

A Better Place

A Land Use Analysis of the Triangle's Passenger Rail Corridor Executive Summary



The Triangle Region is considering a passenger rail investment that initially could connect West Durham, Central Durham, East Durham, the Research Triangle Park, Morrisville, Cary, NC State University, West Raleigh, Central Raleigh, Southeast Raleigh, Garner and Clayton in Johnston County. Later phases might extend service to Orange County on the west and farther into Johnston County on the east. Part of this effort is analyzing opportunities along the corridor: for affordable housing, for guiding land use, for serving travel markets and for influencing economic development.

This Executive Summary highlights findings from an analysis of rail corridor land use. The full report:

- Examines current and future land use capacity at the regional, rail corridor and station area scales.
- Describes likely amounts and types of development along the corridor from the Metro Plan and a market study.
- Looks at two specific land use issues:
 - Joint Development opportunities
 - Building setback standards along the railroad alignment
- Notes the importance of – and opportunities for – equitable Transit-Oriented Development.
- Indicates performance measures we can track and steps we can take to work together in the Triangle Region to promote future development along the corridor that best aligns with passenger rail service.

Understanding how a commuter rail investment aligns with current and planned land use in the region, and the capacity for added growth, is an important foundation for determining appropriate types and amounts of service to provide and optimal locations of stations.

This land use analysis focused on two types of places:

- The “rail corridor,” defined as one mile on either side of the railroad tracks, and
- “Station study areas,” circles with a half-mile radius that represents likely locations for rail stops

The Context

The 2020 Census counted 1.8 million people in Wake, Durham, Orange and Johnston Counties, and the latest pre-COVID data estimated over 900,000 jobs. The 4-county region is projected to add a million residents and 800,000 jobs between 2020 and 2050. Accommodating even a portion of these future residents and jobs within the corridor could significantly influence travel. With anchors like the downtowns of Raleigh, Durham, and Cary; the Research Triangle Park; and NC State University, NC Central University and Duke University and Medical Center, the corridor can be a locus for future growth.

Existing Development and Estimated Corridor Capacity

In 2020, there were 290,000 jobs and 90,000 households in the rail corridor. Local governments and anchor institutions – through plans and standards, establish “capacities” for the amount of future growth in different places. Tools such as form-based codes make these capacities approximate, not absolute, but based on the “Opportunity Places” land use in the region’s 2050 Metropolitan Transportation Plan, we have room for 700,000 more jobs and 210,000 more housing units in the rail corridor.

Rail Corridor Jobs and Housing Forecasts

The region’s Transportation Plan forecasts that the corridor will add 370,000 jobs and 100,000 households between 2020 and 2050, and that the station areas within the corridor will have 3.5 times as many households as today and more than 2.5 times as many jobs. Between 2020 and 2050, the corridor may accommodate over 40% of the region’s job growth and a quarter of the region’s household growth on just 4% of the land. The analysis identified 2,200 planned new affordable housing units in the corridor and at least 25 publicly-owned sites in the corridor on which it seems feasible to build about 2,500 units. Even with this forecasted growth, there will still be significant capacity for additional job and household growth in the corridor beyond 2050.

Real Estate Market Assessment

HR&A assessed the real estate market in the corridor for multi-family, office, retail and industrial/lab space. The analysis indicated that added development above the projections used in the Metropolitan Transportation Plans is likely market-possible, especially for urban apartments and condos.

Opportunities for Equitable Transit-Oriented Development

Given the region’s forecast growth, a clear vision for how the region grows is essential. The vision embodied in the 2050 Transportation Plan is built on a foundation of walkable, bikeable neighborhoods with a rich mix of housing and jobs – a pattern called “Transit-Oriented Development” (TOD). *Equitable* TOD, or eTOD, means taking deliberate, meaningful actions to ensure that TOD includes residents and businesses that reflect the region’s diversity. We have models for eTOD, both within the region – such as the *EngageDurham* process and Raleigh’s Equitable TOD for Bus Rapid Transit – and in peer regions in the US. TOD efforts often define types of stations based on the characteristics of the neighborhoods where they are located. The map on this page shows one way to define stations, based largely on the mix of parcel place types. Stations shown include both 15 initial areas, plus two locations (dashed circles) that the affordable housing and travel analyses indicated could make the project stronger. A key tenet of eTOD is that determining what station areas actually become occurs through meaningful engagement. Communities that do the hard work to create equitable development in station areas and along connecting transit lines will reward their residents with fast, reliable access to some of the largest job centers in the region.

Anchor Institution Development

Four large anchor institutions are located within the corridor: NC State University, Duke University and Health System, NC Central University and the Research Triangle Park. Seven of the initial 15 stations serve Anchor Institution activities. Anchor Institutions are mission-driven organizations, and understanding how these missions align with station area development potential will be crucial. Seamless institution-supported connections to stations will be important to best serve places like Duke’s Central Campus, NC State’s Centennial Campus, NCCU and the RTP’s new HUB development.

Critical Considerations and Next Steps

Rail is a long-term investment. Creating equitable Transit Oriented Development will take sustained deliberate effort including clear goals, supportive land use policies, coordination with anchors and financial mechanisms to support affordable housing providers. The federal Joint Development program provides opportunities to leverage federal funds for such things as affordable housing and community services at rail stations. Absent a strong policy tool-kit, displacement is a genuine risk. There is publicly owned land on which affordable housing can occur, but project design, financing and management can be complex and involve public funding. Sustained public and institutional leadership can be key to ensure staff have the direction, resources and time to pursue opportunities.

The Symbols on This Map

- The railroad corridor – 1 mile on each side of the tracks where service is planned
- Station Study Areas: ½ mile radius circles around stops. Station types:
 - Metro Center
 - Anchor Institution Center
 - Town Center
 - Mixed Use Neighborhood Center
 - Job Center
- 2020 key job hubs - Travel Markets Report

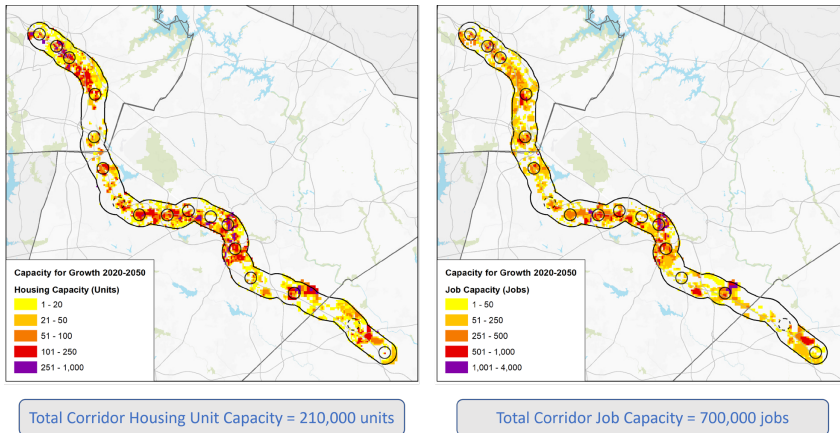
Note: The map shows potential station areas, including those with dashed circles from the housing analysis and 2050 Metropolitan Transportation Plan.

The Land Use Analysis was conducted by Jenna Kolling and John Hodges-Copple of the Triangle J Council of Governments and is one of three analyses accompanying the commuter rail service analysis of the NC Railroad Corridor between West Durham and Clayton. The other two analyses address affordable housing and travel markets.

How to Learn More and Engage in the Project

This Executive Summary includes highlights from a more detailed land use analysis of the proposed commuter rail corridor between West Durham and Clayton in Johnston County. Each of the topics addressed in the highlights on the previous page is examined in more detail in the full report. The report, along with resources like those shown below in thumbnail images, and opportunities to give your thoughts about the project, are available at ReadyForRailNC.com

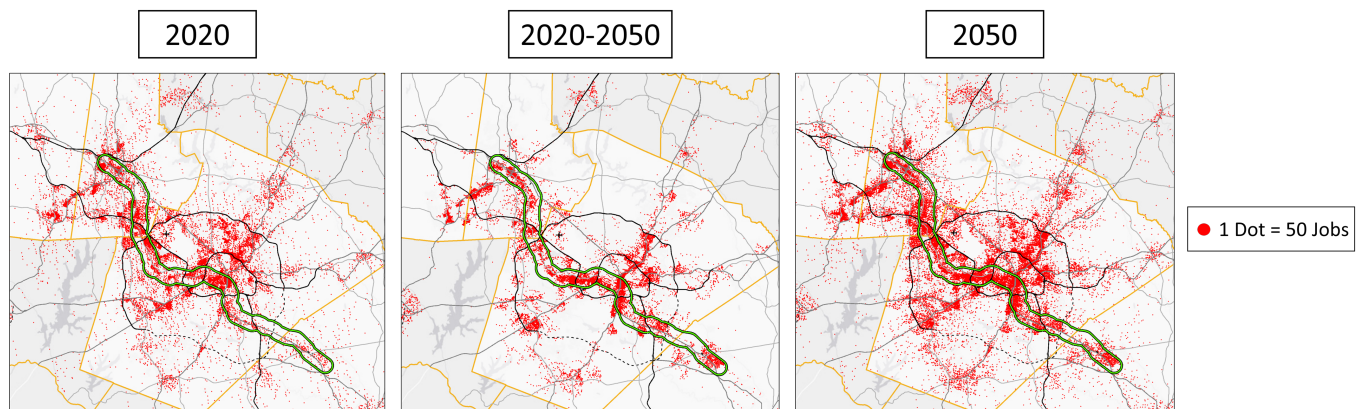
Capacity for Added Growth



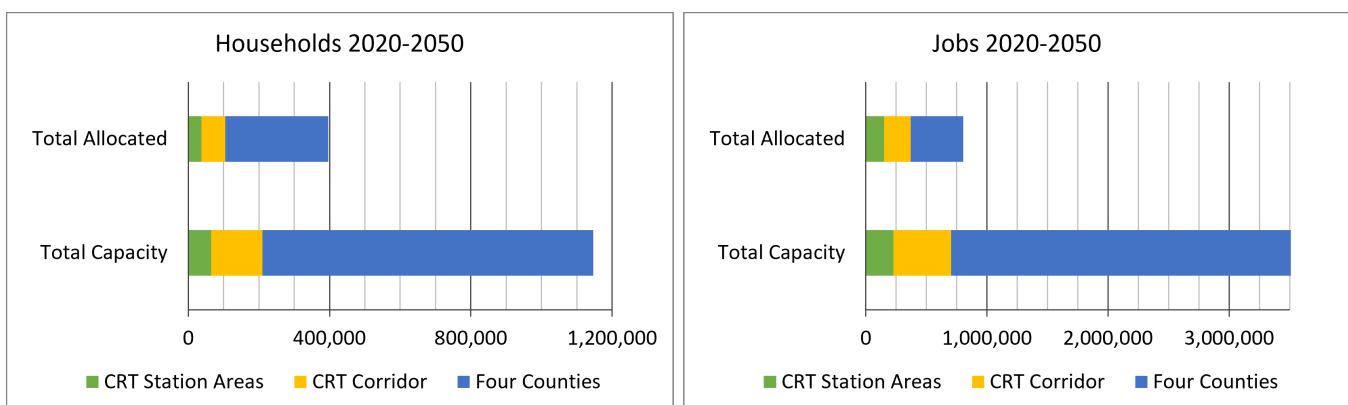
A Word About the Data

Both capacities for future growth, and forecasts for where growth occurs by 2050, are built from parcel-based land use and development status. Our tools allow different land use scenarios to be analyzed. The scenario in this report is the “Opportunity Places” land use that is part of the region’s adopted 2050 Metropolitan Transportation Plan.

Jobs Today and Tomorrow



Dwelling Units and Jobs in the Rail Corridor



This report was prepared by the Triangle J Council of Governments as part of its work to align transportation investments with land use and housing affordability decisions. Contact Jenna Kolling at jkolling@tjcoq.org with comments and questions.