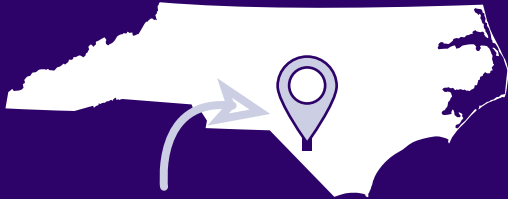




Merit Criteria

SAFE Lumberton Snapshot



Location:

City of Lumberton,
Robeson County,
North Carolina



Total Mileage:

2.1 miles of Complete Street improvements

Combination of roundabouts, intersection safety improvements, sidewalks, pedestrian refuge islands, lighting improvements, crosswalks, and a Road Diet



Estimated Completion Date:

December 2027

Project Cost:
\$11,000,000



RAISE Funding Request:

\$8,600,000

NCDOT Match Support:

\$2,400,000



Zero-Vehicle Households:

13.3% (Lumberton)
5.5% (North Carolina)



Areas of Persistent Poverty:

100% of corridor

Median Family Income:

\$36,486 (Lumberton)
\$60,516 (North Carolina)

Project Website:

<https://connect.ncdot.gov/resources/RAISE2023SAFE/Pages/default.aspx>



Safety

Creates a Complete Street corridor for safer walking, crossings, and speeds for motorized and non-motorized roadway users, specifically minority populations, who account for 60% of pedestrian and bicycle crash victims.



Environmental Sustainability

Reduces vehicle emissions and lowers the number of vehicle miles traveled.



Quality of Life

Improves the quality of life for people of Lumberton, especially the approximate 1/3 of residents who live in poverty, by creating safer sidewalks for them to access the Public Library, Greyhound Bus Station, the Lumberton Health Center, and lead more active lifestyles.



Improves Mobility and Community Connectivity

Additions of over 2,300 linear ft of sidewalks, installation of pedestrian refuge islands, and crosswalks will connect over 2.1 miles of corridor from east and west NC 72 to downtown Lumberton, the Riverwalk, and parks.



Economic Competitiveness and Opportunity

Connects the residents, employees, and employers to the Lumberton Health Center; downtown area which includes private business and government offices; and increases access to transit.



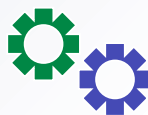
State of Good Repair

Replaces aging infrastructure, including sidewalk and drainage structures.



Partnership and Collaboration

The City of Lumberton, NCDOT, and other local agencies support and will partner to administer the project.



Innovation

Incorporates proven safety countermeasures, Complete Streets improvements, lighting improvements, and creates a model for NCDOT to partner with other smaller, more rural cities to make improvements in the future.

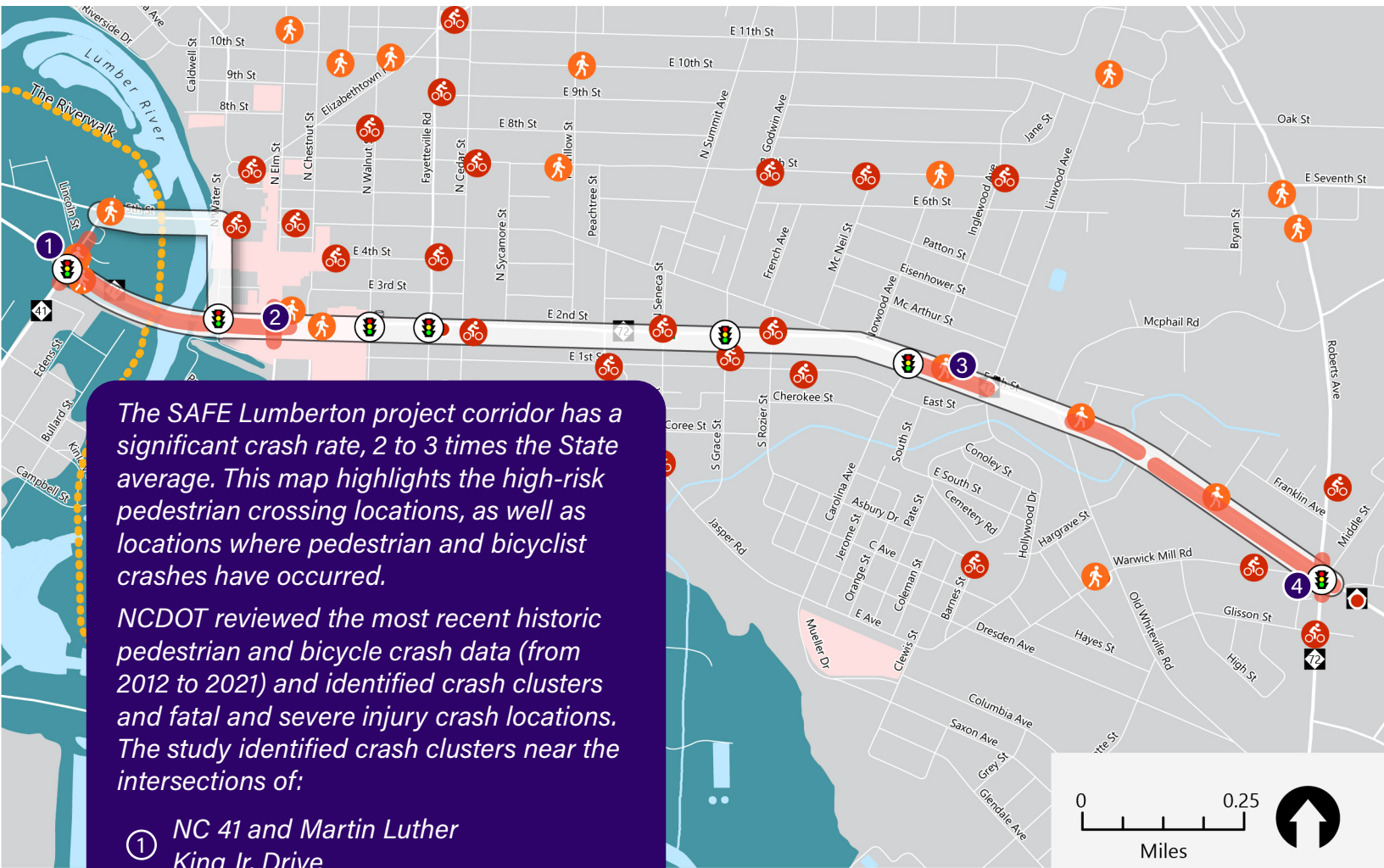


Safety

SAFE Lumberton's focus is safety – and creating a space that provides safer access for everyone. More specifically, this project is focused on implementing Complete Street type improvements and creating a connected corridor that helps the residents of Lumberton reach their destination safely while promoting alternative forms of transportation.

The SAFE Lumberton project corridor has a **high crash rate for all roadway users—ranging from 2 to 3 times the State average.** From 2nd Street to 300 feet east of NC 41 / Martin Luther King Jr. Drive to 300 feet west of 5th St is 2 times higher than the statewide crash rate and the section of 5th Street 150 west of MLK to 150 feet east of Water Street is 3 times higher than the statewide crash rate.

SAFE Lumberton Pedestrian and Bicyclist Crashes



The SAFE Lumberton project corridor has a significant crash rate, 2 to 3 times the State average. This map highlights the high-risk pedestrian crossing locations, as well as locations where pedestrian and bicyclist crashes have occurred. NCDOT reviewed the most recent historic pedestrian and bicycle crash data (from 2012 to 2021) and identified crash clusters and fatal and severe injury crash locations. The study identified crash clusters near the intersections of:

- ① NC 41 and Martin Luther King Jr. Drive
- ② NC 72 and Elm Street
- ③ NC 72 and Family Dollar
- ④ NC 72 and NC 211

- Pedestrian Crash Location
- Bicycle Crash Location
- Existing Signalized Intersection
- High Risk Pedestrian Crossing Locations
- RAISE Grant Corridor
- The Riverwalk
- Historic District
- Flood Hazard Area



SAFE Lumberton's project corridor is also a hot spot of non-motorized crashes in the City. Within 300 feet of the corridor there were a total of 21 pedestrian and bicycle crashes from 2012-2021. Of those crashes, people of color were overrepresented. In Lumberton, 35% of the population is African American and 13% is American Indian, however, along the project corridor, 50% of the identified pedestrian and bicyclist crash victims are African American and 25% of pedestrian and bicyclist crash victims are American Indian.

SAFE Lumberton will improve safety along the corridor for pedestrians and motorists through select countermeasures.

Pedestrian Safety

In its current state, the NC 72 project corridor lacks safe crossings and connectivity for pedestrians. As part of the Lumberton Pedestrian Safety Study, NCDOT performed a network screening risk analysis in the project area and along the project corridor and assigned a score to each segment of road based on a combination of factors:

Location Specific: Number of lanes, Speed limit, Traffic volume, Traffic presence, Pedestrian crash history.

Pedestrian Volume Surrogates: Stores, Restaurants, Schools, Libraries.

Socio-economic: Income, Rentals, Vehicle ownership, Population density, Employment density.



"The current conditions for pedestrians are unsafe - there is a lack of sidewalks and safe crossings. This is an issue."

-Lumberton Resident via SAFE Lumberton Public Engagement Survey

Vehicular Safety

SAFE Lumberton means safer access for everyone – nonmotorists and motorists.

Over the last 5 years, there have been 454 total crashes along the project corridor.⁷ The crash rates along the segment are 2 to 3 times the statewide average, demonstrating that the area needs safety support and that safety countermeasures could reduce the number of crashes that are occurring. Specifically, the crashes are highest at the intersections

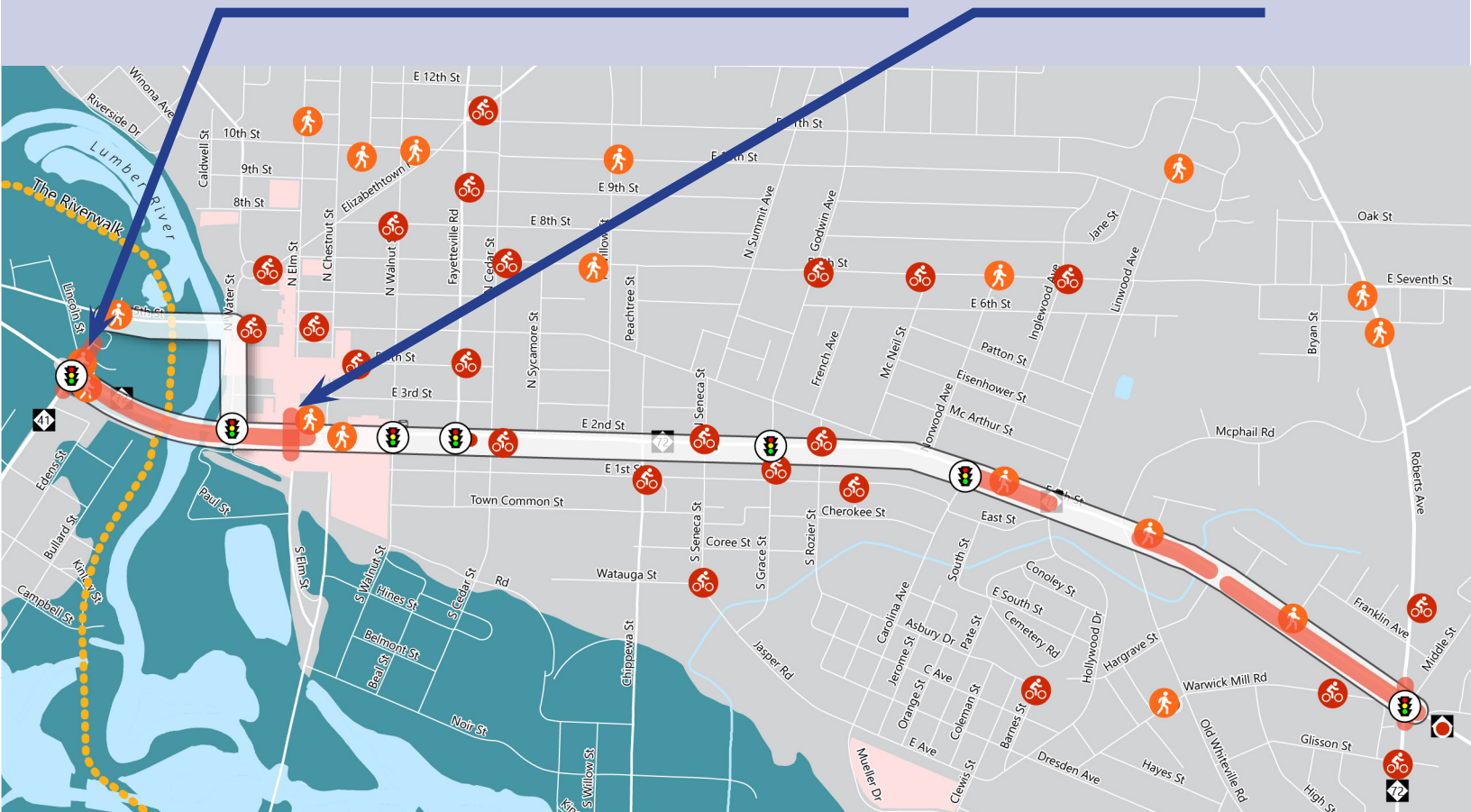
of NC 41/2nd Street and 2nd/Elm Street as well as along the section between NC 41 and 5th Street.

SAFE Lumberton's roundabouts were tested for larger vehicles, including WB-67 trucks. Large trucks will be able to navigate the project corridor safely and there are no expected negative impacts on the freight and supply chain movements along the corridor.

Along the section between NC 41 and 5th Street the crash rate is **3 times the statewide crash rate.**

Along the section of NC 41/2nd Street, the **crash rate increases to 2.98 times the State average.**

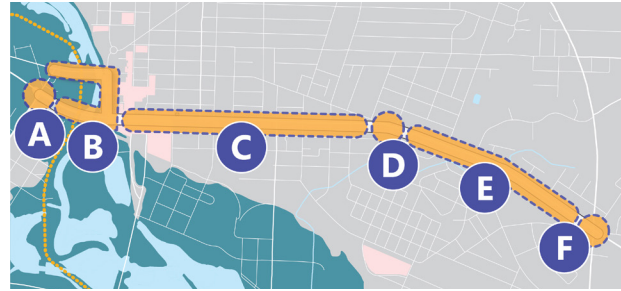
Along the section of 2nd Street and Elm has the highest crash rate, which is **3.70 times the State average.**



⁷ Crash data source: NCDOT Traffic Engineering Accident Analysis System Intersection Analysis Report, 2016 – 2021

Countermeasure Selection

All of the SAFE Lumberton countermeasures align with the Federal Highway Administration's (FHWA's) Proven Safety Countermeasures⁸ to reduce crashes along the project corridor. The table below identifies each of the safety countermeasures in SAFE Lumberton and describes the safety benefits.



Recent Downtown Lumberton Improvements

Countermeasure	Project Section	Description of Treatment	Safety Benefit
High-visibility crosswalks	B, E, F	A pattern that is visible to both the driver and pedestrian and is visible from further away compared to traditional traverse line crosswalks.	Reduces pedestrian injury crashes up to 40%.
Pedestrian refuge island	A, C, D	Median with a refuge area to help protect pedestrians crossing the road.	Reduces pedestrian crashes up to 32%.
Signalized Intersection: Pedestrian Signal/LPI	B, E, F	A pedestrian signal phase that allows pedestrians to cross while conflicting vehicles are stopped.	Reduces pedestrian crashes by 50%, including addition of pedestrian countdown signal heads, marked crosswalks and LPI.
Roundabout	A, D	Intersection with a circular configuration that minimizes the number of conflict points.	Reduces fatal and injury crashes by 82% (when converting from a two-way stop-controlled intersection) and by 78% (when converting from a signalized intersection).
Road Diet	E	Converting an existing four-lane undivided roadway to a three-lane roadway consisting of a center two-way, left-turn lane.	Reduces total crashes by 19-47% (when reducing from a 4-lane to a 3-lane).
Lighting	B, C	Includes improvements to illuminate the pedestrian and provide positive contrast to make it easier for motorists to see the pedestrian.	Reduces pedestrian crashes up to 42% (when used at intersections).
Sidewalk	C, D, E, F	Defined space or pathway for a person traveling by foot or using a wheelchair.	Reduces crashes involving pedestrians walking along roadways by 74%.

⁸ Proven Safety Countermeasures | Federal Highway Administration - Safety



Environmental Sustainability

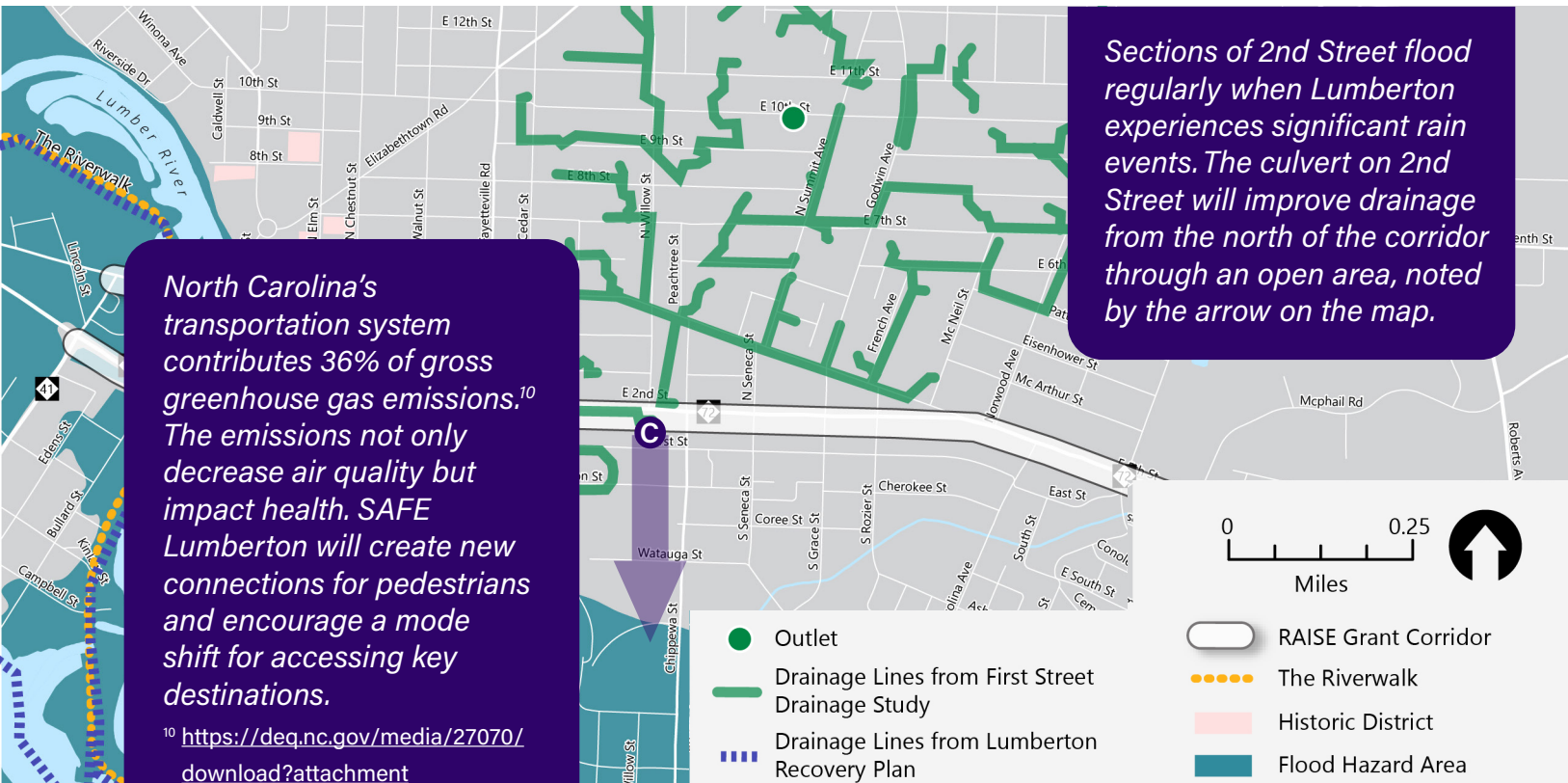
SAFE Lumberton promotes environmental sustainability by making drainage improvements in floodplain areas and supports a mode shift by creating an environment that encourages residents to walk instead of drive.

Lumberton, and more specifically the project corridor for SAFE Lumberton, is a flood-prone area. Lumberton has endured multiple major flooding events since 2016, including Hurricane Florence in September 2018 where peak flood levels impacted transportation and stormwater infrastructure along the NC 72 corridor. Flooding most impacted neighborhoods and businesses between the Lumber River and 2nd Street along NC 72. SAFE Lumberton improvements will improve drainage networks and reduce impacts of severe flooding on underserved communities along NC 72.

2nd Street is a low point in the area and is subject to flooding any time there is a significant rain event. As shown on the drainage basin map, there are drainage lines that feed into and run along 5th Street. SAFE Lumberton will tie into an ongoing City project (PW 1534) funded through a FEMA grant to improve stormwater along the corridor. As part of the sidewalk repairs for this project there will be culvert/drainage improvements along 2nd Street. NCDOT's Resiliency Tool indicates that the flood prone area is outside the project, however, due to frequent storms in the area, these areas are inundated. The project area's drainage area is connected and can be impacted when flooding occurs. The culvert improvements along 2nd Street would improve drainage for 325 acres, by moving drainage to an open area, noted below on the map, instead of flooding the project corridor.

SAFE Lumberton will have negligible negative impacts on air pollution and greenhouse gas emissions.

SAFE Lumberton Drainage Improvements



Sections of 2nd Street flood regularly when Lumberton experiences significant rain events. The culvert on 2nd Street will improve drainage from the north of the corridor through an open area, noted by the arrow on the map.

North Carolina's transportation system contributes 36% of gross greenhouse gas emissions.¹⁰ The emissions not only decrease air quality but impact health. SAFE Lumberton will create new connections for pedestrians and encourage a mode shift for accessing key destinations.

¹⁰ <https://deq.nc.gov/media/27070/download?attachment>



Quality of Life

As mentioned throughout the application, SAFE Lumberton's objective is to improve the quality of life for all residents and visitors of Lumberton. SAFE Lumberton will increase affordable transportation options, like walking, by installing an additional 2,280 linear ft of sidewalk along major corridors and the downtown area. With the addition of sidewalk and repair of existing sidewalk, residents of Lumberton, especially those that live in underserved communities, can be less dependent on vehicles and can walk, safely, to downtown, jobs, schools, retail, and healthcare.

In addition to repairing the sidewalk, SAFE Lumberton includes aesthetic improvements and will add new landscaping along the corridor within the pedestrian refuge islands and roundabouts. Landscaping improvements will welcome residents and visitors to the City, improve comfort for pedestrians, and reduce the ambient heat in a developed area with little greenspace. The aesthetic improvements will also encourage residents to walk more to visit key destinations. Making the mode shift from 1% walking trips to 3% by 2048, which will create health benefits and can help fight chronic disease and improve mental health by lowering stress.

SAFE Lumberton will install light fixtures at all crossings and intersections, including decorative fixtures between the intersection of NC 41 (Martin Luther King Jr. Drive) and 5th St. The lighting improvements will not only provide a safety benefit by lighting the crosswalks and sidewalks, it will improve the appearance of downtown and ties into Lumberton's 2017 Downtown Master Plan to promote downtown as the focal point of cultural arts, entertainment, tourism, and government in Robeson

County. The lighting improvements will improve access for pedestrians to reach their daily destinations safely and provide more visibility for those that travel to jobs, schools, or places of worship at dawn, dusk, or nighttime.

SAFE Lumberton is focused on creating safer access for everyone regardless of economic status or ability. As mentioned in earlier sections of the application, **the entire project area is an Area of Persistent Poverty** and the residents in Lumberton experience significant levels of poverty and transportation disadvantage. A senior housing community near the intersection of NC 41 and 5th Street, a homeless shelter along 2nd Street, and an assisted senior housing center are under construction near NC 211 and NC 72. These developments increase the number of pedestrians along the corridor with limited mobility or disabilities.

The existing conditions do not provide safe access for residents in these communities. There is no existing sidewalk or marked crosswalks at NC 72 and NC 211. Instead, worn paths exist at the intersection of NC 211 and NC 72 where residents from low-income neighborhoods have traveled to local businesses. This project addresses equity by meeting the needs of community members and providing a safe way for them to access destinations. These improvements will provides access to all residents, specifically those that have been underserved.



Community Event in Downtown Lumberton



Mural in Downtown Lumberton

SAFE Lumberton Key Destinations



Improves Mobility and Community Connectivity

The goal of SAFE Lumberton is to create a more connected community. With the implementation of sidewalks, crosswalks, and pedestrian refuge islands, eliminating gaps in the existing network for residents and visitors who want to reach destinations in Lumberton but do not have safe options. Near the Riverwalk, at NC 72 and NC 41 as well as at the 5th/Martin Luther King Jr. Drive crossing, the pedestrian traffic is high between a low-income neighborhood, local flea market, and into the downtown area. Adding accessible, high-visibility crossings will create safer conditions for all travelers, especially older pedestrians or those that are mobility impaired.

At the intersection of Water Street and 2nd Street, NCDOT will install high-visibility crosswalks with pedestrian countdown signals and LPI, as well as new sidewalk. These improvements fill an existing gap and support the pedestrian traffic, particularly the elementary-aged residents traveling to visit the library, local museums, and charitable organizations.

One of the largest gaps on the existing project corridor is at the intersection of

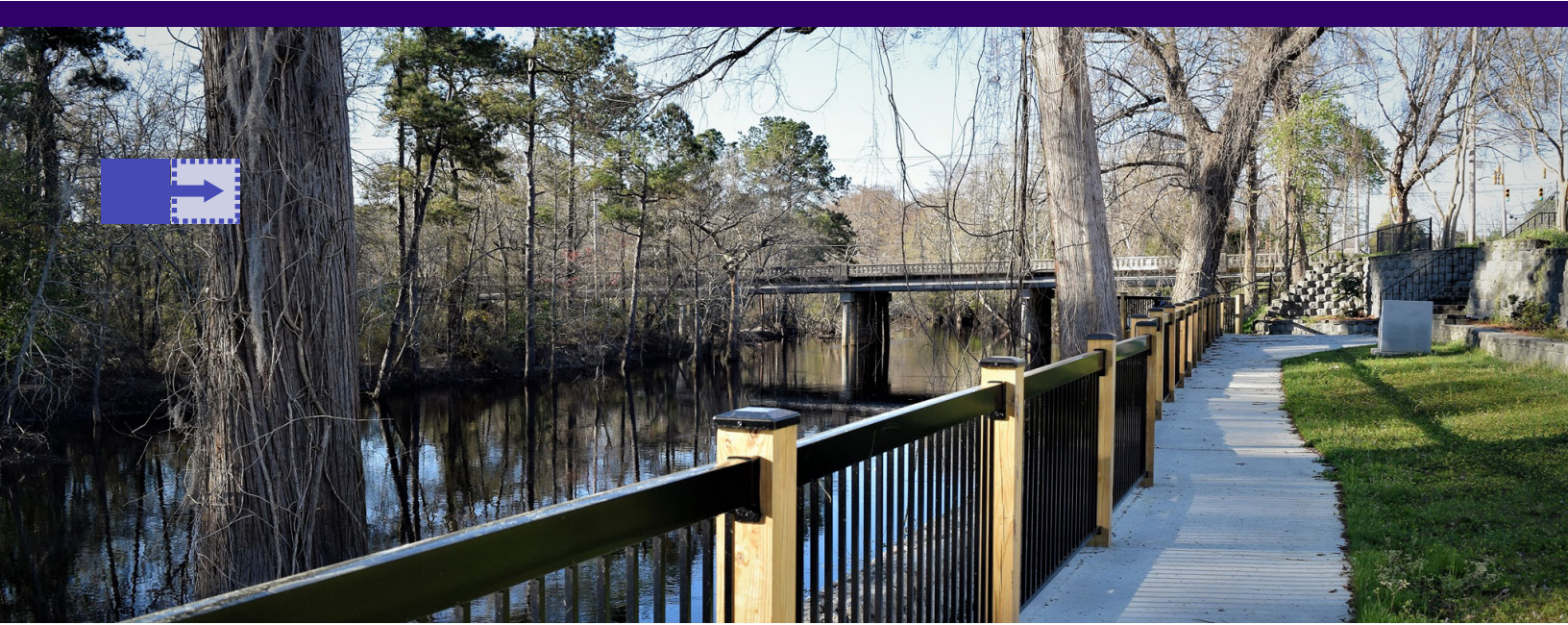
NC 72 and NC 211. The current conditions include no sidewalk or marked crosswalks. SAFE Lumberton will install crosswalks on the northern and western legs of the intersection and sidewalk on each leg of the intersection. By filling one of the largest gaps on the project corridor, SAFE Lumberton is connecting residents from low-income neighborhoods to grocery stores, convenience stores, and to the downtown. SAFE Lumberton's improvements will be accessible for everyone, regardless of ability. Sidewalks and curb ramps will be designed to be compliant with ADA standards. NCDOT will, as feasible, go beyond ADA requirements to incorporate Universal Design principles as they make these improvements.

The roundabout designs were tested for larger vehicles, including WB67 trucks. SAFE Lumberton will have no expected negative impacts on the freight and supply chain movements along the corridor. The drainage improvements along 2nd Street will improve accessibility for first responders, as the Street often floods after heavy rainfall and makes the corridor inaccessible for larger vehicles. NCDOT will review and advance the signal rail preemption and rail coordination.

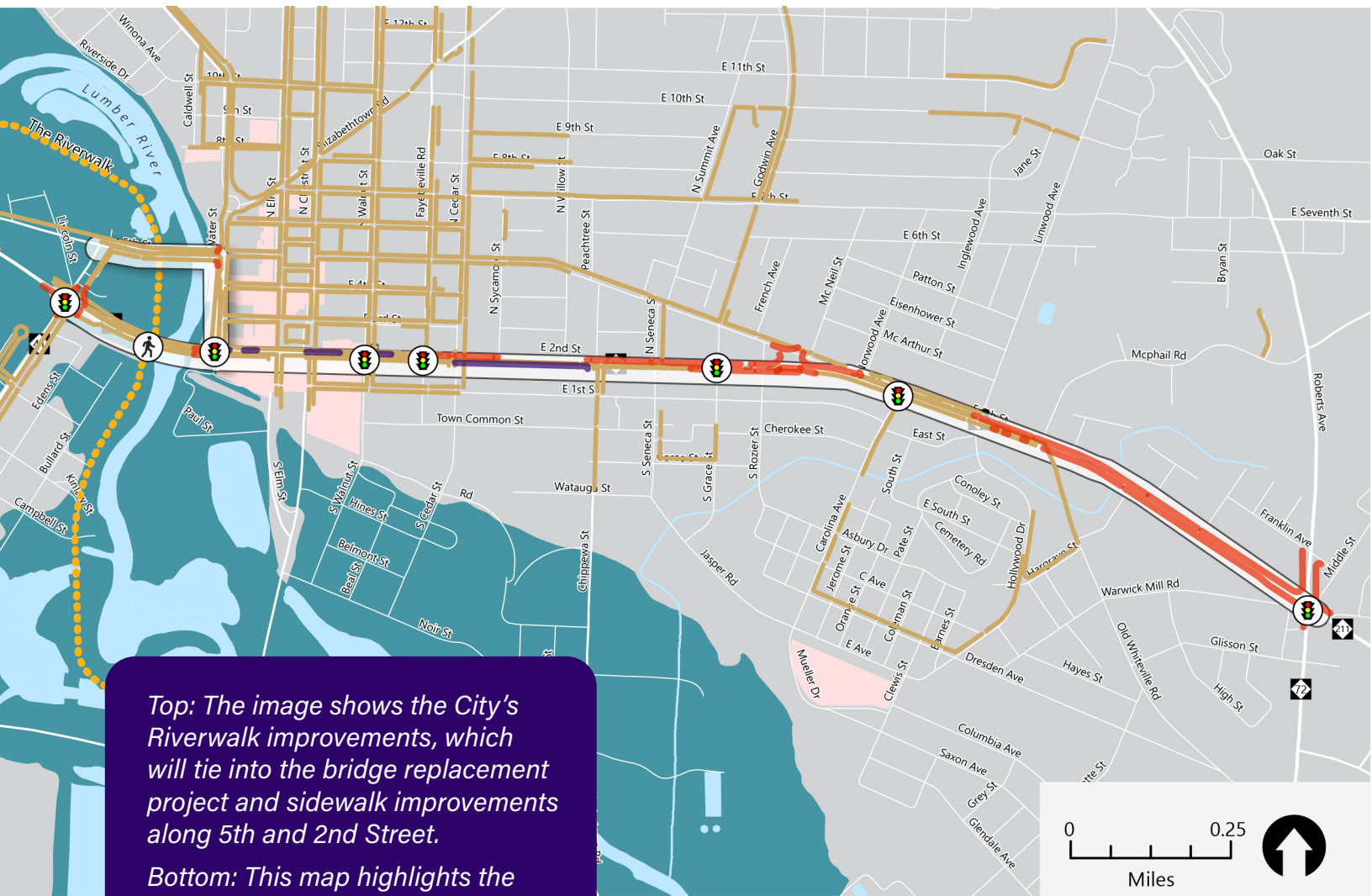


“There is no designated place to walk and access downtown. Dangerous decisions are made by those pedestrians who try and cross.”

-Lumberton Resident via the SAFE Lumberton Public Engagement Survey



SAFE Lumberton Sidewalk Network



Top: The image shows the City's Riverwalk improvements, which will tie into the bridge replacement project and sidewalk improvements along 5th and 2nd Street.

Bottom: This map highlights the existing sidewalk as well as the sidewalk that will be repaired and added as part of the SAFE Lumberton project.

- Existing Signalized Intersection
- Marked Pedestrian Crosswalk
- Existing Sidewalk Network
- Existing Sidewalk to be Replaced
- Proposed New Sidewalk
- RAISE Grant Corridor
- The Riverwalk
- Historic District
- Flood Hazard Area



Economic Competitiveness and Opportunity

This project will improve long-term efficiencies, reliability, and cost competitiveness as it will help move workers and goods to improve the business climate in the historic commercial district and the overall economy of Lumberton. The project is not expected to affect travel time through the project corridor. Specific elements, such as the proposed roundabouts and Road Diet, have undergone capacity analyses to make sure that they will not negatively affect travel time. The project will also increase access to transit and jobs for residents of the City. Residents, with the improved sidewalk network, will also have better access to the Lumberton Health Center and retirement center being built near the NC 72 intersection.

It is important for the City to promote and strengthen the downtown area as it is a historic centerpiece of the community and is recognized as the heart of the City. However, as with many downtowns across the United States, downtown Lumberton has faced the challenges associated with the rise of the automobile and highway expansion in the 1940s and 1950s, which contributed to people and businesses moving out of older town centers to suburban locations.

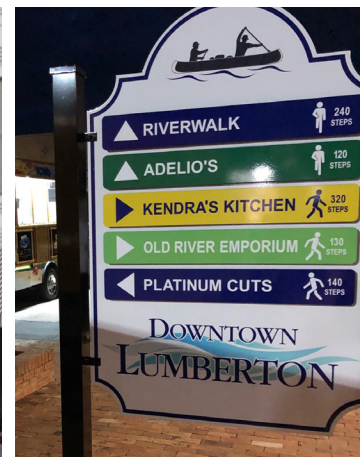
SAFE Lumberton will help spur development and connect residents to the Greyhound Station and the Carolina Civic Center downtown, which is adding 9,000 square ft of apartment space. More residents will also be able to access the downtown where the City has been pushing incentives for facade grants which will bring more retail into the area.

Most of these buildings are two stories and

all but two of the buildings' second floors are vacant; that is nearly 400,000 square ft of available space for reinvestment that would reutilize materials and energy, spur new small business growth, and create jobs and living spaces to support the economy. The 2017 Downtown Master Plan identified strategies to build on Lumberton's downtown assets, identifying the need for improved access to downtown as well as the development of key attractors, such as the Riverwalk.

This project, particularly its lighting, enhanced crossings, and sidewalk improvements into downtown will increase the attractiveness for tourism and will invite visitors into the downtown area to visit local commerce. This project will also make the area more friendly for pedestrians and bicyclists, increase walkability, lower traffic speeds, and create a downtown area that is more attractive to businesses, investors, and residents. Projects like SAFE Lumberton have been shown to help remedy declining or stalled property values and have been proven to spur community revitalization.

SAFE Lumberton will generate an investment into the City, its downtown, its residents, and create opportunities for others to reinvest in Lumberton.



Downtown Lumberton

Partnership and Collaboration

SAFE Lumberton will provide more connected multimodal options across the City of Lumberton and will serve as a model for other smaller communities in the State. If selected, NCDOT will administer the project and work with the City of Lumberton for utility coordination and public outreach. The City of Lumberton owns and manages the local electric and lighting utility service, and the City is committed to supporting the project by providing labor to relocate or install electricity and lighting utilities at no cost to NCDOT.

The City of Lumberton is not the only partner who supports SAFE Lumberton. NCDOT will look to other agencies, who provided letters of support (as noted on page 13), to be involved in the project and support its mission.

SAFE Lumberton's focus, as mentioned before, is safer access for everyone in the City. This project has been designed with equity considerations in mind for underserved, overburdened, or disadvantaged communities. These communities will be integrated into the planning, development, and implementation of the project to ensure equitable and desirable outcomes that are inclusive to the entire community.

On December 15, 2022 NCDOT, in partnership with the City, distributed a survey to Lumberton residents to provide feedback on walkability in the City and the opportunities SAFE Lumberton would provide. As noted by the graphic on the right-hand side, there was overwhelming support for the proposed improvements.

As the project is finalized, NCDOT will work with the City of Lumberton to host pop-up sessions with the local community as part of the public involvement. NCDOT and the City will ask residents for their feedback to help improve the project design based on their needs. NCDOT will also conduct outreach specifically with the Lumbee Tribe, to make

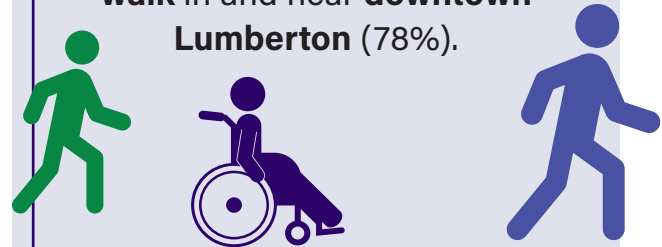
sure they are able to provide feedback on the project. NCDOT will also work with property owners where ROW is required to provide fair compensation and discuss other potential project impacts.

Survey respondents said:

It was imperative to **improve safety for people walking along NC 72. (82%)**



They'd be **more likely to walk in and near downtown Lumberton (78%)**.



Key safety concerns included:

1. Limited sidewalk and gaps in the network to access downtown
2. Not enough pedestrian crossings for children to safely access the Library and Children's Museum

"With multiple commercial businesses along this corridor, numerous public institutions, and a great many houses, improvements to pedestrian safety are a must!"

-Lumberton Resident via SAFE Lumberton Public Engagement Survey

Community Context and Support

This project was a result of NCDOT's Pedestrian Safety Improvement Program for mid-sized cities in North Carolina. The program was part of NCDOT's efforts to address pedestrian fatalities and serious injuries across the State. NCDOT selected the City of Lumberton to be part of the program, due to an overrepresentation of fatal and severe injury pedestrian crashes in both total and per capita pedestrian crashes within the City limits, per the most recent 10 years of crash data.

SAFE Lumberton's focus on creating Complete Street type corridors and improving connectivity and access to the downtown area aligns with other City-wide plans and initiatives, like the Lumberton Pedestrian Safety Study shown in the *Community Plan* table.

PARTNERS SUPPORTING SAFE LUMBERTON:

African American Cultural Center

Exploration Station

Lumberton Area Chamber of Commerce and Visitors Bureau

Lumber River Council of Governments

NCDOT BOT Representative and Chair of Robeson County VZ

NC Main Street Program Robeson County History Museum

Robeson County Public Library

Robeson County Public Schools

U.S. Congressman Dan Bishop

U.S. Senator Ted Budd

U.S. Senator Thom Tillis

Community Plan

Plan

Lumberton Pedestrian Safety Study

Date

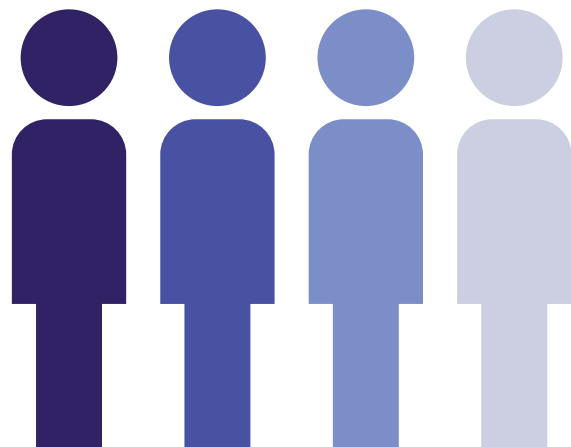
December 2021

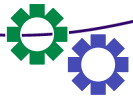
Impact on Project

The Lumberton Pedestrian Safety Study applied both crash and risk-based analysis to identify needed pedestrian safety improvements along NC 72 and in Downtown Lumberton.

Public Engagement

NCDOT and the City of Lumberton followed a data-driven process and reviewed local conditions. NCDOT and the Town reached out to the community in 2022 to learn more about the need for SAFE Lumberton. Residents overwhelmingly support the project. If awarded, NCDOT will work with the City and partners to host pop-up information sessions with the local community.





Innovation

SAFE Lumberton is innovative in how it will deliver the project. NCDOT is the applicant who will lead SAFE Lumberton's improvements, however they will work alongside the City, who has been overwhelmed by impacts from hurricanes and is working to deliver projects to address the damages from flooding while awaiting financial relief from FEMA. NCDOT has a proven track record of delivering projects on time within budget. NCDOT will work closely with their Office of Civil Rights to promote project design and construction contracts with local contractors, as well as minority/women-owned business, as part of the project bidding process.

NCDOT's application of SAFE Lumberton will start a multi-year process to modernize signal controllers. With the SAFE Lumberton improvements, all signal controllers will have modern communication software, which will reduce maintenance costs for the signal. This also allows for future communication for autonomous vehicles.



NCDOT's partnership with the City also promotes mode shifting along the corridor towards walking and biking. SAFE Lumberton is a model of innovation for following a Complete Streets model by prioritizing vulnerable road users, such as pedestrians, in roadway design. **The project is also consistent with the Safe System approach by redesigning streets to reduce speeds at dangerous intersections and by implementing roundabouts, a road diet, medians, and refuge islands.**

"Speed and no crosswalks are problems for Water Street and 2nd Street. Improving safety for people walking helps us (the African American Cultural Center) and Downtown Lumberton."

- John Staton and Alphonzo McRae (Board members of Robeson County African American Cultural Center and pictured below)

