



TRIANGLE BIKEWAY STUDY

Triangle Bikeway Update Date



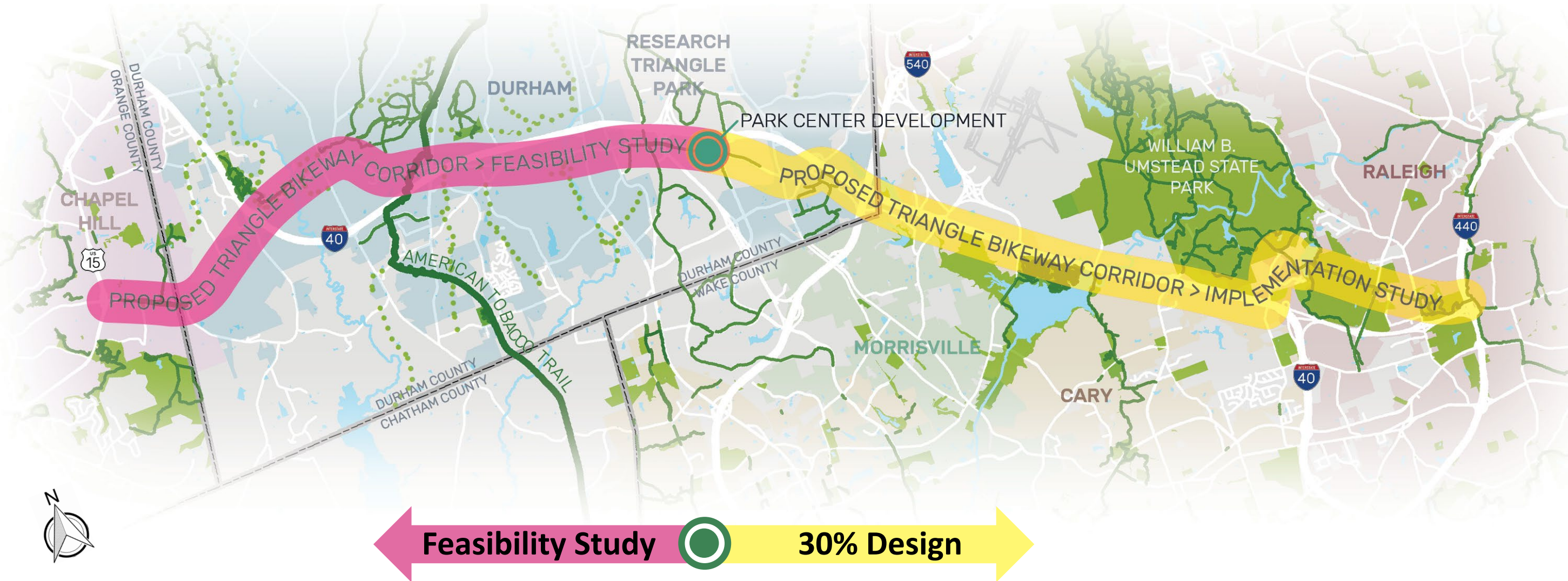
Agenda

- > **Public Input**
- > **NCDOT TIP #U-5774 Update**
- > **Alternative Alignments Map + Matrix**
- > **Upcoming Outreach Events**



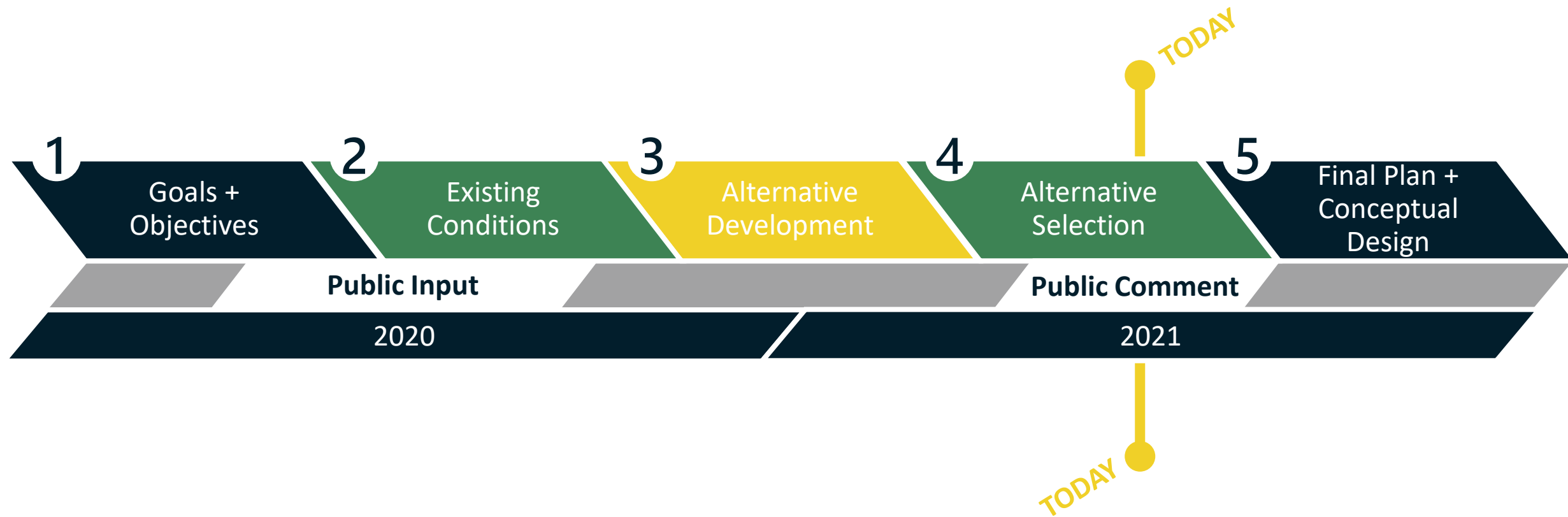


Study Area





Schedule





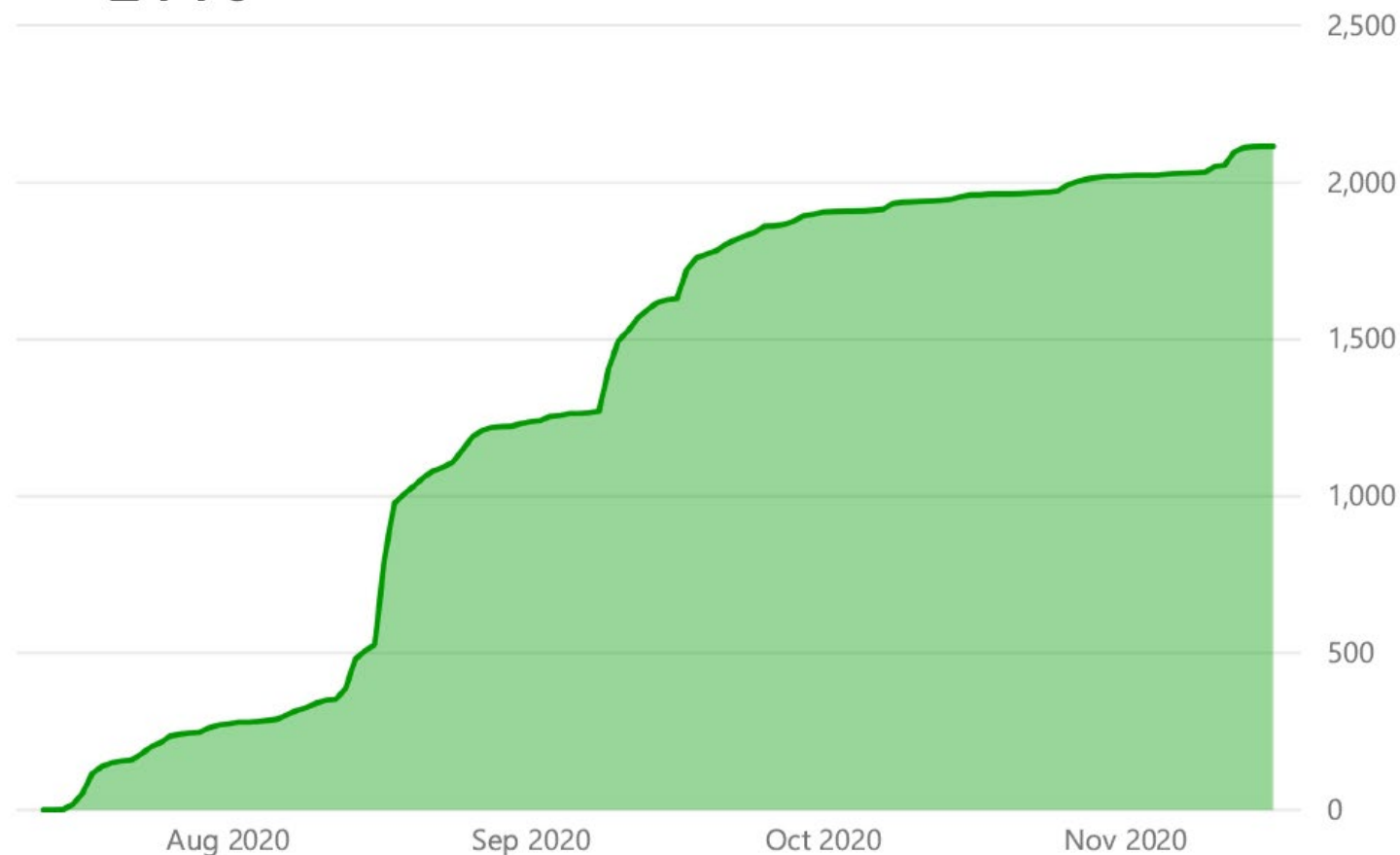
TRIANGLE BIKEWAY STUDY

Public Input



Survey Report

Participants

2116

Key Takeaways

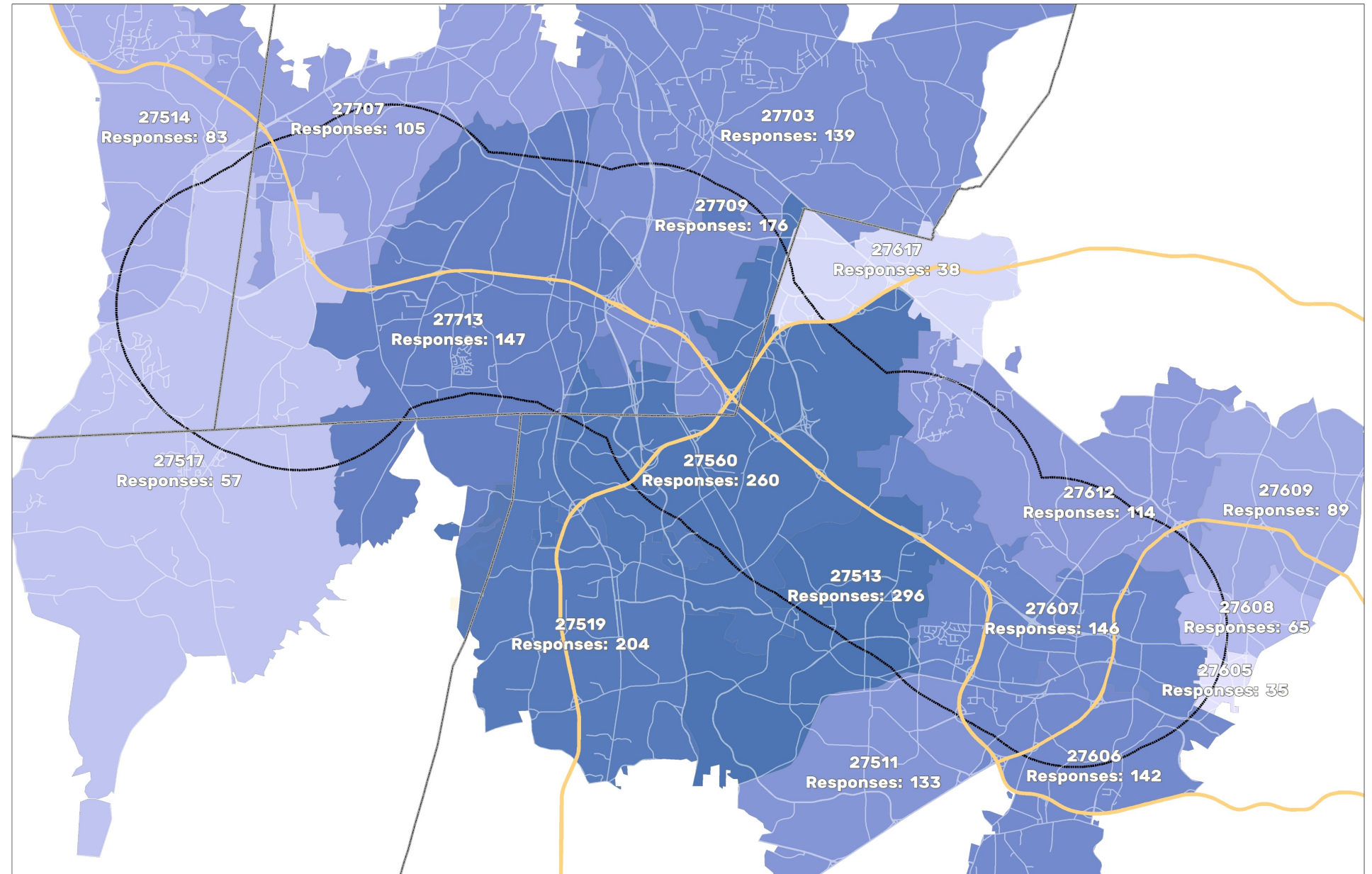
- > All corridor zip codes well represented
- > Good mix of live / work
- > Clear preference for separated facilities – greenways / protected bike lanes
- > 67% would use weekly
- > Need further input on proximity to I-40



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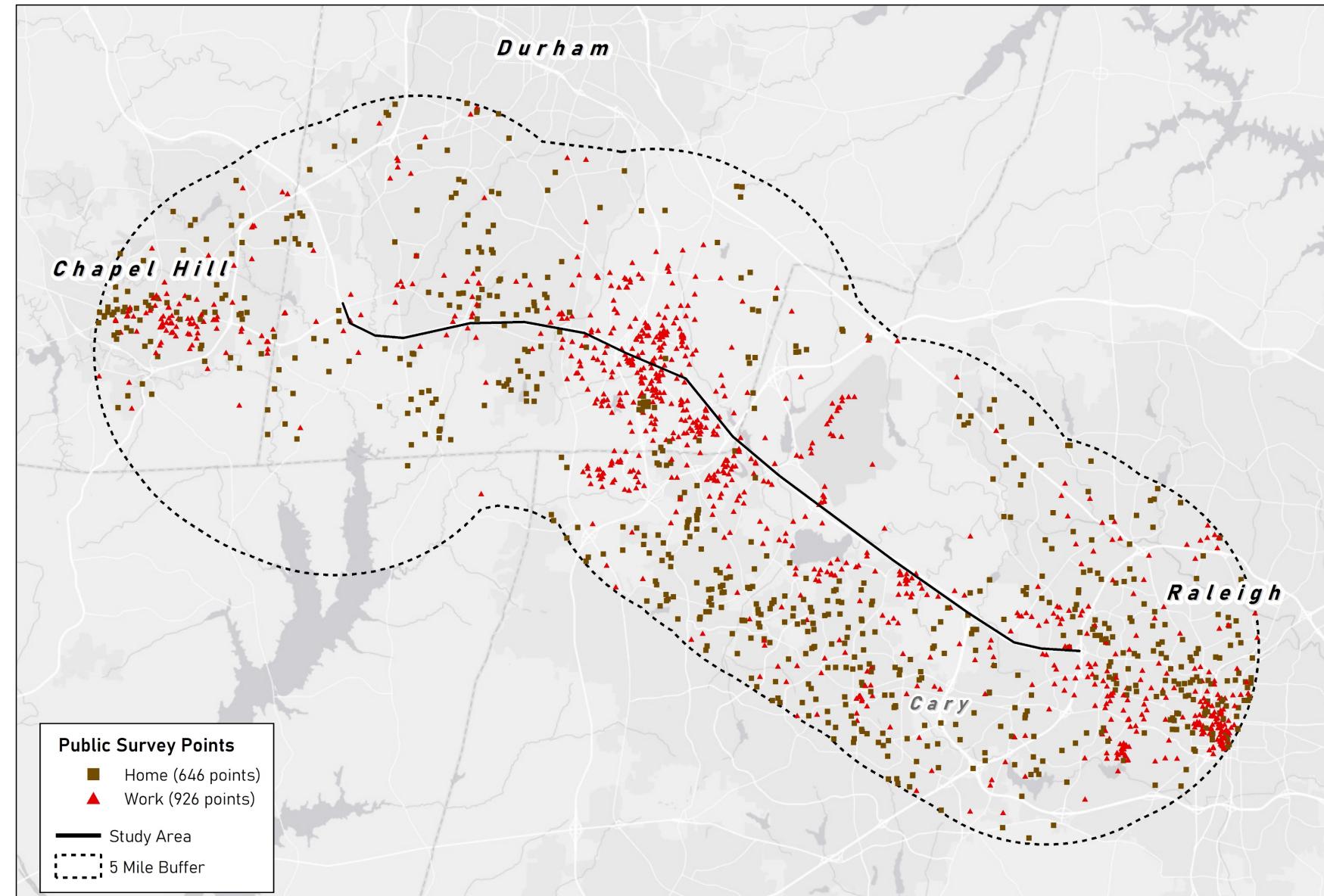
Technical Committee 05/26/2021 Item 5

- > 2116 total respondents
- > 17 zip codes in corridor
- > All municipalities well represented
- > Live or work



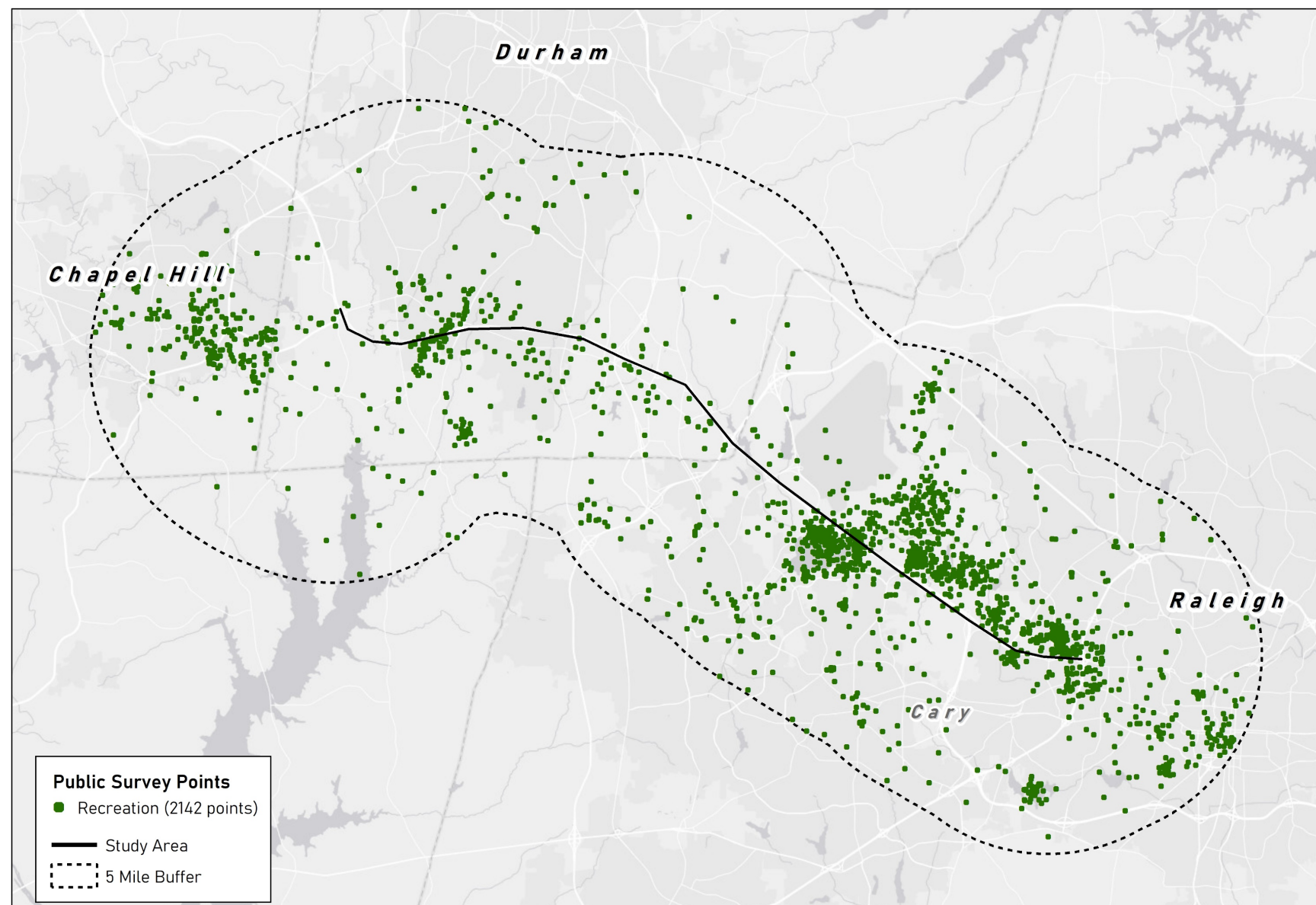
Live/work throughout area

- > Raleigh
- > Cary
- > Morrisville
- > RTP
- > Durham
- > Chapel Hill



Recreation destinations

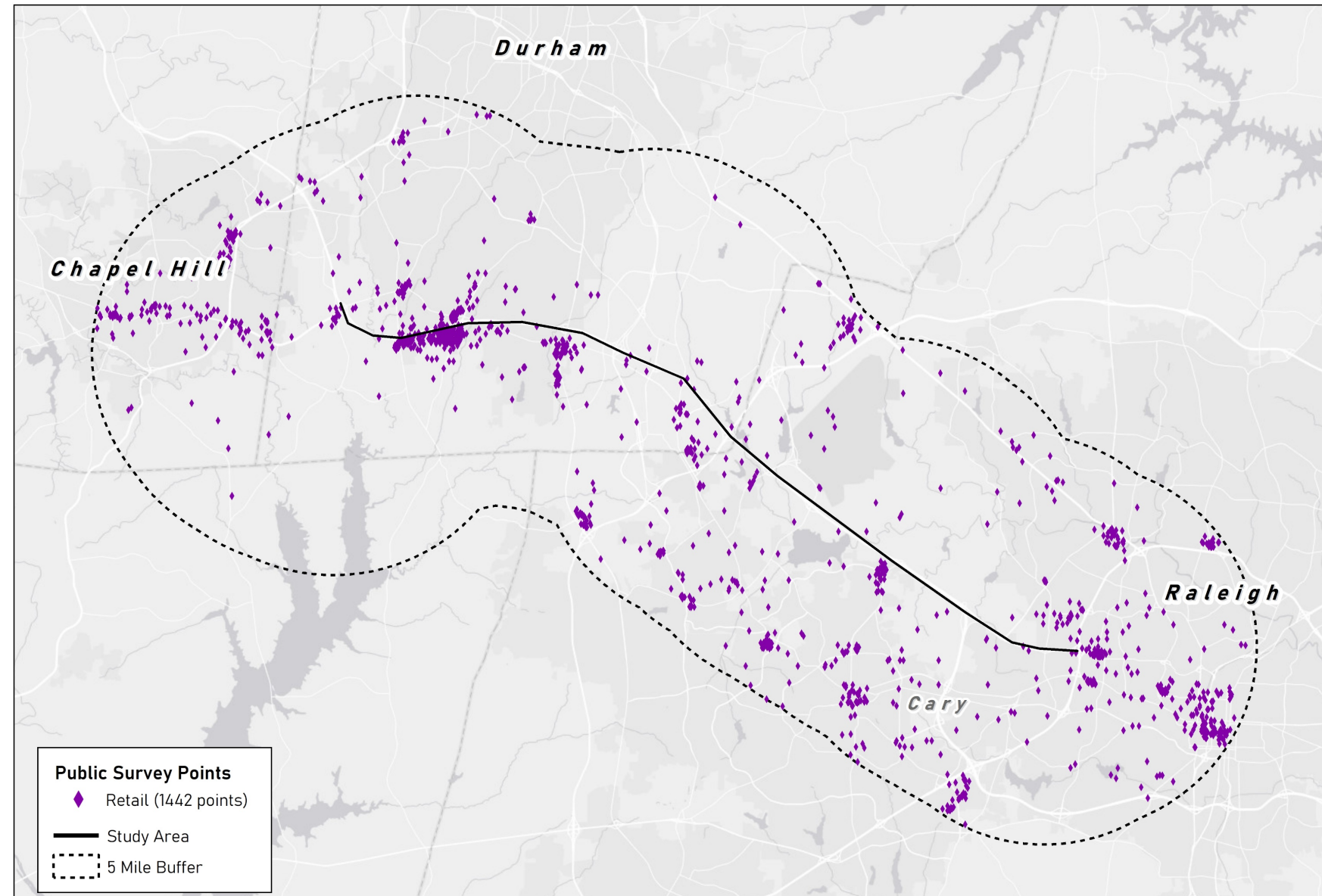
- > American Tobacco Trail
- > Umstead State Park
- > Lake Crabtree
- > Local greenways/trails
- > NC Museum of Art
- > Mountains-to-Sea Trail
- > RTP Trails
- > NC Botanical Gardens
- > Jordan Lake
- > Lake Johnson





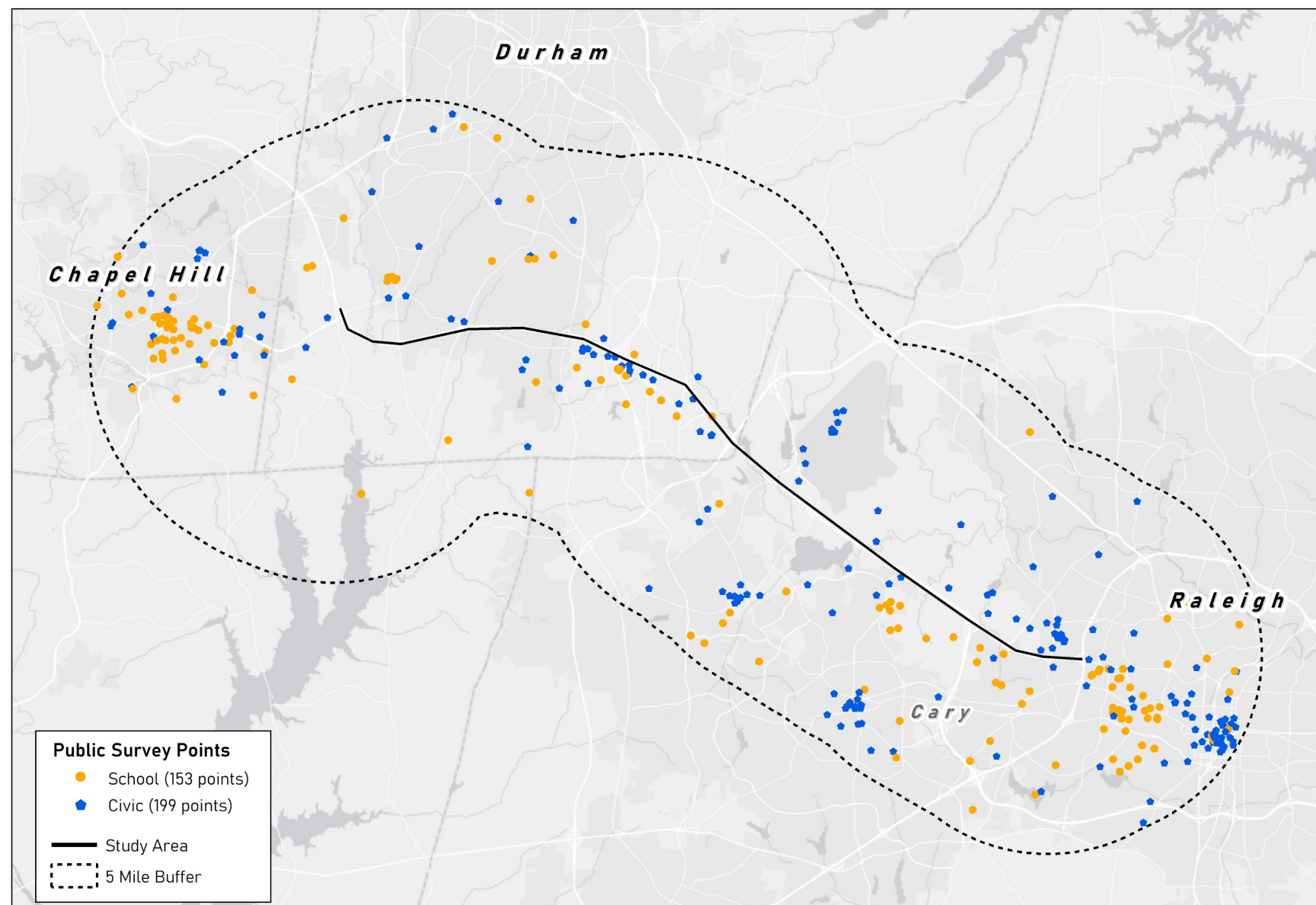
Retail destinations

- > Southpoint Mall
- > Crabtree Mall
- > Grocery stores
- > NC Farmers Market
- > Downtown areas
- > Restaurants
- > Commercial centers
- > Breweries
- > Bike shops



School/civic destinations

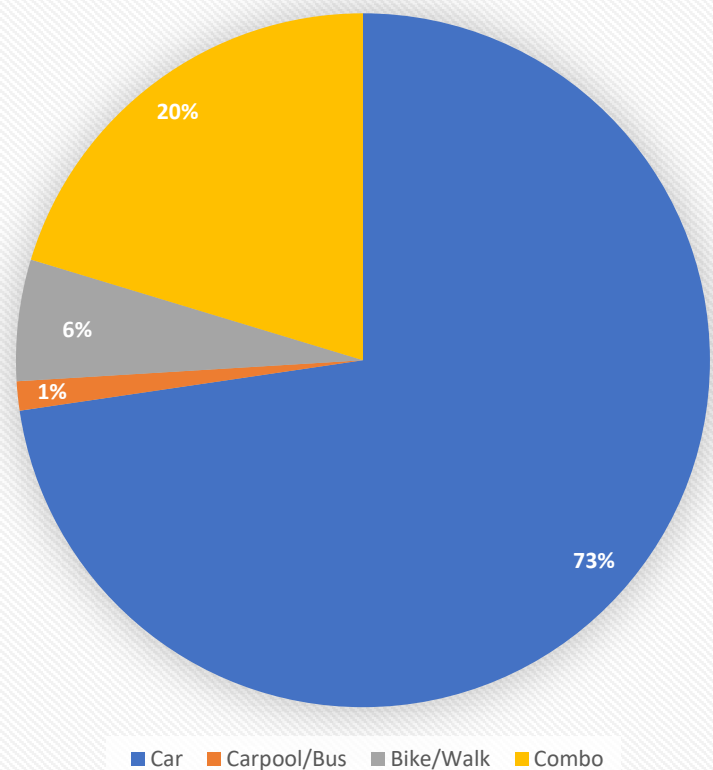
- > Municipal buildings
- > Museums
- > Public libraries
- > Universities
- > Community colleges
- > K-12 schools
- > Churches
- > Volunteer opportunities



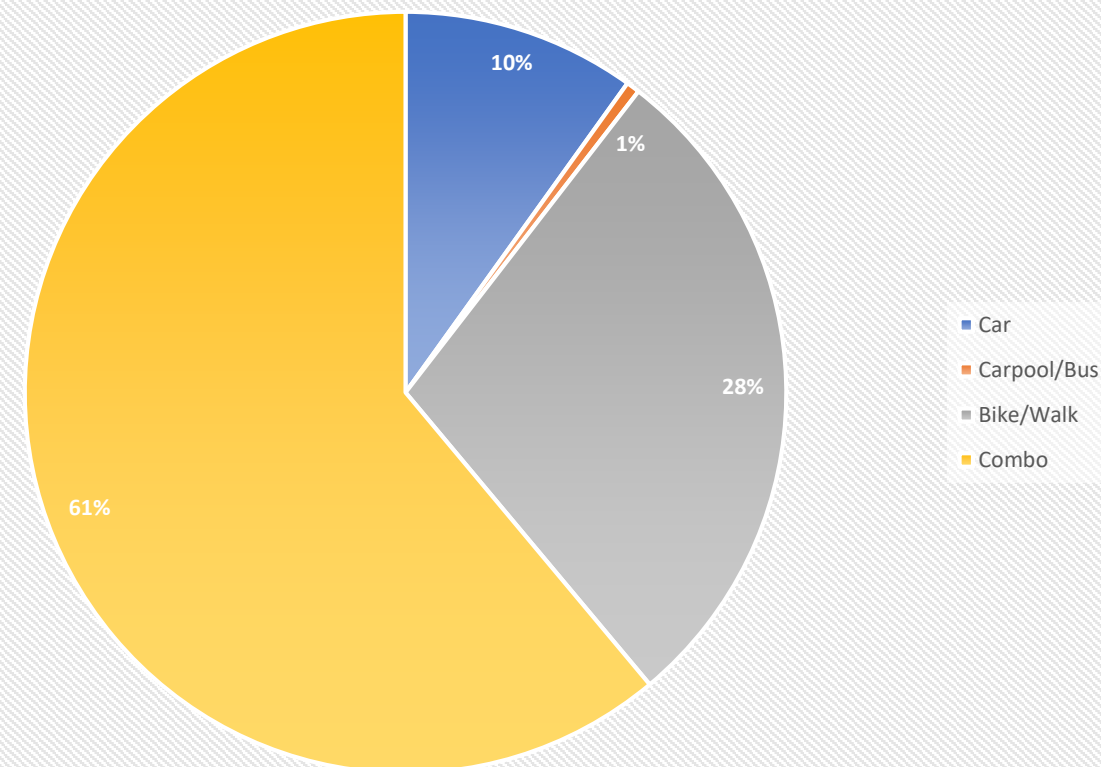


Commute: Current vs. Desired

Current Commute

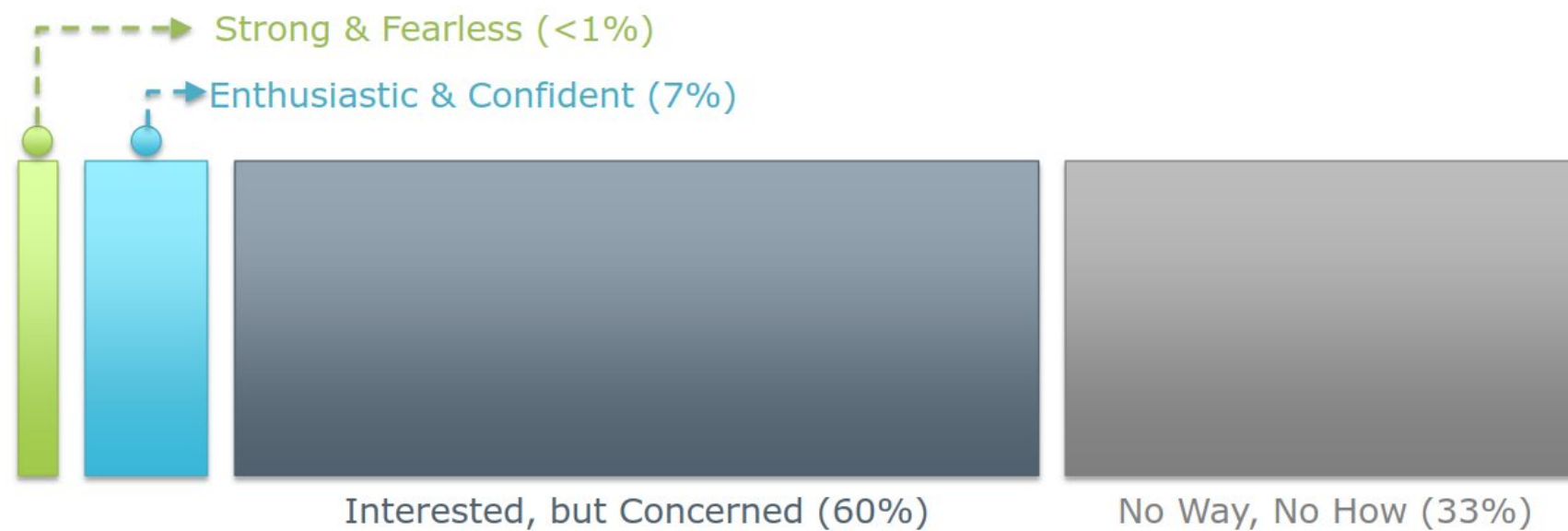


Desired Commute

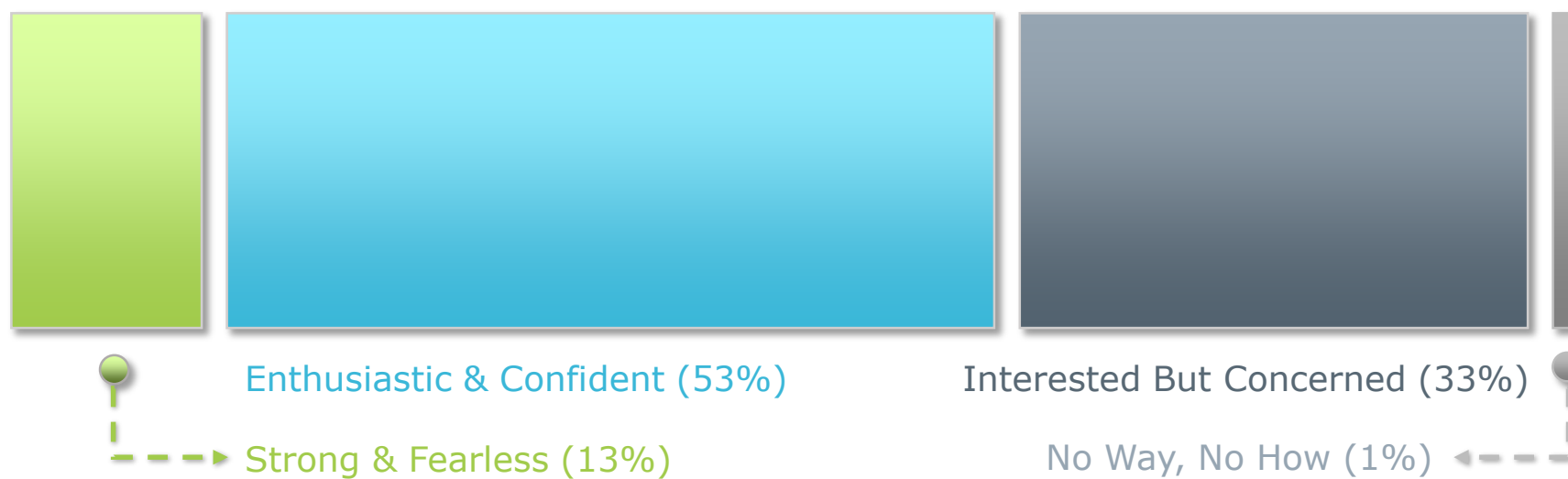


Survey Distribution

Portland Study

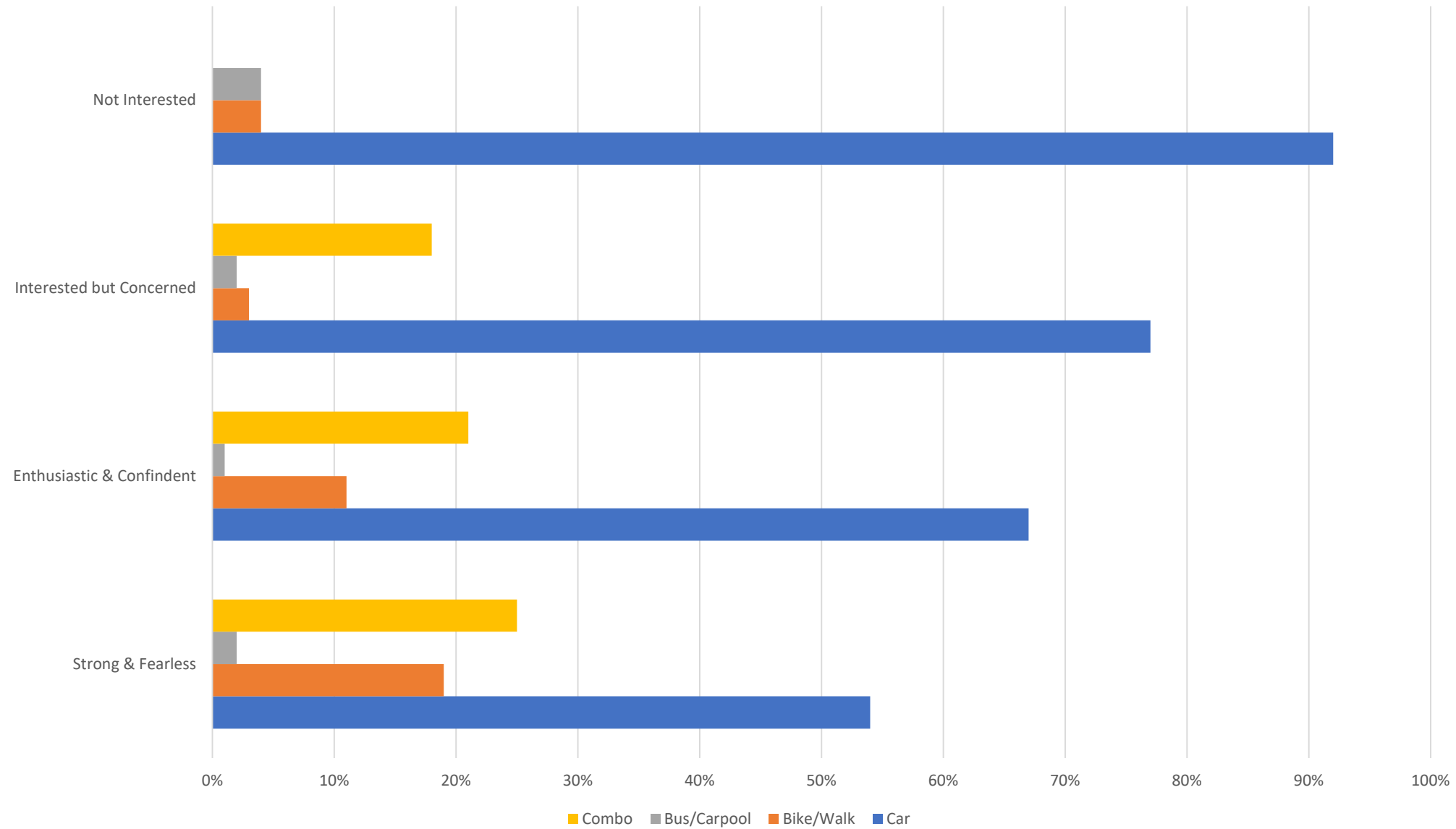


Triangle Bikeway Survey



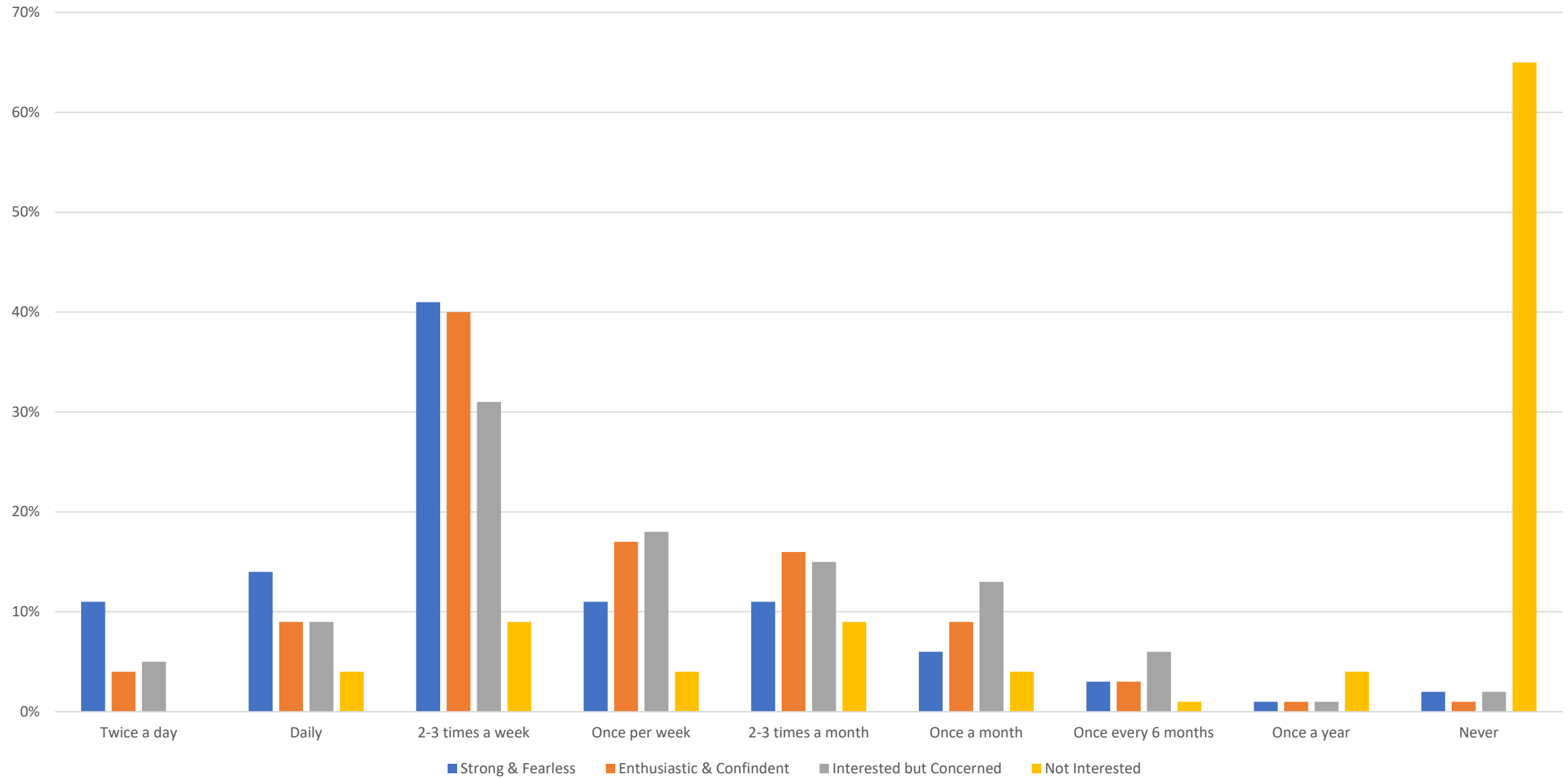


Commute by Cyclist Type



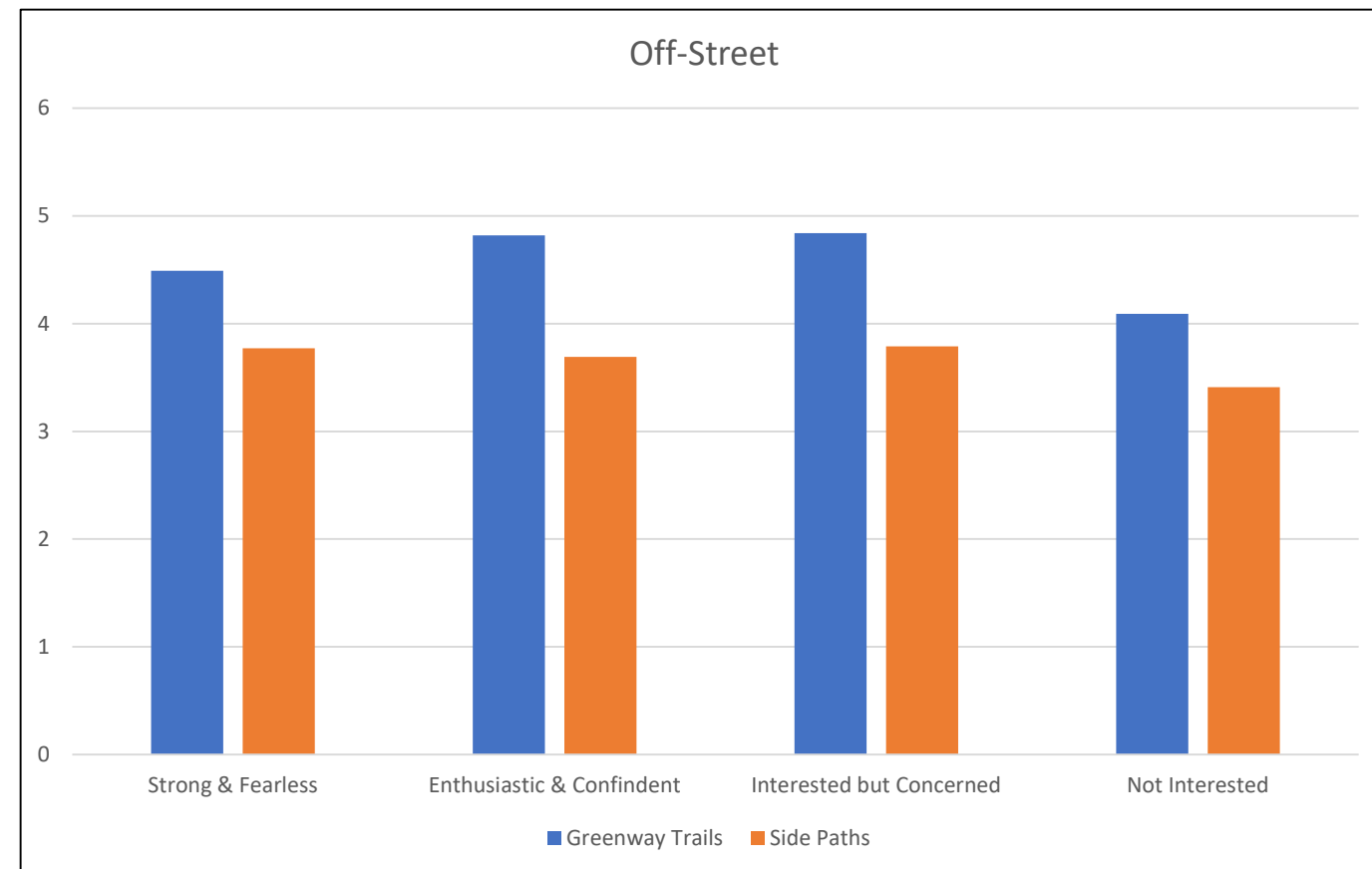


Frequency of Use by Cyclist Type





Facility Preference by Cyclist Type





TRIANGLE BIKEWAY STUDY

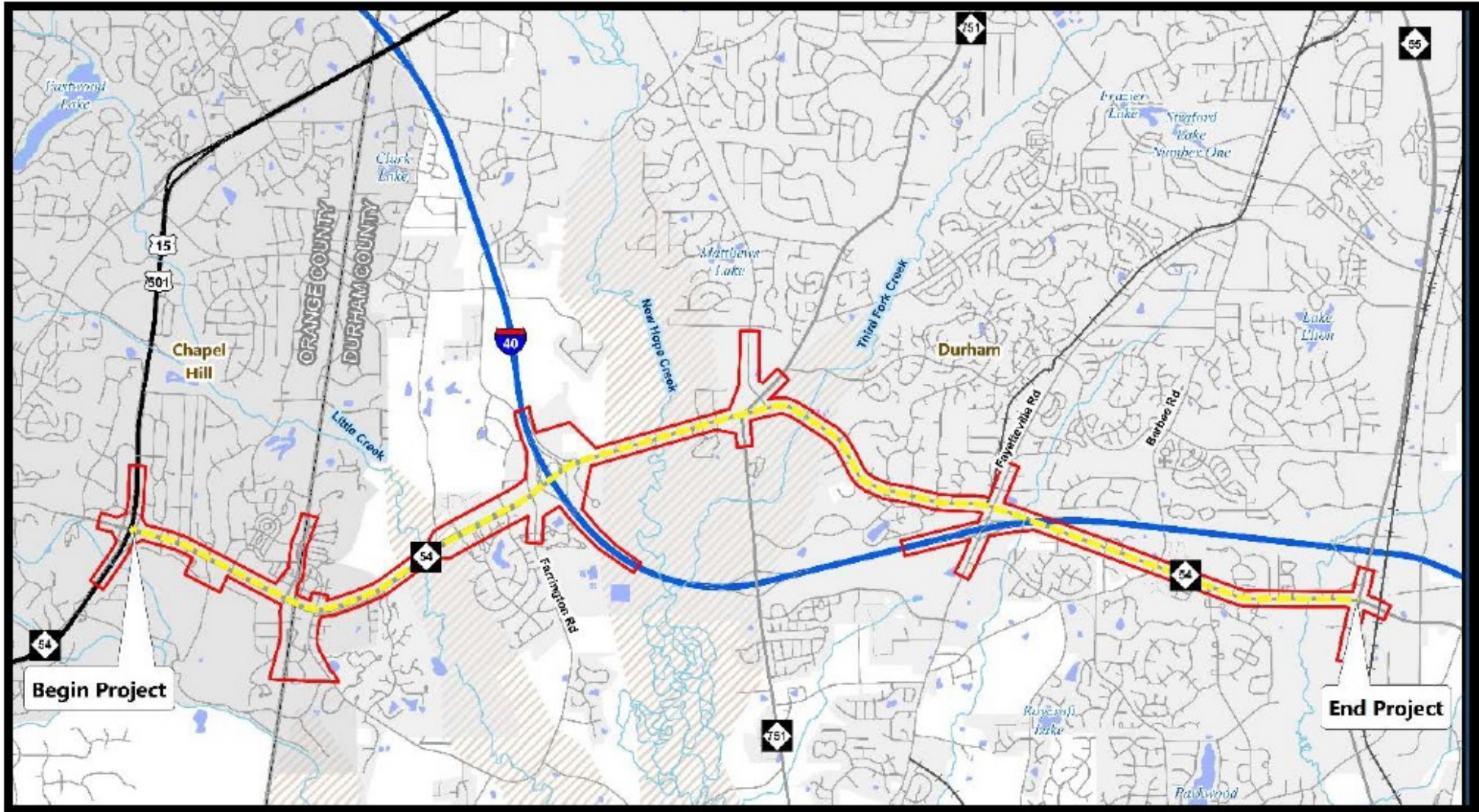
U-5774 Report from NCDOT





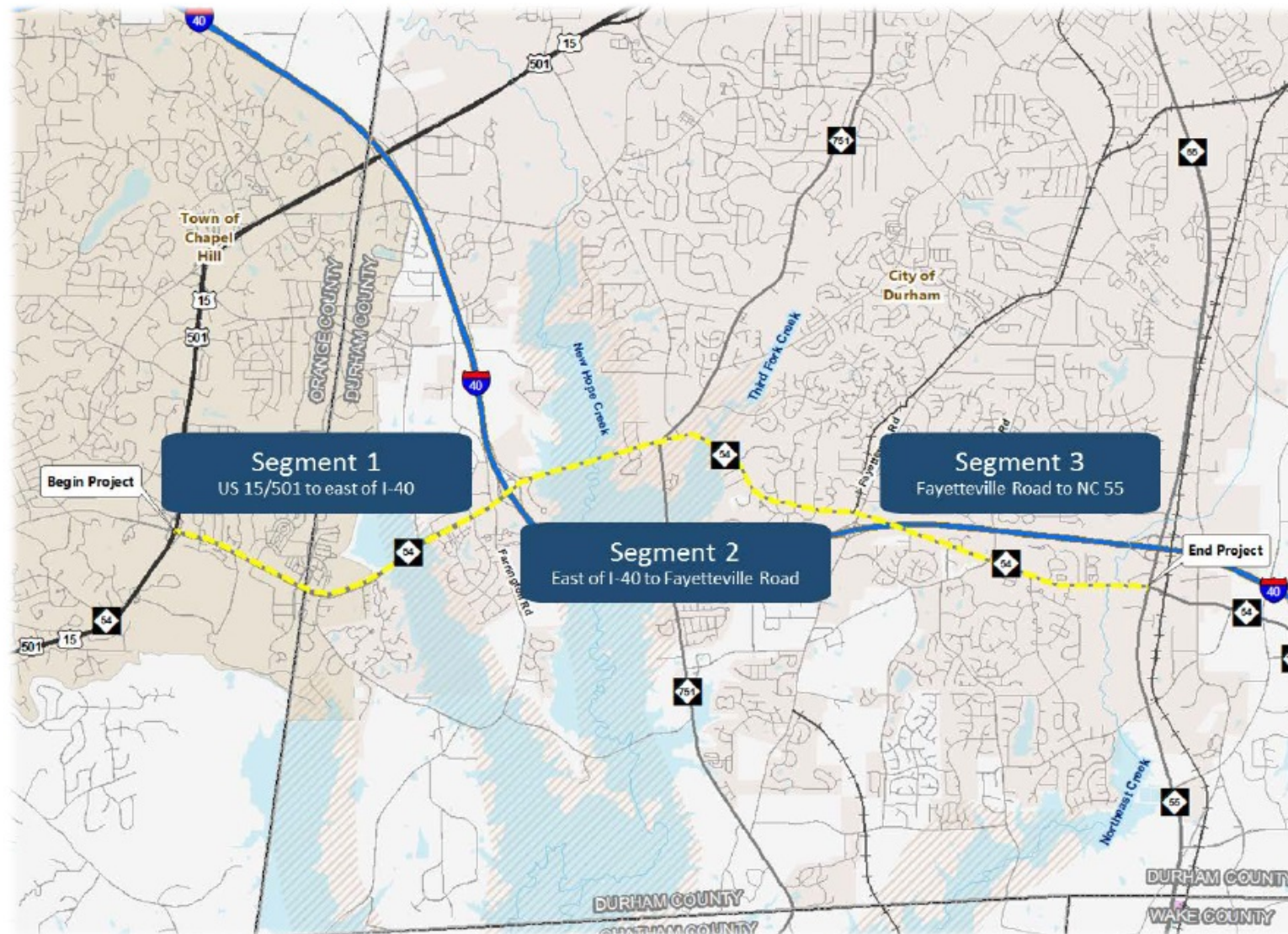
NC 54 Corridor Improvements | U-5774

Figure I: U-5774 Project Study Area



- Segment 1: US 15/501 to east of I-40
- Segment 2: East of I-40 to Fayetteville Road (SR 1118)
- Segment 3: Fayetteville Road to NC 55

Figure 4. Alternative concepts segments





Multimodal Accommodations Being Considered

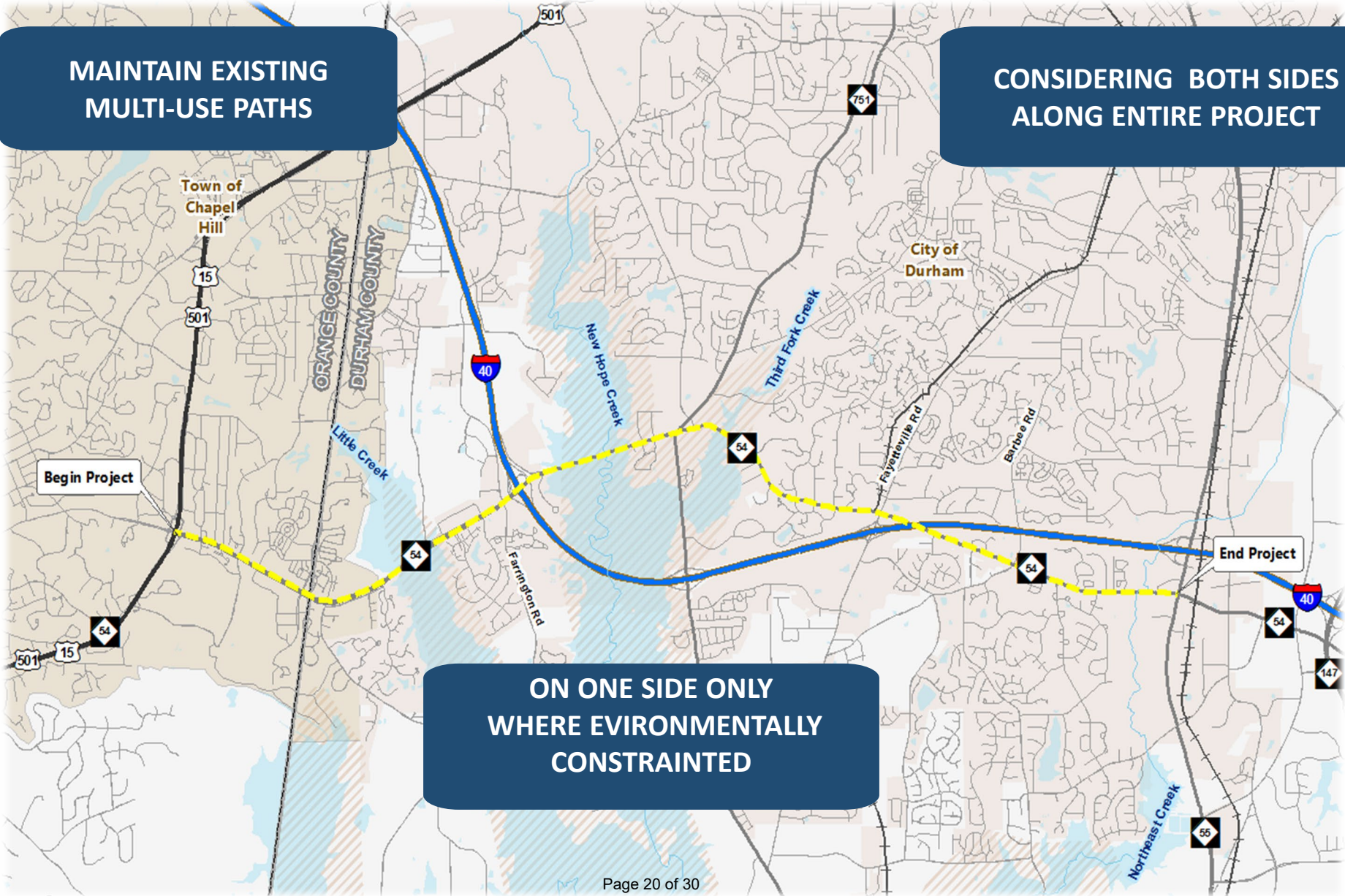


Figure 10. Six-lane synchronized street typical section



Figure 11. Eight-lane roadway typical section

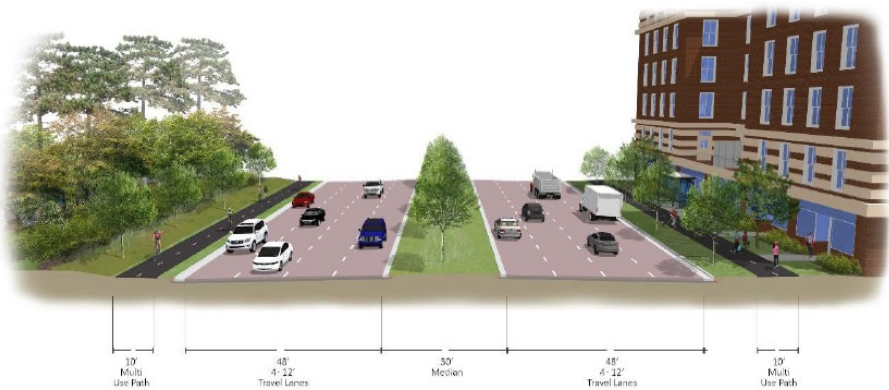
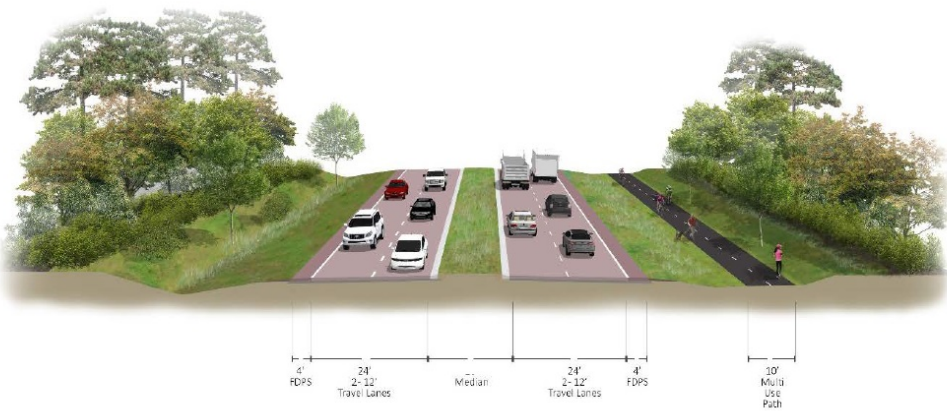


Figure 18. Six-lane depressed roadway with frontage roads typical section

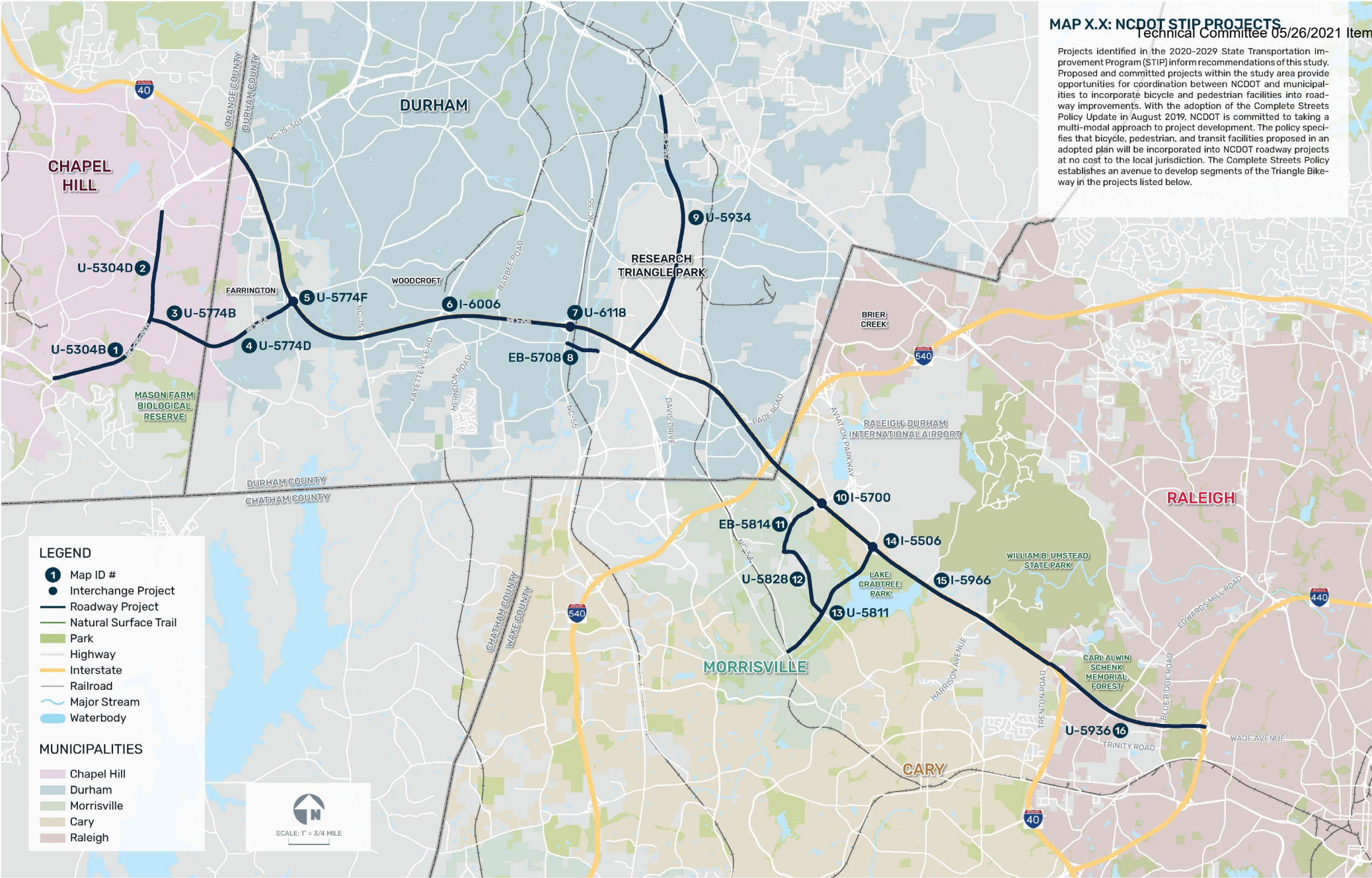


Figure 23. Four-lane divided typical section with raised median





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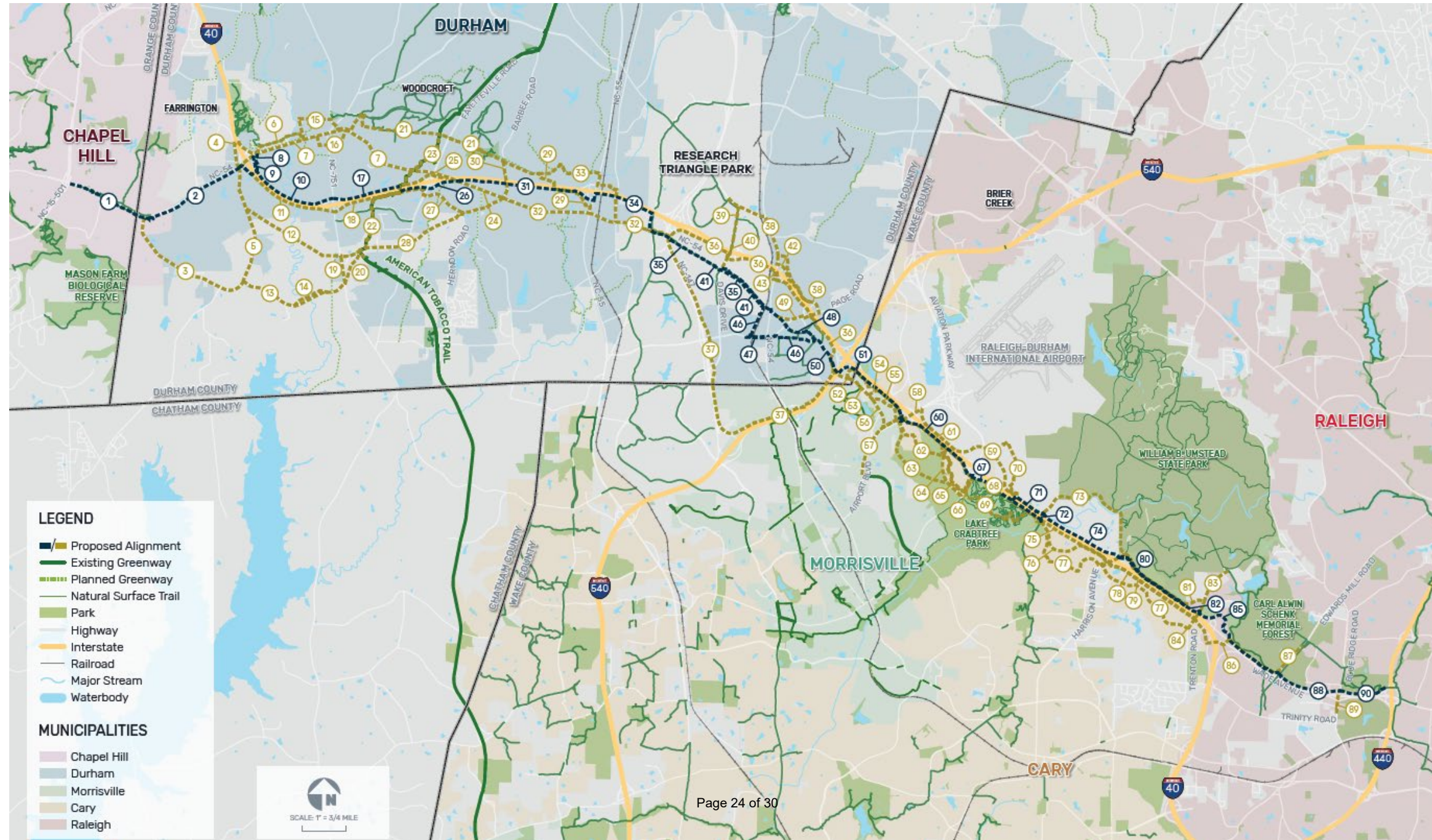
TRIANGLE BIKEWAY STUDY

Alternative Analysis Evolution



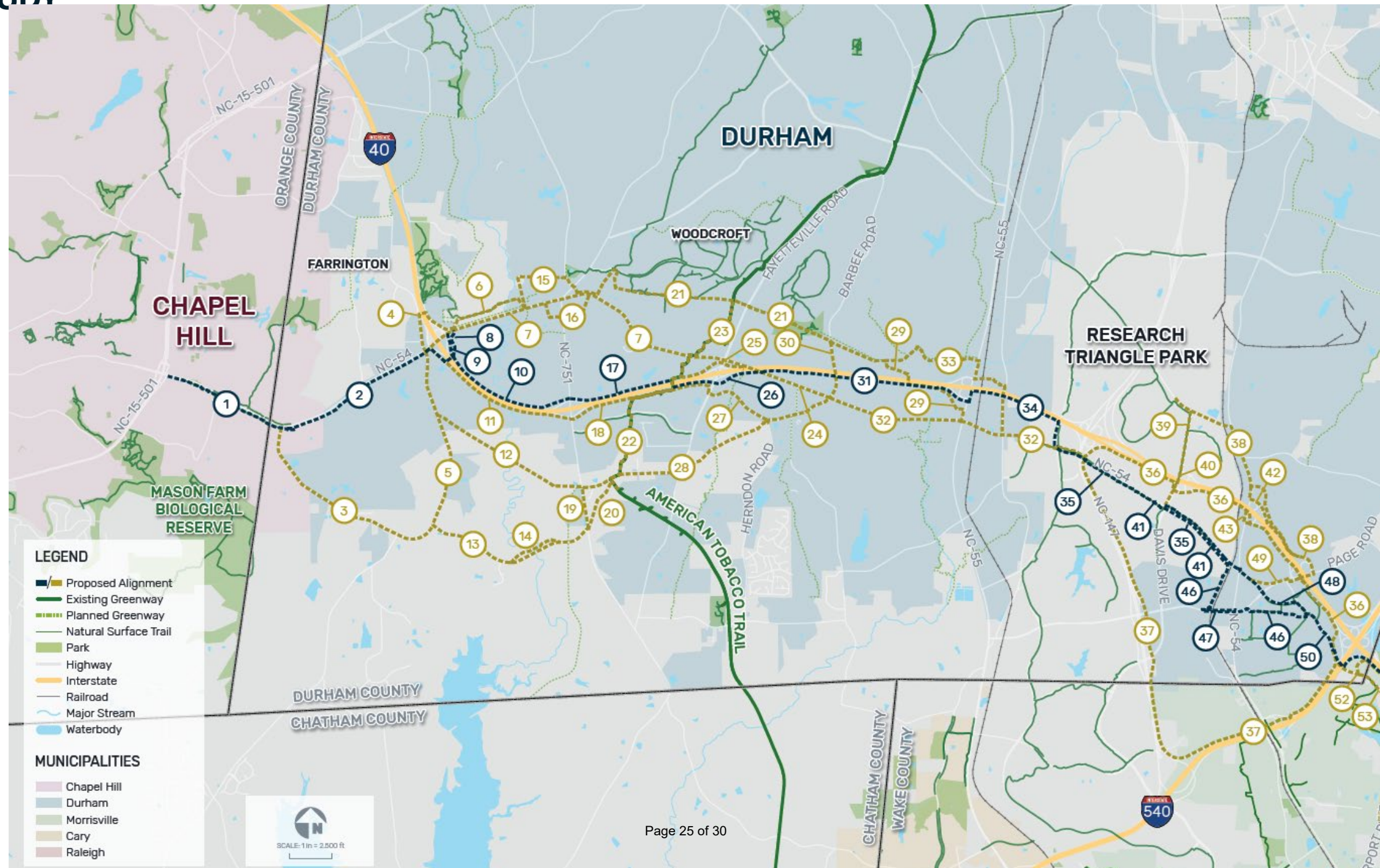


Alternative Evaluation





Alternative Evaluation





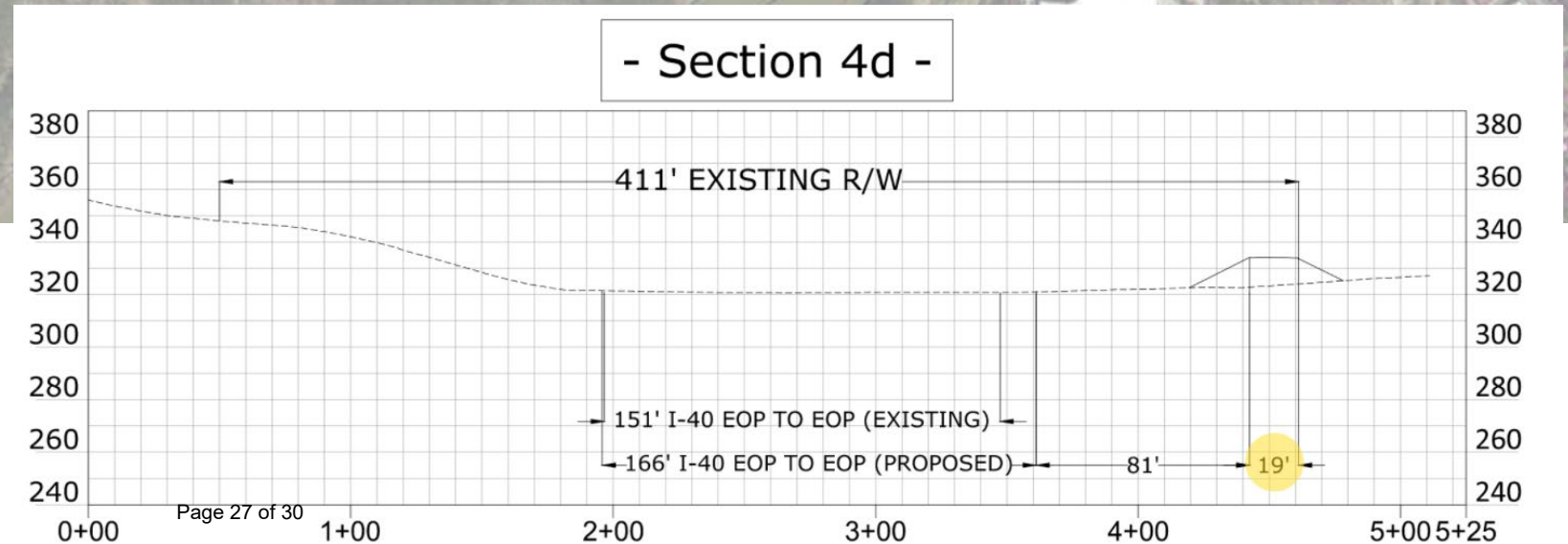
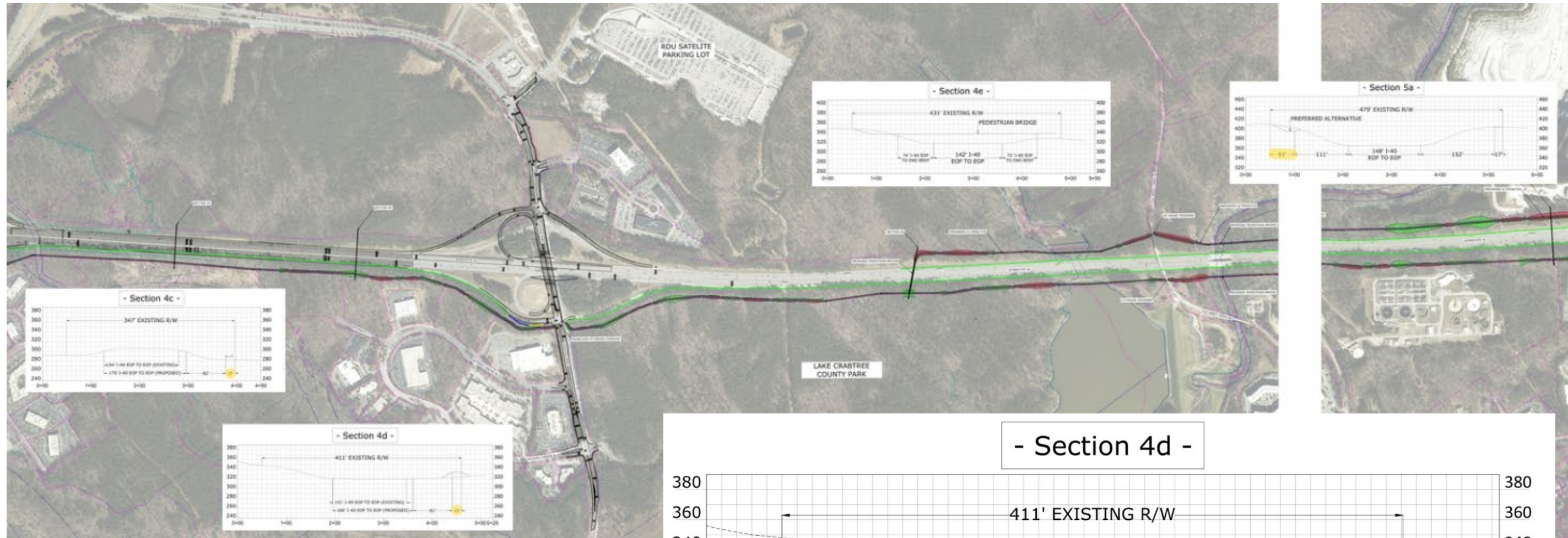
Alternative Evaluation

Segments Removed from Further Consideration

ID	Jurisdiction	Category	Notes	Key Stakeholders
3	Chapel Hill/Durham	Dependent Upon Infeasible Alignment	Barbee Chapel Road in this area includes a large tract preserve under the NC Agricultural Development and Farmland Preservation Trust, which creates a narrow right-of-way.	USACE; Chapel Hill; Durham; NCDOT
4	Durham	Safety Concerns	Pedestrian bridge over I-40 west of the exit would require several high ADT crossings with free flow turning movements of I-40/NC54 interchange.	USACE; Durham; NCDOT
5	Durham	Dependent Upon Infeasible Alignment	Segment #13 has been removed from consideration and therefore makes this segment void.	USACE; Durham; NCDOT
6	Durham	Environmental Constraints	Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deem trails an incompatible use. Any trails need to be located in existing NCDOT right-of-way. In addition to USACE mitigation commitments all options through Waterfowl Impoundment would require extensive boardwalk and would likely be prohibitively expensive.	USACE; Durham
7	Durham	Included in Another Project	Shared use paths are recommended on both sides of NC54 as part of the U-5774 project.	USACE; Durham; NCDOT
11	Durham	Environmental Constraints	Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deem trails an incompatible use. Any trails need to be located in existing NCDOT right-of-way. This south side of I-40 through USACE property would also require building structure over a spillway.	USACE; Durham; NCDOT
12	Durham	Environmental Constraints	Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deem trails an incompatible use. Any trails need to be located in existing NCDOT right-of-way. In addition to USACE mitigation commitments all options through Waterfowl Impoundment would require extensive boardwalk and would likely be prohibitively expensive.	USACE; Durham; Dominion Energy
13	Durham	Environmental Constraints	Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deem trails an incompatible use. Any trails need to be located in existing NCDOT right-of-way, which not wide enough on Stagecoach Rd to accommodate the facility.	USACE; Durham; NCDOT
14	Durham	Environmental Constraints	Under the conditions for the creation of Jordan Lake the Army Corps of Engineers is obligated to keep these lands open to hunting and deem trails an incompatible use. Any trails need to be located in existing NCDOT right-of-way. This segment through USACE property would also require building structure over a spillway.	USACE; Durham; NCDOT
15	Durham	Dependent Upon Infeasible Alignment	Segment #6 has been removed from consideration and therefore makes this segment void.	USACE; Durham Schools; NCDOT
16	Durham	Indirect/Lacks Connections	Route conflicts with development plans and would be redundant to shared use paths planned for NC54 in U-5774	USACE; Durham
18	Durham	Dependent Upon Infeasible Alignment	Segment #11 has been removed from consideration and therefore makes this segment void. Alignment north of I-40 is recommended due to fewer environmental conflicts and better crossing geometry with NC751.	USACE; Durham
19	Durham	Dependent Upon Infeasible Alignment	Segments #12-14 have been removed from consideration and therefore make this segment void.	USACE; Durham; NCDOT
20	Durham	Dependent Upon Infeasible Alignment	Segments #12-14 have been removed from consideration and therefore make this segment void.	USACE; Durham
21	Durham	Indirect/Lacks Connections	While this alignment does connect to existing bicycle facilities in South Durham, it deviates away from employment and commercial centers. Would also require extensive property/easement acquisition.	Durham; Duke Energy
21	Durham	Indirect/Lacks Connections	While this alignment does connect to existing bicycle facilities in South Durham, it deviates away from employment and commercial centers. Would also require extensive property/easement acquisition.	Durham; Duke Energy
22	Durham	Dependent Upon Infeasible Alignment	Segments #12-14; #19-20; and #28 have been removed from consideration and therefore make this segment void.	Durham
23	Durham	Indirect/Lacks Connections	While this alignment utilizes the existing American Tobacco Trail in South Durham, it deviates away from employment and commercial centers. In addition, segment #21 has been removed from consideration, which would also make this segment void.	Durham
24	Durham	Included in Another Project	Shared use paths are recommended on both sides of NC54 as part of the U-5774 project.	Durham
25	Durham	Safety Concerns	NC54 west under I-40 bridge does not have adequate space for a protected bike facility. Recommended alignment uses American Tobacco Trail Bridge over I-40 to cross to southern alignment to avoid pinch point.	Durham; NCDOT
27	Durham	Dependent Upon Infeasible Alignment	Segment #28 has been removed from consideration and therefore makes this segment void.	Durham; NCDOT
28	Durham	Dependent Upon Infeasible Alignment	All alternatives connecting to this route from the west have been removed from further consideration and therefore make this segment void.	Durham; NCDOT
29	Durham	Dependent Upon Infeasible Alignment	Segment #21 has been removed from consideration and therefore makes this segment void. In addition, this route would require an underpass under I-40 and traversing across a power line easement.	Durham; NCDOT
30	Durham	Dependent Upon Infeasible Alignment	All alternatives connecting to this route from the south and north have been removed from further consideration and therefore make this segment void.	Durham
32	Durham	Included in Another Project	Shared use paths are recommended on both sides of NC54 as part of the U-5774 project.	Durham; RTP; NCDOT
33	Durham	Dependent Upon Infeasible Alignment	Segment #21 has been removed from consideration and therefore makes this segment void. This route would also require an at-grade crossing on the railroad.	Durham
36	RTP	Indirect/Lacks Connections	Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOT future plans for I-40.	Durham; RTP; NCDOT
37	RTP/Morrisville	Indirect/Lacks Connections	Routing the bikeway south along NC147 to continue north on I-540 would require extensive pedestrian bridges and tunnels. There is no feasible option for crossing of railroad and Church Street.	NCDOT
38	RTP/Durham	Conflicts with NCDOT Project	Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOT future plans for I-40.	Durham; RTP; NCDOT
38	Durham	Conflicts with NCDOT Project	Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOT future plans for I-40.	Durham; NCDOT
39	RTP	Conflicts with NCDOT Project	Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOT future plans for I-40.	RTP
40	RTP	Conflicts with NCDOT Project	Preferred alternative utilizes NC54 to provide greater connections to jobs. This route also conflicts with NCDOT future plans for I-40.	RTP; NCDOT

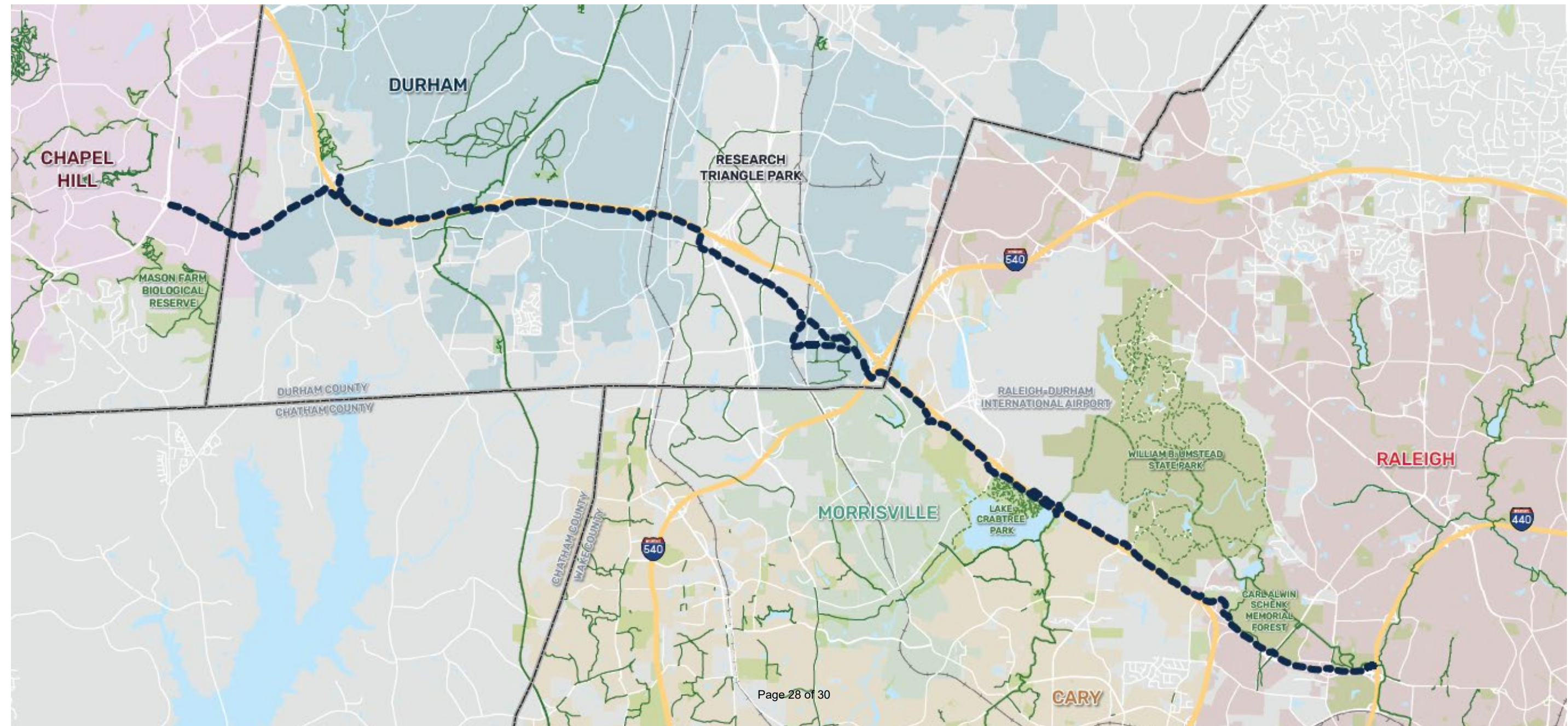


NCDOT Coordination





Recommended Alignment



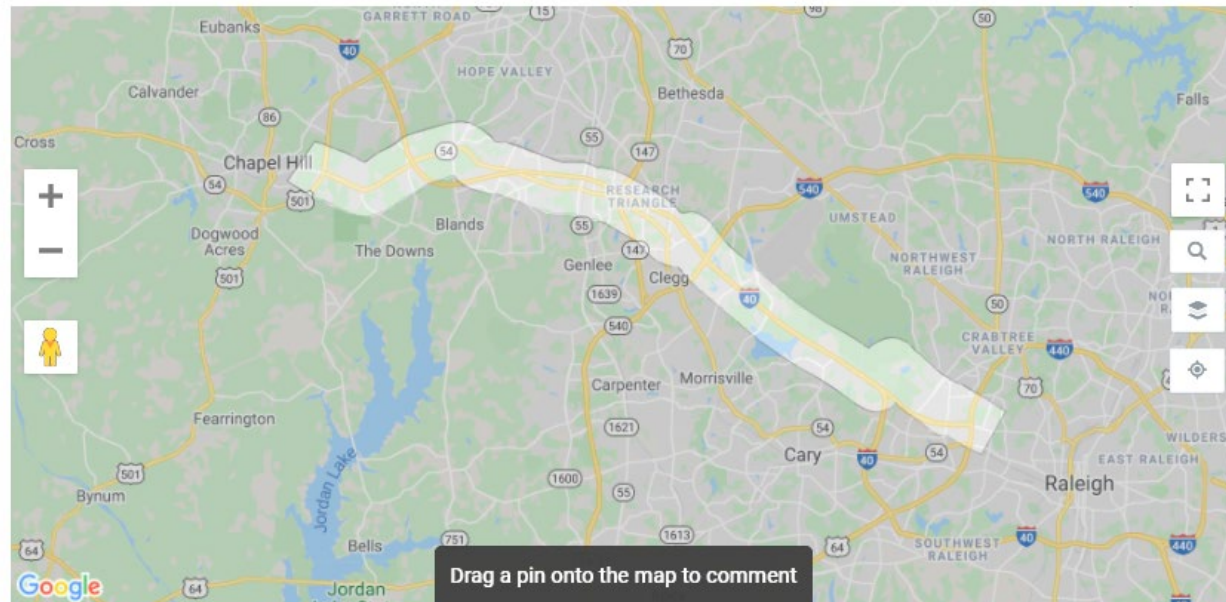
Where we Need More Input



Where would you most likely walk along the bikeway? This will help determine if there are particular areas that need design solutions (such as separate facilities for walking and biking and/or striping).

Drop a pin or pins on the map provided. Add comments with your pin/s, if desired OR Instead of using the map, list your walk locations in the comment field below the map.

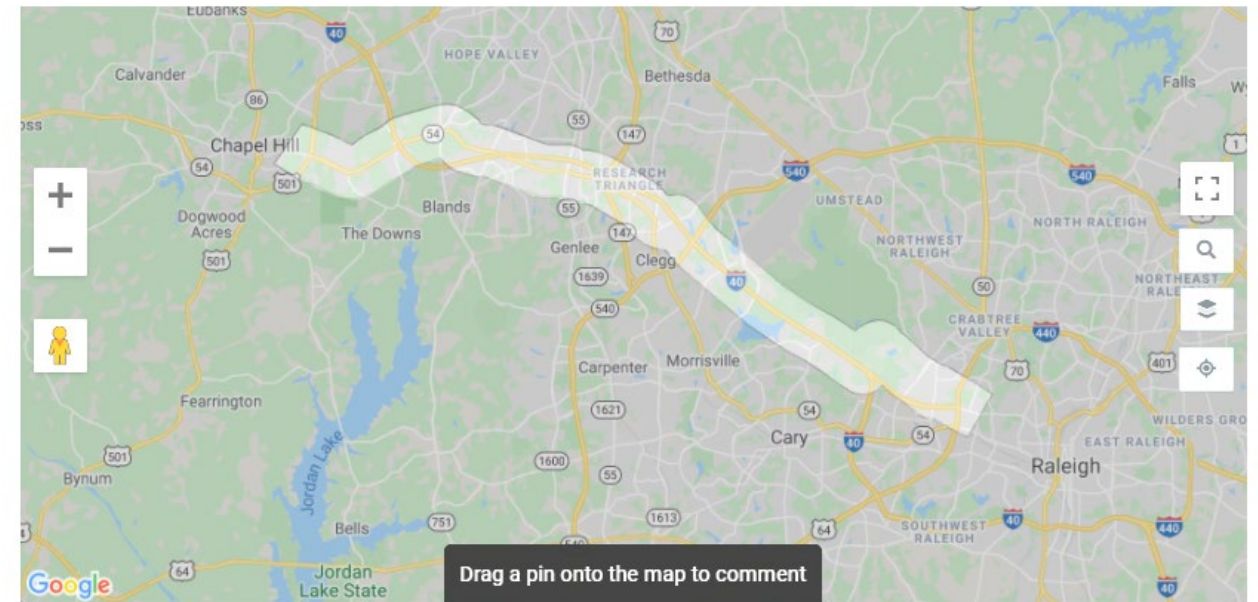
Drag and drop >  Walk



Where would you most likely to get on the trail? This will help identify key access points for the design team to consider.

Drop a pin or pins on the map provided. Add comments with your pin/s, if desired. OR Instead of using the map, list your walk locations in the comment field below the map.

Drag and drop >  Access point



NCDOT Next Steps

Public Update – Mid June

Updated Website Launch

Public Meetings

Next TWG Meeting

June 17th 2:00

