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Tyler Heights 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. Note: Anne Arundel County does not have jurisdiction to install infrastructure improvements within the City of Annapolis. The City and AACPS are responsible for coordinating to make those decisions.

Tyler Heights Elementary Accessibility Study

Report findings are derived from:

School site visits	<ul style="list-style-type: none">• Observation of school arrival and dismissal conducted January 31, 2023• Assessment of pedestrian and bicycling infrastructure within the current school walk zone and roads immediately adjacent (as connectivity allows) conducted January 31, 2023
Parent Survey	<ul style="list-style-type: none">• Administered January 26 – February 19, 2023• Available online in English, Spanish, Chinese, and Korean• Survey link was provided via email

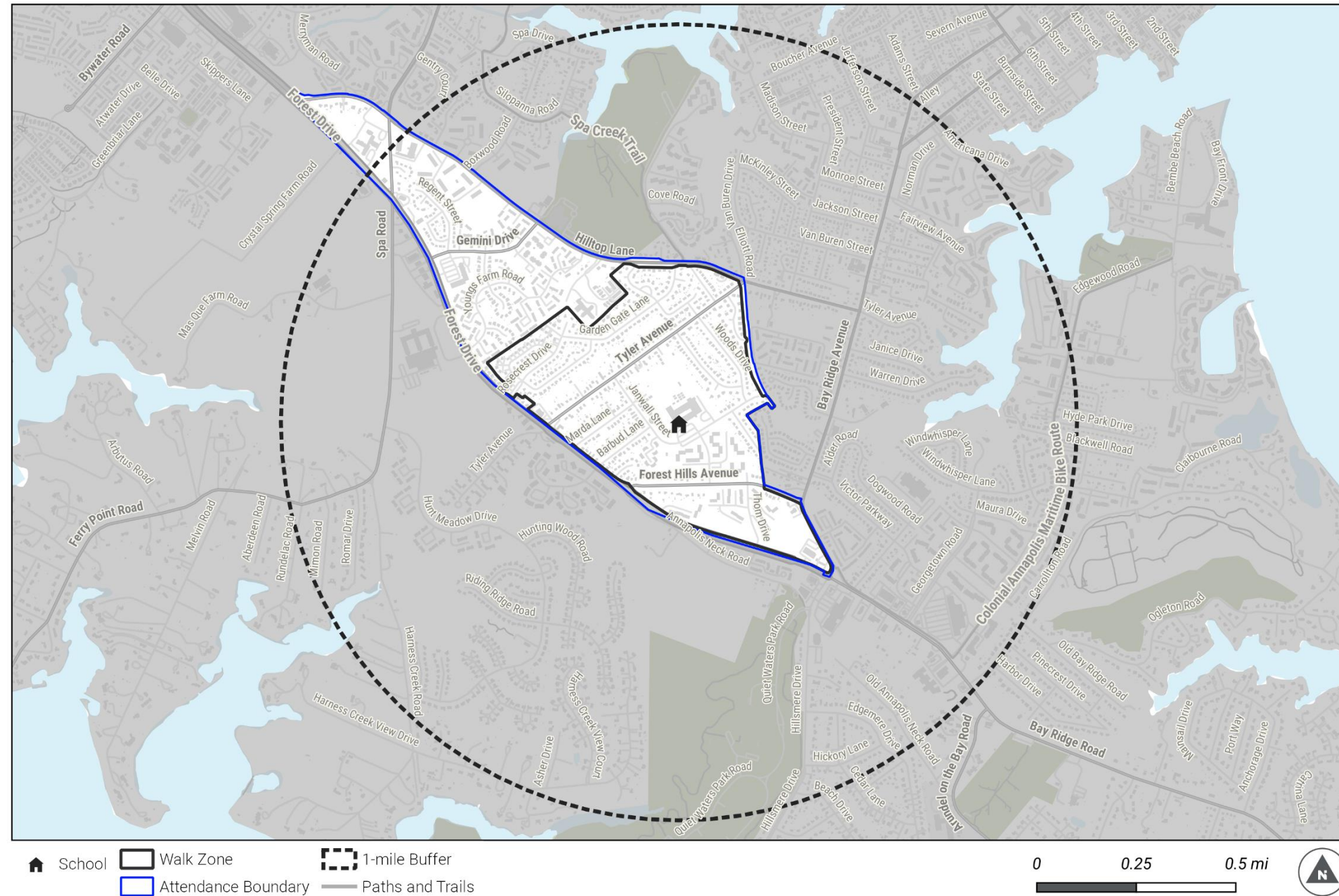
Recommendations were shared with the school community during a virtual open house in October 2023.

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 are limited.
 - The current walk zone extends to the limits of the school attendance area to the north, east, and south.
 - The attendance area to the north-west may be bikeable if connections were made (see Additional Considerations following the Infrastructure Recommendations tables).

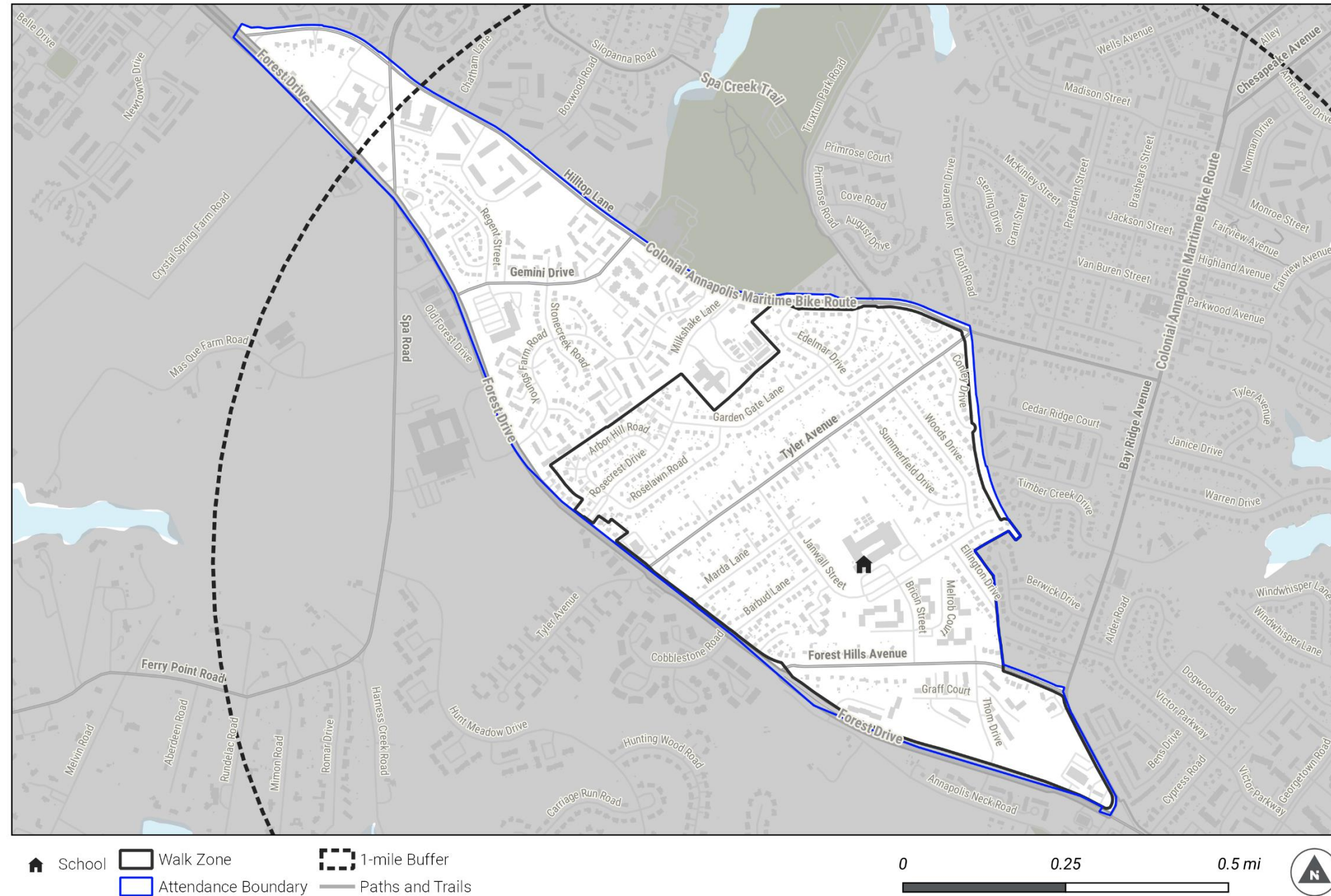
Tyler Heights Elementary School - 1-mile Radius



Student Attendance Area and Enrollment

- Tyler Heights Elementary School serves 425 students in grades PreK–5.
- 24% of students are registered for bus transportation*

Tyler Heights Elementary School - Attendance Boundary



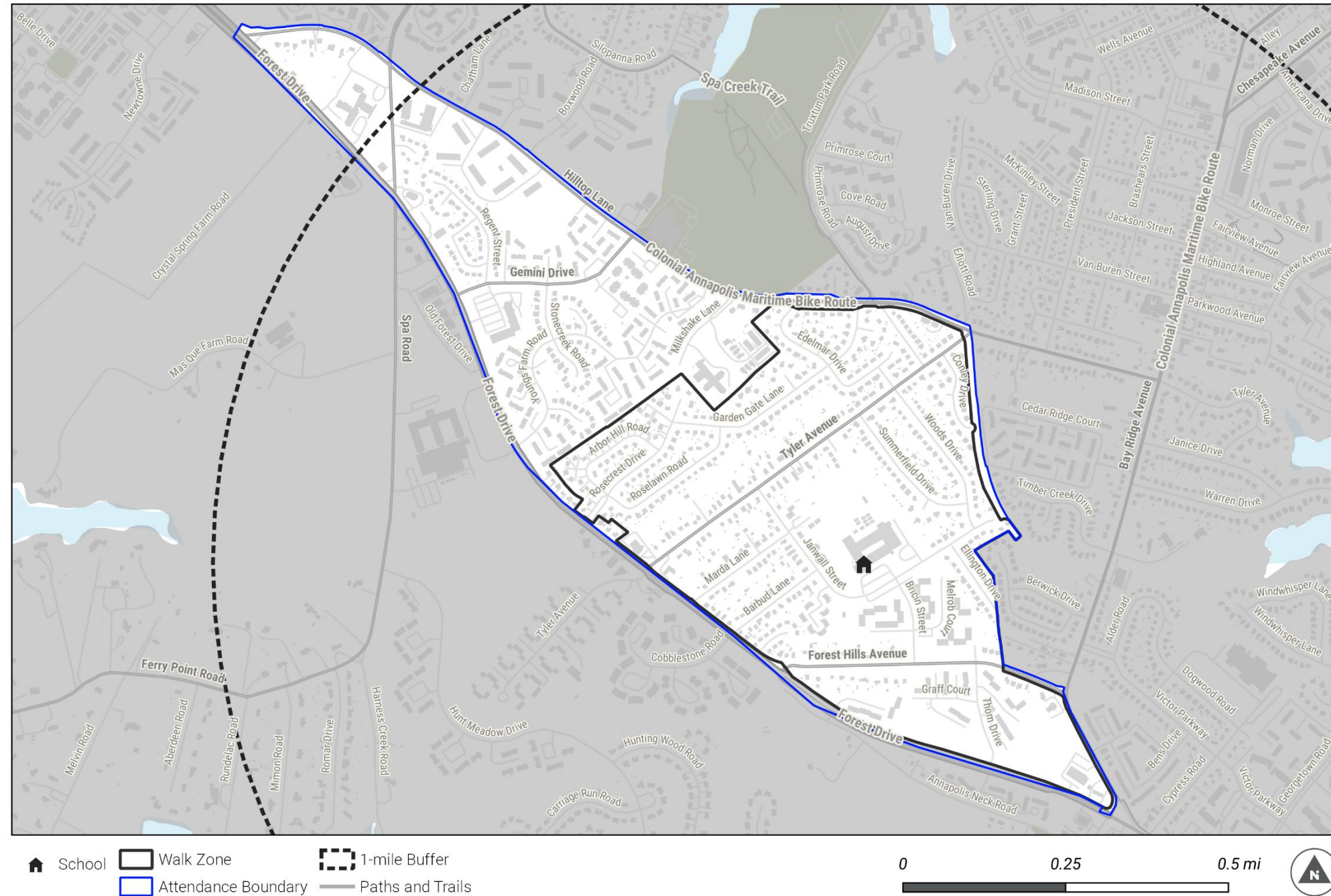
*AACPS provides transportation from designated bus stops for students who reside within the school's attendance area. At elementary schools, transportation is provided for Pre-K students who live more than ½ mile from school, Kindergarten students who live more than ½ mile from school, and students of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

Source: AACPS 2022-2023 Parent Handbook

School Location and Layout

- Tyler Heights Elementary School is located on Janwall Street at Bricin Street, off Forest Drive in Annapolis.
- The school is surrounded by residential neighborhoods in all directions.
- The neighborhoods contain a combination of single- and multi-family housing.
- Residences located along Garden Gate Lane have one internal neighborhood connection to the school via Woods Drive at Tyler Avenue.
- Janwall Street is a neighborhood street with a posted speed limit of 25 mph.

Tyler Heights Elementary School - Attendance Boundary



School Access

Walkers and Bicyclists:

- Walkers and bicyclists access the school campus via sidewalks along Janwall Street and Bricin Street. Students approaching from the south cross Janwall Street and use a short staircase to access the on-campus sidewalk.

Buses:

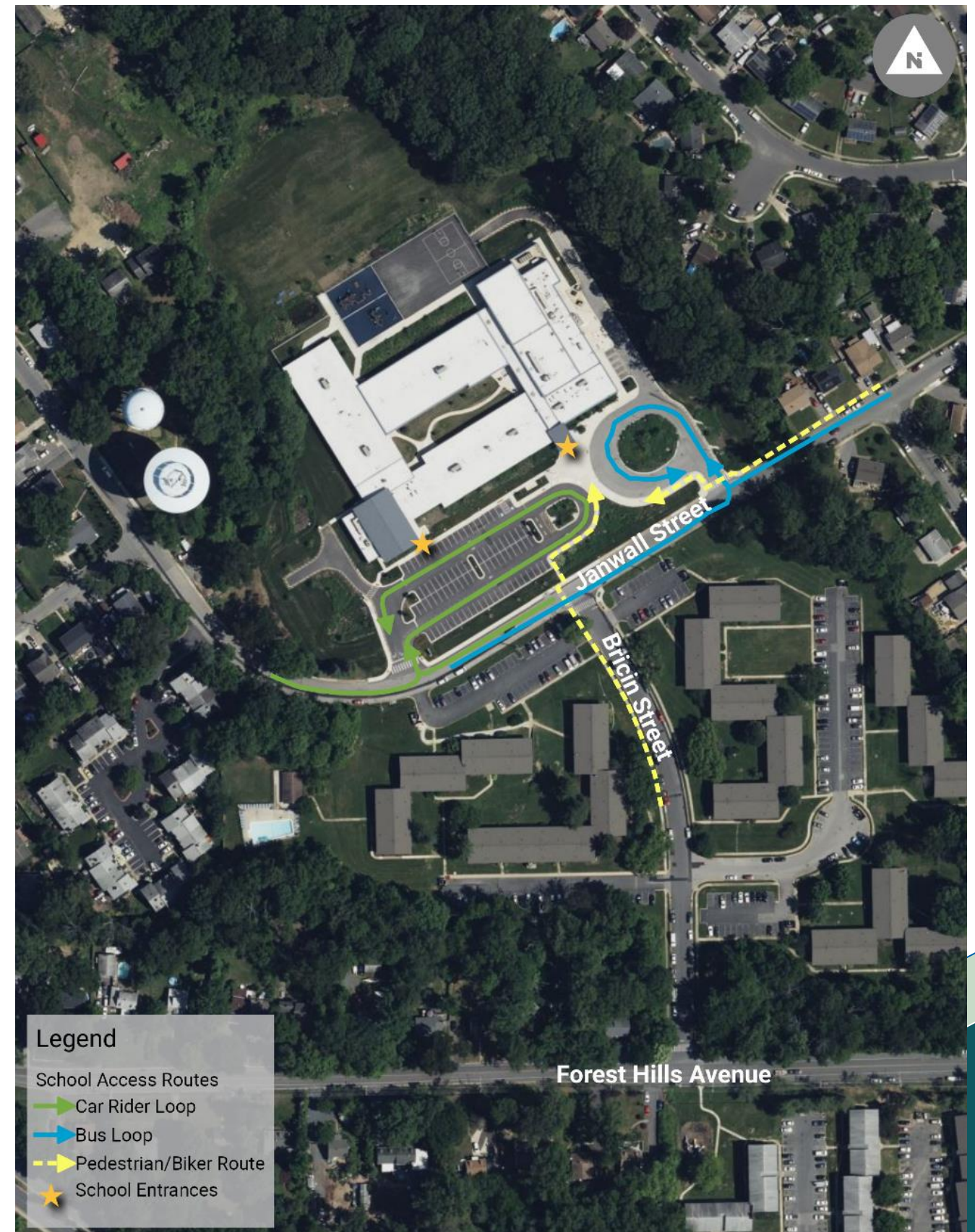
- Buses access the school from Janwall Street via a dedicated bus driveway to a loop in front of the school's main entrance.

Parent/Guardian Drop-Off:

- Parents/guardians use the school's main driveway off Janwall Street to access a drop-off line that runs through the staff parking lot in front of the school's main entrance. Pavement markings direct drivers.

Staff Vehicles:

- Most staff who drive access the school via the main driveway and park in a lot at the front of the school.
- A small secondary lot, primarily reserved for principals and front-office staff, is accessed from the bus loop.



PARENT-REPORTED STUDENT TRAVEL MODES AND BARRIERS

Tyler Heights Elementary - Parent Survey Response Overview

- 8 total survey responses received*
- 100% of respondents live in the area zoned to the school

Reported Distance from Home to School	
Distance	Number of Respondents
< ¼ mile	5
¼ mile – ½ mile	0
½ mile – 1 mile	0
1 mile – 1 ½ miles	0
>1 ½ miles	2

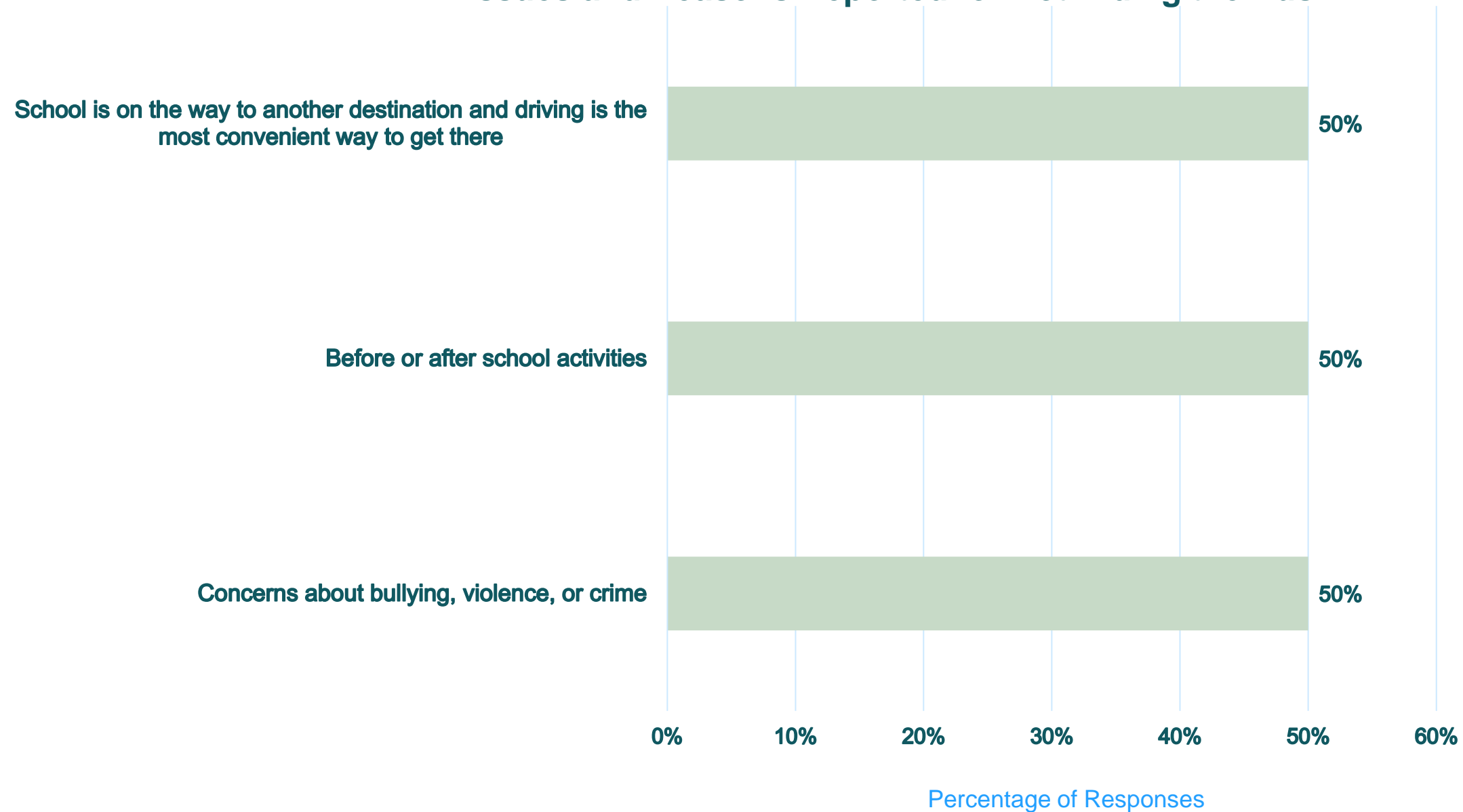
**Note that the survey response rate represents a fraction of the student population and may not reflect the experiences and perspectives of all families.*

Parent Survey Results

School Bus Eligibility and Use

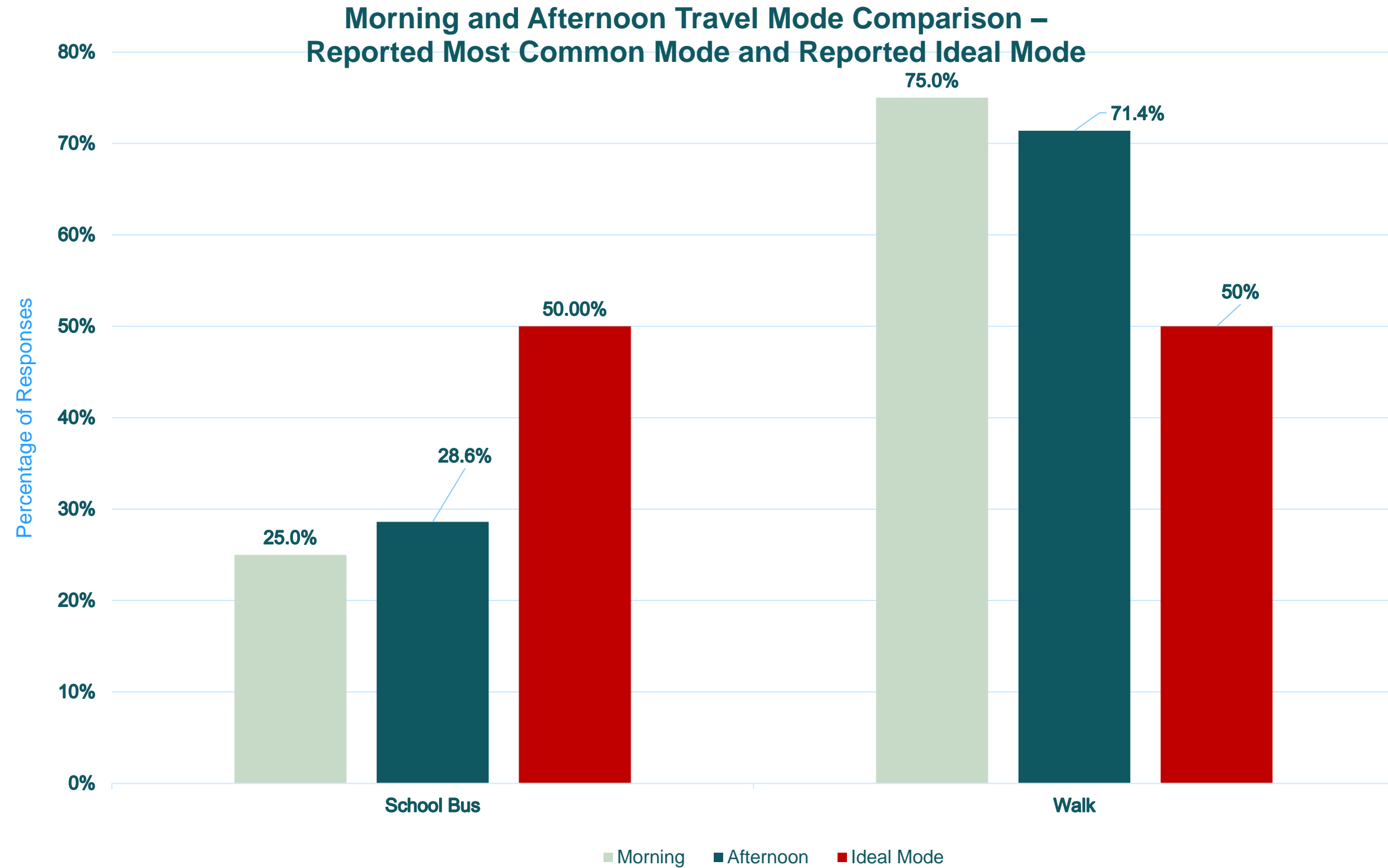
37.5% of respondents reported being eligible for school bus transportation;
25% reported riding the school bus to school.

Issues and Reasons Reported for Not Riding the Bus



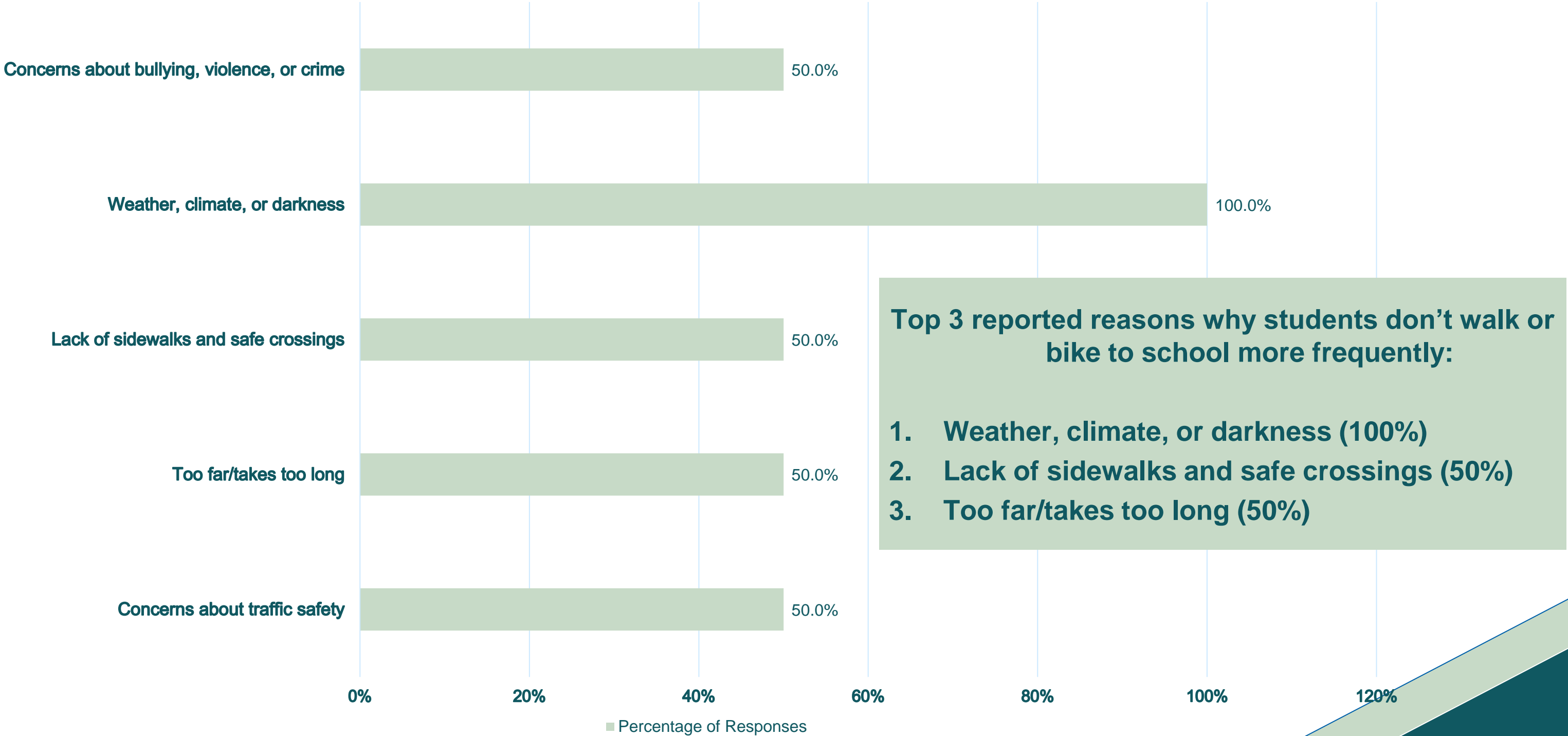
Parent Survey Results

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

- Janwall Street
- Bricin Street

ARRIVAL AND DISMISSAL OBSERVATIONS

Arrival and Dismissal Operations

School Hours:

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

Observation Times (January 31):

- Arrival: 7:35 am – 8:15 am
- Dismissal: 2:20 pm – 2:45 pm

Crossing Guards:

- Data provided by AACPS did not indicate crossing guards were assigned to Tyler Heights Elementary School, but two were observed:
 - One was directly in front of the school at the corner of Janwall Street and Bricin Street
 - On was a block south of the school at Bricin Street and Forest Hills Avenue.

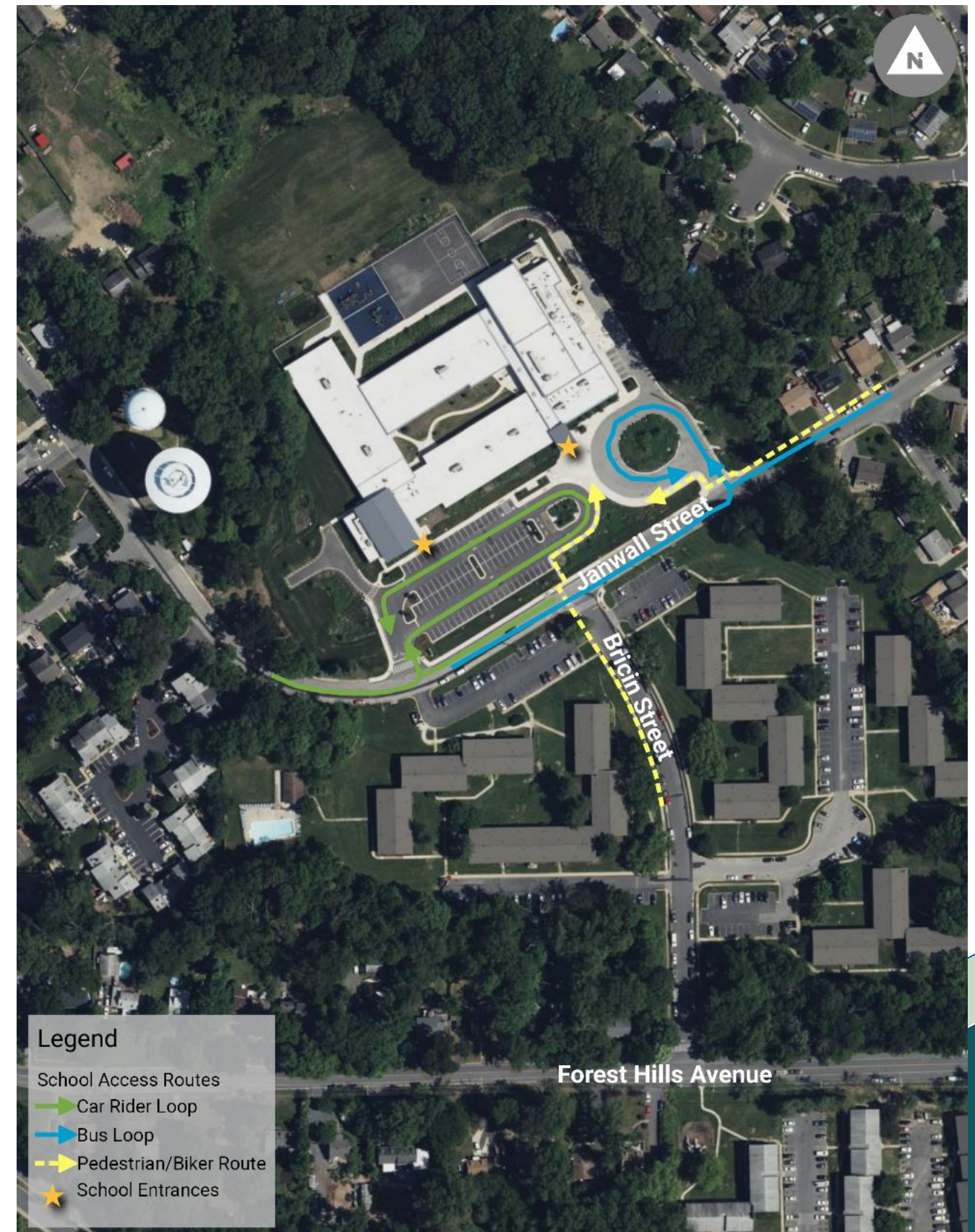


Students waiting for doors-open

General Observations

General Observations:

- School arrival and dismissal generates relatively heavy vehicle and pedestrian traffic volumes; most students walk from the apartment buildings along Bricin Street.
- Many parents park on both sides of Janwall Street and Bricin Street, or in apartment building parking lots to drop off or walk students to the school campus. This creates conflicts as drivers attempt U-turns, parents/students attempt to cross the street mid-block, and parking near intersections limits visibility of pedestrians using the crosswalk.
- Several drivers appeared to exceed the speed limit, primarily during school arrival.



Arrival Observations

The study team observed arrival from the following locations:

- Janwall Street and Bricin Street
- Bricin Street and Forest Hills Avenue

General Observations:

- School starts at 8:00 AM; most students arrived between 7:30 and 8:00 AM
- Light but frigid rain may have limited walking on observation day.
- Nearly a dozen kids were lined up out front when study team arrived at 7:35.



The Bricin Street sidewalk approaching the school

Arrival Observations

Walkers and Bicyclists

- Approximately 135 student walkers were observed during arrival, mostly from the south along Bricin Street, which is lined with apartment buildings.
- There was also heavy automotive volume exiting apartment parking lots, with numerous observed conflicts between automotive and pedestrian traffic.
- Though Janwall Street has several crossing signs, most are not school crossing signs.

Bus Lane

- Three school buses were observed; each unloaded immediately and departed.
- Buses use a separate driveway to parent cars but must cross the path of students coming from the east along Janwall Street.



Bricin Street walkers arriving at Janwall Street

Arrival Observations

Parent Drop-off

- The driveway used to access the parent drop-off loop is on Janwall Street at the west end of campus.
- The drop-off line backed up onto Janwall Street at around 7:53 am, resulting in several potential conflicts with passing traffic.
- Drivers approaching from the south or east must drive past the school to reach the driveway.
- Many parents/guardians avoided the drop-off line and parked along Janwall Street, Bricin Street, and in nearby apartment parking lots to drop off or walk their students to school.
- Traffic volumes along Janwall Street and Bricin Street diminished after 8:15 a.m.



Automotive and pedestrian traffic approach Janwall Street and Bricin Street from three directions

Dismissal Observations

The study team observed dismissal from the following locations:

- Janwall Street and Bricin Street
- Bricin Street and Forest Hills Avenue

General Observations:

- School ends at 2:25 PM, with most students departing between 2:25 and 2:35.
- Rain may have impacted travel modes on observation day.
- One bus was announced as unavailable shortly before dismissal.

Walkers and Bicyclists:

- Student walkers were dismissed last, at about 2:30 pm.
- Approximately 95 walkers were observed during dismissal; some walked east on Janwall Street but the majority walked south on Bricin Street.
- As with arrival, large numbers of parents parked on Janwall Street, Bricin Street, and in apartment parking lots, so it is possible that some “walkers” were car riders.



Parents and siblings wait on Janwall Street, and on the steps up to campus level, for students to be dismissed.

Dismissal Observations

Walkers and Bicyclists (continued):

- Approximately 15 students were observed walking across Forest Hills Avenue toward the apartment complex. Some walked west and around the fence, some walked east up the hill to the next building.

Bus Lane

- Bus riders were dismissed first, and the buses departed before walkers were dismissed.

Parent Pick-up

- By 2:20 there were numerous cars waiting in the school pick up line, which extended out of the driveway and onto Janwall Street.
- Parents were also observed parking along the street or in nearby parking lots and walking to the school to pick up their students, waiting outside of the school's main entrance until student walkers were dismissed.
- Vehicular and pedestrian traffic volumes in the immediate area of the school diminished by 2:40, and the school dismissal process appeared complete by 2:45.



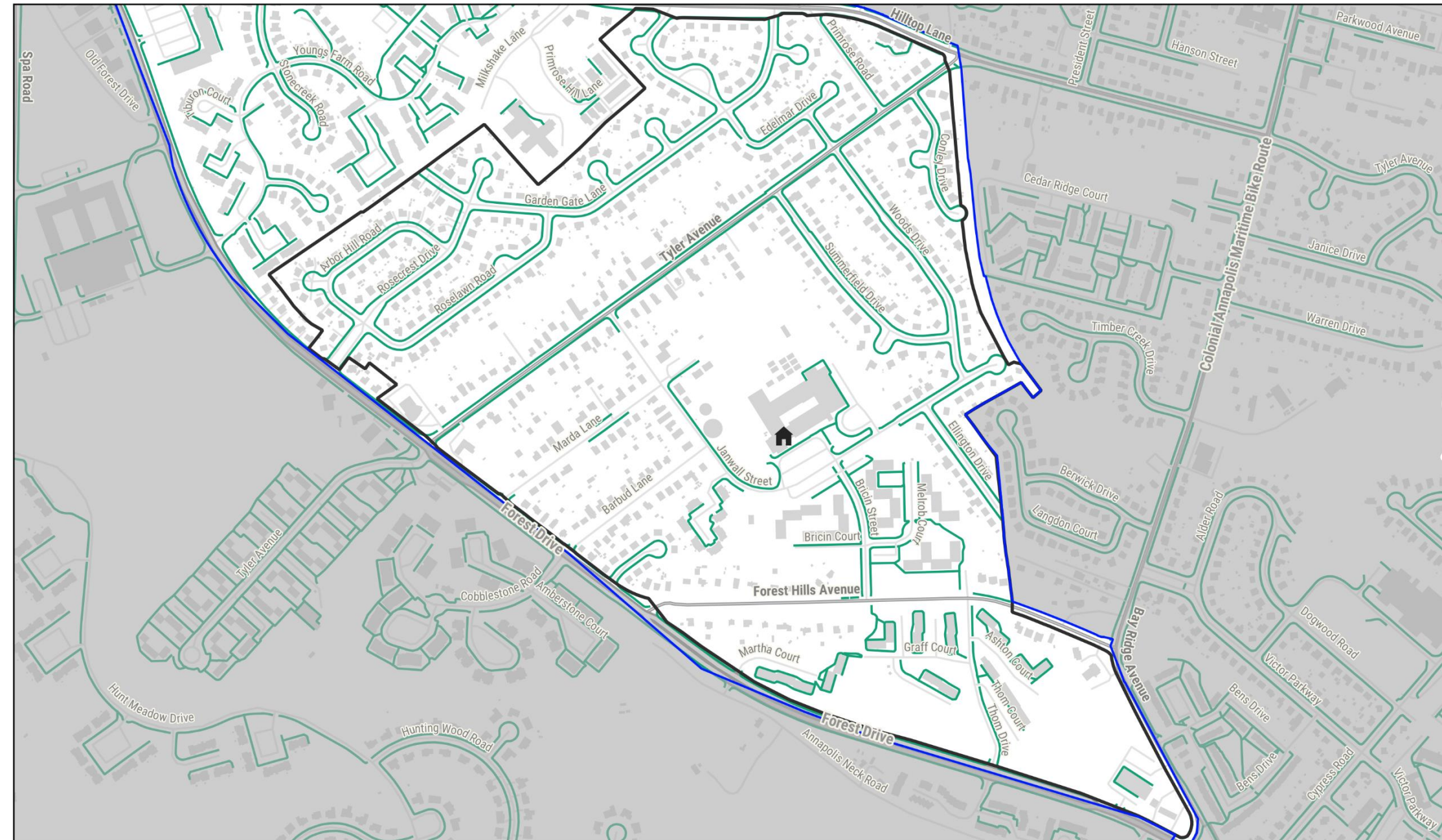
The car pick-up line wrapped from the school driveway onto Janwall Street and past the front of the school building

EXISTING INFRASTRUCTURE CONDITIONS

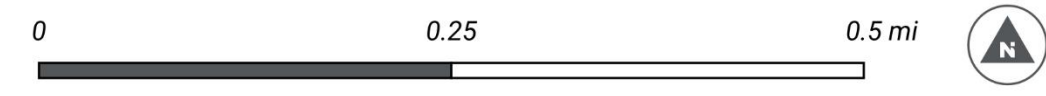
Existing Sidewalk Network

Sidewalks are present on most roads within the walk zone, but several gaps exist, primarily west of the school and on Forest Hills Avenue to the south.

Tyler Heights Elementary School - Existing Sidewalk Network



- School
 - Walk Zone
 - Attendance Boundary
 - 1-mile Buffer
 - Sidewalks
- Source: OpenArundel



Existing Crosswalks

There are marked crosswalks across the entrances to both school driveways. Crosswalks on the school campus are also marked for students exiting cars and crossing the driveway loop to the school entrance.

Many crossings at intersections in the school's walk zone are unmarked, even those where curb ramps have been provided.

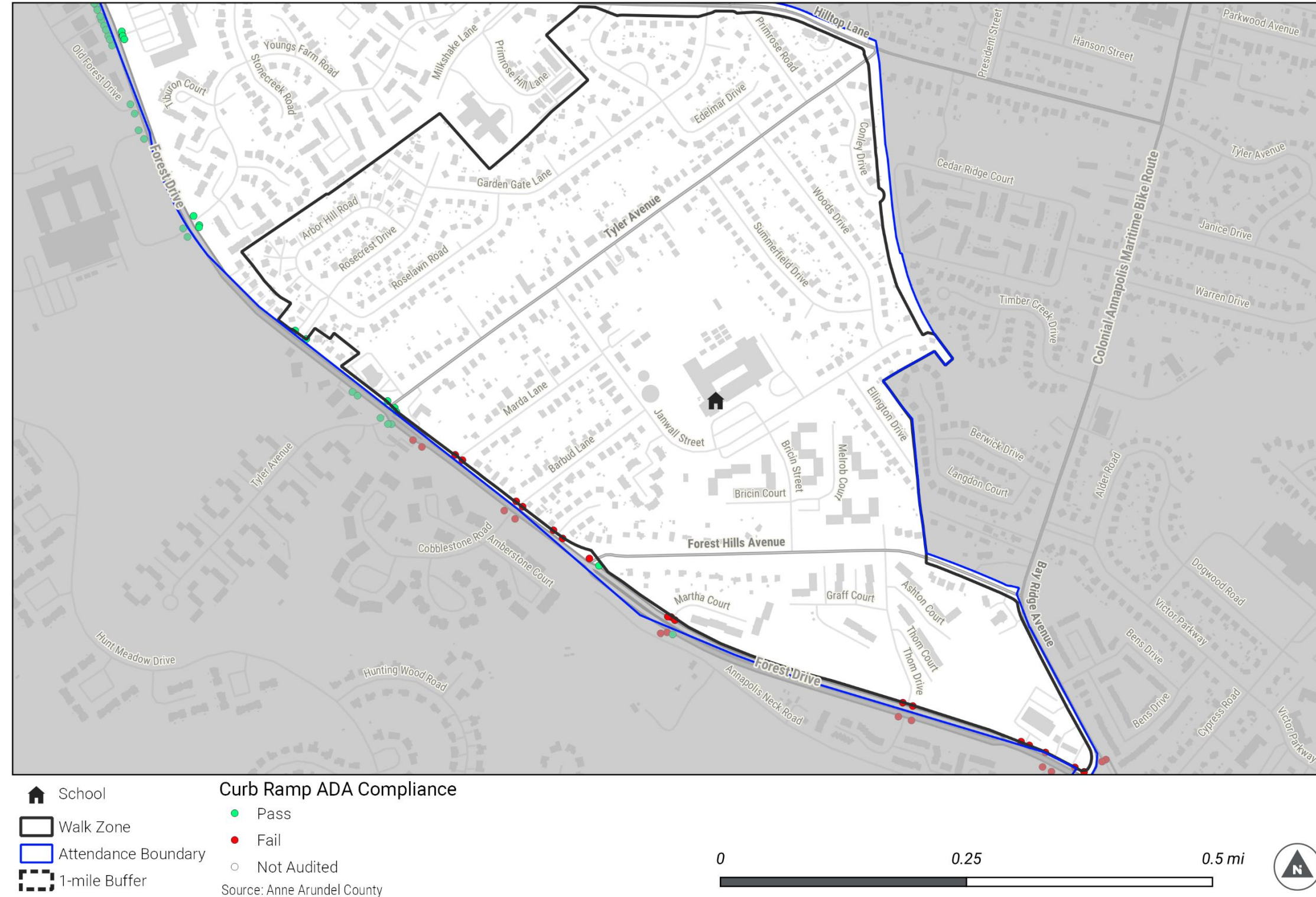
Tyler Heights Elementary School - Existing Crosswalks



Existing Curb Ramps

- No curb ramp data was available.

Tyler Heights Elementary School - Existing Curb Ramps



**Curb ramp data downloaded 9/14/22 but is incomplete. Data is not available within the City of Annapolis.*

Existing On-Road Bike Facilities

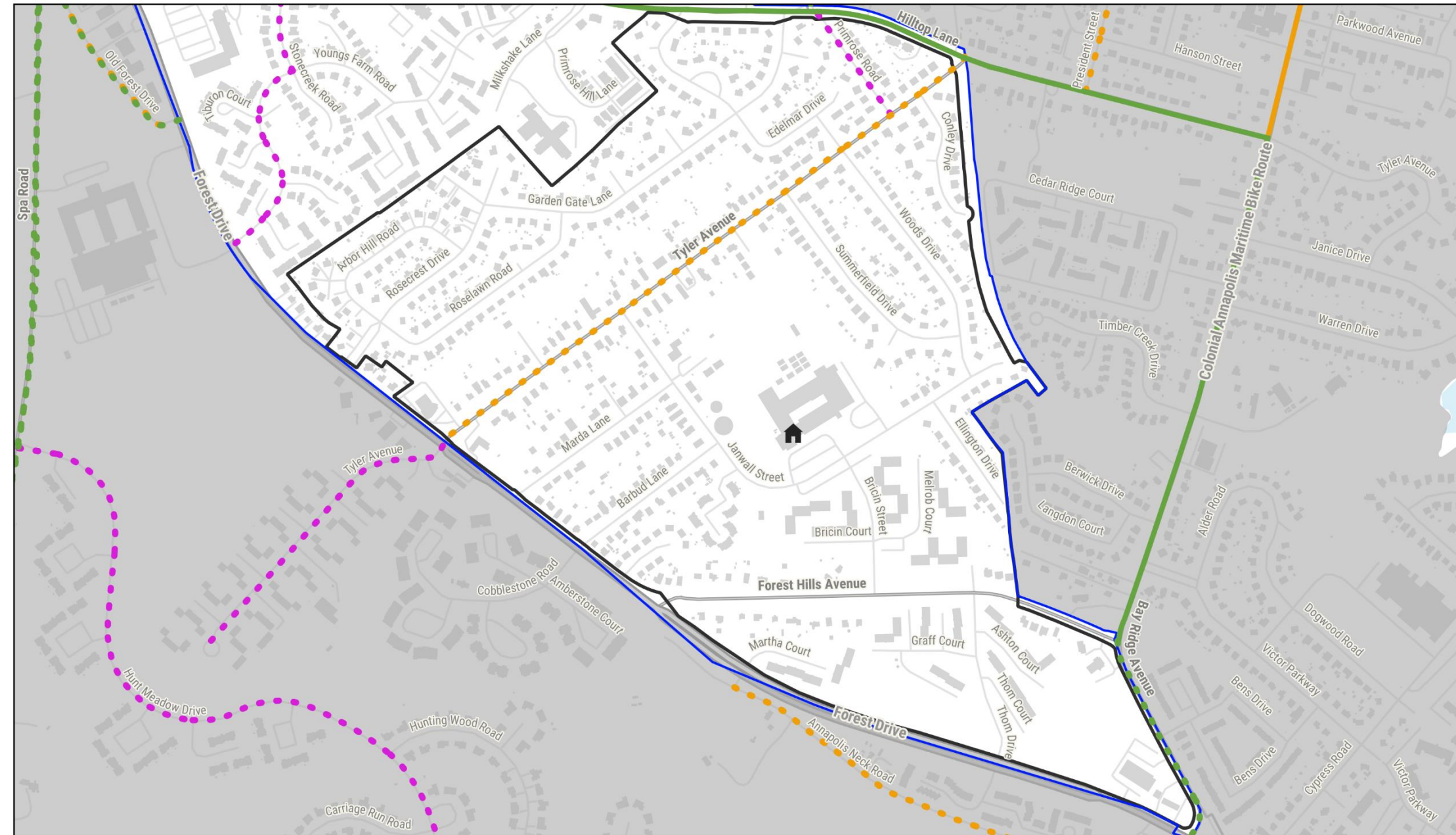
No on-road bike facilities exist within the school walk zone. Marked shared lanes are currently planned* for Tyler Avenue with a designated bike route planned* for Primrose Road in the far northeast corner.

Several roads bounding or just outside the attendance zone have or are planned* to have bike lanes, marked shared lanes, marked shared lanes, or signed routes.

The existing bike lane on Hilltop Lane and Tyler Avenue just north of the attendance zone is part of the East Coast Greenway north-south transcontinental bike route.

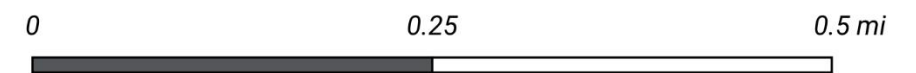
* "Planned" means included in the County's Master Plan

Tyler Heights Elementary School - Existing On-Road Bicycle Facilities



- | | | | |
|---------------------|---------------------------|--|--------------------------------------|
| School | Bike Lanes | Sharrows or Marked Shared Lanes | Signed/Designated Bike Routes |
| Walk Zone | Existing | Existing | Existing |
| Attendance Boundary | Programmed | Programmed | Planned |
| 1-mile Buffer | Planned | Planned | |
| | Existing - Separated Lane | | |

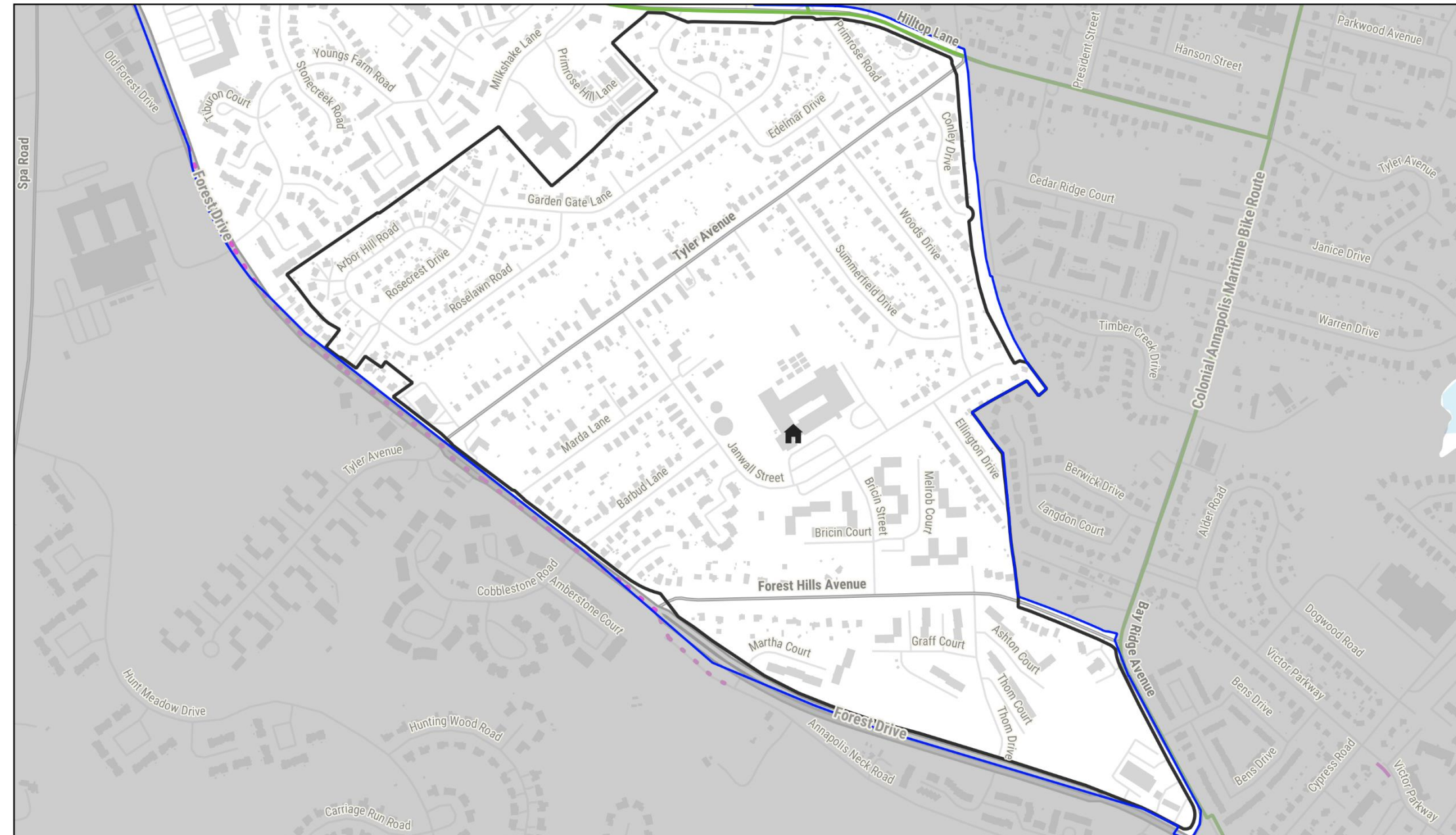
Source: Anne Arundel County



Existing Regional Trails, Park Trails, and Paths

There are no known existing or planned* regional or park trails within the school attendance boundary.

Tyler Heights Elementary School - Existing Regional Trails, Park Trails, and Paths



* "Planned" means included in the County's Master Plan

- School
- Walk Zone
- Attendance Boundary
- 1-mile Buffer
- Regional Trails
- Park Trails
- Paths
- Shared Use Paths
 - Existing
 - Programmed
 - Planned

Sources: Anne Arundel County, OpenArundel



CRASH DATA

Crash Data (2017 – 2021)

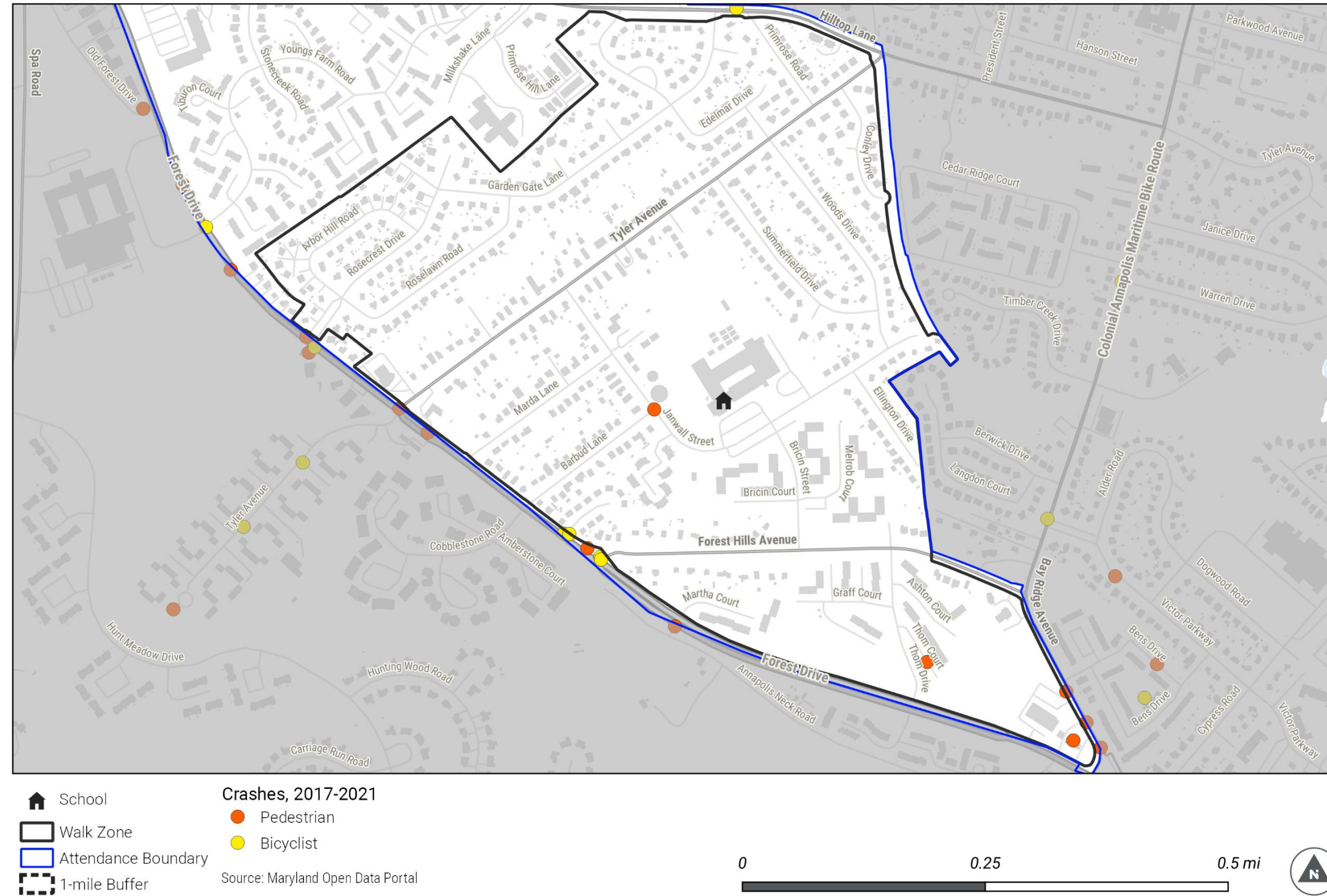
Crashes within 1-mile radius of the school:

- 907 total crashes (all modes), 2 fatal
- 43 pedestrian-involved crashes, 39 resulting in injury, 0 fatal
- 21 bicyclist-involved crashes, 17 resulting in injury, 0 fatal

Pedestrian and bicyclist crashes within the walk zone:

- 3 pedestrian-involved and 0 bicyclist-involved crashes occurred in the walk zone.

Tyler Heights 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.

The County is conducting a multimodal safety study along Forest Drive within this area, including recommendations to improve safety for pedestrians and bicyclists along and immediately adjacent to the corridor. Other projects or planning/feasibility studies may be planned or ongoing within the study area.

Note: Anne Arundel County does not have jurisdiction to install infrastructure improvements within the City of Annapolis. The City and AACPS are responsible for coordinating to make those decisions. The City of Annapolis, in coordination with the 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

Tyler Heights Elementary School - Recommendations



- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none"> School Walk Zone Attendance Boundary 1-mile Buffer Paths and Trails | <p>Spot Recommendations</p> <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 | <p>Segment Recommendations</p> <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	Garden Gate Ln (Rosecrest Dr to Garden Gate Ct)	Crosswalk	Side street crossings are unmarked	Install new standard crosswalks at side street crossings of Garden Gate Ct, Edelman Dr, Thorn Ct, Rose Ct, Roselawn Rd, and Rosecrest Dr	\$3,200	Short
2	Tyler Ave (Forest Dr to Hilltop Ln) (Along key student walking route)	2a. Crosswalk	Side street crossings are unmarked	Install new standard crosswalks at side street crossings of Janwall St, Stephanie Ln, Summerfield Dr, Woods Dr, Primrose Rd, and Conley Dr	\$2,800	Short
		2b. Speed management	Observed motor vehicle speeds appear to exceed speed limit. Sidewalks are narrow without available ROW to widen. On-street parking exists but is unmarked.	Conduct a speed study to consider speed management measures or other modifications. Linear traffic calming, such as potentially marking on-street parking can visually narrow the roadway and potentially slow speeds while also providing a buffer for pedestrians. Consider reducing speed limit to 20 mph (currently 25 mph)	N/A	Long

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

Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
3	Rosecrest Dr (Arbor Hill Rd north to Roselawn Rd)	Crosswalk	Side street crossings are unmarked	Install new standard crosswalks for side street crossings of Roselawn Rd/Arbor Hill Rd south, Arbor Hill Rd north	\$1,200	Short
4	Summerfield Dr & Summerfield Ct	4a. Crosswalk	South crossing is unmarked	Install new standard crosswalk	\$400	Short
		4b. Other Intersection or crossing issues	Parked cars obstruct sight lines	Install curb extensions	\$10,000	Long
5	Woods Dr & Summerfield Dr	Crosswalk	West crossing is unmarked	Install new standard crosswalk	\$400	Short
6	Janwall St & Woods Dr (Along key student walking route)	Crosswalk	North crossing is unmarked	Install new standard crosswalk	\$400	Short
7	Janwall St & Ellington Dr	7a. Crosswalk	South crossing is unmarked	Install new standard crosswalk	\$400	Short
		7b. Curb ramp	Southeast and southwest ramps missing	Install new ramps	\$8,000	Medium

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Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
8	Marda Ln (Forest Dr to Janwall St)	Sidewalk	Missing sidewalk	Install new sidewalk** Note: South side has 80ft of existing sidewalk	\$75,000	Long
9	Janwall St & Bricin St (Along key student walking route, Inside school zone)	9a. Curb ramp	Northeast curb ramp is missing	Install new ramp	\$4,000	Medium
		9b. Other intersection or crossing issues	This is a key crossing in front of the school where most student walkers cross; Janwall St is not STOP controlled. A crossing guard is located here and manages traffic. High motor vehicle volumes during arrival and dismissal, Concern about motor vehicle yielding. Crossing lacks appropriate crossing signage	Consider evaluating for STOP controls on Janwall St Install school advance crossing assembly signs Install school crossing signs with downward pointing arrows	N/A \$500 \$1,000	Long Short 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.

Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
10	Janwall St (west of Bricin St) (Along key student walking route, On school campus)	Sidewalk	Sidewalk obstructed by telephone pole	Relocate or remove obstacle	\$1,000	Long
11	Bricin St & Apartment Parking Lot (Along key student walking route, Inside school zone)	11a. Curb ramp	East and West curb ramps lack detectable warning surface	Reconstruct or repair existing ramps	\$16,000	Medium
		11b. Crosswalk	East and west crossings are unmarked, No stop bar	Install new standard crosswalks, mark new stop bars	\$1,000	Short
		11c. Other intersection or crossing issues	Concern about motor vehicle yielding. Currently no stop control.	Consider evaluating for STOP control at parking lot exits	N/A	Long

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Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
12	Janwall St (Tyler Ave to Ellington Dr) (Along key student walking route, Inside school zone)	12a. 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
				Reduce school zone speed limit to 20 mph.	\$500	Short
		12b. School Zone Signs and Pavement Markings	Existing school zone sign deficient Existing school advance warning sign deficient SCHOOL pavement marking missing	Enhance school zone signage per MDMUTCD part 7: - Repair or replace existing school zone signs (begin/end) - Repair or replace school advance warning signs - Install new SCHOOL pavement markings	\$1,000 \$500 \$1,000	Short
		12c. Sidewalk	Missing sidewalk on the south side entirely, missing sidewalk on the north side from Tyler Ave to Marda Ln.	Install new sidewalk**	\$100,121	Long
13	Barbud Ln (Forest Dr to Janwall St)	Sidewalk	Missing sidewalk	Install new sidewalk**	\$68,395	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*
14	Bricin St & Bricin Ct/Melrob Ct (Along key student walking route, Inside school zone)	14a. Crosswalk	East and west crossings are unmarked	Install new standard crosswalks	\$800	Short
		14b. Curb ramp	East and west curb ramps lack detectable warning surface	Reconstruct or repair existing ramps	\$16,000	Medium
		14c. Other intersection or crossing issues	Concern about motor vehicle yielding on exit from Bricin Ct. Currently no stop control.	Consider evaluating for STOP control	N/A	Long
15	Bricin St & Forest Hills Ave (Along key student walking route, Inside school zone)	Other intersection or crossing issues	<p>The crossing of Forest Hills Ave at Bricin St is a key connector for students walking from the apartments off Graff Ct and from homes on Thom Dr.</p> <p>High motor vehicle speeds and volumes, concern about motor vehicle yielding, pedestrians and bicyclists unable to find sufficient gaps in traffic</p>	Install RRFB	\$15,000	Long

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Infrastructure Recommendations within the School Walk Zone

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Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
16	Forest Hills Ave (Forest Dr to Thom Dr) (Along key student walking route)	16a. Sidewalk	Missing sidewalk	Install new sidewalk**	\$127,828	Long
		16b. School Zone Signs and Pavement Markings	Existing school zone sign deficient Existing school zone speed limit sign deficient SCHOOL pavement marking missing	Expand and enhance school zone signage per MDMUTCD Part 7: - Repair or replace existing school zone signs (begin/end) - Repair or replace existing school zone speed limit sign - Install new SCHOOL pavement markings	\$1,000 \$500 \$1,000	Short
		16c. Speed management	Observed motor vehicle speeds appear to exceed speed limit	Conduct a speed study to consider speed management measures or other modifications. Reduce school zone speed limit to 20 mph.	N/A	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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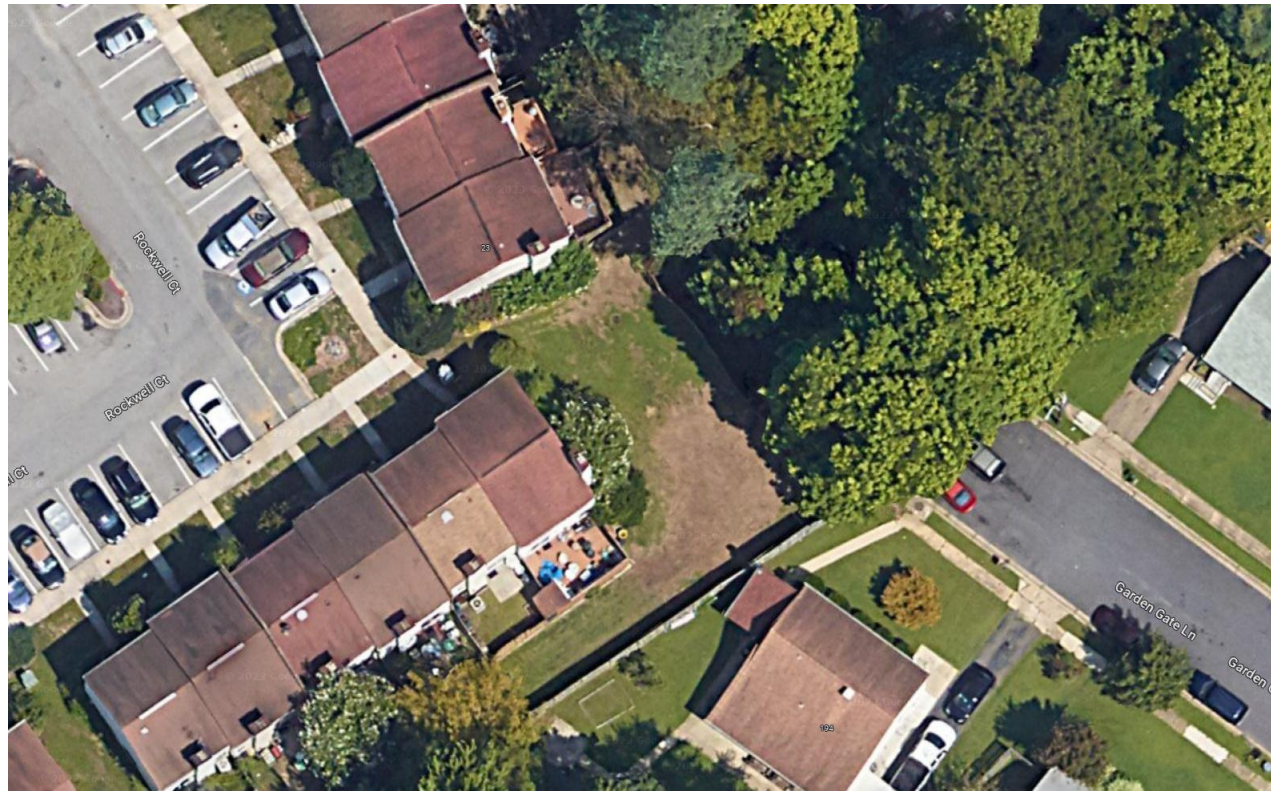
Map ID	Location	Facility Type	Issue	Recommendation	Potential Cost	Timeframe*
17	Thom Dr (Forest Hills Ave to Thom Ct)	17a. Sidewalk	Missing sidewalk on west side from Forest Hills Ave to Graff Ct	Install new sidewalk**	\$11,000	Long
		17b. Curb ramp	Ramps lack detectable warning surface	Reconstruct or repair ramps for side street crossings of Thom Ct, Graff Ct and Ashton Ct	\$20,000	Medium
		17c. Crosswalk	Side street crossings are unmarked	Install new standard crosswalks for side street crossings of Thom Ct, Graff Ct and Ashton Ct	\$1,200	Short

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

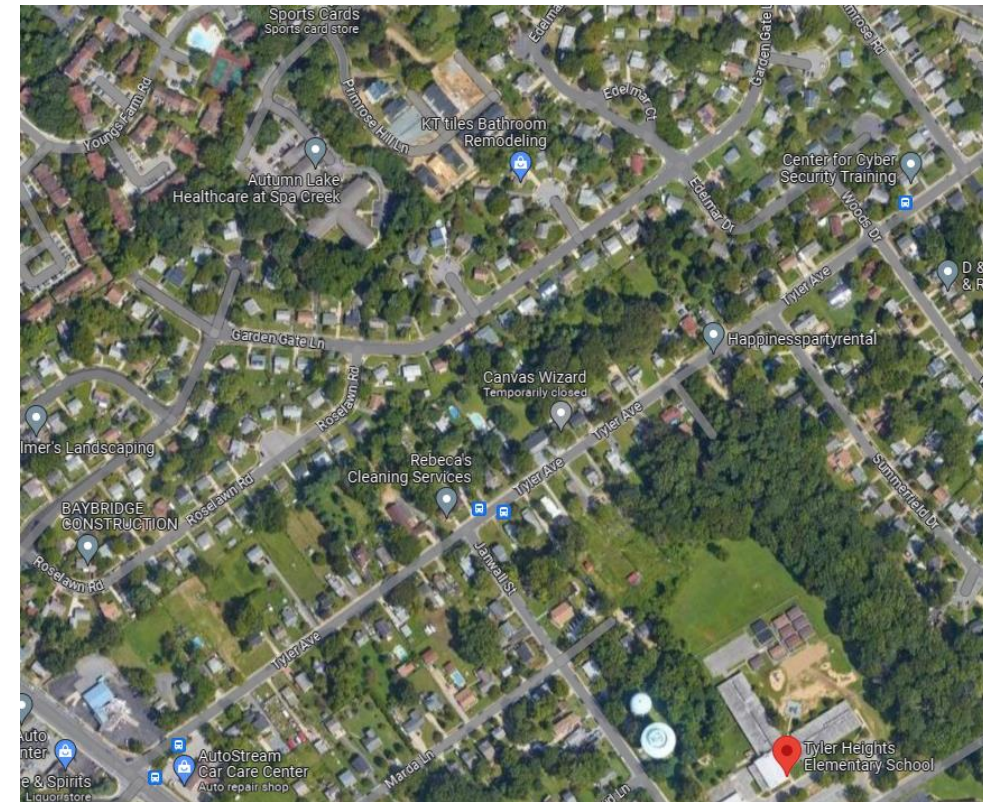
**Note that at locations where installation of new sidewalks is recommended, high-visibility crosswalks, ADA compliant curb ramps, and stop bars should be installed at intersecting streets to facilitate crossings and encourage motor vehicle yielding.

Additional Considerations

- 1) Garden Gate Lane dead ends past Rosecrest Drive but residences in The Landings are within the school attendance area. The County could explore developing path connection to Rockwell Court which would enable bike connectivity for students. Likewise, network connection between Tyler Avenue and Garden Gate Lane is limited to Woods Drive/Edelmar Drive, significantly lengthening walk distance from some residences. The County could explore acquiring ROW or permission from private property owners to develop a path connection between the two roads.



Aerial view of opportunity for potential connection between Garden Gate Lane and Rockwell Court.



Aerial view of private properties along Tyler Avenue and Garden Gate Lane.

Additional Considerations (continued)

- 2) Forest Drive is a four-lane road with a center turn lane, 40mph posted speed limit, and posted school crossing signs at Marda Lane, Tyler Avenue, Rosecrest Drive, and Youngs Farm Road. It spans the western perimeter of attendance boundary for Tyler Heights Elementary and is within the walk zone for Annapolis Middle School. Several houses along the east side of Forest Drive are currently excluded from the Tyler Heights Elementary walk zone. For long-term planning, the County could explore a road diet on Forest Drive and significant pedestrian and bicycle facility improvements along the corridor, including at key crossing locations. (Note: The County is conducting a multimodal safety study along Forest Drive within this area, including recommendations to improve safety for pedestrians and bicyclists along and immediately adjacent to the corridor.)



Forest Drive at Rosecrest Drive

Additional Considerations (continued)

- 3) There is a fence around the apartment complex located south of Forest Hills Avenue, with no gate for pedestrian access even though a sidewalk exists and connects to Forest Hills Avenue near Bricin Street (where a crossing guard was located during school observations). While it is likely this is private property, the County could explore installing a gate to allow a direct connection for student walkers; currently, pedestrians have worn a path in the grass to access a gap between the gate and a private property fence.



Gate around apartment complex off Forest Hills Avenue



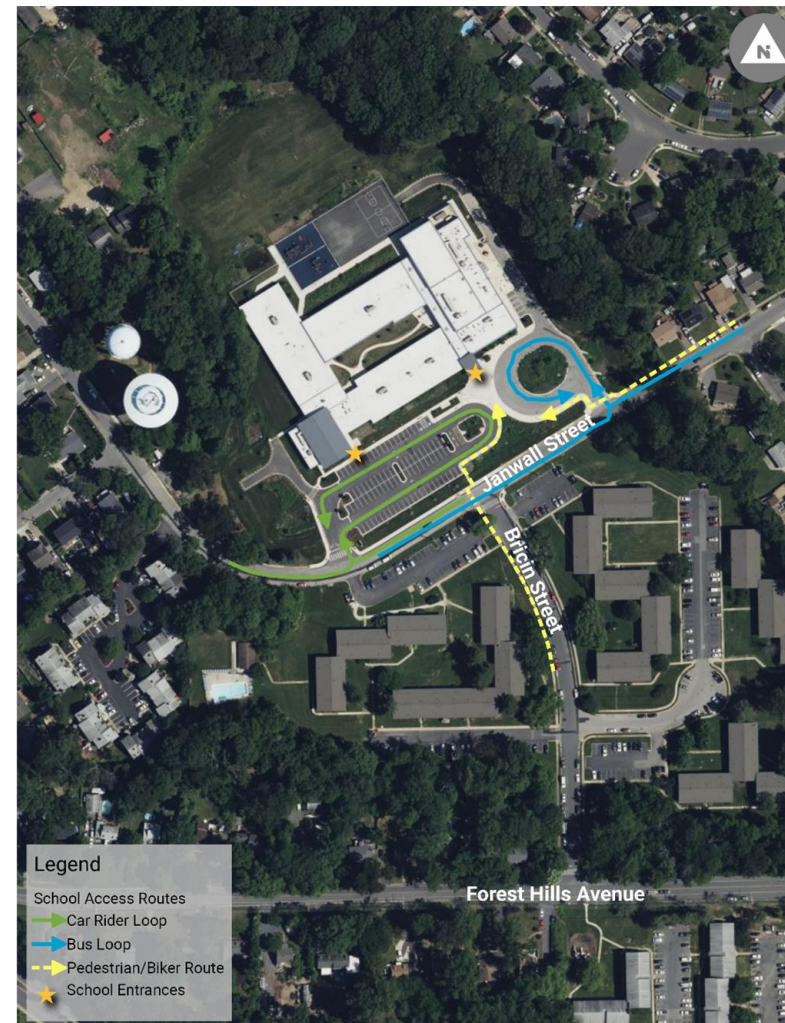
Gap between the gate and a wooden fence on private property. Note the worn path/desire line for pedestrian travel.

Additional Considerations (continued)

- 4) Parent drop off and pick up creates queues of cars within the school driveway/drop-off/pick-up lane, along Janwall Street, and along Bricin Street, which leads to unsafe driver behaviors such as blocking crosswalks. In addition, signs along Janwall Street imply that streetside drop off is encouraged (see Kiss & Goodbye image below), potentially leading some parents to avoid the on-campus drop off loop. AACPS and the County should conduct a more detailed traffic study (vehicle volumes, turning movements, etc.) around the school campus and explore measures to refine traffic patterns and minimize conflicts.



Signs along Janwall Street in front of the school



School access map



Car line on Janwall Street at dismissal

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.

Reward and encourage active transportation by releasing walkers and bicyclists first. Staggering student dismissal times by travel mode reduces conflicts between the modes. Dismissing walkers and bicyclists first may be seen as a reward and encourage walking and bicycling to school.

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

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

Continue 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).

APPENDIX: INFRASTRUCTURE RECOMMENDATION PHOTOS

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Garden Gate Lane

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



2

Tyler Avenue



3

Rosecrest Drive

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Summerfield Drive & Summerfield Court



Woods Drive & Summerfield Drive

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Janwall Street & Woods Drive



Janwall Street & Ellington Drive

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Marda Lane



Janwall Street & Bricin Street

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Sidewalk obstruction on Janwall Street



Bricin Street & Apartment Parking

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Janwall Street



Barbud Lane

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Bricin Street & Bricin Court/Melrob Court



Bricin Street & Forest Hills Avenue

INFRASTRUCTURE RECOMMENDATIONS within the School Walk Zone



Forest Hills Avenue



Thom Drive & Forest Drive