ACTIVE WEAVERVILLE

Town of Weaverville, NC

# 2023
# Pedestrian and Bicycle Plan

*Town of Weaverville, NC*

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### Town Council Adoption Date

June 26, 2023

Integrated Mobility Division
N.C. DEPARTMENT OF TRANSPORTATION

Est. 1989

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# ACKNOWLEDGMENTS

The following individuals had the vision to initiate and craft this Plan. A plan like Active Weaverville represents many hours of effort from volunteers, residents, visitors, Town staff, elected officials, and community partners. Active Weaverville was created by these individuals for everyone who uses its streets, greenways and parks. We sincerely appreciate all of those who were a part of the development of this Plan and who reflected their passion and care for the community in these pages.

## The many residents and visitors of Weaverville

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# INTRODUCTION

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# INTRODUCTION

*"Weaverville has great potential to improve pedestrian and biker access. It's ideal for this type of transportation." – Survey Respondent*

## PROJECT BACKGROUND

For a relatively small town, Weaverville has a strong network of sidewalks and low-volume neighborhood streets that encourage walking and biking. The pedestrian and bicycle network is anchored by downtown and by the bustling Lake Louise Park; many people seek these destinations on foot and bike, while others simply stroll and cruise the Town's streets as they seek recreation and transportation opportunities. Yet there are other destinations that people walking and biking desire to reach, largely encompassed by areas of new development and residential growth. As a community that values walking and bicycling, Weaverville seeks opportunities to improve the existing system and to identify ways to provide new key connections.

Within this framework, in 2020, the Town applied to the NCDOT Integrated Mobility Division for a Bicycle and Pedestrian Planning Grant. They were awarded funds for such a project and in 2021, Active Weaverville took form.

## PLAN PURPOSE & APPROACH

The purpose of Active Weaverville is to develop a plan that: connects key locations for people walking and biking; builds these connections into a network that the Town can develop; and builds a bicycle and pedestrian friendly Weaverville through programs and policies.

An Action Plan such as this strives to answer four key questions, which is the foundation of this plan's approach:

1. **Where are we now?** Reviewed under Chapter 2, Current Conditions.
2. **Where are we going?** Discussed in Chapters 3 and 4, Pedestrian and Bicycle Network Plan and Recommended Programs and Policies.
3. **How do we get there?** Outlined in Chapter 5, the Implementation Plan.
4. **How do we measure success?** Also presented in Chapter 5.

# WEAVERVILLE IS

*an* **ACTIVE COMMUNITY** *where people of all ages and abilities can* **COMFORTABLY WALK AND BIKE** *for transportation; and where* **BUSINESSES THRIVE** *thanks to local and regional multimodal connections.*

*Weaverville's greenways, sidewalks and other multimodal connectors* **BRING PEOPLE TOGETHER** *and contribute to quality of life.*

## VISION & GOALS

Vision and goals statements are helpful for planning projects such as Active Weaverville as it provides focus to the Plan as it is developed. A vision statement is aspirational and is typically interpreted as an individual, in the future, speaking about their present-day.

The following goals set the foundation for this Plan:

- **Connect the Network:** Link sidewalks, greenways, bike facilities and street crossings to downtown, Lake Louise and Weaver Boulevard.
- **Build Safe Streets:** Develop connections that are comfortable for people of all ages and abilities
- **Foster Safe Speeds:** Identify projects that calm traffic to support comfort for people walking and biking
- **Improve Policy:** Provide a framework to determine when sidewalks, greenways or other multimodal improvements are required with land development
- **Promote a Culture of Walking and Biking:** Develop educational and encouragement programs that create a culture where walking and biking is celebrated

In this Plan, as the recommendations were developed, these five goals were used as a checkpoint of stated community desires, and they served as the foundation of the Action Plan.

## WHY THIS PLAN IS IMPORTANT

Building walk and bicycle friendly communities has certainly become more commonplace in the US over the last decade, and for good reason. The return on investment from multimodal programs and infrastructure is significant; walking is great for communities large and small, urban and rural, and everything in between. These benefits are not just at the community level but also for individual's quality of life. In a community like Weaverville, where there is a strong sidewalk system and great desire for expansion, these benefits are especially meaningful, and the impacts significant. These benefits are described in the following.

*Image 1. Avid Pedestrians Abound in Weaverville.*

*According to AAA, aging adults are* **outliving their ability to drive** *safely by 7-10 years*

**$9,666**

*The average annual cost to own and operate a vehicle in the U.S.**

**According to AAA, in 2021 it Cost $9,666/Year to Own and Drive a Car. (Source: AAA)*

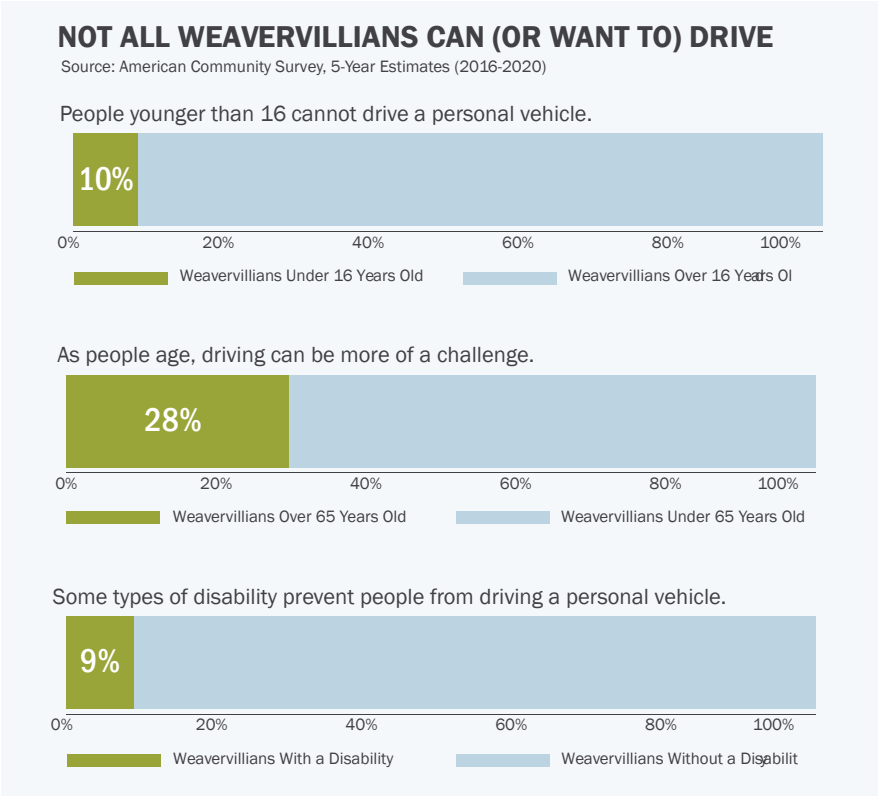


Figure 1. Barriers to Driving Include Age and Disability. (Source: U.S. Census)

## Mobility for People Walking

A person walking is the fundamental transportation system user and is the baseline for any system. By planning for people walking, we are planning for all users, including the most vulnerable: young, elderly, and disabled. Walking provides quick and convenient access and is the most affordable transportation mode. In addition, walking is a part of every trip. Whether a person chose walking, bicycling, transit or personal vehicle as their primary mode of transportation, each trip began and ended as a pedestrian. **Mobility for people walking is the common denominator to any community's transportation system**.

## Mobility for People Biking

Similar to walking, bicycling provides quick and convenient access to destinations. A bicycle provides a user the option to travel farther than they can on foot, thereby increasing mobility for short trips. A bicycle is more affordable than a vehicle, and bicycling does not require a license to use. Efficiencies are gained for people traveling by bicycle while still offering an affordable, accessible option of transportation.

## Equity: Driving Isn't an Option for Everyone

Travel by vehicle isn't an option for everyone. Many people are physically unable to drive a vehicle, cannot afford the onerous costs of car ownership (in 2021, it cost $9,666/year to own a car), or choose to not drive for other reasons.[i] Socio-economic factors such as age, disability, race and income all impact transportation choice. According to AAA, aging adults are outliving

their ability to drive safely by 7-10 years.[ii] Providing transportation options and access for these individuals can mean freedom of movement, which translates as significant benefits to the health of the individual and community.

## The Benefits

These data and findings all point to the importance of walking and bicycling for quality of life. Mobility for people walking and bicycling out of necessity is critical for access to jobs, healthcare, resources and their community. This freedom of mobility choice is powerful for the individual and the community they thrive in.

### Safety

When roads are designed to be safe and accommodating for people walking and biking, they become safer for all transportation users.[iii] By designing for these baseline users, communities can build safe transportation systems that everyone deserves.

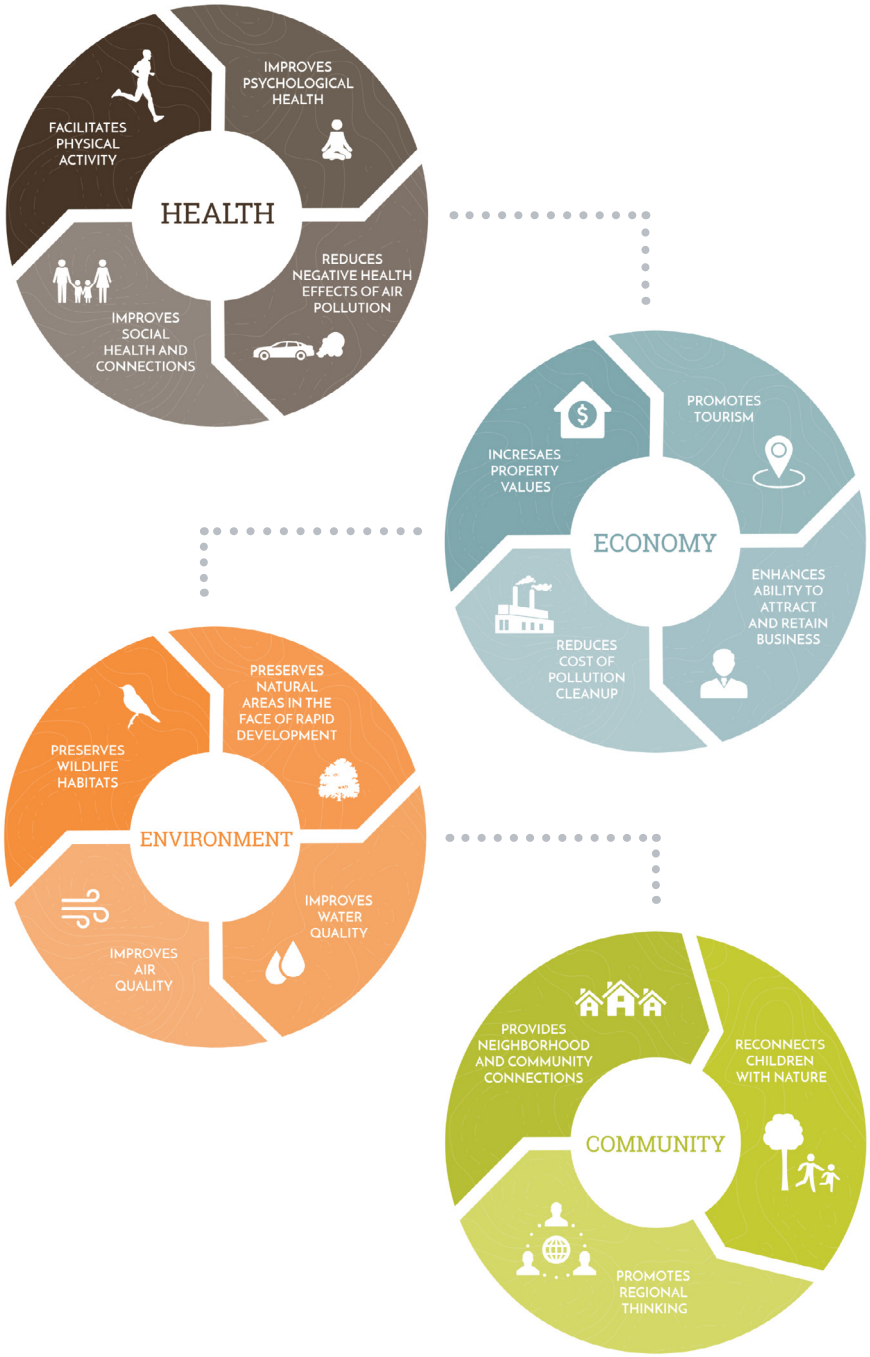


Figure 2. The Many Benefits of Bicycling and Walking Infrastructure to Ourselves and Communities (Source: Carolina Thread Trail)

### *Vulnerable Users*

People walking and bicycling are known as vulnerable users of our streets given the inherent fact that they are not protected by a vehicle if involved in a collision with a car. These users are also vulnerable because they are disproportionately represented in crashes, a trend that has been increasing consistently for over a decade. Figure 3, encompassing data from National Highway Traffic Safety Administration (NHTSA), underscores this issue. In 2019, on average, a person walking was killed every 85 minutes in traffic crashes in the US. This comprises 17% of the total traffic fatalities.[iv] In 2019 there were 846 fatalities involving a person on a bike, or 2.3 percent of all traffic fatalities during the year.[v]

Speed is a major contributor to increasing both the likelihood that a crash will happen and that the crash will be severe in nature. Increased injury severity is a certainty for people walking or bicycling who are struck by a person driving at higher speeds. A person walking has a 13% likelihood of suffering a severe injury or death when struck by a person driving at 20 mph, compared to a 73% likelihood of severe injury or death when struck by a person driving at 40 miles per hour (mph).[vi] Focusing on driver speed is a critical path to addressing severe injuries and fatalities involving people walking and biking.

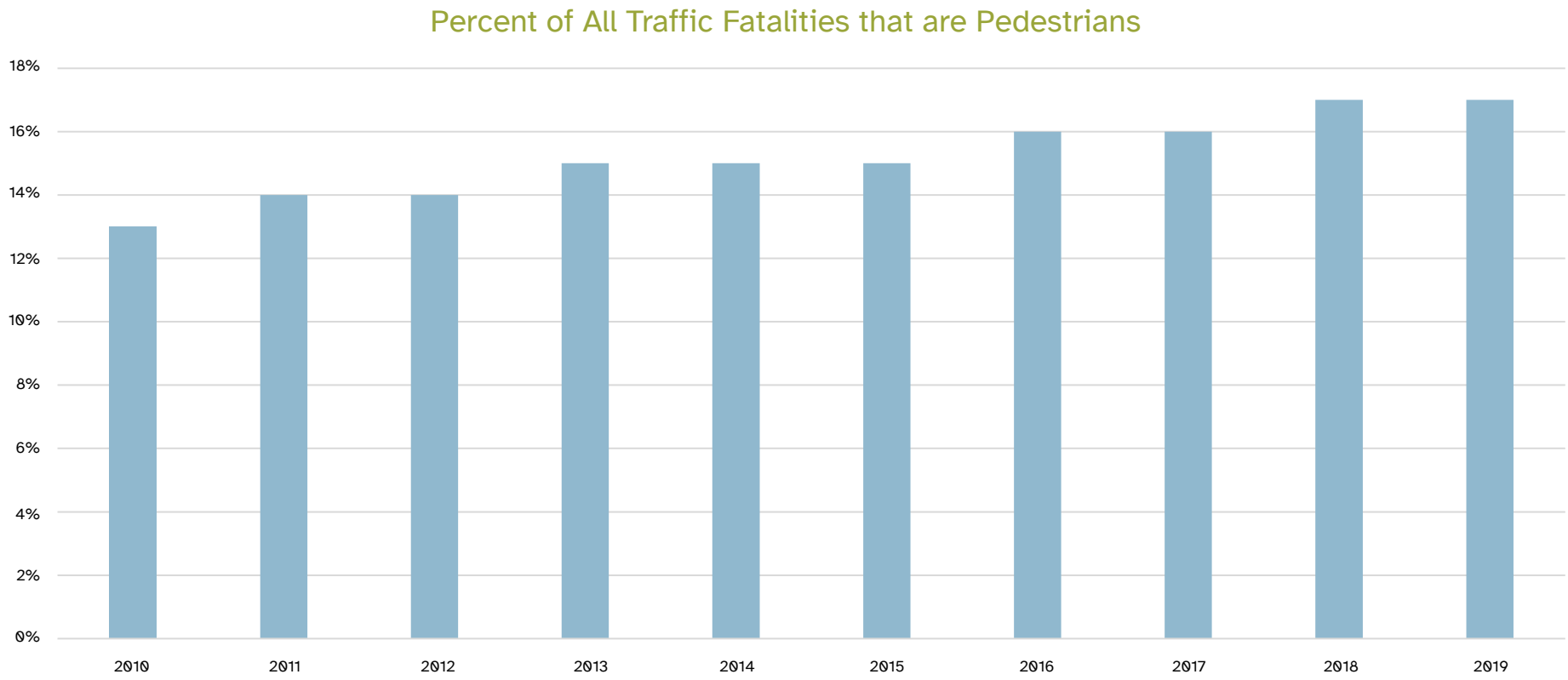


Figure 3. Percent of All Traffic Fatalities that are Pedestrians (Source: NHTSA)

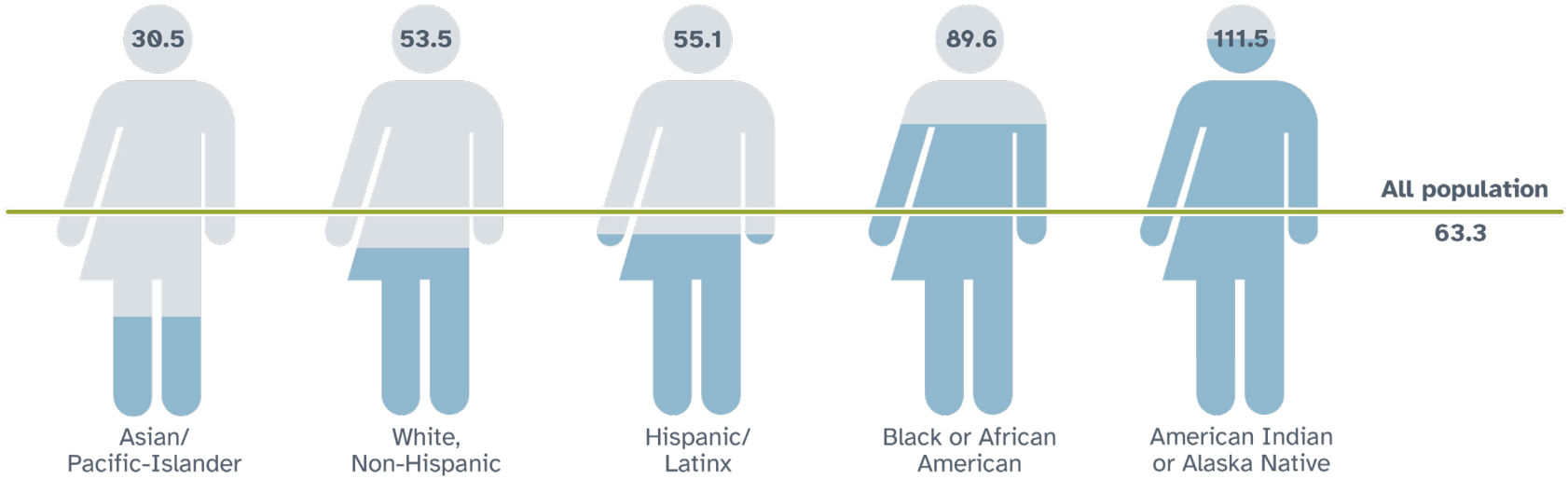


Figure 4. Relative Pedestrian Danger by Race and Ethnicity (2010-2019) (Source: Dangerous by Design 2021)
*The Numbers Refer to Relative Risk Relative to the Overall Population, So Values Above 63.3 have Significantly Higher Risk Than Those Below.*

According to the 2021 publication Dangerous by Design, between 2010 and 2019, there was a 45% increase in traffic fatalities on our nation's roadways. Nationally, people of color die while walking at higher rates when compared to white, non-Hispanic, Asian and Pacific-Islander people. Figure 4 underscores this disparity.[vii]

According to data presented from NC Vision Zero, a statewide initiative to reduce fatalities and serious injuries using data-driven prevention strategies, there were 256 people killed while walking in North Carolina in 2021 (a 4% increase from 2020). In 2021 in North Carolina, 4,954 people walking and 1,394 people biking were involved in collisions with vehicles.[viii] The current conditions section of this report explores these statistics for Weaverville in further detail.


Figure 5. Campaign Materials from the NC Vision Zero Program.

*Solution: Safety in Numbers*

Although these findings present significant challenges, there are proven solutions at hand. There is an observed and well-documented pattern in traffic safety known as "safety in numbers."[ix] This concept reveals that the more people that travel by walking (and biking), the safer conditions become. As will be explored in the following sections, numerous individual and community benefits result when more people walk.

## Health

In addition to safety, another critical reason to develop walk and bicycle friendly communities is health. There are several related health outcomes to bicycling and walking.

The Centers for Disease Control found that adults reap substantial health benefits from just 20-25 minutes a day of physical activity, and these benefits increase even more with 40-45 minutes a day of activity. However, currently only half of the adults living in the US meet the recommended levels of physical activity. For children, this target should be around 60 minutes/day. Walking alone is proven to offer numerous health benefits for the brain, heart, and physical health, including a reduction in chronic disease, heart disease and some cancers. The CDC offers several strategies that promote healthy living by modifying the built environment to provide walking and biking opportunities. Their program 'Active People, Healthy Nation' addresses these strategies.

Increased physical activity has been shown to slow down aging in the elderly, to reduce the risk of falling, prevent weak bones and delay onset of cognitive decline. In children, it has been shown to improve attention, memory and greater capacity for learning, reduce risk of depression and improve bone health.[x] Walking and bicycling, whether for transportation or recreation, can contribute to active lifestyles that offer these health outcomes.

## Economy

Walking and bicycling improve the economy at many scales – the individual, business and community. Recent studies from North Carolina also provide significant evidence of the economic benefit of greenways.

*"If you could package physical activity into a pill, it would be the most effective drug on the market."*

*- Dr. Ruth Petersen, Director of CDC's Division of Nutrition, Physical Activity and Obesity.*

*Image 2. Walking Church Street in Downtown Weaverville.*


### *The Individual*

The relatively negligible cost of walking and bicycling is significantly less than a vehicle, allowing any additional personal income to be dedicated to other needs. The ease of access by foot and bike also translates to better access to resources and other individual needs, such as healthcare and basic shopping needs. As reviewed, physical activity reduces healthcare costs to the individual and allows more leisure time, which results in mental health benefits.

### *Business Community*

When employees partake in more walking and biking, businesses benefit due to reduced healthcare costs and less sick time. The outdoor industry also benefits when there are more dedicated pedestrian, trail and greenway facilities given the increase in sales resulting in more jobs, wages, and business output. Finally, the construction and operations/ maintenance of pedestrian and bicycle facilities also results in benefits to the business community in terms of jobs, wages and business output.[xi]

### *Community At-Large*

The community benefits from walking and biking infrastructure in three primary ways: increase in property values, property tax, and the benefits to the environment. Many communities leverage the potential of hiking and biking-specific tourism and Buncombe County, surrounded by an abundance of recreational opportunities, is no exception to this. These communities understand that this type of infrastructure is a way to attract tourism, grow businesses and create jobs.

The COVID-19 pandemic resulted in a shift in community and transportation preferences. Throughout North Carolina, the US, and internationally, research documented an increase in use of trails, greenways and trailheads as people sought ways to cope with the pandemic in their daily lives. Preliminary research from NC State University's Institute of Transportation Research and Education (ITRE) show that statewide, recreational bicycling and walking activity increased in the summer months of 2020.[xii] Anecdotally in Weaverville, accessing facilities like the trails at the Nature Park and Lake Louise became a way to cope with the dramatic change in lifestyles. And in some cases, businesses flourished in sales.[xiii] While the pandemic was a surprise to most, this is yet another example of how bicycling and walking has great impacts to communities large and small.

### *Economic Benefits in NC*

Two studies in North Carolina underscore these economic benefits. In 2016, ITRE released findings from a study that provides empirical evidence that constructing bicycle and pedestrian facilities, particularly those that fill a critical link in non-motorized transportation network, will result in measurable positive impacts. Specifically, they found that after construction of a bicycle and pedestrian bridge, trail users' annual expenditures supported an additional 43 jobs, $1.3 million in employee compensation, and $4.9 million in gross business revenues.[xiv] Figure 6 describes these findings.

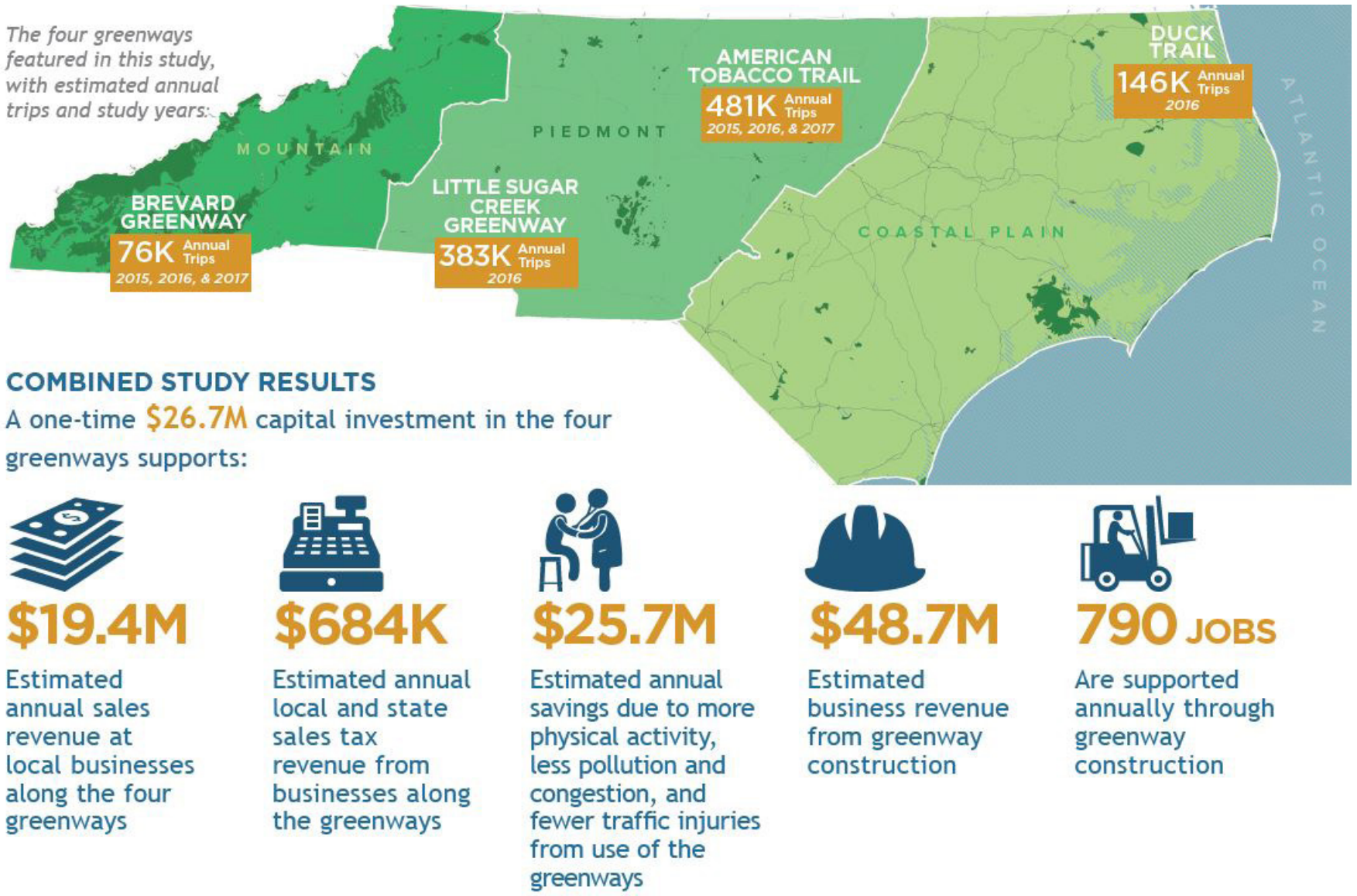


Figure 6. Infographic from 2018 ITRE Study on Economic Impacts of Four Shared Use Paths in NC.

In 2018, ITRE released another study evaluating the economic impacts of four shared use paths in North Carolina.[xv] The study found that every $1.00 of trail construction supports $1.72 annually from local business revenue, sales tax revenue, and benefits related to health and transportation.

### Community

Walking and biking investments result in increased use by those modes, which has benefits to community sustainability. In the ITRE bridge connection study cited earlier, the project resulted in a 4% increase in active travel to the trail, a 27% increase in trip distance and a 2% increase in trail use. These individual travel behavior changes can have larger benefits to a community in terms of reduced vehicle miles traveled, reduced congestion and improved air quality. According to the Environmental Protection Agency, the transportation sector contributes to the largest share of greenhouse gas emissions in the United States, at 28%; shifting some of these trips away from driving will provide important benefits to the community in terms of improved air quality and reduced congestion.[xvi] Bicycling and walking programs are also central to the nation's efforts to tackle the climate crisis at home and abroad.

## Endnotes


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# COMMUNITY ANALYSIS

2

# COMMUNITY ANALYSIS

*"Really appreciate that Weaverville is working to make the town even more bicycle and pedestrian friendly, specifically bicycle friendly as the number of sidewalks already make it quite pedestrian friendly." – Survey Respondent*

## COMMUNITY OVERVIEW

The following section describes an overview of Weaverville's population, physical characteristics, land use, and transportation network.

### Demographics

Table 1 provides a summary of Weaverville residents' demographics as revealed in the U.S. Census American Community Survey (2016-2020).[i] This data is compared to Asheville and the state of North Carolina. All findings are reported for the 2016-2020 timeframe, the most up-to-date available data at the time of this report.

#### Age and Gender

The population of Weaverville was 4,567. The median age was 55 years, which is over **15 years older** than Asheville and the state. Figure 7 provides an illustration of the age and gender spread of the population in the town. The bulk of the population was above the age of 50, with relatively **low population under the age of 18**.

#### Diversity

Weaverville was **not ethnically or racially diverse**. The Hispanic/Latino population was very low, as was the non-white population, especially when compared to Asheville and the state.

#### Income & Wealth

Weaverville had a **very low poverty rate** and **much higher household income** especially when compared to Asheville and the state. Weaverville's median household income was 25% higher than Asheville's.

### Education

Residents of Weaverville **were more educated** than Asheville and the state, as measured by a bachelor's degree or higher education attainment of residents.

### Housing

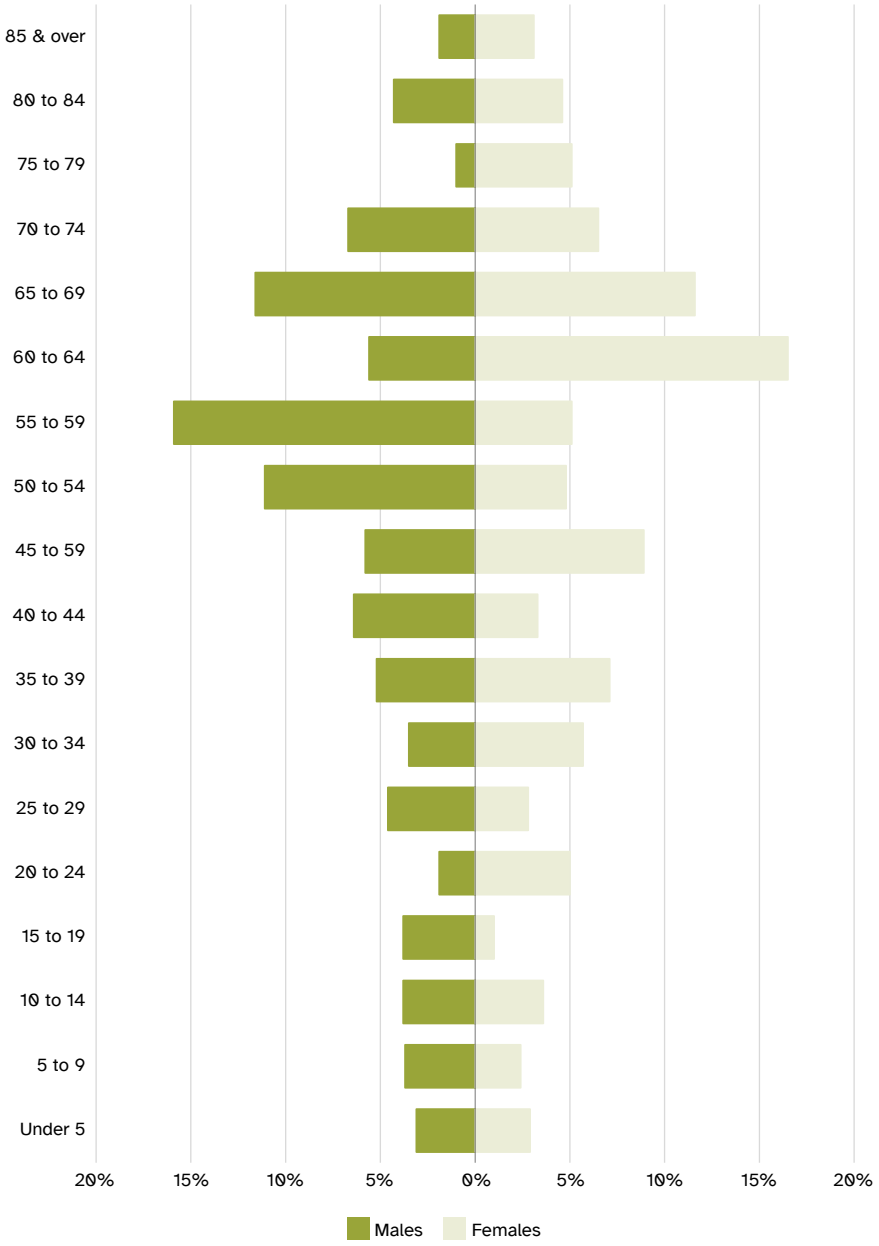
Renting a home in Weaverville was **28% more costly than Asheville**, and the Town has a very **high homeownership rate** especially when compared to Asheville and the state. Households that pay 30% or more of their income on housing costs are considered "cost burdened". Cost burdened households in Weaverville accounted for 69.7% of renters and 19.5% of owners with a mortgage. There are **significantly more cost burdened renters in Weaverville** than both the state and Asheville.

These Weaverville renters and owners are at risk of home displacement and homelessness. Housing and transportation costs are intrinsically connected, and together make up a significant portion of household budgets. It is important to assess transportation and housing costs together as they provide a more accurate assessment of impacts to

Table 1. Summary of Weaverville residents' demographics as revealed in the U.S. Census American Community Survey (2016-2020)

| | WEAVERVILLE | ASHEVILLE | NORTH CAROLINA |
|---|---|---|---|
| Median age | 55 | 39.6 | 38.9 |
| Language other than English at home | 1.7% | 9.0% | 11.8% |
| Hispanic or Latino | 3.7% | 8.1% | 10.7% |
| White | 98% | 75.8% | 68.1% |
| Median household income | $71,806 | $53,621 | $56,642 |
| Poverty | 5.1% | 13.3% | 14.0% |
| Bachelors or higher education | 58.9% | 49.9% | 32.0% |
| Median gross rent | $1,506 | $1,084 | $932 |
| Homeownership rate | 76.7% | 49.1% | 65.7% |
| Cost-burdened renters | 69.7% | 50.8% | 46.8% |
| Cost-burdened owners | 19.5% | 29.5% | 24.3% |

Figure 7. Weaverville Population by Age and Sex (2016-2020)




individuals and families. For instance, people who are "priced out" of an area may seek new housing farther away from urban areas where the housing costs may be less, but their transportation costs increase as a result. Communities like Weaverville can address quality of life for everyone by better addressing both transportation and housing options together.

### Transportation

Weaverville did not have an issue of access to personal vehicles – zero households in the town had no vehicles available to them. As previously stated, owning a car is expensive, and this metric further supports the higher income demographic of the Town. An estimated 74.3% of Town workers drove alone to work, and 7.3% carpooled. Among those who did commute to work, it took them an average of 21.6 minutes to travel. Weaverville residents exhibited **very low multimodal transportation behavior** – zero people used public transit, zero people biked to work, and 0.4% of people walked to work. It should be noted that 41.1% of those older than 16 do not participate in the labor force which likely influences the low walk/bike/transit commuting to work behavior.

### Putting It Together

Currently, Weaverville sees very little walking, bicycling and transit use as reported for transportation to work. This suggests that the **walking and bicycling activity is largely recreational** in nature. **Weaverville's older population would benefit from improved pedestrian and bicycle networks** that enable them to "age in place" while continuing to access amenities like healthcare and grocery stores. Weaverville has very low poverty rates and a high median income, however, this does not mean that income is not an issue in the Town: almost 70% of renters are cost burdened. Alleviating transportation costs by offering walking and bicycling alternatives may help address these challenges, as housing and transportation costs are interconnected.

## Transportation History

Many years ago, the traditional land of the Cherokee people covered over 100,000 square miles, encompassing much of what we consider today to be the American Southeast. This includes the current land of Buncombe County and the Town of Weaverville.[ii] Specifically, Weaverville was the land of the Miccosukee, S'atsoyaha (Yuchi), and ᏣᎳᎩᏗᏕᏲ Tsalaguwetiyi (Cherokee, East) tribes, land on which they hunted, fished, farmed, and raised families.[iii] These tribes established the transportation network that we know of today; many of the roads that we travel daily began as trading and gathering trails of the Cherokee people, as shown in Figure 8.[iv]

By the late 18th century, European settlement brought disease and destruction to the American Indian tribes. After what is known as the Rutherford massacre, there were virtually no indigenous inhabitants remaining in present-day Buncombe County.[v]

In 1875, Weaverville was chartered and named for Michael Montraville Weaver; the Town sits along the Dry Ridge, which was allegedly named by the American Indians for its relatively arid conditions.[vi] Like many communities of Western North Carolina, Weaverville was home to hotels and retreats that attracted visitors from the South Carolina Lowcountry.[vii] Weaverville College, later renamed Weaver College, was established in the late 1800s and attracted many families to the area and was a defining element of the town until it merged with nearby colleges and closed in the 1930s.[viii]

In 1909, a trolley line between Asheville and Weaverville was built by Rex Howland (Figure 9). The line prospered and was estimated to serve as many as 150,000 people per year. Weaverville's trolley was anchored at "The Depot", which was located at what is now 1 Central Avenue, depicted in Figure 10. The trolley line met its decline in the 1920s when it began to struggle financially, and later a lawsuit bankrupted the company. However, the trolley line later became the first paved road to Weaverville – now Merrimon Avenue.[ix]

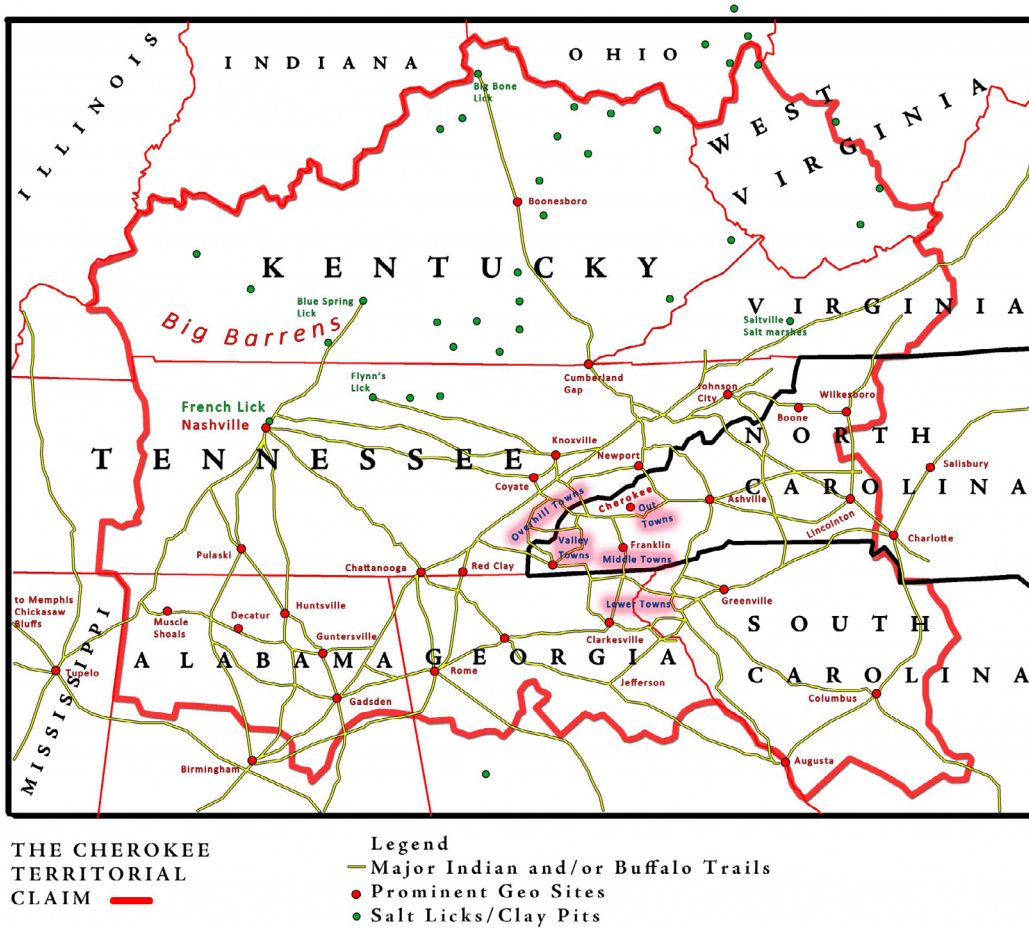



Figure 8. Major Cherokee Trail Corridors (Yellow Lines) and the Cherokee Territorial Claim (Source: Wild South)

Like many communities throughout the United States, the trolley line likely not only spurred commercial and residential development in downtown Weaverville but established the network of sidewalks that is a defining element of the Town's multimodal network. In communities like Weaverville and Asheville, sidewalks often connected trolley and streetcar stations where people would then commute to larger employment and shopping centers. The sidewalks enabled residents to avoid muddy and unfriendly conditions of unpaved streets that they lined.[x]

## Physical Characteristics

Weaverville is situated in the northern part of Buncombe County, 9 miles north of downtown Asheville. The only other municipality that it shares a border with is the Town of Woodfin at its southern-most limits. The remainder of the Town is surrounded by unincorporated land in Buncombe County. Mars Hill and Marshall, to the north in Madison County, rely on access to Weaverville's services and larger commercial destinations. Weaverville occupies 3.18 square miles of land, within which are two public parks, the Nature Park, and Lake Louise Park. Map 1 indicates Weaverville's location in reference to the county and the state.

Weaverville is characterized by rolling hills, mountains, creeks, streams, and rivers. The Town is nestled in the valley between Hamburg Mountain and Elk Mountain. To the west of Weaverville, the terrain is relatively moderate, largely shaped by the French Broad River Valley. To the east rise the mountains that are iconic of Western North Carolina, including the Craggy and Black Mountains. Reems Creek runs along the Town's southern border, and Gill Branch bisects the Town.

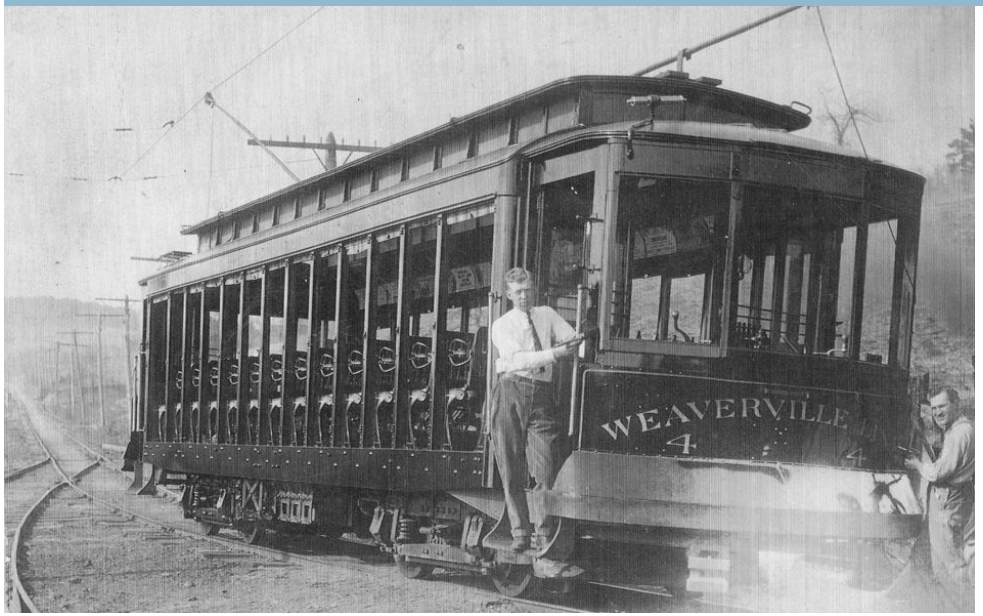



Figure 9. The Weaverville Trolley (Source: Visit Weaverville)

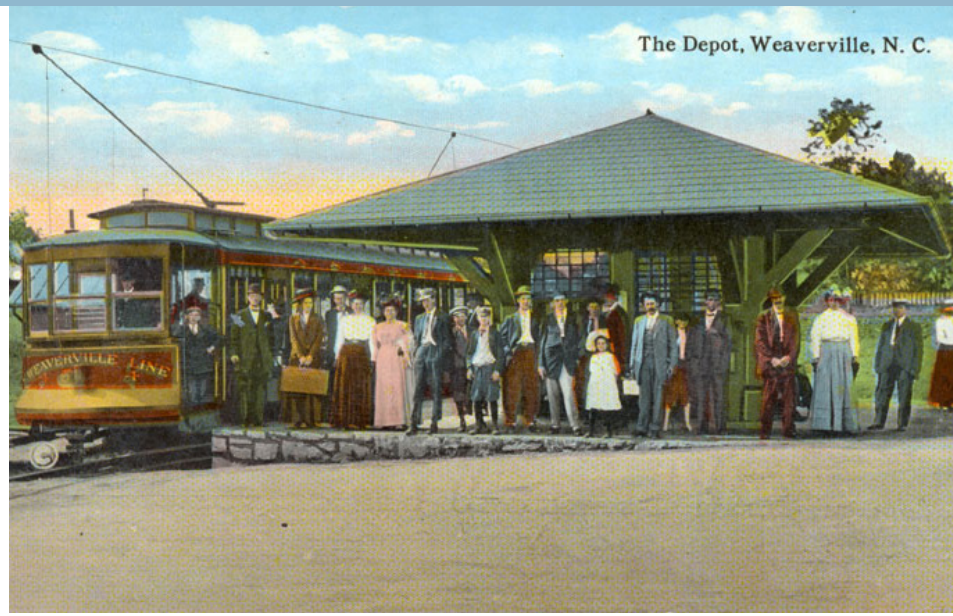
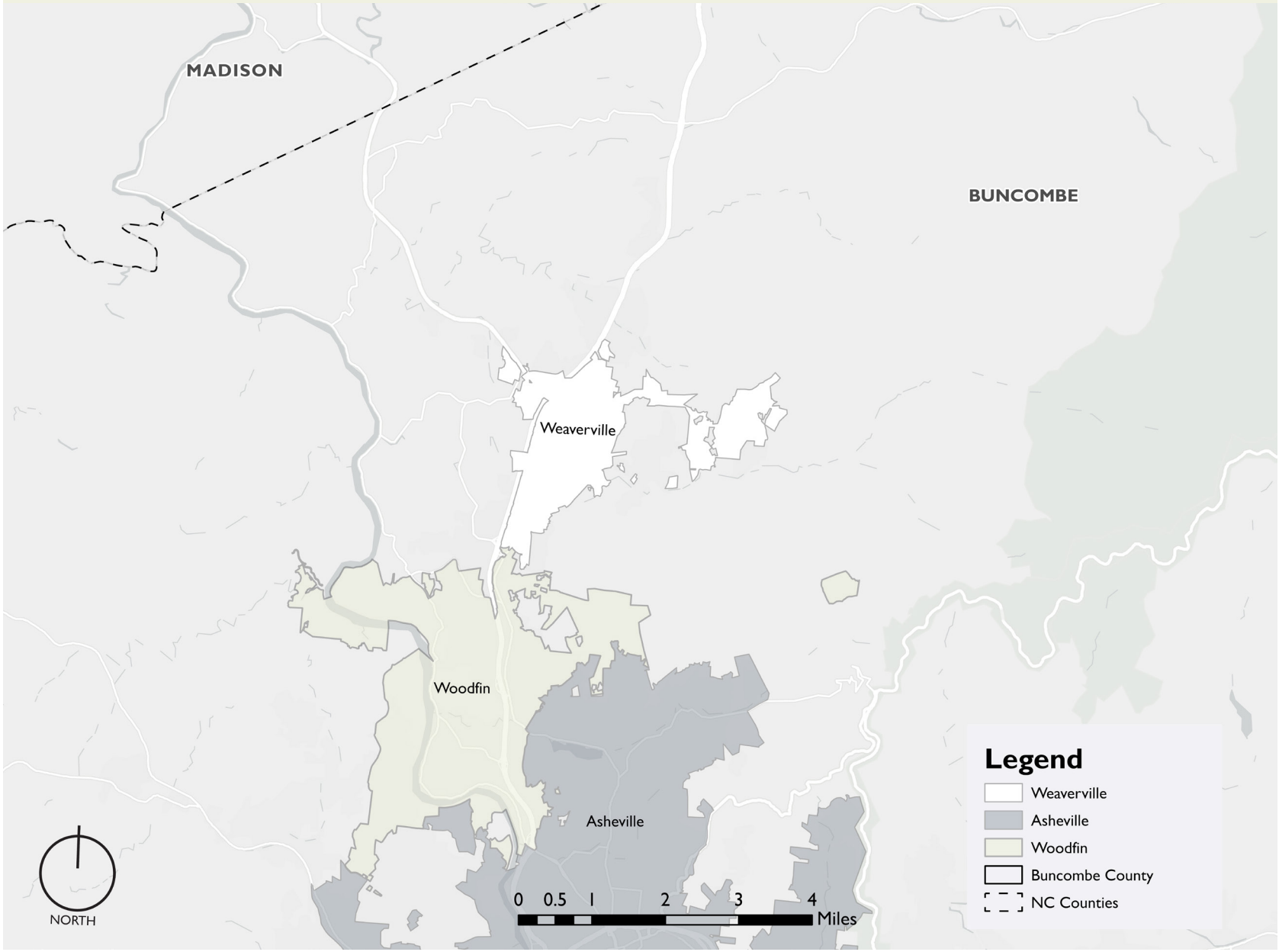



Figure 10. "The Depot", Weaverville's Trolley Stop in Downtown (Source: Library of Congress)

Map 1. Weaverville is Located in the Northern Part of Buncombe County in Western North Carolina.



## Land Use Characteristics

Much of the land in Weaverville is developed, with the predominant land use being single family residential. The existing commercial development is along Main Street and Weaver Boulevard. Most of the industrial development is on the periphery of town.

Map 2 shows the key generators of trips, major origins/destinations, and key land use types in the Town. Most of these destinations are in the commercial areas of town, along Main Street, Merrimon Avenue and Weaver Boulevard. In addition to these destinations, regional influences also impact the Town including Vance Birthplace, the Blue Ridge Parkway, Buncombe County schools, Windy Gap and the French Broad River.

## Transportation Network

Transportation networks are generally defined by the volume, or amount of traffic, travelling on them. I-26 runs parallel to US 19/23 in a north/south direction, providing most of the transportation mobility to Weaverville. US 25/70 travels in the east/west direction near the northern end of Town, providing access to the Town of Marshall and Madison County. Other major roads in the Town include several already mentioned, including Merrimon Avenue, Weaver Boulevard, Main Street, Monticello Road, and Reems Creek Road.

Table 2 describes primary, typical characteristics of Weaverville's major NCDOT-managed roadways, also illustrated in Map 3. This includes the typical, paved width of the street (not including curb and gutter), the number of lanes, AADT (NCDOT), posted speed limit and the presence of curb and gutter. Even though Weaverville has developed significantly over the last few decades, many of its roads have not. Many roads are rural in character with two travel lanes and no curb and gutter. The primary network roads are narrow, many with no shoulder, and have posted speed limits of 35-45 miles per hour (MPH).

To further describe the roads in Weaverville, Map 4 illustrates the Average Annual Daily Traffic (AADT), where provided by NCDOT.

*Image 3. Main Street is a Key Destination of Weaverville.*

Map 2. Key Destinations and Land Use Types in Weaverville.

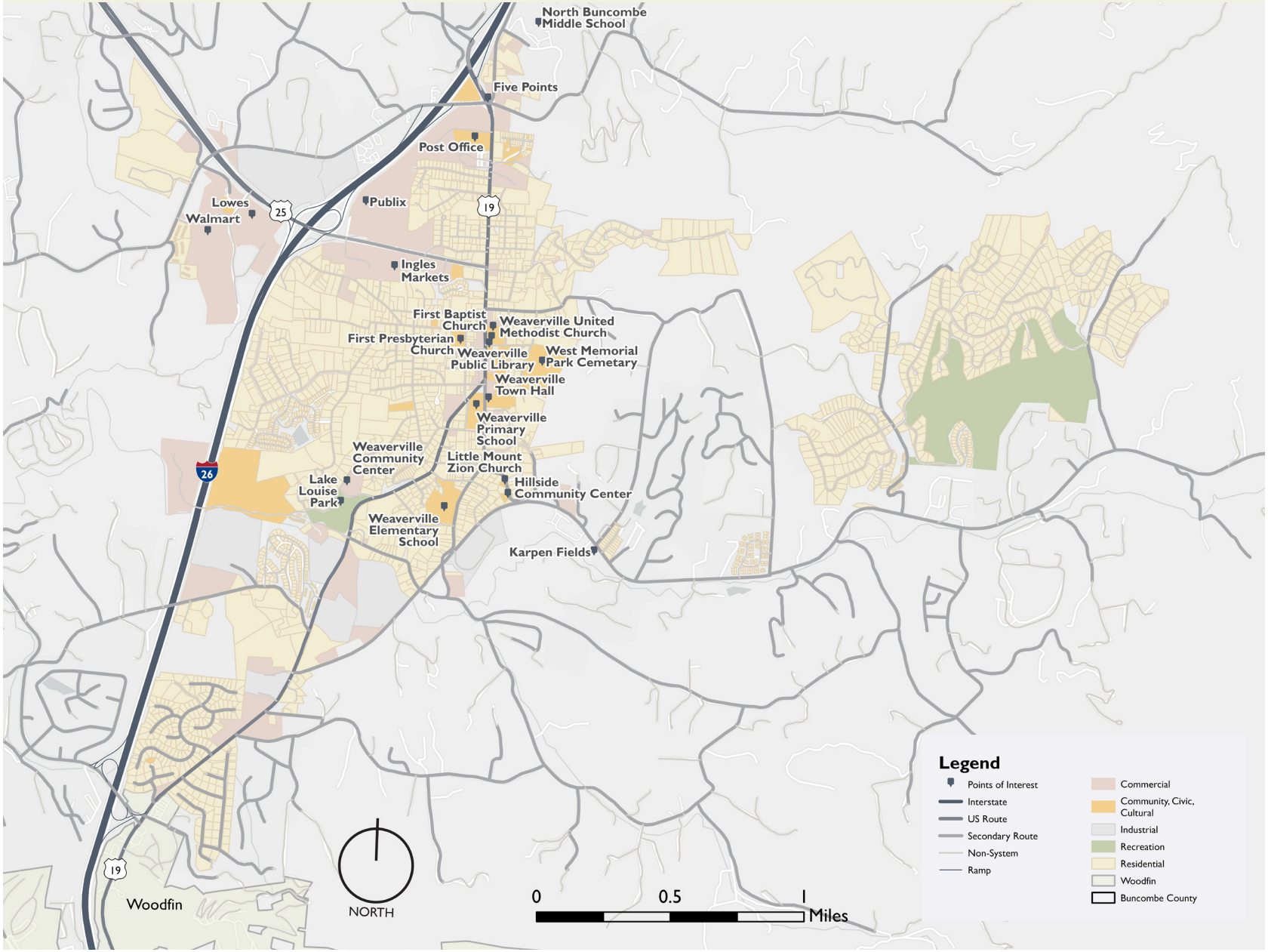


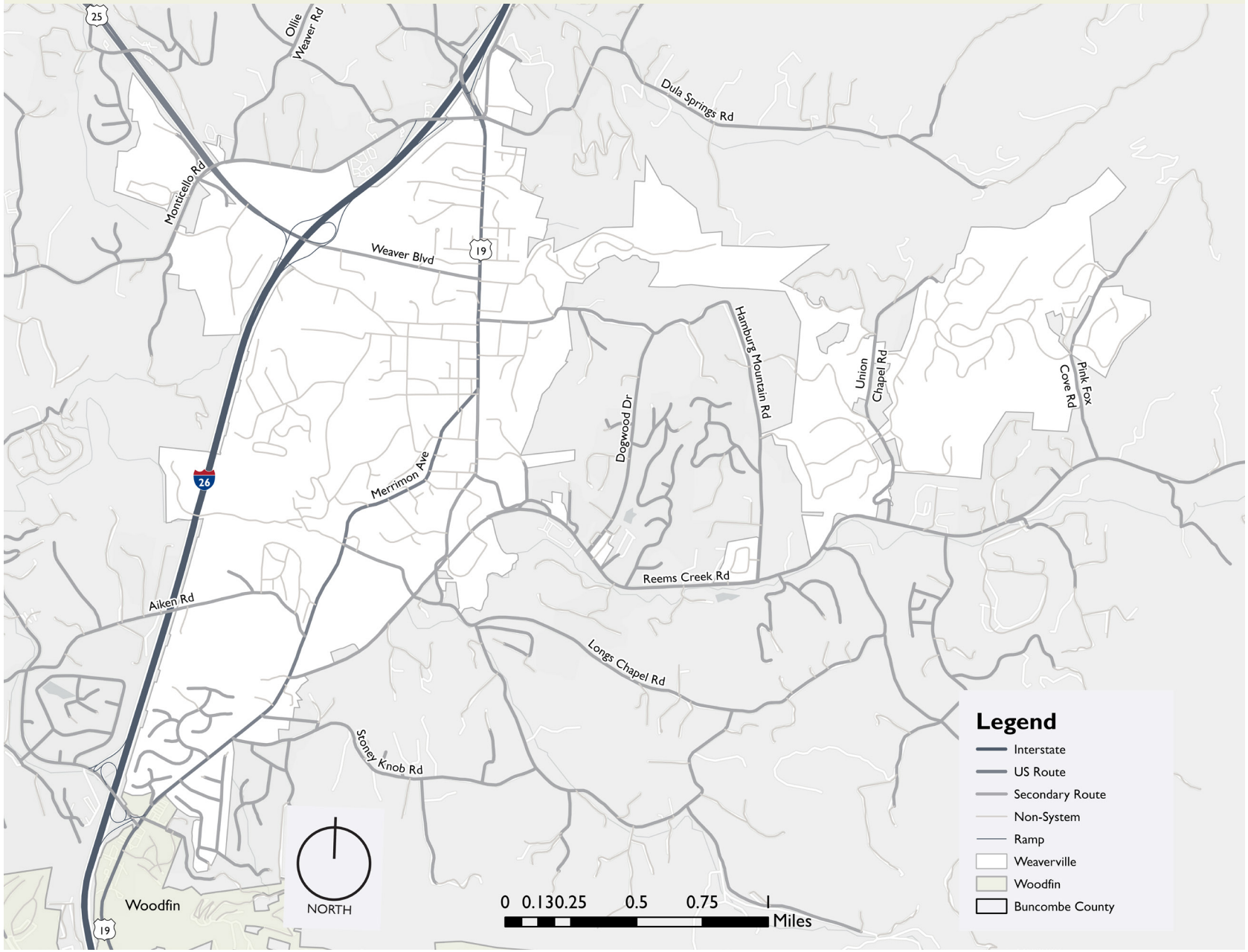
Table 2. Primary, Typical Characteristics of Weaverville's Major NCDOT-Managed Roadways

| ROAD NAME | TYPICAL WIDTH | NUMBER OF LANES | AADT* | SPEED LIMIT (MPH) | PRESENCE OF CURB & GUTTER |
|---|---|---|---|---|---|
| **PRINCIPAL ARTERIAL** | | | | | |
| US 25/70 | 94 feet | 6 | 19,500 | 35 mph | No |
| Main St (US 19) | 50 feet | 2 | 13,500 | 20 mph | Yes |
| Merrimon Ave (US 19) | 30 feet | 2 | 11,500 | 35 mph | Varies |
| **MINOR ARTERIAL** | | | | | |
| Weaver Blvd (SR-1725) | 41 feet | 3 | 12,000 | 35 mph | Varies |
| **COLLECTOR** | | | | | |
| Monticello Rd (SR-1727) | 24 feet | 2 | 7,300 | 35 mph | No |
| Hamburg Mountain Rd (SR-2123/SR-2125) | 19 feet | 2 | 3,200 | 25 mph | No |
| Reems Creek Rd (SR-1003) | 25 feet | 2 | 8,400 | 45 mph | No |
| **LOCAL** | | | | | |
| Dogwood Dr (SR-2124) | 19 feet | 2 | 1,200 | 35 mph | No |
| Hillside St (SR-2128) | 27 feet | 2 | N/A | 25 mph | No |
| Banks Town Rd (SR-2205) | 19 feet | 2 | 550 | 35 mph | No |
| Aiken Rd (SR-1720) | 27 feet | 2 | 1,700 | 35 mph | Varies |
| S Main St (SR-2127) | 27 feet | 2 | 3,900 | 25 mph | Yes |

*Source: NCDOT AADT Web Map, NCDOT NCRouteCharacteristics Field, Google Map Imagery*

**AADT: Average Annual Daily Traffic, the total volume of vehicle traffic for a year divided by 365 days*

Map 3. Weaverville Existing Road Network



Map 4. Weaverville, NC Average Annual Daily Traffic (AADT)

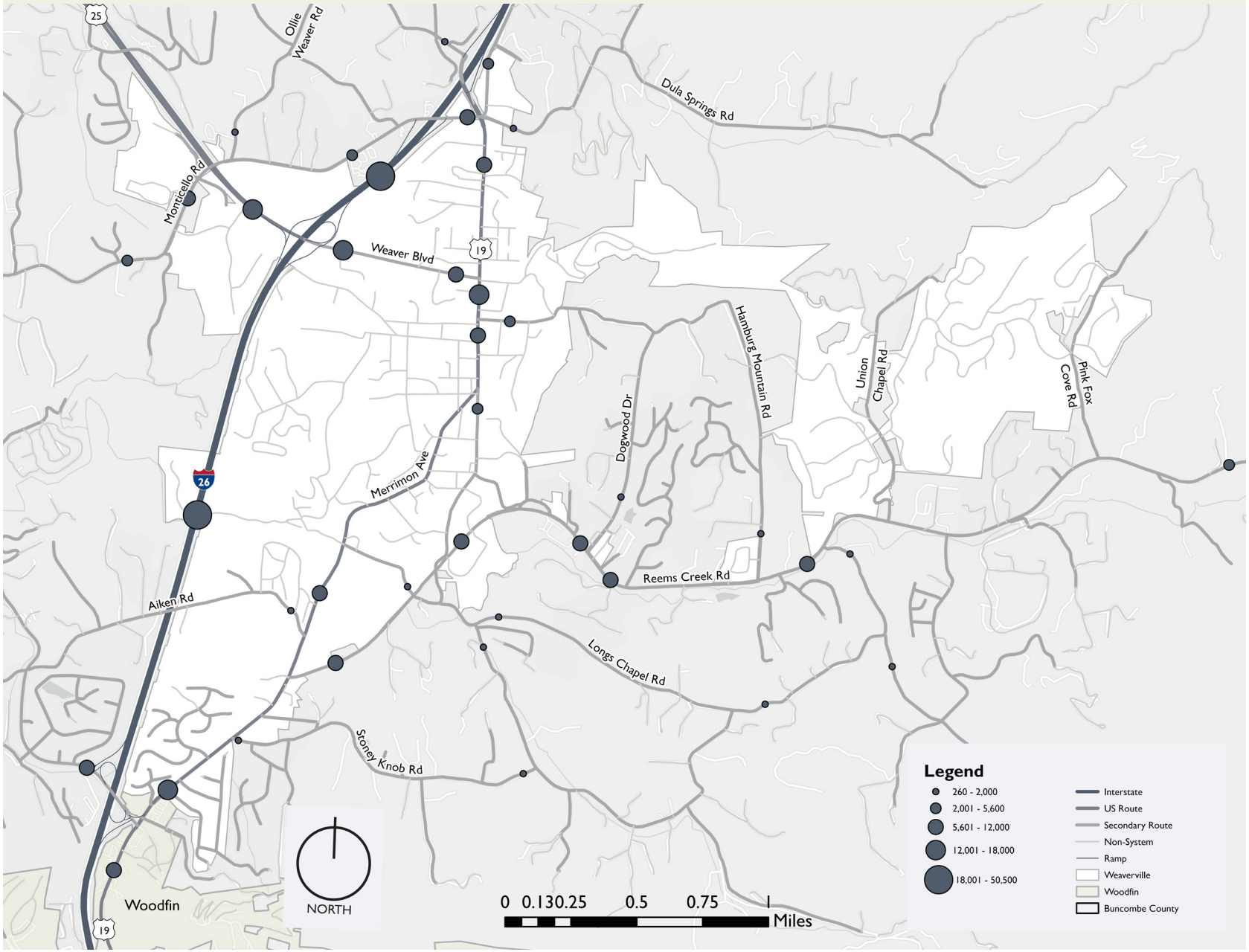


*Image 4. Curb Ramp Upgrades Being Led by NCDOT on Main Street in 2021.*


*Image 5. The Town and County Have Completed a Feasibility Study for the Reems Creek Greenway, an Effort Supported by the Community Through a Volunteer Organization.*

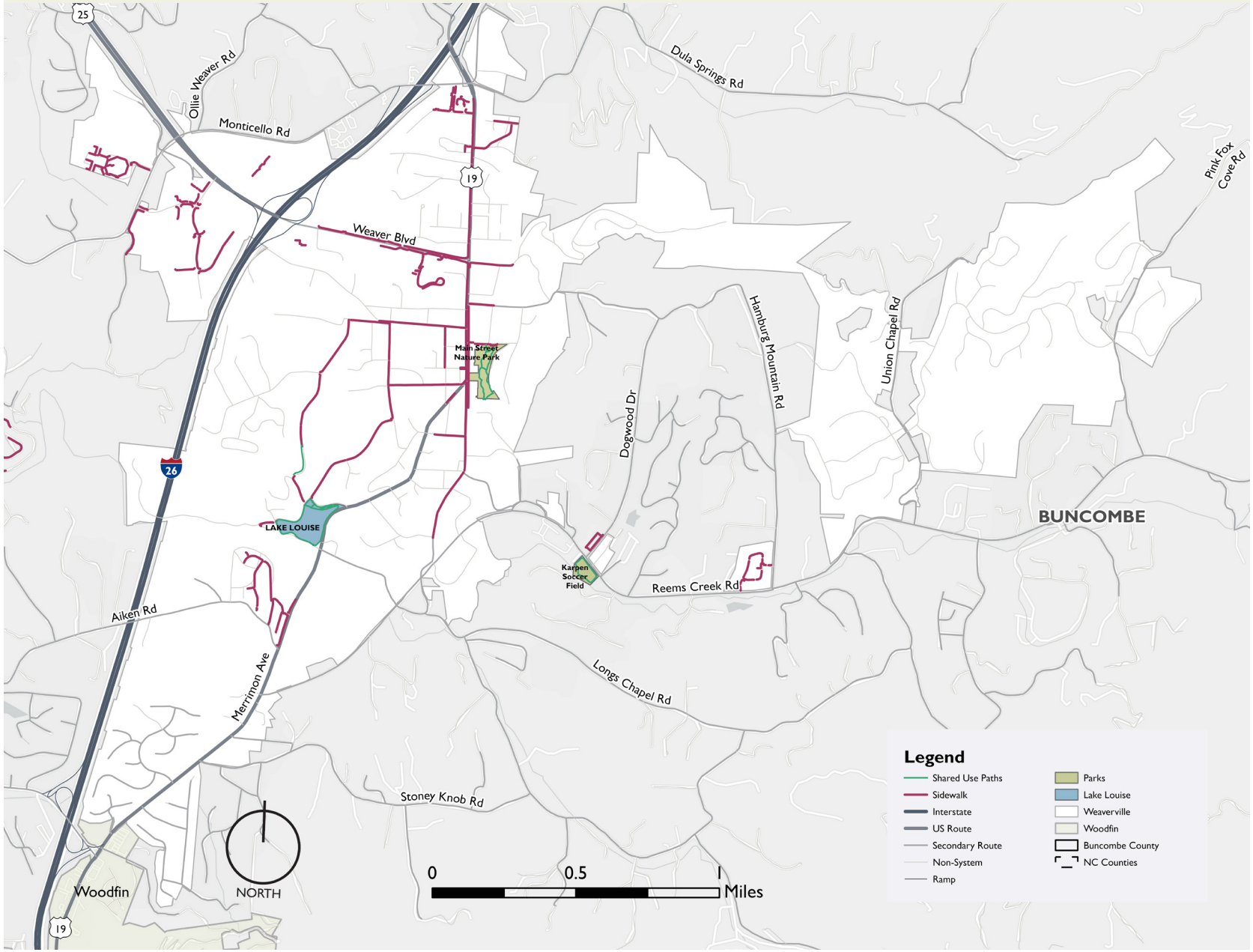
## EXISTING AND PROGRAMMED BICYCLE & PEDESTRIAN NETWORK

Currently, there are 5.6 miles of sidewalks in Weaverville. The longest segments are on North and South Main Streets, Weaver Boulevard, and the sidewalks connecting Church Street, Highland Street, Lakeshore Drive and College Street. There are 56 marked crosswalks in the Town. The most recent sidewalk expansion built by the Town was a segment connecting Lake Louise with the Highland Street multi-use sidepath. In 2021, NCDOT upgraded the curb ramps along Main Street to be more compliant the Americans with Disabilities Act and best practices that are included in the Proposed Public Rights-of-Way Access Guidelines (see Chapter 3 for more detail). Map 5 shows these existing sidewalks and crossings.

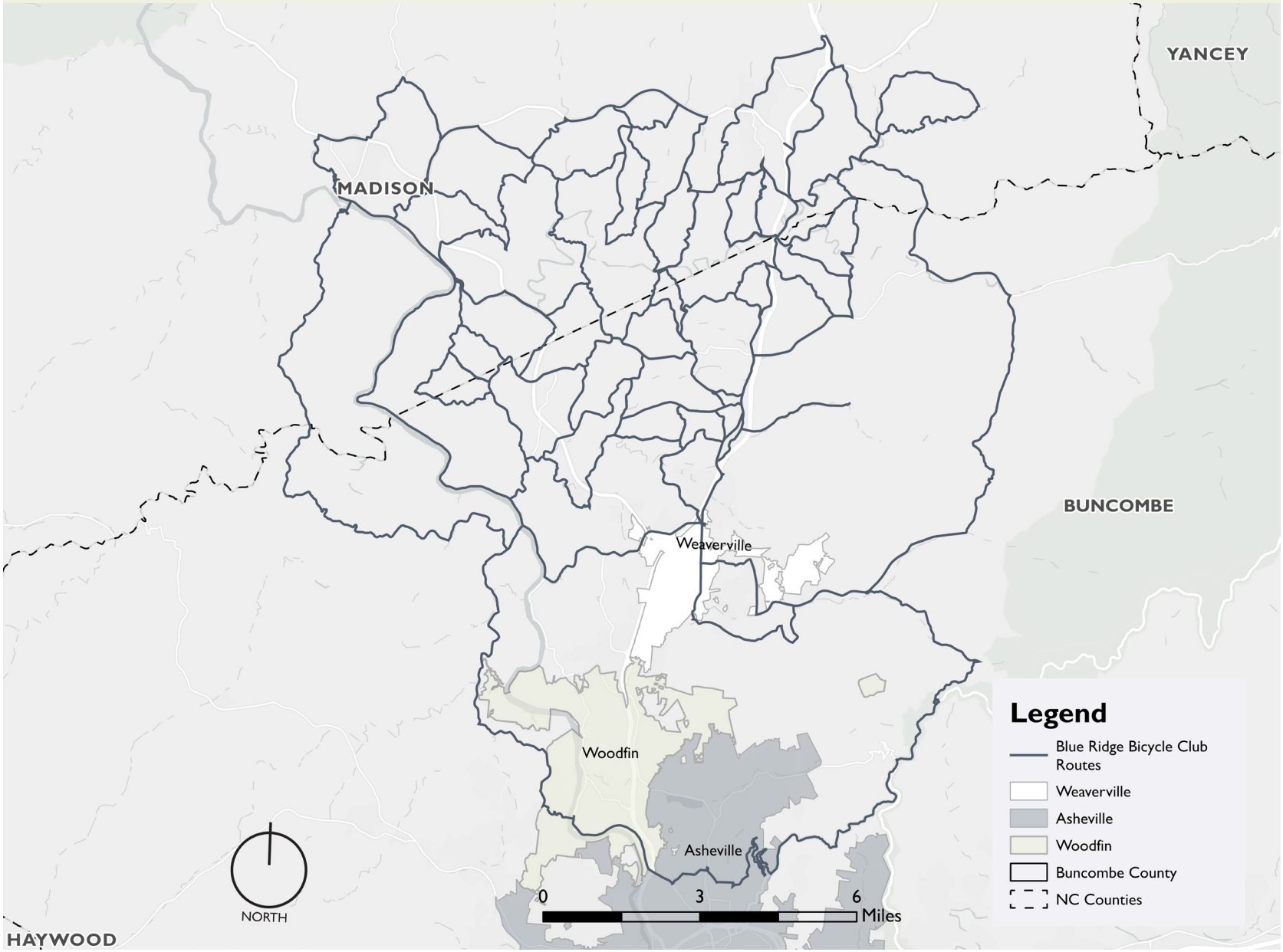
The Town also has 0.30 miles of multi-use sidepath (Highland Street and Merrimon Avenue), 0.5 miles of unpaved/mulched trails at the Nature Park, and approximately 0.62 miles of trail around Lake Louise that varies in surface material. The Town has completed a feasibility study for the 2.25-mile Reems Creek Greenway, extending from the Town's western boundaries to Karpen Fields. Federal funding has been programmed for engineering but that phase of work has not started at the time of this writing.

Although Weaverville is a popular place for bicycling, there are no bike lanes or dedicated shoulders on roadways in the Town. Despite the lack of dedicated infrastructure, many of the roads are popular for people seeking recreational bicycle activity. The Blue Ridge Bicycle Club keeps a "route library" of commonly ridden bike rides that include many routes that begin in Weaverville with the majority travelling north, outside of the Town. These routes are illustrated in Map 6. Most of the rides begin at the Dula Springs Shopping Center at North Main Street and Dula Springs Road.

Map 5. Existing Sidewalks, Greenways and Multi-Use Paths in Weaverville.



Map 6. Existing Road Cycling Routes in Weaverville.



## BIPOC Definition

*BIPOC stands for "Black, Indigenous, and people of color", and is person-first language that acknowledges people and humanity. This language is intended to shift away from words like "minority" or "disadvantaged." Other person-first language used in this Plan is "people walking" and "people driving" which is intended to remind us that we are all people and humans are our highest priority.*

## PEDESTRIAN AND BICYCLE CRASH ANALYSIS

As reviewed in the previous chapter, understanding the location and nature of crashes is an important way to measure the effectiveness of a transportation network. Crashes involving people walking and bicycling alert us to problematic areas that may need further consideration. Map 7 shows the locations of crashes in Weaverville that involved a person driving and a person walking or bicycling. The pedestrian-involved crashes took place from 2014 through 2019, the most recent year of full data available. These crashes were reported to NCDOT and do not include any unreported crashes. Most of the crashes occurred on higher volume streets that also have higher posted speed limits.

There was a total of eight reported crashes involving pedestrians between 2014 and 2019 within or near the Town borders. Some key takeaways from this data include:

- Two pedestrian involved crashes occurred on I-26.
- All the crashes involved a pedestrian identified as white in race.
- Six crashes took place at an intersection or were intersection related.
- No crashes involved a pedestrian death and only one (interstate related) involved a serious injury.
- Three crashes occurred on Main Street; it is important to note that the pedestrian walking rate on Main Street is very high which likely factors in this finding.

There were three crashes that involved people bicycling, but these were prior to 2010. These involved minor injuries to the person riding a bicycle.

## SPECIAL POPULATIONS & USER GROUPS

Map 8 illustrates an equity composite and analysis of Weaverville based on Census Blocks. The equity index includes the following data factors: median income, poverty, BIPOC (Black, Indigenous, People of Color) population, vehicle access at home (zero vehicle households), population 65+, non-English language spoken at home, and disabled population. The following describes why these factors were included.

### Median Household Income

People with lower incomes have fewer means to pay for the high costs of transportation such as car ownership (and are therefore more likely to walk or use public transportation).

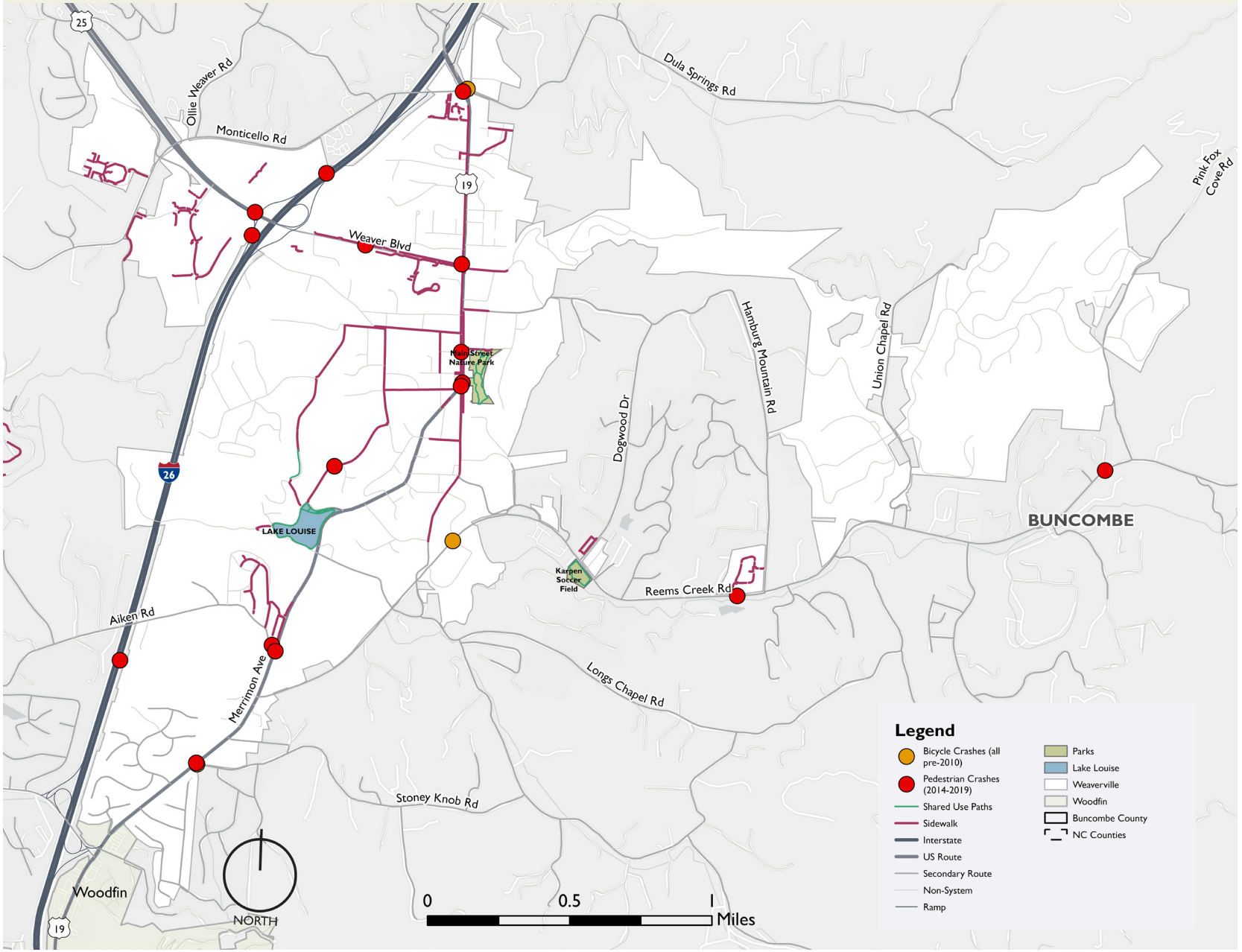
### Percent BIPOC

People of color in our community, region and country have been disproportionately affected by housing and transportation policy and are statistically over-represented in crashes involving people walking and bicycling.

### Percent Living Below Poverty

Those affected by poverty are more likely to walk and use public transportation as a primary form of transportation.

Map 7. Reported Pedestrian and Bicycle Involved Crashes in Weaverville.




### Percent of Households with No Vehicles Available

Owning a vehicle is extremely costly, and people without vehicles are more likely to rely on walking and public transit for transportation.

### Percent of the Population Above the Age of 65

As people age, they may be more likely to stop driving a car. As the median US population increases, more people are also aging out of the ability to drive.

### Percent Disabled

Many people with a disability cannot, or choose not to, drive.

### Percent with Limited English Proficiency

Vehicle licensure and the use roadway systems for cars is challenging to those with limited English proficiency, thereby impacting their access to personal vehicles..

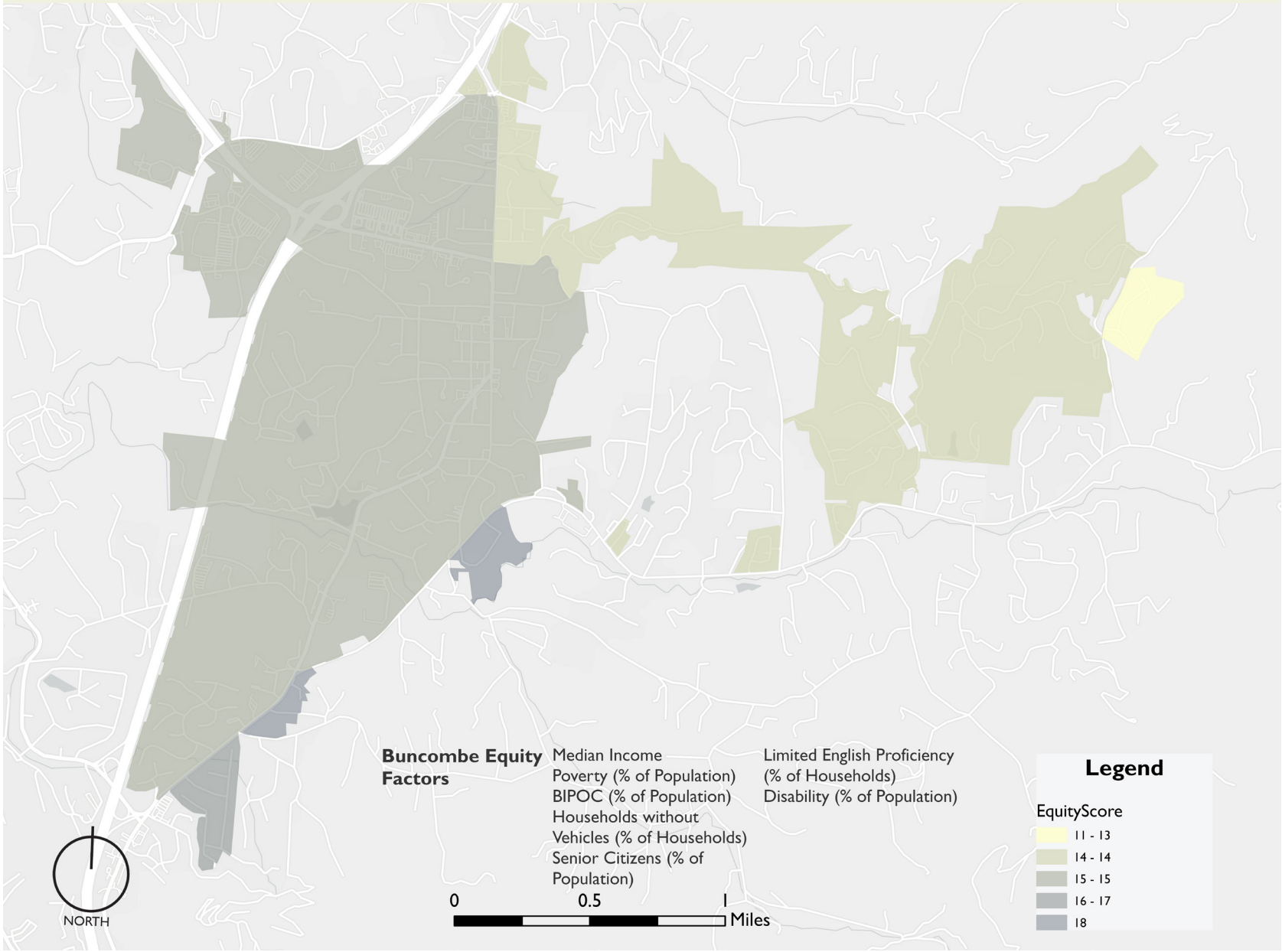
On Map 8, darker colors indicate a higher equity index value which represents a higher equity need. All of Weaverville, except for a small area near Hillside Street and Stony Knob, are in the same mid-range equity values. As discussed in the first chapter, Weaverville is of a higher income, white, low poverty, high car ownership, low disability, and low limited English proficiency. Weaverville does, however, have an older population which is an important factor in equity for this community.

## INTERACTION WITH TRANSIT

Mountain Mobility provides demand response and deviated fixed route service to Buncombe County residents, including those within its municipalities. In 2019, Mountain Mobility provided 145,386 trips to County residents, down from a high of 162,382 in 2015. More recent numbers are likely affected by COVID-19.

Figure 11. One of the Two Trailblazer Routes Provided by Mountain Mobility, Serving Weaverville (Source: Mountain Mobility).

Map 8. Weaverville Equity Need at the Census Block Based on Socio-Economic Factors



Through demand-response or scheduled services, Mountain Mobility provides various types of services to eligible users: ADA Paratransit Services, Medicaid Transportation for non-emergency trips, Demand Response Service and deviated fixed route. There are three deviated fixed route lines, known as Trailblazer Routes, and one serves the Weaverville area. Mountain Mobility can deviate from the fixed route to pick up/drop off a customer if the customer's address is within a quarter of a mile from the fixed route. Trailblazer routes are open to the public who do not meet other eligibility criteria. Trailblazer customers can also transfer to the City of Asheville or Haywood County transit systems.

The North Buncombe Trailblazer route operates Monday through Friday on a peak and off-peak/midday schedule and route. The midday route runs down Hamburg Mountain Road to Weaver Boulevard, serving Publix, Ingles, Lowe's, Northview Mobile Home Park and Wal-Mart. The peak route runs past Lake Louise to downtown Weaverville, then serving the Post Office, Wal-Mart, Lowe's and Ingles. Figure 11 illustrates the peak route that Trailblazer follows.

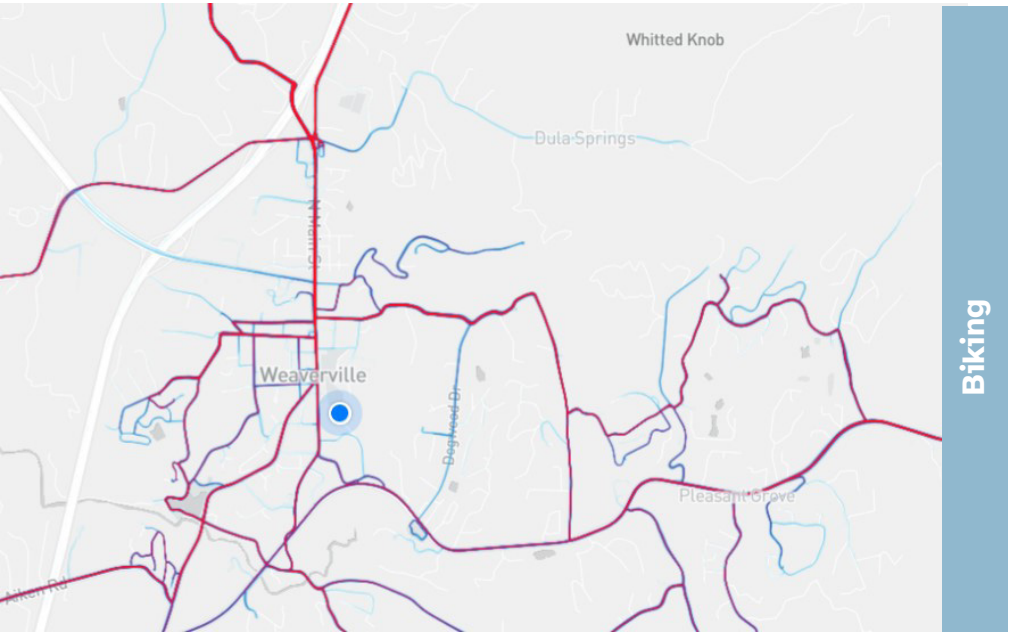
## CURRENT WALKING RATES

The FBRMPO has a program to count numbers of people walking or bicycling at select areas throughout the region. The most recent collection of count data in Weaverville was gathered in the fall of 2021 at the pathway around Lake Louise Park and at a location downtown on Main Street. At the Lake Louise location, there were nearly 13,000 people counted walking or bicycling around Lake Louise in a week's time. There was a significant spike in use at Lake Louise in the weekday period from 5-7pm, which suggests that many people travel to Lake Louise in that timeframe for recreational activities. At the downtown location, there were fewer people walking and biking than counted at Lake Louise, which may have been related to colder temperatures during the week. There was a spike in use around lunchtime on Saturday. A summary of this data is found in Table 3

.

Table 3. Walking Rates

| | 9/8/21 – 9/15/21 (Wed – Wed) Lake Louise Park Trail | 11/4/21 – 11/11/21 (Thurs – Thurs) Downtown in Front of Well-Bred |
|---|---|---|
| Total Users (Count) | 12,919 | 5,714 |
| Average Users/Hour | 76.9 | 34 |
| Peak Day | Thursday 9/9/21 | Saturday 11/6/21 |
| Peak 2-Hour Count | 2,237 (6-7pm Thursday 9/9/21) | 568 (1-2pm Saturday 11/6/21) |





To further offer an approximation of the trips taken on foot and bicycle, the online fitness website and app, Strava, can provide a broad overview of the networks on which people walk, bike, hike and run.[xi] Strava has developed "heat maps" showing aggregated public activities taken by its users over the last two years. In this case, people who travel by foot or bike will use the app or website to record their trip or exercise information. Strava's activity is derived from users who publicly share their routes. Some users may opt out of updating their journeys, and areas with very little activity may not show up on the heat map. It is important to note that these trips are typically taken for recreation purposes and not transportation, so they are less likely to indicate walking and bicycling for commuting to work or other activities. Communities that have robust walking and biking count data can develop factors, or ways to reference the Strava data to actual counts, which enable them to use the Strava heat maps to indicate broader walking and bicycling rates. In the absence of this data, Weaverville can use the Strava heat map as a relative approximation of walking and bicycling recreational use.

Figure 12. Heat Map from Strava Fitness App Indicating Relative Biking Use in Weaverville (Source: Strava Heat Maps).

Figure 13. Heat Map from Strava Fitness App Indicating Relative Walking/Running Use in Weaverville (Source: Strava Heat Maps).

Figures 12 and 13 show streets and trails in Weaverville with blue and red colored lines that indicate relative use; blue indicates relatively lower use, and the red, thick lines indicate more use. A few notable features of these map include:

- The core part of downtown, from Weaver Boulevard to Lake Louise, is heavily used for walking/running. This corresponds with the areas of existing sidewalk.
- Lake Louise sees significant use for walking/running, which is consistent with the data from the FBRMPO.
- Reems Creek Golf Course also sees a good bit of activity, as does Karpen fields, for walking/running.
- Not surprisingly, the reach of bicycle use is broader, and less concentrated in the core of Weaverville.
- Bicycle use appears to be the greatest north of Dula Springs Road, which is consistent with community feedback and Blue Ridge Bike Club mapping. People are known to park near Dula Springs Road and depart on bicycle trips to access northern Buncombe County and areas of Madison County.
- Hamburg Mountain Road and Reems Creek east of Karpen Fields sees higher bicycle use, suggesting that people on bikes opt to avoid the section west of Karpen Fields.

## POLICIES AND INSTITUTIONAL FRAMEWORK

In the Recommended Programs and Policies chapter of this Plan, a review of the Weaverville Development Code is provided as it pertains to sidewalk and greenway development in the Town. A set of recommendations is provided that aligns with the goals found in the Town's Comprehensive Plan.

## RELEVANT LOCAL, REGIONAL AND STATE PLANS

Reviewing previous, relevant plan documents that were adopted in a community is helpful to understand desires and project ideas that may lie ahead. Appendix C provides the full review of relevant local, regional and state plans. The plans that have been reviewed can be found in Figure 14.

Overall, these plan documents point to strong support for pedestrian and greenway infrastructure in the Town. Weaverville has undertaken several planning studies of its own and has been a part of many other studies conducted by the County and FBRMPO. As a part of these efforts, a vision for improved walking and biking in the Town has been established, along with routes and corridors to be improved. These planning documents establish a blueprint for the Town to develop a dedicated pedestrian and bicycle plan that will bring all recommendations into one place, generate new ideas, establish goals, and a policy and funding framework for implementation.

Transportation planning can take a significant amount of time. Several years can pass between the time a roadway project is first conceptualized until the project is complete. One intent of Active Weaverville is to identify the transportation projects that meet the Town's future needs and goals, which enables them to get these projects in the "planning pipeline" so that they may be programmed and advanced to implementation.

Figure 14. Plans Reviewed

## LOCAL PROGRAMS AND INITIATIVES

The following describes the Town's existing programs and initiatives to support walking and biking:

- The Blue Ridge Bicycle Club leads bicycle rides and encourages non-member participation throughout the Weaverville area. However, their efforts appeal only to the recreational type of bicyclists.
- There are various running groups that meet in the Town and run the streets and sidewalks of Weaverville, as well as abundant regular walkers as evidenced by the Strava, count data, and local observations.
- There are existing bike racks at select locations throughout Town, such as at the Primary School and Town Hall.
- The Town Police Department stations their Variable Message Boards throughout Town, with messaging often targeted towards travelers to inform them of the Town's traffic safety priorities.
- Some parents currently walk and bike with their children to the Primary and Elementary schools.
- The Town has developed a walking map for downtown that identifies parking locations and key destinations.

A representative of the Blue Ridge Bike Club and the Town Police Chief served on the Steering Committee of this project and closely supported the development of the Plan and project recommendations.


*Image 6. Examples of Existing Initiatives in Weaverville that Support a Culture of Walking and Biking.*

## COMMUNITY ENGAGEMENT

*Over 350+ People Engaged*


*Image 7. The Second and Third Steering Committee Meetings were Held In-Person; This One Hosted in Person Involved a Walking Site Visit and Interactive Activities.*

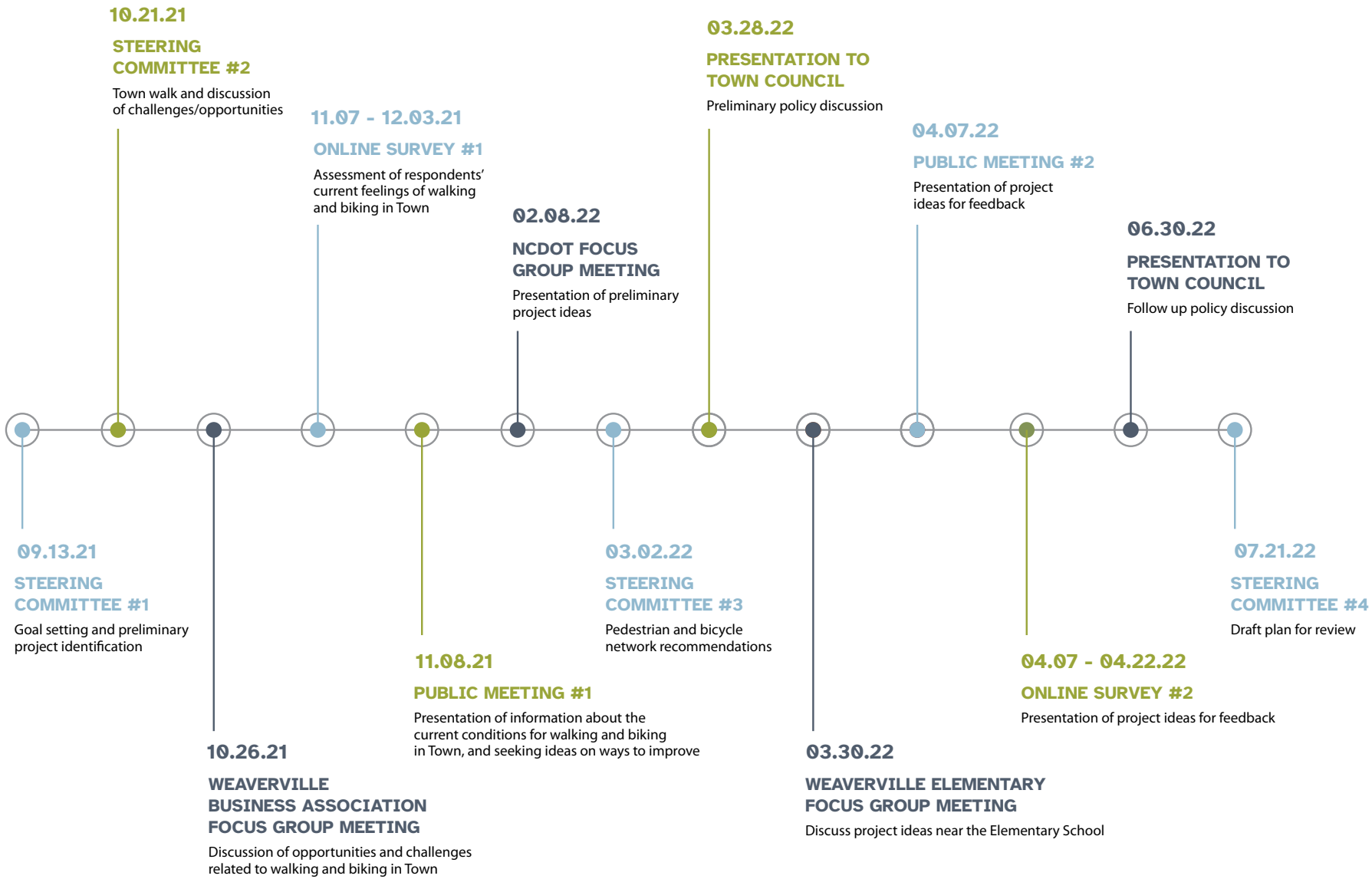
## COMMUNITY ENGAGEMENT

Community engagement was an integral component of Active Weaverville Plan development. Preferences, recommendations, and specific project ideas were incorporated into the planning process. Residents, community members, visitors and local interest groups provided their input. The Plan's public engagement included the events illustrated in the following graphics. The primary method to keep the community informed was the use of a "StoryMaps" website. Complete notes, community concerns, needs, priorities and other details from community engagement activities are captured in Appendix A.

### Steering Committee

The intent of the Project Steering Committee was to provide a voice of the community at a smaller, targeted scale. The Steering Committee was comprised of staff, leadership or individuals from the County, NCDOT, FBMPO, schools, local businesses, and community or non-profit organizations. These members were critical in bringing the perspectives of the organizations they represent to the project. A full list of members can be found in the Acknowledgements and meeting minutes and materials reviewed are provided in Appendix A.

# COMMUNITY ENGAGEMENT TIMELINE




## Public Meetings

As a part of Active Weaverville, the Team hosted two public meetings: late fall 2021 and spring 2022. Both meetings occurred at the Town's new Community Center and together they drew upwards of 100 people. Figures 15 illustrate activities surrounding these meetings. These events were promoted through informal networks, vinyl banners, yard signs, flyers posted in businesses, social media, promotion at Town events, Town e-newsletter and more.

## Focus Group Meetings

Because the feedback of some individuals and interest groups are more nuanced, the team took a focus group approach with three organizations to discuss project ideas: Weaverville Business Association, NCDOT Division 13, and Weaverville Elementary School. This feedback directly informed project recommendations and program/policy guidance that formulated the Network and Program Plan.

Meeting minutes can be found in the Appendix A of this document.

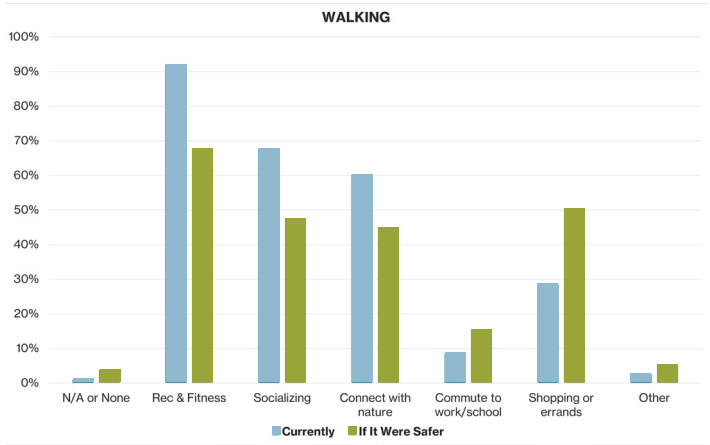
## Online Surveys

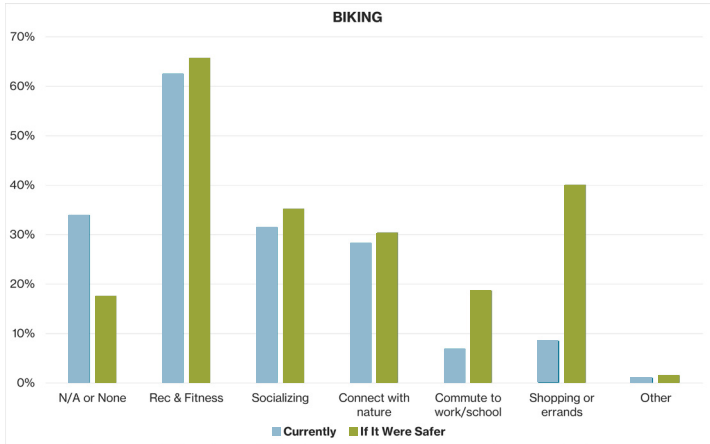
As a part of the community engagement efforts, two online surveys were hosted. In the first, the team asked people their thoughts about walking and biking in the Town, and in the second, solicited feedback about a proposed set of projects. The full results of both surveys are provided in the Appendix. The following page illustrates some community sentiment gathered in the first survey.

Figure 15. Attendance and Promotion of the Two Active Weaverville Public Meetings.

# SURVEY ONE RESPONSES

*For what purposes to you currently walk and bike? For what purposes would you walk or bike more if it were more convenient or safer?*




*Currently, walking in Weaverville is an _____ experience*


*Currently, biking in Weaverville is an _____ experience*


*What is most important to you when it comes to improving conditions for walking and biking?*

- More sidewalks, greenways, etc.
- More safe road crossings
- More parking at parks & trailheads
- Lighting
- More amenities: benches, bike racks, etc,
- More trees for shade

*Image 8. New Developments In-Town Lacking Sidewalk Connectivity.*

*Image 9. Walking the Central Core of Weaverville with over Five Miles of Existing Sidewalk.*

## WEAVERVILLE'S KEY OPPORTUNITIES & CHALLENGES

Based on feedback received from members of the community, the Steering Committee and the project team assessment, the planning team identified key opportunities and challenges as it relates to creating a more walk and bicycle friendly Weaverville.

### Connectivity

Although Weaverville has a strong street network, only a few streets offer connectivity to destinations locally and regionally. Generally, these connecting roads are the US and NC routes that cross the Town, and if there are existing bicycle and pedestrian facilities on these streets, they are limited. This lack of connectivity results in more people driving on a few corridors, which translates into less than favorable experiences for people walking and biking (e.g., Main Street and Weaver Boulevard).

Although the Town has a strong system of existing sidewalks, they exist in the core part of downtown. For those residents that live within these areas of Town, they can access the network from their front door. For those residents that do not live in these areas and may not be courageous to venture on the streets lacking sidewalks and bike lanes, they likely must get in a car to access central parts of Town. The areas of the Town that have experienced recent residential growth, including along Merrimon near Aiken Road and along US 25/70 have limited pedestrian and bicycle access and infrastructure. The northwest part of Town has not only experienced this residential population growth but has seen significant commercial growth; yet there is no dedicated pedestrian or bicycle infrastructure connecting this area with the core of Town.

Weaverville does have streets in the core of Town and outside of the core that are low volume, low speed, neighborhood or rural in nature. Some of these streets are naturally conducive to people walking and biking. However, the remoteness of some of these areas makes it hard to connect to downtown core without a personal automobile.

### Areas of Future Growth

The Town of Weaverville has already experienced population growth, particularly with new housing units constructed in the last two years. This

growth is only projected to continue as areas immediately surrounding the Town are anticipated to receive growth pressure, like much of Buncombe County. These findings are largely informed by the Buncombe County Comprehensive Plan, which was underway at the time this Plan was developed. Although there are challenges associated with growth, opportunities do arise to improve the transportation system. Weaverville is positioned to update its land development code related to sidewalk and other infrastructure development which can facilitate this opportunity.

## Problematic Street Crossings

When a street network is largely defined by higher volume connecting roads and lower volume, local streets, it becomes inevitable that people walking and biking will encounter problematic street crossings. There are several problematic street crossings that community members expressed concerns about, many of which are streets that intersect with Weaver Boulevard, Main Street, and Merrimon Avenue.

## Major Physical Barriers

It is important to understand physical barriers to transportation networks as these can have a significant impact to people walking and can increase the cost and permitting process for new connections. In Weaverville, limited access highways where there are limited places for people to enter/exit the roadway, such as US 25/70 and Interstate 26, pose a significant barrier as there are limited crossings available. Other barriers in the Town include rivers or other structures requiring a bridge to traverse, especially those that do not have pedestrian or bicycle accommodations (e.g., the Merrimon Avenue bridge over Reems Creek).

Terrain is another physical barrier to walking and bicycling. Weaverville's Main Street is at a high point of the Town, and bodies of water on either side result in grade changes to the east and west of Main Street. Even gentle grade changes can be challenging for different-bodied individuals or those with a disability, and count data and anecdotes reveal that community members flock to locations where walking opportunities are along flatter segments of land (such as Lake Louise and Karpen Fields). The grade also poses a challenge for new construction, as sidewalk or greenway connections may involve retaining walls or other intensive infrastructure which increases cost. Steep grades also become an issue with making sidewalks and ramps ADA compliant.

Increasingly, access to new devices such as electric and electric-assist bicycles help facilitate the challenge that terrain may pose to people on bikes. These types of bicycles give many people the option to ride bicycles that may not otherwise consider it. They also build courage because they enable people to travel at slightly higher speeds, which lessens the speed difference between people driving and people on bikes, thereby reducing the concern for some.

## Latent Demand & Future Growth

There is much potential for more bicycling and walking in Weaverville, particularly in the growing population of older adults. Growing the sidewalk and greenway network is a critical component of many county and regional planning efforts in Weaverville and will be critical to supporting the health and wellness of Weaverville's aging population.

## Existing Greenway and Bicycle Infrastructure

In terms of existing, dedicated bicycle infrastructure and greenways/sidepaths, Weaverville is limited. There are no existing bike lanes or dedicated greenways in the Town (this does not include loop paths at parks like Karpen Fields). Weaverville's strong network of existing sidewalks and park system are a strong foundation on which additional connections can be planned and built. This network can be expanded to meet the needs of varying user types, from recreation to transportation seekers.

## Weaverville's Main Street

Main Street is the mobility spine of Weaverville, and is truly a workhorse of a street. It is one of the few roadways in the state that has such a narrow footprint yet moves so many people. Its efficiency is maximized down to the inch, and it is constrained under this pressure. Throughout community engagement, residents and visitors described Main Street with the following adjectives: noisy, hot, limited, narrow, and trafficky. This Plan will look for ways to relieve some of this pressure so that Main Street can continue to safely move people yet be a gathering space for visitors and residents.

## Endnotes


[i] U.S. Census Bureau (2020). 2016-2020 American Community Survey 5-year estimates. [Data set]. https://data.census.gov

[ii] Cutshall, Katherine Calhoun. (2021, August). A Brief History of Buncombe County. About Buncombe County Government – History. https://www.buncombecounty.org/transparency/buncombe-government/history.aspx

[iii] Native Lands Digital. (2021). https://native-land.ca/

[iv] Wild South. (2016, April 8). The Cherokee Territorial Claim Circa 1700. Wild South. https://wildsouth.org/the-cherokee-territorial-claim-circa-1700/.

[v] Cutshall, Katherine Calhoun. (2021, August). A Brief History of Buncombe County. About Buncombe County Government – History. https://www.buncombecounty.org/transparency/buncombe-government/history.aspx

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[viii] Weaverville, North Carolina. (2022, May 30). In Wikipedia. https://en.wikipedia.org/wiki/Weaverville,_North_Carolina

[ix] Dry Ridge Historical Museum. (2019, February 22). This post card is captioned: Interurban car at Pine Burr Park on the Asheville to Weaverville electric line in the. [Facebook Post]. https://www.facebook.com/permalink.php?story_fbid=841810676155688&id=163273587342737&__tn__=%2CO*F

[x] Streetcar suburb. (2022, May 15). In Wikipedia. https://en.wikipedia.org/wiki/Streetcar_suburb

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# NETWORK PLAN FOR PEOPLE WALKING & BIKING

3

# NETWORK PLAN FOR PEOPLE WALKING & BIKING

*"I think that there is a great need for safer cycling options and sidewalks for residents to be able to access and support local merchants and to have safe options for recreation and fitness."*
*- Survey Respondent*

## HOW WE GOT HERE

As previously described, this project is grounded in community engagement and previous planning studies, with recommendations and analyses originating from that foundation. The process is iterative, involving multiple methods of communication with stakeholders, and the outcome is a set of projects and a plan to make a more walk and bike friendly Weaverville. This process is described in Figure 16.

## DESIRED MULTIMODAL CONNECTIONS & INITIAL PROJECT IDEAS

Based on the community feedback obtained during this project, Active Weaverville contains three connection focus areas:

1. **Downtown to the northwest**: connecting over the I-26/Weaver Boulevard interchange to areas of new development.
2. **Downtown to the south**: connecting to Lake Louise and Creekside Village neighborhoods.


Figure 16. Project Process

3. Close **critical sidewalk and bicycling gaps** to broaden the system.

These ideas are illustrated in Figure 17; it is from this vision that the projects took form.

### Downtown to the Northwest

In the last few years, Weaverville has seen hundreds of housing units come online around Monticello Road and US 25/70, where there is already significant (and growing) commercial development. There are more units under construction that are expected to be occupied soon. Additionally, the area to the northwest of the Weaver Boulevard/I-26 interchange, including parts not currently within Town limits, is expected to experience County growth pressure and annexation requests to the Town. All signs point to continued development pressure in this area, which will translate to increased transportation needs. Currently, this entire area lacks connected and complete bicycle and pedestrian infrastructure and is, in effect, cut off from the rest of Weaverville for those who need or want to access destinations on foot or bicycle.

### Downtown to the South

Another part of Town that has experienced recent growth, with more housing coming online in 2023, is the area south of Lake Louise. The future Reems Creek Greenway will traverse from east to west in this area, connecting Lake Louise to Karpen Fields. And there has been a long-standing desire for pedestrian accessibility along Merrimon Avenue from downtown to Lake Louise/Reems Creek: the Town's 1994 Pedestrian Plan shows very early evidence of this sentiment. Any of these three factors – growth, Reems Creek Greenway, and community desires – on their own make the case for the need for improved bicycle and pedestrian connectivity to this part of Town.

## CRITICAL SIDEWALK & BICYCLING GAPS

While Weaverville has a strong network of existing sidewalks, there are some critical gaps, needed upgrades and bicycle infrastructure needs. For bicycle infrastructure, many of these connections provide regional connectivity. Filling these gaps will create a more complete system for walking and biking in Town and regionally.


Figure 17. three connection focus areas

# FACILITY SELECTION

## Facility Types

Table 4 describes general facility types considered for Active Weaverville's network connections: paved shoulders, sidewalks, multi-use sidepaths, and off-road trails. For more information about designing these facilities, see the list of design resources in Appendix F.

## Facility Selection

Having identified the desired types of places for people to walk and bike in Weaverville, the next step in the project development process is to assign a facility to streets in the system. Assigning these facility types to street segments and land involves an exercise using principles in Complete Street design and NCDOT's Complete Streets Project Evaluation Methodology (PEM). In 2022, NCDOT's Integrated Mobility Division (IMD) introduced the PEM which provides planners and designers with additional guidance on facility selection and balancing needs within the public

Table 4. Primary Facility Types for Weaverville

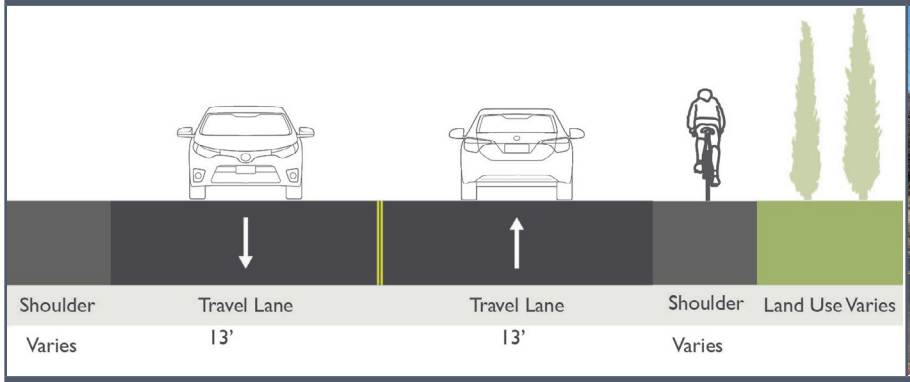
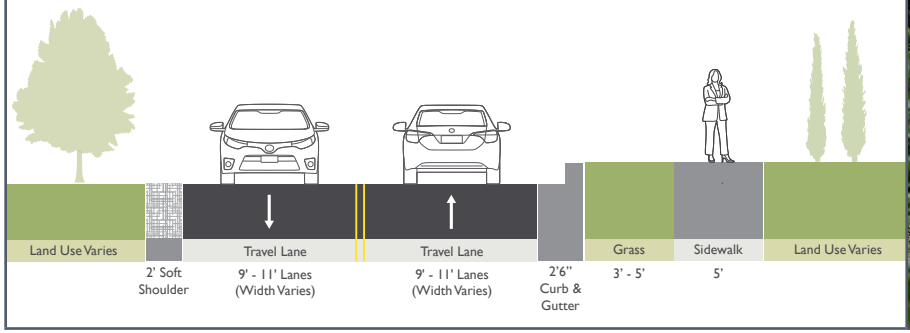
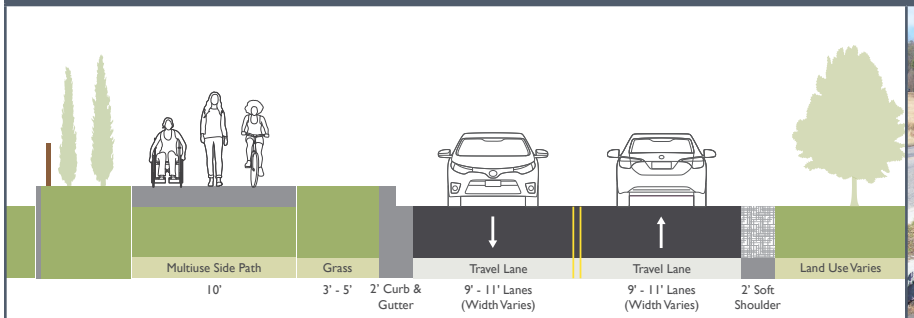
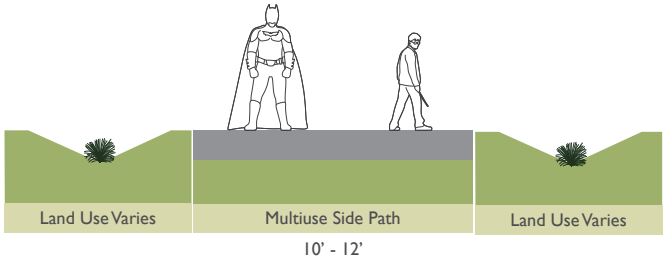
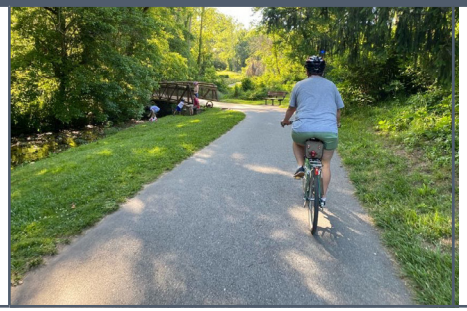
| | | |
|---|---|---|
| **PAVED SHOULDER** | | |
|  |  | Paved, designated space on the edge of the roadway that is striped. |
| **SIDEWALK** | | |
|  |  | A designated space along the side of a road for use by people walking. Traditional sidewalk design includes a 5-foot concrete sidewalk with a 3-5-foot minimum grass buffer strip between the sidewalk and nearest vehicle travel lane. |

Table 4. Primary Facility Types for Weaverville (continued)

| | | |
|---|---|---|
| **MULTI-USE SIDEPATH** | | |
|  |  | A two-way shared use path (minimum 10 feet wide with a 3-5-foot grass buffer strip between the path and nearest travel lane) located immediately adjacent and parallel to a roadway. (Photo Credit: www.pedbikeimages.org / Reuben E Moore, PE) |
| **OFF-ROAD TRAIL** | | |
|  |  | A corridor of land, usually following features such as rivers, old railroad lines, which is used for recreation or alternative transportation purposes (i.e., Future Reems Creek Greenway). |

right-of-way. IMD's new PEM is directed toward facility selection during NCDOT project development; it utilizes pedestrian and bicycle demand, AADT, roadway configuration and operating speed to assign appropriate facility types. For a description of the PEM, see Appendix F.

## Roadway Crossing Treatments

To create a truly accessible community for all transportation modes, facilities must be designed to maximize comfort, convenience and safety – not only along corridors but at locations where people walking interact with streets crossings, trails and driveways (access points). As such, it is critical to carefully select and design crossing treatments, relying on standards and guidance from the state and federal government. Appendix F describes roadway crossing treatment best practices utilizing state and national guidance.

## Other Elements for People Walking & Biking

The work of pedestrian and bicycle system planning also includes details such as traffic calming, speed control and safety enhancements, access to transit and ADA accessibility. In addition, some roadway improvements for walking and biking may languish due to lack of funding or feasibility constraints. In these instances, alternative lower cost, quick implementation type treatments can be considered to enhance the system. This section focuses on these finer design elements that are also part of planning for a network that is functional for all.

## Traffic Calming

As traffic congestion and travel speeds increase on a street, there can be negative impacts to people walking and biking. Traffic calming is a tool to manage the negative impacts of traffic on the street through physical design and other measures. In addition, as speed is a major predictor of injury severity, traffic calming will help reduce severe and fatal crashes involving people walking.

The Federal Highways Administration (FHWA) and Institute of Transportation Engineers have developed the Traffic Calming ePrimeri and provides broad categories of traffic calming:

- **Horizontal deflection** requires a person driving a car to navigate around a feature, including:
  - Curb extensions
  - Median crossing islands
  - Lateral shift/chicane (modification to roadway design to eliminate straight, unimpeded sections of roadway)
- **Vertical deflection** requires a person driving a car to travel over a feature, such as:
  - Speed humps/bumps
  - Raised crosswalks
  - Raised intersections
- **Roundabouts** utilize both horizontal and vertical deflection
- **Street width reduction** use tools such as a road diet (e.g., converting a roadway from 4-lanes to 3-lanes) or lane narrowing
- **Routing restrictions** place closures and turn restrictions such as:
  - Diverters
  - Half or full closures
  - Median barrier
  - Turn restriction

# TRAFFIC ENFORCEMENT IN WEAVERVILLE

*The Weaverville Police Department (WPD) responds to concerns of speeding and other related traffic issues in Town. A common practice of the Town, which is a best practice in traffic enforcement, is to install temporary signage and message boards notifying people of their driving speeds. The Town also collects speed and volume data to be able to effectively respond to residential concerns. WPD supported the collection of data on College Street and Central Avenue as a part of this Plan.*

# BICYCLE SPOT SAFETY IMPROVEMENTS FOR RURAL ROADWAYS

Retrofitting streets with bicycle and pedestrian infrastructure is not an easy task, particularly in a region like Western North Carolina where the roadways are often constrained by steep terrain, streams and rivers, and other natural and man-made features. In many cases, the roads in the region were designed and built at a time when the area was less populated and traffic volume and speeds were lower. Increases in travel speeds, traffic volumes and vehicle size combined with increased need for multimodal facilities have strained roadway functionality. Solutions are challenging to implement due to engineering and budgeting constraints.

Along these rural roadways with challenging terrain, the addition of sidewalks and bicycle lanes are very expensive and sometimes not feasible. To build such projects in a community the size of Weaverville can be a significant portion of the Town's modest budget, making it even less likely that the Town will be able to make strides in their pedestrian and bicycle network despite their stated vision and goals.

To overcome this challenge, bicycle facility solutions can be implemented using a "spot improvement" approach, where constrained or challenging sections of roadways can be upgraded to offer enhancements to a person riding a bicycle. While not as extensive as a dedicated linear improvement such as a bike lane or shoulder, spot improvements can enhance the bicycling experience in a more way that is more cost-effective for small communities like Weaverville. In the Connector Projects described in this Plan, any shoulder recommendations can be supplemented with the following spot improvements.

The following examples are provided for educational purposes; locations for installation and appropriateness of treatments should be determined by a licensed transportation engineer.

## 1. WARNING SIGNAGE

Warning signage with specific messaging about passing people on bikes may be implemented at spot locations. These should be consistent with national and state guidance. There are many types of warning signs and examples are shown on the right.

## 2. WARNING FLASHERS

Warning flashers may be implemented at spot locations with limited sight lines or maneuverability for people on bikes. Traditional warning flashers that flash at all hours, may be less effective as drivers get used to them. As such, when feasible and appropriate, a detector that flashes when it capture the presence of a person on a bike is recommended to ensure that flashers are activated only when needed.

## 3. RUMBLE STRIPES AND RUMBLE STRIPS

Rumble stripes are milled longitudinal rumble strips placed on the edge line. Best practices are detailed in the Ohio DOT Multimodal Design Guide as follows: "Where necessary, rumble stripes are preferred to rumble strips in





*(Sources: Hottman Law Office / top left, San Francisco Chronicle / bottom right, WSDOT Blog / middle & Adventure Cycling Association / bottom)*

areas designated as bicycle routes or having substantial volumes of bicycle traffic as they do not decrease the available shoulder width for bicycle travel. Rumble strips are placed in the shoulder outside of the edge line and generally should not be used where bicyclists are expected unless the shoulder is wide enough to accommodate the rumble strips and still provide a minimum clear width..... When present, the rumble stripe (or strip) pattern should not be continuous but should consist of an alternating pattern of gaps and strips, each 12 ft. and 48 ft. respectively in length. Also, gaps should be provided in the rumble stripe pattern ahead of intersections, crosswalks, driveway openings, and at other locations where bicyclists are likely to cross the shoulder."

## 4. SPOT SHOULDER WIDENING

For sections of roadway where vehicles do not have sufficient line of sight to safety cross the centerline of the roadway to pass a bicycle, strategic shoulder widening can be identified to allow for additional space for bicycles to "pull over" to allow vehicles to safely pass. This is most critical on long uphill roadway sections where drivers may become impatient and pass when it is not safe to do so. Additional information is available from FHWA **here**.

## 5. SPOT SIGHT LINE IMPROVEMENTS

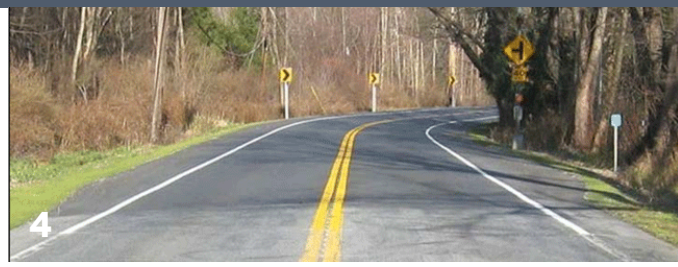
It is important to maximize visibility between vehicles and bicyclists and between opposing vehicles that need to see each other in order to safely pass bicyclists. As such, key locations can be investigated to remove obstructions to visibility such as vegetation, structures, fences and embankments, etc.

## 6. SPOT INTERSECTION IMPROVEMENTS

Points of conflict between various road users increase at intersections; and, in rural areas, most intersections do not have full signal control to manage these conflicts. Bicycles that travel through uncontrolled intersections in rural areas may be exposed to additional conflicts where they are not always visible or anticipated by drivers. As such, problem intersections can be treated with safety countermeasures, where necessary, to enhance safety for all modes, including bicyclists. Examples of countermeasures include spot sight line improvements as well as enhanced warning signs and markings, flashing warning devices and modified intersection control such as all way stop control or roundabouts, etc. Additional information is available from FHWA **here**.

## 7. EDUCATION CAMPAIGNS

Education campaigns can be a good compliment to infrastructure projects where they emphasize a facility type or introduction of a new concept, or just general messaging about the presence of people on bikes or rules of the road. Placement of these along constrained or rural roadways is strategic and can help ensure that drivers of motorized vehicles remain alert and aware of possible conflicts with other modes of travel.








*(Sources: FHWA / top, Orlando Sentinel / second from top, AMB Mag / bottom left & TheSource.Metro.Net / bottom right)*


Figure 18. An Artist's Rendering of a Neighborhood Greenway on Brown Street in Weaverville.


Figure 19. An Artist's Rendering of a Streetscape Project in Sparta, NC.

Traffic calming measures have been applied to projects in this Plan as ways to improve the walkability and bikeability of Weaverville's streets, such as along Brown Street. Figure 18 is a rendering of what traffic calming on a street like Brown could look like.

### Streetscape

An improved streetscape aims to enhance an existing street, sidewalk and street crossings to create a vibrant pedestrian, bicycle, and community gathering environment. This can be the addition of street trees or vegetation, outdoor seating, artwork, or other amenities that create a more welcoming atmosphere and also contribute to traffic calming and improved crossings. Many communities in North Carolina have implemented streetscaping in their downtown to support a friendlier environment and to boost economic development. Multiple studies and real-world examples show that trees and a more attractive streetscape leads to greater visitation and higher retail sales for businesses[ii]. Weaverville currently has streetscape-like elements at a few crossings and buildings in downtown, such as at Town Hall and the crossing at Florida Street. Figure 19 is a rendering of a streetscape project in Sparta, NC.

### Decorative Crosswalks

Increasingly, municipalities are interested in making their downtowns both aesthetically pleasing and friendly for people walking, and one commonly sought-after way to do this is through streetscape elements like colored or decorative crosswalks. Various decorative crosswalk options are available that can be customized to increase crosswalk visibility while not distracting people driving from the road. FHWA issued a memorandum on August 15, 2013[iii] related to decorative crosswalk patterns. Based on the FHWA memorandum, it is possible to develop an aesthetic crosswalk pattern if it meets the following criteria:

- No retro-reflective, traffic control or distracting elements within the vehicular traveled way
- Acceptable pattern examples are repetitive such as brick, lattice, cobbles or paving stones
- Acceptable colors are neutral such as red, rust, brown etc.

Streets that the Town owns and maintains, such as Florida Avenue, are great candidates for decorative crosswalks.

### Access to Transit

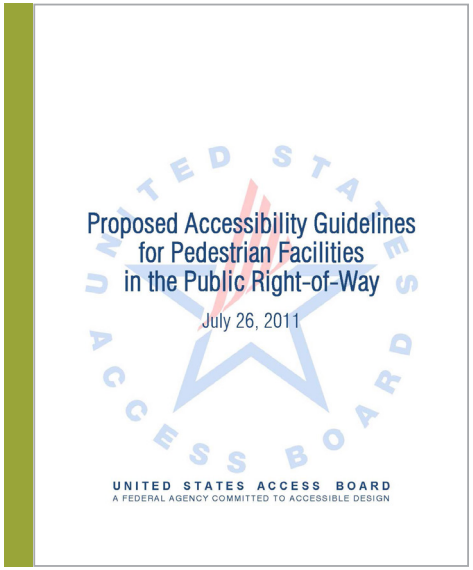
While Weaverville does not have dedicated transit service, there is interest in expanding the regional transit system and it is important to understand how transit and bicycling/walking are integral[iv]. Understanding transit in relation to a pedestrian and bicycle network is important as both modal opportunities offer enhancements to each other and are most effective when seen as a unit. Every person taking transit is also a person walking, and for transit systems to be effective, the "first and last mile" of a person's transit trip can be taken by foot or bike. The phrase "first and last mile" is frequently used when understanding transportation systems and is not intended to be literal but rather a reference to the first and last leg of a transit trip. For all systems to work together well, transit, bicycle and pedestrian networks need to be well-designed, efficient, and connected. This means solutions such as sidewalks connecting to bus stops and bus stops with shelters.

The following high-level items ensure that transit and pedestrian/bicycle systems are better integrated:

- Include high quality (direct and well-designed) access to bus stops.
- Enhanced crossings and signal timings for people accessing transit stops.
- Bus shelters, benches and trash receptacles.
- Accessible bus stop landings.
- Education and encouragement campaigns to promote service.

These components should be considered as transit is discussed and developed for the region.

*Image 10. These Guidelines Propose Accessibility Guidance for the Design, Construction and Alteration of Pedestrian Facilities in the Public Right-of-Way*




### Accessibility for All

The Americans with Disabilities Act (ADA) of 1990 is a civil rights law that prohibits discrimination based on someone's disability. Title II of the Act requires cities and towns to have a plan to make accommodations for everyone.

Sidewalks, street crossings, and other elements in the public right-of-way can pose challenges to accessibility and many people with disabilities rely on the multimodal network as their primary, or only, way to get from place to place. According to the American Community Survey, in 2020 8.6% of Weaverville's population had some type of disability.v Creating an equitable transportation system requires that people with disabilities can move about without barriers.

To address these challenges, the US Access Board has developed a set of design standards for transportation: the "Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way", or PROWAG. The PROWAG addresses people's access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The goal of the Access


Board in developing these guidelines "is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities"vi. Once these guidelines are adopted by the Department of Justice, they will become enforceable standards under Title II of the ADA.

In 2020, Weaverville developed an ADA Transition Plan which included some elements of the public right-of-way. Given that Weaverville's system of sidewalks is older, most do not comply with the ADA and PROWAG. One common facility recommendation in this Plan is ADA upgrades where there is an existing sidewalk; this will ensure compliance with the law and equitable access for all.

### Pedestrian-Scale Wayfinding

Signage for people walking is a critical aspect to complement any pedestrian and bicycle system. This signage can offer the user information about destinations of interest, distance (in feet/miles and/or minutes) and the direction. Such wayfinding sign systems would be a compliment to the Town's sidewalk and bicycling network. A wayfinding system can guide people walking to key destinations such as downtown or Lake Louise and can also be integrated with the Town's pedestrian mapping system.

*Image 11. Example of Pedestrian-Scale Wayfinding That is Map-Based (From the Middle Fork Greenway in Boone, NC)*

# PROJECT RANKING CRITERIA

### Vehicle Exposure (+4 Points) (Speed, Length, Traffic Volume)

*This factor evaluates based on level of comfort / stress that a user might experience. This considers the length of time people walking or bicycling are exposed to vehicles and adjacent traffic speeds and volumes. This is used as a proxy for actual crash records since those numbers are relatively low and are not always predictive of crash potential.*

### Connectivity (+4 Points)

*This factor evaluates whether the project is a key connection or only serves a few homes or businesses.*

### New Connection (+1 Point)

*This factor adds a point for any new connection that is not existing.*

### Cost (+1 Point)

*This factor evaluates the cost and feasibility of a project. Projects received one point if they can be implemented at low cost, do not rely on external partners or high levels of investment, and can be implemented in a shorter timeframe. All other projects were deducted points.*

### Public Sentiment (+2 Points)

*This score includes the rankings from the Steering Committee and Public Meeting.*

### Equity (+3 Points)

*This factor adds up to three points for projects that are in historically black communities, that are in higher density residential, and have a high equity score.*

## PRIORITIZATION METHODOLOGY

Much of the community's feedback gathered during this project took the form of a project idea or recommendation, such as a desire for a sidewalk connection on a particular street. In a plan like Active Weaverville, this results in a list of project ideas. Although all projects are important, the Town does not have the resources to complete the entire envisioned network at one time. As such, it is important to rank projects so that the Town can focus limited resources on key projects to achieve the goals and vision set out at the beginning of this plan.

The final prioritization methodology to arrive at the top ten projects, known in this Plan as the Catalyst Projects, utilized a scoring approach. The higher the score, the higher the priority of the project. These criteria and scoring were developed from the project goals and the NCDOT Strategic Prioritization methodology used for bicycle and pedestrian projects and are outlined in Figure 20. The full scoring details are provided in the Appendix B.

Map 8, found in Chapter 2, illustrates the equity composite and analysis for Weaverville. The historically black community in Weaverville are defined as those bound by Hillside Street, Main Street and East Street. And higher density residential for Weaverville is defined by areas of more than 4 units per acre.

## CATALYST PROJECTS

The results of the project rankings are shown in the Project Goal Matrix and Map 9, along with facility type and whether the project achieves the goals set out the project-specific in the beginning of the Plan.

**Goal 1: Connect the network.**

**Goal 2: Build safe streets.**

**Goal 3: Foster safe speeds.**

Figure 20. Project Ranking Criteria

# PROJECT GOAL MATRIX

**Weaverville identified three guiding project goals (see page XX). The matrix below details the goals that each project meets.**

**GOAL 1:** *Connect the network*

**GOAL 2:** *Build safe streets*

**GOAL 3:** *Foster safe speeds*

| PROJECT | Facility Type | GOAL 1 | GOAL 2 | GOAL 3 |
|---|---|---|---|---|
| **1 /** Hillside Improvements | Traffic Calming & Spot Improvements | ⊙ | ⊙ | ⊙ |
| **2 /** Merrimon: Lake Louise to Brown St Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **3 /** Main: Elementary School Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **4 /** North Main Street Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **5 /** Yost Street Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **6 /** Creekside Connector Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **7 /** Merrimon: Reems Creek to Lake Louise Multi-Use Sidepath | Multi-Use Sidepath | ⊙ | ⊙ | |
| **8 /** Northcrest Road Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **9 /** Weaver Blvd I-26 Overpass Sidewalks | Sidewalks | ⊙ | ⊙ | ⊙ |
| **10 /** Main St Streetscape | Streetscape | ⊙ | ⊙ | ⊙ |

Note that goals 4 and 5 (improve policy and promote a culture of walking and biking) are omitted from the Project Goal Matrix Table as they are not as project-related and as such would have less relevance to this table.

Each project was cross-checked against the NCDOT 2021-2025 Highway Maintenance Improvement Program (HMIP). The HMIP indicates NCDOT's plan for maintenance to roadways, including preservation, resurfacing/repaving and rehabilitation. Coordination with the HMIP offers opportunities for cost-savings and construction coordination to reduce construction impacts to the community, unfortunately there are no coordination opportunities currently on the horizon.

The following cutsheets describe these projects in further detail including key elements, challenges/constraints, crossings, cross-sections and cost estimates. The cost estimates include design, right-of-way, utilities, and construction costs per assumptions from the NDOT Bicycle and Pedestrian Cost Estimating Tool. Details on the cost estimating process are provided in Appendix D. These projects are foundational to the Weaverville pedestrian and bicycle network. They will help grow connectivity for walking and bicycling and build a spine for the network. As funding opportunities present themselves, this study provides support and justification for the Town and NCDOT to prioritize these projects for design and construction.

## PROJECT CUTSHEETS

Cutsheets - which are high level conceptual designs - have been developed for the ten Catalyst Projects. See cutsheet details beginning in the next section of this chapter.

## SECONDARY PROJECTS & CROSSINGS

The Catalyst Projects are shown in Map 10 along with secondary, or Connector Projects. Although the Catalyst Projects are critical to the development of Weaverville's pedestrian and bicycle system, the the Connector Projects and crossings are also key components of the plan. Appendix D provides the facility type and name for each of these Connector Projects, along with recommended crossing improvements. Map 11 also illustrates the Catalyst and Connector Projects by facility type.

## OTHER PROJECTS

Concurrent with Active Weaverville, NCDOT is advancing a few projects of note. The agency is working with Ingles on Weaver Boulevard to add pedestrian signalization, a crosswalk and the corresponding curb cuts and sidewalk connections along the eastern leg of Weaver Boulevard at the signal to Ingles/Publix shopping center. Ingles and NCDOT are partnering to complete this project, which is still in planning stages.

On their 5-year repaving plan, NCDOT anticipates the need to repave North Buncombe School Road, which is outside of the Town limits. However, there may be an opportunity to include minor widening during repaving to provide a bikeable shoulder.

## REGIONAL BICYCLE CONNECTIONS

Providing multimodal regional connections, particularly for those biking, will be critical to the Active Weaverville network. People on bikes can inherently travel longer distances than people walking, and given Weaverville's small scale, this is very important for both transportation and recreational bicycling needs. Map 11 illustrates several Connector Projects that will begin to establish this regional bicycling network. One project of note is the Shoulder & Bicycle Spot Improvement project that extends from Dula Springs Road / Monticello Road to Clarks Chapel Road. This is a very short connection in length but is a significant barrier to people bicycling; it involves an interstate connection, high speed vehicle movements, and vehicle lane transitions. Just north of this short segment, a large network of recreational bicycling routes awaits in northern Buncombe County and southern Madison County (see Map 6). This segment is outside of the Town limits and will involve close coordination with NCDOT, which are next steps to advance this improvement so that people on bicycles can more comfortably travel to reach regional destinations.

Other Shoulder & Bicycle Spot Improvement projects illustrated in Map 11 can be enhanced with many of the treatments described in Chapter 3, Bicycle Spot Safety Improvements for Rural Roadways. These key roads for bicycle spot safety improvements include Dogwood Drive, Hamburg Mountain Road, Aiken Road, and North Main Street.

# 1 HILLSIDE STREET IMPROVEMENTS


## PLANNING LEVEL COST ESTIMATE

**$155,000**

*Includes design, right-of-way, utilities and construction per assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool.*

## PROJECT DESCRIPTION

- Traffic calming and spot improvements (longer-term: sidewalk)
- Reduce turn radii at Main Street to encourage complete stop
- Project identified in 1994 Town Pedestrian Plan

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Little Mount Zion Church<br>o Reems Creek Road<br>o Hillside Community Center | A. Traffic calming and improved crossing for pedestrians<br>B. Sight line issues with vertical and horizontal curves<br>C. Constrained with fronting homes and private property<br>D. Steep grades<br>E. Possible gateway treatment and speed control measures<br>F. Curve with guardrail: Improve curve warning signs and markings<br>G. Future crossing need - connection to Reems Creek Greenway |
| **CROSSINGS**<br>o Main Street | |

## RENDERING OF PROPOSED CROSSWALK AND SIGNING


*Hillside at South Main Street: Offset Intersection and Reported Cut Through Traffic*


*Hillside at South Main Street Short Term Application: Reduce radius and implement Pedestrian Crossing with signs and markings. Possible long term implementation option with curb extensions and ADA ramps.*

*Potential Gateway Treatment*


*Examples of Speed Signs and Markings: Speed Feedback Signs (Left Side of Road), Slow Warning Sign (Right Side of Road), and Slow Pavement Markings (in Right Lane).*

# 2 MERRIMON AVENUE: LAKE LOUISE TO BROWN STREET SIDEWALKS


## PLANNING LEVEL COST ESTIMATE

**$355,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

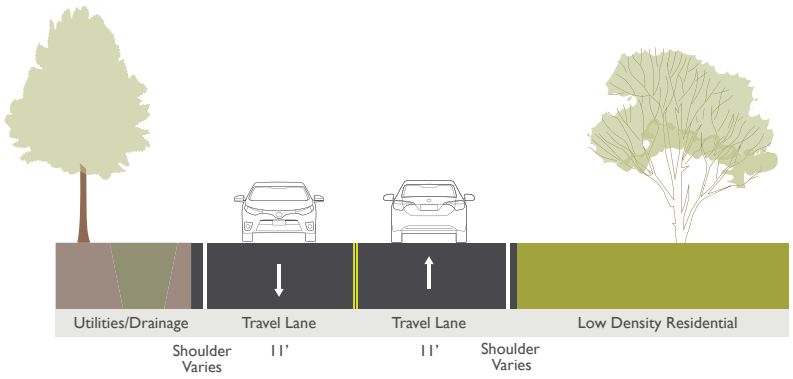
- Sidewalk connection from Lake Louise to nearby neighborhoods
- Connectivity along Merrimon Avenue which is a pedestrian desire

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Lake Louise Park<br>o Weaverville Community Center<br>o Weaverville Elementary School<br>o Neighborhoods and downtown | A. Steep grades<br>B. Enhanced pedestrian crossing treatment<br>C. Drainage and steep grades<br>D. Possible crossing alternative<br>E. Private property constraints<br>F. Future crossing to Brown Street |
| **CROSSINGS** | |
| o Merrimon Avenue | |


*A Common Sight: People Walking between Lake Louise Drive and Yost Street (Photo: Steering Committee Member)*

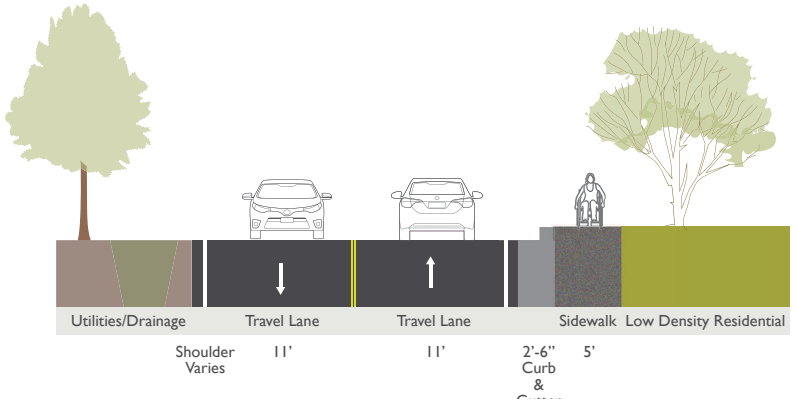
## BEFORE CROSS SECTION

*Existing Condition: Merrimon Ave. between Lake Louise and Brown St. Looking North*




## AFTER CROSS SECTION

*Proposed Condition: Merrimon Ave. between Lake Louise and Brown St. Looking North*

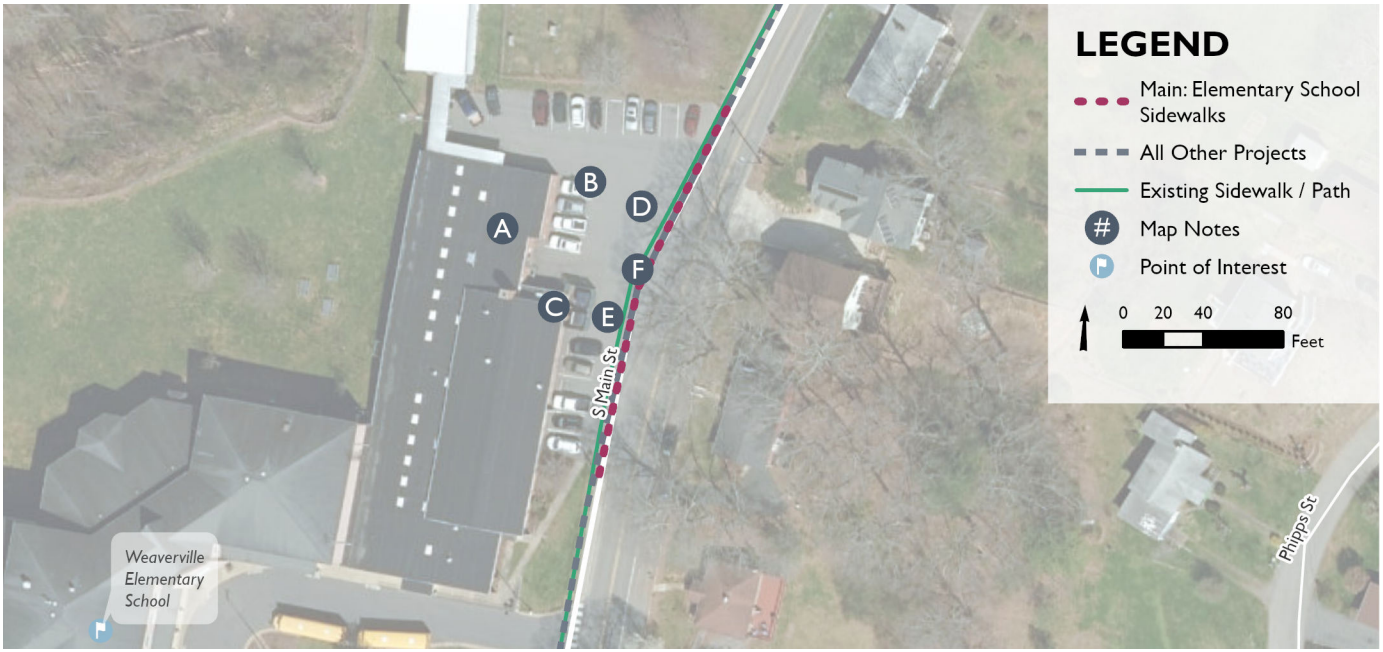



## RENDERING OF PROPOSED CROSSWALK

*Merrimon at Brown Street*


*Merrimon Approaching Yost*

# 3 MAIN STREET ELEMENTARY SCHOOL SIDEWALKS




**LEGEND**

- Main: Elementary School Sidewalks
- All Other Projects
- Existing Sidewalk / Path
- # Map Notes
- Point of Interest

0 20 40 80 Feet

## PLANNING LEVEL COST ESTIMATE

**$110,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

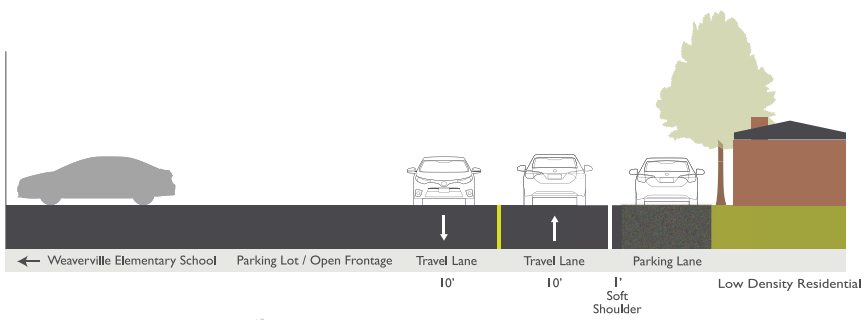
- Complete sidewalk for walking to school
- 5-foot sidewalk through Elementary School parking lot
- Better define parking lot and pedestrian space (minimize conflicts)
- Formalize the parking lot

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Weaverville Elementary School<br>o Neighborhoods and downtown<br>o Lake Louise via Future Sidewalk Projects | A. Building facility used for after-school programming<br>B. Faculty and staff parking lot<br>C. Important to maintain access to dumpsters and loading for cafeteria<br>D. Proposed one-way entry<br>E. Proposed one-way exit<br>F. Landscaping opportunity for traffic calming and pedestrian comfort |
| **CROSSINGS** | |
| o None | |

*Sidewalk Gap at the Faculty/Staff Parking Area of the Elementary School.*

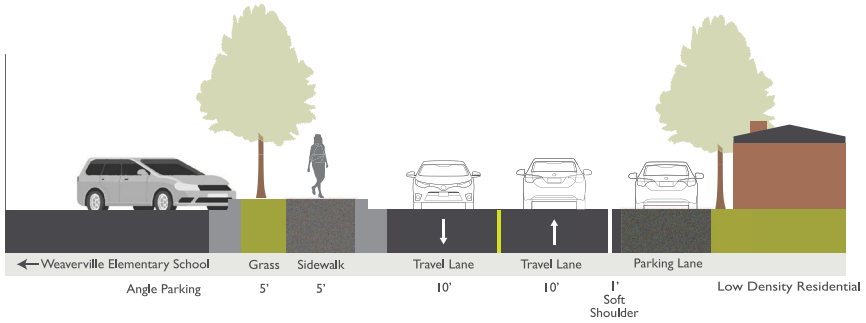
## BEFORE CROSS SECTION

*Existing Condition: Weaverville Elementary School Frontage Looking North*




## AFTER CROSS SECTION

*Proposed Condition: Weaverville Elementary School Frontage Looking North*




## POSSIBLE LAYOUT OF FACULTY/STAFF PARKING AREA *


** Example of revised parking and driveway configuration will require additional school feedback as this project directly impacts school operations.*

# 4 NORTH MAIN STREET SIDEWALKS


## PLANNING LEVEL COST ESTIMATE

**$240,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

- 5-foot sidewalk at the back of curb to fill in gaps
- Intersection improvements at Hamburg Mountain Rd and N. Main for sidewalk extension
- Provide access to homes north of Hamburg Mountain Road and east of Main Street

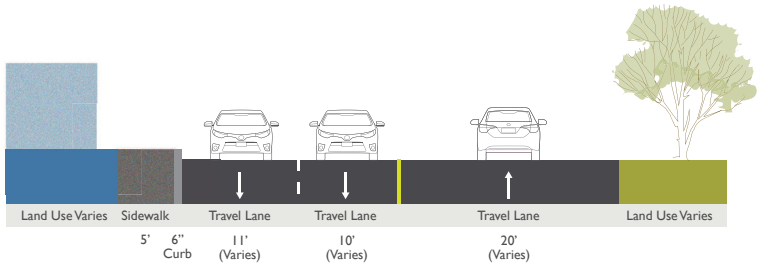
| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Commercial destinations on Weaver Boulevard<br>o Neighborhoods and downtown | A. Intersection improvement includes ADA upgrades and pedestrian signals for all three legs of intersection<br>B. Opportunity to reconfigure travel lane and construct sidewalk in ROW (between Hamburg Drive and Hamburg Mountain Road)<br>C. Private property constraints<br>D. Future improvement of Weaver Boulevard intersection needed |
| **CROSSINGS** | |
| o Hamburg Drive | |

*Looking North from Hamburg Mountain Road Towards Where the Current Sidewalk Ends (Photo: Steering Committee Member)*

*Pushing a Child in a Stroller Where Current Sidewalk Gap Exists.*

## BEFORE CROSS SECTION

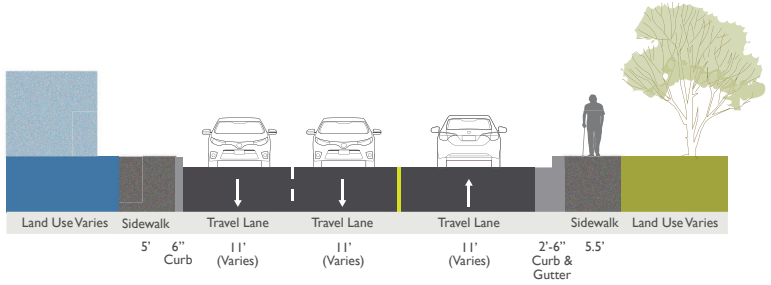
*Existing Condition: N. Main St. between Hamburg Mtn. Rd. and Hamburg Dr. Looking North*




**Evaluate project for signing, marking and signal improvements to enhance the bicycle mode of travel.*

## AFTER CROSS SECTION

*Proposed Condition: N. Main St. between Hamburg Mtn. Rd. and Hamburg Dr. Looking North*




## RENDERING OF PROPOSED SIDEWALK


*Looking north from Hamburg Mountain Drive towards Hamburg Drive.*

# 5 YOST STREET SIDEWALKS


## PLANNING LEVEL COST ESTIMATE

**$525,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

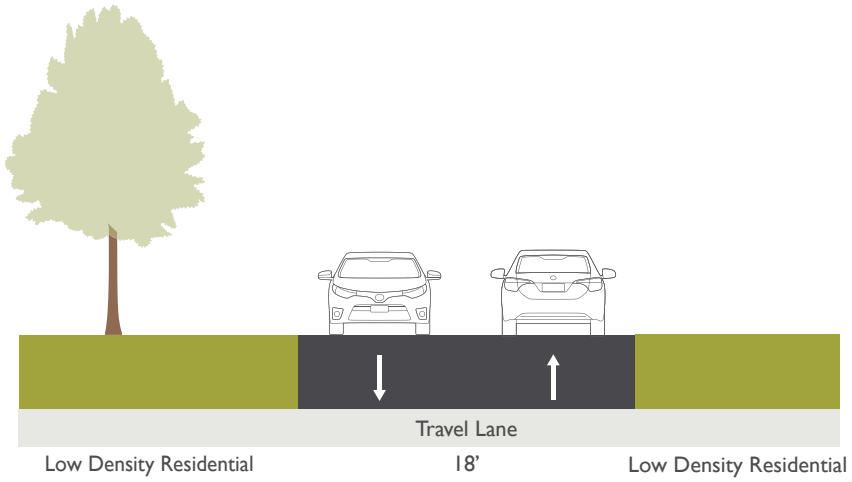
- 5-foot sidewalk on north side of Yost Street
- Provide needed connection in network gap
- East-west connectivity across Town where it is currently lacking

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Weaverville Elementary School<br>o Weaverville Community Center<br>o Lake Louise Park<br>o Homes and downtown | A. Private property constraints throughout<br>B. Sidewalk more feasible on north side of Yost Street<br>C. Steep embankment – possible opportunity to move sidewalk towards school property at top of embankment<br>D. Coordinate with school on fence relocation<br>E. Significant vertical and horizontal curve sight line issues<br>F. Roadway narrows significantly |
| **CROSSINGS** | |
| o None | |


*(Photo: Steering Committee Member)*

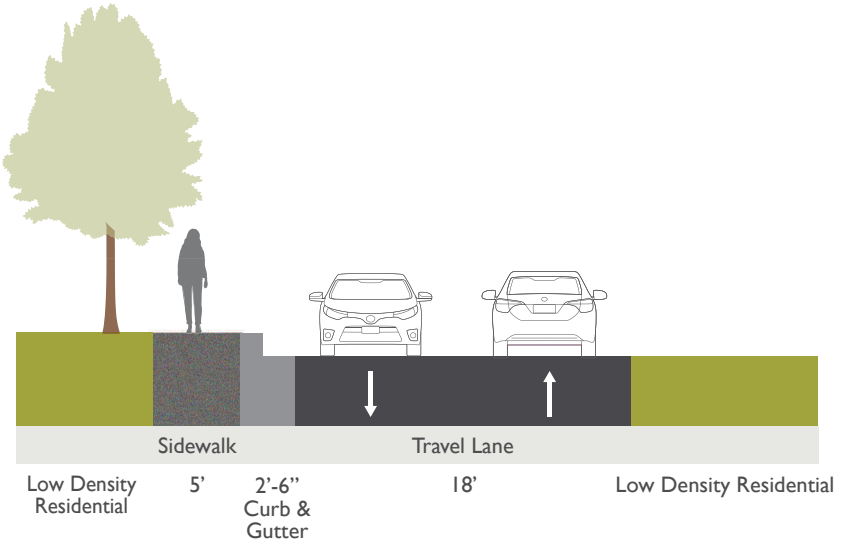
## BEFORE CROSS SECTION

*Existing Condition: Yost St. Looking East*




## AFTER CROSS SECTION

*Proposed Condition: Yost St. Looking East*




*Yost - Limited Sight Lines*

*Given the Roadway Constraints, this Project May Be Best Aligned on the School Property Near the Fence; Close Coordination is Necessary During Project Development.*

# 6 MERRIMON AVENUE: CREEKSIDE CONNECTOR SIDEWALKS


## PLANNING LEVEL COST ESTIMATE

**$570,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

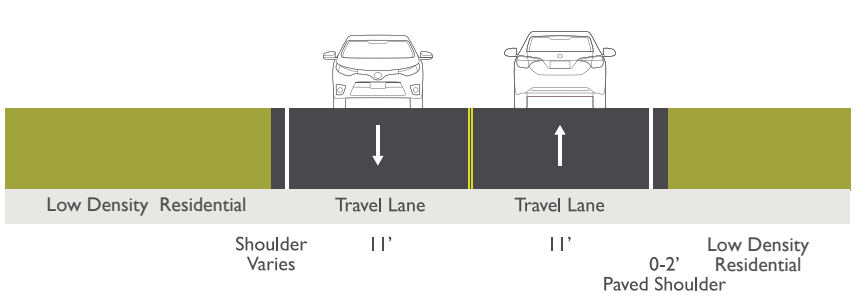
## PROJECT DESCRIPTION

- 5-foot sidewalk
- Connection from housing/Aiken Road to future greenway and Lake Louise Park

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Lake Louise Park<br>o Weaverville Community Center<br>o Housing and downtown<br>o Future Reems Creek Greenway | A. Future crossing need to Lake Louise<br>B. Reems Creek crossing needed (to be addressed with future Reems Creek Greenway)<br>C. Precise sidewalk location pending Reems Creek Greenway alignment and Reems Creek Crossing location<br>D. Possible future opportunity to partner with Sample Group<br>E. Drainage and embankment constraints<br>F. Connection to existing sidewalk on Merrimon Avenue |
| **CROSSINGS** | |
| o Merrimon Avenue (possible connection to Greenway or sidewalk with new development) | |

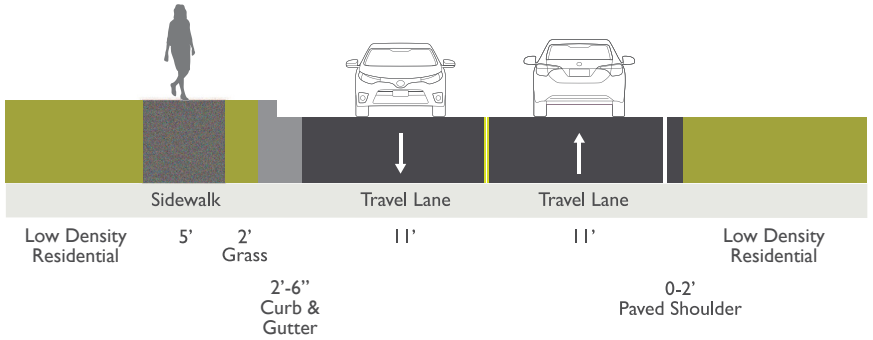
## BEFORE CROSS SECTION

*Existing Condition: Creekside Looking North*




## AFTER CROSS SECTION

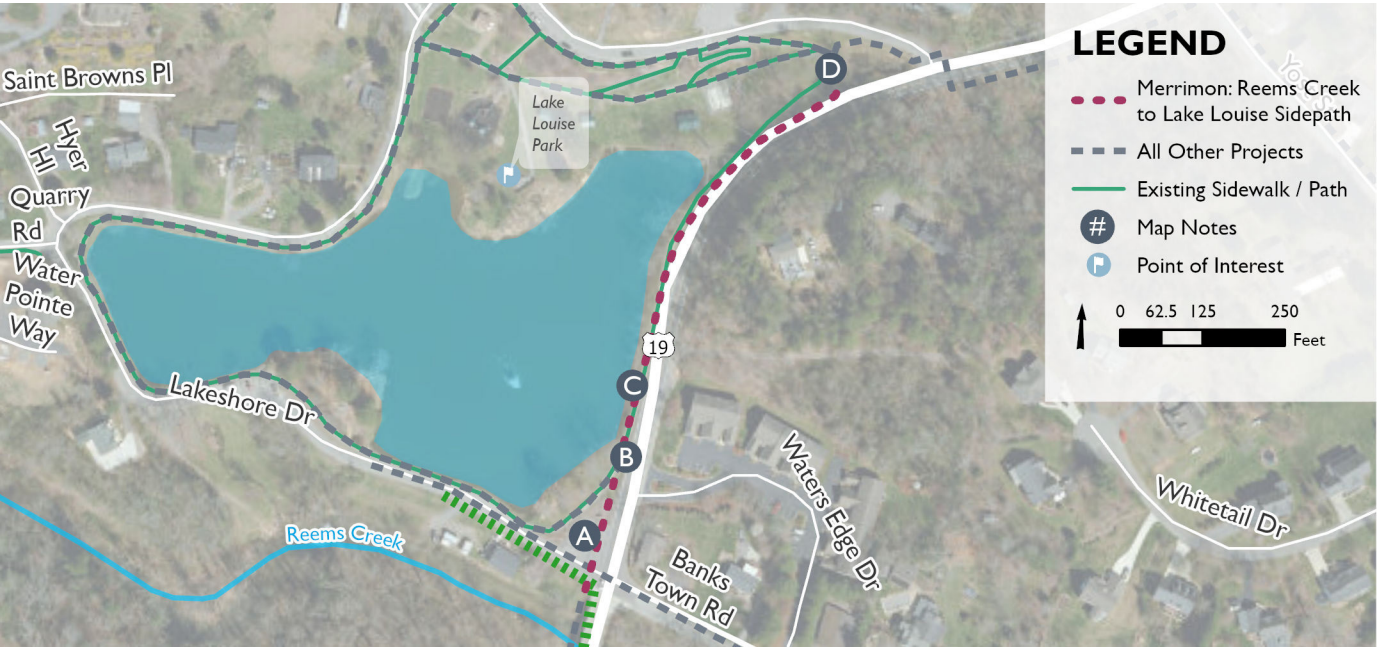
*Proposed Condition: Creekside Looking North*




*Connection to Future Reems Creek Greenway and the Iconic Water Wheel*

**Drainage and Utility Constraints Along Merrimon**

# 7 MERRIMON AVENUE: REEMS CREEK TO LAKE LOUISE MULTI-USE SIDEPATH




## PLANNING LEVEL COST ESTIMATE

**$555,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

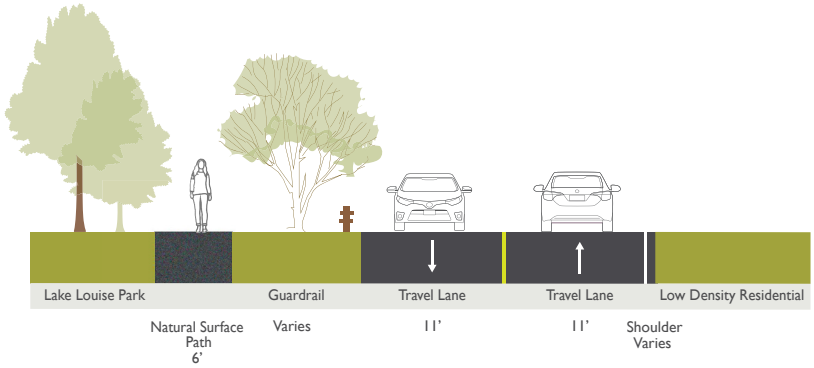
## PROJECT DESCRIPTION

- Upgrade of existing gravel path to widen (10') and pave
- Allow people on bikes to circumnavigate the lake

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Lake Louise Park<br>o Weaverville Community Center<br>o Housing and downtown<br>o Future Reems Creek Greenway | A. Redesign of parking lot needed and future crossing of Banks Town Road<br>B. Guardrail: an existing constraint for widening<br>C. Steep embankment: a constraint for widening<br>D. Connection to future sidewalk project identified in Active Weaverville |
| **CROSSINGS** | |
| o None | |

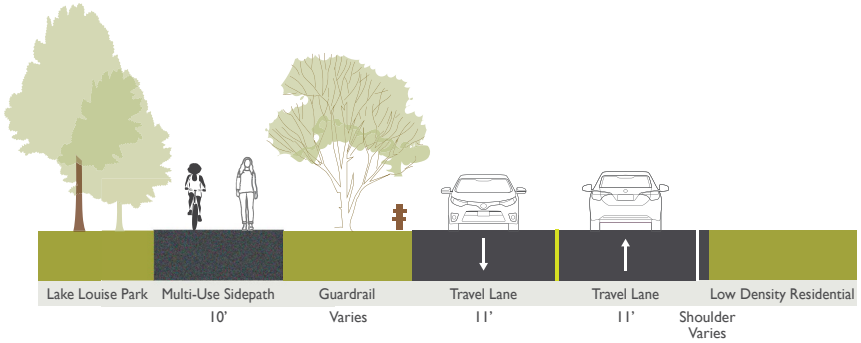
## BEFORE CROSS SECTION

*Existing Condition : Merrimon Ave: Reems Creek to Lake Louise Multi-Use Sidepath Looking North*




## AFTER CROSS SECTION

*Proposed Condition: Merrimon Ave: Reems Creek to Lake Louise Multi-Use Sidepath Looking North*

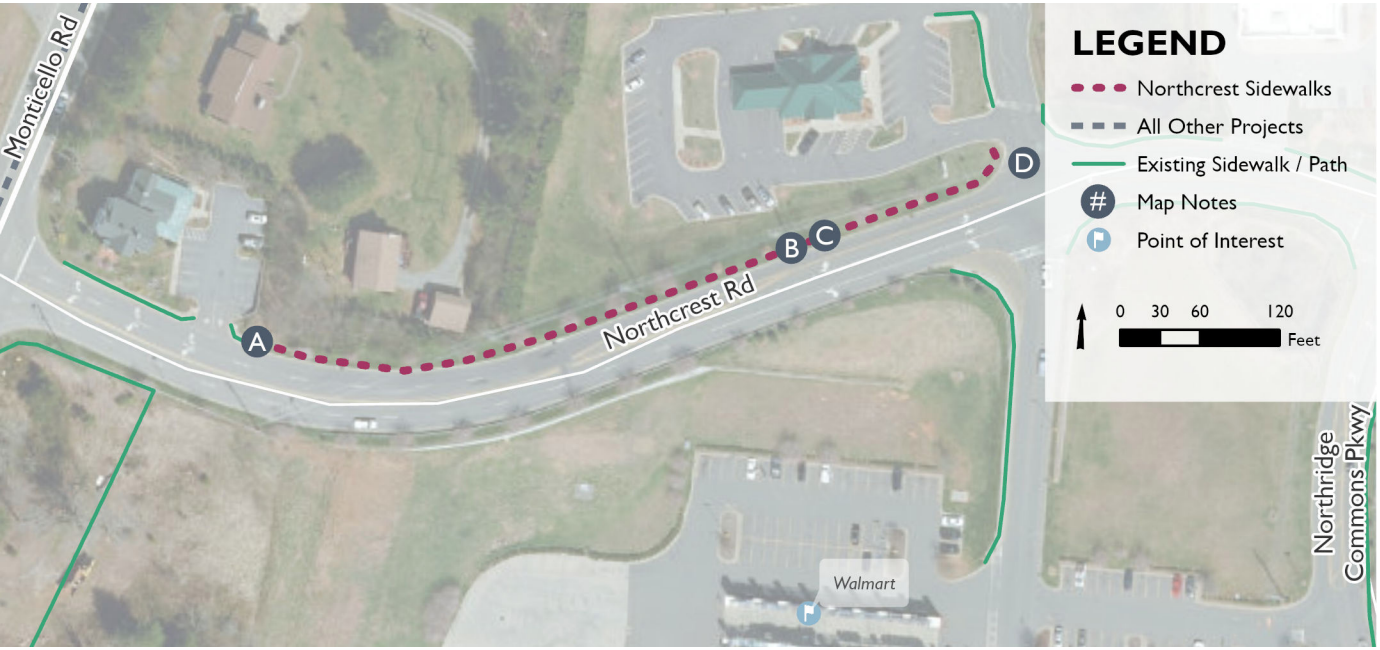




**Guiderail and Parking Constraints**

*Views Along the Proposed Sidepath*

# 8 NORTHCREST ROAD SIDEWALKS




## PLANNING LEVEL COST ESTIMATE

**$305,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

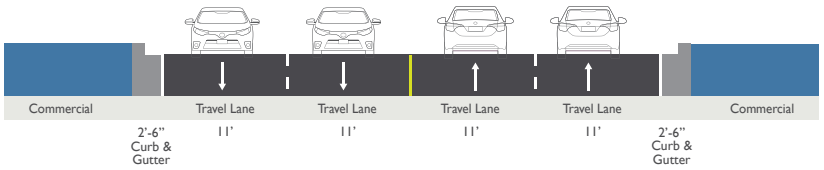
## PROJECT DESCRIPTION

- 5-foot sidewalk connecting Northridge Commons multi-family housing with Walmart
- Fill in sidewalk gap

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Walmart<br>o Lowes<br>o Other large and smaller commercial developments<br>o Multi-family housing | A. Existing sidewalk terminates<br>B. Retaining wall needed (approx. 60')<br>C. Utility and light pole to be relocated<br>D. Crosswalk needed |
| **CROSSINGS** | |
| o None | |

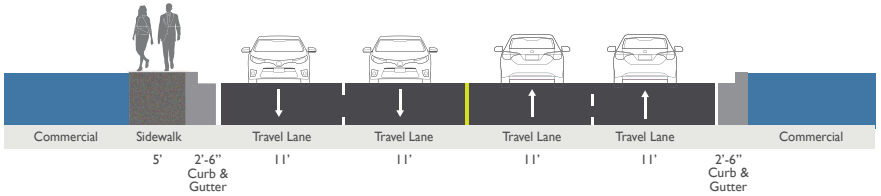
## BEFORE CROSS SECTION

*Existing Condition : Northcrest Rd Between Benedict Ln & Telco Community Credit Union Looking East*




## AFTER CROSS SECTION

*Proposed Condition: Northcrest Rd Between Benedict Ln & Telco Community Credit Union Looking East*




**Guardrail and Slope Constraints Make a Sidewalk on the South Side Much Less Feasible**


**Connection to New Development with Sidewalk Just Constructed**

# 9 WEAVER BOULEVARD I-26 OVERPASS SIDEWALKS


## PLANNING LEVEL COST ESTIMATE

**$870,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

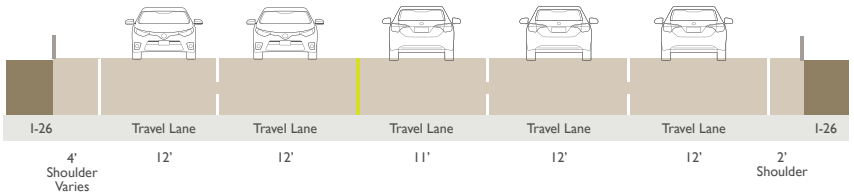
- 5-foot sidewalk connecting existing sidewalk to west side of I-26
- Retrofit of the existing I-26 overpass
- Near-term sidewalk solution in advance of future rebuild of I-26

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Downtown and homes to areas of new development<br>o Businesses along Weaver Boulevard and US 25/70<br>o Commercial destinations | A. Future crossing need at access to Publix Shopping Complex<br>B. I-26 westbound on/off ramps modified for pedestrian crossing<br>C. Existing guardrail to be modified<br>D. Narrow travel lanes to accommodate sidewalk<br>E. I-26 eastbound on/off ramps modified for pedestrian crossing<br>F. Future crossing at Monticello Road (Included with Project 11: Weaver Boulevard) |
| **CROSSINGS** | |
| o I-26 on/off ramps | |


*This Sidewalk Ends When It Reaches the Interstate.*

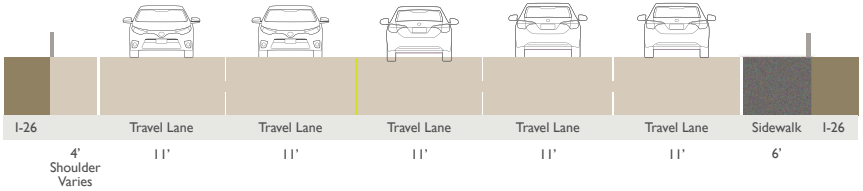
## BEFORE CROSS SECTION

*Existing Condition : Weaver Blvd. Over I-26 Looking East*




## AFTER CROSS SECTION

*Proposed Condition: Weaver Blvd. Over I-26 Looking West*




## RENDERING OF PROPOSED SIDEWALK


# 10 MAIN STREET STREETSCAPE


## PLANNING LEVEL COST ESTIMATE

**$1,060,000**

*Includes Design, Right-of-Way, Utilities and Construction Per Assumptions from the NCDOT Bicycle and Pedestrian Cost Estimating Tool*

## PROJECT DESCRIPTION

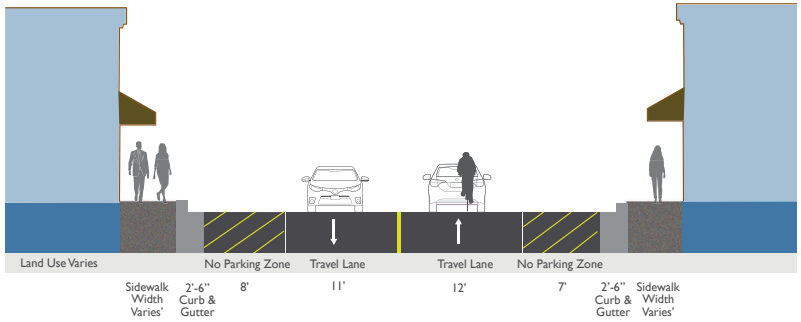
- Enhancement to the existing street, sidewalk and crossings
- Requires no loss of parking
- Addition of curb extensions, landscaping
- Enhanced pedestrian crossings
- Traffic calming

| CONNECTIONS | MAP AND NOTES *(SEE LOCATION ON MAP BY CORRESPONDING LETTERS)* |
|---|---|
| o Downtown Businesses<br>o Neighborhoods<br>o Main Street Nature Park | A. Potential streetscape phase II: Pine Street to Hamburg Mountain Road<br>B. New mid-block crossing to accommodate crossing needs<br>C. Existing streetscape feature at Florida Avenue to be upgraded<br>D. Crossing improvements at Merrimon Avenue |
| **CROSSINGS** | |
| o Pine Street<br>o Mid-Block at Rodney's Auto Shop<br>o Florida Avenue<br>o Merrimon Avenue | |

*Locations Where Parking is Currently Restricted Can Be Transformed to Curb Extensions and Landscaping*

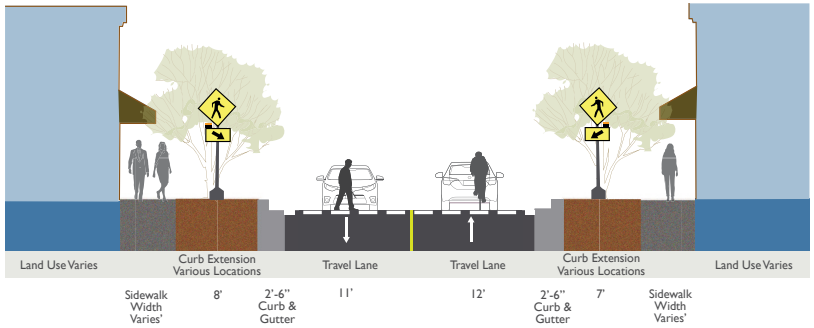
## BEFORE CROSS SECTION

*Existing Condition : Main St. between Georgia & Florida Ave. Looking North*




## AFTER CROSS SECTION

*Proposed Condition: Main St.*




**Evaluate project for signing, marking and signal improvements to enhance the bicycle mode of travel.*

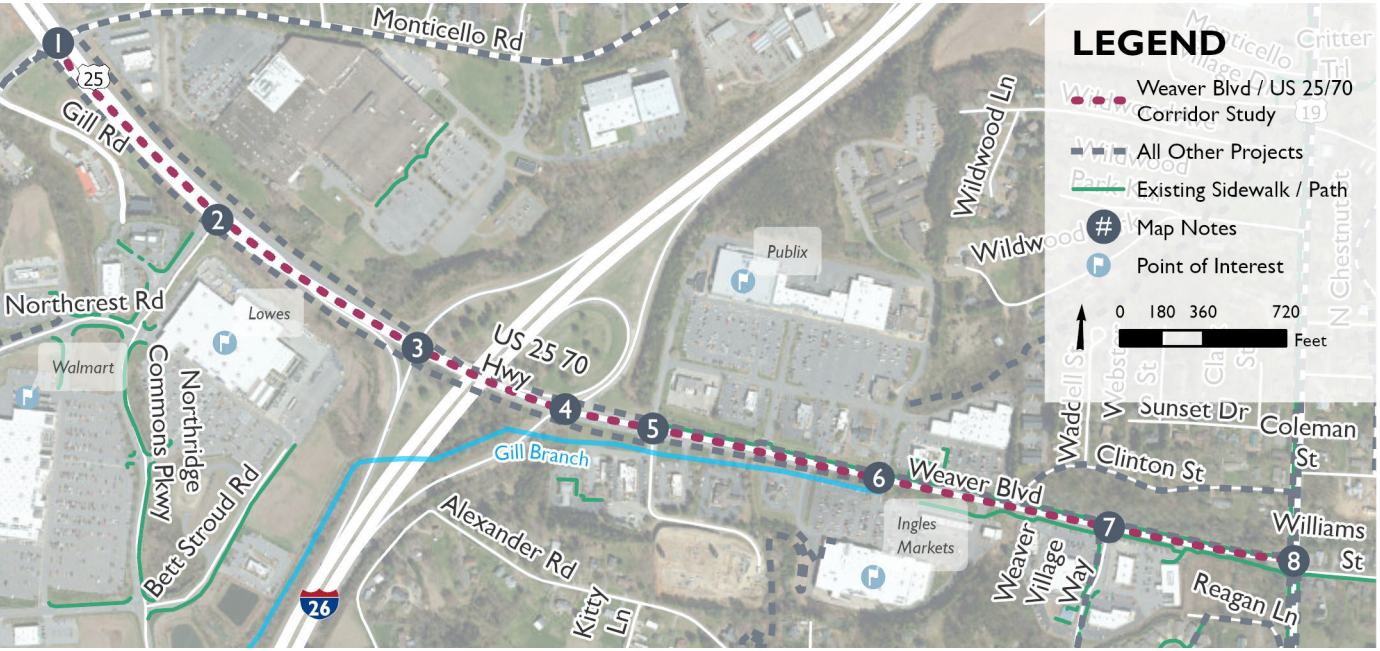
*Existing Streetscape Features*

## RENDERING OF PROPOSED STREETSCAPE

## CONCEPTUAL LAYOUT OF STREETSCAPE ELEMENTS


*Intentionally blank to facilitate double-sided printing*

# 11 WEAVER BOULEVARD CORRIDOR STUDY RECOMMENDATIONS




## CORRIDOR STUDY COST RANGE

**$100,000 - $125,000**

## PROJECT DESCRIPTION

This project proposes a corridor study of Weaver Boulevard / US 25/70. Given the complexity of vehicular and multimodal transportation needs along this corridor, additional analysis and constraints evaluations are needed to determine comprehensive long term solutions as well as short term enhancements. Extending the study limits to New Stock Road may be a consideration with close coordination with Buncombe County.

| CORRIDOR FEASIBILITY STUDY TO EVALUATE THE FOLLOWING ELEMENTS | WEAVER BOULEVARD INTERSECTIONS TO STUDY |
|---|---|
| A. Complete Missing Sidewalk Sections | 1. Monticello Road |
| B. Bicycle Facility Options (Including Multi-use Sidepath Option) Entire Corridor | 2. Northridge Commons Parkway |
| C. Crossing Improvements: Pedestrian Refuge Islands, ADA Upgrades, Shorten Pedestrian Crossings, Signal Modifications (Pedestrian Phasing Such as Leading Pedestrian Intervals) | 3. I-26 EB Ramps |
| D. Intersection Widening, Realignment and Operational Modification. | 4. I-26 WB Ramps |
| | 5. Weaverville Plaza and Fairfield Inn Signal |
| | 6. Ingles Signal |
| | 7. Weaver Village Way |
| | 8. North Main Street |

*Weaver Boulevard at Ingles Signal: Missing Crosswalks, Pedestrian Signals and Curb Ramps.*

## MISSING BICYCLE AND PEDESTRIAN ACCOMMODATIONS AT CORRIDOR INTERSECTIONS


*At I-26 Eastbound Ramps*


*At Monticello Road Near Residential and Retail Growth Areas*

## SHORT TERM AND LONG TERM OPTIONS AT WEAVER BOULEVARD AND N. MAIN STREET

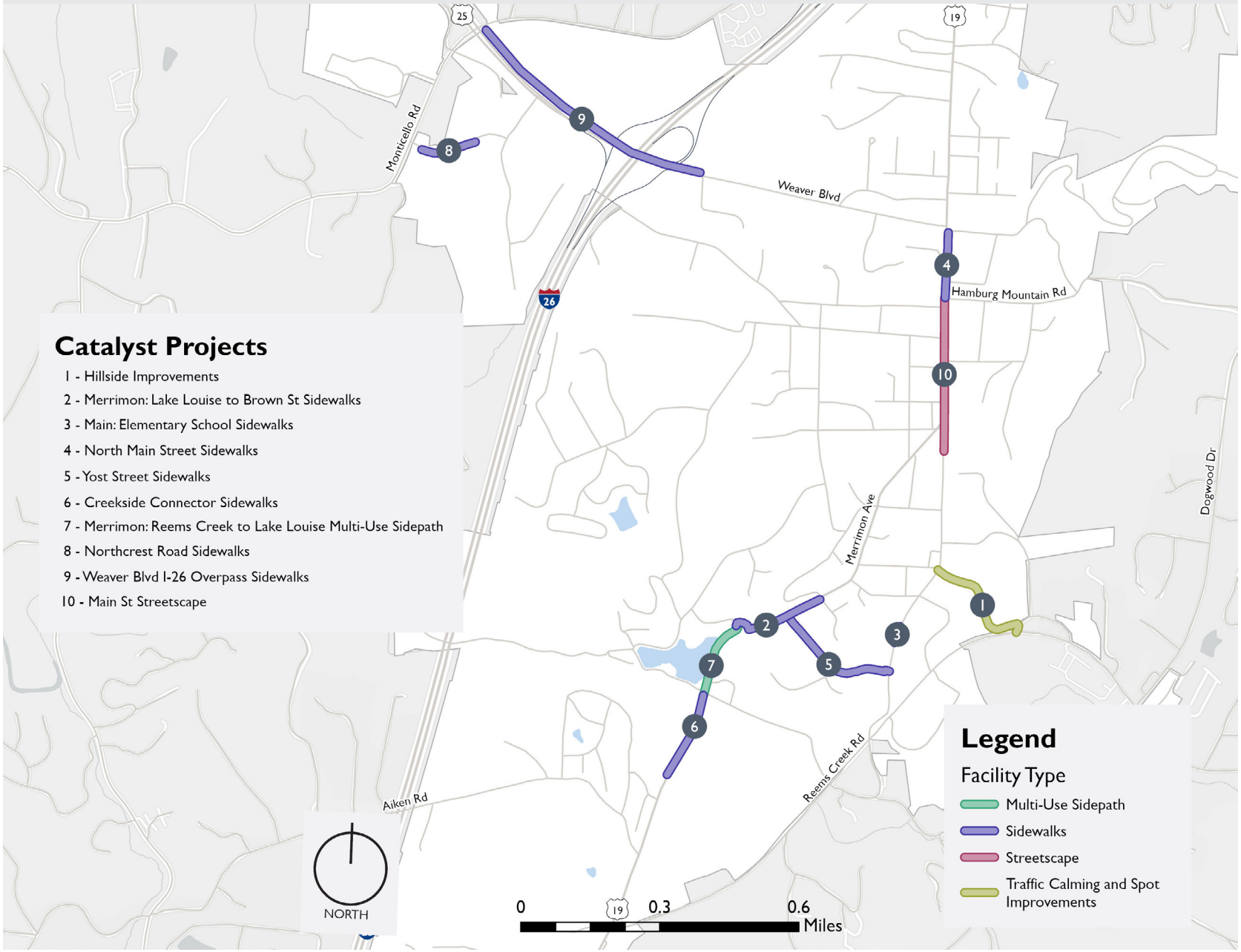
### ENHANCEMENTS TO INVESTIGATE:

- Pedestrian Refuge Islands (Shorten and Align Crosswalks)
- ADA Upgrades
- Intersection Widening / Realignment Options to Provide Bicycle and Pedestrian Improvements and Eliminate Offset Intersection with Williams Street
- Pedestrian Protect Operations for northbound Main Street Left Turn (Red Arrow When Pedestrian Signal is Activated)

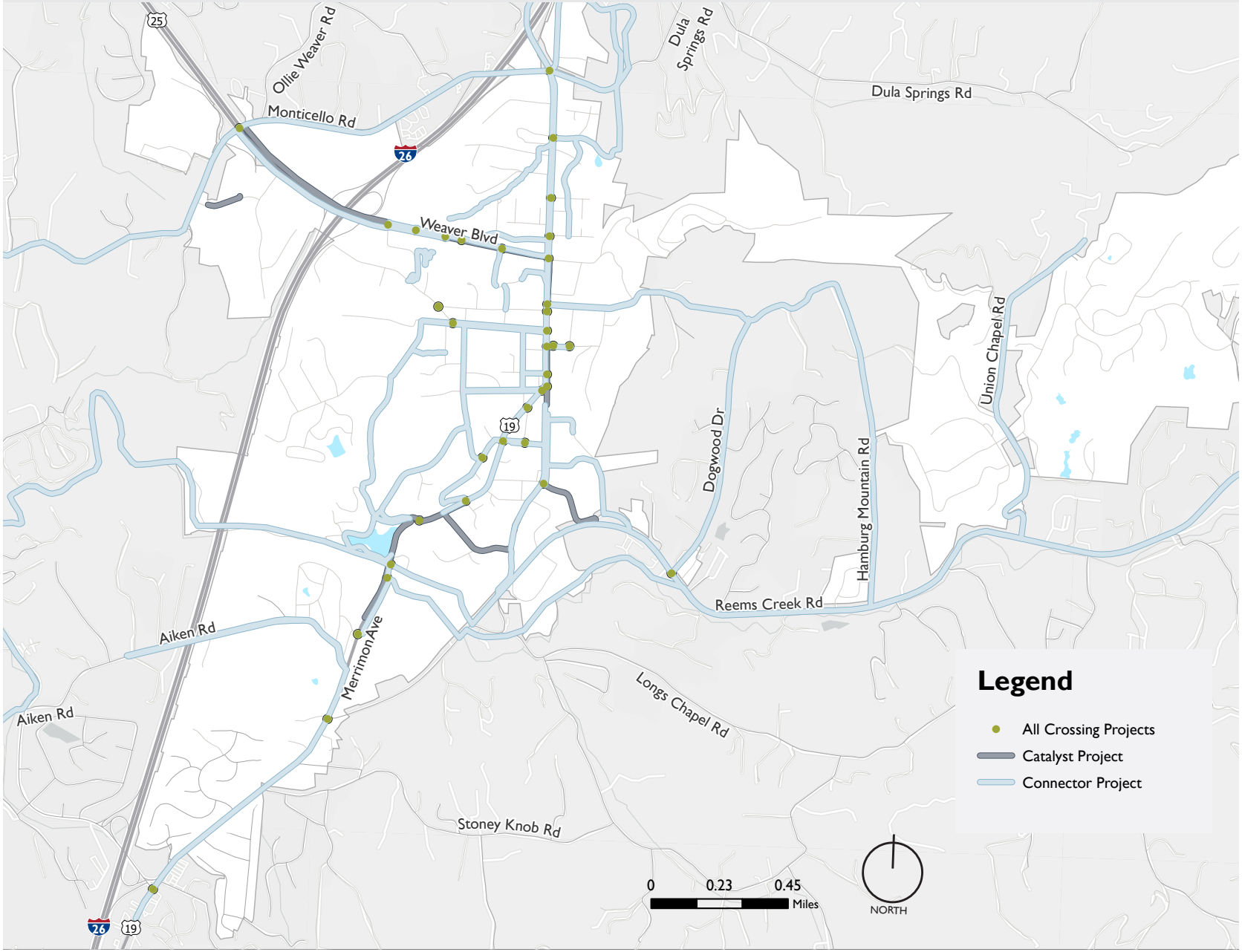
### SIGNAL OPERATIONS:

- Leading Pedestrian Interval (Pedestrian Head Start)
- Pedestrian Protect Operations for Northbound N. Main Left Turn (Red Arrow When Pedestrian Signal is Activated)
- Audible Pedestrian Signals

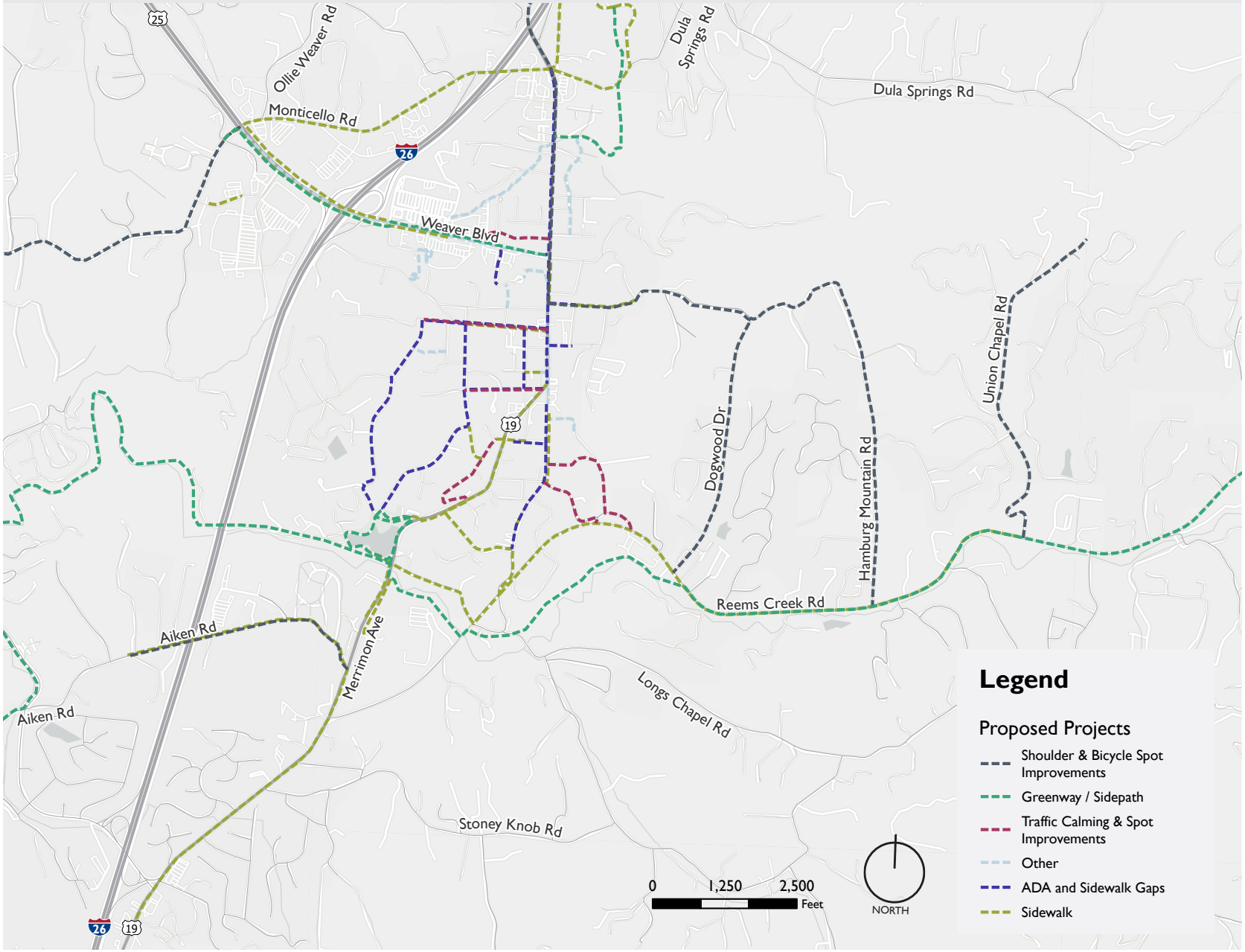
Map 9. Catalyst Projects for the Active Weaverville Pedestrian and Bicycle Network



Map 10. All Linear Projects for the Active Weaverville Pedestrian and Bicycle Network



Map 11. All Linear Projects for Active Weaverville (By Facility Type).



## Endnotes


[i] FHWA. (2017). Traffic Calming ePrimer. https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

[ii] Hughes, N. (2013, May 29). Trees mean business. Invest From the Ground Up. Retrieved June 21, 2022, from https://investfromthegroundup.org/trees-mean-business/

[iii] MUTCD Official Ruling 3(09)-24(I) – Application of Colored Pavement

[iv] The French Broad River Regional Transit Feasibility Study (August 2021) https://frenchbroadrivermpo.org/wp-content/uploads/2022/01/FBRMPO-Regional-Transit-Plan-Final-Report_August-2021.pdf

[v] U.S. Census Bureau (2020). Disability characteristics, 2016-2020 American Community Survey 5-year estimates. [Data set]. https://data.census.gov

[vi] United States Access Board. (2011). Proposed Public Rights-of-Way Accessibility Guidelines. https://www.access-board.gov/prowag/.

# RECOMMENDED PROGRAMS & POLICIES

4

# RECOMMENDED PROGRAMS & POLICIES

*"We have a special community that is uniquely suited to walking/biking, and we should work to maximize that uniqueness by increasing the opportunities for residents to engage in these activities. Increasing bike racks at stores (Ingles and Publix Plaza) would be helpful." - Survey Respondent*

## GETTING PEOPLE OUT

Building a more pedestrian and bicycle friendly community requires an integrated approach and diverse partners – there is no one task, person or agency to arrive at this outcome. While infrastructure and facilities are critical to the foundation of these systems, programming efforts, such as education, encouragement and enforcement are also integral. Local policies, particularly in a community like Weaverville with an established sidewalk network, are critical to ensuring that a community has the standards and procedures to build and maintain sidewalks and bicycle infrastructure, whether in partnership with developers or on its own. Policies and programming can be implemented alongside planning and development of pedestrian and bicycle infrastructure. Incorporating these efforts builds a stronger pedestrian and bicycle program and engages key partners to share in the challenges and opportunities of this work, thus building a stronger base from which these plans can flourish.

Currently, there are limited education, enforcement, or encouragement campaigns aimed at increasing walking and bicycling in Weaverville. The following are various programs and efforts that can be considered for the Town. While the Town has limited resources to coordinate many of these activities on their own, they will depend on local/regional organizations (such as Blue Ridge Bike Club and AARP) to begin to develop these programs. For Weaverville, programming efforts should prioritize efforts to engage youth and senior populations in walking activities.

*Incorporating these efforts builds a* **STRONGER PEDESTRIAN AND BICYCLE PROGRAM** *and engages key partners to share in the challenges and opportunities of this work, thus building a* **STRONGER BASE FROM WHICH THESE PLANS CAN FLOURISH**.

## EDUCATION & ENCOURAGEMENT PROGRAMS

Education and encouragement efforts often go hand in hand. Education is critical to offering those who choose to walk– and those who interact with these users – the knowledge, skills and confidence they need. Encouragement involves marketing and promotional efforts that create and celebrate a culture of walking, bicycling, running and hiking. The following are key education and encouragement programs that may work to build a stronger pedestrian and bicycle program in Weaverville.

Of note, for education and encouragement programs to be successful, the messages they convey should be carefully crafted to Weaverville's demographic. Any messages created for a campaign should be inspirational, creative and relevant, targeted to Weaverville's small-town and community-oriented atmosphere. "Scared straight" campaigns designed to encourage a certain type of behavior have been proven to be less effective and polarizing, where the outcome becomes an issue of managing fear and not the actual behavior.[i] Studies show that messages such as "share the road" have also become diminished in their effectiveness and comprehension.[ii]

### Watch for Me NC

Watch for Me NC is a comprehensive program run by UNC Highway Safety Research Center and funded by the Governor's Highway Safety Program. In partnership with local communities, Watch for Me is aimed at reducing crashes with vehicles, and resulting injury, to people walking or biking. The Watch for Me NC program involves two key elements: 1) safety and educational messages directed toward people walking, biking and driving, and 2) high visibility enforcement efforts by area police to reduce violations of traffic safety laws. Local programs are typically led by municipal, county, or regional government staff with the involvement of many others. Annually, UNC Highway Safety Research Center issues a call for applicants; this is a great program for Weaverville to consider, it is well-suited for a town of Weaverville's size. More information can be found here.

### Safe Routes to School

This statewide, national and international program involves facilitating the planning, development and implementation of projects and activities to improve safety and reduce traffic, fuel consumption and air pollution near schools. In North Carolina, this program is managed by NCDOT. Several programs have developed from Safe Routes to School, including: Active Routes to School and Let's Go NC. With two schools in downtown and connected to the pedestrian network, and parents eager to walk their children to school, Safe Routes for Schools is a great initiative for the Town and its partners to consider. More information on the NCDOT initiative can be found here.

### Let's Go NC

Let's Go NC is designed to aid instructors in teaching and encouraging safe behaviors for people walking and biking. Through this curriculum,

children develop skills that will promote healthy transportation choices. Let's Go NC! gives instructors throughout NC elementary grade schools, community centers, health programs, and law enforcement agencies the tools needed to create healthy active lifestyles among youth. All curriculum materials are available for free download including lesson plans, lesson videos, and guidance materials for instructors. More information can be found here.

## Walk and Bicycle to School Day

Thousands of schools across America – from all 50 states, the District of Columbia, and Puerto Rico – participate in walk and bicycle to school. Walk to School Day takes place in October and Bike to School Day in May. The goal of this program is to encourage more walking and biking to school, reduce childhood inactivity, and connect children with their environment. These events can also be coupled with a walk audit to encourage better infrastructure around schools. More information can be found here.

## Walking School Bus

A walking school bus is just as it sounds – it is a gathering of children with an adult chaperone for pick up and drop off to and from school. Instead of an actual school bus, the children travel by foot with an adult. These can be as informal as a couple of neighbors taking turns walking their kids to and from school, or much more organized with pick up spots, timetables and a schedule of volunteers. The National Center for Safe Routes to School offers online resources for these events. More information can be found here.

## Safe Routes to Parks

Safe Routes to Parks are ten-minute walks or bike rides to parks that are accessible by all modes of transportation and for people of all ages and abilities. They are intended to end at well-maintained parks, thus doubling the physical activity benefit – both en route and at the destination. Such programming may be a great option for Weaverville where parks offer a way to connect the community. More information can be found here.


*Image 12. Walk and Bike to School Day Event at Fairview Elementary School in Jackson County, NC (Source: Jackson County SRTS)*

## Bike/Walk Supplement to Existing Weaverville Events

The Weaverville Business Association hosts several events throughout the year that celebrate the Town and invite many to enjoy all that the community has to offer. These events include Music on Main in the summer, Art in Autumn, and recently the St. Patrick's Day Block Party. These are all events ripe for the introduction of a bicycle and walking program. The following events offer great opportunities to begin more bicycling by parents of young children or people newer to the bike. These include:

### Ciclovia or Open Streets

Ciclovia or Open Streets events were first practiced in Colombia and today they are popular in the US. They involve closing a portion of a street to vehicle traffic and engaging the community to walk, bicycle and celebrate the corridor. Organizers of these events often program the corridor with various performers, interactive booths, and more. Open Streets events are also a great way to showcase a demonstration of how a bicycling or walking facility might operate by installing a temporary application of a permanent project (see Street Art Programs, below). An Open Streets event provides a nice complement to current Weaverville Business Association events that already have a practice of closing streets in downtown (Main Street and Florida Avenue).

### Themed and Fundraising Bike Rides

Themed bike rides are a way to celebrate an occasion, encourage comradery and foster community. These rides can showcase a local event, such as St. Patrick's Day Block Party, and can encourage people to dress up and/or decorate their bicycles. The bike rides are typically short in length and are fun for all, thus reducing barriers to bicycling and encouraging family-friendly events.

### Bike Rodeos

Bike rodeos encourage kids to get out and ride their bikes in a closed course environment. These events are intended to refine kids' bicycle handling skills in a fun, non-competitive environment. There are two key components to a successful bicycle rodeo: education and practice.


*Image 13. Open Streets Event in Hendersonville, NC (Source: FBRMPO).*

*Image 14. Completed Traffic Circle, Sidewalk Extensions and Crosswalks at Westwood Place and Waynesville Avenue in Asheville (Source: Asheville on Bikes).*

Children are taught how to properly fit and wear their safety equipment, how to fit their bicycle, and safe riding skills. They then negotiate an obstacle course to test their skills. A bike rodeo is a great addition to an existing event to encourage broader participation.

## Street Art Programs

Street art, also known as tactical urbanism, is an approach to making immediate change on the street through low-cost, short-term implementation that can be the forerunner to a long-term capital project, such as a streetscape installation. These efforts allow communities to test a project, evaluate results, galvanize commitment, and determine a path forward without a significant up-front investment. A collaborative effort led by Asheville on Bikes, AARP, and the Blue Ridge Bicycle Club has formed a group known as Street Tweaks that has led these types of projects in Asheville, including the Coxe Avenue Corridor Improvements, Westwood Place and Waynesville Avenue Traffic Circle. In the Coxe Avenue example, this project will advance to future design to upgrade the corridor for bicycling and walking. **A street art project would be a great solution on certain streets in Weaverville, particularly those that are Town managed such as Florida Avenue.**

## ENFORCEMENT PROGRAMS

Currently, there is some debate in the bicycle and pedestrian community about the relevance of enforcement to bicycle and pedestrian programs. In 2020 the Safe Routes Partnership, a national organization promoting Safe Routes to Schools, removed enforcement from their resources and added engagement as a core strategy. This leading organization believed that engagement better aligns with their work to advance social justice and racial equity. Other organizations and municipalities are working to understand what enforcement activities do, or do not, provide for their bicycle and pedestrian programs.

It is important to acknowledge this shift in the practice and understand that change will be gradual and is still being understood by many. As such, in Weaverville, enforcement can be a community-based tool to ensure that public spaces are indeed safe for people of all ages, abilities and backgrounds. Law enforcement officers often know the nuances of traffic, trends and behavior on our streets better than anyone and they are well-known and respected members of our community. They play varying roles to ensure the safety on our streets and that of people walking and bicycling. For example, they can provide education and encouragement to the community at events such as Walk to School Day. These community approaches to traffic safety are a great option for Weaverville.

Of note, streets that are constructed with effective traffic calming elements offer enforcement of traffic speeds without having to burden already-taxed law enforcement officers. Traffic-calming measures, such as narrowing a local street with curb extensions, slow traffic without the need for ticketing and can allow law enforcement to focus their resources elsewhere in the community. These types of infrastructure are recommended elsewhere in this Plan.


*Image 15. A Resident Installed Signage on Church Street to Encourage Traffic Calming.*

### Positive Reinforcement

Some in the bicycling and walking community believe that targeted enforcement of bicycle and pedestrian non-compliant behavior is not a fair practice. People walking and biking are the most vulnerable users of a roadway system and some feel that strict enforcement only causes more harm to users of these modes of transportation. Some evidence shows that non-compliant behavior stems from a desire for personal safety (e.g., people riding their bikes on the sidewalk where it is not allowed but

doing so because it feels safer)[iii]. One consideration to address this issue is positive reinforcement. Positive reinforcement for good behavior can create positive peer pressure among people walking and create good public relations and media coverage. Delivery of these programs is best done by people on foot so that they are viewed as peers. Incentives such as ice cream and discounts at local restaurants can be rewards for good behavior.

## WEAVERVILLE CODE OF ORDINANCES

The Town of Weaverville regulates land and transportation infrastructure development using two primary tools: The Town of Weaverville Code of Ordinances ("the Code"), specifically *Chapter 20 – Planning and Development*, and the *Town of Weaverville Infrastructure Specifications Manual*. This section reviews regulations pertaining to sidewalk, bicycle facility, and greenway development in Weaverville and provides a set of recommendations aimed at increasing multimodal transportation infrastructure through Weaverville's development process. The included recommendations align with a variety of goals found in the Town of Weaverville's Comprehensive Plan, which is summarized in Appendix C.

### Key Definitions Review

The Code's *Sec. 20-1202. - Specific definitions* provides the three definitions related to multimodal transportation infrastructure. To enhance mutual understanding of multimodal facilities, it is recommended that the Town:

- Develop a definition for greenway trails, a term that is mentioned in the current "Recreation facilities, outdoor" definition.
- Define multi-use path (and/or shared use path), which is a type of facility included in Active Weaverville project recommendations. The FHWA's *Small Towns and Rural Design Guide: Facilities for Walking and Biking* provides the following definition for a shared use path:
  - "A shared use path 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."

# WHAT IS A...

## PEDESTRIAN ORIENTED DESIGN:

Development designed with an emphasis on pedestrian access and interest from adjoining streets and sidewalks. In pedestrian oriented design, buildings are generally placed close to the street and the main entrances are oriented to the street sidewalk; additionally, there are generally windows or display cases along building facades that face the street. Site characteristics of pedestrian-oriented design typically include: site grading that enhances the relationship of the building to the adjoining street(s) and sidewalk(s) from the perspective of the pedestrian; parking facilities placed to the side or rear of the building; and the provision of pedestrian oriented amenities, such as outdoor dining areas, landscaping/hardscaping, and seating.

## RECREATION FACILITIES, OUTDOOR:

Parks and other open space used for active or passive recreation such as ball fields, playgrounds, greenway trails, tennis courts, pools and golf courses, and their customary accessory uses including, but not limited to, maintenance sheds, clubhouses, restrooms, and picnic shelters. This definition is inclusive of both non-profit and for-profit operations.

## SIDEWALK:

A paved or concrete pedestrian lane that provides people with space to travel by foot with separation from motor vehicles and on-street bicycles, and includes a curb, buffer, or curb with buffer, and curb ramps if necessary for ADA accessibility.

*Source: Weaverville Code of Ordinance*

- "A sidepath [or multi-use path] is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths 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-town community character."

- Define on-road bicycle facilities such as bike lane, buffered bike lane, and shared street.

## Sidewalk Development - What the UDO Encourages or Requires

Weaverville's Code of Ordinance, Chapter 20, addresses sidewalk development in two sections:

- Part II. Subdivision Regulations, Article IV. – Required Improvements, and Section 20-2404. – Sidewalks (Section 2404) and;
- Part III. Zoning Regulations, Article V. – Off-street Parking, Loading and Unloading Areas Sec. 20.3503 – Sidewalks (Section 3503).

This portion of the policy review addresses both Sections 2404 and Section 3503 due to their similarity. The intent of Section 2404 is to guide sidewalk development through the land **subdivision** process while the intent of Section 3503 is to direct sidewalk development through the **zoning** process. While the trigger – land subdivision or zoning compliance – is different, the outcome of each section is new (and in some cases rehabilitated) sidewalk planned through new development projects.

Table 5 provides a comparison of the two sections.

Table 5. Comparison of Two Sections

| Standard | Section 2404 (Subdivision) | Section 3503 (Zoning) |
|---|---|---|
| When to construct new sidewalk? | • Along all street frontages in minor (4 lots) or major (4+ lots) subdivisions if the street is on an adopted plan | • All new commercial<br>• Multi-family residential<br>• All major subdivisions<br>• Certain minor subdivisions (does not define "certain") |
| Which side of the street? | • One side of the street in major subdivisions; the ordinance does not address when for minor subdivisions. | • Along [existing] street frontages<br>• Along one side of new streets |
| How to construct? | • Built to standard (Town Design Manual, ADA Compliant) | • Built to standard (Town Design Manual, ADA Compliant) |
| When to rehabilitate existing? | • When public works director determines sidewalk to be dilapidated. | • When public works director determines sidewalk to be dilapidated. |
| Appeal process? | • Request for a sidewalk waiver goes to the Board of Adjustment. | • Request for a sidewalk waiver goes to the Board of Adjustment. |

## Recommendations

The recommendations that follow attempt to strike a balance between gaining new and improved sidewalks through development projects while only requiring sidewalks in places they need to go to avoid "sidewalks to nowhere" which burden the Town's maintenance resources.

### General Recommendation:

Use the same set of sidewalk requirement triggers for Section 2404 and 3503 or consider having one standalone set of sidewalk requirement standards referenced in the Code that applies to all sidewalk development.. Of the two sections, Section 3503 provides stronger guidance and is a better place to begin developing revised sidewalk development guidelines.

### Recommendations - When to construct new sidewalk?

*Maintain:*

- Standard for sidewalks in all new commercial projects.
- Standard for sidewalks in all new multi-family projects.
- Standard for sidewalks in all new major residential projects. Weaverville could consider a standard that is higher than the 4+ lots that constitute a major subdivision, such as 15 units.

*Add:*

- New connectivity standards (sidewalks, bike lanes, bike parking, etc.) within new commercial developments.
- New connectivity standards for sidewalks within new multi-family developments.
- Language to note that all internal sidewalks shall be ADA compliant.

*Clarify/Revise:*

- Define "certain" or clarify when sidewalks in minor subdivisions shall be required. Examples of when sidewalks for minor subdivisions may be required include when the minor subdivision is within:
    - A certain distance, such as 400 feet, of an existing sidewalk.
    - A certain distance, such as 700 feet, of a major roadway like Weaver Boulevard, Merrimon Avenue, Main Street, or Reems Creek Road.
    - Proximity to a key destination such as a park, school, or grocery store.
    - Proximity to a pedestrian context zone (see explanation below)

*Remove/Replace:*

- Remove any requirements to add sidewalk only if the connection is in an adopted plan. Replace with more specific standards to ensure that sidewalks are include in development projects in areas where they are not anticipated, such as newly annexed areas (which many not be in an adopted plan).

### Recommendations - Which side of the street?

*Maintain:*

- Standard to construct new sidewalk on all street frontages. Consider revising "all street frontages" to "all existing street frontages".
- Standard to construct new sidewalk on one side of all new streets.

*Add:*

- Consider adding a threshold or standards to address when to require sidewalks on both sides of new streets. Examples of when to require sidewalks on both sides of the street include: larger single family residential developments, multi-family developments, large commercial developments, mixed use developments, developments in proximity to busy roadways, areas within a certain distance to key destinations such as schools, parks or grocery stores.

### Recommendations - How to construct?

*Maintain:*

- Continue to use the *Town of Weaverville Infrastructure Specifications Manual* as a guide.
- Continue to ensure that all new and all rehabilitated sidewalks are ADA complaint.

**Add:**

- Add additional ADA standard details and notes to address all elements of curb ramp compliance to the *Infrastructure Specifications Manual*. See Appendix F for examples.
- Develop and use an ADA Ramp Inspection Form, to be completed before accepting newly constructed sidewalks. See Appendix F for examples.
- Add language to deal with technical infeasibility (see review of Sec. 20-2403 – Streets)

### Recommendations - When to rehabilitate or improve existing sidewalk?

*Maintain:*

- A standard to require sidewalk rehabilitation and consider adding language to address sidewalk improvement.

*Add:*

- Consider adding a threshold or standards to define when rehab may be required through place-based or project-based standards.
  - Examples of *place-based standards* for when sidewalk rehabilitation may be appropriate: in certain zones (like higher density residential districts), downtown Weaverville or other pedestrian context zones (see explanation below), near key destinations such as parks, schools, or grocery stores.
  - Examples of *project-based standards* for when sidewalk rehabilitation may be appropriate: an investment threshold (project results in an increase of more than 50% value of the structure); project type (commercial, office, multi-family rehab)
- Consider adding language to state that rehabbed sidewalks shall be reconstructed to meet current Town standards as defined by the *Town of Weaverville Infrastructure Specifications Manual*.

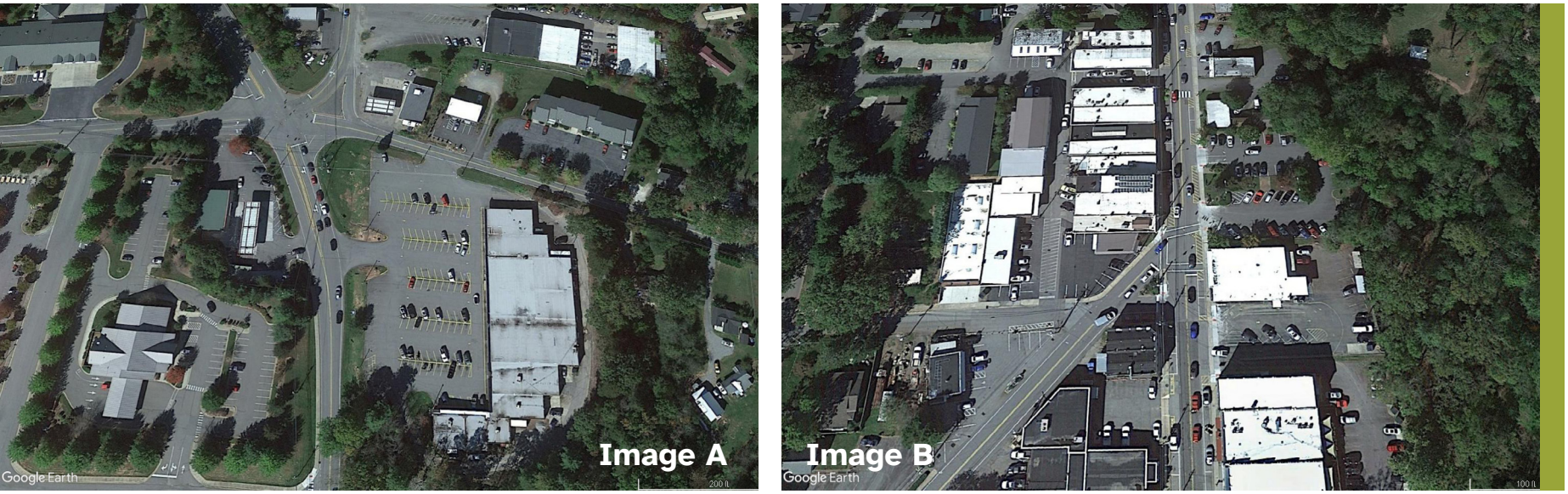



*Image 16. Sidewalk Redevelopment Examples.*
*Weaverville is encouraged to evaluate if and when sidewalks should be rehabilitated or newly constructed during building redevelopment projects. For Example, requiring sidewalks would result in new sidewalk if there was ever a proposed redevelopment project at the Dula Springs Shopping Center (Image A). Likewise, a project at the corner lot at Central, Merrimon, and Merchants Way could result in a wider sidewalk suitable for a downtown environment (Image B).*

- Consider adding language to state that rehabbed sidewalks shall be reconstructed to be ADA compliant.

### Recommendations - Appeal Process?

*Remove/Replace:*

- Remove the standard that sends appeals to the Board of Adjustment and replace with a Town of Weaverville Fee in Lieu of Sidewalks program.

## ADA Compliance - What the UDO Encourages or Requires

The Code's Sec. 20-2403. – Streets (d) states that "Where curbs are provided on streets or where curbs, ramps, and sidewalks are constructed within any subdivision, any construction or reconstruction of such curbs, ramps, and sidewalks shall be in full compliance with ADA accessibility standards." The Town's focus on improving ADA compliant compliance is essential to developing an accessible community. However, in an area with challenging terrain, like Weaverville, it can be difficult to develop fully ADA complaint facilities. Many communities use a technically infeasible process or form to handle these types of situations. It is recommended that the Town of Weaverville ensure that developers aim to achieve full compliance and have a policy and process to address situations when full compliance is not feasible. This can be done through a technical infeasibility process that requires developers to document why compliance is technically infeasible and the efforts they took to be as compliant as possible.

### Recommendations

- Consider revising *Sec. 20-2403. – Streets (d)* to read, "shall be in full compliance with ADA accessibility standards *to the maximum extent feasible."*
- Develop a Technical Infeasibility Form (TIF) and process for developers to complete if it is not feasible to develop a fully compliant facility. See Appendix F for TIF examples.

# WHAT IS A FEE IN LIEU PROGRAM?

*A fee in lieu sidewalk program allows for developers to pay a fee in lieu of building sidewalks if the project meets a certain criterion defined in the Town of Weaverville's Code of Ordinances. Should the criteria be met, the developer pays the fee. The money collected, is then set-aside in a fund for future sidewalk construction in the area or according to standards defined in the ordinance. Fee in lieu is generally approved as part of a new subdivision, site plan, or building permit.*

## CONSIDERATIONS IN DEVELOPING A FEE IN LIEU SIDEWALK PROGRAM:

- Determine when fee and lieu can / cannot be used.
- Define program use and approval process.
- Assess if program can be used for other amenities (greenways/trails, bike lanes, etc.).
- Identify the fee schedule or fee in lieu estimate.
- Set up an account for the funds.
- Assign a department to administer (e.g. public works / planning).
- Maintain record of how funds were used.

## Multimodal Overlay/Pedestrian Context Zones

In addition to the Code recommendations noted above, it is recommended that the Town of Weaverville explore policy and/or code language develop a multimodal overlay district, pedestrian context zones, or some other tool to address multimodal facility development in certain areas of town. The intent is to apply new standards to defined areas of town that may need development standards to improve multimodal connectivity. Areas such as Downtown Weaverville, Merrimon Avenue, Weaver Boulevard, or the Reems Creek Greenway Corridor are examples.

### Recommendations

Explore policy and code tools to create a multimodal environment for people who walk and bike. For example, Weaverville can:

- Make changes to existing zoning districts. For example, all new and redevelopment projects in Downtown Weaverville would require construction of an eight-foot sidewalk to facilitate more community gathering space such as outdoor dining.
- Create an overlay district. For example, in addition to meeting the existing zoning standards along Weaver Boulevard, Weaverville could apply additional standards to facilitate greater protection for people who walk and bike through standards outlined in the overlay district.
- Explore other options. For example, the Weaverville may want to plan to protect the Reems Creek Greenway Corridor. The Town could explore options to require/accept easements when new development is proposed.

## Bicycle Parking

Develop standards to require bicycle parking in new development and redevelopment projects. The Association of Pedestrian and Bicycle Professionals has an Essentials of Bike Parking manual to guide bicycle parking efforts.

## Greenway and Open Space Dedication

Consider adding language to state that commercial and residential developments meeting a certain threshold be required to dedicate open space. This ordinance can be expanded to require that whenever a tract of land included within any proposed residential subdivision or residential site plan includes any part of a greenway designated in a master plan document, such as Active Weaverville, the greenway shall be platted and dedicated as a greenway easement.

## Endnotes


[i] Carey RN, McDermott DT, Sarma KM (2013) The Impact of Threat Appeals on Fear Arousal and Driver Behavior: A Meta-Analysis of Experimental Research 1990–2011.

[ii] Hess G, Peterson MN (2015) "Bicycles May Use Full Lane" Signage Communicates U.S. Roadway Rules and Increases Perception of Safety. PLOS ONE 10(8): e0136973.

[iii] Marshall, W. E., Piatkowski, D., & Johnson, A. (2017). Scofflaw bicycling: Illegal but rational. Journal of Transport and Land Use, 10(1). https://doi.org/10.5198/jtlu.2017.871

# IMPLEMENTATION PLAN

5

# IMPLEMENTATION PLAN

*"I want to live in a place that prioritizes people over cars." - Survey Respondent*

## IMPLEMENTATION OVERVIEW

Active Weaverville is an action-oriented plan that is derived from community feedback. For the Plan to be effective, it needs a clear implementation plan that identifies the next steps to achieving its vision. This Implementation Plan identifies a timeframe to implementation, lead agency, key partners, and performance measures to evaluate success. This approach will allow the Town to be strategic yet flexible as opportunities arise.

## ORGANIZATIONAL FRAMEWORK & PARTNER NETWORK

It is important to note that this Plan will not be led exclusively by the Town; success will involve collaboration with regional and state agencies, local partners, the private sector, and non-profit organizations. Many of these partners have already been referenced and include the following.

### Weaverville Town Council

Town Council will adopt the Plan document and will oversee its implementation. They are also responsible for amending the zoning code and other policy related decisions. Town Council can make decisions related to the budget to facilitate the implementation of Active Weaverville. Council can affirm their support of walking and biking, guide work with NCDOT, and as a member of the Board, coordinate with the FBRMPO.

### Town Staff

The responsibility for implementation of this plan at the staff level lives in the Planning and Public Works Departments. Staff can coordinate with FBRMPO and NCDOT on funding and project implementation; coordinate with Council on project development and capital funding; work with the development community (or developers); seek development regulations and opportunities to expand the walking and biking network; and develop programmatic activities in the community.

### French Broad River Metropolitan Organization (FBRMPO)

The FBRMPO will be responsible for coordinating funding opportunities between the Town, county and NCDOT. This includes funding projects through the STIP as well as other opportunities such as through their Planning Work Program and Locally Administered Projects Program. The FBRMPO will also

*Image 17. Diverse Stakeholders, Such as Those that Compromised the Project Steering Committee, Will Help See Implementation of Active Weaverville.*

assist NCDOT to incorporate Active Weaverville projects into long-range transportation planning including the Comprehensive Transportation Plan.

## Neighboring Jurisdictions & Buncombe County

Generally what matters most to people walking and biking is a connected system that allows travel from one location to another. Most people are unaware of town or county boundaries. As such, it is prudent that the town, county, and neighboring jurisdictions coordinate to ensure that their greenway and pedestrian network connect.

Specific to Buncombe County, there is an opportunity with their Comprehensive Plan (for which an update is underway at the time of the drafting of this document) and their impending Multimodal Plan (which will be developed) to better align networks. Coordination with the County on sidewalk projects is particularly critical as areas just outside of the town limits are seeing significant growth; these are locations where sidewalks may be expanded through development. As Weaverville was stripped of the ability, by the NC State Legislature, to regulate property through an Extraterritorial Jurisdiction, coordination with the County on policy and projects will be imperative. Coordination with Woodfin, as Weaverville's only immediately neighboring jurisdictions, is also critical.

## NCDOT Division 13

There are ample opportunities to foster close coordination with Division 13 of NCDOT. This includes projects in the STIP, resurfacing or roadway/ bridge reconstruction projects, funding opportunities and monitoring the construction of the network.

## NCDOT Integrated Mobility Division

Based out of Raleigh, this division of NCDOT develops guidance on bicycle and pedestrian policy and complete streets, which is critical to project development. They may also fund future plan updates through their grant programs, which in-part funded Active Weaverville.

## Developers

There are many details that the Land Development Ordinance prescribes related to development, and these offer the Town a partner and opportunity to expand the pedestrian and bicycle network. For example, as new residential development occur, developers would be required to build sidewalks.

## Non-Profit Partners

Weaverville has a history of working with its non-profit partners to expand its reach and impact in the community. One such group is the Weaverville Center for Creative and Healthy Living. These relationships should be continued to enable Active Weaverville to be successful. Certain non-profit partners offer funding opportunities, and others may be recipients of mini grants to better serve the community.

## Community & Business Members

Similarly, Weaverville has a strong history of empowering members of the community to advocate and serve, offering opportunities such as the Citizen's Academy or service on the Planning Board. In addition, community members generate public support for walking and biking by talking to their neighbors, friends, colleagues, etc. They advocate to elected officials or others for better projects. Members of the community volunteer at events and programs that make these projects a success. The Weaverville Business Association is a representation of businesses in the Town, and they are also critical to the success of Active Weaverville.

*Image 18. When it Was Built, Parts of Creekside Village Included an Internal Sidewalk System.*

## LIFECYCLE OF A MULTIMODAL PROJECT

The project recommendations in this Plan are a starting point for the Town to develop a network for people walking and biking. Many of the project recommendations appear as lines on a map, and these are intended to be a high-level concept for the Town to develop further as the project advances into the next stages of a typical project lifecycle. These lines are not intended to represent the final alignment for construction; they are simply a starting place for the Town to work with its partners to develop projects and expand the pedestrian and bicycle network. This Plan provides a 15–20-year vision for the Town to improve walking and biking for its residents and visitors.

Figure 21 describes the typical lifecycle of a multimodal project. Active Weaverville represents the 'Guiding Plan' phase of this process; from there, a project identified in this Plan will move into the many stages of design, then construction, and ultimately maintenance and programming. It is important to acknowledge this process as it helps set the stage for project success.

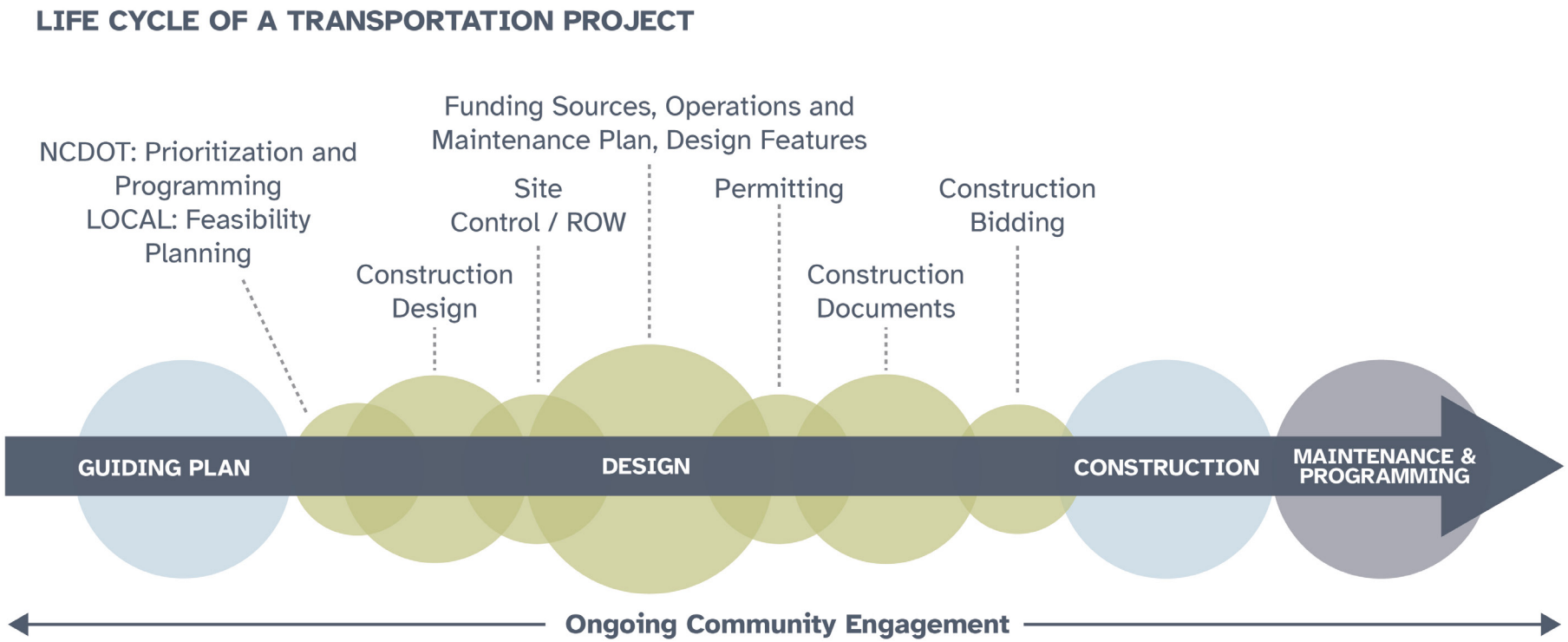



Figure 21. Typical Lifecycle of a Multimodal Project from Planning, to Design and then Construction/Maintenance.

The time it takes to implement a project can depend on how uncomplicated or complex the project may be, who "manages" the project (i.e., local jurisdiction or NCDOT), the type of funding involved, how much land is needed, and the scale (size) of the project. An example of an uncomplicated project is a new crosswalk. An example of a complex project is a greenway that requires the purchase of easements or private property and crosses streams and busy roadways (for example, Reems Creek Greenway). The following Action Plan offers a rough estimate of the timeframe in which projects should be completed; however, it should be noted that this depends on resources and budget.

## THE ACTION PLAN

The Action Plan, provided in the following pages, describes the administrative, infrastructure, policy, and program steps needed to see Active Weaverville forward. These are not listed by priority. It should be noted that project partner and funding opportunities may shift priorities and require adjustments to action items; as such, this action plan is intended to be a fluid and guiding resource.

Included in this Action Plan are several studies and projects that evolved out of the Active Weaverville planning study process. Pedestrian and bicycle projects are rarely standalone projects – they have such a powerful reach into the community, land use, development, economic development and more – such that they are intrinsically tied to broader studies and projects. The following provides more detail on a few such opportunities.

### US 25/70 / Weaver Boulevard Corridor Study

#### Action Item #10

With development pressure currently being experienced, and more anticipated, it is recommended that the Town lay the groundwork for a land use and transportation Corridor Study for US 25/70 / Weaver Boulevard from New Stock Road to Main Street, detailed in Cutsheet #11. This corridor is already a regional destination to those seeking shopping, dining and other commercial needs, and this demand will grow as population increases. These project limits extend to the west to include areas outside of the Town that encompass land currently developed with high-density manufactured housing, which is an important consideration to the future of the corridor. The eastern edge of the project limits end at Main Street, which was frequently cited throughout this planning effort as an intersection of needing pedestrian improvements. This effort will need to be co-led by Buncombe County and will involve many steps including scoping, grant seeking, study implementation and plan completion. Case study examples of recent similar projects include the Tunnel Road Corridor Study, Hendersonville Road Corridor Study, and Biltmore/ McDowell Corridor Study. More information at the **FBRMPO** and the **City of Asheville**.

### West Weaverville Small Area Plan

#### Action Item #11

Complete a Small Area Plan for the area just west of the Town limits, parallel to I-26 from New Stock Road on the south to Clarks Chapel Road on the north. This effort will need to be coordinated closely with the County. Weaverville's water system, which has already been expanded within this area, will have a strong influence. The Small Area Plan can investigate current and future land use challenges and opportunities and will enable the Town to be better positioned for growth and transportation needs.

### Downtown Parking and Circulation Study

#### Action Item #16

Downtown Weaverville is transportation constrained. Main Street is the only corridor in downtown that completes a north-south connection, and there are limited corridors that connect to the east-west. As a result, Main Street experiences both through-traffic, local traffic, and people seeking parking. Added to this, a recurring theme in community engagement of this plan was for the need to improve parking opportunities and circulation in downtown Weaverville. Some participants thought that the supply of parking needed to be improved; others thought that supply was sufficient but needed to be better managed. A dedicated Parking and Circulation Study in downtown could compile data to understand demand, supply, turnover and provide recommendations accordingly.


*Image 19. An Example of a Pop-Up Streetscape Project from Concord, NC.*

## Main Street Pop-up Streetscape Demonstration Project / Florida Avenue Closure

### Action Item #17

Catalyst Project 10 describes an idea to improve Main Street with a streetscape project. To "test" this idea before making a significant investment, the Town may consider a pop-up demonstration project that implements components of the streetscape. A case-study example of this was completed by Concord, North Carolina for Union Street, where they tested elements like widened sidewalks, expanded outdoor dining and seating, street trees, and revised parking and travel lane widths. Citizens were invited to test the streetscape and provide feedback. More **here**. This project could also be expanded to include Florida Avenue, where a demonstration project could test how traffic and circulation operates with a temporary street closure. This project could provide expanded seating to downtown restaurants and businesses' outdoor seating that is currently infringing into the sidewalk and pedestrian space.

## Downtown Nature Park Master Plan

### Action Item #18

A treasured asset to downtown, the Nature Park is also unknown to many people who visit downtown Weaverville. A Master Plan could address many enhancements to the park and could offer ways to better connect Main Street to the park assets. Currently Main Street is turned away from the park, and there may be opportunities to leverage an expanded street network and open the land uses so that Main Street is more connected to the park and not facing away. A Master Plan could also address stream restoration, sustainable trail construction, and other elements – ensuring that this beautiful, passive park continues to serve residents and visitors sustainably into the future.

Table 6. The Action Plan

| Task # | Description | Lead | Partner | Timeframe | How Will Success be Measured |
|---|---|---|---|---|---|
| **Administrative Action Items** | | | | | |
| 1 | Send staff and Council Members to FBRMPO New Member Orientation (which is open to non-new members) for a training on transportation policy and funding at the regional scale. | Town Council | Town Staff | 2024 | Leadership and staff attendance |
| 2 | Adopt Active Weaverville as the Town's Pedestrian and Bicycle Plan. This allows the Plan to become the official planning document for the Town and shows intention to support implementation over time. The Plan should be shared with regional and state partners for inclusion in the CTP and other planning documents. | Town Council | Town Staff, Steering Committee, NCDOT, RPO, Local Jurisdictions | 2023 | Adopted Plan. |
| 3 | Identify a committee (existing or new) to be tasked with a planning advisory role on pedestrian and bicycle issues. | Town Staff | Steering Committee, Town Council | 2023 | Continued pedestrian and bicycle advisory functions at a committee level. |
| 4 | Ensure that recommendations from Active Weaverville are incorporated into regional plans, such as the CTP and County Plans. | Town Staff, County Staff, NCDOT, FBRMPO | Town Council | 2023 | Amendments to Plan documents as needed. |
| 5 | Send Public Works and Planning staff to NCDOT Complete Streets Trainings and other multimodal design opportunities as they are offered. | Town Staff | | 2024 | Attendance at training events. |
| 6 | Update Active Weaverville in 5 years. If any projects or programs have been completed, a new set of priorities should be proposed. | Town Staff | Town Council, NCDOT, RPO, Local Jurisdictions | 2028 | Initiated planning process. |
| 7 | Actively participate in regional trail and greenway planning efforts to ensure a regional network and connectivity. | Town Staff | FBRMPO, County Staff, Local Jurisdictions | Ongoing | Attendance at coordination meetings. |

Table 6. The Action Plan (continued)

| Task # | Description | Lead | Partner | Timeframe | How Will Success be Measured |
|---|---|---|---|---|---|
| **Infrastructure Action Items** | | | | | |
| 8 | Begin setting the groundwork for the Catalyst Projects. Develop feasibility study for three projects. | Town Staff | Town Council, FBRMPO, NCDOT | 2023-27 | Feasibility study for three of the Top 10 Projects. |
| 9 | Collect annual counts at Lake Louise and Main Street (repeat at count locations that have been collected). | FBRMPO | Town Staff, Weaverville Business Association | 2023 | Data collected annually. |
| 10 | Work with NCDOT Division 13 to review their 3- or 5-year resurfacing program to identify possible opportunities on the horizon for pedestrian and bicycle project implementation. | Town Staff, NCDOT, FBRMPO | Town Council | 2023 | Annual coordination meeting agenda and minutes. |
| 11 | Complete a land use and transportation Corridor Study for Weaver Boulevard / US 25/70 from New Stock Road to Main Street. | Town Staff, County Staff | Town Council, FBRMPO, NCDOT, Weaverville Business Association | 2025 | Completed Corridor Study. |
| 12 | Complete a Small Area Plan for land just outside of the Town limits, parallel to I-26 from New Stock Road to Clarks Chapel Road. | Town Staff, County Staff | Town Council, FBRMPO, NDOT | 2024 | Completed Small Area Plan. |
| 13 | Develop and implement a pedestrian- and bicycle-scale wayfinding system that could be implemented County-wide, to direct users to key destinations. This system can include kiosks which will provide pedestrians more detail and can utilize the Town's existing walking map. | Town Staff, County Staff | Town Council, NCDOT, Weaverville Business Association | 2026 | Draft wayfinding system. |
| 14 | Ensure that Active Weaverville recommendations are implemented as a part of new development in the Town. | Town Staff | Town Council | Ongoing | New multimodal connections included in development process. |

Table 6. The Action Plan (continued)

| Task # | Description | Lead | Partner | Timeframe | How Will Success be Measured |
|---|---|---|---|---|---|
| 15 | Ensure that signalized and uncontrolled pedestrian crossings meet current standards through an inventory and engineering review. | Town Staff, NCDOT | Town Council | 2027 | Countermeasure application at existing and new crossings. |
| 16 | Working with NCDOT, perform a Town-wide evaluation of speed limits, considering context, and explore ways to make changes. Certain roads, such as Banks Town Road, may be candidates for a reduction to better support homes and neighborhoods. | Town Staff, NCDOT | Town Council | 2027 | Complete evaluation. |
| 17 | Develop a Parking and Circulation Study for Downtown. | Town Staff | Town Council, Weaverville Business Association | 2025 | Complete study. |
| 18 | Develop a pop-up demonstration project for a Main Street streetscape project or Florida Avenue closure. | Town Staff | Town Council, FBRMPO, Weaverville Business Association | 2025 | Complete a concept design and demonstration project. |
| 19 | Complete a Master Plan of the Downtown Nature Park | Town Staff | Town Council | 2028 | Complete study. |
| 20 | Explore options and grant funding to build a mountain bike trail network, a bike park and more on Town-owned property, such as the land near Lake Louise. See Appendix for resources developed by Town volunteer Mark Endries. | Community members, Town Staff | Town Council | 2027 | Planned Mountain Bike Trail System. |
| 21 | Explore a feasibility study for the Hellbender Trail from northern Buncombe County to southern Madison. | FBRMPO | Madison County | Ongoing | Complete study. |

Table 6. The Action Plan (continued)

| Task # | Description | Lead | Partner | Timeframe | How Will Success be Measured |
|---|---|---|---|---|---|
| 22 | Expand bicycle parking opportunities throughout Town, especially at key destinations such as businesses along Weaver Boulevard. Consider adding language to the code of ordinances requiring businesses to install bike parking as a part of development. | Town Council, Town Staff | Planning Board | 2026 | New bike racks in town |
| 23 | Explore Feasibility Study connecting Weaverville to Woodfin. | Town Council | Town Staff, FBRMPO, County Staff, Town of Woodfin | 2024 | Complete Study |
| 24 | Send volunteers to Trail Building School available through Rockingham Community College in Wentworth, NC or McDowell Technical Community College in Marion, NC. | Community Members | Town Council, Town Staff | 2025 | Attendance at Trail Building School |
| 25 | Invite member of the Pisgah Area SORBA (Southern Off-Road Bicycling Association) for a field visit/ brainstorming session. | Community Members | Town Council, Town Staff | 2025 | Field Visit with SORBA representative |
| **Policy & Program Action Items** | | | | | |
| 26 | Include funds for pedestrian and bicycle projects in the annual budget. | Town Council, Town Staff | | Annually | Dedicated funding for pedestrian and bicycle projects. |
| 27 | Apply to be a Watch for Me NC Partner. | Community members, Town Staff | Town Council | 2024 | Apply in the 2023 round (advertisement typically at the end of the year). |

Table 6. The Action Plan (continued)

| Task # | Description | Lead | Partner | Timeframe | How Will Success be Measured |
|---|---|---|---|---|---|
| 28 | Launch a new pedestrian or bicycle event of initiative such as Open Streets. | Community members, Weaverville Business Association, Town Staff | Town Council | 2025 | Launch of one new initiative. |
| 29 | Initiate a bicycle program (bike rodeo, themed bike ride, etc.) to encourage a family-friendly event and celebration of Weaverville's neighborhood streets. | Community members, Town Staff, Blue Ridge Bicycle Club | Town Council | 2025 | Launch of one new event. |
| 30 | Active Weaverville policy recommendations are detailed in Chapter 4. Use the recommendations as a checklist to research, develop, and adopt policy changes. | Town Staff, Town Council | Planning Board | 2024 | Adopted changes to Weaverville's Policies and Land Use Code. |
| 31 | Seek ways to expand Safe Routes to School in the community, such as a Walking School Bus. | Town Staff, Buncombe County Schools, Community members | Town Council | 2026 | Two Safe Routes events per year. |
| 32 | Consider applying to become a Bicycle Friendly Community, Pedestrian Friendly Community, or a Blue Zone Project Community. | Community members, Town Staff | Town Council | 2027 | Review and consideration of the various programs. |

## DESIGN GUIDELINE RESOURCES

Planners, engineers and project designers need standards and guidance as they implement pedestrian and bicycle facilities to ensure safety, consistency and predictability. Historically, the resources to design these multimodal facilities have been limited; while some guidance has existed, it has been limited in its scope to street or geographic contexts and has not offered the nuanced detail needed for certain conditions or applications. Over the last 15 years, design guidance has improved, equipping practitioners with the resources to develop ideas and try out innovations seen in other communities and internationally. The result has been multimodal design that is more inclusive to people of all ages and abilities and that can be well-customized to local context, whether urban or rural.

Good pedestrian facility design is the function of many factors, including connectivity, comfort, continuity, and convenience. The following are state and national design guideline resources that collectively work to achieve these multimodal design goals. These resources provide the guidance that planners and designers in Weaverville need to ensure that the transportation system serves these multimodal users and thereby increases users shifting their mode of transportation.

Pedestrian and bicycle design is constantly evolving and innovating, so updates of the following resources should be sought out following the publication of this Plan. As designs are complex, it should be noted that treatments must be tailored to individual situations and contexts. Good engineering judgement should always be practiced, and decisions documented.

Table 7. Local, State and Federal Pedestrian Facility Design Guidance.

| Pedestrian Guidance | |
|---|---|
| **North Carolina Department of Transportation** | |
| Complete Streets Policy A.09.0106 | 2019 (2022 update to methodology) |
| Evaluating Temporary Accommodations for Pedestrians | 2018 |
| Pedestrian Crossing Guidelines | 2018 |
| **American Association of State Highway and Transportation Officials (AASHTO)** | |
| Guide for the Planning, Design and Operation of Pedestrian Facilities | 2004 |
| **Federal Highway Administration (FHWA)** | |
| Guide for Improving Pedestrian Safety at Uncontrolled Crossing Intersections | 2018 |
| **Manual on Uniform Traffic Control Devices (MUTCD)** | |
| 2009 MUTCD Guidance and Supplemental Information (including NC Supplement) | 2009 |

Table 7. Local, State and Federal Pedestrian Facility Design Guidance (continued).

| Pedestrian Guidance | |
|---|---|
| **US Access Board** | |
| Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG) | 2011 |
| Guide to the Standards | 2010 |
| **USDOT/Department of Justice** | |
| USDOT ADA Standards for Transportation Facilities | 2006 |
| DOT/DOJ Joint Technical Assistance Memos | Varies |
| ADA Standards | 2010 |

Table 8. Local, State and Federal Bicycle Facility Design Guidance.

| Bicycle Guidance | |
|---|---|
| **North Carolina Department of Transportation** | |
| Complete Streets Policy A.09.0106 | 2019 (2022 update to methodology) |
| **American Association of State Highway and Transportation Officials (AASHTO)** | |
| Guide for the Development of Bicycle Facilities | 2012 |
| **Federal Highway Administration (FHWA)** | |
| Bikeway Selection Guide | 2019 |
| Incorporating On-Road Bicycle Networks into Resurfacing Projects | 2016 |
| Separated Bike Lane and Planning Design Guide | 2015 |
| **Manual on Uniform Traffic Control Devices (MUTCD)** | |
| 2009 MUTCD Guidance and Supplemental Information (including NC Supplement) | 2009 |
| **National Association of City Transportation Officials** | |
| Urban Bikeway Design Guide | 2014 |

Table 9. Local, State and Federal Multimodal Facility Design Guidance.

| Other Multimodal Design Guidance | |
|---|---|
| **North Carolina Department of Transportation** | |
| Roadway Design Manual | 2021 |
| Complete Streets Policy A.09.0106 | 2019 (2022 update to methodology) |
| Greenway Accommodations Guidelines | 2015 |
| WalkBike NC: The Statewide Pedestrian and Bicycle Plan | 2013 |
| **Federal Highway Administration (FHWA)** | |
| Strategies for Accelerating Multimodal Project Delivery | 2019 |
| Small Town and Rural Multimodal Networks Design Guide | 2016 |
| Achieving Multimodal Networks | 2016 |
| Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts | 2016 |
| Guidebook for Developing Pedestrian and Bicycle Performance Measures | 2016 |
| **National Association of City Transportation Officials (NACTO)** | |
| Transit Street Design Guide | 2016 |
| Urban Street Design Guide | 2013 |

## Complete Streets in North Carolina

NCDOT adopted a Complete Streets policy in 2009, which was updated in 2019. The policy directs transportation engineers and planners to consider and incorporate multimodal facilities in the design and improvement of all appropriate transportation projects in North Carolina. A 2022 update to the policy offers additional methodology and guidance for Complete Streets review.

This policy sets forth the protocol for the development of multimodal transportation networks. The purpose of the policy is to guide existing decision making and design processes to ensure that all users are included during the planning, design, construction, funding, operation, and maintenance of North Carolina's transportation network, and will not create barriers or hazards to the movements of those users. Consideration of multimodal elements will begin at the inception of the transportation planning process and the decisions documented. The 2022 updates introduce a Project Evaluation Methodology, which provides planners and designers with additional guidance on facility selection and balancing needs within the public right-of-way. See Appendix F for detail on the Project Evaluation Methodology.

The process for project advancement under the new policy is through Strategic Prioritization and the local Comprehensive Transportation Plan (CTP). The importance of this new policy to municipalities like Weaverville cannot be underscored; it reduces or eliminates cost-sharing requirements by the municipality, which has been a burden and barrier for many towns to implement multimodal projects. Weaverville may coordinate with their local NCDOT Division Planning Engineer or Corridor Development Engineer to understand how a complete street project is moving through the project development process.

# CLOSING

6

# CLOSING

*"Thank you for being thoughtful about this! More walking/biking access has been a need for a long time, and I'm excited to see this being talked about!" - Survey Respondent*

Weaverville is a quaint, close-knit community that nurtures residents and visitors alike. Shopping, dining, recreation, events, schooling, and community are embodied in the Town, and each contributes in their own way to shaping the existing and desired pedestrian and bicycle network. Currently, the Town has a strong network of sidewalks that the residents appreciate, and there is great desire for more opportunities to walk, run, bike and roll along multi-use sidepaths, greenways and dedicated bicycle facilities.

The Town has experienced steady growth over the last decade, which is projected to continue due to recent developments and projected development near the Town's boundaries. **Whether the development occurs within the Town limits or not, Weaverville will feel the growth pressure on its streets. Now is the opportunity to anticipate that growth and plan for it in a sustainable way.**

Active Weaverville offers a framework for the Town and its partners to create more places for walking and biking. The key projects will expand existing places to walk and bike, and the policies and program recommendations will enable the Town and its partners to expand and maintain this system as it grows in population. With this plan and policy document, the Town will be an even better steward of the pedestrian and bicycle system it maintains, will have a strategic focus in partnering with the County, regional partners and NCDOT, and will have a vision for the future of its network.

In 1994, Weaverville developed a Pedestrian Plan for the Town. Most of the projects from this Plan have since been completed, and those that remain are more complicated and costly. Active Weaverville provides an update to that Plan with a new set of bicycle-focused recommendations. Since the "low hanging fruit" projects have been plucked, many of the projects in Active Weaverville involve retrofitting rural roads for people

*With the path towards a walkable and bikeable Weaverville more defined, the Town will become a place where* **PEOPLE OF ALL AGES AND ABILITIES CAN COMFORTABLY TRAVEL ON FOOT OR BICYCLE.**

walking and biking, and these improvements will be very costly. Even simple widening projects to add a bikeable shoulder may cost near $2 Million Dollars. To ensure the implementation of this Plan, strong partnerships between local, regional, and state agencies will need to continue and the community will need to voice their support for pedestrian and bicycle connections.

The Catalyst Projects in this plan focus on sidewalk and ADA needs, a core multi-use path system that builds off the Future Reems Creek Greenway, and traffic calming type projects. In the ten Catalyst Projects, there are no standalone bicycle projects because of the high cost and feasibility challenges to construct those. This should not be interpreted as a lack of support of these type projects: **people in Weaverville have a strong desire for better bicycle connections within the town and to outside destinations.**

This Plan also offers ways to enhance streets for bicycling that are less costly, although not dedicated facilities (such as bike lanes or shoulders). With the path towards a walkable and bikeable Weaverville more defined, the Town will become a place where people of all ages and abilities can comfortably travel on foot or bicycle.

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# APPENDIX

# ACTIVE WEAVERVILLE

Town of Weaverville, NC