

Transit Vision in 20 Slides

(excluding this one)

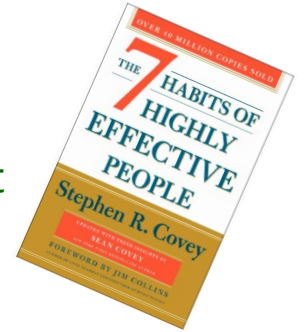
Regional Development & Mobility

John Hodges-Copple
September 12, 2023



The Soapbox Summary

- ✓ The Triangle is REALLY fast growing; a voice for the people not yet here or not yet grown is important
- ✓ We have a regional transit vision – always have and always will – it gets lost in the shuffle and lacks clarity
- ✓ Our development patterns, markets and workforces are regional, but most decision-making – and day-to-day management – is not
- ✓ For regional connection, we should focus on the development patterns and travel markets of tomorrow, and invest accordingly, building on the way things are today
- ✓ Transit technologies should follow travel market service characteristics, not the other way around
- ✓ Regional connection has been too focused on conventional commuter rail and express buses, with predictably mediocre results; we can:
 - ❖ “begin with the end in mind” and
 - ❖ “be proactive” for a better solution – it might be one already implemented in other places (Hint: it may not be BRT)
- ✓ We need lots of oars in the water (committed partners), and should row together



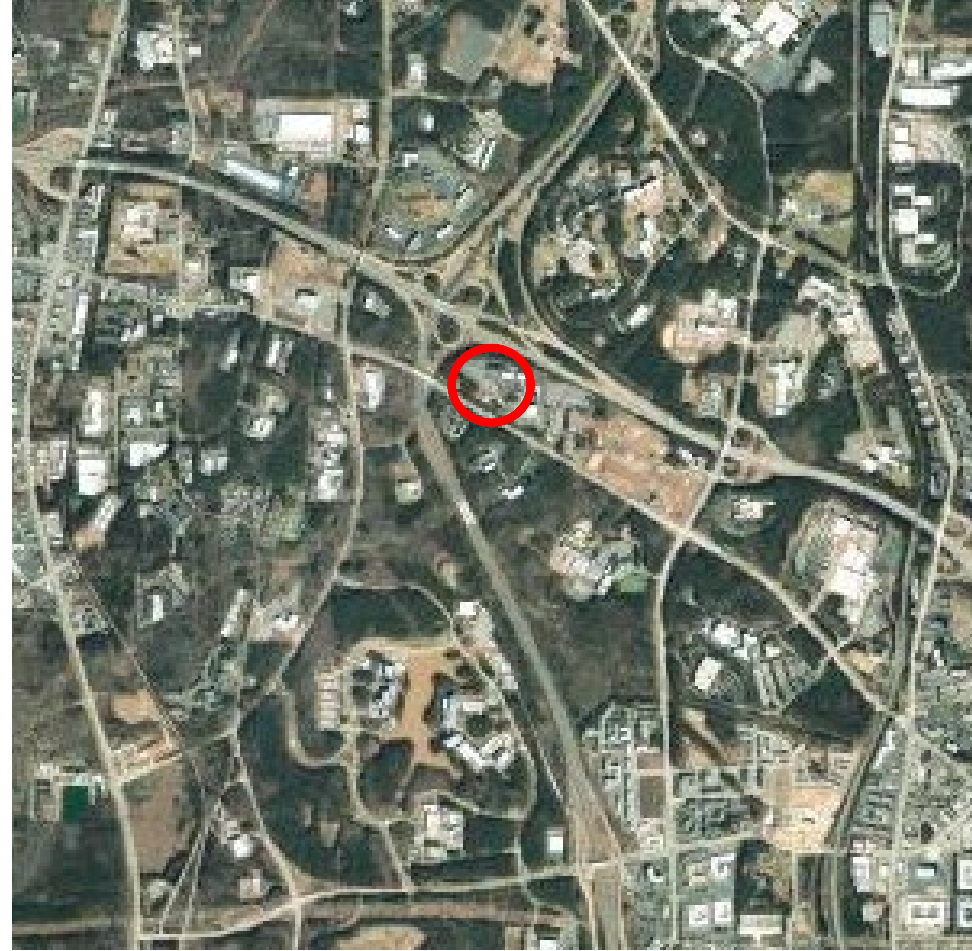
- ✓ Bold and persistent leadership, creative and collaborative planning, and hard work can produce meaningful outcomes

Two Generations Ago ...



1972

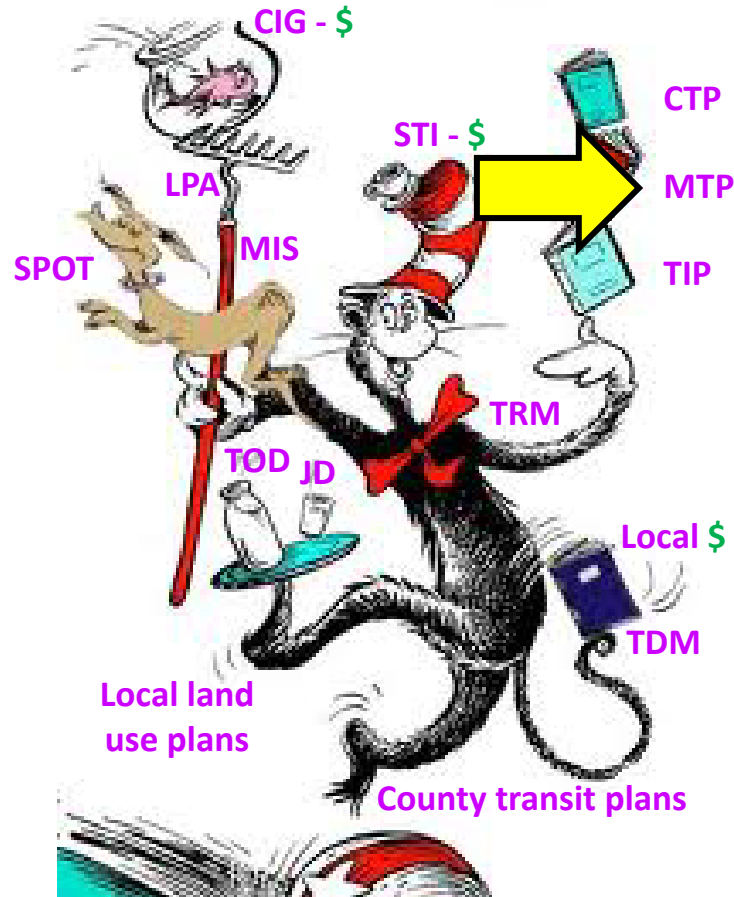
Today ...



2022

Find the Regional Transit Vision

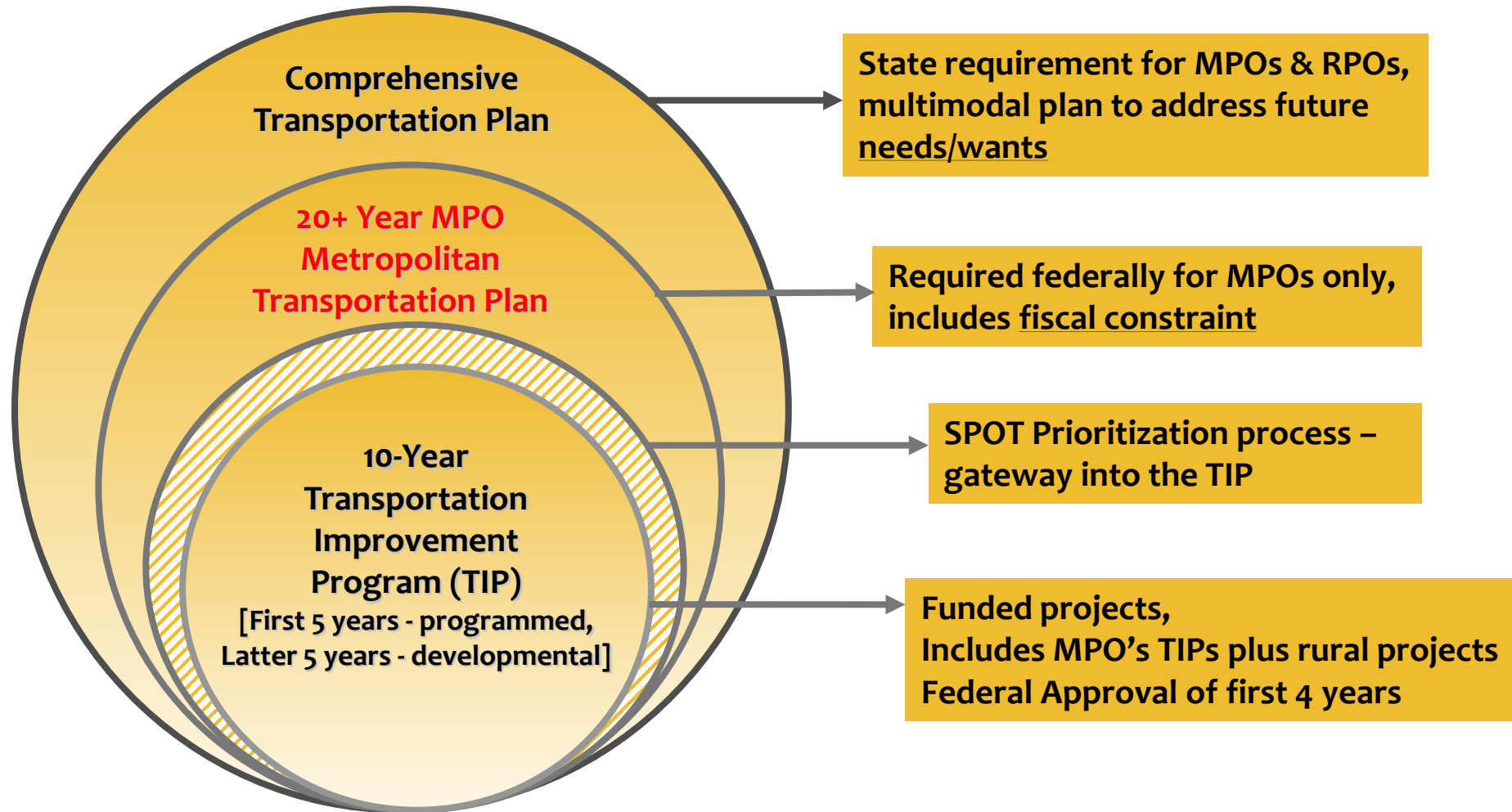
-- or, why transit planning seems confusing: because it is --



Actual Decision-Making Organizations

- ❖ 2 Metropolitan Planning Organizations
- ❖ NCDOT (multiple geographic & modal divisions)
- ❖ GoTriangle + 6 local/university transit systems
- ❖ Counties (transit plan → sales tax, vehicle fee)
- ❖ Cities & Counties (land use policies → TOD)
- ❖ North Carolina Railroad (if in its corridor)
- ❖ Federal Transit and/or Railroad Administration(s)
- ❖ Anchor Institutions (land use & transit)
 - ❑ Universities
 - ❑ Medical Centers
 - ❑ Research Triangle Park
 - ❑ RDU

What We Plan Together (simplified version)



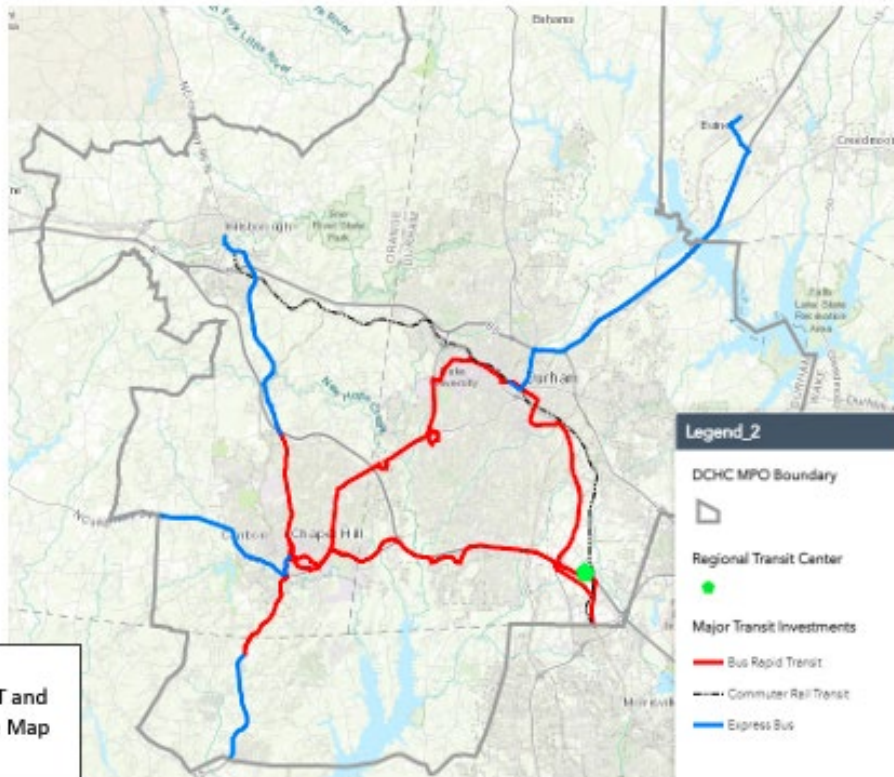
Yikes! Our Regional Transit Vision in the 2050 MTP Report

-- Who was responsible for this? Oh, wait: I was --

DCHC MPO Transit Screen Grab and Link

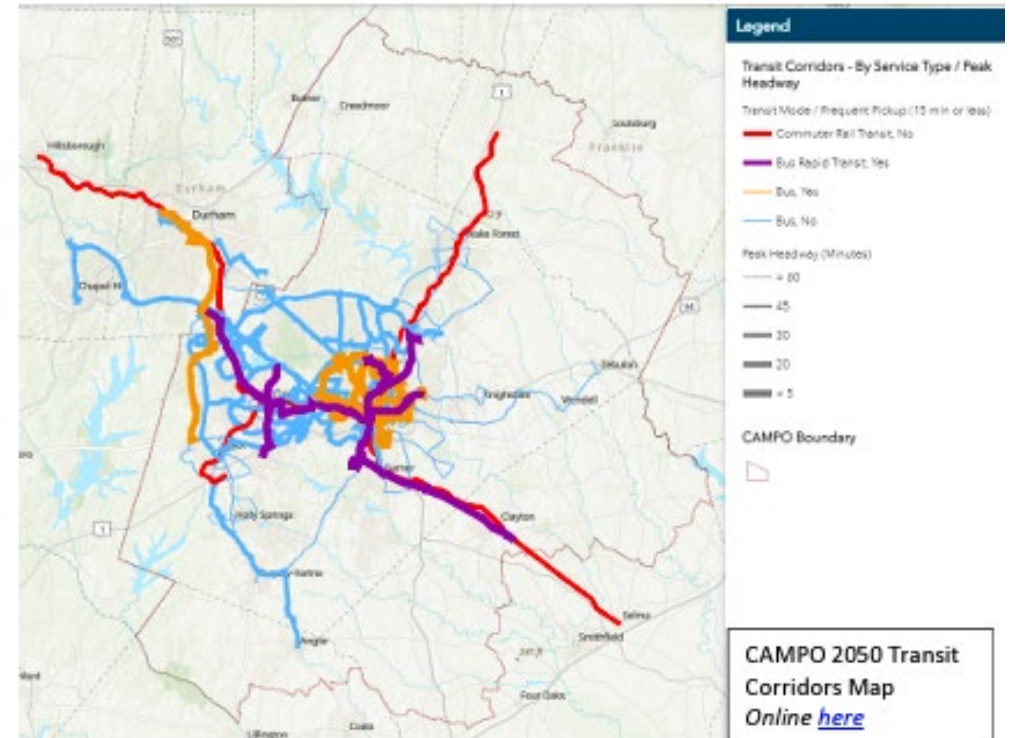
CAMPO Transit Screen Grab and Link

Figure 7.5.2 DCHC MPO Major Transit Project Maps



DCHC MPO 2050 Commuter Rail, BRT and Express Bus Service Map [Online here](#)

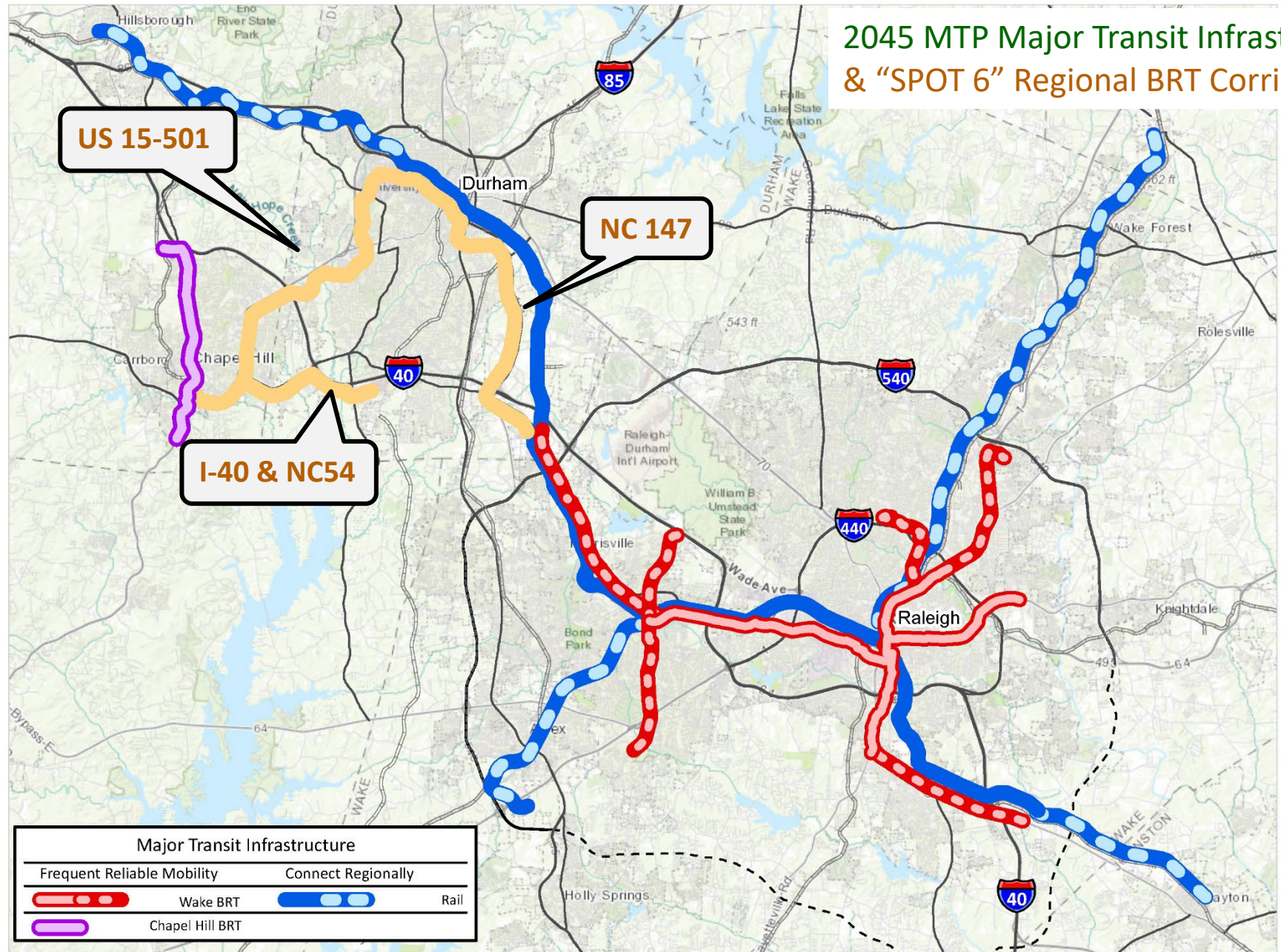
Figure 7.5.3 CAMPO Transit Projects Map



CAMPO 2050 Transit Corridors Map [Online here](#)

A Bit More Coherent-Looking Transit Vision from the 2045 MTP

(Showing major transit infrastructure after removal of the DO LRT and replacement with new DCHC BRT corridor options)



* SPOT 6 was subsequently cancelled

But Where Did This Regional Transit Vision First Come From?

Special Transit Advisory Commission (2007-08)

- ❖ 29 people appointed by the region's 2 Metropolitan Planning Organizations (MPOs), which are responsible for approving federal Long Range Transportation Plans and Transportation Improvement Programs
- ❖ Charge: “assist [the MPOs] in the development of the Regional Transit Vision Plan” ... “deliver to the region's two MPOs a set of recommended major transit investments to serve the Triangle”



The Commission's Product

❖ Regional Transit Vision Plan

- ❑ Why make major transit investments in our region?
 - Values & Guiding Principles
- vision {
 - ❑ Where should investments occur to achieve our goals?
 - ❑ What technologies & ***service characteristics*** work best in which places?
- plan {
 - ❑ When should these investments occur?
 - ❑ How can we ensure successful implementation?
 - Dollars
 - Development
 - Decisions (governance)

“If you don’t have a plan to pay for it, you don’t have a plan”

STAC Recommendations Summary

- ❖ A regional system serving many communities and travel corridors
- ❖ A transit mix appropriate for each corridor:
 - ❑ “**Full schedule**” **DMU** in the regional spine corridor (*FTA now calls this “Hybrid Rail”*)
 - ✗ Light Rail Transit in the Durham-Chapel Hill corridor (*replace with Regional BRT?*)
 - ❑ Frequent circulator & connector services for the region’s 5 major centers (Local BRT, etc.)
 - ❑ Enhanced bus service in other corridors (think “FAST-type” investments)
- ❖ 2 new regional revenue sources:
 - ✓ Half cent sales tax
 - ✓ \$10 increase in annual vehicle tag fee
- ❖ A system that is doable, but that will require *significant* new investment:
 - ❑ over \$2 billion in capital costs in \$2007 (*~\$3 billion in 2023 dollars due to inflation*)
 - ❑ over \$8 billion in capital, financing & operating costs in “year of expenditure” dollars

The Foundation for STAC Work, and for MTP Scenarios: Land Use & Travel Markets



- **The importance of considering land use and major transit investments together**

- **Author of *Trains, Buses, People*:** “It is critical when identifying corridors to ***think about land use, not existing transportation infrastructure***. A congested freeway might be a sign that transit is needed, but that doesn’t mean that freeway is a strong transit corridor. We need to think about where people are going, not what path they are currently taking.”
- **Author of *Human Transit*:** “***Density is still an overwhelming force for determining the possibilities and outcomes of transit***, and we can’t begin to make good transit decisions until we understand it.”
- **Author of *The Affordable City*:** “Multifamily housing is almost universally more affordable than single-family....***Any policy that seeks to improve affordability in urban areas will require a much greater emphasis on multifamily housing***, and large-scale zoning changes will be necessary.”
- **Author of *Walkable City Rules*:** “Transportation systems beget land use patterns. Then land use patterns beget transportation systems. ***If they are not addressed together...mobility and quality of life suffer.***”

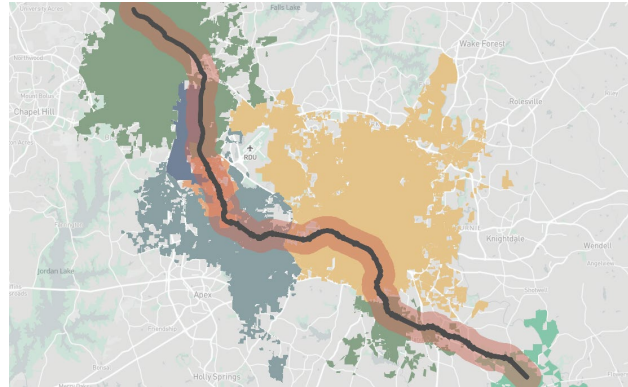
A Shameless Plug for How to Examine Land Use and Travel Markets

Affordable Housing Analysis



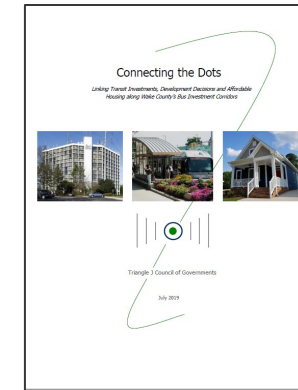
- Key Metrics
- Existing types and locations: legally-binding/affordability-restricted & naturally occurring affordable housing
- Planned additional affordable housing
- FTA CIG scoring calculation
- Opportunity sites & segments

Travel Market Analysis



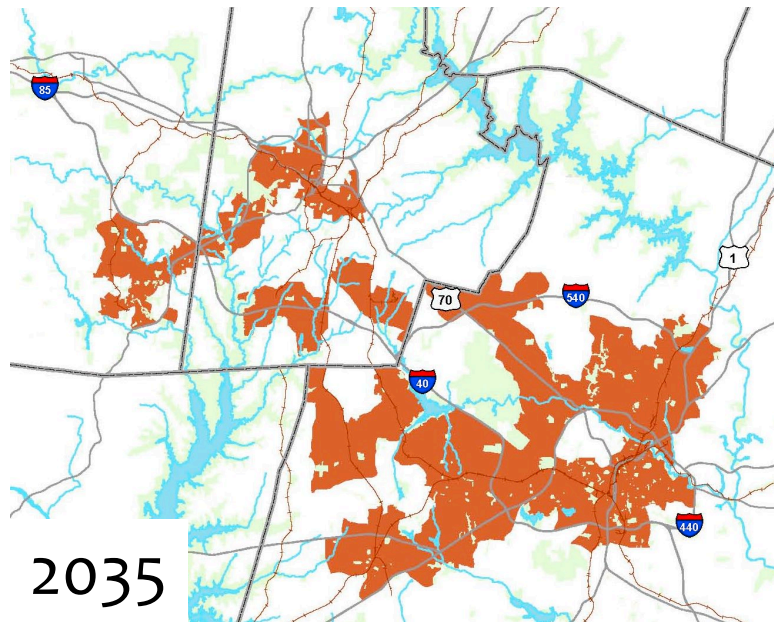
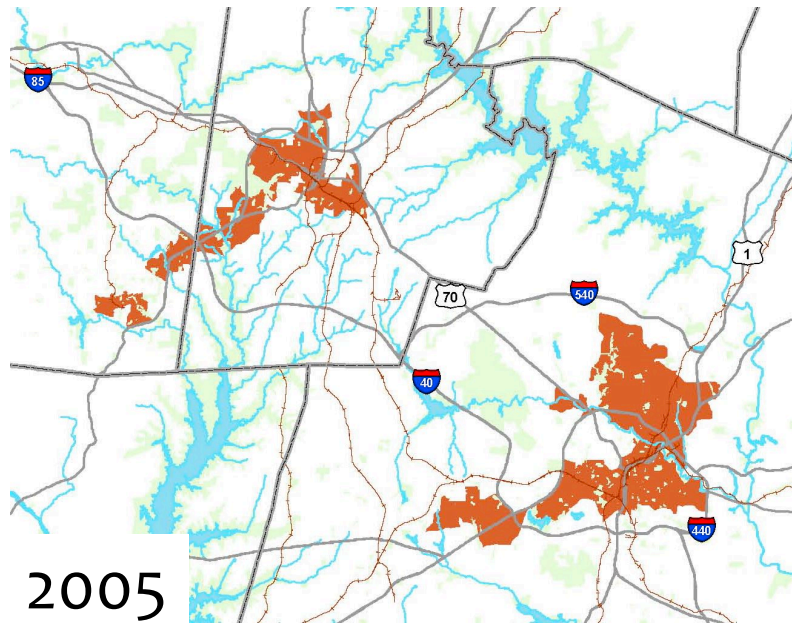
- Where workers live
- Where residents work
- Connecting Workers to Jobs
- Emphasized areas:
 - Travel to Key Hubs
 - Travel from Key Neighborhoods
 - Race/Ethnicity
 - Income
 - Vehicle availability
 - Affordable Housing

Land Use Analysis

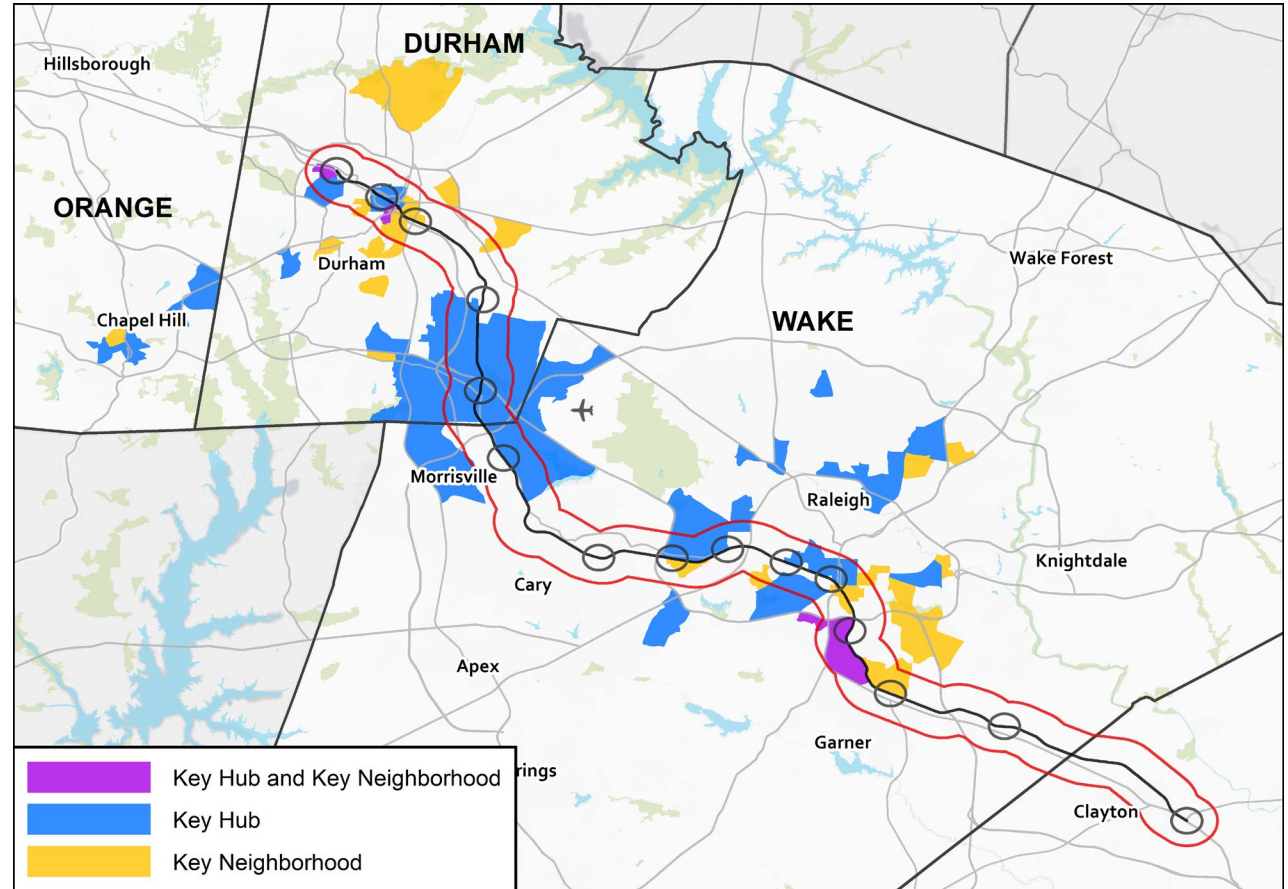


- Place types & development status
- Existing population & jobs
- Capacity for added jobs and residents
- Emphasized topics:
 - Anchor Institutions
 - HR&A Market Analysis Results
 - Community ROW setbacks
 - FTA Joint Development

Special
Transit
Advisory
Committee

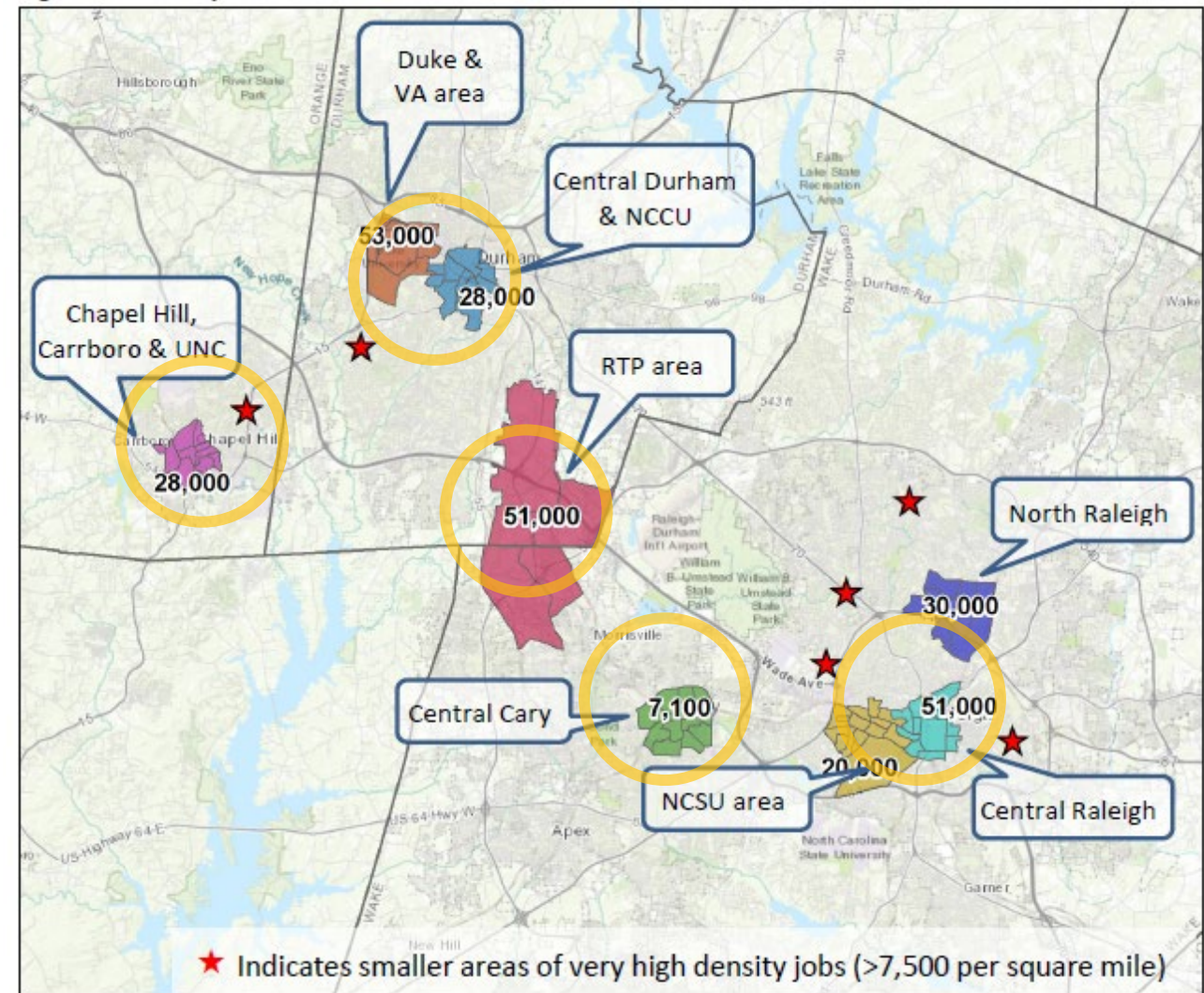
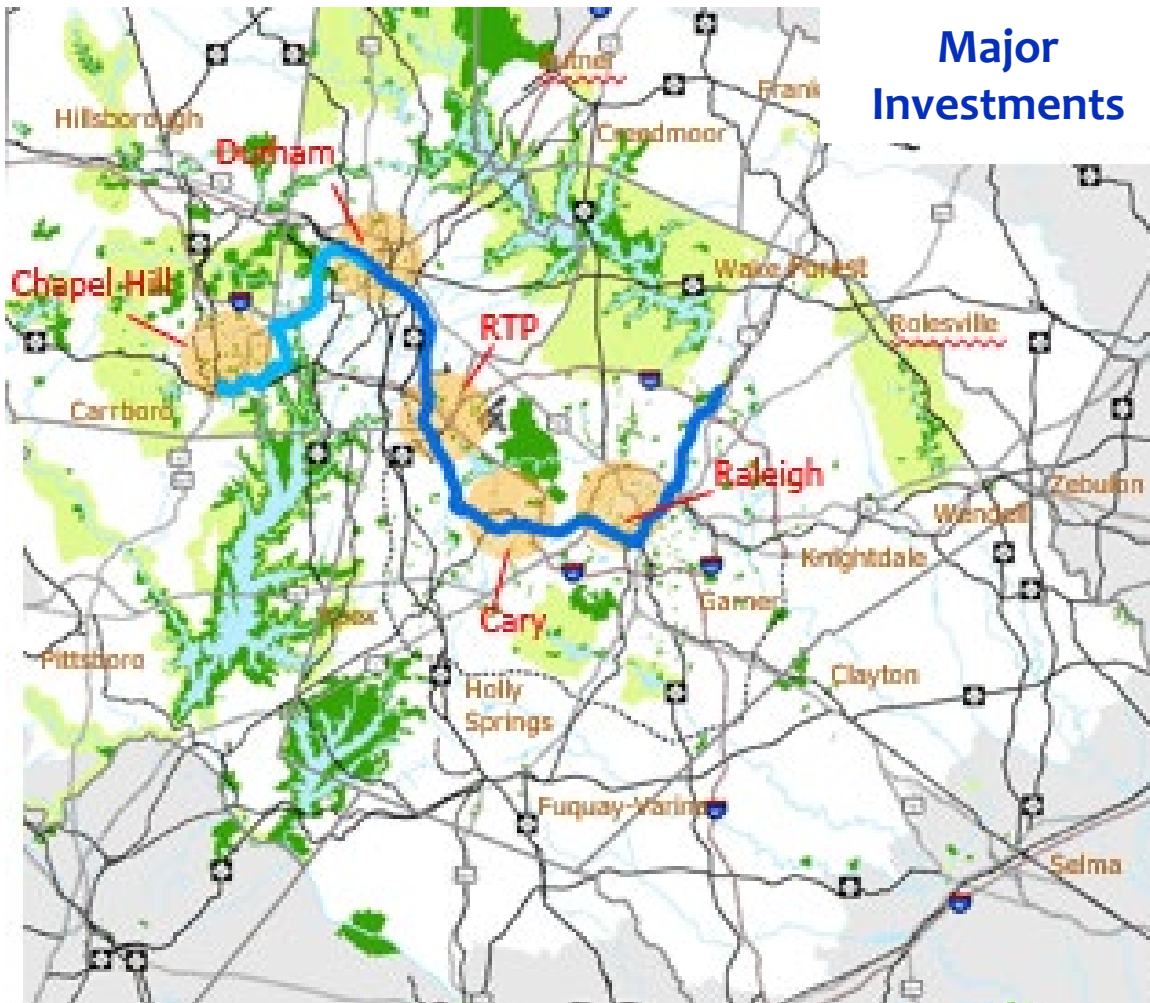


Rail Corridor Opportunity Analysis (data circa 2018-20)



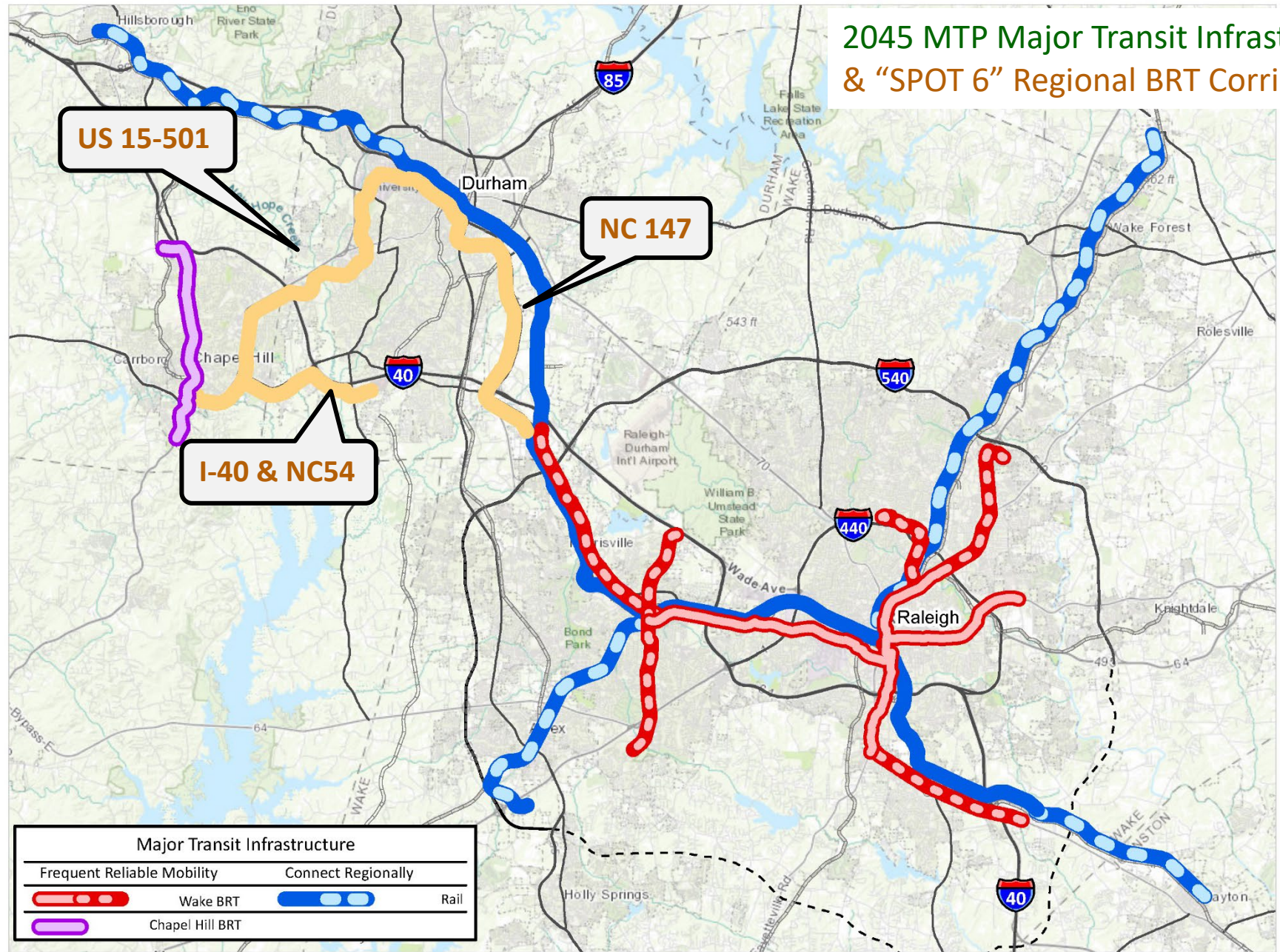
Special Transit Advisory Commission (2008)

2050 Metro Transportation Plan (2022)



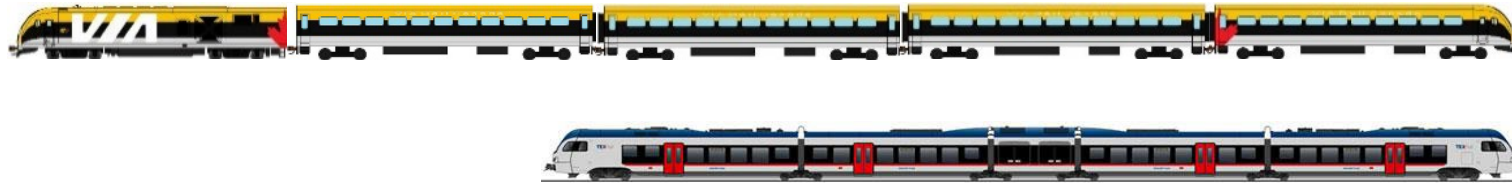
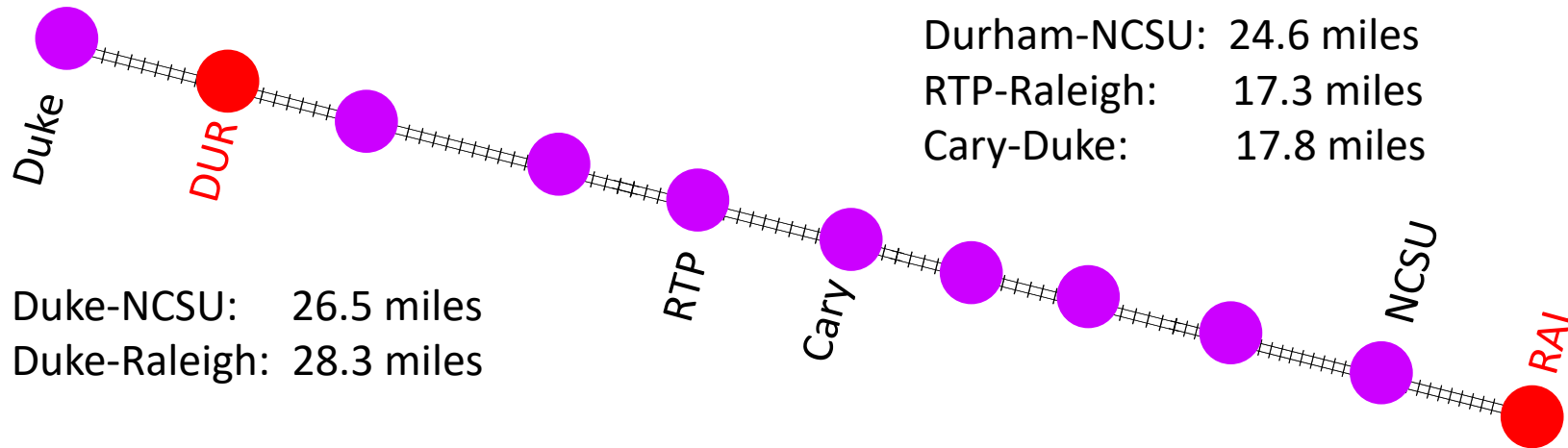
Activity Centers: circulators & connectors

If CRT (blue) is problematic and costly, why can't we just use these BRT corridors (red, purple and tan) as the major infrastructure in our regional transit vision, and supplement it with some express buses?



Unfortunately, Bus Rapid Transit Isn't Actually Rapid

The average speed of BRT in revenue service nationally in 2021 was 9 mph, and even excellent lines rarely achieve average speeds better than 12-15 mph. So although more rapid (and reliable) than standard local bus service, BRT is too slow to link *multiple* regional centers. Buses simply can't resemble trains for speed and reliability.



Raleigh CBD ↔ Durham CBD
26.4 miles (along the rail line)

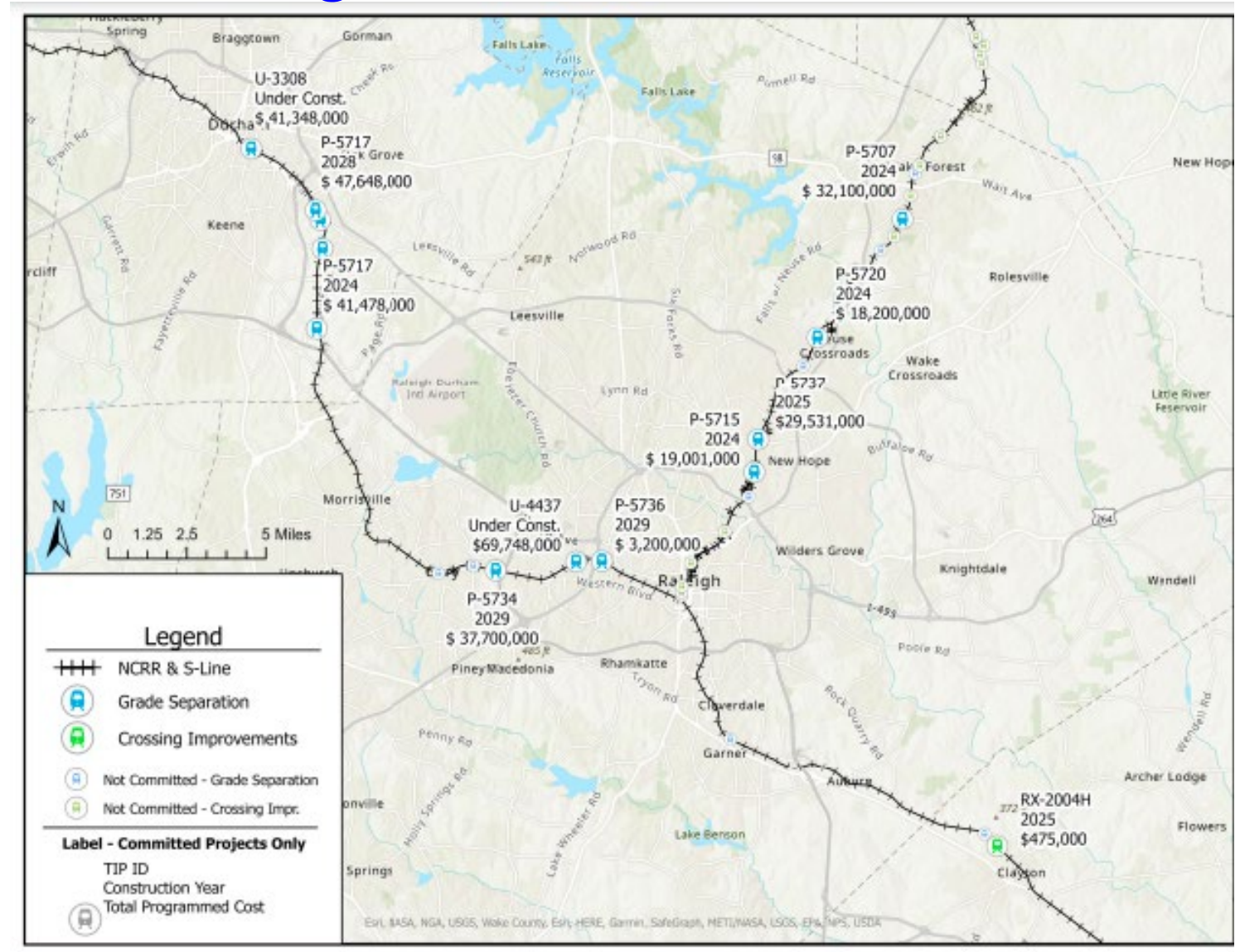
- Current Peak Hour Express Bus (limited stops): ~55 minutes
- Amtrak (1 stop): **32-39** minutes
- Locomotive & Coaches: ~43 minutes (8 stops)
- FLIRT Hybrid Rail: ~36 minutes (8 stops)

So What's A Region To Do?

- ✓ Is our current regional vision for major transit infrastructure fundamentally sound, and is it readily understood? If not, what is missing or needs to be looked at some more, or communicated better? Do we think the pandemic has permanently altered land use and travel markets and if so, how?
- ✓ Can we envision a transit investment that links the major activity centers along the NCRR rail line, serves the travel markets along that line (not just peak period commuters), and can draw federal Capital Investment Grant funding? If CRT and express bus are too limited and BRT is too slow, can we take a fair and thoughtful look at Hybrid Rail to see if it could make technical and financial sense?
- ✓ Whatever our vision becomes, can we be creative and pro-active in making sure every project in key corridors actively builds towards that vision, not just potentially “doesn’t preclude” the vision investment in a theoretical future? How will we track the actions taken by all partners along the way?
- ✓ At the same time, how can we deploy interim services that show commitment and build ridership, but that don’t compete with (or soak up all the funding for) the Vision Investment and that can be redeployed when the vision investment is ready?
- ✓ And finally, how do we hold ourselves, and others, accountable to a regional vision and committed partnership? How can the MPOs and its local partners model the behavior we want others to adopt?

So What's A Region To Do?

- ❖ This map shows **\$340 million** in investments that are either currently under construction or in the programmed part of the current STIP along the NCR and S-Line where the 2050 MTP has passenger rail services planned.
- ❖ Do we have a good handle on how these investments directly contribute to those passenger rail services, or if there are actions we could take to ensure they would?



So What's A Region To Do?


- ❖ We have a great opportunity to show leadership for what should be done for every project along the spine corridor.
- ❖ The regional transit hub project can include the “co-design” that can set expectations:
 - ❑ RTP TOD land use (initial & long-term)
 - ❑ Regional Bus Center
 - ❑ Triangle Bikeway “Option A”
 - ❑ Western Wake BRT in-line station
 - ❑ 5-track “ultimate” rail footprint:
 - 2 freight-only tracks (east side)
 - 1 Amtrak/High Speed priority track with RTP station
 - 2 regional rail priority tracks with RTP station (west side)

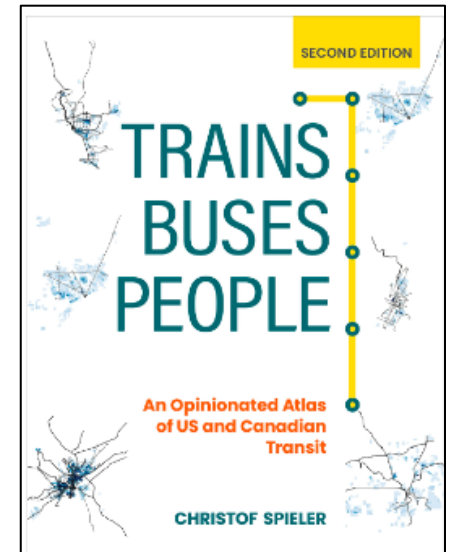


* Virginia Rail Director: “Co-exist, but separate” (9-7-2023)

Transit Musings of an Old, Retired Guy

(uh-oh; you may wish to avert your eyes ...)

- ❖ If you have great people, but are not getting a great result, there is an institutional or process challenge to address
- ❖ If someone wants another organization to fund their interests, and are not leveraging with their own revenues, they are an interest group, not a committed partner
- ❖ If we build for the Travel Market (the Vision Investment), construction and service implementation can evolve to achieve it, but if we build for a limited service level, it may not be practical to come back later and try to re-build for the Travel Market
- ❖ “Many eyes but few hands” may be a good mantra for all technical work
- ❖ It wouldn't hurt to get familiar with this report and use it to benchmark potential Triangle investments; maybe invite the author to visit 
- ❖ In the end, “I don't want to and you can't make me” is a reason a “partner” may kill a project, but don't confuse it with a technical or financial justification – be ready when partner leadership changes



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Thank You!