STANLEY

PEDESTRIAN + BICYCLE PLAN

June 2023

Produced by:

alta

Produced for:

Stanley
NORTH CAROLINA
A Friendly Place

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ACKNOWLEDGMENTS

Thanks to the local residents, business leaders, community leaders, and government staff who participated in the development of this study through meetings, events, volunteering, interviews, and review.

STEERING COMMITTEE

Heath Jenkins, Town Manager, Town of Stanley

Olga Grishin, Town Clerk, Town of Stanley

Tug Deason, Parks and Recreation Director, Town of Stanley

Leah Anna Helms, Council Member, Town of Stanley

Craig Roseberry, Public Works Director, Town of Stanley

Eric Withers, Fire Chief, Town of Stanley

Michael Crisp, resident

John Rudisill, resident

Greg Dimmer, resident

Arthur Cashwell, Senior Planner, Gaston-Cleveland-Lincoln Metropolitan Planning Organization

Dean Ledbetter, Engineer, NCDOT Division 12

PROJECT CONSULTANTS

Heather Maloney, Planner, Alta Planning + Design

Matt Hayes, Principal, Alta Planning + Design

PROJECT CONTACT

Elisa Neal, Planning Director, Town of Stanley

416 Highway 27 S, Stanley, NC 28164 www.townofstanley.org

Alex Rotenberry, Multimodal Regional Planner, Western Piedmont, NCDOT-IMD

919.707.4682 | jarotenberry@ncdot.gov


STANLEY BARBER SHOP
H&R BLOCK
OPEN

EXECUTIVE SUMMARY

The Stanley Pedestrian + Bicycle Plan builds on past efforts and creates a new vision for walking and bicycling in town. The plan will be used by the Town of Stanley, North Carolina Department of Transportation (NCDOT), and the Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) to prioritize, fund, and implement high-quality infrastructure, high-impact programs, and supportive policies for walking and bicycling. This planning effort was made possible through funding from NCDOT.

VISION STATEMENT

"Stanley will be a place where walking and bicycling are **safe and convenient choices for all**; where residents can easily access recreational areas, schools, and other destinations on foot and by bike; and where pedestrian-friendly design is prioritized in all future roadway, recreation, and development projects to support a healthy community and economy."

IDENTIFYING PRIORITIES

As part of the planning process, project consultants, town staff and community stakeholders identified key inputs to identify priority projects. These four factors, illustrated below, were used to develop priority corridors for near-term projects to improve walkability and bikeability in Stanley. These factors should be considered when the Town or the North Carolina Department of Transportation (NCDOT) selects projects for implementation.

Project prioritization scores form the basis for a phased approach to funding and implementing the projects recommended in this plan, with the higher ranking projects being designated as near-term priorities for implementation. Lower scoring projects are designated for later phases of implementation.

Connectivity to Downtown and Key Destinations

The project is located on a direct walking/biking connection to Main St, Harper Park, or Common Ground

Sidewalk Connectivity

The project fills a gap in the current sidewalk or bicycle network or improves an important crossing in the network

Preliminary concept-level designs were developed for five specific projects These projects are examples of a variety of facility types and were selected from the network recommendations. These five example projects were chosen to be representative of the types of bicycle and pedestrian project recommendations in the Plan.

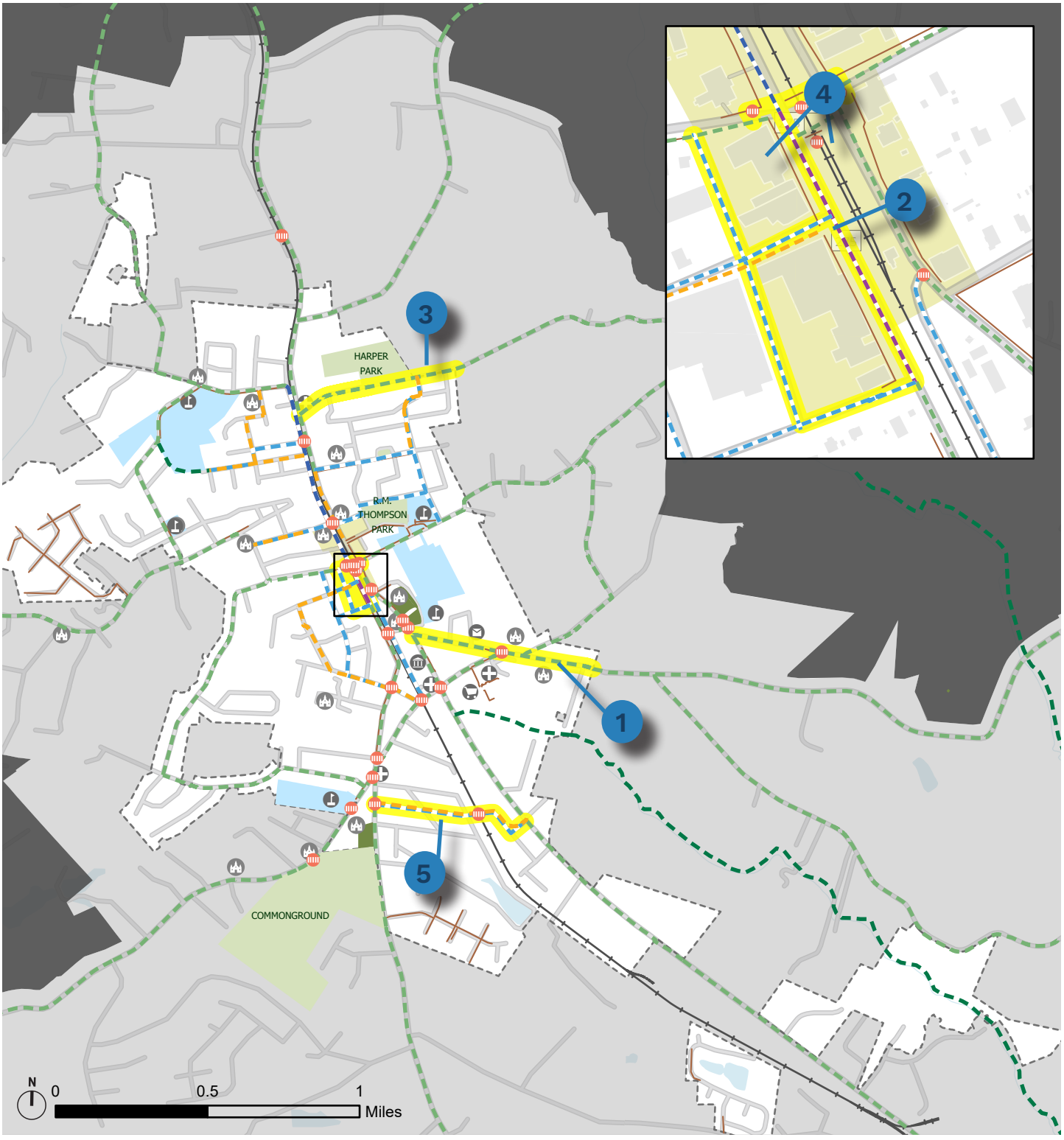
They show realistic examples of what implementation of each type of project might look like, including the coordination of intersection improvements to connect new and existing facilities. These project locations are highlighted in the network recommendations map on the facing page and include:

Safety

The project is located within 500 feet of a pedestrian or bicyclist-involved crash or creates a facility separated from motor vehicles or high-visibility crossing

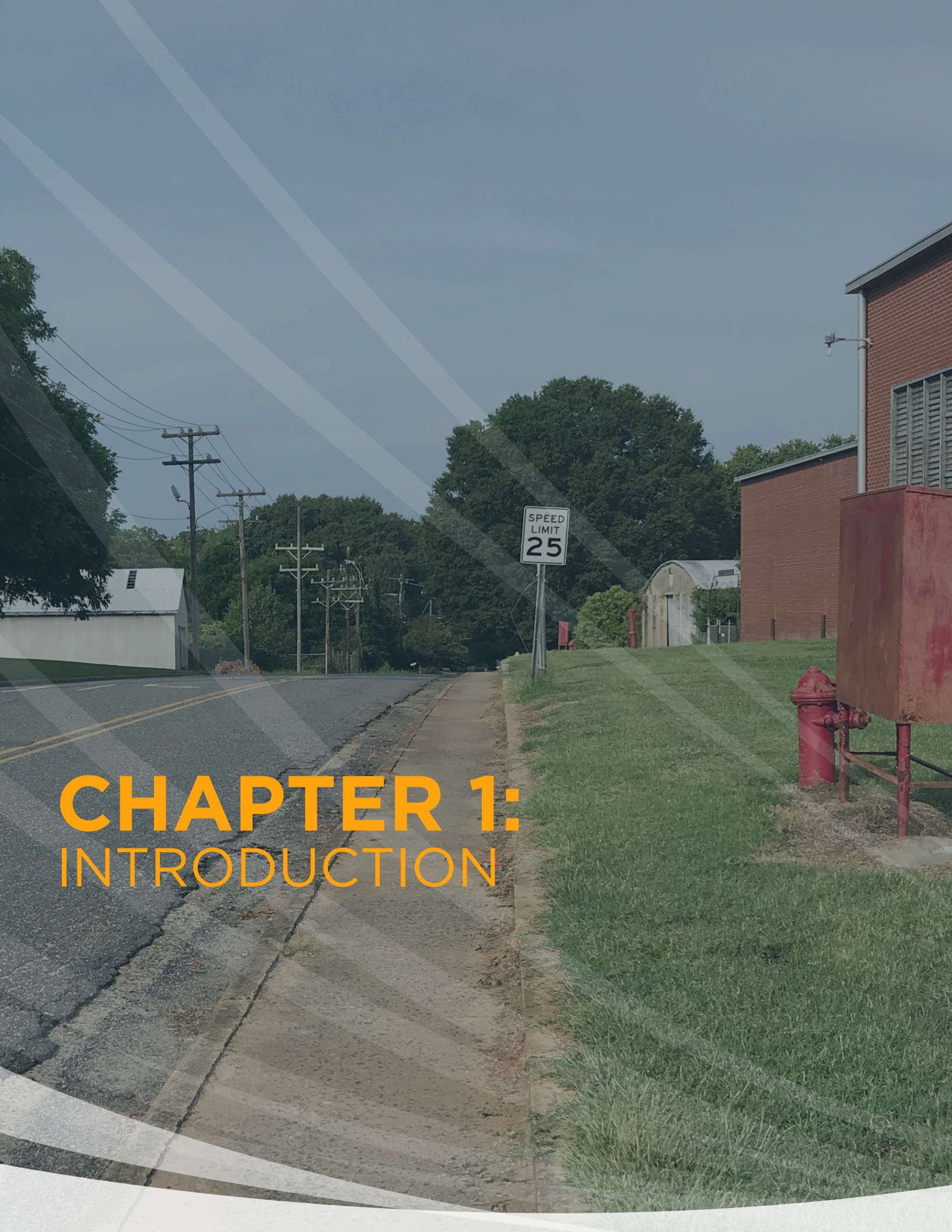
Equity

The project improves access to basic services or is located in an area that has no previous pedestrian infrastructure within 1/4 mile



REPRESENTATIVE PROJECTS

- Representative Projects
- Crossing Improvement
- Sidepath
- Greenway
- On-Street Bikeway
- Bike Blvd/Advisory Shoulders
- Shared Lane Markings ("Sharrows")
- Sidewalk
- Sidewalk - existing
- Grocery
- Medical
- Schools
- City Hall
- Post Office
- Churches
- Railroad
- Downtown
- Parks
- School Property
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction



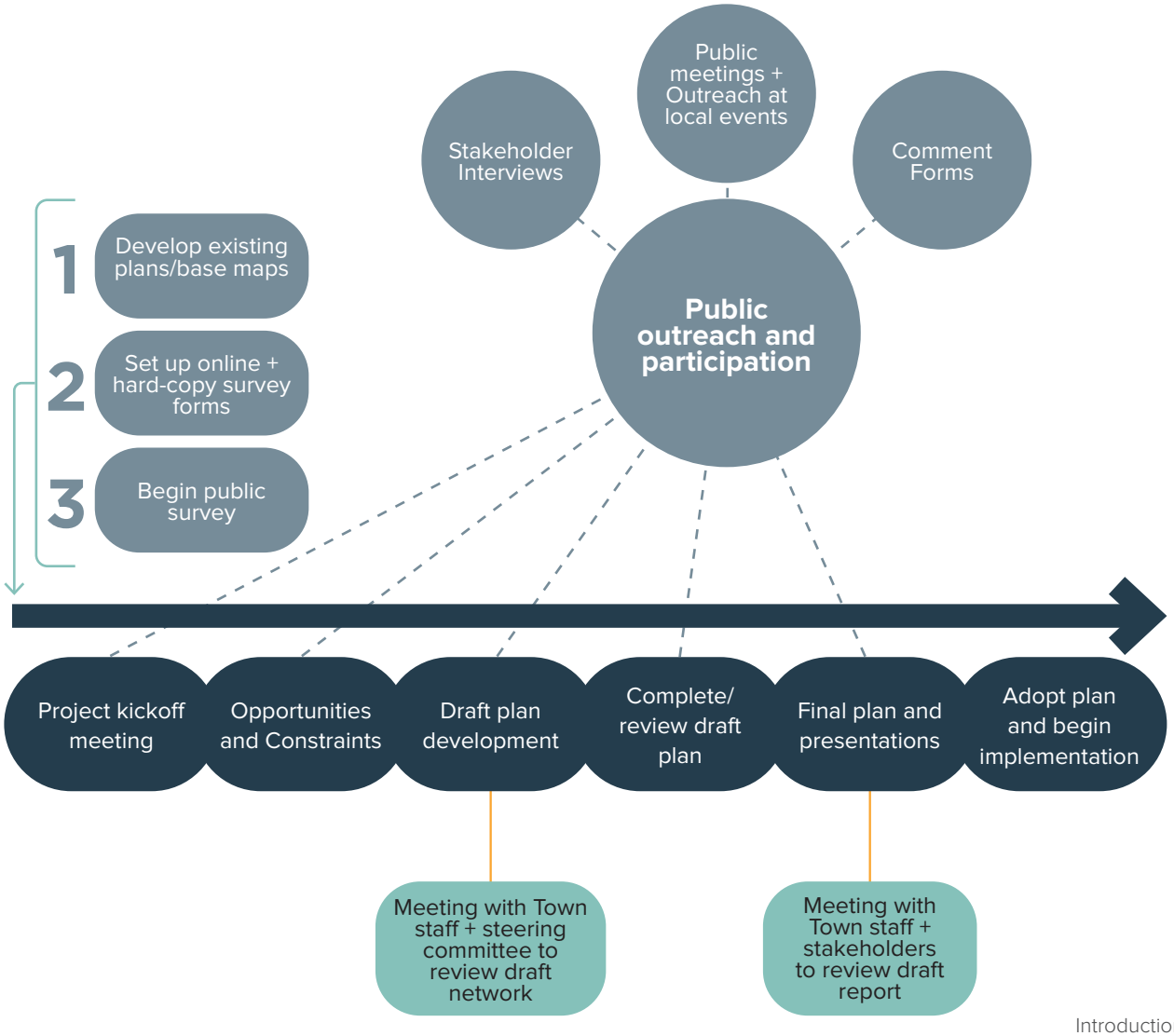
CHAPTER 1:
INTRODUCTION

PLANNING PROCESS

The scope of this plan is to provide a **comprehensive assessment of walking and bicycling throughout the Town of Stanley**, including identifying pedestrian and bicyclist needs and deficiencies, examining optional improvements, and prioritizing implementation strategies with viable funding sources. The study area for this plan is defined by the municipal town limits.

The Stanley Pedestrian + Bicycle Plan builds on past efforts and creates a new vision for walking and bicycling in the town. The plan will be used by the Town of Stanley, North Carolina Department of Transportation (NCDOT), and the Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) to prioritize, fund, and implement high-quality infrastructure, high-impact programs, and supportive policies for walking and bicycling. This planning effort was made possible through funding from NCDOT.

The Stanley Pedestrian + Bicycle Plan process began in September 2021 and continued through to March 2022. The graphic below expresses the various planning activities and tasks undertaken and how they work together to form a dynamic and representative active transportation plan for the Town of Stanley.



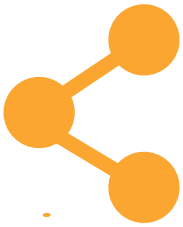
VISION

"Stanley will be a place where walking and bicycling are **safe and convenient choices for all**; where residents can easily access recreational areas, schools, and other destinations on foot and by bike; and where pedestrian-friendly design is prioritized in all future roadway, recreation, and development projects to support a healthy community and economy."

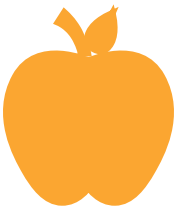
HOW TO GET THERE

The goals outlined below build upon the vision statement, relate to key themes from local plans and public input, and expand upon national best practices.

Increase Safety
Address the safety of the transportation system for the most vulnerable users and aim for zero pedestrian and bicycle fatalities and serious injuries.



Enhance Connectivity
Develop a network that links destinations and neighborhoods so walking and biking are convenient choices.



Increase Choices for Recreation and Exercise
Enhance access to outdoor recreation and exercise centers via walking and biking.

Increase Active Mobility
Provide active transportation choices that support healthy, safe, and walkable lifestyles.

Improve Overall Quality of Life
Ensure that walking and biking is safe for people of all ages and abilities to easily access goods and services.

Support Tourism and Economic Growth
Recognize the economic benefits of walkable communities, and capitalize on increased tourism opportunities.

CHAPTER 2:
COMMUNITY ANALYSIS

COMMUNITY OVERVIEW

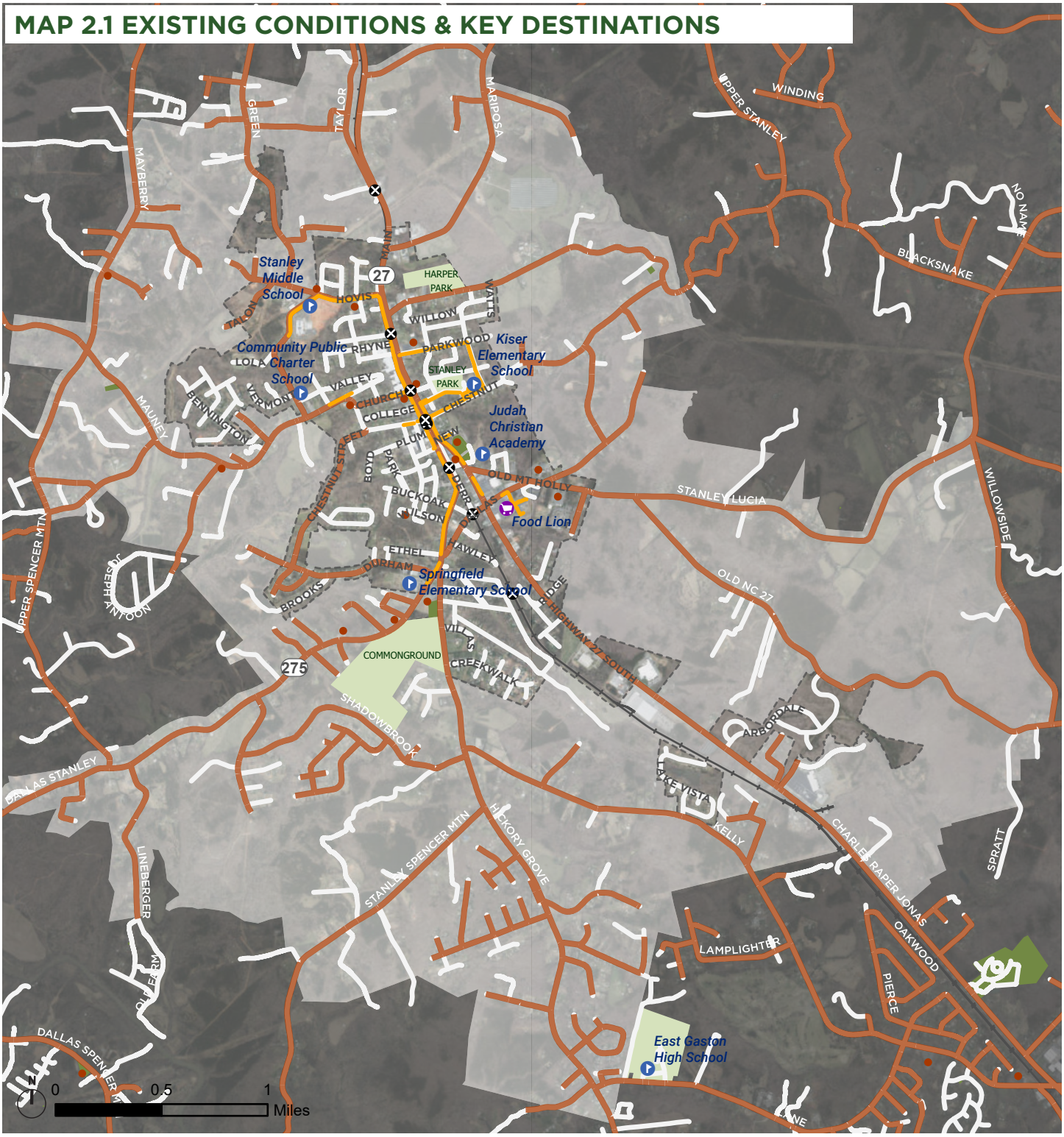
PHYSICAL CHARACTERISTICS

Stanley is in northeast Gaston County, approximately 20 miles northwest of downtown Charlotte, North Carolina. With a population of just under 4,000 people, and an area of 2.7 square miles, Stanley is a small town. Its downtown area is the center of the town—both geographically and socially—drawing residents and visitors alike to its restaurants and shops. Harper Park on the northeast side of town, and CommonGround on the southwest, are two popular parks that also attract visitors, with their walking trails and paths, and athletic fields. Opportunities to walk in town exist, with sidewalks along major roads, and trails within the two parks. However, sidewalks do not connect to those parks, or to other destinations like schools or railroad crossings, making walking a difficult and unsafe choice for many.

The chart below provides an overview of the analyses conducted and how they relate to existing conditions in the region.

Type of Analysis...	To Understand...
Review of Existing Pedestrian + Bicycle Conditions	Opportunities and barriers to pedestrian and bicycle travel
Road Ownership	The responsible agency who oversees maintenance and improvements to Right-of-Way
Pedestrian- + Bicycle-Involved Crashes	Where pedestrian- and bicycle-involved crashes are occurring and any trends or patterns related to where the crashes occur

MAP 2.1 EXISTING CONDITIONS & KEY DESTINATIONS



Data provided by Gaston County and NC OneMap. Document: N:\Shared\PROJECTS\2021\00-2021-008 Stanley, NC Bike Ped Plan\GIS\Projects\Stanley_ExistingConditions.aprx. Date saved: 3/15/2022.

EXISTING CONDITIONS & KEY DESTINATIONS

STANLEY PEDESTRIAN AND BICYCLE PLAN

alta

MAP FEATURES

- Sidewalks
- State-Maintained Roadways
- Schools
- Grocery Store
- Churches
- Railroad Crossing
- Railroad
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

CURRENT WALKING & BIKING CONDITIONS

TRANSPORTATION NETWORK

Stanley is bisected north to south by railroad tracks and North Carolina Highway 27 (Charles Raper Jonas Highway/Main Street). Railroad crossing opportunities exist at six roadway crossings, and one pedestrian path crossing just south of Chestnut Street.

Stanley has two Main Streets on either side of the railroad track, paralleling the tracks. Old Mount Holly Road, Hickory Grove Road, Dallas Road, and Dallas Stanley Highway are the other main roadways that connect Stanley to surrounding towns. Many of the roadways in Stanley are state-maintained roads (see Map 2.1 on the previous page).

EXISTING WALKING & BIKING NETWORKS

Sidewalks exist along the west side of the Main Street on the western side of the railroad tracks. Sections of sidewalk exist on a number of smaller roadways that radiate out from Main Street.

Stanley does not have any dedicated bicycle infrastructure.

See Map 2.1 on the facing page for details of the existing pedestrian and bicycle infrastructure and key destinations.

COMMUNITY CONCERNS/NEEDS/ PRIORITIES

Community members have expressed their concern that the sidewalks do not connect well to key destinations, and do not align with where safe railroad crossings exist. Better railroad crossings and sidewalks that lead up to them were frequent requests from the public and Steering Committee.

Many of the streets in town have low traffic volumes and speed limits, which makes them relatively walkable and bikeable, but the collector streets and arterials with higher traffic volumes and speeds present significant barriers to connecting to key destinations. Many of these roadways are also state-maintained roads, which will require coordination with NCDOT to implement improvements. These roadways are identified in the map on the facing page.

KEY ORIGINS/DESTINATIONS

The key destinations that the public and Steering Committee identified during the planning process are depicted in the map on the facing page. These key destination include:

- Downtown Stanley
- Harper Park
- Stanley Park
- CommonGround Park
- Kiser Elementary School
- Stanley Middle School
- Community Pubic Charter School
- Springfield Elementary School

Many of these key destinations are within walking distance of Downtown Stanley and would be accessible by foot or bike if the appropriate facilities existed.

Demographic Summary for the Town of Stanley:

- **26% Children under 18 years**
- **18% Seniors**
- **12% No GED**
- **7.5% Below Poverty Level**
- **82% White, not Hispanic**
- **13% Black or African American**
- **4% Hispanic**
- **4% Non-English Speaking Households**
- **78% Drive Alone to Work**

Source: ACS, 2019

PEDESTRIAN & BICYCLE CRASH ANALYSIS

Analysis of pedestrian- and bicyclist-involved collisions revealed 35 pedestrian- or bicyclist-involved collisions in Stanley and the surrounding extra-territorial jurisdiction (ETJ), between 2007 and 2019. Below is a summary of this analysis. Refer to page 9 for a map that depicts the locations of these collisions.

23 Pedestrian-Involved Collisions

Unknown/ Possible/ No Injury	Minor Injury	Serious Injury	Fatality

2 Children

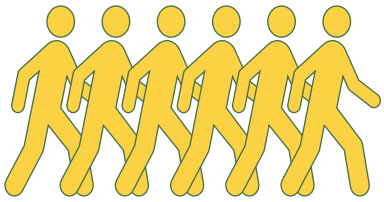
2 Minor Injuries
- 1 y.o.
- Female
- Daylight
- 3 y.o.
- Male
- Dusk

3 Adolescents

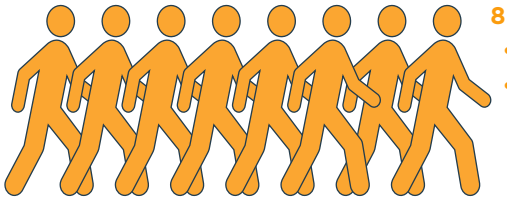
1 Uninjured
- 14-15 y.o.
- 2 Males
- 1 Dark/Nighttime; 1 Daylight

2 Minor Injuries
- 14-15 y.o.
- 2 Males
- 1 Dark/Nighttime; 1 Daylight

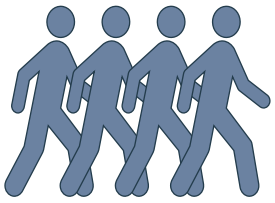
18 Adults



6 Possible/No Injury
- 1 Male, 4 Females, 1 Unknown gender
- 1 Dark/Nighttime; 1 Daylight



8 Minor Injuries
- 5 Male, 3 Female
- 1 dark/nighttime; 1 daylight



4 Serious Injuries
- 4 Male
- 3 Dark/Nighttime; 1 Daylight

12 Bicyclist-Involved Collisions

1 Child

1 Possible Injury
- 3 y.o.
- Male
- Daylight

8 Adolescents

2 Possible injuries
- 12 y.o., 17 y.o.
- 2 Males
- Both Daylight

5 Minor injuries
- 12-16 y.o.
- 4 Males, 1 Female
- All Daylight

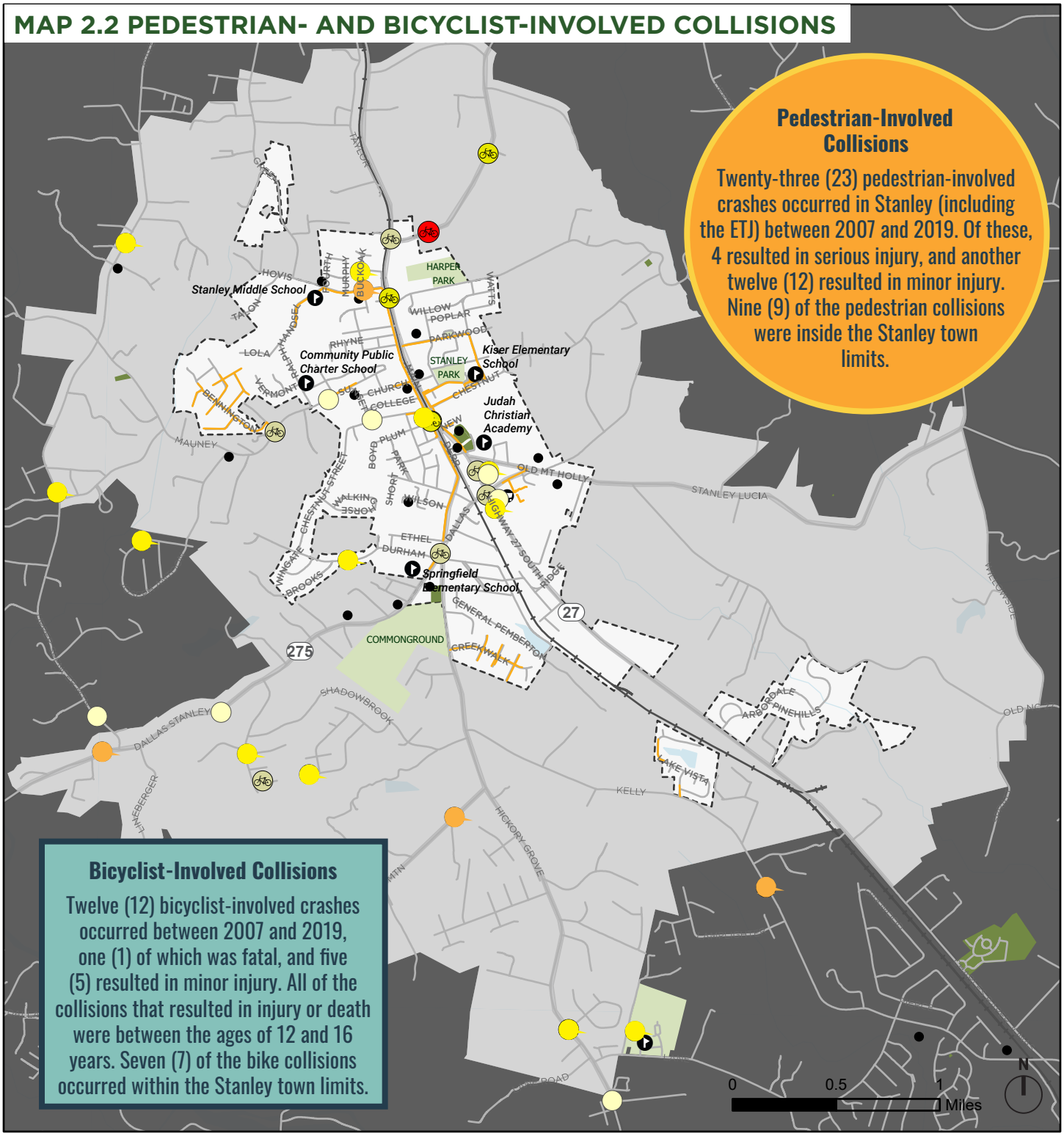
1 Fatality
- 16 y.o.
- Male
- Dark/Nighttime

3 Adults

3 Unknown/Possible Injury
- 2 Males, 1 Unknown gender
- All Daylight

Source: NCDOT, 2007-2019

MAP 2.2 PEDESTRIAN- AND BICYCLIST-INVOLVED COLLISIONS



Pedestrian- & Bicycle-Involved Collisions, 2007-2019

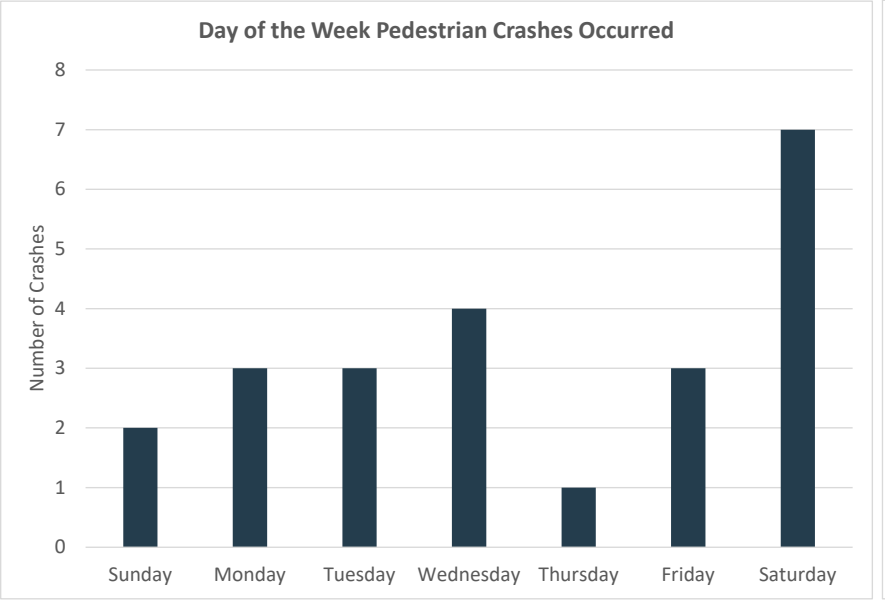
Pedestrian-Involved Collisions

- No/Unknown/Possible Injury
- Minor Injury
- Serious Injury
- Fatality

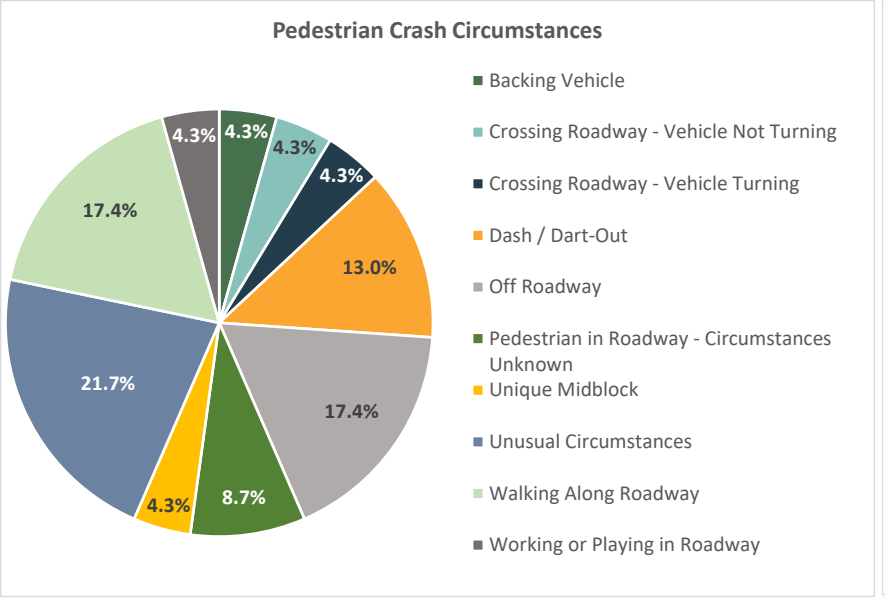
Bicycle-Involved Collisions

- No/Unknown/Possible Injury
- Minor Injury
- Serious Injury
- Fatality

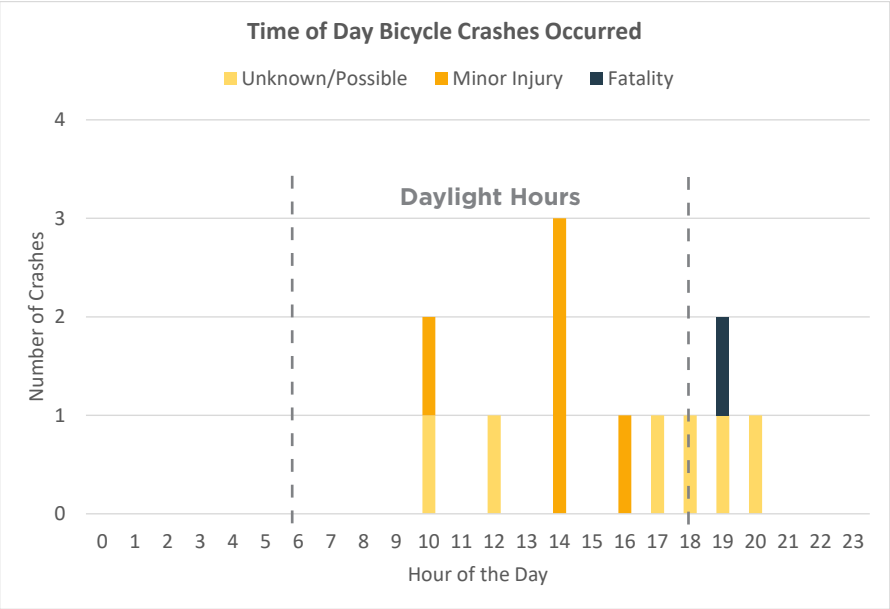
- Schools
- Grocery Store
- Churches
- Sidewalks
- Railroad
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction



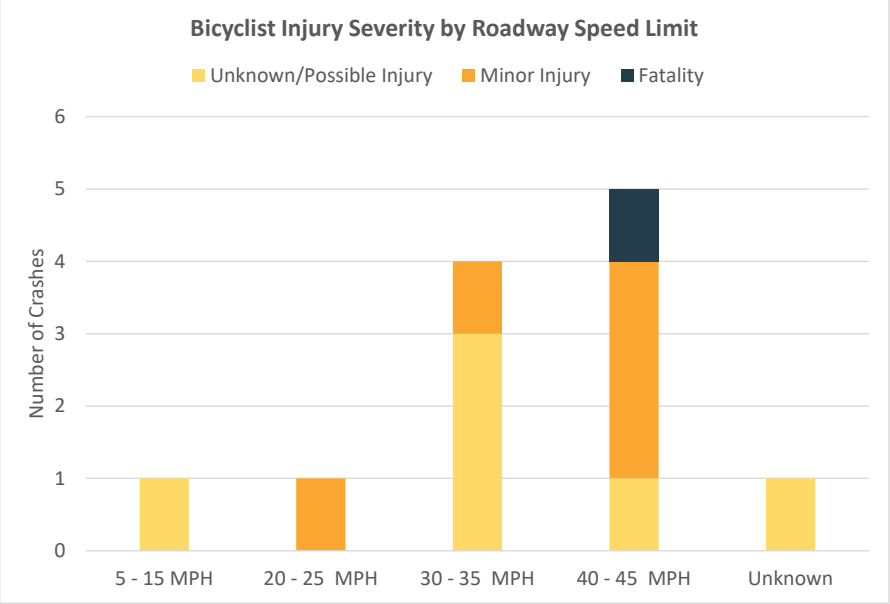
- Overall, Saturdays had the highest number of pedestrian-involved collisions with 7.
- For weekdays, Wednesday had the highest, with 4.



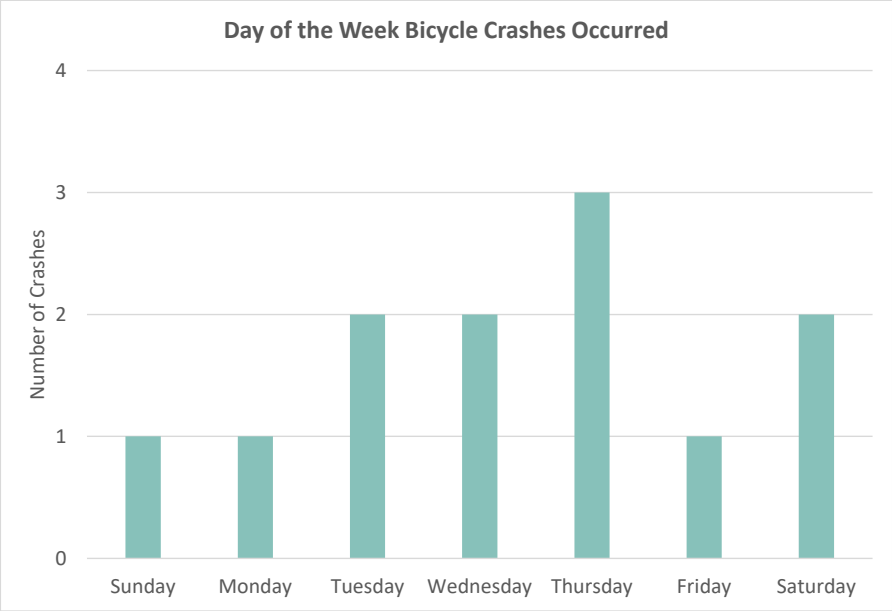
- A variety of circumstances contributed to the 23 pedestrian crashes, with no discernible pattern or systemic issue
- Each of the 4 serious injuries had a different circumstance associated with it, including: unique midblock incident, pedestrian in roadway with unknown circumstances, walking along the roadway, and crossing the roadway with a vehicle turning



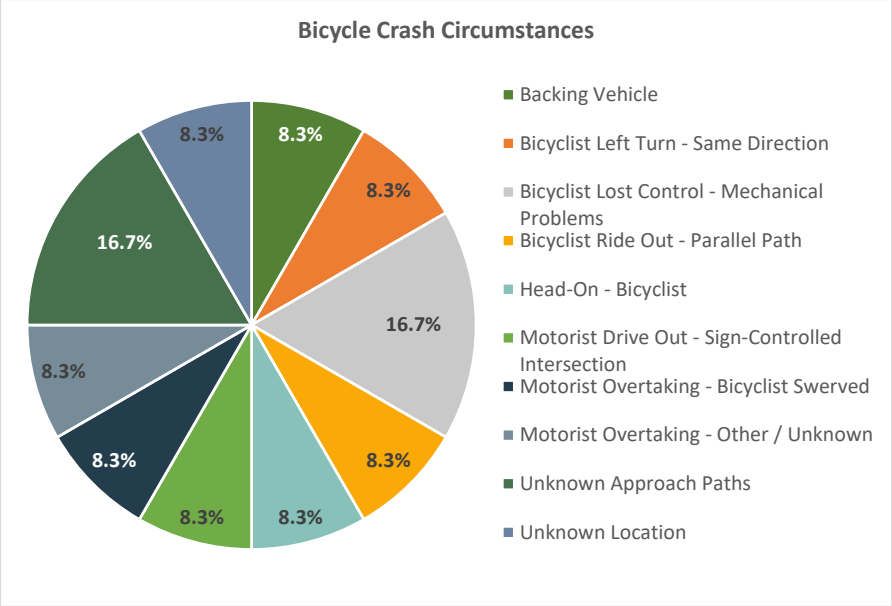
- 2:00 pm had the highest number of crashes with 3; 10am and 7pm both had 2 crashes.
- 11 occurred in daylight, and 1 occurred in the dark.



- More severe and fatal injuries occurred on roadways with vehicle speeds of 40-45 mph

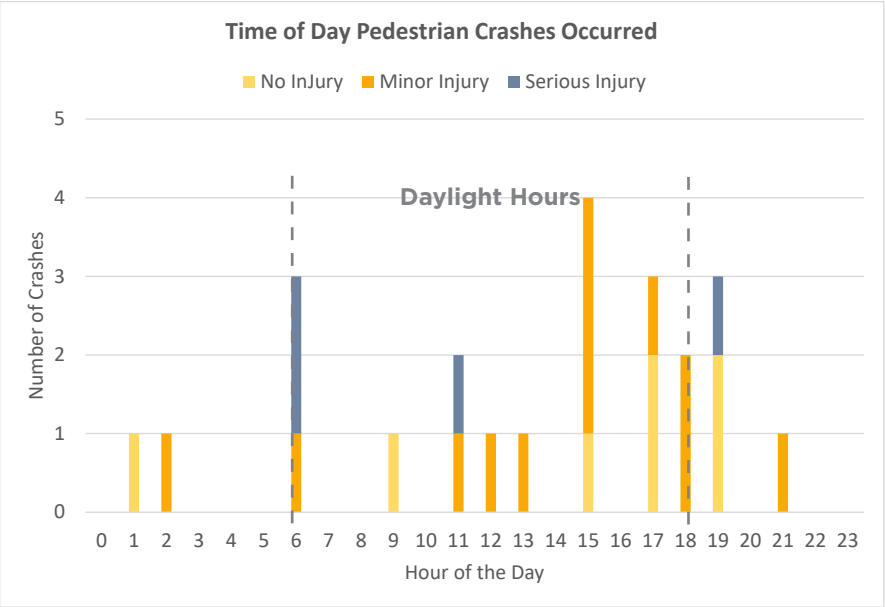


- Thursday had the highest overall number or bicyclist-involved collisions with 3. Tuesday and Saturday had the next highest number of collisions with 2.

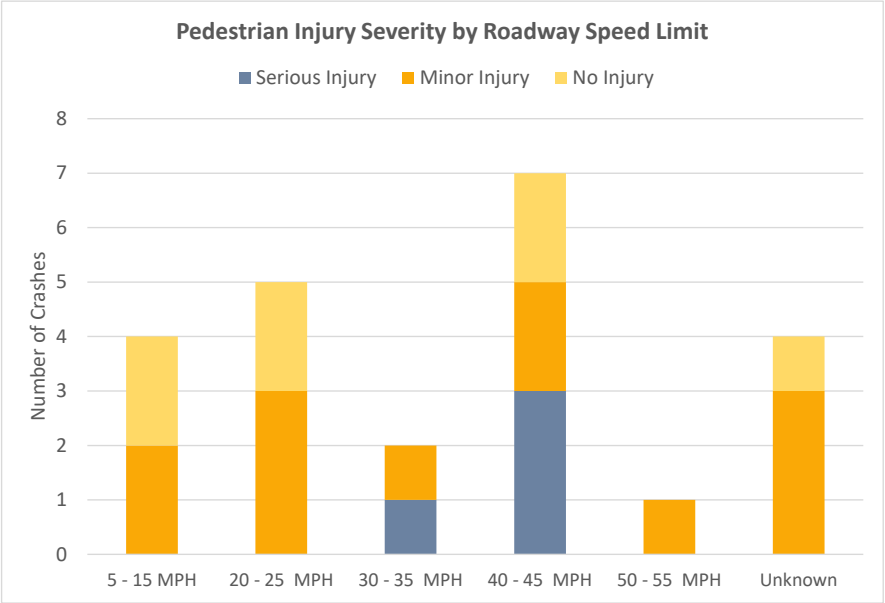


- Similar to pedestrian crashes, a variety of circumstances contributed to the 12 bicycle crashes.
- The fatal crash was a head-on collision on a 2-lane, undivided road

Pedestrian-Involved Collisions



- 23 total pedestrian crashes
- 8 occurred at night/in the dark, 2 at dusk, and 13 during daylight hours.



- Severe injuries occurred on roadways with speed limits of 30-45 mph
- Minor injuries and collisions with no injuries occurred across low-speed and high-speed roadways

PREVIOUS PLAN REVIEW

CENTRAL BUSINESS DISTRICT MASTER PLAN

Approved in January, 2018, the Central Business District (CBD) Master Plan focuses on providing guidance for economic development, examining existing conditions and context-appropriate improvements, and identifying funding strategies and grant opportunities for Stanley's Central Business District. All of the CBD Master Plan's Goals and Guiding Principles enhance walkability and bikeability within the core of Stanley, including the goals of establishing a unified architectural appearance and attracting business. Of particular relevance to the plan at hand is the CBD Master Plan's goal of ensuring safe circulation for pedestrians, its Design Guiding Principles to "develop green and safe streets" and "create and promote public space for year round use."

Specific elements for implementation as proposed by the CBD Master Plan include:

- Provide safe pedestrian connection from the CBD to Harper Park by extending and building sidewalks along NC 27.
- Extend and connect sidewalks from the CBD to Stanley Middle School and South Main Street along NC 275.
- Improve pedestrian crossings on critical streets that cross the CSX railroad tracks and connect the west side of the CBD to the east side (i.e. Chestnut Street)
- Reconfigure parking on NC 275 between W Chestnut and W Carpenter Streets to allow for bike lanes and sidewalks on both sides of the street and improving the streetscape.
- Proposed cross-sections for North and South Main Streets that incorporate Complete Streets elements.

GCLMPO CTP

The Gaston-Cleveland-Lincoln Metropolitan Planning Organization's most recent Comprehensive Transportation Plan (CTP) was adopted by the MPO and NCDOT between 2016 and 2017. The CTP Maps have most recently been amended in early 2021. The status of the bicycle and pedestrian facilities either needing improvement or recommended are detailed below:

- Sidewalk Facilities
  - » Needs improvement on S Main St (NC 275) from McLurd Dr to Hickory Grove Rd
  - » Needs improvement/recommended on NC 27 from New St to Dallas Rd
  - » Recommended on Hickory Grove Rd from NC 275 to Creekwalk Dr
  - » Recommended gap filling on E Dallas Rd
  - » Recommended on Old Mount Holly Rd from NC 27 to Dallas Rd
  - » Recommended/gap fill on Mauney Rd/Sunset Dr from Lafayette Rd to NC 275
- Bicycle facility Needs Improvement
  - » Old Mount Holly Rd
  - » NC 27
  - » NC 275 / Dallas Stanley Hwy
  - » Hickory Grove Rd
  - » Mauney Rd
  - » Through Downtown: From Sunset Drive along W Church St, to E Church St, north on N Mauney Avenue, and to Blacksnake Rd via Willow and Watts St
- Multi-Use Path Recommendations:
  - » Ralph Handsel Blvd from Mauney Rd to Hovis Rd
  - » South Stanley Creek corridor from NC 27 near Dallas Rd
  - » Stanley Creek Corridor from NC 27 near Taylor Road north of Airport Rd

GCLMPO 2014 METROPOLITAN TRANSPORTATION PLAN

The Gaston-Cleveland-Lincoln Metropolitan Planning Organization 2045 Metropolitan Transportation Plan ("MTP") was approved in 2018 and was amended most recently in 2020. The MTP defines the existing and future conditions of GCL Metropolitan Region's Transportation system. Chapter 12 of the MTP focuses on Bicycle and Pedestrian transportation, with the

goal: “Develop a transportation system that integrates pedestrian and bicycle modes of transportation with motor vehicle transportation and encourages the use of walking and bicycling as alternative modes.”

Objectives within this goal include the encouragement of walking and bicycling for both recreation and transportation, increasing safety of active travel, connecting important destinations through pedestrian and bicycle facilities, and providing access to transit by walking and bicycling. While there are no projects identified in the 2045 MTP that fall within the Town of Stanley, the goal and objectives found within the 2045 MTP can guide the efforts of this Bicycle and Pedestrian Plan.

LAND DEVELOPMENT DESIGN STANDARDS - 2017

This document was adopted in 2017 to provide design standards and requirements for development in the Town of Stanley. Guidance provided includes deisgn standards for drainage, landscapes, materials, plans, roadways, sewers, and water systems.

- Curb and gutter and sidewalks are required on both sides of the new street construction unless prior approval of the Town of Stanley Planning and/or Board of Adjustments is obtained.
- Sidewalks shall be installed at the time of roadway construction or installed in phases as approved by the Department. The minimum thickness of concrete sidewalks shall be four (4) inches, designed to reach a 28-day compressive strength of 3,600 psi. At locations where a driveway crosses a sidewalk, a six (6) inch depth is required. Sidewalks shall be a minimum of five (5) feet behind the back of curb with a minimum width of five (5) feet. The Town may require a wider sidewalk and/or planter strip in developments were a substantial amount of pedestrian or vehicular traffic is anticipated.
- Street classification sidewalk requirements
  - » Cul-de-sac/turn-around: 1 side
  - » Local street: 1 side
  - » Local collector: both sides
  - » Minor Thoroughfare: both sides
  - » Minor/Major arterial: case by case
- Street classification bike lane requirements
  - » Minor/major arterial: Yes
  - » All others: No
- Bicycle lanes are the portion of the street specifically designated for the use of bicyclists by pavement markings or other means of delineation on the street.
- Bicycle lanes provides a clearly marked area of the street for bicycle travel and separates cyclists from motor vehicles, help reduce conflicts between motor vehicles and bicycles, provide an additional buffer between pedestrians and motor vehicles, and give motorists more confidence about passing cyclists.
- Placement and width of bicycle lanes is dependent on right-of-way width, traffic speed and volume, signalization, turn lanes and parking. A marked bicycle lane should be a minimum of four feet wide (not including gutter), with 5’ generally preferred. Wider lanes are preferred next to on-street parking (to avoid opening car doors) and on steep hills (to allow room for weaving caused by pedaling uphill).
- If there is a right turn lane at an intersection, the bicycle lane should be placed to the left of the right turn lane, to clearly separate the bicycles’ through movement from the motor vehicles’ turning movements.

SUBDIVISION REQUIREMENTS

The ordinance allows the Planning Board or Town Board to determine the necessity of building sidewalks in subdivisions. They may be required on either or both sides of the street “in order to promote the free flow of vehicular traffic and to provide safety to pedestrians”.

PUBLIC INPUT SUMMARY

This study began in April 2021 with a kick-off meeting between the Town of Stanley and the Alta consultant team. The first Steering Committee meeting was held August 2021, where input was gathered on the community's needs and opportunities for improvements.

Additionally, the public engagement plan consisted of a public input survey that was available online from September until November 2021. The survey was distributed through the Town's website and promoted through its social media channels. More than 140 people completed the survey.

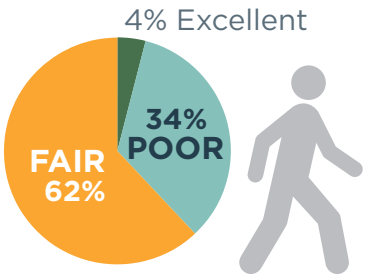
An public outreach meeting, held on March 19, 2022, presented draft recommendations and priorities, and it provided an opportunity to gather feedback from the public on those recommendations and priorities.

The following pages summarize and highlight findings from the public survey and public meetings.

SURVEY RESPONSES

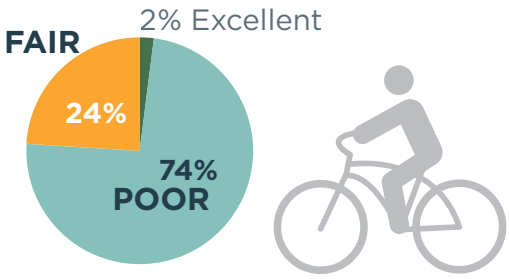
141 responses

How would you rate WALKING conditions in Stanley?



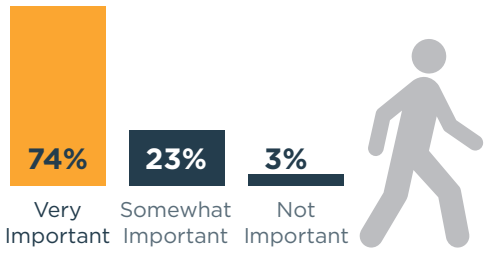
137 responses

How would you rate BIKING conditions in Stanley?



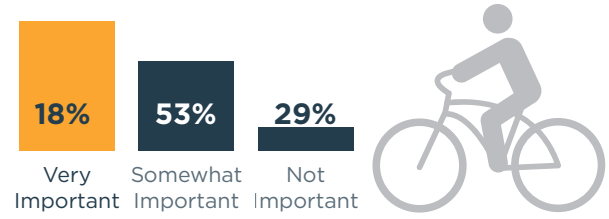
141 responses

How important to you is improving WALKING conditions in Stanley?



139 responses

How important to you is improving BIKING conditions in Stanley?



141 responses

When WALKING in Stanley, what is the primary purpose of your trip?
(Respondents could select multiple answers)

#1 Exercise (77%)

#2 To enjoy nature (59%)

#3 Recreation (36%)

#4 Dog Walking (31%)

141 responses

When BIKING in Stanley, what is the primary purpose of your trip?
(Respondents could select multiple answers)

#1 I do not bike (51%)

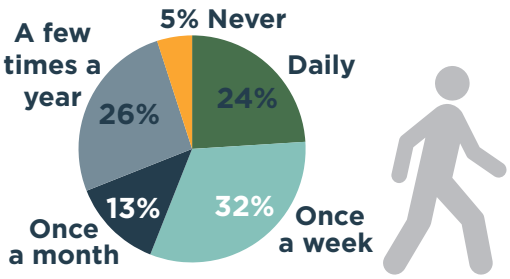
#2 Exercise (41%)

#3 Recreation (28%)

#4 Transportation (9%)

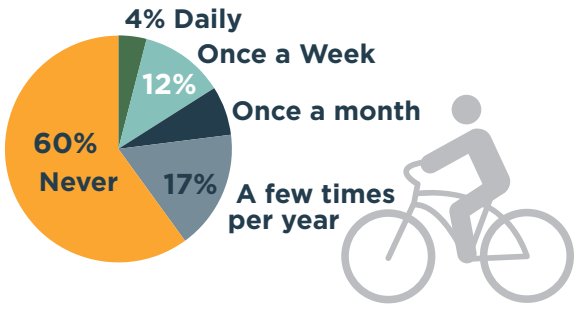
141 responses

How often do you WALK in Stanley?



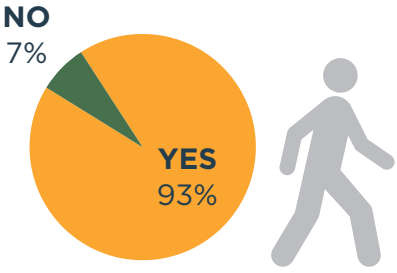
137 responses

How often do you BIKE in Stanley?



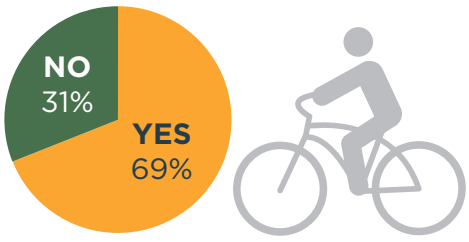
50 responses

Would you WALK more often if there were more sidewalks in Stanley?



50 responses

Would you BIKE more often if there were more bike facilities in Stanley?



SURVEY RESPONSES, continued

141 responses

What do you think are the factors that most discourage bicycling or walking in Stanley? (Respondents could select multiple answers)

86%
Lack of sidewalks, bicycle lanes, or trails

50%
Unsafe street crossings

43%
Heavy/fast motor vehicle traffic

139 responses

What destinations would you most desire to reach by walking?
(Respondents could select multiple answers)

65% **Downtown Stanley**

58% **CommonGround Walking Track & Trails**

52% **Harper Park**

29% **Food Lion/CVS shopping area**

15% **Stanley Branch Library**

91 responses

What are the top three locations for improving conditions for walking and bicycling in Stanley? (Respondents could select multiple answers)

70% **Downtown/Highway 27/Main Street**

48% **To Common Ground/Dallas Stanley Highway/Hickory Grove Rd**

27% **To Harper Park/Blacksnake Rd**

SURVEY RESPONSES, continued

141 responses

Most Important goals and outcomes of the Stanley Pedestrian + Bicycle Master Plan (Respondents could select multiple answers)

1 Safer Conditions for Walking

2 More Choices for recreation and exercise

3 Safer conditions for bicycling

4 Increased overall quality of life/livability

5 More choices for transportation

6 Increased tourism/ economic opportunities

PUBLIC MEETING FEEDBACK

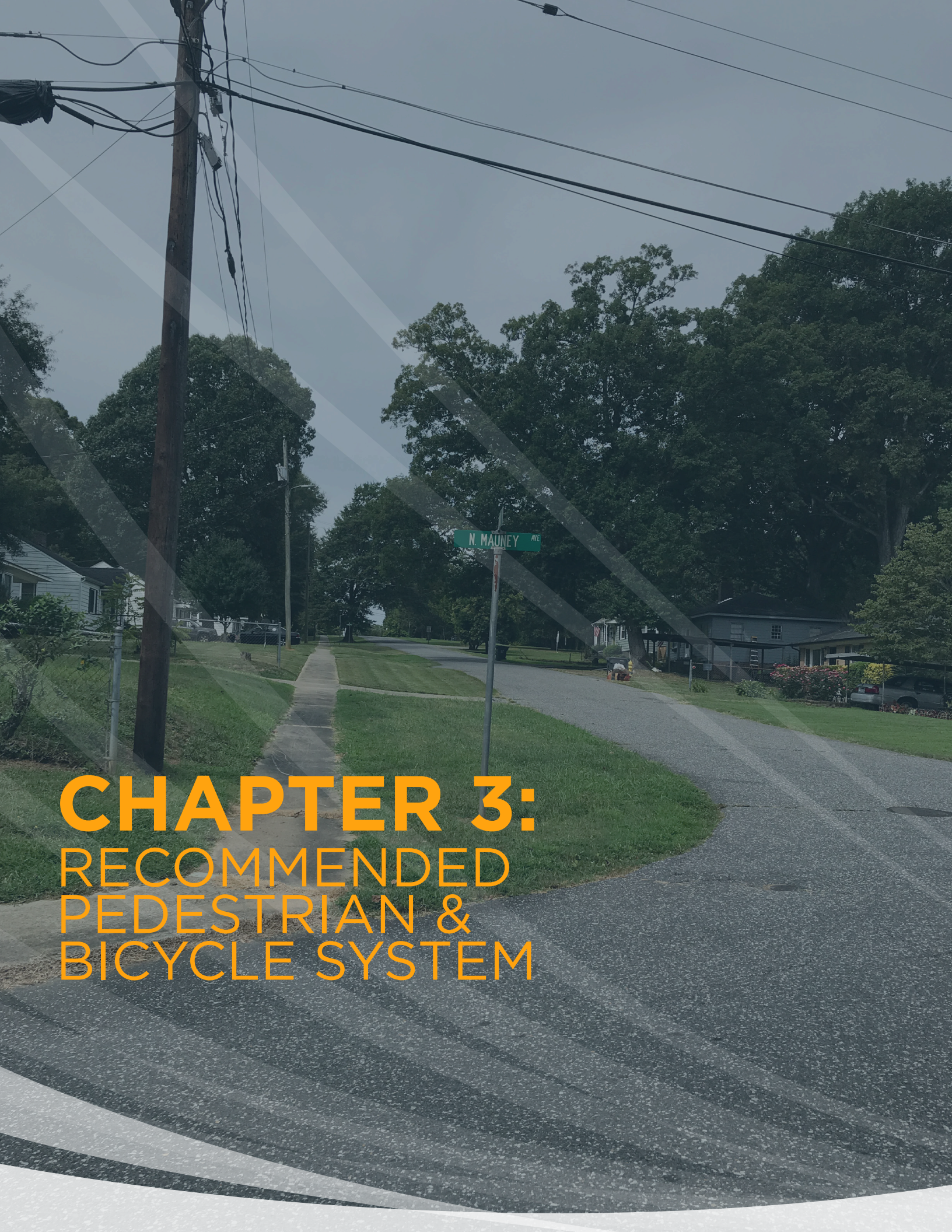
A public meeting for this project was held on Saturday March 19, 2022 at Harper Park to gather input on the prioritization of recommended projects in Stanley. Project consultants developed posters and maps for the public to review. An overview poster outlined the planning process and timeline for Stanley's Bike and Pedestrian Plan. The prioritization process and criteria were listed for participants to understand. Another poster listed potential bicycle and pedestrian programs and asked for participants to mark which programs they would most like to see implemented in Stanley. Maps were created to show maps of the recommended bicycle and pedestrian facilities, as well as the prioritization of projects. Project scores were shown in a table to demonstrate how each project compared in terms of meeting the identified priorities. Participants were asked to mark projects that they considered a priority for bicycle and pedestrian network improvement in Stanley.

Input from the public included intersections and road segments that felt particularly dangerous for bicyclists and pedestrians and may require careful attention for recommended improvements. Participants also identified additional key destinations that were important to include and connect with facility recommendations.

Input gathered at these meetings helped the project team gauge the public's preferences for near-term priority projects, and to identify popular bike routes with recreational bicyclists.


I
Stanley


SOUTH FORK
HAT CO.



CHAPTER 3:
RECOMMENDED PEDESTRIAN & BICYCLE SYSTEM

INTRODUCTION

Developing the pedestrian, bicycle, and shared use path recommendations was a multi-step process involving ongoing dialogue with various stakeholders. Network recommendations were informed by both quantitative findings and a qualitative understanding of the Town of Stanley.

The following sections detail priority recommendations for Stanley. **The intent of these recommendations is to present a framework for improving access for active travel modes, with an emphasis on pedestrians, ensuring accessibility and mobility for pedestrians and bicyclists of all ages and abilities.** Improvements focus on making walking and biking safer and a more enjoyable experience for residents and visitors. To achieve such a vision, the recommendations are organized as follows:

CHAPTER OVERVIEW

This chapter provides the necessary steps and guidance for delivering the recommendations of this Plan and is organized into the following sections:

IDENTIFYING PROJECT TYPES

SIDEWALKS

Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space. Details on these types of facilities are outlined on the following pages.

SHARED USE PATHS

Shared use paths—both sidepaths (along roadways) and greenways—provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation. Details on these types of facilities are outlined on the following pages.

CROSSING IMPROVEMENTS

For Stanley streets to meet the needs and demands of everyone using them, intersections and railroad crossings need to function as safely and efficiently as possible. They also make traffic movement more intuitive, seamless, and predictable for those passing through.

SEPARATED BIKE FACILITIES

Separated bike facilities come in several forms with varying levels of separation from motor vehicle traffic, offering different levels of comfort and safety depending on the roadway context. Selecting the appropriate type of bike lane depends on the traffic volumes, speed limits, and available right-of-way. Examples of separated bike facilities include standard bike lanes, buffered bike lanes, and fully separated bike lanes. Details on these types of facilities are outlined on the following pages.

ADVISORY SHOULDERS

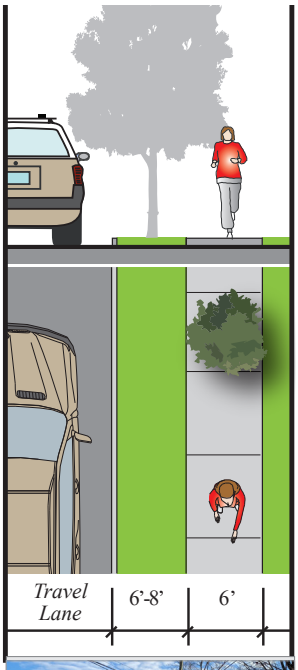
Advisory shoulders create usable shoulders for pedestrians and bicyclists on a roadway that is otherwise too narrow to accommodate separate facilities. The advisory shoulder is delineated by pavement markings and optional pavement color. Motorists may only enter the shoulder when no pedestrians or bicyclists are present and must overtake these users with caution due to potential oncoming traffic. Details on these types of facilities are outlined on the following pages.

BIKE BOULEVARDS (OR SHARED LANES)

A bicycle boulevard is a low-stress shared roadway that is designed to offer priority for bicyclists operating within a roadway shared with motor vehicle traffic. Bicycle boulevards may include traffic calming elements such as speed humps, chicanes, and traffic circles as well as lower speed limits, wayfinding signage and pavement markings. Details on these types of facilities are outlined on the following pages.

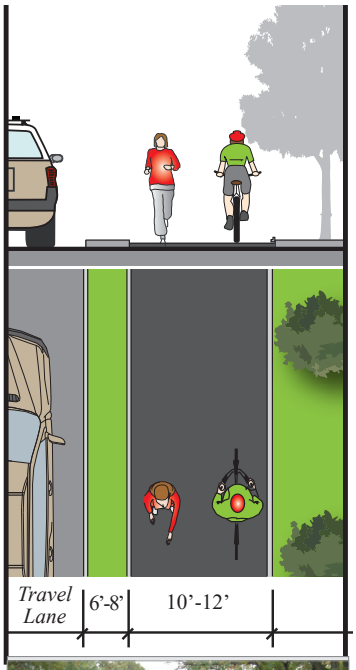
PEDESTRIAN FACILITIES

Sidewalks



Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or unpaved buffer space. Sidewalks are appropriate on all types of roadways where pedestrian activity is likely. A minimum width of 6 ft enables two pedestrians (including wheelchair users) to walk side-by-side, or to pass. A planting strip of 6-8 ft can provide separation from motor vehicles and space to plant shade trees.

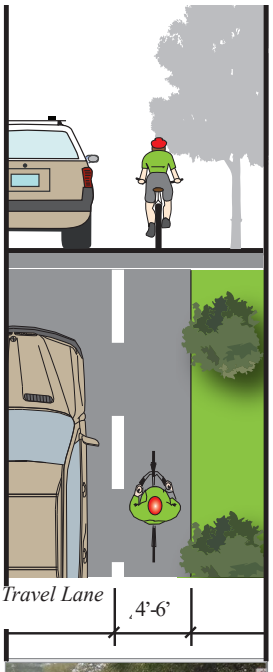
Shared Use Paths



A shared-use path located immediately adjacent and parallel to a roadway is called a sidepath. Greenways are shared-use paths located in parks, along rivers, and in utility corridors. Shared-use paths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small City community character. Minimum recommended pathway width is 10 ft. In low-volume situations and constrained conditions, the absolute minimum width is 8 ft.

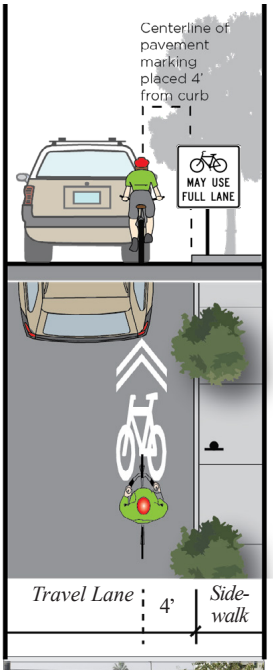
SHARED STREET BIKE FACILITIES

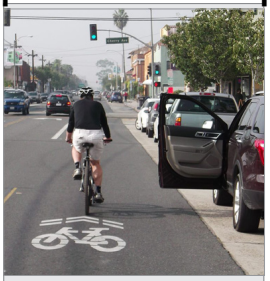
Advisory Shoulder



Advisory shoulders create dedicated, usable space for pedestrians and bicyclists on a street whose right-of-way may be otherwise too narrow for sidewalks or other separated facility. The center lane functions as a two-way travel lane; vehicles may enter the advisory shoulders when no pedestrians or bicyclists are present and to pass oncoming traffic. The shoulders can be paved in contrasting materials and have dashed white lines along the edge

Shared Lane Markings

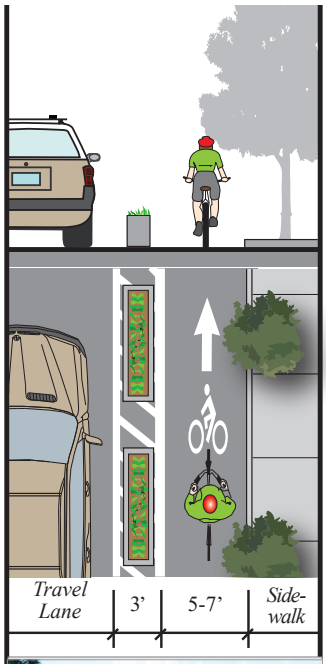




Shared Lane Markings (SLMs), or "sharrows," are road markings used to indicate a shared lane environment for bicycles and automobiles. Among other benefits, SLMs reinforce the legitimacy of bicycle traffic on the street, recommend proper bicyclist positioning, and may be configured to offer directional and wayfinding guidance. SLMs are only recommended in areas where there are constraints.

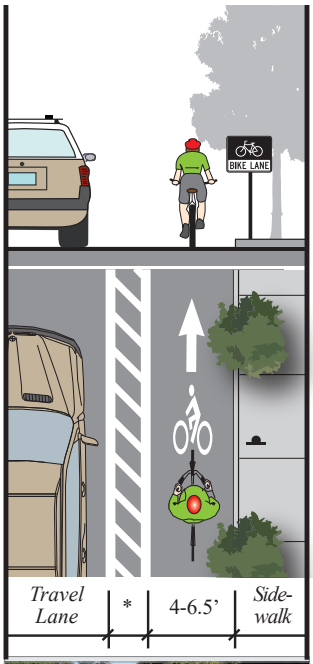
SEPARATED BIKE FACILITIES

Separated Bicycle Lane



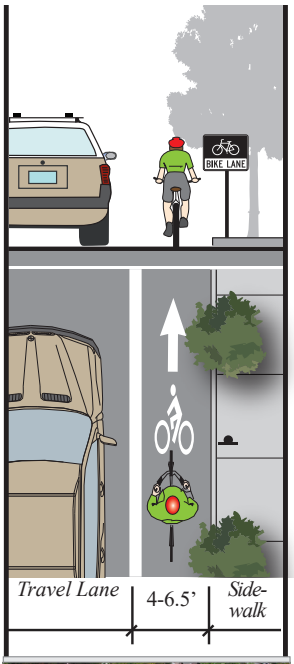
A separated bike lane (SBL) is a facility for exclusive use by bicyclists that is located within or directly adjacent to the roadway and is physically separated from motor vehicle traffic with a vertical element. Preferred minimum width of a one-way SBL is 7 ft (2.1 m). This width allows for side-by-side riding or passing. SBLs can be designed to be 2-way on the same side of the street, in which case 12 ft is the preferred minimum. SBL should be considered as an option in the design process for the bicycle lanes recommended in this plan, especially for inclusion on projects with new roadway construction.

Buffered Bicycle Lane



A horizontal buffer between the bike lane and motor vehicle travel lane can provide added separation distance between cyclists and motor vehicles. This treatment is appropriate on roadways with higher traffic volumes and speeds, adjacent to parking lanes, or a high volume of truck or oversized vehicle traffic.
The buffer can be 1.5-4 ft, or wider. If 4 ft or wider, mark with diagonal or chevron hatching.

Bicycle Lane



Bike lanes designate an exclusive space for bicyclists, directly adjacent to motor vehicle travel lanes. The preferred minimum width is 6.5 ft to allow bicyclists to ride side-by-side or pass each other without leaving the bike lane. Absolute minimum bike lane width is 4 ft when no curb and gutter is present or 5 ft when adjacent to a curbface, guardrail, other vertical surface or on-street parking stalls (AASHTO Bike Guide 2012).

PEDESTRIAN & BICYCLE RECOMMENDATIONS

PEDESTRIAN & BICYCLE FACILITY TYPES

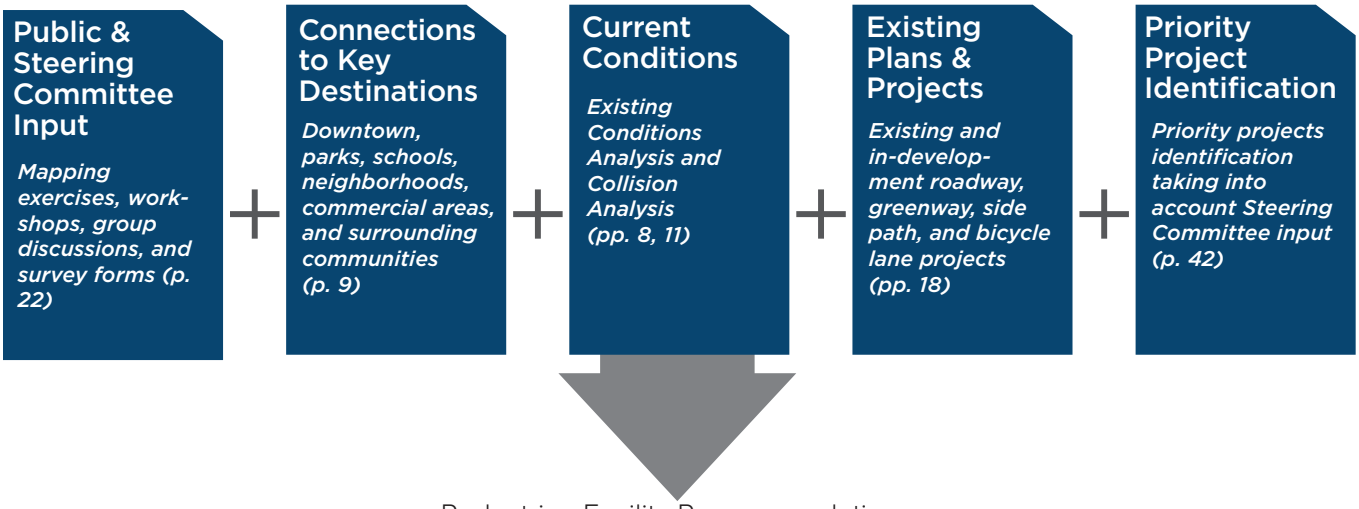
The following pages detail the primary pedestrian and bicycle facility types that are recommended in this plan. The recommended facility type for any given roadway was selected based on a number of factors including: roadway characteristics (traffic volumes, speed limit, available right-of-way); review of previous plans and recommendations; review of planned projects; input from the public and steering committee on popular walking and bicycling corridors; opportunity for separation of pedestrian and bicycle travel from vehicular traffic, and connectivity to destinations. In all cases, the facility type that is recommended was selected based on meeting the needs of pedestrians and bicyclists of all ages and abilities, and not just the most able and experienced pedestrians or bicyclists, in order to make walking and bicycling safer and convenient for a broader audience, as this was a main concern of the Steering Committee.

Pedestrian Network Recommendations include sidewalks, sidepaths, greenways, and festival streets.

Bicycle network recommendations include separated bikeways, bike boulevards/advisory shoulders, and shared use paths.

Crossing improvement recommendations include various improvements, such as marked crossings and pedestrian actuation buttons. Specific marked crossing improvements include high-visibility crossings, which use patterns that are more visible to roadway users than traditional crosswalks. Pedestrian actuation buttons that users push to receive a crossing indication. In addition, Rectangular Rapid Flashing Beacons and Pedestrian Hybrid Beacons use pedestrian actuatlon to show steady or flashing lights that alert motorists to slow and stop for pedestrians to cross the roadway.

BASIS OF RECOMMENDATIONS



Pedestrian Facility Recommendations

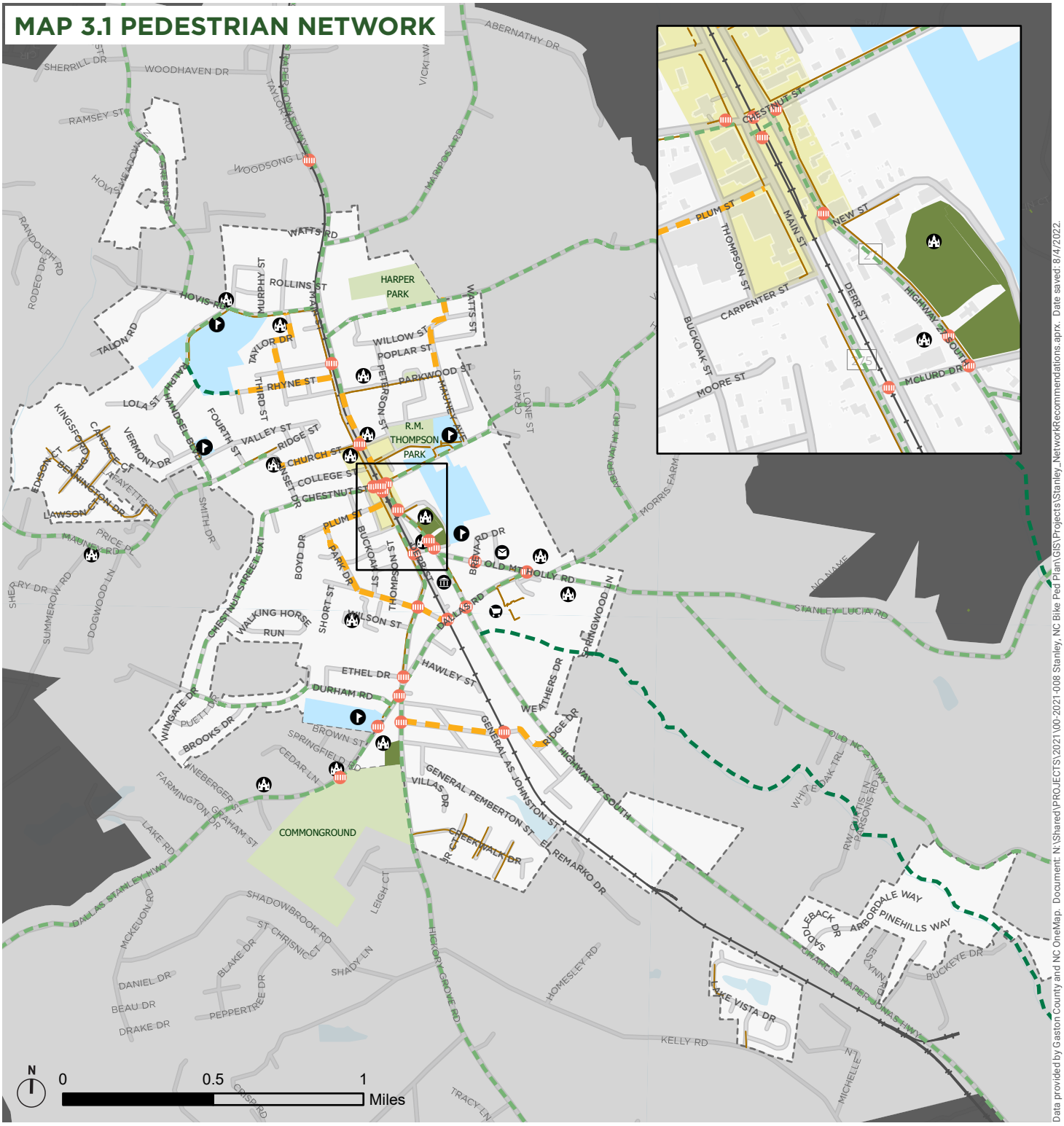
Bicycle Facility Recommendations

Crossing Improvement Recommendations

Prioritization Process

Phasing Plan & Priority Projects

MAP 3.1 PEDESTRIAN NETWORK



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PROPOSED PEDESTRIAN FACILITIES

MAP FEATURES

Proposed Facility Type
- Sidewalk
- Sidepath
- Greenway
- Crossing Improvement

- Existing Sidewalks
- Schools
- Grocery Store
- City Hall
- Post Office
- Churches

- Railroad
- Downtown
- School Property
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

Table 3.1 Pedestrian Facility Recommendations						
Project #	**Corridor**	**From**	**To**	**Proposed Facility**	**Length (mi.)**	**Priority Score***
1	Charlotte St	Alexis High Shoals Rd	Green Rd	Sidepath	0.97	4
2	Green Rd	Stanley Town Limits	NC 27/Charles Raper Jonas Hwy	Sidepath	0.58	2
3	Green Rd	Hovis Rd	Stanley Town Limits	Sidepath	1.08	4
4	Chestnut St	Main St	Sunset Dr	Sidepath	0.26	**9**
5	Stanley Creek Greenway	NC 27/Charles Raper Jonas Hwy	Willowside Dr	Greenway	1.88	2
6	Hovis Rd	Green Rd	Main St	Sidepath	0.44	7
7	Ralph Handsel Blvd	Hovis Rd	Mauney Rd	Sidepath	0.36	4
8	Stanley Middle School Greenway	Ralph Handsel Blvd	Rhyne St	Greenway	0.22	2
9	Mauney Rd	Mayberry Rd	Lafayette Rd	Sidepath	1.15	3
10	Mauney Rd / Sunset Dr	Lafayette Rd	Ridge St	Sidepath	0.43	7
11	Chestnut Street/Chestnut St extension	Durham Rd	Main St	Sidepath	0.78	**9**
12	Durham Rd	Chestnut St extension	Mains St	Sidepath	0.70	**9**
13	Dallas Stanley Hwy	Upper Spencer Mtn Rd	McKeuon Rd	Sidepath	1.03	4
14	Dallas Stanley Hwy	Cedar Ln	Hickory Grove Rd	Sidepath	0.40	**10**
15	Dallas Stanley Hwy	McKeuon Rd	Cedar Ln	Sidepath	0.70	7
16	Hickory Grove Rd	Old Hickory Grove Rd	Stanley Town Limits	Sidepath	2.86	6
17	Hickory Grove Rd	Stanley Town Limits	Dallas Rd/Main St	Sidepath	0.50	**10**
18	NC 27/Charles Raper Jonas Hwy	Twinbrooks Dr	Westland Farm Rd	Sidepath	1.92	2
19	NC 27/Charles Raper Jonas Hwy	Dallas Rd	General Stonewall Jackson St	Sidepath	0.52	**10**
20	NC 27/Charles Raper Jonas Hwy	General Stonewall Jackson St	Stanley Town Limits	Sidepath	0.70	2
22	NC 27/Charles Raper Jonas Hwy	Stanley Town Limits	Twinbrooks Dr	Sidepath	0.73	2
23	NC 27/Charles Raper Jonas Hwy	Chestnut St	Dallas Rd	Sidepath	0.50	**10**
24	Old Mt Holly Rd	NC 27/Charles Raper Jonas Hwy	Stanley Town Limits	Sidepath	0.60	**9**
25	Old Mt Holly Rd/Stanley Lucia Rd	Stanley Town Limits	Willowside Dr/Sandy Ford Rd	Sidepath	2.08	4
26	Old NC 27 Hwy	Old Mt Holly Rd	Spratt Dr	Sidepath	2.35	5
27	South Stanley Creek Greenway	Stanley Town Limits	Stanley ETJ limits	Greenway	2.43	5
28	South Stanley Creek Greenway	Main St	Stanley Town Limits	Greenway	0.39	5
29	South Stanley Creek Greenway	Stanley ETJ limits	Old NC 27 Hwy	Greenway	1.51	5
30	Blacksnake Rd	Stanley Town Limits	Stanley Creek Greenway	Sidepath	1.11	5

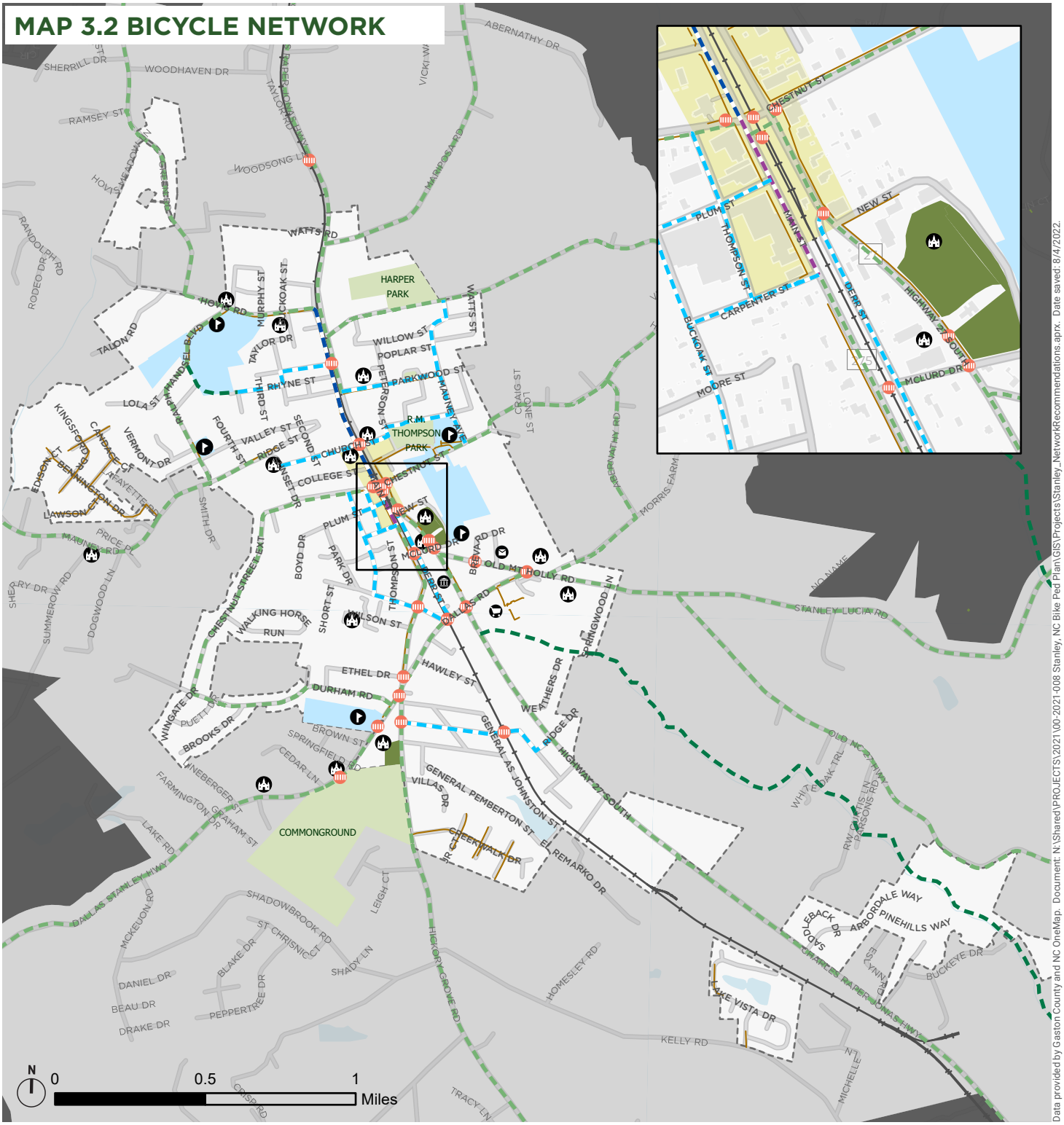
* **Bolded projects** are those with priority scores of 8 or greater.

Table 3.1 Pedestrian Facility Recommendations						
Project #	**Corridor**	**From**	**To**	**Proposed Facility**	**Length (mi.)**	**Priority Score***
31	Blacksnake Rd	Main St	Stanley Town Limits	Sidepath	0.54	**10**
32	Chestnut St/Chestnut St extension	Abernathy Rd	Blacksnake Rd	Sidepath	0.48	2
33	Chestnut St/Chestnut St extension	Main St	Stanley Town Limits	Sidepath	0.43	**9**
34	Chestnut St/Chestnut St extension	Stanley Town Limits	Abernathy Rd	Sidepath	0.47	2
35	Dallas Rd	Ethel Dr	Old Mt Holly Rd	Sidepath	0.55	**9**
36	Main St	Carpenter St	Hickory Grove Rd/ Dallas Stanley Hwy	Sidepath	0.59	**10**
37	RR crossing south of Chestnut St	Main St	NC 27/Charles Raper Jonas Hwy	Sidepath	0.02	6
38	Morris Farm Rd/Abernathy Rd	Old Mt Holly Rd	Chestnut St extension	Sidepath	0.85	6
39	NC 27/N Main St	Stanley Town Limits	Stanley ETJ limits	Sidepath	0.78	2
40	NC 27/N Main St	Parkwood St	Stanley Town Limits	Sidepath	0.61	**8**
41	NC 27/N Main St	Stanley ETJ limits	Stanley Creek Greenway	Sidepath	0.60	2
42	Mariposa Rd	NC 27/N Main St	Stanley ETJ limits	Sidepath	1.22	5
43	Mariposa Rd	Stanley ETJ limits	Stanley Creek Greenway	Sidepath	0.80	5
44	Ralph Handsel Blvd	Lola St	Mauney Rd	Sidepath	0.35	3
45	McLurd Dr	Main St	NC 27	Sidepath	0.07	**8**
46	Second St	Taylor Dr	Rhyne St	Sidewalk	0.15	4
47	Taylor Dr / N Buckoak St	Second St	Hovis Rd	Sidewalk	0.14	5
48	Church St	existing sidewalk	Sunset Dr	Sidewalk	0.17	5
49	Rhyne St	western terminus	Main St (west side)	Sidewalk	0.32	6
50	Mauney Ave/Willow St	Blacksnake Rd	Parkwood St	Sidewalk	0.29	4
51	NC 27/Main St	Parkwood St	College St	Sidewalk	0.26	5
52	Plum St	Park Dr	Main St (west side)	Sidewalk	0.21	6
53	Park Dr	Plum St	Buckoak St	Sidewalk	0.24	3
54	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	Hickory Grove Rd	NC 27/Charles Raper Jonas Hwy	Sidewalk	0.53	**8**
55	Buckoak St	Park Dr	S Main St (west side)	Sidewalk	0.20	5
56	Buckoak St	S Main St (west side)	Dallas Rd	Sidewalk	0.10	7

*** Bolded projects** are those with priority scores of 8 or greater.

* Indicates projects that are along a priority corridor, as indicated in Map 6.1.

MAP 3.2 BICYCLE NETWORK



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PROPOSED BIKEWAYS

MAP FEATURES

Proposed Facility Type
- Separated Bikeway
- Bike Boulevard/ Advisory Shoulders
- Sidepath
- Greenway
- Shared Lane Markings ("Sharrows")
- Crossing Improvement

- Schools
- Grocery Store
- City Hall
- Post Office
- Churches

- Railroad
- Downtown
- School Property
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

BICYCLE PROJECTS

Table 3.2 Bicycle Facility Recommendations**

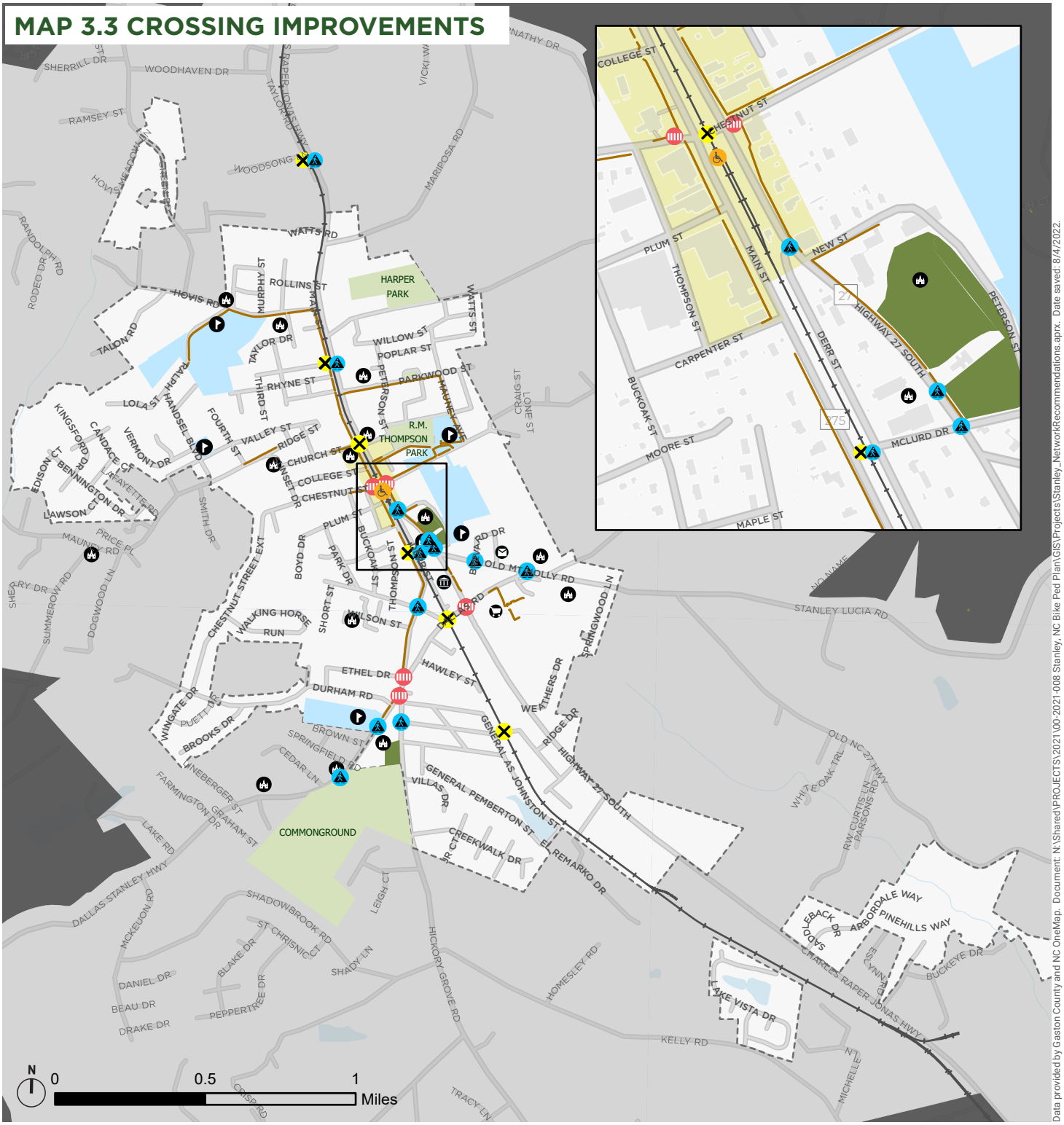
Project #	Corridor	From	To	Facility Type	Length (mi.)	Priority Score*
57	Main Street	Chestnut St	McLurd Dr	Shared Lane Markings	0.14	3
58	Rhyne St/Second St/Poplar St	western terminus	Main St (west side)	BB/AS**	0.36	3
59	Buckoak St	Chestnut St	Dallas Rd	BB/AS	0.62	3
60	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	Hickory Grove Rd	NC 27/Charles Raper Jonas Hwy	BB/AS	0.54	2
61	Derr St	NC 27/Charles Raper Jonas Hwy	Dallas Rd	BB/AS	0.40	4
62	Church St	Sunset Dr	Main St/RR tracks	BB/AS	0.26	2
63	Parkwood St	Main St/RR tracks	Mauney Ave	BB/AS	0.36	2
64	Main St (west side)	Hovis Rd	McLurd Dr	On-Street Separated Bikeway	0.89	7
65	Mauney Ave/Willow St	Blacksnake Rd	Chestnut St	BB/AS	0.53	2
66	Church St/Peterson St	Main St (west side)	Mauney Ave	BB/AS	0.37	3
67	Thompson St	Chestnut St	Carpenter St	BB/AS	0.15	3
68	Carpenter St	Buckoak St	Main St (west side)	BB/AS	0.13	3
69	Plum St	Buckoak St	Main St (west side)	BB/AS	0.11	3

*** Bolded projects** are those with priority scores of 7 or greater.

** BB/AS = Bike Boulevard/Advisory Shoulder

Note: Sidepaths and greenways are depicted in the map, as they are shared-use facilities that accommodate pedestrian and bicycle travel, but they are not listed in the Bicycle Facility Recommendations Table since they are already listed in the Pedestrian Facility Recommendations Table on pages 30 and 31.

MAP 3.3 CROSSING IMPROVEMENTS



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PROPOSED CROSSING IMPROVEMENTS

MAP FEATURES

Crossing Improvement
- ADA improvements
- High-Visibility Crosswalk
- RRFB
- Improve RR Crossing

- Existing Sidewalks
- Schools
- Grocery Store
- City Hall
- Post Office
- Churches
- Railroad

- Downtown
- School Property
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

CROSSING IMPROVEMENT PROJECTS

Table 3.3 Crossing Improvement Projects

Project #	Crossroad 1	Crossroad 2	Existing Facility	Proposed Facility	Priority Score*
70	NC 27/Charles Raper Jonas Hwy	Derr St	Stop sign on Derr St	Rectangular Rapid Flashing Beacon (RRFB) or Pedestrian Hybrid Beacon (PHB)	6
71	Chestnut St	Main St (west side)	Traffic signal; marked crossing of Chestnut St	High-visibility crossing of Main St; Ped actuation button	**9**
72	Church St	Railroad tracks	Railroad crossing	Improve RR crossing	5
73	Railroad tracks	Fence break south of Chestnut St	Railroad crossing	ADA improvements	6
74	Chestnut St	NC 27/Charles Raper Jonas Hwy	Traffic signal; marked crossing of NC 27	Restripe as high-visibility crossing; ADA improvements	**9**
75	Dallas Rd	S Main St (west side)	Traffic signal	High-visibility crossings of Main and Dallas; Ped actuation button	7
76	Dallas Stanley Hwy	Hickory Grove Rd	Traffic signal	High-visibility crossing of Dallas Stanley Hwy	7
77	Dallas Stanley Hwy	Entrance to Commonground Park near Mt Pleasant UMC	No crossing	RRFB or PHB	4
78	Old Mt Holly Rd	Dallas Rd	Stop sign on Dallas Rd	RRFB or PHB	4
79	Buckoak St	S Main St	Stop sign on Buckoak	RRFB or PHB	5
80	Dallas Rd	NC 27/Charles Raper Jonas Hwy	Traffic signal	High-visibility crosswalks with Ped actuation buttons	7
81	McLurd Dr	Railroad tracks	Railroad crossing	Improve RR crossing and add RRFB across Main St (west of tracks)	5
82	Dallas Rd	Railroad tracks	Railroad crossing	Improve RR crossing as facilities are built on adjacent streets	**8**
83	General Stonewall Jackson Dr	Railroad tracks	Railroad crossing	Improve RR crossing as facilities are built on adjacent streets	5
84	Chestnut St	Railroad tracks	Railroad crossing	Improve RR crossing	**9**
85	Poplar St	Railroad tracks	Railroad crossing	Improve RR crossing, add RRFB to NC 27, and HV Xwalk to Main St (west side) as facilities are built on adjacent streets	**9**
86	Woodsong Ln	Railroad tracks	Railroad crossing	Improve RR crossing and add RRFB to NC 27 as facilities are built on adjacent streets	5
87	Cannon Rd	Railroad tracks	Railroad crossing	Improve RR crossing and add RRFB to NC 27 as facilities are built on adjacent streets	4
88	McLurd Dr	NC 27/Charles Raper Jonas Hwy	Unsignalized intersection	RRFB or PHB	**8**
89	Hickory Grove Rd	General Stonewall Jackson Rd	unsignalized intersection	RRFB or PHB	**8**
90	Dallas Stanley Hwy	Springfield Elementary	No crossing	RRFB or PHB	**7**
91	NC 27	Cemetery parking lot	Marked crossing of NC 27	RRFB or PHB	**8**
92	Old Mt Holly Rd	Brevard St	No crossing	RRFB or PHB	7

*** Bolded projects** are those with priority scores of 8 or greater.

PRIORITIZATION METHODOLOGY

IDENTIFYING PRIORITIES

As part of the planning process, project consultants, town staff and community stakeholders identified key inputs to identify priorities. These four factors, illustrated below, were used to develop priority corridors for near-term projects to improve walkability and bikeability in Stanley. These factors should be considered every time the Town or the North Carolina Department of Transportation (NCDOT) selects projects for implementation. Detailed cut sheets for the five representative priority projects identified through this process are in the following section of this chapter.

The project list with prioritization scores is provided on the following pages. The scores form the basis for a phased approach to funding and implementing the projects, with the higher ranking projects (scores of 8 or more) being designated as near-term priorities for implementation. Lower scoring projects are designated for later phases of implementation.

The projects listed in Table 3.4 correspond to the recommended projects in Map 3.4. Each project was scored based on the factors defined below.

This project list should be considered as a general guide when weighing priorities, rather than a fixed phasing plan. Opportunities to develop any project should be considered as they arise, such as through the development process, or through roadway construction projects, regardless of ranking.

Connectivity to Downtown and Key Destinations

The project is located on a direct walking/biking connection to Main St, Harper Park, or Common Ground

Safety

The project is located within 500 feet of a pedestrian or bicyclist-involved crash or creates a facility separated from motor vehicles or high-visibility crossing

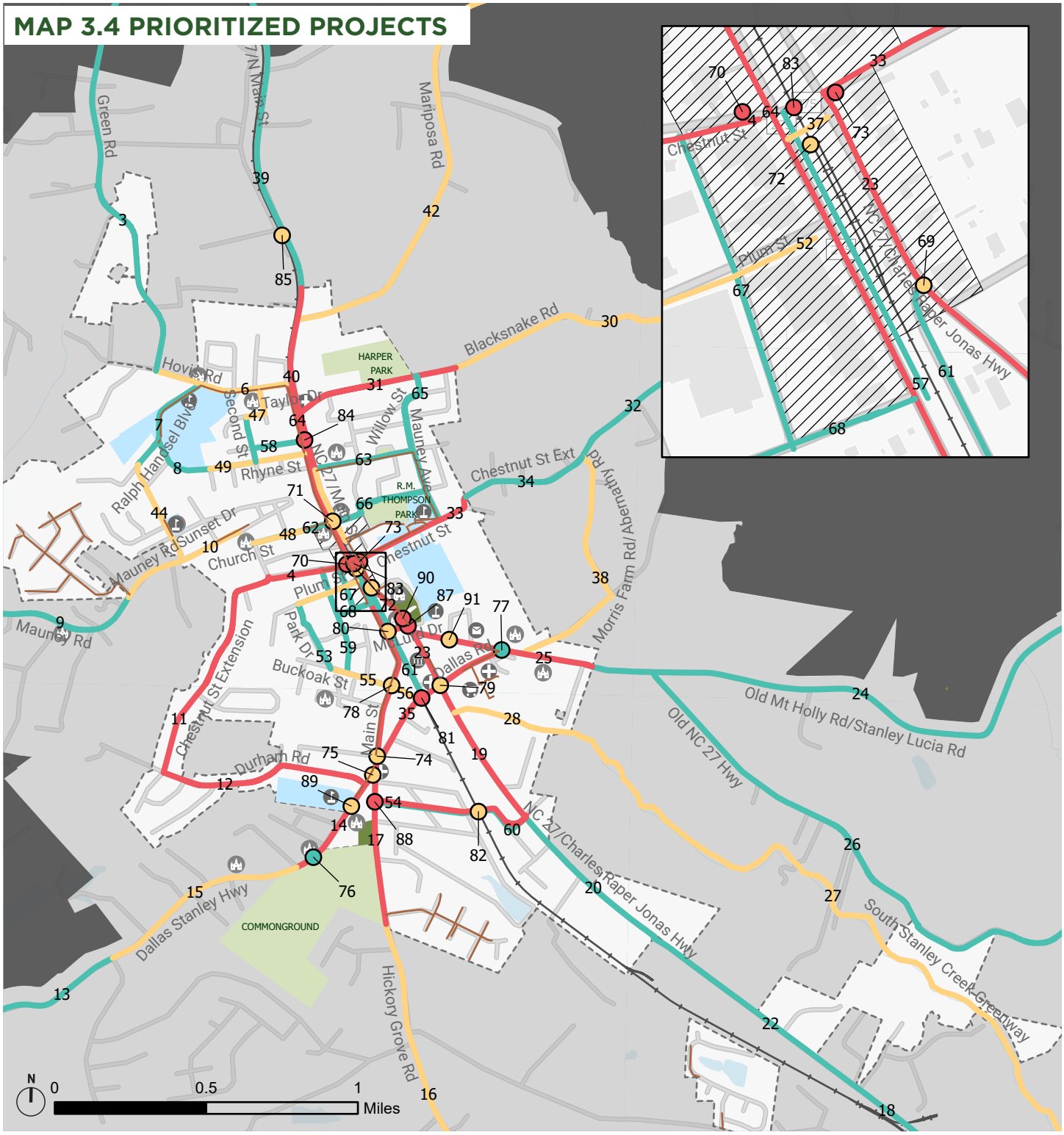
Sidewalk Connectivity

The project fills a gap in the current sidewalk or bicycle network or improves an important crossing in the network

Equity

The project improves access to basic services or is located in an area that has no previous pedestrian infrastructure within 1/4 mile

MAP 3.4 PRIORITIZED PROJECTS



PRIORITIZED PROJECTS

Project Score
- 8 - 10
- 5 - 7
- 1-4

- Sidewalk - existing
- Grocery
- Medical
- Schools
- City Hall
- Post Office
- Churches

- Railroad
- Downtown
- School_property
- Parks
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

Table 3.4 Prioritized Projects List					
Project #	**Corridor**	**From**	**To**	**Proposed Facility**	**Priority Score***
14	Dallas Stanley Hwy	Cedar Ln	Hickory Grove Rd	Sidepath	**10**
17	Hickory Grove Rd	Dallas Rd/Main St	Stanley Town Limits	Sidepath	**10**
19	NC 27/Charles Raper Jonas Hwy	Dallas Rd	General Stonewall Jackson St	Sidepath	**10**
23	NC 27/Charles Raper Jonas Hwy	Chestnut St	Dallas Rd	Sidepath	**10**
31	Blacksnake Rd	Main St	Stanley Town Limits	Sidepath	**10***
36	Main St	Carpenter St	Hickory Grove Rd/Dallas Stanley Hwy	Sidepath	**10**
4	Chestnut St	Main St	Sunset Dr	Sidepath	**9**
11	Chestnut Street/Chestnut St extension	Durham Rd	Main St	Sidepath	**9**
12	Durham Rd	Chestnut St extension	Mains St	Sidepath	**9**
24	Old Mt Holly Rd	NC 27/Charles Raper Jonas Hwy	Stanley Town Limits	Sidepath	**9***
33	Chestnut St/Chestnut St extension	Main St	Stanley Town Limits	Sidepath	**9**
35	Dallas Rd	Ethel Dr	Old Mt Holly Rd	Sidepath	**9**
74	Chestnut St	NC 27/Charles Raper Jonas Hwy	Traffic signal; marked crossing of NC 27	Crossing Improvement	**9***
71	Chestnut St	Main St (west side)	Traffic signal; marked crossing of Chestnut St	Crossing Improvement	**9***
84	Chestnut St	railroad tracks	railroad crossing	Crossing Improvement	**9***
85	Poplar St	Railroad tracks /Main Street & NC 27/Charles Raper Jonas Hwy	Railroad crossing	Crossing Improvement	**9**
40	NC 27/N Main St	Parkwood St	Stanley Town Limits	Sidepath	**8**
45	McLurd Dr	Main St	NC 27	Sidepath	**8**
54	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	Hickory Grove Rd	NC 27/Charles Raper Jonas Hwy	Sidewalk	**8***
82	Dallas Rd	Railroad tracks	Railroad crossing	Crossing Improvement	**8**
88	McLurd Dr	NC 27/Charles Raper Jonas Hwy		Crossing Improvement	**8**
89	Hickory Grove Rd	General Stonewall Jackson Rd		Crossing Improvement	**8**
91	NC 27	Cemetery parking lot		Crossing Improvement	**8**
6	Hovis Rd	Green Rd	Main St	Sidepath	7
10	Mauney Rd/Sunset Dr	Lafayette Rd	Ridge St	Sidepath	7
15	Dallas Stanley Hwy	McKeuon Rd	Cedar Ln	Sidepath	7
16	Hickory Grove Rd	Stanley Town Limits	Old Hickory Grove Rd	Sidepath	7
37	RR crossing south of Chestnut St	Main St	NC 27/Charles Raper Jonas Hwy	Sidepath	7

* Indicates that a detailed project cutsheet is provided for this project, pages 44-53.

Table 3.4 Prioritized Projects List					
Project #	**Corridor**	**From**	**To**	**Proposed Facility**	**Priority Score***
38	Morris Farm Rd/Abernathy Rd	Old Mt Holly Rd	Chestnut St extension	Sidepath	7
49	Rhyne St	western terminus	Main St (west side)	Sidewalk	7
52	Plum St	Park Dr	Main St (west side)	Sidewalk	7
56	Buckoak St	S Main St (west side)	Dallas Rd	Sidewalk	7
64	Main St (west side)	Hovis Rd	McLurd Dr	On Street Separated Bikeway	7
75	Dallas Rd	S Main St (west side) / Ethel Dr	Traffic signal	Crossing Improvement	7
76	Dallas Stanley Hwy	Hickory Grove Rd / S Main St	Traffic signal	Crossing Improvement	7
80	Dallas Rd	NC 27/Charles Raper Jonas Hwy	Traffic signal	Crossing Improvement	7
90	Dallas Stanley Hwy	Springfield Elementary		Crossing Improvement	7
92	Old Mt Holly Road	Brevard St		Crossing Improvement	7
27	South Stanley Creek Greenway	Stanley Town Limits	Stanley ETJ limits	Greenway	6
28	South Stanley Creek Greenway	Main St	Stanley Town Limits	Greenway	6
29	South Stanley Creek Greenway	Stanley ETJ limits	Old NC 27 Hwy	Greenway	6
30	Blacksnake Rd	Stanley Town Limits	Stanley Creek Greenway	Sidepath	6
42	Mariposa Rd	NC 27/N Main St	Stanley ETJ limits	Sidepath	6
44	Ralph Handsel Blvd	Lola St	Mauney Rd	Sidepath	6
70	NC 27/Charles Raper Jonas Hwy	Derr St	Stop sign on Derr St	Crossing Improvement	6
73	Railroad tracks	Fence break south of Chestnut St	Railroad crossing	Crossing Improvement	6
43	Mariposa Rd	Stanley ETJ limits	Stanley Creek Greenway	Sidepath	5
72	Church St	Railroad tracks	Railroad crossing	Crossing Improvement	5
47	Taylor Dr/Buckoak ST	Hovis Rd	Second St	Sidewalk	5
48	Church St	Existing sidewalk	Sunset Dr	Sidewalk	5
51	NC 27/Main St	Parkwood St	College St	Sidewalk	5
55	Buckoak St	Park Dr	S Main St (west side)	Sidewalk	5
79	Buckoak St	S Main St	Stop sign on Buckoak	Crossing Improvement	5
81	McLurd Dr	Railroad tracks / Main Street (west side)	Railroad crossing	Crossing Improvement	5
83	General Stonewall Jackson Dr	Railroad tracks	Railroad crossing	Crossing Improvement	5
86	Woodsong Ln	Railroad tracks / NC 27/ Charles Raper Jonas Hwy	Railroad crossing	Crossing Improvement	5

* Indicates that a detailed project cutsheet is provided for this project, pages 44-53.

Table 3.4 Prioritized Projects List					
Project #	Corridor	From	To	Proposed Facility	Priority Score*
1	Charlotte St	Alexis High Shoals Rd	Green Rd	Sidepath	4
3	Green Rd	Hovis Rd	Stanley Town Limits	Sidepath	4
7	Ralph Handsel Blvd	Hovis Rd	Mauney Rd	Sidepath	4
13	Dallas Stanley Hwy	Upper Spencer Mtn Rd	McKeuon Rd	Sidepath	4
26	Old NC 27 Hwy	Old Mt Holly Rd	Spratt Dr	Sidepath	4
46	Second St	Taylor Dr	Rhyne St	Sidewalk	4
50	Mauney Ave/Willow St	Blacksnake Rd	Parkwood St	Sidewalk	4
61	Derr St	NC 27/Charles Raper Jonas Hwy	Dallas Rd	BB/AS**	4
77	Dallas Stanley Hwy	Entrance to Commonground Park near Mt Pleasant UMC	<Null>	Crossing Improvement	4
78	Old Mt Holly Rd	Dallas Rd	Stop sign on Dallas Rd	Crossing Improvement	4
87	Cannon Rd	Railroad tracks / NC 27/ Charles Raper Jonas Hwy	Railroad crossing	Crossing Improvement	4
9	Mauney Rd	Mayberry Rd	Lafayette Rd	Sidepath	3
25	Old Mt Holly Rd/Stanley Lucia Rd	Stanley Town Limits	Willowside Dr/Sandy Ford Rd	Sidepath	3
53	Park Dr	Plum St	Buckoak St	Sidewalk	3
57	Main St	Chestnut St	Carpenter St	Shared Lane Markings	3*
58	Rhyne St/Second St/Parkwood St	western terminus	Main St (west side)	BB/AS	3
59	Buckoak St	Chestnut St	Dallas Rd	BB/AS	3
66	Church St/Peterson St	Main St (west side)	Mauney Ave	BB/AS	3
67	Thompson St	Chestnut St	Carpenter St	BB/AS	3*
68	Carpenter St	Buckoak St	Main St (west side)	BB/AS	3*
69	Plum St	Buckoak St	Main St (west side)	BB/AS	3*
2	Green Rd	Stanley Town Limits	NC 27/Charles Raper Jonas Hwy	Sidepath	2
5	Stanley Creek Greenway	NC 27/Charles Raper Jonas Hwy	Willowside Dr	Greenway	2
8	Stanley Middle School Greenway	Ralph Handsel Blvd	Rhyne St	Greenway	2
18	NC 27/Charles Raper Jonas Hwy	Twinbrooks Dr	Westland Farm Rd	Sidepath	2
20	NC 27/Charles Raper Jonas Hwy	General Stonewall Jackson St	Stanley Town Limits	Sidepath	2
22	NC 27/Charles Raper Jonas Hwy	Stanley Town Limits	Twinbrooks Dr	Sidepath	2
32	Chestnut St/Chestnut St extension	Abernathy Rd	Blacksnake Rd	Sidepath	2

* Indicates that a detailed project cutsheet is provided for this project, pages 44-53.

** BB/AS = Bike Boulevard/Advisory Shoulder

Table 3.4 Prioritized Projects List					
Project #	**Corridor**	**From**	**To**	**Proposed Facility**	**Priority Score***
34	Chestnut St/Chestnut St extension	Stanley Town Limits	Abernathy Rd	Sidepath	2
39	NC 27/N Main St	Stanley Town Limits	Stanley ETJ limits	Sidepath	2
41	NC 27/N Main St	Stanley ETJ limits	Stanley Creek Greenway	Sidepath	2
60	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	Hickory Grove Rd	NC 27/Charles Raper Jonas Hwy	BB/AS	2
62	Church St	Sunset Dr	Main St/RR tracks	BB/AS	2
63	Parkwood St	NC 27/Charles Raper Jonas Hwy	Mauney Ave	BB/AS	2
65	Mauney Ave/Willow St	Blacksnake Rd	Chestnut St	BB/AS	2

* Indicates that a detailed project cutsheet is provided for this project, pages 44-53.

REPRESENTATIVE PROJECT CUTSHEETS

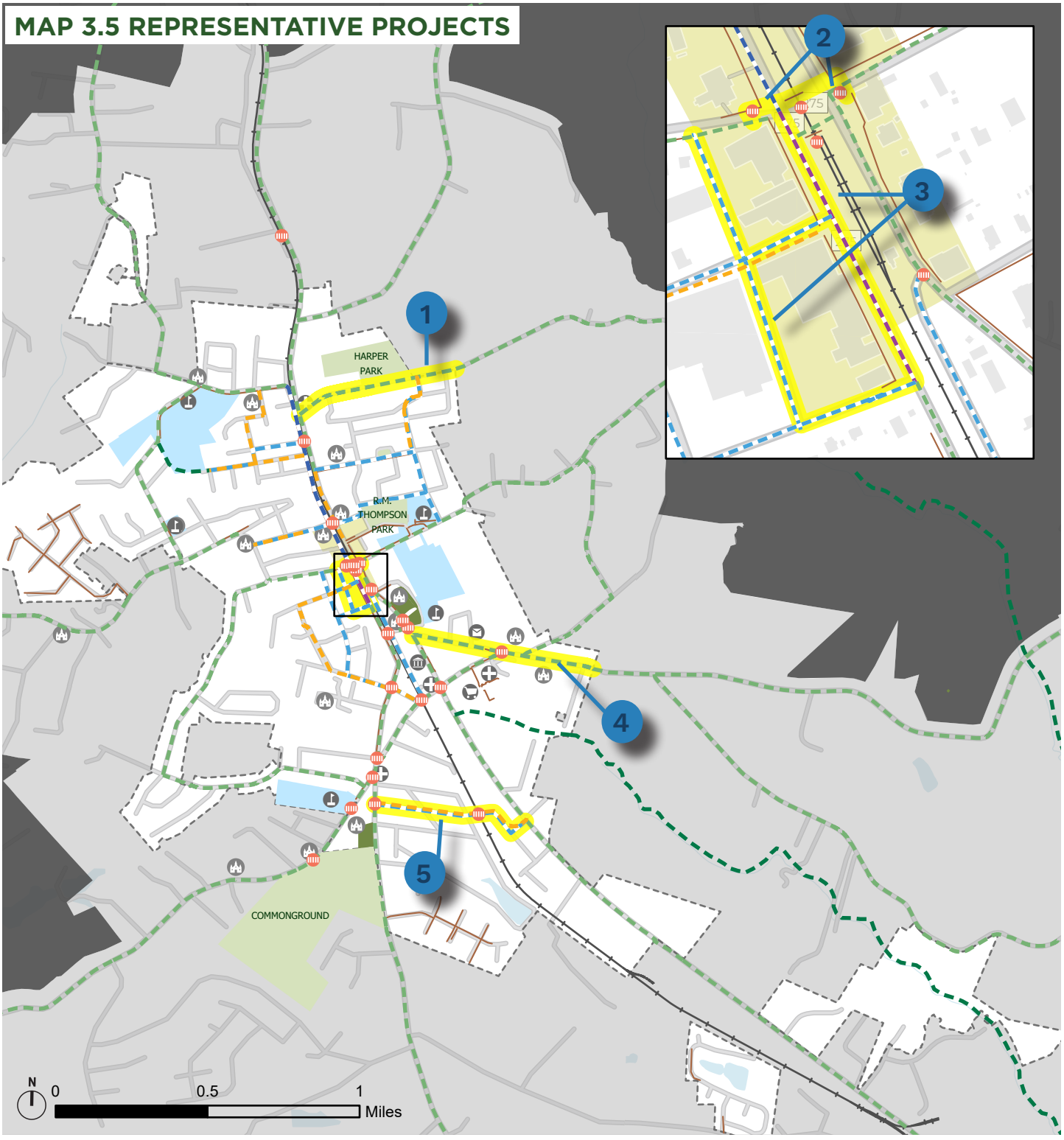
Five representative projects were identified from the priority corridors based on the existing conditions evaluations and feedback from the project team and the public. These projects are representative examples of a variety of facility types and were chosen to be representative of the types of bicycle and pedestrian project recommendations in the Plan. While these projects are highlighted as priorities, the Town still has the flexibility to implement these or other projects in any order they see fit as funding and project opportunities arise.

The following pages offer detailed information on each of the selected priority projects and were designed to include the types of information required by potential funding partners, including the following:

Project Description
Project Challenges
Concept Design
Roadway Characteristics
Project Details
Planning Level Cost Estimate

REPRESENTATIVE PROJECT CUTSHEETS

MAP 3.5 REPRESENTATIVE PROJECTS



REPRESENTATIVE PROJECTS

- Representative Projects
- Crossing Improvement
- Sidepath
- Greenway
- On-Street Bikeway
- Bike Blvd/Advisory Shoulders
- Shared Lane Markings ("Sharrows")
- Sidewalk
- Sidewalk - existing
- Grocery
- Medical
- Schools
- City Hall
- Post Office
- Churches
- Railroad
- Downtown
- Parks
- School Property
- Cemeteries
- Stanley Town Limits
- Extra-Territorial Jurisdiction

SIDEPATH ON BLACKSNAKE ROAD

PRIORITY SCORE = 10

Project Description & Challenges

Blacksnake Road is an important connection between N. Main Street and Harper Park, as well as residential areas. The sidepath that is recommended for this roadway will help connect residents, families, and students to these key destinations via biking and walking. It will also provide a connection to the rural roads that are popular routes for recreational bicyclists.

Blacksnake Road is two-lane road with no shoulders in most places. With narrow vehicle lanes and no space for motor vehicles to pass bicyclists, the vehicles pose a high risk for conflict between cars and pedestrian or bicyclists. Providing a separated facility will make bicycling safer and more comfortable for a wide range of bicyclists.

ROADWAY CHARACTERISTICS:

- Average Annual Daily Traffic (AADT) = 1,400
- Speed Limit = 35 mph
- Curb + Gutter presence: None
- Pavement Width: 22 feet
- Number of Lanes: 2

PROJECT DETAILS:

- 10-foot asphalt sidepath with 5-foot grass buffer
- Length: 2,866 feet (0.54 Miles)
- Trip Generators:
  - » Harper Park
  - » Downtown Stanley
  - » Residential family homes in northeast Stanley

PLANNING LEVEL COST ESTIMATE:

- » $931,000*

*Detailed cost estimates are provided in the Appendix, reflecting 2024 prices. Costs do not include right-of-way acquisition, if necessary

Concept Design Details

1. A 10-foot path will provide shared space for pedestrians and bicyclists that is separated from the roadway.
2. High-visibility crossing at the Harper Park driveway help alert drivers to the conflict area and the potential for pedestrian and bicyclist crossings.

This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review.

CHESTNUT STREET CROSSINGS IMPROVEMENTS

PRIORITY SCORE = 9

About this Project

The crossing improvements on Chestnut Street will improve the safety and ease of pedestrians crossing NC 27, Railroad tracks, and Main Street. This plan recommends pedestrian actuation buttons, ADA improvements, and that the marked crosswalks be high-visibility markings in order to provide the utmost visibility and comfort for pedestrians crossing this complicated intersection.

The high-visibility crosswalks recommended in for these intersections will be more visible than the previous crosswalks, which have worn off and were only present across NC 27 and Chestnut Street on the west side of Main Street. Maintaining these crosswalks will be important in communicating the value of pedestrian safety and ensuring that motor vehicles are aware of the walking routes to downtown.

ROADWAY CHARACTERISTICS:

- S. Main Street
  - » Average Annual Daily Traffic (AADT): unknown
  - » Speed Limit = 20 mph (south of Chestnut)
  - » Curb + Gutter presence: both
  - » Pavement Width: 50 feet
  - » Number of Lanes 4
- Chestnut St = unknown
  - » AADT: unknown
  - » Speed Limit = 35
  - » Curb + Gutter presence: varies
  - » Pavement Width: 28-40 feet
  - » Number of Lanes 2
- N Main St/NC 27
  - » AADT = 11,000-12,000
  - » Speed Limit = 20 mph
  - » Curb + Gutter presence: both
  - » Pavement Width: 50 feet
  - » Number of Lanes 3

PROJECT DETAILS:

- 4 new high-visibility crossings of Chestnut Street, Main Street, and NC 27
- Pedestrian crossing signals at all crossings
- ADA ramps at all 6 corners
- Trip Generators:
  - » Downtown Stanley

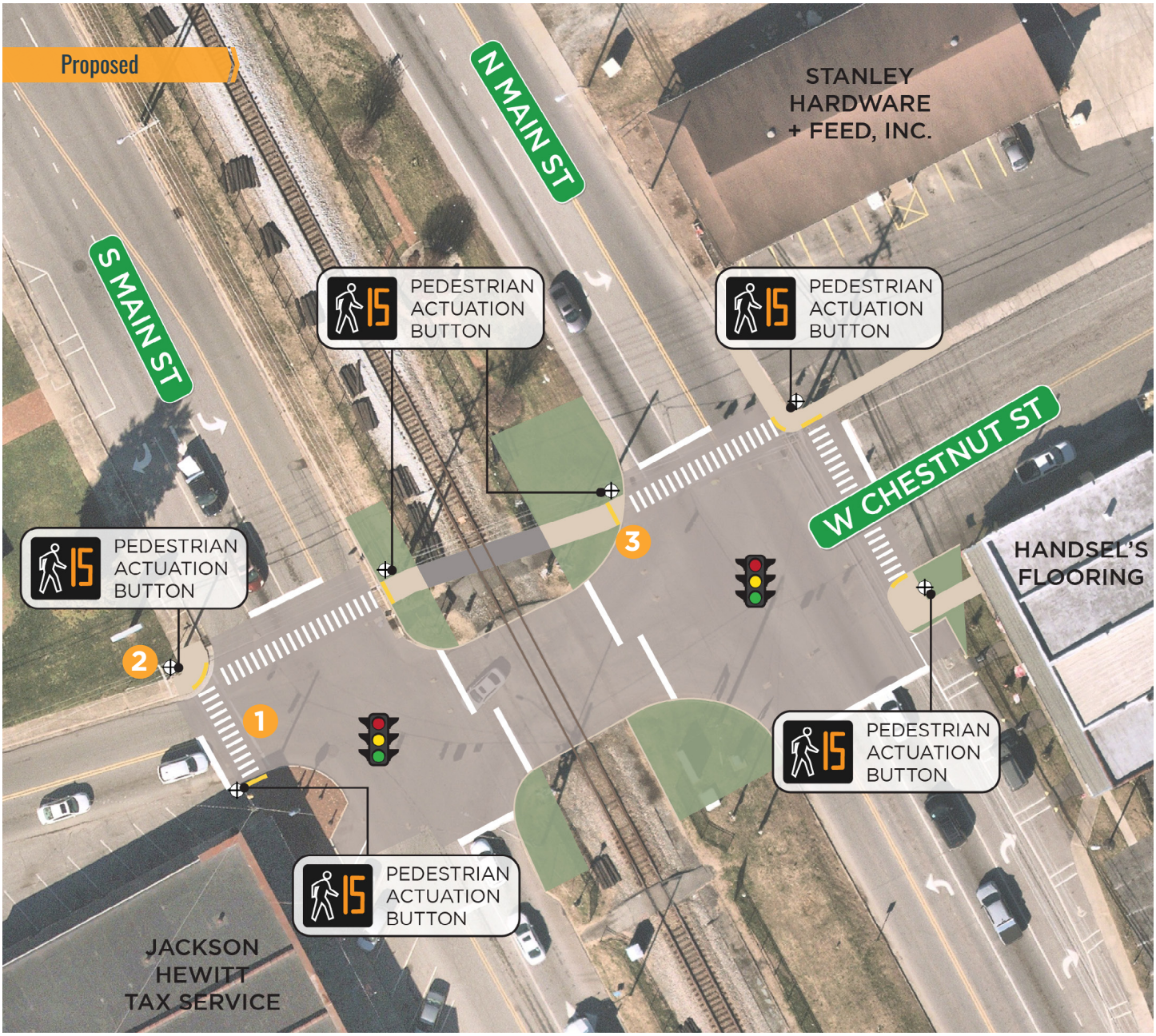
PLANNING LEVEL COST ESTIMATE:

- » $588,000*

*Detailed cost estimates are provided in the Appendix, reflecting 2024 prices. Costs do not include right-of-way acquisition, if necessary

Concept Design Details

1. High-visibility crosswalk markings.
2. Pedestrian-actuated signals.
3. ADA-compliant curb ramps and landings.



This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review.

PEDESTRIAN & BICYCLE ACCESS IMPROVEMENTS TO DOWNTOWN

PRIORITY SCORE = 3

Project Description & Challenges

This project will improve pedestrian and bicycle access to Downtown Stanley by adding shared lane markings ("sharrows") to Main Street and adding bicycle boulevard treatments to Thompson Street, Plum Street, and Carpenter Street in order to create prioritized bicycle and pedestrian access along those streets through traffic calming and wayfinding. By improving pedestrian and bicycle access, these treatments can help activate Downtown with improved access while not exacerbating vehicular traffic and parking.

The bicycle boulevard treatments on the quieter downtown streets can be enhanced with colored pavement treatments and artistic installments to designate the space as slower pedestrian- and bicyclist-priority streets, while also beautifying the space and Downtown.

For more details on colored street treatments, see the Asphalt Art Safety Study, available at https://assets.bbhub.io/dotorg/sites/43/2022/04/Asphalt-Art-Safety-Study.pdf.*

*FHWA does not encourage non-standard use of color in crosswalks or roadways, as they believe it could distract drivers to looking at the crosswalk or bulbout and not notice pedestrians or other moving elements while they scrutinize the colorful installation.

ROADWAY CHARACTERISTICS:

- Average Annual Daily Traffic (AADT) = unknown
- Speed Limit = 20 mph
- Curb + Gutter presence: both sides
- Pavement Width: 64 feet
- Number of Lanes: 2

PROJECT DETAILS:

- Shared Lane Markings
- Bollards to separate and define a wider pedestrian zone
- Reoriented parking spaces
- Length: 756 feet (0.14 Miles)
- Trip Generators:
  - » Downtown

PLANNING LEVEL COST ESTIMATE:

- » 932,000*

*Detailed cost estimates are provided in the Appendix, reflecting 2024 prices. Costs do not include right-of-way acquisition, if necessary.

An example concept of a bicycle boulevard using branded pavement markings as a wayfinding treatment

Priority Projects

Concept Design Details

1. Shared Lane Markings (also known as "sharrows") help communicate to bicyclists and automobile drivers that this is a shared street. They are placed in the roadway to indicate where bicyclists can ride within the lane to maximize visibility and safety and to alerts drivers where to anticipate bicyclists. Additionally, signage can be used to help communicate to roadway users.
2. The on-street parking can be reoriented as reverse angle parking to reduce conflicts between parked cars and through traffic by increasing the visibility for drivers as they pull forward to leave the parking spaces.
3. Bollards and contrasting surface color help define and extend the pedestrian zone in front of downtown restaurants and businesses. The extra space is gained through the reoriented parking spaces.

This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review.

SIDEPATH ON OLD MOUNT HOLLY ROAD

PRIORITY SCORE = 9

Project Description & Challenges

Old Mt Holly Road is an important connection from Downtown Stanley to key destinations like retail shopping center and the Post Office. Given the narrow width and rural nature of this roadway, the recommendation of a sidepath accommodates both pedestrian and bicycle traffic along this corridor. This facility type offers the benefit of all active travel modes on one facility, rather than sidewalks and bike lanes, which would require significantly more right-of-way and cost more to widen the road. The roadway separation improves pedestrian and bicyclist safety while reaching important destinations on Old Mt Holly Road.

Right-of-way constraints may require the sidepath to be built with a narrower buffer or without one in some sections, especially as the sidepath approaches the intersection of Main Street/NC 27.

ROADWAY CHARACTERISTICS:

- Average Annual Daily Traffic (AADT) = 3,000
- Speed Limit = 35 mph
- Curb + Gutter presence: None
- Pavement Width: 22 feet
- Number of Lanes: 2

PROJECT DETAILS:

- 10-foot asphalt sidepath with 5-foot grass buffer
- Length: 3,186 feet (0.60 Miles)
- Trip Generators:
  - » U.S. Post Office
  - » Stanley Recreation Swim Club
  - » N Main Street/NC 27

PLANNING LEVEL COST ESTIMATE:

- » $1,596,000*

*Detailed cost estimates are provided in the Appendix, reflecting 2024 prices. Costs do not include right-of-way acquisition, if necessary

Concept Design Details

1. A 10-foot sidepath will be placed on the north side of the street, creating pedestrian and bicycle connections to key destinations, such as the Post Office and the Stanley Recreation Swim Club.
2. Roadway separation can be achieved with a 5-foot planted buffer to increase safety for pedestrians and bicyclists.

This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review.

ADVISORY BIKE LANES ON GEN. STONEWALL JACKSON STREET

PRIORITY SCORE = 2

Project Description & Challenges

This project uses striping to create advisory bike lanes (ABLs), also known as advisory shoulders, which provide a pedestrian and bicyclist space within the existing paved surface as a near-term facility to improve pedestrian and bicycle conditions on this road. As a long-term solution, sidewalks should be implemented on this road when possible to provide a separated facility for pedestrians.

This is a cost-effective application to introduce pedestrian and bicycle facilities to the existing road until funds are secured to create a separate paved facility.

Education around the use of advisory bike lanes will be important for the implementation of this project as this is a new roadway treatment for many people. Examples of such education campaigns that have been developed for other communities can be found online: www.youtube.com/watch?v=WwibrTNZ2xs.

ROADWAY CHARACTERISTICS:

- Average Annual Daily Traffic (AADT) = unknown
- Speed Limit = 25 mph
- Curb + Gutter presence: None
- Pavement Width: 18 feet
- Number of Lanes: 2

PROJECT DETAILS:

- Dashed pavement markings create 4-foot advisory shoulders on both sides of the street
- Length: 2,872 feet (0.54 Miles)
- Trip Generators:
  - » S. Main Street
  - » Charles Raper Jonas Highway

PLANNING LEVEL COST ESTIMATE:

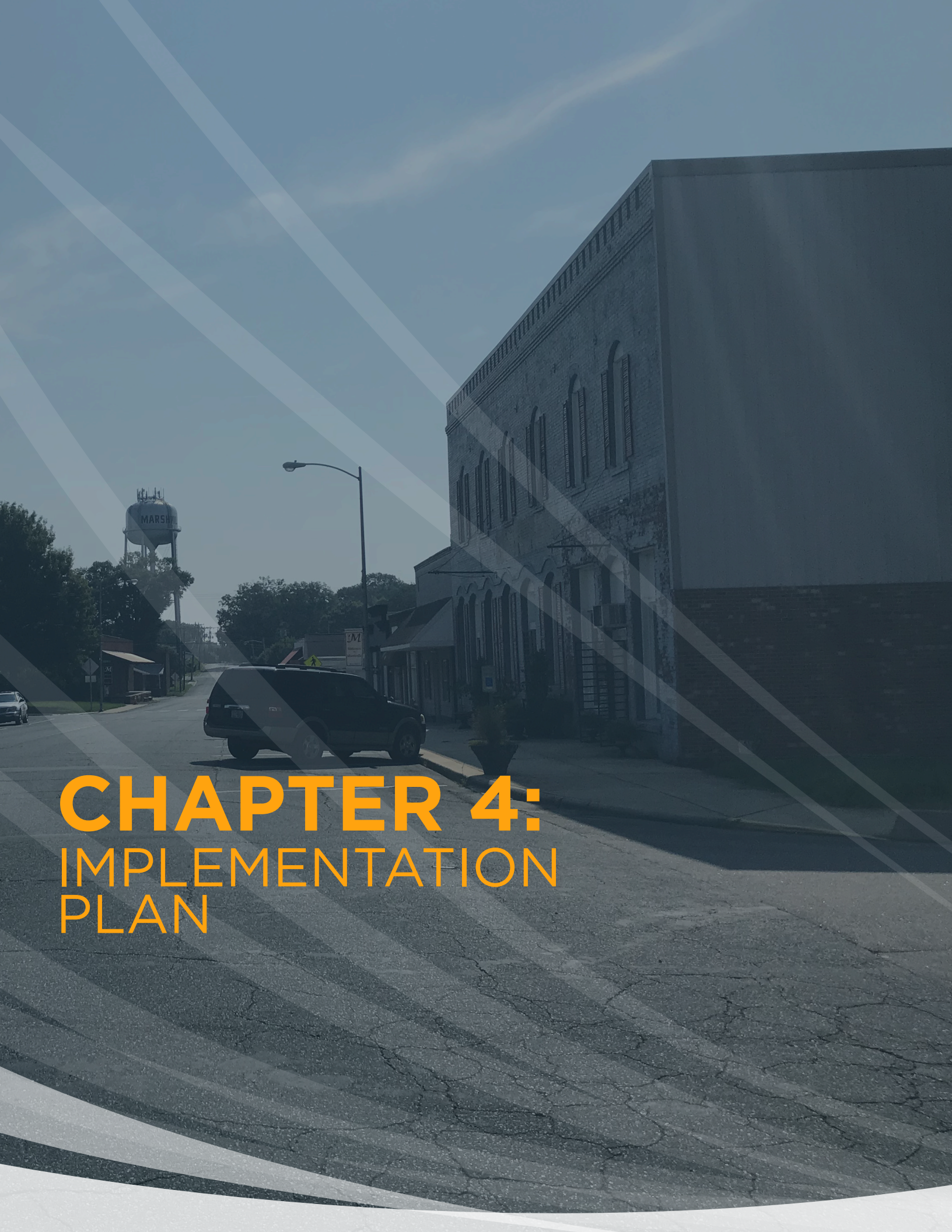
- » Near-term ABLs: $37,000*
- » Long-term Sidewalks: $1,019,000*

*Detailed cost estimates are provided in the Appendix, reflecting 2024 prices. Costs do not include right-of-way acquisition, if necessary

Design Details

1. The advisory shoulder creates usable shoulders for bicyclists and pedestrians on a roadway that is otherwise too narrow to accommodate one.
2. Motor vehicles can travel in both directions in the center lane, only encroaching into the advisory shoulders as needed to facilitate passing movements.
3. A contrasting pavement material or color can be used as an option to visually differentiate the shoulder from the roadway and discourage unnecessary encroachment.

This is not a design plan; precise locations and elements should be designed in accordance with engineering standards and NCDOT review.



CHAPTER 4:
IMPLEMENTATION PLAN

OVERVIEW

This chapter defines the action steps for managing and funding the implementation of the Stanley Pedestrian + Bicycle Plan. Implementing the recommendations within this plan will require leadership and dedication to pedestrian, bicycle, and greenway facility development on the part of a variety of agencies and affected property owners or developers. Equally critical, and perhaps more challenging, will be meeting the need for a recurring source of revenue. Even small amounts of local funding could be very useful and beneficial when matched with outside sources. Most importantly, the Town need not accomplish the recommendations of this plan by acting alone; success will be realized through collaboration with regional and state agencies, the private sector, and non-profit organizations.

Given the present day economic challenges faced by local governments (as well as their state, federal, and private sector partners), it is difficult to know what financial resources will be available at different time frames during the implementation of this plan. However, there are still important actions to take in advance of major investments, including key organizational steps, the initiation of education and safety programs, and the development of strategic, lower-cost sidewalk and crossing facilities. Following through on these priorities will allow the key stakeholders to prepare for the development of larger pedestrian and bicycling projects over time, while taking advantage of strategic opportunities as they arise.

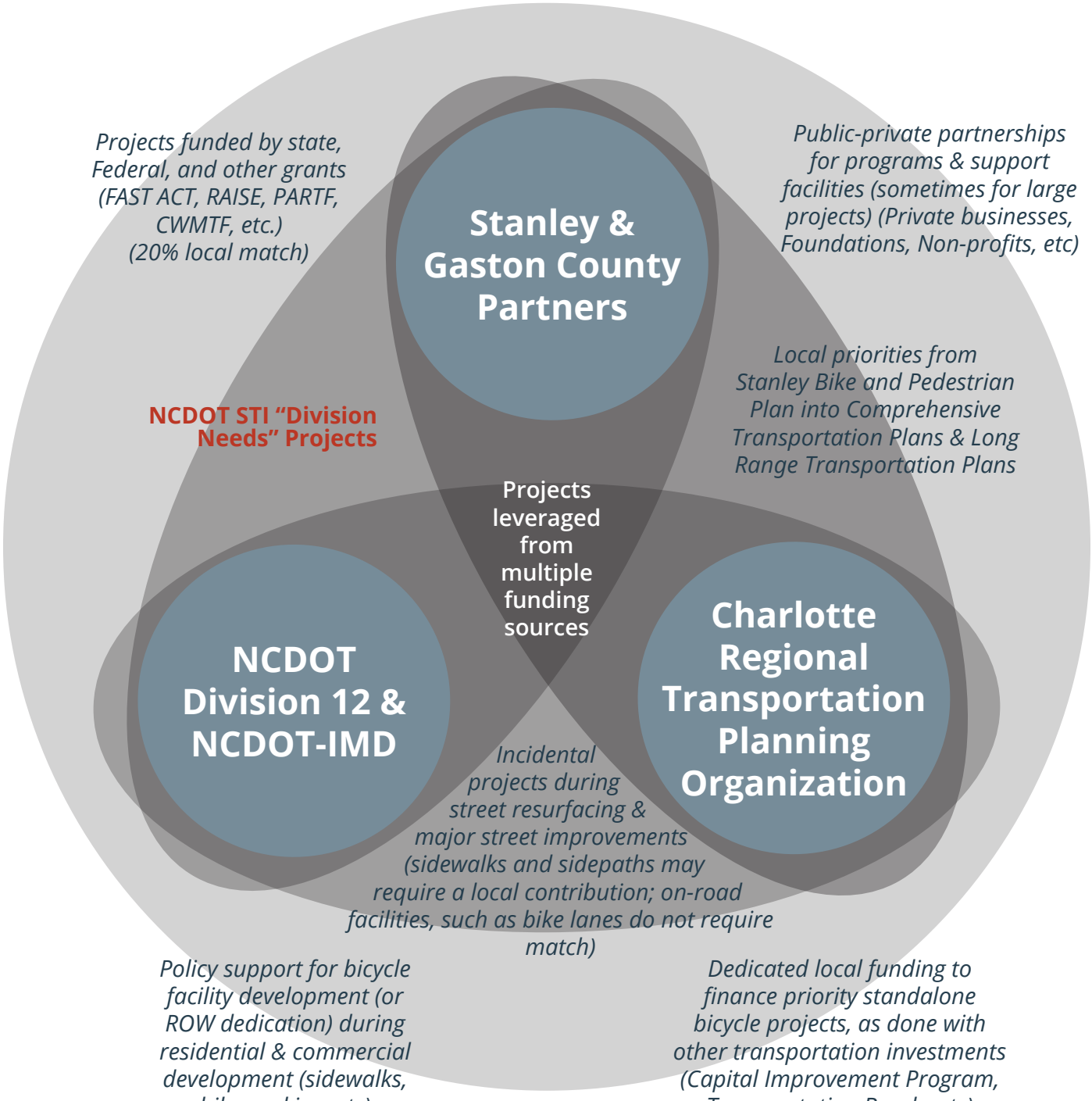
IMPLEMENTATION ACTION STEPS

The action steps draw from the opportunities shown in this document. These should be guiding steps for the Town of Stanley to initiate plan implementation and to begin top projects.

Task	Details	Phase
Adopt this plan.	Through adoption, the Plan becomes an official planning document of the Town of Stanley. Adoption does not commit Stanley to dedication of funding, but rather shows intention to support plan implementation over time. It also signals to outside funding groups that Stanley has undergone a successful, supported planning process, which is key to securing outside funding.	Short-term (2022)
Seek multiple funding sources and facility development options.	Project recommendations contain planning cost estimates and potential funding opportunities are listed at the end of this report.	Short-term/Ongoing (2022–)
Complete all priority projects.	Eight priority projects are recommended. Aim to complete all eight in 5-10 years.	Ongoing (2022–)
Develop a long- term funding strategy	To allow continued development of the project recommendations, capital funds for bicycle and pedestrian facility construction should be set aside every year. Funding for an ongoing maintenance program should also be included in operating budgets.	Short-term/Ongoing (2022–)
Coordinate road resurfacing schedule with projects that could be furthered with resurfacing projects.	Resurfacing is a very important part of implementing bike facilities and comes at very little cost. It is essential for implementation that Stanley coordinates the resurfacing schedule with the advisory shoulder recommendations (on General Stonewall Jackson Street, for example, see pages 52-53).	Short-term/Ongoing (2022–)
Launch new programs.	New programs should be launched to complement infrastructure improvements, as described in this document, (see pages 79-83).	Ongoing (2022–)
Seek designation as a Bicycle-Friendly Community & Walk-Friendly Community.	The development and implementation of this plan is an essential first step toward becoming a designated Bicycle-Friendly and Walk-Friendly Community. With progress on these recommendations, Stanley should be in a position to apply for and receive recognition by 2023. See the League of American Bicyclists website - https://www.bikeleague.org/community and the Walk Friendly Community program website - http://walkfriendly.org/ for further information.	Mid- to Long-term (2027–)
Plan Update	This plan should be updated by 2028 (about five years from adoption). If many of the recommendations have been completed by then, a new set of priorities should be established. If not, a new implementation strategy should be established.	Long-term (2027–)

FUNDING SOURCES

TYPICAL PROJECT FUNDING PARTNERS AND METHODS



FACILITY DEVELOPMENT METHODS

NCDOT Strategic Transportation Investments (STI)

The NCDOT's State Transportation Improvement Program is based on the Strategic Transportation Investments Bill, signed into law in 2013. The Strategic Transportation Investments (STI) Initiative introduces the Strategic Mobility Formula, a new way to fund and prioritize transportation projects. See the appendix for more information.

RESIDENTIAL AND COMMERCIAL DEVELOPMENT

The construction of bicycle facilities, trails, greenways, and safe crosswalks should be required during development. Construction of facilities that corresponds with site construction is more cost-effective than retrofitting. In commercial development, emphasis should also be focused on safe bicyclist access into, within, and through large parking lots. This ensures the future growth of the bicycle networks and the development of safe communities.

ROADWAY CONSTRUCTION

Bicyclists should be accommodated any time a new road is constructed or an existing road is reconstructed. In the longer-term, all new roads with moderate to heavy motor vehicle traffic should have bicycle facilities and safe intersections per best practices in design (see Design Guide Resources in the appendix for further detail). Also, case law surrounding the Americans with Disabilities Act (ADA) has found that roadway resurfacing constitutes an alteration, which requires the addition of curb ramps at intersections where they do not yet exist.

Repaving

Repaving projects provide a clean slate for revising pavement markings. When a road is repaved, the roadway should be restriped to provide space for bike lanes and shoulders, where feasible. In addition, if the spaces on the sides of non-curb and gutter streets have relatively level grades and few obstructions, the total pavement width can be widened to include paved shoulders, though this will likely require a local contribution. NCDOT provides three-year plans that include resurfacing schedules. Please see the following website: https://connect.ncdot.gov/resources/Asset-Management/HMIP-Plans/Pages/HMIP.aspx.

BRIDGE CONSTRUCTION OR REPLACEMENT

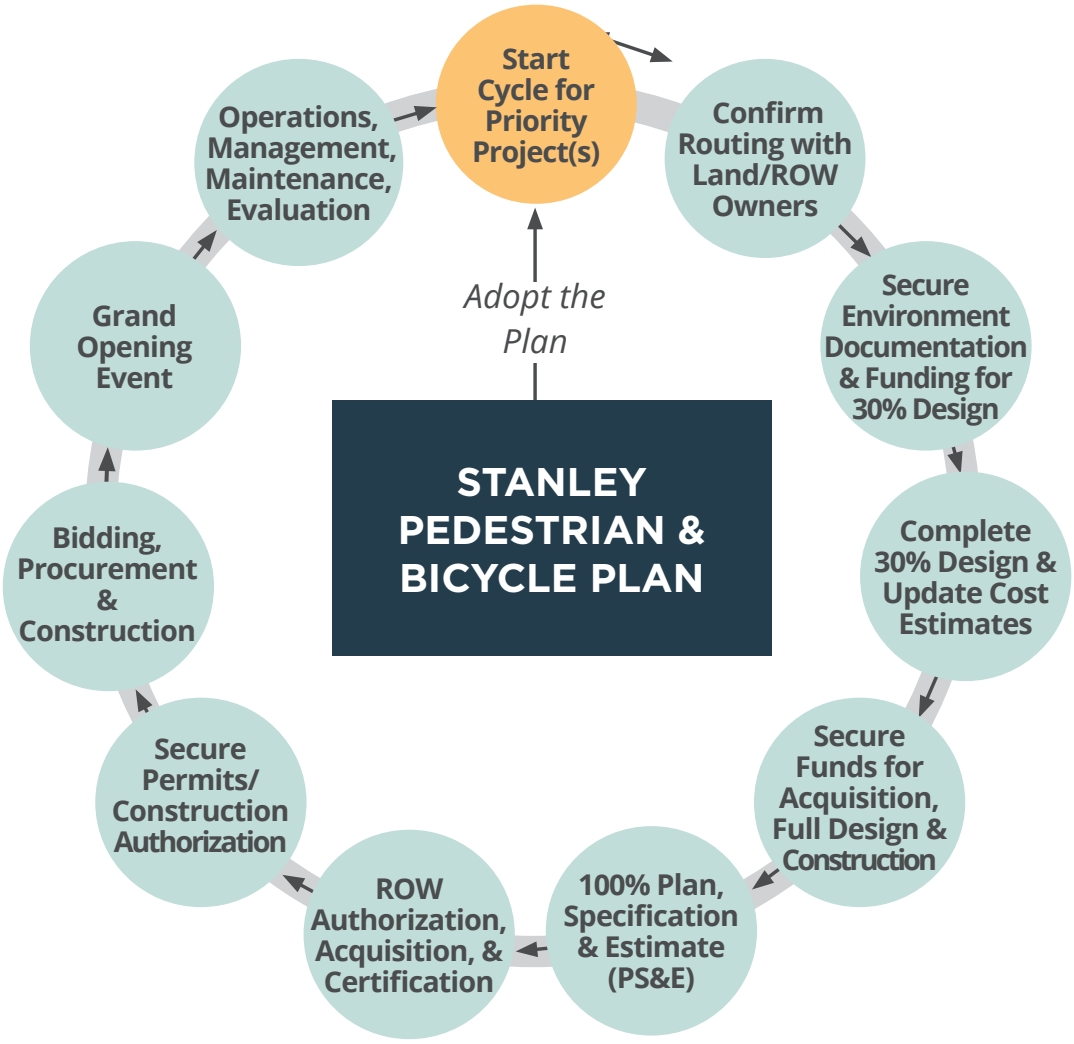
Provisions should always be made to include bicycling facilities (and pedestrian facilities) as a part of vehicular bridges. See NCDOT's "List of Bridges and Current Status": https://www.ncdot.gov/initiatives-policies/Transportation/bridges/Pages/default.aspx. Even though bridge construction and replacement does not occur regularly, it is important to consider these policies for long-term bicycle planning.

City Easements

Stanley should continue to revise existing utility easements to accommodate public access greenway trail facilities. Adopting policy language to allow for public access for trail users, as a matter of right, on all new sewer and utility easements would greatly enhance the development of greenways. Sewer easements are very commonly used for this purpose, offering cleared and graded corridors that easily accommodate trails. This approach avoids the difficulties associated with acquiring land, and it better utilizes the Town's resources.

TYPICAL PROJECT DEVELOPMENT PROCESS

These are the steps typically involved in pedestrian and bicycle facility development, when the project is being built independent of other major development or roadway projects. Certain funding sources may have additional requirements, and some steps may occur simultaneously or in a different order.



THE INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA)

(ALSO KNOWN AS THE BIPARTISAN INFRASTRUCTURE BILL)

The following is a preliminary summary of how IIJA may affect funding sources related to bicycle, pedestrian, and trail infrastructure based on what is known at the time this plan was written (2022).

FORMULA FUNDS (STATE DOTs ADMINISTER TO LOCALS)

TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

TAP will increase from $850 million to $1.44 billion per year. This is the largest dedicated source of funds for walking and biking projects in the US and it just got 70% bigger. The North Carolina Department of Transportation (NCDOT) administers this funding for rural areas of the state that do not have a metropolitan planning organization. The Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) administers Transportation Alternatives Program funding on a competitive basis to local jurisdictions in its region.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

CMAQ Will increase by 10% to $13.2 billion. This program funds interchange improvements, local transit operations, and bike and pedestrian infrastructure to help meet the National Ambient Air Quality Standard in non-attainment areas; Gaston County is eligible for CMAQ funds.

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

States where more than 15% of all fatalities involve cyclists or pedestrians (Vulnerable Road Users or VRU), will be required to spend 15% of their HSIP funding on bicycle/pedestrian projects. This includes North Carolina, where about 15% of all fatalities involve VRUs. Projects are evaluated, prioritized, and selected at the NCDOT district level based on three years of crash data (targeted funds) or systemic approved projects as outlined in the HSIP guidance.

Every state and MPO will be required to use at least 2.5% of its apportioned funding to develop planning documents that can include but are not limited to: Complete Streets standards, a Complete Streets prioritization plan, multimodal corridor studies, or active transportation plans (among other uses).

DISCRETIONARY GRANTS (US DOT ADMINISTERS TO LOCALS)

REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE)

In the first RAISE grant cycle, nearly one in five funded grant applications involved trail development. In addition, the selection committee awarded another 21% of funding to projects focused on making roads safer for vulnerable road users like cyclists and pedestrians. Greenway projects might compete well for the RAISE program with a focus on connecting people to local and regional destinations.

Under the Infrastructure Investment and Jobs Act (IIJA), the RAISE grant program will have $7.5 billion available over the next five years. Competitive applications to this program have the following in common:

1. The project can demonstrate broad community support and is a recognized local or regional priority.
2. The project explicitly considers how it will address climate change and racial equity.
3. The project documents direct and significantly favorable local or regional impact relative to the scoring criteria:
    - » Safety
    - » Environmental Sustainability
    - » Quality of Life
    - » Economic Competitiveness
    - » State of Good Repair
    - » Innovation
    - » Partnership
4. The project has a high benefit to cost ratio.
5. The project demonstrates readiness by providing a detailed scope of work and budget, a realistic project delivery schedule, an understanding of the environmental risks, permit requirements, and mitigation measures, and is within the public right-of-way.
6. A United States Senator or Congress member actively champions the project.

For more information on RAISE program guidelines and upcoming Notice of Funding Opportunities, see:

www.transportation.gov/RAISEgrants

NEW: SAFE STREETS FOR ALL

SS4A is a new federal grant program that will award up to $5 billion over the next five years to support the US DOT's goal of zero deaths and serious injuries on our nation's roadways. Grants are available for developing safety action plans, implementing projects or programs identified in an action plan, and conducting supplemental planning activities to support or enhance an existing action plan.

MPOs, municipalities, and Tribal governments are eligible to apply. The program requires a 20% non-federal match. Applications for the 2022 cycle were due September 15th, 2022.

Successful grant applications will demonstrate engagement with public and private stakeholders and seek to adopt innovative technologies and strategies to promote safety, including: low-cost/high impact systemic safety improvements, equitable investment, and evidencedbased strategies. Applications should also show how proposed projects align with US DOT's mission and priorities such as equity, climate and sustainability, quality job creation, and economic strength and global competitiveness. For more information: https://www.transportation.gov/grants/SS4A

Two other new programs, the *Healthy Streets Program* and the *Active Transportation Infrastructure Investment Program*, are still subject to appropriations and may become available in 2023.

When considering possible funding sources for bicycle and pedestrian projects, it is important to remember that not all construction activities or programs will be accomplished with a single funding source. It will be necessary to consider several sources of funding that together will support full project completion. Funding sources can be used for a variety of activities, including: programs, planning, design, implementation, and maintenance. This section outlines the most likely sources of funding from the federal, state, and local government levels as well as from the private and non-profit sectors.

Note that this reflects the funding available at the time of writing. Funding amounts, cycles, and the programs themselves may change over time.

FEDERAL FUNDING SOURCES

AMERICAN RESCUE PLAN ACT (ARPA)

Funding Agency: Various Federal agencies including USDA; Consumer Product Safety Fund; Elementary and Secondary School Emergency Relief Fund; EPA; CDC; FEMA; PPP; Veterans Health Administration

Local Match: 0%

Description: The Coronavirus State and Local Fiscal Recovery Funds provide substantial flexibility for each government to meet local needs—including support for households, small businesses, impacted industries, essential workers, and the communities hardest hit by the crisis. These funds can also be used to make necessary investments in water, sewer, and broadband infrastructure.

Source: https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds

GREAT AMERICA OUTDOORS ACT (GAOA)

Funding Agency: National Park Service; US Fish and Wildlife Service; Bureau of Land Management; Bureau of Indian Education; US Forest Service

Local Match: 0%

Description: This legislation will use revenues from energy development to provide needed maintenance for critical facilities and infrastructure in our national parks, forests, wildlife refuges, recreation areas, and American Indian schools. It will also use royalties from offshore oil and natural gas to permanently fund the Land and Water Conservation Fund to invest in conservation and recreation opportunities across the country.

Source: https://www.nps.gov/subjects/legal/great-american-outdoors-act.htm

INFRASTRUCTURE INVESTMENT AND JOBS ACT

Funding Agency: Various government agencies

Local Match: 0%

Description: The fund will rebuild the nation's deteriorating roads and bridges and fund new climate resilience and broadband initiatives such as modernizing the nation's power grid, repairing and replacing aging public works projects, moving communities vulnerable to climate change, reconnect communities divided by highway construction, improve access to running water in tribal and Alaska Native communities, restore lakes across the country, provide funding for Amtrak, provide more funding for programs intended to provide safe commutes for pedestrians, reduce collisions between vehicles and wildlife, clean up drinking water by removing lead-contaminated pipes, and reserve at least $25 million per year for "small and disadvantaged communities."

Source: https://www.congress.gov/bill/117th-congress/house-bill/3684

BUILDING RESILIENT INFRASTRUCTURE AND COMMUNITIES

Funding Agency: Federal Emergency Management Agency (FEMA)

Local Match: Contextually dependent

Description: Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards.

The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

Source: https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities

ENVIRONMENTAL PROTECTION AGENCY FLOOD MITIGATION ASSISTANCE PROGRAM (FMA)

Funding Agency: Federal Emergency Management Agency (FEMA)

Local Match: 0%

Description: FMA is a competitive grant program that provides funding to states, local communities, federally recognized tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. FEMA requires state, local, tribal, and territorial governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation assistance projects.

Source: https://www.ncdps.gov/our-organization/emergency-management/disaster-recovery/hazard-mitigation/non-disaster-grants

UNITED STATES DEPARTMENT OF AGRICULTURE HEALTHY FORESTS RESERVE PROGRAM (HFRP)

Funding Agency: USDA Natural Resources Conservation Service

Local Match: 0%

Description: HFRP helps landowners restore, enhance and protect forestland resources on private lands through easements and financial assistance. HRFP aids the recovery of endangered and threatened species under the Endangered Species Act, improves plant and animal biodiversity and enhances carbon sequestration. Land enrolled in HFRP easements must be privately owned or owned by Indian tribes and restore, enhance or measurably increase the recovery of threatened or endangered species, improve biological diversity, or increase carbon storage.

Source: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/forests/

UNITED STATE DEPARTMENT OF AGRICULTURAL CONSERVATION EASEMENT PROGRAM (ACEP)

Funding Agency: USDA Natural Resources Conservation Service

Local Match: 17%

Description: ACEP helps landowners, land trusts, and other entities protect, restore, and enhance wetlands, grasslands, and working farms and ranches through conservation easements. Land protected by agricultural land easements protect the long-term viability of the nation's food supply by preventing conversion of productive working lands to non-agricultural uses, and provides additional public benefits, including environmental quality, historic preservation, wildlife habitat and protection of open space.

Source: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/nc/programs/easements/acep/?cid=stelprdb1249510

REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE)

Funding Agency: U.S Department of Transportation (USDOT)

Local Match: 20%

Description: RAISE provides an opportunity for DOTs to invest in road, rail, transit and port projects that promise to achieve national objectives. RAISE grants are for capital investments in surface transportation infrastructure and are to be awarded on a competitive basis for projects that will have a significant local or regional impact.

Source: https://www.transportation.gov/RAISEgrants

INFRASTRUCTURE FOR REBUILDING AMERICA

Funding Agency: U.S Department of Transportation (USDOT)

Local Match: 20%

Description: These grants advance the priorities of rebuilding America's infrastructure and creating jobs by funding highway and rail projects of regional and national economic significance. NFRA grants are selected based on several criteria: how they would improve local economies, create jobs, and meet all statutory requirements, and how they would address climate change, environmental justice, and racial equity.

Source: https://www.transportation.gov/buildamerica/financing/infra-grants/infrastructure-rebuilding-america

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

Funding Agency: US Department of Housing and Urban Development

Local Match: 0%

Description: CDBG provides annual grants on a formula basis to states, cities, and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.

Source: https://www.hudexchange.info/programs/cdbg/

FEDERAL LANDS ACCESS PROGRAM (FLAP)

Funding Agency: U.S. Federal Highway Administration (FHWA)

Local Match: 20%

Description: FLAP was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. FLAP supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

Source: https://highways.dot.gov/federal-lands/programs-access

TRANSPORTATION ALTERNATIVES SET-ASIDE (TA)

Funding Agency: U.S. Federal Highway Administration (FHWA)

Local Match: 20%

Description: TA provides funding for projects and activities defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation, trails that serve a transportation purpose, and Safe Routes to School projects.

Source: https://www.fhwa.dot.gov/fastact/factsheets/transportationalternativesfs.cfm

SURFACE TRANSPORTATION BLOCK GRANT (STBG)

Funding Agency: U.S. Federal Highway Administration (FHWA)

Local Match: 20%

Description: STBG provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.

Source: https://www.fhwa.dot.gov/specialfunding/stp/

HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

Funding Agency: U.S. Federal Highway Administration (FHWA)

Local Match: 0%

Description: The HSIP is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

Source: https://safety.fhwa.dot.gov/hsip/

NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)

Funding Agency: U.S. Federal Highway Administration (FHWA)

Local Match: 20%

Description: The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

Source: https://www.fhwa.dot.gov/fastact/factsheets/nhppfs.cfm

SAFE ROUTES TO SCHOOL (SRTS) PROGRAM

Funding Agency: U.S Department of Transportation (USDOT)

Local Match: 0%

Description: SRTS enables and encourages children to walk and bike to school. The program helps make walking and bicycling to school a safe and more appealing method of transportation for children. SRTS facilitates the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Most of the types of eligible SRTS projects include sidewalks or shared use paths. However, intersection improvements (i.e. signalization, marking/upgrading crosswalks, etc.), on-street bicycle facilities (bike lanes, wide paved shoulders, etc.) or off-street shared use paths are also eligible for SRTS funds.

Source: https://www.transportation.gov/mission/health/Safe-Routes-to-School-Programs

FEDERAL LAND AND WATER CONSERVATION FUND

Funding Agency: State and Local Assistance Programs Division (SLAD)

Local Match: 50%

Description: The Land and Water Conservation Fund (LWCF) has historically been a primary funding source of the U.S. Department of the Interior for outdoor recreation development and land acquisition by local governments and state agencies. Over its first 49

years (1965 - 2014), LWCF has provided more than $16.7 billion to acquire new Federal recreation lands as grants to State and local governments.

Over 40,000 grants to states and localities have been approved under the LWCF grants program for acquisition, development and planning of outdoor recreation opportunities in the United States. Grants have supported purchase and protection of 3 million acres of recreation lands and over 29,000 projects to develop basic recreation facilities in every State and territory of the nation.

As of August 2020, the LWCF is now permanently funded by the federal government for $900 million every year. This is hundreds of millions more per year than the fund typically receives.

Source: https://www.nps.gov/subjects/lwcf/stateside.htm

ENVIRONMENTAL CONTAMINATION CLEANUP FUNDING SOURCES

Funding Agency: U.S. Environmental Protection Agency (EPA)

EPA's Brownfields Program provides direct funding for brownfields assessment, cleanup, revolving loans, and environmental job training. EPA's Brownfields Program collaborates with other EPA programs, other federal partners, and state agencies to identify and leverage more resources for brownfields activities. The EPA provides assessment grants to recipients to characterize, assess, and conduct community involvement related to brownfields sites. They also provide Area-wide planning grants (AWP) which provides communities with funds to research, plan, and develop implementation strategies for areas affected by one or more brownfields.

Source: https://www.epa.gov/brownfields

COOPERATIVE ENDANGERED SPECIES CONSERVATION FUND GRANTS

Funding Agency: U.S. Fish and Wildlife Service (USFWS)

Local Match: 25%

Description: Section 6 of the ESA authorizes the Service to provide federal financial assistance through the Cooperative Endangered Species Conservation Fund (CESCF) to states and territories (states) to support the development and implementation of conservation programs for the benefit of resident listed, candidate, and at-risk species on non-federal lands. This financial assistance, provided in the form of competitive grants and made available through four CESCF grant programs, contributes approximately $51.8 million toward species and habitat conservation annually.

Source: https://www.fws.gov/endangered/grants/

STATE FUNDING SOURCES

There are multiple sources for state funding of bicycle and pedestrian transportation projects. However, state transportation funds cannot be used to match federally-funded transportation projects, according to a law passed by the North Carolina Legislature.

Complete Streets

NCDOT's Complete Streets Policy guides when and how planners and designers should design streets and roads to accommodate all users, including people walking and biking, in transportation projects. NCDOT updated the Complete Streets Policy in 2019, followed by the creation of the Integrated Mobility Division (combining bicycle, pedestrian, and transit functions).

The policy says: **"Bicycle and pedestrian and public transportation facilities that appear in a state, regional or locally adopted transportation plan will be included as part of the proposed roadway project. NCDOT will fully fund the cost of designing, acquiring right of way, and constructing the identified facilities."**

In 2022, NCDOT released an updated methodology

for Complete Streets Review. The new methodology is intended to standardize implementation of the policy for NCDOT project managers and includes several consultation points with local governments and MPOs/RPOs throughout the project development process.

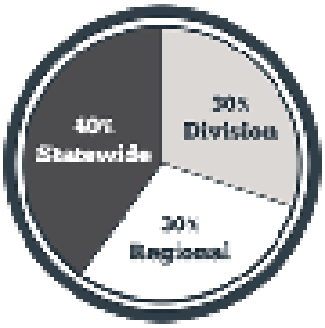
A summary of the updated process is below:

- **Step 1: Initial Screening and Data Input.** Screen planning documents such as the MTP and other adopted local and regional plans (see the FAQ for details about plan requirements), compile existing and future conditions data, conduct connectivity and gap analysis, review alternatives.
- **Step 2: Transportation Need Determination.** Estimate demand using NCDOT Demand Estimation Map, observed conditions, land use, and other data. Special considerations are made for areas where demand is "low" and "intermittent/none."
- **Step 3: Facility Type Selection.** Refine the demand estimation from Step 2, identify preferred facilities, and review other design elements such as transit, intersections, and crossings.
- **Step 4: Impact Assessment.** Conduct comprehensive cost analysis, evaluate schedule impacts, and review environmental risk.
- **Step 5: Final Analysis.** Evaluate cost and schedule impacts and document recommendations.

North Carolina Department of Transportation (NCDOT) Strategic Transportation Investments (STI)

Passed in 2013, the Strategic Transportation Investments law (STI) allows NCDOT to use its funding more efficiently and effectively to enhance the state's infrastructure, while supporting economic growth, job creation and a higher quality of life. This process encourages thinking from a statewide and regional perspective while also providing flexibility to address local needs.

STI also establishes the Strategic Mobility Formula, a new way of allocating available revenues based on data-driven scoring and local input. It was used for the first time to develop NCDOT's current construction schedule, the 2016-2025 State Transportation Improvement Program (STIP).



STI Revenue Distribution (Source: www.ncdot.gov/strategictransportationinvestments)

The STIP, which identifies the transportation projects that will receive funding during a 10-year period, is a state and federal requirement. Federal law requires it to be updated at least every four years. NCDOT, however, updates it every two years. Work is currently underway to update the STIP for 2023-2032.

The new Strategic Mobility Formula funds projects in three categories: Division Needs, Regional Impact, and Statewide Mobility. All independent bicycle and pedestrian projects are placed in the "Division Needs" category, and are currently ranked based on 50% data (safety, access, demand, connectivity, and cost effectiveness) and 50% local input, with a breakdown as follows:

Safety 15%

- Definition: Projects or improvements where bicycle or pedestrian accommodations are non-existent or inadequate for safety of users
- How it's measured: Crash history, posted speed limits, and estimated safety benefit
- Calculation:
  - » Bicycle/pedestrian crashes along the corridor within last five years: 40% weight
  - » Posted speed limits, with higher points for higher limits: 40% weight
  - » Project safety benefit, measured by each specific improvement: 20% weight

Access 10%

- Definition: Destinations that draw or generate high volumes of bikes/pedestrians

- How it's measured: Type of and distance to destination

Demand 10%

- Definition: Projects serving large resident or employee user groups
- How its measured: # of households and employees per square mile within 1 ½ mile bicycle or ½ mile pedestrian facility + factor for unoccupied housing units (second homes)

Connectivity 10%

- Definition: Measure impact of project on reliability and quality of network
- How it's measured: Creates score per each Strategic Transportation Investments based on degree of bike/pedestrian separation from roadway and connectivity to similar or better project type

Cost Effectiveness 5%

- Definition: Ratio of calculated user benefit divided by NCDOT project cost
- How it's measured: Safety + Demand + Access + Connectivity)/Estimated Project Cost to NCDOT

Local Input 50%

- Definition: Input from MPO/RPOs and NCDOT Divisions, which comes in the form points assigned to projects.
- How it is measured: Base points plus points for population size. A given project is more likely to get funded if it is assigned base points from both the MPO/RPO and the Division, making the need for communicating the importance of projects to these groups critical. Further, projects that have a local match will score higher.

Additional bicycle project requirements:

- Federal funding typically requires a 20% non-federal match
- **State law prohibits state match for bicycle and pedestrian projects (except for Powell Bill). Since state law prohibits state monies from being the match for bicycle and pedestrian projects, the Town will need to supply the 20% match from other sources, such as the Town's own funds, matching grants, etc.**
- Limited number of project submittals per MPO/RPO/Division
- Minimum project cost requirement is $100,000
- Bike/Pedestrian projects typically include: bicycle lanes, side path/greenway, paved shoulders, sidewalks, pedestrian signals, SRTS infrastructure projects, and other streetscape/multi-site improvements (such as median refuge, signage, etc.)

These rankings largely determine which projects will be included in NCDOT's State Transportation Improvement Program (STIP). The STIP is a federally mandated transportation planning document that details transportation planning improvements prioritized by the stakeholders for inclusion in NCDOT's Work Program over the next 10 years. "More than 900 non-highway construction projects were prioritized for years 2015-2020, totaling an estimated $9 billion. NCDOT will only have an estimated $1.5 billion to spend during this time period." The STIP is updated every 2 years. The STIP contains funding information for various transportation divisions of NCDOT, including, highways, rail, bicycle and pedestrian, public transportation and aviation.

For more information on STIP: www.ncdot.gov/initiatives-policies/Transportation/stip/Pages/default.aspx

To access the STIP: connect.ncdot.gov/projects/planning/Pages/State-Transportation-Improvement-Program.aspx

For more about the STI process: www.ncdot.gov/initiatives-policies/Transportation/stip/Pages/strategic-transportation-investments.aspx

Incidental Projects

Bicycle accommodations, such as bike lanes, wide paved shoulders, , intersection improvements, bicycle safe bridge design, etc., are frequently included as "incidental" features of larger highway/roadway projects. This is increasingly common with the adoption of NCDOT's "Complete Streets" Policy. In addition, bicycle safe drainage grates and handicapped accessible sidewalk ramps are now a standard feature of all NCDOT highway construction. Most pedestrian safety accommodations built by NCDOT are included as part of scheduled highway improvement projects funded with a combination of federal and state roadway construction funds, and usually with a local match. On-road bicycle accommodations, if warranted, typically do not require a local match.

"Incidental Projects" are often constructed as part of a larger transportation project, when they are justified by local plans that show these improvements as part of a larger, multi-modal transportation system. Having a local bicycle or pedestrian plan is important, because it allows NCDOT to identify where bike and pedestrian improvements are needed, and can be included as part of highway or street improvement project. It also helps local government identify what their priorities are and how they might be able to pay for these projects. Under "Complete Streets" local governments may be responsible for a portion of the costs for bicycle and pedestrian projects.

Duke Energy Water Resources Fund

Duke Energy is investing $10 million in a fund for projects that benefit waterways in the Carolinas. The fund supports science-based, research-supported projects and programs that provide direct benefit to at least one of the following focus areas:

- Improve water quality, quantity and conservation;
- Enhance fish and wildlife habitats;
- Expand public use and access to waterways; and
- Increase citizens' awareness about their roles in protecting these resources.

Stanley could consider this resource for its proposed creekside greenways. For more information: www.nccommunityfoundation.org/apply/grants/corporate-grantmaking-programs/duke-energy-water-resources-fund

Clean Water Management Trust Fund

The Clean Water Management Trust Fund is available to any state agency, local government, or non-profit whose primary purpose is the conservation, preservation, and restoration of North Carolina's environmental and natural resources. Grant assistance is provided to conservation projects that:

- enhance or restore degraded waters;
- protect unpolluted waters, and/or
- contribute toward a network of riparian buffers and greenways for environmental, educational, and recreational benefits;
- provide buffers around military bases to protect the military mission;
- acquire land that represents the ecological diversity of North Carolina; and
- acquire land that contributes to the development of a balanced State program of historic properties.

The application deadline is typically in February. For more information: nclwf.nc.gov/grants

SPOT Safety Program

The Spot Safety Program is a state funded public safety investment and improvement program that provides highly effective low cost safety improvements for intersections, and sections of North Carolina's 79,000 miles of state maintained roads in all 100 counties of North Carolina. The Spot Safety Program is used to develop smaller improvement projects to address safety, potential safety, and operational issues. The program is funded with state funds and currently receives approximately $9 million per state fiscal year. Other monetary sources (such as Small Construction or Contingency funds) can assist in funding Spot Safety projects, however, the maximum allowable contribution

of Spot Safety funds per project is $250,000.

The Spot Safety Program targets hazardous locations for expedited low cost safety improvements such as traffic signals, turn lanes, improved shoulders, intersection upgrades, positive guidance enhancements (rumble strips, improved channelization, raised pavement markers, long life highly visible pavement markings), improved warning and regulatory signing, roadside safety improvements, school safety improvements, and safety appurtenances (like guardrail and crash attenuators).

A Safety Oversight Committee (SOC) reviews and recommends Spot Safety projects to the Board of Transportation (BOT) for approval and funding. Criteria used by the SOC to select projects for recommendation to the BOT include, but are not limited to, the frequency of correctable crashes, severity of crashes, delay, congestion, number of signal warrants met, effect on pedestrians and schools, division and region priorities, and public interest. For more information: connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx

Powell Bill Funds

Annually, State street-aid allocations (Powell Bill Funds) are made to incorporated municipalities which establish their eligibility and qualify as provided by G.S. 136-41.1 through 136-41.4. Powell Bill funds shall be expended only for the purposes of maintaining, repairing, constructing, reconstructing or widening of local streets that are the responsibility of the municipalities or for planning, construction, and maintenance of bikeways or sidewalks along public streets and highways. Beginning July 1, 2015 under the Strategic Transportation Investments initiative, Powell Bill funds may no longer be used to provide a match for federal transportation funds such as Transportation Alternatives. Certified Statement, street listing, add/delete sheet and certified map from all municipalities are due between July 1st and July 21st of each year. Additional documentation is due shortly after. More information: connect.ncdot.gov/municipalities/State-Street-Aid/Pages/default.aspx

Highway Hazard Elimination Program

The Hazard Elimination Program is used to develop larger improvement projects to address safety and potential safety issues. The program is funded with 90 percent federal funds and 10 percent state funds. The cost of Hazard Elimination Program projects typically ranges between $400,000 and $1 million. A Safety Oversight Committee (SOC) reviews and recommends Hazard Elimination projects to the Board of Transportation (BOT) for approval and funding. These projects are prioritized for funding according to a safety benefit to cost (B/C) ratio, with the safety benefit being based on crash reduction. Once approved and funded by the BOT, these projects become part of the department's State Transportation Improvement Program (STIP). For more information: connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx

Governor's Highway Safety Program

The Governor's Highway Safety Program (GHSP) funds safety improvement projects on state highways throughout North Carolina. All funding is performance-based. Substantial progress in reducing crashes, injuries, and fatalities is required as a condition of continued funding. This funding source is considered to be "seed money" to get programs started. The grantee is expected to provide a portion of the project costs and is expected to continue the program after GHSP funding ends. State Highway Applicants must use the web-based grant system to submit applications. For more information: www.ncdot.gov/initiatives-policies/safety/ghsp/Pages/default.aspx

The North Carolina Division of Parks and Recreation – Recreational Trails and Adopt-a-Trail Grants

The North Carolina Division of Parks and Recreation and the State Trails Program offer funds to help citizens, organizations and agencies plan, develop and manage all types of trails ranging from greenways and trails for hiking, biking, and horseback riding to

river trails and off-highway vehicle trails. "The Adopt-a-Trail Grant Program (AAT) awards $108,000 annually to government agencies, nonprofit organizations and private trail groups for trail projects. The Recreational Trails Program (RTP) is a $1.3 million grant program funded by Congress with money from the federal gas taxes paid on fuel used by off-highway vehicles. Grant applicants must be able to contribute 20% of the project cost or in-kind contributions. Both grant applications are typically due in January or February. For more information: trails.nc.gov/trail-grants

NC Parks and Recreation Trust Fund (PARTF)

The Parks and Recreation Trust Fund (PARTF) provide dollar-for-dollar matching grants to local governments for parks and recreational projects to serve the general public. Counties, incorporated municipalities, and public authorities, as defined by G.S. 159-7, are eligible applicants. A local government can request a maximum of $500,000 with each application. An applicant must match the grant dollar-for-dollar, 50 percent of the total cost of the project, and may contribute more than 50 percent. The appraised value of land to be donated to the applicant can be used as part of the match. The value of in-kind services, such as volunteer work, cannot be used as part of the match. Grant applications are typically due in February. For more information: www.ncparks.gov/more-about-us/parks-recreation-trust-fund/parks-and-recreation-trust-fund

Community Development Block Grant Funds

Community Development Block Grant (CDBG) funds are available to local municipal or county governments that qualify for projects to enhance the viability of communities by providing decent housing and suitable living environments and by expanding economic opportunities, principally for persons of low and moderate income. State CDBG funds are provided by the U.S. Department of Housing and Urban Development (HUD) to the state of North Carolina. All North Carolina small cities are eligible to apply for funds except for 23 entitlement cities that receive funds directly from the U.S. Department of Housing and Urban Development (HUD) (Stanley does not receive direct funds, so it is eligible to apply). Each year, CDBG provides funding to local governments for hundreds of critically-needed community improvement projects throughout the state. More information: www.nccommerce.com/grants-incentives

Clean Water Management Trust Fund (CWMTF)

This fund was established in 1996 and has become one of the largest sources of money in North Carolina for land and water protection, eligible for application by a state agency, local government, or non-profit. At the end of each year, a minimum of $30 million is placed in the CWMTF. The revenue of this fund is allocated as grants to local governments, state agencies, and conservation non-profits to help finance projects that specifically address water pollution problems. Funds may be used for planning and land acquisition to establish a network of riparian buffers and greenways for environmental, educational, and recreational benefits. Deadlines are typically in February. For more information: nclwf.nc.gov/#appmain.htm

Safe Routes to School (SRTS)

SRTS is managed by NCDOT, but is federally funded; See Federal Funding Sources above for more information.

Urban and Community Forestry Grant

The North Carolina Division of Forest Resources Urban and Community Forestry grant can provide funding for a variety of projects that will help toward planning and establishing street trees as well as trees for urban open space. The goal is to improve public understanding of the benefits of preserving existing tree cover in communities and assist local governments with projects which will lead to a more effective and efficient management of urban and community forests. Grant requests should range between $1,000 and $15,000 and must be matched

equally with non-federal funds. Grant funds may be awarded to any unit of local or state government, public educational institutions, approved non-profit 501(c)(3) organizations, and other tax-exempt organizations. First time municipal applicant and municipalities seeking Tree City USA status are given priority for funding. Grant applications are due by March 31 at 5:00 pm and recipients are notified by mid-July each year.

For more about Tree City USA status, including application instructions, visit: www.ncforestservice.gov/Urban/urban_grant_program.htm

LOCAL GOVERNMENT FUNDING SOURCES

Municipalities often plan for the funding of pedestrian and bicycle facilities or improvements through development of Capital Improvement Program (CIP) or occasionally, through their annual Operating Budgets. In Raleigh, for example, the greenways system has been developed over many years through a dedicated source of annual funding that has ranged from $100,000 to $500,000, administered through the Recreation and Parks Department. CIPs should include all types of capital improvements (water, sewer, buildings, streets, etc.) versus programs for single purposes. This allows municipal decision-makers to balance all capital needs. Typical capital funding mechanisms include the capital reserve fund, capital protection ordinances, municipal service district, tax increment financing, taxes, fees, and bonds. Each category is described below. A variety of possible funding options available to North Carolina jurisdictions for implementing pedestrian and bicycle projects are also described below. However, many will require specific local action as a means of establishing a program, if not already in place.

Capital Reserve Fund

Municipalities have statutory authority to create capital reserve funds for any capital purpose, including pedestrian facilities. The reserve fund must be created through ordinance or resolution that states the purpose of the fund, the duration of the fund, the approximate amount of the fund, and the source of revenue for the fund. Sources of revenue can include general fund allocations, fund balance allocations, grants, and donations for the specified use.

Capital Project Ordinances

Municipalities can pass Capital Project Ordinances that are project specific. The ordinance identifies and makes appropriations for the project.

Local Improvement District (LID)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks, or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation.

Municipal Service District

Municipalities have statutory authority to establish municipal service districts, to levy a property tax in the district additional to the town-wide property tax, and to use the proceeds to provide services in the district. Downtown revitalization projects are one of the eligible uses of service districts, and can include projects such as street, sidewalk, or bikeway improvements within the downtown taxing district.

Tax Increment Financing

Project Development Financing bonds, also known as Tax Increment Financing (TIF) is a relatively new tool in North Carolina, allowing localities to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g.,

sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Streets, streetscapes, and sidewalk improvements are specifically authorized for TIF funding in North Carolina. Tax Increment Financing typically occurs within designated development financing districts that meet certain economic criteria that are approved by a local governing body. TIF funds are generally spent inside the boundaries of the TIF district, but they can also be spent outside the district if necessary to encourage development within it. Although larger cities use this type of financing more often, Woodfin, NC is an example of another small town that has used this type of financing.

Other Local Funding Options

- Bonds/Loans
- Taxes
- Impact fees
- Exactions
- Installment purchase financing
- In-lieu fees
- Partnerships

PRIVATE AND NON-PROFIT FUNDING SOURCES

Many communities have solicited funding assistance from private foundations and other conservation-minded benefactors. Below are several examples of private funding opportunities available.

Land for Tomorrow Campaign

Land for Tomorrow is a diverse partnership of businesses, conservationists, farmers, environmental groups, health professionals, and community groups committed to securing support from the public and General Assembly for protecting land, water, and historic places. The campaign was successful in 2013 in asking the North Carolina General Assembly to continue to support conservation efforts in the state. The state budget bill includes about $50 million in funds for key conservation efforts in North Carolina. Land for Tomorrow works to enable North Carolina to reach a goal of ensuring that working farms and forests, sanctuaries for wildlife, land bordering streams, parks, and greenways, land that helps strengthen communities and promotes job growth, and historic downtowns and neighborhoods will be there to enhance the quality of life for generations to come. For more information: www.land4tomorrow.org/

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation was established as a national philanthropy in 1972 and today it is the largest U.S. foundation devoted to improving the health and health care of all Americans. Grant making is concentrated in four areas:

- To ensure that all Americans have access to basic health care at a reasonable cost
- To improve care and support for people with chronic health conditions
- To promote healthy communities and lifestyles
- To reduce the personal, social and economic harm caused by substance abuse: tobacco, alcohol, and illicit drugs

Projects considered for funding typically are innovative and aim to create meaningful, transformative change. Project examples include: service demonstrations; gathering and monitoring of health-related statistics; public education; training and fellowship programs; policy analysis; health services research; technical assistance; communications activities; and evaluations. For more specific information about what types of projects are funded and how to apply, visit: www.rwjf.org/en/how-we-work/grants-and-grant-programs.html

North Carolina Community Foundation

The North Carolina Community Foundation, established in 1988, is a statewide foundation seeking gifts from individuals, corporations, and other foundations to build endowments and ensure financial security for non-profit organizations and institutions throughout the state. Based in Raleigh, the foundation also manages a number of community affiliates throughout North Carolina, that make grants in the areas of human services, education, health, arts, religion, civic affairs, and the conservation and preservation of historical, cultural, and environmental resources. The foundation also manages various scholarship programs statewide. For more information: https://www.nccommunityfoundation.org/

Rite Aid Foundation Grants

The Rite Aid Foundation is a foundation that supports projects that promote health and wellness in the communities that Rite Aid serves. Award amounts vary and grants are awarded on a one year basis to communities in which Rite Aid operates. The Rite Aid Foundation focuses on three core areas for charitable giving: children's health and well-being; special community health and wellness needs; and Ride Aid's own community of associates during times of special need. Online resource: foundation.riteaid.com/

Z. Smith Reynolds Foundation

This Winston-Salem-based Foundation has been assisting the environmental projects of local governments and non-profits in North Carolina for many years. The Foundation focuses its grant making on five focus areas: Community Economic Development; Environment; Public Education; Social Justice and Equity; and Strengthening Democracy. Deadline to apply is typically in August. For more information: www.zsr.org/grants-programs

Bank of America Charitable Foundation, Inc.

The Bank of America Charitable Foundation is one of the largest in the nation. There are numerous different initiatives and grant programs, yet the ones most relevant to increased recreational opportunities and trails are the Revitalizing Neighborhoods and Environment Programs. Starting in 2013, a new 10-year, $50 billion goal to be a catalyst for climate change was launched. This initiative aims to spark the "innovation economy and advance a transition to a low-carbon future." For more information: about.bankofamerica.com/en/making-an-impact/find-resources

Duke Energy Foundation

Funded by Duke Energy shareholders, this non-profit organization makes charitable grants to selected non-profits or governmental subdivisions. Each annual grant must have:

- An internal Duke Energy business "sponsor"
- A clear business reason for making the contribution

The grant program has several investment priorities: Education; Environment; Economic and Workforce Development; and Community Impact and Cultural Enrichment. Related to this project, the Foundation would support programs that support conservation, training, and research around environmental and energy efficiency initiatives. For more information: www.duke-energy.com/community/duke-energy-foundation

National Trails Fund

American Hiking Society created the National Trails Fund in 1998, the only privately supported national grants program providing funding to grassroots organizations working toward establishing, protecting and maintaining foot trails in America. 73 million people enjoy foot trails annually, yet many of our favorite trails need major repairs due to a $200 million backlog of badly needed maintenance. National Trails Fund grants help give local organizations the

resources they need to secure access, volunteers, tools and materials to protect America's cherished public trails. To date, American Hiking has granted more than $588,000 to 192 different trail projects across the U.S. for land acquisition, constituency building campaigns, and traditional trail work projects. Awards range from $500 to $10,000 per project.

Projects the American Hiking Society will consider include:

- Securing trail lands, including acquisition of trails and trail corridors, and the costs associated with acquiring conservation easements.
- Building and maintaining trails which will result in visible and substantial ease of access, improved hiker safety, and/or avoidance of environmental damage.
- Constituency building surrounding specific trail projects - including volunteer recruitment and support.

For more information: https://americanhiking.org/National-Trails-Fund/

The Conservation Alliance

The Conservation Alliance is a non-profit organization of outdoor businesses whose collective annual membership dues support grassroots citizen-action groups and their efforts to protect wild and natural areas. Grants are typically about $35,000 each. Since its inception in 1989, The Conservation Alliance has contributed $4,775,059 to environmental groups across the nation, saving over 34 million acres of wild lands.

The Conservation Alliance Funding Criteria are as follows:

- The Project should be focused primarily on direct citizen action to protect and enhance our natural resources for recreation.
- The Alliance does not look for mainstream education or scientific research projects, but rather for active campaigns.
- All projects should be quantifiable, with specific goals, objectives, and action plans and should include a measure for evaluating success.
- The project should have a good chance for closure or significant measurable results over a fairly short term (within four years).

For more information: http://www.conservationalliance.com/grants

National Fish and Wildlife Foundation (NFWF)

The National Fish and Wildlife Foundation (NFWF) is a private, non-profit, tax exempt organization chartered by Congress in 1984. The National Fish and Wildlife Foundation sustains, restores, and enhances the Nation's fish, wildlife, plants, and habitats. Through leadership conservation investments with public and private partners, the Foundation is dedicated to achieving maximum conservation impact by developing and applying best practices and innovative methods for measurable outcomes.

The Foundation provides grants through more than 70 diverse conservation grant programs. A few of the most relevant programs for bicycle and pedestrian projects include Acres for America, Conservation Partners Program, and Environmental Solutions for Communities. Funding priorities include bird, fish, marine/coastal, and wildlife and habitat conservation. Other projects that are considered include controlling invasive species, enhancing delivery of ecosystem services in agricultural systems, minimizing the impact on wildlife of emerging energy sources, and developing future conservation leaders and professionals.

For more information: http://www.nfwf.org/whatwedo/grants/Pages/home.aspx

The Trust for Public Land

Land conservation is central to the mission of the Trust for Public Land (TPL). Founded in 1972, the TPL is the only national non-profit working exclusively to protect land for human enjoyment and well-being. TPL helps acquire land and transfer it to public agencies, land trusts, or other groups that have intentions to conserve land for recreation and spiritual nourishment and to improve the health and quality of life of American communities.

For more information: http://www.tpl.org

Blue Cross Blue Shield of North Carolina Foundation (BCBS)

Blue Cross Blue Shield (BCBS) focuses on programs that use an outcome approach to improve the health and well-being of residents. Healthy Places grant concentrates on increased physical activity and active play through support of improved build environment such as sidewalks, and safe places to bike. Eligible grant applicants must be located in North Carolina, be able to provide recent tax forms and, depending on the size of the non-profit, provide an audit. For more information: http://www.bcbsncfoundation.org/

Alliance for Biking & Walking: Advocacy Advance Grants

Bicycle and pedestrian advocacy organizations play the most important role in improving and increasing biking and walking in local communities. Rapid Response Grants enable state and local bicycle and pedestrian advocacy organizations to develop, transform, and provide innovative strategies in their communities. Since 2011, Rapid Response grant recipients have won $100 million in public funding for biking and walking. The Advocacy Advance Partnership with the League of American Bicyclists also provides necessary technical assistance, coaching, and training to supplement the grants. For more information, visit www.peoplepoweredmovement.org

Local Trail Sponsors

A sponsorship program for trail amenities allows smaller donations to be received from both individuals and businesses. Cash donations could be placed into a trust fund to be accessed for certain construction or acquisition projects associated with the greenways and open space system. Some recognition of the donors is appropriate and can be accomplished through the placement of a plaque, the naming of a trail segment, and/or special recognition at an opening ceremony. Types of gifts other than cash could include donations of services, equipment, labor, or reduced costs for supplies.

Corporate Donations

Corporate donations are often received in the form of liquid investments (i.e., cash, stock, bonds) and in the form of land. Municipalities typically create funds to facilitate and simplify a transaction from a corporation's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented.

Private Individual Donations

Private individual donations can come in the form of liquid investments (i.e., cash, stock, bonds) or land. Municipalities typically create funds to facilitate and simplify a transaction from an individual's donation to the given municipality. Donations are mainly received when a widely supported capital improvement program is implemented.

Fundraising/Campaign Drives

Organizations and individuals can participate in a fundraiser or a campaign drive. It is essential to market the purpose of a fundraiser to rally support and financial backing. Often times fundraising satisfies the need for public awareness, public education, and financial support.

Volunteer Work

It is expected that many citizens will be excited about the development of a greenway corridor. Individual volunteers from the community can be brought together with groups of volunteers form church groups, civic groups, scout troops and environmental groups to work on greenway development on special community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.

Innovative Funding Options

Crowdsourcing "is the process of obtaining needed services, ideas, or content by soliciting contributions from a large group of people, and especially from an online community, rather than from traditional employees or suppliers." An example crowdsourcing tool used locally with some success is "ioby", which offers the ability to organize different forms of capital—cash, social networks, in-kind donations, volunteers, advocacy: https://www.ioby.org/about

BICYCLE/TRAIL PARTNERSHIP CASE STUDIES IN THE CAROLINAS

Stanley may be able to partner with the private sector for funding or sponsorship for some aspects of this plan. Some examples of trail partnerships across the Carolinas are provided below.

Wilmington/New Hanover County & Blue Cross Blue Shield (BCBS)

BCBSNC and their GO NC! program donated funds to complete the final phase of the 15-mile Gary Shell CrossCity Trail from Wade Park to the drawbridge at Wrightsville Beach. In addition to completing the trail, other enhancements include mile markers along the 15-mile trail and five bicycle fix-it stations along the trail. This partnership came about during development of the WMPO's Wilmington/New Hanover County Comprehensive Greenway Plan in 2012. http://www.bcbsnc.com/content/campaigns/gonc/index.htm

Spartanburg, SC & the Mary Black Foundation

The Mary Black Foundation Rail Trail was a collaboration between the Mary Black Foundation, Palmetto Conservation Foundation, City of Spartanburg, Partners for Active Living, SPATS, and local citizens. It extends from downtown Spartanburg at Henry Street, between Union and Pine Streets, and continues 2 miles to Country Club Road. Since its inception there has been buzz about redeveloping the Rail Trail corridor. The commuter and recreational trail brings together all walks of life, and connects neighborhoods, businesses, restaurants, a school, a bike shop, the YMCA, a grocery store, and a skate park. As the Hub City Connector segment of the Palmetto Trail through Spartanburg County, the Rail Trail is an outdoor transportation spine for Spartanburg from which other projects are expected to spin off. One great example is the first phase of B-cycle bicycle-sharing program located at the Henry Street trailhead. Project contact: Lisa Bollinger, Spartanburg Area Transportation Study, Spartanburg, SC.

Swamp Rabbit Trail and Greenville Health System, Greenville, SC

The Greenville Health System Swamp Rabbit Trail is a shared-use-path that runs along the Reedy River through Greenville County, connecting parks, schools, and local businesses. The GHS Swamp Rabbit has become very popular among residents and visitors for recreational and transportation purposes. The Greenville Heath System has become a private sponsor because of the health benefits offered by the trail as well as the branding opportunity achieved by having its name and logo on the trail's signs. The GHS Swamp Rabbit Trail continues to increase in size and popularity, with communities in neighboring counties making plans to extend the trail into their towns. Project contact: Ty Houck, Greenville County Parks, Recreation and Tourism, Taylors, SC.

APPENDIX

PROGRAM TOOLKIT

Infrastructure alone doesn't create and foster a pedestrian- and bike- friendly community. The ideal goal is to develop a culture of safe and enjoyable walking and biking built on comprehensive actions and initiatives by diverse groups of people. A model used to describe this comprehensive approach is called the 6 E's: Engineering, Education, Encouragement, Enforcement, Evaluation, and Equity (see diagram below). Equity is added here as the 6th E to ensure a focus on all communities and the most vulnerable populations.

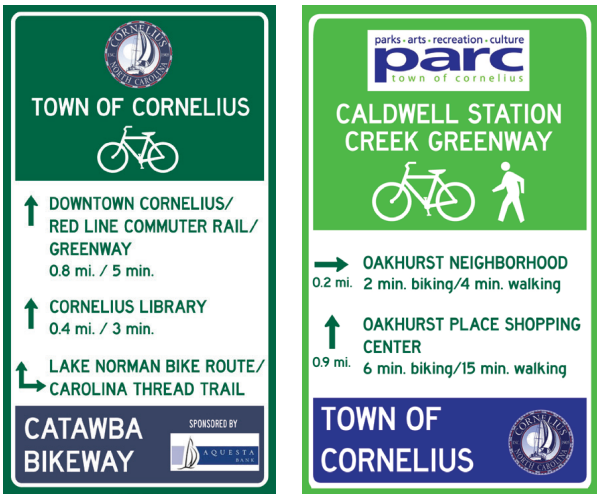
The programmatic strategies in this section aim to improve safety, increase access to walking and biking, and encourage community and economic development. The actions will increase the visibility of people who walk and bike, communicate that all road users are expected to look out for each other no matter how they travel, create safer streets, and develop a common understanding of traffic safety.

PROGRAM RECOMMENDATIONS

Wayfinding Signage Program

Wayfinding signage enhances resident and visitor orientation by directing pedestrians, bicyclists, and motorists to popular destinations around town. Stanley should develop a customized wayfinding program that provides effective orientation and direction to key destinations (see example at right). A wayfinding program can include directional signage, on-road markings, and kiosks with city maps. A cost-effective signage program can be implemented quickly and easily through the "Walk [Your City]" program (see below).

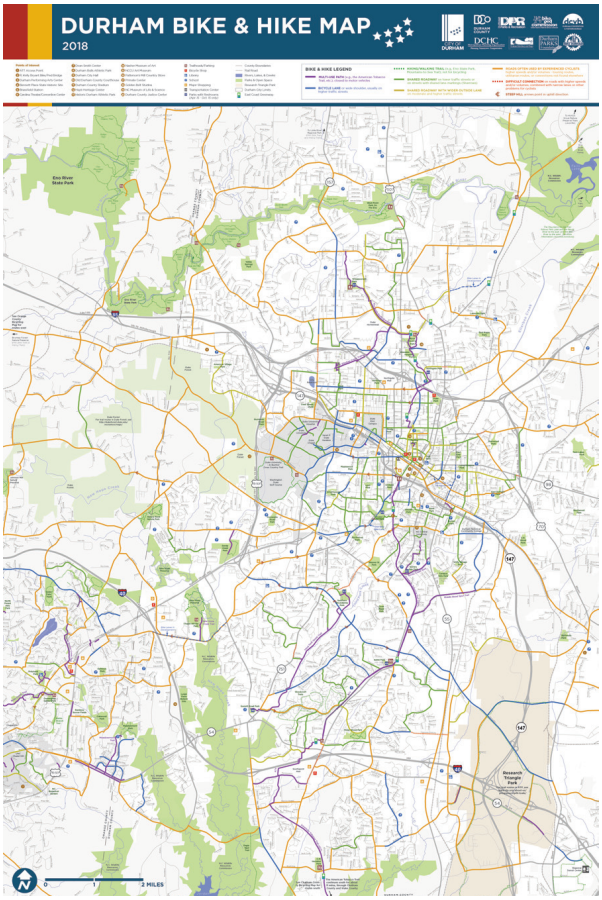
Signs can be customized for bicycling. Visit http://walkyourcity.org/ for more information.



Above: Example wayfinding signage from Cornelius. A customized wayfinding signage design could be developed for Stanley to include Stanley logos; destinations; walking and bicycling-oriented travel times; and sponsorship branding.

Citywide Bike Map (Paper + Digital)

One of the most effective ways of encouraging people to ride a bicycle is through the use of maps and guides to show where you can bike, and to guide people to enjoyable routes and destinations. These maps can also be designed so that a portion of the map is devoted to bicycle safety education, such as informational graphics that demonstrate bicycle hand signals and how to share the road and the trail safely. The map can be made available online and printed as needed to be actively distributed to residents and visitors. A City Bike Map could be created following completion of this plan.



Above: Example of a biking and hiking map for the City of Durham.

Develop a Dedicated Bikeway Funding Stream

Communities that are successful in expanding their bicycling network leverage funds from a variety of sources and consistently make investments in capital and maintenance projects. A dedicated funding source is one mechanism to ensure sustainability and consistent expansion of bikeways.

Stanley can create a dedicated funding source by setting aside portions of general transportation revenue, public school bonds, county health department funding, parking fees, and traffic violation revenue for upgrades to biking facilities.

Strategy: Partner with other area governmental agencies, such as Gaston County to identify potential funding mechanisms. As an example, the City of Columbia, SC implements bikeways through Richland County, which created a 1% sales tax for transportation, one-third of which goes to funding greenways and trails.

Open Streets Events/Ciclovias

Car-free, open street events have many names-Sunday Parkways, Ciclovias, Summer Streets, and Sunday Streets-and involve periodic street "openings" that create a temporary park that is open to the public for walking, bicycling, dancing, and other physical activity. The purpose of the event is to encourage physical activity by providing a fun, welcoming environment for activity. Car-free street events have been very successful internationally and are rapidly becoming popular in the US. Local businesses open doors and set up tables along sidewalks to support the event and generate foot and bike traffic for their businesses. See http://openstreetsproject.org/ for more information.

Examples of Open Street events in Durham and Boone, NC

Bike/Walk to School Day & Bike to Work Day Events

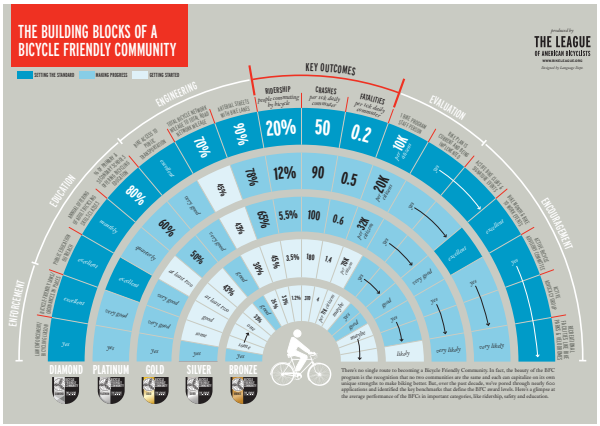
Bike and Walk to School Day events often include walking and biking competitions, outreach to parents, and pop-up infrastructure on routes to schools. These activities help parents figure out how to safely transport children by foot and bicycle and help children learn safe walking and bicycling skills. Activities may include a walking school bus, bicycle safety checks, a group ride or parade, “freedom from training wheels” clinics, and opportunities to try out different ways to transport children (e.g. walking, scooters, bike trailers, cargo bicycles, kid seats, etc.).

Bike to Work Day is a nationwide event that promotes bicycling to work and is typically the third Thursday in May. Organized events, such as group rides with elected officials and team-based bike challenges, can create opportunity for bicyclists to ride the streets of Stanley for utilitarian purposes and encourage new riders to bike to work.

Bike- and Walk Friendly Community Status

The BFC program (administered by the League of American Bicyclists) is a national recognition program developed to encourage towns and cities across the U.S. to create more bikeable environments. By reapplying for the BFC program, the Town of Stanley could work towards a higher designation than its previous “Honorable Mention”, and would receive valuable feedback from the League of American Bicyclists on how to further improve conditions for bicycling as compared to peer communities in NC and nationwide.

The Walk-Friendly Community program is a national program that recognizes towns and cities across the U.S. that have created more walkable environments through comprehensive programs, plans, and policies. The Town of Stanley can use the recommended guidelines and criteria for recognition to help improve conditions for walking as compared to peer communities in NC and nationwide. Visit http://walkfriendly.org for more information.



BFC Infographic. Download the full version here: http://bikeleague.org/sites/default/files/BFC%20infographic.pdf

Vision Zero Planning

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and now it's gaining momentum in major American cities.

A Vision Zero Plan is a specific plan intended to reduce conflicts between cars and other roadways users—drivers, cyclists, pedestrians, and others. By reducing conflicts between cars and other roadway users, Vision Zero will prioritize safety as it encourages all modes of transportation with the primary goal of reducing bicycle and pedestrian conflicts, recognizing that when people feel safe and comfortable, they are more likely to walk and ride.

A Vision Zero planning process is used to identify and address the causes of roadway-related injury and deaths through a data-driven process. Vision Zero focuses on human behavior; it emphasizes design solutions that account for human error and awareness to improve human behavior. An example of Vision Zero planning is available here: https://www.townofdavidson.org/1459/Vision-Zero. More information on Vision Zero can be found at: ncvisionzero.org/.

Law Enforcement Training

As Stanley develops new laws to improve the safety of vulnerable roadway users, partnering with the Stanley Police Department to improve the police department's curriculum on bicyclist safety laws will be important. When police officers are knowledgeable about bicycle laws and safety, they are more able and willing to enforce the laws that keep bicyclists safe.

A curriculum on existing laws around sharing the road can be oriented towards enforcement of bicyclists and drivers. This may include updating course material to include laws around new forms of micromobility, such as e-bikes.

The Stanley Police Department can work with local bike advocates to review any existing training materials and to develop course material. They can create a brief presentation that can be incorporated in a training, with a presentation that lasts no more than 20 minutes. Pamphlets on applicable laws (with the enforcement codes listed) can be made so police officers can quickly reference and pass out when enforcing bicycle safety laws. The Town should consider including additional information on reporting bicycle crashes that is based on best practices.

An example of a law enforcement training and education program on bicycle (and pedestrian) safety is available through the BikeCleveland advocacy group's website here: www.bikecleveland.org/enforcement/

POLICIES TO SUPPORT COMPLETE STREETS

There are many elements that make a street complete and it's not always a one-size-fits-all approach. Rather, complete street principles are context sensitive and require engineering judgment. However, the elements described below highlight key complete street policies that should be considered as Stanley looks to implement the recommendations in this plan..

ADOPT A VISION ZERO STRATEGY

Vision Zero is the concept that no loss of life is acceptable on our roadways. Jurisdictions across the nation and across the world are adopting Vision Zero policies to eliminate preventable traffic deaths.

UPDATE LAND USE AND DEVELOPMENT CODES

Local codes that encourage or require short block lengths, mixed use developments with street-fronting retail, and a connected network of streets with high-quality sidewalks form the bedrock of livable communities.

RETHINK PARKING REQUIREMENTS

Parking policy reform includes better management of existing parking, pricing that reflects demand, lowering parking requirements for commercial and residential development, and bike parking minimums.

NEW MOBILITY

Stay up-to-date on current trends in new mobility and develop flexible policies that can adapt to the ever-evolving field of transportation, including micro-mobility, autonomous vehicles, shared use mobility, and new opportunities for placemaking with expanded mobility options.

CREATE SAFE WALKWAYS AND BIKEWAYS IN CONSTRUCTION ZONES

Walkways in construction zones should be routed on the same side of the street, run on or parallel to the closed sidewalk, and must comply with the Americans with Disabilities Act and the Manual on Uniform Traffic Control Devices.

ESTABLISH SPEED REDUCTION POLICIES

Traffic speed disproportionately threatens people walking and biking so speed should be managed through speed limit enforcement and traffic calming where appropriate.

ADOPT A COMPLETE STREET POLICY

A complete street policy asserts that all new street projects should accommodate all people who use the street, whether traveling on foot, bike, transit, or car.

SIDEWALK MANAGEMENT

With the on-set of new mobility options, it will be important for Stanley to evaluate and update policies to address ADA access and curb management, to ensure sidewalks remain accessible for users of all ages and abilities.

BENEFITS OF ACTIVE COMMUNITIES

HEALTH BENEFITS

Sidewalks, trails and multi-use paths offer safe and accessible opportunities for physical activity. People who utilize pedestrian and bicycle facilities are able to connect with places that they want or need to go.

For every 0.6 MILES **WALKED** there is a **5%** **REDUCTION** IN THE LIKELIHOOD OF **OBESITY.**

Frank, 2004

Those who are physically active generally live longer and have a lower risk for heart disease, stroke, Type 2 diabetes, depression, some cancers, and obesity.

CDC, 2015

20 MINUTES WALKING OR BIKING each day is associated with a

21% LOWER RISK OF HEART FAILURE FOR MEN

and

29% LOWER RISK FOR WOMEN

Rahman, 2014 and 2015

ENVIRONMENTAL BENEFITS

Decreasing reliance on automobiles and reducing congestion by utilizing sidewalks and trails will lead to improved air quality. Trails and greenways serve as a tool for conserving open space and preserving wetlands.

IF 8% MORE CHILDREN LIVING WITHIN 2 MILES OF A SCHOOL WERE TO WALK OR BIKE TO SCHOOL, the air pollution reduced from not taking a car would be **EQUIVALENT TO REMOVING 60,000 CARS FROM THE ROAD** for one year, nationally.

Pedroso, 2008, SRTS

ECONOMIC BENEFITS

Connected walkways and trails often yield high returns on investment through economic revitalization, recreational tourism, increased property values, and small business opportunities.

BUILDING SIDEWALK AND BICYCLE FACILITIES CREATES 36% MORE JOBS THAN BUILDING HIGHWAYS AND ALMOST 100% MORE JOBS THAN PAVEMENT IMPROVEMENTS.

CEO for Cities; American Association of State Highway and Transportation Officials (AASHTO) Average Direct Jobs by Project Type (2012); Job in terms of full-time equivalents (FTE).

HOUSES IN HIGHLY WALKABLE NEIGHBORHOODS HAVE PROPERTY VALUES $4,000 TO $34,000 HIGHER THAN HOUSES IN AREAS WITH AVERAGE WALKABILITY.

Cortright, J. (2009). Walking the Walk: How Walkability Raises Housing Values in U.S Cities.

40%

OF ALL TRIPS (IN THE US) ARE TWO MILES (OR LESS)

NHTS, 2009

DRIVING 4 MILES/DAY COSTS

$847 / year

in fuel and vehicle wear and tear

AAA, 2015

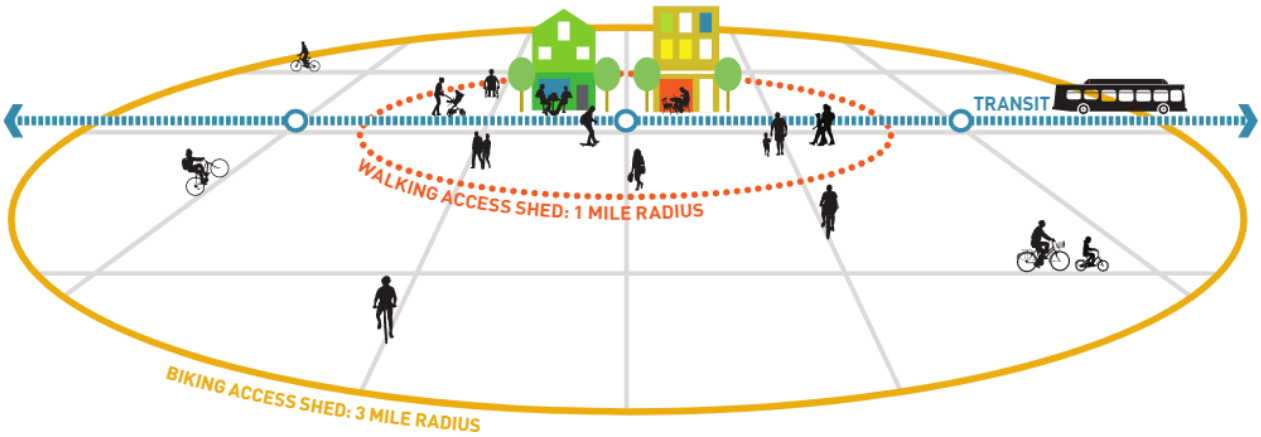
is FREE

(except for the cost of a bike)

ACCESSIBILITY AND MOBILITY BENEFITS

Sidewalks, bikeways, and trails can be implemented at a low cost and serve as part of a multi-modal transportation system. In areas where public transit doesn't offer direct routes to employment centers, sidewalks and trails can serve as important connections between home and workplaces.

ON AVERAGE, 40% OF ALL TRIPS WE MAKE ARE FOR A DISTANCE OF TWO MILES OR LESS—A DISTANCE THAT CAN EASILY BE COVERED BY A 10 MINUTE BIKE RIDE OR A 30 MINUTE WALK.



SAFETY BENEFITS

Pedestrian and bicycle treatments and traffic calming help to save lives. Additionally, natural surveillance for trails and greenways occurs through increased numbers of trail users, creating an environment where behavior on the trail is monitored by trail users themselves.

A pedestrian hit by a vehicle traveling at **25 MPH**

has a **89%** chance of survival

A pedestrian hit by a vehicle traveling at **35 MPH**

has a **68%** chance of survival

A pedestrian hit by a vehicle traveling at **45 MPH**

has a **35%** chance of survival

Rosén, E., & Sander, U. (2009). Pedestrian fatality risk as a function of car impact speed. Accident Analysis & Prevention, 41(3), 536-542.

"Communities designed to be walkable can **improve safety** not only for people who walk but for **all community members."**

- Surgeon General, 2015

Federal Highway Administration. (2008). "Desktop reference for crash reduction factors."

	% DECREASE IN CRASHES
Install sidewalk to avoid walking along roadway	**65-89**
Increase enforcement to reduce speed	**70**
Install median refuge island	**56**
Add exclusive pedestrian phasing to signalized intersection	**34**

DESIGN GUIDANCE RESOURCES

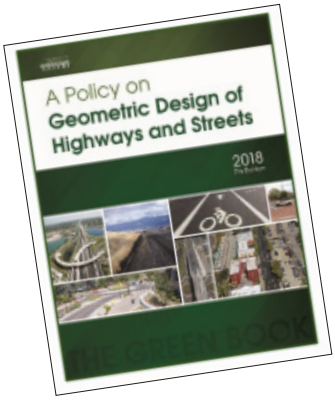
This Design Guidance section presents a toolbox of current design guidance and standards to implement bicycle improvements. It has been developed to complement the City's Pedestrian + Bicycle Plan and reflects other nationally recognized efforts to promote pedestrian and bicycle safety and comfort. The information assembled here is not, however, a substitute for a more thorough evaluation by a professional engineer prior to implementation of facility improvements with considerations to physical, right of way, and other constraints.

NATIONAL GUIDANCE

National Association of city Transportation Officials' (NACTO) Urban Street design Guide

https://nacto.org/publication/urban-street-design-guide/

The National Association of City Transportation Officials' *(NACTO) Urban Street Design Guide (2013)* is a collection of nationally recognized street design standards, and offers guidance on the current state of the practice designs. This guide provides best practice for streets to serve as not only efficient travel corridors but public spaces, and it includes a toolkit of street design elements with key dimensions and applications.

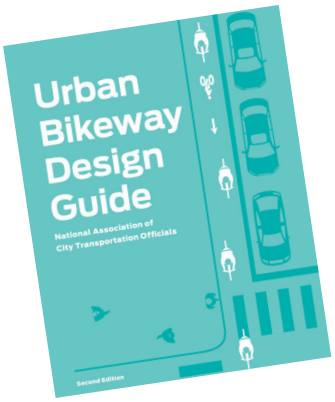


American Association of State Highway and Transportation Officials' (AASHTO) A Policy on Geometric Design of Highways and Streets

A Policy on Geometric Design of Highways and Streets (2018) provides national guidance on the design of highways and streets. The 7th edition of the "The Green Book" offers an updated framework for geometric design that is more flexible, multimodal, and performance based than in previous editions.

Federal Highway Administration's (FHWA) Separated Bike Lane Planning and Design Guide

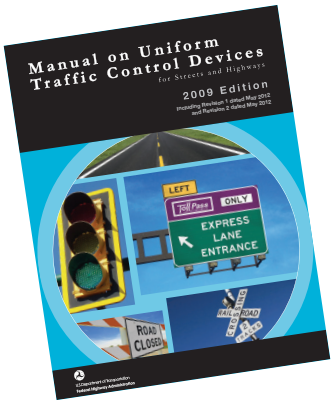
The *Separated Bike Lane Planning and Design Guide (2015)* is the latest national guidance on the planning and design of separated bike lane facilities released by the Federal Highway Administration (FHWA). The resource documents best practices as demonstrated around the U.S., and offers ideas on future areas of research, evaluation and design flexibility.



NACTO Urban Bikeway Design Guide

https://nacto.org/publication/urban-bikeway-design-guide/

The NACTO *Urban Bikeway Design Guide* is a publication of nationally recognized bicycle way design, and offers guidance on current state-of-the-practice designs. This guide is based on current practices in the best cycling cities in the world. The intent of the guide is to offer substantive guidance for cities seeking to improve bicycle transportation in places where competing demands for the use of the right of way present unique challenges. All of the NACTO *Urban Bikeway Design Guide* treatments are in use internationally and in many cities around the US.



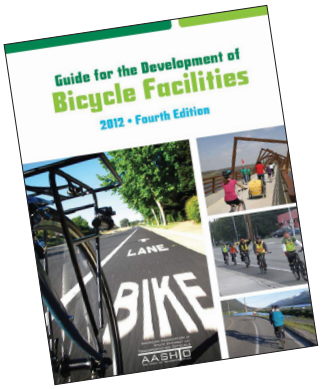
FHWA Manual on Uniform Traffic Control Devices (MUTCD)

https://mutcd.fhwa.dot.gov/

The *MUTCD* defines the standards used by road managers nationwide to install and maintain traffic control devices on public streets, highways, bikeways, and private roads open to public traffic. The *MUTCD* is the primary source for guidance on lane striping requirements, signal warrants, and recommended signage and pavement markings.

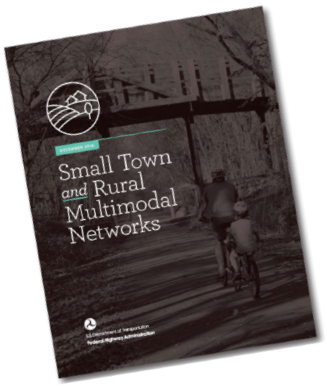
To further clarify the *MUTCD* standards, the FHWA created a table of contemporary bicycle facilities that lists various bicycle related signs, markings, signals, and other treatments and identifies their official status (e.g., can be implemented, currently experimental).

Bicycle way treatments not explicitly covered by the *MUTCD* are often subject to experiments, interpretations and official rulings by the FHWA. The *MUTCD* Official Rulings is a resource that allows website visitors to obtain information about these supplementary materials. Copies of various documents (such as incoming request letters, response letters from the FHWA, progress reports, and final reports) are available on this website.



AASHTO Guide for the Development of Bicycle Facilities

The AASHTO *Guide for the Development of Bicycle Facilities*, updated in June 2012, provides guidance on dimensions, use, and layout of specific bicycle facilities. The standards and guidelines presented by AASHTO provide basic design information, such as minimum shared use pathway widths, bicycle lane dimensions, geometric design, detailed striping requirements and recommended signage and pavement markings.



US Department of Transportation (USDOT) Small Town and Rural Multimodal Networks Guide

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

The *Small Town and Rural Multimodal Networks Guide* translates existing street design guidance and facility types for bicycle and pedestrian safety and comfort for the smaller scale places not addressed in guides such as the NACTO *Street Design Guide and ITE Walkable Urban Thoroughfares* report. The guide provides clear examples of how to interpret and apply design flexibility to improve bicycling and walking conditions. This guide pertains in particular to the Municipality of Anchorage as it is comprised of a small urbanized area and large rural area.

The stated goals of the guide include “to provide a bridge between existing guidance on bicycle and pedestrian design and rural practice, encouraging innovation in the development of safe and appealing networks for bicycling and walking in small towns and rural areas, and to provide examples of peer communities and project implementation that is appropriate for rural communities.”

STATE GUIDANCE

North Carolina Department of Transportation (NCDOT):

- WalkBikeNC: The Statewide Pedestrian and Bicycle Plan: https://www.ncdot.gov/bikeped/walkbikenc/default.aspx
- North Carolina Terminology for Active Transportation: https://connect.ncdot.gov/projects/BikePed/Documents/NC%20Terminology%20for%20Active%20Travel.pdf
- NCDOT Complete Streets, including the Complete Streets Planning and Design Guidelines: https://www.completestreetsnc.org/wp-content/themes/CompleteStreets_Custom/pdfs/NCDOT-Complete-Streets-Planning-Design-Guidelines.pdf
- NC Local Programs Handbook: https://connect.ncdot.gov/municipalities/Funding/Pages/LPM%20Handbook.aspx
- Traditional Neighborhood Development Guidelines: https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/Traditional%20Neighborhood%20Development%20Manual.pdf

Greenway Construction Standards:

- Greenway Standards Summary Memo: https://connect.ncdot.gov/projects/BikePed/Documents/Greenway%20Standards%20Summary%20Memo.pdf
- Design Issues Summary: https://connect.ncdot.gov/projects/BikePed/Documents/Design%20Issues%20Summary.pdf
- Greenway Design Guidelines Value Engineering Report: https://connect.ncdot.gov/projects/BikePed/Documents/Greenway%20Design%20Guidelines%20Value%20Engineering%20Report.pdf
- Summary of NCDOT Responses to Greenway Design Standards Value Engineering Study: https://connect.ncdot.gov/projects/BikePed/Documents/Summary%20of%20Recommendations.pdf
- Minimum Pavement Design Recommendations for Greenways: https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/Minimum%20Pavement%20Design%20Recommendations%20for%20Greenways.pdf

DETAILED PRIORITIZATION TABLES

Table A.1 Prioritization Factors

Category	Criteria	Possible Points
Connects to Downtown Stanley & Key Destinations	Project is located on a direct walking/biking connection to Main St	2
	Project is located on a direct walking/biking connection to Harper Park	1
	Project is located on a direct walking/biking connection to CommonGround	1
Safety	Project is within 500 feet of a pedestrian or bicyclist-involved crash	1
	Project creates a facility separated from motor vehicles or high-visibility crossing	1
Sidewalk Connectivity	Project fills a gap in the current sidewalk network	2
	Project improves an important crossing in the network	2
Equity	Project is located in an area that has no previous pedestrian infrastructure within ¼ mile	1
	Project improves access to basic services: medical care, schools, and grocery stores	3

Table A.2 Detailed Project Prioritization Scores

Project #	Corridor	Facility Type	Connects to Downtown & Key Destinations			Safety		Sidewalk Connectivity		Equity		Priority Score*
			Main St Connection (2)	Harper Park (1)	CommonGround Park (1)	Crash within 500 ft (1)	Separated facility (1)	Fills gap (2)	Improves crossing (2)	No infrastructure within 1/4 mile (1)	Access to basic services (3)	
1	Charlotte St	Sidepath					1	2		1		4
2	Green Rd	Sidepath					1			3		2
3	Green Rd	Sidepath					1				3	4
4	Chestnut St	Sidepath	2			1	1	2			3	**9**
5	Stanley Creek Greenway	Greenway					1			1		2
6	Hovis Rd	Sidepath	2			1	1	2		1		7
7	Ralph Handsel Blvd	Sidepath					1	2		1		4
8	Stanley Middle School Greenway	Greenway					1			1		2
9	Mauney Rd	Sidepath				1	1			1		3
10	Mauney Rd / Sunset Dr	Sidepath				1	1	2			3	7
11	Chestnut Street/Chestnut St extension	Sidepath	2			1	1	2			3	**9**
12	Durham Rd	Sidepath	2			1	1	2			3	**9**
13	Dallas Stanley Hwy	Sidepath			1	1	1			1		4
14	Dallas Stanley Hwy	Sidepath	2		1	1	1	2			3	**10**

*** Bolded projects** are those with priority scores of 8 or greater.

Table A.2 Detailed Project Prioritization Scores

Project #	Corridor	Facility Type	Connects to Downtown & Key Destinations			Safety		Sidewalk Connec-tivity		Equity		Priority Score*
			Main St Connection (2)	Harper Park (1)	CommonGround Park (1)	Crash within 500 ft (1)	Separated facility (1)	Fills gap (2)	Improves crossing (2)	No infrastructure within 1/4 mile (1)	Access to basic services (3)	
15	Dallas Stanley Hwy	Sidepath	2		1		1	2		1		7
16	Hickory Grove Rd	Sidepath			1	1	1				3	6
17	Hickory Grove Rd	Sidepath	2		1	1	1	2			3	**10**
18	NC 27/Charles Raper Jonas Hwy	Sidepath					1			1		2
19	NC 27/Charles Raper Jonas Hwy	Sidepath	2			1	1	2		1	3	**10**
20	NC 27/Charles Raper Jonas Hwy	Sidepath					1			1		2
22	NC 27/Charles Raper Jonas Hwy	Sidepath					1			1		2
23	NC 27/Charles Raper Jonas Hwy	Sidepath	2			1	1	2		1	3	**10**
24	Old Mt Holly Rd	Sidepath				1	1			1		**9**
25	Old Mt Holly Rd/Stanley Lucia Rd	Sidepath	2			1	1	2			3	4
26	Old NC 27 Hwy	Sidepath					1	2		1		5
27	South Stanley Creek Greenway	Greenway				1	1				3	5
28	South Stanley Creek Greenway	Greenway				1	1				3	5
29	South Stanley Creek Greenway	Greenway				1	1				3	5
30	Blacksnake Rd	Sidepath	2	1			1			1		5
31	Blacksnake Rd	Sidepath	2	1		1	1	2			**3**	**10**
32	Chestnut St/Chestnut St extension	Sidepath					1			1		2
33	Chestnut St/Chestnut St extension	Sidepath	2			1	1	2			**3**	**9**
34	Chestnut St/Chestnut St extension	Sidepath					1			1		2
35	Dallas Rd	Sidepath	2			1	1	2			**3**	**9**
36	Main St	Sidepath	2		1	1	1	2			**3**	**10**
37	RR crossing south of Chestnut St	Sidepath	2			1	1	2				6
38	Morris Farm Rd/Abernathy Rd	Sidepath					1	2			3	6
39	NC 27/N Main St	Sidepath					1			1		2
40	NC 27/N Main St	Sidepath		1		1	1	2			**3**	**8**
41	NC 27/N Main St	Sidepath					1			1		2
42	Mariposa Rd	Sidepath				1	1	2		1		5
43	Mariposa Rd	Sidepath				1	1	2		1		5
44	Ralph Handsel Blvd	Sidepath					1	2			3	3
45	McLurd Dr	Sidepath					1	2				**8**
46	Second St	Sidewalk					1	2		1		4

*** Bolded projects** are those with priority scores of 8 or greater.

** BB/AS = Bike Boulevard/Advisory Shoulder

Table A.2 Detailed Project Prioritization Scores

Project #	Corridor	Facility Type	Connects to Downtown & Key Destinations			Safety		Sidewalk Connec-tivity		Equity		Priority Score*
			Main St Connection (2)	Harper Park (1)	CommonGround Park (1)	Crash within 500 ft (1)	Separated facility (1)	Fills gap (2)	Improves crossing (2)	No infrastructure within 1/4 mile (1)	Access to basic services (3)	
47	Taylor Dr / N Buckoak St	Sidewalk				1	1	2		1		5
48	Church St	Sidewalk	2				1	2				5
49	Rhyne St	Sidewalk	2				1	2		1		6
50	Mauney Ave/Willow St	Sidewalk		1			1	2				4
51	NC 27/Main St	Sidewalk	2				1	2				5
52	Plum St	Sidewalk	2			1	1	2				6
53	Park Dr	Sidewalk					1	2				3
54	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	Sidewalk			1	1	1	2			**3**	**8**
55	Buckoak St	Sidewalk	2				1	2				5
56	Buckoak St	Sidewalk	2			1	1	2		1		7
57	Main Street	Shared Lane Markings	2			1						3
58	Rhyne St/Second St/Poplar St	BB/AS**	2							1		3
59	Buckoak St	BB/AS**	2				1					3
60	Gen Stonewall Jackson Dr/Gen Joseph Wheeler St	BB/AS					1			1		2
61	Derr St	BB/AS	2				1			1		4
62	Church St	BB/AS	2									2
63	Parkwood St	BB/AS	2									2
64	Main St (west side)	BB/AS	2			1	1				3	7
65	Mauney Ave/Willow St	BB/AS		1						1		2
66	Church St/Peterson St	BB/AS	2							1		3
67	Thompson St	BB/AS	2			1						3
68	Carpenter St	BB/AS	2			1						3
69	Plum St	BB/AS	2			1						3
70	NC 27/Charles Raper Jonas Hwy & Derr St	Crossing Improvement	2			1	1		2			6
71	Chestnut St & Main St (west side)	Crossing Improvement	2			1	1		2		3	**9**
72	Church St & railroad tracks	Crossing Improvement	2				1		2			5
73	railroad tracks & fence break south of Chestnut St	Crossing Improvement	2			1	1		2			6

*** Bolded projects** are those with priority scores of 8 or greater.

** BB/AS = Bike Boulevard/Advisory Shoulder

Table A.2 Detailed Project Prioritization Scores

Project #	Corridor	Facility Type	Connects to Downtown & Key Destinations			Safety		Sidewalk Connec-tivity		Equity		Priority Score*
			Main St Connection (2)	Harper Park (1)	CommonGround Park (1)	Crash within 500 ft (1)	Separated facility (1)	Fills gap (2)	Improves crossing (2)	No infrastructure within 1/4 mile (1)	Access to basic services (3)	
74	Chestnut St & NC 27/Charles Raper Jonas Hwy	Crossing Improvement	2			1	1		2		3	**9**
75	Dallas Rd & S Main St (west side)	Crossing Improvement	2			1	1		2	1		7
76	Dallas Stanley Hwy & Hickory Grove Rd	Crossing Improvement	2			1	1		2	1		7
77	Dallas Stanley Hwy & entrance to CommonGround Park near Mt Pleasant UMC	Crossing Improvement			1		1		2			4
78	Old Mt Holly Rd & Dallas Rd	Crossing Improvement					1		2	1		4
79	Buckoak St & S Main St	Crossing Improvement	2				1		2			5
80	Dallas Rd & NC 27/Charles Raper Jonas Hwy	Crossing Improvement				1	1		2		3	7
81	McLurd Dr & railroad tracks	Crossing Improvement	2				1		2			5
82	Dallas Rd & railroad tracks	Crossing Improvement			1	1	1		2		3	**8**
83	General Stonewall Jackson Dr & railroad tracks	Crossing Improvement			1		1		2	1		5
84	Chestnut St & railroad tracks	Crossing Improvement	2			1	1		2		3	**9**
85	Poplar St & railroad tracks	Crossing Improvement	2	1			1		2		3	**9**
86	Woodsong Ln & railroad tracks	Crossing Improvement	2	1			1			1		5
87	Cannon Rd & railroad tracks	Crossing Improvement	2				1			1		4
88	McLurd Dr & NC 27/Charles Raper Jonas Hwy	Crossing Improvement	2				1		2		3	**8**
89	Hickory Grove Rd & General Stonewall Jackson Rd	Crossing Improvement	0	0	1	1	1		2		3	**8**
90	Dallas Stanley Hwy & Springfield Elementary	Crossing Improvement	0	0	1	0	1		2		3	**7**
91	NC 27 & cemetery parking lot	Crossing Improvement	2	0	0	0	1		2		3	**8**
92	Old Mt Holly Rd & Brevard St	Crossing Improvement	0	0	0	1	1		2		3	7

*** Bolded projects** are those with priority scores of 8 or greater.

DETAILED COST ESTIMATES

Alta Engineering SE, PLLC
NC License #P-1301

LOCATION: **BLACKSNAKE RD, STANLEY, NC**

DESCRIPTION: **2236 FT 10' WIDE ASPHALT SIDEPATH ALONG THE NORTH SIDE OF BLACKSNAKE FROM S. MAIN ST. TO WATTS ST**

TOTAL LENGTH: **0.5 MILES**

COUNTY: GASTON DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$26,000.00	$26,000.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	$20,000.00	$20,000.00
0043000000-N	226	GRADING	1	LS	$53,465.00	$53,465.00
1121000000-E	520	AGGREGATE BASE COURSE	1540	TON	$45.00	$69,300.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	290	TON	$120.00	$34,800.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	15	TON	$650.00	$9,750.00
2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	2240	LF	$40.00	$89,600.00
2605000000-N	848	CONCRETE CURB RAMP	4	EA	$3,000.00	$12,000.00
2612000000-E	848	6" CONCRETE DRIVEWAY	1040	SY	$90.00	$93,600.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$20,000.00	$20,000.00
		DRAINAGE ALLOWANCE	1	LS	$110,000.00	$110,000.00
		EROSION CONTROL ALLOWANCE	1	LS	$20,000.00	$20,000.00
		MINOR ITEMS (5%)	1	LS	$27,000.00	$27,000.00

CONSTRUCTION COST SUBTOTAL	$585,520.00
CONTINGENCY (30%)	$175,660.00
UTILITIES (ABOVE GROUND)	$85,000.00
OPINION OF PROBABLE CONSTRUCTION COST	$846,180.00
NCDOT ADMINISTRATION FEE (10%)	$84,618.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$931,000.00**

NOTE: ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICE INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY JM
DATE 7/13/2022

Alta Engineering SE, PLLC
NC License #P-1301

PLANNING ESTIMATE

LOCATION: **INTERSECTION OF MAIN ST & CHESTNUT ST, STANLEY, NC**

DESCRIPTION: **INTERSECTION IMPROVEMENTS, INCLUDING RAILROAD CROSSING**

TOTAL LENGTH: **0.1 MILES**

COUNTY: GASTON DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$28,800.00	$28,800.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	$7,500.00	$7,500.00
1121000000-E	520	AGGREGATE BASE COURSE	60	TON	$80.00	$4,800.00
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	10	TON	$300.00	$3,000.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	10	TON	$300.00	$3,000.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	5	TON	$650.00	$3,250.00
2605000000-N	848	CONCRETE CURB RAMP	5	EA	$3,000.00	$15,000.00
	SP	RAILROAD CROSSING	1	LS	$200,000.00	$200,000.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$20,000.00	$20,000.00
4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	465	LF	$20.00	$9,300.00
	SP	PEDESTRIAN SIGNALS (TOTAL OF 4 CROSSINGS)	1	LS	$100,000.00	$100,000.00
		DRAINAGE ALLOWANCE	1	LS	$20,000.00	$20,000.00
		EROSION CONTROL ALLOWANCE	1	LS	$5,000.00	$5,000.00
		MINOR ITEMS (5%)	1	LS	$20,000.00	$20,000.00

CONSTRUCTION COST SUBTOTAL	$403,350.00
CONTINGENCY (30%)	$121,010.00
UTILITIES (ABOVE GROUND)	$10,000.00
OPINION OF PROBABLE CONSTRUCTION COST	$534,360.00
NCDOT ADMINISTRATION FEE (10%)	$53,436.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$588,000.00**

NOTE: ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICES. INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY JM

DATE 7/13/2022

PLANNING ESTIMATE

Alta Engineering SE, PLLC
NC License #P-1301

LOCATION: **MAIN ST, STANLEY, NC**

DESCRIPTION: **FESTIVAL STREET CONFIGURATION ALONG S MAIN ST FROM W CHESTNUT ST TO W CARPENTER ST**

TOTAL LENGTH: **0.1 MILES**

COUNTY: GASTON

DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$76,200.00	$76,200.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	$14,500.00	$14,500.00
0043000000-N	226	GRADING	1	LS	$33,100.00	$33,100.00
1121000000-E	520	AGGREGATE BASE COURSE	400	TON	$45.00	$18,000.00
1297000000-E	607	MILLING ASPHALT PAVEMENT, 1.5" DEPTH	4780	SY	$15.00	$71,700.00
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	50	TON	$300.00	$15,000.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	440	TON	$300.00	$132,000.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	30	TON	$650.00	$19,500.00
1839000000-E	SP	GENERIC PAVING ITEM THERMOPLASTIC STAMPED MEDIAN	4780	SY	$200.00	$956,000.00
2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	1410	LF	$40.00	$56,400.00
2591000000-E	848	4" CONCRETE SIDEWALK	490	SY	$60.00	$29,400.00
2605000000-N	848	CONCRETE CURB RAMP	4	EA	$3,000.00	$12,000.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$20,000.00	$20,000.00
4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	4815	LF	$2.00	$9,630.00
4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	75	LF	$12.00	$900.00
4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	6	EA	$750.00	$4,500.00
		DRAINAGE ALLOWANCE	1	LS	$75,000.00	$75,000.00
		EROSION CONTROL ALLOWANCE	1	LS	$15,000.00	$15,000.00
		MINOR ITEMS (5%)	1	LS	$74,000.00	$74,000.00

CONSTRUCTION COST SUBTOTAL	$1,542,130.00
CONTINGENCY (30%)	$462,640.00
UTILITIES (ABOVE GROUND)	$85,000.00
OPINION OF PROBABLE CONSTRUCTION COST	$2,089,770.00
NCDOT ADMINISTRATION FEE (10%)	$208,977.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$2,299,000.00**

NOTE: TYPICAL SECTION CONSIST OF 6-FT SIDEWALK, 7-FT PARALLEL PARKING, 4-FT BIKE LANE, 18-FT FOR TWO TRAFFIC LANES, 4-FT BIKE LANE, 18' ANGLED PARKING, AND 6-FT SIDEWALK.
ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICE INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY: JM
DATE: 7/13/2022

PLANNING ESTIMATE

Alta Engineering SE, PLLC
NC License #P-1301

LOCATION: **OLD MOUNT HOLLY ROAD, STANLEY, NC**

DESCRIPTION: **SIDEPATH ON OLD MOUNT HOLLY RD. FROM S. MAIN ST. TO SPRINGWOOD LN.**

313 FT 10' WIDE CONCRETE SIDEPATH ON THE SOUTH SIDE FROM S. MAIN ST. TO THE ENTRANCE OF THE DOLLAR TREE

4,701 FT 10' WIDE ASPHALT SIDEPATH ON THE RIGHT SIDE FROM THE DOLLAR TREE TO SPRINGWOOD LN.

TOTAL LENGTH: **0.6 MILES**

COUNTY: GASTON DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$45,800.00	$45,800.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	$24,000.00	$24,000.00
0043000000-N	226	GRADING	1	LS	$46,000.00	$46,000.00
1121000000-E	520	AGGREGATE BASE COURSE	3370	TON	$45.00	$151,650.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	600	TON	$120.00	$72,000.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	40	TON	$650.00	$26,000.00
2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	5020	LF	$40.00	$200,800.00
2591000000-E	848	4" CONCRETE SIDEWALK	350	SY	$60.00	$21,000.00
2605000000-N	848	CONCRETE CURB RAMP	12	EA	$3,000.00	$36,000.00
2612000000-E	848	6" CONCRETE DRIVEWAY	390	SY	$90.00	$35,100.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$20,000.00	$20,000.00
		DRAINAGE ALLOWANCE	1	LS	$240,000.00	$240,000.00
		EROSION CONTROL ALLOWANCE	1	LS	$40,000.00	$40,000.00
		MINOR ITEMS (5%)	1	LS	$46,000.00	$46,000.00

CONSTRUCTION COST SUBTOTAL	$1,004,350.00
CONTINGENCY (30%)	$301,310.00
UTILITIES (ABOVE GROUND)	$145,000.00
OPINION OF PROBABLE CONSTRUCTION COST	$1,450,660.00
NCDOT ADMINISTRATION FEE (10%)	$145,066.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$1,596,000.00**

NOTE: ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICES. INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY JM
DATE 7/13/2022

PLANNING ESTIMATE

Alta Engineering SE, PLLC
NC License #P-1301

LOCATION: **GENERAL STONEWALL JACKSON ST., STANLEY, NC**

DESCRIPTION: **ADVISORY LANES ALONG THE NORTH SIDE OF GENERAL STONEWALL JACKSON ST. FROM HICKORY GROVE RD TO GENERAL JOSEPH WHEELER ST**

TOTAL LENGTH: **0.4 MILES**

COUNTY: GASTON DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$2,100.00	$2,100.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$10,000.00	$10,000.00
4690000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS)	1230	LF	$4.00	$4,920.00
4705000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (16", 120 MILS)	90	LF	$15.00	$1,350.00
4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	55	LF	$20.00	$1,100.00
4721000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	4	EA	$250.00	$1,000.00
4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	14	EA	$300.00	$4,200.00
		MINOR ITEMS (5%)	1	LS	$1,000.00	$1,000.00

CONSTRUCTION COST SUBTOTAL	$25,670.00
CONTINGENCY (30%)	$7,710.00
UTILITIES (ABOVE GROUND)	$0.00
OPINION OF PROBABLE CONSTRUCTION COST	$33,380.00
NCDOT ADMINISTRATION FEE (10%)	$3,338.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$37,000.00**

NOTE: ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICES. INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY JM
DATE 7/13/2022

PLANNING ESTIMATE

Alta Engineering SE, PLLC
NC License #P-1301

LOCATION: **GENERAL STONEWALL JACKSON ST, STANLEY, NC**

DESCRIPTION: **1844 FT 6' WIDE CONCRETE SIDEWALK ALONG THE NORTH SIDE OF GENERAL STONEWALL JACKSON ST. FROM HICKORY GROVE RD TO GENERAL JOESPH WHEELER ST.**

TOTAL LENGTH: **0.4 MILES**

COUNTY: GASTON DIVISION: 12

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
DESC. NO.	SECT. NO.					
		ROADWAY ITEMS				
0000100000-N	800	MOBILIZATION	1	LS	$33,400.00	$33,400.00
0000400000-N	801	CONSTRUCTION SURVEYING	1	LS	$16,000.00	$16,000.00
0043000000-N	226	GRADING	1	LS	$31,670.00	$31,670.00
1121000000-E	520	AGGREGATE BASE COURSE	480	TON	$45.00	$21,600.00
1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	10	TON	$300.00	$3,000.00
1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	10	TON	$300.00	$3,000.00
1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	5	TON	$650.00	$3,250.00
2580000000-E	846	CONCRETE VALLEY GUTTER	1850	LF	$40.00	$74,000.00
2591000000-E	848	4" CONCRETE SIDEWALK	1230	SY	$55.00	$67,650.00
2605000000-N	848	CONCRETE CURB RAMP	8	EA	$3,000.00	$24,000.00
2612000000-E	848	6" CONCRETE DRIVEWAY	620	SY	$90.00	$55,800.00
	SP	RAILROAD CROSSING	1	LS	$200,000.00	$200,000.00
4399000000-N	1105	TEMPORARY TRAFFIC CONTROL	1	LS	$10,000.00	$10,000.00
		DRAINAGE ALLOWANCE	1	LS	$130,000.00	$130,000.00
		EROSION CONTROL ALLOWANCE	1	LS	$20,000.00	$20,000.00
		MINOR ITEMS (5%)	1	LS	$33,000.00	$33,000.00

CONSTRUCTION COST SUBTOTAL	$726,370.00
CONTINGENCY (30%)	$217,920.00
UTILITIES (ABOVE GROUND)	$75,000.00
OPINION OF PROBABLE CONSTRUCTION COST	$1,019,290.00
NCDOT ADMINISTRATION FEE (10%)	$101,929.00
OPINION OF TOTAL CONSTRUCTION COST (2022)	**$1,121,000.00**

NOTE: ESTIMATE IS NOT BASED ON AN ENGINEERING DESIGN, AND IS FOR PLANNING PURPOSES ONLY. BASED ON 2022 UNIT PRICES INFLATION NOT INCLUDED. ASSUMES LAP FUNDING REQUIRING NCDOT ADMINISTRATION FEE. EXCLUDES RIGHT-OF-WAY, DESIGN, PERMITTING, AND CONST. ADMINISTRATION PROJECT COSTS. UNDERGROUND UTILITY COORDINATION/RELOCATION COSTS UNKNONWN AND NOT INCLUDED.

COMPUTED BY JM
DATE 7/13/2022

GLOSSARY

AASHTO: American Association of State Highway and Transportation Officials: a nonprofit, nonpartisan association representing highway and transportation departments of all transportation modes in the 50 states, the District of Columbia and Puerto Rico.

ADA: American Disabilities Act of 1991: The Act gives civil rights protections to individuals with disabilities including equal opportunities in public accommodations, employment, transportation, state and local government services, and telecommunications.

Advisory shoulder: the portion of the roadway contiguous with the traveled way that is created to be used by bicyclists on a roadway that is otherwise too narrow to accommodate one.

Average Annual Daily Traffic (AADT): the average daily traffic on a roadway for all days of the week during a perod of one year.

Bicycle: every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. The term “bicycle” in this document also includes three- and four-wheeled human-powered vehicles, but not tricycles for children.

Bicycle Boulevard: is a shared roadway which has been optimized for bicycle traffic. In contrast with other shared roadways, bicycle boulevards discourage cut-through motor vehicle traffic, but typically allow local motor vehicle traffic. They are designed to give priority to cyclists as through-going traffic. They improve bicycle safety and circulation in various ways.

Bicycle Lane: a portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.

Bicycle Facilities: a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking and storage facilities, and shared roadways not specifically designated for bicycle use.

Bicycle Network: A system of public bicycle facilities that can be mapped and used by bicyclists for transportation and recreational purposes. Bike Lane: A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bikeway: a generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Buffer: That portion of a highway, road or street between the curb-face or edge of the pavement and the sidewalk that provides a spatial buffer between vehicular traffic and pedestrians on sidewalks.

Buffered Bike Lanes: Bike lane buffered from traffic with striping. When bollards or physical separation is used, the facility is often called a Protected Bike Lane.

Capital Improvement Plan (CIP): The Capital Improvement Plan (Program) is a short-range plan which identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for financing the plan. It is the principal planning tool designed to advance the priorities of the Town.

Central Business District: the commercial and business center of a city or town.

Complete Street: a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation. Complete Streets allow for safe travel by those walking, cycling, driving automobiles, riding public transportation, or delivering goods.

Comprehensive Transportation Plan: a long-term transportation plan for municipalities, counties, or large metropolitan areas.

Connectivity: the logical and physical interconnection of functionally related points so that people can move among them.

Corridor: a spatial link between two or more significant locations.

Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO): the federally designated Metropolitan Planning Organization (MPO) for the urbanized area that includes Stanley.

Crosswalk: a designated point on a road at which some means are employed to assist pedestrians who wish to cross a roadway or intersection. They are designed to keep pedestrians together where they can be seen by motorists, and where they can cross most safely with the flow of vehicular traffic.

Curb Ramp: a ramp leading smoothly down from a sidewalk, greenway or multi-use path to an intersecting street, rather than abruptly ending with a curb. Driveway Apron – the section of a driveway between a sidewalk or greenway and the curb.

Extra-Territorial Jurisdiction (ETJ): Designated area outside of a municipality's boundary where typical powers of a municipality can be exercised.

FHWA: Federal Highway Administration

Greenway: a linear path or open space, often composed of natural vegetation. Greenways can be used to create connected networks of open space that include traditional parks and natural areas specifically designed for pedestrian and bicycle use. Greenways provide an off-street component to the bicycle network.

Greenway Connector: A combination of signing, marking, traffic calming measures, and facilities that allow bicyclists and pedestrians to get safely from point A to point B in a priority corridor.

Highway: a general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Integrated Mobility Division: a division of NCDOT focused on public tranpsortation and active trapostation, such as bicycling and walking.

Median: a barrier, constructed of concrete, asphalt, or landscaping, that separates two directions of traffic. MPO – Metropolitan Planning Organization.

Metropolitan Planning Organization (MPO): federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities.

Multimodal: A transportation term which refers to planning that considers various modes (walking, cycling, automobile, public transit, etc.) and connections among modes. Multimodal transportation includes the mixing of different modes and supports the needs of all users whether they choose to walk, bike, use transit or drive. It means more connections and more choices.

Multi-Use Pathways: a multi-use pathway that is physically separated from motor vehicle traffic, and can be either within the highway right-of-way or within an independent right-of-way. Multi-Use pathways include bicycle paths, rail-trails or other facilities built for bicycle and pedestrian traffic.

MUTCD: Manual of Uniform Traffic Control Devices: National standards guidebook on signage and pavement marking for roadways.

Non-motorized: Active transportation which includes walking and bicycling and variants such as small-wheeled transport (skates, skateboards, push scooters and hand carts) and transport by wheelchair. Also known as Human Powered Transport.

NCDOT: North Carolina Department of Transportation

Pedestrian: a person on foot or a person on roller skates, roller blades, child's tricycle, non- motorized wheelchair, skateboard, or other non-powered vehicles (excluding bicycles).

Pedestrian-actuated signals:

Rectangular Rapid Flashing Beacon (RRFB): A warning beacon activated by a pedestrian at an uncontrolled crossing location which uses an irregular flash pattern to signal drivers of a pedestrian's presence and desire to cross.

Right-of-Way: the right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian.

Roadway: the portion of the highway, including shoulders, intended for vehicular use.

Rumble Strips: a textured or grooved pavement sometimes used on or along shoulders of highways to alert motorists who stray onto the shoulder.

Safe Routes to School (SRTS): a federal program that provides funding to encourage and facilitate the planning and implementation of bicycle and pedestrian projects near schools.

Shoulder: the portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base, base and surface courses.

Sidewalk: the portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians.

Shared Roadway: a roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.

Shared Use Path (or Pathway): A bicycle and pedestrian path separated from motorized vehicular traffic by an open space, barrier or curb. Shared-Use Paths may be within the highway right-of-way (often termed "sidepath") or within an independent right-of-way, such as on an abandoned railroad bed

or along a stream valley park. Shared use paths typically accommodate two-way travel and are open to pedestrians, in-line skaters, wheelchair users, joggers and other non-motorized path users.

Separated Facility: A bicycle and/or pedestrian facility that is physically separated from motor vehicles and is on, adjacent to the roadway, or in an independent right-of-way. Separated facilities include cycle tracks, protected bike lanes, and multi-use paths.

Shared Lane Markings: A pavement marking symbol used to indicate a shared lane environment for bicycles and motor vehicles. These markings are also called "sharrows."

Sharrow: painted roadway marking that alerts motorists that bicyclists are present and frequently use the roadway.

Thoroughfare: any street on the adopted thoroughfare plan or any street which is an extension of any street on the thoroughfare plan and which extends into the area not covered by the thoroughfare plan.

Traffic Calming: a range of measures that reduce the impact of vehicular traffic on residents, pedestrians and cyclists.

Trail: The word "trail" has come to mean a wide variety of facilities types, including everything from a "marked or beaten path, as through woods or wilderness" to a paved "multi-use trail".

STANLEY PEDESTRIAN & BICYCLE PLAN

Prepared for the Town of Stanley, North Carolina
Prepared by Alta Planning + Design

August 2022