Raleigh-Cary Rail Crossing Study

RECOMMENDATIONS

Raleigh-Cary Rail Crossing
rcrx
Crossing Tracks, Connecting Communities

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Raleigh-Cary Rail Crossing Study for the Corridor from NE Maynard Road, Cary to Gorman Street, Raleigh

Prepared for:

CAMPO
NC Capital Area Metropolitan Planning Organization

NORTH CAROLINA RAILROAD COMPANY

CSX

NORFOLK SOUTHERN

GO Triangle

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Table of Contents

Executive Summary

The Raleigh-Cary Rail Crossing Study was conducted through a partnership of the Capital Area Metropolitan Planning Organization (CAMPO), City of Raleigh, Town of Cary, North Carolina Department of Transportation (NCDOT), GoTriangle, North Carolina Railroad Company, and Norfolk Southern Railroad.

The purpose of this study was to evaluate potential improvements to the at-grade highway/rail crossings from NE Maynard Road in Cary to Gorman Street in Raleigh, and to study how changes at the crossings will affect future land uses and the community. In addition to looking at existing crossings, this study also considered possible new roadway extensions across the railroad within the corridor.

Safety improvements may include additional signage, medians and median barriers, grade separation (a road bridge over the railroad or a railroad bridge over the road), or closing the crossing.

The process began with data collection and public outreach. Community members and major stakeholders along the corridor were asked to identify which aspects — vehicular, multimodal, land use, community cohesion, or others — worked well today and which do not work well. They were asked to describe how and why they traveled through the corridor. Combining this information with collected data, an understanding of previous studies in this area, and a site review, the project team developed a Vision, Issues, and Opportunities summary.

Following the first public meeting, design began on a range of solutions at each existing crossing. Several new roadway extensions, either currently included on the local transportation plan or identified as part of this study, were evaluated. This corridor is part of the Sealed Corridor Program developed by NCDOT in conjunction with the railroad agencies. Therefore, only grade separations were considered for new crossings.

The first step in the design process was to determine the specific goals for potential improvements. A range of options were considered for each of the following six design principles:

1. Build safety through urbanization
2. Choose the paths of least resistance
3. Invest in crossings that leverage the corridor's strengths
4. Invest in crossings that respond to critical issues
5. Invest in crossings where significant development potential exists
6. Balance regional transportation and local circulation needs

The potential solutions developed to meet the design principles were then evaluated in a three-tiered analysis process. Some options were eliminated early in the process based on geometric constraints. Conceptual design graphics were developed for the remaining options in order to study them further. Other options were eliminated following traffic, community, safety, and economic impact analyses. More detailed designs were developed for a smaller number of options to better understand potential impacts. These options were presented to the public for further feedback.

Following the conclusion of the analysis and input from the public, one alternative was determined to be most feasible at each existing and proposed future crossing. The designs for these recommended alternatives were further refined to develop cost estimates. A summary of these is on the following page.

RCRX Study Recommendations

Crossing	Report Page Reference	Crossing No.	Milepost	Crossing Type	Recommendation	Time Frame	Potential Cost Estimate*
NE Maynard Road	56	643 351A	CSX - 164.20 NS - 73.76	Existing at-grade	Railroad bridge over NE Maynard Rd, shifting the Maynard Rd/Chatham St intersection to outside of the 200-foot railroad corridor	Long-term	$38 million
Trinity Road	58	630 657S	CSX - 163.43 NS - 74.51	Existing at-grade	Trinity Rd bridge over the railroad with Trinity Rd extensions to Chapel Hill Rd and Cary Towne Blvd (southern extension could be built as a separate phase)	Long-term	$52 million
Corporate Center Drive	60	N/A		Future	Corporate Center Dr extension to Bashford Rd with a bridge over the railroad	Long-term	$22 million
Nowell Road	60 & 62	630 654W	CSX - 162.42 NS - 75.52	Existing at-grade	Close Nowell Road railroad crossing in conjunction with extension of Corporate Center Dr and/or Edwards Mill Rd across the railroad	Long-term	$36,000
Edwards Mill Road	62	N/A		Future	Edwards Mill Rd extension to Hillsborough St with a railroad bridge over the new road	Long-term	$48 million
Jones Franklin Road	64	N/A		Future	Jones Franklin Rd extension to Chapel Hill Rd with a railroad bridge over the new road	Long-term	$26 million
Powell Drive	66	630 650U	CSX - 161.33 NS - 76.62	Existing at-grade	Realignment of Powell Dr to connect with Youth Center Dr with a railroad bridge over the realigned road	Long-term	$44 million
Beryl Road	68	630 647L	CSX - 159.94 NS - 78.02	Existing at-grade	Close Beryl Rd and add a new connector from Beryl Rd to Royal St	Mid-term	$5 million
Royal Street	68	630 646E	CSX - 159.73 NS - 78.21	Existing at-grade			

* Includes a planning-level cost estimate for construction, temporary railroad work, and right of way.