



NC 147 Corridor (Future I-885)

Research Triangle Park/South Durham to Downtown Durham
Durham County, NC

Existing Service along NC 147 Corridor

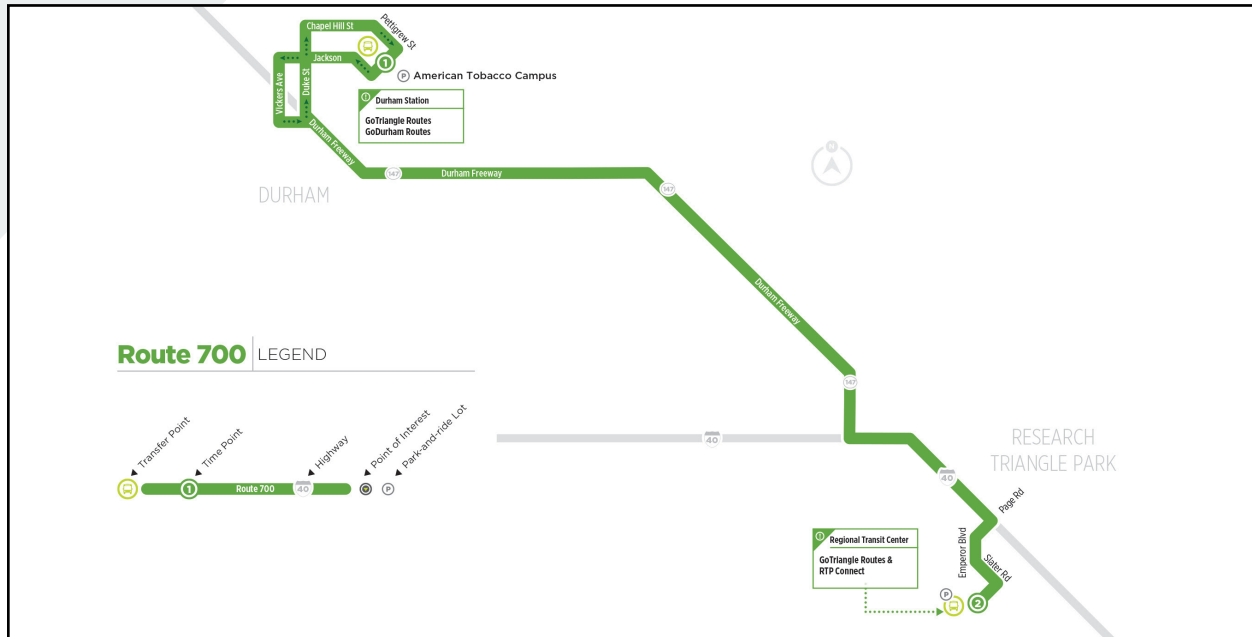


Figure 13. GoTriangle Route 700 from American Tobacco Campus to Research Triangle Park

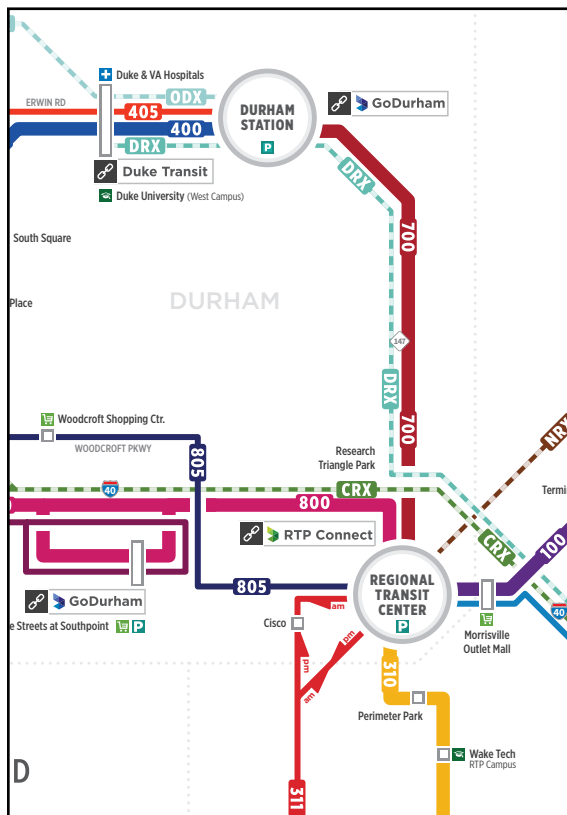
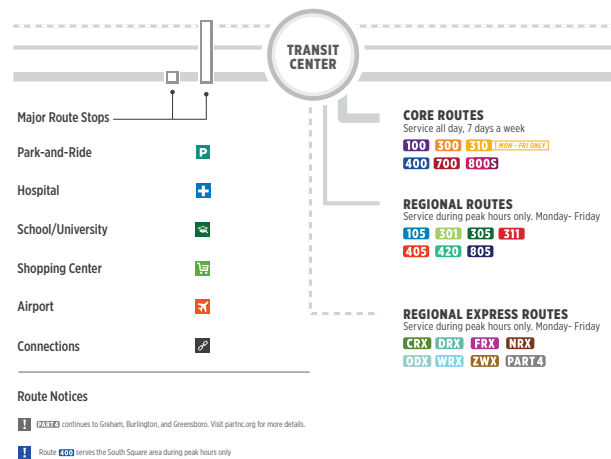


Figure 14. GoTriangle Route Map

GO Triangle | SYSTEM MAP LEGEND



Source: GoTriangle.org

NC 147 Corridor Existing and Future PM Peak Hour Congestion

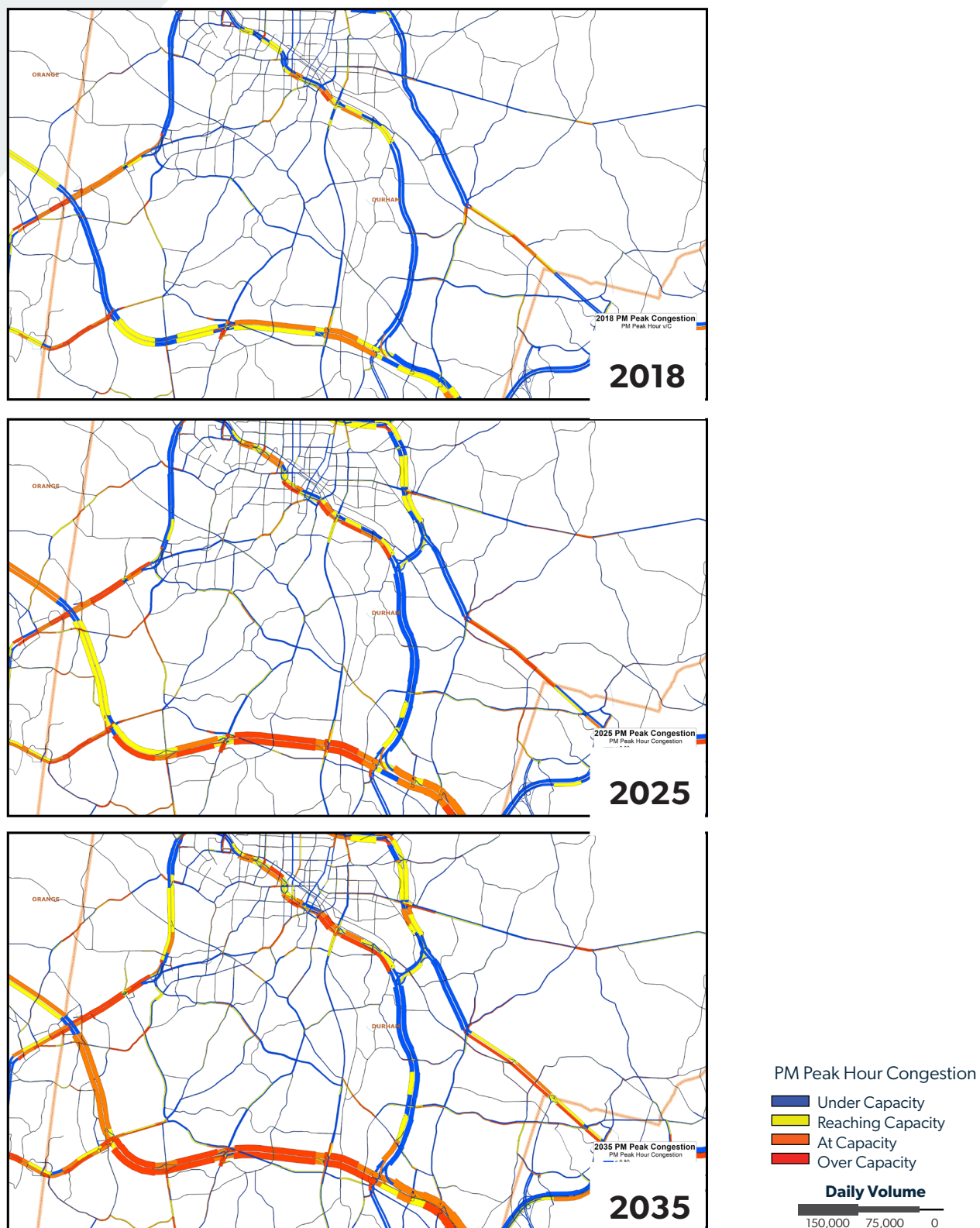


Figure 15. NC 147 Corridor Existing and Future Volume/Capacity Ratio

NC 147 Corridor Deeper Dive Segments

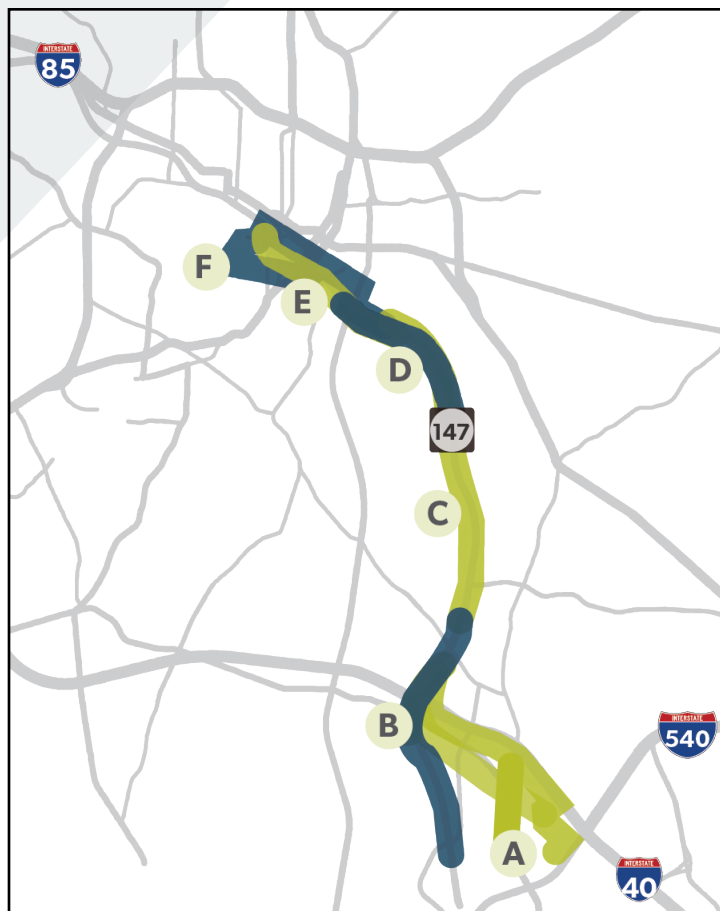
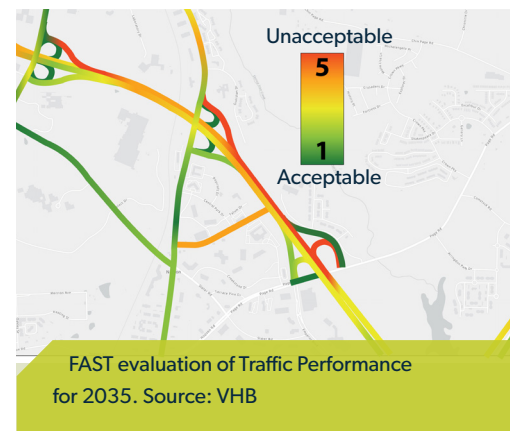
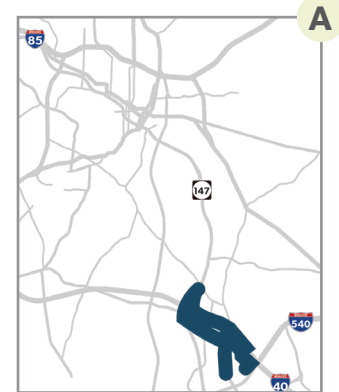
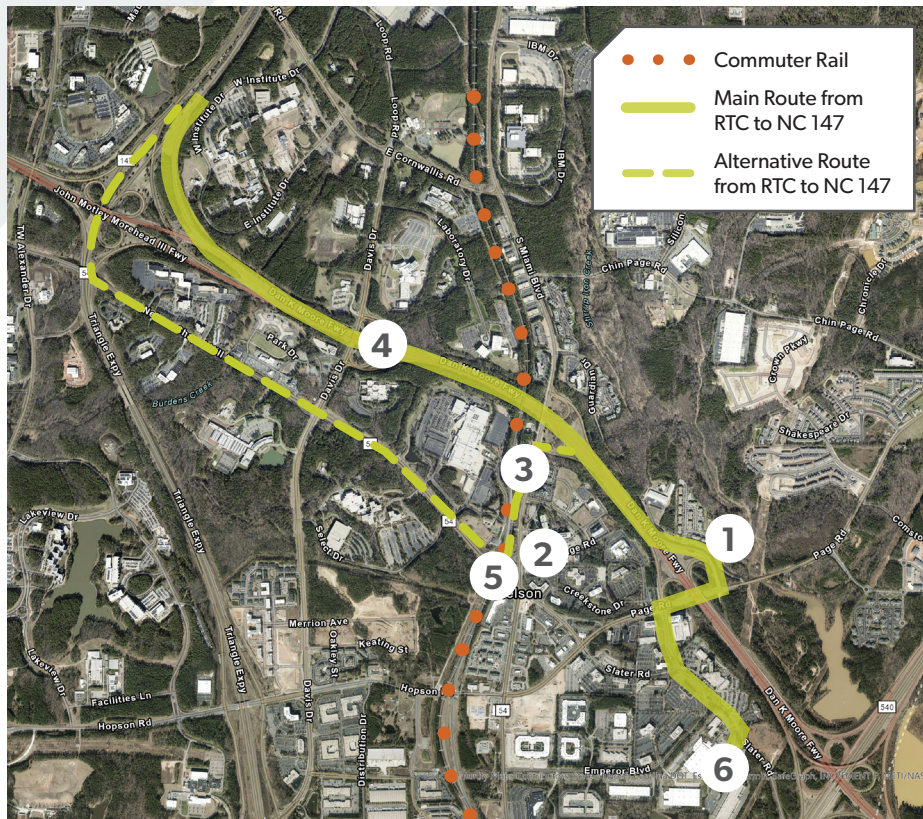


Figure 16. NC 147 Deeper Dive Segments

- A** From Existing Regional Transit Center at Page Road to Durham Freeway - *Currently there is a study underway (<https://gotriangle.org/rtc>) for relocating the RTC. The methods and framework used for the FAST study are still applicable. The next phase of feasibility study for this corridor should delve into the specifics details to consider the new location for the RTC.*
- B** From Hopson Rd to E Cornwallis Rd
- C** From TW Alexander Dr to East End Connector (I-885)
- D** From East End Connector to Alston Ave
- E** Downtown Durham Option 1 (From Alston Ave to Durham Station)
- F** Downtown Durham Option 2

Segment A- From Regional Transit Center at Page Road to Durham Freeway

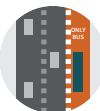


The Regional Transit Center (RTC), located at 901 Slater Road in Durham, is the heart of GoTriangle operations and the primary transfer point between seven GoTriangle routes. As currently situated, buses can take seven to ten minutes to reach I-40 during rush hour which leads to increased overall travel times for cross-region transit trips. Targeted FAST improvements within southern RTP can lead to improved operations to the RTC and increased accessibility to employment centers.



► **1** Ramp congestion on I-40 at Page Rd.

► Add ramp bypass to tie into BOSS.



► **2/3** limited transit access along NC 54 and Miami Blvd.

► RED lanes along corridor to maintain acceptable transit travel times.

► Add enhanced bus stops to increase access to employment opportunities.



► **4** Delay along I-40.

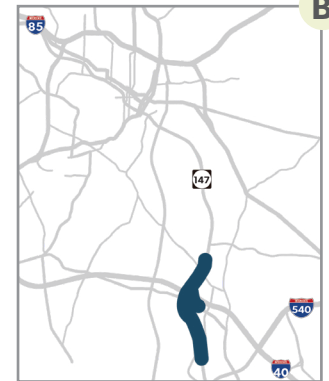
► Widen shoulders where widths are less than 12' to accommodate BOSS.

► Install ramp meters as a part of STIP project I-6006 to enhance BOSS operations.

► **5** Relocate Regional Transit Center to leverage connections to commuter rail.

► **6** Existing Regional Transit Center.

Segment B- From Hopson Rd to E Cornwallis Rd



7 NC 147 and I-40 interchange.

Source: Bing StreetView

The NC 147 and I-40 interchange is a critical interchange for regional mobility within the Triangle. To the west is Chapel Hill, to the north is Durham, and to the east is Raleigh. Improvements at the interchange can result in continuous BOSS operations and enhanced regional transit mobility.

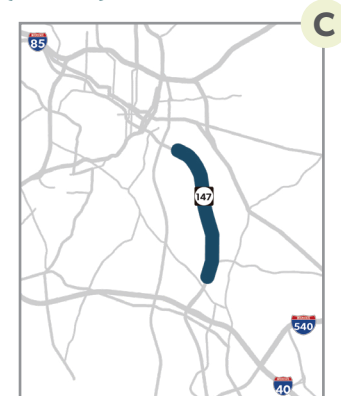


► **7/8** NC 147 SB to I-40 EB ramp merges into center lanes.

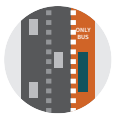
► BOSS to ramp from NC 147 SB to I-40 EB as a part of STIP project U-5934; NC 147 widening.

► **9** NC 147 widens again after I-40 on-ramp.

Segment C- From TW Alexander Dr to East End Connector (I-885)



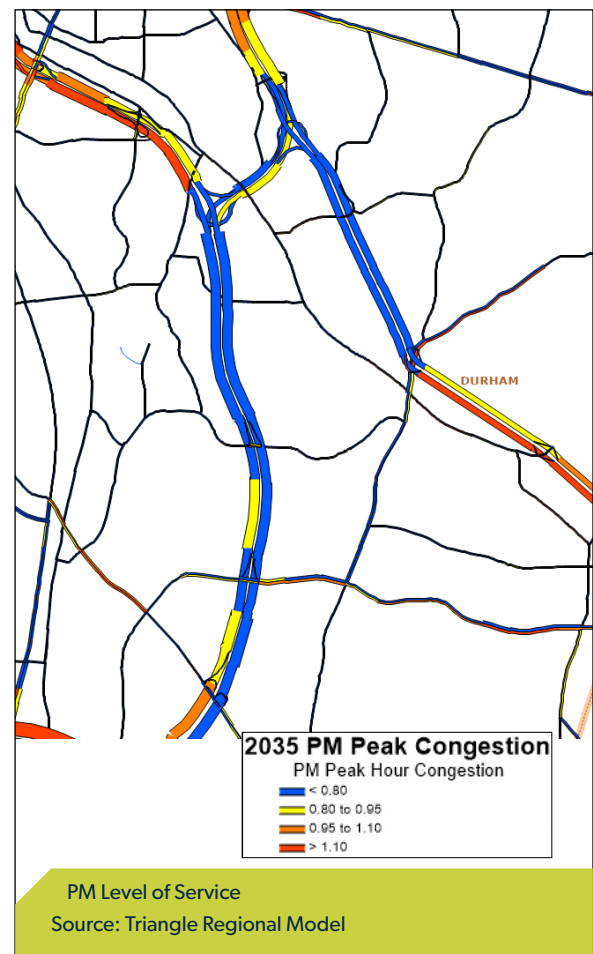
This section of NC 147 is a key link between downtown Durham, RTP, and I-40. The Durham-Raleigh Express and Route 700 use this section of roadway. FAST enhancements to this corridor will enhance bus travel speeds to reduce travel times between Durham and regional destinations.



- ▶ **10** Significant AM and PM congestion SB from Alexander Drive south and NB from I-885 north.



- ▶ When NC 147 is widened as a part of project U-5934 include a transit priority lane on left side of the highway in both directions.
- ▶ There is not sufficient width for bus travel on shoulder, especially at pinch points, bridges, etc.
- ▶ Re-stripe roadway to allow BOSS on left shoulder as a part of U-5934 providing transition between bus lane and vehicle lane.

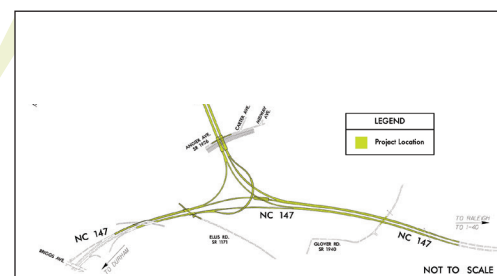
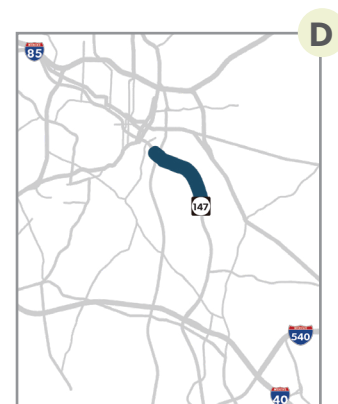


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NC 147

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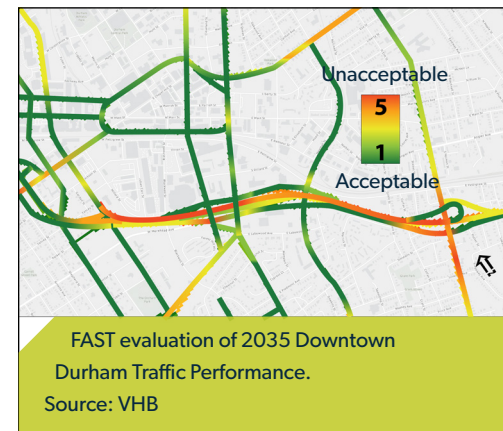
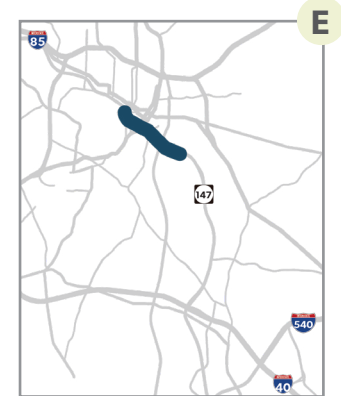
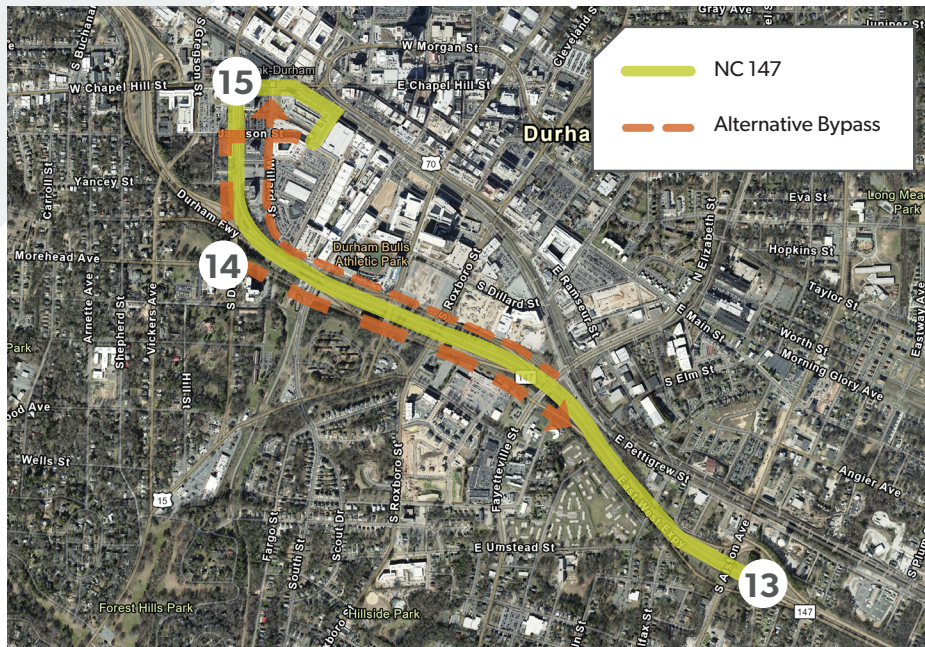
12 East End Connector Plans.
Source: NCDOT



- ▶ Would have to design interaction with frequent interchanges.
- ▶ Some potential time savings if regularly congested.
- ▶ Include BOSS as a part of NC 147 operational improvements project STIP U-5937.

– <https://www.ncdot.gov/projects/east-end-connector/Pages/default.aspx>

Segment E- Downtown Durham Option 1 (From Alston Ave to Durham Station)



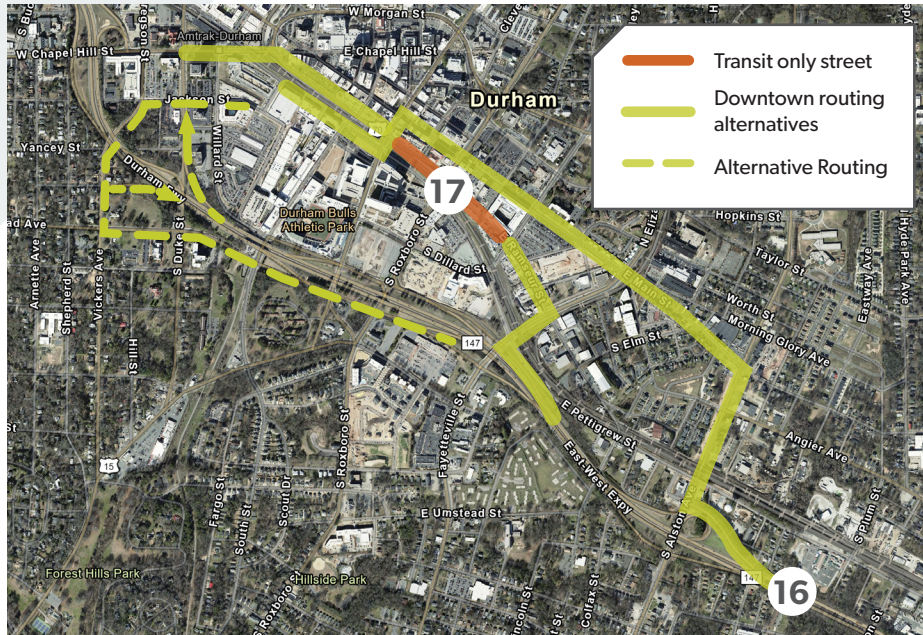
Regional transit routing within Durham and to Durham Station is essential in determining trade-offs in speed and access. Downtown Durham Option 1 considers the use of Jackie Robinson Dr and Morehead Ave as an alternative to current transit routing along NC 147. Use of FAST treatments along this alternative corridor could increase accessibility, while limiting adverse impacts to travel times. Further, The Durham Station Transit Emphasis Zone Study will examine additional ways to prioritize transit in Downtown.

► **13** Congestion along NC 147.

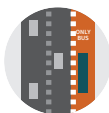
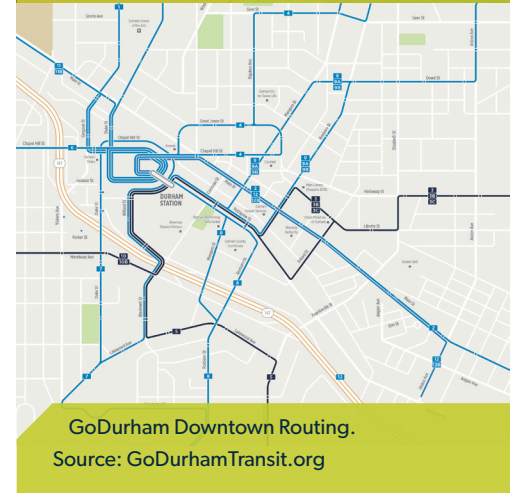
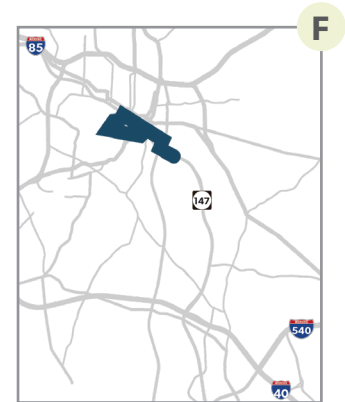


- Evaluate potential time savings associated with routing on Jackie Robinson Dr w/ RED Lane, peak hour restrictions, signal priority, and bus stops.
- Include BOSS as part of NC 147 operational improvements project STIP (U-5937).
- **14** Return on Morehead Ave/service road.
- Can add transit priority lane (remove parking) and take advantage of existing bus only merge.
- Signal priority and queue jumps.
- **15** Contra-flow bus lane on Duke Street.
- Delays due to games/events. Parking cars, drop-offs, and large pedestrian volumes during PM peak will be fairly frequent, and disruptive.

Segment F- Downtown Durham Option 2



Downtown Durham option 2 reviews the potential for alternative routing along E Main St or S Ramseur St. These alternatives would increase access to rapidly growing Golden Belt and City Center. While this alternative routing to NC 147 may result in increased end-to-end travel times, one outcome is shorter walking trips for riders reaching their final destination within Durham. Including FAST treatments including TSP, RED Lanes, and Enhanced Bus Stops along these alternative corridors can lead to an enhanced transit experience.



- ▶ **16** These alternative routings may operate at a slower rate, but increase accessibility.
 - ▶ TSP to reduce signal delay.
 - ▶ Enhanced Bus Stop to increase comfort.
 - ▶ RED Lanes to enhance reliability.
 - ▶ Buses on/off 147 sooner, reducing delays associated with freeway congestion.
 - ▶ Provides better access to Downtown along with redeveloping mixed-use and government services east of Downtown.
 - ▶ FAST improvements here would benefit more local routes.
- ▶ **17** Transit only on Ramseur St between Dillard and Magnum St.