Queen Anne's County

Pedestrian & Bicycle Master Plan

March 2024

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INTRODUCTION

Queen Anne's County has a rich, rural history that that has shifted to more of a suburban community in recent years. Increasing in popularity to both residents and visitors due to its newer residential areas, beaches, and growing businesses, Queen Anne's County has experienced an abundance of growth, starting particular with the construction and expansion of the Chesapeake Bay Bridge. Often referred to as the Bay Bridge, it serves as the single corridor for connecting the more urbanized areas surrounding Washington D.C. and Baltimore to the Eastern Shore. This has caused an increase in vehicular traffic for the County and there have been numerous discussions and studies surrounding the expansion of the Bay Bridge for increased accessibility to the Eastern Shore.

In addition to the existing traffic concerns the County faces, there is a lack of safe, connected multimodal facilities for residents and visitors to use and enjoy. The South Island Trail and Cross Island Trail serve as the existing multimodal spine network in the County, but unfortunately US 50/301 limits the connectivity between these two facilities and potential use.

As residents experience most of the vehicular traffic issues, this Master Plan stemmed from a desire to take a comprehensive look at how to build out their pedestrian and bicycle infrastructure more formally to allow for better connectivity and accessibility using these active modes.

The Bicycle and Pedestrian Advisory Committee (BPAC) is an existing group that supports pedestrian and bicycle safety in Queen Anne's County through the advancement, development, and maintenance of pedestrian and bicycle facilities. The purpose of the BPAC, as listed on the Queen Anne's County website, is as follows:

> *The committee will advise and make recommendations to the County on pedestrian and bicycle access issues, act as a liaison between the public and the County and will independently and with County staff, identify, evaluate, and seek out all grants and other financial programs available for the development and maintenance of pedestrian and bicycle facilities.*

The BPAC, along with the Parks and Recreation Advisory Committee (PRAC), led the effort to formally develop a Countywide Pedestrian and Bicycle Master Plan. Queen Anne's County embarked on the development of a Pedestrian and Bicycle Master Plan to serve as the County's first adopted plan to use as a basis for connecting gaps between existing facilities and to further to prioritize projects. The intent of this Master Plan is to help the County achieve a more connected, accessible, and safe active transportation network.

The identified network, once constructed, will provide facilities that could be used by residents of and visitors to the County for both transportation and recreational purposes. The recommended network builds upon the successful implementation of existing trails and provides access to locations that have been identified by the public through this master planning process.

The components that were combined to develop this Master Plan include:

This Master Plan is a critical step in the process for Queen Anne's County to continue making investments in their active transportation infrastructure and creating a network that is safe and convenient for all users. The Master Plan also sets the stage for subsequent study and design phases will need to occur before implementation and successful use is achieved, as show in **Figure 1**.

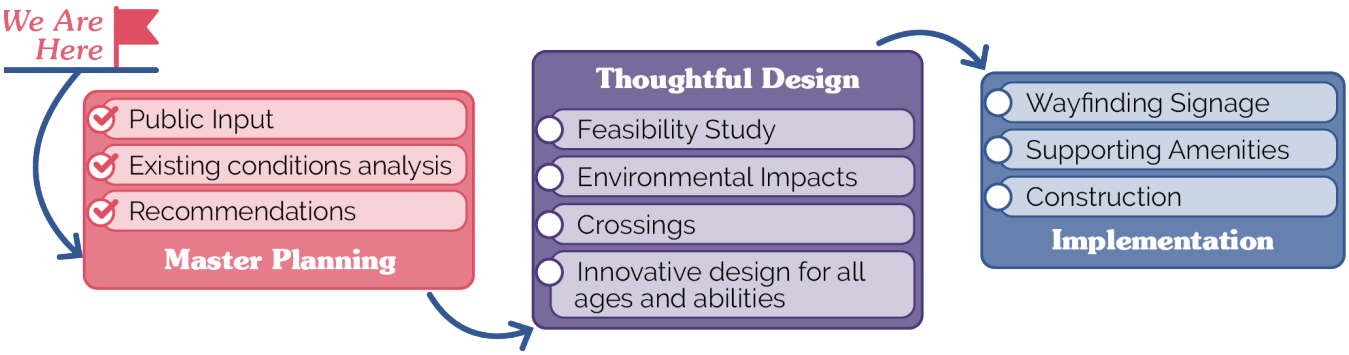


Figure 1. Steps to Successful Active Transportation Use

The subsequent sections of this Master Plan:

- ✓ summarize the existing active transportation conditions and facilities in Queen Anne's County
- ✓ detail the public input received throughout this planning process
- ✓ outline and prioritize recommended routes and facility types
- ✓ recommend strategies to keep momentum moving forward

EXISTING CONDITIONS

Existing conditions—such as population, demographic information, existing infrastructure, and safety-related data—inform data-driven planning for the future pedestrian and bicycle network. The following section summarizes the baseline conditions of Queen Anne's County that influence pedestrians and bicyclists.

Demographics

Demographic information for the County helped to inform the selection and prioritization of potential future pedestrian and bicycle infrastructure projects. **Figure 2**, **Figure 3**, **Figure 4**, and **Figure 5** show Queen Anne's County population, percent minority[1], zero-car households, and poverty status, respectively. Demographic information was collected from 2021 American Community Survey (ACS) Five Year Estimates and is displayed at the census block group and/or census tract level.

The population number by census block group for Queen Anne's County is shown in **Figure 2**. Much of the population is in the Kent Island area of the County, with less towards the northwestern part of the County. Population is also high in the eastern portion of the County that borders Caroline County, particularly east of Centreville and north of and including Queen Anne.

Figure 3 shows the percentage of the population that is considered a minority by census block group in Queen Anne's County. As seen in the figure, the only areas with a minority population of 30% or greater are the Grasonville area and the area between Church Hill and Centreville which extends to the northwest border of the County.

The number of zero-car households by census tract in Queen Anne's County is shown in **Figure 4**. The highest number of zero-car households exists in and north of Centreville, as well as in the portion of Kent Island North of US 50. Parts of Kent Narrows, Grasonville, and the southeast portion of the County also have moderately high quantities of zero-car households compared the rest of the County.

Figure 5 shows the population number with poverty status by census tract in Queen Anne's County. The highest numbers of population with poverty status are represented in Kent Narrows and Grasonville, in addition to the area including and north of Centreville.

The review of County demographics demonstrates communities for whom connected, safe, and accessible bicycle infrastructure is critical to ensure equitable participation in community life: those that live in (proportionally) dense areas with efficient access to commercial and recreational opportunities; historically disadvantaged minority groups; and people who do not or choose not to own a car.

The Census Bureau also collects additional characteristics and behavior of populations, including the following describing Queen Anne's County:

20.7% of the County are 65 years or older.
78% of workers in Queen Anne's County currently drive to work.
Fewer than 0.05% of workers in Queen Anne's County bike to work.

[1] The Census Bureau defines "Minority" populations as any group other than White-alone, non-Hispanic.

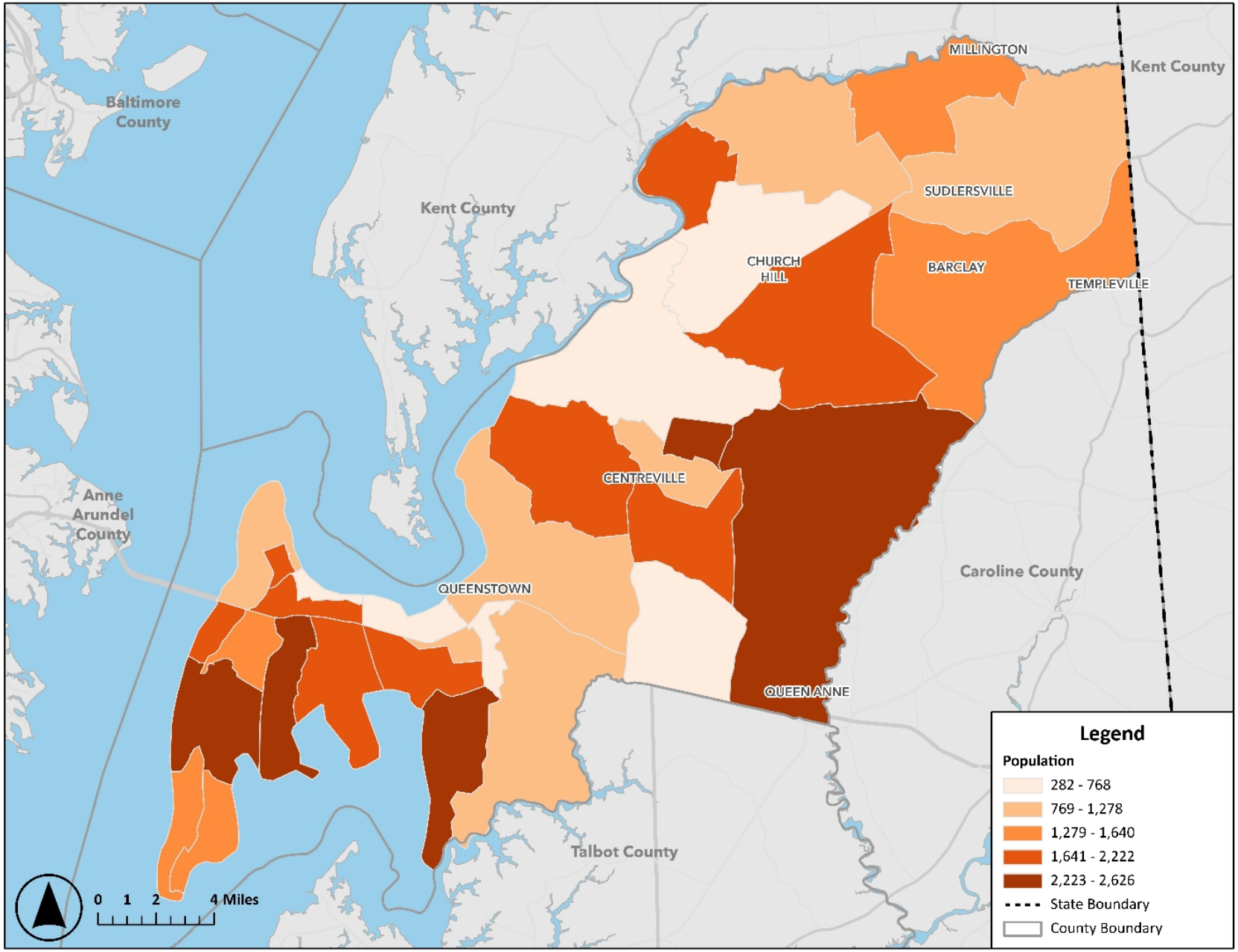


Figure 2. Population by Census Block Group for Queen Anne's County (Source: 2021 ACS 5-Year Estimates; Tier ranges were set to best visualize the range of data present in the County)

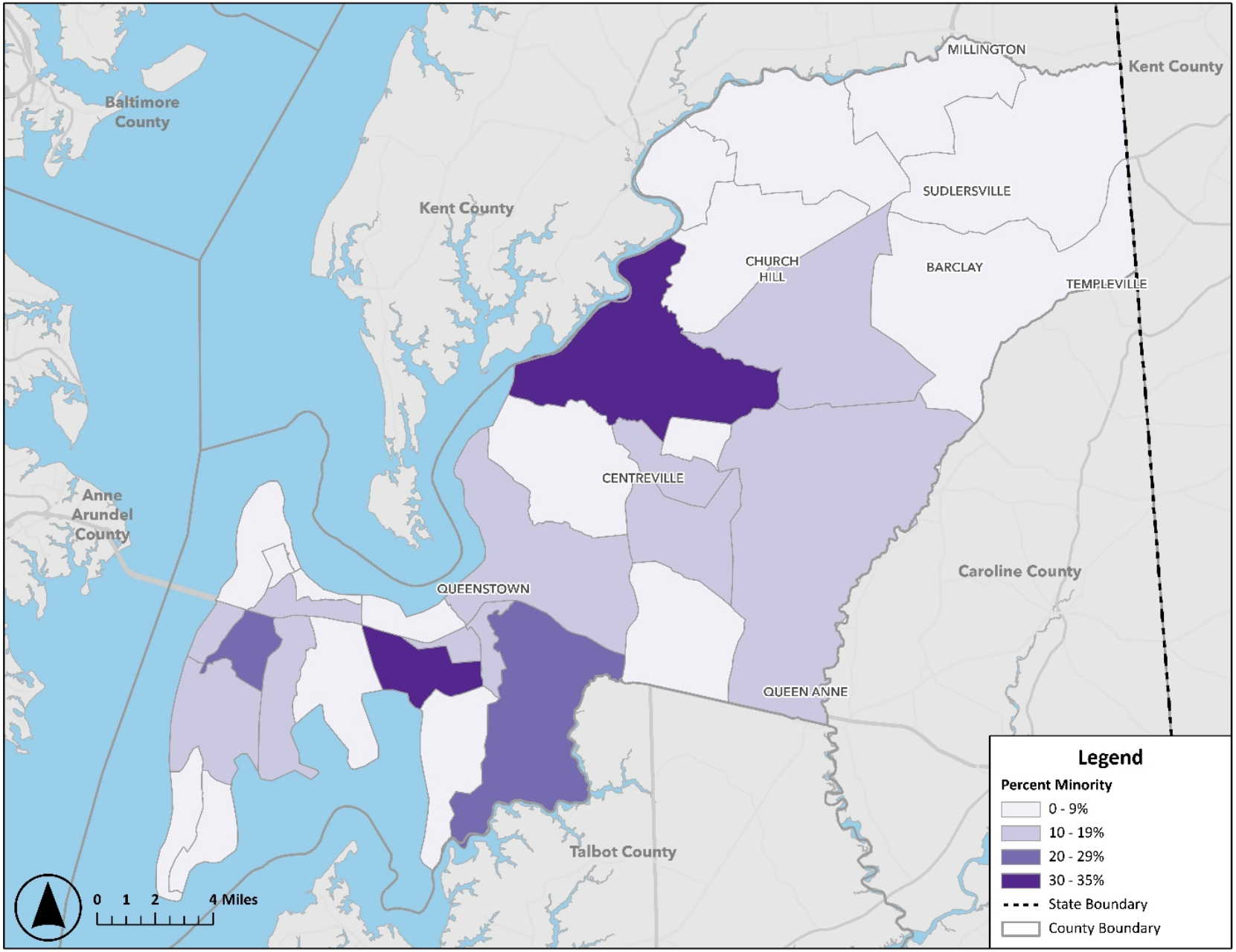


Figure 3. Percent Minority by Census Block Group for Queen Anne's County (Source: 2021 ACS 5-Year Estimates; Tier ranges were set to best visualize the range of data present in the County)

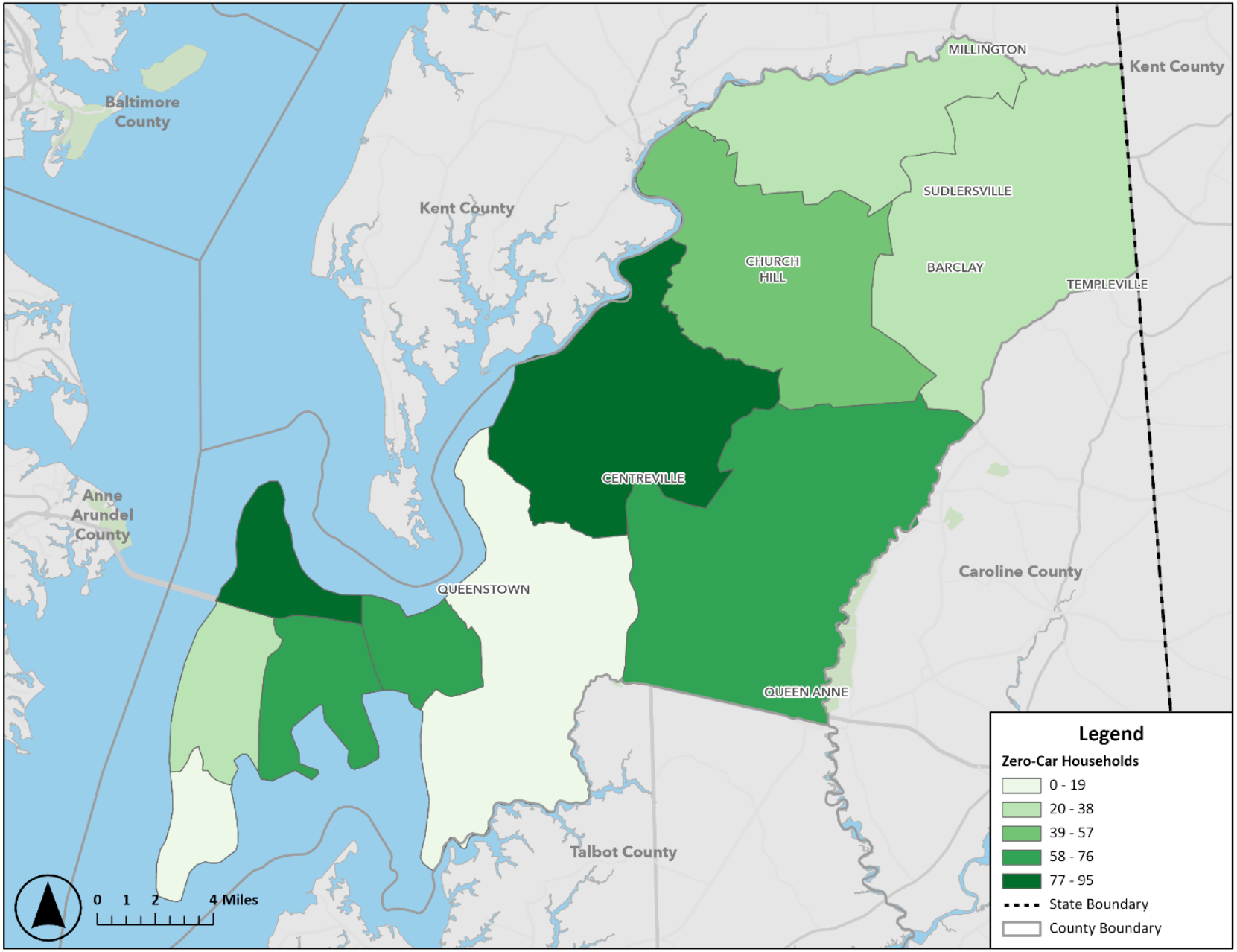


Figure 4. Zero-Car Households by Census Tract for Queen Anne's County (Source: 2021 ACS 5-Year Estimates; Tier ranges were set to best visualize the range of data present in the County)

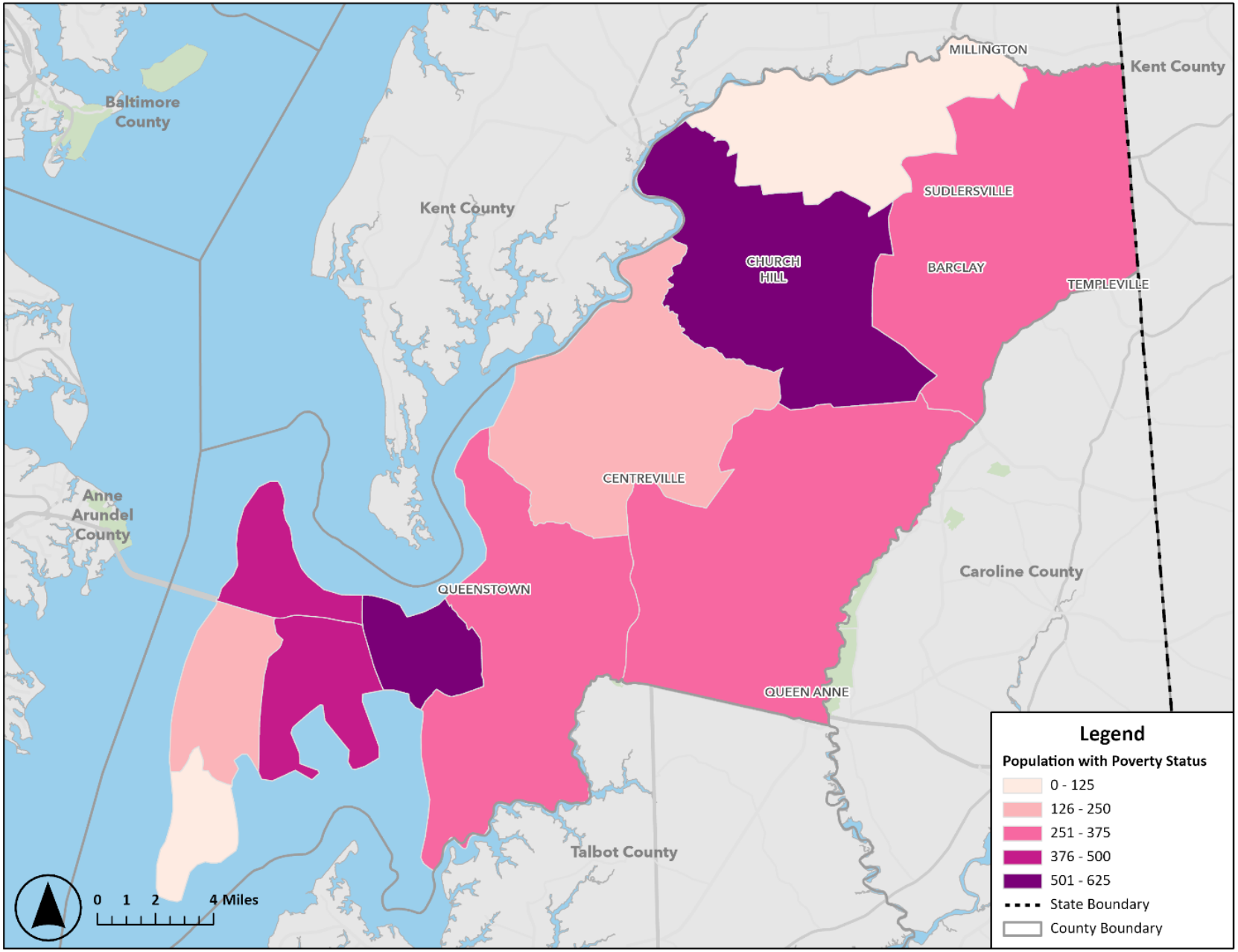


Figure 5. Poverty Status by Census Tract for Queen Anne's County (Source: 2021 ACS 5-Year Estimates; Tier ranges were set to best visualize the range of data present in the County)

Existing Infrastructure

Pedestrian and Bicycle Network

Queen Anne's County has invested in implementing various off-road trails for recreational use—most notably the Cross Island Trail and South Island Trail, with the former pictured in **Figure 6**. Existing pedestrian and bicycle infrastructure serve as a foundational element for the potential future infrastructure recommended in this Master Plan. The intent of this Master Plan was to identify strategies to enhance and expand upon investments made by the County. This intent to build upon what already makes the County successful was confirmed by the voices of various stakeholders through public engagement efforts.

Figure 6. Queen Anne's County Cross Island Trail

A summary of existing transportation and recreational trails, bike lanes, and sidewalks in Queen Anne's County is shown in **Figure 7**. Existing trails and bike lanes are shown on a map of Queen Anne's County in **Figure 8**, and existing sidewalks and walking trails are similarly shown in **Figure 9**. As seen in the figures, the existing trails are primarily located in the Kent Island and Kent Narrows portion of the County. Other trails consist of small trails in and around local parks near incorporated towns, such as Centreville. Existing sidewalks are similarly concentrated in Chester, Kent Narrows, Grasonville, and Centreville, as well as other incorporated towns. Some walking trails are also present in publicly managed green spaces (Wye Island Natural Resources Management Area and Tuckahoe State Park).

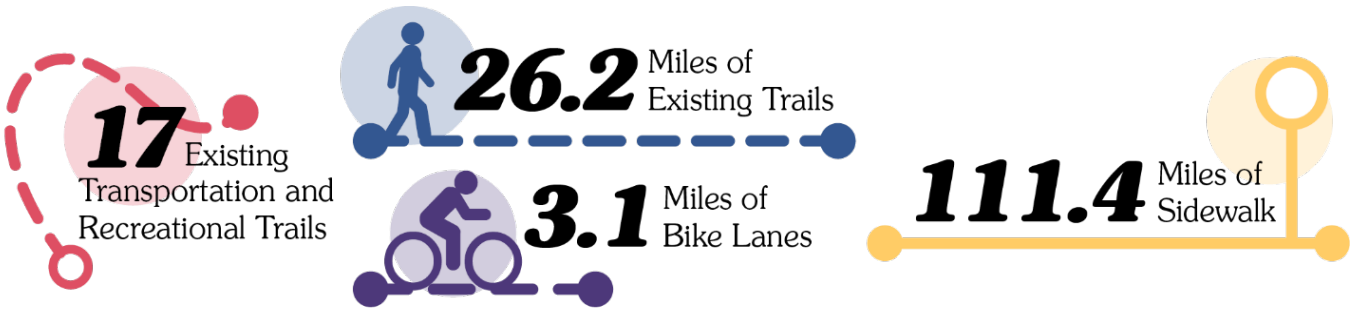


Figure 7. Summary of Existing Trails, Bike Lanes, and Sidewalks in Queen Anne's County

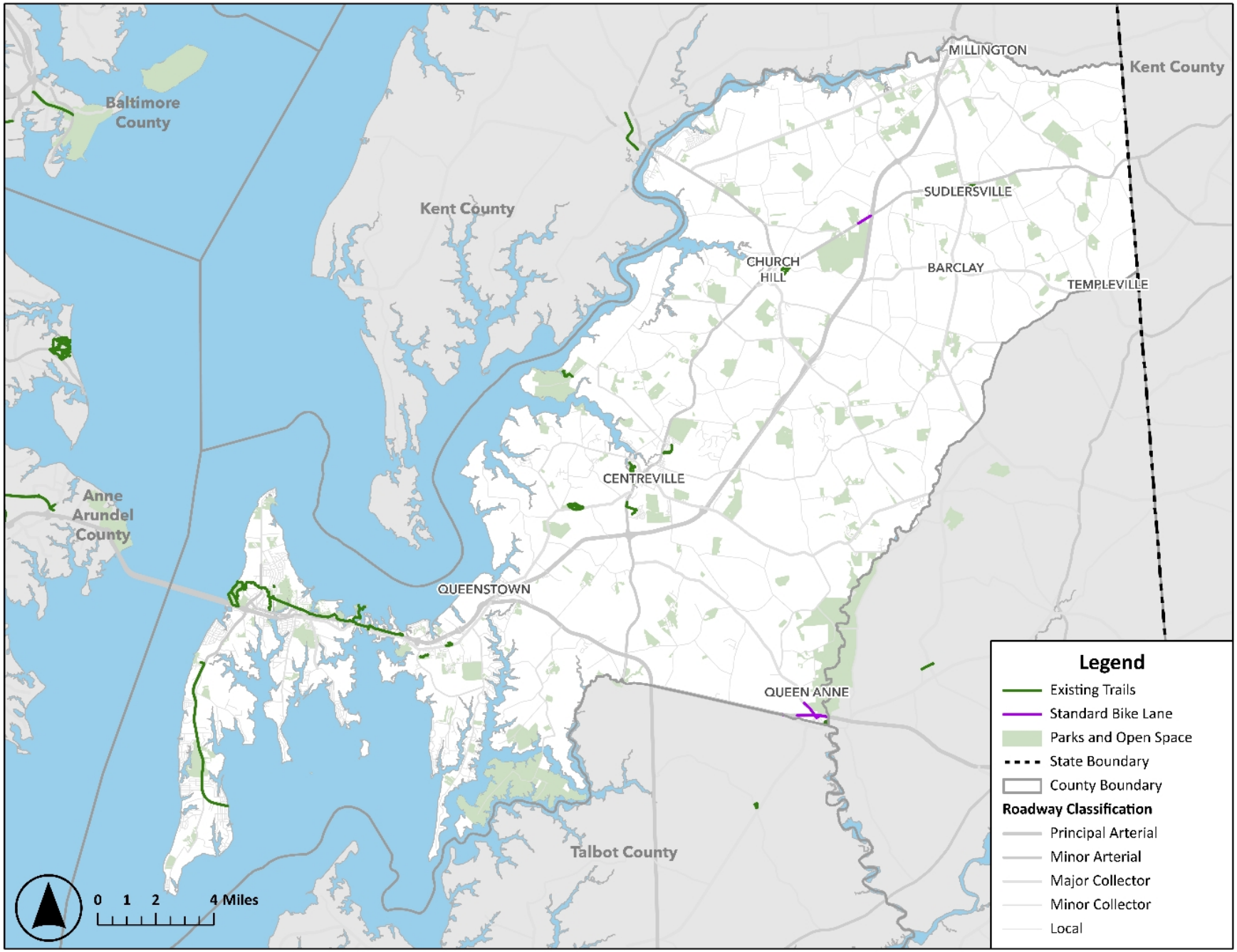


Figure 8. Existing Trails and Bike Lanes in Queen Anne's County

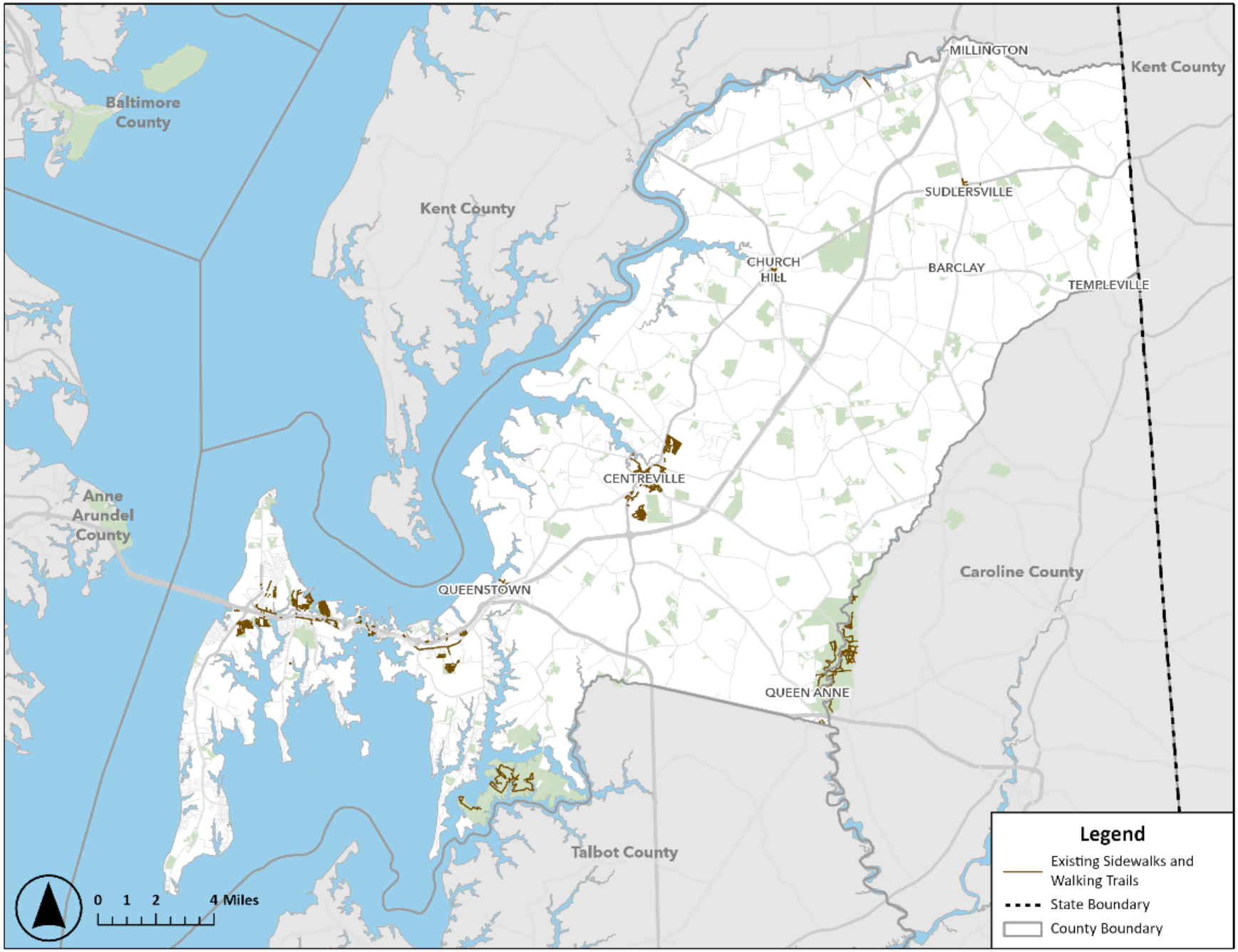


Figure 9. Existing Sidewalks and Walking Trails in Queen Anne's County

Existing Community Needs and Uses

An online public engagement survey and interactive map was distributed to the public to document existing community uses and needs as they relate to the pedestrian and bicycle network in Queen Anne's County. The survey was open from August 4, 2023 to September 29, 2023, and a total of 289 surveys were completed along with 157 comments provided in the interactive map. Survey respondents were asked to share information on:

Their existing comfortability as both pedestrians and cyclists
Their most frequent uses of the existing pedestrian and bicycle network
The existing constraints that prevent them from using existing facilities

This information was used to establish an early understanding of community needs.

Existing Comfortability and Uses

Understanding the community's perspective on comfort is key to the understanding how appropriate a network or facility is to help people achieve their daily objectives. Comfort and perception of comfort has a significant influence on how well utilized a network will be overall and which users will feel excluded.

Based on the results of the engagement survey, 91 percent of respondents defined themselves as "interested but concerned" or "enthused and confident" bicyclists. Similarly, 92 percent of respondents selected that they were either "interested but concerned" or "enthused and confident" pedestrians. These responses indicate a strong interest to use existing pedestrian and bicycle networks in the County. It is noted that, despite the significant interest, a majority of the users expressed sentiments that there were barriers that influence how comfortable *they feel* using the network.

The number of respondents who reported that their main trip purpose when biking was for exercise and fitness, or recreation and leisure purposes was 97 percent. Similarly, 96 percent of respondents reported that their main trip purpose when walking was for exercise and fitness, or recreation and leisure purposes. Participants across both modes ranked exercise and fitness, recreation and leisure, and daily errands as the top three categories they would choose to both bike and walk to if access was improved.

Existing Constraints

The results of the survey revealed community sentiments on real and perceived constraints that limit an individual's ability or comfort in walking or bike. Of the respondents that rated the ability to cycle to a destination in the County as either "somewhat" or "very difficult", the most commonly cited factors consisted of roadway issues, safety concerns, traffic/busy roads, and missing or deficient bicycle facilities.

Similarly, of the respondents that rated the ability to walk to destinations in the County as either "somewhat" or "very difficult", commonly cited factors consisted of safety concerns, traffic/busy roads, automobile speeds, missing or deficient bicycle facilities, and lack of separation (buffer) between sidewalks and roads.

The comments shared through the interactive map echoed these constraints and specifically identified locations where these constrains were most noticeable across the County.

Overall, the survey results indicated a need for an increase in the number of facilities, as well as safer and more accessible routes for walking and biking throughout the County. Addressing the constraints is critical in enhancing the accessibility, safety, and appeal of pedestrian and bicycle facilities in Queen Anne's County. A summary of feedback from the public on the existing pedestrian and bicycle network in Queen's Anne's County is shown in **Figure 10**. Detailed survey results can be found in the **Appendix**.

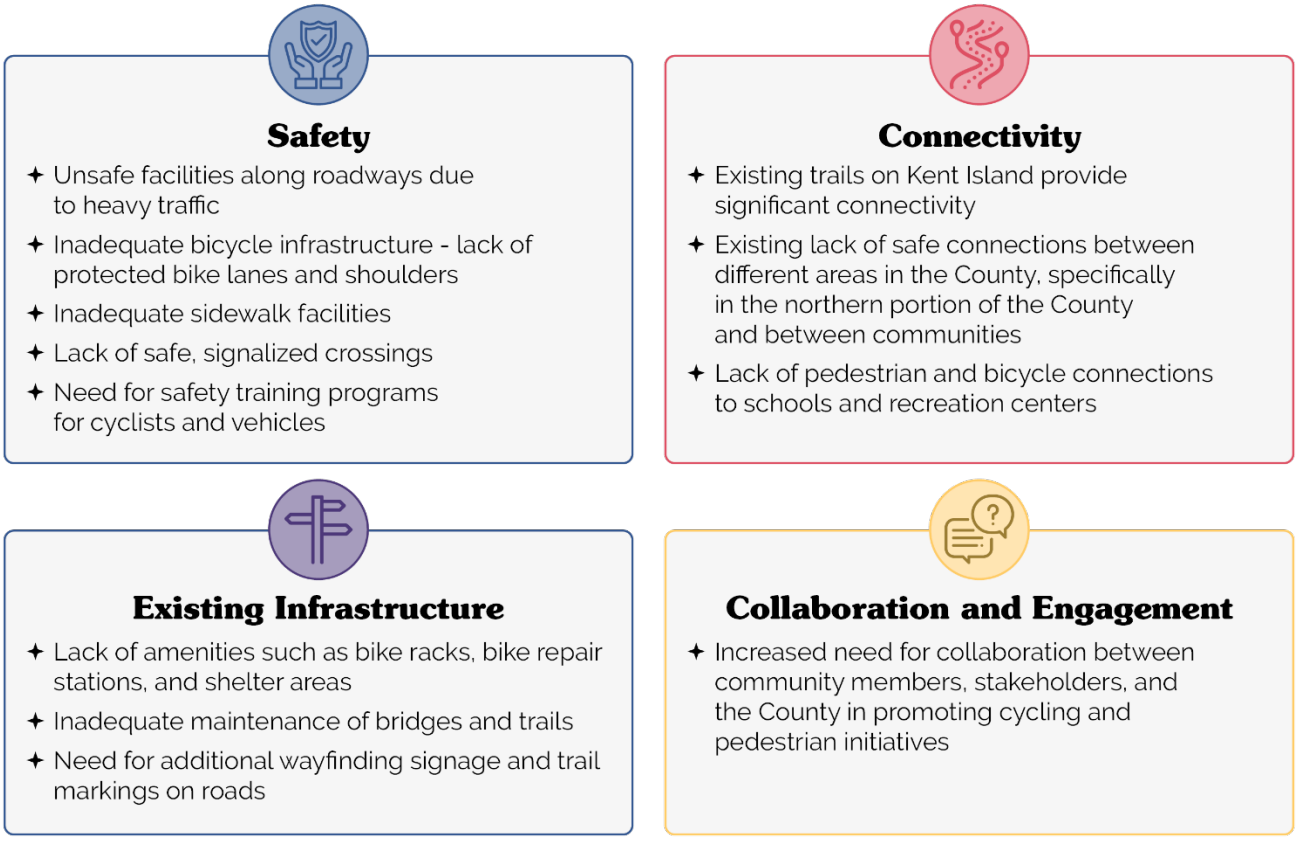


Figure 10. Summary of Public Input on Existing Pedestrian and Bicycle Network

Safety

Existing conditions related to safety are documented in the form of crash data, which help identify trends in non-motorist-involved crashes in recent years, as well as specific areas of the County in which there is a high density of non-motorist crashes.

Crash History

The Maryland Department of State Police (MDSP) maintains a Maryland crash data, available for download. The Baltimore Metropolitan Council (BMC) uses MDSP's source data in a Maryland crash dashboard, which interprets the crash data and includes additional visualizations about Maryland crash trends.

Identifying the location of crashes—crashes involving non-motorists, specifically—assists with identifying areas or corridors that would benefit from dedicated pedestrian and bicycle infrastructure specifically targeted at improving mobility and safety.

Non-motorist crashes that took place in Queen Anne's County in the past five years (2019 through 2023), are shown in **Figure 11**. A visual assessment shows that areas with the most non-motorist crashes over the last 5 years include Stevensville, Chester, Kent Narrows, Grasonville, and Centreville. It is noted that non-motorized crashes are often underreported due to a combination of reasons: crashes occurring outside of the public right-of-way, lack of injury or sufficient property damage to warrant a police report, lack of police involvement for fear of legal consequences, and other factors; as such, the safety risk to non-motorized users may be higher than the graphic conveys.

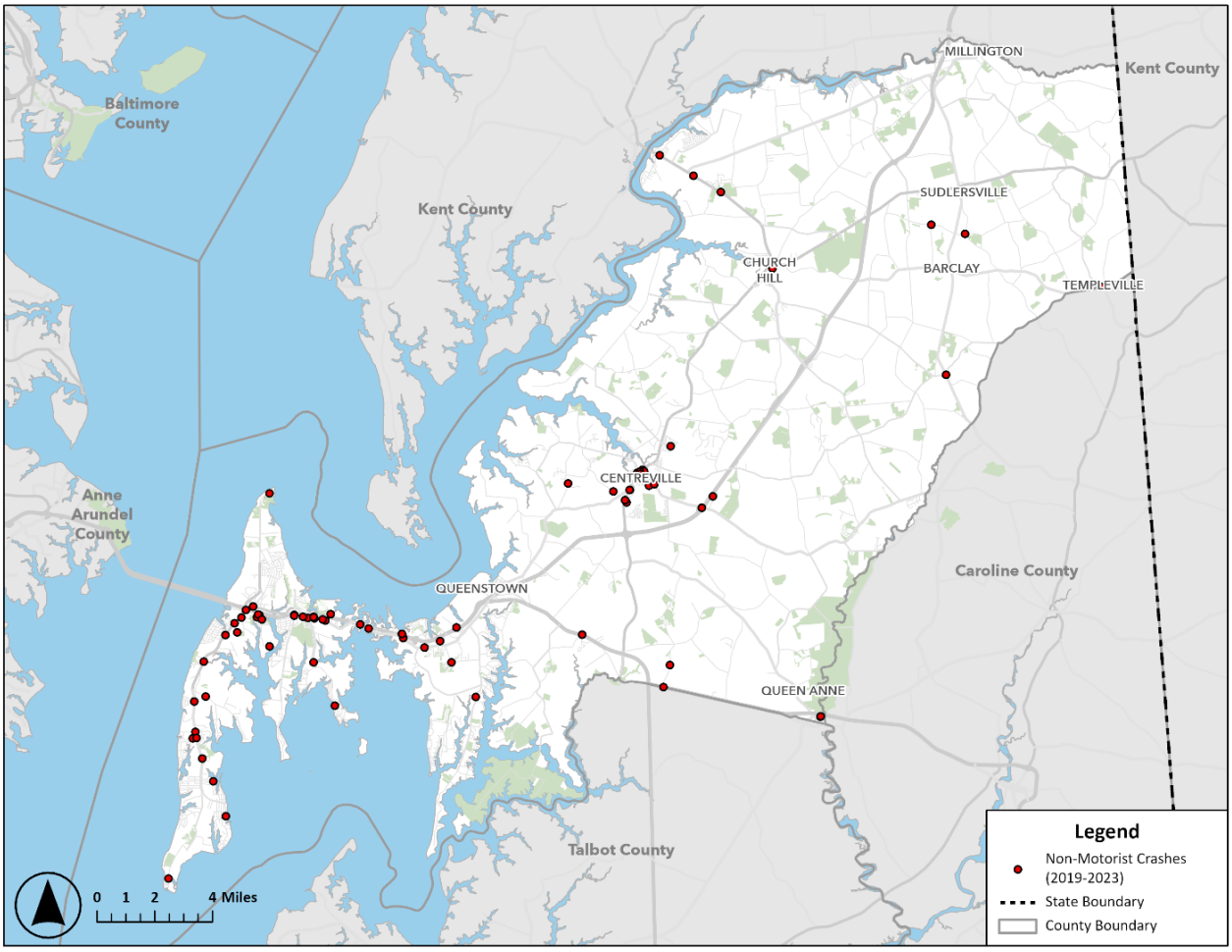


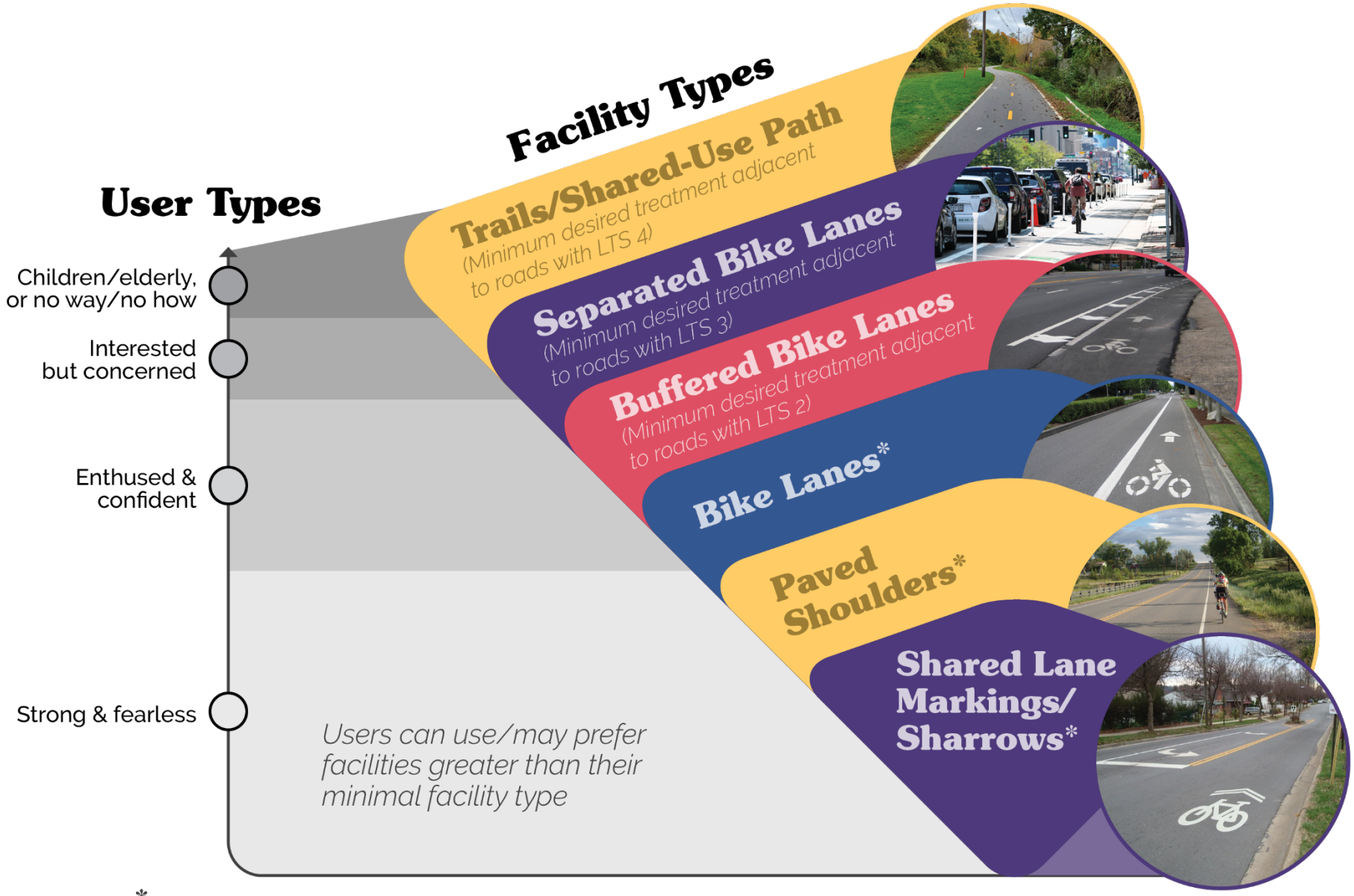
Figure 11. Non-Motorist Crashes in Queen Anne's County (2019-2023)

VISION AND GOALS

The vision of this Master Plan is to develop a set of recommendations that build an active transportation spine network throughout the County for all user types. The recommendations of this master plan will help create facilities that can serve both utility and recreational trip purposes. Master Plan goals were developed through stakeholder meetings, input from the BPAC, results from public engagement, and coordination with County staff. The goals were developed to guide the process of prioritizing recommended routes. The Queen Anne's County Pedestrian and Bicycle Master Plan goals are shown in **Figure 12**.

Figure 12. Queen Anne's County Pedestrian and Bicycle Master Plan Goals

To promote use of pedestrian and bicycle facilities, it is important to understand the types of facilities different users are comfortable with. **Figure 13** explains the types of users considered in the development of the recommendations and the types of pedestrian and bicycle facilities they feel comfortable using.



*bike lanes, paved shoulders, and sharrows can be implemented on low stress facilities, but should be implemented with other traffic calming measures to improve conditions for bicyclists.

Figure 13. Pedestrian and Bicycle User Types

PROJECT IDENTIFICATION

Identifying recommended routes for this Master Plan required a review of various inputs, including the review of existing plans and gap analyses, statewide level of traffic stress, and stakeholder and public input. These components informed the development of recommended routes across the County. The following section describes the project identification approach and resulting recommended routes.

Existing Plans and Gap Analyses

Both Queen Anne's County and some incorporated towns within it have previously developed plans that were incorporated into the development of projects in this Master Plan. Details about the existing plans are outlined below.

QAC Comprehensive Plans (2010 and 2022)

Queen Anne's County developed the Bicycle and Pedestrian Connectivity Map, which includes existing infrastructure (trails, sidewalks, crosswalks), planned bike routes (commonly used, but no infrastructure), and proposed connectivity. The proposed connectivity includes County proposed connections, proposed connections as defined by the 2010 QAC Comprehensive Plan, and sidewalk gaps. The proposed connectivity layers included in this online map heavily informed the development of recommended routes. The 2022 QAC Comprehensive Plan, an update to the 2010 Comprehensive Plan, was also reviewed for updated bicycle and pedestrian recommendations that influence our recommended routes contained in this Master Plan. The 2022 update also includes several clear strategies to promote safe and convenient bicycle and pedestrian access throughout the transportation system and programs, which this Master Plan recommends to further codify, as detailed in Supporting Next Steps.

The sidewalk gap analysis was conducted by the County and represents a comprehensive understanding of sidewalk connections that are needed across the County, primarily concentrated around Kent Island and incorporated towns as reflective of areas of higher density of development. The sidewalk gap analysis is discussed further in **Additional Project Considerations**.

Kent Island Transportation Plan

The Kent Island Transportation Plan was published in 2016. It catalogues existing transportation facility conditions, assesses future conditions with and without transportation improvements, and provides recommendations for improvements in both 2020 and 2030. The pedestrian and bicycle improvements included in the plan primarily include interchange improvements to improve bicycle and pedestrian safety, overpasses, and new connectors. These recommendations are discussed in more detail in **Additional Project Considerations**.

Town of Queenstown, MD Trails Master Plan

In 2021 the town of Queenstown, MD adopted a Trails Master Plan, which details existing trails needing enhancement and potential new trails for the incorporated town of approximately 8 square miles (corporate area of 2.28 square miles). Queenstown is bisected by US 50 and US

301, which has historically presented challenges to providing safe access to downtown from neighborhoods across the highways in order to unify the community. The Trails Master Plan is intended to provide a basis for future capital improvement project funding.

Recommendations included in the Queenstown Trails Master Plan informed the development of recommended routes near Queenstown for this Master Plan.

Level of Traffic Stress

In 2022, the Maryland Department of Transportation (MDOT) completed and published a statewide bicycle level of traffic stress (LTS) analysis. LTS measures how bikeable a roadway is for a variety of people on bikes using the following variables: presence and type of bicycle facility, speed limit, number of through lanes, and traffic volume (AADT). LTS results help provide a basis for understanding how accessible Maryland's road and trail networks are for various cycling audiences. MDOT's LTS analysis has a LTS scale of 0 to 5, definitions for which are shown in **Table 1** in the context of target bicycling audience likely to use the facility and typical facility types seen on roadways with the respective LTS.

Table 1. MDOT LTS Scale Definitions

LTS Score	Target Bicycling Audience	Bicycle Facility Types
0	All ages and abilities	Rail-trails, shared-use paths (no motor vehicle traffic)
1	Almost everyone	Protected bikeways, sidepaths (low traffic speeds/volumes)
2	Interested but concerned	Bike lanes, bike boulevards
3	Enthused and confident	Bike lanes, shared lanes, shoulders
4	Strong and fearless	No bike facility or bike lane on a major roadway (heavy traffic)
5	Bicycle access prohibited	N/A (interstates or other prohibited roadways)

MDOT's statewide LTS analysis was used for this Master Plan in two ways. Firstly, the map of LTS across Queen Anne's County, shown in **Figure 14**, was referenced to guide the development of route recommendations. Where possible between key destinations, routes with a lower LTS were selected, as less infrastructure may be required to improve comfortability and suitability for bicyclists. In other cases, low-stress (LTS 1 to 2) indirect routes were included as an additional route recommendation to pair with a higher-stress direct route. Secondly, LTS was used as one of the criteria to measure safety in the prioritization analysis of routes, discussed in the following chapter.

MDOT staff provided an interpretation the analysis methodology and data limitations, gave guidance on data issues, and provided recommendations for use and verification of the data. As a result, an LTS verification process was conducted for arterial and collector roadways across the County, to ensure the assumed speed limits used in the statewide analysis were accurate to Queen Anne's County. Most speed limits were found to be accurate, with only minor discrepancies, therefore making it suitable for application in this master plan. MDOT has noted that future refinements will be made to the statewide analysis.

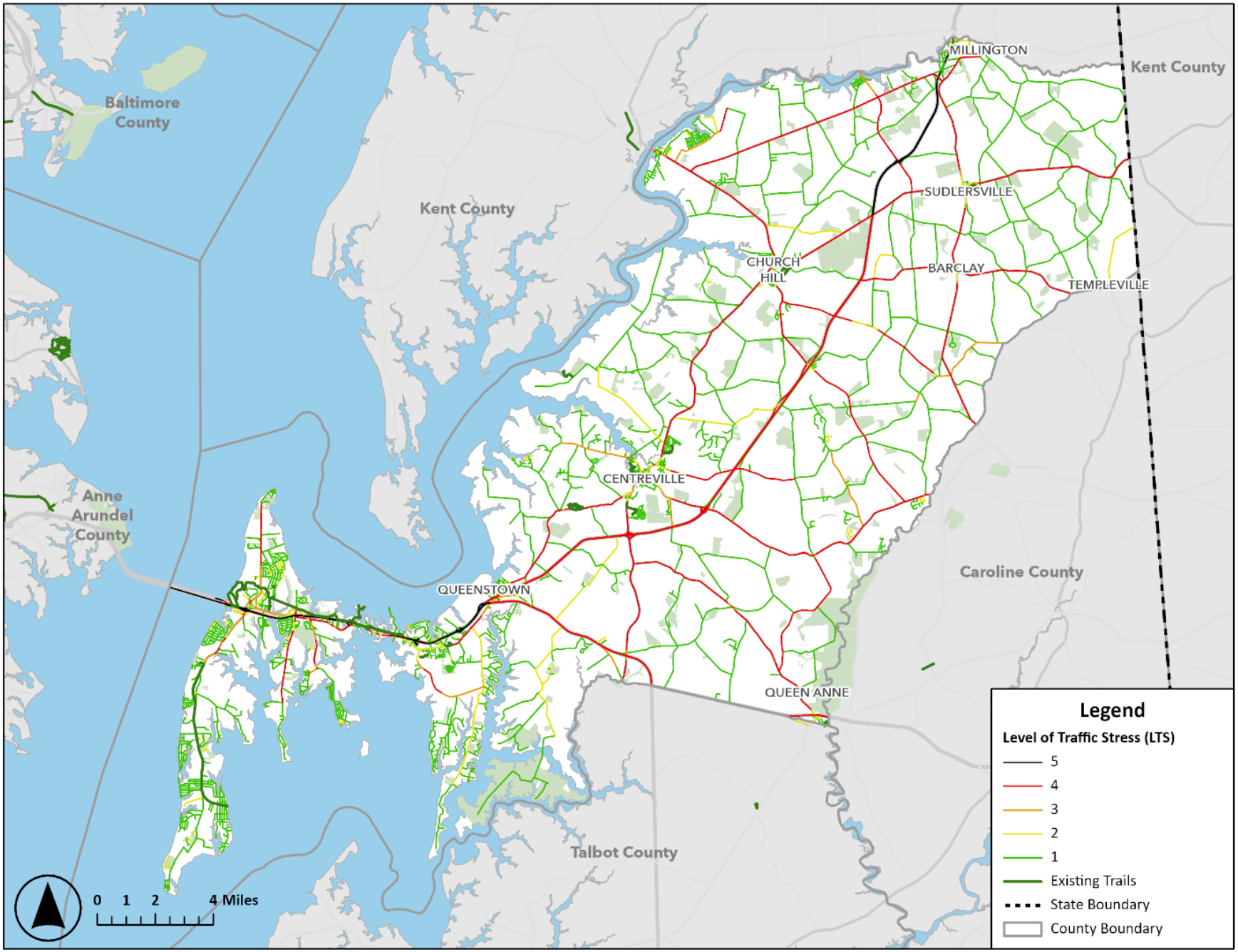


Figure 14. MDOT LTS Analysis Results for Queen Anne's County

Stakeholder and Public Input

The public outreach for this plan was designed with the intention to inform, educate, and collaborate with members of the public in order to gain local knowledge and input. In addition to the public survey, input from stakeholder groups and the open house was used to confirm the existing network, including any gaps and safety concerns, and understand desired connections and improvements. The stakeholder and public input was used to validate the data-driven existing conditions assessment and inform the network recommendations process.

Input Strategies

Multiple strategies were employed to gather stakeholder and public input, including a public survey, multiple stakeholder groups, and a public open house. The objectives of each input strategy are summarized in **Figure 15**.

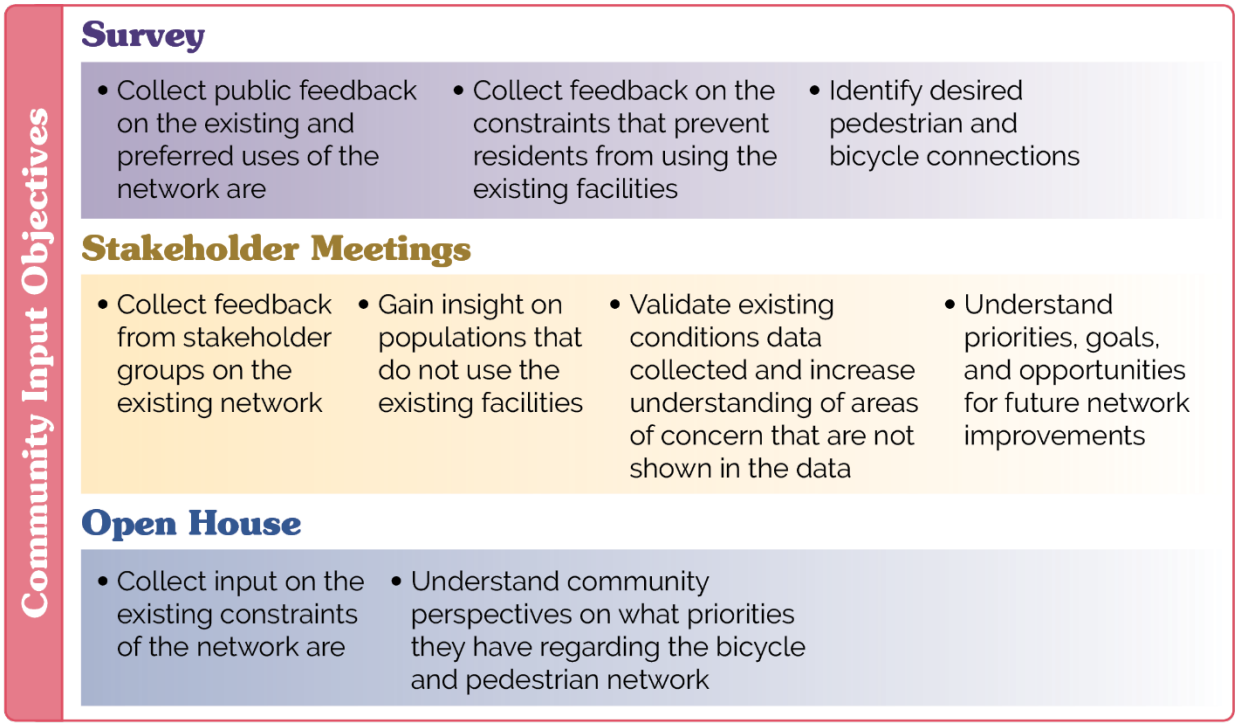


Figure 15. Stakeholder and Public Input Objectives

Public Survey

As discussed in the **Existing Community Needs and Uses** section, a public survey and online interactive map was distributed to identify existing network conditions, existing constraints, and identify desired connections and priorities.

Stakeholder Groups

Three virtual focus group meetings were held on Monday, September 25, 2023 with advocates, economic development representatives, and County and Town staff. The intent of these focus groups was to solicit feedback on the existing pedestrian and bicycle network in the County and to understand potential opportunities for future network improvements and promotion.

Public Open House

An open house was held at the Queen Anne's County Planning Commission building on Thursday, October 26, 2023 from 5:30 to 7:30 pm. Approximately 25 attendees were present and participated in various activities designed to solicit feedback from County residents on the existing pedestrian and bicycle network.

Stakeholder and Public Input Takeaways

The key takeaways from the survey, open house, and stakeholder meetings are summarized in **Figure 16** below.

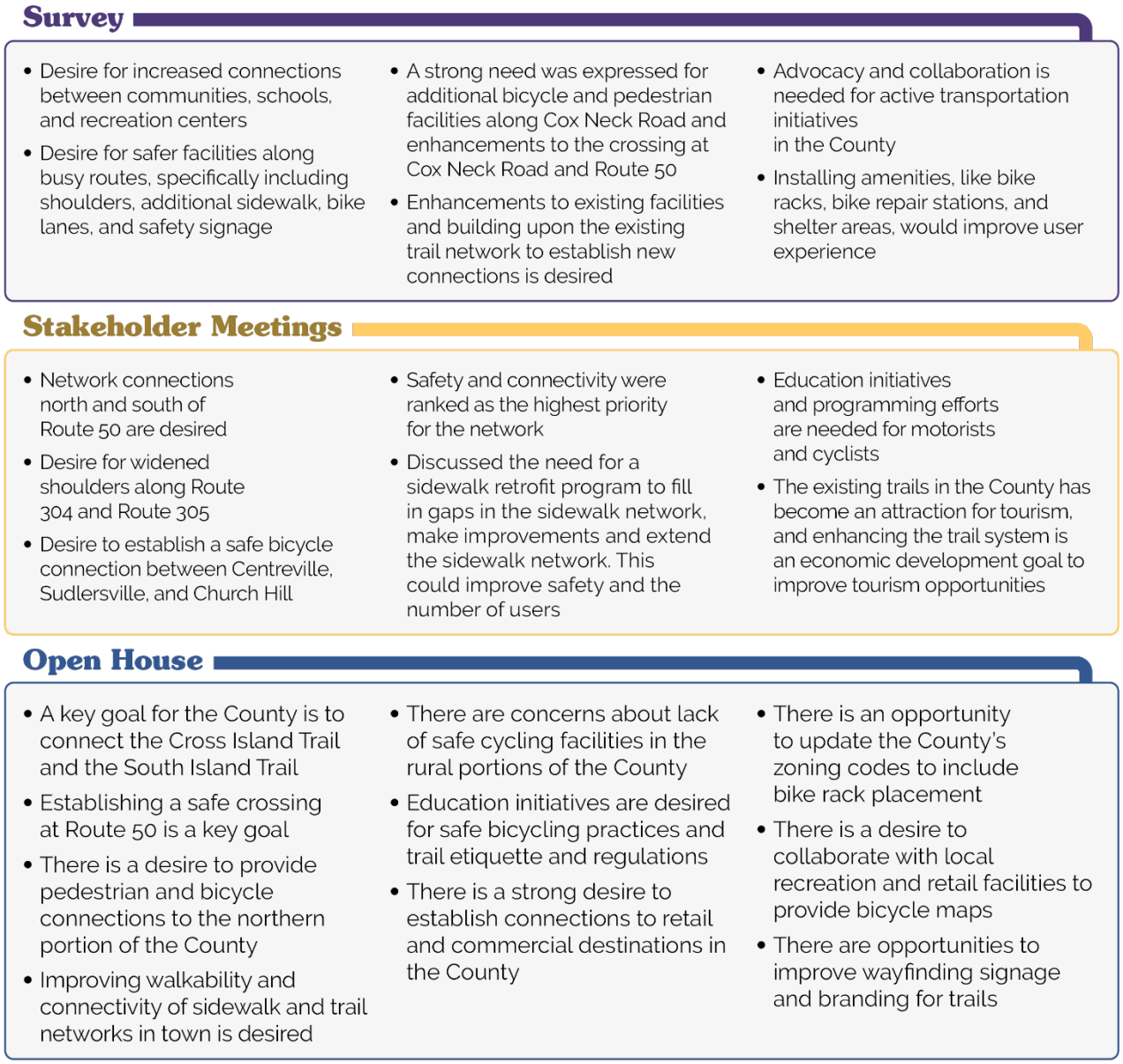


Figure 16. Key Takeaways from Stakeholder and Public Input

Recommended Routes

Careful review of the expressed community needs combined with a rigorous examination of the existing network and past planning efforts, allowed for the identification of critical network gaps. A plan to address these gaps, and further to demonstrate the viability of Countywide connectivity between incorporated towns, key location, and existing facilities developed into a network of recommended routes. The routes, developed using the aforementioned approach, are shown in **Figure 17** with corresponding project extents listed in **Table 2,** and represent a connected bicycle and pedestrian network for all users in Queen Anne's County.

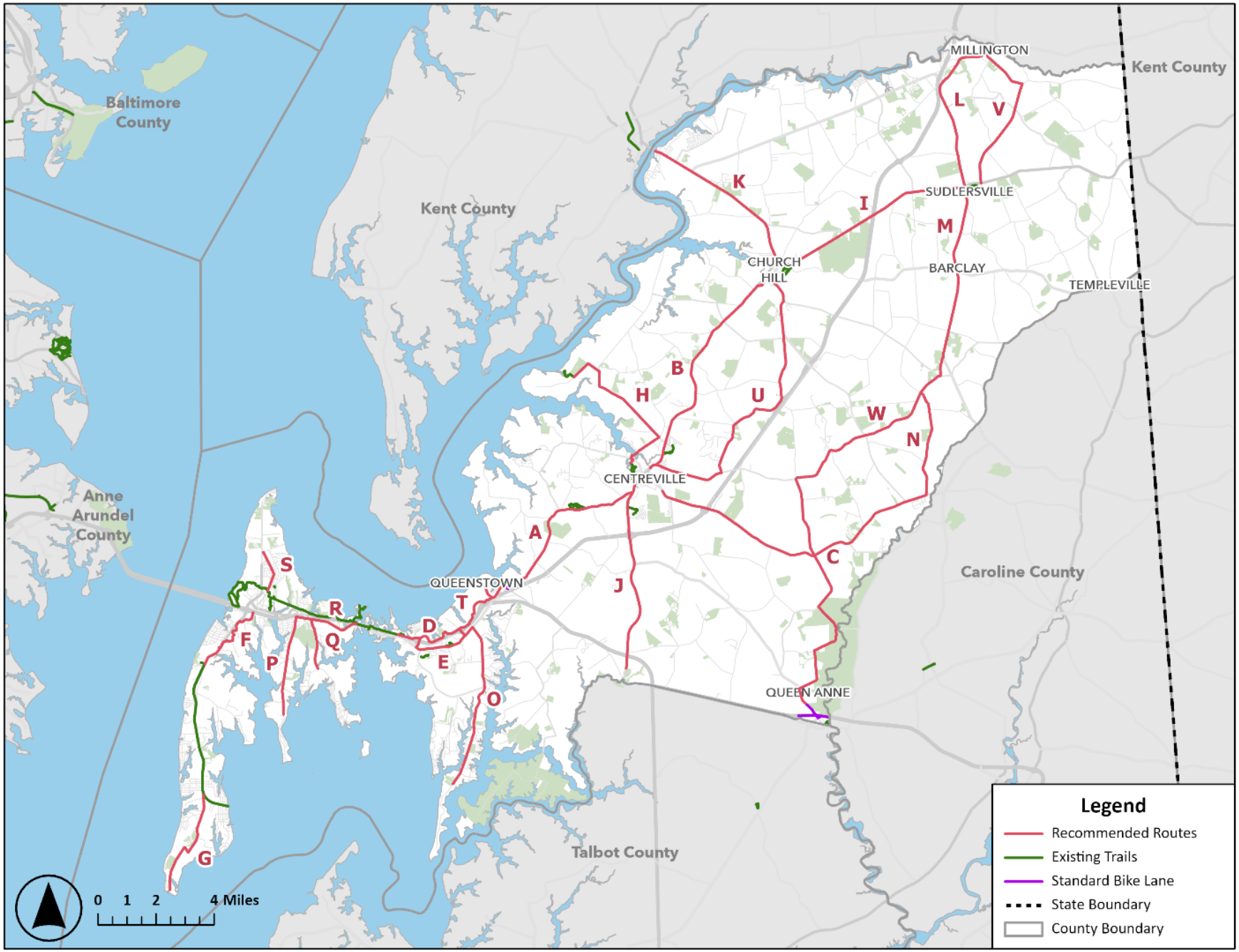


Figure 17. Recommended Routes

Table 2. Recommended Routes

Project ID	Start	End
A	Queenstown	Centreville
B	Centreville	Church Hill
C	Centreville	Queen Anne
D	Cross Island Trail	Queenstown
E	Cross Island Trail Extension	Grasonville
F	South Island Trail	North
G	South Island Trail	South
H	Centreville	Spaniard Neck
I	Church Hill	Sudlersville
J	Centreville	Chesapeake College
K	Church Hill	Kingstown
L	Sudlersville	Millington
M	Sudlersville	Barclay
N	Barclay	Ruthsburg
O	Grasonville	Bennett Point
P	Chester	Turkey Point
Q	Chester	Crab Alley Neck
R	Kent Narrows	Chester
S	Cross Island Trail	North
T	Cross Island Trail Extension	Queenstown
U	Centreville	Church Hill
V	Sudlersville	Millington
W	Barclay	Ruthsburg

PRIORITIZATION

Recommended routes were prioritized into top, middle, and low tiers, defined in **Figure 18**. The following section describes the location and attribute evaluation, also known as spatial analysis, conducted to prioritize routes and provides further details on the recommended routes.

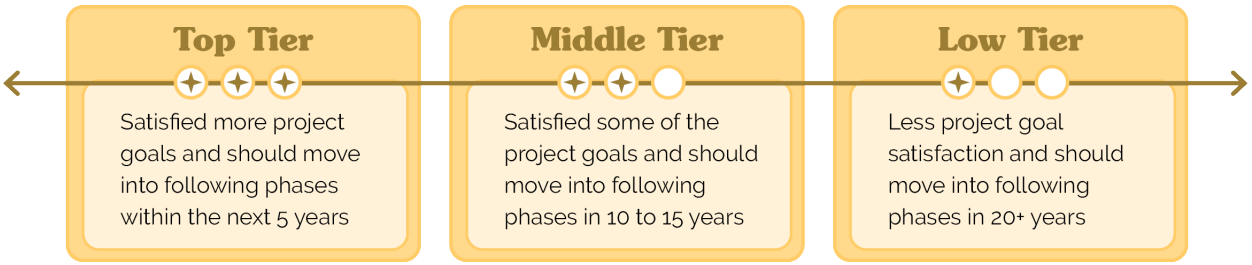


Figure 18. Project Prioritization Tier Definitions

Prioritization Criteria

Recommended routes were prioritized by calculating an individual project score according to how various measurable spatial criterion demonstrated satisfaction of project goals. Each project goal was assigned a percentage weight in scoring and the weighting of goals is reflective of a combination of public input, stakeholder priorities, and County priorities. **Table 3** shows the percentage weighting of goals and criteria associated with each goal.

Table 3. Goal Area Weighting and Criteria

Criteria by Project Goal	Percentage Weighting
Safety	**22%**
• **Non-Motorist Crash Data** – *historical (5-year) non-motorist crashes within a 100-ft buffer*	
• **Primary LTS –** *LTS of the majority of the proposed segment*	
Accessibility	**12%**
• **Incorporated Towns –** *incorporated towns within a ¼-mile buffer*	
• **Parks –** *local parks within a ½-mile buffer*	
• **Schools –** *schools and educational facilities within a ½-mile buffer*	
• **Commercial Land Use** – *parcels of commercial land use within ¼-mile buffer, as a proxy for activity centers and jobs*	
Connectivity	**40%**
• **Trails** – *existing trails within a ¼-mile buffer*	
• **Bike Lanes –** *existing bike lanes within a ¼-mile buffer*	
• **Sidewalks** – *existing sidewalks within a ¼-mile buffer*	

Criteria by Project Goal	Percentage Weighting
Equity	**4%**
• **Population with Poverty Status** – *census tracts with the top-2 categories of highest number of individuals with poverty status within a ½-mile buffer*	
• **Zero-Car Households** – *census tracts with the top-2 highest categories of quantity of zero-car households within a ½-mile buffer*	
• **Percent Minority Populations** – *census block groups with the top-2 highest categories of percentage of minority populations within a ½-mile buffer*	
• **Population** – *census block groups with the top-2 highest categories of population within a ½-mile buffer*	
Multimodal	**12%**
• **Bus Stops** – *bus stops within a ¼-mile buffer*	
• **Park & Ride –** *park & ride lots within a ¼-mile buffer*	
Health & Comfort	**10%**
• **Project Length** – *total estimated project length*	
County Priority	**Multiplier***

*Multiplier was used to reflect previous investments made by the County towards project implementation.

Results

Table 4, **Table 5**, and **Table 6** list the extents of each of the projects in the top, middle, and low tiers, respectively. Results of the prioritization of recommended routes into top, middle, and low tiers are shown in **Figure 19**. Details associated with each project are included in the following section, **Project Details**.

Table 4. Top Tier Projects

Project ID	Project Extents
A	Queenstown to Centreville
D	Cross Island Trail to Queenstown
E	Cross Island Trail Extension to Grasonville
F	South Island Trail Northern Extension
G	South Island Trail Southern Extension
I	Church Hill to Sudlersville
R	Kent Narrows to Chester
T	Cross Island Trail Extension to Queenstown

Table 5. Middle Tier Projects

Project ID	Project Extents
B	Centreville to Church Hill
C	Centreville to Queen Anne
H	Centreville to Spaniard Neck
J	Centerville to Chesapeake College
K	Church Hill to Kingstown
L	Sudlersville to Millington
M	Sudlersville to Barclay
S	Cross Island Trail Northern Connection

Table 6. Low Tier Projects

Project ID	Project Extents
N	Barclay to Ruthsburg
O	Grasonville to Bennett Point
P	Chester to Turkey Point
Q	Chester to Crab Alley Neck
U	Centreville to Church Hill
V	Sudlersville to Millington
W	Barclay to Ruthsburg

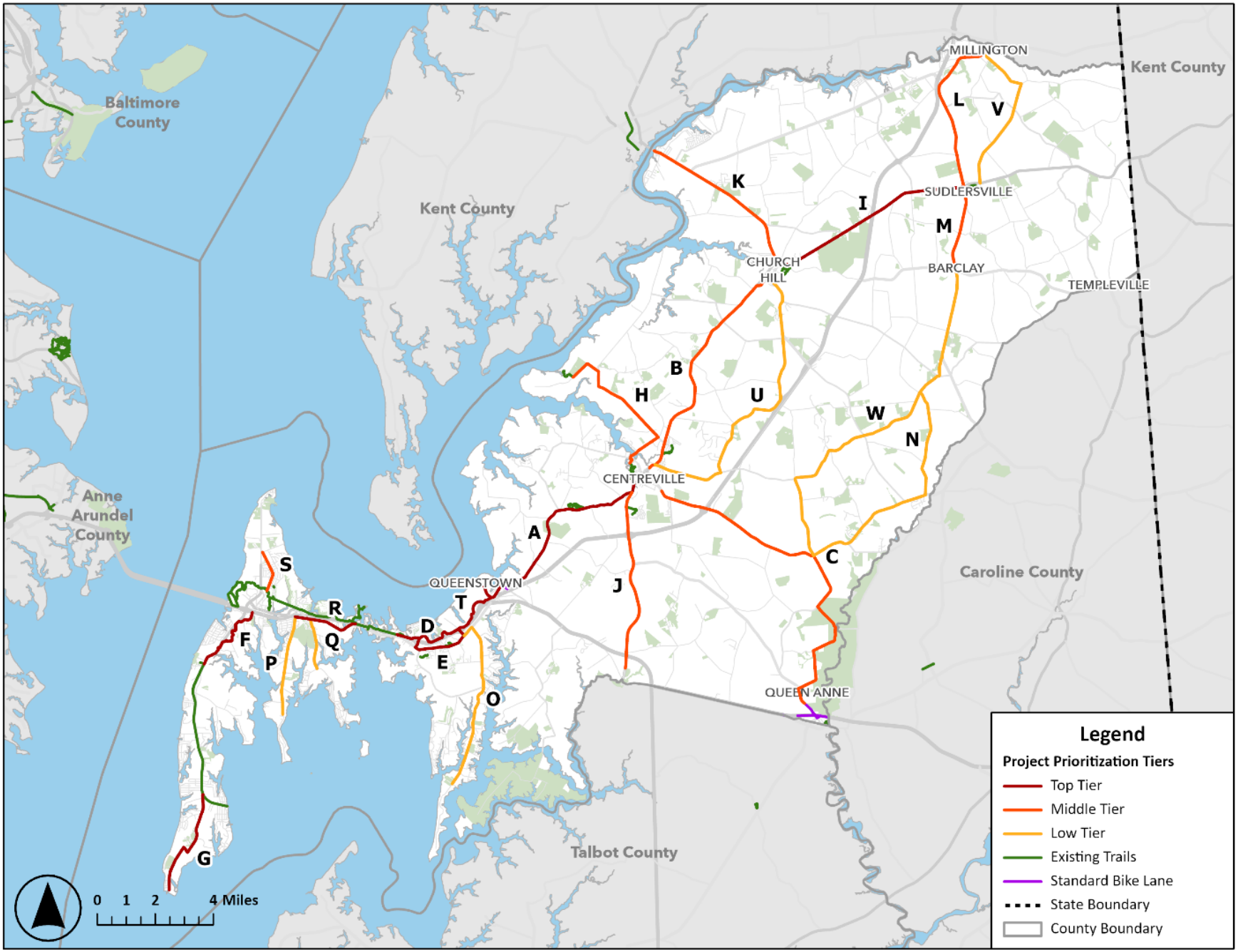


Figure 19. Project Prioritization Tiers

Project Details

Project ID Project Extents **Project Tier**

Location of Project in County

Project Map

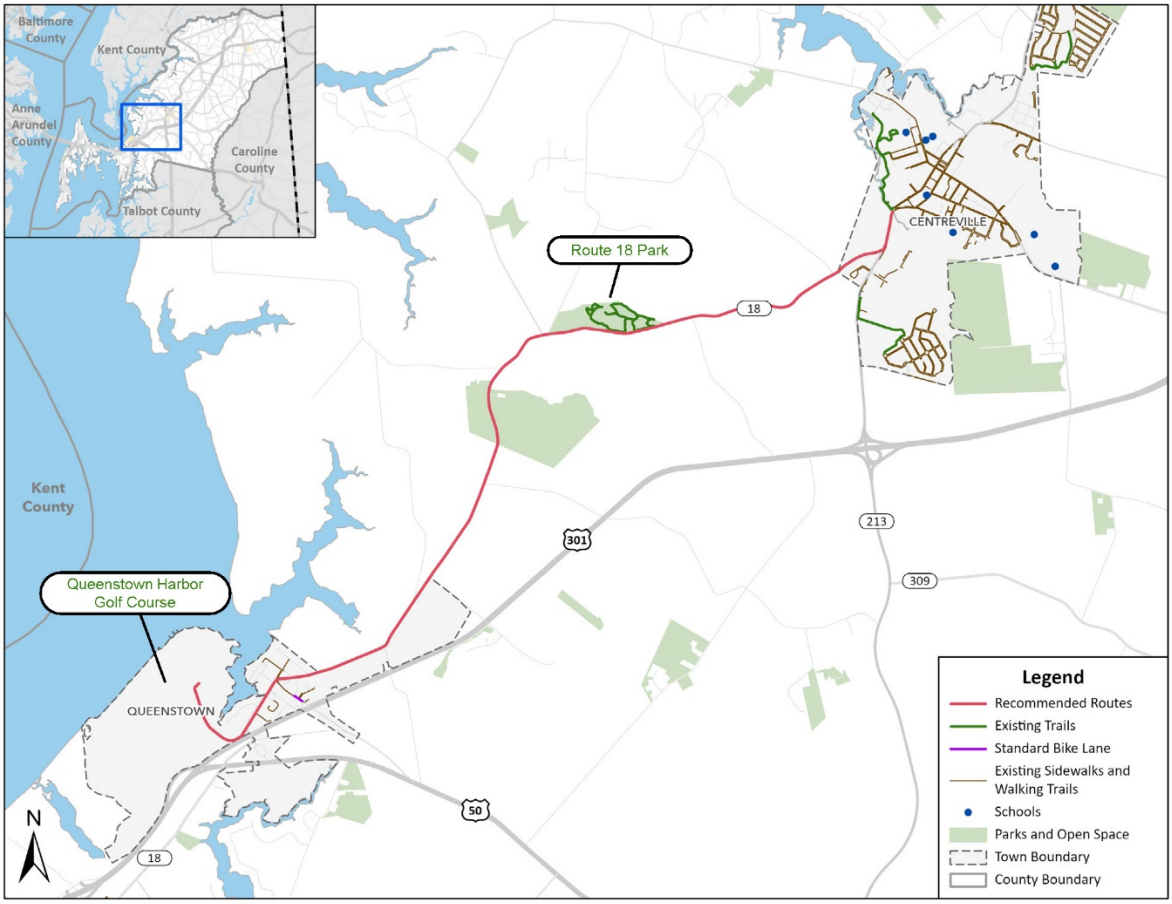
Opportunities	Destinations the project serves.						
Approximate Length	Approximate length of project in miles.						
Primary LTS	Primarily LTS of roadways associated with the project.						
Potential Constraints	Potential constraints associated with the project.						
Public Support		Public Workshop		Public Survey		Comprehensive Plan	

Safety	Accessibility	Connectivity
Goal Score*	Goal Score*	Goal Score*
Equity	**Multimodal**	**Health & Comfort**
Goal Score*	Goal Score*	Goal Score*

*Goal scores reflect how well each project achieved each goal in comparison to all other projects.

Project A Queenstown to Centreville

Top Tier



Opportunities	Downtown Queenstown, Downtown Centreville, Route 18 Park, Queenstown Harbor Golf Course, Centreville Schools					
Approximate Length	7.7 miles					
Primary LTS	LTS 4					
Potential Constraints	Right-of-way, Utilities, Grade					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●●●○

Accessibility ●●●●○

Connectivity ●●●●●

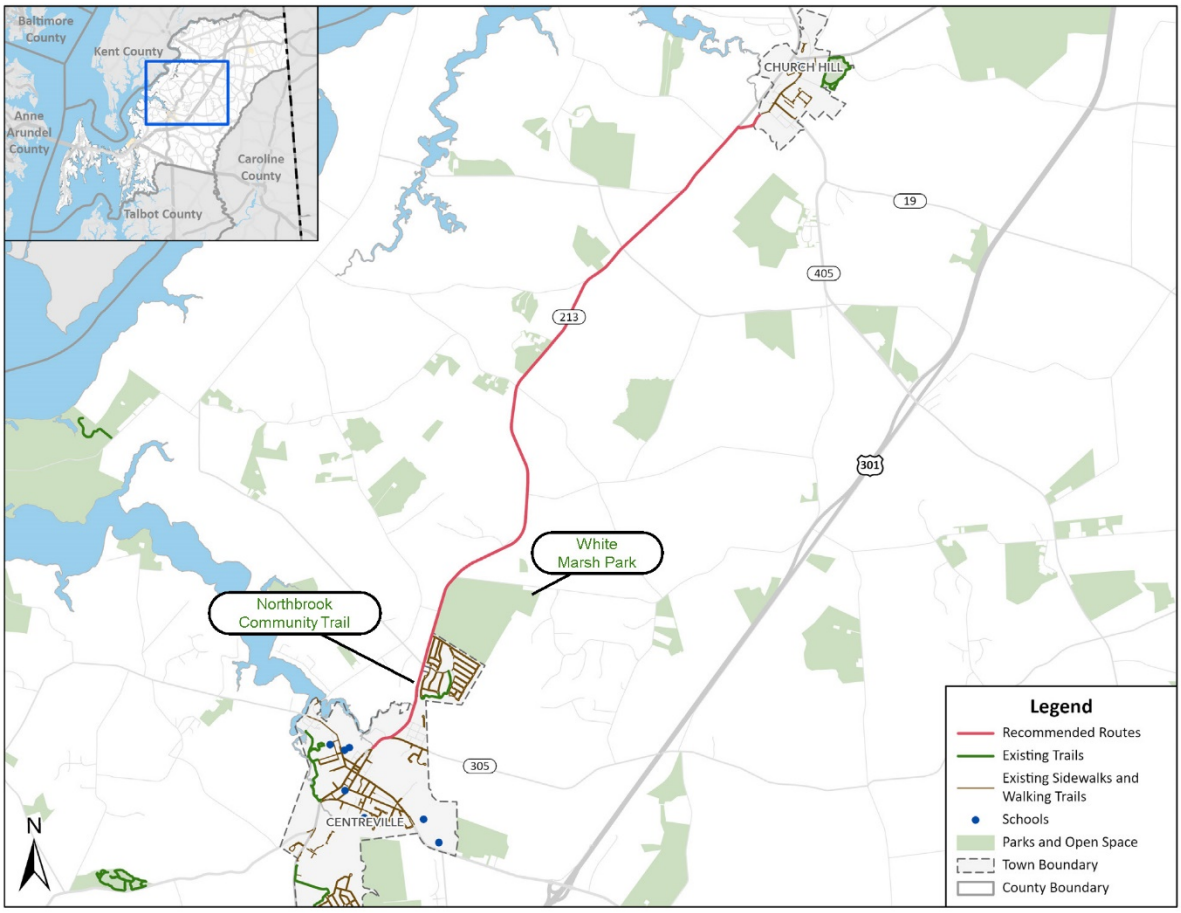
Equity ●●○○○

Multimodal ●○○○○

Health & Comfort ●●●○○

Project B Centreville to Church Hill

Middle Tier



Opportunities	Downtown Centreville, Downtown Church Hill, Northbrook Community Trail, White Marsh Park, Church Hill/Centreville Schools					
Approximate Length	8.1 miles					
Primary LTS	LTS 4					
Potential Constraints	Right-of-way, Grade					
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●●●●○

Connectivity ●●●○○

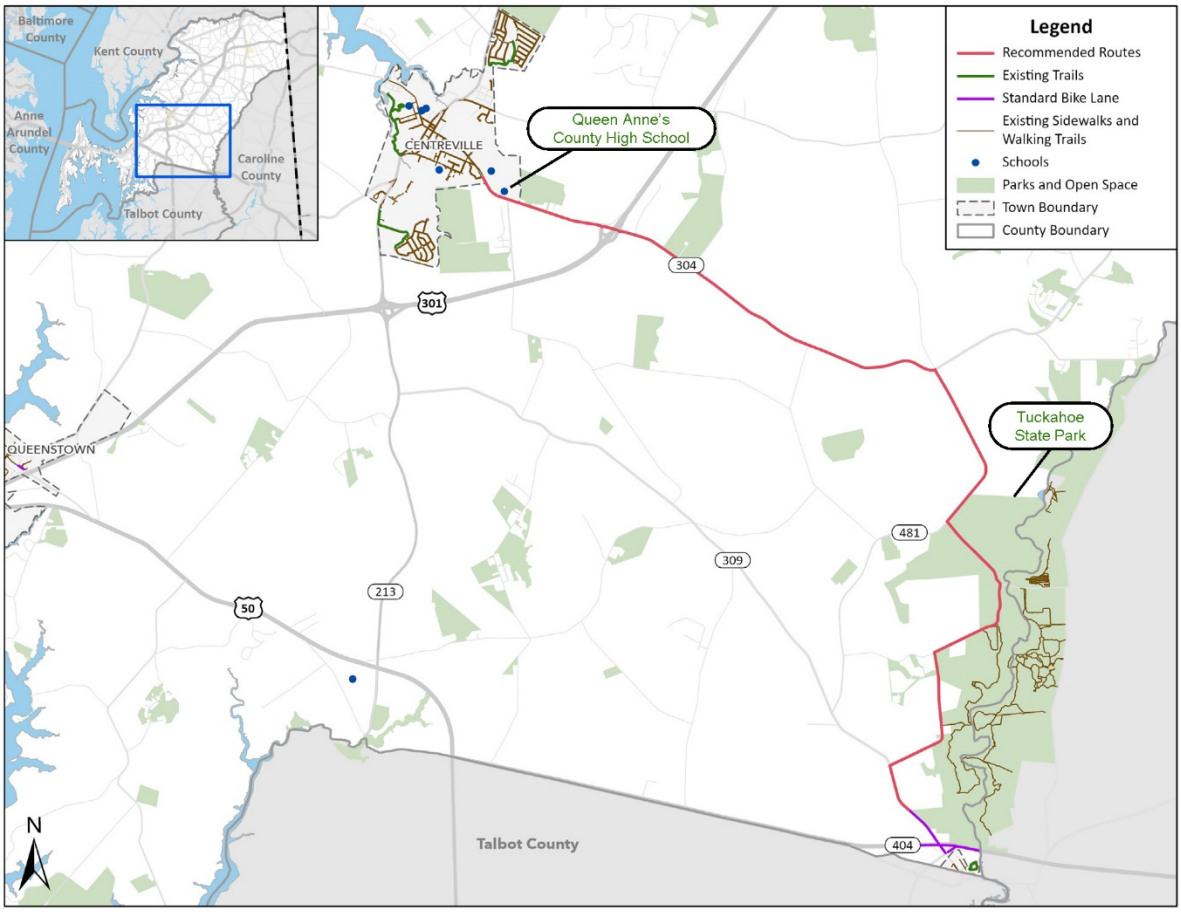
Equity ●●●●○

Multimodal ●○○○○

Health & Comfort ●●●○○

Project C Centreville to Queen Anne

Middle Tier



Opportunities	Downtown Centreville, Downtown Queen Anne, Tuckahoe State Park, Queen Anne's County High School					
Approximate Length	12.7 miles					
Primary LTS	LTS 4					
Potential Constraints	Right-of-way					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●●●○○

Connectivity ●○○○○

Equity ●●○○○

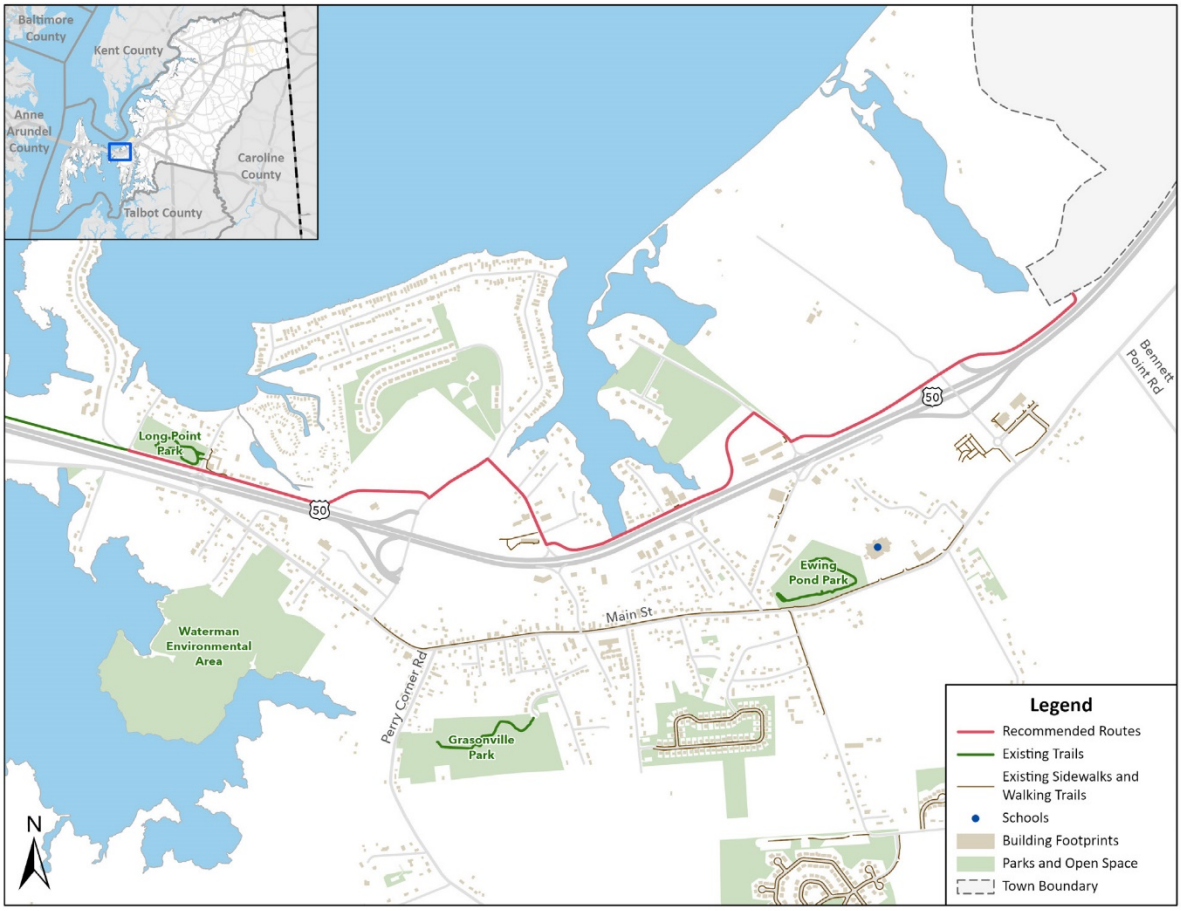
Multimodal ●●●○○

Health & Comfort ●●●●●

Project D

Cross Island Trail to Queenstown

Top Tier



Opportunities	Downtown Queenstown, Cross Island Trail (Current Eastern End), Long Point Park					
Approximate Length	3.0 miles					
Primary LTS	LTS 1					
Potential Constraints	Right-of-way					
Public Support	✓	Public Workshop	✓	Public Survey		Comprehensive Plan

Safety ●○○○○

Accessibility ●●●○○

Connectivity ●●●●●

Equity ●●○○○

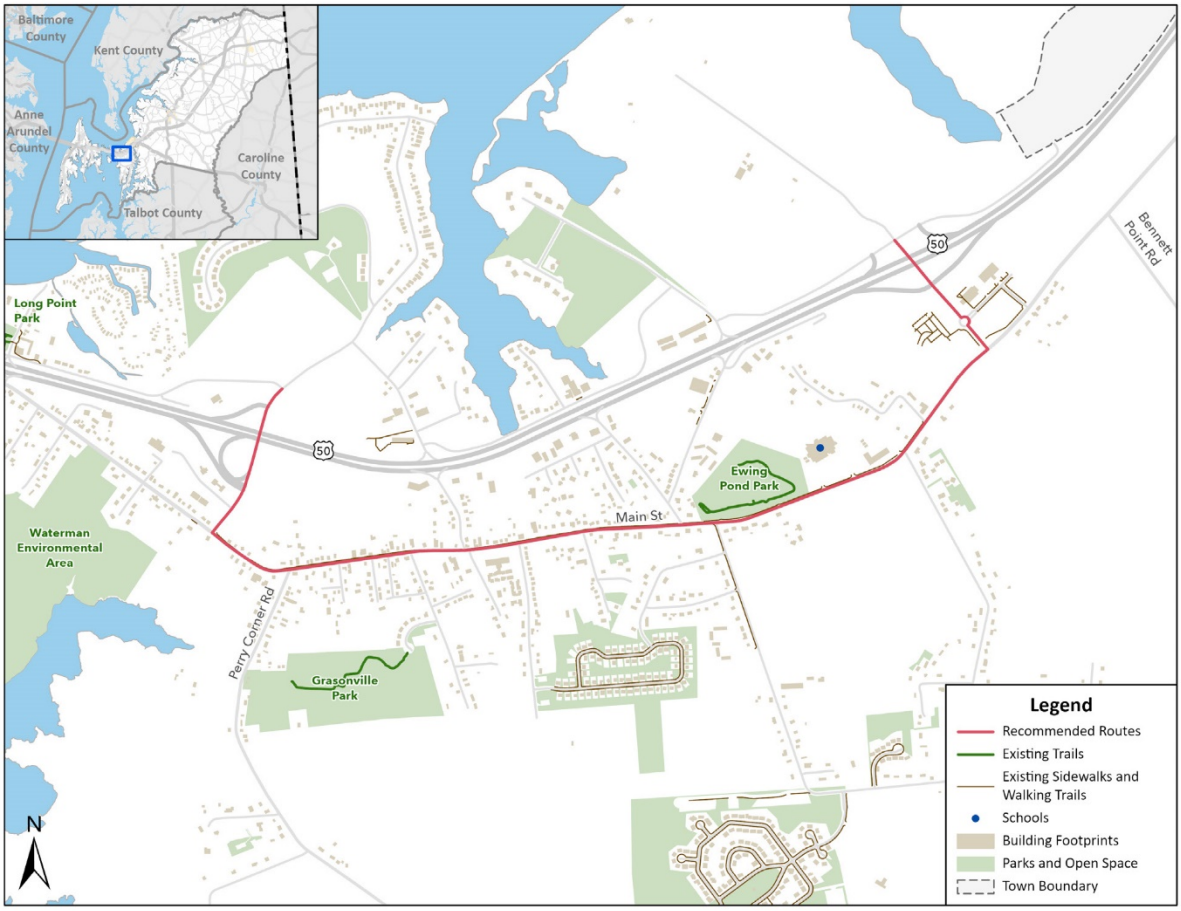
Multimodal ●○○○○

Health & Comfort ●○○○○

Project E

Cross Island Trail Extension to Grasonville

Top Tier



Opportunities	Ewing Pond Park, Grasonville Park, Grasonville Neighborhood, Medical Facility?					
Approximate Length	2.5 miles					
Primary LTS	LTS 2					
Potential Constraints	Right-of-way					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●○○○

Accessibility ●●●○○

Connectivity ●●●●●

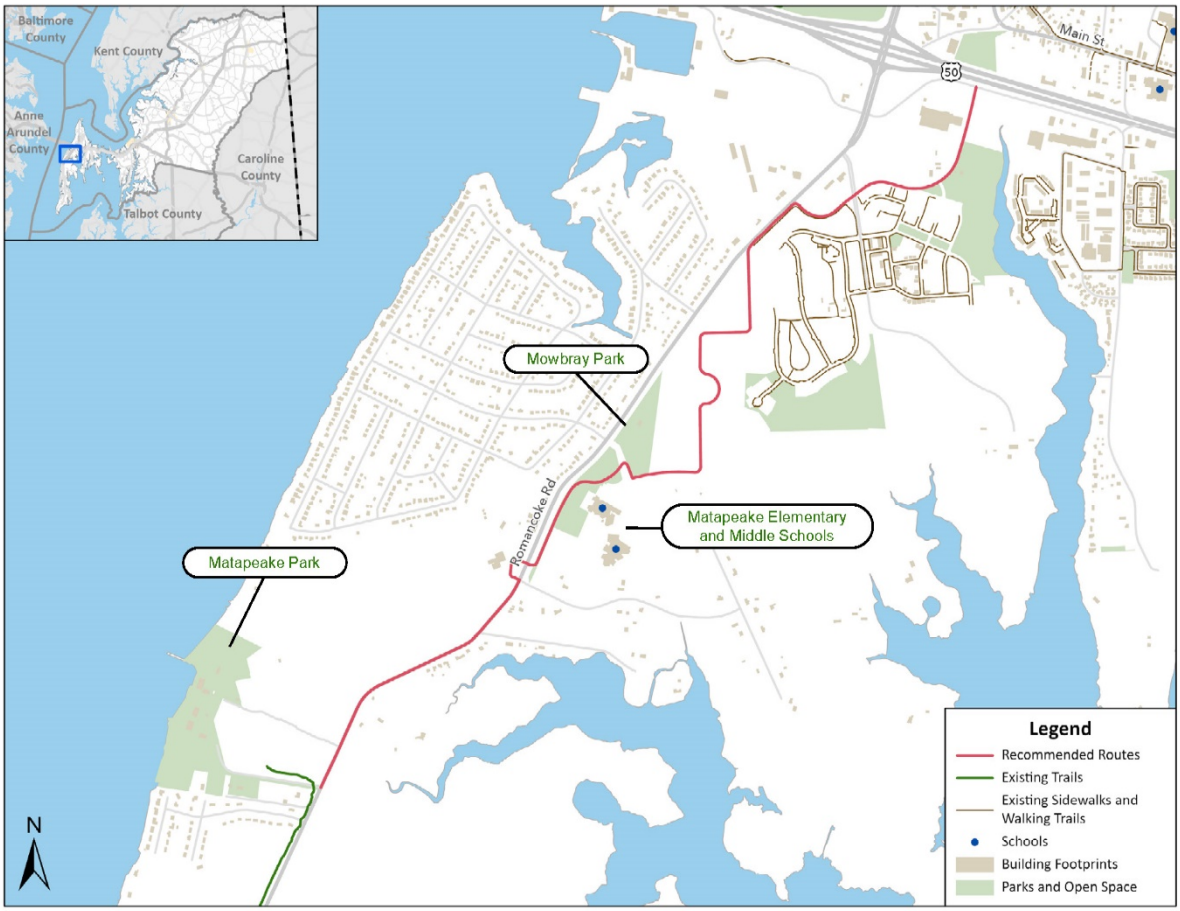
Equity ●●○○○

Multimodal ●○○○○

Health & Comfort ●○○○○

Project F South Island Trail Northern Extension

Top Tier



Opportunities	South Island Trail, Mowbray Park, Matapeake Park, Matapeake Elementary School, Matapeake Middle School					
Approximate Length	3.0 miles					
Primary LTS	LTS 0 (Off-Street)					
Potential Constraints	Needs further investigation					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety

Accessibility

Connectivity

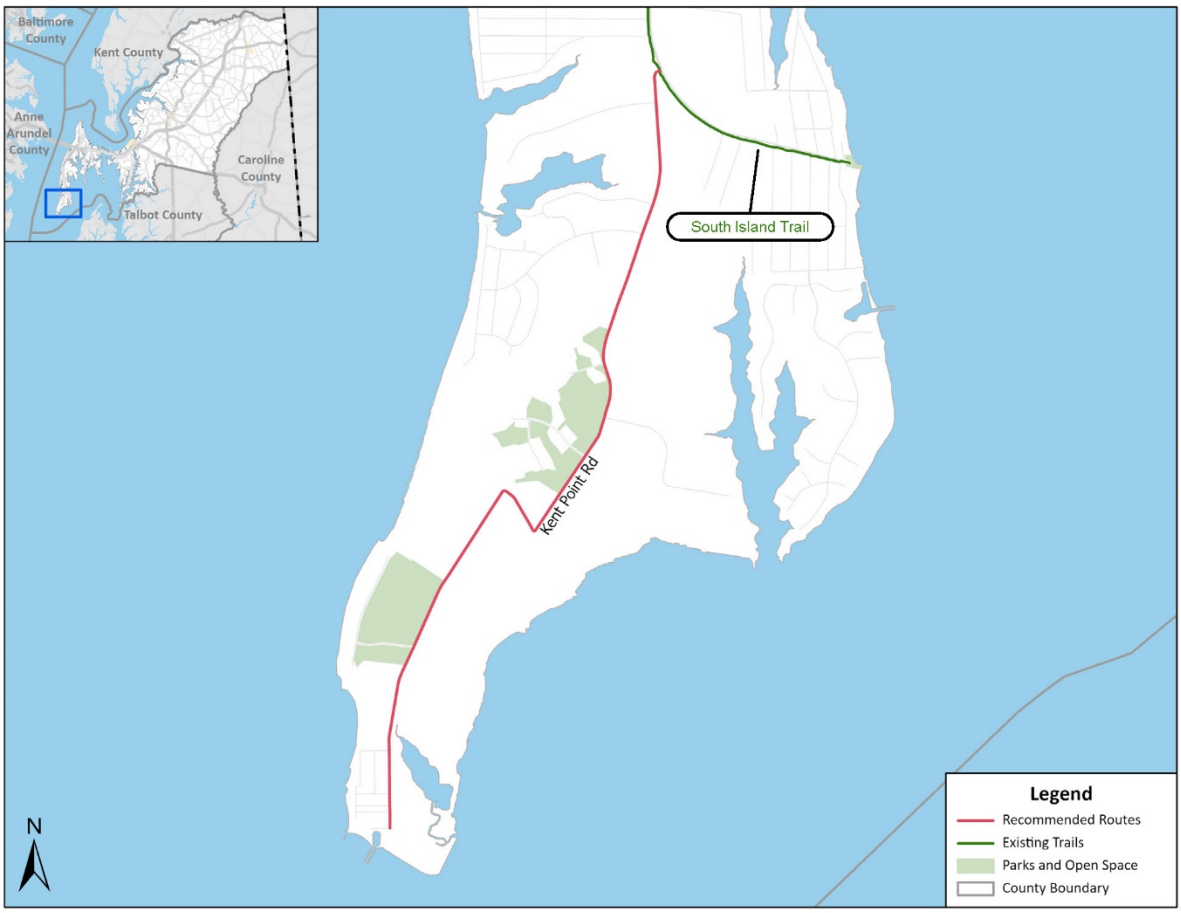
Equity

Multimodal

Health & Comfort

Project G South Island Trail Southern Extension

Top Tier



Opportunities	South Island Trail, Local Neighborhoods on Southern Kent Island						
Approximate Length	4.0 miles						
Primary LTS	LTS 1						
Potential Constraints	Right-of-way, Utilities						
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan	

Safety ●○○○○

Accessibility ●○○○○

Connectivity ●●●○○

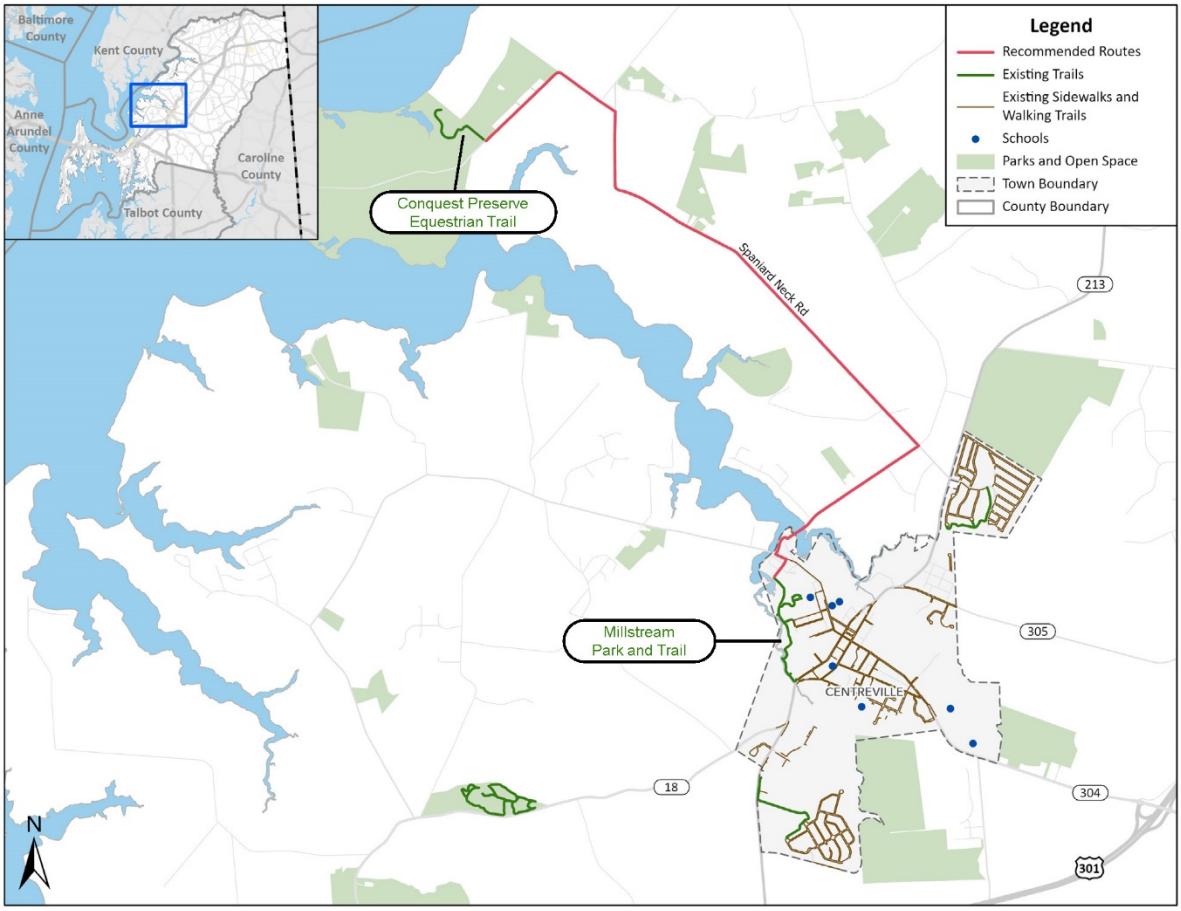
Equity ●○○○○

Multimodal ●○○○○

Health & Comfort ●●○○○

Project H Centreville to Spaniard Neck

Middle Tier



Opportunities	Millstream Park and Trail, Conquest Preserve Equestrian Trail, Conquest Beach, Downtown Centreville, Centreville Schools						
Approximate Length	5.9 miles						
Primary LTS	LTS 2						
Potential Constraints	Right-of-way, Utilities						
Public Support	✓	Public Workshop		Public Survey	✓	Comprehensive Plan	

Safety ●●○○○

Accessibility ●●●○○

Connectivity ●●●●●

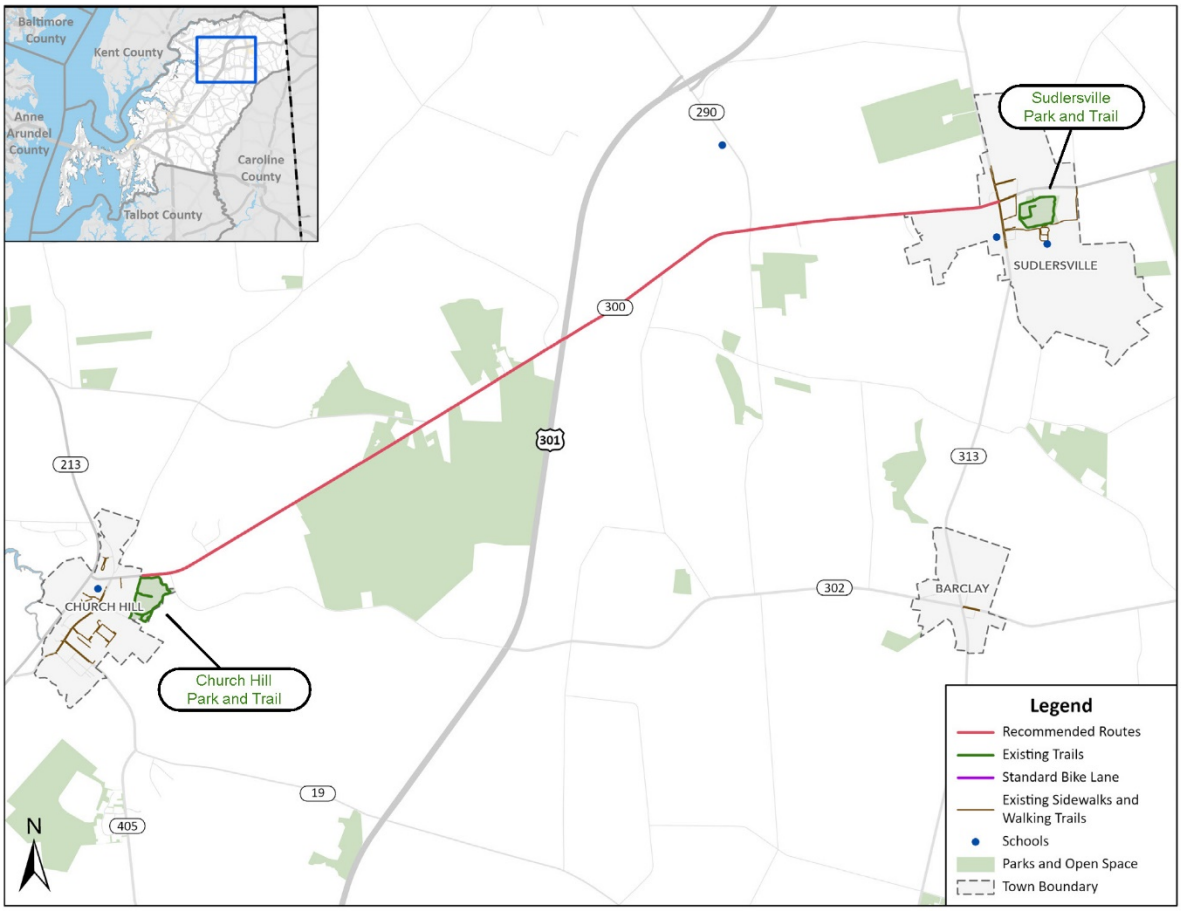
Equity ●●○○○

Multimodal ●○○○○

Health & Comfort ●●○○○

Project I Church Hill to Sudlersville

Top Tier



Opportunities	Downtown Church Hill, Church Hill Park and Trail, Downtown Sudlersville, Sudlersville Park and Trail					
Approximate Length	6.9 miles					
Primary LTS	LTS 4					
Potential Constraints	US-301 Crossing					
Public Support	✓	Public Workshop		Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●●●●○

Connectivity ●●●●●

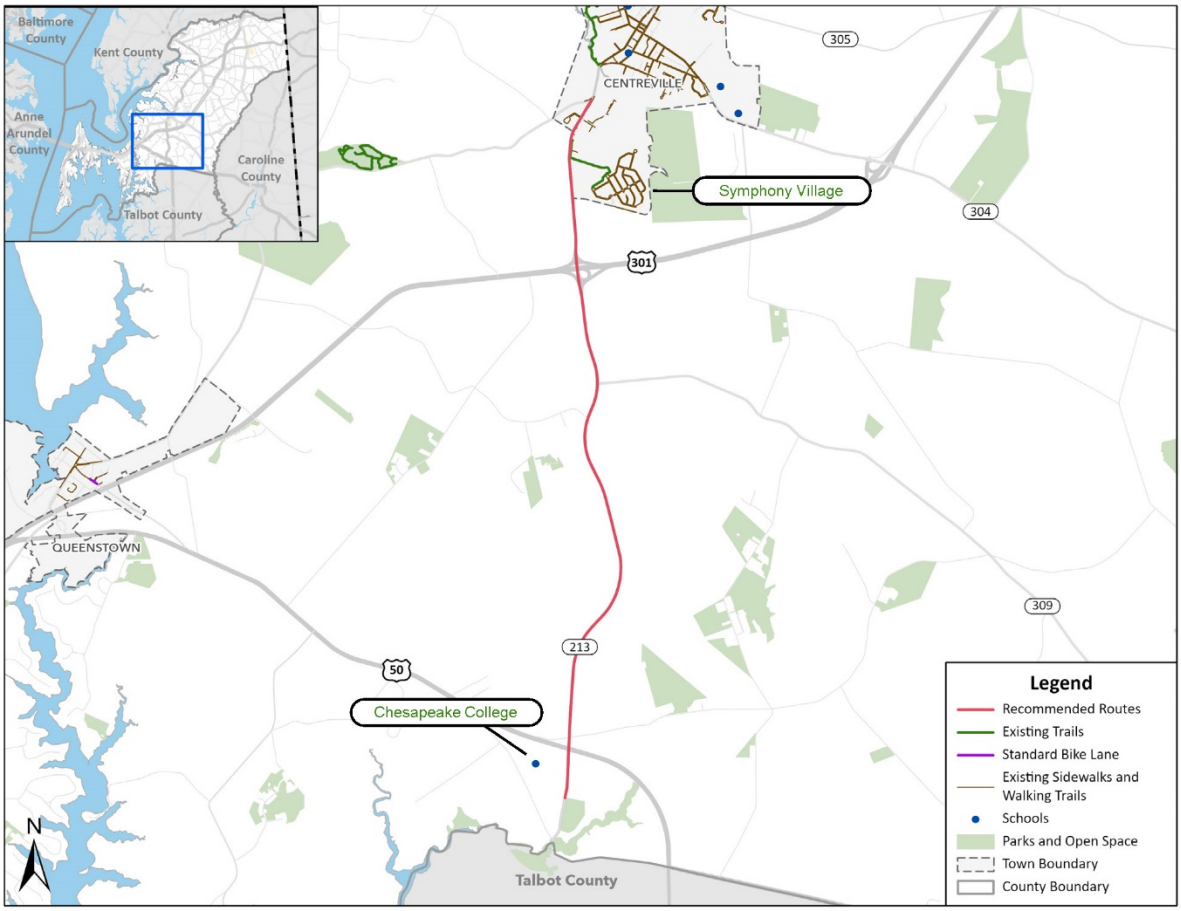
Equity ●○○○○

Multimodal ●●●○○

Health & Comfort ●●●○○

Project J Centreville to Chesapeake College

Middle Tier



Opportunities	Downtown Centreville, Centreville Schools, Symphony Village Neighborhood, Chesapeake College					
Approximate Length	6.3 miles					
Primary LTS	LTS 4					
Potential Constraints	US-50 Bridge Crossing					
Public Support	✓	Public Workshop		Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●●○○○

Connectivity ●●●○○

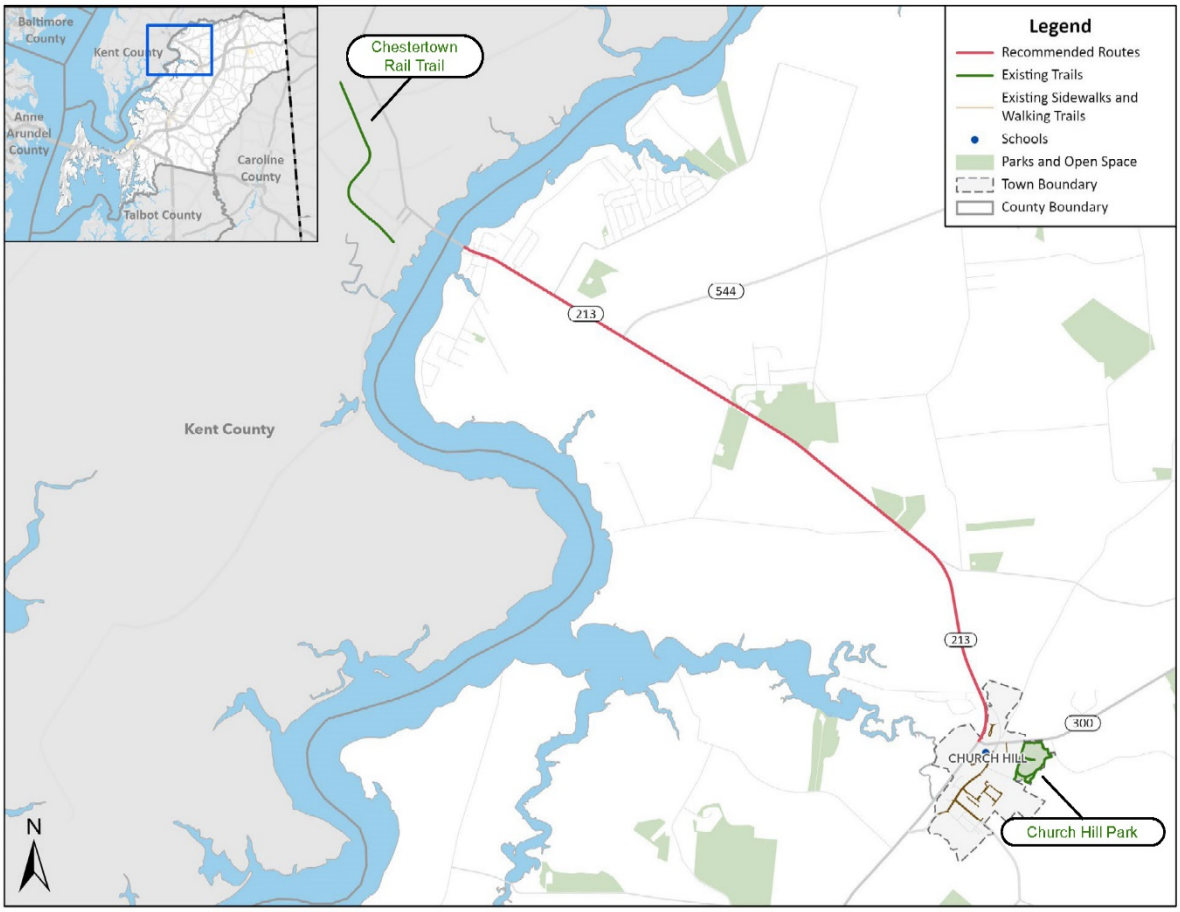
Equity ●●○○○

Multimodal ●●●○○

Health & Comfort ●●●○○

Project K Church Hill to Kingstown

Middle Tier



Opportunities	Downtown Church Hill, Church Hill Park, Downtown Kingstown, Downtown Chestertown, Chestertown Rail Trail					
Approximate Length	6.1 miles					
Primary LTS	LTS 4					
Potential Constraints	Needs further investigation					
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan

Safety ●●●●○

Accessibility ●●●○○

Connectivity ●●●○○

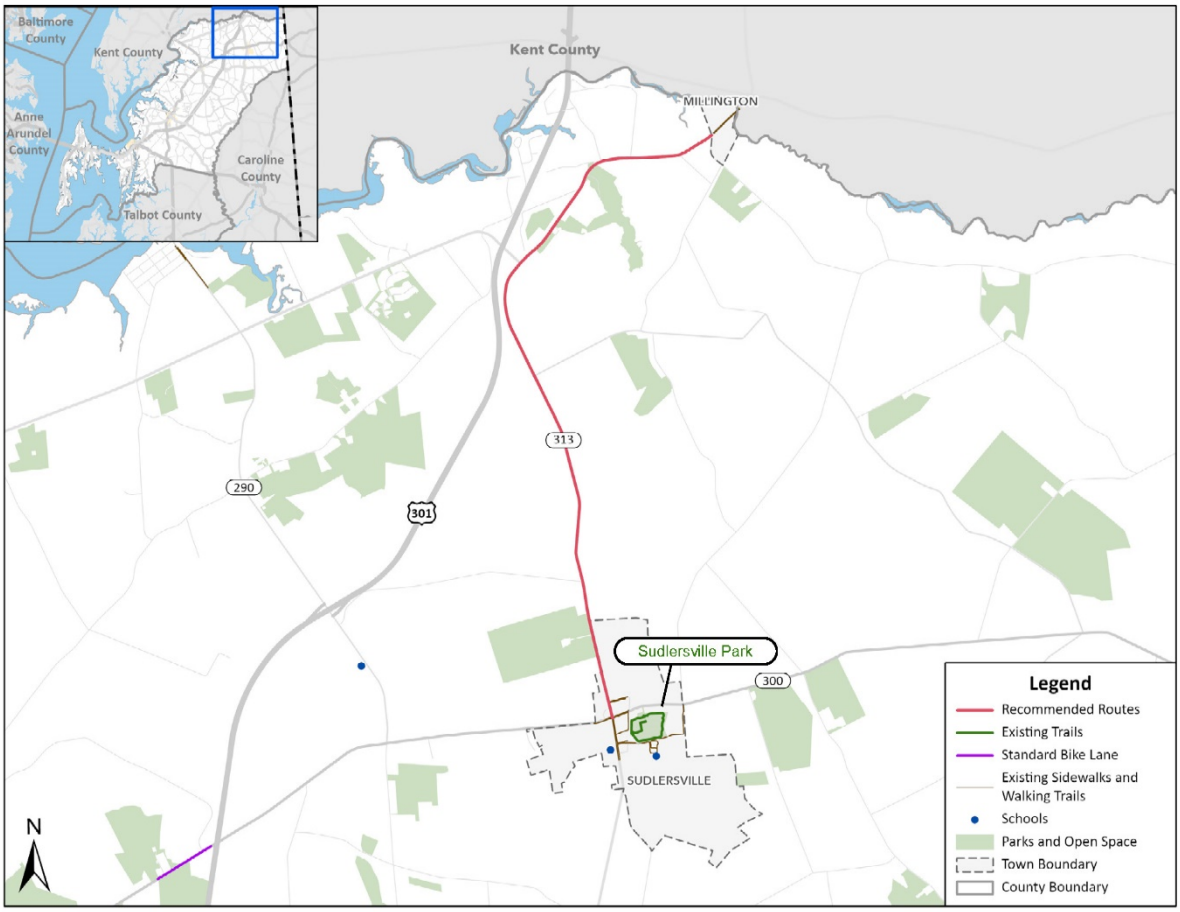
Equity ●○○○○

Multimodal ●●○○○

Health & Comfort ●●○○○

Project L Sudlersville to Millington

Middle Tier



Opportunities	Downtown Sudlersville, Sudlersville Park and Trail, Downtown Millington						
Approximate Length	5.8 miles						
Primary LTS	LTS 4						
Potential Constraints	Needs further investigation						
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan	

Safety ●●●○○

Accessibility ●●●●○

Connectivity ●●●○○

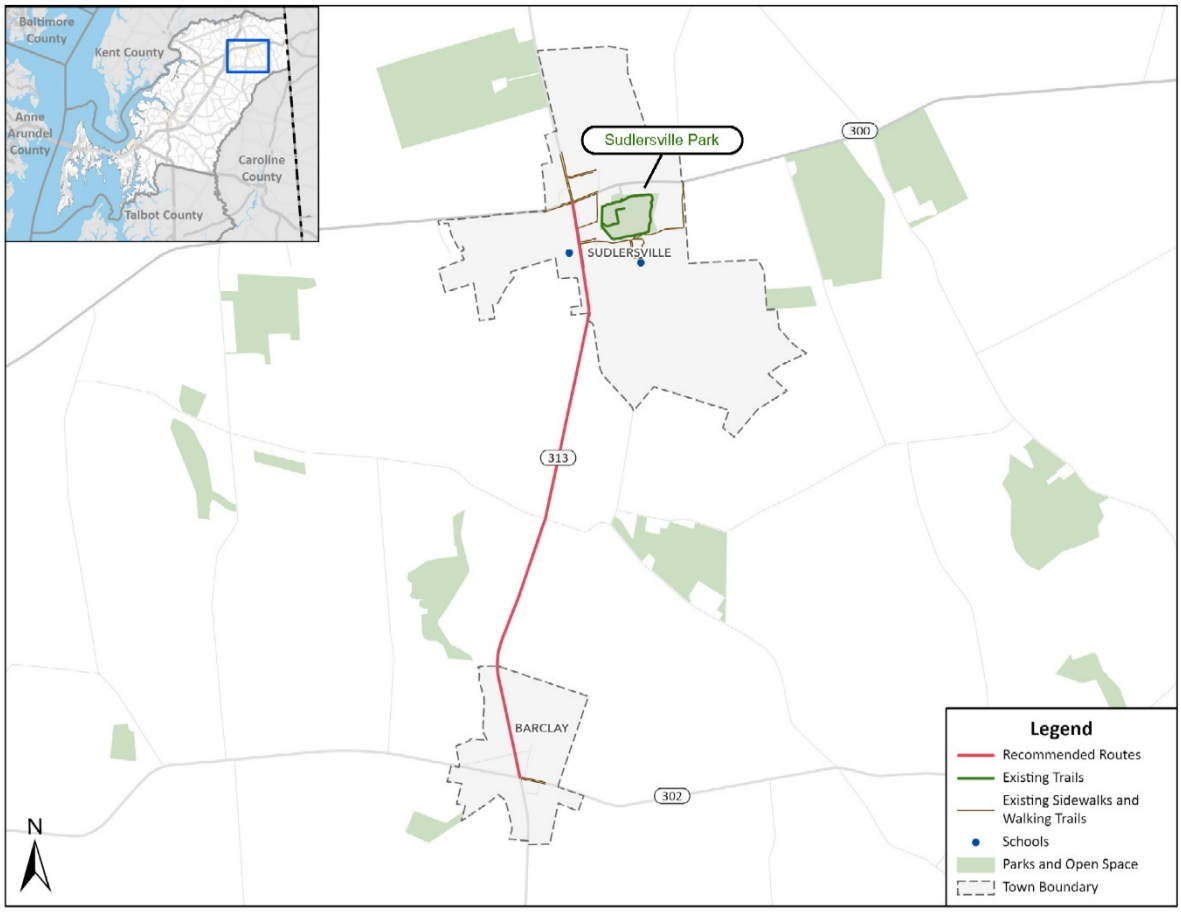
Equity ●○○○○

Multimodal ●○○○○

Health & Comfort ●●○○○

Project M Sudlersville to Barclay

Middle Tier



Opportunities	Downtown Sudlersville, Sudlersville Park and Trail, Downtown Barclay						
Approximate Length	3.0 miles						
Primary LTS	LTS 4						
Potential Constraints	Needs further investigation						
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan	

Safety ●●●○○

Accessibility ●●●●○

Connectivity ●●●○○

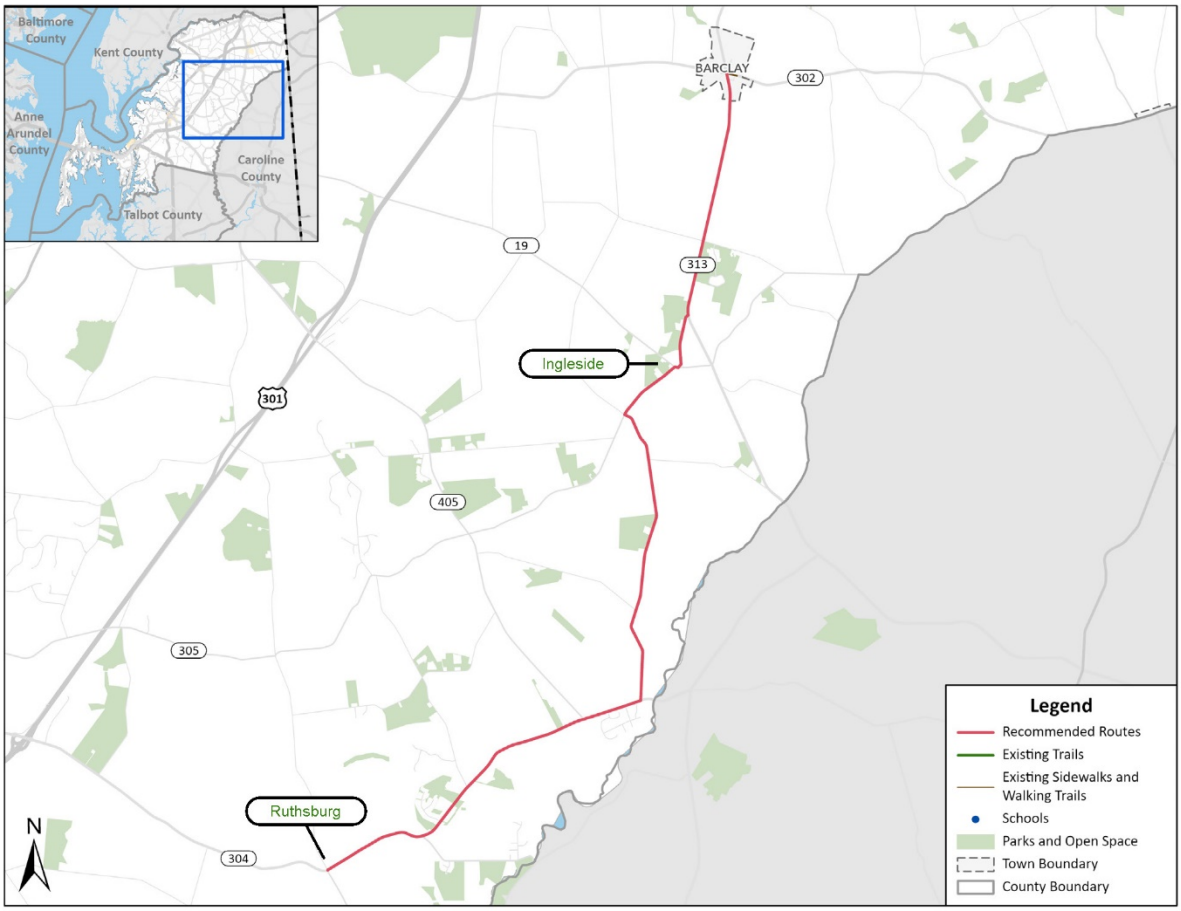
Equity ●○○○○

Multimodal ●○○○○

Health & Comfort ●○○○○

Project N Barclay to Ruthsburg

Low Tier



Opportunities	Downtown Barclay, Downtown Ruthsburg, Ingleside						
Approximate Length	12.9 miles						
Primary LTS	LTS 4						
Potential Constraints	Right-of-way						
Public Support		Public Workshop		Public Survey	✓	Comprehensive Plan	

Safety ●●●○○

Accessibility ●●○○○

Connectivity ●○○○○

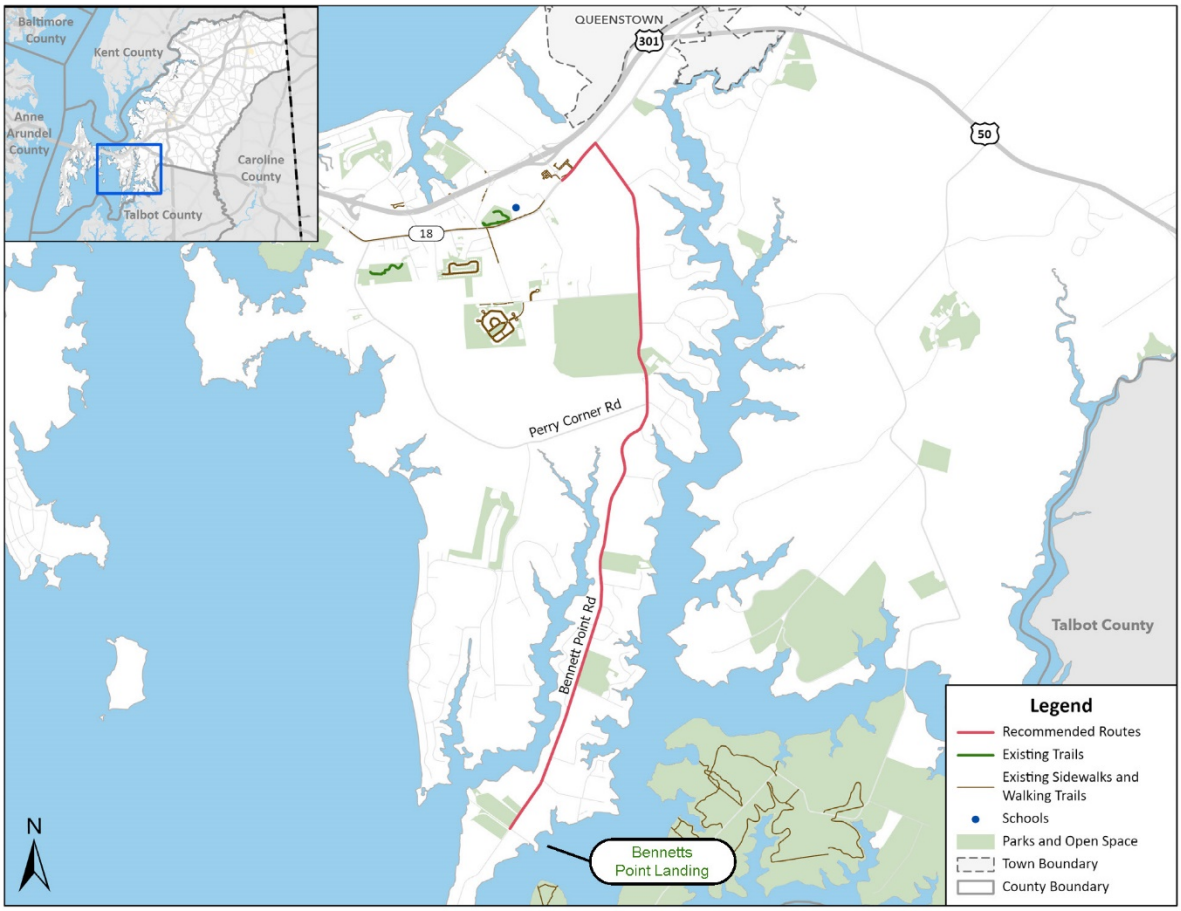
Equity ●●○○○

Multimodal ●○○○○

Health & Comfort ●●●●●

Project O Grasonville to Bennett Point

Low Tier



Opportunities	Bennetts Point Landing, Local Neighborhoods, Downtown Grasonville					
Approximate Length	6.2 miles					
Primary LTS	LTS 2					
Potential Constraints	Utilities					
Public Support		Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●○○○

Accessibility ●●○○○

Connectivity ●○○○○

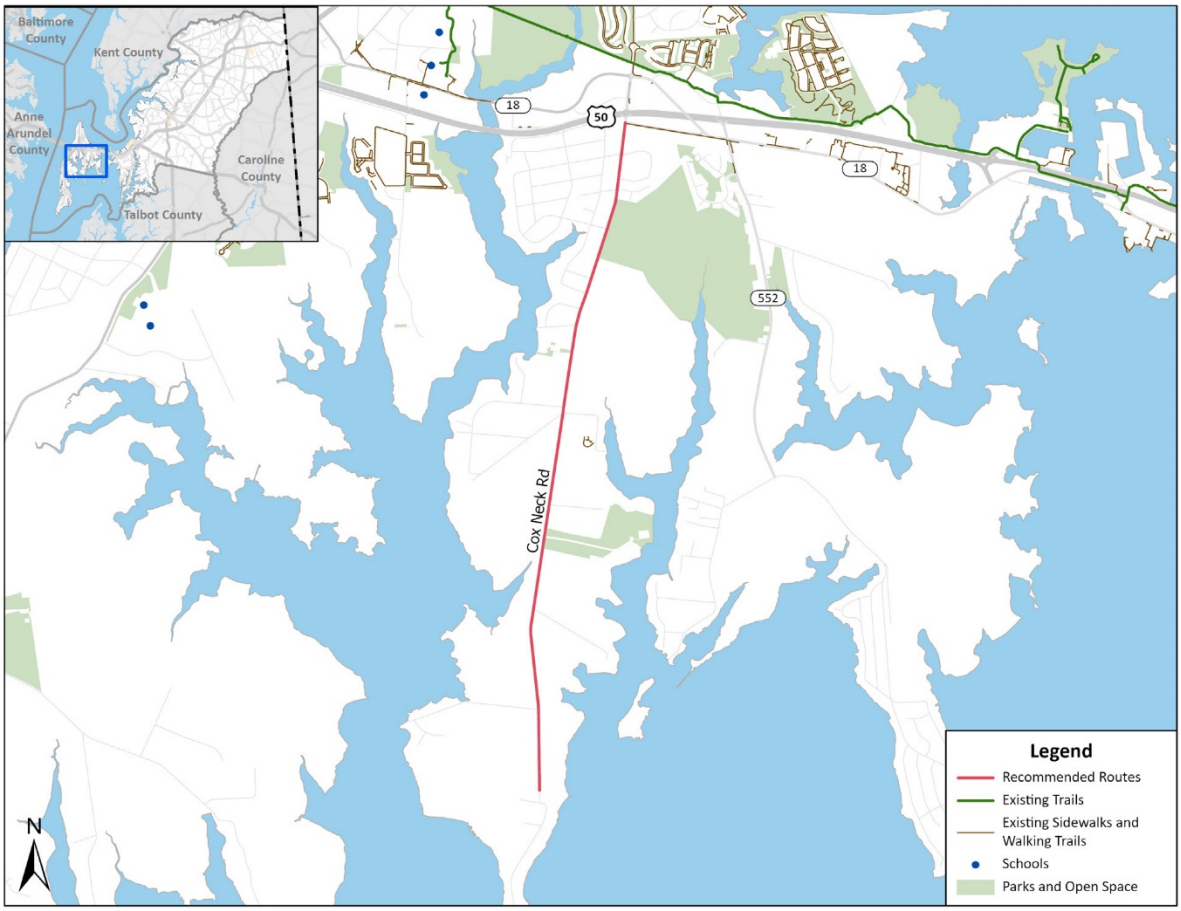
Equity ●●●○○

Multimodal ●○○○○

Health & Comfort ●●○○○

Project P Chester to Turkey Point

Low Tier



Opportunities	Downtown Chester, Local Neighborhoods, Turkey Point					
Approximate Length	3.4 miles					
Primary LTS	LTS 4					
Potential Constraints	Right-of-way, Utilities					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●○○○○

Connectivity ●○○○○

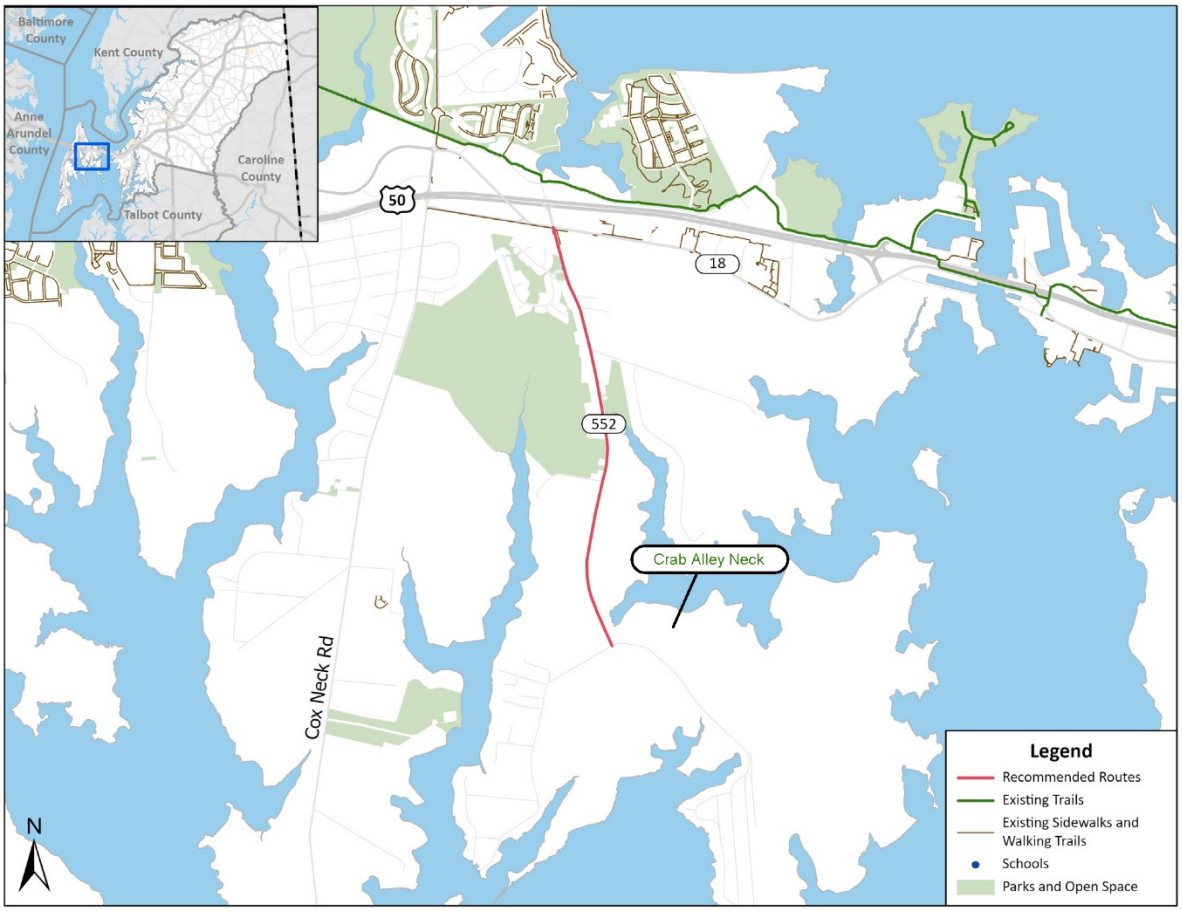
Equity ●●●●○

Multimodal ●●●○○

Health & Comfort ●○○○○

Project Q Chester to Crab Alley Neck

Low Tier



Opportunities	Downtown Chester, Local Neighborhoods, Crab Alley Neck					
Approximate Length	1.8 miles					
Primary LTS	LTS 4					
Potential Constraints	Utilities					
Public Support		Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●●○○

Accessibility ●○○○○

Connectivity ●●●○○

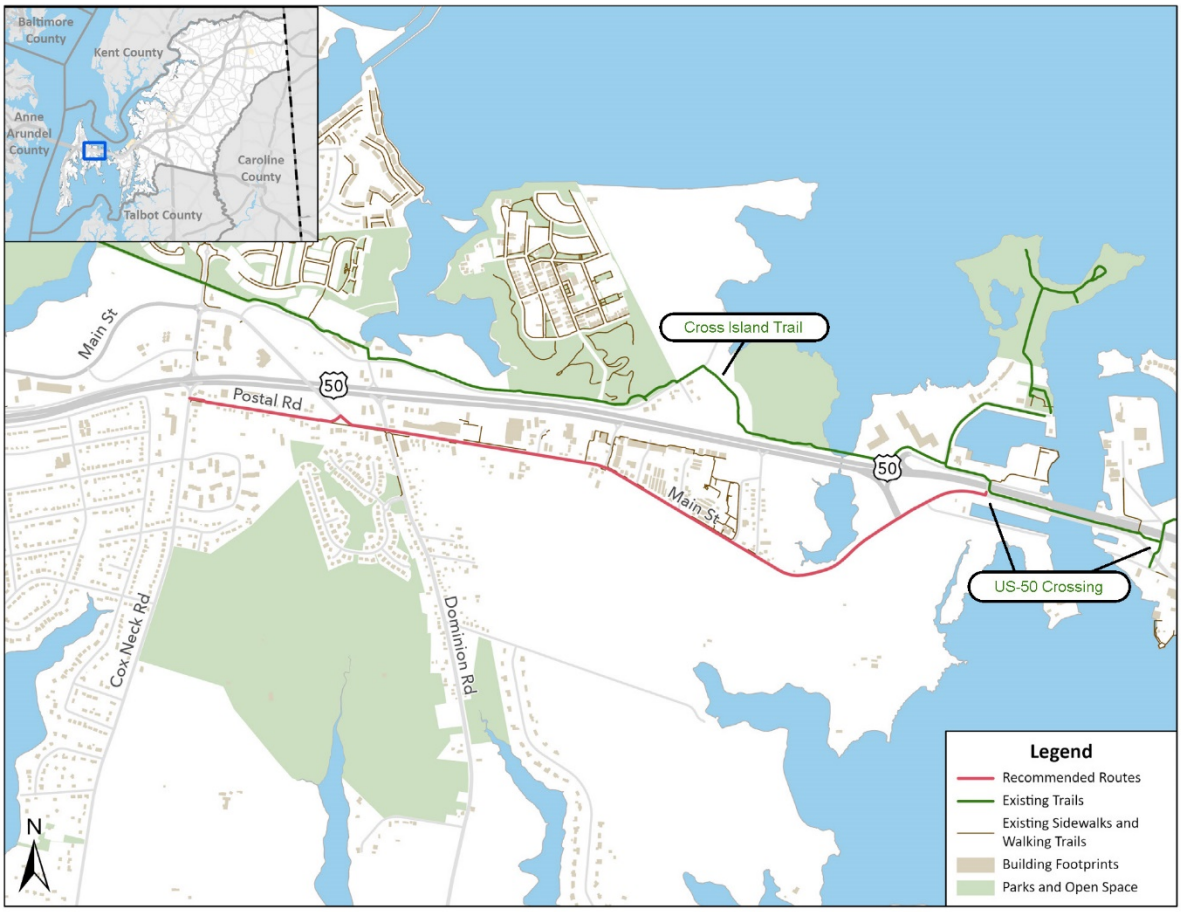
Equity ●●●○○

Multimodal ●○○○○

Health & Comfort ●○○○○

Project R Kent Narrows to Chester

Top Tier



Opportunities	Downtown Chester, Kent Narrows, Cross Island Trail, US-50 Crossing					
Approximate Length	2.3 miles					
Primary LTS	LTS 4					
Potential Constraints	Right-of-way, Utilities					
Public Support	✓	Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●●●●●

Accessibility ●●○○○

Connectivity ●●●○○

Equity ●●●●●

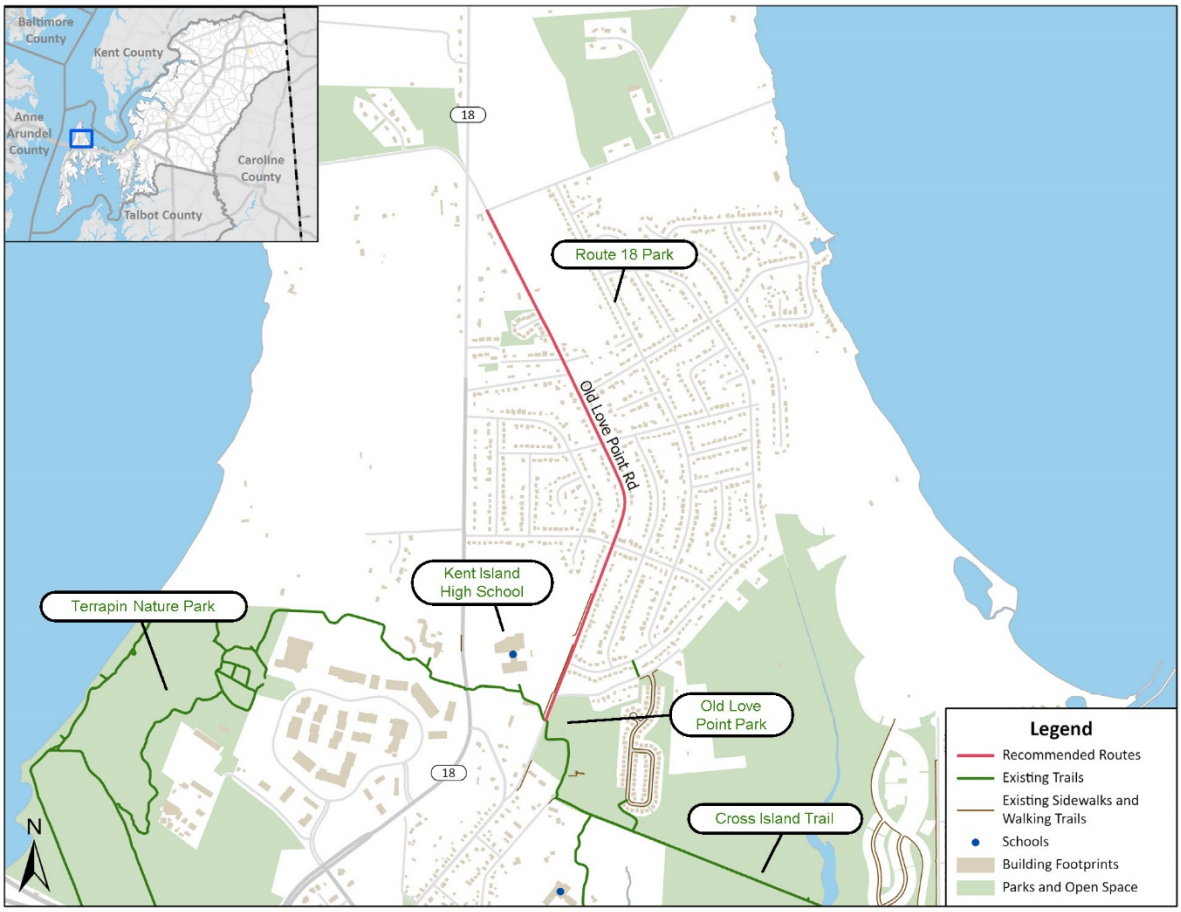
Multimodal ●●●●○

Health & Comfort ●○○○○

Project S

Cross Island Trail Northern Extension

Middle Tier



Opportunities	Kent Island High School, Old Love Point Park, Cross Island Trail, Local Neighborhoods, Terrapin Nature Park (via Cross Island Trail)					
Approximate Length	1.5 miles					
Primary LTS	LTS 1					
Potential Constraints	Right-of-way, Grade					
Public Support		Public Workshop	✓	Public Survey	✓	Comprehensive Plan

Safety ●○○○○

Accessibility ●●○○○

Connectivity ●●●●●

Equity ●●○○○

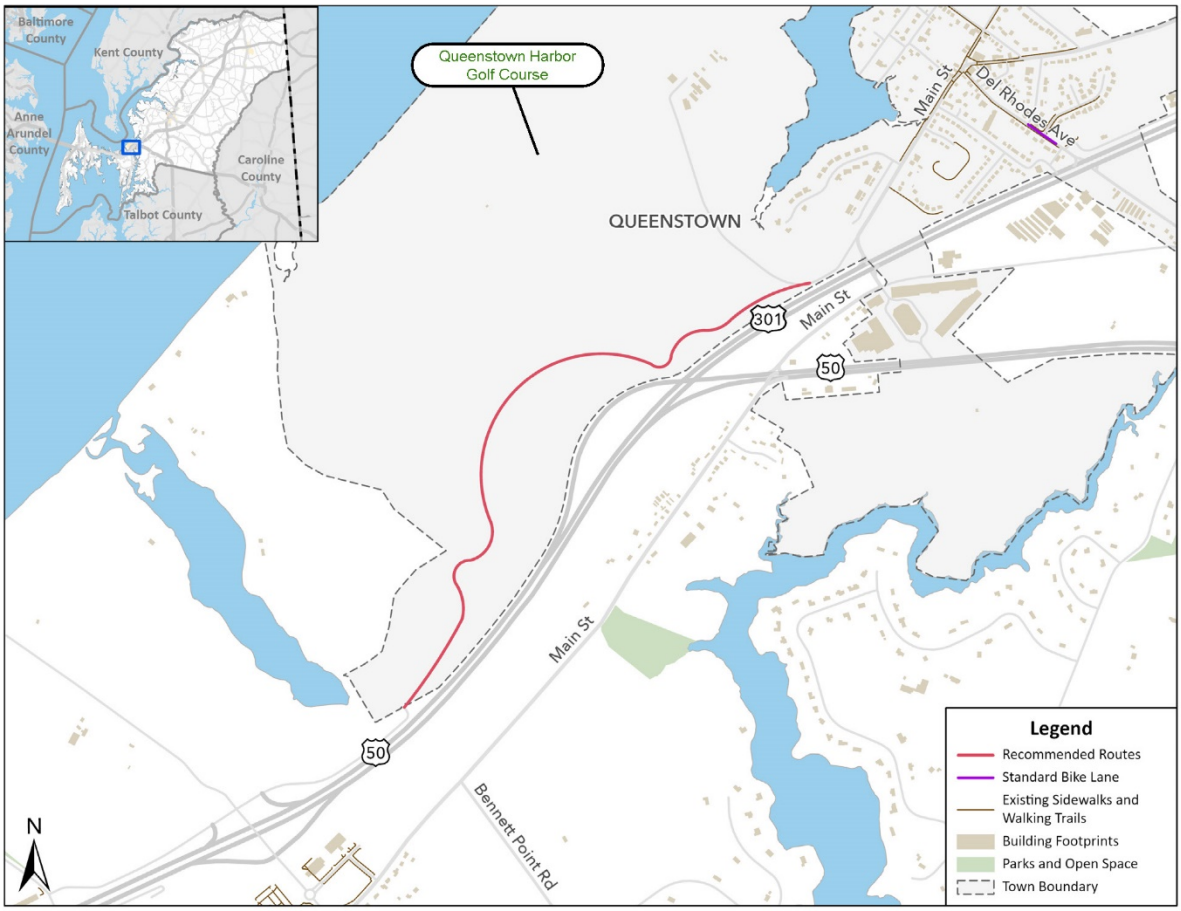
Multimodal ●○○○○

Health & Comfort ●○○○○

Project T

Cross Island Trail Extension to Queenstown

Top Tier



Opportunities	Downtown Queenstown, Cross Island Trail Extension (Future)					
Approximate Length	1.5 miles					
Primary LTS	LTS 0 (Off-Street)					
Potential Constraints	Right-of-way, Property Impacts					
Public Support	✓	Public Workshop	✓	Public Survey		Comprehensive Plan

Safety

Accessibility

Connectivity

Equity

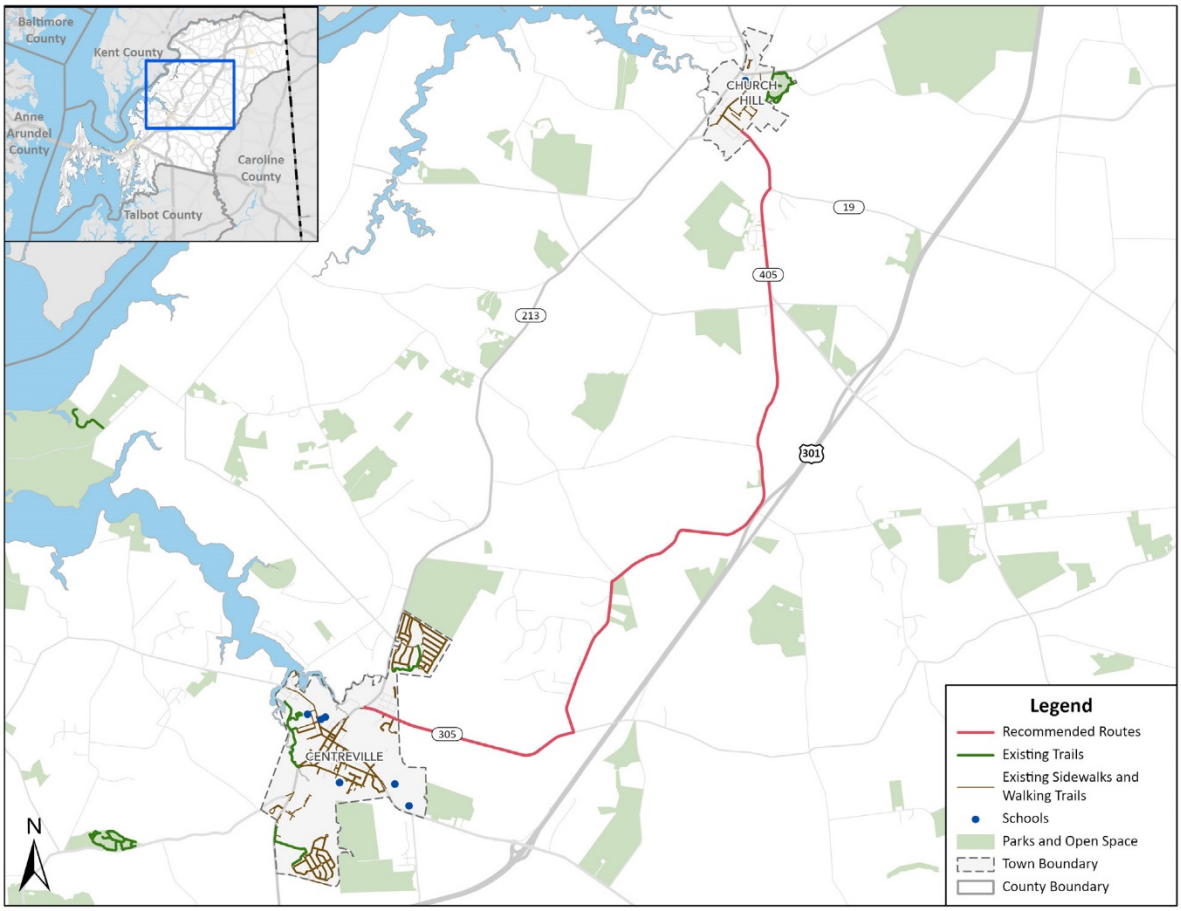
Multimodal

Health & Comfort

Project U

Centreville to Church Hill (Alternative)

Low Tier



Opportunities	Downtown Centreville, Downtown Church Hill, Church Hill/Centreville Schools					
Approximate Length	10.4 miles					
Primary LTS	LTS 1					
Potential Constraints	Right-of-way, Utilities, Grade					
Public Support	✓	Public Workshop		Public Survey		Comprehensive Plan

Safety ●○○○○

Accessibility ●●●○○

Connectivity ●○○○○

Equity ●●●○○

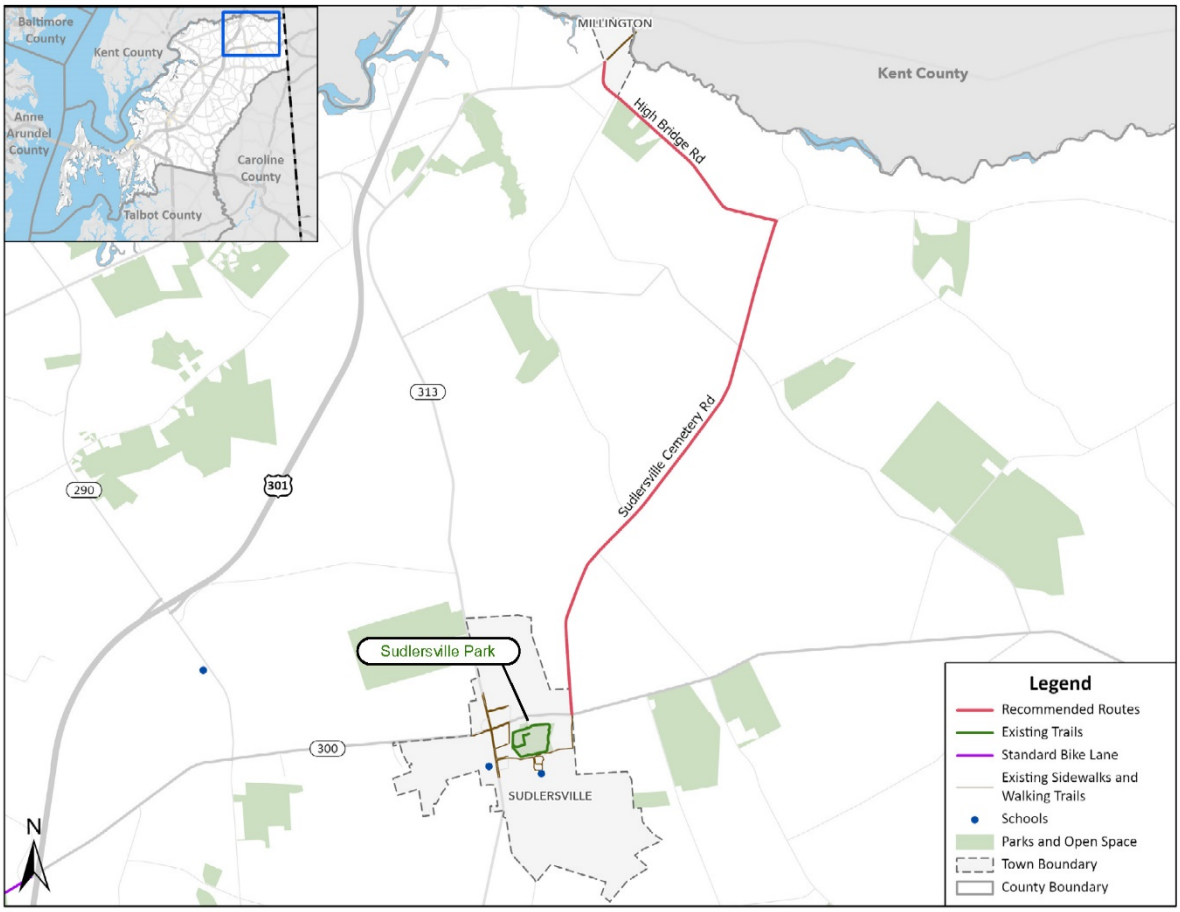
Multimodal ●○○○○

Health & Comfort ●●●●○

Project V

Sudlersville to Millington (Alternative)

Low Tier



Opportunities	Downtown Sudlersville, Sudlersville Park and Trail, Downtown Millington						
Approximate Length	5.6 miles						
Primary LTS	LTS 1						
Potential Constraints	Needs further investigation						
Public Support		Public Workshop		Public Survey		Comprehensive Plan	

Safety ●○○○○

Accessibility ●●●○○

Connectivity ●●●○○

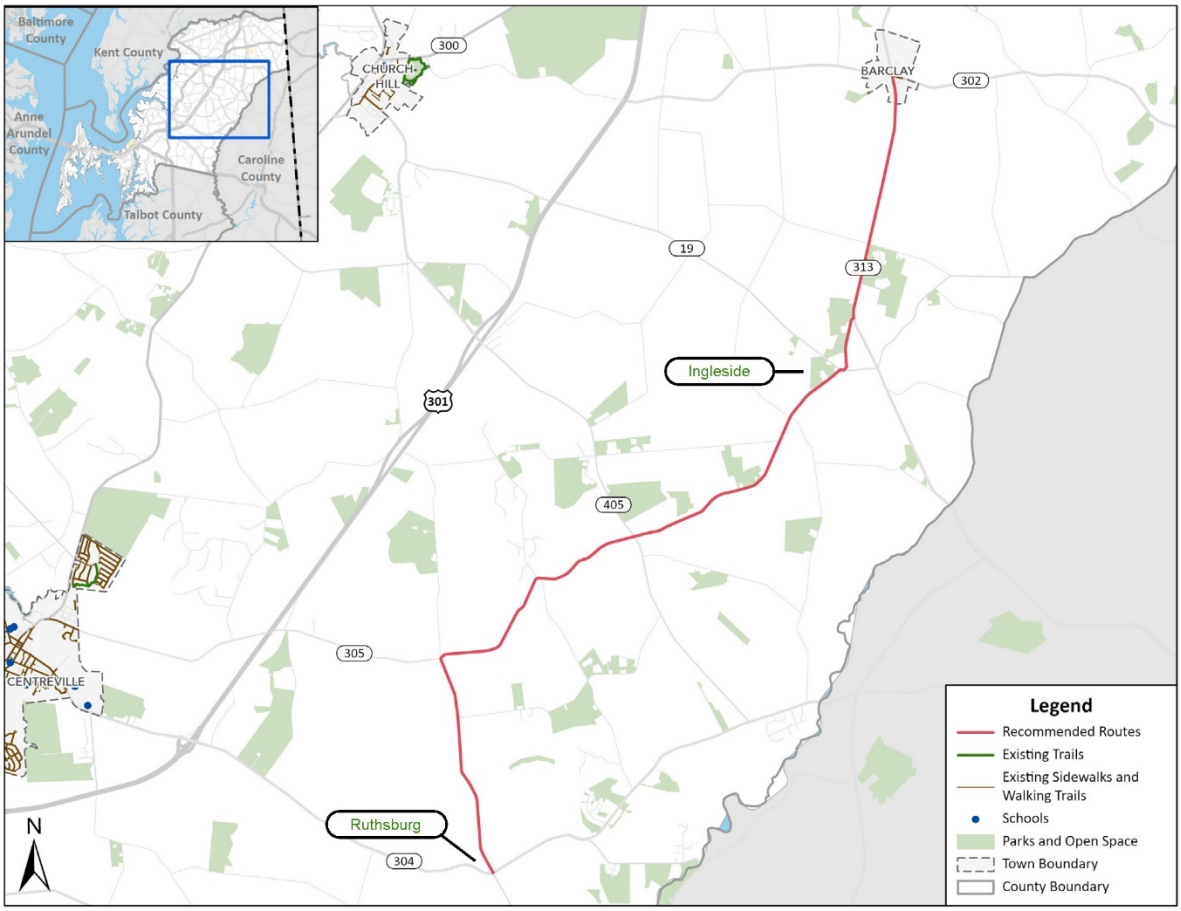
Equity ●○○○○

Multimodal ●○○○○

Health & Comfort ●●○○○

Project W Barclay to Ruthsburg (Alternative)

Low Tier



Opportunities	Downtown Barclay, Downtown Ruthsburg, Ingleside						
Approximate Length	13.0 miles						
Primary LTS	LTS 1						
Potential Constraints	Right-of-way						
Public Support		Public Workshop		Public Survey		Comprehensive Plan	

Safety

Accessibility

Connectivity

Equity

Multimodal

Health & Comfort

Additional Project Considerations

Chesapeake Bay Crossing Study

The Maryland Transportation Authority (MDTA) has been conducting The Chesapeake Bay Crossing Study: Tier 2 NEPA since June 2022. This study is analyzing "alternatives to provide congestion relief and improve travel reliability, mobility and safety across the Chesapeake Bay." It focuses on the corridor that was identified in the Tier 1 Study, which spans 22 miles from the Severn River Bridge in Anne Arundel County to the US 50/US 301 split in Queen Anne's County. The corridor is highlighted in **Figure 20**.

Figure 20. Chesapeake Bay Crossing Study Selected Corridor Alternative

Queen Anne's County has had the opportunity to provide input and comment on the crossing study on various occasions—these comments focused primarily on the need for multimodal options and improved connectivity in the Bay Bridge corridor and suggested that improved pedestrian and bicycle connectivity be incorporated into the design, while bringing attention to potential impacts to pedestrian connectivity and circulation during construction. It was noted that previous highway improvement projects in the area did not consider pedestrian and bicycle connectivity, which can result in the implementation of infrastructure that encourages vehicle dependency. The County is concerned about a highway widening dividing the community further, and supports providing pedestrian and bicycle connectivity throughout the entire corridor as a transportation alternative to reduce trips on the roads and through local intersections.

According to the USDOT Equitable Transportation Community Explorer, there is transportation insecurity (occurs when people are unable to get to where they need to go to meet the needs of their daily life regularly, reliably, and safely) for residents in the area, which highlights the need

for comprehensive multimodal infrastructure to provide residents an alternative to driving where possible.

Queen Anne's County also submitted an application for the Reconnecting Communities and Neighborhoods (NCR) Grant Program administered by the USDOT, focusing on the 5-mile US-50/301 corridor that crosses Kent Island. The application included 5 potential options for improving local connectivity to mitigate the impacts of dividing Kent Island.

Sidewalk Gap Analysis

The County has a strong desire and need to improve the sidewalk networks throughout the County as well as within the towns. The sidewalk gap analysis conducted by Queen Anne's County was introduced in **Existing Plans and Gap Analyses**. New sidewalk segments were not recommended as part of this Master Plan due to the robust gap analysis that was conducted to identify ways to build upon the existing sidewalk network in the County. The identified sidewalk gap segments are included in the recommended routes of this Master Plan to build out the localized pedestrian network. **Figure 21** shows the sidewalk gaps identified, in the context of the existing sidewalks in the County.

It is recommended that the County take additional steps to better assess and address the sidewalk network through the following actions:

- Evaluating opportunities to expand the network for safety
- Identify and fill in gaps where necessary to allow for continuous trips
- Identify and focus on implementation where sidewalks are needed in designated growth areas as well as within incorporated towns
- Construct sidewalks that provide access to employment, educational facilities, and retail destinations.

US 50/301 Pedestrian Overpass and Cox Creek Connectivity

Lack of connectivity has previously been identified as a significant inhibitor for local residents' use of the South Island and Cross Island trails—most notably, a lack of connectivity across US 50/301 and across Cox Creek. The Kent Island Transportation Plan, introduced in **Existing Plans and Gap Analyses**, provided various recommendations to help address this issue of connectivity including potential bicycle and pedestrian crossing locations on US 50/301, and a Cox Creek Connector Road that has the potential to include bicycle and pedestrian facilities.

Most recently, the County is considering two potential bicycle and pedestrian crossing locations over US 50/301. Firstly, between the Bay Bridge and MD 8 interchange with US 50/301. Secondly, East of Thompson Creek Road and West of Cox Creek. The County should proceed with feasibility studies for each of these crossing locations, as a US 50/301 bicycle and pedestrian crossing is critical to connect the North and South Islands and existing facilities.

A feasibility study for a Cox Creek Road Connector should also be conducted, as bicycle and pedestrian connectivity does not exist for individuals seeking to travel from Kent Narrows to the South Island.

Opportunities for Additional Routes

Many of the recommendations outlined in this Master Plan reflect routes that are currently being used by more advanced cyclists, thus mimic road alignment. It is important to note that throughout the County there are opportunities to locate multimodal facilities along powerline easements, as well as locations of former rail alignments, referred to as "rails to trails". The County should work closely with the State of Maryland to identify rail corridors for studies of rails to trails as well as power suppliers with existing easements that may make possible alignments for improved connectivity.

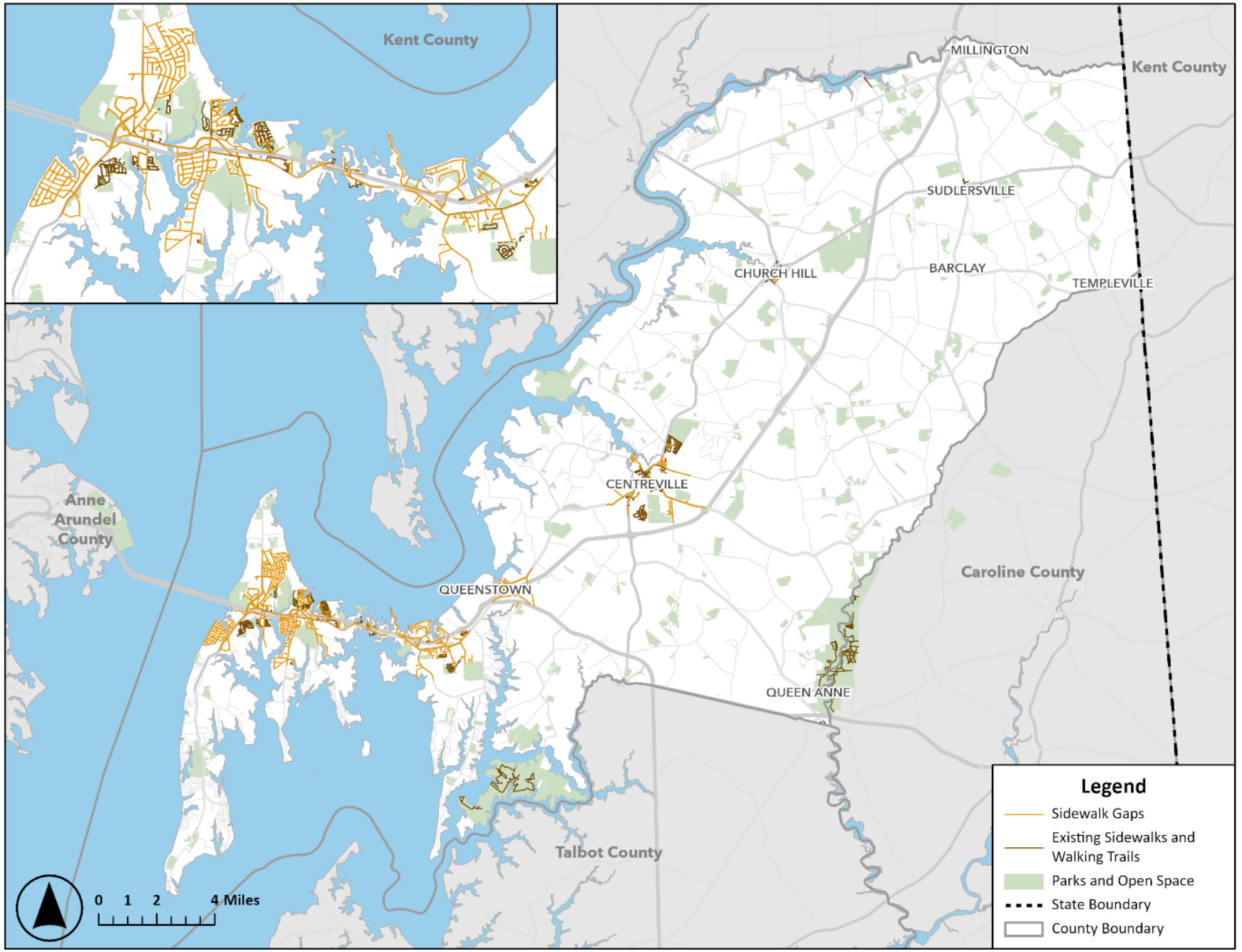


Figure 21. Sidewalk Gaps in Queen Anne's County

SUPPORTING NEXT STEPS

The contents of this master plan represent the "Planning" and "Project Identification" phases of the steps necessary to achieve construction and implementation of pedestrian and bicycle projects. The implementation process is shown in **Figure 22**.

As shown, the next step towards implementation for all projects identified in this master plan is "Feasibility." Before determining the level of infrastructure to design and construct for a project, it is necessary to conduct a feasibility study. The feasibility study could explore the conceptual layout and alignments of each project, with high-level examinations on the viability of modes served, facility widths and grades, materiality, supporting amenities, and connections to existing facilities and destinations.

A related or subsequent action would be to conduct the appropriate scale "Environmental Analysis" (determined by scope of project, area of impact, and funding source). The environmental analysis would review each project's potential impacts on the built and natural environment, sensitive receptors, and public health. During environmental analyses, additional option refinements can be identified to avoid or offset impacts and impact mitigation strategies can be built into the process.

Preliminary to Final Design is the stage at which the project really begins to take shape in advance of construction and implementation. In Preliminary Design the general project location and design concepts are determined, and all necessary environmental analysis have been conducted. At preliminary design any needed right of way, easements, or community partnership are folded into the concept. Final design included the development of construction read plans and detailed specifications.

Successful construction and implementation is dependent on generating community support, aligning funding, and identifying synergist efforts across the County to expedite the construction process.

While not all identified projects will be implemented as the safest and most separated type of facilities (i.e., shared use path), this option should not be precluded from any project until a feasibility study has been conducted.

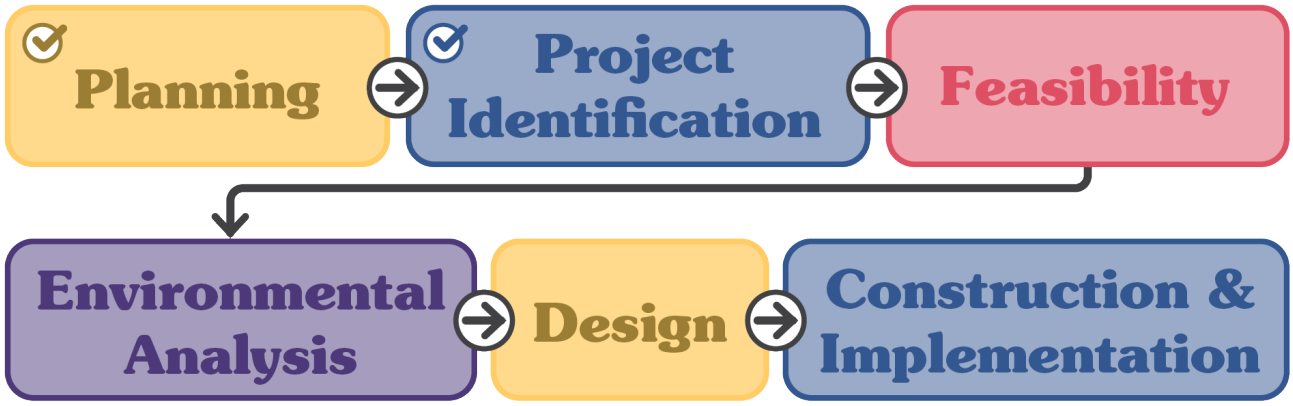


Figure 22. Steps to Achieve Implementation of Pedestrian and Bicycle Projects

Best Practices for a Living Master Plan

This master plan document should be considered a living document, as there are ongoing next steps necessary to move projects forward towards implementation as well as ensure successful use of the recommended facilities. **Table 7** outlines different topic areas for pedestrian and bicycle best practices. Recommended action items and best practices for advancing projects are detailed below.

Table 7. Different Topic Areas for Pedestrian and Bicycle Best Practices

Topic	Description
Education	Aims to give people of all ages and abilities the skills and confidence to walk and ride. Highlights the safety and social benefits of walking and bicycling.
Enforcement	Seeks to foster collaboration between the QAC Sheriff's Office, advocacy groups, and community members to ensure that users of the network understand and follow rules, regulations, and laws of usage.
Promotion	Seeks to build on existing community relationships to create strong walking and bicycle culture within the County that promote and celebrate these forms of transportation. Aligns community support behind bicycling initiatives, funding referendums, and implementation timeline
Maintenance	Provides information on identifying, tracking, and performing maintenance work in the pedestrian and bicycle network. Supports the ongoing monitoring of conditions, gaps, and network opportunities as a part of asset management
Funding	Identifies funding sources for projects that contribute to the pedestrian and bicycle network. Identify local, regional, statewide, and federal funding partners Leverage private sector development to catalyze network development

Living the Plan Strategies

The following list identifies specific strategies that Queen Anne's County could employ to take the spirit and policies of this Master Plan and make them real for County residents and visitors.

Bike to Work Day / Bike to School Day

The League of American Bicyclists has established May as National Bike Month, with designated Bike to Work Week, Bike to Work Day, and Bike to School Day. Queen Anne's County should take the following actions to better educate their residents and businesses on events during National Bike Month as well as establish County specific initiatives:

> Establish partnerships with community groups and schools to plan for and advertise Bike to Work Day and Bike to School Day. This may include development of safe routes with police enforcement to connect to places of businesses and schools that currently do not have fully connected facilities.

Partner with schools and local Parent Teacher Associations (PTAs) to establish bike buses for Bike to School Day.

- Bike buses are adult-led organized group bike rides to school

Work with the QAC School System and local jurisdictions to educate stakeholders on Maryland's Safe Routes to School (SRTS) programming efforts.

Develop information related to Bike to Work Day including possible safe routes, best practices, and benefits that can be provided to existing Chamber of Commerce members as well as used on the County's website.

Host "trail safety events" 

Hosting events each year to share safety tips out on the existing trails will help to better reach existing users and promote efforts being completed by the County. This effort would serve as part of a public education campaign and would help reach community-wide users and visitors.

Update existing online educational materials for residents and visitors 

The County currently has a static online bicycle route map as identified by the Bicycle and Pedestrian Advisory Committee, Department of Administration Services, and Economic Development and Tourism. The routes included in the existing online map are mainly focused for bicyclists who identify as strong and fearless, with many of the identified roads having paved shoulders along rural roads. The County should publish an ArcGIS online map to include level of traffic stress (LTS) information and identify routes that could be used by different user types. Sharing LTS information allows residents and visitors to determine their rides based on their comfortability. By having an interactive map where users can query out the information being shown, empowers people to determine possible rides best suited for themselves or their families.

Law enforcement at key locations 

In addition to the resources to help educate users on the appropriate way to use facilities and respect one another, the County should develop an enforcement plan to monitor existing use. Trails, though they are able to be used by most user types and help to reduce on-road stress, have been shown to increase conflict points with motorists near intersections and driveways. It is recommended that the County work with the Queen Anne's County Sheriff's Office to determine key times throughout the year and locations for police presence near intersections of existing trail crossings. This presence will allow the County to better understand existing behavior of all user types and identify possible solutions at high conflict areas. Providing citations or written warnings to motorists and trail users for illegal and reckless behavior shows the seriousness of the County in reducing irresponsible behavior where vulnerable users are located. It also helps bicyclists and pedestrians understand that they play a critical role in reducing conflict with motor vehicles.

Establish Countywide trail speed limit 

With micromobility becoming a more popular and available form of active transportation, establishing a countywide trail speed limit will help better regulate these more powerful devices. Using the existing Bicycle and Pedestrian Advisory Committee along with local law enforcement and MDOT State Highway Administration (SHA) representation, a steering committee should be

established to determine a countywide trail speed limit. Once a countywide trail speed limit is determined, speed limit signs should be strategically placed along all existing trails and included in design of future trails.

Establish a County-wide Safe Routes to School program

Another recommendation for enforcement is to establish a countywide safe routes to school program. The first step in this process would be to identify a pilot location, and perform an existing conditions assessment. The next steps would be to identify key stakeholders, such as school administrators, parents, law enforcement, transportation officials, and community representatives to support in the development of a SRTS plan, secure funding, implement improvements, educate and engage with the community, enforce traffic safety laws, and evaluate and monitor the program.

Develop a wayfinding and signage master plan

The first step in updating the County's active transportation signage in a dedicated master plan includes taking an inventory of their existing signage (see Figure 23 for reference). It is recommended that County collect the following information as it pertains to wayfinding and put it into a spatial database:

- Identification signs
- Directional signs
- Informational signs
- Regulatory signs

Figure 23. Signage along existing trail in Queen Anne's County

Based on the results of the signage inventory, recommended locations for updated signage, new signs, and the development of a family of signs for consistency will be developed. The County should coordinate with County's Economic and Tourism Development Department, Chamber of Commerce, and recreational and retail destinations for potential locations for signs and destinations.

Implement traffic gardens

A traffic garden is a park modeled with scaled-down traffic conditions to teach young children how to behave and interact as bicyclists and pedestrians in a low stress environment (see Figure 3 for reference photo). Queen Anne's County Parks and Recreation department should begin to identify a possible new park location in their upcoming master plan efforts for a traffic garden. The County can engage with local elementary-aged school children to gather input on the type of conditions and designs they would like to see as part of the traffic garden.

Figure 3. Existing traffic garden in Alexandria, VA
(Source: https://www.alexandriava.gov/traffic-safety/traffic-gardens)

Teaching children the importance of roadway safety and facility design allows them to gain confidence as a vulnerable user type and teaches them that bicycling and walking can be used for utility purposes.

Develop Countywide maintenance standards and procedures.

By developing standards and procedures for existing facilities and supporting amenities, the County will help to ensure the longevity and quality of these facilities. This will also allow the County to better budget for active transportation facility maintenance into the future as more facilities are constructed.

Consider creating an interactive, spatially driven reporting system

Collecting real-time input from existing users will help the County better identify areas needing improvements along the network. This will allow the County to better understand perceived maintenance or safety issues, as well as gauge public support for allocating resources towards an improvement based on users echoing or providing similar input.

Develop a trailhead classification system

Long-distance facilities are recommended as part of this master plan to build countywide connectivity for all users. The length of the proposed facilities paired with the rural nature of much of the County increases the need for trailhead amenities. By developing a trailhead classification, the County can implement the appropriate amenities at certain distances along the proposed network. These amenities may include parking to allow residents and visitors easy access to the network, restrooms, water, weather shelters, emergency call boxes, and signage. Having the appropriate amenities along long-distance pedestrian and bicycle facilities encourages use, attracts visitors to use these systems, and may improve safety conditions.

Establish an ongoing sidewalk retrofit program in the County

A recommendation of this Master Plan is for the County to consider and establish a Capital Improvement Program (CIP) project to address existing sidewalk deficiencies to improve safety and meet Americans with Disabilities Act (ADA) requirements. The County should consider a public input request form that allows residents an avenue to provide input for identifying accessibility issues. These submitted projects will be addressed through the retrofit program.

Re-evaluate the Master Plan on a yearly basis

To ensure the recommendations of this master plan progress forward into the future, it is recommended that County staff within the Public Works Department and the Parks Department, along with the BPAC and PRAC, evaluate and identify strategic next steps at least once a year during a designated meeting. These steps include:

- Identify which project(s) should be considered for a feasibility study based on the prioritization results and determining possible funding sources for this study.
    - If grant funding is sought, identifying roles and responsibilities for pursuing which grant sources will be considered.
    - If it is determined County funds may be used, building those costs into budgeting requests will be handled by the department seeking funds.

- Determine educational and enforcement events for the year ahead including roles and responsibilities. These may be grassroot lead efforts that the County may provide support for based on the event.
- For more robust planning recommendations, determine the order of preferred completion based on available County resources. One example of this is to conduct a signage inventory one year, followed by a wayfinding master plan that uses that inventory as a foundation element of the master plan. And this effort should be coordinated with County's Economic and Tourism Development Department.

It is recommended that five years after adoption, the County should assess the Master Plan to determine if the recommendations outlined are still relevant to County goals, what has been able to progress and what has not, along with reasons why, and if any additional studies have been completed that may cause a need for the network to be re-prioritized or re-developed. This should be reported back to the County Commissioners along with possibly amendments to the master plan.

Codify the bicycle and pedestrian strategies detailed in the 2022 Comprehensive Plan

The 2022 QAC Comprehensive Plan details 18 strategies to promote safe and convenient bicycle and pedestrian access throughout the transportation system and programs. The County should codify these strategies (listed below) as part of the outcome of this Master Plan and the 2022 Comprehensive Plan.

1. Create, review, and update a bicycle and pedestrian plan consistent with PlanQAC.
2. Add bicycle lanes, signed bicycle routes, and shared lane markings to develop the County's on-road bicycle network.
3. Use innovative designs and bicycle-specific treatments at intersections and small connector paths to improve safety and interconnectivity.
4. Coordinate bicycle facility planning, design, and implementation with towns and communities across the County.
5. Launch a new bicycle parking initiative by the County in public places.
6. Require new multi-family residential, retail, and office development to provide bicycle parking.
7. Work with the Maryland Upper Shore Transit System and County Ride to accommodate bicycles in support of a multimodal transit system, improving bicycle parking at transit stops.
8. Continue to develop off-road paths to create a trail system with connections to spine routes that serve key County destinations.
9. Identify roadway improvements to reach acceptable levels of comfort for existing and proposed bicycle routes.
10. Strengthen the enforcement of traffic laws related to bicycle and pedestrian safety.
11. Acknowledge the Bicycle Route Map as the County's official designated bicycle route map.
12. Pursue funding opportunities to improve level of comfort on roadway segments identified in future studies.
13. Pursue funding opportunities to develop, enhance, and promote designated bicycle routes.
14. Consider options for bicycle route wayfinding signage.
15. Promote designated bicycle and pedestrian routes as alternative "active transportation" options for connecting citizens to employment, community, and retail business areas.

16. Work with residents, community groups, businesses, civic associations, and property owners to expand the network of walkways in existing public rights-of-way and new open space acquisitions.
17. Create and implement a Safe Routes to School Program in public and private schools, preferably utilizing MDOT SHA Transportation Alternatives.
18. Continue extending existing paths, trails, and greenways.

Strategically seek different funding opportunities $

The County should consider pursuing bicycle and pedestrian related funding opportunities that do not necessary fund the explicit addition of new facilities. For instance, the County may consider pursuing funding for historical preservation or rehabilitation of historic or scenic routes that pass through the County, such as the American Discovery Trail, pictured in **Figure 4**.

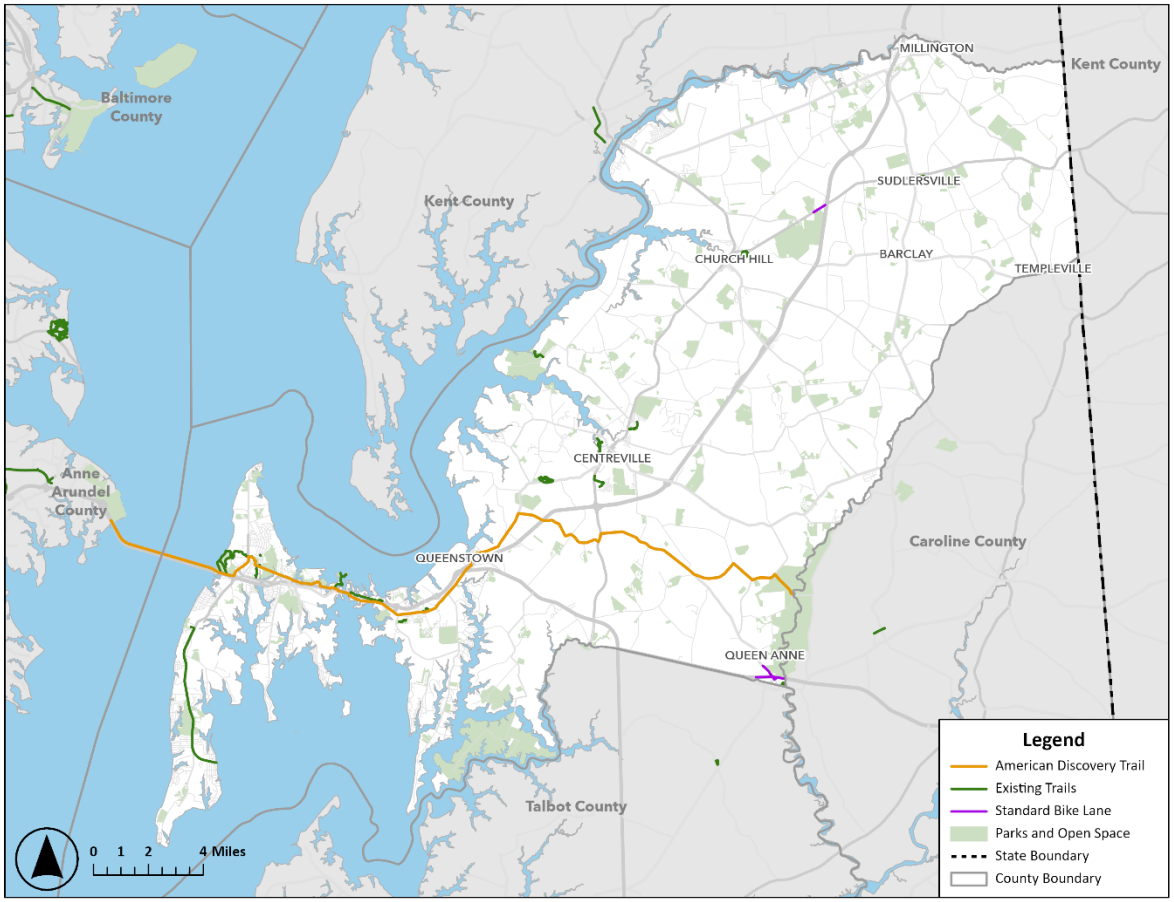


Figure 4. American Discovery Trail Segment in Queen Anne's County

Pursue grants to advance projects $

The recommendations for funding, implementing, and prioritizing proposed projects should be considered guidelines that may change over the implementation timeline of this plan. Queen Anne's County should continue to evaluate priority projects as opportunities for funding become available.

Potential funding sources and relative timelines for pedestrian and bicycle projects are included in **Table 8**. The funding sources and timeframes are intended only to serve as a guide for plan implementation and should be considered flexible. Timeframes are subject to change per local, state, and federal funding schedules. Additional funding resources for bicycle and pedestrian opportunities as developed by U.S. Department of Transportation Highway, Transit, and Safety Funds can be found in the **Appendix**.

Table 8. Possible Grant Funding Sources

Funding Opportunity	Department	Funding Type *(Planning, Capital, Maintenance)*	Funding range	Funding Obligations *(% match of County to federal)*	Type of Funding *(Competitive vs Formula)*	Eligible Activities
Safe Streets and Roads for All - SS4A	USDOT	-Planning and Demonstration -Implementation	Planning and Demonstration – Minimum: $100,000 Maximum: $10 million (FY 2023) Implementation – Minimum: $2.5 million Maximum: $25 million (FY 2023)	Minimum 20% local match	Competitive	**Planning and Demonstration:** Planning structure, safety analysis, engagement and collaboration, equity, road safety audits, reporting on the progress from the Action Plan implementation for transparency; Feasibility studies using quick build strategies that inform permanent projects in the future; Pilot programs for behavioral or operational activities that include at least one element of the Safe System Approach **Implementation:** Applying low-cost roadway safety treatments, identifying and correcting common risks, installing pedestrian safety enhancements and closing network gaps, supporting development of bikeway networks
Active Transportation Infrastructure Investment Program (ATIIP)	FHWA	-Planning and Design -Construction	-Planning and Design Minimum: $100,000 Maximum: N/A -Construction Minimum: $15 million Maximum: N/A	Federal cost share: 80% maximum *For eligible projects serving communicates with a poverty rate of over 40% based on the majority of census tracts served by eligible project, the Federal share may increase up to 100%	Competitive	**Planning and Design** – plans for active transportation networks and active transportation spines **Construction –** construction projects to provide safe and connected active transportation facilities in an active transportation network or active transportation spine Both Planning and Design and Construction grants can go towards planning, designing, and constructing active transportation networks and active transportation spines
Rebuilding American Infrastructure with	USDOT	-Planning -Capital	-Planning Minimum: N/A	Federal cost share: 80% maximum for urban projects that are	Competitive	**Capital:**

Funding Opportunity	Department	Funding Type *(Planning, Capital, Maintenance)*	Funding range	Funding Obligations *(% match of County to federal)*	Type of Funding *(Competitive vs Formula)*	Eligible Activities
Sustainability and Equity - RAISE			Maximum: $25 milllion -Capital Minimum: $5 million (urban) / $1 million (rural) Maximum:$25 milllion	not located in an area of persistent poverty (APP) or historically disadvantaged community (HDC); *The Federal share may be up to 100% of the costs of a project located in a rural area, historically disadvantaged community, or area of persistent poverty		Surface transportation infrastructure project that the Secretary considers to be necessary to advance the goals of the program (includes surface transportation components of mobility on-demand projects that expand access and reduce transportation cost burden) **Planning:** -Projects related to the planning, preparation, or design of eligible surface transportation capital projects -Development of master plans, comprehensive plans, transportation corridor plans, and integrated economic development, land use, housing, and transportation plans; -Zero emissions plan for transit fleet; -Planning activities related to the development of a multimodal freight corridor, including those that seek to reduce conflicts with residential areas and with passenger and non-motorized traffic
Recreational Trails Program (Maryland)	FHWA / Maryland SHA	-Planning and Construction	N/A *Awarded projects under this program for FY2023 ranged from $25,000 to $2 million	Federal funds reimbursed by the MDOT SHA: up to 80% match Project sponsor: Minimum 20% match	Competitive (Federal funding distributed to states, which then allocate to projects)	-Maintenance and restoration of existing recreational trails, including signage, bridges and boardwalks; -Development and rehabilitation of trailside and trailhead facilities and trail linkages for recreational trails; -Lease of recreational trail construction and maintenance equipment;

Funding Opportunity	Department	Funding Type *(Planning, Capital, Maintenance)*	Funding range	Funding Obligations *(% match of County to federal)*	Type of Funding *(Competitive vs Formula)*	Eligible Activities
						-Construction of new recreational trails (with restrictions for new trails on Federal lands); -Acquisition of easements and property for recreational trails or recreational trail corridors; -Assessment of trail conditions for accessibility and maintenance; -Development and dissemination of publications and operation of educational programs to promote safety and environmental protection related to the use of recreational trails.
Transportation Alternatives Program (TAP) ******Maryland TAP Manual* ***This program is a part of the Surface Transportation Block Grant through FHWA**	FHWA	-Design -Construction	N/A *Awarded projects under this program for FY2023 ranged from $60,000 to $6.4 million	Federal funds reimbursed by the MDOT SHA: up to 80% match TAP project sponsor: minimum 20% cash match	Competitive (Federal funding distributed to states, which then allocate to projects)	-Infrastructure projects and planning efforts that enhance non-motorized transportation options, improve accessibility, and promote safety for pedestrians and cyclists –including but not limited to bike and pedestrian paths, Safe Routes to School projects, streetscape enhancements, historic preservation of transportation facilities
Maryland Heritage Area Authority Grants	MHAA	Non-Capital Capital	Non-Capital: No minimum Maximum: $50,000 Capital: No minimum Maximum: $100,000	Non-Capital and Capital: One-to-one match of non-state support		Eligible projects must have a heritage tourism component or contribute to research that will directly inform a heritage tourism product. **Non-capital:** Planning (research, field investigation, data recovery, feasibility and planning studies, design documents and other planning activities that support the heritage area); Interpretation (exhibits, signage, pedestrian wayfinding signage, interpretive brochures, educational programs

Funding Opportunity	Department	Funding Type *(Planning, Capital, Maintenance)*	Funding range	Funding Obligations *(% match of County to federal)*	Type of Funding *(Competitive vs Formula)*	Eligible Activities
			**Each MHAA grant needs be matched 1:1 by cash, in-kind and/or volunteer hours*			and materials, other interpretive activities that support the heritage area); and Programming (seminars, conferences, performances, reenactments, commemorations, festivals) **Capital:** Acquisition (fee title of real property, interest other than fee title (i.e. easement) of real property); Development (repair or alteration of an existing building, structure or site, new construction for heritage tourism purposes); Rehabilitation (returning a property to a state of utility); Restoration (accurately depicting a property as it appeared at a particular period of time, removal of features from another time period, reconstruction of missing features from the restoration period); and Pre-Development (plans and specifications, fees for architectural design and engineering)
Community Development Block Grant (CDBG) Program	Maryland Department of Housing and Community Development (DHCD)	Minimum: N/A Maximum: $800,000	N/A	N/A	N/A	-Construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes in eligible communities **Each activity must meet one of the following national objectives for the program: benefit low- and moderate-income persons, prevention or elimination of slums or blight, or address community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community for which other funding is not available.*

CONCLUSION

Through gathering existing conditions to determine the County's pedestrian and bicycle foundation, conducting productive meetings with staff, key stakeholders, agency partners, and the public, and building upon previously completed studies and investments, a comprehensive and achievable network for pedestrians and bicyclists was developed for Queen Anne's County. The recommendations from this Master Plan should be evaluated on a yearly basis to better understand and celebrate achievements made, identify future coordination efforts needed, and determine required funding support to continue the implementation of recommendations.

Queen Anne's County's previous investments in the Cross Island Trail and South Island Trail serves as a strong basis for their future pedestrian and bicycle network. Serving both recreational and transportation purposes, the recommendations from this Master Plan will aid in creating a well-connected, accessible, safe network that can be used by a variety of user types for years to come.

Partnerships will be imperative, innovation will be necessary, and flexibility will be key to successfully making Queen Anne's County one of Maryland's premiere walking and biking communities.

APPENDIX