

The Triangle Region's 2050 Metropolitan Transportation Plan (MTP) **Alternative Scenarios**

Our regional planning agencies are updating the Triangle's long-range transportation plan which identifies **roadway, transit, rail, bicycle and pedestrian improvements for the next 30 years**. The Durham-Chapel Hill-Carrboro MPO (DCHC MPO) and the Capital Area MPO (CAMPO) have developed three (3) future scenarios to evaluate. Each has different land use characteristics and transportation facilities in order to try to meet the MPOs' goals of efficiency, safety, sustainability and equity.

During this phase of the plan's development, **community input is needed to help identify the most important elements** of the modelled improvements in the three scenarios **that should be included in the updated plan** – the 2050 Metropolitan Transportation Plan (MTP). This public input will inform the decision-making process for both the planning team as well as the MPOs' boards.

Let us know your thoughts!

<https://publicinput.com/TriangleMTPDevelopment>

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Alternative Scenarios

A scenario describes a way that the future might be, but it is not a forecast, which predicts the way the future will be, nor a plan, which defines what the future should be. **Scenarios help us understand how realistic changes to current trends or adopted plans might influence mobility and access.**

The three alternative future scenarios for the 2050 MTP all included large, regional-scale projects across the Triangle area. **Each scenario is built off the one before and projects are not removed from any previous scenario.**

Plans & Trends Scenario

This scenario distributes 2050 forecasted population and employment based on *current land use plans and policies*. It adds projects identified in recent local and regional transportation plan updates and studies. All are able to be funded from *existing revenue sources* along with the rules tied to those sources.

Shared Leadership Scenario

This scenario increases the intensity and mix of land uses at *major employment hubs and travel corridors*. It adds roads and transit along corridors linking areas with concentrations of minority, low-income, and zero-car households to jobs. It also assumes additional transportation funding for *transit facilities, services, and a few roadway improvements*. It would require changes by state partners in addition to actions that can be taken by the MPOs and their local member jurisdictions across the Triangle.

All Together Scenario

This scenario increases the intensity and mix of land uses at major employment hubs and travel corridors, and works to link minority, low-income, and zero-car households to jobs. This scenario also has the largest increase of *biking and walking facilities, and provides transit services in major commuting corridors*. *In addition to the funding changes in the Shared Leadership scenario, housing affordability and transportation funding actions by a range of partners would be necessary.*

Deficiency & Needs Scenario - the "Baseline"

Description

This *baseline* scenario looks at how today's transportation network of roads and public transportation services will perform with the projected 2050 population and employment data. This *scenario is not realistic, but it is useful to demonstrate existing and potential problems* in the transportation network and serves as a baseline to compare other scenarios.

- Land Use – 2050 population and employment, distributed based on the current land use plans and policies of the local jurisdictions and counties.
- Transportation – Only **those facilities and services that already exist or have firmly committed funding** - called the "existing and committed" transportation network.

The Deficiency & Needs scenario has more roadway improvements* over other transportation investments, and there is no local or regional passenger rail.

* This is largely due to the rules tied to existing revenue sources.



Highlights

Triangle-Wide

- Commuter Rail Transit (CRT), Research Triangle Park (RTP) to Raleigh (**not** to downtown Durham)
- Improvements to local and regional bus connections

Durham, Orange, Chatham

- No Bus Rapid Transit (BRT), which is a high-capacity bus-based transit system that delivers fast and efficient service that may include dedicated bus lanes, traffic signal priority, off-board fare collection, elevated platforms, and enhanced stations
- Includes highway projects to be constructed by 2025, e.g., East End Connector

Wake, Franklin, Granville, Harnett, Johnston

- BRT from downtown Raleigh north, south, east (New Bern Ave.), and west
- Includes highway projects to be constructed by 2025, e.g., Complete 540

Plans & Trends Scenario

Description

This scenario includes all transportation projects in the baseline (*Deficiency & Needs*) scenario, and adds projects identified in recent local and regional transportation plan updates and studies. All are able to be funded from existing revenue sources along with the rules tied to those sources.

- Land Use – 2050 population and employment, distributed based on the current land use plans and policies of the local jurisdictions and counties.
- Transportation – Current transportation network, plus any facilities and services in existing long-range transportation plans funded by existing revenue levels and policy rules.

In this scenario, the majority of state and federal funding is directed to roadway improvements, but local tax revenues fund transit service and infrastructure improvements.



Highlights

All *Deficiency & Needs* Investments, plus:

- CRT West Durham-Raleigh-Clayton at low service level (8 peak period trains and 2 non-peak period trains)
- BRT North-South in Chapel Hill
- Most of the current long-range transportation plan highway projects (2045 Metropolitan Transportation Plan)

Triangle-Wide

Durham, Orange, Chatham

- BRT North-South in Cary
- Additions to local and regional bus connections in the Wake Transit Plan
- Additional highway projects by 2025, e.g. Complete NC540 from I-40 to US 64
- Some additional secondary roadway investments

Wake, Franklin, Granville, Harnett, Johnston

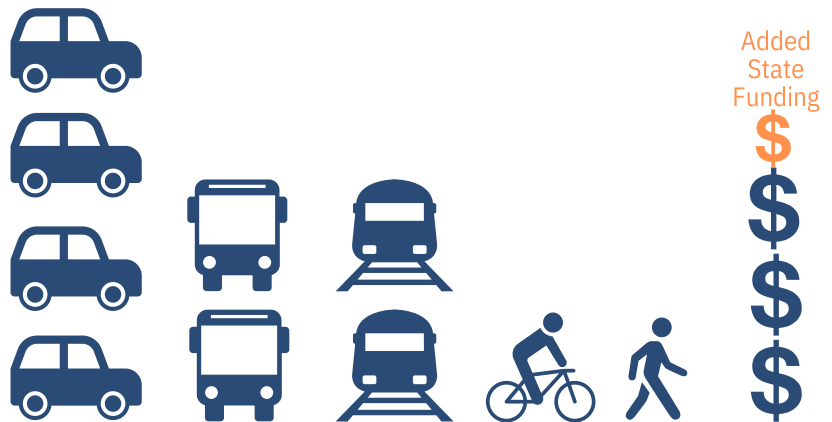
Shared Leadership Scenario

Description

This scenario increases the intensity and mix of land uses at major employment hubs and travel corridors. It *adds roads and transit along corridors linking areas with concentrations of minority, low-income, and zero-car households to jobs*. It also assumes additional transportation funding for transit facilities, services, and a few roadway improvements. It would require changes by state partners in addition to actions that can be taken by the MPOs and their local member jurisdictions across the Triangle.

- Land Use – 2050 population and employment, with increased intensity and mix of uses at major employment hubs and multimodal corridors.
- Transportation – Current transportation network and existing long-range transportation plans, plus additional roadway and transit along corridors linking areas with concentrations of minority, low-income, and zero-car households to jobs

In this scenario, there is **additional state transportation funding**, and it is assumed that a larger proportion of the overall state and federal funding is available for BRT and CRT.



Highlights

All Plans & Trends Investments, plus:

- CRT at higher service level (12 peak period trains + 8 non-peak trains)

Triangle-Wide

Durham, Orange, Chatham

- BRT: add US 15-501 (Chapel Hill/ Duke/Durham/NCCU-Durham Tech)
- High frequency bus service in major corridors
- Most of the current long-range transportation plan highway projects (2045 Metropolitan Transportation Plan)

Wake, Franklin, Granville, Harnett, Johnston

- CRT: Apex to Youngsville
- Includes highway projects to be constructed by 2025, e.g., Complete 540
- Some additional secondary roadway investments

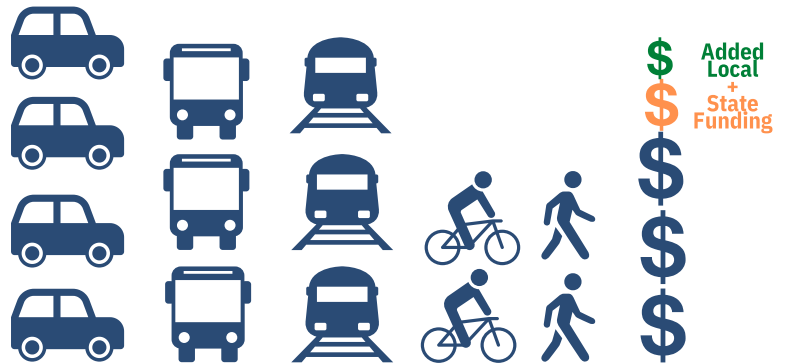
All Together Scenario

Description

This scenario increases the intensity and mix of land uses at major employment hubs and travel corridors, and works to link minority, low-income, and zero-car households to jobs. It also has the largest increase of biking and walking facilities, and provides transit services in major commuting corridors. It would *involve both housing affordability and transportation funding actions by a range of partners*, in addition to the state funding in the *Shared Leadership* scenario.

- Land Use – 2050 population and employment, with increased intensity and mix of land use at major employment hubs, multimodal corridors and additional affordable housing locations.
- Transportation – Current transportation network and some highway projects in existing long-range transportation plans, plus additional transit, bicycle and pedestrian projects that can be funded by additional state revenue and local funding.

A larger proportion of the overall state and federal funding is available for bus transit, BRT, rail transit, and bicycle and pedestrian facilities, and it is assumed that a larger proportion of residential and employment development occurs in the corridors served by those modes.



Highlights

All Shared Leadership Investments, plus:

- CRT from Selma to Mebane
- Shift more roadway funding to maintenance
- High level of complete streets investments: bus shelters, stop access, and bicycle lanes
- Add connector roads to help create more grid networks and increase bike & pedestrian access
- Bus advantage improvements for BRT, plus: NC 147 (managed lane), I-40 (NC 147 to US 15-501)

- Convert central Durham one-way pairs to two-way
- Convert NC 147 to 4-lane boulevard (Briggs Av-Swift Av)
- Add BRT to NC 147 (Durham/RTP), NC 54 (Chapel Hill/Durham/RTP), and BRT-like extensions to Pittsboro and Hillsborough
- Reduce new/widened roads in areas that increase mobility to suburban & rural land: Northern Durham Pkwy (n. of I-85), NC 54 (w. of Carrboro), NC 98 (e. of Durham), and NC 751 (Chatham)

Triangle-Wide

Durham, Orange, Chatham

- CRT from Apex to Franklinton
- Higher level of secondary roadway investments in 2030s-2040s

Wake, Franklin, Granville, Harnett, Johnston

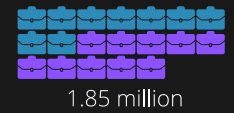
Pop. Growth



Key Performance Measures

2050 MTP Alternative Scenarios

Jobs Growth



Measure:	DEFICIENCIES & NEEDS (BASELINE)	PLANS & TRENDS	SHARED LEADERSHIP	ALL TOGETHER
Avg Auto Commute Time - DCHC	24 min	22 min	21 min	21 min
Avg Auto Commute Time - CAMPO	34 min	30 min	29 min	26 min
Delays: Daily DCHC				
Delays: Daily CAMPO				
Highway Lane Miles DCHC				
Highway Lane Miles CAMPO				
Transit Service Miles Triangle				
Transit Ridership Triangle				
Jobs near Transit DCHC	23%	66%	66%	66%
Jobs near Transit CAMPO	19%	42%	44%	44%
Gas Consumption Increase - Triangle	15%	23%	20%	16%
Funding Required	\$\$	\$\$\$	\$\$\$\$ (Added State)	\$\$\$\$ (Added State & Local)

Scenario Comparison

- The **Deficiency & Needs** scenario has the **lowest level of transit service** and roadway miles among the scenarios, and therefore results in the highest congestion and commute times.
- The **Plans & Trends** scenario provides a substantial **increase in highway miles** and an **almost two-fold increase in transit service** over the *Deficiency & Needs* scenario.
- The **Shared Leadership** scenario assumes **increased transit service and roadway miles** over the *Plans & Trends* scenario, which decreases congestion. This scenario includes additional state and local funding availability.
- The **All Together** scenario includes the **highest density with mixed use land development**, which **increases transit usage to reduce Vehicle Miles Traveled**. However, Vehicle Miles Traveled and Travel Times only change slightly when compared to other scenarios. This scenario has the highest funding level.

*Major transit corridors are referred to as *travel choice neighborhoods*

Let us know your thoughts!

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For questions or comments, reach out to:

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