
EASTERN SHORE OF VIRGINIA PEDESTRIAN FACILITIES STUDY

Inventory and Needs Assessment

December 2017



Mason Avenue, Cape Charles

Prepared by:
Accomack-Norhampton Planning District Commission



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EASTERN SHORE OF VIRGINIA PEDESTRIAN FACILITIES STUDY

Inventory and Needs Assessment

December 2017

Prepared for:

Virginia Department of Transportation

Hampton Roads District

1700 North Main Street

Suffolk, Virginia 23434

Prepared by:

Accomack—Northampton Planning District Commission

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The Accomack-Northampton Planning District Commission wants to thank VDOT staff for their assistance in developing this study.



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Market Street, Onancock

Executive Summary

The goal of this study was to develop a complete inventory of pedestrian facilities, sidewalks and crosswalks, on the Eastern Shore of Virginia. In order to prioritize which facilities need to be repaired or replaced first, sidewalks were categorized as ADA-compliant (1), functional but not ADA-compliant (2), and non-functional (3). Crosswalks were also located. Both were then mapped for each town and village, and miles and the percentages of each category were tabulated. Forty-six percent of the sidewalks in the study were deemed non-functional (3) for ADA-compliance. Most of those were installed prior to 1991 and the Americans with Disabilities Act. The largest percentage of sidewalks (49%) are now in the functional but not ADA-compliant category (2) and were installed after 1992. The newest standards for ADA-compliance changed again in 2011, with the result that only 6% of all VDOT-maintained sidewalks fall into the ADA-compliant category.

Those towns that had Category 1 ADA-compliant sidewalks also had crosswalks connecting them except for Exmore and Accomac. Six new crosswalks could be painted between Exmore's sidewalks on Main Street, Bank Avenue, and Commercial Avenue. The Town of Accomac has one location between ADA-compliant sidewalks that could also be painted for a crosswalk.

A needs assessment for all towns and counties will begin by sending this study to mayors and councils. Upon request, A-NPDC will assist the towns in identifying priorities. According to VDOT records for the Hampton Roads area, one mile of new sidewalk costs between \$382,000 and \$1.2 million. Finding construction funding will be an ongoing effort by VDOT, the jurisdictions, the A-NPDC, and other agencies.



Main Street, Chincoteague

Introduction

The purpose of this study was to determine the location and adequacy of pedestrian facilities and to prioritize replacement or repair of those that are inadequate by presenting the study to VDOT and the local jurisdictions on Virginia's Eastern Shore.

The Accomack-Northampton Planning District Commission (A-NPDC) received funding from the Virginia Department of Transportation (VDOT) under its Highway Planning and Construction program to finance the activities contained in the FY 2018 Scope of Work.

One of the activities was to work with the towns to develop prioritized pedestrian needs assessment, including GIS sidewalk inventory, crosswalk needs, and prioritized pedestrian needs for each town. This study includes public sidewalks that are maintained by VDOT as well as private sidewalks such as those found in housing developments, medical centers, and schools.

Methodology

Sidewalks were located using Google Earth or Street Maps as well as field verification where details could not be determined from the aerial images. In addition, some sidewalks were upgraded recently and did not yet appear in the Google products. Those were field verified as well.

Each section of sidewalk was examined for compliance with the Americans with Disabilities Act (ADA) of 2010. In order to qualify as ADA-compliant, a sidewalk must be 5-feet wide not including the curb, have ramps that include "bubbles" for the sight-impaired, and must include flares on ramps and driveway cuts. Crosswalks are ADA-compliant if they connect two sections of ADA-compliant sidewalk.

Sidewalks were determined to be in one of three categories:

1. ADA Compliant – 5-feet wide not including the curb, "bubbles" on ramps, and flares at ramps and driveway cuts. No utility poles in sidewalk. This view also shows a crosswalk connecting two Category 1 sidewalks on Market Street in Onancock. (from Google Maps/Streetview).



2. Functional, but not fully ADA-compliant - at least 3 feet wide, includes flares and ramps, but not "bubbled," and ramps may be narrower than the rule. No utility poles in sidewalk. This view is Market Street and College Avenue in Onancock. A crosswalk connects two Category 2 sidewalks.



3. Non-functional - less than 3 feet wide, missing ramps and/or flares, utility poles in sidewalk, broken, heaved, etc. Any one of these conditions qualifies the sidewalk for this category. This view is Justis Street in Onancock.



4. Existing crosswalks were mapped and a table with locations appears on page 7.

Each section of sidewalk and each crosswalk was then mapped and assigned to a category using ArcGIS. An aggregate table was built (see tables on pages 6-7), and maps of the categorized sidewalks were developed for towns and villages to prioritize improvements. Maps are presented in alphabetical order by county and incorporated town or un-incorporated village name. See page 9 for a key to maps.

Analysis

Sidewalks

There are a total of 68.3 miles of VDOT-maintained sidewalks in both counties including 40.7 miles in Accomack County and 27.6 miles in Northampton County. There are an additional 6.5 miles of non-VDOT-maintained sidewalks mostly at schools, medical and assisted living centers, private developments, and commercial sites such as Walmart in Onley.

Of the total VDOT-maintained miles, only 4.2 miles (6%) are ADA compliant (category 1), 33.2 miles (49%) are functional but not ADA-compliant (category 2), and 31.1 miles (45%) are in category 3 – non-functional under ADA rules.

Most of the miles of sidewalks in the region were installed by VDOT before 1990 when ADA regulations were not in place. After 1991, when the regulations became effective, ramps and flares and three feet of width was mandated. Sidewalks installed by VDOT after 1991 are now mostly category 2, as the regulations changed again in 2011. Legislation became effective in 2012. The latest regulations require “bubbles” on ramps for sight-impaired pedestrians and wider widths. Sidewalks installed after 2012 are Category 1 – ADA-compliant.

Of the total non-VDOT maintained sidewalks, 51% are ADA-compliant, 46% are functional but not ADA-compliant, and 3% are non-functional. This higher percentage of ADA-compliant and functional sidewalks is attributed to the fact that the majority of these sidewalks were installed more recently than the VDOT-maintained sidewalks.

Following on the next two pages are the tabular data for sidewalks on the Eastern Shore of Virginia.

Towns and Villages Maintained by VDOT

Towns and Villages	Total Miles Inventoried Sidewalks	Total Miles Category 1		Total Miles Category 2		Total Miles Category 3		Crosswalks Category 4
		Total Sidewalk Miles	% of Total in Jurisdiction	Total Sidewalk	% of Total in Jurisdiction	Total Sidewalk Miles	% of Total in Jurisdiction	Number
VDOT Maintained								
Eastern Shore Totals	68.3	4.22	6%	33.15	49%	31.12	46%	0.37
Accomack County	40.71	1.54	4%	15.16	37%	24.06	59%	0.29
Accomac	3.71	0.05	1%	0.27	7%	3.39	91%	0
Atlantic*	0.49	0	0%	0.45		0.04	8%	0
Belle Haven	0.23	0	0%	0.23	100%	0	0%	0
Bloxom	0.1	0	0%	0	0%	0.1	100%	0
Chincoteague	17.45	1.17	7%	8.18	47%	7.88	45%	0.22
Greenbackville*	0.55	0	0%	0	0%	0.55	100%	0
Greenbush*	0.05	0	0%	0	0%	0.05	100%	0
Hallwood	0.12	0	0%	0.07	58%	0.05	42%	0
Keller	0	0	0%	0	0	0	0%	0
Mappsville*	0.81	0	0%	0	0	0.81	100%	0
Melfa	1.17	0	0%	1.17	100%	0	0%	0
Nelsonia*	0.82	0	0%	0.09	11%	0.73	89%	0
New Church*	1.93	1	52%	0.92	48%	0.01	1%	0
Oak Hall*	1.21	0	0%	0	0%	1.21	100%	0
Onancock	8.14	0.32	4%	2.89	36%	4.86	60%	0.07
Onley	1.88	0	0%	0.04	2%	1.84	98%	0
Painter	0	0	0%	0	0%	0	0%	0
Parksley	2.15	0	0%	0.68	32%	1.47	68%	0
Saxis	0.01	0	0%	0	0%	0.01	100%	0
Tangier	0	0	0%	0	0%	0	0%	0
Tasley*	0	0	0%	0	0%	0	0%	0
Temperanceville*	1.14	0	0%	0.1	9%	1.04	91%	
Wachapreague	0.65	0	0%	0.65	100%	0	0%	0
Northampton County	27.59	2.68	10%	17.98	65%	7.06	26%	0.09
Cape Charles	15.1	1.96	13%	11.04	73%	2.03	13%	0.07
Cheriton	3.04	0	0%	1.33	44%	1.71	56%	0
Eastville	1.77	0.03	2%	0.93	53%	0.8	45%	0.01
Exmore	3.24	0.68	21%	1.44	44%	1.12	35%	0
Franktown*	1.15	0	0%	0.7	61%	0.45	39%	0
Nassawadox	3.29	0	0%	2.53	77%	0.76	23%	0

*villages

Locations Not Maintained by VDOT

Locations	Total Miles Inventoried Sidewalks	Total Miles Category 1		Total Miles Category 2		Total Miles Category 3		Crosswalks Category 4
		Total Sidewalk Miles	% of Total	Total Sidewalk	% of Total	Total Sidewalk Miles	% of Total	Number
Accawmacke ES	0.13	0.13	100%	0	0%	0	0%	0
Arcadia HS	0.29	0.29	100%	0	0%	0	0%	0
Arcadia MS	0.31	0.31	100%	0	0%	0	0%	0
Atlantic CHC	0.15	0.15	100%	0	0%	0	0%	0
Bay Creek, Cape Charles	0.87	0.87	100%	0	0%	0	0%	0
Bayview Community HC	0.07	0.07	100%	0	0%	0	0%	0
Chincoteague ES	0.2	0.03	15%	0.11	55%	0.03	15%	0.03
Chincoteague HS	0.34	0.15	44%	0.19	56%	0	0%	0
Eastern Shore Community College	0.01	0.01	100%	0	0%	0	0%	0
The Hermitage	0.33	0	0%	0.33	100%	0	0%	0
Kegotank ES	0.15	0	0%	0.11	73%	0.04	27%	0
King's Bay, Cape Charles	1.19	0	0%	1.19	100%	0	0%	0
Kiptopeke ES	0.23	0.23	100%	0	0%	0	0%	0
Metompkin ES	0.25	0.19	76%	0.06	24%	0	0%	0
Nandua HS	0.26	0.05	19%	0.21	81%	0	0%	0
Nandua MS	0.33	0.33	100%	0	0%	0	0%	0
Northampton MS	0.06	0	0%	0	0%	0.06	100%	0
Northampton HS	0.17	0.17	100%	0	0%	0	0%	0
Occohannock ES	0.18	0.18	100%	0	0%	0	0%	0
Pungoteague ES	0.12	0	0%	0.07	58%	0.05	42%	0
Riverside Shore Memorial Hospital	0.89	0.18	20%	0.71	80%	0	0%	0
Shore Life Care @Parksley	0.16	0	0%	0.16	100%	0	0%	0
Shore Medical Center	0.03	0	0%	0.03	100%	0	0%	0
Onley CHC	0.11	0.09	82%	0	0%	0	0%	0.02
Walmart, Onley	0.13	0.13	100%	0	0%	0	0%	0

Category 1	ADA-Compliant		
Category 2	Functional but non-ADA		
Category 3	Non Functional		
Category 4	Crosswalks		
Notes:			
Heritage Hall, Nassawadox mapped in town totals			
Chincoteague Community Health Center mapped in town totals			
County totals include both incorporated and non-incorporated towns			
Franktown CHC has no sidewalks			

Crosswalks

Crosswalks were mapped as well. Most of them connect category 2 sidewalks (functional, but not ADA-compliant) in the towns of Chincoteague, Eastville, and Onancock. Under the 2011 ADA rules, only Category 1 sidewalk intersections can have crosswalks installed.

Category 1 sidewalks that could have crosswalks painted between them were found in Accomac (1) across Business Route 13 between Cross Street and Courthouse Avenue, and in Exmore (6), between the two sidewalks on Bank Avenue and Commercial Avenue and between those two streets and the far side of Business Route 13 (Main Street).

Cape Charles, Chincoteague, Onancock and Exmore have more crosswalks than other towns in the region. Cape Charles has the most ADA-compliant crosswalks as a result of that town's efforts building a community walking trail financed in part by the Transportation Equity Act (formerly TEA-21 now MAP-21 Moving Ahead for Progress in the 21st Century).

Details of crosswalks as they connect between categories of sidewalks:

Towns/Villages	Cat 1-1	Cat 1-2	Cat 2-2	Cat 2-3	Locations for additional crosswalks
Accomac	0	0	0	0	1 – Cross St & Courthouse Rd on Business Route 13
Atlantic	0	0	0	0	0
Belle Haven	0	0	0	0	0
Bloxom	0	0	0	0	0
Cape Charles	10	3	2	3	0
Cheriton	0	0	0	0	0
Chincoteague	3	4	4	2	0
Eastville	0	1	0	0	0
Exmore	0	0	0	0	6 – Bank & Commercial Avenues & Business Route 13
Franktown	0	0	0	0	0
Greenbackville	0	0	0	0	0
Greenbush	0	0	0	0	0
Hallwood	0	0	0	0	0
Mappsville	0	0	0	0	0
Melfa	0	0	0	0	0
Nelsonia	0	0	0	0	0
Oak Hall	0	0	0	0	0
Onancock	1	0	8	0	0
Onley	0	0	0	0	0
Parksley	0	0	0	0	0
Temperanceville	0	0	0	0	0
Wachapreague	0	0	0	0	0

(Note: no crosswalks were found between category 3 sidewalks)

Recommendations & Next Steps

Short Term:

Town of Accomac – paint one crosswalk across Business Route 13 between Cross Street and Courthouse Avenue.

Town of Exmore – paint six crosswalks between Category 1 sidewalks at Bank and Commercial Avenue intersections with Business Route 13 and between both sides of those streets.

This study points out that a 46 percent of Eastern Shore sidewalks are not useable by disabled persons.

In order to identify which sidewalks should be upgraded first, or where sidewalks and crosswalks could be added to facilitate use by disabled persons, each jurisdiction will need to decide how or if it wishes to address the deficiencies identified in this study.

To begin the needs assessment, each jurisdiction will receive a copy of this study, and A-NPDC staff will make presentations to the jurisdictions' governing bodies upon request and help each develop its priorities. Information from the jurisdictions will be added to this study as it is available.

To address identified priorities to bring sidewalks up to ADA-compliance, additional funding will need to be found.

According to VDOT, one mile of new sidewalk costs between \$382,000 and \$1.2 million depending upon the several factors such as whether utilities need to be relocated or additional right-of-way needs to be acquired. Therefore, replacing all 31.12 miles of non-functional Category 3 sidewalks owned and maintained by VDOT is not remotely feasible in the near future. Our local VDOT Residency has maintenance funds only, which it uses to replace sidewalks only when a road is resurfaced. It does not have funding for new construction. Therefore, our jurisdictions will need to prioritize those sections of sidewalk they want replaced and assist VDOT in finding the funds needed to effect the improvements.

Potential funding sources include:

1. Virginia Department of Housing and Community Development Community Development Block Grant (<http://www.dhcd.virginia.gov/index.php/community-partnerships-dhcd/76-community-development-block-grant-cdbg-competitive-grants.html>)
2. Moving Ahead for Progress in the 21st Century (MAP-21 <https://www.fmcsa.dot.gov/mission/policy/map-21-moving-ahead-progress-21st-century-act>)
3. VDOT Revenue Sharing Program (<http://www.virginiadot.org/business/local-assistance-access-programs.asp>)
4. VDOT Maintenance Funds (<http://www.virginiadot.org/info/contactus.asp>)
5. Private/Public Partnerships (<https://www.virginia.gov/agencies/office-of-public-private-partnerships/>)

Mid- to Late-Term and ongoing:

Add priorities collected from jurisdictions as updates to this study, and assist VDOT and jurisdictions in obtaining funding for improved pedestrian facilities and additions as requested.

Maps

ACCOMACK COUNTY TOWNS

Incorporated:	Page	Un-Incorporated:	Page
Accomac	10	Atlantic	11
Belle Haven	12	Greenbackville	16
Bloxom	13	Greenbush	17
Chincoteague	14-15	Mappsville	19
Hallwood	18	Nelsonia	21
Melfa	20	Oak Hall	22
Onancock	23-24	Temperanceville	27
Onley	25		
Parksley	26		
Wachapreague	28		

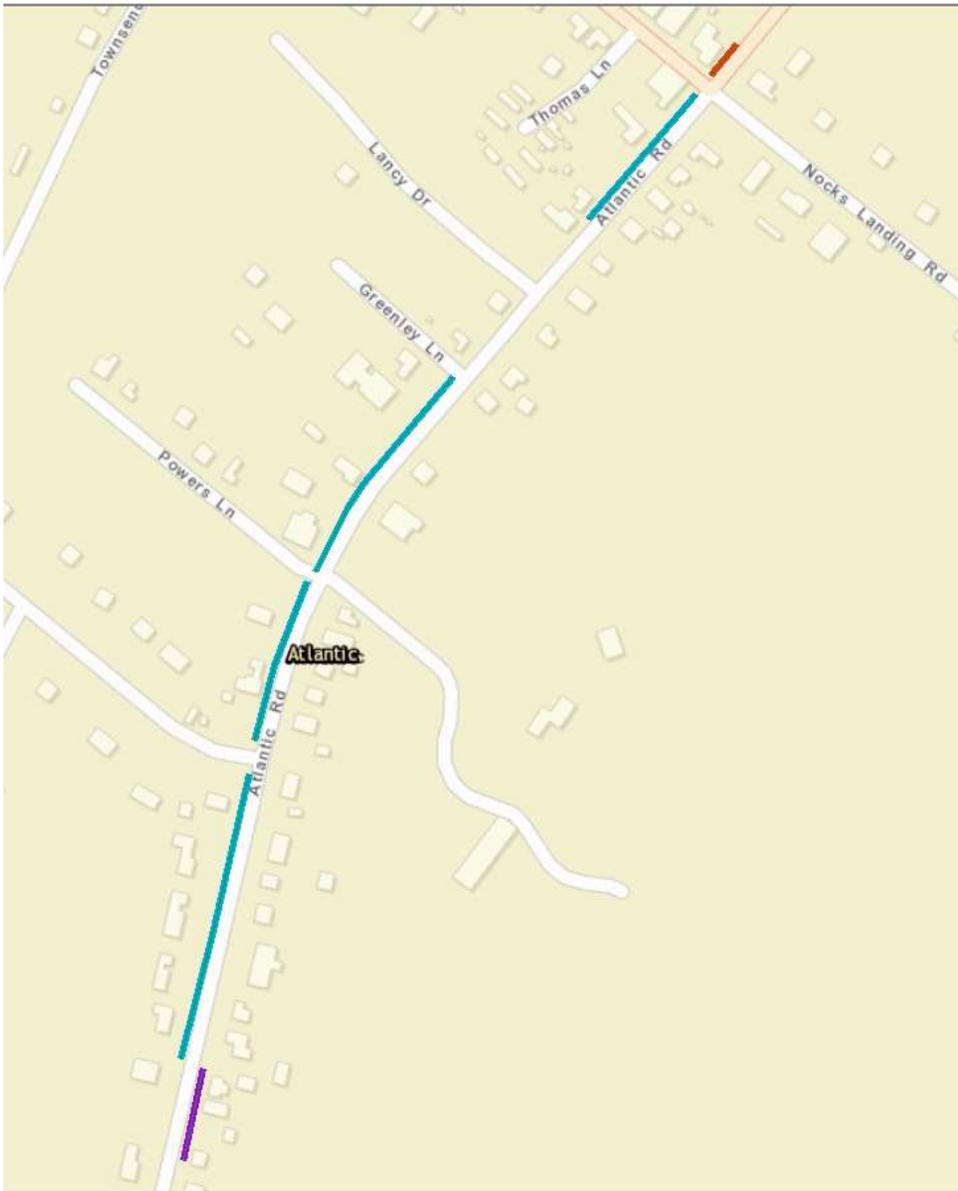
In Accomack County, there are several incorporated towns without sidewalks. Therefore, they were not mapped. They are Keller, Painter, Saxis, and Tangier.

NORTHAMPTON COUNTY TOWNS

Incorporated:	Page	Un-Incorporated:	Page
Cape Charles	29	Franktown	33
Cheriton	30		
Eastville	31		
Exmore	32		
Nassawadox	34		

In Northampton County, there are several un-incorporated villages such as Oyster and Willis Wharf. They are not included here because they do not have sidewalks.





ATLANTIC

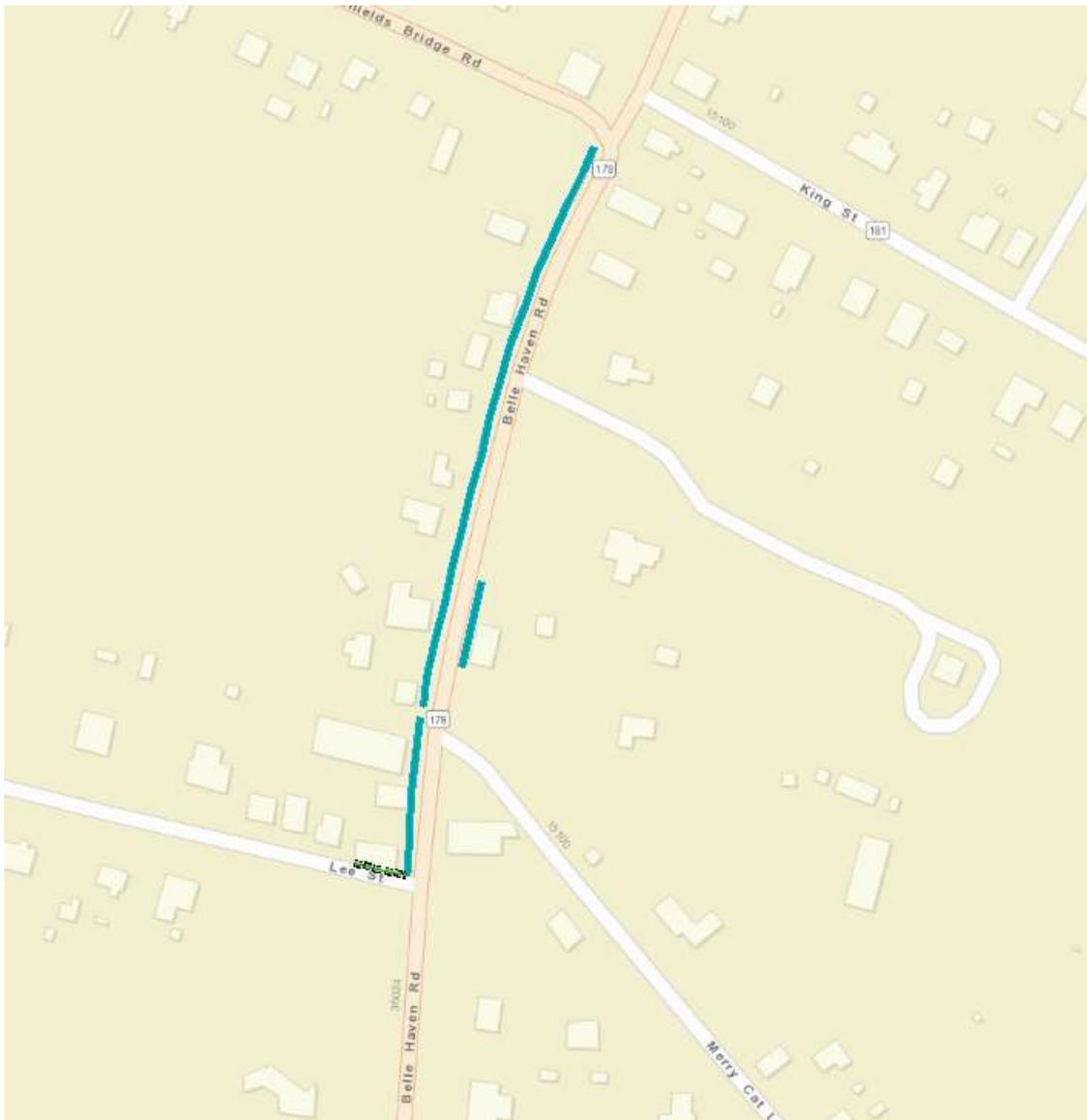
Key to Sidewalks

Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks



BELLE HAVEN

Key to Sidewalks

Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

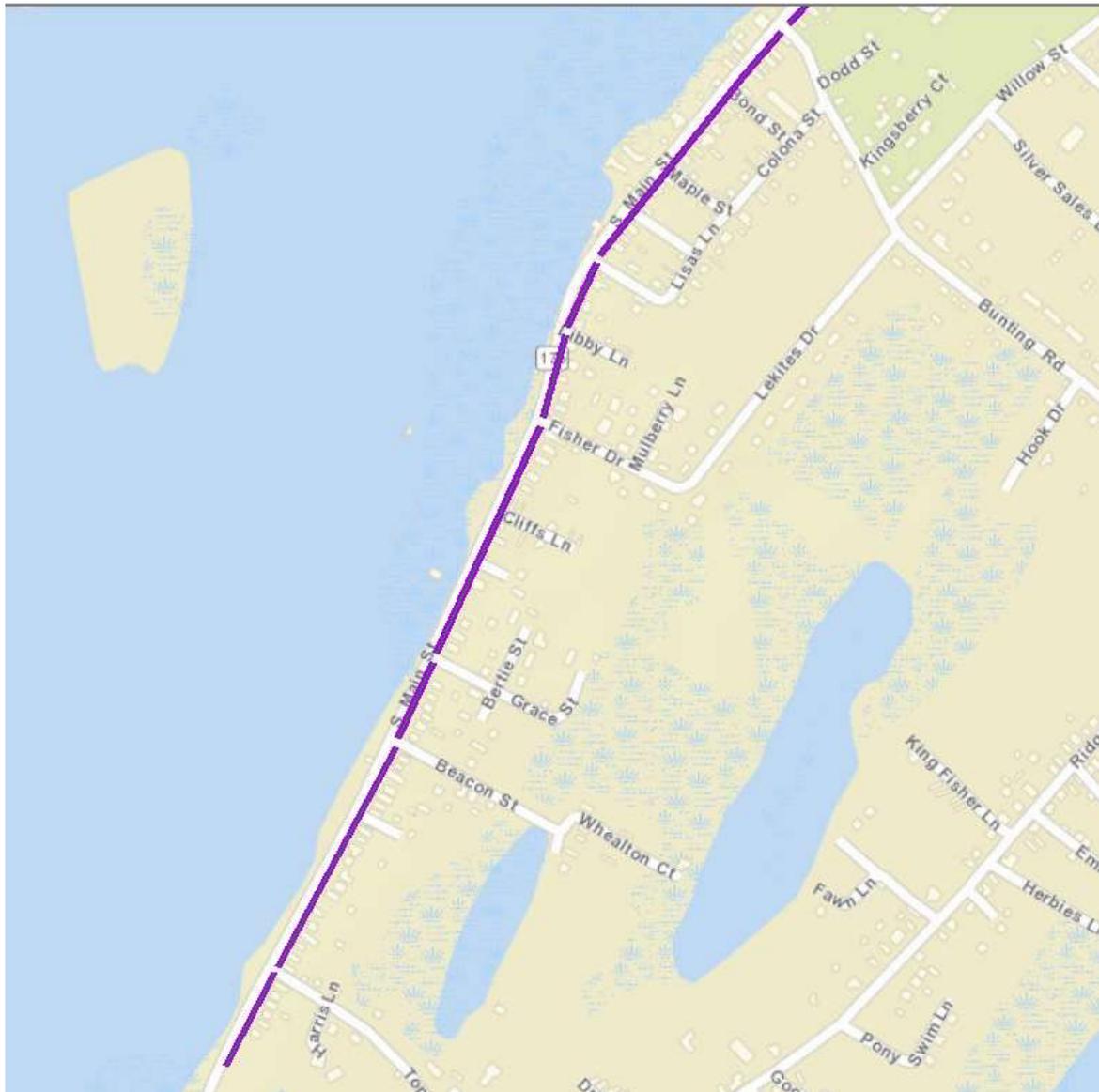
Green = Category 4 - Crosswalks



BLOXOM

Key to Sidewalks

- Red** = Category 1 – ADA Compliant
- Blue** = Category 2 – Functional
- Purple** = Category 3 – Non-functional
- Green** = Category 4 – Crosswalks



CHINCOTEAGUE - South

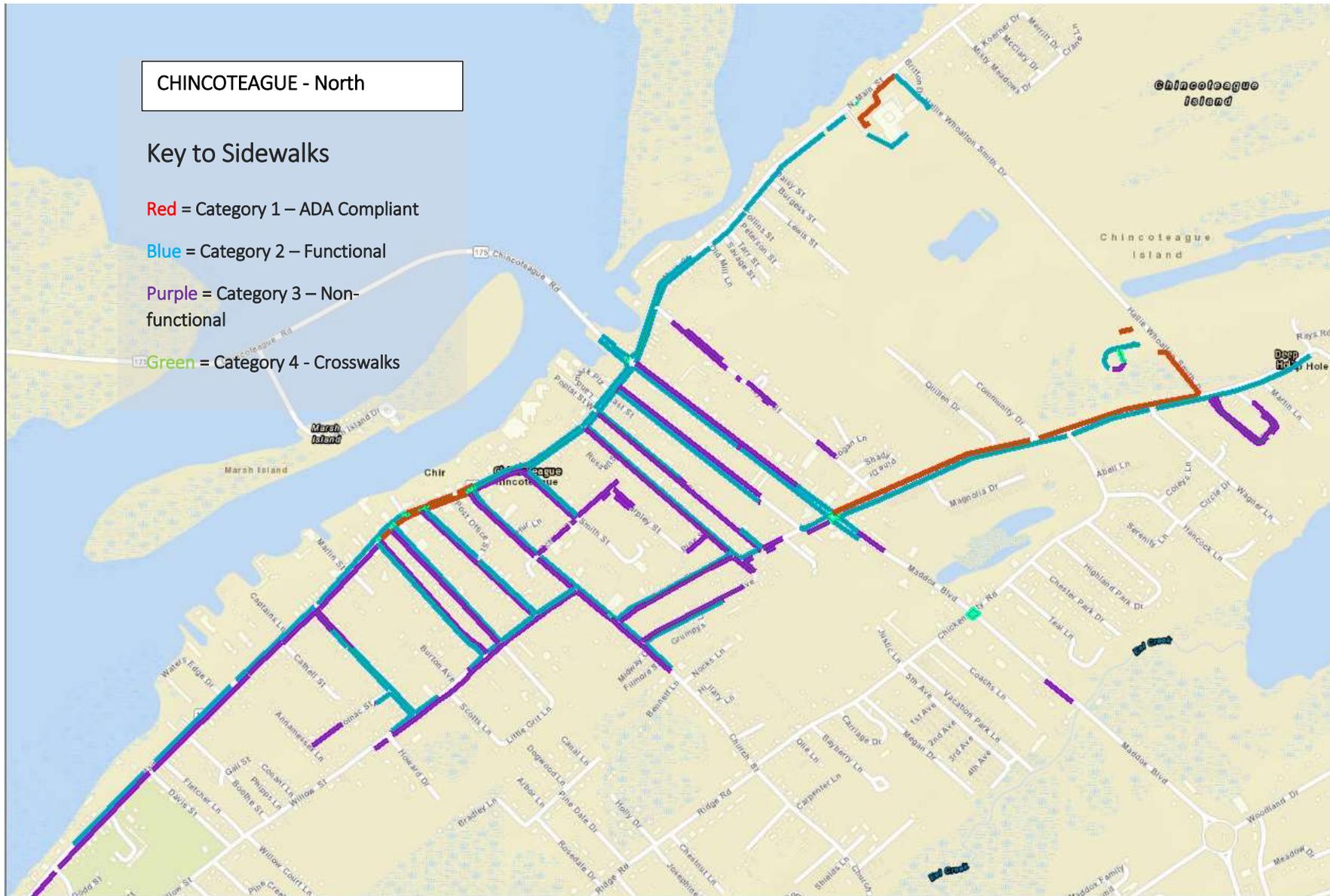
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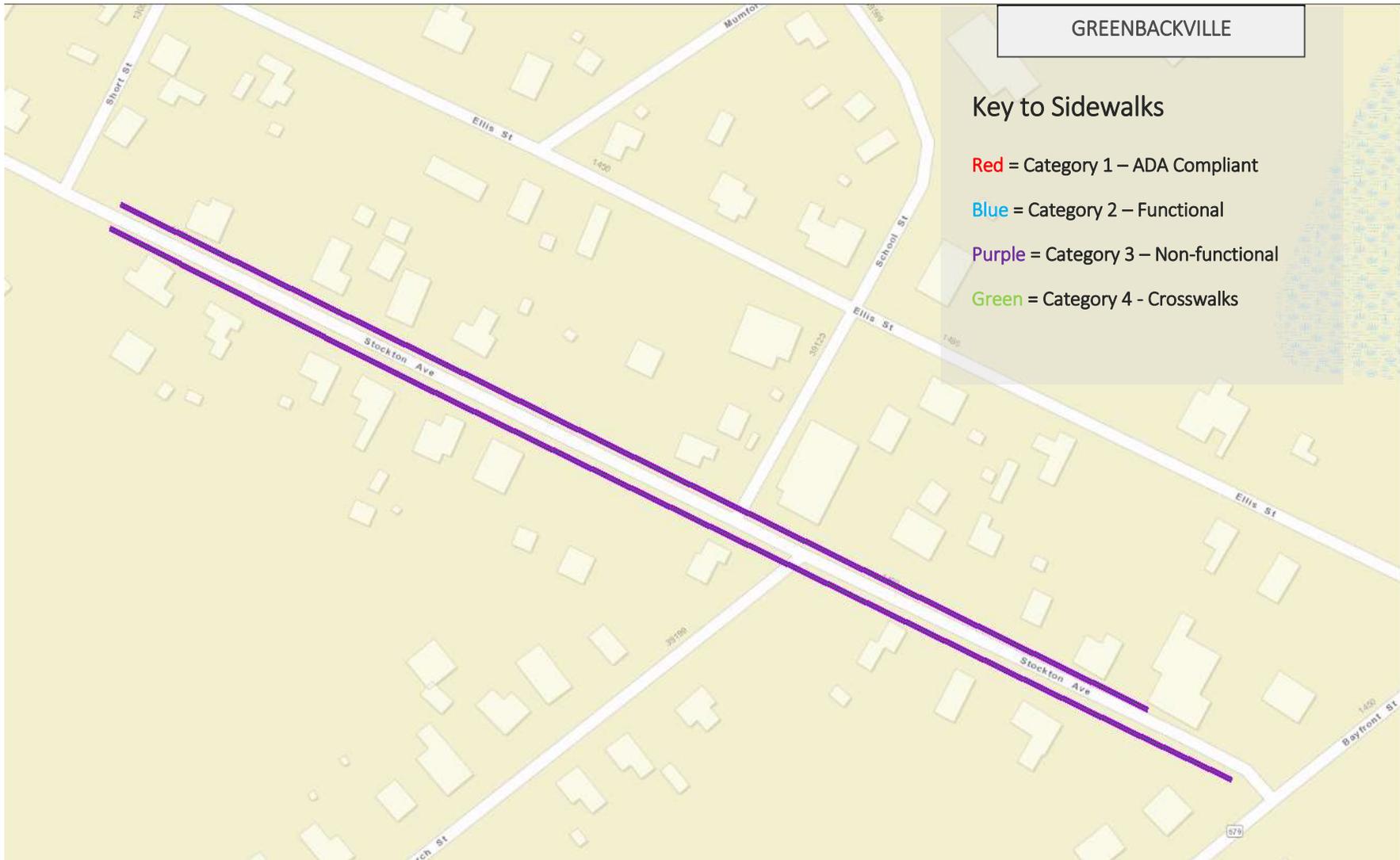
Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks







GREENBUSH

Key to Sidewalks

Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks



HALLWOOD

Key to Sidewalks

- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks



MAPPSVILLE

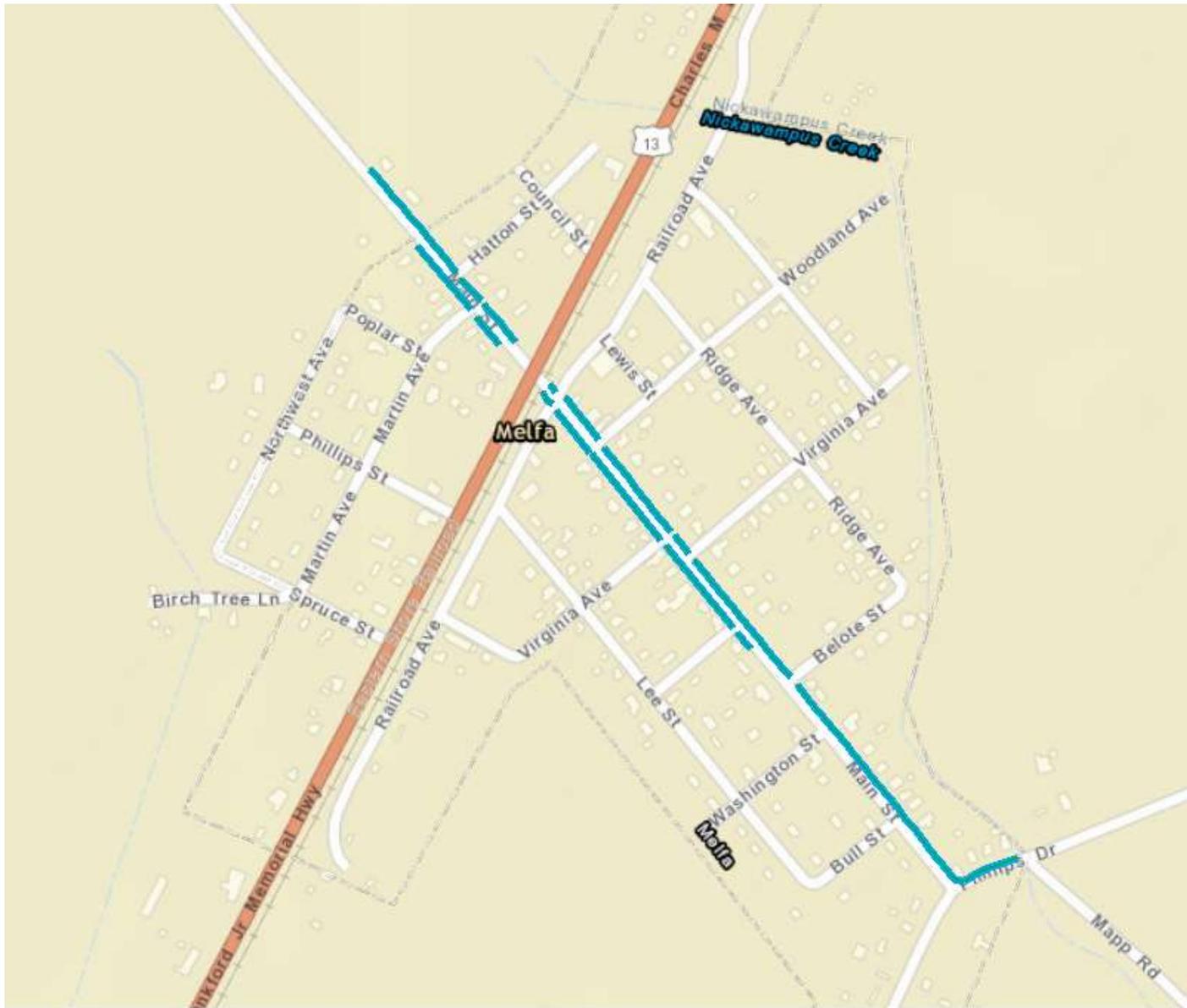
Key to Sidewalks

Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks



MELFA

Key to Sidewalks

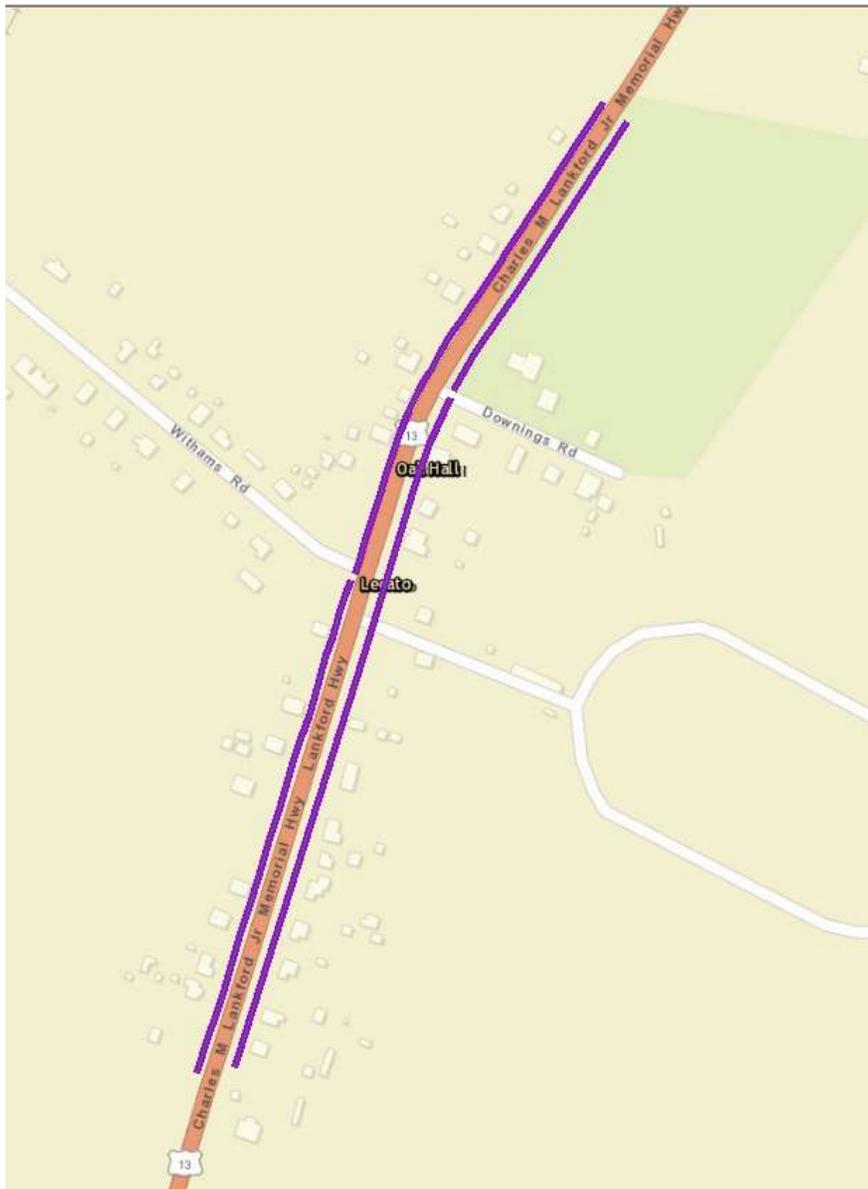
- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks



NELSONIA

Key to Sidewalks

- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks



OAK HALL

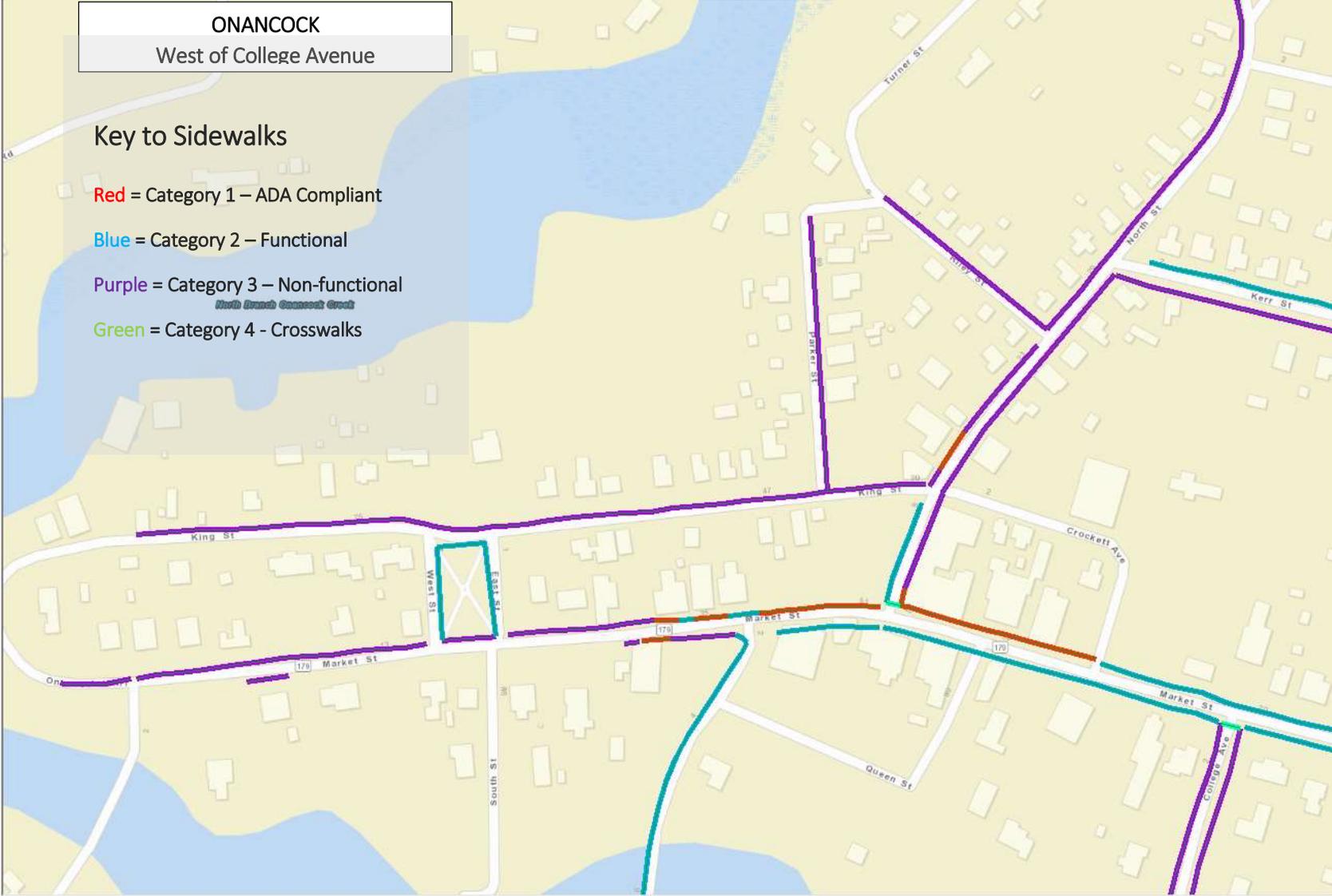
Key to Sidewalks

Red = Category 1 – ADA Compliant

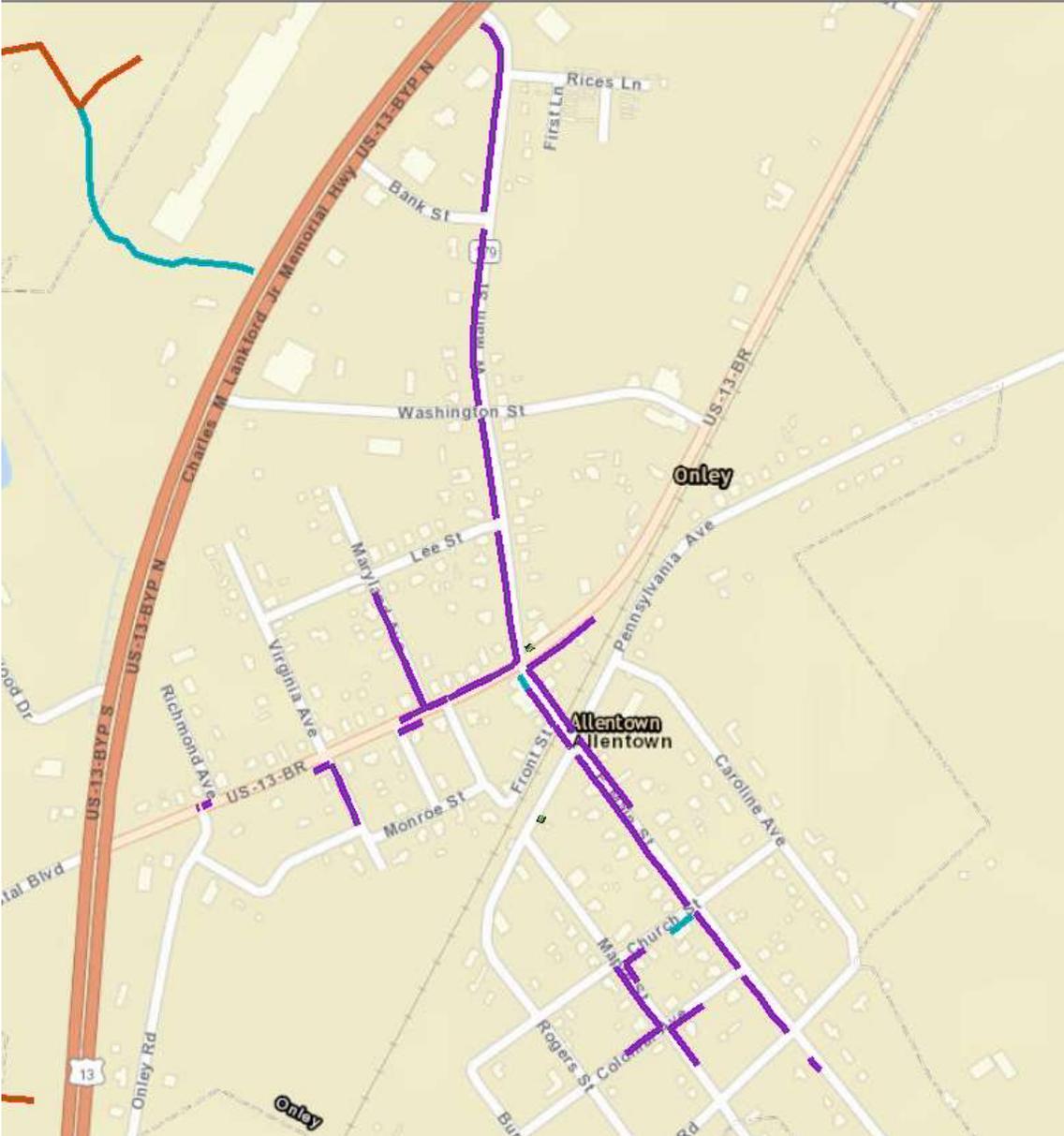
Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks





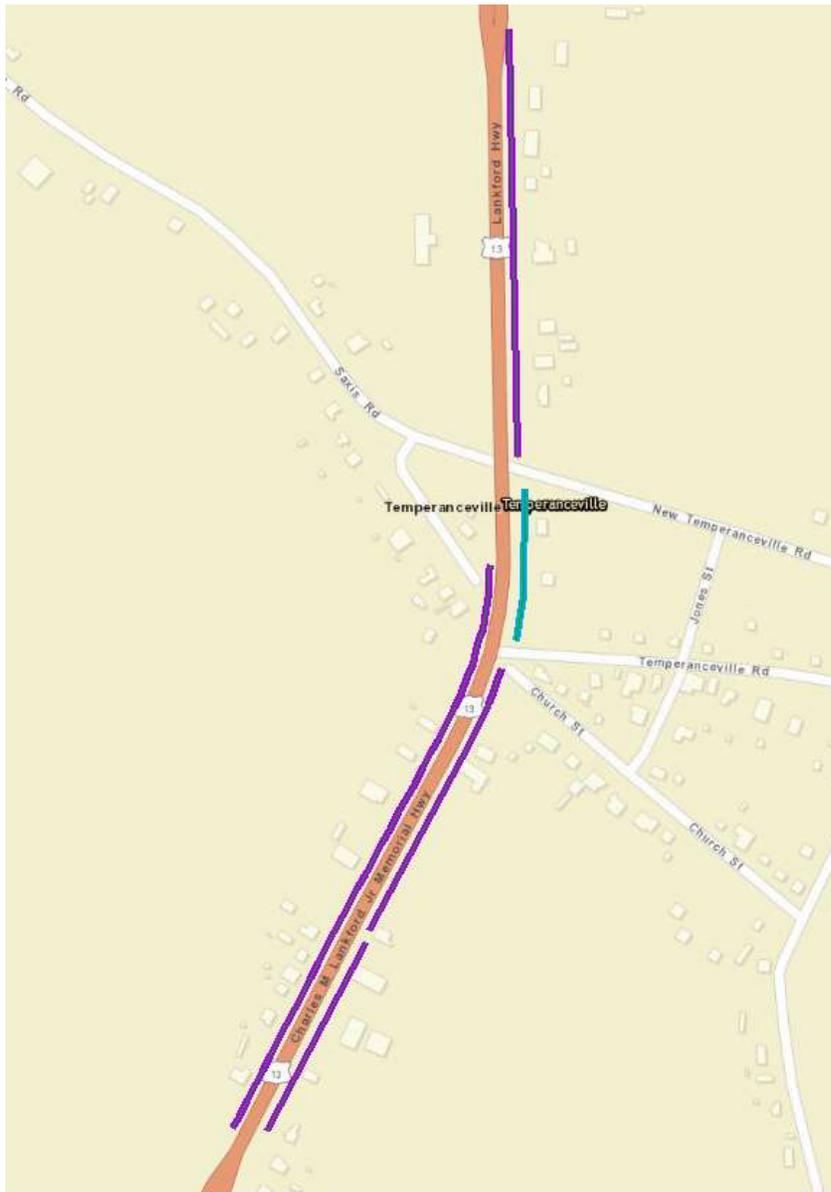


ONLY

Key to Sidewalks

- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks

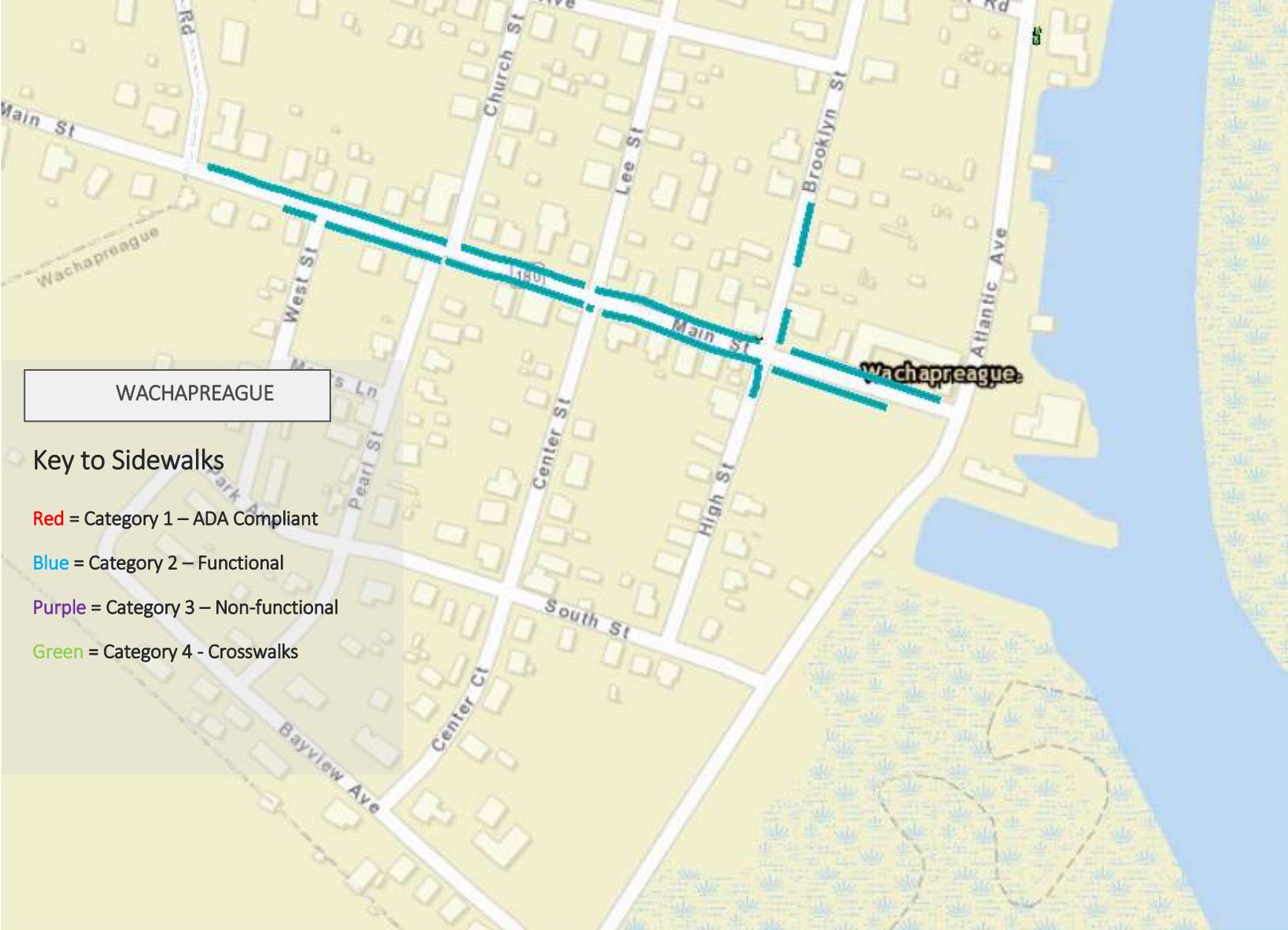


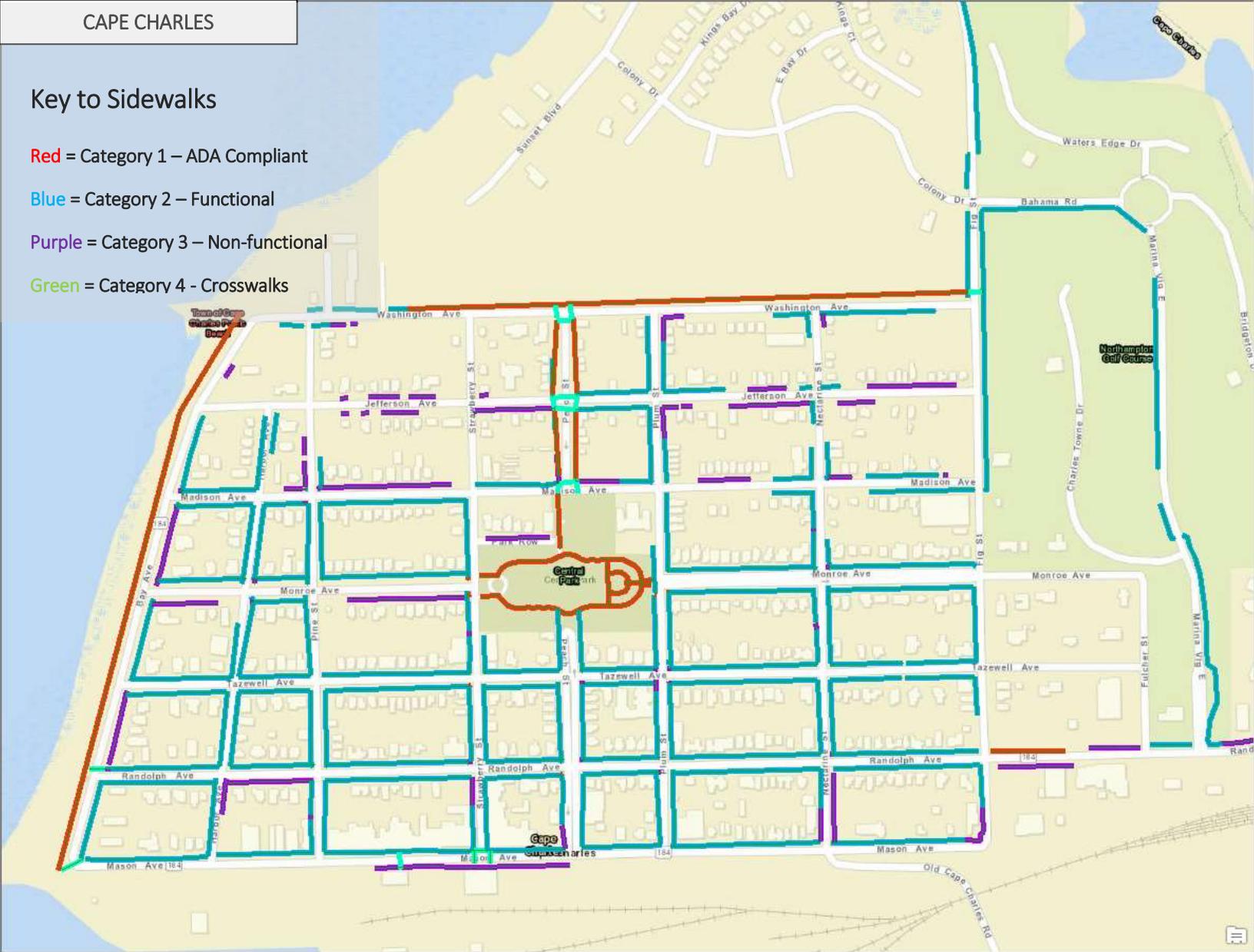


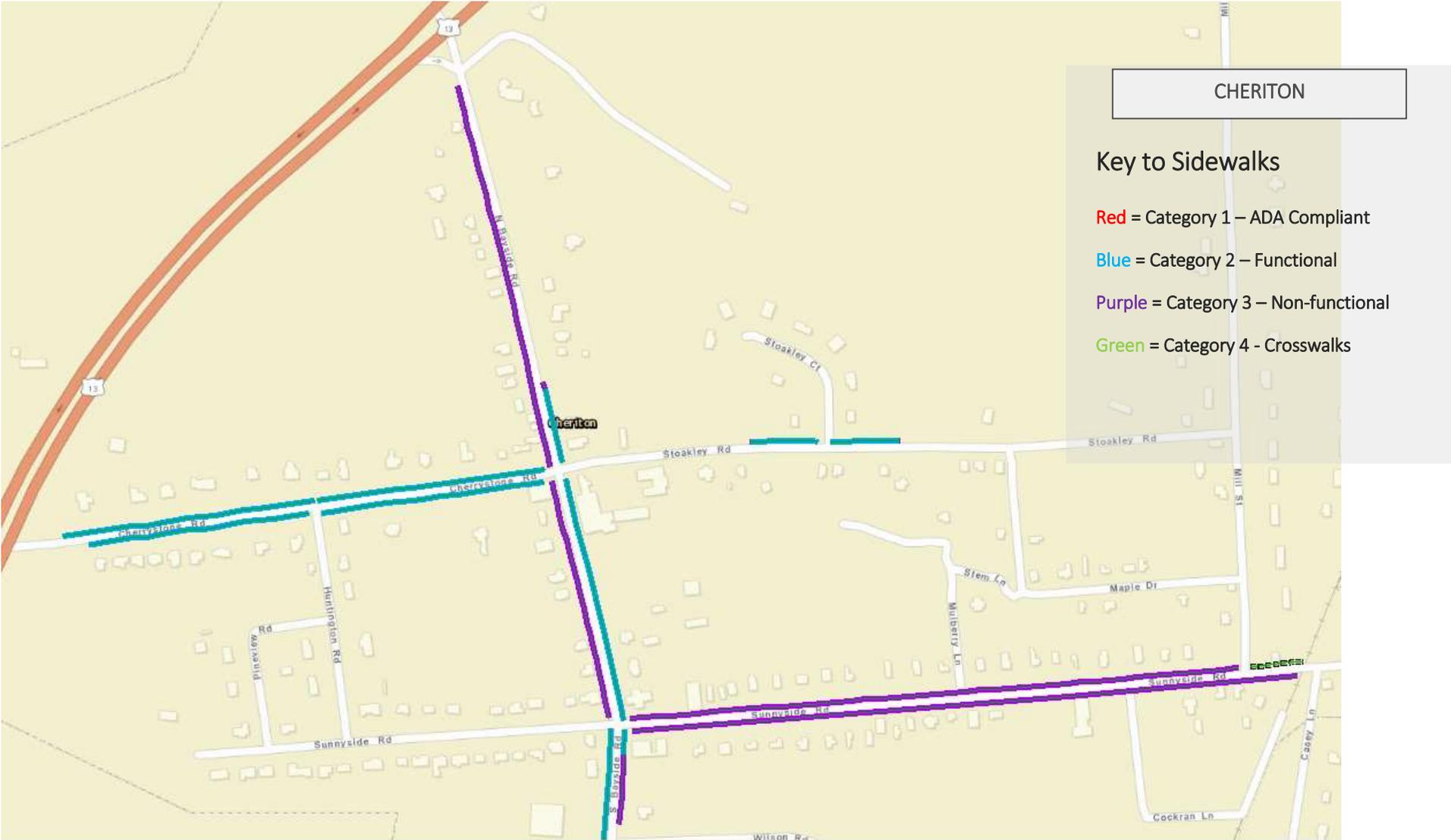
TEMPERANCEVILLE

Key to Sidewalks

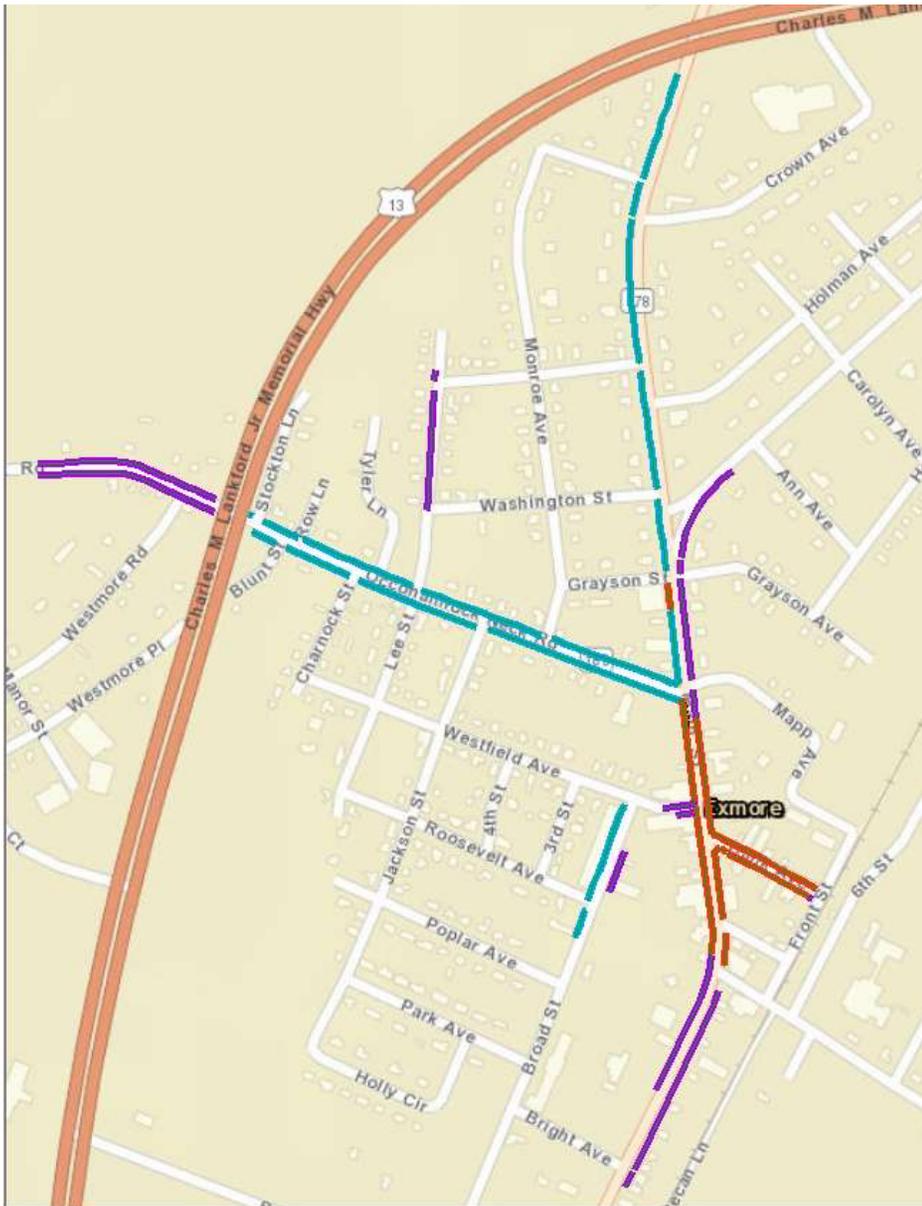
- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks











EXMORE

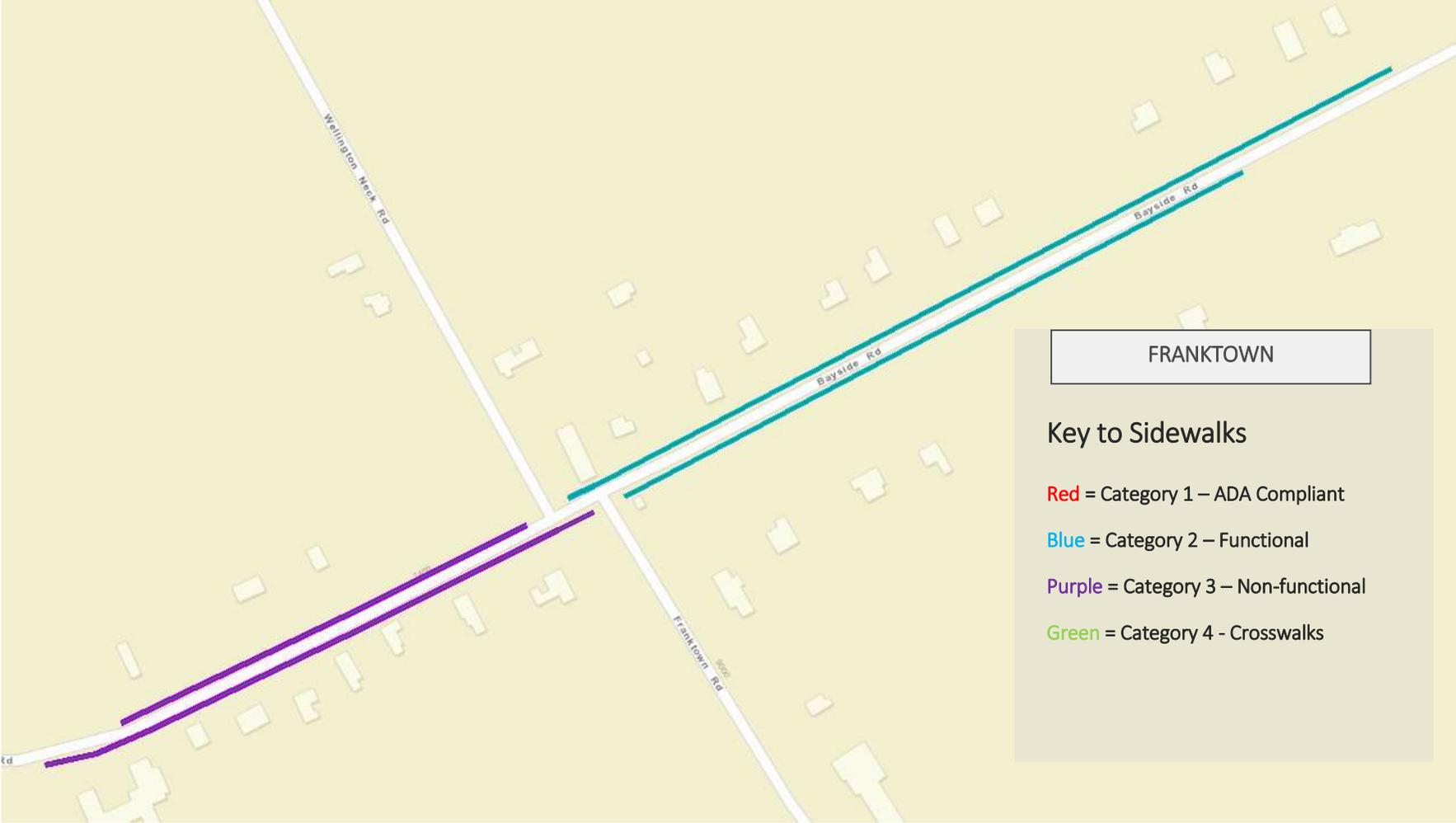
Key to Sidewalks

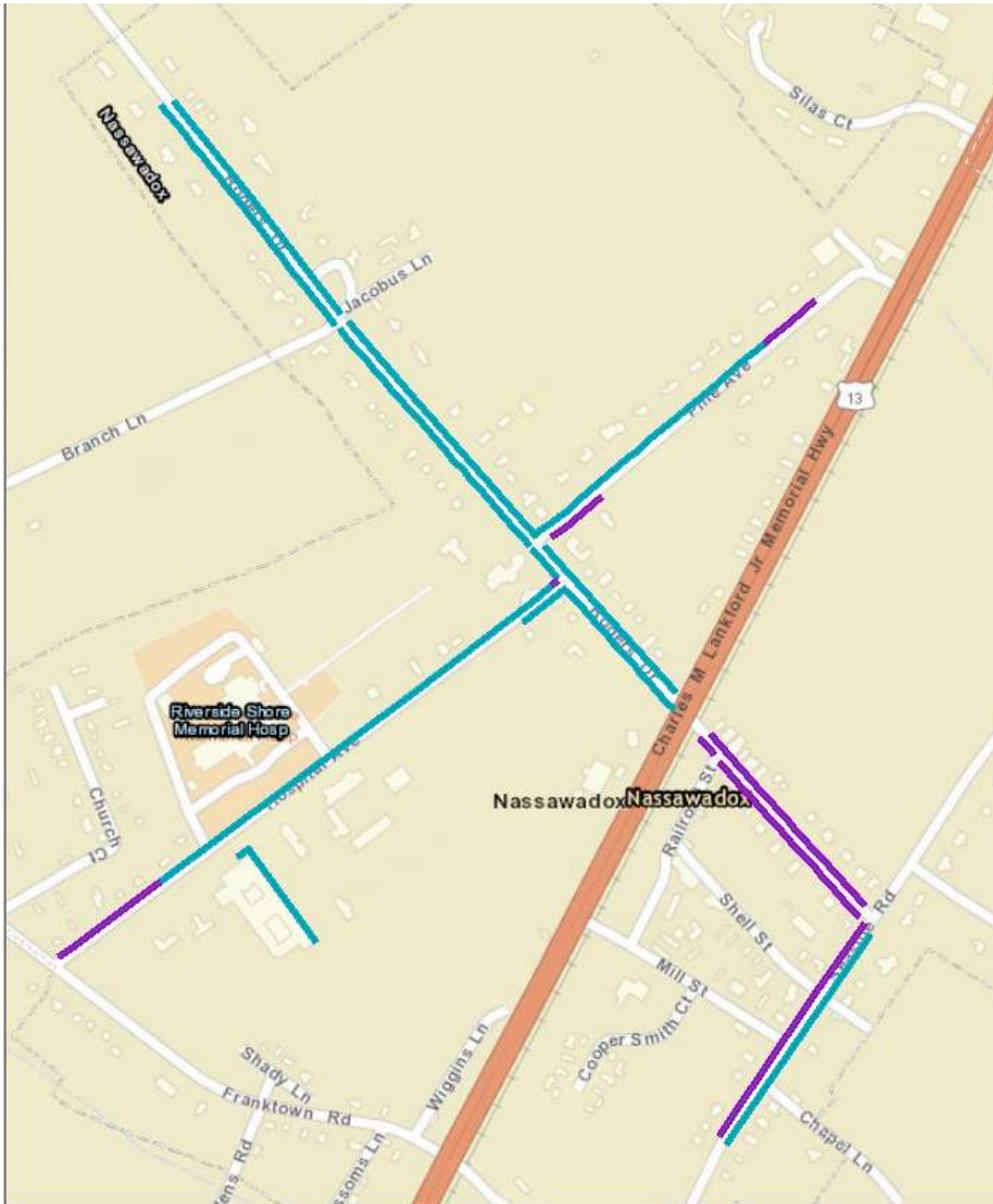
Red = Category 1 – ADA Compliant

Blue = Category 2 – Functional

Purple = Category 3 – Non-functional

Green = Category 4 - Crosswalks





NASSAWADOX

Key to Sidewalks

- Red = Category 1 – ADA Compliant
- Blue = Category 2 – Functional
- Purple = Category 3 – Non-functional
- Green = Category 4 - Crosswalks

For additional information contact:

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