



NC Capital Area **Metropolitan Planning Organization**

***WELCOME!***

*Today's TCC meeting is being held online.  
The meeting will begin shortly.*

***Please be prepared to mute your audio following roll call.***

**Call In: 650-479-3208   Meeting Code: 477 159 580   Meeting Password: MEET**

**PUBLIC COMMENTS SPEAKER SIGN UP SHEET:**

**[https://docs.google.com/spreadsheets/d/1BTSEJBPI0dWDNT3Ox3Kt3\\_YSWj-ct0Ym7q54EZSCo80/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1BTSEJBPI0dWDNT3Ox3Kt3_YSWj-ct0Ym7q54EZSCo80/edit?usp=sharing)**

**Download Presentation Slides: <https://campo.legistar.com/Calendar.aspx>**



NC Capital Area **Metropolitan Planning Organization**

# **Technical Coordinating Committee Meeting**

**August 4, 2022**

**10:00 AM**

# 1. Welcome and Introductions

## *Roll Call of Voting Members & Alternates*

City of Creedmoor  
City of Raleigh (5)  
County of Franklin  
County of Granville  
County of Harnett  
County of Johnston  
County of Wake (2)  
GoCary  
GoRaleigh  
GoTriangle  
Town of Angier  
Town of Apex

Town of Archer Lodge  
Town of Bunn  
Town of Cary (2)  
Town of Clayton  
Town of Franklinton  
Town of Fuquay-Varina  
Town of Garner  
Town of Holly Springs  
Town of Knightdale  
Town of Morrisville  
Town of Rolesville  
Town of Wake Forest

Town of Wendell  
Town of Youngsville  
Town of Zebulon  
Federal Highway Administration  
N.C. Dept. of Transportation (6)  
N.C. State University  
N.C. Turnpike Auth.  
Raleigh Durham Airport Auth.  
Research Triangle Foundation  
Rural Transit (GoWake Access)  
Triangle J. Council of Govts.  
Triangle North Executive Airport

## 2. Adjustments to the Agenda

### 3. Public Comments

*This is an opportunity for comments by those in attendance. Please limit comments to three (3) minutes for each speaker.*

## 4. Minutes

### 4.1 TCC Meeting Minutes: June 2, 2022

#### Requested Action:

**Approve the June 2, 2022 Meeting Minutes.**

## 5. Regular Business

- 5.1 Western Wake Traffic Signal System Integration Study
- 5.2 Locally Administered Projects Program Additional Funding Request
- 5.3 Locally Administered Projects Program FFY 2024 Program & Target Mix
- 5.4 Amendment #9 to FY2020-2029 Transportation Improvement Program
- 5.5 FY2024-2033 Preliminary Draft State Transportation Improvement Program
- 5.6 Mobility Management Program Implementation Study Amendment
- 5.7 Wake Transit: Greater Triangle Commuter Rail Update

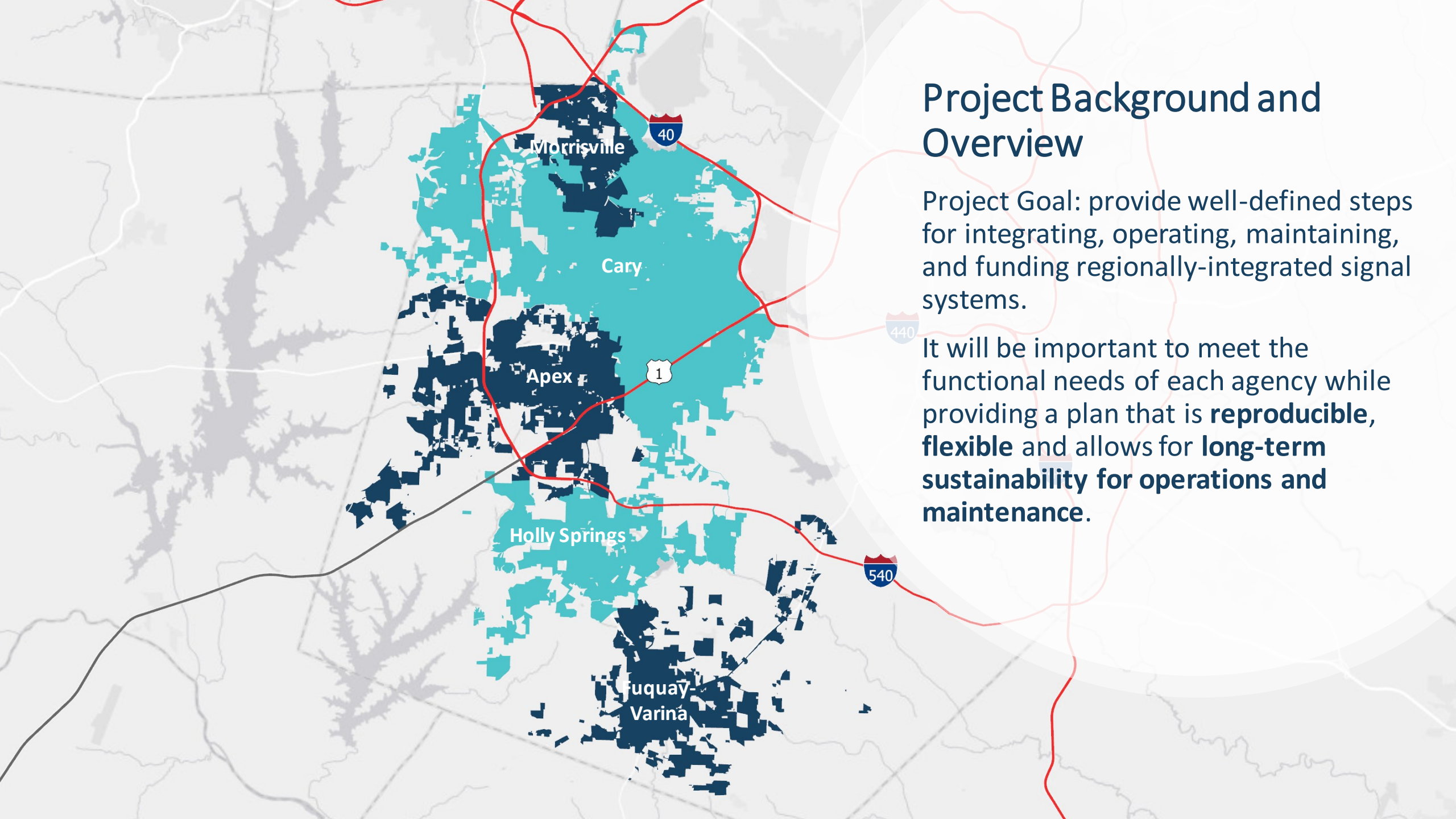
## 5.1 Western Wake Traffic Signal System Integration Study



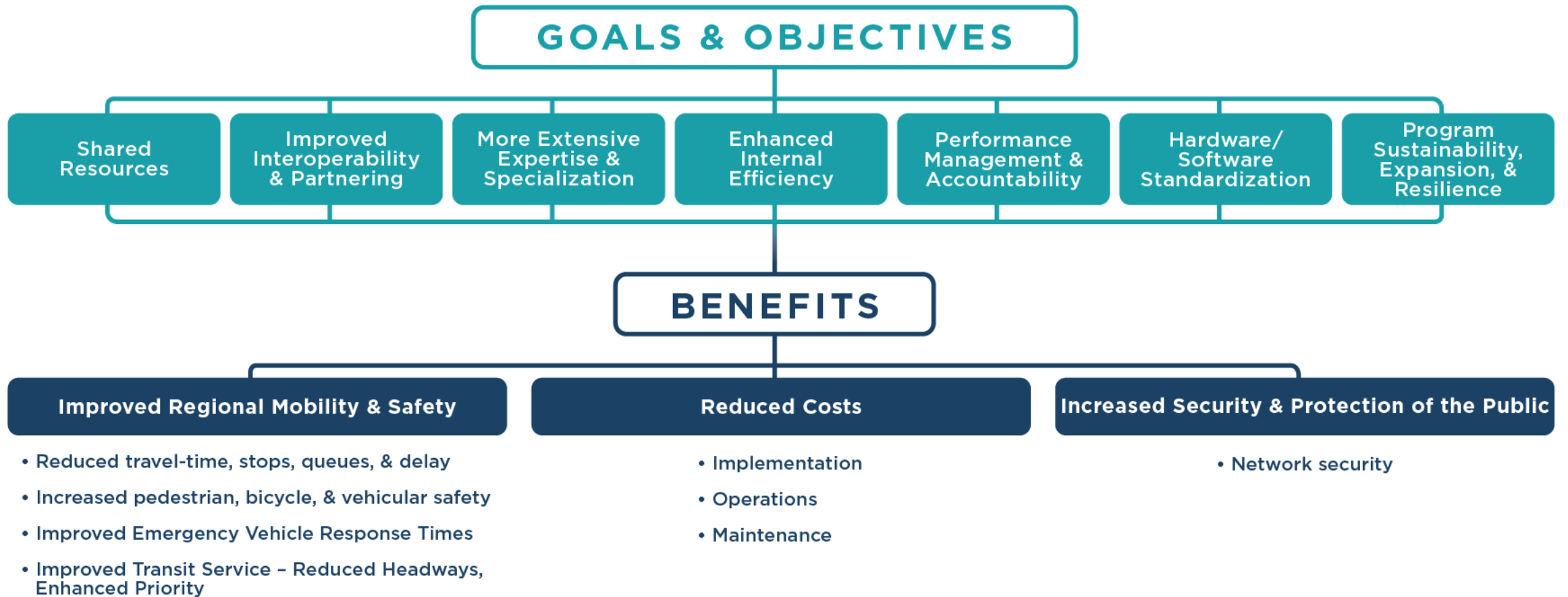
## Project Background and Overview

Project Goal: provide well-defined steps for integrating, operating, maintaining, and funding regionally-integrated signal systems.

It will be important to meet the functional needs of each agency while providing a plan that is **reproducible**, **flexible** and allows for **long-term sustainability for operations and maintenance**.



# Regional Benefits & Objectives for the WWTSSI Project



# Integration Guidebook Recommendations

## Cary and Morrisville Integration Recommendations

### *Near-term* – Next 3 years

- Integrate additional Town of Morrisville Traffic signals into the Cary signal system network
- Add Town of Cary operations and maintenance staff to support organic growth of the Cary signal infrastructure and integration of all signals in Morrisville
- Dedicate traffic signal and maintenance/storage space in the new Town of Morrisville Public Works Facility, which is currently under design.
- Conduct a regional communications infrastructure study.
- Add cameras to Morrisville intersections based on operational needs
- Update and execute agreements between Town of Cary and Town of Morrisville for the on-going shared resources and management of signals including:
  - Collaborate between the two agencies to ensure network security.
  - Define user roles and responsibilities, as they relate to the system, between varying members of the Town of Cary and Town of Morrisville agencies.
  - Develop performance requirements for availability and reliability for fiber infrastructure.
  - Develop performance requirements for traffic signal operations

# Integration Guidebook Recommendations

## **Cary and Morrisville Integration Recommendations**

### ***Mid-term*** – Next 3-6 years

- Redundant, path-diverse C2C connection between Cary and Morrisville facilities to enable Morrisville staff to view CCTV cameras and system operations.
- Provide user access to the Fire Departments, Police, and Emergency Departments based on operational need
- Establish traffic signal maintenance and storage space in new Town of Morrisville Public Works Facility once construction is completed.
- Begin implementation of technologies used in Cary to the Morrisville signals where appropriate (i.e., TSP, EVP)
- Implement ATSPM at all traffic signals along key corridors in Cary and Morrisville
- Evaluate potential ICM corridor along I-40, NC 54, Aviation Parkway, Airport Boulevard, I-540, NC 147, and Harrison Avenue
- Establish communications connectivity to neighboring jurisdictions (Durham and Raleigh)
- Perform a transportation network-specific cyber security assessment

# Integration Guidebook Recommendations

## **Cary and Morrisville Integration Recommendations**

### ***Long-term*** – Next 6-10 years

- Implement ICM technologies along I-40's parallel arterials and cross-connecting interchange arterials
- Build-out fiber connections to peripheral signals within Cary and Morrisville
- Establish pilot program for testing of new technologies as they become available throughout the system
- Consider smart city connectivity and other advanced technologies when planning and investing in the communication networks
- Add Town of Cary operations and maintenance staff to support organic growth of the Cary signal infrastructure and integration of all signals in Morrisville (as needed)
- Provide connectivity to allow for electronic signal lab capabilities in new Town of Morrisville Public Works Facility.

# Integration Guidebook Recommendations

## Recommendations to advance toward a regional system

### *Near-term* – Next 3 years

- Each agency to evaluate potential participation in a regional system. Determine which agencies will be a part of the regional system.
- Form a steering committee/oversight committee for the proposed regional system
- Determine who the Regional Host should be for the regional signal system.
- Develop agreements between agency for on-going shared resources and management of signals including:
  - Define roles, responsibilities, data sharing requirements, and cost sharing responsibilities as they relate to the system.
  - Develop performance requirements for availability, reliability, and security of fiber infrastructure.
  - Develop performance requirements for traffic signal operations and maintenance.
- Begin requests for capital expenditures, new employee positions, and annual operating and maintenance expenses
- Construct the proposed Fuquay-Varina signal system.
- Perform a regional communications infrastructure study to:
  - Identify fiber optic cabling needs for both field-to-central and center-to-center connectivity throughout the region
  - Evaluate network topology.
  - Perform an evaluation of gaps in traffic signal system communications along the periphery of the system

# Integration Guidebook Recommendations

## **Recommendations to advance toward a regional system**

### ***Mid-term*** – Next 3-6 years

- Add cameras to individual intersections based on operational needs.
- Develop regional standards for signal system technology
- Design the Apex and Holly Springs portions of the regional system.
- Explore the possibility of a STIP project to upgrade controllers with an ATSPM-capable local controller software.
- Construct the regional TMC and signal maintenance facilities
- Establish a C2C communications link between the regional TMC and the STOC
- Elevate operation and maintenance of the regional system to increased LOS
- Evaluate connected vehicle, EVP, and TSP technologies along key arterials within the regional system
- Employ management of a network monitoring software to enable proactive and responsive network maintenance as a regional collaborative.



# Integration Guidebook Recommendations

## **Recommendations to advance toward a regional system**

### ***Long-term*** – Next 6-10 years

- Construct the Apex and Holly Springs portions of the proposed regional system and integrate them into a regional system with the previously constructed Fuquay-Varina signal system
- Construct fiber optic cable connections along the proposed regional communication ring to provide path-diverse, redundant, regional connectivity among municipalities
- Accommodate user access for all agencies within the regional network such that each can view and monitor system performance.
- Deploy EVP and TSP Technologies throughout the system
- Deploy connected vehicle technology throughout the system
- Deploy ATSPM throughout the region
- Elevate operation and maintenance of the regional system from level-of-service perspective for opportunities of enhanced traffic operations
- Achieve connectivity between the regional system and the nearby City of Raleigh and Town of Garner signal systems



## 5.1 Western Wake Traffic Signal System Integration Study

### Requested Action:

**Recommend the study findings be included in the development of the 2055 Metropolitan Transportation Plan.**

## 5.2 Locally Administered Projects Program (LAPP) - Additional Funding Request

## 5.2 Locally Administered Projects Program (LAPP) - Additional Funding Request

- The CAMPO LAPP Program allows requests for additional funding, with a minimum 50% match from other sources
- Requests exceeding \$1,000,000 require board review and approval.
- There are two projects with a funding change request that warrants Executive Board review and action.

## 5.2 LAPP Additional Funding Request

- U-6241 Town of Rolesville Main Street Corridor Improvements and Burlington Mills Road Realignment Project requests additional funds for construction.
- This FFY2021 project includes improvements to transform US 401 Business from Burlington Mills Road to north of Young Street into a multi-modal Main Street.
- The project has been expanded to include improvements associated with a new mixed-use development project

## 5.2 LAPP - Additional Funding Request

- Lowest bid received was \$10.3 million over the original Engineer's Estimate. The higher costs are due to the project expansion and increases in line-item costs due to inflation.
- The Town also determined an additional \$4.06 million in costs associated with construction of the project, such as CE&I, project review, and utility relocation.

	Original Estimate	Funding Shortfall	New Budget
<b>LAPP Share</b>	\$4,838,955	\$7,201,484	\$12,040,439
<b>Town Share</b>	\$1,209,739	\$7,201,484	\$8,411,223
<b>Construction Total</b>	<b>\$6,048,694</b>	<b>\$14,402,967</b>	<b>\$20,451,661</b>

## 5.2 LAPP - Additional Funding Request

- U-6223 Town of Clayton NC 42E Extension Project extends NC 42E from US Highway 70 Business West to Ranch Road to create a new connection between NC 42E and the US 70 Bypass.
- The lowest bid received for the project was \$5 million above the original Engineer's Estimate. The higher costs are due to the addition of two traffic signals and a noise wall and increases in line-item costs due to inflation.

	Original Estimate	Funding Shortfall	New Budget
<b>LAPP Share</b>	\$5,000,000	\$2,500,000	\$7,500,000
<b>Town/NCDOT Share</b>	\$1,250,000	\$2,500,000	\$3,750,000
<b>Construction Total</b>	<b>\$6,250,000</b>	<b>\$5,000,000</b>	<b>\$11,250,000</b>

## 5.2 Locally Administered Projects Program (LAPP) - Additional Funding Request

### Requested Action:

Recommend approval of additional funding requests from the Town of Rolesville and the Town of Clayton.

## 5.3 Locally Administered Projects Program (LAPP) - FFY2024 Proposed Changes and Target Modal Investment Mix

- Proposed changes and Target Modal Investment Mix recommended by LAPP Steering Committee
- One-Call-For-All (LAPP FFY 2024 & UPWP FY 2024) anticipated to open at August 17<sup>th</sup> Executive Board Meeting.

Public Comment: Open until August 16, 2022

Public Hearing: August 17, 2022 Executive Board Meeting



# Issues Overview

1. Target Modal Investment Mix



Action Item

2. Including Equity in LAPP Scoring Criteria

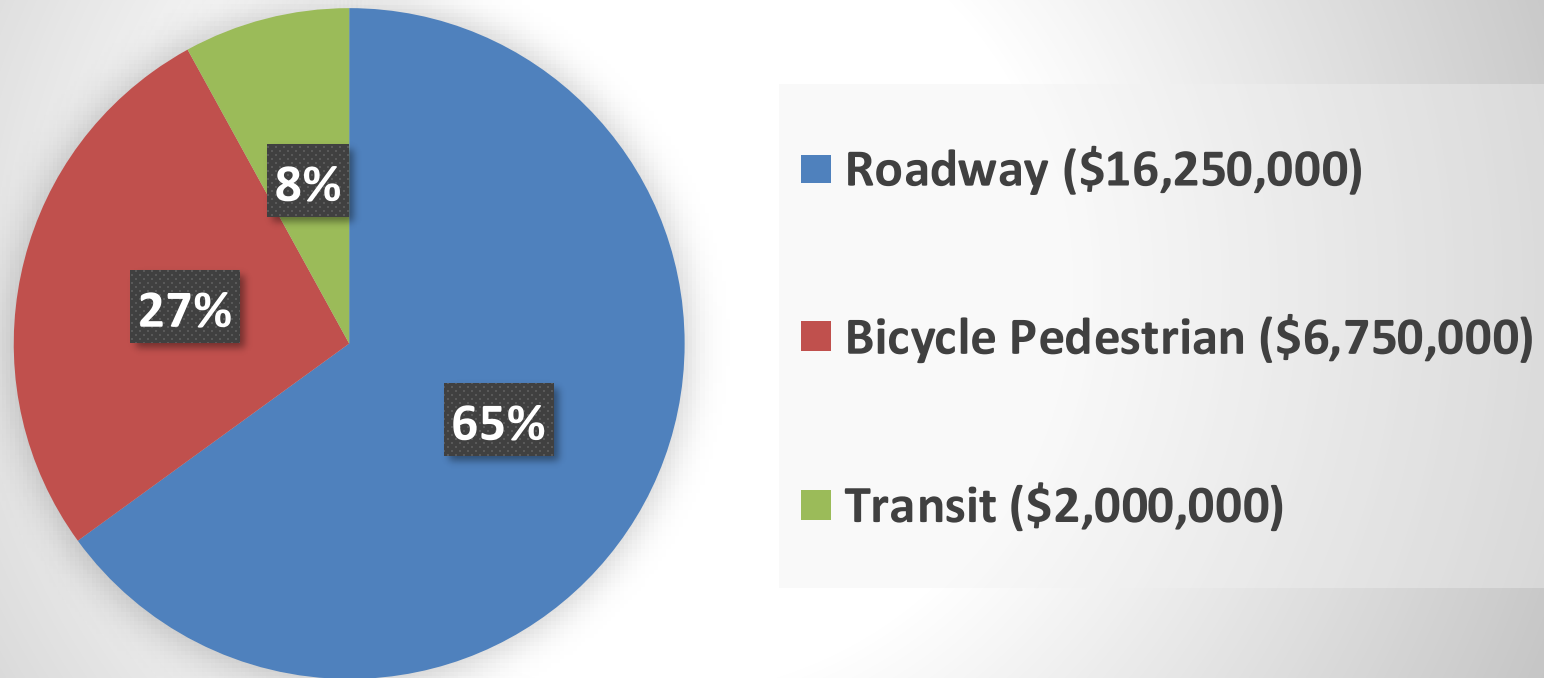
3. LAPP Selection Panel Policy Recommendations



Discussion Items

# Issue #1: Target Modal Investment Mix

## FFY 2024 Target Modal Investment Mix



# Issue #1: Target Modal Investment Mix

- Modal Investment Mix:
  - General need for additional funding in all modes
  - Cannot justify increasing one mode at expense of others
- Future Funding uncertainties:
  - Federal funding reauthorization
  - Overprogramming
  - Existing LAPP projects cost overruns

## **Staff Recommendation:**

Keep same target modal investment mix and tentative programming amount (\$25m) as prior round of LAPP. If new funding information is made available, CAMPO Staff or LAPP Selection Panel may recommend revising programming amount.

## Issue #2: Equity in LAPP Scoring

Equity in Scoring Criteria has been discussed through multiple LAPP iterations

- Concerns on how to properly include equity in scoring
- Nuances on how equity is measured

### **Staff Recommendation:**

“Stick to the plan” - Use next LAPP cycles to introduce equity in LAPP scoring criteria

- 2023: Initial discussions and completion of LAPP Strategic Plan Update and Public Participation Plan
- 2024: Use feedback to develop equity elements in LAPP

# Issue #3: LAPP selection panel recommendations

LAPP Selection Panel provided policy-level recommendations as part of their FFY23 meetings

## 1. Conscious Development

### **Staff Recommendation:**

- CAMPO Staff does not recommend including these policy items as requirements in LAPP, but rather to review the policies with Steering Committee and at future LAPP trainings.
- Broader regional discussions about how to measure development related transportation impacts are underway throughout the Research Triangle region.

## 5.3 Locally Administered Projects Program (LAPP) - FFY2024 Proposed Changes and Target Modal Investment Mix

### Requested Action:

**Recommend approval of proposed changes and target modal investment mix for the FFY2024 Locally Administered Projects Program and the opening of the One Call for All to the Executive Board.**

## 5.4 Amendment #9 to FY2020-2029 Transportation Improvement Program

CAMPO has received notification from NCDOT of changes to regional projects that require amending the Transportation Improvement Program. This amendment will also include additional NC 540 Bonus Allocation projects and project updates requested by regional transit agencies.

Public Comment Period: August 15<sup>th</sup> – September 20<sup>th</sup>

Public Hearing and Approval (anticipated) September 21<sup>st</sup> Executive Board meeting

## 5.4 Amendment #9 to FY2020-2029 Transportation Improvement Program

**Requested Action:**

**Receive as information.**



## 5.5 FY2024-2033 Preliminary Draft State Transportation Improvement Program (STIP)

# 2024-2033 STIP Next Steps / Schedule



## 5.5 FY2024-2033 Preliminary Draft State Transportation Improvement Program (STIP)

### Next Steps:

- NCDOT to release updates Preliminary DRAFT STIP (*Sept*)
  - *New version to include additional \$4-6 billion in funds*
- Member agencies provide comments to CAMPO
- CAMPO review and submit comments/questions to NCDOT
- CAMPO work to identify any potential swap projects

### Requested Action:

Receive as information.

## 5.6 Mobility Management Program Implementation Study Agreement Amendment

## 5.6 Mobility Management Program Implementation Study Agreement Amendment

- FY 22/FY 23 UPWP MMPI Study contract underway and ongoing
- Adopted Funding Agreement between partners Wake County, City of Raleigh, Town of Cary and CAMPO signed 8/9/21
- Partner agencies share costs of the study
- Amendment allows for FY 23 partner billing through 6/30/23
- All FY 22 CAMPO, Town of Cary and City of Raleigh costs have been billed per the UPWP; FY 23 UPWP to be amended
- All other agreement language remains the same in full force and affect.

## 5.6 Mobility Management Program Implementation Study Agreement Amendment

### Requested Action:

**Recommend that the Executive Board authorize the Executive Director to sign the Funding Agreement Amendment for the Mobility Management Program Implementation Study.**

## 5.7 Wake Transit: Greater Triangle Commuter Rail Update

# Greater Triangle Commuter Rail Feasibility Study Results

JULY/AUGUST 2022



# Study Partners

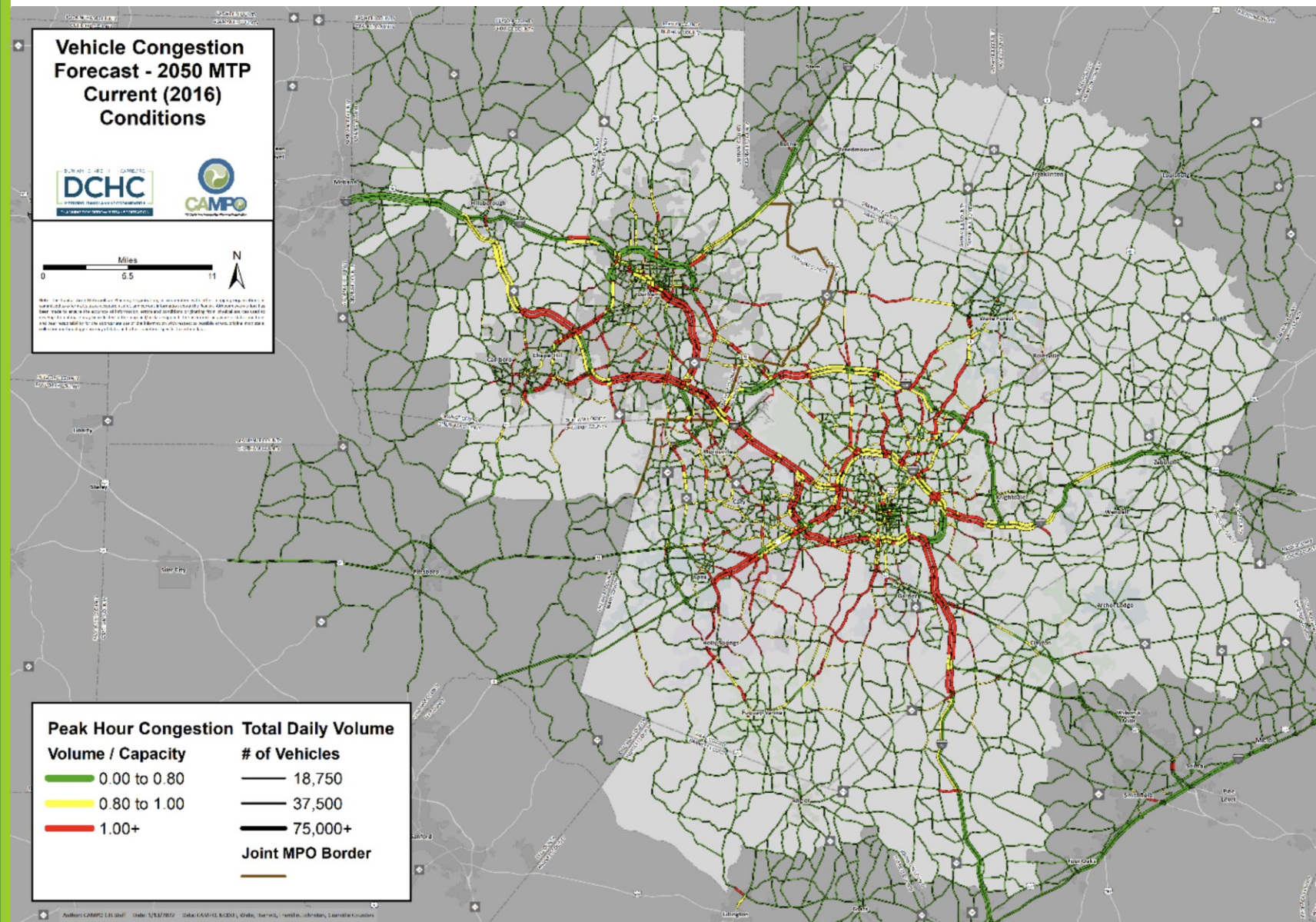
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As of 2020, the Triangle region had a population of around 2 million people.

The region's current population owns around 1.3 million vehicles.

Source: Triangle Regional Model (ITRE)

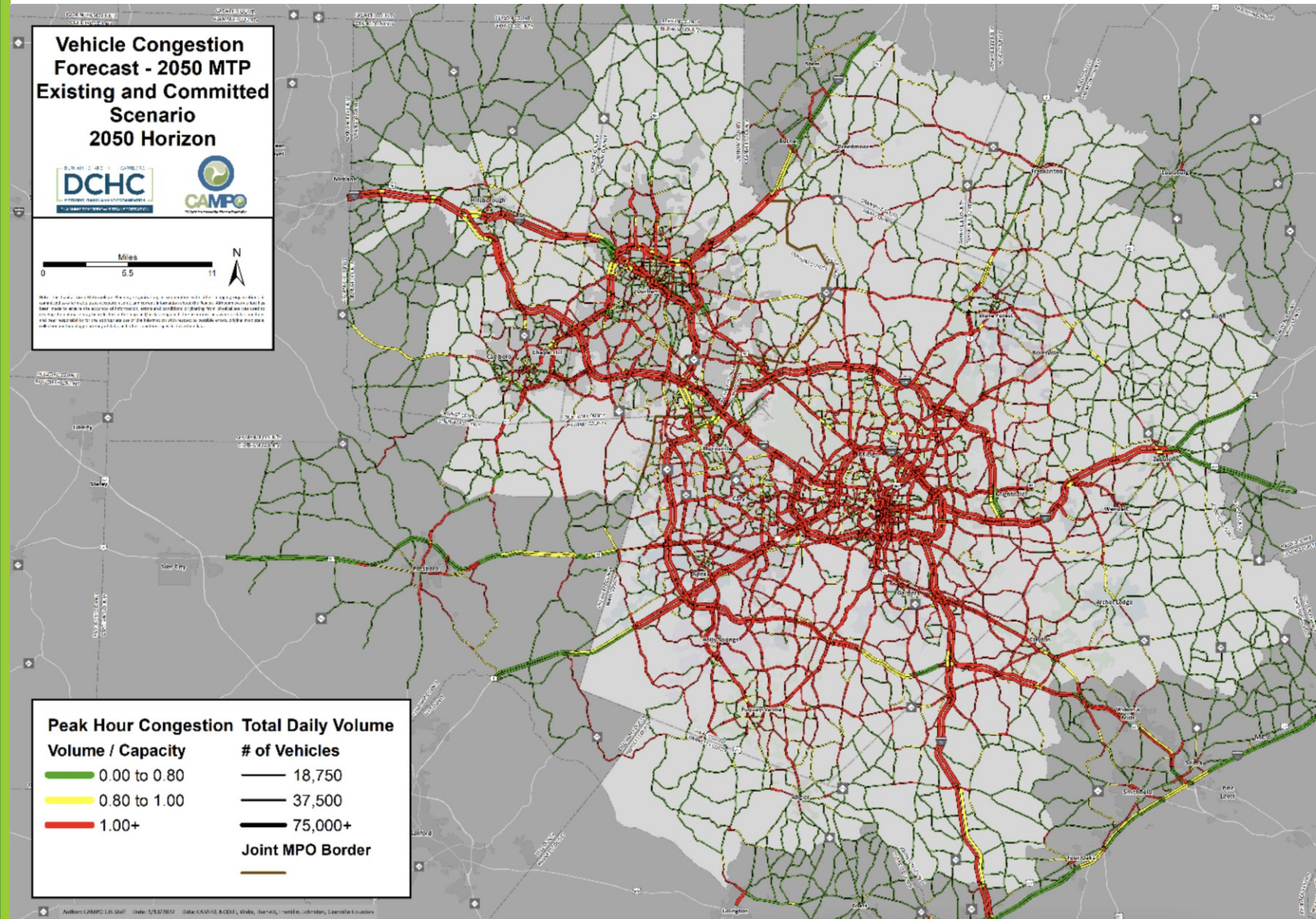




The region's population is projected to grow to more than 3 million people by 2050.

That growth will add about a million vehicles to our already congested roads and highways.

Source: Triangle Regional Model (ITRE)

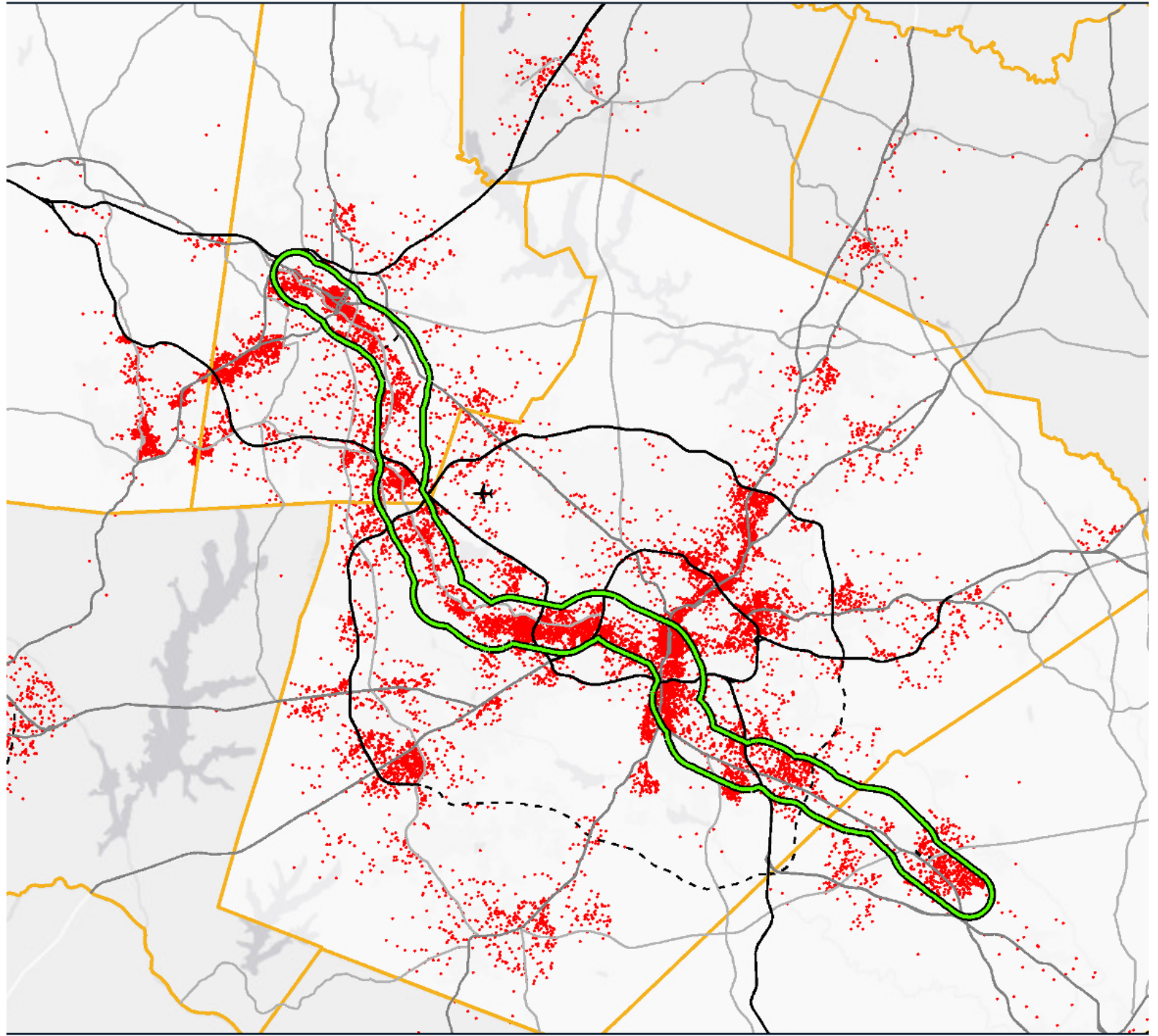




The region is projected to add more than 800,000 new jobs by 2050. 350,000 of those jobs will be near rail, and the largest cluster of growth will occur in downtown Raleigh.

Source: 2050 MTP / TJCOG Opportunity Analysis

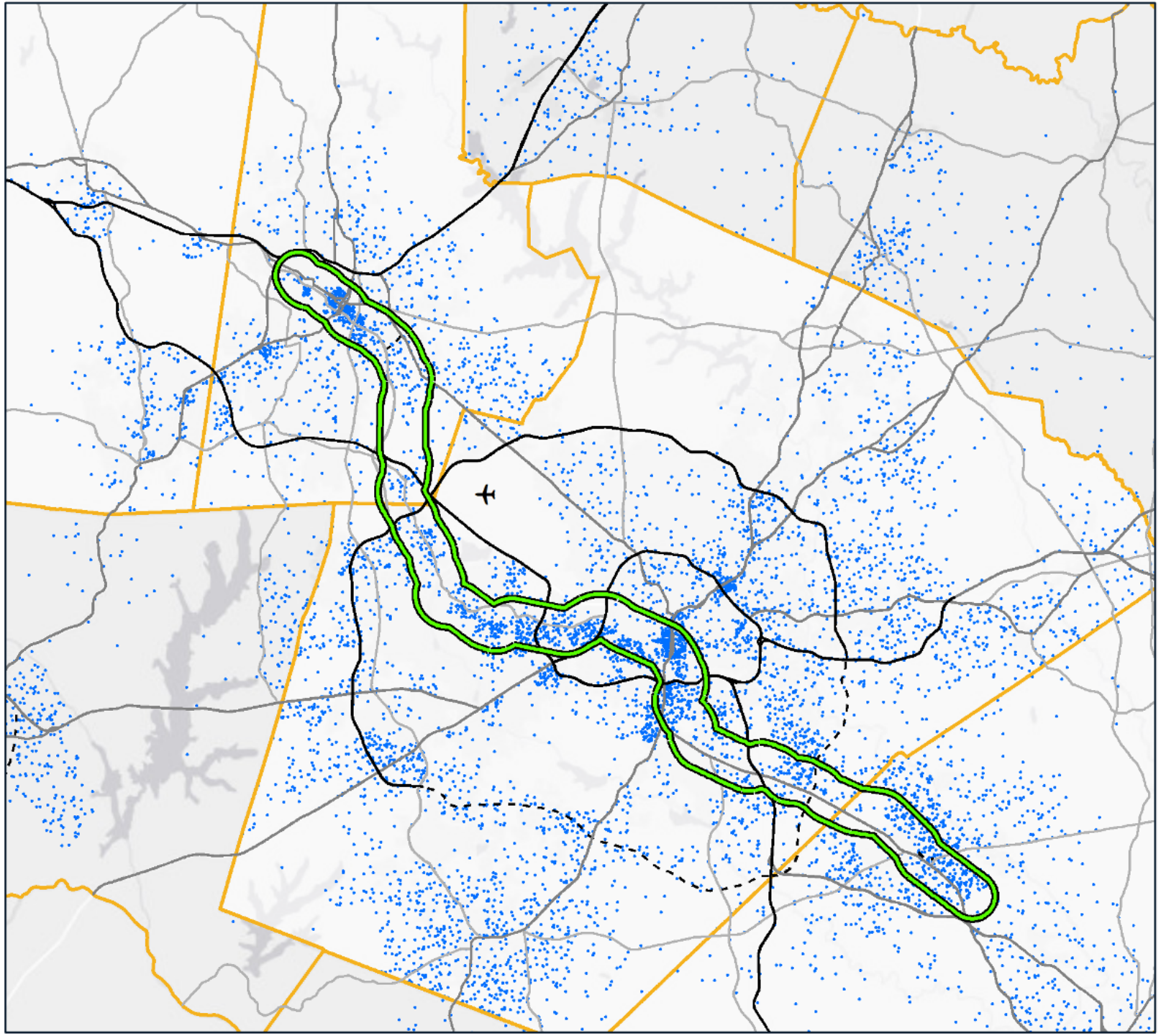
1 Dot = 50 Jobs.



Much of the region's growth is projected to occur in eastern Wake County and Johnston County.

Source: 2050 MTP / TJCOG Opportunity Analysis

1 Dot = 50 households.



# Feasibility Study Phases 1 & 2

## PHASE 1

### VARIOUS SCENARIOS

Service Area	Service Plan – Number of Frequencies	Daily Trains
Mebane - Selma	"8-2-8-2" = 8 Morning Peak Round Trips 2 Midday Round Trips 8 Afternoon Peak Round Trips 2 Evening Round Trips	40
Mebane - Selma	"5-1-5-1" = 5 Morning Peak Round Trips 1 Midday Round-Trip 5 Afternoon Peak Round Trips 1 Evening Round Trip	24
Mebane - Selma	"3-1-3" = 3 Morning-Peak Round Trips 1 Midday Round Trip 3 Afternoon Peak Round Trips 0 Evening Round Trips	14
West Durham - Auburn	8-2-8-2	40
West Durham - Auburn	5-1-5-1	24
West Durham - Auburn	3-1-3	14
Hillsborough - Clayton	8-2-8-2	40
West Durham - Clayton	8-2-8-2	40

## PHASE 2

### IMPLEMENTATION OPTIONS

Option One: Implement commuter rail service from West Durham to Garner or Clayton as one project.

OR

Option Two: Begin implementation of commuter rail with a starter service between Raleigh Union Station in downtown Raleigh and the Auburn Station in Garner.



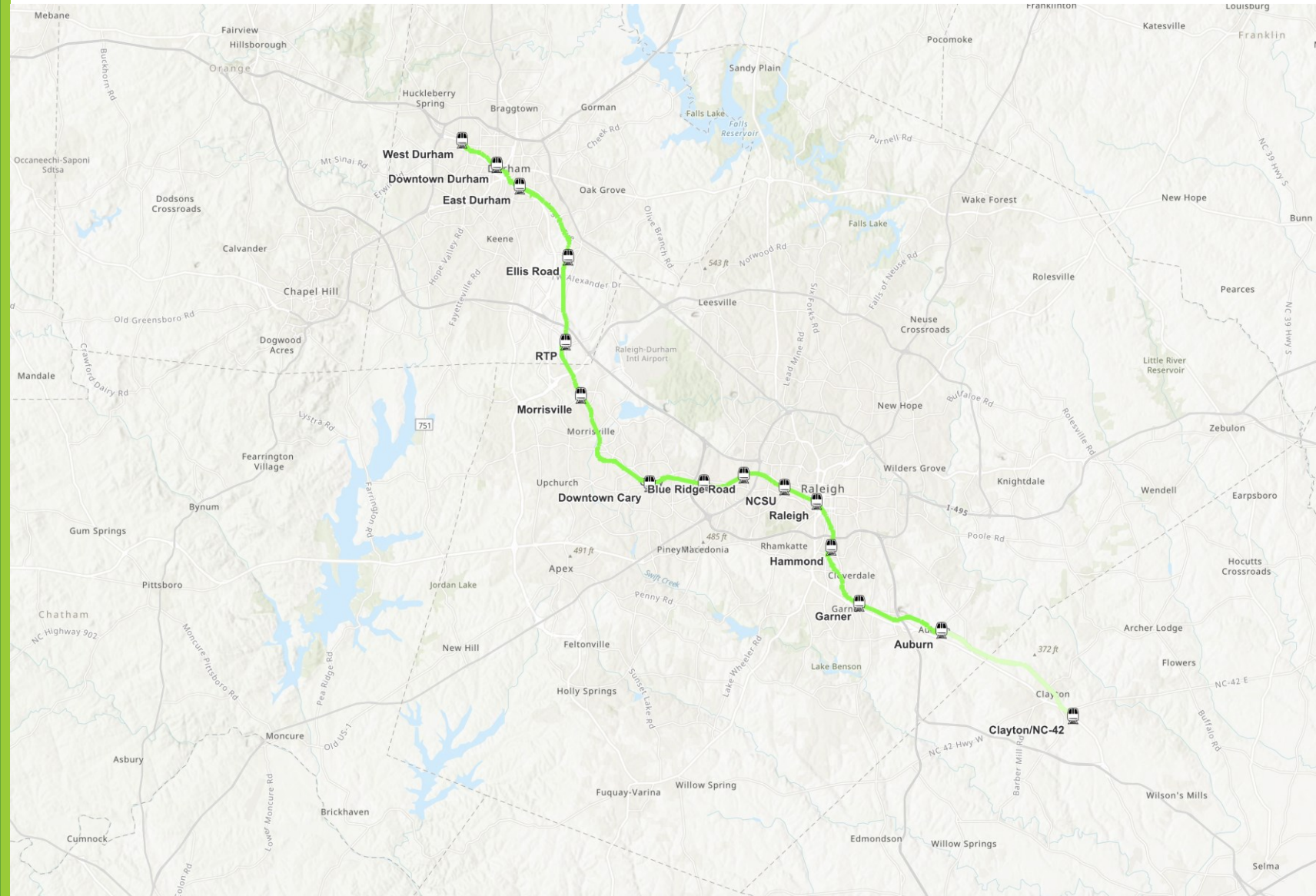
# Option One

\$2.8 - \$3.2 billion in year of expenditure.

\$42 million per year to operate & maintain.

12,000 to 18,000 boardings per day by 2040.

Start of service between 2033 and 2035.





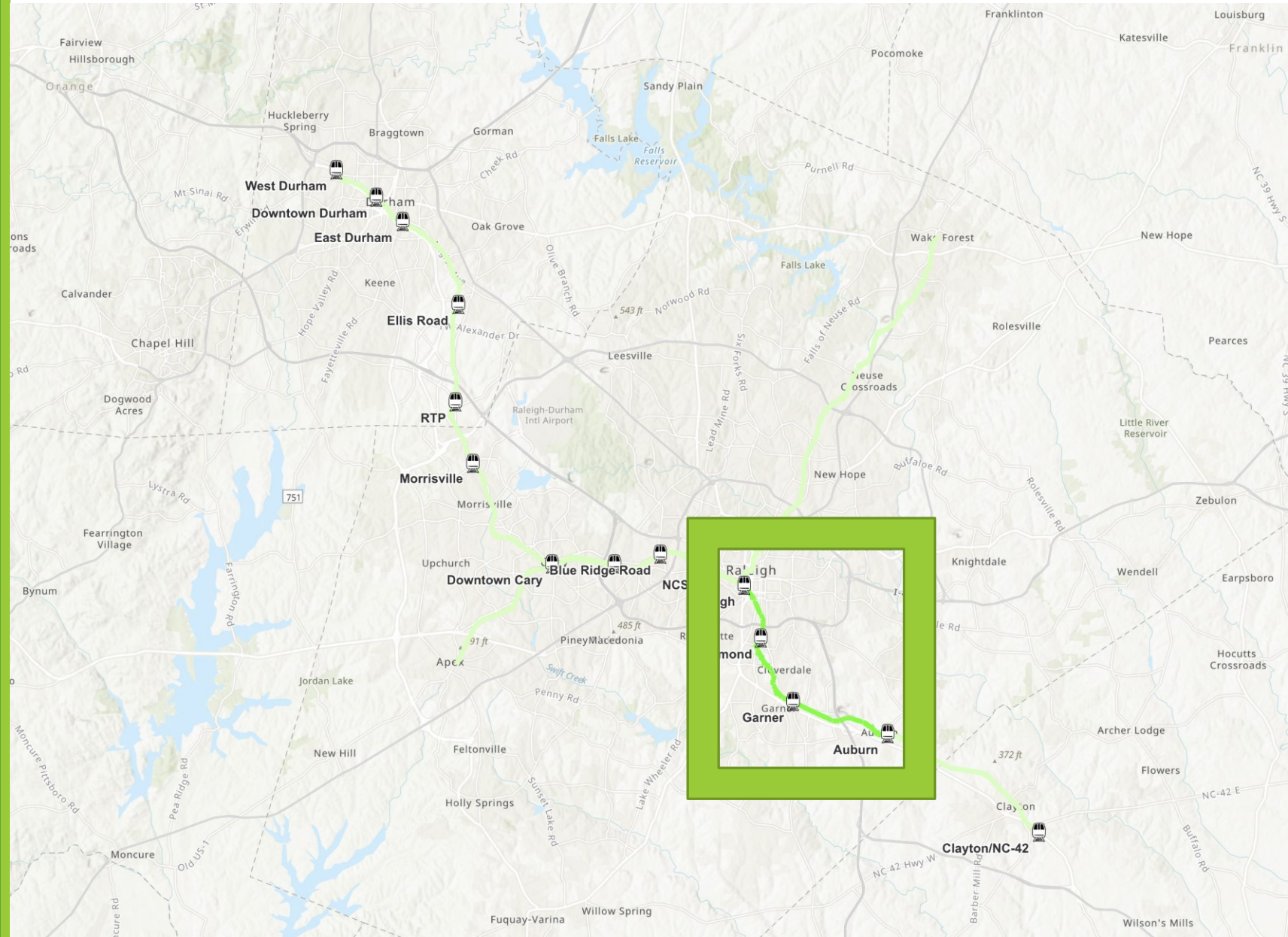
# Option Two

\$600 to \$700 million in year of expenditure.

\$15 million per year to operate & maintain.

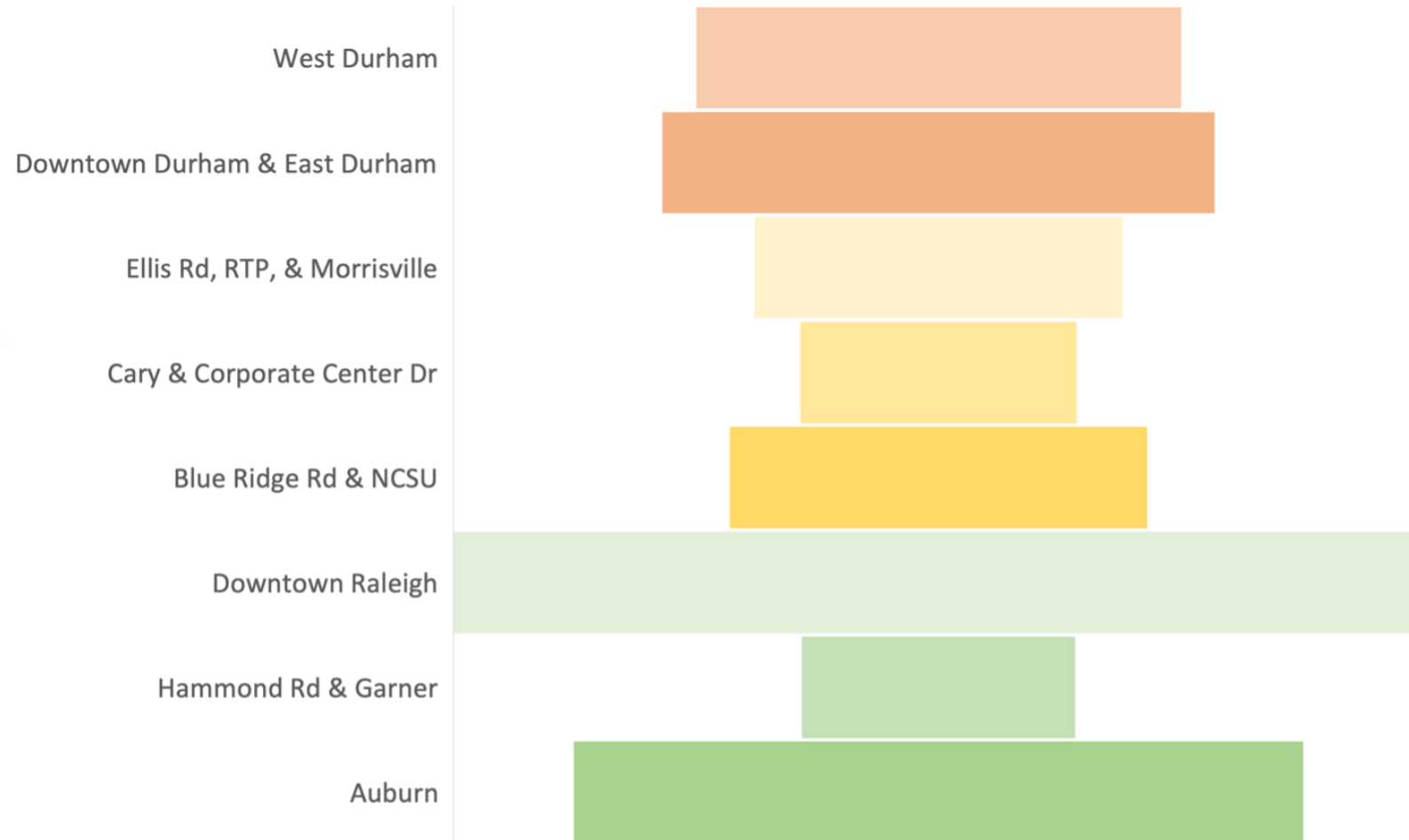
4,000 to 6,000 boardings per day by 2040.

Start of service between 2031 and 2033.

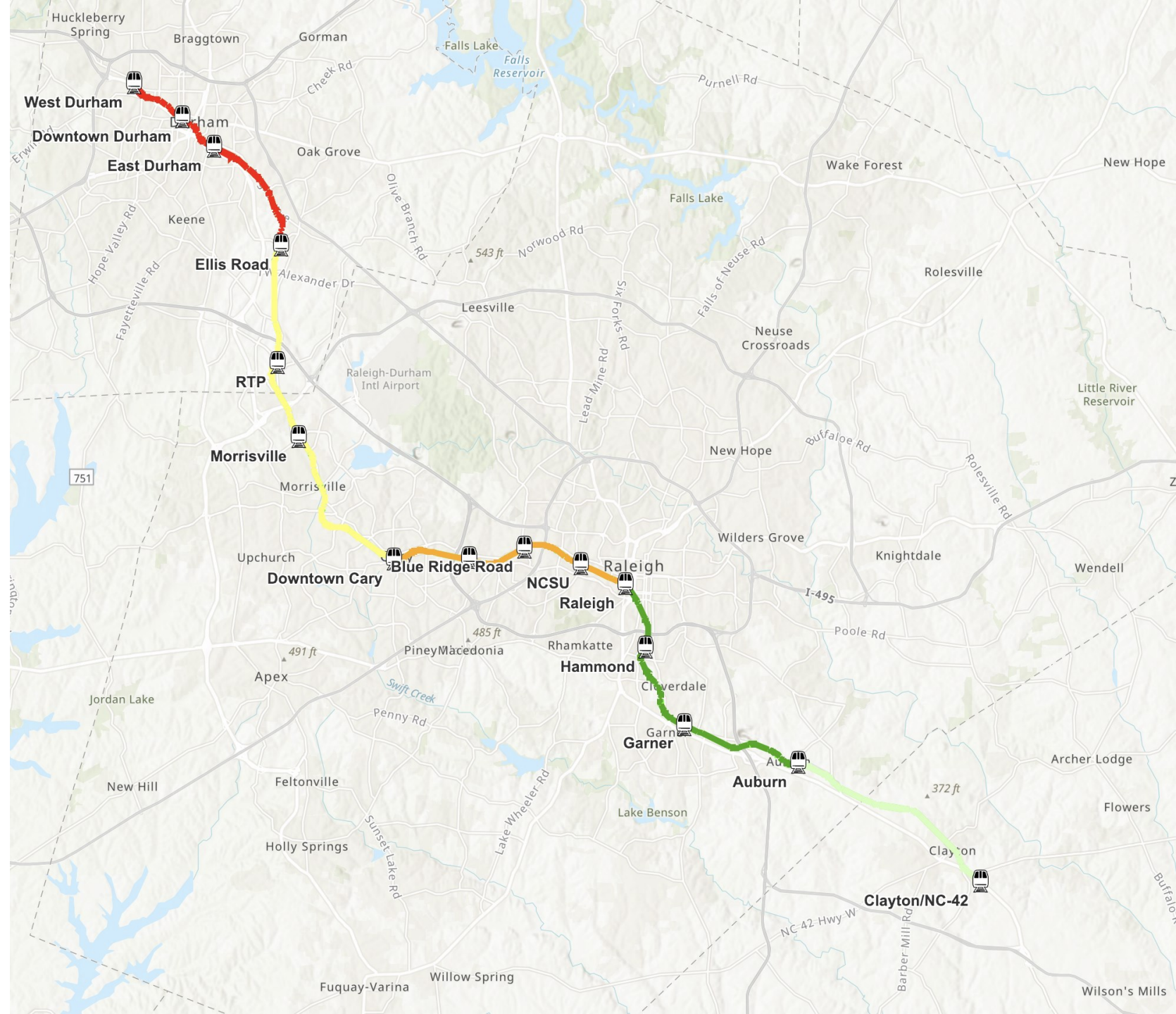




# Relative 2040 Boardings by Corridor Geography (West Durham – Auburn 8-2-8-2)



The feasibility study found that implementation challenges are not distributed equally across the corridor.





# Downtown Cary





# Downtown Durham



[ ADVANCED APPROPRIATIONS ]

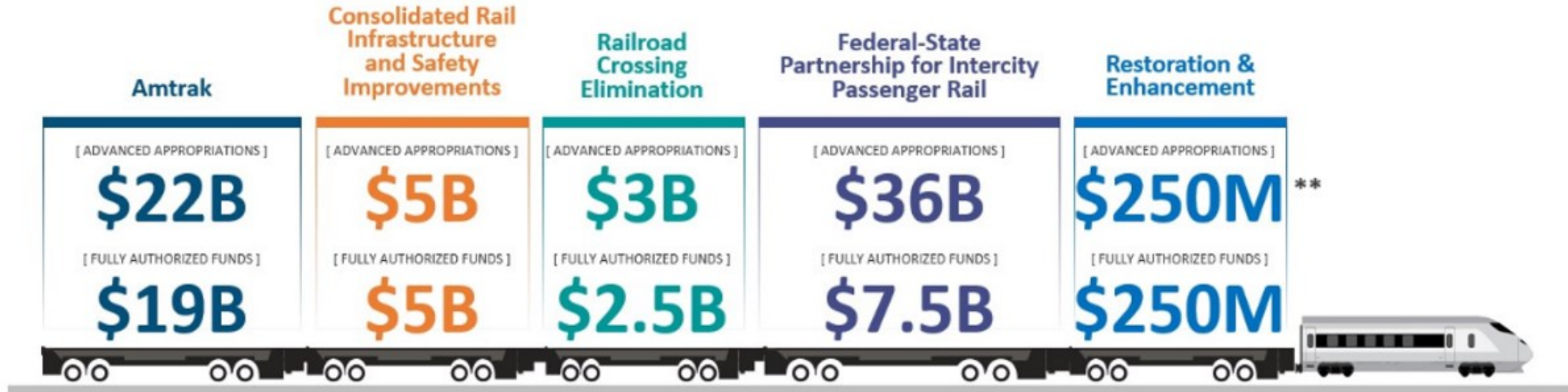
From FY22-FY26

**\$66B** in total  
funding

[ FULLY AUTHORIZED FUNDS ]

From FY22-FY26

**\$36B**\* in total  
funding



\* \$34.5 billion for grant programs; additional \$1.5 billion is authorized for FRA operations and R&D – not included in this graphic.

\*\* Grants for Restoration & Enhancement (advanced appropriations portion) are funded through “takedowns” from Amtrak NN account; not included in totals to avoid double-counting.



## Next Steps

Obtain stakeholder input.

Refine financial plan and grant strategy.

Decide whether or how to go forward.

# Discussion

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FOR MORE INFORMATION ON THE GREATER TRIANGLE COMMUTER RAIL PROJECT, VISIT [WWW.READYFORRAILNC.COM](http://WWW.READYFORRAILNC.COM).

## 5.7 Wake Transit: Greater Triangle Commuter Rail Update

Requested Action:

Receive as information.



# Roll Call Vote for Action Items

*(5.1 Western Wake Traffic Signal System Integration Study; 5.2 LAPP Additional Funding Request; 5.3 LAPP FFY 2024 Program & Target Modal Investment Mix 5.6 Mobility Management Program Implementation Study Funding Agreement Amendment)*

City of Creedmoor  
City of Raleigh (5)  
County of Franklin  
County of Granville  
County of Harnett  
County of Johnston  
County of Wake (2)  
GoCary  
GoRaleigh  
GoTriangle  
Town of Angier  
Town of Apex

Town of Archer Lodge  
Town of Bunn  
Town of Cary (2)  
Town of Clayton  
Town of Franklinton  
Town of Fuquay-Varina  
Town of Garner  
Town of Holly Springs  
Town of Knightdale  
Town of Morrisville  
Town of Rolesville  
Town of Wake Forest

Town of Wendell  
Town of Youngsville  
Town of Zebulon  
Federal Highway Administration  
N.C. Dept. of Transportation (6)  
N.C. State University  
N.C. Turnpike Auth.  
Raleigh Durham Airport Auth.  
Research Triangle Foundation  
Rural Transit (GoWake Access)  
Triangle J. Council of Govts.  
Triangle North Executive Airport

## 6. Informational Items: Budget

6.1 Member Shares— FY 2022

6.2 Operating Budget - FY 2022

**Requested Action:**

## 7.1 Informational Item: Project Updates

### Studies:

- FY22 Hot Spots
- Cary-RTP and Garner-Clayton Rapid Bus/Bus Rapid Transit Extensions Major Investment Study
- Southeast Area Study Update
- Triangle Bikeway Implementation Study
- U.S. 401 Corridor Study
- Western Wake Traffic Signal System Integration Study
- Mobility Management Program Implementation Study

### Other Updates:

- Mobility Coordination Committee
- Safe Routes to School (SRTS)
- Safe Routes to School (SRTS) Road Safety Audit Project CAMPO/NCDOT
- Non-Motorized Volume Data Program
- Triangle Transportation Choices (Triangle TDM Program) Projects
- NCDOT Highway Project U-2719 – Updates
- NC 540 Bonus Allocation Projects
- Wake Transit Plan Implementation Updates
- Draft FY 2023 Wake Transit Work Plan Development

## 7.2 Informational Item: Public Engagement Updates

**Requested Action:**  
**Receive as information.**

## 8. Informational Item: Staff Reports

- MPO Executive Director
- NCDOT Transportation Planning Division
- NCDOT Division 4
- NCDOT Division 5
- NCDOT Division 6
- NCDOT Rail Division
- NC Turnpike Authority
- NCDOT Integrated Mobility Division
- TCC Members

**Requested Action:**  
**Receive as information.**

# ADJOURN

## Upcoming Events

Date	Event
August 17, 2022 4:00 p.m.	Executive Board Virtual
August 25, 2022 9am-12pm	LAPP Applicant Training
Sept 1, 2022 10:00 a.m.	TCC Regular Meeting Virtual