
10	Operational	Hill Road	0.4	1.3	0.3	0.5	2.6
11	Intersection	Riverbend Road	0.7	0.0	0.3	0.7	1.7
12	Intersection	SR 2 at SR 201	0.8	0.8	0.2	0.3	2.2
15	Widening	North Tibbs Road	1.6	1.5	1.3	1.0	5.4
16	Intersection	SR 3 (Chattanooga Road)	1.6	1.5	0.6	1.0	4.8
18	Multiple Intersections	Reed Road	1.2	1.3	0.6	1.0	4.1
19	Operational	SR 201	1.0	0.8	0.3	0.6	2.7
20	Operational	Old LaFayette Road & Intersection w/ SR 201	1.6	1.6	0.5	0.6	4.4
21	Operational	Underwood Street	0.8	1.0	0.6	1.5	3.8
24	Intersection	Intersection Improvements - 8 locations	0.8	1.0	0.8	1.3	3.8
29	New Location	CR 688/Louise Lane Extension	0.3	0.0	0.2	0.3	0.8
35	Intersection	South Dixie Highway	1.8	1.4	0.5	1.4	5.2
37	Operational	Underwood Road	1.0	1.4	0.4	0.6	3.4
38	Operational	Airport Road	0.8	0.0	0.8	0.9	2.6
39	Operational	Airport Road/Brown Bridge Road/New Hope Road	0.9	0.0	0.5	0.4	1.9
42	Operational	SR 201	2.1	1.4	0.7	0.8	5.0



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Existing Congestion	Change in Congestion	Vehicles Served	Vehicle Crashes	Total Score
56	Widening	SR 52 Alt	1.2	1.3	0.4	0.6	3.5
57	Intersection	US 76/Chatsworth Highway	2.2	1.4	0.6	0.8	4.9
58	Intersection	Lake Francis Road	1.0	1.3	0.2	0.3	2.9
59	Intersection	Dawnville-Beaverdale Road	1.7	1.8	0.3	0.4	4.2
60	Widening	Carbondale Road	1.6	1.8	0.9	0.6	4.8
61	Widening	Rauschengerg Road	0.6	0.8	0.2	0.3	1.8
67	Widening	SR 560/East-West Highway	0.8	0.4	0.5	0.7	2.4
68	Widening	SR 560/East-West Highway	1.5	1.3	0.9	1.8	5.4
69	Widening	SR 560/East-West Highway	0.5	0.9	0.5	0.8	2.8
70	Study	Walnut Avenue Access Management Study	1.4	1.4	1.1	1.6	5.4
71	Operational	Walnut Avenue Access Management Improvements	1.4	1.4	1.1	1.6	5.4
77	Intersection	Dawnville Rd	1.7	0.8	0.2	0.4	3.2
81	Widening	SR 3/South Dixie Road	0.9	1.9	0.5	0.5	3.7

Bridge Projects

Bridge projects were analyzed using the two analysis techniques described below. Each of these were scored out of five possible points.

Number of Vehicles Served: Locations that are anticipated to serve the most amount of travelers in the future were prioritized by identifying the total number of travelers crossing each bridge location in the 2045 Fiscally Constrained + Aspirations MTP scenario in the travel demand model

Bridge Sufficiency Rating: Using the bridge sufficiency ratings provided by GDOT, weighted scores were used to compare and prioritize needs at different bridge locations.

Technical Scores: Bridge Projects

Project ID	Project Type	Name/Location	Bridge Sufficiency	Vehicles Served	Total Score
6	Bridge	SR 52 ALT	0.0	3.7	3.7
13	Bridge	Old Tilton Road	5.0	0.1	5.1
14	Bridge	McGaughey Chapel Road	3.8	0.3	4.1
22	Bridge	Underwood Street	3.0	5.0	8.0
41	Bridge	Redwine Cove Road	0.0	0.2	0.2
82	Bridge	SR 201	0.0	0.0	0.0

5 | Evaluation and Implementation Plan

Bicycle and Pedestrian Improvements

Bicycle and Pedestrian projects were analyzed using the five analysis techniques described below, each worth a maximum of two points:

Crashes: To incorporate potential safety benefits of bicycle and pedestrian projects, the volume of crashes involving bicyclist and pedestrians the vicinity of locations where projects are being considered were compared.

Accessibility to Population Density: Acknowledging that areas in the Greater Dalton region that have more population density are likely to have both more bicycle and/or pedestrian need as well as more appropriateness in land use and urban character to introduce bicycle and/or pedestrian facilities, the population density of the areas surrounding candidate bicycle and pedestrian projects were compared.

Accessibility to Employment Density: Similarly, locations with more accessibility to employment were prioritized.

Accessibility to Households With No Vehicles: Locations where Census data tell us that there are more households without access to vehicles were prioritized acknowledging these communities are likely to have an acute need for bicycle and pedestrian facilities.

Level of Existing Congestion: Locations that already suffer from some level of vehicular congestion were also prioritized by comparing the amount of congestion observed in the 2015 Existing travel demand model in the locations where projects are being considered. The logic is that locations that experience higher amounts of vehicle congestion are more likely to experience mode shifts to pedestrian and bicycle travel.

Technical Scores: Bicycle and Pedestrian Projects

Project ID	Project Type	Name/Location	Bike/Ped Crashes	Population Density	Employment Density	Households with No Vehicle	Existing Congestion	Total Score
31	Bike & Ped Intersection	Chattanooga Road/Wolfe Street & Red Clay Road	0.0	0.4	0.3	0.1	0.5	1.3
32	Bike & Ped	SR 71	0.6	1.2	0.5	0.2	1.9	4.4
73	Bike & Ped	Thorton Avenue Sidewalks	2.0	2.0	2.0	0.9	1.7	8.6
74	Bike & Ped	Downtown Sidewalk	0.9	1.5	0.9	2.0	1.0	6.2
75	Bike & Ped	School Sidewalk Program	0.0	1.0	0.4	0.3	2.0	3.8

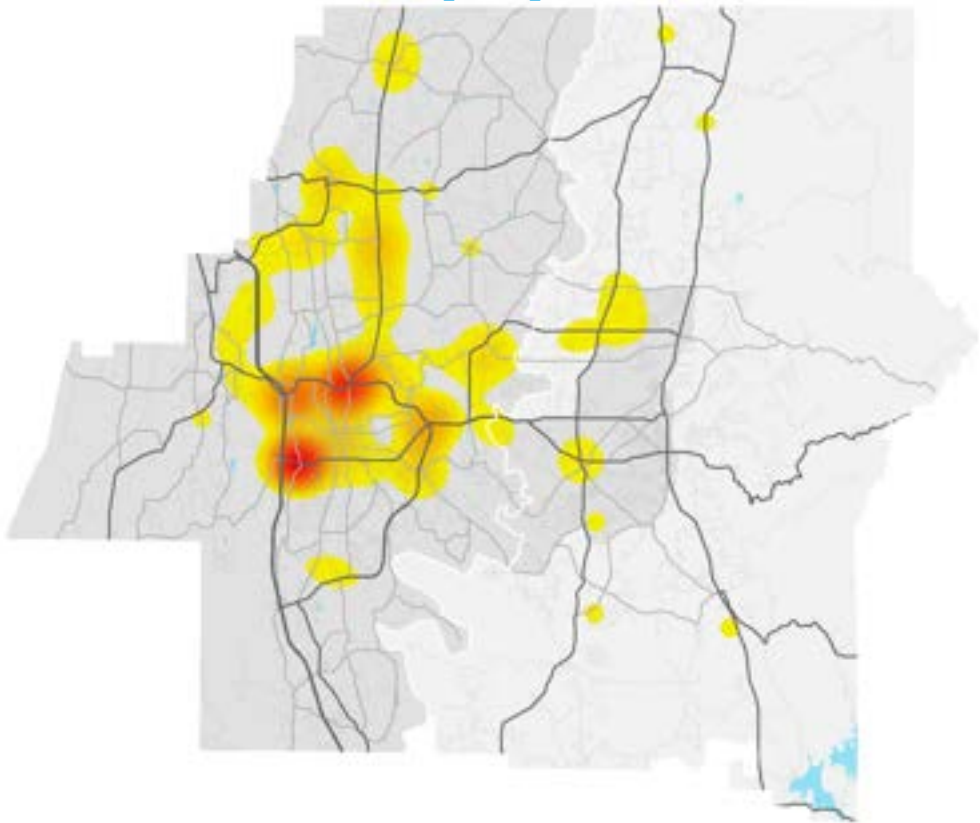
Community Engagement

Each of the candidate projects were ranked and analyzed based on the relative amount of community input received in the vicinity of their locations. Using spatial analysis, a quarter mile capture area was created around each project and compared to the geographic locations indicated by the community and stakeholders from the community and stakeholder meetings and online interactive map which were depicted in Chapter 4 on Page X and shown here again for convenience.

Projects were ranked as shown in the table below and using the following logic:

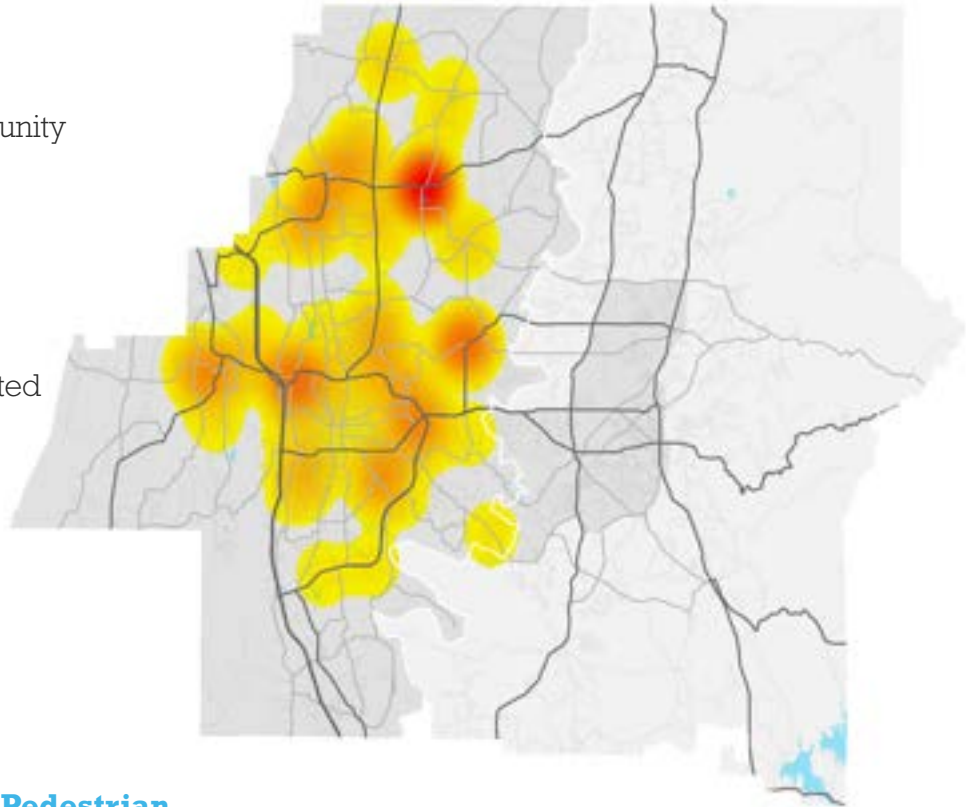
- Comments identified as “Congested Locations” were used to score the relative volume of comments for all projects with the exception of Bicycle and Pedestrian Projects
- Comments identified as “Other Comments” were used to score the relative volume of comments for all projects with the exception of Bicycle and Pedestrian Projects
- Comments identified as “Safety” were used to score the relative volume of comments for all project types
- Comments identified as “Bicyclist Need” or “Pedestrian Need” were used to score the relative volume of comments for Bicycle and Pedestrian Projects

“Congested Locations” and “Other Comments” Map Responses

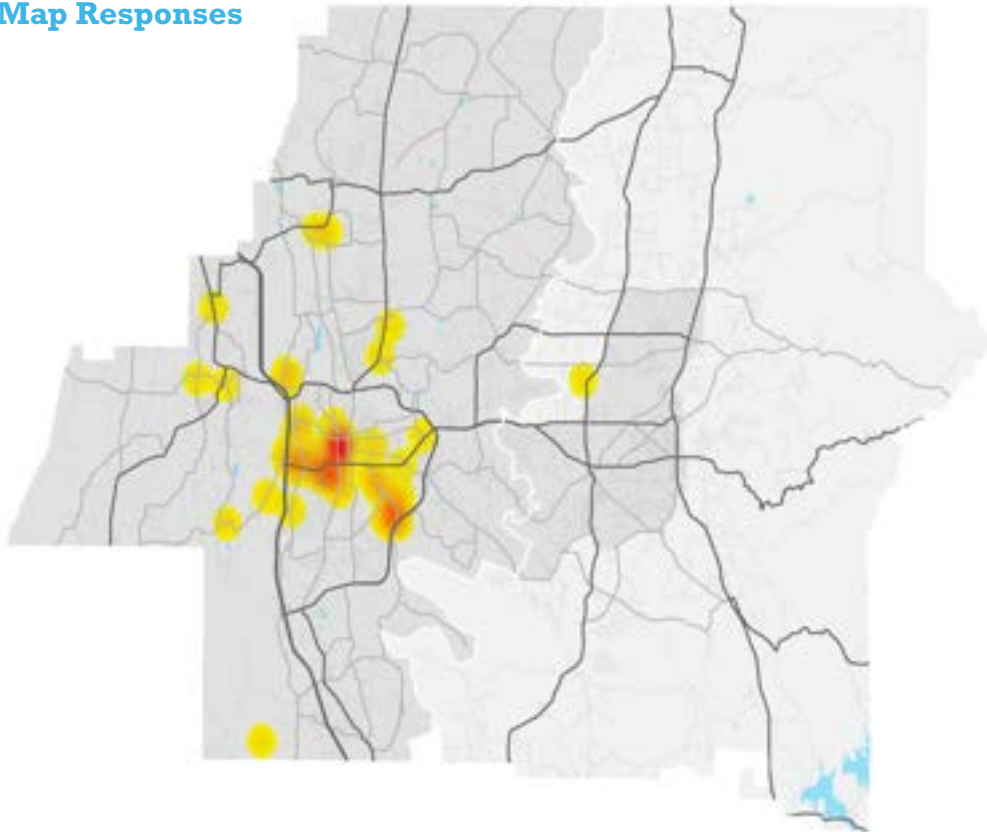


5 | Evaluation and Implementation Plan

“Safety” Map Responses



“Bicyclists Need” and “Pedestrian Need” Map Responses



Community Engagement Scores

Project ID	Project Type	Name/Location	Pedestrian Need	Bicyclist Need	Congested Location	Other Concern	Safety	Total Engagement Score	Weighted Engagement Score
2	Widening	SR 225 (GDOT PI 631550)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Bridge	SR 52 ALT (GDOT PI 0007047)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Intersection	SR 286 (GDOT PI 0006064)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	New Location	SR 201 Realignment & Improve SR 201	0.0	0.0	0.0	0.0	2.2	2.2	0.9
10	Operational	Hill Road	0.0	0.0	0.0	0.0	3.1	3.1	1.3
11	Intersection	Riverbend Road	0.0	0.0	3.3	0.0	0.0	3.3	1.4
12	Intersection	SR 2 at SR 201	0.0	0.0	3.3	5.0	3.8	12.1	5.0
13	Bridge	Old Tilton Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Bridge	McGaughey Chapel Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Widening	North Tibbs Road	0.0	0.0	0.0	7.1	2.2	9.3	3.8
16	Intersection	SR 3 (Chattanooga Road)	0.0	0.0	3.3	0.0	0.0	3.3	1.4
17	Alignment	Reed Road	0.0	0.0	0.0	0.0	3.1	3.1	1.3
18	Multiple Intersections	Reed Road	0.0	0.0	5.3	5.0	5.3	15.6	6.4
19	Operational	SR 201	0.0	0.0	0.0	0.0	2.2	2.2	0.9
20	Operational	Old LaFayette Road & Intersection w/ SR 201	0.0	0.0	0.0	0.0	3.8	3.8	1.5
21	Operational	Underwood Street	0.0	0.0	2.4	0.0	0.0	2.4	1.0



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Pedestrian Need	Bicyclist Need	Congested Location	Other Concern	Safety	Total Engagement Score	Weighted Engagement Score
22	Bridge	Underwood Street	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	Intersection	Intersection Improvements - 8 locations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	New Location	CR 688/Louise Lane Extension	0.0	0.0	0.0	5.0	0.0	5.0	2.0
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32	Bike & Ped	SR 71	0.0	0.0	0.0	0.0	3.8	3.8	1.5
35	Intersection	South Dixie Highway	0.0	0.0	8.8	7.1	3.1	19.0	7.8
36	Grade Separation	North Dalton Bypass	0.0	0.0	8.2	5.0	2.2	15.3	6.3
37	Operational	Underwood Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38	Operational	Airport Road	0.0	0.0	4.1	7.1	3.1	14.2	5.8
39	Operational	Airport Road/Brown Bridge Road/New Hope Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41	Bridge	Redwine Cove Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	Operational	SR 201	0.0	0.0	0.0	5.0	3.8	8.8	3.6
56	Widening	SR 52 Alt	0.0	0.0	4.1	5.0	6.2	15.3	6.2
57	Intersection	US 76/Chatsworth Highway	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	Intersection	Lake Francis Road	0.0	0.0	2.4	0.0	7.2	9.6	3.9
59	Intersection	Dawnville-Beaverdale Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60	Widening	Carbondale Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Continued: Community Engagement Scores

Project ID	Project Type	Name/Location	Pedestrian Need	Bicyclist Need	Congested Location	Other Concern	Safety	Total Engagement Score	Weighted Engagement Score
61	Widening	Rauschengerg Road	0.0	0.0	2.4	5.0	0.0	7.4	3.0
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)	0.0	0.0	0.0	0.0	2.2	2.2	0.9
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)	0.0	0.0	10.0	8.7	5.8	24.4	10.0
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70	Study	Walnut Avenue Access Management Study	0.0	0.0	9.4	7.1	2.2	18.7	7.6
71	Operational	Walnut Avenue Access Management Improvements	0.0	0.0	9.4	7.1	2.2	18.7	7.6
73	Bike & Ped	Thorton Avenue Sidewalks	6.1	10.0	0.0	0.0	2.2	18.3	7.5
74	Bike & Ped	Downtown Sidewalk	7.9	10.0	0.0	0.0	0.0	17.9	7.3
75	Bike & Ped	School Sidewalk Program	10.0	0.0	0.0	0.0	3.8	13.8	5.6
77	Intersection	Dawnville Rd	0.0	0.0	0.0	5.0	5.8	10.8	4.4
81	Widening	SR 3/South Dixie Road (GDOT PI 623670)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82	Bridge	SR 201 (GDOT PI 0013816)	0.0	0.0	0.0	0.0	2.2	2.2	0.9



5 | Evaluation and Implementation Plan

Transportation System Goals

The transportation system goals developed with the stakeholder group were also used to rank the relative value of projects based on each project's ability to support the system goals. The relative importance of these goals as indicated by the community through the community meetings and online survey were used to weight the importance of each goal category as described below, with a total possible score of 100 percent.

- Projects that “Address North-South Travel” received a weighted score of 20 percent
- Projects that “Encourage Downtown Reinvestments” received a weighted score of 16 percent
- Projects that “Accommodate Freight Traffic” received a weighted score of 15 percent
- Projects that “Enhance Connections to I-75” received a weighted score of 10 percent
- Projects that “Provide Connectivity to Neighboring Communities” received a weighted score of 9 percent
- Projects that “Develop an Active Mode Network for the Region” received a weighted score of 9 percent
- Project that “Consider Opportunities for Future Transit” received a weighted score of 7 percent

Acknowledging that it would be nearly impossible for a single project to meet all of these goals, the analysis results were further weighted to that the highest observed score received the total amount of points allotted as shown in the table.

Transportation System Goals Scores

Project ID	Project Type	Name/Location	Address North-South Travel	Encourage Downtown Reinvestments	Accommodate Freight Traffic	Enhance Connections to I-75	Provide Connectivity to Neighboring Communities	Develop an Active Mode Network for the Region	Consider Opportunities for Future Transit	Total Goals Score	Weighted Goals Score
2	Widening	SR 225 (GDOT PI 631550)	1			1				0.4	5.8
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)	1			1				0.4	5.8
6	Bridge	SR 52 ALT (GDOT PI 0007047)	1		1					0.4	5.8

Continued: Transportation System Goals Scores

Project ID	Project Type	Name/Location	Address North-South Travel	Encourage Downtown Reinvestments	Accommodate Freight Traffic	Enhance Connections to I-75	Provide Connectivity to Neighboring Communities	Develop an Active Mode Network for the Region	Consider Opportunities for Future Transit	Total Goals Score	Weighted Goals Score
8	Intersection	SR 286 (GDOT PI 0006064)			1					0.2	2.5
9	New Location	SR 201 Realignment & Improve SR 201			1	1	1			0.4	6.7
10	Operational	Hill Road	1							0.2	3.3
11	Intersection	Riverbend Road			1					0.2	2.5
12	Intersection	SR 2 at SR 201	1			1	1			0.5	7.5
13	Bridge	Old Tilton Road	1							0.2	3.3
14	Bridge	McGaughey Chapel Road			1					0.2	2.5
15	Widening	North Tibbs Road			1		1			0.3	4.2
16	Intersection	SR 3 (Chattanooga Road)			1	1	1			0.4	6.7
17	Alignment	Reed Road	1							0.2	3.3
18	Multiple Intersections	Reed Road	1			1		1		0.4	7.3
19	Operational	SR 201	1			1				0.4	5.8
20	Operational	Old LaFayette Road & Intersection w/ SR 201			1					0.2	2.5
21	Operational	Underwood Street		1	1					0.3	5.2
22	Bridge	Underwood Street	1	1						0.4	6.0



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Address North-South Travel	Encourage Downtown Reinvestments	Accommodate Freight Traffic	Enhance Connections to I-75	Provide Connectivity to Neighboring Communities	Develop an Active Mode Network for the Region	Consider Opportunities for Future Transit	Total Goals Score	Weighted Goals Score
24	Intersection	Intersection Improvements - 8 locations	1		1					0.4	5.8
29	New Location	CR 688/Louise Lane Extension	1			1	1			0.5	7.5
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road							1	0.1	1.5
32	Bike & Ped	SR 71							1	0.1	1.5
35	Intersection	South Dixie Highway	1			1				0.4	5.8
36	Grade Separation	North Dalton Bypass	1							0.2	3.3
37	Operational	Underwood Road	1							0.2	3.3
38	Operational	Airport Road			1	1		1		0.4	6.5
39	Operational	Airport Road/Brown Bridge Road/New Hope Road			1	1		1		0.4	6.5
41	Bridge	Redwine Cove Road			1					0.2	2.5
42	Operational	SR 201			1	1	1			0.4	6.7
56	Widening	SR 52 Alt	1		1	1	1			0.6	10.0
57	Intersection	US 76/Chatsworth Highway			1	1		1		0.4	6.5
58	Intersection	Lake Francis Road	1							0.2	3.3

Continued: Transportation System Goals Scores

Project ID	Project Type	Name/Location	Address North-South Travel	Encourage Downtown Reinvestments	Accommodate Freight Traffic	Enhance Connections to I-75	Provide Connectivity to Neighboring Communities	Develop an Active Mode Network for the Region	Consider Opportunities for Future Transit	Total Goals Score	Weighted Goals Score
59	Intersection	Dawnville-Beaverdale Road	1							0.2	3.3
60	Widening	Carbondale Road			1	1	1			0.4	6.7
61	Widening	Rauschengerg Road			1					0.2	2.5
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)			1	1	1			0.4	6.7
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)			1	1	1			0.4	6.7
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)			1	1	1			0.4	6.7
70	Study	Walnut Avenue Access Management Study			1	1	1			0.4	6.7
71	Operational	Walnut Avenue Access Management Improvements			1	1	1			0.4	6.7
73	Bike & Ped	Thorton Avenue Sidewalks	1	1					1	0.5	7.5
74	Bike & Ped	Downtown Sidewalk		1					1	0.3	4.2
75	Bike & Ped	School Sidewalk Program							1	0.1	1.5
77	Intersection	Dawnville Rd			1					0.2	2.5



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Address North-South Travel	Encourage Downtown Reinvestments	Accommodate Freight Traffic	Enhance Connections to I-75	Provide Connectivity to Neighboring Communities	Develop an Active Mode Network for the Region	Consider Opportunities for Future Transit	Total Goals Score	Weighted Goals Score
81	Widening	SR 3/South Dixie Road (GDOT PI 632670)	1				0.5			0.4	6.6
82	Bridge	SR 201 (GDOT PI 0013816)			1	1	1			0.4	6.7

Overall Evaluation Results

These three categories were summed together evenly to develop an overall evaluation score for each candidate project as shown in the table below.

Transportation System Goals Scores

Project ID	Project Type	Name/Location	Technical Score	Engagement Score	Goals Score	Overall Score
2	Widening	SR 225 (GDOT PI 631550)	3.7	0.0	5.8	9.6
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)	4.7	0.0	5.8	10.5
6	Bridge	SR 52 ALT (GDOT PI 0007047)	2.4	0.0	5.8	8.3
8	Intersection	SR 286 (GDOT PI 0006064)	3.7	0.0	2.5	6.2
9	New Location	SR 201 Realignment & Improve SR 201	4.3	0.9	6.7	11.9
10	Operational	Hill Road	2.6	1.3	3.3	7.1
11	Intersection	Riverbend Road	1.7	1.4	2.5	5.6
12	Intersection	SR 2 at SR 201	2.2	5.0	7.5	14.6
13	Bridge	Old Tilton Road	5.1	0.0	3.3	8.5
14	Bridge	McGaughey Chapel Road	4.1	0.0	2.5	6.6
15	Widening	North Tibbs Road	5.4	3.8	4.2	13.3
16	Intersection	SR 3 (Chattanooga Road)	4.8	1.4	6.7	12.8
17	Alignment	Reed Road	3.1	1.3	3.3	7.7
18	Multiple Intersections	Reed Road	4.1	6.4	7.3	17.9
19	Operational	SR 201	2.7	0.9	5.8	9.4
20	Operational	Old LaFayette Road & Intersection w/ SR 201	4.4	1.5	2.5	8.4



5 | Evaluation and Implementation Plan

Project ID	Project Type	Name/Location	Technical Score	Engagement Score	Goals Score	Overall Score
21	Operational	Underwood Street	3.8	1.0	5.2	9.9
22	Bridge	Underwood Street	8.0	0.0	6.0	14.0
24	Intersection	Intersection Improvements - 8 locations	3.8	0.0	5.8	9.7
29	New Location	CR 688/Louise Lane Extension	0.8	2.0	7.5	10.3
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road	1.3	0.0	1.5	2.8
32	Bike & Ped	SR 71	4.4	1.5	1.5	7.5
35	Intersection	South Dixie Highway	5.2	7.8	5.8	18.8
36	Grade Separation	North Dalton Bypass	4.7	6.3	3.3	14.3
37	Operational	Underwood Road	3.4	0.0	3.3	6.8
38	Operational	Airport Road	2.6	5.8	6.5	14.9
39	Operational	Airport Road/Brown Bridge Road/New Hope Road	1.9	0.0	6.5	8.4
41	Bridge	Redwine Cove Road	0.2	0.0	2.5	2.7
42	Operational	SR 201	5.0	3.6	6.7	15.2
56	Widening	SR 52 Alt	3.5	6.2	10.0	19.7
57	Intersection	US 76/Chatsworth Highway	4.9	0.0	6.5	11.4
58	Intersection	Lake Francis Road	2.9	3.9	3.3	10.1
59	Intersection	Dawnville-Beaverdale Road	4.2	0.0	3.3	7.5
60	Widening	Carbondale Road	4.8	0.0	6.7	11.5

Continued: Transportation System Goals Scores

Project ID	Project Type	Name/Location	Technical Score	Engagement Score	Goals Score	Overall Score
61	Widening	Rauschengerg Road	1.8	3.0	2.5	7.3
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)	2.4	0.9	6.7	10.0
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)	5.4	10.0	6.7	22.1
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)	2.8	0.0	6.7	9.4
70	Study	Walnut Avenue Access Management Study	5.4	7.6	6.7	19.7
71	Operational	Walnut Avenue Access Management Improvements	5.4	7.6	6.7	19.7
73	Bike & Ped	Thorton Avenue Sidewalks	8.6	7.5	7.5	23.6
74	Bike & Ped	Downtown Sidewalk	6.2	7.3	4.2	17.7
75	Bike & Ped	School Sidewalk Program	3.8	5.6	1.5	10.9
77	Intersection	Dawnville Rd	3.2	4.4	2.5	10.1
81	Widening	SR 3/South Dixie Road (GDOT PI 632670)	3.7	0.0	6.6	10.3
82	Bridge	SR 201 (GDOT PI 0013816)	4.3	0.9	6.7	11.9



5 | Evaluation and Implementation Plan

Financial Considerations

The RTP process requires the development of a financial plan to demonstrate that the recommendations can be implemented over the life of the plan (23 CFR 450.322). The primary elements of this financial plan include costs and revenue needed to operate and maintain Federal-aid highways as well as the cost for implementing capital investments.

Federal & State Funding

The major source of revenue for roadway projects from the federal government is administered through the US. Department of Transportation from the Highway Trust Fund (HTF). Historically, the HTF has been funded by a user fee tax on fuel (18.4 cents a gallon for gasoline and 24.4 cents for diesel) and has historically been sufficient in funding the ongoing maintenance and construction of the transportation system.

Historically, Georgia's primary source of funding for transportation has been the Motor Vehicle Fuel Tax (MVFT). The 2015 passage of House Bill 170 creating new state level revenue streams for transportation by increasing the MVFT, re-structuring vehicle registration fees, and imposing fees on tourism through hotel stays. In addition to commitments to state owned and maintained facilities, GDOT administers grants through the Local Maintenance and Improvement Grant (LMIG).

Local Funding

There is currently no dedicated local funding source in either Whitfield or Murray Counties for transportation. Special Purpose Local Option Sales Tax (SPLOST) revenues have been used in the past to fund specific transportation initiatives but currently there are no SPLOST mechanisms approved by local voters.

Anticipated Funding

	Capital Estimate	Maintenance Estimate	Total Estimate
2020	\$10,287,289	\$3,343,457	\$13,630,746
2021	\$10,390,162	\$3,376,892	\$13,767,054
2022	\$10,494,064	\$3,410,661	\$13,904,724
2023	\$10,599,004	\$3,444,767	\$14,043,772
2024	\$10,704,994	\$3,479,215	\$14,184,209
2025	\$10,812,044	\$3,514,007	\$14,326,051
2026	\$10,920,165	\$3,549,147	\$14,469,312
2027	\$11,029,366	\$3,584,639	\$14,614,005
2028	\$11,139,660	\$3,620,485	\$14,760,145
2029	\$11,251,057	\$3,656,690	\$14,907,747
2030	\$11,363,567	\$3,693,257	\$15,056,824
2031	\$11,477,203	\$3,730,189	\$15,207,392
2032	\$11,591,975	\$3,767,491	\$15,359,466
2033	\$11,707,895	\$3,805,166	\$15,513,061
2034	\$11,824,974	\$3,843,218	\$15,668,192
2035	\$11,943,223	\$3,881,650	\$15,824,873
2036	\$12,062,656	\$3,920,467	\$15,983,122
2037	\$12,183,282	\$3,959,671	\$16,142,953
2038	\$12,305,115	\$3,999,268	\$16,304,383
2039	\$12,428,166	\$4,039,261	\$16,467,427
2040	\$12,552,448	\$4,079,653	\$16,632,101
2041	\$12,677,972	\$4,120,450	\$16,798,422
2042	\$12,804,752	\$4,161,654	\$16,966,406
2043	\$12,932,800	\$4,203,271	\$17,136,070
2044	\$13,062,128	\$4,245,304	\$17,307,431
2045	\$13,192,749	\$4,287,757	\$17,480,505
Total	\$303,738,710	\$98,717,686	\$402,456,396

Revenue Estimates

Revenue estimates for capital roadway projects and maintenance were developed utilizing escalation rates (1 percent annually) to reflect the impact of inflation over time to state and federal funding for capital and maintenance in order to determine anticipated funding in Year of Expenditure (YOE). While local voters may authorize SPLOSTs to assist in future transportation funding, for the purpose of a conservative fiscal analysis, no local revenue is assumed to assist in the funding of regional transportation projects. Should a SPLOST be approved by voters, this MTP can be updated to incorporate additional funding and considered projects through administrative adjustment as appropriate.

Capital Project Costing

In order to understand how the revenue estimates relate to likely project expenses, the costs of candidate transportation projects were estimated to include the cost of preliminary engineering, right-of-way, utilities, construction, and contingencies all of which were normalized to year 2020 dollars. The majority of cost estimates are sourced from previous planning efforts and are considered ‘planning-level’ in that they are reflect general ballpark estimation that may fluctuate as actual engineering, design, and construction of the project is conducted. For some projects, GDOT was a source of more detailed costing information. In the following “Plan Implementation” section, the process to use the evaluation procedures in order to resolve the anticipated transportation revenues with project costs is discussed.

Transit Funding

Funding for the transit services in the region come from a combination of local, state, and federal assistance as well as fare revenues and purchased transportation as shown in the table below.

Historic Funding and Expenses, Whitfield County Transit and Murray County Transit, 2015-2017

	Whitfield County Transit			Murray County Transit		
	2015	2016	2017	2015	2016	2017
Funding						
Purchased Transportation	\$223,655			\$40,368		
Fare Revenues	\$36,542	\$34,985	\$34,562	\$22,581	\$19,132	\$17,651
Local Funding	\$88,523	\$342,816	\$334,017	\$85,564	\$130,668	\$151,910
State Funding	\$13,325	\$0	\$14,692	\$0	\$0	\$19,965
Federal Funding	\$424,436	\$309,110	\$407,079	\$146,320	\$122,563	\$280,123
Expenses						
Operations	\$653,228	\$686,911	\$643,431	\$294,833	\$272,363	\$272,428
Capital	\$133,253	\$0	\$146,919	\$0	\$0	\$196,951

Source: National Transit Database (2015-2017)



5 | Evaluation and Implementation Plan

Based on this information, funding projections were prepared through the year for 2045 for both systems. The funding and fare revenues for the years 2015-2017 were averaged as the basis for this forecast. Funding sources were escalated using a 1 percent annual growth rate while fare revenues were held constant in order to prepare a conservative analysis. The results are shown in the table below.

Projected Funding, Whitfield County Transit and Murray County Transit, 2018-2045

Year	Whitfield County Transit			Murray County Transit		
	Funding	Fare Revenue	Total	Funding	Fare Revenue	Total
2018	\$877,004	\$35,363	\$912,367	\$356,266	\$19,788	\$376,054
2019	\$885,774	\$35,363	\$921,137	\$359,829	\$19,788	\$379,617
2020	\$894,632	\$35,363	\$929,995	\$363,427	\$19,788	\$383,215
2021	\$903,578	\$35,363	\$938,941	\$367,062	\$19,788	\$386,850
2022	\$912,614	\$35,363	\$947,977	\$370,732	\$19,788	\$390,520
2023	\$921,740	\$35,363	\$957,103	\$374,440	\$19,788	\$394,228
2024	\$930,958	\$35,363	\$966,321	\$378,184	\$19,788	\$397,972
2025	\$940,267	\$35,363	\$975,630	\$381,966	\$19,788	\$401,754
2026	\$949,670	\$35,363	\$985,033	\$385,785	\$19,788	\$405,573
2027	\$959,167	\$35,363	\$994,530	\$389,643	\$19,788	\$409,431
2028	\$968,758	\$35,363	\$1,004,121	\$393,540	\$19,788	\$413,328
2029	\$978,446	\$35,363	\$1,013,809	\$397,475	\$19,788	\$417,263
2030	\$988,230	\$35,363	\$1,023,593	\$401,450	\$19,788	\$421,238
2031	\$998,113	\$35,363	\$1,033,476	\$405,464	\$19,788	\$425,252
2032	\$1,008,094	\$35,363	\$1,043,457	\$409,519	\$19,788	\$429,307
2033	\$1,018,175	\$35,363	\$1,053,538	\$413,614	\$19,788	\$433,402
2034	\$1,028,356	\$35,363	\$1,063,719	\$417,750	\$19,788	\$437,538
2035	\$1,038,640	\$35,363	\$1,074,003	\$421,928	\$19,788	\$441,716
2036	\$1,049,026	\$35,363	\$1,084,389	\$426,147	\$19,788	\$445,935
2037	\$1,059,517	\$35,363	\$1,094,880	\$430,409	\$19,788	\$450,197
2038	\$1,070,112	\$35,363	\$1,105,475	\$434,713	\$19,788	\$454,501
2039	\$1,080,813	\$35,363	\$1,116,176	\$439,060	\$19,788	\$458,848
2040	\$1,091,621	\$35,363	\$1,126,984	\$443,450	\$19,788	\$463,238
2041	\$1,102,537	\$35,363	\$1,137,900	\$447,885	\$19,788	\$467,673
2042	\$1,113,563	\$35,363	\$1,148,926	\$452,364	\$19,788	\$472,152
2043	\$1,124,698	\$35,363	\$1,160,061	\$456,887	\$19,788	\$476,675
2044	\$1,135,945	\$35,363	\$1,171,308	\$461,456	\$19,788	\$481,244
2045	\$1,147,305	\$35,363	\$1,182,668	\$466,071	\$19,788	\$485,859
Total	\$28,177,353	\$990,164	\$29,167,517	\$11,446,517	\$554,064	\$12,000,581

Fiscally Constrained Implementation Plan

The fiscally constrained implementation plan was put together by considering the results of the candidate project evaluation results, the capital revenue projection analysis, and the estimated costs for each project. Projects were sorted using the following procedures:

- Projects that already have identified and committed funding in the next few years were advanced first for implementation
- Following those projects, the rankings from the evaluation process were used to determine which projects to advance first. In a few cases where projects that were less expensive were advanced in front of higher ranked projects in order to maximize the number of projects implemented.
- Projects were sorted into three time periods based on when construction dollars are anticipated to be available for implementation. For the first period (Short-Term, 2020-2025), projects were costed and funded year by year. For the following periods (Mid-Term, 2036-2035 and Long-Term, 2036-2045), projects were costed and funded in buckets. As discussed previously, project costs were inflated by 2% annually while funding was inflated by 1% annually.

The table below indicates and summarizes the overall results of achieving fiscal constraint for the Greater Dalton MPO 2045 MTP. Similarly, the accompanying graph indicates the progression and comparison of revenue and expenditures over each year and time period. As shown, in some years expenditures exceed the revenue for that year. However, savings from previous years where revenue exceeds expenditures are used to make up the difference so that in each year or time period there is a positive balance of remaining funds, including at the end of the Long-Term period where there is a balance of \$331,721.

Funding and Expenditures by Time Period, 2020-2045

Time Period	Funding	Expenditures	Ending Balance
2020	\$10,287,289	\$8,410,402	\$1,876,887
2021	\$10,390,162	\$7,932,828	\$4,334,221
2022	\$10,494,064	\$2,635,839	\$12,192,447
2023	\$10,599,004	\$1,114,268	\$21,677,183
2024	\$10,704,994	\$31,477,103	\$905,074
2025	\$10,812,044	\$3,579,132	\$8,137,986
2026-2035	\$113,635,673	\$114,938,961	\$6,834,698
2036-2045	\$125,524,478	\$132,027,455	\$331,721
Cumulative	\$302,447,708	\$302,115,988	\$331,721



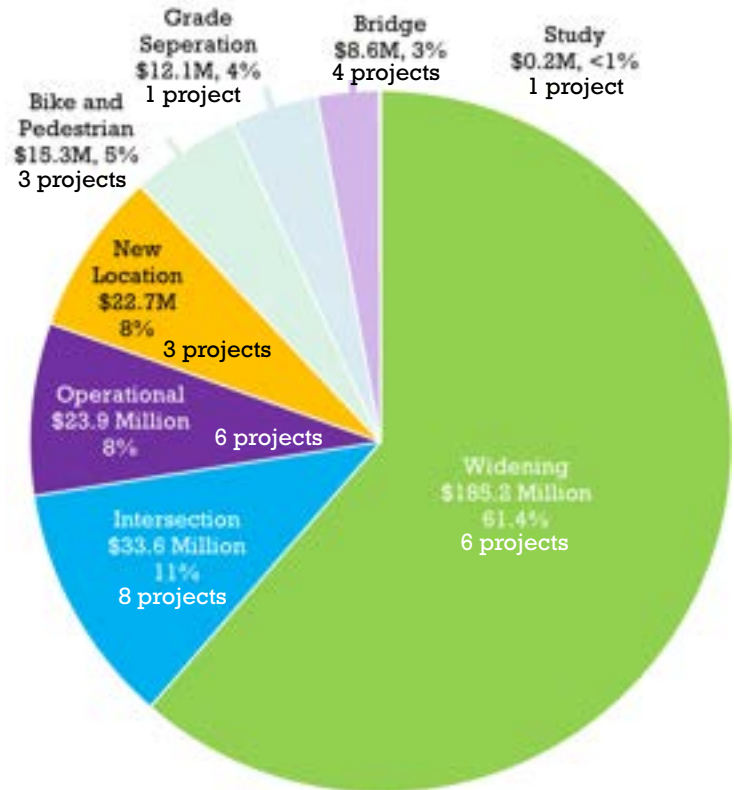
5 | Evaluation and Implementation Plan

Similarly, expenditures by project type are indicated in the below graph. While the significant amount of expenditures of roadway widenings is indicative in part of the relative costs for that type of project compared to other project types, the results still overall reflect the guidance from the community favoring projects that increase vehicular capacity and operations with relatively limited expenditure on other project types.

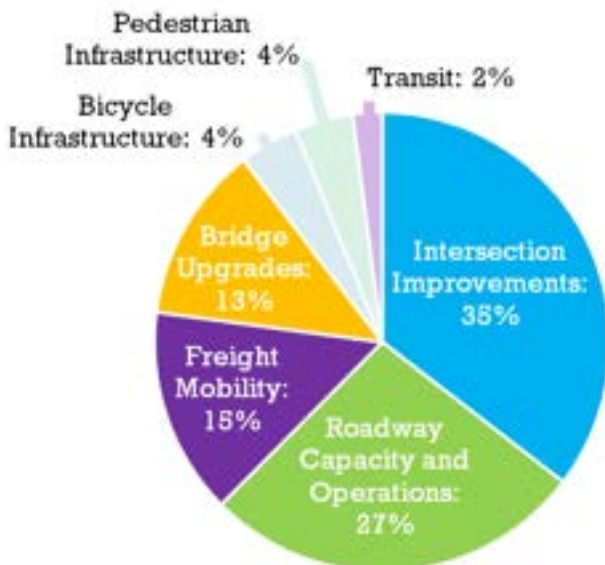
The following tables and maps indicate the projects incorporated in each of the timeframes (short-term, mid-term, and long-term) envisioned within the fiscally constrained plan. Additionally, due to the overall project needs for the region exceeding anticipated revenues, several projects are identified in the 'Aspirations' plan which represent candidate projects for future updates to the MTP or if additional sources of transportation revenue are identified.

Finally, for further reference information sheets for individual fiscally constrained projects are provided in **Appendix E**.

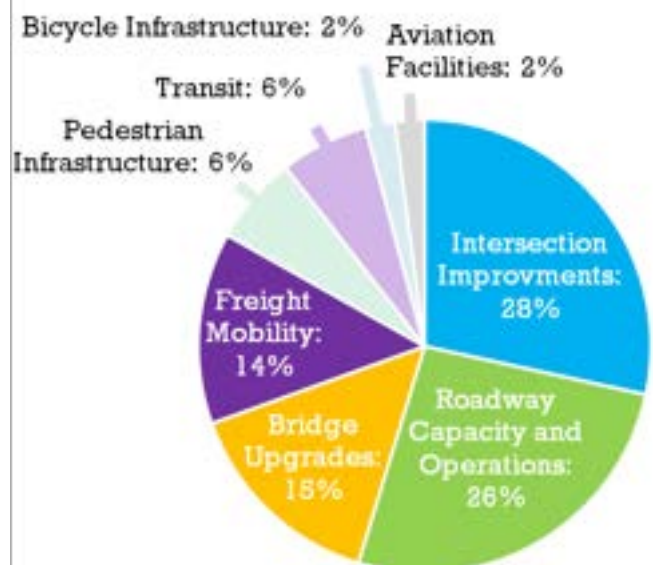
Cost of Fiscally-Constrained Projects by Project Type



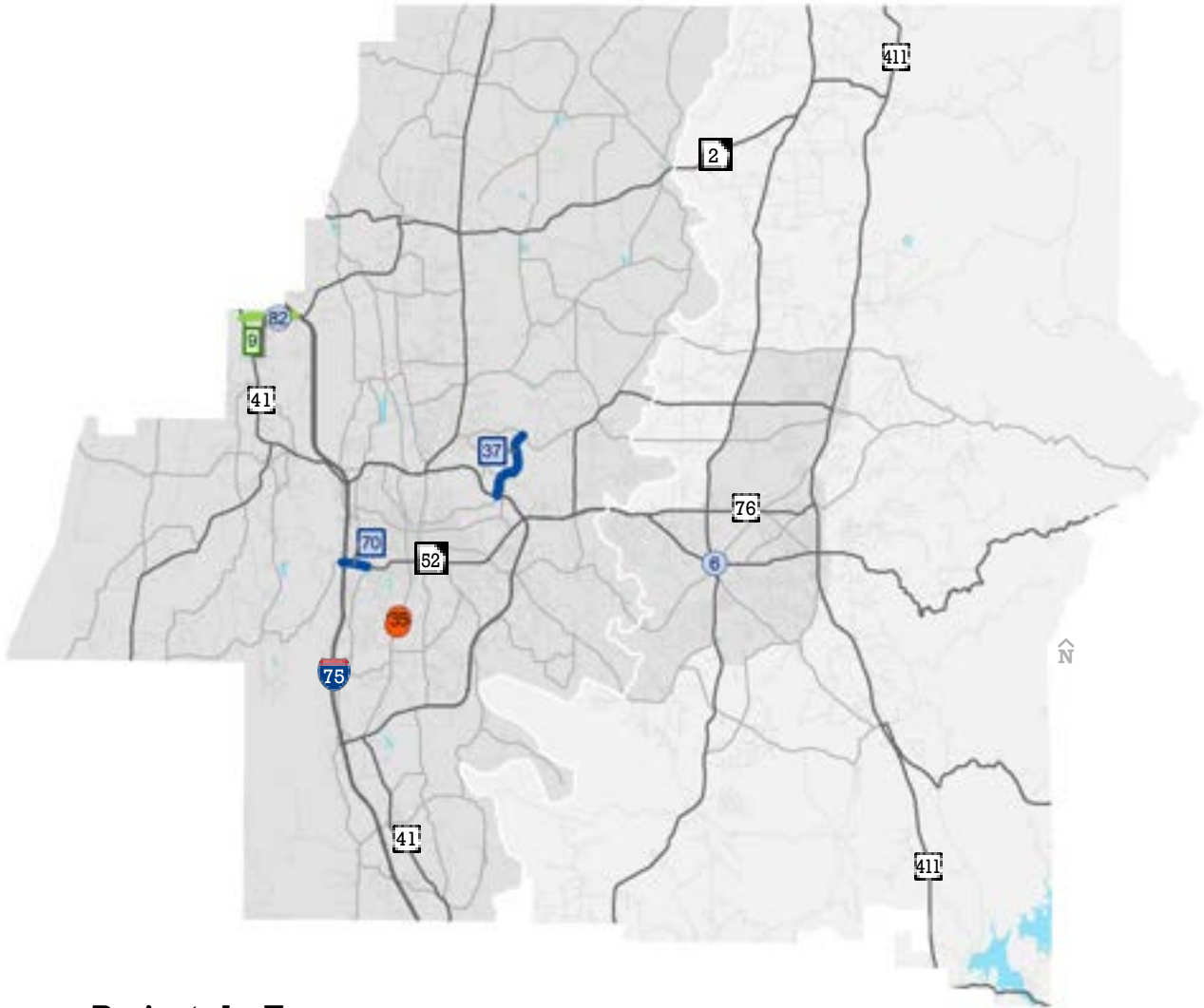
Public Meeting #1 Project Types Activity Results




Stakeholder Meeting #1 Project Types Activity Results



Short-Term Projects (2020-2025)



Projects by Type

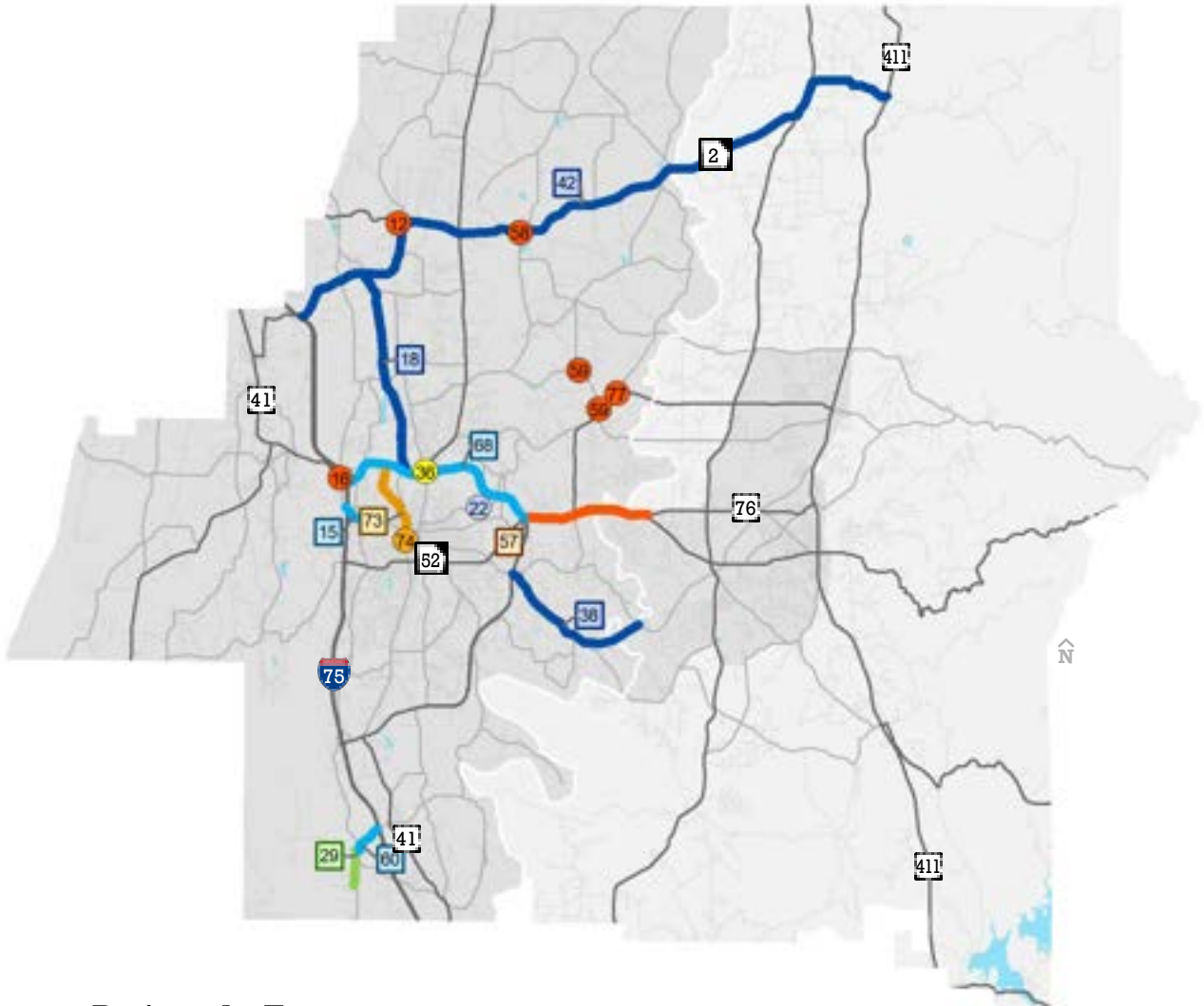
	Alignment			Operational
		Bicycle and/or Pedestrian		New Location
	Bridge			Study
	Grade Separation			Widening
		Intersection(s)		

5 | Evaluation and Implementation Plan

Short-Term Projects (2020-2025)

Project ID	Project Type	Name/Location	Extents	Total Cost (YOE)
6	Bridge	SR 52 ALT (GDOT PI 0007047)	Town Branch	\$2,190,402
9	New Location	SR 201 Realignment & Improve SR 201	US 41 to I-75 Interchange	\$5,300,000
35	Intersection	South Dixie Highway	W. Industrial Boulevard at Foster Road	\$1,644,048
37	Operational	Underwood Road	North Dalton Bypass to Dawnville Road	\$1,061,467
70	Study	Walnut Avenue Access Management Study	I-75 to Dug Gap Road	\$200,000
82	Bridge	SR 201 (GDOT PI 0013816)	Tanyard Creek	\$1,989,839

Mid-Term Projects (2026-2035)



Projects by Type

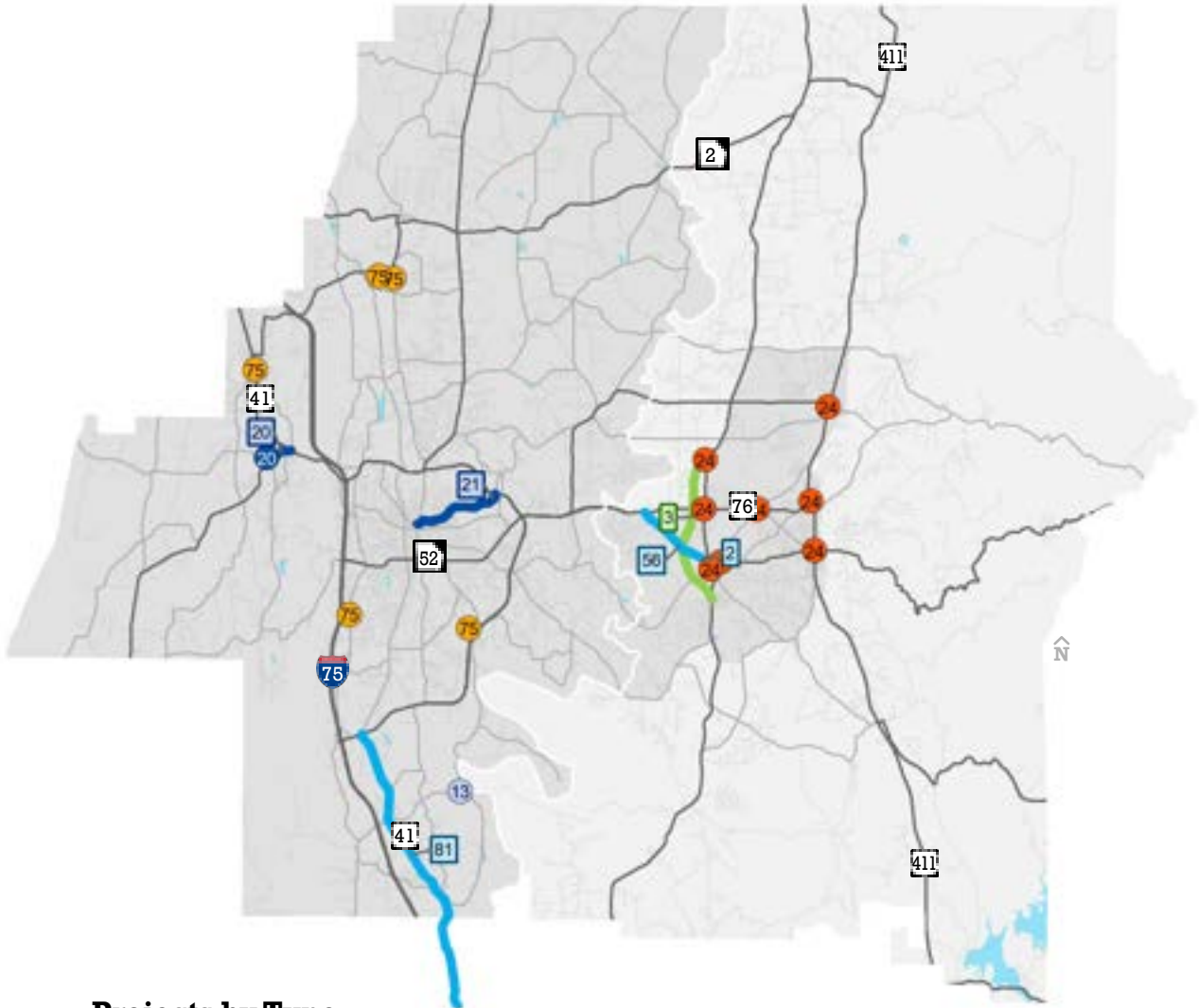
	Alignment			Operational
	 Bicycle and/or Pedestrian			New Location
	Bridge			Study
	Grade Separation			Widening
	 Intersection(s)			

5 | Evaluation and Implementation Plan

Mid-Term Projects (2026-2035)

Project ID	Project Type	Name/Location	Extents	Total Cost (YOE)
12	Intersection	SR 2 at SR 201	SR 201	\$1,059,748
15	Widening	North Tibbs Road	College Drive to Shugart Road	\$6,730,090
16	Intersection	SR 3 (Chattanooga Road)	North Tibbs Road	\$1,957,957
18	Multiple Intersections	Reed Road	SR 3 to SR 201	\$9,851,959
22	Bridge	Underwood Street	Mill Creek	\$2,746,011
29	New Location	CR 688/Louise Lane Extension	Eber Road to Redwine Cove	\$5,854,343
36	Grade Separation	North Dalton Bypass	At Cleveland Highway	\$12,115,484
38	Operational	Airport Road	South Dalton Bypass to Tibbs Bridge	\$8,314,758
42	Operational	SR 201	I-75 Interchange to US 411	\$4,252,732
57	Intersection	US 76/Chatsworth Highway	SR 3 Bypass to US 76	\$3,033,975
58	Intersection	Lake Francis Road	SR 2/Prater Mill Road	\$2,061,050
59	Intersection	Dawnville-Beaverdale Road	SR 286 & Cherokee Estate Road	\$3,050,771
60	Widening	Carbondale Road	Redwine Cove Road to I-75 Interchange	\$5,421,699
68	Widening	SR 560/East-West Highway (GDOT PI 0004299)	I-75 to SR 2	\$68,451,889
73	Bike & Ped	Thorton Avenue Sidewalks	SR 3 to Waugh Street	\$2,446,854
74	Bike & Ped	Downtown Sidewalk	Various	\$6,557,923
77	Intersection	Dawnville Rd	At SR 286	\$571,819

Long-Term Projects (2036-2045)



Projects by Type

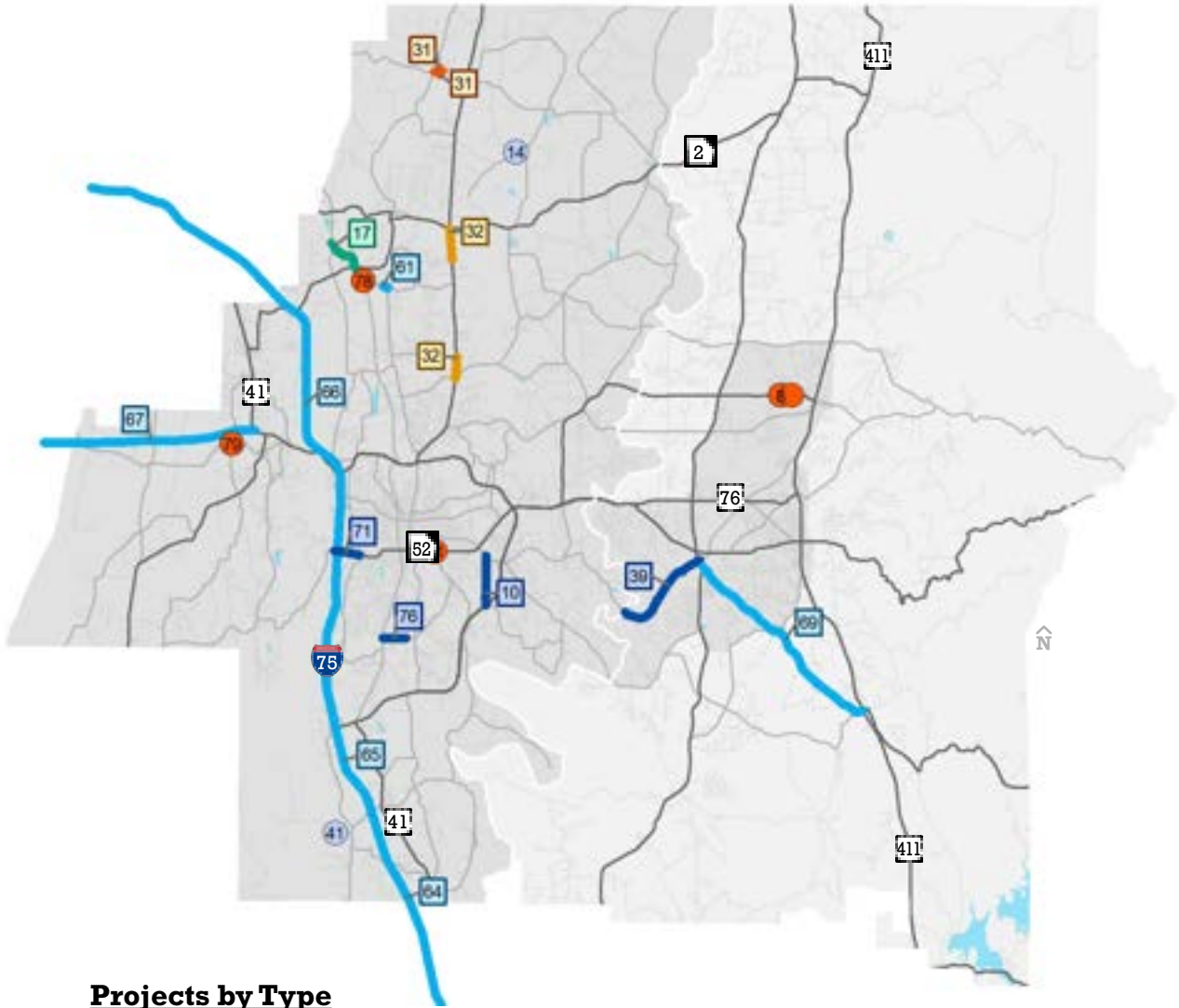
	Alignment			Operational
		Bicycle and/or Pedestrian		New Location
	Bridge			Study
	Grade Separation			Widening
		Intersection(s)		

5 | Evaluation and Implementation Plan











Long-Term Projects (2036-2045)

Project ID	Project Type	Name/Location	Extents	Total Cost (YOE)
2	Widening	SR 225 (GDOT PI 631550)	SR 52 ALT to Spring Place Smyrna Road	\$10,896,360
3	New Location	SR 225 Bypass (North & South) (GDOT PI 0003061)	SR 225 @ Imperial Blvd to SR 52/US76 & N to SR 225	\$11,506,104
13	Bridge	Old Tilton Road	Swamp Creek	\$1,679,121
19	Operational	SR 201	SR 3 to Old LaFayette Road	\$3,233,422
20	Operational	Old LaFayette Road & Intersection w/ SR 201	SR 201 to SR 3	\$4,888,767
21	Operational	Underwood Street	Glenwood to Bypass	\$2,455,960
24	Intersection	Intersection Improvements - 8 locations	Various	\$9,881,550
56	Widening	SR 52 Alt	SR 225 to SR 52/US 76	\$27,446,483
75	Bike & Ped	School Sidewalk Program	Various	\$3,863,463
81	Widening	SR 3/South Dixie Road (GDOT PI 632670)	SR 136/Gordon to South Dalton Bypass	\$69,102,750

Aspirational Projects



Projects by Type

	Alignment			Operational
		Bicycle and/or Pedestrian		New Location
	Bridge			Study
	Grade Separation			Widening
		Intersection(s)		



5 | Evaluation and Implementation Plan

Aspirational Projects

Project ID	Project Type	Name/Location	Extents	Total Cost (Year 2045)
8	Intersection	SR 286 (GDOT PI 0006064)	Cobb Road and at Tom Gregory Road	\$1,756,666
10	Operational	Hill Road	Eastbrook Road to Airport Road	\$3,691,363
11	Intersection	Riverbend Road	Walnut Avenue/US 76	\$196,873
14	Bridge	McGaughey Chapel Road	Coahulla Creek	\$1,853,885
17	Alignment	Reed Road	SR 201 to Lake Kathy	\$4,396,824
31	Intersection	Chattanooga Road/Wolfe Street & Red Clay Road	City of Cohutta	\$5,742,121
32	Bike & Ped	SR 71	Beaverdale Road to Williams Road & Frontier Trail to Prater Mill Road	\$3,117,151
39	Operational	Airport Road/Brown Bridge Road/New Hope Road	Tibbs Bridge to SR 225	\$10,137,097
41	Bridge	Redwine Cove Road	Swamp Creek	\$1,679,121
61	Widening	Rauschengerg Road	Sonya Drive to Waring Road	\$2,194,190
67	Widening	SR 560/East-West Highway (GDOT PI 0004298)	SR 151 to SR 3	\$118,011,397
69	Widening	SR 560/East-West Highway (GDOT PI 0004300)	SR 3 to US 411	\$51,591,137
71	Operational	Walnut Avenue Access Management Improvements	I-75 to Dug Gap Road	\$7,546,788

Plan Conclusions

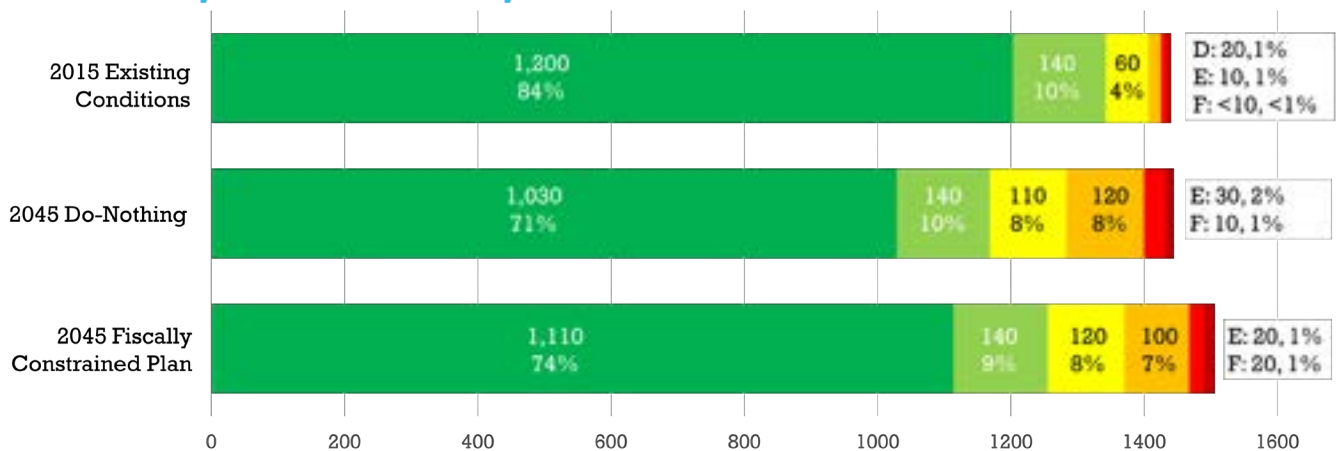
While the ultimate goal of the MTP is the development of the fiscally constrained project list, it also provides the framework for meeting a fundamental community need: effective and efficient transportation. As shown in the previous section, the plan combines the community vision, preferences, and goals with technical assessments of needs and anticipated performance to provide a plan that delivers the mobility needed to support the community, while increasing transportation mode options and supporting economic development initiatives.

As reproduced in the tables and graphs below, a comparison of the performance of a 2045 Do-Nothing Scenario with the 2045 Fiscally Constrained Plan reveals a tremendous amount of benefit, including a large decrease both the number of lane miles with congested conditions and the amount of cumulative time spent traveling within the region. Though vehicle miles traveled will increase, the overall results indicate better traffic flow.

Travel Demand Model Scenario Statistics

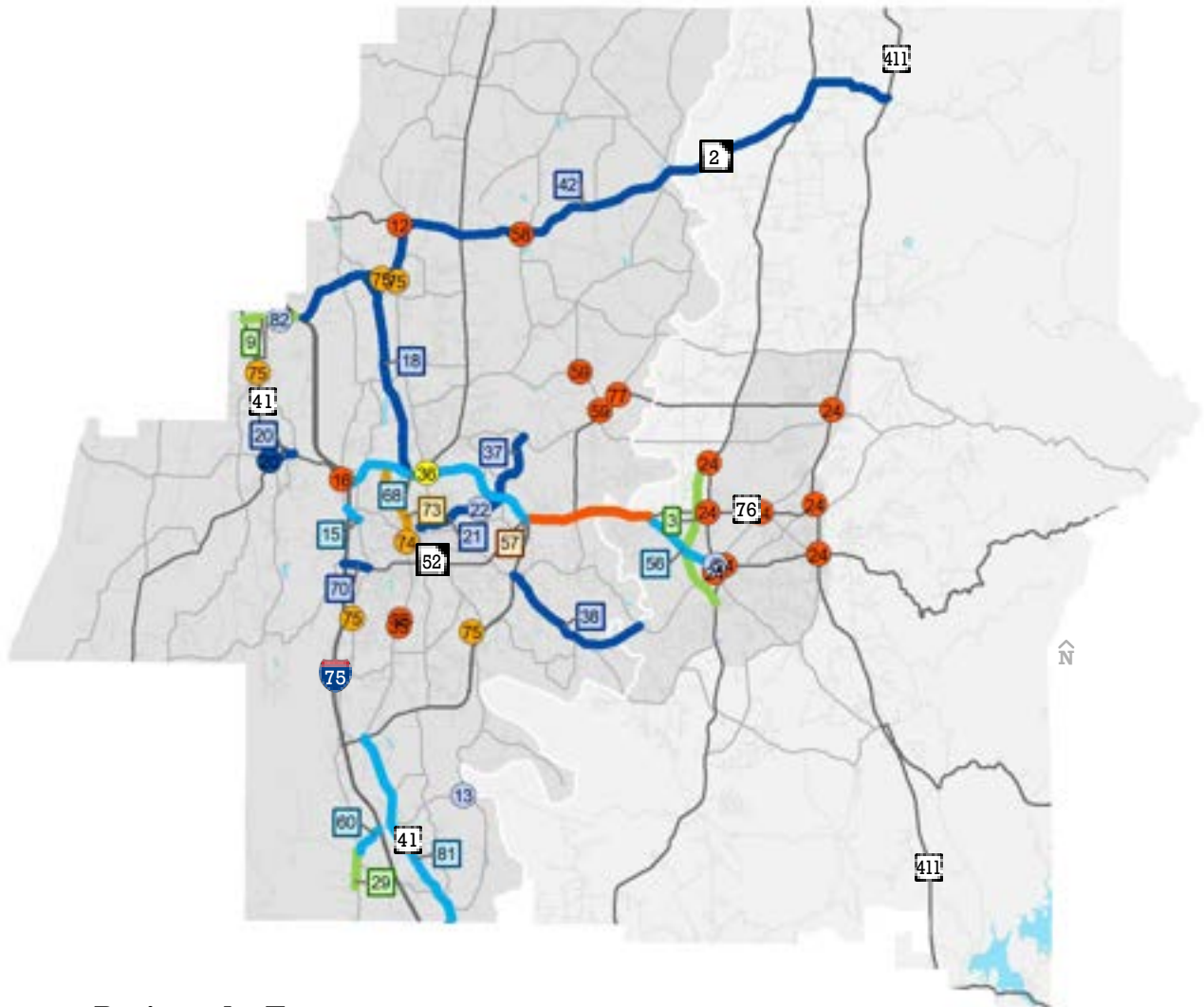
	2015 Base	2045 Do Nothing	2045 Existing + Committed	2045 with STIP Projects	2045 Fiscally Constrained + Aspirations	2045 Fiscally Constrained
Total Lane Miles	1,441	1,445	1,445	1,444	1,571	1,490
Lane Miles as LOS D or Better	1,425	1,400	1,400	1,399	1,544	1,469
Lane Miles at LOS E or Worse	15	45	45	45	27	39
Vehicle Miles Traveled	3,751,008	4,847,121	4,847,121	4,848,568	4,989,364	4,860,993
Vehicle Hours Traveled	106,916	168,326	168,326	168,415	147,941	164,801

Lane Miles by Level of Service by Travel Demand Model Scenario




5 | Evaluation and Implementation Plan

All Fiscally-Constrained Projects

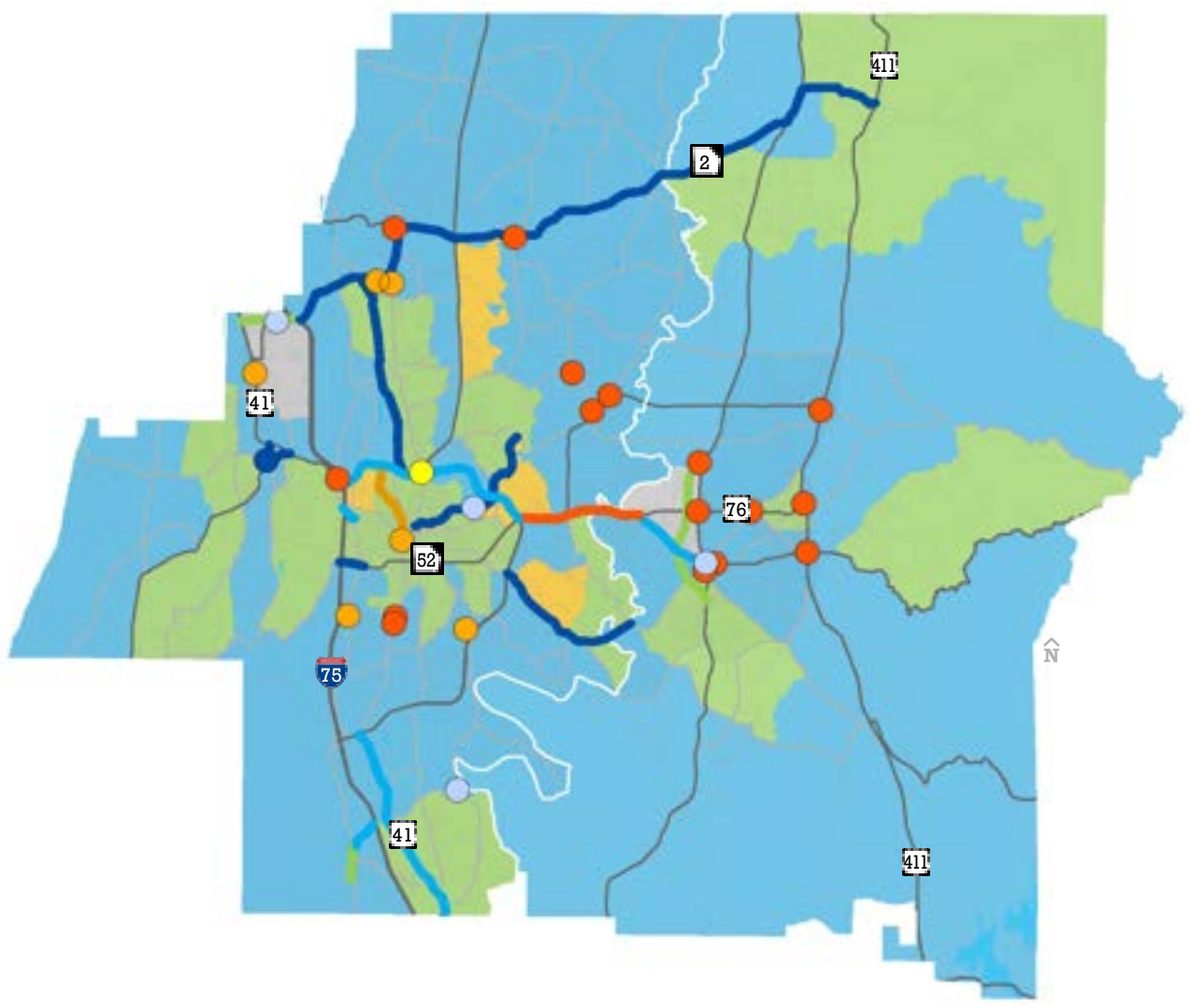


Projects by Type

	Alignment			Operational
	 Bicycle and/or Pedestrian			New Location
	Bridge			Study
	Grade Separation			Widening
	 Intersection(s)			

Furthermore, the fiscally constrained plan is overlaid with the Environmental Justice communities previously identified in Chapter 2. The projects within and adjacent to these communities are all anticipated to include bicycle and pedestrian facilities where possible and feasible as well as introduce design elements to enhance safety.

Environmental Justice Communities and Fiscally-Constrained Projects



Projects by Type

	Alignment
	Bicycle and/or Pedestrian
	Bridge
	Grade Separation
	Intersection(s)

	Operational
	New Location
	Study
	Widening

Title VI Communities Present

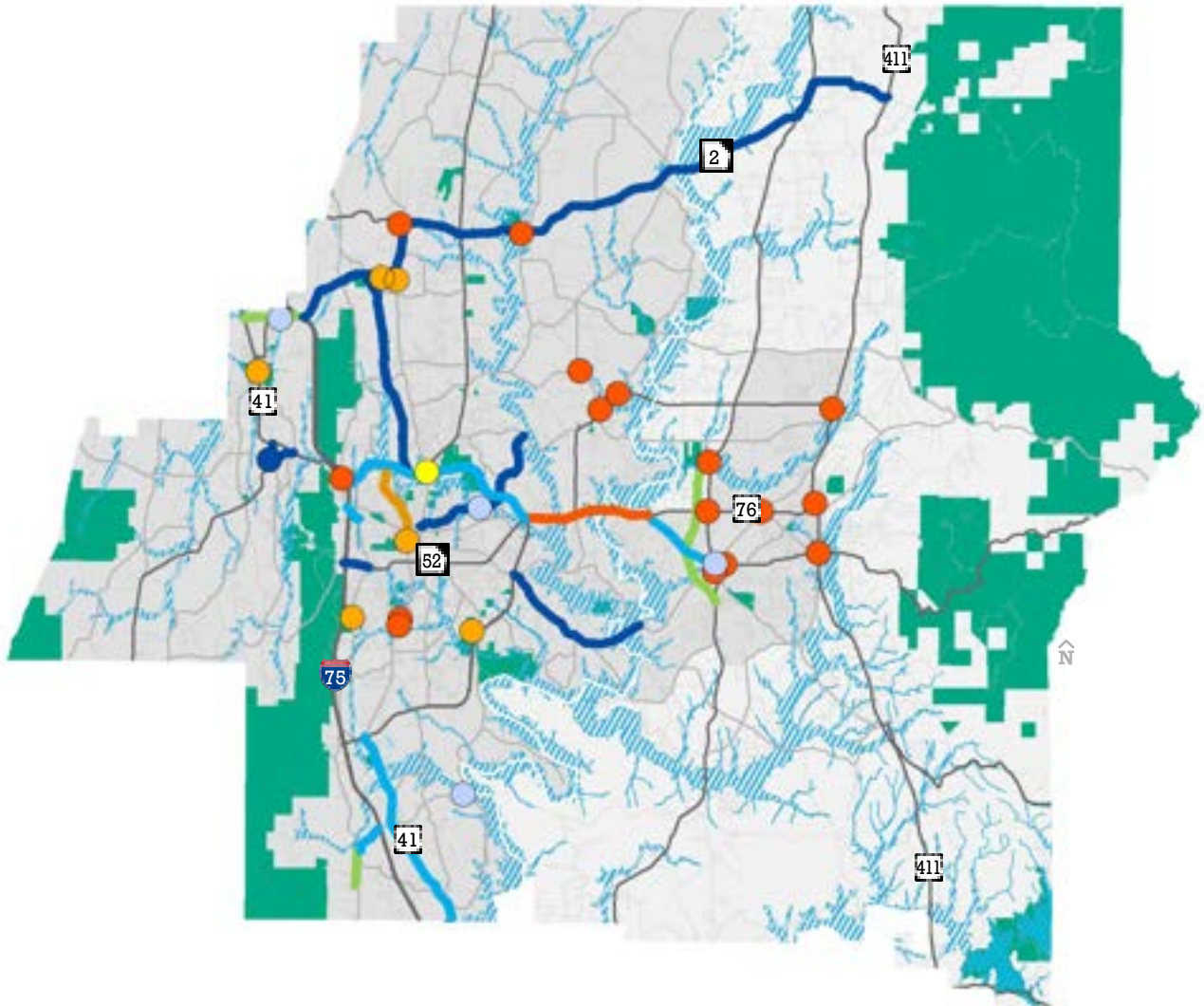
	0 Title VI Communities
	1-3 Title VI Communities
	4-5 Title VI Communities
	6-7 Title VI Communities



5 | Evaluation and Implementation Plan

Reflecting the region's commitment to environmental sustainability, the fiscally constrained plan is also compared to several environmental and cultural features. The following maps indicate environmental conditions that may need to be addressed and mitigated as projects are implemented

Natural Resources and Fiscally-Constrained Projects



Projects by Type

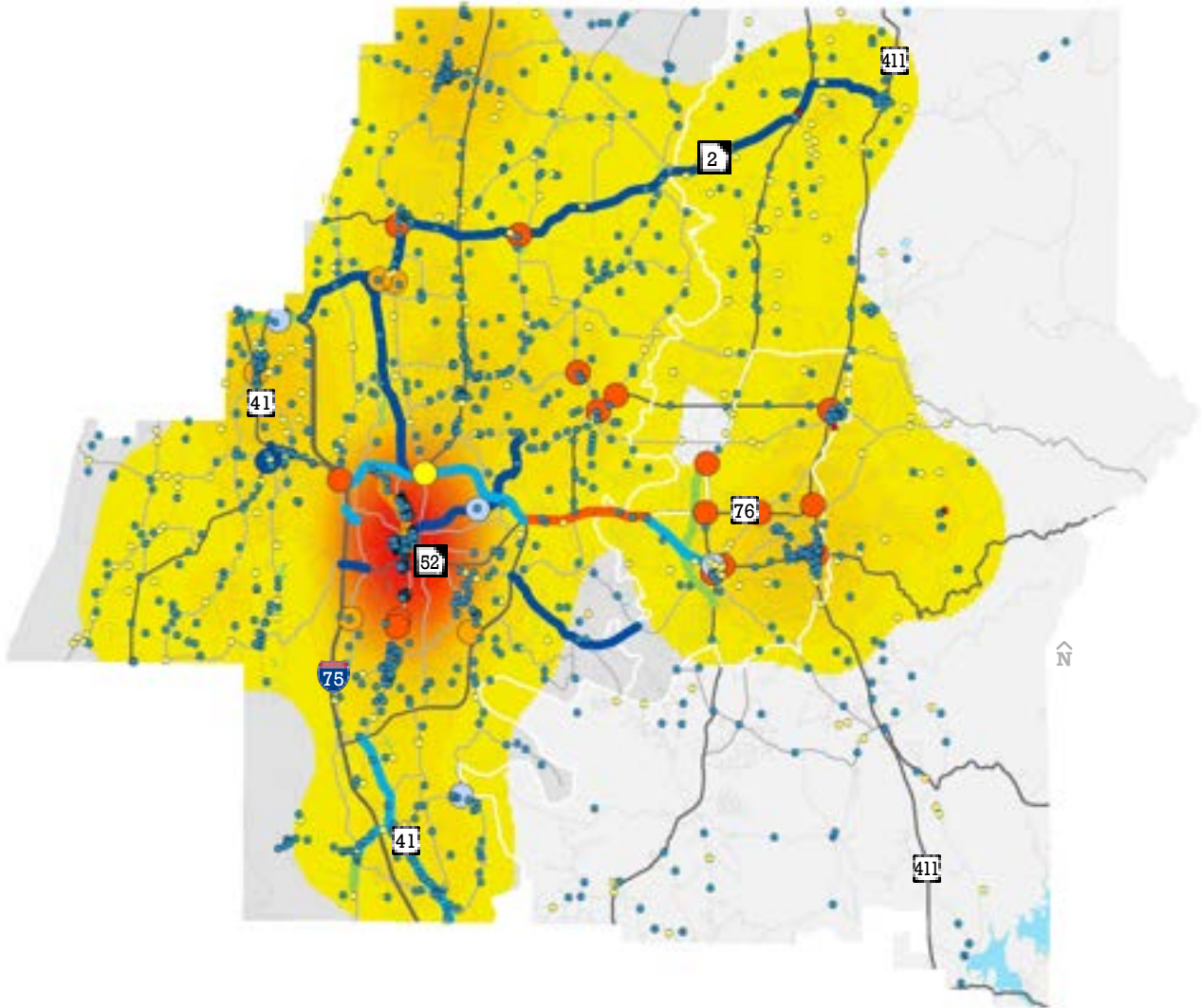
	Alignment
	Bicycle and/or Pedestrian
	Bridge
	Grade Separation
	Intersection(s)

		Operational
		New Location
		Study
		Widening

Environmental Resources

- Land designated for parks, recreation, and/or conservation
- FEMA-designated Flood Zones


Historic Resources and Fiscally-Constrained Projects



Projects by Type

	Alignment		Operational
	Bicycle and/or Pedestrian		New Location
	Bridge		Study
	Grade Separation		Widening
	Intersection(s)		

Historic Properties

Construction Date:
 Earlier than 1800 or Unknown

 1800s

 1900s

Concentration of Historic Properties:

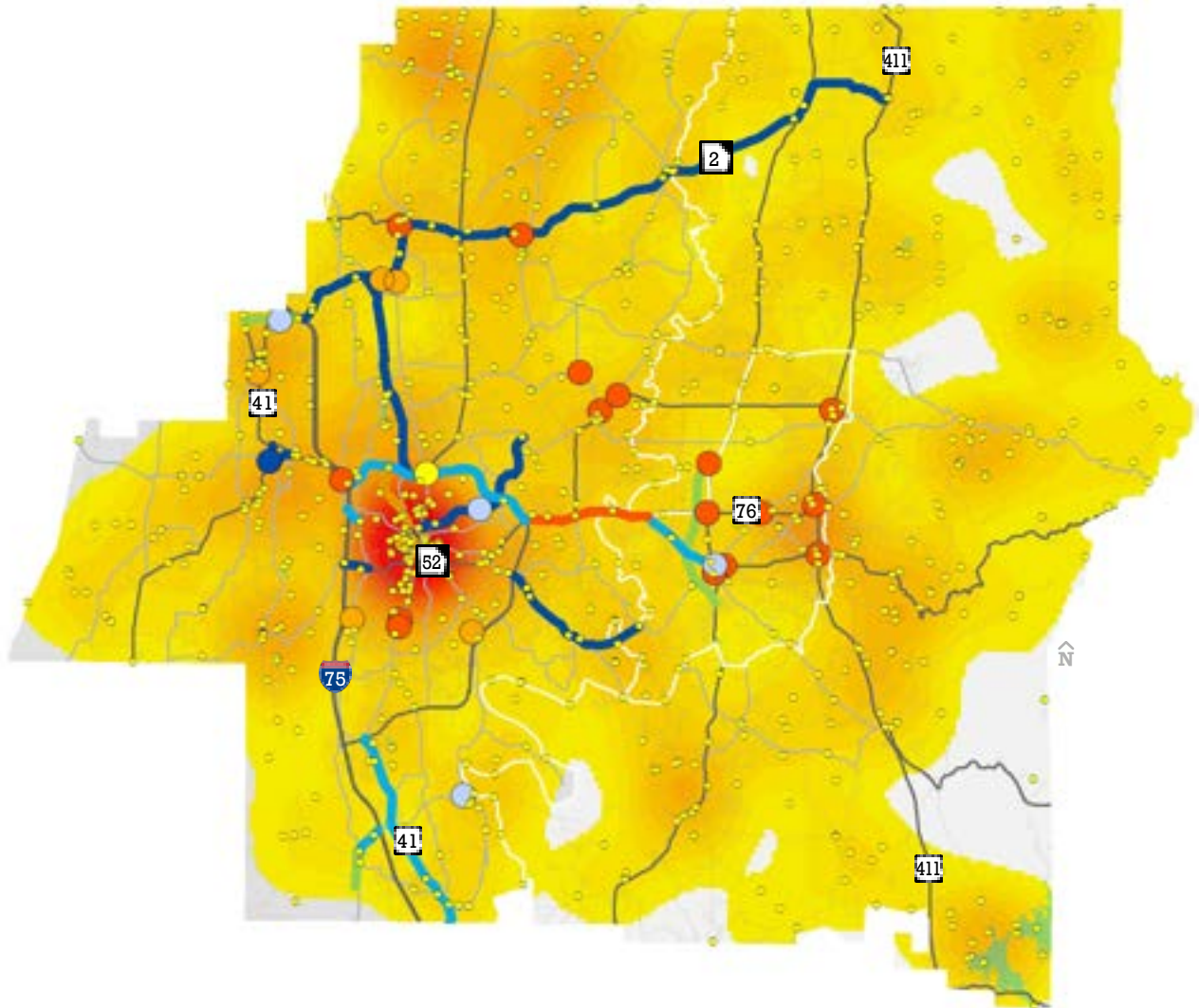


Source: Georgia's Natural, Archaeological, and Historic Resources GIS



5 | Evaluation and Implementation Plan

Cultural Resources and Fiscally-Constrained Projects



Projects by Type

	Alignment
	Bicycle and/or Pedestrian
	Bridge
	Grade Separation
	Intersection(s)

	Operational
	New Location
	Study
	Widening

Cultural Resources

Cultural Resource

Concentration of Cultural Resources:

Lower Higher

Source: Georgia's Natural, Archaeological, and Historic Resources GIS

The MTP reflects a balance in addressing the strategic systematic goal categories discussed with the community and reflects the comments and vision of the community through the individual projects recommended, which were expressly supported through community engagement.

Additionally, the fiscally constrained plan includes a remaining balance of \$331,721. This remaining balance should be preserved in order to allow flexibility and contingency as funding and cost assumptions change, or the need arises to fund different transportation projects through administrative adjustments.

Funding and Expenditures by Time Period, 2020-2045

Time Period	Funding	Expenditures	Ending Balance
2020	\$10,287,289	\$8,410,402	\$1,876,887
2021	\$10,390,162	\$7,932,828	\$4,334,221
2022	\$10,494,064	\$2,635,839	\$12,192,447
2023	\$10,599,004	\$1,114,268	\$21,677,183
2024	\$10,704,994	\$31,477,103	\$905,074
2025	\$10,812,044	\$3,579,132	\$8,137,986
2026-2035	\$113,635,673	\$114,938,961	\$6,834,698
2036-2045	\$125,524,478	\$132,027,455	\$331,721
Cumulative	\$302,447,708	\$302,115,988	\$331,721





Appendix A
Travel Demand Model
Socioeconomic Data
Documentation



Appendix A-1 Year 2015 SE Data Documentation

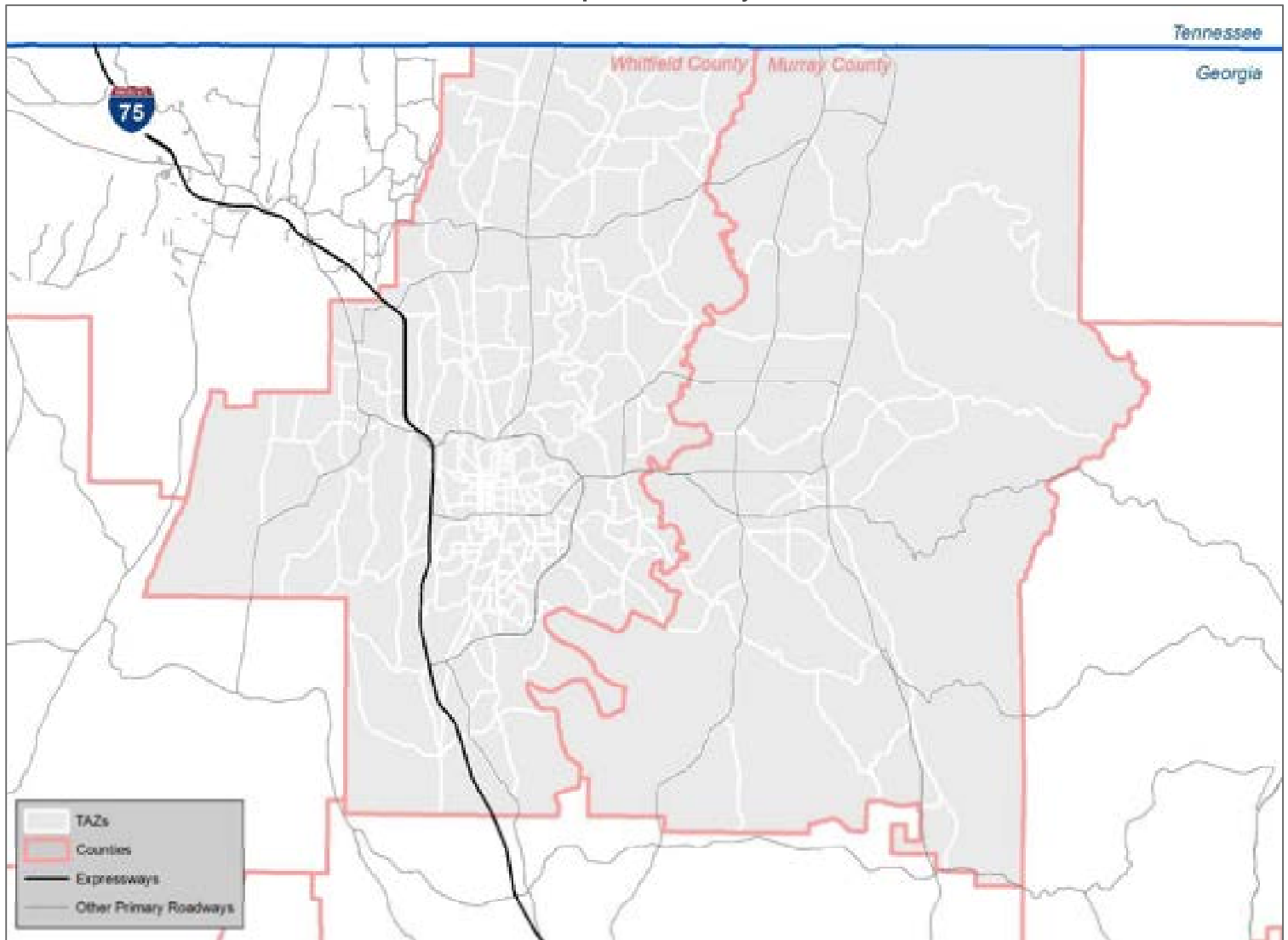


Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

This memorandum documents the methodologies used to prepare year 2015 socioeconomic data for the Greater Dalton Metropolitan Planning Organization (GDMPO) travel demand model. This effort was undertaken as part of updating the Greater Dalton Metropolitan Transportation Plan (MTP) for year 2050. While the MPO's planning area is limited to all of Whitfield County and only part of Murray County, this travel demand model encompasses all of Whitfield and Murray Counties in northwest Georgia as indicated in the map below, which shows the model's Transportation Analysis Zone (TAZ) structure.

GDMPO Transportation Analysis Zones



The socioeconomic data was prepared using three distinct methodologies as indicated below:

1. Population, Households, and Household Income
2. Employment
3. School and College Enrollment.

In addition to the basic assignment methodologies, a series of tests, based on GDOT guidance, was performed on the data to ensure its reasonableness.



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Population, Households, and Household Income

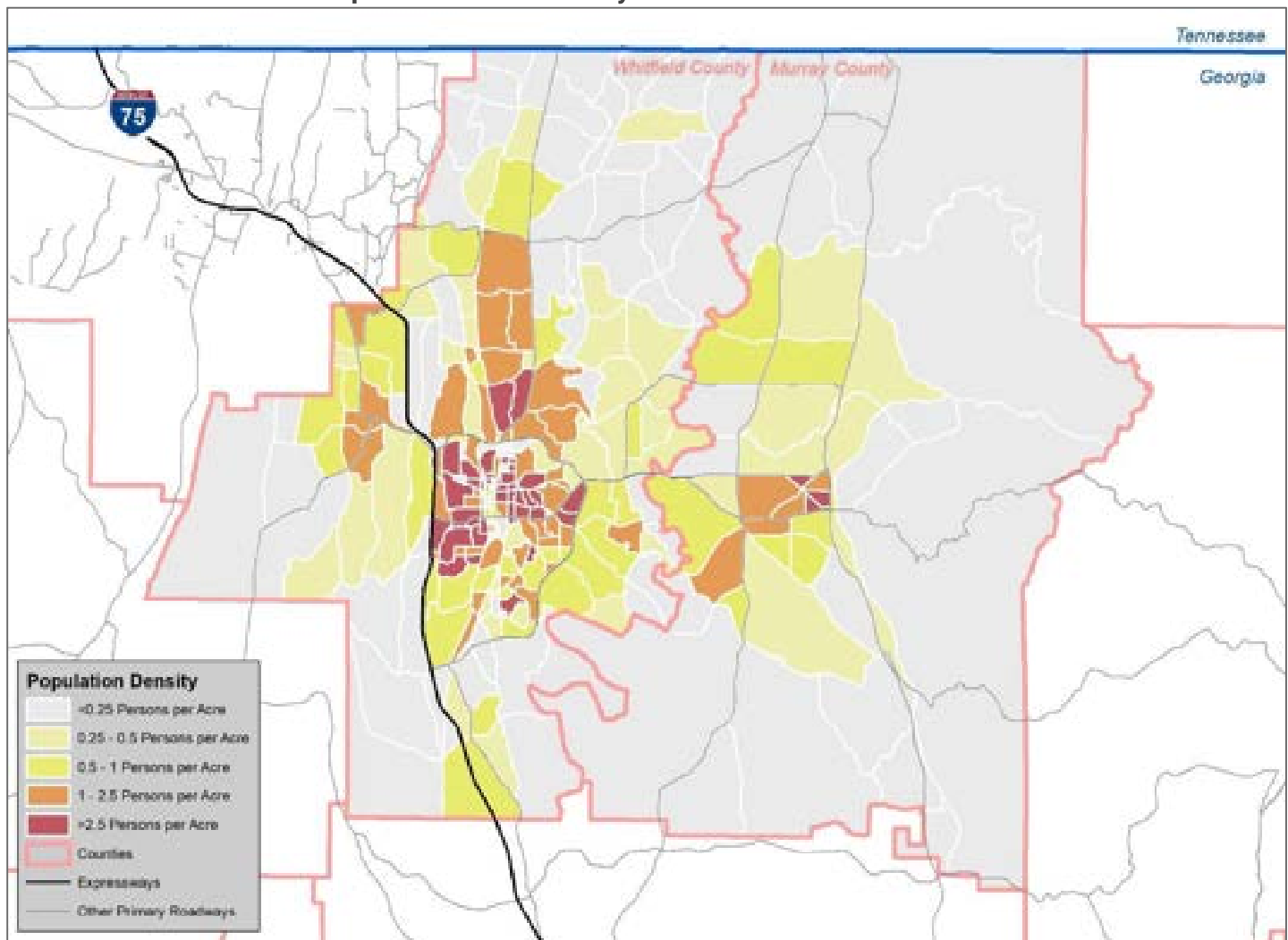
The overall number of population and households for the travel demand model were identified based on US Census Bureau data.

	Whitfield County	Murray County	Total Model Area
Population	103,395	39,399	142,794
Households	34,524	14,236	48,760

The population and household data were allocated to individual TAZs using two methods:

- For TAZs where Census Block Group geography aligns with TAZs boundaries and where those TAZs contain whole multiple block groups, the 2015 population from the five-year estimates of the American Community Survey (ACS) were utilized.
- For those TAZs where the TAZ boundaries did not align with Census Block Group boundaries, the 2015 population from the five-year estimates of the ACS were utilized but further distributed to individual TAZs using 2010 Census population and household figures.

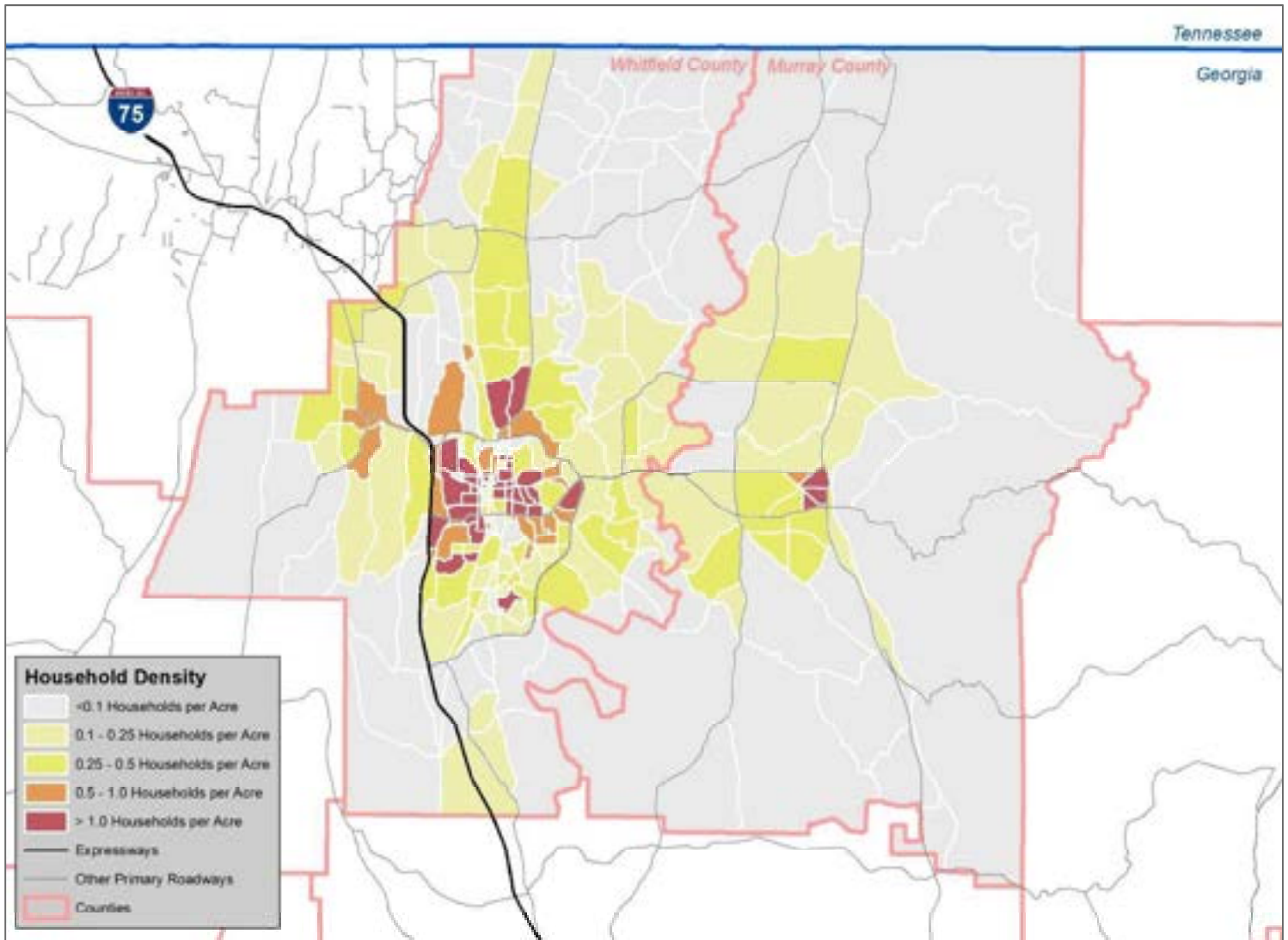
Year 2015 Population Allocation by TAZ – GDMPO Travel Demand Model



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Year 2015 Household Allocation by TAZ – GDMPO Travel Demand Model

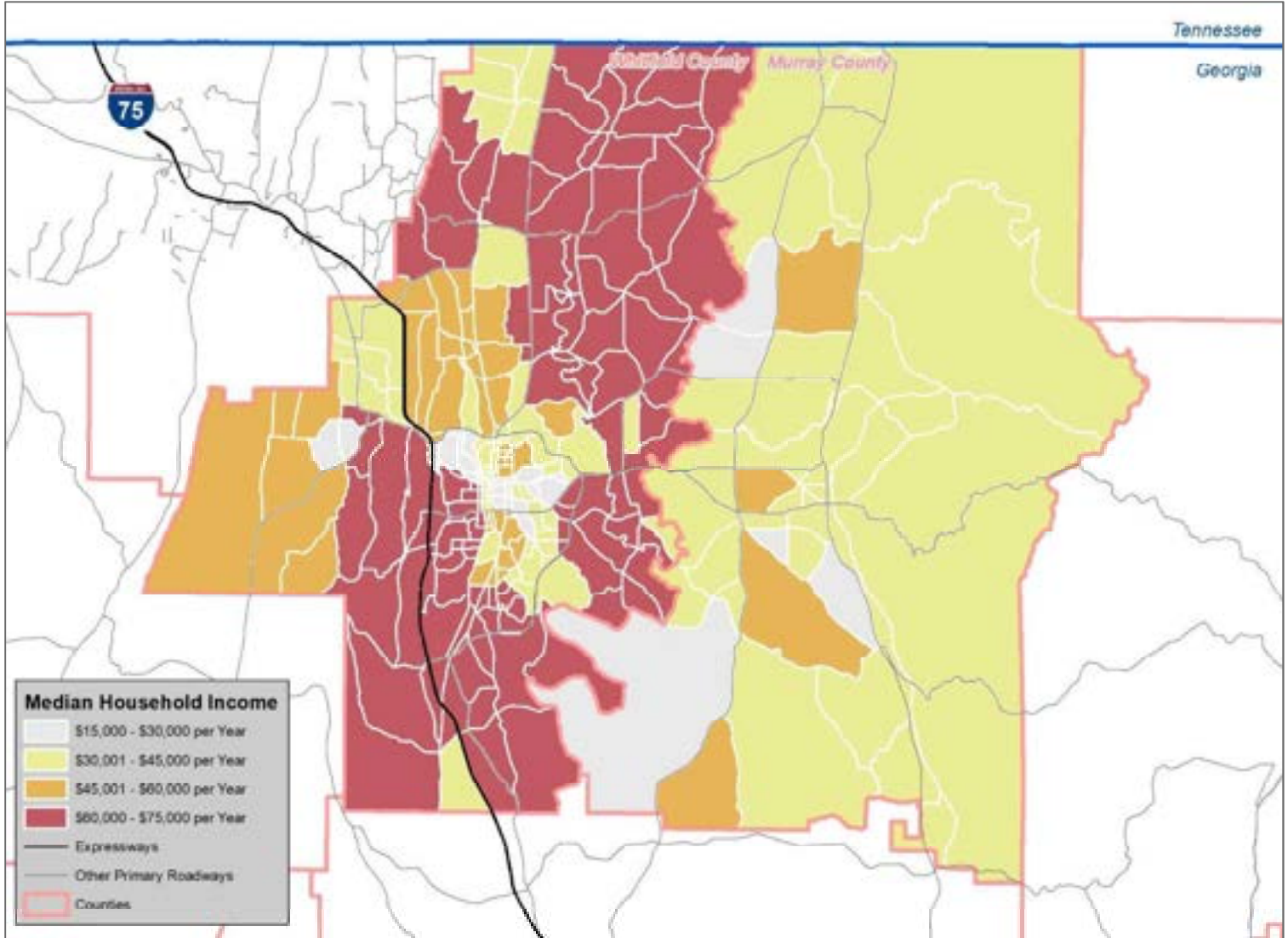


Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Median household income was sourced from the 2015 ACS estimates. In cases where multiple block groups exist within a single TAZ, the population by block group was combined with median income in the component block groups to estimate a single median household income for the TAZ.

Year 2015 Median Income by TAZ – GDMPO Travel Demand Model



Greater Dalton MPO 2050 Metropolitan Transportation Plan

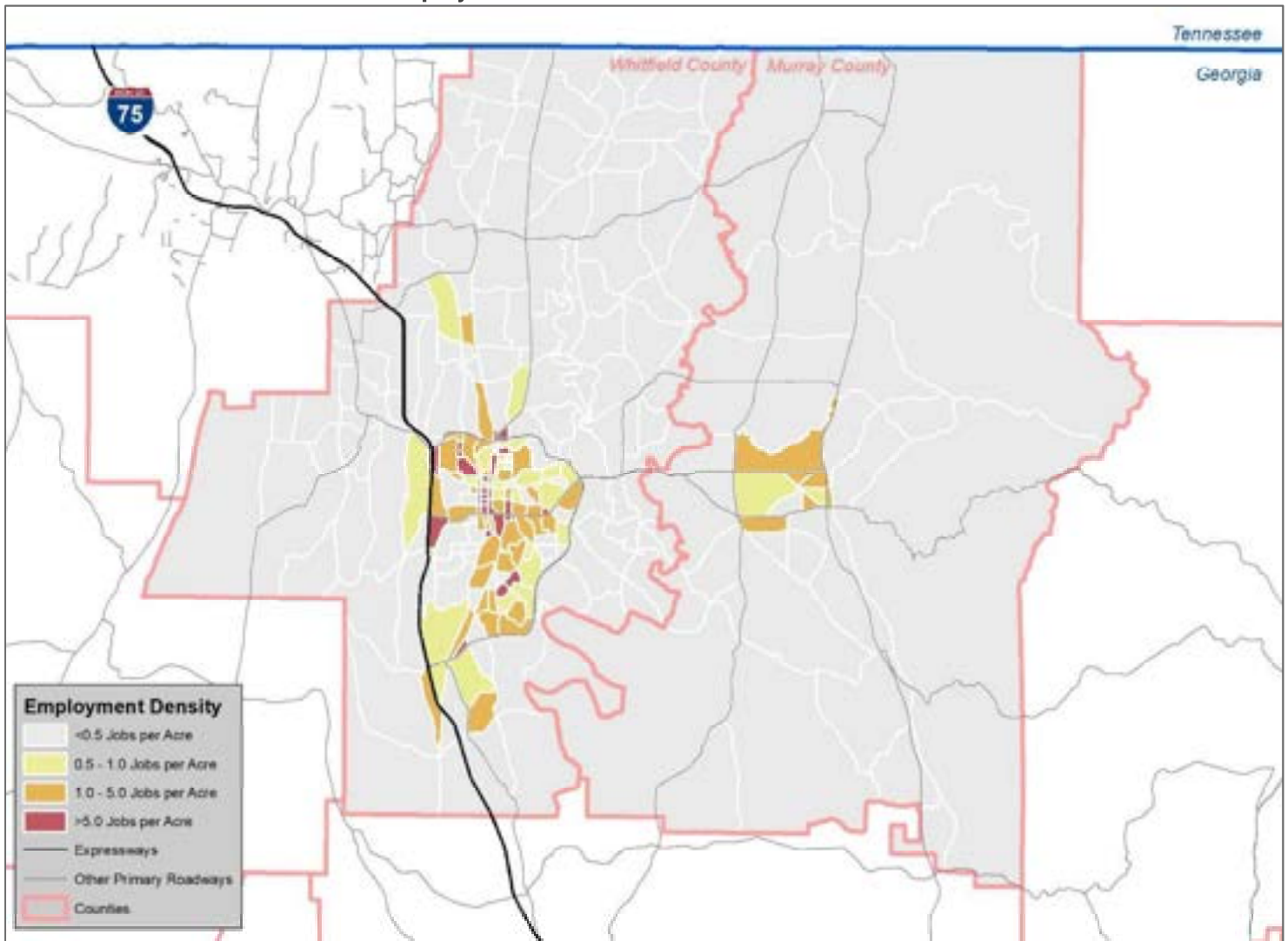
Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Employment

The US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) data was used as the basis for year 2015 employment in the study area. The data for all jobs (as opposed to primary jobs) was aggregated by TAZ and employment categories as indicated below.

Employment Classification	Whitfield County	Murray County	Total Model Area
Agriculture, Mining, and Construction Employment	1,626	203	1,829
Manufacturing,	28,827	5,045	33,872
Retail Employment	7,294	919	8,213
Service Employment	20,570	3,522	24,092
Total Employment	58,317	9,689	68,006

Year 2015 Employment Allocation – GDMPO Travel Demand Model



Greater Dalton MPO 2050 Metropolitan Transportation Plan

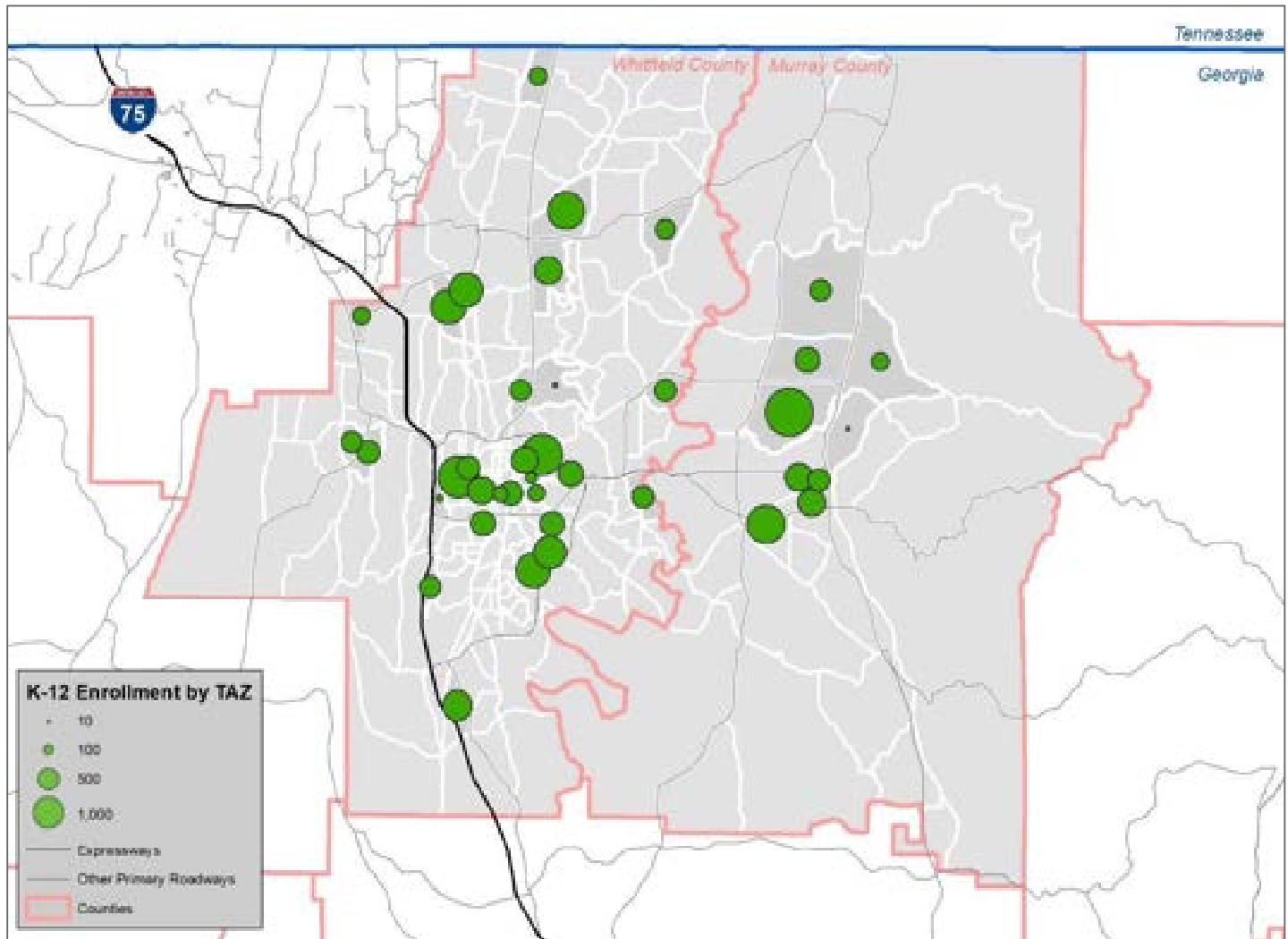
Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

School Enrollment

Enrollment at schools were derived from a variety of sources. Enrollment at public Kindergarten – 12th grade schools was based on enrollment data from the Georgia Department of Education for March 1, 2015. This data included Dalton Public Schools, Whitfield County Schools, and Murray County Schools. Additional information on the Crossroads Academy and Northwest Georgia College and Career Academy programs was provided directly by Whitfield County Schools. These nontraditional programs were coded as enrollment at the program location and at the students' home schools to best estimate trip-making behavior. An investigation into private school enrollment was performed, with enrollment estimates collected from a variety of sources. Enrollment for Dalton State College and Georgia Northwestern Technical College was found from year 2015 enrollment reports from each school.

	Whitfield County	Murray County	Total Model Area
K-12 Enrollment	21,651	7,667	29,318
College and University	5,933	0	5,933

Year 2015 School Enrollment Allocation – GDMPO Travel Demand Model



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Data Reasonability Check

The Georgia Department of Transportation (GDOT) provides guidance for producing and checking the reasonableness of socioeconomic data prepared for TDMs. After performing the basic methodologies presented previously, a series of tests were conducted based on these guidelines. Refinements to the data were made as documented in the following sections.

Persons per Household

GDOT's guidelines state that "Areas with over 7 persons-per-household should be explainable by some form of group housing within the TAZ," and that the number of persons in a TAZ must exceed the number of households. A review of TAZs was performed to identify any that violated these guidelines. The results of this review are documented below.

TAZ	Guideline Violation	Rationale or Action Taken
24	Persons Per Household is 7.4 (population 52, households 7)	This TAZ appears to have a very low overall rate of residential population. Census 2010 blocks indicate that the majority of the population in this TAZ resides in the southwest corner. Review of the area suggests that this TAZ may be home to a homeless shelter or other type of group housing hosted by Providence Ministries. As such, no change has been made.
68	Persons Per Household is 7.3 (population 87, households 12)	This TAZ is located adjacent to many Shaw Industries facilities and includes single family homes. A review of aerial imagery in the area showed homes with multiple cars parked at many houses at the same time, implying that each home may in fact be hosting larger groups of people than typical. As such, no change has been made.

Household Density

GDOT's guidelines also state that the number of households per acre should generally not be over 4. A value over 4 should be explained by multifamily development, and a value over 6 should be explained by multistory development. Household densities for all TAZs were reviewed, and those TAZs that exceed these thresholds are shown below.

TAZ	Guideline Violation	Rationale or Action Taken
36	4.7 households per acre	Residential development in this TAZ is often on small lots, and includes a townhome development off Avenue F. This multifamily development and overall density explain the higher household density and no change was made.
237	4.3 households per acre	This TAZ includes multiple apartment complexes, justifying the household density. No change made.



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Employment and Households Land Area

GDOT guidelines provide an overall check to ensure that the employment and residential populations are reasonable for a given TAZ's area. The guidelines state: "About half of the available land can generally be considered for the building. Use the following to see if the size of the building is in line with the acreage of the TAZ. Include households as well (4 households-per-acre unless it is multifamily).

- Office: 250 square feet per employee
- Retail: 300 square feet per employee
- Wholesale: 700 square feet per employee
- Manufacturing: 700 square feet per employee"

Based on these figures, a theoretical "minimum acreage" for each TAZ was calculated based on the households and employment figures in each. For these purposes, Service jobs were considered office jobs, and Agriculture, Mining, and Construction jobs were given the same space as Wholesale and Manufacturing. TAZs in which this theoretical minimum acreage exceed the actual size of the TAZ are listed below.

TAZ	Guideline Violation	Rationale or Action Taken
6	Theoretical Minimum Acreage was 61% larger than actual size	This TAZ includes multiple apartment complexes, which contribute to the higher residential density in the area. The TAZ is also home to Royal Oaks, a retirement community with 72 residences for active seniors and 42 residences for seniors requiring assistance. GDOT guidelines state that retirement home populations should be reduced or removed in the model because they do not make trips at the same rates as other members of the community. As such, the number of households in this TAZ has been reduced by 50 (from 599 to 549) and the population has been reduced by 80 (from 1820 to 1760).
7	Theoretical Minimum Acreage was 15% larger than actual size	This TAZ includes multiple townhomes/small multifamily residences, which appear to account for the difference. No change made.
14	Theoretical Minimum Acreage was 6% larger than actual size	A review of the area reveals a tightly-packed urbanized are with a substantial amount of commercial/industrial development. No change made.
36	Theoretical Minimum Acreage was 137% larger than actual size	Residential development in this TAZ is often on small lots, and includes a townhome development off Avenue F. This multifamily development and overall density explain the higher household density and no change was made.
38	Theoretical Minimum Acreage was 4% larger than actual size	TAZ includes tightly packed residential development combined with public and private development. Employment and population numbers seem reasonable for such a densely built-up area. No change made.
39	Theoretical Minimum Acreage was 11% larger than actual size	Residential development includes several multifamily buildings. Population figures seem reasonable, no change made.
40	Theoretical Minimum Acreage was 38% larger than actual size	The northeast corner of this TAZ is almost entirely composed of multifamily residential development. Population figures seem reasonable, no change made.
43	Theoretical Minimum Acreage was 14% larger than actual size	The north-central and south-central portions of this TAZ include multifamily residential developments, and the TAZ includes multiple schools, increasing the employment figures higher than GDOT guidelines anticipate. No change made.



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

TAZ	Guideline Violation	Rationale or Action Taken
48	Theoretical Minimum Acreage was 0.3% larger than actual size	While this TAZ technically violates the GDOT guideline, it is by a very low margin. This TAZ also appears to include some shared homes, based on the number of vehicles parked at homes in the south-central portion of the TAZ. No change made.
50	Theoretical Minimum Acreage was 15% larger than actual size	This TAZ includes at least one small apartment community, and the Christian Heritage School's elementary/middle school campus, both of which feature higher densities than typical. Knowing these features, the employment and residential populations seem reasonable, no change made.
54	Theoretical Minimum Acreage was 50% larger than actual size	The southern portion of this TAZ contains a large apartment complex. No change made.
56	Theoretical Minimum Acreage was 35% larger than actual size	The northwest portion of this TAZ includes at least two apartment complexes. No change made.
237	Theoretical Minimum Acreage was 123% larger than actual size	This TAZ includes multiple apartment complexes, justifying the household density. No change made.
240	Theoretical Minimum Acreage was 102% larger than actual size	This TAZ includes a handful of duplexes and homes on small lots. There is also evidence of multiple cars per residential rooftop. No change made.



Greater Dalton MPO 2050 Metropolitan Transportation Plan

Year 2015 Socioeconomic Data Technical Memorandum – DRAFT | February 5, 2019

Service Employment to School Enrollment

Faculty and staff at schools are included in the Service category for employment. While no specific test is given for comparing school enrollment to service employment, the GDOT guidelines do state “Ensure TAZ service employment is reasonable for zones with schools to account for employment at schools.” A check was performed, comparing the two, with results and changes made based on those results shown below.

TAZ	Guideline Violation	Rationale or Action Taken
106	TAZ is Dalton High School, with 1,832 students and originally showing only 2 service employees	Sometimes LEHD employment locations are not perfectly accurate. The surrounding TAZs were inspected for misplaced service employment. TAZ 107, immediately to the south, contained 221 service jobs, but with no substantial service employment visible. Based on review of current faculty and staff at Dalton High School, 180 service jobs were moved from TAZ 107 to TAZ 106
125	TAZ contains Dawnville Elementary School, with 527 students and originally showing only 2 service employees	Based on review of current faculty and staff at Dawnville Elementary School, 50 service jobs were moved from TAZ 286 (immediately northeast) to TAZ 125
145	TAZ contains Beaverdale Elementary School, with 427 students and originally showing no service employees	Based on review of current faculty and staff at Beaverdale Elementary School, 40 service jobs were moved from TAZ 144 (immediately west) to TAZ 145



Appendix A-2 Year 2015 SE Data Response to Comments



In response to GDOT comments on the initial year 2015 socioeconomic data prepared for the Greater Dalton MPO 2050 Metropolitan Transportation Plan, a number of minor refinements have been made to the socioeconomic data. Specific adjustments and the reason they were applied are provided in this document, organized by specific comment from GDOT. The table below shows how overall values have changed for the total model area from the original submittal and the revised submittal.

	Original Submittal	Revised Submittal
Population	142,794	142,792
Households	48,760	48,759
K-12 Enrollment	29,318	29,318
College/University Enrollment	5,933	5,933
Total Employment	68,006	67,105
Retail Employment	8,213	7,270
Service Employment	24,092	24,132
Agriculture, Mining, and Construction Employment	1,829	1,831
Manufacturing, Transportation, Communications, and Utilities Employment	33,872	33,872

GDOT Comment: Confirm persons per household rate of 2.93; the value is within the recommended range by GDOT but on the higher end.

Raw US Census/American Community Survey data was consulted as reference at the county level confirming a high population to household ratio in the region. This data is presented in the table below (note that due to the various TAZ level adjustments the population and households numbers expressed below do not match the raw US Census/ACS data exactly). As the same phenomenon is observed in the raw data, no overall changes were applied to the TAZ socioeconomic data.

	Population	Households	Population per Household
Murray County	39,444	14,236	2.77
Whitfield County	103,963	34,575	3.01
Total Model Area	143,407	48,811	2.94

GDOT Comment: Confirm proportion of population enrolled in K-12 schools of 20.5%; the value is slightly higher than the 20% that GDOT recommends.

Raw Census/American Community Survey data was consulted as reference to evaluate the percentage of the population that is approximately school age (5 years old to 17 years old). As shown in the table below, the model area has a slightly higher rate of school-aged children (19.8 percent) than Georgia as a whole (18.3 percent), which likely explains the slightly higher proportion of population enrolled in area K-12 schools. As a final check, Georgia Department of Education data was re-evaluated to verify area student enrollment. No errors were observed and as a result, no overall changes were made.

Percentage of Population 5-17 Years Old	
Murray County	19.5%
Whitfield County	20.0%
Total Model Area	19.8%
Georgia	18.3%



GDOT Comment: Check the population, household, and employment values for TAZs 12 and 241. These TAZs have zero values for population, household, and employment. Particularly TAZ 12 that has building structures on site according to the aerial map.

Upon further review the TAZ geography in the area around TAZ 12 is particularly granular and the retail employment data from LEHD is not well located relative to the specific locations of employment as indicated by a review of aerial photography. Therefore, we have adjusted retail employment data for TAZ 12 and several nearby TAZs as documented in the table below. The map to the right shows the locations of each TAZ with aerial photography and the raw LEHD-reported retail employment at each point.

TAZ	Original Submittal Retail Employment	New Submittal Retail Employment
11	0	80
12	0	180
25	333	14
29	0	28
30	0	4
32	0	114
211	84	4
220	63	56
Total	480	480



Similarly, TAZ 241 was assigned 14 jobs (all service) that were previously assigned to adjacent TAZ 177.

GDOT Comment: Check the households for TAZ 11, which has zero households but non-zero population.

A population of two was mis-allocated to TAZ 11 due to imperfect alignment with census block group boundaries. These two people have been removed.

GDOT Comment: Check the population for TAZ 67, which has zero population but non-zero households.

The one household assigned to TAZ 67 was a mis-assigned. The household has been removed.



GDOT Comment: Check the population and household value for TAZs 4, 9, 12, 18, 29, 30, 32, 106, 109, 162, 241, and 244. These TAZs have zero total population and households but non-zero employment.

These TAZs were reviewed to ensure these are correct. The results of this review are shown in the table below, with specific decisions made with supporting aerials shown on the following pages.

TAZ	Revised Submittal Population	Explanation of Change/No Change
4	0	Aerial imagery reviewed, confirmed no residential.
9	0	Aerial imagery reviewed, confirmed no residential.
12	0	Aerial imagery reviewed, confirmed no residential.
18	0	Aerial imagery reviewed, confirmed no residential.
29	0	Aerial imagery reviewed, confirmed no residential.
30	0	Aerial imagery reviewed, confirmed no residential.
32	0	Aerial imagery reviewed, confirmed no residential.
106	0	Aerial imagery reviewed, confirmed no residential.
109	0	Aerial imagery reviewed, confirmed no residential.
162	0	Aerial imagery reviewed, confirmed no residential.
241	0	Aerial imagery reviewed, confirmed no residential.
244	0	Aerial imagery reviewed, confirmed no residential.

TAZ 4

Primarily medical offices and some retail. Confirmed no residential.



TAZ 9

Primarily manufacturing with some retail. Confirmed no residential.



TAZ 12

TAZ includes a strip mall and outparcels. Confirmed no residential.



TAZ 18

TAZ includes various industrial and retail uses. Confirmed no residential.



TAZ 29

TAZ includes industrial and retail uses only. Confirmed no residential.



TAZ 30

TAZ includes industrial and retail uses only. Confirmed no residential.



TAZ 32

TAZ includes industrial and retail uses only. Confirmed no residential.



TAZ 106

TAZ is entirely comprised of Dalton High School. Confirmed no residential.



TAZ 109

TAZ contains a school, a fire department, and a counseling center only. Confirmed no residential.



TAZ 162

TAZ is vacant except for one manufacturing/warehousing facility. Confirmed no residential.



TAZ 241

TAZ is largely vacant except for some retail uses.
Confirmed no residential



TAZ 244

Confirmed no residential.



GDOT Comment: Check the employment value for TAZs 34, 36, 40, 101, 123, 129, 133, 134, 135, 138, 140, 141, 143, 182, 186, 187, 200, 205, 206, 222, 223, 242, 251, 269, 276, 293, and 298. These TAZs have zero employment but non-zero population and households.

These TAZs were reviewed to ensure these are correct. The results of this review are shown in the table below, with specific decisions made with supporting aeriels shown on the following pages.

TAZ	Revised Submittal Employment	Explanation of Change/No Change
34	0	TAZ does not appear to include any employment itself.
36	1	One service job moved from adjacent TAZ 41 to represent a church in this TAZ.
40	0	TAZ is entirely residential. No evidence of employment was found.
101	0	TAZ is entirely residential. No evidence of employment was found.
123	0	TAZ is entirely residential. No evidence of employment was found.
129	0	Only present employment is an events venue; as events venues do not have consistent weekday employment, no employment was added to this TAZ.
133	8	Upon aerial review, 6 retail jobs and 2 agriculture jobs were added to this TAZ.
134	0	TAZ is entirely residential. No evidence of employment was found.
135	0	TAZ is entirely residential. No evidence of employment was found.
138	0	TAZ is entirely residential. No evidence of employment was found.
140	0	TAZ is entirely residential.
141	20	Moved twenty jobs from adjacent TAZ 230 to adjust for incorrect LEHD geography.
143	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
182	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
186	0	TAZ includes evidence of small-scale, residential-based agriculture, but nothing that suggests significant employment.
187	0	TAZ includes evidence of small-scale, residential-based agriculture, but nothing that suggests significant employment.
200	0	TAZ is largely undeveloped. No evidence of employment was found.
205	3	Three retail jobs added to represent one small retail establishment found in TAZ that was not represented in LEHD data.
206	0	TAZ is almost entirely undeveloped. No evidence of employment found
222	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
223	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
242	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
251	0	TAZ includes evidence of small-scale, residential-based agriculture, but nothing that suggests significant employment.
269	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
276	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
293	0	TAZ is entirely residential/undeveloped. No evidence of employment was found.
298	3	Moved three jobs that LEHD identified outside of the model area into this TAZ.



TAZ 34

TAZ includes homes and a lot. Lot may be used for employment-related activities, but does not appear to include any employment itself.



TAZ 36

TAZ includes homes and a church. The church likely has very low or no true employment. One service job was moved from adjacent TAZ 41 to represent the church's employment.



TAZ 40

TAZ is entirely residential. No evidence of employment was found.



TAZ 101

TAZ is entirely residential. No evidence of employment was found.



TAZ 123

TAZ is entirely residential. No evidence of employment was found.



TAZ 129

Only non-residential use present in TAZ 129 is an events venue. As an events venue does not have regular or consistent weekday employment, no employment has been added.



TAZ 133

Upon further review, there appears to be minor but non-zero employment in this TAZ. Based on a review of the aerial photography, 6 retail jobs and 2 agriculture jobs were added to the TAZ.



TAZ 134

TAZ is entirely residential. No evidence of employment was found.



TAZ 135

TAZ is entirely residential. No evidence of employment was found.



TAZ 138

TAZ is entirely residential. No evidence of employment was found.



TAZ 140

TAZ is entirely residential. No evidence of employment was found.



TAZ 141

Moved 20 jobs from adjacent TAZ 230 to adjust for incorrect LEHD geography – 18 service, and 2 A/M/C jobs.



TAZ 143

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 182

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 186

This TAZ includes evidence of some small-scale, residential-based agriculture, but nothing that suggests significant employment.



TAZ 187

This TAZ includes evidence of some small-scale, residential-based agriculture, but nothing that suggests significant employment.



TAZ 200

TAZ is largely undeveloped. No evidence of significant employment found.



TAZ 205

One small retail establishment found. No retail employment nearby in LEHD data. Added 3 retail jobs.



TAZ 206

TAZ is almost entirely undeveloped. No evidence of employment found.



TAZ 222

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 223

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 242

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 251

This TAZ includes evidence of some small-scale, residential-based agriculture, but nothing that suggests significant employment.



TAZ 269

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 276

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 293

TAZ is entirely residential/undeveloped. No evidence of employment was found.



TAZ 298

Moved 3 jobs that LEHD placed outside of the model area into this TAZ.



GDOT Comment: Check that adequate service employment is allocated to TAZs 46, 62, 142, 152, 213, 214, 257, and 259. These TAZs have a ratio of number of students to service employees higher than 12.

In order to address these concerns, the original LEHD data was reviewed by focusing on the locations of jobs classified as Educational Services in relation to schools. As a result, a number of adjustments were made as described in the table below. Generally speaking, the fewest jobs possible were moved to bring the student to service employment ratio within the range suggested by GDOT. In the maps on the following pages, the pink points indicate Educational Services jobs as identified by raw LEHD data.

TAZ	Original Submittal Service Employment	Revised Submittal Service Employment	Revised Student/Service Employment Ratio	Explanation of Change/No Change
46	11	33	7.7	Moved 22 jobs from nearby TAZ 22 to correct LEHD geography.
62	79	98	7.7	Moved 19 jobs from adjacent TAZ 78 to correct LEHD geography.
142	68	122	11.9	Moved 66 jobs from nearby TAZ 142 to correct LEHD geography.
152	21	47	11.8	Moved 26 jobs from nearby TAZ 126 to correct LEHD geography.
213	25	107	11.9	Moved 82 jobs from adjacent TAZ 202 to correct LEHD geography.
214	27	99	12.0	Moved 33 jobs from adjacent TAZ 202 to correct LEHD geography and added 39 new service jobs to TAZ 214.
257	15	28	7.4	Moved 13 jobs from adjacent TAZ 291 to correct LEHD geography.
259	63	200	2.0	Moved 137 jobs from nearby TAZ 264 to correct LEHD geography



TAZ 46 (Morris Innovative High School, 255 students)

Moved 22 service jobs from nearby TAZ 22. TAZ 46 now has approx. 7.7 students per service job.



TAZ 62 (Antioch Elementary School, 1176 students)

Moved 19 jobs from adjacent TAZ 78. New service to student ratio of 12. TAZ 78 includes Southeast Whitfield High School. TAZ 62 now has approx. 7.7 students per service job.



TAZ 142 (Varnell Elementary School and Coahulla Creek High School, 1457 students)

TAZ 217, southwest of TAZ 142, included 66 educational jobs, but no schools. 54 service jobs were moved from TAZ 217 to TAZ 142. TAZ 142 now has approx. 11.9 students per service job.



TAZ 152 (Cedar Ridge Elementary School, 554 students)

TAZ 126, northwest of TAZ 152, included 67 educational jobs but no schools. 26 service jobs were moved from TAZ 126 to TAZ 152. TAZ 152 now has approx. 11.8 students per service job.



TAZ 213 (Northwest Whitfield High School, 1275 students)

Adjacent TAZ 202 included 115 educational jobs but no educational facility. 82 service jobs were moved from TAZ 202 to TAZ 213. TAZ 213 now has approx. 11.9 students per service job.



TAZ 214 (New Hope Middle School and New Hope Elementary School, 1188 students)

Nearby TAZ 202 included 115 educational jobs but no educational facility. 82 of those jobs have already been moved to TAZ 213. The remaining 33 jobs were moved to TAZ 214. No other reasonable concentrations of educational employment were indicated nearby in the LEHD data. Without any other reasonable alternatives, 39 service jobs were added to TAZ 214. TAZ 214 now has approx. 12 students per service job.



TAZ 257 (Pleasant Valley Innovative School, 332 students)

Adjacent TAZ 291 included 66 educational jobs, more than likely at Northwest Elementary School, based on enrollment. 13 jobs were moved from TAZ 291 to TAZ 257. TAZ 257 now has approx. 11.9 students per service job. TAZ 291 has approx. 7.4 students per service job.



TAZ 259 (North Murray High School, 2391 students)

Nearby TAZ 264 included 213 educational jobs, more than likely at Gladden Middle School based on enrollment. 137 jobs were moved from TAZ 264 to TAZ 259. TAZ 259 now has approx. 12 students per service job. TAZ 264 has approx. 2.0 students per service job.



GDOT Comment: Check TAZs 19 and 65, if they have dense housing or multi-story office buildings, they have negative acres available for employment or less than acres needed for employment.

TAZ 19

This TAZ includes the County courthouse which is a large multi-story office building, a 4 story BB&T office, and a number of businesses in traditional/historic buildings which are more dense than the lower density suburban pattern in the other urbanized parts of the Dalton region. As a result, no changes made.



TAZ 65

Before the original submittal, all TAZs were checked for appropriate development intensities relative to their physical size based on guidance in the Georgia MPO Travel Demand Models Socio-Economic Data Development Guides from August 2018, pages 10, sections 4.3 and 4.4, which have been reproduced below. Under these guidelines, the TAZs households and employment are appropriate based on the TAZ's area.

4.3 HOUSEHOLDS PER ACRE

- Over 4 households-per-acre would represent multifamily housing. Multifamily housing is typically located nearby a higher functional classification road (i.e., they are not generally located in rural or isolated areas).
- Over 6 households-per-acre would signify multistory buildings. Again, check location for reasonableness.

4.4 EMPLOYMENT

- About half of the available land can generally be considered for the building. Use the following to see if the size of the building is in line with the acreage of the TAZ. Include households as well (4 households-per-acre unless it is multifamily).
 - › Office: 250 square feet per employee
 - › Retail: 300 square feet per employee
 - › Wholesale: 700 square feet per employee
 - › Manufacturing: 700 square feet per employee

However, based on the formula provided in GDOT's comments on the submitted socio-economic data, there are too many employees in the TAZ, which does not feature any significant multi-story development. The LEHD data indicates a single location with over 2,900 retail jobs that cannot be reasonably allocated to any adjacent or nearby TAZs. A review of aerial imagery suggests that these jobs then might be associated with one of the industrial properties in the TAZ, but are almost certainly not all working on-site during shifts typically associated with retail jobs. Based on the guidance provided in the GDOT comments, the number of retail jobs in this TAZ has been reduced by 946 jobs to 1,967, which reduces total employment to 2,177 jobs. This leaves 0.002 acres remaining after accounting for population and employment in the TAZ.

GDOT Comment: TAZs 45 and 177 currently include university/college students of Georgia Northwestern Technical College and Dalton State College respectively. From the satellite image, there is only one major building in TAZ 45; it is recommended that MPO staff check if portion of students can be distributed to some of the major dorm locations.

TAZ 45 is a commuter school that does not include any dormitories. TAZ 177 includes the entirety of the Dalton State College campus, including classrooms and on-campus dormitories. Therefore, no changes were made.

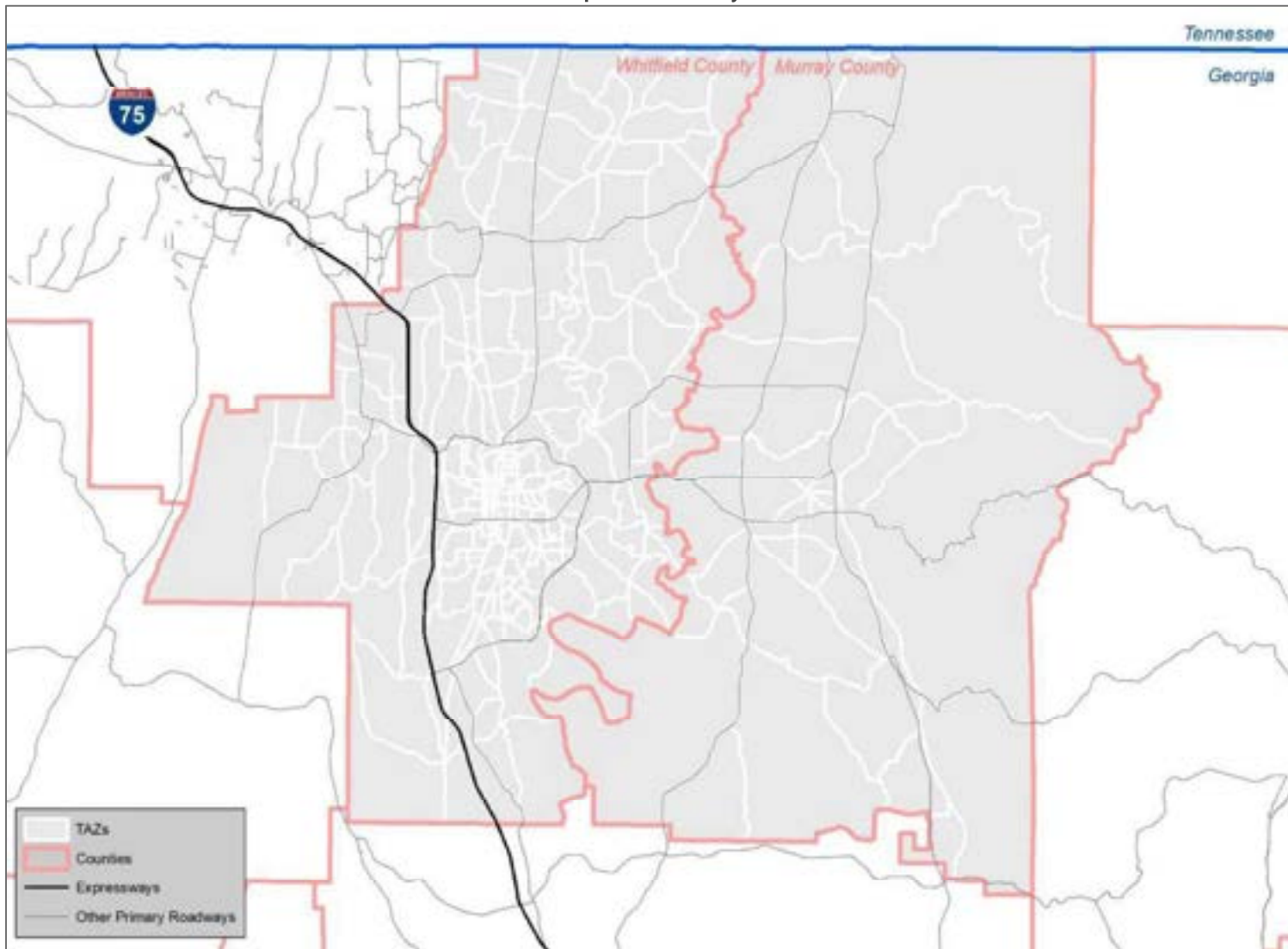


Appendix A-3 Year 2045 SE Data Documentation



This memorandum documents the methodologies used to prepare year 2045 socioeconomic data for the Greater Dalton Metropolitan Planning Organization (GDMPO) travel demand model. This effort was undertaken as part of updating the Greater Dalton Metropolitan Transportation Plan (MTP) for year 2050. While the MPO's planning area is limited to all of Whitfield County and only part of Murray County, this travel demand model encompasses all of Whitfield and Murray Counties in northwest Georgia as indicated in the map below, which shows the model's Transportation Analysis Zone (TAZ) structure.

GDMPO Transportation Analysis Zones



The process of developing the 2045 socioeconomic data included the following steps:

- Development of Initial Control Totals
- Development and Application of Allocation Methodology
- Data Reasonability Checks
- Finalization of 2045 Socioeconomic Data

Development of Initial Control Totals

Initial control totals for Whitfield County, Murray County, and the region were developed through analysis of previous forecasts and consultation with GDMPO staff.

Population and Households

Population and household data from other sources were reviewed and examined. Two overall types of forecasts emerged – one forecast type that suggests a slow down in population and household growth (as indicated by the Governor’s Office of Planning and Budget, Woods & Poole, REMI, and other sources) and a second forecast type that shows a continuation of the growth trends observed in the region since the 1980s (as indicated by the previous GDMPO 2040 LRTP).

Population Forecasts From Other Sources

Data Source	Geography	1980	1990	2000	2010	2015	2016	2020	2025	2030	2035	2040	2045	2050
Historical US Census	Whitfield County	65,775	72,462	83,585	99,910									
	Murray County	19,685	26,147	36,506	39,925									
	Region	85,460	98,609	120,031	139,835	0	0	0	0	0	0	0	0	0
NWGRC/Governor's Office of Planning and Budget	Whitfield County					104,496		106,222	111,528	114,277	116,368	117,828	118,760	119,343
	Murray County					39,554	39,315	40,152	40,441	40,353	39,847	39,019	37,955	36,739
	Region	0	0	0	0	144,050	39,315	146,374	151,969	154,630	156,215	156,847	156,715	156,082
Woods & Poole	Whitfield County					104,220		107,730	111,230	114,490		119,310		121,970
	Murray County					39,570		40,190	40,770	41,230		41,450		40,940
	Region	0	0	0	0	143,790	0	147,920	152,000	155,720	0	160,790	0	162,910
GDMPO 2040 LRTP	Whitfield County					103,421						148,996		
	Murray County					33,988						48,901		
	Region	0	0	0	0	137,409	0	0	0	0	0	197,897	0	0
REMI	Whitfield County					103,976	104,569	105,776	106,663	107,446	109,458	111,460	112,847	
	Murray County					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Region	0	0	0	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0
Comprehensive Plans	Whitfield County											148,996		
	Murray County					39,554	39,315	40,152	40,441	40,353	39,847	39,019	37,955	36,739
	Region	0	0	0	0	39,554	39,315	40,152	40,441	40,353	39,847	166,015	37,955	36,739

Using these two forecast types as examples, the average linear growth rates of two sources were averaged to develop linear growth rates for population. The number of households, K-12 students, and college students were calculated as a function of the population growth.

Population Annual Linear Growth Rate Determination

Geography	Slow Down Scenario Annual Linear Growth Rate (Governor’s Office of Planning and Budget)	Continued Growth Scenario Annual Linear Growth Rate (GDMPO 2040 LRTP)	Average Linear Growth Rate
Whitfield County	0.41%	1.76%	1.08%
Murray County	-0.20%	1.76%	0.78%

Employment

Employment sources were similarly reviewed and examined with the same two overall types of forecasts emerging. Using these two forecast types as examples, the average linear growth rates of two sources were averaged to develop linear growth rates for total employment.



Employment Forecasts From Other Sources

Data Source	Geography	1980	1990	2000	2010	2015	2016	2020	2025	2030	2035	2040	2045	2050
LEHD	Whitfield County					58,317								
	Murray County					9,889								
	Region	0	0	0	0	68,006	0	0	0	0	0	0	0	0
Georgia Department of Labor	Whitfield County		37,704	48,317	38,682									
	Murray County		13,430	19,046	15,449									
	Region	0	51,194	61,363	54,331	0	0	0	0	0	0	0	0	0
Local Comprehensive Plans/NWIRC	Whitfield County					41,008		41,008	41,007	41,007	41,007	41,007		
	Murray County					17,006		17,065	17,064	17,063	17,063	17,062		
	Region	0	0	0	0	58,014	0	58,073	58,071	58,070	58,070	58,069	0	0
Woods & Poole	Whitfield County	41,510	57,890	71,670	83,240	87,150	87,750	70,070	72,900	75,300		79,510		83,080
	Murray County	7,710	10,510	15,950	13,330	12,300	12,380	12,580	12,790	12,940		13,050		12,990
	Region	49,220	68,400	87,620	76,570	79,450	80,130	82,650	85,590	88,240	0	92,560	0	96,040
GDMPO 2040 LRTP	Whitfield County					60,279	46,783	58,267				67,944		
	Murray County		8,914	13,189	9,419	9,739						11,629		
	Region	0	8,914	73,468	56,202	68,006	0	0	0	0	0	79,573	0	0
REMI	Whitfield County					69,770	69,906	71,816	69,179	68,464	70,022	71,329	72,433	73,495
	Murray County													
	Region	0	0	0	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	73,495

Employment Annual Linear Growth Rate Determination

Geography	Slow Down Scenario Annual Linear Growth Rate (REMI – Whitfield County & Woods & Poole – Murray County)	Continued Growth Scenario Annual Linear Growth Rate (GDMPO 2040 LRTP)	Average Linear Growth Rate
Whitfield County	0.20%	0.66%	0.43
Murray County	0.16%	0.78%	0.47%

Employment was further split into the four overall categories used by the travel demand model.

- AMC = agricultural, mining, and construction employment
- MTC = manufacturing & transportation, communications, utilities, and warehousing
- Retail
- Service

The REMI model provides forecasts for several employment categories in Whitfield County. This data was reviewed (see table below) to determine the proportional amount of employment in each category against the total amount of employment in Whitfield County. The change in REMI’s forecast from 2015 to 2045 in proportional amounts were reconciled and smoothed against actual 2015 (per LEHD/Census based sources which were the basis of the 2015 socioeconomic data forecasting) to determine a “refined 2045 for forecast” proportional amount. Those amounts were then applied to the total amount of estimated employment for Whitfield and Murray Counties.

Proportional Refinement of Employment Types

Employment Type	2015 REMI Estimate	2045 REMI Estimate
AMC	1.2%	1.2%
Manufacturing	43.0%	38.9%
Retail	12.5%	12.4%
Service	43.3%	47.5%
Employment Type	Actual 2015 Per LEHD	Refined 2045
AMC	2.80%	2.85%
Manufacturing	50.20%	46.11%
Retail	11.00%	11.12%
Service	35.80%	39.93%



Initial Control Totals

Applying these growth rates and proportional methodologies results in initial control totals for the year 2045 as shown in the table below.

Initial Control Totals

Geography	2045								
	Pop	Households	Retail	Service	AMC	MTC	Total EMP	K-12	College
Whitfield	137,026	45,753	7,207	25,882	1,845	29,891	64,825	28,694	7,863
Murray	48,570	17,550	1,229	4,413	315	5,097	11,054	9,452	0
Region	185,596	63,303	8,436	30,295	2,160	34,988	75,878	38,146	7,863

Development and Application of Allocation Methodology

The Whitfield County Comprehensive Plan and Murray County Comprehensive Plan were reviewed to determine where future land uses/character areas and growth are expected locally within each county. Based on this review, allocations of the control totals were made as shown in the table below, using the acreage of each land use within each TAZ relative to the total amount of acreage of that land use/character area within each respective county.

Socioeconomic Data to Land Use Allocation Scheme

County	Future Land Use/Character Area	Population	Households	Employment			
				Agriculture, Mining, and Construction Employment	Manufacturing	Retail Employment	Service Employment (applied to Non-School TAZs)
Murray	Agriculture/Forestry			100%			
Murray	Commercial					100%	70%
Murray	Industrial				100%		
Murray	Park/Recreation/Conservation						
Murray	Public/Institutional						30%
Murray	Residential	100%	100%				
Murray	TCU						
Murray	All Future Land Uses & Character Areas	100%	100%	100%	100%	100%	100%
Whitfield	Airport						10%
Whitfield	Coburn						
Whitfield	Commercial					50%	
Whitfield	Community Activity Center	10%	10%			15%	15%
Whitfield	Dalton State/College Drive	5%	5%			5%	15%
Whitfield	Downtown/Town Center	5%	5%			5%	25%
Whitfield	Emerging Suburban and Exurban Areas	55%	55%				
Whitfield	Industrial				55%		
Whitfield	Interchange				15%		5%
Whitfield	Medical District	2%	2%				5%
Whitfield	Preserve						
Whitfield	Regional Activity Center	15%	15%			25%	25%
Whitfield	Ridge Conservation						
Whitfield	Rural Neighborhood - Revitalization	2%	2%				
Whitfield	Rural Neighborhood	2%	2%				
Whitfield	Rural/Agricultural Reserve				100%		
Whitfield	Suburban						
Whitfield	Town Neighborhood						
Whitfield	Town Neighborhood Revitalization	4%	4%				
Whitfield	All Future Land Uses & Character Areas	100%	100%	100%	100%	100%	100%



Data Reasonability Checks

The Georgia Department of Transportation (GDOT) provides guidance for producing and checking the reasonableness of socioeconomic data prepared for TDMs. After performing the basic methodologies presented previously, a series of tests were conducted based on these guidelines. Refinements to the data were made as documented in the following sections.

Persons per Household

GDOT's guidelines state that "Areas with over 7 persons-per-household should be explainable by some form of group housing within the TAZ," and that the number of persons in a TAZ must exceed the number of households. A review of TAZs was performed to identify any that violated these guidelines. The results of this review are documented below.

TAZ	2015 Population to Household Ratio	Initial 2045 Population to Household Ratio	Action	Final 2045 Population to Household Ratio
38	7.25	7.25	Same ratio observed and documented in existing data so no action appropriate.	7.25

Household Density

GDOT's guidelines also state that the number of households per acre should generally not be over 4. A value over 4 should be explained by multifamily development, and a value over 6 should be explained by multistory development. Household densities for all TAZs were reviewed, and those TAZs that exceed these thresholds are shown below.

TAZ	2015 Households Per Acre	Initial 2045 Households Per Acre	Action	Final 2045 Households Per Acre
36	4.74	4.74	Same ratio observed and documented in existing data so no action appropriate.	4.74



Employment and Households Land Area

GDOT guidelines provide an overall check to ensure that the employment and residential populations are reasonable for a given TAZ's area. The guidelines state: "About half of the available land can generally be considered for the building. Use the following to see if the size of the building is in line with the acreage of the TAZ. Include households as well (4 households-per-acre unless it is multifamily).

- Office: 250 square feet per employee
- Retail: 300 square feet per employee
- Wholesale: 700 square feet per employee
- Manufacturing: 700 square feet per employee"

Based on these figures, a theoretical "minimum acreage" for each TAZ was calculated based on the households and employment figures in each. For these purposes, service jobs were considered office jobs, and Agriculture, Mining, and Construction jobs were given the same space as Wholesale and Manufacturing. TAZs in which this theoretical minimum acreage exceed the 50 percent of the TAZ's land area are listed below. Additionally, aerial photography of the reviewed TAZs are provided in the pages following the table.

TAZ	2015 Proportional Amount of Land Utilized	Initial 2045 Proportional Amount of Land Utilized	Action	Final 2045 Proportional Amount of Land Utilized
1	28%	53%	TAZ location near interchange includes a variety of existing land uses (multifamily residential, big box, etc.). While proportion of land utilized jumps up to over 50% this still seems appropriate given the attractiveness of the interchange location. Therefore, no action was taken.	53%
2	43%	62%	Moderate increase in the proportion of land utilized. Aerial photography indicates a significant amount of unutilized land reinforcing that growth is still likely in this in-town location. Therefore, no action was taken.	62%
6	73%	83%	Only a moderate increase in the proportion of land utilized. Aerial photography shows a significant amount of unutilized land reinforcing that growth is still likely in this in-town location. Therefore, no action was taken.	83%
7	57%	63%	Only a moderate increase in the proportion of land utilized. While aerial photography does not show much additional available land, as an in-town location any future development in this area would likely be higher density as indicated in the Comprehensive Plan.	63%
8	44%	68%	Only a moderate increase in the proportion of land utilized. While aerial photography does not show much additional available land, as an in-town location any future development in this area would likely be higher density as indicated in the Comprehensive Plan.	68%
14	53%	53%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	53%
17	23%	76%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	76%



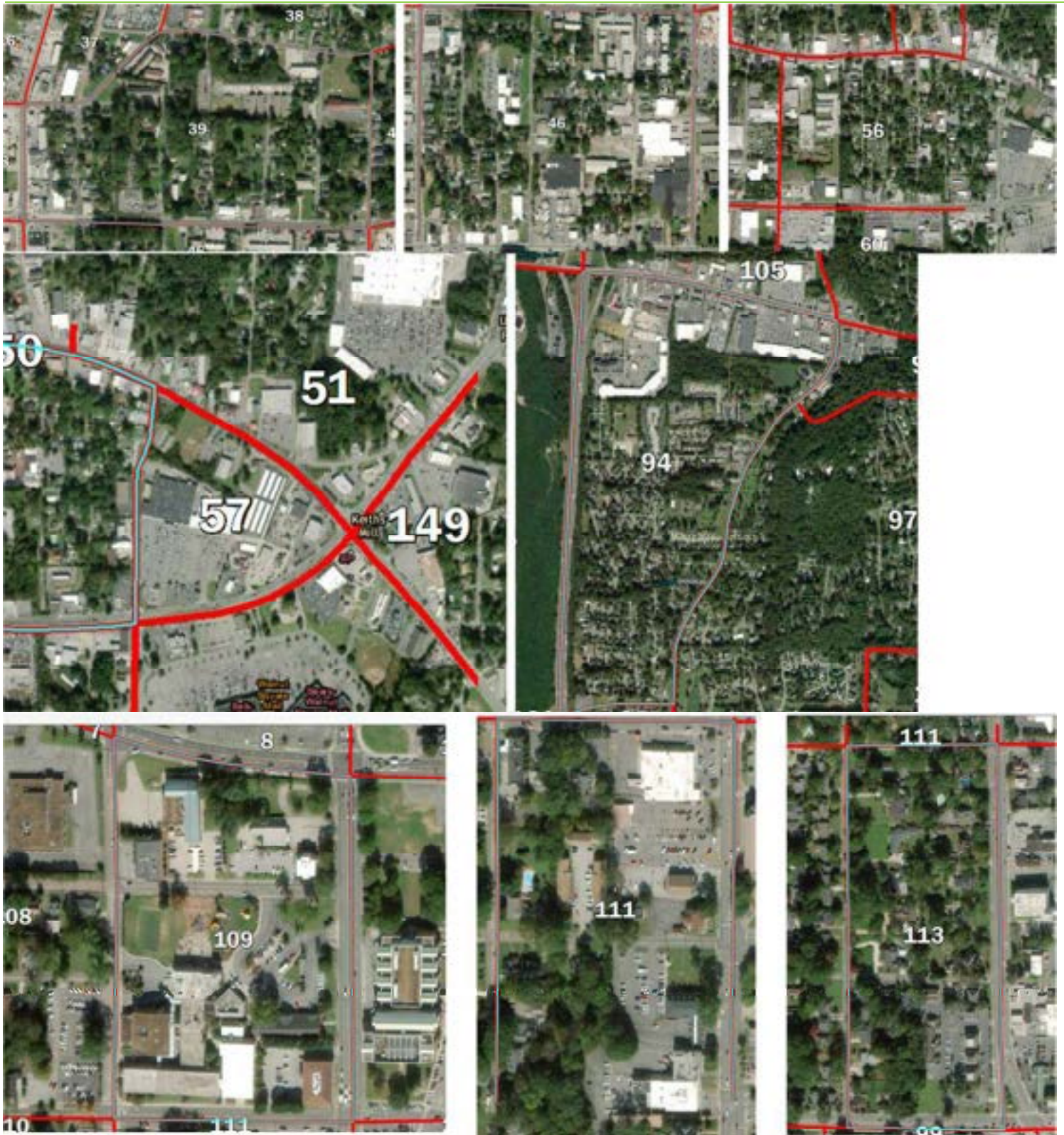
TAZ	2015 Proportional Amount of Land Utilized	Initial 2045 Proportional Amount of Land Utilized	Action	Final 2045 Proportional Amount of Land Utilized
19	37%	84%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	84%
20	48%	98%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	98%
21	17%	62%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	62%
22	13%	71%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	71%
23	27%	65%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	65%
36	118%	118%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	118%
38	52%	52%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	52%
39	55%	58%	Only a moderate increase in the proportion of land utilized. Aerial photography a little amount of unutilized land reinforcing that growth is still likely in this in-town location. Therefore, no action was taken.	58%
40	67%	67%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	67%
43	57%	57%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	57%
46	44%	50%	Only a moderate increase in the proportion of land utilized. Aerial photography a little amount of unutilized land reinforcing that growth is still likely in this in-town location. Therefore, no action was taken.	50%
50	58%	58%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	58%
54	75%	75%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	75%
56	67%	73%	Only a moderate increase in the proportion of land utilized. Aerial photography a little amount of unutilized land reinforcing that growth is still likely in this in-town location. Therefore, no action was taken.	73%



TAZ	2015 Proportional Amount of Land Utilized	Initial 2045 Proportional Amount of Land Utilized	Action	Final 2045 Proportional Amount of Land Utilized
57	11%	72%	Increase in proportional amount of land utilized driven primarily by a significant increase in population and household projections using the basic allocation formula. This increase would presume that an existing employment (primarily retail) location would have to redevelop into multistory residential. While this type of redevelopment is possible per the Comprehensive Plan, it is not necessarily likely. Therefore, population and household values for the TAZ were reset to 2015 levels. The resulting proportional amount of land utilized in the TAZ is only 12%, a slight increase over existing conditions.	12%
94	38%	71%	TAZ is near interchange and includes a mix of retail and single family homes. Because of the interchange designation in the northern part of the TAZ, the TAZ was allocated with significant employment growth (328 service jobs) per Comprehensive Plan. Similarly, the residential part of the TAZ was allocated with a significant increase in population (1,256 people). However, aerial review of the TAZ indicates that the TAZ is built out and the significant amount of density implied by the change in proportional amount of land utilized does not appear reasonable without significant and unanticipated redevelopment. Therefore, the employment and population for the TAZ was reset to 2015 values.	38%
109	9%	69%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	69%
111	45%	86%	While proportional amount of land utilized increases significantly, this is in a location downtown prime for denser redevelopment and activity per the Comprehensive Plan. Therefore, no action was taken.	86%
113	41%	51%	While the proportional amount of land utilized increases only moderately and is driven by a small increase in population and households, an aerial review of the TAZ suggests the TAZ is built out and only unanticipated redevelopment would cause such growth. Therefore, the population for the TAZ was reset to 2015 values.	41%
237	107%	107%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	107%
240	101%	101%	No change in proportional amount of land utilized from existing conditions. Therefore, no action was taken.	101%







Service Employment to School Enrollment

Faculty and staff at schools are included in the Service category for employment. While no specific test is given for comparing school enrollment to service employment, the GDOT guidelines do state “Ensure TAZ service employment is reasonable for zones with schools to account for employment at schools.” A check was performed, comparing the two, with results and changes made based on those results shown below.

TAZ	2015 K-12 Student to Employee Ratio	Initial 2045 K-12 Student to Employee Ratio	Action	Final 2045 K-12 Student to Employee Ratio
47	9.77	12.95	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 92 service jobs were added to the TAZ.	9.77
62	12.00	15.90	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 128 service jobs were added to the TAZ.	12.00
106	10.06	13.34	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 238 service jobs were added to the TAZ.	10.06
145	10.68	14.15	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 52 service jobs were added to the TAZ.	10.68
190	11.56	14.28	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 54 service jobs were added to the TAZ.	11.56
213	11.92	15.79	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 140 service jobs were added to the TAZ.	11.92
214	12.00	15.90	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 130 service jobs were added to the TAZ.	12.00
259	11.96	13.71	Change in ratio due to increase in number of students without proportional increase in service jobs per the allocation method. The ratio from 2015 was set, and a proportional increase of 247 service jobs were added to the TAZ.	11.96



Finalization of 2045 Socioeconomic Data

The applications of these methodologies (along with minor rounding errors) result in slight changes to the control totals for each County and socioeconomic attribute as shown in the table below. These updated control totals also include manual adjustment to incorporate transportation-oriented employment at the Inland Port in Murray County, which is not explicitly incorporated into the County's Comprehensive Plan.

Final Control Totals

Geography	2045								
	Pop	Households	Retail	Service	AMC	MTC	Total EMP	K-12	College
Whitfield	135,268	45,161	7,151	25,657	1,846	29,889	64,543	28,326	7,863
Murray	48,569	17,549	1,229	4,433	315	5,134	11,071	9,452	0
Region	183,837	62,710	8,380	30,090	2,161	35,023	75,614	37,778	7,863

Additionally, the relationships between the different socioeconomic attributes were reviewed for general reasonability in comparison to year 2015 conditions as well. As shown in the table below:

- Population to Household Ratios remain relatively constant
- The Population to Employment Ratio increases slightly which was observed in all other sources of forecasting
- The K12 to Population and College to Population Ratio remain relatively constant

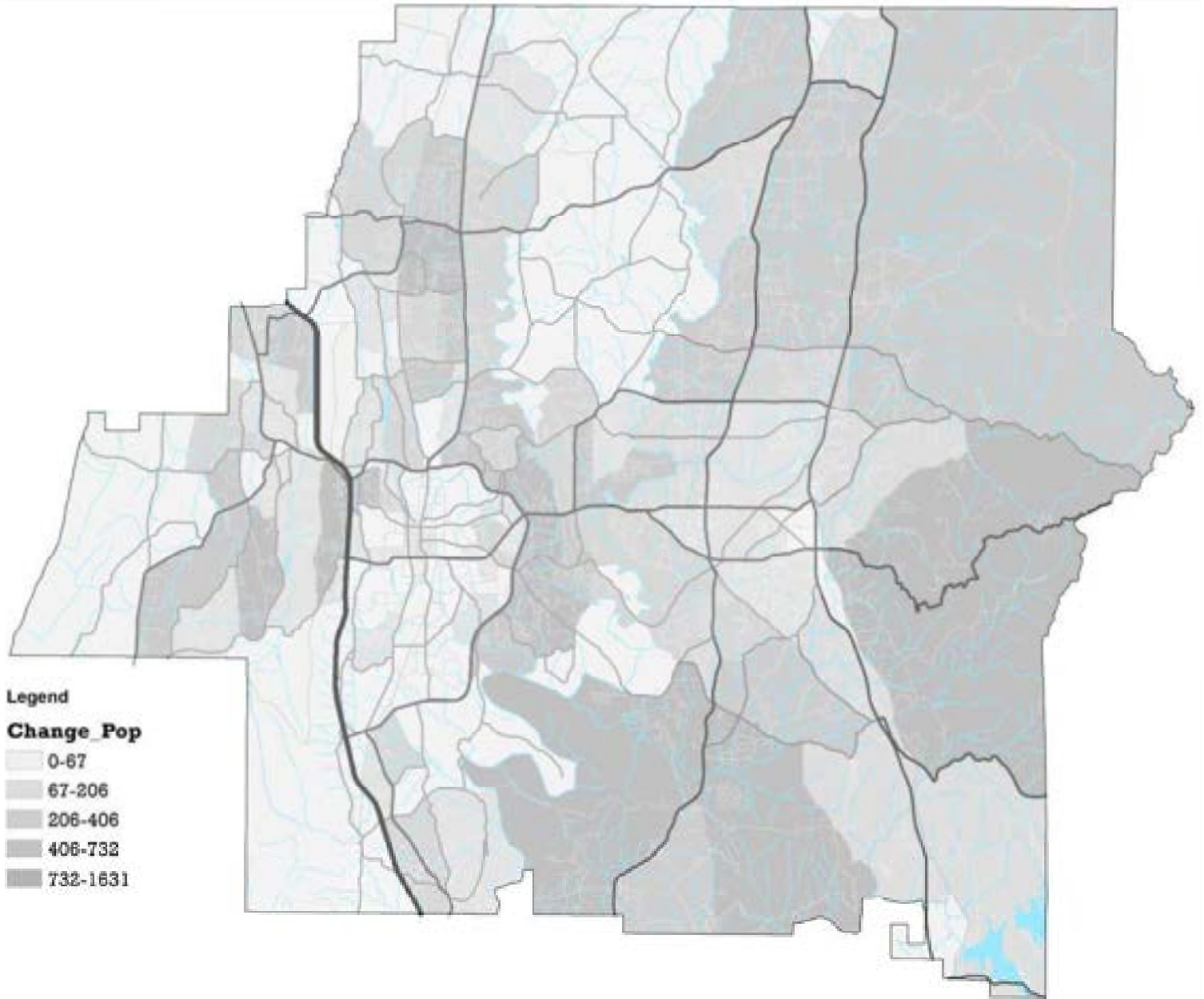
Ratios and Relationships

Geography	2015				2045			
	Pop to HH Ratio	Pop to EMP Ratio	K12 to Pop Ratio	College to Pop ratio	Pop to HH Ratio	Pop to EMP Ratio	K12 to Pop Ratio	College to Pop ratio
Whitfield	2.9949	1.8009	0.2094	0.0574	2.9952	2.0961	0.2094	0.0581
Murray	2.7676	4.0651	0.1946	0	2.7676	4.3714	0.1946	0
Total	2.9285	2.1279	0.2053	0.0415	2.9315	2.4303	0.2075	0.0428

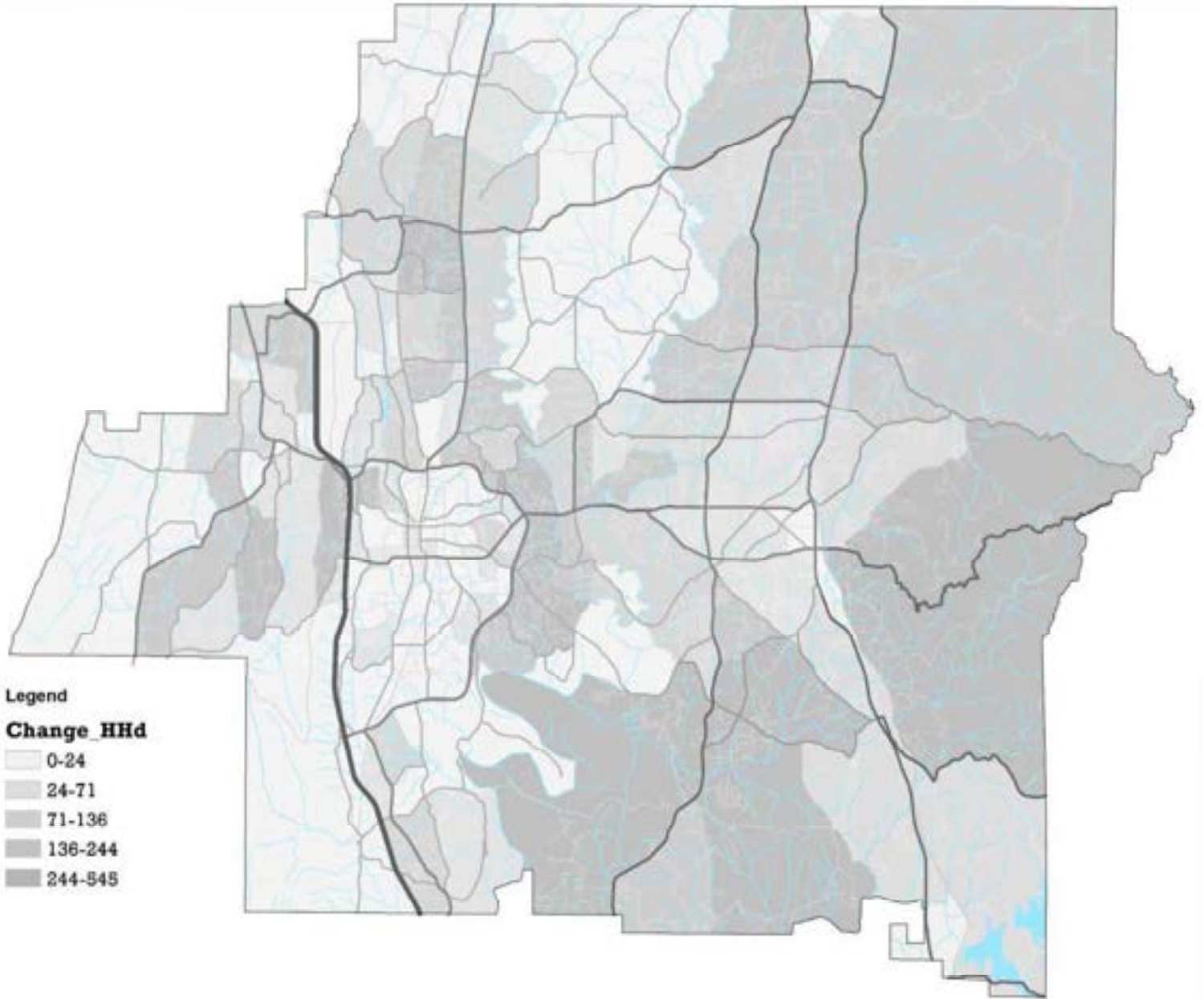
The following pages include maps illustrating the projected socioeconomic data.



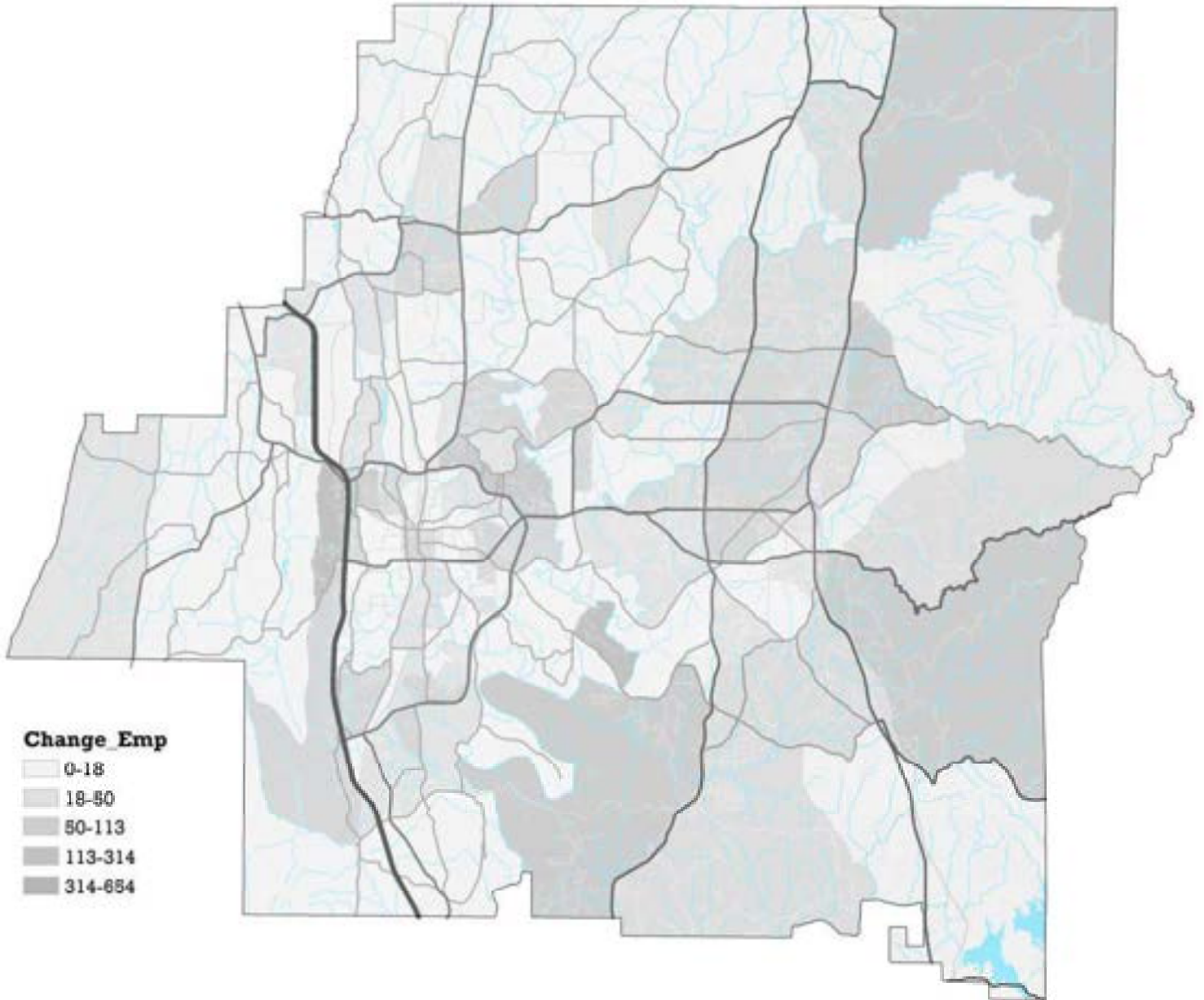
Change in Population (2015-2045)



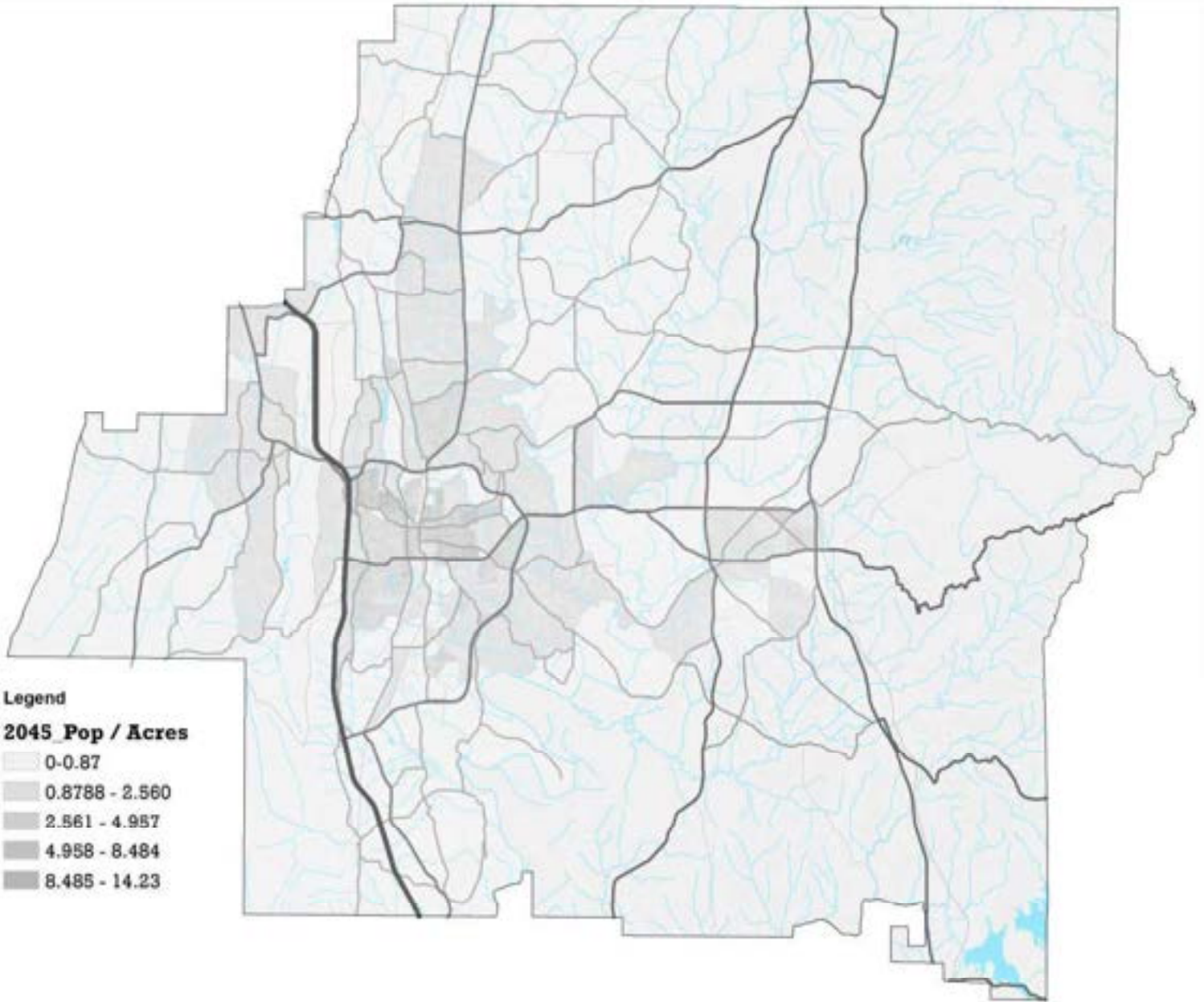
Change in Households (2015-2045)



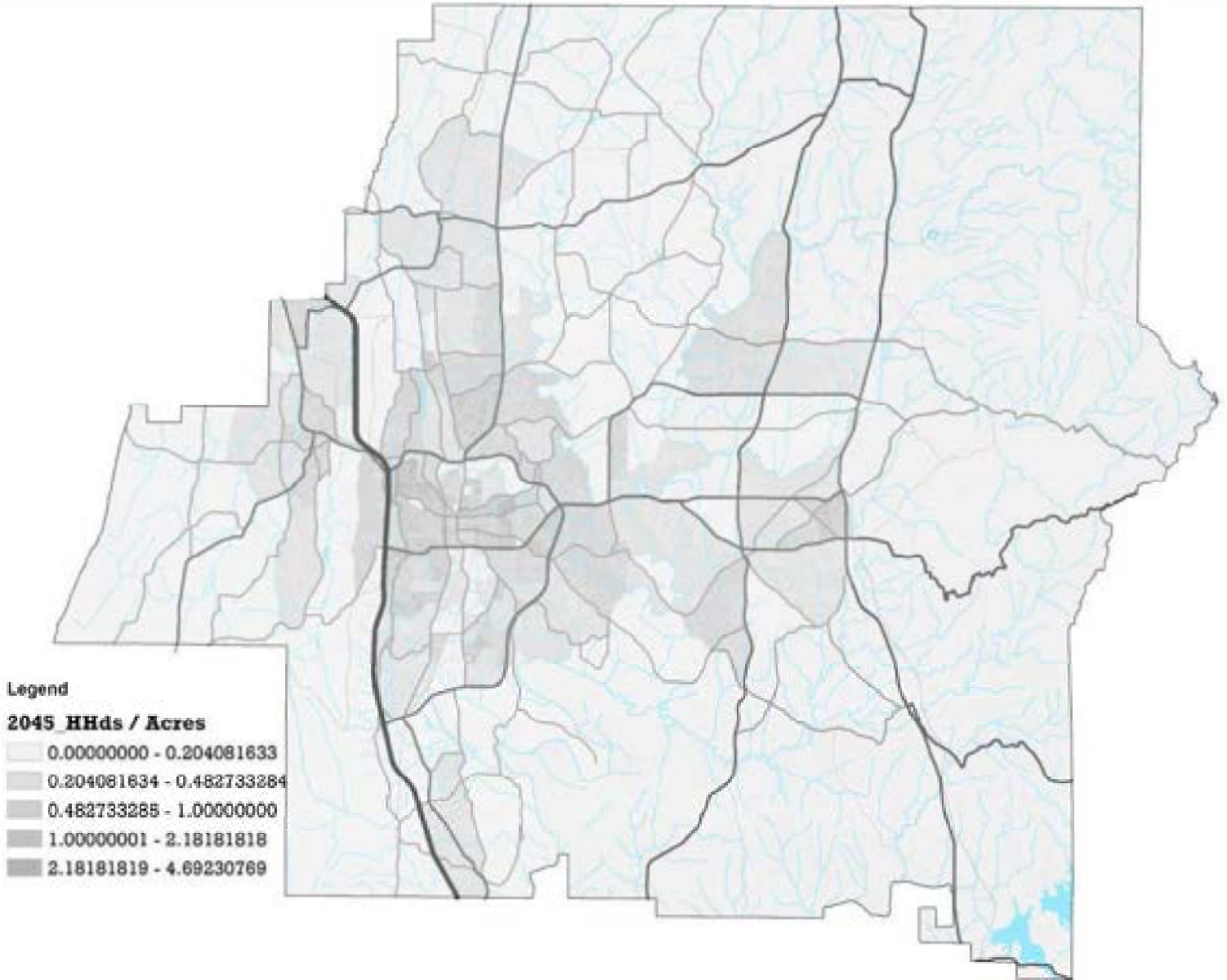
Change in Employment (2015-2045)



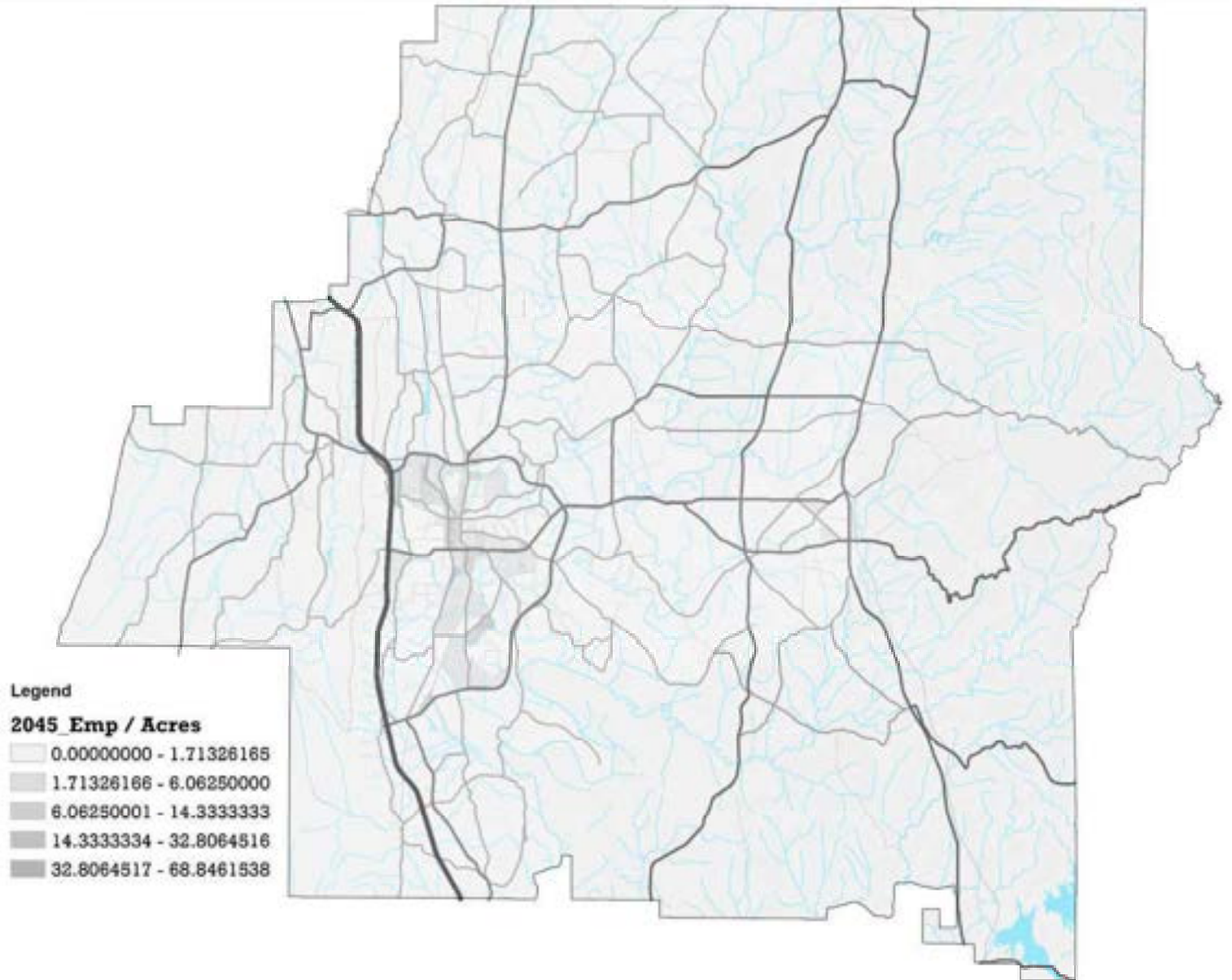
Year 2045 Population Density



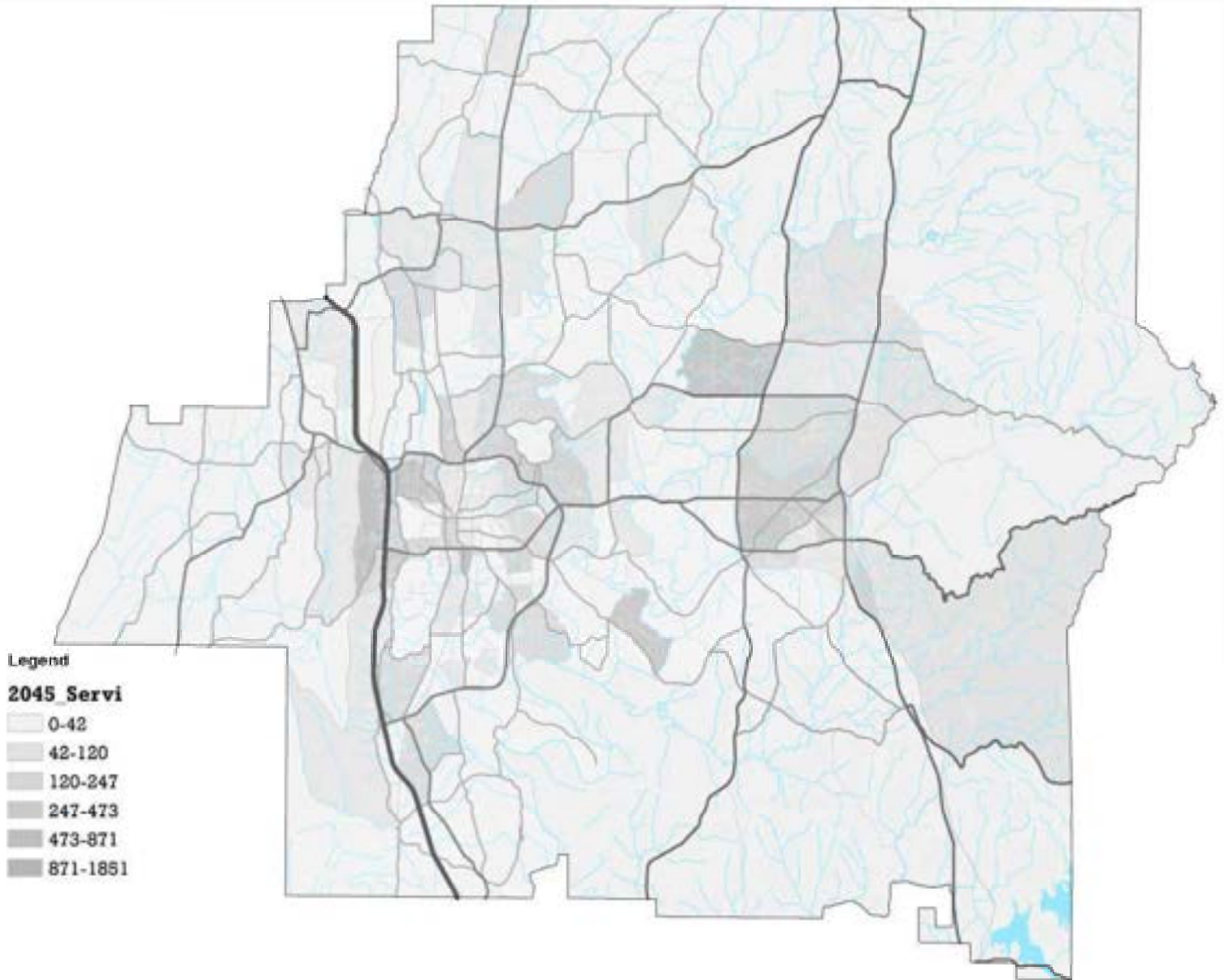
Year 2045 Household Density



Year 2045 Employment Density



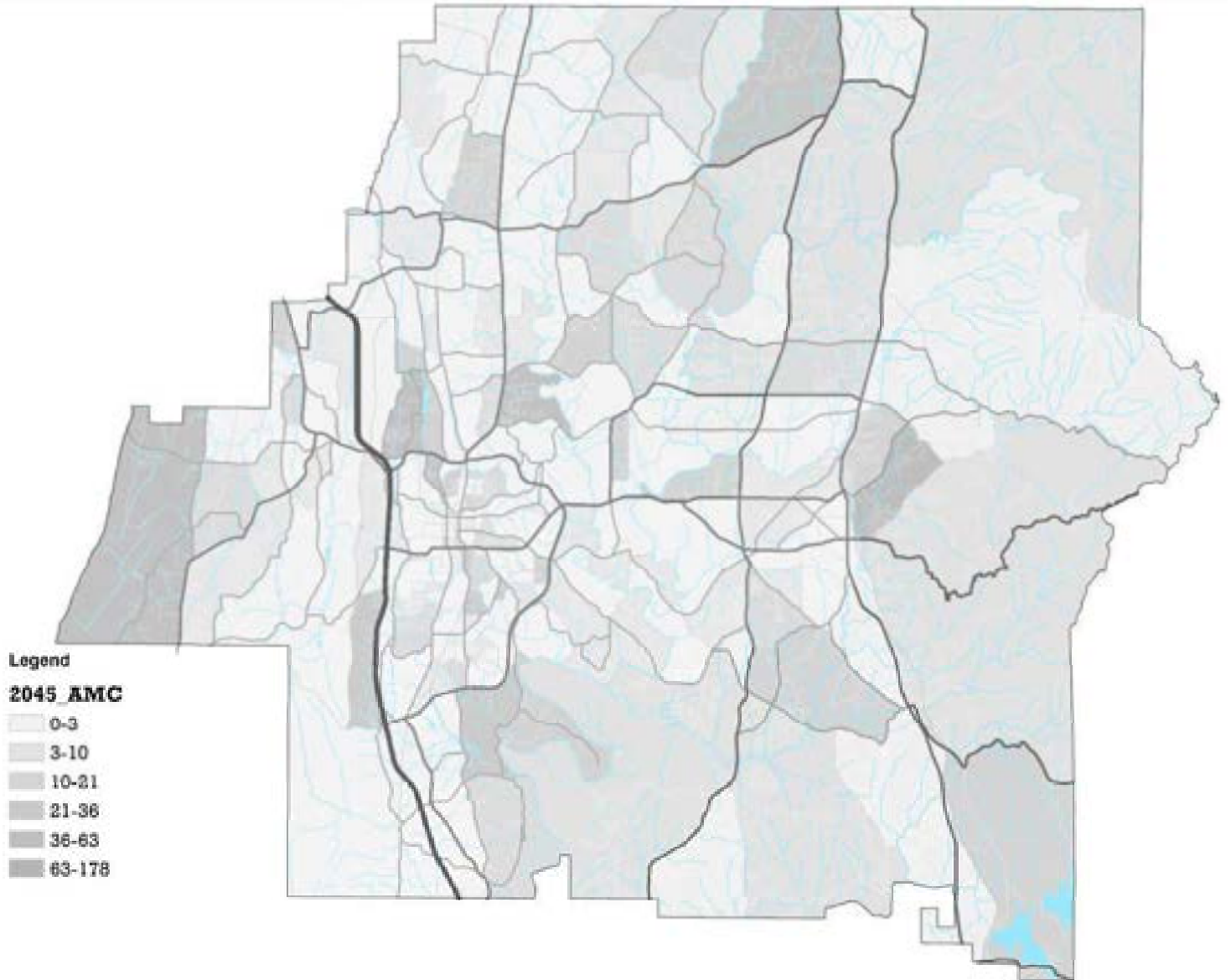
Year 2045 Service Job Locations



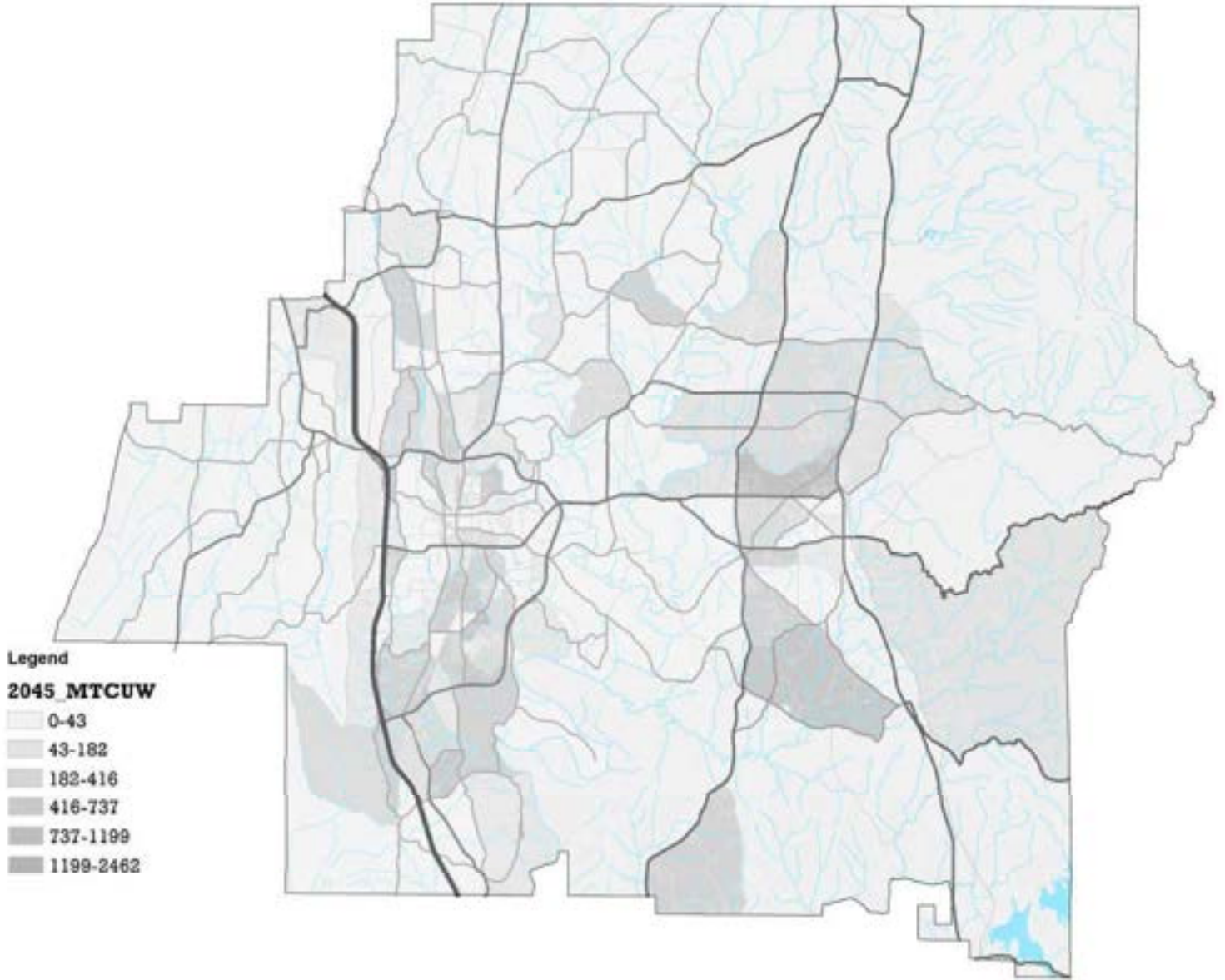
Year 2045 Retail Job Locations



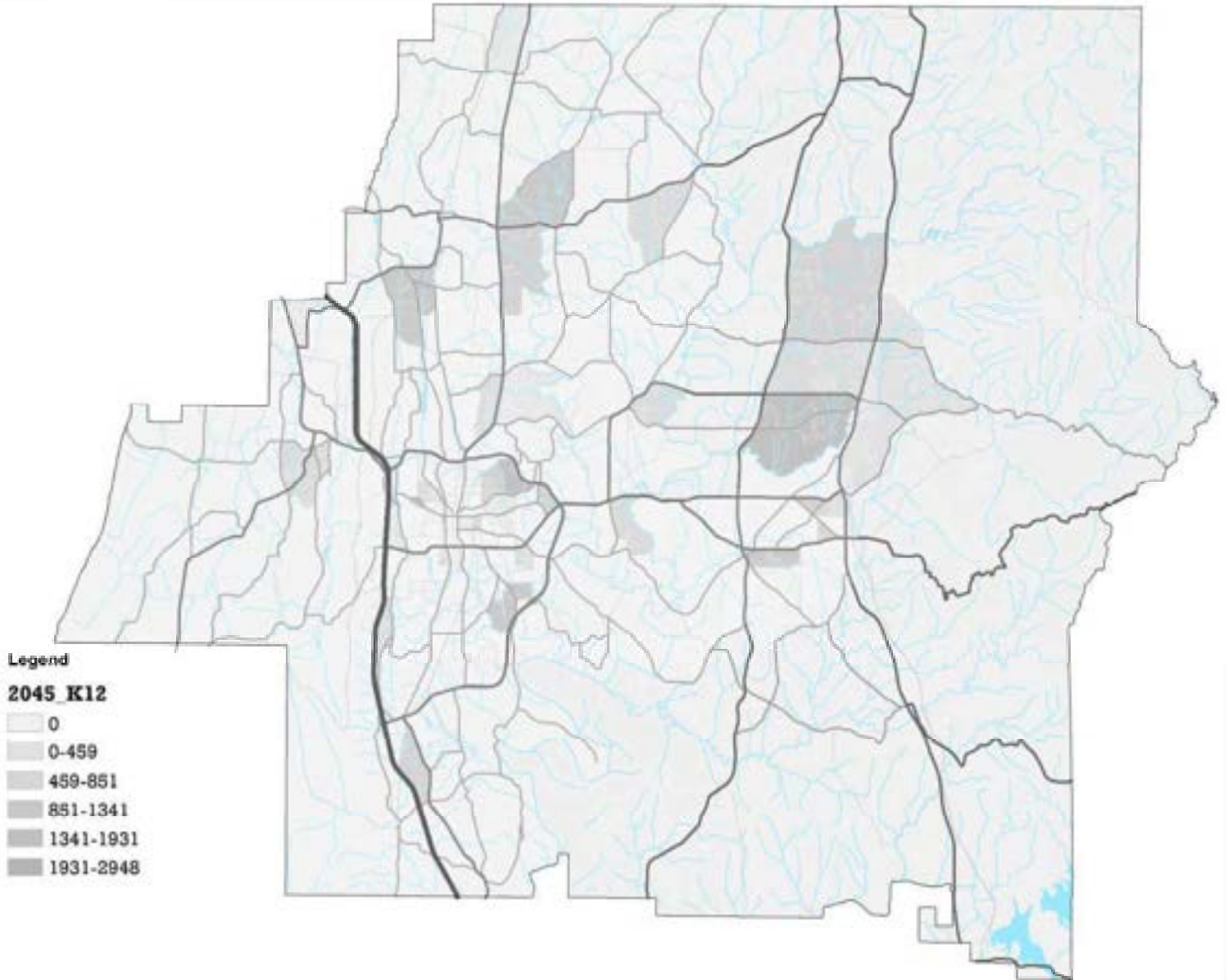
Year 2045 Agricultural, Mining, and Construction Job Locations



Year 2045 Manufacturing & Transportation/Communications/Utilities, and Warehousing Job Locations



Year 2045 K-12 Student Locations



Appendix A-4 Year 2045 SE Data Response to Comments



GDOT has provided comments on the initial 2045 socioeconomic data prepared for the Greater Dalton MPO 2045 Metropolitan Transportation Plan which have been reviewed. Ultimately, no changes to the 2045 socioeconomic data were made as documented in the following sections.

GDOT Comment: Verify the number of service employment and total employment in each of the two counties, as well as in the TDM area.

Action Taken: No action taken to refine socioeconomic data set. Documentation updated (below) to reflect correct control totals.

The initial memo included discrepancies in the documented number of service and total employment for both Whitfield and Murray County when compared with the actual Socioeconomic Data provided. Upon further review, it appears that the documented numbers in the memo were incorrect (reflecting an earlier non-finalized iteration of the socioeconomic data allocation process) and needed to be updated to reflect the correct numbers which were contained in the socioeconomic data provided and reproduced below for reference.

2045 Socioeconomic Data Summary									
	Pop	HH	Retail	Service	AMC	MTC	Total EMP	K12	College
Whitfield	135,268	45,161	7,151	25,647	1,846	29,889	64,533	28,326	7,863
Murray	48,569	17,549	1,229	4,433	315	5,134	11,111	9,452	0
Total	183,837	62,710	8,380	30,080	2,161	35,023	75,644	37,778	7,863



GDOT Comment: Check the population and household value for TAZs 9, 11, 12, 29, 30, 32, 67, 106, 162, 241, and 244. These TAZs have zero total population and households.

Action Taken: No changes made. Documentation provided below.

These TAZs were reviewed and determined to be allocated correctly, with zero population and households. All of these TAZs have zero population and households in 2015 (the majority of them were flagged in previous review and subsequently confirmed at the time to have no existing/2015 population and households). The character area/land use designations in the Comprehensive Plan were reviewed as indicated in the table below to confirm that future population growth is not anticipated in these TAZs.

TAZ	Explanation of Change/No Change
9	No existing population or households. In "Industrial" character area where population growth is not anticipated.
11	No existing population or households. In "Commercial" character area where population growth is not anticipated.
12	No existing population or households. In "Commercial" character area where population growth is not anticipated.
29	No existing population or households. In "Commercial" and "Industrial" character areas where population growth is not anticipated.
30	No existing population or households. In "Commercial", "Industrial", and "Preserve" character areas where population growth is not anticipated.
32	No existing population or households. In "Commercial" and "Industrial" character areas where population growth is not anticipated.
67	No existing population or households. In "Industrial" character area where population growth is not anticipated.
106	No existing population or households. In "Preserve" character area where population growth is not anticipated.
162	No existing population or households. In "Interchange" character area where population growth is not anticipated.
241	No existing population or households. In "Commercial" and "Interchange" character areas where population growth is not anticipated.
244	No existing population or households. In "Industrial" character areas where population growth is not anticipated.



GDOT Comment: Check the employment value for TAZs 34, 40, 101, 129, 133, 138, 200, and 206. These TAZs have zero employment.

Action Taken: No changes made. Documentation provided below.

These TAZs were reviewed and determined to be allocated correctly, with zero employment. All of these TAZs have zero employment in 2015 and were flagged in previous review and subsequently confirmed to have no existing/2015 employment. The character area/land use designations in the Comprehensive Plan were reviewed as indicated in the table below to confirm that future employment growth is not anticipated in these TAZs.

TAZ	Explanation of Change/No Change
34	No existing employment. In "Town Neighborhood Revitalization" character area which is residentially oriented so future employment is not anticipated.
40	No existing employment. In "Town Neighborhood Revitalization" character area which is residentially oriented so future employment is not anticipated.
101	No existing employment. In "Suburban" character area which is residentially oriented so future employment is not anticipated.
129	No existing employment. In "Rural Residential" character area which is residentially oriented so future employment is not anticipated.
133	No existing employment. In "Emerging and Exurban" and "Rural Residential" character area which is residentially oriented so future employment is not anticipated.
138	No existing employment. In "Rural/Agricultural Reserve" and "Rural Residential" character area which is non-growth and residentially oriented so future employment is not anticipated.
200	No existing employment. In "Emerging and Exurban" and "Rural Residential" character area which is residentially oriented so future employment is not anticipated.
206	No existing employment. In "Preserve" and "Rural Residential" character area which is non-growth and residentially oriented so future employment is not anticipated.

GDOT Comment: Check the housing types for TAZs 36, 54, 237, and 240. These TAZs have population per acre greater than 10, which indicates multi-family or group housing land use in the TAZ.

Action Taken: No changes made. Documentation provided below.

TAZs 36, 54, and 240 all have zero population growth between 2015 and 2045. Therefore, the 2045 population is reflecting existing conditions which were reviewed and confirmed for existing evidence of multi-family or group housing land uses.

TAZ 237 does absorb population and household growth between 2015 and 2045 but is in the "Dalton State/College Drive" Character Area, which is characterized and anticipated to include group housing (including Dalton State students) land uses.



GDOT Comment: Check if TAZ 65 has dense housing or multi-story office buildings, since it has acres available for employment less than acres needed for employment.

Action Taken: No changes made. Documentation provided below.

TAZ 65 experiences minimal employment growth from 2015 to 2045 (12 new retail jobs and 6 new Agriculture, Mining, and Construction jobs). Therefore, the high number of acres being utilized for employment activity is mostly representative of underlying existing conditions.

During the review of the 2015 socioeconomic data, this TAZ was similarly flagged and the number of jobs in the TAZ were reduced by 946 in order to make the TAZ conform to the acreage expectation. As the 2045 forecast assumes only a small increase in employment, which just happens to trip the acreage expectation threshold (the TAZ is utilizing 12.60 acres of employments relative to 12.38 acres estimated to be available), no changes were made in order to remain consistent in showing a small increase in economic activity.

GDOT Comment: Check if the growth rates on household and employment make sense, to explain the inconsistency of employees per household between 2015 and 2045.

Action Taken: No changes made. Documentation provided below.

The 2015 socioeconomic data indicated a rate of 2.13 people for each job in the region, while the 2045 socioeconomic data indicates a rate of 2.43 people for each job, a 13 percent increase. While guidelines suggest that “the ratio of population to employment should stay constant” and not include “significant change” this phenomenon is simply reflecting the inclusion of the legacy of previous sources of population and employment, including the previous LRTP which showed a 23 percent increase in the ratio of people to jobs and the Northwest Georgia Regional Commission which shows a 9 percent increase in the ratio of people to jobs. REMI, which covers only Whitfield County, shows a more modest 2 percent increase.

Recognizing that the socioeconomic forecast for this MTP needs to have some relationship to the previous forecasting for the region, we believe it is appropriate to continue with the phenomenon of showing an increase in the number of people per job in the region, while incorporating a “step-down” from the notably high increase observed in the previous LRTP towards a phenomenon that shows a more modest increase that is more consistent with other sources.

Year	Category	Previous LRTP (Regionwide - 2015 and 2040)	REMI (Whitfield County Only - 2015 and 2040)	NWGRC (Regionwide - 2015 and 2040)	2045 MTP (Regionwide - 2015 and 2045)
Base Year	Population	137,409	103,976	144,050	142,792
	Employment	68,006	68,770	58,014	67,105
	Ratio	2.02	1.51	2.48	2.13
Horizon Year	Population	197,897	112,847	156,847	185,596
	Employment	79,573	73,495	58,069	75,878
	Ratio	2.49	1.54	2.70	2.43
	Increase	23.1%	1.6%	8.8%	13.0%



Appendix B
Dalton Metropolitan Planning
Organization Transportation
Improvement Program System
Performance Report



**Resolution By The Greater Dalton Metropolitan Planning Organization (GDMPO) Policy
Committee**

WHEREAS, federal regulations require that the Metropolitan Transportation Plans and Transportation Improvement Programs include Performance Management Targets, PM 1 through PM 3, for urbanized areas and,

WHEREAS, the Technical Coordinating Committee of GDMPO in coordination with the Federal Highway Administration, Federal Transit Administration, and the Georgia Department of Transportation has reviewed the requirement to adopt Performance Management Targets for use in the transportation process,

WHEREAS, the Technical Coordinating Committee at its May 23, 2019 meeting recommended that GDMPO support the Performance Management Targets, PM 1 through PM 3, approved by the Georgia Department of Transportation,

NOW, THEREFORE, BE IT RESOLVED that the GDMPO Policy Committee that GDMPO agrees to support the Performance Management Targets as approved by the Georgia Department of Transportation.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Greater Dalton MPO Policy Committee, at their meeting held on May 23, 2019.



Kent Benson, Policy Committee Chair

Dalton Metropolitan Planning Organization
Improvement Program
System Performance Report Template

Transportation

Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule).¹ This regulation implements the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with The Planning Rule and the Georgia Performance Management Agreement between the Georgia DOT (GDOT) and the Georgia Association of Metropolitan Planning Organizations (GAMPO), GDOT and each Georgia MPO must publish a System Performance Report for applicable performance measures in their respective statewide and metropolitan transportation plans and programs. The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets and progress achieved in meeting the targets in comparison with previous reports. This is required for the following:

- In any statewide or metropolitan transportation plan or program amended or adopted after May 27, 2018, for Highway Safety/PM1 measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after October 1, 2018, for transit asset measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after May 20, 2019, for Pavement and Bridge Condition/PM2 and System Performance, Freight, and Congestion Mitigation and Air Quality/PM3 measures; and
- In any statewide or metropolitan transportation plan or program amended or adopted after July 20, 2021, for transit safety measures.

The Greater Dalton MPO Fiscal Year (FY) 2018-2021 Transportation Improvement Program (TIP) was adopted / amended on September 28, 2017. Per the Planning Rule and the Georgia Performance Management Agreement, the System Performance Report for the Greater Dalton MPO FY 2018-2021 TIP is included, herein, for the required Highway Safety/PM1, Bridge and Pavement Condition/PM2, and System Performance, Freight, and Congestion Mitigation and Air Quality/PM3 measures.

Highway Safety/PM1

¹ 23 CFR 450.314

Effective April 14, 2016, the FHWA established the highway safety performance measures² to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

Safety performance targets are provided annually by the States to FHWA for each safety performance measure. Current statewide safety targets address calendar year 2019 and are based on an anticipated five-year rolling average (2015-2019). Georgia statewide safety performance targets for 2019 are included in Table 1, along with statewide safety performance for the two most recent reporting periods³. The Greater Dalton MPO adopted/approved the Georgia statewide safety performance targets on May 23, 2019.

The latest safety conditions will be updated annually on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 1. Highway Safety/PM1, System Conditions and Performance

Performance Measures	Georgia Statewide Performance (Five-Year Rolling Average 2012-2016)	Georgia Statewide Performance (Five-Year Rolling Average 2013-2017)	2019 Georgia Statewide Performance Target (Five-Year Rolling Average 2015-2019)
Number of Fatalities	1,305.2	1376.6	1,655.0
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.148	1.172	1.310
Number of Serious Injuries	17,404.6	23,126.8	24,324.0
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	15.348	19.756	18.900
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	1,138.0	978.4	1,126.0

The Greater Dalton MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, the Georgia Strategic Highway Safety Plan (SHSP), the Georgia Highway Safety Improvement Program (HSIP), the current 2040 Georgia Statewide Transportation Plan (SWTP), and the current Greater Dalton MPO 2040 Long Range Transportation Plan (LRTP).

² 23 CFR Part 490, Subpart B

³ https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/

- The Georgia SHSP is intended to reduce the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in Georgia. Existing highway safety plans are aligned and coordinated with the SHSP, including (but not limited to) the Georgia HSIP, MPO and local agencies' safety plans. The SHSP guides GDOT, the Georgia MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across Georgia.
- The GDOT HSIP annual report provide for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The ultimate goal of the HSIP process is to reduce the number of crashes, injuries and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The Greater Dalton MPO 2040 LRTP increases the safety of the transportation system for motorized and non-motorized users as required by the Planning Rule. The RTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements.

To support progress towards approved highway safety targets, the FY 2018-2021 TIP includes a number of key safety investments. A total of \$4,535,743 has been programmed in the FY 2018-2021 TIP to improve highway safety; averaging approximately \$1,133,936 per year.

Pavement and Bridge Condition/PM2

Effective May 20, 2017, FHWA established performance measures to assess pavement condition⁴ and bridge condition⁵ for the National Highway Performance Program. This second FHWA performance measure rule (PM2) established six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges by deck area classified as in good condition; and
6. Percent of NHS bridges by deck area classified as in poor condition.

Pavement Condition Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA established five metrics to assess pavement condition: International Roughness Index (IRI); cracking percent; rutting; faulting; and Present Serviceability Rating (PSR). For each metric, a threshold is used to establish good, fair, or poor condition.

Pavement condition is assessed using these metrics and thresholds. A pavement section in good condition if three metric ratings are good, and in poor condition if two or more metric ratings are poor. Pavement sections that are not good or poor are considered fair.

The pavement condition measures are expressed as a percentage of all applicable roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

Bridge Condition Measures

The bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these component ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

Pavement and Bridge Targets

⁴ 23 CFR Part 490, Subpart C

⁵ 23 CFR Part 490, Subpart D

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The first performance period began on January 1, 2018, and runs through December 31, 2021. GDOT reported baseline PM2 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM2 rule requires states and MPOs to establish two-year and/or four-year performance targets for each PM2 measure. Current two-year targets represent expected pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent expected condition at the end of calendar year 2021.

States establish targets as follows:

- Percent of Interstate pavements in good and poor condition – four-year targets;
- Percent of non-Interstate NHS pavements in good and poor condition – two-year and four-year targets; and
- Percent of NHS bridges by deck area in good and poor condition – two-year and four-year targets.

MPOs establish four-year targets for each measure by either agreeing to program projects that will support the statewide targets, or setting quantifiable targets for the MPO’s planning area that differ from the state targets.

GDOT established current statewide two-year and four-year PM2 targets on May 16, 2018. The Greater Dalton MPO adopted/approved the Georgia statewide PM2 targets on May 23, 2019. Table 5 presents statewide baseline performance for each PM2 measure as well as the current two-year and four-year statewide targets established by GDOT.

On or before October 1, 2020, GDOT will provide FHWA a detailed report of pavement and bridge condition performance covering the period of January 1, 2018, to December 31, 2019. GDOT and the Greater Dalton MPO will have the opportunity at that time to revisit the four-year PM2 targets.

Table 5. Pavement and Bridge Condition/PM2 Performance and Targets

Performance Measures	Georgia Performance (Baseline)	Georgia 2-year Target (2019)	Georgia 4-year Target (2021)
Percent of Interstate pavements in good condition	60%	N/A	≥50%
Percent of Interstate pavements in poor condition	4%	N/A	≤5%
Percent of non-Interstate NHS pavements in good condition	44%	≥40%	≥40%
Percent of non-Interstate NHS pavements in poor condition	10%	≤12%	≤12%
Percent of NHS bridges (by deck area) in good condition	49.1%	≥60%	≥60%
Percent of NHS bridges (by deck area) in poor condition	1.35%	≤10%	≤10%

The Greater Dalton MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP

planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, Georgia's Transportation Asset Management Plan (TAMP), the Georgia Interstate Preservation Plan, the current 2040 Georgia Statewide Transportation Plan (SWTP), and the Greater Dalton MPO 2040 Long Range Transportation Plan (LRTP).

- MAP-21 requires GDOT to develop a TAMP for all NHS pavements and bridges within the state. GDOT's TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of GDOT's statewide pavement and bridge condition targets.
- The Georgia Interstate Preservation Plan applied a risk profile to identify and communicate Interstate preservation priorities; this process leveraged a combination of asset management techniques with risk management concepts to prioritize specific investment strategies for the Interstate system in Georgia.
- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The Greater Dalton MPO 2040 LRTP addresses infrastructure preservation and identifies pavement and bridge infrastructure needs within the metropolitan planning area, and allocates funding for targeted infrastructure improvements.

To support progress towards GDOT's statewide PM2 targets, the FY 2018-2021 TIP includes a number of investments that will maintain pavement and bridge condition performance. Investments in pavement and bridge condition include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

A total of \$6,246,759 for bridges has been programmed in the FY 2018-2021 TIP to improve conditions; averaging approximately \$1,561,690 per year. A total of \$ 882,645.530 is available for NHS maintenance for pavement statewide; averaging approximately \$220,661,383 per year.

System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program (PM3)

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System⁶, freight movement on the Interstate system⁷, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program⁸. This third FHWA performance measure rule (PM3) established six performance measures, described below.

National Highway System Performance:

1. Percent of person-miles on the Interstate system that are reliable;
2. Percent of person-miles on the non-Interstate NHS that are reliable;

Freight Movement on the Interstate:

3. Truck Travel Time Reliability Index (TTTR);

Congestion Mitigation and Air Quality Improvement (CMAQ) Program:

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).

The CMAQ performance measures apply to states and MPOs with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. The Greater Dalton MPO meets air quality standards, therefore, the CMAQ measures do not apply and are not reflected in the System Performance Report.

System Performance Measures

The two System Performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The performance metric used to calculate reliability is the Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment with itself. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of people traveling in buses, cars, and trucks over these roadway segments. To determine total person miles traveled, the vehicle miles traveled (VMT) on each segment is multiplied by average vehicle occupancy. To calculate the percent of person

⁶ 23 CFR Part 490, Subpart E

⁷ 23 CFR Part 490, Subpart F

⁸ 23 CFR Part 490, Subparts G and H

miles traveled that are reliable, the sum of the number of reliable person miles traveled is divided by the sum of total person miles traveled.

Freight Movement Performance Measure

The Freight Movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day. For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

PM3 Performance Targets

Performance for the PM3 measures is assessed and reported over a four-year performance period. For all PM3 measures except the CMAQ Emission Reduction measure, the first performance period began on January 1, 2018, and will end on December 31, 2021. For the CMAQ Emission Reduction measure, the first performance period began on October 1, 2017, and will end on September 30, 2021. GDOT reported baseline PM3 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

States establish targets as follows:

- Percent of person-miles on the Interstate system that are reliable – two-year and four-year targets;
- Percent of person-miles on the non-Interstate NHS that are reliable – four-year targets;
- Truck Travel Time Reliability – two-year and four-year targets;
- Annual hours of peak hour excessive delay per capita (PHED) – four-year targets;
- Percent of non-single occupant vehicle travel (Non-SOV) – two-year and four-year targets; and

MPOs establish four-year targets for the System Performance, Freight Movement, and PHED measures, and two-year and four-year targets for the Non-SOV. MPOs establish targets by either agreeing to program projects that will support the statewide targets, or setting quantifiable targets for the MPO's planning area that differ from the state targets.

GDOT established statewide PM3 targets on May 16, 2018. The Greater Dalton MPO adopted/approved the Georgia statewide PM3 targets on May 23, 2019. Table 6 presents statewide baseline performance for each PM3 measure as well as the current two-year and four-year statewide targets established by GDOT.

On or before October 1, 2020, GDOT will provide FHWA a detailed report of PM3 performance covering the period of January 1, 2018, to December 31, 2019. GDOT and the Greater Dalton MPO will have the opportunity at that time to revisit the four-year PM3 targets.

Table 6. System Performance/Freight Movement/CMAQ (PM3) Performance and Targets

Performance Measure	Georgia Performance (Baseline)	Georgia 2-year Target (2019)	Georgia 4-year Target (2021)
Percent of person-miles on the Interstate system that are reliable	80.4%	73.0%	67.0%
Percent of person-miles on the non-Interstate NHS that are reliable	84.9%	N/A	81.0%
Truck Travel Time Reliability Index	1.44	1.66	1.78
Annual hours of peak hour excessive delay per capita (PHED)	20.4 hours	N/A	24.6 hours
Percent Non-SOV travel	22.1%	22.1%	22.1%

The Greater Dalton MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, the Georgia Statewide Freight and Logistics Action Plan, the current 2040 Georgia Statewide Transportation Plan (SWTP), and the Greater Dalton MPO 2040 Long Range Transportation Plan (LRTP).

- GDOT’s Statewide Freight and Logistics Action Plan defines the conditions and performance of the state freight system and identifies the policies and investments that will enhance Georgia’s highway freight mobility well into the future. The Plan identifies freight needs and the criteria Georgia will use to determine investments in freight, and prioritizes freight investments across modes.
- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.

To support progress towards GDOT’s statewide PM3 targets, the FY 2018-2021 TIP devotes a significant amount of resources to projects that will address passenger and highway freight reliability and delay, [reduce SOV travel, and reduce emissions].

A total of \$0 has been programmed in the FY 2018-2021 TIP to address system performance; averaging approximately \$0 per year.

A total of \$0 has been programmed in the FY 2018-2021 TIP to address truck travel time reliability; averaging approximately \$0 per year.

Appendix C Public Engagement Documentation



Appendix C-1 Public Meetings



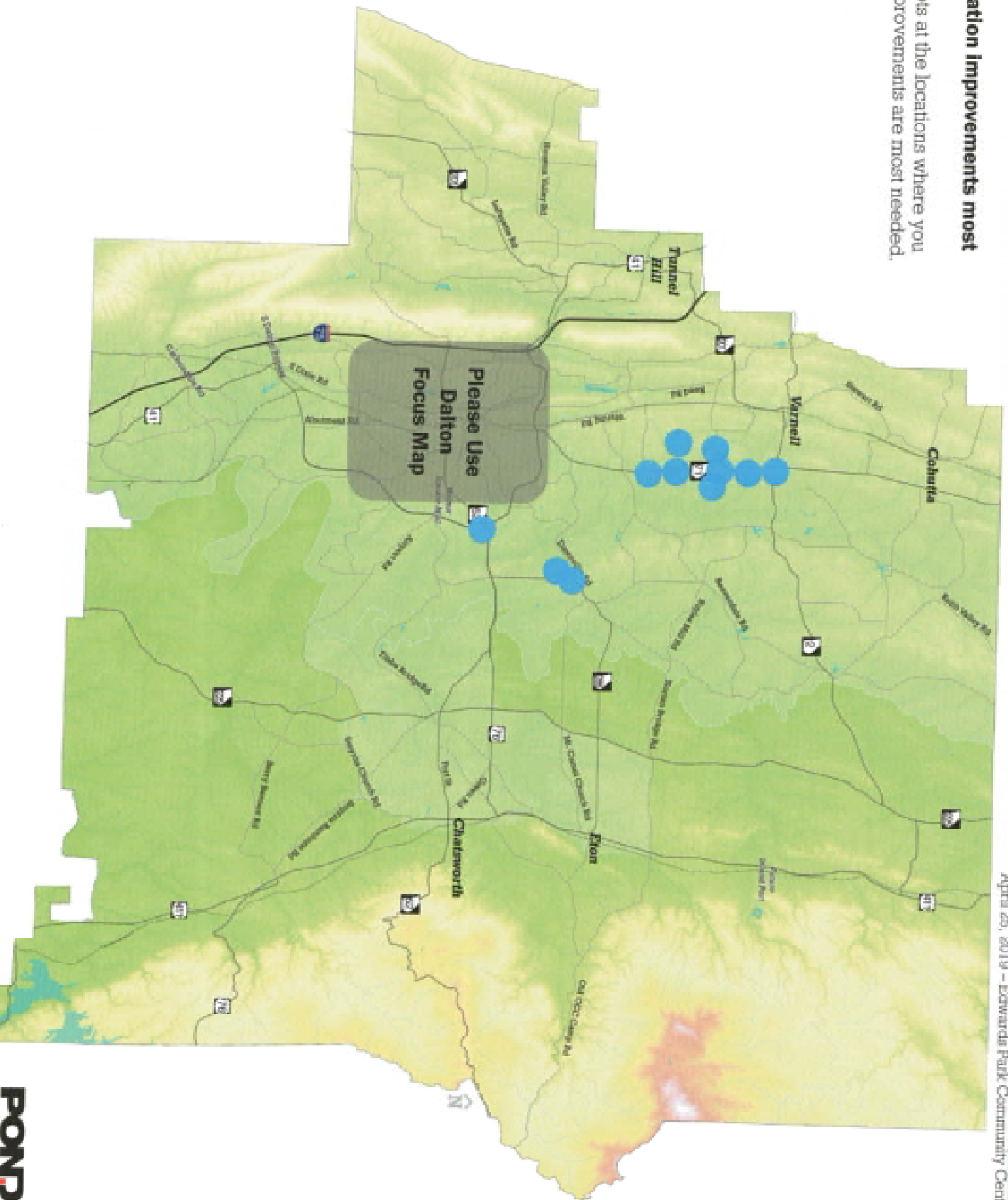
What types of transportation projects would be most helpful to you?

Apply your eight red dots to the eight transportation project types below based on your priorities. You can distribute your dots any way you think is appropriate.



Where are transportation improvements most needed?

Place your four blue dots at the locations where you think transportation improvements are most needed.



What types of transportation goals do you think we should be addressing?

Apply your eight green dots to the eight transportation goals below based on your priorities. You can distribute your dots any way you think is appropriate.

Accommodate Freight Traffic



Address North-South Travel



Encourage Downtown Reinvestments



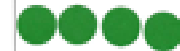
Address East-West Travel



Develop an Active Mode Network for the Region



Enhance Connections to I-75



Provide Connectivity to Neighboring Communities



Consider Opportunities for Future Transit Service in the Region



Your Name:

WAROLD EVANS

Comments:

- skyliner to connect convention center across 75 to hotels

- in future may need bypass further out. limit development and curb cuts on corridors

Please print legibly.

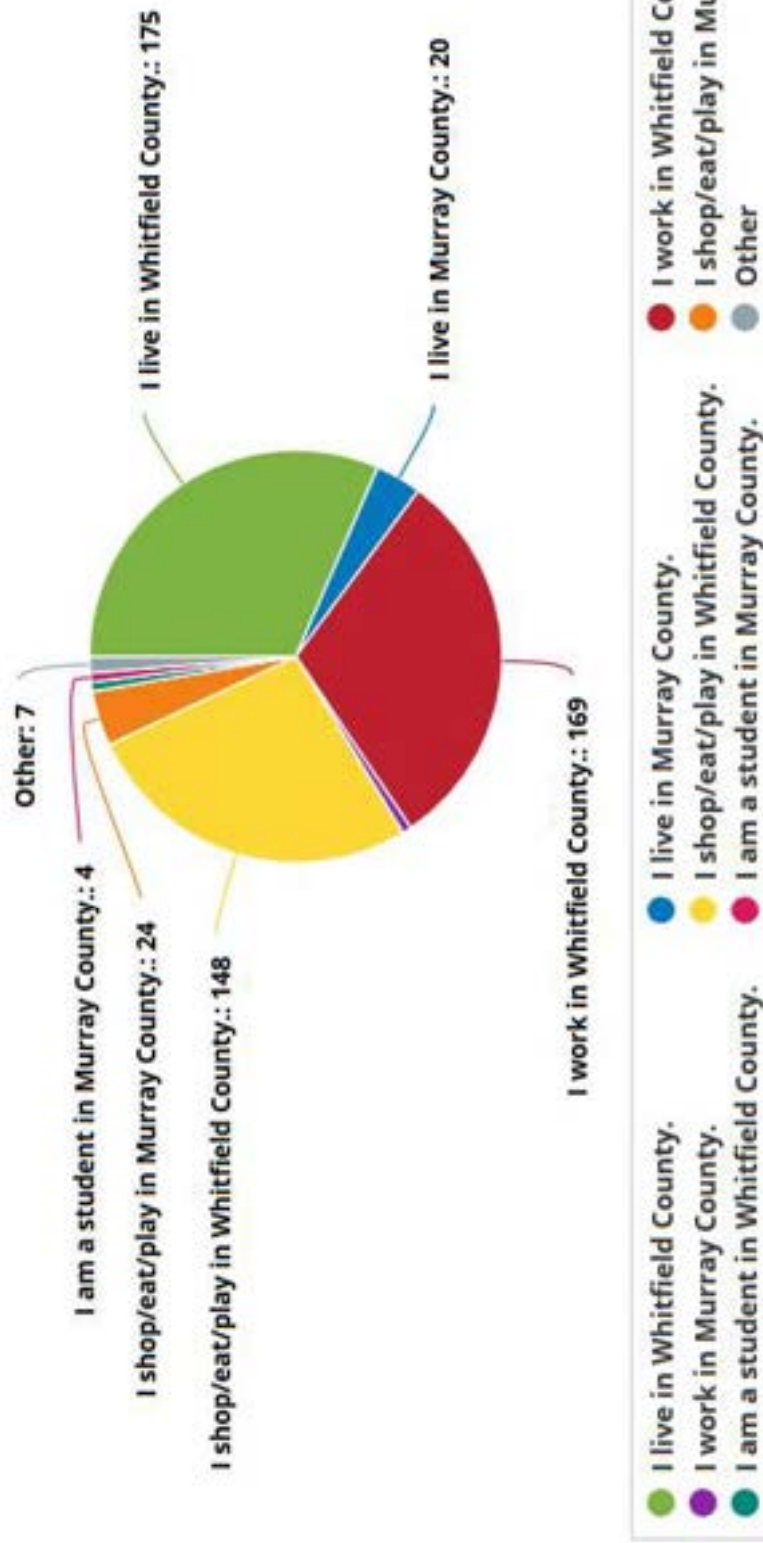
	NAME	ADDRESS	E-MAIL
1	HAROLD EDWARDS	122 BROADACRE RD	X
2	Brian Chaotian	1057 Rollins-Ketchum Rd	
3	Rick Darnell	5215 Cohy HA VARNELL RD	rickydarnell@yahoo.com
4	Debbie Roper	3009 Breward Dr. Dalton	droper@whitfieldcountyg
5	Kristin Stansell	1819 City View St Dalton	stansellange@gmail.com
6	Stephanie Brooks	744 Sagamore Dr. Tunnel Hill, GA	s-brooks07@yahoo.com
7	Kelly Scott	1400 Rosewood Cir, Unit 25 Dalton GA	kbs.topgun@gmail.com
8			
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14			

Appendix C-2 Online Engagement



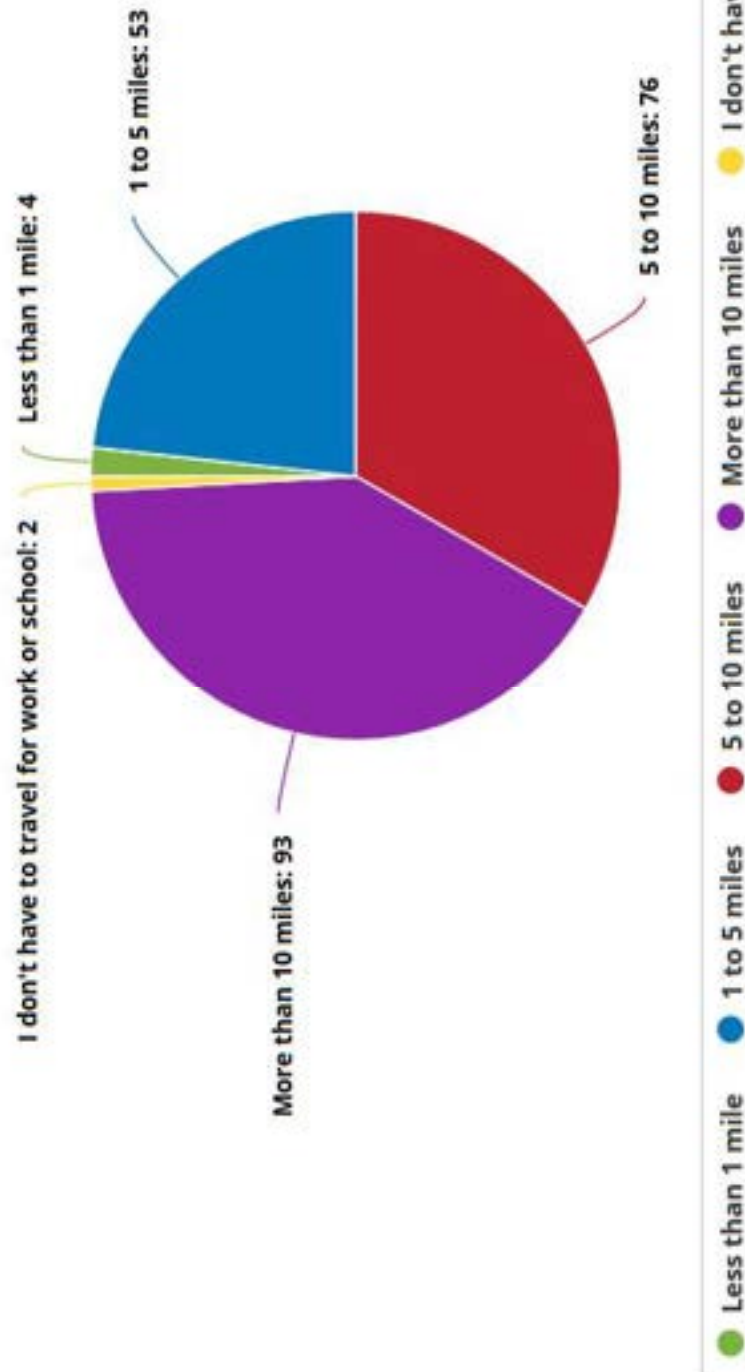
Q1. 1. What is your interest in the Greater Dalton region? (select all that apply)

228 answers



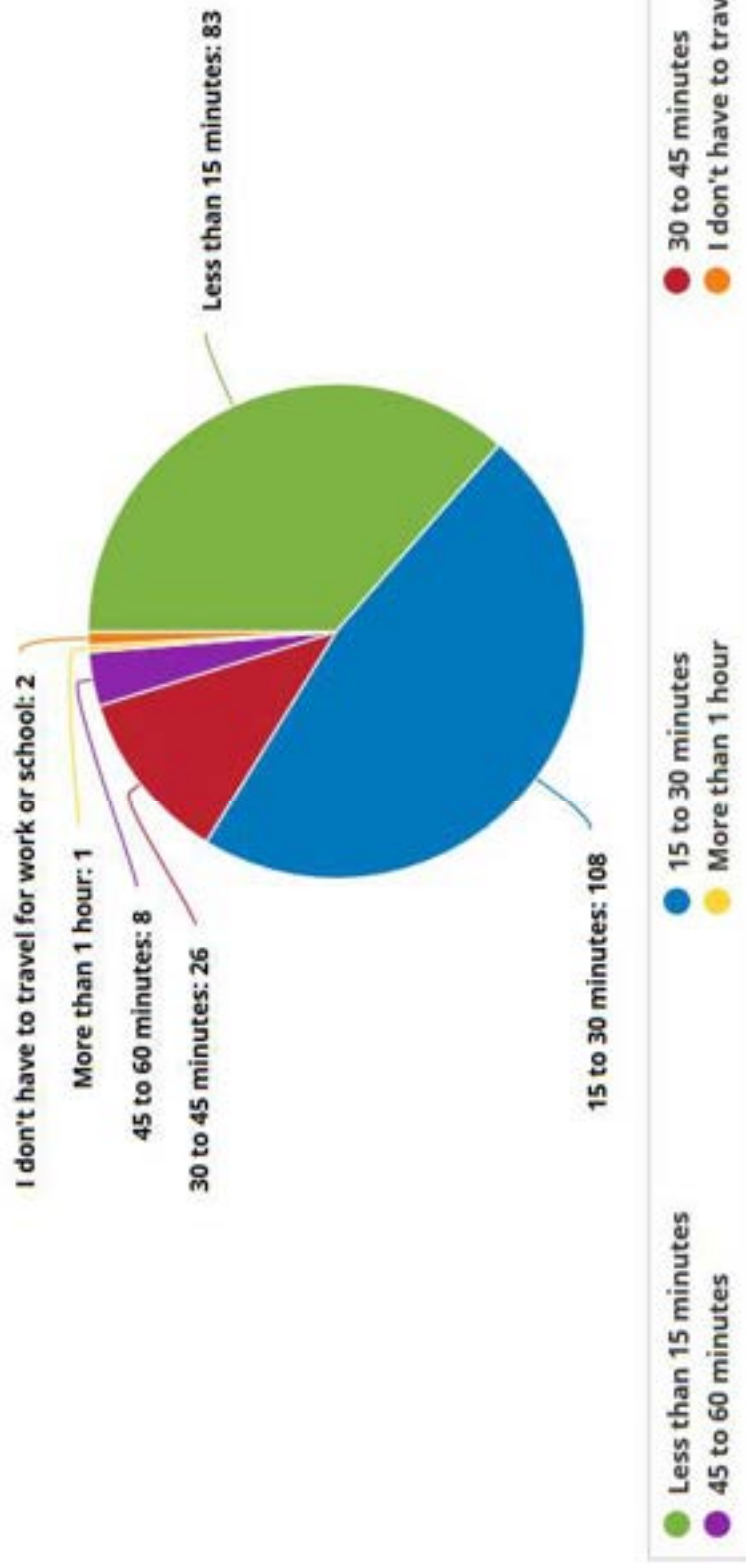
Q4. 4. How far do you have to travel to get to work or school?

228 answers



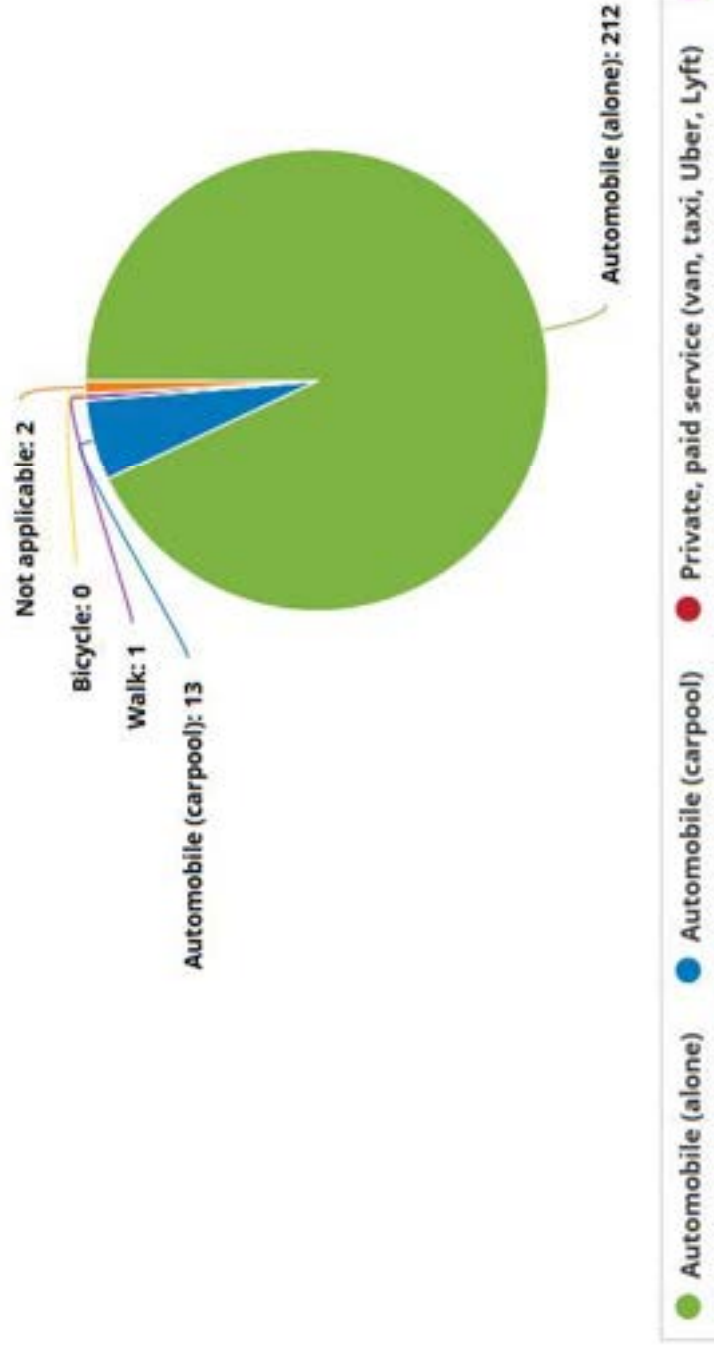
Q5. 5. How long does it typically take you to get to/from work or school?

228 answers



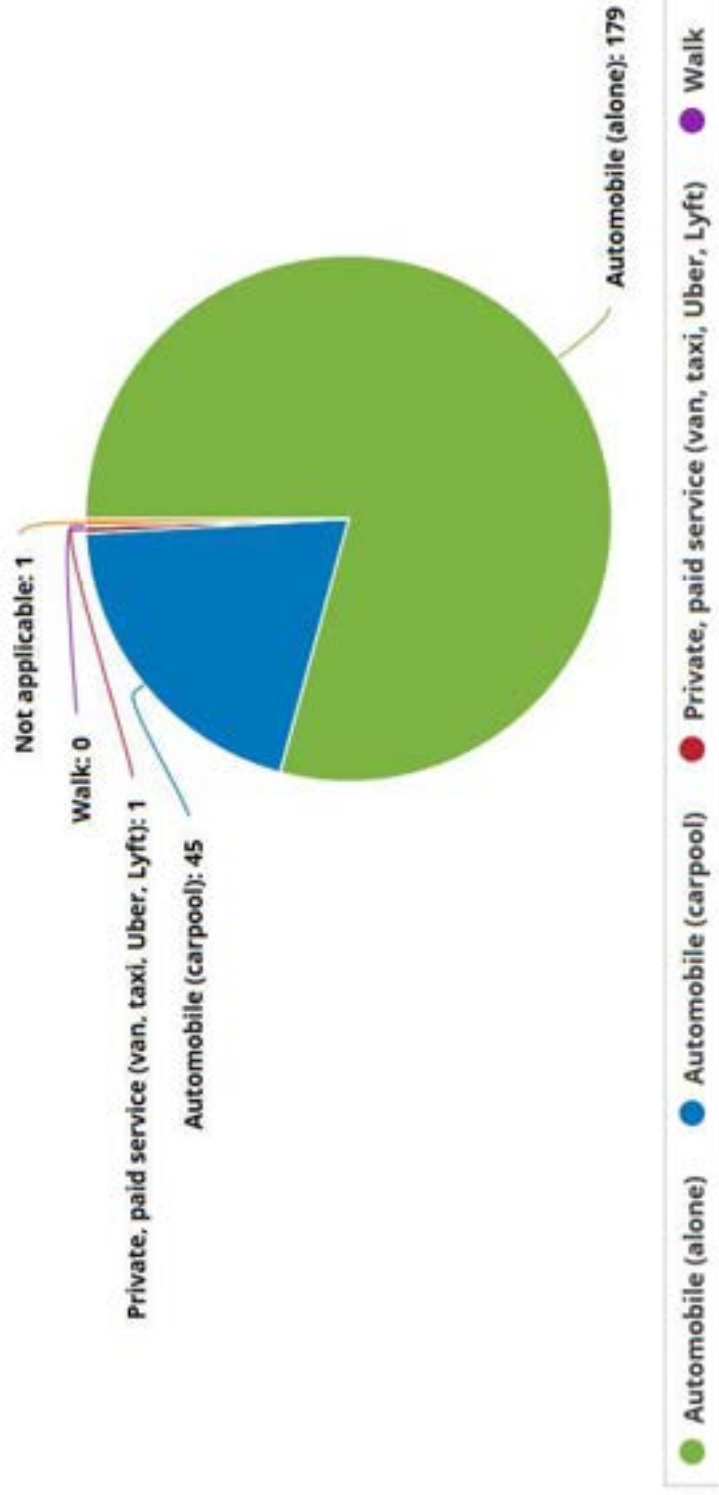
Q6. 6. What is your primary mode of transportation for commuting to work or school?

228 answers



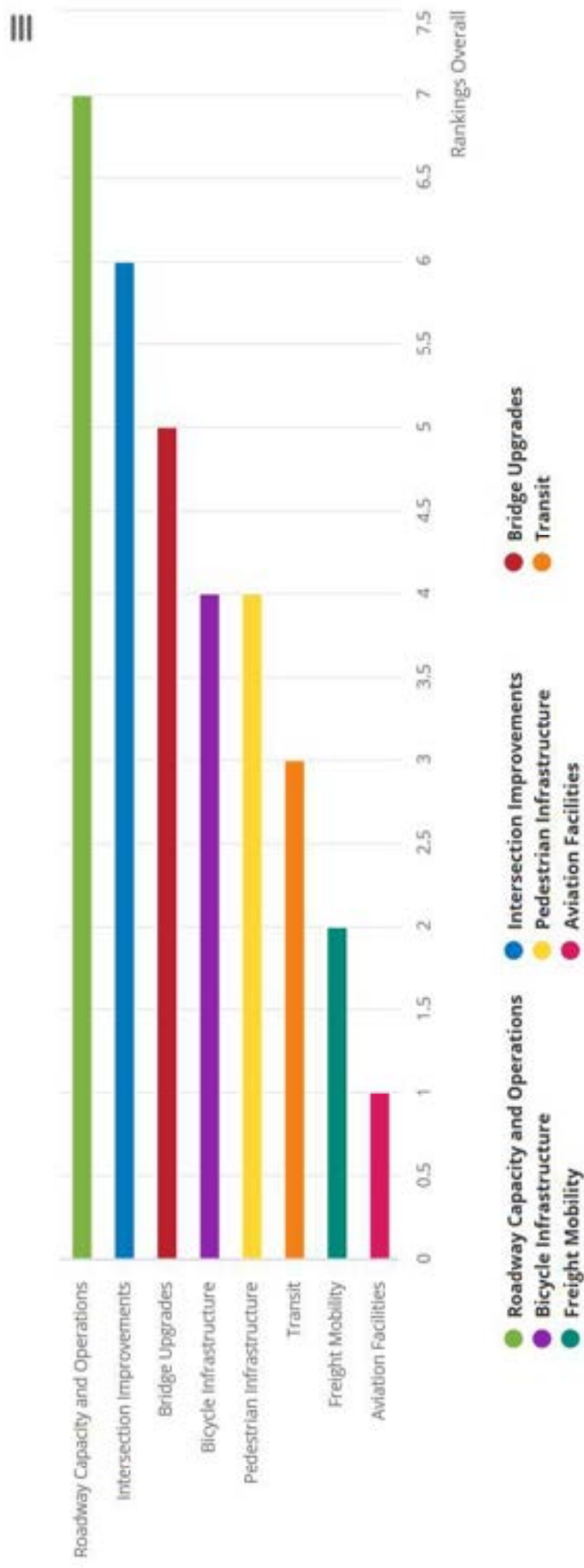
Q7. 7. For other trips, what is your primary mode of transportation?

226 answers



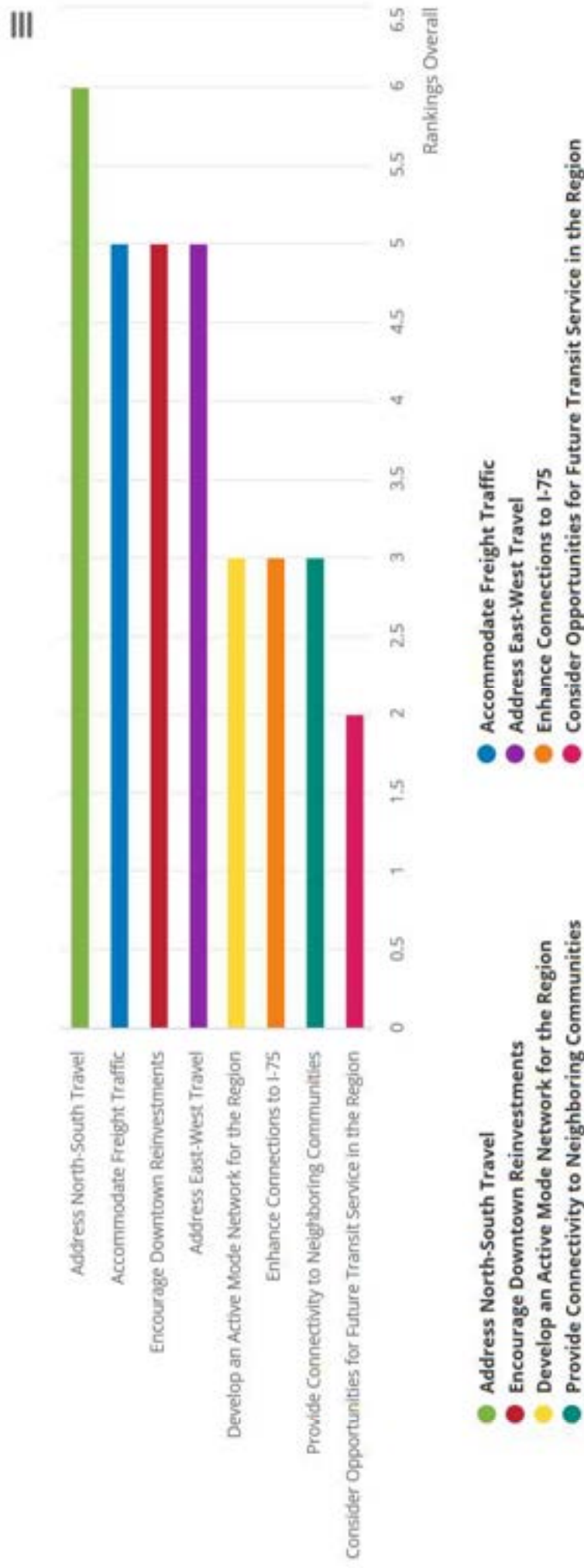
Q8. 8. What types of transportation projects would be most helpful to you in Whitfield and Murray Counties? Please rank the following categories from 1 (most desired) to 8 (least desired).

231 answers



Q9. 9. What types of transportation goals do you think we should be addressing? Please rank the following categories from 1 (most desired) to 8 (least desired).

231 answers



Appendix C-3 Stakeholder Meetings



The first stakeholder meeting of the Greater Dalton Metropolitan Planning Organization (GDMPO) 2045 Metropolitan Transportation Plan (MTP) process was conducted on March 28, 2019 immediately following the adjournment of the MPO's regularly scheduled joint Policy and Technical Coordinating Committees meeting. The stakeholder meeting consisted of three overall activities:

1. An initial presentation describing the MTP process
2. A discussion of transportation goals for the region
3. Interactive exercises to develop understanding of regional priorities

The meeting location, date/time, and attendees are listed below followed by a summary of the meeting's events and discussion on the following pages.

Location

Edwards Park
115 Edwards Park
Dalton, GA 30721

Date/Time

Thursday, March 28, 2019
11:00 PM

Attendees

Jacob Bearden, Greater Dalton Metropolitan Planning Organization (GDMPO)
Kent Benson, Greater Dalton Metropolitan Planning Organization (GDMPO)
Tom Caiafa, Georgia Department of Transportation (GDOT) – Planning
Joseph Ciavarro, Georgia Department of Transportation – District 6
Tracey Crawley, Whitfield County
Chris Crosse, Dalton Police
Mayor Ken Gowin, City of Tunnell Hill
Ali Harp, Dalton Whitfield Joint Development Authority
Greg Hogan, Murray County Government
Deklayne Hunt, Whitfield County Public Works
Lynn Laughter, Whitfield County
Mayor Dennis Mock, Mayor, City of Dalton
Charlie Morrow, Dalton Utilities
Radney Simpson, Georgia Department of Transportation (GDOT) – Planning
Eric Lusher, Pond (MTP consultant)
David De Leon, Pond (MTP consultant)

The sign-in sheet is provided in [Attachment A](#).



Presentation

The meeting began with a presentation by Pond Project Manager, Eric Lusher, to the stakeholder committee, provided in [Attachment B](#). This presentation included:

- An overview of the MTP process and schedule including the role of the MTP stakeholder committee
- A summary of initial data collected and analyzed
- A review of evaluation methods to be used as part of the MTP process

Discussion of Goals

The presentation eventually shifted into a discussion of goals and objectives for the region starting by a quick summary of goals expressed by the MPO previously as well as from federal, state, and local partners. The MPO's previous plan's goals were effectively patterned on federal goals and through brief discussion, the stakeholder committee agreed that this model should be retained but refined with results discussed in the next stakeholder meeting.

The committee then also began discussing broader goals for how the transportation system should operate. Goals previously expressed by the MPO included:

- Accommodate Freight Traffic
- Address North-South Travel
- Encourage Downtown Reinvestment

Through discussion, these three goals were supplemented by the additional ideas indicated below:

- East-West Travel
- Alternative Transportation in Region + Downtown Areas
- Parking Issues in Central Area
- Enhance Connections to I-75
- Connections to Neighboring Communities
- Consider Opportunities for Transit Service
- Transportation Services to Medical Facilities

Raw notations (on a board) from this discussion are provided in [Attachment C](#).

Following the meeting, these goals were further refined to avoid overlapping of ideas and create broad opportunities to address:

- Accommodate Freight Traffic
- Address North-South Travel
- Encourage Downtown Reinvestment (note: intended to be broadly inclusive of ideas for "Alternative Transportation in Downtown Areas" and "Parking Issues in Central Area")
- Address East-West Travel
- Develop an Active Mode Network for the Region (note: intended to be broadly inclusive of idea for "Alternative Transportation in Region")
- Enhance Connections to I-75
- Provide Connectivity to Neighboring Communities
- Consider Opportunities for Future Transit Service in Region (note: intended to be broadly inclusive of ideas for "Consider Opportunities for Transit Service" and "Transportation Services to Medical Facilities")



Exercises

At the conclusion of the meeting, the stakeholder committee participated in two exercises, discussed below. Raw notations from these exercises are provided in Attachment D.

Exercise 1 - Preliminary Assessment of Transportation Project Types

In this first exercise, the stakeholder committee was provided a list of eight types of transportation projects/modes. Provided with eight red dots, the stakeholder members were asked to use these eight dots to distribute amongst the eight projects/modes to indicate their priorities. In effect, stakeholders could indicate that all eight projects/modes were equally important or could conversely use all eight dots to indicate their belief of an extreme importance on one project/mode. The results, indicated below, clearly show that while transit and active modes were previously cited, vehicular oriented improvements remain the largest priorities of the MTP stakeholder committee.

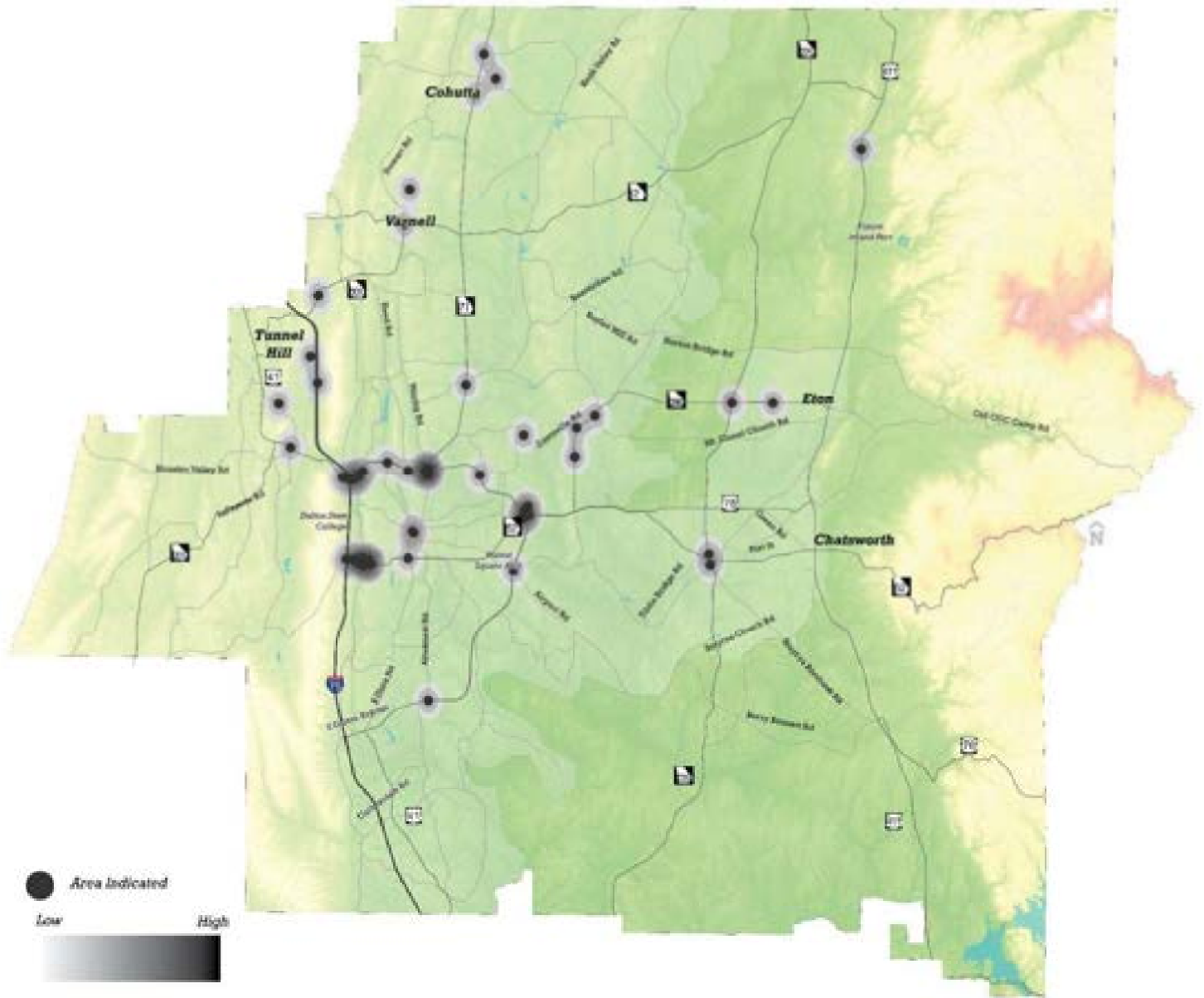
Transportation Project/Mode	Number of Dots
Intersection Improvements	27
Roadway Capacity and Operations	25
Freight Mobility	22
Bridge Upgrades	14
Pedestrian Infrastructure	6
Transit	6
Bicycle Infrastructure	2
Aviation Facilities	2



Stakeholders participating in Exercise 1 (left) and Exercise 2 (right).

Exercise 2 – Bottleneck Locations

For the second exercise, participants were provided maps of the region and were asked to use four provided blue dots to indicate the locations where they believed transportation improvements are most needed. The locations cited by the stakeholder committee are indicated on the map below with an additional heat map effect to show where multiple dots were placed in proximity to each other.



Next Steps

The second stakeholder committee meeting is tentatively scheduled for August 2019. The first round of community open houses will be held on Tuesday April 25th, 2019 and Thursday April 30th, 2019 at locations that are to be determined.



Attachment A

Sign-In Sheet



Name	Organization
1. JOSEPH CIAMERO	GOVT DIST 6
2. Tom Caiata	GOVT Planning
3. Rodney Simpson	GOVT Planning
4. Kent Benson	GD MPO
5. Jacob Learden	GD MPO
6. Charlie Morrow	Dalton Utilities
7. Lynn Loughter	Whitfield County
8. Jesse Crawley	Whitfield County
9. Ali Harp	Dalton Whitfield Joint Development Authority
10. KEN GOWIN	Mayor city of Tunnel Hill
11. Dennis Melk	Mayor Dalton
12. DeWayne Hunt	Whitfield County Public Works
13. Chris Cross	Dalton Police
14. Grey Hagan	Murray Co Gov

	Name	Organization
	Greg Hagan	Murray Co Gov
2	Tom Dickson	Varnell
3	Mark Gibson	Whitfield County
4	Benny Dunn	City of Dalton
5	Andrew Parker	" " "
6	Chris Grasse	Dalton Police
7	Kon Shimnick	Town of Cotham
8	Rusty Bount	Dalton Public Schools
9		
10		
11		
12		
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14		
15		

Attachment B

Presentation





Greater Dalton

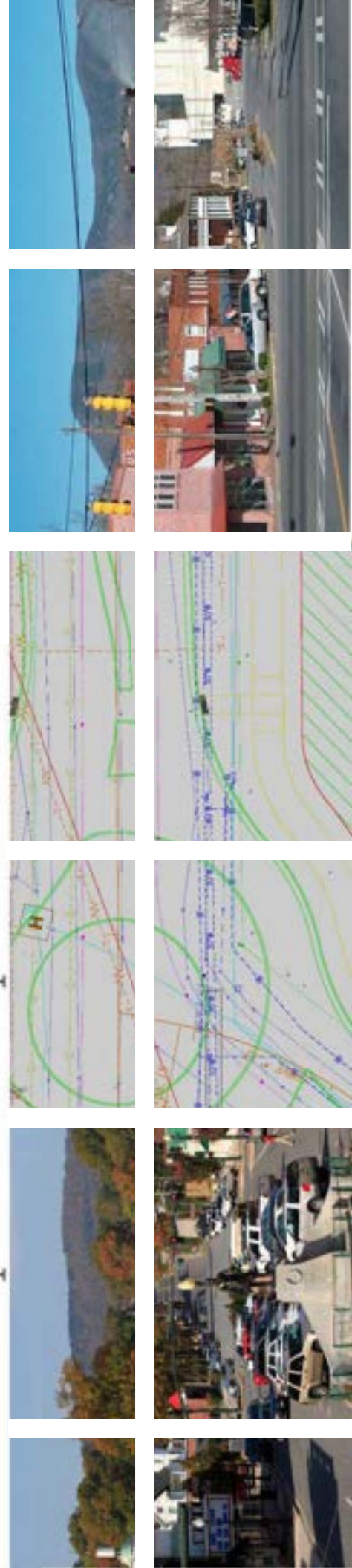
2045 Metropolitan Transportation Plan

Stakeholder Meeting #1

March 28, 2019



POND



AGENDA

- Background
- Initial Data
- Evaluation Methods
- Discuss Transportation Goals
- Map Exercises
- Next Steps

BACKGROUND

What is the MTP?

- Addresses all modes of transportation
- Prioritizes transportation needs and initiatives
- Documents how transportation will be funded through 2045

BACKGROUND

What is the process?

1 Develop
Overall Goals

BACKGROUND

What is the process?

1 Develop
Overall Goals

2 Understand
Needs

BACKGROUND

What is the process?

1 Develop
Overall Goals

2 Understand
Needs

3 Develop &
Test Solutions

BACKGROUND

What is the process?

1 Develop
Overall Goals

2 Understand
Needs

3 Develop &
Test Solutions

4 Prioritize
Projects

BACKGROUND

What is the process?

1 Develop
Overall Goals

2 Understand
Needs

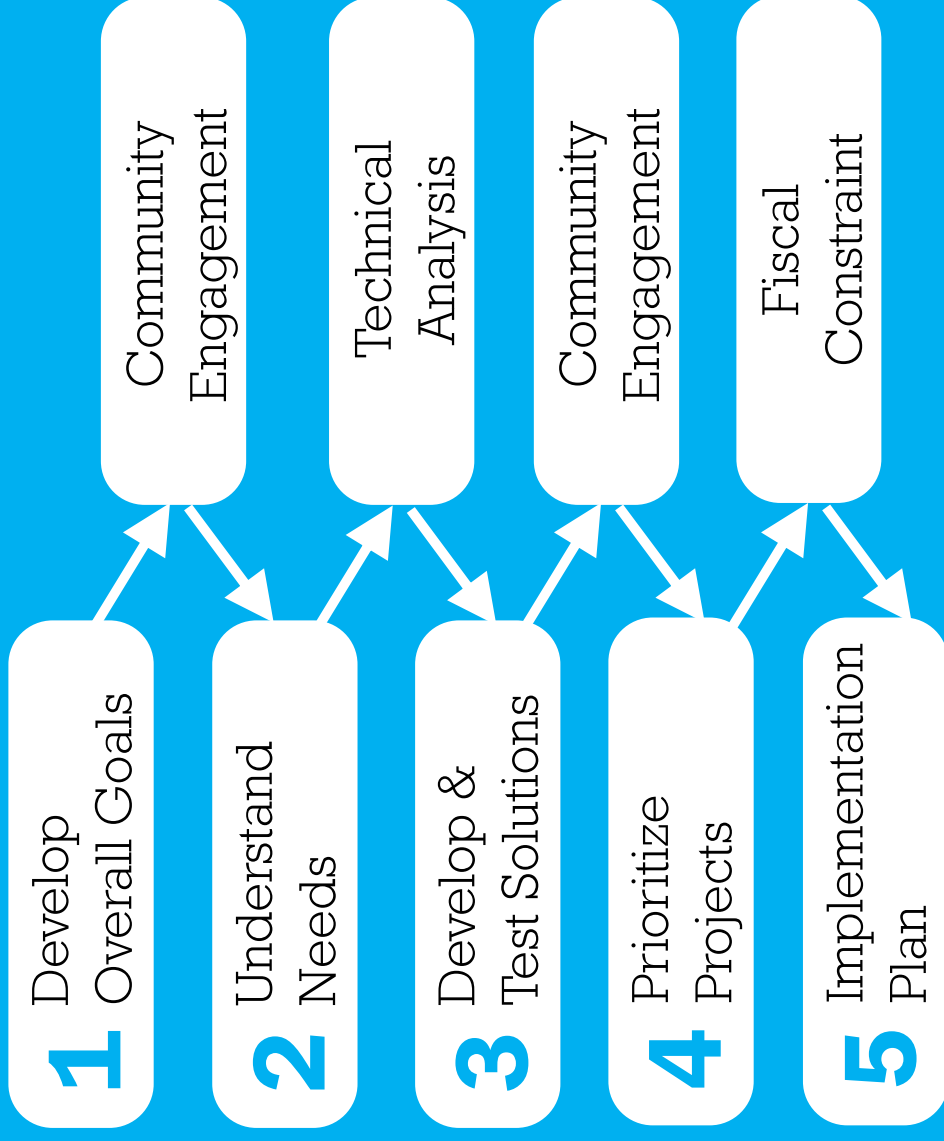
3 Develop &
Test Solutions

4 Prioritize
Projects

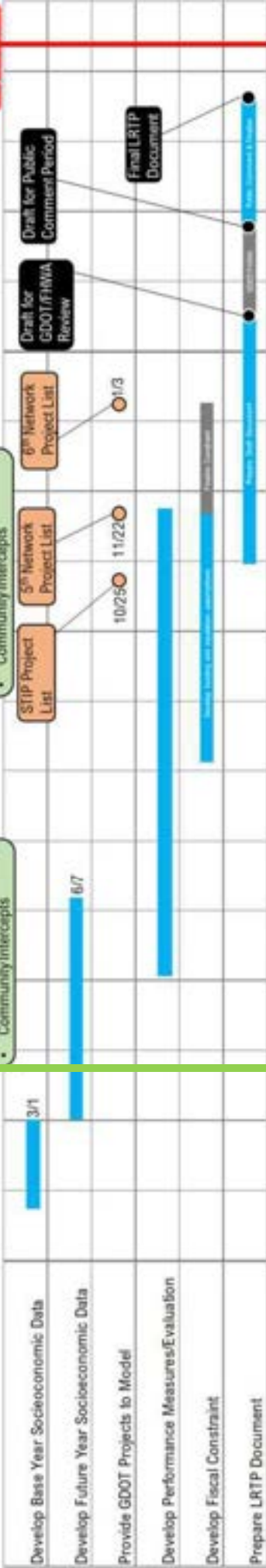
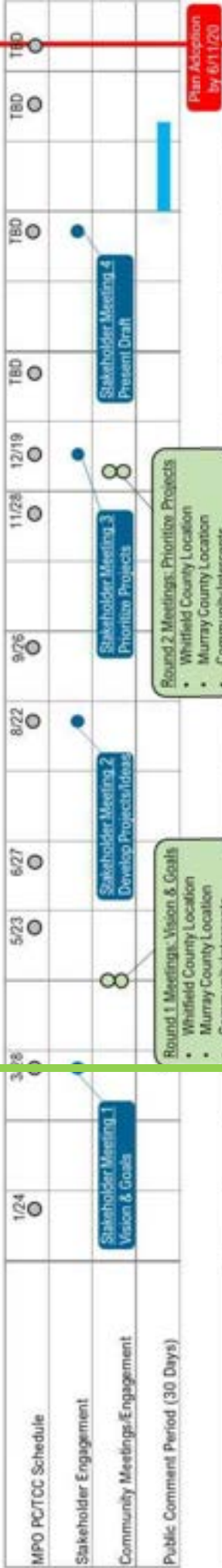
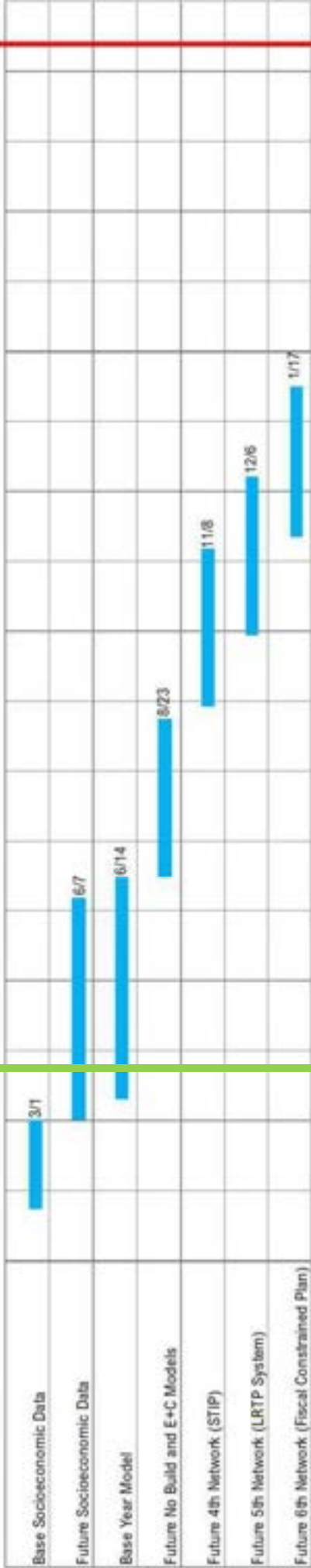
5 Implementation
Plan

BACKGROUND

What is the process?



BACKGROUND



Round 1 Meetings: Vision & Goals

- Whitfield County Location
- Murray County Location
- Community Intercepts

Round 2 Meetings: Prioritize Projects

- Whitfield County Location
- Murray County Location
- Community Intercepts

Plan Adoption by 6/11/20

Stakeholder Group Role

- Be an advocate for the process
- Raise awareness with your constituents and partners to maximize community involvement
- Vet ideas and recommendations
- Ask and answer tough questions

BACKGROUND

Stakeholder Group Schedule (tentative)

August 2019
(Develop Projects & Ideas)

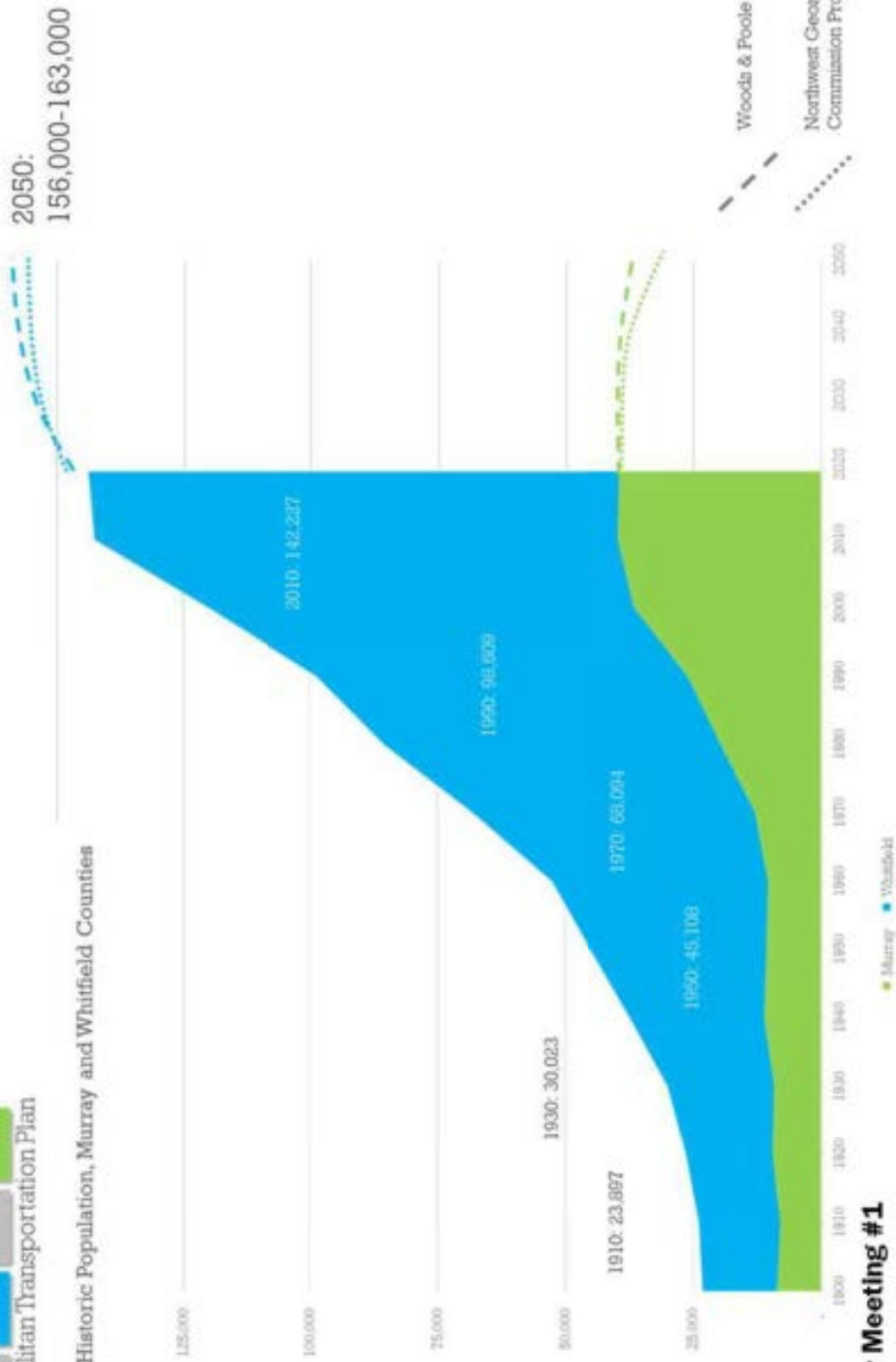
December 2019
(Prioritize Projects)

March 2020
(Review Draft Plan)

BACKGROUND

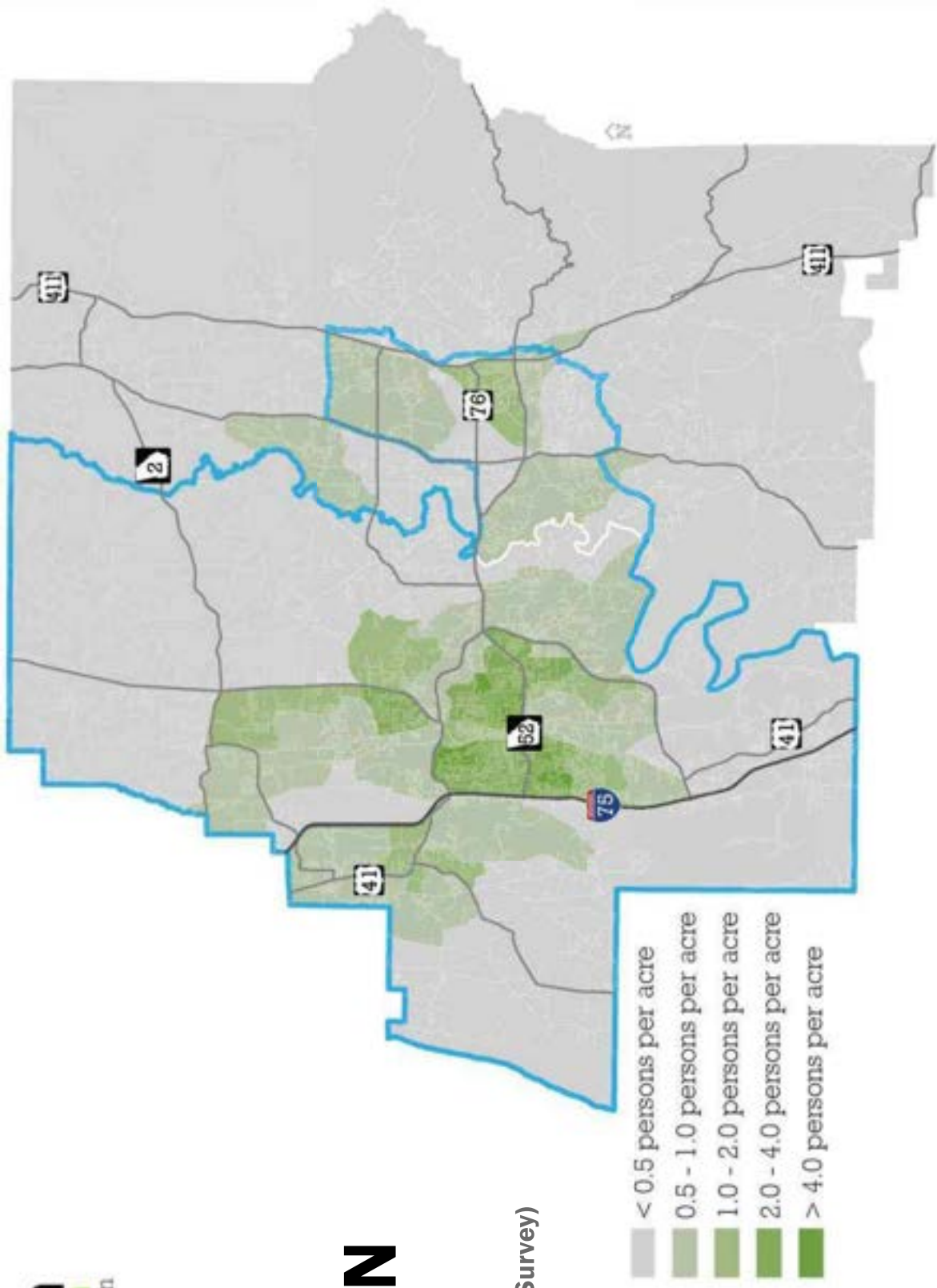
INITIAL DATA

Historic Population, Murray and Whitfield Counties



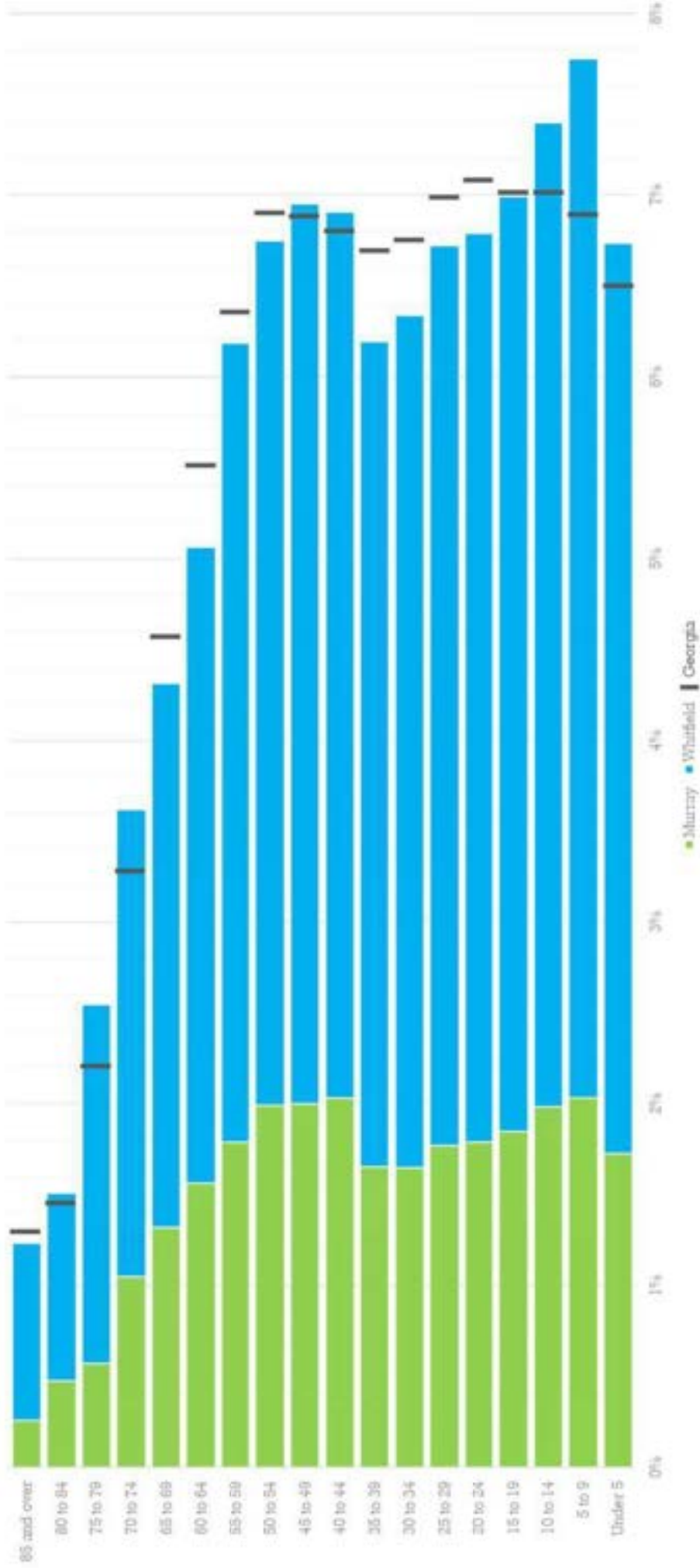
EXISTING POPULATION DENSITY

(Source: American Community Survey)



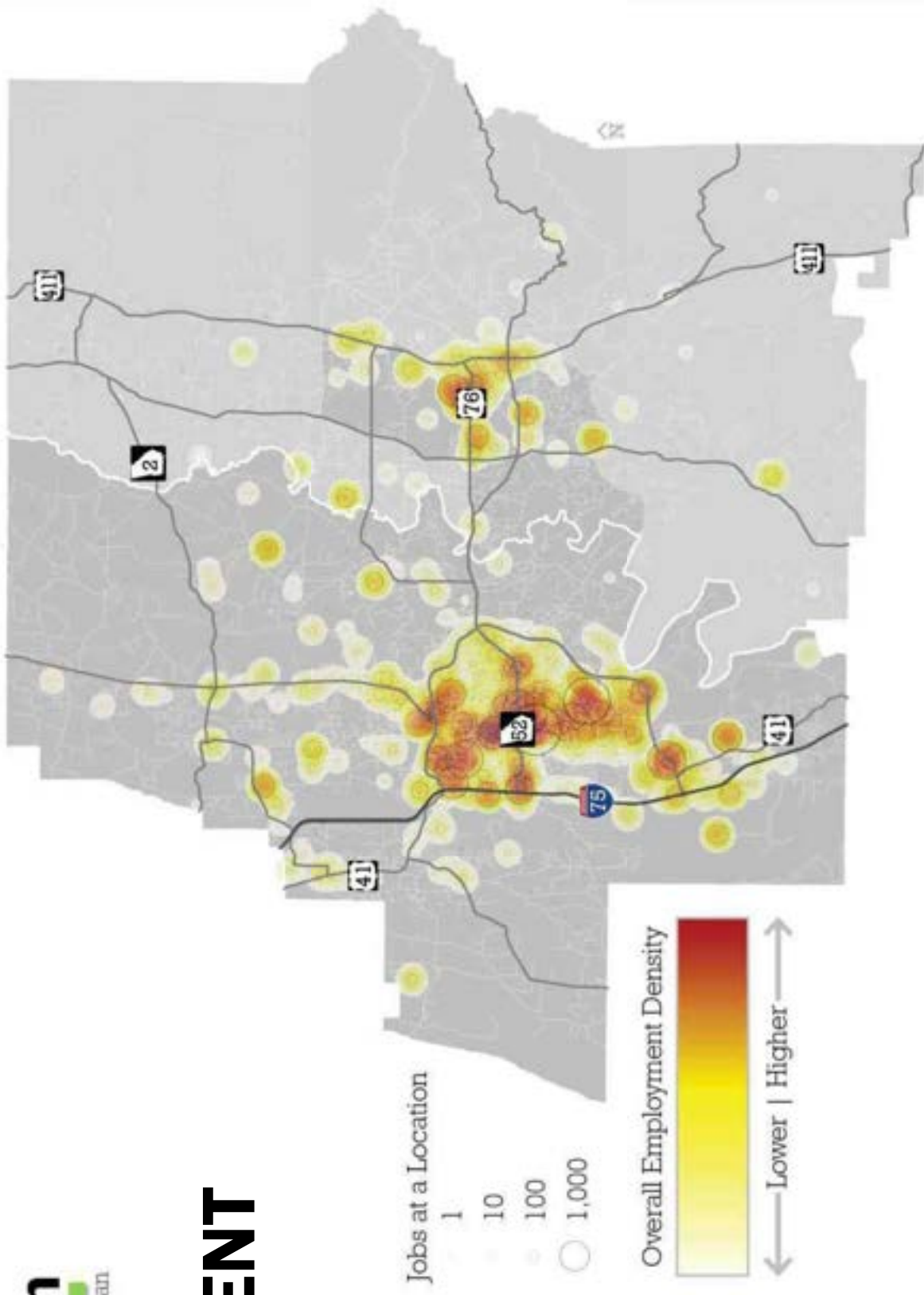
Greater Dalton

2045 Metropolitan Transportation Plan



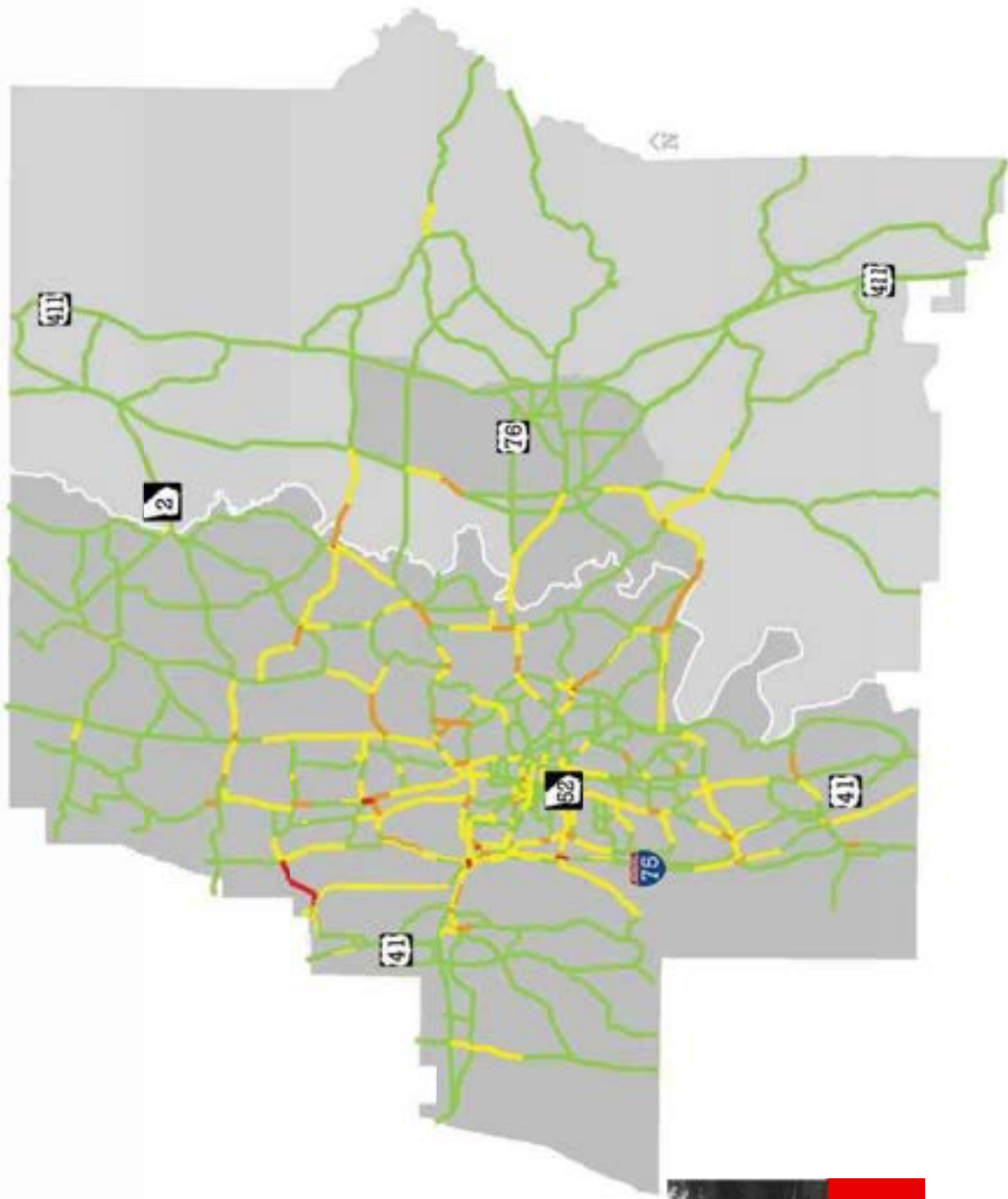
Stakeholder Meeting #1
March 28, 2019

EMPLOYMENT DENSITY



LOS PLOT FROM PREVIOUS LRTP

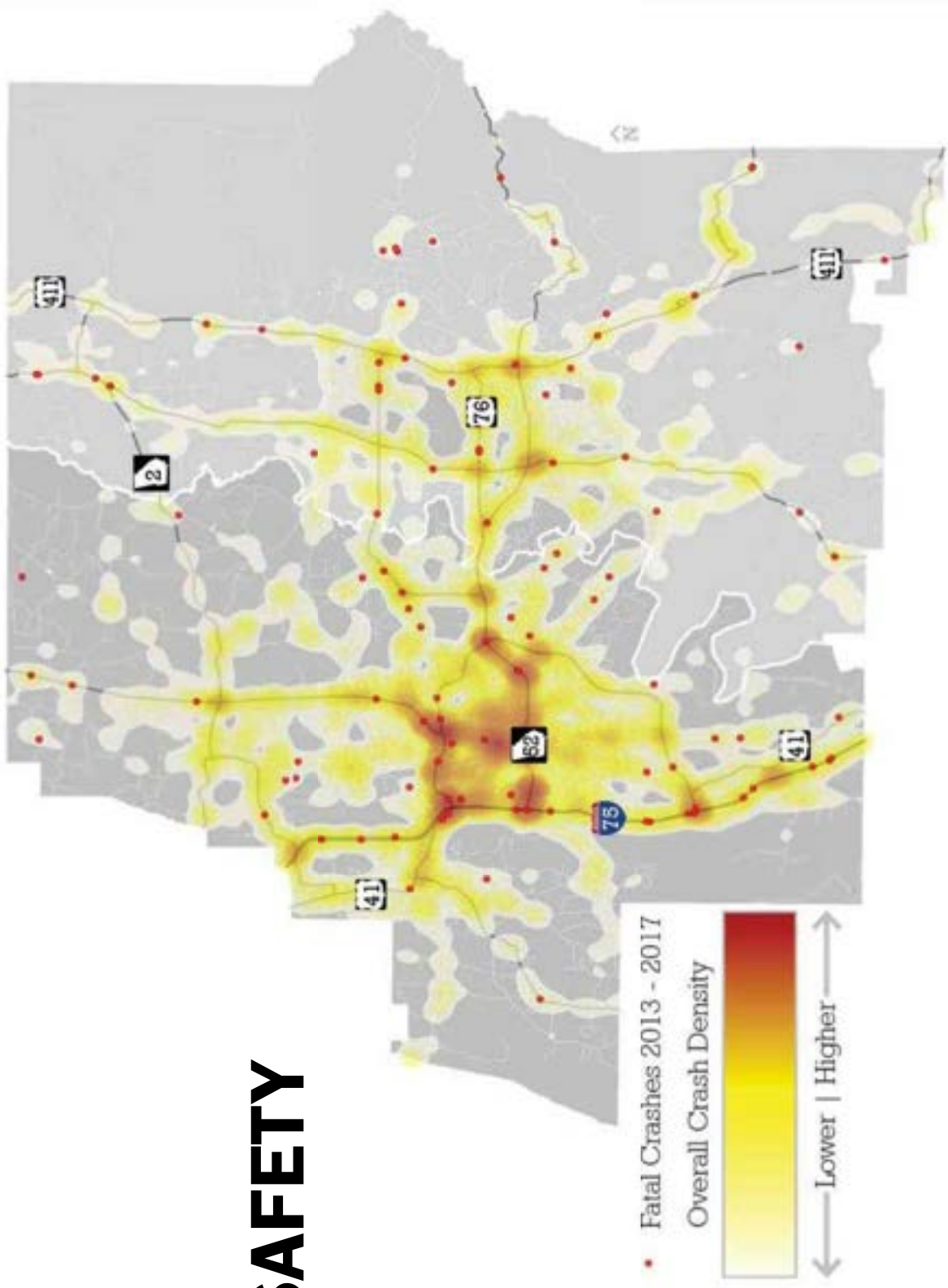
(Source: GDOT)



Stakeholder Meeting #1
March 28, 2019

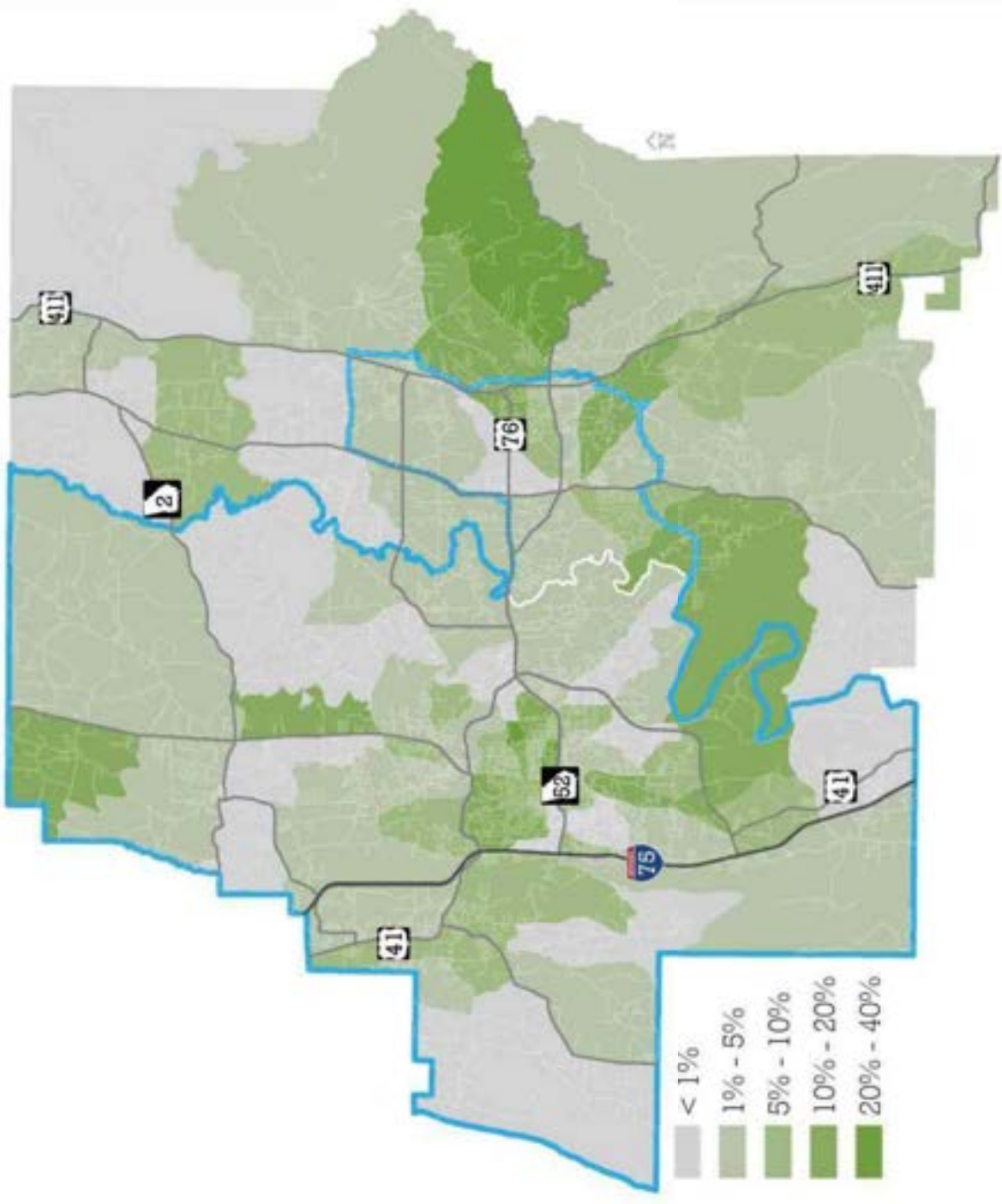
REGIONAL SAFETY & CRASHES

(Source: GDOT)



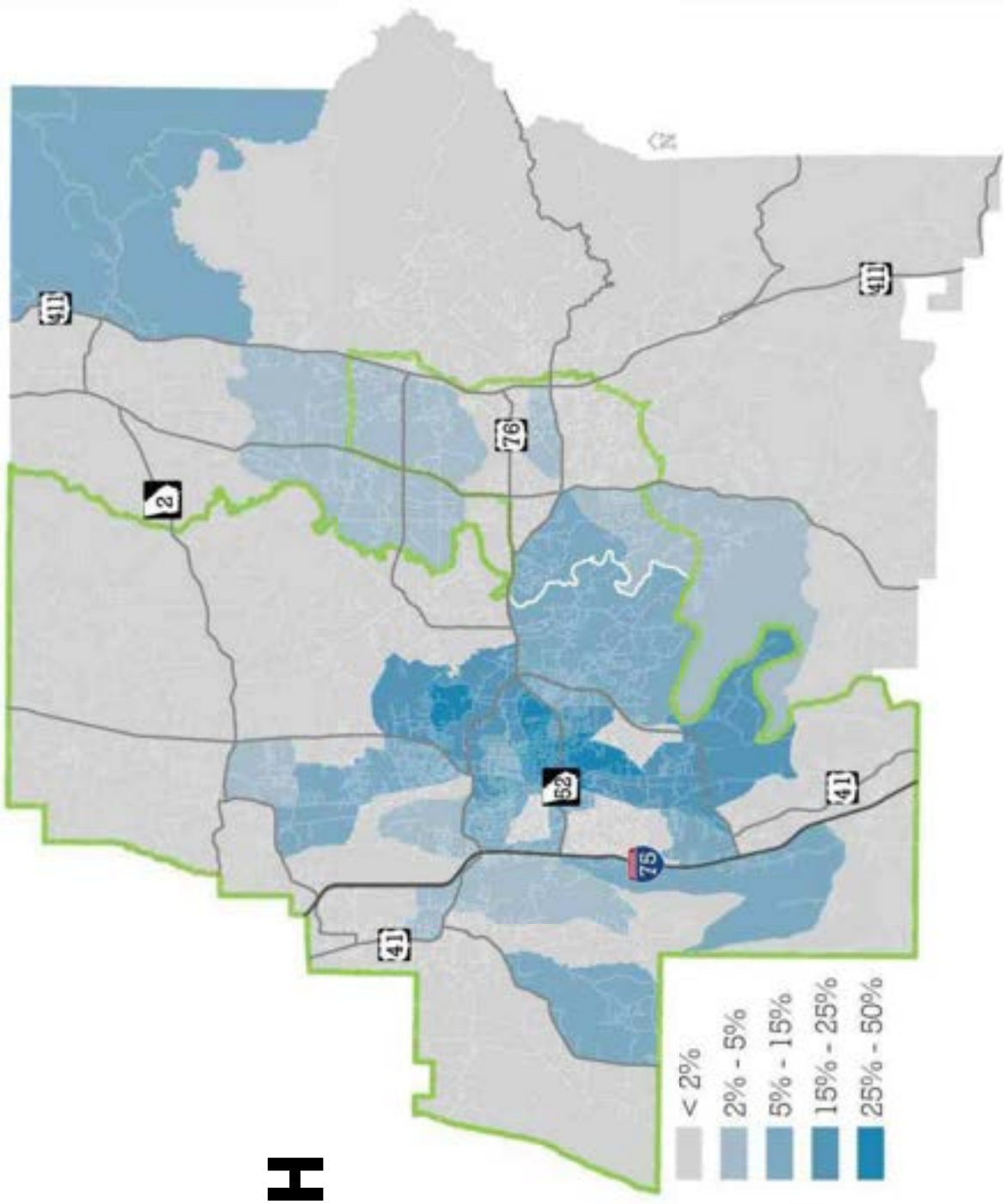
HOUSEHOLDS WITHOUT A VEHICLE

(Source: American Community Survey)



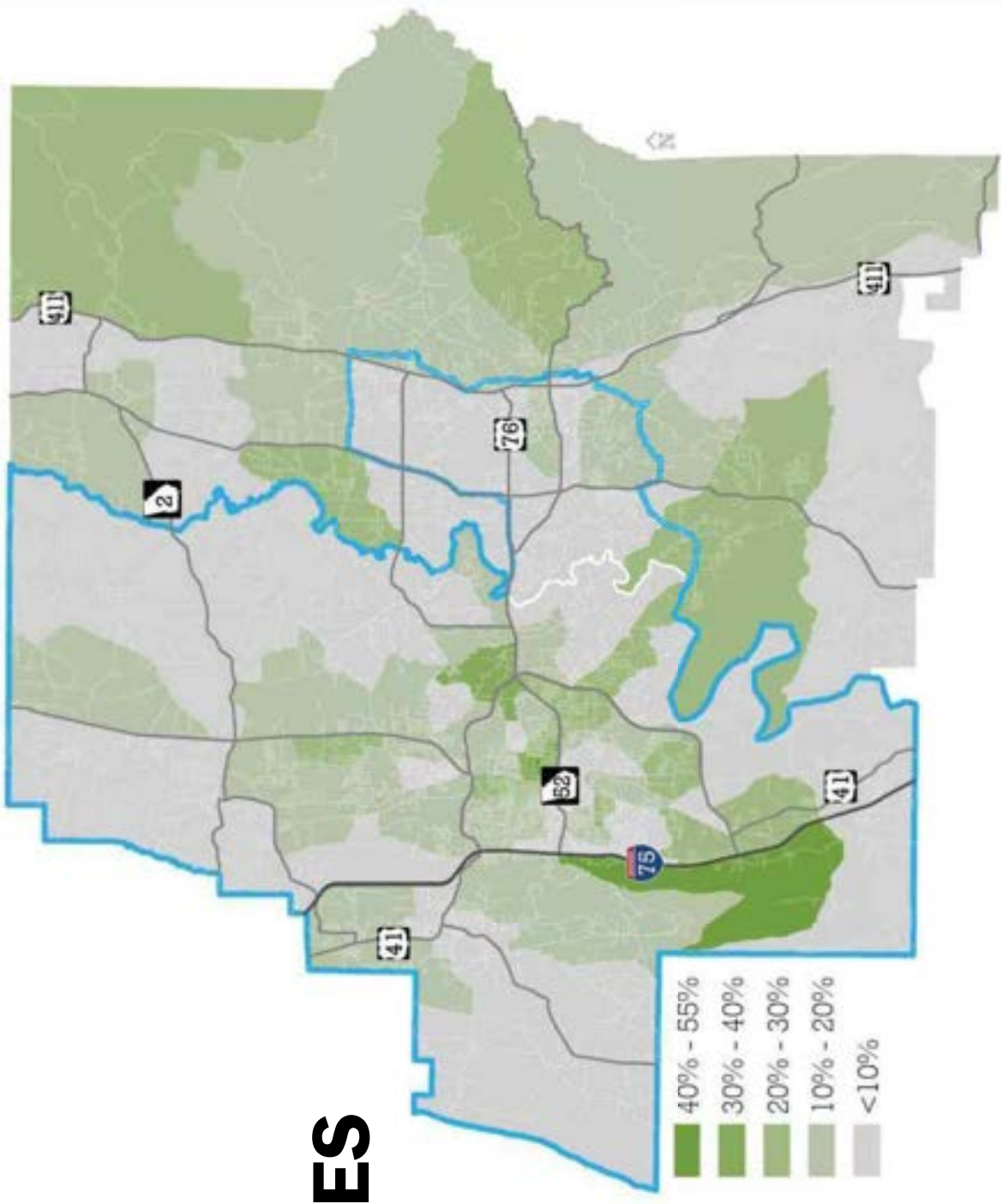
LIMITED ENGLISH PROFICIENCY

(Source: American Community Survey)

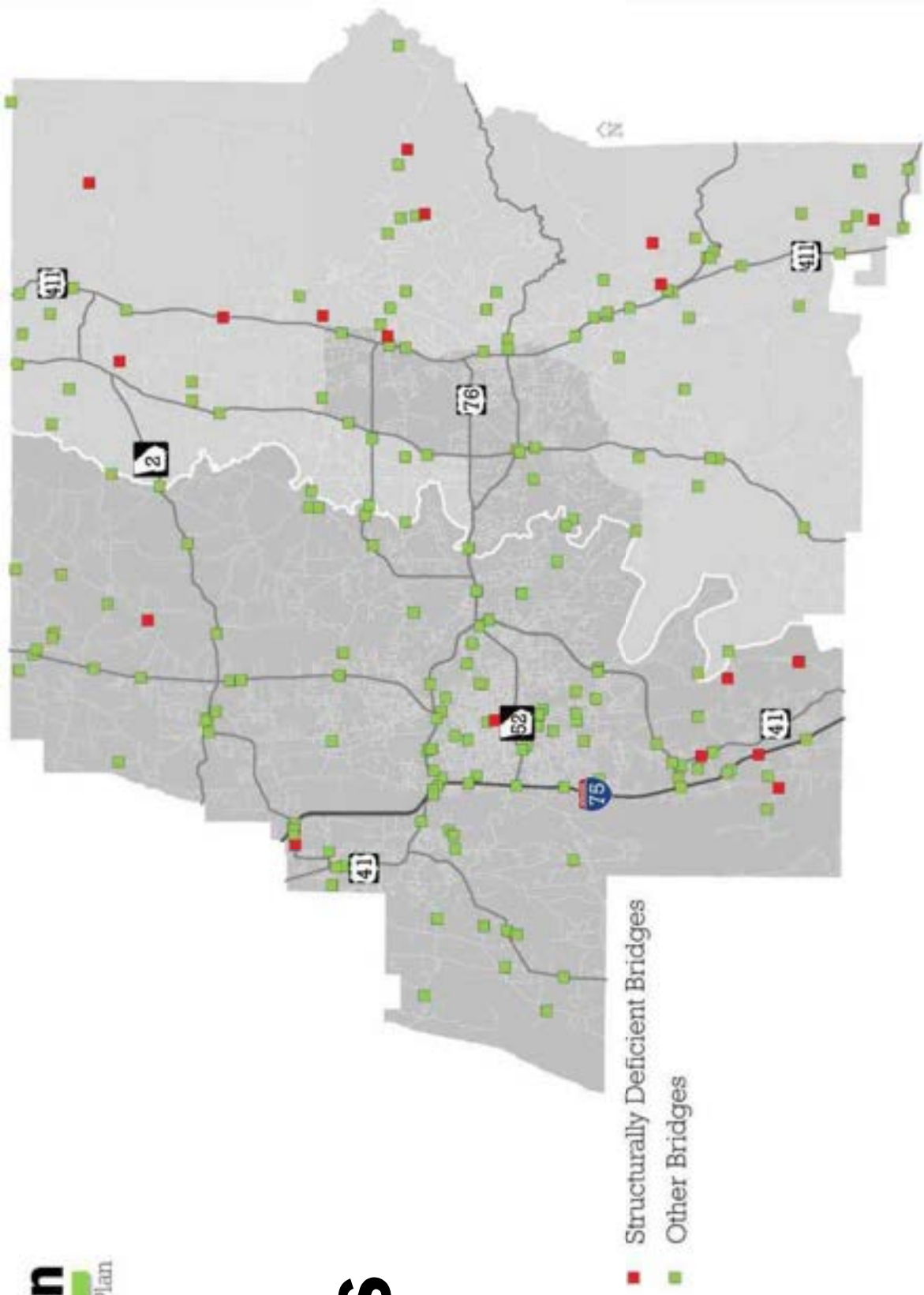


ALTERNATIVE MODE COMMUTES

(Source: American Community Survey)



BRIDGE LOCATIONS



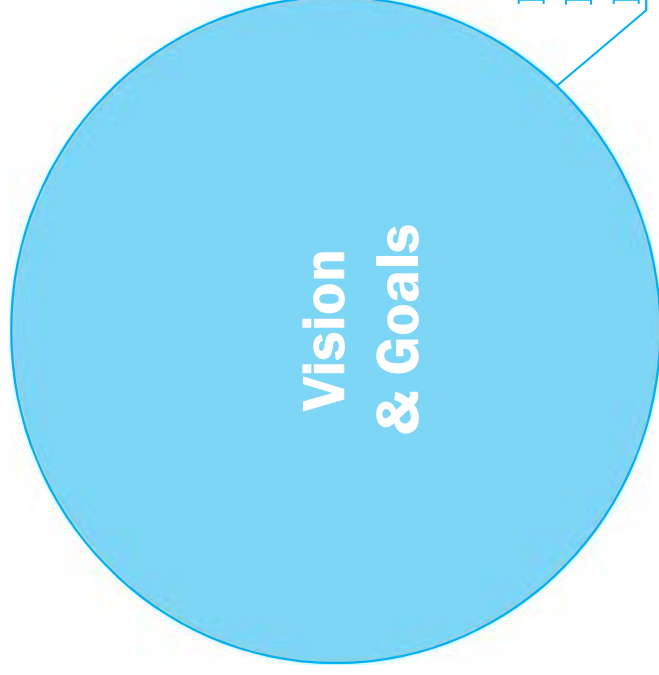
EVALUATION METHODS

LOS & Congestion
Safety Mitigation
Travelers Served
Bridge Sufficiency Ratings
Active Mode Propensity

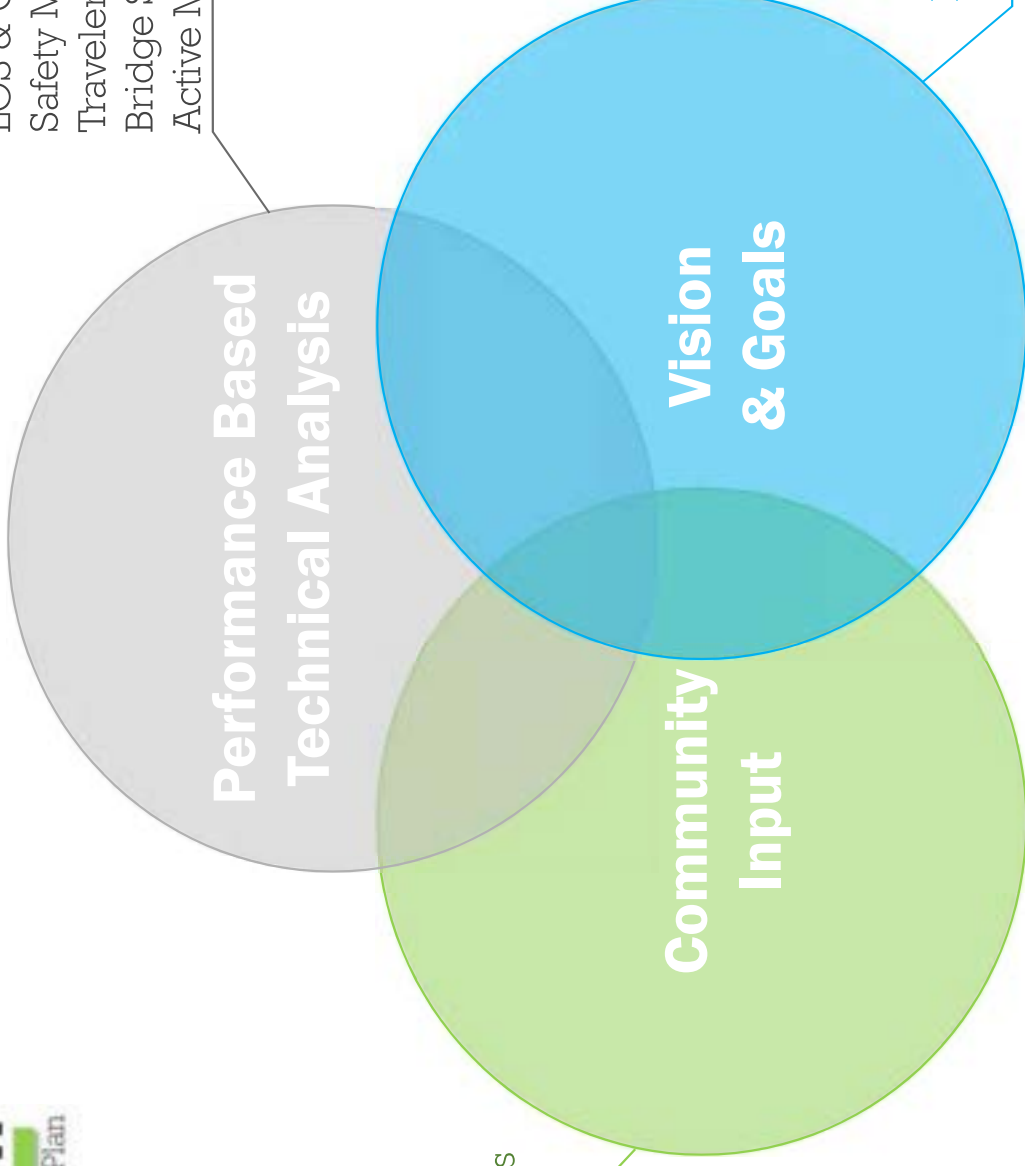
**Performance Based
Technical Analysis**

Bottlenecks
Community Preferences
Top Initiatives





LOS & Congestion
Safety Mitigation
Travelers Served
Bridge Sufficiency Ratings
Active Mode Propensity



Bottlenecks
Community Preferences
Top Initiatives

FHWA Goals
Regionally Goals
Local Goals

TRANSPORTATION GOALS

- **Federal**
- **State**
- **Regional**
- **Local**

FAST (Fixing America's Service Transportation) Act – FHWA

- Act providing \$2 billion for highway and bridge funding
- Planning Factors (10)
 - Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
 - Increase the **safety** of the transportation system for motorized and non-motorized users
 - Increase the **security** of the transportation system for motorized and non-motorized users
 - Increase **accessibility** and **mobility** of people and freight
 - Protect and enhance the **environment**, promote energy conservation, improve the **quality of life**, and promote **consistency** between transportation improvements and State and local planned growth and economic development patterns
 - Enhance the **integration** and **connectivity** of the transportation system, across and between modes, for people and freight
 - Promote **efficiency** system management and operation
 - Emphasize the **preservation** of the existing transportation system
 - Improve the **resiliency** and **reliability** of the transportation system and reduce or mitigate **stormwater impacts** of surface transportation; and **(new)**
 - Enhance travel and tourism **(new)**

Statewide Strategic Transportation Plan (SSTP) Update (2018)

Goals

- Improve safety (**safety**)
- Improve reliability (**reliability**)
- Reduce congestion
- Maintain and preserve (**preservation**)
- Improve freight/economic growth (**economic vitality**)
- Improve environment (**environmental sustainability**)

Greater Dalton MPO 2040 LRTP

- Overall goal
 - Develop a guide for the orderly development of a safe and efficient multimodal transportation system for the movement of people and goods which supports the land use and economic goals of the area and promotes quality of life
- Guiding principles (8)
 - Includes all modes (**multimodal**)
 - Be safe, convenient, and efficient (**safety, efficiency**)
 - Serve and enhance existing land use and planned growth (**growth**)
 - Sustain the quality of the environment and preserve community values (**environmental sustainability, community engagement**)
 - Be financially feasible, and support all sectors of the area's economy (**economic vitality**)
 - Provide access and connectivity with diverse land uses and modes (**connectivity, accessibility**)
 - Maintain performance measures to maintain quality of the transportation system (**preservation**)
 - Be maintained through local/official citizen participation in transportation decision-making (**community engagement**)

Murray County Joint Comprehensive Plan (2018)

- As the gateway to Georgia's Blue Ridge mountains, we will make Murray County a safe, clean, and welcoming destination for visitors to learn about the history of North Georgia and to enjoy a wide variety of outstanding recreation opportunities (**tourism**)
- We will work to diversify our economy to include a range of businesses and industries that allow quality job opportunities close to home while minimizing the impact on our rural environment and infrastructure (**economic vitality**)
- We will develop policies that protect and enhance our rural landscape, both for the enjoyment of visitors and wellbeing of fish and wildlife, as well as for agricultural and forest product production (**environmental sustainability, economic vitality**)
- Murray County boasts many beautiful springs, streams, Carter's Lake, and the State Scenic Conasauga and Jack's Rivers, whose aquatic diversity of fish and mussels are nationally recognized. We will manage land and water resources to assure the protection of these treasures for the enjoyment of future generations and so that they will continue to provide an abundant and clean water supply. (**economic vitality**)
- We will work with other government agencies and neighboring counties to address regional issues such as transportation, water management, wildlife fire management, and recreation (**Integration**)

Whitfield County Comprehensive Plan Update (2018) - excerpts

- Guiding future development with informed land use plans that take into account the protection of our natural resources (**environmental sustainability**)
- Providing a variety of walkable neighborhoods with sidewalks, greenway trails, and bike lanes (**multimodal**)
- An inclusive community that offers a variety of public transportation opportunities for its residents, with special attention given to those disadvantaged by age, income, or special needs (**Equity**)
- A community that embraces its history with preservation of historic resources and neighborhoods (**preservation**)
- A community that actively promotes and pursues innovative businesses, while investing in and retaining a high quality of life for our residents (**economic vitality**)

Thematic Ideas	Mentions					Total
	Federal	State	Region	Local		
Safety & Security	2	1	1	2		6
Accessibility	1			1		2
Mobility	2		1			3
Efficiency & Reliability	2	1	1			4
Environmental Sustainability	1	1	1	3		6
Economic Competitiveness	2	1		5		8
Maintenance/Resources	1					1
Innovation	1					1
Connectivity	1			3		4
Preservation	1	1		1		3
Equity				1		1
Multimodal			1	6		7
Stormwater Impacts	1					1
Tourism	1			4		4
Congestion		1				1
Growth			1			1
Community Engagement			1			1
Integration				3		3

Let's Establish What We Want Our Transportation System To Do:

What We've Already Heard

- Accommodate Freight Traffic
- Address North-South Travel
- Encourage Downtown Reinvestment

Other Ideas (But Let's Hear From You)

- Address East-West Travel
- Enhance Connections to I-75
- Active Mode Network For All Users

EXERCISES

EXERCISES

Exercise 1:

Use your 8 **red** dots provided to Rank relative needs to address different Transportation modes

Exercise 2:

On map, use your 4 **blue** dots to indicate the areas where congestion is most problematic

NEXT STEPS

NEXT STEPS

Community Engagement

- Community Open Houses (Locations TBD)
- Thursday April 25, 2019
- Tuesday April 30, 2019
- Online Community Survey (forthcoming)

Goals & Objectives

- Use information from today to refine

Technical Analyses

- Continue to coordinate with GDOT to prepare travel demand modeling and other technical analysis

Next Stakeholder Meeting

- Tentative August (to develop projects and ideas)

Attachment C

Goals Discussion Raw Notes



- E-W TRAVEL
- ALT. TRANSPORTATION IN REGION
+ DOWNTOWN AREAS
- PARKING ISSUES IN CONTROL AREA
- ENTRANCE CONNECTIONS TO I-75
(perhaps Wall St)
- CONNECTIONS TO NEIGHBORING COMMUNITIES
- CONSIDER OPPS. FOR TRAVEL SERVICE
 - TRANSPORTATION SERVICES FOR MEDICAL

Attachment D

Exercise Raw Results



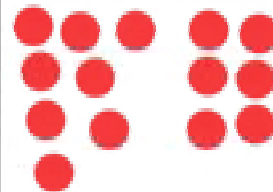
What types of transportation projects would be most helpful to you?

Apply your eight **red** dots to the eight transportation project types below based on your priorities. You can distribute your dots any way you think is appropriate.

Roadway Capacity
and Operations



Intersection
Improvements



Bridge Upgrades



Bicycle
Infrastructure

Pedestrian
Infrastructure



Transit



Freight Mobility



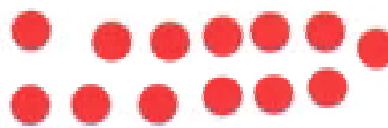
Aviation Facilities



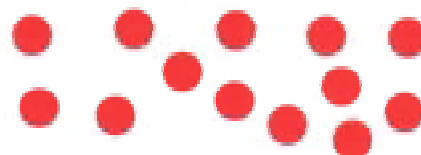
What types of transportation projects would be most helpful to you?

Apply your eight **red** dots to the eight transportation project types below based on your priorities. You can distribute your dots any way you think is appropriate.

Roadway Capacity
and Operations



Intersection
Improvements



Bridge Upgrades



Bicycle
Infrastructure



Pedestrian
Infrastructure



Transit



Freight Mobility



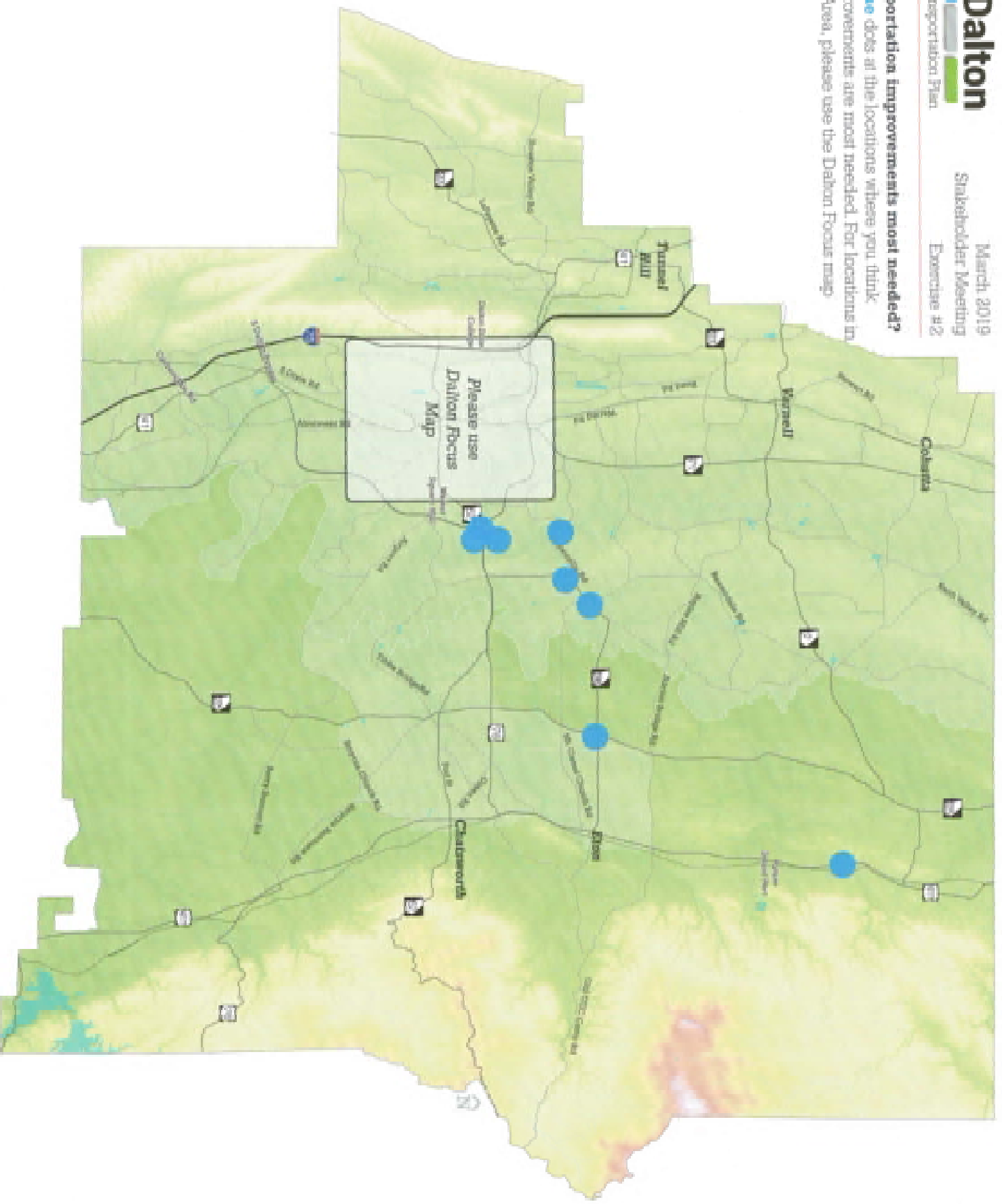
Aviation Facilities

Greater Dalton

2045 Metropolitan Transportation Plan

March 2019
Stakeholder Meeting
Exercise #2

Where are transportation improvements most needed?
Place your four blue dots at the locations where you think transportation improvements are most needed. For locations in the central Dalton Area, please use the Dalton Focus map.



POND

Appendix C-4 Public Comments



This appendix is reserved for any comments received from the public during the upcoming comment period

Appendix D Travel Demand Modeling Documentation



This appendix will be provided by GDOT

Appendix E

Fiscally Constrained Projects



2 SR 225 Widening



Project Information

Project Name:	SR 225 Widening	Length (mi):	0.5
GDOT PI Number:	631550	Extents:	SR 52 ALT to Spring Place Smyrna Road
City:	Chatsworth	Existing Config.:	2 lanes
County:	Murray	Planned Config.:	4 lanes
Project Type:	Widening	Purpose and Need:	Reduce traffic congestion on SR 225

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	N/A	N/A
Right of Way (ROW):	2036-2045 (Long)	\$2,795,484	\$0	\$2,795,484
Utilities (UTL):	2036-2045 (Long)		\$0	\$683,856
Construction (CST):	2036-2045 (Long)	\$7,417,020	\$0	\$7,417,020
Total:	2036-2045 (Long)	\$10,212,504	\$0	\$10,212,504



3 SR 225 Bypass (North and South)



Project Information

Project Name:	SR 225 Bypass (North and South)	Length (mi):	4.24
GDOT PI Number:	003061	Extents:	SR 225 at Pinhook Creek Road to SR 225 North of Imperial Blvd
City:	Chatsworth	Existing Config.:	0 lanes
County:	Murray	Planned Config.:	2 lanes
Project Type:	New Location	Purpose and Need:	Provide an alternative route for traffic, especially trucks

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$891,568	\$0	\$891,568
Right of Way (ROW):	2036-2045 (Long)	\$5,030,095	\$0	\$5,030,095
Utilities (UTL):	2036-2045 (Long)	\$0	\$0	\$0
Construction (CST):	2036-2045 (Long)	\$5,584,441	\$0	\$5,584,441
Total:	2036-2045 (Long)	\$11,506,104	\$0	\$11,506,104

6 SR 52 Alt at Town Branch



Project Information

Project Name:	SR 52 Alt. at Town Branch	Length (mi):	0.4
GDOT PI Number:	0007047	Extents:	N/A
City:	Chatsworth	Existing Config.:	2 lanes
County:	Murray	Planned Config.:	2 lanes
Project Type:	Bridge	Purpose and Need:	Maintain bridge infrastructure

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	Complete	N/A	\$0	N/A
Utilities (UTL):	2020	\$48,805	\$0	\$48,805
Construction (CST):	2020	\$2,141,597	\$0	\$2,141,597
Total:	2020	\$2,190,402	\$0	\$2,190,402



9 SR 201 Realignment/Improvement



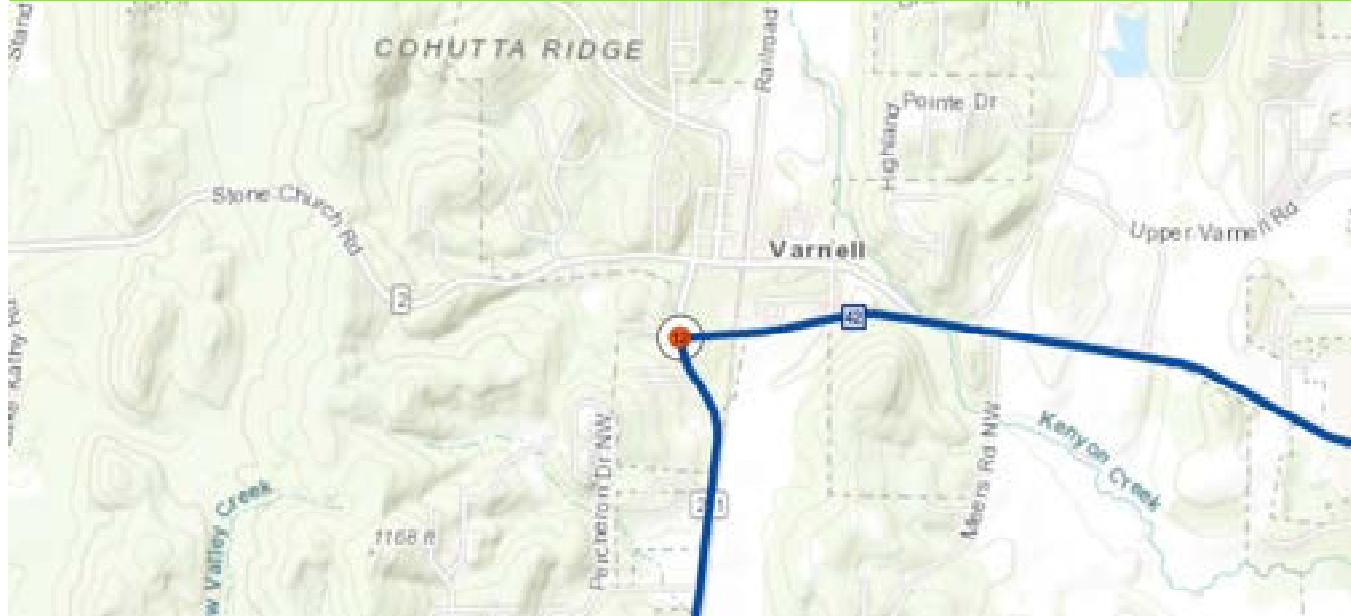
Project Information

Project Name:	SR 201 Realignment and Improvement	Length (mi):	1.51
GDOT PI Number:	N/A	Extents:	US 41 to I-75 Interchange
City:	Dalton	Existing Config.:	East of Lees Chapel Rd: 2 Lanes West of Lees Chapel Rd: 0 Lanes
County:	Whitfield	Planned Config.:	2 Lanes
Project Type:	New Location	Purpose and Need:	Traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	Complete	N/A	\$0	N/A
Utilities (UTL):	Complete	N/A	\$0	N/A
Construction (CST):	2020	\$5,300,000	\$0	\$5,300,000
Total:	2020	\$5,300,000	\$0	\$5,300,000

12 SR 2 at SR 201



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	SR 2 at SR 201	Length (mi):	N/A
GDOT PI Number:	N/A	Extents:	N/A
City:	Varnell	Existing Config.:	Side street stop control
County:	Whitfield	Planned Config.:	Roundabout
Project Type:	Intersection	Purpose and Need:	Traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$71,400	\$0	\$71,400
Right of Way (ROW):	2024	\$324,730	\$0	\$324,730
Utilities (UTL):	2024	\$54,122	\$0	\$54,122
Construction (CST):	2028	\$609,497	\$0	\$609,497
Total:	2028	\$1,059,748	\$0	\$1,059,748



13 Old Tilton Road



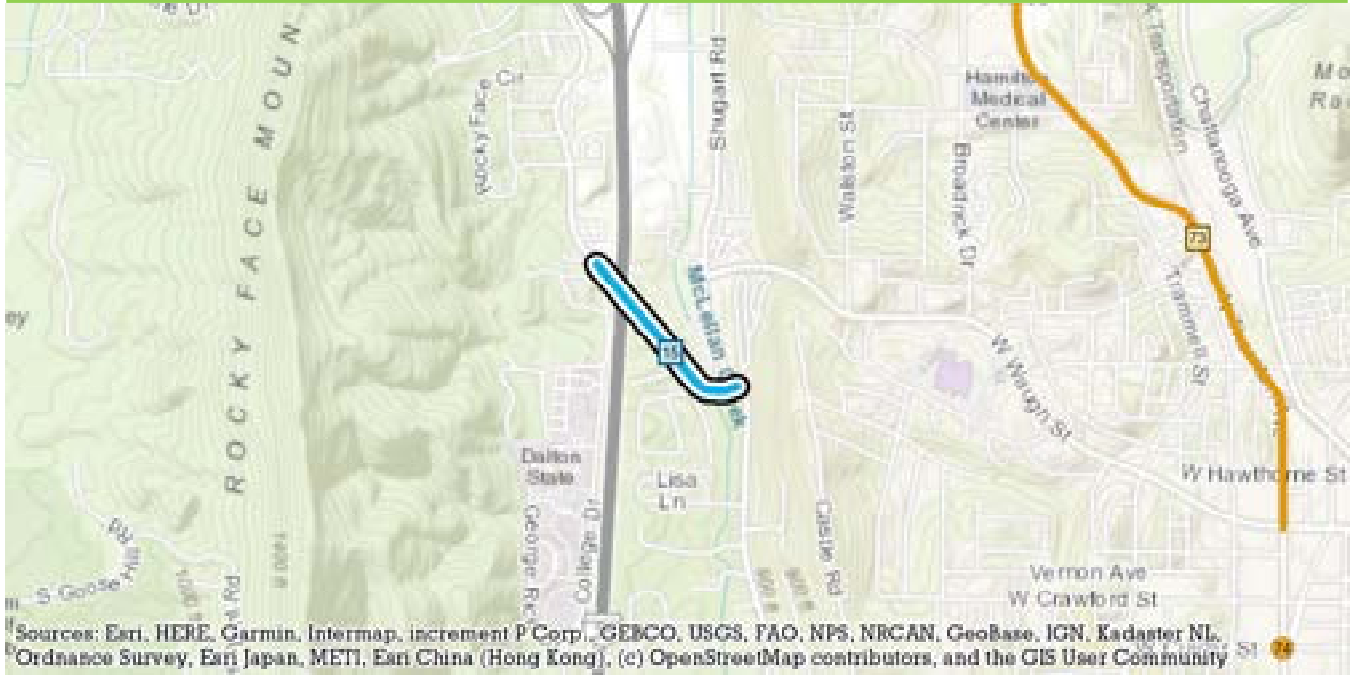
Project Information

Project Name:	Old Tilton Road	Length (mi):	0.3
GDOT PI Number:	N/A	Extents:	Swamp Creek
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes
Project Type:	Bridge	Purpose and Need:	Maintain bridge infrastructure

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$118,876	\$0	\$118,876
Right of Way (ROW):	2036-2045 (Long)	\$74,297	\$0	\$74,297
Utilities (UTL):	2036-2045 (Long)	\$0	\$0	\$0
Construction (CST):	2036-2045 (Long)	\$1,485,947	\$0	\$1,485,947
Total:	2036-2045 (Long)	\$1,679,121	\$0	\$1,679,121

15 North Tibbs Road



Project Information

Project Name:	North Tibbs Road	Length (mi):	0.55
GDOT PI Number:	N/A	Extents:	College Drive to Shugart Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with 2 auxiliary lanes
Project Type:	Widening	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$325,013	\$0	\$325,013
Right of Way (ROW):	2025	\$726,485	\$0	\$726,485
Utilities (UTL):	2025	\$129,729	\$0	\$129,729
Construction (CST):	2026-2035 (Mid)	\$5,548,863	\$0	\$5,548,863
Total:	2026-2035 (Mid)	\$6,730,090	\$0	\$6,730,090



16 SR 3 (Chattanooga Road)



Project Information

Project Name:	SR 3 (Chattanooga Road)	Length (mi):	0.11
GDOT PI Number:	N/A	Extents:	North Tibbs Road
City:	Dalton	Existing Config.:	4 lanes
County:	Whitfield	Planned Config.:	Added right turn lane on SR 3 to N. Tibbs Road
Project Type:	Intersection	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$40,800	\$0	\$40,800
Right of Way (ROW):	2025	\$1,435,305	\$0	\$1,435,305
Utilities (UTL):	2025	\$55,204	\$0	\$55,204
Construction (CST):	2026-2035 (Mid)	\$426,648	\$0	\$426,648
Total:	2026-2035 (Mid)	\$1,957,957	\$0	\$1,957,957

18 Reed Road



Project Information

Project Name:	Reed Road	Length (mi):	5.78
GDOT PI Number:	N/A	Extents:	SR 3 to SR 201
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with auxiliary turn lanes
Project Type:	Multiple Intersections	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$392,700	\$0	\$392,700
Right of Way (ROW):	2024	\$1,190,675	\$0	\$1,190,675
Utilities (UTL):	2024	\$1,564,114	\$0	\$1,564,114
Construction (CST):	2026-2035 (Mid)	\$6,704,469	\$0	\$6,704,469
Total:	2026-2035 (Mid)	\$9,851,959	\$0	\$9,851,959



19 SR 201



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	SR 201	Length (mi):	0.45
GDOT PI Number:	N/A	Extents:	SR 3 to Old LaFayette Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with auxiliary turn lanes
Project Type:	Operational	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$187,229	\$0	\$187,229
Right of Way (ROW):	2036-2045 (Long)	\$222,892	\$0	\$222,892
Utilities (UTL):	2036-2045 (Long)	\$148,595	\$0	\$148,595
Construction (CST):	2036-2045 (Long)	\$2,674,705	\$0	\$2,674,705
Total:	2036-2045 (Long)	\$3,233,422	\$0	\$3,233,422

20 Old LaFayette Road & Intersection with SR 201



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	Old LaFayette Road & Intersection with SR 201	Length (mi):	0.71
GDOT PI Number:	N/A	Extents:	SR 201 to SR 3
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with auxiliary turn lanes
Project Type:	Operational	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$297,189	\$0	\$297,189
Right of Way (ROW):	2036-2045 (Long)	\$222,892	\$0	\$222,892
Utilities (UTL):	2036-2045 (Long)	\$148,595	\$0	\$148,595
Construction (CST):	2036-2045 (Long)	\$4,220,091	\$0	\$4,220,091
Total:	2036-2045 (Long)	\$4,888,767	\$0	\$4,888,767



21 Underwood Street



Project Information

Project Name:	Underwood Street	Length (mi):	2.41
GDOT PI Number:	N/A	Extents:	Glenwood to Bypass
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes (reconstructed)
Project Type:	Operational	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$74,297	\$0	\$74,297
Right of Way (ROW):	2036-2045 (Long)	\$445,784	\$0	\$445,784
Utilities (UTL):	2036-2045 (Long)	\$0	\$0	\$0
Construction (CST):	2036-2045 (Long)	\$1,935,879	\$0	\$1,935,879
Total:	2036-2045 (Long)	\$2,455,960	\$0	\$2,455,960

22 Underwood Street



Project Information

Project Name:	Underwood Street	Length (mi):	0.13
GDOT PI Number:	N/A	Extents:	Mill Creek
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes
Project Type:	Bridge	Purpose and Need:	Maintain bridge infrastructure

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$153,000	\$0	\$153,000
Right of Way (ROW):	2025	\$33,122	\$0	\$33,122
Utilities (UTL):	2025	\$0	\$0	\$0
Construction (CST):	2026-2035 (Mid)	\$2,559,888	\$0	\$2,559,888
Total:	2026-2035 (Mid)	\$2,746,011	\$0	\$2,746,011



24 Intersection Improvements - 8 locations



Project Information

Project Name:	Intersection Improvements - 8 locations	Length (mi):	N/A
GDOT PI Number:	N/A	Extents:	Various
City:	Dalton	Existing Config.:	Various
County:	Murray	Planned Config.:	Upgrade traffic signal equipment, install traffic signals, construct turn lanes
Project Type:	Intersection	Purpose and Need:	Reduce traffic crashes

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$520,082	\$0	\$520,082
Right of Way (ROW):	2036-2045 (Long)	\$1,337,353	\$0	\$1,337,353
Utilities (UTL):	2036-2045 (Long)	\$594,379	\$0	\$594,379
Construction (CST):	2036-2045 (Long)	\$7,429,737	\$0	\$7,429,737
Total:	2036-2045 (Long)	\$9,881,550	\$0	\$9,881,550

29 CR 688/Louise Lane Extension



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community.

Project Information

Project Name:	CR 688/Louise Lane Extension	Existing Config.:	None
GDOT PI Number:	0013095	Planned Config.:	2 lanes; Connect Louise Ln to Baker Rd. Improve Baker Rd and Eber Rd and RR crossing at Eber Rd
City:	Dalton		
County:	Whitfield	Purpose and Need:	Transportation connectivity and railroad safety
Project Type:	New Location		
Length (mi):	0.72		
Extents:	Eber Rd to Redwine Cv		

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	2022	\$816,000	\$0	\$816,000
Utilities (UTL):	2025	\$162,365	\$0	\$162,365
Construction (CST):	2026-2035 (Mid)	\$4,875,978	\$0	\$4,875,978
Total:	2026-2035 (Mid)	\$5,854,343	\$0	\$5,854,343



35 South Dixie Highway



Project Information

Project Name:	South Dixie Highway	Length (mi):	0.3
GDOT PI Number:	N/A	Extents:	W. Industrial Boulevard at Foster Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes
Project Type:	Intersection	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	2021	\$369,538	\$0	\$369,538
Utilities (UTL):	2021	\$0	\$0	\$0
Construction (CST):	2024	\$1,274,510	\$0	\$1,274,510
Total:	2024	\$1,644,048	\$0	\$1,644,048

36 North Dalton Bypass



Project Information

Project Name:	North Dalton Bypass	Length (mi):	0.29
GDOT PI Number:	N/A	Extents:	At Cleveland Highway
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	4 lanes and auxiliary lanes
Project Type:	Grade Separation	Purpose and Need:	Reduce congestion; operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$500,539	\$0	\$500,539
Right of Way (ROW):	2024	\$2,686,275	\$0	\$2,686,275
Utilities (UTL):	2024	\$980,392	\$0	\$980,392
Construction (CST):	2026-2035 (Mid)	\$7,948,278	\$0	\$7,948,278
Total:	2026-2035 (Mid)	\$12,115,484	\$0	\$12,115,484



37 Underwood Road



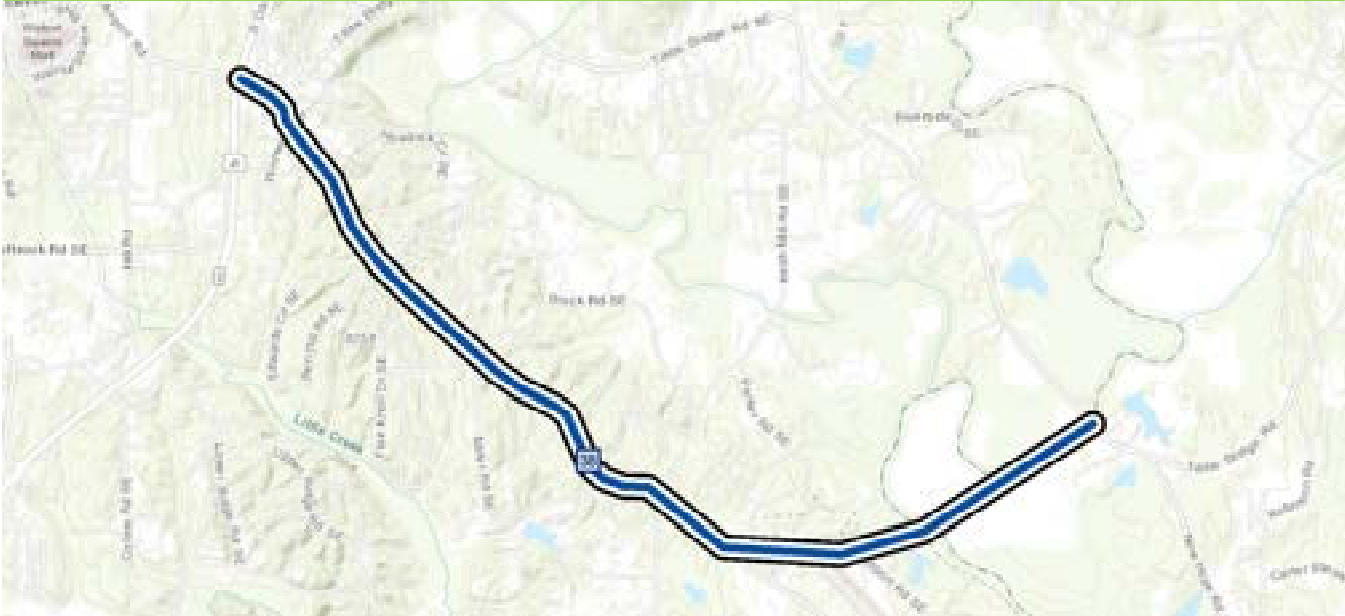
Project Information

Project Name:	Underwood Road	Length (mi):	2.08
GDOT PI Number:	N/A	Extents:	North Dalton Bypass to Dawnville Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes, reconstructed
Project Type:	Operational	Purpose and Need:	Operational improvement

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	2021	\$277,154	\$0	\$277,154
Utilities (UTL):	2021	\$0	\$0	\$0
Construction (CST):	2024	\$784,314	\$0	\$784,314
Total:	2024	\$1,061,467	\$0	\$1,061,467

38 Airport Road



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	Airport Road	Length (mi):	4.36
GDOT PI Number:		Extents:	South Dalton Bypass to Tibbs Bridge
City:	Dalton	Existing Config.:	2 lanes north of airport; 0 lanes east of airport
County:	Whitfield/Murray	Planned Config.:	2 lanes throughout
Project Type:	Operational	Purpose and Need:	Improve roadway network connectivity

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$292,406	\$0	\$292,406
Right of Way (ROW):	2024	\$1,106,565	\$0	\$1,106,565
Utilities (UTL):	2024	\$145,436	\$0	\$145,436
Construction (CST):	2026-2035 (Mid)	\$6,770,351	\$0	\$6,770,351
Total:	2026-2035 (Mid)	\$8,314,758	\$0	\$8,314,758



42 SR 201



Project Information

Project Name:	SR 201	Length (mi):	2.23
GDOT PI Number:	N/A	Extents:	I-75 Interchange to US 411
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with auxiliary lanes
Project Type:	Operational	Purpose and Need:	Reduce traffic congestion; improve safety

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$149,556	\$0	\$149,556
Right of Way (ROW):	2024	\$565,973	\$0	\$565,973
Utilities (UTL):	2024	\$74,386	\$0	\$74,386
Construction (CST):	2026-2035 (Mid)	\$3,462,817	\$0	\$3,462,817
Total:	2026-2035 (Mid)	\$4,252,732	\$0	\$4,252,732

56 SR 52 Alt



Project Information

Project Name:	SR 52 Alt	Length (mi):	2.26
GDOT PI Number:	N/A	Extents:	SR 225 to SR 52/US 76
City:	Dalton	Existing Config.:	2 lanes
County:	Murray	Planned Config.:	4 lanes
Project Type:	Widening	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$719,375	\$0	\$719,375
Right of Way (ROW):	2026-2035 (Mid)	\$12,445,466	\$0	\$12,445,466
Utilities (UTL):	2026-2035 (Mid)	\$58,873	\$0	\$58,873
Construction (CST):	2036-2045 (Long)	\$14,222,769	\$0	\$14,222,769
Total:	2036-2045 (Long)	\$27,446,483	\$0	\$27,446,483



57 US 76/Chatsworth Highway



Project Information

Project Name:	US 76/Chatsworth Highway	Length (mi):	3.51
GDOT PI Number:	N/A	Extents:	SR 3 Bypass to US 76
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield/Murray	Planned Config.:	2 lanes with intersection improvements
Project Type:	Intersection	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2020	\$150,000	\$0	\$150,000
Right of Way (ROW):	2023	\$424,483	\$0	\$424,483
Utilities (UTL):	2023	\$265,302	\$0	\$265,302
Construction (CST):	2026-2035 (Mid)	\$2,194,190	\$0	\$2,194,190
Total:	2026-2035 (Mid)	\$3,033,975	\$0	\$3,033,975

58 Lake Francis Road



Project Information

Project Name:	Lake Francis Road	Length (mi):	0.72
GDOT PI Number:	N/A	Extents:	SR 2/Prater Mill Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with intersection improvements
Project Type:	Intersection	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$306,000	\$0	\$306,000
Right of Way (ROW):	2024	\$129,892	\$0	\$129,892
Utilities (UTL):	2024	\$162,365	\$0	\$162,365
Construction (CST):	2026-2035 (Mid)	\$1,462,793	\$0	\$1,462,793
Total:	2026-2035 (Mid)	\$2,061,050	\$0	\$2,061,050



59 Dawnville-Beaverdale Road



Project Information

Project Name:	Dawnville-Beaverdale Road	Length (mi):	1.26
GDOT PI Number:	N/A	Extents:	SR 286 & Cherokee Estate Road
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes with intersection improvements
Project Type:	Intersection	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$153,000	\$0	\$153,000
Right of Way (ROW):	2024	\$432,973	\$0	\$432,973
Utilities (UTL):	2024	\$270,608	\$0	\$270,608
Construction (CST):	2026-2035 (Mid)	\$2,194,190	\$0	\$2,194,190
Total:	2026-2035 (Mid)	\$3,050,771	\$0	\$3,050,771

60 Carbondale Road



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	Carbondale Road	Length (mi):	0.8
GDOT PI Number:	N/A	Extents:	Redwine Cove Road to I-75 Interchange
City:	Dalton	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	4 lanes
Project Type:	Widening	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$254,646	\$0	\$254,646
Right of Way (ROW):	2025	\$872,851	\$0	\$872,851
Utilities (UTL):	2025	\$164,070	\$0	\$164,070
Construction (CST):	2026-2035 (Mid)	\$4,130,132	\$0	\$4,130,132
Total:	2026-2035 (Mid)	\$5,421,699	\$0	\$5,421,699



68 SR 560/East-West Highway



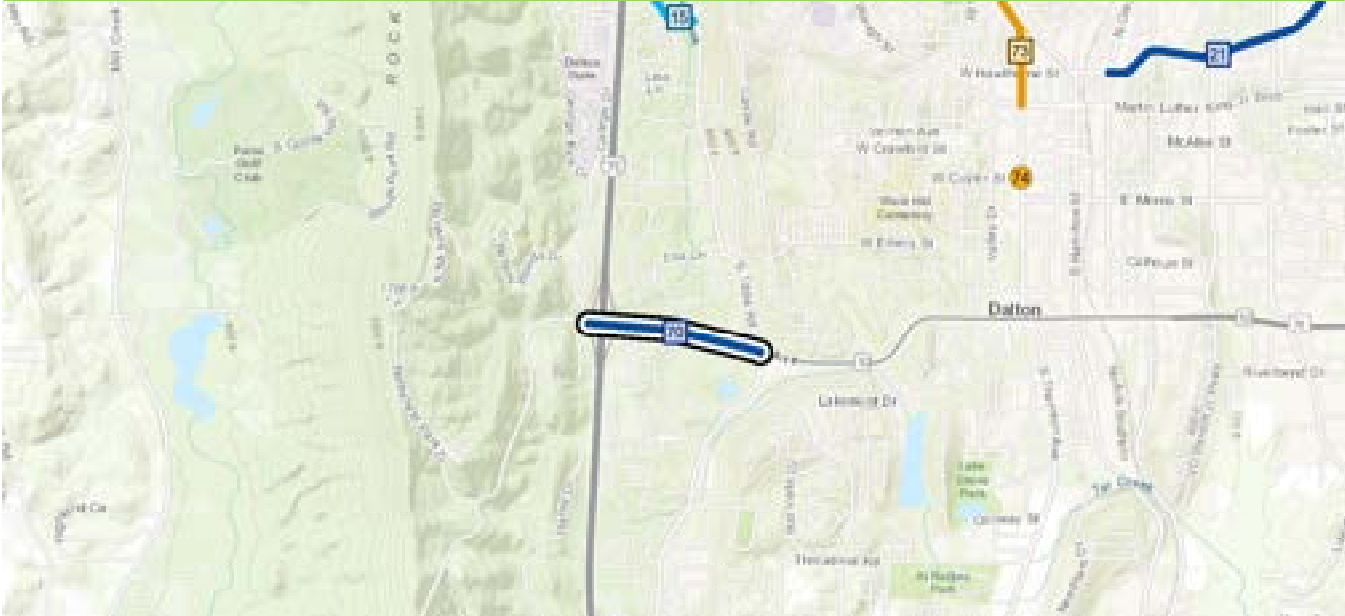
Project Information

Project Name:	SR 560/East-West Highway	Length (mi):	3.5
GDOT PI Number:	0004299	Extents:	I-75 to SR 2
City:	Dalton	Existing Config.:	4 lanes
County:	Whitfield	Planned Config.:	6 lanes
Project Type:	Widening	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$3,111,701	\$0	\$3,111,701
Right of Way (ROW):	2024	\$13,204,014	\$0	\$13,204,014
Utilities (UTL):	2024	\$5,659,814	\$0	\$5,659,814
Construction (CST):	2026-2035 (Mid)	\$46,476,360	\$0	\$46,476,360
Total:	2026-2035 (Mid)	\$68,451,889	\$0	\$68,451,889

70 Walnut Avenue Access Management Study



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	Walnut Avenue Access Management Study	Length (mi):	0.7
GDOT PI Number:	N/A	Extents:	I-75 to Dug Gap Road
City:	Dalton	Existing Config.:	N/A
County:	Whitfield	Planned Config.:	N/A
Project Type:	Study	Purpose and Need:	Identify future improvements to improve traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2020	\$200,000	\$0	\$200,000
Right of Way (ROW):	2036-2045 (Long)	N/A	\$0	N/A
Utilities (UTL):	2036-2045 (Long)	N/A	\$0	N/A
Construction (CST):	2036-2045 (Long)	N/A	\$0	N/A
Total:	2036-2045 (Long)	\$200,000	\$0	\$200,000



73 Thorton Avenue Sidewalks



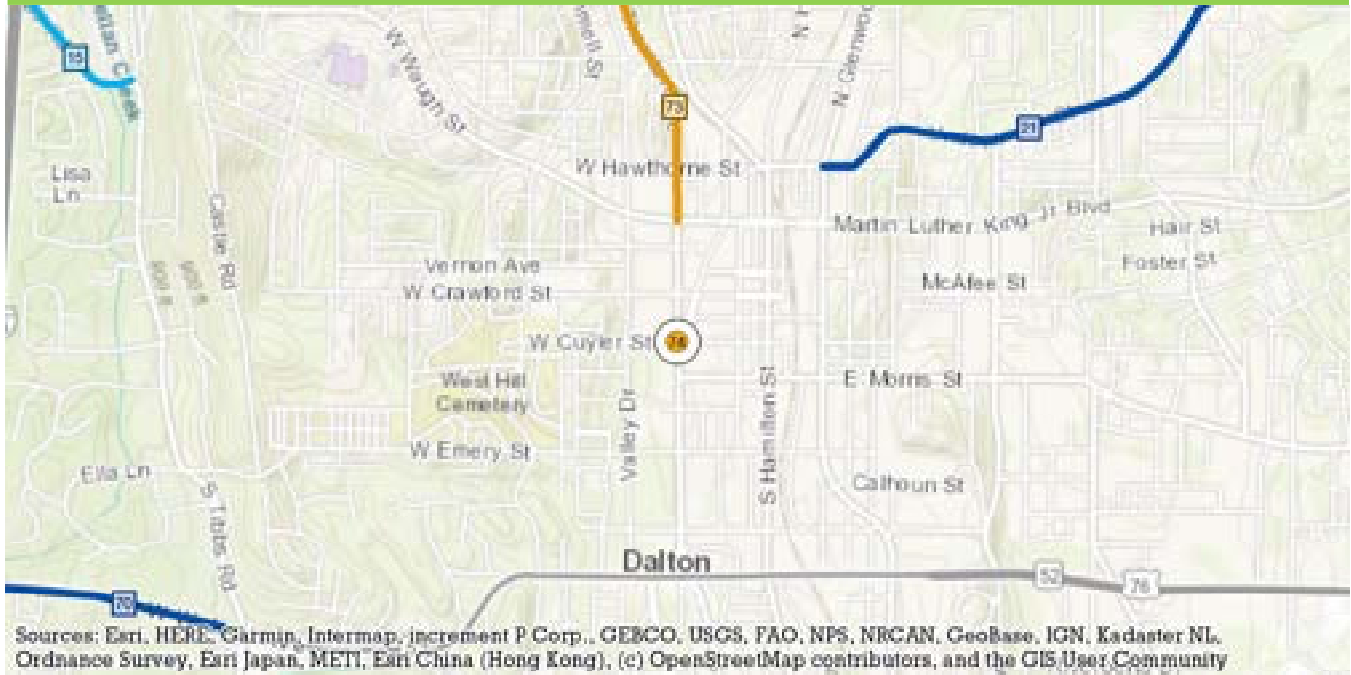
Project Information

Project Name:	Thorton Avenue Sidewalks	Length (mi):	2.1
GDOT PI Number:	N/A	Extents:	SR 3 to Waugh Street
City:	Dalton	Existing Config.:	2 lanes; no sidewalk
County:	Whitfield	Planned Config.:	2 lanes; sidewalk on each side
Project Type:	Bike & Ped	Purpose and Need:	Improve pedestrian facilities

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2020	\$300,000	\$0	\$300,000
Right of Way (ROW):	2023	\$159,181	\$0	\$159,181
Utilities (UTL):	2023	\$159,181	\$0	\$159,181
Construction (CST):	2026-2035 (Mid)	\$1,828,492	\$0	\$1,828,492
Total:	2026-2035 (Mid)	\$2,446,854	\$0	\$2,446,854

74 Downtown Sidewalk



Project Information

Project Name:	Downtown Sidewalk	Length (mi):	N/A
GDOT PI Number:	N/A	Extents:	Various
City:	Dalton	Existing Config.:	Multiple sidewalk gaps
County:	Whitfield	Planned Config.:	More complete pedestrian network in Downtown Dalton
Project Type:	Bike & Ped	Purpose and Need:	Improve pedestrian network

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2021	\$816,000	\$0	\$816,000
Right of Way (ROW):	2024	\$432,973	\$0	\$432,973
Utilities (UTL):	2024	\$432,973	\$0	\$432,973
Construction (CST):	2026-2035 (Mid)	\$4,875,978	\$0	\$4,875,978
Total:	2026-2035 (Mid)	\$6,557,923	\$0	\$6,557,923



75 School Sidewalk Program



Project Information

Project Name:	School Sidewalk Program	Extents:	Various
GDOT PI Number:	N/A	Existing Config.:	Incomplete sidewalk networks around schools
City:	Dalton/Tunnel Hill/Varnel	Planned Config.:	Complete sidewalk networks around schools
County:	Whitfield	Purpose and Need:	Improve pedestrian network
Project Type:	Bike & Ped		
Length (mi):	N/A		

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$594,379	\$0	\$594,379
Right of Way (ROW):	2036-2045 (Long)	\$297,189	\$0	\$297,189
Utilities (UTL):	2036-2045 (Long)	\$297,189	\$0	\$297,189
Construction (CST):	2036-2045 (Long)	\$2,971,895	\$0	\$2,971,895
Total:	2036-2045 (Long)	\$4,160,653	\$0	\$4,160,653

77 Dawnville Rd



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	Dawnville Rd	Length (mi):	N/A
GDOT PI Number:	N/A	Extents:	At SR 286 and Lower Kings Bridge Rd
City:	Dalton	Existing Config.:	Skewed intersection, side-stree stop controlled
County:	Whitfield	Planned Config.:	Improved intersection
Project Type:	Intersection	Purpose and Need:	Improve traffic safety

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2020	\$100,000	\$0	\$100,000
Right of Way (ROW):	2023	\$53,060	\$0	\$53,060
Utilities (UTL):	2023	\$53,060	\$0	\$53,060
Construction (CST):	2026-2035 (Mid)	\$365,698	\$0	\$365,698
Total:	2026-2035 (Mid)	\$571,819	\$0	\$571,819



81 SR 3/South Dixie Road



Project Information

Project Name:	SR 3/South Dixie Road	Length (mi):	8.6
GDOT PI Number:	000632670Dalton	Extents:	SR 136/Gordon to South Dalton Bypass
City:	Dalton	Existing Config.:	2 lanes
County:	Whitefield/Gordon	Planned Config.:	4 lanes
Project Type:	Widening	Purpose and Need:	Reduce traffic congestion

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	2036-2045 (Long)	\$1,040,322	\$0	\$1,040,322
Right of Way (ROW):	2036-2045 (Long)	\$9,301,012	\$0	\$9,301,012
Utilities (UTL):	2036-2045 (Long)	\$3,773,412	\$0	\$3,773,412
Construction (CST):	2036-2045 (Long)	\$54,988,005	\$0	\$54,988,005
Total:	2036-2045 (Long)	\$69,102,750	\$0	\$69,102,750

82 SR 201



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Project Information

Project Name:	SR 201	Length (mi):	N/A
GDOT PI Number:	N/A	Extents:	At Tanyard Creek
City:	Tunnel Hill	Existing Config.:	2 lanes
County:	Whitfield	Planned Config.:	2 lanes
Project Type:	Bridge	Purpose and Need:	Maintain bridge infrastructure

Funding

	Year	Cost (YOE)	Local	State/Federal
Preliminary Engineering (PE):	Complete	N/A	\$0	N/A
Right of Way (ROW):	2020	\$170,000	\$0	\$170,000
Utilities (UTL):	2022	\$0	\$0	\$0
Construction (CST):	2022	\$1,819,839	\$0	\$1,819,839
Total:	2022	\$1,989,839	\$0	\$1,989,839



Georgia Statewide and Metropolitan Administrative Modification and Amendment Process

The federal statewide and metropolitan planning regulations contained in 23 CFR 450 govern the provisions for revisions of the STIP and individual MPO TIPs. The intent of this federal regulation is to acknowledge the relative significance, importance, and/or complexity of individual programming actions. If necessary, 23 CFR 450.328 permits the use of alternative procedures by the cooperating parties to effectively manage actions encountered during a given S/TIP cycle. Cooperating parties include GDOT, MPOs, FHWA, FTA, and transit agencies and the procedures must be agreed upon and documented in the STIP/TIP.

The following procedures have been developed for processing administrative modifications and amendments to the STIP and MPO TIPs and Metropolitan Transportation Plans (MTPs). The processes described below detail procedures that are to be used to update an existing approved STIP, TIPs, and associated plans, when applicable, and adhere to the guidelines stated above and below for administrative modifications and amendments.

Administrative Modifications for Federal Authorizations

Administrative modification means a minor revision to a long-range statewide or metropolitan transportation plan, Statewide Improvement Program (STIP), or Transportation Improvement Program (TIP) that includes minor changes to project/project phase costs, minor changes to funding sources of previously included projects, and minor changes to project/project phase initiation dates. An Administrative Modification is a revision that does not require public review and comment, re-demonstration of fiscal constraint, or a conformity determination (in nonattainment and maintenance areas).

The following actions satisfy the Georgia Division and FTA Region 4 requirements for an Administrative Modification to the STIP/TIP/MTP:

- A. **Air Quality** - A STIP/TIP/MTP administrative modification can be processed on a project when it does not impact an air quality conformity determination.
- B. **Cost Increase Threshold** - A STIP/TIP/MTP administrative modification can be processed on a project phase with a cost increase of up to \$4 million or 40% in federal share with a cap at \$40 million of the amounts to be authorized. When:
 1. the Federal Share of the project phase amount in the STIP/TIP/MTP is \$10 million or less, the cost may be increased by an amount up to \$4 million and fiscal constraint is not impacted, as shown in Note (d) or
 2. the Federal Share of the project phase amount in the STIP/TIP/MTP is greater than \$10 million the cost may be increased by a maximum of 40% up to a cost increase of \$40 million and fiscal constraint is not impacted, as shown in Note (d).

- C. **Non-Federal Funded Phases** - Adding a project phase that utilizes 100 percent non-federal funding that does not impact fiscal constraint, federal share match, and air quality.
- D. **Shifting Project Phase** - A STIP/TIP/MTP administrative modification can be processed when shifting projects/project phase within the existing 4-year STIP/TIP.
- E. **Public Review and Comment** - A STIP/TIP/MTP administrative modification can be processed on a project phase if it does not require public review and comment.
- F. **August Redistribution** - A STIP/TIP/MTP administrative modification can be processed if an existing project is utilizing August Redistribution funding and is exempt from air quality conformity determination. *If a project is non-exempt, it must follow all federal requirements for a S/TIP Amendment.*

Amendments for Federal Authorizations

Amendment means a revision to a long-range statewide or metropolitan transportation plan, STIP, or TIP that involves a major change to a project included in a metropolitan transportation plan, STIP, or TIP, including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects). Changes to projects that are included only for illustrative purposes do not require an amendment. An amendment is a revision that requires public review and comment and a re-demonstration of fiscal constraint. If an amendment involves “non-exempt” projects in nonattainment and maintenance areas, a conformity determination is required.

The following actions require an Amendment to the STIP/TIP/MTP when:

- A. The addition of a new project or the addition of a phase **with federal funds** to an existing project. This includes any new projects that are funded with Congressionally Directed Spending, Federal Land Access Program (FLAP) funds, or Title 23 or Title 49 discretionary funding.
- B. Project changes that impact air quality conformity determination.
- C. Shifting a project or a project phase that falls outside the existing 4-year STIP/TIP range (i.e., existing STIP/TIP year is 2024 – 2027 but bringing in a project phase from a previous Fiscal Year (FY) or beyond the last year of the STIP period)
- D. A major change in total project termini length greater than 1 mile, if applicable. Changes in project termini lengths for project concepts or scopes such as bridge replacements, intersection improvements, passing lanes, resurfacing, etc. are not considered a major change.

The following actions also require a redemonstration of fiscal constraint:

- A. Financial changes that exceed the above administrative modifications threshold.
- B. Annual rebalancing of the existing STIP to demonstrate fiscal constraint for the upcoming FY.
- C. Shifting project funding sources such as changing a non-federally funded project to a federally funded project.

Amendments require public review and responses to all comments, either individually or in summary form. For amendments in MPO areas, the public review process should be carried out by the procedures outlined in the Participation Plan. Georgia DOT will ensure that the amendment process and the public involvement procedures have been followed.

Except for Congressionally Directed Spending, FLAP, and Discretionary Grants, ALL other amendments to the STIP must be approved jointly by FHWA and FTA.

Notes:

- a. The date a TIP becomes effective is when the Governor or his designee approves it. For nonattainment and maintenance areas, the effective date of the TIP is based on the date of the U.S. Department of Transportation's positive finding of conformity.
- b. The date the STIP or the STIP amendment becomes effective is when FHWA and FTA jointly approve it.
- c. The STIP is developed on the state fiscal year, which is July 1 - June 30.
- d. Funds for amendments and administrative modifications will come from the funds set aside in the STIP Financial Plan.
- e. Before the start of each State Fiscal Year, GDOT shall submit an Annual STIP. Amendment that updates the STIP Financial Plan to show funding set aside for amendments and administrative modifications for the upcoming fiscal year. In the event the STIP amendment update is delayed, GDOT will submit the amendment no later than October 1st.
- f. GDOT will submit to FHWA/FTA a detailed monthly Modification report, showing financial transactions and balances.
- g. GDOT will submit to FHWA/FTA accompanying Administrative Modification Authorizations Tables for review before requesting FMIS authorizations in advance of the monthly Modification report.
- h. Projects that are funded with Congressionally directed spending, FLAP funds, or Title 23 or Title 49 discretionary funding can be incorporated into the STIP/TIP/MTP via an informational appendix after the amendment process is complete.
- i. A public comment period is required for all projects funded under a Title 23 and Title 49 discretionary grant program. Public review for discretionary grant projects can be advertised as informational only and comments received will be forwarded to the project sponsor.