

BUILD GRANT GARRISON LEARNS

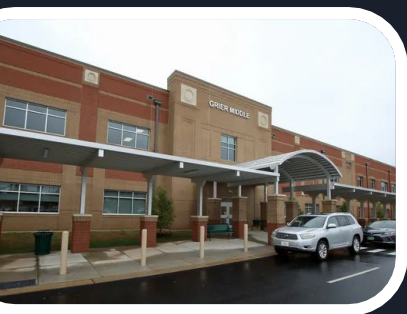
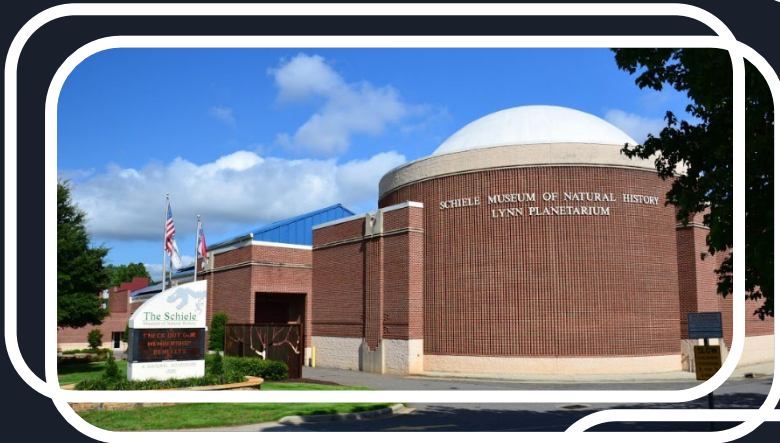


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PROJECT DESCRIPTION

The City of Gastonia’s **Garrison LEARNS** (Library, Education, Arts, Recreation, Nature, & Science) Project is more than just a transportation project; it aims to transform the transportation infrastructure of the civic core of Gastonia to promote sustainable modes of transportation, enhance connectivity, improve multimodal safety and accessibility, and stimulate new economic growth and investment. This is achieved by prioritizing pedestrian-friendly designs and implementing bicycle infrastructure. Moreover, by prioritizing transportation choice, affordability, and environmental responsibility, **Garrison LEARNS** aims to significantly improve the quality of life for everyone in the community and serves as the cornerstone of a regional vision for a vibrant, sustainable, and accessible multimodal corridor.

Garrison Boulevard is home to the most significant concentration of civic anchors outside of Gastonia’s downtown core. Those civic anchors include the Schiele Museum of Natural History, Grier Middle School, Gaston County Library Main Branch, Lineberger Park, and the Avon/Catawba Creeks Greenway trailhead. **Garrison LEARNS** encompasses not just a stretch of pavement, but the hopes and aspirations of entire communities. In addition to the key civic anchors mentioned above, the **Garrison LEARNS** Corridor hosts other significant multimodal generators, including two large churches, several healthcare services, and a variety of local businesses. The corridor is a significant part of the City’s transportation network, providing east-to-west mobility south of the City’s downtown area, while acting as a parallel route to US 74 (Franklin Boulevard).

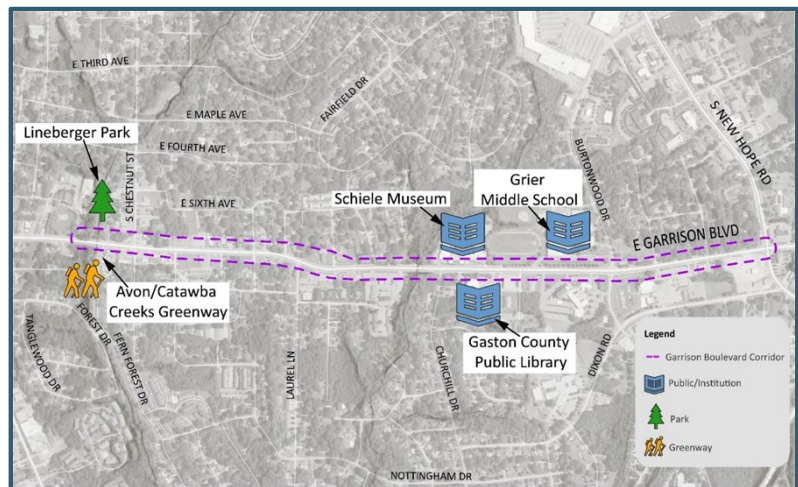


Figure 1. Garrison Blvd. Corridor

GARRISON LEARNS MULTIMODAL CORRIDOR

The Garrison Boulevard Corridor, as it exists today, is automobile centric and provides limited infrastructure and connectivity for people walking and biking. Currently, the study area is a five-lane roadway with a center two-way-left-turn-lane that does not support its growing civic anchors and multimodal demand. There is no sidewalk for most of the south side of the corridor, and back-of-curb sidewalk of varying quality on the north side. The corridor has no bicycle facilities and lacks pedestrian crossing opportunities (average spacing between crossings = 1,700 linear feet), resulting in unsafe crossing conditions or significant out of direction travel for pedestrians. Moreover, there is a greenway underpass that is continuously silted, wet, and impassable. With the following improvements, **Garrison LEARNS** will prioritize accessibility for all and transform the Garrison Boulevard corridor, creating an improved civic heart for the City of Gastonia.

Together, these improvements will increase safety and multimodal connectivity throughout these vital neighborhoods in Gastonia. Enhancements to mobility will result in greater transportation choices, facilitate new investment, reduce environmental impacts, increase real estate value, and support positive health outcomes for residents.

Garrison LEARNS improves existing infrastructure in Gastonia’s civic core to deliver a safer, more connected, and ADA-accessible multimodal network while supporting long-term corridor revitalization.

This project will generate measurable benefits in key areas related to safety (pedestrian, bicycle, and vehicular expected crash reduction), reduced maintenance costs over time, decreased auto usage, improved health and quality of life outcomes, noise reduction, increased property values, and environmental sustainability. Using 2024 dollars and a 7.0% discount rate, the substantial positive impacts of the project are monetized at \$25.6 million in benefits, compared to \$13.4 million in costs. As a result, the project has an **estimated benefit-cost ratio of 1.91**, which represents a very favorable investment of federal funds and a significant benefit to the residents of Gastonia, NC and the greater metro region. The full Benefit-Cost Analysis has been included as an attachment and can be viewed [here](#).

SCOPE OF WORK

Garrison LEARNS is divided into **three (3) primary components consisting of a total of fourteen (14) primary improvements**. No engineering or design has been completed to date. The proposed scope includes the full range of technical, engineering, and construction activities necessary to advance the project from concept to implementation, including (as applicable): survey, traffic analysis, preliminary engineering, 30/60/90/100% design, environmental documentation and permitting, utility coordination, right-of-way verification, final plans/specifications/estimates (PS&E), procurement, and construction.

Component #1 - Safety Improvements

- Reduce posted speed limit by 10 miles per hour (MPH), including supporting traffic engineering evaluation and required approvals
- Right-size the roadway cross-section by reducing travel lane widths from 12 ft. to 11 ft.
- Replace the two-way left turn lane with a raised, landscaped median
- Enhance corridor lighting
- Install a new traffic signal at Laurel Lane
- Improve the Avon/Catawba Creeks Greenway underpass
- Install radar-enabled driver feedback signs

Component #2 - Active Transportation (Bike/Pedestrian) Improvements

- Install bicycle lanes on both sides of Garrison Boulevard
- Construct sidewalk along both sides of Garrison Boulevard
- Install high-visibility crosswalks at signalized intersections and midblock crossings
- Add pedestrian countdown timers at signalized intersections
- Install a pedestrian hybrid beacon (PHB) connecting the school and museum area to the library

Component #3 – Environmental and Quality of Life Improvements

- Reconstruct curb ramps to meet ADA standards
- Install green space in medians and buffer spaces

BROADER CONTEXT

Gastonia, whose history is steeped in entrepreneurial spirit, started as a mill town, but is transforming into one of the region’s best places to live, work and play. The City of Gastonia offers modern amenities typically found in big cities while retaining a hometown feel. Just minutes west of Charlotte, Gastonia is part of the Charlotte metropolitan area, which ranks 11th among the fastest-growing large metros in the U.S. Selected as an All-American City three times, Gastonia’s desirable quality of life is the result of its beautiful natural surroundings, friendly neighborhoods, responsive government and vibrant business environment.

Garrison LEARNS embodies the goals and objectives from various long range transportation plans and regional strategies, including: the Gaston-Cleveland-Lincoln Metropolitan Planning Organization’s (GCLMPO) 2050 Metropolitan Transportation Plan (MTP), the 2020 GCLMPO Comprehensive Transportation Plan (CTP), the One Gaston 2040 Vision Plan, the Gastonia 2050 Comprehensive Plan, the 2014 Gastonia Comprehensive Pedestrian Plan, the 2023 Gastonia Bicycle Plan, and the 2023 Gastonia Affordable Housing Plan.

This project champions diverse travel options and encourages smart, concentrated development within existing neighborhoods. It envisions a tapestry of pedestrian-friendly and bicycle-accessible communities effortlessly woven together by a network catering to various transportation needs. This network radiates outwards, drawing its lifeblood from a thriving civic core - a unifying thread that serves as an economic, recreational, and social hub.

POPULATION GROWTH

With a growing population, congestion on roadways is becoming more pronounced. Introducing diverse travel options, such as bike lanes and pedestrian pathways can help alleviate congestion by providing alternative routes and modes of travel.

North Carolina, with a population now exceeding 11 million residents, continues to be one of the fastest-growing states in the nation. Between July 1, 2024 and July 1, 2025, the state’s population grew by about 1.3%, placing it among the top growth rates nationally and maintaining its position as the 9th largest state by population.

Gastonia, NC is the third largest city within the Greater Charlotte region with a population of approximately 85,500, an increase of more than 5,000 residents since 2020. Gastonia is also ranked among the top 15 most populous cities in North Carolina. Local demographic analyses



show the city’s annual growth rate is around 1.5%, which is notably higher than the current national average growth rate of about 0.5%.

PROJECT HISTORY

Garrison LEARNS was conceived from a series of community engagement workshops and stakeholder meetings convened in response to growing concerns about traffic congestion, air pollution, and lack of mobility options in Gastonia’s civic core. Recognizing the need for transformative solutions, the [Garrison Boulevard Corridor Study](#) has been finalized and identifies key opportunities for improving safety and mobility while enhancing the urban environment.

To date, the project has achieved several significant milestones, including the following:

- Completion of a feasibility study,
- Development of conceptual designs,
- Development of a public engagement strategy,
- Completion of an [existing conditions analysis](#),
- Completion of field reviews,
- Assessment of existing and future year [traffic operations](#),
- Analysis of crash patterns,
- Analysis of projected traffic for “no-build scenario”,
- Review of best practices,
- Development of land use alignment and alternatives,
- Completion of an [Economic Impact Analysis](#),
- Summary of safety benefits,
- Development of an implementation action plan, and
- Development of a [Benefit Cost Analysis](#).



PROJECT LOCATION

The **Garrison LEARNS** Project is strategically positioned to benefit not only adjacent neighborhoods but the City of Gastonia as a whole. The corridor creates a critical multimodal connection between Lineberger Park and the Avon/Catawba Creeks Greenway and key community destinations including Grier Middle School, the Schiele Museum of Natural History, and the Gaston County Public Library. These destinations serve residents from across Gastonia and the greater Charlotte metropolitan area, making the corridor an essential spine for daily travel, education, recreation, and cultural engagement.



The proposed project corridor extends from west of Fern Forest Drive at Lineberger Park to South New Hope Road (NC 279) and directly serves approximately 3,000 residents and 3,500 jobs. The corridor is widely recognized throughout the region for its concentration of recreational, cultural, and educational assets. For example, the Schiele Museum of Natural

History hosted more than 109,000 visitors in 2025, including over 38,000 students and teachers participating in educational programming and more than 50,000 guests attending events at the James H. Lynn Planetarium & Science Theater. These destinations generate consistent multimodal travel demand and highlight the need for safe, accessible, and reliable transportation options along the corridor.

The Grier Middle School campus has recently undergone a significant transformation with the construction of a new 155,000 ft², \$65 million facility designed to serve up to 1,200 students. Now complete, the campus functions as a modern educational anchor within the heart of Gastonia and further increases pedestrian and bicycle activity in the corridor. This concentration of educational and cultural institutions is the foundation for the **Garrison LEARNS** Corridor and has received strong support from residents, educators, and community stakeholders.

The census tracts encompassing the **Garrison LEARNS** Project have experienced sustained growth and increasing travel demand over time, placing pressure on an existing transportation network that was not designed to safely accommodate all users. Residents and visitors rely heavily on this corridor to access schools, parks, employment centers, and community services, yet current conditions present barriers to safe and convenient travel, particularly for people walking, biking, or accessing transit. The project addresses these challenges by improving connectivity, safety, and accessibility while supporting the evolving needs of a growing community.

By investing in the **Garrison LEARNS** Corridor, the City of Gastonia is proactively responding to changing mobility patterns and reinforcing a transportation network that supports economic vitality, educational access, public health, and quality of life. The project represents a forward-looking approach to urban infrastructure—one that emphasizes inclusive design, multimodal safety, and long-term resilience for residents and visitors alike.

The **Garrison LEARNS** Project is located within **Census Tracts 327.03 and 327.04 in Gaston County**, with the project corridor evenly split between the two tracts.

In summary, the census tracts encompassing the **Garrison LEARNS** Project represent a dynamic and highly active area of Gastonia anchored by education, recreation, and cultural destinations. Through strategic investment and coordinated planning, the project will enhance safety, connectivity, and access along this vital corridor—supporting a more efficient, vibrant, and connected community for current and future generations.

A Project Location File has been attached and a detailed Project Map can be viewed [here](#).



Figure 2. Proposed Pedestrian Hybrid Beacon

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MERIT CRITERIA

A. SAFETY

Safety is a primary purpose of the **Garrison LEARNS** Project. The project targets a documented safety problem on Garrison Boulevard—an overbuilt, high-volume arterial in Gastonia’s civic core with frequent pedestrian activity and a history of severe crashes. This safety emphasis is consistent with the North Carolina Strategic Highway Safety Plan (NC SHSP), the Gaston-Cleveland-Lincoln MPO’s 2050 Metropolitan Transportation Plan (MTP), the City of Gastonia’s 2050 Comprehensive Plan, and the City of Gastonia’s Safety Action Plan (currently in development). Collectively, these plans identify speed management, safer crossings, multimodal connectivity, and roadway design as key strategies to reduce fatal and serious injury crashes.

SAFETY DATA AND ANALYSIS

Crash data along Garrison Boulevard for the three-year period from November 2022 through October 2025 was collected from the North Carolina Department of Transportation (NCDOT) Traffic Engineering Accident Analysis System (TEAAS) and reviewed within the project study limits. A total of 126 crashes occurred along the corridor during the review period. Of those crashes, **one (1) crash resulted in a fatality (K)**, three (3) crashes resulted in serious injury (A), thirty-four (34) crashes resulted in minor injury (B) or possible injury (C), and eighty-eight (88) crashes involved no apparent injury (O). This crash history demonstrates an urgent need to reduce the risk of fatal and serious injury outcomes for all roadway users.

Tragically, the corridor experienced a pedestrian fatality last year at the intersection of Garrison Boulevard and Churchill Drive—one of the most heavily used pedestrian crossings in the civic core and a key connection between the Gaston County Public Library and the Schiele Museum. According to crash reports, an eastbound driver traveling at a high rate of speed ran a red light and struck a pedestrian who was legally crossing the intersection. The pedestrian was pronounced deceased at the scene. This intersection serves as a daily crossing point for families, students, and residents of all ages accessing the City’s most important civic and cultural destinations. The fatal crash underscores what is at stake along Garrison Boulevard and the urgent need for proven safety countermeasures that prioritize human life.

While the most severe crashes reflect the corridor’s safety risks, the corridor also experiences a high volume of property damage only (PDO) crashes. These crashes are less severe, but they indicate persistent conflict points, driver behavior issues, and roadway conditions that increase risk for all users. High-frequency PDO crashes also contribute to sudden braking, congestion, and unpredictable vehicle movements—conditions that can elevate the likelihood of future severe crashes.

SAFETY STRATEGIES

Garrison LEARNS advances a comprehensive safety strategy to prevent fatalities and serious injuries by protecting both motorized and non-motorized travelers. The project will implement evidence-based safety improvements consistent with the NC SHSP and Federal Highway Administration (FHWA) safety best practices, including speed management, roadway reconfiguration, safer pedestrian crossings, improved visibility, and upgraded traffic control.

Safety Strategy #1: Speed Management

Garrison LEARNS will reduce the posted speed limit by 10 miles per hour (MPH) and reinforce speed compliance through roadway design changes that better match the civic core context. Speed management is a core Safe System strategy because lower speeds reduce both crash likelihood and crash severity—particularly for pedestrians and bicyclists.

Safety Strategy #2: Roadway Design and Right-Sizing the Corridor

Garrison LEARNS will right-size the existing right-of-way (ROW) by narrowing travel lanes from 12 feet to 11 feet and adding curb extensions, raised medians, and other geometric improvements to reduce excessive roadway width. This reconfiguration better matches the civic core context by reallocating space to landscaped medians, buffered pedestrian areas, and dedicated bicycle facilities. Together, these changes encourage lower speeds, shorten crossing distances, and reduce high-risk vehicle conflicts. The project will also install a new traffic signal at a location with known sight-distance issues and documented safety concerns to improve traffic control and reduce crash risk.

Safety Strategy #3: Pedestrian and Bicycle Facilities and Safer Crossings

Pedestrians, bicyclists, and individuals using personal mobility devices are essential users of the transportation system. Along Garrison Boulevard, children, older adults, and individuals with disabilities face significant challenges due to long crossing distances, high traffic volumes, and limited protected facilities. **Garrison LEARNS** will improve safety by installing continuous sidewalks and dedicated bicycle lanes along the corridor, reducing exposure to mixed traffic and creating safer, more predictable travel conditions. These facilities will connect to existing pedestrian and bicycle infrastructure and the City of Gastonia’s Avon/Catawba Creeks Greenway network, supporting safer access to schools, parks, civic destinations, and commercial areas.

To further address pedestrian safety at one of the corridor’s most critical crossing needs, the project will install a Pedestrian Hybrid Beacon (PHB) connecting the Middle School and Museum area to the Library. This PHB will provide a controlled, highly visible crossing point for students, families, and other pedestrians and reduce the risk associated with crossing a high-volume arterial roadway.

Safety Strategy #4: Traffic Calming and Driver Feedback

Garrison LEARNS will incorporate traffic calming features that reinforce safe speeds and improve driver awareness in areas of heightened pedestrian activity. Raised and landscaped median elements will narrow the roadway and reduce speeding while also providing pedestrian refuge opportunities. In addition, radar-enabled driver feedback signs will provide real-time speed awareness and encourage compliance with posted speed limits.

EXPECTED SAFETY OUTCOMES

Garrison LEARNS advances proven safety countermeasures to reduce conflict points, manage speeds, improve visibility, and strengthen pedestrian and bicycle safety. Based on the corridor’s documented crash history, **safety benefits are estimated at \$47.7 million over a 20-year operating period (\$17.9 million at a 7.0% discount rate)**. Collectively, these improvements will reduce the risk of future fatalities and serious injuries and create a safer corridor for all users.

B. ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability is a primary purpose of the **Garrison LEARNS** Project. The project reduces transportation-related emissions through mode shift and incorporates green infrastructure to improve stormwater management, reduce heat impacts, and strengthen corridor resilience—consistent with the GCLMPO 2050 MTP and the City of Gastonia Comprehensive Plan.

Located in the Charlotte Metrolina region, Gastonia has a documented history of ground-level ozone challenges. By expanding safe, continuous walking and bicycling facilities in the civic core, **Garrison LEARNS** will reduce vehicle miles traveled (VMT) and associated emissions.

ENVIRONMENTAL SUSTAINABILITY DATA AND ANALYSIS

Analysis indicates that most trips to and within Gastonia’s civic core are under five miles, highlighting strong potential for mode shift. By improving walking and bicycling infrastructure and strengthening network connectivity, **Garrison LEARNS** is expected to reduce single-occupancy vehicle trips and associated emissions.

Emissions reductions were calculated based on annual vehicle miles traveled (VMT) savings using VMT projections from 2030 through 2049. With the **Garrison LEARNS** Project, the increased network connectivity is expected to result in approximately 1.8 million fewer vehicle miles traveled over the analysis period. Mileage-dependent emissions rates were obtained from EPA sources for nitrogen oxides (NOx), particulate matter (PM2.5), and sulfur dioxide (SO2). Damage costs for pollutant emissions from USDOT guidance were used to calculate savings in the Build Alternative. **The total benefit associated with emissions reductions was monetized at approximately \$23,000, or \$9,000 using a 7.0% discount rate, over the full analysis period.**

In addition to air quality benefits, the project is expected to improve noise and congestion by reducing vehicle trips and supporting lower travel speeds through corridor design and speed management. Over a 20-year operating period, the **total noise and congestion reduction benefit was monetized at approximately \$561,000, or \$211,000 using a 7.0% discount rate, over the full analysis period.**

ENVIRONMENTAL SUSTAINABILITY STRATEGIES

Garrison LEARNS advances environmental sustainability through a combination of emissions reduction strategies and nature-based corridor improvements that strengthen resilience and reduce environmental impacts.

Environmental Sustainability Strategy #1: Reduce Emissions Through Mode Shift

Garrison LEARNS will expand safe and continuous sidewalks, dedicated bicycle lanes, and enhanced crossings to increase walking and bicycling for short trips. These improvements are expected to reduce vehicle miles traveled and support measurable reductions in greenhouse gas emissions and criteria pollutants.

Environmental Sustainability Strategy #2: Green Infrastructure and Stormwater Management

Garrison LEARNS will incorporate green space in medians and buffer areas as part of the corridor redesign. These improvements increase vegetation within the public right-of-way and support

stormwater infiltration, reduce runoff volumes, and improve corridor aesthetics. Where feasible during final design, the project will incorporate additional green infrastructure elements such as vegetated swales, bioswales, and similar nature-based stormwater features to improve resilience to heavy rainfall events and reduce localized flooding impacts.

Environmental Sustainability Strategy #3: Urban Tree Canopy and Heat Mitigation

By expanding landscaped areas within medians and buffer spaces, the project will increase vegetation in a high-impervious urban environment. Increased tree canopy and landscaping reduce urban heat island effects, improve pedestrian comfort, and support sustained use of active transportation facilities.

Environmental Sustainability Strategy #4: Reduce Noise & Improve Environmental Conditions

By supporting reductions in vehicle trips and encouraging lower speeds, **Garrison LEARNS** will reduce roadway noise and improve environmental conditions in the civic core. These improvements contribute to a healthier and more comfortable corridor for residents, visitors, and corridor users.

EXPECTED ENVIRONMENTAL SUSTAINABILITY OUTCOMES

Garrison LEARNS is designed to achieve measurable environmental sustainability outcomes through both emissions reduction and green infrastructure. The project's estimated 1.8 million VMT reduction, monetized emissions benefits, and monetized noise and congestion benefits demonstrate clear, direct, and data-driven environmental outcomes. In addition, the incorporation of green space within medians and buffer areas provides nature-based benefits that support stormwater management, corridor resilience, and improved environmental conditions in the civic core.

C. QUALITY OF LIFE

Quality of life is a primary purpose of the **Garrison LEARNS** Project. The project improves the day-to-day travel experience in Gastonia's civic core by creating a safer, more comfortable, and more intuitive multimodal corridor. Through context-sensitive design, corridor beautification, improved wayfinding, and high-quality walking and bicycling facilities, **Garrison LEARNS** strengthens access to the City's most important educational, cultural, and recreational destinations while improving comfort for families, older adults, and individuals with disabilities.

Garrison LEARNS improves access to key community anchors along and adjacent to the corridor, including the Schiele Museum of Natural History, Grier Middle School, the Gaston County Library Main Branch, Lineberger Park, and the Avon/Catawba Creeks Greenway network. These destinations support learning, recreation, civic engagement, and daily quality of life—and the project will make reaching them safer, easier, and more inviting without requiring a vehicle for every trip.

- [Schiele Museum of Natural History](#), which welcomed more than 109,000 visitors in 2025, including 38,000+ students and teachers participating in educational programs, along with 50,000 guests enjoying the James H. Lynn Planetarium & Science Theater.

- [Grier Middle School](#), which has recently undergone a transformative expansion with the construction of a new 155,000 square foot, \$65M school facility, set to accommodate up to 1,200 students and has become a beacon of learning in Gaston County.
- [Gaston County Library Main Branch](#), offering invaluable resources such as free computer and internet access, educational events, and hosting various non-profit organizations and community resources.
- [Lineberger Park](#), a regional centerpiece offering community event spaces, outdoor recreation opportunities, and green spaces for residents to enjoy.
- [Avon/Catawba Creeks Greenway](#), a paved 3-mile trail owned and maintained by the City of Gastonia featuring numerous neighborhood entrances, small bridges crossing creeks, and informational stops showcasing local bird species as part of the 2-state, 15-county [Carolina Thread Trail](#).

QUALITY OF LIFE DATA AND ANALYSIS

Health Benefit (Reduced Mortality Risk from Induced Active Transportation)

USDOT BCA Guidance quantifies health benefits from users induced to shift from driving to walking and bicycling, including reduced mortality risk (age-range values applied using national average proportions). **Garrison LEARNS** will increase active transportation through new sidewalks, bike lanes, and enhanced crossings, resulting in: Walking (AADT +1,450; 529,000 annual trips; 360,000 induced trips in age range) and Bicycling (AADT +3,587; 1.3M annual trips; 773,000 induced trips in age range). **Over a 20-year operating period, total health benefits were monetized at \$7.8M (\$2.9M at a 7.0% discount rate).**

Amenity Comfort Benefit (Improved Walking and Bicycling Experience)

Improved pedestrian and bicycle facilities increase comfort, convenience, and perceived safety. Per USDOT BCA Guidance, the rule of half was applied to induced use. **Over a 20-year operating period, total amenity comfort benefits were monetized at \$5.0M (\$1.9M at a 7.0% discount rate).** Pedestrian comfort benefits reflect 1.37 miles of new 5-foot sidewalks, a 10 MPH speed reduction, an improved greenway underpass, enhanced crossings, and a PHB (\$1.3M). Cycling comfort benefits reflect 1.37 miles of bike lanes on both sides of Garrison Boulevard (\$3.7M).

QUALITY OF LIFE STRATEGIES

Quality of Life Strategy #1: Improve the Travel Experience for Families and Caregivers

Garrison LEARNS will create continuous sidewalks, safer crossings, and reduced vehicle speeds—improvements that support travel by families with children, caregivers pushing strollers, and residents using mobility devices. The project will improve crossing visibility, reduce crossing distances, and add a controlled crossing (PHB) connecting the Middle School and Museum area to the Library, making trips more predictable, intuitive, and comfortable.

Quality of Life Strategy #2: Beautification and Context-Sensitive Corridor Design

Garrison LEARNS will incorporate landscaped medians and green space within buffer areas to improve corridor appearance and comfort while maintaining safety and operational efficiency. These improvements enhance the public realm in Gastonia's civic core, support a more welcoming corridor environment, and reinforce long-term revitalization.

Quality of Life Strategy #3: Improve Wayfinding and User Experience

By implementing a more organized corridor cross-section with dedicated space for walking, bicycling, and vehicle travel, **Garrison LEARNS** improves corridor legibility and predictability. Clearer operations and a more intuitive corridor layout improve user experience for residents and visitors and support safer, more comfortable travel.

Quality of Life Strategy #4: Improve Affordability Through Expanded Travel Options

By improving walking and bicycling comfort and safety, **Garrison LEARNS** expands access to low-cost travel options for residents. These improvements reduce reliance on vehicle trips for short-distance travel and help households access school, parks, library services, and civic destinations without requiring a vehicle for every trip.

EXPECTED QUALITY OF LIFE OUTCOMES

Garrison LEARNS is designed to deliver clear, direct, and data-driven quality of life benefits. **Over a 20-year operating period, the project’s health benefits from induced active transportation were monetized at \$7.8 million (or \$2.9 million using a 7.0% discount rate), and amenity comfort benefits were monetized at \$5.0 million (or \$1.9 million using a 7.0% discount rate).** Together, these benefits demonstrate measurable improvements in public health, travel comfort, and the overall user experience. By beautifying the corridor, strengthening wayfinding, improving comfort for families and caregivers, and expanding safe and affordable travel options, **Garrison LEARNS** will significantly enhance quality of life in Gastonia’s civic core.

D. MOBILITY AND COMMUNITY CONNECTIVITY

Mobility and community connectivity is a primary purpose of the **Garrison LEARNS** Project. The project improves how people move within Gastonia’s civic core by transforming Garrison Boulevard from a barrier into a connected multimodal corridor. By creating continuous pedestrian and bicycle facilities, strengthening crossings, and improving ADA accessibility, **Garrison LEARNS** reconnects neighborhoods to key community destinations and provides safer, more direct, and more affordable transportation options for residents of all ages and abilities.

Garrison Boulevard serves as one of Gastonia’s most important east-west corridors and provides access to civic, cultural, educational, and recreational destinations. Today, gaps in sidewalks, limited safe crossings, and corridor conditions that prioritize vehicle movement over people create physical and perceived barriers—particularly for families, older adults, and individuals with disabilities. **Garrison LEARNS** addresses these barriers by creating a more intuitive, continuous, and accessible transportation network.

MOBILITY AND COMMUNITY CONNECTIVITY DATA AND ANALYSIS

The **Garrison LEARNS** Project is designed to improve mobility by expanding continuous active transportation infrastructure and improving the safety and accessibility of crossings at key destinations. The project includes 1.37 miles of new 5-foot sidewalks, 1.37 miles of dedicated bicycle lanes on both sides of the corridor, and corridor-wide crossing and accessibility improvements. These investments will create a continuous multimodal connection between Lineberger Park, the Avon/Catawba Creeks Greenway, Grier Middle School, the library, and cultural destinations in the civic core.

In addition, the project will improve accessibility for Americans with disabilities through Universal Design and ADA-compliant improvements, including reconstructed curb ramps and enhanced crossings. These improvements will reduce barriers for residents using wheelchairs, walkers, strollers, and other mobility devices and improve the usability of the corridor for all travelers.

MOBILITY AND COMMUNITY CONNECTIVITY STRATEGIES

Garrison LEARNS advances mobility and community connectivity by implementing corridor improvements that reconnect neighborhoods, improve accessibility for nonmotorized travelers, and strengthen safe and predictable multimodal travel.

Mobility Strategy #1: Create a Continuous Multimodal Corridor

Garrison LEARNS will install continuous sidewalks and dedicated bicycle lanes along Garrison Boulevard, eliminating gaps in the active transportation network and creating a direct, comfortable route between neighborhoods and civic destinations. These improvements will connect seamlessly with the Avon/Catawba Creeks Greenway network, expanding access to regional trail facilities and improving first/last-mile connectivity.

Mobility Strategy #2: Improve Accessibility Through Universal Design and ADA Enhancements

The project will reconstruct curb ramps and improve crossings to meet ADA standards and support Universal Design principles. These improvements will increase accessibility for individuals with disabilities and improve travel experience for families with strollers, older adults, and users of personal mobility devices.

Mobility Strategy #3: Reconnect Communities Through Safer Crossings and Barrier Reduction

Garrison Boulevard currently functions as a physical and psychological barrier between major destinations in the civic core. **Garrison LEARNS** will reduce this barrier through safer, more visible, and more controlled crossings, including high-visibility crosswalks, pedestrian countdown timers, and upgraded traffic control. A key improvement is the installation of a Pedestrian Hybrid Beacon (PHB) to provide a controlled crossing between the Middle School and Museum area and the Library. This crossing will improve connectivity for students, families, and pedestrians accessing key community resources.

Mobility Strategy #4: Improve Network Reliability and Corridor Function

Garrison LEARNS includes corridor design improvements that support safer and more predictable operations for all users, including right-sizing the roadway, enhanced lighting, improved traffic control, and a new traffic signal at Laurel Lane. These improvements strengthen corridor function while maintaining operational efficiency and improving travel conditions for pedestrians, bicyclists, and motorists.

MOBILITY AND CONNECTIVITY IMPROVEMENTS INCLUDED IN GARRISON LEARNS

- **Lower posted speed limit by 10 MPH** to improve corridor comfort and encourage walking and bicycling by reducing speed-related barriers to multimodal travel.
- **Right-size the roadway by narrowing travel lanes from 12 feet to 11 feet** to support a safer, more predictable corridor that is more compatible with a civic core setting.

- **Replace the two-way left turn lane with a raised, landscaped median** to improve access management, reduce conflict points, and provide safer pedestrian refuge opportunities where appropriate.
- **Enhance corridor lighting** to improve nighttime visibility and strengthen comfort and usability for pedestrians, bicyclists, and motorists.
- **Install a new traffic signal at Laurel Lane** to address documented operational and safety concerns, improve access, and provide safer crossing opportunities.
- **Improve the Avon/Catawba Creeks Greenway underpass** to strengthen connectivity between the corridor and the regional trail network and provide a safer, more comfortable route for people walking and bicycling.
- **Reconstruct curb ramps to ADA standards** to improve accessibility and support Universal Design for individuals with disabilities, older adults, and caregivers with strollers.
- **Install 1.37 miles of dedicated bicycle lanes on both sides of Garrison Boulevard** to create a continuous, connected facility that reduces exposure to mixed traffic and expands safe travel options.
- **Construct 1.37 miles of new 5-foot sidewalks** to close gaps in the pedestrian network and provide continuous access between neighborhoods and key destinations.
- **Install high-visibility crosswalks at signalized intersections and midblock crossings** to improve pedestrian access and increase driver awareness at key crossing locations.
- **Add pedestrian countdown timers at signalized intersections** to improve crossing clarity and support safer, more predictable pedestrian movements.
- **Install a Pedestrian Hybrid Beacon (PHB)** to provide a controlled crossing connecting the Middle School and Museum area to the Library, improving access for students, families, and other pedestrians.
- **Install green space within medians and buffer areas** to enhance corridor comfort and user experience while supporting a more inviting civic core environment.



EXPECTED MOBILITY AND COMMUNITY CONNECTIVITY OUTCOMES

Garrison LEARNS will deliver clear, direct, and measurable improvements in mobility and community connectivity by reconnecting the civic core through continuous sidewalks and bicycle lanes, improving ADA accessibility, and creating safer crossings between key destinations. By reducing physical barriers and improving multimodal access, the project will expand affordable transportation options, strengthen connections between neighborhoods and community anchors, and improve the ability of residents—particularly families, older adults, and individuals with disabilities—to travel safely and independently along Garrison Boulevard.

E. ECONOMIC COMPETITIVENESS AND OPPORTUNITY

Economic competitiveness is a primary purpose of the **Garrison LEARNS** Project. The project strengthens Gastonia’s civic core by improving access to key destinations, supporting reinvestment along a major corridor, and enhancing the environment for business activity, tourism, and long-term economic growth. By improving multimodal mobility and safety, **Garrison LEARNS** will increase the reliability and attractiveness of the corridor for residents, visitors, and employers while supporting the City’s development goals.

Despite significant growth pressure across the greater Charlotte metropolitan region, deficient and antiquated transportation infrastructure along Garrison Boulevard contributes to vacant and underutilized properties along the corridor. **Garrison LEARNS** addresses this barrier by improving intersection operations, multimodal access, lighting, and streetscape quality—enhancements that can attract private sector investment and support a stronger civic core economy.

ECONOMIC COMPETITIVENESS AND OPPORTUNITY DATA AND ANALYSIS

Garrison LEARNS directly serves an estimated 3,000 residents and 3,500 jobs along the corridor and improves access to major civic, educational, cultural, and recreational destinations, including the Schiele Museum of Natural History, the Gaston County Public Library, Grier Middle School, Lineberger Park, and the Avon/Catawba Creeks Greenway network. These destinations generate regular travel demand and support visitor activity and local spending. For example, the Schiele Museum welcomed over 109,000 visitors in 2025.

To further evaluate economic development potential, the City of Gastonia hired an independent economic analysis firm to study the Garrison Boulevard corridor. The analysis concluded that “transportation improvements along the corridor can attract new private sector investment that will generate jobs and economic activity.” Based on an assessment of 30 vacant and underdeveloped parcels along the corridor, local land use regulations, and industry standards, the analysis estimated that redevelopment enabled by the **Garrison LEARNS improvements could create approximately 4,000 jobs and approximately \$640 million in total economic activity:**

- **One-time construction impacts:** supporting approximately 1,300 direct jobs and approximately \$277 million in economic activity.
- **Ongoing economic impacts:** supporting approximately 2,600 permanent jobs in the larger Gastonia market area, creating approximately \$130 million per year in new labor income and approximately \$360 million per year in economic output.

In addition, improved multimodal access to civic destinations and corridor redesign is expected to increase adjacent property values by improving corridor livability and accessibility. Because research findings vary widely, the BCA applied a conservative estimate of a 10% increase in land value, applied only to 33 mixed-use and commercial parcels immediately adjacent to the study area. Using tax appraisal data from Gaston County, **the total real estate benefit was monetized at approximately \$1.2 million, or \$814,000 using a 7.0% discount rate, over the full analysis period.** The Economic Impact Analysis can be viewed [here](https://gastoninc.gov/residents/transportation/garrison).

Note: Per USDOT BCA Guidance, the broader economic development impacts described above (e.g., job creation and economic output from redevelopment) are not permitted to be included in the BCA spreadsheet or in the calculation of the benefit-cost ratio. However, these spillover benefits are an important part of understanding the project's overall economic competitiveness value for Gastonia and the region.

ECONOMIC COMPETITIVENESS AND OPPORTUNITY STRATEGIES

Economic Strategy #1: Catalyze Private Sector Reinvestment

Garrison LEARNS will modernize deficient corridor infrastructure through intersection improvements, upgraded traffic control, improved lighting, and a redesigned multimodal corridor cross-section. These improvements strengthen corridor function and create a more context-appropriate environment that supports reinvestment and redevelopment.

Economic Strategy #2: Strengthen Access to Jobs, Services, and Civic Destinations

The project will improve multimodal access through continuous sidewalks, dedicated bicycle lanes, and safer crossings that connect residents to employment areas and key destinations in the civic core. Improved access supports a stronger local labor market and increases the ability of residents and visitors to reach civic and cultural assets.

Economic Strategy #3: Support Tourism and Visitor Activity

Garrison LEARNS improves access to destinations that attract visitors and generate local spending, including the Schiele Museum, Lineberger Park, and the Avon/Catawba Creeks Greenway. Safer crossings, improved lighting, and better walking and bicycling connectivity strengthen the visitor experience and support tourism-related travel between destinations.

Economic Strategy #4: Improve Corridor Reliability and Reduce Crash-Related Disruptions

The project includes safety and operational improvements that support more predictable travel along one of Gastonia's busiest arterials. Improved reliability reduces crash-related disruptions and supports the efficient movement of residents, visitors, and local commerce.

EXPECTED ECONOMIC COMPETITIVENESS AND OPPORTUNITY OUTCOMES

Garrison LEARNS is expected to enhance Gastonia's economic competitiveness by improving access to jobs and key destinations, facilitating tourism activity, and supporting reinvestment in the civic core. Independent analysis indicates that redevelopment potential along 30 vacant and underdeveloped corridor parcels could support approximately 4,000 jobs and approximately \$640 million in economic activity, including both one-time construction impacts and ongoing economic output. While these spillover benefits cannot be counted in the BCA benefit-cost ratio per USDOT guidance, they demonstrate the project's strong potential to catalyze private investment and support long-term economic growth.

In addition, the project's conservative real estate benefit estimate of approximately \$1.2 million (or \$814,000 at a 7.0% discount rate) reflects measurable economic value associated with improved multimodal access and corridor livability. Collectively, these outcomes position **Garrison LEARNS** as a foundational investment in the long-term vitality and competitiveness of Gastonia's civic core.

F. STATE OF GOOD REPAIR

State of good repair is a primary purpose of the **Garrison LEARNS** Project. The project restores and modernizes aging transportation infrastructure along Garrison Boulevard in Gastonia's civic core by addressing deferred maintenance, replacing outdated corridor elements that have reached the end of their useful life, and improving long-term maintainability through an integrated corridor redesign. By modernizing roadway features, traffic control, lighting, and accessibility infrastructure, the project reduces system vulnerabilities and improves the long-term performance and reliability of this critical arterial.

Garrison Boulevard is an essential east-west corridor serving major civic, educational, cultural, and recreational destinations. While the project will retain and utilize existing infrastructure where feasible, several corridor elements have reached functional obsolescence and require modernization to ensure safe and reliable operations for all users.

STATE OF GOOD REPAIR DATA AND ANALYSIS

The existing corridor includes infrastructure elements that have reached or exceeded their functional lifespan, including sections of pavement exhibiting rutting and cracking, outdated lighting infrastructure, and pedestrian facilities that do not meet current accessibility expectations. In addition, existing corridor design and lane configuration create ongoing maintenance burdens through extensive asphalt and striping needs.

Garrison LEARNS improves long-term maintainability by implementing an integrated corridor redesign that reduces maintenance-intensive roadway elements while modernizing key assets. **Over a 20-year operating period, the project's total maintenance cost benefit was monetized at \$1.4 million, or \$956,000 using a 7.0% discount rate, over the full analysis period.** The largest savings are associated with reduced roadway rehabilitation needs (including avoidance of one mill-and-pave cycle over the project life), as well as reduced asphalt and striping maintenance due to removal of the center two-way left turn lane.

STATE OF GOOD REPAIR STRATEGIES

State of Good Repair Strategy #1: Restore and Modernize Core Corridor Infrastructure

Garrison LEARNS will address aging and deteriorated corridor elements through targeted reconstruction and modernization. This includes roadway improvements, upgraded lighting, reconstructed curb ramps, and enhanced pedestrian crossings—bringing the corridor up to modern standards and extending the useful life of core infrastructure assets.

State of Good Repair Strategy #2: Modernize Traffic Control and Replace Outdated Systems

The project will install new traffic control infrastructure, including a new traffic signal and upgraded pedestrian crossing features. These improvements replace outdated hardware and improve the corridor's ability to support modern operations, including safer pedestrian movements and improved long-term reliability.

State of Good Repair Strategy #3: Reduce Long-Term Maintenance Burdens

By right-sizing the corridor cross-section, eliminating the center turn lane, and consolidating improvements into a single integrated project, **Garrison LEARNS** reduces long-term maintenance

burdens and improves lifecycle efficiency. This approach strengthens state of good repair outcomes while minimizing future disruption from repeated construction cycles.

State of Good Repair Strategy #4: Address Vulnerabilities and Improve Long-Term Durability

The project includes improvements to the Avon/Catawba Creeks Greenway underpass that address deferred maintenance and strengthen the durability and usability of this key connection to the regional trail network. Improvements will enhance the condition and long-term performance of the underpass while supporting safe and continuous multimodal travel.

EXPECTED STATE OF GOOD REPAIR OUTCOMES

Garrison LEARNS will restore and modernize aging corridor assets, address deferred maintenance, and reduce long-term maintenance burdens through an integrated and efficient corridor redesign. **The project’s monetized maintenance cost benefit of approximately \$1.4 million (or \$956,000 at a 7.0% discount rate) demonstrates clear, direct, and data-driven state of good repair outcomes.** By modernizing roadway elements, traffic control systems, lighting, accessibility infrastructure, and key multimodal connections, the project will improve long-term corridor performance and ensure that Garrison Boulevard remains reliable, safe, and maintainable for decades.

Garrison Boulevard is owned and maintained by the North Carolina Department of Transportation (NCDOT). Following project completion, roadway pavement—including bicycle lanes—will continue to be maintained by NCDOT. The City of Gastonia will maintain the sidewalks, planted median, and the Avon/Catawba Creeks Greenway underpass improvements.

G. PARTNERSHIP AND COLLABORATION

The City of Gastonia has established a strong framework for stakeholder coordination and meaningful public engagement to ensure that residents, businesses, institutions, and partner agencies are actively involved throughout the lifecycle of the project. The project is supported by a broad coalition of public agencies, educational institutions, community organizations, and corridor stakeholders who share a common goal of improving safety, mobility, and corridor function in Gastonia’s civic core.



THE SCHIELE

Garrison LEARNS has garnered support from a diverse array of stakeholders, including NCDOT, the Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO), Gaston County, the Carolina Thread Trail, Gaston County Schools, the Schiele Museum of Natural History, the Gaston County Public Library, economic development organizations, local businesses, and community-based partners. Letters of support have also been or are in the process of being secured from U.S. Senators Ted Budd and Thom Tillis, U.S. Representative Tim Moore, and the local NC General Assembly delegation. Letters of support have been included as an attachment and additional letters will be posted to the [project website](https://gastonianc.gov/residents/transportation/garrison) as they are received.

PARTNERSHIP AND COLLABORATION DATA AND ANALYSIS

Garrison LEARNS was developed through the [Garrison Boulevard Corridor Study](#), which included a comprehensive Public and Stakeholder Engagement Strategy to guide transparent, consistent, and meaningful engagement. The extensive public engagement process was structured to ensure that individuals who live, work, and travel along the corridor had multiple opportunities to provide input on needs, priorities, and design concepts. This process strengthened project outcomes by identifying corridor challenges, validating the preferred alternative, and building long-term community support for implementation.

The City also coordinated closely with partner agencies and corridor institutions throughout the planning process, ensuring that project recommendations align with broader transportation, land use, economic development, school access, and greenway connectivity goals.

PARTNERSHIP AND COLLABORATION STRATEGIES

Partnership Strategy #1: Meaningful Public Engagement Throughout the Project Lifecycle

The City of Gastonia will continue to engage residents and corridor stakeholders throughout preliminary engineering, design, and construction. The project's engagement approach is designed to support two-way communication, provide accessible information, and ensure the community remains informed and involved as project decisions advance.

Partnership Strategy #2: Coordination with Community-Based Organizations & Institutions

The City has partnered with major corridor institutions and community organizations—including schools, cultural destinations, and nonprofit partners—to ensure that project improvements support real-world travel needs. This includes coordination with Gaston County Schools, the Schiele Museum, the Gaston County Public Library, and organizations supporting trail and greenway connectivity.

Partnership Strategy #3: Interagency Coordination with Transportation and Planning Partners

The City will continue coordination with NCDOT, the GCLMPO, and Gaston County to ensure the project aligns with regional transportation planning priorities, roadway ownership and maintenance responsibilities, and long-term corridor implementation strategies. This coordination supports efficient delivery, reduces risk, and improves the project's ability to integrate with future roadway, transit, and greenway investments.

Partnership Strategy #4: Coordinated Revitalization Efforts

Garrison LEARNS is being advanced in coordination with local economic development partners and corridor stakeholders to support reinvestment along Garrison Boulevard. By aligning transportation improvements with redevelopment potential, the project supports broader civic core revitalization goals while improving multimodal access to businesses and destinations.

PUBLIC AND STAKEHOLDER ENGAGEMENT ACTIVITIES

Partnership and collaboration for **Garrison LEARNS** has included a comprehensive set of engagement activities conducted during the corridor planning process, including:

- **Project website and public communications:** development of an accessible project website and social media outreach to provide project information, updates, and opportunities for feedback.
- **Walking tours:** corridor walking tours with residents and stakeholders to identify specific safety concerns, access barriers, and opportunities for improvement.
- **Public workshops:** interactive workshops to gather community priorities, share concepts, and refine alternatives.
- **Interdepartmental staff workshops:** workshops with City departments including Transportation, Engineering, Public Services, Economic Development, and Planning to vet concepts and ensure alignment across City functions.
- **Stakeholder focus groups:** focus groups with advocacy groups, neighborhood associations, economic development partners, major employers, and corridor institutions to incorporate diverse perspectives.
- **Briefings and presentations to elected officials:** presentations to the Gastonia City Council and other elected leaders to build understanding, alignment, and support.
- **Public meetings:** meetings to present study findings and the preferred alternative and incorporate public feedback into final recommendations.

EXPECTED PARTNERSHIP AND COLLABORATION OUTCOMES

Garrison LEARNS is positioned for successful implementation because it is supported by a broad coalition of stakeholders and has been developed through a transparent, inclusive planning process. Continued engagement with residents, community-based organizations, corridor institutions, and partner agencies will strengthen project delivery, reduce implementation risk, and ensure that final design and construction reflect community priorities. This collaborative approach will support long-term corridor success by aligning transportation improvements with broader civic core goals for safety, access, economic vitality, and community connectivity.

H. INNOVATION

As a rapidly growing mid-sized city, Gastonia faces practical constraints—including limited right-of-way, geographic limitations, and financial considerations—that make traditional roadway widening and expansion impractical. In response, the City and its regional partners are advancing a modern, scalable approach that optimizes the existing corridor through multimodal integration, technology-enabled safety improvements, and context-sensitive design.

Garrison LEARNS represents a transformative approach for Gastonia by prioritizing multimodal access and deploying modern traffic operations tools that improve safety, reliability, and user experience while working within the existing roadway footprint.

INNOVATION DATA AND ANALYSIS

Garrison Boulevard is a high-volume corridor serving Gastonia’s civic core and key community anchors. The corridor’s documented crash history—including a recent pedestrian fatality—demonstrates the need for safety solutions that extend beyond conventional signage and pavement markings. Technology-enabled safety treatments, modern traffic signal systems, and

detection-based crossing infrastructure provide measurable safety and operational benefits by improving driver awareness, strengthening pedestrian visibility, and supporting more predictable intersection performance.

INNOVATION STRATEGIES

Innovation Strategy #1: Multimodal Integration Within a Constrained Corridor

Rather than prioritizing vehicle capacity expansion, **Garrison LEARNS** advances a multimodal corridor redesign that includes continuous sidewalks, dedicated bicycle lanes, and improved pedestrian crossings. This integrated approach creates a safer and more intuitive corridor for walking and bicycling while maintaining corridor function for motorists and transit users. A Pedestrian Hybrid Beacon will be installed to provide a controlled crossing between the Library, Museum, and Middle School—strengthening connectivity between key civic destinations.

Innovation Strategy #2: Technology-Enabled Safety and Operations Improvements

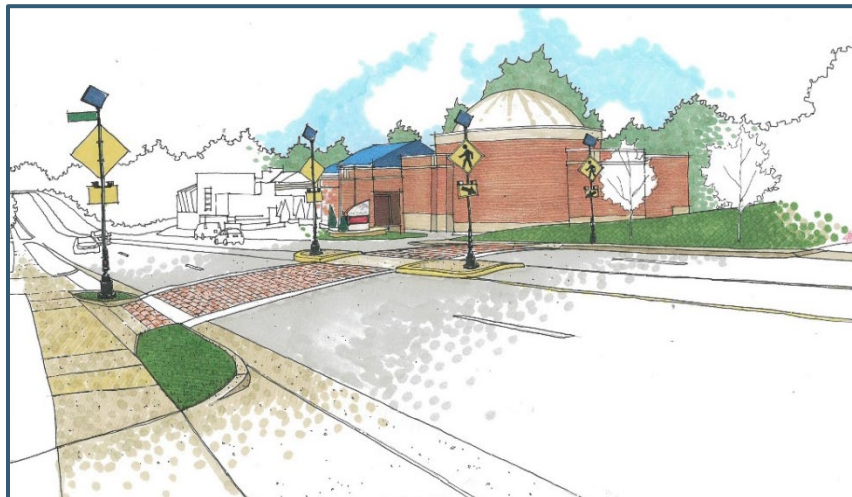
The project includes modern signal upgrades and traffic control improvements to enhance intersection performance and reduce conflict points. Where feasible, the City will deploy adaptive signal operations—capabilities that represent a significant advancement for Gastonia’s transportation system. Radar-enabled driver feedback signs will provide real-time speed awareness near pedestrian activity areas.

Innovation Strategy #3: Adaptive Road Design and Flexible Corridor Configuration

Garrison LEARNS advances an adaptive design approach by right-sizing the roadway cross-section and incorporating lane configuration changes that better reflect corridor context and multimodal needs. Through lane narrowing, lane reallocation, and the use of medians and refuge areas, the project improves safety and creates flexibility for evolving travel patterns without requiring new right-of-way.

EXPECTED INNOVATION OUTCOMES

Garrison LEARNS will introduce modern multimodal and technology-enabled practices that advance how Gastonia designs and operates transportation corridors. By deploying detection-based crossings, upgraded traffic control, and adaptive roadway design within constrained conditions, the project establishes a scalable model for safer, more efficient corridor investments citywide.



Proposed Pedestrian Hybrid Beacon

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PROJECT BUDGET SUMMARY

Total project costs in expenditure year dollars for the **Garrison LEARNS** project are estimated at \$20,564,885. The City of Gastonia seeks \$19,280,352 (93.75%) in BUILD grant funding to complete the project. Although no local cost share is required due to the project being completely in a Rural designation, the City of Gastonia is committing non-federal funds in the amount of \$1,284,533 (6.25%) to make the project more competitive.

The following budget tables include only future eligible costs and do not include any previously incurred expenses. Project costs are presented in base-year dollars (2024), current-year dollars (2026), and expenditure-year dollars.

Funding Source	Component 1	% of Total Project Cost
BUILD Funds	\$19,280,352	93.75%
Other Federal Funds	\$0	0%
Non-Federal Funds	\$1,284,533	6.25%
TOTAL COST	\$20,564,885	100%

Table 1. Sources of Funding and Percentage of Total Project Cost

2020 Census Tract	% of Project	Project Costs per Census Tract
327.03	50%	\$10,282,442.50
327.04	50%	\$10,282,442.50
	TOTAL COST	\$20,564,885.00

Table 2. Project Costs Per Census Tract

Urban Rural	% of Project	Project Costs
Urban	0%	\$0
Rural	100%	\$20,564,885
	TOTAL COST	\$20,564,885

Table 3. Urban vs. Rural Project Costs

SOURCES, USES, AND AVAILABILITY OF FUNDS

BUILD Funds (Federal)

The City of Gastonia will use BUILD grant funds for eligible project costs including roadway reconstruction, multimodal corridor improvements, right-of-way acquisition, traffic signal upgrades, engineering and construction management, and contingency.

Other Federal Funds

No other Federal funding sources are included in the project budget.

Non-Federal Funds (Local Match)

The City of Gastonia will provide \$1,284,533 in non-Federal funds, representing 6.25% of total project costs. These funds are budgeted as the local share and are proposed to be applied to corridor landscaping and lighting. A Financial Commitment Letter has been attached.

Non-federal funds will come as a cash match from the City of Gastonia from a General Obligation Bond for Transportation that was approved by voters in 2022. The City will make these funds available in accordance with the project schedule and will ensure that local match funds are programmed prior to obligation of federal funds. No external conditions must be satisfied for the City to commit these funds, and the City retains full control over the availability of the match.

Cost Classification	BUILD Funds	Other Federal Funds	Non-Federal Funds	Total Project Cost
CONSTRUCTION				
Mobilization & Construction Staging	\$1,043,000	\$0	\$0	\$1,043,000
Traffic Control	\$350,000	\$0	\$0	\$350,000
Erosion Control	\$118,000	\$0	\$0	\$118,000
Obstruction Removal, Clearing/Grubbing, General Earthwork	\$1,221,500	\$0	\$0	\$1,221,500
Asphalt Roadway	\$1,874,082	\$0	\$0	\$1,874,082
Concrete – Curbs & Median	\$524,980	\$0	\$0	\$524,980
Concrete Walks	\$395,850	\$0	\$0	\$395,850
Pedestrian Crossings	\$608,000	\$0	\$0	\$608,000
Driveway Reconstruction	\$157,500	\$0	\$0	\$157,500
Underpass Upgrades	\$420,000	\$0	\$0	\$420,000
Storm Water Conveyance System	\$856,000	\$0	\$0	\$856,000
Landscaping & Lighting	\$0	\$0	\$1,284,533	\$1,284,533
Pavement Markings & Signage	\$199,000	\$0	\$0	\$199,000
Traffic Signal Modifications	\$1,100,000	\$0	\$0	\$1,100,000
RIGHT-OF-WAY				
Commercial ROW Acquisition	\$1,902,000	\$0	\$0	\$1,902,000
ENGINEERING SUPPORT				
Engineering & Construction Management	\$2,539,000	\$0	\$0	\$2,539,000
TOTAL PROJECT SUBTOTAL	\$13,308,912	\$0	\$1,284,533	\$14,593,445
CONTINGENCY (30%)	\$4,378,034	\$0	\$0	\$4,378,034
TOTAL EST. PROJECT COST IN 2026 (CURRENT YEAR) DOLLARS				\$18,971,479
TOTAL EST. PROJECT COST IN EXPENDITURE YEAR DOLLARS <small>(Assumes PE and ROW acquisition in 2027, 50% CON in 2028, and 50% CON in 2029)</small>	\$19,280,352	\$0	\$1,284,533	\$20,564,885
TOTAL EST. PROJECT COST IN 2024 (BASE YEAR) DOLLARS	\$16,443,934	\$0	\$1,096,265	\$17,540,199

Table 4. Project Budget Breakdown

LEVEL OF DESIGN

Although the estimate is planning-level, it is grounded in the adopted corridor study recommendations, recent local unit-cost pricing, and includes a 30% contingency and a full cost overrun commitment by the City to ensure the project can be delivered without reduction in scope.

COST ASSUMPTION AND CONTINGENCY STATEMENT

Project costs were developed by City of Gastonia staff with support from Kittelson & Associates, Inc. in January 2026 as a planning-level estimate using corridor study assumptions, unit-cost estimating, and high-level quantities based on the anticipated cross-section and improvement types. Key assumptions include pavement section thickness, milling and overlay within the limits, minor modifications to the existing greenway underpass culvert, mast arm traffic signal upgrades, and preliminary right-of-way assumptions for sidewalk and U-turn bulb concepts.

The estimate includes escalation from base-year (2024) dollars to current-year (2026) dollars and to expenditure-year dollars based on the proposed delivery schedule: right-of-way acquisition and early activities in 2027, and construction split across 2028 and 2029.

The City of Gastonia is fully committed to the successful completion of this project and recognizes the inherent risks associated with vision-level cost estimating, inflation uncertainty, and unknowns that will be refined during engineering. To mitigate these risks, a 30% contingency in the amount of \$4,378,034 has been included in the cost estimate to provide a buffer for unforeseen expenses.

In the event that costs exceed the budgeted amount, the City of Gastonia will assume full financial responsibility for any cost overruns to ensure completion without reduction in scope or quality. The City has a proven track record of managing public funds responsibly and implementing projects within compliance standards, and it will continue to exercise diligent oversight throughout the project lifecycle. By assuming this responsibility, the City affirms its readiness to meet the financial demands of this initiative and achieve the outcomes anticipated by this grant opportunity.

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PROJECT READINESS

PROJECT OVERVIEW

The City of Gastonia is prepared to advance **Garrison LEARNS** immediately upon award of a BUILD grant. The City has completed substantial planning and coordination, including the [Garrison Boulevard Corridor Study](#) (2024). The project is positioned for timely delivery well in advance of the BUILD obligation deadline of September 30, 2030. The City will coordinate closely with NCDOT and FHWA throughout environmental compliance, design, right-of-way activities (if required), and construction.

PLANNING AND CONSTRUCTABILITY

STIP / TIP / TTIP / TAM Plan

Garrison LEARNS is a multimodal safety and access project on Garrison Boulevard, a state-maintained route. If awarded, the City will coordinate with the Gaston-Cleveland-Lincoln MPO (GCLMPO) and NCDOT to incorporate the project into the TIP and STIP, as applicable. The City anticipates TIP/STIP actions will occur during 2026–2027, consistent with MPO and state amendment cycles.

Consistency with Other Plans

The project is consistent with adopted plans, including the City’s 2050 Comprehensive Plan, the GCLMPO 2050 Metropolitan Transportation Plan (MTP), and NCDOT’s Comprehensive Transportation Plan (CTP).

Freight Plans

Garrison LEARNS is not a freight-focused project; however, the corridor supports local and regional circulation, including deliveries and commercial traffic. Improvements will enhance safety and operations for all users.

Property Acquisition / Right-of-Way (ROW)

Garrison Boulevard is owned and maintained by NCDOT. The project is anticipated to be delivered largely within existing right-of-way. Permanent ROW acquisition is not anticipated; however, temporary construction easements may be required and will be identified during 30% design and addressed during final design/preconstruction. Any ROW activities will comply with the Uniform Act, as applicable.

Construction Techniques and Phasing

The project will use standard roadway construction techniques and is anticipated to be delivered through design-bid-build unless an alternative approach is determined advantageous. Detailed staging and maintenance-of-traffic plans will be developed to maintain access to corridor destinations, adjacent businesses, and all travel modes.

PROPOSED SCHEDULE

The City of Gastonia has developed a realistic project schedule that includes flexibility for unforeseen delays while ensuring the project begins and advances well in advance of the September 30, 2030 obligation deadline.

City of Gastonia – Garrison LEARNS	Start Date	End Date
Grant Review Process and Award	March-2026	June-2026
Grant Agreement	July-2026	Dec-2026
Engineering Consultant Procurement	Nov-2026	Feb-2027
Project listed in TIP/STIP	July-2026	Dec-2027
Preliminary Design Phase	Jan-2027	Mar-2028
Public Involvement	Feb-2027	Dec-2029
Preliminary 30% Design	Feb-2027	Nov-2027
Environmental (NEPA) Document	Aug-2027	Mar-2028
Permits/Approvals (as required)	March-2027	Dec-2027
Alternative Contracting Procurement*	Dec-2027	Mar-2028
Final Design Phase	Mar-2027	June-2028
60% Design	Mar-2027	Jul-2027
Limits of Construction Finalized	May-2027	Jul-2027
Right-of-Way Appraisals & Acquisitions (if necessary)**	Jul-2027	Dec-2027
90% Design	Jul-2027	Dec-2027
Project Permitting	Mar-2027	Dec-2027
100% Design and PS&E	Dec-2027	June-2028
Construction Phase	June-2028	June-2030
Construction Contract Solicitation*	Jul-2028	Dec-2028
Construction	June-2028	June-2030

*Activities marked with asterisks are optional and can be adjusted based on project needs and funding availability.

**Right-of-Way Appraisals & Acquisitions are included, but it is indicated that they are only necessary if required for the project. If not needed, this step can be skipped, allowing for a more efficient timeline.

Project Development Phases to be Funded with BUILD

BUILD funds are anticipated to be used primarily for design and construction, including related eligible costs. BUILD funds are not anticipated to be used for early planning or conceptual development, as the project has already advanced through prior planning work.

NEPA AND PERMITTING

NEPA Class of Action

Garrison LEARNS is anticipated to qualify for a Categorical Exclusion (CE) under NEPA due to its characteristics and scope, including improvements largely within existing right-of-way and along an existing developed corridor.

NEPA Status and Milestones

The City and NCDOT will initiate NEPA coordination immediately following award and consultant procurement to ensure NEPA completion by March 2028.

Link to NEPA Documentation

No draft or final NEPA documentation is available at this time. NEPA documentation will be developed following grant award and consultant procurement.

Reevaluation and Post-Approval Changes

Following NEPA approval, the City and NCDOT will coordinate any required NEPA reevaluation prior to construction if project scope, setting, schedule, or impacts change.

Permits and Approvals

Based on corridor conditions, no major environmental permits are anticipated; permitting needs will be confirmed during NEPA resource screening and tracked in a permitting matrix tied to the project schedule.

Coordination with DOT

FHWA is anticipated to serve as the federal lead agency for NEPA compliance. NCDOT will serve as the certified project administrator for federal-aid delivery within the state-maintained corridor. The City has coordinated extensively with NCDOT during planning and concept development; NCDOT participated in study meetings and confirmed concept feasibility. NCDOT's Letter of Support has been attached and can be viewed [here](#).

PROJECT SUPPORT

Public and Agency Involvement Process

The City has conducted extensive outreach and stakeholder engagement for the project corridor and will continue public involvement throughout design, NEPA, and construction. Engagement will include public meetings, targeted stakeholder coordination, project website updates, and outreach to adjacent businesses and institutions, with accessibility for persons with disabilities.

Public and Agency Involvement Results

Stakeholder feedback has been instrumental in shaping project priorities, design concepts, and implementation strategies. Key themes and outcomes include:

- **Public and impacted communities:** Strong support for safer crossings, improved pedestrian access, and reduced conflicts along the corridor.
- **Elected officials and boards:** Ongoing support for multimodal improvements and corridor safety enhancements.
- **Organizations and advocacy groups:** Support for better connections between the library, museum, park, and greenway, and improved walkability and bicycle safety.
- **Federal, state, and local agencies:** NCDOT has actively supported concept development and confirmed the feasibility of proposed improvements within the state-maintained corridor.

Documentation of support, including letters of support, can be viewed [here](#).

RISKS AND MITIGATION

The City and project partners have identified key risks that could affect schedule, cost, or delivery. The City has also developed mitigation strategies to reduce the likelihood and severity of each risk and to ensure timely delivery.

Risk Assessment and Mitigation Strategies

Procurement Delays:

- Risk: delays in selecting engineering consultants and/or contractors
- Effect: could shift preliminary design start and delay NEPA initiation
- Mitigation: use clear scopes of work, pre-established procurement procedures, and coordinated schedules with NCDOT

Cost Inflation and Bid Volatility:

- Risk: increases in materials and labor costs
- Effect: potential budget pressure and scope adjustments
- Mitigation: include contingencies, maintain scalable design options, and advance cost estimating at each design milestone

Construction Impacts and Delays in a Developed Corridor:

- Risk: staging constraints, business access, traffic management challenges
- Effect: potential schedule extension and community opposition
- Mitigation: detailed maintenance-of-traffic plans, phased construction, proactive communication with adjacent businesses and institutions

Utility Conflicts:

- Risk: unanticipated relocations or delays
- Effect: could impact final design and construction sequencing
- Mitigation: early utility coordination at 30% design and continued coordination through PS&E

ROW/Easement Needs:

- Risk: temporary easement acquisition may take longer than anticipated
- Effect: could affect construction start
- Mitigation: identify easement needs early, coordinate with property owners proactively, and maintain schedule flexibility

Domestic Preference and Buy America Compliance:

- Risk: supply chain limitations for domestically manufactured materials and products
- Effect: procurement delays or cost increases
- Mitigation: incorporate Buy America compliance requirements into bid documents, coordinate with suppliers early, and prioritize domestic sources

The City does not anticipate pursuing a waiver for domestic preference requirements. If any domestic preference issues arise, the City will coordinate with the appropriate USDOT operating administration and take steps to maximize the use of domestic goods, products, and materials.

APPLICANT CAPACITY REVIEW**Roles and Responsibilities**

The City of Gastonia will serve as the lead applicant and project sponsor and will provide overall project management and oversight for **Garrison LEARNS**. NCDOT will serve as the certified project administrator for federal-aid project delivery activities within the state-maintained ROW.

- **City of Gastonia (Lead Applicant/Project Sponsor):** Overall project leadership and oversight; USDOT primary point of contact; schedule, budget, and scope management; consultant oversight; stakeholder and public engagement; local match and local approvals; review and approval of key milestones and deliverables.
- **NCDOT (Certified Project Administrator/ROW Owner):** Federal-aid project administration and coordination with FHWA; state ROW access and approvals; design

review and concurrence; NEPA documentation review support; procurement and construction administration support as required.

- **Engineering Consultant:** Preliminary and final design; technical analyses; NEPA technical support; permitting and agency coordination support; utility coordination support; PS&E; constructability, staging, and maintenance-of-traffic planning.
- **Construction Team:** Construction of all project elements in accordance with approved plans, specifications, permits, and applicable federal requirements; coordination with NCDOT and the City on sequencing, traffic control, and business access; compliance with Buy America, Davis-Bacon, and other applicable federal requirements.
- **CEI Firm:** Provides construction inspection and documentation, pay quantity verification, and quality assurance support consistent with NCDOT and FHWA requirements.
- **FHWA:** Federal oversight and concurrence as applicable, including NEPA approval and federal-aid compliance.

Federal Funding Experience

The City has successfully delivered and implemented federally funded transportation projects of similar scope, including multimodal corridor improvements, pedestrian safety upgrades, and transit capital investments, including, but not limited to:

- STIP Project C-5562: Downtown/Lineberger Connector (multimodal corridor project; locally administered)
- STIP Project C-5622: Highland Branch Greenway, Phase II (multimodal project; locally administered)
- SS4A: Traffic Calming Policy
- SS4A: Safety Action Plan (nearing completion)
- FTA 5307: Gastonia Transit and GoGastonia Microtransit capital and operations support
- FTA 5307: Sidewalk and pedestrian access improvements

Federal Regulations

The City will comply with all applicable federal requirements, including Buy America, ADA, Uniform Act, Davis-Bacon, Title VI, and any other applicable federal procurement and contract administration standards.

Project Planning and Delivery

The City regularly coordinates with the MPO and NCDOT to incorporate projects into long-range planning documents and to amend the TIP/STIP for federally funded projects. This project is already supported by adopted long-range plans and will be incorporated into the TIP/STIP as required following award.

The City has successfully delivered similar transportation and multimodal improvement projects that reflect the size, scope, and complexity of **Garrison LEARNS**. The City's project delivery record demonstrates its ability to manage complex projects involving multiple stakeholders, federal compliance requirements, and active corridor construction environments.