

Executive Summary

The results of the Greater Triangle Commuter Rail feasibility study indicate two options for implementation of commuter rail service connecting Durham, Research Triangle Park, Morrisville, Cary, Raleigh, Garner, and potentially Clayton:

- Option one would implement commuter rail service from West Durham to Garner or Clayton as one project. The cost estimate for implementing option one is \$2.8 to \$3.2 billion in year of expenditure.
- Option two would begin the implementation of commuter rail service between West Durham and Garner or Clayton with a starter service between Raleigh Union Station in downtown Raleigh and the Auburn Station in Garner. The cost estimate for beginning implementation with option two is \$600 to \$700 million in year of expenditure.

Updated implementation schedules and ridership estimates indicate that commuter rail service implemented through option one would have a start date between 2033 and 2035 and would provide 12,000 to 18,000 trips per day by 2040 between West Durham and Garner or Clayton.

Beginning the implementation of commuter rail service through option two would allow for an earlier start date between 2031 and 2033 and would provide 4,000 to 6,000 trips per day by 2040 between Raleigh Union Station and the Auburn Station in Garner.

Consideration of these two options by regional decision-makers should take into account study findings that implementation challenges are not distributed equally across the corridor. Significant challenges exist to the west of Raleigh Union Station, especially west of the Ellis Road Station throughout central Durham.

Motion

To receive the presentation from GoTriangle on the Greater Triangle Commuter Rail feasibility study.

Background

Voters in Durham County and Wake County passed a one-half-cent transit sales tax in 2011 and 2016 respectively. Transit plans in Wake and Durham Counties include commuter rail service connecting Garner, Raleigh, Cary, Morrisville, Research Triangle Park, and Durham. A Memorandum of Understanding for completion of the feasibility study and early project development activities was executed between GoTriangle, North Carolina Railroad Company, North Carolina Department of Transportation, North Carolina Capital Area Metropolitan Planning Organization, Durham Chapel Hill Carrboro Metropolitan Planning Organization, Wake County, Durham County, and Johnston County in April 2020. The parties acknowledged that funding for the study would include 6\$ million from the Wake Transit Plan, \$2.7 million from the Durham Transit Plan, and \$250,000 from Johnston County.

Issues and Analysis

Wake, Durham, Orange, and Johnston counties collectively add more than 32,000 residents a year, resulting in crowded roads and ever-lengthening commute times. The region's population is expected to grow by over 1,000,000 people by 2050. The region is projected to add over 800,000 jobs by 2050, and over 350,000 of these jobs are located near the proposed commuter rail corridor. As the foundation of a robust regional transit network, a commuter rail line would allow the Triangle to manage and sustain projected growth.

An analysis of the proposed commuter rail corridor studied opportunities related to affordable housing, travel markets, land use, and economic impact. Key findings of this opportunity analysis include the following:

- Despite the fact that the rail corridor is only 4% of the region's area, it contains 27% of the region's legally binding affordability restricted housing and 30% of the region's jobs.
- 56,000 workers both live and work near the rail corridor.
- The rail corridor is forecast to hold 20% of the region's households and 45% of the region's jobs by 2050.
- The corridor is forecast to add 100,000 housing units and 370,000 jobs by 2050, and there will still be room for another 100,000 housing units and 330,000 jobs beyond 2050.
- Commuter rail would save each rider 88 hours per year. Given ridership projections that's over 1,000,000 hours saved annually.
- Commuter rail is projected to generate \$210 million in personal income and \$160 million in gross regional product by 2050.

In addition to the opportunity analysis, technical analysis completed as part of the feasibility study included:

- Ridership estimation for various operating scenarios and fare policies.
- A corridor screening for potential risks related to implementation of the project.
- A more detailed engineering feasibility analysis of key risk areas in Durham and Cary.
- A corridor screening and search for potential rail maintenance facility sites.
- A corridor screening and search for potential park and ride sites.
- Rail network modeling completed in partnership with Norfolk Southern.
- Capital cost estimation for various operating scenarios.
- Operations and maintenance cost estimation for various operating scenarios.
- An analysis of implementation options and schedules.
- An analysis of federal grant strategies.

Staff Contacts

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Attachments

1. Greater Triangle Commuter Rail Feasibility Study Summary Presentation