

Downtown Raleigh Alignments

Triangle Regional Transit Program
Alternatives Analysis • Wake Corridor



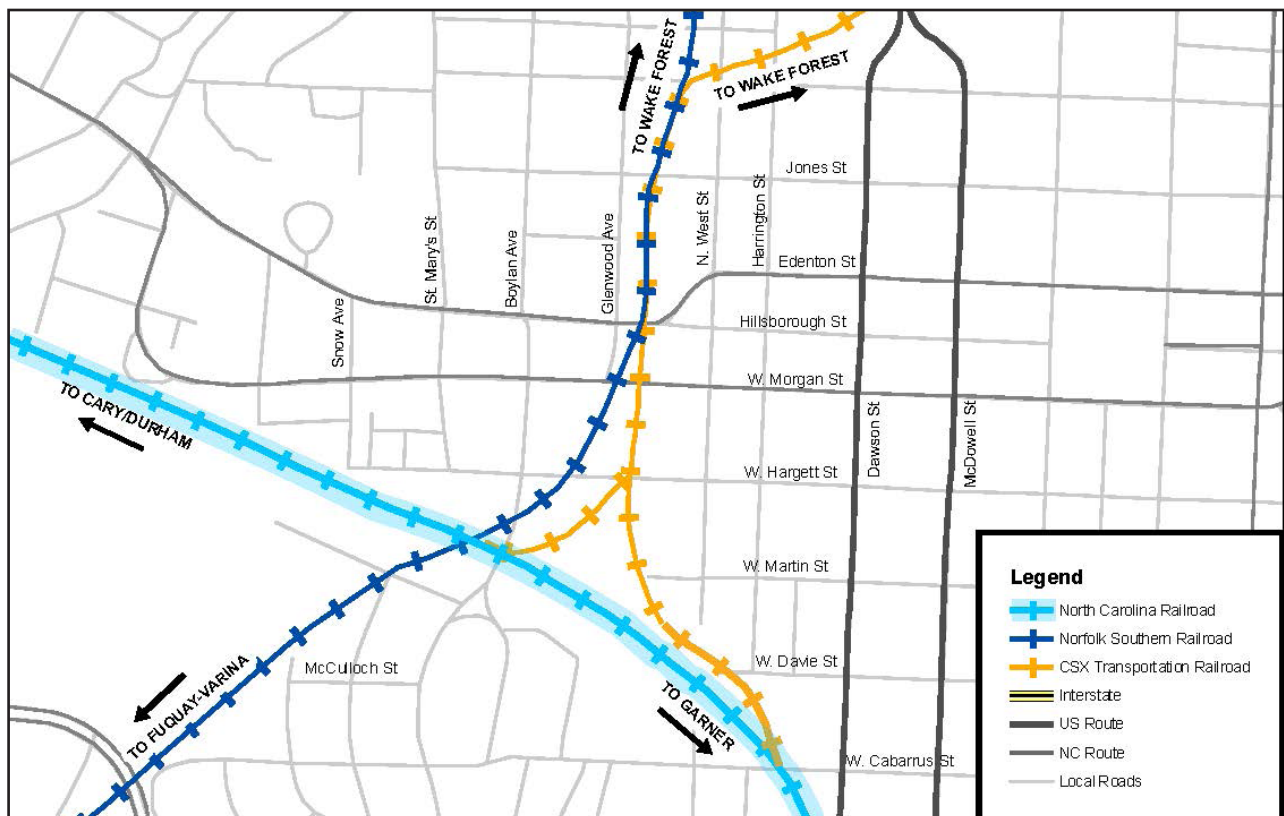
OVERVIEW

Implementing fixed-guideway transit service through downtown Raleigh is challenging. Tracks for the new rail transit service must navigate the “Raleigh Wye” which is located at the meeting point of three sets of railroad tracks that cannot be crossed at grade. Access is further constrained by the Boylan Avenue Bridge, which is not high enough to allow the new tracks to “fly over” the existing railroad tracks below the bridge and cannot be raised sufficiently because of development in the neighborhoods on both ends. Downtown Raleigh is home to a number of activity centers that attract thousands of people daily. Locating stations and tracks in a manner that maintains pedestrian safety and connectivity while minimizing impacts to businesses, residences, historic resources, traffic, and other essential aspects of downtown is critical.

Raleigh Wye Technical Committee The Downtown Raleigh Wye Technical Committee was formed to develop and evaluate alignment options. Committee members included representatives from the City of Raleigh, Wake County, Capital Area Metropolitan Planning Organization, North Carolina State University, North Carolina Railroad, and the North Carolina Department of Transportation Rail and Highway Divisions.

This Fact Sheet describes Conceptual Alignments for downtown Raleigh and the Conceptual Screening, which identified the alignments that successfully address the Purpose and Need for fixed-guideway service and do not present any major engineering problems.

Raleigh Wye Area - Downtown Raleigh



CONCEPTUAL DOWNTOWN RALEIGH ALIGNMENTS

The conceptual alignments evaluated for Downtown Raleigh are shown below. Alignment details can be found in the screening table on page 3.

Downtown Raleigh Conceptual Alignments



LEGEND

- ■ ■ ■ Alignment C1*
- Alignment C2*
- ■ ■ ■ Alignment D1
- Alignment D2
- Alignment D3
- Alignment D4a
- Alignment D4b
- Alignment D5
- Alignment D6
- Alignment D7
- Alignment D8
- Alignment D9
- ■ ■ ■ Alignment E1*
- Alignment E4*
- Local Road
- Railroad

** For the Conceptual Screening, alignments C1, C2, E1, and E4 are not considered part of downtown Raleigh and are evaluated separately. They are shown on the map to illustrate connections between downtown Raleigh and portions of the Wake Corridor to the west (C1, C2) and north (E1, E4) of downtown.*

SUMMARY OF CONCEPTUAL SCREENING RESULTS

The downtown Raleigh alignments were evaluated based on the following five criteria: Potential Transit Ridership; Consistency with Plans and Studies; Stakeholder Support; No Irresolvable Environmental Impacts; and Technical and Financial Feasibility.

Failure to meet at least one or more criterion resulted in elimination of an alternative from further consideration. Alternatives that

passed the conceptual screening have been advanced to the Detailed Evaluation of Alternatives for closer study.

The table to the right presents the results of the screening. Alignment alternatives advanced to the Detailed Evaluation are shown on the map on the last page of this document.

Conceptual Screening Results Table

Alignment	Results	Reason for Conceptual Screening Result
D1. Existing Rail Corridor <ul style="list-style-type: none"> ● Returns to at-grade northeast of downtown ● Elevated over Boylan Avenue bridge and the rail corridors 	Fail	<ul style="list-style-type: none"> ● Aerial structure over Hillsborough Street would not fit the scale and context of downtown; would impact views from the west towards the State Capitol. ● Dependent on planned freight track infrastructure improvements being in place prior to implementation. ● Not supported by Raleigh Wye Committee.
D2. Harrington Street D3. West Street <ul style="list-style-type: none"> ● In-street on Harrington or West Streets ● Elevated over Boylan Avenue bridge 	Pass	<ul style="list-style-type: none"> ✓ Capitalizes on potential development opportunities on the west side of downtown. ✓ Serves both Glenwood South and downtown. ✓ Does not include additional overhead structures. ✓ Supports location of proposed Raleigh multimodal center (Union Station) concept. ✓ Meets the Purpose and Need for the project.
D4a. Wilmington/Salisbury Couplet via Hargett/Morgan Street <ul style="list-style-type: none"> ● In-street on Wilmington/Salisbury, Hargett/Morgan ● Elevated over Boylan Avenue bridge, the rail corridors, and Harrington Street 	Fail	<ul style="list-style-type: none"> ● Aerial structure would impact views and block access to businesses on Hargett and Martin Streets. ● Unacceptable traffic impacts to McDowell and Dawson Streets. ● Impacts Revenue Building at the intersection of Morgan and Salisbury Streets. ● Impacts limited right-of-way on Morgan/Hargett. ● Not supported by Raleigh Wye Committee.
D4b. Wilmington/Salisbury Couplet via Martin/Hargett Street <ul style="list-style-type: none"> ● In-street on Wilmington/Salisbury, Martin/Hargett ● Elevated over Boylan Avenue bridge, the rail corridors, and Harrington Street 	Fail	<ul style="list-style-type: none"> ● Aerial structure would impact views and block vehicle access to condominium on north side of Hargett Street. ● Unacceptable traffic impacts to McDowell and Dawson Streets. ● Impacts limited right-of-way on Martin/Hargett. ● Not supported by Raleigh Wye Committee.
D5. Wilmington/Salisbury Couplet via South Street <ul style="list-style-type: none"> ● In-street on Wilmington/Salisbury ● Elevated over Boylan Ave bridge; parallel to the rail corridor and along South Street 	Pass	<ul style="list-style-type: none"> ✓ Does not cross McDowell and Dawson Streets at-grade. ✓ Penetrates core of downtown Raleigh. ✓ Does not impact Morgan, Hargett, and Martin Streets. ✓ Provides more direct access to the Convention Center. ✓ Meets the Purpose and Need for the project.
D6. Morgan Street <ul style="list-style-type: none"> ● In-street on Morgan Street ● In-street on Harrington Street 	Pass	<ul style="list-style-type: none"> ✓ Avoids Raleigh Wye and does not interface with freight and Southeast High Speed Rail track issues. ✓ Does not include additional overhead structures. ✓ Capitalizes on potential development opportunities on the west side of downtown. ✓ Serves both Glenwood South and downtown. ✓ Meets the Purpose and Need for the project.
D7. McDowell/Dawson Couplet via Hillsborough Street D8. McDowell/Dawson Couplet via Morgan Street D9. McDowell/Dawson Couplet via Western Boulevard	Fail	<ul style="list-style-type: none"> ● Extensive in-street operation on McDowell and Dawson Streets would create unacceptable traffic impacts to these major arterials which are critical to transportation functions in the downtown area. ● Not supported by Raleigh Wye Committee.

Downtown Raleigh Detailed Alignments (Alignments that Passed the Conceptual Screening)



DETAILED ALIGNMENT EVALUATION

The alignments shown above passed the Conceptual Screening and are advanced to the Detailed Evaluation for a greater level of analysis. The evaluation considers a number of key factors including ridership potential, land use and economic development impacts, traffic issues, environmental factors, engineering, and public input.

This is the current phase of the Wake Corridor AA and the TRTP is seeking your input at the Round 3 public workshops. The Detailed Evaluation will result in a recommended locally preferred alternative (LPA).



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