

# MOBILITY AND CONNECTIVITY



Connect residents and visitors with employment, shopping, educational institutions, and activity centers through safe and efficient multi-modal regional transportation systems



*North Charleston Transit Center*



*Sidewalk and bike lane along Spruill Avenue*



*Palmetto Commerce Parkway*



*CARTA provides transit service within the city*

The mobility of residents and those who are employed in the City has a substantial impact on the quality of life within North Charleston. Those routes and/or corridors designed to accommodate higher volumes of flow and multiple modes (or options) for transportation along them are principal components of the City’s mobility. The City’s position within the region creates the need for these corridors to serve both regional “pass-through” traffic and local trips. The City is in the center of the Charleston Area Transportation Study (CHATS) planning area. CHATS initiatives facilitate regional efforts to address congestion and safety concerns along these routes. Likewise, there is opportunity for collaboration to address deficiencies in facilities by investing in transit, bicycle and pedestrian improvements.

Projects in the CHATS 2040 Long-Range Transportation Plan (LRTP) range from improvements to increase capacity along major corridors such as Dorchester Road to intersection improvements that address “hot spots” of congestion and accidents. As depicted on pages 102 and 103 of Prime North Charleston’s Appendix 1, one-third of the projects in the CHATS LRTP’s prioritized list for future federal funding are located within the City of North Charleston. As shown on the following page, over \$3 billion in transportation projects are currently being developed, including the Lowcountry Rapid Transit system proposed for construction along University Boulevard and Rivers Avenue.

Collaboration between the City, CHATS, Charleston and Dorchester Counties and SCDOT is critical to ensure the design of these transportation projects includes facilities that support use by multiple users. Construction of new bicycle and pedestrian facilities, identified in the regional WalkBike BCD plan or those to address safety issues should be integrated within these projects as well. Likewise, the city should continue efforts to seek improvements, such as overpasses, that reduce the interruption of mobility by the numerous rail crossings that exist to support the city and regional economy.

*The City of North Charleston is poised to reap the greatest benefit of increased mobility and connectivity with development of the Lowcountry Rapid Transit (LCRT) system slated for operation in 2025.*



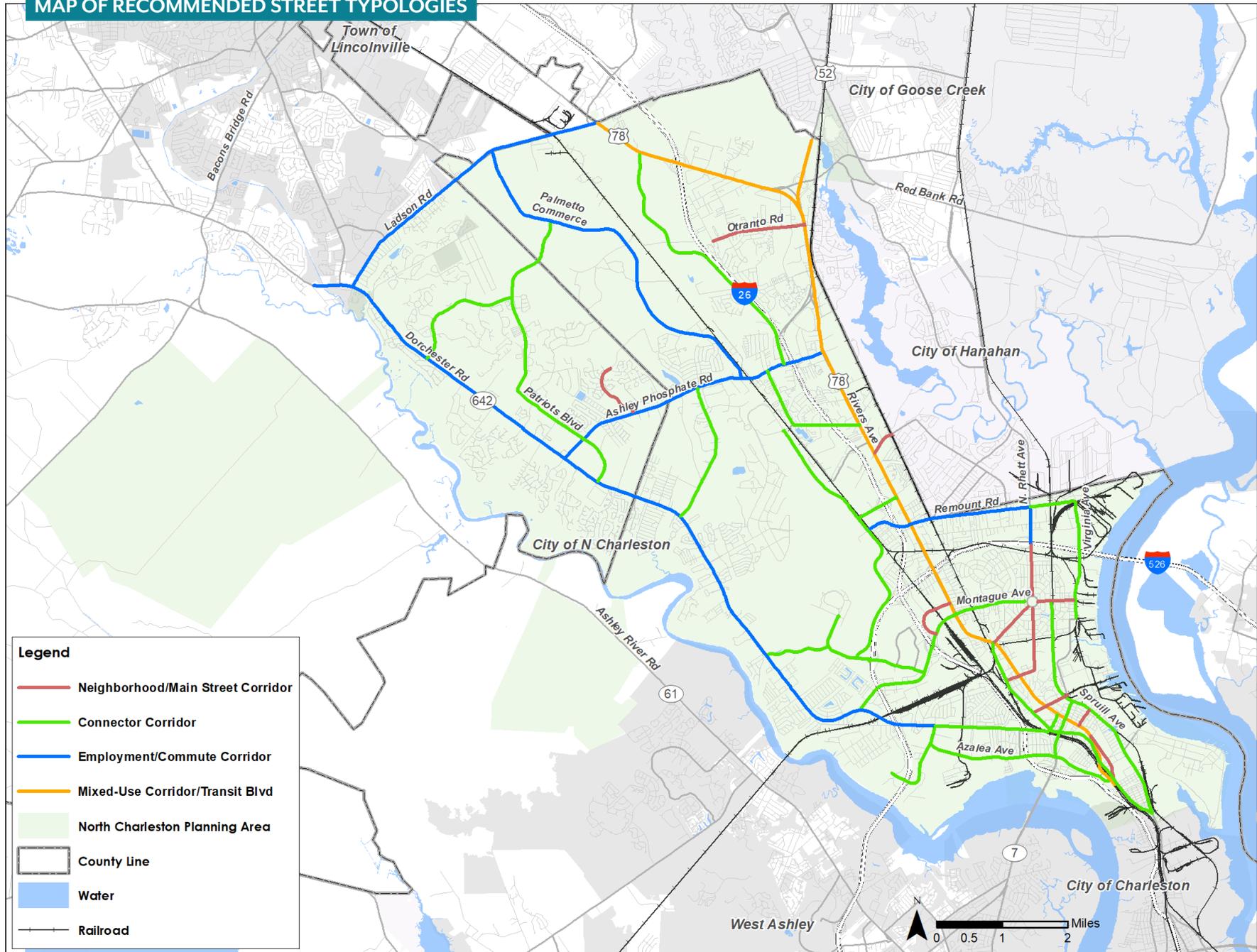
Source: Neck Area Master Plan: Partnership for Prosperity

<b>MO-GOAL 1:</b> <i>Promote a safe and reliable multi-modal transportation system</i>	
<b>MO-1A</b>	Support and promote use of transit for improved mobility within the City, including the Lowcountry Rapid Transit (LCRT) and CARTA’s traditional bus system
<b>MO-1B</b>	Collaborate with DOT and CHATS to prioritize safety improvements based on accident data, and utilize congestion management techniques such as traffic demand and management modeling, signal timing, access management and other technological advances to optimize operations
<b>MO-1C</b>	Work with CHATS to implement prioritized transportation improvements in the CHATS 2040 Long-Range Transportation Plan
<b>MO-1D</b>	Coordinate with CARTA on enhancement of current and future transit service and facilities
<b>MO-1E</b>	Require traffic impact analyses based on expected peak-hour trips for each development and establish a policy for traffic impacts and multi-modal connectivity
<b>MO-1F</b>	Establish a traffic and transportation department and/or position to coordinate with various entities sponsoring \$3 billion in transportation projects under construction in the City over the next ten years
<b>MO-1G</b>	Continue seeking state and federal funds to improve and expand the existing transit network

Planned transportation improvements with committed funding:

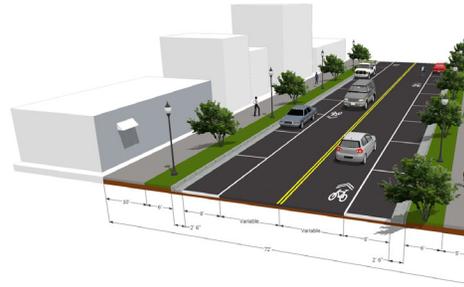
PROJECT	SPONSOR	ESTIMATED START DATE	ESTIMATED COMPLETION DATE	BUDGET	FUNDING SOURCE(S)
I-526 widening (Lowcountry Corridor West – Virginia Avenue to Paul Cantrell Blvd in West Ashley)	SCDOT	2022	2026-2028	\$1.54 billion	Act 275 Federal Interstate Funding
I-26 widening and interchanges/Rivers improvements	SCDOT	2026	\$1.75 million Corridor Management Plan in development		
Lowcountry Rapid Transit line (Rivers and University)	BCDCOG	2023	2025	\$360 million	Charleston County Transportation Sales Tax, Federal Transit Administration Capital Investment Grant
Port Access Road/ Local Port Access Road (Stromboli extension)	SCDOT (Design/Build)	2016	2020	\$340 million	Fed Earmark/ SC Ports Authority, SC Department of Transportation
ICTF improvements (NB roads and track, Cosgrove-McMillan)	SCPR/DOC				
Palmetto Commerce Pkwy/I-26 interchange (Weber Dr)	Charleston Co.	2020	2022	\$53.3 million	Charleston County Transportation Sales Tax, SC Department of Commerce
Palmetto Commerce Parkway Phase3	Charleston Co.	2023	2025	\$185 million	
Airport Connector Road	Charleston Co.	2022	2024	\$43.2 million	
Dorchester Road widening (Michaux Pkwy to Charleston/Dorchester county line)	Charleston Co.		2030	\$71 million	Charleston County Transportation Sales Tax
Northside Drive realignment at Ashley Phosphate	Charleston Co.		2026	\$40.5 million	Charleston County Transportation Sales Tax
US 78 improvements (US 52 to Charleston/Dorchester county line)	Charleston Co.		2026	\$47.2 million	Charleston County Transportation Sales Tax
Overpasses (3; Rivers @ Harley Street, Rivers @ Durant, North Rhett @ I-526)	SCSPA/DOT	TBD	TBD	\$300 million	SC Department of Commerce
				<b>Total:</b>	<b>\$3 billion</b>

# MAP OF RECOMMENDED STREET TYPOLOGIES



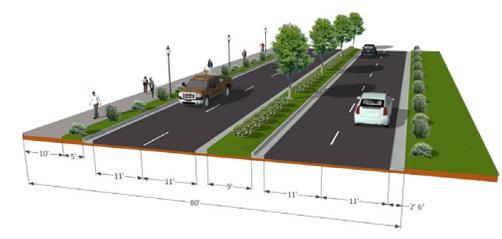
### Neighborhood/Main Street Corridor

- 1-2 travel lanes (optional median)
- Low Vehicle volumes and speeds
- Moves people through and between neighborhoods
- On-Street parking where appropriate
- Pedestrian and bicycle accommodated through slow vehicular travel speeds



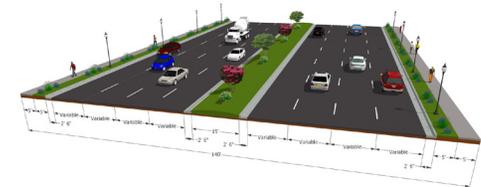
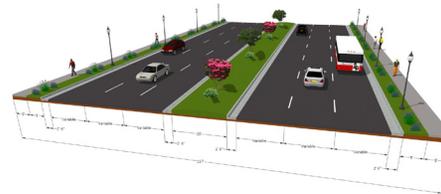
### Connector Corridor:

- 2-4 travel lanes
- Balances traffic flow and connectivity
- Landscaped medians; applied access management techniques
- Accommodates transit, pedestrian and bicycle through separated or dedicated facilities



### Employment/Commute Corridor:

- 4-6 travel lanes
- High vehicle volumes and speeds
- Landscaped medians; applied access management techniques
- Accommodates local truck/freight movement and transit
- Pedestrian and bicycle facilities (sidewalk, multi-use path)

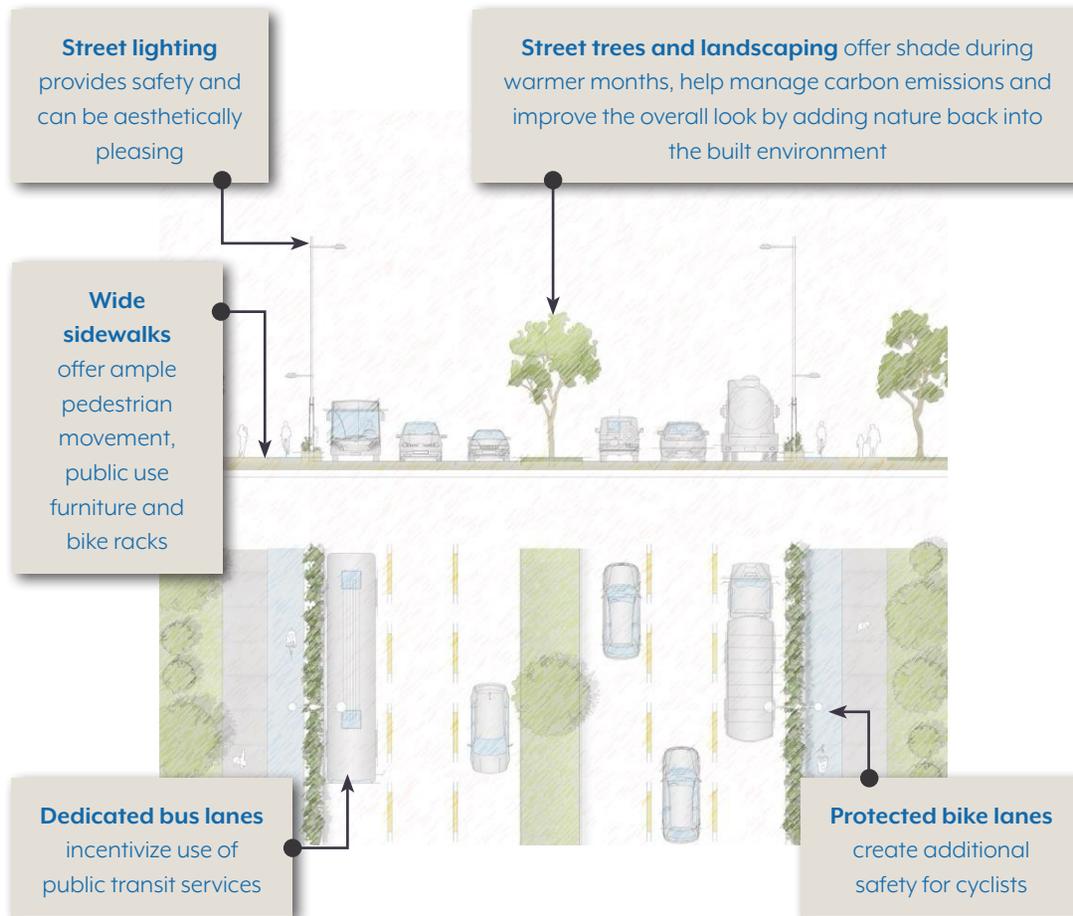


### Mixed Use Corridor/Transit Boulevard:

- 4-6 travel lanes
- Landscaped medians; applied access management techniques
- High multi-modal accommodations transit shelters and facilities, sidewalks, bicycle lanes, multi-use path
- High visibility crosswalks, pedestrian level lighting



Mobility for a city undergoing growth is dependent on a system of transportation options. Trails, sidewalks and pedestrian paths are crucial elements that provide connections to transit and roads ensuring accessibility for residents to parks, schools, shops and services. Making these facilities available within neighborhoods and across the City may be challenging, however it is not impossible and needed for the City to be livable and sustainable. Collaboration among agencies and departments in the implementation of improvements can have a profound impact on the effectiveness of principal corridors, as well as the use of alternative modes of transportation such as transit. The myriad of improvements needed to ensure the mobility of pedestrians, cyclists, cars, buses, and freight, along with the funding needed to make the improvements, can be best achieved by coordinated efforts among all parties



**ELEMENTS OF A COMPLETE STREET**

Source: BCDCOG

<b>MO-GOAL 2:</b> <i>Encourage connectivity of neighborhoods and increased mobility options while increasing safety measures</i>	
<b>MO-2A</b>	Adopt policies that support development of Complete Streets and evaluate regulations for design standards to require interconnectivity of roads, sidewalks and bike lanes
<b>MO-2B</b>	Provide safe connections to transit corridors through the use of sidewalks, multi-use paths, crosswalks, etc.
<b>MO-2C</b>	Prioritize safety improvements near schools, bus stops, and commercial corridors, including opportunities for Safe Routes to Schools grants
<b>MO-2D</b>	Pursue opportunities for making non-vehicular improvements and connections across the City, including, but not limited to, reuse of former rail lines' right-of-way for trails
<b>MO-2E</b>	Coordinate with the State Ports Authority, CSX, Norfolk Southern, Palmetto Railways (Department of Commerce) and trucking associations on development of facilities/ improvements to mitigate impacts of freight on neighborhoods/traffic flows
<b>MO-2F</b>	Annually update and continually enforce the truck routing plan, including through the posting of truck prohibitions and police monitoring and enforcement
<b>MO-2G</b>	Evaluate and implement traffic calming strategies such as pedestrian bump outs, speed bumps, lowering neighborhood street speed limits, and stop signs where appropriate in conjunction with transportation improvements or spot efforts to protect residential areas from impacts of inappropriate volumes of through-traffic and/or excessive speed
<b>MO-2H</b>	Improve access to neighborhoods and employment centers with traffic signage and signal enhancements, as well as roadway condition and intersection improvements

Patterns of land uses have a direct impact on the level of capacity, safety and connectivity benefits that are realized from prioritized improvements. Establishing zoning districts and design standards that support a variety of land uses and intensities within close proximity to one another, particularly along major corridors, can create opportunities for residents and employees looking to connect with transit and non-motorized modes of transport.

Improved access to varied land uses, in conjunction with shorter local trip/travel options to work/life/shopping/entertainment can promote healthier lifestyles. The synergistic benefit of these mixed-use land use patterns is less impervious surface, such as parking lots, resulting in reduced stormwater runoff while retaining natural spaces that contribute to the quality of life within the City.

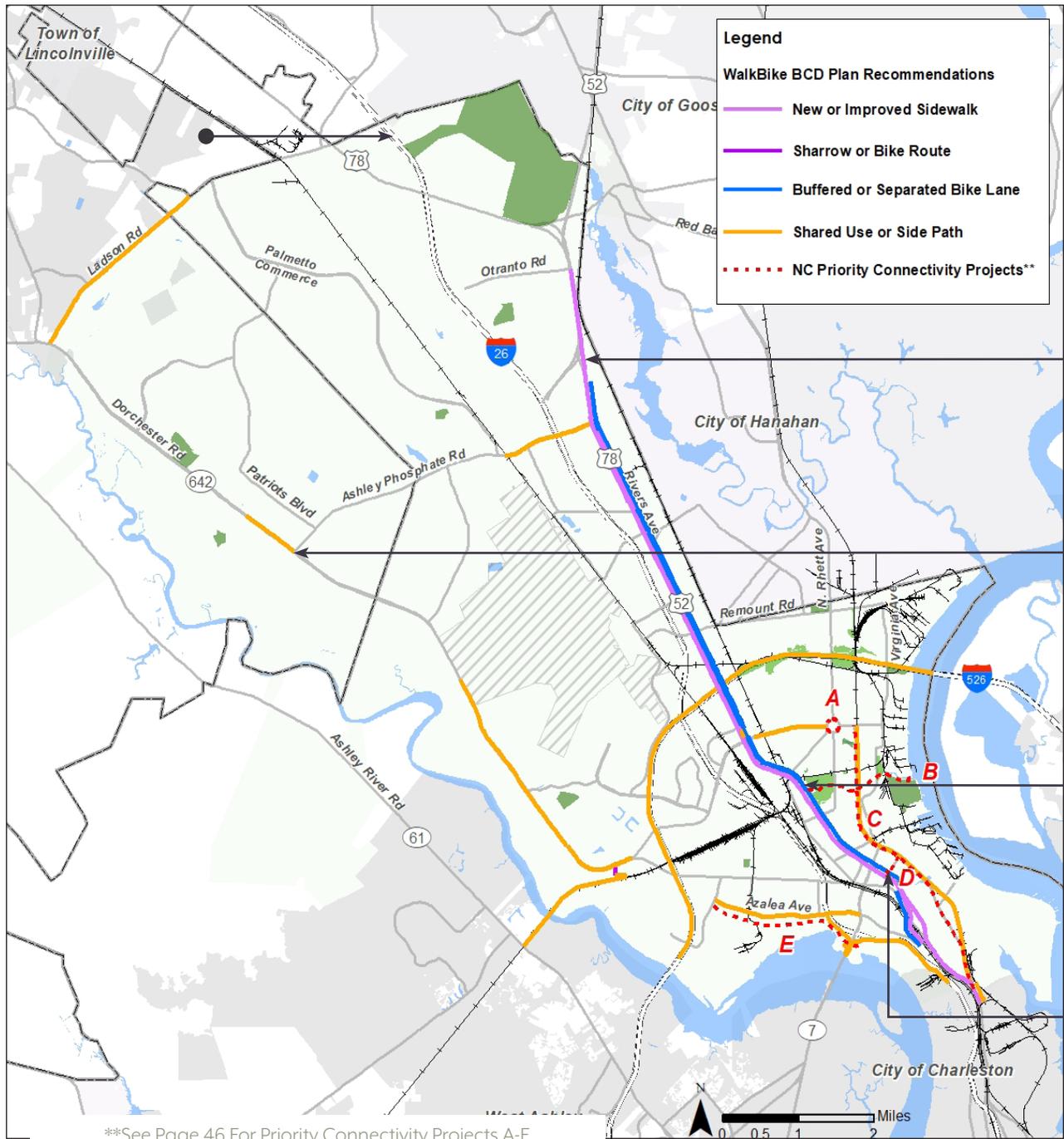
#### WALKBIKE PROJECTS

LOCATION	ALIGNMENT AND FACILITY TYPE	MILES	LOW COST EST.	HIGH COST EST.
I 526	Shared Use Path - Leeds Ave to Virginia Ave	6.92	\$2,768,090	\$5,536,180
BON AIRE BLVD/ SHARED USE PATH	Shared Use Path - Dorchester Rd to Ashley River Rd	1.96	\$733,126	\$1,468,945
E MONTAGUE AVE	Shared Use Path - Piedmont Ave to Buist Ave	0.98	\$392,224	\$784,448
SPRUILL AVE	Shared Use Path from E Montague Ave to Tuxbury Ln	3.89	\$1,554,998	\$3,109,996
US HWY 52	Mix of New/Improvement to Existing Sidewalks, Shared Use Paths, and Separated or Buffered Bike Lanes - Otranto Rd to Tuxbury Ln	16.79	\$5,792,874	\$29,301,367
US HWY 78	Mix of Improved Sidewalks and Buffered Bike Lanes - US 52 to Stromboli Ave	0.77	\$229,595	\$1,378,799
LADSON RD	Shared Use Path - Miles Jamison Rd to Dorchester Rd	2.65	\$1,058,258	\$2,116,516
DORCHESTER RD	Shared Use Path - Club Course Dr to Ashley Phosphate Rd	0.78	\$313,415	\$626,830
DORCHESTER RD/ MARGINAL ST	Shared Use Path - Fellow Rd to Bon Aire Blvd	3.59	\$1,434,943	\$2,869,884
ASHLEY PHOSPHATE RD	Shared Use Path - East of Spartan Blvd to Rivers Ave	1.22	\$486,789	\$973,577
AZALEA DR	Shared Use Path - Leeds Ave to Cosgrove Ave	1.97	\$789,348	\$1,578,694
HARVEY ST/SHARED USE PATH	Shared Use Path - Azalea Dr to Austin Ave	2.36	\$942,041	\$1,884,084

#### MO-GOAL 3:

*Encourage land use patterns designed to support transit, including compact, walkable, mixed use developments*

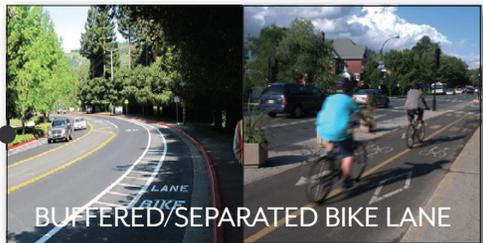
MO-3A	Develop and adopt regulations, including overlay districts and design standards, to facilitate transit corridors and incentivize redevelopment along principal corridors, including reduction in required parking
MO-3B	Evaluate principal corridors for opportunities and develop streetscape plans for safety as well as aesthetic and functional improvements, including lighting, crosswalks, sidewalks, improved pavement quality, wayfinding signage, etc.
MO-3C	Implement projects identified in the 2017 WalkBike BCD plan
MO-3D	In coordination with development of the Capital Improvements Plan, identify streets to take over from SCDOT for maintenance and fund streetscape improvements to catalyze reinvestment
MO-3E	Revise subdivision regulations as needed to require connectivity between neighborhoods and to abutting commercial centers



**Legend**

**WalkBike BCD Plan Recommendations**

- New or Improved Sidewalk
- Sharrow or Bike Route
- Buffered or Separated Bike Lane
- Shared Use or Side Path
- - - NC Priority Connectivity Projects\*\*



\*\*See Page 46 For Priority Connectivity Projects A-E