

# Downtown Patton Avenue Corridor Feasibility Study



City of Asheville, NC

2025





# ACKNOWLEDGMENTS

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Patton Avenue (Looking West at the I-240 Interchange)

Source: McAdams

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Patton Avenue (Looking West from French Broad Avenue)

## Preface

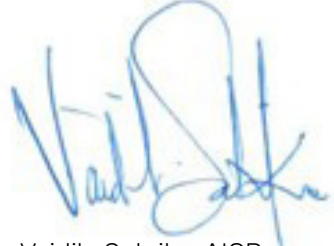
The people of Asheville have been anticipating the I-26 highway upgrades for decades. A key part of the improvements include the section of the project between the Jeff Bowen Bridge and Downtown Asheville, currently a complex confluence of highways and ramps. This portion of the I-26 project presents a tremendous opportunity to re-imagine the western edge of downtown as a vibrant, multimodal gateway. Thanks to the collaboration of many individuals and partners, this study helps bridge the community's long-standing vision with concrete, actionable steps to help realize that potential.

Although this study officially launched in the summer of 2023, its roots began to take shape more than a year earlier. As NCDOT progressed toward selecting a design-build team, it became clear that the preliminary design for the downtown-adjacent section could benefit from deeper integration with the City of Asheville's goals for urban connectivity, multimodal access, and walkable public space. Recognizing this, City of Asheville staff and partners saw an opportunity to advance complementary planning that could inform and strengthen outcomes for this critical corridor.

This effort would not have taken shape without the thoughtfulness and initiative of urban designer David Hazzard. At a time when highway design was advancing rapidly, Dave had the foresight to identify areas where the emerging plans fell short of reflecting the character and needs of Asheville's downtown. Through thoughtful sketches, community-oriented thinking, and persistent dialogue, he laid out a compelling case—ultimately captured in the [East Patton Avenue Report](#)—which became a foundation for *this* study. Inspired by that groundwork, colleagues in the City's Transportation Department mobilized the resources needed to move the Downtown Patton Avenue Corridor Feasibility Study forward. It's hard to overstate the impact of Dave's persistent advocacy—these changes are a direct result of his dedication to creating a more thoughtful and livable urban environment. Thank you, Dave.

Although the I-26 Connector is already in the design and construction phases, this study has already helped inform important refinements—demonstrating that it's never too late to bring the community's voice to the table. The corridor passes near neighborhoods such as Burton Street, the West End/Clingman Avenue area, and Southside—all of which have advocated for improved connectivity and equitable investment through neighborhood plans and past public engagement efforts. This study builds on those priorities and helps to better connect these communities to the heart of downtown.

Ultimately, the success of this western gateway will depend on continued collaboration among public agencies, local businesses, and the community. While progress can be slow, Asheville has shown again and again that sustained civic involvement can shape meaningful outcomes. With shared vision and persistence, we can bring this corridor to life as a welcoming, inclusive, and resilient part of Asheville's future.



Vaidila Satvika, AICP  
Project Manager, Downtown Patton Avenue Corridor and Feasibility Study  
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City of Asheville

## A Golden Triangle in the Heart of the City

I view the Patton Avenue corridor between downtown's Pack Square and the Bowen Bridge, with adjacent parallel areas, to be a rich Golden Triangle of magnificent and shining potentials for our city.

These potentials include a true and beautiful boulevard, a gleaming gateway between East and West Asheville, stunning pedestrian and transit places, handsome mixed use revitalization along its way, an attractive environment for affordable housing and full connection to a magnificent greenway along the Patton Boulevard and French Broad River.

In my opinion, the realization of this Golden Triangle is devoutly to be wished.

*-David Nutter, City Planner and Urbanist*

## EXECUTIVE SUMMARY

The Downtown Patton Avenue Corridor Feasibility Study outlines a comprehensive vision to transform Patton Avenue into a multimodal, pedestrian-friendly gateway to Asheville's downtown. The study examines existing transportation challenges, proposes infrastructure improvements, and recommends strategies to enhance safety, economic vitality, and connectivity between downtown Asheville and the surrounding neighborhoods. The plan aligns with the City of Asheville's long-term urban development goals and ongoing projects, such as the I-26 Connector.

### Key Recommendations

- › **Multimodal Improvements:** Implement a road diet, dedicated bike lanes, enhanced pedestrian crossings, and roundabouts to improve safety and accessibility for all users.
- › **Public Transit Enhancements:** Expand bus stop infrastructure and improve transit connections to encourage alternative transportation use and increase transit ridership.
- › **Land Use and Zoning Adjustments:** Support mixed-use development, form-based zoning, and pedestrian-oriented design to encourage sustainable growth and create a more vibrant, walkable corridor.
- › **Safety and Traffic Calming Measures:** Integrate traffic-calming features, improve lighting, and reconfigure intersections to reduce crash frequency and severity.
- › **Green Infrastructure and Streetscape Enhancements:** Increase tree canopy, add green spaces, and incorporate stormwater management solutions to improve environmental performance and user comfort.
- › **Stakeholder Collaboration:** Work with City of Asheville officials, local businesses, and community members to ensure successful implementation and alignment with ongoing projects.

This plan proposes to enhance safety by reducing vehicle-related accidents and improving conditions for pedestrians and cyclists. It improves connectivity by strengthening links between downtown, the River Arts District, and surrounding neighborhoods. By encouraging mixed-use development and better accessibility, the plan promotes economic growth and supports local businesses. Alternative transportation options foster sustainability by reducing reliance on personal vehicles and lowering emissions. In addition, the study recommends phased and scalable improvements that can be implemented over time in coordination with available funding and project milestones. The plan aligns with existing and future infrastructure projects, ensuring cohesive urban development. By implementing these recommendations, Asheville will create a more accessible, safe, and vibrant urban corridor that enhances quality of life for residents and visitors alike.



## EXECUTIVE SUMMARY



Image 1.1: Patton Avenue (Looking East from the I-26/I-240 Interchange)

## INTRODUCTION

For decades, residents and community leaders have worked to refine a shared vision for the western gateway to Downtown Asheville, particularly in coordination with the long-anticipated I-26 Connector Project. These efforts have focused on both transportation improvements—such as the reconfiguration of Patton Avenue—and land use strategies aimed at extending the fabric of downtown westward to the Jeff Bowen Bridge. As the City of Asheville continues to prioritize multimodal infrastructure and equitable urban design, a focused analysis of the downtown Patton Avenue corridor was needed to inform recommendations for transportation, land use, and streetscape design from the Jeff Bowen Bridge to Pack Square.

### Study Goals

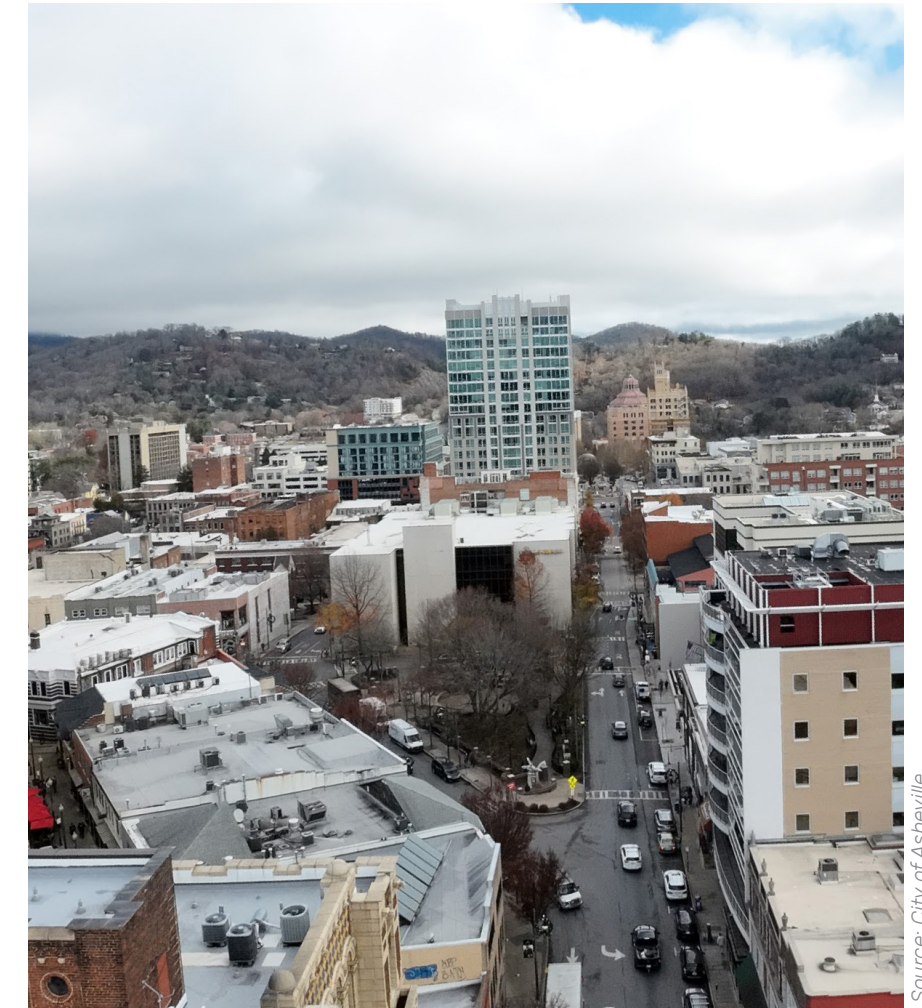
The downtown Patton Avenue corridor Study seeks to:

- › Transform the area so that Patton Avenue and the Jeff Bowen Bridge serve as a welcoming gateway to downtown;
- › Set the stage for Patton Avenue to develop into a vibrant, mixed-use corridor;
- › Retrofit Patton Avenue into a complete street that provides a safer environment for all road users;
- › Expand multimodal facilities downtown;
- › Strengthen connections between downtown and adjacent neighborhoods, such as the River Arts District; and
- › Create a plan for a network of multi-use paths that connect people to nearby economic and recreational opportunities.

The project team explored design alternatives for the segment of Patton Avenue between the Jeff Bowen Bridge and Pack Square. Throughout the process, the team engaged stakeholders and the public, intentionally centering community input to shape and refine the final recommendations.

**Figure 2.1 - Project Area** illustrates the study area.

The vision for Patton Avenue is to transform this vital downtown corridor into a scenic walkable and bikeable gateway that safely connects multimodal users to the heart of Downtown Asheville with a roadway design that supports future land use.



Source: City of Asheville

Image 2.1: Patton Avenue (Looking East from Coxe Avenue)



# City of Asheville

Downtown Patton Avenue Corridor Study Area

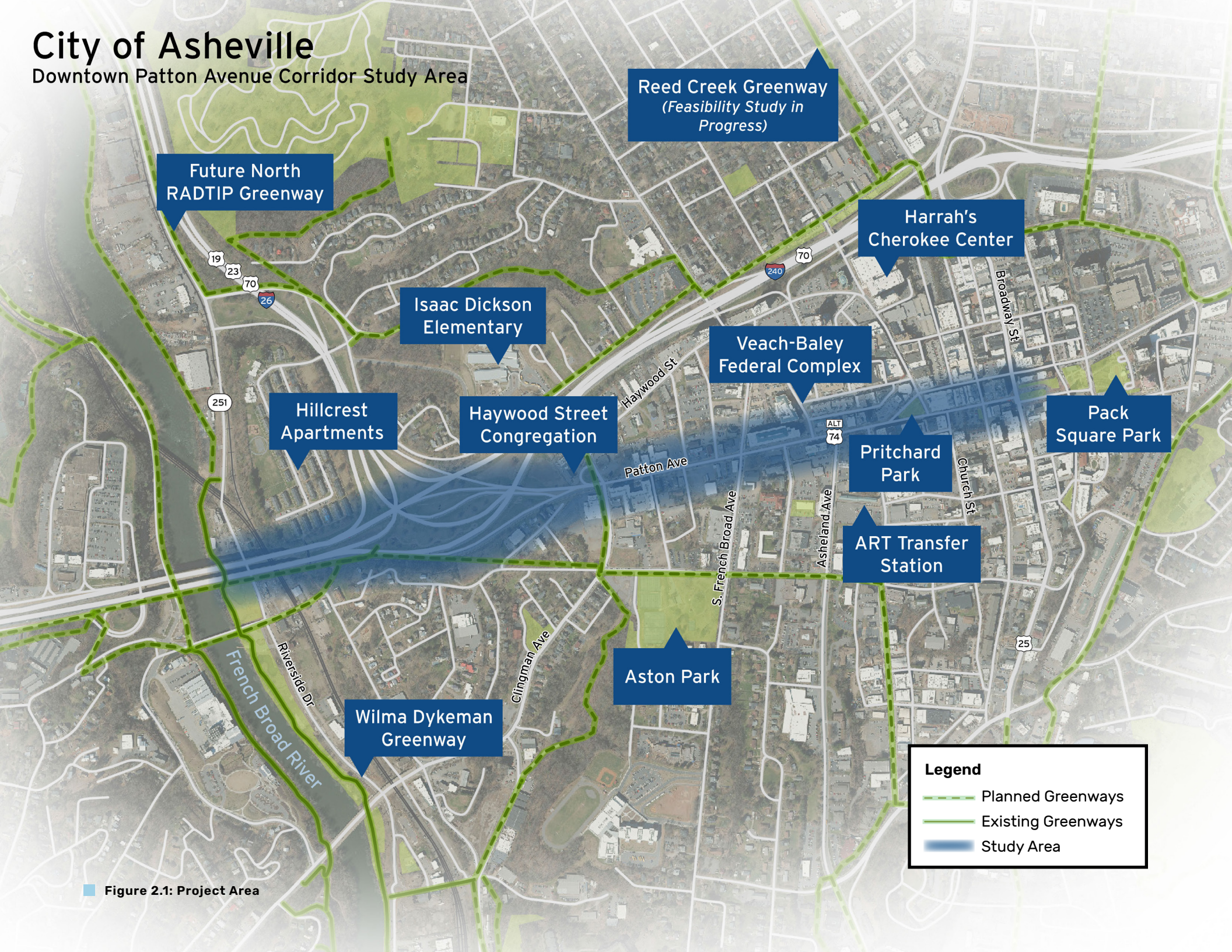


Figure 2.1: Project Area

**Legend**

- Planned Greenways
- Existing Greenways
- Study Area

## Study Process + Schedule

Building on previous planning efforts, this study bridges the gap between conceptual planning and the prioritization and programming of capital projects. As shown in **Figure 2.2 - Study Process**, the process was divided into four distinct phases, each building upon the previous to guide the development of feasible and community-supported recommendations.

The team developed and evaluated potential design alternatives for the corridor, considering the built, natural, social, and economic environments, with each phase of the study including key technical tasks and decision points. The team integrated community engagement throughout the process and included regular meetings with the Project Working Group, targeted discussions with stakeholders, and public input opportunities designed to gather broad community feedback.

This report incorporates conceptual level corridor alternatives and does not establish a final construction design for the corridor. Future implementation will require additional design and will depend on available funding, partnership opportunities, and the participation of willing property owners.



Image 2.2: Patton Avenue (Looking West from Pearl Street)

Source: McAdams

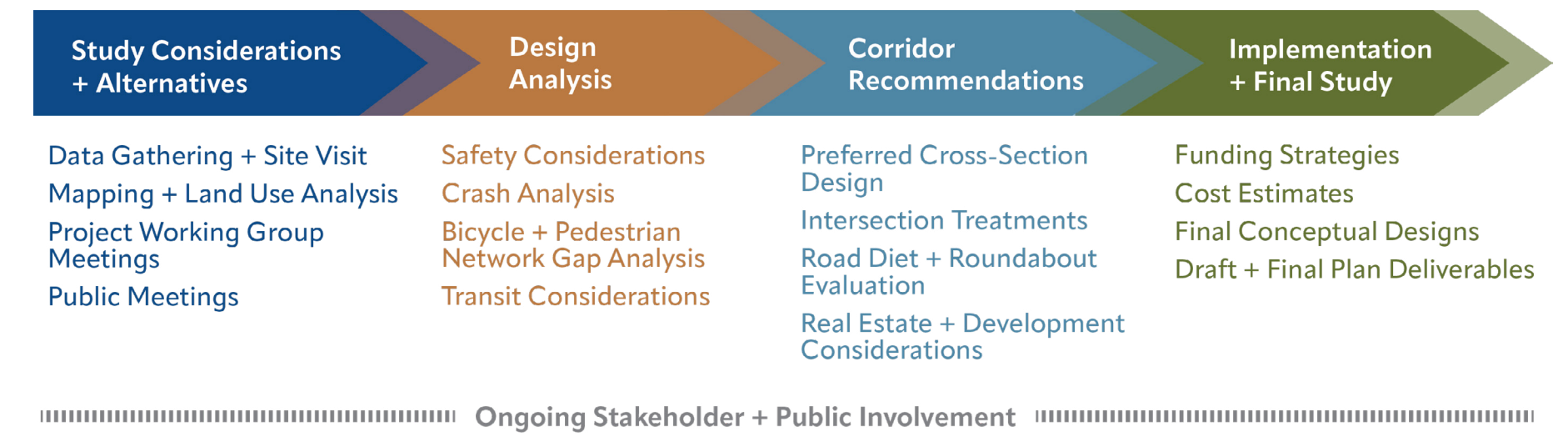


Figure 2.2: Study Process

The Downtown Patton Avenue Corridor Study began in August 2023 and concluded in June 2025. The initial project schedule had a target completion date of July 2024. Upon commencement of the study, the schedule was delayed to allow coordination with NCDOT's planned I-26 Connector Project, which is identified in the NCDOT State Transportation Improvement Program (STIP) as Project #I-2513. The I-26 Connector Project will impact the portion of the study area (west of Clingman Avenue) that has the greatest complexity due to the high volume and speed of traffic, wide travel lanes, and lack of network connectivity for all modes. Given the extensive impact

that the I-26 modifications will have on the corridor, there is tremendous potential to make more substantial improvements to this key downtown gateway and to achieve corridor goals. The intent of the project delay was to allow for better coordination with the NCDOT design team to incorporate the study recommendations. In addition to this delay, Hurricane Helene caused project delays. The resulting delivery schedule is summarized in **Figure 2.3 – Project Schedule**.

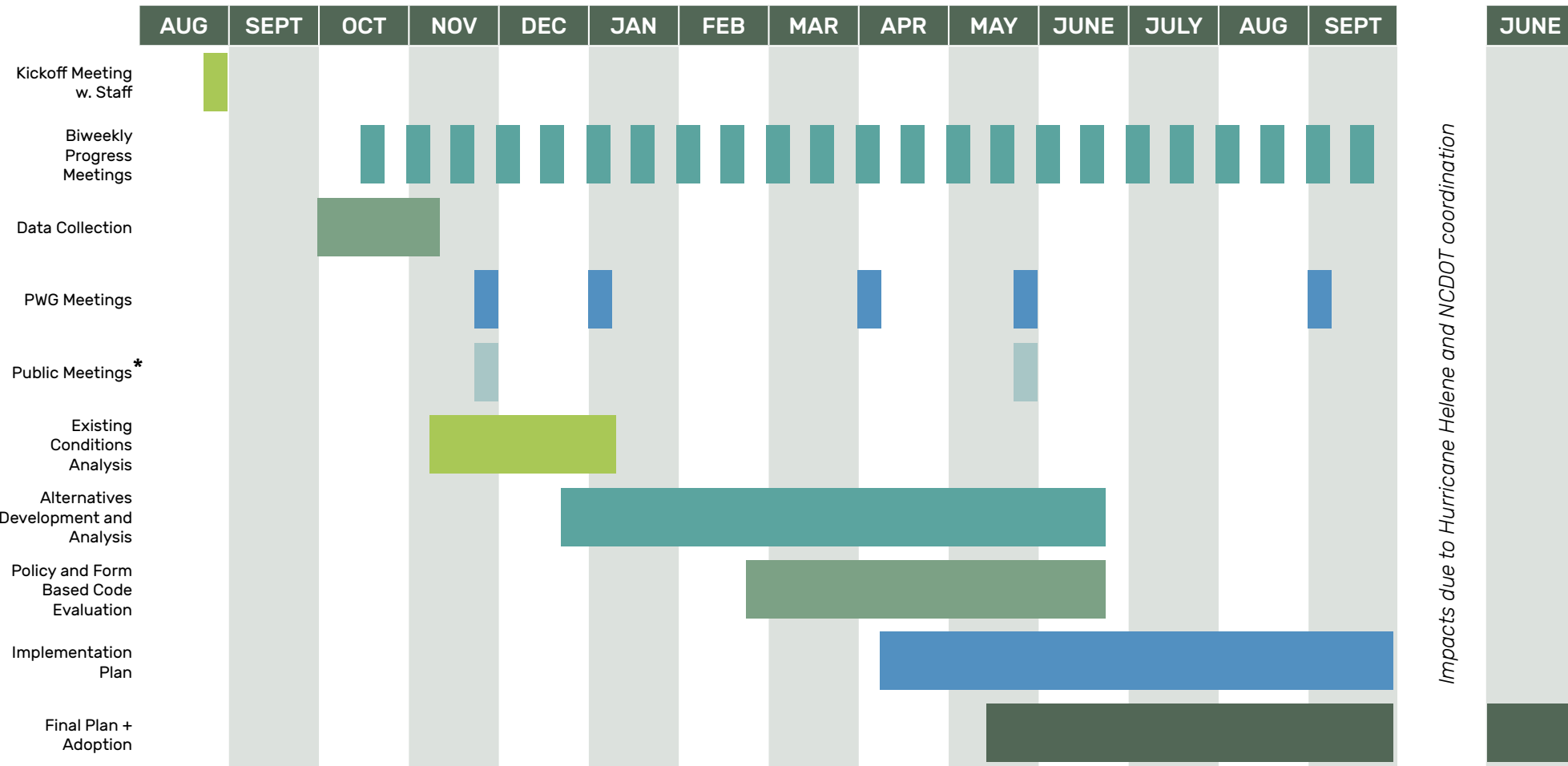


Figure 2.3: Project Schedule

\* The organizers canceled a third public meeting originally planned for October 2024 due to the widespread impacts of Hurricane Helene and ongoing recovery efforts following the storm.



Image 2.3: Patton Avenue (Looking West towards Otis Street)

Source: McAdams



STUDY HISTORY +  
PREVIOUS PLANNING  
EFFORTS

## STUDY HISTORY + PREVIOUS PLANNING EFFORTS

For over 100 years, Patton Avenue has been envisioned as a gateway linking West Asheville, the River Arts District, and downtown—dating back to the 1922 Nolen Plan, which proposed Patton Square as a civic focal point and “one of the outstanding architectural features of Asheville.” Originally constructed in the late 1800s to support commerce and provide a key east-west thoroughfare, Patton Avenue also featured a victory arch in the early 1900s commemorating the end of World War I. The construction of the Smoky Park Bridge (now the Jeff Bowen Bridge) in the 1950s, followed by the Crosstown Expressway (I-240), shifted the primary east-west travel route from Haywood Road to Patton Avenue.

This infrastructure made Patton Avenue’s western gateway into downtown distinctly auto-oriented. At the time, people saw cars as the future of urban travel, and they provided minimal infrastructure for walking, biking, or using transit. These choices reshaped the urban fabric—eliminating local street connections and contributing to higher vehicle speeds and volumes.

The construction of I-240 divided the Burton Street neighborhood, one of West Asheville’s earliest African-American communities. The 1959 development of the Hillcrest Apartments by the Asheville Housing Authority further entrenched the physical separation of lower-income, predominantly Black communities from downtown and Montford. From 1987 to 1993, urban renewal efforts north of Patton Avenue led to the condemnation of many local businesses, churches, a school, and community organizations.

This history must inform current planning efforts. As the I-26 Connector Project reconfigures access and rights-of-way, there is an opportunity to restore neighborhood connectivity and ensure future investments help heal—not repeat—past divisions.



Image 3.1: Patton Avenue (Looking East towards Downtown from the Bowen Bridge)

### The I-26 Connector Project

The I-26 Connector Project has been in planning and development for over 30 years. Comprising four sections, the project has an anticipated budget of \$1.2 billion and represents the largest public construction effort in the Asheville area in recent history. The I-26 Connector (which is identified in the NC State Transportation Improvement Program as Project I-2513) will reconfigure major highway connections through Asheville. A new bridge is proposed to better accommodate I-26 traffic and divert a significant volume of vehicles from the Jeff Bowen Bridge. This shift opens an opportunity to re-imagine the Jeff Bowen Bridge as a gateway into the City of Asheville.

The I-26 Connector Project has a long history of community input. In 1999, the City of Asheville, in coordination with NCDOT, formed the Community Coordinating Committee, which issued a report outlining nine design goals. These goals included separating local and interstate traffic, matching the project to the character of the community, and reconnecting neighborhoods and local businesses.

In 2009, MountainTrue launched the I-26 ConnectUs Project to amplify neighborhood concerns. In 2013, the Appalachian Design Center (then the Asheville Design Center) formed the I-26 Working Group, which helped build consensus around community priorities such as minimizing the number of lanes through West Asheville and converting the Jeff Bowen Bridge into an urban boulevard.

Asheville City Council established the I-26 Aesthetics Committee in 2018 to develop aesthetic recommendations for the Connector in partnership with NCDOT and the public. Key priorities of the committee included the addition of multi-use paths (MUPs), landscaped and lighted greenways, and context-sensitive design that reflects Asheville's sense of place and adjacent land uses. These collective efforts created the foundation for the design concepts recommended in this report. (See **Figure 3.1 - History of Project** for an overview of the I-26 Connector's history.)

In 2023, NCDOT selected a preferred alternative for Section I-2513B. The concept maintains a suburban roadway form, prioritizing wide highway on-ramps rather than a denser, more urban layout. To deliver the project, NCDOT used a Design-Build (DB) contract, combining project design and construction into a single procurement. NCDOT awarded the DB contract

for I-2513B in 2024, initiating the Optimization & Refinement (O&R) period—a phase during which NCDOT and the DB team work together to identify ways to reduce project scope and costs. As of this report's publication, the O&R period has concluded with the contract awarded, but it did offer opportunities to provide input into the design-build process and ensure coordination between the I-26 Connector and Patton Avenue improvements.

In addition to the Connector, other ongoing projects along Patton Avenue are helping shape the future of the corridor (see **Figure 3.2 - Ongoing/Recently Completed Projects**).

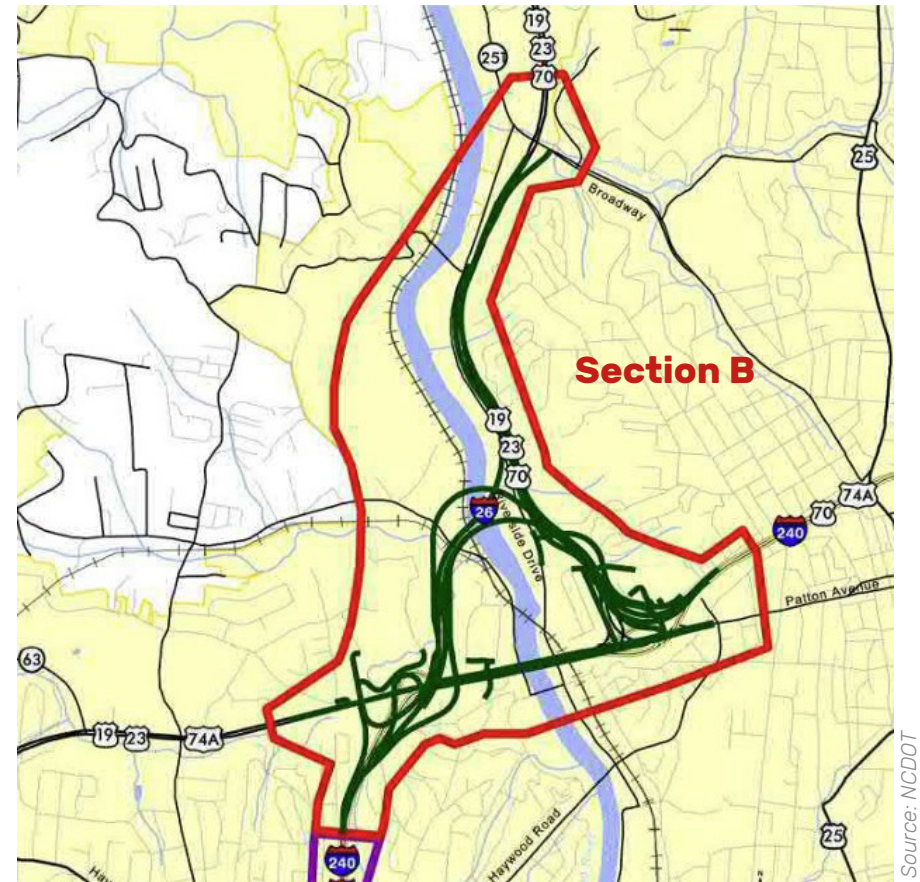


Image 3.2: I-26 Connector (NCDOT STIP Project I-2513) Section B

Source: NCDOT



Image 3.3: Patton Avenue Victory Arch (c. 1919)

Source: North Carolina Collection, Pack Memorial Library



Image 3.4: Patton Avenue Postcard (Before 1931)

Source: Western Carolina University Hunter Library

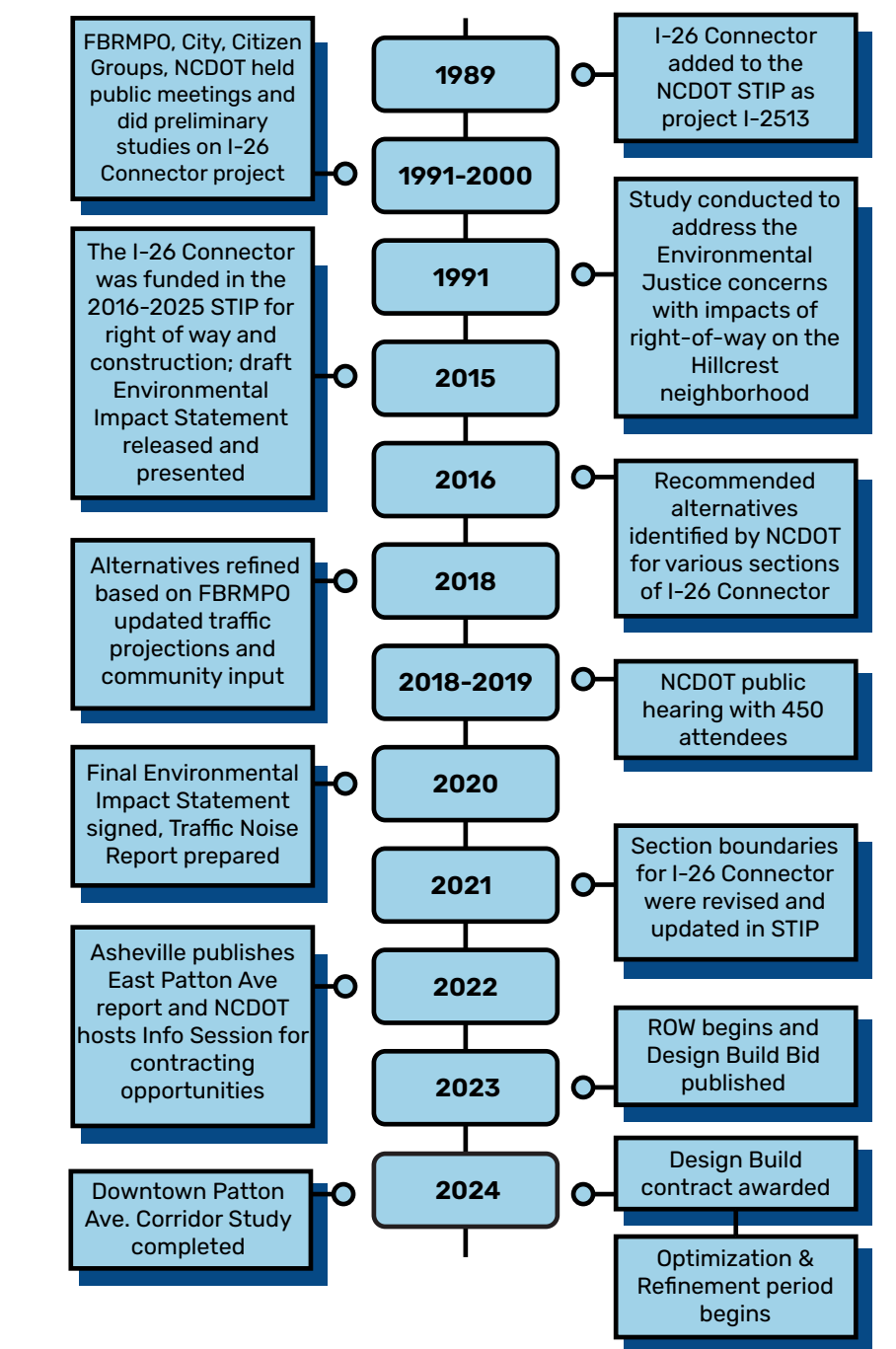


Figure 3.1: History of Project

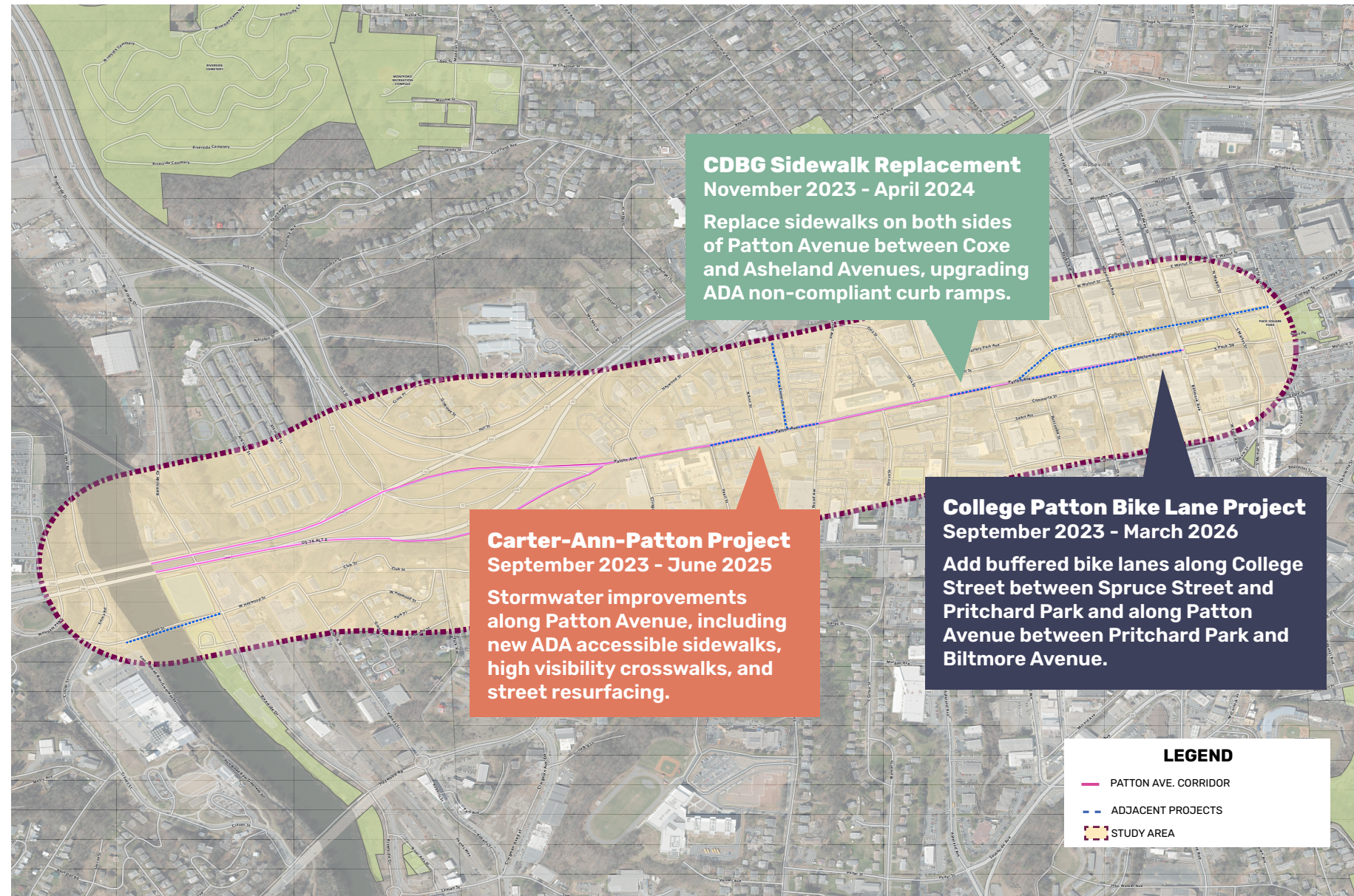


Figure 3.2: Ongoing/Recently Completed Projects

### Previous Plans

The Downtown Patton Avenue Corridor Study builds on a long legacy of local, regional, and statewide planning efforts. Dating back to the Nolan Plan of 1922—which first envisioned this corridor as a gateway—Patton Avenue has been the focus of evolving transportation and land use strategies. Reviewing existing plans that support or align with current design initiatives provides valuable insights and lessons learned to inform future projects. This review helps the project team better understand community needs, identify local design principles and best practices, account for environmental considerations, and develop effective funding and implementation strategies for proposed design alternatives. The project team reviewed the following plans:

<b>EAST PATTON AVENUE REPORT (2022)</b>	This report reviewed the background and current considerations for the section of Patton Avenue between the Jeff Bowen Bridge and Pritchard Park, and recommended specific details to support the City of Asheville’s vision and goals for the gateway are met and incorporated into the I-26 Connector Project during the final design and construction.
<b>FRENCH BROAD RIVER MPO 2045 MTP (2020)</b>	The French Broad River MPO Metropolitan Transportation Plan (MTP) is a fiscally constrained plan for transportation needs in the Asheville region through 2045. One goal of the MTP is to improve multimodal transportation through investments in bicycle and pedestrian infrastructure. Recommendations include encouraging member governments to require bicycle and pedestrian infrastructure in new developments, increasing coordination between transportation and land use, and following Complete Streets guidelines based on best practices for facility design.
<b>ASHEVILLE AREA CONGESTION REPORT (2023)</b>	The report highlights several notable post-pandemic travel trends: regional traffic delay has decreased, remote work has become more widespread, and single-occupancy vehicle commuting has declined—even as cross-county commuting has increased. Despite these shifts, the Patton Avenue corridor remains one of the region’s most significant bottlenecks, with an average daily delay of 11 minutes. The report also provides data on bicycle and pedestrian crashes along major corridors and offers insight into freight movement and designated freight corridors.
<b>BUNCOMBE MADISON REGIONAL HAZARD MITIGATION PLAN (2022)</b>	The Buncombe Madison Regional Hazard Mitigation Plan aims to document the region’s sustained efforts to incorporate hazard mitigation principles and practices into routine government activities and functions. This plan lists open space management plans as a tool for floodplain management. It also references the Buncombe County Greenways and Trails Master Plan which supports the preservation of wetlands and other flood-prone areas throughout the county.
<b>LIVING ASHEVILLE: COMPREHENSIVE PLAN (2018)</b>	Living Asheville provides a framework for guiding future growth. It emphasizes the need to balance preservation of natural and built environment while accommodating population growth, to expand active transportation, to ensure a resilient economy, to provide for a healthy community interwoven with equity, to lead responsible regionalism, and to provide housing affordability. The plan acknowledges the risk of displacement of residents due to Asheville existing as a tourist-oriented destination and a second home community. The plan also provides a high-level overview of the I-26 Connector Project.

<p><b>CITY OF ASHEVILLE MUNICIPAL CLIMATE ACTION PLAN (2020)</b></p>	<p>The plan set a roadmap to continue to make sustainability and climate action progress within City of Asheville operations—including goals for facilities, operations, and community resilience. In the design of the Patton Ave corridor, keeping sustainability at the forefront of plans should be a focus. Integrating and intentionally recognizing the environmental justice (EJ) communities surrounding the corridor and ensuring best practices are implemented in hazard planning and redesign.</p>
<p><b>TRANSIT MASTER PLAN (2018)</b></p>	<p>This study updated the Plans from previous years, aiming to serve as a guide on topics like how and where ART will provide service while ensuring safety, convenience, and accessibility for all residents, workers, and visitors. The Plan provides a vision for long term service expansion and infrastructure needs with a 5-year implementation plan and 10-year vision plan. The goals included more frequent service on main travel corridors, marketing to choice riders, improving service for non-choice riders, targeting the tourism market, and making transit part of community lifestyle. It was recommended that additional transfer locations be established outside of Downtown Asheville, that on-time performance improves, and that dial-a-ride service converts to fixed route service.</p>
<p><b>DOWNTOWN MASTER PLAN (2009)</b></p>	<p>The Downtown Master Plan built on previous planning efforts and addressed ways to help the community shape growth and preserve Asheville’s character, created a shared vision for downtown, and enabled the community to understand choices, take advantage of opportunities, and develop tools to achieve the shared vision through changing economic and political cycles.</p>



Source: McAdams

Image 3.5: Patton Avenue (Looking East from Ann Street)

<p><b>I-26 CONNECTOR AESTHETICS COMMITTEE PHASE I REPORT (2020)</b></p>	<p>This report represents decades of community involvement with the I-26 Connector Project to address neighborhood concerns, mitigate negative impacts, and ensure alignment with community character. The Aesthetics Committee recommended aesthetic treatments throughout the corridor. For Patton Avenue (east), the report encouraged design that provided a seamless transition into the downtown street grid with a tree-lined multi-use path and a focus on creating a vibrant, livable environment. The report called for better connectivity between Hill Street, Hillcrest, and Patton Avenue, new bus shelters, and opportunities for productive reuse of remnant right-of-way. This report was adopted by City Council resolution in 2020.</p>
<p><b>BURTON STREET NEIGHBORHOOD PLAN (2018)</b></p>	<p>This plan developed a community-driven plan to obtain input from a historically Black community that would be directly affected by the I-26 Connector Project. As part of the I-26 Connector Project, the plan called for improved sidewalks to meet ADA standards, additional transit stops, improved access to greenways, and a Burton Street history mural painted on the proposed I-26 Connector sound wall if built.</p>
<p><b>WECAN CITIZENS MASTER PLAN (2000)</b></p>	<p>This plan, adopted in 2008, lays out a clear vision that emphasizes quality urban design and interconnected neighborhood. The plan includes new roadway connections from Patton Avenue to WECAN and to the Hillcrest Community. The plan shows mixed-use development along Patton and does not include an interchange with I-240 between Clingman Avenue and the Jeff Bowen Bridges.</p>
<p><b>CLOSE THE GAP (2022)</b></p>	<p>Close the GAP is a three-component plan designed to transform the current Greenway (G), ADA Transition (A), and Pedestrian (P) Plans. This plan aims to create a cohesive and interconnected network of accessible sidewalks and greenways throughout the community, aligning with the vision for an updated and expanded infrastructure. The GAP Plan presented a tailored scoring methodology for prioritization of ADA and pedestrian improvements, a list of 10 priority greenway projects, and recommendations for policy updates.</p>

“Ensure that all elements of the built environment—land use, transportation, housing, energy, infrastructure, architecture and the public realm—work together to provide sustainable places for living, working, and recreating.”

- *The Living Asheville Comprehensive Plan (2018)*

### Relevant Policies

A thorough policy review is essential to the planning process for the downtown Patton Avenue corridor redesign. It ensures that the project aligns with existing regulations, funding mechanisms, and policy goals. This foundation helps guide the development of recommendations that reflect both community priorities and regulatory requirements—supporting successful implementation and long-term corridor management. The project team reviewed the following policies:

<p><b>ASHEVILLE STANDARD SPECIFICATIONS AND DETAILS MANUAL (2014)</b></p>	<p>The City of Asheville’s Standard Specifications and Details Manual (SSDM) outlines requirements for sidewalk and bicycle lane construction.</p> <ul style="list-style-type: none"> <li>• Sidewalks must be at least five feet wide on local and suburban streets, and typically 10 to 12 feet wide on urban arterials and collectors.</li> <li>• Bicycle lanes must be at least four feet wide on local streets for one direction of traffic (not including curb and gutter), with wider widths—up to seven feet—preferred on busier roads. Where speed limits are higher or on-street parking is present, the SSDM recommends even wider lanes to improve safety.</li> </ul> <p>Patton Avenue is designated as a Key Pedestrian Street, with specific design considerations including landscaping, open space standards, and a preference for loading access via alleys. Patton Avenue also does not have off-street parking minimum requirements.</p>
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Source: McAdams

Image 3.6: Patton Avenue (Looking East towards Otis Street)

<p><b>ASHEVILLE CODE OF ORDINANCES (Current through 2024)</b></p>	<p>The City of Asheville’s zoning regulations help shape how land can be developed and used. While much of the study area currently lies within NCDOT right-of-way and is not subject to zoning, any future disposition of right-of-way for private use would likely fall under Central Business District (CBD) zoning. This district supports a dense, mixed-use development pattern that aligns with the existing character of downtown Patton Avenue and would help extend that urban fabric westward.</p>
<p><b>NCDOT COMPLETE STREETS POLICY AND GUIDANCE (2019)</b></p>	<p>This document defines North Carolina’s approach to interdependent, multi-modal transportation networks that safely accommodate access and travel for all users. The Policy requires NCDOT to consider and incorporate multimodal facilities in the design and improvement of all appropriate transportation projects in North Carolina.</p>
<p><b>NCDOT ROADWAY DESIGN MANUAL (2025)</b></p>	<p>The latest edition of the NCDOT Roadway Design Manual (RDM), last updated in May 2025, outlines design standards for roadway facilities within NCDOT right-of-way (ROW). It incorporates guidance from national sources such as American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), and other engineering references. Section 4.14 of the RDM addresses pedestrian facilities, detailing requirements for sidewalks and multi-use paths along state roadways, including standards for width, vertical clearance, railing height, crossings, grade separation, and curb ramps. These standards will shape future design and construction within the NCDOT ROW.</p>



Source: City of Asheville

Image 3.7: Patton Avenue (Looking East from Clingman Avenue)

## CORRIDOR CONDITIONS + CONTEXT

Understanding the existing demographics, employment patterns, land use, and socioeconomic characteristics of the study area is essential to shaping corridor recommendations. This analysis helped inform both the public engagement strategy and the proposed improvements, ensuring that the corridor design responds to the needs of a diverse community.

### Socioeconomic + Demographic Context

The following information serves as the key demographic and socioeconomic observations for the City of Asheville and Downtown Asheville, which include Census Tracts 21.01, 21.09, and 21.09:

Demographic Indicator	City of Asheville	Downtown Asheville
Population	93,782	13,498
Average Household Income	\$66,032	\$78,269
Poverty Rate	17.9%	21.2%
# of Jobs*	207,100	7,014
Renter Occupied	48.2%	63.9%
Housing Units	47,606	8,474

Source: NCDOT 2024 Demographic Snapshot Tool; \* OnTheMap (U.S. Census Bureau)

Table 4.1: Demographics Snapshot

### Social Vulnerability

Although downtown Asheville has a higher average household income than the city as a whole, it also faces a higher poverty rate and a larger share of renter-occupied housing, both of which are indicators of economic precarity. The CDC's Social Vulnerability Index (SVI), which incorporates data on socioeconomic status, household characteristics, and transportation

access, shows that roughly 50% of the study area has a high level of social vulnerability. These conditions highlight the importance of designing transportation improvements that reduce barriers, improve access to opportunity, and enhance safety for the area's most at-risk residents.

The Patton Avenue corridor intersects two census block groups with high Social Vulnerability Index (SVI) scores. Additionally, Census Tracts 37021000200, 37021000100, and 37021000900 are identified as disadvantaged by the Climate and Economic Justice Screening Tool (CEJST). The City of Asheville's 2023 [Missing Middle Housing Study](#), which assessed housing affordability challenges, found that the downtown Patton Avenue corridor ranks high on both the Gentrification Index and the Displacement Vulnerability Index, with a significant share of households earning less than 80% of the Area Median Income (AMI). The corridor also includes a racially diverse population and is located within a region experiencing sustained population growth and rising demand for housing. These demographic trends underscore the need for inclusive, affordable, and connected urban development strategies along Patton Avenue.



Image 4.1: Hillcrest Community

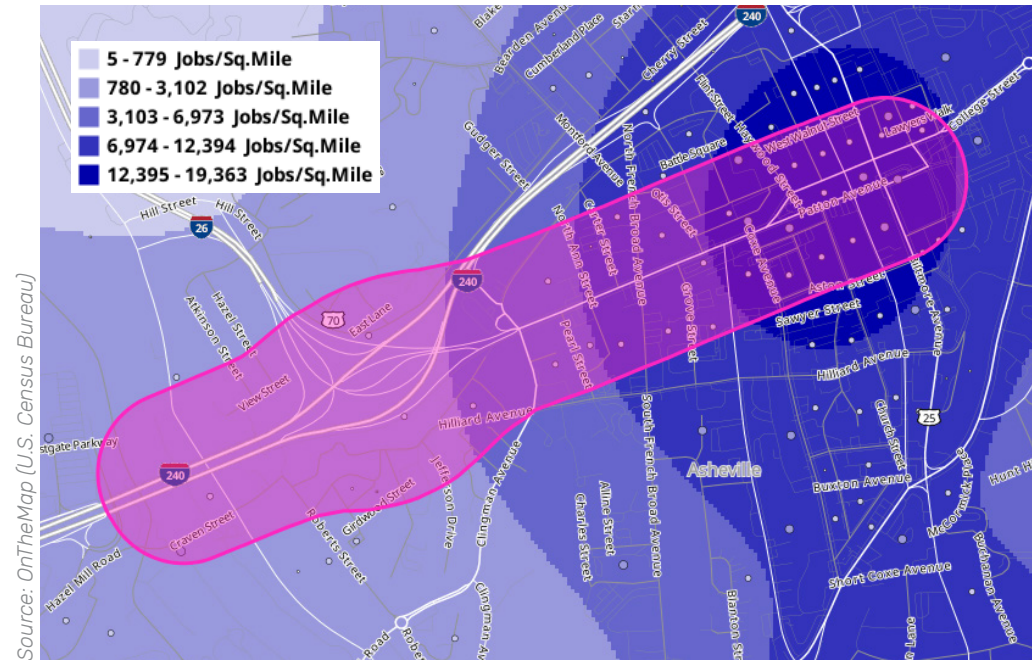
Source: McAdams



### Affordable Housing


Patton Avenue’s location, visibility, and access to jobs make it a strategic corridor for addressing Asheville’s housing needs—particularly in light of the City of Asheville’s *Missing Middle Housing Study*. That study found that more than 75% of residential land in Asheville is zoned for single-family homes, limiting opportunities to provide smaller-scale, multi-unit housing types that are more affordable to a broader range of income levels. The Patton Avenue corridor, especially west of downtown, presents a unique opportunity to reverse that pattern by promoting mixed-use infill and higher-density housing close to employment centers and transit.

Redesigning Patton Avenue with safer crossings, bike lanes, and better transit access makes the corridor more livable and attractive for future residents—particularly those who cannot or choose not to drive. In combination with supportive zoning and land use policies, these investments can help reduce housing and transportation costs, expand housing choices, and foster more inclusive and connected neighborhoods. **Figure 4.1 – Employment Density** illustrates the concentration of jobs along the corridor, underscoring the need for housing near where people work.




Source: OnTheMap (U.S. Census Bureau)

Figure 4.1: Employment Density



**110,000** new Asheville residents projected by 2040 *(since 2018)*



**7,500** new homes needed by 2040

Source: Living Asheville Comprehensive Plan (2018)



Source: City of Asheville

Image 4.2: I-26 Interchange with Patton Avenue & I-240 (Looking towards Hillcrest)

## Transportation Context

Given the ongoing I-26 Connector (NCDOT STIP #I-2513) design process and planned improvements east of College Street, this section focuses on the central segment of Patton Avenue—from Clingman Avenue to College Street. This portion of the corridor is a four-lane, undivided roadway, typically about 40 feet wide. In some areas, it narrows further near parking and loading zones. With buildings close to the street edge, widening is generally not feasible—making it essential to reconsider how space within the existing right-of-way is used. To guide future improvements, the project team evaluated traffic volumes, crash data, multimodal access, and transit usage. This analysis clarifies the corridor’s competing demands and supports a rebalanced design—one that prioritizes safety, improves travel options, and reflects Asheville’s vision for an inclusive, walkable downtown gateway.

### Traffic Capacity

This stretch of Patton Avenue currently carries an average annual daily traffic volume of approximately 12,500 vehicles per day, based on NCDOT data. Traffic projections developed as part of the I-26 project indicate that volumes could increase to 22,000 vehicles per day by 2045, based on a previous I-26 interchange configuration.

On November 8, 2023, weekday AM and PM peak hour traffic counts were conducted at the following intersections along and near Patton Avenue:

- › Patton Avenue & Clingman Avenue
- › Patton Avenue & North Ann Street / South Ann Street
- › Patton Avenue & Carter Street
- › Patton Avenue & North / South French Broad Avenue
- › Patton Avenue & Otis Street
- › Patton Avenue & Asheland Avenue
- › Patton Avenue & Coxe Avenue
- › Clingman Avenue & Hilliard Avenue

The project team analyzed these intersections using Synchro and SimTraffic software to determine existing (2023) and future (2045) peak hour traffic capacity and delay. The results informed the evaluation of current operations and identification of opportunities for optimizing traffic flow or reallocating roadway space to better accommodate all modes of travel.



Source: WLOS

Image 4.3: Peak Hour Traffic on Clingman Avenue (Looking North towards Patton Avenue)

In most contexts, the transportation industry considers a level of service (LOS) of D or better to be acceptable. However, many cities tolerate lower LOS during peak periods, recognizing that peak-hour congestion is typically short-lived and that widening streets to relieve it can negatively impact urban character and multimodal mobility.

The existing conditions analysis showed that all study intersections currently operate at LOS C or better, with the exception of two locations:

- › The intersection of Clingman Avenue and Hilliard Avenue operates at LOS D during both peak hours.
- › The intersection of Patton Avenue and Clingman Avenue operates at LOS D during the PM peak hour.

The full analysis results are included in **Appendix D** and served as a foundation for the corridor recommendations.

**Figure 4.2 - Existing Traffic Volume & Grid Analysis** shows current traffic volumes along Patton Avenue and nearby streets, some of which contribute to travel time reliability issues. Overall, traffic volumes in the area are projected to increase by an average of 41.7% by 2045. Geographic barriers also shape travel patterns. The French Broad River limits east-west connectivity across Asheville, and the I-26 corridor—merging with the Jeff Bowen Bridge—further

complicates travel for non-motorized users moving between downtown and West Asheville. As shown in the figure, there are significantly more north-south (green) connections than east-west (red) ones. This imbalance restricts east-west mobility and increases reliance on key corridors like Patton Avenue, intensifying the need to accommodate multiple modes and improve system efficiency.

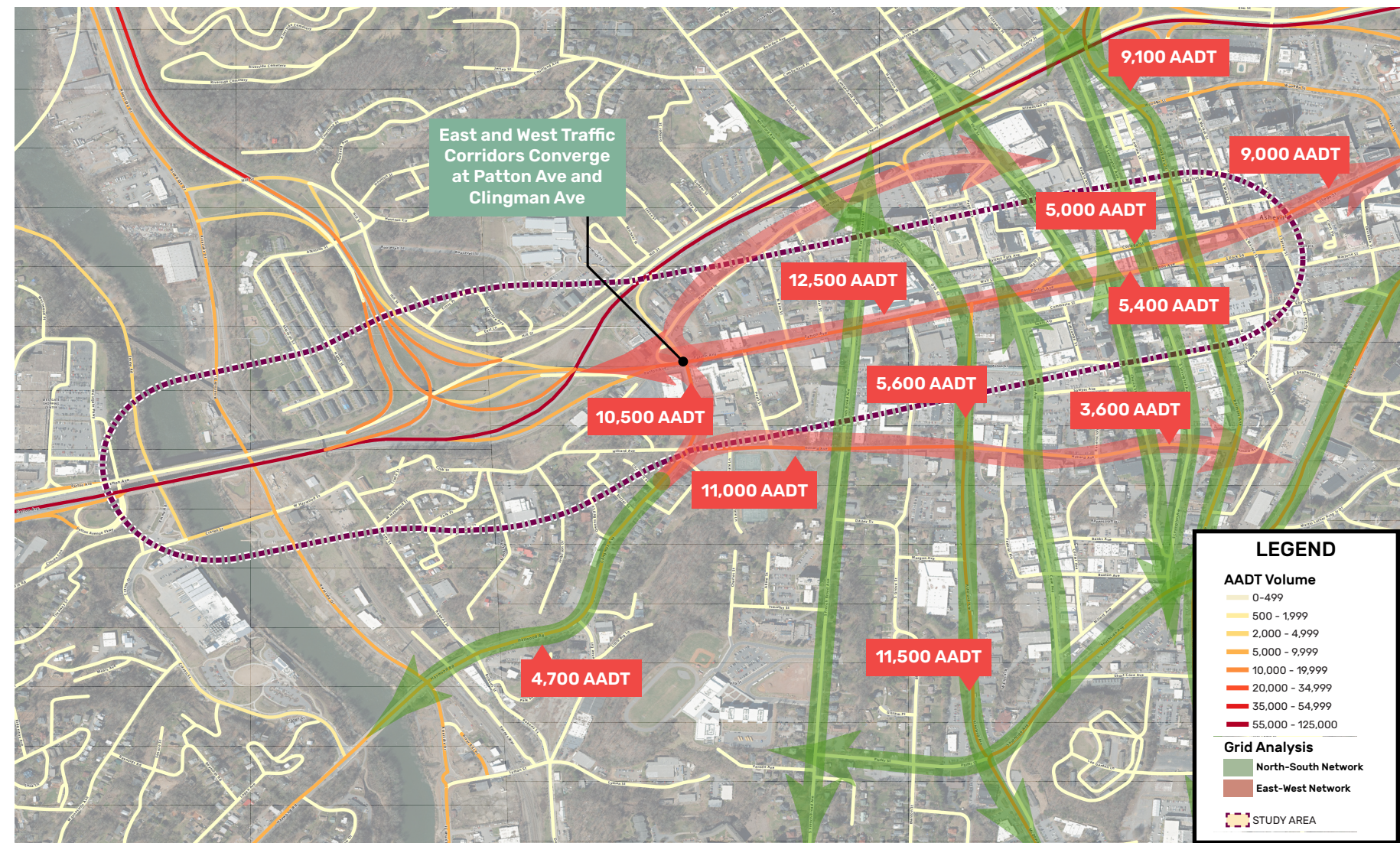


Figure 4.2: Existing Traffic Volume & Grid Analysis

**Figure 4.3 - Current & Future Annual Average Daily Traffic** illustrates existing and projected daily traffic volumes along Patton Avenue, including the percent change over time. The figure highlights two key locations along the corridor and provides a directional breakdown in addition to total daily volumes. By the planning horizon year, traffic volumes are projected to increase by 46.5% to 67.7%, reaching up to 31,800 vehicles per day.

This anticipated growth underscores the importance of designing multimodal improvements that can accommodate additional demand while advancing safety, mobility, and access goals. The traffic forecasts informed key roadway recommendation decisions.

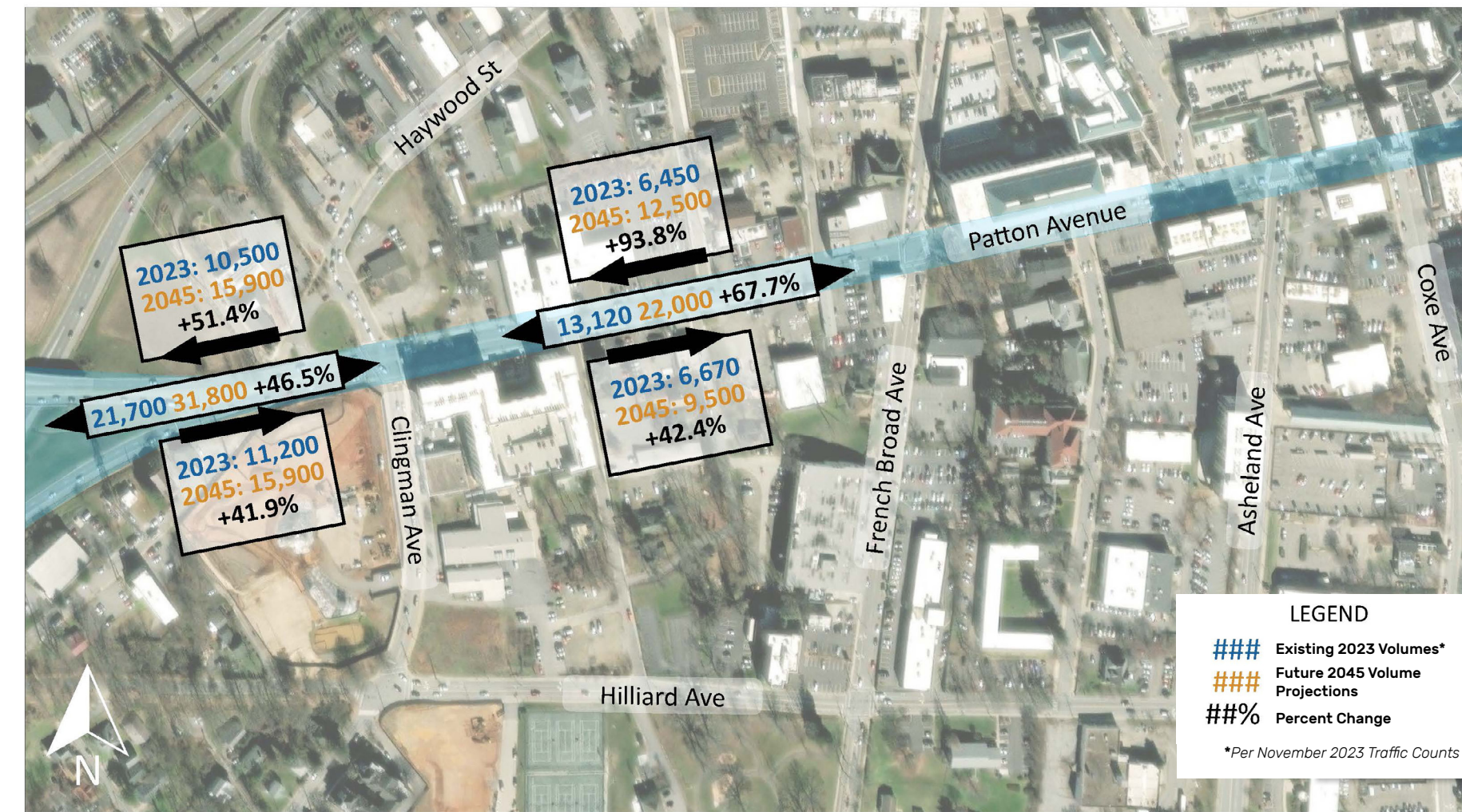


Figure 4.3: Current & Future Average Annual Daily Traffic

### Crash Analysis

The team conducted a detailed review of crash data within the study area, analyzing crash types, timing, and patterns. This included breakdowns by season, day of the week, and time of day, with a five-year analysis period from 2018 to 2023. Key findings include:

- ▶ Frontal impacts account for 43% of all crashes.
- ▶ Crash peaks align with rush hours—9–10 a.m. and 5–6 p.m.
- ▶ Crash severity is generally low:
  - » No fatal crashes were reported.
  - » 80% of crashes involved only property damage, with no injuries.
- ▶ More than half (51%) of all crashes occurred within one-third of the corridor—between French Broad Avenue and Coxe Avenue.

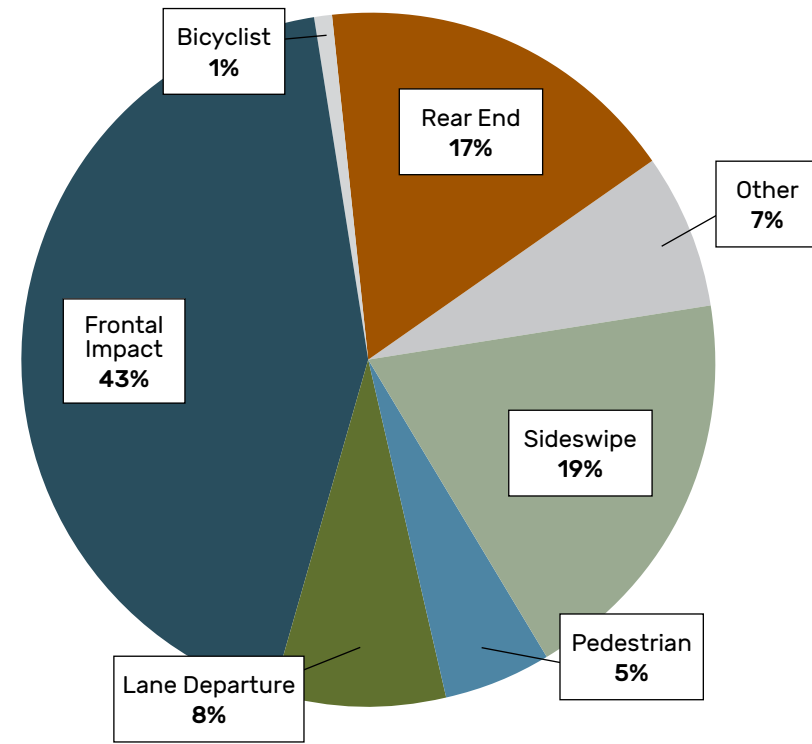


Figure 4.4: Patton Avenue Crash Type (2018-2023)

Between 2018 and 2023, 176 crashes occurred along the downtown Patton Avenue corridor, with the highest concentrations at the intersections with French Broad Avenue, Coxe Avenue, and Clingman Avenue. Over half (51%) of all crashes took place within just one-third of the corridor—between French Broad and Coxe. Frontal impact crashes accounted for 43% of all incidents.

Crash patterns aligned with peak traffic hours—9–10 a.m. and 5–6 p.m.—with an additional spike around 2 a.m., likely tied to bar closings.

Between August 2018 and July 2023, there were two crashes involving bicycles and eight involving pedestrians. The high number of crashes along the corridor, combined with a high density of transit stops, underscores the need for improved safety measures and multimodal features.

Figure 4.4 - Patton Avenue Crash Type (2018-2023) shows crash types and Figure 4.5 - Patton Avenue Crash Type Distribution (2018-2023) shows the crash types and locations.



Image 4.4: Patton Avenue (Looking East towards French Broad Avenue)

Source: McAdams



Figure 4.5: Patton Avenue Crash Type Distribution (2018-2023)

Source: NCDOT Traffic Engineering Accident Analysis System (TEAAS) Data

### Multimodal Transportation

In addition to reviewing crash data, the project team assessed current conditions for people walking and biking along the Patton Avenue corridor. While sidewalks are continuous on both sides of the street, opportunities to safely cross are limited. Marked crosswalks exist only at signalized intersections, and key locations—such as between Haywood Street and Coxe Avenue—require pedestrians to cross four lanes of traffic without a median or refuge island, posing a significant barrier for older adults, children, and individuals with disabilities. This environment discourages walking and increases the risk for vulnerable users, despite the corridor’s importance as a connector between neighborhoods and daily destinations.

Pedestrian accessibility is important for this corridor, particularly for lower-income individuals, seniors, and people with disabilities who rely on walking to access daily needs. With multiple affordable housing complexes and social services nearby, including Hillcrest Apartments and community centers, Patton Avenue is a vital pedestrian corridor. The Close the Gap project (ADA transition plan) ranked Patton Avenue as the top priority City-maintained street for ADA upgrades. Elements that need to be upgraded to comply with ADA and PROWAG standards include curb ramps, sidewalks, signal equipment and pedestrian crossings.

Bicycle facilities along Patton Avenue are similarly inadequate. The only current accommodations are sharrows, which offer minimal comfort or protection for cyclists navigating high-volume traffic. While nearby streets such as Asheland Avenue, Coxe Avenue, and Lexington Avenue feature designated bike lanes, they are not connected in a way that enables safe or convenient travel through the corridor.

**What are ADA and PROWAG?**

The Americans with Disabilities Act (ADA) is a federal law that ensures equal access to public spaces for people with disabilities. The Public Rights-of-Way Accessibility Guidelines (PROWAG) provide detailed design standards for sidewalks, crosswalks, and other public infrastructure to meet ADA requirements.



**Image 4.5: Patton Avenue Pedestrian Crossing (Looking West at Coxe Avenue)**

Source: McAdams



**Image 4.6: Sidewalk along the NCDOT Right-of-Way (I-240/I-26/Patton Ave Interchange)**

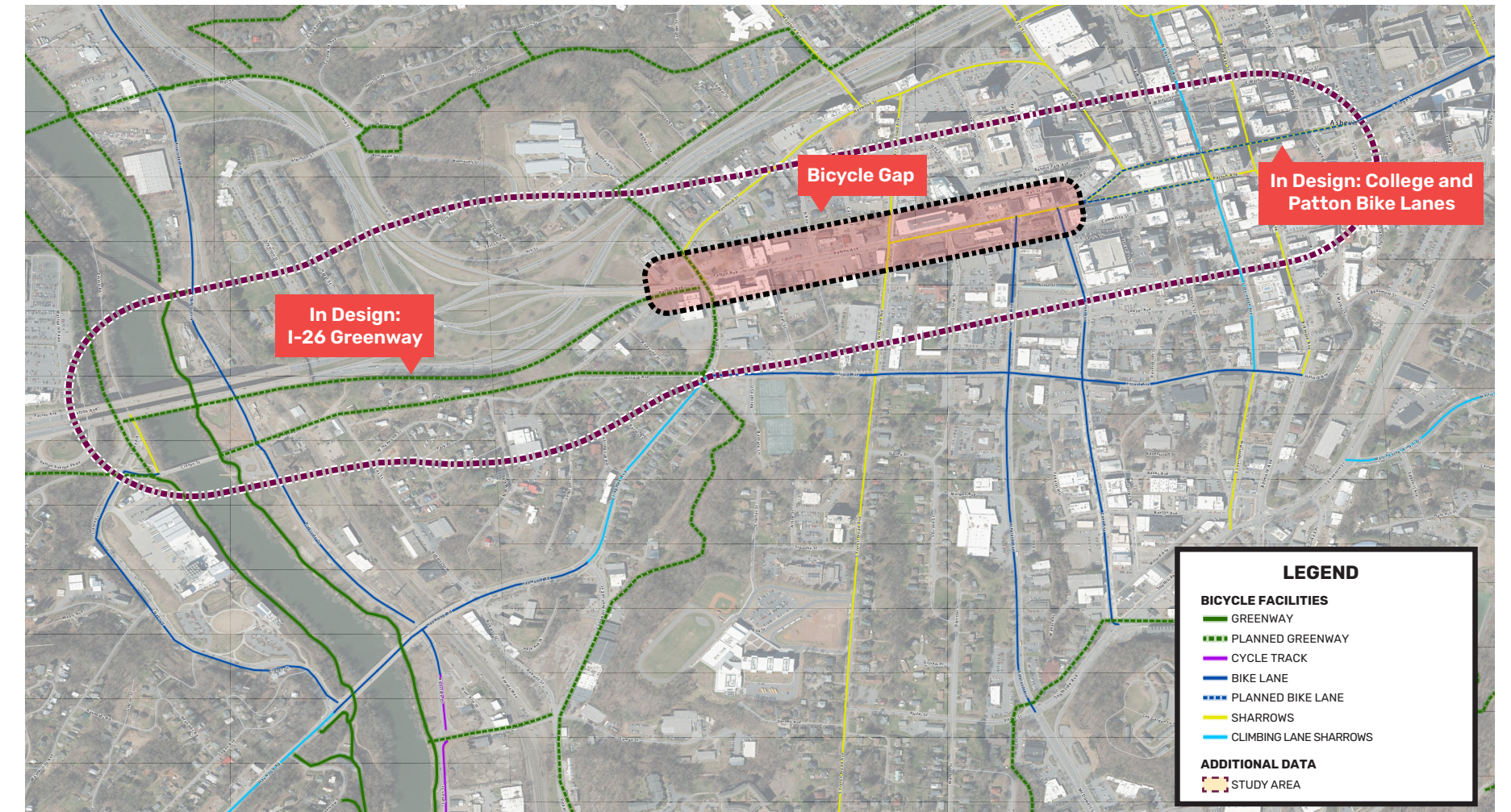
Source: McAdams

Within the downtown segment of Patton Avenue, roughly 10 blocks lack dedicated bicycle infrastructure, including four blocks with no markings whatsoever. These gaps leave bicyclists without a safe, visible route along one of Asheville’s most important east-west corridors. The need to fill this infrastructure gap is underscored by planned improvements at both ends of the corridor.

To the west, NCDOT’s I-26 Connector Project will include multi-use sidepaths along Patton Avenue as it crosses the Jeff Bowen Bridge.

To the east, the City of Asheville’s College and Patton Improvements Project will reconfigure the one-way pair to include left-side bike lanes, expanded loading zones, and other elements, enhancing bike access through the central business district. However, these improvements begin and end outside the downtown Patton Avenue segment, leaving a gap of nearly half a mile between the two projects.

**Figure 4.6 - Existing & Planned Bicycle Infrastructure** shows that gap.



**Figure 4.6: Existing & Planned Bicycle Infrastructure**



Source: McAdams

Image 4.7: Patton Avenue Shared Lane Markings (Looking West from Grove Street)



Source: McAdams

Image 4.8: Patton Avenue Shared Lane Markings (Looking East at Coxie Avenue)



Source: McAdams

Image 4.9: Curb Ramp Improvements on Patton Avenue (at French Broad Avenue)

### Transit

The project team also evaluated transit operations and ridership along the downtown Patton Avenue corridor (see **Figure 4.7 - ART Ridership**). The study area includes 19 total transit stops, with the Asheville Rides Transit (ART) Station on Asheland Avenue serving as a major hub. While overall ridership along the corridor is relatively strong, most boardings and alightings occur outside the immediate corridor. Improved development along Patton Avenue could support increased ridership in the future.

In addition, enhancements to existing bus stops—such as adding shelters, seating, lighting, signage, and ADA-compliant access—could significantly improve the transit experience for riders. Many stops lack amenities such as shelters or benches. More comfortable and visible stops can encourage greater use of transit and improve perceptions of safety, accessibility, and convenience, especially for those traveling on foot or by bicycle. **Table 4.2 - ART Bus Stop Inventory** lists transit stops by direction of travel—eastbound (EB) or westbound (WB)—to indicate their location along the corridor, and provides recommendations for potential stop amenities.

Stop ID	Location	Avg. Weekday Boardings (2023)	Existing Amenity	Amenity to Provide
302	Patton (WB)/Clingman	22.8	Shelter	None
300	Patton (WB)/Otis	13.9	Shelter	Refuse Receptacle
163	Patton (EB)/Asheland	7.3	None	Shelter
316	Patton (EB)/Clingman	8.7	None	Bench
317	Patton (EB)/S. French Broad	14.9	None	Bench
318	Patton (EB)/Otis	45.5	None	Bench
401	Patton (EB)/Haywood	29.0	None	Shelter

Table 4.2: ART Bus Stop Inventory



Source: McAdams

Image 4.10: ART Bus Stop on Patton Avenue (at South French Broad Avenue)

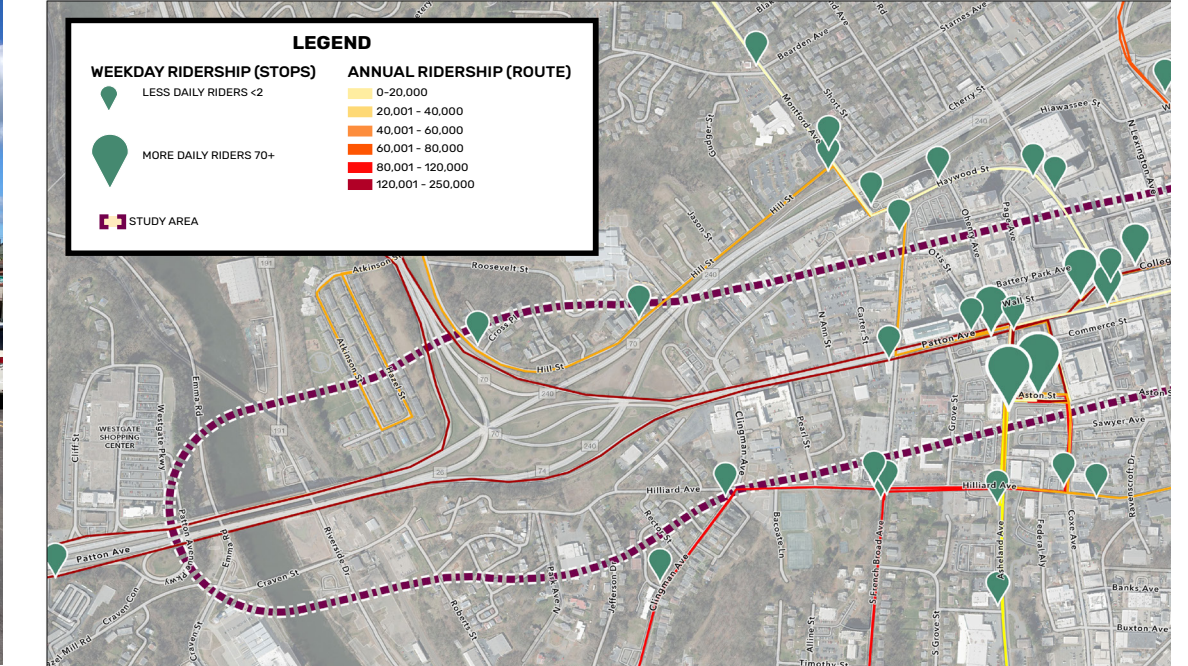


Figure 4.7: ART Ridership

## Tradeoff Considerations

Rebalancing Patton Avenue will require strategic tradeoffs within a limited 40-foot roadway. Widening is not feasible, so the corridor must prioritize space for the most necessary and impactful infrastructure. The goal is to create a safe, inclusive, and multimodal corridor, even if not every mode receives full accommodation in every block.

- ▶ **Vehicular Access:** As a key east-west route and gateway from I-26, Patton Avenue must continue to support vehicle circulation, freight movement, and access to downtown destinations.
- ▶ **Pedestrian Access:** Crossing opportunities are limited, posing challenges for people walking—especially those with limited mobility. Planned improvements like curb extensions and mid-block crossings will enhance safety and access.
- ▶ **Accessibility:** Many sidewalks and intersections fall short of ADA standards. Upgrades such as curb ramps and improved sidewalk conditions are necessary to ensure mobility for all.
- ▶ **Safety:** Crash data supports the need for a road diet and calming measures. Redesigning the corridor to reduce speeds and conflict points will improve outcomes for all users.

- ▶ **Bicycle Access:** The corridor currently lacks bike infrastructure. Planned bike lanes and shared-use paths will connect to citywide systems, including the I-26 Connector greenway and River Arts District.
- ▶ **Transit:** Transit stops need better access, shelters, and ADA-compliant boarding areas. Enhancing these elements supports reliable, equitable transit service.
- ▶ **Emergency Services:** Design strategies like emergency signal preemption or road diets (with clear center turn lane) can maintain emergency access even with fewer travel lanes.

## Finding Opportunity

Though constrained, the corridor capacity evaluation indicated that there are opportunities to repurpose space for safety and multimodal features. Design shifts—like adding medians, refuge islands, and bike lanes—can reduce crash severity and improve user experience. These changes also support Asheville’s broader goals of equity, livability, and moving more people—not just vehicles—through a downtown gateway.



Source: McAdams

Image 4.11: Patton Avenue Pedestrian Crossing (Looking West from Coxe Avenue)

## Development + Land Use Context

This section examines the current use of land adjacent to the Patton Avenue corridor and its relation to surrounding properties. It explores the relationship between land use and the transportation corridor, identifying opportunities that existing conditions may offer to enhance this important gateway into downtown.

## Development Patterns

Several factors influence real estate values, availability, and development potential along the corridor. Key findings from the project team’s review of land use conditions include:

- **Limited undeveloped land along the corridor.** Most of the corridor is already developed, with future growth likely focused on infill rather than large-scale new development.
- **Unbuilt right-of-way lacks integration with surrounding land use.** Much of the NCDOT right-of-way consists of grassy or wooded edges with little connection to the surrounding urban fabric.
- **Topography shapes development patterns.** Asheville’s varied terrain affects how land is used, with flatter areas—like those in the downtown core—supporting more concentrated retail, service, and office development.
- **Zoning supports commercial activity.** Much of the corridor is zoned Central Business District (CBD), with some institutional and residential zoning near the Jeff Bowen Bridge.
- **Connectivity between mixed-use districts is limited.** The corridor lies between two major mixed-use hubs—downtown Asheville and the River Arts District—but current infrastructure limits multimodal access between them.

**“Return Patton Avenue to a local road knitting downtown and West Asheville together with human-scale development, re-integrate Patton Avenue with traditionally under-served neighborhoods, improve access to the river, and convert Patton Avenue to a multimodal boulevard with enhanced pedestrian, bicycle, transit, and greenway connections.”**

*- The Living Asheville Comprehensive Plan (2018)*



Source: City of Asheville

Image 4.12: I-26 Interchange with Patton Avenue & I-240 (Looking East)

### Land Use

Land use refers to the physical arrangement of activities and functions within a given area. The mix and layout of land types—such as residential, commercial, and institutional—help shape how people travel and contribute to traffic patterns in a corridor.

The corridor lies largely within a developed urban context, with few undeveloped parcels. These vacant or underused areas are primarily located within the existing NCDOT right-of-way and are characterized by grassy, open spaces that are disconnected from the surrounding street grid. While these areas are not currently integrated into the downtown development pattern, they represent physical space that could influence future land use and density once transportation improvements are completed.

The I-26 Connector Project is expected to result in minimal land use changes within the Patton Avenue study area. The [Final Environmental Impact Statement \(FEIS\) for the I-26 Connector Project](#) indicates that direct impacts to businesses and retail activity along this segment are likely to be limited. However, the pace of infill and redevelopment may increase over time, particularly as transportation infrastructure is improved and adjacent parcels become more accessible.

In 2021, the City of Asheville completed a decade-long transportation improvement project in the River Arts District (RAD). This major investment introduced new multimodal infrastructure—including greenways, sidewalks, bike lanes, stormwater improvements, nine acres of parkland, and redesigned streetscapes—which has enhanced access and helped catalyze nearby development. The RAD improvements also create stronger physical and economic ties between Patton Avenue and the riverfront area.

The long-term vision for land use along the corridor has been informed by several public engagement efforts and advisory groups, including the Community Coordinating Committee, the I-26 Aesthetics Committee, and the I-26 ConnectUs Project. **Figure 4.8 - Future Land Use Map** illustrates proposed future land uses for the area surrounding Patton Avenue.



Image 4.13: Patton Avenue (Looking East from Haywood Street)

Source: McAdams



Image 4.14: Patton Avenue (Looking West from the I-240 Interchange)

Source: McAdams

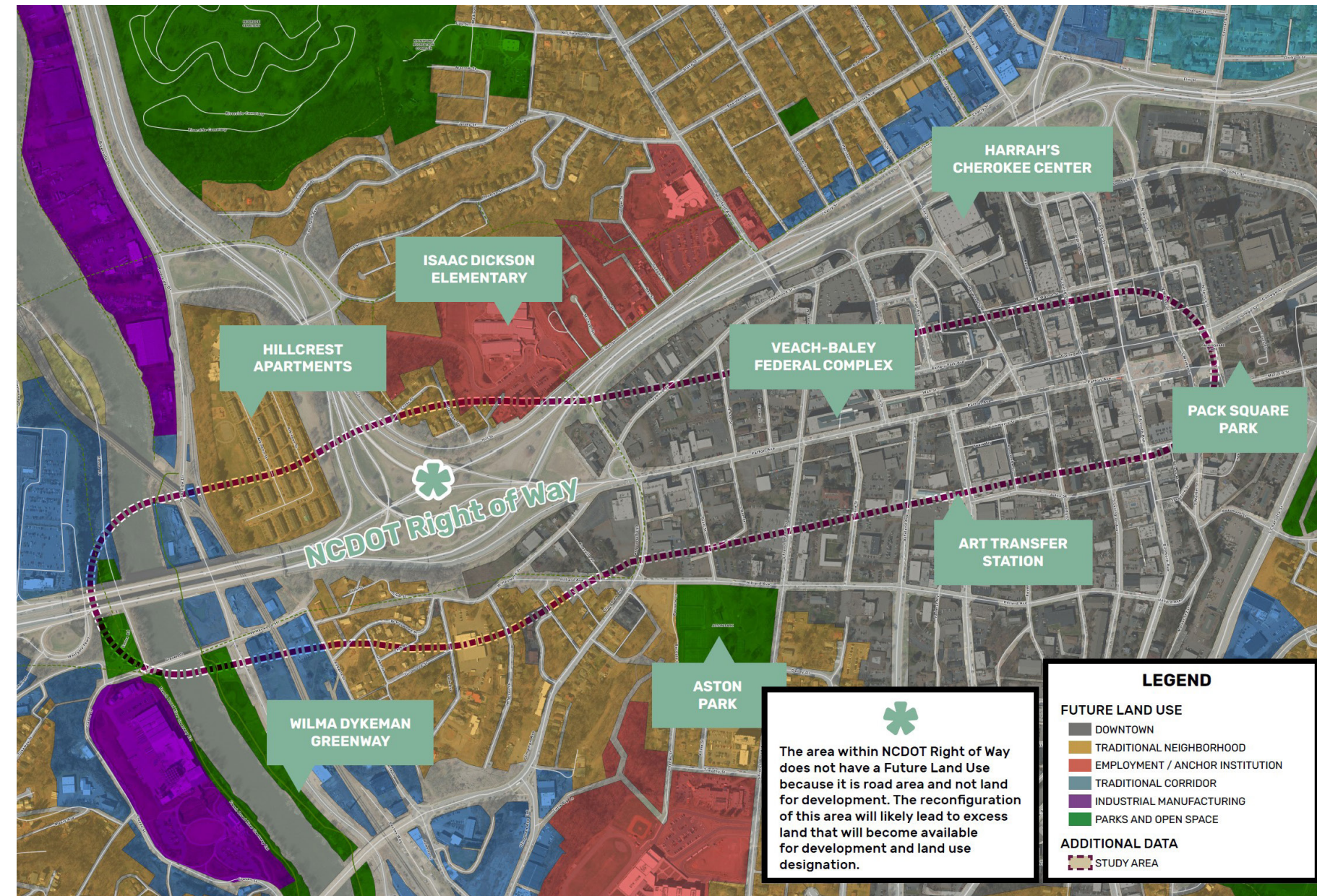


Figure 4.8: Future Land Use Map

## Zoning + Form-Based Codes

The downtown Patton Avenue corridor is surrounded by a wide range of land uses—including residential, institutional, recreational, food and beverage establishments, office, retail/service, and industrial—making it a key economic driver for the City of Asheville. Much of the corridor is zoned Central Business District (CBD), which supports the type of walkable, mixed-use, and higher-density development envisioned in this study.

Adjacent areas, including Haywood Street and parcels near the I-240 interchange, fall within the Community Business I (CBI), Community Business II (CBII), and Neighborhood Business (NB) zoning districts. While the CBD already permits many urban-friendly uses by right, many infill projects still pursue conditional zoning to better address the complex needs of urban redevelopment.

CBD zoning places buildings close to the street, allows for diverse uses, encourages active ground-floor design, and limits setbacks—making it well-suited for walkability and a vibrant urban context. Developers benefit from flexible parking requirements and by-right density that align with the vision for a multimodal Patton Avenue corridor. If variances are needed, the appropriate City of Asheville boards, commissions, and possibly City Council must review and approve projects.

The CBD and surrounding zoning districts support mixed-use projects that can deliver residential, office, retail, and institutional uses. Asheville’s existing form-based code reinforces these principles in designated areas by focusing on the physical form and character of development rather than just land use, helping ensure future projects contribute to a cohesive and human-scaled streetscape.

These redevelopment opportunities can stimulate economic growth and enhance the public realm. A concentration of new development west of downtown would support expanded transit, biking, and walking connections—especially between downtown and the River Arts District.

### What is a form-based code?

**A form-based code is a zoning tool that focuses on how buildings and public spaces relate to each other—not just how land is used. Unlike traditional zoning, which separates land by use (residential, commercial, etc.), form-based codes guide the form, scale, and placement of buildings to create walkable, vibrant places. They encourage development that supports community goals such as active streets, consistent building patterns, and high-quality public spaces.**



Image 4.15: Existing Development on the Project Corridor

Source: City of Asheville

## Form-Based Code in Asheville

Asheville already has a proven track record with form-based code. Two notable examples include:

### River Arts District (RAD) Form District

Adopted to guide redevelopment in this historically industrial area, the RAD form-based code promotes:

- Active street frontages and pedestrian-friendly design
- Transitions in scale near residential areas
- Integration with multimodal infrastructure, including greenways and transit

### Haywood Road Form District

This district was adopted to support the unique character of West Asheville and encourage compatible new development. It emphasizes:

- Building placement and frontage design that reinforce a walkable, urban street
- Height transitions near existing neighborhoods
- Context-sensitive design that reflects the scale and rhythm of traditional commercial corridors

### Patton Avenue Opportunity

Applying a similar form-based approach along Patton Avenue could help shape this corridor as a cohesive, mixed-use urban environment by defining the desired scale, form, and relationship between buildings and the public realm. It would also allow flexibility for developers in terms of use—an ideal balance for corridor-scale infill and redevelopment.

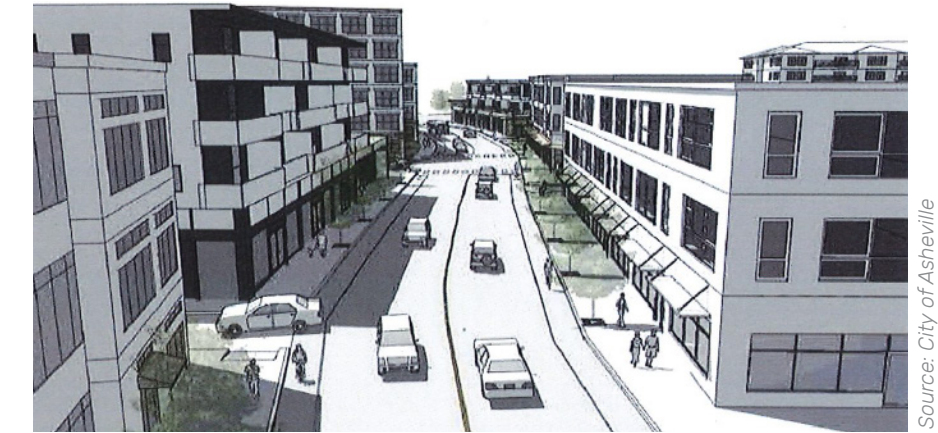
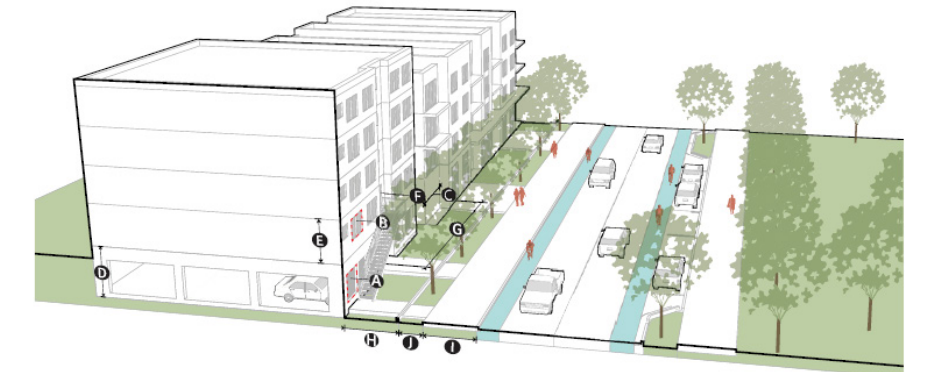


Image 4.16: Example from the Haywood Road Form District

Source: City of Asheville



Transparency	
A Ground story (min)	n/a
B Upper story (min)	20%
C Blank wall area	30'
Story Height	
D Ground floor elevation (min)	BFE + 2'
E All stories above BFE (min)	9'
Pedestrian Access	
F Entrance facing primary street	Required
G Entrance spacing along primary street (max)	100'
Flood area building entry requirements	See Sec. 2.2.S
Building Elements Allowed	
Awning/canopy, balcony	

Building Setbacks	
H Primary/side street	See Sec. 2.7.C
Streetscape*	
I Pedestrian walkway (min)	
Primary street	8'
Side street	6'
J Planting strip (min)	6'
Planting type	Tree lawn/ grates
Trees in planting strip	30' avg. on-center

\*Modified dimensions may be approved by the City Traffic Engineer see Sec. 2.2.Q.

Image 4.17: Example from the River Arts District (RAD) Form District

Source: City of Asheville

# STAKEHOLDER + PUBLIC INVOLVEMENT

Community engagement is an essential part of any planning process. The most effective plans are grounded in both the realities and the vision of the communities they serve. These visionary documents help shape recommendations for future transportation projects—such as a potential redesign of the downtown Patton Avenue corridor. The project team, made up of representatives from McAdams and the City of Asheville, facilitated a range of community engagement activities throughout the course of the study, as outlined in this section.

## Project Working Group

A Project Working Group (PWG)—consisting of representatives from City of Asheville staff, NCDOT, the French Broad River Metropolitan Planning Organization (FBRMPO), nearby neighborhoods, City of Asheville boards and commissions, local businesses, and nonprofit organizations—played a key role in guiding the development of this study. The PWG met five times during the project to review and provide feedback on relevant data, engagement activities, design concepts, and implementation strategies. Members also helped share information and promote public engagement by distributing materials during outreach events.



Source: McAdams

Image 5.1: PWG Meeting #1 Corridor Walk (near Clingman Avenue)

A full list of members and affiliations is provided in **Table 5.1 - Project Working Group Roster**. The team held the PWG meetings at various stages throughout the study, summarizing the key takeaways on the next page. (see **Table 5.2 - Project Working Group Meeting Summaries**).

Name	Affiliation
Vaidila Satvika	City of Asheville, Planning & Urban Design
Lucy Crown	City of Asheville, Transportation Planning
David Hazzard	City of Asheville, Planning & Urban Design
Alex Cole	City of Asheville, Planning & Urban Design
Daniel Sellers	NCDOT
Tristan Winkler	FBRMPO
Joseph Chesler	MMTC
Mike Zukowski	MMTC/I-26 Aesthetics Committee
Dave Nutter	Connect Buncombe
Ashley Greenstein	Explore Asheville
Hayden Plemmons	Asheville Downtown Association
Chris Joyell	MountainTrue
Laura Kirby	Homeward Bound & Haywood Street Congregation
Pamela Winkler	Downtown Neighborhood Association
Rodney Norman	City of Asheville, Housing Authority
Richie Peterson	WECAN Neighborhood
Nur Edwards	Business Owner
Eva-Michelle Spicer	Business Owner
Austin Tyler	Real Estate
Bryan Moffitt	Design Professional

Table 5.1: Project Working Group Roster



	PWG #1	PWG #2	PWG #3	PWG #4	PWG #5
<b>Date</b>	November 29, 2023	January 18, 2024	April 23, 2024	May 29, 2024	September 5, 2024
<b># of Attendees</b>	15	10	15	10	11
<b>Topic</b>	<ul style="list-style-type: none"> <li>Introduction to the study and the role of the Project Working Group.</li> <li>Corridor walk and review.</li> <li>Discuss insights gained from walking the corridor.</li> </ul>	<ul style="list-style-type: none"> <li>Overview of results of Public Meeting.</li> <li>Briefing on stakeholder interview questions.</li> <li>Overview of materials for next public meeting.</li> <li>Update on status of project.</li> </ul>	<ul style="list-style-type: none"> <li>Summary of stakeholder interviews.</li> <li>Patton Avenue road diet and roundabout presentation.</li> <li>Updates on I-26 Connector Project.</li> <li>Implementation considerations for the corridor.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations for the corridor.</li> <li>Next steps for the project.</li> </ul>	<ul style="list-style-type: none"> <li>Updated recommendations for the corridor.</li> <li>Guiding principles discussion and review.</li> </ul>
<b>Key Takeaways</b>	<ul style="list-style-type: none"> <li>Curiosity about potential adjustments to I-26 Connector Project plans and concerns around whether land use was included in design considerations.</li> <li>Questions regarding redevelopment of the parcels along the study corridor.</li> <li>Notes regarding inaccessible grades on sidewalk sections along corridor, concerns with lack of convenient crosswalks and numerous pedestrians crossing out of crosswalks.</li> <li>Concerns about accuracy of traffic counts and about the homeless population.</li> <li>Need for new bike/ped connections to RADTIP.</li> <li>Interest in more transit and less parking.</li> </ul>	<ul style="list-style-type: none"> <li>Bike lanes east of Clingman have been controversial.</li> <li>The goal needs to be to create a gateway between East and West Asheville.</li> <li>Since COVID, there has been a reduction in crashes on the corridor but an increase in crash severity.</li> <li>Key stakeholder groups were identified by collecting input on printed forms.</li> </ul>	<ul style="list-style-type: none"> <li>The road diet and other implementation considerations are on point with the vision of the corridor to create an urban corridor type.</li> </ul>	<ul style="list-style-type: none"> <li>The goal should be a pedestrian and bicycle friendly boulevard from the Bowen Bridge to downtown.</li> <li>Expressed interest in facilities for biking and walking along the Hilliard connection.</li> <li>Questions raised regarding how to discourage travelers from shifting travel to tight residential streets.</li> <li>Requested consideration for only two lanes along the corridor (removing the turning lane).</li> </ul>	<ul style="list-style-type: none"> <li>The guiding principles developed should complement the corridor recommendation and design.</li> <li>The guiding principles reflect the vision and goals for the corridor in developing a multimodal corridor while connecting with I-26.</li> </ul>

Table 5.2: Project Working Group Meeting Summaries



Source: McAdams

Image 5.2: PWG Meeting #1 Corridor Walk (at Carter Street)

The PWG helped shape the vision and direction of the Downtown Patton Avenue Corridor Study across five meetings from November 2023 to September 2024. Early discussions surfaced key issues such as steep sidewalk grades, mid-block crossings, redevelopment opportunities, and the need to coordinate with the I-26 Connector Project (NCDOT STIP #I-2513) planning. Members also emphasized the importance of improved pedestrian and bike access, particularly to the River Arts District, and called for more transit options and less emphasis on parking.

As the study progressed, the PWG reviewed engagement materials, weighed in on road diet concepts, and helped refine corridor recommendations. Members supported the idea of a pedestrian- and bike-friendly boulevard from the Bowen Bridge into downtown, encouraged strategies to reduce neighborhood cut-through traffic, and affirmed the need for multimodal improvements that create a safer, more connected gateway. Their feedback directly informed the guiding principles and final recommendations of the study.



Source: McAdams

Image 5.3: PWG Meeting #4 Preliminary Map Set Notes

# Public Meetings

Drop-in style public meetings were held at the Harrah’s Cherokee Center in Downtown Asheville in November 2023 and May 2024. Attendees were invited to review maps and informational boards at their own pace, with staff from the City of Asheville, FBRMPO, NCDOT, and the consultant team available to guide them through the materials, answer questions, and document feedback. Meetings were advertised on the project website, through the City of Asheville’s social media channels, and via flyers posted on ART buses two weeks prior to each meeting. Project Working Group members were also encouraged to share meeting information through their networks.

Key findings from the public meetings are highlighted below:

## Public Meeting #1 - November 2023 (5-7PM)

The project team supported City of Asheville staff in engaging members of the public to raise awareness of the Downtown Patton Avenue Corridor Study and gather feedback on community priorities. Approximately 70 participants attended the event.

Throughout the evening, project staff responded to questions and recorded feedback. Key input included:

- › Encouragement to reference the West End Clingman Avenue Plan.
- › Support for expanded transit options and reduced emphasis on parking.
- › Concerns about traffic count accuracy, navigation challenges on Hilliard Avenue, and issues related to homelessness were expressed—particularly in the area north of the study boundary near the Haywood Street Congregation. These comments also prompted interest in including Public Safety representatives in stakeholder interviews.
- › There is a need for improved bicycle and pedestrian connections to the River Arts District.



Image 5.4: Public Meeting #1 Participants

Source: McAdams



Image 5.5: Public Meeting #1 Participants

Source: McAdams



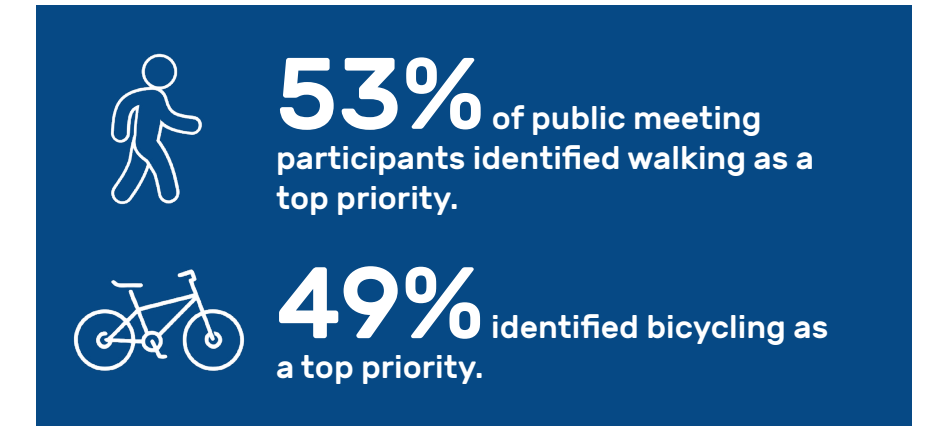
Source: McAdams

Image 5.6: Public Meeting #2 Participants

## Key Priorities

Attendees participated in an interactive “Priorities Exercise” to identify **key considerations** for the Patton Avenue corridor. To determine the percentage of participants who supported each priority, the number of dots placed on each option was compared to the total number of participants (70).

**Table 5.3 - Priorities Activity Results (Public Meeting #1)** is a full list of priorities identified through the dot exercise.



Priorities	Number	Percentage
Ability to Walk	37	53%
Ability to Bike	34	49%
Safety	29	41%
Streetscape/Urban Design	18	26%
More Trees	17	24%
New Development	16	23%
Connect to Downtown	12	17%
Improve Traffic + Connectivity	10	14%
Transit	8	11%

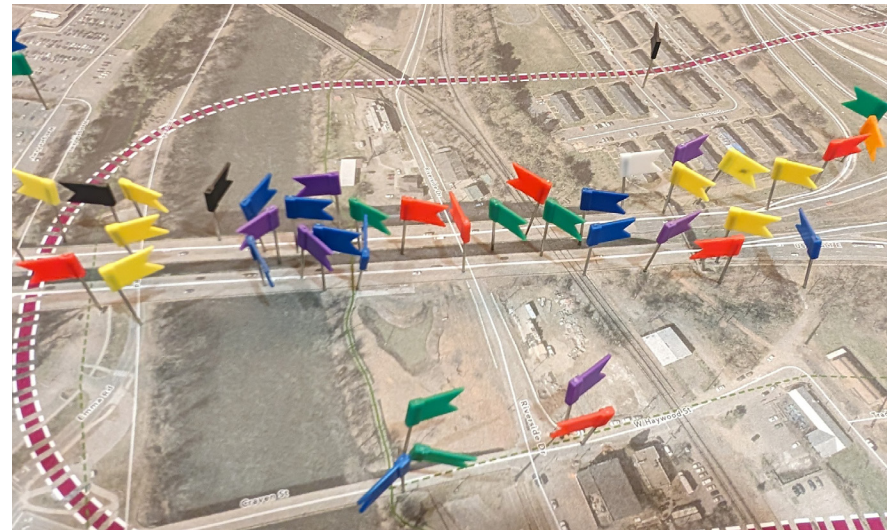
Table 5.3: Priorities Activity Results (Public Meeting #1)

Areas for Improvement

Public meeting participants were also invited to place pins on a map of the corridor to identify locations where they felt improvements were needed. Feedback was categorized into four focus areas: Safety, Aesthetics, Walkability, and Traffic/Connectivity. They placed a total of 76 pins on the corridor map:

- 28 for Safety
- 19 for Aesthetics
- 18 for Walkability
- 11 for Traffic/Connectivity

**Figure 5.1 - Areas for Improvement Activity Results (Public Meeting #1)** illustrates the locations where participants placed their pins.




Source: McAdams

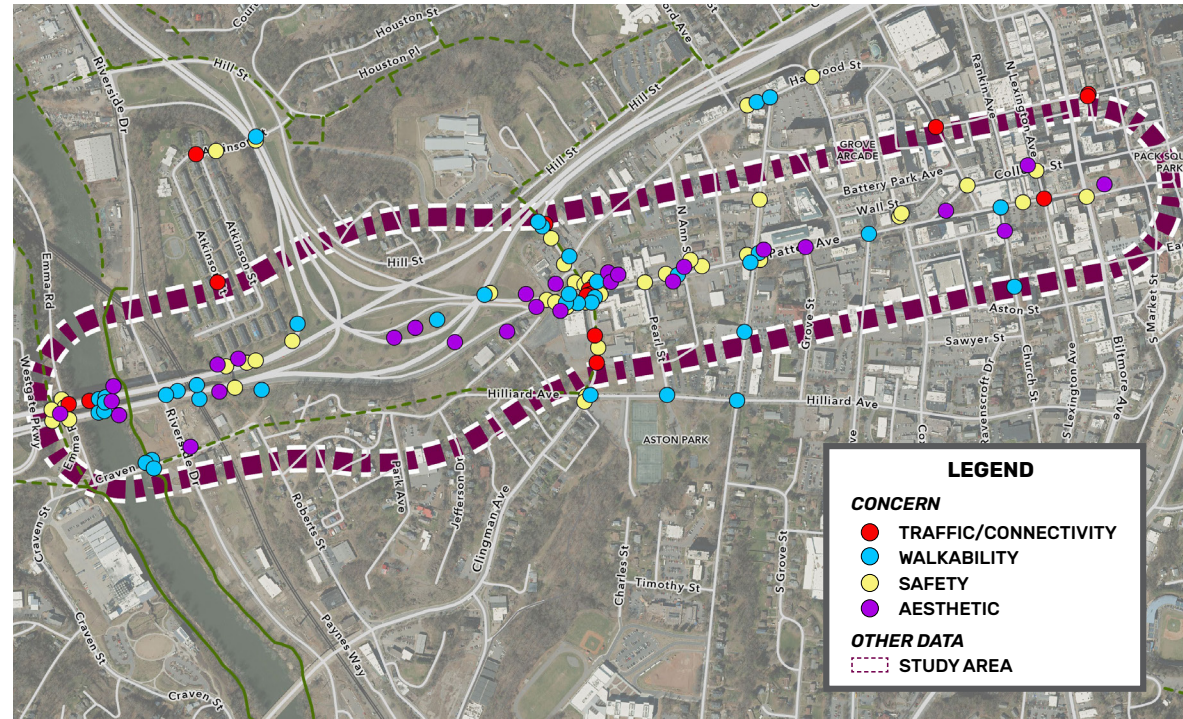
**Image 5.7: Areas for Improvement Activity (Public Meeting #1)**



**37%** of the areas of improvement were safety concerns - safer crossings, reduced speeds, and better protection for people walking and biking.



Nearly **1/4** of the areas of improvement focused on aesthetics - a more welcoming and visually appealing corridor, not just functional improvements.



**Figure 5.1: Areas for Improvement Activity Results (Public Meeting #1)**

**Public Meeting #2 - May 2024 (5-7PM)**

The project team supported City of Asheville staff in gathering input from members of the public. Members of the Local Business and Landowners Stakeholder Group and the Neighborhood Associations Stakeholder Group were invited to attend Public Meeting #2, and their input is reflected in the feedback summarized below. A total of 37 attendees participated in placing pins and written comments on a map of the Patton Avenue corridor. The project team received thoughtful feedback and facilitated engaging discussions among participants. Key themes included:

- There was interest in **narrowing travel lanes**, with additional suggestions to convert Patton Avenue and Hilliard Avenue into a one-way pair.
- There were concerns about the corridor's bikeability and strong support for adding **protected bike lanes** along the full length of the corridor.
- There were safety concerns, including calls for **signalized pedestrian crossings** at key intersections such as Patton/Clingman and Patton/Haywood, and requests for **pedestrian crossings** at every intersection.
- There was advocacy for replacing the center turn lane with a **planted median** along the full length of the corridor to improve aesthetics.

**Hurricane Helene Schedule Impacts**

A planned third public meeting in October 2024 was canceled due to the impacts of Hurricane Helene. In the months that followed, local recovery efforts and staffing constraints made it difficult to reschedule, and the planning team determined that moving forward without an additional in-person meeting was the most practical course.

During that same period, the project team continued refining recommendations while awaiting additional information about the I-26 Connector design to ensure alignment with future infrastructure.



Source: McAdams

**Image 5.8: Public Meeting #2 Participants**

## Stakeholder Meetings

The project team engaged a range of stakeholder groups to gather feedback and build support for the Patton Avenue corridor redesign. At its January meeting, the Project Working Group (PWG) identified seven stakeholder focus groups: Public Service Truck Operators, Community Services, Business Associations, Utilities, Local Businesses, Landowners, and Neighborhood Associations.

Public Meeting #2 invited local businesses, landowners, and neighborhood associations to attend and share their input alongside the general public. The team held separate focus group meetings with the other four stakeholder groups. Key takeaways from each are summarized below.

### Community Services

Representatives from United Way, Asheville Parks and Recreation, Haywood Street Congregation, Mountain Housing Opportunities, Just Economics, and Homeward Bound participated in this focus group.

#### Key Takeaways:

- › Aligning bus stops with crosswalks would improve safety and accessibility.
- › The corridor should better connect Hillcrest to the rest of West Asheville and support car-free living with amenities like pocket parks and access to grocery stores.
- › There's strong support for safety improvements including slower speeds and better sidewalks.
- › Participants expressed a need for a downtown shuttle to supplement—not replace—existing services.
- › Some people raised concerns about traffic delays during peak hours.



Image 5.9: Public Meeting #2 Map Comments



Image 5.10: Public Meeting #2 Map Comments

Source: McAdams

Source: McAdams

## Public Service Truck Operators

This meeting included seven representatives from Asheville Rides Transit (ART), Asheville City Schools, Public Works, Police, Streets, and Sanitation Departments, as well as Planning + Urban Design.

#### Key Takeaways:

- › Large vehicles face significant challenges along the corridor. Street sweepers in particular require adequate turning radii and curb access when sidewalks are installed.
- › Sidewalk design must account for fire hydrant placement; tree selection should involve the City of Asheville arborist.
- › Road diets can complicate trash collection and emergency response, while potentially diverting traffic to residential streets, raising safety concerns.



Image 5.11: ART Bus + Fire Truck on Patton Avenue (Looking West from Cox Avenue)

Source: McAdams

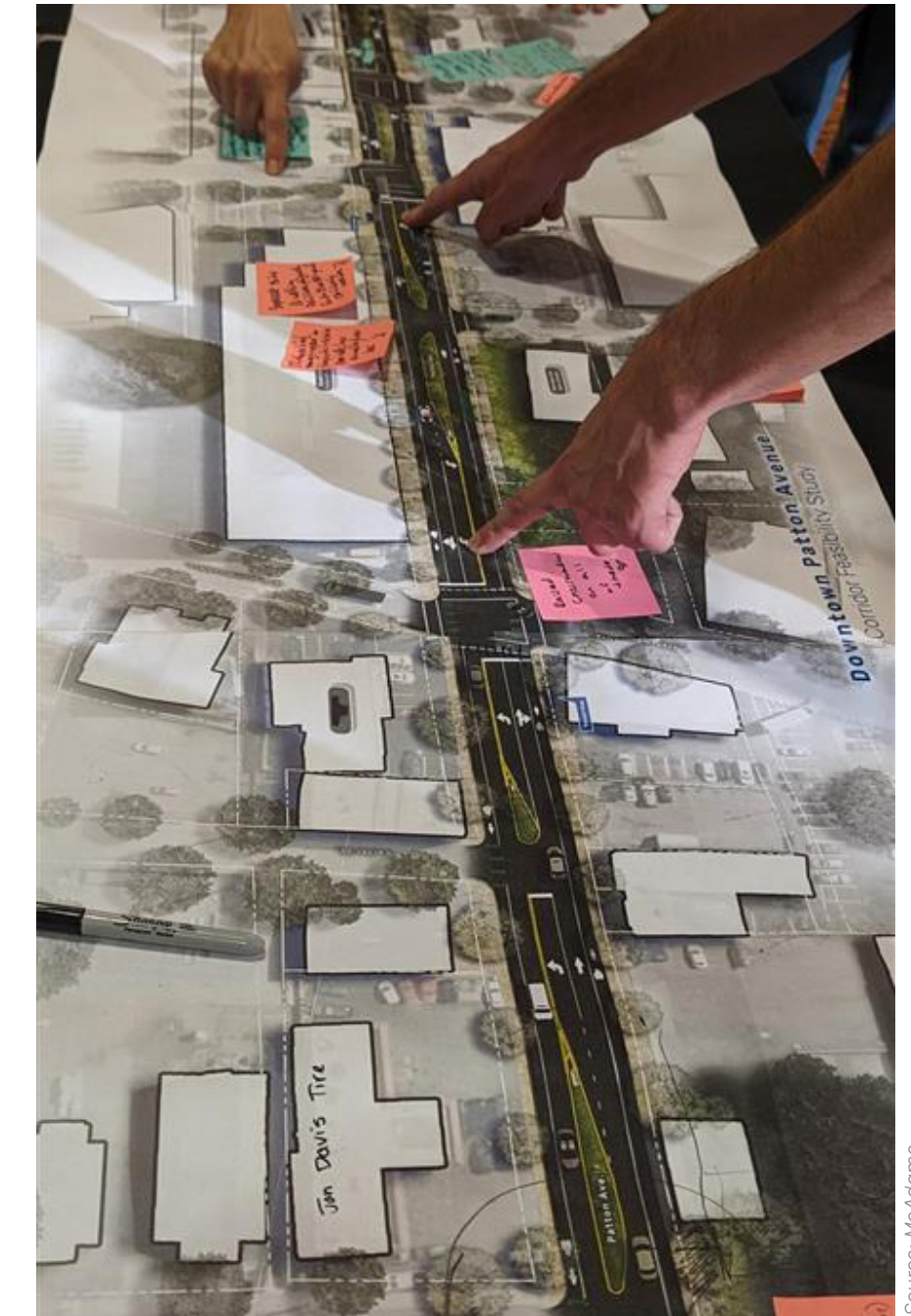


Image 5.12: Public Meeting #2 Participants

Source: McAdams



Source: McAdams

Image 5.13: Patton Avenue (Looking East towards Pritchard Park)

### Business Associations

Six attendees represented Explore Asheville, the Asheville Area Chamber of Commerce, Downtown Planning, the Downtown Commission, and Northlight Real Estate Group, LLC.

#### Key Takeaways:

- › The corridor feels segmented, reflecting the varied character of different sections.
- › Sidewalks are inadequate for current pedestrian volumes, and numerous driveways create conflicts.
- › A redesigned streetscape should prioritize people—featuring trees, wider sidewalks, safer crossings, and fewer auto-centric design elements.
- › The corridor should become a place people want to walk, bike, and drive—a truly multimodal, welcoming street.

### Utilities

The project team met with Duke Energy regarding its substation located between Clingman Avenue, Patton Avenue, and West Haywood Street.

#### Key Takeaways:

- › Duke confirmed it will not require additional land beyond the substation footprint.
- › The company is willing to sell surplus land to the City of Asheville for the Patton Avenue project if needed.
- › As part of its Conditional Zoning Amendment approved on August 27, 2024, Duke proposed a new 12-foot sidewalk along West Haywood Street, while existing sidewalks on Patton and Clingman Avenues will remain. They will also include landscaping around the permanent substation.



Source: Duke Energy

Image 5.14: Duke Energy Substation (Clingman Avenue & West Haywood Street)

## Community Vision Assessment

Through public engagement and stakeholder focus groups, a clear vision emerged for Patton Avenue as a multimodal corridor. Participants prioritized walking, biking, and safety—top themes that were also echoed in Public Meeting #1. There is broad support for transforming the stretch of Patton Avenue between the Captain Jeff Bowen Bridge and Clingman Avenue into a transition zone—a less auto-centric, welcoming gateway into Downtown Asheville.

This vision includes:

- Public spaces, trees, and landscaping
- Opportunities for development on both sides of the corridor
- A street character consistent with the River Arts District
- Multimodal access to Hillcrest Apartments and the Wilma Dykeman Greenway
- Integration of planned greenway connections from the *Close the Gap* Plan



Image 5.15: Patton Avenue Concept

Source: Asheville Design Center

## CORRIDOR RECOMMENDATIONS

A context-sensitive approach to corridor planning requires balancing transportation function with the surrounding built, natural, social, and economic factors. The following recommendations are rooted in a detailed understanding of existing conditions, technical analysis, public input, and stakeholder engagement—and reflect Asheville’s long-term vision for a safer, more inclusive, and economically vibrant Patton Avenue.

### Reconnect West Asheville & Downtown

#### Knit the Community Back Together

The Living Asheville Comprehensive Plan calls for transforming Patton Avenue into a multimodal urban boulevard reintegrated with surrounding neighborhoods. It identifies the I-26 Connector Project as a once-in-a-generation opportunity to reconnect fractured communities through improved walking, biking, transit, and greenway access. In 2016, Asheville City Council adopted NCDOT’s Alternative 4B for Section I-2513B of the I-26 Connector, which proposes returning Patton Avenue to a surface street to create a more human-scaled gateway into downtown. This decision laid the foundation for a corridor that supports infill development, sustainable growth, and mobility options that benefit all users.

#### Expand the Fabric of Downtown

The I-26 Connector Project is expected to generate remnant right-of-way parcels along Patton Avenue between the Captain Jeff Bowen Bridge and Haywood Street. These leftover parcels—no longer needed for highway infrastructure—represent a key redevelopment opportunity in a high-visibility transition zone between West Asheville and downtown. As design plans for the I-26 Connector Project evolve, the City of Asheville should be prepared to coordinate with NCDOT on the parcel acquisition process and develop a process to guide the reuse of these parcels to support community goals

for walkability, livability, and vibrant mixed-use development. If the City of Asheville is able to obtain remnant parcels through NCDOT’s process, each parcel could be assigned to an initial zoning district according to the adopted comprehensive plan and standards in place at the time.

#### Expand Housing Opportunities

Asheville’s *Missing Middle Housing Study* highlights the urgent need for infill housing, particularly in centrally located corridors with access to jobs, transit, and services. The Patton Avenue corridor is uniquely positioned to support this growth—offering visibility, transit access, and proximity to employment centers. Redevelopment along Patton Avenue could introduce a range of housing types that help meet demand while increasing affordability through greater supply. The corridor recommendations—including traffic calming, dedicated bike lanes, safe pedestrian crossings, and access to transit—are designed to support housing growth by improving mobility options and quality of life for new and existing residents.

#### Priority Areas for Missing Middle Housing

Ideal locations include walkable neighborhoods near downtown, within a 10-minute walk of shops, services, and community spaces; areas along transit-supported corridors with frequent service; and new growth areas intentionally designed for walkability and access to everyday needs.

#### Build on Asheville’s Form-Based Code Framework

Asheville already has form-based districts for the River Arts District and Haywood Road. The Patton Avenue corridor presents a strong candidate for expanding this framework. A form-based district could support predictable development outcomes while ensuring human-scaled streetscapes, active ground-floor uses, and cohesive design standards aligned with Asheville’s urban identity. A future form-based district could guide redevelopment along Patton Avenue—especially on remnant parcels—in ways that prioritize building placement, frontage design, and public realm enhancements through new form-based zoning standards.



## Reestablish the Urban Grid

New development should reintroduce a finer-grained pattern of blocks and intersections to extend Asheville’s walkable street grid westward. Where possible, redevelopment should include internal streets, alley access, and multimodal connections to nearby neighborhoods, including the Hillcrest Apartments and River Arts District. These connections will help restore neighborhood cohesion and create a more seamless experience for people walking, biking, or using transit.

## Integrate Transit and Transportation Demand Management Elements

As of June 2025, the designs for the I-26 Connector Project (NCDOT STIP #2513) will likely result in a slightly revised configuraton. To support a safe and efficient corridor that balances local access with regional connectivity, the Patton Avenue vision must go beyond just roadway design. Integrating Transportation Demand Management (TDM) strategies can help preserve vehicular capacity, minimize congestion, and ensure the long-term success of the proposed road diet. TDM focuses on shifting travel behavior—encouraging the use of alternative modes such as transit, micromobility, and carpooling—so that fewer trips rely on single-occupancy vehicles.

## Enhance the Sense of Place

### Reimagine the Gateway

The 1922 Nolen Plan envisioned the Patton Avenue corridor as a gateway to downtown Asheville. The core design challenge is managing the transition from an auto-oriented, high-speed interstate to a slower, more walkable, and welcoming urban corridor. The land freed up by the I-26 project presents a foundational opportunity to activate surrounding parcels and begin establishing a cohesive downtown extension.

Enhancements to the western entrance—such as a roundabout—will slow vehicle speeds, increase safety, and create an opportunity for civic placemaking through public art and landscape design. In addition, the center island of a roundabout can accommodate public art or landscaping,

### Transportation Demand Management

Along Patton Avenue, TDM strategies can help maintain a high level of access even as vehicle capacity is reduced. The following concepts are recommended to support mode shift and reduce peak-hour demand:

- › **Park-and-Ride Facilities:** Establish strategically located park-and-ride lots on the west side of the corridor to encourage carpooling and support future express downtown transit service. These lots could be paired with electric vehicle charging stations, bike parking, or shared mobility infrastructure.
- › **Micromobility Hubs:** Install hubs for shared bicycles, e-bikes, or scooters near key intersections (such as Clingman Avenue, Coxe Avenue, and the ART Transit Station). Hubs should include safe parking areas, clear signage, and wayfinding to nearby destinations.
- › **Transit Enhancements:** Strengthen Asheville Rides Transit (ART) service along the corridor through higher frequencies, real-time information displays, and improved connections to cross-city transit routes. Dedicated stop amenities—such as shelters, benches, and ADA-compliant boarding areas—will further increase transit attractiveness.
- › **Employer and Institutional Partnerships:** Work with major employers, the Mountain Area Workforce Development Board, and institutions like UNC-Asheville to promote transit passes, vanpool incentives, and flexible work schedules that reduce peak-hour travel.
- › **Wayfinding + Incentives:** Incorporate signage that promotes walking and biking to key destinations, and consider incentive programs (e.g., first-ride free, loyalty programs) to encourage use of non-automobile modes.

By reducing reliance on single-occupancy vehicles and offering viable alternatives, these TDM strategies directly support the corridor’s safety, climate, and equity goals—while ensuring that the corridor functions effectively well into the future.



Image 6.1: Example of a Roundabout as Gateway Sign and Sculpture

creating a signature entrance to the corridor. The four corners of the gateway intersection at Clingman Avenue also afford space for artwork or wayfinding signage to welcome travelers and introduce them to nearby destinations. These recommended elements help signal the transition from interstate to local street, while celebrating the character and identity of Asheville.

### Build a Street for People

Streets succeed when they’re designed not just to move cars, but to serve the people who walk, linger, shop, wait for the bus, or ride their bikes. A human-scaled street feels comfortable, intuitive, and engaging—shaped as much by its buildings, trees, and seating as by the movement of traffic. For Patton Avenue to thrive as a multimodal corridor, it must become a place that welcomes everyday life. Streetscape improvements should prioritize walkability, public interaction, and comfort, transforming Patton Avenue into a safe, vibrant, and livable environment for all users.

### Green the Corridor

Integrating nature into the urban streetscape is essential to creating a corridor that is both beautiful and functional. Green infrastructure elements—such as stormwater planters, rain gardens, and permeable paving—can help manage runoff, improve water quality, and mitigate localized flooding while adding texture and beauty to the public realm. Street trees provide essential shade, reduce the urban heat island effect, and create a more comfortable walking environment. Landscaping, when placed thoughtfully, can also signal slower speeds, buffer pedestrians from traffic, and enhance the character of the street. Opportunities to green the corridor should be incorporated into medians, curb extensions, and pedestrian refuge islands—replacing underused asphalt with resilient, low-maintenance plantings that support both environmental health and visual appeal.

## Enhance Building Frontages + Façade Improvements

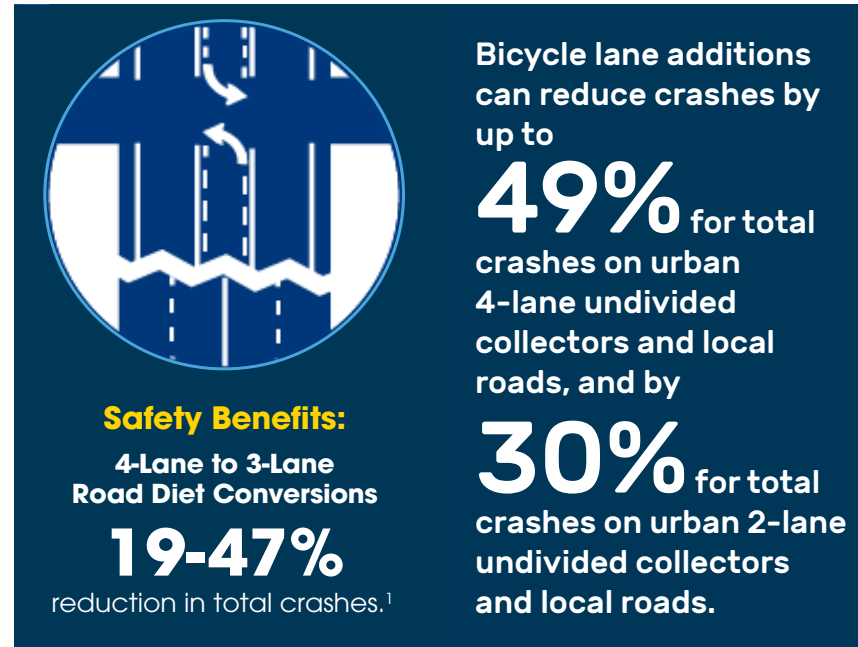
Buildings play a key role in shaping how a street feels. Façades that are transparent, well-maintained, and oriented toward the sidewalk help foster a sense of safety and connection—key to creating a more walkable Patton Avenue. Blank walls, large setbacks, or underutilized frontage space detract from the pedestrian experience and make the corridor less inviting. Incentivizing façade enhancements, activating vacant storefronts, and encouraging street-level design that includes windows, awnings, public art, or outdoor seating can help create a more dynamic, people-scaled environment. When paired with zoning or urban design guidance—such as form-based standards—these improvements support long-term corridor revitalization that balances aesthetics, economic development, and neighborhood identity.

## Rebalance the Transportation Network for All Users

Patton Avenue serves a diverse mix of users—residents, workers, visitors, business owners, and transit riders—yet for decades, its design has prioritized vehicle movement at the expense of safety, comfort, and equitable access. With daily traffic volumes previously projected to increase to over 22,000 vehicles by 2045, now is the time to rethink how the corridor functions and whom it serves. A rebalanced design can better accommodate future growth while addressing longstanding safety concerns, improving mobility choices, and creating a public space that reflects Asheville’s community values.

## Modify the Roadway Lane Configuration

Given the constrained conditions along Patton Avenue, it was necessary to look closer at corridor traffic capacity to determine if there are opportunities to reappropriate vehicular space to make room for modes of travel that are not currently accommodated and to make space for key safety countermeasures that require use of the roadway footprint. Based on the detailed analysis of current and future daily and peak hour traffic volumes, the team identified a number of corridor and intersection modifications. See **Appendix D** for the full analysis.

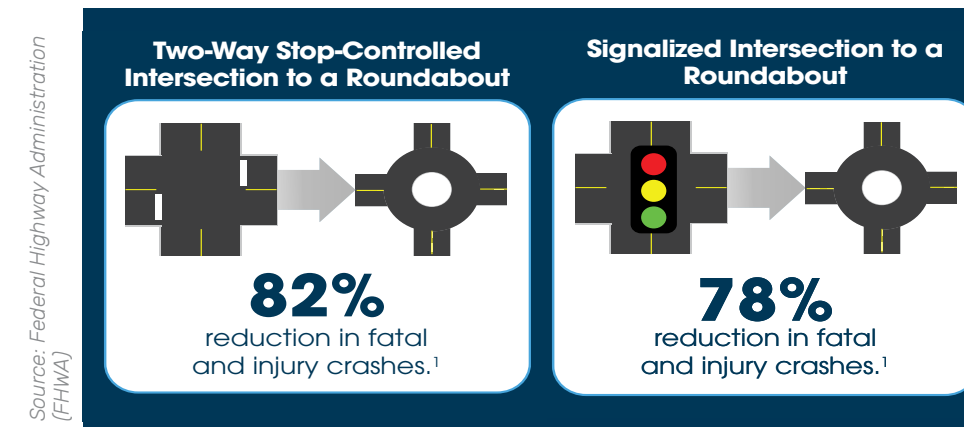


■ **Figure 6.1: Safety Benefits of Road Diets and Bicycle Lane Additions**

The study found that the current and future traffic on the corridor between Clingman Avenue and College Street would function at acceptable levels of service under a road diet configuration: the conversion of the corridor from a four-lane undivided roadway to a two-lane, median-divided cross section with bicycle lanes. While vehicular travel lanes may be reduced in number, the design prioritizes efficient traffic flow, improved intersection operations, and safe turning movements to minimize delays and preserve access.

A road diet not only provides space for dedicated bicycle lanes; it introduces a center turn lane that can also serve as an area for landscaped medians and pedestrian refuge islands at crossings. Recent local projects, such as the Merrimon Avenue road diet, show the viability of this approach. Despite concerns about capacity, research shows that road diets typically do not significantly increase congestion. In fact, their safety benefits—such as reducing the number and severity of crashes—can help traffic move more smoothly and predictably by minimizing conflict points.

Source: Federal Highway Administration (FHWA)



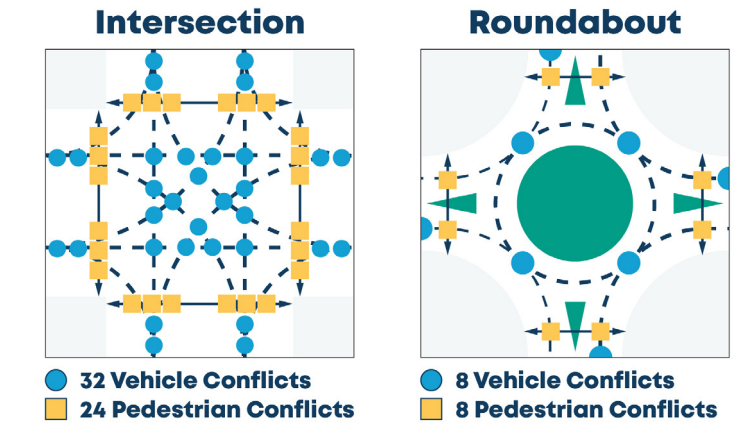
■ **Figure 6.3: Roundabout Benefits**

## Improve Intersections

The corridor evaluation and traffic analysis also identified additional intersection improvements that serve to enhance safety and circulation. Key recommendations include:

- ▶ Roundabouts\* at Patton and Clingman Avenues as well as at Clingman and Hilliard Avenues to improve traffic flow. Roundabouts at these locations will function efficiently under future traffic conditions, while also supporting the corridor’s transition to a safer, urban street. In addition, roundabouts reduce intersection conflict points and support smoother traffic flow.
- ▶ Dedicated vehicular left turn lanes at key locations to reduce rear-end collisions and help vehicles navigate safely without impeding through traffic.
- ▶ Updated signal timing coordination plans for the corridor to improve efficiency and maintain efficient traffic flow with road diet implementation.

These enhancements help maintain vehicular access and mobility into the future.



■ **Figure 6.2: Impact of Roundabout on Roadway Conflicts**

*\*While a two-lane roundabout with slip lanes at Patton and Clingman performed well in modeling, the required footprint would likely create significant cost and property impacts. This prompted the team to evaluate other options, including testing a smaller roundabout, which did not meet desired performance levels, achieving Level of Service (LOS) D and F during peak hours. To alleviate pressure on the Patton-Clingman intersection, the team studied a potential extension of Hilliard Avenue to Patton Avenue. This connection reduced traffic volumes at the intersection and allowed a smaller roundabout to function acceptably, improving LOS to C during peak periods when paired with a modified lane configuration - only one westbound and two eastbound lanes. Ultimately, the final design recommendations strike a balance between safety, operational performance, cost, and the long-term vision for a more inclusive downtown corridor.*

Image Source: City of Toledo, OH (Data Source: FHWA)

## Improve the Pedestrian Facilities + Pedestrian Crossings

The existing multimodal corridor review highlighted the extensive network of sidewalks along the corridor; however, there are other needed pedestrian infrastructure elements. The Close the Gap project (which included an ADA transition plan) ranked Patton Avenue as the top priority for ADA upgrades out of all the City of Asheville-maintained streets. In addition, there are longer stretches of the corridor without pedestrian crossings. The following pedestrian infrastructure items are recommended:

- ▶ The City of Asheville has recently completed (or are planning to complete) ADA upgrades on several sections of Patton Avenue; however, ADA upgrades remain a priority for the remainder of the corridor. This includes elements such as curb ramps, fixing sidewalks in disrepair, and updating signal equipment to meet ADA and PROWAG requirements.
- ▶ Additional pedestrian crossings are recommended between the existing signalized intersections of Clingman and South French Broad Avenue with safety countermeasure treatments:
  - » High-visibility markings.
  - » Lighting.
  - » Refuge islands and high-visibility crosswalks to improve comfort and reduce crossing distances at wide intersections.
  - » Pedestrian hybrid beacons (PHBs) or rectangular rapid flashing beacons (RRFBs) to increase visibility and give pedestrians safer opportunities to cross busy streets without waiting for long signal cycles.

These enhancements can also help organize traffic, calm speeds, and make it easier for people walking, biking, or using mobility devices to cross safely.



Figure 6.4: Pedestrian Crossing Island Benefits

## Provide Transitions to Planned Shared Use Paths and Bicycle Lanes

The proposed roadway reconfiguration provides continuous dedicated bicycle and pedestrian facilities on both sides of Patton Avenue from Clingman Avenue to College Street. Additional treatments are necessary to transition pedestrian and bicycle traffic from this section of the corridor to the planned shared-use paths and bicycle facilities to the east and west of the corridor.

**Transition to the East:** The City of Asheville has a plan to expand bicycle facilities along College Street and Patton Avenue between Spruce Street and Pritchard Park. The facilities will include a variety of treatments, including separated (buffered) bicycle lanes, sharrows, and conventional bicycle lanes. The following design elements are recommended for the eastern transition for cyclists using the Patton Avenue bicycle lanes in the road diet section:

- ▶ Sharrows, signs, and green bicycle lane paint to assist with transitions between the right-side bicycle facility and the left-side bicycle facilities along the College Street and Patton Avenue one-way pair.
- ▶ Optional: Continue the bicycle lanes on the block of Patton Avenue between Coxe Avenue and College Street. This would require removal of on-street parking and the left turn lane for Coxe Avenue. Since these changes have potential to be controversial, they remain an optional recommendation.

**Transition to the West:** The I-26 Connector (NCDOT STIP #I-2513) will construct a shared-use path along Patton Avenue, to the west of Clingman Avenue. There is also a planned shared-use path connection along the western edge of Clingman Avenue from Patton to Hilliard Avenues. To provide a transition from these shared-use path segments to the road diet portion of the corridor, the following design elements are recommended at the proposed Clingman Avenue roundabout.

- ▶ A shared-use path through the roundabout.
- ▶ Roundabout bicycle and pedestrian crossing treatments, in accordance with PROWAG guidance.
- ▶ Bicycle slip ramps on the eastern leg of the roundabout to allow bicycles to transition from the roundabout shared-use path to the conventional bicycle lanes on Patton Avenue to the east.

These treatments and connections not only improve safety, but also encourage more people to consider walking and biking as a daily mode of travel.

## Improve the Transit Experience

Multiple transit routes serve the Patton Avenue corridor and the ART transit station is near the southern edge of the corridor between Asheland and Coxe Avenues. Six existing transit stops are located along the corridor. Maintaining and upgrading these stops is vital to providing alternatives to driving and supporting sustainable transportation goals. It is recommended that all transit stops be brought into compliance with ADA and PROWAG standards, including a minimum 5'x 8' boarding area with a 2% maximum cross slope. In addition, enhancing these stops will improve rider experience and reinforce the corridor's multimodal identity. Stops should be updated with shelters and other amenities, when feasible.



Image 6.2: I-26 Connector (NCDOT STIP Project I-2513) Bowen Bridge Rendering



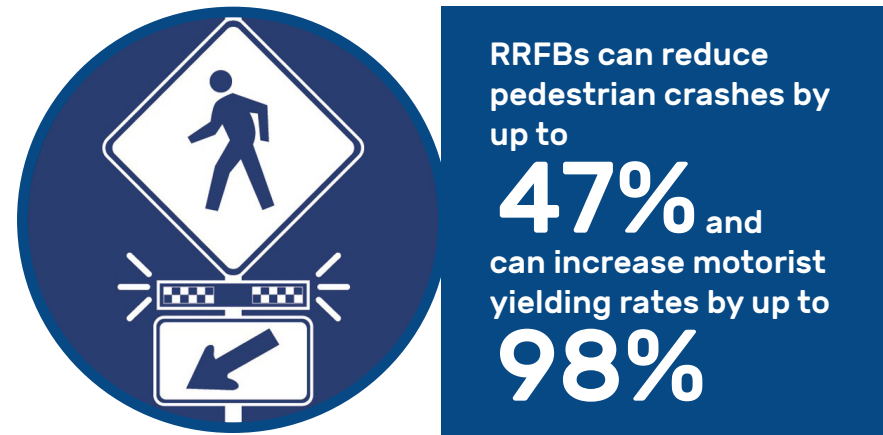
Image 6.3: ADA Accessible Bus Stop with Amenities (College Street & Charlotte Street)

# Prioritize Corridor Safety Countermeasures

## Implement Corridor Wide Safety Countermeasures

The design team took a systematic approach to corridor safety, beginning with a review of crash history and patterns. Between 2018 and 2023, 176 crashes occurred along Patton Avenue, with the highest concentrations at Clingman, Coxe, and French Broad avenues. While most were minor, their frequency and location point to the need for targeted improvements.

Countermeasures were selected using national guidance, including the American Association of State Highway and Transportation Officials (AASHTO) Highway Safety Manual and the Federal Highway Administration (FHWA)'s Proven Safety Countermeasures. Strategies include implementation of roundabouts, bicycle lanes, a road-diet, pedestrian crossing enhancements such as high visibility crossings, pedestrian refuge islands, rectangular rapid flashing warning devices and lighting.



■ Figure 6.5: Rectangular Rapid Flashing Beacon (RRFB) Benefits

Source: Federal Highway Administration (FHWA)



■ Image 6.6: FHWA Proven Safety Countermeasures

Source: Federal Highway Administration (FHWA)

## Why Implement Safety Countermeasures?

Along Patton Avenue, systematic implementation of safety countermeasures will help to reduce crash frequency and severity.

- › **Speed Management:** Slower traffic speeds are important for improving safety and reinforcing the character of Patton Avenue as a downtown, urban corridor. Traffic calming strategies—including roundabouts and a potential road diet—help create a street environment where drivers naturally reduce speed.
- › **Roundabouts:** Roundabouts were evaluated as an alternative to signalized intersections due to their proven ability to reduce crash severity and improve traffic flow. By reducing conflict points and vehicle speeds, roundabouts create safer conditions for all users. Roundabouts reduce vehicle conflict points from 32 to 8 and pedestrian conflict points from 24 to 8 (see **Figure 7.2 - Impact of Roundabout on Roadway Conflicts**). They also help slow traffic and signal a shift in street type.
- › **Multimodal Facilities:** The design emphasizes dedicated space for walking, biking, and transit access. Improvements to crossings, sidewalks, bike lanes, and bus stops will support safer mobility options for all users. Bicycle lanes can reduce crashes up to 49% for urban 4-lane undivided roadways such as Patton Avenue.
- › **Lighting + Visibility:** Improving lighting along Patton Avenue is a key recommendation to address safety concerns. Better lighting can reduce nighttime crashes at intersections involving pedestrians by up to 42%, cut nighttime crashes at urban intersections by 33–38%, and decrease nighttime injuries by up to 28%. Well-lit corridors also improve visibility for all users, helping to mitigate issues such as lane departure and pedestrian conflicts.
- › **Crossings + Medians:** Medians and pedestrian refuge islands will enhance pedestrian safety by providing a midpoint to pause when crossing multiple lanes and reducing exposure to vehicle traffic. Several mid-block crossings are also recommended, particularly in high-activity areas. Pedestrian median refuge islands have a reported Crash Reduction Factor of 56%. These crossings should be marked with high-visibility striping and include signalization such as Pedestrian Hybrid Beacons (PHBs) or Rectangular Rapid Flashing Beacons (RRFBs) where appropriate.

<https://highways.dot.gov/safety/proven-safety-countermeasures>



Lighting can reduce crashes up to **42%** for nighttime injury pedestrian crashes at intersections and up to **38%** for nighttime crashes at urban intersections.

■ Figure 6.7: Street Lighting Benefits

Source: Federal Highway Administration (FHWA)

## CONCEPT PLAN + COST ESTIMATES

### Shaping the Corridor Vision

The Patton Avenue corridor is poised for transformation. As the I-26 Connector Project advances, Asheville has a unique opportunity to shape the future of one of its most visible and important gateways. Because NCDOT's O+R period extended beyond the timeline of this study, City of Asheville staff—working closely with the Patton Avenue Corridor Advisory Group—developed a set of guiding principles to inform ongoing discussions. These principles helped articulate community priorities and were shared with NCDOT to guide design decisions during the O+R process, which allow for cost-saving adjustments while preserving core project functions. As planning efforts continue, these principles remain an essential reference point to ensure that corridor development aligns with Asheville's goals for equity, connectivity, and livability.



CONCEPT PLAN +  
COST ESTIMATES

#### I-26 Connector Project Guiding Principles

**Safety** – The corridor should reflect its urban setting and prioritize safety through slower speeds. A target design speed of no more than 25 mph between the bridge and Clingman Avenue will support pedestrian activity.

**Connectivity** – Stronger links between Patton Avenue and nearby neighborhoods will improve circulation. Extending Hilliard Avenue west of Clingman is essential for roundabout performance and would require private property acquisition.

**Alignment** – Minimizing right-of-way needs and removing excess ramps will preserve space for future development. A straight alignment supports grid continuity and extends downtown's walkable character westward.

**Multimodal Corridor** – The design should equitably serve all modes of travel, emphasizing safe and accessible facilities for people walking, biking, and using transit—not just driving.

### Concept Plan Overview

This chapter translates those guiding principles into a preliminary concept for the downtown section of Patton Avenue. The design reflects input from stakeholders, public engagement, and a careful review of corridor conditions, opportunities, and constraints. The concept plan aims to balance regional mobility needs with local goals—creating a safer, more connected, and more vibrant corridor. Recommendations include a reconfigured street cross-section, roundabouts to calm traffic and improve flow, enhanced pedestrian and bicycle infrastructure, and opportunities for public realm improvements that reflect the corridor's role as a downtown gateway.



Image 7.1: Patton Avenue (Looking East from I-240 Interchange)

Source: McAdams

# CONCEPT PLAN: I-26 Gateway to Clingman Avenue

**Figure 7.1 - Concept Plan for Patton Avenue East - I-26 Gateway to Clingman Avenue** illustrates the concept plan for Patton Avenue West: I-26 Gateway to Clingman Avenue. The key components of these recommendations include the following:

- ▶ Multi-lane roundabout at Patton Avenue and Clingman Avenue.
- ▶ Single-lane roundabout at Clingman Avenue and Hilliard Avenue.
- ▶ Hilliard Avenue extension to Patton Avenue.
- ▶ Multi-use sidepath connection to the proposed facility on the Jeff Bowen bridge.
- ▶ Expanded pedestrian network.

The concept plan illustrates the current I-26 Connector Project (NCDOT STIP #I-2513) design as of June 2025. The concept plan shows this design area in gray. Future coordination for this corridor is planned between NCDOT and City staff during the I-26 Connector Design-Build process. This coordination intends to explore additional safety improvements while balancing the associated agency responsibilities for operations, maintenance, and land use decisions.



Source: Haywood Street Community Development

Image 7.2: Haywood Street Apartments

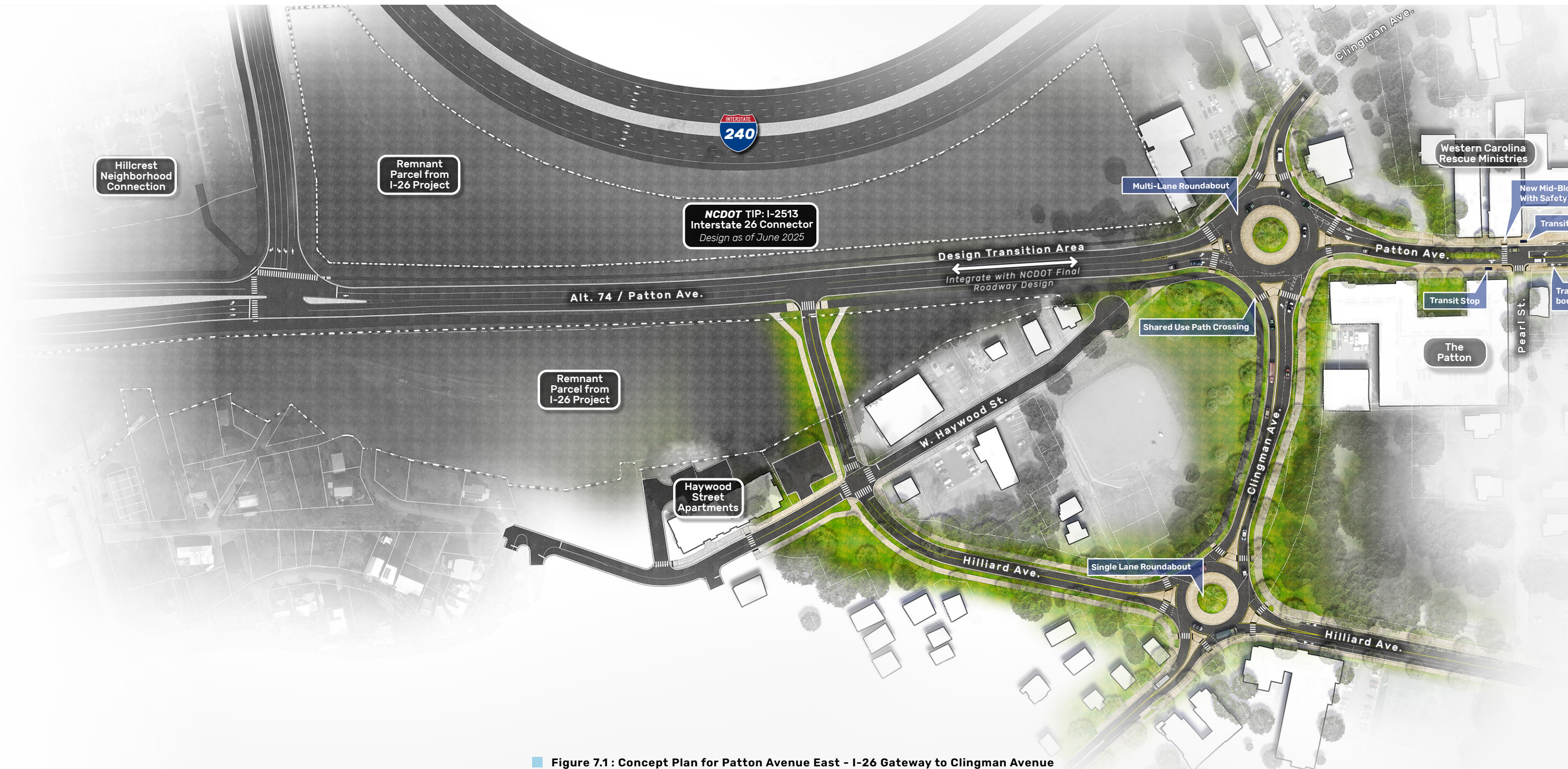


Figure 7.1: Concept Plan for Patton Avenue East - I-26 Gateway to Clingman Avenue

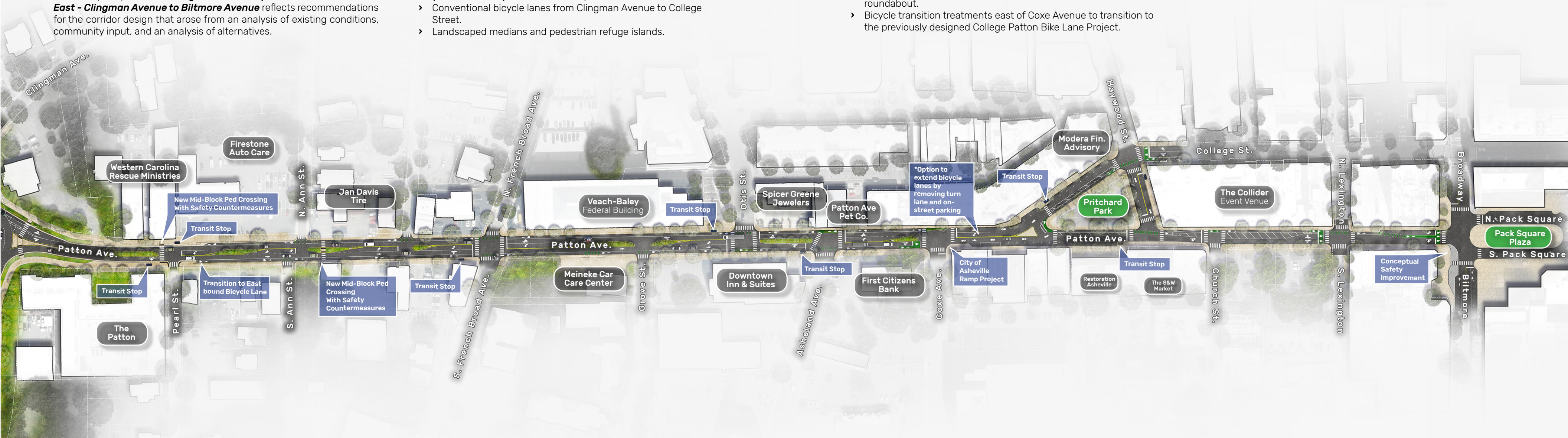
# CONCEPT PLAN: Clingman Avenue to Biltmore Avenue

The conceptual plan shown in **Figure 7.2 - Concept Plan for Patton Avenue East - Clingman Avenue to Biltmore Avenue** reflects recommendations for the corridor design that arose from an analysis of existing conditions, community input, and an analysis of alternatives.

The key recommendations reflected on the concept plans include the following:

- ▶ Road Diet: Conversion of the four lane roadway to a cross section that includes one through lane in each direction, a center median (or left turn lane) and standard bicycle lanes.
- ▶ Conventional bicycle lanes from Clingman Avenue to College Street.
- ▶ Landscaped medians and pedestrian refuge islands.

- ▶ Median break locations for left turn lanes at locations with high turning volumes to support traffic flow and reduce delays.
- ▶ Additional pedestrian crossings with proposed crossing safety countermeasures.
- ▶ Bicycle transitions from the proposed Clingman Avenue roundabout.
- ▶ Bicycle transition treatments east of Coxe Avenue to transition to the previously designed College Patton Bike Lane Project.



■ Figure 7.2 Concept Plan for Patton Avenue East - Clingman Avenue to Biltmore Avenue

# Cost Estimates

The team divided the cost estimates for the corridor into two components: one for the road diet and another for the proposed roundabouts and Hilliard Avenue extension. The team developed the road diet estimate independently, covering the segment between the western roundabout (not included in the estimate) and Pack Square on the eastern end. Note that inflation will impact cost estimates and is not accounted for in these estimates.

The road diet estimate includes pavement improvements and markings, erosion control, traffic control, and preliminary work such as mobilization and construction surveying. Since this portion of the project is expected to remain within the existing roadway, no costs are included for right-of-way acquisition, utility relocations, landscaping, street furnishings, or potential sidewalk/ADA upgrades that could increase overall costs. Temporary construction easements may be needed, but they are not included in the estimate. As shown in **Table 7.1 - Cost Estimate for Road Diet**, the total estimated cost for the road diet is approximately \$1.9 million. Vertical curb is included for planted medians, consistent with other downtown Asheville corridors such as College Street.

The second set of estimates, shown in **Table 7.2 - Cost Estimate for Roundabouts and Hilliard Extension**, covers both proposed roundabouts and the Hilliard Avenue extension. Design assumptions were based on the most recent information available from NCDOT and the project consultants. The combined estimate for both roundabouts and associated materials is approximately \$11.3 million. Generally, a multi-lane roundabout is expected to cost between \$3 million and \$4 million, while a single-lane roundabout is estimated to cost closer to \$2 million. The final cost of the Hilliard Avenue connection will depend on its alignment and connection point with I-26. The current estimate in Table 8.2 assumes an easternmost connection, incorporating expected grading and slope costs. However, if the alignment shifts, the grades—and therefore the construction costs—could vary significantly. Curb and gutter are recommended around the roundabout and along new roadway segments as a best practice consistent with standard design guidelines.



Image 7.3: Carter Ann Patton Stormwater Project Construction

Source: McAdams

## Patton Avenue (US 74 Alt) - Road Diet

Length: 0.60 miles

Description	Quantity	Unit	Price	Amount
Mobilization (5% of Construction)	1	LS	\$39,540.00	\$39,540.00
Construction Surveying	1	LS	\$100,000.00	\$100,000.00
<b>Pavement</b>				
Pavement Resurfacing 1.5" Depth	13,584	SY	\$25.00	\$339,587.61
2'-6" Concrete Curb + Gutter	485	LF	\$60.00	\$29,100.00
Vertical Curb	1,340	LF	\$90.00	\$120,600.00
Concrete Curb Ramp	5	EA	\$6,000.00	\$30,000.00
5" Monolithic Islands	25	SY	\$150.00	\$3,800.00
<b>Pavement Markings</b>				
Edge Lines, Center Lines, and Lane Lines (6", 90 Mils)	8,531	LF	\$2.00	\$17,062.00
Bike Lane Symbol, Arrow, and Sharrow	26	EA	\$350.00	\$9,100.00
Travel Lane Arrow	22	EA	\$350.00	\$7,700.00
24" Green Thermo	780	LF	\$15.00	\$11,700.00
8" Crosswalk Lines	1,897	LF	\$8.00	\$15,176.00
<b>Erosion &amp; Traffic Control</b>				
Inlet Protection	23	EA	\$300.00	\$6,900.00
Traffic Control	1	LS	\$100,000.00	\$100,000.00
Miscellaneous (40% of Costs, Excluding Mobilization)				\$316,291.00
			<b>Construction Cost</b>	<b>\$1,147,000.00</b>
			<b>E. &amp; C. &amp; NCDOT*</b>	<b>\$748,000.00</b>
			<b>TOTAL COST</b>	<b>\$1,895,000.00</b>

Date of Estimate: 8/27/2024

Right-of-Way and Utility construction costs not included in this estimate.

\*Construction Engineering & Inspection (15%) + Engineering, Permitting, & Mitigation (30%) + NCDOT Oversight (20%)

Table 7.1: Cost Estimate for Road Diet

**Patton Avenue (US 74 Alt) - Roundabouts & Hilliard Extension**

Length: 0.67 Miles

Description	Quantity	Unit	Price	Amount
Mobilization (5% of Construction)	1	LS	\$234,830.00	\$234,830.00
Construction Surveying	1	LS	\$100,000.00	\$100,000.00
Clearing and Grubbing	0.3	Acre	\$15,000.00	\$3,750.00
<b>Earthwork</b>				
Borrow Excavation	2,400	CY	\$20.00	\$48,000.00
Unclassified Excavation	2,400	CY	\$40.00	\$96,000.00
<b>Drainage</b>				
Drainage New Location - C&G (L or Y Line)	0.37	Miles	\$2,000,000.00	\$743,181.82
Drainage Existing Location - C&G (L or Y Line)	0.30	Miles	\$2,000,000.00	\$596,818.18
<b>Pavement</b>				
Fine Grading	14,013	SY	\$6.00	\$84,076.04
Full Depth Pavement	6,749	SY	\$100.00	\$674,944.44
Pavement Resurfacing	2,215	SY	\$25.00	\$55,380.56
3" Average Asphalt Wedging	6,324	SY	\$35.00	\$221,348.94
1'-6" Concrete Curb and Gutter	371	LF	\$50.00	\$18,550.00
2'-6" Concrete Curb and Gutter	5,043	LF	\$60.00	\$302,580.00
2'-0" Rolled Curb	629	LF	\$90.00	\$56,610.00
Vertical Curb	588	LF	\$90.00	\$52,920.00
Concrete Curb Ramp	30	EA	\$6,000.00	\$180,000.00
4" Concrete Sidewalk	5,584	SY	\$60.00	\$335,053.33
5" Concrete Monolithic Islands	1,118	SY	\$110.00	\$123,004.44

■ **Table 7.2: Cost Estimate for Roundabouts and Hilliard Extension**

**Patton Avenue (US 74 Alt) - Roundabouts & Hilliard Extension (Cont'd)**

Description	Quantity	Unit	Price	Amount
<b>Pavement (Cont'd)</b>				
Concrete Truck Apron	999	SY	\$180.00	\$179,903.30
Guardrail	1,000	LF	\$40.00	\$40,000.00
Guardrail End Units	4	EA	\$4,000.00	\$16,000.00
<b>Pavement Markings</b>				
Edge Lines, Center Lines, and Lane Lines (6", 90 Mils)	8,673	LF	\$2.00	\$17,346.00
Bike Lane Symbol, Arrow, and Sharrow	2	EA	\$350.00	\$700.00
Travel Lane Arrow	10	EA	\$350.00	\$3,500.00
24" Crosswalk Lines	861	EA	\$8.00	\$6,884.00
<b>Erosion &amp; Traffic Control</b>				
Erosion Control	4	Acres	\$160,000.00	\$640,000.00
Traffic Control	1	LS	\$100,000.00	\$100,000.00
Miscellaneous (40% of Costs, Excluding Mobilization)				\$1,878,621.00
			<b>Construction Cost</b>	<b>\$6,811,000.00</b>
			<b>E. &amp; C. &amp; NCDOT*</b>	<b>\$4,429,000.00</b>
			<b>TOTAL COST</b>	<b>\$11,240,000.00</b>

Date of Estimate: 8/27/2024

Right-of-Way and Utility construction costs not included in this estimate.

\*Construction Engineering & Inspection (15%) + Engineering, Permitting, & Mitigation (30%) + NCDOT Oversight (20%)

■ **Table 7.2: Cost Estimate for Roundabouts and Hilliard Extension (Cont'd)**

## IMPLEMENTATION: NEXT STEPS + FUNDING

### Next Steps

Realizing the vision for a safer, more connected, and people-oriented Patton Avenue corridor will require sustained coordination, strategic funding, and a commitment to long-term transformation. While this study provides a conceptual framework, additional steps must be taken to secure funding, advance design, and ensure land use policies are aligned with corridor goals. The following actions outline the next phase of implementation.

#### Secure Right-of-Way for Key Design Elements

To support the proposed multimodal improvements—including the roundabouts at Clingman Avenue and Hilliard Avenue—it is pivotal to confirm and secure the necessary rights-of-way. As design coordination with NCDOT continues, the City of Asheville should:

- › Identify exact right-of-way needs for roundabout footprints and connecting street segments.
- › Work proactively with property owners, NCDOT, and project partners to resolve access considerations.
- › Coordinate with the I-26 Connector design-build team to ensure that anticipated infrastructure is preserved in project design and ROW disposition decisions.

#### Continue Partnerships to Shape I-26 Integration + Future Development

The I-26 Connector Project presents a generational opportunity to reshape Patton Avenue as a cohesive downtown gateway. Building on the City of Asheville's existing partnerships with NCDOT, local stakeholders, and the development community, next steps should focus on:

- › Advancing a shared vision for integrating the I-26 project with Patton Avenue's multimodal transformation.

- › Ensuring redevelopment of remnant parcels aligns with community goals and includes strong pedestrian, bicycle, and transit connections.
- › If possible, work with the design-build team to explore innovative configurations and alternatives to a standard four-lane cross-section—prioritizing urban scale, safety, and redevelopment potential.

#### Advance Corridor Design from Clingman Avenue to College Street

The design concepts in this study are conceptual and intended to guide the next phase of project development. The City of Asheville should pursue funding to advance the design of Patton Avenue between Clingman Avenue and College Street. This includes:

- › Refining cross sections, roundabout geometry, and intersection treatments.
- › Obtaining topographic survey and preparing engineering design plans for construction.
- › Incorporating public input and additional coordination with the Hillcrest community, local businesses, and institutional partners.

#### Pursue Funding for a Hilliard Avenue Feasibility Study

The proposed Hilliard Avenue extension—connecting to Patton Avenue via Haywood Street—is a key element of the corridor plan. A feasibility study is needed to analyze options and determine the preferred alignment. This study should:

- › Evaluate alignment alternatives and roundabout feasibility at Hilliard and Clingman.
- › Assess right-of-way needs and potential impacts on adjacent parcels.
- › Consider traffic operations, pedestrian safety, and redevelopment benefits.
- › Determine design and construction costs.



IMPLEMENTATION:  
NEXT STEPS +  
FUNDING

## Identify and Prepare Redevelopment Parcels

Many areas along Patton Avenue—including remnant parcels from the I-26 Connector Project—present opportunities for infill and redevelopment. The City of Asheville should begin identifying likely redevelopment parcels and work to ensure they are ready for reinvestment by:

- › Identifying preferred transportation connections and possible grid network connections within these areas.
- › Updating zoning and development policy to reflect the corridor's multimodal goals.
- › Exploring form-based code applications or overlay districts for consistent urban design outcomes.
- › Coordinating with property owners to identify barriers to redevelopment and support investment-readiness.
- › Exploring transportation demand management improvements such as park and ride lots, micromobility hubs and transit enhancements to preserve capacity and support the road diet concept.

## Coordinate Funding and Maximize Resources

Given the scale and complexity of improvements, a bundled approach to funding can maximize efficiency and leverage local match requirements. The City of Asheville should seek to combine related improvements into larger grant applications and funding packages, including:

- › Roadway design and construction.
- › Bicycle and pedestrian infrastructure.
- › Transit stop upgrades and corridor amenities.
- › Public art, streetscape, and green infrastructure enhancements.

Potential funding sources include federal discretionary grants (RAISE, Reconnecting Communities, Safe Streets for All), STBG-DA funds, bond funding, and state or local capital improvement programs. See Funding Strategy + Considerations for additional details.

### Why Remnant Parcels Matter

- Create infill opportunities without displacing existing land uses.
- Lower barrier to entry for local developers.
- Offer smaller-scale sites that align with form-based development goals.
- Help knit the corridor back into the neighborhood fabric.



Image 8.1: Patton Avenue Construction (Looking West at French Broad Avenue)

Source: McAdams

## Options for Redevelopment

**City-Led Infrastructure Preparation:** The City of Asheville may consider preparing a framework plan and pre-installing infrastructure (e.g., streets, utilities, stormwater) to make redevelopment sites “shovel ready.” This approach would reduce risk for smaller, local developers while ensuring alignment with Asheville’s urban design goals.

**Parcel-by-Parcel RFP Approach:** Instead of conveying large tracts to a single developer, the City of Asheville and NCDOT could release remnant parcels through phased, competitive RFPs with clear form and use guidelines. This strategy—modeled after successful efforts like the [Covington, Kentucky Central Riverfront](#)—can help diversify development, attract local and minority-owned firms, and maintain public influence over the character of new projects.

**Prioritize Public-Facing Design:** Redevelopment of remnant parcels should contribute to the corridor’s sense of place and safety. Requirements could include tree-lined sidewalks, plazas or public spaces, active frontages, street-level transparency, and infrastructure that supports walking, biking, and transit use.



Image 8.2: Concept Site Plan from Covington’s Central Riverfront Development



Image 8.3: Concept Rendering from Covington’s Central Riverfront Development

Source: City of Covington, KY

Source: City of Covington, KY

## Funding Strategy + Considerations

Transforming Patton Avenue into a safe, connected, and people-focused corridor will require coordinated investments across multiple phases of planning, design, and construction. While it is unlikely that the City of Asheville can fund these improvements alone, a broad mix of federal, state, and local programs can be leveraged to move the projects forward.



Source: McAdams

Image 8.4: Construction on Patton Avenue (Looking East at French Broad Avenue)

### Strategic Use of Federal + State Funds

The Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) have significantly expanded funding for transportation, safety, climate resilience, and equity-based projects. Many of the improvements recommended in this study—such as roundabouts, bicycle and pedestrian facilities, stormwater infrastructure, and placemaking—align with national funding priorities and are eligible for both formula-based and competitive grants. To unlock formula-based funds, projects must be included in an adopted transportation plan and submitted through the French Broad River MPO for prioritization and potential inclusion in the NCDOT State Transportation Improvement Program (STIP). This is a key near-term step for Patton Avenue.

Rather than pursuing funding on a project-by-project basis, the City of Asheville should consider a bundled corridor strategy to maximize available resources and reduce the need for repeated grant applications. Combining multimodal, safety, green infrastructure, and redevelopment-supportive improvements into a comprehensive application increases competitiveness and streamlines implementation. Federal discretionary programs like RAISE, Reconnecting Communities, and Safe Streets for All (SS4A) are especially well-suited for this integrated approach.

To compete successfully for federal discretionary grants, projects must align with the U.S. Department of Transportation's (USDOT) strategic priorities. The Patton Avenue corridor strongly supports the goals below, which are key criteria in programs such as RAISE, Reconnecting Communities, and Safe Streets for All (SS4A). These federal priorities—including those emphasized under recent USDOT guidance—reflect current national strategies but may continue to evolve with future administration changes. They include:

- › **Safety:** The National Roadway Safety Strategy emphasizes a “Safe System” approach that includes safer roads, safer speeds, and safer access for people walking and biking. The Patton Avenue corridor incorporates safety countermeasures—such as roundabouts, mid-block crossings with pedestrian beacons, and protected bike lanes—to reduce conflict points and create safer conditions for all users, particularly near transit stops and greenway connections. Between 2018 and 2023, 176 crashes were recorded along this corridor, underscoring the need for investment in safer infrastructure.

- › **Equity:** Federal grant programs—including those guided by the Justice40 Initiative—prioritize projects that benefit historically underserved communities. Patton Avenue serves a census tract identified as disadvantaged by the Climate and Economic Justice Screening Tool (CEJST) and provides essential connections for residents of Hillcrest and nearby neighborhoods. Infrastructure investments along this corridor can directly address long-standing transportation inequities and reduce household reliance on car ownership.
- › **Sustainability + Resiliency:** Climate resilience and greenhouse gas (GHG) reduction are core USDOT priorities. The corridor's transformation will shift trips from driving to walking, biking, and transit—reducing emissions and supporting a more sustainable urban form. The plan also includes green infrastructure strategies (e.g., rain gardens, street trees, and bioretention) to improve water quality and manage runoff, helping Asheville adapt to increasingly severe storm events.
- › **Economic Competitiveness + Opportunity:** Improving Patton Avenue will support economic revitalization by reconnecting disadvantaged populations to job centers in downtown Asheville and catalyzing infill redevelopment along a high-visibility gateway corridor. The project aligns with federal goals to promote mixed-income housing, equitable economic development, and land-use efficiency—especially in areas freed up by the I-26 Connector Project.
- › **Mobility + Accessibility:** Patton Avenue plays a vital role in linking West Asheville, the River Arts District, and downtown. The proposed improvements close key gaps in Asheville's bicycle, pedestrian, and transit networks, making it easier for people of all ages and abilities to access jobs, schools, healthcare, and daily needs. All upgrades will meet ADA and PROWAG standards, expanding access for people with disabilities.
- › **Innovation + Transformation:** The corridor provides opportunities to pilot innovative solutions in infrastructure and public space design. Intelligent Transportation Systems (ITS), such as adaptive signals or pedestrian detection technologies, can enhance corridor performance. Likewise, the project's emphasis on green stormwater infrastructure and multimodal retrofits aligns with emerging best practices in climate-conscious design and next-generation streetscapes.

### State + Local Support

In addition to federal sources, North Carolina programs such as the Great Trails State Fund, PARTF, and the Accessible Parks Grant can help advance trail and park-adjacent improvements in and near the corridor. Local investment will be equally important. The City of Asheville should continue to leverage Capital Improvement Program (CIP) allocations, developer contributions, and public-private partnerships, particularly for placemaking, lighting, and sidewalk upgrades. The Buncombe County Tourism Development Authority and its Tourism Product Development Fund (TPDF) are also valuable partners, especially for projects that strengthen connections to cultural or visitor destinations.

### Considerations for Implementation

To fund and implement corridor improvements effectively, the City of Asheville and its partners should:

- › **Bundle improvements** for larger, more competitive grant applications (e.g., safety, mobility, stormwater, and redevelopment in one project package).
- › **Submit corridor elements to the FBRMPO** for inclusion in STIP through NCDOT's Prioritization Process.
- › **Initiate pre-design work** (e.g., feasibility, traffic analysis, cost estimating) to prepare for funding opportunities with short application windows.
- › **Coordinate closely with NCDOT and the I-26 Connector design-build team** to ensure design and right-of-way preservation align with future funding strategies.

The implementation of the Patton Avenue vision will be incremental, but each step—whether securing funding, advancing design, or preparing redevelopment sites—helps build toward a more vibrant, connected, and equitable corridor. Continued leadership and coordination will be key to transforming this vital downtown gateway into a true street for people.

## The Power of Partnerships

Building strong partnerships and community consensus is a necessary step toward securing funding for the Patton Avenue corridor. Most competitive grants require evidence of broad-based support—from both institutional and community partners—and partnerships can also unlock technical expertise, match funding, and data that strengthen project applications.

Effective collaborations not only improve funding competitiveness but also help ensure the project reflects local priorities and achieves long-term success. For Patton Avenue, partnerships will be especially valuable in providing:

- › Local match funding and in-kind contributions
- › Technical support during planning and design
- › Data and local context for grant applications
- › Letters of support or resolutions of endorsement
- › Ongoing community engagement and outreach

Potential partners for the corridor include, but are not limited to:

- › State agencies such as NCDOT, NC Department of Natural and Cultural Resources, NC Department of Commerce, NC Department of Environmental Quality, NC Wildlife Resources Commission, and NC Department of Health and Human Services
- › French Broad River MPO (FBRMPO) and Land of Sky Regional Council
- › Buncombe County and municipal departments
- › Community and advocacy groups, including Asheville on Bikes, Connect Buncombe, BikeWalk NC, Asheville Rides Transit, and the Asheville Regional Transit Coalition
- › Local institutions such as UNC-Asheville
- › Economic and neighborhood partners, including the Asheville Downtown Association, Downtown Asheville Residential Neighbors (DARN), the Asheville Area Chamber of Commerce, and the Mountain Area Workforce Development Board
- › Utility and infrastructure partners such as Duke Energy
- › Private sector developers with a stake in redevelopment and infill opportunities along the corridor

Please see **Appendix B** for a comprehensive list of funding opportunities.



Image 8.5: Patton Avenue (Looking West at Otis Street)

Source: City of Asheville

## Appendix A: Public Engagement

Participants also had an opportunity to write on Post-It notes and provide more details on their reasons for where they placed pins on the map. The table below summarizes these comments by category.

Concern	Comment
Safety	<ul style="list-style-type: none"> <li>› Design speed reduction</li> <li>› Need noise reduction measures</li> <li>› Noise reduction for locals living next to expanding highway</li> <li>› Based on Existing Conditions: Transportation and the number of pedestrian and bicycle crashes ('13-22), I am appalled that any City Council member would have opposed re-stripping College/Patton.</li> <li>› Many near misses when crossing Patton @ Clingman, on bike</li> <li>› Many driveways (impacting pedestrian safety) on the north side of Patton west of N. French Broad</li> <li>› Not being able, as a cyclist, to make a left turn from Patton to Clingman pushes use to less useful streets</li> <li>› Corner of Clingman and Patton really needs a curb for the sidewalk! Cars drive over it all the time. Super unsafe.</li> <li>› 25 mph max Patton to Bowen Bridge.</li> <li>› Patton Ave needs to be welcoming, feel safe, walkable, and bikeable and aesthetically pleasing, reflecting Asheville's character</li> <li>› Pedestrian safety should be the #1 priority</li> <li>› No safe way across Bowen Bridge on bike/foot and lacks connectivity.</li> <li>› Entire area needs a sidewalk curb audit. Pedestrians are not protected from cars by the flattened sidewalks. Way too many driveways.</li> <li>› Concerned about making it possible for kids to safely ride bikes to Isaac Dickson School. Pedestrian bridge needs gradual curve at the end.</li> </ul>



APPENDIX

Concern	Comment
Aesthetics	<ul style="list-style-type: none"> <li>› Take advantage of the views west from Patton when leaving downtown. Crazy awesome idea...put a section of the road underground?</li> <li>› Entry into downtown is underdeveloped and there is no identity/character</li> <li>› Make the bridge an iconic destination – Artful; Lights at night; Pedestrian connectivity; Bike lanes; Connections to RAD</li> <li>› Open space for pop-ups, community events, outdoor movies</li> <li>› Pocket parks with trees</li> <li>› Make Patton Ave a gateway into downtown, with bike/pedestrian access, street trees, pocket parks, and other amenities</li> <li>› Extend development on both sides of Patton to the Bridge</li> <li>› Beautify the bridge!</li> <li>› We are creating a “hotel corridor” on Haywood Road, which is already over-burdened. This is both a safety and aesthetic problem that will only get worse left unchecked.</li> <li>› Patton Ave is a concrete jungle in need of greenscaping and rain gardens</li> <li>› Please don't fear removing parking to allow enough space for safe, wide, curb-protected sidewalks</li> <li>› Patton Bridge = landmark. New connection to town should be gateway park. Bury Patton. Put park on top. Park connects apartments and River Arts District.</li> <li>› Minimize physical land area dedicated to cars and maximize the value of the corridor                         <ul style="list-style-type: none"> <li>› Add landscape trees between vehicular and sidewalk. Add branding, benches, signage, and gateways at major intersections for placemaking</li> </ul> </li> <li>› Streetscape needs improvement around Patton</li> <li>› Increase housing (multi-family, apartments) along transportation corridor and improve walkability</li> <li>› Inviting gateway to downtown</li> </ul>
Other	<ul style="list-style-type: none"> <li>› Add much more housing and mixed-use development. Add missing middle housing!</li> <li>› Opportunities for value capture of shrunken I-26 connector ROW on W. Haywood.</li> <li>› Expand study area to include Hilliard which is currently an alternative to Patton Ave</li> <li>› Proper zoning along transition edge</li> <li>› Didn't place dots. All priorities are needed.</li> <li>› I work in an office on Haywood St. Will permanent housing option be considered with the gentrification of the area?</li> <li>› Mixed use retail &amp; residential</li> <li>› Bikeability was not included as flag option for Patton Ave.</li> <li>› Difficult to comment since latest NCDOT plan is not shown.</li> </ul>

Concern	Comment
Walkability	<ul style="list-style-type: none"> <li>› Patton should be two lanes with wider sidewalks and greenway</li> <li>› Bike/ped infrastructure for Hill Street connecting from Courtland, etc. down to RAD</li> <li>› Why not make downtown area from Pritchard Park to Pack Square pedestrian only and OMIT the cars</li> <li>› You should be able to cross Patton between W. AVL and downtown safely and beautifully with no car!</li> <li>› We should close streets to make area for people to spread out safely and walk</li> <li>› We need pedestrian-signalized signage at each crosswalk</li> <li>› Non-ADA sidewalk in front of federal building</li> <li>› Try to create enjoyable walking experience not just functional moving traffic</li> <li>› Patton Ave should be an urban street lined with buildings with 10-12' sidewalks with street trees and bike lanes from Coxe to Bowen Bridge</li> <li>› Construct a ramp in lieu of stairs to access pedestrian bridge connecting Isaac Dickson School to Patton Ave and bike lanes/greenways</li> <li>› Emphasize multi-modal uses and complete streets. Definitely need better walkability and bike access.</li> <li>› Need for safe circulation for pedestrians along Patton Ave</li> </ul>
Traffic / Connectivity	<ul style="list-style-type: none"> <li>› Consider restraints of topography when proposing new connections</li> <li>› West Asheville greenway coming across the new multi-use bridge. This is not reflected and is important. Wilma-Dykeman needs to be a resident resource and this supports that.</li> <li>› Bowen Bridge/Patton to Biltmore to be traffic lanes (2?) with bike lanes to connect CBD to W. AVL and several N/S connections. This becomes major multimodal spine.</li> <li>› At least a future possibility—construct an elevator capable of people, bikes, wheelchairs to connect Bowen Bridge pedestrian to Dykeman FBR Greenway</li> <li>› Connect Patton to Roberts St. Connect Hillcrest to reconfigured Patton</li> <li>› Emphasize safety for those outside cars using traffic calming and modal filters</li> <li>› Hillcrest – connectivity to Asheville jobs and opportunities</li> <li>› Connect Wilma Dykeman Greenway to Patton Ave. with elevator from Bowen Bridge to WD Greenway below</li> <li>› Need street connection from Hilliard to I-240 ramp/Patton to relieve congestion on Patton – DOT projections show LOS F on Patton</li> <li>› I would like to see regular (frequent) public transit the whole length of Patton Ave. It would be a great corridor for light rail</li> <li>› I-26 design drawings in circulation indicate that there will be greenway connectivity at the Amboy Road exit, connecting to the Wilma Dykeman greenway</li> <li>› What is the pedestrian/bike access to the river from Courtland Ave and Hill St?</li> <li>› Does Patton Ave need to be 4 lanes through downtown? We need to slow traffic so peds and bikes are safer.</li> </ul>

# Appendix B: Funding Sources

The Bipartisan Infrastructure Law (BIL) authorized \$1.2 trillion for transportation and infrastructure spending, with \$550 billion of that figure going toward new investments and programs, while the Inflation Reduction Act (IRA) provides \$700 billion in incentives, grants, and loans to support new infrastructure investments in the areas of clean energy, transportation, and the environment. The following federal, state, and private funding programs have been instrumental in the successful development of bicycle and pedestrian networks in North Carolina communities and can be leveraged to provide the necessary funding to plan, design, and construct the Patton Avenue Corridor project. This section includes information on funding programs known at the time of publication; funding amounts, cycles, and programs may change over time. All discretionary programs are reimbursement-based unless otherwise stated.

## Federal Funding Opportunities

North Carolina communities have partnered with Federal agencies to obtain funding for the design and construction of multi-use paths, greenways, sidewalks, bike lanes, and improved crossings. The Federal government provides significant funding for active transportation which it distributes through Metropolitan Planning Organizations (MPOs) as well as through discretionary grant programs. The City of Asheville falls within the French Broad River Metropolitan Planning Organization's (FBRMPO) boundaries.

The BIL authorizes transportation funding for highway, transit, rail, bicycle and pedestrian, and safety programs and infrastructure through fiscal year (FY) 2026. Federal Highways Administration (FHWA) administers BIL funding for surface transportation projects, which it distributes to the North Carolina Department of Transportation (NCDOT) and directly to Local Government

Agencies (LGAs) through the Locally Administered Projects Program (LAPP). Communities wishing to access Federal funding must submit their candidate projects to their MPO or RPO, who then enter them into the NCDOT's Strategic Transportation Investment (STI) Mobility Formula. This formula ranks projects and identifies those for funding in the State Transportation Improvement Program (STIP). These funds require a 20% match from the LGA. Federal transportation funds for bicycle and pedestrian projects are primarily distributed through four programs: Transportation Alternatives (TA), Surface Transportation Block Grant (STBG) Direct Attributable (DA), Congestion Mitigation & Air Quality (CMAQ), Recreational Trails Program, (RTP), and Highway Safety Improvement Program (HSIP).

## State + Regionally Administered Federal Funding

Transportation funding, apportioned by Congress, using enabling legislation such as the former FAST Act and current BIL, goes from USDOT and its departments to State DOTs and both rural and metropolitan planning organizations. Federal funding often follows a formula, which provides a blueprint for distribution amongst the states. States and MPOs must distribute allocated funds.

### Transportation Alternatives (TA)

Transportation Alternatives (TA) provides Federal funds for community-based projects that expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historic, and environmental aspects of our transportation infrastructure. In North Carolina, NCDOT administers TA funds and allocates funding to Program-eligible projects through STI. NCDOT has created a bicycle and pedestrian scoping guidance document for local governments that have received TA funding. The Bike/ Ped Project Scoping Guidance for Local Governments (link below) provides an overview of the four scoping tools used for locally managed, Federally-funded transportation projects in North Carolina. The document provides guidance on the project delivery process, scoping, identifying project risks, and project cost estimation.

- › **Total Funding:** \$7.2 billion (FY22-26)
- › **Application Deadline/Cycle:** Varies based on MPO administering funding
- › **Project Awards:** minimum \$100,000
- › **Match Requirements:** 20%
- › **Eligible Applicants:** MPOs, RPOs, local governments, nonprofits, tribal governments, regional transportation authorities, transit agencies
- › **Eligible Projects:** Construction/planning/design of on-road or off-road trails for bicyclists and pedestrians; infrastructure projects for improving non-driver access to public transportation and enhanced mobility; community improvement activities; refurbishment of historic transportation facilities such as the conversion and use of abandoned railroad corridors for trails; recreational trails program; environmental mitigation; streetscape improvements; safe routes to school projects

[https://www.fhwa.dot.gov/environment/transportation\\_alternatives/](https://www.fhwa.dot.gov/environment/transportation_alternatives/)

<https://connect.ncdot.gov/projects/BikePed/Documents/BikePed%20Project%20Scoping%20Guidance%20for%20Local%20Governments.pdf>

### Surface Transportation Block Grant (STBG) – Direct Attributable (DA)

The Surface Transportation Block Grant (STBG) program provides flexible funding for states and localities to improve Federal-aid highways, bridges, tunnels, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. STBG-Direct Attributable (DA) funds are among the most flexible highway funding sources and offer significant support to local agencies.

- › **Total Funding:** \$30 million (FY24)
- › **Application Deadline/Cycle:** February – Biennial
- › **Project Awards:** minimum \$100,000
- › **Match Requirements:** 20% non-Federal
- › **Eligible Applicants:** MPOs, RPOs, local governments, nonprofits, tribal governments, regional transportation authorities, transit agencies
- › **Eligible Projects:** Maintenance/restoration of existing recreational trails; Planning/construction of projects that facilitate intermodal connections; Protective features to enhance transportation facility resiliency; Projects that enhance travel and tourism; Bicycle and

pedestrian projects

As a Transportation Management Area (TMA), FBRMPO has the authority to program available STBG-DA funding for transportation planning, bicycle, greenway, sidewalk, street and highway, transit, and other projects. STBG-DA funding could support construction of various elements of the Patton Avenue Corridor.

<https://www.fhwa.dot.gov/bipartisan-infrastructure-law/stbg.cfm>

### Highway Safety Improvement Program

The purpose of the North Carolina Highway Safety Improvement Program (HSIP) is to provide a continuous and systematic procedure that identifies and reviews specific traffic safety concerns throughout the state. The goal of the HSIP process is to reduce the number of traffic crashes, injuries, and fatalities by reducing the potential for these incidents on public roadways. USDOT provides this core Federal aid program through annual allocations, which vary from year to year. States must spend at least 15% of HSIP funds on biking and walking safety when bicyclist and pedestrian fatalities are 15% or more of traffic fatalities. NCDOT uses a set of criteria called safety warrants to identify locations that need improvements. NCDOT then evaluates these locations, designated as potentially hazardous locations, using crash analyses, field investigations, and other tools to develop safety recommendations and implement countermeasures.

<https://safety.fhwa.dot.gov/hsip/reports/pdf/2020/nc.pdf>

<https://connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx>

[https://www.nhtsa.gov/sites/nhtsa.gov/files/2023-10/NC\\_FY24HSP-tag.pdf](https://www.nhtsa.gov/sites/nhtsa.gov/files/2023-10/NC_FY24HSP-tag.pdf)

### Land and Water Conservation Fund (LWCF)

Congress established the Land and Water Conservation Fund in 1964 to create parks and open space; protect wilderness, wetlands, and refuges; preserve habitat; and enhance outdoor recreational opportunities. In 2020, the Great American Outdoors Act included a provision to permanently fund the LWCF using royalties from offshore oil and natural gas. Sixty percent of LWCF funding is allocated to the National Park Service, and the remaining forty percent of the funds are allocated to states and local governments according to a national formula for outdoor recreation development and

land acquisition by local governments and state agencies. In North Carolina, the program is administered by the Department of Natural and Cultural Resources. A project must be located on a single site.

- › **Application Deadline/Cycle:** Annual
- › **Project Awards:** up to \$500,000
- › **Match Requirements:** 50%
- › **Eligible Applicants:** North Carolina counties and incorporated municipalities, federally recognized Native American tribes
- › **Eligible Projects:** LWCF grants can be used to acquire land for a public park or to develop outdoor recreation and support facilities.

### Carbon Reduction Program

The BIL establishes the Carbon Reduction Program (CRP), which provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO<sub>2</sub>) emissions from on-road highway sources. Federal funds for the Carbon Reduction Program flow to NCDOT then through the MPOs/RPOs through a competitive call for projects. A state may transfer up to 50% of CRP funds to any other apportionment of the state including National Highway Performance, Program, Surface Transportation Block Grant Program, Highway Safety Improvement Program, Congestion Mitigation and Air Quality Improvement (CMAQ) Program, National Highway Freight Program, and Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Formula Program. Each state can apportion 65% of CRP funds based on population and can choose how to obligate the remaining 35%.

- › **Total Funding:** \$6.4 billion (FY22–26)
- › **Application Deadline/Cycle:** March – Annual
- › **Project Awards:** minimum \$100,000
- › **Match Requirements:** 20%
- › **Eligible Applicants:** Municipalities, county governments, and public transit agencies
- › **Eligible Projects:** projects that reduce transportation emissions, including transportation alternatives such as the planning, design, and construction of on-road and off-road trail facilities

[https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp\\_fact\\_sheet.cfm](https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm)

<https://www.ptcr.org/services/regional-planning/transportation/clean-transportation>

## Discretionary Grants

The competitive, discretionary grant programs outlined in this section can provide millions of dollars toward the Patton Avenue Corridor planning, design, and construction costs. These programs are competitive and require applicants to submit forms, project narratives, and benefit-cost analyses (BCAs) for construction projects; and encourage the submittal of supplemental materials and letters of support. The completion of a BCA involves the quantification and comparison of a project's expected costs and benefits according to USDOT-determined method. The result is a Benefit-Cost Ratio (BCR). A project is considered cost-effective when the BCR is 1.0 or greater. Transparency in the assumptions and data used to complete the analysis, and documentation of data sources in the BCA is essential to receiving construction funding from discretionary programs. Federal discretionary grant applications should emphasize how the project aligns with a program's merit criteria as well as following USDOT priorities and strategic goals.

- › **Equity:** USDOT aims to reduce inequities across transportation systems and the communities they affect, and to support and engage people and communities to promote safe, affordable, accessible, and multimodal access to opportunities and services while reducing transportation-related disparities, adverse community impacts, and health effects. Justice40 embodies this commitment to equity. Justice40 mandates that 40% of the overall benefits of certain Federal investments, including climate change and clean transportation, flow to disadvantaged communities that are marginalized, under-served, or overburdened by pollution.
- › **Safety:** One of USDOT's strategic goals for FY 22 to FY 26 is to make the transportation system safer for all people and advance a future without transportation-related serious injuries and fatalities. The National Roadway Safety Strategy (NRSS) outlines a comprehensive approach that communities can take to significantly reduce injuries and deaths on roadways, using a Safe System Approach that supports safer roads, safer speeds, safer people, safer vehicles, and post-crash care.
- › **Climate and Sustainability:** Climate change presents a significant and growing risk to transportation infrastructure. USDOT is working to tackle the climate crisis by ensuring that transportation plays a significant role in the solution. This includes substantially reducing greenhouse gas emissions and transportation-related pollution and

building more resilient and sustainable transportation systems to benefit and protect communities.

- › **Innovation and Transformation:** USDOT is investing in purpose-driven research and innovation to meet the challenges of the present and modernize a transportation system of the future that serves everyone today and in the decades to come.
- › **Economic Strength and Global Competitiveness:** This priority aims to grow an inclusive and sustainable economy, invest in the transportation system to provide American workers and businesses reliable and efficient access to resources, markets, and good-paying jobs. One of the priorities of the Federal government is the promotion of diversity and inclusion in the workforce. Executive Order 14035 on Diversity, Equity, Inclusion, and Accessibility (DEIA) in the Federal Workforce provided agencies with information, resources, and a methodology to assess the state of DEIA and give a framework to promote DEIA practices.
- › **Rural Opportunities to Use Transportation for Economic Success (ROUTES):** This initiative prioritizes the needs of rural America by supporting rural transportation policy and equitable access for communities that face challenges related to safety, mobility, and economic development, addressing disparities in rural transportation infrastructure by developing user-friendly tools and information, aggregating DOT resources, and providing direct technical assistance to better connect rural communities with funding, financing, and outreach resources available.

### Rebuilding American Infrastructure with Sustainability + Equity (RAISE)

This program, formerly known as TIGER and BUILD, and now as Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants, awards funding to invest in road, rail, transit, and port projects that promise to achieve national objectives and have a significant local or regional impact. The eligibility requirements of RAISE allow project sponsors at the State and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional DOT programs. Historically, annual appropriations largely funded this program, however the BIL included \$7.5 billion in supplemental funding between FY 22 and 26. Since the program's inception, USDOT has awarded over \$14 billion to projects in all 50 states and several US territories.

- › **Total Funding:** \$1.5 billion (FY24) with set asides for Areas of

Persistent Poverty and Historically Disadvantaged Communities

- › **Application Deadline/Cycle:** February – Annual
- › **Project Awards:**
  - › Planning Projects: No minimum
  - › Capital Projects: Minimum \$1 million (rural); minimum \$5 million (urban)
- › **Match Requirement:** 20%– Federal share may increase in rural areas, Areas of Persistent Poverty, and Historically Disadvantaged Communities
- › **Eligible Applicants:** State/local governments; multijurisdictional entity or group of entities; tribal government; transit agency.
- › **Eligible Projects:** Capital projects (highway, intermodal, surface transportation, infrastructure, culvert replacement or stormwater runoff) and Planning (preparation for eligible surface transportation capital projects)

<https://www.transportation.gov/RAISEgrants/about>

## Reconnecting Communities + Neighborhoods (RCN)

In FY23, USDOT combined the Reconnecting Communities Pilot (RCP) and Neighborhood Access and Equity (NAE) programs into a single Notice of Funding Opportunity (NOFO) called Reconnecting Communities and Neighborhoods (RCN). This funding seeks to advance community-centered connection transportation projects, with a priority for projects that benefit disadvantaged communities, by improving access to daily needs such as jobs, education, health care, food, nature and recreation; fostering equitable development and restoration; and reconnecting communities by removing, retrofitting, or mitigating highways or other transportation facilities that create barriers to community connectivity, including to mobility, access, or economic development.

NAE was established by the Inflation Reduction Act (IRA) and provides up to \$3.155 billion until September 30, 2026 in grant awards to connect communities by supporting neighborhood equity, safety, and affordable transportation access as well as mitigating negative environmental impacts. The NAE program emphasizes assisting economically disadvantaged or under-served communities with planning and capacity building.

Capital Construction Grants can be used to carry out a project to remove, retrofit, mitigate, or replace an existing eligible dividing facility with a new facility that reconnects communities; mitigate a burdening facility that is a source of air pollution, noise, stormwater, or other burdens; or implement a strategy to reduce environmental harm and/or improve access.

- › **Total Funding** \$1.785 billion (FY22-26):
  - › Capital Construction: \$1.15 billion (\$148 million in RCP and \$1 billion in NAE funds)
  - › Community Planning: \$185 million (\$50 million in RCP and \$135million in NAE funds)
  - › Regional Partnerships Challenge: \$450 million (NAE funds)
- › **Application Deadline/Cycle:** September – Annual
- › Project Awards:
  - › **RCP:**
    - › Planning: Up to \$2 million
    - › Construction: Minimum of \$5 million
  - › **NAE:**
    - › Planning: No min/max
    - › Construction: No min/max
    - › Regional Partnerships Challenge: No min/max – 3-5 projects will be awarded
- › Match Requirements:
  - › **RCP-Community Planning Grants:** 20%
  - › **RCP-Capital Construction Grants:** 50% (other Federal funds may be used to bring the total Federal share up to a maximum of 80% of the total cost of the project)
  - › **NAE-Community Planning, Capital Construction, and Regional Partnerships Challenge Grants:** 20% (projects in disadvantaged or under-served community do not require a local match)
- › Eligible Applicants:
  - › **RCP Planning:** State, local government, Tribal government, MPO, nonprofit organization
  - › **RCP Capital Construction:** Owner of facility; partnership between facility owner and applicant eligible for RCP planning grants.
  - › **NAE Grants:** state/local government, tribal government, MPO, nonprofit organization, special purpose district
- › **Eligible Projects:** Facilities that divide or burden community; planning studies to assess feasibility of mitigating existing dividing facility or build capacity in disadvantaged area; pre-construction

and construction activities for mitigating a burdening/dividing facility; improving complete streets/ multi-use trails/ regional greenways.

- › **Merit Criteria:** Equity and Environmental Justice; Access; Facility Suitability; Community Engagement, and Community-based Stewardship, Management, and Partnerships; Equitable Development; Climate and Environment; and Workforce Development and Economic Opportunity.

The Patton Avenue Corridor could apply for RCN funding to construct the proposed multimodal improvements (NAE) and reconnect the Hillcrest neighborhood to downtown Asheville.

<https://www.transportation.gov/grants/rcnprogram/about-rcp>

### Multimodal Project Discretionary Grant Program - Mega

USDOT's Multimodal Project Discretionary Grant (MPDG) program encompasses three distinct funding opportunities: (1) Mega – support large, complex projects that are otherwise difficult to fund and generate national or regional economic, mobility, or safety benefits, (2) INFRA – multimodal freight and highway projects of national or regional significance that improve safety, efficiency, and reliability of movement of freight and people in and across rural and urban areas, and (3) Rural – highway, bridge, or tunnel projects or intermodal facilities that support the economy of a rural area. The BIL authorized approximately \$5.5 billion for MPDG opportunity funds. For FY25 and FY26, up to \$1.7 billion for Mega, up to \$2.7 billion for INFRA, and up to \$780 million for the Rural program will be made available.

#### MPDG-Mega

- › **Total Annual Funding:** \$1.8 billion
- › **Application Deadline/Cycle:** May 6 – Annual
- › **Project Awards:** Minimum of \$5 million for small projects; Minimum of \$25 million for large projects
- › **Match Requirements:** 20% or more
- › **Eligible Applicants:** State, regional transportation planning organization, local government, tribal government, multijurisdictional group of previously mentioned entities.
- › **Eligible Projects:** Highway/bridge project, highway safety improvement project, public on publicly owned highway/bridge that increases access to agricultural, commercial, energy, or intermodal facility that supports rural economy, and project to develop

integrated mobility management system, transportation demand management system, or on-demand mobility.

- › **Merit Criteria:** Safety; State of Good Repair; Economic Impacts, Freight Movement, and Job Creation; Climate Change, Resiliency, and the Environment; Equity, Multimodal Options, and Quality of Life; Innovation Areas: Technology, Project Delivery, and Financing
- › **Competitiveness:** There were 11 projects awarded a total of \$2 billion through FY23-24 Mega.

[https://www.transportation.gov/sites/dot.gov/files/2024-03/MPDG%202025-2026%20Notice%20of%20Funding%20Opportunity\\_0.pdf](https://www.transportation.gov/sites/dot.gov/files/2024-03/MPDG%202025-2026%20Notice%20of%20Funding%20Opportunity_0.pdf)

### Active Transportation Infrastructure Investment Program (ATIIP)

Among the new discretionary grants created through the BIL is the Active Transportation Infrastructure Investment Program (ATIIP), which was authorized for \$200 million annually. This program will award \$45 million, as allocated by the FY23 Omnibus Appropriations Act, to communities for projects that plan, design, or construct safe, affordable, and accessible active transportation networks (facilities that connect destinations within a community) and transportation spines (facilities that connect communities). ATIIP takes a holistic, network-level approach to walking, biking, and rolling by addressing gaps in active transportation routes that push people to other modes of travel.

- › **Total Funding:** \$45 million (FY23)
  - › **Construction Grants:** up to \$41,550,000 – of that, at least 30% (\$12,465,000) will be set aside for construction of active transportation networks and at least 30% (\$12,465,000) will be set aside for construction of active transportation spines
  - › **Planning & Design Grants:** at least \$3,000,000 and up to \$19,620,000 will be awarded
- › **Application Deadline/Cycle:** July 17, 2024 – Contingent on future year allocations
- › **Project Awards:**
  - › **Construction Grants:** Recommended minimum of \$7.5 million and recommended maximum of \$12 million (general applicants) and \$15 million (qualified disadvantaged communities)
  - › **Planning & Design Grants:** Minimum of \$100,000 and expected maximum of \$2 million

- › **Match Requirements:** 20% or more (qualified disadvantaged census tracts are those with 40% or higher of the population falling below poverty level and do not require any match)
- › **Eligible Applicants:** Local/regional governments; MPOs and regional planning councils; Multicounty special districts; States; Tribes; Multistate group of governments
- › **Eligible Projects:** Projects that support active transportation networks connecting destinations.
- › **Merit Criteria:** Mobility and Community Connectivity; Community Support; Commitment to Increasing Walking and Biking; Financial Completeness; Equitable Development; Other DOT Goals and Priorities (safety, accessibility to jobs, economic competitiveness, environmental protection, quality of life)

[https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/atiip/index.cfm](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/index.cfm)

[National Endowment for the Arts Our Town Program](#)

### National Endowment for the Arts Our Town Program

Our Town is the National Endowment for the Arts' creative placemaking grants program. Through project-based funding, the NEA supports projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes. These projects require a partnership between a local government entity and nonprofit organization, one of which must be a cultural organization; and should engage in partnership with other sectors (such as agriculture and food, economic development, education and youth, environment and energy, health, housing, public safety, transportation, and workforce development). Cost share/matching grants range from \$25,000 to \$150,000, with a minimum cost share/match equal to the grant amount.

<https://www.arts.gov/grants/our-town>

## State Funding Opportunities

North Carolina communities have partnered with state agencies to build multi-use paths, greenways, sidewalks, bike lanes and improve crossings. NCDOT, North Carolina Department of Natural and Cultural Resources (NCDNCR), and North Carolina Department of Commerce (NCDOC) are the primary state agencies that fund bicycle and pedestrian planning, infrastructure, and programs. The North Carolina Department of Health and Human Services (DHHS), North Carolina Department of Environmental Quality (NCDEQ), and the North Carolina Department of Agriculture administer discretionary grant programs focusing on public health and community development, when funding is available.

Discretionary state grants promote alignment with both statewide goals and initiatives. While these are similar to Federal priorities and strategies, they are distinct to North Carolina and include the following:

- › **North Carolina Executive Order 80:** North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy: <https://governor.nc.gov/documents/files/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition-clean-energy/open>
- › **North Carolina Executive Order 246:** North Carolina's Transformation to a Clean, Equitable Economy: <https://governor.nc.gov/executive-order-no-246/open>
- › **NC Moves 2050 Plan:** <https://www.ncdot.gov/initiatives-policies/Transportation/nc-2050-plan/ncmoves2050/Pages/default.aspx>
- › **Great Trails State Plan:** <https://www.ncdot.gov/divisions/integrated-mobility/multimodal-planning/great-trails-state/Pages/default.aspx>
- › **Statewide Transportation Improvements Program (STIP):** <https://connect.ncdot.gov/projects/planning/pages/state-transportation-improvement-program.aspx>
- › **Strategic Highway Safety Plan (FY 24-FY 26):** <https://www.nhtsa.gov/document/north-carolina-fy2024-2026-highway-safety-plan>
- › **NC Clean Transportation Plan:** <https://www.ncdot.gov/initiatives-policies/environmental/climate-change/Pages/ncctp-executive-summary-final-report.aspx>

### Great Trails Program Fund

The Great Trails State Program, funded with \$12.5 million each year for two years, will be a competitive grant program for new trail development and extension of existing trails, including paved trails, greenways, and natural surface trails for biking, hiking, walking, equestrian use, and paddling. The fund will be administered by the North Carolina Department of Natural and Cultural Resources (NCDNCR). Eligible applicants will include municipalities or counties, regional councils of government, other public authorities, and nonprofit organizations. Eligible uses for funds will include planning, design, and related environmental assessment or permitting, land and easement acquisition, trail construction, trail structures (such as bridges), trail amenities (such as trailhead parking, signage, etc.), and maintenance, and can be used as matching funds for federal or other non-state grants. The fund will require a minimum of a 25% flexible match, including cash, in-kind services, or donation of assets. Grants awarded will be limited to \$500,000 per project.

- › **Total Annual Funding:** \$25 million (FY24-25)
- › **Application Deadline/Cycle:** September 3, 2024
- › **Project Awards:** up to \$500,000
- › **Match Requirements:** 25% flexible match (including cash, in-kind services, or donation of assets)
- › **Eligible Applicants:** Municipalities/counties, regional governments, public authorities, nonprofit organizations
- › **Eligible Projects:** Planning; design; environmental assessment or permitting and review; land or easement acquisition; trail construction; trail structures (bridges); trail amenities like trailhead parking, and signage; maintenance; matching funds for other Federal or non-state grants.

<https://greattrailsstatecoalition.org/latest/#:-:text=The%20North%20Carolina%20General%20Assembly's%20outdoor%20recreation%20in%20American%20history>

### Accessible Parks Grant

The Accessible Parks Grant Program is administered through the Division of Parks and Recreation and the North Carolina PARTF. It provides \$12.5 million in matching grants for parks and recreation to benefit people living with disabilities in North Carolina. Grants can be used for the construction of special facilities, or adaptation of existing facilities that meet the unique

needs of persons living with disabilities or enable them to participate in recreational and sporting activities, regardless of their abilities. Facilities built or renovated with an Accessible Parks grant must be available for public recreational use for at least 25 years.

- › **Total Annual Funding:** \$12.5 million (FY24)
- › **Application Deadline/Cycle:** May 1, 2024 (unclear if additional years will be funded)
- › **Project Awards:** up to \$500,000
- › **Match Requirements:** 20% match (The value of in-kind services, such as volunteer work, cannot be used as part of the match.)
- › **Eligible Applicants:** North Carolina counties and incorporated municipalities, including public authorities authorized to develop recreational facilities for the general public
- › **Eligible Projects:** Construction of special facilities and adaptation of existing facilities. Applicants cannot request Accessible Parks Grant funding for and active PARTF site or land acquisition.

<https://www.ncparks.gov/about-us/grants/accessible-parks-grant>

### Parks and Recreation Trust Fund (PARTF)

Since 1994, the North Carolina parks and Recreation Trust Fund (PARTF) awards matching grants to local governments for parks, public beach access, and improvements to state parks. The program helps local governments reach their park and public access goals and improve the quality of life in their communities. Funding for PARTF is allocated annually, and the Parks and Recreation Authority, a citizen board appointed by the Governor, President Pro Tempore of NC Senate, and Speaker of the NC House of Representatives selects grant recipients and allocates the funding. The projects must be located on a single site, and the applicant must own or have at least a 25-year signed lease or easement for the property where the PARTF facility will be located.

- › **Total Funding:** \$8.5 million (FY24)
- › **Application Deadline:** Annual – May
- › **Project Awards:** up to \$500,000
- › **Match Requirements:** 50%
- › **Eligible Applicants:** North Carolina counties and incorporated municipalities. Public authorities, as defined by GS 159-7, are also eligible if they are authorized by N.C. general statutes to acquire land and develop recreation facilities for public use.

- › **Eligible projects:** Land acquisition; construction or renovation of facilities for a linear or non-linear public park; must be located on a single site and applicant must own or have at least a 25-year signed lease/easement for the property.

<https://www.ncparks.gov/about-us/grants/parks-and-recreation-trust-fund>

### Spot Safety Program

The Spot Safety Program is used to develop smaller improvement projects to address safety and potential safety and operational issues. The program is funded with state funds and currently receives approximately \$9 million per fiscal year. Other monetary sources (such as Small Construction or Contingency funds) can assist in funding Spot Safety projects, however, the maximum allowable contribution of Spot Safety funds per project is \$400,000. A Safety Oversight Committee (SOC) reviews and recommends Spot Safety projects to the Board of Transportation (BOT) for approval and funding. Criteria used by the SOC to select projects for recommendation to the BOT include, but are not limited to, the frequency of correctable crashes, severity of crashes, delay, congestion, number of signal warrants met, effect on pedestrians and schools, division and region priorities, and public interest.

<https://connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx>

### Strategic Transportation Investments (STI)

The Strategic Transportation Investments law, passed in 2013, establishes the Strategic Mobility Formula, which allocates available funding based on data-driven scoring and local input. NCDOT, working collaboratively with MPOs and RPOs, uses the Strategic Mobility Formula to develop the State Transportation Improvement Program (STIP), which identifies projects that will receive funding during a 10-year period. The STIP is state and federally mandated and updated by NCDOT every two years. The Strategic Mobility Formula groups projects in three categories: Division Needs, Regional Impact, and Statewide Mobility.

NCDOT programs independent bicycle and pedestrian projects in the Division Needs category. Eligible bicycle and pedestrian projects submitted for prioritization must be included in a locally adopted plan and have a minimum project cost of \$100,000. Eligible activities include right-

of-way acquisition, design, and construction. Additionally, the Statewide Transportation Investments (STI) law prohibits the use of state funding for bicycle and pedestrian projects, requiring municipalities to provide the 20% match for Federally-funded projects.

**Bicycle and Pedestrian STI Prioritization: Qualitative Scoring**

Local input points represent 50% of the scoring for bicycle and pedestrian projects. MPOs and RPOs assign 25% of local input points, which are determined by municipal and county project priorities and public comment. NCDOT Division Engineers assign the remaining 50% of the local input points.

It is recommended that the City of Asheville submit the Patton Avenue Corridor to NCDOT’s prioritization 8.0 (P8.0) through FBRMPO. The schedule for the next round of prioritization (P8.0) has not yet been announced. Depending on project scoring, this will open up State funding. It is important to note that since the project only falls within the boundaries of the FBRMPO, funding through the STIP will be more competitive. The most competitive funding source that the FBRMPO is eligible for will be Surface Transportation Block Grant (STBG) funding, of which 55% of a State’s apportionment (after the set-aside for Transportation Alternatives) is allocated in proportion of the relative shares of the population to various categories of areas, including urban areas with a population of at least 5,000 but no more than 49,999.

**Project Bundling**

Project sponsors can bundle multiple bicycle and pedestrian projects to better compete with other projects submitted in the Division Needs category. NCDOT allows bundled projects across various geographies and project types. Projects do not have to be contiguous or related, and projects can fall within a single municipality or across multiple jurisdictions. Bundled projects must have one project manager, a TAP eligible entity. The Patton Avenue Corridor would be more competitive in P8.0 if the roadway redesign was bundled with bicycle and pedestrian infrastructure in the area.

**Statewide Projects Funds**

**Small Construction Funds:** These funds were established in 1985 to fund small projects in and around cities and towns that could not be funded in the Statewide Transportation Improvement Program (STIP). Funds are allocated

Funding Category	Funding	Overview
Division Needs	30%	NCDOT’s 14 transportation divisions share funding in this category equally. Project scores are based 50% on data and 50% on rankings by MPOs and RPOs and the NCDOT Divisions.
Regional Impact	30%	Projects on this level compete within regions made up of two NCDOT Divisions with funding based on population. Project scores are based 70% on data and 30% on rankings by MPOs and RPOs and the NCDOT Divisions.
Statewide Mobility	40%	Projects in this category are of statewide significance and are based 100% on data.

■ **Table B.1: STI Funding Breakdown**

Criteria	Measure	Division Needs (50%)
Safety	(Number of crashes x 40%) + (Crash severity x 20%) + (Safety risk x 20%) + (Safety benefit x 20%)	20%
Accessibility/Connectivity	Points of Interest pts + Connection pts + Route pts	15%
Demand/Density	# of households and employees per square mile near project	10%
Cost Effectiveness	(Safety + Accessibility / Connectivity + Demand / Density) / Cost to NCDOT	5%

■ **Table B.2: Bicycle and Pedestrian STI Prioritization: Quantitative Scoring**

equally to each of 14 Transportation Divisions and can be used on a variety of transportation projects for municipalities, counties, businesses, schools, and industries throughout the state. Funds are available for projects up to \$250,000 per fiscal year. Right-of-way and utility relocations should be provided and accomplished at no cost to NCDOT. Funding requests should be submitted to the Division Engineer providing technical information such as location, improvements being requested, and project timeline.

**Statewide Contingency Funds:** These funds were created for statewide rural or small urban highway improvements and related transportation enhancements to public roads/public facilities, industrial access roads, and spot safety projects. The President Pro Tempore of the Senate, the Speaker of the House, and the Secretary of Transportation sponsor project requests from this fund. \$12 million in funds are administered by the Secretary of Transportation. Requests can be submitted from municipalities, counties, businesses, schools, citizens, legislative members, and NCDOT staff. Requests should include a clear description and justification of the project.

**Economic Development Funds:** These funds were created to expedite transportation projects that promote commercial growth as well as either job creation or job retention. Funds projects up to \$400,000 per fiscal year, unless otherwise approved by the Secretary of Transportation. New access roads must be approved by NCDOT and serve multiple property owners or government owned property; roads will become part of the State Highway System or serve as public roads maintained by a government agency.

**High Impact / Low-Cost Funds:** This program provides funds to complete low-cost projects with high impacts to the transportation system including intersection improvement projects, minor widening projects, and operational improvement projects. Funds are allocated equally to each of 14 Transportation Divisions. Each Division is responsible for selecting their own scoring criteria for determining projects funded in this program. At a minimum, Divisions must consider all of the following in developing scoring formulas: (1) The AADT of a roadway and whether the proposed project will generate additional traffic. (2) Any restrictions on a roadway. (3) Any safety issues with a roadway. (4) The condition of the lanes, shoulders, and pavement on a roadway. (5) The site distance and radius of any intersection on a roadway. Funds are available for projects up to \$1.5 million per fiscal year, unless otherwise approved by the Secretary. Projects are expected to be under contract within 12 months of funding approval by the BOT.

<https://connect.ncdot.gov/projects/planning/Economic%20Development/Small%20Project%20Fund%20Request.docx>

## Local Funding Opportunities

While Federal funding can support high-cost projects, local funding is often ideal for supporting the delivery of specific components of greenway projects or as a match for Federal funding programs. Municipalities often plan for funding of bicycle and pedestrian facilities through their Capital Improvement Program (CIP). Local funding is often necessary to supplement Federal and state funding and can come in various forms.

**Legacy Investment From Tourism (LIFT) Fund**

The Buncombe County Tourism Development Authority’s Legacy Investment from Tourism (LIFT) Fund provides financial investment through grants, loan guarantees, or pledges of debt service to tourism-related capital projects that will increase patronage of lodging facilities and benefit the community at large in Buncombe County. The application for LIFT is a two-stage process, and successful Phase I applicants are invited to complete a more comprehensive application for Phase II.

- **Total Annual Funding:** Contingent on annual occupancy tax collection
- **Application Deadline/Cycle:** Annual - December
- **Project Awards:** No identified minimum/maximum
- **Match Requirements:** 1-to-1 match
- **Eligible Applicants:** Federally recognized non-profit organizations or government entities
- **Eligible Projects:** Tourism-related capital projects, such as, construction of a new location or relocation; Expansion of an existing location; Maintenance of a tourism-related capital project; Design of a tourism-related capital project; Enhancement of natural resources Expansion of necessary infrastructure.

<https://www.ashevillecyb.com/lift/>

**Tourism Product Development Fund (TPDF)**

The Buncombe County Tourism Development Authority, through the Tourism Product Development Fund (TPDF), has provided more than \$86 million

through 64 investments in 41 community projects since 2001, ranging from greenways to sidewalks to public art to landscaping. Eligible projects must be located in Buncombe County, must not solely benefit a single lodging property, must demonstrate ability to attract tourists, and must be a major tourism capital project.

- › **Total Annual Funding:** Contingent on annual occupancy tax collection
- › **Application Deadline/Cycle:** Annual – May
- › **Project Awards:** No identified minimum/maximum
- › **Match Requirements:** 1-to-1 match
- › **Eligible Applicants:** Federally recognized non-profit organizations or government entities
- › **Eligible Projects:** Attract tourists and further economic development; Increase the patronage of lodging facilities in Buncombe County; Benefit more than one lodging owner/property; Be planned on property under legal control by the applicant.

<https://www.ashevillecvb.com/tourism-product-development-fund-timeline/>

### Bonds

Towns can propose bonds to protect open space corridors and build greenway networks, as has been seen in Wake County, City of Raleigh, City of Wilmington, Town of Chapel Hill, and City of Greenville. For example, Wake County successfully passed a \$120 million Parks, Greenways, Recreation and Open Space Bond in 2018. Successful bond campaigns require a well-defined plan with specific projects supported by the community. Bond campaigns should be well organized with a community's public affairs department and thoroughly coordinated across all internal departments. Public outreach during the campaign is essential to educate residents about the benefits of infrastructure investment and to understand which projects garner the highest community support.

### Developer Built Trails/In-Lieu Fees

North Carolina communities can require developers to dedicate land for greenways and recreational areas, open space, streets, and sidewalks through local land use and development ordinances. In-lieu fees are one-time fees that developers pay to municipalities instead of dedicating land for these purposes. These fees can then be used to fund larger capital and operational improvements. For example, the Town of Cary built its first greenway 40 years ago, now has over 80 miles of greenway trails,

and requires developers to set aside important open space providing trail connectivity, wildlife habitat corridors, and water quality protection. Cary requires developers to dedicate land or make payment in-lieu of public park and/or greenway development to serve the recreational needs of residents.

The Patton Avenue Corridor could benefit from in-lieu fees due to the intersection of private developments with the project area. These fees can be used as match funding for Federal grant opportunities.

### Developer Constructed/Development Agreements

Development agreements are legislative land use tools that allow local governments to negotiate binding contractual agreements with private property owners that vest developers' rights while allowing for a jurisdiction to obtain community benefits. Development agreements can secure enhanced public amenities in exchange for expanded land use entitlements beyond those that could otherwise be secured through conditional rezoning or regulatory tools like site plans and subdivision approvals. In 2005, the North Carolina General Assembly enacted Part 3D of North Carolina General Statute (NCGS) 160A, Article 9 that authorized municipalities and counties to enter into these agreements to facilitate larger scale development projects that include the implementation of public infrastructure projects. NCGS 16D Article 10, enacted in 2019, expanded options for development agreements to allow them to be used for smaller projects, and allowing provisions to be incorporated into zoning conditions.

### Capital Improvement Plan

A Capital Improvement Program (CIP) is one element in a municipality's long-term planning process. It is a bridge between the municipality's Comprehensive Plan and short-term planning for infrastructure and operations. A Capital Improvement Program analyzes major facility and equipment needs, establishes priorities, estimates fiscal resources, and schedules the development of funded projects. For example, the City of Raleigh funds parks, greenways, and active transportation facilities through their Capital Improvement Program. The Parks, Recreation and Cultural Resources Department's CIP primary sources of funding come from Parks and Recreation Bonds, Facility Fees, General Fund (Tax Base), grants, and donations.

### Zoning Requirements

Conditional zoning is a popular development regulation tool. The standards in conventional zoning districts must be uniformly applied throughout a city or county. The same permitted uses and dimensional standards apply to all property placed in the same zoning district. However, conditional zoning districts can include individualized development conditions. For some developments, the location, construction standards, and financing of roads, utilities, parks, and greenways are important for both the developer and local government. G.S. 160D-1006(d) allows a development agreement to include mutually acceptable provisions for financing public facilities, provided any measures offered by the developer beyond those that could be required by the local government are expressly set out in the agreement. These additional measures can include donation of land and construction of public facilities but cannot include a tax or impact fee not otherwise authorized.

### Impact Fees

Impact fees are financial payments made by developers to help fund off-site capital improvements needed to support new growth. However, in North Carolina, local governments may only impose impact fees if explicitly authorized by the state legislature. As a result, most local governments do not have the legal authority to collect broad-based impact fees for transportation or parks unless such authority has been granted through local legislation.

One example is the City of Durham, which has specific legislative authority to assess transportation and parks and recreation impact fees. Durham uses these fees to help fund improvements such as new streets and sidewalks, resurfacing, street widening, traffic control signals, and lighting, as well as the acquisition and development of parks, trails, athletic fields, recreation centers, and other public amenities.

### Private Funding Opportunities

Private grant opportunities offer more limited information on the number of applications received per cycle, so determining the competitiveness of the funding sources listed in this section is nebulous. With few exceptions, private grant awards are often smaller.

### Public/Private Partnerships

Public private partnerships (P3s) are long-term contractual agreements between a public agency and a private entity to design, build, finance, operate and/or maintain infrastructure projects. This allows for greater private participation in the delivery of projects and allows private partners to share in the risks for design, construction, finance, and long-term operation of facilities. P3s give public entities access to private capital, technology and expertise; and can accelerate project delivery, encourage innovation, and allow partners to manage projects more efficiently. However, they require substantial up-front administrative costs and procurement may involve complicated financial and legal issues. P3s may not deliver the best value as compared to traditional or other alternative delivery methods.

Partnerships engender a spirit of cooperation, civic pride, and community participation. The key to the involvement of private partners is to make a compelling argument for their participation. For example, specific segments of a greenway may make connections to employment centers or potential partners' place of business, which would incentivize private participation in its design and construction. Furthermore, signage at trail heads or interpretive signage along greenway systems can incentivize private participation through name recognition for corporate partners. Asheville has a history of success with P3s, a strategy employed as far back as the mid-1980s to leverage funds and revitalize historic buildings along Wall Street. In 1997, the City of Asheville passed a resolution for a revised Economic Development Incentive Policy, which created funding for Industrial Development Grants, Business Development Grants, and the Infrastructure Development Program. More recently, the City of Asheville's Housing Trust Fund has been leveraged to provide funding for affordable housing in Asheville and surrounding region. By leveraging public and private funds, the City of Asheville could advance the Patton Avenue Corridor through design, engineering, and construction.

### Corporate Sponsorships

Corporate sponsorships create a pathway for corporations or nonprofits to develop long term partnerships fitting with their priorities. By offering opportunities for corporations to sponsor construction or signage, they can market their company while also contributing to the development of a trail. Furthermore, a trail or greenway can offer various levels of corporate sponsorship to accelerate the development of projects. For example,

Buncombe County established a corporate sponsorship program for their Connect Buncombe effort.

<https://connectbuncombe.org/wp-content/uploads/2022/05/Corp-Sponsor-flyer-electronic-5822.pdf>

### AARP Community Challenge

The AARP Community Challenge provides small grants to fund quick-action projects that can help communities become more livable for people of all ages. AARP accepts applications for projects that improve public spaces, housing, transportation, civic engagement, coronavirus recovery, diversity, and inclusion, and more. Project types include those that provide permanent physical improvements in the community, temporary demonstrations that lead to long-term change, and innovative programming or services. The program is open to 501(C)(3), 501(C)(4) and 501(c)(6) nonprofits and government entities. Grants can range from several hundred dollars for smaller, short-term activities to several thousand or tens of thousands of dollars for larger projects.

- › **Total Funding:** \$3.6 million
- › **Grant Deadline/Cycle:** March – Annual
- › **Project Awards:** \$500 to \$50,000
- › **Match Requirements:** N/A
- › **Eligible Applicants:** Governments and nonprofit organizations
- › **Eligible Projects:** Projects that improve public spaces, transportation, and inclusion that provide permanent physical improvements in the community and innovative programming or services.

Additionally, AARP has introduced a Capacity Building Microgrant program, which provides \$2,500 to either conduct a walk audit to enhance pedestrian safety and walkability or to start/grow a community garden. The Capacity Building Microgrant is better suited to fund amenities after the construction of the greenway.

<https://www.aarp.org/livable-communities/community-challenge/>

### Golden LEAF Foundation

The Golden LEAF Foundation is a nonprofit organization established in 1999 to receive a portion of North Carolina's funding received from the 1998 Master Settlement Agreement with cigarette manufacturers. Golden LEAF works

to increase economic opportunity in North Carolina's rural and tobacco-dependent communities through leadership in grantmaking, collaboration, innovation, and stewardship as an independent and perpetual foundation. Golden LEAF's grantmaking focuses on the following priorities: Job creation and economic investment; workforce preparedness; agriculture; and community competitiveness, capacity, and vitality. Golden LEAF has two standard programs open to eligible entities seeking grants: Open Grants Program and Economic Catalyst Program. These programs complement other ongoing initiatives of the Foundation, such as the Community-Based Grants Initiative.

**Open Grants Program:** The Open Grants Program process is open to all governmental entities and 501(c)(3) organizations that propose projects in Golden LEAF's priority areas. This program is for economic development projects aligned with the Golden LEAF priority areas. Most awards in the Open Grants Program will be for \$200,000 or less.

**Economic Catalyst Program:** The Economic Catalyst process is open to governmental entities and 501(c)(3) organizations with projects that will create jobs at risk without Golden LEAF funding. Grants include funds for public infrastructure, job training, upfit for buildings owned by governmental or nonprofit entities, or equipment acquisition where the building or equipment will be leased or sold at fair-market value to a company creating jobs. Grants are available only for projects that include a specific company's commitment to create full-time jobs in NC.

**Community-Based Grants Initiative:** Each year, the Golden LEAF Foundation invites organizations from counties from a different Prosperity Zone to participate in the Community-Based Grant Initiative (CBGI). The process is competitive, but organizations from all counties within the Prosperity Zone will have an opportunity to apply. The CBGI identifies projects with the potential to have a significant impact. It is a focused process with grants targeted toward investments in the building blocks of economic growth. Projects must address economic development, agriculture, workforce preparedness, infrastructure, and capital costs necessary to create health care jobs. County managers serve a key role in the process. Each county manager will submit a slate of up to four projects for consideration. Applicants must be 501(c)(3) organizations or governmental entities, such as county and municipal governments, community colleges, or universities. Golden Leaf limits awards to no more than three projects per county and

will total no more than \$1.5 million per county.

**Flood Mitigation Program:** Each year, Golden LEAF funds local governments that aim to construct new or improve existing stormwater infrastructure, including natural drainage and flood control equipment, repair existing stormwater infrastructure, support engineering expenses related to planning and development of flood mitigation solutions. The deadline for this funding is in March, annually, and applicants can request up to \$2 million per project.

### People for Bikes Community Grant Program

The People For Bikes Community Grant Program supports bicycle infrastructure projects and targeted advocacy initiatives that make it easier and safer for people of all ages and abilities to ride. People For Bikes accepts grant applications from non-profit organizations with a focus on bicycling, active transportation, or community development; city or county agencies or departments, and state or Federal agencies working locally. People For Bikes focuses most grant funds on bicycle infrastructure projects, such as bike paths, lanes, trails and bridges, mountain bike facilities, bike parks and pump tracks, BMX facilities, and end-of-trip facilities such as bike racks, bike parking, bike repair stations and bike storage. Advocacy projects funded through the program include open street events and campaigns to increase investment in bicycle infrastructure. People For Bikes accepts requests for funding up to \$10,000. People For Bikes does not require a specific percentage match, but they will not consider requests in which the grant funding would amount to 50% or more of the project budget.

<https://www.peopleforbikes.org/grant-guidelines>

### National Association of Realtors Placemaking Grants

The National Association of Realtors (NAR) funds placemaking and smart growth grants to make communities better places to live by transforming unused or underutilized sites into welcoming destinations accessible to everyone in a community.

**Smart Growth Grants:** Smart Growth grants can fund visioning sessions, community workshops, and placemaking visioning for meaningful transportation projects and issues. These community planning activities would align with the intent of the greenway feasibility study and contribute to intentional and thoughtful collection of public input over the course of

the development of the Washington–Greenville Greenway.

**Placemaking Grants:** Placemaking Grants fund the creation of new, outdoor public spaces and destinations in a community. This program funds amenities such as street furniture, paint, signage, materials, landscaping, murals, site preparation, and artist fees. A state or local REALTOR® association must submit applications, and grants provide up to \$5,000 per award.

<https://realtorparty.realtor/community-outreach/>

### Two for the Trails (Athletic Brewing Company)

Athletic Brewing Company provides funding to protect and restore trails, waterways, beaches, parks, and urban areas in need of maintenance.

- › **Total Funding:** \$2 million annually
- › **Grant Deadline/Cycle:** Summer – Annual
- › **Project Awards:** up to \$50,000
- › **Match Requirements:** 20%
- › **Eligible Applicants:** Any registered LLC with an environmental cleanup project.
- › **Eligible Projects:** Projects that restore trails and outdoor recreation facilities.

<https://athleticbrewing.com/pages/two-for-the-trails-application>

### Rails to Trails Trail Grants

Rails to Trails Conservancy sponsors this grant program to invest in the necessary infrastructure and programming to create more access to trail. These grants help organizations and government agencies accelerate their trail network plans, while supporting community-based organizations working to connect more people to these spaces in neighborhoods across the country. Since 2008, almost \$3 million has been awarded to more than 225 organizations.

<https://www.railstotrails.org/our-work/grants/>

## Technical Assistance Programs

The following Technical Assistance Programs can be leveraged to provide additional design and technical expertise to assist with obtaining funding and providing additional resources during the design and construction processes.

### The National Park Service (NPS) Rivers, Trails, and Conservation Assistance (RTCA)

Program supports community-led natural resource conservation and outdoor recreation projects across the nation. Although RTCA is not a traditional funding program, NPS staff provide planning, design and technical expertise for trails and outdoor recreation projects. Depending on the scale of the project, RTCA can invest up to four years of planning and project development assistance. Eligible entities include community groups, nonprofit organizations, tribes, and government agencies. Technical assistance services include:

- › Define project vision and goals.
- › Set priorities and build consensus.
- › Inventory and map community resources.
- › Identify funding strategies.
- › Identify and analyze key issues and opportunities.
- › Design community outreach, participation, and partnerships plans.
- › Create project management and strategic action plans.
- › Develop concept plans for trails, parks, and natural areas.

<https://www.nps.gov/orgs/rtca/index.htm>

### Building Blocks for Sustainable Communities

Local land use decisions, such as transportation options, housing type and location, stormwater management, and issues of equity, all have direct impacts on the health and environment of our communities. Founded in 2011, the Building Blocks for Sustainable Communities program collaborates with local communities across the US including tribes and territories, to develop smart growth solutions and strategies in ways that benefit human health and the environment. The program uses an inclusive and locally-led process that strengthens local capacity, facilitates partnerships, and creates a path forward to achieve community-identified goals.

EPA staff and EPA-hired consultant teams deliver the Building Blocks for Sustainable Communities technical assistance program. Each technical

assistance project spans a period of roughly eight months, including inclusive public engagement through a two-day workshop, the involvement of relevant decision-makers and potential public and private sector partners, and a report outlining the workshop process and specific next steps that the community could take to achieve its goals. The workshop focuses on the issues and priorities determined by the community.

The application for Building Blocks consists of a two-page letter of interest that outlines the issue(s) the community wishes to address. The most recent call for letters closed in 2020. Between 6 and 56 communities are selected each year to receive technical support through Building Blocks for Sustainable Communities depending on the funding available.

<https://www.epa.gov/smartgrowth/building-blocks-sustainable-communities>

## Appendix C: Additional Analyses and Maps

Approximately 50% of the study area has a high social vulnerability score, while the other half has a lower score. It is important to note that the Hillcrest neighborhood is in the same census tract as the Montford neighborhood. Montford is an affluent area of Asheville, while Hillcrest is historically disadvantaged. The Social Vulnerability Index (SVI) is a dataset produced by the Centers for Disease Control & Prevention (CDC) using Census Data related to socioeconomic Status, Household Characteristics, Racial + Ethnic Minority Status, and Housing + Transportation. Each Census Tract is assigned an index value between 0 and 1 which indicates how vulnerable the tract is compared to all other tracts in the United States. So while the SVI score appears lower, there is still a disadvantaged population in that area, one that has faced challenges at the hands of roadway planning and construction in decades past.



Figure C.1: Social Vulnerability Index

This graphic depicts some locations of development around the Patton Avenue Corridor. Within the last few years, the corridor has seen a significant increase in the amount of hotels and residential options in the downtown area, leading to much more tourism and residential activity. In turn, this development has led to the need for additional service related needs, such as grocery stores, drug stores, restaurants, and others.



Figure C.2: Land Use Development

The study area also remains a hotspot for pedestrian and bicyclist crashes as well as fatal and serious injury crashes. When considering the high volumes of crashes along the corridor in conjunction with a high density of transit stops, the importance of incorporating safety measures and multimodal features into the design recommendations becomes apparent. Figure C.6 shows transit stops and fatal or serious bike and pedestrian crashes.

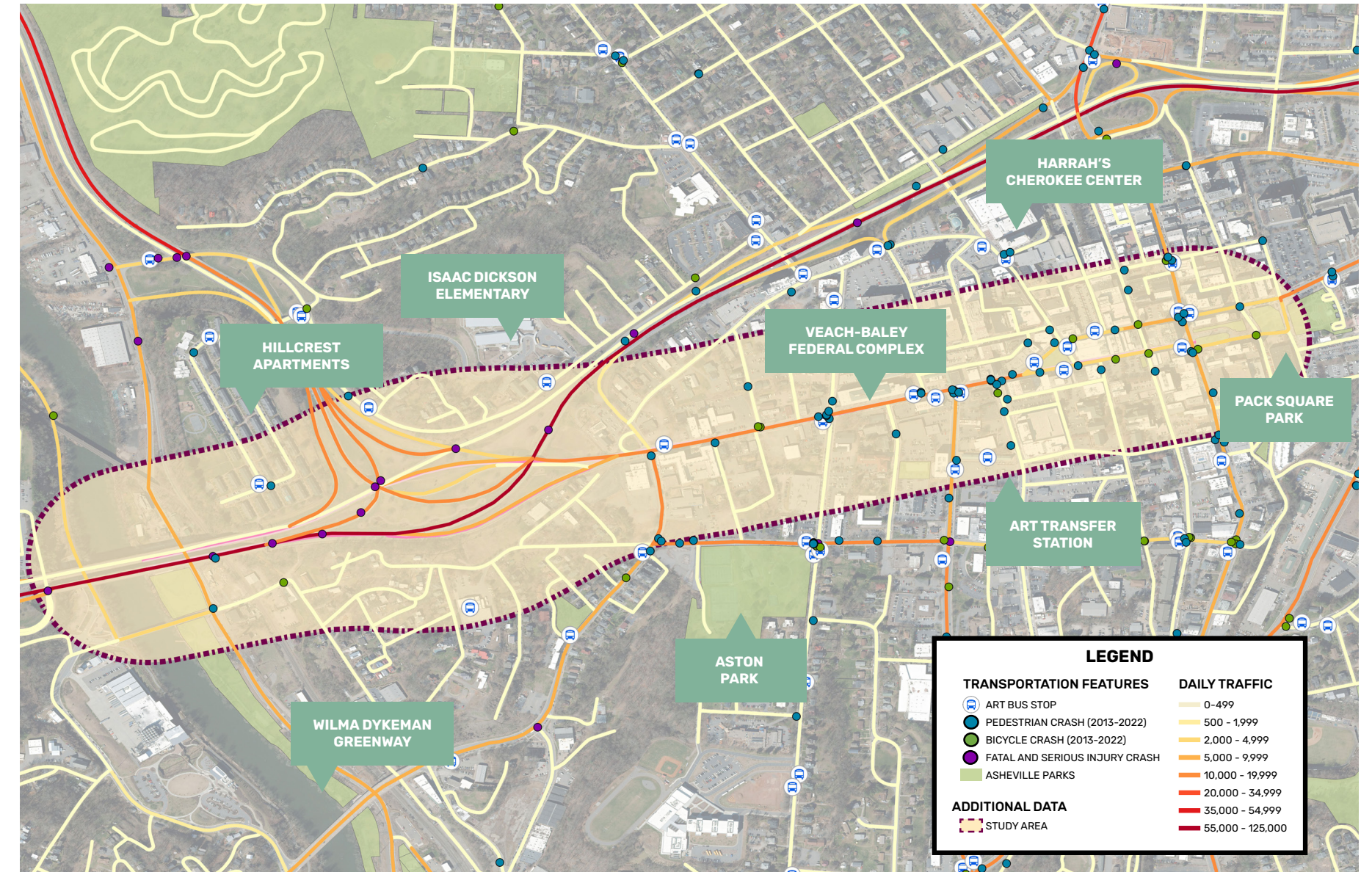


Figure C.3: AADT, Bike/Ped Crashes, Transit Stops

## Close the Gap Network

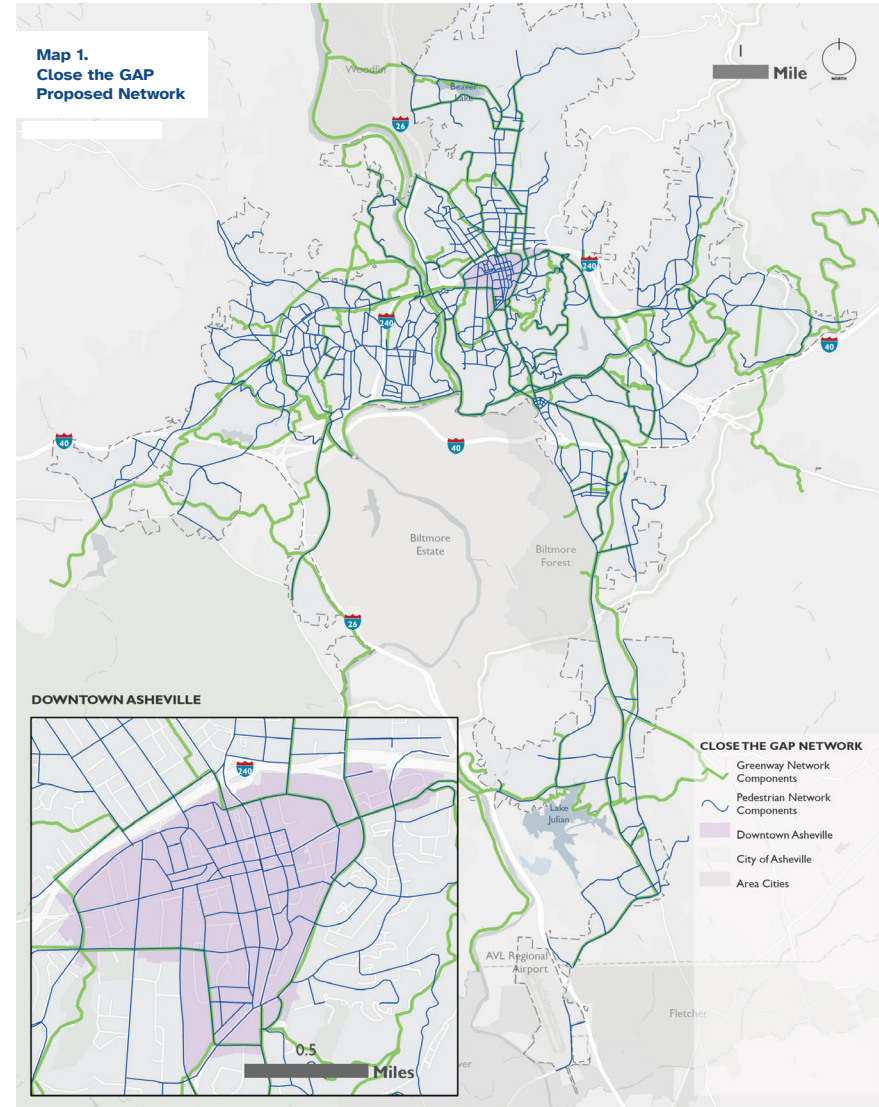
In October 2022, City Council adopted the GAP Plan. This plan provides updates to the City of Asheville’s Greenway Master Plan (G), ADA Transition Plan (A), and Pedestrian Master Plan (P) in one comprehensive document.

These plans were combined because it was understood that Asheville’s overall pedestrian network would be stronger if the three aspects – greenways, ADA accessibility, and pedestrian networks – are considered and planned at the same time. The GAP Plan identifies greenway, accessibility, and pedestrian networks for the community as well as programs and policies to support the expansion of these networks. The GAP Plan presented a tailored scoring methodology for prioritization of ADA and pedestrian improvements, a list of 10 priority greenway projects, and recommendations for policy updates.

Close the GAP is a three-component plan to create a cohesive and interconnected network of accessible sidewalks and greenways throughout the community, aligning with the vision for updated and expanded infrastructure. **Figure C-4 - Close the GAP Proposed Network** illustrates the proposed network that will support the Close the GAP Initiative. By integrating key components from the Downtown Patton Avenue corridor, this feasibility study aims to support a robust active transportation network. Planning for the Downtown Patton Avenue Corridor supports the intent of the GAP Plan by proposing improvements to the transportation network comprehensively and aiming for safer streets for all users.



**Image C.1: Family on the Greenway**



**Figure C.4: Close the GAP Proposed Network**

# Appendix D: TPD, Inc. Corridor Traffic Memo



### Memo

**To:** City of Asheville  
**From:** Colin Kinton, *Signed by: S. Colin Kinton*  
**Date:** September 27, 2023  
**Re:** **Downtown Patton Avenue Corridor Study**  
 Asheville, North Carolina  
 TPD# COAS.00020

The purpose of this memo is to summarize the analysis completed for the Downtown Patton Avenue Corridor Study located in Asheville, North Carolina.

### Data Collection

Intersection traffic counts were conducted at 15-minute intervals on Wednesday, November 8<sup>th</sup>, 2023, between 7:00 to 9:00 AM and 4:00 to 6:00 PM. The morning peak hour observed was 7:45 to 8:45 AM and the afternoon peak hour observed was 4:30 to 5:30 PM. Data pertaining to heavy vehicles, bicycles and pedestrians were observed during the data collection. Traffic counts were conducted for the following study area intersections listed below:

- » Patton Avenue and Clingman Avenue
- » Patton Avenue and N Ann Street/S Ann Street
- » Patton Avenue and Carter Street
- » Patton Avenue and N/S French Broad Avenue
- » Patton Avenue and Otis Street
- » Patton Avenue and Ashland Avenue
- » Patton Avenue and Coxe Avenue
- » Clingman Avenue and Hilliard Avenue

In addition to the intersection counts, Automatic Traffic Recorder (ATR) counts were conducted along Patton Avenue at the following locations for 48 hours on Wednesday, November 8<sup>th</sup> and Thursday, November 9<sup>th</sup>, 2023:

- » Between Clingman Avenue and Pearl Street
- » Between N/S French Broad Avenue and Grove Street
- » Between Ashland Avenue and Coxe Avenue
- » East of Church Street

Data collection sites and existing traffic volumes are illustrated in **Figure 1**. Existing bicycle and pedestrian volumes are illustrated in **Figure 2**. Eastbound and westbound hourly flow volumes for the four ATR count sites are illustrated in **Figure 3** and **Figure 4**. Manual turning movement count worksheets are provided in **Appendix A**.

### Existing Study Area Characteristics

Patton Avenue provides for two-way traffic, with two travel lanes in each direction west of Coxe Avenue. Existing sidewalks are located on both sides of the roadway. Marked crosswalks, curb ramps, and pedestrian countdown signal heads are present at each of the signalized intersections. There is an auxiliary left-turn lane for eastbound Patton Avenue at Clingman Avenue. The eastbound outside thru-lane drops as a right-turn only lane at Coxe Avenue. Westbound Patton Avenue provides an auxiliary left-turn lane at Coxe Avenue. All other intersection approaches on Patton Avenue do not provide auxiliary turn lanes.

Existing traffic signals along Patton Avenue are located at Clingman Avenue, French Broad Avenue, Otis Street, Ashland Avenue and Coxe Avenue. In addition, the intersection of Clingman Avenue and Hilliard Avenue is a four-legged, signalized intersection included in the study area.

Existing signal plans are provided in **Appendix B**.

### Future Study Area Characteristics

As part of Asheville’s Close the Gap initiative, Patton Avenue is a top priority to receive improved bicycle connectivity, accessibility needs, and reduced pedestrian crossing distances and exposure. Several other countermeasures have been considered for Patton Avenue to improve safety. Countermeasures analyzed include the application of a road diet to Patton Avenue between Clingman Avenue and Church Street (reducing the number of through lanes in each direction from two to one), access management improvement with installation of landscaped medians, and installation of roundabouts at Patton Avenue and Clingman Avenue and at Clingman Avenue and Hilliard Avenue.

The proposed Patton Avenue road diet would convert the existing four-lane roadway to a three-lane roadway. One travel lane would be provided in each direction, separated by a landscaped median and auxiliary left-turn lanes where appropriate.

In addition to the existing signalized intersections, roundabouts have been identified as alternative improvements for the intersections of Patton Avenue at Clingman Avenue and Clingman Avenue at Hilliard Avenue. The proposed roundabout for Patton Avenue at Clingman Avenue has been analyzed as a hybrid 2-1 roundabout. The east leg of Patton Avenue would contain two entering westbound lanes, and two exiting eastbound travel lanes. The west leg of Patton Avenue would contain one entering eastbound lane, and two exiting westbound travel lanes. The south Clingman Avenue leg would contain one entering northbound lane and one exiting southbound lane. The north Clingman Avenue leg would contain one entering southbound leg, and one exiting northbound lane. Slip lanes and bypass lanes were evaluated to identify necessary geometry to support future volumes.

The roundabout proposed for Clingman Avenue and Hilliard Avenue intersection has been analyzed as a single lane roundabout without any slip lanes/bypass lanes.

### 2045 Future Traffic Volumes

To develop Year 2045 Future Traffic Volumes along the Patton Avenue Corridor, TPD utilized the I-26 Connector Project I-2513 forecast projections along with additional growth factors and volume balancing between intersections where necessary. Patriot Transportation Engineering, PLLC prepared the 2045 AADT (Average Annual Daily Traffic) Build volume projections as part of the proposed I-26 Connector Project I-2513.

The following intersections from the Patriot Transportation Engineering 2045 AADT volumes were utilized to develop the 2045 Future Projections for the Downtown Patton Avenue Corridor:

- » Patton Avenue & Clingman Avenue
- » Patton Avenue & N/S French Broad Avenue
- » Clingman Avenue & Hilliard Avenue

Volumes from the above-mentioned intersections were extrapolated to create Year 2045 Future Volumes for the remaining intersections along the corridor. Side street turning movement volumes were calculated using ratios from existing volumes and the projected distribution proportions from the I-26 Connector project. Traffic volumes throughout the corridor have been balanced based on the existing data and future projection data.

The 2045 Future Projected weekday AM and PM peak hour traffic volumes are illustrated in **Figure 5A**. The 2045 AADT projection prepared by Patriot Transportation Engineering, PLLC along with other volume development materials are provided in **Appendix C**

**Capacity Analysis**

Capacity analyses were conducted for the weekday AM and PM peak hours at the study area intersections. These analyses were conducted according to the methodologies contained in the *Highway Capacity Manual (HCM) 6<sup>th</sup> Edition*, using *Synchro 11* software, a Trafficware product. Capacity Analysis worksheets are provided in **Appendix D**.

The following scenarios were analyzed, as applicable:

- » Existing
- » Existing with Road Diet
- » 2045 Future No Build
- » 2045 Future with Road Diet
- » 2045 Future with Roundabout
- » 2045 Future with Road Diet and Roundabout

The capacity analyses were conducted in accordance with NCDOT's *Policy on Street and Driveway Access to North Carolina Highways*.

Intersection levels of service (ILOS) are summarized in **Tables 1 and 2**. Detailed Level of service (LOS) tables for the study area intersections are provided in **Appendix E**.

TABLE 1  
INTERSECTION LEVELS OF SERVICE – AM PEAK HOUR

Intersection	2023		2045			
	Existing	Existing - Road Diet	Future	Future - Road Diet	Future - Roundabout	Future - Road Diet & Roundabout
Patton Avenue & Clingman Avenue	C (23.2)	C (23.2)	C (24.2)	C (23.5)	B (11.3)	C (18.9)
Patton Avenue & French Broad Ave.	B (15.5)	B (15.5)	C (24.6)	C (21.8)	C (26.4)	C (17.9)
Patton Avenue & Otis Street	B (10.8)	B (10.8)	B (14.9)	B (10.8)	B (17.7)	E (57.0)
Patton Avenue & Asheland Avenue	A (8.8)	A (8.8)	A (8.9)	B (14.6)	A (8.9)	C (26.6)
Patton Avenue & Coxe Avenue	A (9.2)	A (9.2)	A (9.9)	B (11.3)	A (9.9)	B (13.1)
Clingman Avenue & Hilliard Avenue	C (30.0)	C (30.0)	D (49.3)	C (23.0)	B (11.9)	C (16.5)

LOS (Seconds of Delay)

TABLE 2  
INTERSECTION LEVELS OF SERVICE – PM PEAK HOUR

Intersection	2023		2045			
	Existing	Existing - Road Diet	Future	Future - Road Diet	Future - Roundabout	Future - Road Diet & Roundabout
Patton Avenue & Clingman Avenue	C (29.8)	C (28.1)	D (44.7)	C (33.9)	C (16.5)	C (19.3)
Patton Avenue & French Broad Ave.	B (17.6)	C (21.3)	C (27.5)	D (45.2)	C (28.2)	D (51.7)
Patton Avenue & Otis Street	A (7.7)	B (11)	B (16.1)	B (18.6)	B (18.4)	D (50.2)
Patton Avenue & Asheland Avenue	B (19.6)	C (30.1)	C (25.1)	C (27.4)	C (25.1)	D (52.1)
Patton Avenue & Coxe Avenue	C (20.2)	C (34.7)	C (21.7)	C (31.8)	C (21.7)	D (36)
Clingman Avenue & Hilliard Avenue	C (27.4)	C (27.4)	D (45.6)	D (38.5)	B (13.9)	C (17.4)

LOS (Seconds of Delay)

**Queue Analysis**

Queue analyses were conducted at the study area intersections using *Synchro 11* software. For this analysis, the 95<sup>th</sup> percentile Synchro queue and Simtraffic Max Observed queue were recorded. For this analysis, the 95<sup>th</sup> percentile queue is defined as the queue length that is exceeded in 5% of the signal cycles. As an example, for a signal with a 90-second cycle, this means that the 95<sup>th</sup> percentile queue length will be exceeded during 2 of the 40 signal cycles that occur during the peak hour. Queueing for critical movements are provided in **Tables 3 and 4**. The complete *Synchro* and *Simtraffic* queue tables are provided in **Appendix E**.

TABLE 3  
95<sup>TH</sup> PERCENTILE SYNCHRO QUEUE AND SIMTRAFFIC MAX QUEUE ANALYSIS – AM PEAK HOUR

Movement	Available Storage	2023			
		Existing		Existing - Road Diet	
		Synchro	Simtraffic	Synchro	Simtraffic
<b>Patton Avenue &amp; Clingman Avenue</b>					
EBL	375	59	249	59	250
WBL	--	--	--	--	--
NBL	225	275	313	275	323
<b>Patton Avenue &amp; French Broad Avenue</b>					
EBL	995	57	115	<25	66
WBL	450	<25	74	<25	46
NBL	185	59	100	59	90
SBL	75	44	124	44	115
<b>Patton Avenue &amp; Otis Street</b>					
EBL	450	78	187	<25	74
SBL	50	86	98	86	114
SBR	740	25	85	25	109
<b>Patton Avenue &amp; Asheland Avenue</b>					
WBL	150	51	108	33	75
NBL	225	168	172	168	261
NBR	400	35	121	35	343
<b>Patton Avenue &amp; Coxe Avenue</b>					
WBL	145	<25	78	<25	67
NBL	470	87	132	87	119
NBR	135	53	89	53	94
<b>Clingman Avenue &amp; Hilliard Avenue</b>					
SBL	75	468	545	468	534

## - Queue (feet)

TABLE 3 (CONTINUED)  
95<sup>TH</sup> PERCENTILE SYNCHRO QUEUE AND SIMTRAFFIC MAX QUEUE ANALYSIS – AM PEAK HOUR

Movement	Available Storage	2045							
		Future		Future - Road Diet		Future - Roundabout		Future - Road Diet & Roundabout	
		Synchro	Simtraffic	Synchro	Simtraffic	Synchro	Simtraffic	Synchro	Simtraffic
<b>Patton Avenue &amp; Clingman Avenue</b>									
EBL	375	104	250	120	250	78	2072	78	919
WBL	--	--	--	<25	55	30	254	30	50
NBL	225	354	325	197	272	126	207	126	59
<b>Patton Avenue &amp; French Broad Avenue</b>									
EBL	995	222	130	<25	74	296	119	54	75
WBL	450	172	231	<25	92	172	220	37	114
NBL	185	75	135	78	133	75	126	75	136
SBL	75	54	124	54	124	54	124	54	124
<b>Patton Avenue &amp; Otis Street</b>									
EBL	450	261	333	<25	74	327	269	<25	74
SBL	50	96	108	98	114	96	109	96	107
SBR	740	28	97	28	101	28	86	28	109
<b>Patton Avenue &amp; Asheland Avenue</b>									
WBL	150	66	138	26	74	66	149	29	75
NBL	225	180	213	182	255	180	203	180	269
NBR	400	39	145	39	304	39	150	39	355
<b>Patton Avenue &amp; Coxe Avenue</b>									
WBL	145	<25	68	25	73	<25	63	<25	74
NBL	470	108	144	105	153	108	138	108	132
NBR	135	66	109	65	109	66	101	66	104
<b>Clingman Avenue &amp; Hilliard Avenue</b>									
SBL	75	531	577	217	100	125	136	125	28

## - Queue (feet)

TABLE 4  
95<sup>TH</sup> PERCENTILE SYNCHRO QUEUE AND SIMTRAFFIC  
MAX QUEUE ANALYSIS – PM PEAK HOUR

Movement	Available Storage	2023			
		Existing		Existing - Road Diet	
		Synchro	Simtraffic	Synchro	Simtraffic
<b>Patton Avenue &amp; Clingman Avenue</b>					
EBL	375	51	136	51	178
WBL	--	--	--	--	--
NBL	225	480	301	480	324
<b>Patton Avenue &amp; French Broad Avenue</b>					
EBL	995	171	126	<25	60
WBL	450	126	175	<25	124
NBL	185	157	203	158	198
SBL	75	31	92	31	74
<b>Patton Avenue &amp; Otis Street</b>					
EBL	450	37	273	<25	74
SBL	50	105	114	105	124
SBR	740	41	138	41	399
<b>Patton Avenue &amp; Asheland Avenue</b>					
WBL	150	230	201	33	74
NBL	225	313	266	313	273
NBR	400	33	250	33	445
<b>Patton Avenue &amp; Coxe Avenue</b>					
WBL	145	29	92	29	74
NBL	470	272	361	272	1066
NBR	135	142	200	148	200
<b>Clingman Avenue &amp; Hilliard Avenue</b>					
SBL	75	244	421	244	59

## - Queue (feet)

TABLE 4 (CONTINUED)  
95<sup>TH</sup> PERCENTILE SYNCHRO QUEUE AND SIMTRAFFIC  
MAX QUEUE ANALYSIS – PM PEAK HOUR

Movement	Available Storage	2045 Future							
		Future		Future - Road Diet		Future - Roundabout		Future - Road Diet & Roundabout	
		Synchro	Simtraffic	Synchro	Simtraffic	Synchro	Simtraffic	Synchro	Simtraffic
<b>Patton Avenue &amp; Clingman Avenue</b>									
EBL	375	115	249	128	249	45	1840	45	267
WBL	--	--	--	<25	64	225	421	225	597
NBL	225	465	325	397	311	152	558	152	75
<b>Patton Avenue &amp; French Broad Avenue</b>									
EBL	995	178	132	<25	74	232	110	130	74
WBL	450	394	384	<25	124	394	535	<25	119
NBL	185	156	259	216	221	156	264	157	225
SBL	75	41	124	42	124	41	112	41	124
<b>Patton Avenue &amp; Otis Street</b>									
EBL	450	267	384	25	74	267	310	62	74
SBL	50	121	123	108	125	121	125	121	124
SBR	740	43	243	39	497	43	331	43	439
<b>Patton Avenue &amp; Asheland Avenue</b>									
WBL	150	259	205	44	74	259	203	38	75
NBL	225	422	274	405	275	422	274	422	275
NBR	400	37	437	37	1218	37	1458	37	1474
<b>Patton Avenue &amp; Coxe Avenue</b>									
WBL	145	36	0	44	75	36	83	36	74
NBL	470	337	450	264	510	337	1114	337	1164
NBR	135	166	200	147	200	166	192	185	200
<b>Clingman Avenue &amp; Hilliard Avenue</b>									
SBL	75	337	572	161	100	168	268	168	298

## - Queue (feet)

**Travel Time Analysis**

TPD also conducted travel time analyses for both the eastbound and westbound directions along Patton Avenue during both the AM and PM peak hours using *Synchro*. **Table 5** below depicts the eastbound and westbound travel times for all existing and future scenarios for both study time periods based on the above methodology. Travel time Synchro reports are provided in **Appendix F**.

TABLE 5  
TRAVEL TIME SUMMARY

Scenario	Eastbound Patton Avenue		Westbound Patton Avenue	
	AM	PM	AM	PM
	Existing	166.9	173.5	159.3
Existing with Road Diet	198.7	188	167.6	194.1
2045 Future	181.6	200.9	177.6	212.7
2045 Future – Road Diet	219.3	229.5	197.2	235.2
2045 Future – Roundabout	119.6	147.2	131.5	139.9
2045 Future – Road Diet and Roundabout	159.6	175.5	145.6	160.5

## - Travel Time (Seconds)

**Hilliard Avenue Connection Alternative**

The 2024 Future Traffic Volume forecast indicates significant traffic will utilize Clingman Avenue between Patton Avenue and Hilliard Avenue to travel between Patton Avenue west of the study area and downtown. Future volumes on Clingman Avenue present significant constraints with northbound left-turns at Patton Avenue and southbound left-turns at Hilliard Avenue resulting in potential queue and left-turn lane blockage during peak hour periods.

The proposed Hilliard Avenue Connection alternative would create a new connection between the Clingman Avenue and Hilliard Avenue intersection and Patton Avenue approximately 900 feet west of the Patton Avenue and Clingman Avenue intersection to divert a portion of the traffic assigned to Clingman Avenue. Due to this proposed diversion, traffic previously making an eastbound right turn from Patton Avenue onto Clingman Avenue would be diverted to turn right on Hilliard Avenue directly from Patton Avenue then travel eastbound through the intersection of Clingman Avenue at Hilliard Avenue. Similarly, traffic previously using northbound left turn lane at Clingman Avenue at Patton Avenue would continue westbound on Hilliard Avenue and avoid impacting Clingman Avenue.

In addition, it is assumed a portion of traffic will shift and use the Hilliard Avenue Connection instead of using Patton Avenue to access I-26 from a simpler connection. The 2045 Future Projected Volumes with a Hilliard Avenue Connection Alternative are illustrated in **Figure 5B**. A comparison between 2045 Future volumes with roundabout and 2045 Future volumes with roundabout and the Hilliard connection are provided in **Table 6**.

TABLE 6  
INTERSECTION LEVELS OF SERVICE

Intersection	Approach	2045	
		Future - Roundabout	Future - Road Diet w/ Hilliard Connection
<b>AM Peak Hour</b>			
Clingman Avenue & Hilliard Avenue	Northbound	C (17.7)	D (28.7)
	Westbound	A (7.8)	A (7.8)
	Southbound	B (10.9)	A (6.5)
	Eastbound	A (7.3)	C (16.6)
Total		B (11.9)	C (16.5)
<b>PM Peak Hour</b>			
Clingman Avenue & Hilliard Avenue	Northbound	B (12.2)	B (12.7)
	Westbound	C (16.0)	C (23.4)
	Southbound	B (13.2)	B (13.4)
	Eastbound	A (8.0)	B (12.0)
Total		B (13.9)	C (17.4)

LOS (Seconds of Delay)

**Conclusion**

TPD completed an analysis for the Downtown Patton Avenue Corridor Study located in Asheville, North Carolina. Intersection traffic counts were conducted at 15-minute intervals at the eight study intersection. Automatic Traffic Recorder (ATR) counts were conducted along Patton Avenue at four locations along Patton Avenue. The 2045 Future Traffic Volumes were developed utilizing the I-26 Connector Project I-2513 forecast projections developed by Patriot Engineering along with additional growth factors and volume balancing between intersections where necessary. Using these volumes, the following scenarios were analyzed:

- » Existing
- » Existing with Road Diet
- » 2045 Future No Build
- » 2045 Future with Road Diet
- » 2045 Future with Roundabout
- » 2045 Future with Road Diet and Roundabout

In addition, TPD completed analysis on the redistribution of traffic due to the proposed Hilliard Avenue Connection which creates a new network connection between Clingman Avenue and Patton Avenue.

If you have any questions or comments related to this preliminary investigation, please call anytime.

*S. Ch. Kt*

Colin Kinton, P.E. | Senior Project Manager, Traffic Engineering  
843. 252. 3417

Attachments:  
Figures  
Appendix

The materials in this Appendix informed the development of the Downtown Patton Avenue Corridor Feasibility Study and will aid in its implementation. Public feedback and technical analysis provided context on existing conditions and future needs, while the identified funding sources offer clear pathways for advancing priority projects. Together, these resources strengthen the plan by grounding recommendations in local context and helping position the City to pursue funding and partnerships that support long-term corridor improvements.



Image C.2: Patton Avenue (Looking East from Clingman Avenue)

Source: City of Asheville

