



Town of Clayton
Planning Board Agenda
Monday, March 24, 2025 at 6:00 PM
Council Chambers, Town Hall, 111 E. Second Street

<https://www.youtube.com/TownofClaytonNC>

THE PLANNING BOARD MEETING WILL BE HELD IN PERSON.

ANY MEMBER OF THE PUBLIC IS INVITED TO THE ATTEND THE MEETING.

THE PUBLIC MAY VIEW THE LIVE MEETING ON THE TOWN'S YOU TUBE CHANNEL:

<https://www.youtube.com/TownofClaytonNC>

1. CALL TO ORDER

- a. Roll Call for the Planning Board
Presenter: Conrad Olmedo, Planning Director

2. ADJUSTMENT OF THE AGENDA

3. APPROVAL OF MINUTES

- a. Adoption of January 28, 2025 Minutes
Presenter: Conrad Olmedo, Planning Director
[January 28, 2025 Minutes](#)

POTENTIAL ACTION: Adoption of January 28, 2025 Minutes

4. PUBLIC MEETINGS

No Public Meetings To Be Heard.

5. NEW BUSINESS

- a. Election of Chair and Co-Chair
Presenter: Conrad Olmedo, Planning Director
POTENTIAL ACTION: Approval of Chair and Vice-Chair Election
- b. Comprehensive Transportation Plan - Introduction of the Town of Clayton's first Comprehensive Transportation Plan to the Planning Board. NO ACTION
Presenter: Conrad Olmedo, Planning Director
[20250307_ClaytonCTP_FULL - DRAFT](#)

6. INFORMAL DISCUSSION AND PUBLIC COMMENT

7. ADJOURN



**Town of Clayton
Planning Board Minutes
Tuesday, January 28, 2025 at 6:00 PM
Council Chambers, Town Hall
111 E. Second Street**

Board Members Present:

Daniel Gleason
Mike Surasky
Anita Bland
Ronald Williams
Jason Carter
Deborah Hooker
Derrick Applewhite
Mark Hall
Jodie Dupree
Tom McKearney

Staff Present:

Conrad Olmedo, Planning Director
Heidi Holland, Town Clerk
Chad Meadows, CodeWright Consultant

Board Members Absent:

Jeffrey Spence

1 CALL TO ORDER

- a) Roll call of the Planning Board
Presenter: Conrad Olmedo, Planning Director

Board Chair Dupree called the meeting to order at 6:00 p.m. Mr. Olmedo provided the roll call and Ms. Holland administered the oaths to the new and reappointed members.

2 ADJUSTMENT OF THE AGENDA

- a) No adjustments to the agenda.

3 APPROVAL OF MINUTES

- a) Review of the December 17, 2024 Planning Board Meeting Minutes
Presenter: Conrad Olmedo, Planning Director

Adoption of the Minutes

RESULT:	CARRIED 9-0
MOVER:	Derrick Applewhite
SECONDER:	Ronald Williams

YES:	Ronald Williams, Derrick Applewhite, Jodie Dupree, Daniel Gleason, Mike Surasky, Anita Bland, Jason Carter, Deborah Hooker, and Mark Hall
NO:	None

4 PUBLIC MEETINGS

- a) No scheduled public meetings at this time.

5 NEW BUSINESS

- a) Training Session for the Town of Clayton Planning Board
Presenter: Chad Meadows, CodeWright Planners

Mr. Meadows was present to present a training session to the members. He stated this board is charged with the responsibility to initiate, oversee, and maintain the comprehensive plan. He shared that 160D is an important chapter that the board should get familiar with. Shared were seven duties of the board as stated in NCGS 160D-301.

Discussed were the different types of items may come to the board and what role they have in preparing these items for Council, as stated in NCGS 160D-604.

Discussed was the UDO that was adopted in November 2023 and last amended December 2024. There are 5 sections relevant to the board, 1.8.4 Planning Board, 2.3.6 Conditional Rezoning, 2.3.8 Conventional Rezoning, 2.3.24 Street Renaming/Closure, and 2.3.26 Text Amendment.

1.8.4 Planning Board. He stated this is a board that makes recommendations not decisions. This board conducts public meetings, not hearing. There was discussion on conflicts of interest.

2.3.6 Conditional Rezoning. A conditional rezoning is when a change is made to the zoning map and the applicant is making their application subject to conditions they are offering. There are 3 types of conditional rezonings: limited use, limited standard and unlimited. Limited use is using only one use; limited standard is volunteering more standards that are regulated, going farther than the UDO requires; and unlimited allows the applicant to negotiate their request usually because they are seeking a reduction (the applicant must prove their request). A concept plan must be provided with the unlimited use type. This use requires the board to provide a recommendation to Council with written statement of consistency and reasonableness within 30 days.

2.3.8. Conventional Rezoning. This is also a change to the zoning map, but this may not be conditioned, no conditions or concept plans are allowed. This rezoning must consider the full range of allowable uses. This use requires the

board to provide a recommendation to Council with written statement of consistency and reasonableness within 30 days. These rezonings are not seen too often.

2.3.24 Street Renaming/Closure. This is used to abandon or rename a public Town owned street. This requires a written recommendation to Council.

2.3.26 Text Amendments. These can be initiated by the Town or a property owner, however, applicant-initiated amendments are only processed two times a year. This use requires the board to provide a recommendation to Council with written statement of consistency and reasonableness. The decision must be based on 7 review criteria and must get consent from all affected owners.

Discussed was the public meeting process. The board conducts public meetings, not public hearings, however the board follows the legislative public hearing procedure when conducting public meetings. These meetings do not require prior public notice to adjacent landowners and they are subject to general open meeting public notice requirements.

Shared was the difference between site plans and concept plans and allowable factors for consideration. Discussed were the conditions of approval which are applied only to conditional rezonings.

Mr. Meadows encouraged members to study the difference between site plans and concept plans and the difference between legislative and evidentiary process.

6 INFORMAL DISCUSSION AND PUBLIC COMMENT

- a) Mr. Olmedo shared with the board that chair and vice-chair would be voted on at the March meeting and he stated the Comprehensive Transportation Plan would be coming their way at a future meeting.

7 ADJOURN

- a) With nothing further, the meeting was adjourned at 7:58 p.m.

Motion To Adjourn

RESULT:	CARRIED 9-0
MOVER:	Derrick Applewhite
SECONDER:	Daniel Gleason
YES:	Daniel Gleason, Mike Surasky, Anita Bland, Ronald Williams, Jason Carter, Deborah Hooker, Derrick Applewhite, Mark Hall, and Jodie Dupree
NO:	None

Duly adopted this 24th day of March, 2025.

Jodie Dupree
Chair

ATTEST:

Heidi L. Holland, CMC, NCCMC
Town Clerk

January 28, 2025
Minutes

DRAFT
Version: March 7, 2025



**CLAYTON
ON THE MOVE**

**Comprehensive
Transportation Plan**

Town of Clayton
Final Draft





Letter from the Mayor

As the Mayor of the Town of Clayton, I am proud to present Clayton on the Move, our first-ever Comprehensive Transportation Plan.



Clayton on the Move is a forward-looking strategy designed to meet the evolving transportation needs of our growing community. This plan represents our commitment to ensuring safe and efficient multimodal transportation options that connect our residents, neighborhoods, and businesses both within the Town and throughout the region.

Developed through a thoughtful and collaborative process, Clayton on the Move reflects the input of residents, stakeholders, and Town staff. It outlines recommendations to improve the movement of vehicles while also prioritizing significant opportunities for pedestrians and cyclists. Importantly, the plan includes forward-thinking strategies to explore the introduction of a transit system, laying the groundwork for enhanced connectivity and accessibility in the future. With a focus on safety, innovation, and sustainability, the plan envisions a transportation network that supports Clayton's small-town character while fostering economic growth and enhancing quality of life.

By improving mobility, strengthening connectivity, and addressing current and future challenges, we aim to create a transportation system that serves all members of our community. From reducing congestion to increasing access to alternative transportation options, our approach emphasizes flexibility and resilience as key elements of long-term success.

I encourage you to explore Clayton on the Move. We are confident it will serve as a valuable tool to guide our investments and decisions in the years ahead.

Thank you to everyone who contributed to the development of this plan. Your voices and ideas have shaped a vision that reflects our shared goals for Clayton's future. Together, we are building a vibrant and connected community where everyone can thrive.

— Mayor Jody McLeod



Acknowledgments

Town of Clayton Council

Jody McLeod • Mayor
Michael Sims • Mayor Pro Tem
Ruth Anderson • Councilmember
Andria Archer • Councilmember
Porter Casey • Councilmember
Gretchen Williams • Councilmember

Town of Clayton Planning Board

Jodie Dupree • Vice Chair
Ronald Williams
Derrick Applewhite
Daniel Gleason
Mike Surasky
Anita Bland
Jason Carter
Deborah Hooker
Mark Hall
Jeffrey R. Spence
Tom McKearney

Town of Clayton Staff

Rich Cappola • Town Manager
Courtney Tanner • Deputy Town Manager
Conrad Olmedo • Planning Director
Audrey Duchesne • Senior Planner

Consultant

WSP

Core Technical Team Members

Conrad Olmedo • Town of Clayton, Planning Director
Jennifer Collins • NCDOT Division 4
Kenneth Withrow • CAMPO
Braston Newton • Johnston County Planning
Rich Cappola • Town of Clayton, Town Manager

Stakeholder Steering Committee Members (Includes CTT Members)

Porter Casey • Town of Clayton Town Council
Andria Archer • Town of Clayton Town Council
Derrick Applewhite • Town of Clayton Planning Board
Brian Temple • Town of Clayton
Paul Auclair • Town of Clayton
Scott Barnard • Town of Clayton
Dolores Gill • Town of Clayton
Dana Wooten • Clayton Chamber of Commerce
Austin Cross • Johnston County, Parks
Adrian O'Neal • Johnston County, Parks and Open Space Program
Chris Johnson • Johnston County, Economic Development
Josh Jensen • Johnston County, Community & Senior Services / JCATS
Vern Lindquist • Johnston County Community College
Tim Gardiner • Wake County
Bryan Chadwick • Town of Archer Lodge
Jason Kress • Town of Archer Lodge
Erin Joseph • Town of Garner
Taelor Fields • NC Railroad Company
Jamar Nixon • NC Railroad Company
Sarah Brooks • The Woman's Club of Clayton
Ray Carr • Baptist Center Church
Jon Soika • St. Ann Catholic Church
Mike Surasky • Resident / Town of Clayton Planning Board
Dan Hemme • Resident
Jay McLeod • Resident
Dean Penny • Resident

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CLAYTON ON THE MOVE

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Abbreviations

ACS	U.S. Census American Community Survey
BRT	Bus Rapid Transit
CAMPO	Capital Area Metropolitan Planning Organization
CIP	Capital Improvement Project
CofC	Community of Concern
CTP	Comprehensive Transportation Plan
CTT	Core Technical Team
CV	Commercial Vehicles
EJ	Environmental Justice
ETJ	Extraterritorial Jurisdiction
JCATS	Johnson County Area Transit System
KABCO	Injury Classification Scale
LA	Language Assistance
LAPP	Locally Administered Projects Program
LEP	Limited English Proficiency
LPA	Locally Preferred Alternative
MIS	Major Improvement Study
MPH	Miles per Hour
MTP	Metropolitan Transportation Plan
MUP	Multi-Use Path
MUT	Multi-Unit Truck
NCDOT	North Carolina Department of Transportation
NCRR	North Carolina Railroad
RPO	Regional Planning Organization
SEAS	Southeast Area Study
SSC	Stakeholder Steering Committee
SSS	Safety Section Score
STIP	State Transportation Improvement Program
SUT	Single Unit Truck
TAZ	Traffic Analysis Zone
TRM	Triangle Regional Model
UDO	Unified Development Ordinance
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
VOC	Volume over Capacity (also V/C)

1. Background

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1.1 CONTEXT



Foundation

The Town of Clayton began in the early 1700s, when settlers started to occupy land formerly inhabited by Tuscarora and Sioux Indians. Originally known as Stallings' Station, a depot along the North Carolina Railroad, it mostly consisted of several small stores that served the rural area. The first post office, built in 1845, was located just southeast of its present site, under the name of Gulley's Store and was officially renamed Clayton in 1856.



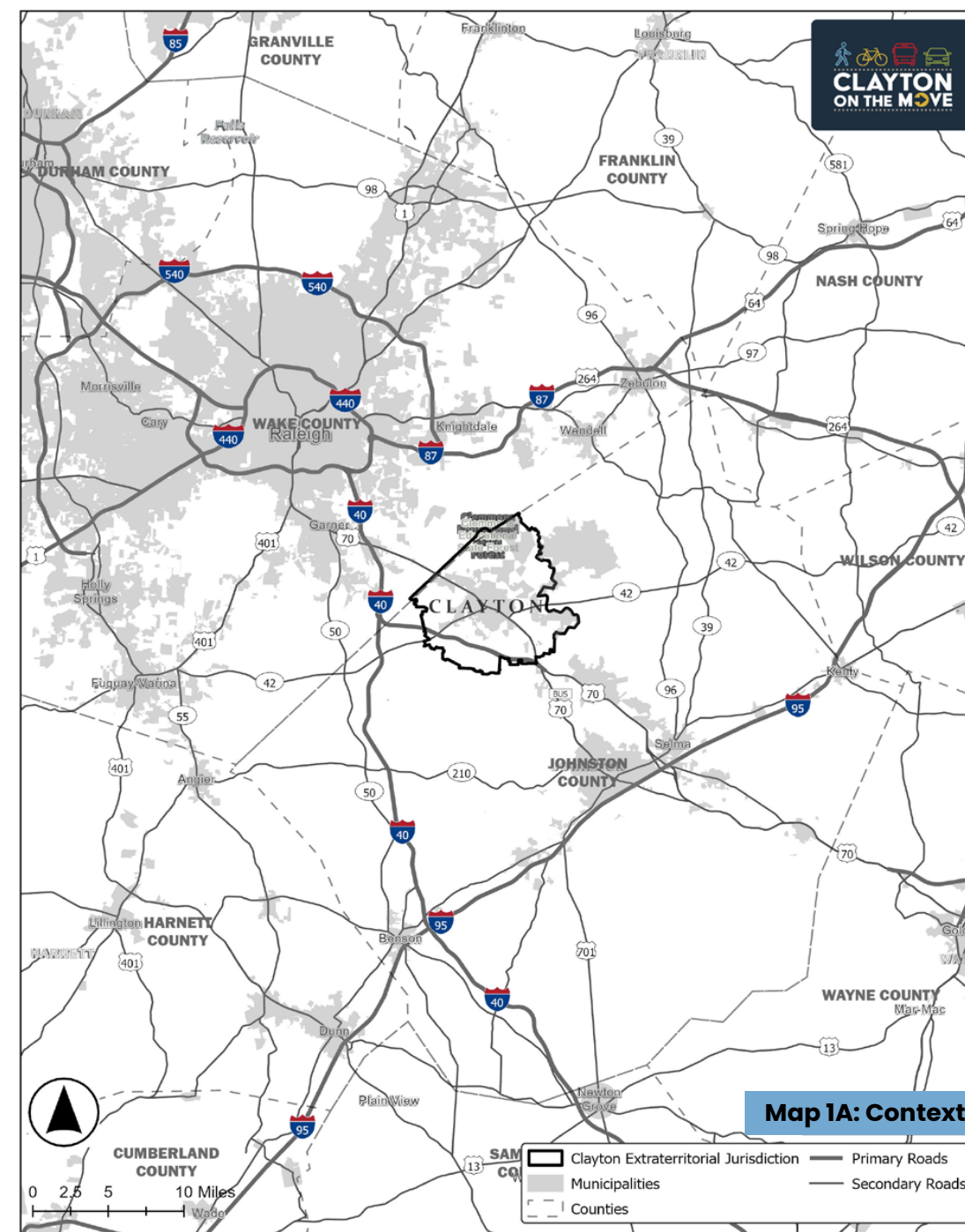
Incorporation

Following the Civil War, Clayton saw an increase in agricultural production resulting in new markets formed, both locally and regionally, connected via the railroad to other economic centers. The Town of Clayton was incorporated in 1869 and since then, it has become a dynamic, thriving community that has grown into the largest town in Johnston County. US Highway 70 has become the central highway, which now bypasses Clayton but still provides an important link in the town's transportation system.



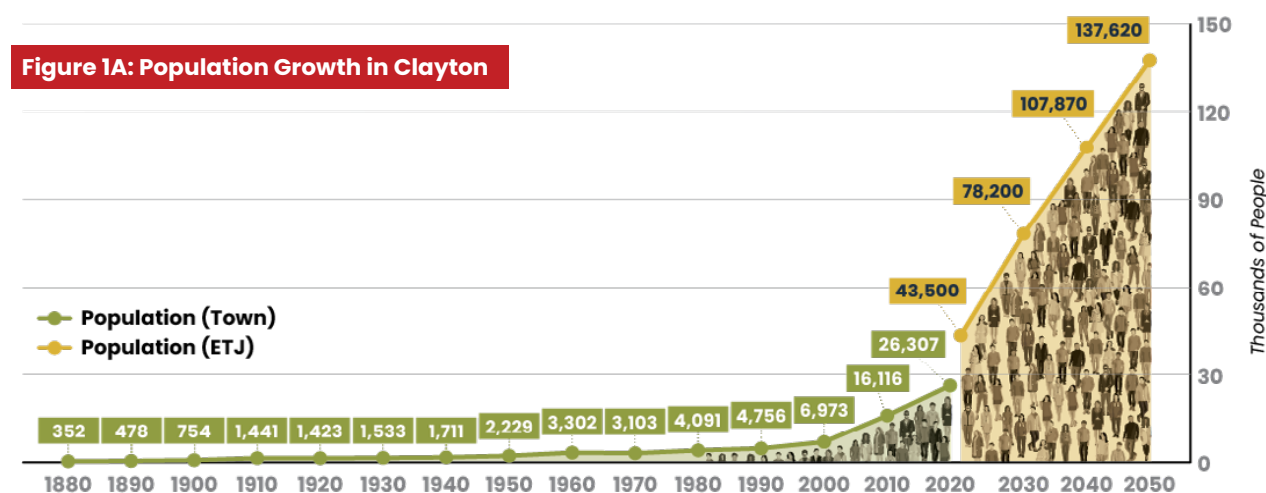
Growth

Since its incorporation, Clayton grew gradually in the 19th century, not yet exceeding 1,000 residents. In the 20th century, the population grew almost sevenfold to about 7,000. The population within the incorporated Town limits then grew fourfold to 26,307 by 2020. In the Extra Territorial Jurisdiction (ETJ) of Clayton, the population in 2020 was estimated to be 43,500 which is projected to triple by 2050.



Map 1A: Context

Figure 1A: Population Growth in Clayton



Sources: US Census, ACS 5 year estimates, Triangle Regional Model

1.2 VISION & GOALS

Clayton on the Move’s vision statement and goals express the core values for the Town of Clayton’s transportation system. They were derived from key feedback received during the planning process including community-wide public engagement, meetings with the Stakeholder Steering Committee (SSC) and Core Technical Team (CTT), presentations to the Town Council and Town Executive Team, and collaboration with Town Staff. This information has been synthesized into the following vision statement and goals, which set the foundation for this Comprehensive Transportation Plan.

Vision
 Clayton On the Move envisions a multimodal transportation network that ensures an equitable and value-driven transportation future for all of Clayton.



Goals

- 

Enhance Accessibility and Connectivity
 Efficient and convenient access to key locations
- 

Develop Public Transit Accessibility
 Develop a reliable and accessible public transit system that serves our community’s needs
- 

Preserve Local Character
 Transportation development should strive to preserve Clayton’s small-town character
- 

Enhance Safety
 Implement measures to enhance transportation safety for pedestrians, cyclists, and motorists
- 

Accommodate Future Growth
 Develop an adaptable, efficient, and sustainable transportation plan that accommodates expected growth
- 

Community Engagement in Planning
 Foster active community engagement in transportation planning process
- 

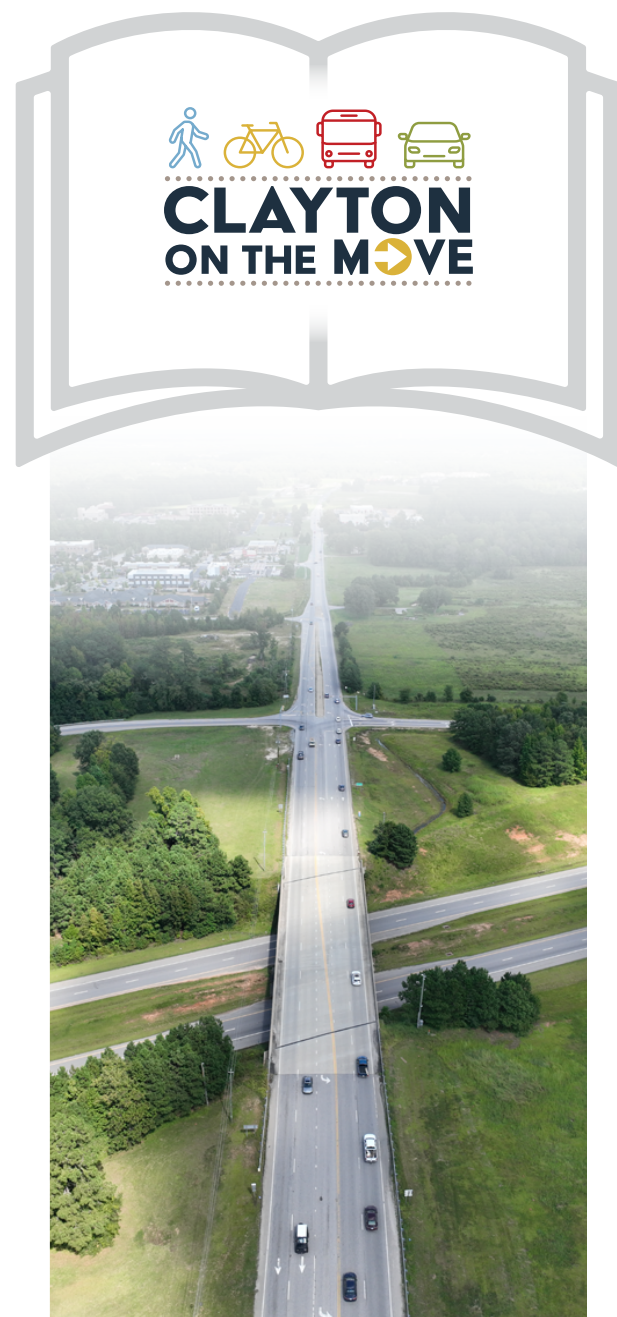
Efficiency and Congestion Reduction
 Implement strategies to reduce congestion and enhance traffic flow
- 

Optimize Collector Street Network
 Efficiently distribute traffic within the community, enhancing overall flow and accessibility
- 

Expand Active Transportation Options
 Invest in pedestrian and cyclist-friendly infrastructure, encouraging active transportation methods
- 

Continuous Evaluation and Adaptation
 Respond to changing community needs and emerging transportation trends

1.3 INTRODUCTION TO THE COMPREHENSIVE TRANSPORTATION PLAN (CTP)



Clayton’s population and employment is expected to triple in the next three decades, and meeting these transportation needs and challenges as Clayton grows is essential. Through the course of development of this plan, hundreds of Clayton residents and stakeholders representing a diverse cross-section of backgrounds, regions, and interests have come together to lay out their vision for a transportation system that reflects our collective values as a Town. Their collective voices, as well as the Town’s previous transportation planning efforts, were synthesized to develop a plan that addresses the future transportation demand in Clayton. This plan is **‘Clayton On the Move’, the Comprehensive Transportation Plan (CTP)** for the Town of Clayton. This plan is a consolidated document that includes all projects pertaining to mobility improvements and investments in Clayton.

The key purpose of this plan is to determine safe, resilient, and universally accessible multimodal transportation systems that support the vibrant community, advance social and economic equity, and improve public and environmental health.

Clayton on the Move is Clayton’s CTP that sets for achieving its vision by providing recommendations that reflect the plan’s goals to improve the quality of life of all Clayton residents.

➤ What is a Comprehensive Transportation Plan?

A Comprehensive Transportation Plan (CTP) is a long-range multimodal plan that identifies transportation needs and proposes solutions and project recommendations for the next 25 years. The CTP provides a vision for the future of transportation in Clayton. The plan will also act as a guide for future municipal plans, Capital Improvement Projects (CIPs) and private and public development projects.

➤ What will these recommendations include?

Recommendations include improvements to roadways, pedestrian infrastructure, bicycle infrastructure, and transit systems. These recommendations are based on current and future travel demand, safety, network connectivity, regional connectivity, and adherence to the plan’s vision and goals.

➤ How will previous transportation planning efforts be incorporated into this CTP?

The CTP is a multimodal plan that includes recommendations from previous plans and reports. To develop the CTP, existing town plans and ordinances were considered, current and projected population and employment growth were analyzed, and land use and future development potential were evaluated.

➤ How was this plan developed?

The CTP was developed through intensive traffic and demographic data analyses, referring to previous plans, consultations with Town staff, comments and concerns voiced by the Core Technical Team (CTT) and Stakeholder Steering Committee (SSC), milestone presentations to Town Council, and two rounds of Public Engagement.

➤ What are the limitations of this plan?

The plan is not fiscally constrained, which means the project costs have not been calculated and costs are not a factor in developing recommendations. This is neither a land use nor a utility plan. Recommendations in the CTP show preliminary alignments which need to be refined as the project progresses into design and construction phases.

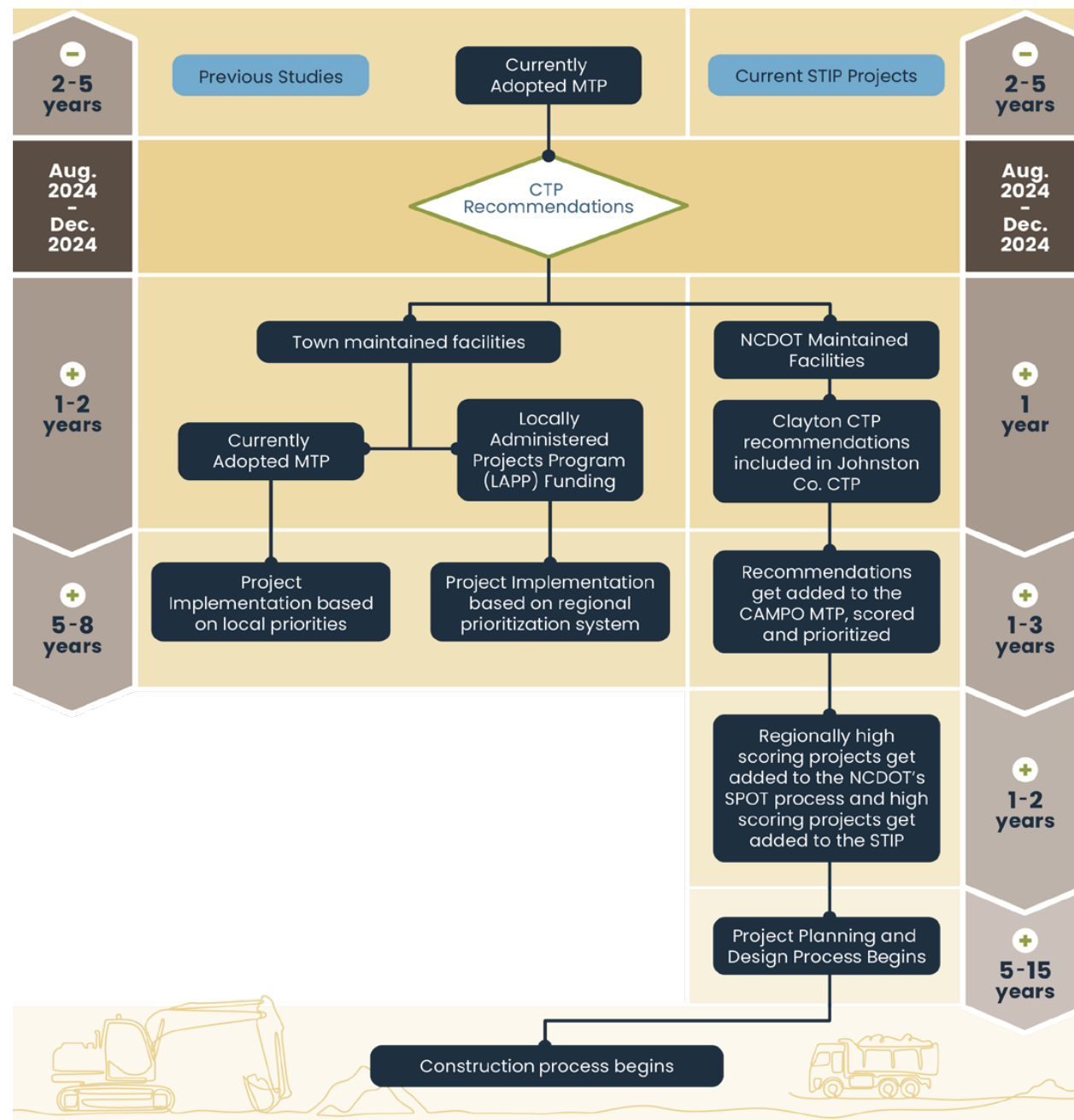
➤ How do these recommendations become projects?

The path from plan to project will vary primarily depending on whether the facility is maintained by the Town of Clayton or the North Carolina Department of Transportation (NCDOT). The steps required for these plans to become projects are described in detail in section 1.4 – Project Development Process. Recommendations were also prioritized based on the goals and objectives of the plan.

1.4 PROJECT DEVELOPMENT PROCESS



Figure 1B: Project Development Process



Implementation of facilities maintained by Town of Clayton

Projects funded by the Town of Clayton are programmed through the Town's Capital Improvement Projects (CIP). The CIP is updated annually during budget planning to accurately reflect the needs of the Town. The Town also receives federal funding from the Capital Area Metropolitan Planning Organization (CAMPO) through its Locally Administered Projects Program (LAPP). Projects are selected for funding using a prioritization system that is based on criteria categories and priority levels.



Implementation of facilities maintained by NCDOT

The CTP project recommendations for NCDOT facilities will be included in the **Johnston County CTP**. Clayton (and Johnston County) is part of the Capital Area Metropolitan Planning Organization (CAMPO), which is responsible for long-range transportation planning for the Raleigh region. CAMPO produces a **Metropolitan Transportation Plan (MTP)**, a fiscally constrained long-range planning document. Recommendations from Clayton CTP (and other CTPs from the region) roll up to the MTP, where they are scored based on local and regional priorities, and the high scoring projects are passed on to NCDOT's prioritization process.

Projects with high enough scores are included in the State Transportation Improvement Program (STIP), that 'programs' transportation projects over a ten-year period. Projects listed in the first five years of the STIP have dedicated funding, while projects in the second five years do not have dedicated funding. Those projects must re-compete in the next round of Prioritization / SPOT to gain funding. Though not required, projects submitted to Prioritization/SPOT often originate from MTPs.

In 2013, NCDOT introduced a performance-based scoring system, referred to as 'Prioritization' or 'SPOT', to allocate funding for projects. Projects are submitted and scored on a variety of metrics. These scores are normalized so projects, regardless of mode, can compete for available funding.

Once projects have dedicated funding, they enter project development. At this stage, environmental review and mitigation are conducted, and project design is finalized before construction begins.

Detailed information about this process is available on the [Residents Online Guide to Transportation](#) page on NCDOT's website.



1.5 PROJECT OVERVIEW



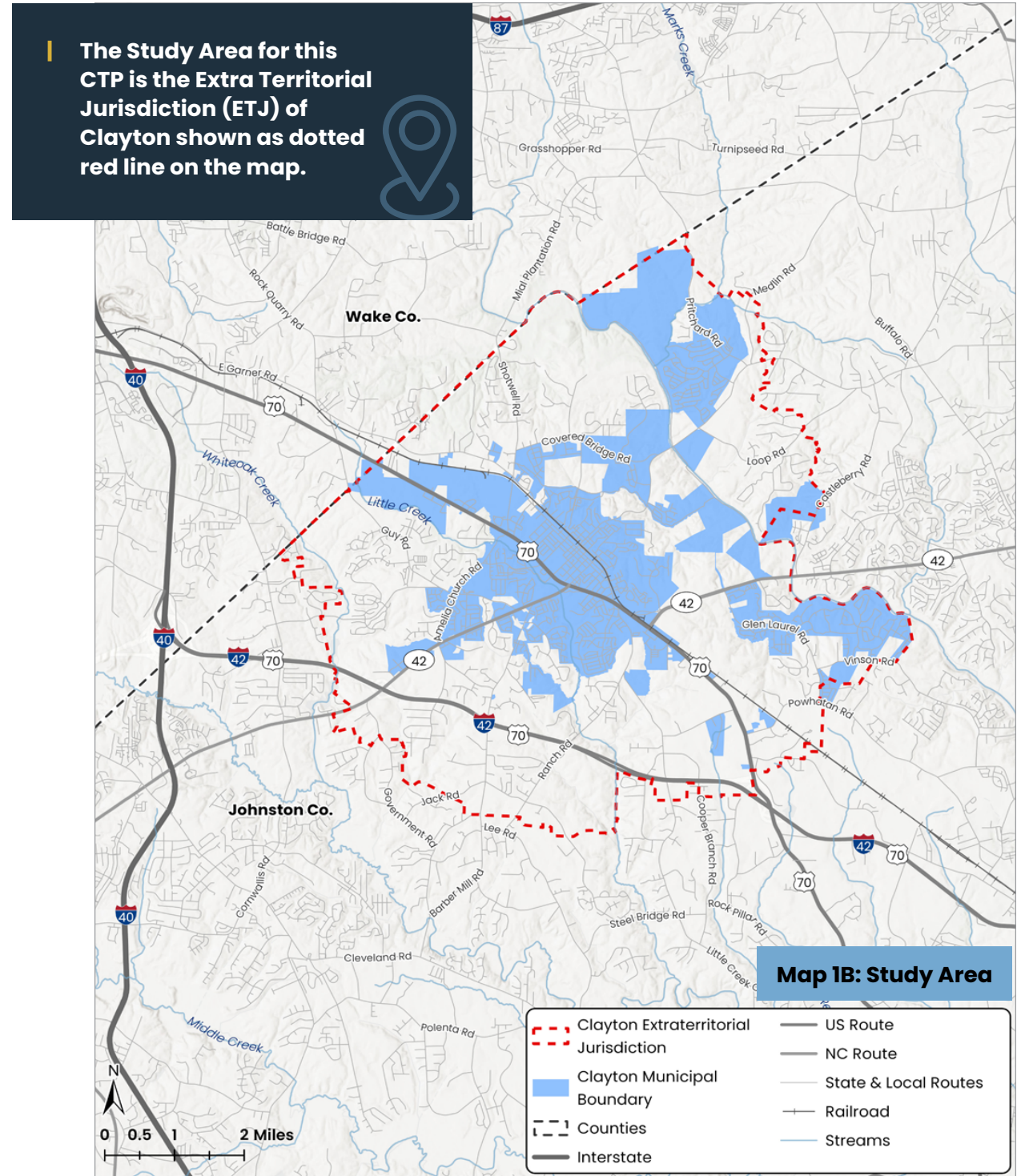
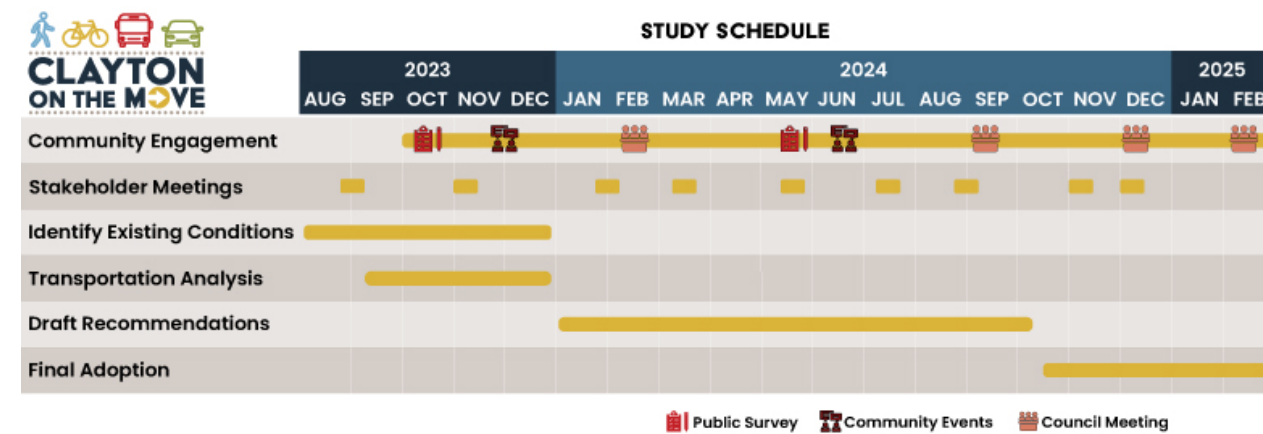
Perched on the northwestern edge of North Carolina’s Johnston County, Clayton is no stranger to growth and is in one of the fastest growing counties in the state. Clayton’s population and employment is projected to triple in the next 25 years. Growth in Clayton is outpacing its existing infrastructure; furthermore, both available land and funding for transportation improvements are finite resources.

This is the first comprehensive transportation plan developed for Clayton. The CTP functions as a long-range multi-modal plan for enhancement of the transportation system, informing subsequent development, and funding transportation improvements incrementally over the next 20 to 30 years. Generally speaking, the CTP aligns Clayton’s vision for its future growth and development with phased transportation investments and strategies needed to realize that vision.

The development of the first Clayton CTP was a year and a half effort involving cross-sector coordination with State, regional, and local partners, extensive research, public engagement, technical analysis, and oversight from multiple committees. The CTP builds on concurrent efforts included in existing and adopted plans and policies such as the CAMPO 2050 MTP and the 2022 Clayton Pedestrian Plan. It also drew from research on demographic shifts, and projected employment growth to help inform where we are going as a Town, what strategies we can employ, and what challenges and opportunities we may face along the way. To evaluate future conditions and plan benefits, the CTP employed a suite of technical tools and models to help inform policy-decision making.

A comprehensive public participation strategy was implemented to receive feedback from the public. For more information about public engagement efforts, view [Chapter 3 – Public Engagement](#).

Figure 1C: Clayton CTP Timeline



1.6 EXISTING PLANS & STUDIES REVIEW



This CTP occurs in the context of Clayton’s previous planning efforts. These plans provide a guiding framework, revealing Clayton’s prior efforts and specific studies to improve transportation, its vision for itself and recommendations to achieve that vision.

Common themes emerged from consolidating the recommendations from these plans, which helped to shape the final recommendations. This CTP provides a vision that builds upon these prior planning efforts, consistent with the Town’s vision, to increase the overall accessibility, safety, and active transportation network.

➔ Clayton Downtown Master Plan (2024)

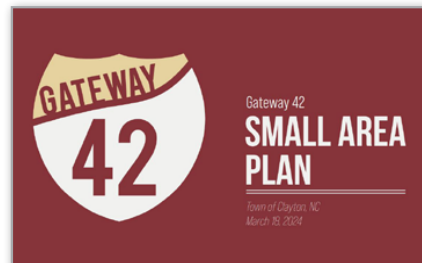
The Clayton Downtown Master Plan (PDF), adopted by the Clayton Town Council on September 16, 2024, represents a comprehensive and collaborative vision for the future of Downtown Clayton, developed through the input of residents, business owners, stakeholders, Town staff, and elected officials. This plan outlines a strategic direction for growth and development, focusing on enhancing the Downtown area to create a vibrant and welcoming commercial district.



CTP incorporates and supersedes transportation recommendations from this plan.

➔ Gateway 42 Small Area Plan (2024)

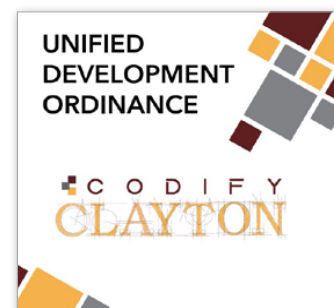
The Gateway 42 Small Area Plan (PDF), adopted by the Clayton Town Council on March 18, 2024, establishes a forward-looking framework to guide development and transformation along the NC 42 corridor. This plan envisions a well-designed, connected, and vibrant gateway into Clayton, enhancing both residential and commercial opportunities while maintaining the unique character of the area.



CTP supersedes transportation recommendations from this plan.

➔ Clayton Unified Development Ordinance (UDO) 2023

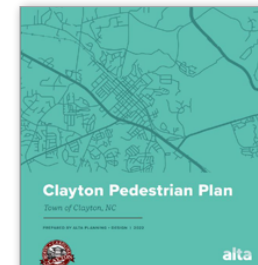
The UDO represents the Town’s primary tool for implementing its plans and policies. The UDO for Clayton contains development regulations and standards addressing connectivity and bicycle parking not always seen in municipalities of its size. Other sections that are pertinent to and should be reviewed for the CTP include: traffic impact analyses, sidewalk/bicycle designs, and signage standards.



CTP policy recommendations will need to be incorporated into the UDO.

➔ Clayton Pedestrian Plan (2022)

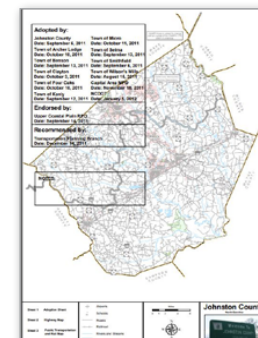
The 2022 Clayton Pedestrian Plan (PDF), adopted November 21, 2022 by the Clayton Town Council, provides a strategic roadmap for creating a safer, more connected, and accessible environment for pedestrians throughout the Town of Clayton. This plan outlines improvements to existing infrastructure, identifies new pedestrian routes, and integrates community feedback to ensure that walking becomes a more enjoyable and viable option for residents and visitors alike.



CTP incorporates and supersedes transportation recommendations from this plan.

➔ Johnston County Comprehensive Transportation Plan (2012)

Adopted in 2012, the Johnston County Comprehensive Transportation Plan (PDF) identified long-term priorities for updating the County’s transportation system. The suggested improvements for the Town of Clayton and all of Johnston County are included and are used as one component to determine what local transportation projects eventually get funded. It is not, however, intended to be a definitive listing of projects to be built. This plan was being updated concurrently with the Clayton CTP.



CTP incorporates and supersedes transportation recommendations from this plan. CTP recommendations will be incorporated into the JoCo CTP 2024.

➔ Comprehensive Growth Plan 2045 (2021)

The Comprehensive Growth Plan 2045 (PDF), adopted by the Clayton Town Council on November 15, 2021, is the Town of Clayton’s statement of how we want to grow and develop. The plan guides where and how private development should occur. It guides how the Town should provide public facilities and services to support future growth. The plan is long range in scope, focusing on the ultimate needs of the community rather than the pressing concerns of today.



CTP incorporates and supersedes transportation recommendations from this plan.

In addition to locally adopted plans, several regional plans were also referred to understand the impacts of the regional project recommendations on the transportation network of Clayton.

These included overall regional plans like the MTP, and studies regarding specific aspects of transportation like trails and transit.

➔ CAMPO 2050 Metropolitan Transportation Plan (2023)

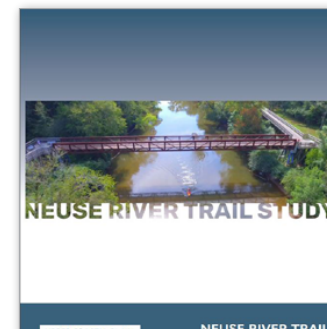
The Capital Area and the Durham Chapel-Hill Carrboro MPOs worked collaboratively to develop the **2050 Metropolitan Transportation Plan (MTP)** for the Triangle region. The MTP is the long-range plan for transportation improvements across the region. It includes roadway, transit, rail, bicycle, pedestrian and other transportation projects for the next 30 years.



CTP incorporates transportation recommendations from the MTP. CTP recommendations will be incorporated into the MTP 2055.

➔ Neuse River Trail Feasibility Study (2022)

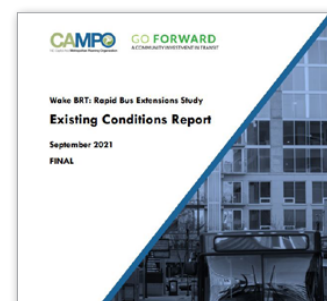
The proposed Neuse River Trail is a 15-mile corridor in Johnston County connecting existing greenways in Clayton and Smithfield. The proposed trail is a critical missing link in the regional greenway network and is the identified corridor for gap segments of the Mountains-to-Sea Trail and East Coast Greenway. The Johnston County **Neuse River Trail Feasibility Study** will evaluate potential route scenarios along roadway corridors and the Neuse River to determine the preferred route. The study will also develop cost estimates and an implementation plan to construct the trail.



CTP incorporates and supersedes transportation recommendations from this study.

➔ Rapid Bus Extension Study (2021)

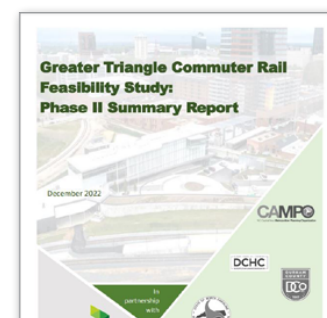
CAMPO has completed a **major investment study (MIS)** that identified and evaluated rapid bus routing options and selected preferred solutions for rapid bus extensions to both of the planned Wake Bus Rapid Transit (BRT): Western and Southern Corridors. The planned Wake BRT: Western Corridor will connect downtown Raleigh to downtown Cary. The planned Wake BRT: Southern Corridor will connect downtown Raleigh to Garner.



CTP incorporates transportation recommendations from this study pertaining to Clayton ETJ.

➔ Greater Triangle Commuter Rail Study (2022)

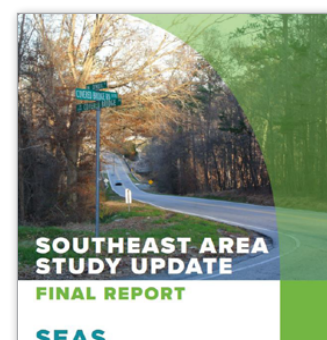
GoTriangle completed the **Greater Triangle Commuter Rail study**, which identified significant benefits to the region from implementing regional rail, and significant feasibility challenges to implementing regional rail within the budget and timeline established in the current Wake and Durham Transit Plans. Public input on the project revealed favorable sentiment towards commuter rail and an appetite for transit solutions to mobility challenges in the Triangle.



CTP incorporates transportation recommendations from this study pertaining to Clayton ETJ.

➔ CAMPO Southeast Area Study (SEAS) (2023)

The **SEAS Update** is an update to the original 2017 Southeast Area Study that looked at land use and multimodal transportation needs of the study area shown in **Map 1C**. The study covered parts of Wake and Johnston Counties and the City of Raleigh, as well as the municipalities of Archer Lodge, Benson, Clayton, Four Oaks, Garner, Kenly, Micro, Selma, Smithfield and Wilson's Mills, and was conducted in coordination with NCDOT and the Upper Coastal Plain RPO.



CTP incorporates and supersedes transportation recommendations from this study

➔ Clayton Parks & Recreation Comprehensive Plan (2024)

The Parks and Recreation Master Plan sets forth a strategic vision for enhancing Clayton's parks, green spaces, and recreational facilities to meet the evolving needs of our community. It outlines goals for expanding park amenities, improving accessibility, and fostering inclusive, active spaces for all ages. By guiding future investments and program development, the Parks and Recreation Master Plan aims to enrich the quality of life in Clayton and create a lasting legacy of outdoor enjoyment and community well-being.

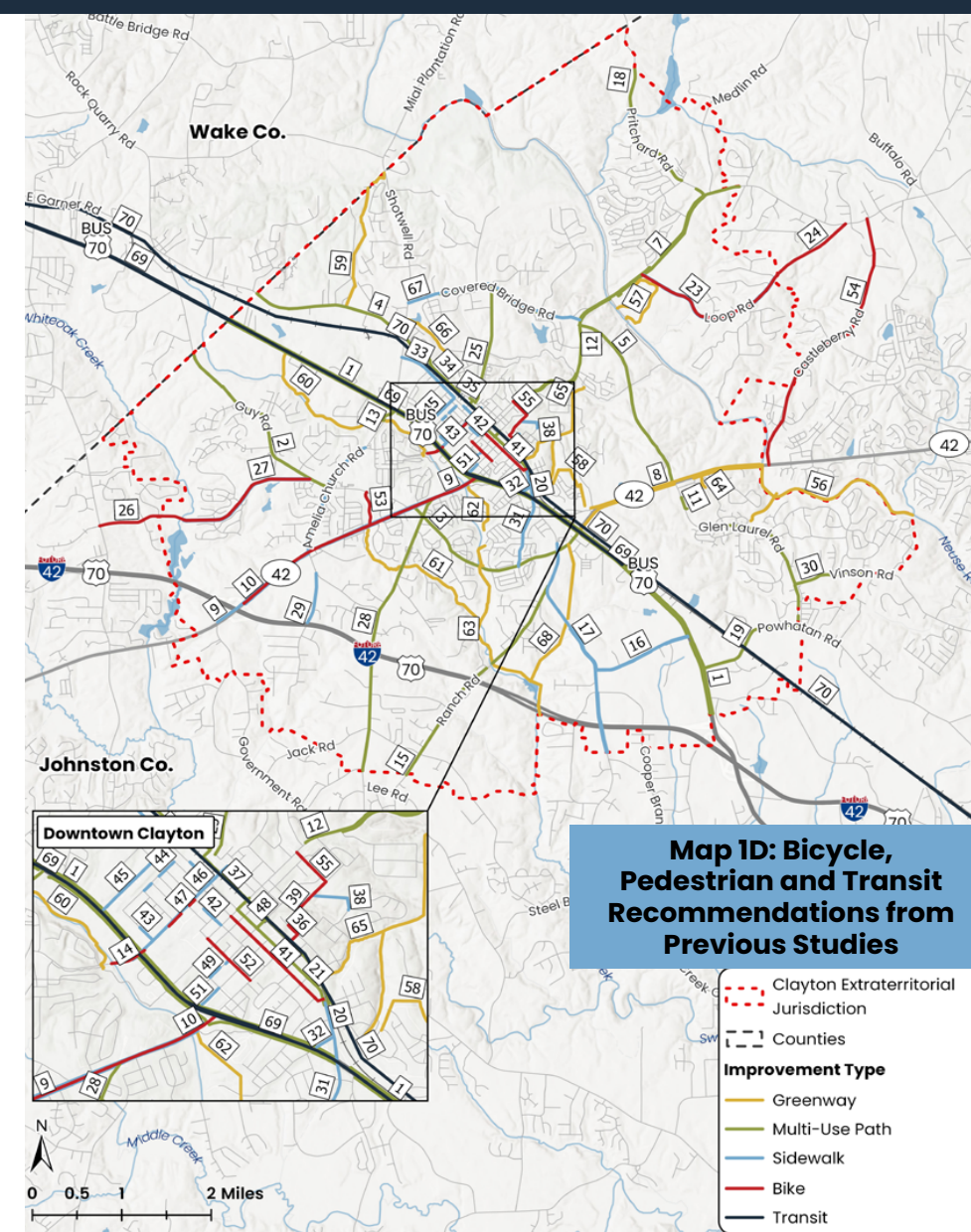
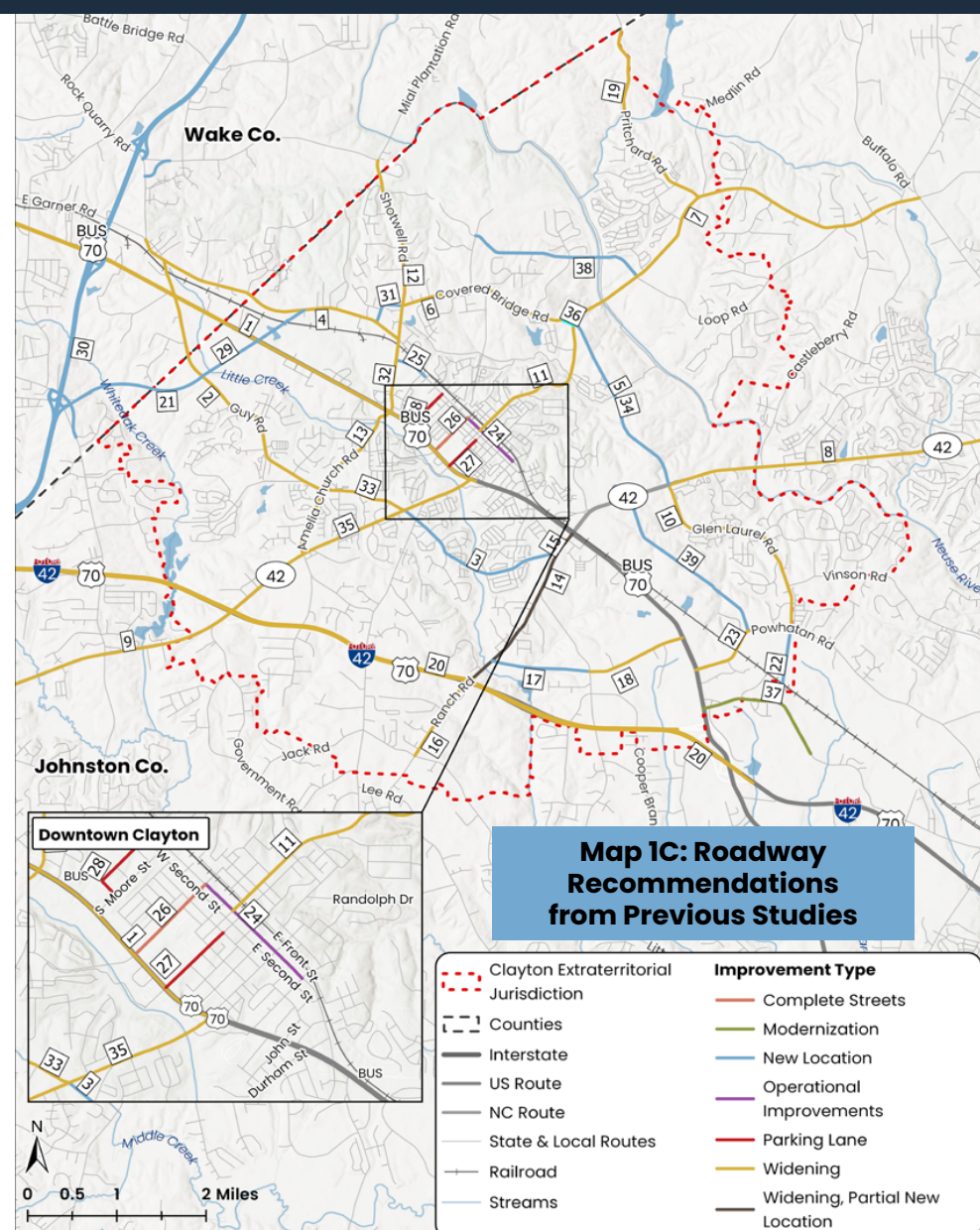


CTP incorporates transportation recommendations from this Plan

Consolidated Recommendations from previous studies

Roadway recommendations consolidated from the previously adopted plans are shown in [Map 1C](#).

Bike and pedestrian recommendations from the adopted plans can be found in [Map 1D](#). Approximately 200 project recommendations for various modes were consolidated to provide a baseline understanding for the development of this CTP.



2. Existing Conditions Analysis

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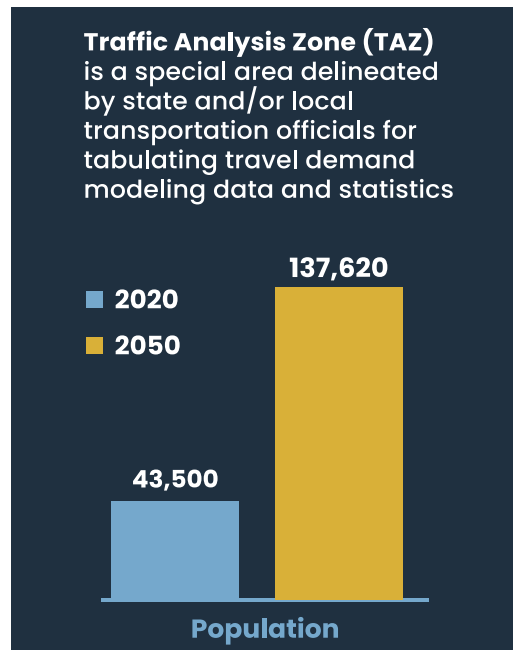
2.1 POPULATION AND EMPLOYMENT



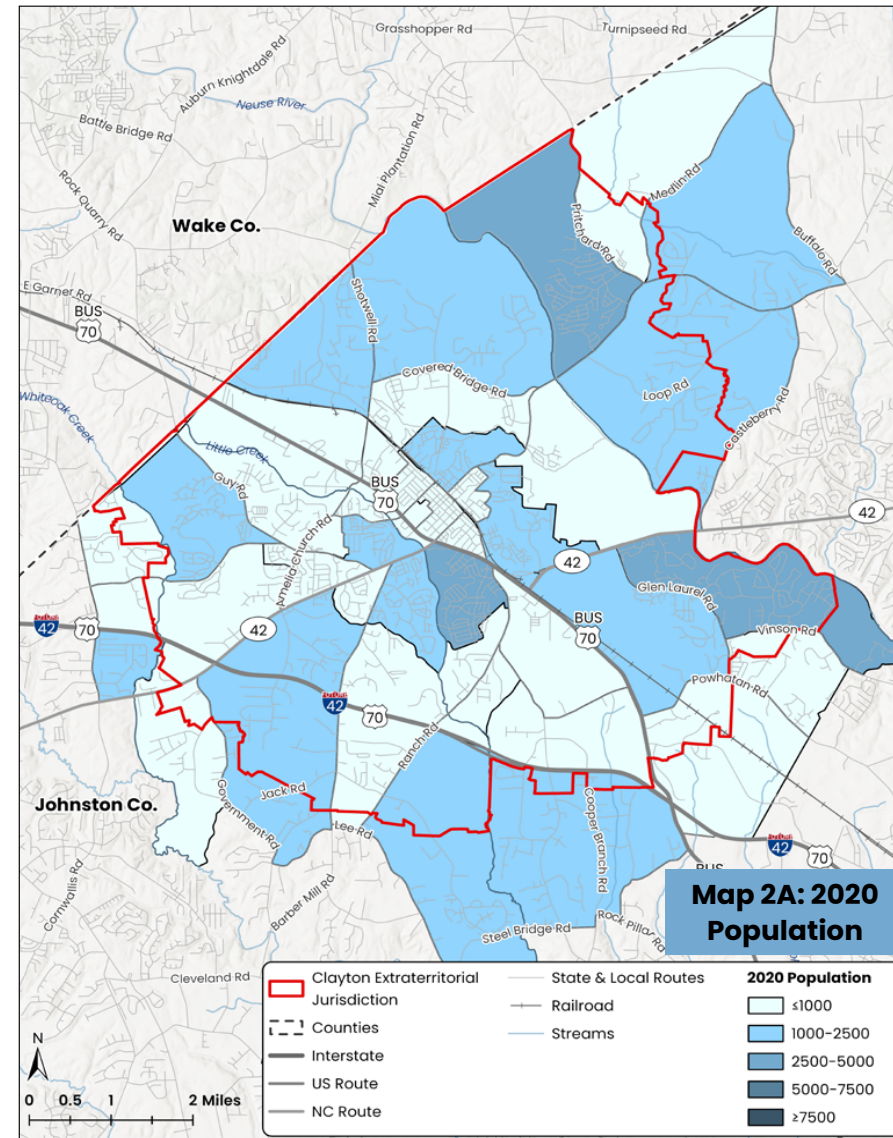
Population Growth

Maps 2A and **2B** show the changes in population between 2020 and 2050*. Labeled values show the population change. The data was derived from the 2020 official and 2050 modified Triangle Regional Model (TRM) outputs. Population is projected to increase in all Traffic Analysis Zones (TAZs), with population increase ranging from 0.4% to 1,800%. 32 of the TAZs are projected to experience a population increase of 100% or greater between 2020 and 2050. The TAZs east of downtown will see the largest increase.

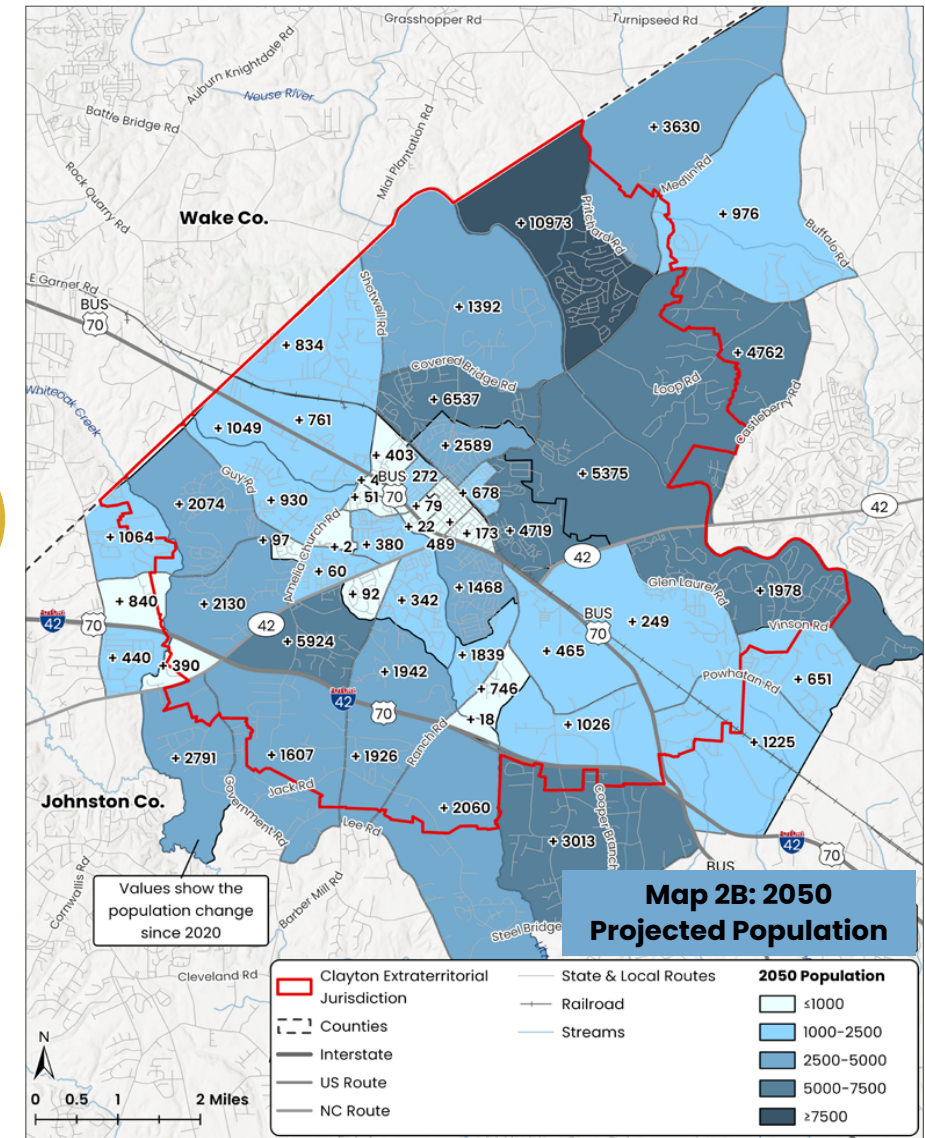
Figure 2A: 2020 and 2050 Population



* The 2050 population and employment projections shown here differ from the official Triangle Regional Model data. The Town of Clayton planning staff reviewed the official data and made several changes to better reflect the development patterns in the Town.



Population Growth

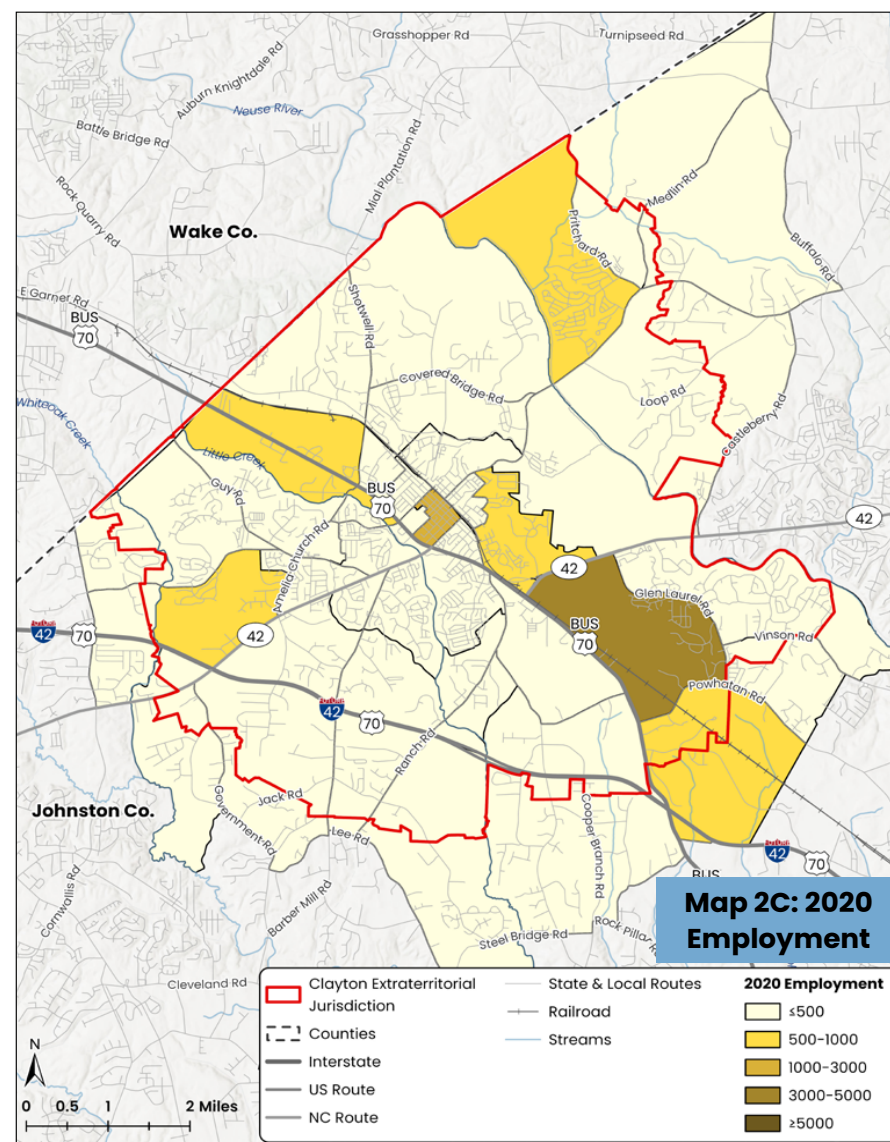
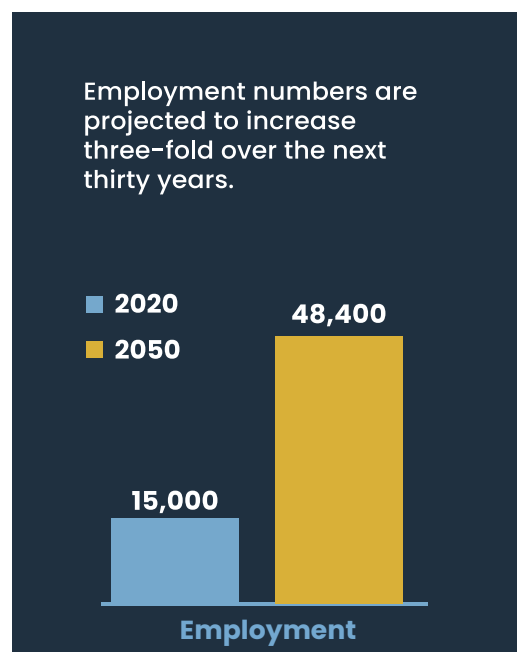




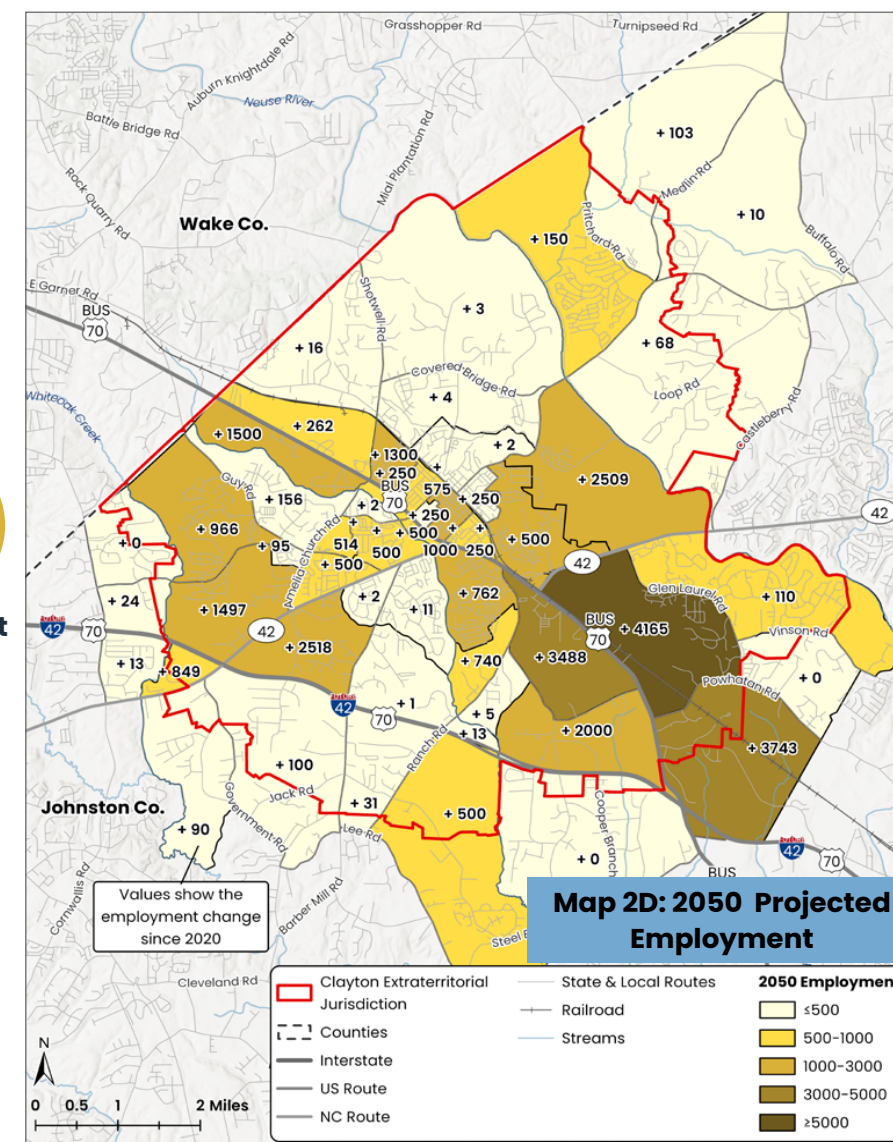
Employment Growth

Maps 2C and 2D show the changes in employment between 2020 and 2050. Labeled values show the population change. The data was derived from the 2020 official and 2050 modified TRM outputs. Employment is projected to increase in all but 3 TAZs, with employment increase ranging from 1% to 4,418%. Twenty-seven of the TAZs are projected to experience an employment increase of 100% or greater between 2020 and 2050. The TAZs southeast of downtown will see the largest increase.

Figure 2B: 2020 and 2050 Employment



Employment Growth



2.2 TRAVEL CHARACTERISTICS

The graphs in **Figure 2C** display travel characteristics, including the means of travel, purpose of travel, and distance traveled. The data was derived from Replica examining travel patterns in Fall 2022.

92% of trips are made by vehicle, with only 31% of these trips involving carpool. 7% of trips are made by walking and 1% are made by bicycle.

The majority of trips (58%) are for leisure purposes including social outings, shopping, and eating.

33% of trips are for work and school purposes, while the remaining 9% of trips are for medical and other purposes.

10% of trips involve traveling less than 1 mile. For these trips, 47% of them are made by walking, while the other 53% are made by vehicle.

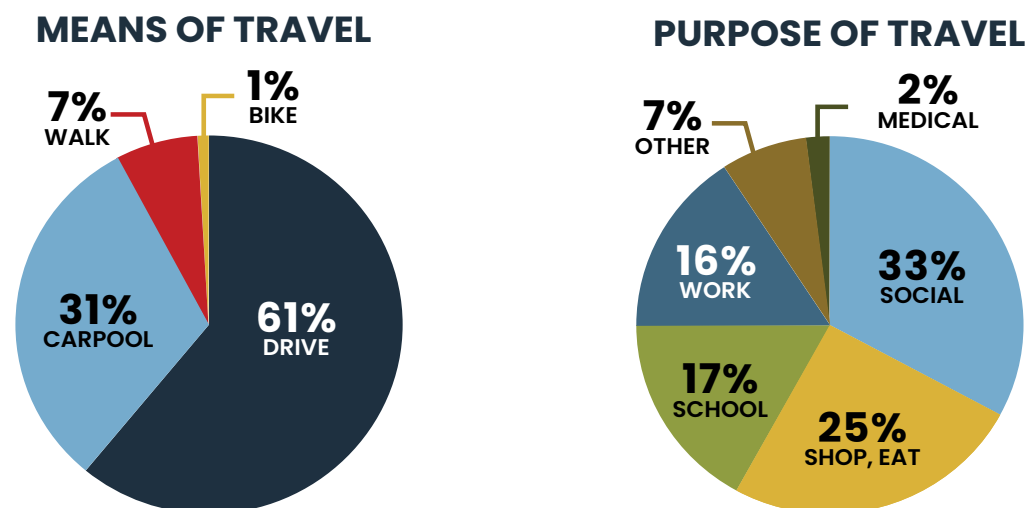
11% of trips involve traveling 1-2 miles. For these trips, only 16% are made by walking, while the other 84% are made by vehicle.



 **10.7 miles:** The average trip in Clayton

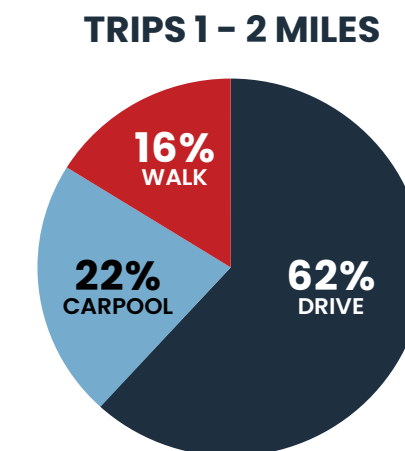
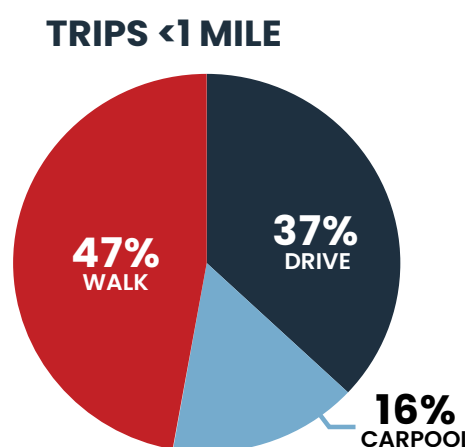
 **6.3 miles:** The median trip in Clayton

Figure 2C: Clayton Travel Characteristics



Work/School travel consists of only a third of total travel in the study area. Most travel is for social purposes

Trips shorter than 2 miles can easily shift to walk-bike modes if proper facilities are provided.



Source: Replica (Fall 2022)



Average Daily Person-Trip Distribution

Clayton is situated within the larger Triangle region and its travel patterns show interactions with the larger region. The origins and destinations of trips inside and outside of the Clayton ETJ were analyzed using Replica data. This data provides a better understanding of where people are traveling from and to, as well as what roads they are utilizing for these trips.

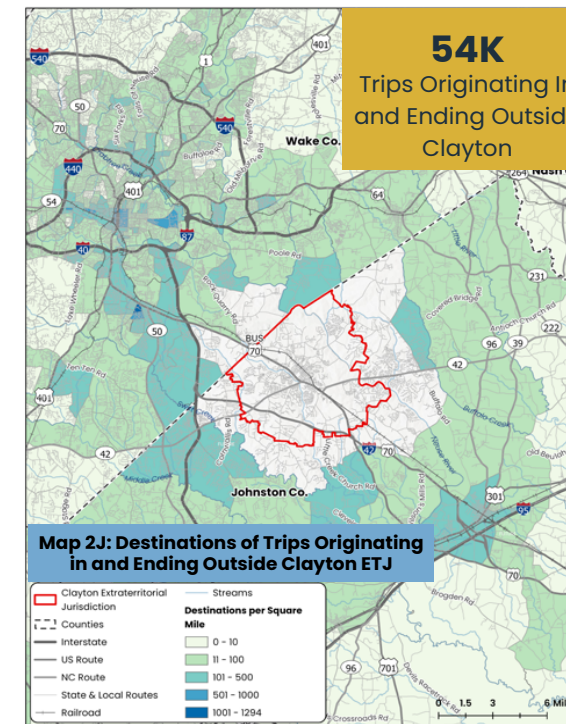
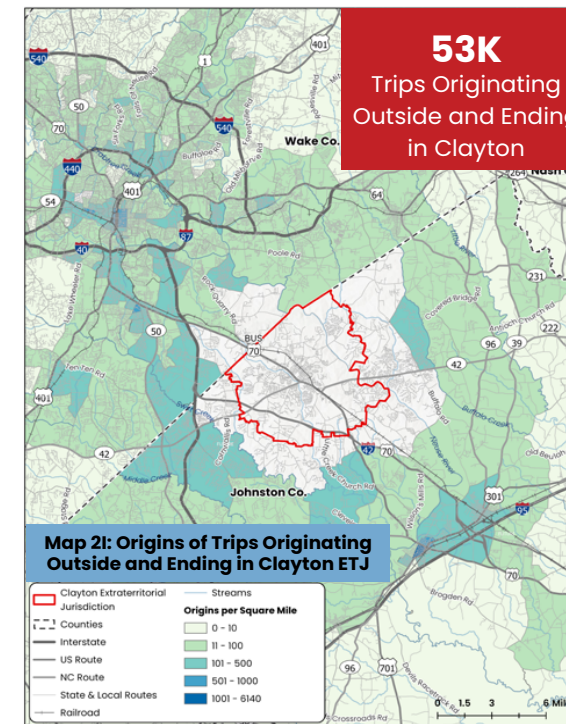
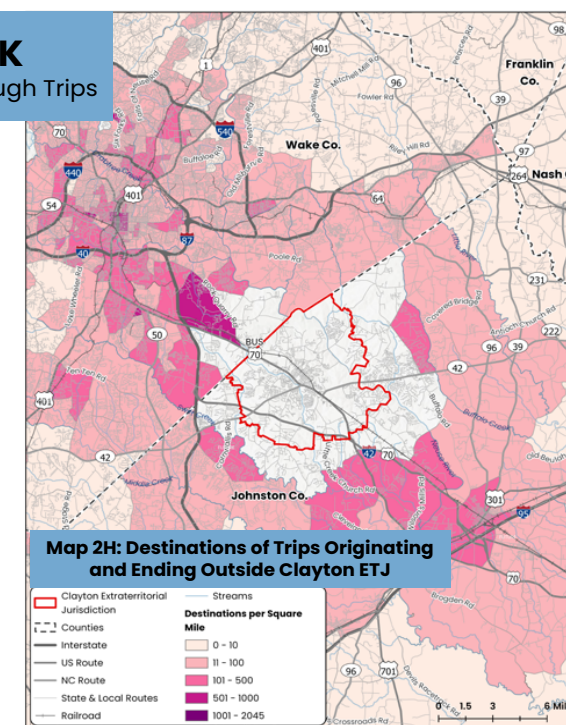
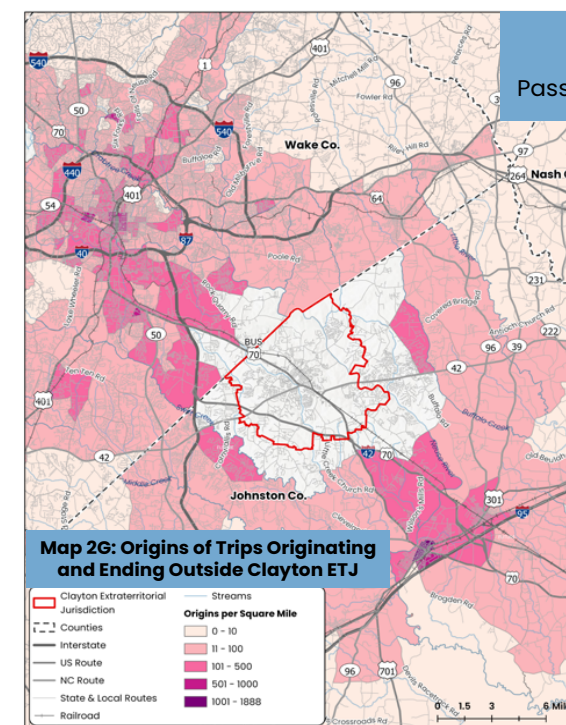
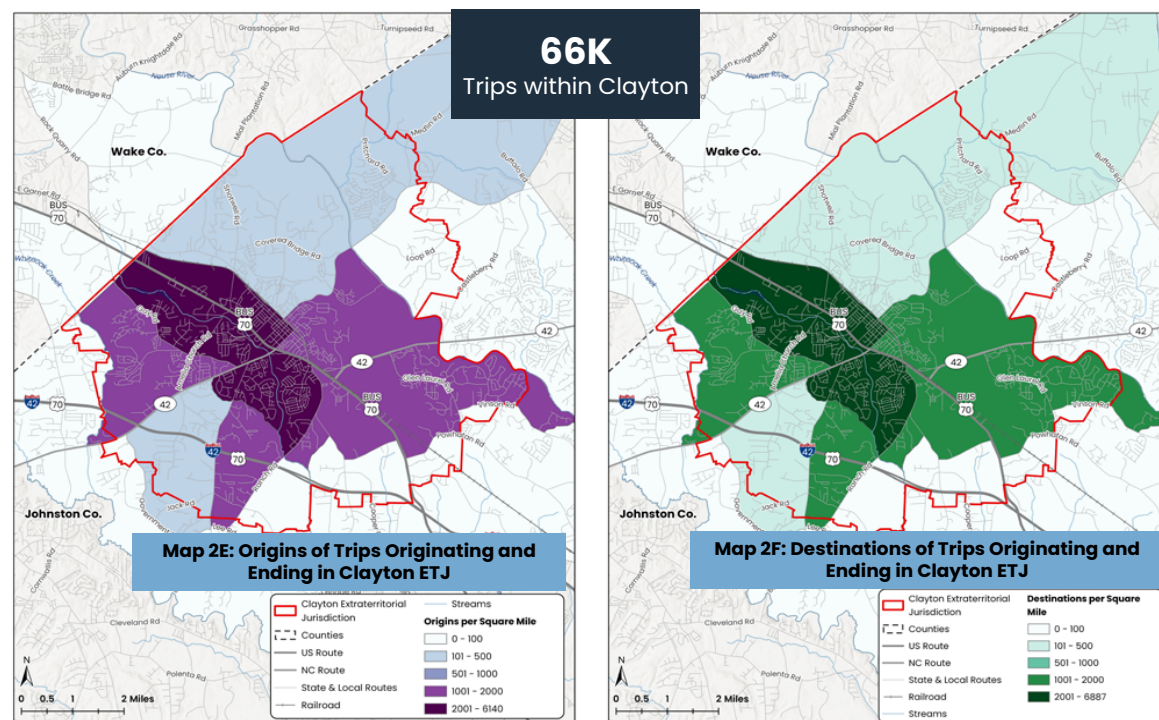
Maps 2E and **2F** show there are 66,000 daily person-trips that originate and end in the ETJ. The origins and destinations of these trips are concentrated in the same areas, with the downtown area having the highest concentration of origins and destinations. It is likely many of these, especially in downtown Clayton, are

shorter trips that could easily shift to walk-bike modes.

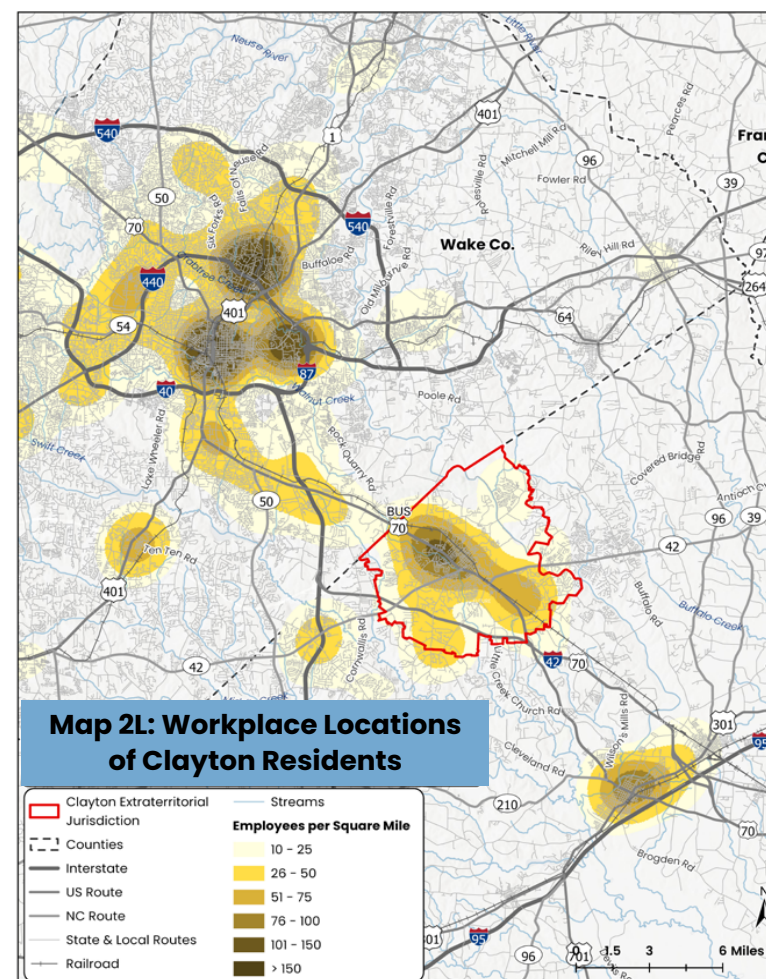
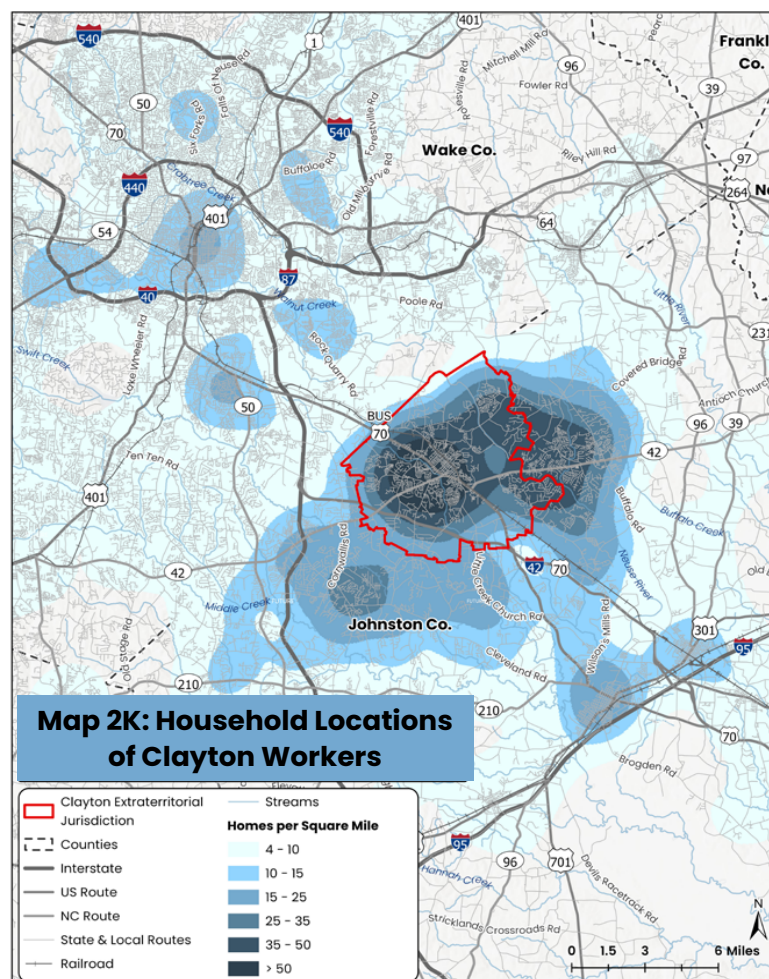
Maps 2G and **2H** show there are 73,000 daily trips that begin outside of the ETJ, drive through the ETJ, and end outside of the ETJ. These trips passing through the ETJ are more likely to utilize major roads, such as US 70 and NC 42, as their means of travel.

Maps 2I and **2J** show there are 53,000 daily trips that originate outside of the ETJ and end inside of the ETJ. There are 54,000 trips that originate inside of the ETJ and end outside of the ETJ. These relatively consistent numbers show individuals that are likely commuting to and from the ETJ for work and school.

The metrics shown on this page are for 'person trips', which means trips taken by each person. For instance, if one car carries two people, it is considered as 1 auto-trip and 2 person-trips. The data shown in the maps pertain to **Daily Person-Trips**



2.3 WORK TRAVEL CHARACTERISTICS



Work Travel

Approximately **13,700** workers travel from **outside the ETJ (or Study Area)**

Approximately **16,000** residents work **outside the ETJ (or Study Area)**

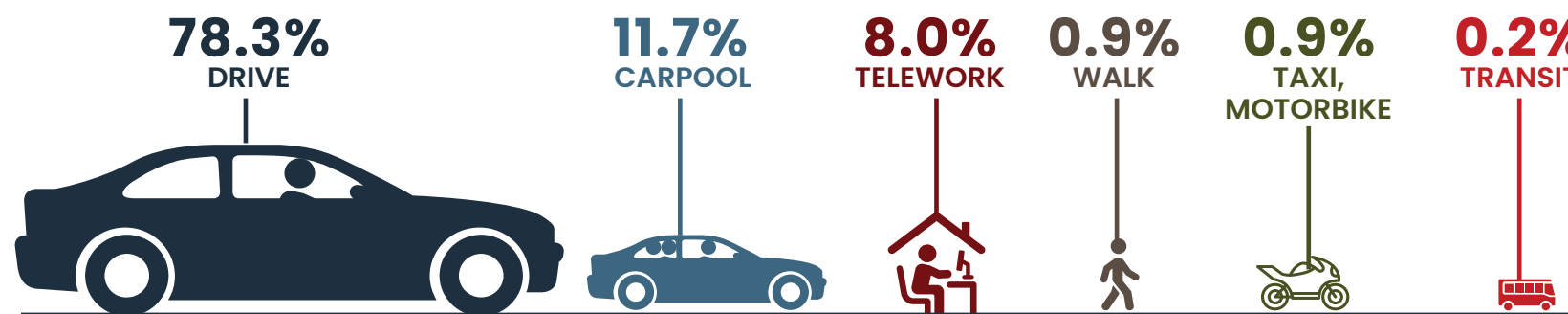
Approximately **11,700** live and work in the **ETJ (or Study Area)**

Identifying areas with a high concentration of workplaces can help understand peak travel destinations to and from Clayton and potential transit connections.

Map 2K shows the household locations of Clayton workers organized by households per square mile. Most Clayton workers reside within the ETJ or to the east of the ETJ. **Map 2L** shows the workplace locations of Clayton residents

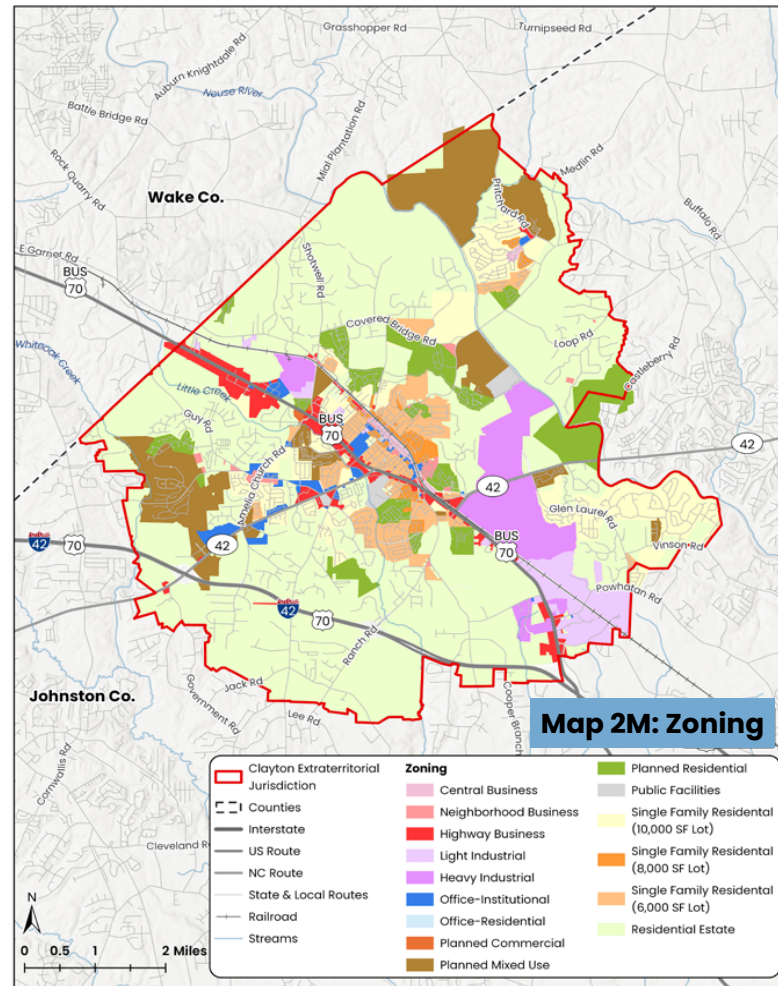
organized by employees per square mile. Most Clayton residents work in three concentrated areas of Raleigh: the central business district (aka downtown), North Hills, and the WakeMed Raleigh campus. Downtown Clayton has the next highest concentration of workplace locations followed by downtown Smithfield. Downtown Durham and the Research Triangle Park have a moderate concentration of workplace locations.

Figure 2D: Means of Travel to Work How Clayton residents get to work:



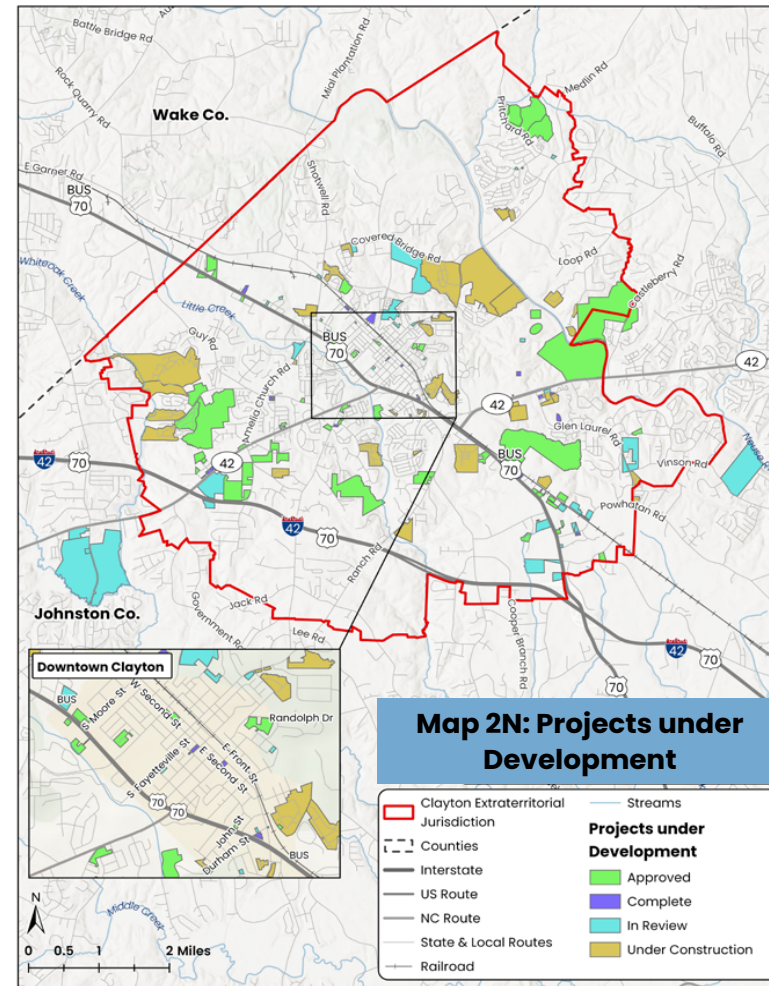
Source: Replica 2022

2.4 LAND USE AND DEVELOPMENT



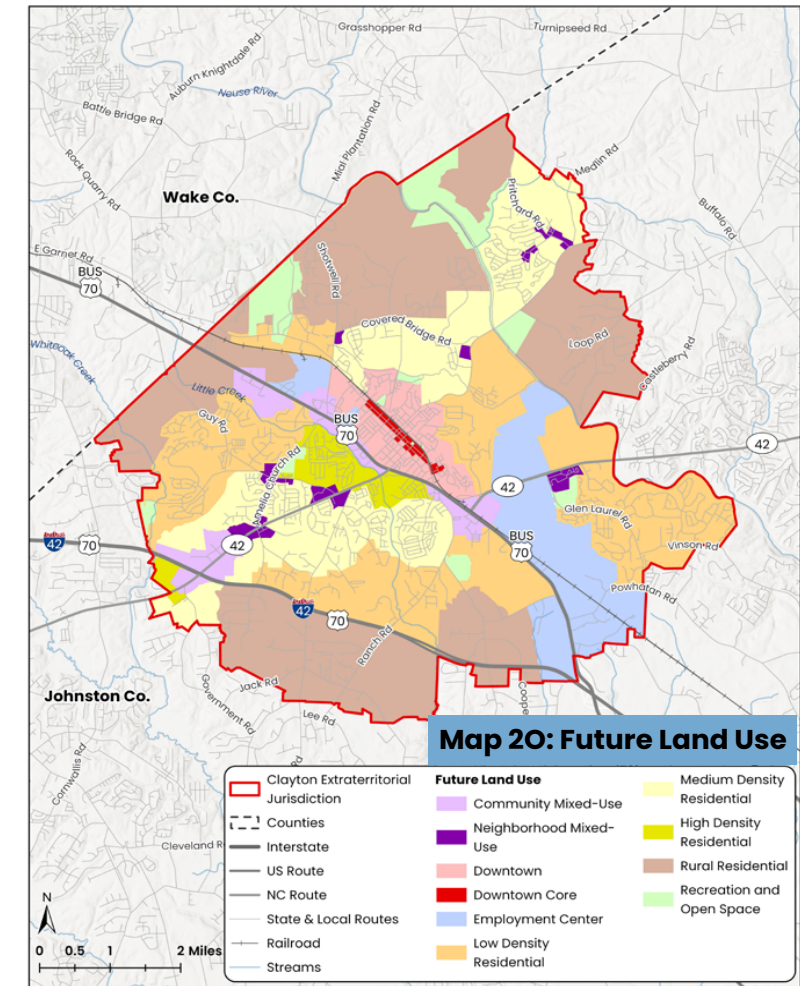
Zoning

Map 2M shows zoning within the ETJ. Zoning within the Clayton ETJ is a mix of business, industrial, residential, institutional, mixed-use, and public facilities. Residential Estate zoning comprises 58% of the ETJ as evidenced by the low-density single-family homes found outside of downtown Clayton. The Highway Business district, which allows for various types of commercial uses like restaurants and retail shopping uses, is predominantly found along the NC 42 and US 70 Business highway. Both Light Industrial (LID) and Heavy Industrial (HID) districts, which allow for a variety of life science and manufacturing uses, are found along Shotwell Rd. and the eastern portion of the Planning Area along NC 42 and US 70 Business highway.



Projects under Development

Map 2N shows projects under development as of October 2023. There are 58 approved developments including 22 residential developments, 21 commercial developments, and 1 mixed-use development. There are 39 developments under construction.



Future Land Use

Map 2O shows the future land use within the ETJ. Future land use in the ETJ is a mix of mixed-use, downtown, employment centers, residential, and recreation and open space. 78% of future land use is residential with the majority comprised of rural residential and low density residential.

2.5 ENVIRONMENT



Natural Environment

The following properties are considered managed areas and may have protected uses:

- **Central Crops Research Station and Clemmons Educational State Forest, both of which are state-owned managed areas along the northwestern border of the ETJ**
- **Three private conservation easements in the northeast corner of the ETJ**
- **Mountains to Sea Trail**
- **Clemmons State Forest**
- **368 acres of Town of Clayton open space and 2.41 acres of Johnston County open space**
- **Three NCDOT mitigation sites**

The ETJ also includes two natural areas: Neuse River Forest and Neuse River Aquatic Habitat.

Natural and managed areas where residents can enjoy nature are found throughout Clayton. Notably, the Neuse River and Marks Creek run through the northeastern portion of the ETJ. Little Creek runs northwest to southeast through the center of the ETJ. Whiteoak Creek runs through the westernmost portion of the ETJ. One-hundred-year floodplains are located along these major hydrography features and their tributaries. There are also 1,736 acres of wetlands scattered throughout the ETJ and a water supply watershed IV in the southeastern quadrant of ETJ.

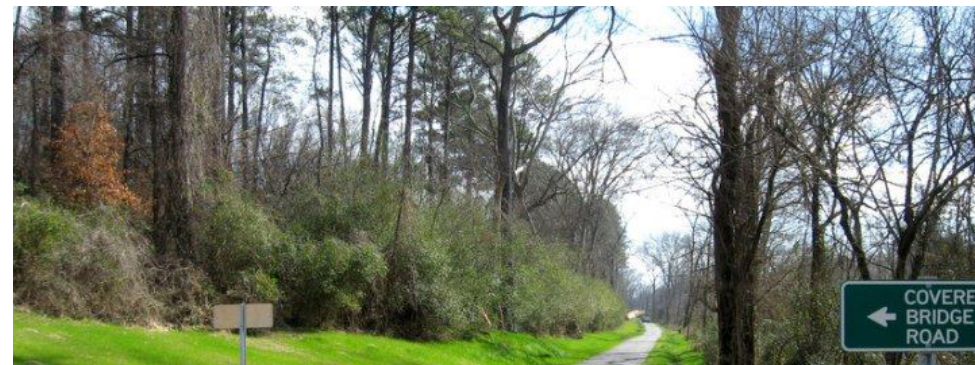
Any improvements near the Neuse River are likely to impact multiple natural resources.

The natural areas shown in this section function as parcels of land where new roadway alignments cannot be placed without significant mitigation efforts.

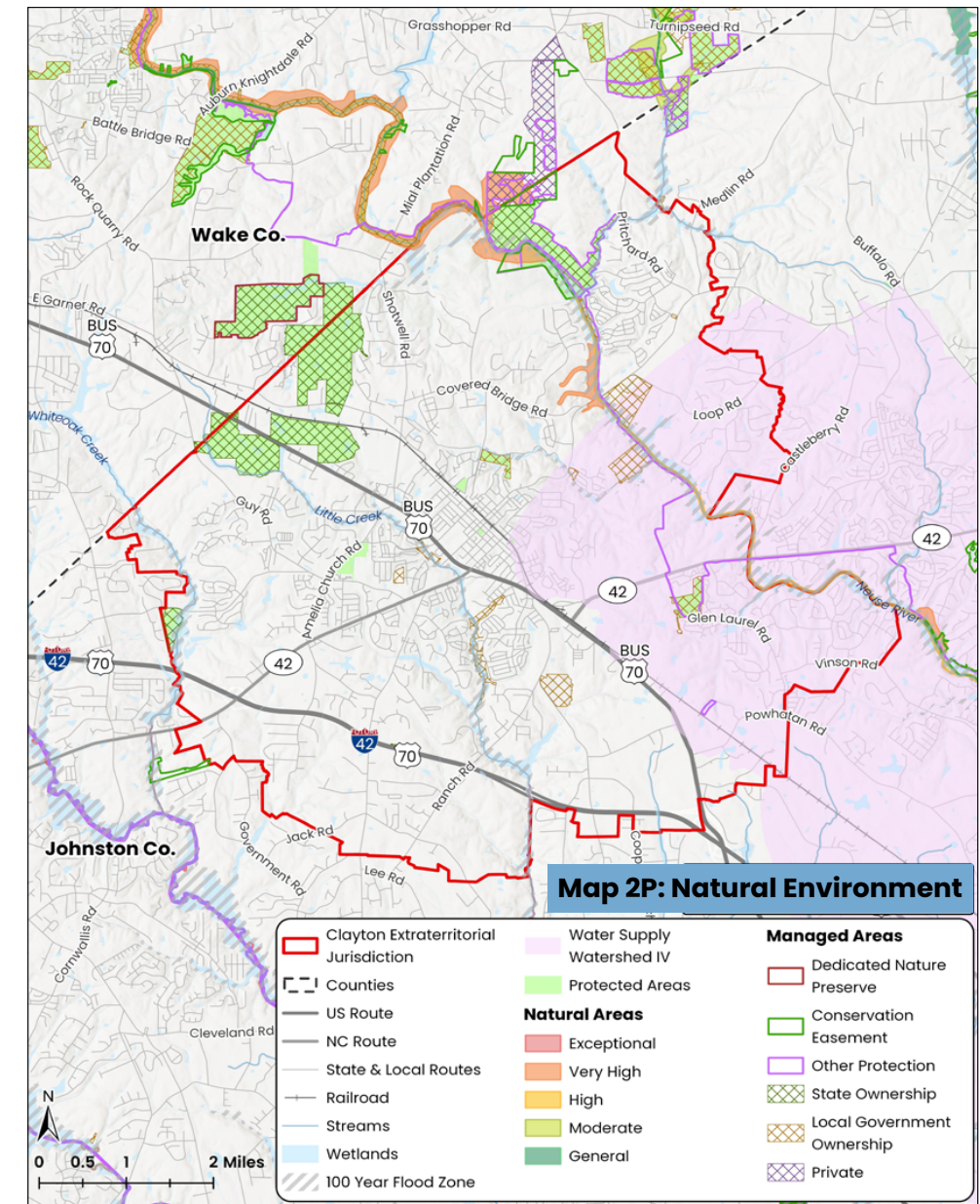
Contrarily, greenways and other non-motorized modes can be aligned through or along many of these areas. These factors were taken into consideration while developing roadway and pedestrian-bicycle recommendations during the CTP development process.



Clemmons Educational State Forest (Source: NC Forest Service)



Clayton River Walk on the Neuse, part of the Mountains to Sea Trail





Human Environment

The following community resources are within the Clayton ETJ:

- **1 Emergency Medical Services/Rescue at 317 South Robertson St.**
- **2 Fire Stations (Station 1 at 325 West Horne St. and Station 2 at 800 State Highway 42 East) and 1 future Fire Station at 143 Short Johnson Rd.**
- **1 Hospital (Johnson Health—Clayton) at 2138 NC 42 Highway W.**
- **1 Library (Hocutt Ellington Memorial Library) at 100 Church St.**
- **9 Schools (Riverwood Elementary, Riverwood Middle, Clayton Middle, Clayton High, West Clayton Elementary, Cooper Academy, Powhatan Elementary, Academy of Hope, and Southside Christian School)**
- **37 Churches**
- **29 Daycares**
- **32 Cemeteries**
- **Johnston Community College**
- **Mountains to Sea Trail**
- **Clemmons Educational State Forest and four parks: Municipal Park, All-Star Park, Clayton Community Park, East Clayton Community Park**

Most community resources are concentrated within downtown and southwest of downtown. Resource numbers are approximate as of October 2023.

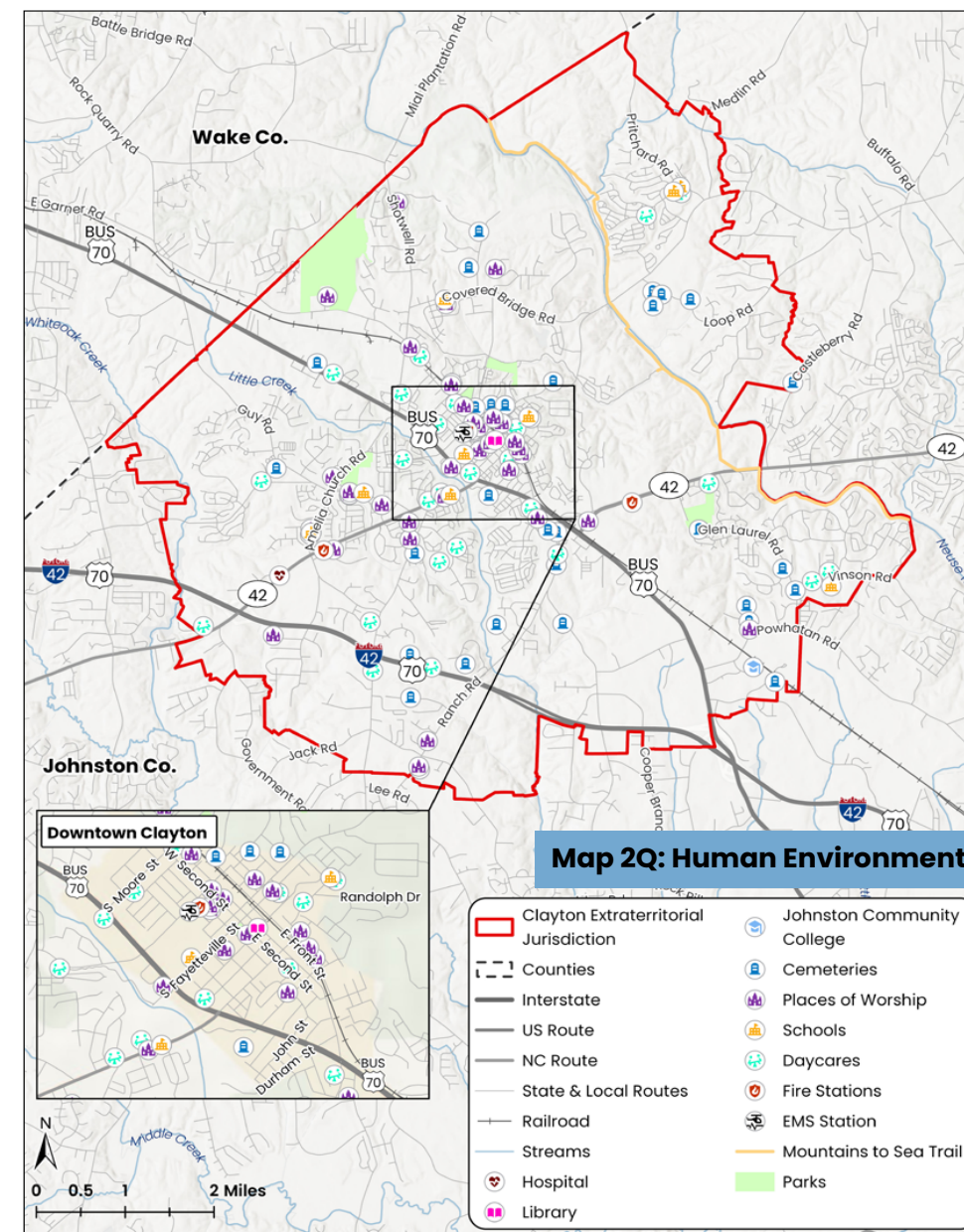
Clemmons Educational State Forest and Clayton Community Park, are also Section 6(f) properties. Special attention should be given to these properties to avoid impacts.

Improvements in downtown Clayton are likely to have some impact on community resources.

The points on Map 2.5B show places that serve the community and have the potential to generate ridership for transit routes. These factors were taken into consideration while developing transit recommendations during the CTP development process.



Hocutt Ellington Memorial Library





Historic Resources

The following historic or potentially historic resources are within the Clayton ETJ:

- **Gower-Johnson House (Determined Eligible):** A c. 1870 1-story side gable frame Greek Revival/Italianate house located at 2082 Guy Rd.
- **Home of the Keeper of Records and Seals (Determined Eligible):** A 1930 1 1/2-story Tudor Revival brick house w/ stone fence located at 1101 S Lombard St.
- **Clayton Graded School & Grammar School/ Municipal Auditorium (National Register):** A 1915-1926 school located at 101-111 E. Second St.
- **Ellington-Ellis Farm (National Register):** A 19th C. farm with a 2-story frame house and outbuildings located at the north side of SR 1004, 0.2 miles west of jct. w/SR 1553
- **Stallings-Carpenter House (Bend of the River) (National Register):** A c. 1826-1865 2-story hip roof weatherboarded frame double pile Greek Revival house located at 1004 Bobbitt Rd.
- **Clayton Banking Company Building (National Register):** A 1919 Neoclassical building located at 301 E. Main St.
- **Clayton Historic District (National Register):** A 19th-early 20th C. commercial and residential district located in downtown Clayton bounded by Mulberry, W. Barnes, Mill, S. Lombard and Blanche
- **Battle-Horne-Benson House (Study List, Determined Eligible):** A 1909-1911 Tuscan house located at NE side SR 1560, 0.6 miles south of US 70

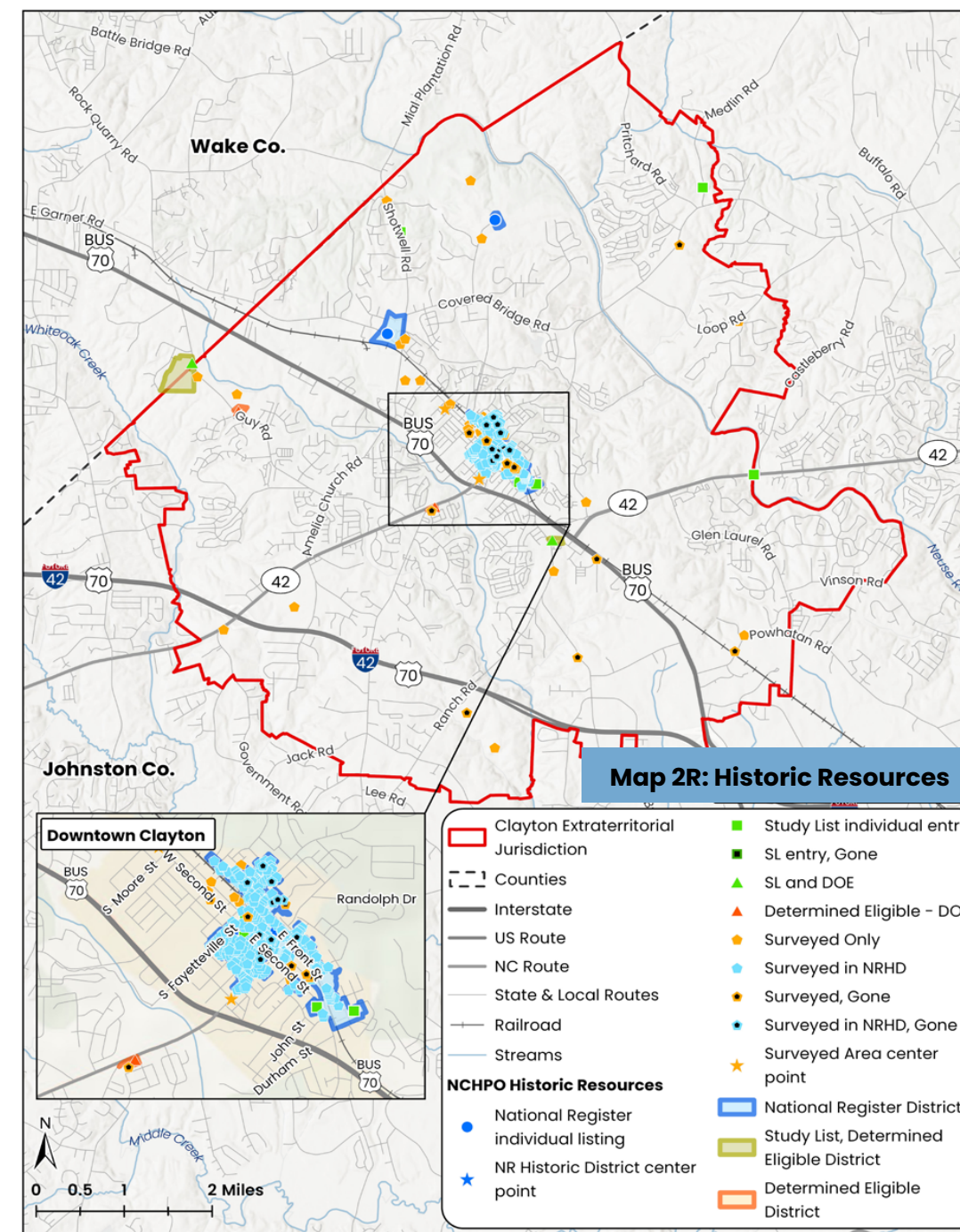
- **W. A. Gowers Farm (Gowers House) (Study List, Determined Eligible):** A c. 1900 2-story cross gable weatherboarded frame single pile Traditional/Vernacular house located at 4333 Guy Rd.

- **306 Surveyed Only and 9 Study List properties**

The location of historic structures will influence future transportation planning decisions. Federal, state, and local regulations around historic districts and landmarks can influence the changes that can be made to and around these properties. Historic properties are concentrated in downtown Clayton. Improvements in downtown Clayton are likely to have some impact on historic resources.

Special attention should be paid to the following locations to avoid or minimize impacts to historic properties, as these areas have the highest concentration of properties:

- Near the intersection of **Shotwell Rd.** and **East Garner Rd.;**
- At the northern terminus of **Bobbitt Rd.;**
- Near the intersection of **Guy Rd.** and **Golden Nugget Dr.;**
- Near the intersection of **Guy Rd.** and **White Oak Cir.;** and
- In **downtown Clayton**, particularly on the northeast side of the rail track and south of **Fayetteville St.**

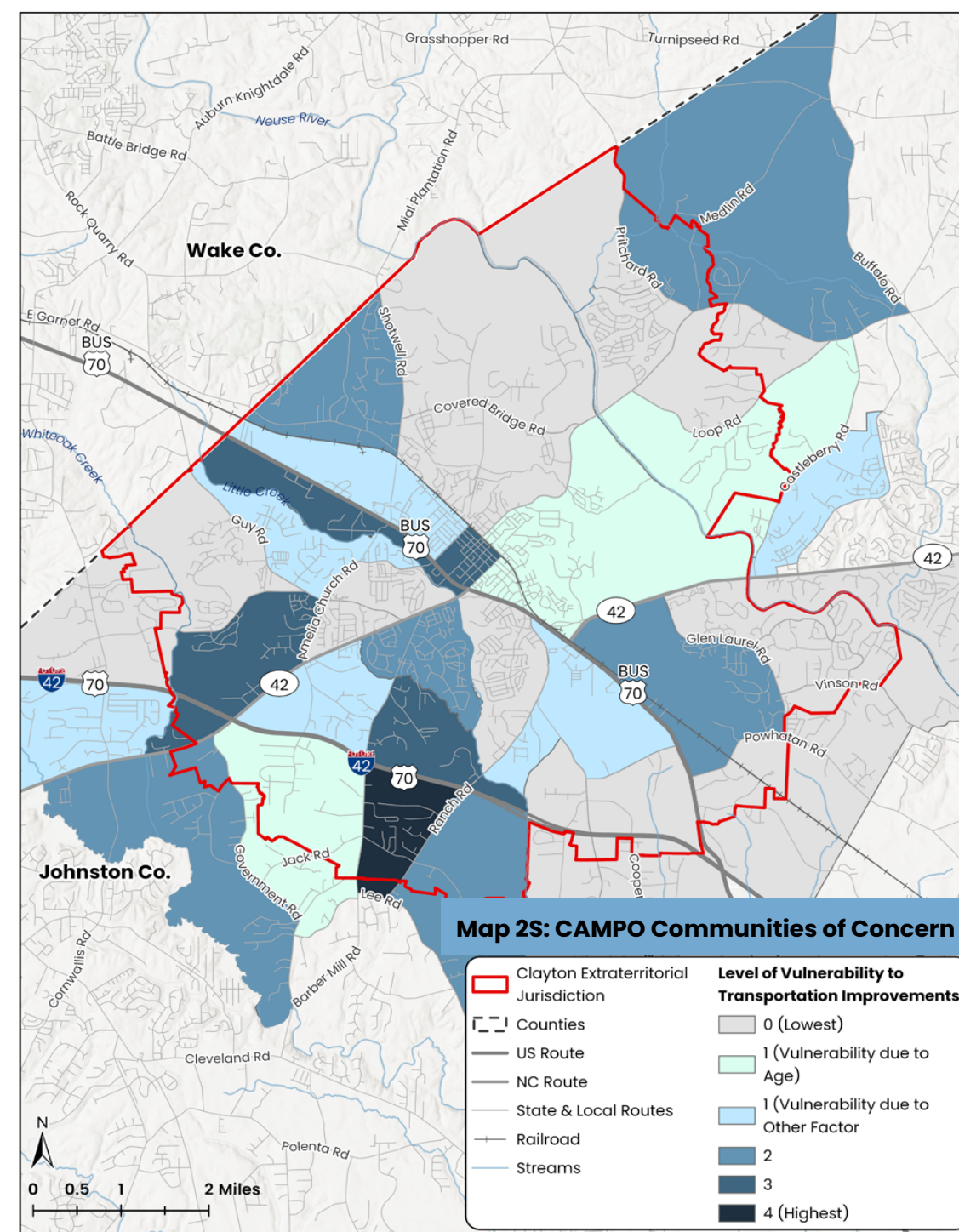
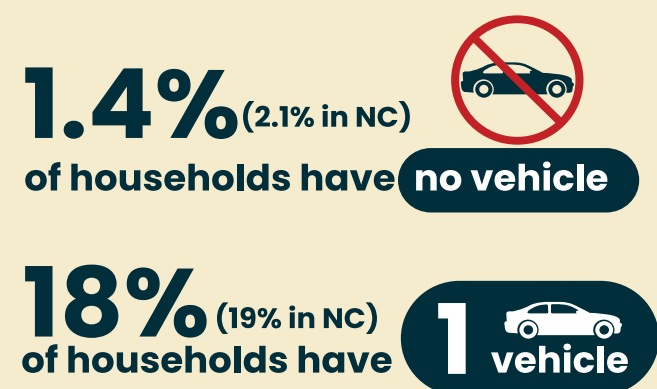
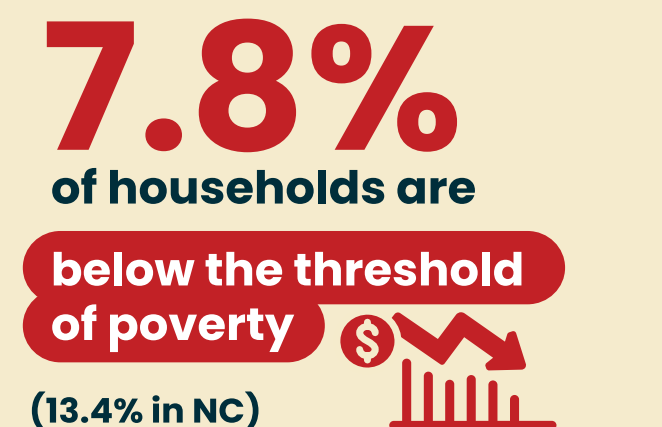
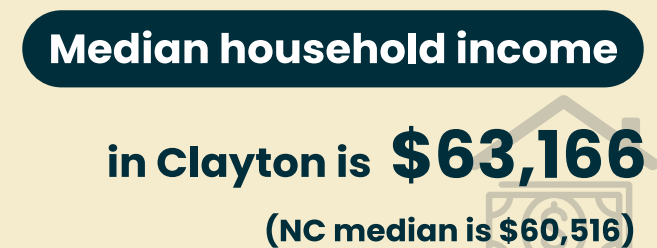
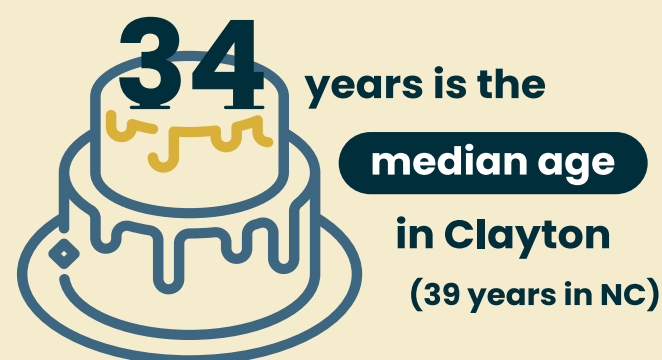


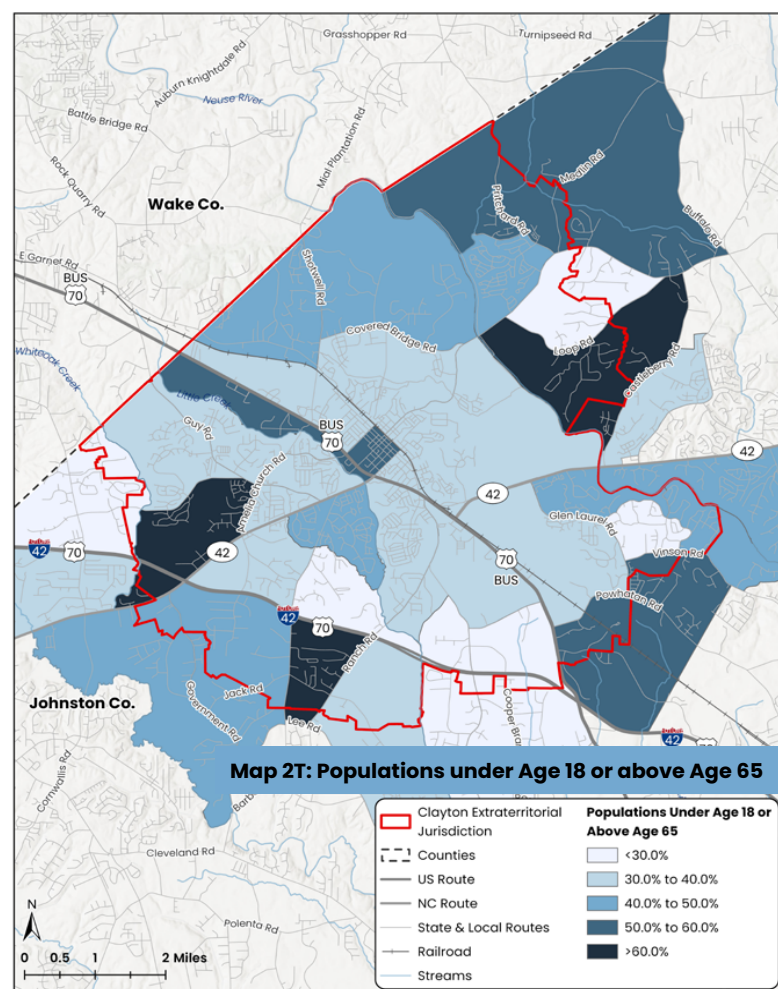
2.6 DEMOGRAPHICS

Demographic characteristics help provide an understanding of the transportation needs of a community, particularly for bicycle, pedestrian, and public transportation modes.

The Capital Area Metropolitan Planning Organization (CAMPO) uses U.S. Census Bureau Block Group-level data from the American Community Survey (ACS) to look for concentrations of classes protected under Title VI. These "communities of concern" (CofCs) represent where potential concentrations of protected populations exist. Planning for equitable outcomes has become an important element within transportation planning efforts and often involves historically underserved populations or CofCs.

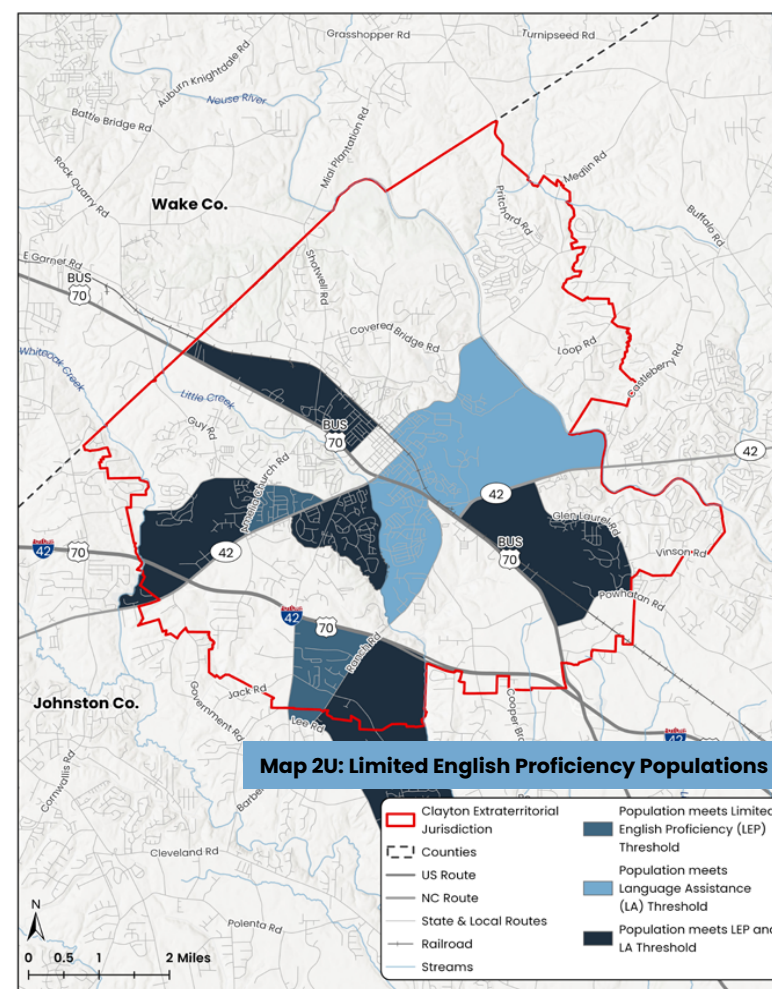
A screening for CofCs in Clayton used socio-economic indicators from the ACS five-year estimates (2016-2020) at the Block Group level. The relevant data tables include: population below the poverty line, zero-vehicle households, seniors (age 65+), youth (age <18), and travel to work by modes other than motor vehicle. Census block groups with a greater proportion than the county average are considered indicators for CofCs, and the sum of these five categories identify areas to prioritize investment in transportation infrastructure. The communities with the highest levels of vulnerability (levels 3 and 4) are focused around the southern part of the ETJ, but there also several communities of level 2 scattered evenly throughout the ETJ.





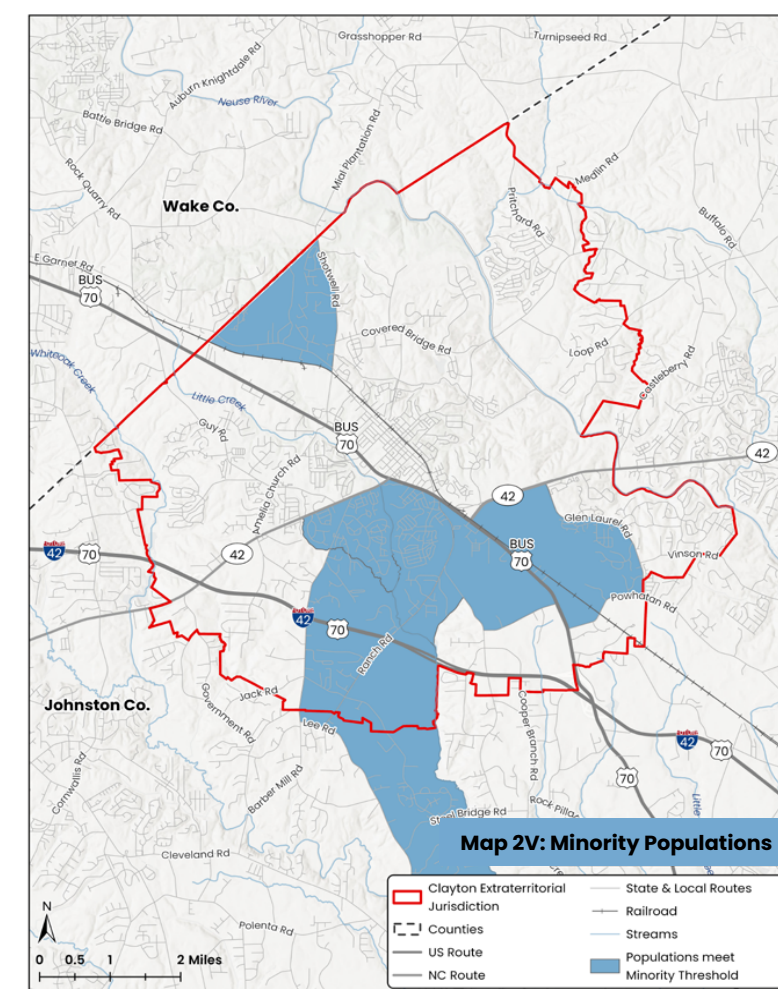
Populations Under Age 18 or Above Age 65

Populations in youth and senior age groups are considered transportation disadvantaged as they are less likely to be able to travel by car, due to being too young to drive or having health or sight issues that prevent them from driving. Seven of the 36 Census Tract Block Groups have 50% or more of the population under the age of 18 or over the age of 65.



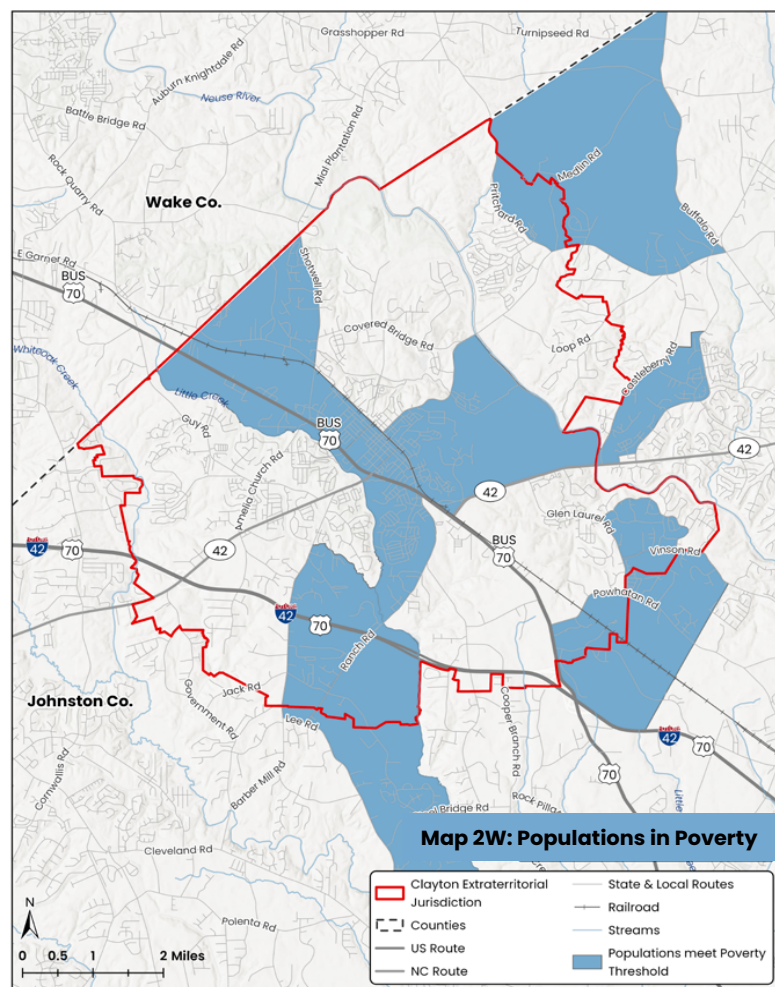
Limited English Proficiency Populations

Five census tract block groups within the Clayton ETJ have populations that meet the Limited English Proficiency (LEP) and language assistance (LA) threshold. Two census tract block groups have populations that meet the LEP threshold. The federal threshold for LEP is met when a language group has at least 1,000 adults who speak English less than very well OR constitute more than 5 percent of the aggregate population. NCDOT added a stipulation that when more than 50 adults of a U.S. Census Bureau Block Group speak English less than very well, the LEP threshold has been met. When these thresholds are met, language assistance through oral interpretation and media advertising is warranted.



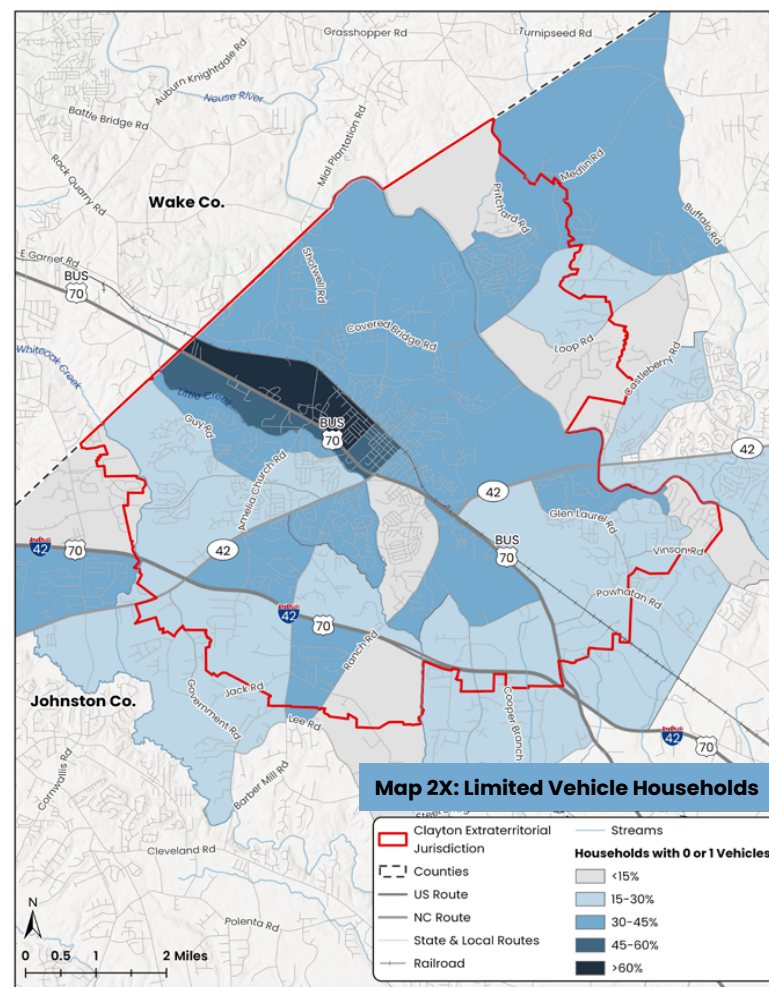
Minority Populations

Minority population thresholds are determined using NCDOT standards. A Census Tract Block Group meets the threshold for minority populations if 50% or more of the population is minority or if the minority population is at least 10% higher than the County minority average. Eight of the 36 Census Tract Block Groups meet the threshold for minority populations. The census tract block groups that meet the minority threshold are mainly in southern Clayton.



Populations in Poverty

Higher concentrations of poverty are found in Clayton along US 70, north of NC 42 E, and the southeastern edge of the study area. Poverty guidelines are established annually by the Department of Health and Human Safety and used by NCDOT to establish poverty levels within a U.S. Census Bureau Block Group. These thresholds include any Block Group where the percentage of the population in any of the poverty categories – Below Poverty Level, Very Poor, or Near Poor equals or exceeds 25 percent of the total population of that Block Group and any Block Group where the percentage of the population in any of the poverty categories – Below Poverty Level, Very Poor, or Near Poor exceeds the county average by five percentage points or more.



Limited Vehicle Households

Limited vehicle households are defined as those with 0 or 1 vehicle. Limited vehicle households in the ETJ range from 0% to 68% in Census Tract Block Groups. The highest concentration of limited vehicle households are those in downtown and along US 70 Business north of downtown.

Clayton ETJ

Johnston County

Populations Under Age 18 or Above Age 65

13.2% **13.3%**

Limited English Proficiency Populations

0.3% **0.1%**

Minority Populations

32.8% **34.1%**

Populations in Poverty

9.8% **8.9%**

Limited Vehicle Households

28.4% **28.9%**

3. Public & Stakeholder Engagement

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- 3.3 Public Engagement Phase 2..... 51



The CTP development process is rooted in extensive public and stakeholder involvement. Through Stakeholder Steering Committee, Core Technical Team, Town Council, Public Workshops, community pop-up events and online surveys, the CTP received broad input from public agencies, private organizations, and community members. The CTP was developed in close coordination with a range of committed stakeholder representatives, who provided strategic guidance and oversight of the planning process.

The Clayton on the Move brand was developed to reflect the plan's purpose and public participation goal of encouraging those who live and travel throughout the community to provide feedback on transportation and transit access. The branding was used on all outreach and engagement materials to provide a recognizable, cohesive look for all plan activities.

3.1 STAKEHOLDER ENGAGEMENT

This plan was steered using the inputs of two groups:

Core Technical Team (CTT)

Comprised of representatives from the Town of Clayton planning team, Johnston County planning, NCDOT Division 4 and CAMPO.

Stakeholder Steering Committee (SSC)

Comprised of the CTT members, other departments of the Town of Clayton, NCRR, Clayton Chamber of Commerce, departments of Johnston County, Johnston County Community College, Wake County Planning, planning personnel from the towns of Garner and Archer Lodge and representatives from a few faith-based and minority groups.

Eight meetings were held through the course of the plan development at key milestones. Key subjects discussed in each of these meetings are shown to the right.

CORE TECHNICAL TEAM MEETINGS

#1 – Nov. 2023

- Discussed draft vision and goals.
- Presented consolidated project recommendations from previous plans and highlighted and discussed key projects.
- Overview of environmental analysis.
- Displayed maps for current and future traffic conditions.
- Updated the team on the ongoing efforts of public engagement.
- Started the hotspot selection process.

#2 – Mar. 2024

- Discussed the feasibility of recommendations from previous plans and studies.
- Presented new roadway recommendations.
- Overview of current bicycle and pedestrian infrastructure, current recommendations, and future non-motorized demand.

#3 – Aug. 2024

- Presented Phase 2 public engagement results.
- Overview of draft roadway, bicycle and pedestrian, and transit recommendations.
- Discussed proposed changes for recommendations from previous plans and studies.
- Discussed current and future downtown parking demand.
- Presented on collector and local street policy recommendations.

2023

2024

2025

#1 – Sept. 2023

- Overview of CTP.
- Led a vision and goal-setting activity.
- Presented travel statistics.
- Conducted budgeting exercise.
- Displayed recommendations from adopted and ongoing plans.
- Led a mapping exercise to note areas of improvements.
- Presented public engagement efforts.

#2 – Feb. 2024

- Discussed demographics and environmental justice findings.
- Presented the consolidation of recommendations from previous plans and studies.
- Analyzed existing and future travel conditions.
- Presented hotspot selection findings.
- Discussed Phase 1 public engagement results.
- Started recommendations development.

#3 – May 2024

- Discussed draft roadway recommendations.
- Presented draft hotspot recommendations.
- Presented draft bicycle and pedestrian recommendations.
- Discussed transit recommendations.
- Shared Phase 2 public engagement online survey.
- Started refining recommendations.

#4 – Sept. 2024

- Presented Phase 2 public engagement results.
- Reviewed changes for recommendations from previous plans and studies.
- Discussed downtown parking recommendation.
- Discussed collector and local street policy recommendations.
- Overview of draft CTP recommendations.
- Started drafting the CTP.

#5 – Dec. 2024

- Presented draft report.
- Discussed draft recommendations for all modes.
- Collected final comments and change requests from stakeholders.

STAKEHOLDER STEERING COMMITTEE MEETINGS

3.2 PUBLIC ENGAGEMENT PHASE 1

Clayton conducted its first phase of community engagement for the plan between October and December of 2023. The goal of this first phase was to:

- **Introduce the planning process to the public.**
- **Present the findings from initial research of existing plans and studies.**
- **Collect feedback on community priorities and goals via a robust survey and engagement campaign.**

During this phase, an online survey was used to solicit feedback from the community, and pop-up events were held to conduct meaningful outreach that met the public directly at events and near popular town destinations.

For all engagement activities, a multifaceted approach and promotional campaign was developed to reach a wide range of the plan's targeted audiences, including community members who live, work, and travel throughout the plan area. The planning team provided community members with convenient ways to access plan information, public participation opportunities, informational resources, and comment opportunities. Both print and digital promotional materials were distributed to reach residents, employees, visitors, and the broader community who may have an interest in the plan. These tools included plan branding, flyers, e-blasts, social media, press releases, and a plan-specific webpage hosted on the Town website: www.townofclaytonnc.org/CTP.

Respondents cited these priorities in addition to managing the continued growth of Clayton to maintain its small-town charm and continuing to provide high-quality recreational access.

During Phase I, pop-up events were one of the main methods for meeting with community members to introduce the plan, solicit feedback via the online survey, and engage with stakeholders to establish plan recognition throughout the Town. The purpose of this pop-up event format was to reach populations who typically do not attend public meetings. Pop-ups also helped maximize public participation within communities that have not historically participated in similar studies, by meeting people at events or locations they frequent rather than requesting them to attend a traditional public meeting. The planning team engaged with an estimated 380 community members throughout these events.

- **Harvest Festival • Oct. 28th**
- **Deep River Brewing Company • Nov. 17th**
- **Clayton River Walk on the Neuse • Nov. 19th**
- **Clayton Bakery & Café/NCWorks Career Center • Nov. 30th**
- **Annual Christmas Village and Tree Lighting • Nov. 30th**
- **Clayton Christmas Parade • Dec. 9th**

The first Clayton on the Move survey was conducted during Phase I of engagement and focused on collecting information about the type of transportation projects that should be prioritized, locations in Clayton that need specific improvements, and the community's preferences for different modes of transportation.

A total of 710 responses were collected during the engagement period. Overall, the survey data shows that the highest priorities of the community are:

- **Improving roadways by reducing traffic and increasing safety at intersections.**
- **Increasing pedestrian infrastructure and safety.**
- **Creating regional access through new roadways and transit opportunities.**



Most mapped issues were roadway concerns regarding **traffic and safety**, at the following locations:

- Shotwell Rd. and US 70
- US 70 at NC 42
- NC 42 from Amelia Church Rd. to Guy Rd.
- US 70 at Lombard St.
- US 70 at Main St.
- Main St. throughout Downtown
- O'Neil St. at Covered Bridge Rd.



51% of participants currently walk at least once a week.

50% are "highly likely" to walk more if infrastructure was increased or improved.



Participants would walk more to **recreation, shopping, and social** destinations.

710 participants in the Phase 1 Online Survey

(Nearly double the sample size needed for the community to ensure equal representation)

TOP PRIORITIES for transportation improvements:

- **Improve roadways**
- **Improve pedestrian infrastructure**
- **Invest in public transit**
- **Improve bicycle infrastructure**
- **Move freight more efficiently**

When asked "What do you enjoy about Clayton?" the most popular phrases were:



SMALL TOWN, COMMUNITY, DOWNTOWN



Pop-Up Events

310+ Clayton residents engaged with the team at

6 events hosted during Phase I Engagement



31% of participants surveyed are "very likely" to take transit if options are increased or improved.

3.3 PUBLIC ENGAGEMENT PHASE 2

Between June 4 and July 26, 2024, the Town of Clayton conducted the second phase of public engagement. Draft recommendations were drafted with feedback incorporated from the first phase of public engagement. The primary goals for Phase II of engagement were to:

- Inform the community of draft recommendations.
- Collect meaningful public input through a robust survey.
- Execute intentional engagement opportunities by targeting audiences at events and locations they already frequent.

A formal public meeting was held during this phase to present draft recommendations and collect feedback, supplemented by an online survey and additional pop-up events. At these events, materials including display boards and handouts were used to educate the public on the draft recommendations so that they could make informed decisions on the survey regarding the recommendations and desired changes. An estimated 135 residents were engaged with during the Phase 2 public events:

- Public Meeting at Clayton Town Hall • June 18
- Pop-up event at Downtown Clayton Concert Series at Clayton Town Square • June 20
- Pop-up event at Clayton Clovers Baseball Game • June 27
- Pop-up event Clayton Farm and Community Market • June 29

The discussion at events focused on the benefits of transportation improvements, the need for draft recommendations in specific areas, and the divisive nature of U.S. 70. Participants emphasized the necessity for pedestrian infrastructure to connect communities and expressed satisfaction with draft recommendations at problematic locations. There was a strong desire for increased pedestrian and bicycle infrastructure, including crosswalks and sidewalks. Some attendees supported one-way streets downtown and limited parking on Church, Second, and Main Streets, while others opposed infrastructure development to support growth in Clayton due to traffic concerns. A few participants also raised environmental concerns regarding new development.

The survey collected feedback from 226 participants, which highlighted the community's desire for increased pedestrian infrastructure to improve safety, support for roadway improvements and the draft recommendations of the study, and overall agreement that the vision statement that was developed reflected the needs of Clayton.



Outreach Results

- 55%** returning survey respondents
- 433** website views
- 1.36%** social media engagement rate
- 6,505** e-blasts sent

226 participants in the Phase 2 Online Survey

TOP PRIORITIES for transportation improvements:

- Improve roadways
- Improve pedestrian infrastructure
- Invest in public transit
- Improve bicycle infrastructure



- 51%** of participants selected roadway improvements as most important.
- Some **locations of concern** for roadway improvements were the following:
 1. Guy Rd.
 10. Glen Laurel Rd.
 13. Amelia Church Rd.
 24. Main St.
 37. Gordon Rd./Wilson's Mills Rd.
- Sidewalks and crosswalks tied for the most desired bicycle and pedestrian improvement.
- 78%** of all mapping comments mentioned a need for better connectivity and safety.
- 31%** of participants surveyed are "likely" or "very likely" to take transit if options are increased or improved.

Engagement Events

135+ Clayton residents engaged with the team at **4** events hosted during Phase 2 Engagement

4. Bicycle and Pedestrian Facilities

4.1 Existing Network:
Sidewalk, Multi-Use Path,
Greenway, Bicycle 55

4.2 Existing and Future
Non-motorized and
Short-Distance Travel
Demand 57

4.3 Project
Recommendations 59

Multi-use Path
Recommendations 59

Sidewalk Recommendations 65

Bicycle Facility
Recommendations 73

Greenway
Recommendations 77

Crossing
Recommendations 81

MUP and Sidewalk Cross
Sections 85



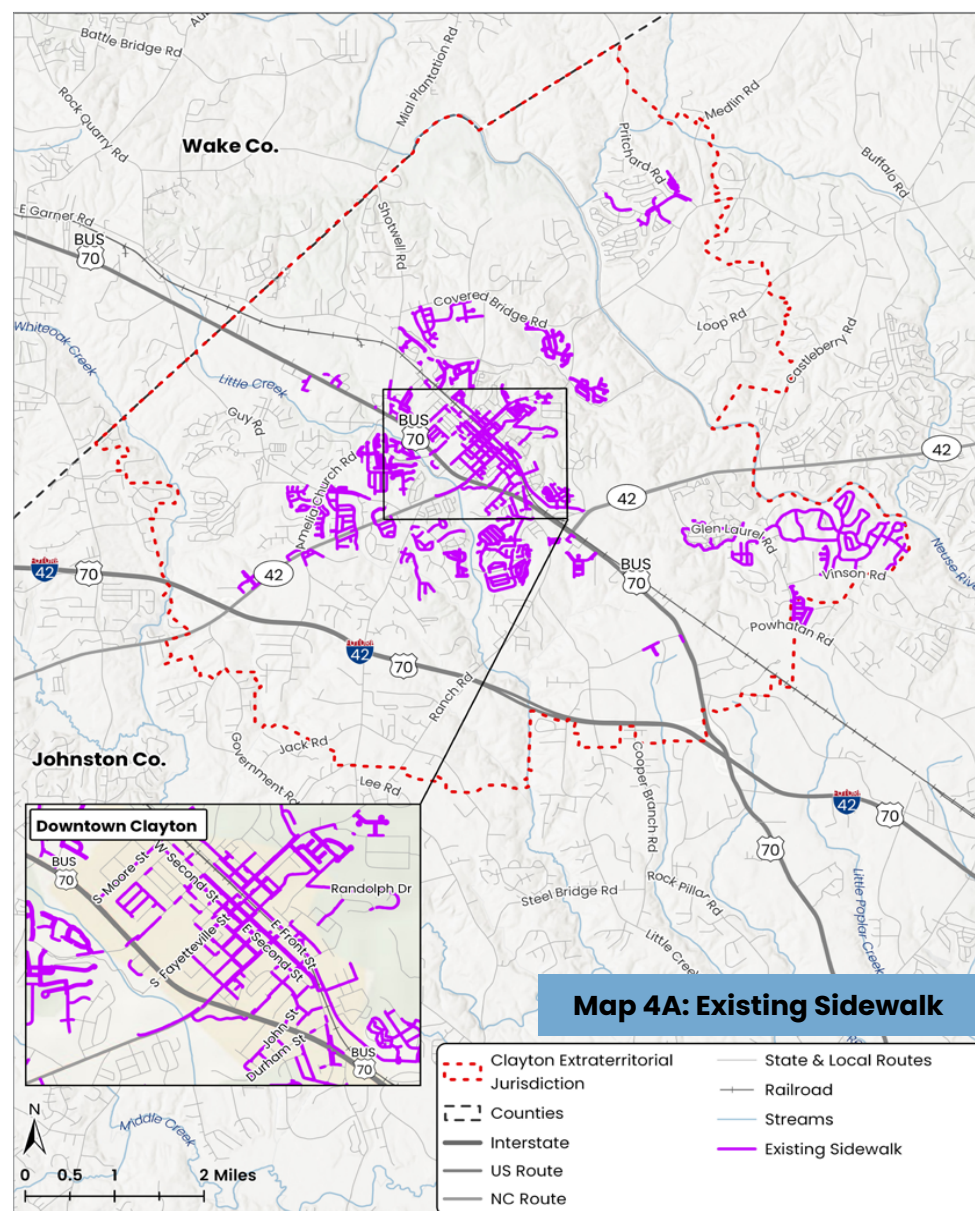
4.1 EXISTING NETWORK: SIDEWALK, MULTI-USE PATH, GREENWAY, BICYCLE

Clayton has a few pockets of well-connected streets, including those in some of Clayton's older neighborhood developments, that accommodate pedestrian travel through sidewalks. More recent suburban and commercial growth has either not accommodated pedestrian travel or has implemented sidewalks that are disconnected from the overall sidewalk network.

There are also significant physical barriers in the town that limit pedestrian and bicycle connectivity via I-42, US 70, the railroad corridor, and Neuse River all of which run northeast to southwest roughly parallel to each other.

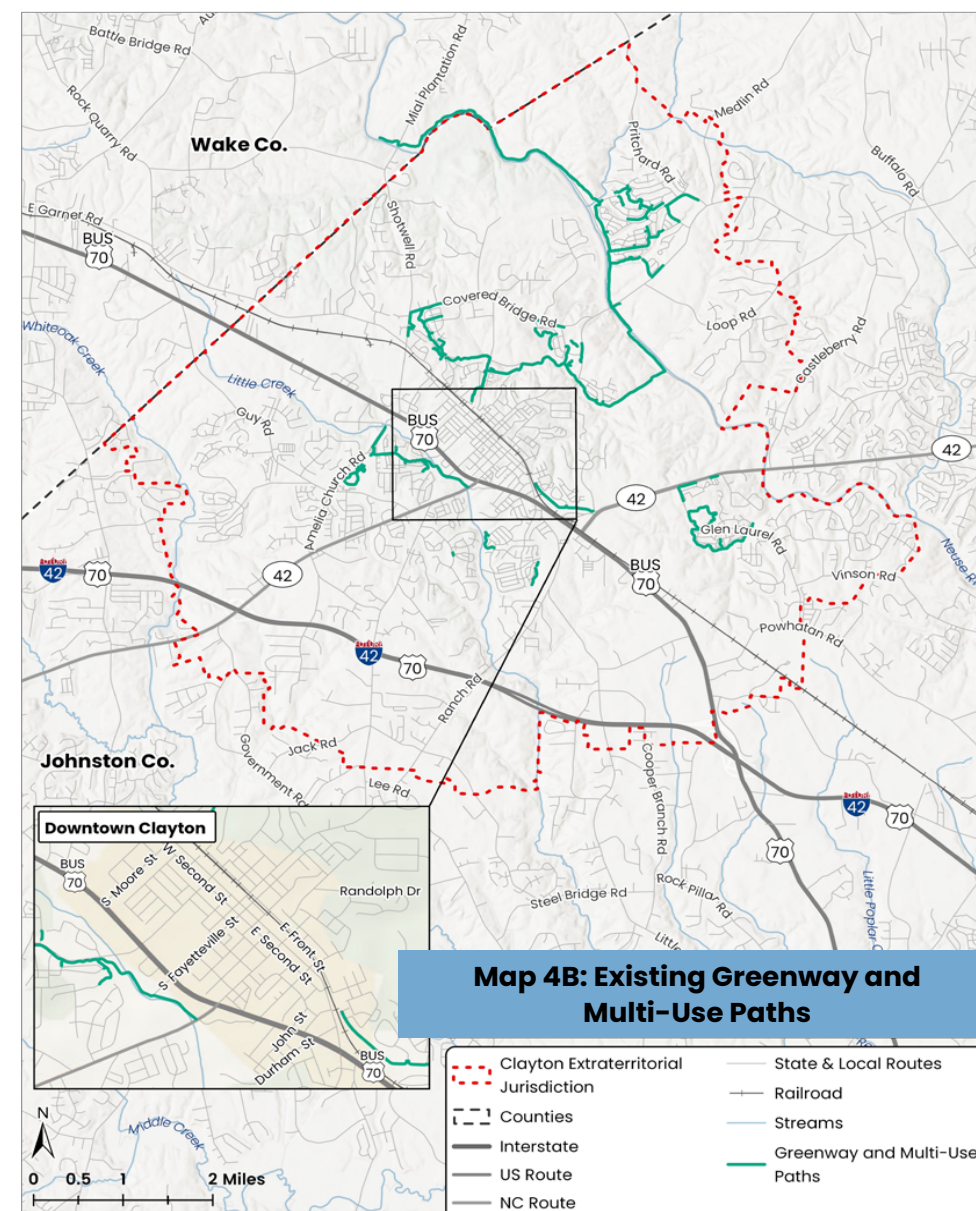
Currently there are no designated on-street bicycle facilities in Clayton. The existing greenways and multi-use paths accommodate bicyclists, but do not provide connectivity throughout Clayton. Many of the towns planned pedestrian facilities accommodate buffered or separated shared-use path facilities.

Maps 4A and **4B** show the concentration of sidewalks, greenways, and multi-use paths in downtown Clayton and neighborhoods surrounding Clayton. Sidewalks and shared-use paths are currently planned along most of Clayton's major roadways.



94 miles
Sidewalk

3 miles
Multi-Use Path



0 miles
On-Road Bicycle Lanes

21 miles
Greenway

4.2 EXISTING AND FUTURE NON-MOTORIZED AND SHORT-DISTANCE TRAVEL DEMAND

Non-Motorized Travel Demand

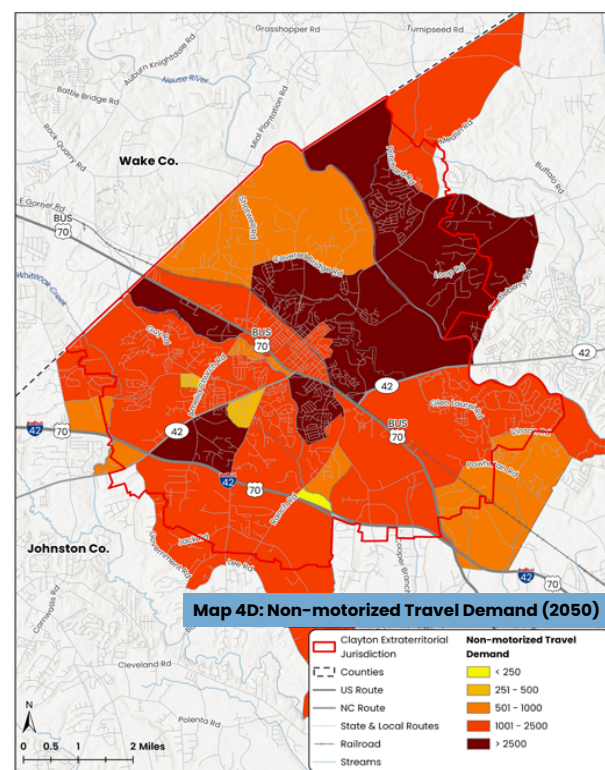
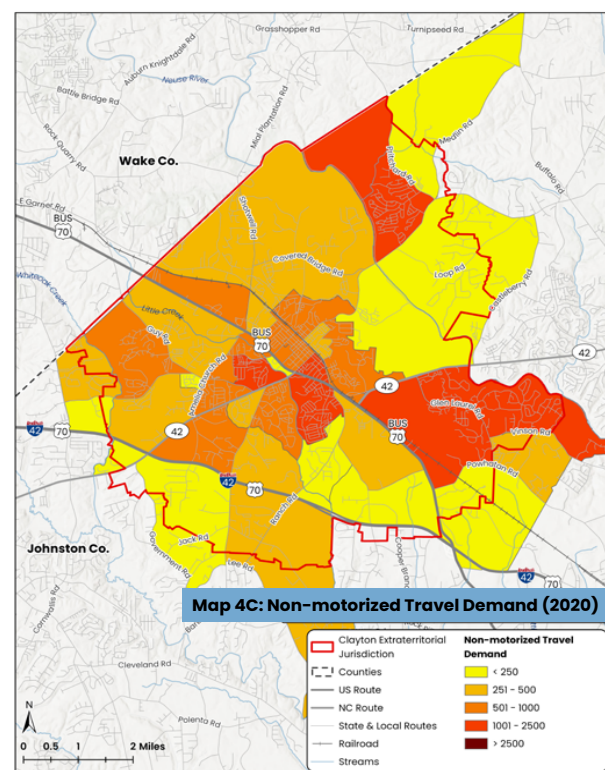
2020 Demand
~12K trips

2050 Demand
~44K trips
3.7X growth

In 2020, there were approximately 0.41 non-motorized trips per socio-economic (SE) unit (= population + jobs). In 2050, this is anticipated to increase to 0.64 non-motorized trips per SE Unit.

Non-motorized travel is any mode of travel that does not use a motor or engine but is primarily composed of walking and bicycling. The projected increase in residential and population density in Clayton between 2020 and 2050 has a considerable impact on the walk-bicycle travel demand. Destinations being slightly closer on average would mean that more people can make their trips without cars if proper facilities are provided.

Maps 4C and 4D show the changes in the non-motorized travel demand between 2020 and 2050. The data was derived from the 2020 official and 2050 modified Triangle Regional Model (TRM) outputs. Non-motorized travel demand is projected to increase in all Traffic Analysis Zones (TAZs), with the TAZs just east of downtown seeing the largest increase.



Intrazonal Travel Demand

2020 Demand
~10K car
~6K walk

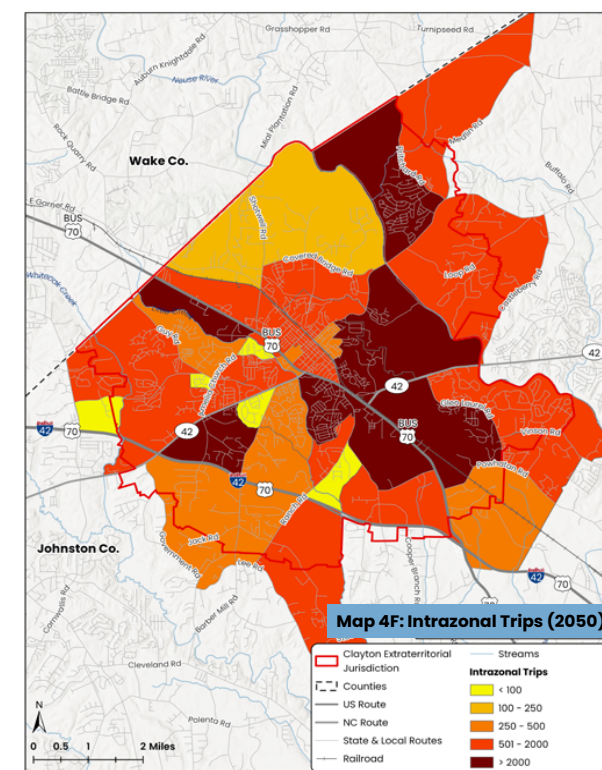
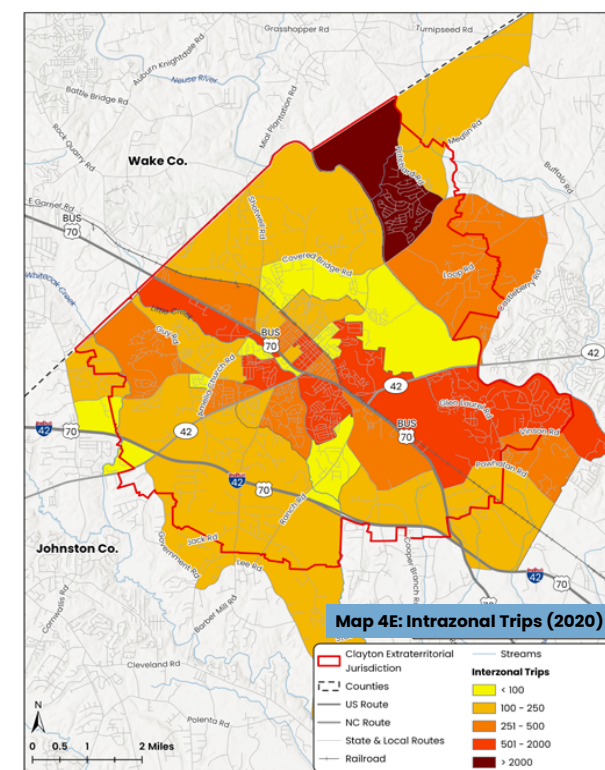
2050 Demand
~40K car
4X growth
~22K walk
3.7X growth

In 2050, ~40,000 car trips are projected to be short trips. Many of these trips can easily shift to walk-bicycle modes if proper facilities are provided.

Intrazonal Trips are trips that start and end within the same TAZ. These are short trips taken within the neighborhood that don't interact with any major roads. The TRM data shows that despite these trips being very short, auto trips still form a significant portion of these trips, both in 2020 and 2050.

Maps 4E and 4F highlight that intrazonal travel is projected to increase in almost all TAZs. The areas surrounding downtown will see the largest increase in intrazonal travel demand. In 2020, there were approximately 0.28 intrazonal trips per SE unit. In 2050, this is anticipated to increase to 0.46 intrazonal trips per SE unit.

This indicates that there will be higher demand of short trips in the future which can be addressed by improving non-motorized infrastructure.



4.3 PROJECT RECOMMENDATIONS

Multi-use Path Recommendations

A multi-use path (MUP) (or shared-use path or mixed-use path) is a path alongside a roadway which is designed to accommodate the movement of pedestrians and cyclists.

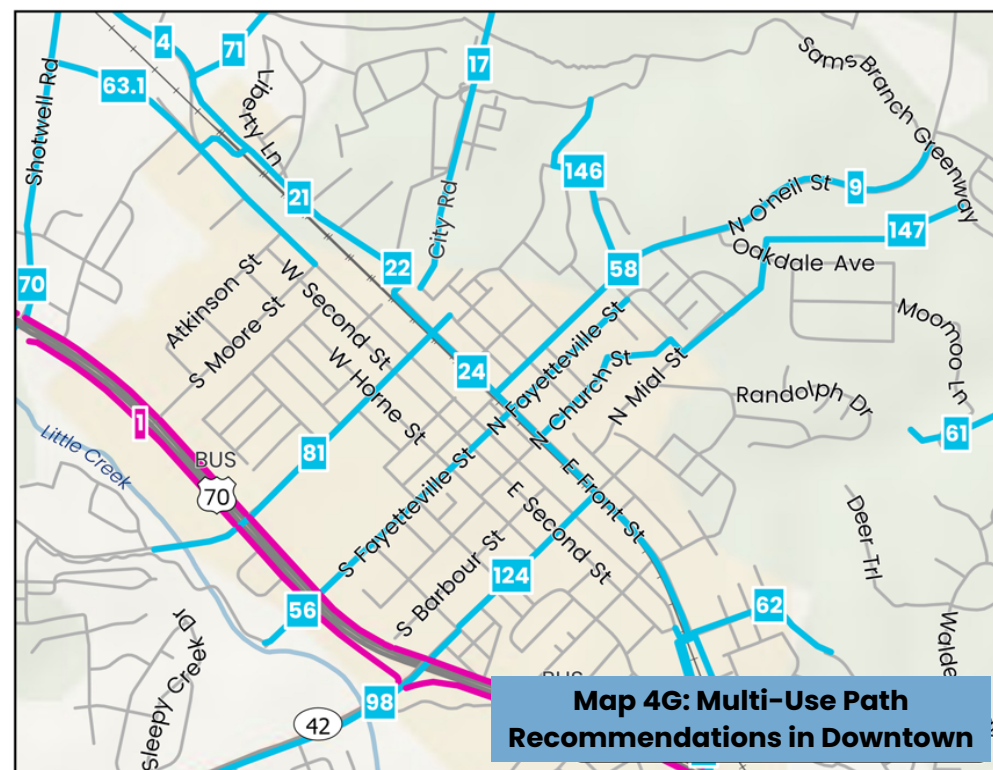
- **Strategy 4.3.1A** – Develop an MUP network which forms the backbone of non-motorized travel in Clayton.
- **Strategy 4.3.1B** – Recommend MUPs on one side of most major roads.
- **Strategy 4.3.1C** – The recommended standard width of the MUPs is 10' plus a 2' buffer on either side.

Through these strategies, MUP network will form the primary layer for all non-motorized pedestrian and bicycle movements. The gaps in this network are addressed in the subsequent sub-sections.

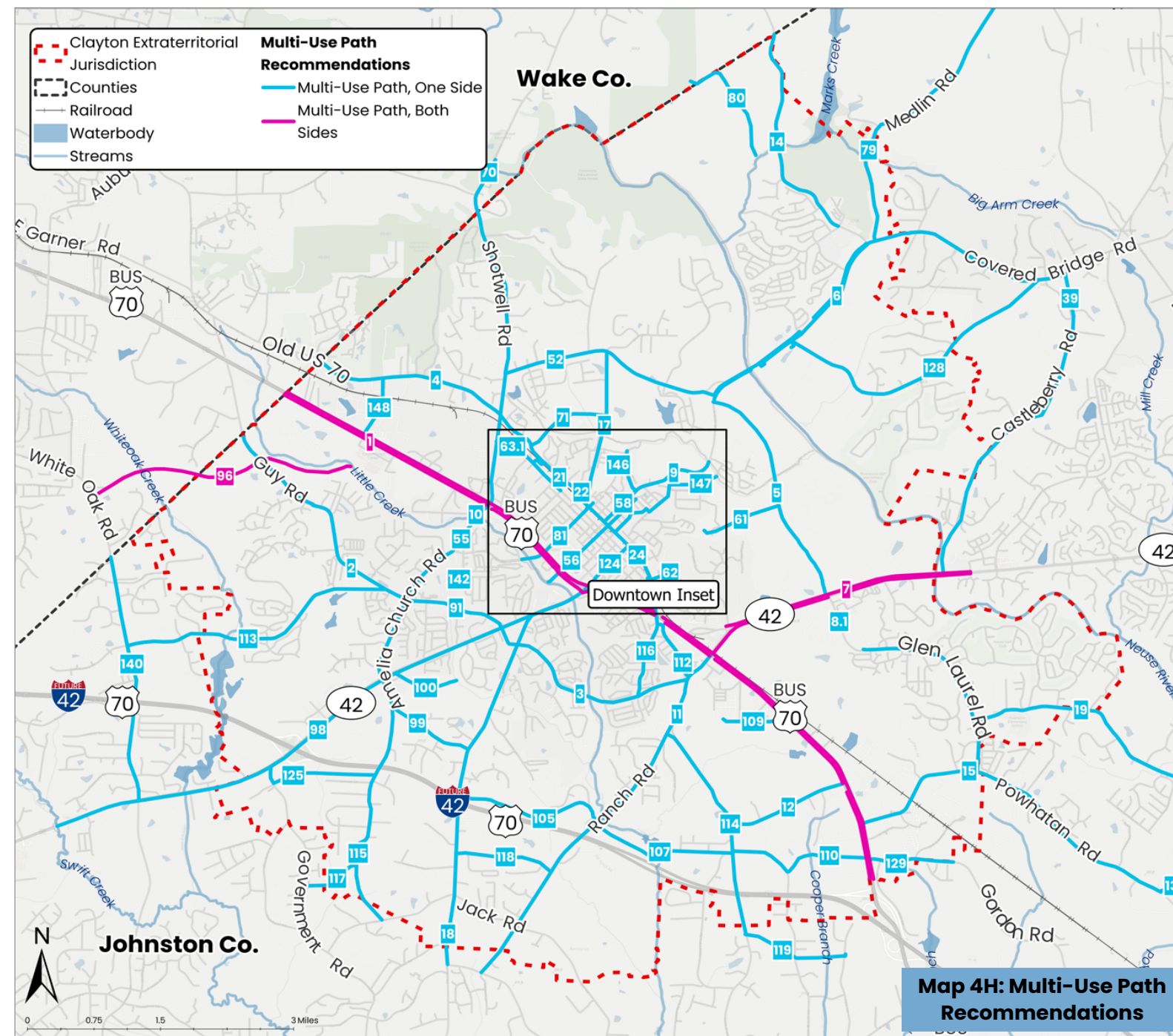
61 Multi-Use Path Network Projects

93 Miles of New Multi-Use Paths (One Side)

23 Miles of New Multi-Use Path (Both Sides)



Map 4G: Multi-Use Path Recommendations in Downtown



Map 4H: Multi-Use Path Recommendations

Table 4A: Multi-Use Path (MUP) Recommendations

Project Key	Rd. Name	From Rd.	To Rd.	Recommended Improvement	Concurrent Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
1	US 70 Business	Wake County Line	US 70 Business/ US 70 Interchange	Multi-Use Path on both sides		Clayton Ped Plan	13.90	12
2	Guy Rd.	US 70 Business	Amelia Church Rd.	Multi-Use Path	Sidewalk	Clayton Ped Plan	2.24	7
3	South Connector	Little Creek Church Rd.	NC 42	Multi-Use Path	Sidewalk	Clayton Ped Plan	2.07	8
4	Old US 70	Rock Quarry Rd.	W. Main St.	Multi-Use Path	Sidewalk	MTP 2050	2.23	5
5	Northern Connector	NC 42 East	O'Neil St.	Multi-Use Path	Sidewalk	Clayton Ped Plan	2.19	8
6	Covered Bridge Rd.	Northern Connector	Buffalo Rd.	Multi-Use Path	Sidewalk	Clayton Ped Plan	4.28	9
7	NC 42 East	US 70 Business	ETJ Limits	Multi-Use Path on both sides		MTP 2050	4.62	11
8.1	Glen Laurel Rd.	NC 42 East	Powhatan Rd.	Multi-Use Path		MTP 2050	2.02	7
9	O'Neil St.	W. Main St.	Northern Connector	Multi-Use Path	Sidewalk	Clayton Ped Plan	0.76	8
10	Shotwell Rd.	Amelia Church Rd.	US 70 Business	Multi-Use Path	Sidewalk	MTP 2050	0.17	10
11	Ranch Rd.	US 70 Business	ETJ Limits	Multi-Use Path	Sidewalk	Clayton Ped Plan	3.66	8
12	Pony Farm Rd.	US 70 Business	Little Creek Church Rd.	Multi-Use Path	Sidewalk	Clayton Ped Plan	1.10	7
14	Pritchard Rd.	Athletic Club	Wake County Line	Multi-Use Path		Clayton Ped Plan	2.10	7
15	Powhatan Rd.	Glen Laurel Rd.	Southerland Rd.	Multi-Use Path	Sidewalk	SEAS	3.31	7
16	E. Main St.	Second St.	US 70 Business	Multi-Use Path		STIP	0.31	11
17	City Rd.	Parkview Dr.	Cullen Ct.	Multi-Use Path	Sidewalk	MTP 2050	1.38	9
18	Barber Mill Rd.	NC 42 West	ETJ Limits	Multi-Use Path	Sidewalk	Clayton Ped Plan	3.32	8
19	Vinson Rd.	Glen Laurel Rd.	Southerland Dr.	Multi-Use Path	Sidewalk	Clayton Ped Plan	3.31	5
21	W. Stallings St.	Old US 70	McCullers Dr.	Multi-Use Path		Clayton Ped Plan	0.61	7
22	W. Stallings St.	N. King St.	New Hope Ln.	Multi-Use Path		MTP 2050	0.04	7
24	Front St.	W. Stallings St.	NC 42 East	Multi-Use Path		Clayton Ped Plan	1.25	9
39	Castleberry Rd. / Covered Bridge Rd.	NC 42 East	Covered Bridge Rd.	Multi-Use Path		MTP 2050	4.80	4
52	Covered Bridge Rd.	N. O'Neil St.	Shotwell Rd.	Multi-Use Path	Sidewalk	Clayton Ped Plan	2.03	6
55	Amelia Church Rd.	Little Creek Greenway	NC 42	Multi-Use Path	Sidewalk	MTP 2050	1.84	10
56	Fayetteville St.	Little Creek Greenway Trl.	E. Wilson St.	Multi-Use Path		CTP	1.11	10
58	O'Neil St.	Front St.	Georgetowne Dr.	Multi-Use Path		CTP	0.42	7
61	Smith St. Extension	Downtown Sam's Branch Greenway Connection	Northern Connector	Multi-Use Path	Sidewalk	CTP	0.74	7
62	Central St.	E. Front St.	Village Walk Dr.	Multi-Use Path		CTP	0.36	7
63.1	W Main St.	S. Moore St.	Shotwell Rd.	Multi-Use Path	Sidewalk	CTP	0.89	10
70	Shotwell Rd.	US 70 Business	Neuse River Trl.	Multi-Use Path	Sidewalk	CTP	3.32	10
71	New Road 26	Old US 70	City Rd.	Multi-Use Path		CTP	0.80	7

Project Key	Rd. Name	From Rd.	To Rd.	Recommended Improvement	Concurrent Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
79	Medlin Rd.	Lake Wendell Rd.	Covered Bridge Rd.	Multi-Use Path		CTP	3.17	4
80	New MUP	Marks Creek Greenway	Lake Myra Greenway	Multi-Use Path		CTP	1.16	7
81	S Robertson St.	W. Stallings St.	Kenmore Dr.	Multi-Use Path	Sidewalk	CTP	0.86	11
91	Guy Rd.	Amelia Church Rd.	NC 42	Multi-Use Path	Sidewalk	CTP	0.95	10
96	White Oak-Guy Rd. Connector	NC 540	Little Creek Greenway	Multi-Use Path on both sides		CTP	4.89	6
98	NC 42	Hamby St.	Swift Creek	Multi-Use Path	Sidewalk	CTP	5.54	12
99	Amelia Church Rd.	NC 42	Barber Mill Rd.	Multi-Use Path	Sidewalk	CTP	1.08	7
100	Short Johnson Rd.	NC 42	New Greenway 46	Multi-Use Path	Sidewalk	CTP	0.61	7
105	New Road 39	Barber Mill Rd.	Ranch Rd.	Multi-Use Path	Sidewalk	CTP	1.45	6
107	Peele Rd Extn. (New Road 41)	Ranch Rd.	Little Creek Church Rd.	Multi-Use Path	Sidewalk	CTP	1.33	6
109	New Road 46	Little Creek Greenway Connector	US 70 Business	Multi-Use Path	Sidewalk	CTP	0.57	8
110	Peele Rd. and Gordon Rd. Extn. (New Road 43)	Little Creek Church Rd.	US 70 Business	Multi-Use Path	Sidewalk	CTP	1.36	8
112	Boling St.	Champion St.	Little Creek Church Rd.	Multi-Use Path	Sidewalk	CTP	0.60	7
113	Winston Rd.	Cornwallis Rd.	Guy Rd.	Multi-Use Path	Sidewalk	CTP	2.57	7
114	Little Creek Church Rd.	Ranch Rd.	Wilson Jones Rd.	Multi-Use Path	Sidewalk	CTP	2.09	7
115	Corbett Rd.	Jack Rd.	Amelia Church Rd.	Multi-Use Path	Sidewalk	CTP	2.18	7
116	Champion St.	Central St.	S. Connector Blvd	Multi-Use Path	Sidewalk	CTP	1.14	11
117	New Road 37	Government Rd.	Corbett Rd. Extn. (New Road 36)	Multi-Use Path	Sidewalk	CTP	0.52	4
118	Twin Acres Rd.	Barber Mill Rd.	Ranch Rd.	Multi-Use Path	Sidewalk	CTP	0.91	6
119	Wilson Jones Rd.	Little Creek Church Rd.	Cole Rd.	Multi-Use Path	Sidewalk	CTP	0.99	4
124	S. Lombard St.	Hamby St.	E. Front St.	Multi-Use Path		CTP	0.43	8
125	New Road 35 and Government Rd.	NC 42	Corbett Rd.	Multi-Use Path	Sidewalk	CTP	1.11	5
128	Loop Rd.	Covered Bridge Rd.	Covered Bridge Rd.	Multi-Use Path		CTP	2.91	5
129	Gordon Rd.	US 70 Bus	0.2 mi. east of Slateford Dr.	Multi-Use Path		CTP	0.78	7
130	Southerland Rd.	Powhatan Rd.	Fire Department Rd.	Multi-Use Path	Sidewalk	Town Input	1.46	4
140	Cornwallis Rd.	White Oak Rd.	NC 42	Multi-Use Path		Town Input	2.32	5
142	Proposed MUP	Clayton Park Trl.	Garrison Ave	Multi-Use Path		Town Input	0.26	7
146	Georgetowne Dr. / Gordon St. / Lake Dr.	N. O'Neil St.	Greenway	Multi-Use Path	Sidewalk	Town Input	0.49	7
147	N. Church St. / Mial St.	Front St.	Sam's Branch Greenway	Multi-Use Path		2024 CPRMP	1.20	6
148	West Gateway North	US 70 Business	Garner Rd.	Multi-Use Path		2024 CPRMP	0.55	6

Sidewalk Recommendations

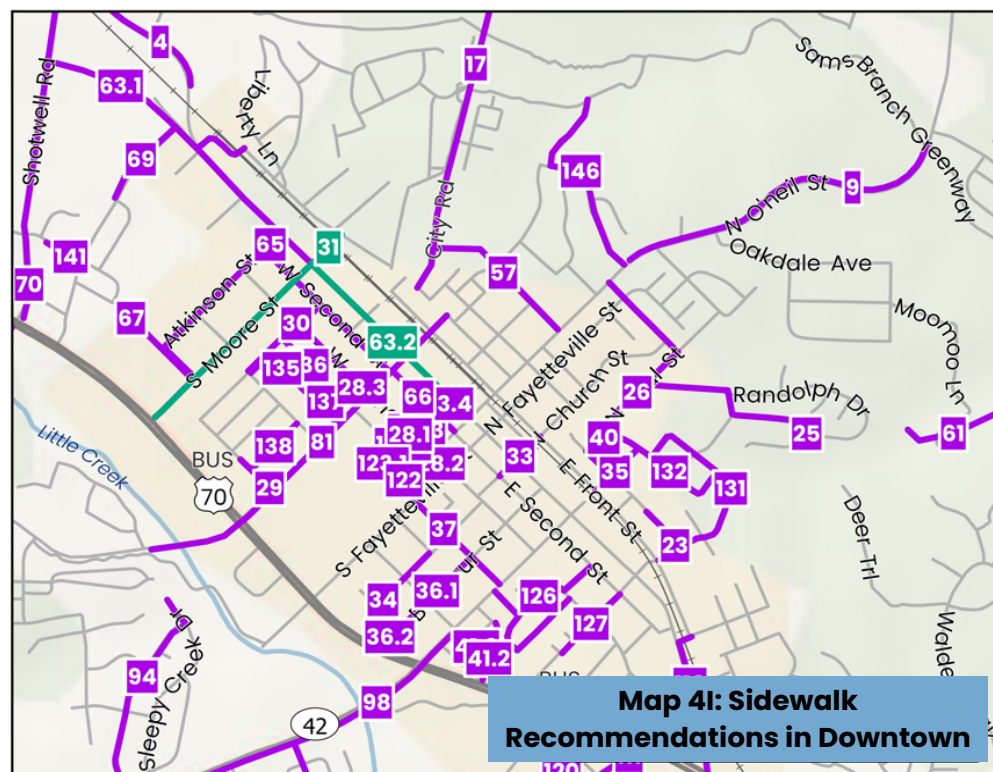
Sidewalks are the most fundamental pieces of pedestrian infrastructure. While sidewalks exist on some roads in Downtown and in the new developments, they do not form a coherent network that would allow someone to safely use them for significant distances. The following strategies were used to develop the complete sidewalk network.

- **Strategy 4.3.2A** – Identify gaps in the downtown sidewalk network and provide recommendations to fill those gaps.
- **Strategy 4.3.2B** – Recommend sidewalks on the opposite side of the roads which have MUPs on one side to extend the sidewalk network beyond downtown Clayton.
- **Strategy 4.3.2C** – The recommended standard width of the sidewalks is 6’.
- **Strategy 4.3.2D** – Require sidewalks in new developments.

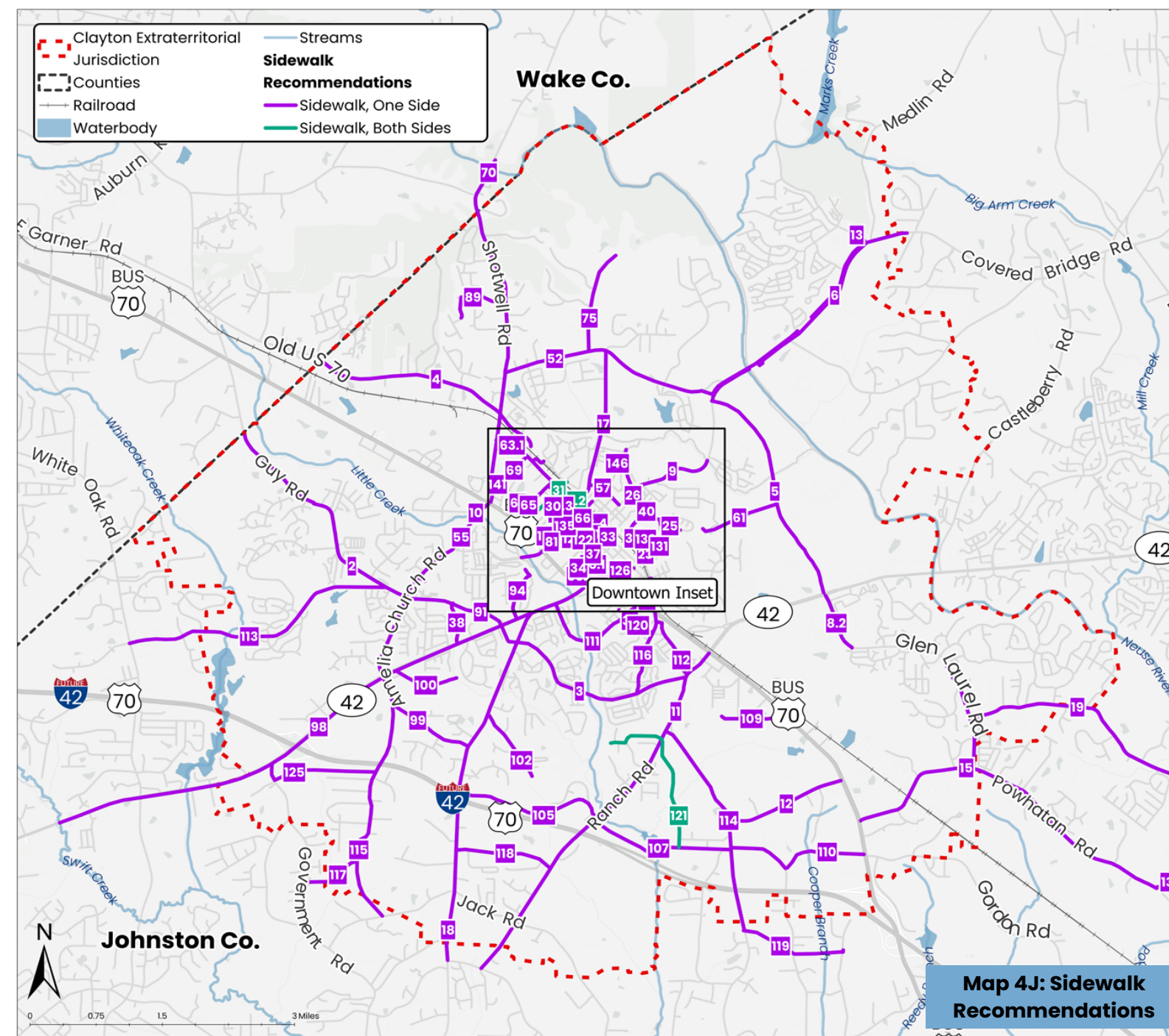
88 Projects
Sidewalk Network

80 Miles
New Sidewalks,
One Side

5 Miles
New Sidewalks,
Both Sides



Map 4I: Sidewalk Recommendations in Downtown



Map 4J: Sidewalk Recommendations

Table 4B: Sidewalk Recommendations

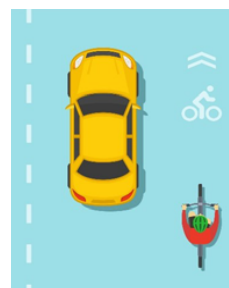
Project Key	Road Name	From Road	To Road	Recommended Improvement	Concurrent Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
2	Guy Rd.	US 70 Business	Amelia Church Rd.	Sidewalk	Multi-Use Path	Clayton Ped	2.24	7
3	South Connector	Little Creek Church Rd.	NC 42	Sidewalk	Multi-Use Path	Clayton Ped	2.07	8
4	Old US 70	Rock Quarry Rd.	W. Main St.	Sidewalk	Multi-Use Path	MTP 2050	2.23	5
5	Northern Connector	NC 42 East	O'Neil St.	Sidewalk	Multi-Use Path	Clayton Ped	2.19	8
6	Covered Bridge Rd.	Northern Connector	Buffalo Rd.	Sidewalk	Multi-Use Path	Clayton Ped	4.28	9
8.2	Glen Laurel Rd.	NC 42 East	Powhatan Rd.	Sidewalk		CTP	1.60	7
9	O'Neil St.	W. Main St.	Northern Connector	Sidewalk	Multi-Use Path	Clayton Ped	0.76	8
10	Shotwell Rd.	Amelia Church Rd.	US 70 Business	Sidewalk	Multi-Use Path	MTP 2050	0.17	10
11	Ranch Rd.	US 70 Business	ETJ Limits	Sidewalk	Multi-Use Path	Clayton Ped	3.66	8
12	Pony Farm Rd.	US 70 Business	Little Creek Church Rd.	Sidewalk	Multi-Use Path	Clayton Ped	1.10	7
13	Pritchard Rd.	Covered Bridge Rd.	Riverwood Middle School	Sidewalk		Clayton Ped	0.11	5
15	Powhatan Rd.	Glen Laurel Rd.	Southerland Rd.	Sidewalk	Multi-Use Path	SEAS	3.31	7
17	City Rd.	Parkview Dr.	Cullen Ct.	Sidewalk	Multi-Use Path	MTP 2050	1.38	9
18	Barber Mill Rd.	NC 42 West	ETJ Limits	Sidewalk	Multi-Use Path	Clayton Ped	3.32	8
19	Vinson Rd.	Glen Laurel Rd.	Southerland Dr.	Sidewalk	Multi-Use Path	Clayton Ped	3.31	5
20	Durham St.	US 70 Bypass	E. Main St.	Sidewalk		Clayton Ped	0.10	9
23	E. Stallings St.	N. Mial St.	N. Smith St.	Sidewalk		MTP 2050	0.19	7
25	Camel St.	Randolph Dr.	Randolph Dr.	Sidewalk		Clayton Ped	0.44	8
26	N. Mial St.	E. Stallings St.	Camel St.	Sidewalk		MTP 2050	0.25	7
28.1	W. Horne St.	Robertson St.	S. O'Neil St.	Sidewalk	On-Road Bicycle Route	Clayton Ped	0.12	8
28.2	W. Horne St.	Fayetteville St.	S. O'Neil St.	Sidewalk	On-Road Bicycle Route	CTP	0.03	8
28.3	W. Horne St.	S. Ellington St.	S. Robertson St.	Sidewalk	On-Road Bicycle Route	CTP	0.21	8
29	Carter St.	West Brook Ln.	Robertson St.	Sidewalk		Clayton Ped	0.10	8
30	Charles St.	W. Second St.	Brook St.	Sidewalk		Clayton Ped	0.37	8
31	S. Moore St.	W. Main St.	US 70 Business	Sidewalks on both sides		Clayton Ped	1.17	10
32	Pond St.	Damon St.	Black Oak Ct.	Sidewalk		CTP	0.13	7
33	S. Church St.	E. Front St.	E. 2nd St.	Sidewalk	On-Road Bicycle Route	Clayton Ped	0.13	9
34	Page St.	Blanche St.	Hamby St.	Sidewalk	On-Road Bicycle Route	Clayton Ped	0.18	8
35	Lombard St.	Hinton St.	E. Front St.	Sidewalk	On-Road Bicycle Route	MTP 2050	0.13	7
36.1	Barbour St.	Blanche St.	Hamby St.	Sidewalk	On-Road Bicycle Route	CTP	0.14	8

Project Key	Road Name	From Road	To Road	Recommended Improvement	Concurrent Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
36.2	Barbour St.	Hamby St.	US 70 Business	Sidewalk	On-Road Bicycle Route	Clayton Ped	0.12	9
37	W. Blanche St.	S. O'Neil St.	S. Lombard St.	Sidewalk	On-Road Bicycle Route	MTP 2050	0.31	8
38	Laurel Ridge Rd.	Guy Rd.	NC 42 West	Sidewalk	On-Road Bicycle Route	MTP 2050	0.39	7
40	E. Wilson St.	N O'Neil St.	N. Mial St.	Sidewalk	On-Road Bicycle Route	MTP 2050	0.64	8
41.2	Starling St.	US 70 Business	Fisher St.	Sidewalk	On-Road Bicycle Route	CTP	0.13	9
41.3	Hamby St.	Fisher St.	Starling St.	Sidewalk	On-Road Bicycle Route	CTP	0.04	8
52	Covered Bridge Rd.	N. O'Neil St.	Shotwell Rd.	Sidewalk	Multi-Use Path	Clayton Ped	2.03	6
55	Amelia Church Rd.	Little Creek Greenway	NC 42	Sidewalk	Multi-Use Path	MTP 2050	1.84	10
57	Barnes St.	N. O'Neil St.	City Rd.	Sidewalk	On-Road Bicycle Route	CTP	0.35	8
61	Smith St. Extension	Downtown Sam's Branch Greenway Connection	Northern Connector	Sidewalk	Multi-Use Path	CTP	0.74	7
63.1	W. Main St.	S. Moore St.	Shotwell Rd.	Sidewalk	Multi-Use Path	CTP	0.89	10
63.2	W. Main St.	S. Moore St.	S. O'Neil St.	Sidewalks on both sides		CTP	0.99	10
65	Atkinson St.	W. Main St.	S. Moore St.	Sidewalk	On-Road Bicycle Route	CTP	0.46	8
66	W. 2nd St.	Atkinson St.	S. O'Neil St.	Sidewalk	On-Road Bicycle Route	CTP	0.59	9
67	Atkinson St.	Blakely St.	S. Moore St.	Sidewalk	On-Road Bicycle Route	CTP	0.21	8
69	Summit Ave.	Liam St.	W. Main St.	Sidewalk	On-Road Bicycle Route	CTP	0.21	8
70	Shotwell Rd.	US 70 Business	Neuse River Trl.	Sidewalk	Multi-Use Path	CTP	3.32	10
75	Bobbit Rd.	Bobbit Rd. Terminus	Covered Bridge Rd.	Sidewalk	On-Road Bicycle Route	CTP	0.97	4
81	S. Robertson St.	W. Stallings St.	Kenmore Dr.	Sidewalk	Multi-Use Path	CTP	0.86	11
89	Forest Dr.	Clemmons SF Greenway Connector	Shotwell Rd.	Sidewalk		CTP	0.61	4
91	Guy Rd.	Amelia Church Rd.	NC 42	Sidewalk	Multi-Use Path	CTP	0.95	10
94	Cricket Hollow Run	Little Creek Greenway	NC 42	Sidewalk	On-Road Bicycle Route	CTP	0.52	7
98	NC 42	Hamby St.	Swift Creek	Sidewalk	Multi-Use Path	CTP	5.54	12
99	Amelia Church Rd.	NC 42	Barber Mill Rd.	Sidewalk	Multi-Use Path	CTP	1.08	7
100	Short Johnson Rd.	NC 42	New Greenway 46	Sidewalk	Multi-Use Path	CTP	0.61	7
102	Country Ln.	Barber Mill Rd.	Country Ln. Extn. (New Road 40)	Sidewalk		CTP	0.72	5
105	New Road 39	Barber Mill Rd.	Ranch Rd.	Sidewalk	Multi-Use Path	CTP	1.45	6
107	Peele Rd Extn. (New Road 41)	Ranch Rd.	Little Creek Church Rd.	Sidewalk	Multi-Use Path	CTP	1.33	6
109	New Road 46	Little Creek Greenway Connector	US 70 Business	Sidewalk	Multi-Use Path	CTP	0.57	8
110	Peele Rd. and Gordon Rd. Extn. (New Road 43)	Little Creek Church Rd.	US 70 Business	Sidewalk	Multi-Use Path	CTP	1.36	8
111	Durham St. - New Road	US 70 Business	S. Lombard St.	Sidewalk	On-Road Bicycle Route	CTP	1.09	9

Project Key	Road Name	From Road	To Road	Recommended Improvement	Concurrent Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
112	Boling St.	Champion St.	Little Creek Church Rd.	Sidewalk	Multi-Use Path	CTP	0.60	7
113	Winston Rd.	Cornwallis Rd.	Guy Rd.	Sidewalk	Multi-Use Path	CTP	2.57	7
114	Little Creek Church Rd.	Ranch Rd.	Wilson Jones Rd.	Sidewalk	Multi-Use Path	CTP	2.09	7
115	Corbett Rd.	Jack Rd.	Amelia Church Rd.	Sidewalk	Multi-Use Path	CTP	2.18	7
116	Champion St.	Central St.	S. Connector Blvd	Sidewalk	Multi-Use Path	CTP	1.14	11
117	New Road 37	Government Rd.	Corbett Rd. Extn. (New Road 36)	Sidewalk	Multi-Use Path	CTP	0.52	4
118	Twin Acres Rd.	Barber Mill Rd.	Ranch Rd.	Sidewalk	Multi-Use Path	CTP	0.91	6
119	Wilson Jones Rd.	Little Creek Church Rd.	Cole Rd.	Sidewalk	Multi-Use Path	CTP	0.99	4
120	Pond, Damon, Joyner Streets	John St.	Champion St.	Sidewalk		CTP	0.43	7
121	Crooked Creek Rd.	Little Creek Greenway Southern Segment (New Greenway 47)	Peele Rd. Extn. (New Road 41)	Sidewalks on both sides		CTP	3.16	8
122	S. O'Neil St.	W. Blanche St.	W. Horne St.	Sidewalk	On-Road Bicycle Route	CTP	0.10	8
123.1	S. Ellington St.	W. Blanche St.	S. Ohara Dr.	Sidewalk	On-Road Bicycle Route	CTP	0.08	6
123.2	S. Ellington St.	S. Ohara Dr.	W. Horne St.	Sidewalk	On-Road Bicycle Route	CTP	0.03	8
123.3	S. Ellington St.	W. Horne St.	S. Ellington St.	Sidewalk	On-Road Bicycle Route	CTP	0.02	8
123.4	S. Ellington St.	W. 2nd St.	W. Main St.	Sidewalk	On-Road Bicycle Route	CTP	0.04	8
125	New Road 35 and Government Rd.	NC 42	Corbett Rd.	Sidewalk	Multi-Use Path	CTP	1.11	5
126	Canady St., Johnson Dr., Hardee St.	Lombard St.	E. 2nd St.	Sidewalk		CTP	0.53	8
127	S. Smith St.	Oak St.	E. 2nd St.	Sidewalk	On-Road Bicycle Route	CTP	0.18	8
130	Southerland Rd.	Powhatan Rd.	Fire Department Rd.	Sidewalk	Multi-Use Path	Town Input	1.46	4
131	West St. / Washington St. / N. Smith St.	E. Hinton St.	E. Front St.	Sidewalk		Town Input	0.50	8
132	E. Hinton St. / Wall St.	E. Hinton St.	Washington St.	Sidewalk		Town Input	0.29	8
135	Willow Dr.	Charles St.	S. Robertson St.	Sidewalk		Town Input	0.22	8
136	Park Dr.	Charles St.	Virginia St.	Sidewalk		Town Input	0.16	8
137	Virginia St.	Willow Dr.	W. Horne St.	Sidewalk		Town Input	0.09	8
138	Mitchell St.	Carter St.	Brook St.	Sidewalk		Town Input	0.14	8
141	Cameron Way	Mechanical Dr.	N. Enterprise Dr.	Sidewalk		Town Input	0.07	7
146	Georgetowne Dr. / Gordon St. / Lake Dr.	N. O'Neil St.	Greenway	Sidewalk	Multi-Use Path	Town Input	0.49	7

Bicycle Facility Recommendations

Bicycle facilities are limited to “sharrows” for this plan. This is because bicycle infrastructure was a lower priority than sidewalks or transit for the residents of Clayton. Moreover, these projects are only recommended as a measure to address the needs not catered by the MUPs.



- **Strategy 4.3.3A** – Identify short gaps in the MUP network.
- **Strategy 4.3.3B** – Identify low speed (25 mph or less) and low daily traffic volume (5000 or less) roadways which can fill the gaps in the MUP network.
- **Strategy 4.3.3C** – Recommend implementing “sharrows” on the identified roads.

Sharrows are shared lane markings that may be utilized on low traffic roads without the need for construction or lane modifications. They signal to drivers to stay alert and be cautious of bicyclists.

41 Locations
Recommended for Implementing Sharrows

15 Miles
Of Roadway Segments

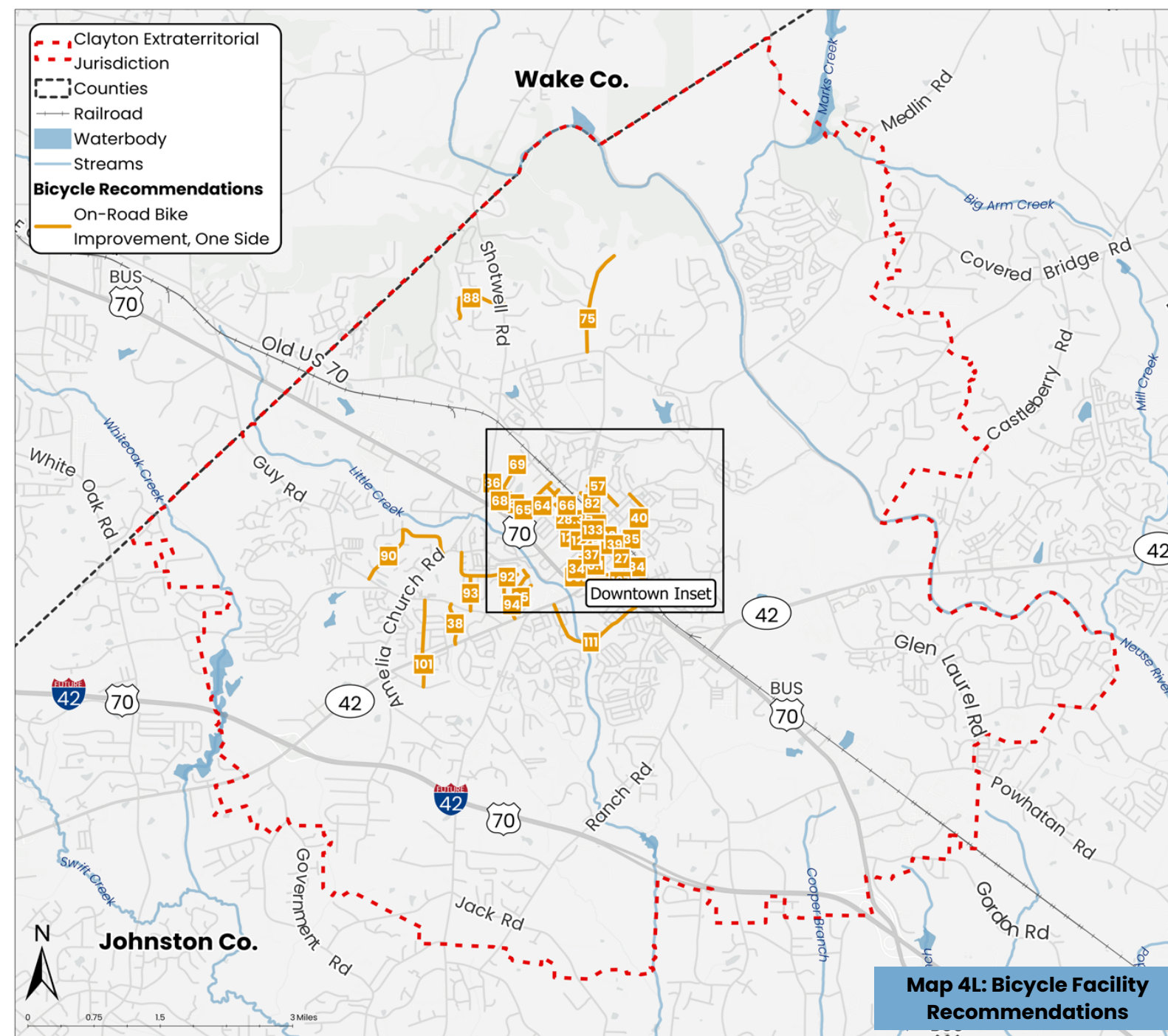
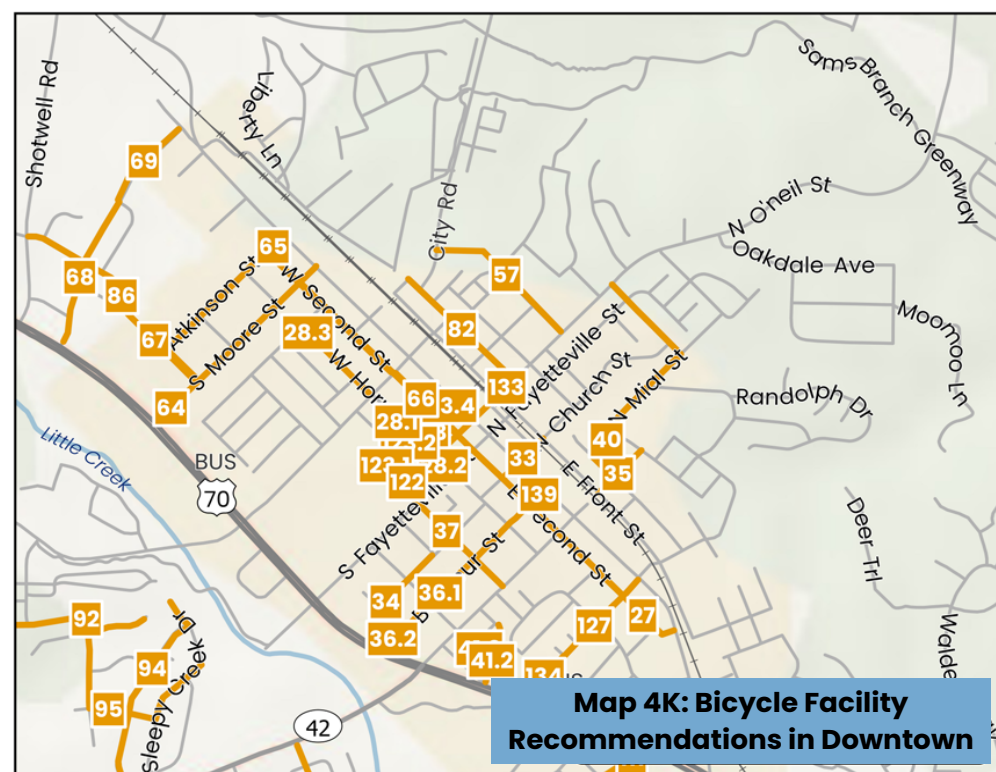


Table 4C: Bicycle Facility Recommendations

Project Key	Road Name	From Road	To Road	Recommended Improvement	Plan Reference	Dist. (Mile)	Prioritization Score
27	E. Second St.	S. Moore St.	E. Main St.	On-Road Bicycle Route	MTP 2050	1.16	10
28.1	W. Horne St.	Robertson St.	S. O'Neil St.	On-Road Bicycle Route	Clayton Ped	0.12	8
28.2	W. Horne St.	Fayetteville St.	S. O'Neil St.	On-Road Bicycle Route	CTP	0.03	8
28.3	W. Horne St.	S. Ellington St.	S. Robertson St.	On-Road Bicycle Route	CTP	0.21	8
33	S. Church St.	E. Front St.	E. 2nd St.	On-Road Bicycle Route	Clayton Ped	0.13	9
34	Page St.	Blanche St.	Hamby St.	On-Road Bicycle Route	Clayton Ped	0.18	8
35	Lombard St.	Hinton St.	E. Front St.	On-Road Bicycle Route	MTP 2050	0.13	7
36.1	Barbour St.	Blanche St.	Hamby St.	On-Road Bicycle Route	CTP	0.14	8
36.2	Barbour St.	Hamby St.	US 70 Business	On-Road Bicycle Route	Clayton Ped	0.12	9
37	W. Blanche St.	S. O'Neil St.	S. Lombard St.	On-Road Bicycle Route	MTP 2050	0.31	8
38	Laurel Ridge Rd.	Guy Rd.	NC 42 West	On-Road Bicycle Route	MTP 2050	0.39	7
40	E. Wilson St.	N O'Neil St.	N. Mial St.	On-Road Bicycle Route	MTP 2050	0.64	8
41.2	Starling St.	US 70 Business	Fisher St.	On-Road Bicycle Route	CTP	0.13	9
41.3	Hamby St.	Fisher St.	Starling St.	On-Road Bicycle Route	CTP	0.04	8
57	Barnes St.	N. O'Neil St.	City Rd.	On-Road Bicycle Route	CTP	0.35	8
64	S. Moore St.	US 70 Bypass	W Main St.	On-Road Bicycle Route	CTP	0.49	10
65	Atkinson St.	W. Main St.	S. Moore St.	On-Road Bicycle Route	CTP	0.46	8
66	W. 2nd St.	Atkinson St.	S. O'Neil St.	On-Road Bicycle Route	CTP	0.59	9
67	Atkinson St.	Blakely St.	S. Moore St.	On-Road Bicycle Route	CTP	0.21	8
68	Enterprise Dr.	US 70 Business	Liam St.	On-Road Bicycle Route	CTP	0.34	8
69	Summit Ave.	Liam St.	W. Main St.	On-Road Bicycle Route	CTP	0.21	8
75	Bobbit Rd.	Bobbit Rd. Terminus	Covered Bridge Rd.	On-Road Bicycle Route	CTP	0.97	4
82	W. Stallings St.	N. O'Neil St.	W. Front St.	On-Road Bicycle Route	CTP	0.32	8
86	Cameron Way	Shotwell Rd.	Blakley St.	On-Road Bicycle Route	CTP	0.32	7
88	Forest Dr.	Clemmons SF Greenway Connector	Shotwell Rd.	On-Road Bicycle Route	CTP	0.61	4
90	Creekview Dr. / Ridge Dr.	Guy Rd.	Amelia Church Rd.	On-Road Bicycle Route	CTP	1.09	4
92	Garrison Ave.	Amelia Church Rd.	Hocutt Dr.	On-Road Bicycle Route	CTP	0.75	7
93	Brandon Dr.	Garrison Ave.	Guy Rd.	On-Road Bicycle Route	CTP	0.33	7
94	Cricket Hollow Run	Little Creek Greenway	NC 42	On-Road Bicycle Route	CTP	0.52	7
95	Hocutt Dr. / Timothy Ridge / Sleepy Creek Dr.	E. Lumber Ct.	New Greenway 143	On-Road Bicycle Route	CTP	0.48	7
101	Pinecroft Dr.	Guy Rd.	NC 42	On-Road Bicycle Route	CTP	0.81	8
111	Durham St. - New Road	US 70 Business	S. Lombard St.	On-Road Bicycle Route	CTP	1.09	9
122	S. O'Neil St.	W. Blanche St.	W. Horne St.	On-Road Bicycle Route	CTP	0.10	8
123.1	S. Ellington St.	W. Blanche St.	S. Ohara Dr.	On-Road Bicycle Route	CTP	0.08	6
123.2	S. Ellington St.	S. Ohara Dr	W Horne St.	On-Road Bicycle Route	CTP	0.03	8
123.3	S. Ellington St.	W. Horne St.	S. Ellington St.	On-Road Bicycle Route	CTP	0.02	8
123.4	S. Ellington St.	W. 2nd St.	W. Main St.	On-Road Bicycle Route	CTP	0.04	8
127	S. Smith St.	Oak St.	E. 2nd St.	On-Road Bicycle Route	CTP	0.18	8
133	S. O'Neil St.	W. Stallings St.	W. Blanche St.	On-Road Bicycle Route	Town Input	0.35	10
134	S. Smith St.	US 70	Oak St.	On-Road Bicycle Route	Town Input	0.17	9
139	Barbour St.	E. Blanche St.	E. Main St.	On-Road Bicycle Route	Town Input	0.22	8

Greenway Recommendations

Greenways are a paved surface that may run along streams, through utility corridors, or parks. Greenways may also run along short sections of public roadways but are typically constructed as stand-alone projects. Greenways are public improvements and should be considered as such during plan review of developments.

- **Strategy 4.3.4A** – Develop a greenway network that enhances connectivity separate from the roadway and MUP network.
- **Strategy 4.3.4B** – Recommend greenways along major streams and providing connectivity to adjacent neighborhoods.
- **Strategy 4.3.4C** – The recommended standard width of a greenway is 12' plus a 2' buffer on either side.
- **Strategy 4.3.4D** – Partner with utility agencies to develop greenway corridors.

34 Projects
Greenway Network

60 Miles
New Greenways

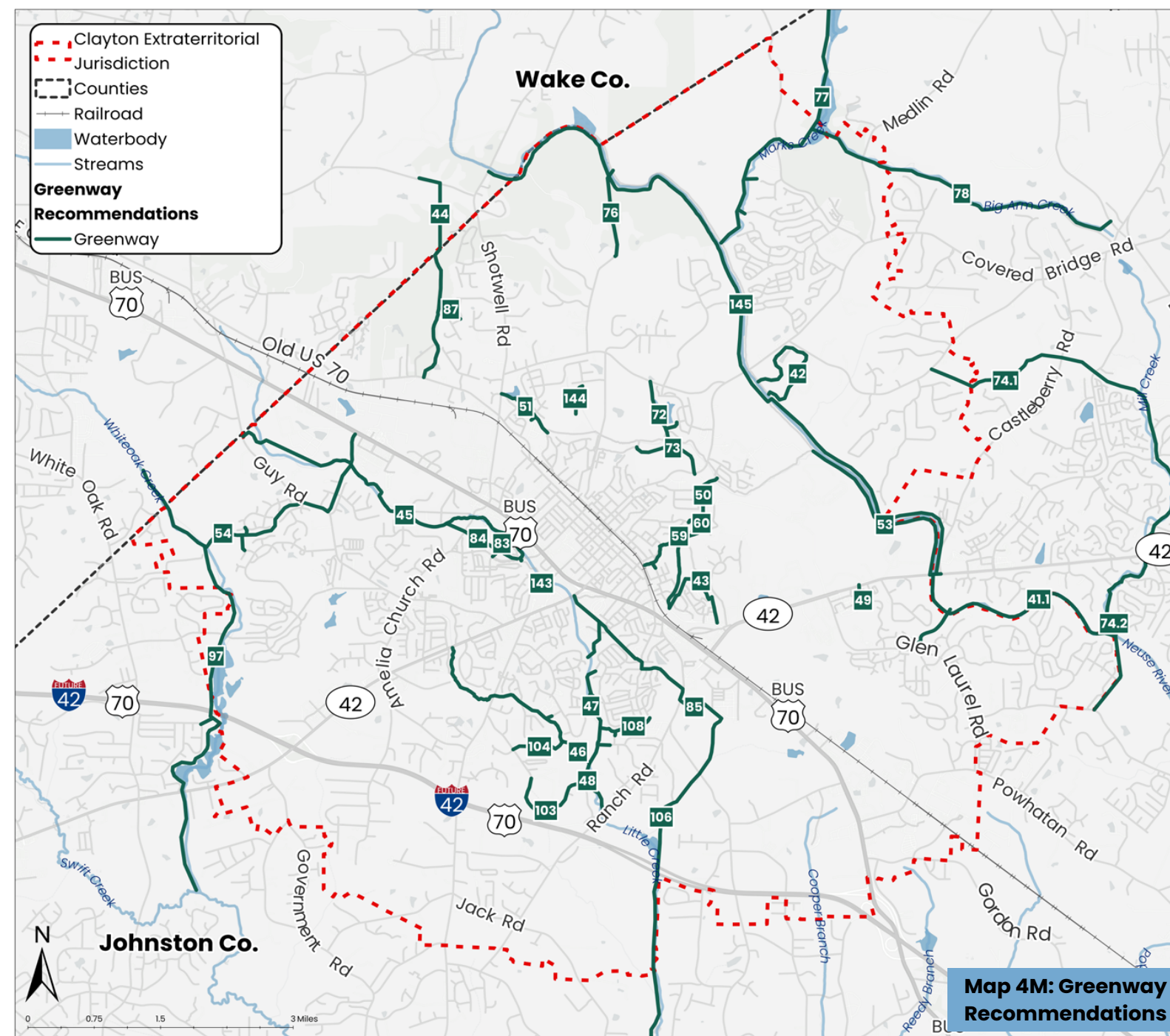
Key Recommendations to Enhance Greenway Connectivity

Neuse River Greenway: The existing greenway runs along one side of the Neuse River from Wake County to Sam's Branch Greenway. This plan recommends constructing a greenway along the opposite side of the Neuse River throughout this section and constructing greenway on both sides of the Neuse River south of Sam's Branch Greenway.

Sam's Branch Greenway: The existing greenway runs along one side of Sam's Branch. This plan recommends adding 3 new greenway connections along Sam's Branch Greenway to connect to nearby neighborhoods.

White Oak Greenway: This plan recommends adding a new greenway along White Oak Creek from Wake County to Swift Creek with connections to nearby neighborhoods and Little Creek.

Little Creek Greenway: This plan recommends adding a new greenway along Little Creek from Wake County to Swift Creek with connections to US 70 Business and nearby neighborhoods.



Map 4M: Greenway Recommendations

Table 4D: Greenway Recommendations

Project Key	Road Name	From Road	To Road	Recommended improvement	Plan Reference	Dist. (Mile)	Prioritization Score
41.1	MST (East sgmt.)	Summerlyn Greenway	NC 42 East	Greenway	MTP 2050	2.79	4
42	North Clayton Community Park Trail	Clayton River Walk on the Neuse	Clayton River Walk on the Neuse	Greenway	MTP 2050	1.42	4
43	East Village Greenway	E. Front St.	Ben Branch Loop	Greenway	MTP 2050	0.94	8
44	Clemmons SF Greenway South	Old US Highway 70	Old Baucom Rd.	Greenway	MTP 2050	2.12	4
45	Little Creek Greenway Western Segment	US 70 Business	Amelia Church Rd.	Greenway	MTP 2050	3.58	10
46	Proposed Greenway	NC 42 West	Little Creek	Greenway	MTP 2050	2.01	7
47	Little Creek Greenway Southern Segment	S. Lombard St.	Proposed Greenway	Greenway	MTP 2050	1.83	8
48	Proposed Greenway	Ranch Rd.	Proposed Greenway 47	Greenway	MTP 2050	0.61	7
49	Greenway NC 42 Mixed Use Dev.	NC 42 East	East Clayton Community Park Trail	Greenway	MTP 2050	0.17	7
50	Downtown Sam's Branch Greenway Connection	Sam's Branch Greenway	E. Front St.	Greenway	MTP 2050	2.04	7
51	Sam's Branch Greenway Phase 3	City Rd.	Covered Bridge Rd	Greenway	MTP 2050	0.63	6
53	MST	Sams Branch Greenway	NC 42	Greenway	MTP 2050	1.98	7
54	White Oak Creek Greenway	Little Creek Greenway	White Oak-Guy Rd. Connector	Greenway	MTP 2050	3.02	6
59	DSBG Connector 1	Randolph Dr.	Downtown Sam's Branch Greenway Connection	Greenway	CTP	0.07	7
60	DSBG Connector 2	Randolph Dr.	Downtown Sam's Branch Greenway Connection	Greenway	CTP	0.14	7
72	New Greenway	Covered Bridge Rd.	Proposed Greenway 73	Greenway	CTP	0.78	6
73	Proposed Greenway	Sam's Branch Greenway	O'Neil St.	Greenway	CTP	0.72	7
74.1	Mill Creek Greenway	Loop Rd.	NC 42	Greenway	CTP	3.86	4
74.2	Mill Creek Greenway	NC 42	Vinson Rd.	Greenway	CTP	1.82	4
76	Bobbit Rd.	Neuse River Greenway	Bobbit Rd. Terminus	Greenway	CTP	0.83	4
77	Marks Creek Greenway	Neuse River Greenway	Lake Myra Greenway	Greenway	CTP	3.70	5
78	Arms Creek Greenway	Marks Creek Greenway	Archer Lodge Rd.	Greenway	CTP	3.10	4
83	Commercial Connector 2	Kenmore Dr.	US 70 Business	Greenway	CTP	0.41	8
84	Little Creek Greenway Spur	Fernwood Dr.	Amelia Church Rd.	Greenway	CTP	0.73	8
85	Little Creek Greenway Connector	Little Creek Greenway Southern Segment	Little Creek Church Rd.	Greenway	CTP	2.22	8
87	Clemmons SF Greenway Connector	Clemmons SF Greenway South	Ridge Ct.	Greenway	CTP	0.26	4
97	White Oak Creek Greenway	Pecan Ln.	Swift Creek Greenway	Greenway	CTP	3.89	5
103	Proposed Greenway	Country Ln.	Canyon Rd.	Greenway	CTP	0.94	6
104	Country Ln. Greenway	County Rd.	Canyon Rd.	Greenway	CTP	0.50	5
106	Little Creek Greenway	Little Creek Church Rd.	Swift Creek	Greenway	CTP	4.52	6
108	Little Creek Greenway Connector	Little Creek Greenway	Pamlico Dr. Greenway	Greenway	CTP	0.54	7
143	Proposed Greenway	Sleepy Creek Dr.	West Clayton Elementary School	Greenway	Town Input	0.25	7
144	Proposed Greenway	Parkdale Ln.	New Road 26	Greenway	Town Input	0.29	6
145	Neuse River Greenway	Mial Plantation Rd.	NC 42	Greenway	Town Input	7.33	7

Crossing Recommendations

Crossing improvements are designed to allow pedestrians and cyclists to safely cross the roads and intersections. Additionally, they alert drivers to the potential of pedestrians in the area and encourage slower speeds. Roadway crossings also provide better access to destinations by reducing the distance that pedestrians need to travel to destinations. Crossing improvements may include crosswalks, midblock crossings, and pedestrian crossing signals.

- **Strategy 4.3.5A** – Identify intersections that lack appropriate pedestrian crossing facilities and thereby form gaps in the non-motorized network.
- **Strategy 4.3.5B** – Recommend crossing improvements (high visibility crosswalks and crossing signals) at these locations.
- **Strategy 4.3.5C** – Refine crossing improvement recommendations as bicycle and pedestrian facilities are funded and constructed.
- **Strategy 4.3.5D** – Explore avenues with NCDOT to reduce speed within Clayton to allow for safer mid-block crossings.

Lowering stoplights to pedestrian levels in downtown could also be implemented as a safety improvement to keep drivers more aware of and focused on pedestrians crossing the street.

130 Projects
Crossing Improvements

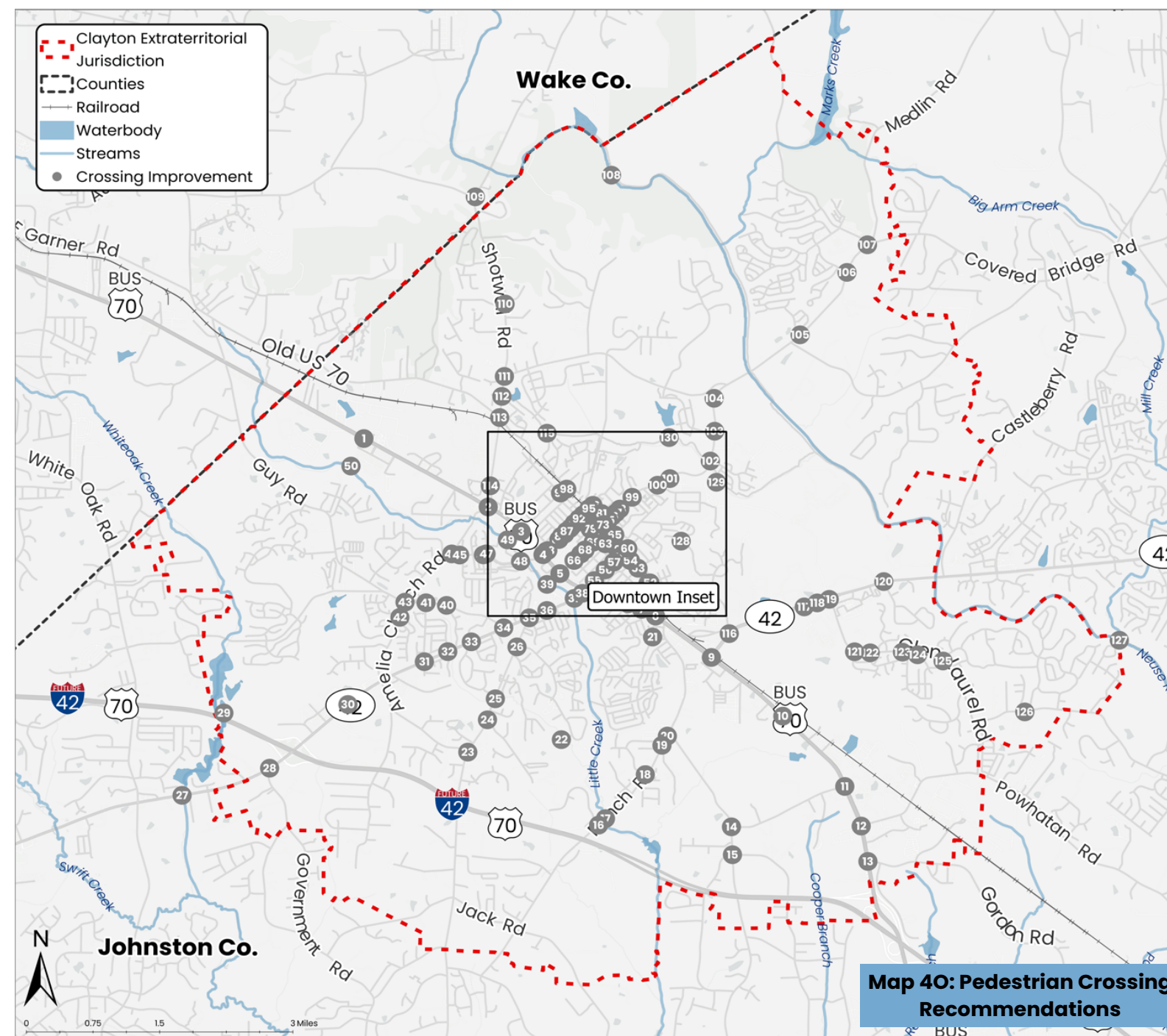
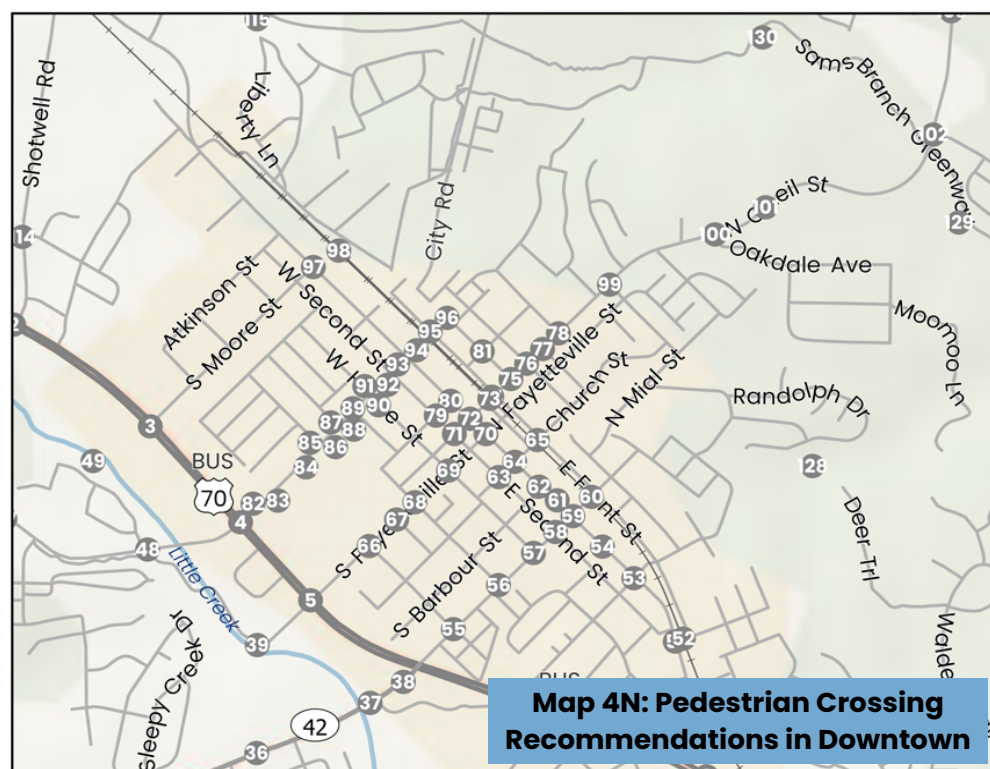


Table 4E: Pedestrian Crossing Recommendations

Project Key	Crossing Location
1	US 70 Business and Town Center Blvd.
2	US 70 Business and Shotwell Rd.
3	US 70 Business and Moore St.
4	US 70 Business and South Robertson St.
5	US 70 Business and South Fayetteville St.
6	US 70 Business and John St.
7	US 70 Business and Durham St.
8	US 70 Business and East Main St.
9	US 70 Business and NC 42 East
10	US 70 Business and New Road
11	US 70 Business and Pony Farm Rd.
12	US 70 Business and Powhatan Rd.
13	US 70 Business and Gordon Rd.
14	Little Creek Church Rd. and Pony Farm Rd.
15	Little Creek Church Rd. and Peele Rd.
16	Ranch Rd. and Canyon Rd.
17	Ranch Rd. (Mid-block)
18	Ranch Rd. and Shady Meadows Ln.
19	Ranch Rd. and Crooked Creek Rd.
20	Ranch Rd. and Proposed Road
21	Everette Ave. and Champion St.
22	Proposed Greenway
23	Barber Mill Rd. and Amelia Church Rd.
24	Barber Mill Rd. and Country Ln.
25	Barber Mill Rd. and Proposed Greenway
26	Dairy Rd. and Proposed Greenway
27	NC 42 and White Oak Creek Greenway
28	NC 42 and Government Rd.
29	US 70 (Mid-block)
30	NC 42 and Health Park Way

Project Key	Crossing Location
31	NC 42 and Trailwood Dr.
32	NC 42 and Winding Wood Dr.
33	NC 42 and State Ave.
34	NC 42 and Guy Rd.
35	NC 42 and Barber Mill Rd.
36	NC 42 and West Clayton Elementary School Driveway
37	NC 42 (Mid-block)
38	NC 42 and US 70 Business
39	Proposed Greenway
40	Guy Rd. and Clayton Middle School Driveway
41	Guy Rd. and Pinecroft Dr.
42	Amelia Church Rd. and Wynston Way
43	Amelia Church Rd. and Guy Rd.
44	Amelia Church Rd. and Proposed Greenway
45	Amelia Church Rd. and Garrison Ave.
46	Amelia Church Rd. (Mid-block)
47	Amelia Church Rd. and Verrazano Pl.
48	Amelia Church Rd. and Little Creek Greenway
49	Commercial Connector 2 and Little Creek
50	Commercial Connector 2 and Little Creek Greenway
51	East Main St. and Central St.
52	Central St. and Railroad Line
53	East Main St. and South Smith St.
54	East Main St. (Mid-block)
55	NC 42 and Hamby St.
56	South Lombard St. and East Blanche St.
57	South Lombard St. and East Horne St.
58	South Lombard St. and East 2nd St.
59	North Lombard St. and East Main St.
60	South Lombard St. and Railroad Line

Project Key	Crossing Location
61	East Main St. and East 1st St.
62	East Main St. and Barbour St.
63	East 2nd St. and South Church St.
64	East Main St. and North Church St.
65	North Church St. and Front St.
66	South Fayetteville St. and Hamby St.
67	South Fayetteville St. and Penny St.
68	South Fayetteville St. and East Blanche St.
69	South Fayetteville St. and West Horne St.
70	North Fayetteville St. and West Main St.
71	South O'Neil St. and West 2nd St.
72	North O'Neil St. and West Main St.
73	North O'Neil St. and Railroad Line
74	North O'Neil St. and Front St.
75	North O'Neil St. and West Stallings St.
76	North O'Neil St. and West Whitaker St.
77	North O'Neil St. and West Hinton St.
78	North O'Neil St. and West Barnes St.
79	South Ellington St. and West 2nd St.
80	South Ellington St. and West Main St.
81	North Kildee St. and West Stallings St.
82	South Robertson St. (Mid-block)
83	South Robertson St. and Clayton High School Driveway
84	South Robertson St. and Clayton High School Driveway
85	South Robertson St. and Brook St.
86	South Robertson St. and Clayton High School Driveway
87	South Robertson St. and Willow Dr.
88	South Robertson St. and Johnston County EMS - Clayton Station
89	South Robertson St. and Fire Rescue Dr.
90	West Horne St. and South Robertson St.

Project Key	Crossing Location
91	South Robertson St. and West Horne St.
92	South Robertson St. and West 2nd St.
93	East Second St. and South Robertson St.
94	North Robertson St. and West Main St.
95	North Robertson St. and West Front St.
96	West Stallings St. and North Robertson St.
97	West Main St. and Moore St.
98	West Moore St. and Railroad Line
99	North O'Neil St. and West Wilson St.
100	North O'Neil St. and Oakdale Ave.
101	North O'Neil St. and Shanandoah Ct.
102	North O'Neil St. and Atwood Dr.
103	North O'Neil St. and St. eepelchase Blvd.
104	North O'Neil St. and Covered Bridge Rd.

Project Key	Crossing Location
105	Covered Bridge Rd. and Club Connection Blvd
106	Covered Bridge Rd. and Payton Dr
107	Covered Bridge Rd. and Pritchard Rd.
108	Neuse River Greenway and Bobbit Rd.
109	Mial Plantation Rd. and Old Baucom Rd.
110	Shotwell Rd. and Forest Dr.
111	Covered Bridge Rd. and Shotwell Rd.
112	Shotwell Rd. and Channel Drop Dr.
113	Old US 70 West and Shotwell Rd.
114	Shotwell Rd. and Cameron Way
115	Sam's Branch Greenway Phase 3 and R-42
116	NC 42 East and Old NC 42 East
117	NC 42 West and Caterpillar Inc. Driveway

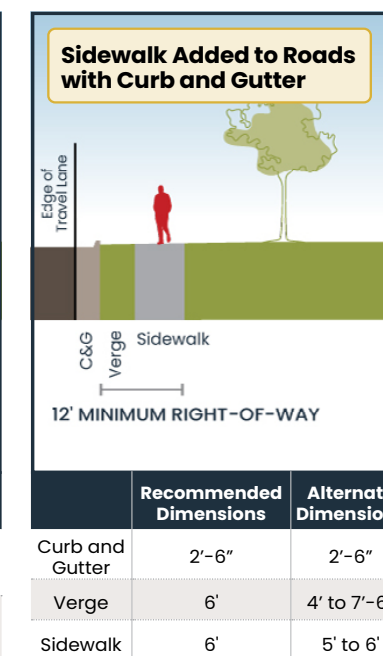
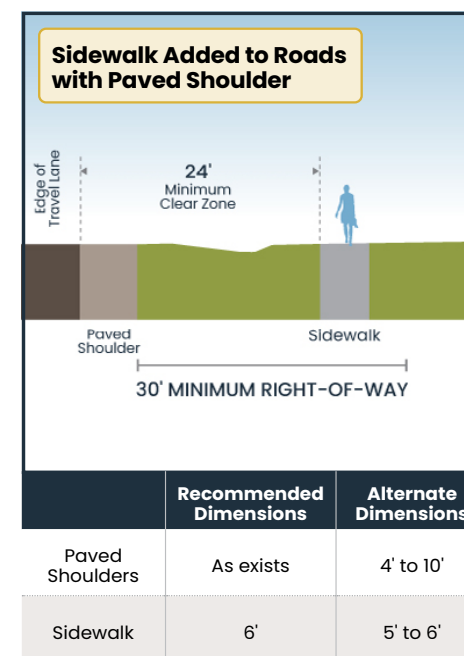
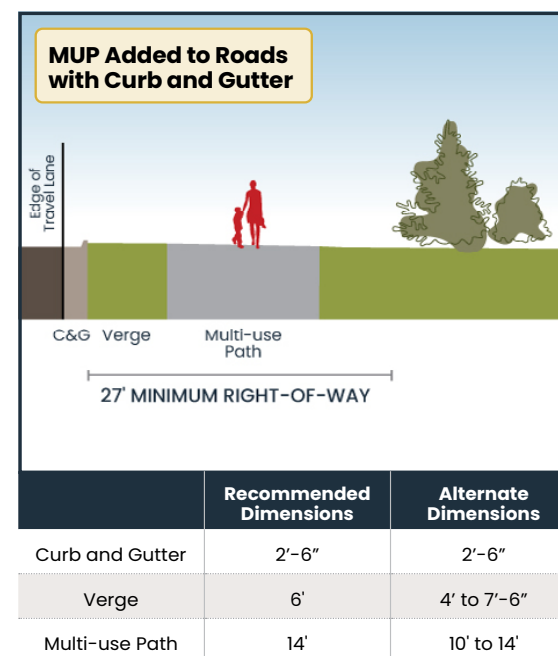
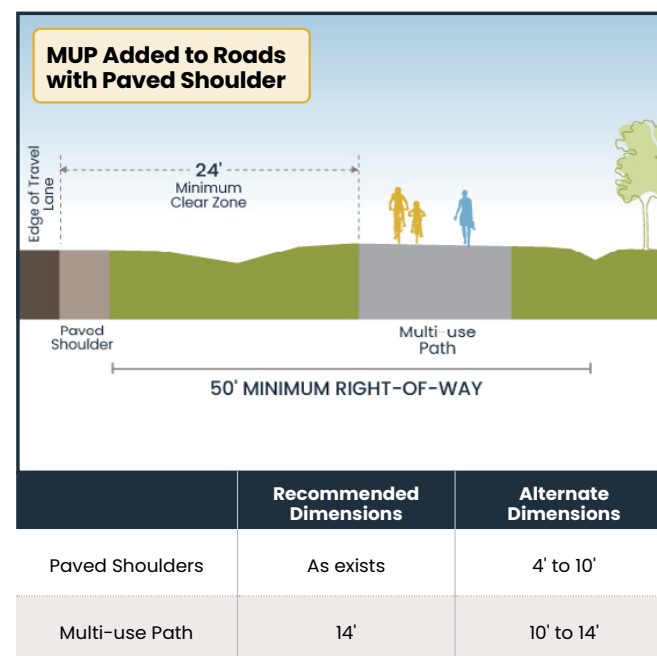
Project Key	Crossing Location
118	NC 42 West and Caterpillar Inc. Driveway
119	NC 42 West and Glen Laurel Rd.
120	NC 42 West and Fox Ridge Rd.
121	Glen Laurel Rd.
122	Glen Laurel Rd. and Oak Alley Trl.
123	Glen Laurel Rd. and Oak Alley Trl.
124	Glen Laurel Rd. (Mid-block)
125	Glen Laurel Rd. and Birkdale Dr.
126	Vinson Rd. and Powhatan Elementary School Driveway
127	Mill Creek Greenway and MST (East Segment)
128	Downtown Sam's Branch Greenway Connection and Connector 1
129	Sam's Branch Greenway and Downtown Sam's Branch Greenway Connection
130	Sam's Branch Greenway and New Greenway

MUP and Sidewalk Cross Sections

The cross sections below should be used when MUPs and/or sidewalks are added to existing roads, or when the planned improvement alongside a roadway includes only adding sidewalk or MUP without adding lanes to the roadway as may be the case in certain roads in **Tables 4A, 4B, 4C or 4D**. Minimum right-of-way dimensions refer to minimum additional right-of-way needed to add sidewalk or multi-use path to existing roads.

Minimum right-of-way dimensions refer to minimum additional right-of-way needed to add sidewalk or multi-use path to existing roads

View Full Roadway Cross Section in Chapter 6.



5. Transit

- 5.1 Existing and Planned Transit Conditions 89
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5.1 EXISTING AND PLANNED TRANSIT CONDITIONS

Transit Conditions

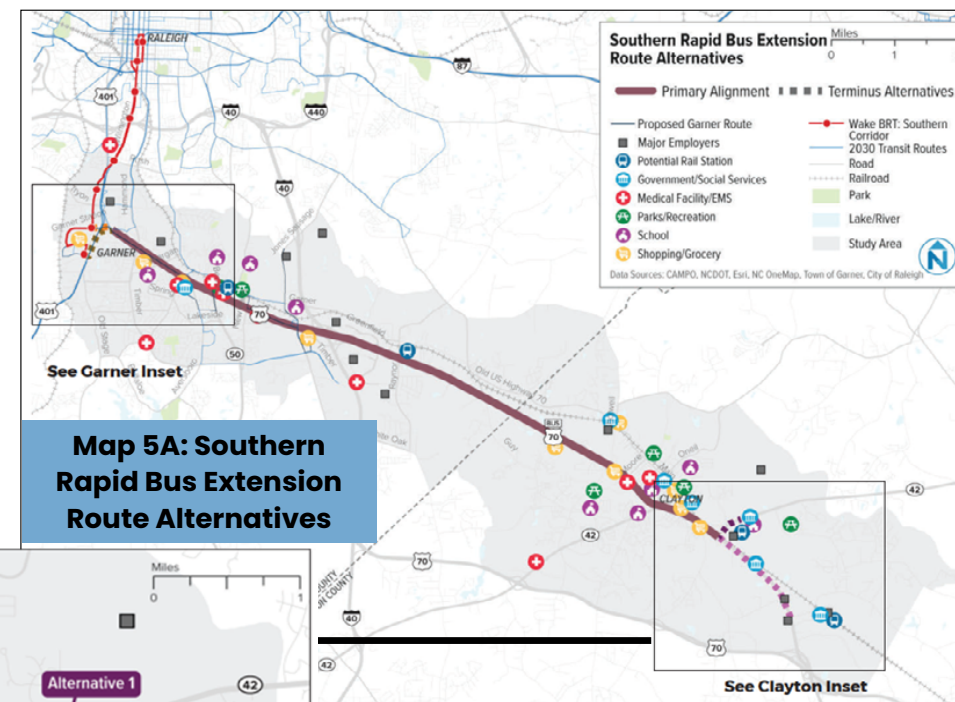
Clayton’s transportation network is primarily focused on automobiles, but with its growing population will soon require other modes of travel, especially transit. There is significant public support towards transit in Clayton. At the time of preparing this report, there was no specific public transit system serving Clayton. Johnston County Area Transit Systems (JCATS) offers demand-response services for rides originating in the area, but their services are focused on Smithfield and Selma. JCATS is planning to expand these services to Clayton. Regional transit planning efforts contains projects that include Clayton. This chapter will elaborate on those projects, JCATS service, and lay the groundwork for a future transit feasibility study in Clayton.

Regional Transit Projects Impacting Clayton



Wake BRT: Rapid Bus Extension

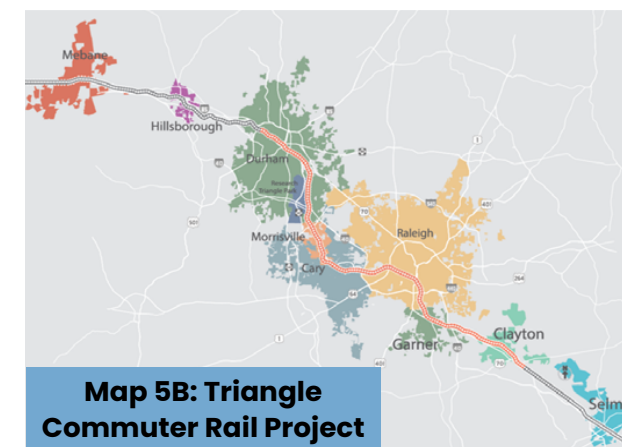
The Capital Area Metropolitan Planning Organization (CAMPO) has identified a preferred route for extending the Southern Corridor of the Wake BRT to Clayton via US 70/US 70 Business. This alignment supports a one-seat ride from Raleigh, with the terminus located at Powhatan Rd.



Map 5A: Southern Rapid Bus Extension Route Alternatives



Conceptual solutions for extending rapid bus service between Garner and Clayton will undergo further planning to determine the best method for extending the Southern BRT. The Rapid Bus team will collaborate with CAMPO and regional stakeholders to identify a locally preferred alternative (LPA) alignment and address any critical operating, funding, and constructability issues for further study.



Map 5B: Triangle Commuter Rail Project

Triangle Commuter Rail

GoTriangle, in collaboration with Durham Chapel Hill Carrboro MPO* and CAMPO, is leading The Triangle Commuter Rail project, which will construct service over three phases along approximately 40 miles of NCRR rail line from West Durham to Clayton by 2030. The proposed stop in Clayton, indicated in **Map 5B**, is at the intersection of Business US 70 & NC 42.

Post funding denial from Federal Transit Administration, the Greater Triangle Commuter Rail Planning Study will continue evaluating the potential for this project with local, regional, state, and federal stakeholders and look for ways to proceed with project implementation.

*Recently renamed Triangle West Transportation Planning Organization



Microtransit

Johnston County Area Transit System (JCATS) is testing a microtransit service called QuickRide in the Smithfield and Selma area, funded by the County. Users can schedule rides in advance via an app or phone call, and vehicles are equipped with wheelchair lifts. JCATS operates the service, while CTS provides the technology. Future service continuation will depend on local funding renewal. If successful, JCATS has plans to expand QuickRide to Clayton and acquire additional transit vehicles for the expanded area.

JCATS is anticipating expanding microtransit services into the Clayton Urbanized Area (UZA) with the Federal Transit Administration's Urbanized Area Formula Grants - 5307. Census Bureau defines a UZA as an urban area with a population of at least 50,000 people.

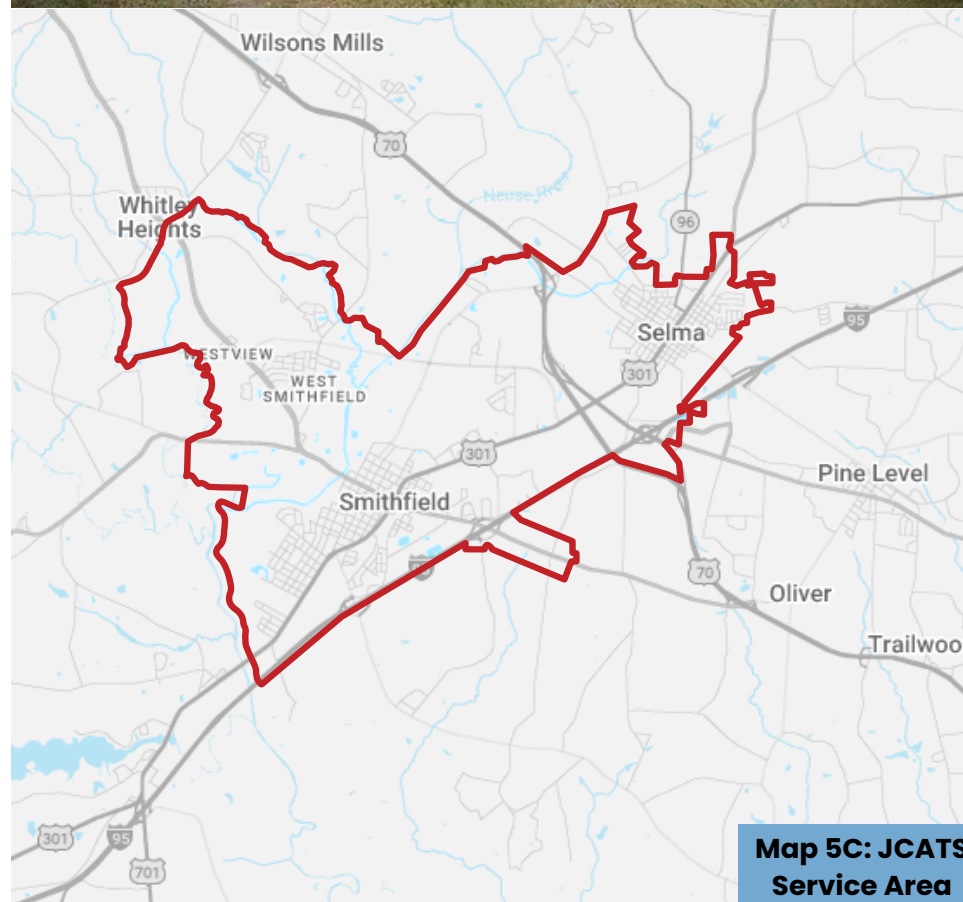
UZA boundaries may differ from the ETJ and municipal boundaries. Currently the medical facilities on NC 42 are outside the UZA boundary and additional local funding may be required to cater to trips originating from those facilities.

JCATS is also one of 6 recipients in the state for the Mobility Everyone/ Everywhere NC (MEE NC) grant and has partnered with other agencies to search for a technology provider for a multi-county microtransit service.



JCATS, QuickRide

Service Start March 2023 (Pilot)	Reason for Microtransit Wanted to enhance existing service by providing riders with technology-based method of requesting rides in real time.	Service Delivery Model SaaS through existing scheduling software vendor, CTS Software
Fare \$6.00		Operating Hours Monday – Saturday 6AM-8PM
Funding Sources Local Government (Johnston County), 5311 Capital funding for initial investment in replacement vans, NCDOT-funded 'Rural Operating Grant Funds'	Annual Ridership March 2023 (Pilot)	Annual Operating Expenses \$715,000
	Operating Cost Per Hour \$50	



The Think Clayton 2045 Comprehensive Growth Plan (Adopted 11/2021) identifies recommendations that meet two goals:



Microtransit, golf cart parking, and scooters as a potential recommendation for Goal DT 3

Make access to and movement within Downtown safer and more efficient for all users.



Evaluate transit opportunities, including microtransit and emerging technologies as part of Goal M 1

Develop and maintain a multimodal transportation system.

5.2 TRANSIT EMPHASIS AREAS



While there is no existing local transit or defined transit stops in Clayton currently, there are strategies to identify where there is a future market and demand for local transit connections. Multiple aspects contribute to the potential market for local public transportation as a service and can be indicators of existing or future transit ridership generators.

The following were reviewed to determine Transit Emphasis Areas in Clayton:



Demographic Data



Key Destinations

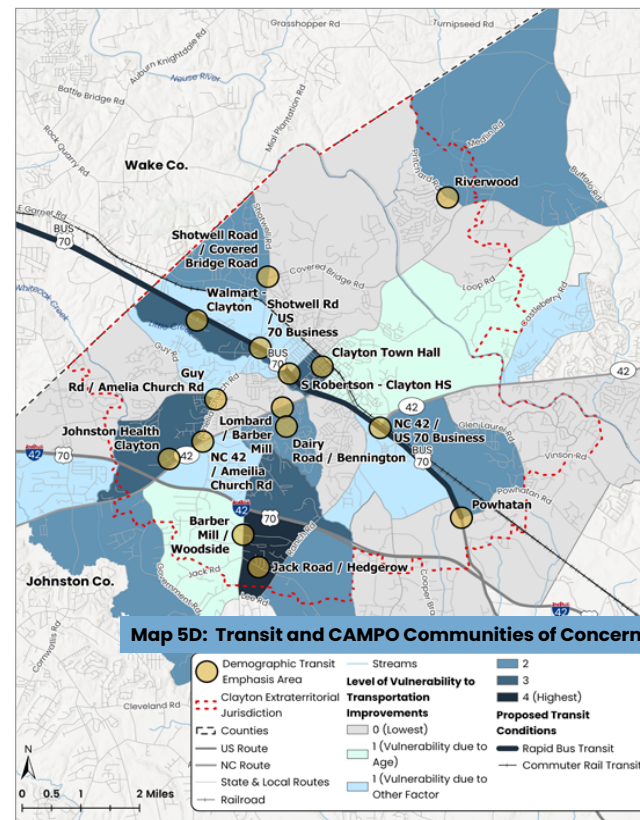


Future Land Use and Zoning Maps



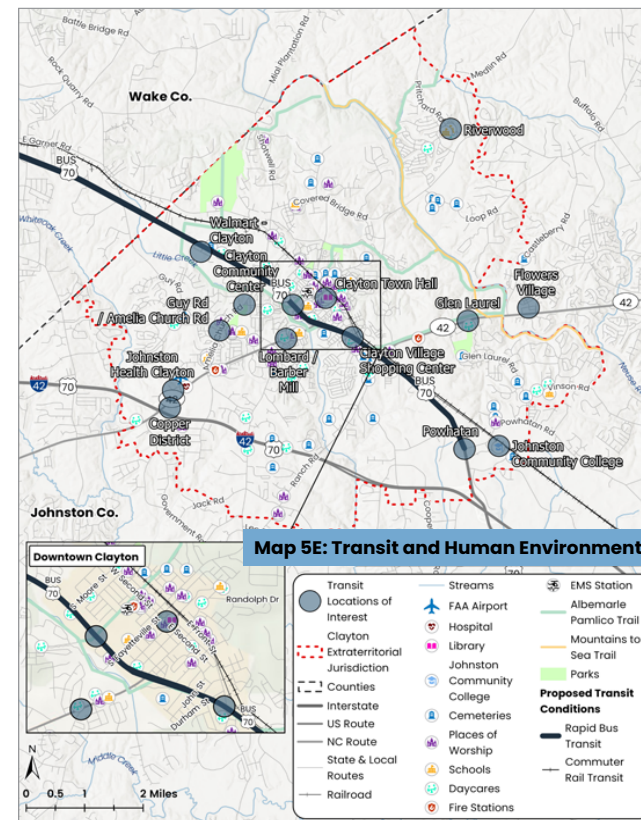
Future Transit System Recommendations

Transit User Concentrations



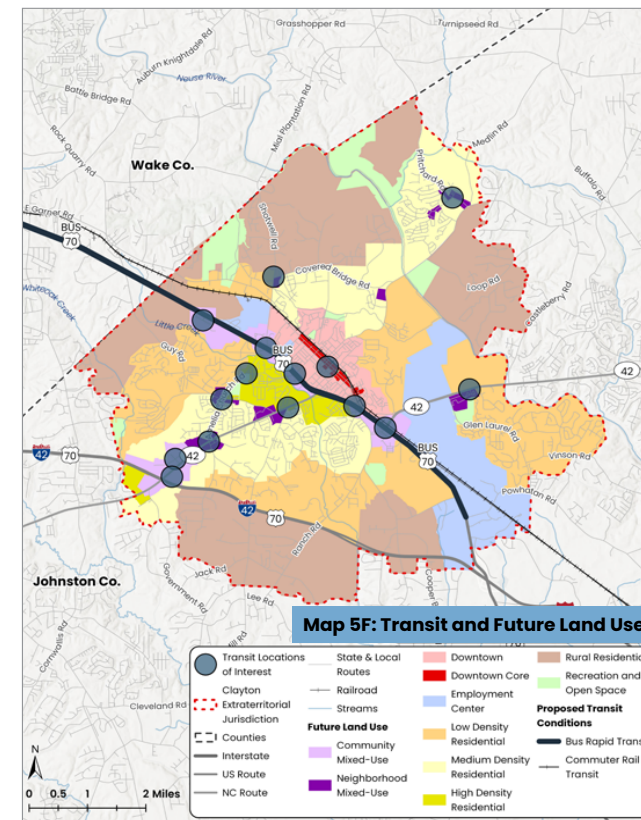
Demographic characteristics like the percentage of populations living in poverty or percent minority can be used as an indicator of which populations may require the use of transit to get to social, medical, academic, and professional destinations. Most of these identified block groups are along US 70 Business or south of Downtown Clayton.

Ridership Generators



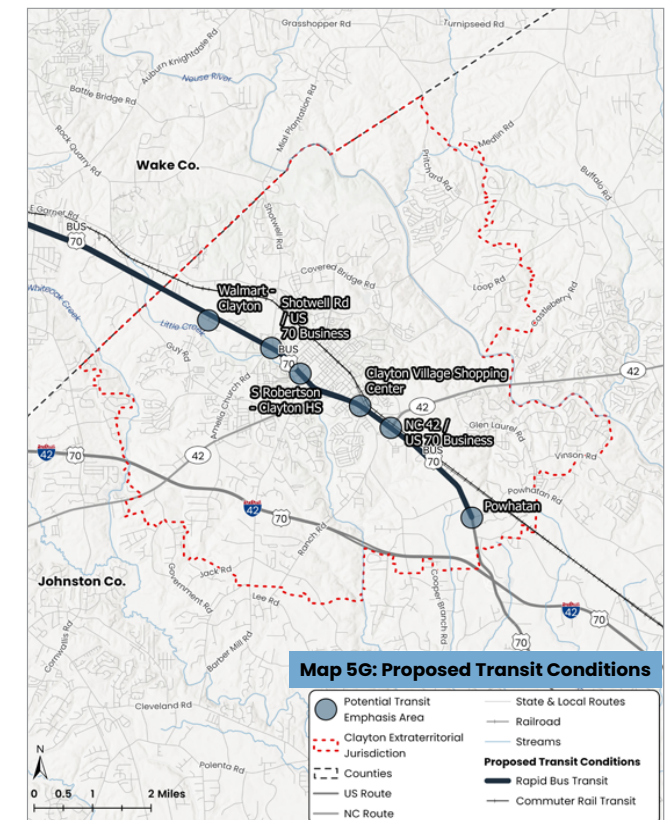
Locations that may be transit ridership generators include the Hocutt–Ellington Library, the Clayton Community Center, Johnston Health Clayton, and other key community destinations. These key community destinations include major civic and community spaces, employers, academic centers, and commercial spaces.

Land Use and Zoning



Most areas in which the land use or zoning categories are particularly conducive to transit such as Downtown Clayton, higher density residential, employment, or Mixed-Use areas have been highlighted as Transit Emphasis Areas.

Regional Transit Connections



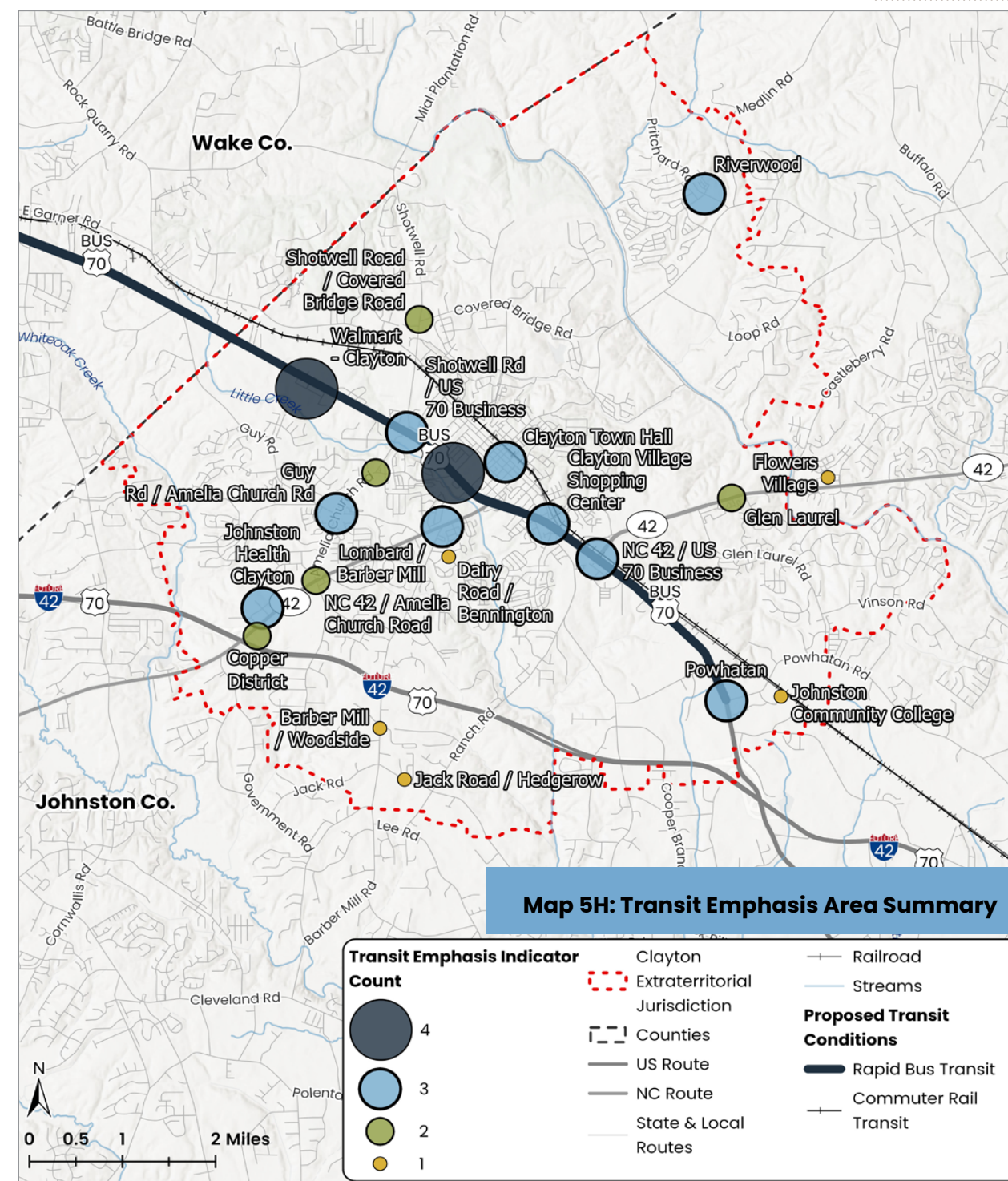
Clayton's Transit Emphasis Areas overlap with proposed regional transit investments so local services can connect to regional hubs. Transit Emphasis Areas were identified based on where potential stops or connection points may be in the regional transit network.

Findings

19 Transit Emphasis Areas were identified in the study area based on a review of Demographics, Key Destinations, Future Land Use and Zoning, and the Future Transit System of Clayton. These locations were identified because there was at least one indicator of existing or future transit ridership generators in the area.

Table 5A: Transit Emphasis Areas

Emphasis Area	Cross-Streets	Count	Key Destinations	Demographics/EJ	Land Use and Zoning	Future Transit
Clayton Walmart	US 70 Business / Town Centre Blvd.	4	●	●	●	●
S. Robertson - Clayton HS	US 70 Business / S. Robertson St.	4	●	●	●	●
Shotwell Rd. / US 70 Business	US 70 Business / Shotwell Rd.	3	●	●	●	●
NC 42 / US 70 Business	US 70 Business / NC 42	3	●	●	●	●
Clayton Town Hall	E. 2nd St. / S Church St.	3	●	●	●	●
Lombard / Barber Mill	S. Lombard St. / Barber Mill Rd.	3	●	●	●	●
Guy Rd. / Amelia Church Rd.	Guy Rd. / Amelia Church Rd.	3	●	●	●	●
Johnston Health Clayton	NC 42 / Hospital Driveway	3	●	●	●	●
Riverwood	Pritchard Rd. / Athletic Club Blvd.	3	●	●	●	●
Powhatan	US 70 Business / Powhatan Rd.	3	●	●	●	●
Clayton Village Shopping Center	US 70 Business / Boling St.	3	●	●	●	●
NC 42 / Amelia Church Rd.	NC 42 / Amelia Church Rd.	2	●	●	●	●
Shotwell Rd. / Covered Bridge Rd.	Shotwell Rd. / Covered Bridge Rd.	2	●	●	●	●
Copper District	NC 42 / Future I-42	2	●	●	●	●
Glen Laurel	NC 42 / Beech Landing Dr.	2	●	●	●	●
Clayton Community Center	Shotwell Rd. / Amelia Church Rd.	2	●	●	●	●
Barber Mill / Woodside	Barber Mill Rd. / Woodside Dr.	1	●	●	●	●
Jack Rd. / Hedgerow	Jack Rd. / Hedgerow Ln.	1	●	●	●	●
Johnston Community College	Best Wood Dr. / Powhatan Rd.	1	●	●	●	●
Dairy Rd. / Bennington	Dairy Rd. / Bennington Dr.	1	●	●	●	●



5.3 TRANSIT RECOMMENDATIONS

The transit emphasis areas are primarily located near NC 42 and Business US 70, two major roadways in Clayton, and around Downtown Clayton. Locations were chosen due to their proximity to future Rapid Bus Extension and Commuter Rail Transit services. NC 42 and US 70 Business provide access to various local and regional destinations, including healthcare, education, shopping, and recreation. Areas away from these corridors are zoned as new neighborhood or Community-Mixed Use hubs, potentially offering denser, transit-supportive spaces compared to other suburban areas of Clayton.

Recommended strategies for transit developed as a part of the CTP are preliminary, only to demonstrate that enough demand exists in Clayton to implement fixed route and microtransit service.



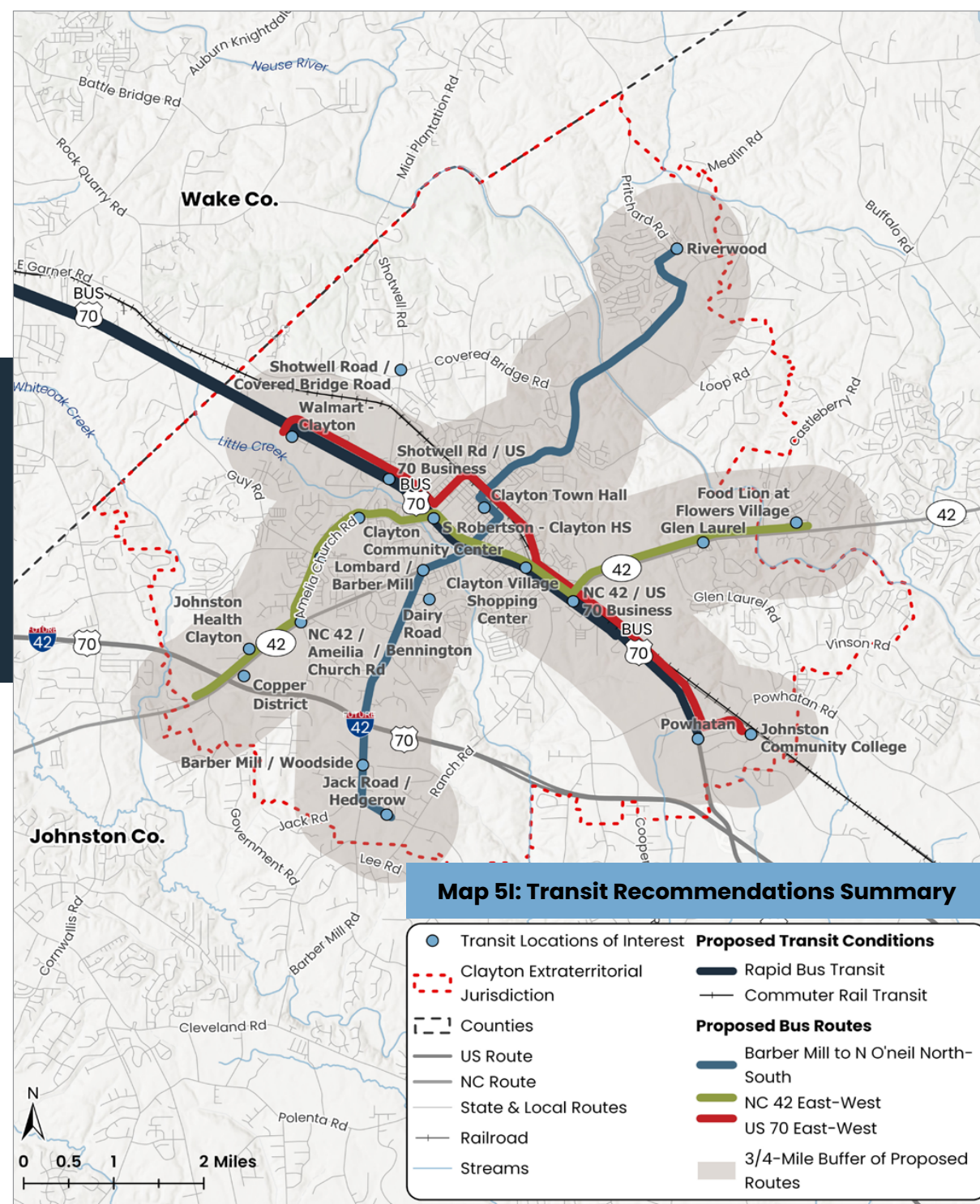
Strategy 5.3A: Conduct a **Transit Feasibility Study** in Clayton in conjunction with JCATS and Johnston County.

Strategy 5.3B: Identify **local funding sources** to cater to microtransit trips starting from medical facilities on NC 42.

Strategy 5.3D: Consider densifying the downtown with mixed-use blocks outside the historic district.

Strategy 5.3E: Continue to work with regional partners to identify the location and **plan for the upcoming commuter rail station**. The plan should include station access, station area characteristics, parking, etc.

Strategy 5.3C: Prepare US 70 Business for **upcoming Rapid Bus service** to ensure its successful implementation. This includes densifying the corridor and improving bicycle and pedestrian access through and across US 70 Business.



1

North – South Route

- Barber Mill Rd.
- S Lombard St.
- N O'Neil St.
- Riverwood

2

NC 42 / US 70 Business Route

- NC 42 W
- Amelia Church Rd.
- US 70 Business
- NC 42 E
- Flowers

3

East – West Route

- Walmart
- Shotwell Rd.
- Downtown
- US 70 Business
- JCCC

4

Microtransit

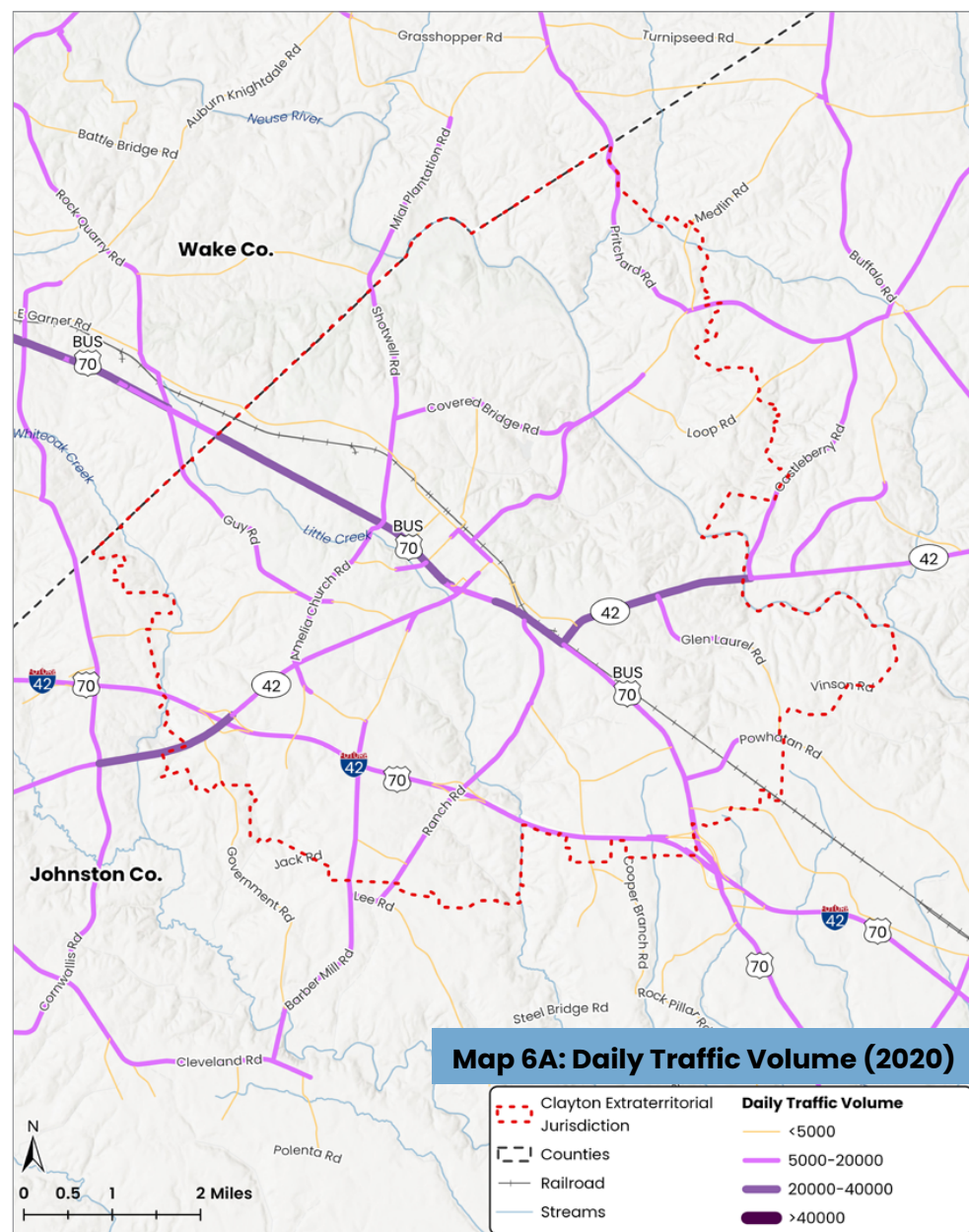
High transit propensity areas marked in gray on the map

6. Roadway Analysis

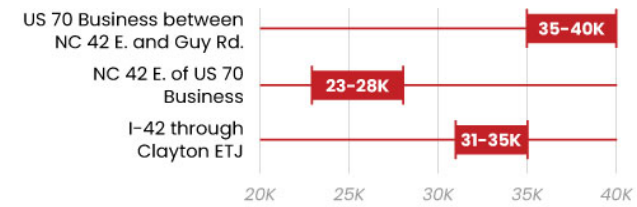
- 6.1 Roadway Conditions 101
- 6.2 Roadway Recommendations 107
- 6.3 Cross Sections 127
- 6.4 Downtown Parking Analysis and Recommendations 131
- 6.5 Roadway Policy Analysis and Recommendations 133



6.1 ROADWAY CONDITIONS



Daily Volumes for Key Roadways



Existing Traffic

Roadway capacity and travel demand were derived from the Triangle Regional Model (TRM), including the edits made to the socio-economic data for Clayton. **Map 6A** shows the daily traffic volume in the study area in 2020, and **6B** shows Volume over Capacity (VOC) ratios during peak period. VOC greater than 1 indicates that projected traffic demand exceeds roadway capacity. However, in reality, traffic only reaches roadway capacity for brief periods of time, because as traffic gets worse, drivers choose alternative routes, modes of transportation, times, or choose not to make the trip. The base year for the TRM is 2020, and 2050 is the projected or 'horizon' year.

~890K Vehicle Miles Traveled

17,250

Vehicle Miles Traveled

364

Aggregate Daily Delay

88 mi.

Total Roadway Length*

190

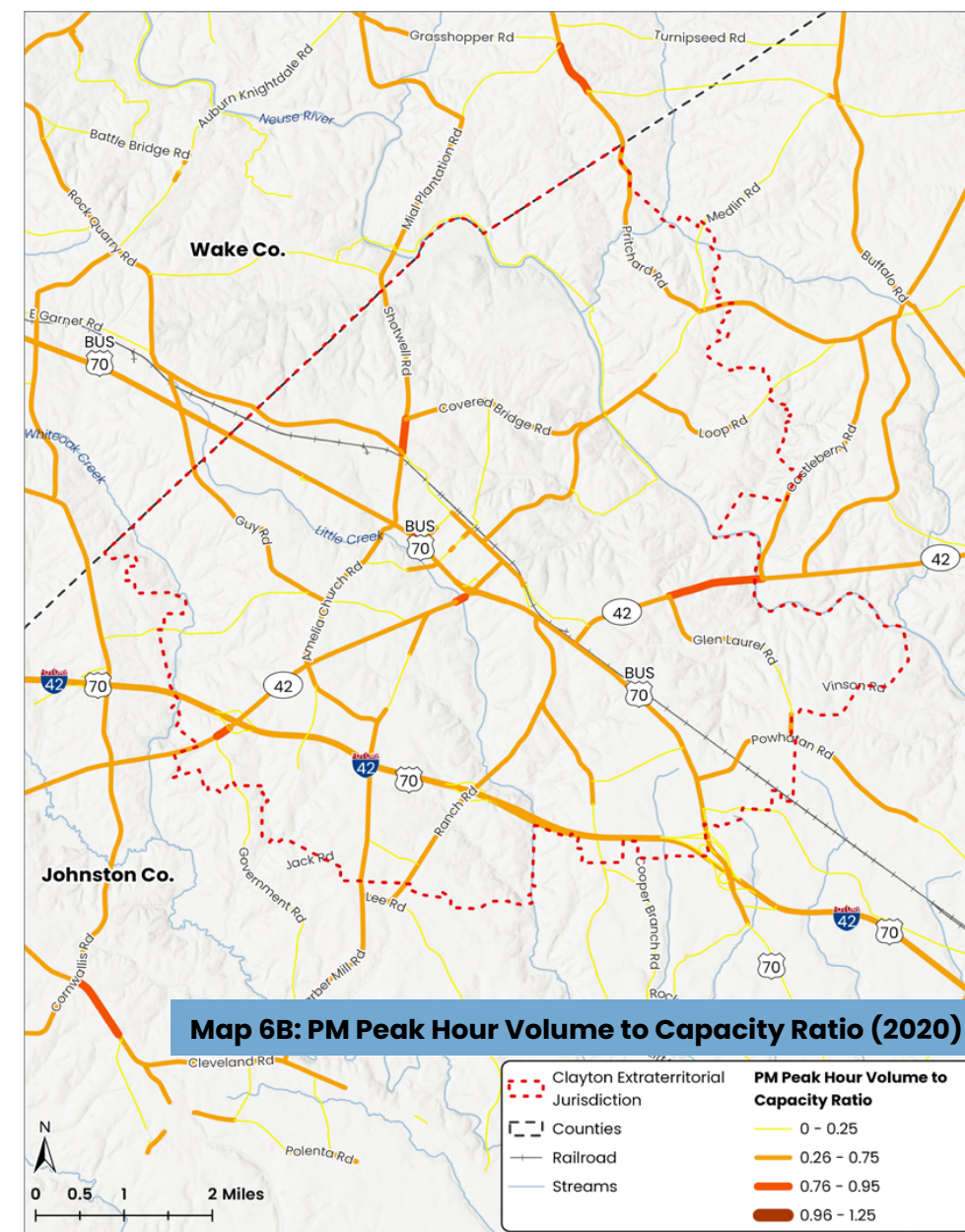
Total Lane-Miles*

~120K

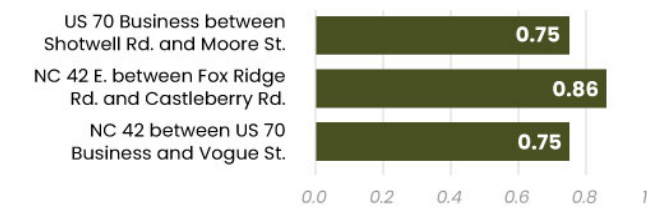
Auto Trips

~12K

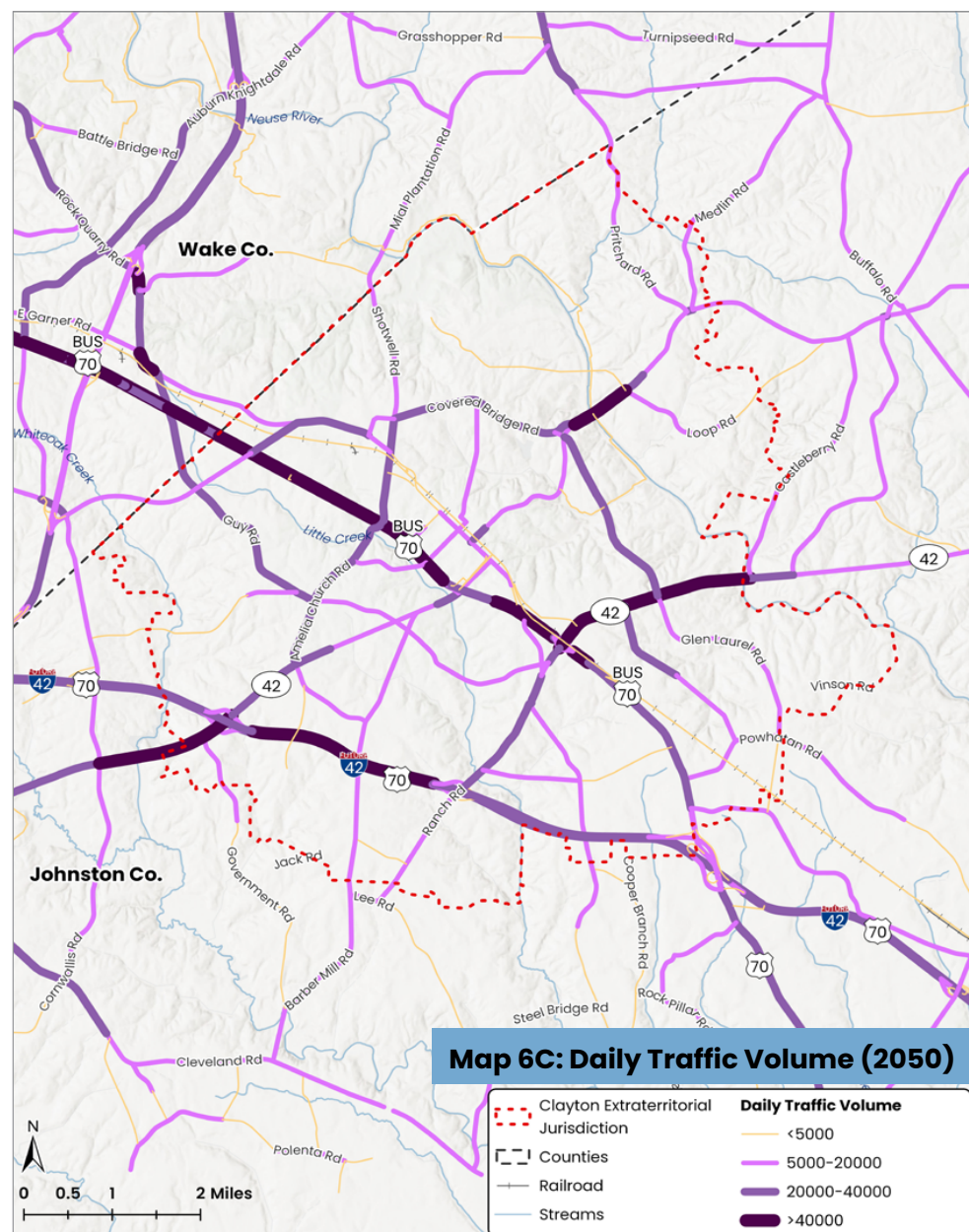
Walk-Bicycle Trips



PM Peak Volume to Capacity Ratios for Key Roadways



The Volume Over Capacity (VOC) ratio represents the travel demand on the road compared to the number of vehicles a roadway facility can accommodate. A higher ratio indicates a higher percentage of the roadway's capacity being utilized.



Future Traffic

The 2050 traffic volumes and VOC ratios shown on **Maps 6C** and **6D** respectively reflect the population and employment growth in the area.

The 2050 TRM model developed for this CTP is based on the official model, with additional roadway links based on the recommendations from previous plans and studies, and revised population and employment projections obtained from the Town staff.

This model result establishes the baseline roadway conditions for the future year, which will be used to evaluate the impacts of recommendations developed as a part of this CTP.

~2.12M Vehicle Miles Traveled

~45K Vehicle Miles Traveled

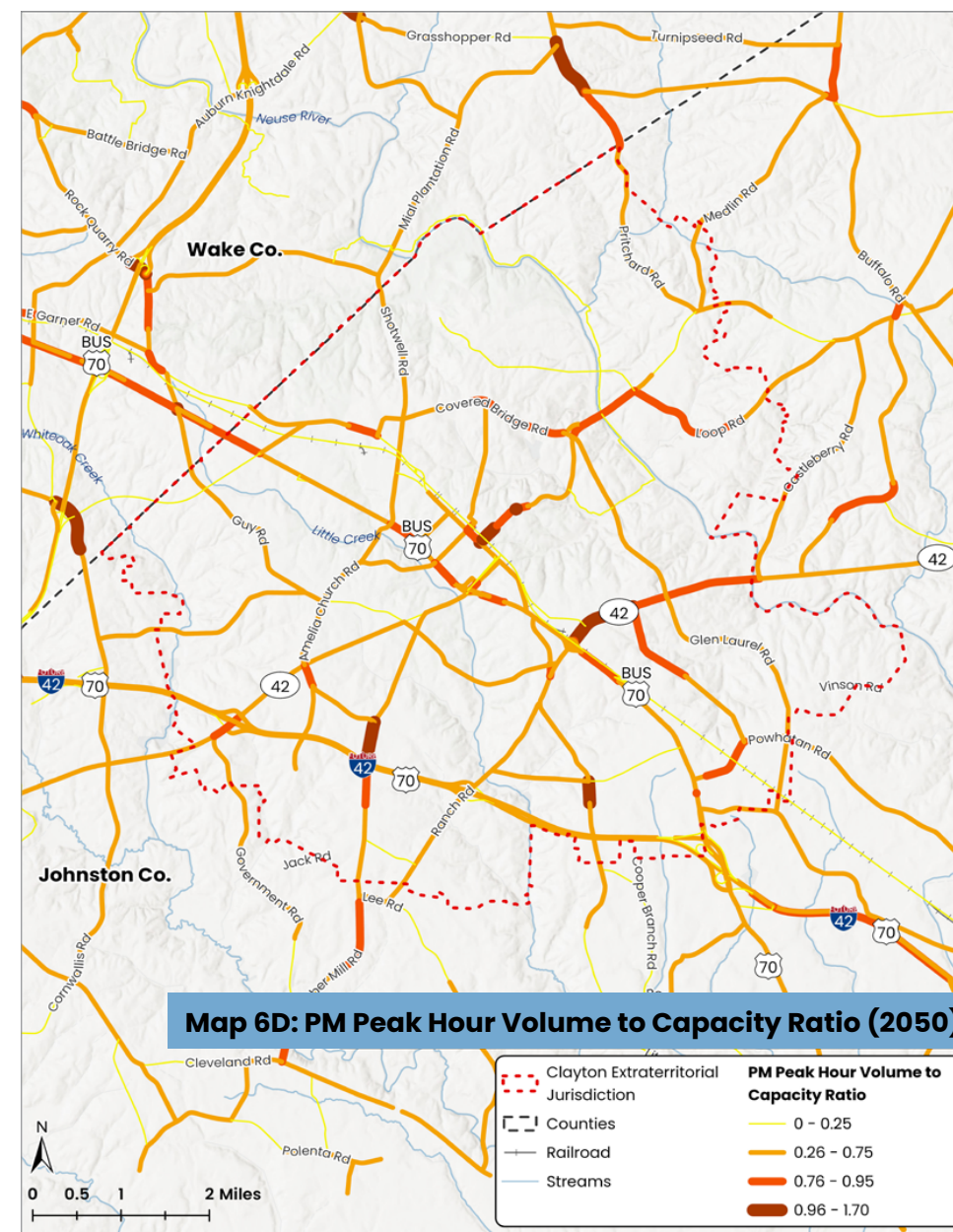
3,250 Aggregate Daily Delay

96 mi. Total Roadway Length*

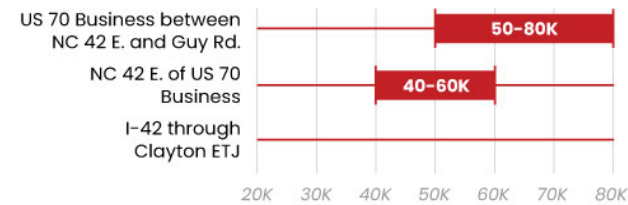
270 Total Lane-Miles*

432K Auto Trips

~44K Walk-Bicycle Trips

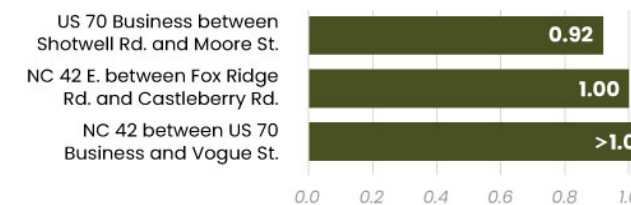


Daily Volumes for Key Roadways



All roadway and transit projects in the Triangle region anticipated to be completed by 2050 are included in the future traffic analysis.

PM Peak Volume to Capacity Ratios for Key Roadways



Freight Analysis

Truck Volumes

The truck volume data includes semi-trucks, and small and large delivery trucks. They are categorized as Commercial Vehicles (CV), Single Unit Truck (SUT), and Multi-Unit Truck (MUT). For the purpose of this analysis, all of the categories of trucks are combined into one.

Large parts of land in Clayton, especially around US 70 Business, have been zoned for industry and logistics centers. This fact, in addition to the increase in population and employment in Clayton, is projected to impact the truck traffic volumes on key roadways. The increase in truck traffic is clearly visible through **Maps 6E** and **6F** with the highest impact on US 70 Business.

The total daily truck miles driven within Clayton is projected to increase 2.4 times. This is also reflective of the overall VMT increase.

Daily Truck Trips

126K (2020)
302K (2050)

2.4x growth

Truck Vehicle Miles Traveled (VMT)

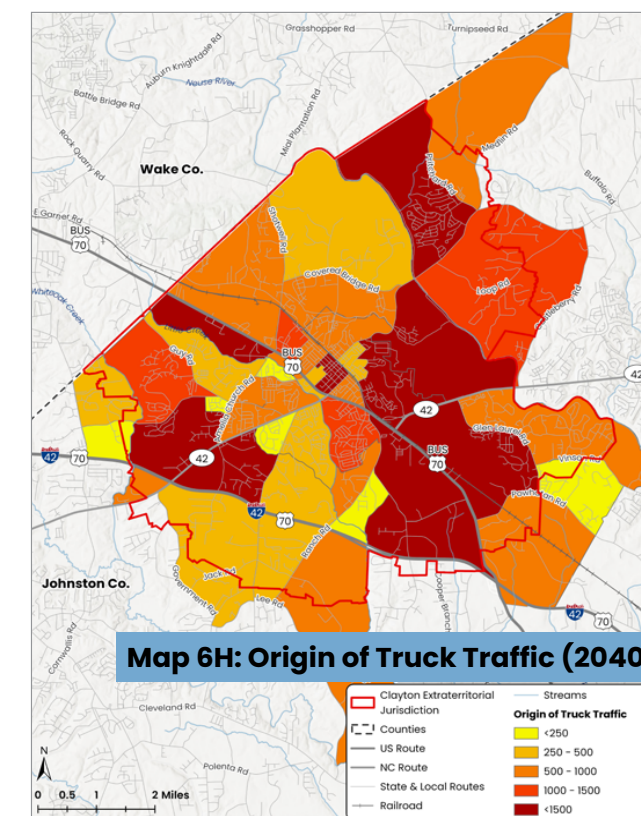
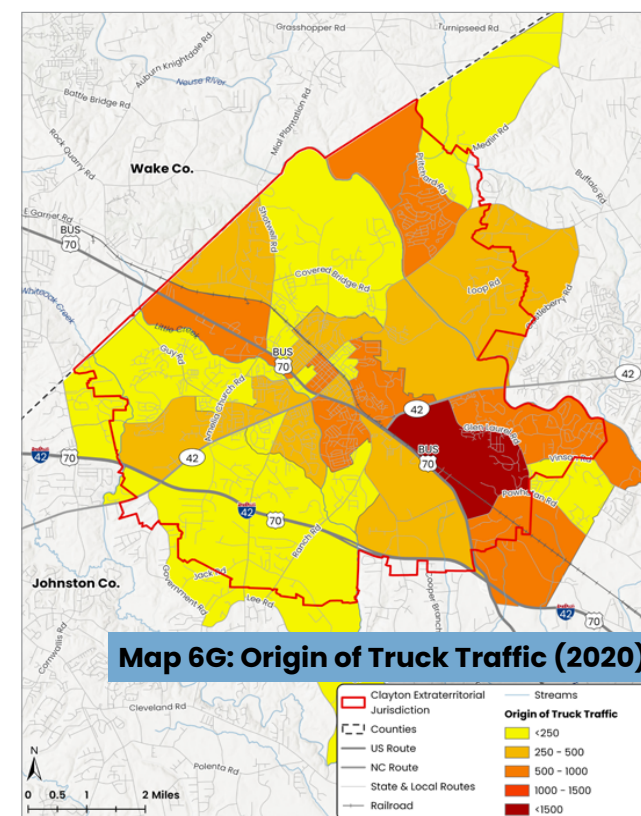
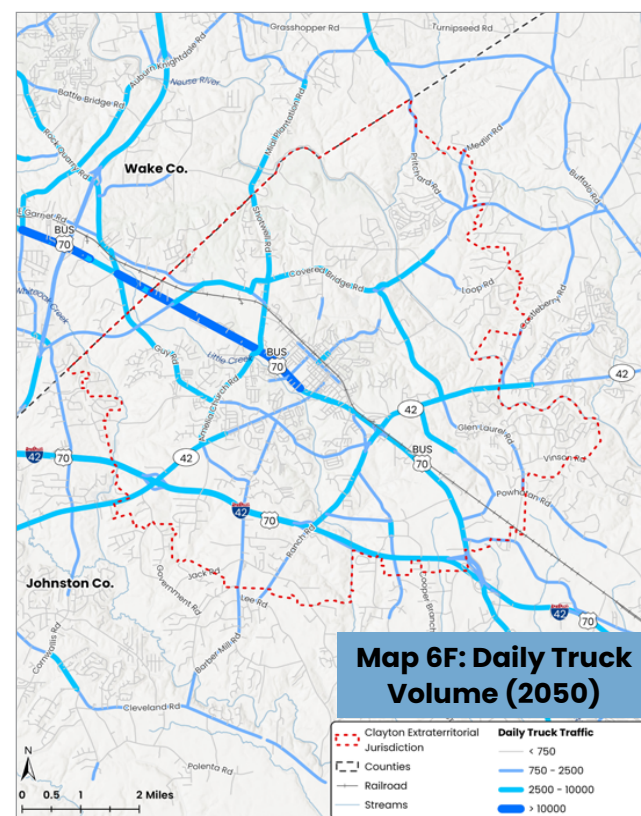
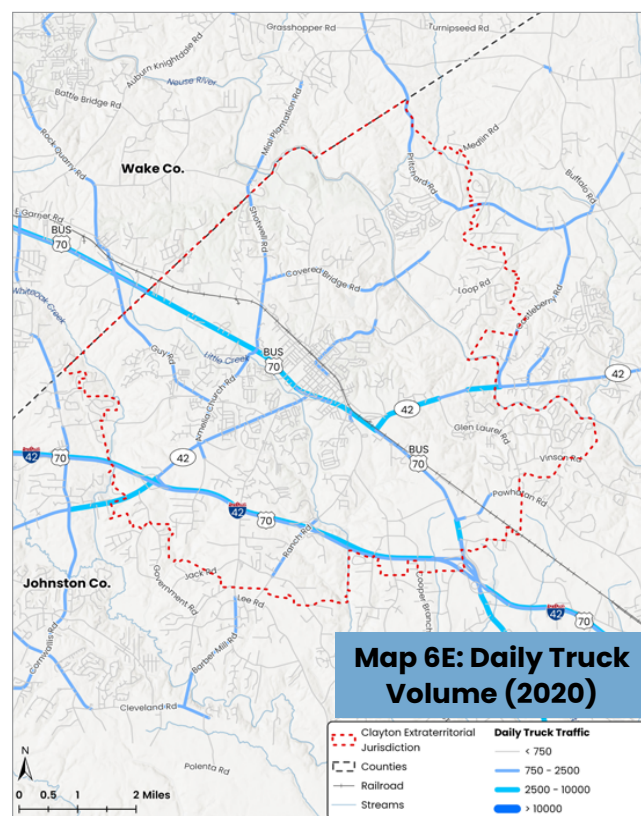
For both years, truck VMT will account for approximately 14% of all VMT in Clayton. This suggests that the proportion of truck traffic with respect to the overall traffic is not slated to change significantly.

The threefold increase in daily truck trips starting in Clayton between 2020 and 2050 (shown in **Map 6G** and **6H** respectively) is aligned with the population and employment growth in the area. The distribution of the origin of these truck trips suggests higher growth and concentration in the eastern half of the ETJ, and in the other zones with higher commercial zoning.

Truck VMT

16K (2020)
48K (2050)

3x growth



6.2 ROADWAY RECOMMENDATIONS

Roadway Recommendations

35 roadway projects and **6** grade separation projects are recommended as a part of this CTP.

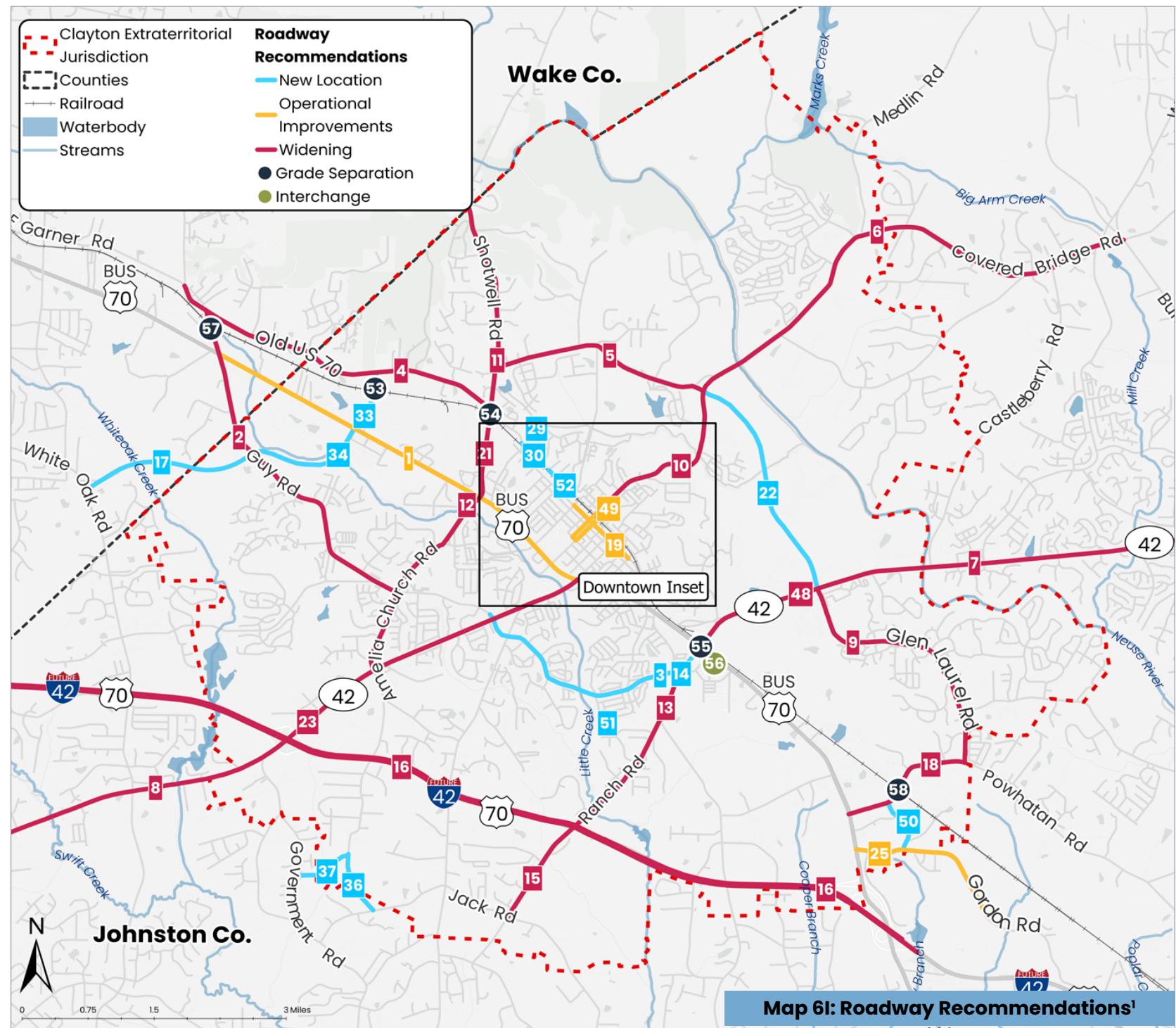
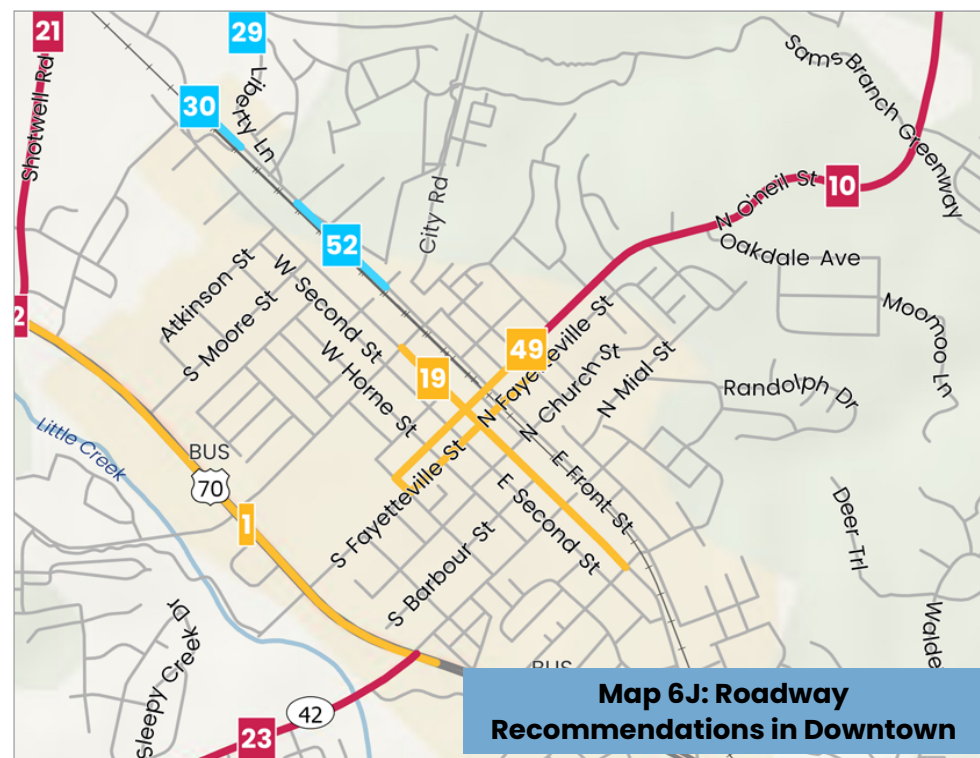
- **Strategy 6.2.1A:** Identify large drive-blocks and potential new roads to reduce the size of the drive-blocks (Combined with Strategy 6.2.2C).
- **Strategy 6.2.1B:** Evaluate the combined performance of the recommendations from previous plans and the new roadways identified in Strategy 6.2.1A in the Triangle Regional Model in the horizon year (2050).
- **Strategy 6.2.1C:** Develop and refine roadway recommendations based on data, feasibility, public and stakeholder engagement, and expert input.
- **Strategy 6.2.1D:** Identify corridors and segments that require further study.

13 miles of new roadway

58 miles of road widening

9 miles of operational improvements

138 lane-miles of new pavement



¹ US 70 Business will be redesignated to US 70 between I-40 and New I-42. The local name for this road will be Clayton Boulevard. NC 42 designation between US 70 Business and New I-42 will be removed. This section of road will be renamed to Veterans Parkway. NC 42 south of I-42 and Ranch Road between I-42 and US 70 Business will be designated as NC 36.

Table 6A: Roadway Recommendations (excluding Collector Streets)

Project Key	Road Name	From Road	To Road	Improvement	Existing Lanes	Proposed Lanes	Section Code	Section Type	Plan Reference	Project Reference	TIP Number	Dist. (Mile)	Prior. Score
1	US 70 Business ¹	Guy Rd.	NC 42	Safety, Speed reduction, Corridor Study	4-5	4-5	4B, 5A	4-5-Lane Road with Multi-Use Paths on both sides	CTP			4.94	11
2	Guy Rd.	Old US 70 (E. Garner Rd.)	Amelia Church Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns7a	R-3618	4.22	8
3	Southern Connector	Little Creek Church Rd.	NC 42 ²	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns3	R-3618	2.70	8
4	Old US 70	Rock Quarry Rd.	Shotwell Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	A202		3.94	4
5	Covered Bridge Rd.	Shotwell Rd.	Northern Connector	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns4b		2.54	8
6	Covered Bridge Rd.	Northern Connector	Buffalo Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns5		5.84	10
7	NC 42 East	Glen Laurel Rd.	Buffalo Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Paths on both sides	MTP 2050	Jhns1b	R-3825B	5.46	8
8	NC 42 West ³	US 70 Bypass ⁴	I-40	Widening	3	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns2b	R-3410B	3.97	9
9	Glen Laurel Rd.	NC 42 East	Powhatan Rd.	Widening	2	3	3B	3-Lane Road with Multi-Use Path and Sidewalk	Comp Growth			3.10	8
10	O'Neil St.	W. Hinton St.	Northern Connector	Widening	2	3	3B	3-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns16		1.96	6
11	Shotwell Rd.	Old US 70	Old Baucom Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	A406c		2.61	6
12	Amelia Church Rd.	US 70 Business ¹	NC 42 West ²	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	A406b		2.46	10
13	NC 42 (Ranch Rd.) ³	US 70 Bypass ⁴	Little Creek Church Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns13b		1.90	8
14	NC 42 Extension ³	US 70 Business ¹	Little Creek Church Rd.	New Location	0	2	2C	2-Lane Road with Sidewalks on both sides	MTP 2050	Jhns13a	U-6223	0.57	9
15	Ranch Rd. ³	US 70 Bypass ⁴	Jack Rd.	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	SEAS			1.40	5
16	US 70 Bypass ⁴	I-40	US 70 Business ¹	Widening	4	6	6B	6-Lane Expressway	MTP 2050	F14		11.32	4
17	White Oak Rd. Connector	White Oak Rd.	Guy Rd.	New Location	0	2	2A	2-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	A138d		1.95	7
18	Powhatan Rd.	US 70 Business ¹	ETJ Boundary	Widening	2	3	3B	3-Lane Road with Multi-Use Path and Sidewalk	Comp Growth			1.58	7
19	E. Main St.	Robertson Rd.	Smith St.	Stop Light Coordination	2	2		No Change in section	SEAS			0.87	10
21	Shotwell Rd.	Old US 70	US 70 Business	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	A406a		1.04	9
22	Northern Connector ⁵	NC 42 East	O'Neil St.	New Location	0	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns4a1		2.75	10

Project Key	Road Name	From Road	To Road	Improvement	Existing Lanes	Proposed Lanes	Section Code	Section Type	Plan Reference	Project Reference	TIP Number	Dist. (Mile)	Prior. Score
23	NC 42 West ²	US 70 Business ¹	US 70 Bypass ⁴	Widening	2	4	4A	4-Lane Road with Multi-Use Path and Sidewalk	MTP 2050	Jhns2a	R-3410A	3.70	12
25	Gordon Rd.	US 70 Business ¹	Tram Ln.	Add Paved Shoulder	2	2	2A	2-Lane Road with Multi-Use Path and Sidewalk	SEAS			1.93	6
29	Crawford Pkwy Extn.	Crawford Pkwy.	Lavender Ln.	New Location	0	2	2C	2-Lane Road with Sidewalks on both sides	CTP			0.06	7
30	W. Stallings Street Extn.	W. Stallings St.	Old US 70	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	CTP			0.22	7
33	West Gateway North	Old US 70	US 70 Business ¹	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	Comp Growth			0.71	6
34	West Gateway South	US 70 Business ¹	Guy Rd.	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	Comp Growth			1.40	7
36	Corbett Rd. Extn.	Corbett Rd.	Jack Rd.	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	CTP			0.75	5
37	New Road	Corbett Rd.	Government Rd.	New Location	0	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	CTP			0.62	5
48	NC 42	US 70 Business ¹	Glen Laurel Rd.	Widening	4	6	6A	6-Lane Road with Multi-Use Paths on both sides	CTP			1.54	10
49	O'Neil and Fayetteville St.	Blanche St.	Hinton St.	Convert to One-way Pair	2	2	2B	2-Lane Road with Multi-Use Path and Sidewalk	CTP			1.21	10
50	Best Wood Dr.	Best Wood Dr.	Gordon Rd.	New Location	0	3	3A	3-Lane Road with Sidewalk on one side	CTP			0.68	8
51	Tall Pines Ln.	Tall Pines Ln.	Averasboro Dr.	New Location	0	2	2C	2-Lane Road with Sidewalks on both sides	CTP			0.10	8
52	W. Front St.	Warren St.	New Hope Ln.	New Location	0	2	2D	2-Lane Road with Multi-Use Path on one side	CTP			0.34	8
53	West Gateway North	Railroad		Grade Separation				Grade separation over railroad for new roadway	CTP				
54	Shotwell Rd.	Railroad		Grade Separation				Grade separation over railroad	MTP 2050				
55	NC 42	Railroad		Grade Separation				Grade separation over railroad	MTP 2050				
56	NC 42	US 70 Business ¹		Interchange				Interchange	MTP 2050				
57	Guy Rd.	Railroad		Grade Separation				Grade separation over railroad	MTP 2050				
58	Powhatan Rd.	Railroad		Grade Separation				Grade separation over railroad	MTP 2050				

1 – US 70 Business will be redesignated to US 70 between I-40 and New I-42. The local name for this road will be Clayton Boulevard. This change is planned to take effect in February 2025.

2 – NC 42 designation between US 70 Business and New I-42 will be removed. This section of road will be renamed to Veterans Parkway. This change is planned to take effect in February 2025.

3 – NC 42 south of I-42 and Ranch Road between I-42 and US 70 Business will be designated as NC 36. This change is planned to take effect in February 2025.

4 – US 70 Bypass will be redesignated to I-42. This change is planned to take effect in February 2025.

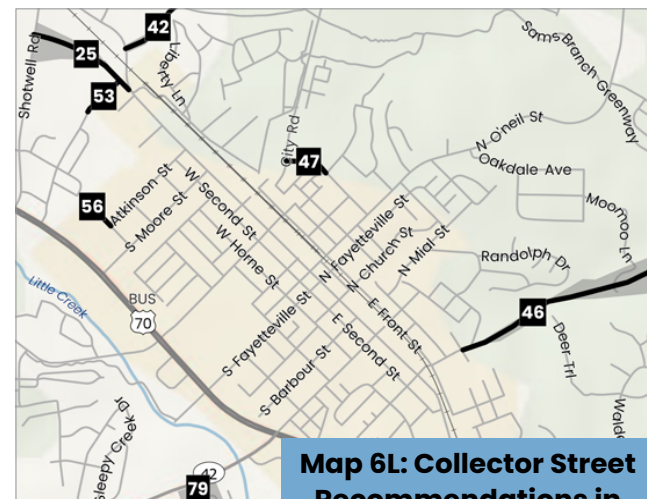
5 – The Northern Connector scored medium based on the prioritization scoring methodology (9 points). The methodology was intended to be a starting point for prioritization discussion, and the Town requested to recategorize this project as 'High'.

Collector Streets Recommendations

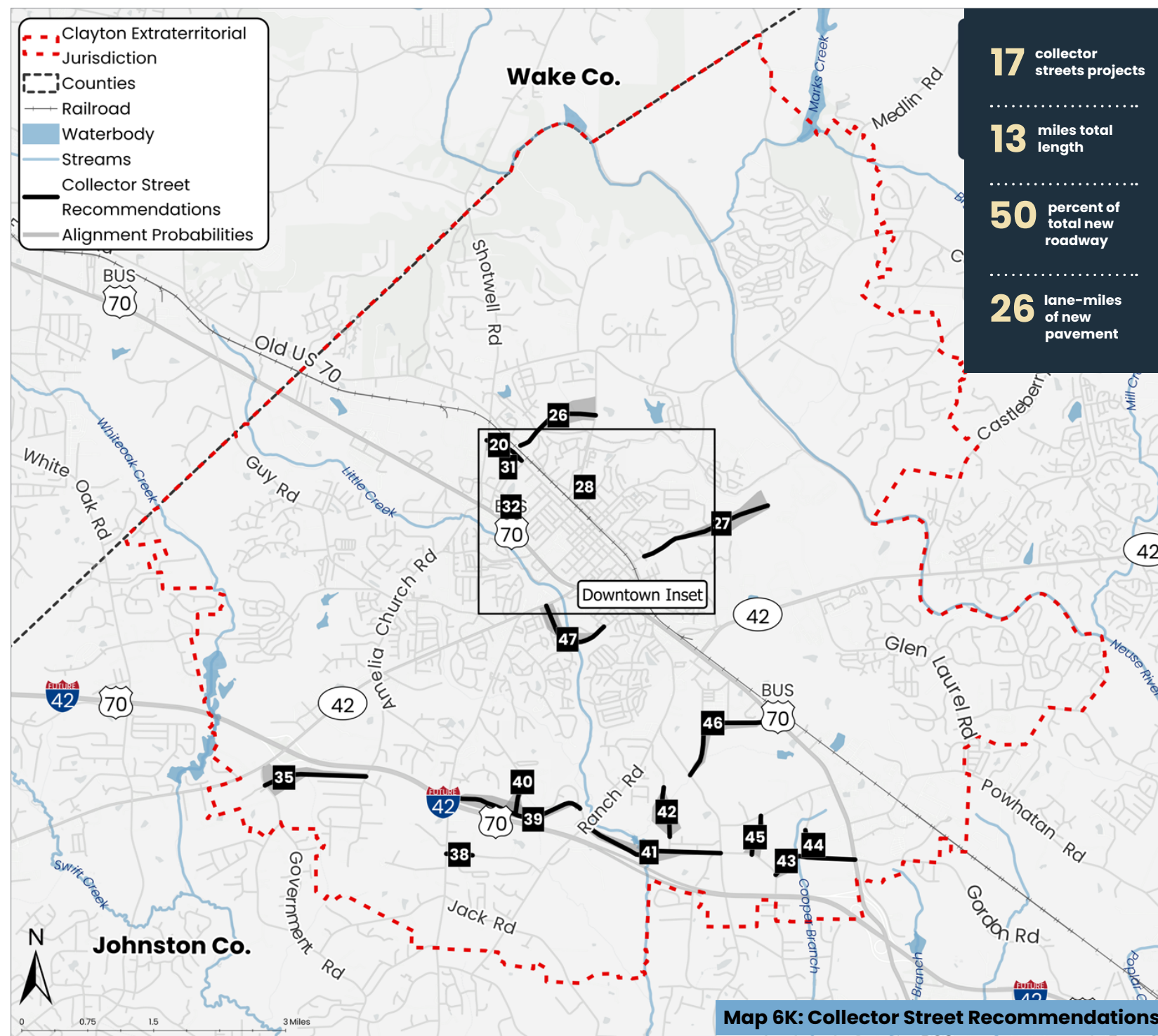
A Collector Street is a low-to-moderate capacity road that serves to move traffic from local streets (within subdivisions) to arterial roads. These roads are constructed by the developers as a part of the subdivision such that the additional travel demand from those subdivisions is addressed through the collector streets. Collector streets ideally have a limited number of driveways or properties directly accessible from them.

- **Strategy 6.2.2A:** Identify large drive-blocks and potential connections nodes through those blocks.
- **Strategy 6.2.2B:** Identify large undeveloped parcels through which the collector streets could be routed.
- **Strategy 6.2.2C:** Evaluate the volumes on these streets in the horizon year of the Triangle Regional Model (Combined with 6.2.1B) and remove the streets with low volumes.
- **Strategy 6.2.2D:** Develop routing flexibility polygons retaining the start and end points of the collector streets.

17 collector street locations were identified through this CTP based on travel demand and distribution patterns, and availability of large, undeveloped parcels. The alignments shown on the map are preliminary and their key purpose is to denote the end points of the street.



Map 6L: Collector Street Recommendations in Downtown



Map 6K: Collector Street Recommendations

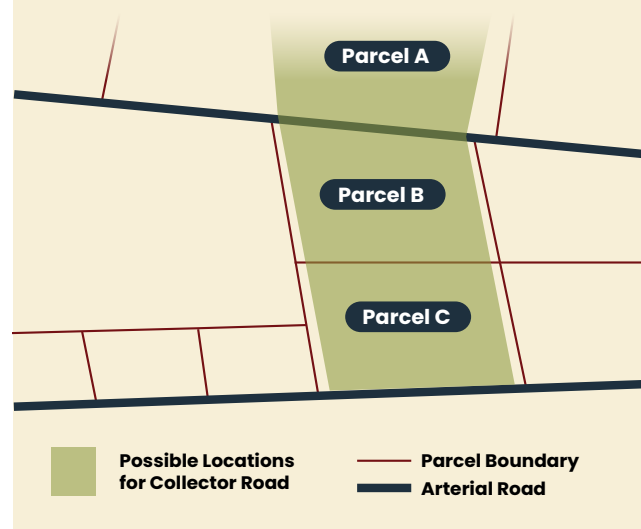
Collector Street Implementation Steps

Step 1

A general area has been identified for where a collector street should be aligned. This is represented by the polygon showing all possible alignment options for a particular collector street. Parcels A, B, and C represent the parcels through which the collector street needs to be aligned.

In this scenario, no part of the collector street has been constructed in parcels A, B, or C. Whichever parcel develops first can construct the collector street on its parcel with significant leeway in alignment selection as long as it falls within the polygon, and it can be extended to the adjacent parcel where the same polygon passes through.

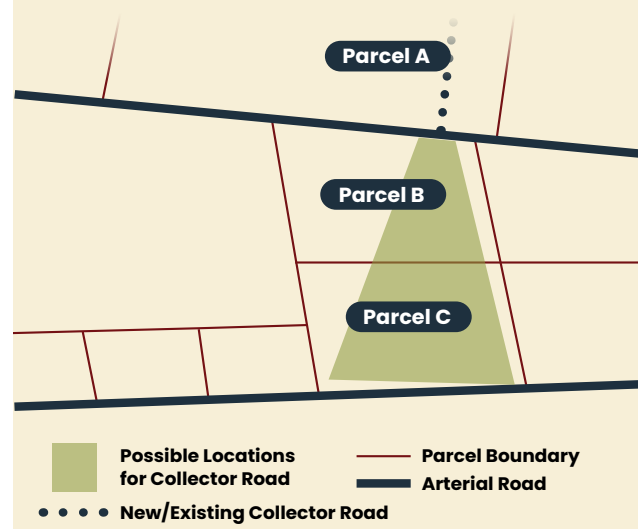
The other parcels will have to tie it into this determined alignment.



Step 2

The developer of Parcel A has decided to align the collector street in a certain way. Parcel A has confirmed with the Parcel B owner and the Planning Department that the extension of this street into Parcel B would NOT impact an environmental feature that could preclude the construction of the collector street in Parcel B.

Parcel B and C now have a reduced number of alignment options to locate the collector street on their respective parcels since the street will eventually have to connect to the alignment in Parcel A. This is determined by design speeds and local buildability conditions. This results in the shrinking of the polygon as one approaches Parcel A.

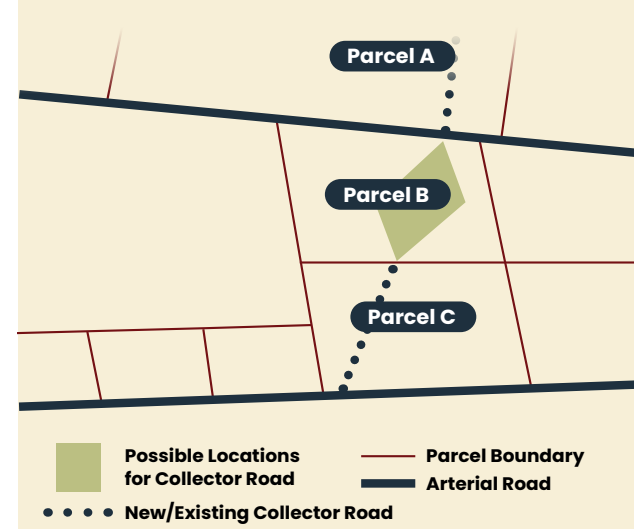


Step 3

In this scenario, both Parcel A and Parcel C have decided to align the collector street in a certain way within their respective parcels and the collector street polygon. The parcel owners have confirmed that extension of this street into Parcel B would not impact an environmental feature that could preclude the construction of the collector street in Parcel B.

Now Parcel B has two fixed endpoints to honor when aligning the collector street. The developer is still free to determine the internal alignment through Parcel B as long as design standards and road geometries are maintained, and the street eventually connects to the stub-outs in Parcels A and C.

Note: A stub-out is a temporary termination of a street that is intended to be extended through adjacent property in the future. Stub-outs are generally required when it is anticipated that adjacent property will need to extend the street to accommodate future development.



Recommendation

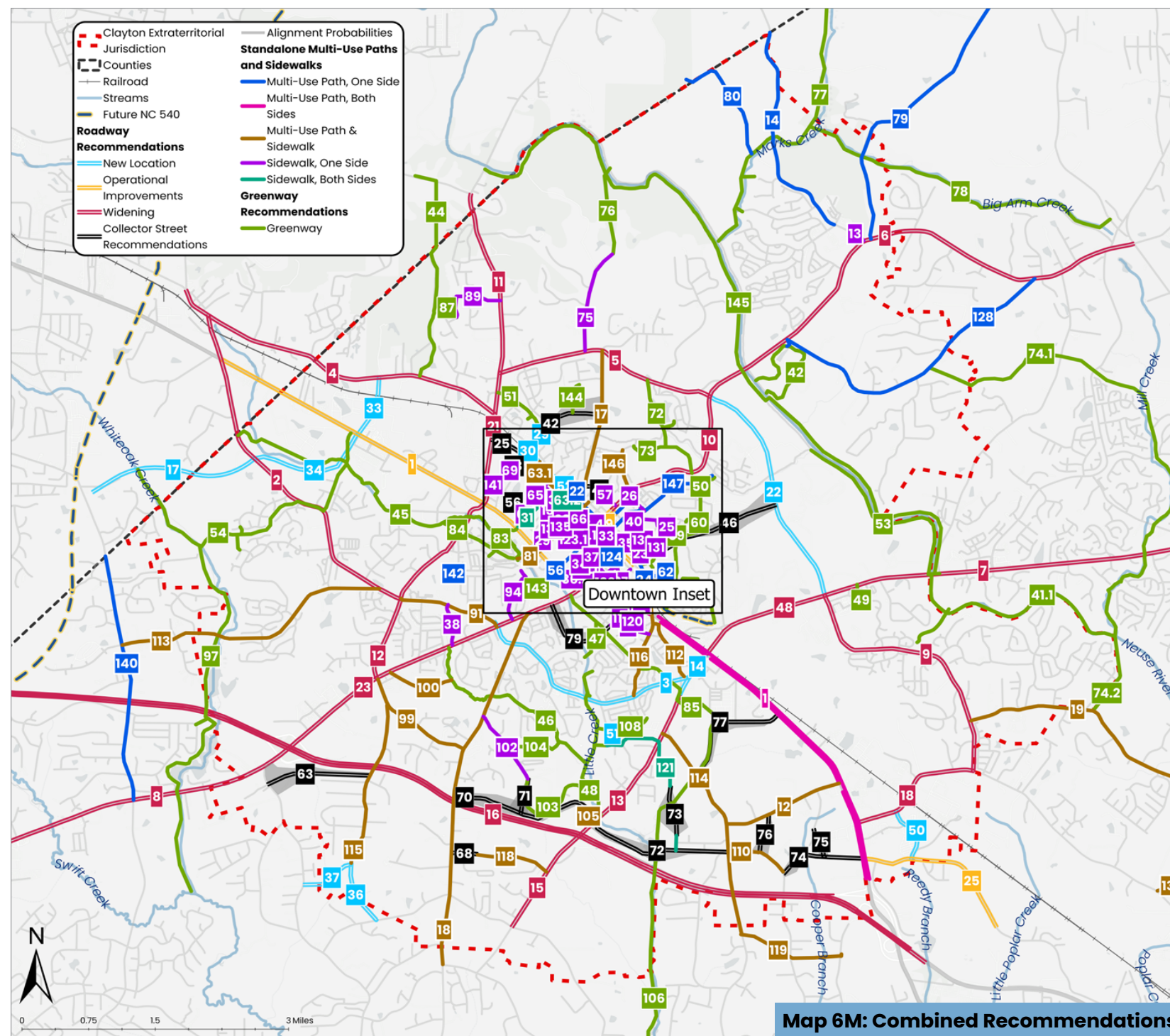
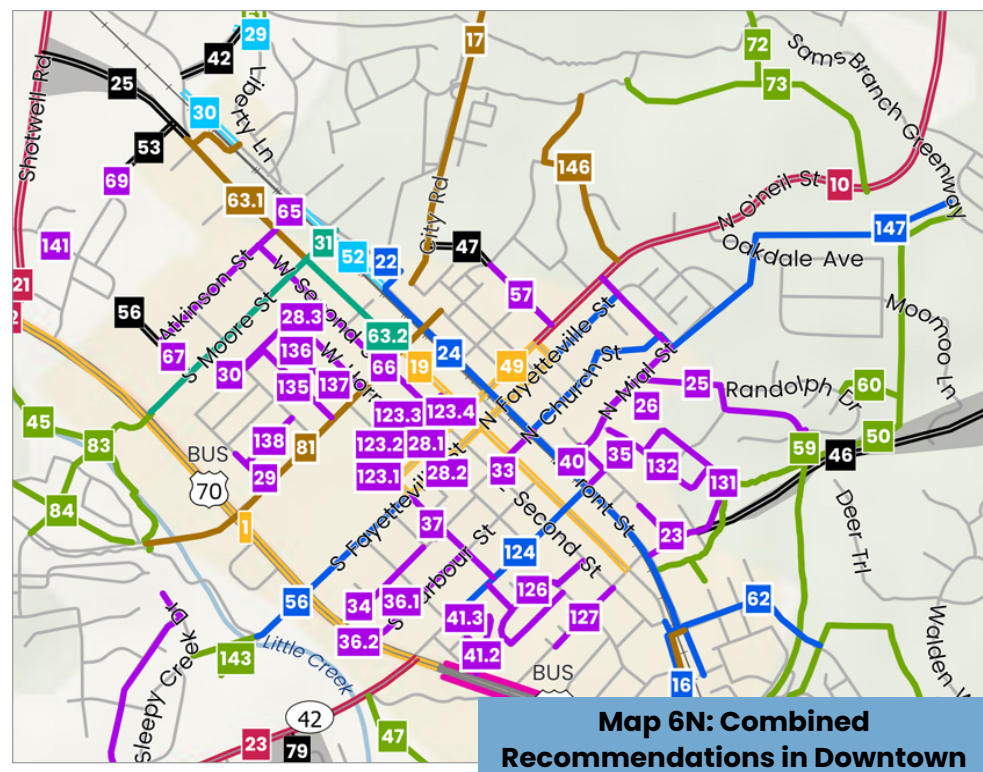
During implementation, developers should not be allowed to stub out the collector street in such a way that its extension would be burdensome to the adjacent parcels due to environmental conditions. Additional language strengthening this clause was added to the policy recommendations empowering the Planning Department to ensure overall connectivity can be achieved without disproportionate adverse impacts on any parcel.

Figure 6A: Collector Street Implementation Steps

Table 6B: Collector Street Recommendations

Proj. Key	Road Name	From Road	To Road	Improvement	Existing Lanes	Proposed Lanes	Section Code	Section Type	Plan Reference	Distance
20	Main Street Extn.	Shotwell Rd.	Main St.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	Comp Growth	0.47
26	New Road	Old US 70	City Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.00
27	Smith St. Extension	Matthew Circle	Northern Connector	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.53
28	W. Barnes St. Extension	Ridgecrest Dr.	City Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.19
31	Summit St.	W. Main St.	N. Enterprise Dr.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.19
32	Blakey Street Extn.	Atkinson St.	Blakey St.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.13
35	New Road	Government Rd.	Corbett Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.17
38	Twin Acres Road	Barber Mill Rd.	Twin Acres Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.30
39	New Road	Barber Mill Rd.	Canyon Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.60
40	Country Ln. Extn.	Country Ln.	CTP39	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.41
41	Peele Road Extn.	Little Creek Church Rd.	Ranch Rd.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.64
42	Crooked Creek Road Extn.	Crooked Creek Rd.	N. Emmas Way	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.58
43	Gordon Road Extn.	Peele Rd.	US 70 Byp.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.00
44	S. Tech Park Ln. Extn.	S. Tech Park Ln.	CTP43	Collector	0	2	2C	2-Lane Collector Street with Sidewalks on both sides	CTP	0.36
45	New Road	Pony Farm Rd.	Peele Rd.	Collector	0	2	2C	2-Lane Collector Street with Sidewalks on both sides	CTP	0.48
46	New Road	Crooked Creek Rd.	US 70 Business	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	1.40
47	New Road	NC 42 W	Holding St.	Collector	0	2	2B	2-Lane Collector Street with Multi-Use Path and Sidewalk	CTP	0.96

Combined Recommendations



Metric Comparisons

2020 Official Model
Understanding current travel metrics

2050 Modified Model
Establishing base case for future travel metrics

2050 Clayton CTP Model
Understanding the effect of recommendations on travel metrics



Lane-Miles of Roadway

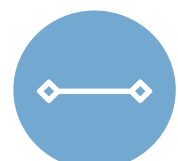
190 Total Lane-Miles

+125 Increase in lane-miles
315 total lane miles

+124 Increase in lane-miles
314 total lane miles



The CTP plans to add 124 lane-miles of roadway in Clayton, which includes 98 miles of non-collector and 26 miles of collector lane-miles. This is similar to the total lane-miles of previously adopted plans, but better distributed to reduce delay.



Total Distance Traveled in Clayton

~887K Vehicle miles traveled

~2.12M Vehicle miles traveled
2.4X increase

~2.10M Vehicle miles traveled
Marginal Change from Modified Model



The CTP projects incur a marginal decrease of up to 20,000 miles in the overall total daily vehicle miles traveled in Clayton.



Total Hours Spent in Travel

~17K Hours traveled, with an avg. speed of **51 mph**

~45K Hours traveled, with an avg. speed of **47 mph**

~45K Hours traveled, with an avg. speed of **47 mph**



There is a negligible change in the total time people spent on the road between the 2050 baseline and CTP scenarios.



Aggregate Daily Delay

364 Hours at avg. speed

3,250 Hours at avg. speed
9X increase of delay

2,565 Hours at avg. speed
~20% reduction



This is the most significant impact of the CTP projects. Approximately 700 fewer hours of daily delay than the 2050 baseline scenario.



Auto Trips Generated

~120K Auto trips

~432K Auto trips
3.6X increase
~40K intrazonal auto

~442K Auto trips
~2% increase over Modified Model
~40K intrazonal auto



The reduction in delay may have resulted in ~10,000 additional daily auto trips in Clayton.

Special Recommendations

US 70 Business

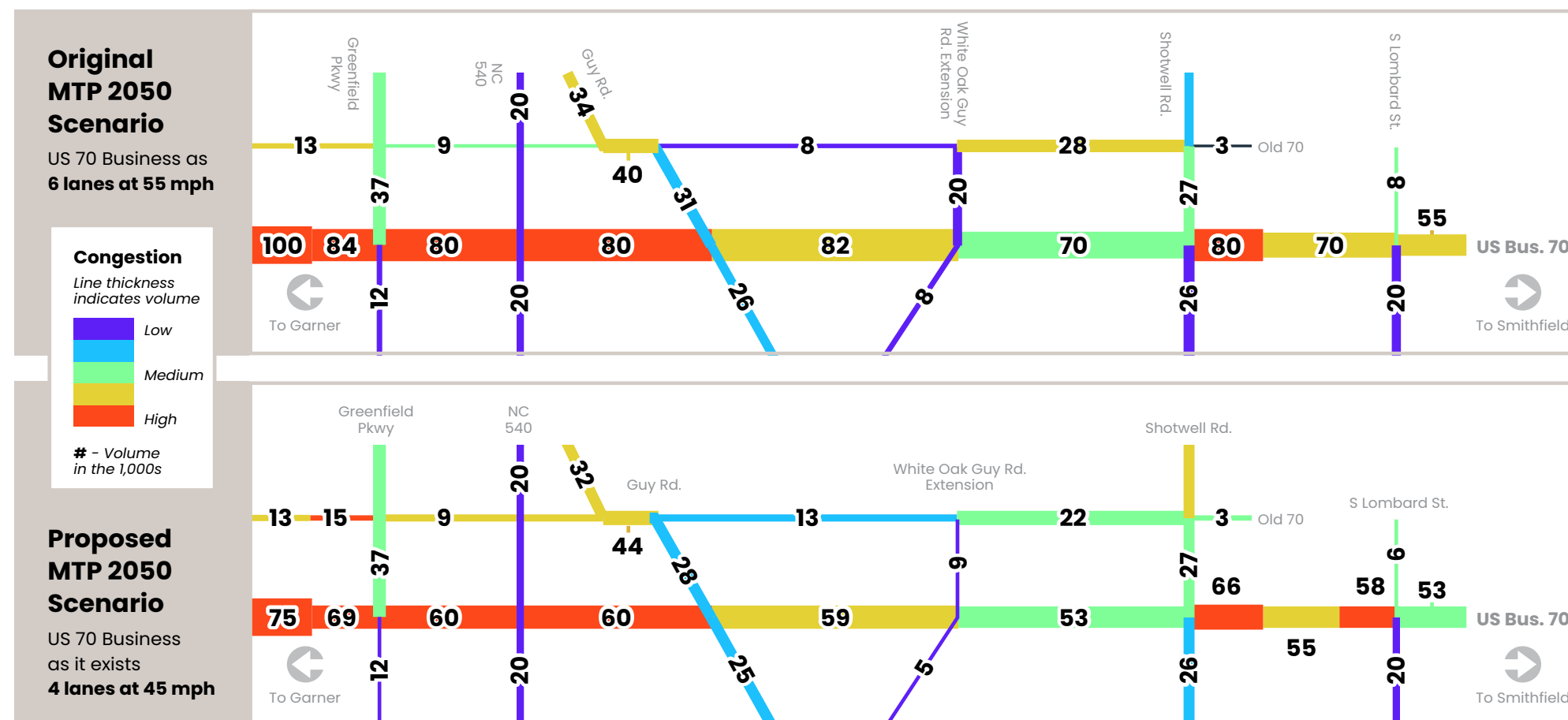
Background and Rationale

US 70 Business is the key route joining Clayton to the overall region. NCDOT has planned to upgrade this road to 'reduced conflict intersections' (U-6113) in the near term, and a 6-lane road at 55-mph in the long term. This long-term plan for the road is also programmed in the TRM 2050 official network. Neither of these projects are funded in the STIP program.

The Town of Clayton's vision for this road includes increasing commercial and mixed-use development, providing safer crossings, and preparing this corridor for a potential future BRT extension. This will require closely spaced driveways, multi-use paths on both sides, and timed crossings at all intersections. The Town's vision of this roadway is contrary to NCDOT's plan. This CTP explored the impacts of not widening the road on overall congestion.



Figure 6B: US 70 Business Volume and Congestion Comparison



Analysis

The widening of US 70 Business was removed from the 2050 official network and the speed was reduced to 45 mph to understand its impacts on overall congestion. The impacts are diagrammatically represented in Figure 6B. The volumes along US 70 Business decrease by 15,000 to 25,000, and some of the traffic redistributes to other roads. US 70 Business between Lombard St. and Guy Rd. experience similar levels of congestion in both the scenarios, meaning widening the roadway may not alleviate congestion on the core segment of US 70 Business through Clayton, as more traffic is funneled through it. However, there is a minor increase in congestion west of Guy Rd. which may benefit from widening.

Recommended Strategies

- **6.2.3A:** Remove or temporarily suspend the superstreet (U-6113) and widening (MTP-A301) projects east of I-40.
- **6.2.3B:** Change signal timings on US 70 Business such that peak hour peak direction traffic gets priority in the short term.
- **6.2.3C:** Conduct a US 70 Business Corridor Study that includes land-use, driveway and access management, impacts of 6-lane versus 4-lane, intersection improvements and crossings, transit accommodations, and multi-use paths.

Widening US 70 Business **does not appear to address congestion**. The daily volumes on US 70 Business **reduce from ~80K to ~60K** between the two scenarios. Some of these trips utilize other roads, some shift modes, while other trips may be suppressed because of this change.

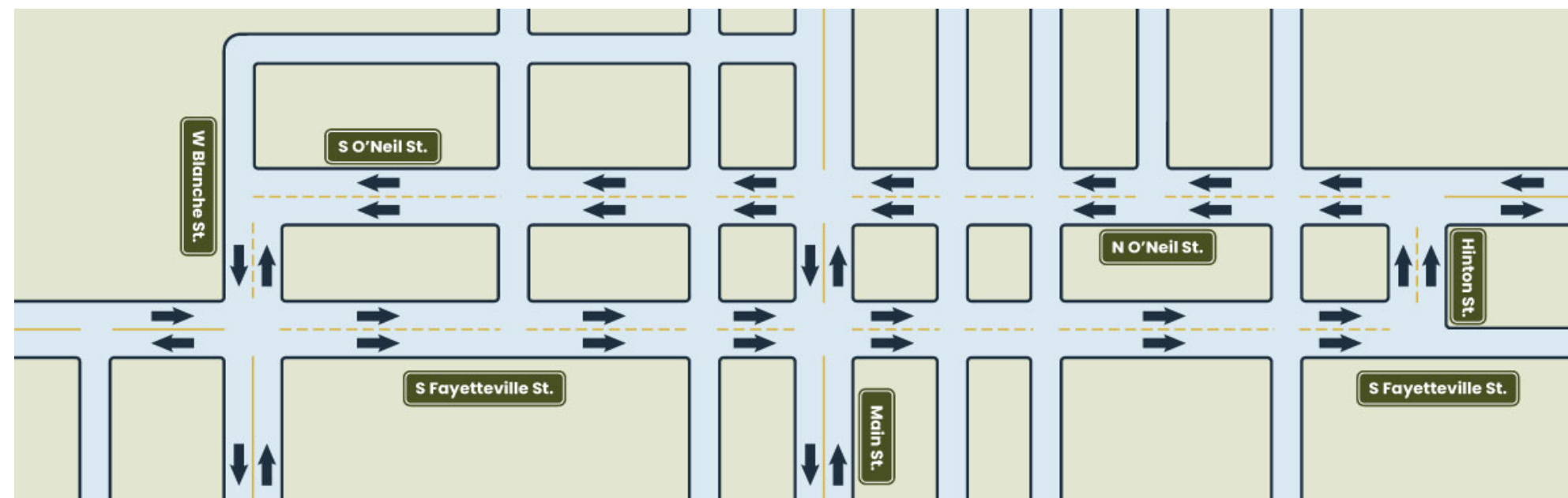
Downtown One-Way Pair

Background and Rationale

N. O'Neil St. was planned to be widened to 3-lanes (2 lanes with center two-way left turn lane) from Front St. to future Northern Connector. This was recommended to alleviate the traffic generated based on left-turn movements. This was initially planned in CAMPO South East Area Study, and became an MTP 2050 project.

The portion of N. O'Neil St. south of Hinton St. is located in Downtown Clayton Historic District which will not only create a significant challenge to its widening, but also impact the character of Downtown which is against one of the key goals of the CTP. Also, two-way left turn lanes won't impact the high traffic volumes that are projected on O'Neil St.

These concerns can be addressed by converting a one-way pair for O'Neil and Fayetteville Streets so that lanes can be restriped for turns without adding more ROW. This intervention can eventually lead to other design interventions as mentioned in the DOT conducted study.¹



¹ - NCDOT and the National Science Foundation have conducted a project to identify ways to catalyze walkable, sustainable, and equitable development in the downtowns of NC using existing ROW. This research can be found [here](#).

Figure 6C: Downtown One-Way Pair Recommendation

Recommended Strategies

- **6.2.4A:** Conduct a study to understand the impacts of converting Fayetteville St. one-way northbound, and O'Neil St. one-way southbound between Hinton and Blanche Streets.
 - W. Hinton St. and W. Blanche St. are the two extreme ends to consider this one-way pair. This recommendation can be truncated to any intermediate streets.
 - Implementation can include smaller steps, such as specific weekday or weekend tests and traffic cones and signage based tactical urbanism in order to assess traffic and public acceptance.
 - Future changes may include additional streetscape, more parking, or wider sidewalks based on traffic on individual segments.

6.3 CROSS SECTIONS

The following pages display the recommended roadway cross-sections that have been developed for the 'Clayton on the Move' Plan. Dimensions provided with the cross-sections are derived from the dimensions in the NCDOT Typical Cross Sections. Most roadways are recommended to be at or under 45 mph posted speed so that sidewalks and multi-use paths can be added to the roadway with curb and gutter. For roadways higher than 45 mph posted speed, cross sections with clear zones are recommended.

Using the Cross-Sections

For guidance for determining roadway requirements, refer to the 'Section Code' in Tables 6A and 6B. Find the cross-section graphic in the following pages matching the section code. Please note that the cross-section graphics are not to scale. For dimensions, please refer to the table below each cross-section graphic. Each cross-section has recommended and alternate dimensions. The recommended dimensions are the standard dimensions recommended for each element of the cross section. The alternate dimensions allow Town staff the right to modify cross-sections as needed based on existing conditions or needs to the transportation network.

Existing roadways not listed should at a minimum follow the 2C section (Two Lane Street with Sidewalks on both sides). New roadways not identified in Roadway and Collector Street Recommendations as part of the new development shall be determined by Town staff and the developer. The preferred details for each roadway should maximize the existing and proposed street network and bike and pedestrian networks.

Right of Way

The proposed minimum right-of-way in the cross sections in this document is the listed right-of-way if a roadway were to follow the standard dimensions for cross-section elements. The Town reserves the right to increase or decrease the minimum right-of-way required at the time of development from the listed right-of-way based on existing conditions or to accommodate alternate dimensions—the suggested right-of-way does not account for any alternate cross-section elements.

Travel Lanes

Standard dimensions for travel lanes are preferred by the Town. Narrower dimensions are only allowed if approved by Town staff. Existing wider lanes are allowed to remain.

Bicycle and Pedestrian Infrastructure

Most roadway improvement projects recommended as a part of this plan include bicycle and pedestrian infrastructure as a part of the standard cross sections in the form of sidewalk and/or MUP. Sidewalks are standard for any new roadway and when improving existing roadways. Existing roadways in historically sensitive areas such as Downtown Clayton Historic District may be evaluated at the time of development to determine if new sidewalks are appropriate.

When the planned improvement alongside a roadway includes only

adding sidewalk or MUP without adding lanes to the roadway as may be the case in certain roads in Tables 4A, 4B, 4C or 4D, please refer to 'Bicycle and Pedestrian Cross Sections' in subchapter 4.3. Town Staff reserves the right to require additional bike and pedestrian improvements on roadways not identified in subchapter 4.3.

Curb and Gutter

Curb and gutter is standard for any new roadway and when improving existing roadways. Existing roadways in historically sensitive areas may be evaluated at the time of development to determine if curb and gutter is appropriate.

Verge and Clear Zone

For roadways with curb and gutter, the space between the closest edges of sidewalk (or MUP) and the curb is called the verge. For roadways without curb and gutter, the space between the closest edges of the sidewalk (or MUP) and the travel lane is called the 'Clear Zone'. This is needed to design appropriate stormwater drainage along the roadway.

NCDOT Approval

Roads located along state-maintained roadways are subject to approval of NCDOT. NCDOT may require additional cross-section elements or right-of-way beyond the Town's minimum standards.

2A Two Lane Undivided with Paved Shoulders, Multi-use Path, and Sidewalk. Posted speed: **55 MPH**

	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	12'
Paved Shoulder	5'	2' to 6'
Multi-use Path	14'	10' to 14'
Sidewalk	6'	5' to 6'

2B Two Lane Undivided with Curb and Gutter, Multi-use Path, and Sidewalk. Posted speed: **25-45 MPH**

	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Sidewalk	6'	5' to 6'
Multi-use Path	14'	10' to 14'

2C Two Lane Undivided with Curb and Gutter and Sidewalks. Posted speed: **25-45 MPH**

	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Sidewalk	6'	5' to 6'

2D Two Lane Undivided with Curb and Gutter, Multi-use Path, and Sidewalk. Posted speed: **25-45 MPH**

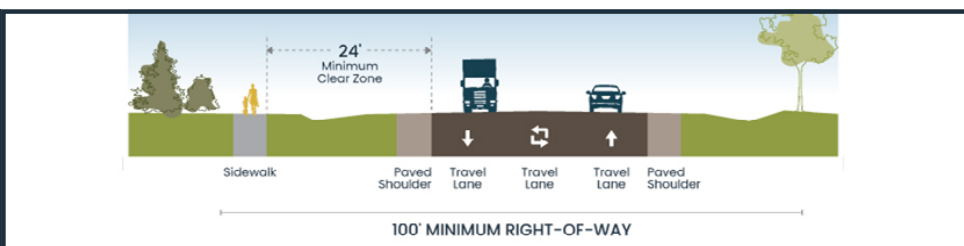
	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Multi-use Path	14'	10' to 14'

Cross Sections (continued)

3A

Three Lane Undivided with Paved Shoulders and Sidewalk on one side.

Posted speed: **25-45 MPH**

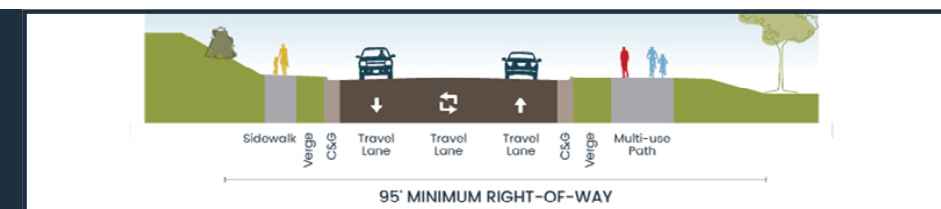


	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Paved Shoulder	5'	2' to 6'
Sidewalk	6'	5' to 6'

3B

Three Lane Undivided with Curb and Gutter, Multi-use Path, and Sidewalk.

Posted speed: **25-45 MPH**



	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Sidewalk	6'	5' to 6'
Multi-use Path	14'	10' to 14'

4A

Four Lane Divided with Curb and Gutter, Multi-use Path, and Sidewalk.

Posted speed: **35-45 MPH**

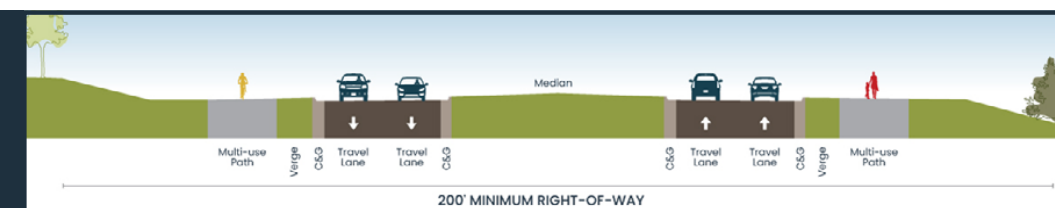


	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Median	23'	17' to 23'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Sidewalk	6'	5' to 6'
Multi-use Path	14'	10' to 14'

4B

Four Lane Divided with Curb and Gutter and Multi-use Paths.

Posted speed: **45 MPH**

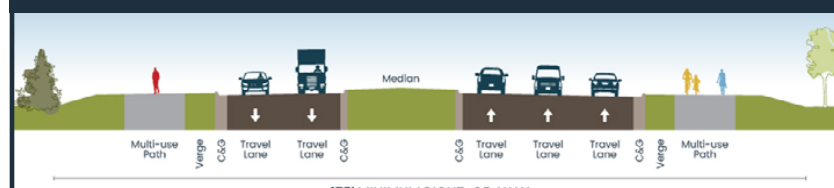


	Recommended Dimensions	Alternate Dimensions
Travel Lane	11' to 12'	11' to 12'
Median	23'	17' to 23'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Multi-use Path	14'	10' to 14'

5A

Five Lane Undivided with Curb and Gutter, and Multi-use Paths.

Posted speed: **35-45 MPH**



	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	11' to 12'
Median	23'	17' to 23'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Multi-use Path	14'	10' to 14'

6A

Six Lane Divided with Curb and Gutter, Multi-use Path, and Sidewalks.

Posted speed: **35-45 MPH**



	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	12'
Median	23'	23'
Curb and Gutter	2'-6"	2'-6"
Verge	6'	4' to 7'-6"
Multi-use Path	14'	10' to 14'

6B

6 Lane Divided with median and paved shoulders.

Posted speed: **55-70 MPH**



	Recommended Dimensions	Alternate Dimensions
Travel Lane	12'	12'
Paved Shoulder	12'	10' to 12'
Median	27'	27'

6.4 DOWNTOWN PARKING ANALYSIS AND RECOMMENDATIONS



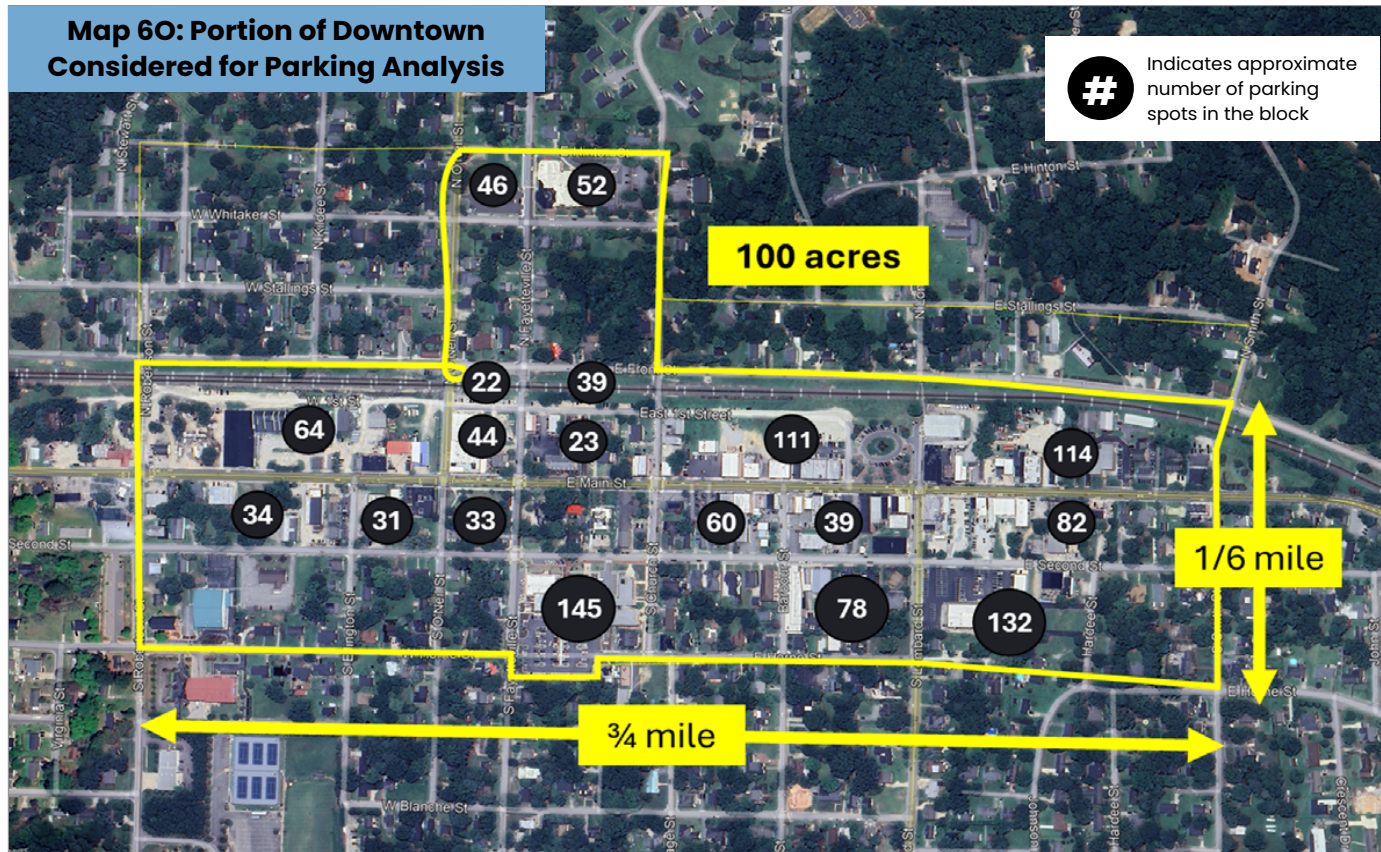
Parking Availability

Parking spaces in Downtown Clayton are perceived to be in limited supply. This perception can continue as Clayton's increasing population and employment opportunities increase the number of trips to Downtown.

Within 100 acres of Downtown Clayton as shown in **Map 6O**, there are approximately 1,470 potential public and customer parking spaces. This includes 200 spots on Main St., 120 spots on E. Second St., and approximately 1,150 off-street parking spots – some designated as public and some as customer only. This means that there are approximately 14-15 parking spaces per acre in Downtown Clayton, which is more than sufficient for its current needs.

Future Parking Demand

Assuming a linear relationship between parking and employment, parking demand is projected to double between 2020 and 2050. This does not necessarily mean that the number of spaces will need to increase, but parking management may need to change to allow for higher turnover of parking.



- 1,470** Available parking spaces
- ~12** Percent of Downtown area dedicated to parking
- ~15** Spaces per acre
- 2X** Parking demand growth



Recommended Strategies

- ### Address Supply Perception
- **6.4A:** Implement time-restricted parking on E. Main St. to increase turnover.
 - **6.4B:** Stripe Parking Lane on E. Second St. to signal available parking that is currently shown using signs.
 - **6.4C:** Partner with businesses to create additional Public Parking Spots. Example is shown in Figure 6.4B which demarcates customer parking behind certain downtown businesses.
 - **6.4D:** Identify a location for a parking garage convenient for Downtown traffic, greenway access, and Park and Ride in the future for Rapid Bus or Commuter Rail.
- ### Address Demand
- **6.4E:** Construct complete sidewalk network within downtown with marked crosswalks to facilitate walking.
 - **6.4F:** Implement transit that serves downtown.
 - **6.4G:** Reduce parking requirements for new construction in Downtown by combining the residential and business parking needs during different times.
- ### Conduct Parking Study
- **6.4H:** Conduct a parking study for Downtown to evaluate the demand and supply of parking and understand local resident and business needs.
 - **6.4I:** Study the feasibility of additional paved surfaces for parking in Downtown areas behind buildings or within the NCRR corridor.

6.5 ROADWAY POLICY ANALYSIS AND RECOMMENDATIONS



One of the key goals of this study is to “Enhance Accessibility and Connectivity.” Connectivity begins at the local street level, and though it is not technically feasible to plan every local street, comprehensive policy guidelines should be established to ensure new developments are conducive to greater connectivity.

Current policy guidelines in Clayton’s Unified Development Ordinance (UDO) are quite thorough for connectivity within the development but is limited in scope between developments. This creates islands of connectivity with short block lengths within subdivisions, which in turn are disconnected from the neighboring subdivisions. Cross-development connectivity may not be feasible in certain cases because of environmental concerns, but for a large majority of developments, it is a deliberate design choice. This cross-subdivision disconnection can be addressed by expanding the scope of the UDO policy language to include more requirements for inter-connectivity between subdivisions.

Relevant Excerpts from the Unified Development Ordinance (UDO) and their corresponding maps and images:

UDO Section 6.5.12.3e: Cul-de-sac and dead-end street design

- 1) No cul-de-sac or dead-end street serving residential lots of 20,000 square feet or greater in area shall exceed 1,000 feet in length. ... serving residential lots less than 20,000 square feet in area shall exceed 750 feet in length ... serving commercial or mixed-use development shall exceed 400 feet in length.
- 2) In cases where one cul-de-sac is accessed from another cul-de-sac, the maximum length for all culs-de-sac accessed from another cul-de-sac street shall be 400 linear feet.

LEGEND

- A** Lots smaller than 20,000 square feet
- Max. Length: 750 linear feet
- Max Length: 400 linear feet

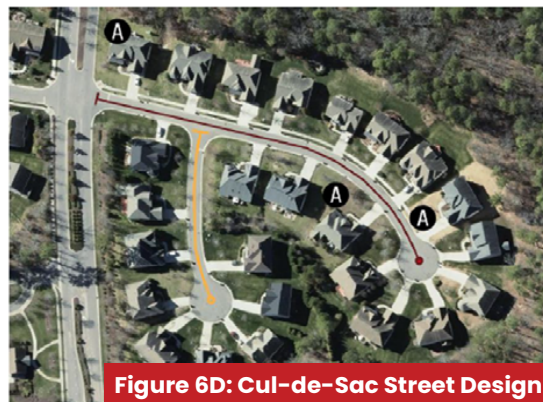


Figure 6D: Cul-de-Sac Street Design

6.5A: Cul-de-Sac Strategies

Culs-de-sac counter connectivity. Consider UDO change that stipulates or limits on the usage of culs-de-sac in subdivision site design.

Sample Guidelines:

- ➔ 1) 1 cul-de-sac cannot be used as an access point for more than 1 other cul-de-sac.
- ➔ 2) For developments larger than 50 lots, no more than 10% of the total lots can have their driveway access from a cul-de-sac.

Relevant Excerpts from the Unified Development Ordinance (UDO) and their corresponding maps and images:

UDO Section 6.5.12.6: Street Connectivity

- a) All development subject to this Ordinance shall achieve an internal street connectivity score in accordance with the following table.

Zoning District Where Located	Minimum Required Index Score
RUR, RLL, RLD	1.20
LID, HID, CZI	1.25
RMD, RHD, CZR	1.30
NCM, PUB, CZC	1.40
DTN, MXD, CZM, CZD	1.50

- b) The connectivity index for a development is calculated by dividing its links by its nodes.

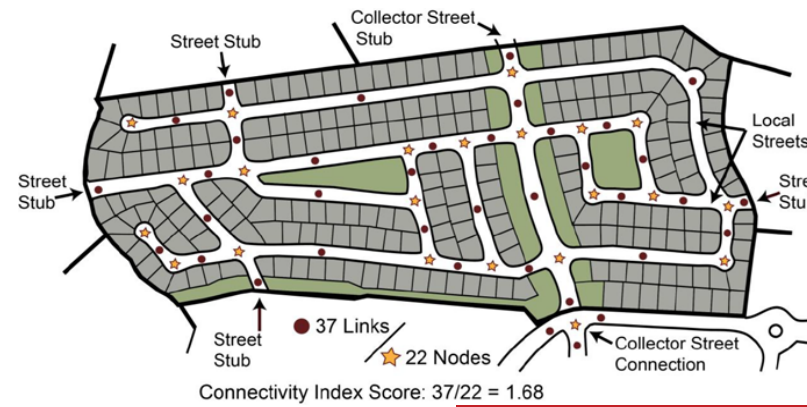


Figure 6E: Street Connectivity

6.5B – Street Connectivity Strategies

- ➔ 1) Consider increasing Minimum Street connectivity index.
- ➔ 2) Redefine links and nodes to disincentivize culs-de-sac and incentivize street stubs:
 - Links should be defined as segments of streets between intersections with other streets or ending at the boundary as a stub.
 - Culs-de-sac should not be considered as links but should be considered as nodes.
 - A street turning at a cul-de-sac cannot be considered as two links, but the turn should be considered as a node.
 - Based on this definition, the revised connectivity score index $30/22 = 1.36$.
 - Potentially consider increasing the link weight of street stub to 2 to incentivize stubs to adjoining parcels.

UDO Section 6.5.12.4: Block Length and Width

- a) ...intersecting streets shall be laid out at such intervals that block lengths do not exceed 1,500 linear feet.
- b) iii) In cases where the block length exceeds 900 linear feet, a mid-block pedestrian connection through the entire depth of the block shall be provided for all forms of development except when located in a RUR, RLL, LID, or HID district.

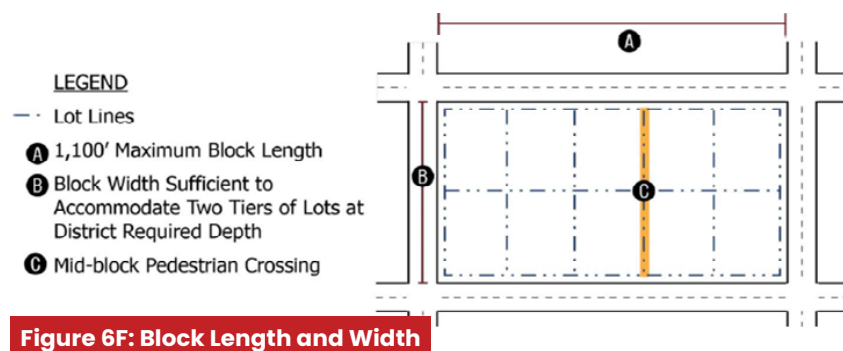


Figure 6F: Block Length and Width

6.5C: Block Dimension Strategies

- 1) Consider **extending** block length and width **requirements to adjacent parcels** such that when the adjacent parcels are developed, they collectively function as a contiguous part of the urban fabric, and that different subdivisions don't remain disconnected.
- 2) Consider extending the **pedestrian crossing requirement** to adjacent parcels.

This recommendation is more suitable for development closer to Downtown Clayton where street grid can be extended using these guidelines.

UDO Section 6.5.12.7: Development Entry Points

All new subdivisions and developments shall provide streets from the development to the street system outside the development in accordance with the following table:

Type of Proposed Development	Development Size	Minimum Number of Vehicular Access Points
Single-Family Detached Residential, Duplex, Triplex, and Quadplex	50 or fewer lots or units	1
	51 to 100 lots or units	2
	101 or more lots or units	3 + 1 for every additional 100 units
Single-Family Attached Development, Multi-Family, and Mixed-Use Development	Less than 100 units	2
	101 to 500 units	3
	501 or more units	4
Non-Residential Development [3]	Less than 10 Acres	1
	10 to 50 acres	2
	More than 50 acres	3

These requirements do not take overall site dimensions into account, nor do they stipulate the distribution of these access points by direction. Theoretically, all of the access points can be provided from one side of the site, which, while addressing the requirement, does not add to the connectivity of the development to its adjacent parcels.

6.5D: Development Access Points Strategies

- 1) Use **perimeter length as additional parameter** to determine the number of external connections.
 Number of connections = Perimeter length / connectivity coefficient. **Connectivity coefficient:**
 - a. 600 feet in DTN, MXD, CZM and CZD
 - b. 1,200 feet in NCM, PUB, CZC,
 - c. 1,800 feet in LID, HID, CZI, RMD, RHD and CZR
 - d. 2,400 feet in RUR, RLL, RLD
- 2) **Distribute** these access points to all sides of the development so as to not have all access to the development through one or two sides.

Internal Street Design (Not in UDO)

The UDO includes several street design guidelines in terms of street sections, and intersection angles. However, there are currently no guidelines that stipulate the overall roadway geometry of the site that can enhance cross-connectivity. For example, if the site has two access points on the opposite ends, there are currently no requirements as to how the connectivity between two access points should be designed.

In **Figure 6G**, the example on the left shows a site that is accessed at opposite ends, but the roadway layout deliberately discourages through movements. Such design should be disincentivized, and it should be required that the connection between opposite access points must be with as few turns as possible.

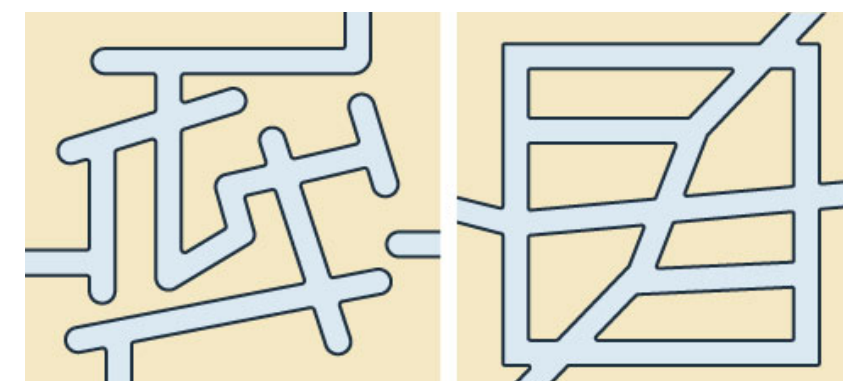


Figure 6G: Internal Street Design

6.5E: Internal Street Design Strategies

- 1) Site design should **encourage through traffic**, so that each subdivision is effectively a part of the overall roadway network and do not remain disconnected from each other.
- 2) For access points on the opposite directions of a site, the **trip circuitry** should not be greater than 1.2.
 Trip circuitry = Driving Distance / Distance as Crow Flies
- 3) For access points to perpendicular sides, there should be **no more than 1 turn** when driving from one access point to the other.
- 4) Planning **staff can consider exemptions** from these requirements when environmental conditions on the site are not conducive.

Pedestrian Connectivity

Currently, there are no additional requirements for pedestrian connectivity in the UDO beyond providing sidewalks on local streets. Shorter walking distances may alleviate some of the short distance driving that occurs currently because of lack of other options. Here are a few examples of how it is addressed in peer communities.

 Highlights the location of example subdivisions where additional pedestrian connections are provided.

Figure 6H shows an example of a subdivision on Olive Chapel Road in Apex, NC. Pedestrian paths are constructed to reduce the walking distance from the cul-de-sac closest to Olive Chapel Road. The subdivision design, though not ideal for overall connectivity, provides a local example of how pedestrian paths can be used to reduce walking distances at locations where providing a full-fledged roadway connection may not be feasible or may be more expensive.

A similar example can be seen at the townhome complex on the east side of the map where a pedestrian connection is provided as an outlet from a cul-de-sac.

Figure 6I shows an example of a subdivision in the Queenswood Heights neighborhood of Ottawa in Canada. The local guidelines stipulate pedestrian connections between subdivision lots to provide shorter pedestrian access to main streets without depending on the circuitous roadway layout. The subdivisions follow a loose grid to enhance density and use the pedestrian connections to strengthen that grid.

At the street level, these connections are not as obtrusive as a roadway connection could be, as seen in **Figure 6J**. Landscape elements can be used to further separate these paths from adjacent properties.

These connections also function as utility easements and emergency access points.



Figure 6H: Reduced Walking Distances

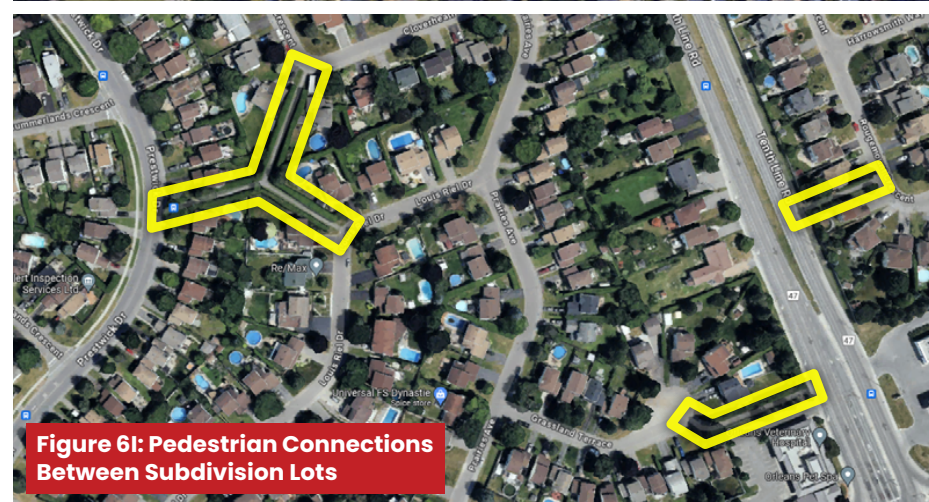


Figure 6I: Pedestrian Connections Between Subdivision Lots

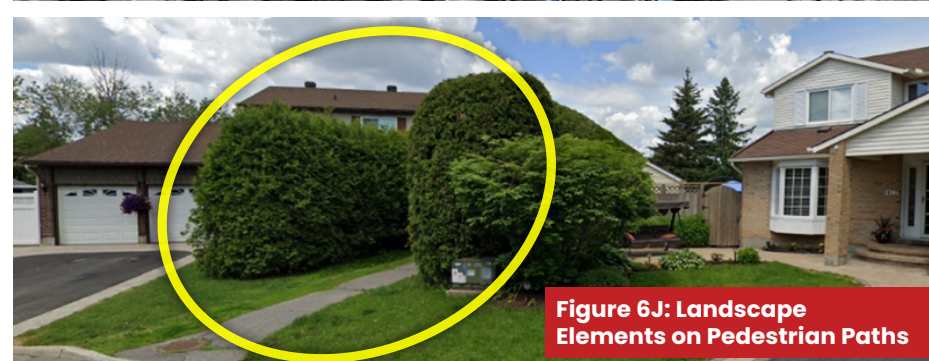


Figure 6J: Landscape Elements on Pedestrian Paths

6.5F: Pedestrian Connectivity Strategies

- 1) Incentivize pedestrian path connection between culs-de-sac and closest public roadway when there is only one subdivision lot between the cul-de-sac and an adjacent roadway. Use this ROW for potential utility easement. Example shown in **Figure 6K**.

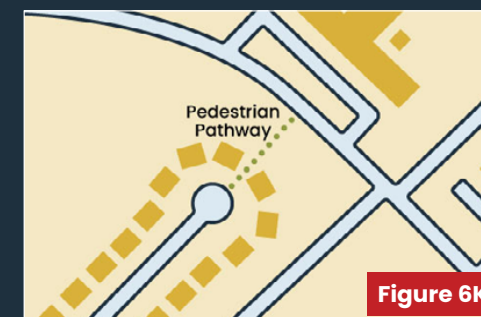


Figure 6K

- 2) Incentivize pedestrian path connection between opposite culs-de-sac between the same or adjacent subdivisions wherever possible. Use this ROW for potential utility easement. Example shown in **Figure 6L**.

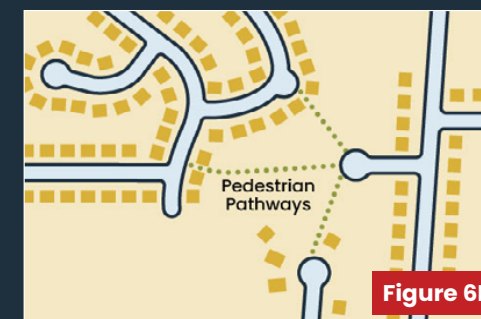


Figure 6L

- 3) Mandate a pedestrian connectivity coefficient which can result in smaller pedestrian blocks and more inter-subdivision connectivity. **Pedestrian Connectivity Coefficient:**
 - a. 600 feet in DTN, MXD, CZM and CZD
 - b. 1,200 feet in all other zones

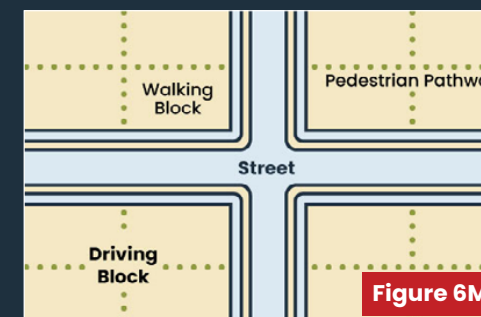


Figure 6M

Policy Implementation Steps

- 1) The Town should form a committee to discuss and refine the roadway and pedestrian policy recommendations mentioned in this chapter.
- 2) This committee should evaluate the benefits, impacts, and relation of these recommendations with the overall vision of the Town.
- 3) They should take the viewpoints of stakeholders on these policies.
- 4) Once a consensus is reached, amend the UDO to include the agreed upon and refined policy language.

7. Safety

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7.1 ROADWAY SAFETY ANALYSIS

Crash Analysis

One of this plan's guiding goals is to provide efficient and reliable access for its citizens and businesses, while maximizing their safety. The **Map 7A** shows crash data in Clayton from 2019 to 2023. This map helps identify intersection hot spots for safety interventions and improvements.

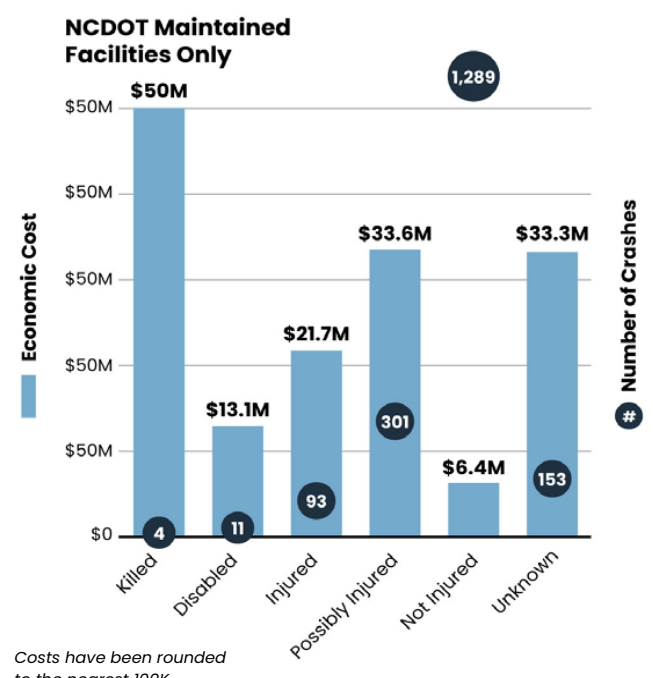
1,851
crashes between
2019 and 2023.

1698 DOT
153 non-DOT

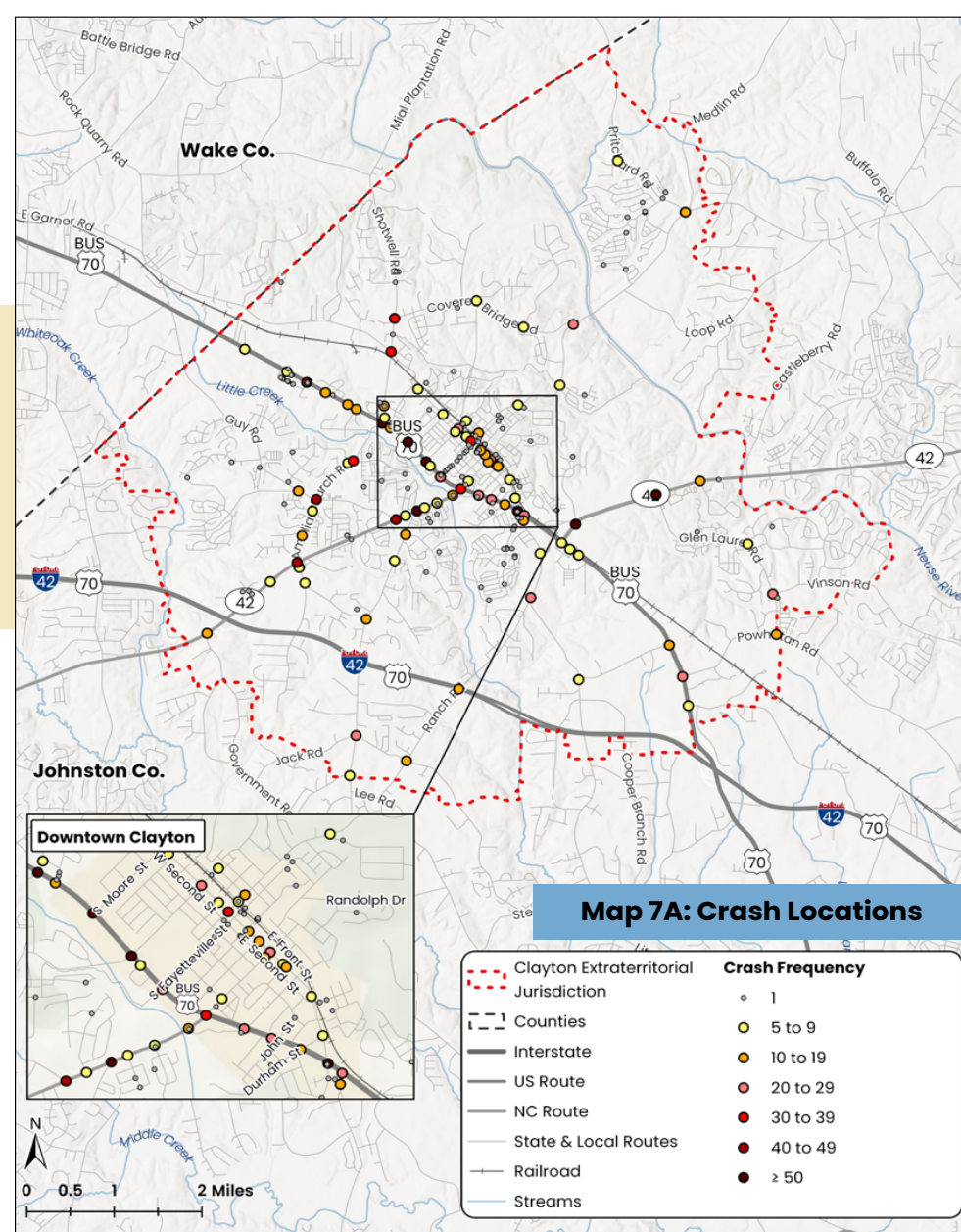
\$125M
monetized loss in
2022 dollars

Source: USDOT's monetary loss values assigned to KABCO crash scores in their RAISE Grant Application Guidance.

Figure 7A: Crash by Type and Economic Cost

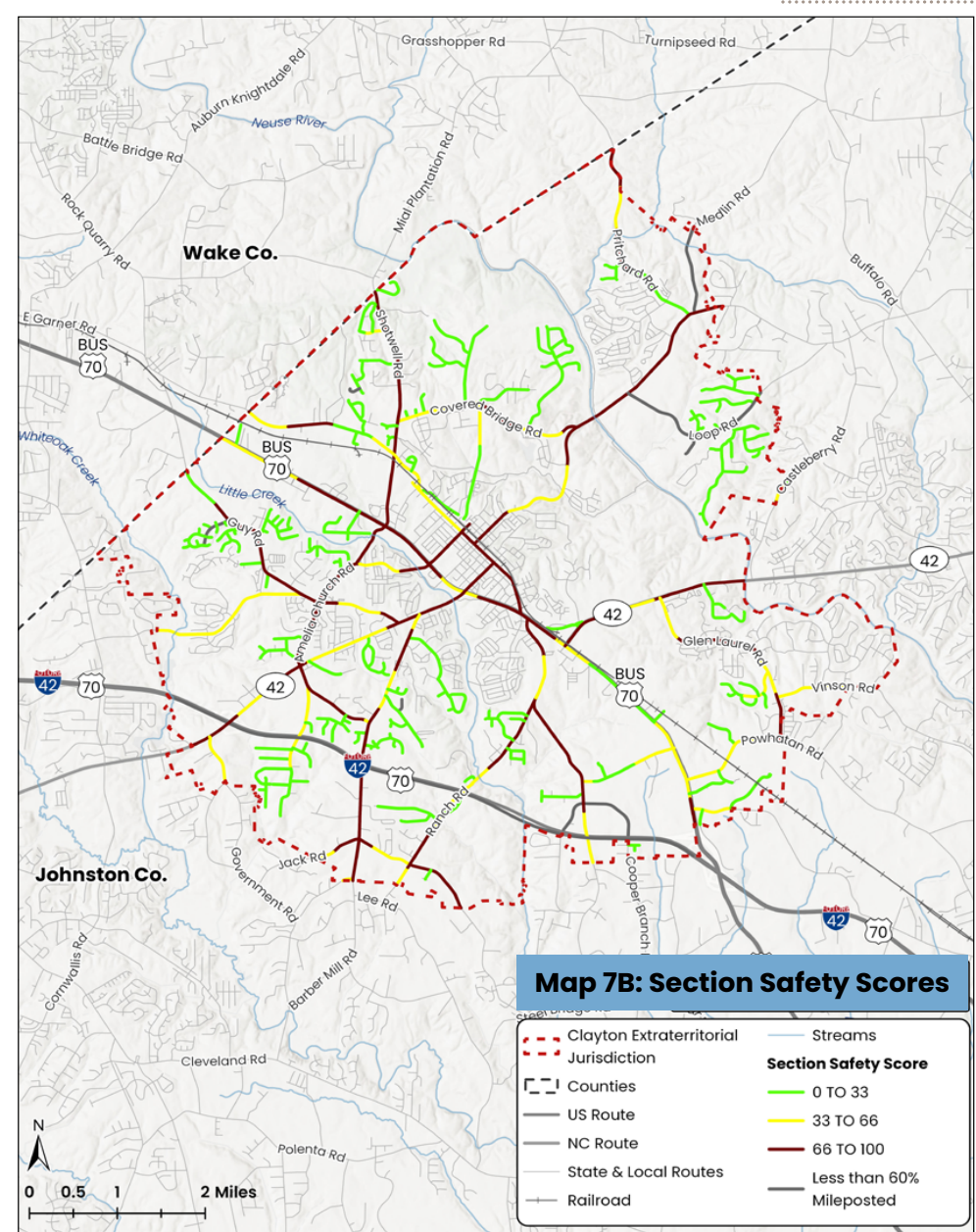


Source: Calculations are based on USDOT's RAISE Grant Application Guidance 2024 which includes monetary values assigned to each crash type.



NCDOT Section Safety Scores (SSS)

Map 7B shows planning level crash data for state-maintained roadway segments. Points for highway section projects are scored based on three components:



Crash Density Ratio
The crash density of the study area versus the average crash density of similar facilities

Severity Index
NCDOT version of the KABCO scale

Critical Crash Rate Ratio
The actual crash rate versus the critical crash rate.

7.2 BICYCLE AND PEDESTRIAN SAFETY ANALYSIS

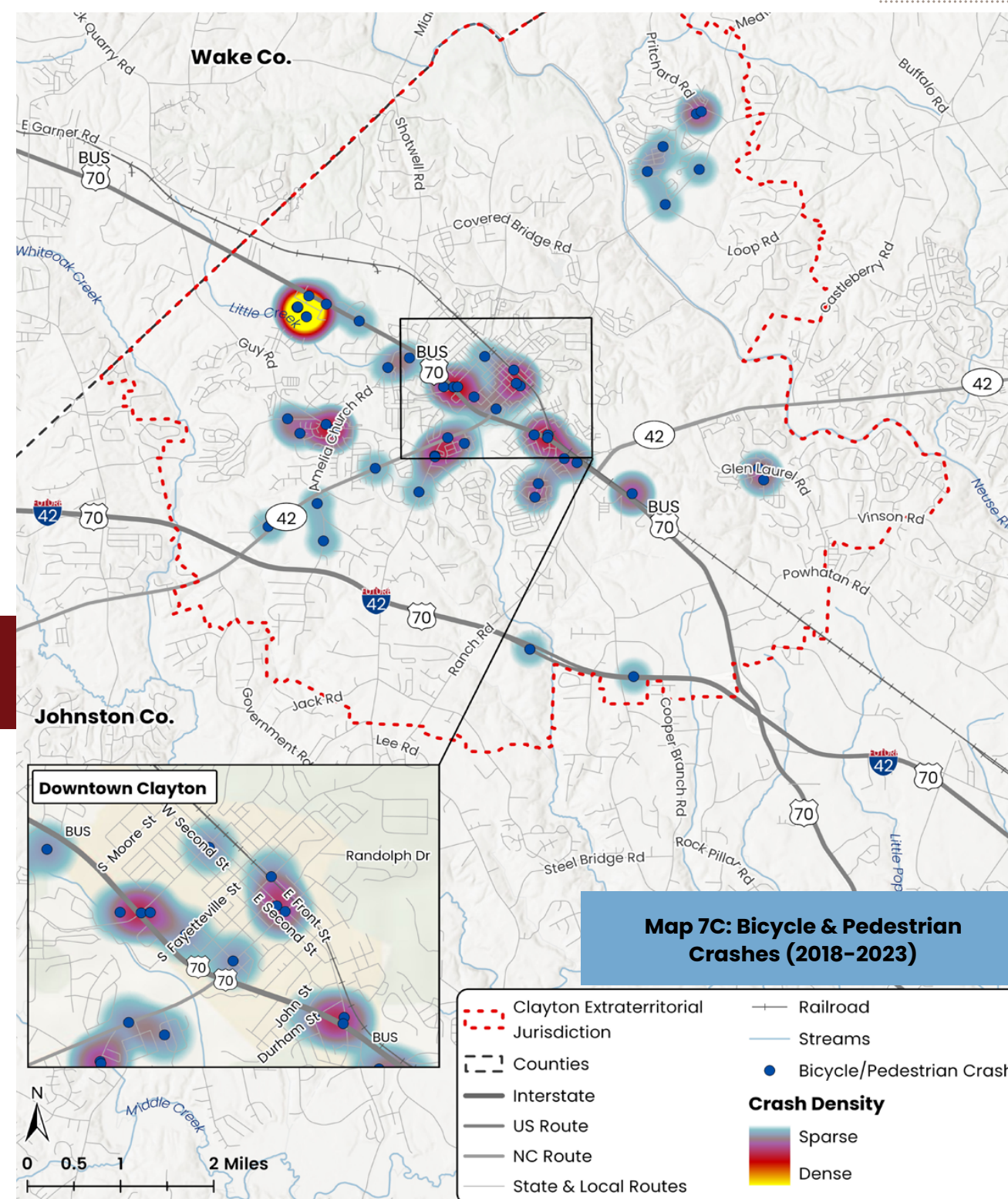
Crash Analysis

A key goal of this plan is to make Clayton a safe place to move around. Understanding the locations where this safety is compromised is the first step towards achieving this goal.

Bicycle and pedestrian crash data from NCDOT and Clayton Police were used to analyze the safety conditions for bicyclists and pedestrians. A total of 56 crashes were recorded from 2018-2023. Of these crashes, 32 were recorded by NCDOT, and the remaining 24 were pulled from the Clayton Police data. Crash details, including injuries and crash type, were only available for the NCDOT data.

Map 7C shows bicycle and pedestrian crash data in Clayton from 2018-2023. Downtown Clayton, US 70 Business, and NC 42 show the highest concentration of crashes. Downtown Clayton has the highest proportion of crossing paths / crossing roadway crashes.

Crash Type	# Crashes
Backing Vehicle	1
Bicyclist Failed to Yield - Midblock	1
Crossing Paths / Crossing Roadway	9
Dash / Dart-Out	8
Motorist Overtaking Bicyclist	1
Other / Unusual Circumstances	4
Walking Along Roadway	7
Working in Roadway	1



Map 7C: Bicycle & Pedestrian Crashes (2018-2023)

19 crashes from 2018 to 2023 **5** pedestrian fatalities **3** serious injuries to pedestrians

Solutions for Crash Types

Crossing Improvements	Add Sidewalks	Add Bicycle Facilities
Bicyclist Failed to Yield -Midblock	Walking Along Roadway	Motorist Overtaking Bicyclist
Crossing Paths / Crossing Roadway	By identifying the type and density of crashes, solutions can be tailored to address how to improve car-driver behavior to ensure bicyclist and pedestrian safety.	
Dash / Dart-Out		

7.3 INTERSECTION SAFETY ANALYSIS

Hotspot Intersections Analysis



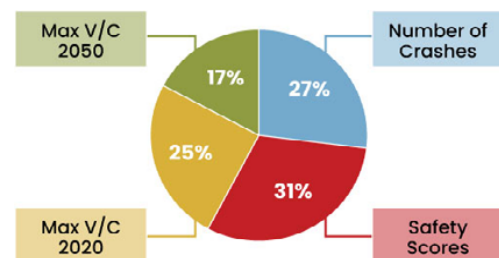
Goal

Four intersections with significant traffic and safety concerns were selected to understand their problems and recommend improvements. This page shows the selection process of the intersections.



Scoring

The safety and congestion data were collected for all key intersections in Clayton. The CTT was then asked to vote on the weightages of four parameters. The result is shown in the chart below.

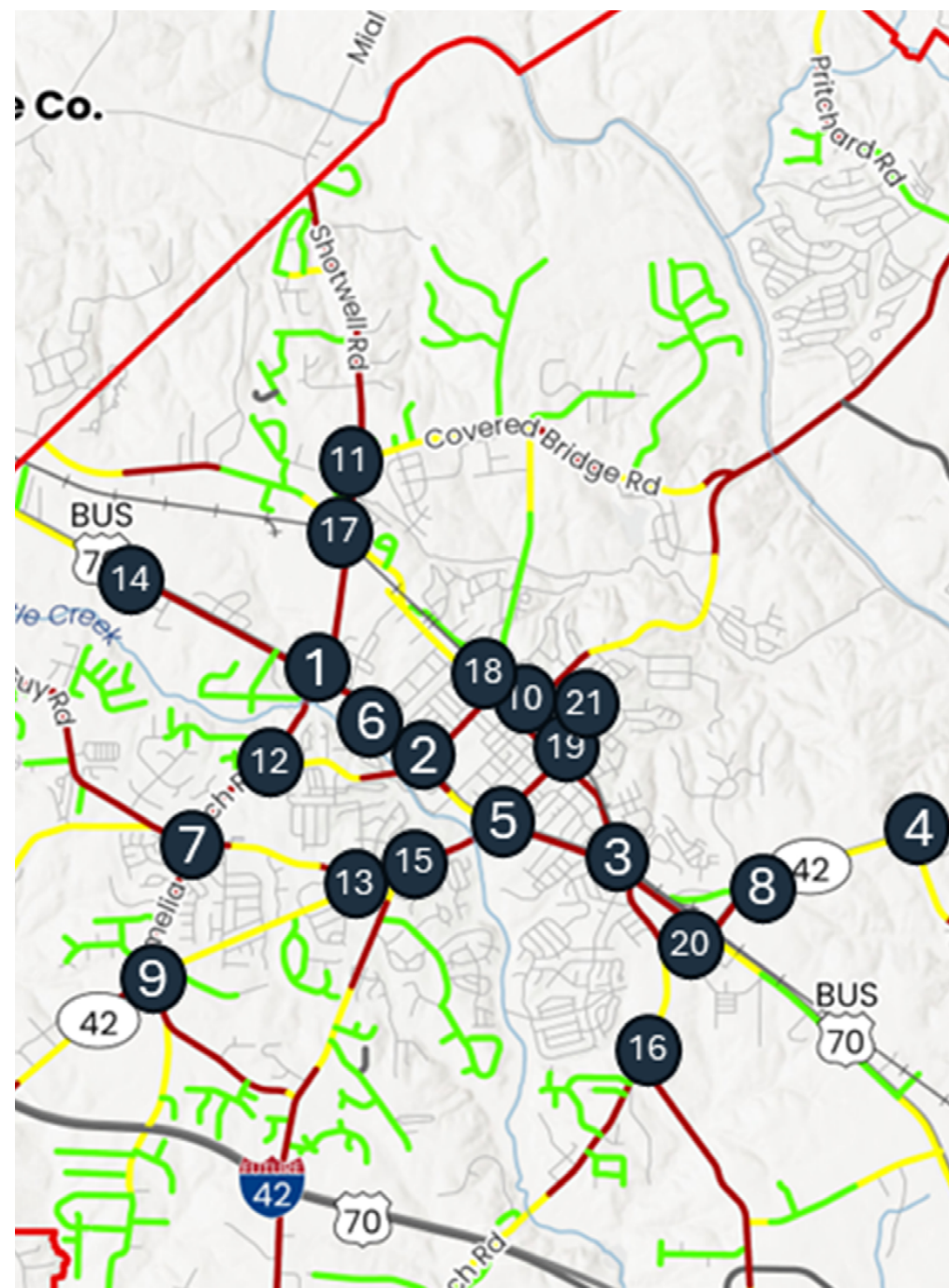


Results and Removals

Eighteen intersections scored high through this process. A large number of hotspot intersections were too closely spaced on US 70 Business and NC 42 to isolate their issues. Intersections on US 70 Business are proposed to be studied separately as a part of the US 70 Corridor Study recommended in this CTP.

There are ongoing efforts for widening NC 42, and new hotspot intersection recommendations at this stage will not be useful.

Intersections #7, #9, and #11 were removed, because there were plans either already underway to address those intersections, or they are a part of a significant roadway recommendation through this CTP.



Map 7D: Hotspot Intersection Qualifiers

Table 7A: Intersections and Their Combined Scores

Rank	Intersection	Combined Score
1	US 70 Business @ Shotwell Rd.	87.59
2	US 70 Business @ Amelia Church Rd.	81.28
3	US 70 Business @ E. Main St.	78.00
4	NC 42 E @ Glen Laurel Rd.	71.65
5	US 70 Business @ S. Lombard St.	65.14
6	US 70 Business @ S. Moore St.	64.94
7	Guy Rd. @ Amelia Church Rd.	62.64
8	NC42 E @ E. Front St.	59.93
9	NC 42 W @ Amelia Church Rd.	59.36
10	W. Main St. @ O'Neil St.	58.71
11	Shotwell Rd. @ Covered Bridge Rd.	56.01
12	Amelia Church Rd. @ Shotwell Rd.	55.23
13	NC 42 W. @ Guy Rd.	54.99
14	US 70 Bus @ Town Centre Blvd.	53.95
15	NC 42 W. @ Barber Mill Rd.	53.72
16	Ranch Rd. @ Little Creek Church Rd.	52.47
17	Shotwell Rd. @ Old US 70	50.25
18	W Main St. @ S Robertson St.	49.25
19	Front St. @ Church St.	-
20	Champion St. @ Boling St.	-
21	Fayetteville St. @ Front St.	-

3 intersections and 1 roadway segment were selected to understand traffic patterns and provide short- and long-term recommendations.



Amelia Church Rd. and Shotwell Rd.



Front St. and Church St.



Champion St. and Boling / Amos St.



Fayetteville St from US 70 Business to Main St.

Intersection Recommendations

As a pedestrian or bicyclist, getting across a busy street safely can be a daunting task. Many of the intersections in Clayton lack high-visibility crosswalks and pedestrian refuge treatments that can provide the quality of safety that pedestrians need. Crossing improvements are a critical step in creating a safe and convenient pedestrian and bicycle network. Safe crossings are necessary to provide access across major roads and bridges, as well as through key intersections that could otherwise be major barriers to walking and biking. Lack of pedestrian crossing facilities on US 70 Business creates major gaps in the current system.

Primarily, crossing improvements involve adjusting traffic signal timing to allow adequate time to cross, pedestrian countdown signals, high-visibility crosswalks, pedestrian level lighting and in some cases, shade trees. At some intersections, signage might be provided to alert motorists of the potential presence of pedestrians and cyclists, and in some cases, medians might be installed to offer refuge to pedestrians and cyclists on large roads with wide crossing distances.

The following hotspot intersections were chosen to provide recommendations to improve traffic operations and safety:



Amelia Church Rd. and Shotwell Rd.

- NCDOT maintained
- Line of sight issues
- No crosswalks
- High turn volumes
- Community Center



Front St. and Church St.

- Town maintained
- Railroad vicinity
- Closely spaced intersections
- Low volumes
- No crosswalks



Champion St. and Amos St.

- Town maintained
- Close spacing
- No crosswalks
- High conflicts



Fayetteville St. between US 70 Bus. and Front St.

- Town Maintained
- Historic district
- Town Hall
- Safety concerns
- School

Amelia Church Rd. & Shotwell Rd. / Clayton Community Center

Short Term Improvements

- Restripe the existing southbound approach lanes to provide - one shared left-thru and an exclusive right turn lane.
- Modify the signal phasing for the north-south approaches from "permissive" to "split" phasing. Additionally, provide overlap phase for the southbound right turn traffic to go with the eastbound left turn phase.
- Provide crosswalks on all four legs of the intersection.
- Provide pedestrian signals with pushbutton activation for the proposed crosswalks.

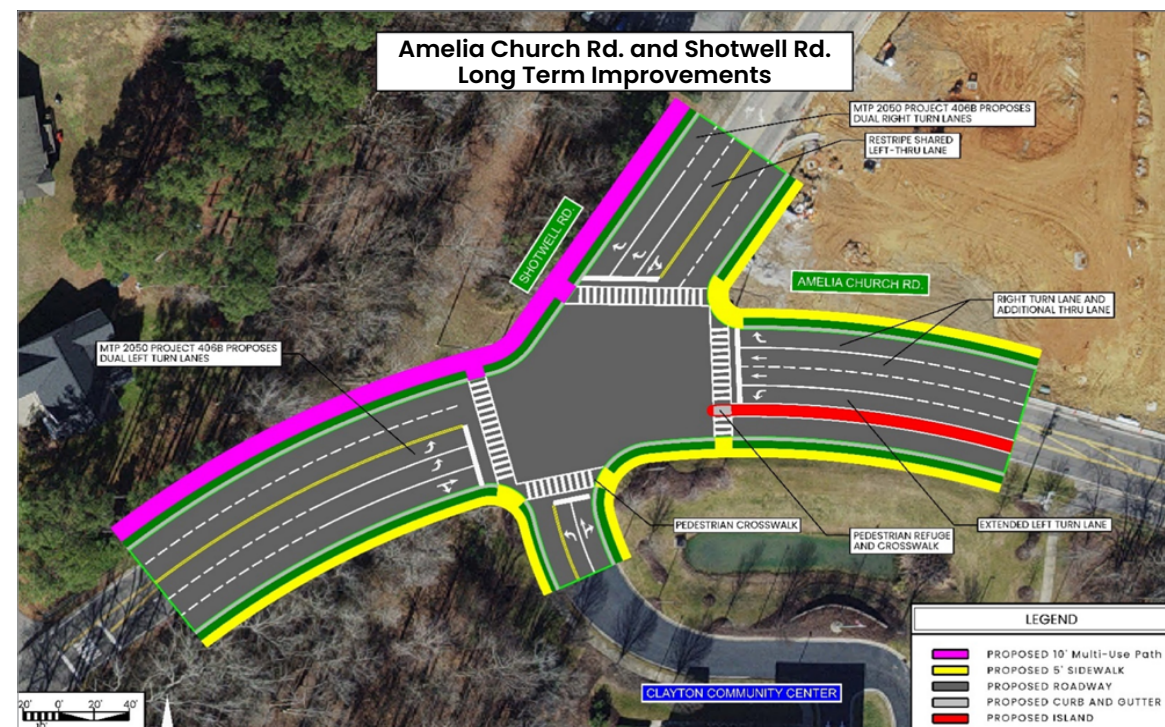
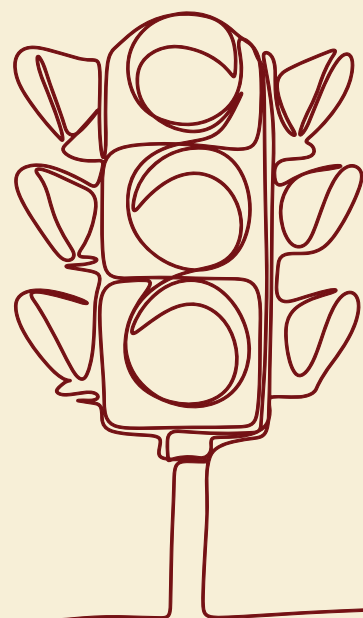


Figure 7B: Amelia Church Rd. and Shotwell Rd. Improvements

Long Term Improvements

- 2050 MTP Project (A406b)
 - This project widens Amelia Church Road (west of Shotwell Road) and Shotwell Road to four lanes to provide dual southbound right turn lanes and dual eastbound left turn lanes.
- Provide a 10' multi-use path along the east side of the southbound side of Shotwell Road and along the north side of the westbound side of Amelia Church Road.
- Southbound/Northbound
 - Restripe the southbound approach lanes to provide - one shared left-thru lane with at least 325 feet of storage and dual right turn lanes.
- Eastbound/Westbound
 - Extend the eastbound left-turn lane to provide a storage length of at least 475'.
 - Widen the westbound approach at the intersection to provide - one additional thru lane with at least 350 feet of storage and one exclusive right turn lane with at least 350 feet of storage.
 - Provide protected-only phase for the eastbound dual left turn lanes.
 - Provide overlap phase for the westbound right-turn lane.
 - Provide a concrete median and pedestrian refuge area in the eastern leg of Amelia Church Road.
 - Provide 5' sidewalk along south side of Amelia Church Road.
- Provide crosswalks on the east leg and south leg.
- Provide pedestrian signals with pushbutton activation for the proposed crosswalks.

Church St. & Front St.

Short Term Improvements

- Provide additional signage to warn vehicles on all approaches of the proximity of the railroad tracks across the south leg of the intersection, following Manual on Uniform Traffic Control Devices (MUTCD) guidelines. These include:
 - Install DO NOT STOP ON TRACKS Sign (R8-8) on both sides of the railroad tracks.
 - Install LOOK (R15-8) sign next to sidewalk for pedestrians on both sides of the railroad tracks.
 - Install Grade Crossing Advance Warning (W10-1) sign on southbound approach 155 feet from the at-grade railroad crossing.
 - Install Grade Crossing Advance Warning (W10-2) sign on eastbound and southbound approaches 250-feet from the intersection.
 - Install Grade Crossing Pavement Markings in compliance with MUTCD Figures 8C-1 and 8C-2 on northbound and southbound approaches.
- Install painted stop bars on the eastbound and westbound approaches to reinforce the messaging of the stop signs.

Long Term Improvements

- None.

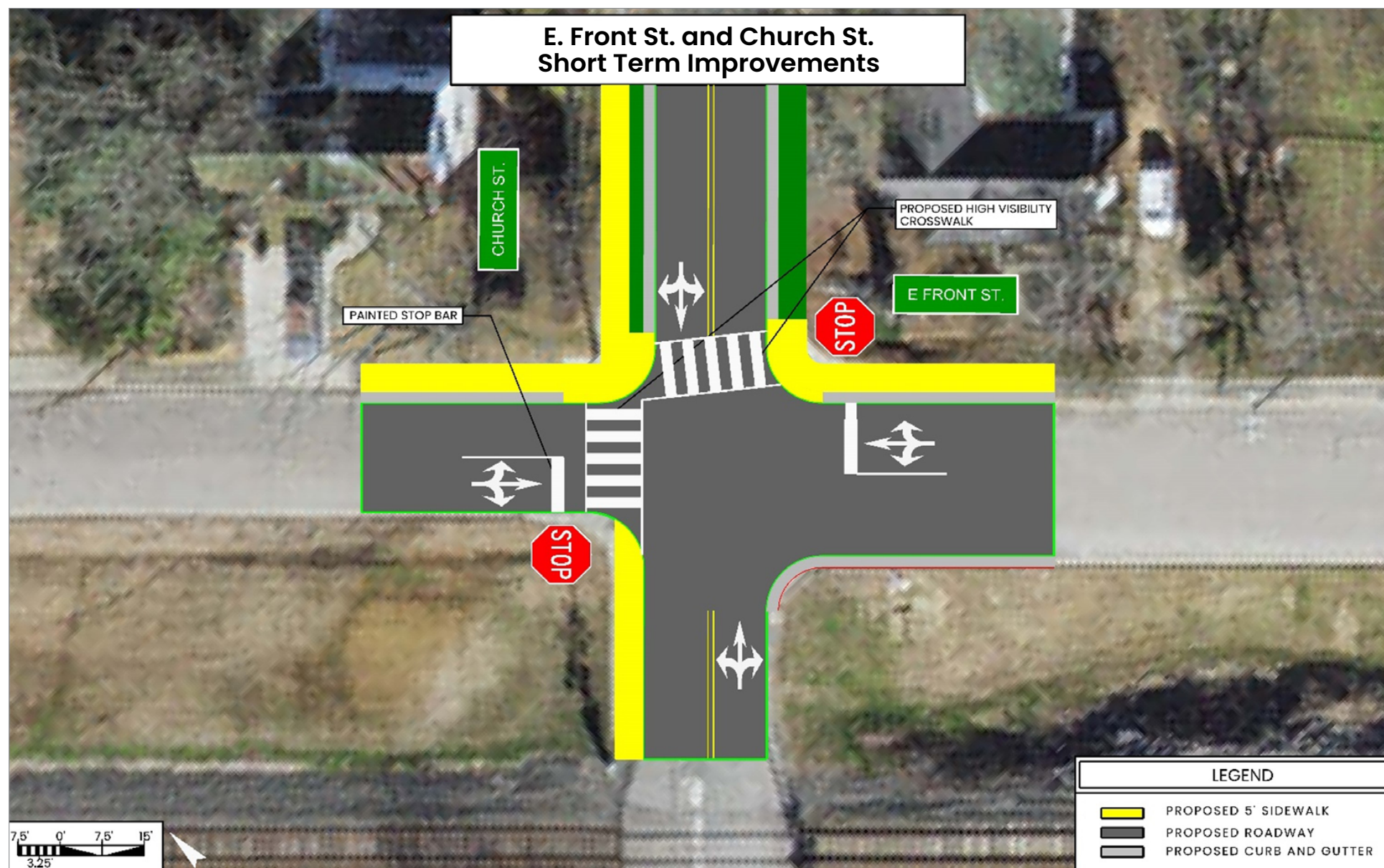


Figure 7C: Church St. & E. Front St. Improvements

Champion St. & Amos St.

Short Term Improvements

- Monitor queuing at the signalized intersection of Highway 70 Business and Champion Street and retime to ensure the northbound queues do not back up through the study intersection.
- Prohibit street parking on the driveway connecting Curren Drive.
- Consider installing a north-south median to convert the eastbound and westbound approaches to right-in, right-out, to prevent vehicles crossing traffic. This improves intersection safety if the signal to the north cannot be retimed to avoid queuing extending to this intersection.

Long Term Improvements

- Add 10' multi-use path along east side of Champion Street.
- Continue 5' sidewalk along west side of Champion Street.
- Add crosswalks over Amos Street at Champion Street intersection.

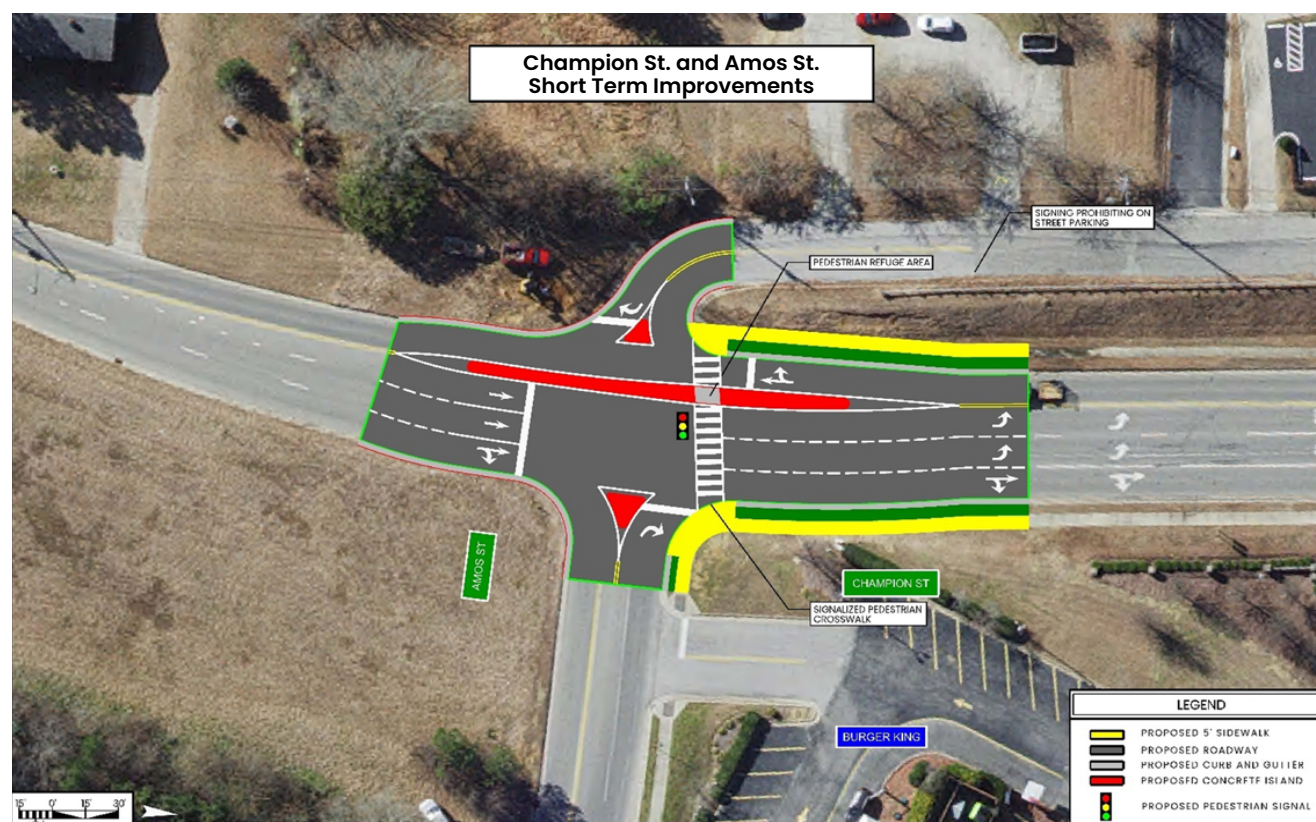
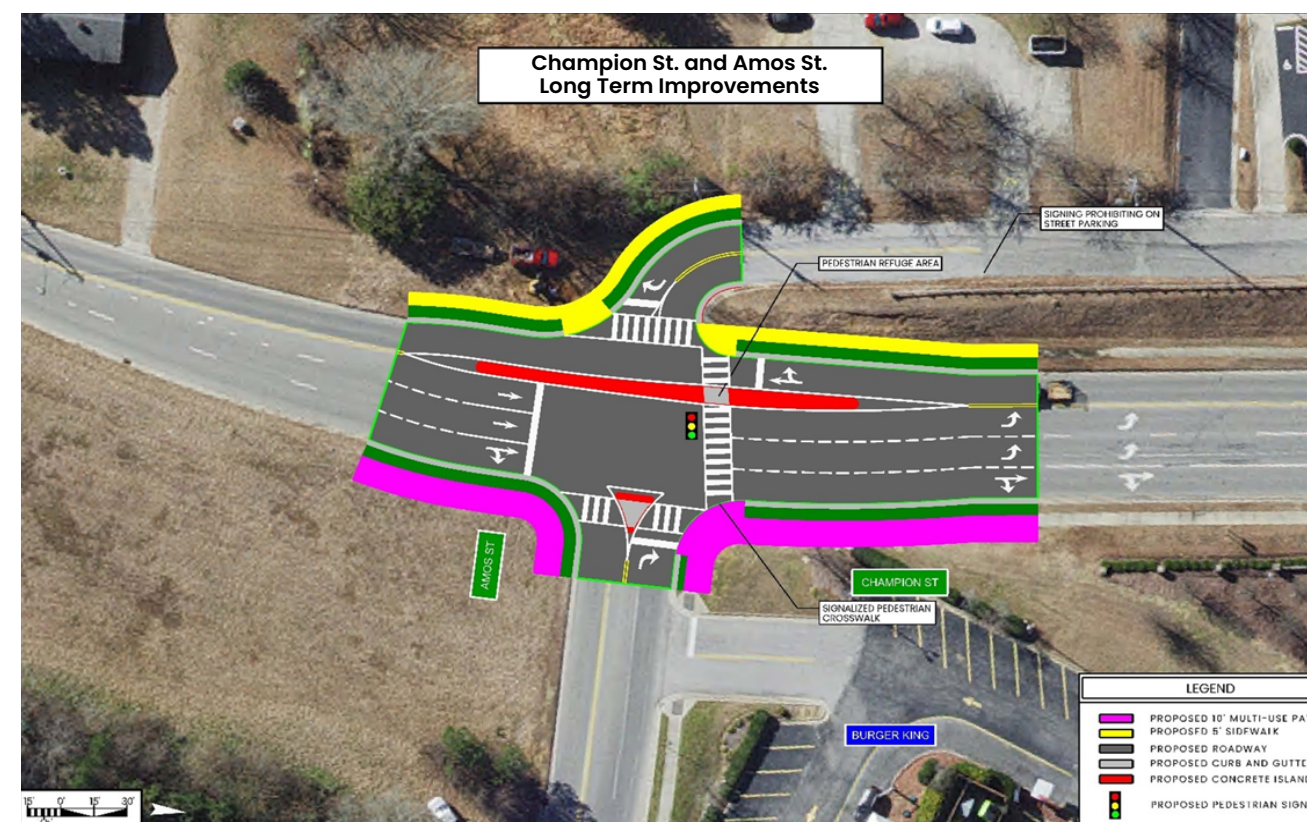


Figure 7D: Champion St. & Amos St. Improvements



Fayetteville St. Multimodal Upgrade

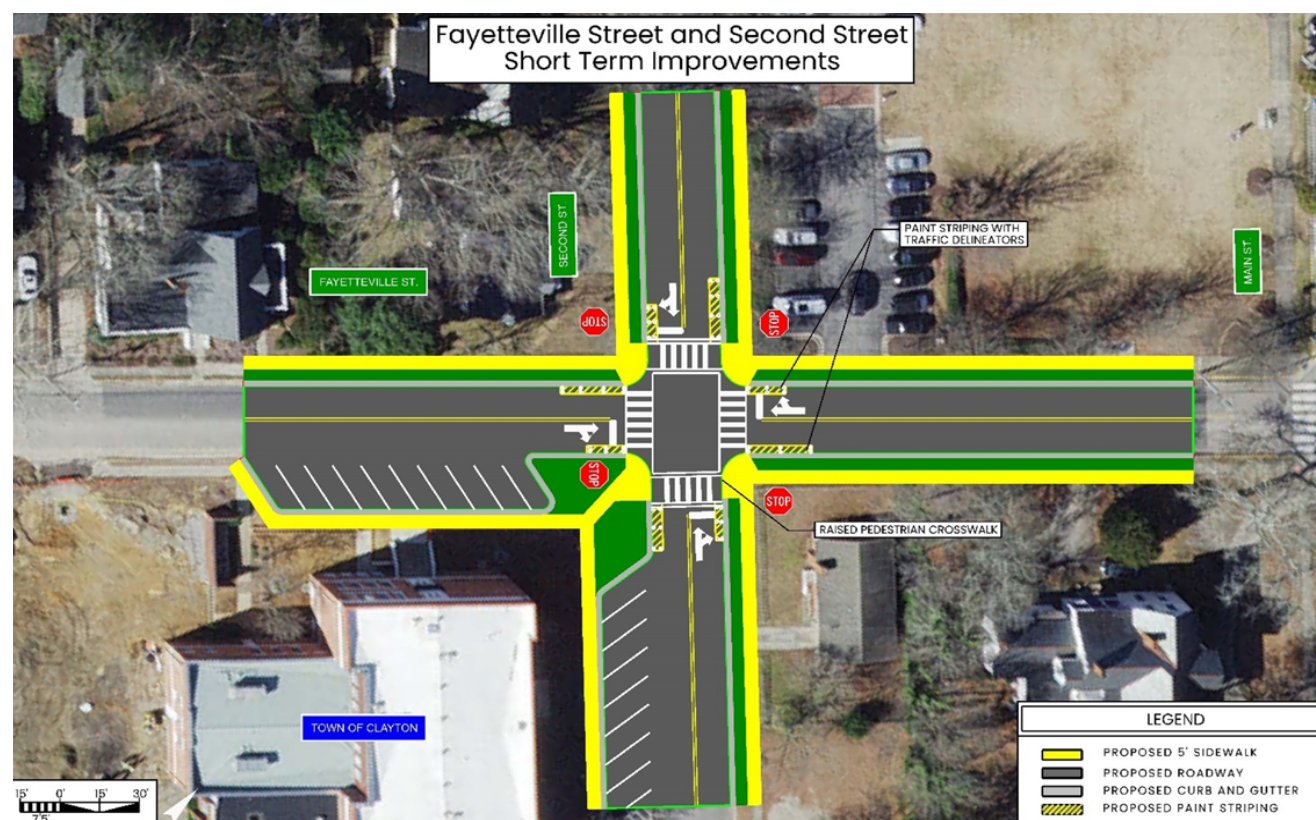


Short Term Improvements

- Add paint striping with delineators to prevent on-street parking close to intersections.
- Add raised pedestrian crosswalks over side streets.

Long Term Improvements

- Add 10' multi-use path along northwest side of Fayetteville Street.
- Install curb extensions on all intersection legs.



7.4 POLICY AND DESIGN RECOMMENDATIONS

Data indicates that almost all of the crashes involve a car. It should be noted that in a conflict between car drivers and pedestrians or cyclists, it is always the latter that suffer harm. In order to have car drivers drive more carefully, roadway design interventions to make the drivers more alert are necessary.

There is a direct correlation between driving speeds and level of injury, especially for those who are outside the car. For this reason, traffic calming and slowing measures should be encouraged in Clayton. Several speed reduction mechanisms can be used to achieve this goal. A few examples are shown here.

In addition to these measures, the Town of Clayton should develop a **Vision Zero Plan which would highlight specific interventions to reduce crashes in Clayton over time.**

Median
Medians create a pinchpoint for traffic in the center of the roadway and can reduce pedestrian crossing distances.

Pinchpoint
Pinchpoints restrict motorists from operating at high speeds on local streets and significantly expand the sidewalk realm for pedestrians.

Chicane
Chicanes slow drivers by alternating parking or curb extensions along the corridor.

Lane Shift
A lane shift horizontally deflects a vehicle and may be designed with striping, curb extensions, or parking.

Speed Hump
Speed humps vertically deflect vehicles and may be combined with a midblock crosswalk.

Roundabout
Roundabouts reduce traffic speeds at intersections by requiring motorists to move with caution through conflict points.

8. Prioritization

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8.1 PRIORITIZATION METHODOLOGY

This Comprehensive Transportation Plan for the Town of Clayton has several policy and project based recommendations. Since a CTP is a wish list of projects, it is necessary to understand the priority for each project recommendation, and to determine which projects would address short, medium and long term challenges.

This chapter provides details on the method and the results of the prioritization process. Policy recommendations were prioritized separately and are mentioned in the 'action items' subchapter. Their prioritization was not based on the data-centric analysis that was used for project recommendations.

Table 8A: Prioritization Methodology

Starting Point		Performance Measures	Data Determination		Calculation	Scores
Using the goals and objectives determined at the beginning of the study.		Converting the goals and objectives to related performance measures that can be calculated for the project recommendations.	Determining and collecting the necessary data to calculate scores.		Asking a question that can be answered in yes / no or be binned into three categories based on which the scores are determined.	The highest possible score is 12 .
Goals	Objectives	Performance Measures	Data Needed	Type ¹	Qualifier	Score
Enhance Accessibility and Connectivity	Improve access to key destinations	Improve connectivity to non-residential zones and Downtown Clayton	Future Land use Map	Cursory	More than half of a project is in non-residential zone or in downtown?	Yes = 1 No = 0
	Provide connections to unconnected areas	Reduce the block perimeter for roadway and bike-ped modes	Road-block perimeter map	Standard	Is the project on a new alignment?	
Preserve Local Character	Maintain Clayton's small-town feel	Require no additional ROW in the Historic District of Clayton	Historic District Map	Cursory	Does the project require ROW in HD?	No = 1
		Avoid impact on structures in Downtown Clayton	Downtown Clayton Map		Does the project impact structures in DT?	Yes = 0
Accommodating future growth	Plan transportation infrastructure to address future growth in Clayton	Implement projects in areas with high future population density	2050 population density	Calculation	Is the project located in higher than median 2050 population density by TAZ?	Yes = 1
		Implement projects in areas with high future employment density	2050 employment density		Is the project located in higher than median 2050 employment density by TAZ?	No = 0
Efficiency and Congestion Reduction	Reduce congestion and enhance traffic flow	Maintain or improve level of service on the roadways	2020 and 2050 V/C ratio comparison	Calculation	Does the project reduce PM V/C ratio between 2020 and 2050?	Yes = 1
		Provide alternative routes for better traffic distribution	New roadways	Standard	Is the project a new roadway?	No = 0
Expand Active Transportation Options	Invest in pedestrian and cyclist friendly infrastructure	Provide pedestrian infrastructure in areas with higher future non-motorized and intrazonal travel demand density	2050 nonmotorized and intrazonal travel demand	Calculation	Is the project located in higher than median 2050 non-motorized and intrazonal (motorized) trip origin density?	Yes = 1
	Encourage active transportation methods	Increase total miles of bicycle and pedestrian infrastructure	Multi-Use Path or sidewalk inclusion	Standard	Does the project include sidewalks and/or multi-use paths and/or bicycle features?	No = 0
Develop Public Transit Accessibility	Develop reliable and accessible public transit network	Increase the percentage of population within ¼ mile radius of public transport	None	Standard	Does the project have transit accommodations?	Transit=2 Transit Infra=1 Other=0
Enhance Safety	Implement measures to enhance transportation safety	Address safety concerns on roads with high HFCLs and high Section Safety Scores	High Frequency Crash Location (HFCL)	Cursory	Is the project located on roads with a high number of HFCLs?	Yes=1
			Section Safety Score (SSS)	Calculation	Is the project located on roads with average SSS greater than 50?	No=0
Optimize Collector Street Network	Efficiently distribute traffic within the community	Require developers to build Collector Streets as planned in the CTP	Applicable to all collector streets	Standard	Is the project a collector street?	Yes=1 No=0
Community Engagement in Planning	Foster active community engagement in planning process	Implement projects in areas with high PE comments, addressing the concerns raised in the comments	Community map markers	Calculation	How many map markers from PE round 1 does the project touch?	>66pth = 2 >33 & <66pth = 1 <33pth = 0
Continuous Evaluation and Adaptation	Respond to changing community needs and emerging transportation trends	Not applicable for project recommendations	N/A	N/A	N/A	N/A

Type¹ indicates the type of calculation done for each performance measure.

- **Standard** stands for no map data were used to make this determination.
- **Cursory** stands for cases where determination was done using visual cues.
- **Calculation** stands for cases where GIS data analysis was done for determination.

8.2 PRIORITIZED RECOMMENDATIONS

Roadway Projects

High Priority Projects

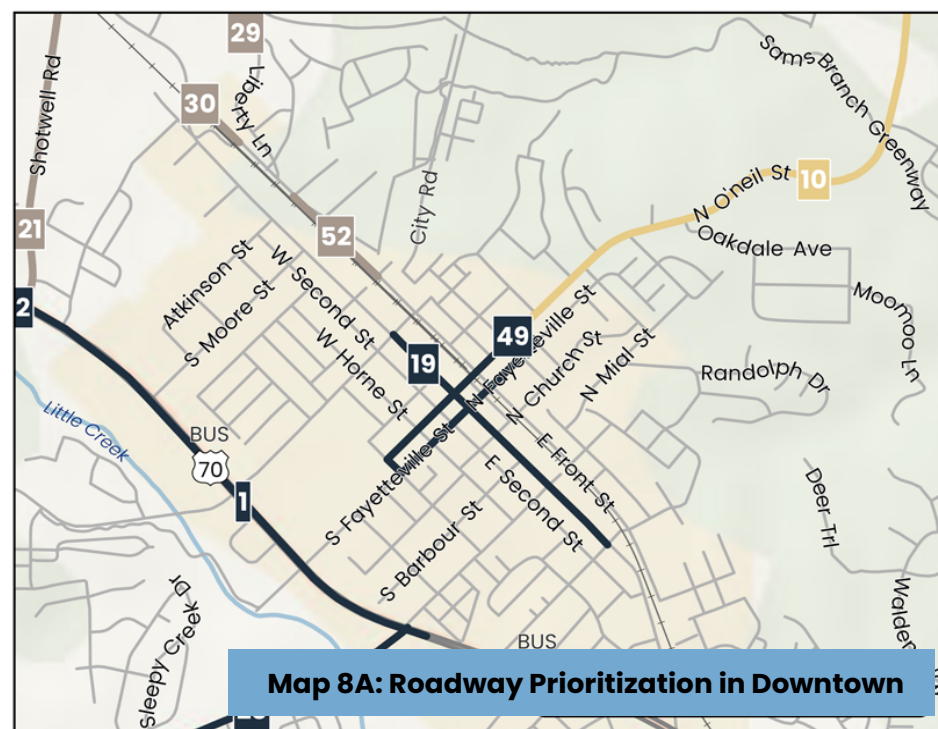
- US 70 Operational Improvements and Corridor Study.
- One-Way Pair Study and Operational Improvements on Main St.
- Widening on NC 42 East and West, Amelia Church Rd. and Covered Bridge Rd.
- Northern Connector (#22) was redesignated as High Priority at the request of the Town.

Medium Priority Projects

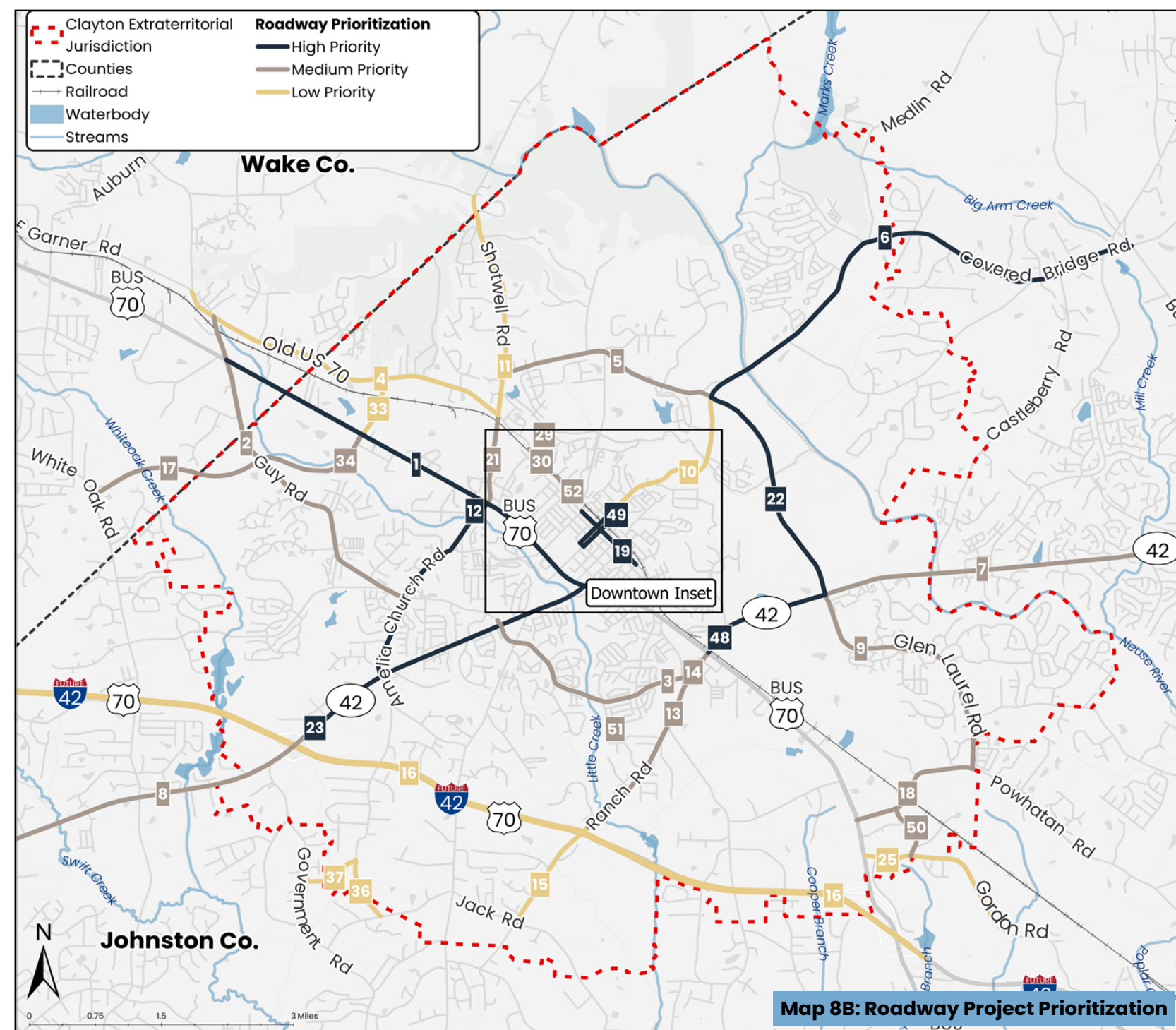
- Widening Guy Rd., Ranch Rd., Glen Laurel Rd., Powhatan Rd., Shotwell Rd., etc.
- New Location Roads – Southern Connector, White Oak – Guy Rd. – US 70 Business Connector and few short connectors in downtown.

Low Priority Projects

- All other projects, notably widening I-42 which ranks low based on local priorities.



Map 8A: Roadway Prioritization in Downtown



Map 8B: Roadway Project Prioritization

Bicycle Facilities

High Priority Projects

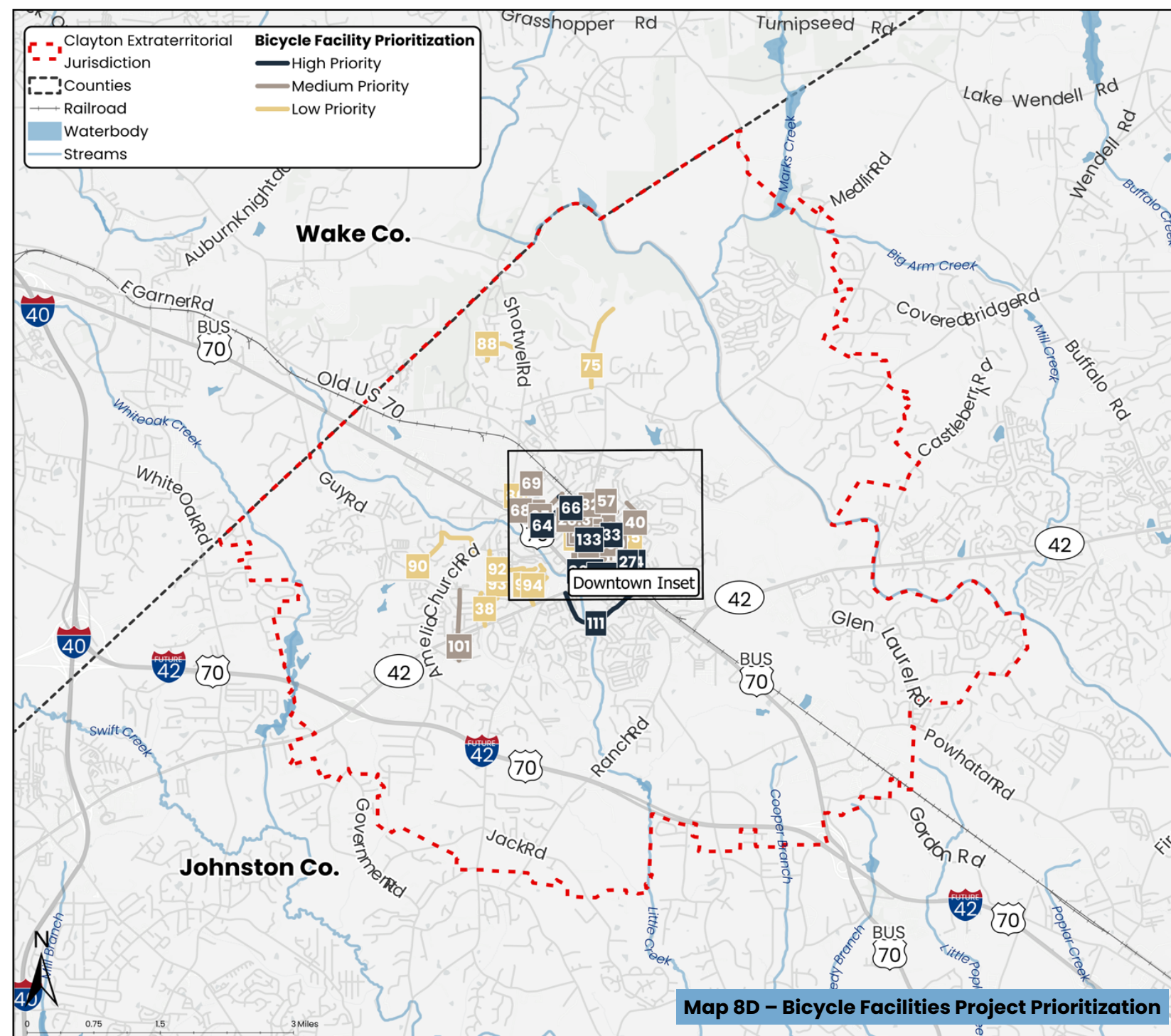
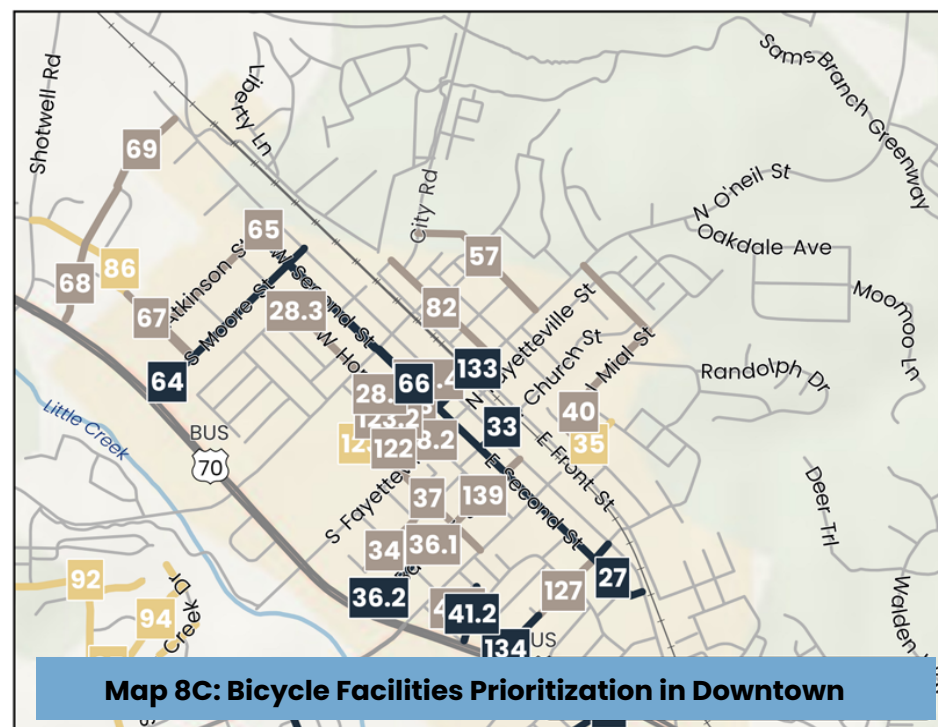
- Shared bike routes on Second St., S. Moore St., and O'Neil St.

Medium Priority Projects

- Most shared bike route projects in downtown and around NC 42 West.

Low Priority Projects

- All other projects.



Sidewalks

High Priority Projects

- Sidewalks on W. Main St., Robertson St., Moore St., and Shotwell Rd. in downtown.
- NC 42 East and West, Amelia Church Rd., Champion St., and Guy Rd. (Project # 91) outside of downtown.

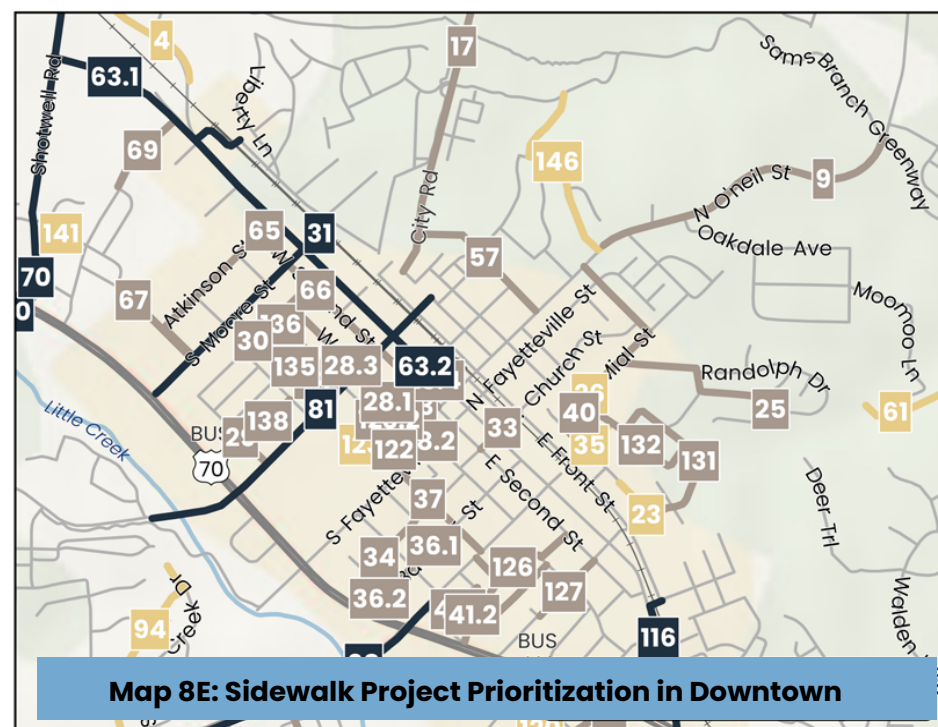
Most of these recommendations will be in combination with the multi-use path (MUP) recommendations since most recommendations contain both MUP and Sidewalk on opposite sides.

Medium Priority Projects

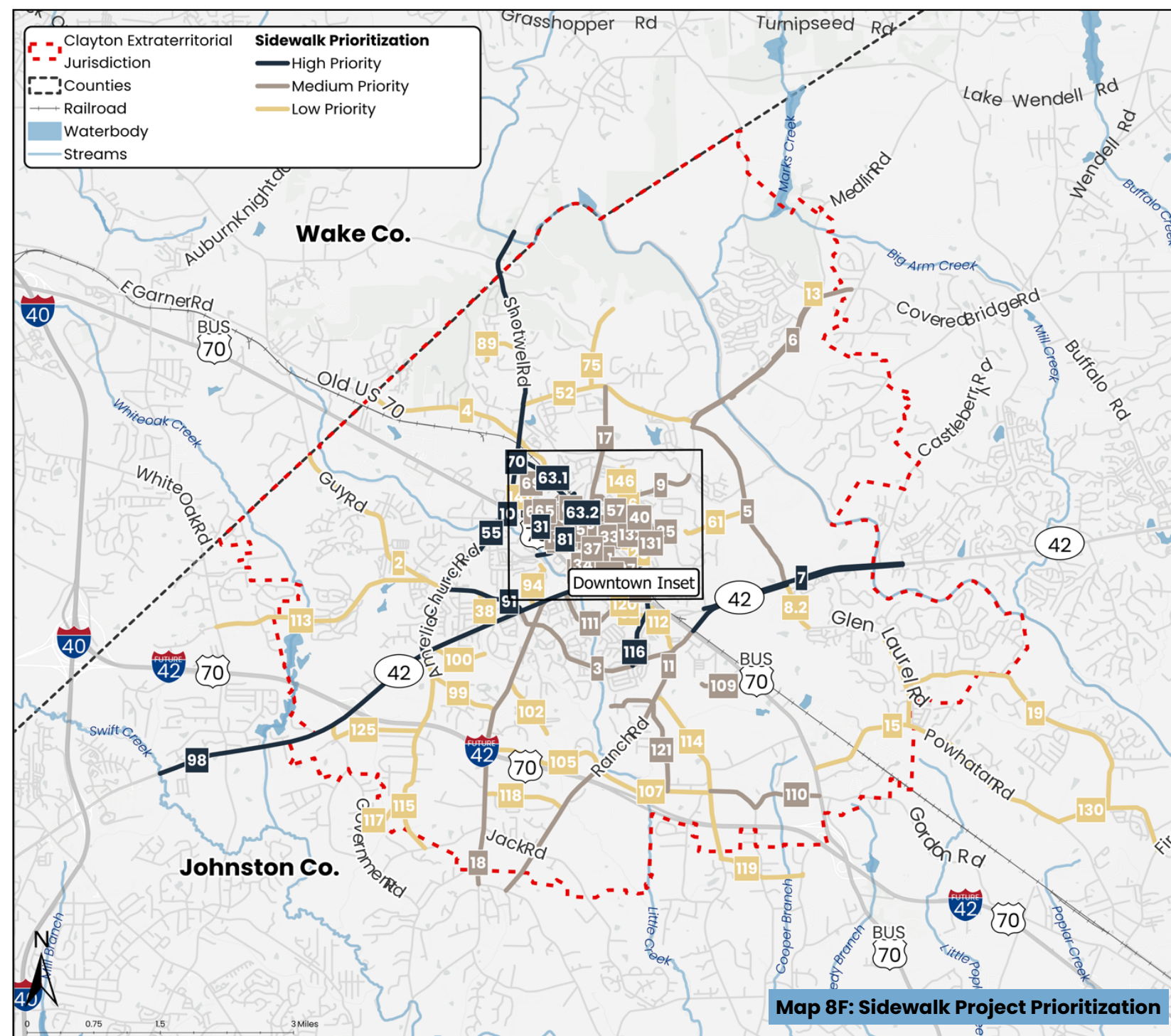
- All remaining sidewalk projects in downtown.
- Most other radial roads such as Barber Mill Rd., Ranch Rd., Winston Rd., Powhatan Rd., Little Creek Church Rd., O'Neil St. and Covered Bridge Rd.
- Guy Rd and Southern connector, and other roads shown on the map in medium blue.

Low Priority Projects

- All other projects.



Map 8E: Sidewalk Project Prioritization in Downtown



Map 8F: Sidewalk Project Prioritization

Multi-Use Paths

High Priority Projects

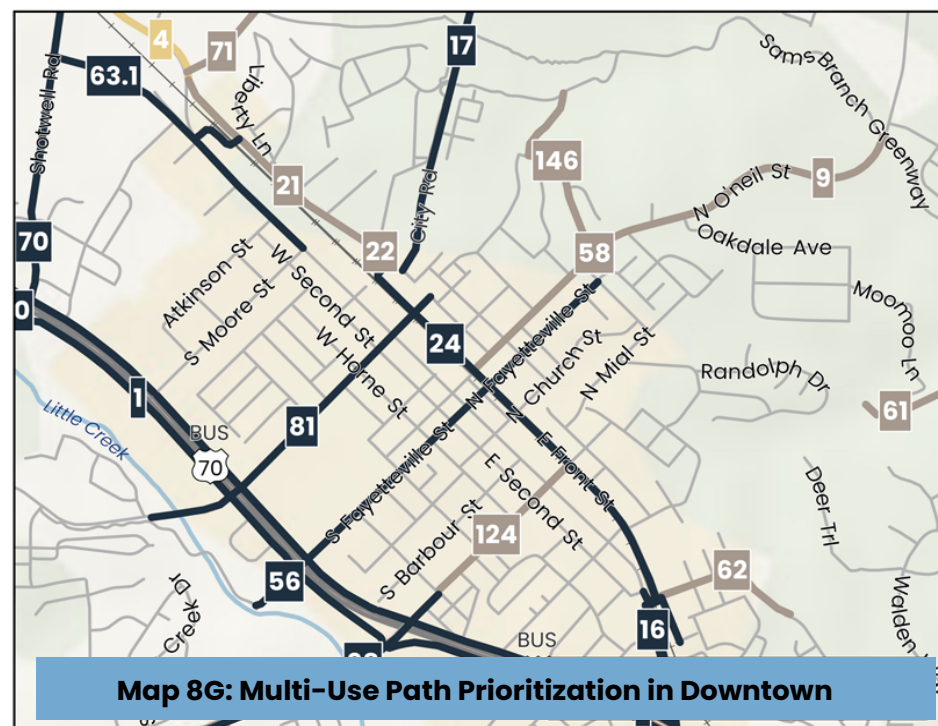
- MUPs on both sides of US 70 Business.
- MUP on one side (with sidewalk on the other) on Shotwell Rd., Main St. Extension, Fayetteville St. and Robertson St. in downtown.
- MUP on one side (with sidewalk on the other) on NC 42 East and West, Amelia Church Rd., Guy Rd. (Project # 91) and Champion Ct. outside downtown.

Medium Priority Projects

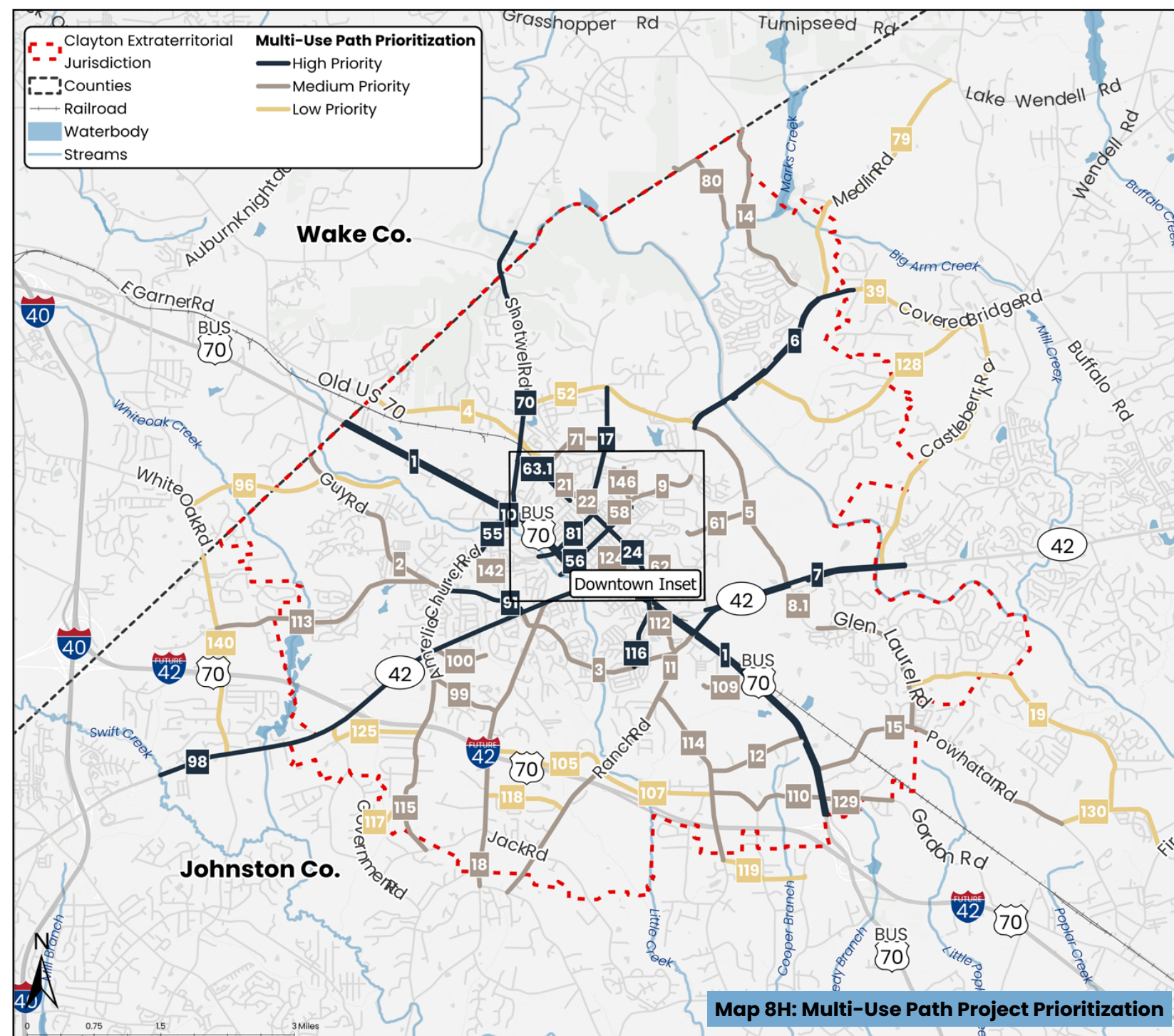
- All remaining MUP projects in downtown.
- Most other radial roads such as Barber Mill Rd., Ranch Rd., Winston Rd., Powhatan Rd., Little Creek Church Rd., O'Neil St. and Covered Bridge Rd.
- Guy Rd. and Southern Connector, and other roads shown on the map in medium blue.

Low Priority Projects

- All other projects.



Map 8G: Multi-Use Path Prioritization in Downtown



Map 8H: Multi-Use Path Project Prioritization

Greenways

High Priority Projects

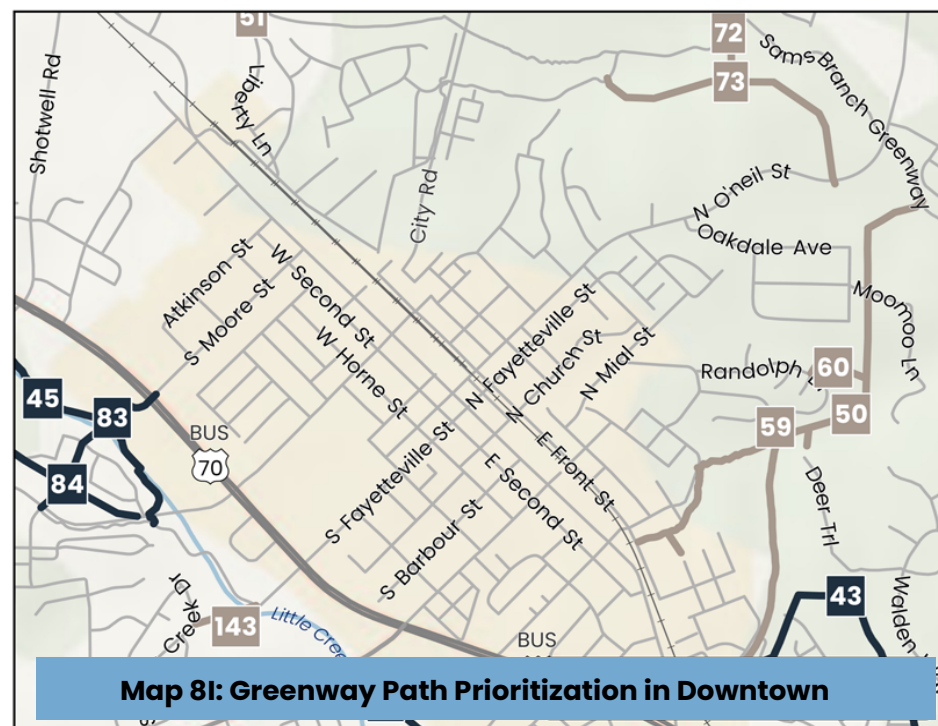
- Little Creek Greenway eastward extension received the highest score in our prioritization method.

Medium Priority Projects

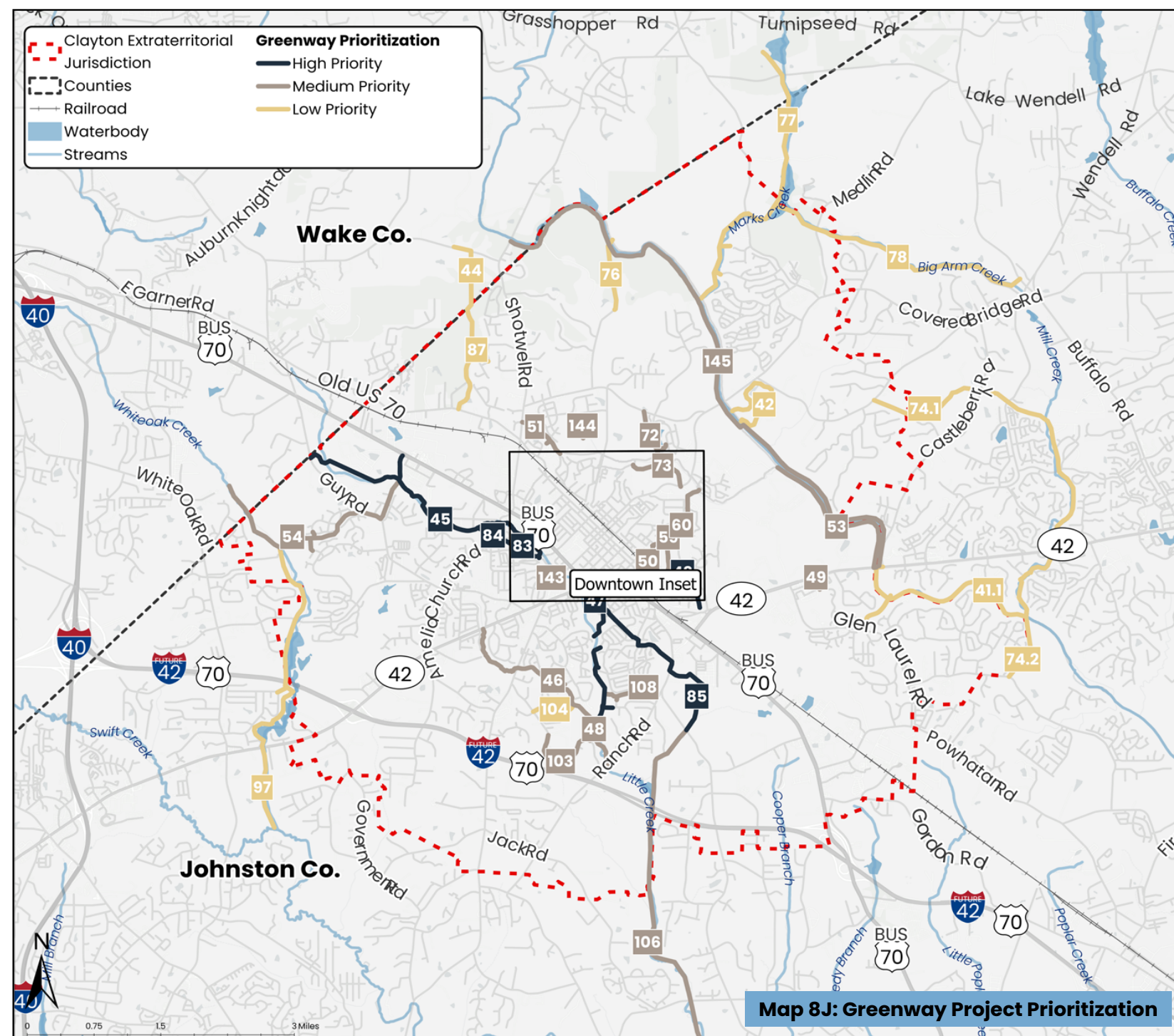
- Little Creek Greenway westward extension.
- Adding more branches of this greenway to improve access to the southern part of Clayton.
- Second Neuse River Greenway in conjunction with Wake County.
- Adding distribution branches to existing Sams Branch Greenway in downtown.

Low Priority Projects

- All other projects.



Map 8I: Greenway Path Prioritization in Downtown



Map 8J: Greenway Project Prioritization

8.3 IMPLEMENTATION STRATEGIES



Strategy 8.3.1 Roadway Projects and Studies

8.3.1A - **Reconsider** further advancement of U-6113 project in STIP. **Conduct Corridor and Access Management Study for US 70** Business between I-40 and I-42 to improve safety, multimodal, and land use aspects of the corridor.

8.3.1B - **Conduct Railroad Crossing and Consolidation Study** for at-grade crossings in Downtown Clayton.

8.3.1C - Conduct a **Feasibility Study** to convert O'Neil St. and Fayetteville St **to one-way pairs**. Combine this with other recommended multimodal enhancements on Fayetteville St.

8.3.1D - Program the **short-term hotspot intersection recommendations** located on Town-managed roads in the CIP.

8.3.1E - **Incorporate all** roadway recommendations from this CTP to **Johnston County CTP**, which will be further rolled into CAMPO MTP.



Strategy 8.3.2 Collector Street Policy

8.3.2A - **Develop policy language** pertaining to collector streets as recommended in Chapter 6 and add it to the UDO.

8.3.2B - Add **Collector Street alignment polygons** to the online map as a reference to the developers.

8.3.2C - **Policy language regarding Stub Streets** to be incorporated into the UDO.



Strategy 8.3.3 Roadway Policy

8.3.3A - **Develop UDO code language** based on the recommendations provided to improve connectivity.

8.3.3B - **Constitute an empowered committee** to discuss the implications of the recommended UDO code language.

8.3.3C - **Develop incentives and allowances** based on adherence to higher than required connectivity standards.

8.3.3D - City of Raleigh is developing **Traffic Impact Assessment** requirements that include Vehicle Miles Traveled factor. Discuss their experiences and potentially emulate the requirement in Clayton.



Strategy 8.3.4 Parking

8.3.4A - **Draw parking lane stripes** on Second St. where parking is already allowed.

8.3.4B - Conduct a **Downtown Parking Study** to determine the demand, supply and future need for parking.

8.3.4C - Provide **additional paved surfaces for parking** in Downtown areas behind buildings or within the NCRR corridor.



Strategy 8.3.5 Bicycle and Pedestrian Study

8.3.5A - **Develop UDO code language** to increase bicycle and pedestrian connectivity based on the policy recommendations provided in Chapter 6.

8.3.5B - **Seek third party evaluation** and ratings for bicycle and pedestrian connectivity.



Strategy 8.3.6 Bicycle and Pedestrian Projects and Studies

8.3.6A - Program the **high-priority recommendations** on Town-managed roads in the CIP.

8.3.6B - Coordinate with Wake County to determine feasibility study of a **second Neuse River Greenway**.

8.3.6C - Coordinate with NCDOT to **add pedestrian signals** across US 70 Business in the short term.

8.3.6D - Develop and expand on the **sidewalk GIS shapefile** with attributes such as width, condition, etc. to help make more informed decisions on sidewalk network expansion in the future.

8.3.6E - Consider **additional non-motorized crossings** across the North Carolina Railroad (NCRR) corridor.

8.3.6F - Continue **support for sidewalks** on both sides of the streets within Downtown area.



Strategy 8.3.7 Transit Projects and Studies

8.3.7A - Conduct a **Transit Feasibility Study** in Clayton ETJ and surroundings.

8.3.7B - Coordinate with JCATS to provide **microtransit** in Clayton. Identify **local funding sources** to cater to microtransit trips starting from medical facilities on NC 42.

8.3.7C - Incorporate **Rapid Bus Extension** accommodations to any plans on US 70 Business.

8.3.7D - Continue to work with regional partners to identify the location and plan for the upcoming **commuter rail station**. The plan should include station access, station area characteristics, parking, etc.