

Durham-Orange Light Rail Transit
Durham, North Carolina
New Starts Engineering
(Rating Assigned November 2018)

Summary Description	
Proposed Project:	Light Rail 17.8 Miles, 19 Stations
Total Capital Cost (\$YOE):	\$2,476.30 Million <small>(Includes \$132.4 million in finance charges)</small>
Section 5309 CIG Share (\$YOE):	\$1,238.15 Million (50.0%)
Annual Operating Cost (opening year 2028):	\$28.73 Million
Current Year Ridership Forecast (2018):	13,700 Daily Linked Trips 3,851,700 Annual Linked Trips
Horizon Year Ridership Forecast (2035):	23,100 Daily Linked Trips 6,395,100 Annual Linked Trips
Overall Project Rating:	Medium
Project Justification Rating:	Medium
Local Financial Commitment Rating:	Medium

Project Description: GoTriangle proposes to construct a Light Rail Transit (LRT) line in the corridor that extends from the University of North Carolina Hospital in the Town of Chapel Hill to North Carolina Central University in the City of Durham. The proposed project includes construction of approximately 4,000 parking spaces and a maintenance facility, and the purchase of 18 LRT vehicles. The service is planned to be provided from 5:30 a.m. to 12:00 a.m. on weekdays, and from 6:30 a.m. to 12:00 a.m. on weekends. In the opening and horizon years, trains are expected to arrive every 10 to 20 minutes during weekdays, every 20 minutes on weekday evenings, and every 20 to 30 minutes on weekends.

Project Purpose: The project is intended to provide a high-capacity transit service that improves mobility, increases connectivity, and supports future development plans in the corridor that extends from Chapel Hill to Durham. Both ends of the corridor have central business districts, large medical facilities, and universities that serve as major employment centers for the region. Major trip generators in the corridor include: University of North Carolina; North Carolina Central University; Duke University; Durham Veterans Affairs Medical Center; Durham Amtrak Station; Durham Performing Arts Center; Durham Station; and downtown Durham. Bus service in the corridor today is slow due to traffic congestion. GoTriangle believes that the project provides an alternative to congested roadways.

Project Development History, Status and Next Steps: GoTriangle selected a locally preferred alternative (LPA) in February 2012, which was published in the final Alternatives Analysis report in April 2012. The LPA was adopted into the region's fiscally constrained long-range transportation plan in May 2013. The project entered New Starts Project Development in February 2014. The Draft Environmental Impact Statement (EIS) was published in August 2015. The Final EIS/ Record of Decision (ROD) was published in February 2016. Subsequently, in October 2016, GoTriangle extended the line 0.7-miles south and added a station, which necessitated additional environmental review. A revised LPA was selected and adopted into the

fiscally constrained long-range transportation plan in December 2016. FTA issued a Finding of No Significant Impact and an amended ROD in December 2016.

GoTriangle is currently studying the addition of another station at Blackwell and Mangum streets, increasing the total number of stations to 19. A supplemental environmental assessment is underway and projected to be complete by February 2019. GoTriangle anticipates receipt of a Full Funding Grant Agreement in September 2019, and the start of revenue service in 2028.

Significant Changes Since Last Evaluation (November 2017): GoTriangle is introducing various refinements into the project design including changes to the track grade, station lengths, and park-and-ride lots. Additionally, GoTriangle has added a rail station at Blackwell/Mangum streets increasing the total number of stations from 18 to 19.

Locally Proposed Financial Plan		
<u>Source of Funds</u>	<u>Total Funds (\$million)</u>	<u>Percent of Total</u>
Federal: Section 5309 CIG	\$1,238.15	50.0%
State: State of North Carolina Strategic Transportation Investments Grant	\$190.00	7.7%
Local: Dedicated Local Revenues (Durham and Orange Counties sales tax, vehicle rental tax, and vehicle registration fees)	\$317.93	12.8%
TIFIA (Repaid by Dedicated Local Revenues)	\$457.72	18.5%
Limited Obligation Bonds (Repaid by Dedicated Local Revenues)	\$170.00	6.9%
Private Sector/Other: In-Kind Right-of-Way Donations	\$41.38	1.6%
Private Philanthropic Campaign	\$61.12	2.5%
Total:	\$2,476.30	100.0%

NOTE: The financial plan reflected in this table has been developed by the project sponsor and does not reflect a commitment by DOT or FTA. The sum of the figures may differ from the total as listed due to rounding.

**NC, Durham and Orange Counties, Durham-Orange Light Rail Transit Project
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Factor	Rating	Comments
Local Financial Commitment Rating	Medium	
Non-Section 5309 CIG Share	N/A	The CIG share of the project is 50.0 percent.
Summary Financial Plan Rating	Medium	
Current Capital and Operating Condition (25% of local financial commitment rating)	Medium-High	<ul style="list-style-type: none"> • The average age of the bus fleet is 5.1 years, which is younger than the industry average. • GoTriangle has not issued bonds in the last two years. • GoTriangle’s current ratio of assets to liabilities as reported in its most recent audited financial statement is 17.6 (FY2017). • There have been no service cutbacks or cash flow shortfalls in recent years.
Commitment of Capital and Operating Funds (25% of local financial commitment rating)	Medium	<ul style="list-style-type: none"> • Approximately 41.9 percent of the non-Section 5309 CIG capital funds are committed or budgeted, and the rest are considered planned. Sources of funds include a Transportation Infrastructure Finance and Innovation Act loan from the United States Department of Transportation repaid by sales tax revenues, vehicle rental tax revenues, and vehicle registration fee revenues (dedicated local revenues); a Strategic Transportation Investment grant from the North Carolina Department of Transportation (NCDOT); limited obligation bonds repaid by dedicated local revenues; dedicated local revenues; right of way donations; and private philanthropic donations. • Approximately 99.9 percent of the funds needed to operate and maintain the transit system in the first full year of operation are committed or budgeted, and the rest are considered planned. Sources of funds include NCDOT State Maintenance Assistance Program grants, NCDOT advanced technology grants, dedicated local revenues, reimbursements for oversight of other transit systems and programs in the region, and fare revenues.
Reasonableness of Capital and Operating Cost Estimates and Planning Assumptions/Capital Funding Capacity (50% of local financial commitment rating)	Medium-Low	<ul style="list-style-type: none"> • Assumed growth in capital revenues is reasonable for sales tax revenues and optimistic for vehicle registration fee revenues and vehicle rental fee revenues compared to recent historical experience. • The capital cost estimate is optimistic.

		<ul style="list-style-type: none">• Regarding growth in operating revenue assumptions, sales tax revenue projections are reasonable while farebox collections, vehicle registration fee revenues, and vehicle rental fee revenues are optimistic compared to recent historical experience.• Operating cost estimates are optimistic compared to recent historical experience• GoTriangle has access to funds via additional debt capacity, cash reserves, or other committed funds to cover unexpected cost increases or funding shortfalls equal to at least 1.6 percent of the estimated CIG project capital cost and 28 percent of annual system wide operating expenses.
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LAND USE RATING: Medium

The land use rating reflects population density within one-half mile of proposed stations, employment served by the line, and the share of legally binding affordability restricted (LBAR) housing in the station areas compared to the share in the surrounding counties.

- Average population density in all station areas is 3,800 persons per square mile, which corresponds to a Medium-Low rating according to FTA criteria. Total employment within project station areas is 80,100, which corresponds to a Medium rating. Daily parking rates at the University of North Carolina (UNC) at Chapel Hill, the largest traffic generator in the corridor, average \$13, corresponding to a Medium-High rating. The proportion of LBAR housing in the corridor compared to the proportion in the surrounding counties is 2.51, which corresponds to a High rating.
- The corridor includes the campus environment of UNC-Chapel Hill and its associated hospitals at the western end; at the eastern end are the campus environment of Duke University, the edge of the more urban environment of the Durham central business district (CBD), and a residential area near the campus of North Carolina Central University. Other station areas are primarily suburban.
- Duke and UNC-Chapel Hill both have attractive pedestrian environments and the urban station areas in Durham have largely continuous streets and sidewalks, although highways create some gaps in the local street network. The suburban stations generally are more automobile-oriented.

ECONOMIC DEVELOPMENT RATING: Medium

Transit-Supportive Plans and Policies: Medium

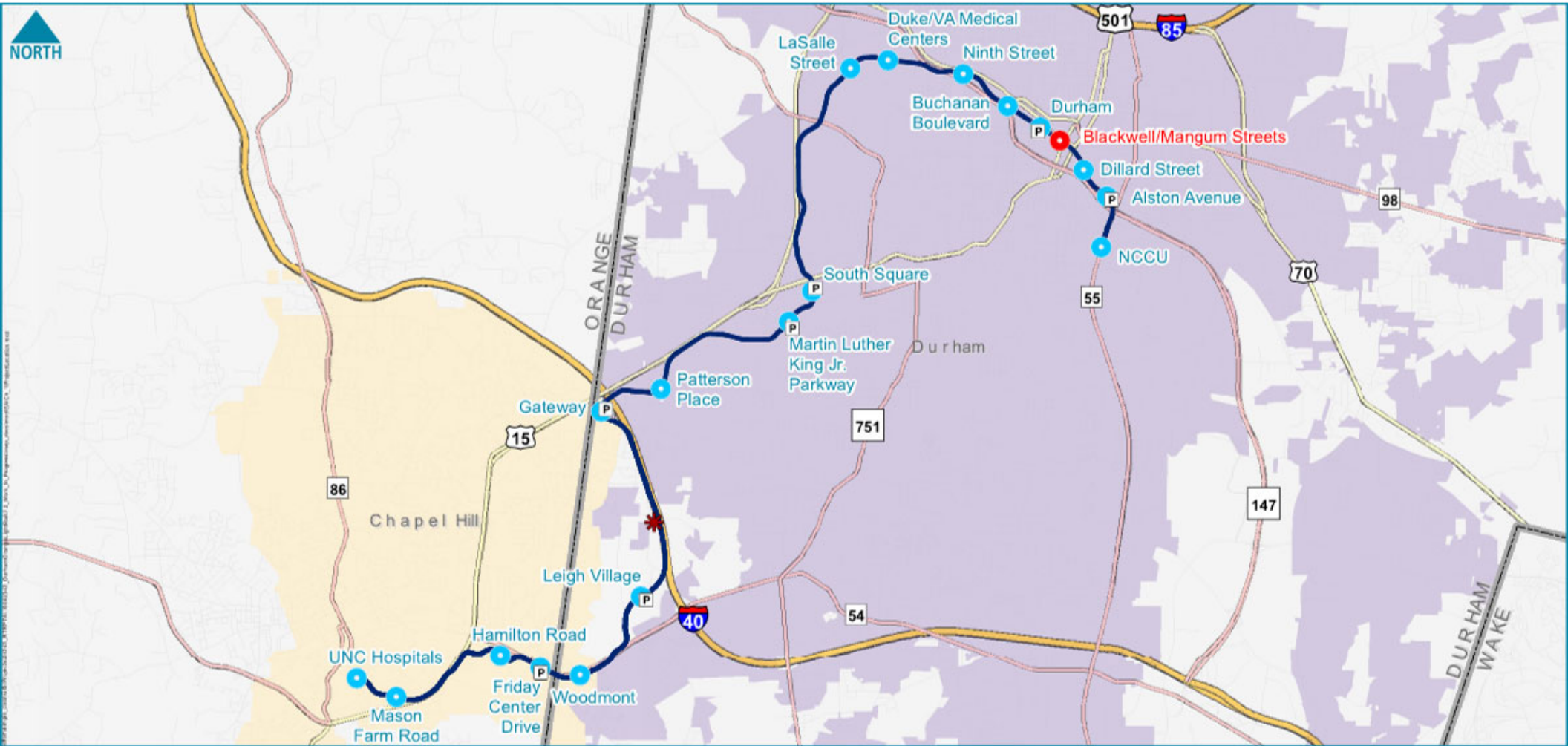
- *Growth Management:* Regional level organizations do not have an active role in growth management outside of working with local governments to coordinate economic development, land use, and transportation planning. However, Durham and Chapel Hill have adopted aggressive growth management and land protection strategies, including urban services boundaries. Policies to increase development in priority areas are just beginning to occur as part of planning for the project.
- *Transit-Supportive Corridor Policies:* GoTriangle has drafted conceptual plans for all proposed station areas. Durham has drafted or adopted Compact Neighborhood Plans for all of its station areas and has updated its Future Land Use Map to better align it with the project. Chapel Hill has identified focus areas for new development in station areas as part of its Comprehensive Plan and initiated an update to its Future Land Use Map.
- *Supportive Zoning Regulations Near Transit Stations:* In Durham, new TOD zoning districts are being developed according to the densities and character envisioned in the Compact Neighborhood Plans. The public process for rezoning three station areas has begun. Chapel Hill has proposed a TOD zoning district that would provide transit-supportive development density near future transit stations.
- *Tools to Implement Land Use Policies:* Chapel Hill offers density bonuses for mixed-use development, while Durham offers density bonuses for mixed uses in Compact Neighborhood Districts. Both cities offer public financing for infrastructure improvements. GoTriangle has been actively engaged with the cities, developers and the public in support of transit-oriented development.

Performance and Impacts of Policies: Medium-High

- *Performance of Land Use Policies:* In Durham, over 65 development projects have been completed since 2003 or are under construction in station areas. Approved projects have a development character that largely supports pedestrian activity. There are fewer major developments in Chapel Hill but some TOD developments with mixed-use and high density characteristics have been developed in recent years.
- *Potential Impact of Transit Investment on Regional Land Use:* The metropolitan area is forecast to grow significantly through 2035. The large educational, medical and research institutions that serve as the region's economic base are located along the corridor. The corridor's population is expected to grow faster than the regional average given the higher-density rezoning that is underway.

Tools to Maintain or Increase Share of Affordable Housing: Medium

- Chapel Hill requires affordable units with most new multifamily residential development and established a reserve fund to support rental projects for low-income housing. Durham recently set a goal of 15 percent affordable housing within a half mile radius of transit stations on the LRT corridor, and is beginning to define strategies for affordable housing production and preservation. Durham recently updated its zoning ordinance to include a density bonus and eliminate parking requirements for developments in compact neighborhood districts that include affordable housing units.



DURHAM-ORANGE LIGHT RAIL TRANSIT PROJECT



Sources: ESRI, CGIA, NCDOT, and HDR



- LRT Station
- Proposed LRT Station
- P Park-and-Ride Lot
- ✱ Rail Operations and Maintenance Facility
- Light Rail Alignment
- County Boundary