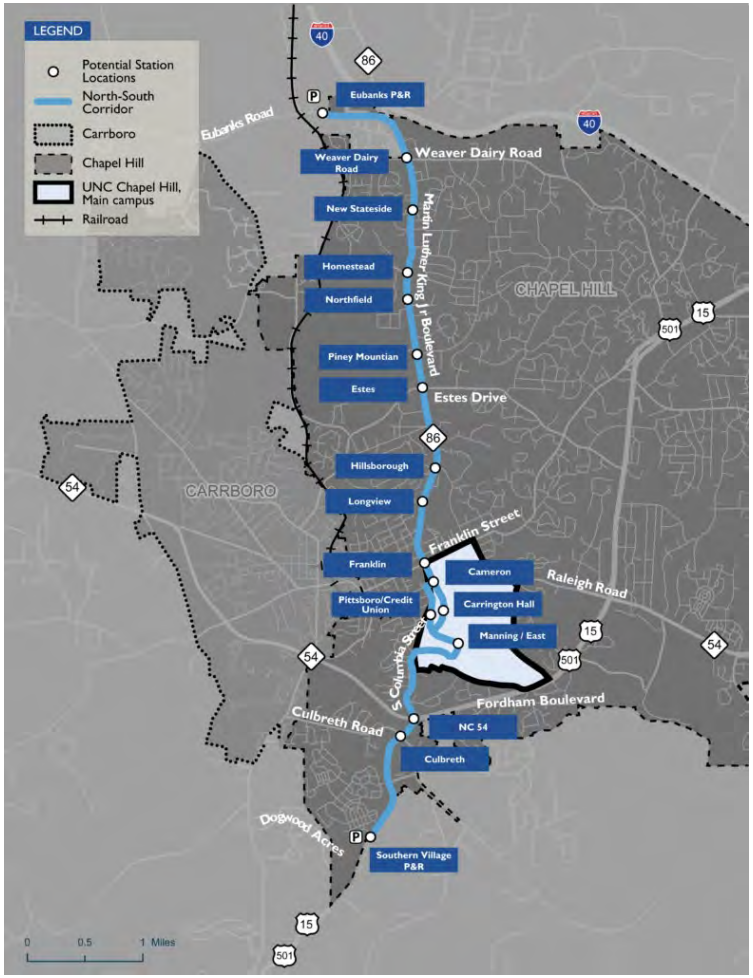
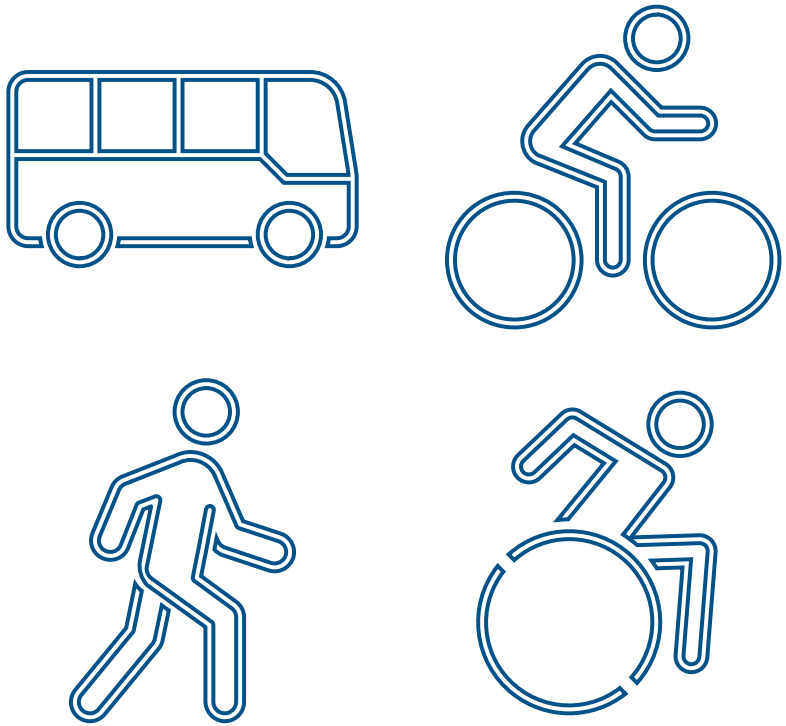
Chapel Hill TOD Planning and UDO Visioning

June 9th, 2022

DRAFT



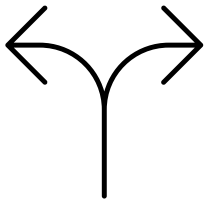


SRF

Presentation Outline

Existing Conditions

Recommendations from Other Studies



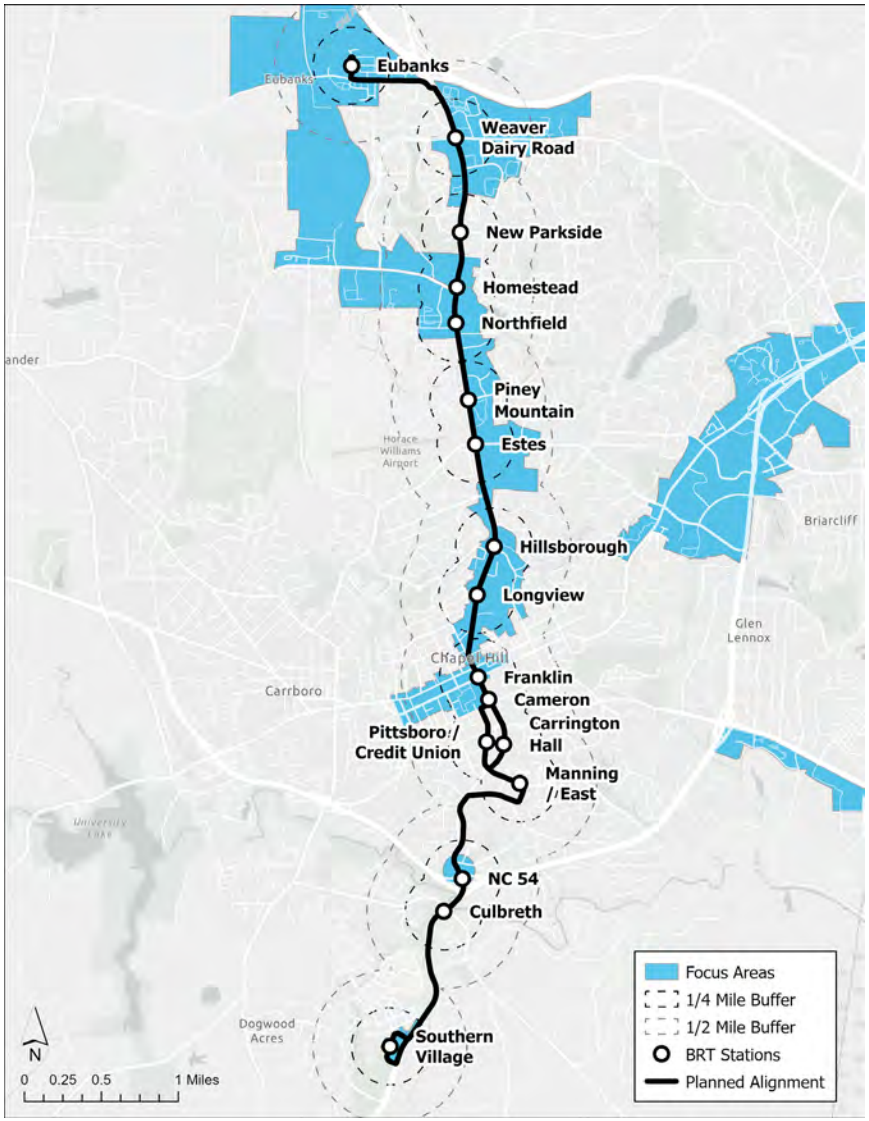
Findings, Deficiencies and Gaps

Areas of Investigations/Opportunities/Equity

Existing Conditions

Background

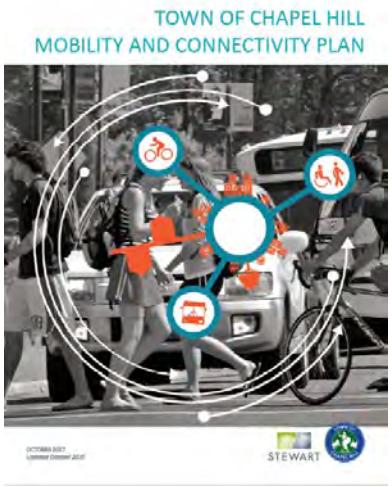
- 17 stations along a 7.3-mile route and two focus areas
- Focus with several walk and bikesheds (as the crow flies vs. actual)
- First/last mile connections via the existing or proposed walking and bicycling network
- Town goal to increase ped/bike/transit modeshare to 35% by 2025 means connectivity will be a key focus
- Significant greenway network with opportunities to further connect as “multimodal arterials”

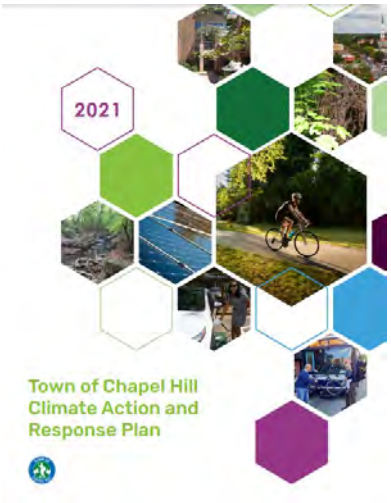


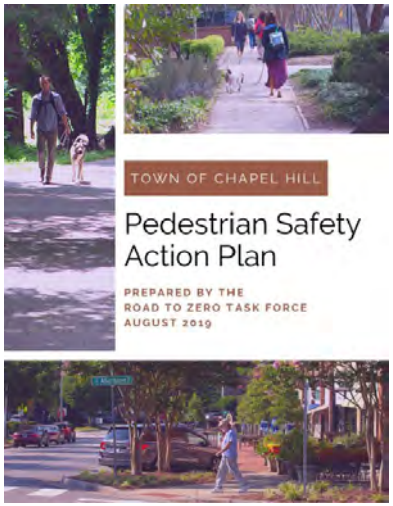
Existing Conditions

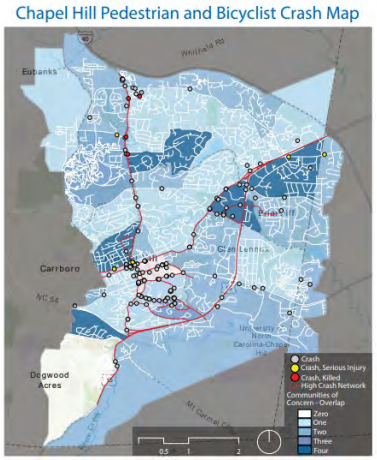
Reviewed Studies

- ADA Transition Plan (On-going)
- Climate Action Plan (2021)
- Mobility and Connectivity Plan (2020)
- Vision Zero (2020)
- Pedestrian Safety Action plan (2019)





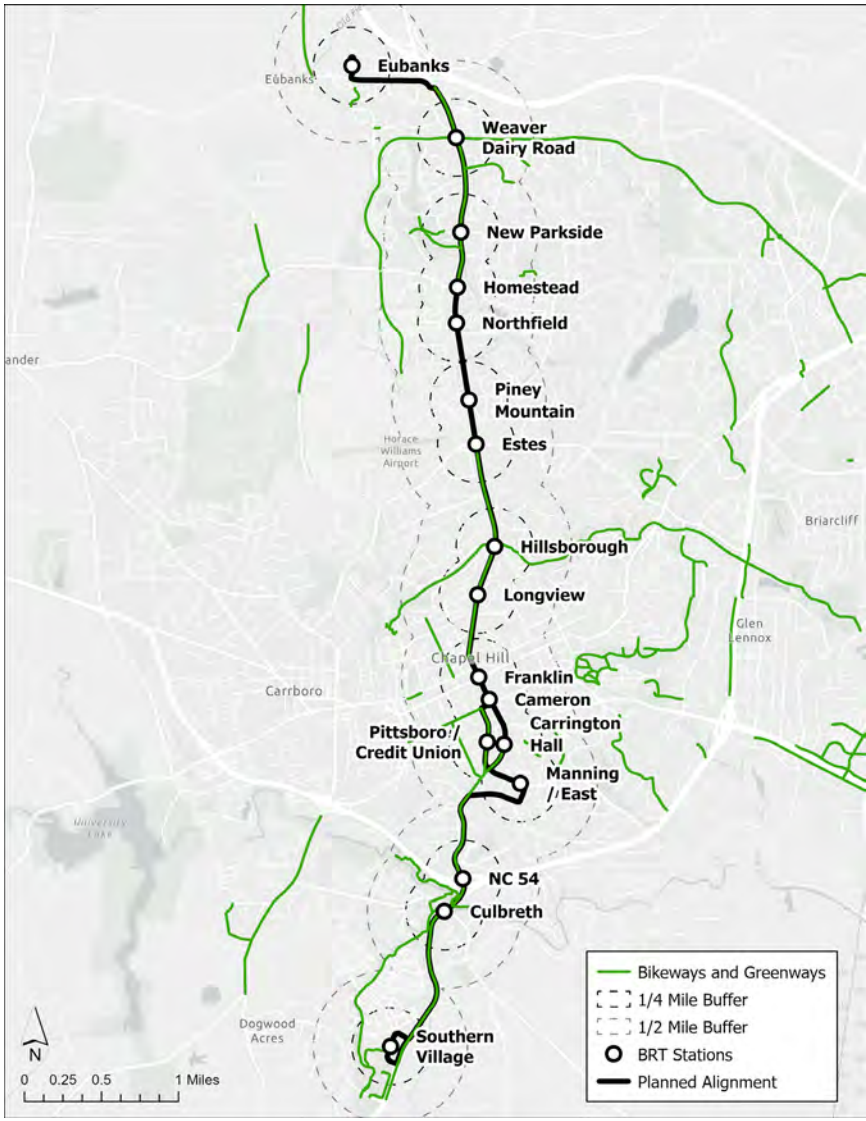




Existing Conditions

Existing Transportation Conditions

- Reviewed existing data made available by the Town:
  - Sidewalk
  - Greenways
  - Land use
  - Crashes involving pedestrians and bicyclists
- Informed the gap identification process for further field review



Recommendations From Other Studies

Mobility & Connectivity Plan

- Provide… “a comprehensive transportation system that provides everyone safe and reasonable access to all that the community offers”.
- Follow “Complete Streets” best practices.
- Specific corridor recommendations identified including Martin Luther King Jr. Blvd and US Highway 15-501 South.
- Implement greenway connectors.

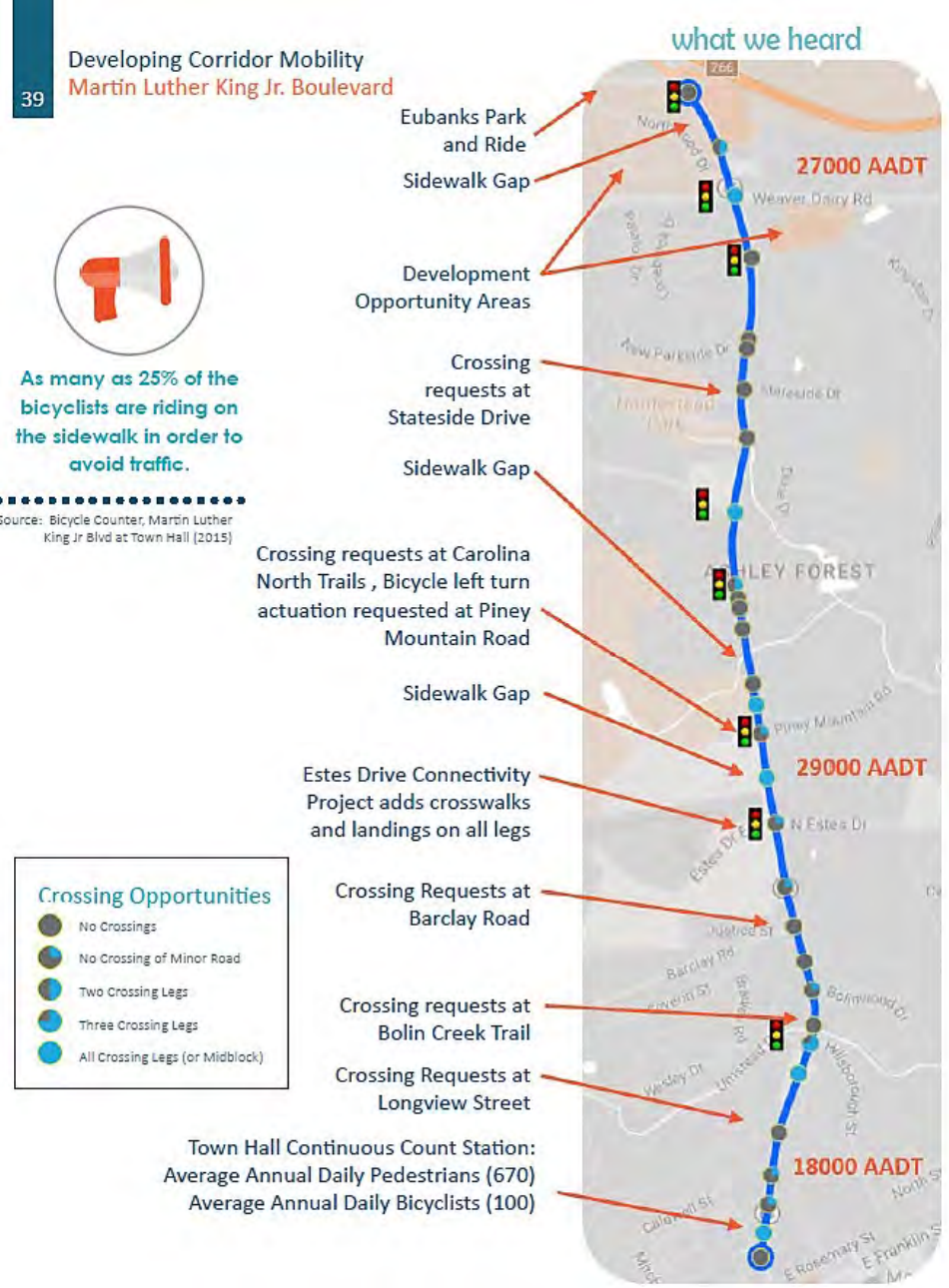
Martin Luther King Jr. Blvd. Review

Short-Term Recommendations

- Upgrade and widen sidewalks along corridor.
- Add pedestrian crossings and improve bike lane markings at key intersections.
- Improve bicycle signal actuation at all major intersections.
- Improve connections with existing and planned greenways, trails and side paths.

Long-term Recommendations

- Provide separated bicycle facilities (i.e., shared-use path) along both sides of the roadway.



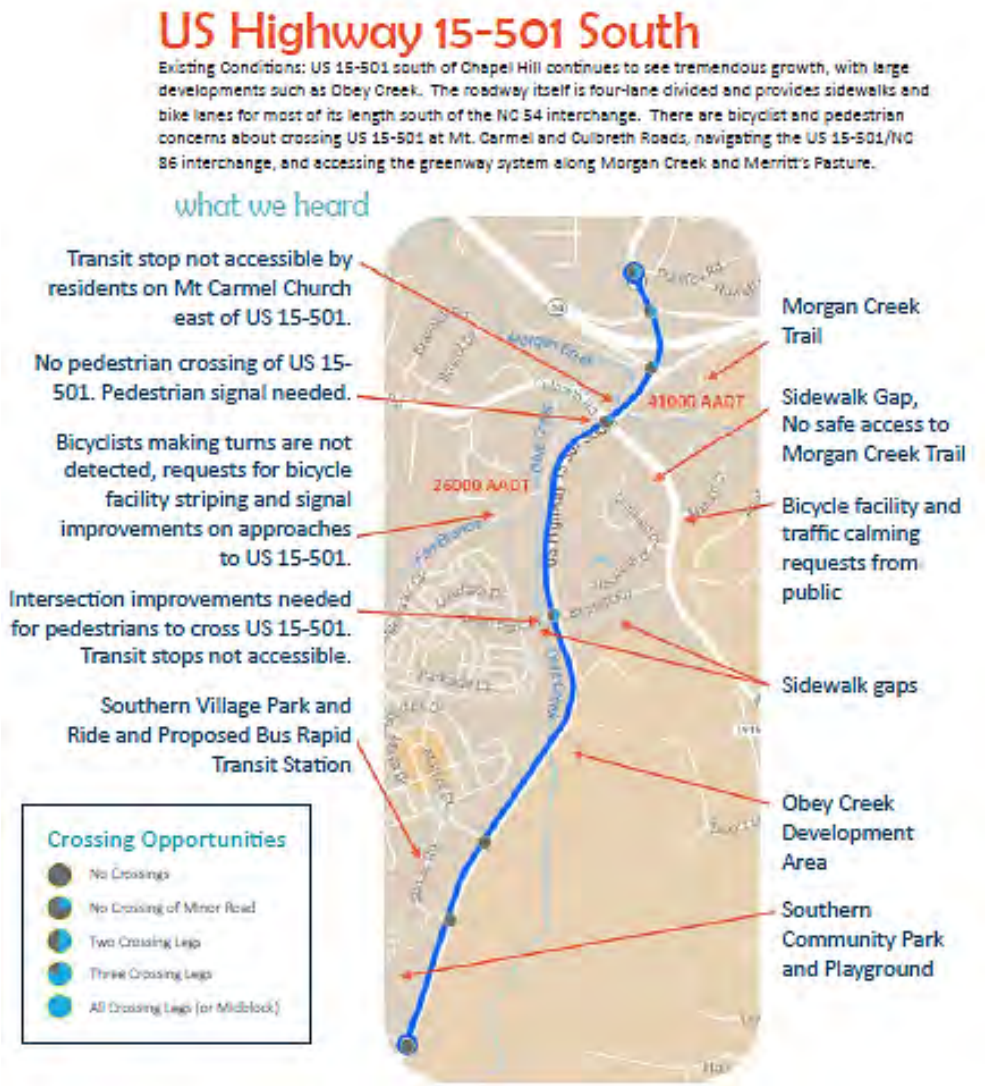
US Highway 15-501 South Review

Short-Term Recommendations

- Improve bike lanes and markings at the key intersection.
- Construct a greenway connecting Mt. Carmel Church Road to the Fan Branch Trail.

Long-term Recommendations

- Provide separated bicycle facilities (i.e., shared-use path) along both sides of the roadway.

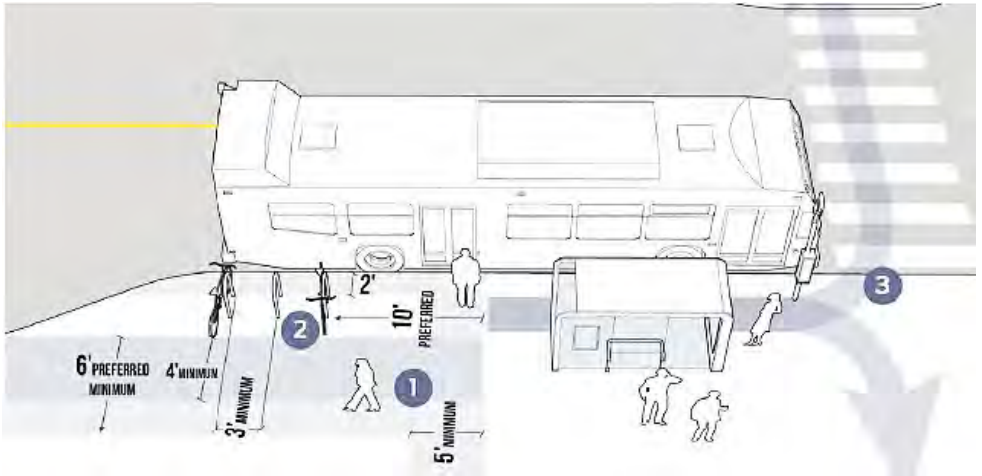


Interconnecting Greenways

- Timberlyne
- Treelyne
- Eastern Explorer
- Cross Cities Connector
- Southern Circuit
- Homestead Connector
- Barclay Connector
- Pritchard Connector

Bike Parking at BRT Stations

- Short-term: Minimum of 6 covered spaces
- Long-term: 5% of auto spaces or minimum of 8 covered spaces
- Secure parking especially important for more expensive bikes (i.e., e-bikes)
- Well-designed and accessible unsecure bike parking is also important



Bike Share

- Town is procuring bikeshare with UNC and Carrboro
- Consideration of bike share parking at all BRT stations
- Key to attracting riders in an accessible way for first/last mile as they will be e-bikes

Recommendations From Other Studies

Pedestrian Safety Action Plan

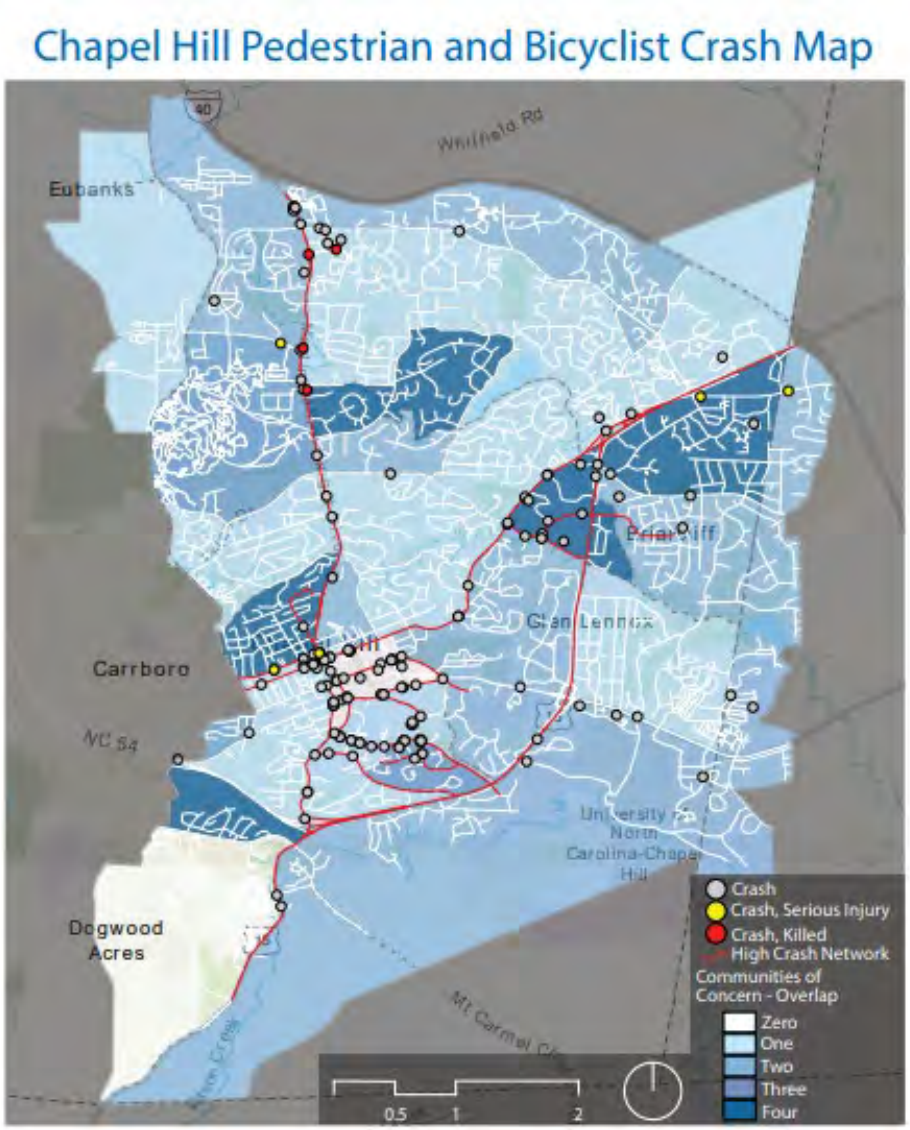
- Several improvements identified at intersections and along the corridor of Martin Luther King Jr. Boulevard

Locations	Specific Locations or Problems Identified	Safety Improvements
Intersections	Weaver Dairy Rd. and Martin Luther King Jr Blvd.	Eliminate Right-Turn-on-Red; install automatic lead pedestrian intervals; install accessible intersection upgrades (e.g. accessible pedestrian signals); install curb extensions or planters to increase right turning angles; expand pedestrian refuge island on the southern side; add and improve pedestrian level lighting. Configure intersection to accommodate future Bus Rapid Transit and increased number of pedestrians.
	Franklin St. and Columbia St.	Eliminate Right-Turn-on-Red; road diet on Franklin St.
	Columbia St. and Rosemary St.	Eliminate Right-Turn-on-Red; upgrade to high-visibility crosswalks on all legs
	Franklin St. and Henderson St.	Eliminate Right-Turn-on-Red; add and improve pedestrian level lighting; upgrade to high-visibility crosswalks
	Franklin St. and Roberson St.	Add and improve pedestrian level lighting; upgrade crosswalks to high-visibility; install a RRFB at one of the crossings across Franklin Street; install curb extensions on all four corners
	S. Estes Dr. and Willow Dr.	Eliminate Right-Turn-on-Red; install automatic lead pedestrian intervals; install accessible intersection upgrades (e.g. accessible pedestrian signals); add crosswalks on western and southern crossings and upgrade all crosswalks to high-visibility; add and improve pedestrian level lighting; road diet on S. Estes Dr.
	Martin Luther King Jr. Blvd. and Westminster Dr.	Eliminate Right-Turn-on-Red; install automatic lead pedestrian intervals; install accessible intersection upgrades (e.g. accessible pedestrian signals); update eastern and western crosswalks to high-visibility; improve pedestrian level lighting; add pedestrian refuge on MLK as part of future BRT project
	Homestead Rd. and Martin Luther King Jr. Blvd	Eliminate Right-Turn-on-Red; install automatic lead pedestrian intervals; install accessible intersection upgrades (e.g. accessible pedestrian signals); upgrade crosswalks to high-visibility; add and improve pedestrian level lighting; extend pedestrian refuge island on northern side, add curb extensions on Homestead corners
Corridors	Martin Luther King Jr. Blvd	Road diet; install multiuse paths along both sides of corridor; add and improve pedestrian level lighting along corridor; narrow travel lanes; install additional RRFBs or hybrid beacons, implement Bus Rapid Transit along corridor
	Franklin St.	Road diet; add and improve pedestrian level lighting along corridor; narrow travel lanes; add RRFBs and hybrid beacons
	Fordham Blvd	Install sidewalks and multiuse paths where possible to ensure connectivity; add and improve pedestrian level lighting along corridor
	Rosemary St.	Add and improve pedestrian level lighting along corridor; narrow travel lanes; install curb extension for pedestrian crossings; install chicanes where possible; extend protection along bike lanes; close driveways where possible
	Estes Dr.	Add and improve pedestrian level lighting along corridor; install sidewalks, bike lanes, multiuse path and pedestrian crossings as part of planned project

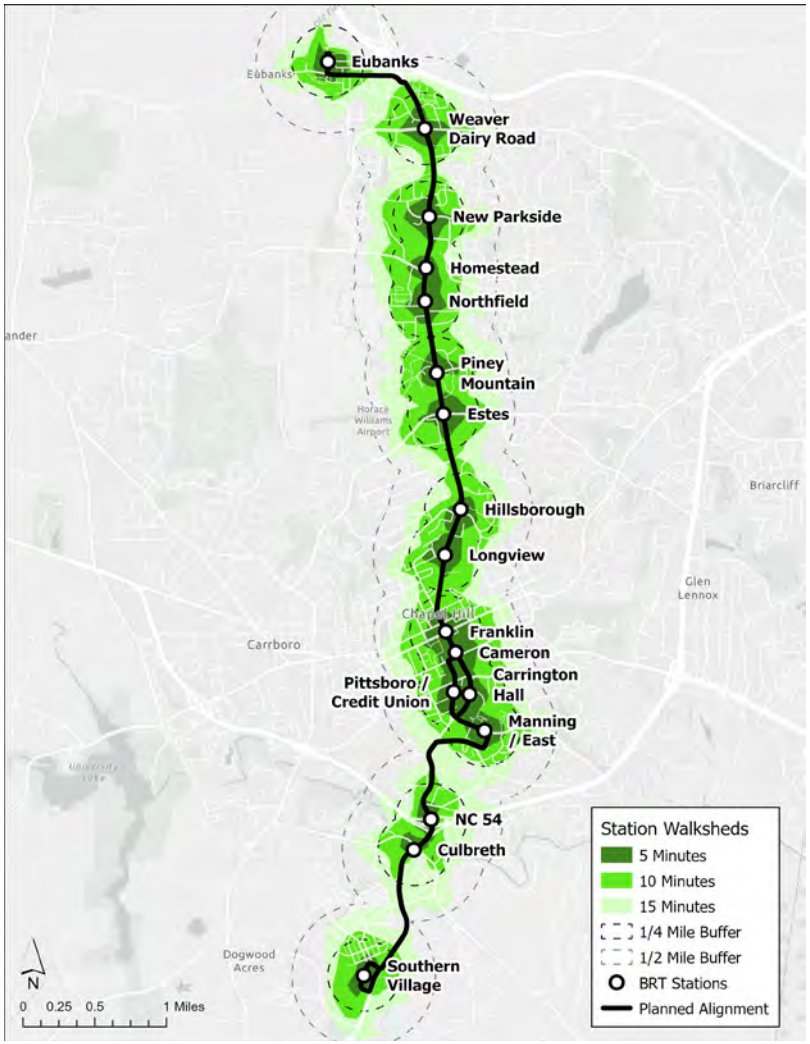
Recommendations From Other Studies

Vision Zero

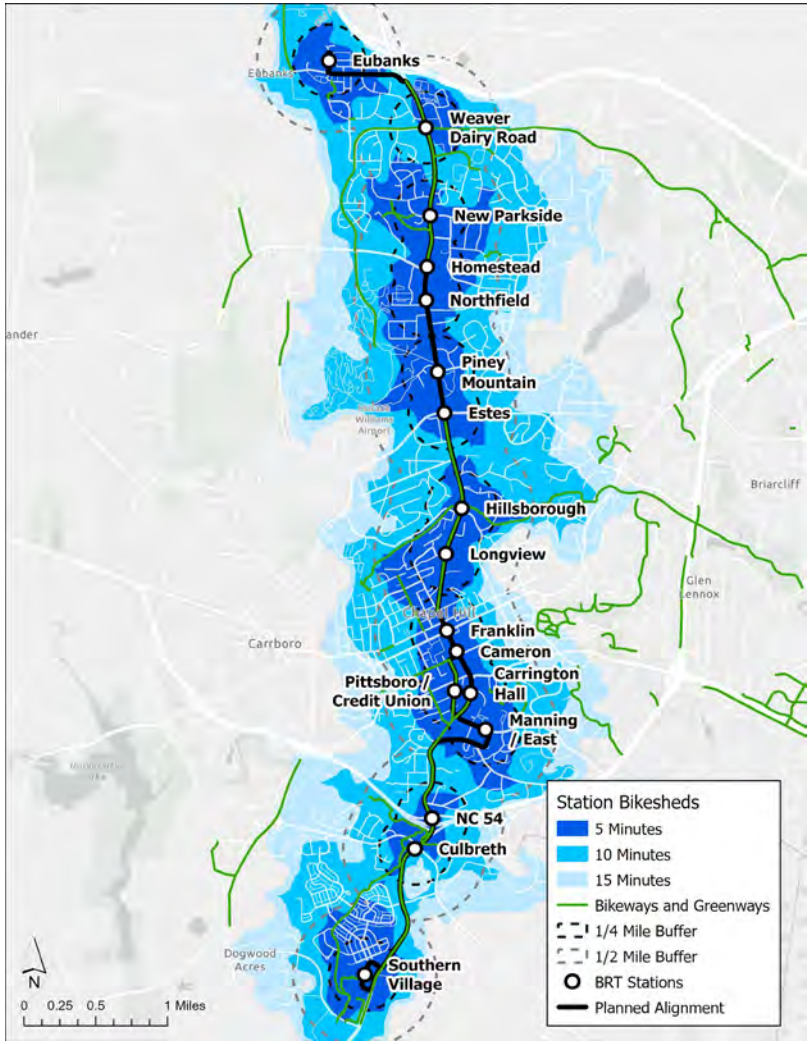
- The entire N-S BRT route will run along roadways included in the Town's High Injury Network.
- Most intersections along the corridors have recorded crashes, notably in the downtown and UNC area where ped/bike volumes are higher.
- Improvements should be prioritized to these areas due to the higher need identified.



Moving Forward - Areas of Investigations

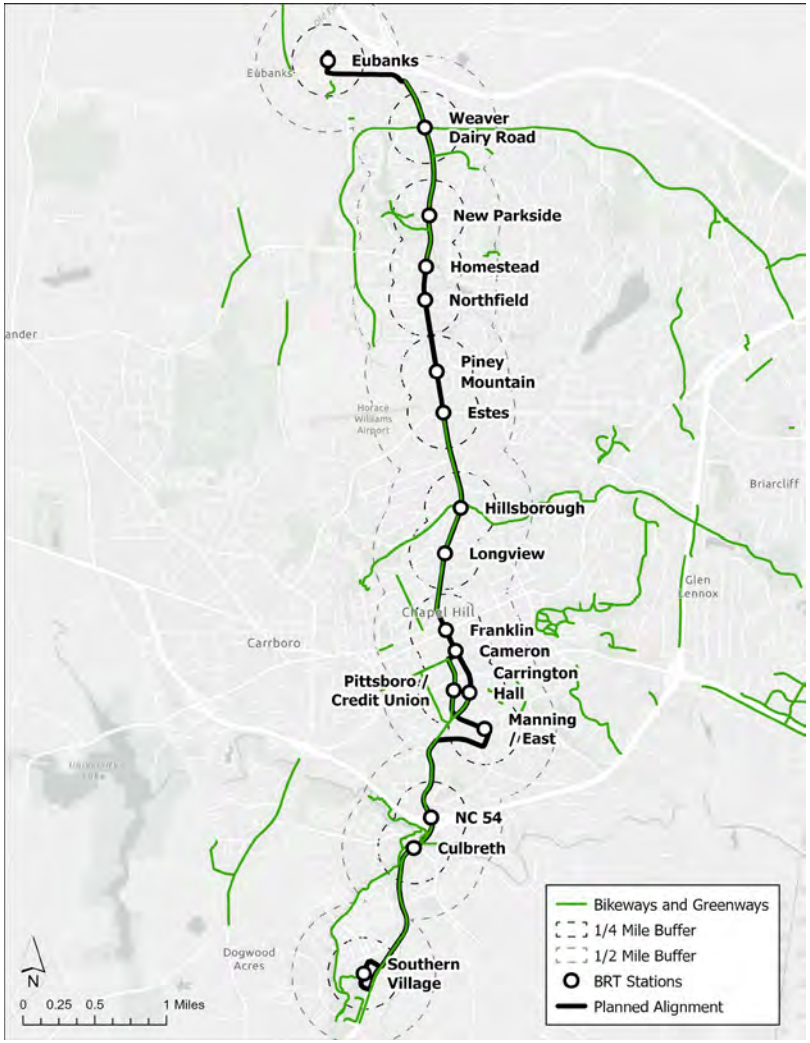


Station Walksheds

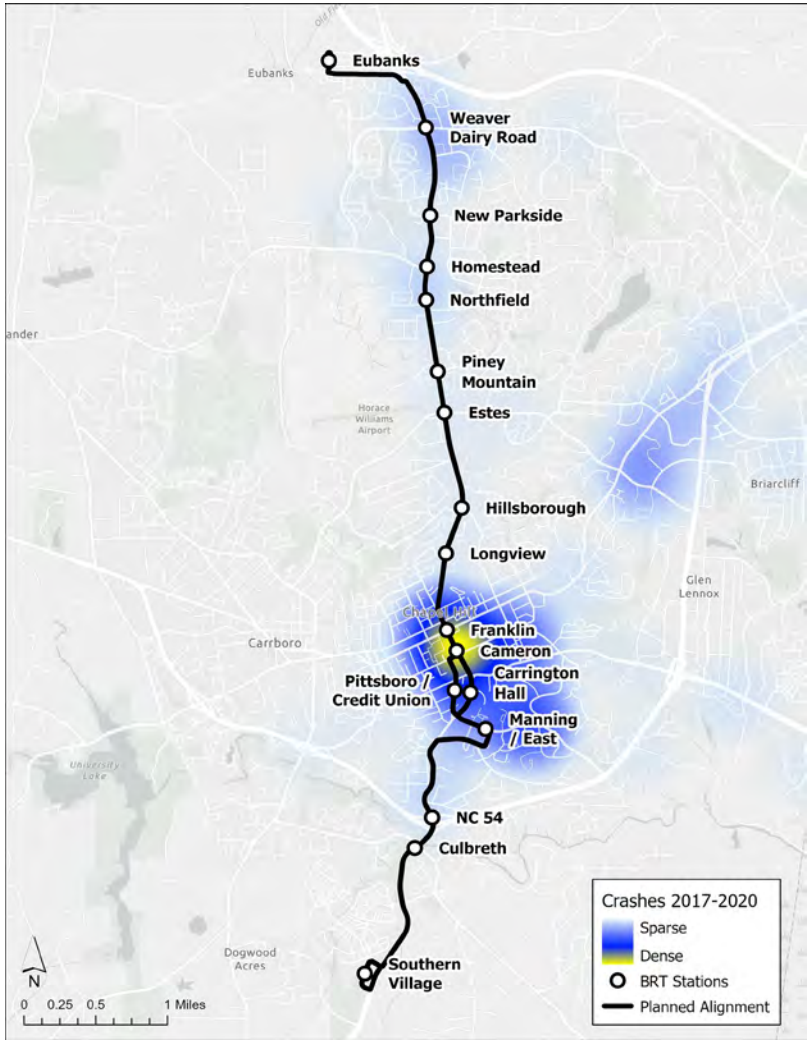


Station Bikesheds

Areas of Investigations- Moving Forward



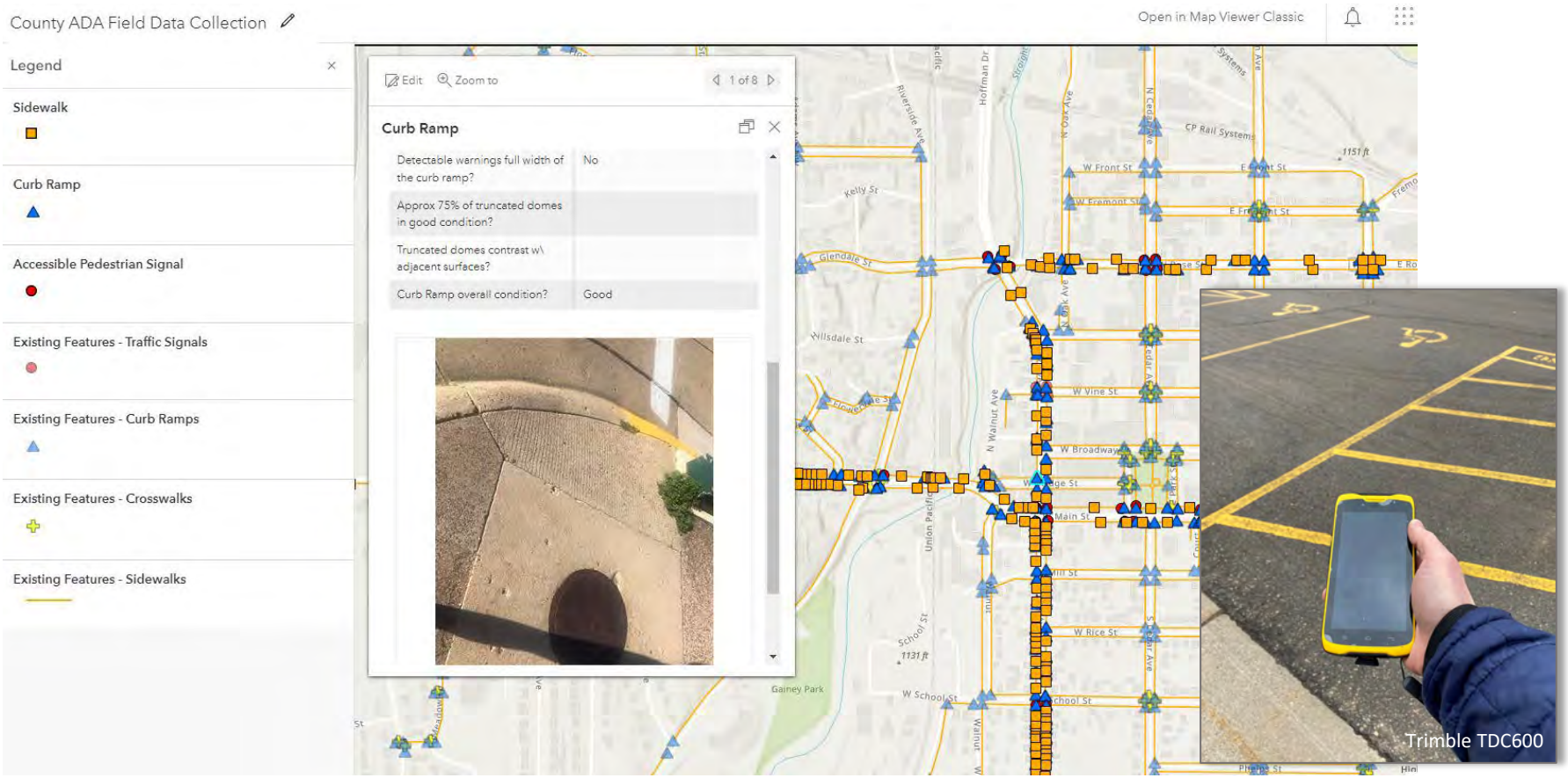
Bikeways & Greenways



Bicycle & Pedestrian Crash Data

Audit Summary

- In-person field audit performed by SRF at all stations on April 14 and April 15.
- 10 stakeholders participated over the two days reviewing nearly all stations.



Summary of Input and Findings

Segment 1 (north): Eubanks, Weaver Dairy Road, & New Parkside

- Key sidewalk gaps adjacent to planned stations
- Upgrade connections to planned developments
- Improve uncontrolled and signalized crossings

Summary of Input and Findings

Segment 2 (central): Homestead, Northfield, Piney Mountain, Estes, & Hillsborough

- Upgrade connections to planned developments (e.g., homeless/supportive housing near Homestead)
- Key sidewalk gaps adjacent to planned stations.
- Improve E/W bicycle connections (e.g., Estes corridor, Bolin Creek Greenway)
- Improve uncontrolled and signalized crossings (maintain RRFB mid-block crossings)

Summary of Input and Findings

Segment 3 (downtown): Longview, Franklin, Cameron, Pittsboro, Carrington Hall, Manning/East

- Key sidewalk gaps adjacent to planned stations
- Upgrade connections to planned developments (e.g., future UNC hospital development)
- Improve uncontrolled and signalized crossings (i.e., consider all ped phase or improved signal timing)
- Improve bicycle connections (on-street and off-street, e.g., Cameron)
- Increased bike parking, specifically covered/secured
- Traffic calming opportunities, speed identified as a concern

Summary of Input and Findings

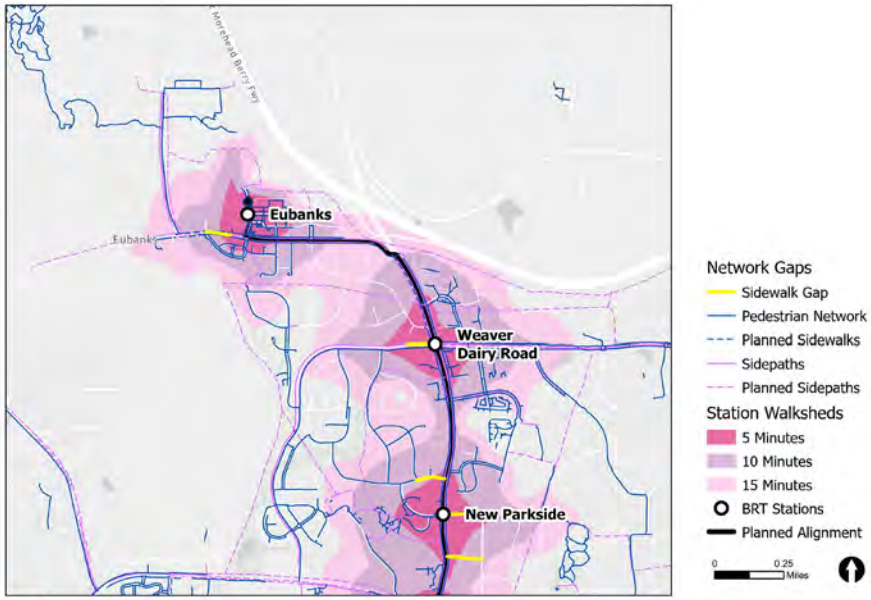
Segment 4 (south): NC 54, Culbreth, Southern Village

- Key sidewalk gaps and ADA deficiencies (high-level) adjacent to planned stations and at overpasses/ bridges
- Improve connections to the greenway

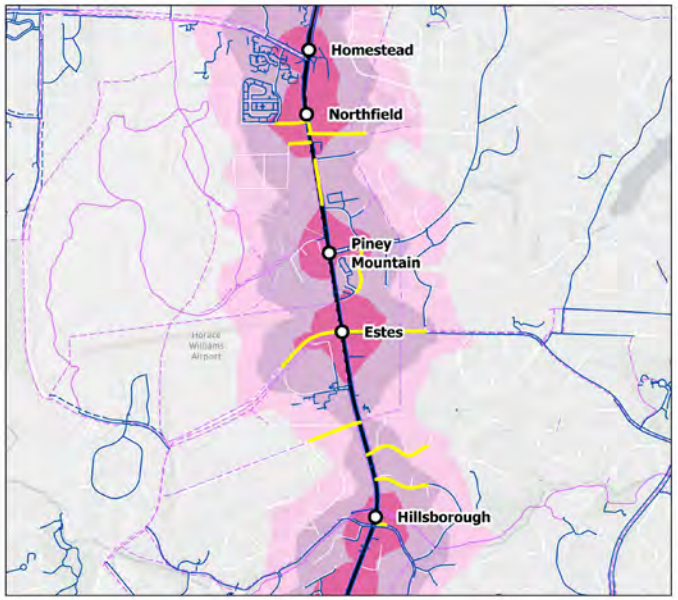
Overarching Gaps and Deficiencies

Bike Parking, Bikeshare, Wayfinding

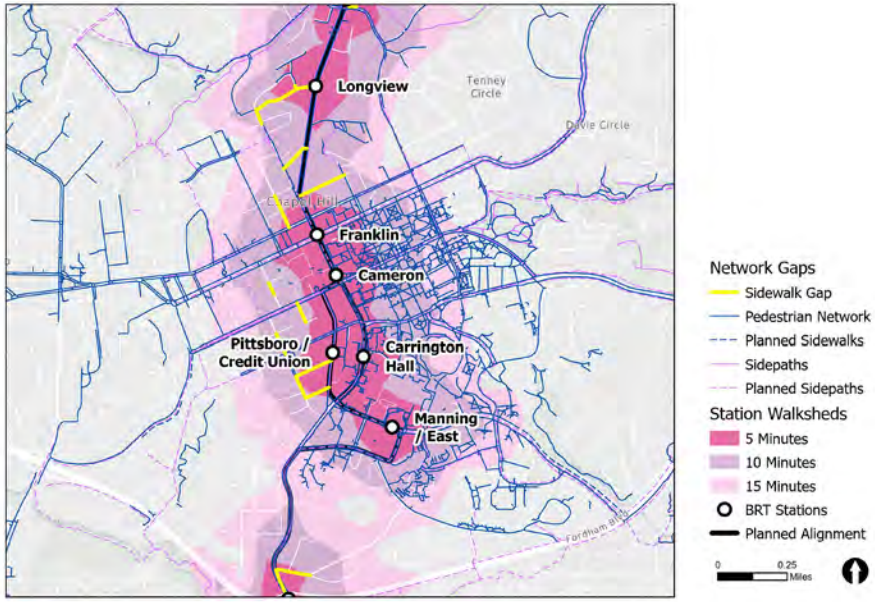
- Limited bike parking outside of downtown/UNC and park ‘n’ rides.
- Bikeshare only within the UNC campus, though this will change soon via the existing RFP for town-wide service.
- Limited wayfinding outside of the Greenway system.



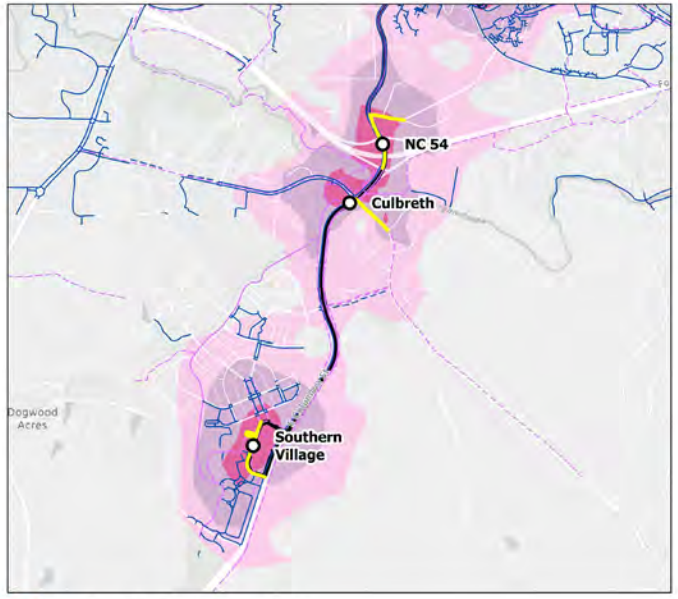
SRF Pedestrian Network Gaps- Segment 1 (North)



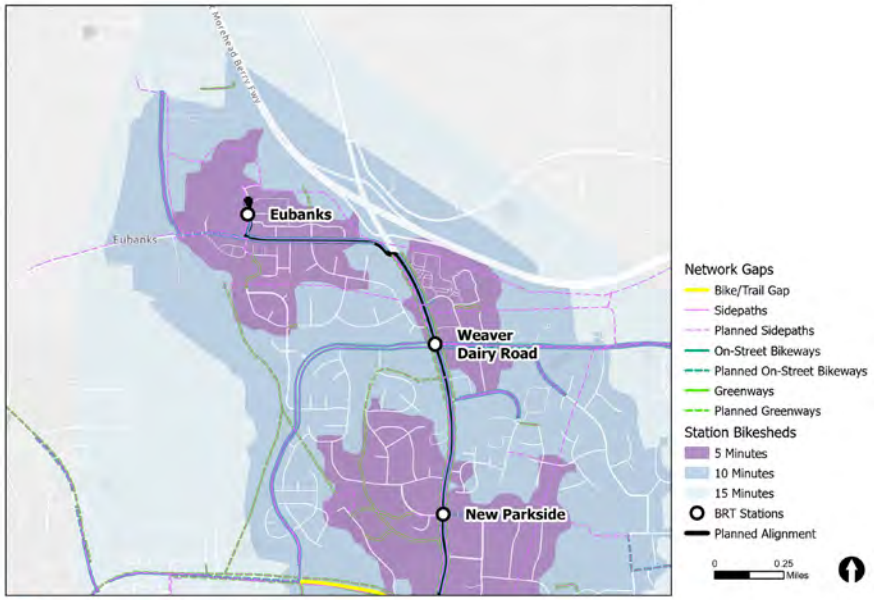
SRF Pedestrian Network Gaps- Segment 2 (Central)



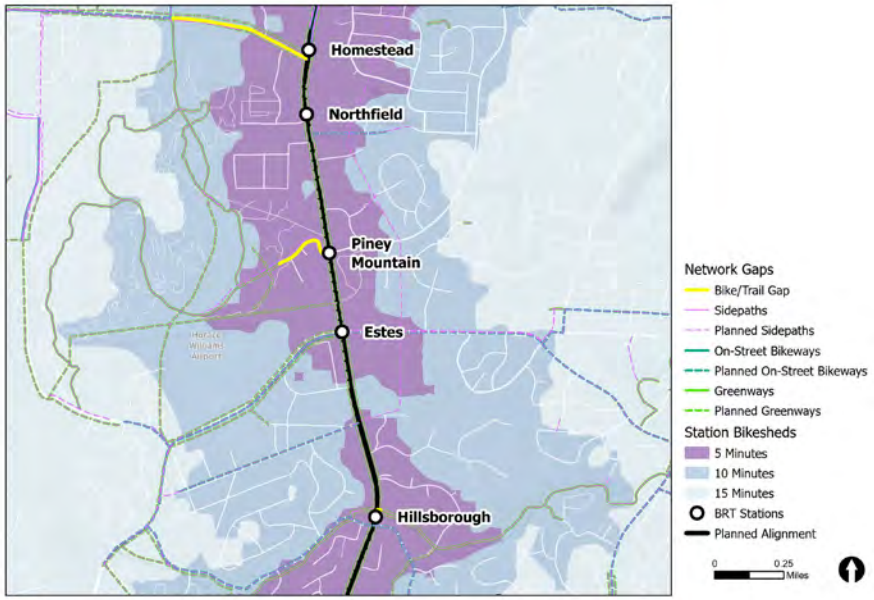
SRF Pedestrian Network Gaps- Segment 3 (Downtown)



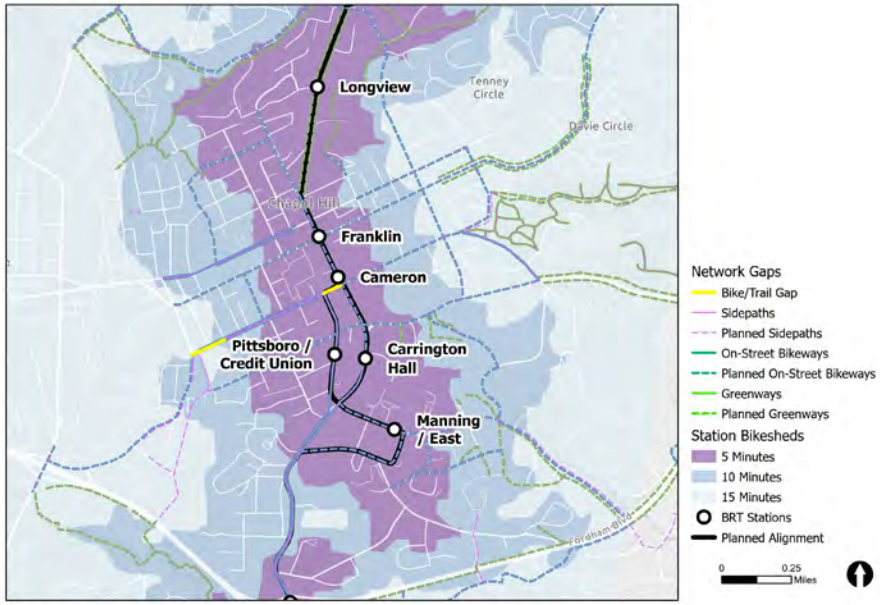
SRF Pedestrian Network Gaps- Segment 4 (South)



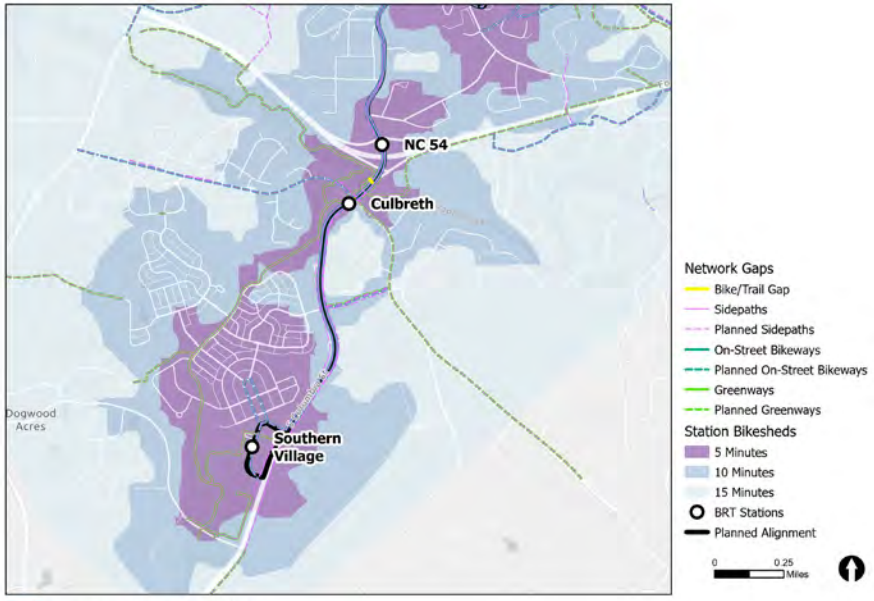
SRF Bike Network Gaps- Segment 1 (North)



SRF Bike Network Gaps- Segment 2 (Central)



SRF Bike Network Gaps- Segment 3 (Downtown)



SRF Bike Network Gaps- Segment 4 (South)

Areas of Investigations/ Opportunities

- Review gaps identified by the audit and organize potential improvements
- Easy access to services within a 5-10-minute walk or bicycle ride of most homes and worksites.
- Optimal walking, biking, rolling conditions.
- Multimodal connectivity, to and between transit modes and bike share, car share, ride-hailing.
- Enhanced accessibility and universal design, ensuring that transportation systems and services accommodate people with diverse needs and abilities, including those with disabilities and special needs.
- Incorporation of Complete Streets principles and national best practices/guidance

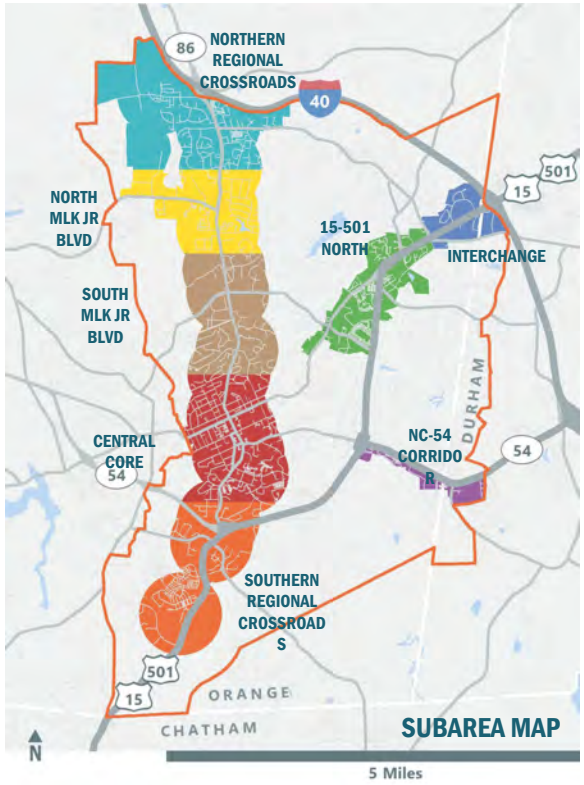
Equity / Population Distribution (SB Friedman)

50% of the Chapel Hill's planning area population is located within the Station & Focus Areas

Total Population 2020 [1]	- Population in Student Housing	- Others in Group Quarters	= Total in the Housing Market
61,960	9,993	633	51,394

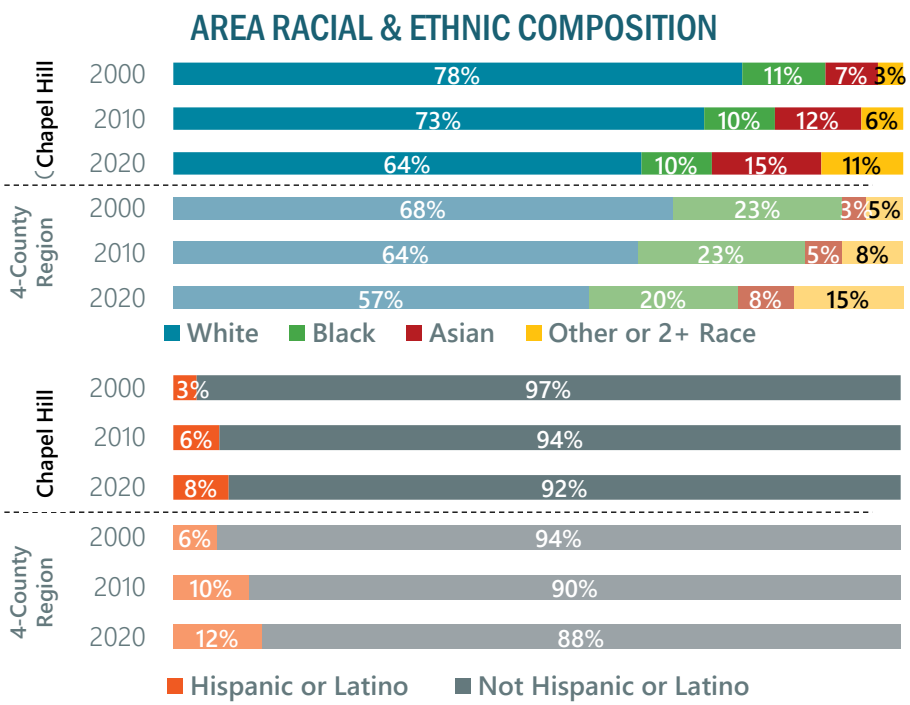
Preliminary Subareas	Sq Mile	Estimated Population	Population Distribution
Northern Regional Crossroads	2.1	4,987	7.5%
North MLK Jr Blvd	1.2	2,184	3.3%
South MLK Jr Blvd	1.4	3,379	5.1%
Central Core	1.6	12,164	18.4%
Southern Regional Crossroads	1.7	3,736	5.6%
NC-54 Corridor	0.4	372	0.6%
15-501 North	1.1	5,228	7.9%
Interchange	0.2	948	1.4%
Outside Subareas [2]	17.9	33,148	50.1%

[1] Population data from 2020 Census for the Town of Chapel Hill
[2] Population from Esri Business Analyst for 2021; subarea share refers to the population of the overall Chapel Hill Planning Area.
Source: Esri Business Analyst, US Census, SB Friedman

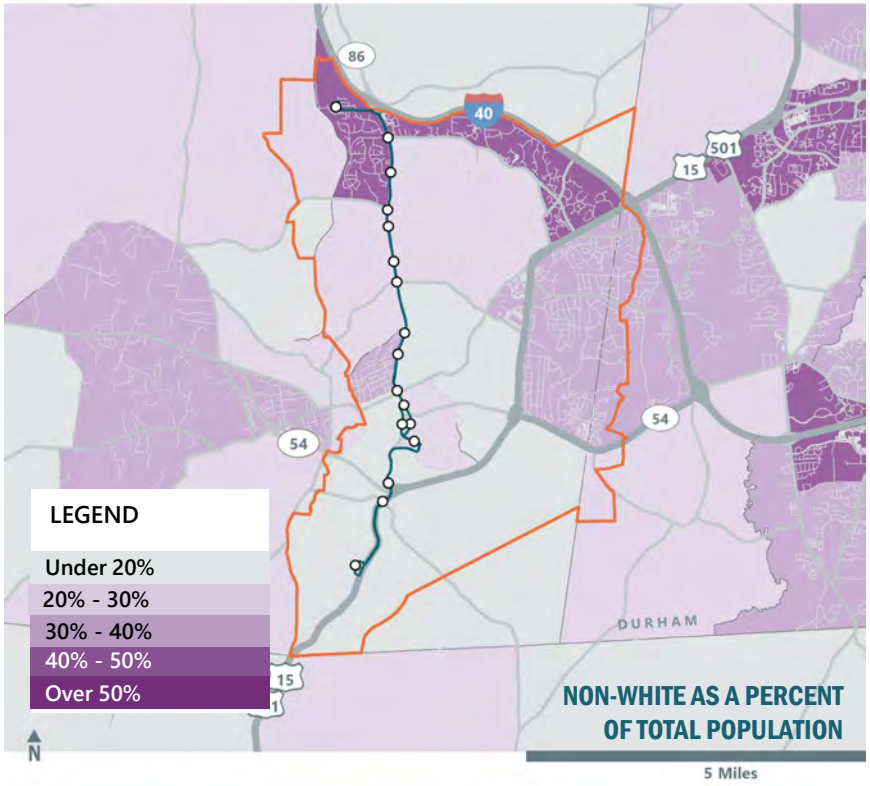


Racial & Ethnic Composition (SB Friedman)

Chapel Hill is less diverse than the 4-County Region, but is becoming a more diverse community



[1] Other or 2+ Race category includes respondents that marked more than one race or a race other than the ones above. This category also includes people identifying as American Indian or Alaska Natives.
Source: Esri, Decennial Census



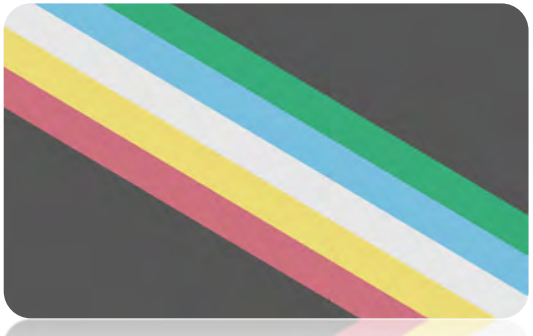
Equity – Creating eTOD

What is eTOD?

Equitable TOD (ETOD) is development that enables all people regardless of income, race, ethnicity, age, gender, immigration status or ability to experience the benefits of dense, mixed-use, pedestrian-oriented development near transit hubs.

Create Equitable impact to TOD Developments

- ADA-accessibility at intersections along the BRT route – make stations accessible to all ages and demographic groups.
- Prevent disparities in growth patterns between neighborhoods.
- Make TOD projects have positive transportation and economic development impacts.



Make policies to support such developments…..by:

- Creating and preserving affordable housing near transit,
- Promoting multimodal transportation usage, and
- Committing to incorporating health and equity criteria in both policy and project development.

Questions? Input?