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Broadneck Elementary School Safe Routes to School Accessibility Study: Existing Conditions and Recommendations

August 17, 2023

Anne Arundel Safe Routes to School Accessibility Study

Anne Arundel County (AACO) and Anne Arundel County Public Schools (AACPS) recognize that schools are vital community resources. To improve safety and transportation choices for all residents, the County and school district partnered to conduct a Safe Routes to School Accessibility Study at 17 schools identified in *Move Anne Arundel!*, the County's Transportation Functional Master Plan.

The studies were overseen by a Project Management Team consisting of County, State and School District representatives. They focused on infrastructure within the school walk zone but also assessed opportunities within the school attendance area to expand active transportation to school.

Studies were conducted October 24, 2022 through February 8, 2023, and included one-day site visits to observe school arrival and dismissal and to assess existing walking and bicycling infrastructure. Surveys were also conducted to assess travel modes and barriers to walking or bicycling to and from school.

This report summarizes existing conditions and recommendations for added infrastructure, education, or encouragement programs to increase the number of children that could safely walk or ride bikes to school.

Broadneck Elementary Accessibility Study

Report findings are derived from:

School site visits	• Observation of school arrival and dismissal conducted December 19, 2023 • Assessment of pedestrian and bicycling infrastructure within the current school walk zone and roads immediately adjacent (as connectivity allows) conducted December 19, 2022
Parent Survey	• Administered January 26 – February 19, 2023 • Available online in English, Spanish, Chinese, and Korean • Survey link was provided via email

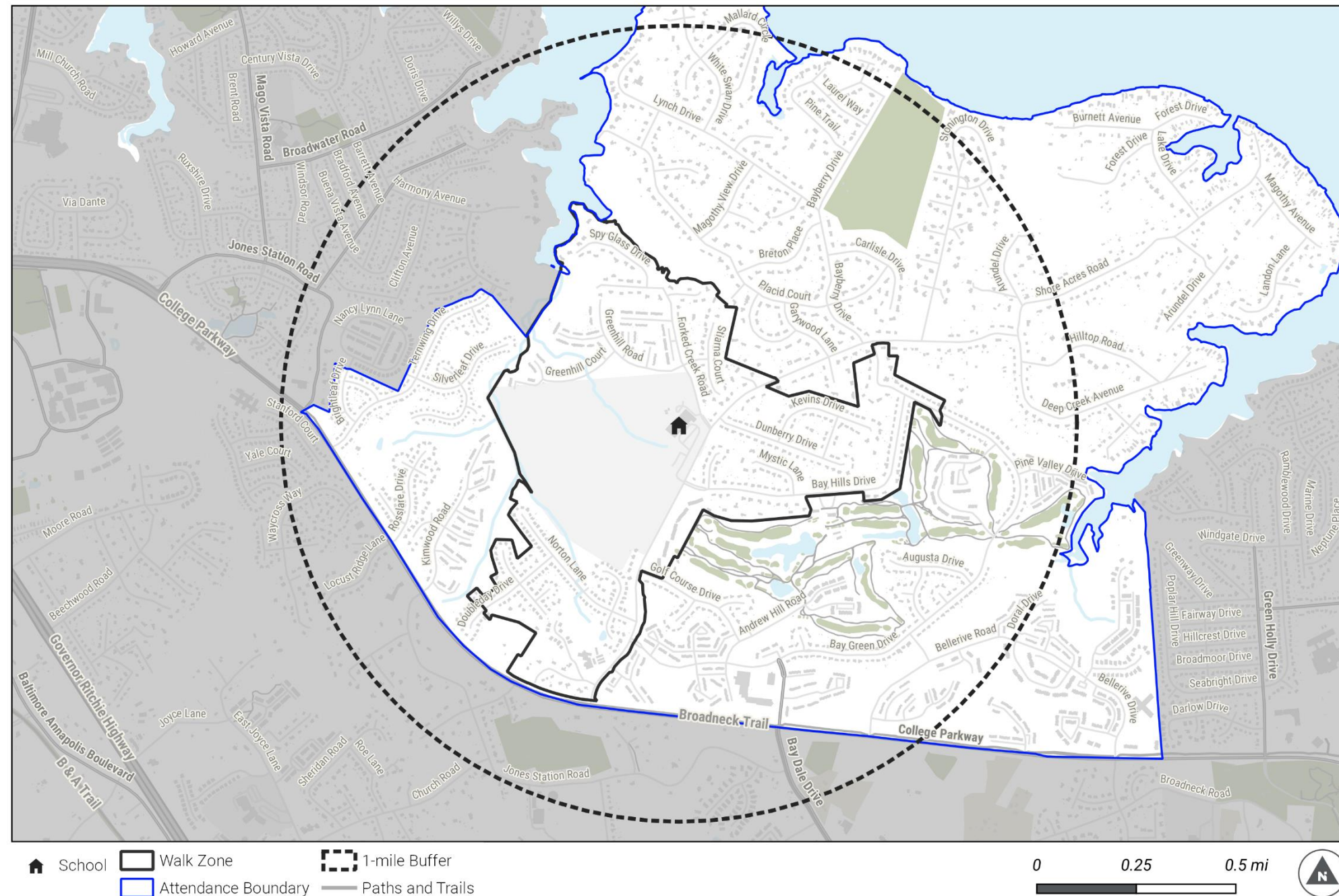
Recommendations were shared with the school community during a virtual open house in October 2023.

SCHOOL OVERVIEW

Study Area

- Field work was conducted on roads within a half mile of the school; desk-level review was conducted on roads within a one-mile radius of the school that fall within the school attendance area.
- Opportunities to expand school connectivity for pedestrians and bicyclists beyond the existing walk zone do exist.
 - Areas north and southeast of the current walk zone could be incorporated by providing sidewalks and safe crossing opportunities on Shore Acres Road.
 - Areas west and southwest of the current walk zone are separated by forested areas with significant grades that would impede construction of accessible paths.

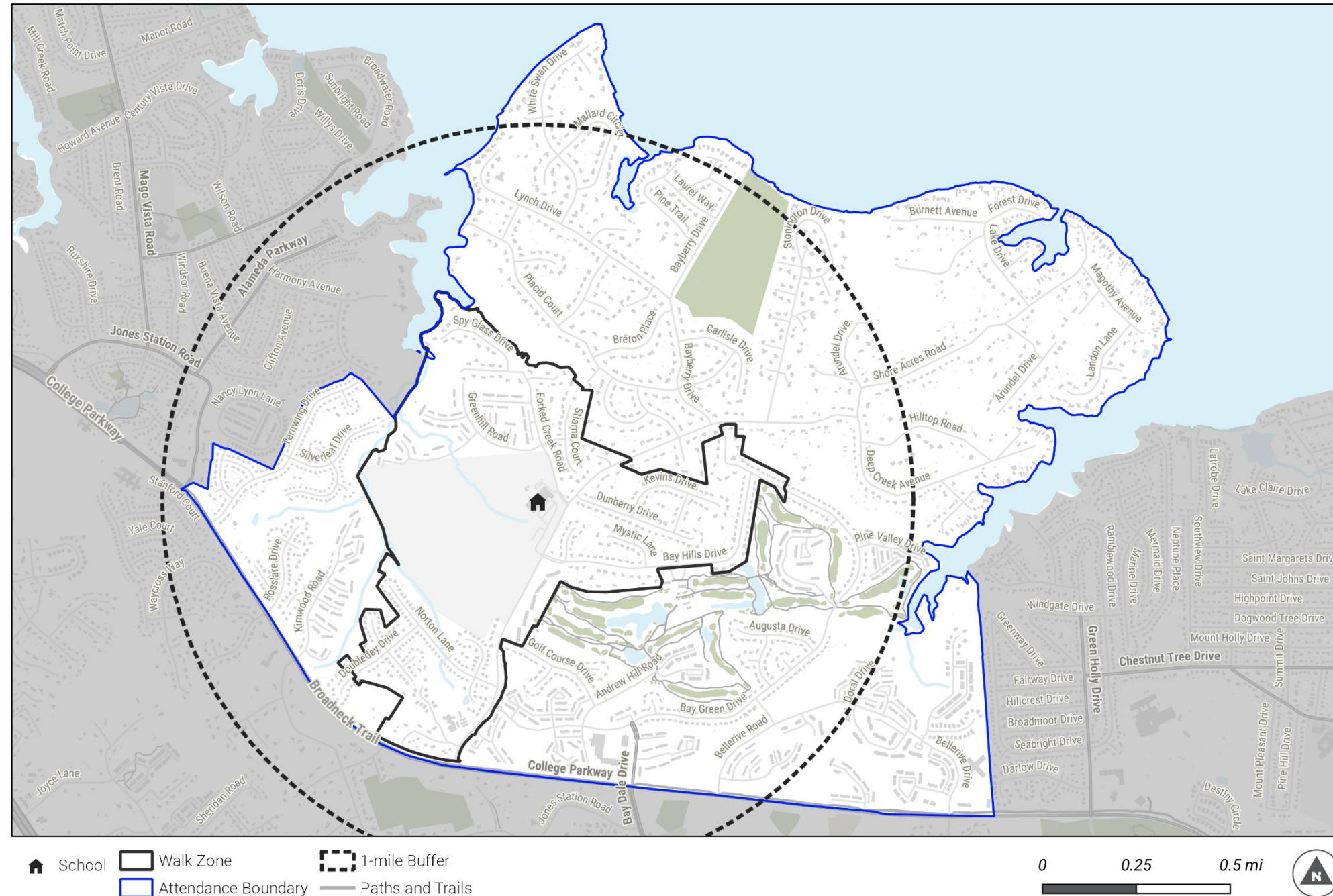
Broadneck Elementary School - 1-mile Radius



Student Attendance Area and Enrollment

- Broadneck Elementary School serves 687 students in grades K–5.
- 69.3% of students are registered for bus transportation*

Broadneck Elementary School - Attendance Boundary



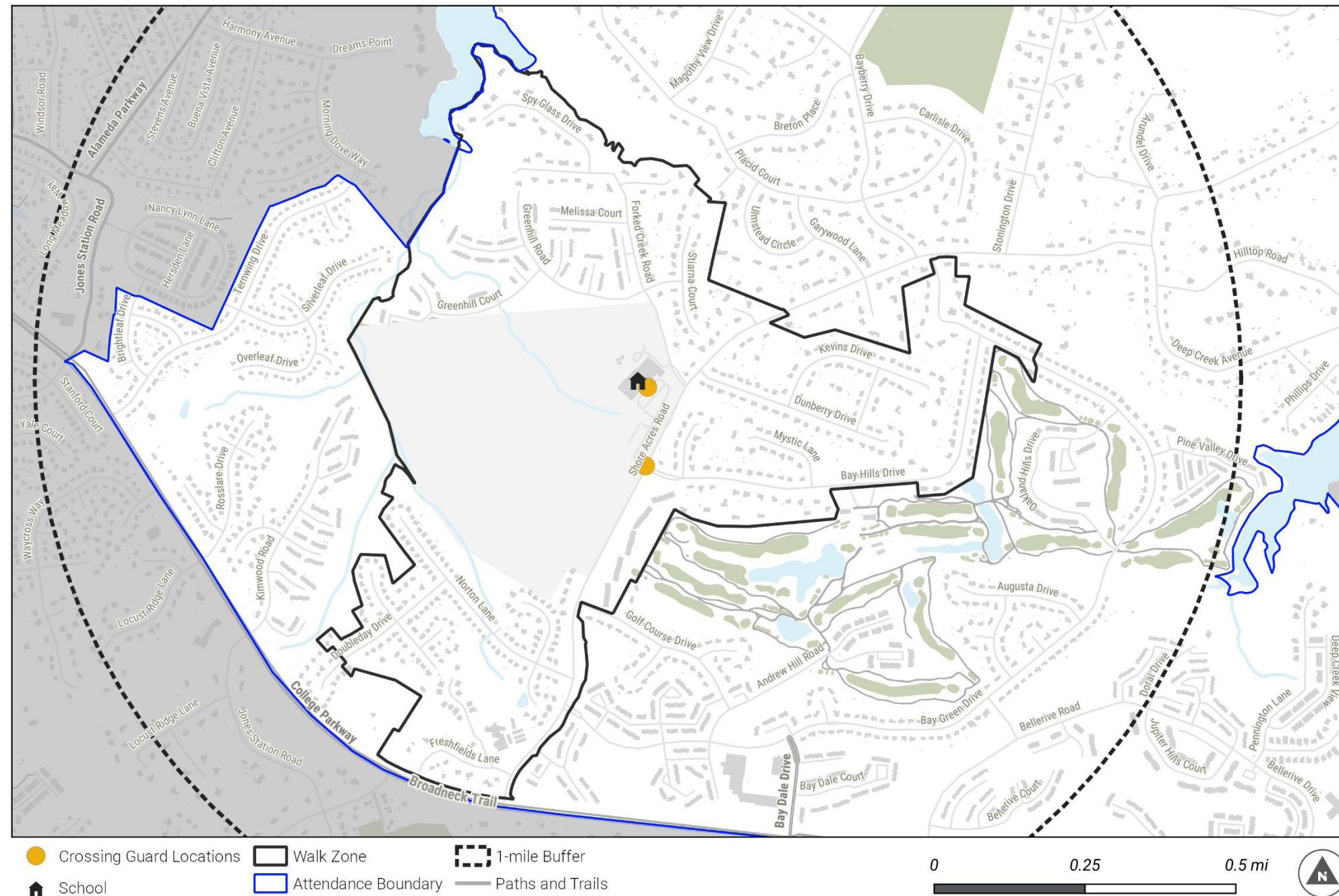
*AACPS provides transportation from designated bus stops for students who reside within the school's attendance area. At elementary schools, transportation is provided for Pre-K students who live more than ½ mile from school, Kindergarten students who live more than ½ mile from school, and students of all other grades who live more than one mile from school.

Source: AACPS 2022-2023 Parent Handbook

School Location and Layout

- Broadneck Elementary School is located on Shore Acres Road at Forked Creek Road in Arnold.
- Neighboring areas largely consist of single-family homes; a golf course and forest occupy significant sections of the 1-mile buffer.
- Most of the area within and outside of the walk zone consists of curved streets and cul-de-sacs that provide limited network connectivity.
- Shore Acres Road is classified as a collector, with a posted speed limit of 35 mph; a segment directly in front of the school is posted with a school speed limit of 25 mph during periods roughly corresponding to arrival and dismissal (7:45–8:45 AM and 2:10–3:10 PM).
- Forked Creek Road is a collector with a 30-mph speed limit posted.

Broadneck Elementary School - Walk Zone



School Access

Walkers and Bicyclists:

- Walkers and bicyclists access the school via Shore Acres Road or a short side path from Forked Creek Road.

Buses:

- Buses use the main driveway from Shore Acres Road and drop off in front of the main doors.

Parent/Guardian Drop-Off:

- Parents/guardians use the school's main driveway from Shore Acres Road to access a drop-off loop in a small parking area to the left of the driveway.
- After all buses depart, parents/guardians may use the bus lane to unload.

Staff Vehicles:

- Most staff who drive access the school via the main driveway and park in one of the lots in front of the school.
- Some staff use a driveway off Forked Creek Road to access a small lot behind the school.



PARENT-REPORTED STUDENT TRAVEL MODES & BARRIERS

Broadneck Elementary - Parent Survey Response Overview

- 80 total survey responses received*
- 95% of respondents live in the area zoned to the school

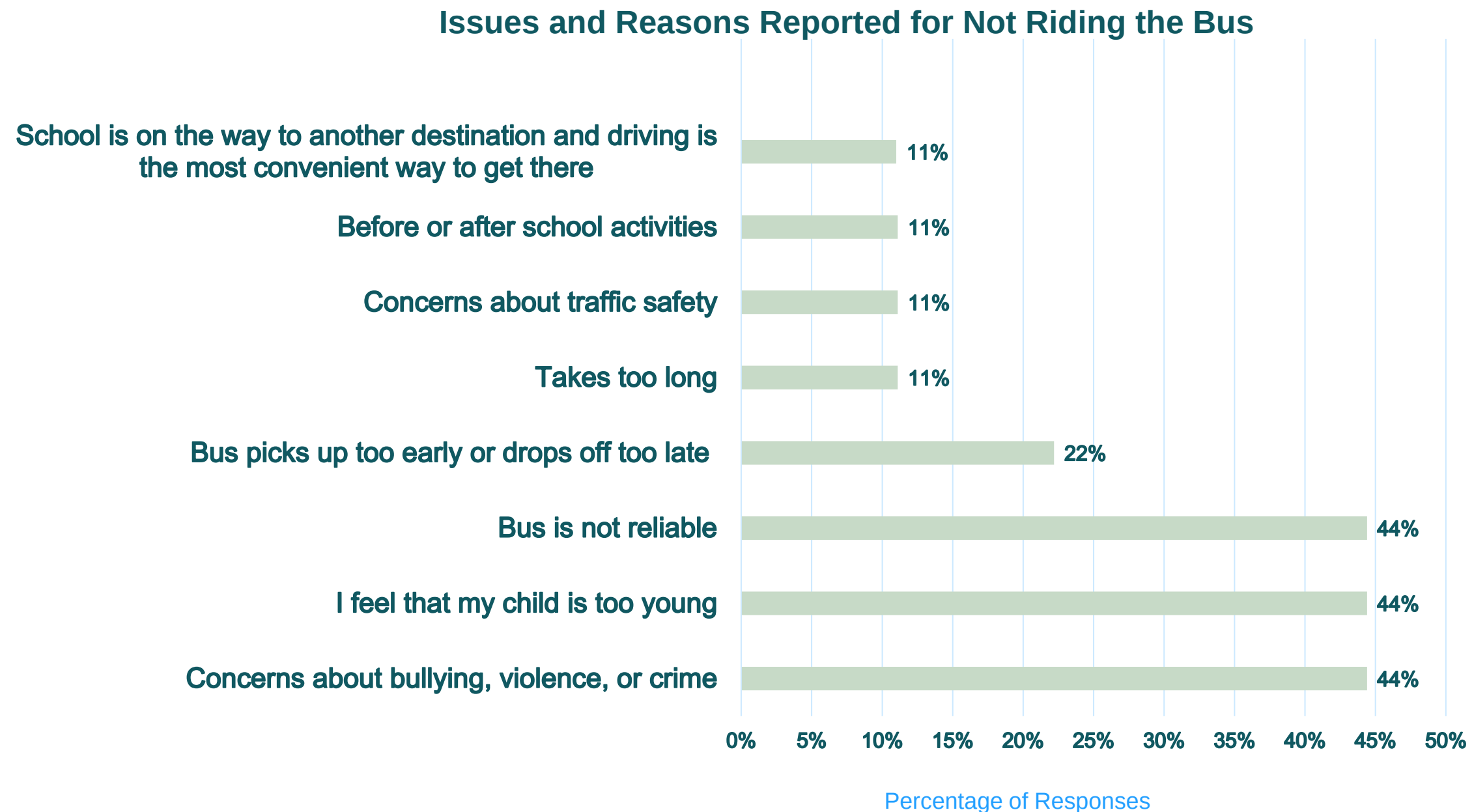
Reported Distance from Home to School	
Distance	Number of Respondents
< ¼ mile	8
¼ mile – ½ mile	9
½ mile – 1 mile	22
1 mile – 1 ½ miles	23
>1 ½ miles	18

**Note that the survey response rate represents a fraction of the student population and may not reflect the experiences and perspectives of all families.*

Parent Survey Results

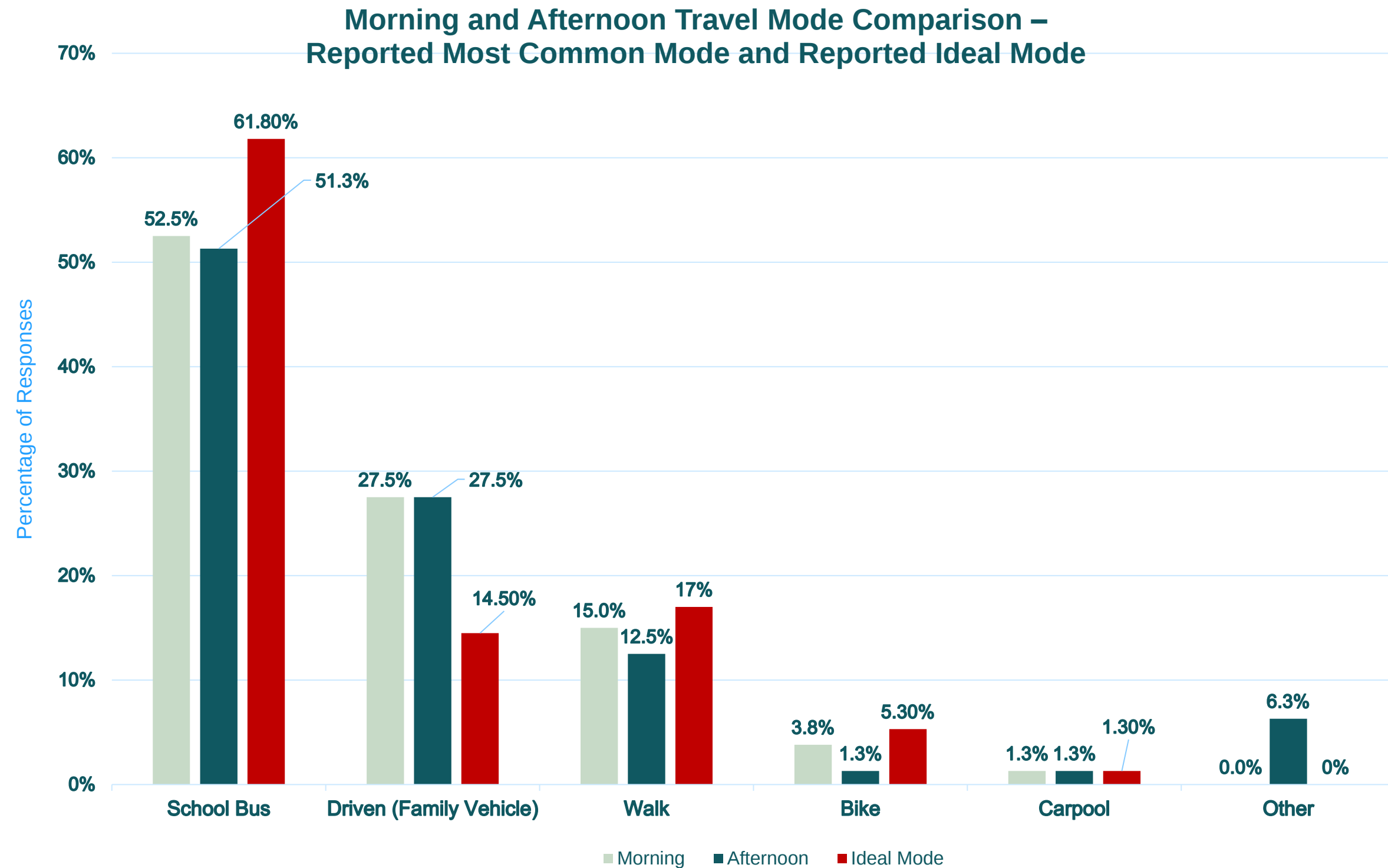
School Bus Eligibility and Use

75% of respondents reported being eligible for school bus transportation;
52.5% reported riding the school bus to school.



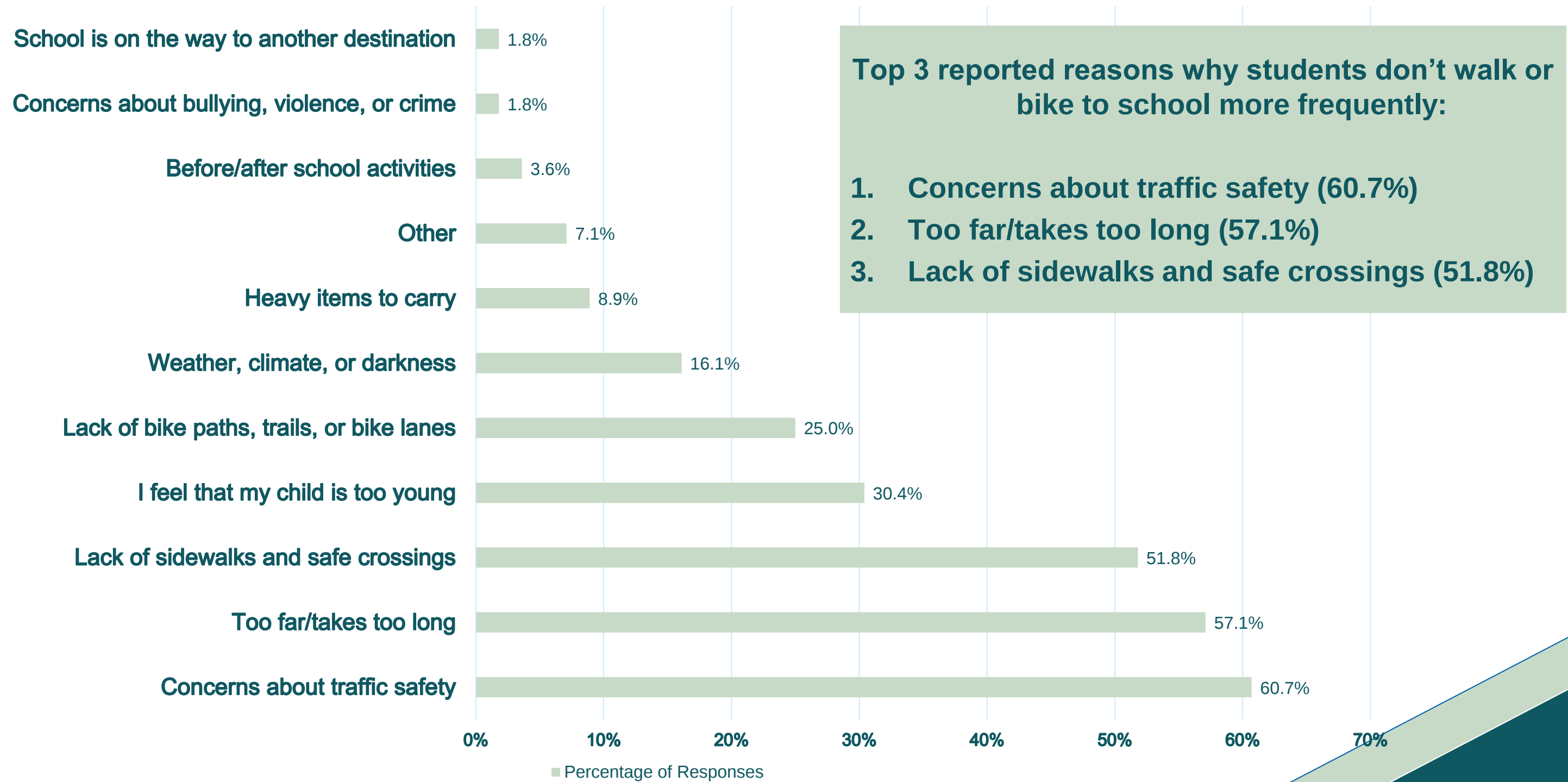
Parent Survey Results

Most Common Travel Mode versus Ideal Travel Mode



Parent Survey Results

Reported Barriers to Walking or Biking to School



Parent Survey Results

Reported Streets Used to Walk or Bike to School

- Shore Acres Road
- Forked Creek Road
- Bay Hills Drive
- Greenhill Road
- Dunberry Drive
- Golf Course Drive to Old Stone Lane
- Bay Green Drive
- Norton Lane
- College Parkway

ARRIVAL AND DISMISSAL OBSERVATIONS

Arrival and Dismissal Operations

School Hours:

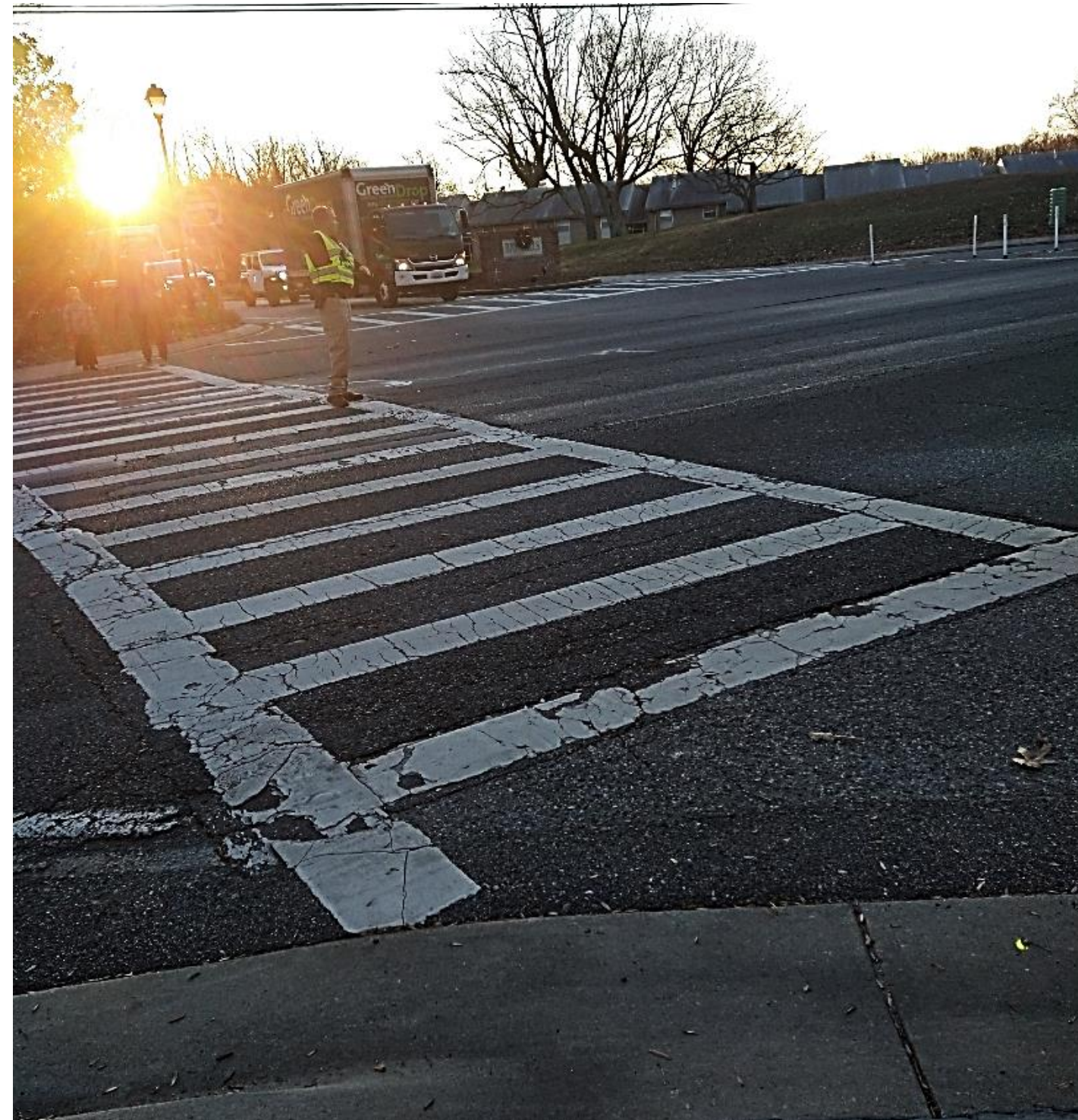
- 8:00 am – 2:25 pm
- Doors open at 7:40 am

Observation Times (December 19):

- Arrival: 7:25 am – 8:15 am
- Dismissal: 2:15 pm – 2:45 pm

Crossing Guards:

- Per AACPS data, two crossing guard locations are assigned to Broadneck Elementary School; one was observed at the intersection of Shore Acres Road and Bay Hills Drive at the school driveway, and another mid-block on Shore Acres Road between Bay Hills Drive and Forked Creek Road. Note that this second location differs from information provided by AACPS (see map on page 7).



Crossing guard at Shore Acres Road at Bay Hills Drive

General Observations

General Observations:

- Many parents drop off students on Forked Creek Road or park along the street and walk their kids to the door.
- Most student “walkers” exited and entered vehicles parked along Forked Creek Road during arrival and dismissal.
- Although a crossing guard is posted at the mid-block crossing on Shore Acres Road and not at the corner of Shore Acres Road and Forked Creek Road, many children and/or parents crossed at the latter location.



Arrival Observations

The study team observed arrival from the following locations:

- Forked Creek Road at school's back driveway
- Shore Acres Road and Bay Hills Drive

General Observations:

- School starts at 8:00 AM
- Doors open at 7:40 AM for early arrivals; buses hold students until doors open for everyone at 7:45.
- Cars unload students in the side parking lot or used the bus loop after buses departed.

Bus Lane

- Nine school buses were observed.



Buses during arrival.

Arrival Observations

Walkers and Bicyclists

- One student crossed Shore Acres Road at Bay Hills Drive; several older students also wait on this corner for middle/high school buses.
- Approximately 10 students were observed walking north on the west (school) side of Shore Acres Road, presumably coming from neighborhoods further south.
- Approximately 12 times, groups of adults with multiple children were observed crossing Shore Acres Road at Forked Creek Road.
- No students were observed using the mid-block crossing on Shore Acres Road, though one parent was observed using it to cross back to their car parked on Shore Acres Road.
- Approximately 20 walkers and 1 student riding a bicycle were observed heading south along Forked Creek Road toward the school, most accompanied by a parent or caregiver.



Shore Acres Road - midblock crossing guard

Arrival Observations

Parent Drop-off

- Approximately 30 students were dropped off by parents on Forked Creek Road.
- Many parents parked along the street on Forked Creek Road or Shore Acres Road and walked students to the door or stopped in the street to let them unload.
- Multiple U-turns, illegal parking that obstructed traffic, and near-collisions were observed, particularly on Forked Creek Road.
- Some parents, with their children, crossed Forked Creek Road at midblock locations with no marked crossing.



Forked Creek Road during arrival

Dismissal Observations

The study team observed dismissal from the following locations:

- Shore Acres Road & Forked Creek Road
- Forked Creek Road & school driveway

General Observations:

- Dismissal begins at 2:20pm and follows a staggered process based on travel mode.

Walkers and Bicyclists:

- Walkers were dismissed by grade level (K-2 then 3-5).
- Approximately 10 student walkers and one bicyclist were observed along Forked Creek Road.
- Approximately 15 students crossed Shore Acres Road at Forked Creek Road and headed toward Dunberry Drive.
- Approximately 40 students dismissed as walkers were observed accessing cars along Forked Creek Road, and several dozen more accessed cars parked along Shore Acres Road.



Parents waiting for dismissal

Dismissal Observations

Bus Lane

- Bus riders were dismissed in waves according to bus. Approximately three buses are loaded at a time.

Parent Pick-up

- According to school procedure, car riders gather in media center and are called by walkie talkie as their parent arrives in the upper lot for pick up.
- Approximately 30 cars were parked along Shore Acres Road at dismissal, and at least 25 more along Forked Creek Road. The line of cars on Forked Creek eventually backed up beyond the intersection with Greenhill Drive.
- Students walking north on Forked Creek Road must cross a staff parking lot driveway; a staff member was stationed here to control exiting traffic.
- Two near-miss U-turns were observed on Forked Creek Road, but fewer near-misses were observed than during arrival.



Forked Creek Road at dismissal

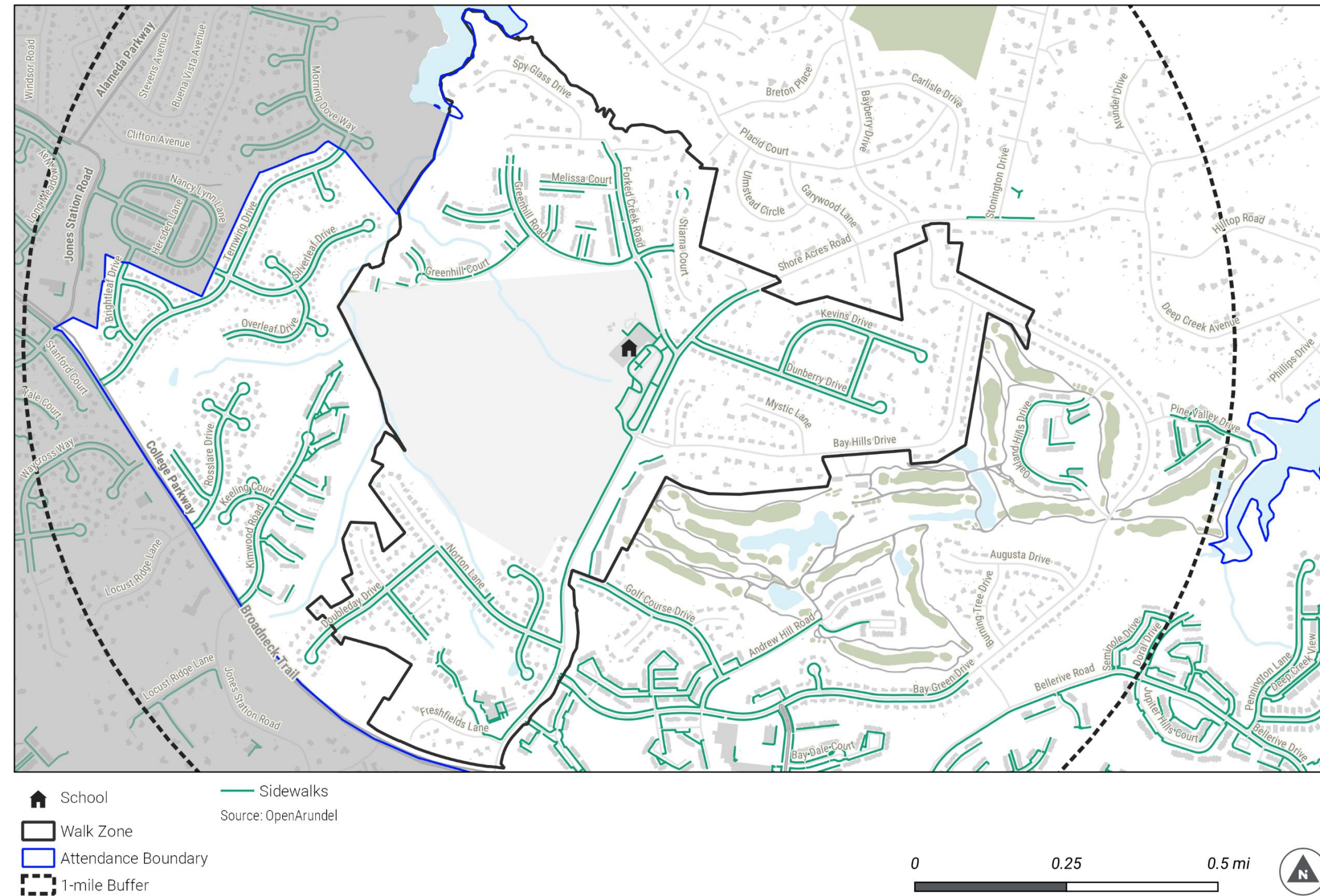
EXISTING INFRASTRUCTURE CONDITIONS

Existing Sidewalk Network

Most streets in the walk zone have sidewalks, but several gaps exist, particularly north and east of the school.

Residential areas north of the school walk zone lack sidewalks.

Broadneck Elementary School - Existing Sidewalk Network

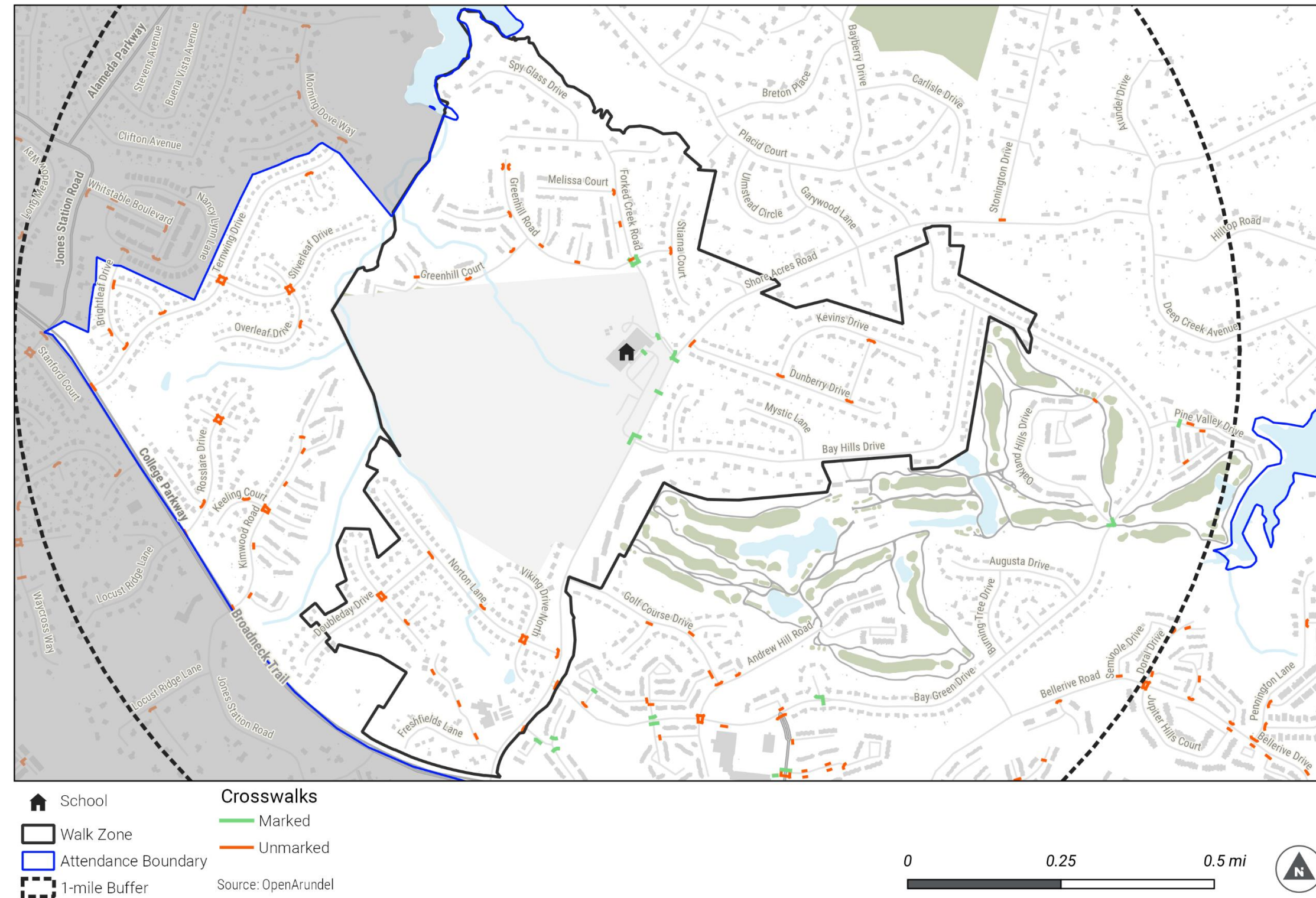


Existing Crosswalks

There are marked crosswalks on the school campus and across Shore Acres Road at both ends of the property.

Away from the school campus, crossings at most intersections within the school walk zone are unmarked.

Broadneck Elementary School - Existing Crosswalks



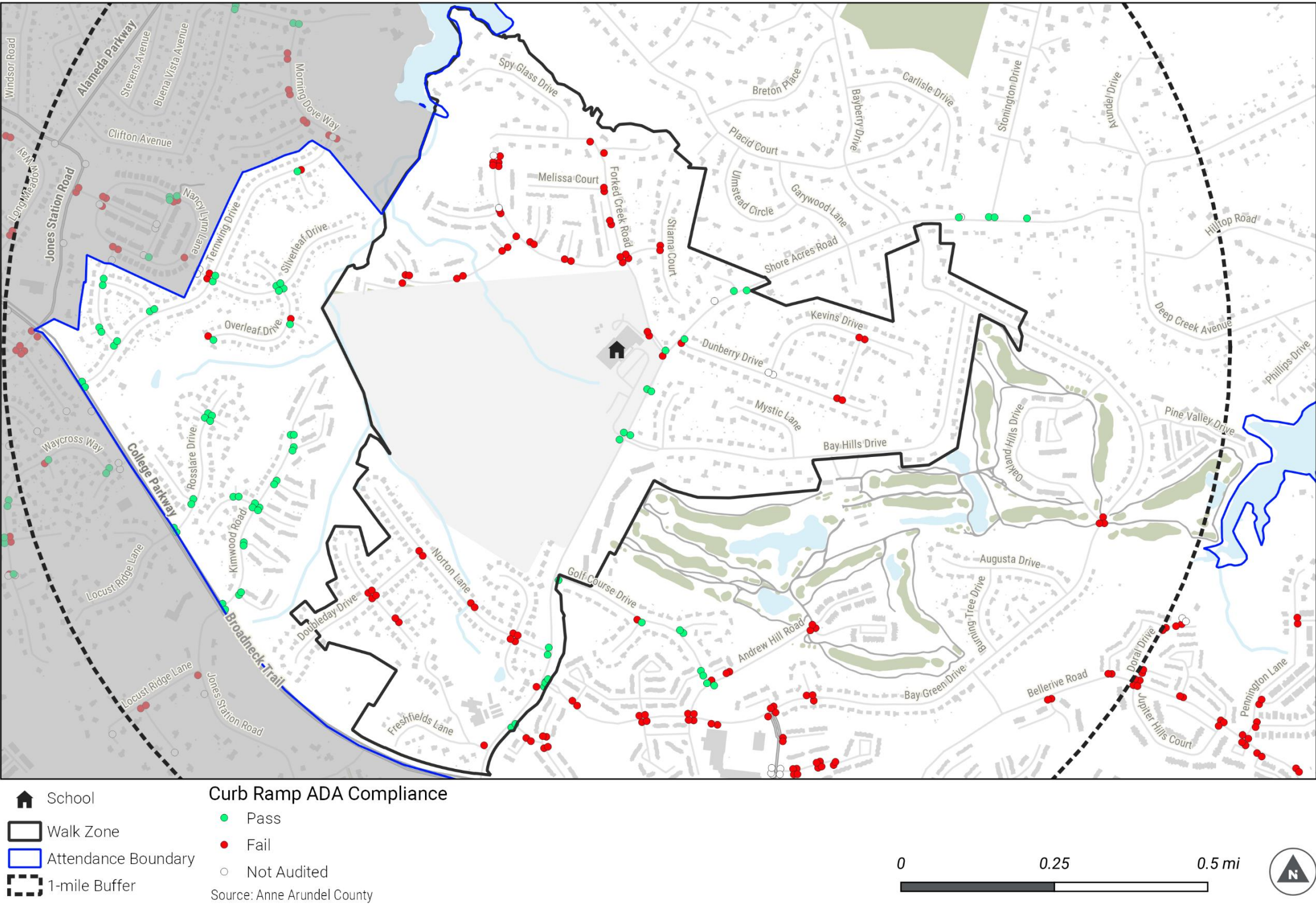
Existing Curb Ramps

Many crosswalks on the school campus and across Shore Acres Road have curb ramps, but not all; several curb ramps on campus lack detectable warning surfaces.

Away from the school campus, most crossings within the walk zone lacked curb ramps, and many existing ramps lack detectable warning surfaces.

**Curb ramp data downloaded 9/14/22*

Broadneck Elementary School - Existing Curb Ramps

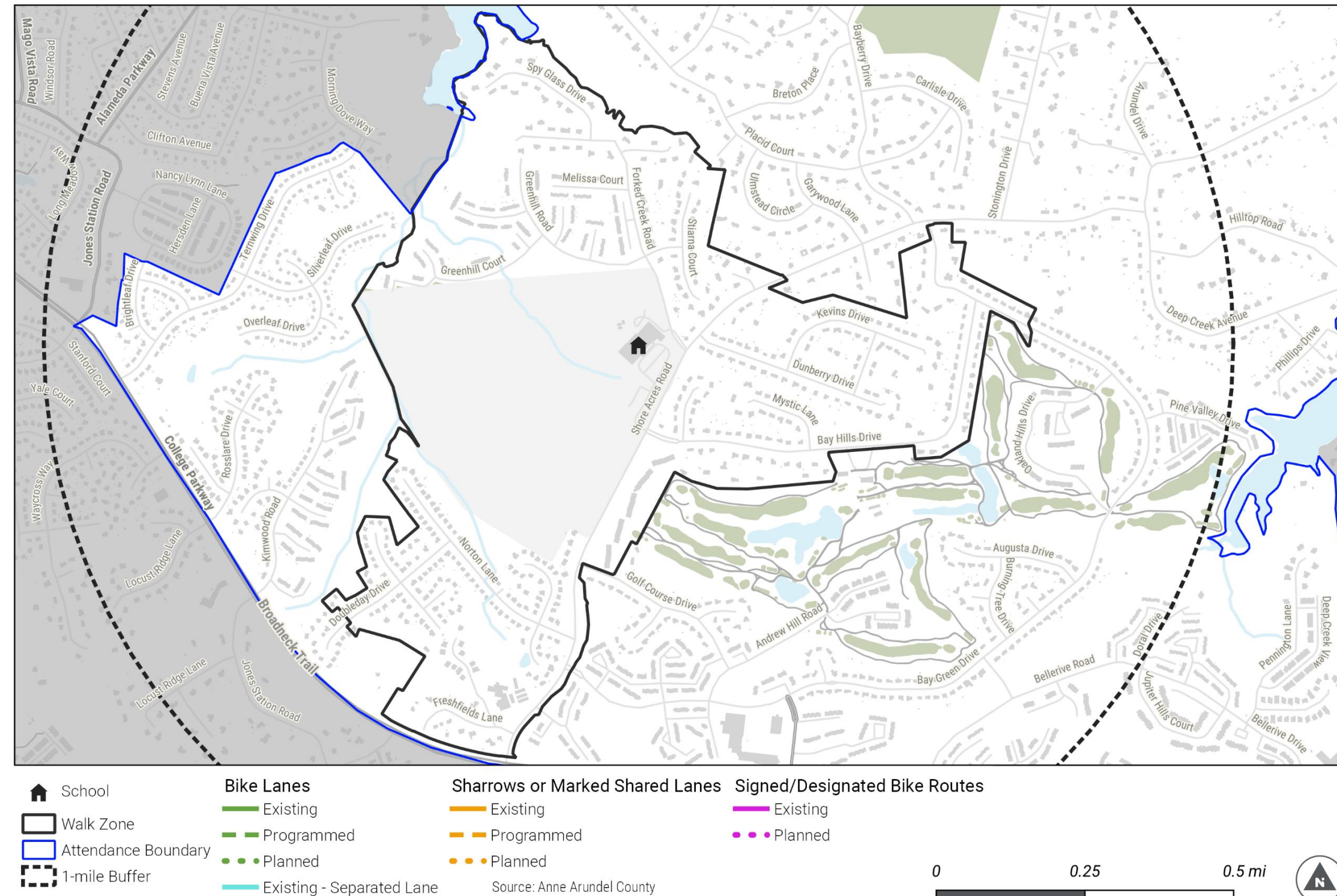


Existing On-Road Bike Facilities

No on-road bike facilities are known to exist or are currently planned* for roads near the school.

*“Planned” means included in the County’s Master Plan

Broadneck Elementary School - Existing On-Road Bicycle Facilities

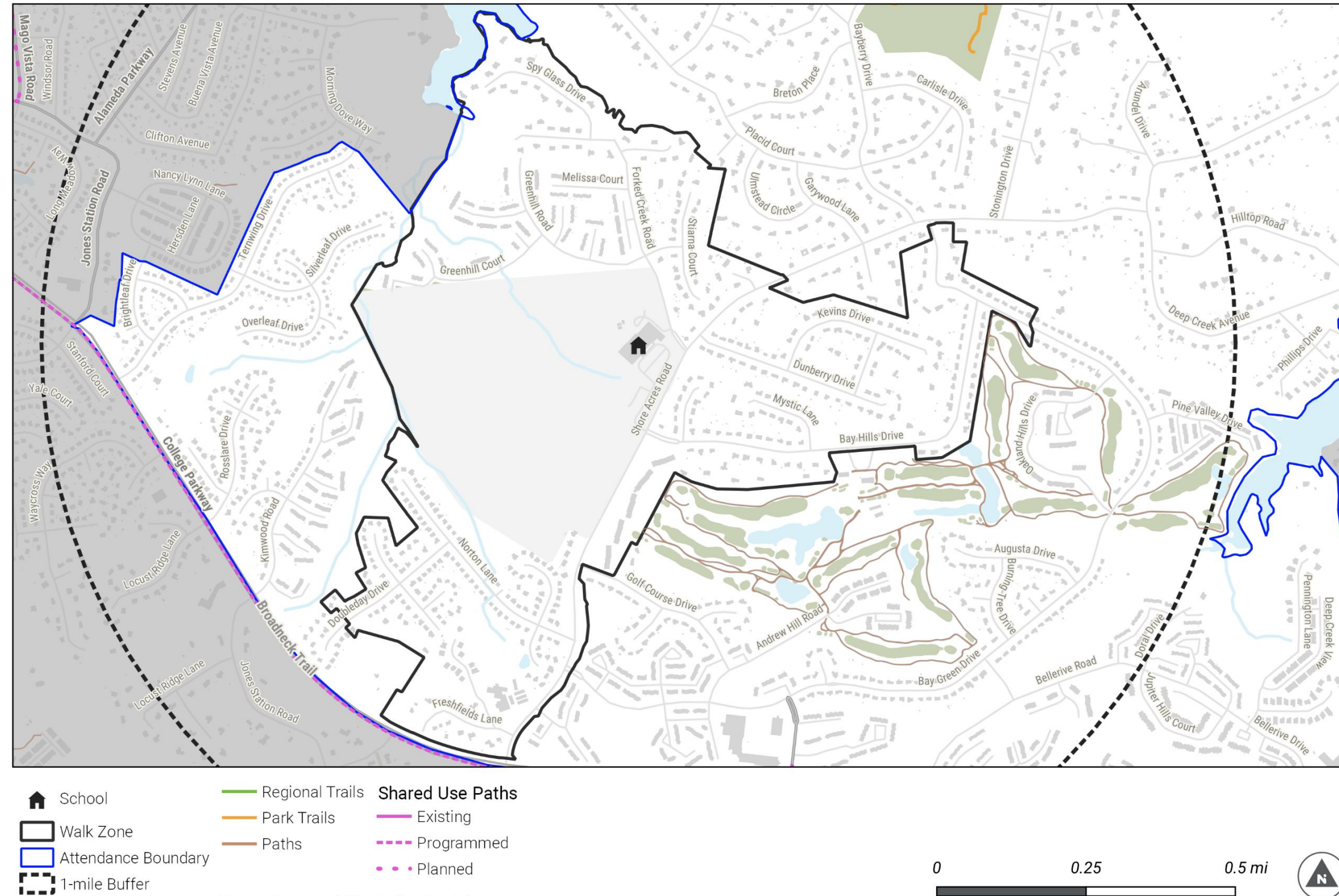


Existing Regional Trails, Park Trails, and Paths

- A shared-use path is under construction along College Parkway at the southwestern edge of the attendance zone.
- The “Paths” located east of the school walk zone are on the golf course and restricted to golfers only.
- There are no other existing or planned* off-road bike facilities, shared-use paths, or trails in or near the school walk zone.

*“Planned” means included in the County’s Master Plan

Broadneck Elementary School - Existing Regional Trails, Park Trails, and Paths



CRASH DATA

Crash Data (2017 – 2021)

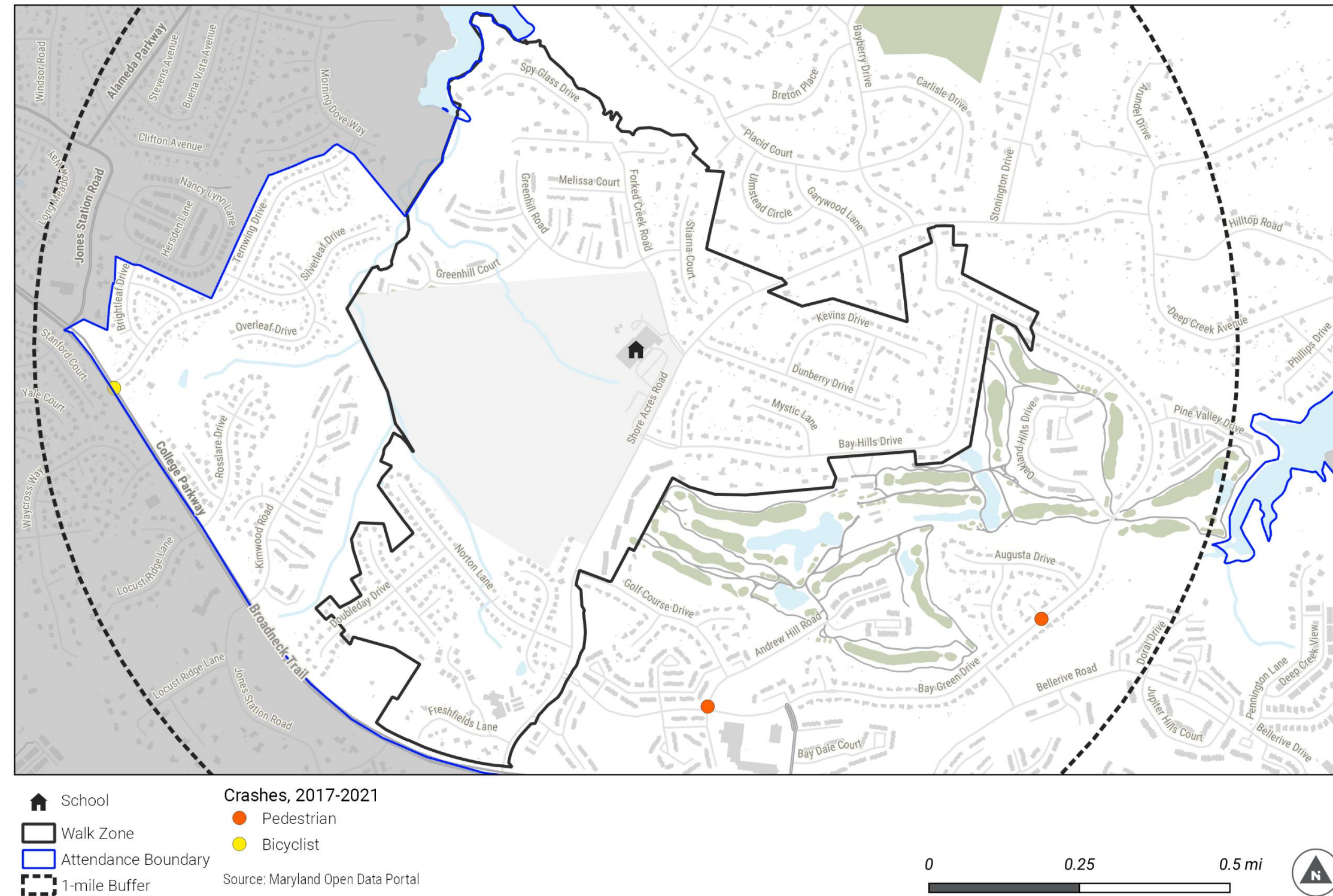
Crashes within 1-mile radius of the school:

- 240 total crashes (all modes), 1 fatal
- 4 pedestrian-involved crashes, 3 resulting in injury, 1 fatal
- 5 bicyclist-involved crashes, all resulting in injury, 0 fatal

Pedestrian and bicyclist crashes within the walk zone:

- No pedestrian- or bicyclist-involved crashes occurred within the walk zone.

Broadneck Elementary School - Pedestrian and Bicycle Crashes



INFRASTRUCTURE RECOMMENDATIONS

Infrastructure Recommendations

Safe Routes to School (SRTS) infrastructure recommendations aim to improve safety and accessibility for students to walk and bicycle to school. This may include reducing vehicle speeds, addressing conflicts between pedestrians/bicyclists and drivers, and providing fully accessible sidewalks and crossings near schools.

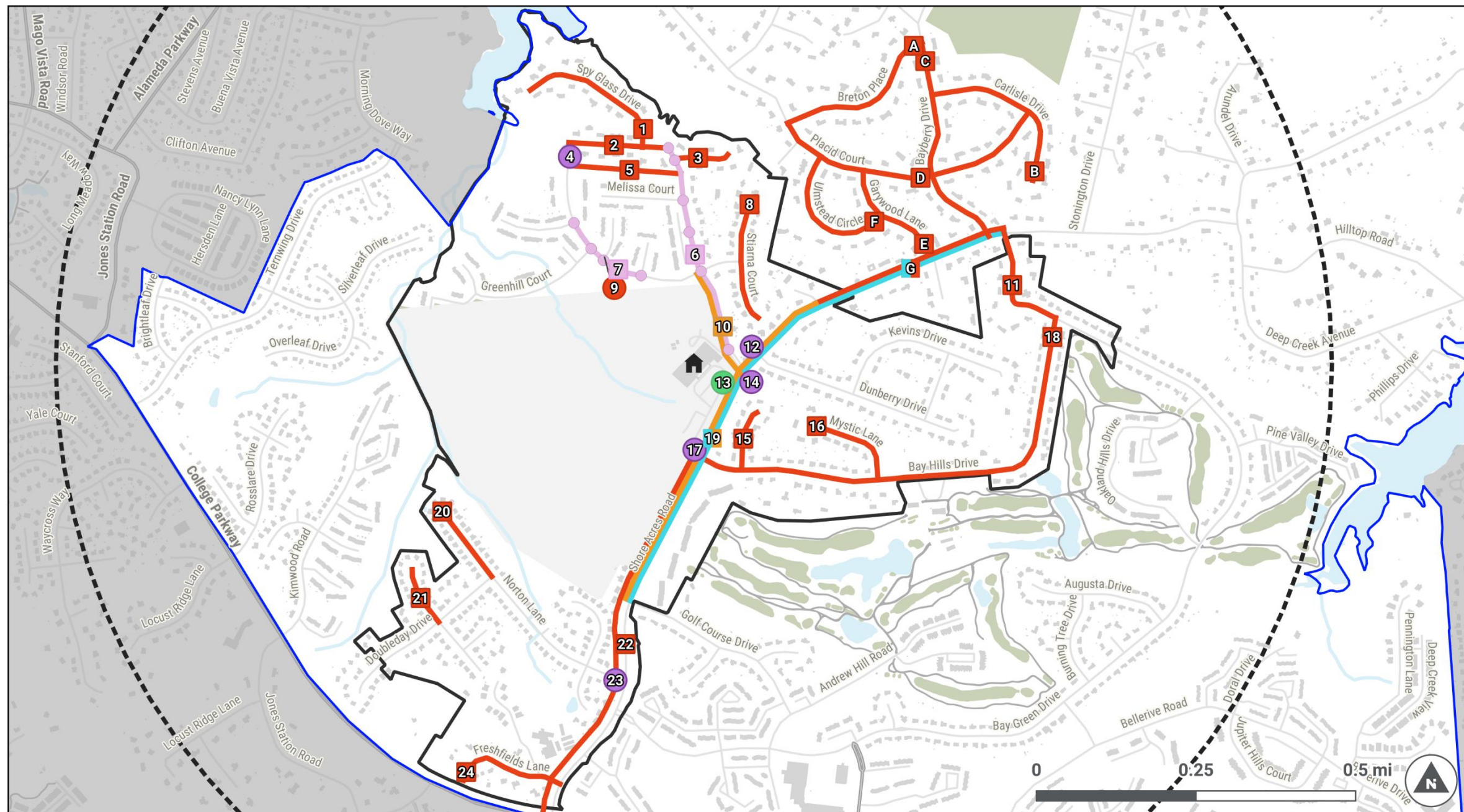
The following tables summarize infrastructure recommendations within and outside of the current school walk zone as relevant. Key student walking or bicycling routes were identified based on information received from school administration, parent surveys, and school observations. Key routes are noted in the recommendation “Location” field.

There is a County project to improve Shore Acres Road from just east of Four Acres Court to Deep Creek Avenue. Note that other projects or planning/feasibility studies may be planned or ongoing within the study area. Anne Arundel County will confirm the approach to implementing recommendations from this SRTS Accessibility Study to ensure they align with other projects as necessary.

Potential costs do not include items calculated based on percent of construction items, such as mobilization, MOT, surveying, ROW/easements, design, CMI and administrative costs, and contingencies. These cannot be determined since the method of implementation for proposed improvements has not yet been confirmed.

Infrastructure Recommendations Map

Broadneck Elementary School - Recommendations



- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> School Walk Zone Attendance Boundary 1-mile Buffer Paths and Trails | Spot Recommendations <ul style="list-style-type: none"> Access Management Bicycle Rack Intersection or Crossing School Zone Signs and Pavement Markings | <ul style="list-style-type: none"> Sidewalk Speed Management Other Recommendations | Segment Recommendations <ul style="list-style-type: none"> Bicycle Facility Corridor Intersection Upgrades School Zone Signs and Pavement Markings Speed Management Sidewalk |
|--|--|--|---|

Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
1	Spy Glass Dr (Pride of Baltimore Dr to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$103,133	Long
2	Pride of Baltimore Dr (Forked Creek Rd to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$65,864	Long
3	Saber Ln (Forked Creek Rd to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$36,358	Long
4	Greenhill Rd at end	Curb ramp	West ramp missing	Install new ramp	\$4,000	Medium
			East ramp lacks detectable warning surface, ramp is too steep	Reconstruct or repair existing ramp	\$4,000	
5	Paved trail (Greenhill Rd to Forked Creek Rd)	Sidewalk (This is a paved trail that may provide a more direct connection to Forked Creek Rd)	Path cracked, uplifted	Reconstruct or repair path	\$37,115	Long

*Short (1 year), medium (2-3 years) or long term (3+ years)

**Note that at locations where installation of new sidewalks is recommended, high-visibility crosswalks, ADA compliant curb ramps, and stop bars should be installed at intersecting streets to facilitate crossings and encourage motor vehicle yielding.

Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
6	Forked Creek Rd (School driveway to Pride of Baltimore Dr) (Along key student bicycling and walking route)	6a. Curb ramp	Ramp lacks detectable warning surface, Ramp not aligned with crossing	Reconstruct or repair existing ramps at side street crossings of the school driveway, Greenhill Rd, Mosswood Ct, Melissa Ct, Saber Ln, and Pride of Baltimore Dr	\$48,000	Medium
		6b. Crosswalk	Crossings of side streets are unmarked, No stop bars	Install new standard crosswalk, Mark new stop bars at side street crossings of the school driveway, Mosswood Ct, Melissa Ct, Saber Ln, and Pride of Baltimore Dr	\$2,500	Short
7	Greenhill Rd (Side street crossings at: Palmwood Ct, White Coral Ct, Greenhill Ct, Greenblades Ct) (Along key student walking route)	7a. Curb ramp	Missing ramps	Install new ramps at Palmwood Ct, Reconstruct or repair existing ramps at side street crossings of White Coral Ct, Greenhill Ct, and Greenblades Ct	\$28,000	Medium
		7b. Crosswalk	Crossings of side streets are unmarked, No stop bars	Install new standard crosswalks, Mark new stop bars at side street crossings of Palmwood Ct, White Coral Ct, Greenhill Ct, and Greenblades Ct	\$2,000	Short

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
8	Stiarna Ct (end to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$79,130	Long
9	White Coral Ct near Greenhill Rd (Along key student walking route)	Sidewalk	Missing sidewalk (both sides) (Sidewalks end ~10 yards short of Greenhill Rd on both sides)	Install new sidewalk**	\$3,200	
10	Forked Creek Rd (from Shore Acres Rd to Greenhill Rd) (Along key student bicycling and walking route)	Speed Management	Observed motor vehicle speeds appear to exceed speed limit	Conduct a speed study to consider speed management measures or other modifications	N/A	Long
11	Bay Green Dr (Bay Hills Dr to Shore Acres Rd)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$76,980	Long
12	Shore Acres Rd & Dunberry Dr (Along key student walking route, Inside school zone)	12a. Crosswalk	East crossing is unmarked, No stop bar	Install new standard crosswalk, Mark new stop bar	\$500	Short
		12b. Curb ramp	Northeast, Southeast ramps not aligned with crossing	Reconstruct or repair existing ramps	\$4,000	Medium
13	School Loop (On school campus)	Bicycle rack	Position of existing racks restricts usage by multiple bikes.	Reconstruct existing racks to place them side by side, not linear	\$175/per (quantity TBD)	Short

**Short (1 year), medium (2-3 years) or long term (3+ years)*
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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
14	Shore Acres Rd & Forked Creek Rd (Along key student walking route, Inside school zone)	Other intersection or crossing issues	Crossing lacks appropriate crossing signage	Install school advance crossing assembly signs	\$500	Short
			Concern about motor vehicle yielding	Install RRFB	\$15,000	Long
			Parked cars obstruct sight lines	Install curb extensions	\$10,000	Long
				Restrict parking in advance of crosswalk	\$500	Short
15	Old Stone Ln (Bay Hills Dr to Cul-de-sac)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$40,589	Long
16	Mystic Ln (Bay Hills Dr to Cul-de-sac)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$61,259	Long
17	Shore Acres Rd & Bay Hills Dr / school driveway (Along key student walking route, Inside school zone)	17a. Curb ramp	Northeast, Southeast ramps missing	Install new ramps	\$8,000	Medium
		17b. Other intersection or crossing issues	Concern about motor vehicle yielding, Pedestrians/bicyclists unable to find sufficient gaps in traffic	Install RRFB	\$15,000	Long

*Short (1 year), medium (2-3 years) or long term (3+ years)

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
18	Bay Hills Dr (Shore Acres Rd to Bay Green) (Along key student walking route, Inside school zone)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$315,562	Long
19	Shore Acres Rd (Four Acres Ct to Golf Course Dr) (Along key student walking route, Inside school zone, Reported school concern)	19a. Speed Management	Observed motor vehicle speeds appear to exceed speed limit, Speeding concern reported by school Some traffic calming has been installed already, but vehicles were observed triggering the electronic speed warning sign at Four Acres Ct.	Conduct a speed study to consider speed management measures or other modifications Consider removal of mid-block crosswalk markings	N/A	Long
		19b. School Zone Signs and Pavement Markings	SCHOOL pavement marking missing School zone speed limit signs show out-of-date time limits	Expand school zone and enhance signage per MDMUTCD part 7: - Install new SCHOOL pavement marking - Replace school zone speed limit time limit plaques with current time limits. Consider reducing school zone speed limit to 20 mph	\$1,000 \$500	Short

**Short (1 year), medium (2-3 years) or long term (3+ years)*
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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
20	Norton Ln (Doubleday Dr to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$54,021	Long
21	MacMillan Ct (Doubleday Dr to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$39,803	Long
22	Shore Acres Rd (College Pkwy to Bay Hills Dr) (Along key student walking route, Inside school zone)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$132,645	Long
23	Norton Ln & Shore Acres Rd	Crosswalk (west)	Crossing of Norton Lane is unmarked, No stop bar	Install new standard crosswalk, Mark new stop bar	\$500	Short
24	Freshfield Ln (Shore Acres Rd to end)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$75,361	Long

**Short (1 year), medium (2-3 years) or long term (3+ years)*

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Infrastructure Recommendations outside the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
A	Brenton Pl (Placid Ct to Bayberry Dr)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$112,699	Long
B	Carlisle Dr (Bayberry Dr to Cul-de-sac)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$116,045	Long
C	Bayberry Dr (Shore Acres Rd to Breton Pl)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$146,526	Long
D	Placid Ct (Carlisle Dr to Breton Pl)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$187,838	Long
E	Garywood Ln (Shore Acres Rd to Placid Ct)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$79,881	Long
F	Ulmstead Cir (Garywood Ln to Placid Ct)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$94,784	Long
G	Shore Acres Rd (4 Acres Ct to Bay Green Dr)	Sidewalk	Missing sidewalk (both sides)	Install new sidewalk**	\$133,208	Long
		School Zone Signs and Pavement Markings	School zone speed limit sign missing	Expand school zone and enhance signage per MdMUTCD part 7: - Install new school zone speed limit sign	\$500	Short

*Short (1 year), medium (2-3 years) or long term (3+ years)

**Note that at locations where installation of new sidewalks is recommended, high-visibility crosswalks, ADA compliant curb ramps, and stop bars should be installed at intersecting streets to facilitate crossings and encourage motor vehicle yielding.

Potential Sources of Funding for Safe Routes to School Projects

Funding for SRTS infrastructure improvements may come from a variety of sources, including the County's Capital Improvement Program, Operations and Maintenance Funds, and Multimodal Improvement Fund. Funding is also available via grants from the State of Maryland or the federal government, or efforts by local jurisdictions and private developers through the required Bicycle, Pedestrian, and Transit Assessment. Details on potential sources of funding for pedestrian and bicycle projects are described in Walk & Roll Anne Arundel! (page 73).

PROGRAMMATIC RECOMMENDATIONS

Safe Routes to School (SRTS) Program Recommendations

Safe Routes to School program recommendations may include Education, Encouragement, Enforcement and Evaluation strategies to improve safety awareness and knowledge, reinforce safe behaviors, encourage travel mode changes, and establish a culture of walking and bicycling to school.



SRTS Education

SRTS education can foster life-long skills for safe walking and bicycling. Education messages directed at the broader school community can help create safety role models and encourage safe driving.

Recommendations

Provide pedestrian and bicycle safety education to students. Students should receive age-appropriate pedestrian and bicycle education that is regularly reinforced (e.g., annually) and provides opportunities for skills practice. School-based education works best when integrated into the PE or Health curriculum.

Conduct a bicycle rodeo. Bike rodeos teach children skills related to walking and bicycling safely, which can increase their and their parent's confidence for biking or walking to school.

Conduct parent and staff safety education campaign. Information packets should be prepared and distributed to parents and school staff at the beginning of the school year containing school arrival and dismissal maps, a written description of the rules and procedures for arrival and dismissal, and general safety information. Procedures should emphasize driving safely, being alert for pedestrians and bicyclists, and respecting the school crossing guard/s.

Provide walking and bicycling maps. Walking and bicycling route maps can show the location of pedestrian and bicycle infrastructure and estimated walk/bike times.

SRTS Encouragement

SRTS encouragement programs can establish a culture supportive of active transportation and foster life-long habits for active transportation.

Recommendations



Participate in International Walk to School Day and Bike to School Day. Walk and Bike to School Days encourage families to try out walking in a supportive environment. Consider incorporating competitions between schools in the same area or district-wide. Once established, they can lead to monthly walking/bicycling events to maintain momentum and enthusiasm.

Encourage and support walking school buses and bike trains. Walking school buses and bike trains are groups of children who walk or bicycle to school together with adult supervision. Organize parent or community volunteers to "pick up" students on their walk or bike ride to and from school.

Establish a frequent walker / bicyclist program. Frequent walker and biker programs provide small rewards or incentives to students who regularly walk and bicycle to school. Frequent walker and biker programs require a system for tracking student trips. For example, students can be assigned a punch card that volunteers or teachers can punch each time a trip is completed.

Give away bicycle helmets and bike locks. Schools might partner with another community organization to acquire and fit the helmets for students who do not have them. Helmet and bike lock giveaways should be coordinated with bicycle safety education or skills practice and should include instruction on helmet safety.

SRTS Enforcement

SRTS enforcement efforts aim to increase the safety of children walking and bicycling to school by helping to change unsafe behaviors of all roadway users (drivers, pedestrians, bicyclists). While SRTS enforcement strategies may include law enforcement, it is important to discuss enforcement strategies with the school community and be sensitive to any concerns regarding their role.

Recommendations

Consider relocating school crossing guard from mid-block crosswalk on Shore Acres Road to intersection of Shore Acres Road and Forked Creek Road as most student walkers were observed crossing here.

Establish school drop off and pick up monitors to reinforce school procedures on and around the school campus.

Establish student safety patrols to provide on-going reinforcement of safe pedestrian and bicyclist behavior. Resources are available through [AAA School Safety Patrol](#).

SRTS Evaluation

SRTS evaluation efforts aim to identify issues and opportunities and monitor the impact of comprehensive SRTS activities over time, such as infrastructure improvements and encouragement activities.

Recommendations

Conduct annual Student Travel Tallies to monitor student travel patterns.

Administer biennial Parent Surveys to monitor parent attitudes towards walking and bicycling and reasons why they may or may not allow their children to walk or bike to school.

Conduct biennial infrastructure assessments and observation of school arrival and dismissal to track improvements, monitor the condition of key school crossings and signage, and identify needed education or enforcement measures. Assess more frequently if any changes to travel patterns (such as new school or road construction) occur.

APPENDIX: INFRASTRUCTURE RECOMMENDATION PHOTOS

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone

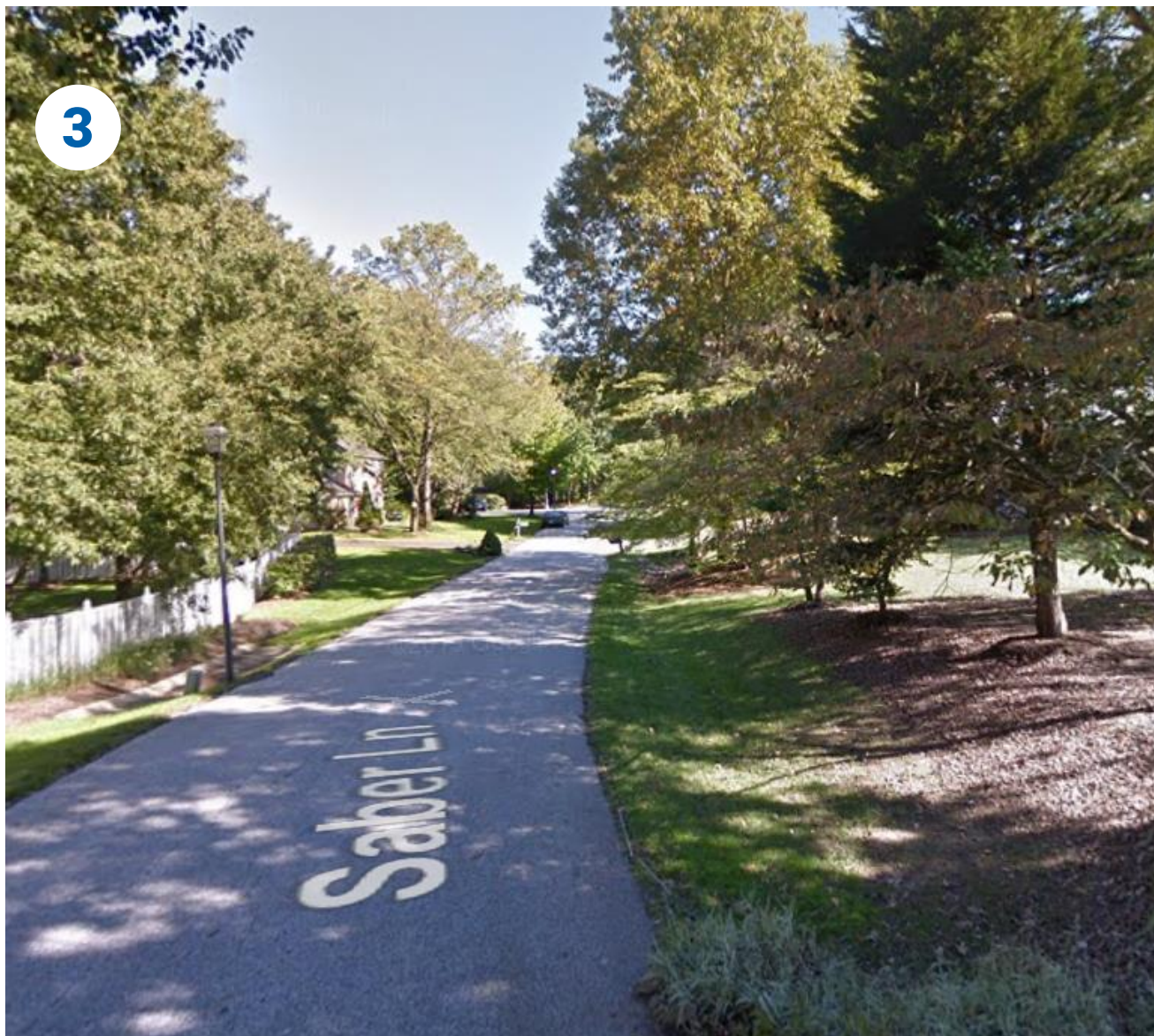


Spy Glass Drive via Google Maps



Pride of Baltimore Drive via Google Maps

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone

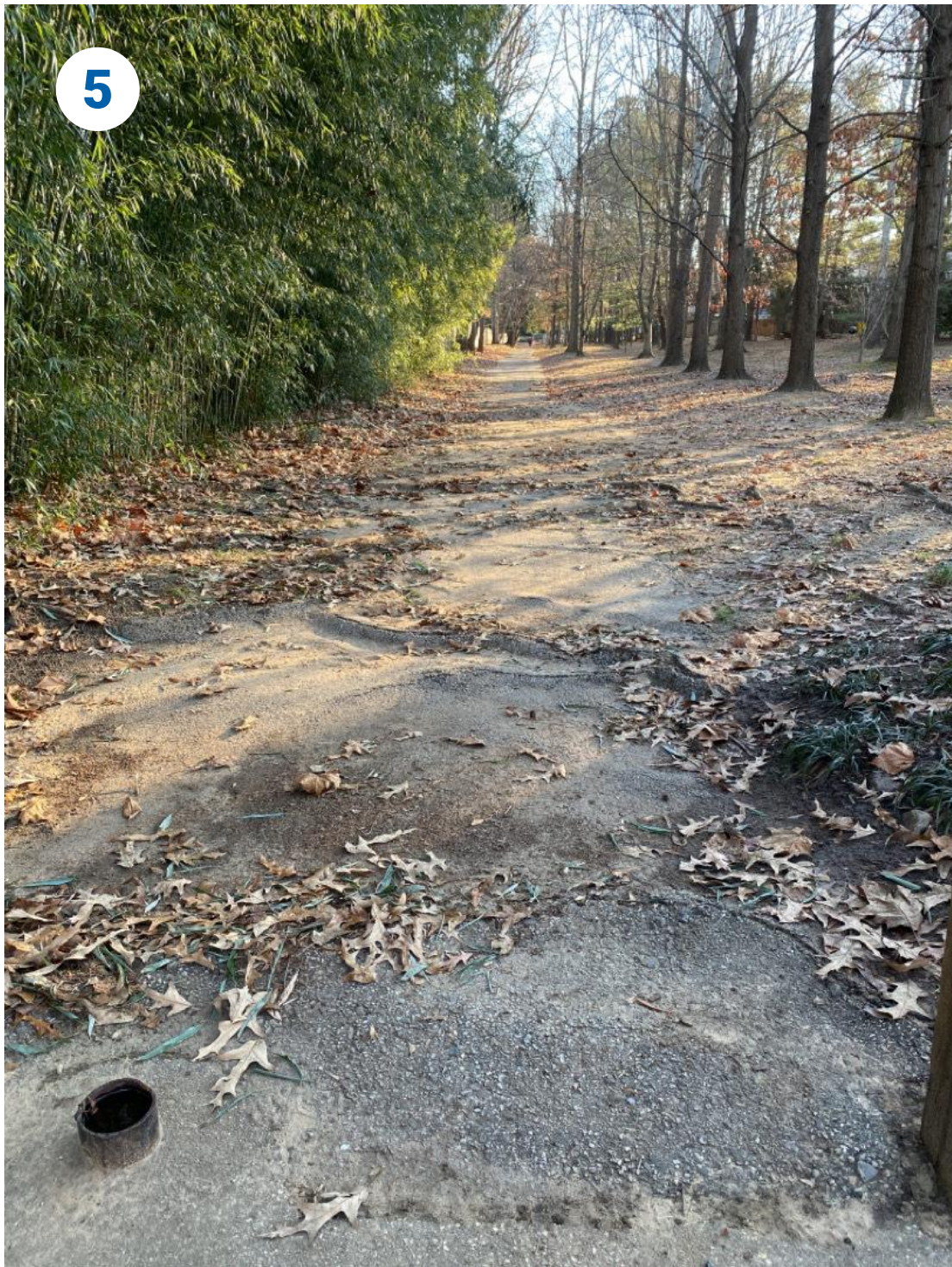


Saber Lane via Google Maps

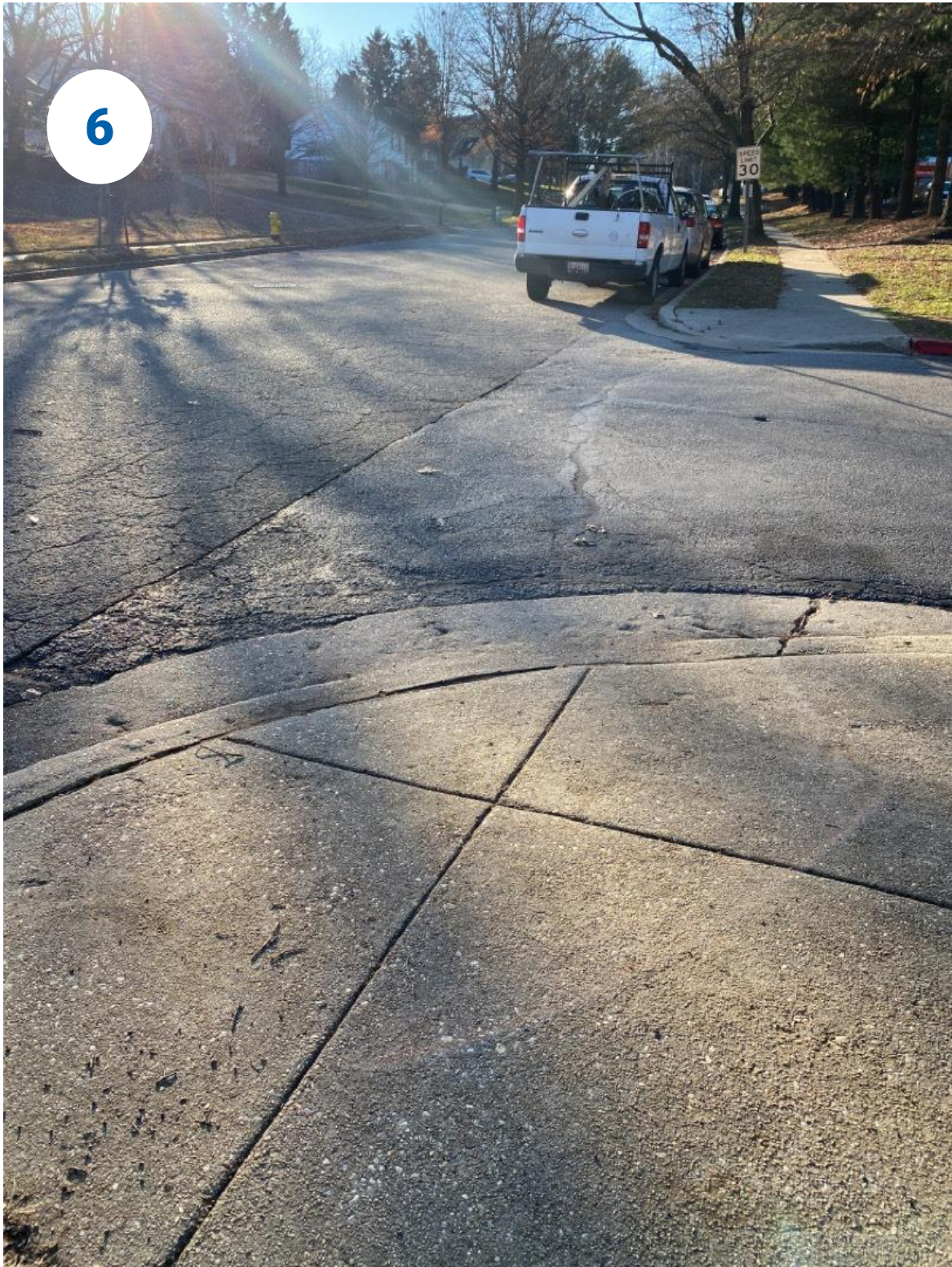


Greenhill Road at end of west sidewalk (top);
Ramp to east sidewalk and trail toward
Forked Creek Road (bottom)

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Trail between Greenhill Road and Forked Creek Road



Crossing Melissa Street at Forked Creek Road

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Crossing Palmwood Court at
Greenhill Road



Stiarna Court – missing sidewalk

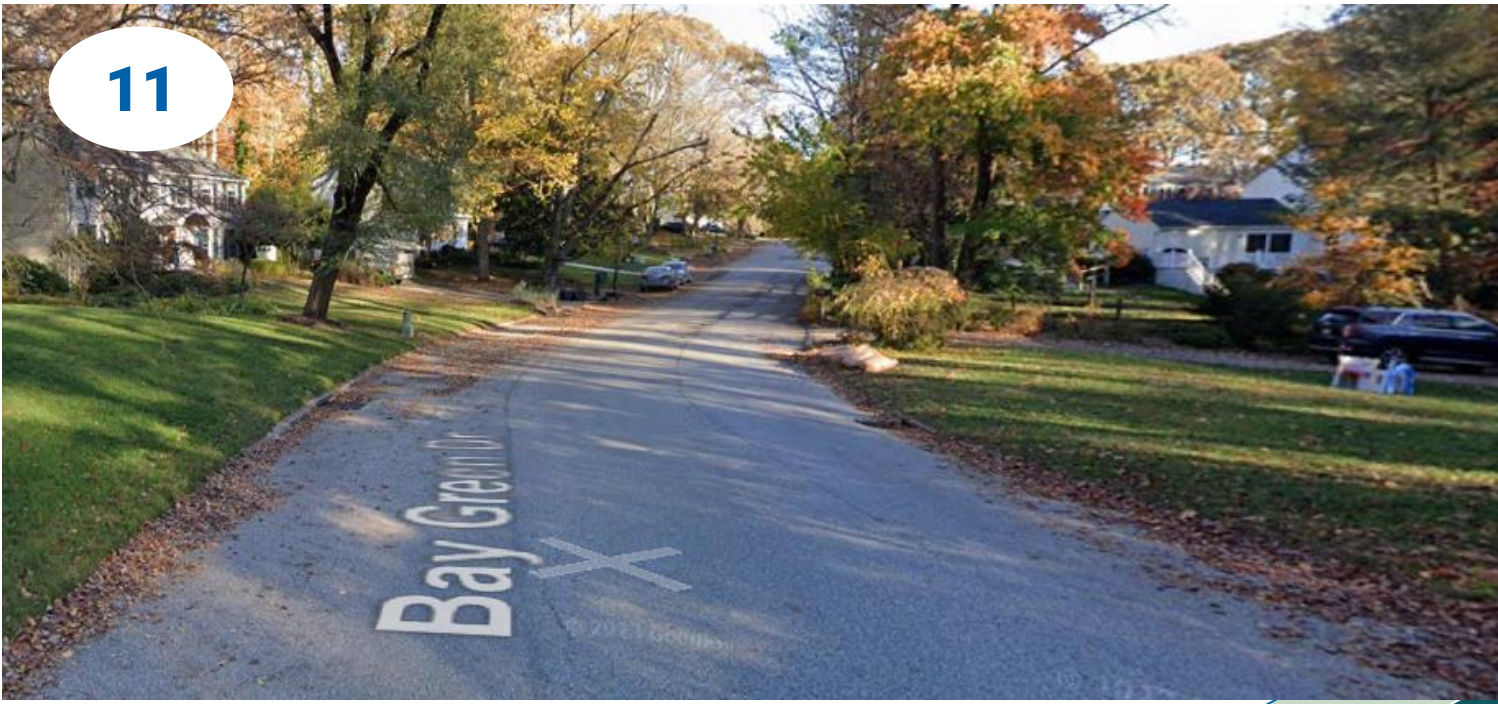
INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



White Coral Court near Greenhill Road



Forked Creek Road



Bay Green Drive

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Shore Acres Road and Dunberry Drive



Bike racks at lower parking lot

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Shore Acres Road at Four Acres Court



Old Stone Lane



Mystic Lane

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Crossing Bay Hills Drive at Shore Acres Road



Bay Hills Drive

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Shore Acres Road crossing at Forked Creek Road



Norton Lane

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



MacMillan Court



Shore Acres Road



Crossing Norton Lane at Shore Acres Road

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Freshfield Lane

INFRASTRUCTURE RECOMMENDATIONS – outside the School Walk Zone



Breton Place



Carlisle Drive

INFRASTRUCTURE RECOMMENDATIONS – outside the School Walk Zone



Bayberry Drive



Placid Court

INFRASTRUCTURE RECOMMENDATIONS – outside the School Walk Zone



Garywood Lane



Ulmstead Circle

INFRASTRUCTURE RECOMMENDATIONS – outside the School Walk Zone



Shore Acres Road