I.

INTRODUCTION + VISION

"I support the [LSCG/US74 Connector] because it will connect communities and break down barriers. The trail will span several culturally and socio-economically diverse neighborhoods that are separated by physical barriers, such as busy roads [and] expressways... The trail will provide a safe and accessible option to bring these communities together."

- KATE FREAR, PRESIDENT, VILLA HEIGHTS NEIGHBORHOOD ASSOCIATION
I. INTRODUCTION + VISION

INTRODUCTION

The City of Charlotte and Mecklenburg County have made a concerted effort to provide transportation choices for the community, including successes such as the implementation of the first light rail and bike share systems in the state, and a greenway and complete street network that is used for recreation and commuting. Building on those successes, the City and Mecklenburg County are now addressing critical missing links in the greenway system to maximize its potential as a viable part of the overall transportation system across our community. This project will eliminate one such missing link.

The City of Charlotte and its partners are studying a trail connection to close a challenging gap between existing segments of the Little Sugar Creek Greenway as it approaches the interchange of Interstate 277 and US Highway 74/Independence Boulevard, a major gateway to Charlotte's Center City (also referred to as "Uptown"). This project, "the LSCG/US74 Connector," will cross this interchange with a regionally significant pedestrian/bicycle bridge and trail, closing the gap between existing greenway segments — points A and B on the map at right.

The Little Sugar Creek Greenway (LSCG) makes up part of a larger corridor of greenways and trails, the Cross Charlotte Trail (XCLT), approximately 7.5 miles of which have already been built. Additional segments are being completed over the next several years by the City of Charlotte and Mecklenburg County (for details see text box on page 4). The project that is the subject of this study will connect two existing segments of the LSCG/XCLT via a greenway underpass under 7th Street, a bicycle/pedestrian bridge spanning the highway interchange, and greenway segment continuing north to 10th Street, thus closing the quarter-mile gap and creating a continuous active transportation (bicycle and pedestrian) corridor across Charlotte's city center.

VISION

CONNECTING A TO B

By closing this critical gap (connecting A to B, below) in the LSCG/XCLT, the LSCG/US74 Connector eliminates safety and access barriers (both physical and psychological); and connects the historically disadvantaged neighborhoods of Belmont, Villa Heights, Optimist Park and HOPE VI-funded projects (Seigle

Figure 1.1 Project Area: Existing conditions- the I-277/US-74 interchange presents significant barrier to connecting existing segments of the LSCG/XCLT
Point Apartments, the Vistas @707, and McAden Park Apartments) with Center City Charlotte. The project also connects to educational institutions (University of North Carolina-Charlotte (UNCC), Central Piedmont Community College (CPCC), and local schools); hospitals and employment centers; Charlotte Area Transit (CATS) bus, light rail and streetcar systems; major parks; and Charlotte’s bike-share system. Completing this connection will also provide bicyclists and pedestrians a car-free crossing of the 7th Street/ Central Ave intersection and safer crossings and alternatives to the arterial streets that surround the intersection: 7th Street, Central Avenue, 10th Street and McDowell Street. These roads and the highway interchange currently form major barriers to active transportation to-and-from Uptown Charlotte and surrounding destinations. This project will eliminate these significant barriers and will offer an opportunity to reconnect neighborhoods and communities severed by freeway construction in the 1960s and 1970s. By closing this gap, the LSCG/US74 Connector project is providing

"I think it will cut down on a lot of the people that are commuting [by car]. This gives them an alternative to coming into Uptown . . ." — PUBLIC MEETING participant June 30, 2015

![Diagram of LSCG/US74 Connector](image)

**LSCG/US74 CONNECTOR DETAILS:**

The alignment of the proposed LSCG/US74 Connector will pass under the existing NCDOT-maintained NC27/7th Street bridge on the south side of the project, cross existing I-277/US74 ramps (and proposed Silver Line light rail alignment) west of the existing Central Avenue bridge, and progress westward to 10th Street.

- **7th Street underpass:** 16’ wide, 520’ L
- **Bridge:** 14’ wide, 1200’ L
- **Greenway segment:** 16’ wide, 1500’ L
The City of Charlotte is partnering with Mecklenburg County to create a 26-mile bike/pedestrian trail known as the Cross Charlotte Trail (XCLT), a facility that will stretch from the York County, South Carolina, border, through Charlotte’s central business district and the University of North Carolina-Charlotte (UNCC) campus to the Cabarrus County line. Once completed, residents will be able to travel seamlessly on a bicycle and pedestrian trail that is almost completely separated from automobile traffic. The XCLT alignment also serves as the central spine of the regional Carolina Thread Trail network — a regional initiative to connect the surrounding 15-county area with a trail network.

**Approximately 98,000 jobs and 80,000 residents reside within a half-mile of the proposed XCLT. The project is funded by the City of Charlotte ($35M investment) and Mecklenburg County ($53M).**

The XCLT is a locally-led effort to create a regionally significant active transportation corridor that will help alleviate growing transportation, health, and environmental challenges in Charlotte’s urban core and suburban periphery. This project will provide regional residents, employees, students, and visitors options to replace motor vehicle trips with walking, bicycling, and transit trips, thus reducing congestion on area roads, leading to improvements in air quality, health, livability and car-lite lifestyle options.

The completed portion of the Little Sugar Creek Greenway is the premier pathway for separated, non-motorized transportation in the City of Charlotte and Mecklenburg County, and it is the portion of the XCLT closest to Uptown Charlotte. This section of the XCLT is used by thousands of people — nearly 240,000 users in 2015 just south of the project area — for a variety of purposes, including commuting, shopping, and recreation. The XCLT currently connects the eastern edge of Uptown. Starting at 7th Street, the XCLT runs almost four miles south, connecting densely populated residential areas, Park Road Shopping Center (a popular commercial destination), the Carolinas Medical Center, Freedom Park and the Charlotte Nature Museum, Thompson Park, Central Piedmont Community College, and The Metropolitan (a major mixed-use development). Near 10th Street, the XCLT runs for nearly one mile toward the North Davidson Arts District (NoDa).
Figure 1.3 Overview of entire Cross Charlotte Trail
In the immediate vicinity of the project, the LSCG/US74 Connector will link residents of neighborhoods north of the project area (Belmont, Optimist Park, Villa Heights, and NoDa) to opportunities for employment, job training, and increased access to Charlotte’s growing transit system. These neighborhoods, located to the northeast of Uptown Charlotte, have disproportionately high rates of poverty and households without cars, and have fewer job opportunities nearby. Today, I-277 and US-74 present real impediments and barriers to employment, educational access, and physical activity for residents of these neighborhoods. The LSCG/US74 Connector project provides direct bicycle and pedestrian access to major job and job-training centers, including Central Piedmont Community College (CPCC), Novant Health Presbyterian Medical Center, and Carolinas Medical Center-Mercy Hospital, which are all located just to the south of the project area; and to Uptown to the west, and to the UNCC/University City area to the north.

Figure 1.4 Existing Little Sugar Creek Greenway / Cross Charlotte Trail (XCLT)

Figure 1.5 Regional context identified in the XCLT Master Plan
Figure 1.6 Project Area: LSCG/US74 Connector is the critical link in the XCLT greenway system, connecting users to area jobs, healthcare, education, and parks.
SIGNATURE/ICONIC ELEMENTS

The City and its partners have articulated a shared desire to have signature/iconic bridge and design elements incorporated into the connector. The idea that a pedestrian bridge would capture the eyes and imagination of people as they passed by on the highway or traversed its innovative design is critical to the success of the project.

The LSCG/US74 Connector will utilize innovative technology and approaches to deliver the project and achieve the long-term project objectives and to enhance the operational performance and user experience of the project. These innovations could include:

- Visually appealing bridge with a structurally efficient, state of the art design
- Automated bicycle and pedestrian counters to measure trail usage
- Expansion of the bike share system to more locations along the Cross Charlotte Trail
- Low maintenance materials (concrete, etc.) for the boardwalk system under 7th Street so little to no future maintenance cost is expected
- Minimally invasive construction approaches that will streamline additional coordination with NCDOT as the existing bridge structure will only require minor reconstruction of the existing slope protection
- High-performance materials, such as high-density polyethylene or low-maintenance metal, to reduce maintenance requirements of the proposed bridge and extend the design life past the 75 years
- Bridge enhancements with low-energy programmable LED lighting
- Cable cranes and cantilevered erection techniques to facilitate construction activities over traffic lanes.

ECONOMIC DEVELOPMENT

The LSCG/US74 Connector will contribute to the economic competitiveness of the region, help revitalize neighborhoods, and create and preserve jobs. The LSCG/US74 Connector will:

1. Decrease transportation costs and improve access for residents with transportation disadvantages through reliable and timely access to employment centers, education and training opportunities, and other basic needs.

The project will measurably improve connectivity between pedestrian, bicycle, and transit modes of transportation by increasing the number of persons with bicycle and walking access to the local and regional transit systems.
Immediately after the LSCG/US74 Connector is completed and the new connection between Uptown Charlotte, local medical and education institutions, and NE neighborhoods is established, it is anticipated that commute, utilitarian (non-recreational), and school based trips made by walking in the project area will increase by approximately 106%, and biking trips will increase by approximately 168% (see Benefit Cost Analysis, Appendix C, for more details). It should be noted that utilitarian trips account for only 5-8% of all trips made by walking and biking, and represent a small fraction of the societal benefits — including public health and social/civic health — that would accrue from increased recreational and physical activity along the trail once the bridge is built.

The LSCG/US74 Connector will facilitate access via walking or biking to all of Uptown Charlotte’s amenities and jobs, allowing the residents of Uptown and surrounding areas the choice to shift driving trips to active transport trips, which will reduce congestion on area roads. Nearly 70,000 people work within Uptown and over half of Uptown’s 15,000 plus residents work in the center city area. Major employers, such as Bank of America, Wells Fargo, Duke Energy, and Charlotte-Mecklenburg Schools, also have offices Uptown. Four university campuses—UNC-Charlotte Center City Campus, Johnson and Wales University, Johnson C. Smith University, and Central Piedmont Community College (CPCC)—are located here. Uptown also features numerous hotels and restaurants, and hosts events and festivals. Many of the new people moving to Center City Charlotte are young: 75% of new residents in the neighborhoods of Uptown and South End are 18-34 years old. These new residents are seeking an active lifestyle with greater transportation choices.

2. Increase the economic productivity of land, capital, and labor at specific locations, or through community revitalization efforts.

According to a study of property values adjacent to the XCLT, property values have increased by approximately 56% in the project area. In Charlotte and in other communities in North Carolina and across the U.S., proximity to greenways has been shown to increase land values and reinvestment. Land along the XCLT has been attractive to developers looking for such amenities for residents, workers, and visitors. The increased land values will support the redevelopment of significant tracts of underutilized and abandoned properties that surround the trail corridor, especially in neighborhoods to the north of the LSCG/US74 Connector, increasing the likelihood that they will be converted to more economically productive uses.

The City of Charlotte has been in discussion with developers who have indicated an intent to set aside land for the LSCG/US74 Connector trail in their plans to develop currently vacant or underutilized properties immediately adjacent to the project. These developers see the LSCG/US74 Connector as an immediate value-added proposition for these developments.

3. Result in long-term job creation and other economic opportunities

The Executive Office of the President Council of Economic Advisors estimates that one job-year is created by every $76,923 in transportation infrastructure spending. Design and construction of the LSCG/US74 Connector is estimated to cost $15.5M, which translates into the generation of over 200 construction jobs for firms and residents.

The project will also make Charlotte more competitive for business investment by improving the area’s livability and transportation costs, thus helping to make it more attractive to national and international companies and employees, by providing amenities that high-tech, creative, and biomedical companies seek out when considering where to locate facilities and headquarters.