Joint Board Meeting

Capital Area MPO & Durham-Chapel Hill-Carrboro MPO

May 31, 2024

CENTRAL PINES
REGIONAL COUNCIL

Call to Order & Welcome

Mayor Vivian Jones
Town of Wake Forest
Chair, CAMPO Board



Comments from the Public

Each speaker should limit their remarks to 3 minutes



Introduction & Meeting Purpose

Chris Lukasina
Executive Director, CAMPO

Doug Plachcinski
Executive Director, DCHC MPO



Discussion Items

Destination 2055 Metropolitan Transportation Plan:

- Pre-MTP Scenario Testing Results
- Discussion of Next Steps/MTP Alternatives Analysis Preparation



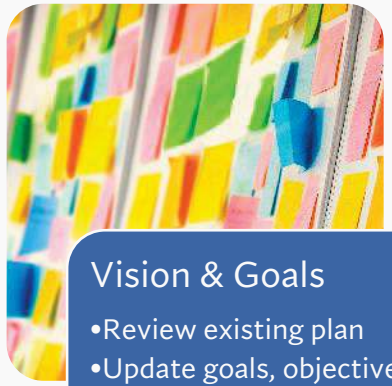
Pre-MTP Scenario Testing Results

Matt Day

Transportation Director, Central Pines Regional Council

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Typical Plan Update Development Process

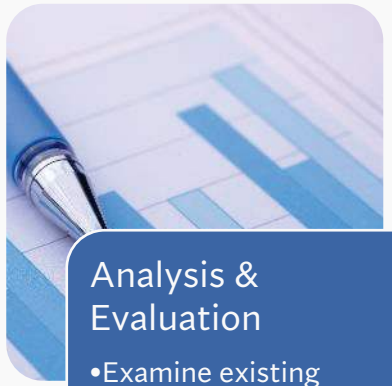


Vision & Goals

- Review existing plan
- Update goals, objectives & performance measures

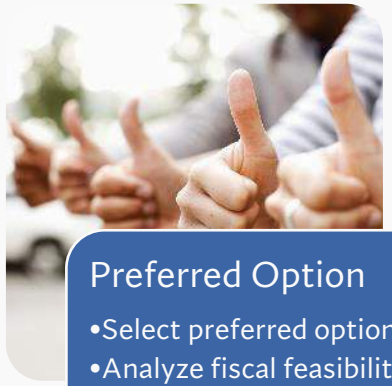
Pre-analysis Scenario Testing

INFORMS



Analysis & Evaluation

- Examine existing conditions
- Forecast future problems
- Develop & analyze alternative scenarios



Preferred Option

- Select preferred option
- Analyze fiscal feasibility
- Confirm preferred option



Final Plan

- Finalize fiscal constraint
- Air quality conformity documentation
- Adoption

Why are we doing "Pre-MTP" scenarios?

By performing our "what if" scenario analysis early in the process, before we begin the detailed analysis work of creating the MTP, we can:

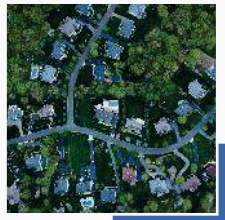


Have enough time to explore options without impacting the plan development schedule



Answer questions early enough in the process that our findings can inform the plan assumptions later on

How did we build scenarios?



Land Use/Development Assumptions

- Changes to location of development
- Changes to amount of development
- Changes to type of development (categories of housing and employment)



Transportation Network Assumptions

- Changes to selected transportation projects & modes
- Changes to funding assumptions
- Changes to scope of transportation projects



Compare Performance Measures

- Use selected performance measures tied to plan goals to analyze and compare scenarios against each other, against a baseline, and against our expected outcomes



Tested Scenarios

Scenario: Baseline (Existing 2050 MTP)

Scenario Purpose

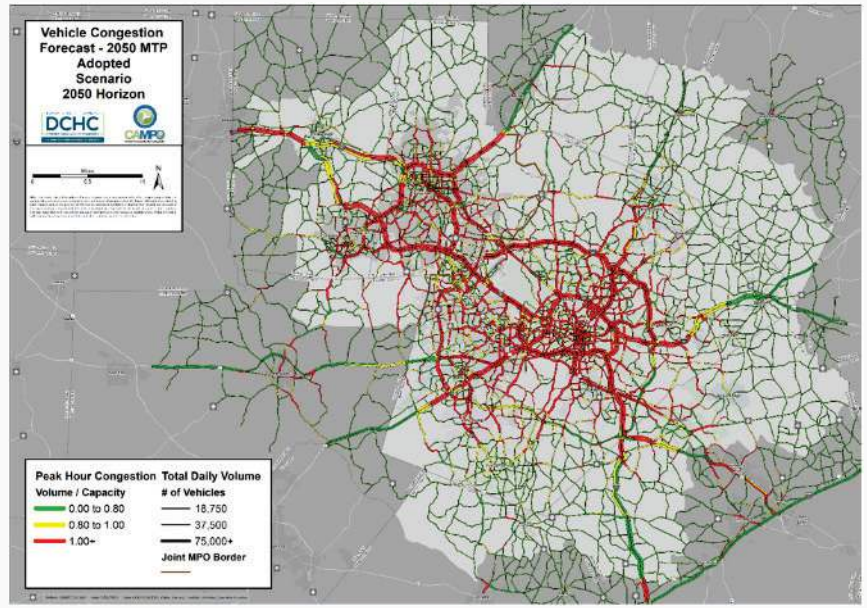
To establish a baseline against which other scenarios can be compared, based on the existing adopted 2050 Metropolitan Transportation Plan

Land Use & Transportation Assumptions

All future housing and employment growth assumptions and transportation investment assumptions based on 2050 plan

Potential Key Performance Measures

Not applicable for this scenario



The 2050 Metropolitan Transportation Plan, ***Connect 2050***, was adopted in early 2022.

For each scenario, we will be able to **compare its performance** on key measures against the baseline/default case, in addition to comparison with the other scenarios.

Scenario: Transit-focused

Scenario Purpose

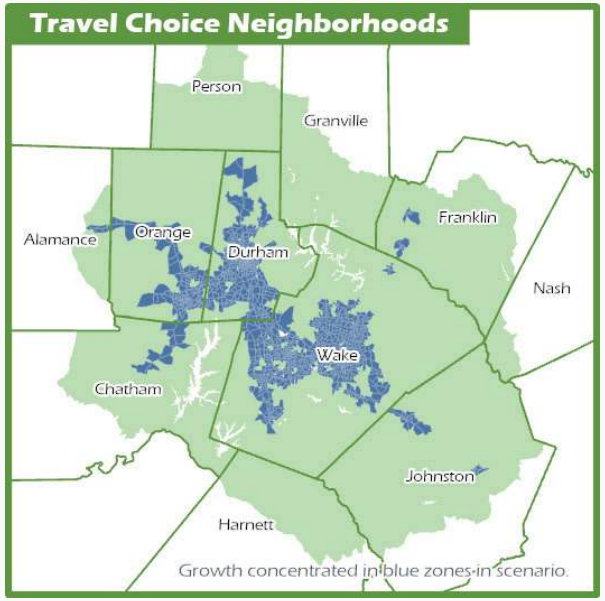
To examine a scenario for maximizing transit ridership

Land Use & Transportation Assumptions

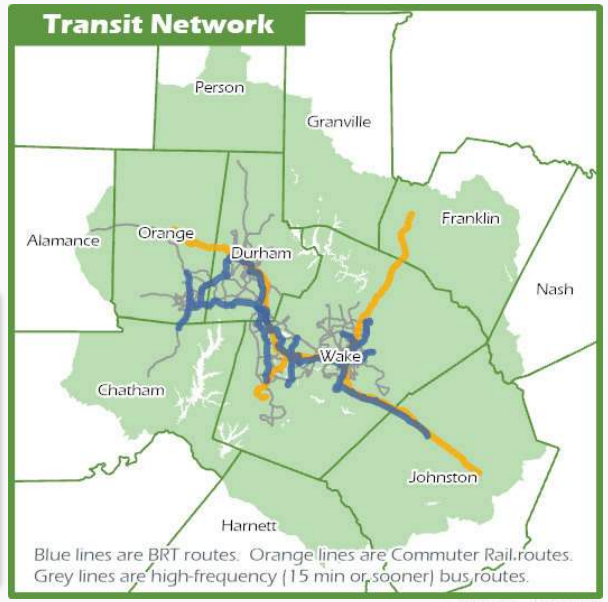
- Assume all future housing and employment growth would be focused in areas near high quality, frequent transit services
- Assume doubled transit frequencies (more service) and investments in additional corridors

Is it *possible* to place all future growth in travel choice neighborhoods?

- Market forces make this unreasonable in reality
- Based on current land use plans, these areas could accommodate significant growth in some counties, but some counties would need as much as **8.5 times** more density around transit stops/lines to accommodate growth fully within these areas



This scenario identified the areas served by planned transit services, and focused all future growth in those areas as **transit-oriented development**.



This scenario also increased the **frequency** of transit services, making those services more attractive to riders and time-competitive with other modes.

CAMPO NC Capital Area Metropolitan Planning Organization

DCHC

Key Takeaways from the Transit-focused Scenario:

- There are real, positive benefits to the functioning of the transportation system by investing in additional transit services and focusing future development around transit services, across a wide array of performance measures, including:
  - Transit ridership and passenger service miles
  - Job Access within 30 minutes by transit & walking from low-income and high-zero-car areas
  - Number of households and jobs in proximity to high-quality transit services
  - Acres of land consumed by future development

- Would see increases in automobile delay measures, but relatively limited overall



Generally Positive Results

Scenario: Equity-focused

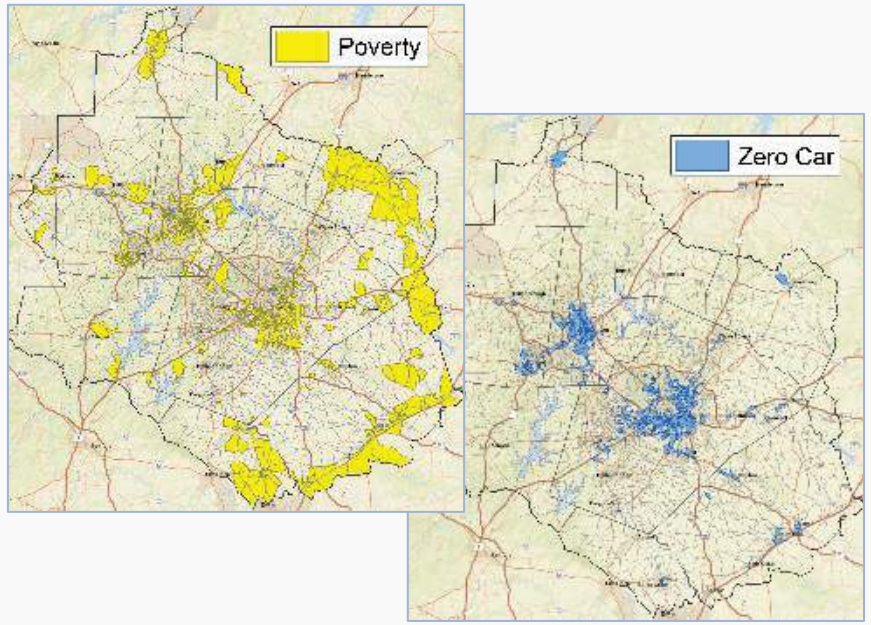
Scenario Purpose

To examine options for policy interventions that would result in more equitable transportation outcomes for communities of concern/underrepresented communities

Scenario Assumptions – Three Options

A. "Moving Jobs to People" - relocating future job growth to occur in/near disadvantaged communities
B. "Moving People to Jobs" - relocating future affordable housing growth to occur in/near areas of job growth
C. "Transit + Equity" – using the transit-focused scenario as a base, but with an additional focus on affordable housing growth in the transit-served areas

It should be noted that many of the types of policy interventions being examined in this scenario would require action by jurisdictions other than the MPOs in order to implement if desired



Using the region's travel model, we can identify areas with high **poverty** & high numbers of **zero-car** households.

A number of the **performance measures** we examine use these identified zones as an input.

Key Takeaways from the Equity-focused Scenario:

- Each option has a mixture of outcomes, but some better than others:
  - Option A: generally mixed results
  - Option B: generally positive results, but does perform worse than baseline on congestion and delay measures
  - Option C: generally positive results, but does perform poorly on delay measures specifically for disadvantage communities

- Activities to promote/provide affordable housing near jobs (especially retail, service, and industrial jobs) as in Option B and to promote/provide affordable housing near high-quality transit services as in Option C appear to have the best potential to improve transportation equity, but would require additional external actions beyond what the transportation planning process can achieve on its own



Generally Mixed Results
A: Move Jobs to People



Generally Positive Results
B: Move People to Jobs
C: Transit+Equity

Scenario: Reducing Growth of Vehicle Miles Traveled (VMT)

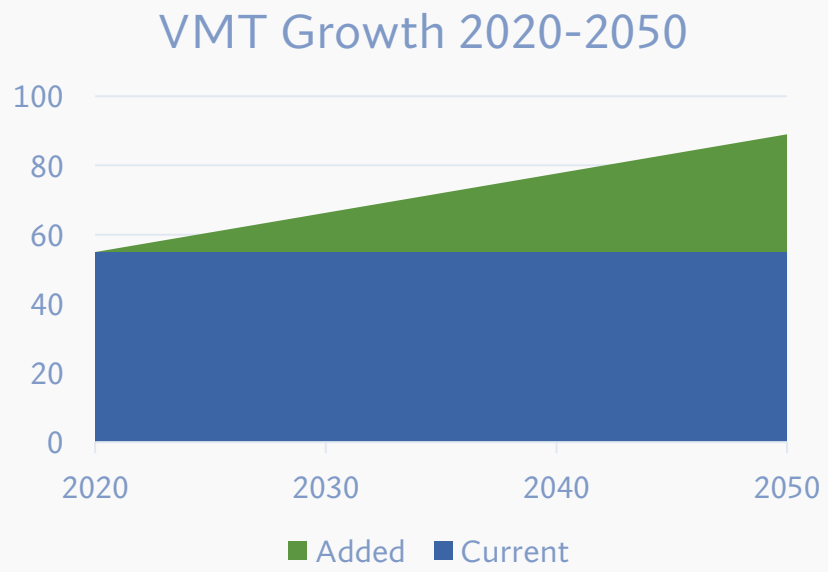
Scenario Purpose

To examine a scenario for minimizing/reducing the *growth* of vehicle miles traveled (VMT), meaning a reduction in per-capita VMT

Scenario Assumptions

Examined four factors that were believed to have the best chances of reducing VMT growth:

- Concentration of development in areas served by high quality transit ("travel choice neighborhoods")
- Increasing transit frequencies
- Instituting a VMT fee (5 cents per mile was used for testing purposes)
- Increasing the rate of working from home (for testing purposes, assumed 20% of home-based-work trips could be converted to teleworking)



The 2050 MTP anticipates **62% growth in population** in the region between 2020 and 2050, and **61% growth in VMT**.

Per-capita VMT (to account for population growth) would actually remain around **27 miles** per person in both 2020 and 2050.

Key Takeaways from the VMT Reduction Scenario:

- This scenario has positive outcomes across all measures we considered as part of this exercise, including significant improvements compared to the baseline on:
  - Transit ridership and passenger service miles
  - Congested VMT
  - Hours of delay for low-income households
  - Jobs within 30 minutes by transit for low-income and zero-car households
  - Population and jobs near high-quality transit
  - Acres of land consumed by development

- Each of the four component factors contributes to the outcome, and even a lesser/more realistic combination of these factors could still have an effect on VMT growth



Overwhelmingly Positive Results

Scenario: Flexible Funding

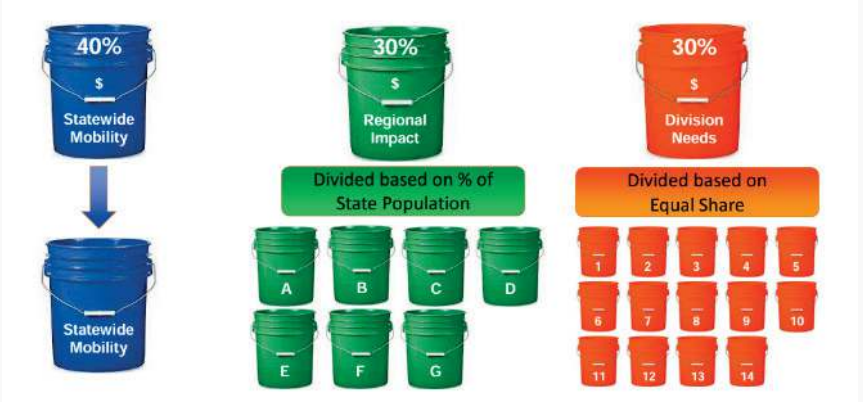
Scenario Purpose

To examine a scenario with different assumptions surrounding the allocation of available funding

Scenario Assumptions

Transportation investment scenarios will change based on:

- Option A: same funding, but remove STI category restrictions
- Option B: same funding, but remove all STI restrictions (modes, caps)
- Option C: less funding for capacity expansion & more funding for maintenance and operations



Note: Because DCHC MPO had already made assumptions similar to Options A&B in the 2050 MTP, project list changes in Options A&B are only found in the CAMPO area.

The 2050 MTP identified around **$76 billion** in anticipated funding between 2020 and 2050 ($59 billion in CAMPO & $17 billion in DCHC).

In the 2050 MTP, **36%** of funding went toward roadway capital projects, **34%** toward roadway maintenance/operations, **22%** toward transit, and **8%** toward active modes.

Key Takeaways from the Flexible Funding Scenario:

Each option had generally negative-to-neutral outcomes:

- Option A
  - Worse than baseline on transit ridership/service miles, congested VMT, auto congested travel time, and hours of delay
  - Better than baseline on transit congested travel time
- Option B
  - Worse than baseline on transit ridership/service miles, congested VMT, auto congested travel time, hours of delay, and jobs accessible by auto
  - Better than baseline on overall VMT and fuel consumption
- Option C
  - Worse than baseline on majority of measures
  - Only scenario with better maintenance/operations



Generally Negative Results In all 3 Options

Scenario: Highway-focused

Scenario Purpose

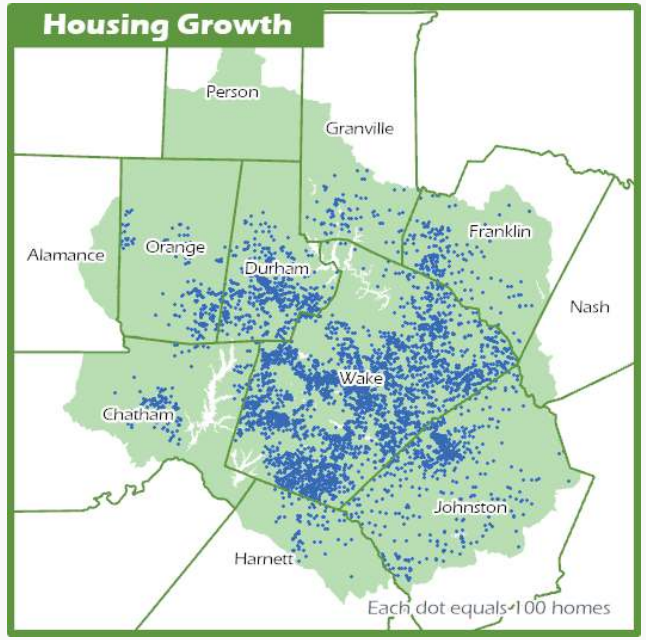
To examine a scenario that continues lower-density, highway-oriented development patterns (similar to past patterns)

Land Use & Transportation Assumptions

- Lower-density future growth built around the highway network
- Extreme expansion of freeway/expressway network capacity (doubling number of lanes)

Key Consideration

- The highway capacity expansion tested in this scenario is extreme, and unrealistic – it would not only be excessively costly to construct that type of highway expansion (exceeding the anticipated funding available) but would also have major right-of-way impacts on existing development
- Although unrealistic, the scenario is still useful as a way to examine what could happen if such an investment *were* possible



This region will add approximately **1 million** residents over the next 30 years. This scenario assumes a more dispersed development pattern than the 2050 MTP baseline.

Key Takeaways from the Highway-focused Scenario:

- The Highway-focused Scenario had a mixture of positive and negative outcomes in comparison to the baseline scenario.
- A number of roadway congestion-related measures saw significant improvement, including an 86% decrease in hours of delay, a 22% increase in job access by automobile for low-income households, and a 9% reduction in congested travel times
- Measures related to transit generally performed worse than the baseline, with lower transit ridership and reduced job and housing access by transit
- Environment and quality of life measures also performed worse in the Highway-focused Scenario, with higher VMT, greenhouse gas emissions, fuel consumption, and land consumption



Generally Mixed Results

Scenario Summary Results

Measure Category	Transit-focused	Equity-focused	VMT Reduction	Flexible Funding	Highway-focused
Vehicle Miles Traveled (VMT)	☺	😐/☺	☺	😐/☺	☹
Congested VMT	😐	☹/☺	☺	☹	☺
Auto Congested Travel Time	😐	😐	☺	☹	☺
Transit Congested Travel Time	☺	😐/☺	☺	☹/😐/☺	☺
Hours of Delay	☹	☹/😐	☺	☹	☺
Transit Ridership	☺	☺	☺	☹	☹
Low-income Job Accessibility	☺	☹/☺	☺	☹/😐	☹/☺
Job/Housing Transit Access	☺	😐/☺	☺	😐	☹
Greenhouse Gas & Fuel Consumption	☺	😐/☺	☺	😐/☺	😐
Land Consumption	☺	😐/☺	☺	😐	☹



Discussion of Next Steps/MTP Alternatives Analysis Preparation

Capital Area MPO & Durham-Chapel Hill-Carrboro MPO Joint Board Meeting

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Discussion Guiding Questions

- Over the next several months, MPO staff will be working to define and analyze "alternatives" that will be tested as part of the official 2055 MTP process
- These alternatives must be grounded in realistic assumptions

- Based on what you learned today about how each of the Pre-MTP Scenarios performed, are there any particular scenarios or factors that you would like staff to incorporate into these more realistic MTP alternatives?
- Are there particular scenarios or factors from today's presentation that you would like staff to steer away from in creating the MTP alternatives?



Information Items

Project Updates:

- SPOT Prioritization 7.0
- Joint MPO Rail Strategic Plan Study
- FAST 2.0 Study Update





SPOT Prioritization 7.0

Alex Rickard, CAMPO Deputy Director

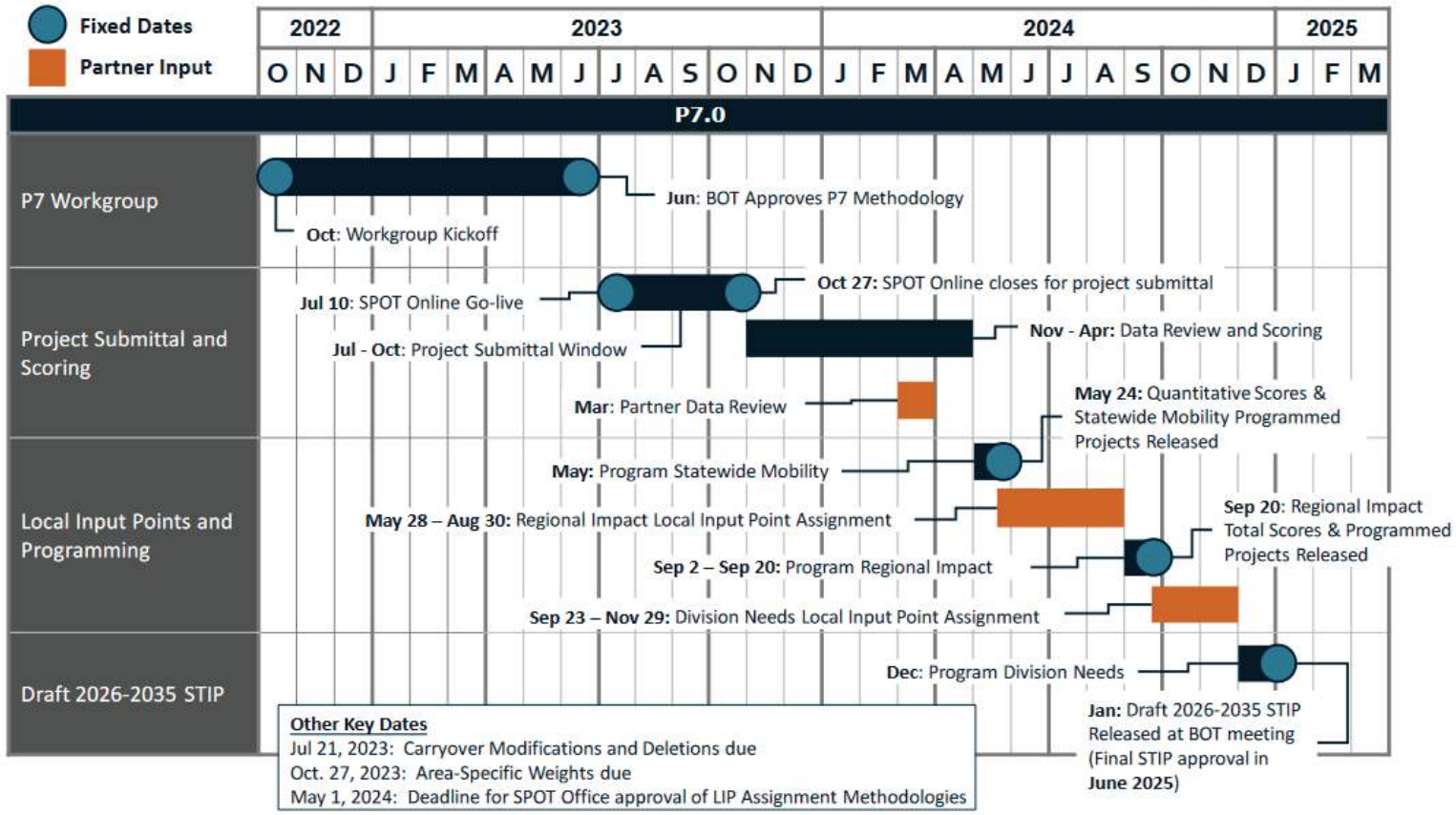
2026-2035 TIP/STIP Development SPOT Actions - MPOs

1. Select Projects to Submit for Scoring
2. Assign Local Input Points
   - Regional Impact Points
   - Division Needs Points
3. Adopt 2026-2035 TIP

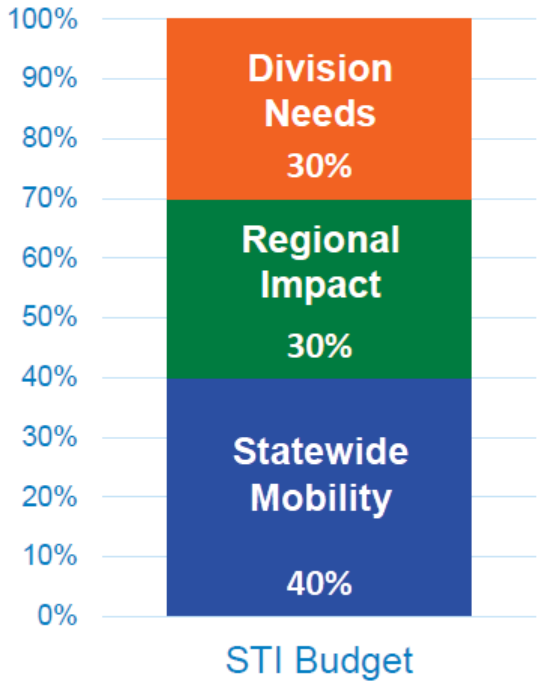
P7 Schedule

Revised – March 2024

Dates set per P7 Workgroup in October 2022



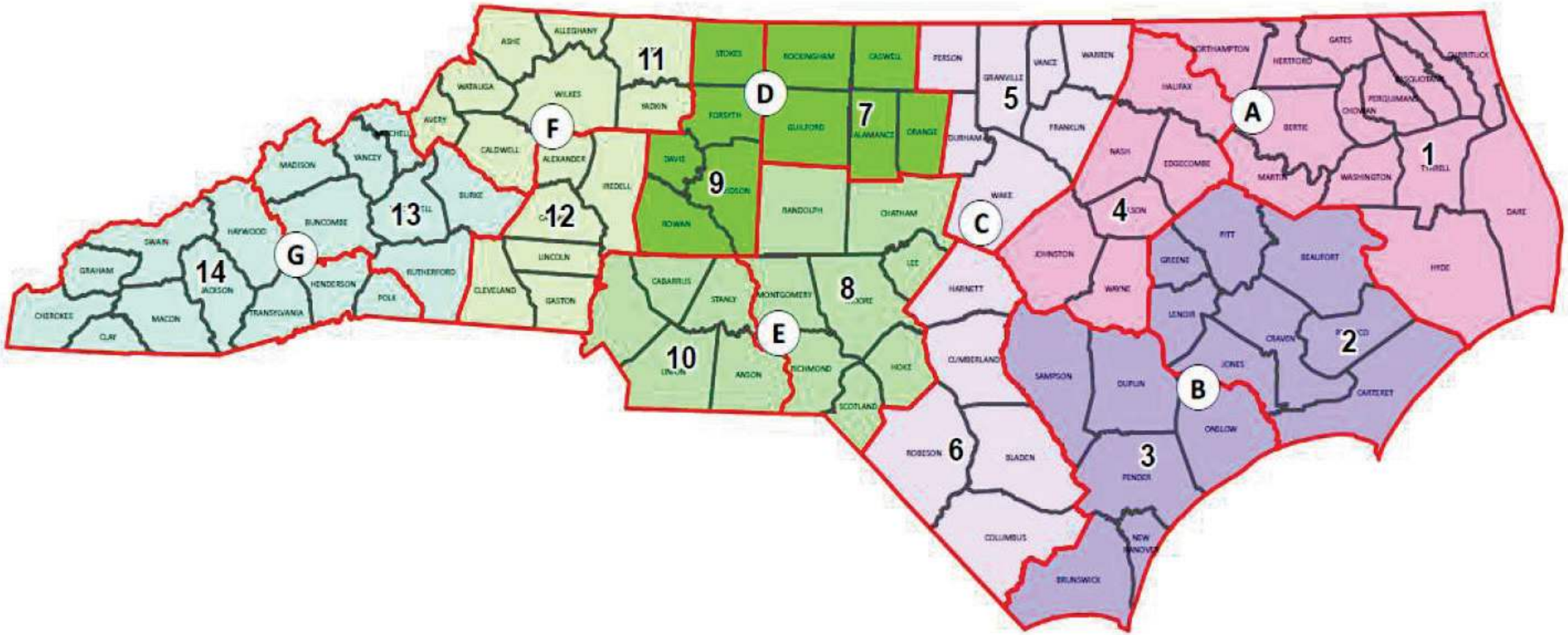
STI Categories



Mode	Statewide Mobility	Regional Impact	Division Needs
Highway	• Interstates (existing & future) • National Highway System routes (as of 2013) • STRAHNET[1] • Designated Toll Facilities	Other US and NC Routes	• All Secondary Roads (SR) • Federal-Aid Eligible Local Roads
Aviation	Large Commercial Service Airports	Other Commercial Service Airports not in Statewide	All Airports without Commercial Service (General Aviation)
Bicycle-Pedestrian	N/A	N/A	All projects ($0 state highway trust funds)
Public Transportation	N/A	Service spanning two or more counties	All other service, including terminals and stations
Ferry	N/A	Vessel or infrastructure expansion	Replacement vessels
Rail	Freight Service on Class-I Railroad Corridors	Rail service spanning two or more counties not in Statewide	All other service, including terminals and stations (no short lines)

[1] STRAHNET – Strategic Highway Network, system of roads deemed necessary for emergency mobilization and peacetime movement of personnel and equipment to support U.S. military operations

STI Regions and Divisions



Draft 2026-2035 STIP Funding Availability for Selecting Projects from Prioritization 7.0

As of May 17, 2024

STI Funding Category	Funding Availability
Statewide Mobility	$1,033M
Region A (Divisions 1 & 4)	-$228M
Region B (Divisions 2 & 3)	-$32M
Region C (Divisions 5 & 6)	**$992M**
Region D (Divisions 7 & 9)	**$458M**
Region E (Divisions 8 & 10)	-$471M
Region F (Divisions 11 & 12)	**$8M**
Region G (Divisions 13 & 14)	-$191M

Draft 2026-2035 STIP Funding Availability for Selecting Projects from Prioritization 7.0

As of May 17, 2024

Division 1	-$19M
Division 2	-$85M
Division 3	-$54M
Division 4	**$24M**
Division 5	-$107M
Division 6	**$126M**
Division 7	**$184M**
Division 8	**$113M**
Division 9	-$15M
Division 10	-$108M
Division 11	**$40M**
Division 12	-$72M
Division 13	-$52M
Division 14	**$51M**



Joint MPO Rail Strategic Plan Study

Shelby Powell, CAMPO Deputy Director

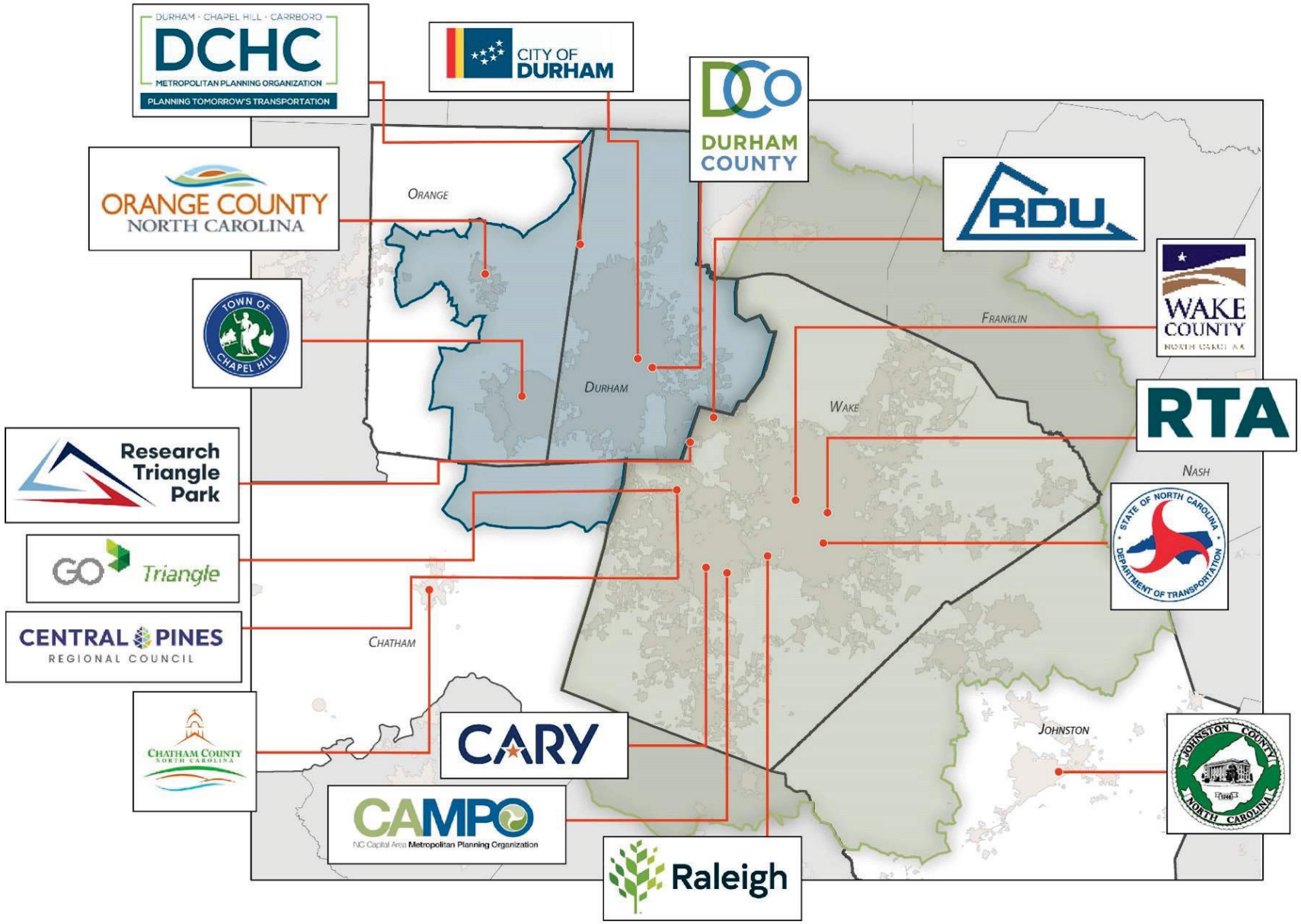
Freeway, Arterial, Street, and Tactical (FAST) 2.0

FAST

CAMPO & DCHC Joint Board Meeting

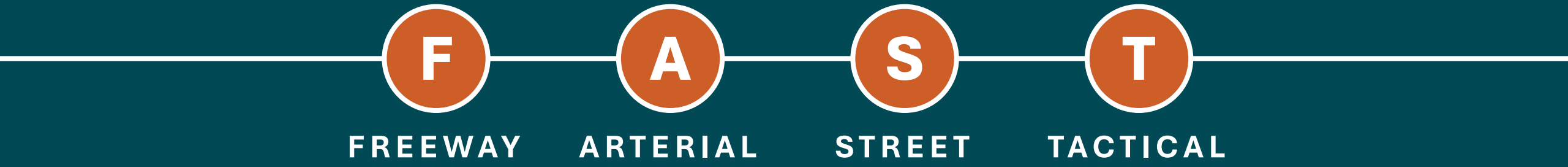
May 31, 2024

FAST 2.0 Partners



FAST

FAST Transit



FAST transit is a scalable approach for quickly integrating “transit advantage” infrastructure along the roadway system to support enhanced transit service. The “FAST” approach prioritizes transit efficiency and reliability while improving mobility for all users

FAST 2.0 Scope Overview

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



FAST

Potential Focus Strategies



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

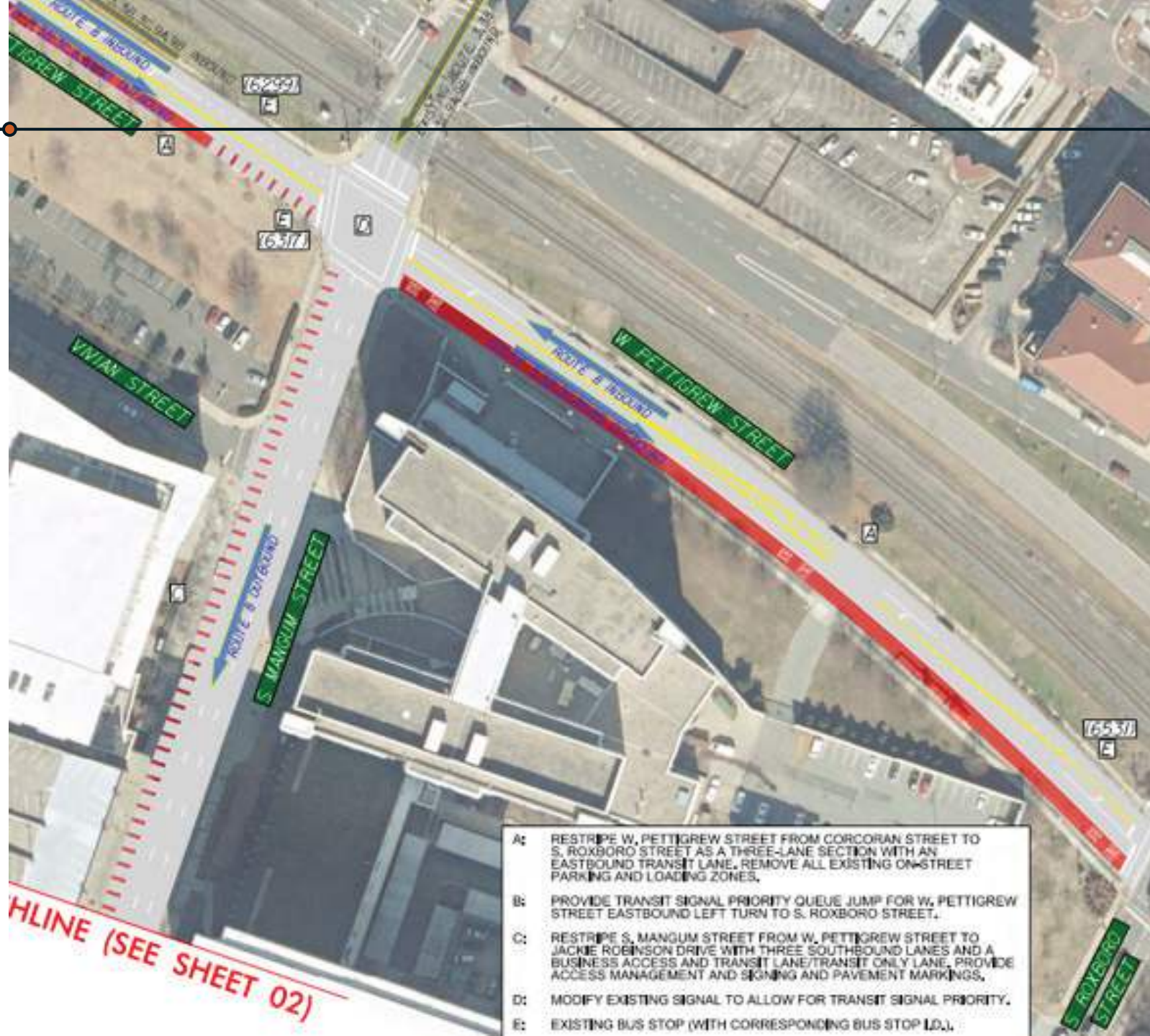
FAST Corridors



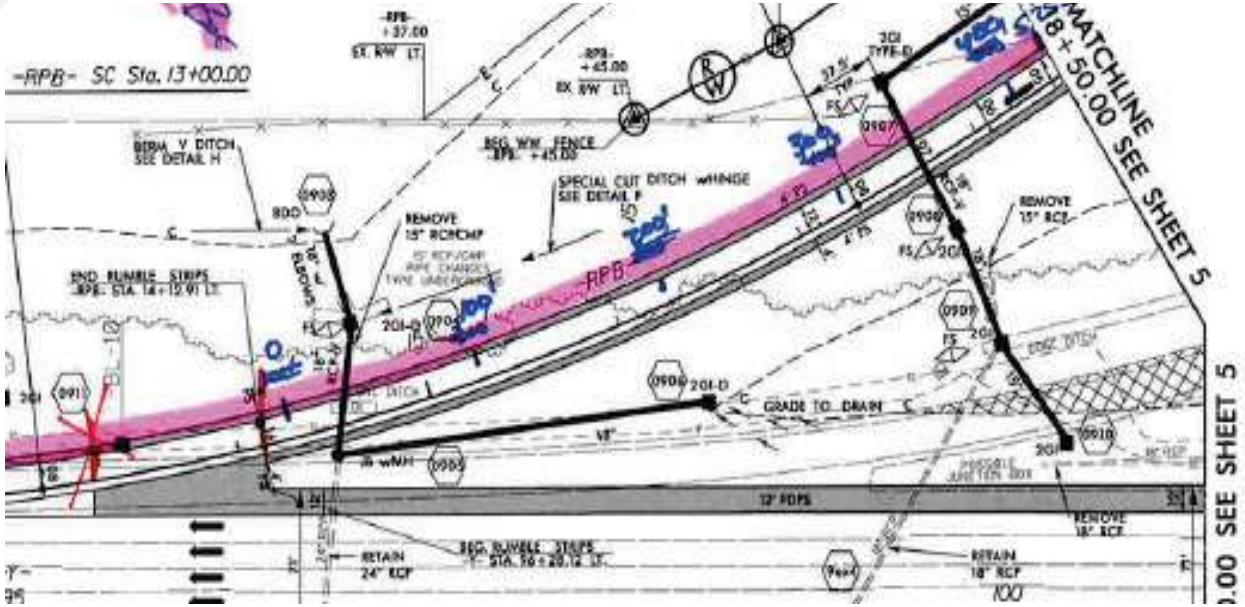


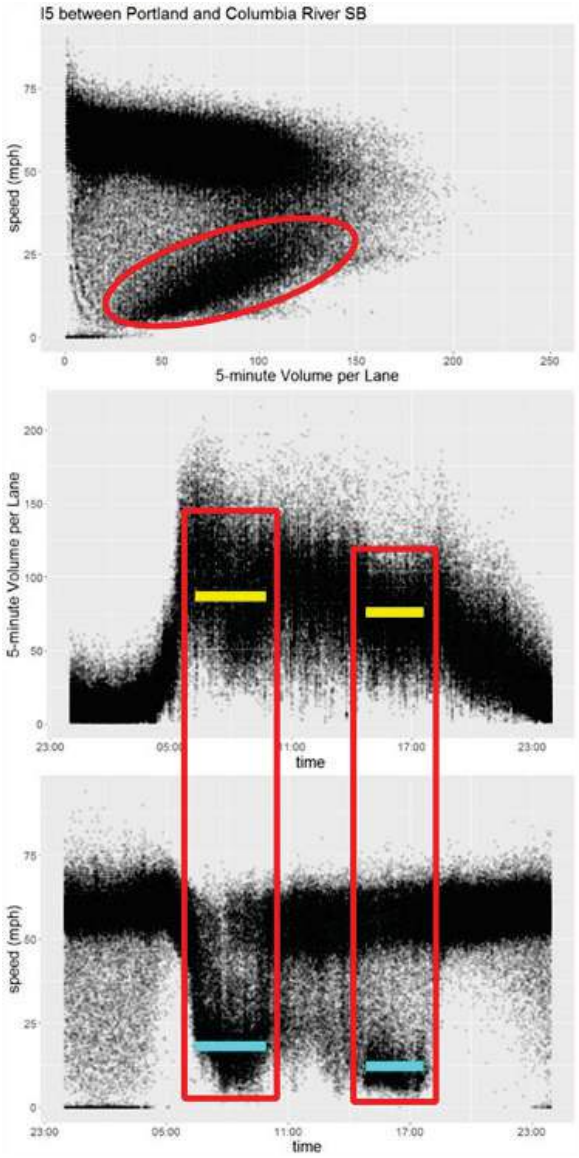
FAST

BETTER BUS Projects



Coordinated Adaptive Ramp Metering (CARM)





	Eastbound Mainline Locations			
Time of Day	West of NC 54	West of I-540	East of I-540	East of Wade Ave
	249	246	247	248
5:00 AM				
5:15 AM				
5:30 AM				
5:45 AM				
6:00 AM				
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Adjournment