

# PEDESTRIAN MASTER PLAN ELIZABETH CITY



# Kimley **»Horn**

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# ACKNOWLEDGMENTS

Thank you to the local residents, community leaders, and City staff that participated in the development of the WalkEC Pedestrian Master Plan through meetings, workshops, and plan review. A special thank you to those who participated as Steering Committee Members, listed below.

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# INTRODUCTION

Elizabeth City is a diverse and vibrant community located on the beautiful Pasquotank River, with a small-city charm that brings in people from all walks of life. It is home to three schools of higher learning: Elizabeth City State University, College of The Albemarle and Mid-Atlantic Christian University. In 2015, the City was declared a "Coast Guard City" and has recently earned the status as a certified "Retirement Community." Elizabeth City has been known for many years as "The Harbor of Hospitality." The City now seeks to build upon its reputation as a welcoming and historic community by improving the pedestrian environment and investing in long-term mobility.

# PROJECT HISTORY AND BACKGROUND

Municipalities in North Carolina continually strive to provide their residents with a high quality of life. In recent years, this has come to include a walkable community that provides safe and accessible transportation options. These amenities have come to be increasingly expected by local residents, and their ability to contribute to community vibrancy is well documented. Taking trips by bike or on foot improves the environment, promotes good health, saves money, eases the burden on roadways, and enhances the convenience of living in a small community such as Elizabeth City.

Residents of Elizabeth City routinely walk to and from their destinations. The City has a long-standing desire to improve its pedestrian system, with many apparent successes over the past decade. In 2012, the City convened a 100-person steering committee to evaluate city strengths, weaknesses, opportunities and threats. In 2014, the completed assessment identified recommendations, including to, "increase sidewalk interconnectivity and physical access to health and social services, nature trails, parks and playgrounds, water activity venues, etc." In 2015, the City adopted the Pasquotank County Comprehensive Transportation Plan. In 2016, the Elizabeth City/Pasquotank County Parks & Recreation Department created a 10-year Comprehensive Master Plan Update that contains recommendations for greenways, walking trails, and sidewalks. Over the years, the community's vision has begun to come to fruition through multi-use paths and subdivision sidewalk connectivity. It is Elizabeth City's goal to build upon these previous successes and provide a safe connection for residents and visitors to facilities, services, neighborhoods, and schools through multi-use paths, sidewalks, and crosswalks.

The development of the Elizabeth City Pedestrian Master Plan—or WalkEC Pedestrian Master Plan—was funded through a grant awarded by the North Carolina Department of Transportation Integrated Mobility Division (NCDOT IMD) Through the Planning Grant Initiative, NCDOT IMD encourages the development of bicycle and pedestrian plans at the municipal level by offering planning grants, totaling nearly \$4.6 million across 186 municipalities since 2004.

#### WALKEC IN A POST-COVID-19 WORLD

COVID-19 has changed many aspects of life, including how municipalities function and the types of improvements they are prioritizing. While the WalkEC process began pre-COVID, the plan remains relevant because it is based on the long-term needs to preserve and enhance the City's mobility options. As transportation needs continue to change, WalkEC Pedestrian Master Plan presents a roadmap toward a safer and more accessible pedestrian network, and outlines the steps needed to adapt to a continuously changing environment.

## VISION AND GOALS

As a guiding planning document, the WalkEC Pedestrian Master Plan is one way the City is expressing a commitment to the five priorities expressed in the WalkBikeNC statewide bicycle and pedestrian plan:



# PLANNING PROCESS

The planning process began in late 2019 and was guided by four main principles:

- Make better, more accessible places by creating better transportation options
- Value the voices of strategic stakeholders and local citizens
- Use current plans as a starting point for future strategies
- Create solutions customized to fit the needs of your community

Public input was a critical feature of this planning process. Guidance was provided by a steering committee made up of community stakeholders, which met three times throughout the project. Two public surveys were launched at critical points in the WalkEC Pedestrian Master Plan planning process, which provided all community members the opportunity to participate. Together, these tools for community engagement informed key decisions.

These components were incorporated into a schedule organized as a four-phase planning process that occurred over the course of one year. These phases were Visioning and Needs, Infrastructure Analysis, Recommendations, and Documentation and Adoption. This process began in January 2019 and continued through the winter of 2020.



## **BENEFITS OF WALKING**

How people move through their environment is a key factor for the success of any community. Providing a safe and efficient pedestrian network gives citizens an alternative to traditional vehicular travel modes and helps to create a more efficient, healthier, and safer community. Walking as a means of both transportation and recreation can benefit Elizabeth City's mobility, safety, health, economy, environment, and quality of life. The plan will have numerous benefits for City residents, businesses and visitors. These benefits will impact the City both immediately and for years to come. Five of the six benefits listed here stem from the five pillars found in WalkBikeNC, North Carolina's Bicycle and Pedestrian Plan. The sixth benefit, quality of life, is often incidental and happens naturally as efforts are made to enhance mobility, safety, health, economy, and environment.

#### HEALTH

Walking is a form of physical activity that can be accomplished by most citizens. Walking is a low-impact form of exercise that can reduce stress and diseases such as high blood pressure and obesity. There is direct evidence that investment in bicycle and pedestrian infrastructure can reduce the amount spent on medical costs. A 2005 study completed by CDC researchers in Atlanta, Georgia found there was an average \$2.94 medical savings return for every \$1 spent on bicycle and pedestrian infrastructure.<sup>1</sup>



#### MOBILITY

Mobility is the equitable availability of transportation options for everyone. By providing the appropriate facilities, communities allow people to choose how they want to travel. For those who do not have the option to drive, such as adolescents, the elderly, those unable to afford a car, and people with certain disabilities, this lack of choice in transportation creates an inconvenient and socially unjust barrier to mobility. In 2017, the National Household Travel Survey showed that 40% of all trips, both commute and non-commute, taken by Americans are less than two miles, equivalent to a 30-minute walk. Walking can be an attractive travel mode for short trips that would otherwise be made by driving.

Key accessibility improvements also improve quality of life for residents with mobility challenges. Accessibility standards set by the Americans with Disability Act (ADA) are increasingly enforced. These standards require that City facilities provide gentle slopes, well defined landings and wide smooth pathways. These are conveniences for able-bodied users, but essential elements for people with disabilities.

#### ECONOMY

Walking is an affordable mode of transportation. Car ownership is expensive and consumes a major portion of many family incomes. When safe facilities are provided for pedestrians, people can walk more and spend less on transportation, meaning they have more money to spend on other things.





<sup>1 &</sup>quot;A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails," Health Promotion Practice, Volume 6, Issue 2, pp. 174 - 179, 2005

#### **SAFETY**

Safe travel conditions result from effective design, enforcement, and education. Safety is a major reported obstacle to walking in Elizabeth City and steps can be taken to further improve safety. In 2018 the Governors Highway Safety Association reported over 6,200 pedestrian fatalities on U.S. roadways, up from 4,100 a decade earlier.<sup>2</sup> Officials at the national and state levels are taking great strides to improve pedestrian safety. The North Carolina Department of Transportation (NCDOT) is increasing awareness of pedestrian and bicycle safety with the Watch For Me NC program. Watch for Me NC aims to use education, community engagement, and high-visibility enforcement to reduce the occurrence of pedestrian and bicycle injuries and fatalities.<sup>3</sup>

#### QUALITY OF LIFE

The walkability and bikeability of a community is an indicator of its livability. This factor has profound impact on attracting businesses and workers as well as tourism. In communities where people can regularly be seen out walking and biking, there is a sense that these areas are safe and friendly places to live and visit. By providing appropriate pedestrian and bicycle facilities, communities enable the interaction between neighbors and other citizens that can strengthen relationships and contribute to a healthy sense of identity and place.

#### ENVIRONMENT

More people on bikes can result in lower levels of motor vehicle emissions, cleaner air, and stronger preservation of streams and open spaces. As Elizabeth City implements the programs, policies, and infrastructure projects recommended by this plan, it is anticipated that a portion of trips that would have been made by car, releasing harmful emissions, will instead be made by bike or on foot.







http://www.pedbikeinfo.org/data/factsheet\_economic.cfm 2 3 https://www.ghsa.org/resources/news-releases/pedestrians19



# 2 OUTREACH

Public outreach provides an overall compass for the planning process, through both direct engagement with the general public, and the involvement of a select project stakeholder group. Outreach and the outcomes of those efforts contributed significantly to the final outcome of this plan and helped enrich the results by ensuring the needs of the community were taken into consideration at every step along the way.

## STEERING COMMITTEE

The steering committee served a critical role in terms of project guidance and decision-making. The committee was composed of a variety of local experts and officials, including representatives from the Community Development Department, the Public Utilities department, the Parks Department, NCDOT, and City residents. The steering committee had four distinct roles.

- Assist with development of the comprehensive pedestrian plan;
- Provide feedback on the plan elements throughout the planning process;
- Act as a conduit for community organizations to provide a voice for the process; and
- Provide expert knowledge and local insights.

The steering committee met four times over the course of the project. A summary of activities is described below.

#### **MEETING OVERVIEWS**

#### **KICK-OFF MEETING**

A project kick-off meeting took place on November 12, 2019. During the kick-off meeting, the City was briefed on the overall project timeline and schedule. Per the request of the City, the steering committee included members of the public from each of the four city wards. The kick-off meeting allowed the consultant team to gather geo-spatial data and conduct a field inventory. The field inventory documented existing gaps in the current pedestrian network and was used to create a corridor inventory. This corridor inventory was used to inform the portions of the Existing Conditions section.

#### **STEERING COMMITTEE #1**

The first steering committee meeting occurred on April 17, 2020 via Skype. The steering committee was introduced to the planning process. Each of the plan elements were discussed including the visioning and goals process, analysis and recommendations, and documentation and adoption. Each member of the steering committee was crucial to the planning process by providing feedback, direction, and local insight into the pedestrian plan. The preliminary demographic and existing conditions were presented. A summary of the findings can be found in Chapter 2: Existing Conditions.

#### **STEERING COMMITTEE #2**

The second steering committee meeting occurred on August 18, 2020 via Microsoft Teams. The purpose of the second steering committee meeting was to review the first survey results, discuss the draft recommendations, and determine how to prioritize projects.

The recommended projects focused on the types of improvements that the WalkEC Pedestrian Master Plan would develop. These improvements included linear project recommendations like sidewalks and multi-use paths as well as pedestrian crossing improvements like signal improvements, pedestrian beacons, or other high-visibility crosswalks. The draft prioritization evaluation criteria were also discussed. Feedback from the steering committee was used to inform the prioritization presented in the third steering committee.

#### **STEERING COMMITTEE #3**

The third and final steering committee meeting took place on March 4, 2021 via Microsoft Teams. The final steering committee meeting focused on presenting the second public survey and draft prioritization. The draft prioritization showed what the NCDOT priorities for SPOT evaluation were, as well as the tentative weights used in the WalkEC Pedestrian Master Plan prioritization. The use of an online polling toll—Mentimeter—was used to get real-time feedback from committee members on tentative weight percentages. The prioritization can be viewed in Chapter 4: Facility Recommendations.

Steering committee members were also asked to provide feedback on ten snapshot projects. The snapshot projects are further detailed in Chapter 4: Facility Recommendations.



## **ONLINE SURVEY #1 - FOUNDATION BUILDING**

An online survey was distributed widely throughout the City via community partners. The survey received approximately 360 responses and was open from May 5 to July 1, 2020. This tool gauged respondents' attitudes toward existing conditions, as well as asked for priority ways the network could be improved. A summary of responses is shown below.

000



0%

18 to 20

0.5% 0.5%

to 29

10%

0%

1%

Asian

1%

0.5%

**9%** 

0%

3%

2%

60 or older

40 to 49

30 to 39

50 to 59

#### **FIVE THEMES**

••••

WalkBikeNC is the North Carolina statewide Bicycle and Pedestrian Plan. The plan includes five pillars or themes. Survey participants were introduced to each theme and how those themes would translate into the WalkEC Pedestrian Master Plan. While all the themes are crucial to a successful pedestrian plan, having the public identify priorities ultimately helped inform the types of recommendations as well as the location of those improvements. The survey participants were asked to rate the following themes on a scale of 1 to 5 to identify what the plan's priorities should be.

Safety

• Environment

Mobility

Economy

Health

#### SAFETY

Promote safety for all roadway and non-roadway users through strategic, consistent, and coordinated pedestrian and bicycle facility improvements, education, and enforcement strategies.

#### MOBILITY

Improve mobility and accessibility and reduce traffic congestion through greater investment in walking and biking infrastructure, improved transportation modes, and reduced traffic congestion through coordinated land use and transportation planning.

#### HEALTH

Contribute to improved public health by providing active living environments with safe, connected, accessible facilities along with programs that encourage walking and bicycling.

#### **ENVIRONMENT**

Be good stewards of our environment by reducing automobile dependence, completing a Greenprint Plan for North Carolina, and linking together the state's natural and cultural resources through a statewide network of greenways.

#### ECONOMY

Maximize economic competitiveness, return on investment and employment opportunities by creating more attractive walkable and bikeable communities through increased public and private funding.

#### How important are the themes? Safety Mobility Health Economy Environment THEM Please rate this theme. \* \* \* \* SAFET 6.7 Safety WalkBikeNC includes this theme to emphasize the need for safer travel options for everyone, whether they are driving, walking, or riding a bike What it means for Elizabeth City Several streets in Elizabeth City are dangerous to walk along or across, and for many people, walking is their only option. WalkEC should promote safety for everyone, regardless of their age, income, background, or ability to move. More about t

# ON A SCALE OF 1 TO 5, HOW IMPORTANT IS EACH THEME?





#### WHAT OBSTACLES DO PEDESTRIANS FACE?

Survey participants were asked to identify the biggest obstacles they face when trying to walk around Elizabeth City. The lack of sidewalk was cited the most often as an obstacle to walking with over 170 responses. When ranked according to which of the driving principles was the biggest deterrence to walking, the weather had the highest intensity score. Conversely, the lack of sidewalks was only a minor hindrance to survey participants when walking around Elizabeth City.

The graph below shows the frequency and intensity of comments received. "Frequency" indicates how often an obstacle was ranked in the top five. While "intensity" refers to the average ranking of an obstacle.



#### **KEY THEMES**

- More multi-use pathways
- More bicycle and pedestrian facilities and option types
- Lack of connectivity between destinations (schools, downtown, waterfront)
- Better lighting and signage
- Maintenance for existing sidewalks
- Speeding along major corridors
- Flooding and rainstorms contribute to poor sidewalk condition



#### **ISSUES & IDEAS**

A key component of the first survey was asking participants to place markers to identify destinations, safety concerns, project ideas, place of residence, or any other comments. Using the interactive map, participants could leave comments about any location in Elizabeth City. In total, over 650 comments were made on this question alone. These data points were used in the development of the draft recommendations. The maps on the right highlight the spatial distribution of comments left by survey participants.

#### **DESTINATIONS**

Participants identified 227 destinations throughout the City. These destinations were primarily concentrated in the downtown area of Elizabeth City. There were many locations identified along the waterfront including more residential areas.

Survey participants noted that parks and places to recreate were key destinations that should be accessible by sidewalk or bicycle.

#### SAFETY

Participants highlighted 320 safety concerns on the map. Roadway corridors that were identified frequently were Ehringhaus St, Halstead Blvd, and Riverside Ave.

The majority of these concerns were in some way related to the lack of sidewalk along a roadway or an unsafe crossing either at an intersection or along certain streets.

#### **PROJECT IDEAS**

A total of 162 project ideas were noted by survey participants. These new project ideas were concentrated along Riverside Ave and Rivershore Rd.

While an extensive sidewalk network currently exists in downtown Elizabeth City, many of these new project ideas were related to crossing opportunities.

#### **OTHER COMMENTS**

Survey participants were able to provide additional feedback or concerns by using an "other" pin. Many of these comments highlighted the desire for additional bicycle facilities. Some participants even noted that flooding and environmental hazards impact the maintenance of sidewalks.

Several other project ideas include an emphasis on new sidewalks.





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## ONI INF SURVEY #2 - PRIORITY SETTING

The second online survey focused gathering feedback from the public on draft sidewalk, multi-use, and pedestrian crossing recommendations. Although the first online survey had a high response rate, there was an asymmetry between the City demographics and survey respondents by race. The Steering Committee and City staff updated the community engagement efforts for survey two to have a more representative sample of the City. Accordingly, the WalkEC team partnered with over 30 local schools, universities, churches, non-profits, civic groups, and businesses to promote the second online survey. The survey received approximately 220 responses and was open from December 7, 2021 to January 25, 2021. A summary of responses is shown below.

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HOW OFTEN DO YOU WALK?



#### DRAFT RECOMMENDATIONS

The draft multi-use, sidewalk, and pedestrian crossing locations were presented to the public for review. Survey participants were asked a series of questions about each type of recommendation and given the opportunity to identify additional needs.

#### **MULTI-USE PATHS**

Multi-use pathways are physically separate facilities from vehicular traffic for bicyclists and pedestrians.

Survey participants were asked to rate the multi-use path recommendations (on a scale of one to ten, with ten being the highest possible score). The average rating was 8.21.

More than 100 comments were received on specific multiuse paths. Several reoccurring themes appeared throughout these comments. These themes included the need for adequate lighting, connections to major destinations, recreation opportunities along the waterfront, and connection to the U.S. Coast Guard base.

The survey participants were also asked to choose which projects should be completed first. The top three locations were identified:

- C) NC-344 (Halstead Blvd Ext) from Forest Park Rd to US-17 BYP
- J) River Rd from Rivershore Rd to NC-344 (Halstead Blvd)
- M) Weeksville Rd from River Rd to Crosswinds Dr

#### **SIDEWALKS**

Sidewalks are paved pathways for pedestrians on the side of a roadway. The sidewalk recommendations focused on connections on one or both sides of existing roadways based on right-of-way availability or environmental constraints.

Survey participants were asked to rate the sidewalk recommendations (on a scale of one to ten, with ten being the highest possible score). The average rating was 8.32.

Over 70 comments were received. Themes of these comments included connections to schools, universities, hospitals, and businesses. Several comments also noted that maintaining existing sidewalk conditions was imperative to a strong pedestrian network. The survey participants were also asked to choose which projects should be completed first. The top three locations were identified:

- C) N Hughes Blvd from W Main St to US-17 BUS
- E) Griffin St from W Main St to Ehringhaus St
- I) Brooks Ave from W Ehringhaus St to Catalina Ave
  WALKEC





#### **PEDESTRIAN CROSSINGS**

Pedestrian crossing improvements are recommendations to improve overall pedestrian safety, enhance visibility, provide accessibility, and create shorter crossing distances. The following types of recommendations were considered:

- Pedestrian Crossing Improvements
- Signal Improvements
- Pedestrian Beacons
- Safe Railroad Crossings
- Connectivity Improvements

Survey participants were asked to rate the pedestrian crossing recommendations (on a scale of one to ten, with ten being the highest possible score). The average rating was 8.22.

More than 40 comments were received. Comments identified specific new locations including:

- Ehringhaus St at N Road St
- N Road St at N Hughes Blvd
- Church St at Main St

When asked to choose priority pedestrian projects, the top three locations were identified:

- F) US-17 (N Hughes Blvd) at W Main St
- AA) NC-344 (Weeksville Rd) at Edgewood Dr
- AB) NC-344 (Weeksville Rd) at River Rd

#### **OVERALL RECOMMENDATIONS**

The overall recommendations were rated 8.70 (on a scale of one to ten, with ten being the highest possible score).

Over 40 comments were received. These comments included general thoughts about ensuring network connectivity, including adequate signage near crossings, and considering alternative traffic calming measures.





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#### PRIORITIES

To verify the priorities of the WalkEC Pedestrian Master Plan, the survey prompted participants to identify which considerations the plan should focus on. On a scale of one to five (with one being the highest score), participants shared what they thought the top focus of the WalkEC Pedestrian Master Plan should be. The average rankings are shown below:

- 2.21 1. Safety: priorities should focus on the City's most dangerous locations for pedestrians
- 2.71 2. Demand: priorities should focus on places where people are most likely to walk
- 3. Connectivity: priorities should focus on filing gaps in the pedestrian network
- 3.64 4. Equity: priorities should focus on improvements in historically undeserved communities
- 4.06 5. Geography: priorities should spread throughout the City
- 4.86 6. Ease of Implementation: priorities should focus on projects that would be easier or quicker to implement

Similar to the first survey, safety was—on average—ranked as the first priority by survey two participants. Demand and connectivity closely followed safety as top priorities. While all of these considerations are equally important in their own respect, understanding the priorities of the public ultimately helped shape the prioritization of recommended projects.

#### PROGRAMS

The final question in the survey focused on programs that the City could or should continue or expand. Survey participants were asked to consider what types of programs WalkEC Pedestrian Master Plan should focus on.

43% Community Events
40% Eat Smart, Move More NC
33% Walking Tours
32% Watch for Me NC
32% Enforcement Activities







#### Studio 511 Farmhouse Floral Painting

March 1, 2021 6:30 PM - 8:30 PM Studio 511 welcomes you to a fun night of painting. Reservations required.



#### Virtual History for Lunch: Community, Ingenuity, and Luck

March 3, 2021 12:00 PM - 1:00 PM Join on Zoom: "Community, Ingenuity, and Luck: Elizabeth City State Normal School and the Crisis of 1898-1905."



First Friday ArtWalk

March 5, 2021 4:00 PM - 7:00 PM Enjoy artwork, artist demos, and live music at multiple locations around dowr Elizabeth City!

#### WALKEC



# 3 EXISTING CONDITIONS

This chapter provides an inventory of current conditions as they relate to pedestrian mobility in Elizabeth City. This content is a preliminary step in the creation of a comprehensive pedestrian plan that will provide Elizabeth City with a blueprint for identifying and prioritizing future planning decisions. The georaphic information system (GIS) data within this document was provided by the City, NCDOT, and the Albermarle Rural Planning Organization (ARPO) unless otherwise stated. This chapter includes a subset of the existing conditions data collected and analyzed. The full standalone existing conditions report is available in the Appendix.

## STUDY AREA

Elizabeth City is located in Pasquotank County at the crossroads of US-17, US-158, NC-344, and the Pasquotank River. Tucked in the northeastern corner of North Carolina, Elizabeth City is approximately 11.67 square miles. Elizabeth City is west of the Outer Banks and south of Hampton Roads, Virginia. The City is known for its scenic downtown waterfront and coastal, southern charm. With a rich culture, the City welcomes visitors and resident alike to enjoy the historic districts of the former seaport location.

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WALKEC

# DEMOGRAPHICS

#### AT A GLANCE

The demographic makeup of the community is crucial when considering walking as a means of active transportation in Elizabeth City. This section uses 2018 American Community Survey 5-year estimates from the US Census Bureau to summarize relevant data for the community. This data helps to better understand the needs of the community in Elizabeth City, therefore appropriately tailoring the recommendations of the final plan to this community.



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#### MEDIAN HOUSEHOLD INCOME





#### **TOP INDUSTRIES**

Educational services and health care and social assistance	28.4%
Retail trade	14.5%
Arts, entertainment, recreation, and accommodation and	12.7%
food services	

**COMMUTING TO WORK** 





## PEDESTRIAN INFRASTRUCTURE

A key part of the planning process involves the identification of areas of opportunities and improvements to the sidewalk network in Elizabeth City. These opportunities were identified through fieldwork analysis and guidance from the City. The following table describes the characteristics of corridors studied during the first kick-off meeting. The table is intended to provide a high-level overview of select roadway characteristics and pedestrian facilities.

		E #1 - PEDESTR				
ROAD NAME	LANE WIDTH	CROSS SECTION	SPEED LIMIT	ANNUAL AVERAGE DAILY TRAFFIC (AADT)	CURB & GUTTER	SIDEWALK CONDITION
Ehringhaus St (S Water St to S Hughes Blvd)	65 ft	5-lane (2-way turn lane)	30 - 45 mph	11,500 - 19,500 vpd	Yes	Good
Herrington Rd (Shepard St to Halstead Blvd)	25 ft	2-lane undivided	30 - 35 mph	4,700 vpd	Variable	Good
Halstead Blvd (NC-344) (US-17 to Edgewood Dr)	65 ft	5-lane (2-way turn lane)	45 mph	17,000 - 22,500 vpd	Yes	Disconnected
Weeksville Rd (Edgewood Dr to River Rd)	70 ft	5-lane (2-way turn lane)	45 - 50 mph	2,600 - 6,800 vpd	No	Disconnected
Hughes Blvd (US-17) (US 158 to Oak Stump Rd)	65 ft	4-lane undivided	45 mph	14,500 - 23,000 vpd	Yes	Disconnected
Oak Stump Rd (US-17 to Summerfield St)	30 ft	3-lane undivided	35 mph	2,900 vpd	No	Not present
Parkview Dr (Hoffler St to River Rd)	35 ft	3-lane undivided	30 - 45 mph	2,400 - 5,500 vpd	No	Fair
River Rd (Rivershore Rd to Weeksville Rd)	40 ft	2-lane undivided	20 - 30 mph	2,400 - 4,600 vpd	Yes	Fair
Selden St (W Main St to Catalina Ave)	20 ft	2-lane undivided	25 mph	N/A	Variable	Disconnected
Park St (Southern Ave to Williams Cir)	20 ft	2-lane undivided	25 mph	N/A	Yes	Fair
E Ward St (N Pointdexter St to N Hughes Blvd)	25 ft	2-lane undivided	25 mph	2,400 - 3,600 vpd	No	Not present

#### **TABLE #1 - PEDESTRIAN INVENTORY**

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#### THE EXISTING NETWORK

A key part of the planning process involves identifying areas of opportunities and improvements to the sidewalk network in Elizabeth City. The existing pedestrian network provides valuable insight into the current network's connections and gaps. The figure below shows that a large portion of the City's existing pedestrian infrastructure is downtown. Building off of the existing network will only enhance multimodal transportation in Elizabeth City. The GIS data used was provided by Elizabeth City.



#### FIGURE #2 - EXISTING PEDESTRIAN NETWORK

WALKEC

### PEDESTRIAN CRASHES

Elizabeth City has approximately 40 miles of existing sidewalk. Between 2007 and 2018, a total of 104 pedestrian crashes were reported in Elizabeth City. While many of these crashes resulted in no injury or minor injury, several locations resulted in a pedestrian fatality. Three of the four fatal crashes were identified as intersection-related crashes. The intersection-related crashes highlight the need for pedestrian-crossing improvements. The crash data was obtained from NCDOT.





### WALK DEMAND SCORE

WalkEC Pedestrian Master Plan used a customized geospatial analysis to identify where pedestrian facilities may be needed based on locations with the highest pedestrian activity. The analysis identified gaps in the current system based on areas where people are more likely to walking based on key destinations and demographic features. By using existing data to identify key destinations, the walk demand score was able to reflect areas that need pedestrian connectivity. In addition, 2018 ACS data was used to identify populations vulnerable populations. The combined inputs were used to spatially identify the need of pedestrian amenities. **FIGURE #4 - WALK DEMAND SCORE** 

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WALKEC

## PREVIOUS PLAN REVIEW

A well-rounded and informed pedestrian plan will consider the process and key outcomes of previously completed local and regional plans. Understanding the previous work that the City has already accomplished can help the WalkEC Pedestrian Master Plan leverage the existing information and resources. The purpose of the previous plan review is to identify a starting point based on previously identified needs. This verification and reconciliation process can highlight existing needs and identify new needs.

The plans reviewed as part of the Existing Conditions include:

- Advanced Core Land Use Plan (2012)
- Albemarle Regional Bicycle Plan (2013)
- Pasquotank County Comprehensive Transportation Plan (2016)
- Comprehensive Master Plan Update (2016-2018)
- City of Elizabeth City Waterfront Master Plan (2018)

Find the full previous plan review-complete with an overview and relevant recommendations- in the Appendix.











# 4 FACILITY RECOMMENDATIONS

The WalkEC Pedestrian Master Plan includes more than 60 project recommendations. These recommendations are based on community ideas, stakeholder and steering committee guidance, input from City and NCDOT staff, and an understanding of existing and expected conditions. The recommendations will make it safer and easier for residents, employees, and visitors to walk throughout the City. WalkEC Pedestrian Master Plan focuses on improvements that connect people to key destinations, including schools, parks, shopping areas, and community facilities.

# INCREASING SAFETY AND CREATING CONNECTIONS

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Public feedback was crucial to the development of project recommendations. The public outreach results indicated that increasing pedestrian safety and creating accessible connections were consistently among the top concerns. During the first survey, safety was defined as promoting safety for all roadway and non-roadway users through strategic, consistent, and coordinated pedestrian and bicycle facility improvements, education, and enforcement strategies. Safety was the biggest concern among survey participants in both surveys, which may indicate that streets in Elizabeth City may be dangerous to walk along or cross. For some people, walking may be their only option to get to their jobs, schools, or homes. Participants identified obstacles to walking, which included the lack of sidewalk, unsafe crossings, and personal safety. Open-ended responses further identified the need for:

- Developing more multi-use pathways
- Providing more bicycle and pedestrian facility options
- Creating connectivity between key destinations
- Enhancing lighting and signage
- Deterring speeding along major corridors
- Maintaining existing sidewalk conditions

The development of all recommendations focused on promoting safety for all residents and visitors with careful considerations for age, ability, income, and racial and ethnic backgrounds.

## FACILITY TYPES

The following recommendations are divided into three facility types: sidewalks, multi-use pathways, and pedestrian crossing improvements. Each of the three facility types include a recommendations table and map on the following page.



SIDEWALK



MULTI-USE PATH



#### SIDEWALK RECOMMENDATIONS

The following table outlines the proposed sidewalk recommendations. The development of the sidewalk recommendations were largely informed by public input and existing data analysis.

	TABLE #2 - SIDEWAI	_K RECOMMENDATIONS
ID	ROAD NAME	EXTENT
А	N Road St	Fairway Terrace to Saunders Dr
В	N Ward St	US-17 BUS to N Poindexter St
С	N Hughes Blvd	W Main St to US-17 BUS
D	N Ashe St	N Hughes Blvd to W Church St
E	Griffin St	W Main St to W Ehringhaus St
F	Pritchard St	W Church St to Overman Cir
G	Selden St/Corsair Cir	W Church St to Existing Railroad
Н	Persse St	W Church St to W Grice St
Ι	Riverside Ave	Charles Creek Park to Agawam St
J	S Hughes Blvd	NC-344 (Halstead Blvd) to Forest Park Rd
K	Westover St	Catalina Ave to Albermarle St
L	Brooks Ave	W Ehringhaus St to Catalina Ave
М	Herrington Rd	Edge St to NC-344 (Weeksville Rd)
Ν	Hunter St	Tuscarora Ave to Park St
0	Raleigh St	Park St to Camden St
Р	Carolina Ave/Rivershore Rd	Raleigh St to N Williams Cir
Q	River Rd	Park Dr to Parkview Dr
R	NC-344 (Halstead Blvd)	S Hughes Blvd to Roanoke Ave
S	Oak Stump Rd	Chesterfield Dr to Darian Dr
Т	Hoffler St	Parkview Dr to Herrington Rd
U	Parkview Dr	Normal Ave to Rivershore Rd
V	Edgewood Dr	Nc-344 (Weeksville Rd) to Rivershore Rd
W	Hopkins Dr	Edgewood Dr to Aydlett Cir
Х	Peartree Rd	NC-344 (Halstead Blvd) to Perkins Ln

#### SIDEWALK RECOMMENDATIONS MAP

Sidewalks in Elizabeth City vary in width, and some sidewalks are directly next to travel lanes while others are separated from vehicle traffic by strips of grass. While many streets in Elizabeth City have sidewalks, the network still has gaps.

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#### FIGURE #5 - PROPOSED SIDEWALK

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#### MULTI-USE PATH RECOMMENDATIONS

A multi-use path is physically separated from vehicle traffic and is designed to be used by pedestrians, runners, bicyclists, and other non-motorized users. The pathways can be located alongside a road or within an independent right-of-way such as along a creek or a former rail line.

Since multi-use pathways are some of the safest facility for pedestrians and bicyclists, identifying strategic connections between key destinations was a paramount consideration.

ID	ROAD NAME	PATH RECOMMENDATIONS EXTENT
А	N Road St	Whitehurst St to E Ward St
В	N Pointdexter St	Kramer St to E Burgess St
С	NC-344 (Halstead Blvd Ext)	Forest Park Rd to US-17 BYP
D	N Hughes Blvd	US-158 to McArthur Dv
E	Existing Railroad	Existing Shared Use Path to Pritchard St
F	Oak Stump Rd	Coopers Ln to NC-344 (Halstead Blvd)
G	Existing Railroad	Corsair Cir to Roanoke Ave
Н	NC-344 (Halstead Blvd)	Walker Ave to River Rd
I	Peartree Rd	Salem Dr to NC-344 (Halstead Blvd)
J	River Rd	Rivershore Rd to Nc-344 (Halstead Blvd)
К	Existing Railroad	NC-344 (Halstead Blvd) to Capital Trace
L	Capital Trace	NC-344 (Halstead Blvd) to Existing Railroad
Μ	Weeksville Rd	River Rd to Crosswind Dr

#### TABLE #3 - MULTI-USE PATH RECOMMENDATIONS
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## MULTI-USE PATH RECOMMENDATIONS MAP

The following figure shows the proposed and existing multi-use pathways. These recommendations focused on connections to destinations that were identified by the public. These destinations include colleges and universities, hospitals, grocery stores, schools, and parks. The multi-use connections should facilitate the safe travel of pedestrians and bicyclists to and from places of interest and residencies.



#### FIGURE #6 - PROPOSED MULTI-USE PATH

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## PEDESTRIAN CROSSING RECOMMENDATIONS

Pedestrian crossings are designed to provide a safe, designated place to cross a street. Most marked pedestrian crossings are located at intersections, but some crossings are located in the middle of a long stretch of road. WalkEC Pedestrian Master Plan identifies locations where crosswalks, curb ramps, and pedestrian signals could be installed to enhance safety.

#### TABLE #4 - PEDESTRIAN CROSSING RECOMMENDATIONS

ID	INTERSECTION
А	N Road St at Brickhouse Ln
В	N Road St at Hastings Ln
С	US-17 (N Hughes Blvd) at Griggs St
D	N Road St at Ward St
E	E Ward St at N Pointdexter St
F	US-17 (N Hughes Blvd) at W Main St
G	US-17 (S Hughes Blvd) at Church St
Н	NC-344 (Halstead Blvd) at Tanglewood Pkwy
I	US-17 (S Hughes Blvd) at Existing Railroad
J	US-17 at Forest Park
К	US-17 BUS (W Ehringhaus St) at NC-344 (Halstead Blvd)
L	US-17 BUS (W Ehringhaus St) at McArthur Dr
Μ	US-17 BUS (W Ehringhaus St) Griffin St
Ν	US-17 BUS (W Ehringhaus St) at S McMorrine St
0	Oak Stump Rd at Ranch Dr
Р	NC-344 (Halstead Blvd) at Walker Ave
Q	Roanoke Ave at Perry St
R	Park St at Normal Ave
S	Park St at Raleigh St
Т	Oak Stump Rd at Farm Dr
U	Roanoke Ave at Harding St
V	Parkview Dr at Park Dr
W	Oak Stump Rd at Chesterfield Dr
Х	NC-344 (Halstead Blvd) at Roanoke Ave
Y	NC-344 (Halstead Blvd) Peartree Rd
Z	NC-344 (Weeksville Rd) at Industrial Park Dr
AA	NC-344 (Weeksville Rd) at Edgewood Dr
AB	NC-344 (Weeksville Rd) at River Rd

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## PEDESTRIAN CROSSING RECOMMENDATIONS MAP

The following figure shows the proposed pedestrian crossing improvements. The improvements were identified through a combination of quantitative and qualitative analysis. NCDOT crash data as well as intersections identified through public outreach were considered.



#### FIGURE #7 - PROPOSED PEDESTRIAN CROSSING

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# 5 POLICY & PROGRAM RECOMMENDATIONS

While constructing more multi-use paths, sidewalks, and pedestrian crossings is important, the City also needs a toolkit of programs to encourage the safe and active use of the pedestrian network. These programs will help the City get the most use out of investments in infrastructure by encouraging people to walk more, educating the community about the safe use of pedestrian facilities, and enforcing the rules of the road. Additionally, while infrastructure investments are necessary to achieve the vision outlined in WalkEC Pedestrian Master Plan, policies provide the systematic framework to ensure those investments succeed.

# ENCOURAGEMENT, EDUCATION, AND ENFORCEMENT

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While the construction of multi-use pathways, sidewalks, and pedestrian crossing improvements is an important step toward a more walkable community, the City also needs a toolkit of programs to encourage the safe and active use of the pedestrian network.

Several of these recommendations are programs that the City has already implemented.

#### ENCOURAGEMENT

- **Community Events:** 5K Races and other races to encourage communal activities.
- School-Based Programs: Programs to encourage students to safely and comfortable walk to school. These school-based programs could include active routes to school coordination, walk-at-school activities, and drivers education.
- Walking Tours: Self-guided and group walking tours of the waterfront and other historic areas of Elizabeth City.
- **Wayfinding:** The inclusion of signs and pavement markings that show long it will take to walk to destinations. For example, the time it takes to walk from the Museum of the Albemarle to the downtown Waterfront.
- Walking School Bus: A program that allows students to walk to school as a group under the supervision of an adult volunteer.

#### **EDUCATION**

- Awareness Events and Designations: Events that encourage walking throughout the City through education and awareness. Walk to School Day, National Trails Day, Walk Friendly Community, and Active Towns.
- Eat Smart, Move More NC: A program that promotes healthy active lifestyles with free resources for communities, schools, and business.
- Let's Go NC!: A comprehensive educational package with lesson plans, materials, activities, and instructional videos to teach K-5th grade children pedestrian and bicycle skills.
- Watch for Me NC: Awareness campaign aimed at reducing the number of bicyclists and pedestrians hit and injured in crashes with vehicles.

## ENFORCEMENT

• Enforcement Activities: Programs that focus on various safely issues such as speeding, distracted driving, distracting walk, and jaywalking.









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## PRIORITY POLICIES AND PROGRAMS

The policies and programs are divided into Tier 1 and Tier 2. These tiers denote the level of priority that should be placed on implementing each policy or program. Tier 1 should be considered the highest priority for near-term implementation. As mentioned previously, some of these policies or programs are already in place. During the second survey, participants were asked to rank the programs and policies based on what they thought the priorities should be. The public feedback has been incorporated in the following list. The continuous development of these programs will help the City get the most use out of investments in infrastructure. By encouraging people to walk more, educating the community about the safe use of pedestrian facilities, and enforcing the rules of the road, Elizabeth City will be a more pedestrian-friendly place to live and visit. The groupings below are meant as a guide. The City should continuously reassess its priorities and capitalize on new programs.



Community Events Eat Smart, More Move NC Enforcement Activities Watch for Me NC Walking Tours



Awareness Events and Designations Let's Go NC! School-Based Programs Walking School Bus Wayfinding

# LOCAL POLICIES

The following section is a review of the current, existing local policies and development regulations that guide design and development.

#### UNIFIED DEVELOPMENT ORDINANCE

The Unified Development Ordinance (UDO) is a planning tool used to promote the health, safety, and general welfare of residents through the regulation of zoning, subdivisions, and land uses. These local regulations provide the guidelines through which development can occur. The Elizabeth City UDO was first adopted by the City Council in 1999. Since then, the UDO has been updated to reflect the changing and shifting needs of the community. These revisions can reflect new land use designations or compliance with new development standards. Ultimately, the UDO is a planning document used to define and enforce how development occurs throughout the City. The Elizabeth City UDO can be found on the City's website: <a href="https://tinyurl.com/cityofec-UDO">https://tinyurl.com/cityofec-UDO</a>.

As part of the WalkEC Pedestrian Master Plan, the UDO should consider the following revisions to encourage the development of multi-use pathways, sidewalks, and pedestrian crossings.

UDO ARTICLE/ DIVISION/ SECTION	/   STANDARDS	COMMENT	RECOMMENDATION
9-1.1(E)	AD Apartment District Density	Density for multi-family dwelling units (20 to 22 dwelling units per gross acre) is appropriate and conducive to walkable environments.	It is recommended to continue to offer high-density options for multi-family development. High permitted density is supportive of increased multifamily development, which is associated with increased demand for pedestrian facilities and multimodal services.
9-1.3(A)	CB Central Business District	CB Central Business District allows only for commercial activities.	Allow for multifamily dwellings, by zoning permit with development standards, within the CB Central Business District. An increased multifamily housing stock within the CB district will allow for more residents to locate within the downtown of Elizabeth City and help spur greater use of pedestrian facilities and commercial demand for businesses within a more urban, walkable downtown environment.

#### **TABLE #5 - UDO RECOMMENDATIONS**

UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
9-1.3	Business Districts	Lack of a by-right mixed district.	While the UDO offers some mixed-use zoning district options, it is recommended the City explore creation of a Mixed-Use District (or mixed- use district overlay) to promote more walkable environments. The UDO does offer the planned mixed- use development mixed use district, but it is
			recommended the City create a mixed-use district where mixed use development can occur by right. It is recommended the City explore rezoning portions of the City where density and concentration of multimodal and pedestrian services currently exist or where improvements are planned (i.e. commercial corridors) to this new by right mixed-use district.
			Mixed use corridors are becoming more commonplace in many communities throughout North Carolina and allow for a more modern development pattern instead of the traditional strip plaza development that has previously dominated development along commercial corridors. Multifamily buildings provide guaranteed foot traffic for commercial buildings within these types of mixed-use developments, making these mixed-use developments very desirable in today's market.

UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
General Comment	Mixed Use District Development Standards		To promote a mixture of uses that are more pedestrian friendly environment, new standards better suited for mixed use developments should be created and enforced in the UDO. Due to their nature, mixed use districts require additional development standards that are not found in traditional, Euclidean based zoning districts. Elements of form-based codes are often required to achieve the desired mixture of uses in mixed use districts. Many communities have seen success in instituting form-based code standards into their mixed-use districts, albeit selectively, to create a hybrid of traditional standards and form-based code standards. New development standards for build-to- zones, building placement requirements, location of parking area requirements, frontage requirements, outparcel building standards, buildings design standards, fenestration, and allowances for active- use-areas should be actively implemented in the UDO for mixed use districts.

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UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
9-3-1	Elizabeth City UDO Table of Permitted Uses	Multifamily Dwelling permitted districts.	The multifamily dwelling residential use is permitted in a variety of districts, including R-6, AD, CB, GB, O&I, HB, NB, CMU, PDR and PDM. It is recommended the City continue allowing the multifamily residential use within these districts.
9-3-1	Elizabeth City UDO Table of Permitted Uses	Table of Permitted Uses, Residential Uses, lacks some housing types which may spur demand for walkable environment and pedestrian facilities.	The current Table of Permitted Uses lacks some housing types commonly associated with urban environments that promote walkability and pedestrian friendly accommodations. These include housing types such as "Upper Story Residential" (i.e. apartments/residences above retail and office establishments, typically in a downtown) and "Live-Work Unit" (i.e. artist studio/lofts, artisanal manufacturing, etc.). Live-work units and upper story residential allow for a dynamic, mixed use downtown which will increase "feet on the ground" and create an environment where more residents can live, work and a play in a single space.
Table 9-4-1	Table of Density and Dimensional Requirements – Residential Districts	Explore modification of dimensional requirements to promote buildings closer to the street.	It is recommended the City explore modifying some of the dimensional requirements for residential districts to promote more urban, walkable environments. For example, dimensional requirements for the AD district include minimum building setback of front property line of 30 feet. To allow for multifamily buildings that are closer to the street and promote more urban, walkable environment, it is recommended to modify front setback requirements for multifamily dwellings. It is also recommended to modify permitted maximum building height for the AD district, increasing from the current maximum of 40 feet.

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UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
10-7.3(G) Private Street Design Criteria	Private Street Design Criteria	Sidewalk widths are too narrow for private streets.	The UDO currently requires sidewalk widths of only 4 feet, "In the event sidewalks are constructed." 4 feet width is a narrow width that is not conducive for safely sharing different pedestrian oriented activities which typically occur on a sidewalk (i.e. walking, running, bicycles, roller blades, etc.).
			It is recommended the City exploring increasing minimum sidewalk widths.
10-7.3(S) Sidewalks	Sidewalks Widths and Location Requirement	Sidewalks are required on one side of each street within all subdivision and a minimum width of 4 feet.	It is recommended that sidewalks be required on both side of all subdivisions, regardless of its location proximity to a major thoroughfare, minor thoroughfare, and collector street. It is also recommended, similar to the comment above, to increase the minimum sidewalk width.
10-7.5(A) Blocks Blo	Block Lengths	Block length maximum of 1,500 feet is too great.	10-7.5 Blocks requires intersecting streets be laid out at such intervals that block lengths are not more than 1,500 feet, nor less than 400 feet. 1,500 feet is a block length unconducive to pedestrian walkability.
			It is recommended the City explore lowering this to a lesser length to promote walkability. It is recommended block lengths be limited to a range of 750 – 1000 feet.
10-7.5(C)	Pedestrian Ways	Pedestrian ways or cross walks shall be provided where deemed essential in the opinion of the City Council.	This language should be modified to create stronger, codified requirements of when a pedestrian way should be required. It is recommended to utilize a distance requirement, or require by specific uses, that a pedestrian way is required by code (and not in the opinion of the City).

UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
10-7.5(C)	Pedestrian Ways – General Comment		The UDO lacks strong, codified language regarding pedestrian access within a development. It is recommended to add language to ensure a direct pedestrian connection between the street and buildings on a development site (such as a mixed- use shopping center) and between buildings and other activities within the site. In addition, language can be added requiring connections between adjacent sites, where feasible. A highly interconnected street and pedestrian network is central to creating walkable environments for the City. Pedestrian circulation should clearly articulate pedestrian connections and provide connections to public gathering spaces.
General Comment	Greenways		The UDO lacks language/requirements on greenways and improved/unimproved trails. If this is something the community is interested in, there are several approaches to require the development of greenways through residential developments which allow for the movement of animal life and pedestrians along improved or unimproved trails. Greenway standards can also include provisions for dedicated bicycle and walking trails.
11-2	Off-Street Parking, Stacking and Loading Areas	Parking Approach.	The UDO currently utilizes a minimum required parking approach, requiring applicants to achieve a minimum amount of parking for any proposed development. It is recommended that the City explores slightly lowering the minimums for commercial use and institute a "Minimum and Maximum" approach. The "Minimum and Maximum" approach to parking requirements provides developers a comfortable and appropriate range of parking for new development, allowing for less land to be dedicated to parking while still requiring a minimum standard.

UDO ARTICLE/ DIVISION/ SECTION	STANDARDS	COMMENT	RECOMMENDATION
11-2	General Comment – Parking Placement/ Location Standards	Parking Placement/Location Standards.	While the above referenced minimum and maximum parking approach would regulate the amount of parking, parking placement regulates where parking areas are placed on the lot. It is highly recommended to require parking located on the side or rear of new structures and not along the front of major commercial corridors. Combined with a minimum and maximum parking approach, requiring parking to be placed on the sides and rear greatly diminishes the visual detriment of large parking areas along a corridor and enhances pedestrian access to commercial buildings. Enhanced buffering and screening are also recommended to provide greater visual interest to these parking areas.
11-2	General Comment – Bicycle Parking		The UDO does not do an adequate job providing for standards related to bicycle parking. It is recommended that bicycle parking areas be required for all commercial, mixed use and multifamily uses. Associated design standards for bicycle racks, location of bicycle parking areas, and bicyclist safety should be provided for clearly within the parking section of the UDO.
Article XI – Development Standards	General Comment – Lack of Multi-Use Path Standards in UDO	Lack of Multi-Use Path Standards in UDO.	The UDO lacks standards for multi-use paths or multi-use recreational trails. These are important elements and standards to codify within the UDO and/or Elizabeth City Street Construction Standards and Specification. It is recommended to create these standards in association with future planned pedestrian improvements.
General Comment	General Comment – Design Standards/ Pedestrian Considerations	Design Standards/Pedestrian Considerations.	It is recommended to implement design standards to enhance pedestrian's enjoyment of the public realm inside the UDO. These design standards may range from requiring buildings to have awnings or covered entries, ensuring building entries face the right-of-way, requiring wide, enhanced sidewalks and multi-use paths, and/or requiring enhanced streetscape features including elements such as potted planters, art installments, pavers, and street walls along parking areas and/or drive-thru lanes.



# 6 ANALYZING THE NETWORK

Once the projects were consolidated into a single database, they were analyzed and scored using the following measures to determine how well they contribute to the priority areas identified by the community.

# PROJECT PRIORITIZATION PROCESS

A disconnect typically exists between available funding and the cost to plan, design, and construct all the projects that have been identified during the planning process. To determining a project's priority, projects were evaluated based on several criteria. This section describes the definition of the evaluation criteria and the subsequent evaluation of the linear projects like sidewalks and multi-use pathways. Intersection recommendations were not evaluated using this methodology as a part of this plan.

NCDOT Priorities for SPOT methodology was modified to fulfill the vision of the WalkEC Pedestrian Master Plan based on guidance from the WalkEC Steering Committee. By using similar prioritization criteria, WalkEC Pedestrian Master Plan can actively seek funding from NCDOT as these projects adequately address the concerns of the state.

#### **ACCESSIBLE &** CONNECTIVITY SAFETY Points of interest including parks, A total combined score assessing the schools, colleges and universities, grocery number of crashes, crash severity, stores, museums, and waterfront access and the involvement of a bicycle or within a 1/4 mile of recommendations pedestrians **Prioritized** List of Recommended Projects COST **DEMAND & EFFECTIVENESS** DENSITY The combined total score Spatial analysis of demographic groups of all criteria divided by like total population, minority population, high-level cost estimates individuals below poverty, no vehicle households, and the number of jobs PUBLIC SURVEY within a 1/4 mile A measure of importance of each of the pedestrian improvements to the public This graphic displays the five

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## **EVALUATION CRITERIA**

All sidewalk and multi-use path project recommendations were assigned points based on how well they scored according to the evaluation criteria. During the development of evaluation criteria, the relationship to the plan's guiding principles was closely considered. Each of the evaluation criteria responds to one or more of the guiding principles. The relationship between evaluation criteria and guiling principles is detailed below.

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#### **TABLE #6 - EVALUATION CRITERIA**

GUIDING PRINCIPLE ADDRESSED	CRITERIA	DEFINITION
MOBILITY	ACCESS & CONNECTIVITY	Identified points of interest within a 1/4-mile of sidewalks. Identified destinations included parks, public schools, colleges and universities, grocery stores, museums, and waterfront access points. Projects received a point for each destination within a 1/4-mile and additional point for connecting to an existing sidewalk or multi-use pathway.
ECONOMY	COST EFFECTIVENESS	The combined total score of all prioritization criteria was divided by a high-level cost estimate. The cost estimate was calculated using NCDOT standards and methodology assumptions.
HEALTH	DEMAND & DENSITY	Analyzed select demographics within a 1/4-mile using ACS 2018 and LEHD data. Demographics included total population, minority population, individuals below poverty, no vehicle households, and the number of jobs. Projects with the highest score were assigned a score of 1, with other projects scoring relative to the top scoring project.
ALL GUIDING PRINCIPLES	PUBLIC SURVEY	Using the second survey results, projects were scored according to public ranking questions. Projects with the highest score were assigned a score of 1, with other projects scoring relative to the top scoring project.
SAFETY	SAFETY	Safety data from NCDOT's Fatal and Serious Injury Crashes (2010-2019) and NCDOT's Bicyclists and Pedestrian Crash Map (2007-2019) was analyzed. The number of crashes (60%) and crash severity (40%) made up 50% of the total safety score. The other 50% considered if the crash involved a pedestrian or bicyclists.

## PRIORITY PROJECTS

Based on the results of the evaluation criteria and input from the steering committee, the following priority projects were identified for further analysis. These projects are shown in no particular order:

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MODE	ID	NAME
	А	N Road St (Fairway Terrace to Saunders Dr)
SIDEWALK	М	Herrington Rd (Edge St to NC-344 (Weeksville Rd))
	R	NC-344 (Halstead Blvd) (S Hughes Blvd to Roanoke Ave)
	Е	Existing Railroad (Existing Shared Use Path to Pritchard St)
MULTI-USE PATH	Н	NC-344 (Halstead Blvd/Weeksville Rd) (Walker Ave to River Rd)
	L	Peartree Rd (Salem Dr to NC-344 (Halstead Blvd))
	F	US-17 (N Hughes Blvd) at W Main St
PEDESTRIAN CROSSINGS	G	US-17 (N Hughes Blvd) at Church St
	AA	NC-344 (Weeksville Rd) at Edgewood Dr
	AB	NC-344 (Weeksville Rd) at River Rd

#### **TABLE #7 - PRIORITY PROJECTS**

The following pages contain more detailed project information for each of the identified sidewalk, multi-use, and pedestrian crossing priority projects. The linear snapshot projects include project extents or location, background information, a description, length, and cost estimate. The pedestrian crossing snapshot projects include an aerial showing high-level project recommendations.

# N ROAD ST



EXTENT	Fairway Terrace to Saunders Dr
BACKGROUND	At the most northern part of Elizabeth City, N Road St is a heavily traveled corridor. With a number of businesses and shopping centers, N Road St also connects to the College of the Albemarle, Sentara Albemarle Medical Center, and the Fenwick Holloway Wetland Trails. A Greyhound Bus Station is located at the intersection of N Road St and Hasting Ln.
PROJECT DESCRIPTION	The N Road St sidewalk would connect portions of the existing, fragmented sidewalk network to more residential homes and apartments in the northern portion of Elizabeth City. The new sidewalk would provide safe and new ways to access shopping centers for residents.
LENGTH	0.92 miles
COST ESTIMATE	\$1,490,000



## HERRINGTON RD



EXTENT	Edge St to NC-344 (Weeksville Rd)
BACKGROUND	According to the annual average daily traffic (AADT) 2018 data provided by NCDOT, Herrington Rd has between 2,500 to 5,000 vehicles per day (vpd). As a key connection between downtown Elizabeth City and the Elizabeth City State University (ECSU), the corridor would be a critical investment for the pedestrian network. Herrington Rd extends towards ECSU and travels through heavily residential areas.
PROJECT DESCRIPTION	Herrington Rd is a key connection between the existing network and the future pedestrian network. Portions of Herrington Rd have sidewalks, typically on one side of the road. The expansion of sidewalk would be beneficial to connect downtown Elizabeth City with residential areas, ECSU, and parks. Survey participants heavily cited the necessary connections to colleges and universities throughout the City.
	Notably, roadside ditch sections exist along the west side of Herrington Rd. These drainage features would limit the ability to have sidewalks on both sides. Further study about drainage and feasibility along the corridor should be considered.
LENGTH	1.12 miles
COST ESTIMATE	\$2,240,000



## WALKEC

# NC-344 (HALSTEAD BLVD)



EXTENT	S Hughes Blvd to Roanoke Ave
BACKGROUND	NC-344 (Halstead Blvd) is a heavily traveled corridor. With a number of commercial development and grocery shopping centers, NC-344 is a primarily corridor through the City. The four-lane with two-way left turn lane section creates a wide section for pedestrians to cross at intersections. Additionally, the 50 mile per hour speed limits might discourage pedestrians walking along this corridor.
PROJECT	The section of NC-344 from S Hughes Blvd to Roanoke Ave is a critical corridor. By providing sidewalks and expanding the mode choice, people may be encouraged to walk to businesses along NC-344. In the public survey, participants noted that connectivity on NC-344 to the U.S. Coast Guard Base would be highly desired. Providing safe and accessible sidewalks along the section would greatly benefit residents and visitors alike.
DESCRIPTION	Further consideration to traffic calming measures and access management should be studied along NC-344, particularly between US-17 (S Hughes Blvd) to Roanoke Ave. Additionally, portions of NC-344 align with the City's vision for the future alignment of the East Coast Greenway through Elizabeth City.
LENGTH	2.12 miles

## COST ESTIMATE \$2,085,000



## EXISTING RAILROAD



EXTENT	Existing Shared Use Path (Church St Ext) to Pritchard St
BACKGROUND	The existing multi-use pathway network is relatively sparse throughout Elizabeth City. One of the few existing multi-use pathways parallels the Church St extension, north of NC-344. The current rail corridor runs through a line of trees and is one of the few areas without major development. The surrounding areas consist of residential housing, several commercial businesses along US-17 (S Hughes Blvd), and two hotels.
	This multi-use recommendation would build on the existing infrastructure currently in place. By creating an extension of the existing multi-use pathway, connectivity will be enhanced between the areas west of Elizabeth City and downtown.
PROJECT DESCRIPTION	Using the existing railroad as a multi-use pathway. First, the City can re-purpose existing space to encourage multimodal activity and recreation. Another benefit is that the railroad is already grade-separated from vehicular traffic making the multi-use path safer for pedestrians and bicyclists. Additionally, portions of the old rail corridor align with the City's vision for the future alignment of the East Coast Greenway through Elizabeth City.
LENGTH	0.67 miles

## COST ESTIMATE \$1,735,000



# NC-344 (HALSTEAD BLVD/WEEKSVILLE RD)

EXTENT	Walker Ave to River Rd
BACKGROUND	NC-344 (Halstead Blvd) between Walker Ave and River Rd is a heavily traveled corridor. With over 15,000 vehicles per day, this section is one of the primary ways to move through and around Elizabeth City. With a four-lane section with a two-way left turn lanes throughout most of the corridor, NC-344 could potentially be a dangerous corridor for pedestrians and bicyclists. Not only do vehicles travel at 50 mph, but the opportunities to cross the road at painted intersections are far and few between.
	As NC-344 channels large amounts of vehicular traffic, a separated facility is the safest option for pedestrians and bicyclists. A separated facility would be a multi-use pathway buffered from the road. This would provide adequate distance from vehicles and help foster a sense of safety.
PROJECT DESCRIPTION	This lengthy project would provide a safe alternative for pedestrians and bicyclists to get from businesses along NC-344, near Pasquotank Elementary School, to ECSU, and residential areas south of NC-344. This project would extend almost all the way to the U.S. Coast Guard Base, which is why it was a popular recommendations during public engagement. Additionally, portions of NC-344 align with the City's vision for the future alignment of the East Coast Greenway through Elizabeth City.
LENGTH	3.20 miles

## **COST ESTIMATE** \$8,400,000



CHAPTER 6

| <b>)</b> | <br> |  | <br> |  |
|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|------|------|------|--|

## PEARTREE RD



EXTENT	Salem Dr to NC-344 (Halstead Blvd)
BACKGROUND	Similar to Herrington Rd, Peartree Rd carries between 2,500 and 5,000 vehicles per day. On the section of Peartree Rd between Salem Dr and NC-344 is Pasquotank Elementary School. The road connects community features like schools and parks to residential areas off of Salem Dr and Delbry St.
	The section of Peartree Dr between Salem Dr and S Road St has sidewalks on one side of the road.
PROJECT DESCRIPTION	This recommendation would build off of the existing sidewalk network from Salem Dr to NC-344. Providing safe and accessible means for children to get to school is just one of the benefits of the addition of a multi-use pathway. Peartree could become a corridor for pedestrians that connects NC-344 to downtown Elizabeth City.
LENGTH	0.19 miles
COST ESTIMATE	\$530,000



WALKEC

# US-17 (N HUGHES BLVD) AT W MAIN ST



US-17 is a major connection through Elizabeth City. Since the corridor runs along the edge of the City, vehicles use it to get around quickly. US-17 is the junction between residential areas and commercial businesses particularly at the intersection at Main St. Visitors and residents alike can access a number of business and restaurants without coming downtown. While the current configuration of this corridor primarily centers vehicular traffic, the majority of existing sidewalks in Elizabeth City are north of Church St.

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At the intersection of US-17 and Main St, US-17 is a four-lane cross section with dedicated left turning lanes. The left lane leading west of Elizabeth City is approximately 250 feet in length whereas the approach toward downtown is approximately 200 feet. While dedicated left turn lanes can enhance traffic flow, it also creates a longer section for pedestrians who are trying to cross. Appropriate accommodations for pedestrians should be considered especially if new facilities like sidewalks or multi-use paths are constructed on either side of US-17. At this intersection there has been a pedestrian crash. While it did not result in a fatality or serious injury, the improvements at this intersection should account for the heavy volumes of traffic, the speed of traffic, and the visibility of pedestrians to drivers.

The improvements at US-17 and Main St should consider the following:

- Signal improvements that could consist of pedestrian push buttons, a pedestrian countdown, leading pedestrian phase, and right-on-red restrictions for vehicles.
- Pedestrian crossing improvements that could consist of a high visibility crosswalk for pedestrians and bicyclists, enhanced lighting, marked or stripped crosswalks, ADA curb ramps, and curb extensions.
- Signage or additional signage should be considered to warn drivers in advance of crossing pedestrians.
- Connectivity improvements should consider creating continuous pathways at all sides of the intersection.



# US-17 (N HUGHES BLVD) AT CHURCH ST

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Similar to the intersection at US-17 and Main St, the existing conditions at US-17 and Church St could be intimidating to pedestrians despite being a signalized intersection. With some of the highest volumes of vehicular traffic, pedestrians may be deterred away from commercial business along the US-17 corridor.

Two hotels and smaller commercial businesses are located south of the intersection of US-17 and Church St. Providing safe connections for visitors and residents alike is crucial especially outside of the traditional downtown area. The existing sidewalk network stops just short of US-17 from the Church St approach. The City should consider strategic improvements to further enhance the active transportation network; therefore, recommendations that maximize pedestrian safety while considering the City's resources could include striped crosswalks on one side across Church St rather than creating crosswalks across all sides of the intersection. While no pedestrian crashes have been reported, creating safe intersections especially across highly traveled roadways should be a priority.

The improvements at US-17 and Church St should consider the following:

- Signal improvements that could consist of pedestrian push buttons, a pedestrian countdown, leading pedestrian phase, and right-on-red restrictions for vehicles.
- Pedestrian crossing improvements that could consist of a high visibility crosswalk for pedestrians and bicyclists, enhanced lighting, marked or stripped crosswalks, ADA curb ramps, and curb extensions. Crossing improvements should consider the type of facility (sidewalk or multi-use pathway) to ensure pedestrian safety.
- Connectivity improvements should consider creating continuous pathways at all sides of the intersection especially along Church St.



# NC-344 (WEEKSVILLE RD) AT EDGEWOOD DR



NC-344 (Weeksville Rd) is a heavily traveled corridor with several key destinations including Elizabeth City State University. Typically, college campuses generate large numbers of vehicles and pedestrians in the immediate or near proximity. Ensuring that pedestrian connections are safe and accessible is the first step toward a holistic multimodal network.

At NC-344 and Edgewood Dr, appropriate pedestrian safety improvements should be considered. While the intersection is signalized, no marked pedestrian crossings exist. While scattered sidewalks exist along one side of NC-344, the sidewalk ends at Edgewood Dr. Notably, several pedestrian crashes have been reported along NC-344 near the campus of ECSU. These crashes include a fatality as well as several other pedestrian related injuries. The considerations for improvement should help center the pedestrian experience especially considering the proximity to a college campus.

The improvements at NC-344 and Edgewood Dr should consider the following:

- Signal improvements that could consist of pedestrian push buttons, a pedestrian countdown, leading pedestrian phase, and right-on-red restrictions for vehicles.
- Pedestrian crossing improvements that could consist of a high visibility crosswalk for pedestrians and bicyclists, enhanced lighting, marked or stripped crosswalks, ADA curb ramps, and curb extensions.
- Connectivity improvements should consider creating continuous pathways at all sides of the intersection.



# NC-344 (WEEKSVILLE RD) AT RIVER RD

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NC-344 (Weeksville) at River Rd is at the edge of the City's limits. One important connection that NC-344 provides is that it leads to the U.S. Coast Guard Base. During public outreach, survey participants noted the desire to connect the City with the base by multi-use pathway. River Rd is also an important connection. North of NC-344 along River Rd is the River Road Middle School. River Rd also provides a connection between residential areas and the more commercial areas along NC-344.

NC-344 and River Rd is a signalized intersection. Currently, no sidewalk exist at the intersection. A fragment of sidewalk existing along NC-344 west of River Rd. One reported pedestrian crash at the intersection resulted in a possible injury. Given the desire to serve the U.S. Coast Guard Base via multi-use pathway, the roadway and intersection need to provide safe means of travel for pedestrians and bicyclists.

The improvements at NC-344 and Edgewood Dr should consider the following:

- Signal improvements that could consist of pedestrian push buttons, a pedestrian countdown, leading pedestrian phase, and right-on-red restrictions for vehicles.
- Pedestrian crossing improvements that could consist of a high visibility crosswalk for pedestrians and bicyclists, enhanced lighting, marked or stripped crosswalks, ADA curb ramps, and curb extensions.
- Connectivity improvements should consider creating continuous pathways at all sides of the intersection.





# ACTION PLAN

As the final element of the comprehensive pedestrian plan, the WalkEC Action Plan lays out an implementation roadmap to guide near-term and ongoing actions. This framework provides a visual guide to priority actions, as well as ways to track the success of our efforts.

# IMPLEMENTATION STRATEGY

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The key to the successful implementation of the WalkEC Plan will be dependent on the continuous commitment of City staff and officials, ARPO, NCDOT, and support from the community and partner organizations. The City in addition to its local and regional parters can undertake programmatic efforts to improve the overall active transportation network. The implementation strategy includes several components to provide a framework for translating the WalkEC Pedestrian Master Plan into constructed pedestrian infrastructure. The following table consists of key actions that are meant as a guide to oversee the implementation of the vision outlined in this plan.

#### **TABLE #8 - ACTIONS**

KEY ACTION	TIMELINE	RESPONSIBLE ENTITY
Adopt the WalkEC Pedestrian Master Plan Implementation of the future sidewalk and multi-use path network should include integrating the recommendations of the plan into City policies and development review processes. The City can require that all future developments assist in the construction of facilities or dedicate land toward its eventual	Near-term (0-5 years)	City Council Elizabeth City Staff
constructionEstablish a sidewalk repair and maintenance programOne of the most cost-effective ways to improve the City's accessibility is to improve the existing facilities. Identifying a sustainable funding source for annual repairs and maintenance will be crucial.	Near-term (0-5 years)	City Council Elizabeth City Staff
<b>Establish a data-driven process for annual evaluation</b> To keep track of progress and successfully implement WalkEC Pedestrian Master Plan, a data-driven process should be established. The prioritization process outline in this plan is a valuable starting point.	Near-term (0-5 years)	Elizabeth City Staff
<b>Establish a Safe Routes to School Task-force</b> Safe Routes to Schools (SRTS) is a national program that works to promote safe walking and biking to and from schools. The development of a task-force would encourage local planning efforts to incorporate SRTS goals in the development of local infrastructure.	Near-term (0-5 years)	City Council Elizabeth City Staff
Adopt a local Complete Streets and Traffic Calming PolicyA complete street prioritizes the safety of all road users, especially those who walk or bike along a roadway. Similarly, traffic calming strategies would promote the safety of all road users through physical infrastructure.	Near-term (0-5 years)	City Council Elizabeth City Staff NCDOT

WALKEC

KEY ACTION	TIMELINE	RESPONSIBLE ENTITY
Develop an ADA Transition Plan Identify a team dedicated to crafting an ADA Plan for identifying strategies to be consistent with federal requirements.	Near-term (0-5 years)	Elizabeth City Staff
Create a Pedestrian Advisory Committee The advisory committee should consist of community leaders and stakeholders that meet regularly to hear updates on local transportation projects. The committee should have the opportunity to hold local and regional agencies accountable to establish walkable and pedestrian friendly projects.	Near-term (0-5 years)	City Council Elizabeth City Staff
Implement a Walk Benefits Program As a public awareness campaign, the Walk Benefits Program should encourage residents to walk or bike rather than drive for short trips around Downtown and provide benefits for when they do. Benefits could include discounts at local stores or museums.	Near-term (0-5 years)	Elizabeth City Staff Local Partners
Become a Watch for Me NC partner community Watch for Me NC is a collaborative effort between local communities and NCDOT to reduce the number of pedestrians and bicycles injured in vehicular crashes. The program aims to provide public educated and enhanced support and training for fire departments.	Near-term (0-5 years)	Elizabeth City Staff NCDOT
<b>Crossing Study</b> Work with local partners, Pasquotank County, and/or NCDOT staff to identify intersections where simple, low-cost improvements would provide major benefits. These low-cost improvements could be enhanced lighting or signage.	Long-term (5+ years)	Elizabeth City Staff Pasquotank County Local Partners
Connect to regional recreational destinations Partner with surrounding municipalities to identify ways to connect local trails into regional greenway systems that leverage existing infrastructure.	Long-term (5+years)	Elizabeth City Regional Partners
Develop a City-wide Wayfinding system Wayfinding signage helps visitors and residents find their way to major destinations, while simultaneously building on the unique aesthetic of Elizabeth City. The City's website could develop a great low-cost pilot program for simple wayfinding signage.	Long-term (5+ years)	Elizabeth City Staff
<b>Facility Inventory and Priority Project List</b> Conduct an annual, thorough review of the conditions of the City's existing pedestrian infrastructure to develop a prioritization list of sidewalk segments to be repaired of constructed when funding is available.	Ongoing	Elizabeth City Staff

KEY ACTION	TIMELINE	RESPONSIBLE ENTITY
Require sidewalks as part of all new developments		City Council
Along with the recommendations in Chapter 5, the City should update its UDO to ensure sidewalks are included for new multi- family and commercial developments.	Ongoing	Elizabeth City Staff
Identify regional, state, and federal funding opportunities		Elizabeth City Staff
Apply for grants like the RAISE Grant and explore partnerships with local developers and businesses to fund the installation of sidewalks, multi-use pathways, and pedestrian crossings.	Ongoing	ARPO NCDOT Regional Partners
Ensure future roadway projects coordinate with the		Elizabeth City Staff
WalkEC Plan		NCDOT
Continuously coordinate with NCDOT to ensure the most impactful facilities are integrated into future roadway projects.	Ongoing	ARPO
A task force of representatives from across the region should		Local Partners
meet on a reoccurring basis to discus future infrastructure projects and the inclusion of multimodal facilities.		Regional Partners
Hold pedestrian and bicycle safety events		
Providing educational opportunities for community members to learn about walking and biking safety at events like guided walking tours, bicycle rodeos, or helmet giveaways. The opportunities should focus on targeting young children, families, and drivers.	Ongoing	Elizabeth City Staff
Educate the public on ADA standards and the		
<b>importance of compliance</b> Retrofitting non-ADA compliant facilities should be a priority. Public awareness and acceptance of the important features of pedestrian facilities should be leveraged.	Ongoing	Elizabeth City Staff
Conduct pedestrian counts		
Conducting regular pedestrian at key locations throughout the City will help establish a baseline to understand the number of walkers on a typical day. These counts can help track progress as pedestrian facilities are constructed or enhanced.	Ongoing	Elizabeth City Staff
Encourage connections with interior sidewalk networks		
Working with existing schools and new developers should ensure that interior sidewalks provide connections to broader areas of the City.	Ongoing	Elizabeth City Staff
Prepare an Annual Report		
Creating an annual report that assess the progress made over the last year will promote accountability.	Ongoing	Elizabeth City Staff



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# FUNDING

The implementation of a successful Pedestrian Plan requires leveraging federal, state, local, and private funding opportunities. As a municipality in the Albemarle Rural Planning Organization (ARPO), Elizabeth City can use federal and state funding that has been allocated to NCDOT Division 1. Other sources of funding for the implementation of the WalkEC Pedestrian Master Plan are City's capital improvement program and private entities. Several of these funding sources are summarized in the sections below.

## CAPITAL IMPROVEMENT PROGRAM

Elizabeth City's annual budget for 2019 includes nearly \$90,000 for roadway maintenance and drainage. While a set amount is not proposed sidewalk or bicycle facility construction, a small amount has been expended in the past, including portions to implement ADA compliant curb ramps. Projects from this plan can be included as a separate allocation in future years.

## NCDOT HIGHWAY MAINTENANCE IMPROVEMENT PROGRAM (HMIP)

The state's Highway Maintenance Improvement Program (HMIP) outlines a five-year maintenance plan that covers pavement rehabilitation and resurfacing. The roads scheduled for improvement under this plan are prime candidates for coordinated bicycle and pedestrian improvements. Elizabeth City should carefully monitor the HMIP and coordinate with local NCDOT representatives to discuss coordination improvements further.

## NCDOT STRATEGIC MOBILITY FORMULA

NCDOT receives and allocates federal funding using the Strategic Mobility Formula, established by the Strategic Transportation Investments law that was passed in 2013. The formula is a performance-based and data-driven process to prioritize projects for federal and state funding. This process is used to inform NCDOT's State Transportation Improvement Plan (STIP) every two years. The projects in the first five years of the STIP are reevaluated every two years using the Strategic Mobility Formula.

By using the formula, transportation projects are grouped into three distinct funding categories. The categories include division needs, regional impact, and statewide mobility. Pedestrian and bicycle projects are considered division needs and are only eligible for funding that has been allocated for division needs projects. Elizabeth City can coordinate with NCDOT to submit pedestrian and bicycle projects for prioritization and ultimately, for funding. The projects identified in the WalkEC Plan are eligible for Strategic Mobility Formula Funding.

#### NON-PROFIT ORGANIZATIONS

Non-profit organizations including health care organizations, bicycle advocacy organizations, or community funds are potential sources of funding for multimodal facilities.

## POWELL BILL FUNDS

North Carolina's State street-aid program, also known as the Powell Bill program, provides funding for eligible municipalities based on mileage and population of locally-maintained roadways. The primary function of the Powell Bill program is to assist municipalities in funding resurfacing local streets; however, those funds may also be used for the planning, construction, or maintenance of sidewalks, greenways, and bikeways. Powell Bill funds may be pursued as a match for future updates of this plan or a Bicycle and Pedestrian Plan. In 2021, Elizabeth City received approximately \$218,429 in Powell Bill funding.

#### PRIVATE DEVELOPMENT

By updating the City's zoning and subdivision ordinance, the UDO can require private developers to include pedestrian

and bicycle infrastructure in their site plans. This will allow the City to build out the pedestrian and multi-use facility recommendations without paying for it directly. The pedestrian and bicycle infrastructure requirements can include both onand off-street facilities in addition to pedestrian benches or parking for bicycles.

# REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE)

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant, formerly known and Better Utilizing Investment to Leverage Development (BUILD) and Transportation Investment Generating Economic Recovery (TIGER), will award over \$1 billion in grant projects in fiscal year (FY) 2021. Eligible projects for RAISE grant include both capital and planning projects. The capital projects could include roads or bridges, public transportation, passenger and freight rail, or intermodal projects. Planning projects include the planning, preparation, or design of eligible surface transportation projects. If projects are located in rural areas, up to 100 percent of the costs of the project may be funded by the RAISE grant. The City should identify eligible projects and consider submitting a formal application.

The deadline to submit an application is July 12, 2021. A total of three project applications can be submitted. The U.S. Department of Transportation will notify recipients by November 2021.

#### TRANSPORTATION BONDS

Transportation bonds generate revenue from a tax increase on property values. In the state of North Carolina, bond referendums must be approved by the local council and later included on a ballot to be voted on by residents. The funds generated from the transportation bonds can be used toward roadway, bicycle, or sidewalk projects.

## PERFORMANCE MEASURES

Outside the completion of physical projects and policy recommendations, Elizabeth City should consider regularly evaluating the City's progress to fulfill the vision of the WalkEC Pedestrian Master Plan.

Below, a sample report card is shown. The report card can be used to annually update and track the progress on several key measures. This provides a basic template that can communicate key metrics to a wide variety of audiences while also highlighting the importance of continually making progress.

#### TABLE #9 - EVALUATION CRITERIA

PERFORMANCE MEASURE	DESIRED TREND
Pedestrian and bicyclist count	
Miles of ADA-Compliant sidewalk	
Miles of multi-use pathway	
Number of benches and pedestrian amenities	
Number of bicycle racks	
Number of intersections with pedestrian safety improvements	
Number of pedestrians involved in vehicular crashes	
Number of bicyclists involved in vehicular crashes	•
Tickets issued for unsafe behavior	
Number of projects and programs implemented	
Funding dedicated to multimodal facility construction and maintenance	
City Walk Score overall	

## CONCLUSION

Elizabeth City has a clear and bright vision for the future. Through the completion of the WalkEC Pedestrian Master Plan, the City is recognizing the importance of providing a safe, accessible pedestrian facilities throughout the City by connecting residents to schools, parks, and recreation centers. The economic and health benefits of these connections has been proven time and again. This plan outlines a series of actions that will move Elizabeth City toward its goal. The goal is achievable, but it will not come without the hard work and dedication of City officials, community advocates, and planners. With this plan as a guide and a tool for advocacy, Elizabeth City is well on the way to providing a safe, healthy, and comfortable community for residents of all abilities and ages.




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#### FULL EXISTING CONDITIONS

CHAPTER 8

August 18, 2020



Pedestrian Master Plan Elizabeth City



### Kimley **»Horn**

#### INTRODUCTION

#### PURPOSE

This Chapter provides an inventory of current conditions as they relate to pedestrian mobility in Elizabeth City. This content is a preliminary step in the creation of a comprehensive pedestrian plan that will provide Elizabeth City with a blueprint for identifying and prioritizing future planning decisions. The GIS data within this document was provided by the City, NCDOT, and the Albermarle Rural Planning Organization (ARPO) unless otherwise stated.

This report considers the following subjects as they relate to walkability in Elizabeth City:

- Demographics
- Physical Conditions
- Community Engagement
- Assets and Opportunities
- Plan Review



#### **STUDY AREA**

Elizabeth City is located in Pasquotank County along US 17, US 158, NC 344, and the Pasquotank River. Tucked in the northeastern corner of North Carolina, Elizabeth City is approximately 11.67 square miles.



#### **DEMOGRAPHICS**

#### **AT A GLANCE**

The demographic makeup of the community is crucial when considering walking as a means of active transportation in Elizabeth City. This section uses 2018 American Community Survey 5-year estimates from the US Census Bureau to summarize relevant data for the community. This data helps to better understand the needs of the community in Elizabeth City, therefore appropriately tailoring the recommendations of the final plan to this community.



#### Median Household Income





# Commuting to WorkWalk<br/>4.7%Bike<br/>0.7%Carpool<br/>11.8%Drive Alone

WALKEC

77.7%

#### EQUITY ANALYSIS

#### NO VEHICLE HOUSEHOLDS

The figure below shows the percentage of households with no access to a vehicle by block group from the ACS 2018 5-year estimates. The residential area with the highest percentage of households with no access to a vehicle is between Southern Avenue and South Road Street with 43%. Within the block groups that Elizabeth City is in, there are approximately 1,327 households with no access to a vehicle.



#### FIGURE 2 - PERCENT OF NO VEHICLE HOUSEHOLDS

#### **INDIVIDUALS IN POVERTY**

The percentage of individuals in poverty strongly correlates with the percentage of households with no access to a vehicle. The largest percentage of individuals in poverty—39%—is between Southern Avenue and South Road Street. The percentage of individuals in poverty is concentrated in the center of the City. There are approximately 5,658 individuals in poverty in the block groups that make up Elizabeth City.



#### FIGURE 3 - PERCENT OF INDIVIDUALS BELOW POVERTY LINE

#### LIMITED ENGLISH PROFICIENCY

Figure 4 shows the population who speak English "less than well" according to the ACS 2018 5-year estimates. Elizabeth City has 0% of the City's population that speaks English "less than well." To the north in Camden, there is a small portion of the population that speaks English "less than well," but the percentage is less than 1%.

#### FIGURE 4 - PERCENT OF ADULTS WITH LIMITED ENGLISH PROFICIENCY



#### MINORITY POPULATION

The minority population percentage in Elizabeth City is 54.8%. Approximately 49.1% of the population is Black or African American, 0.1% American Indian and Alaska Native, 1.1% Asian, 0.3% Native Hawaiian or Pacific Islander, 0.8% some other race, and 3.4% two or more races. The figure below shows only the racial minorities in Elizabeth City and does not include ethnic minorities such as the HIspanic population due to data avaiability from ACS. While not shown in this figure, approximately 7.9% of the population in Elizabeth City identifies as Hispanic.



#### FIGURE 5 - PERCENT MINORITY POPULATION

#### PHYSICAL CONDITIONS

#### ANNUAL AVERAGE DAILY TRAFFIC (AADT)

Heavily traveled corridors present certain challenges for pedestrians throughout Elizabeth City. US 17 (N Hughes Blvd) and NC 344 (Halstead Blvd) are the highest traveled roads within the City's limits. Between 17,000 to 24,000 cars travel through these corridors on a daily basis, respectfully. Another heavily traveled corridor in Downtown Elizabeth City is US 17 Buisness, which has between 9,800 to 20,000 cars on a daily basis. Notably, AADT is not always available for smaller, local roads.



#### POWELL BILL MAP

The Powell Bill Map shows which roads are eligible for certain maintenance, construction, or reconstruction project funding from North Carolina Department of Transportation (NCDOT). Powell Bill funds are generated by state gasoline tax and distributed by the state to municipalities to fund transportation projects on municipally maintained roads.



#### **ENVIRONMENTAL CONSIDERATIONS**

The FEMA 100-Year and 500-Year Floodplains should be considered as they present certain development challenges. The proximity of the Pasquotank River presents unique opportunities for resilient and safe solutions for pedestrian infrastructure. Understanding the risks associated with development is important when determining where and how growth and investment should occur. Additional environmental considerations consist of surface water and wetland areas present throughout the City's boundary.



#### **KEY DESTINATIONS**

Schools, parks, and other key destination points are important to highlight when considering pedestrian connectivity and mobility. Ideally, pedestrian infrastructure would help connect these points to encourage residents and visitors alike to walk between these destinations.



#### PEDESTRIAN FACILITIES

The existing sidewalk network is primarily concentrated around Downtown Elizabeth City with pockets of scattered sidewalks around schools, residential areas, and commercial development. There are approximately 40 miles of existing sidewalk throughout Elizabeth City. Between 2007 and 2018, there were a total of 104 pedestrian crashes.

#### FIGURE 10 - PEDESTRIAN INFRASTRUCTURE AND CRASHES



#### ASSETS and OPPORTUNITIES

A key part of the planning process involves the identification of areas of opportunities and improvements to the sidewalk network in Elizabeth City. These opportunities were identified through fieldwork analysis and guidance from the City.

#### ASSETS

Elizabeth City has numerous assets that will contribute to the maturation of the City's pedestrian network. These assets include rich characteristics of the community as well as a variety of attractive local destinations, frequented by visitors and residents alike.

#### COMMUNITY CHARACTERISTICS

Known as "The Harbor of Hospitality," Elizabeth City is a community-oriented place to work, live, and play. As the heart of the Albemarle region, the City's downtown is home to shops, restaurants, and businesses ideally located adjacent to its scenic waterfront. The historic Downtown also possesses a rich history and rustic feel. With three higher education institutions, Elizabeth City is a progressive, yet historic place.

#### LOCAL ATTRACTIONS

- Elizabeth City State University
- College of the Albemarle
- Museum of the Albemarle
- Parks
- Public schools



#### CHALLENGES

The challenges facing Elizabeth City include several physical, economic, and environmental constraints. Understanding these unique constraints will help the City identify pedestrian improvements that will improve safety and access for pedestrians of all ages and abilities. As a coastal community, Elizabeth City experiences regular flooding and severe weather events that often limit mobility. Without adequate stormwater management, standing water presents potential problems along roadways and on sidewalks especially in areas with poor drainage. Additional considerations include limited rightof-way and funding limitations.

#### PHYSICAL LIMITATIONS

- General sidewalk accessibility and condition
- Lack of adequate drainage
- Lack of marked pedestrian crossings
- Limited right-of-way
- Adequate pedestrian signage



#### INVENTORY OF EXISTING FACILITIES

The following table describes the characteristics of each identified corridor. The table includes the road name and road extents, lane width, standard cross section, speed limit, AADT, and if curb and gutter are present. It is intended to provide a high-level overview of the selected corridors.

ROAD NAME	LANE WIDTH	CROSS SECTION	SPEED LIMIT	ANNUAL AVERAGE DAILY TRAFFIC (AADT)	CURB & GUTTER	SIDEWALK CONDITION
Ehringhaus St (S Water St to S Hughes Blvd)	65 ft	5-lane (2-way turn lane)	30 - 45 mph	11,500 - 19,500 vpd	Yes	Good
Herrington Rd (Shepard St to Halstead Blvd)	25 ft	2-lane undivided	30 - 35 mph	4,700 vpd	Variable	Good
Halstead Blvd (NC 344) (US 17 to Edgewood Dr)	65 ft	5-lane (2-way turn lane)	45 mph	17,000 - 22,500 vpd	Yes	Disconnected
Weeksville Rd (Edgewood Dr to River Rd)	70 ft	5-lane (2-way turn lane)	45 - 50 mph	2,600 - 6,800 vpd	No	Disconnected
Hughes Blvd (US 17) (US 158 to Oak Stump Rd)	65 ft	4-lane undivided	45 mph	14,500 - 23,000 vpd	Yes	Disconnected
Oak Stump Rd (US 17 to Summerfield St)	30 ft	3-lane undivided	35 mph	2,900 vpd	No	Not present
Parkview Dr (Hoffler St to River Rd)	35 ft	3-lane undivided	30 - 45 mph	2,400 - 5,500 vpd	No	Fair
River Rd (Rivershore Rd to Weeksville Rd)	40 ft	2-lane undivided	20 - 30 mph	2,400 - 4,600 vpd	Yes	Fair
Selden St (W Main St to Catalina Ave)	20 ft	2-lane undivided	25 mph	N/A	No	Fair
Park St (Southern Ave to Williams Cir)	20 ft	2-lane undivided	25 mph	N/A	Yes	Fair
E Ward St (N Pointdexter St to N Hughes Blvd)	25 ft	2-lane undivided	25 mph	2,400 - 3,600 vpd	No	Not present

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#### **OPPORTUNITIES**

Elizabeth City's street network includes streets of all sizes with unique characteristics and settings. Opportunities to improve pedestrian facilities along these corridors will require tailored solutions that consider the intended function of each street and the land uses and destinations it serves. This section highlights several prominent corridors in Elizabeth City as identified by City staff. The pedestrian opportunities shown here are preliminary steps toward identifying a coordinated network of citywide improvements.

#### CORRIDORS

(S	EHRINGHAUS ST Water St to S Hughes Blvd)	
Existing Context	Ehringhaus Street (BUS 17) is a major arterial that runs through Elizabeth City. West of South Water Street, Ehringhaus Street contains a number of commercial uses. The sidewalks where present, are relatively wide and in decent condition. Crossing this five-lane roadway may be a challenge for pedestrians without adequate marked crossing facilities.	
Considerations	<ul> <li>Enhance crossing facilities</li> <li>Construct sidewalks on adjacent sides</li> <li>Potential road diet and access management</li> <li>Streetscape enhancements</li> </ul>	

#### HERRINGTON RD

(Shepard St to Halstead Blvd/NC 344)

Existing Context	Herrington Road connects Downtown Elizabeth City into areas with residential housing and recreation opportunities. The sidewalks end due to large ditch sections on either side of Herrington Road.
Considerations	<ul> <li>Invest in pedestrian signage</li> <li>Consider constructing curb and gutter with sidewalks to eliminate ditch sections</li> <li>Construct sidewalks to connect key destinations</li> </ul>



	HALSTEAD BLVD (NC 344) nes Blvd/US 17 to Edgewood Dr)	
Existing Context	The intersection at Halstead Boulevard and US 17 contains a number of commercial uses and prominent destinations. Further east along Halstead Boulevard is Elizabeth City State University. The sidewalk network is disconnected and virtually non-existent between Camellia Drive and Roanoke Avenue. There are no marked crossings at signalized intersections despite the presence of sidewalks along either side. Additionally, this corridor lacks the pedestrian signage present throughout the rest of Elizabeth City.	
Considerations	<ul> <li>Connect fragmented sidewalk segments</li> <li>Mark pedestrian crossing locations</li> <li>Consider creating a multi-use path</li> <li>Consider access management</li> </ul>	V.V



	WEEKSVILLE RD (Edgewood Dr to River Rd)	
Existing Context	At the intersection of Herrington Road, Halstead Boulevard turns into Weeksville Road. Similar to Halstead Boulevard, the sidewalks along Weeksville Road—where present—are in decent condition, but lack connectivity along the corridor. As a primary connector to Elizabeth City State University, providing pedestrian infrastructure is crucial to connecting destinations and encouraging active modes of transportation.	
Considerations	<ul> <li>Mark pedestrian crossing opportunities from the University</li> <li>Connect sidewalks from River Road to Parkview Drive</li> <li>Create additional infrastructure around schools</li> <li>Consider access management strategies</li> </ul>	

	HUGHES BLVD (US 17) (US 158 to Oak Stump Rd)	
Existing Context	Hughes Boulevard (US 17) is a heavily traveled corridor in Elizabeth City. This four- to five- lane road intersects with US 158 and NC 344, which present several challenges to pedestrian movement. Along Hughes Boulevard (US 17) there are buffered sidewalks beside commercial development. However, these sidewalks are fragmented, disconnected, and ill-maintained. Additional consideration should be given to marked crossings to supplement pedestrian signage altering drivers of potential pedestrian cross.	
Considerations	<ul> <li>Create marked pedestrian crossing facilities</li> <li>Consider sidewalks with grass verge to provide pedestrian comfort</li> <li>Connect fragmented sidewalk segments</li> </ul>	

(Hu	OAK STUMP RD ghes Blvd/US 17 to Summerfield St)	
Existing Context	Oak Stump Road runs north-south in the southwestern portion of the City. A few sidewalks exist north of Ranch Drive adjacent to commercial development. However, the sidewalk network stops short of serving Northeastern High School and surrounding neighborhoods. School flashers signal the presence of a school zone, however, no sidewalks connect to the school.	
Considerations	<ul> <li>Extend existing sidewalk network to Northeastern High School</li> <li>Create marked pedestrian crosswalk</li> <li>Implement access management</li> </ul>	

	PARKVIEW DR (Hoffler St to River Rd)	
Existing Context	Elizabeth City State University is a key anchor along Parkview Drive, which extends east to River Road. The corridor also includes a variety of community facilities, churches, and neighborhoods. While signs and street markings identify the school zone, no marked pedestrian crosswalks are provided. The lack of crosswalks is a critical oversight given the sidewalks are on the opposite side of the road as the school. The sidewalks, where present, are in fair condition.	
Considerations	<ul> <li>Create marked pedestrian crosswalks where signs indicate</li> <li>Retrofit curb and gutter</li> </ul>	

RI	VEF	RD

(Rivershore Rd to Weeksville Rd

Т

Existing Context	River Road extends from Rivershore Road to Weeksville Road. Along River Road, there are primarily residential uses. Additionally, there is the River Road Middle School. On the side of the road opposite to the middle school are sidewalks. These sidewalks primarily serve the surrounding residential houses. Similar to other roads throughout Elizabeth City, while there are sidewalks on either side of a road, there are no safe opportunities to cross.
	<ul> <li>Create sidewalks on the school side of River Road</li> </ul>
Considerations	<ul> <li>Consider crossing opportunities for existing sidewalks to destinations including River Road Middle School</li> </ul>
	Extend sidewalks



	SELDEN ST (W Main St to Catalina Ave)	
Existing Context	Selden Street connects downtown residences to the commercial district along Ehringhaus Street and the Enfield Recreation Area. From West Main Street to West Church Street, Selden Street has sidewalks on both sides of the street in fair condition. No sidewalks exist south of Church Street. As a key connector between homes and destinations, Selden Street is an ideal pedestrian corridor. While utilities might present certain challenges, it appears that there is enough right-of-way to add sidewalks if desired.	
Considerations	<ul> <li>Expand existing sidewalks on one or both sides of the street</li> <li>Upgrade existing curb and gutter</li> <li>Consider adding additional signage</li> </ul>	

	PARK ST (Southern Ave to Williams Cir)	
Existing Context	<ul> <li>Park Street is a 0.5-mile residential road south of Downtown. The street is anchored by JC Sawyer Elementary School. In general, Park Street has sidewalk on one side of the street. West of the elementary school, the sidewalk is on the north side. After a marked crossing, the sidewalk proceeds on the south side of the street to one block before Williams Circle. Pavement markers denote the school zone from both approaches, however these markings should be more prominent to alert motorists of young children and pedestrians.</li> </ul>	
Considerations	<ul> <li>Enhance pedestrian crossing opportunities</li> <li>Create marked crossing opportunities from the westward approach coming from Raleigh Street</li> <li>Expand existing sidewalks and connect fragmented sections from Harris Drive to JC Sawyer Elementary School</li> </ul>	

#### WALKEC

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#### E WARD ST

#### (N Poindexter St to N Hughes Blvd/US 17)

Existing Context	East Ward Street is a half-mile street at the northern edge of the Downtown neighborhoods. The street connects US 17 Business (Hughes Blvd/Road St) to the river and Mid-Atlantic Christian University. It also provides access to the Knobbs Creek Recreation Center. No sidewalks exist along East Ward Street. Major corridors nearby such as US 17 Business, East Broad Street, and North Poindexter Street have pedestrian facilities, so adding facilities on East Ward Street would provide direct access to recreation facilities.	Robbs Creek Park & Recreation Center Erre Stater Cares - Stateho Care Parts - Indere Tarts SIGN - UPS DISC GOLF - 3335-14224	
Considerations	<ul> <li>Build sidewalks along either side of the street</li> <li>Connect existing sidewalk infrastructure</li> <li>Consider creating a multi-use path to and from recreation facilities</li> </ul>		D



#### ADDITIONAL CONSIDERATIONS

#### UNIFIED DEVELOPMENT ORDINANCE

The City's Unified Development Ordinance (UDO) governs land use and development throughout the City's jurisdiction. The intent of the UDO is to promote the health, safety and general welfare of the residents of Elizabeth City through the regulation of zoning, subdivisions, and land use. The UDO was first adopted in 1999 and is periodically updated through amendments. The UDO outlines safety and right-of-way requirements associated with new development including sidewalk widths, accessibility requirements, and other design criteria. The UDO acknowledges how new or existing development should consider connectivity, safety, and reliability of pedestrian facilities throughout Elizabeth City.

#### TRANSIT

The Inter-County Public Transportation Authority (ICPTA) provides demand-response public transportation for Pasquotank, Perquimans, Camden, Chowan and Currituck counties. In keeping with its "Anyone Can Ride" slogan, ICPTA services transport the general public to nutrition sites, medical appointments, and other locations to connect people to services and activities related to daily living and enhance the quality of life for those that need the service. ICPTA serves more than 100,000 people in a service area that stretches over 1,000 square miles. ICPTA connects people to shopping, education, employment, and healthcare destinations.



#### PLAN REVIEW

A more informed pedestrian plan will consider the process and key outcomes of previous local and regional plans. This section summarizes planning efforts that include recommendations relevant to the development of the Elizabeth City Pedestrian Plan.

#### 2004 ADVANCED CORE LAND USE PLAN (2012)

#### OVERVIEW

The joint Pasquotank County and Elizabeth City Land Use Plan provides a framework for long-range decisions regarding growth and land development. The Plan examines land use policies and provides a guide for future development in the form of a Future Land Use Map. The Land Use Plan addresses pedestrian requirements for certain types of development. While numerous recommendations are tailored to on-site development, the Land Use Plan also identifies several strategic focus areas including the Elizabeth City Downtown Waterfront and the US 17 Bypass Corridor. These focus areas were analyzed in more depth due to environmental and historic constraints specific to redevelopment. During the preparation of the plan, a variety of participatory and education opportunities for community input were provided. The Land Use Plan is updated every five years.

#### **RELEVANT RECOMMENDATIONS**

The Land Use Plan proposed roadway improvements that include bicycle facilities as well as more sidewalks and pedestrian traffic signals and safety measures. Pedestrian improvements were noted as particularly needed in heavily commercialized areas. Relevant recommendations include:

- Leverage the historic and environmental resources unique to Elizabeth City and utilize those resources to encourage tourism with pedestrian-centric features and infrastructure.
- Design residential subdivisions to encourage pedestrian movement and traffic.
- Consider the aesthetic appeal and promote sense of place through street design and elements such as sidewalks, bikeways, and walking trails.





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#### CITY OF ELIZABETH CITY WATERFRONT MASTER PLAN (2018)

#### **OVERVIEW**

The Elizabeth City Waterfront Master Plan recommends new opportunities for boating or commercial activity and recreation while encouraging the thoughtful design of public spaces and environmental preservation areas. The Master Plan is a product of collaboration between local citizens, private businesses, and City staff to create a vision that will maintain a sense of place while encouraging development along the waterfront. A successful revitalization strategy provides optimal opportunities to transform the waterfront into a shared community space that is both accessible and connected. By promoting accessibility, Elizabeth City hopes to create a safe and enjoyable place for all to walk, bike, play, and connect with the waterfront. With a series of community work sessions, citizens were able to help guide the long-term planning for the future of their City. The recommendations include a phasing strategy to advance initiatives that have high community value, offer potential funding sources, and create a groundwork for future planning efforts to build on. Since the waterfront area of Elizabeth City is so vital to the community, creating a comprehensive framework to guide development is essential to maintaining the community while also encouraging redevelopment in order to capitalize on opportunity.

#### RELEVANT RECOMMENDATIONS

- Establish continuous walking paths along the waterfront. Increase the walkability and include bicycle improvements to encourage tourism.
- Complete a Bicycle and Pedestrian Plan with a special emphasis on the waterfront area so its recommendations will include improvements to support local businesses along the waterfront.
- Promote activities, events, and destinations that appeal to everyone. Expanding pedestrian infrastructure will allow connectivity and accessibility between Downtown destinations and the rest of Elizabeth City for both residents and visitors alike.
- Create an interconnected network of various modes of transportation and promote accessibility for all.





#### ALBEMARLE REGIONAL BICYCLE PLAN (2013)

#### **OVERVIEW**

The Regional Bicycle Plan provides a thorough analysis of the current conditions for cycling in the Albemarle region. The Albemarle region is composed of ten counties including Camden, Chowan, Currituck, Dare, Gates, Hyde, Pasquotank, Perquimans, Tyrrell, and Washington. The Plan outlines recommendations of bicycle facilities to encourage a complete network of on-road and off-road facilities. These recommendations and improvements are prioritized by subregions which include North of the Albemarle Sound, South of the Sound, and the Outer Banks. The recommendations most relevant to Elizabeth City are outlined in the section that analyzes North of the Sound. In addition to physical bicycle facility recommendations, there are policy guidelines that highlight opportunities to strengthen local ordinances and codes to aid in the facilitation of bicycle-friendly spaces. While the Regional Bicycle Plan focuses on opportunities and limitations specific to bicycle facilities, the recommendations also focus on pedestrians. Additionally, the identified barriers to bicycle facility development are also relevant to pedestrian infrastructure. Despite these barriers, there is a strong community-driven push to have safer and more accessible opportunities for active transportation.

#### **RELEVANT RECOMMENDATIONS**

- Conduct additional corridor studies to analyze the possible land configuration to accommodate active transportation is suggested. While corridor improvements are recommended along roadways, bicycle facilities cannot be implemented safely without changing the corridor significantly.
- Improve intersections with highly-visible crosswalks or crossing areas for pedestrians and cyclists, especially along US 158.



### COMPREHENSIVE MASTER PLAN UPDATE - ELIZABETH CITY & PASQUOTANK COUNTY PARKS & RECREATION DEPARTMENT (2016-2026)

#### **OVERVIEW**

The purpose of updating the Comprehensive Parks & Recreation Master Plan is to identify changes since the last plan and provide recommendations based on the community's recreational and facility needs. The Master Plan utilizes shifting demographics, public input, and available funding sources to identify the desired types of facilities. This facility needs analysis looked at eight park types, each of which provide differing recreational needs for the new park facilities. This inventory was then used to identify opportunity areas. Calculations for both current and future park needs was conducted based on existing facilities and demand. In addition to the need for new facilities, renovations and joint-use opportunities were also explored. Parks and recreational spaces are essential to promote a healthy quality of life for a community. This Comprehensive Master Plan provides direction and structure to guide decision-making during the implementation of each phase for the next ten years. By ensuring consistency with other plans and ordinances, the Parks & Recreation Plan will be able to recognize, utilize, and protect the County's natural resources and build upon preexisting recreational opportunities.

#### RELEVANT RECOMMENDATIONS

- Provide linkages between park facilities for safe pedestrian movement. Expanding the greenway network provides an important component to the overall park network.
- Prioritize walking trail development in all existing and or future park developments.
- Identify Federal and State funding opportunities for future bikeways, pedestrian, and greenway projects.
- Preserve public open spaces and create walking trails or greenways to connect these spaces for residential or visitor use.
- Considering infrastructure improvements to include ADA compliant features and other accessible pedestrian infrastructure in and around the parks.

# ELIZABETH CITY/PASQUOTANK COUNTY PARKS & RECREATION DEPARTMENT 2016-2026

COMPREHENSIVE MASTER PLAN UPDATE





#### WALKEC

MARCH 21, 2016

#### PAQUOTANK COUNTY COMPREHENSIVE TRANSPORTATION PLAN (2016)

#### **OVERVIEW**

The Comprehensive Transportation Plan (CTP) is a long-range multi-modal plan that outlines the transportation needs for highway, bicycle, and pedestrian infrastructure for future years. The CTP serves as a guide to provide coordinated and efficient transportation decisions for the future of the region. The CTP recommendations were based on an analysis of existing and anticipated mobility needs. By identifying demographic trends, potential economic development, and land use trends, a transportation model was used to determine potential impacts on the network as a whole. With the growing demand for improved mobility for cyclists and pedestrians, the recommendations in the Comprehensive Transportation Plan also include policy guidance from NCDOT. This policy guidance outline detailed guidelines for planning, design, construction, maintenance, operation accommodations, and funding opportunities. Additionally, critical corridors that include a combination of facility and policy recommendations are outlined in further detail in the CTP.

#### **RELEVANT RECOMMENDATIONS**

- Provide safe and convenient pedestrian facilities on both sides along and across roadways.
- Provide sidewalks in areas with mixed-land uses to increase the number of pedestrian trips as opposed to vehicular trips.
- Promote safety, mobility, and a healthy community by providing demarcated spaces or sidewalks for enhanced pedestrian movement.





The Existing and Recommended Sidewalk and Multi-Use Path Network Map from the Comprehensive Transportation Plan.



WALKEC

#### ONLINE SURVEY #1 - FOUNDATIONS BUILDING SUMMARY

# First Survey

May 5, 2020 to July 1, 2020

# WALKEC

#### ELIZABETH CITY PEDESTRIAN MASTER PLAN

# Survey Overview





What is MetroQuest?	An online survey designed to educate the public about the project and collect feedback using five interactive and visual screens	
How long was the survey active?	May 5, 2020 to July 1, 2020	
What were participants asked?	<ol> <li>Rate five key themes derived from WalkBike NC (economy, mobility, health, environment, and safety)</li> <li>Identify which obstacles make it challenging to walk</li> <li>To provide input on project identification, identify safety concerns, and identify key destinations</li> </ol>	

# Key Takeaways



## What We Heard



- Pedestrian safety is a major concern along major roadways
- Connections to key destinations is strongly desired especially to downtown, the waterfront, and schools or universities
- 3 Lack of safe crossing opportunities for pedestrians
- Existing sidewalk condition and connectivity is a notable concern outside of downtown area

# **Timeline of Participation**




## How Often Do You Walk?



(i)

## Participant Profile





## How Important Are...

Safety, Health, Economy, Mobility, and Environment



## Five Themes

WalkBike NC is our statewide Bicycle and Pedestrian Plan. This plan includes five pillars (or themes). This screen introduces participants to the five themes and asks them to rate the importance of each as it relates to walking in Elizabeth City.

# Image: Safety Health Economy Mobility Environment Please rate this theme: Image: Safety Safety Safety Image: Optional Comment Image: Safety Safety

WalkBikeNC includes this theme to emphasize the need for safer travel options for everyone, whether they are driving, walking, or riding a bike.

#### What it means for Elizabeth City

Several streets in Elizabeth City are dangerous to walk along or across, and for many people, walking is their only option. WalkEC should promote safety for everyone, regardless of their age, income, background, or ability to move.

More about this



On a scale of 1 to 5, how important is each theme?

#### Safety

Promote safety for all roadway and non-roadway users through strategic, consistent, and coordinated pedestrian and bicycle facility improvements, education, and enforcement strategies.

#### Key Takeaways

Safety is the biggest concern among survey participants with a average score of ~4.5 out of 5.



#### What it Means

Several streets in Elizabeth City are dangerous to walk along or across, and for many people, walking is their only option. WalkEC should promote safety for everyone, regardless of their age, ability, income, or background.



On a scale of 1 to 5, how important is each theme?

#### Mobility

Improve mobility and accessibility and reduce traffic congestion through greater investment in walking and biking infrastructure, improved transportation modes, and reduced traffic congestion through coordinated land use and transportation planning

#### Key Takeaways

Participants are eager for expanding the active transportation network!



#### What it Means

WalkEC should prioritize walkability along important corridors by identifying solutions that consider the unique role of each street and the land uses and destinations it serves.



On a scale of 1 to 5, how important is each theme?

#### Health

Contribute to improved public health by providing active living environments with safe, connected, accessible facilities along with programs that encourage walking and bicycling.



#### Key Takeaways

Recreation is the primary reason survey participants walk throughout the City.

#### What it Means

WalkEC should emphasize how sidewalks, paths, and crossings can serve as an important compontent to the health and wellbeing of the people who live, work, and visit.



On a scale of 1 to 5, how important is each theme?

#### **Environment**

Be good stewards of our environment by reducing automobile dependence, completing a Greenprint Plan for North Carolina, and linking together the state's natural and cultural resources through a statewide network of greenways.

#### Key Takeaways

Participants encouraged the idea of leveraging existing environmental features in the development of sidewalks



#### What it Means

Elizabeth City's natural areas are a big reason its known as the Harbor of Hospitality. WalkEC should call attention to these resources and find ways to provide mindful access for residents and visitors.



On a scale of 1 to 5, how important is each theme?

#### Economy

Maximize economic competitiveness, return on investment and employment opportunities by creating more attractive walkable and bikeable communities through increased public and private funding.

#### Key Takeaways

Economy had the lowest rating average of the five themes with 3.77 out of 5.



#### What it Means

Elizabeth City's economy is anchored by its downtown waterfront, three colleges, and designation as A Coast Guard City. WalkEC should align how walkable places connect people to opportunity and make the City a more attractive place to invest.





## What Obstacles Do Pedestrians Face?

What are the biggest obstacles survey participants face when trying to walk in Elizabeth City?



## Obstacles

Participants were asked to rate the importance of six driving principles. These principles will be referenced throughout the plan.

#### Key Takeaways

The "Lack of Sidewalks" was cited the most as an obstacle. When ranked, "Weather" had the highest intensity score.



## Feedback on Obstacles



- More multiuse pathways
- More bicycle and pedestrian facilities and option types
- Lack of connectivity between destinations (schools, downtown, waterfront)
- Better lighting and signage
- Maintenance for existing sidewalks
- Speeding along major corridors
- Flooding and rainstorms contribute to poor sidewalk condition

## Issues & Ideas

Mapping Destinations, Safety Concerns, Project Idea, My Home, Anything Else?



## Mapping Destinations

#### Key Takeaways

There were **227 Destination** points dropped!

Destinations were concentrated in **downtown** Elizabeth City near the Waterfront Park.

**Parks and Places to Recreate** were highly cited as key destinations according to survey participants.



### Destinations





#### Key Takeaways

Out of **153** answers, **Parks and Places to Recreate** were identified the most as destinations that survey participants want to go.

## Mapping Safety

#### Key Takeaways

There were **324 Safety Concern** points dropped!

Safety concerns were concentrated along Ehringhaus Street, Halstead Boulevard, and Riverside Avenue.

The majority of safety concerns identified the **lack of sidewalks** or **unsafe crossings** along certain streets.



## Safety





#### Key Takeaways

Out of **195** answers, **No Sidewalk Path** and **Unsafe Crossings** were identified the most when participants were asked about safety concerns throughout the City.

## Mapping Project Ideas

#### Key Takeaways

There were **162 Project Idea** points dropped!

New project ideas were concentrated in the **downtown** area, along **Riverside Avenue**, and along **Rivershore Road**.

The majority of new project ideas are **new crosswalk** opportunities.



### Project Ideas





#### Key Takeaways

Out of **115** answers, **No Sidewalk Path** and **Unsafe Crossings** were identified the most when participants were asked about safety concerns throughout the City.

## Mapping Houses

#### Key Takeaways

There were **93 My Home** points dropped!

Homes were mostly concentrated **east** of Road Street.

Many comments referenced the desire to have **neighborhood sidewalks** connected to existing infrastructure.



## Mapping Other comments

#### Key Takeaways

There were **19 Other Comment** points dropped!

When asked if there was anything else, participants highlighted the desire for **bicycle facilities** and commented on **flooding issues**.

The majority of new project ideas are **new sidewalk** opportunities.



#### ONLINE SURVEY #2 - PRIORITY SETTING SUMMARY

CHAPTER 8

## Second Survey MALKEC December 7, 2020 to January 25, 2021

#### ELIZABETH CITY PEDESTRIAN MASTER PLAN

## Survey Overview





What is Survey	An online survey designed to inform the public about the draft
Monkey?	recommendation and collect feedback using a series of maps and questions

How long was the December 7, 2020 to January 25, 2021

What were	1)	Rate draft multi-use path, sidewalk, and pedestrian crossing
participants asked?		recommendations
	2)	Identify new multi-use path, sidewalk, and pedestrian crossing facilities

3) Identify priority multi-use path, sidewalk, and pedestrian crossing projects

## Key Takeaways



### What We Heard



- Overall, survey participants approve of the multi-use, sidewalk, and pedestrian crossing recommendations.
- Pedestrian safety is still a top priority.
- 3) Connections to key destinations are a strong driver of identified priority projects.
- 4
- The City should focus on initiating community events and promoting state programs such as Eat Smart, Move More NC and Watch for Me NC.

## Who Participated?

More than 130 new people participated in the second survey! Over 580 participants provided input on the WalkEC Pedestrian Plan in total.





## Multi-Use Paths

A physically separated pathway from vehicular traffic for bicyclists or pedestrians.

Additional connections to augment the pedestrian network.





## Multi-Use Paths

#### 8.21 Average rating for the MULTI-USE PATH RECOMMENDATIONS (On a scale of 1 to 10)

#### Open Ended Comments

More than <u>100</u> comments received for Multi-Use Paths

#### Recurring Themes

- Need adequate lighting
- Connect major destinations
- Recreation along waterfront
- Connect to USCG Base



## Which Multi-Use Path projects should be done first? (Choose three)





## Sidewalks

A paved pathway for pedestrians on the side of a roadway.

Recommended connections on one or both sides of the existing roadway.





## Sidewalks



## Average rating for the SIDEWALK RECOMMENDATIONS (On a scale of 1 to 10)

#### Open Ended Comments

More than <u>70</u> comments received for Sidewalks

#### **Recurring Themes**

- Connect to schools and universities
- Connect to hospital
- Maintain existing sidewalk condition
- Connect to businesses

## Which Sidewalk projects should be done first (Choose three)



## Pedestrian Crossings

Improvements that improve pedestrian safety, visibility, accessibility, and shorten crossing distance



#### Pedestrian Crossing Improvements

High visibility crosswalks; ADA ramps; Curb extensions; Pedestrian refuge islands

#### Signal Improvements

Pedestrian pushbuttons; Leading pedestrian phase; Pedestrian countdown; Right-on-red restrictions

#### Pedestrian Beacons

Applied at non-signalized intersections to enhance the visibility of pedestrians and bicyclists crossing mid-block or at marked intersections

#### **Safe Railroad Crossings**

Various treatments to provide accessible surface additional safety

#### **O** Connectivity Improvements

Creating continuous pathways at both sides of intersections

## Pedestrian Crossings

Average rating for the PEDESTRIAN CROSSING RECOMMENDATIONS (On a scale of 1 to 10)

#### Open Ended Comments

More than <u>40</u> comments received for Pedestrian Crossings

Recurring Themes

- At Ehringhaus St and N Road St
- At N Road St and N Hughes Blvd
- At Church St and Main St
- At hospitals, schools, and grocery stores



## Which Pedestrian Crossing projects should be done first? (Choose three)



Overall Project Recommendations



### Overall Recommendations

Average rating for the OVERALL RECOMMENDATIONS (On a scale of 1 to 10)

#### Open Ended Comments

More than <u>40</u> comments received for the Overall Recommendations

**Recurring Themes** 

- Focus on network connectivity
- Connect to USCG
- Include signage near crossings
- Consider traffic calming alternatives



## Which considerations do you think WalkEC should focus on?

#### Average Ranking

3.64

- **2.21 1. Safety**: priorities should focus on the City's most dangerous locations for pedestrians
- 2.72 2. Demand: priorities should focus on paces where people are most likely to walk
- 3.48 3. Connectivity: priorities should focus on filling gaps in the pedestrian network
  - **4.** Equity: priorities should focus on improvements in historically underserved communities
- 4.06 5. Geography: priorities should be spread throughout the City
- 4.86 6. Ease of Implementation: priorities should focus on projects that would be easier or quicker to implement



## Which of the following programs do you think the City should focus on? (Choose three)

**43%** | Community Events

- 40% | Eat Smart, Move More NC
- **33%** | Walking Tours

\* WALKEC

- 32% | Watch for Me NC
- **32%** | Enforcement Activities



March 1, 2021 6:30 PM - 8:30 PM Studio 511 welcomes you to a fun night of painting. Reservations required.

12:00 PM - 1:00 PM Join on Zoom: "Community, Ingenuity, and Luck: Elizabeth City State Normal School and the Crisis of 1898-1905.

4:00 PM - 7:00 PM Enjoy artwork, artist demos, and live music at multiple locations around do







## Questions?

Kristina Whitfield, P.E., AICP Starla Couso, ENV SP. Jonathan Whitehurst, AICP

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#### **DESIGN GUIDELINES**

CHAPTER 8

#### DESIGN GUIDELINES

The general design guidelines for pedestrian facilities are identified below. NCDOT adheres to these standards and guidelines in addition to the Complete Streets guidelines and pedestrian facilities.

•••

#### **TABLE #10 - DESIGN GUIDELINES**

DOCUMENT	AUTHOR
Guide for Planning, Design, and Operations of Pedestrian Facilities	The American Association of State Highway Transportation Officials (AASHTO)
Special Report: Accessible Public Rights-of-Way Planning and Design for Alterations	Access Board
ADA and ABA Accessibility Guidelines	Architectural and Transportation Barriers Compliance Board
Accessible Shared Streets: Notable Practices and Considerations for Accommodating Pedestrians with Vision Disability	Federal Highway Administration (FHWA)
Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts	Federal Highway Administration (FHWA)
Federal Highway Administration Bicycle and Pedestrian Planning, Program, and Project Development	Federal Highway Administration (FHWA)
Manual on Uniform Traffic Control Devices (MUTCD) Part 4E: Pedestrian Control Features	Federal Highway Administration (FHWA)
Manual on Uniform Traffic Control Devices (MUTCD) Part 7: Traffic Controls for School Areas	Federal Highway Administration (FHWA)
Pursuing Equity in Pedestrian and Bicycle Planning	Federal Highway Administration (FHWA)
Small Town and Rural Multimodal Networks	Federal Highway Administration (FHWA)
Designing Walkable Urban Thoroughfares: A Context Sensitive Approach	Institute of Transportation Engineers (ITE) and Congress for the New Urbanism
Urban Street Design Guide	National Association of City Transportation Officials (NACTO)
2009 NC Supplement to MUTCD	North Carolina Department of Transportation (NCDOT)
Evaluating Temporary Accommodations for Pedestrians	North Carolina Department of Transportation (NCDOT)



DOCUMENT	AUTHOR
Local Management Handbook	North Carolina Department of Transportation (NCDOT)
NCDOT Complete Streets	North Carolina Department of Transportation (NCDOT)
Roadway Design Manual	North Carolina Department of Transportation (NCDOT)
Statewide Pedestrian and Bicycle Plan	North Carolina Department of Transportation (NCDOT)
Traditional Neighborhood Development Guidelines	North Carolina Department of Transportation (NCDOT)
National Center for Safe Routes to School	Safe Routes to School (SRTS) Non-Infrastructure
National Partnership for Safe Route to School	Safe Routes to School (SRTS) Non-Infrastructure