

RIVANNA RIVER BIKE/PED CROSSING: PRELIMINARY ENGINEERING PHASE



**RAISE GRANT APPLICATION:
PROJECT DESCRIPTION**



Project Description

The Charlottesville-Albemarle Metropolitan Planning Organization (CA-MPO), staffed by the Thomas Jefferson Planning District Commission, has been working towards the construction of a bicycle and pedestrian bridge across the Rivanna River since 2019. CA-MPO has completed multiple planning phases of the project in coordination with staff and elected officials from two local jurisdictions, the Virginia Department of Transportation (VDOT), and community and public stakeholders. Through these efforts the project has evolved from a general idea to the selection of a bridge location and the development of a conceptualized design.

The proposed bridge is located in Albemarle County within the Charlottesville-Albemarle urbanized area (population 104,191 based on the 2020 census). On the west side of the river, the bridge landing would be located on privately developed property with an existing public use easement (Albemarle County Census Tract 104.02). This western landing site would facilitate a direct connection between the bridge landing and downtown Charlottesville via two local roads: East Market Street or Broadway Street. The western landing site, while physically located in Albemarle County, is less than two-tenths of a mile from the City of Charlottesville boundary.

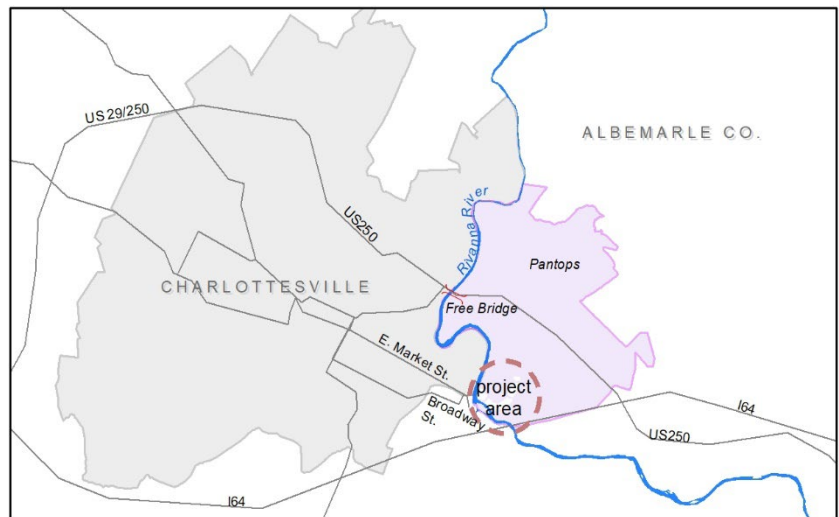


Figure 1. Location map showing proposed bicycle and pedestrian bridge.

On the east side of the river, the bridge landing would be located on public property owned by Albemarle County within the established Pantops growth area (Albemarle County Census Tract 105.02). To provide a connection to the transportation network on the east side of the river, the project includes the construction of a shared use path from the eastern landing site through privately owned property, ending at the intersection of State Farm Boulevard and Peter Jefferson Parkway. From there, travelers could use existing pedestrian pathways, access planned microtransit services within the Pantops growth area, or continue their trip along the existing Pantops road network.

Neither the bridge nor the shared use path are located in an Area of Persistent Poverty or in a Historically Disadvantaged Community. However, the City of Charlottesville is considered an Area of Persistent Poverty¹, and the bridge would provide an essential multi-modal network connection that will improve access to jobs, services, and goods for Charlottesville residents.

¹ [Grant Project Location Verification](#), Persistent Poverty County: Charlottesville.

Transportation Challenges the Project Addresses

A bridge that is safe and comfortable for multi-modal system users is essential to support a number of transportation-related goals, both locally and regionally. This bridge will address several identified transportation challenges:

Improved Access to Jobs, Goods, and Services

The Rivanna River is a physical barrier that limits access to essential jobs, goods, and services on either side. The Pantops growth area is especially segmented, restricted not only by the river on its west side, but by Interstate 64 to the south and bisected by US 250, a principal arterial with a posted speed limit of 45 mph² and an average annual daily traffic count of 53,000 vehicles³. Free Bridge, located along the US 250 Corridor is the only multi-modal access across the river along the shared boundary between the City of Charlottesville and Albemarle County. The next closest crossing opportunity for bicyclists and pedestrians is located south of Interstate 64, almost 10 roadway miles from Free Bridge.

Pantops is both a rapidly growing residential area and a major employment center within Albemarle County. Sentara Martha Jefferson Hospital, a number of medical specialists, two commercial grocery stores, and a high density of other commercial development are all located throughout Pantops. Improving access from the City of Charlottesville to these jobs and services has a significant equity benefit. Coming from the east side of the river, residents of Pantops will have safe and direct access to the amenities offered throughout the City of Charlottesville, including a direct path of travel to the downtown area where there is a high density of jobs, professional services, retail, and entertainment. Albemarle County is specifically interested in linking Pantops with its emerging development areas in Woolen Mills and along Broadway Street (both on the west side of the river).

Safety

Free Bridge is a busy corridor and a stressful place for multi-modal travel. The bridge contains sidewalks, but does not include bike lanes, and there are no physical barriers separating bicyclists and pedestrians from the vehicular traffic. The bridge conditions are not only uninviting to multi-modal travelers, but are associated with identified safety risks. There were two recorded pedestrian-involved crashes that occurred directly on the bridge in 2020⁴, and the US 250 corridor more generally is within the top 1% of corridors needing pedestrian safety improvements statewide⁵. An alternative crossing option that separates multi-modal travelers from vehicles will reduce the risks that bicyclists and pedestrians face as they travel throughout the region.

² <https://www.virginiaroads.org/maps/VDOT::vdot-speed-limits-map/explore?location=38.034018%2C-78.457895%2C18.61>

³ [Daily Traffic Volume Estimates Including Vehicle Classification Estimates - Jurisdiction Report 02](#), Virginia Department of Transportation, 2019.

⁴ [Pedestrian Safety Action Plan Map Viewer 3.0](#), Virginia Department of Transportation.

⁵ [Pedestrian Safety Action Plan Map Viewer 3.0](#), Virginia Department of Transportation.

Environmental Sustainability

Both Albemarle County⁶ and the City of Charlottesville⁷ have identified climate action initiatives as priorities and have adopted plans to proactively pursue initiatives that will reduce climate change impacts. The transportation sector is a significant contributor to current greenhouse gas and carbon emissions as indicated in both plans. There is a high level of commuting across the river between Pantops and City of Charlottesville that could be converted to bicycle or pedestrian trips if the infrastructure can provide an appealing alternative. This project supports recommendations developed in both localities' climate action plans by improving the multi-modal network and encouraging active transportation options connecting two currently segmented high-density areas. This would reduce reliance on single occupancy vehicles.

Project Context

Significant planning level work has been completed to-date, including the completion of a feasibility study funded by VDOT to determine potential bridge alignments⁸, targeted public engagement conducted by the CA-MPO to receive stakeholder and public feedback on potential locations for the bridge⁹, and the submission of a funding application to design and construct the bridge through Virginia's SMART SCALE transportation infrastructure funding program.

SMART SCALE is a competitive, data-driven application program that is the primary source of funding for transportation infrastructure improvements throughout the state. Project applications are scored based on their assessed benefits in several defined categories relative to overall project funding requested from the state. Individual project phases (preliminary engineering and design, right of way, and construction) are not funded independently; projects funded through SMART SCALE are intended to be fully constructed with the requested funding.

Because funding is requested upfront for the entirety of the project construction without the completion of the preliminary engineering project phase, contingencies are added to the overall estimated project base costs based on the amount of risk associated with the project construction. In this case, the bicycle and pedestrian bridge will require in-river construction, including the potential placement of piers mid-stream and on a mid-river "sediment" island. Without the geotechnical analysis completed, there are a number of outstanding questions about the actual project construction costs. Additional risks regarding potential impacts to the floodplain and historic features culminated in a total contingency amount of \$8.4 million being added to the base construction phase cost estimate of \$14.8 million. The total project cost, with an estimated base cost of \$18.8 million was escalated to more than \$42 million once contingencies and inflation were added across all project phases.

The evaluation of the project through the SMART SCALE application process confirmed that the potential benefits of the project to the region are significant. Out of 394 project applications

⁶ [Albemarle County Climate Action Plan](#), Winter 2020.

⁷ [Charlottesville Climate Action Plan](#), November 2022.

⁸ [Rivanna River Pedestrian Path Concept](#), Technical Memo, VHB, 2020.

⁹ [Rivanna River Bike/Ped Crossing: Bridge Alignment Selection Analysis](#), Charlottesville-Albemarle Metropolitan Planning Organization, 2022.

submitted statewide in 2022, the proposed bridge ranked #26 in terms of overall benefits¹⁰. The project scored especially high in terms of providing access (including improving access to multi-modal choices and improving access to jobs for disadvantaged populations) and air quality improvements. However, the high contingency escalation resulted in a project cost estimate that was too high to be competitive for funding.

Completing the preliminary engineering phase of the project will provide the region with the best opportunity to identify viable options for constructing this bridge by addressing three key concerns:

1. The completion of the geotechnical, hydraulic, and environmental reviews will determine the actual mitigation measures that need to be considered in developing engineering plans for the project, resulting in a more accurate construction cost estimate and reducing the amount of contingencies that need to be applied to the project base cost in future funding applications.
2. Detailed survey will enable the design of the bridge and the shared use path as well as other additional engineering services that would enable this project to move forward to a right of way and construction phase if subsequently funded.
3. It will allow the project construction plans to go through a value engineering review process to identify additional cost saving design options prior to any future funding applications.

All of these factors will significantly lower the overall project cost, and when paired with the already-high project benefit score, will yield an extremely appealing project.

Scope of Work

The Thomas Jefferson Planning District Commission and the Virginia Department of Transportation will work collaboratively to complete the preliminary engineering to develop functional design plans. The below tasks will be undertaken upon award of this grant:

Task 1: Project Management

The TJPDC will serve as the project sponsor and fiscal agent. This task includes grant administration, invoicing, and compliance oversight with the terms of the grant. TJPDC staff will coordinate with the Virginia Department of Transportation and regional stakeholders. Upon notice to proceed, the TJPDC will enter into an agreement with VDOT to oversee the completion of the engineering tasks. This task will include ongoing project coordination meetings between VDOT and TJPDC staff for the duration of the project.

Task 2. Stakeholder and Public Engagement

TJPDC staff will engage stakeholders and the public at identified milestones throughout the process, building on the substantial engagement that has already occurred throughout the various planning stages that have been completed. This task will include scheduling presentations to

¹⁰ [FY 2024 \(Round 5\) Project Scores](#), SMART SCALE Funding Program, Office of Intermodal Planning and Investment, Department of Rail and Public Transportation, and Virginia Department of Transportation, 2023.

Charlottesville City Council and the Albemarle County Board of Supervisors, meeting with locality department staff, establishing a webpage to host updates on project progress, and coordinating public meetings to receive public feedback prior to required location and design public hearings. TJPDC staff will coordinate with VDOT on meeting content, schedule, and format.

Task 3. Bridge Development and Design Plans

VDOT will oversee the technical analyses, environmental reviews, and development of construction designs. The Conceptual PE Estimate Tool included in the detailed budget document details the scope of preliminary engineering service to be provided by VDOT or one of its consultants. The scope of services is summarized as follows:

Task 3a: Bicycle/Pedestrian Path Design – Bicycle and pedestrian facility design development in accordance with the Road Design Manual, Appendix A(1) and with the AASHTO Guide for the Development of Bicycle Facilities.

Task 3b: Hydraulics Design – Complete the hydraulic design, erosion and sediment control design, conduct a detailed hydraulic and hydrologic analysis, and complete river mechanics analysis.

Task 3c: Traffic Control Device Design – Develop a plan for safely maintaining traffic in and around the work zone as well as a lighting plan for the facility.

Task 3d: Survey – Complete topographic and utility survey.

Task 3e: Environmental – Conduct environmental reviews to determine potential impacts to endangered species, impact to a recreational river, and additional environmental permitting needed to construct the bridge. This will also include an analysis of historic resources and any mitigation of those resources.

Task 3f: Structural Design – The bridge will feature wing walls and intermediate piers, including piers on the mid-river sediment island. Three design options with differing numbers of piers will be assessed with an ultimate design selected for design consideration.

Task 3g: Materials/Geotechnical Design – Complete the geotechnical analysis and determine the appropriate materials needed based on borings.

Task 3h: Landscape Design – Develop landscaping plan based on stakeholder and public feedback.

Task 3i: Traffic Studies – Minimal traffic study will be required to assure safe integration into the surrounding road networks.

Task 3j: Plan Review/Coordination – Coordinate plan design elements across all disciplines within VDOT as well as external stakeholders and agencies.

RIVANNA RIVER BIKE/PED CROSSING: PRELIMINARY ENGINEERING PHASE



**RAISE GRANT APPLICATION:
MERIT CRITERIA**



Contents

Project Reference Map.....	1
Safety	1
Protect non-motorized travelers and community from safety risks	1
Environmental Sustainability.....	5
Align with the applicant’s State, regional, county, or city decarbonization plan	5
Reduce vehicle miles traveled specifically through modal shift to active transportation.....	6
Quality of Life.....	7
Increase affordable transportation choices by improving and expanding active transportation usage or significantly reducing vehicle dependence	7
Improve access to daily destinations like jobs, healthcare, grocery stores, schools, places of worship, recreation, or parks through transit and active transportation.....	7
Improve Mobility and Community Connectivity.....	9
Implement plans, based on community participation and data, that identifies and addresses gaps in the existing network.....	9
Improve system-wide connectivity with access to transit and mobility on-demand.....	10
Economic Competitiveness and Opportunity	11
Promote long-term economic growth and other broader economic and fiscal benefits.....	11
Facilitate tourism opportunities	12
State of Good Repair.....	13
Partnership and Collaboration.....	14
Coordinate with other types of projects	14
Innovation	15

Project Reference Map

The map shown in Figure 1 is intended to demonstrate how many of the elements referred to throughout the response to the Merit Criteria fit together. A red dot will also be used on various maps throughout the response to the Merit Criteria to illustrate the approximate locations of the project termini.

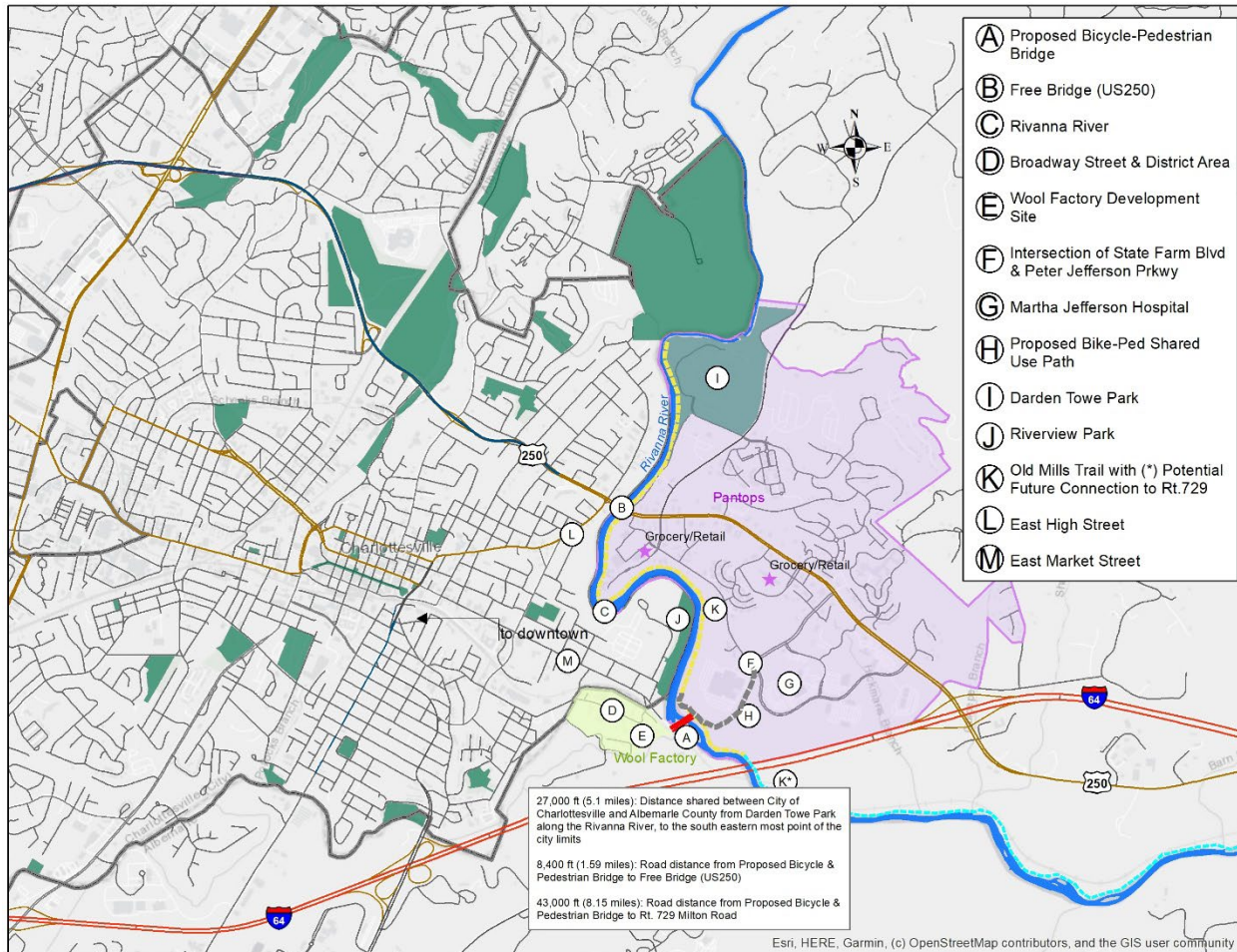


Figure 1. Project area reference map.

Safety

Protect non-motorized travelers and community from safety risks

Free Bridge, the only existing river crossing accessible by bicyclists and pedestrians along the shared boundary between the City of Charlottesville and Albemarle County, is located along the US 250 Corridor. US 250 is classified as a principal arterial, has a posted speed limit of 45 miles per hour at Free Bridge, and had an average annual daily traffic volume of 53,000 vehicles along

this same segment based on 2019 traffic data reported by the Virginia Department of Transportation (VDOT)¹.



Figure 2. Google map street view of Free Bridge.

There are currently sidewalks located on both sides of Free Bridge, but there is no bicycle infrastructure. There is also a lack of physical barriers protecting bicyclists or pedestrians from the high volume of vehicular traffic traveling across the bridge as seen in Figure 2. There were two recorded pedestrian-related crashes on Free Bridge in 2020 according to data² maintained by VDOT (Figure 3); one pedestrian was killed and another was seriously injured. To provide context, there were 13 total crashes involving pedestrians in 2020 reported by VDOT³ within the Charlottesville-Albemarle urbanized area, and two of those occurred directly on Free Bridge.

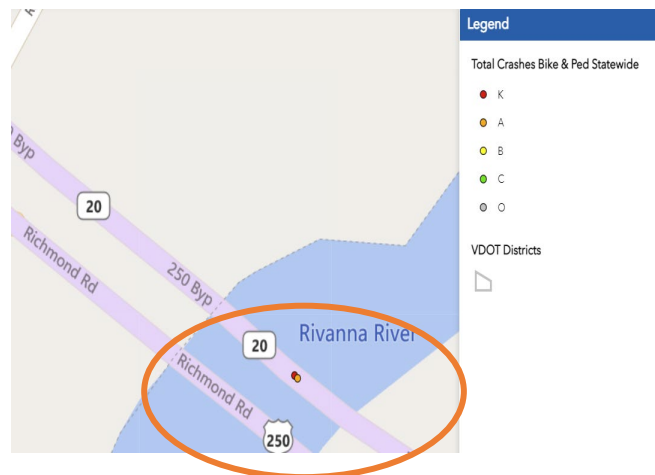


Figure 3. Total Crashes Bike & Ped Statewide, [Pedestrian Safety Action Plan \(PSAP\) Map Viewer 3.0](#), Virginia Department of Transportation.

¹ [Daily Traffic Volume Estimates Including Vehicle Classification Estimates - Jurisdiction Report 02](#), Virginia Department of Transportation, 2019.

² [Pedestrian Safety Action Plan Map Viewer 3.0](#), Virginia Department of Transportation.

³ [Crash Analysis Tool](#), Virginia Department of Transportation.

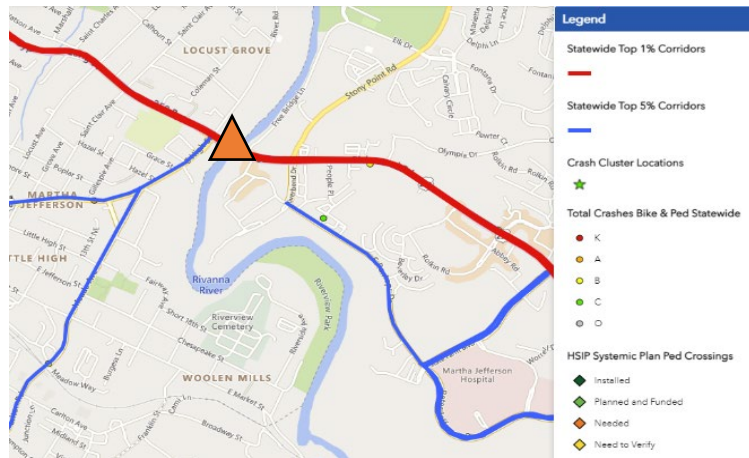


Figure 4. Statewide pedestrian priority corridors, [Pedestrian Safety Action Plan \(PSAP\) Map Viewer 3.0](#), Virginia Department of Transportation.

Furthermore, VDOT’s Pedestrian Safety Action Plan (PSAP)⁴ identifies the US 250 corridor, including Free Bridge, in the top 1% of statewide corridors needing pedestrian safety improvements as shown in Figure 4 (the orange triangle indicates the location of Free Bridge).

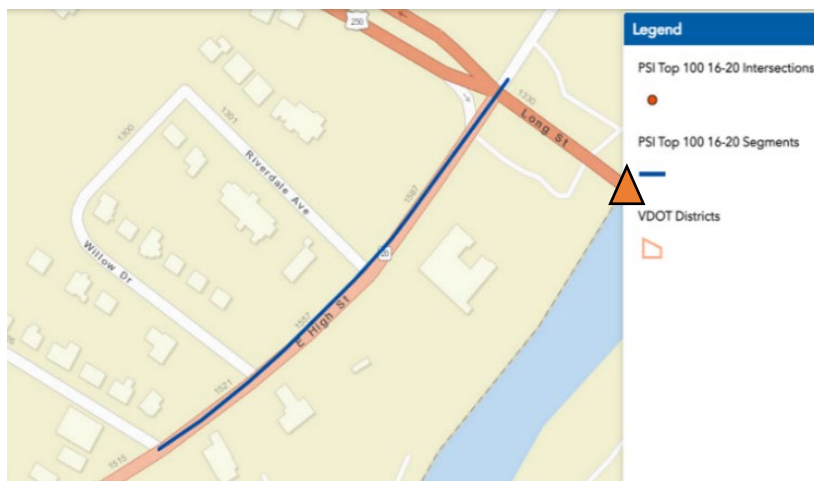


Figure 5. [2016-2020 Top Potential Safety Improvement Segments and Intersections](#), PSI Map, Virginia Department of Transportation.

The roads feeding onto Free Bridge are also hazardous to bicyclists and pedestrians. As Figure 4 also illustrates, the local road networks that provide access to Free Bridge are within the top 5% of state corridors that need pedestrian safety improvements. The northernmost segment of E. High Street, which provides the southwestern connection to Free Bridge from the City of Charlottesville, is additionally identified as a top Potential for Safety Improvement (PSI) segment within the VDOT Culpeper Construction District based on data collected between 2016 and 2020⁵ (Figure 5).

While there were no recorded pedestrian-involved crashes along the segment of E. High Street shown in Figure 5 between 2016-2020, it is known throughout the community as a high-risk corridor for bicyclists and pedestrians. Community concerns about safe multi-modal travel on E. High Street were re-energized when a vehicle ran a cyclist off the road in late 2022⁶. That incident occurred near the southern end of the segment of E. High Street highlighted in blue in Figure 5. This demonstrates the risks that non-motorists must take to cross the Rivanna River currently.

⁴ [Pedestrian Safety Action Plan](#), Virginia Department of Transportation, May 2018.

⁵ [2016-2020 Top Potential Safety Improvement Segments and Intersections](#), Virginia Department of Transportation.

⁶ [Cyclist hit by car on East High Street](#), CBS 19 News, Felicity Taylor, October 20th 2022.

There is ample opportunity for vehicular trips between Pantops and the City of Charlottesville to be converted to bicycle or pedestrian trips, but that cannot occur without establishing safe and comfortable bicycle and pedestrian infrastructure to encourage those trips. Given the high traffic volume crossing Free Bridge, as well as safety risks identified along the local road network feeding into it, identifying another location for bicyclists and pedestrians to move across the river would reduce safety- and comfort-related barriers for those that would like to use alternative modes of transportation. The location of the proposed bicycle and pedestrian bridge would provide a separate access for multi-modal travel across the river. Access to the west end of this bridge would be directed along smaller, narrower roads with lower traffic volumes and lower speed limits. In contrast to the high traffic volumes and speed limits along the US 250 Corridor, Broadway Street has an average annual daily traffic volume of 590 vehicles, and East Market Street has an average annual daily traffic volume of 140 vehicles according to 2021 VDOT data⁷ and both have a 25 mph speed limit⁸. The lower traffic volumes and lower speed limits create a much safer environment to minimize the risks to pedestrians and bicyclists as they move along the road networks to travel across the river as demonstrated in Figure 6.



Figure 6. Demonstration of safety outcomes for pedestrians involved in crashes at different vehicle speeds. Taken from the [Institute of Transportation Engineers](#).

On the east side of the river, the proposed bridge and shared use path would connect to the intersection of Peter Jefferson Parkway and State Farm Boulevard. Sentara Martha Jefferson Hospital, along with other healthcare service providers located in close proximity, maintains a network of sidewalks that provides access throughout its campus (shown highlighted in Figure 7). This sidewalk network begins at the intersection of Peter Jefferson Parkway and State Farm Boulevard, providing a safe, continuous multi-modal travel option from the west side of the river to the area of highest employment density in Pantops as demonstrated in the response to the Quality of Life Merit Criteria.

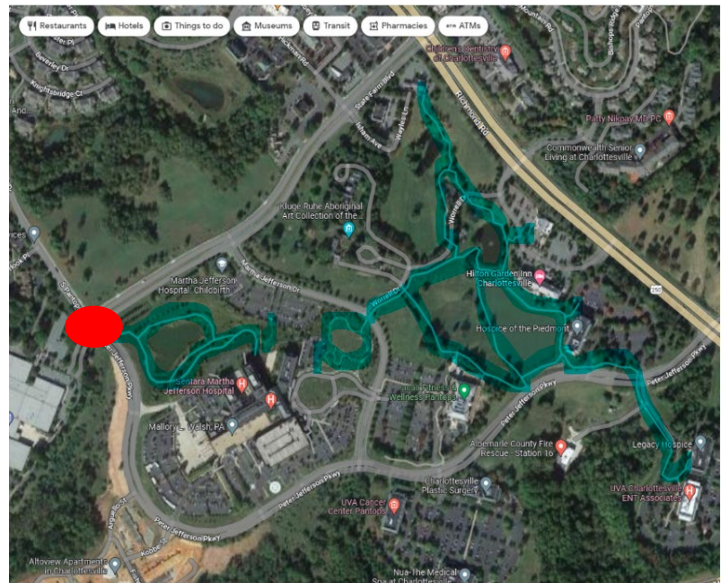


Figure 7. Google map of the lower Pantops area showing the pedestrian pathways developed to serve the Sentara Martha Jefferson Hospital campus.

⁷ [2021 Traffic Data - Albemarle County](#), Virginia Department of Transportation.

⁸ [VDOT Speed Limits Map](#), Virginia Roads, Virginia Department of Transportation, 2022.

Environmental Sustainability

Align with the applicant's State, regional, county, or city decarbonization plan

Environmental sustainability and taking corrective action to address climate change has been identified as a priority for both Albemarle County and the City of Charlottesville. Albemarle County adopted its Climate Action Plan in 2020 and Charlottesville adopted its Climate Action Plan in 2022. Based on 2008 data, Albemarle County determined that the transportation sector is responsible for 48.0% of both the County's carbon dioxide and greenhouse gas emissions⁹. Based on 2019 data, the City of Charlottesville determined that the transportation sector is responsible for 29% of the City's greenhouse gas emissions¹⁰. Both localities have established goals to reduce carbon emissions 45% by 2030, and achieve carbon neutrality by 2050.

The relationship between greater adoption of alternative modes of transportation and locally adopted Climate Action goals is explained in Charlottesville's Climate Action Plan as follows [emphasis added]:

*When seeking to reduce GHG emissions within the transportation sector, approaches fall into three categories: **shifting travel to alternative modes such as walking, biking, and transit**; switching vehicles that use lower and no-fossil fuel sources; and adjusting behaviors to reduce the amount of travel needed.*

*Increasing travel modes of walking, biking, and transit requires networks and access routes that connect destinations in safe and reliable manners so that people can have confidence that they do not need a personal vehicle for every trip. Increasing **safety for individuals using bicycle and pedestrian infrastructure** is a key component, as well as making sure those routes are **comfortable and well-connected**.*

Building off of this connection, the City of Charlottesville has included the following Strategies and Key Actions in its approved Climate Action Plan:

Strategy: *Increase Travel by Walking, Biking, and Transit.*

Key Action: *Continue planning and investment in a well-connected network of trails, shared use paths, sidewalks, and bike lanes.*

Similarly, Albemarle County's Climate Action Plan includes the following recommended strategies and actions [emphasis added]:

Strategy: *Increase opportunities for **bicycling, walking**, and other alternative forms of personal transportation for daily travel.*

Action: *Improve the **quality of bicycle and pedestrian infrastructure** in the development areas to make it safer and more comfortable for users.*

The proposed bicycle and pedestrian bridge across the Rivanna River will support the stated recommendations from both localities' Climate Action Plans by providing infrastructure across a significant gap in the existing multi-modal network (across the Rivanna River) through the

⁹ [Albemarle County Climate Action Plan](#), Winter 2020.

¹⁰ [Charlottesville Climate Action Plan](#), November 2022.

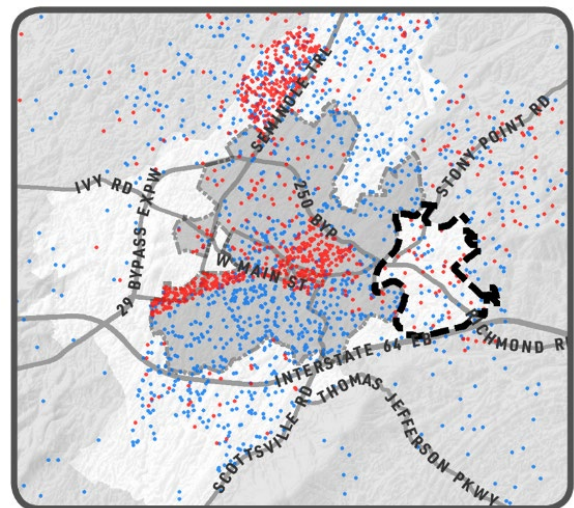
establishment of a safe and comfortable bicycle and pedestrian facility. The connection of two high-density, but physically segmented, parts of the region increases the opportunities for the proposed bridge to contribute to the achievement of the established climate action goals.

Reduce vehicle miles traveled specifically through modal shift to active transportation

The City of Charlottesville contains just over 10 square miles that is all within the defined urbanized area. Charlottesville maintains an extensive network of bicycle and pedestrian facilities that provide access throughout the City. Beginning in 2011, it has been named as a Silver Bicycle Friendly Community¹¹ by the League of American Bicyclists and a Gold Walk Friendly Community¹² by the UNC Highway Safety Research Center. However, commuting data reported in the 2021 Charlottesville Comprehensive Plan indicates that only 14% of residents walk and 3% of residents bike to work¹³. The lack of an infrastructure connection across the Rivanna River to Pantops, where there is a substantial employer base for Charlottesville City residents, is one contributing factor.

As part of the development of the Pantops Master Plan¹⁴ completed by Albemarle County in 2019, an analysis was done of commuter travel in and out of the Pantops area. Figure 8 illustrates the number of commuters that are both traveling from the Pantops growth area into the downtown area of Charlottesville (centered on the map in Figure 8 as the darker gray area), as well as commuters traveling from Charlottesville into Pantops. These cross-river commute patterns indicate that there is significant potential for commuter use of alternative transportation adoption if safe, convenient, and comfortable infrastructure is in place.

The Charlottesville-Albemarle Metropolitan Planning Organization (CA-MPO) conducted a public survey of preferences for a bicycle and pedestrian bridge in the general proposed location in early 2022. The survey received 833 responses in total. Those surveyed were asked about their planned use for a proposed bridge. Of those surveyed, 58 respondents (6.9%) indicated that they would use the bridge to commute to or from work, and another 234 respondents (28.1%) indicated that they would use the bridge to access goods and services. These responses¹⁵



Red dots show the general employment locations of commuters from Pantops. Blue dots show general residence locations of commuters to Pantops.

Figure 8. Employment and Commuting Patterns of Pantops based on 2015 data from the Census Bureau's Longitudinal Employer-Household Dynamics program.

¹¹ [Bicycle Friendly Communities](#), The League of American Bicyclists.

¹² [Walk Friendly Communities](#), UNC Highway Safety Research Center.

¹³ [Charlottesville Comprehensive Plan](#), City of Charlottesville, 2021.

¹⁴ [Pantops Master Plan](#), Albemarle County, 2019.

¹⁵ [Rivanna River Bike/Ped Crossing: Bridge Alignment Selection Analysis](#), Charlottesville-Albemarle Metropolitan Planning Organization, 2022.

indicate that there is public interest in using this bridge as an alternative to single occupancy vehicle use, contributing to a reduction in vehicle miles traveled.

Quality of Life

Increase affordable transportation choices by improving and expanding active transportation usage or significantly reducing vehicle dependence

In addition to the high level of cross-river commuting demonstrated in the Environmental Sustainability response, the bridge would provide greater access to jobs, goods, and services for underserved communities. While the City of Charlottesville as a whole is considered an area of persistent poverty¹⁶, the Comprehensive Plan adopted by the City in 2021¹⁷ specifically identified “sensitive community areas.” As defined in the Plan, these are areas where there is a relatively high percentage of non-white residents and where household income is less than \$30,000 based on 2018 ACS data. As shown in Figure 9, the proposed bridge would be within close proximity to one of these sensitive community areas, and would also provide the most direct connection from the larger cluster of other sensitive community areas to the area of Pantops with the highest job density, facilitating safe, comfortable, and efficient pedestrian and bicycle access for these residents.

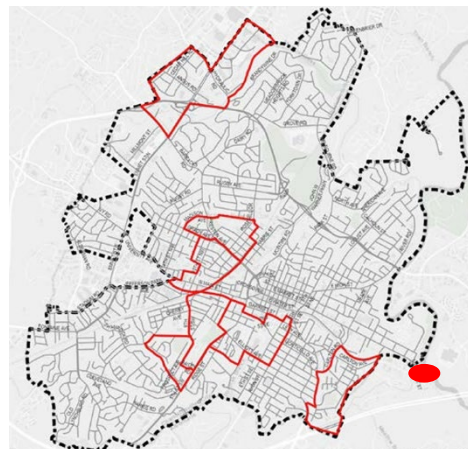


Figure 9. Map of Sensitive Community Areas identified in the City of Charlottesville's Comprehensive Plan.

Improve access to daily destinations like jobs, healthcare, grocery stores, schools, places of worship, recreation, or parks through transit and active transportation

The top employment sector within the Pantops area is Health Care & Social Assistance according to the Pantops Master Plan¹⁸. This indicates there are many healthcare services that could more easily be accessed from the west side of the river if the proposed bridge is constructed. Sentara Martha Jefferson Hospital is located less than half a mile from the proposed bridge eastern landing site, and connects directly to the intersection of Peter Jefferson Parkway and State Farm Boulevard with a sidewalk network providing access through the hospital and medical center grounds. Additional medical providers located along Peter Jefferson Parkway within one mile of the proposed eastern bridge landing include several medical specialists, such as cardiologists, obstetrics and gynecologists, ENTs, and physical therapy services¹⁹. The proposed bridge would support greater access to healthcare services for patients, as well as provide alternative transportation options for employees commuting to these essential jobs. Sentara Martha Jefferson Hospital has provided a letter expressing their support of the project, citing the improvements in public access to the walking paths throughout its grounds,

¹⁶ [Grant Project Location Verification](#), 2023.

¹⁷ [Cville Plans Together: Comprehensive Plan](#), City of Charlottesville, Virginia, 2021.

¹⁸ [Pantops Master Plan](#), Albemarle County, 2019.

¹⁹ See Appendix.

transportation options for employees, and access to healthcare services for Charlottesville City residents that this bridge could facilitate.

Additionally, there are no full-service grocery stores in the eastern portion of Charlottesville but there are two in Pantops, including a supermarket about half a mile from the project's eastern terminus. In its 2022 *Getting Around Charlottesville* report, the Move2Health Equity Coalition found that food and healthcare facilities were the destinations most difficult for Charlottesville residents to reach. Out of 428 respondents, 58 spoke about grocery stores without prompting in their free responses²⁰.

The greatest job density on the east side of the river is in the southernmost portion of the Pantops growth area as shown in Figure 10. The location of the proposed bridge along with the planned shared use path will provide access directly to the concentrated area of job opportunities in Pantops.

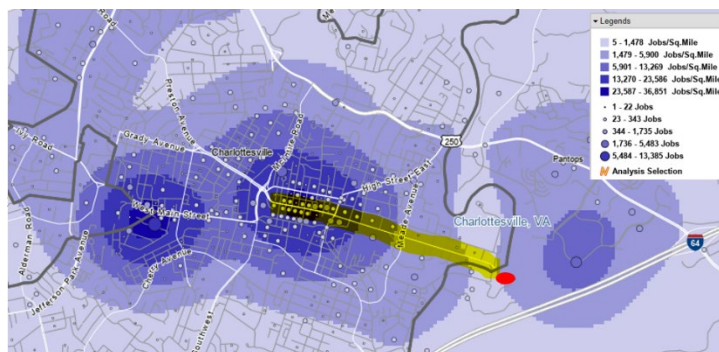


Figure 10. Census On the Map, Area Profile of All Jobs All Workers in Charlottesville Metropolitan Area, U.S. Census Bureau, 2019.

On the west side of the river, the bridge landing is physically located on property that has recently been redeveloped and now hosts WillowTree, the 16th largest employer in Albemarle County²¹. It would also connect bicyclists and pedestrians to the local transportation networks providing access to the City of Charlottesville. East Market Street, highlighted in Figure 10, provides straight and direct access to downtown Charlottesville, where there is another high concentration of jobs as demonstrated.

One of the criteria that is evaluated through the State of Virginia's SMART SCALE application process is the average change in access to employment opportunities and multi-modal options that would result from project implementation²². There are three measures that are considered as part of this criteria: Access to Jobs for the Total Population, Access to Jobs for Disadvantaged Populations, and Access to Multi-Modal Choices. Out of 394 projects that were submitted and scored in the most recent round of SMART SCALE funding applications, this bridge application received the 9th highest score in the state in its ability to improve multi-modal transportation options, and received the 6th highest scores in the state in both its ability to provide access to jobs generally as well as provide access to jobs for disadvantaged populations²³.

This bridge will additionally expand access to active recreation and entertainment opportunities for users on both sides of the river. The bridge would provide bicycle and pedestrian access from the Pantops area to Riverview Park, which is located approximately a third of a mile from

²⁰ Move2Health Equity Coalition and the Piedmont Environmental Council, [Getting Around Charlottesville Results from the 2021 Move2HealthEquity Community Mobility Survey](#), 2022.

²¹ Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages, 1st Quarter (January, February, March), 2022.

²² [SMART SCALE Technical Guide](#), prepared for the Commonwealth Transportation Board, February 2021.

²³ [FY 2024 \(Round 5\) Project Scores](#), SMART SCALE Funding Program, Office of Intermodal Planning and Investment, Department of Rail and Public Transportation, and Virginia Department of Transportation, 2023.

the proposed western landing. The proposed bridge would also connect two trail systems on either side of the river. The Rivanna Trail runs along the west side of the river and is part of a larger trail network that loops around the City of Charlottesville. On the east side of the river, the bridge would provide a connection to the Old Mills Trail. The existing trail is approximately 2.5 miles long, and the Albemarle County Parks and Recreation Department is working to develop a southern extension that will add four more miles²⁴. The proposed bridge would provide a connection between these two local trail systems at the site of the historic Wool Factory, which was redeveloped as a commercial mixed-use site in 2020 and will be discussed further in the Economic Competitiveness and Opportunity section.

Improve Mobility and Community Connectivity

Implement plans, based on community participation and data, that identifies and addresses gaps in the existing network

Multiple plans that have been developed through substantive public engagement have consistently identified the need for a bridge in the generally proposed location.

Albemarle County:

The Pantops Master Plan²⁵ completed by Albemarle County in 2019 emphasizes the current lack of connectivity between Pantops and the rest of the region and expresses a desire to improve overall transportation network connectivity and mode choice. The plan states that the Rivanna River is a significant environmental asset to the community, but also presents a physical barrier and emphasizes the importance of facilitating additional access across it to better connect Pantops with the City of Charlottesville. The Pantops Master Plan included a recommendation to “Design and construct new pedestrian and cyclist crossings along the Rivanna River Corridor and across Route 250 to facilitate better access to the City of Charlottesville and connectivity within the Pantops Development Area.”

Public engagement for the development of the Pantops Master Plan included seven public meetings/work sessions, and an additional four meetings/work sessions with the Pantops Community Advisory Committee, a committee designated by Albemarle County to advise County staff and the Board of Supervisors related to the development and implementation of the Pantops Master Plan²⁶.

City of Charlottesville:

The desire to improve overall regional connectivity is reflected in Charlottesville’s Comprehensive Plan²⁷, which was adopted in November 2021. One of the strategies included in that plan is to “Actively work with partners to plan for and improve regional connectivity for bicycle, pedestrian, and transit travel.” The City’s comprehensive plan goes on to list the

²⁴ [Charlottesville Community Engagement](#), June 30, 2021: Route 250 reopens to traffic ; Planning to extent Old Mills Trail along the Rivanna, Sean Tubbs. Image prepared by the Albemarle County Parks and Recreation Department.

²⁵ [Pantops Master Plan](#), Albemarle County, 2019.

²⁶ [Pantops Community Advisory Committee Website](#), Albemarle County.

²⁷ [Cville Plans Together: Comprehensive Plan](#), City of Charlottesville, VA, 2021.

Rivanna River Bike & Pedestrian Crossing as a priority project in the Master Transportation Plan included as an appendix.

Public engagement for the development of the Charlottesville Comprehensive Plan entailed three phases that each included widely distributed surveys in addition to other opportunities for the public to provide feedback.

Charlottesville-Albemarle Metropolitan Planning Organization:

In 2019, CA-MPO staff worked with VDOT to conduct a feasibility study²⁸ to determine potential bridge alignments across the Rivanna River between the Riverview Park/Woolen Mills area on the west and Pantops on the east. The feasibility study, completed in 2020, identified two potential alignments in the defined project area. To determine the preferred alignment in preparation to develop the SMART SCALE funding application, the CA-MPO conducted public engagement specifically on bridge design and location preferences between November of 2021 and February of 2022.

The engagement included four meetings with a stakeholder advisory group made up of community members, non-profit organizations, locality Planning Commission representatives, and state and local transportation staff plus an additional on-site meeting that was more broadly attended by the general public. Additional engagement during this planning phase included a public webinar attended by 23 members of the public and a public survey that received 833 responses. Of the survey responses received, only nine respondents indicated that they did not plan to use the bridge for any purpose²⁹, reinforcing the recommendations in the higher-level small area and comprehensive plans that a bridge specifically in this location has strong public support.

Improve system-wide connectivity with access to transit and mobility on-demand

In 2022, the TJPDC, in partnership with Albemarle County, completed the Albemarle County Transit Expansion Study³⁰ which recommended the addition of microtransit service in the Pantops area as shown in purple in Figure 11. Following the completion of this study, Charlottesville Area Transit (CAT), the public

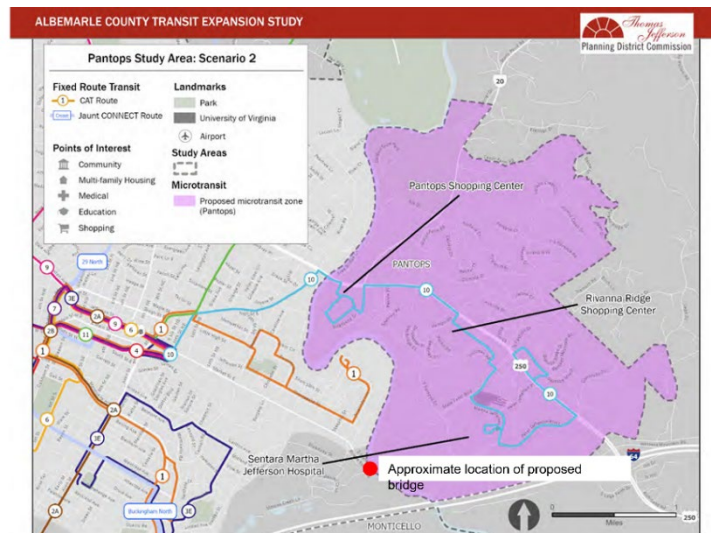


Figure 11. Map of the boundaries for the microtransit service expansion demonstration project.

²⁸ [Rivanna River Pedestrian Path Concept Memorandum](#), VHB, 2020.

²⁹ [Rivanna River Bike/Ped Crossing: Bridge Alignment Selection Analysis](#), Charlottesville-Albemarle Metropolitan Planning Organization, 2022.

³⁰ [Albemarle County Transit Expansion Study Final Report](#), Thomas Jefferson Planning District Commission, Albemarle County, and the Department of Rail and Public Transportation, February 2022.

transportation operator serving the urbanized area, was successfully awarded a demonstration grant to pilot this microtransit service. Microtransit is described in the study as “an app-based demand response service that offers a similar user experience to Uber and Lyft but utilizes transit-specific vehicles that allow for more shared rides and greater potential productivity. Microtransit also differs from Uber and Lyft in that fares are set by a public agency, making them both more predictable and affordable than typical ride-hailing fares.” Upon crossing the bridge into Pantops, travelers would have the option to utilize the on-demand transit services to comfortably, efficiently, and affordably travel throughout the larger Pantops growth area. The establishment of the new microtransit service in Pantops would dovetail with the proposed bridge to further expand access to goods and services for those traveling from the west side of the river into Pantops.

Economic Competitiveness and Opportunity

One of the reasons the proposed alignment was chosen for this bridge was due to its integration with active economic development initiatives. The proposed bridge is uniquely positioned to support both regional tourism by physically connecting multiple potential tourist destinations and locally identified revitalization efforts along Broadway Street.

Promote long-term economic growth and other broader economic and fiscal benefits

The proposed bridge supports the established goals of Albemarle County’s current revitalization efforts along the easternmost portion of Broadway Street. The Broadway Blueprint Study³¹ was initiated as part of a state and local incentive package³² for the development of the historic Wool Factory site. It identified several reasons to focus economic development efforts in this area, including the following [directly taken from the interim report]:

- *Broadway Street’s 45 contiguous acres of light industrially-zoned property adjacent to the City of Charlottesville and in proximity to the Rivanna River and other attractive recreational and entertainment assets provide a unique site development/redevelopment opportunity.*
- *The combination of public and private sector investment is resulting in increased visibility and desirability of the area as an attractive location for primary businesses with job creation potential.*
- *The area provides a chance to create the type of integrated work/play district (employment, entertainment, dining/drinking, outdoor recreation, etc.) that is proving extremely successful in other peer communities in one of the very few close-in urban areas of the County.*

The interim report goes on to identify three focus areas that need to be considered in the ongoing development of the Broadway revitalization efforts: Economic Vitality, Connectivity, and Placemaking. Specific factors listed under the Connectivity and Placemaking focus areas include maximizing the potential for multi-modal transportation to provide connections to Pantops (among other destinations), enhancing the safety and comfort of pedestrians, and providing compelling destinations for people and businesses.

³¹ [Broadway Blueprint Economic Revitalization Plan – Interim Report](#), Albemarle County Economic Development, 2019.

³² [Albemarle County Economic Development Activity Report](#), 2019.

There is a stated goal to establish this area, known as Woolen Mills, as an attractive destination, both for business and entertainment purposes. The proposed bridge addresses several of the identified needs to support desired revitalization efforts along Broadway Street by increasing multi-modal access to the area and improving regional connectivity, thus improving the accessibility of the area to potential patrons throughout the region, as well as providing an additional attraction that would further draw visitors from outside the region.

The bridge landing on the west side of the river would be located directly on the development site of the historic Wool Factory, originally established in 1795, and rebuilt in 1868 after it was burned down when the Union Army captured Charlottesville³³. The Wool Factory was redeveloped and opened to the public in July 2020. The redeveloped building serves as the headquarters for WillowTree, the 16th largest employer in Albemarle County, and hosts a craft brewery, a boutique wine and coffee shop, a high-end restaurant, and an event space, serving 500 patrons daily. The owner and developer of the site, Brian Roy, writes in a letter of support included with this application that the property now pays more than \$300,000 in direct taxes to Albemarle County compared to \$5,000 that were paid prior to the site's redevelopment. He attributes the success of the business to its proximity to the 20 miles of walking and biking trails through Charlottesville, as well as its integration with the residential neighborhood.

Facilitate tourism opportunities

In 2022, Albemarle County applied for and was awarded a RAISE Grant to develop a Master Plan for the Three Notched Trail spanning from Afton through Albemarle County to the western boundary of the City of Charlottesville, shown as the segment labeled "1" in Figure 12. The Three Notched Trail Planning Group³⁴, a working group of the local non-profit Rivanna Trails Foundation, has envisioned the Three Notched Trail's expansion both westward towards Staunton (segment labeled 2), in the heart of the Blue Ridge Mountains, and eastward towards Richmond, connecting to the Virginia Capital Trail (segment labeled 3), creating a complete trail that spans from the Blue Ridge Mountains to the Chesapeake Bay.

Developing safe, comfortable access across the Rivanna River is an essential component needed to realize that complete vision, meaning that the proposed bridge not only has the opportunity to connect two local trail systems as described in the Quality of Life section, but could provide an essential linkage in establishing an intra-regional/cross-state trail system. At this time, there is no suitable way for the Three Notched Trail to cross the Rivanna. Not only would this bridge accomplish that, it would do so in a place where traces of the historic (Colonial-era) Three Notched Road are plainly visible.

This proposed bridge has the potential to serve as a multiplier for the benefits that each trail system individually brings by increasing the reach of comfortable travel through existing and planned trail systems, creating an extended trail system that users can comfortably navigate. These long-distance trail systems have proven to be an effective economic vehicle for communities. A fiscal analysis of the Virginia Capital Trail found that the trail stimulated \$8.9

³³ [The Wool Factory](#), Property History, 2019.

³⁴ [Connectivity of Virginia's Three Notched Trail](#), Three Notched Trail website.

million in economic activity, with visitors to the trail spending \$22 on average per visit³⁵. The continued expansion of the local, regional, and potentially intra-regional trail system will ensure the ongoing success of businesses like the Wool Factory, support the revitalization efforts along Broadway Street, and attract additional private investment from businesses that see the value of locating to the area.

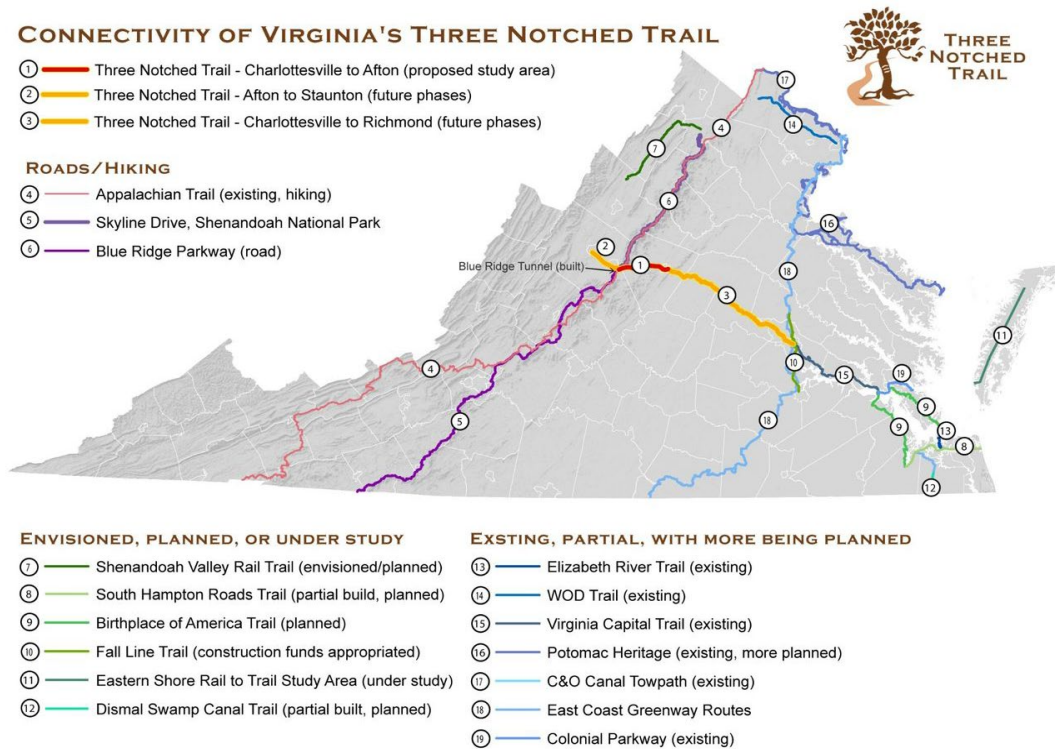


Figure 12. Map showing potential connections to existing and planned bicycle and pedestrian facilities across Virginia. Map prepared by the Three Notched Trail Planning Group.

State of Good Repair

If constructed, this bridge would provide an alternative travel option to move between Pantops and the greater urbanized area, reducing the number of vehicles that travel across Free Bridge each day. The University of Montana’s website states that even a heavy bike weighing 30 pounds is less than 1% of the weight of a Toyota Prius³⁶, resulting in significantly less wear on the system infrastructure. This implies that the maintenance needs of a bicycle and pedestrian bridge will be less intensive compared to a bridge that supports vehicular traffic. Additionally, shifting a higher share of trips from single occupancy vehicle trips to active transportation would support the preservation of both this segment of the US 250 corridor as well as Free Bridge in a state of good repair.

The ongoing inspection and maintenance of the bridge has been considered in the development of the conceptual design. While bridge designs with more architectural interest and aesthetic

³⁵ Institute for Service Research. (2019). *The Economic and Fiscal Impacts of the Virginia Capital Trail: Fiscal Year 2018-19*. The Virginia Capital Trail.

³⁶ [Benefits of Biking](#), University of Montana, 2023.

value were considered and generally preferred by the public, these bridges would be considered super-structures which complicated considerations for the ongoing maintenance and inspection. Therefore, a more standard bridge design is being pursued to ensure the completed project, once constructed, would remain in a state of good repair. The completion of the preliminary engineering project phase will provide the information needed to determine the ongoing maintenance needs for the bridge, informing the establishment of a process and responsible party to oversee the bridge maintenance ensuring that it remains in a state of good repair.

Partnership and Collaboration

As demonstrated throughout the response to the merit criteria, there has been a substantial amount of collaboration invested into this project. As the regional body charged with administering a continuing, cooperative, and comprehensive transportation planning process, CA-MPO staff has worked closely with a variety of stakeholders to incrementally move this project forward. This collaboration has culminated in the identification of a bridge location that provides many overall community benefits. The project has demonstrated support from the general public, as well as the localities, private businesses that will be impacted by the project, and VDOT, who is partnering with the TJPDC to administer the project if awarded.

Moving from the feasibility study to the selection of a preferred alignment for the proposed bridge, the CA-MPO assembled a stakeholder advisory group to guide community engagement and provide feedback on the important factors that should be considered as part of the project evaluation. This stakeholder advisory group consisted of technical staff members from the state and localities, as well as representatives from the community with vested interests in the decision. Community-based representatives included a resident of the Woolen Mills neighborhood, representatives from non-profit organizations, and citizen planners engaged through the Pantops Citizen Advisory Committee, the CA-MPO's Citizens Transportation Advisory Committee, and both localities' Planning Commissions. CA-MPO used a variety of public outreach strategies to reach the public more broadly, including mailing out notifications of the virtual webinar and information about the public survey to all addresses within a half mile of the proposed landing locations, posting information on social media, and asking the stakeholder advisory committee members and MPO committee members to distribute information to ensure that those most likely to be impacted by the decision were notified about the opportunity to share their feedback. The stakeholder advisory group provided feedback on the survey content prior to its distribution. These strategies are in alignment with best practices identified by the U.S. Department of Transportation³⁷.

Coordinate with other types of projects

The proposed bridge would connect directly to the site of the recently redeveloped historic Wool Factory and provide access to Broadway Street, where Albemarle County is actively pursuing revitalization efforts. As expressed in the Broadway Blueprint Study, the success of the revitalization efforts is dependent on improving overall multi-modal connectivity along the

³⁷ [Promising Practices for Meaningful Public Involvement in Transportation Decision-Making](#), U.S. Department of Transportation, 2022.

corridor and improving the pedestrian experience along Broadway Street³⁸. The proposed bridge would provide the desired multi-modal network connectivity directly from the eastern (Pantops) side of the bridge to the Broadway Blueprint focus area, which includes the Wool Factory development site, and incentivize additional investment into multi-modal network improvements along Broadway Street.

The bridge itself would serve as an area attraction, further supporting the goal identified in the Broadway Blueprint Revitalization Plan Interim Report to provide a compelling destination³⁹. There are limited opportunities for visitors to experience the beauty of the river from its midstream perspective. That opportunity is currently only available for those floating along the river. This bridge would provide the only midstream overlook opportunity for pedestrians in the urbanized area. The opportunity to experience the river, walk along the trails, and frequent the venues at the Wool Factory will further attract additional business investment and patrons to the area.

The opportunity for this bridge to further enhance access to goods and services through its coordination with the planned implementation of microtransit service in the Pantops area was also described in the Mobility and Community Connectivity section. The proposed bridge dovetails with other initiatives that are currently underway, enhancing the individual benefits anticipated from each of these initiatives.

Innovation

The construction of the bridge would ultimately be administered by VDOT, who has also agreed to oversee the completion of the preliminary engineering phase if the grant is awarded as indicated in the VDOT Letter of Support included with this application. Typically, transportation projects in the state are either completely administered by the state once the project is fully funded (meaning funding is awarded upfront to complete the preliminary engineering, right of way, and construction phases) or locally administered by individual localities. The coordination between VDOT and a local applicant to complete the preliminary engineering phase would be the first time this approach has been taken in the state. VDOT's administration of the preliminary engineering project phase will ensure that all tasks are completed in alignment with their policies and practices, giving surety that the state will have the information it needs to continue with future project implementation phases as funding is identified.

The Scope of Work includes the development of construction plans that will consider opportunities to incorporate low-carbon materials and other environmentally sustainable features into final project design, as well as allow for a value engineering review to identify opportunities to reduce project costs.

³⁸ [Broadway Blueprint Economic Revitalization Plan – Interim Report](#), Albemarle County Economic Development, 2019.

³⁹ [Broadway Blueprint Economic Revitalization Plan – Interim Report](#), Albemarle County Economic Development, 2019.