

GARRISON LEARNS

2026 Better Utilizing Investments to Leverage Development (BUILD) GRANT

Executive Summary

The City of Gastonia's **Garrison LEARNS** (Library, Education, Arts, Recreation, Nature, & Science) Project is more than just a transportation project; it aims to positively transform the fabric of the civic core of Gastonia to promote sustainable modes of transportation, enhance connectivity, improve multimodal safety and accessibility, and stimulate economic growth.



Figure 1: Schiele Museum

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, the newly renovated (\$65M) 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 the entire community.

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 is 1,700 LF), resulting in unsafe crossing conditions or significant out of direction travel for pedestrians and transit riders. Moreover, there is a makeshift stormwater feature that doubles as a greenway underpass that is continuously silted, wet, and mostly impassable.

Project Location

The **Garrison LEARNS** Corridor extends from west of Fern Forest Drive at Lineberger Park to South New Hope Road (NC 279). The corridor is well known throughout the region for its concentration of recreational, cultural, and educational destinations, serving residents and visitors alike. Strategically positioned to benefit not only adjacent neighborhoods but the City of Gastonia as a whole, the project addresses sustained growth and increasing travel demand. Over time, this growth has placed pressure on an existing transportation network that was not originally designed to safely accommodate all users.

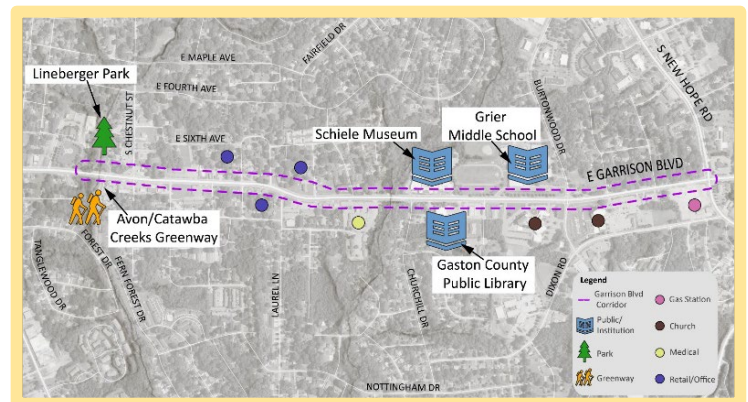


Figure 2: Map of Garrison LEARNS Corridor

By investing in the **Garrison LEARNS** Corridor, the City of Gastonia is proactively responding to evolving mobility patterns and strengthening a transportation network that supports economic vitality, educational access, public health, and overall quality of life.

The City of Gastonia seeks \$19,208,352 in BUILD grant funding to complete the project.

<https://gastonianc.gov/residents/transportation/garrison>

Garrison LEARNS is divided into three (3) primary components consisting of a total of 14 primary improvements. These seemingly individual improvements come together to create a powerful synergy -- a connected, convenient, and multimodal transportation system that unlocks the corridor's potential.

Component #1 - Safety Improvements

- Lowering the Speed Limit by 10 Miles Per Hour (MPH)
- Reducing Travel Lane Width From 12-feet to 11-feet
- Replacing the Two-Way Left Turn Lane with a Raised, Planted Median with Strategic Turning Opportunities
- Enhancing Roadway Lighting
- Installing a Traffic Signal at Laurel Lane
- Improving the Avon/Catawba Creek Greenway Underpass
- Installing Radar Enabled Driver Feedback Signs (6)

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

- Installing Bike Lanes on Both Sides of Garrison Boulevard
- Constructing Sidewalk along Both Sides of Garrison Boulevard
- Installing High-Visibility Crosswalks at Signalized Intersections (5) & New Midblock Crossing (1)
- Adding Pedestrian Countdown Timers at Signalized Intersections (5)
- Installing a Pedestrian Hybrid Beacon Connecting the School and Museum to the Library

Component #3 – Environmental and Quality of Life Improvements

- Reconstructing ADA Curb Ramps
- Installing Green Space with Trees and Shrubs in the Medians and Buffer Spaces
- Installing Public Art

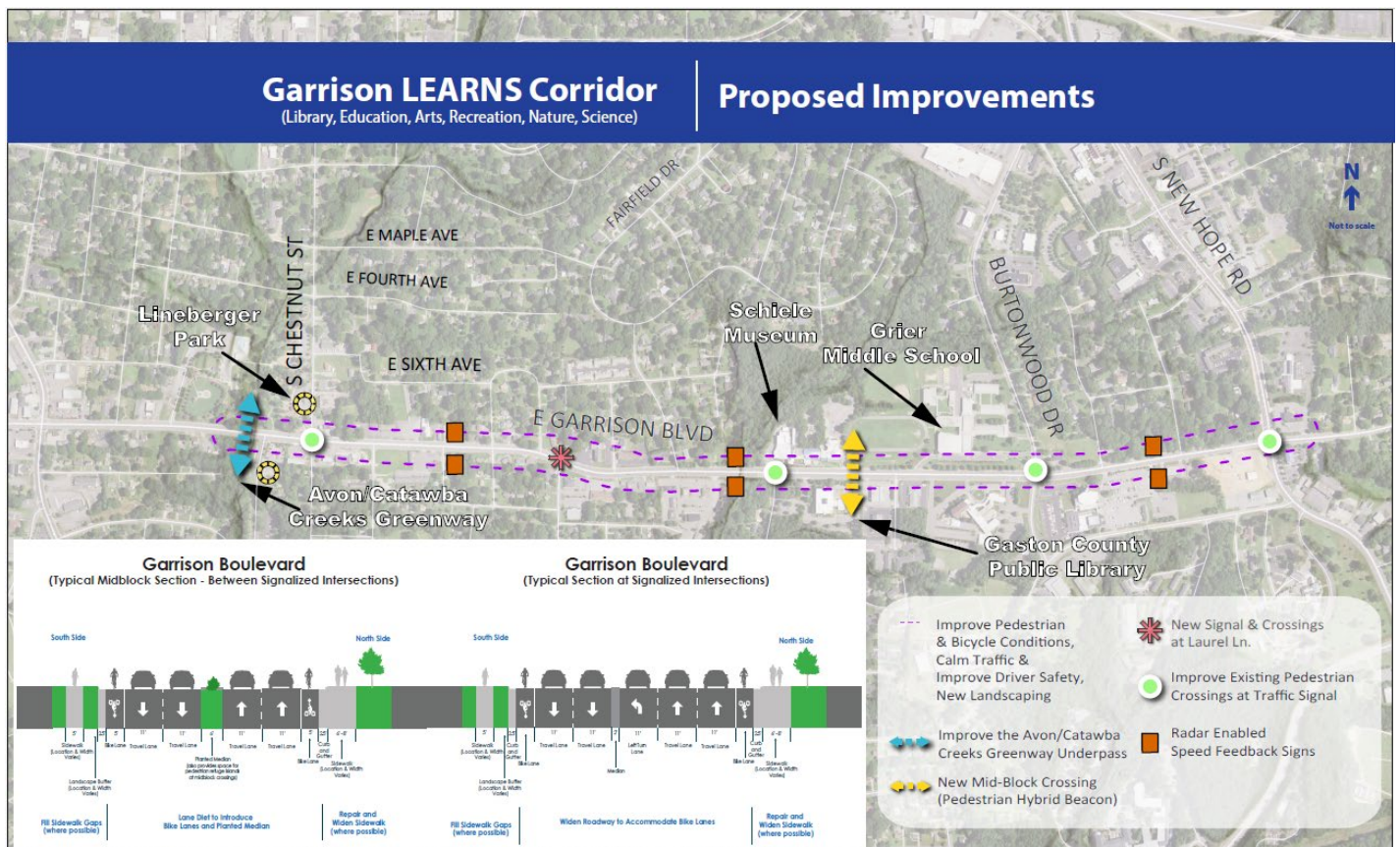


Figure 3: Map of Proposed Improvements

Project Benefits

- **Garrison LEARNS strengthens economic competitiveness**, serving ~3,000 residents and ~3,500 jobs and supporting redevelopment potential across 30 vacant/underutilized parcels (estimated ~4,000 jobs and ~\$640M in economic activity), which includes more than \$255M in new construction and more than 2,400 new jobs.
- **Addresses a documented safety problem** on Garrison Boulevard, which experienced 126 crashes (2022–2025), including one (1) fatality and three (3) serious injuries, through proven Safe System countermeasures.
- **Reduces crash risk and severity** with a 10-mph speed limit reduction, lane narrowing (12'→11'), raised medians, upgraded lighting, improved traffic control, and enhanced visibility.
- Installs a Pedestrian Hybrid Beacon (PHB) and a new traffic signal at Laurel Lane to **provide controlled crossings** at high-demand civic destinations.
- Delivers \$47.7 million in monetized safety benefits over 20 years (\$17.9M at 7%), demonstrating strong, data-driven safety outcomes.
- **Reduces approximately 1.8 million vehicle miles traveled (VMT)** by expanding safe, continuous walking and bicycling facilities in Gastonia's civic core.
- Builds 1.37 miles of new sidewalks and 1.37 miles of dedicated bike lanes (both sides) to **close network gaps** and create a continuous multimodal corridor.
- **Improves ADA accessibility** and Universal Design, reconstructing curb ramps and strengthening crossings for individuals with disabilities, older adults, and families.
- **Generates measurable public health and comfort benefits**, including \$7.8M in health benefits and \$5.0M in amenity benefits over 20 years.
- **Restores and modernizes aging infrastructure**, reducing long-term maintenance burdens and delivering ~\$1.4M in lifecycle maintenance savings while creating a scalable model for multimodal corridor transformation in Gastonia's civic core.

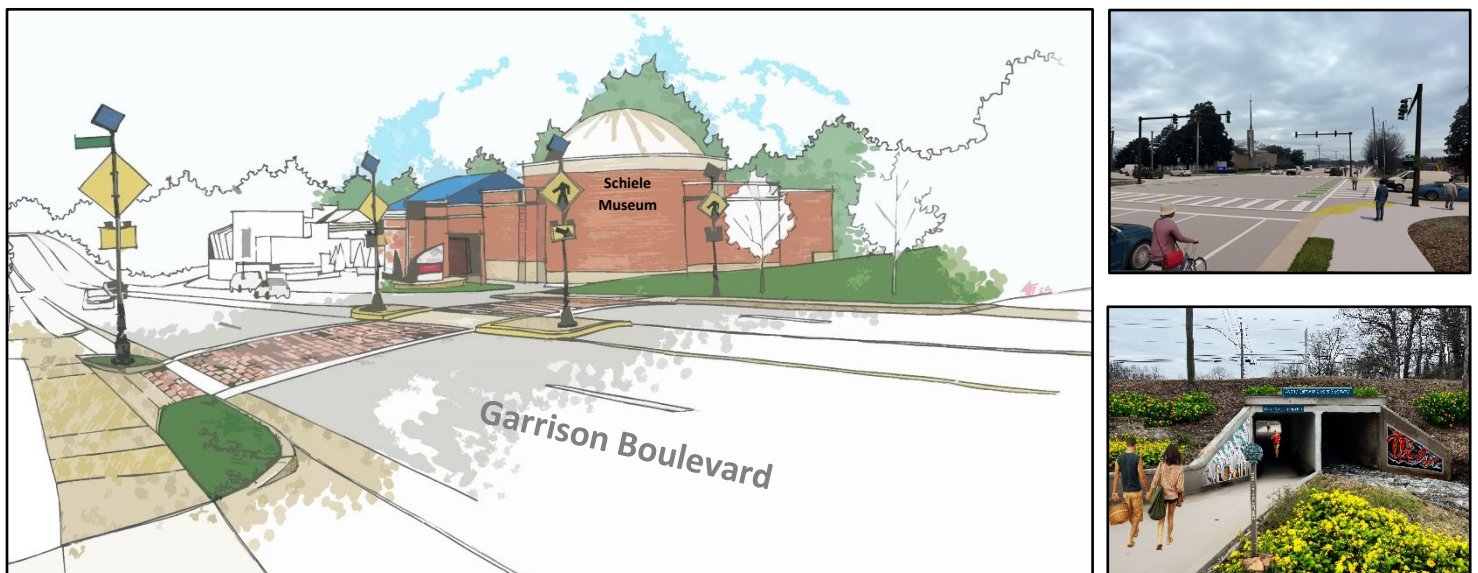


Figure 4: Project Renderings

Benefit-Cost Analysis

Benefits	Quantifiable Measure	Total Benefit	Present Value (7.0% Discount Rate)
Safety			
Crash Savings	Reduction in number and severity of crashes	\$47,656,102	\$17,900,224
Travel Time Savings			
Peak Hour Travel Time Savings	Change in travel time due to the conversion of a two-way left turn center lane to raised median (trip rerouting) and number of auto trips taken (shifting of some auto trips to walking/cycling trips)	-\$843,294	-\$317,542
Emissions Reduction			
Vehicle Emissions Savings/-Costs	Decrease in VOC, NOx, PM2.5, and SO2 emissions due to decreased SOV trips	\$23,417	\$8,796
Quality of Life			
Health Benefit	Mortality reduction benefit of induced active transportation	\$7,800,472	\$2,929,954
Economic Competitiveness			
Real Estate Value Increase	Increase in property values due to increased access to walking and cycling facilities	\$1,221,546	\$813,968
Operating Cost Savings			
Maintenance Savings	Decreased maintenance costs related to the construction of the project	\$1,351,665	\$955,876
Other Benefits			
Amenity Comfort Benefit	Change in pedestrian and bicyclist amenities including additional sidewalk, vehicular speed reduction, crossings, and bike lanes	\$5,024,915	\$1,887,420
Residual Value	Residual value of assets at the end of the analysis period	\$6,323,826	\$1,165,160
Noise and Congestion	Noise and congestion benefits from a decrease in auto vehicle usage	\$560,915	\$210,687
Total Benefits		\$69,119,564	\$25,554,543
Total Costs		-\$17,540,199	-\$13,361,877
Benefit/Cost Ratio		3.94	1.91

With proposed improvements, Garrison LEARNS will prioritize accessibility for all and transform the Garrison Boulevard corridor, creating an improved civic heart for the City of Gastonia.

For more information, please contact:
 Randi Gates, Director of Transportation
 704-854-6604
 randi.gates@gastonianc.gov

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