



FY 2026

BUILD GRANT APPLICATION

## Hendersonville, NC

# Downtown Streets Modernization Project: New Streets for New Business

Promoting Small-Town Economic Development

Creating Safe Connections • Strengthening Flood Resiliency



Submitted by:



In partnership with:





# 01 PROJECT DESCRIPTION

The Hendersonville Downtown Streets Modernization project will improve safety for all travel modes, contribute to the quality of life of area residents and visitors, enhance local connectivity, and promote small-town economic development through the provision of 0.7 miles of safe, convenient, and modernized streets. The two project components will expand safe and accessible pedestrian infrastructure, improve public safety, and boost Hendersonville's status as a regional economic and tourism hub.

## KEY DETAILS



### Project Location

Hendersonville, North Carolina  
Designated as urban, but a rural, small town



### Project Length

0.7 miles



### Grant Administration

The North Carolina Department of Transportation in partnership with the City of Hendersonville



### Estimated Completion Date

2032

This 2026 application includes components of the City's 2025 BUILD grant application, which received a Project of Merit designation.

## PROJECT GOALS:

- Create Safe Connections
- Revitalize Local Businesses
- Strengthen Disaster Resiliency

## FUNDING SNAPSHOT

Project Cost:	\$21,400,000
Local Match:	\$2,800,000
Other Federal Funds:	\$0
BUILD Funding Request:	\$18,600,000

**BENEFIT COST RATIO: 1.34 : 1**

To learn more and review background materials, visit:

[www.hvlnc.gov/Build2026](http://www.hvlnc.gov/Build2026)

**66%** of the project cost will be spent within an **Area of Persistent Poverty**

**"North Carolina is going to come back bigger, better, and stronger than ever before."**

- President Trump on Jan 24, 2025 visit to nearby Asheville after Hurricane Helene

# DOWNTOWN STREETS MODERNIZATION PROJECT

## HENDERSONVILLE, NC

### LEGEND

- Component 1: South Main St
- - - Component 2: 7<sup>th</sup> Ave Streetscape Improvements
- Existing Streetscape Improvements
- Oklawaha Greenway
- - - Future Above the Mud Greenway
- Ecusta Trail
- - - Future Saluda Grade Rail Trail
- - - Other Proposed Greenways
- - - NCDOT & Other Projects
- Future Streetscape Improvements
- Buildings
- Water Bodies
- Wetlands
- 100-Year Floodplain
- Parks, Open Space, & Conserved Land
- Railroad
- Hendersonville Municipal Boundaries
- Downtown Hendersonville

**COMPONENT 2**  
7<sup>th</sup> Ave Streetscape Improvements

Funded sidewalk improvements

Future streetscape improvements

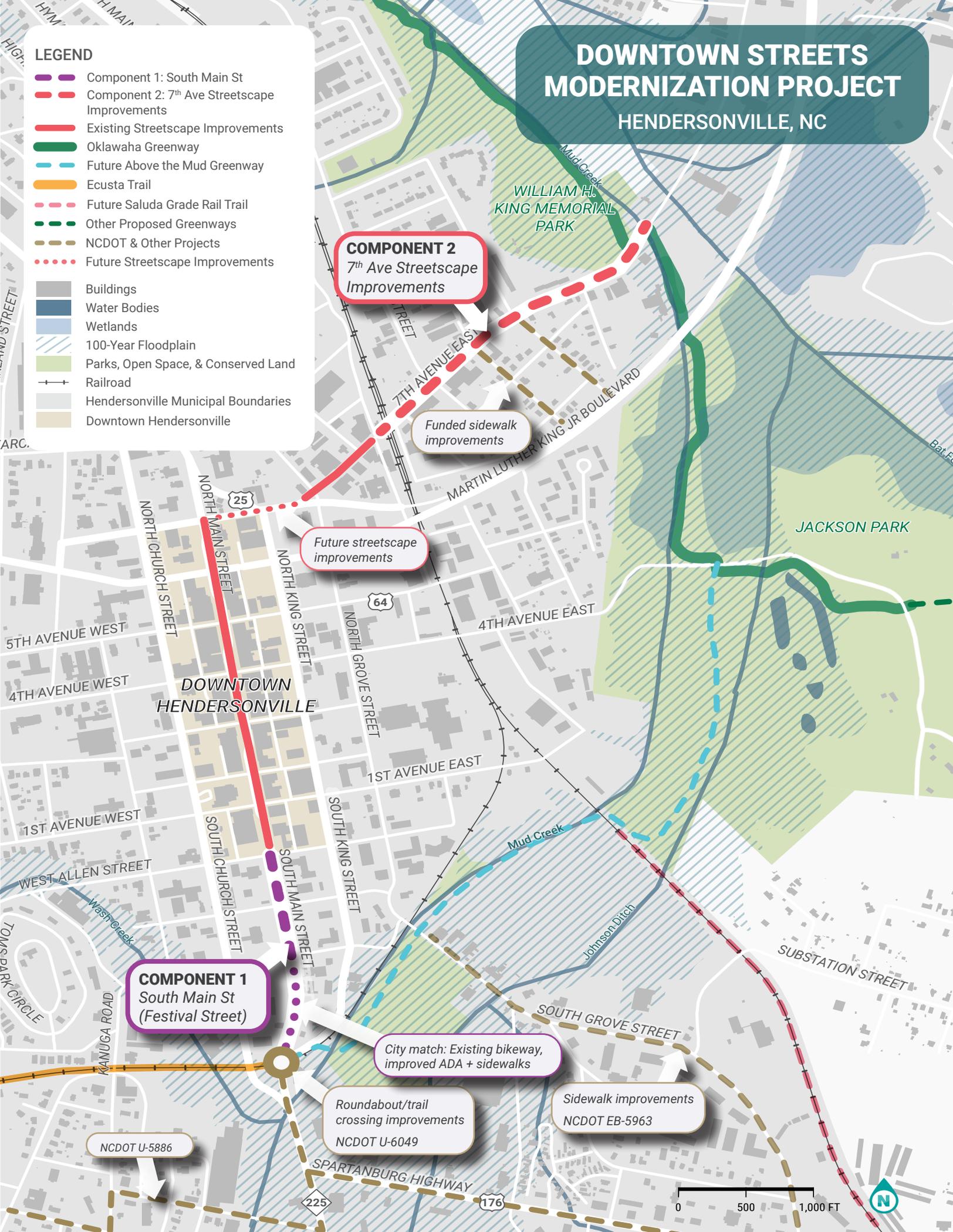
**COMPONENT 1**  
South Main St  
(Festival Street)

City match: Existing bikeway, improved ADA + sidewalks

Roundabout/trail crossing improvements  
NCDOT U-6049

Sidewalk improvements  
NCDOT EB-5963

NCDOT U-5886



## COMPONENT 1: Festival Street (S Main St, Phase 2)

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The **0.27-mile reconstruction of South Main Street** envisions the aging stretch of roadway as a Festival Street – **a flexible-use Complete Street that will drive economic renewal as it better accommodates pedestrians, bicyclists, and strollers and serve as a gateway for visitors to Hendersonville** via the Ecusta Trail, the Hellbender Regional Trail system, and beyond. The Festival Street will be a safer, lower-speed roadway, accommodating all modes of transportation with comfortable multimodal facilities and public spaces geared toward families and local vendors. This will be an extension of North Main Street, an incredibly popular regional destination and small-town asset that is often closed to vehicles for major regional events throughout the year, like the NC Apple Festival and monthly summer concert series. Events like these bring in over half a million visitors downtown annually. **The Festival Street will feature a shared use path, retractable bollards to increase security during events, accessible pedestrian amenities, signal upgrades, and a curbless streetscape flush with sidewalks and outdoor dining spaces.** These improvements will revitalize South Main Street by attracting new development and reinvestment.

## COMPONENT 2: 7th Avenue Streetscape Improvements (Phase 2)

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**Streetscape and safety improvements along a 0.41-mile section of 7th Avenue** will create a safer, more accessible, beautiful, and livable **connection between historic neighborhoods and downtown.** The modern, yet context-specific reconstruction of the historic corridor will expand new business opportunities and attract private investment with improved sidewalks, street trees, pedestrian-scaled lighting, stormwater infrastructure, curb bump outs, pedestrian amenities, site furnishings, and ADA-compliant upgrades. This is phase two of the **revitalization of a historic commercial corridor and will address recent crash history on the corridor.** Public engagement along the corridor has been a point of emphasis in this community.

The City has committed to approximately 0.25 miles of sidewalk reconstruction and to roadway resurfacing along 7th Avenue in its entirety. The sidewalk improvements address post-Hurricane Helene damage and include replacement of damaged sidewalk with new 5-foot-wide PROWAG-compliant concrete sidewalks, upgraded pedestrian ramp geometry including detectable warning surfaces, driveway apron reconstruction, and associated drainage and stormwater improvements to foster safe and accessible pedestrian travel. The roadway resurfacing includes replacement of aging pavement and striping, as well as bringing curb ramps up to PROWAG standards.

## COMMUNITY CONTEXT + HISTORY

The Downtown Streets Modernization Project is situated in the City of Hendersonville within a census-designated Urban Area. The project spans two census tracts, and most of the BUILD funds will be spent in Tract 9312, an Area of Persistent Poverty. Residents living in the project area are more likely to be living in poverty, without access to a vehicle, and more likely to live with a disability than the state as a whole.<sup>1</sup>

The BUILD grant project aims to build off of the success of prior public investments in the community. Placemaking and aesthetic improvements on North Main Street have been central to Downtown Hendersonville's recent revitalization, resulting in over \$36 million in private investment since 2012.<sup>2</sup>

As a temporary treatment, South Main Street was successfully reimaged as a demonstration Complete Street project in 2024. Additionally, public investment in the 7th Avenue commercial district began in 2018, and phase one was completed in 2024. However, the projects along South Main Street and 7th Avenue are not yet completed and have safety and connectivity challenges; neighborhoods adjacent to the projects still lack safe walking and biking connections to Historic Downtown, the Historic 7th Avenue Depot District and other important destinations. The Hendersonville Downtown Streets Modernization Project presents opportunities for enhanced

<sup>1</sup> NCDOT Transportation Disadvantage Index Dashboard [arcgis.com/apps/dashboards/1f6618f5561145be82573a379f9fd7a4](https://arcgis.com/apps/dashboards/1f6618f5561145be82573a379f9fd7a4)

<sup>2</sup> Main Street America. "Calming Traffic", Case Study: Hendersonville, NC [thepoint.mainstreet.org/howwecanhelp/navigatingmainstreets/nutsandbolts/managingtraffic/hendersonville](https://thepoint.mainstreet.org/howwecanhelp/navigatingmainstreets/nutsandbolts/managingtraffic/hendersonville)

## TRANSPORTATION CHALLENGES AND SOLUTIONS

*Hendersonville has some of the most dangerous roads on which to be a pedestrian or bicyclist in North Carolina.<sup>1</sup> This project employs Federal Highway Administration (FHWA) Proven Safety Countermeasures to improve roadways for pedestrians, bicyclists, and transit users, and integrates two regional trails to improve off-street trail connections for poorly connected communities.*

*The project will be implemented where local transportation gaps and barriers exist for vulnerable users, including pedestrians, bicyclists, families with young children, the elderly, and caregivers. This project improves a key corridor that closes gaps, bridges barriers, increases safety and accessibility, and improves comfort and convenience to important destinations, services, and amenities.*

*In addition, vehicle dependency negatively impacts public health and diminishes infrastructure lifespans.<sup>2</sup> The project provides healthy transportation alternatives that expand affordable mobility options and increase the lifespans of roadways.*

*Finally, natural disaster resiliency is critical to public and private infrastructure in Western North Carolina. This project rebuilds roads using stormwater best management practices to mitigate flooding, protect infrastructure, and improve air and water quality.*

<sup>1</sup> NCDOT PBCAT Pedestrian Crash Data. 2010-2019.

<sup>2</sup> "The Costs of Automobile Dependency and the Benefits of Balanced Transportation", Litman, Todd. Victoria Transport Policy Institute. 2002. [vtpi.org/autodep.pdf](https://vtpi.org/autodep.pdf)

economic vitality, particularly for small businesses, by creating an enriched experience for local residents through improved mobility and connectivity.

Additionally, the project will better connect downtown to the 19-mile Ecusta Trail, the planned 31-mile Saluda Grade Rail Trail, and the existing Oklawaha Greenway, making Hendersonville a recreational gateway, driving rural economic development, and creating safe connections to Downtown Hendersonville and the 7th Avenue Historic District.

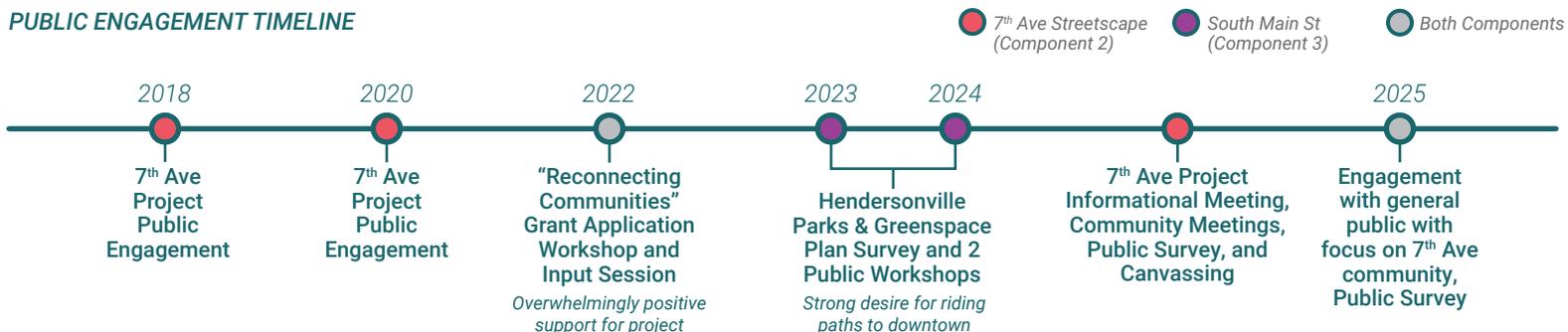
In response to the impacts of Hurricane Helene, which flooded South Main Street, a reduction in impervious surface area and stormwater infrastructure improvements will also make each corridor more resilient to future flood events and reduce stormwater loads on downstream infrastructure.

## COMMUNITY SUPPORT

The residents of the City of Hendersonville and surrounding communities have been continually engaged with this project since 2018. The project components have been included in plans and studies which broadly engaged the public, as well as key stakeholders, such as local business owners and advocacy groups.

Over 580 residents were engaged in this grant process, with the overwhelming majority in support. Strong public support for the project components is documented by 7th Avenue Design (2018-ongoing), City of Hendersonville Gen H 2045 Comprehensive Plan, Walk Hendo Pedestrian Plan (2023), the 2024 Parks & Greenspace Master Plan and public engagement in preparation for the 2022 Reconnecting Communities grant application and for this 2026 BUILD grant. The Gen H 2045 Comprehensive Plan included recommendations for a Festival Street on South Main Street and improved streetscape character for 7th Avenue. The Gen H Plan received the NC-APA Marvin Collins Award for best Comprehensive Plan in 2025 in large part due to the strength of its community engagement efforts.

### PUBLIC ENGAGEMENT TIMELINE



# 02 PROJECT BUDGET

This project is estimated to cost \$21,400,000. This proposal requests \$18,600,000 in BUILD grant funding for implementation. Projected construction costs were calculated based on 2030 dollars in line with the anticipated construction timeline. Tables 1 and 2 show the overall cost and funding breakdown for the project, including match funding at 13% of the total project cost in hand. Though match is not required for this project due to the majority of it being in an Area of Persistent Poverty, this match demonstrates the City's commitment to the project. Tables 3 and 4 show a detailed breakout of the project cost, federally leveraged funding, and local match.

## LEVERAGED FUNDING

There is currently no leveraged Federal funding.

## LOCAL MATCH FUNDS

Components 1 and 2 both have a local match provided by the City of Hendersonville. These funds come from the general fund from allocations typically used for resurfacing, utility work, and sidewalk repairs. The total match from the City is \$2,800,000. There is no restriction to these funds and a resolution from the City is provided indicating these funds have been obligated (see page 3).

TABLE 1: OVERALL FUNDING BREAKDOWN

	CONTRIBUTION
OVERALL PROJECT COST	\$21,400,000
LOCAL/NON-FEDERAL MATCH PROVIDED	\$2,800,000
FEDERAL FUNDS	\$0
<b>BUILD GRANT REQUEST</b>	<b>\$18,600,000</b>

NOTE: The majority of this project cost falls within an Area of Persistent Poverty

TABLE 2: LOCAL MATCH FUNDING SUMMARY

JURISDICTION / AGENCY	CONTRIBUTION	% MATCH
CITY OF HENDERSONVILLE'S GENERAL FUNDS	\$2,800,000	13.1%

# STATUS OF DESIGN & FUNDING AND COST ESTIMATES

All of the components have been planned with conceptual design completed. Costs for each component were verified and updated in preparation for this application by City and consultant engineers. The components' estimates include a higher contingency (20%) to account for the fact that estimates are at the planning level as well as an escalation to have the cost reflect 2030 costs (year of construction).

Detailed budget cost estimates are provided as a supplement to this narrative on the project website: [www.hvlnc.gov/Build2026](http://www.hvlnc.gov/Build2026). The following is the project status and activities that took place in order to ensure the funding request is adequate.

**Component 1 Status and Cost Estimates:**

The planning level estimate for South Main Street was developed for this grant application based on recent City bid numbers with verification from an engineer for this grant. This project is in the planning phase.

**Component 2 Status and Cost Estimates:**

7<sup>th</sup> Avenue is an extension of a project recently built and has recent bid numbers used for the cost estimate that was developed by an engineer (and vetted by a second engineering firm) and updated for this grant to reflect recent costs. This project is in the planning phase.

# ADDRESSING COST OVERRUNS

Any cost overruns will be the responsibility of the City of Hendersonville.

TABLE 3: FUNDING AT-A-GLANCE

BY THE NUMBERS	
TOTAL CONSTRUCTION COST (BASE YEAR)	\$9,800,000
TOTAL ESCALATED CONSTRUCTION COST (YOY)	\$12,400,000
TOTAL ENGINEERING & MANAGEMENT, UTILITY RELOCATION, CONTINGENCY COSTS	\$9,000,000
BUILD REQUEST	\$18,600,000
NON-FEDERAL FUNDS/ LOCAL MATCH	\$2,800,000
% FEDERAL SHARE	87%
OVERALL BENEFIT-COST RATIO (BCR)	1.34
SOUTH MAIN STREET BCR	0.66
7th AVENUE BCR	2.58
NET PRESENT VALUE	\$4,254,000
TOTAL DISCOUNTED COSTS	\$12,602,000
TOTAL DISCOUNTED BENEFITS	\$16,854,000

TABLE 4: PROJECT BUDGET AND MATCH

FUNDING SOURCE	PROJECT COMPONENTS		TOTAL
	COMPONENT 1: SOUTH MAIN STREET	COMPONENT 2: 7th AVENUE STREETScape IMPROVEMENTS	
TOTAL BUILD FUNDS	\$12,200,000	\$6,400,000	\$18,600,000
NON-FEDERAL FUNDS/LOCAL MATCH	\$1,800,000	\$1,000,000	\$2,800,000
TOTAL PROJECT COST	\$14,000,000	\$7,400,000	\$21,400,000

TABLE 5: PROJECT COST PER CENSUS TRACT

2020 CENSUS TRACT	PROJECT COST
9312*	\$14,000,000 <i>(Component 1)</i>
9311	\$7,400,000 <i>(Component 2)</i>
TOTAL PROJECT COST	\$21,400,000

\* Area of Persistent Poverty (APP)

The City of Hendersonville's financial commitment letter showing its commitment to funding \$2.8 million of project costs.



TABLE 6: URBAN VS. RURAL PROJECT DESIGNATION

Urban and Rural	PROJECT COST
Urban (2020 Census-designated urban area with a population greater than 200,000)	\$21,400,000
Rural (Located outside of a 2020 Census-designated urban area with a population greater than 200,000)	\$0

Hendersonville is a small city within the Asheville urban area. While officially designated as urban, Hendersonville has a small-town feel and is surrounded by rural, natural areas.

# BENEFIT-COST ANALYSIS SUMMARY

The Downtown Streets Modernization Project will provide comprehensive benefits for residents of Hendersonville.

**Benefits from these projects will not only strengthen the local economy, but provide real transportation choices for those who need them.**

Benefits will also include a reduction in vehicle miles traveled for transportation and quality of life benefits. This benefit-cost analysis (BCA) weighs the costs (capital and maintenance) and benefits (environmental protection, quality of life, economic competitiveness, safety, and state of good repair) that would accrue during construction and over a 20-year

evaluation period after completion of the project.

Table 7 provides a cumulative summary of project benefits. Capital costs in the BCA (\$16,500,000) represent the total project costs in 2026 dollars, whereas the overall project cost of \$21,400,000 is presented above in fully escalated 2030 dollars (see Table 1). For the complete BCA methodology and results, see the BCA summary memo uploaded with this application, or view documents on the project website: [www.hvlnc.gov/Build2026](http://www.hvlnc.gov/Build2026).

TABLE 7: BENEFIT-COST ANALYSIS SUMMARY

<b>TOTAL DISCOUNTED BENEFITS</b>	<b>\$16,854,000</b>
<b>TOTAL DISCOUNTED COSTS</b>	<b>\$12,602,000</b>
<b>NET PRESENT VALUE</b>	<b>\$4,254,000</b>
<b>BENEFIT-COST RATIO</b>	<b>1.34 : 1</b>
<b>SAFETY (UNDISCOUNTED)</b>	
Collision Cost Savings	\$34,580,000
<b>QUALITY OF LIFE / HEALTH BENEFITS (UNDISCOUNTED)</b>	
Mortality Reduction Benefits from Increased Physical Activity	\$8,558,000
<b>STATE OF GOOD REPAIR (UNDISCOUNTED)</b>	
Vehicle Miles Traveled (VMT) Reduced	233,200 miles
Roadway Maintenance Cost Savings	\$0.10 per VMT
<b>ECONOMIC COMPETITIVENESS (UNDISCOUNTED)</b>	
Household Transportation & Traffic Congestion Cost Savings	\$145,800
<b>ENVIRONMENTAL SUSTAINABILITY (UNDISCOUNTED)</b>	
Savings from Pollutant Reduction	\$6,900
<b>PROJECT COSTS (UNDISCOUNTED)</b>	
Capital Costs (2026 dollars)	\$16,500,000

# 03 MERIT CRITERIA

\* = PRIMARY PROJECT PURPOSE  
 Criteria equally apply to all components of the project, unless otherwise noted.

TABLE 1: CRITERIA EXECUTIVE SUMMARY

MERIT CRITERIA	HOW THIS PROJECT ADDRESSES THE BUILD MERIT CRITERIA
<b>SAFETY*</b>	<ul style="list-style-type: none"> <li>Increases safety all travelers by using FHWA countermeasures, separating travel modes, and closing infrastructure gaps</li> <li>Addresses above-average occurrence of pedestrian and bicycle crashes</li> <li>Incorporates improvements that address issues in the FTA's Safety Advisory 23-1 and a regional safety action plan with corridor-wide impact</li> </ul>
<b>ENVIRONMENTAL SUSTAINABILITY</b>	<ul style="list-style-type: none"> <li>Improves flood resiliency of at-risk infrastructure</li> <li>Incorporates permeable pavements and stormwater BMPs and increase urban tree canopies</li> </ul>
<b>QUALITY OF LIFE*</b>	<ul style="list-style-type: none"> <li>Rebuilds two historic streets into beautiful, functional, and flexible corridors</li> <li>Integrates family and business-friendly designs, accessible for all ages / abilities</li> <li>Implements clear signage to improve wayfinding and minimize conflicts</li> <li>Expands affordable transportation options</li> </ul>
<b>MOBILITY + COMMUNITY CONNECTIVITY*</b>	<ul style="list-style-type: none"> <li>Decreases downtown roadway congestion by adding non-motorized infrastructure while maintaining vehicular capacity</li> <li>Enhances accessibility and connectivity for families and all ages and abilities users</li> <li>Removes physical barriers by closing sidewalk and bicycle facility gaps</li> <li>Expand non-motorized options for residents in underserved communities</li> </ul>
<b>ECONOMIC COMPETITIVENESS + OPPORTUNITY*</b>	<ul style="list-style-type: none"> <li>Facilitates recreational tourism opportunities by connecting historic and revitalized areas with a destination trail network</li> <li>Improves the safety and security of festival attendees via removable bollards</li> <li>Promotes balanced and local long-term growth through renewed investment in historic neighborhoods and idle commercial districts</li> </ul>
<b>STATE OF GOOD REPAIR</b>	<ul style="list-style-type: none"> <li>Restores and modernizes two historic corridors</li> <li>Prioritizes condition and safety improvements of existing roadways vulnerable to flooding impacts</li> <li>Reduces maintenance burdens via integrated design decisions</li> <li>Leverages reconstruction timelines and disrepair to update aging corridors</li> <li>Employs construction best practices to minimize impervious surfaces, mitigate flooding, and prolong the life of project components</li> </ul>
<b>PARTNERSHIP + COLLABORATION</b>	<ul style="list-style-type: none"> <li>Partnerships are ongoing between the City, public agencies at local, regional, and state levels, nonprofits, and local businesses.</li> <li>The City will collaborate with local community members, private partners, and advocacy groups to ensure project support, feasibility, and success.</li> </ul>
<b>INNOVATION</b>	<ul style="list-style-type: none"> <li>Uses innovative design elements such as stormwater BMPs, tree trenches with suspended pavement systems, and RRFBs</li> <li>Uses technology such as integrated flood monitoring gauges and video equipment to manage construction, track maintenance, and communicate with the public</li> </ul>

## a. | Safety

- **Primary project purpose.**
- **Directly targets one of the most unsafe intersections in the region.**
- **Incorporates FHWA Proven Safety Countermeasures that will result in over \$34 million in crash prevention benefits.**

### a.1 | CHALLENGE: Crash history and unsafe roadways.

Between 2010 and 2019, Hendersonville ranked highest among its state peers for pedestrian fatalities and severe injuries, recording the highest per-capita crash rate regardless of population size.<sup>1</sup> From Oct 1, 2017 to Dec 1, 2025, four crashes resulting in injuries or fatalities to pedestrians or cyclists occurred along 7th Avenue and South Main Street.<sup>2</sup> Table 2 below summarizes these crashes as well as proposed countermeasures that will

<sup>1</sup> National Highway Traffic Safety Administration FARS Database  
<sup>2</sup> NCDOT crash data, analyzed by Alta Planning + Design

address some of the factors contributing to these crashes.

Overall, there were 42 pedestrian and bicycle crashes reported within a half mile of the project corridor. These incidents occurred primarily on roads with missing or aging sidewalks, missing or poor condition crossings, and no bike facilities.

**The intersection of South Main Street and East Caswell Street ranked in the top one percent for safety concerns in the Safe Streets for WNC Regional Safety Action Plan's five-county study area.**

### a.1 | SOLUTION: Reduce fatalities and serious injuries in the project area to help bring Hendersonville below the statewide average by rebuilding roadways.

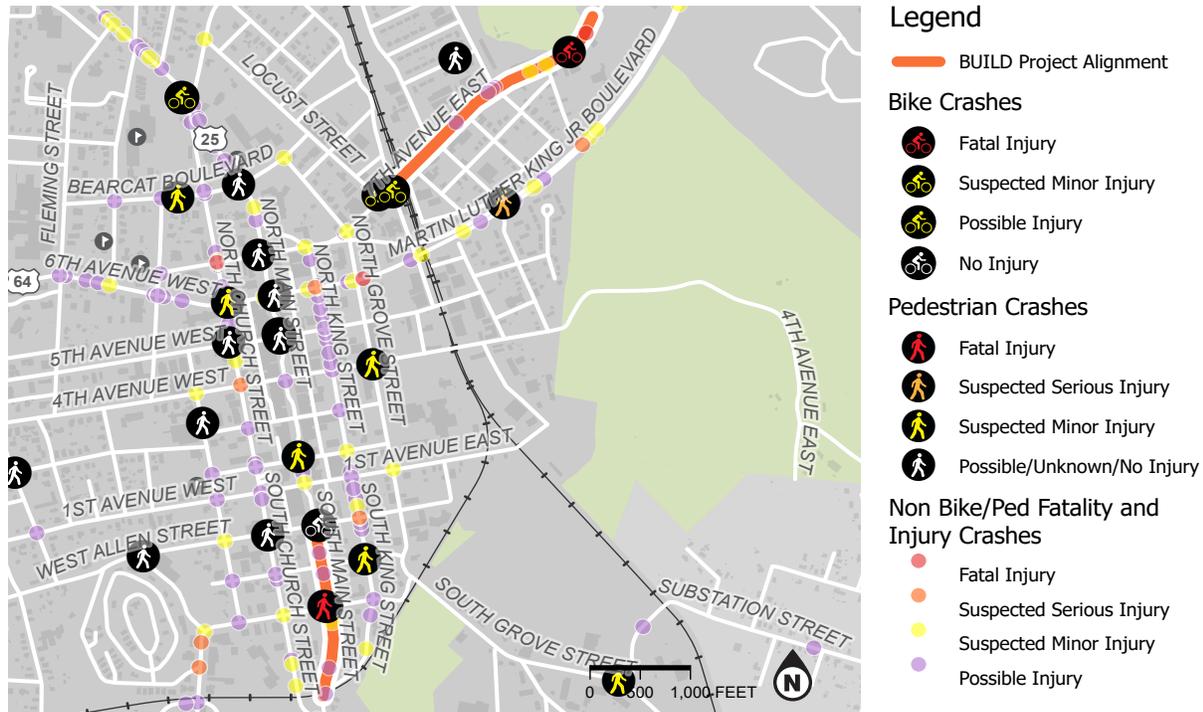
This project incorporates several FHWA Proven Safety Countermeasures to improve safety for all roadway users, including pedestrians, cyclists, and motorists. In addition to those listed in Table 2, the project will incorporate:

TABLE 2: CRASH HOTSPOTS AND COUNTERMEASURES

PED/BIKE CRASH HOTSPOT	CRASH HISTORY	EXISTING CONDITIONS	PLANNED IMPROVEMENTS	CRASH REDUCTION FACTORS
SOUTH MAIN STREET/EAST CASWELL STREET	One fatal pedestrian crash; one minor injury bicycle crash	No pedestrian signals; cycle track demonstration project constructed	Shared use path; pedestrian countdown signal with leading pedestrian interval (LPI)	Shared use path: pedestrian crashes: 60%; bicycle crashes: 25% <sup>1</sup> LPI: 13%
SOUTH MAIN STREET AND SOUTH KING STREET	Minor injury pedestrian crash	Incomplete sidewalks; lack of lighting	Fill sidewalk gaps; improve lighting	Sidewalk: 60%; Improved lighting: 32%
7TH AVENUE AT THE OKLAWAHA GREENWAY	Fatal bicycle crash	Unsignalized midblock crossing	Rectangular Rapid Flashing Beacon (RRFB)	RRFB: 69%

<sup>1</sup> Crash Modifications Factors Clearinghouse Database

## CRASHES WITHIN 1/2 MILE OF PROJECT ALIGNMENT (2017-2025)



- Comprehensive traffic calming as a part of streetscape improvements, which can reduce injury crashes by up to 18% while slowing traffic to allow for a more comfortable walking and cycling environment.
- Installing pedestrian countdown signals on both corridors can reduce rear-end crashes by 13% while improving the pedestrian experience.

Incorporating pedestrian-scale lighting will help illuminate pedestrians and removable bollards will protect event attendees, reducing conflicts between road users and discouraging crime. These measures will ensure safer trips for all road and trail users, improving both local and regional accessibility.

The project addresses hazards identified in the FTA's Safety Advisory 23-1: Bus-to-Person Collisions by better separating travel modes near bus stops via widened sidewalks and amenity zones and in bus paths via improved pedestrian crossings and the addition of bicycle facilities.

The project also implements safety improvements identified in the SS4A Safe Streets for WNC - Regional Safety Action Plan by better separating travel modes, closing gaps, and widening sidewalks along and near transit corridors. The project also implements safety improvements identified in the Henderson County Transit Feasibility Study by closing sidewalk gaps, providing additional seating and shade, and improving safety at bus stops. Finally, 7th Avenue includes an improved railroad crossing with active grade detection, which will significantly improve safety between road users and rail traffic.

### **a.2 | CHALLENGE: There are gaps in the existing sidewalk network and a need for safer bicycling connections.**

South Main Street and 7th Avenue are not safely connected to downtown Hendersonville, to adjacent neighborhoods,

or to the neighboring Ecusta Trail and Oklawaha Greenway. Currently, 7th Avenue has posted speed limits of 20 - 35 mph, while US 64 ranges from 20 - 45 mph. Research shows that a pedestrian struck by a vehicle traveling at 35 mph has nearly a 40% chance of dying, with the risk increasing significantly at higher speeds. Sidewalk gaps, inaccessible infrastructure, and a lack of dedicated bicycle facilities all increase the likelihood of conflicts between travel modes. This highlights the urgent need for safer multimodal facilities that protect pedestrians and cyclists by separating them from fast-moving vehicles.

**a.2 | SOLUTION: Protect travelers from safety risks by filling the multimodal network gap with safe, separated facilities for walking and biking.**

The implementation of the South Main Street and 7th Avenue streetscape improvements will build upon previous streetscape upgrades to North Main Street and 7th Avenue to provide a continuous, separated connection between the Oklawaha Greenway and the Ecusta Trail, between downtown and adjacent neighborhoods, and between important destinations. Closing multimodal network gaps and implementing separated facilities along roadways will encourage residents who currently feel unsafe to consider walking or biking to local schools and daycares, jobs, and destinations. It will also attract visitors from the Hellbender Regional Trail system, encouraging them to explore local businesses and attractions. A fully connected system of separated multimodal facilities make walking, biking, and rolling

to important destinations safer and more accessible for all users.

**b. | Environmental Sustainability**

- *Recommends stormwater best management practices that will improve the resilience of public infrastructure assets and private property in Downtown.*

**b.1 | CHALLENGE: Flood resiliency challenges threatening public and private infrastructure in Western North Carolina.**

Western North Carolina sees regular flooding, and Hendersonville was greatly impacted by flooding during Hurricane Helene in 2024, receiving 21.96 inches of rainfall (the third highest in the region), which breached the 500-year floodplain.<sup>1</sup> Hendersonville businesses experienced closures ranging from approximately two weeks to over a year related to damages from the storm. Many Hendersonville businesses closed and did not reopen or return after experiencing catastrophic flooding or landslide damages. Multiple grocery stores, pharmacies, auto-repair shops, and other important services were closed for extended periods, reducing access to necessary resources for residents.

A portion of South Main Street is in the 100-year floodplain, making businesses and infrastructure along this corridor vulnerable to storms much milder than Helene. As impervious surfaces increase within the floodplain and severe flooding occurs, public and private infrastructure will see reduced lifespans and damage.

1 "Hurricane Helene Disaster Response" StoryMap by City of Hendersonville.

**b.1 | SOLUTION: Improve resilience of at-risk infrastructure by rebuilding downtown roads to be more resilient and to help protect adjacent infrastructure.**

Stormwater best management practices (BMPs) enhance transportation infrastructure resilience by reducing flood-related stress on roadways, trails, and supporting assets. The proposed improvements to 7th Avenue and South Main Street incorporate resilient design elements such as permeable and suspended pavement systems, tree trenches and new street trees, bioretention areas, and native plantings that manage stormwater within the roadway corridor. By retaining and temporarily storing runoff and slowing its release during peak storm events, these BMPs reduce surface ponding, hydrostatic pressure, and erosive flows that contribute to pavement failure, subgrade degradation, and damage to adjacent infrastructure. More efficient use of roadway space further reduces impervious surface area, lowering runoff volumes and decreasing flood impacts to downstream assets, including the City’s Oklawaha Greenway.

Critically, these improvements **support reliable emergency access** by reducing roadway closures and passability issues during and after extreme weather events. Maintaining access along 7th Avenue and South Main Street is essential for emergency response, evacuation, and post-storm recovery, particularly for downtown residents, businesses, and visitors. Collectively, the project increases the corridor’s ability to remain functional during flood events, extends the service

life of transportation infrastructure, and reduces long-term maintenance and repair costs while preserving the character of this historic corridor.

**b.2 | CHALLENGE: Aging roadways and outdated design elements contribute to current vulnerabilities.**

Currently, both corridor rights-of-way are almost entirely composed of impervious surfaces, including asphalt travel lanes and parking, concrete curb and gutter, and sidewalks. Where rain and snow can't permeate, it becomes runoff, picking up



*South Main Street before and after flooding during Hurricane Helene.*

pollutants and sediment along the way until it reaches a point where it can drain, causing a rapid rise in contaminated waters during extreme weather events.<sup>1</sup>

## **b.2 | SOLUTION: Incorporate design elements including permeable pavement and additional street trees.**

Designs for South Main Street and 7th Avenue incorporate stormwater BMPs, such as permeable and suspended pavement systems, tree trenches and new street trees, bioretention areas, and native plantings. In combination, these practices reduce runoff volumes and filter pollutants along the way that would otherwise impact the local water quality.<sup>2</sup>

Both components incorporate street trees and native plantings. Replenishing the urban tree canopy has many benefits, and the City of Hendersonville has actively encouraged the planting of trees within city limits with the NeighborWoods program, which is administered by the Hendersonville Tree Board and provides trees for free to residents and businesses who agree to maintain them.<sup>3</sup> The trees planted as part of this project will beautify historic corridors, provide shade and cooling in hotter months, improve air quality, reduce noise, and provide habitats for birds and pollinators. Street trees also contribute to traffic calming by optically narrowing roadways, prompting drivers to slow down.<sup>4</sup>

1 "Impervious Surfaces and Stormwater Impacts." Penn State Extension. [extension.psu.edu/impervious-surfaces-and-stormwater-impacts](https://extension.psu.edu/impervious-surfaces-and-stormwater-impacts)

2 "Soak Up the Rain." U.S. Environmental Protection Agency. [epa.gov/soakuptherain/soak-rain-permeable-pavement](https://epa.gov/soakuptherain/soak-rain-permeable-pavement)

3 "NeighborWoods Projects." City of Hendersonville. [hendersonvillenc.gov/advisory-boards-commissions-and-committees/tree-board/tree-board-projects-activities/neighborwoods](https://hendersonvillenc.gov/advisory-boards-commissions-and-committees/tree-board/tree-board-projects-activities/neighborwoods)

4 "Safe Streets." University of Washington. [depts.washington.edu/hhw/b/Thm-SafeStreets.html](https://depts.washington.edu/hhw/b/Thm-SafeStreets.html)

## **c. | Quality of Life**

- *Primary project purpose.*
- *Beautifies existing roadway corridors for the benefit of all users, especially families, and improves wayfinding.*
- *Lowers transportation costs for the over 12% of households nearby without access to a motor vehicle.*
- *Generates over \$8 million in quality of life benefits over project lifespan due to increased physical activity and improved health outcomes.*

### **c.1 | CHALLENGE: Despite advances, Downtown Hendersonville is largely not a welcoming environment for travelers.**

South Main Street, south of Allen Street, was highlighted in the 2023 Walk Hendo plan as being unwelcoming to non-motorists: "The roadway is wider, sidewalks are not comprehensive, and parking lots take center stage" (p 13). This portion of South Main Street is also lacking in trees and street furniture. 7th Avenue is similar, with wide streets, narrow sidewalks, and a lack of marked crosswalks and pedestrian signals at intersections.

The southern end of South Main Street features an entrance sign indicating that visitors are entering Historic Downtown Hendersonville, but there is a need for more comprehensive wayfinding along both corridors to better direct local residents and visitors to North Main Street, to local trails and parks, and other destinations.

### **c.1 | SOLUTION: Create a pleasant walking, biking, gathering, and driving experience for all ages and abilities.**

Implementing the South Main Street and 7th Avenue streetscape improvements

will beautify existing transportation infrastructure in Hendersonville, improving the overall user experience for motorists, pedestrians, and cyclists while maintaining operational efficiency. Families with strollers or young children, wheelchair users, and the elderly will benefit from the widened sidewalks planned for 7th Avenue and the shared use path that will be constructed as part of the Festival Street. Similar to North Main Street, the Festival Street will include space for cafe seating, street furnishings that include timber and stone seating that can double as natural play areas, improved lighting, and native landscaping.

During events that attract a large number of visitors, bollards can be activated to provide security and create additional space for vendors and other uses. Downtown Hendersonville already hosts many annual events that draw many visitors:

- The Hendersonville Farmers Market, which takes place weekly in the 7th Avenue District, bringing over 40,000 visitors to the district per year
- Garden Jubilee attracting over 20,000 attendees annually over Memorial Day Weekend
- Antique and Vintage Show in June, attracting over 5,000 attendees annually during the one-day festival
- Chalk It Up in July
- Throughout the summer, Music on Main concerts every Friday night and traditional Monday night Street Dances, featuring authentic mountain music and dance
- Rhythm & Brews concert series, held on the third Thursday of each month from June – October, bringing approximately 2000+ attendees per event
- The North Carolina Apple Festival over Labor Day weekend brings over 200,000 attendees
- Treat Street for Halloween (15,000 attendees),

followed by Art on Main weekend in October (10,000 attendees over a two-day festival)

- Holiday Lighting Celebration in November and multiple holiday events throughout December

#### Expanding the Festival Street

improvements along South Main Street and improving the connections to Downtown via the 7th Avenue streetscape project will create a continuous corridor for visitors and residents alike to explore during these events, bringing tremendous benefits to local businesses.

As a continuation of ongoing City and County efforts and in collaboration with Friends of Downtown, both project components also include branded wayfinding that aligns with local context to make travel more intuitive for all users. Expanded pedestrian-focused signage will extend from North Main Street (existing) to both corridors to provide clear, intuitive, and continuous wayfinding.

#### **c.2 | CHALLENGE: Lack of access to everyday amenities via affordable transportation options.**

The project area spans two census tracts, tracts 9312 and 9311. Tract 9312 is designated as an Area of Persistent Poverty; 14% of households lack access to a motor vehicle (compared to the state average of 6%), 43% of the population is persons of color (state average: 37%), 19% of the adult population is disabled (compared to 16% statewide), and 28% of the population is youth under 15 or seniors.<sup>5</sup> In Tract 9311, 11% of households lack access to a motor vehicle, 34% of the population is persons of color, 14% of adults are disabled, and 23% of the population is youth or seniors. Project

<sup>5</sup> NCDOT Transportation Disadvantage Index Dashboard [arcgis.com/apps/dashboards/1f6618f5561145be82573a379f9fd7a4](https://arcgis.com/apps/dashboards/1f6618f5561145be82573a379f9fd7a4)

area tracts have household poverty rates of 40% and 36% (significantly higher than the state average of 23%).

According to NCDOT's Transportation Disadvantage Index (TDI), factors such as lack of car ownership, poverty, disability, youth, and race are key barriers that hinder access to essential transportation services.

**Nearly half of Hendersonville residents may be too young or physically unable to drive a vehicle**, underscoring the critical need for safe and accessible transportation alternatives.<sup>1</sup>

### **c.2 | SOLUTION: Make transportation more affordable by improving multimodal connections between important destinations and critical services.**

Safe, convenient, and affordable access to jobs is crucial to employment, and the Hendersonville Downtown Streets Modernization Project will provide multimodal options for commuters who cannot or choose not to drive. Commuter data from 2022 shows that 50.8% of workers living in Hendersonville are employed within 10 miles of their home, and 21.4% work within Hendersonville itself, reinforcing the need for safer multimodal commuting opportunities within the city.<sup>2</sup> Additionally, nearby tourist destinations and employment hubs, such as Flat Rock and the Asheville Regional Airport, are accessible via public transit routes with stops along the project corridors. These findings underscore the opportunity to enhance access to local and regional jobs by expanding multimodal facilities

<sup>1</sup> Hendersonville Pedestrian Plan, 2023. US Census 2021 ACS 5-Year Estimates [hendersonvillenc.gov/sites/default/files/uploads/departments/planning/WalkHendo/final\\_walk\\_hendo\\_plan.pdf](https://hendersonvillenc.gov/sites/default/files/uploads/departments/planning/WalkHendo/final_walk_hendo_plan.pdf)

<sup>2</sup> US Census Bureau, OnTheMap Work Destination Analysis, 2019 data.

and improving first- and last-mile transit connections.

This project will create a multimodal corridor that significantly improves connectivity through the heart of Hendersonville. Beyond job access, it will significantly enhance safe connections to schools, parks, local businesses, healthy food options, healthcare, and other essential services. This project will also ensure that visitors can safely access Downtown and other key destinations from the Oklawaha Greenway and Ecusta Trail.

## **d. | Mobility + Community Connectivity**

- *Primary project purpose.*
- *Upgrades 46 curb ramps for improved ADA accessibility.*
- *Creates a continuous 1.4-mile corridor for non-motorized travel mainly within an Area of Persistent Poverty, closing an 865-foot sidewalk gap and a 0.7-mile bicycle facility gap.*
- *Better connects 12,000 people living within a half mile to four parks, two schools, a major hospital, and a produce market.*
- *Projected to generate nearly 2 million additional biking and walking trips in the surrounding area over the lifetime of the project.*

### **d.1 | CHALLENGE: Lack of connectivity for non-motorized travel in the city and the region.**

There is a pressing need for greater connectivity to the rest of Downtown and more affordable mobility options, including walking and biking, in the census tract surrounding South Main Street, which is an Area of Persistent Poverty. About 12,000 people live in the census block groups

within a half mile of the project corridor, and about 2,500 of these residents are school-aged children. These students will benefit from improved walking and biking connections to Hendersonville High School, Drysdale Elementary, Immaculata Catholic School, Faith-Covenant Christian Academy, and Jackson and King Parks, all of which are within a half mile of the project.

There is a lack of connectivity between two major regional trails. The existing 3.5-mile Oklawaha Greenway intersects 7th Avenue and is an important recreational asset for residents and visitors, but has limited connectivity to neighborhoods, destinations, or other multimodal infrastructure. The 19-mile Ecusta Trail is currently under construction and terminates at South Main Street, where a temporary demonstration bikeway leads north to downtown.

**d.1 | Solution: Increase accessibility for non-motorized travelers in an underserved community through connections to affordable multimodal transportation options and removal of physical barriers.**

When completed, the Hendersonville Downtown Streets Modernization Project will create a key multimodal connection that **links two existing trails and one planned trail (the Saluda Grade Trail) with 1.4 miles of improved, pedestrian and bicycle-friendly city streets** that will be mostly located within an Area of Persistent Poverty. By filling an 865-foot gap in pedestrian facilities and a 0.7-mile gap in bicycle facilities, the project will enhance the functionality of Hendersonville's downtown transportation system and significantly improve mobility choices. Making walking

and biking safer and easier creates more affordable transportation options, in turn making jobs, schools, parks, businesses, and essential services more accessible, benefiting residents who cannot or choose not to drive to everyday destinations. Improved roadway capacity is another effect of constructing improved facilities for walking and cycling, since many people who would have otherwise been driving in Downtown Hendersonville will instead choose to walk or bike. The benefit-cost analysis conducted for this application estimates that over the lifetime of the project, there will be a reduction of 233,200 VMT (vehicle miles traveled) in the project study area.

**d.2 | CHALLENGE: The existing downtown transportation system is not accessible for all users, including those with disabilities and families.**

Hendersonville's hilly terrain can make walking and biking difficult for older adults, those with disabilities, and families with small children. In addition, a lack of safe multimodal facilities and aging and discontinuous sidewalks discourage these users. The project area ranks high on NCDOT's Transportation Disadvantage Index due to a lack of car ownership, high levels of poverty and disabilities, and a significant youth population. Apple Country Public Transit serves destinations within Henderson County including Hendersonville, Fletcher, Laurel Park, and the Asheville Regional Airport. At present, first and last-mile connections to this transit service are a challenge due to a lack of safe and connected walking and biking

facilities near stops along 7th Avenue and within a block of South Main Street. The French Broad River Metropolitan Planning Organization (MPO) Regional Transit Feasibility Study found the public's top two priorities are expanded transit service and improved last mile access.

**d.2 | SOLUTION: Enhance the overall accessibility of the downtown transportation system, including connections to transit, for families and Americans with disabilities.**

Safe and ADA-compliant multimodal facilities along 7th Avenue and South Main Street will remove transportation barriers for people of all ages and abilities. Improvements such as widened sidewalks and high visibility crosswalks will provide ample accommodation for people pushing strollers or using mobility devices to access downtown destinations.

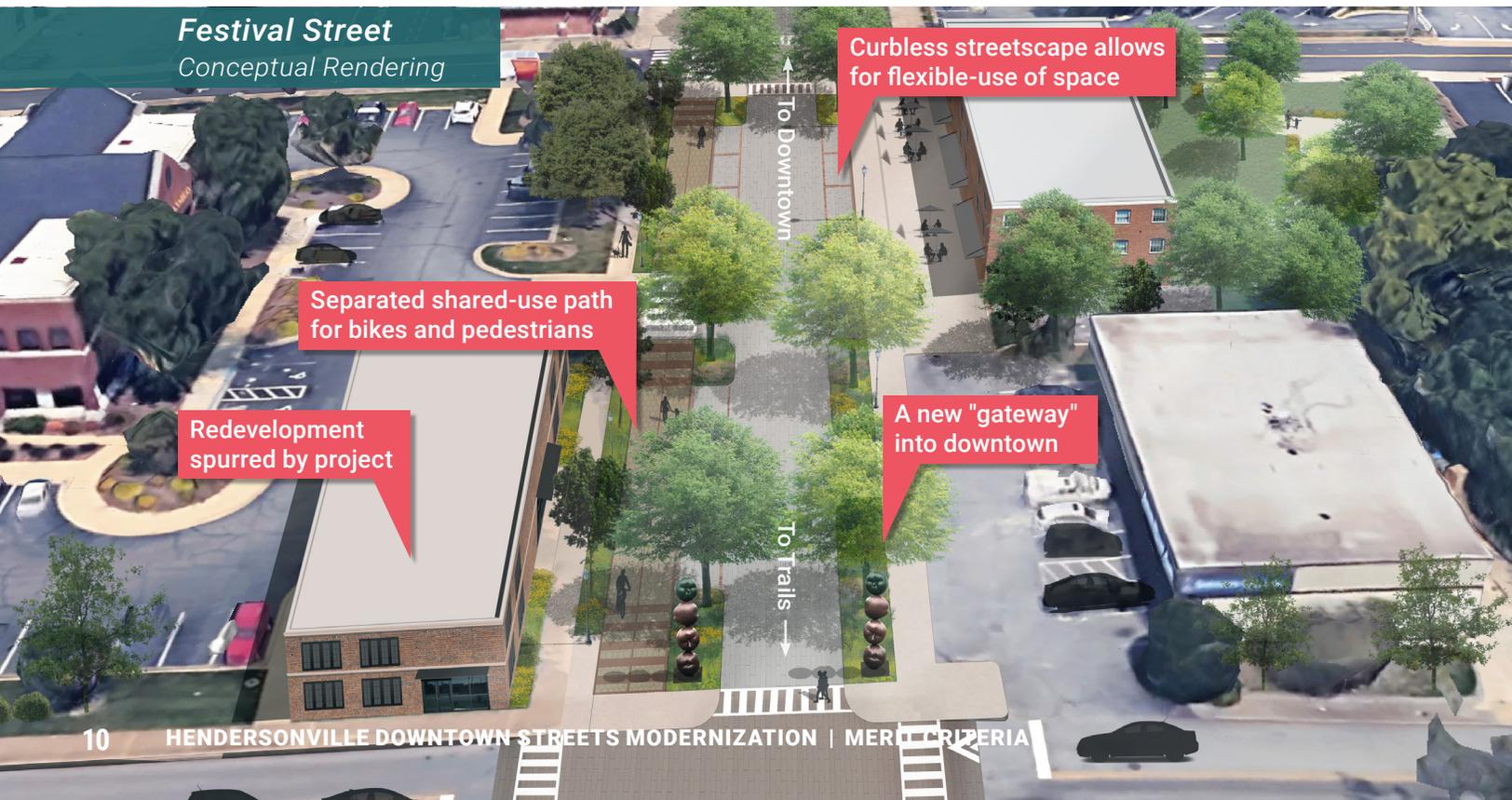
People living in the project area who are disabled or do not own a vehicle rely

on public transit to access destinations outside of downtown, including Pardee Hospital. The 2024 Henderson County Transit Feasibility Study identified southeast Hendersonville as an area with a high population of people in poverty who are in need of reliable access to transit.<sup>1</sup>

The Hendersonville Downtown Streets Modernization Project improves walking and biking access to stops serving all three existing Apple Country Public Transit fixed-route services and would provide last-mile service to many destinations. When surveyed, 40% of respondents said they would use public transit to travel to work if services were available, despite 60% of those respondents not currently using public transit.<sup>2</sup> This underlines a strong local and regional desire for expanded multimodal options.

1 Henderson County Transit Feasibility Study Executive Summary, pg 6.

2 French Broad River MPO Regional Transit Feasibility Study [frenchbroadrivermpo.org/wp-content/uploads/2022/01/FBRMPO-Regional-Transit-Plan-Final-Report\\_August-2021.pdf](https://frenchbroadrivermpo.org/wp-content/uploads/2022/01/FBRMPO-Regional-Transit-Plan-Final-Report_August-2021.pdf)



## e. | Economic Competitiveness + Opportunity

- *Primary project purpose.*
- *Brings increased customer traffic to the nearly 120 local businesses fronting the complete 1.4-mile corridor.*
- *Supports Downtown events that collectively draw over 300,000 visitors annually and contribute to \$265.57 in tax savings per Henderson County resident.<sup>3</sup>*
- *No impacts to freight.*

### e.1 | CHALLENGE: Fragmented and disconnected cultural and recreational assets limit potential growth from tourism.

The Oklawaha Greenway and Ecusta Trail are valuable recreational assets with peak 24-hour usage nearing 600 and 2,000 users per day, respectively, but their lack of connection to each other and Hendersonville's downtown business districts limits their local and regional economic potential.

### e.1 | SOLUTION: Facilitate recreational tourism opportunities by connecting historic and revitalized parts of the City with a regional multimodal network.

By providing a continuous multimodal link between two popular regional trails, the Hendersonville Downtown Streets Modernization Project will infuse Hendersonville with recreational tourism opportunities as local and visiting trail users will be better connected to downtown business districts. Locally, the Ecusta Trail is projected to yield nearly \$10 million

in annual benefits from tourism, health care cost savings, and property value tax revenues.<sup>4</sup> This project connecting the Ecusta Trail and Oklawaha Greenway will result in over 23 miles of continuous multimodal infrastructure, meaning that even more economic benefits will be realized than just those accruing due to the Ecusta alone.

The project will produce economic benefits by bringing trail users, visitors, and residents to businesses' front doors. The multimodal spurs of 7th Avenue and South Main Street will serve as gateways to the heart of downtown Hendersonville's thriving business district: North Main Street's local restaurants, shops, museums, and accommodations. Creating the ability to easily reach North Main Street on foot or by bike via 7th Avenue and South Main Street will help support existing businesses and will catalyze economic growth, translating to reliable business operations and long-term economic stability.

The annual Apple Festival held on North Main Street every Labor Day weekend draws over 200,000 attendees and contributes over \$12 million to the local economy.<sup>5</sup> The city has reimagined South Main Street as a pedestrian-oriented Festival Street that can be temporarily closed off to vehicular traffic, extending the welcoming and family-friendly environment of North Main Street to create even more space for festival and event attendees who will spend money at local businesses and purchase local goods.

<sup>4</sup> Ecusta Rail Trail Master Plan and Economic Impact Analysis [hendersonvillenc.gov/community-development/ecusta-rail-trail-planning-study-economic-impact-analysis](https://hendersonvillenc.gov/community-development/ecusta-rail-trail-planning-study-economic-impact-analysis)

<sup>5</sup> [ncapplefestival.org/get-involved/](https://ncapplefestival.org/get-involved/)

<sup>3</sup> 2023 Annual Tourism Report. [visithendersonvillenc.org/wp-content/uploads/2023-Annual-Tourism-Report.pdf](https://visithendersonvillenc.org/wp-content/uploads/2023-Annual-Tourism-Report.pdf)

**e.2 | CHALLENGE: Lack of investment in historic communities and idle commercial districts.**

South Main Street is an aging commercial corridor that largely consists of non-historical commercial buildings, underutilized surface parking lots, and empty parcels. Visitation to North Main Street – a Complete Street – is much higher, whereas South Main Street’s businesses are disconnected from neighborhoods and are not as attractive to pedestrians and bicyclists.

In 1967, the widening and realignment of US Highway 64 improved traffic flow between downtown Hendersonville and Interstate Highway 26 but effectively divided a thriving historic neighborhood. The construction of US 64 and the Green Meadows housing development displaced many former residents and has contributed to disparities and divestment on either side of 7th Avenue that are evident today.

**e.2 | SOLUTION: Promote local economic growth through the reactivation of neglected corridors through renewed investment.**

The Hendersonville Downtown Streets Modernization Project promotes balanced and local long-term growth through renewed investment in historic neighborhoods and idle commercial districts. By improving multimodal connections to 7th Avenue and South Main Street, and by connecting those two corridors to a regionally-significant trail network, the project will support existing neighborhood businesses and attract new business opportunities.

To support a healthy mix of businesses, the

City created the Downtown Hendersonville Opportunity Fund to loan capital to local entrepreneurs. Since 2023, the program has provided loan capital for businesses in the project area. In addition, this provides an opportunity for wealth building, networking, and training of local business owners. Studies have shown the significant economic benefits of bicycle and pedestrian infrastructure investments. The Institute for Transportation Research has found that greenways increase property values, local spending on food, equipment, and lodging.<sup>1</sup> A study by the Urban Land Institute found that businesses count outdoor recreational amenities, including greenways, as key factors when locating to a new area as they are attractive to prospective workers and help with staff retention.<sup>2</sup> Research has also shown that high quality multimodal improvements can activate local businesses by encouraging pedestrian visitation and making places more attractive for patrons.<sup>3</sup>

1 Institute for Transportation Research and Education, Evaluating the Economic Contribution of Shared Use Paths in NC. 2017.  
<https://www.itre.org/wp-content/uploads/2017/07/evaluating-economic-impact.pdf>

2 Midtown Greenway Case Study. Minneapolis, MN. Urban Land Institute.  
<https://www.uli.org/wp-content/uploads/2016/06/Case-Study-Midtown-Greenway.pdf>

3 Hass-Klau C., Impact of pedestrianisation and traffic calming on retailing, A review of the evidence from Germany and the UK. Transport Policy. 1: 21-31, 1993.

## f. | State of Good Repair

- *Modernizes and addresses vulnerabilities of key Downtown transportation infrastructure.*
- *Reduces long-term roadway maintenance costs by increasing resilience and decreasing VMT, leading to an estimated \$22,700 in state-of-good-repair benefits over the analysis period.*

### f.1 | CHALLENGE: Aging roadways and abandoned rail lines are barriers to safe and convenient access to everyday amenities.

Everyday use of roadways degrades road surfaces and roadway components, such as curbs, gutters, and striping. Ongoing maintenance costs, including resurfacing, restriping, pothole repair, and work on underground utilities, all factor into the combined cost of keeping roadways in a state of good repair. The 7th Avenue and South Main Street corridors are due for reconstruction, as evidenced by eroded and heaving sidewalks, road surface disintegration, crumbling curb and gutters, non-ADA compliant curb ramps, and recent damage associated with flooding during Hurricane Helene. Two WATCO freight rail lines that are used for rail car storage or were in active service have fallen into disrepair and stand as transportation barriers, particularly on 7th Avenue.

### f.1 | SOLUTION: Restore and modernize roadway infrastructure by leveraging reconstruction timelines and unused corridors to improve multimodal connectivity.

Roadway reconstructions offer timely opportunities to restore and modernize

corridors for roadway users and nearby residents and businesses. Both 7th Avenue and South Main Street employ Complete Streets approaches to make these roadways safer for all modes. The project's streetscape components include modern elements such as new and upgraded signals, new and upgraded street lighting, ADA improvements, pedestrian crossing improvements (including pedestrian signals with leading pedestrian intervals and curb extensions), bike lanes, and stormwater infrastructure.

This project will **better manage local traffic volumes by right-sizing South Main Street**, which will encourage through traffic to follow more efficient parallel arterial routes on Washington Street and King Streets. Walking, biking, and rolling to local destinations can lower the rate of local roadway degradation and overall congestion. A projected decrease of 233,300 miles traveled by vehicle directly resulting from the Hendersonville Downtown Streets Modernization project will reduce roadway maintenance costs by \$23,000 over a 20-year period.

### f.2 | CHALLENGE: Flooding impacts on infrastructure.

Regular flooding, as well as extraordinary flood events like Hurricane Helene in 2024, negatively impact low-lying infrastructure such as South Main Street. Upstream impervious surfaces, including outdated roadways, exacerbate downstream flooding.

**f.2 | SOLUTION: Address transportation system vulnerabilities by building more flood-resilient roadways and trails.**

President Trump witnessed the destruction of Hurricane Helene in nearby Asheville and Fletcher in January of 2025 and promised to rebuild Western North Carolina.

In urban watersheds, infiltration trenches are the most effective stormwater best management practice for mitigating impacts of flooding across a range of climate scenarios and are capable of **peak discharge reductions of 13% and flood reduction volumes of 28%, on average.**<sup>1</sup>

7th Avenue and South Main Street will employ stormwater BMPs like permeable and suspended pavement systems, tree trenches and new street trees, bioretention areas, and native plantings to help mitigate runoff and minimize adverse effects on adjacent and downstream infrastructure.

**Permeable paving and planted amenity zones reduce impervious surface area**

<sup>1</sup> Evaluating the Effectiveness of Best Management Practices in Adapting the Impacts of Climate Change-Induced Urban Flooding." Amrit Bhusal et al. Atmosphere. 2025. [mdpi.com/2073-4433/15/3/281](https://doi.org/10.3390/atmos15030281)

**on South Main Street by 49,000 square feet**, further reducing corridor runoff and downstream impacts, which contribute to the accelerated erosion of roads and infrastructure.

All Hendersonville Downtown Streets Modernization project components are designed to serve users of all ages and abilities, all while adapting to flooding events, addressing both upstream and downstream infrastructure impacts, and reducing future repair and maintenance costs.

**g. | Partnership + Collaboration**

The Downtown Streets Modernization project grew out of a desire to better connect residents with local amenities by walking and biking. The project relies on local, regional, and statewide partnerships and collaborative processes for consensus-building and successful project delivery (see Table 3: Key Partners). Partners including the French Broad River MPO, NC

TABLE 3: KEY PARTNERS

PARTNER NAME	TYPE	ROLE AND BENEFIT TO PROJECT
 <p>City of Hendersonville</p>	Local government	The <b>City is the grant applicant and will be responsible for maintenance</b> of the project components.
 <p>Henderson County</p>	County government	<b>Will work with the City</b> during design of the project to ensure the needs of local residents and park users are met.
 <p>French Broad River MPO</p>	Regional planning organization	The French Broad River MPO is an important regional planning partner, closely <b>consulting on plans and studies central to this project.</b>
 <p>NC Department of Transportation</p>	State DOT	<b>NCDOT will provide project administration</b> , bringing broad experience managing federal funds, as well as staffing and resources.

Department of Transportation, Henderson County, advocacy groups, and community members have collaborated with the City on previous grants, studies, and plans related to the project.

Engagement for this project occurred via public meetings, project-specific websites, pop-up engagements, targeted outreach in historic neighborhoods (7th Avenue residents and businesses are priority audiences), workshops, demonstration projects, and surveys. Asynchronous and virtual options for attendance and participation were provided where possible. The City will continue to engage stakeholders during all project phases to obtain meaningful feedback.

The 7th Avenue component of this project uses active grade detection at the improved railroad crossing, which will require close collaboration with Blue Ridge Southern.

### **Organizational Support**

This project has received **nearly 50 letters of support**, which are included in this application package and can also be viewed on the project website at [www.hvInc.gov/Build2026](http://www.hvInc.gov/Build2026).

## **h. | Innovation**

The Hendersonville Downtown Streets Modernization project will implement innovative technologies, funding, and project management methods. The project demonstrates scalable innovation for small and mid-sized communities by integrating advanced stormwater systems, real-time monitoring, and flexible street design in a resource-constrained context, creating a

replicable model for rural and small urban areas nationwide.

### **Innovative Technologies**

- Stormwater best management practices (BMP) and Low Impact Design (LID) elements
- Tree trenches with suspended pavement systems, permeable pavers, and native-planted bioretention areas that capture stormwater runoff
- Proven safety countermeasures, such as RRFBs, dedicated pedestrian and bike facilities, crosswalk visibility enhancements, leading pedestrian intervals, lighting, and curb extensions
- Active flood level monitoring gauges will make decision-making around closures and maintenance more responsive and efficient for critical transportation routes via the State Flood Inundation Mapping and Alert Network (FIMAN)
- City trucks with onboard work order systems to manage maintenance needs
- Post-construction monitoring sensors providing realtime feedback

### **Innovative Finance and Project Delivery**

Public-private partnerships financing of this project has taken an innovative approach. The backing of several non-profits who can fundraise millions of dollars, NCDOT, and local government, creates a solid front for funding success. As administrator of the project, NCDOT will use advanced management of programs and delivery processes to ensure funds are properly administered, and to streamline all phases of the project.

# 04 PROJECT READINESS

## Planning + Constructibility

### Listed on Statewide Transportation Plans

These two project components were submitted as part of a larger bundle of projects, the Above the Mud Greenway Connector, to the SPOT 8.0 prioritization process for the FBRMPO TIP and the NCDOT STIP. They scored high and will likely be included in the 2027 STIP.

### Consistency with Other Plans

The following plans identify one or more project components:

- **Hendersonville “Gen H” Comprehensive Plan (2024)** - Both corridors are included in the Downtown Master Plan section of the document, and South Main Street is in the Safe Streets and Trails short-term project portfolio.
- **Above the Mud Greenway Feasibility Study (2024)** - This study explored potential connections to downtown along both components of this application.
- **Parks & Greenspace Master Plan (2024)** - This city-wide Plan identified pedestrian connectivity along 7th Ave as a priority project and included concepts for the S Main Festival Street.
- **Hendersonville Sustainability Strategic Plan (2024)** - The 7th Avenue component is ranked highest among bicycle project recommendations.
- **Hendersonville “Walk Hendo” Pedestrian Plan (2023)** - South Main

Street ranked highest among all priority projects listed in the Pedestrian Plan.

- **Hendersonville Bicycle Plan (2017)** - The 7th Avenue component of this project ranked highest among all priority projects listed in the Plan.

### Freight Plans

This project is not a freight project and is not included in the State Freight Plan. There will be no impacts to freight as a result of project implementation.

### Property Acquisition / Right-of-Way

The 7th Avenue and South Main Street components will be in public ROW and will only need temporary easements for minor construction impacts, including driveway adjustment tiebacks and cut and fill beyond the ROW.

## Proposed Schedule

The project is shovel-ready and will be delivered in one phase. Both project components have completed the planning and concept design phase, with design work ready to begin once funding is available. See Fig. 1, Proposed Schedule and Phasing.

In the project estimate, BUILD funds are allocated for preliminary and final design (including environmental and NEPA), ROW acquisition, construction, construction inspection & management, and administration.

# CONSTRUCTION TECHNIQUES AND PHASING

This project does not require non-standard project delivery methods or phasing. The project does incorporate stormwater best management practices and the City has successfully constructed projects that feature these stormwater elements.

# NEPA AND PERMITTING

An overview of current and needed NEPA:

- NEPA Class of Action: No previous

NEPA class of action is associated with this project and the project is anticipated to meet the criteria for Categorical Exclusion, Level 1, satisfying NEPA requirements.

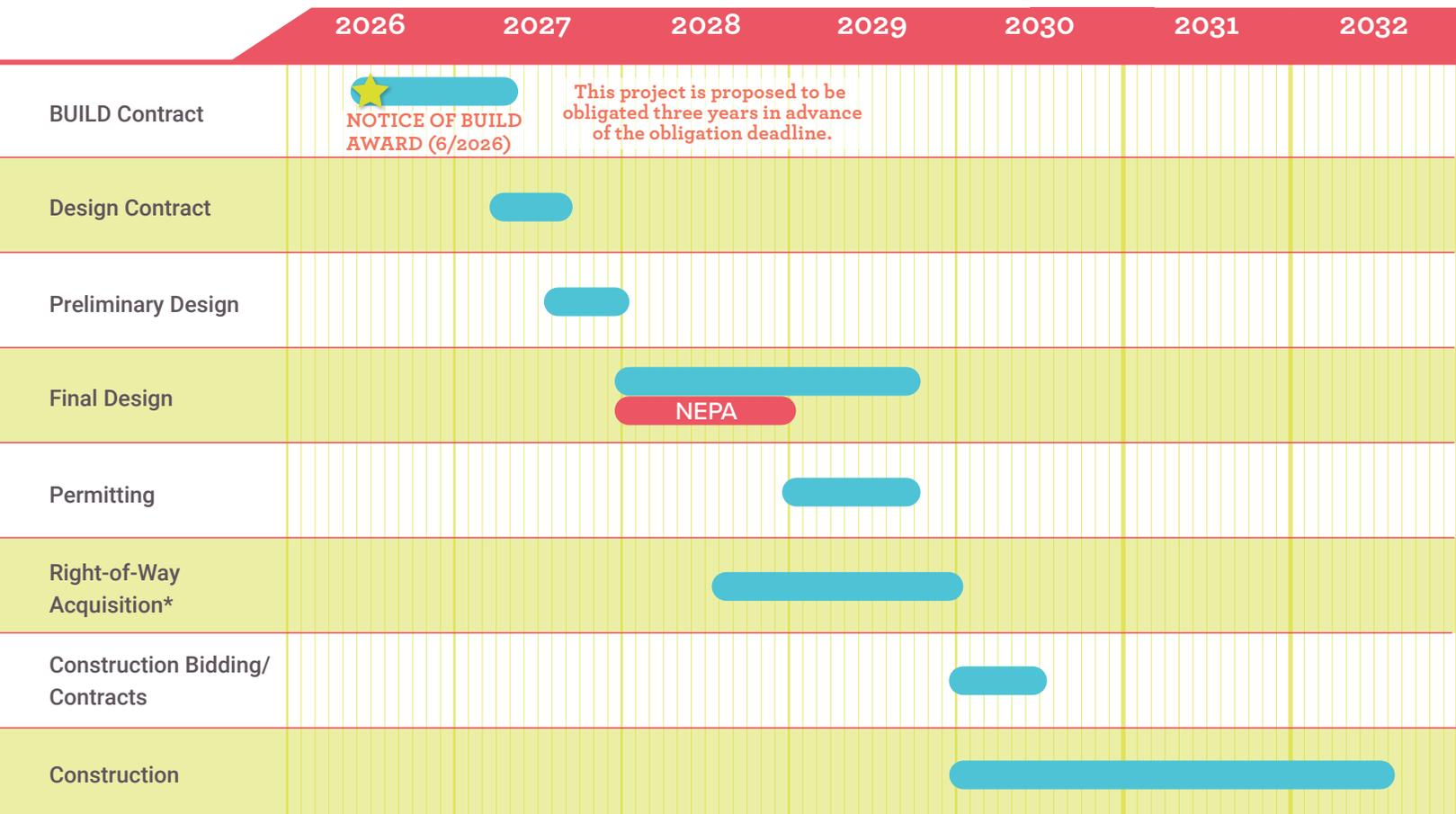
- **NEPA Status and Milestones:** The NEPA process for this project is not started, underway, or complete, because the project is anticipated to meet the criteria for Categorical Exclusion, Level 1, to satisfy NEPA requirements.
- **Link to NEPA Documentation:** N/A
- **Reevaluation and Post-Approval Changes:** N/A

TABLE 1: PROPOSED SCHEDULE AND PHASING

 **Project Components 1 & 2:**  
South Main Street (Festival Street) +  
7<sup>th</sup> Avenue Streetscape Improvements

 **Milestone Date**

*\*ROW acquisition will be limited to temporary construction easements, as entirety of project will be within publicly owned properties*



## Permits and Approvals

Anticipated permit requirements include Categorical Exclusion, Level 1a or 1b, NCDEQ NPDES General Permit, Floodplain Development Permit (City of Hendersonville with “No Rise” and/or CLOMR/LOMR), and NCDOT Encroachment Permits.

## Coordination with DOT/Lead Agency for NEPA

One NCDOT roadway may be impacted. South Main Street may have minor impacts on S King St (US Rt 25). These impacts will require an NCDOT encroachment permit. As the manager of the BUILD grant, NCDOT can also be the coordinating agency for NEPA.

## PROJECT SUPPORT

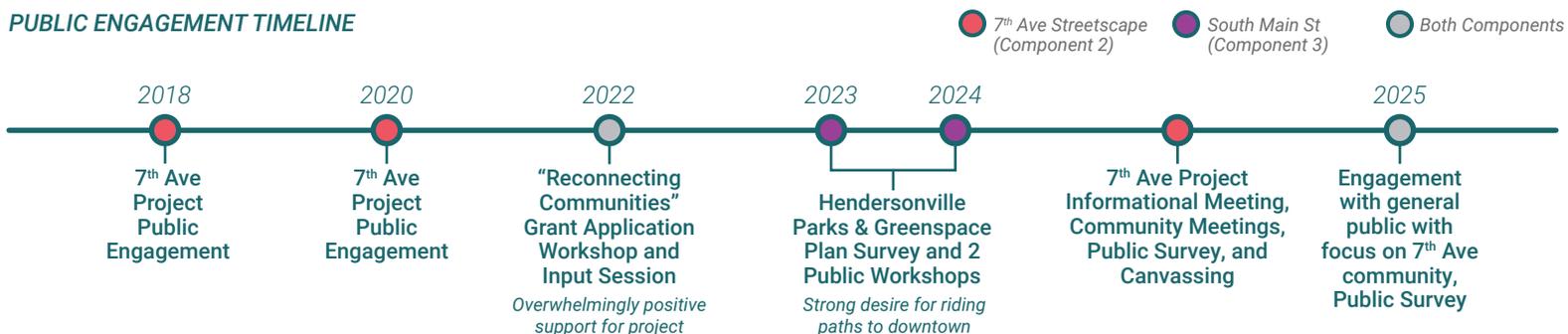
The project is supported by over a decade of previous planning efforts, studies, and public engagement showing strong technical feasibility and public support. Plans, studies, and built work that featured, prioritized, and garnered public support are listed in the Project Description chapter.

In addition, the City has committed to expediting design and permitting as well as funding \$2.8 million of the project cost, a 13% share, even though no match is technically required. This is an increase from the 6% match included in the 2025 Above the Mud BUILD grant application submitted by the City, which was a designated Project of Merit.

## Public and Agency Involvement Process

Planning efforts consistently engaged the public to maximize positive project outcomes for Hendersonville residents, business owners, and visitors. Engagement formats included public meetings; public websites with project information, updates, and surveys; pop-up engagements at existing community events; targeted outreach in historic neighborhoods (especially for 7th Avenue) adjacent to project components; local business outreach and support. Overall support has been strong for each component in this proposed project. For a full timeline of public engagement, see the Project Description section.

### PUBLIC ENGAGEMENT TIMELINE



## Public and Agency Involvement Results

Over 580 members of the public have been engaged in this grant, with over 95% in support of the project components on average (see Community Support section). A summary of public engagement from the different planning processes is available on the project website at [www.hvlnc.gov/Build2026](http://www.hvlnc.gov/Build2026).

## Letters of Support

Nearly 50 organizations have submitted letters of support for the project. These letters were submitted as part of this application package and can also be viewed on the project website at [www.hvlnc.gov/Build2026](http://www.hvlnc.gov/Build2026).

# RISKS AND MITIGATION

## Procurement Delays

The City and NCDOT have extensive experience with procurement and are confident in their ability to manage delays.

## Project Risk Review

The following risks and mitigation strategies include:

- **Hazardous Waste sites:** The project is anticipated to meet the criteria for Categorical Exclusion, Level 1, to satisfy NEPA requirements. No components of the project include brownfield sites. Component 2 (7<sup>th</sup> Avenue) permanent access components will be designed within the existing public ROW, which is adjacent to a privately-owned site that was part of the NC DEQ Drycleaning

Remediation Program and was issued a “No Further Action” determination in 2011 (Blue Ridge Cleaners).

## Cost and Local Match

This project borrows from planning and bid-level cost estimates of previous plans, studies, and construction projects and has been updated by City staff and engineering consultants to reflect refined designs and present NCDOT bid data. The City has dedicated \$2,800,000 in local match for utility, sidewalk, and ADA improvements in conjunction with South Main Street and 7th Avenue.

## Impacted Communities

The project is not expected to negatively impact local or regional communities and is supported by over a decade of previous and ongoing planning efforts, studies, and public engagement showing strong support among local, regional, and state partners; local and regional advocacy groups; local business owners; and the public. Prior concerns such as the risk of displacement or reduced traffic to local businesses during construction, have been addressed via project design changes and construction-phasing to accommodate businesses.

## Legislative Approval

This project was approved by a resolution passed by Hendersonville City Council on February 5th, 2026 and is not expected to carry additional risks related to legislative approvals. The city council has also passed a resolution ensuring support for the project and dedicated match.

## APPLICANT CAPACITY

NCDOT will serve as grant administrator for the project, having broad experience managing federal grant funds and projects. The City will support their project management with involvement in the construction processes. NCDOT will ensure project tracking and overall compliance.

### Federal Funding Experience + Regulations

Both NCDOT and the City have experience managing federally funded projects. NCDOT has managed several BUILD grants and the City’s federally funded grant projects include the New Freedom and ARPA

TABLE 2: CITY FEDERAL FUNDS EXPERIENCE

#### FHWA / SAFETEA-LU / New Freedom

Oklawaha Greenway	2002, 2009, 2017
Clear Creek Greenway	Ongoing
US 64 Sidewalks	2017

#### ARPA / LASII

Lower Mud Creek Flood Mitigation	Ongoing
Wastewater Treatment Facility Improvements	2024, 2025

#### US EPA State Revolving Funds / 319

Jackson Park Sewer Interceptor	2015
Wolfpen Sewer Interceptor	2015
Shepherd Creek Sewer Improvements	2016
Patton Park Stormwater Retrofit	2020
7th Ave Streetscape Stormwater (Phase 1)	2024
Fire Station 1 Green Infrastructure	2024
Sullivan Park Stream Restoration	2024
Multi-Area Streambank Restoration	2022
Mud Creek Interceptor	Ongoing
Ashe/4th Water & Sewer Improvements	Ongoing
French Broad River Intake & Pumping Station	Ongoing

#### HUD CDBG

Grey Hosiery Mill	2020
7th Ave Area Home Repair / Sidewalk	Ongoing

#### USDA Rural Development

Hendersonville Police Headquarters	2021
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funded projects and multiple phases of the Oklawaha Greenway (see Table 2). NCDOT and the City are familiar with federal procurement requirements, Buy America, ADA requirements, Title VI/Civil Rights, and the Davis Bacon Act. The Uniform Relocation Assistance and Real Property Acquisition is not applicable.

### Project Planning and Delivery

The City regularly works with the French Broad River MPO to incorporate projects into their planning process. The City recently completed the first phase of the 7th Avenue Streetscape Project and the size, scope, and complexity of the 7th Avenue component of this project (Component 2) is similar. North Main Street was completed in 2013 and the size, scope, and complexity for the South Main (Festival) Street component of this project is generally lower.