

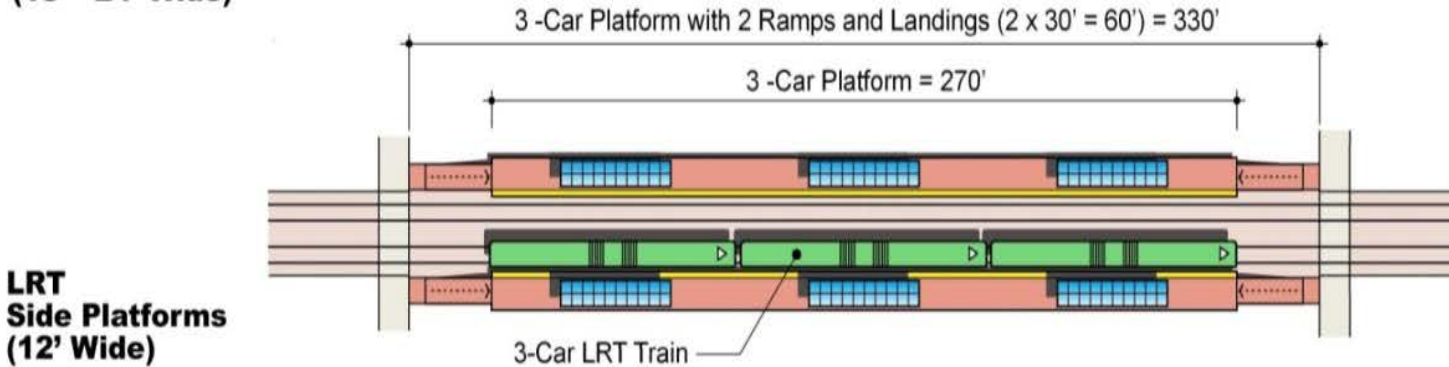
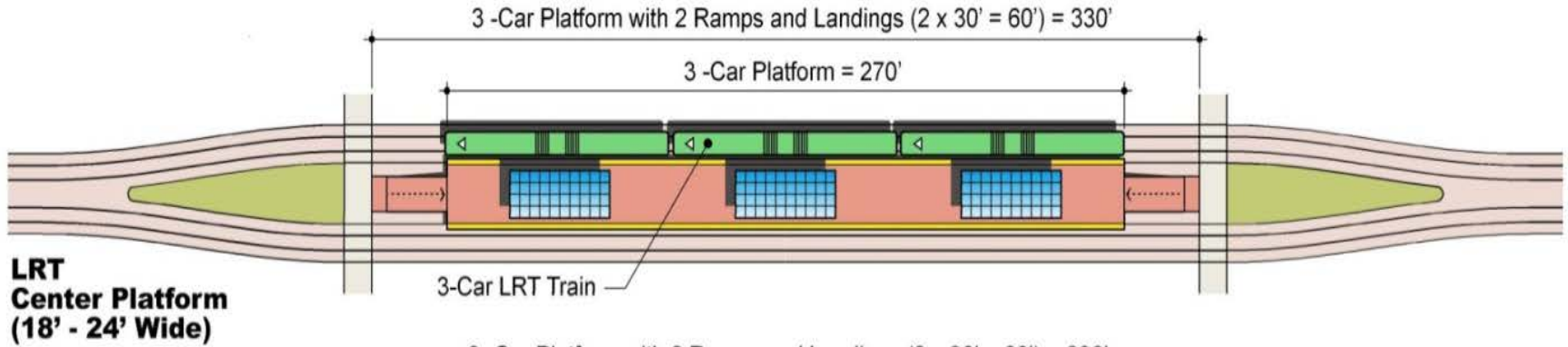
Station Evaluation

Durham-Orange
Light Rail Transit Project
Spring 2012

Key Ingredients for Station Development



Platform Designs



UNC Hospitals Station

The UNC Hospitals Station – Option D would be the westerly end-of-line station.

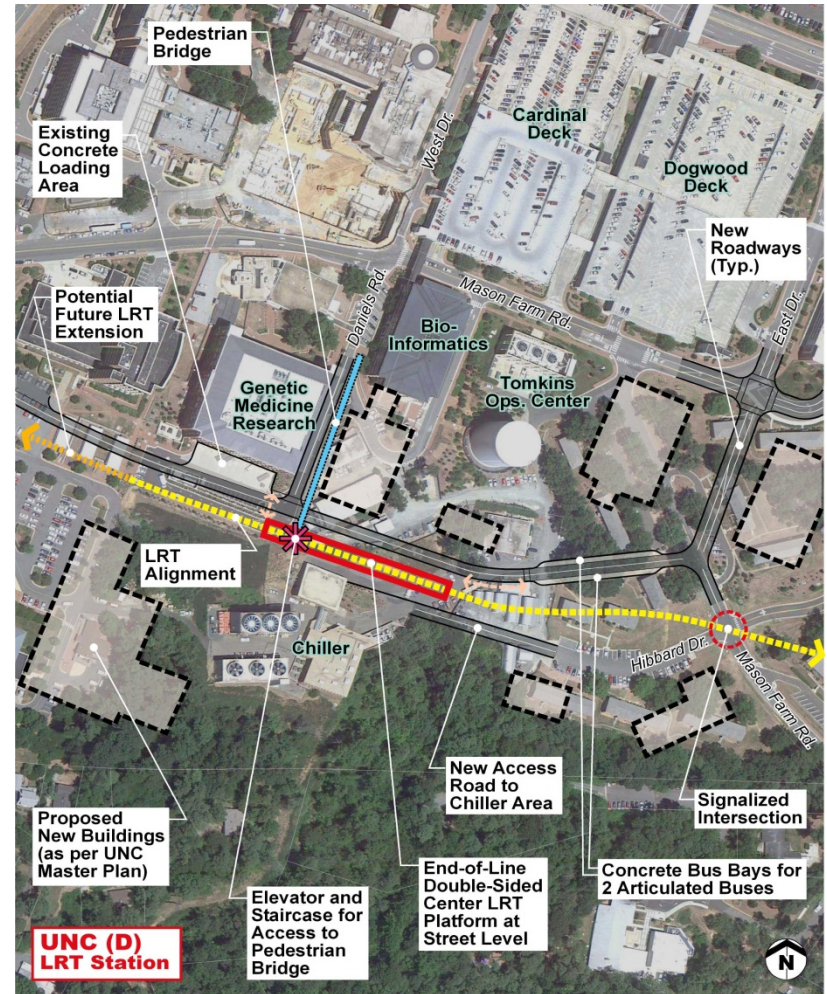
Location: At street level south of the Genetic Medicine Research facility on a proposed realigned segment of Mason Farm Road between Daniels Road and East Drive. This location could permit the corridor to be extended into downtown Chapel Hill and beyond as a future phase of the project.

Existing Conditions: Fully developed, however, according to the UNC Master Plan, the area will be redeveloped and a number of new buildings and roadways will be constructed in the area.

Service: UNC Hospital Complex and UNC South Campus, as well as UNC North Campus and the greater Chapel Hill area via bus.

Key Features:

- Primarily a walk-up station with feeder bus transfers from buses that would stop along the curbs of a new east-west roadway, which would be developed directly north of the alignment.
- The new roadway, which would be located directly south of the existing Genetic Medicine Research building loading docks, would permit the continuation of the existing loading dock operations.
- The feeder bus curb pull-outs, which would be located on both sides of the new roadway, would be designed to accommodate two 60-foot articulated buses each.
- At-grade station platform with two access ramps and an elevator and staircase for access to a pedestrian bridge.
- 24-foot wide, double-sided, center platform.
- A pedestrian bridge to provide a direct connection between the station platform and the elevated Mason Farm Road and Daniels Road intersection and the rest of the UNC campus.
- Signalized intersection at Mason Farm Road and Hibbard Drive.



Mason Farm Road Station

The Mason Farm Road Station would be developed in conjunction with the proposed UNC facilities that, according to the UNC Master Plan, are being planned for the triangular area between Mason Farm Road and Fordham Boulevard. The UNC Master Plan includes new buildings, a parking deck, and a new roadway connection along the west side of the site, which would link Mason Farm Road with Fordham Boulevard and which would have a new signalized intersection at Fordham Boulevard.

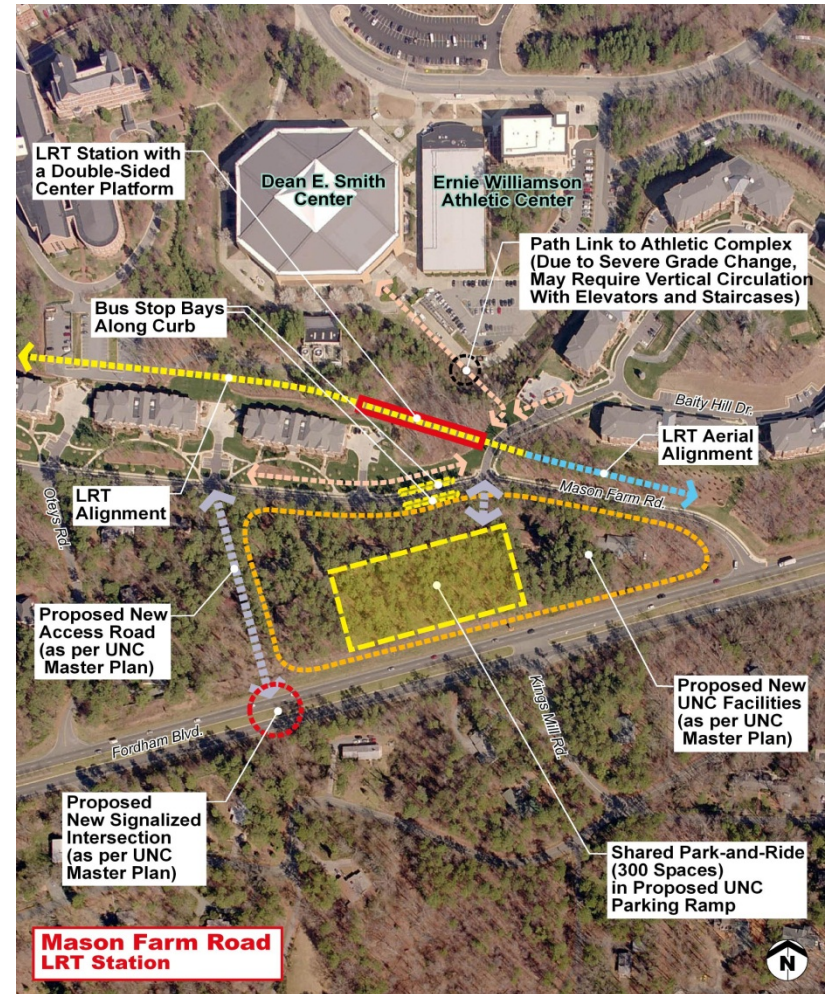
Location: At the southern end of the UNC campus, northwest of the Mason Farm Road and Baity Hill Drive intersection, at-grade.

Existing Conditions: Fully developed.

Service: UNC South Campus, including the Dean E. Smith Center, the Ernie Williamson Athletic Center, feeder bus transfers, park-and-ride users, UNC housing, and the residential neighborhood to the south.

Key Features:

- Medium park-and-ride and feeder bus station.
- At-grade station platform with one access ramp. Due to the steep grade conditions in the area, the station would have only one at-grade access from Baity Hill Drive.
- 18-foot wide, double-sided, center platform.
- 300 shared park-and-ride spaces would be developed in conjunction with the proposed UNC parking structure.
- Feeder bus bays along the curbs of Mason Farm Road, directly west of Baity Hill Drive.
- Path links to the residential developments in the vicinity and to the athletic complex to the north. Due to the extremely steep grade conditions, a vertical circulation core with elevators and staircases may need to be provided for the link to the athletic complex. In addition, since the athletic complex will have very high pedestrian traffic flows at event times, an escalator or multiple escalators may be required.



Hamilton Road Station

The Hamilton Road Station, which would be primarily a walk-up station, has two at-grade configuration options which will be evaluated in the Draft EIS.

Hamilton Road Station – Option A

The Hamilton Road Station – Option A would be primarily a walk-up station.

Location: Southwest of the Hamilton Road and Prestwick Road intersections, at the northwest corner of the UNC Finley Golf Course.

Existing Conditions: Fully developed area.

Service: The commercial and office developments located along the south side of Raleigh Road and the medium-density residential neighborhood north of Raleigh Road.

Key Features:

- Walk-up station with primary access from the Hamilton Road and Prestwick Road intersection.
- At-grade station platform with one access ramp. Eighteen-foot wide, double-sided, center platform.
- A second access could be developed at the southwest end of the station, if needed.

Hamilton Road Station – Option B

The Hamilton Road Station – Option B would be primarily a walk-up station.

Location: Along Prestwick Road, southeast of the East 54 development.

Existing Conditions: Fully developed area.

Service: The commercial and office developments located along the south side of Raleigh Road and the residential neighborhood north of Raleigh Road.

Key Features:

- Walk-up station with primary access from Prestwick Road.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.



Friday Center Drive Station – Option A

The Friday Center Drive Station - Option A would apply if the LRT alignment continues north, across Raleigh Road (NC 54), to the Meadowmont development. Since the alignment would need to be grade separated at Raleigh Road, this would need to be an aerial station.

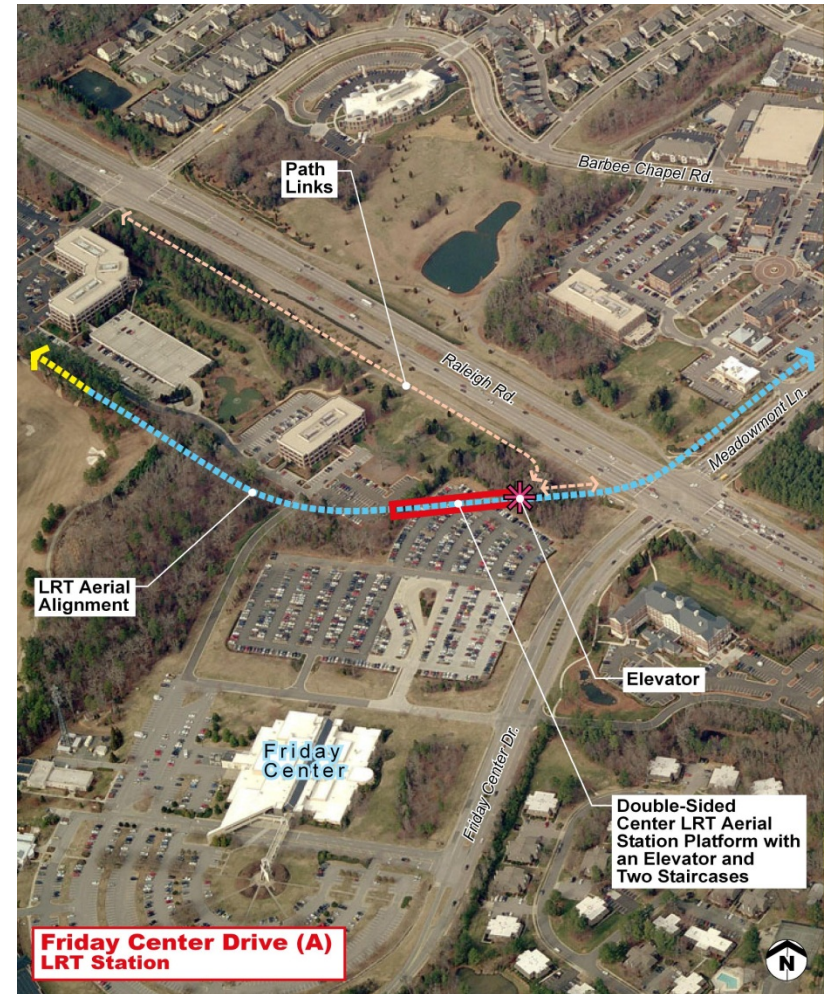
Location: Southwest of the Raleigh Road/NC 54 and Friday Center Drive intersection.

Existing Conditions: Fully developed

Service: Commercial and office developments located along the south side Raleigh Road, the UNC Friday Center building, and the low-/medium-density residential developments to the east.

Key Features:

- Walk-up station.
- Aerial station platform with an elevator at the northeast end of the platform and two staircases for a total station length of 280 feet.
- 24-foot wide, double-sided, center platform with two staircases.
- Path links to the Raleigh Road and Friday Center Drive intersection, the NC 54 pedestrian underpass, and to the surrounding developments.



Friday Center Drive Station – Option B

The Friday Center Drive Station - Option B would apply if the LRT alignment continues southeast along the south side of Raleigh Road, to the proposed Hillmont development. Since the alignment would be at-grade, this would be an at-grade station.

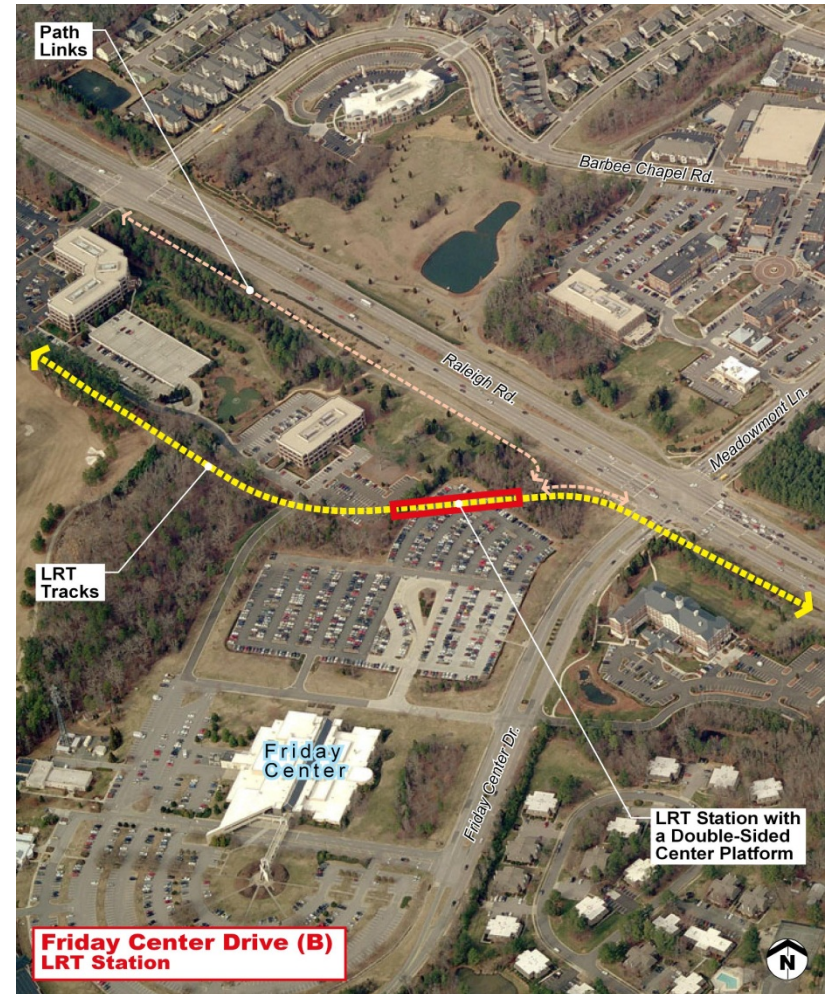
Location: Southwest of the Raleigh Road and Friday Center Drive intersection.

Existing Conditions: Fully developed.

Service: Commercial and office developments located along the south side Raleigh Road, the UNC Friday Center building, the Meadowmont development north of Raleigh Road, and the medium-density residential developments to the east.

Key Features:

- Walk-up station with primary access from the Raleigh Road and Friday Center Drive intersection.
- At-grade station platform with two access ramp.
- 18-foot wide, double-sided, center platform.
- Path links to the Raleigh Road and Friday Center Drive intersection, the NC 54 pedestrian underpass and to the surrounding developments.



Meadowmont Lane Station

The Meadowmont Lane Station is paired with the Friday Center Drive Station - Option A, along alternative alignment C1. The Meadowmont Lane Station would be primarily a walk-up station.

Location: West side of Meadowmont Lane, between Barbee Chapel Road and Sprunt Street.

Existing Conditions: Fully developed mixed-use TOD with commercial, medical, educational and medium-density residential uses.

Service: Primarily the Meadowmont Village development area.

Key Features:

- Walk-up station with primary access from the Meadowmont Lane and Barbee Chapel Road intersection and a secondary walkway access from Sprunt Street.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- Linked to extensive pedestrian and interconnected roadway network.



Woodmont Station

The Woodmont Station is paired with the Friday Center Drive Station - Option B, along alternative alignment C2. The Woodmont Station would be a small park-and-ride station. A large mixed-use development (Hillmont) is planned for the area directly south of the station.

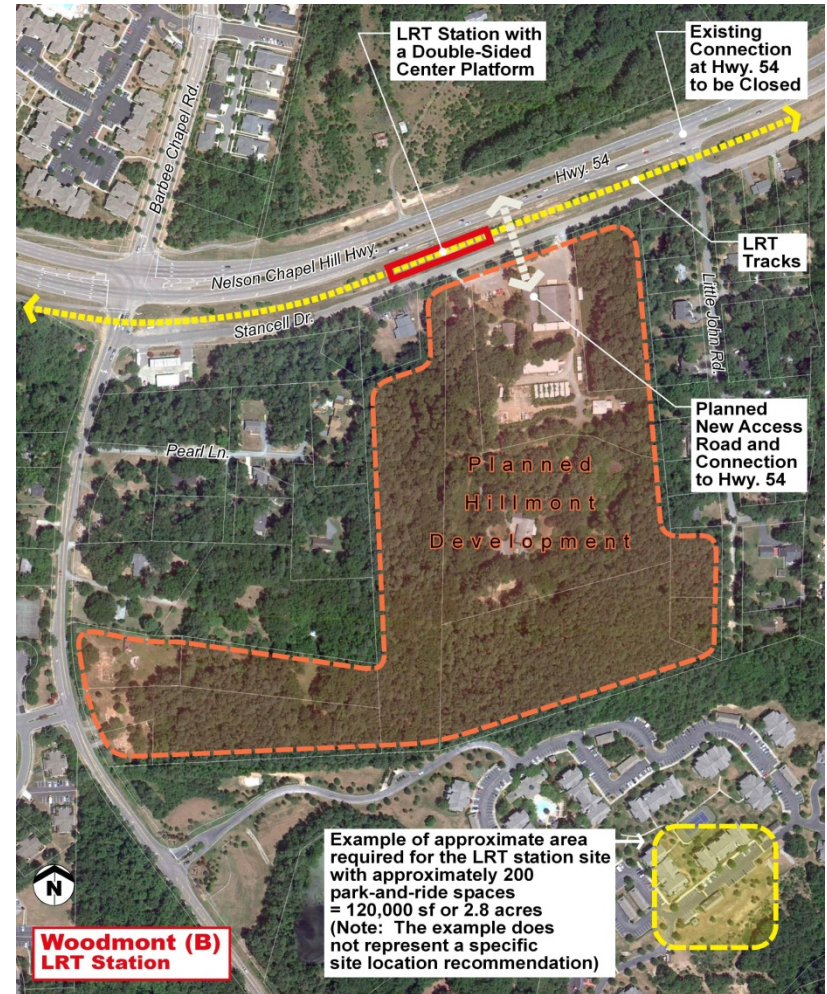
Location: Between Nelson Chapel Hill Highway and Stancel Drive, east of Barbee Chapel Road.

Existing Conditions: Low-density developments and undeveloped land.

Service: Park-and-ride and feeder bus users, the existing low- and limited medium-density residential developments in the vicinity of the station and the proposed Hillmont Development a mixed-use (primarily commercial and office) project proposed for the area directly south of the station.

Key Features:

- Small park-and-ride station.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- 200 park-and-ride spaces.
- Estimated station site size = 120,000 SF or 2.8 acres.



Leigh Village Station

The Leigh Village Station would be a very large park-and-ride and feeder bus station. A large, mixed-use project is planned for the area directly southwest of the station site.

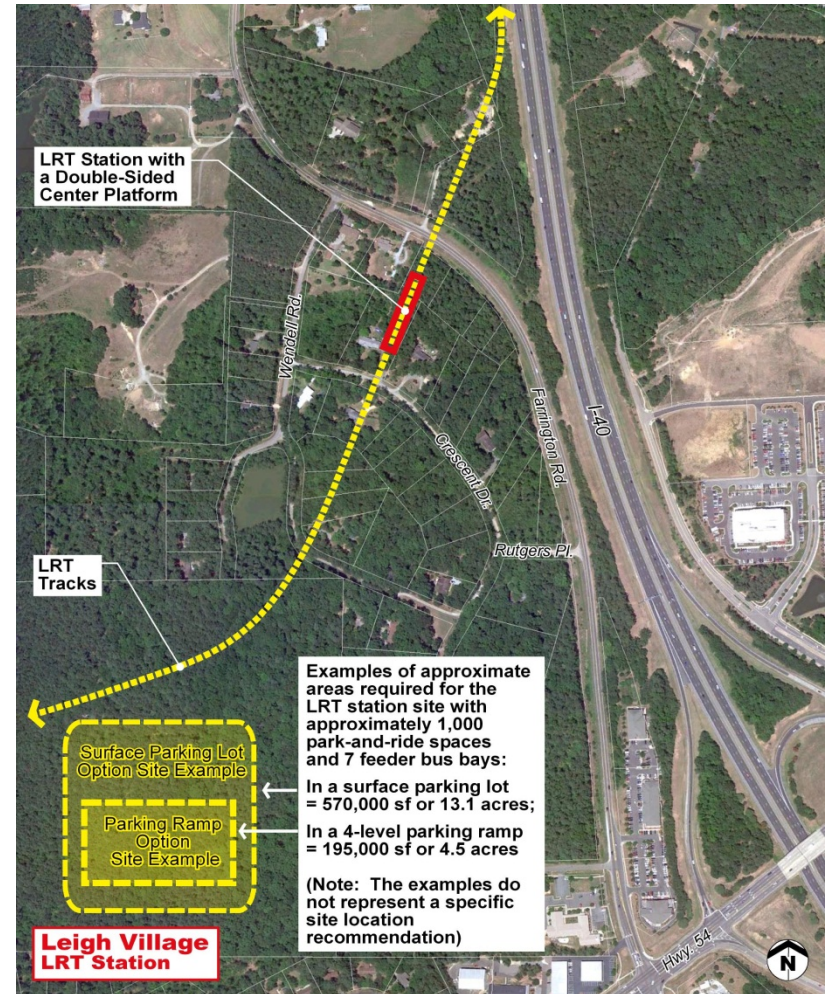
Location: Southeast of the Farrington Road and Wendell Road intersection, west of I-40.

Existing Conditions: Low-density residential uses and undeveloped land.

Service: Intermodal bus transfers, park-and-ride users, and the proposed large mixed-use project. This would be a very large park-and-ride and feeder bus station that has convenient access from I-40 and Highway 54, with potential future direct access from I-40.

Key Features:

- Very large park-and-ride and feeder bus station.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- 1,000 park-and-ride spaces.
- 7 feeder bus bays.
- Potential future direct access from I-40.
- Estimated station site size, if parking is in a surface lot = 570,000 SF or 13.1 acres.
- Estimated station site size, if parking is in a 4-level parking deck = 195,000 SF or 4.5 acres.



Gateway Station

The Gateway Station would be a large park-and-ride and feeder bus station. The intersection of Old Chapel Hill Road and Pope Road is planned to be reconstructed as a roundabout. Also, Danziger Road is proposed to be extended over I-40.

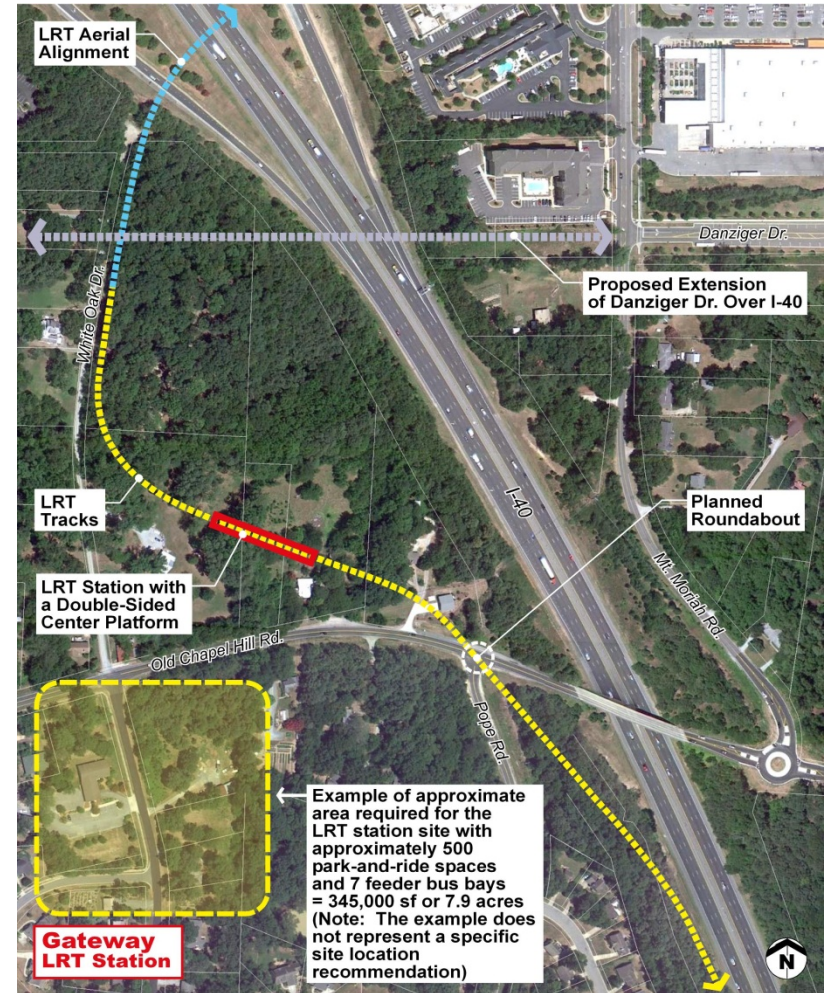
Location: Northeast of the Old Chapel Hill Road and White Oak Drive intersection.

Existing Conditions: Low-density residential uses and undeveloped land.

Service: Intermodal bus transfers, park-and-ride users, and potential TODs in the station vicinity.

Key Features:

- Large park-and-ride and feeder bus station.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- 500 park-and-ride spaces.
- 7 feeder bus bays.
- Estimated station site size = 345,000 SF or 7.9 acres.



Patterson Place Station

The Patterson Place Station would be primarily a walk-up station.

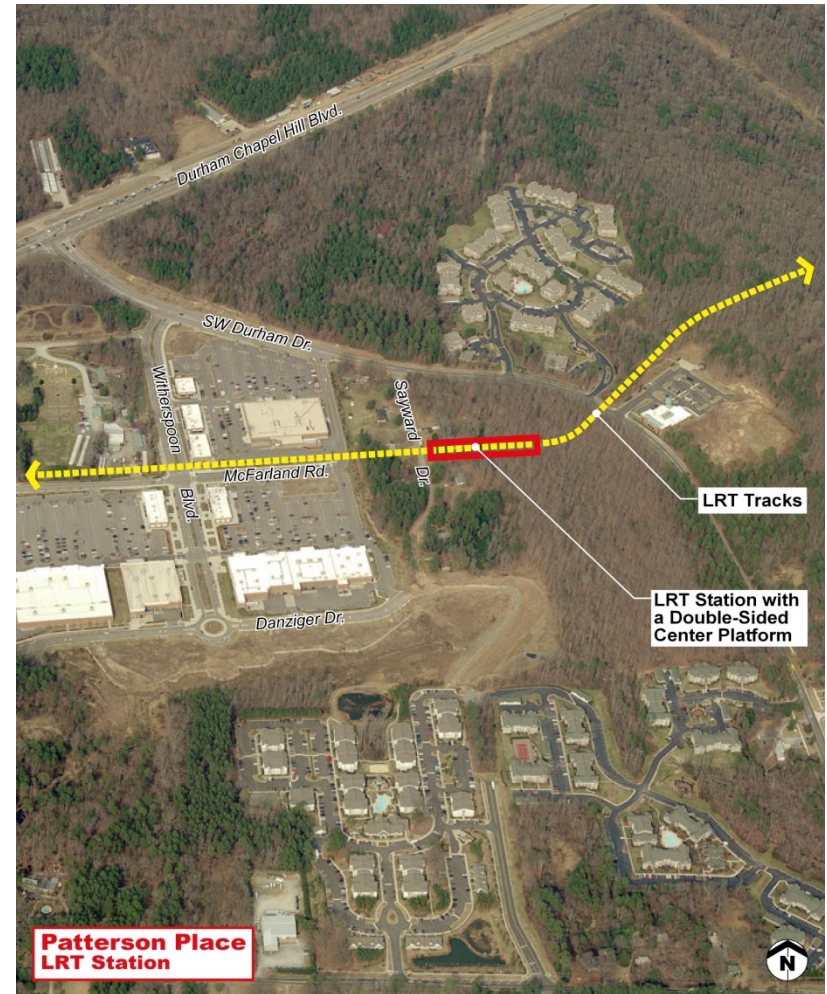
Location: East of the McFarland Road and Sayward Drive intersections.

Existing Conditions: Low-density residential and commercial uses and undeveloped land.

Service: The existing and future commercial and mixed use developments located to the west, various existing residential neighborhoods, and potential TODs in the vicinity of the station site.

Key Features:

- Walk-up station with primary access from the McFarland Road and Sayward Drive intersection.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- Path links to all the existing and potential developments in the vicinity of the station.



MLK Jr. Parkway Station

The MLK Jr. Parkway Station would be a medium park-and-ride station.

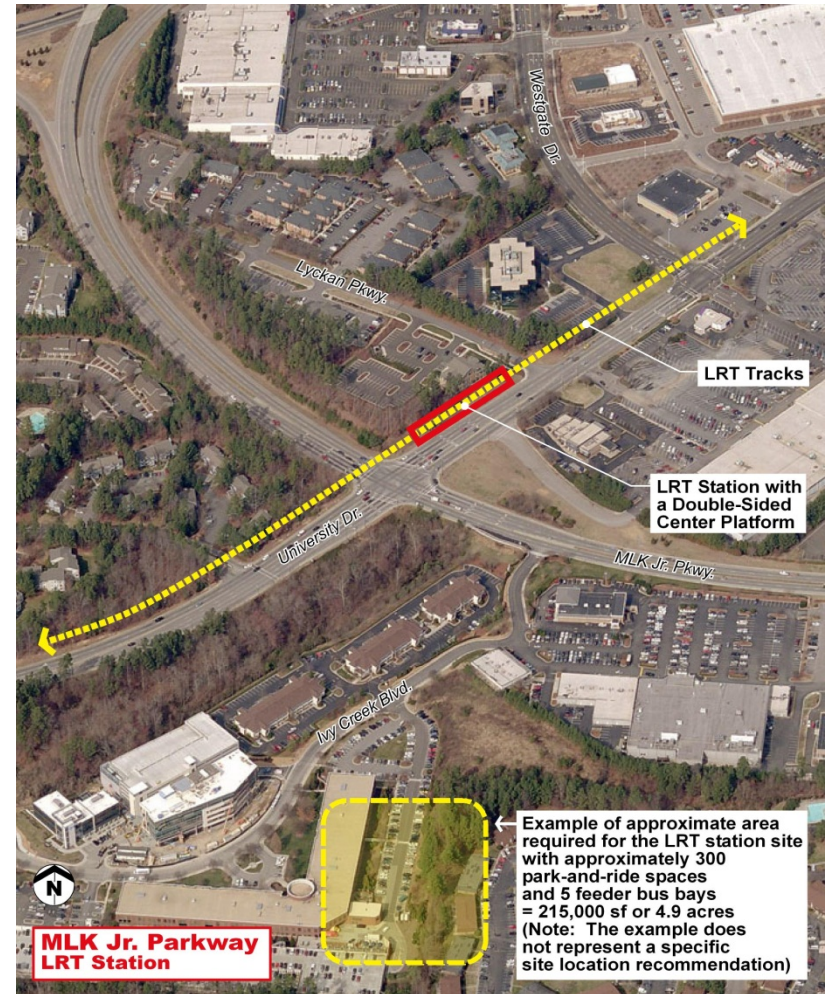
Location: Along the north side of University Drive, between MLK Jr. and Lyckan Parkways.

Existing Conditions: Fully developed area with commercial and medium-density residential uses, though redevelopment opportunities may exist.

Service: Intermodal bus transfers, park-and-ride users, and the existing and potential future commercial, office, and residential developments in the vicinity of the station.

Key Features:

- Medium park-and-ride station.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- 300 park-and-ride spaces.
- 5 feeder bus bays.
- Estimated station site size = 215,000 SF or 4.9 acres.



South Square Station

The South Square Station would be a medium park-and-ride station. Since the alignment would need to be grade separated at Durham Chapel Hill Boulevard, this would need to be an aerial station. A large multi-use development is planned for the area directly southeast of the station.

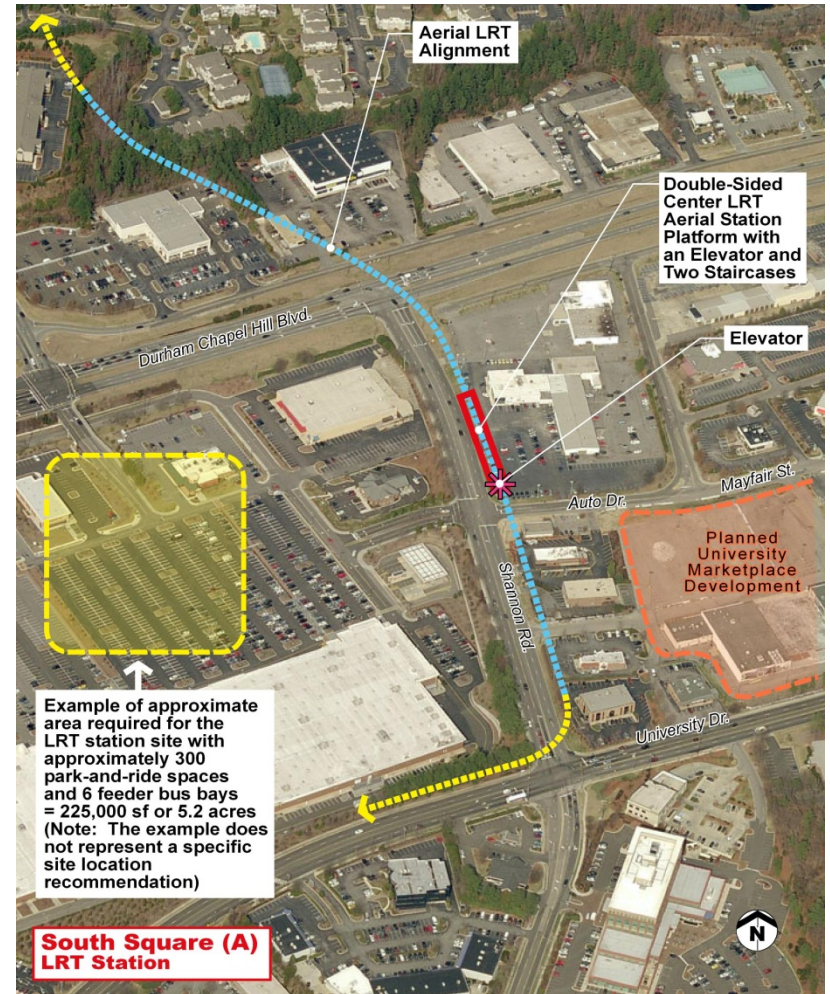
Location: Along the east side of Shannon Road, directly northeast of the Shannon Road and Auto Drive intersection.

Existing Conditions: Fully developed with commercial uses, though redevelopment opportunities may exist.

Service: Intermodal bus transfers, park-and-ride users, the commercial uses in the area, and the planned University Marketplace development southeast of the station.

Key Features:

- Medium park-and-ride and feeder bus station.
- Aerial station platform with an elevator at the south end of the platform and two staircases.
- 24-foot wide, double-sided, center platform.
- 300 park-and-ride spaces.
- 6 feeder bus bays.
- Estimated station site size = 225,000 SF or 5.2 acres.



LaSalle Street Station

The LaSalle Street Station would be primarily a walk-up station.

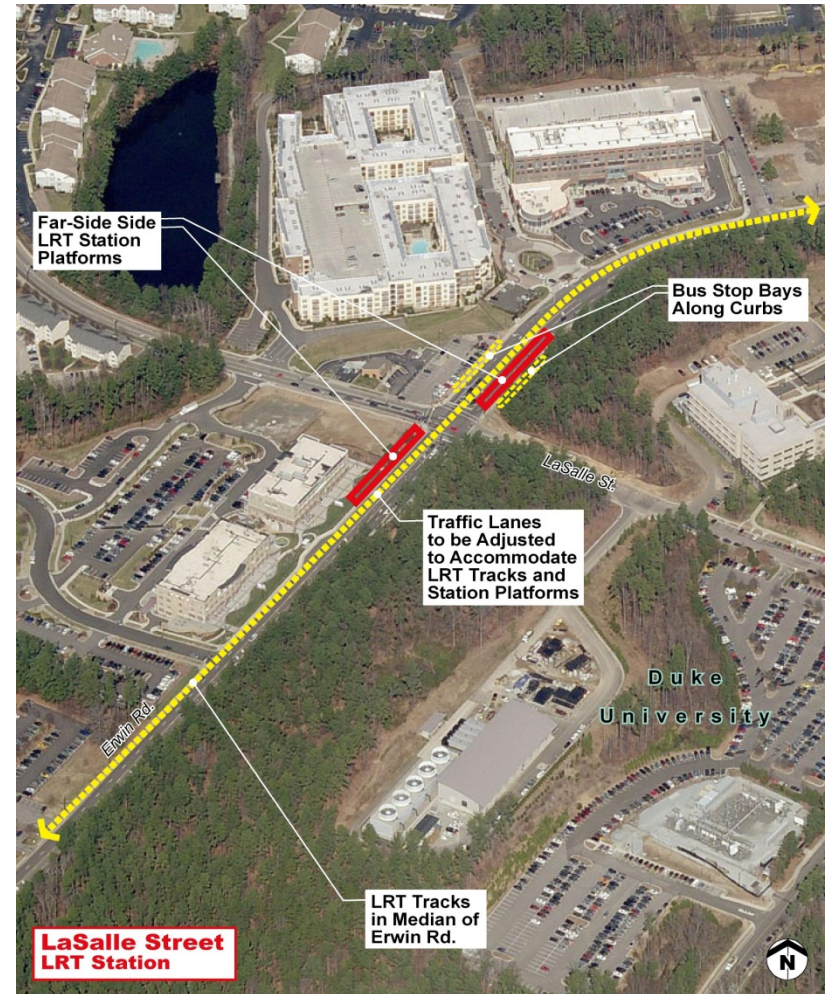
Location: In the median of Erwin Road at LaSalle Street.

Existing Conditions: Fully developed with commercial and institutional uses.

Service: Intermodal bus transfers, the west side of the Duke University campus, and the commercial and residential uses in the area.

Key Features:

- Feeder bus and walk-up station.
- Two at-grade, far-side, side station platforms in the median of Erwin Road. Access to both platforms would be from the LaSalle Street intersection with southbound passengers accessing the platform on the north side of the intersection and northbound passengers accessing the platform on the south side of the intersection. Each platform would have one access ramp.
- 12-foot wide side platforms.
- Feeder bus bays along the curbs of Erwin Road, east of LaSalle Street, for accommodating 5 buses.



Duke Medical Center Station

The Duke Medical Center Station, which would be primarily a walk-up station, has two configuration options which will be evaluated in the Draft EIS. A key issue at this station is the need to accommodate the large volume of through and turning traffic movements for smooth traffic operations.

Duke Medical Center Station – Option A

The Duke Medical Center Station – Option A would have a single platform on the west side of Fulton Street with access from the Fulton Street intersection.

Location: In the median of Erwin Road on the west side of Fulton Street.

Existing Conditions: Fully developed with institutional and commercial uses.

Service: The Duke Medical Center, the Durham VA Medical Center, and the commercial and adjacent medical office uses in the area.

Key Features:

- Walk-up station.
- One at-grade, center station platform, in the median of Erwin Road on the west side of Fulton Street, with one access ramp from Fulton Street.
- 18-foot wide, double-sided, center platform.

Duke Medical Center Station – Option B

The Duke Medical Center Station – Option B would have a single platform east of Trent Drive and west of Flowers Drive with access from these two intersections with Erwin Road.

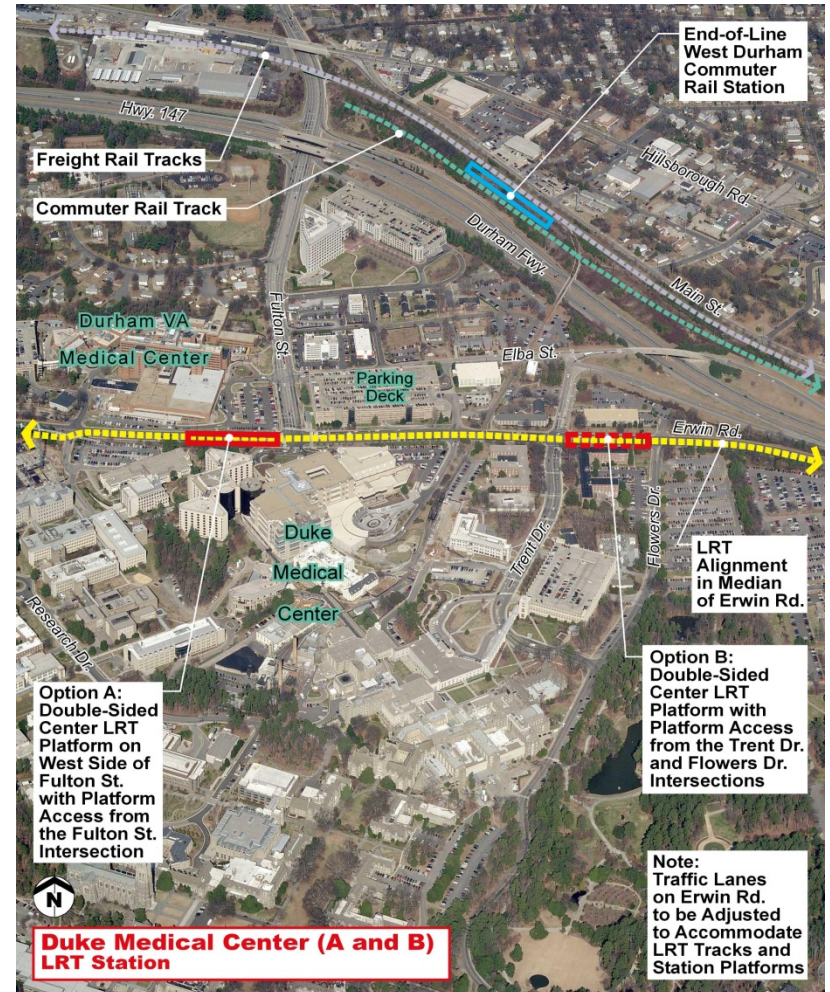
Location: In the median of Erwin Road on the west side of Flowers Drive and east side of Trent Drive.

Existing Conditions: Fully developed with institutional and commercial uses.

Service: The Duke Medical Center and the commercial and adjacent medical office uses in the area.

Key Features:

- Walk-up station.
- One at-grade, center station platform, in the median of Erwin Road on the west side of Flowers Drive and east side of Trent Drive, with two access ramps from the Trent Drive and Flowers Drive intersections.
- 18-foot wide, double-sided, center platform.



Ninth Street Station

The Ninth Street Station would be a small park-and-ride station. The existing grade separation at Ninth Street and the railroad corridor would require a vertical circulation core for access between the LRT station and the underpass that links it to the developments and potential redevelopment on the north and south sides of the tracks.

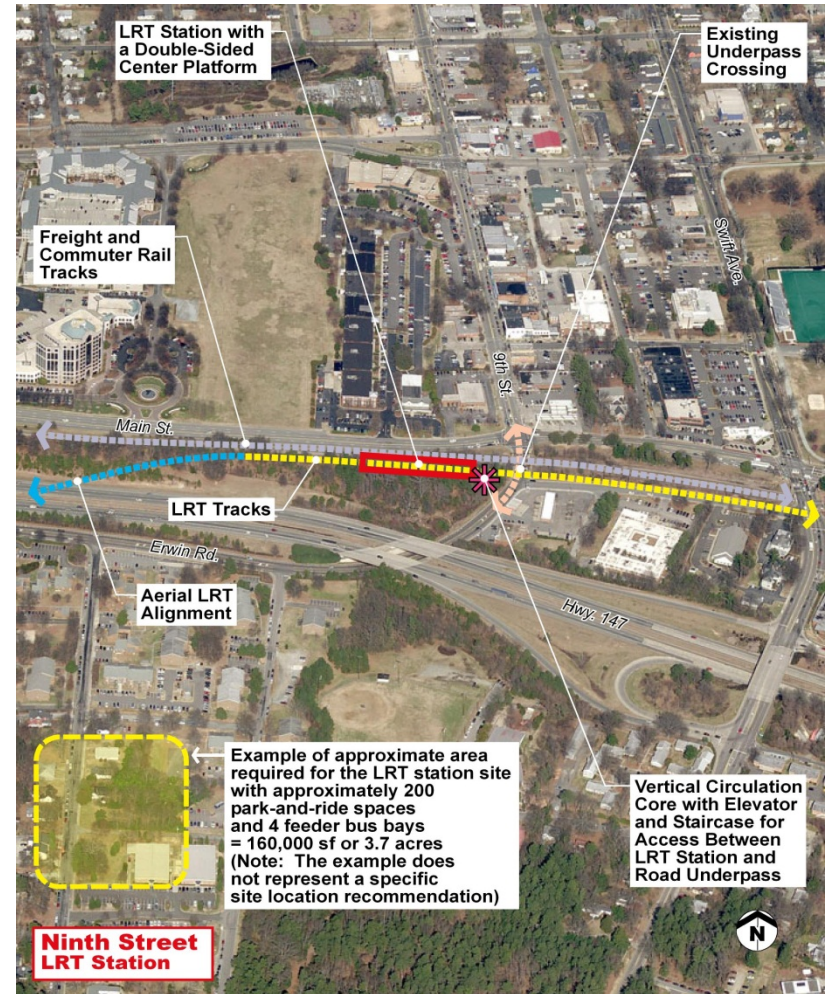
Location: On new, separate, exclusive tracks in the North Carolina Railroad (NCR) right-of-way, west of Ninth Street, directly south of the freight and commuter rail tracks.

Existing Conditions: Fully developed with mixed use commercial buildings and Duke University East Campus, except the large parcel in Erwin Square north of Main Street.

Service: Feeder bus transfers, park-and-ride users, and the neighborhoods and businesses located west of the Durham downtown area including proposed and potential new and infill development.

Key Features:

- Small park-and-ride and feeder bus station.
- Elevated station platform at the level of the railroad tracks with one access ramp at the east end of the platform.
- 18-foot wide, double-sided, center platform.
- Vertical circulation core at the east end of the station, south of the LRT tracks, with an elevator and a staircase.
- 200 park-and-ride spaces.
- 4 feeder bus bays.
- Estimated station site size = 160,000 SF or 3.7 acres.



Buchanan Boulevard Station

The Buchanan Boulevard Station would be primarily a walk-up station. Buchanan Boulevard currently has an at-grade crossing at the railroad tracks.

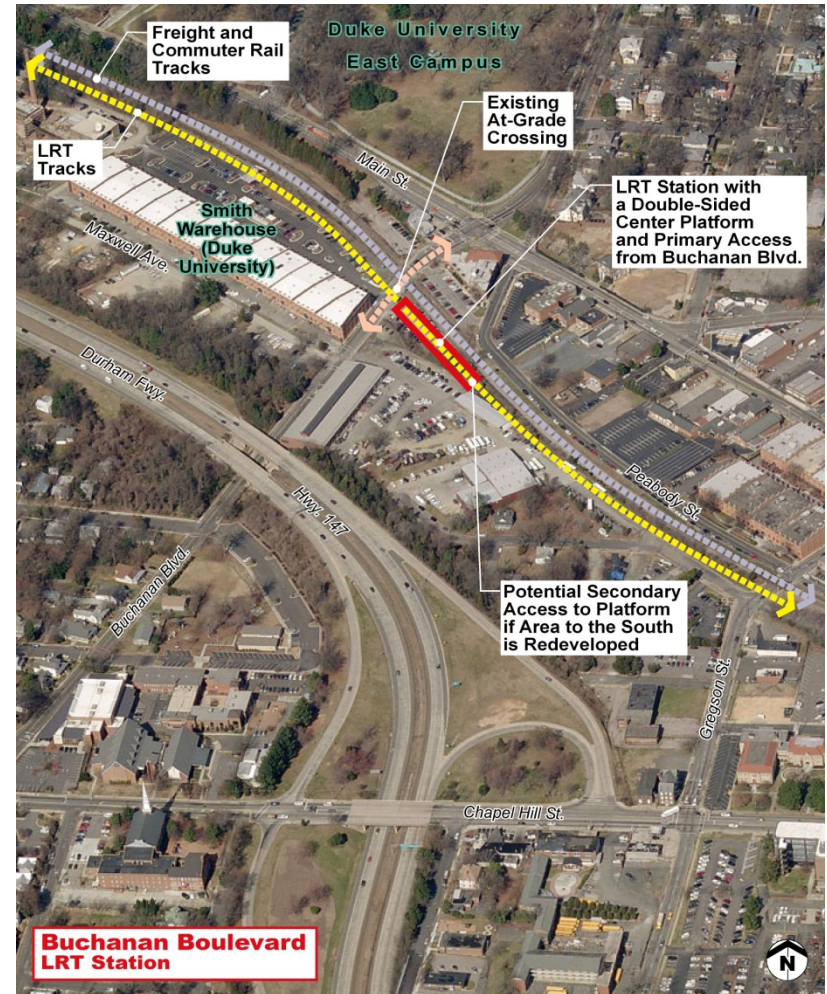
Location: On new, separate, exclusive tracks in the NCCR right-of-way, east of Buchanan Boulevard, directly south of the freight and commuter rail tracks.

Existing Conditions: Fully developed with commercial, institutional, and residential uses, though opportunities for infill redevelopment may exist.

Service: The west end of the Durham downtown area, the Duke University East Campus, and the businesses and neighborhoods in the station vicinity.

Key Features:

- Walk-up station with primary access from Buchanan Boulevard.
- At-grade station platform with one access ramp at the west end. If a second access is developed at the east end, the total station length would increase by about 30 feet.
- 18-foot wide, double-sided, center platform.
- A second access could be developed at the east end of the station, in order to provide a direct connection for potential future TODs southeast of the station.



Durham Station

The Durham Station would be part of a multi-modal transit complex located adjacent to the Amtrak and Commuter Rail Stations and across the street from the Durham Station Transportation Center, which serves local, regional, and intercity bus service, as well as taxis. Duke Street, at the west end of the station, currently has an at-grade crossing at the railroad tracks. Chapel Hill Street, at the east end of the station, has an underpass at the railroad corridor.

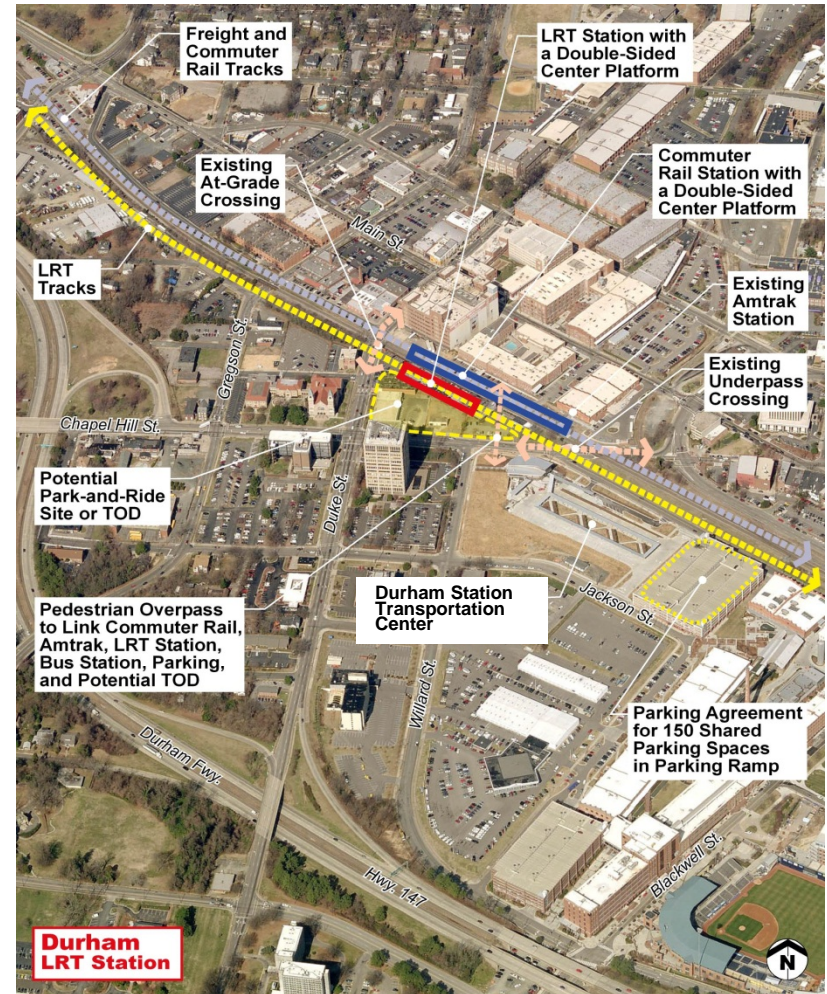
Location: On new, separate, exclusive tracks in the NCR right-of-way, between Duke Street and Chapel Hill Street, directly south of the freight and commuter rail tracks.

Existing Conditions: Fully developed with commercial and institutional uses.

Service: Intermodal transfers, park-and-ride users, the Durham Performing Arts Center (DPAC), Durham Bulls Athletic Park, Judicial System facilities, and Downtown Durham which includes potential redevelopment and infill areas.

Key Features:

- Walk-up station with intermodal transfers from the feeder bus service in the Durham Station Transportation Center and the Amtrak and Commuter Rail stations.
- At-grade station platform with access ramps at both ends for a total station length of 330 feet. The station length may be longer if vertical circulation for a connection to an overpass is provided.
- 18-foot wide, double-sided, center platform. The platform may need to be 24 feet wide, or wider, if vertical circulation for a connection to an overpass is provided directly from the platform.
- Pedestrian overpass linking the LRT station, the Commuter Rail station, the Amtrak station, and the Durham Station Transportation Center.
- Triangle Transit currently has an agreement for 150 shared parking spaces in the City/County parking deck, and there is potential for an additional 150 spaces on-site.
- Potential park-and-ride site or TOD on the triangular site directly south of the LRT station.



Dillard Street Station

The Dillard Street Station would be primarily a walk-up station. Dillard Street currently has an at-grade crossing at the railroad tracks.

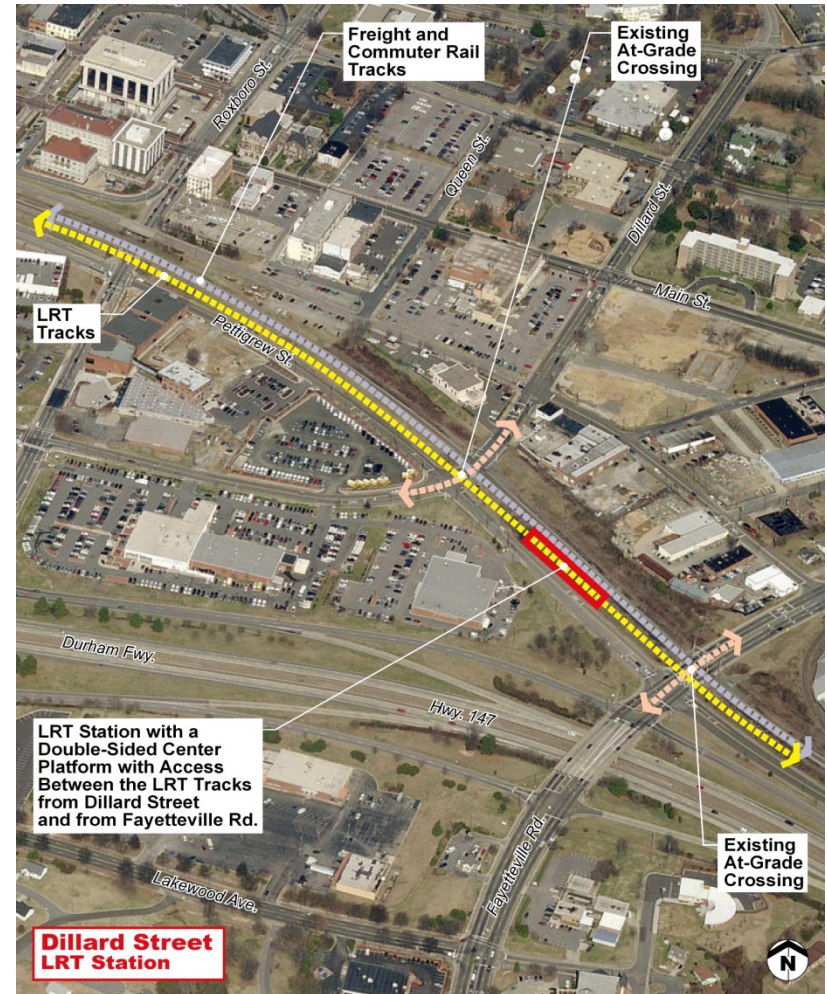
Location: On new, separate, exclusive tracks in the NCRR right-of-way, east of Dillard Street, directly south of the freight and commuter rail tracks.

Existing Conditions: Fully developed with commercial and industrial uses, though opportunities for redevelopment may exist.

Service: The east end of the Durham downtown area, the existing businesses and neighborhoods, and potential TODs in the station vicinity.

Key Features:

- Walk-up station with primary access from Dillard Street.
- At-grade station platform with two access ramps.
- 18-foot wide, double-sided, center platform.
- A path link to Fayetteville Road for access to the station from the south side of Highway 147, as well as potential future TODs in the station vicinity.



Alston Avenue/NCCU Station

The Alston Avenue Station would be a large park-and-ride and feeder bus station and the end-of line station at the east end of the LRT alignment. Alston Avenue currently has an underpass at the railroad corridor. A newly constructed pedestrian bridge over Highway 147 is located southeast of the station.

Location: On new, separate, exclusive tracks in the NCCR right-of-way, east of Alston Avenue, directly south of the freight and commuter rail tracks.

Existing Conditions: Fully developed with commercial, industrial, and institutional uses, with potential redevelopment areas.

Service: Intermodal bus transfers, park-and-ride users, North Carolina Central University (NCCU), Durham Technical Community College (by bus) and the businesses and neighborhoods east of the Durham downtown area which include potential infill and redevelopment areas.

Key Features:

- Medium park-and-ride and feeder bus station.
- At-grade station platform with access ramps at both ends.
- 18-foot wide, double-sided, center platform.
- 500 park-and-ride spaces.
- 4 feeder bus bays.
- Path link to the existing pedestrian bridge over Highway 147.
- Estimated station site size, if parking is in a surface lot = 315,000 SF or 7.2 acres.
- Estimated station site size, if parking is in a 4-level parking deck = 103,000 SF or 2.4 acres.

