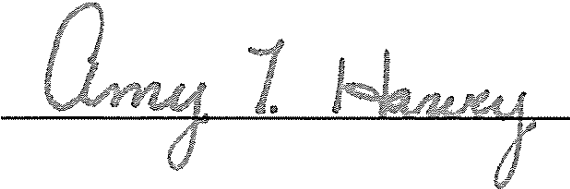


I, Amy T. Harvey, Deputy Town Clerk of the Town of Chapel Hill, North Carolina, hereby certify that the attached is a true and correct copy of (2022-11-16/R-7) adopted by the Chapel Hill Town Council on November 16, 2022.

This the 18th day of November 2022.

A handwritten signature in cursive script that reads "Amy T. Harvey". The signature is written in black ink and is positioned above a solid horizontal line.

**Amy T. Harvey
Deputy Town Clerk**



A RESOLUTION TO ENDORSE THE CHAPEL HILL PEDESTRIAN AND BICYCLE WAYFINDING STRATEGY (2022-11-16/R-7)

WHEREAS, the Town of Chapel Hill supports pedestrian and bicycle travel; and

WHEREAS, the Town has adopted the Mobility and Connectivity Plan as its guiding document for bicycle and pedestrian travel, which has a goal of reaching a 35 percent bike, walk, and transit to work modeshare; and

WHEREAS, the Mobility and Connectivity Plan includes a recommendation to study and implement wayfinding signage around Chapel Hill; and

WHEREAS, pedestrian and bicycle wayfinding signage can encourage more people to walk and bike and has been shown to reduce vehicle miles travelled; and

WHEREAS, the Chapel Hill Pedestrian and Bicycle Wayfinding Strategy contains a robust plan for near-term signage placement and guidance for future placement as facilities are built.

NOW, THEREFORE, BE IT RESOLVED by the Council of the Town of Chapel Hill that the Council endorses the Pedestrian and Bicycle Wayfinding Strategy as described in the November 16, 2022 meeting materials.

This the 16th day of November, 2022.

CHAPEL HILL PEDESTRIAN AND BICYCLE WAYFINDING STRATEGY



TOWN OF CHAPEL HILL

2022



ACKNOWLEDGMENTS

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Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing any of the recommendations contained herein.



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A photograph of a residential street scene. In the foreground, a dark grey sedan is driving away from the camera. To the left, a red SUV is parked. In the background, a silver SUV and a dark car are also visible. The street is lined with large, leafy green trees. A light-colored building is partially visible behind the trees. The sky is clear and blue. Overlaid on the center of the image is a semi-transparent grey box containing the text "EXECUTIVE SUMMARY" in white, bold, uppercase letters.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

As the Town of Chapel Hill continues to invest in nonmotorized mobility options for residents and visitors, there is a growing need to create wayfinding signage that is convenient, cohesive, and intuitive for pedestrians and bicyclists of all ages and abilities. The intent of the Pedestrian and Bicycle Wayfinding Strategy, subsequently referred to as the Strategy, is to develop a resource that can be used to make decisions about wayfinding signage locations, types, and messaging now and in the future. People using pedestrian and bicycle wayfinding signage vary in age, ability, experience, and familiarity with the Town of Chapel Hill. For this reason, the approach to developing the Strategy considered best practice principles that are centered on how people navigate the community. While this document does not include details on each and every wayfinding sign that needs to be installed in Chapel Hill, it is a resource for making thoughtful decisions about signage placement and messaging that can have long-lasting benefits. Each section of this document provides information related to either the process of developing the Strategy or guidance on implementing wayfinding in Chapel Hill. An overview of each section is included below:

Existing Conditions

A starting place for wayfinding signage is along corridors and routes where people already walk, wheel, and bicycle. Existing conditions were reviewed to understand where infrastructure along with wayfinding signage for nonmotorized travel currently exists or where it is planned to be installed in the near future. Findings from this review formed the foundation for developing the strategy. Additionally, key benefits of implementing pedestrian and bicycle wayfinding

were identified. These benefits include but are not limited to:

- Encouraging more walking and bicycling
- Guiding people to destinations
- Orient users to a larger transportation network that includes walking, bicycling, and transit
- Reduce Vehicle Miles Traveled (VMT) and become a tool to fight climate change

Public Engagement

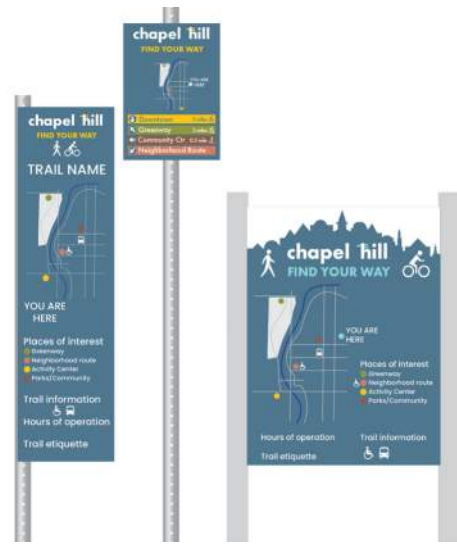
Input from the community on how wayfinding signage can be the most effective was important as the Strategy was being developed. While the Strategy was developed to be flexible and meet the needs of the Town in the future, community voices helped to shape and refine destinations to be identified and priority locations for near- and long-term wayfinding signage. The following engagement activities helped to refine the Strategy:

- Wayfinding Work Group of Town Staff
- Online Community Survey
- Transportation & Connectivity Advisory Board Meeting
- Community Design Commission Meeting
- Bike Rodeo
- Open House Meeting

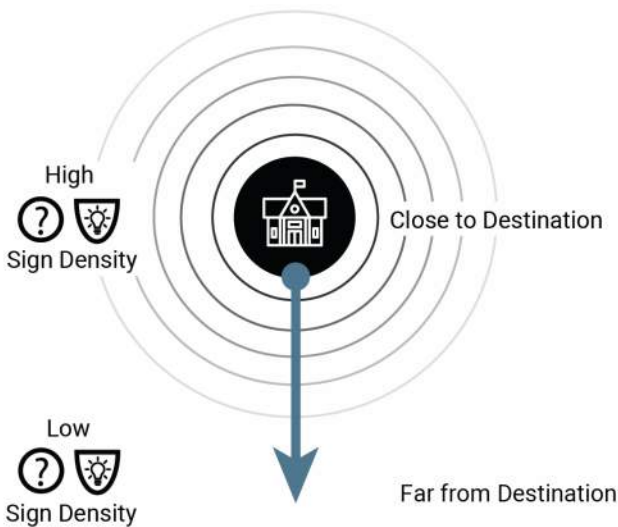


Wayfinding Principles

Effective wayfinding signage should provide people with the ability to determine their route and learn, retrace, or reverse it. This chapter highlights best practice principles, inclusive design elements, along with signage types. Each signage type includes specifications and signage considerations that can be used as a tool for future implementation. Signage types include turn, decision, confirmation, and awareness signs that can be used throughout Chapel Hill.



Decision and Awareness Sign Density



Implementation

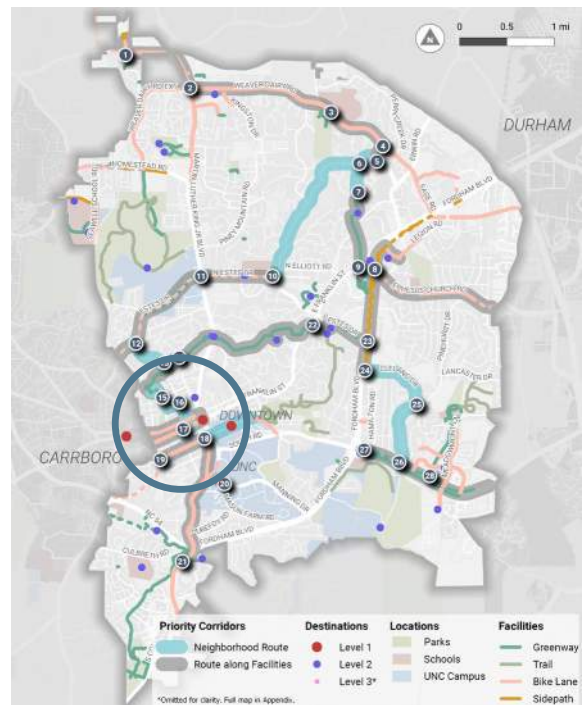
The final chapter in the Strategy document is focused on what the Town can do right now for pedestrian and bicycle wayfinding. Prioritized locations are identified using existing pedestrian and bicycle facilities and key connections to destinations. Information sheets are included for each priority location with destinations to be considered, signage types, and more detailed maps. While this chapter notes specific actions, it is still a resource for future wayfinding considerations as the Town continues to build out a connected pedestrian and bicycle network.

Wayfinding System Design

Using the foundational elements identified in the Existing Conditions review, input from the public, and best practice principles, the Strategy was developed to guide implementation. The Strategy envisions a system of wayfinding signage that is designed for pedestrians and bicyclists throughout the community. Branding considerations are illustrated along with step-by-step examples of how to use the Strategy. Three simple steps are highlighted to ensure that signage meets the needs of people taking nonmotorized trips in Chapel Hill:

1. Center the User
2. Right Sign, Right Place
3. Tailor Sign Details

Half-mile radius map from destination cluster





1

TANYARD BRANCH TRAIL	
UMSTEAD PARK	3 MI ↑
BOLIN CREEK TR	3 MI ↑
COMMUNITY CTR PK	2.5 MI ↑
MCMASTERS ST	1 MI →
CALDWELL ST	2 MI →

INTRODUCTION

PURPOSE

This document provides a strategy to guide the Town of Chapel Hill as human-scaled, intuitive, and effective pedestrian and bicycle wayfinding signage is developed. The Chapel Hill Pedestrian and Bicycle Wayfinding Strategy, subsequently referred to as the Strategy, identifies type, content, and placement for wayfinding signage throughout the Town based upon design principles and best practice. Using this Strategy will assist Town staff as resources are available to install new signage that will inform and direct pedestrians and bicyclists along existing and new routes, connecting them to a variety of destinations. In line with [The Chapel Hill Mobility and Connectivity Plan's](#) recommendations for culture and mindset, effective sign design and placement will raise awareness of routes and orient people to destinations throughout Chapel Hill's active transportation network.

EXISTING CONDITIONS

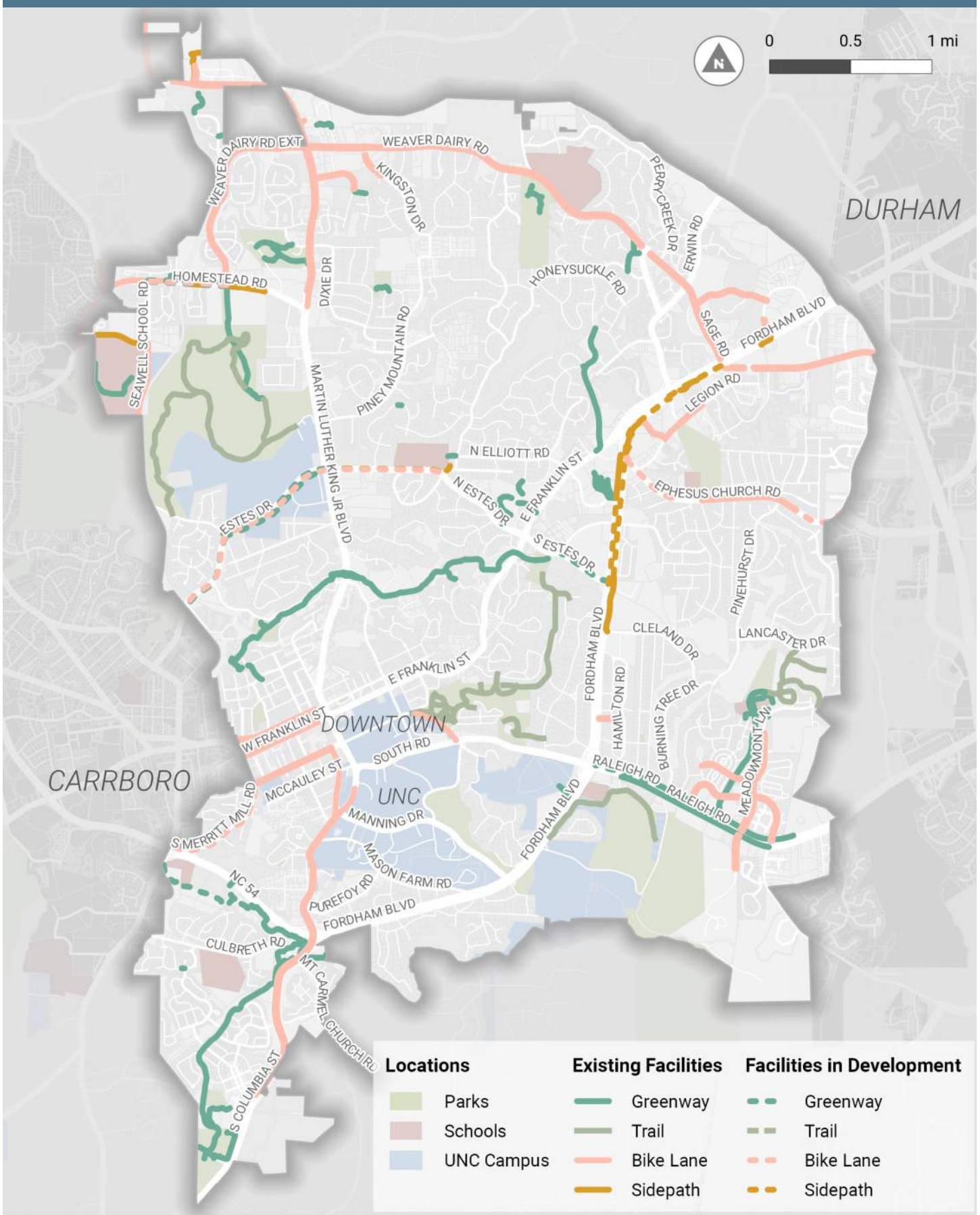
The walking and biking landscape in Chapel Hill currently consists of sidewalks, bike lanes, shared lane markings, on-street bike routes, and about 17.6 miles of greenways and trails.¹ The Town has plans to expand the walking and biking network in the future. Figure 2 shows existing bicycle and pedestrian facilities, as well as facilities that are in development.

Figure 1. Existing Wayfinding in Chapel Hill



1. Greenways, Parks and Recreation, Town of Chapel Hill website: <https://www.townofchapelhill.org/government/departments-services/parks-and-recreation/greenways>

Figure 2. Existing Conditions



EXISTING SIGNAGE

Historically, transportation planning in the United States has focused on providing space and direction for the efficient movement of motor vehicles. This has led to wayfinding that is primarily oriented towards communicating with drivers and the use of large scale and tall posts to be visible to fast-moving cars. This Strategy however, emphasizes communication through human-scale signs to connect people who walk and bike to safe routes and destinations throughout town, and increase opportunities for active transportation. The following pages show existing signage in Chapel Hill and highlight how both the historical focus on motor-vehicles and a recently renewed interest in walking and biking have influenced the signage we see today. Additional existing signage can be viewed in Appendix A.

MOTOR VEHICLE-FOCUSED SIGNAGE

- Parking Signs
- Regulatory traffic signs
- Warning signs
- School Zone signs
- Street Name Signs
- Construction and detour signs
- Transit signs
- Downtown Wayfinding
- Historic district awareness signs
- Campus signage and wayfinding

DOWNTOWN WAYFINDING



SCHOOL ZONE SIGN



CONSTRUCTION & DETOUR SIGNS



BICYCLE AND PEDESTRIAN-FOCUSED SIGNAGE

- Shared lane markings
- Greenway trail signs
- Go Chapel Hill pedestrian signs
- On street Bike Route turn signs
- Sidewalk awareness markings
- Campus signage and wayfinding

SHARED LANE MARKING



SIDEWALK MARKING



ON-STREET BIKE ROUTE SIGN



GO CHAPEL HILL PEDESTRIAN SIGN



GREENWAY SIGNAGE



WHY WAYFINDING IS IMPORTANT

In addition to the 60,000+ residents² that call Chapel Hill home, the Town welcomes thousands of visitors, sports fans, and new students each year. To help and encourage people get around on foot or by bicycle, it is important to employ a unified wayfinding system at a human-scale that is accessible for people with varying levels of familiarity with the area. Whether a long-time resident is exploring new bike trail connections, or a visitor is walking down Franklin Street for the first time, wayfinding supports a safer, richer experience for people walking and bicycling to key destinations around town.

Wayfinding is implemented through signage, posts, kiosks, and on-street and sidewalk markings to guide people to destinations and direct to and along greenways, transit stops, and neighborhood routes. **Wayfinding signage is an affordable way to increase accessibility and mobility for people walking and bicycling through Chapel Hill.** Consistent and unified signage enables the Town to emphasize a local brand, create a sense of place, and promote community development. Wayfinding also provides the following benefits:

- Encourages more walking and bicycling
- Clarifies uses allowed on trails
- Guides people to nearby destinations
- Orients people to larger transit, pedestrian, and bicycle networks
- During emergencies, helps people report their location to first responders

SUPPORTING MULTIMODAL TRAVEL

Wayfinding signage can support multi modal travel in Chapel Hill by highlighting the priority network of bicycle and pedestrian infrastructure within the Town and act as a tool for the Town to achieve their goal of a “35% bicycling, walking, and transit commute mode share” by 2025.³



3. Town of Chapel Hill, (2020), “Town of Chapel Hill Mobility and Connectivity Plan” <https://www.townofchapelhill.org/home/>

2. American Community Survey (ACS) 2016-2020 (5-Year Estimates): Chapel Hill Township, Orange County NC

WAYFINDING AS A TOOL TO REDUCE CLIMATE CHANGE

When the only safe and convenient option for people to travel is by car, most people will travel by car. When people are given safe and convenient options to travel by walking, bicycling, or riding the bus, more people may choose to take trips by these alternative modes, thus, reducing the overall number of people driving. Wayfinding signage plays an important role in creating safe, convenient, and well-communicated routes for people to confidently walk and bicycle to their destinations. A travel impact study found that the implementation of a wayfinding strategy resulted in a 17% shift from people driving their cars to people walking, biking, or riding the bus to work⁴. This shift can result in fewer Vehicle Miles Traveled (VMT), and thus a reduction in emissions contributing to climate change. Along with safe infrastructure, programming, and policies, wayfinding plays an integral role in creating options for people to choose active transportation over motorized transportation.

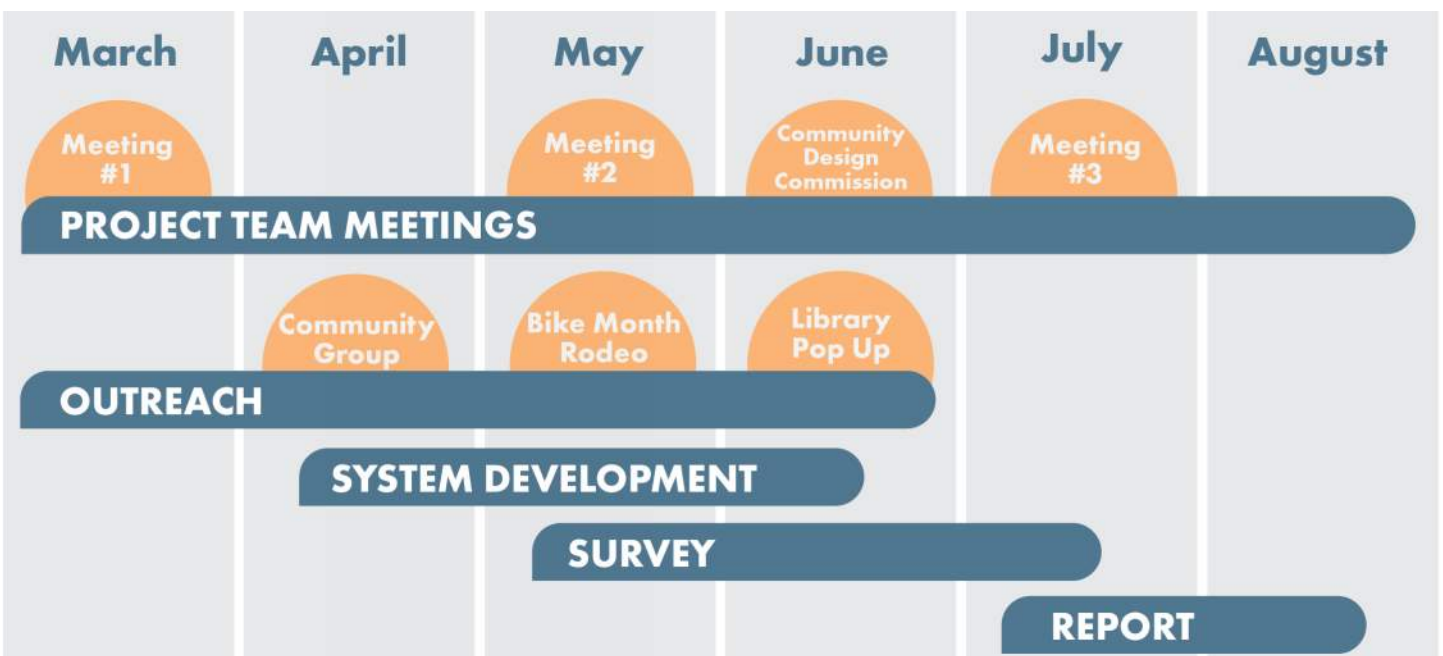
IMPORTANCE OF A WAYFINDING STRATEGY

This Strategy creates a framework for Chapel Hill to develop a comprehensive wayfinding network. It provides guidance about where to place new signs and when to present information to people walking and bicycling around Chapel Hill. As a tool, this Strategy will be used as the Town advances projects, adds new mobility options to their road network, and establishes additional bicycle and pedestrian infrastructure connections.

PROJECT TIMELINE

The Chapel Hill Pedestrian and Bicycle Wayfinding Strategy was developed from March to September 2022. The project consisted of project team meetings, public outreach, and development of the wayfinding strategy, branding options, and final report. See Figure 3 for a detailed timeline of the project.

Figure 3. Project Timeline



4. American Community Survey (ACS) 2016-2020 (5-Year Estimates): Chapel Hill Township, Orange County NC



2

PUBLIC ENGAGEMENT



GOALS

The goals of public engagement events throughout the planning process were to determine where wayfinding signage can have the most meaningful impact on the Chapel Hill community, how people use wayfinding signs, and priorities for project outcomes. Public engagement took place through working group meetings, community group engagement, pop-up events, an open house, and a community survey. Through each of these engagement methods, feedback was collected and analyzed to guide the development of the Strategy.

METHODS

WAYFINDING WORKING GROUP

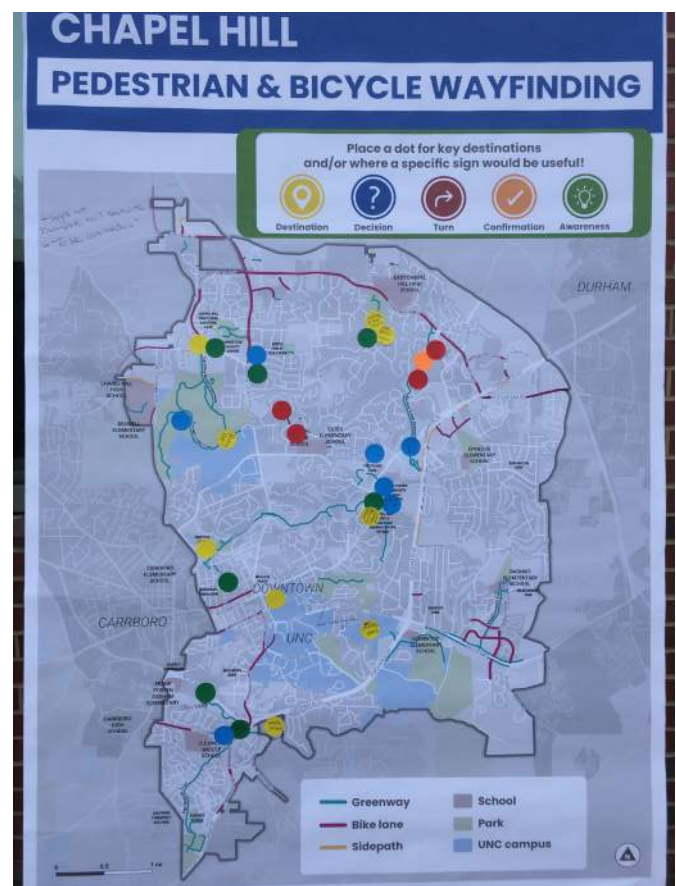
The wayfinding working group provided oversight and guidance in the development of key aspects of the wayfinding strategy. The working group included Town staff from a variety of departments responsible for implementing the wayfinding strategy. This group met throughout the project, guided public engagement, and helped craft the vision and goals for the Strategy.

- **Working Group Meeting #1:** March 11, 2022
 - » Presented: Wayfinding approach, design principals, project schedule
 - » Outcome: Defined project goals
- **Working Group Meeting #2:** June 1, 2022
 - » Presented: Community survey update, refined wayfinding approach, human-centered design thinking, sign placement strategy
 - » Outcome: Received feedback on project progress and sign placement strategy
- **Working Group Meeting #3:** July 13, 2022
 - » Presented: Draft of branding concept, sign types, and wayfinding strategy
 - » Outcome: Revised branding concept, refined sign placement strategy

COMMUNITY SURVEY

A community survey was distributed to the Chapel Hill community to better understand wayfinding needs. People heard about the survey through the Town website, social media, and at meetings and events through paper surveys and the distribution of a business card with a QR code linked to the online survey. The survey was open from April 25, 2022 to July 15, 2022 and received 173 completed responses from residents and employees within Chapel Hill. Survey responses were analyzed and guided the development of the Strategy to ensure the most common locations, destination types, approaches to navigation, and goals are reflected in the Town's future wayfinding sign installations. Full survey results are included in Appendix B.

Figure 4. Community member feedback for wayfinding locations during the Library Open House



Survey Results

Key takeaways from the community survey are listed below.

- **Wayfinding signage has the greatest impact:**

- » At the intersection of two or more trails (83.2%)
- » Where a trail crosses a street (75.1%)
- » At key destinations (40.6%)

- **Top three ranked destinations**

1. Central locations: Downtown, University of North Carolina (UNC) campus
2. Parks
3. Greenway trails

- **Priority locations for trail maps are:**

- » Trail entrances (trailheads, parking lots) (97.3%)
- » At the intersection of two or more trails (89%)
- » Where a trail crosses a street (58.2%)

- **Top tools used to get around:**

- » Online map apps (95.6%)
- » Signs and kiosks (60.4%)
- » Wander until I find something interesting (30.2%)

- **Most important outcomes of this project?**

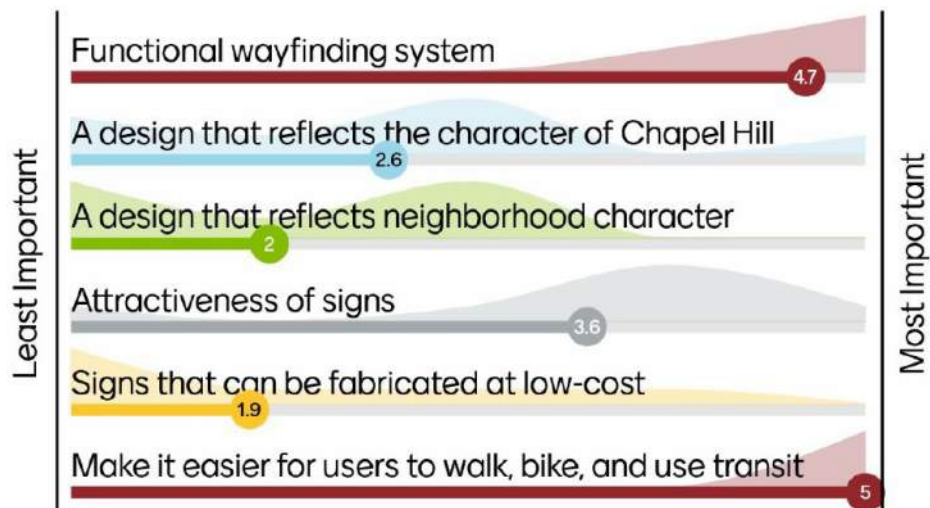
- (Ranked as "important" or "very important")
- » Make it easier for users to walk, bike, and use transit in the region (96.7%)
 - » A functional wayfinding system (93.4%)
 - » Attractiveness of signs (59.9%)

WAYFINDING FOR WANDERING!

Wayfinding signage presents an opportunity for the Town to guide "wanderers" to key destinations! Wanderers are a wayfinding sign's best friend!

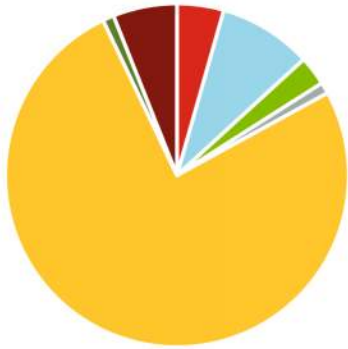
Figure 5. Live-captured responses from a Wayfinding working group meeting

How important are the following project outcomes?



Survey Demographics

Race

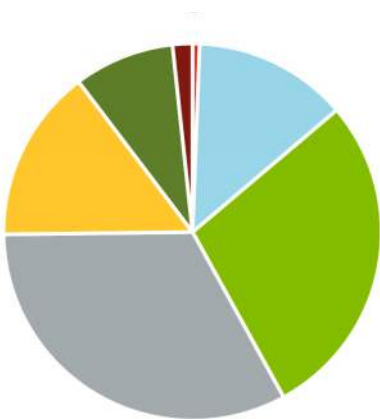


- African American or Black
- Asian or Pacific Islander
- Latinx or Hispanic
- Native American or Alaskan Native
- White or Caucasian
- Other
- Prefer not to say

Regarding race, a larger proportion of white people responded to the survey than other racial and ethnic groups. Below is a comparison of survey responses and census data from the American Community Survey (ACS). Six percent of people who took the survey preferred not to state their race.

RACE	ACS	SURVEY
White	66%	79%
Black or African American	10%	5%
Native American or Alaskan Native	0.1%	1%
Asian or Pacific Islander	14%	9%
Latinx or Hispanic	7%	3%
Other	0.3%	1%
Two or more races	4%	1%

Age

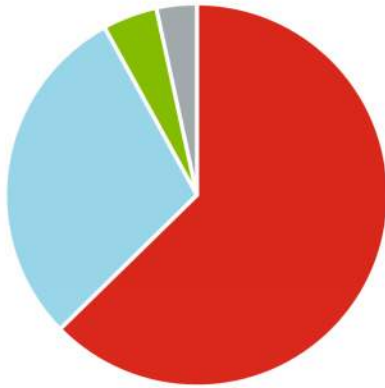


- Under 18
- 18 – 24
- 25 – 49
- 35-49
- 50 – 64
- 65 or older
- Prefer not to say

A larger proportion of residents between 18-64 completed the survey compared to the total population of Chapel Hill, according to American Community Survey census data. One percent of people who took the survey preferred not to state their age.

AGE	ACS	SURVEY
Under 18	21%	1%
Between 18 and 64	68%	89%
65 or older	11%	9%

Gender



- Female
- Male
- Gender nonconforming or nonbinary
- Prefer not to say

In terms of gender, a higher proportion of people who identify as female responded to the survey than people who identify as male, gender nonconforming, or nonbinary, as compared to American Community Survey (ACS) census data. Three percent of respondents preferred not to state their gender.

GENDER	ACS	SURVEY
Male	48%	29%
Female	52%	63%
Gender nonconforming or nonbinary	-	5%

Figure 6. Word cloud from survey results: What kind of information would be useful to see on a wayfinding map?

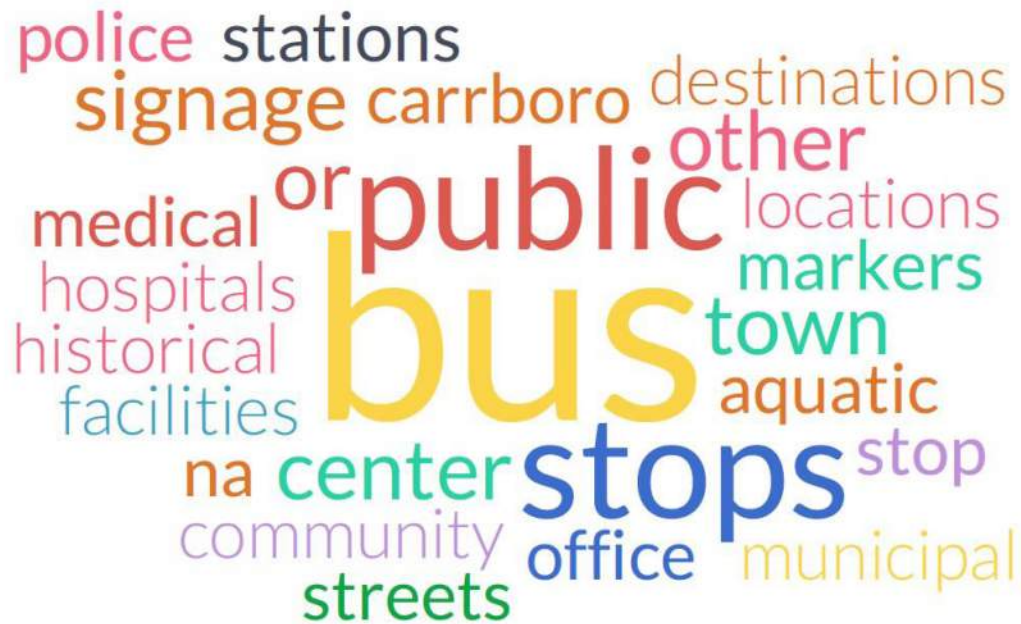
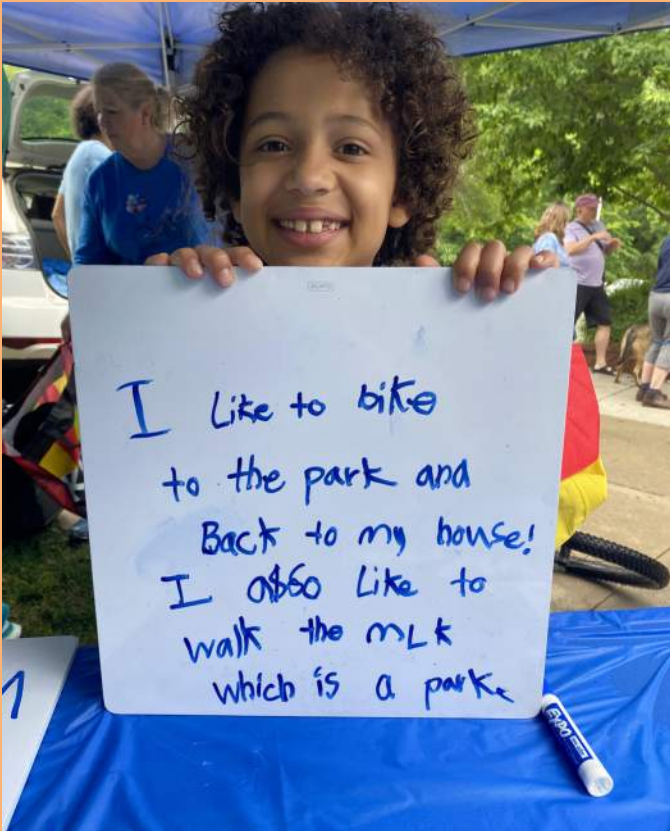


Figure 7. Community feedback during the Bike Rodeo

TELL US WHERE YOU LIKE TO WALK & BIKE!



COMMUNITY GROUP ENGAGEMENT

Transportation & Connectivity Advisory Board

On April 26, 2022 a presentation to Chapel Hill's Transportation & Connectivity Advisory Board outlined the theory grounding the wayfinding strategy and the Board provided feedback.

Community Design Commission

On June 28, 2022 a project update was provided for Chapel Hill's Community Design Commission. Commission members provided feedback on the preliminary sign types and wayfinding aesthetics.

BIKE RODEO

On May 14, 2022, a Bike Rodeo event was hosted by the Town of Chapel Hill. The purpose of the event was to promote bicycling in Chapel Hill and unveil new artistically painted bike racks in the Town. During the Bike Rodeo, the wayfinding community survey was promoted and the public provided feedback on where they enjoy walking and bicycling

OPEN HOUSE AT THE CHAPEL HILL LIBRARY

On June 14, 2022 a public open house was held at the Chapel Hill Library to engage community members and receive feedback on the wayfinding strategy. The open house meeting location was determined in collaboration with Town of Chapel Hill staff.

Event outcomes:

- Shared information about the Strategy development process.
- Received community input on sign design, destinations of interest, and opportunities to improve connectivity.
- Promoted the community survey, which was made available digitally and with paper copies.

Figure 8. Discussions at the Open House



KEY THEMES

The following themes were identified during working group and public engagement events in Chapel Hill:

1

People want a functional and attractive wayfinding system that makes it easier to walk, bike, and use transit in the region.

2

Signs are most desired in central locations (downtown, UNC Campus), parks, and trails.

3

Wayfinding is utilized by people who have a specific destination in mind as well as for those who explore by wandering.

4

Signs are most helpful at trail entrances and intersections and to bridge gaps in connectivity.

5

Desire for “You Are Here” indicators to contextualize locations within the transportation network.

6

There is excitement for connecting more walking and bicycle routes with destinations.

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3

WAYFINDING PRINCIPLES



WAYFINDING BEST PRACTICES

Psychology of Design

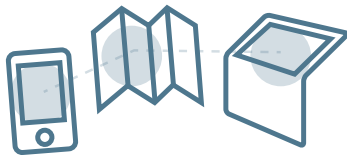
A strong wayfinding system must provide people with the ability to determine their route and learn, retrace, or reverse it. Finding one's way in any environment is essential for daily travel and requires a wide range of cognitive abilities. Most important among these is the ability to make use of spatial cues to navigate one's surroundings. The more intentional the wayfinding signage is in Chapel Hill, the better it will meet the needs of people walking and biking along its streets and trails. The elements of design psychology⁵ in Figure 9 are critical in developing a human-scale and effective wayfinding strategy and can be applied to all aspects of sign design and placement.

Figure 9. Elements of Design Psychology

1. Don't make me think



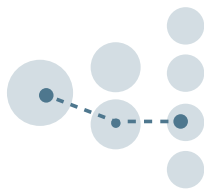
2. Make it frictionless



3. Strike a balance



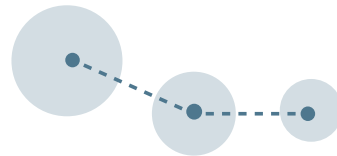
4. Progressively disclose information



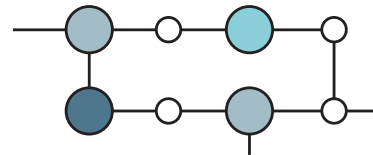
5. Make information predictable



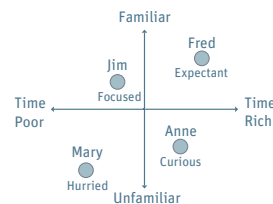
6. Create a rhythm



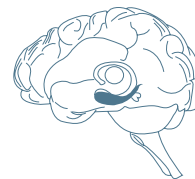
7. Convey the right information at the right time



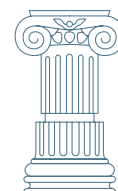
8. Design for mindsets



9. Create a mental map



10. Landmark-based navigation



5. Lidwell, Holden and Butler, *Universal Principles of Design* (2003)

Chapel Hill's Wayfinding Principles

The placement and design of the wayfinding system must follow key principles of structure and application to help users navigate the pedestrian, bicycle, and transit networks and to encourage use of active transportation modes. The core principles below provide a strong foundation for a well-crafted wayfinding system that integrates the elements of design psychology of design elements.



DESIGN FOR THE INEXPERIENCED USER

Chapel Hill is a university town with a lot of turnover and new residents every year.

Designing for many types of users encourages increased rates of active transportation by helping people realize they can walk and bicycle to the places they want to go.

- Wayfinding should be designed for people who are unfamiliar with walking and biking routes around town, as well as for those who are not experienced bicyclists or who prefer low stress bicycling conditions.
- The “Inexperienced User” may include:
 - » People new to bicycling or people who only bicycle several times a year
 - » Those unfamiliar with the trail or area through which they are traveling
 - » Visitors and tourists
- Wayfinding signs should help communicate that walking, bicycling, and transit to many destinations is possible and convenient in Chapel Hill, helping to reduce barriers to using these modes for all types of trips.
- If existing facilities are underutilized, installing wayfinding can be a cost-effective way of increasing use.



KEEP IT SIMPLE

Chapel Hill is committed to creating a wayfinding system that speaks not only to new users but to those of all ages and abilities.

Easy-to-use and intuitive wayfinding helps users navigate and understand where they are in relation to nearby landmarks and destinations.

- Information should be clear, legible, and simple enough to be understood by a wide audience.
- Wayfinding systems should be designed to be intuitive for people who don't speak English as their first language.
- Sign legends must be concise and reveal enough information without overwhelming the user.
- Information on each sign should be kept to a minimum to avoid confusion and facilitate understanding.



BE CONSISTENT AND PREDICTABLE

As the Town places an emphasis on mobility, its wayfinding system should build trust with its users so they may expect predictable and consistent signage that is human-scale and encourages trips by foot or on bike. When information is consistent, it can be recognized and quickly understood.

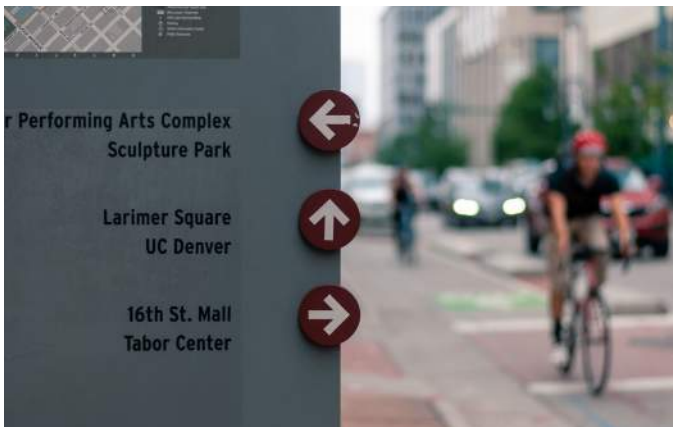
- Wayfinding signs should have common styles, messages, fonts, colors, materials, and placement throughout a Chapel Hill to promote continuity and help users quickly understand and interpret messages.
- Sign frequency and placement should be consistent so users know what to expect and can trust the system to provide adequate information.



MAINTAIN MOMENTUM

Provide wayfinding information so that it can be quickly read and easily understood by people that are actively walking, running, or bicycling. Consistent, clear, and visible wayfinding elements allow people walking and bicycling to navigate without making frequent stops to check directions or confirm they are on the right path.

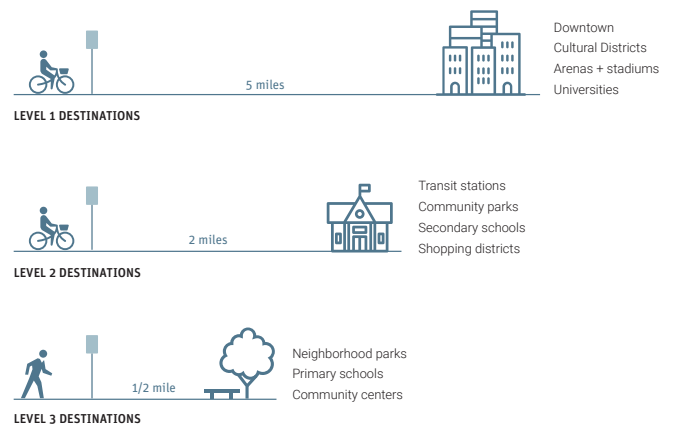
- Providing legible information to meet the needs of various users helps keep people moving and results in the need for fewer, and smaller signs.
- In areas where large numbers of people need to access information, large format signs allow many users to read at once.
- The findings from *The Town of Chapel Hill Mobility and Connectivity Plan* and downtown branding efforts should be leveraged to build awareness and direct people to a variety of destinations throughout the Town.



PROGRESSIVELY DISCLOSE INFORMATION

Chapel Hill has a variety of destinations and nodes of development. This means that wayfinding will be denser where more destinations exist and more dispersed in between.

- To reduce sign clutter and keep signs simple and easily understood, effective wayfinding systems disclose the most relevant information progressively. For example, a local destination such as a library or school only appears on signs close to the destination, not miles away.
- Progressive disclosure of information reduces clutter, confusion, and cognitive workload by presenting the minimum information needed for the task at hand.
- For Chapel Hill’s wayfinding system, large numbers of potential destinations can be divided into distinct zones by district or neighborhood, or the Town can use a destination hierarchy to determine which destinations are the most relevant to include on different signs.



ESTABLISH A HEIRARCHY OF DESTINATIONS

A key element of human-centered design is understanding where people want to go and what destinations are most important for wayfinding signs. Chapel Hill’s wayfinding signage will ensure that a variety of destinations are identified and that intuitive signage is implemented across regional, town, and neighborhood scale destinations. The steps to develop a hierarchy of destinations include:

- Identify destinations
 - » Strategies: Use landmarks that people recognize (Mind-maps) or pull activity tracking data (Strava heat maps)
- Distill the destinations
 - » Individual businesses should not be listed as destinations
 - » If there are multiple destinations close together, choose one destination to highlight
 - » Avoid directing to destinations that are not accessible with a safe walking or bicycling route
 - » Select destinations that can be reached with simple routes
- Organize into a hierarchy
 - » Determine if a destination is a primary, secondary, or tertiary destination
 - How well known is the destination? Is this destination useful as a navigational reference?

Inclusive Design

It is essential to design wayfinding signs and routes in a way that is inclusive for people with different goals, journeys, and abilities. Common experiences and mindsets of travelers are shown in Figure 10.

Signs should have simple and consistent messaging presented at heights that are inclusive for all users, including children and people using wheelchairs. They should feature symbols that can be understood by non-English speakers and those without high educational attainment. To ensure legibility and access for people with colorblindness, signs should be designed with high-contrast colors.

Figure 10. Traveler Mindsets

“I have no idea where anything is. Make it easy for me to get around because I don’t have much time.”



“I have been here before. Help me get to my destination as quickly as possible.”



“I have three hours to spend on the trail. Help me discover interesting things.”



“I am a regular. I love to explore and would like to find something new and interesting.”

SIGN TYPES

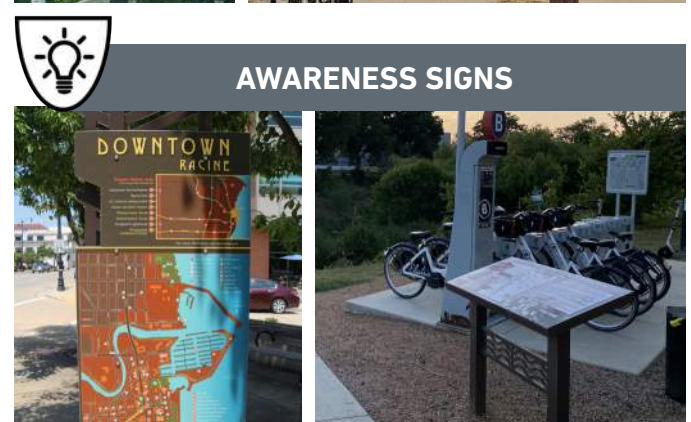
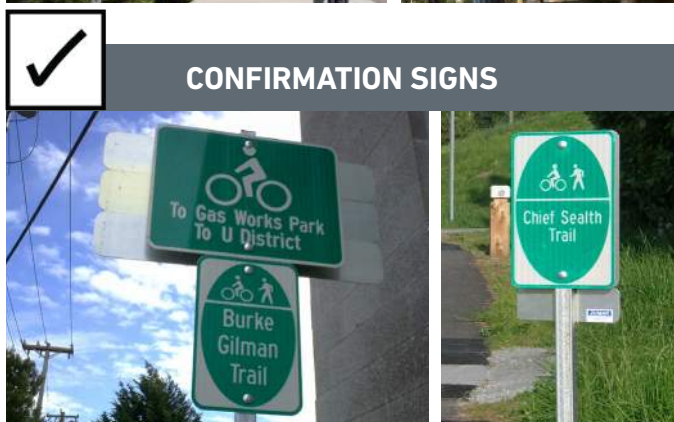
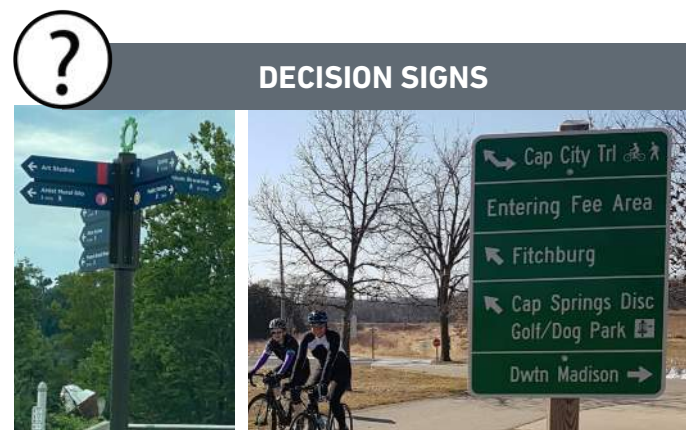
There are four sign types within Chapel Hill's wayfinding network: Turn, Decision, Confirmation, and Awareness. Each sign has a different function to aid people as they navigate a route by foot or on wheels. The following sections provide details about these functions and each sign's specifications and considerations, detailed below, when developing content and determining sign placement. These sections will serve as reference pages as the Strategy is applied throughout Chapel Hill.

Specifications

- Function
 - » Description of what role this sign will play along the route
- Content
 - » Follows MUTCD guidelines.
 - » May include arrows, destinations, maps, travel distance, etc.
- Location
 - » May be located at intersections, detours, trail entrances, transit stops, along a route, etc.
- Placement
 - » Appropriate distance between the sign and the decision point/intersection (on- and off-street).
 - » Placement at destinations (transit stops, trail entrances, key destinations, etc.).

Considerations

- General
 - » Are there other signs nearby? Who is the sign for? Consider direction of travel.
- Intersections
 - » Is a Turn sign or a Decision sign more appropriate here?
- Detours
 - » How long will the detour last? Is this detour accessible? Is this detour route comfortable?
 - » Is this detour an opportunity to share information?
- Along a Route
 - » Consider distance between signs. What information do people need?
- Trail Entrance
 - » How does this route connect to other trails and urban routes/destinations?



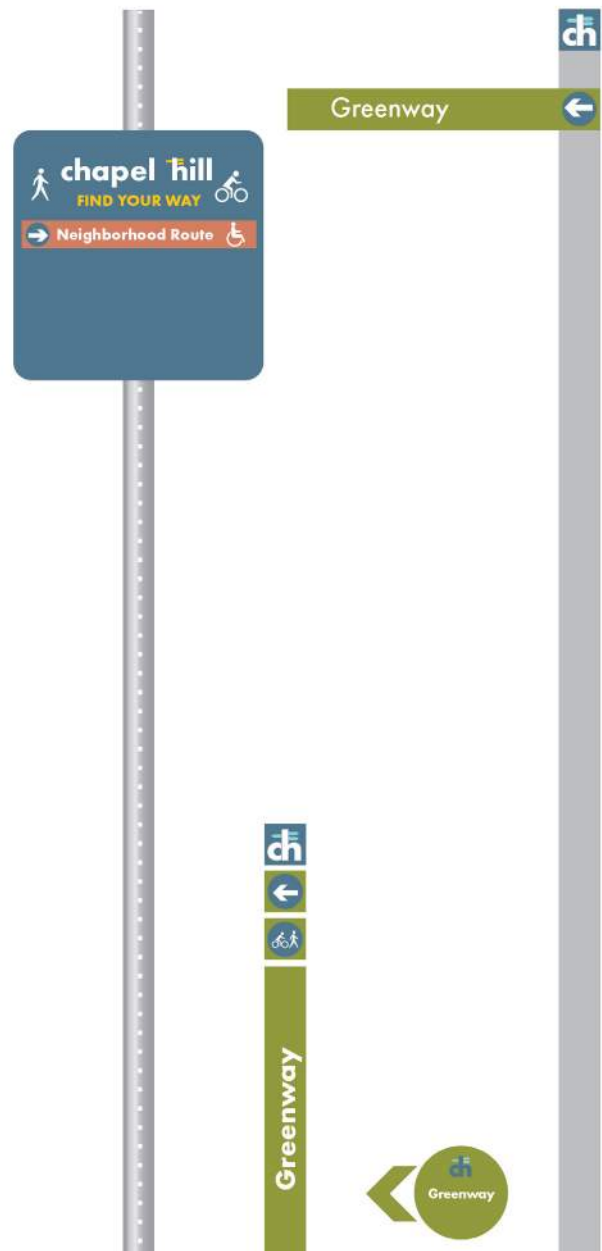
TURN

Turn signs help people stay on their desired route. These signs should be added before key turns along a route so there is time for people to make their turn safely and smoothly. Turn signs are also important in highlighting accessible routes that are direct, well-communicated, and minimally sloped for people who use wheelchairs, push strollers, or have a difficult time using stairs and steep paths.

Do we need to turn to stay on our route?



TURN SIGN STYLES





TURN SIGN SPECIFICATIONS



FUNCTION

- » Clear direction for bicyclists and pedestrians to turn when a route transitions from one roadway or trail to another.
- » Highlight accessible routes that are direct, well-communicated, and minimally sloped for people who use wheelchairs or need to avoid stairs and steep paths.

LOCATIONS

- » At intersections and at detours
- » Along accessible routes
- » Before key turning points, so that there is time to make the decision of where to go next
- » Note: In locations where there are two or more intersecting trails or bike routes, a decision sign should be used

CONTENT

- » May be a combination of a confirmation sign (MUTCD D11-1) and directional arrow (MUTCD M6-1) or a stand-alone decision plaque (MUTCD D1-1, D1-1b).
- » May include travel distance to destination (MUTCD D1-1a, D1-1c).

PLACEMENT

- » In on-street applications, 50-100 feet in advance of the turn.
- » In off-street applications, 25-50 feet in advance of the turn.
- » Left turns for bicyclists require special consideration. The turn sign should be placed at a distance before the intersection based on the number of turn lanes the bicyclist needs to merge across to make a legal left turn:
 - » Zero lane merge: 50 feet
 - » One lane merge: 100 feet
 - » Two lane merge: 200 feet
- » For accessible routes, place signs so they are consistently visible before and after each turn. Paths must be at least 36" wide, with turning areas at least 48" and passing areas at least 60".



TURN SIGN CONSIDERATIONS



GENERAL

Are there other wayfinding signs nearby?

- » Identify what signs exist in the area to prevent repetition and create a cohesive wayfinding network.

Is the sign for a bicyclist, pedestrian, or both?

- » Consider what content is needed for people walking or biking and where the sign should be placed to ensure visibility and maintain momentum while people reference the sign.

Will this sign be difficult to navigate around

- » Especially for someone in a wheelchair, pushing a stroller, or walking a bike?

Consider direction(s) of travel

- » Consider what information is needed depending on direction of travel.

Are pavement markers appropriate for this location?

- » Evaluate the path material, potential for wear and tear and the benefit of a pavement marker versus a traditional sign.





TURN SIGN CONSIDERATIONS



DETOUR

How long will the detour last?

- » How sturdy should the signs be? How often should we check to ensure the signs are still in good condition?

Is this detour accessible?

- » Can people in wheelchairs or with strollers access this detour? Is it suitable for people of all ages?

Is this detour route comfortable?

- » Is the detour route directing people to a steep hill or high-speed road? Is this detour route suitable for all modes or could we direct people walking and biking to a better route?

Is this detour an opportunity to share information?

- » Can a detour sign share information about project goals and progress?

INTERSECTION

Turn signs are used when there is a turn along a single route.

- » If one walking or biking route crosses an intersection, use a turn sign to guide people along their route .
- » If there are there multiple walking and biking routes crossing the same intersection, a decision sign is more applicable.

What information do people need?

- » A confirmation sign should be placed following a turn to confirm the route name, the distance traveled, or that the person is still on the right path.

Signage

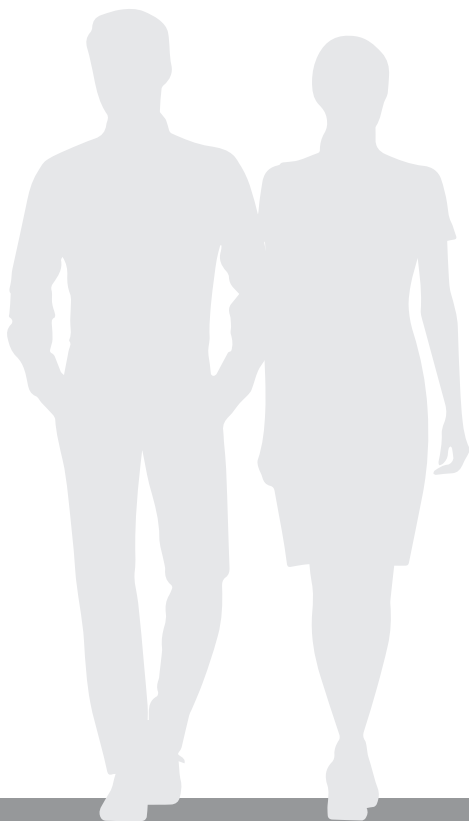
- » Road/path name signs should be placed at all path-roadway crossings to help users track their locations.

DECISION

Decision signs mark the junction of multiple routes. They orient users within the local context and provide directions to one or more key destinations. These signs should be added before key decision points so there is time to make the decision of where to go next and can include turn sign elements such as accessible route directions.

DECISION SIGN STYLES

Which route should we take?





DECISION SIGN SPECIFICATIONS



FUNCTION

- » Mark the junction of two or more routes.
- » Inform users of designated routes to access key destinations.
- » Provide direction and distance to destinations.

CONTENT

- » Maximum of three to four destinations. Finger signs may have three to four destinations in any one direction.
- » May include travel times or distance to destinations.
- » May include information about turning routes and intersecting routes.

LOCATIONS

- » Place at key junctions alongside a designated route to indicate intersecting routes and nearby destinations.

PLACEMENT

- » For on-street applications, place 50-100 feet prior to a decision point; for off-street: 25-50 feet. These are adequate distances for pedestrians and bicyclists to see and respond to sign messaging. Exact distances will vary depending on context.
- » Left turns for bicyclists require special consideration. The decision sign should be placed at a distance before the intersection based on the number of turn lanes the bicyclist needs to merge across to make a legal left turn:
 - » Zero lane merge: 50 feet
 - » One lane merge: 100 feet
 - » Two lane merge: 200 feet



DECISION SIGN CONSIDERATIONS



GENERAL

Are there other wayfinding signs nearby?

- » Identify what signs exist in the area to prevent repetition and create a cohesive wayfinding network.

Is the sign for a pedestrian, bicyclist, or both?

- » Consider what content is needed for people walking or biking and where the sign should be placed to ensure visibility and maintain momentum while people reference the sign. Is there a low-stress route to the nearby destinations?
- » If destinations are within a 10 minute walk (0.5 miles) or 10 min bike ride (1 mile), include both mileage and time to destination.

What connections do we want people to know about?

- » How do routes connect and promote access to different amenities and areas around town?

Consider whether it would be helpful to share trail distances, travel time, or both.

- » As one gets closer to a destination, the addition of travel time may be appropriate.

Will this sign be difficult to navigate around

- » Especially for someone in a wheelchair, pushing a stroller, or walking a bike?

Consider direction(s) of travel

- » Consider what information is needed depending on direction of travel.





DECISION SIGN CONSIDERATIONS



DETOUR

How long will the detour last?

- » How sturdy should the signs be? How often should we check to ensure the signs are still in good condition?

Is this detour accessible?

- » Can people in wheelchairs or with strollers access this detour? Is it suitable for people of all ages?

Is this detour route comfortable?

- » Is the detour route directing people to a steep hill or high-speed road? Is this detour route suitable for all modes or could we direct people walking and biking to a better route?

Is this detour an opportunity to share information?

- » Can a detour sign share information about project goals and progress?

INTERSECTION

Which destinations are most important?

- » It is helpful to show a maximum of three destinations on a decision sign to keep things simple.
- » Road/path name signs should be placed at all path-roadway crossings to help users track their locations.

TRAIL ENTRANCE

How does this route connect to other trails and urban routes or destinations?

ALONG A ROUTE

If someone is traveling along a route, what other nearby destinations might they be interested in exploring?

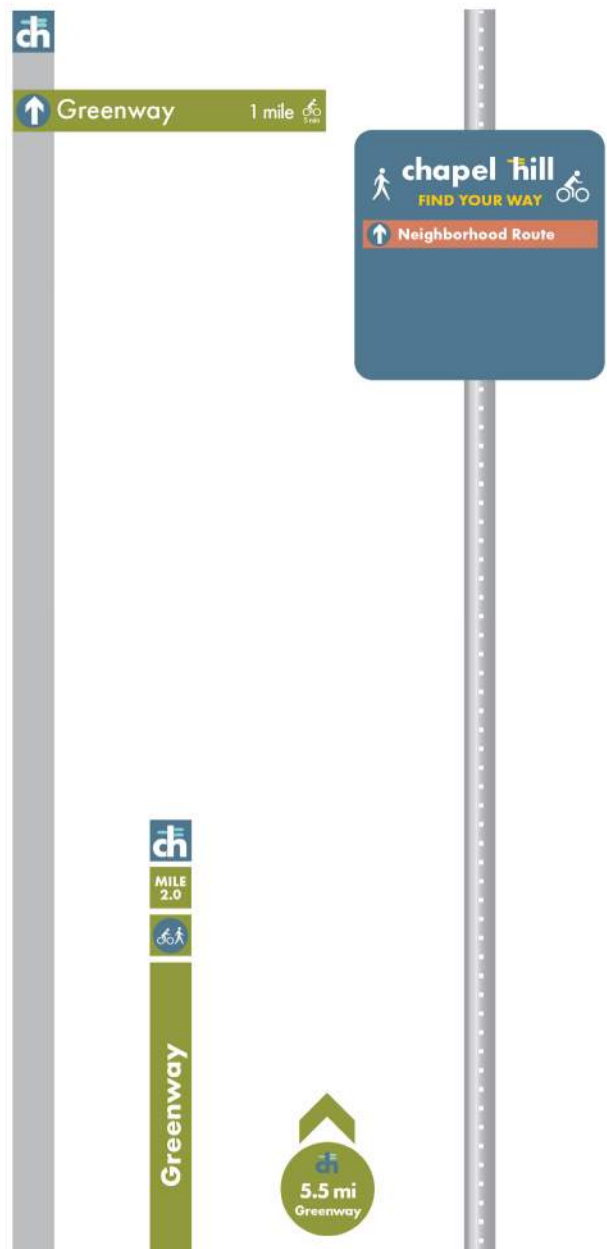
CONFIRMATION

Confirmation signs are signs or markings that are not used to direct people, but act to verify that the user is on the right path. To create a positive, stress-free experience, these signs provide comfort in the fact that the person is going in the right direction. Conveying the right mood is a key part of what signage can achieve when implemented correctly. Confirmation signs are often placed after key decision points to confirm a route.

Am I on the right path?



CONFIRMATION SIGN STYLES





CONFIRMATION SIGN SPECIFICATIONS



FUNCTION

- » Spaced periodically along a trail or bike route network to maintain a consistent level of confidence that users are still traveling along the same route.
- » Do not indicate a change in direction.

CONTENT

- » May include distance traveled (e.g., mile marker), name of the route, or one directional destination.
- » May have informational or branding content such as the name of the route.

LOCATIONS

- » After decision signs, turn signs, and decision points
- » At an intersection, along a route, at a detour
- » Placed after access points along a trail or bike route network

PLACEMENT

- » Locations where a designated route is not linear and after complex intersections (e.g., intersections with more than four approaches, roundabouts, or indirect routing).
- » In off-street applications, approximately every $\frac{1}{4}$ to $\frac{1}{2}$ mile unless another type of wayfinding sign or pavement marking is present within the interval.
- » In on-street applications, within 50-100 feet immediately following turns to confirm designated route.
- » If the signed route is approaching a turn, turn signs or decision signs should be used instead of confirmation signs.



CONFIRMATION SIGN CONSIDERATIONS



GENERAL

Are there other wayfinding signs nearby?

- » Identify what signs exist in the area to prevent repetition and create a cohesive wayfinding network.

Is the sign for a bicyclist, pedestrian, or both?

- » Consider where the sign should be placed to ensure visibility and maintain momentum while people walking or biking reference the sign.

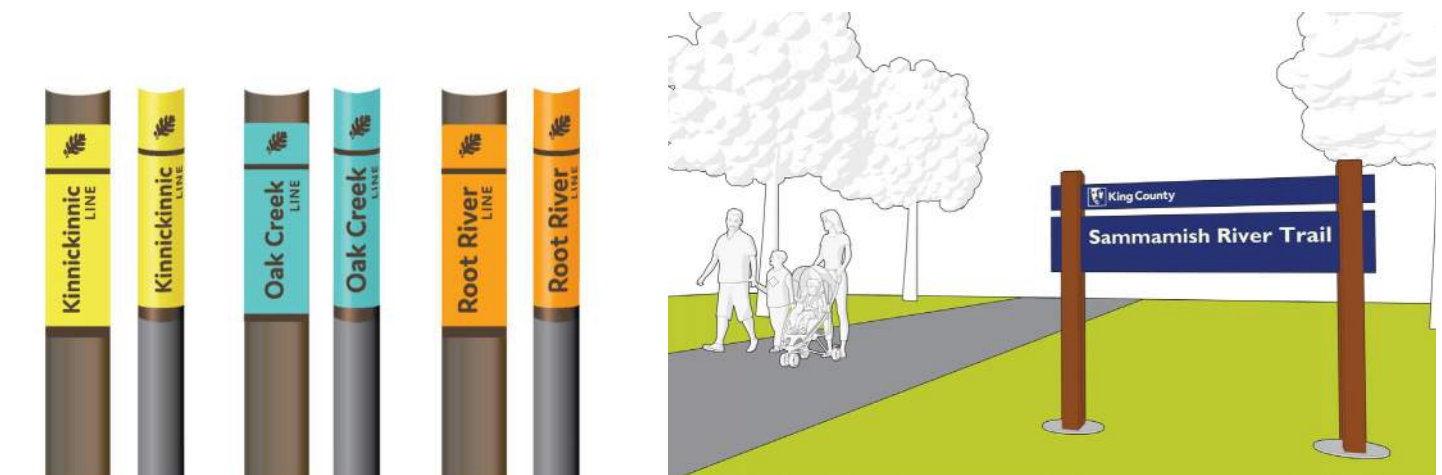
Consider direction(s) of travel

- » Consider what information is needed depending on direction of travel.

Are pavement markers appropriate for this location?

- » Evaluate the path material, potential for wear and tear and the benefit of a pavement marker versus a traditional sign.

Example Confirmation Signage





CONFIRMATION SIGN CONSIDERATIONS



DETOUR

How long will the detour last?

- » How sturdy should the signs be? How often should we check to ensure the signs are still in good condition?

Is this detour accessible?

- » Can people in wheelchairs or with strollers access this detour? Is it suitable for people of all ages?

Is this detour an opportunity to share information?

- » Can a detour sign share information about project goals and progress?

INTERSECTION

Clarify before and after a decision point

- » Consider placing a confirmation sign on either side of an intersection to ensure people walking and biking can be confident they are on the correct route or have the information to course correct.
- » Road/path name signs should be placed at all path-roadway crossings to help users track their locations.

ALONG A ROUTE

Consider the distance between signs

- » Place a confirmation sign before the person walking or bicycling wonders if they are still on the right path.

What information do people need?

- » Do they need confirmation of the route name, the distance traveled, or that they are still on the right path to a certain destination?

AWARENESS

Awareness signs provide information about nearby routes and destinations and encourage new users to walk or ride to explore destinations using the wayfinding system. These signs can include a map for people to orient themselves with key routes, landmarks, trailheads, and amenities such as bathrooms and water fountains.

AWARENESS SIGN STYLES

What is there to do around here?





AWARENESS SIGN SPECIFICATIONS



FUNCTION

- » Build awareness of the low-stress priority network.
- » Inform users of designated routes to access key destinations.
- » Provide direction and distance to destinations.

CONTENT

- » May include travel times to destinations.
- » May include a network map with landmark building footprints, amenities, restroom, food, accessible routes and street crossings.
- » Include information about accessible routes.

LOCATIONS

- » Trailheads
- » Transit stops located near other destinations and/or trailheads
- » Near key destinations in the region
- » At key junctions alongside a designated route to indicate nearby destinations

PLACEMENT

- » For on-street and off-street applications, place awareness signs 3 feet (minimum of 2 feet) off the path.
- » Position wide kiosks perpendicular or parallel to the route. Place along wide paths or in plazas that provide space for people to gather without blocking the path.
- » Position narrow kiosks perpendicular to the route.



GENERAL

Hierarchy of information

- » What information do people need at various points in their journey? What destinations, routes, and connections are nearby? If destinations are within a 10 min walk (0.5 miles) or 10 min bike ride (1 mile), it is helpful to show travel distance and travel time.

What connections do we want people to know about?

- » How do routes connect and promote access to different amenities and areas around town?

Consider pairing awareness signage with a place to rest along a path such as a bench or area of interest

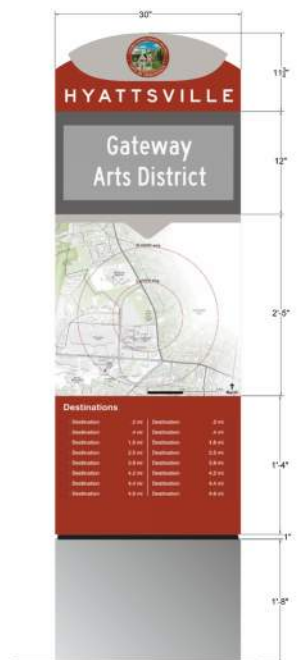
Consider unique sign locations

- » Such as on the side of a building.

Consider direction(s) of travel

- » Consider what information is needed depending on direction of travel.

Will this sign be difficult to navigate around for someone in a wheelchair, pushing a stroller, or walking a bike?





AWARENESS SIGN CONSIDERATIONS



DETOUR

How long will the detour last?

- » How sturdy should the signs be? How often should we check to ensure the signs are still in good condition?

Is this detour accessible?

- » Can people in wheelchairs or with strollers access this detour? Is it suitable for people of all ages?

Is this detour route comfortable?

- » Is the detour route directing people to a steep hill or high-speed road? Is this detour route suitable for all modes or could we direct people walking and biking to a better route?

Is this detour an opportunity to share information?

- » Can a detour sign share information about project goals and progress?

TRANSIT STOP

What first/last mile resources could be highlighted at transit stops?

- » What walking and bicycling routes are helpful to highlight? Are there nearby amenities, such as a bike share station, that the sign could highlight?

TRAIL ENTRANCE

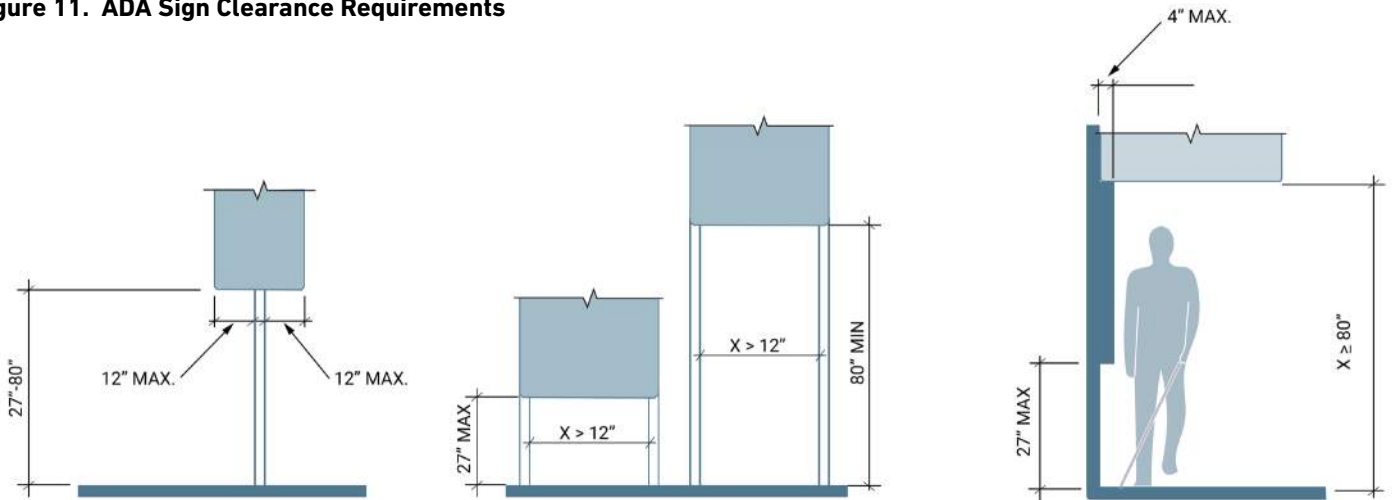
How does this route connect to other trails and urban routes or destinations?

GENERAL SIGN SPECIFICATIONS

Americans with Disabilities Act (ADA) & United States Access Board

The ADA currently does not guide exterior wayfinding systems. It does provide guidance on protruding objects and clear width on accessible routes, with the guidance aimed toward pedestrians (Figure 11). Guidelines for shared use paths are under development and will address post mounted objects and sign legibility.

Figure 11. ADA Sign Clearance Requirements



Sign Density and Preventing Sign Clutter

Some locations will have more signs than others depending on the route complexity and proximity to destinations. Particularly for decision signs and awareness signs, as shown in Figure 12, a location within a mile of other destinations or routes will have a higher density of signage. For turn and confirmation signs, as shown in Figure 13, more complex routes will have a higher density of signage to prevent confusion and increase ease of using the route.

Figure 12. Decision and Awareness Sign Density

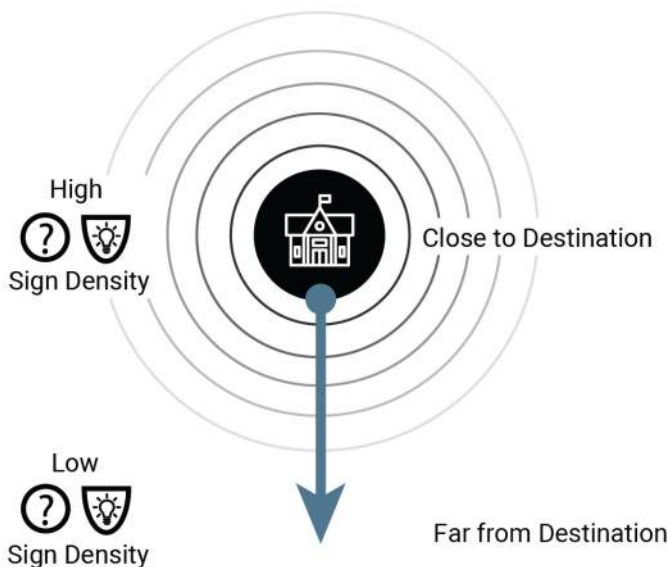
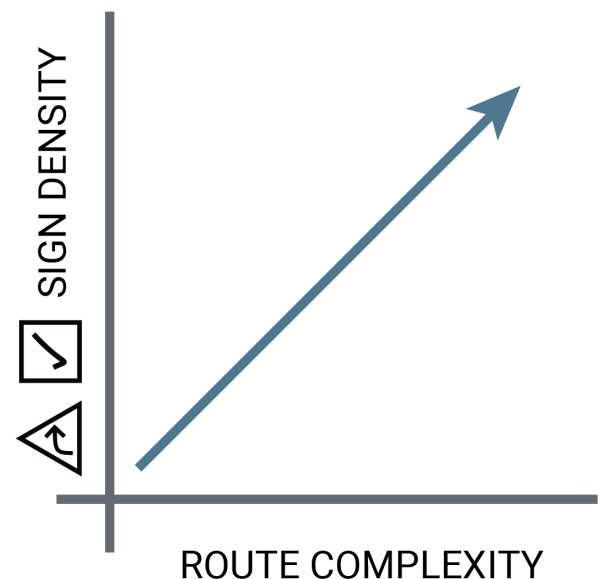


Figure 13. Turn and Confirmation Sign Density



SIGN PLACEMENT

Placement is just as important as the content of the sign. Figure 14 and Figure 15 illustrate necessary setbacks, sign heights, and widths to ensure that the sign does not interfere with people walking or biking on a path or with vehicles traveling or parking near the curb. AASHTO and MUTCD require that signs be placed a minimum of 2 feet from the curb. The lowest edge of trail signs should be at least 4 feet above the ground. The lowest edge of street signs should be at least 7 feet above the ground. According to ADA guidelines, the lowest edge of a sign must be no closer than 27 inches to the ground.

MUTCD, NCDOT, and Chapel Hill technical guidance for sign placement can be found in Appendix C.

Figure 14. Trail Sign Placement Dimensions and Clearances

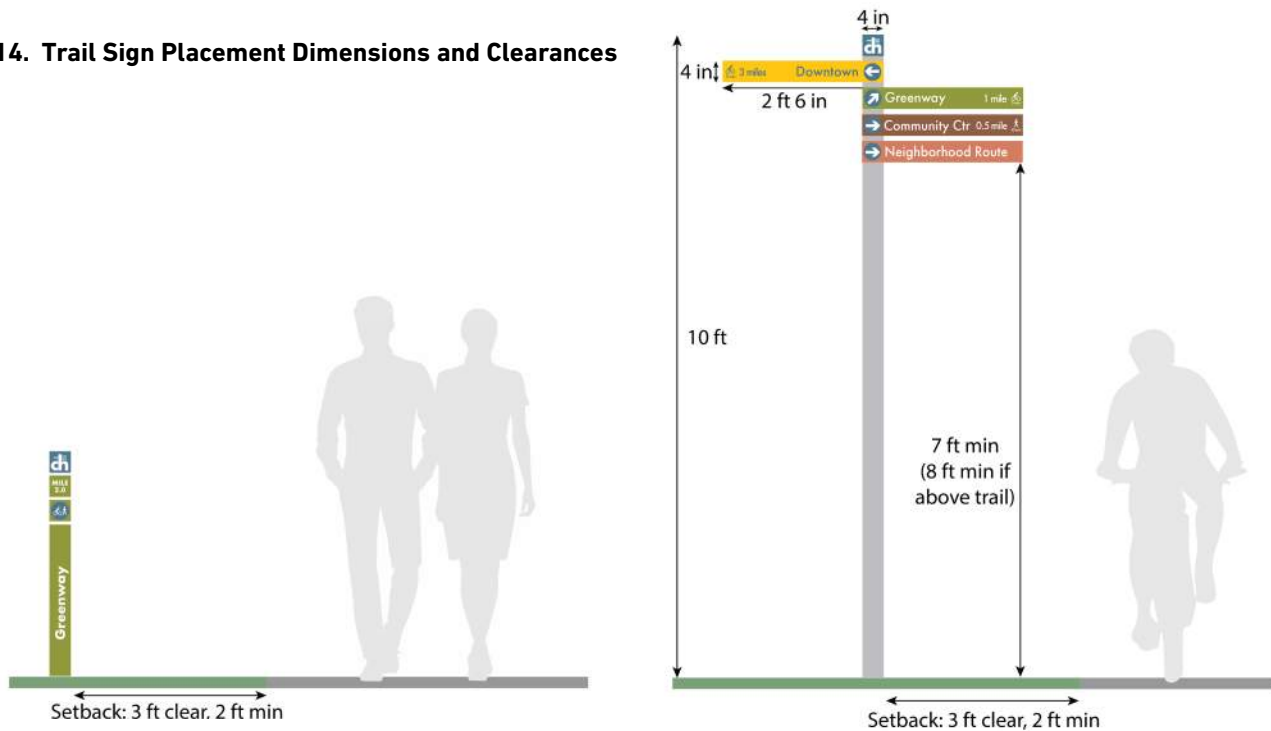
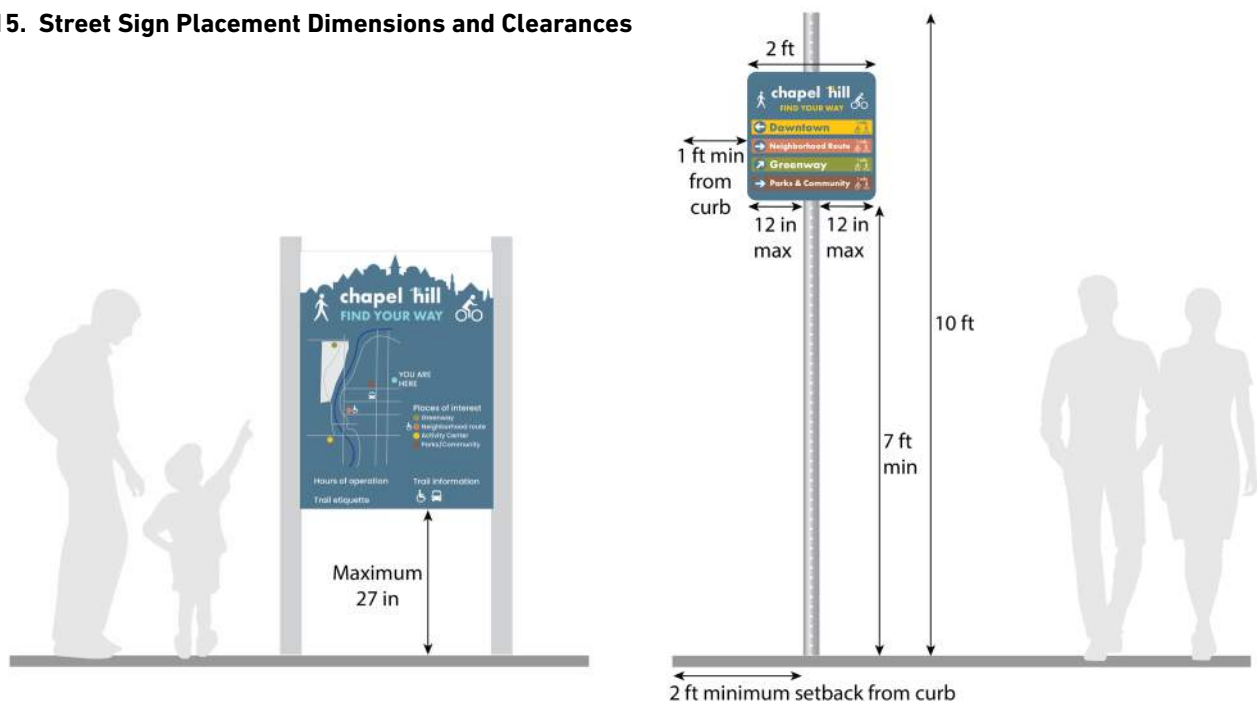


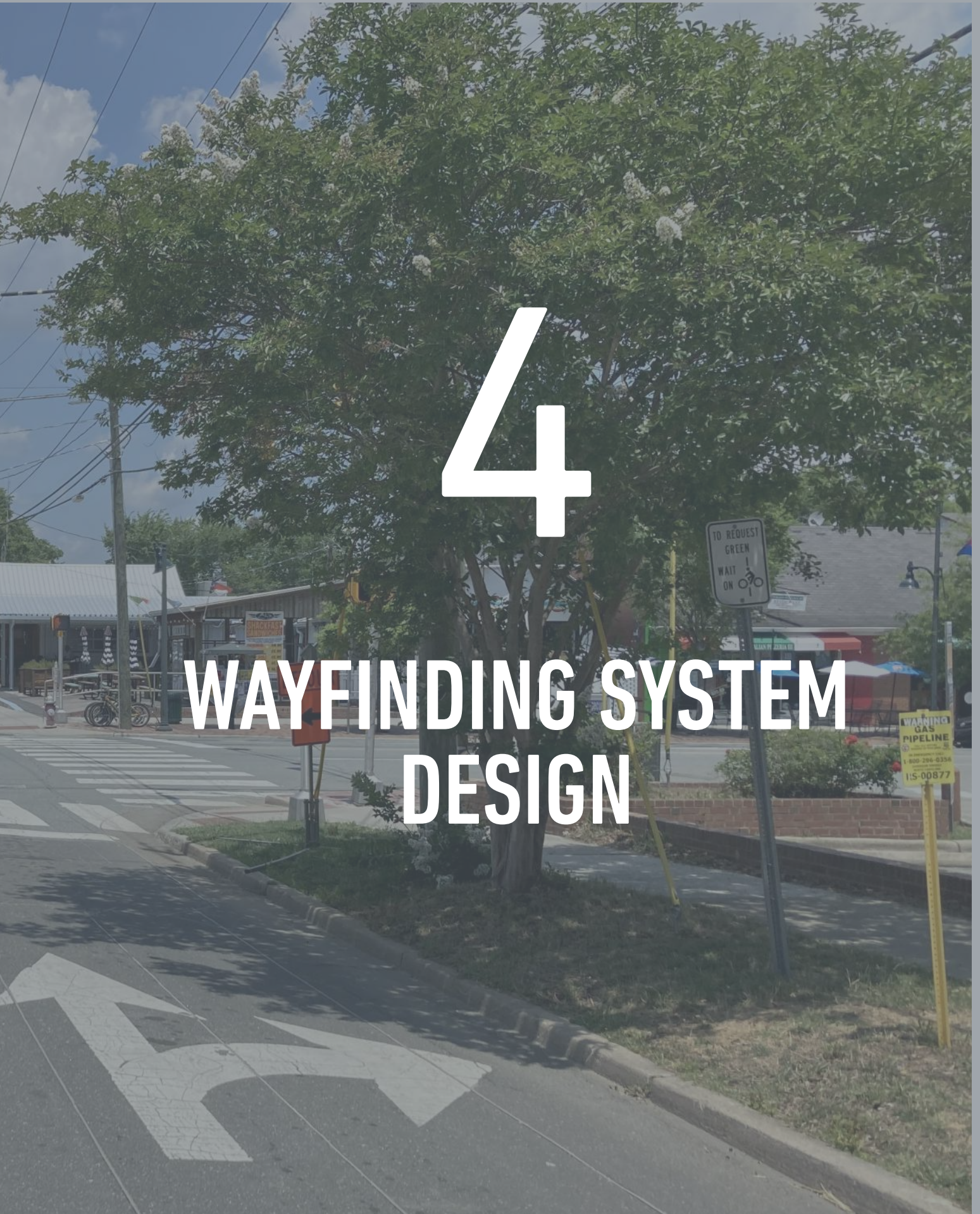
Figure 15. Street Sign Placement Dimensions and Clearances





4

WAYFINDING SYSTEM DESIGN



BRANDING

The branding system for the Chapel Hill Pedestrian and Bicycle Wayfinding Strategy creates a cohesive look and feel for wayfinding signs throughout the Town. The consistent sign aesthetics increase legibility and predictability of the active transportation network and wayfinding system. In addition to the written information on the signs, strategic use of sign types and color convey information about routes and destinations to people walking and bicycling.

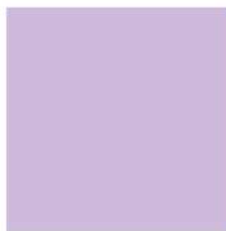
This brand is meant to be used as a toolkit and may be developed further by the Town of Chapel Hill as the wayfinding network grows, new destinations and routes are developed or identified, and as user feedback guides further implementation.

Higher contrast between color combinations helps make text and graphics easier to view for all users. Contrast is particularly important for people with visual disabilities and impaired vision. Large text (either larger in size and/or bold) is easier to read and requires less contrast to be accessible than normal text. This brand shows high-contrast combinations of the color palette. Using the color palette with different combinations may not give high-contrast results and should be confirmed before sign fabrication.

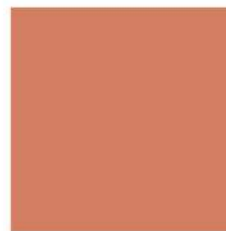
Color



Dark Blue: #4F768D



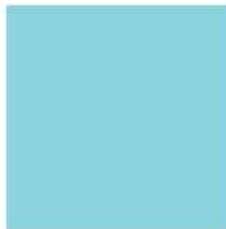
Purple: #D4BAF8



Orange: #D27E60



Brown: #8F5E44



Light Blue: #8CD3DE



Green: #90993B



Yellow: #FFC712

Symbols



Font

Futura PT Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Futura PT Medium

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Logo



Destination Colors

The wayfinding working group developed a color scheme for different types of destinations and routes throughout Chapel Hill. These colors will allow people who are walking and bicycling to quickly identify destination categories and determine their next move along their route. The four categories are: Activity Centers, Neighborhood Routes, Greenways and Trails, and Parks and Community. For all signs, the "Find Your Way" text can be any of these colors.

ACTIVITY CENTERS

Downtown
Universities
Shopping Centers
Schools

NEIGHBORHOOD ROUTES

Sedgefield Dr **McDade St & Church St**
Booker Creek Rd **Cleland Dr**
Umstead Dr **Burning Tree Dr**

GREENWAYS AND TRAILS

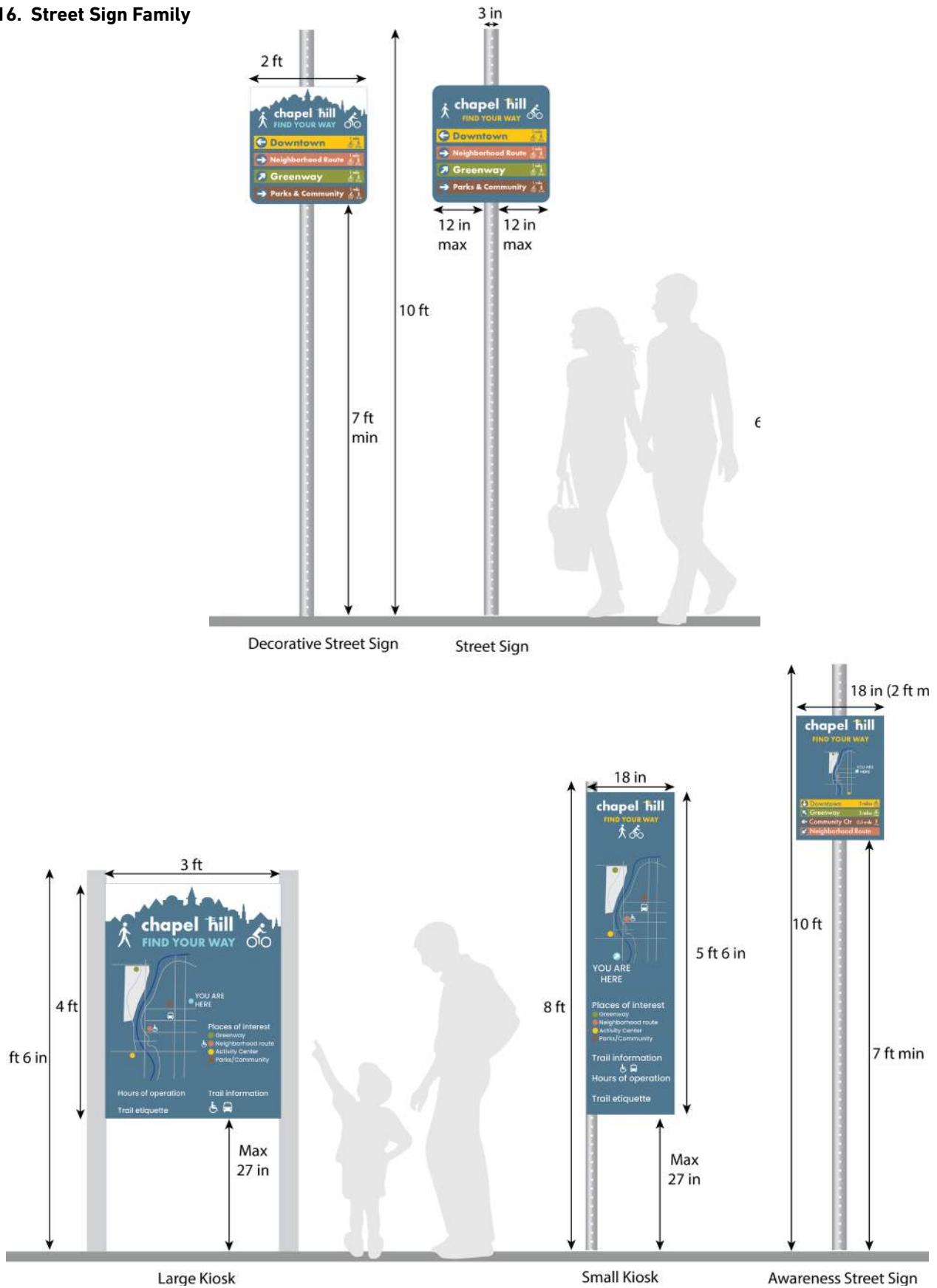
Bolin Creek Trail **Battle Branch Trail**
Fan Branch Trail **Cedar Falls Park Trail**
Homestead Park **Dry Creek Trail**
Lower Booker Creek Trail **Merritt's Pasture Trail**
Meadowmont Trail **Pritchard Park Trail**
Morgan Creek Trail **Southern Community Park Trail**
Tanyard Branch Trail

PARKS AND COMMUNITY

Libraries
Community Centers
Parks
Sports Fields

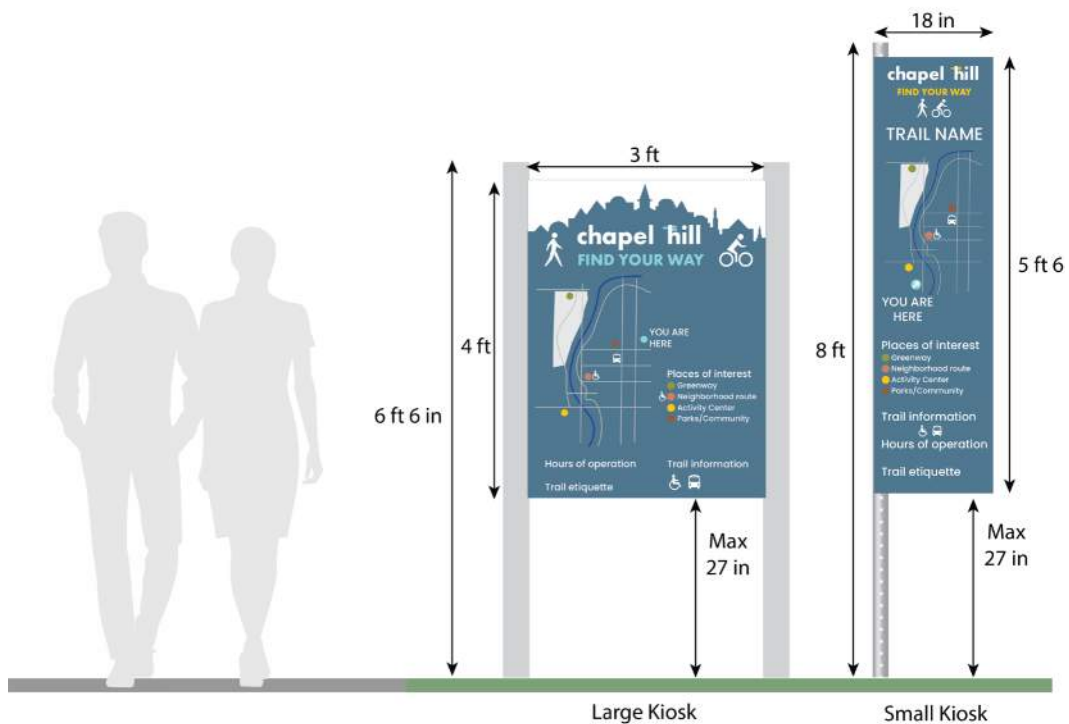
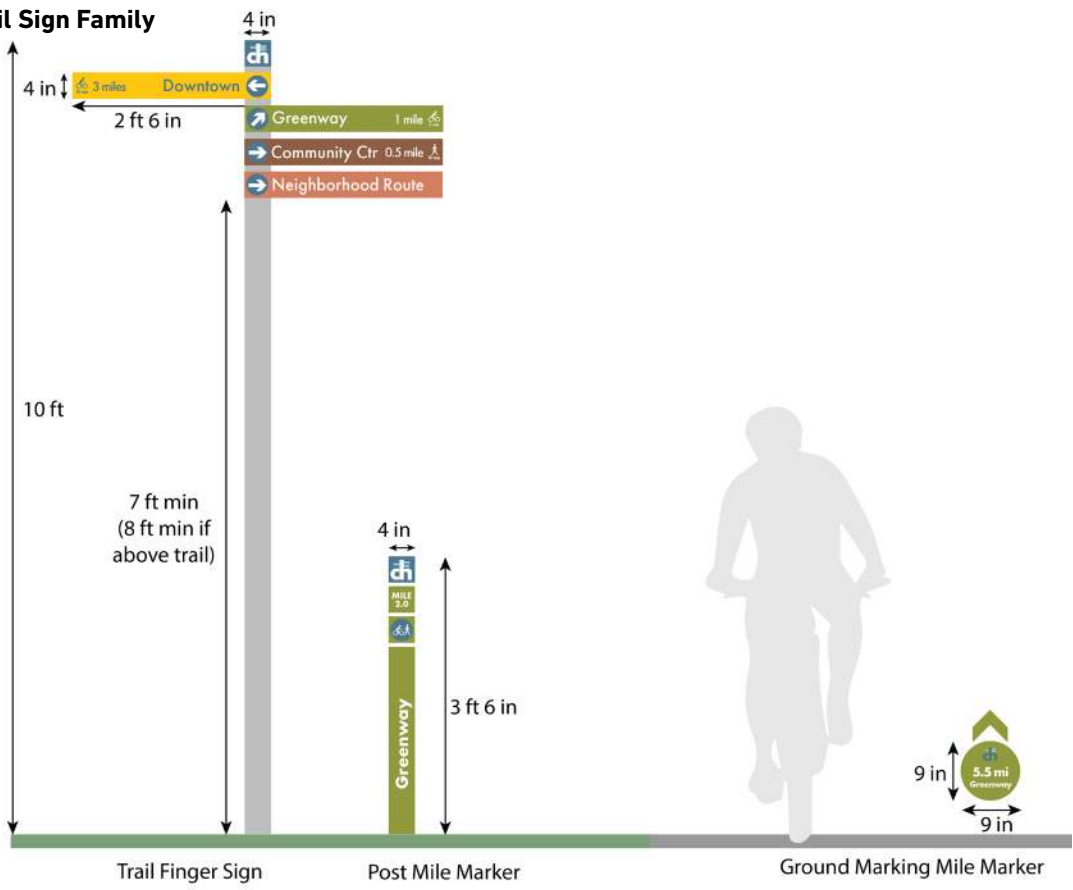
Street Sign Family

Figure 16. Street Sign Family



Trail Sign Family

Figure 17. Trail Sign Family



WAYFINDING STRATEGY

Consistent and appropriate placement of wayfinding helps to provide a legible system while ensuring the signage elements do not create undue safety hazards. Many communities find that implementing a wayfinding system as a component of a pedestrian, bicycle, and transit network encourages people to utilize the facilities by providing a visible invitation to new users, and highlighting connections to new destinations for current or experienced users.

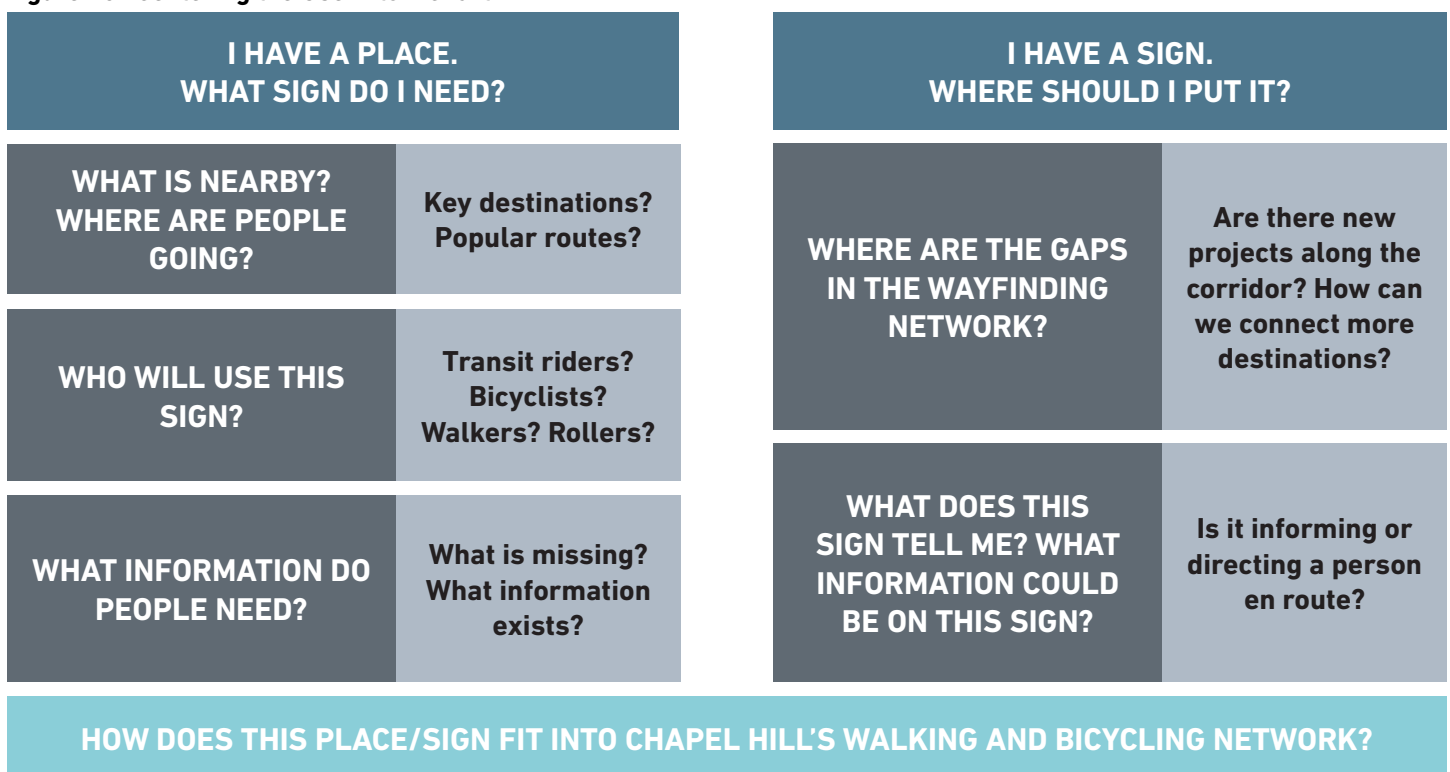
A Wayfinding Strategy is a clear decision-making tool for future wayfinding installation. This section follows three steps to utilize Chapel Hill's Wayfinding Strategy and provides an example for how to apply the strategy. The three steps are:



1. Center the User

Centering the user experience is essential when determining sign type and placement. Identifying users, needs, and network gaps drives sign placement and sign type decisions. Whether one is starting with a location or a specific sign, determining how the sign or location fits within the wayfinding system and the walking and bicycling network should ground each placement decision.

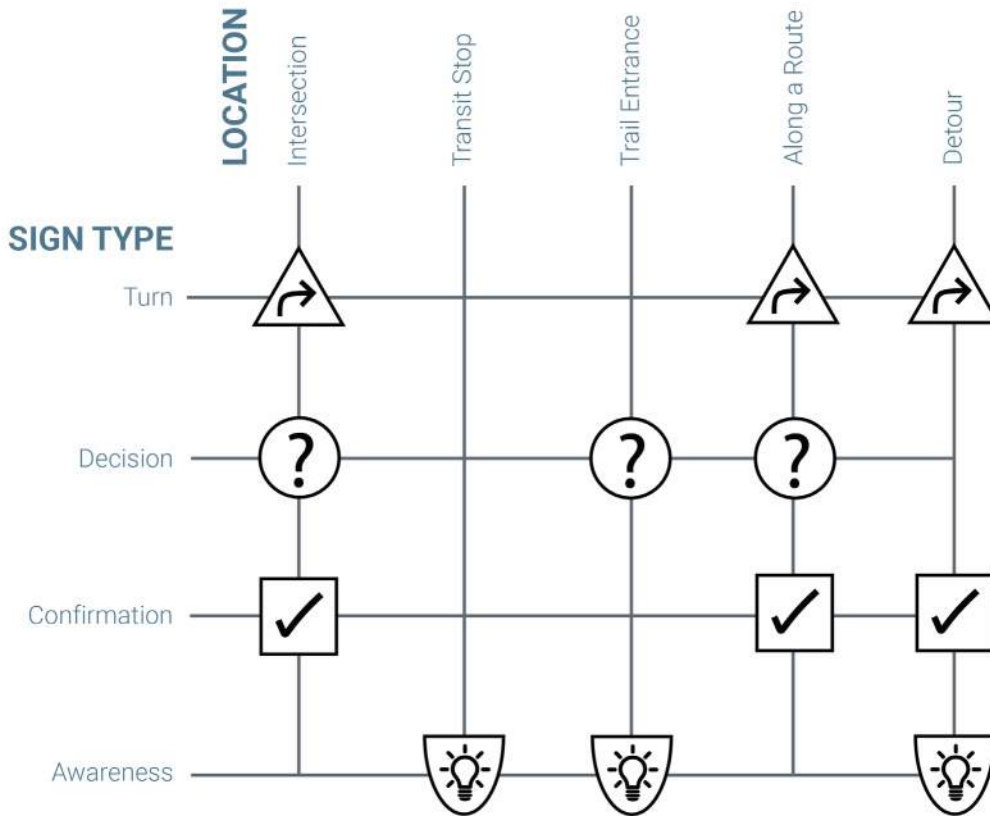
Figure 18. Centering the User Flow Chart



2. Right Sign, Right Place

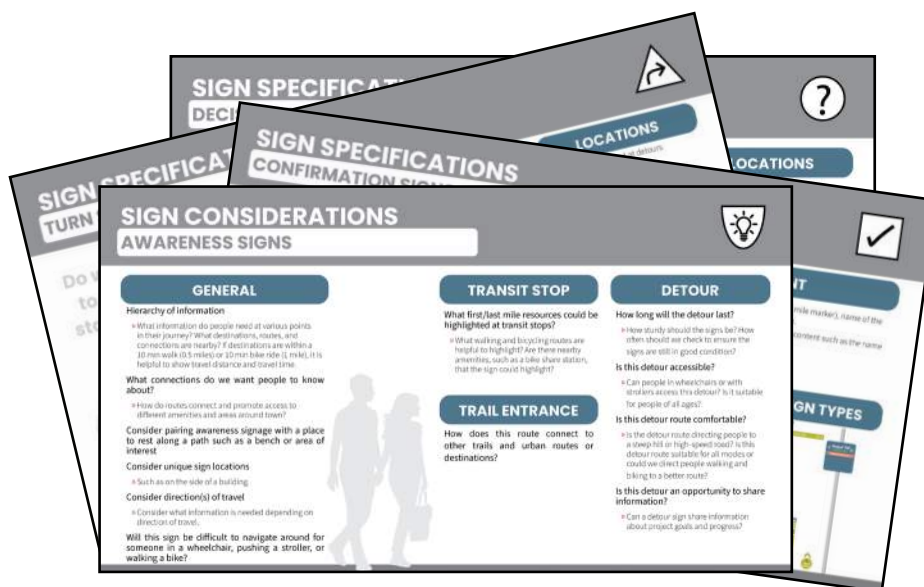
By considering a person's experience along the active transportation network, placement decisions can be easy and effective. Figure 19 can guide decisionmakers to determine which sign type should be installed in different places along the network.

Figure 19. Right Sign, Right Place Matrix



3. Tailor Sign Details

After identifying the sign type needed at a location, reference the sign type specifications and considerations in Chapter 3 for tailoring the content and placement of the sign.



ROUTE PRIORITIZATION

Wayfinding makes it easier for people to walk, bike, and use transit. Wayfinding can help direct users to comfortable roads and trails, bridge gaps between modes or multimodal facilities, and highlight route connections to key destinations in Chapel Hill. Table 1 below shows key considerations when prioritizing new wayfinding signage along a corridor with multimodal facilities or neighborhood routes between destinations. These considerations were used to develop priority sign locations included in Chapter 5.

Table 1. Route Prioritization Considerations

CONSIDERATION	QUESTION	PERTINENCE
Multimodal Connections	Are different modes meeting? (e.g. bikeway meeting transit)	Make multimodal travel easier in Chapel Hill
Connections to Destinations	Are there nearby destinations we want to highlight?	Promote walking and bicycling as viable modes of travel for all trip types
Connections to Routes	Is there a comfortable route nearby?	Improve comfort for people walking and bicycling
Continuous Signage	Is signage present at the beginning, middle, and end of key facilities?	Enhance clarity and user experience
Community Input	Was this location identified during the community engagement process?	Center community wants and needs in determining key locations

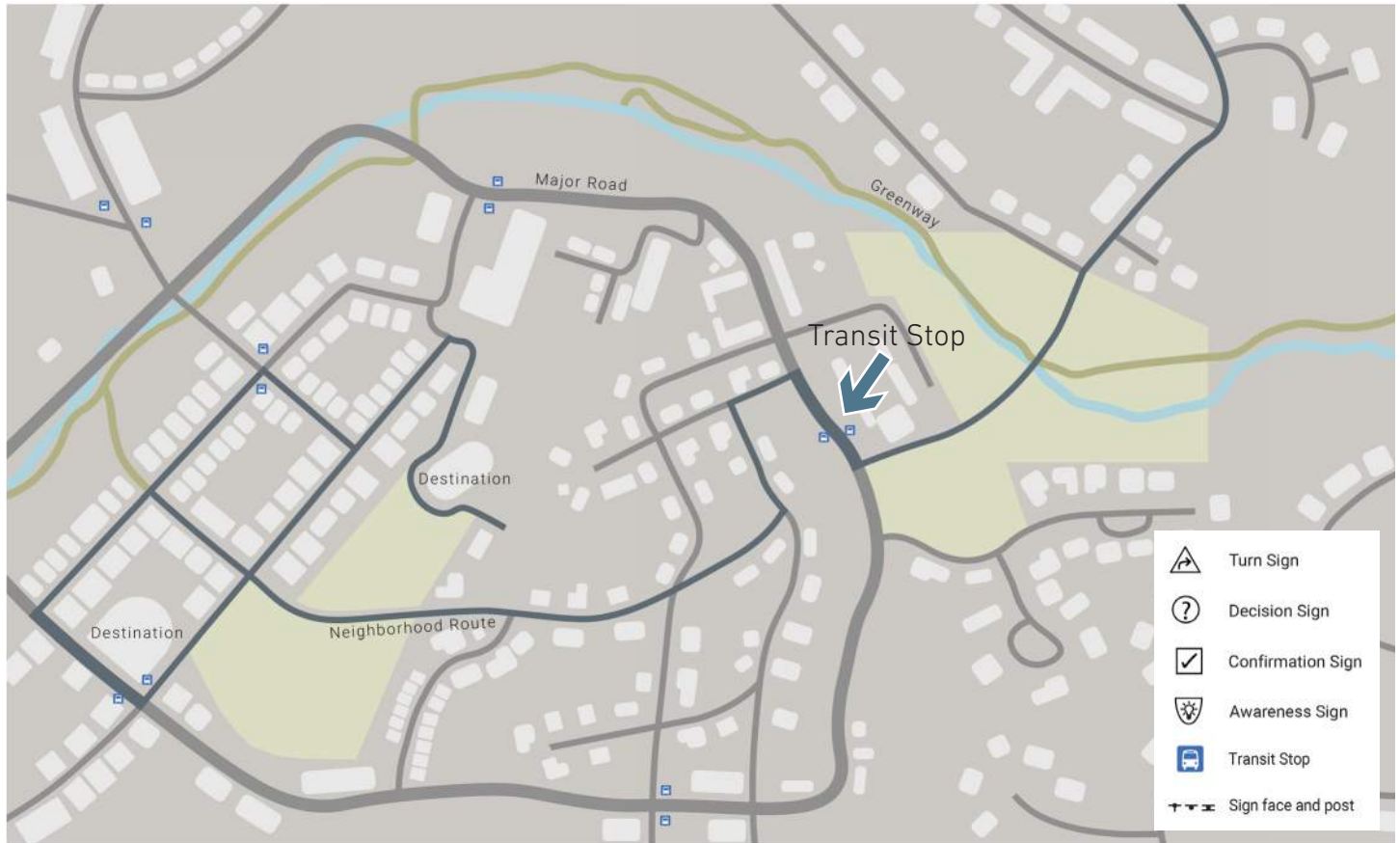
APPLYING THE STRATEGY

The following example demonstrates how to apply the Strategy to a neighborhood area that includes two transit stops, a trail entrance, and a neighborhood route that leads to downtown.

Transit stop

Figure 20 shows the location of two transit stops along a major road. Steps 1, 2, and 3 walk through the Strategy to determine what signs are needed at each transit stop.

Figure 20. Wayfinding Map: Transit Stop



1. Center the User

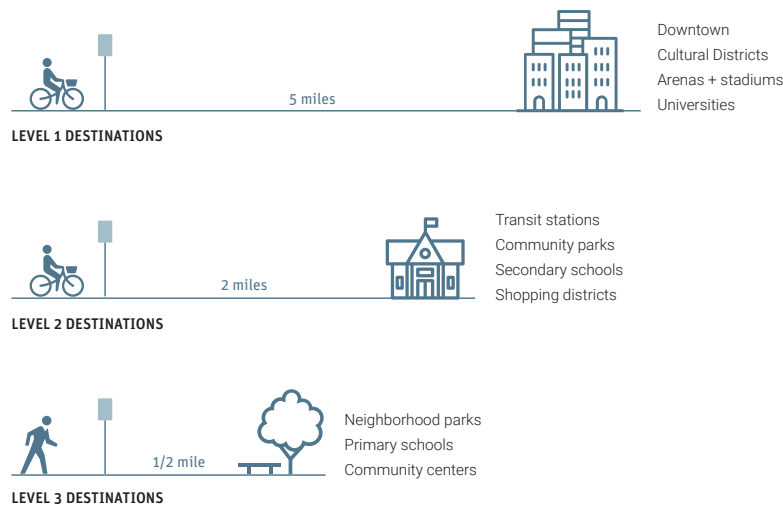
The flow chart in Figure 21 identifies the questions that need answers depending on whether the project begins with a specific place or a specific sign. In the example of a transit stop, the project begins with a place. Examples of this thought process are included in the worksheet in Figure 22. (A blank worksheet is included in Appendix D.)

Figure 21. Centering the User Flow Chart: Transit Stop

I HAVE A PLACE. WHAT SIGN DO I NEED?		I HAVE A SIGN. WHERE SHOULD I PUT IT?	
WHAT IS NEARBY? WHERE ARE PEOPLE GOING?	Key destinations? Popular routes?	WHERE ARE THE GAPS IN THE WAYFINDING NETWORK?	Are there new projects along the corridor? How can we connect more destinations?
WHO WILL USE THIS SIGN?	Transit riders? Bicyclists? Walkers? Rollers?	WHAT DOES THIS SIGN TELL ME? WHAT INFORMATION COULD BE ON THIS SIGN?	Is it informing or directing a person en route?
WHAT INFORMATION DO PEOPLE NEED?	What is missing? What information exists?	HOW DOES THIS PLACE/SIGN FIT INTO CHAPEL HILL'S WALKING AND BICYCLING NETWORK?	

Figure 22. Centering the User Worksheet

I HAVE A PLACE. WHAT SIGN DO I NEED?	
WHAT IS NEARBY? WHERE ARE PEOPLE GOING?	<p>Key destinations? Popular routes?</p> <ul style="list-style-type: none"> • Greenway • Neighborhood routes • Downtown <p>*The destination heirarchy graphic is a great place to start!</p>
WHO WILL USE THIS SIGN?	<p>Transit riders? Bicyclists? Walkers? Rollers?</p> <ul style="list-style-type: none"> • Transit riders • People walking • People on bikes <p>*Reference the traveler mindset graph for ideas!</p>
WHAT INFORMATION DO PEOPLE NEED?	<p>What is missing? What information exists?</p> <p>What is missing?</p> <ul style="list-style-type: none"> • Where is the greenway? • Where is a safe route to get downtown? <p>What information exists?</p> <ul style="list-style-type: none"> • Bus schedule
HOW DOES THIS PLACE/SIGN FIT INTO CHAPEL HILL'S WALKING AND BICYCLING NETWORK?	<ul style="list-style-type: none"> • Increases connections between the transit system and trail system • Draws awareness to neighborhood routes toward destinations like downtown



2. Right Sign, Right Place

The next step is to identify what type of sign should be placed at the transit stop. Figure 23 narrows this example down to an awareness sign type, which is the only appropriate sign type at a transit stop.

Figure 23. Right Sign, Right Place Matrix: Transit Stop

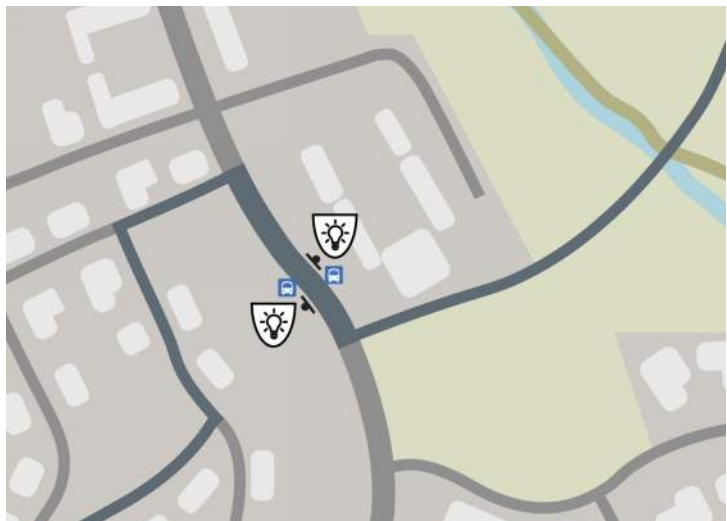
	LOCATION	Intersection	Transit Stop	Trail Entrance	Along a Route	Detour
SIGN TYPE						
Turn						
Decision						
Confirmation						
Awareness						

3. Tailor Sign Details

The reference pages for awareness signs, located in Chapter 3, provide specifications and considerations for sign content and placement. The reference pages should help narrow down content that was recorded on the Centering the User worksheet and specify sign type and placement dimensions for installation.

Finally, Figure 24 shows the general placement of two awareness signs at both transit stops on the map.

Figure 24. Wayfinding Map: Transit Stop with Signage



Awareness Sign

- Placed at both transit stops
- Opportunity to include area map, nearby destinations, distance to destinations, and intersecting routes

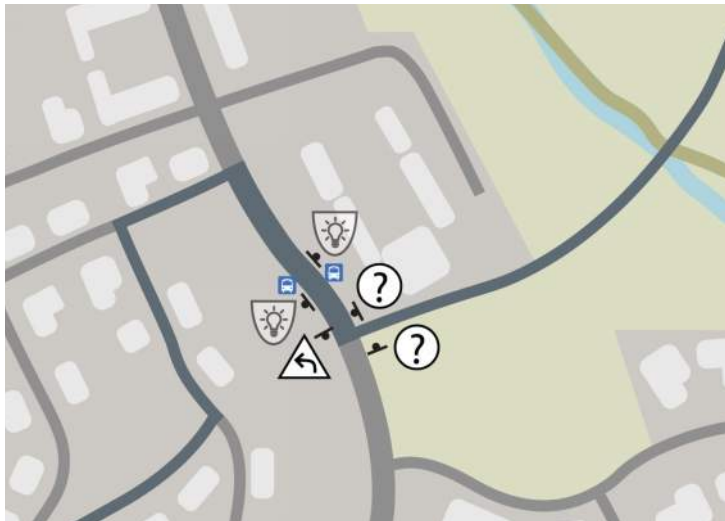
APPLYING THE STRATEGY, CONTINUED

Using the three-step Strategy, the following maps demonstrate ideal wayfinding placement for people walking and bicycling along the following routes:

- Transit stop to the intersection to the south, and vice versa
- Transit stop to the trail entrance
- Trail entrance/neighborhood to the transit stop
- Transit stop to the neighborhood route, and vice versa

Intersection near the Transit Stop

Figure 25. Wayfinding Map: Transit Stop and Intersection with Signage



Turn Sign

- Placed at one corner of the intersection
- Opportunity to guide people from the transit stop to the trail entrance and off the major road



Decision Sign

- Placed at two corners of the intersection
- Opportunity to direct people to the transit stop or trail entrance

Figure 26. Wayfinding Examples at Intersections



Transit Stop to the Trail Entrance

Figure 27. Wayfinding Map: Transit Stop and Trail Entrance Connection

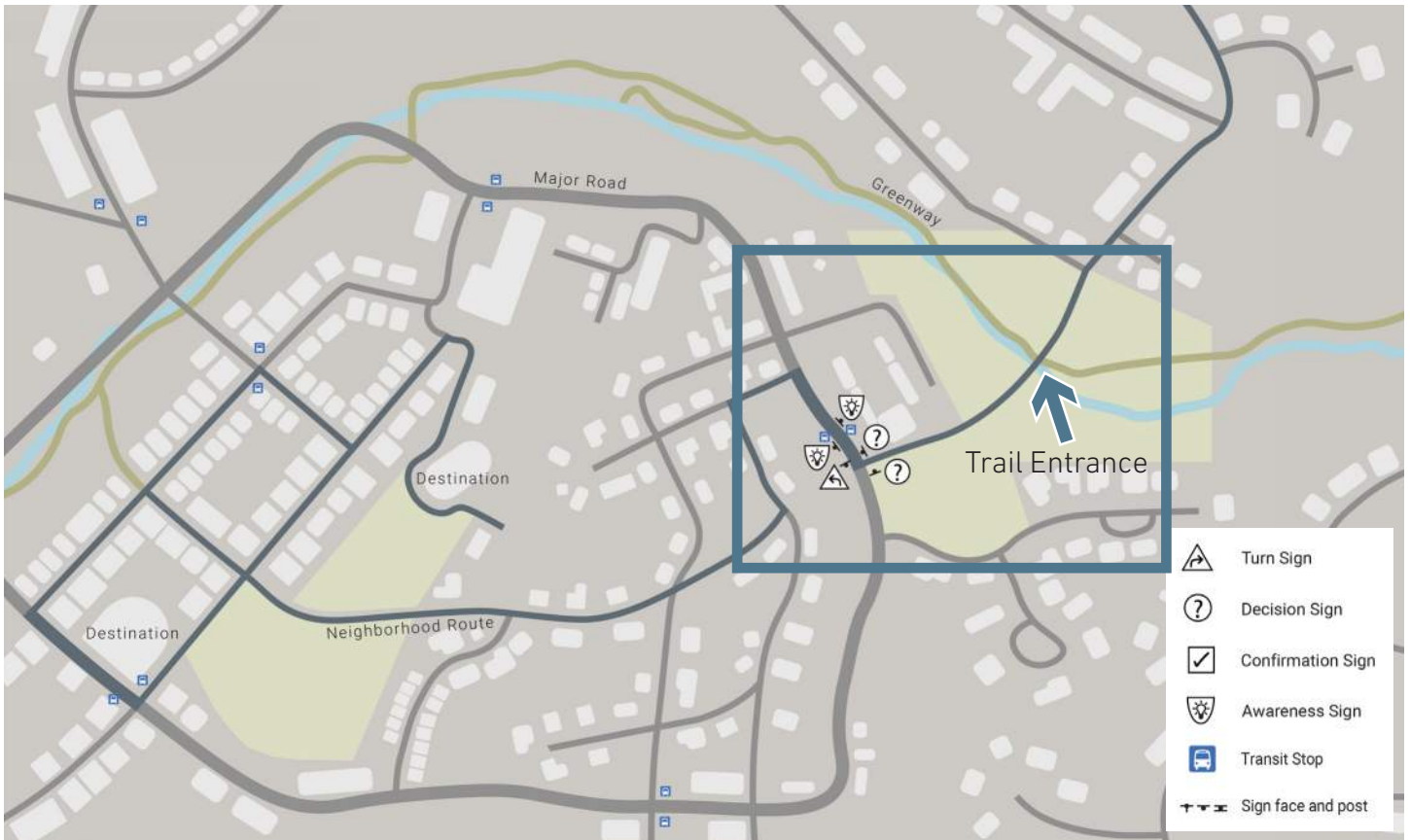


Figure 28. Wayfinding Map: Transit Stop to Trail Entrance with Decision Sign



Decision Signs

- Placed before the intersection of the trail and neighborhood street
- Guides people walking or bicycling from the transit stop to the greenway
- Gives adequate notice of turns for people moving quickly on a bicycle

Figure 29. Wayfinding Map: Transit Stop to Trail Entrance with Decision and Awareness Signs



Awareness Signs

- Orients people as they enter or exit the trail
- Placed at both entrances to the trail
- Trails are clearly marked for people walking or bicycling to quickly determine which direction to travel along the greenway
- Opportunity to include trail name, map, distance to destinations and intersecting routes (transit stop, neighborhood routes, downtown, etc.)

Figure 30. Wayfinding Map: Transit Stop to Trail Entrance with Decision, Awareness, and Confirmation Signs



Confirmation Signs

- Confirmation signs assure people that they made a correct turn and are on their chosen route
- Signs along the trail may be finger signs, post signs, or ground markings

Trail Entrance/Neighborhood to the Transit Stop

Figure 31. Wayfinding Map: Trail Entrance/Neighborhood to Transit Stop with Decision Signs



Decision Signs

- Decision sign alerts people of an upcoming decision point
- Install along the trail on the same sign post as the confirmation signs (unless confirmation sign is a post sign or ground marking) since the path is narrow enough for people walking or biking to see the sign from the far side of the trail

Transit Stop to the Neighborhood Route

Neighborhood routes should be designed to guide people walking and bicycling to and from the transit stop off high-speed roadways and onto low-stress routes. Considerations for slope, directness, and level of stress of roadways are incorporated into route development.

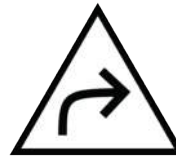
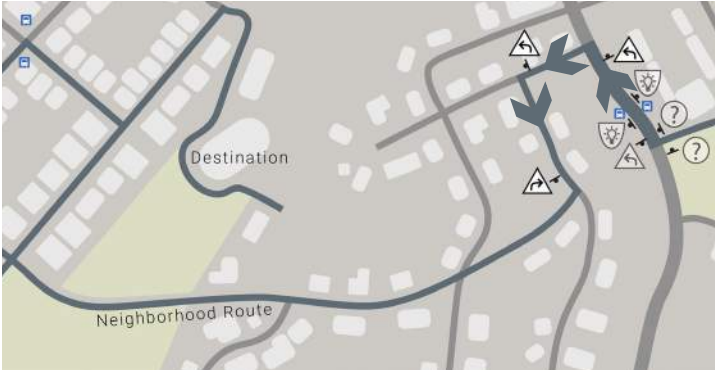
Figure 32. Wayfinding Map: Transit Stop and Neighborhood Route Connection



Figure 33. Wayfinding Examples along Neighborhood Routes



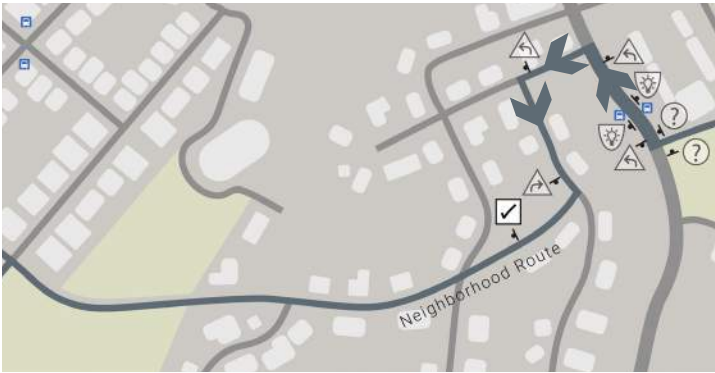
Figure 34. Wayfinding Map: Transit Stop to Neighborhood Route with Turn Signs



Turn Sign

- Alerts people of a necessary turn off of the major road to stay on the neighborhood route toward downtown
- Used when there are no intersecting routes
- Used for neighborhood slow street routes

Figure 35. Wayfinding Map: Transit Stop to Neighborhood Route with Turn and Confirmation Signs



Confirmation Signs

- Placed after each turn or intersection
- Assures people walking or bicycling that they made the correct turn for their chosen route
- Placed along winding stretches of roadway where wayfinding signs are not visible

Figure 36. Wayfinding Map: Neighborhood Route to Transit Stop with Turn Signs



Turn Sign

- Alerts people walking and bicycling from downtown through the neighborhood route of the most direct and comfortable route to the transit stop
- Avoids steep inclines and higher-traffic streets

Figure 37. Wayfinding Map: Neighborhood Route to Transit Stop with Turn and Confirmation Signs



Confirmation Signs

- Placed along winding stretches of street before the person worries about having missed a turn
- Not recommended when another turn or decision sign is posted along a short stretch of roadway

WAYFINDING NETWORKS

The street and trail wayfinding networks shown in Figure 38 and Figure 39 demonstrate how certain intersections and routes with many nearby destinations or many turns will require high sign density.

Figure 38. Wayfinding Map: Street Network

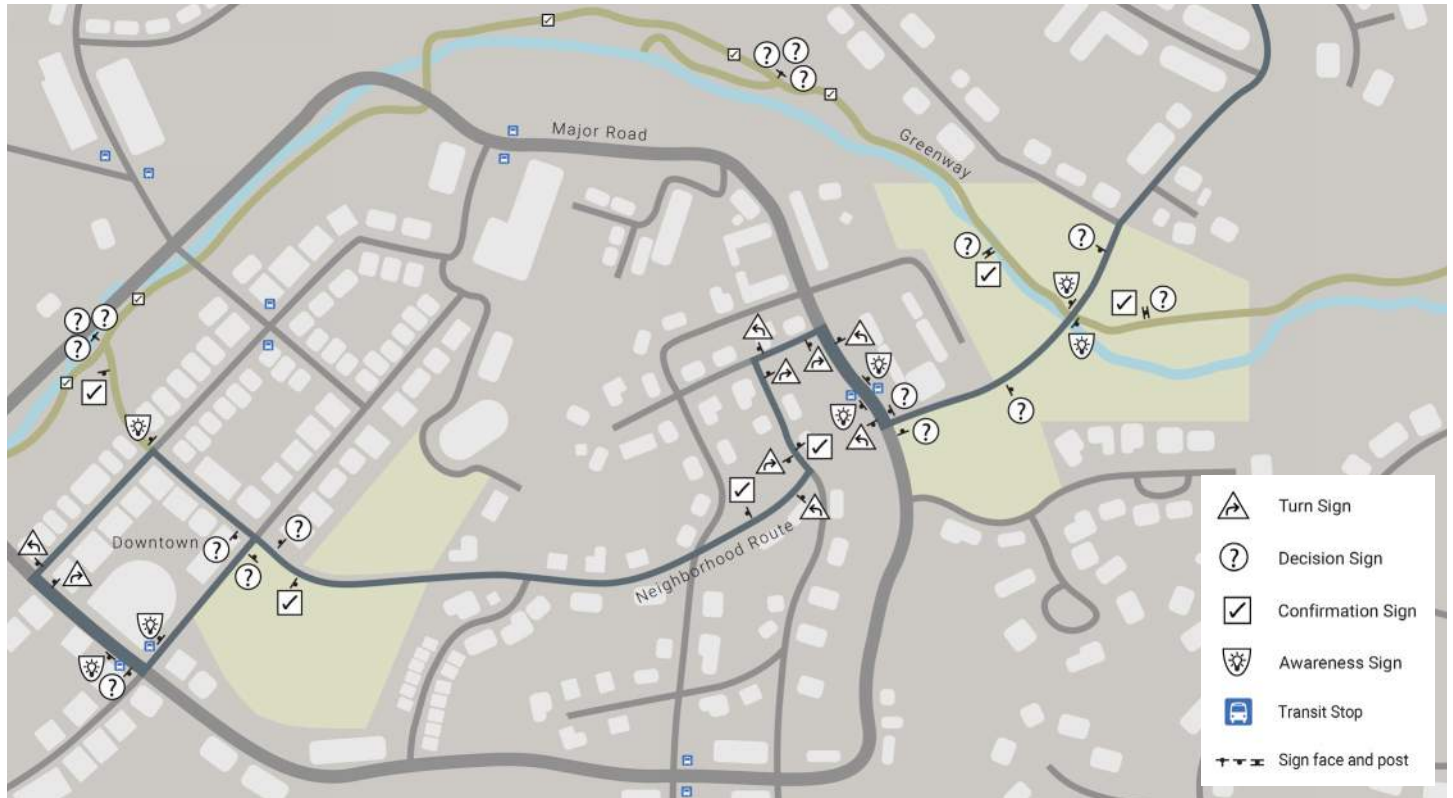
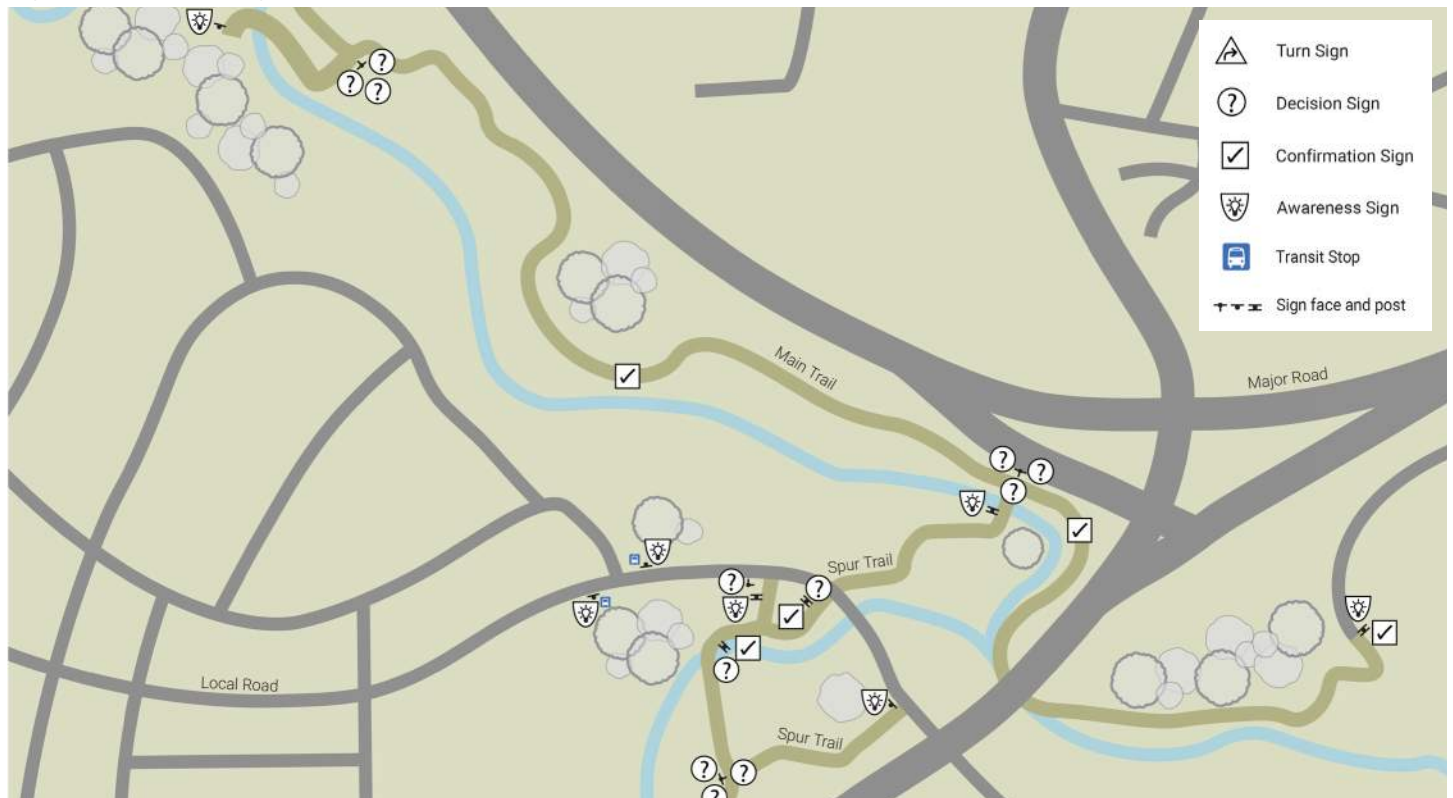


Figure 39. Wayfinding Map: Trail Network







NO PARKING
BUS STOP
ROUTE SERVED A AT

BIKE ROUTE

5

←

PILLAR
AN ILLUSTRATION BY
L. JAMAL WALTON
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BROOKSIDE
CONDOMINIUMS
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IMPLEMENTATION

IMPLEMENTATION & PHASING

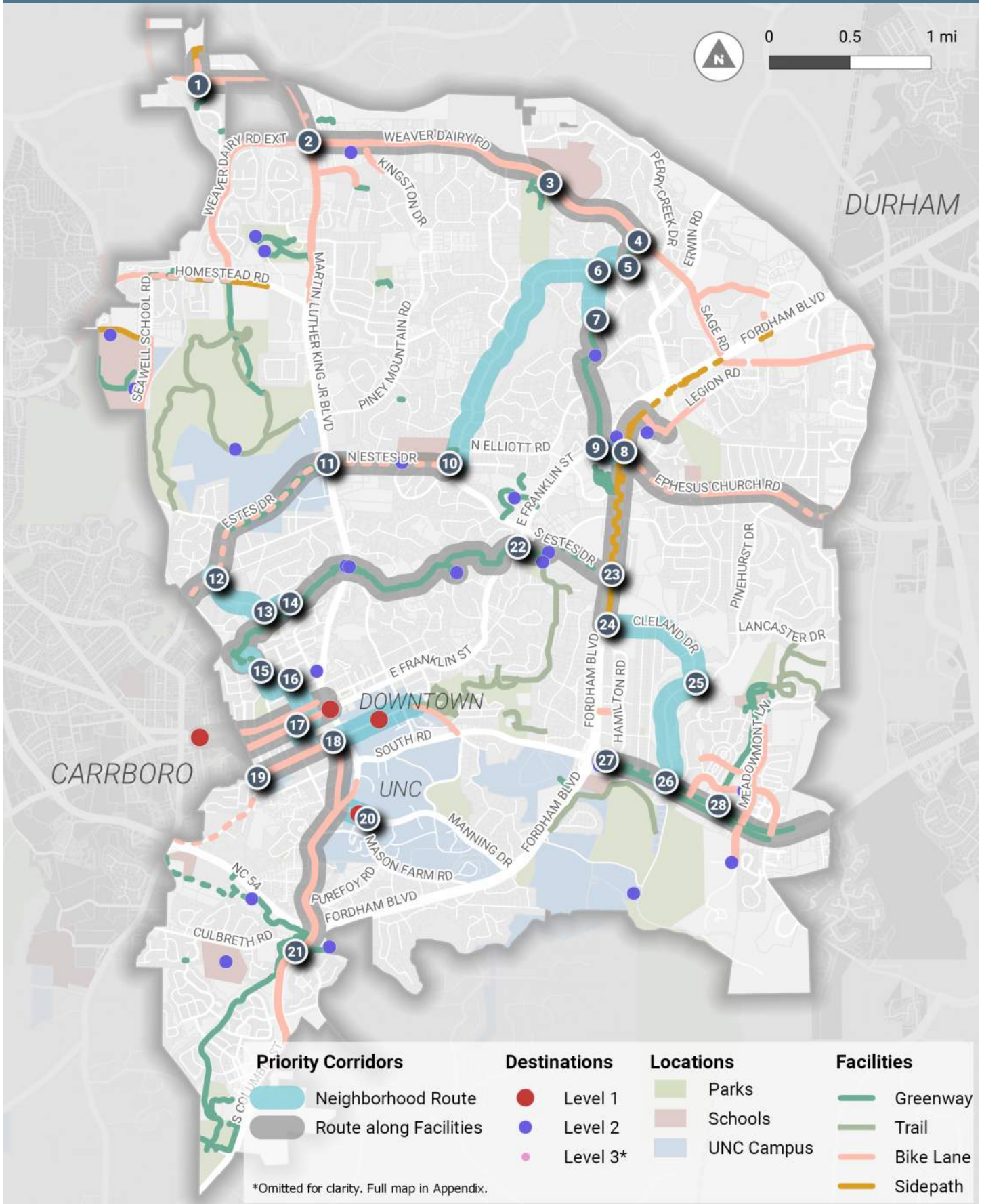
Priority Sign Locations

Twenty-eight priority sign locations were identified based on the prioritization criteria in Chapter 4. Implementation of the Strategy at these locations shown in Table 2 and Figure 40 will increase connectivity between and along Chapel Hill's existing multimodal facilities and establish safe routes for people who walk and bike throughout the Town.

Table 2. Priority Sign Locations

NUMBER	LOCATION
1	Eubanks Rd & Maywood Way Connector
2	Martin Luther King Jr Blvd & Weaver Dairy Rd
3	Cedar Falls Park
4	Weaver Dairy Rd & Sedgefield Dr Greenway
5	Sedgefield Dr Neighborhood Route
6	Honeysuckle Rd & Sedgefield Dr
7	Booker Creek Rd Neighborhood Route
8	Blue Hill District
9	Blue Hill District & Greenway Connection
10	Caswell Rd & Clayton Rd
11	Martin Luther King Jr Blvd & N. Estes Dr
12	Umstead Dr Neighborhood Route
13	Umstead Dr & Umstead Park
14	Umstead Dr & Bolin Creek Greenway
15	Tanyard Branch Trail & Cotton St
16	McDade St & Church St Neighborhood Route
17	W Franklin St & Mallette St Neighborhood Route
18	W Cameron Ave & Pittsboro St
19	Cameron Ave & Libba Cotten Bikeway
20	Manning Dr & Hospital Dr
21	S. Columbia St & Fan Branch Trail
22	Bolin Creek Trail & E. Franklin St
23	Fordham Blvd & S. Estes Dr
24	Fordham Blvd & Cleland Dr
25	Cleland Dr Neighborhood Route
26	Burning Tree Dr Neighborhood Route
27	Raleigh Rd & Hamilton Rd
28	Meadowmont Trail

Figure 40. Priority Wayfinding Locations Map



CHAPEL HILL'S HEIRARCHY OF DESTINATIONS

Chapel Hill The Destination Heirarchy Diagram in Figure 41 illustrates how to categorize Lewhat types of destinations should be included on signs within certain distances from the destination. The destinations listed in Table 3 are categorized as Level 1, Level 2, and Level 3 destinations throughout Chapel Hill. Destinations are then separated into 4 types, including: Activity Centers, Greenways and Trails, Parks and Community, and Neighborhood Routes. Because Level 3 destinations are most relevant within a half mile from the location, the table does not include a complete list. Level 3 destinations should be identified for each sign location when determining sign content. Appendix E includes a map with Level 1, 2 and 3 destinations.

Figure 41. Destination Heirarchy Diagram

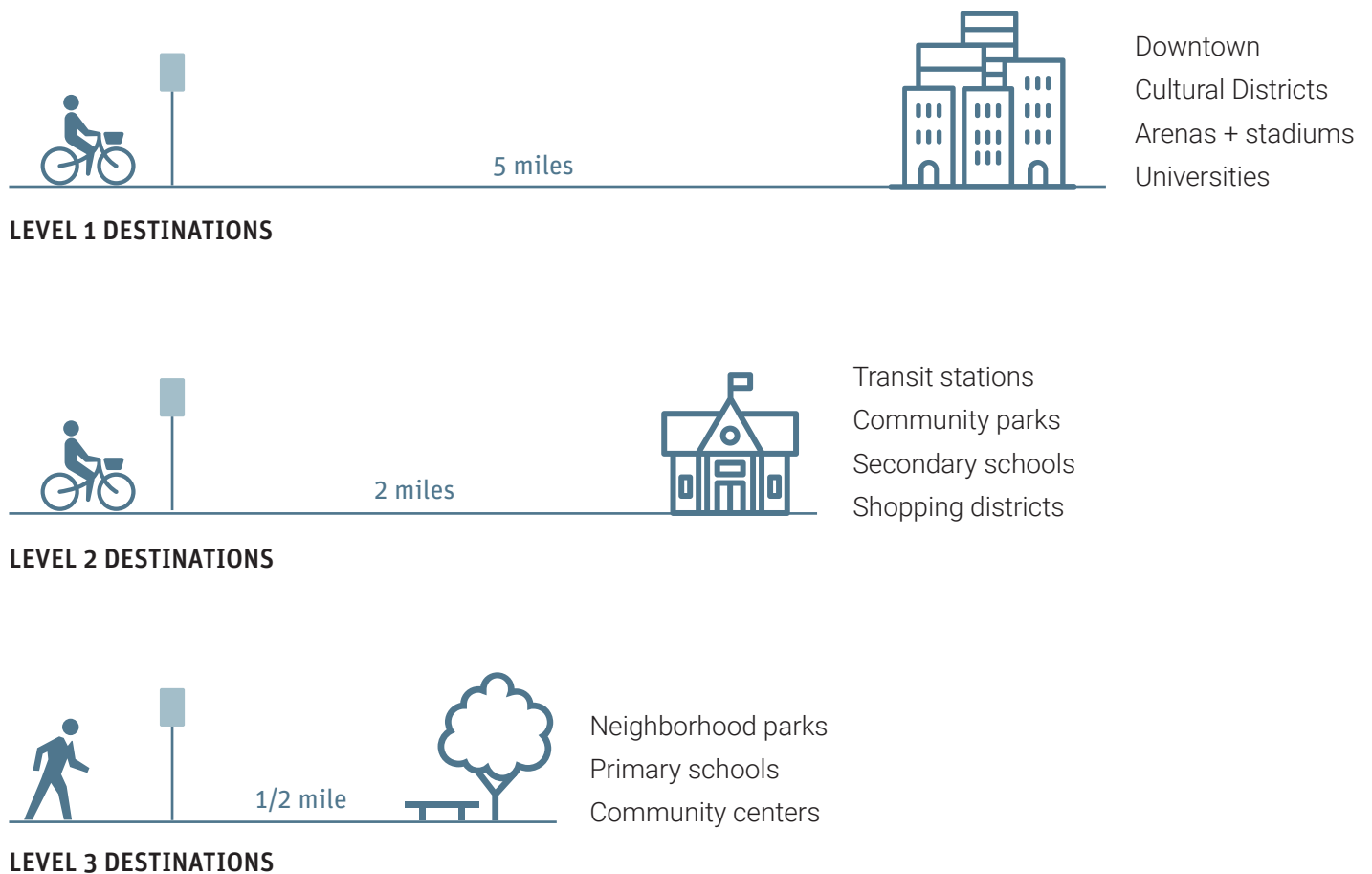


Table 3. Destinations

LEVEL 1	LEVEL 3
Activity Centers	Activity Centers
Downtown Carrboro	Carraway Village
Downtown Chapel Hill	Ephesus Elementary School
UNC Campus	Estes Hills Elementary School
UNC Hospital	Eubanks Park-and-Ride
LEVEL 2	Glenwood Elementary School
Activity Centers	High-Frequency Bus Stops
Blue Hill District	Mary Scroggs Elementary School
Chapel Hill High School	McDougle Elementary School
Chapel Hill Town Hall	Northside Elementary School
Culbreth Middle School	Rashkis Elementary School
East Chapel Hill High School	Seawell Elementary School
Eastgate Shopping Center	Greenways and Trails
Friday Center	Battle Branch Trail
Glen Lennox/Glenwood	Cedar Falls Park Trail
McDougle Middle School	Dry Creek Trail
Meadowmont Village	Fan Branch Trail
Phillips Middle School	Fordham Sidepath
Rams Plaza Shopping Center	Meadowmont Trail
Smith Middle School	Merritt's Pasture
Timberlyne Shopping Center	Pritchard Park Trail
Village Plaza Shopping Center	Southern Community Park Trail
Greenways and Trails	Tanyard Branch Trail
Bolin Creek Trail	Parks and Community
Booker Creek Trail	Battle Park
Morgan Creek Trail	North Forest Hills Park
Parks and Community	
Carolina North Forest	
Cedar Falls Park	
Chapel Hill Public Library	
Chapel Hill/Carrboro YMCA	
Chapel Hill Community Center & Park	
Finley Golf Course	
Homestead Aquatic Center	
Homestead Park	
Merritt's Pasture	
Umstead Park	

PRIORITY SIGNAGE INFORMATION SHEETS

The following pages provide additional detail for each priority wayfinding location identified in Figure 40. Each priority signage location represents an opportunity for multiple signs that will assist pedestrians and bicyclists as they navigate the Town of Chapel Hill. Information provided is intended to guide decision making by Town staff as they consider installing wayfinding signage. Priority signage locations are along existing and/or facilities in development for pedestrians and bicyclists. In many cases, the designated pedestrian and bicycle infrastructure will provide the most valuable wayfinding. Wayfinding signage will compliment infrastructure in key locations. The information included for each priority signage location includes:

Role of Wayfinding Signage

- A short description of how wayfinding signage can benefit users connecting to local destinations and selecting low-stress routes and facilities.

Key Destinations

- A list of destinations categorized by level is provided to choose from for sign content. As the Town begins to install wayfinding signage, additional destinations may be appropriate to add based upon new development and future signage locations. All three Level 1 destinations are included for all information sheets based on their distance from priority locations (within 5 miles) and their proximity to one another. For wayfinding signage a half-mile from these destinations, wayfinding content can be combined to simplify signage (Figure 42). Signage within a half-mile of these destinations should list each destination individually. A maximum of three to four destinations should be chosen for sign content. Review Chapter 3 for sign specifications and considerations.

Destinations Map

- A small map highlights destinations closest to the wayfinding signage location. Not all of the destinations in the Key Destinations list

are included; however, this map highlights specific destinations where short trips could be encouraged through effective wayfinding.

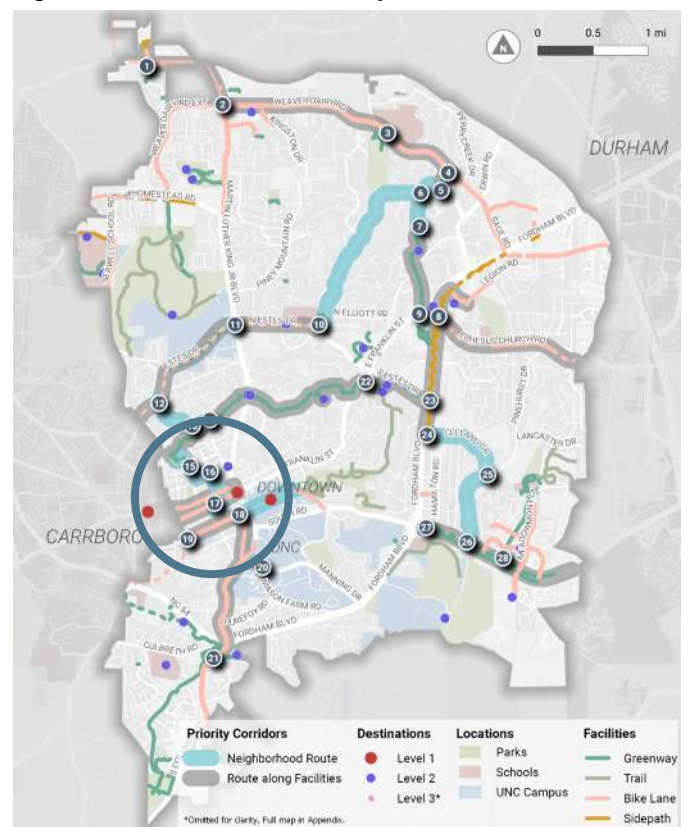
Recommended Sign Locations

- Each information sheet includes specific information about signage types and placement. An aerial image is used to highlight the number of possible wayfinding

Figure 42. Simplified Signage



Figure 43. Half-mile radius map from destination cluster



1) Eubanks Road & Maywood Way Connector

Role of Wayfinding Signage:

Connect people living in surrounding neighborhoods and parking at the Park-and-Ride to the nearby bike lanes, shared use path, and neighborhood greenway to access services farther south.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- Timberlyne Village
- Homestead Park
- Homestead Aquatic Center

Level 3 Destinations

- Eubanks Park-and-Ride
- Carraway Village

Destinations near Eubanks Road and Maywood Way



Recommended Sign Locations:

Sign placement for Priority Location 1



Decision Signs



Awareness Signs

2) Martin Luther King Jr. Boulevard & Weaver Dairy Road

Role of Wayfinding Signage:

Build awareness of destinations accessible by sidewalk or bike lane, such as Homestead Park, East Chapel Hill High School, Timberlyne Village, and several high-frequency bus stops.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

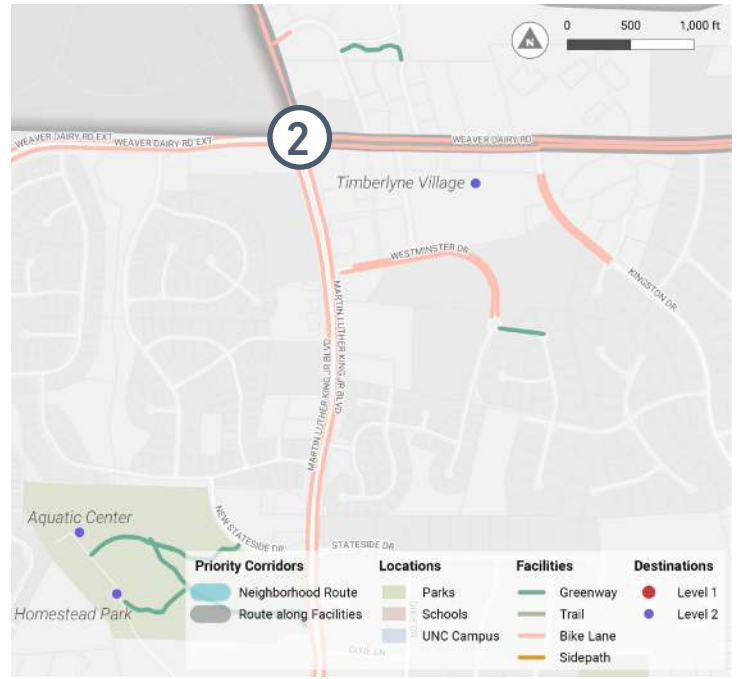
Level 2 Destinations

- Timberlyne Village
- East Chapel Hill High School
- Homestead Aquatic Center
- Homestead Park
- Carolina North Forest

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near MLK Jr. Boulevard & Weaver Dairy Road



Recommended Sign Locations:

Sign placement for Priority Location 2



Decision Signs

3) Cedar Falls Park

Role of Wayfinding Signage:

Guide people walking or bicycling to, through, and from Cedar Falls Park along low-stress routes to East Chapel Hill High School, shopping, greenways, and other public amenities.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- East Chapel Hill High School
- Timberlyne Village
- Lower Booker Creek Trail
- Carolina North Forest

Level 3 Destinations

- Cedar Falls Park amenities
- Dry Creek Trail
- Cedar Falls Park Trail
- Additional destinations to be identified during implementation

Destinations near Cedar Falls Park



Recommended Sign Locations:

Sign placement for Priority Location 3



4) Weaver Dairy Road & Sedgefield Drive Greenway

Role of Wayfinding Signage:

Connect people biking and walking along greenways and neighborhood routes to access nearby destinations.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

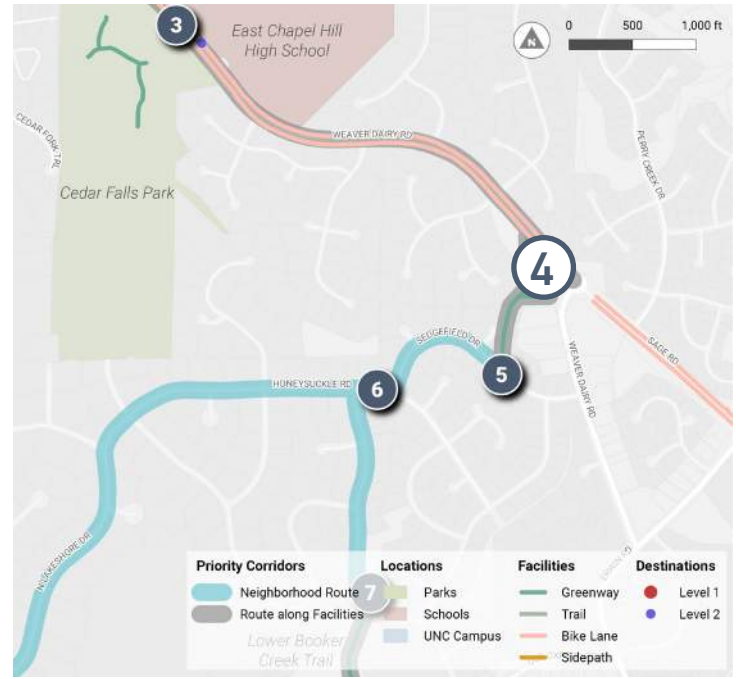
Level 2 Destinations

- Timberlyne Village
- East Chapel Hill High School
- Lower Booker Creek Trail
- Blue Hill District

Level 3 Destinations

- Cedar Falls Park
- Dry Creek Trail
- Additional destinations to be identified during implementation

Destinations near Sedgefield Drive Greenway



Recommended Sign Locations:

Sign placement for Priority Location 4



Decision Signs

5) Sedgefield Drive Neighborhood Route

Role of Wayfinding Signage:

Guide people walking and bicycling along a low-stress neighborhood route that connects the Weaver Dairy Road greenway and routes to the Blue Hill District and to Downtown.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- East Chapel Hill High School
- Lower Booker Creek Trail
- Blue Hill District

Level 3 Destinations

- Cedar Falls Park Trail
- Additional destinations to be identified during implementation

Destinations near Sedgefield Drive



Recommended Sign Locations:

Sign placement for Priority Location 5



6) Honeysuckle Road and Sedgefield Drive

Role of Wayfinding Signage:

Guide people bicycling along the slow neighborhood route along Sedgefield Drive, Honeysuckle Road, and Booker Creek Road toward nearby greenways, schools, and public amenities.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Lower Booker Creek Trail
- East Chapel Hill High School
- Blue Hill District
- Phillips Middle School

Level 3 Destinations

- Cedar Falls Park Trail
- Additional destinations to be identified during implementation

Destinations near Honeysuckle Road



Recommended Sign Locations:

Sign placement for Priority Location 6



7) Booker Creek Road Neighborhood Route

Role of Wayfinding Signage:

Guide people to and from the Lower Booker Creek Trail and the low-stress Booker Creek Road neighborhood route.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

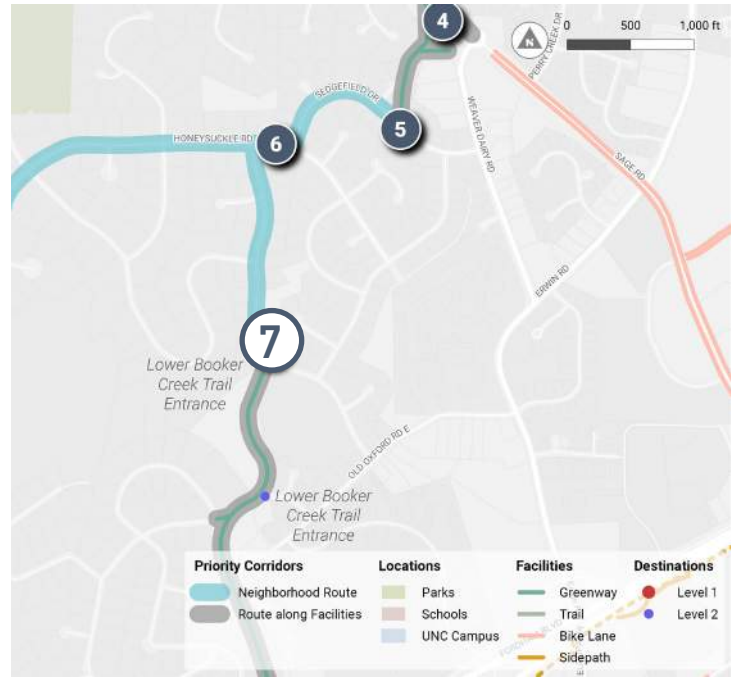
Level 2 Destinations

- Lower Booker Creek Trail
- East Chapel Hill High School
- Blue Hill District

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Booker Creek Road



Recommended Sign Locations:

Sign placement for Priority Location 7



8) Blue Hill District

Role of Wayfinding Signage:

From the Blue Hill District, connect people to nearby greenways and parks and direct people in the direction of popular Chapel Hill destinations.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Lower Booker Creek Trail
- Blue Hill District
- Chapel Hill Community Center & Park
- Bolin Creek Greenway

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Blue Hill District



Recommended Sign Locations:

Sign placement for Priority Location 8



Decision Signs



Awareness Signs

9) Blue Hill District & Greenway Connection

Role of Wayfinding Signage:

Guide people traveling along the Lower Booker Creek Trail to the Blue Hill District and other nearby destinations.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Lower Booker Creek Trail
- Blue Hill District
- Chapel Hill Community Center & Park
- Bolin Creek Greenway

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Blue Hill District and Greenway



Recommended Sign Locations:

Sign placement for Priority Location 9



10) Caswell Road & Clayton Road

Role of Wayfinding Signage:

Connect people on the neighborhood route on Curtis Road with sidepaths and bike lanes along N. Estes Drive and provide guidance to nearby schools, the public library, and parks.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Phillips Middle School
- Carolina North Forest
- Chapel Hill Public Library

Level 3 Destinations

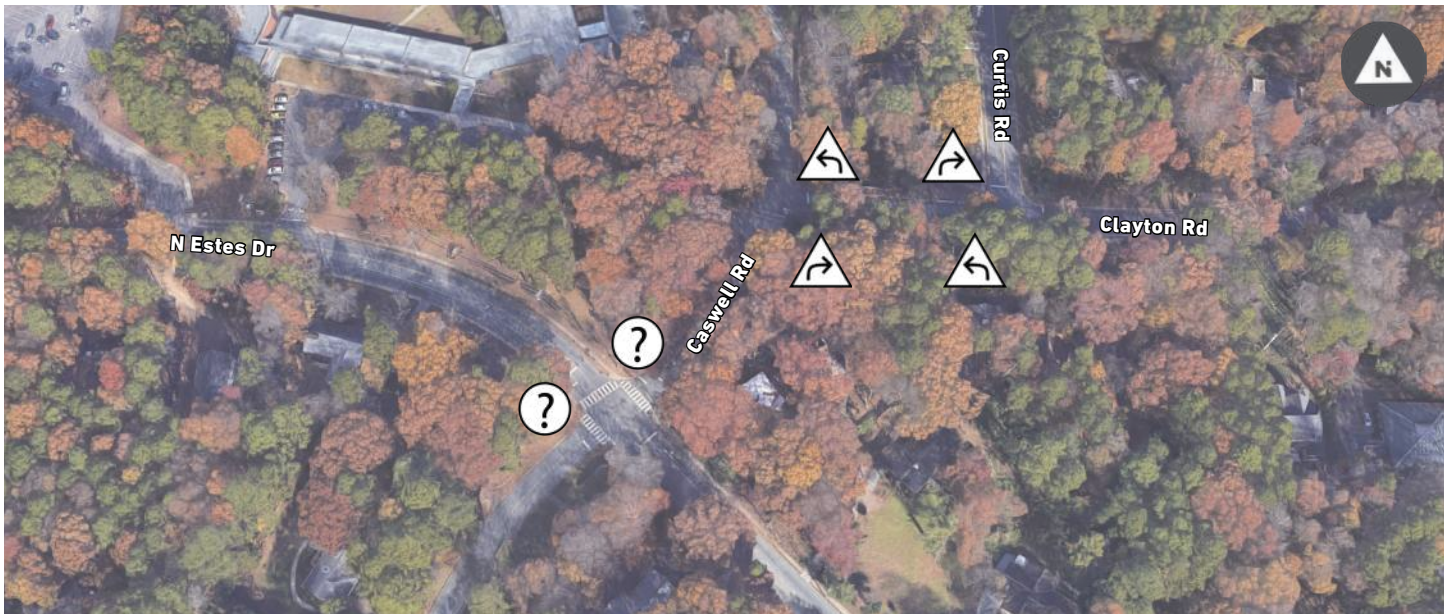
- Estes Hills Elementary School
- Additional destinations to be identified during implementation

Destinations near Caswell Road & Clayton Road



Recommended Sign Locations:

Sign placement for Priority Location 10



11) Martin Luther King Jr. Boulevard & North Estes Drive

Role of Wayfinding Signage:

Guide people walking or biking along sidepaths, greenways, and bike lanes to access nearby bus stops, schools, greenways, and parks.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Phillips Middle School
- Chapel Hill Public Library
- Carolina North Forest
- Umstead Park
- Bolin Creek Trail

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near MLK Jr. Boulevard & N. Estes Drive



Recommended Sign Locations:

Sign placement for Priority Location 11



Decision Signs

12) Umstead Drive Neighborhood Route

Role of Wayfinding Signage:

Guide people along the pedestrian and bicycle facilities on Estes Dr to destinations along the Umstead Dr neighborhood route.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Umstead Park
- Bolin Creek Trail
- Chapel Hill Town Hall
- Phillips Middle School
- Carolina North Forest

Level 3 Destinations

- Tanyard Branch Trail
- Additional destinations to be identified during implementation

Destinations near Umstead Drive



Recommended Sign Locations:

Sign placement for Priority Location 12



Decision Signs

13) Umstead Drive & Umstead Park

Role of Wayfinding Signage:

Guide people to Umstead Park and connect them to routes along greenways to access downtown and nearby schools.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

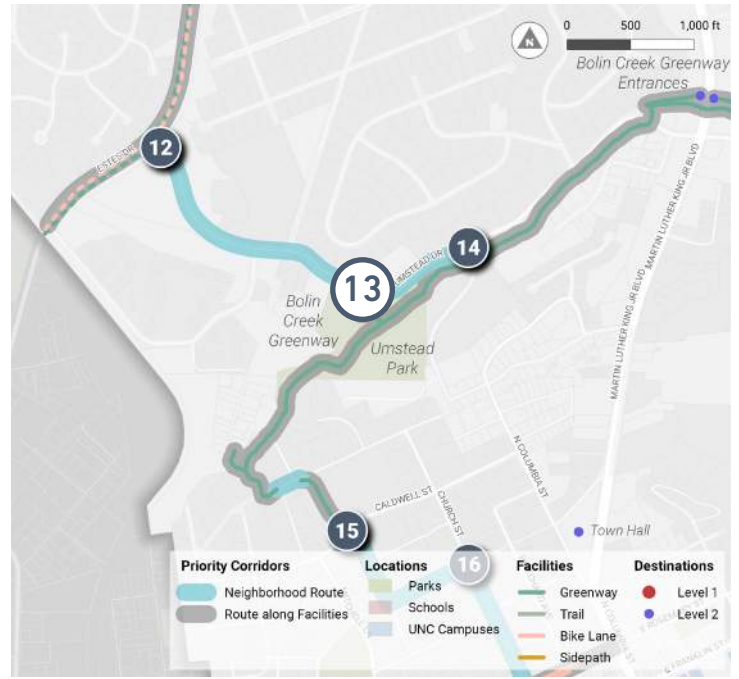
Level 2 Destinations

- Umstead Park
- Bolin Creek Trail
- Chapel Hill Town Hall
- Phillips Middle School
- Carolina North Forest

Level 3 Destinations

- Tanyard Branch Trail
- Northside Elementary School
- Additional destinations to be identified during implementation

Destinations near Umstead Drive & Umstead Park



Recommended Sign Locations:

Sign placement for Priority Location 13



Confirmation Signs



Decision Signs



Awareness Signs

14) Umstead Drive & Bolin Creek Greenway

Role of Wayfinding Signage:

Guide people walking and biking off Umstead Drive and onto the Bolin Creek Greenway to access downtown, schools, parks, and other nearby amenities.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Umstead Park
- Bolin Creek Trail
- Chapel Hill Town Hall
- Carolina North Forest

Level 3 Destinations

- Tanyard Branch Trail
- Northside Elementary School
- Additional destinations to be identified during implementation

Destinations near Bolin Creek Greenway



Recommended Sign Locations:

Sign placement for Priority Location 14



15) Tanyard Branch Trail & Cotton Street

Role of Wayfinding Signage:

Guide people walking and biking to and from the Cotton Street neighborhood route and Tanyard Branch Trail.

Key Destinations Include:

Level 1 Destinations

- Downtown
- UNC Main Campus
- UNC Hospital
- Downtown Carrboro

Level 2 Destinations

- Umstead Park
- Chapel Hill Town Hall
- Bolin Creek Trail
- Carolina North Forest

Level 3 Destinations

- Tanyard Branch Trail
- Northside Elementary School
- Additional destinations to be identified during implementation

Destinations near Tanyard Branch Trail



Recommended Sign Locations:

Sign placement for Priority Location 15



Awareness Signs

16) McDade Street & Church Street Neighborhood Route

Role of Wayfinding Signage:

Connect people walking and bicycling to and from downtown with Tanyard Branch Trail and a low-stress neighborhood route along McDade Street.

Key Destinations Include:

Level 1 Destinations

- Downtown
- UNC Main Campus
- UNC Hospital
- Downtown Carrboro

Level 2 Destinations

- Chapel Hill Town Hall
- Bolin Creek Trail
- Umstead Park
- Carolina North Forest

Level 3 Destinations

- Tanyard Branch Trail
- Northside Elementary School
- Additional destinations to be identified during implementation

Destinations near McDade Street and Church Street



Recommended Sign Locations:

Sign placement for Priority Location 16



17) W Franklin Street & Mallette Street Neighborhood Route

Role of Wayfinding Signage:

Guide people traveling south from the downtown core using a preferred slow street at a junction of bicycle facilities and a neighborhood route along Mallette Street.

Key Destinations Include:

Level 1 Destinations

- Downtown
- UNC Main Campus
- UNC Hospital
- Downtown Carrboro

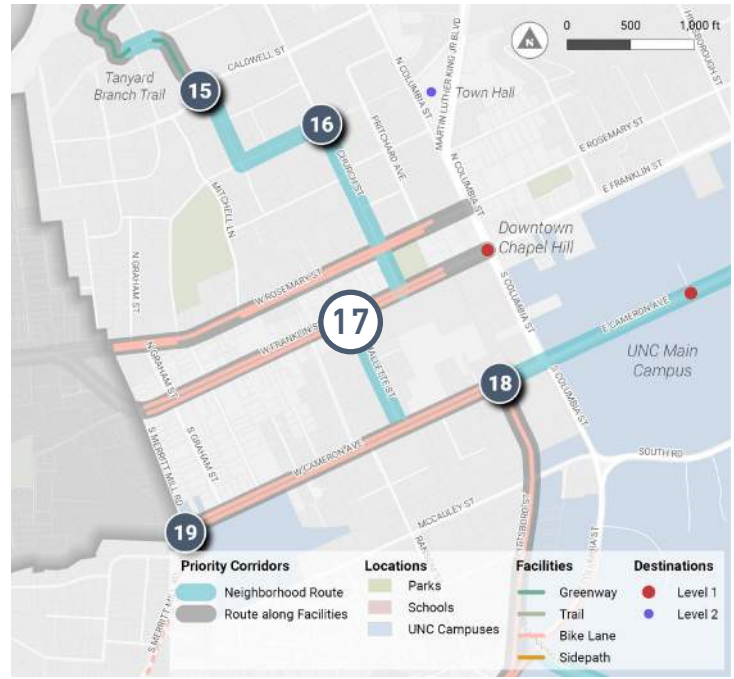
Level 2 Destinations

- Chapel Hill Town Hall
- Morgan Creek Trail
- Umstead Park
- Merritt's Pasture
- Bolin Creek Trail

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near W Franklin Street



Recommended Sign Locations:

Sign placement for Priority Location 17



Decision Signs

18) W Cameron Avenue & Pittsboro Street

Role of Wayfinding Signage:

Connect people along the preferred bicycle lanes to nearby neighborhood routes and destinations such as UNC campus, Downtown, Libba Cotten Greenway, and other local destinations.

Key Destinations Include:

Level 1 Destinations

- Downtown
- UNC Main Campus
- UNC Hospital
- Downtown Carrboro

Level 2 Destinations

- Libba Cotten Greenway
- Chapel Hill Town Hall
- Umstead Park
- Bolin Creek Trail
- Morgan Creek Trail
- Merritt's Pasture
- Culbreth Middle School

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near Cameron Avenue & Pittsboro Street



Recommended Sign Locations:

Sign placement for Priority Location 18



Decision Signs



Confirmation Signs

19) Cameron Avenue & Libba Cotten Bikeway

Role of Wayfinding Signage:

Guide people to and from the Libba Cotten Bikeway and Downtown Chapel Hill and Carrboro along preferred bike lanes and sidewalk routes.

Key Destinations Include:

Level 1 Destinations

- Downtown
- UNC Main Campus
- UNC Hospital
- Downtown Carrboro

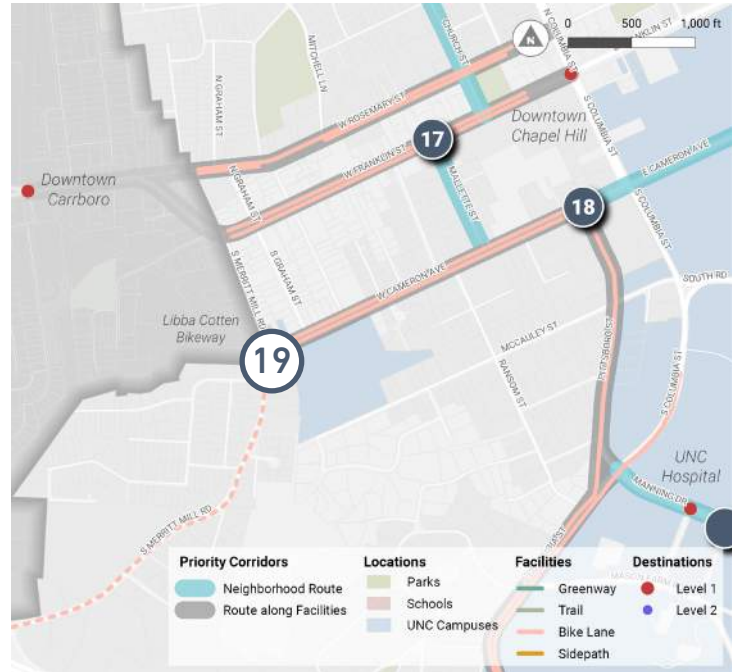
Level 2 Destinations

- Chapel Hill Town Hall
- Umstead Park
- Bolin Creek Trail
- Morgan Creek Trail

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near Libba Cotten Bikeway



Recommended Sign Locations:

Sign placement for Priority Location 19



Decision Signs



Awareness Signs

20) Manning Drive & Hospital Drive

Role of Wayfinding Signage:

Guide people to and from UNC Hospital using the most direct route from bicycle facilities on S. Columbia Street to Manning Drive.

Key Destinations Include:

Level 1 Destinations

- Downtown
- Downtown Carrboro
- UNC Main Campus
- UNC Hospital

Level 2 Destinations

- Morgan Creek Trail
- Merritt's Pasture
- Culbreth Middle School
- Chapel Hill Town Hall
- Bolin Creek Trail

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Manning Drive



Recommended Sign Locations:

Sign placement for Priority Location 20



Decision Signs

21) South Columbia Street & Fan Branch Trail

Role of Wayfinding Signage:

Guide people walking and biking to preferred routes along S. Columbia Street bike lanes, Fan Branch Trail, and Morgan Creek Trail to access nearby schools, bus stops, and parks.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

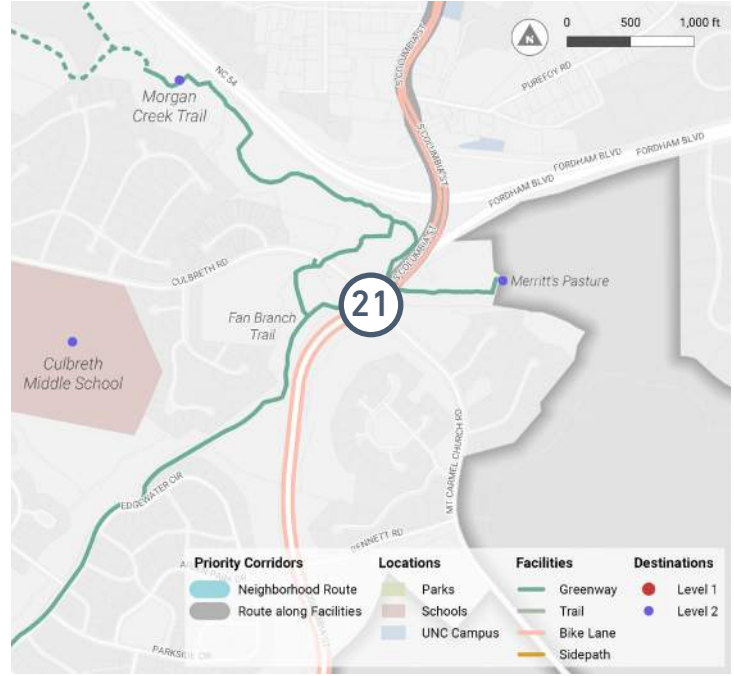
Level 2 Destinations

- Morgan Creek Trail
- Merritt's Pasture
- Culbreth Middle School

Level 3 Destinations

- High-frequency bus stops
- Additional destinations to be identified during implementation

Destinations near S. Columbia Street



Recommended Sign Locations:

Sign placement for Priority Location 21



Decision Signs



Awareness Signs

22) Bolin Creek Trail & East Franklin Street

Role of Wayfinding Signage:

Guide people onto the greenway and highlight the variety of destinations accessible along the trail and a short walk from the trail entrance.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

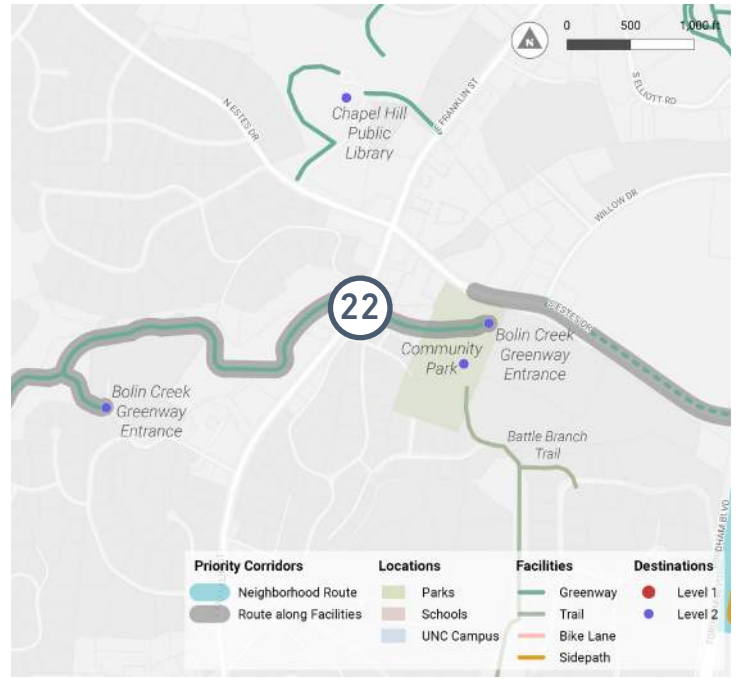
Level 2 Destinations

- Chapel Hill Public Library
- Chapel Hill Community Center & Park
- Bolin Creek Greenway
- Umstead Park
- Lower Booker Creek Trail
- Blue Hill District

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Bolin Creek Trail



Recommended Sign Locations:

Sign placement for Priority Location 22



23) Fordham Boulevard & South Estes Drive

Role of Wayfinding Signage:

Build awareness of nearby destinations at the intersection of the Fordham Sidepath and greenways that connect to parks, the public library, and shopping.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Chapel Hill Community Center & Park
- Bolin Creek Greenway
- Chapel Hill Public Library
- Lower Booker Creek Trail
- Blue Hill District

Level 3 Destinations

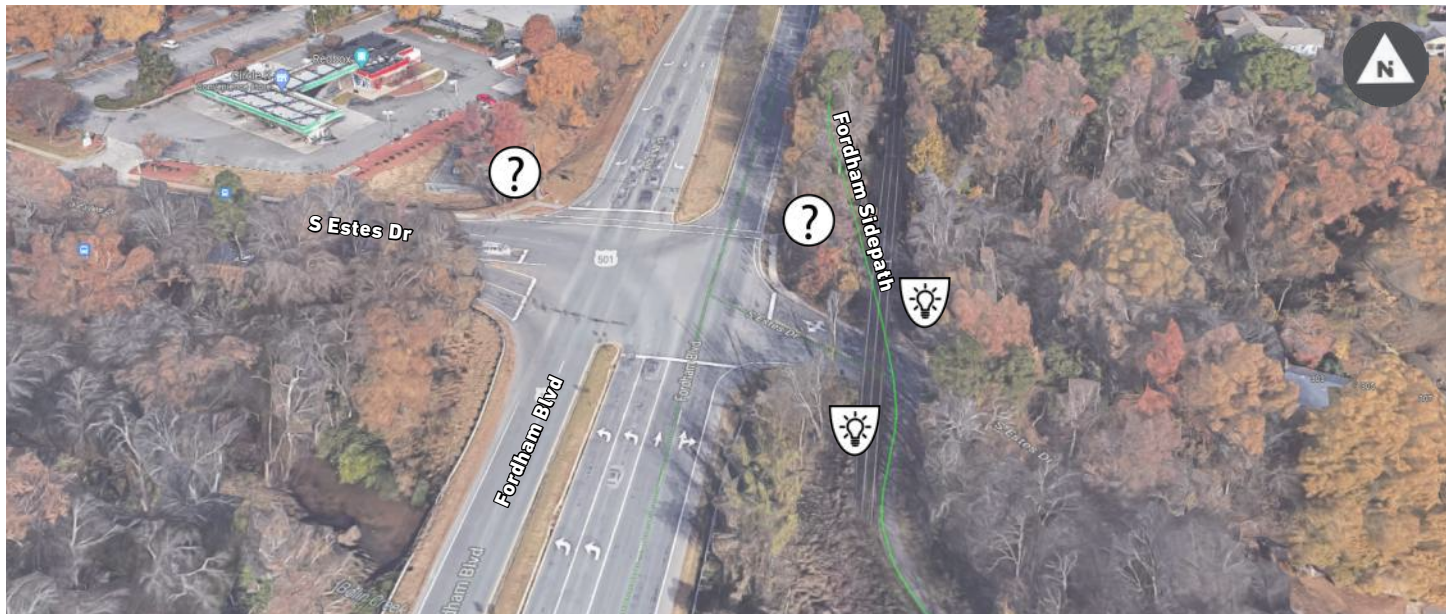
- Additional destinations to be identified during implementation

Destinations near Fordham Boulevard



Recommended Sign Locations:

Sign placement for Priority Location 23



Decision Signs



Awareness Signs

24) Fordham Boulevard & Cleland Drive

Role of Wayfinding Signage:

Connect people to the Cleland Drive neighborhood route and the sidepath along Fordham Boulevard and guide them to nearby parks, the public library, shopping, and neighborhoods.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Glenwood
- Chapel Hill Community Center & Park
- Bolin Creek Greenway
- Chapel Hill Public Library
- Lower Booker Creek Trail
- Blue Hill District

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Fordham Boulevard & Cleland Drive



Recommended Sign Locations:

Sign placement for Priority Location 24



25) Cleland Drive Neighborhood Route

Role of Wayfinding Signage:

Connect people walking and biking between the Cleland Drive neighborhood route and the Burning Tree Drive neighborhood route.

Key Destinations Include:

Level 1 Destinations

- Downtown/UNC/Carrboro

Level 2 Destinations

- Glenwood
- Meadowmont Village
- Finley Golf Course
- Friday Center
- Chapel Hill Community Center & Park
- Bolin Creek Greenway
- Blue Hill District

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Cleland Drive



Recommended Sign Locations:

Sign placement for Priority Location 25



26) Burning Tree Drive Neighborhood Route

Role of Wayfinding Signage:

Build awareness of nearby destinations along Raleigh Road and connect people who are walking and bicycling to low-stress routes to access nearby schools, shopping centers, and neighborhoods.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- Glenwood
- Meadowmont Village
- Friday Center
- Finley Golf Course
- Friday Center

Level 3 Destinations

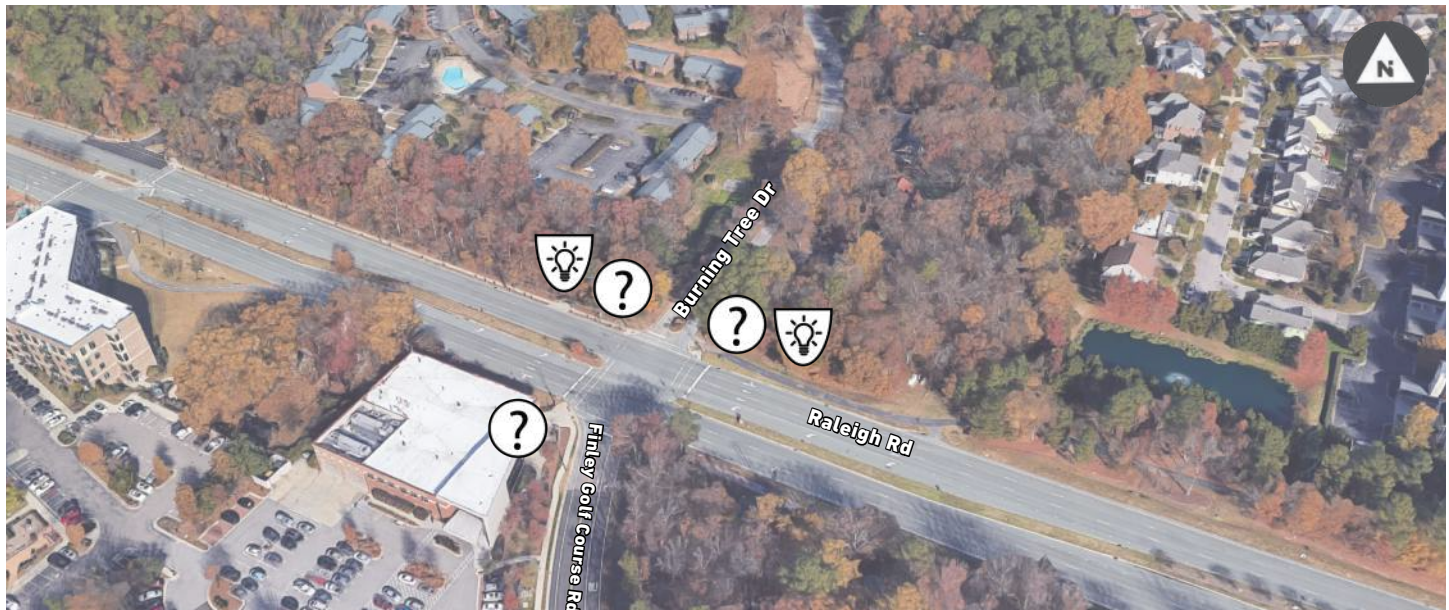
- Meadowmont Trail
- Glenwood Elementary School
- Additional destinations to be identified during implementation

Destinations near Burning Tree Drive



Recommended Sign Locations:

Sign placement for Priority Location 26



Decision Signs



Awareness Signs

27) Raleigh Road & Hamilton Road

Role of Wayfinding Signage:

Guide people along greenways and low-stress routes to access nearby shopping, schools, and other destinations.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- Glenwood
- Meadowmont Village
- Finley Golf Course
- Friday Center

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Raleigh Road & Hamilton Road



Recommended Sign Locations:

Sign placement for Priority Location 27



Decision Signs

28) Meadowmont Trail

Role of Wayfinding Signage:

Guide people walking and biking along the Meadowmont Trail system to nearby shopping and outdoor destinations.

Key Destinations Include:

Level 1 Destinations

- None within 5 miles

Level 2 Destinations

- Glenwood
- Meadowmont Village
- Finley Golf Course
- Friday Center

Level 3 Destinations

- Additional destinations to be identified during implementation

Destinations near Meadowmont Trail



Recommended Sign Locations:

Sign placement for Priority Location 28



Decision Signs



Awareness Signs

SIGN FABRICATION

As part of Chapel Hill's branding, the sign families shown in Figure 58 and Figure 59 detail the dimensions for different sign types in a street network and trail network.

To ensure visibility, text size on each sign should be no smaller than 3/4 inch tall. Headings should be at least 2 inches tall.

Figure 58. Street Sign Dimensions

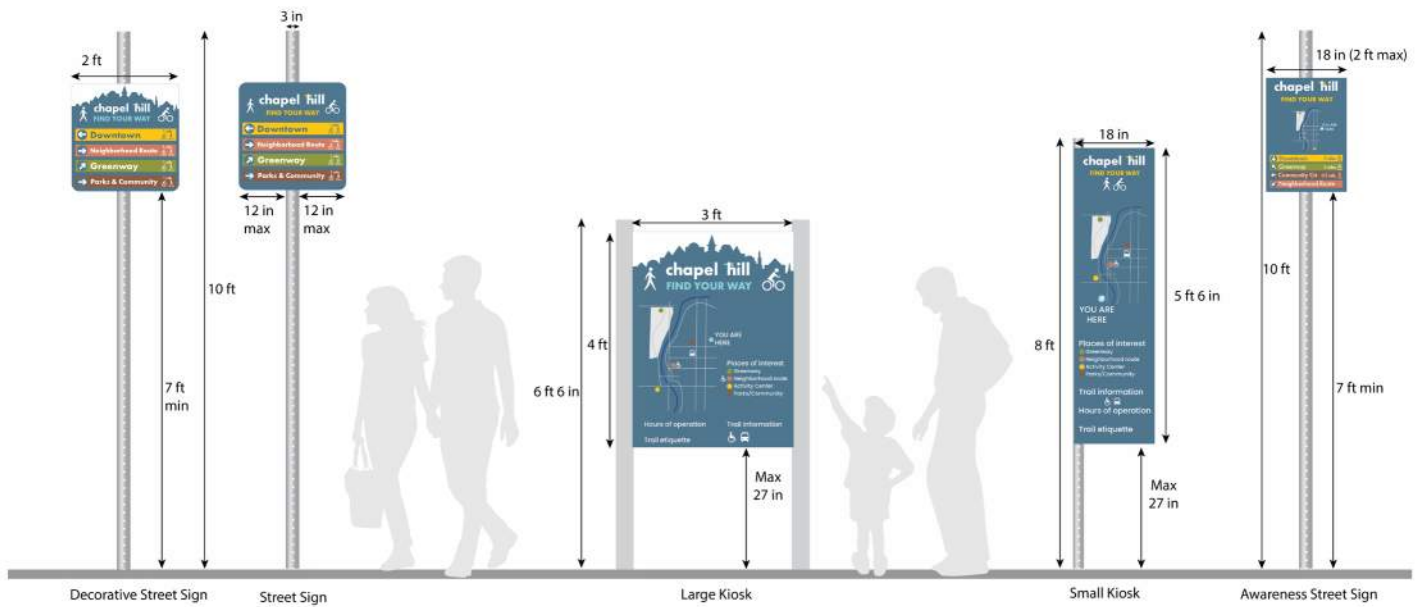
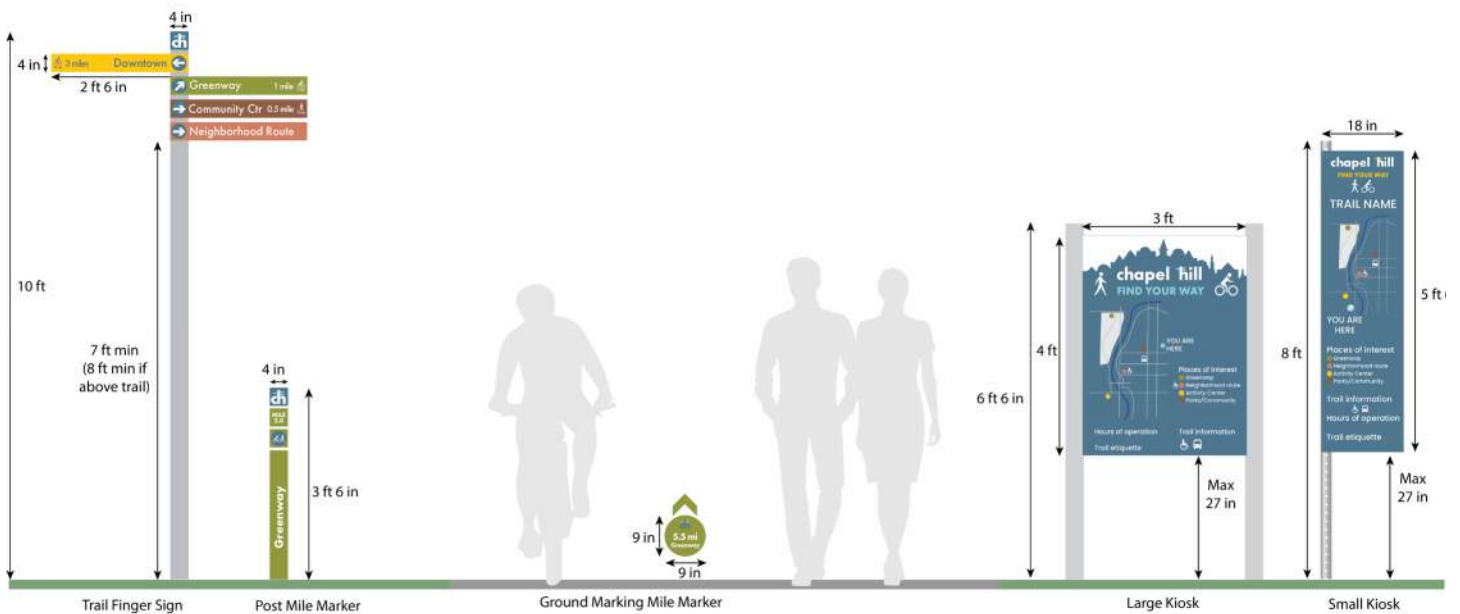


Figure 59. Trail Sign Dimensions



COST ESTIMATES

The signs produced for this Strategy represent conceptual designs. Figure 23 shows opinions of probable cost for the fabrication of the sign panels for budgeting purposes only. Costs are based on estimates from a variety of U.S.-based sign fabricators.⁶

Costs assume an order of 25 signs of each type using heavy .063 gauge aluminum panels. Costs do not include shipping or installation costs.

Production specifications include:

- .080 gauge aluminum panels for all signs
- 3M vinyl overlay on all signs and posts
- Reflective substrate on street signs
- Single- or double-sided

Table 4. Wayfinding Sign Cost Estimates

SIGN TYPE	DETAILS	UNIT COSTS
<i>Signs</i>		
Street Sign	Single sided 24x24"	\$50 to \$60 (2 color)
Decorative Street Sign	Single sided 24x24"	\$50 to \$60 (2 color)
Awareness Street Sign	Single sided 18x24'	\$25 to \$35 (2 color)
Large Kiosk Sign	Single sided 36x48"	\$1,200 to \$3,400
Large Kiosk Sign	Double sided 36x48"	\$1,800 to \$5,100
Small Kiosk Sign	Single sided 18x66"	\$1,200 to \$3,000
Small Kiosk Sign	Double sided 18x66"	\$1,800 to \$4,500
Individual Finger Sign	Double sided 18x4"	\$600 to \$1,200
<i>Ground Markings</i>		
Ground marking	9x9" adhesive or paint	\$400 to \$900

6. BSC Signs: <https://bscsigns.com/>

American Striping Company: <https://www.americanstripingcompany.com/>

Voss Signs: <https://vosssigns.com/product/heavy-gauge-custom-signs-aluminum/>

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APPENDICES

APPENDIX A

Existing Signage and Branding in Chapel Hill

Town seal



Downtown signage & Vehicular wayfinding



Downtown Chapel Hill



UNC Signage

Identity

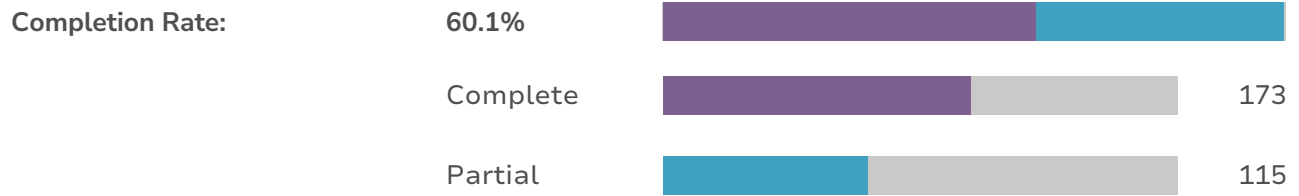


APPENDIX B

Full Community Survey Results

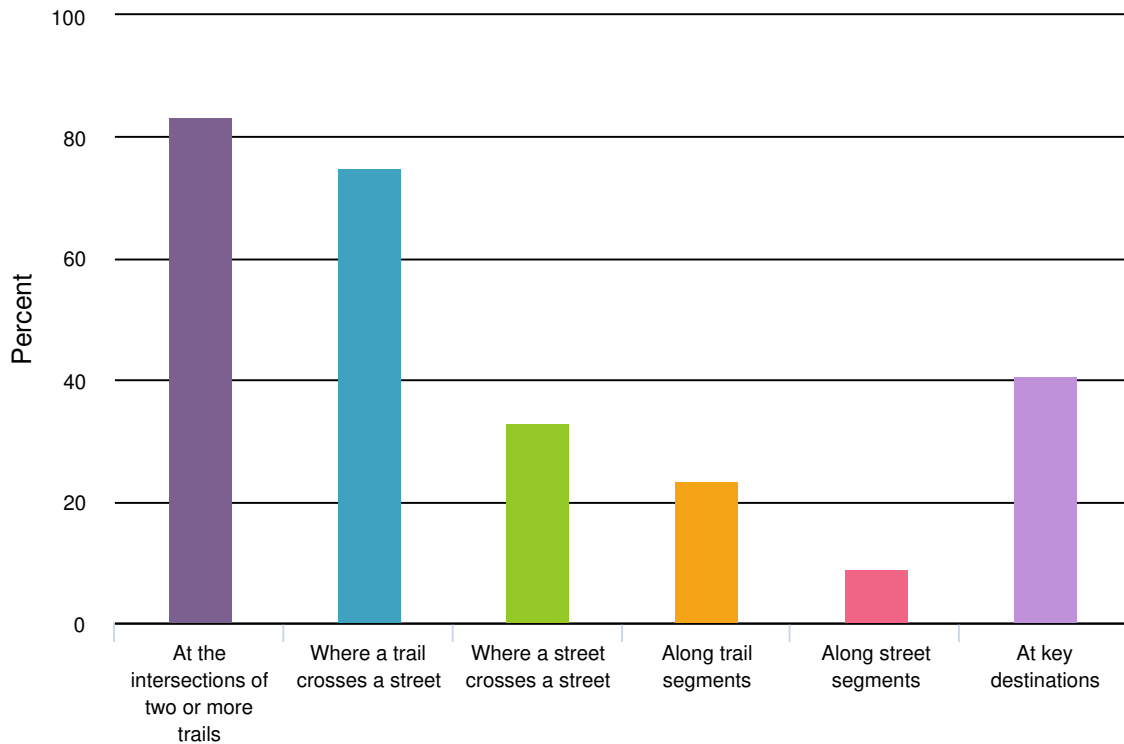
Report for Town of Chapel Hill Wayfinding Strategy Survey

Response Counts












Totals: 288


1. Where do you believe wayfinding signage can have the greatest impact? (Select up to 3)



Value	Percent	Responses
At the intersections of two or more trails	83.2%	164
Where a trail crosses a street	75.1%	148
Where a street crosses a street	33.0%	65
Along trail segments	23.4%	46
Along street segments	9.1%	18
At key destinations	40.6%	80

2. What are the most important destinations to show on wayfinding signs? (Drag them over in order of your preference)

Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Central locations (Such as Downtown and UNC campus)	1		1,363	187
Parks	2		1,355	192
Greenway Trails	3		1,252	179
Libraries	4		927	172
Schools	5		877	165
Shopping Center	6		824	168
Neighborhoods	7		736	158
Museums	8		658	159
Other	9		153	53



Lowest Rank Highest Rank

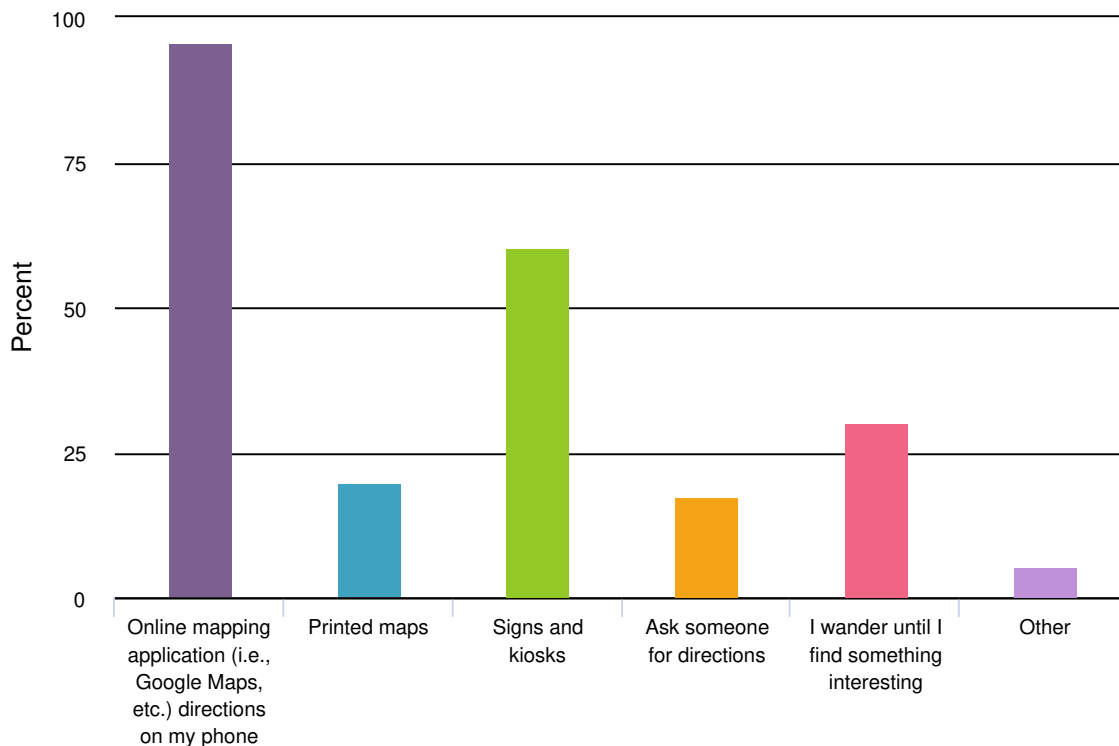
3. If Other was chosen for the above question, what type of destination do you want?



4. What kind of information would be useful to see on a wayfinding map?



5. What tools do you usually use to find your way around the region?
(Check all that apply):



Value	Percent	Responses
Online mapping application (i.e., Google Maps, etc.) directions on my phone	95.6%	174
Printed maps	19.8%	36
Signs and kiosks	60.4%	110
Ask someone for directions	17.6%	32
I wander until I find something interesting	30.2%	55
Other	5.5%	10

6. If Other was chosen for the above question, what other tool(s) do you use?



7. There are four key types of wayfinding signage shown above. Rank them from most to least important (1=most)

Item	Overall Rank	Rank Distribution	Score	No. of Rankings
Decision Signs	1		651	182
Turn Signs	2		503	182
Route Confirmation Signs	3		368	182
Supplemental Information Signs	4		298	182

Lowest Rank Highest Rank



A

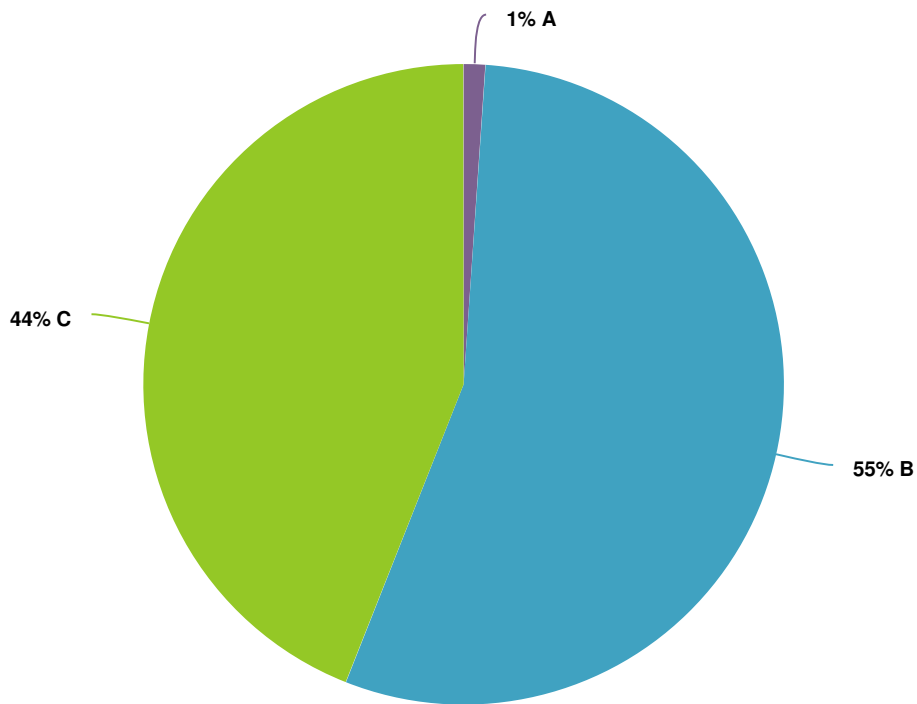


B



C

8. Which of the above types of decision signs do you prefer?

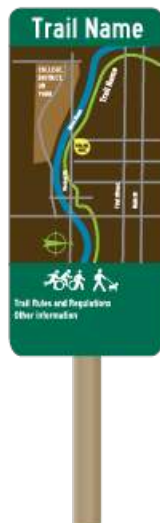


Value	Percent	Responses
A	1.1%	2
B	54.9%	100
C	44.0%	80

Totals: 182

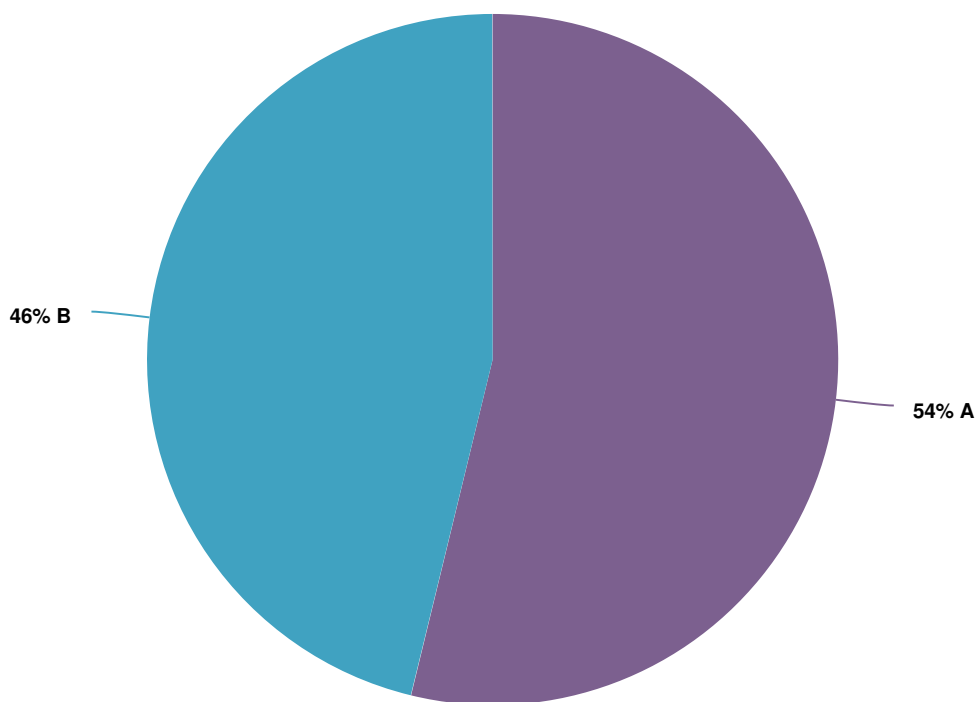


A



B

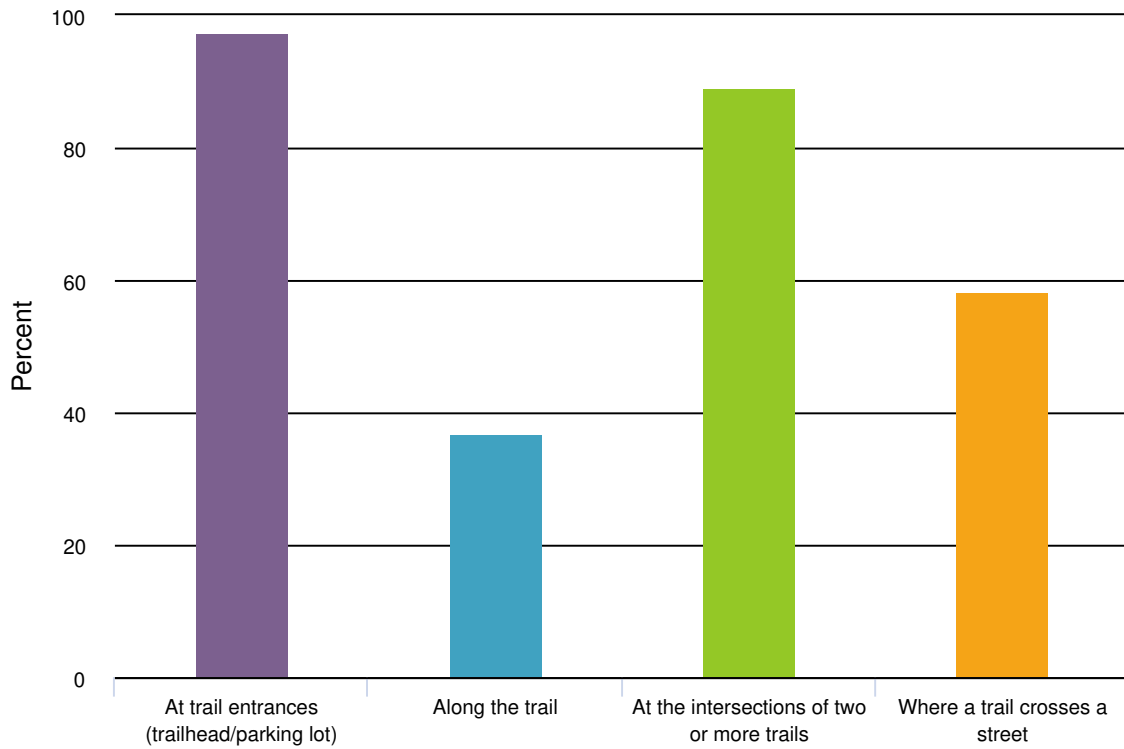
9. Which of the above trail map style do you prefer? Please explain below.







Value	Percent	Responses
A	53.8%	98
B	46.2%	84

Totals: 182

11. At which locations would you prefer to see trail maps? (Check all that apply)

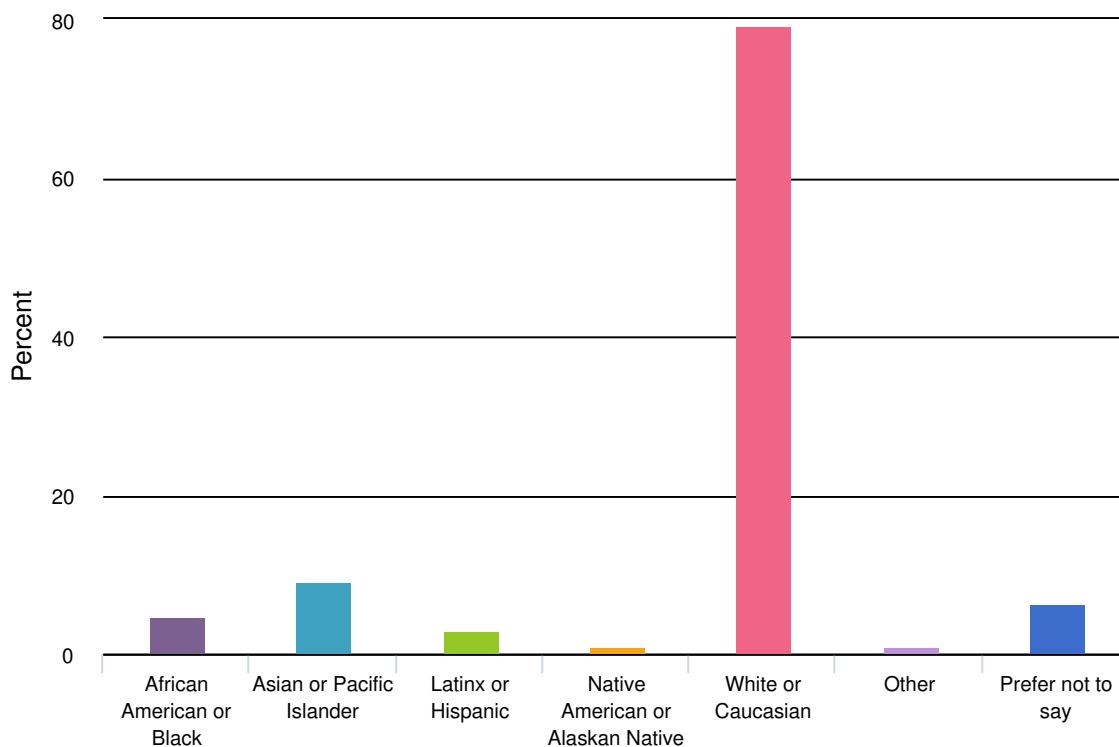


Value		Percent	Responses
At trail entrances (trailhead/parking lot)		97.3%	177
Along the trail		36.8%	67
At the intersections of two or more trails		89.0%	162
Where a trail crosses a street		58.2%	106

12. How important are the following project outcomes to you?

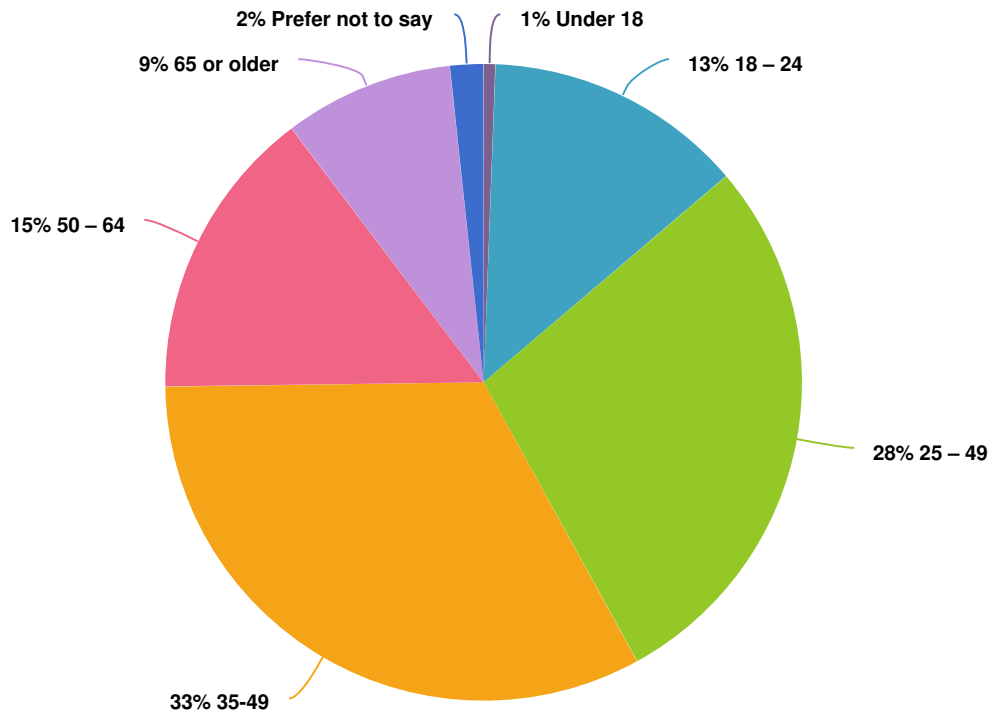
	Least Important	Less Important	Neutral	Important	Very Important	Responses
A functional wayfinding system Count Row %	2 1.1%	2 1.1%	8 4.4%	73 40.1%	97 53.3%	182
A design that reflects the unique character of the Town of Chapel Hill Count Row %	21 11.5%	44 24.2%	54 29.7%	49 26.9%	14 7.7%	182
A design that reflects the unique character of your neighborhood trail or route Count Row %	28 15.4%	50 27.5%	64 35.2%	34 18.7%	6 3.3%	182
Attractiveness of signs Count Row %	6 3.3%	14 7.7%	53 29.1%	91 50.0%	18 9.9%	182
Signs that can be fabricated at low-cost Count Row %	11 6.0%	20 11.0%	79 43.4%	55 30.2%	17 9.3%	182
Make it easier for users to walk, bike, and use transit in the region Count Row %	2 1.1%	0 0.0%	4 2.2%	17 9.3%	159 87.4%	182
Totals Total Responses						182

13. What races or ethnicities do you identify with? Select all that apply.



Value	Percent	Responses
African American or Black	4.6%	8
Asian or Pacific Islander	9.2%	16
Latinx or Hispanic	2.9%	5
Native American or Alaskan Native	1.1%	2
White or Caucasian	79.3%	138
Other	1.1%	2
Prefer not to say	6.3%	11

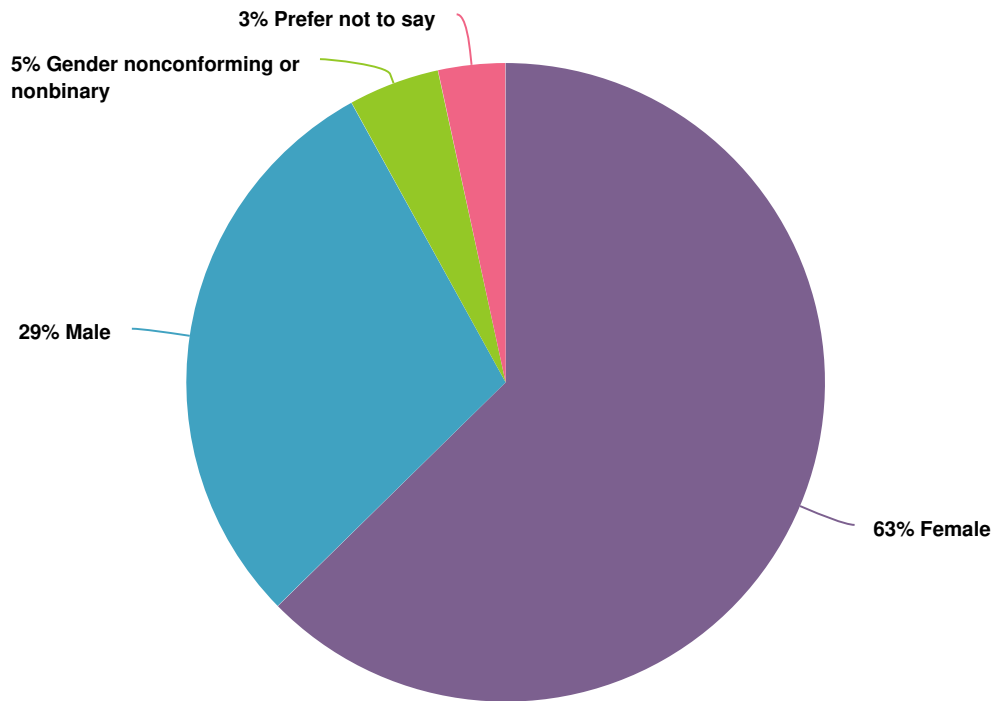
14. What is your age?







Value	Percent	Responses
Under 18	0.6%	1
18 – 24	13.2%	23
25 – 49	28.2%	49
35-49	32.8%	57
50 – 64	14.9%	26
65 or older	8.6%	15
Prefer not to say	1.7%	3

Totals: 174

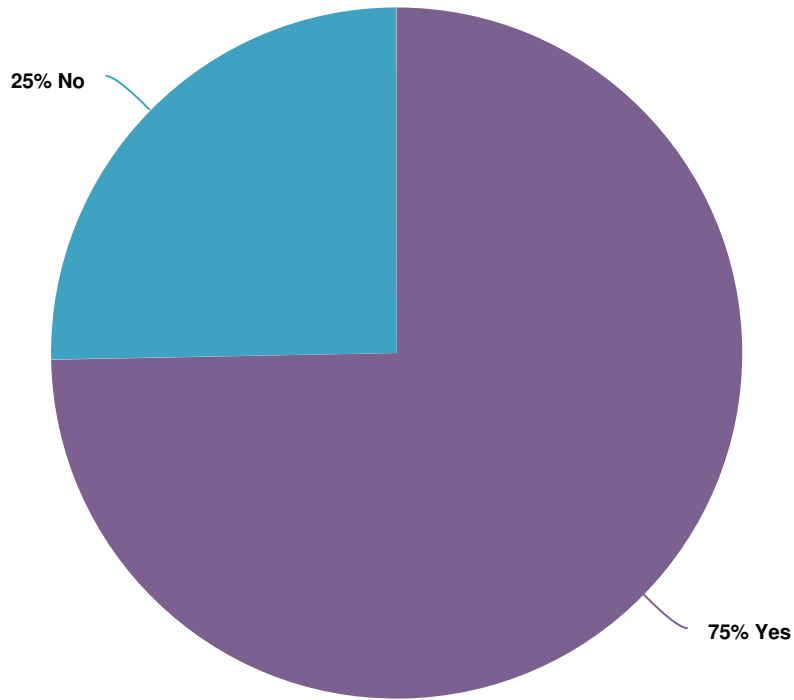
15. What is your gender identity?



Value		Percent	Responses
Female		62.6%	109
Male		29.3%	51
Gender nonconforming or nonbinary		4.6%	8
Prefer not to say		3.4%	6

Totals: 174

16. Are you a Town of Chapel Hill resident?



Value		Percent	Responses
Yes		74.7%	127
No		25.3%	43

Totals: 170

APPENDIX C

Technical Guidance

The following national, state, and local manuals provide guidance on specific aspects of bicycle and trail signage that are applicable to this project. A brief description of the guidance available in each manual is included below.

Manual on Uniform Traffic Control Devices (MUTCD) Guidelines

The Manual on Uniform Traffic Control Devices (MUTCD 2009 edition) defines the signs and standards for traffic control devices on all “public streets, highways, bikeways, and private roads open to public travel”. It is published by the Federal Highway Administration (FHWA). Having consistent sign and traffic control devices across the United States results in safer, more efficient travel. Part 9 of the MUTCD establishes standards and guidance for traffic control of bicycle facilities, including the signs shown below:

Regulatory Signs



Warning Signs



Guide Signs



The MUTCD also has a section on Community Wayfinding which provides standards and guidance for customized, branded wayfinding signs, which may be used on roads that are not freeways (see example in Figure 5). Section 2D.50 of the MUTCD states:

Community wayfinding guide signs are part of a coordinated and continuous system of signs that direct tourists and other road users to key civic, cultural, visitor, and recreational attractions and other destinations within a city or a local urbanized or downtown area.

Community wayfinding guide signs are a type of destination guide sign for conventional roads with a common color and/or identification enhancement marker for destinations within an overall wayfinding guide sign plan for an area.

Many communities interpret this section as providing guidance for customizing their bicycle wayfinding signs to include specific branding and flexibility in color and design, either as an element of one or more unique routes, or throughout their entire bicycle wayfinding system. The figure below illustrates the features of a community wayfinding sign. The background color of the sign may be customized but cannot use standard MUTCD colors that convey specific meanings to roadway users, such as red indicating “stop”. Prohibited standard colors include red, orange, yellow, purple, fluorescent yellow-green, and fluorescent pink. Enhancement markers may be any color, but the MUTCD recommends that enhancement markers occupy no more than 20 percent of the sign face on the top or side of the sign. Other features of the sign legend, such as the directional arrows, fonts, and layout are as dictated by the MUTCD.

MUTCD Community Wayfinding Signs



Design Flexibility for Shared Use Paths and Trails

Though the MUTCD states that its standards apply to all traffic control devices on bikeways, in practice, wayfinding signage systems on paths usually do not follow strict MUTCD design standards. There are two main reasons for this:

1. The funding agencies for wayfinding systems on paths often do not have to legally adhere to MUTCD standards, and therefore may not be aware of these standards. Frequently, funds for path wayfinding come from State Departments of Natural Resources, local or regional parks agencies, or privately raised funds.
2. On paths and trails, many users are pedestrians, and some wayfinding systems are therefore designed exclusively for pedestrians. The MUTCD Part 9 does not cover pedestrian traffic control for paths. The MUTCD notes that pedestrian wayfinding signs may differ from bicycle wayfinding, such as by using smaller fonts and not including retro-reflectivity.

The spectrum of compliance to MUTCD wayfinding sign standards is shown below. There are many examples of unique bicycle and trail-based wayfinding signs across the county.

Spectrum of MUTCD Compliance



Photo Credit: Bike Michiana

Rigid MUTCD ← Flexible MUTCD → Non-MUTCD (usually trails)



Photo Credit: W.D. Vanlue

NCDOT Wayfinding Guidance

Some or all wayfinding signs may need to adhere to North Carolina Department of Transportation (NCDOT) policy. NCDOT has several wayfinding-related revisions and additions to the national MUTCD but lacks other wayfinding guidance.

Traffic Engineering Policies, Practices, and Legal Authority (TEPPL)

https://connect.ncdot.gov/resources/safety/Teppl/Pages/Teppl-Topic-Original.aspx?Topic_List=S32

[TE-PS-1] SPECIAL MUNICIPAL SIGNS

Municipal authorities may install special signs for marking historical routes, scenic routes, or trailblazer signs to municipal centers, etc. If approved by the NCDOT, the signs may be installed but all costs involved in their installation and maintenance shall be borne by the municipality. G.S. 136-18(5); 18(19); 30

https://connect.ncdot.gov/resources/safety/Teppl/TEPPL%20All%20Documents%20Library/S-32_mm.pdf

POLICY FOR THE ERECTION OF SPECIAL SIGNS IN MUNICIPALITIES

1. Municipal authorities may install special signs for marking historical routes, scenic routes, or trailblazer signs to municipal centers, etc. if approved by the Division Engineer.
2. All costs involved in the erection and maintenance of such signs be borne by the Municipality.
3. No such signs shall be erected on the Interstate Highway System without the approval of the State Traffic Engineer.

https://connect.ncdot.gov/resources/safety/Teppl/TEPPL%20All%20Documents%20Library/S-32_policy.pdf

Town of Chapel Hill Guidance

Town staff weighed in on materials, shapes, colors, and design themes in regard to alignment with MUTCD, NCDOT, and local guidance. Sign shop capabilities and maintenance were also considered.

Chapel Hill's existing wayfinding signage and in and around town is primarily directed toward motorists.



Source: <https://www.townofchapelhill.org/government/departments-services/public-works/traffic-engineering/signage-in-chapel-hill>

The Graphic Standards Manual of Chapel Hill states the importance of uniform signage across the Town to ensure recognition and make Chapel Hill routes and destinations stand apart from surrounding towns. The manual includes details about logo design, use, and specifications.



TOWN OF
CHAPEL HILL



Source: <https://www.townofchapelhill.org/home/showpublisheddocument?id=1653>

University of North Carolina Signs and Wayfinding Guidance

<https://facilities.unc.edu/resources/design-guidelines/signs/exterior-signage-guidelines/>

Signage design for the campus should take into account the reading audience is very broad in terms of campus familiarity, sense of urgency, origins, purpose, and conditions affecting their ability to use various aspects of the wayfinding system. The beauty of the UNC campus is the trees and vistas and architecture. Too much signage will detract from beauty and make wayfinding more difficult.

Accessibility Guidelines

Americans With Disabilities Act Standards

The 2010 ADA Standards for Accessible Design provides specific guidance for the design of communication elements, including signs. The following standards from Section 703.5, Visual Characters, should be considered when designing wayfinding signs for outdoor use.

Finish and Contrast

Signs are more legible for persons with low vision, as well as persons with color vision deficiency (i.e., colorblindness), when the value contrast (light vs. dark) between the characters and the background is kept high. This may be achieved by using light characters on a dark background or dark characters on a light background. Visual characters and their background should both have a non-glare finish. Consider additional factors that affect the ease with which the text can be distinguished from its background including shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

Tactile Signs

Braille lettering can be included on wayfinding signs and can be successful in urban environments with predictable sign placement, and the use of tactile wayfinding surface indicators to help people find the signs. Trail signs are typically placed off the edge of a trail, making them difficult for people who have vision disabilities to find or access. Emerging technologies like audio-based navigation tools (e.g., Google Maps) can support accessible trail use.

APPENDIX D

Centering the User Worksheet: I have a place

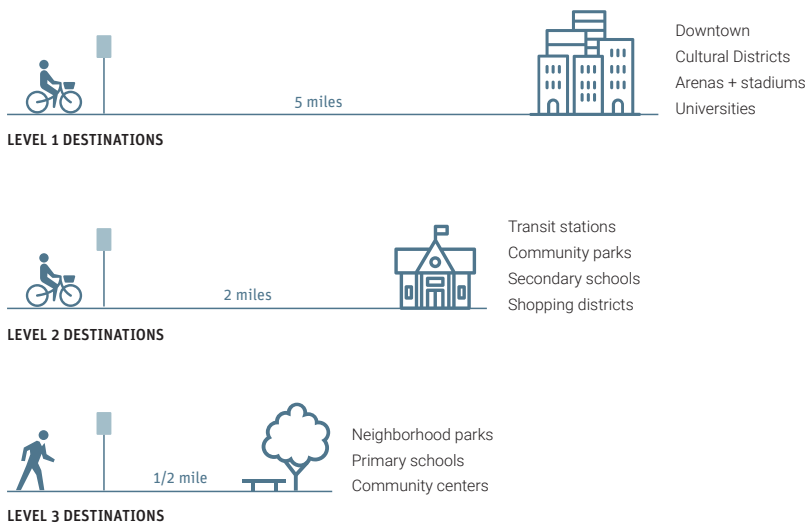
I HAVE A PLACE. WHAT SIGN DO I NEED?		
WHAT IS NEARBY? WHERE ARE PEOPLE GOING?	Key destinations? Popular routes?	*The destination heirarchy graphic is a great place to start!
WHO WILL USE THIS SIGN?	Transit riders? Bicyclists? Walkers? Rollers?	*Reference the traveler mindset graph for ideas!
WHAT INFORMATION DO PEOPLE NEED?	What is missing? What information exists?	
HOW DOES THIS PLACE/SIGN FIT INTO CHAPEL HILL'S WALKING AND BICYCLING NETWORK?		



Centering the User Worksheet: I have a sign

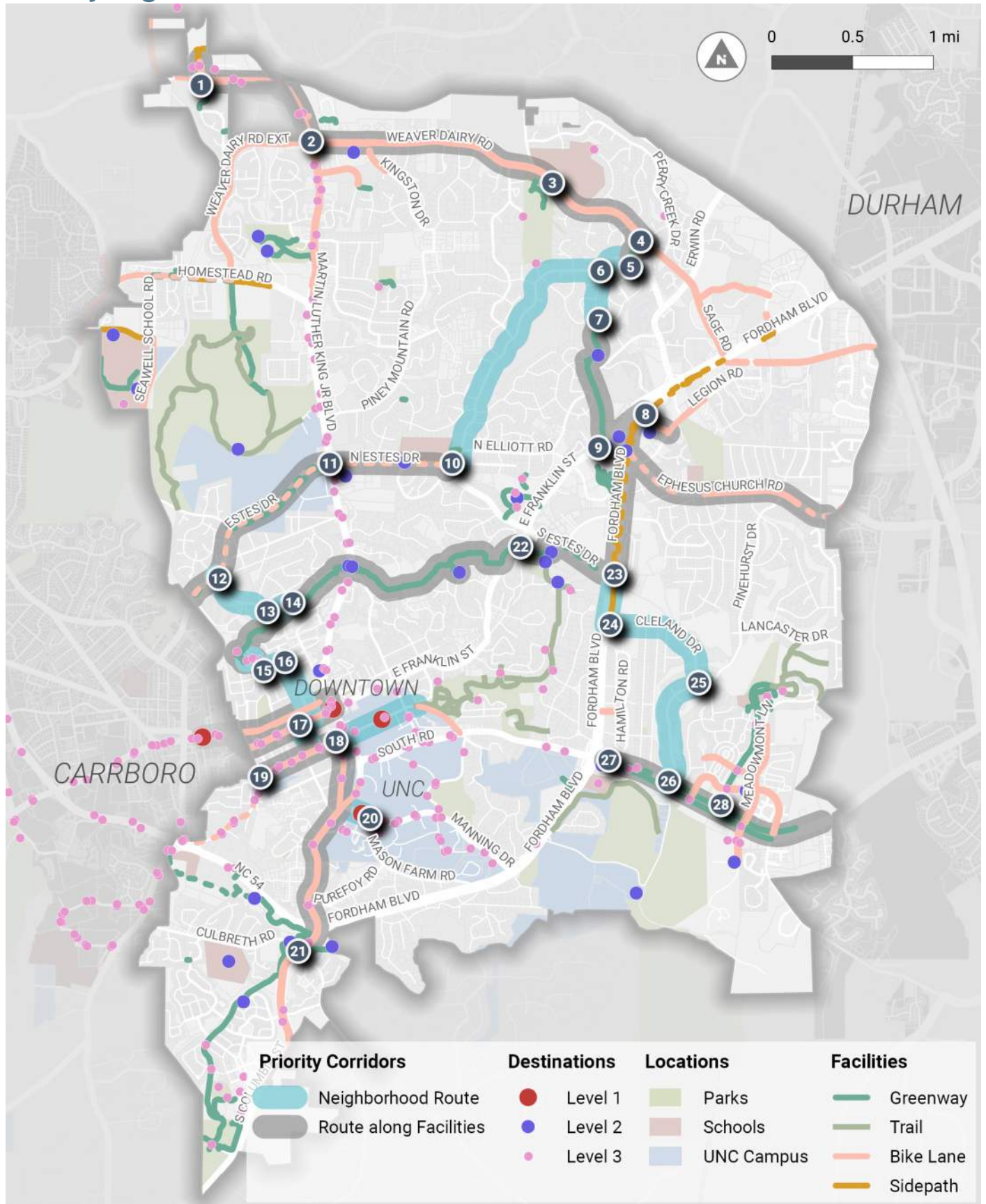
I HAVE A SIGN. WHERE SHOULD I PUT IT?

<p>WHERE ARE THE GAPS IN THE WAYFINDING NETWORK?</p>	<p>Are there new projects along the corridor? How can we connect more destinations?</p>	<p>*The destination heirarchy graphic is a great place to start!</p>
<p>WHAT DOES THIS SIGN TELL ME? WHAT INFORMATION COULD BE ON THIS SIGN?</p>	<p>Is it informing or directing a person en route?</p>	<p>*Reference the traveler mindset graph for ideas!</p>
<p>HOW DOES THIS PLACE/SIGN FIT INTO CHAPEL HILL'S WALKING AND BICYCLING NETWORK?</p>		



APPENDIX E

Priority Sign Locations with Level 1, 2, and 3 Destinations







**CHAPEL HILL
BICYCLE AND PEDESTRIAN
WAYFINDING
STRATEGY**