#### **TOOLE** DESIGN

# Safe Routes to School Assessment

#### Ferdinand T. Day Elementary School *Final*

Prepared For



National Capital Region
Transportation Planning Board





#### **NEONICHE** S T R A T E G I E S

## Overview

NOTE: The final report and recommendations have been modified by the City of Alexandria to align with project goals and to focus on high-impact projects.

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Funded in part by the Transportation Land-Use Connections (TLC) program of the National Capital Region Transportation Planning Board at the Metropolitan Washington Council of Governments. The TLC program supports local jurisdictions in promoting mixed-use, walkable communities and a variety of transportation alternatives. 2



## Ferdinand T. Day Elementary School



## Methodology

#### Data, Mapping and Setting the Context

Data was assembled to create maps and graphic data summaries for each school to provide context for the walk audits and establish walk audit parameters.

#### **Community Engagement**

A community feedback form was created and shared online to provide an opportunity for parents, administrators, staff, students and community members to provide input. Outreach materials were developed by NeoNiche Strategies and distributed/posted in schools and in community spaces.

#### **School Walk Audits**

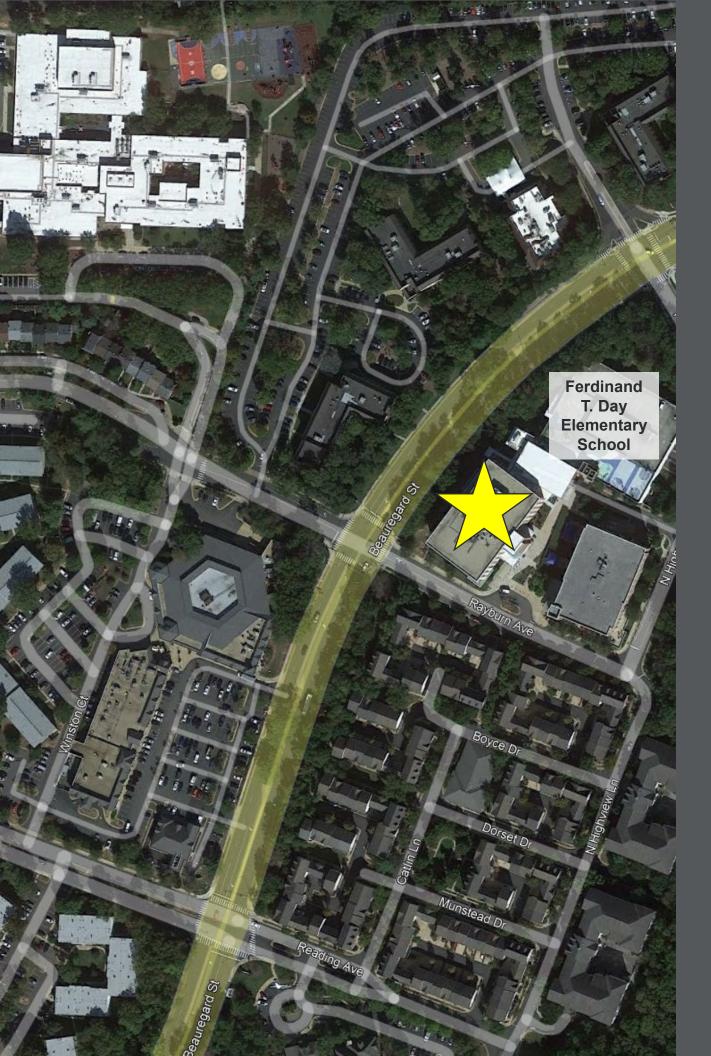
Arrival or dismissal operations were observed at each school and the walk audit teams assessed the behavior of students, parents and commuters. Additionally, Toole staff collected field data in the walk areas of the schools to examine existing conditions to include the condition of sidewalks, crosswalks, signs and other roadway elements.

#### **Recommendations**

Field data, observations and feedback form results were used to identify issues and corresponding recommendations.

#### Walk Audit Reports

School details, observations, field data, feedback form results and recommendations were finalized in a report. 



## **School Site**

- Ferdinand T. Day Elementary School is located at 1701 N Beauregard Street, serving K-5 and operating 8:00 am – 2:35 pm.
- It is located near a residential (largely multi-family housing) and commercial area (small shopping center to the southwest and a large office park to the northeast). It is bounded by N Beauregard Street to the west, Rayburn Avenue to the south, and N Highview Lane to the north and east.
- N Beauregard Street is a minor arterial with a posted speed limit of 25 mph and a 15 mph school speed limit.
- For the 2022-2023 school year, there were 558 students enrolled at FT Day Elementary School. The school reports that approx. 40% of students walk, 20% ride in cars, 10% are bus riders, 10% attend after school program, and 20% varies depending on the weather between walking and riding in a car.

#### **School Access**

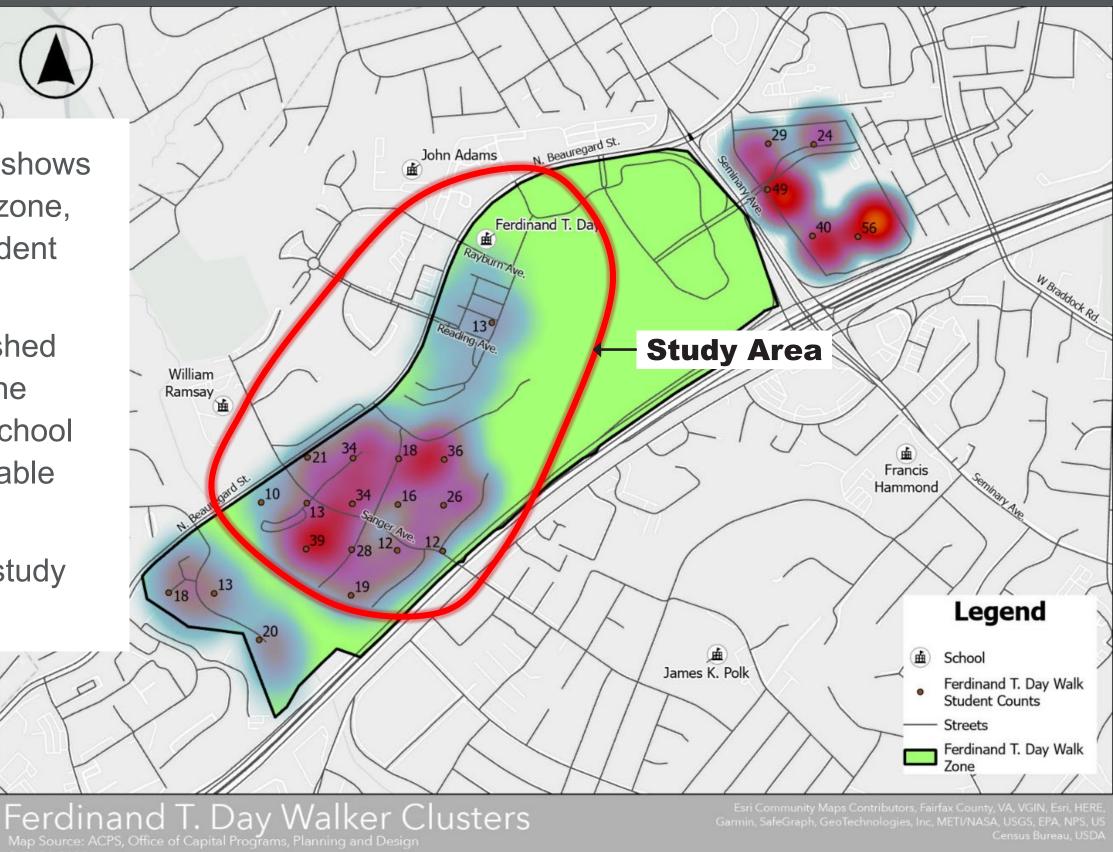
- Pedestrians access the school at the intersection of N Beauregard Street and Rayburn Avenue.
  - Several students take the DASH bus and get off near the intersection of N Beauregard Street and Rayburn Avenue.
  - Parent/Guardians were observed parking at the shopping center parking lot and walking to drop off students.
- Vehicles use the drop off point on N Highview Lane.
- Buses use the bus loop on Rayburn Avenue. Many students take the DASH bus.



LEG	END
	Car Entrand

## Walk Zone

- The Walker Cluster map shows the existing school walk zone, as well as clusters of student addresses.
- The walk zone is established by ACPS by evaluating the walking distance to the school in combination with available infrastructure.
- Red line shows approx. study area.



## Walk Audit Participants

- FTD Rachael Dischner, Principal
- COA Bryan Hayes
- COA Alex Carroll
- COA Bob Garbacz
- ACPS John Contreras
- Parent Hank Watkins
- Advocate Mike Doyle
- Advocate Nicole Radshaw
- Toole Design Christina Fink
- Toole Design J Swiderski

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# **Observations and Crash Data**

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DASH bus stop on N Beauregard Street near Rayburn Avenue



Narrow sidewalk on N Beauregard Street near Rayburn Avenue

## **Arrival Observations**

- Observation period: Wednesday March 29, 2023, 7:10am – 8:40am.
- Sidewalks on N Beauregard Street south of Rayburn Avenue experienced a high volume of pedestrians.
- No students were observed biking to school.
- Students largely use marked crosswalks to cross streets.
- Drivers cannot turn onto Rayburn Avenue from N Beauregard Street during morning drop-off; all drivers are required to enter from the north via Highview Lane. Vehicle drop-off is at a driveway and parking garage on Highview Lane; school traffic is not to drop off on Rayburn Avenue in front of the school—though this was observed to happen—and drivers are to return to N Beauregard St via Highview Lane.

### **Arrival Observations**

Crossing Guard: Crossing guards direct traffic at the intersection of N Beauregard Street and Rayburn Avenue and at the intersection of N Beauregard Street and Sanger Avenue. Several teachers act as crossing guards and manage traffic at the entrance to the school drop-off loop and parking garage.



Crossing guard at N Beauregard Street and Rayburn Avenue

### **General Observations**

- The route most walkers take along N Beauregard Street is uphill.
- Some drivers do not follow crossing guard's directions.
- Several drivers were observed speeding up through an intersection to catch a green light.
- Several drivers were observed turning across the crosswalk while people were actively crossing.
- Though Highview Lane has a 15 mph posted speed limit, it is a relatively wide street and most traffic not physically held up by other vehicles seemed to be well above this limit.





#### Students crossing Rayburn Avenue at N Beauregard Street with crossing guard stopping traffic

**Rayburn Avenue** 

## Ferdinand T. Day Campus and Vicinity



A person from a nearby apartment complex crosses N Beauregard Street near Roanoke Avenue to reach a southbound DASH bus stop. To use the nearest marked crosswalk at Sanger Avenue would have added as much as a quarter-mile to their journey.



Many crosswalks along and across N Beauregard Street are cracked, faded, or some combination of the two. This is crossing Reading Avenue on the east side of Beauregard Street.



Several intersections along N Beauregard Street-this is at Rayburn Avenue—have oversized signal poles mounted on large bases away from the sidewalk, which means that, even mounted on extenders, the APS buttons are not accessible.

## Ferdinand T. Day Campus and Vicinity



East side of N Beauregard Street at Reading Avenue from the south (left) and north (right).

The curb radius is so large that the crosswalk across N Beauregard Street has to be extended (by five entire bars of the crosswalk) and the crosswalk across Reading Avenue angles away from N Beauregard Street. As a result, a person waiting to cross from the southeast corner may not be visible to approaching drivers, especially if there is a bus at the bus stop (white structure on right side in background of right image). N Beauregard Street between Sanger Avenue and Roanoke Avenue - a long uphill section with a minimum-standard width sidewalk and zero buffer from two lanes of traffic moving at 35 mph or more.



## Ferdinand T. Day Campus and Vicinity



The curb radius at Beauregard Street and Sanger Avenue has been shaved back so far, the sidewalk is barely wider than the detectable warning surface. Additionally, note the cracked and faded crosswalk markings.



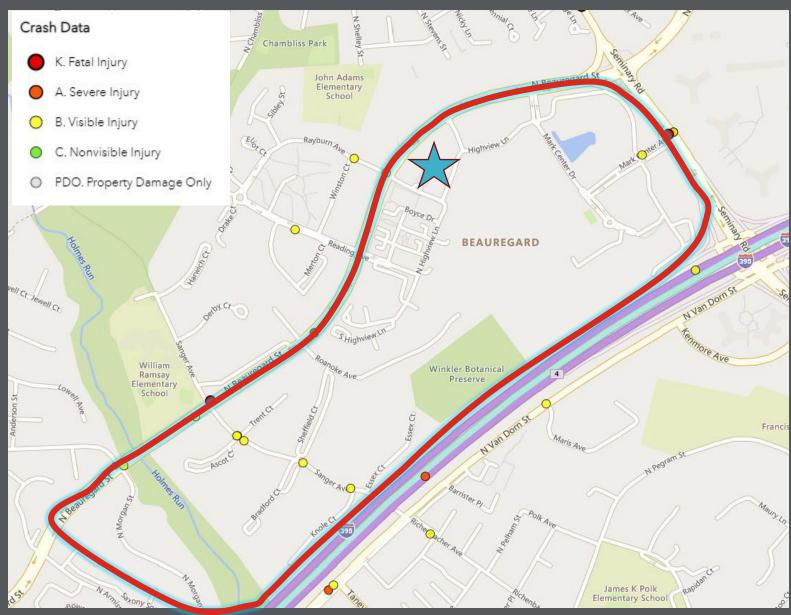
Many apartment building accessways from Sanger Avenue (above) and Roanoke Avenue (above right) aren't clearly defined as streets or driveways. Most, even those like Trent Court (above), which have street signs posted and concrete across their (pavement-level) driveway entrances, do not have marked crosswalks, and curb ramps (if any) have no detectable warning surface.



Roanoke Avenue at Sheffield Court (apartment complex parking lot) entrance has no marked crosswalks and no detectable warning surface on its narrow curb ramps.

### **Crash Data**

- Crash Data was gathered for the school walk area for the years 2018-2022.
- Within the walk zone, there were 110 crashes. Of these crashes, 10 involved a pedestrian (including one fatality), and 1 involved a bicyclists.
- 3/8 of pedestrian injury crashes on Sanger Avenue involved pedestrians under age 10.
- Fatal pedestrian crash at Sanger Avenue and N Beauregard Street involved a 16 year old pedestrian.



Pedestrian-Involved Crashes 2018-2022 Source: VDOT

• — I-395 crashes not included in data table at left Red line shows approx. walk zone.

#### **CRASHES WITHIN** WALK ZONE\*

All Modes

Pedestrian-involved

**Bicyclist-involved** 

Total Crashes	Injury	Fatality
110	39	1
10	9	1
1	1	0

# **Community Feedback Form** Results

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### Participants

- Community feedback was solicited through an online community feedback form. For Ferdinand T. Day Elementary School, there were 17 participants.
- Table 2 summarizes the mode participants typically use and their ideal mode to get to school.

#### Table 1. Summary of Form ParticipantsCommunity Feedback Form Participants

Total number of respon Student Responses Parent, Grandparent, of Responses Teacher, Admin, Schoo Alexandria resident int project Other

#### Table 2. How Respondents Are Getting to School

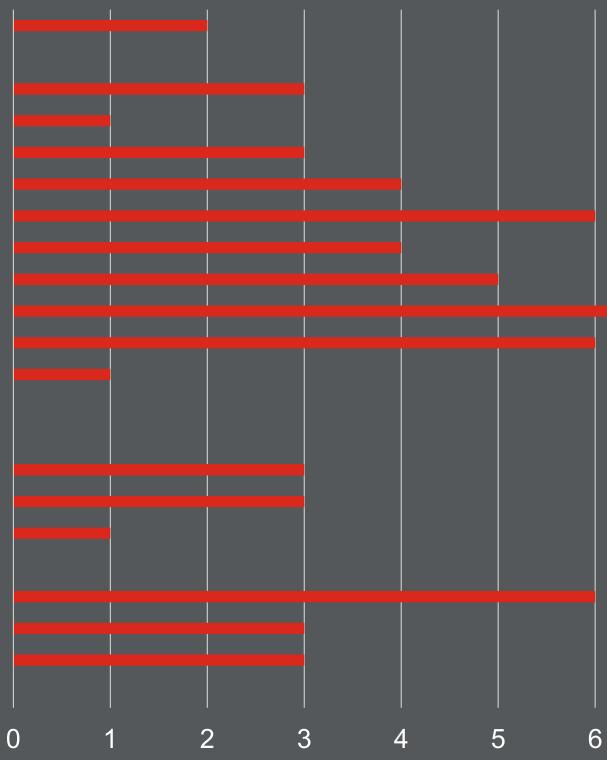
Mode Options	Typical Mode	Ideal Mode
Walk	5	3
Bike	0	1
Drive	1	0
Carpool	0	0
School Bus	4	4
Public Transit	5	5
Other	0	0

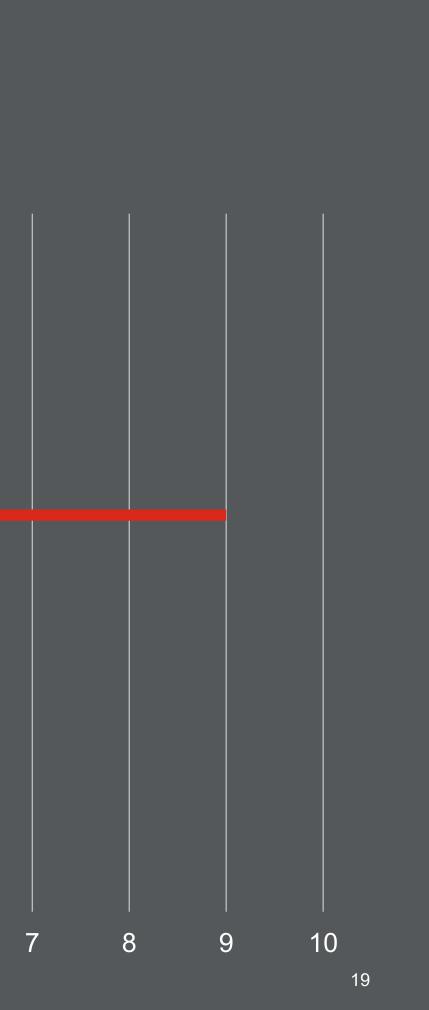
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or Guardian	
	10
ol Staff	2
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	5
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#### Results

#### Issues experienced on the way to school

Other Not enough bicycle parking No existing Bike lanes Bike lanes are incomplete or hard to use School drop-off and pick-up is challenging People disregard signs and traffic signals People driving are distracted People driving block the intersection People driving don't make safe turns People drive too fast People driving don't stop for people walking Route to school is not well-lit Hard to see oncoming traffic Traffic signals/signs are hard to see Excessive wait time for WALK signal WALK signal is too short Hard to hear or see WALK signal Curb ramps are in poor condition Sidewalk space is too narrow Sidewalks in poor condition Crossing long distances No issues





### **Community Feedback Form –** Free Response

- Community feedback form participants provided free responses to the following free response questions. Responses are summarized in the table.
  - What would it take for you to walk or bike to school more often than you do now?
  - Please provide more detail about the issues you experience getting to school.

Intersections of concern	Lack of pedestrian crossing signals/signs
Bike Infrastructure	Bike lanes are not protected and parked cars don't look out
Safety Concerns	Drivers do not stop/yield for crossing students.
	Speeding vehicles.

t for kids on bikes.

# Walk Audit Recommendations

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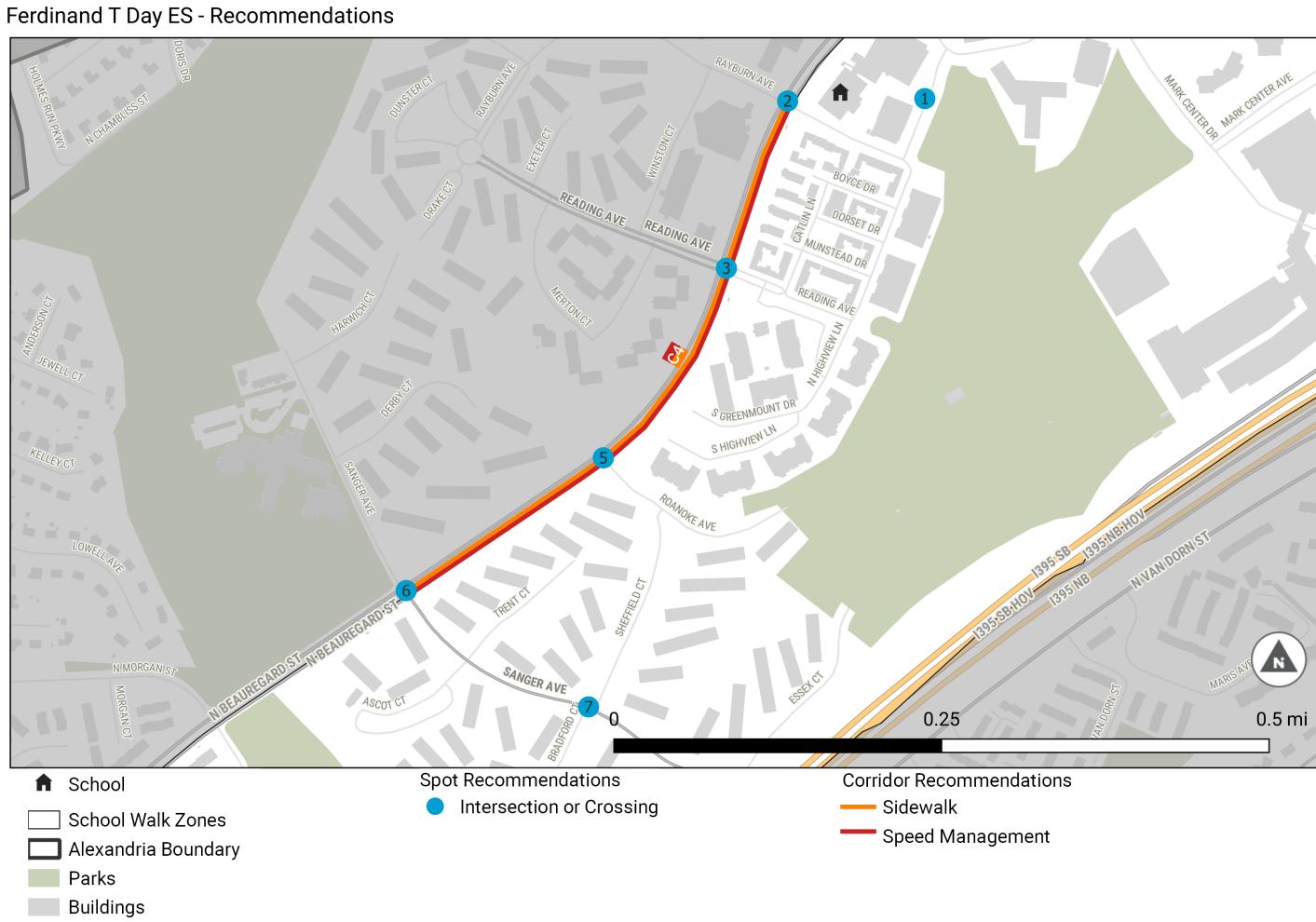
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## **Recommendations** Approach

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 map and 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.

Note that other projects or planning/feasibility studies may be planned or ongoing within the study area. The City of Alexandria will confirm the approach to implementing recommendations from this SRTS Study to ensure they align with other projects as necessary.



## **Recommendations** Overview

The following pages provide tables of the recommendations for each location. Below is a description of the column within the tables.

- Map ID Label number on the map. Points with multiple recommendations will have a suffix of a, b, etc. Corridor recommendations are identified with the prefix of "C" (e.g. C2).
- Location, Recommendation Type Location of recommendation and the type of the recommendation. The extents of corridor recommendations are defined in parenthesis.
- Issue Description of the issue at the identified location.
- Recommendation Description of the proposed recommendation.
- Complexity Scale of complexity for recommendation implementation. The ranking considers costs, timeframe, and overall difficulty from one to five, with one being the least complex and five being the most complex.
- Responsibility Responsible party for implementation.

Map ID	Location School	Location, Recommendation Type	Issue	Recommendation
1	Ferdinand T Day ES	N Highview Ln & School Drwy, Intersection or Crossing	Western crossing of school driveway is missing crosswalk markings and has no stop bar.	Install new crosswalk; install new stop bar.
<b>2</b> a	Ferdinand T Day ES	N Beauregard St & Rayburn Ave, Intersection or Crossing	Northern and southern crossings of N Beauregard St have relatively generous geometry and motorists were observed making the turns relatively quickly. While the walk boundary does not extend north of N Beauregard St, students and parents were observed crossing at this location (either to/from bus stop or the shopping center, both on the north side of N Beauregard St).	, , , , , , , , , , , , , , , , , , ,
2b	Ferdinand T Day ES	N Beauregard St & Rayburn Ave, Intersection or Crossing	Pedestrian pushbutton on the northeast corner (for crossing N Beauregard St) is not accessible (due to a long reach) and does not have the proper orientation.	Repair pushbutton (this may require adjusting the curb so that the pushbutton is reachable or adding a new pole for the pushbutton).

	Complexity	Responsibility
		ACPS
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1	Map ID	Location School	Location, Recommendation Type	Issue	Recommendation
	2c	Ferdinand T Day ES	N Beauregard St & Rayburn Ave, Intersection or Crossing	Eastern crossing of Rayburn Ave has inadequate crossing time (walk indication ends several seconds prior to parallel green); There are concerns about motor vehicle turning movements conflicting with students in the crosswalk.	-
	2d	Ferdinand T Day ES	N Beauregard St & Rayburn Ave, Intersection or Crossing	The southbound left-turn from N Beauregard St to Rayburn Ave is not allowed during school hours (crossing guard parks car and installs cones on Rayburn), but there is nothing on N Beauregard St to tell motorists they can't turn left.	Add "NO LEFT TURN FROM XX-XX AN and XX-XX PM" for Southbound Left or a dynamic LED "NO LEFT TURN" sign.
	2e	Ferdinand T Day ES	N Beauregard St & Rayburn Ave, Intersection or Crossing	The pedestrian signals are not set to auto recall.	Set pedestrian to signals to auto- recall during school hours. Explore extending the auto-recall throughou the day.
	<b>3</b> a	Ferdinand T Day ES	N Beauregard St & Reading Ave, Intersection or Crossing	Northeast corner has pushbutton that is difficult to access (behind curb on mast arm pole).	Add push-button extender arm.

	Complexity	Responsibility
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Ma IC	Location School	Location, Recommendation Type	Issue	Recommendation
31	b Ferdinand T Day ES	N Beauregard St & Reading Ave, Intersection or Crossing	Eastern crosswalk is a long crossing with concerns about motor vehicle turning speed.	Extend median on Reading Ave through crosswalk.
3	c Ferdinand T Day ES	N Beauregard St & Reading Ave, Intersection or Crossing	Pedestrians on the southeast corner are not visible to motorists traveling north on N Beauregard St.	Adjust curb radius on southeast corner so that pedestrians are visible
3d 4a	d Ferdinand T Day ES	N Beauregard St & Reading Ave, Intersection or Crossing	Eastern crosswalk is a long crossing with concerns about motor vehicle turning speed and pedestrians on the southeast corner are not visible to motorists traveling north on N Beauregard St.	Implement Leading Pedestrian Interval for both eastern and wester crosswalks.
	a Ferdinand T Day ES	N Beauregard St (Rayburn Ave to Sanger Ave), Sidewalk, Speed Management	Speeding was a concern from parents and school on N Beauregard St.	Conduct speed study and perform speed mitigation measures.
41	b Ferdinand T Day ES	N Beauregard St (Rayburn Ave to Sanger Ave), Sidewalk, Speed Management	Sidewalk on east side of N Beauregard St is narrow and goat paths showing the desire line and need for wider sidewalks are present.	Widen sidewalk.

	Complexity	Responsibility
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ern		City
		City
		City

Map ID	Location School	Location, Recommendation Type	Issue	Recommendation
5a	Ferdinand T Day ES	N Beauregard St & Sanger Ave, Intersection or Crossing, Sidewalk	Concerns at all crossings due to motor vehicle turning speeds and lack of yielding.	(This recommendation applies in a future scenario where pedestrians move with parallel vehicle phases ) For northern and southern crossings, explore options to reduce pedestrian crossing distance and conflicts with motor vehicles.
5b	Ferdinand T Day ES	N Beauregard St & Sanger Ave, Intersection or Crossing	Crosswalk markings and stop bars are faded on all approaches.	Repaint high-visibility crosswalks and stop bars.
5c	Ferdinand T Day ES	N Beauregard St & Sanger Ave, Intersection or Crossing	Ramps on northwest corner (for crossing Sanger Ave) and southwest corner (crossing both Sanger Ave and N Beauregard St) are missing level landing area and lack detectable warning. Ramps on the northeast and southeast corner have been somewhat recently replaced, but create a safety concern because motorists travel close to and across the ramps because the entire corner is depressed.	Reconstruct curb ramps (ramps on northeast and southeast corners should be two separate ramps -



Map ID	Location School	Location, Recommendation Type	Issue	Recommendation
6	Ferdinand T Day ES	Sanger Ave & Bradford Ct / Sheffield Ct, Intersection or Crossing	There is a desire line for crossing Sanger Ave between garden apartment driveways/access points. Additionally, there are general concerns about speeding along Sanger Ave.	Evaluate feasibility of safety improvements at Sanger Ave and intersections with Bradford Ct and Sheffield Ct.



#### Notes

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