



NORTH CAROLINA
Department of Transportation

NCDOT's Integrated Mobility Division (IMD)

Multimodal Updates

February 1, 2024

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina



Agenda

- Introduction – New IMD Interim Director – Brennon Fuqua (may be delayed until end of the webinar)
- North Carolina Passenger Rail Update – Eddie McFalls, Rail Division
- Integrated Mobility Division Updates
 - Studies / Plans - Mobility Hubs, Freeway, Arterial, Street and Tactical (FAST) transit study, locally coordinated plan, micromobility strategic plan, Great Trails State Implementation Report
 - Grant Programs – multimodal planning program (upcoming call), TDM program (upcoming call), bicycle helmet initiative (current call), safe routes to school non-infrastructure program, zero emission vehicle transition plans
 - Environmental Justice / Transportation Disadvantage Index Tool
 - On-Demand Microtransit Annual Report
 - State Bike Routes
 - Intercity Bus
 - CASSI – deployment at the Town of Cary Bond Park and UNC-Charlotte
 - Automated Transit Vehicles RFI
 - North Carolina Non-Motorized Volume Data Program (NC NMVDP)



NORTH CAROLINA
Department of Transportation

North Carolina Passenger Rail Update Integrated Mobility Division – Quarterly Update

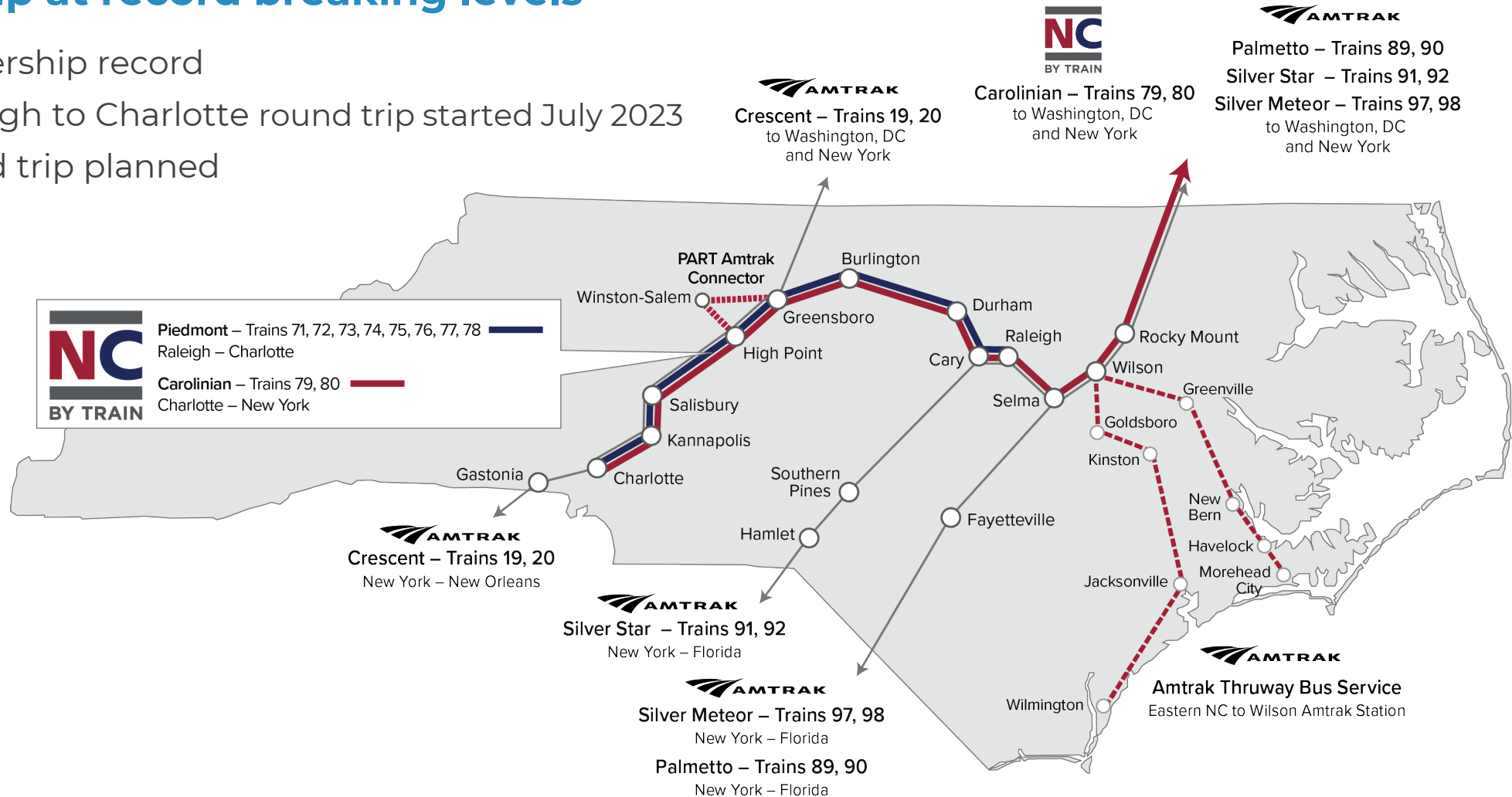
February 1, 2024

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina

Current North Carolina Intercity Passenger Rail Service

Ridership at record breaking levels

- 2023 ridership record
- 5th Raleigh to Charlotte round trip started July 2023
- 6th round trip planned



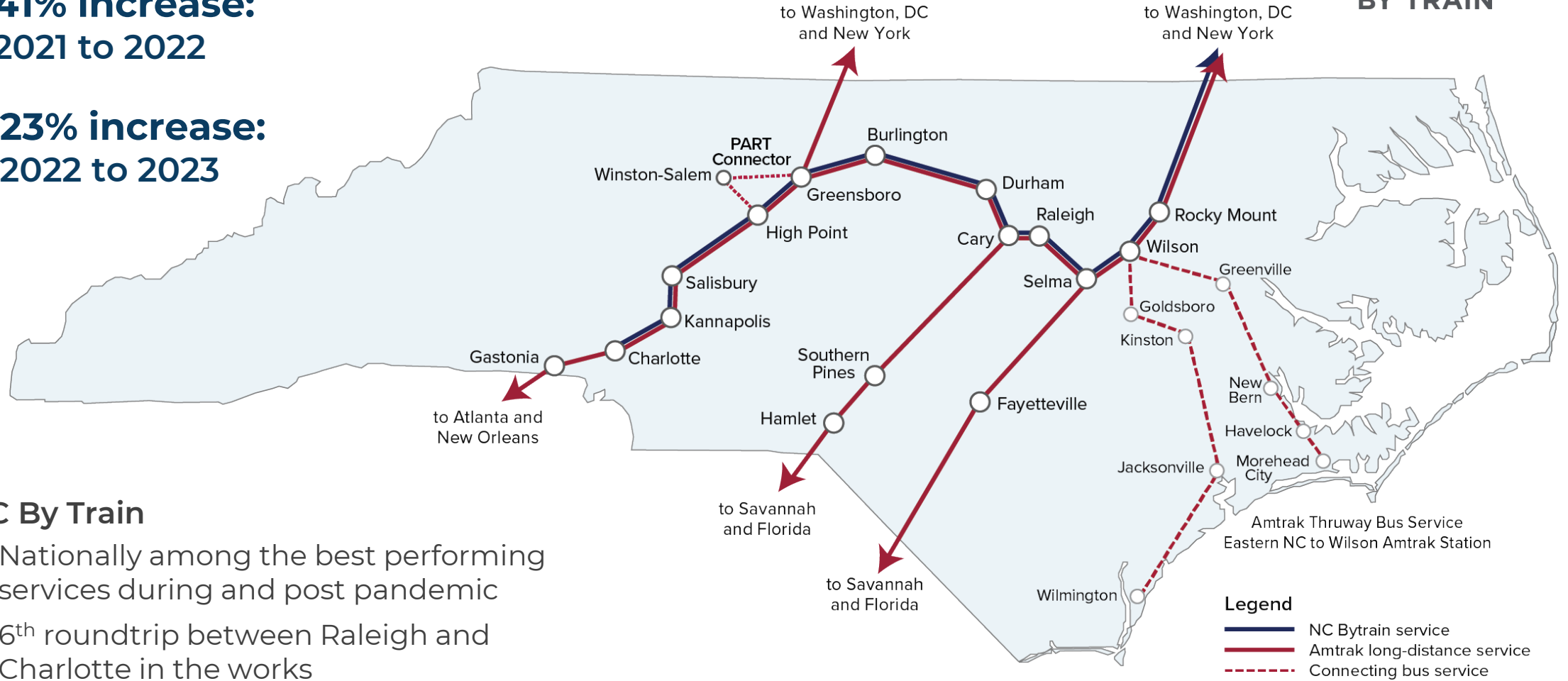
NC Intercity Passenger Rail Service

Ridership at record breaking levels



➔ **41% increase:**
2021 to 2022

➔ **23% increase:**
2022 to 2023



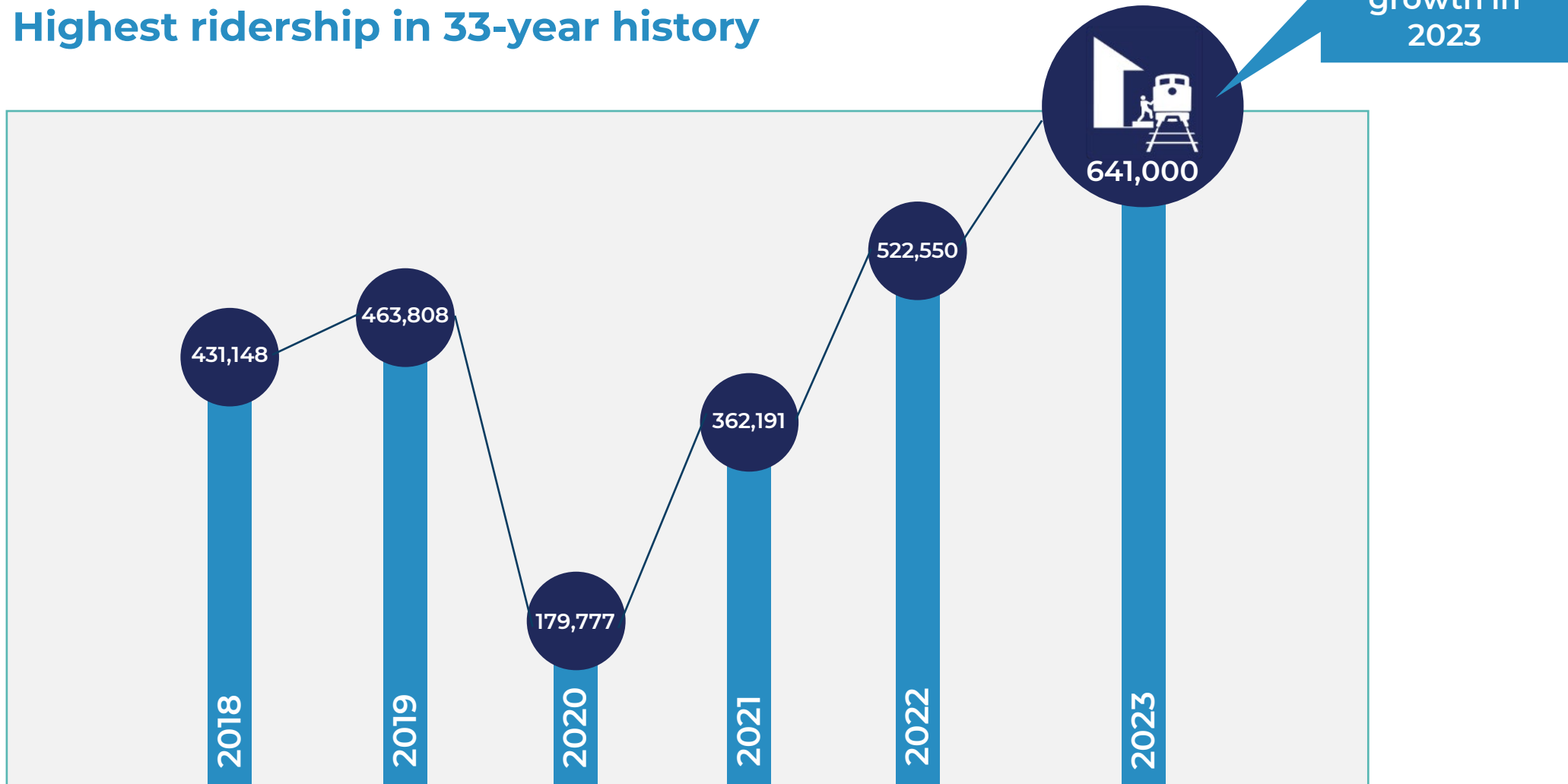
• NC By Train

- Nationally among the best performing services during and post pandemic
- 6th roundtrip between Raleigh and Charlotte in the works



NC Intercity Passenger Rail Service – Amtrak Piedmont and Carolinian services

Highest ridership in 33-year history



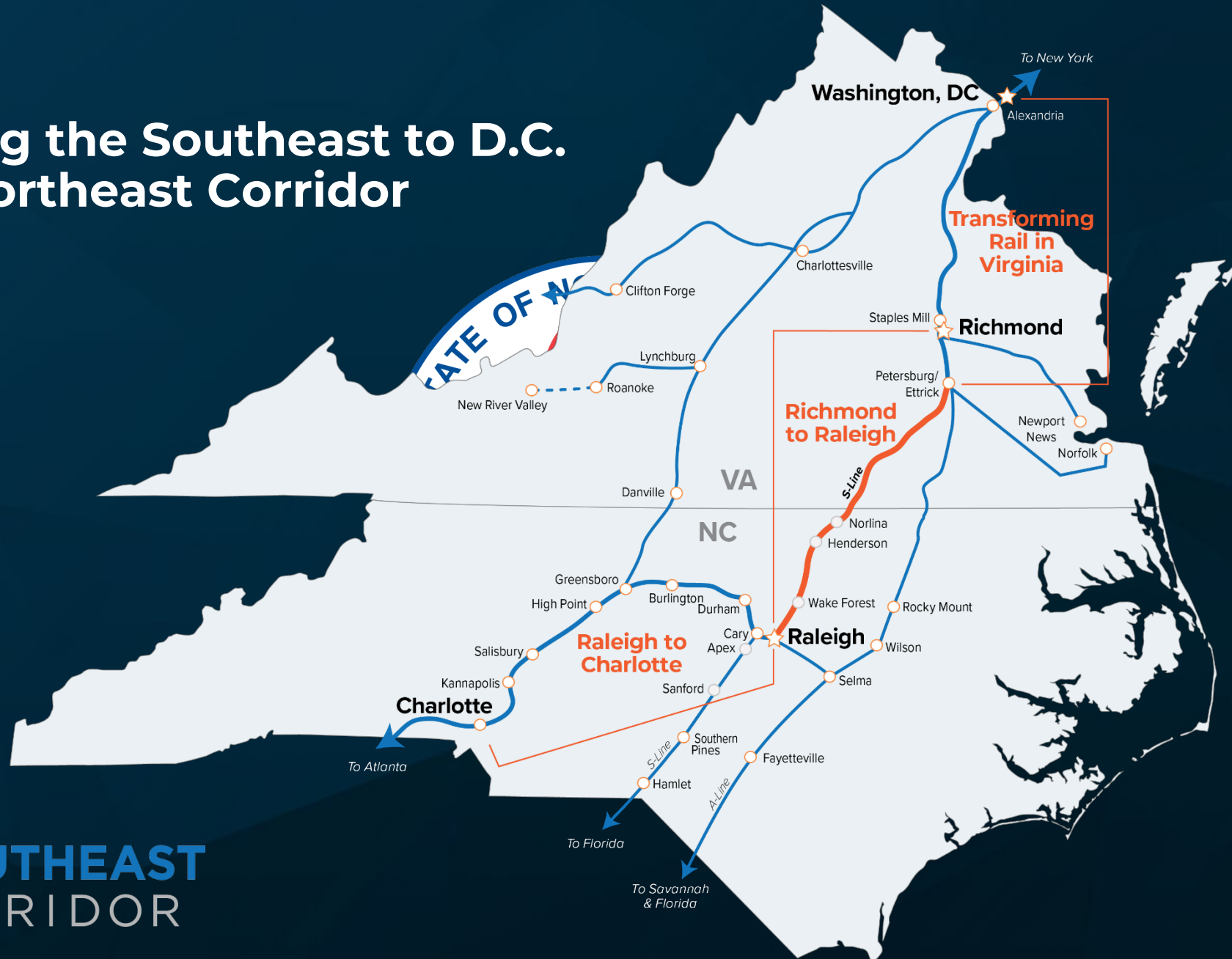
Successful Grant Applications

\$1.1 Billion and Counting!

- ✓ \$47.5M CRISI grant
 - Purchase CSX ROW
- ✓ \$57.9M CRISI grant
 - Land surveying, preliminary engineering
Raleigh – Richmond
- ✓ \$900K FTA TOD Study grant
 - TOD Study
- ✓ \$3.4M RAISE grant
 - Mobility Hub Plan
- ✓ \$1.09 Billion – Fed State Partnership
 - Construction from Raleigh – Wake Forest



Connecting the Southeast to D.C. and the Northeast Corridor



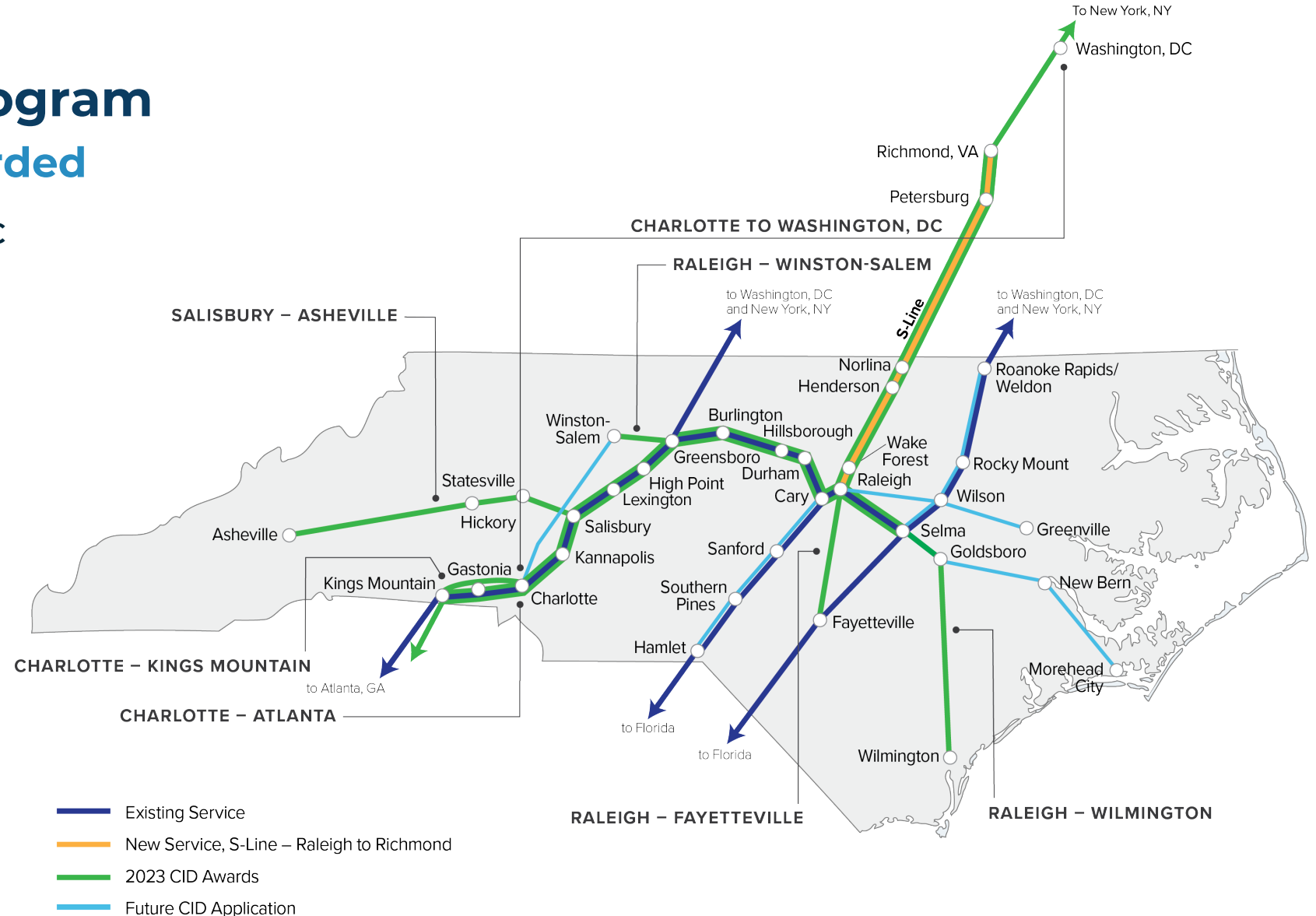
NC Corridor ID Program

Seven Corridors Awarded

- ✓ Charlotte to Washington, DC
- ✓ Salisbury to Asheville
- ✓ Raleigh to Wilmington
- ✓ Charlotte to Kings Mountain
- ✓ Raleigh to Fayetteville
- ✓ Raleigh to Winston-Salem
- ✓ Charlotte to Atlanta

Future CID Applications:

- Raleigh to Greenville
- Raleigh to Hamlet
- Raleigh to Morehead City
- Winston-Salem to Charlotte
- Raleigh to Weldon



Towns shown are for geographical reference only and do not represent station locations.

Studies/Plans

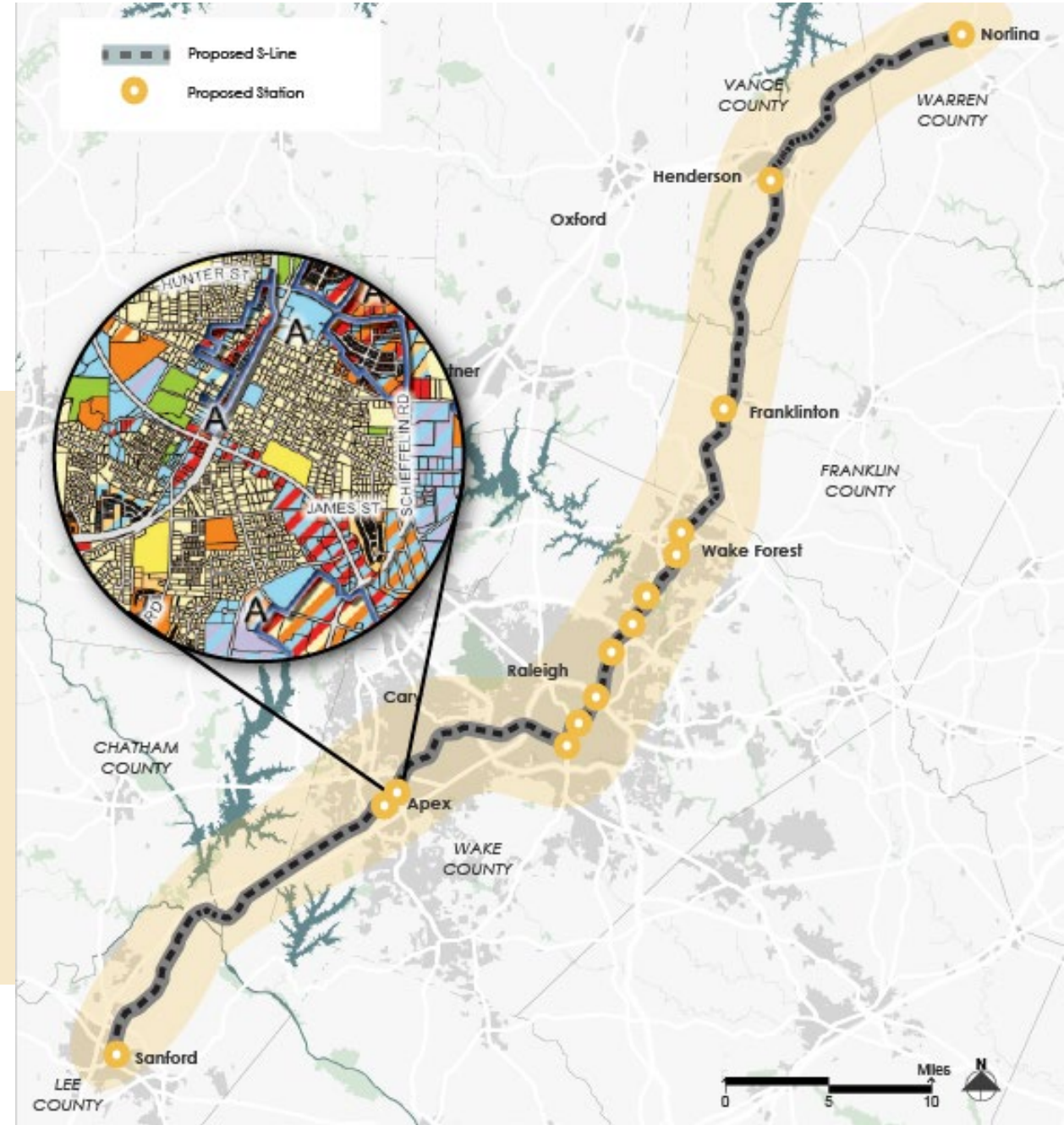
ncdot.gov

Mobility Hub Plan

S-Line Transit Oriented Development
Federal Planning Grant – \$900K

Linking Land Use and Transportation Planning

- **Corridor-wide Conversations**
 - Corridor/service vision and goals
 - Station locations
 - Funding / financing
 - Transit operations
- **Local Implementation**
 - Land use plans
 - Zoning
 - Regulatory Policies
 - Infrastructure investments



Mobility Hub Plan

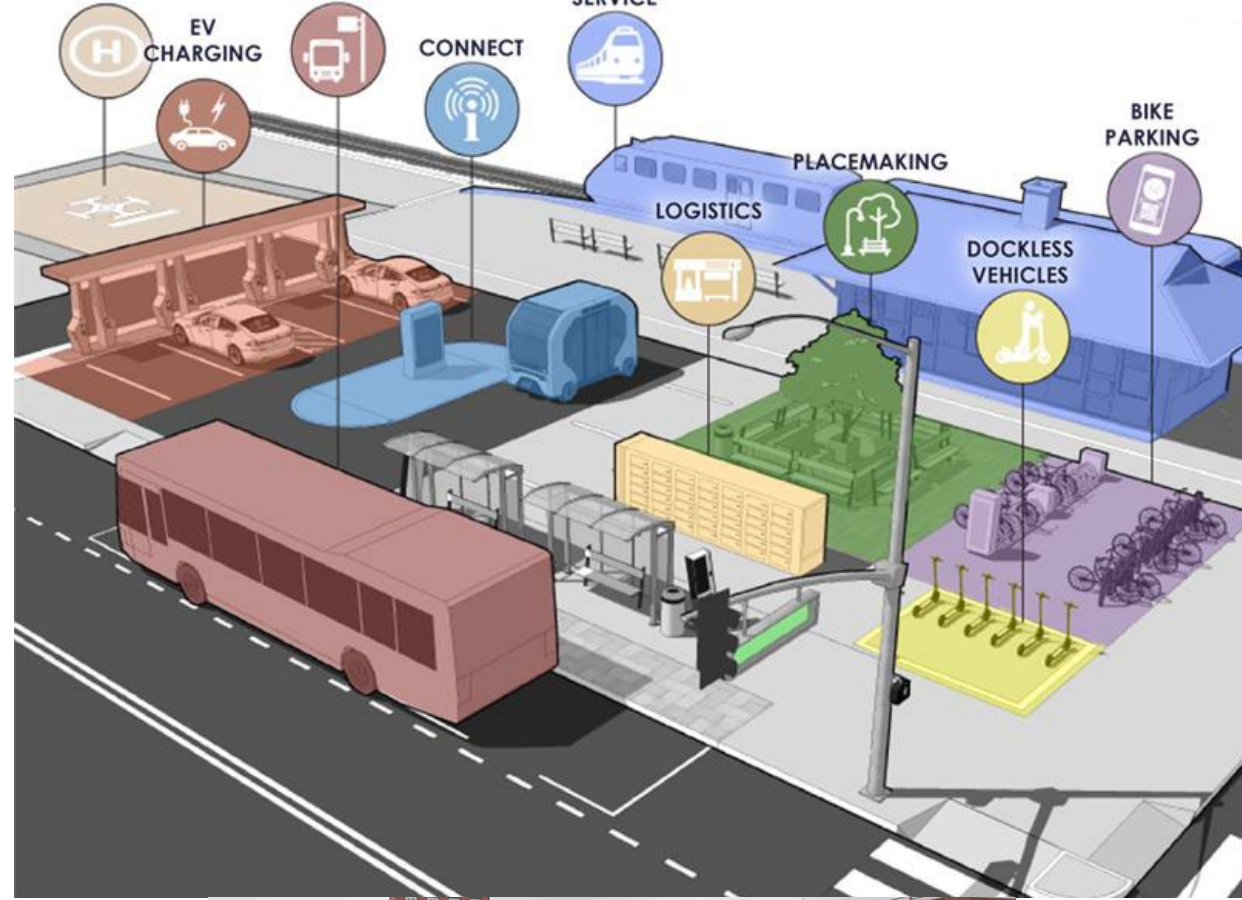
FY 2022 RAISE Grant Awarded

North Carolina Regional S-Line Mobility Hub Plan

Focus on defining the scope, physical location and potential hub layout.

Mobility Hub Location	Task
Sanford*	Feasibility/Site Assessment NEPA Preliminary Engineering
Apex	Feasibility/Site Assessment
Wake Forest	Feasibility/Site Assessment NEPA Preliminary Engineering
Youngsville	Feasibility/Site Assessment
Franklinton*	Feasibility/Site Assessment
Henderson*	Feasibility/Site Assessment NEPA Preliminary Engineering
Norlina*	Feasibility/Site Assessment NEPA Preliminary Engineering

*Rural area pursuant to the NOFO definition.



State, local leaders celebrate S-Line grant



NORTH CAROLINA
Department of Transportation



Freeway, Arterial, Street and Tactical



Bus station/
stop design &
layout

Direct BRT
linkages to RDU

Transit signal
prioritization
standardization

Express lanes,
expanded BOSS,
dynamic shoulders

Bicycle &
pedestrian access
improvements

Mobility-as-
a-service
& single digital
ticketing solutions

Mobility
hubs,
complete
streets, &
micro-
mobility
solutions

Municipal – Cary, Chapel Hill, Durham, Raleigh

County – Chatham, Durham, Johnston, Orange, Wake

State/Region – CAMPO, DCHC-MPO, Central Pines RC, GoTriangle, NCDOT, RDU Airport, RTA, RTP



Scoping
overview
meeting held
with study
partners

Consulting
Firm
Selection
(WSP
Selected)

Scope
Development

Scope
Refinement

Feb

Project
Kickoff



- Governance Framework / Stakeholder Engagement
- Needs Assessment/Analysis & Primary Corridor Identification
- Project / Improvement Evaluation & Recommendations
- Implementation Plan & Prioritized Recommendations

Statewide Locally Coordinated Plan (LCP) Update

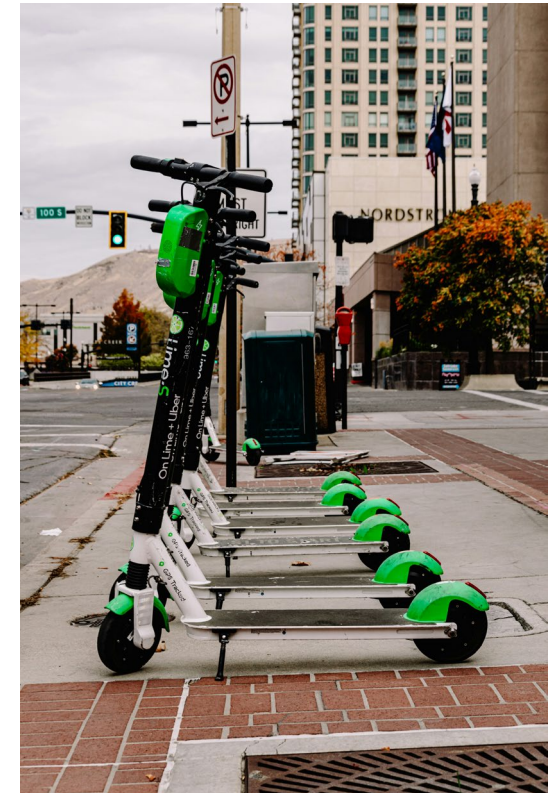
FTA 5310 and Rural Operating Assistance Program (ROAP)

- FTA's Section 5310 program (Enhanced Mobility of Seniors & Individuals with Disabilities).
- Plan covers all parts of the state except for urbanized areas with populations over 200,000
- Over 1,800 participants in public outreach process
- Coordinating committee will review draft recommendations
- Plan will be finalized in March/April
- Final document and recommendations will be posted on NCDOT site



Micromobility Strategy

- Report and Literature review completed
- Next Steps
 - Informational handout and other resources being refined for distribution
 - Handout and resources can be used by municipalities to inform the public, elected officials, etc.
 - Anticipating final report and materials finalized and posted on NCDOT site by March



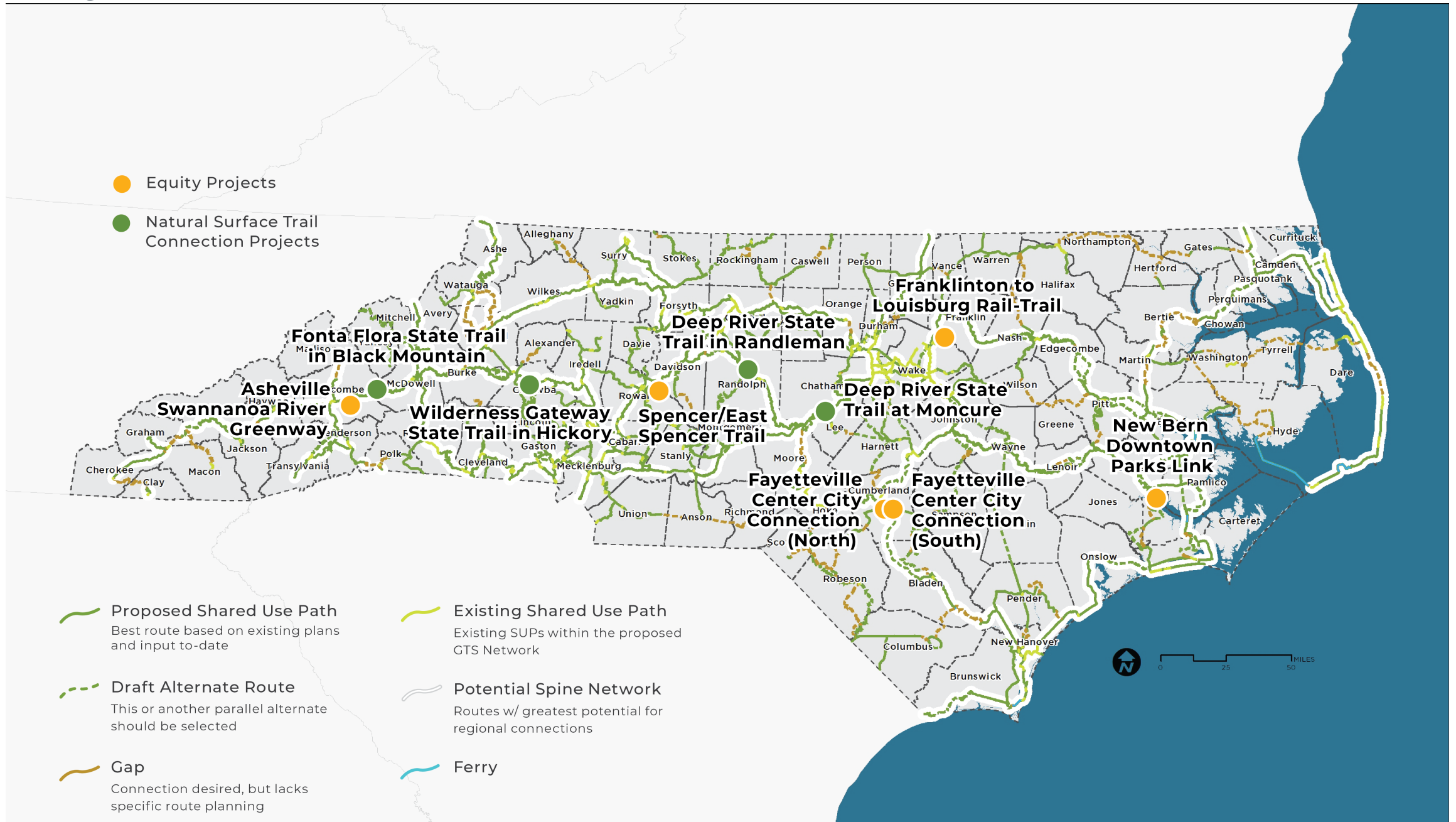
Great Trails State Implementation Report

- Takes the Great Trails State Plan Network and evaluates entire network based on:
 - Equity Benefits
 - Connections to state designated trails
- 11 projects were identified
 - 6 for equity
 - 5 for state designated trails/natural surface
 - One is currently being studied as part of Paved Trails Feasibility Study Program
- Survey aims to gather general input/feedback on 11 projects from surrounding communities



Publicinput.com/greattrailsnc

Great Trails State Implementation Report



Great Trails State Implementation Report

Example Project Cutsheet

New Bern Downtown Parks Link (East Coast Greenway)

LENGTH
5.96 miles

FROM
Stevenson Road

TO
Union Point Park

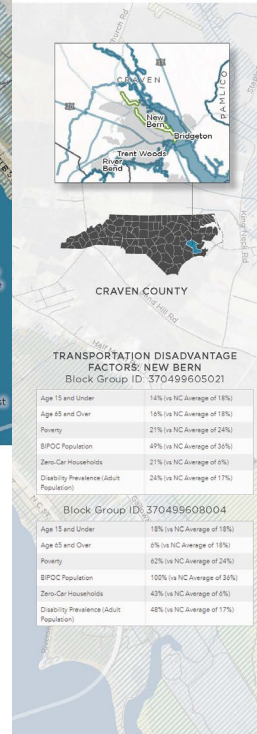
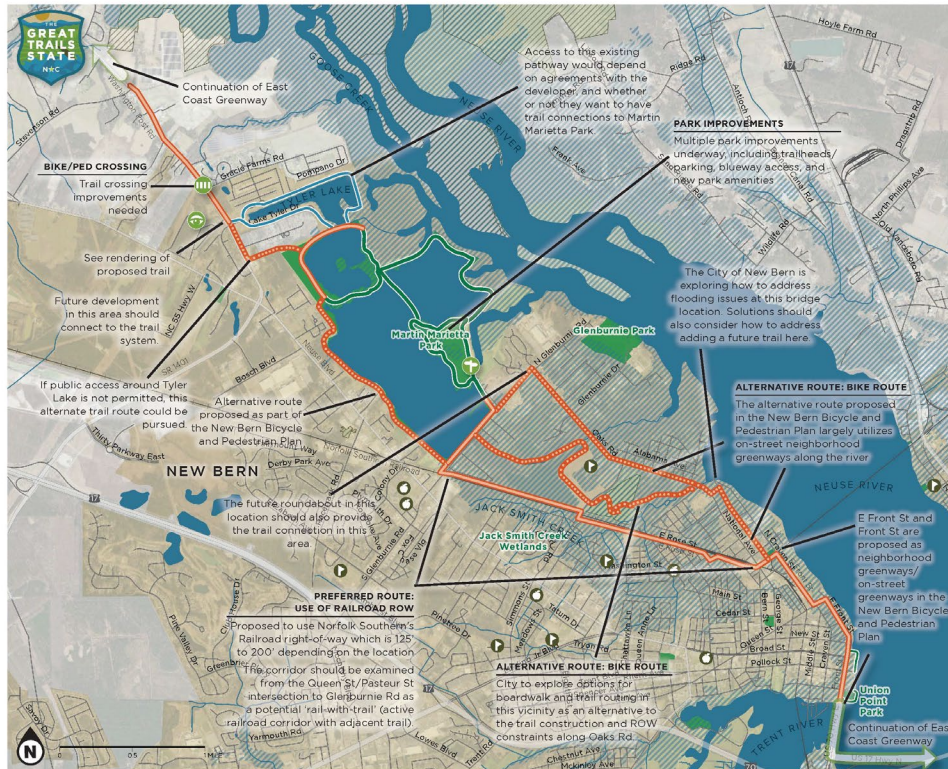
LEGEND

TRAIL FACILITIES

- Existing Trail or Shared Use Path
- Proposed Trail Route
- Proposed Alternate Route
- Future Trail Connections
- Existing Sidewalk Connection
- Proposed Trailhead
- Proposed Trail Crossing
- Location of Artist's Rendering
- Railroad Crossing

OTHER FEATURES

- 100-Year Floodplain
- Municipal Boundary
- Park
- Public Land (Federal/State/Muni.)
- Conservation Easement
- School
- Grocery Store



New Bern Downtown Parks Link (East Coast Greenway)

Why?

PROJECT CONTEXT

This project connects downtown New Bern to several of the City's major parks. This route will become part of the East Coast Greenway's "complementary route" through NC, serving as an eastern alternative to the spine route through the center of the state!

KEY DESTINATIONS

- Martin Marietta Park
- Glenburnie Park
- Jack Smith Creek Wetlands
- George Street Park
- Union Point Park and Riverwalk
- Barber Elementary
- Oaks Road Elementary

SUPPORT IN PREVIOUS PLANS

- New Bern Bicycle and Pedestrian Plan (2022)
- Craven County Comprehensive Plan (2020)
- New Bern Pedestrian Plan (2009)
- Martin Marietta Park Master Plan (2018)

PUBLIC INPUT

The above plans all incorporated an extensive public input process.



1 <https://www.greenway.org/states/north-carolina>

How?

JURISDICTION(S)

City of New Bern, Craven County

OTHER POTENTIAL PARTNERS

- NCDOT
- East Coast Greenway
- Developers

POTENTIAL FUNDING SOURCES

Transportation Alternatives Program grants, Safe Routes to School (especially near Oaks Rd Elementary), Carbon Reduction Program, other state or federal grant funding, East Coast Greenway Alliance

PLANNING-LEVEL COST ESTIMATES

The project cost is estimated to be around \$6.5 million. For a detailed breakout of planning level

costs, see Appendix A.

ROW NEEDS

The trail along Washington Post Road has 30+ feet of ROW where pathway is shown below. ROW around Lake Tyler needs to be secured. The preferred route through downtown New Bern would need to secure use of an active railroad ROW to be a rail-with-trail.

DESIGN OPTIONS AND CONSIDERATIONS

The trail along Washington Post Road and the railroad line would be a 10-12 foot paved greenway.

Martin Marietta Park's trails are unpaved; if a paved trail is desired, an alternate paved route paralleling Neuse Boulevard could be built.

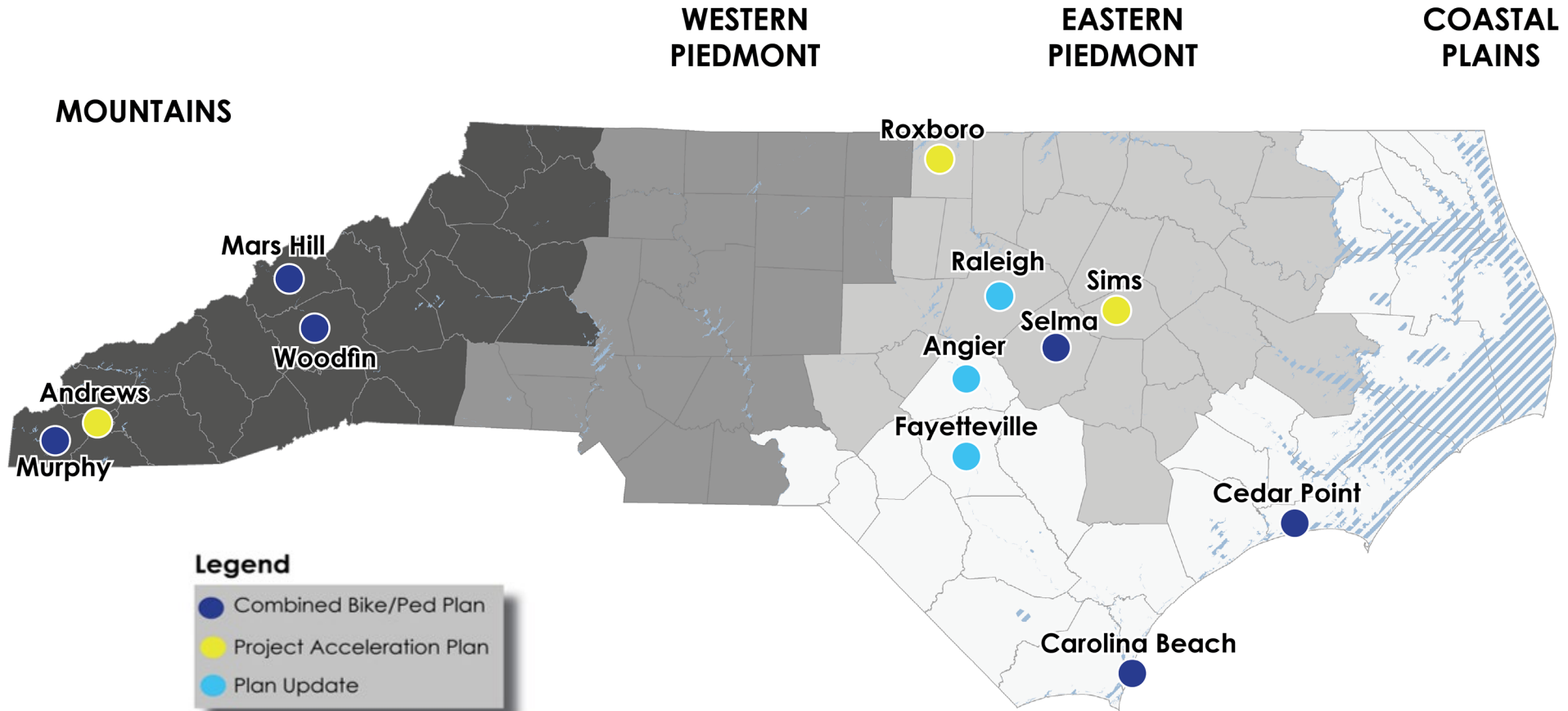
The section of E Front Street and Front Street would be an on-street neighborhood greenway.



Grant Programs

2023 Multimodal Planning Grant Recipients

Starting up this winter



2024 Multimodal Planning Grant

Key Dates

Home > Connect NCDOT > Local Governments > Planning > IMD Multimodal Planning Program

About the Multimodal Planning Program



The NCDOT Integrated Mobility Division (IMD) and the Transportation Planning Division created an annual matching grant program – the Multimodal Planning Grant Program (MMPG) – to encourage municipalities to develop comprehensive bicycle plans and pedestrian plans. This program was initiated in January 2004 and is currently administered through NCDOT-IMD.

Overview

[Multimodal Planning Grant Program Overview](#) 

Program Options for Local Governments

- [Bicycle and/or Pedestrian Plan](#)
- [Multimodal Network Plan](#)
- [Plan Update](#)
- [Project Acceleration Plan](#)

FAQs

[Multimodal Planning Program Frequently Asked Questions](#) 

Municipal Plan Implementation Progress

Activity	Date
Issue call for applications	February 12, 2024
Application submission deadline (5 PM COB)	March 25, 2024
Awards committee makes selection	April 2024
Board of Transportation approval	June 2024
Award notices	June 2024

Webpage - IMD Multimodal Planning Program (ncdot.gov)



111 PLANS
generated over
249 STI PROJECT
submissions with
98 PROJECTS
funded in the 2020-2029 STIP.

36

communities completed
ten or more projects from their
adopted plan

19

communities completed **five**
to nine projects from their
adopted plan

24

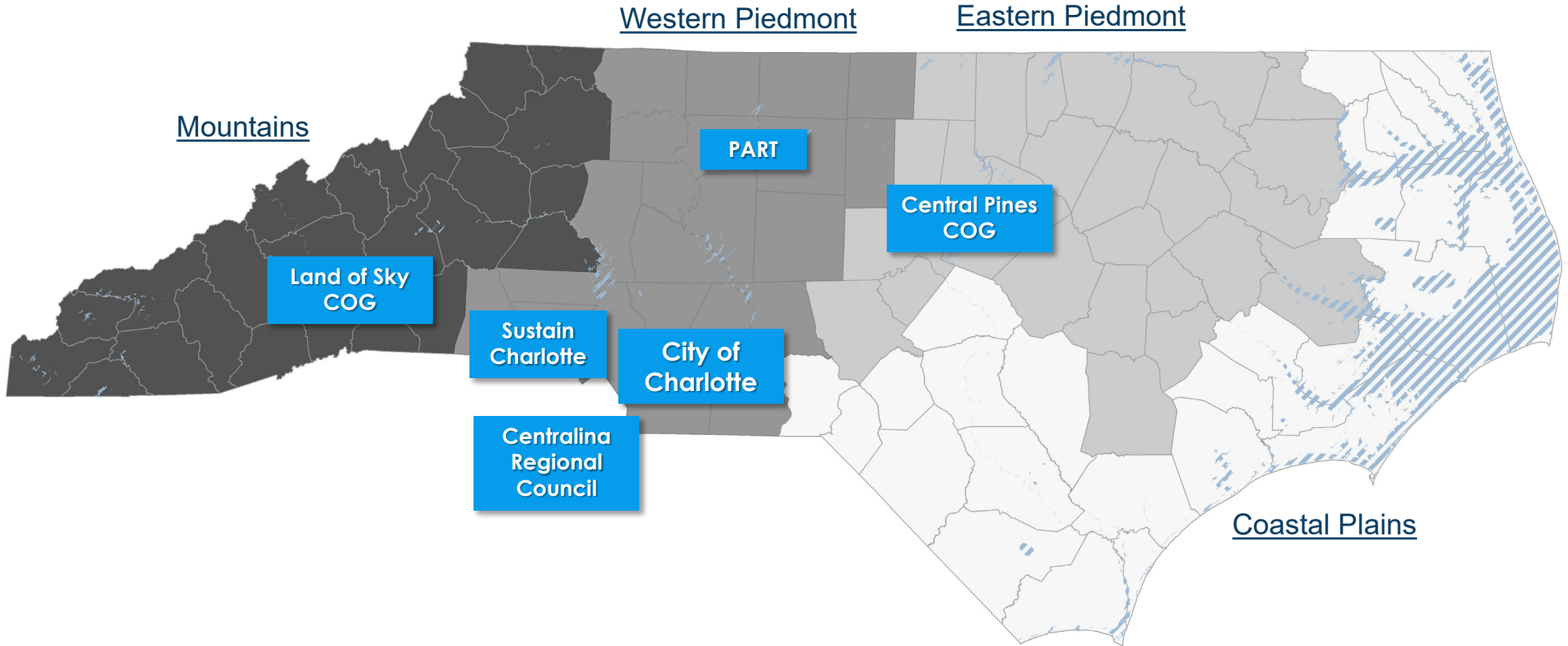
communities completed **one**
to four projects from their
adopted plan

2024 Planning Grant Implementation Survey

- Annual legislatively-mandated report related to IMD Multimodal Planning Grant (formerly Bicycle-Pedestrian Planning Grant Initiative)
- Survey topics related to funding-phase, construction-phase, completed projects, or no progress. Other topics related to other grant awards and barriers to implementation.
- Surveys open through March 4th
- Link to 2023 report: <https://connect.ncdot.gov/municipalities/PlanningGrants/IMD-Multimodal-Planning-Program/Documents/NCDOT%20Annual%20Bicycle%20and%20Pedestrian%20Planning%20Grant%20Funds%20Report.pdf>

Transportation Demand Management (TDM) Program

Current Partners



FY 2025 TDM Program

Home > Connect NCDOT > Doing Business > Public Trans > Transportation Demand Management (TDM)

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) programs promote the use of all transportation options available, rather than defaulting to single occupant vehicle use. Included among these travel options are carpooling, vanpooling, teleworking, transit, bicycle, flexible work hours, compressed work weeks and parking policies/pricing structures. The NCDOT Integrated Mobility Division (IMD) funds TDM programs to continue supporting the provisions of the Ambient Air Quality Improvement Act of 1999, Senate Bill 953, which addressed concerns over ground level ozone pollution from motor vehicles and the need to deal with increasing vehicle miles traveled (VMT) and NOx emissions. The bill established a goal of reducing the growth of commuter VMT in the state by 25 percent from 2000 until 2009 and that goal was achieved. Continuing strides have been made in the years following this achievement.

Grant Application Call for Projects

Application	Deadline
FY23 TDM Application Package	Deadline March 18th

PTD – Document Library
Resource documents and materials for Business Partners and Transit Providers.

PTD – Quick Links

- [PTD Intern & Apprenticeship Program Video](#)
- [Statewide Benefits of Transit by Transit System](#)
- [Volkswagen Settlement](#)
- [GIS and Mapping](#)
- [NCDOT Approved Product List Portal](#)
- [BOT Agenda Website](#)

Employee Directory
Staff contacts for *Integrated Mobility Division*.



[Transportation Demand Management \(TDM\)](https://www.ncdot.gov/Doing-Business/Public-Trans/Transportation-Demand-Management-(TDM))
[\(ncdot.gov\)](https://www.ncdot.gov)

FY 2025 TDM Program

Key Dates

Dates	Task/Event
Feb-23-2024	TDM application materials posted to NCDOT website
Mar-29-2024	Deadline for FY 2025 TDM applications & budget to be submitted in EBS
May-2024	FY 2025 TDM Projects presented to NC Board of Transportation
Jul-1-2024	Beginning of State fiscal year & Period of Performance for FY 2025 TDM programs

Bicycle Helmet Initiative

- Purpose - The primary goal of the Bicycle Helmet Initiative is to reduce child/youth bicycle fatalities and serious injuries, including head trauma, in North Carolina by wearing bicycle helmets when riding bicycles.



- Eligibility / Requirements
 - Applicants/Organizations must not be private companies/ for profit and be a North Carolina resident. All distribution activities must take place in North Carolina.
 - Helmets should be distributed to low-income children 17 & under.
 - Helmets cannot be sold.
 - Helmet distribution must take place within 12 months after receiving helmets.
 - Awardees will submit a report on their bicycle program within 30 days following event (Final deadline for report is December 31, 2024).

Bicycle Helmet Initiative

Key Dates

Activities	Dates
Call for Applications	January 4, 2024
Application Submission Deadline – 5:00 pm	February 9, 2024
Award Notification / BOT Approval	March 2024
Awardees Receive Helmets	By April 2024
Final Bicycle Event Report Submission Deadline	Within 30 days of event or end of the awarding year

Webpage - <https://connect.ncdot.gov/projects/BikePed/Pages/Bicycle-Helmet-Initiative.aspx>

Safe Routes to School – Non-Infrastructure Grant Program

What is the Safe Routes to School Program?

SRTS is a cost-reimbursement program for non-infrastructure programs and activities to local governments, regional planning organizations, schools, and other local or regional entities.

- Enable and encourage K-12 children, including those with disabilities, to walk and bicycle to school.
- Make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.
- Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools.



Safe Routes to School – Non-Infrastructure Grant Program

New Partners

Town of Winterville

Triangle J Council of Governments

Durham Public Schools

Wake County Health and Human Services

Kerr-Tar Regional Council of Governments

Hoke County Health Department

Town of Carrboro

Town of Chapel Hill

City of Greensboro

Mount Airy City Schools

Foothills Regional Commission

Land of Sky Regional Council



Safe Routes to School – Non-Infrastructure Grant Program

Eligibility

- Eligible participants are our local governments, school districts, regional planning agencies, etc.
- Funds are for local SRTS coordinators, materials for marketing and education, action plans, school events and more
- Available funds:
 - Transportation Alternatives Program and legacy SAFETU funds (100% funding).
 - Requests may range from an overall amount of \$50,000 to \$500,000 per project.



Eligible Programs and Activities

Eligible programs consist of:

- Education
- Encouragement
- Evaluation

Program and activity locations:

- Need to be within 2 miles of a K-12 school, public or private

Example activities (not exhaustive):

- Pedestrian skills training (Let's Go NC!)
- Traffic garden
- Walk & Roll to School Day
- Walking school bus or bike bus
- Road safety audits
- Policies that support safe walking and biking
- Collecting school travel data

Zero Emission Vehicle (ZEV) Transition Plans

Purpose

- Inform and prepare transit agencies to transition fleet
- Requirements for Low to No Emissions Grant

NCDOT – IMD Support

- Awarded \$500,000 to the program

Partner Transit Agencies

- Buncombe County
- Wilson County
- Johnston County
- Duplin County
- *Wake County – to be determined

Timeline

- August 2023 – April 2024

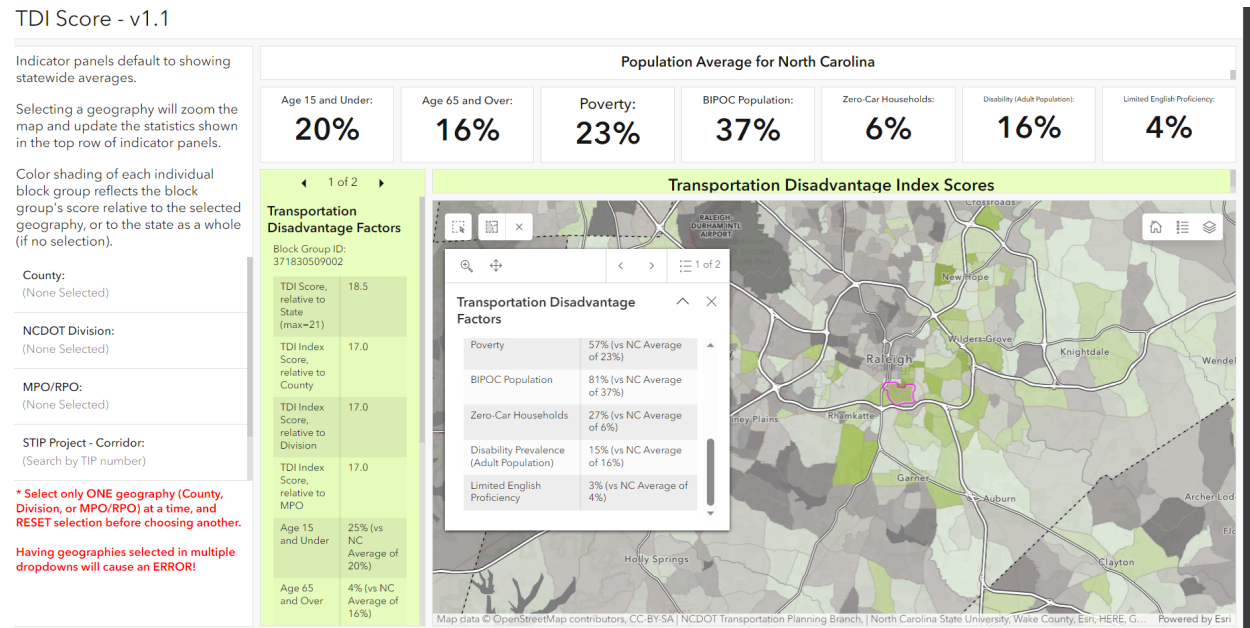


Other Initiatives and Resources

EJ/TDI Tool Updates

LEP data added; TDI scores can be “0” instead of “1”

- LEP data included in TDI score (now 7 variables)
 - 2020 5-year ACS data consistent with other variables
- TDI Scoring Methodology updated to help with interpretation
 - Scores will be adjusted relative to previous methodology
 - Population groups may now score 0 instead of 1 if population group is not present in block group, i.e. 0%
 - Change intended to help interpret map/results



Webpage - <https://storymaps.arcgis.com/stories/7e3bbd00fe014a77b5f1620334209712>

Contact balopez@ncdot.gov for questions

On-Demand Microtransit Annual Report

- State of microtransit implementation in NC – report now available online
- Report intended to be updated annually
- Report highlights:
 - Summary of microtransit mode and benefits
 - Service characteristics for all NC agencies with existing deployment
 - Statewide map of implementation categories
- Report Link:
<https://www.ncdot.gov/divisions/integrated-mobility/public-transit-services/on-demand-microtransit/Documents/ncdot-on-demand-microtransit-annual-report.pdf>

Demand Microtransit Annual Report 2023



By the Numbers

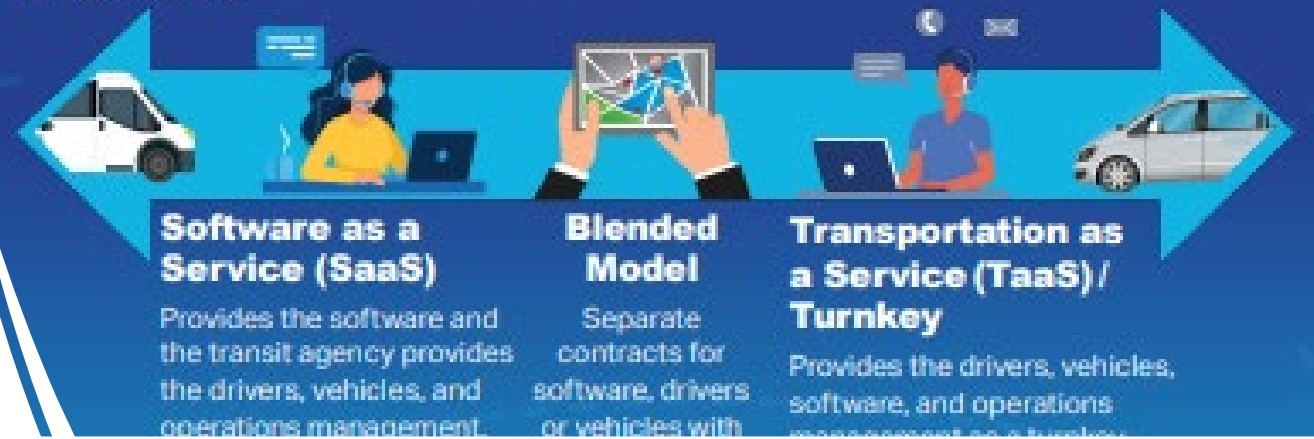


WHAT IS ON-DEMAND MICROTRANSIT?

A technology-enabled, public transportation system with flexible routing based on real-time trip demand and origin-destination patterns

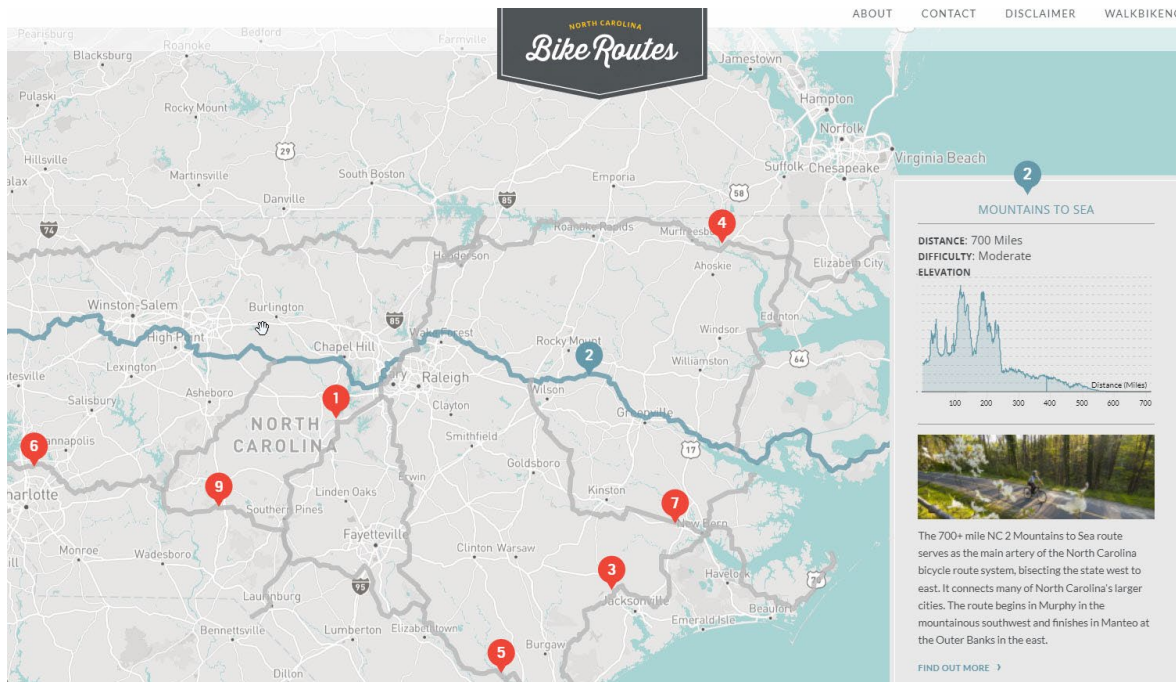


Models



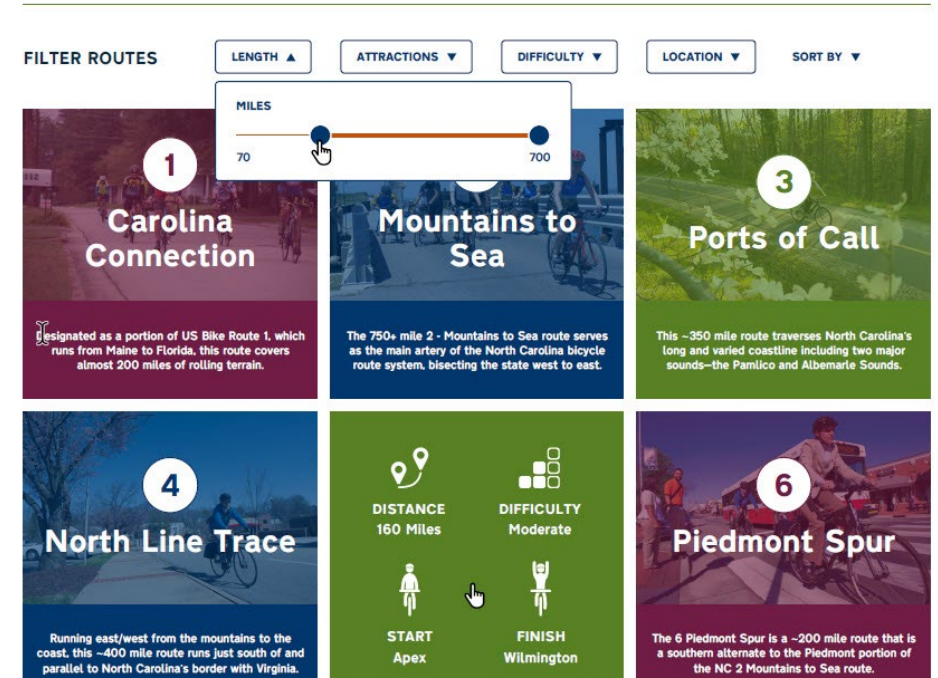
State Bike Routes

- Website refresh
- 3 New Routes
 - Downloadable route data (GPX)
- Same interactive style
 - Enhanced user experience

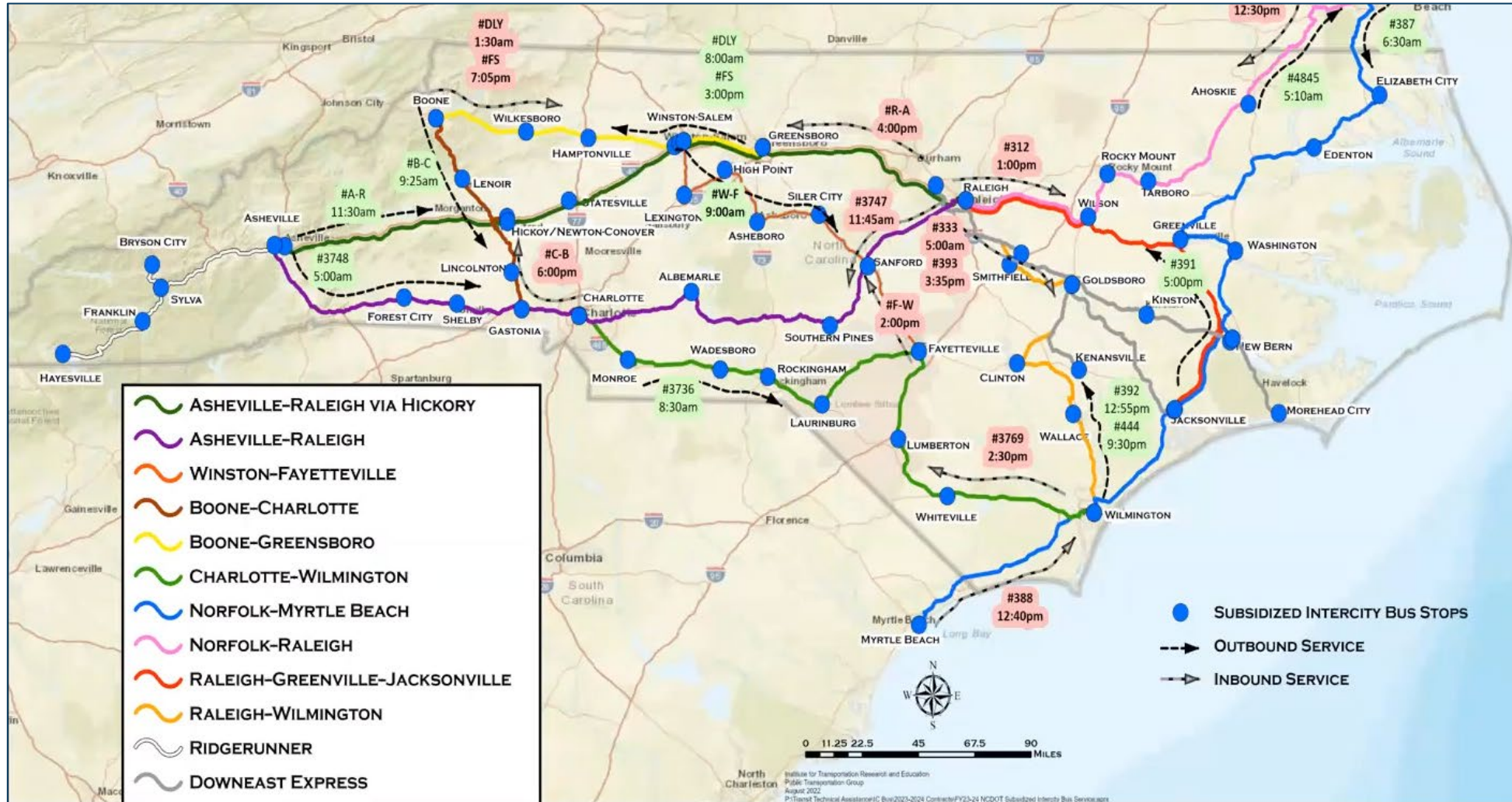


Explore the Routes

12 different routes covering 3,800 miles of the best North Carolina has to offer comprise the current system.



Intercity Bus



Intercity Bus

What's Next?

- Public campaign to promote intercity bus
- Targeted outreach in communities served by intercity bus
- Better connectivity with NC By Train Service
- Bus stop relocations
- System-wide analysis to serve unmet transportation needs



ncdot.gov

CASSI in Cary's Bond Park – Final Report, Datasets, and Data Story

NCDOT and Cary published a final report, datasets, and a curated data story for the pilot in October 2023.

<https://www.ncdot.gov/CASSI> → Completed Projects



Connected Autonomous Shuttle Supporting Innovation
(CASSI) in Cary's Bond Park

Final Report

October 2023



CASSI at UNC Charlotte

23-week pilot from July 12-December 21, 2023

Compared to previous pilots under the CASSI program:

- ❖ Most signals (four total)
- ❖ Longest route (2.2 miles)
- ❖ Longest duration (6 months)
- ❖ Most complicated mixed traffic environment
 - Includes bicyclist, scooter, pedestrian, motor vehicle, and transit interactions and shared stops with the existing campus bus fleet





Request for Information (RFI) on Automated Transit Vehicles

Automated transit technologies have not been commercialized and are currently in the research and development (R&D) (includes prototyping and testing) and demonstration (includes pilots) phases of development.

Automated Driving Systems (ADS) for Transit Vehicles



Connecticut DOT's
CTfastrak ABRT
(Operations expected to
begin in 2023)

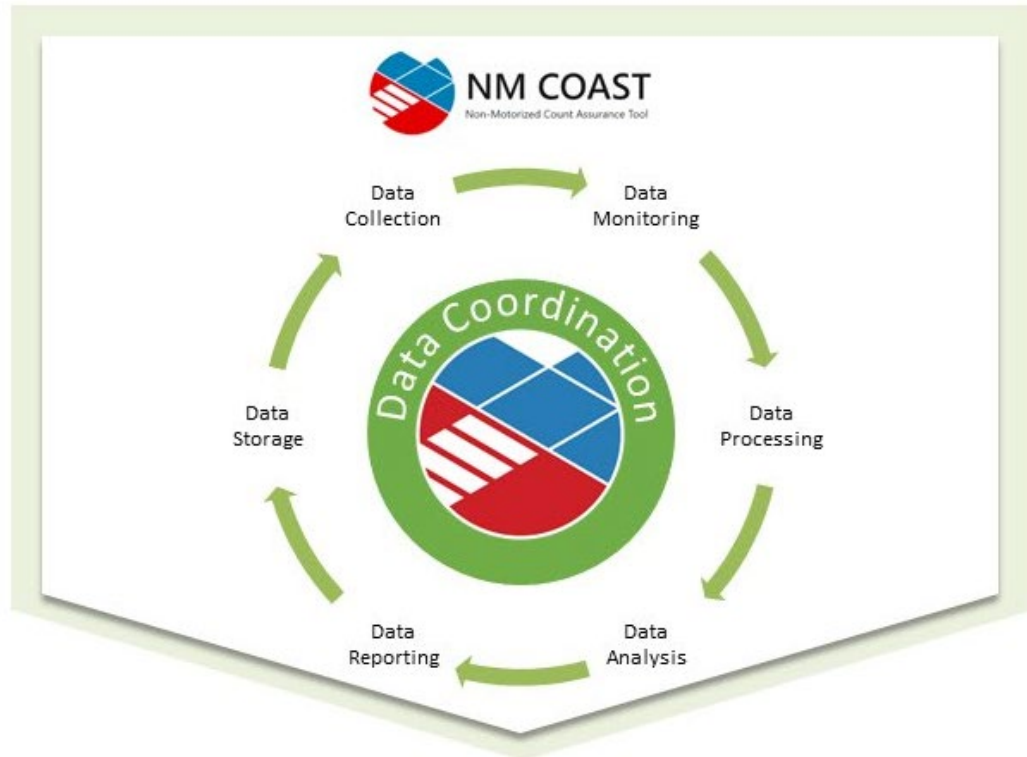


Scotland's
CAVorth
autonomous
bus pilot
(May 2023
until 2025)



Michigan
State
University
(MSU)'s
Autonomous
Bus
(May 2022
until April
2023)

North Carolina Non-Motorized Volume Data Program (NC NMVDP)



NM COAST updates underway

- o NCDOT testing period to begin soon followed by stakeholder testing

"North Carolina Non-Motorized Volume Data Program (NC NMVDP) and Safety Program Support" Project

- o Survey and Interviews have been completed
 - In depth interviews included 7 NCDOT divisions and 6 external entity interviews
- o Reviewed other states' bike/ped counting portals
- o Reviewing potential options for the program's data management

NC NMVDP Eco-Counter 4G Upgrades

- o HSRC has started the work of replacing the 4G components in counters across the state



Summary of dates to keep in mind

- Great Trails State Implementation Report – the [public input survey](#) is live as of **February 1** (press release to follow)
- [Bicycle Helmet Initiative](#) – grant call *closes* **February 9**
- [Multimodal Planning Program](#) – grant call *opens* **February 12**
- [TDM Program](#) – grant call *opens* **February 23**
- **Introduction – New IMD Interim Director – Brennon Fuqua** (if not covered at the beginning of the webinar)

Next Multimodal Updates Webinar – May 2024

For slides and recordings – [Multimodal Updates Webinars](#)

Thank you!

