

# CLEMENTON ELEMENTARY SCHOOL TRAVEL PLAN



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COUNTY  
CONNECTION**

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# Clementon Elementary School Travel Plan

**Prepared by:**

**Cross County Connection Transportation Management Association**

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Cross County Connection Transportation Management Association was formally incorporated in 1989 through the efforts of a group of southern New Jersey business leaders, local government officials, and representatives from the New Jersey Department of Transportation and New Jersey Transit Corporation to address mobility issues in the region and reduce the number of vehicles on state and local roadways. Today, Cross County Connection is a non-profit organization partnering with the New Jersey Department of Transportation, New Jersey Transit, Federal Highway Administration, Metropolitan Planning Organizations, and its members to provide solutions to complex transportation problems for counties, municipalities, employers and commuters in Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester and Salem Counties.

A School Travel Plan is a document that helps to identify student walking and bicycling travel corridors (through student locations, crash data analysis, and existing pedestrian and bicycling infrastructure) and recommends infrastructure improvements to make the travel corridors safer for students. A School Travel Plan helps to identify short term and long term solutions to help encourage students to walk and bicycle to school safely. The objective of a School Travel Plan is to create a safer walking and bicycling environment for students, encourage more students to walk and bicycle to and from school, reduce the negative environmental impacts of automobile trips to school, and to establish healthy lifestyle habits among schoolchildren through increased physical activity. The Safe Routes to School Program is funded through NJDOT. Cross County Connection administers the SRTS program in southern New Jersey's seven counties.

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# CONTENTS

|   |    |  |    |
|---|----|--|----|
| 1. Introduction.....                          | 1  | 5. Non-Infrastructure Recommendations.....               | 45 |
| Travel Plan Goals.....                        | 2  | Education.....   | 49 |
| Travel Plan Process.....                      | 2  | Encouragement.....                                       | 51 |
| Working Group.....                            | 4  | Enforcement.....   | 53 |
| Study Area and Scope.....                     | 4  | Anti-Idling Program .....                                | 55 |
| School Description.....                       | 5  |  |    |
| 2. Preliminary Findings.....                  | 9  | 6. Conclusion .....                                      | 57 |
| School Policies, Practices and Programs ..... | 9  | Next Steps .....   | 57 |
| Municipal Policies and Practices .....        | 11 | Funding Resources .....                                  | 58 |
| Travel Tallies .....                          | 11 | Summary.....   | 61 |
| Outreach .....                                | 12 |  |    |
| Survey Findings.....                          | 12 | Appendix 1: Clementon Elementary Survey Results.....     | 63 |
| Mapping Exercises.....                        | 14 |  |    |
| 3. Existing Facilities.....                   | 17 | Maps   |    |
| Existing Pedestrian Facilities.....           | 17 | Map 1: Clementon Elementary School Location.....         | 3  |
| Existing Bicycle Facilities .....             | 20 | Map 2: Elementary School Student Locations .....         | 7  |
| Bicycle and Pedestrian Crashes .....          | 20 | Map 3: Existing Conditions of Pedestrian Facilities..... | 19 |
| Audit Findings .....                          | 24 | Map 4: Proposed Bicycle Facilities .....                 | 21 |
|   |    | Map 5: Bicycle and Pedestrian Crashes.....               | 23 |
| 4. Recommendations.....                       | 29 | Map 6: Erial Road Recommendations .....                  | 40 |
| General Recommendations.....                  | 30 | Map 7: Gibbsboro Road Recommendations .....              | 47 |
| Corridor Recommendations .....                | 34 |  |    |
| Erial Road .....                              | 34 | Figures  |    |
| Gibbsboro Road .....                          | 41 | Figure 1: Walking Audit Routes .....                     | 24 |
|   |    | Figure 2: Corner Radii and Crossing Distances .....      | 25 |
|   |    | Figure 3: Continental Style Crosswalks .....             | 30 |
|   |    | Figure 4: Rectangular Rapid Flash Beacon (RRFB) .....    | 30 |
|   |    | Figure 5: Curb Extension .....                           | 31 |

|  |    |
|--|----|
| Figure 6: A No Turn on Red Sign with Clear Specifications.....       | 31 |
| Figure 7: Leading Pedestrian Interval (LPI) information.....         | 31 |
| Figure 8: Effects of increased speed on a drivers visual focus ..... | 33 |
| Figure 9: Curb extensions .....                                      | 36 |
| Figure 10: Protected bike lane .....                                 | 36 |
| Figure 11: Road diet treatment before and after.....                 | 42 |

## Tables

|  |    |
|--|----|
| Table 1: Working Group Members .....                                       | 4  |
| Table 2: Number of students within a half mile and<br>mile of school ..... | 5  |
| Table 3: Number of students attending AM and PM care .....                 | 6  |
| Table 4: AM and PM Travel Mode.....  | 11 |
| Table 5: Student grade levels.....   | 12 |
| Table 6: Common Parent Concerns .....                                      | 15 |
| Table 7: Bicycle and Pedestrian Crashes in Clementon, NJ .....             | 22 |
| Table 8: Erial Road Characteristics.....                                   | 34 |
| Table 9: Princeton Road Characteristics.....                               | 38 |
| Table 10: Erial Road Corridor Recommendations .....                        | 39 |
| Table 11: Gibbsboro Road Characteristics .....                             | 41 |
| Table 12: Garfield and Lincoln Avenue Characteristics.....                 | 44 |
| Table 13: Gibbsboro Road Recommendations.....                              | 46 |
| Table 14: Education Actions.....   | 51 |
| Table 15: Encouragement Actions .....                                      | 53 |
| Table 16: Enforcement Actions .....  | 53 |
| Table 17: Evaluation Actions .....   | 54 |

# 1. INTRODUCTION

This Safe Routes to School (SRTS) Travel Plan is for Clementon Elementary School, located in Clementon Borough, Camden County. Clementon Elementary is the only school in the Clementon School District and serves students in pre-kindergarten through eighth grade. The location of Clementon Elementary is shown in Map 1. Clementon is a walking district, meaning there is no busing for students residing within the borough. New Jersey state law only requires districts to provide busing for students residing more than two miles from school. Due to Clementon's compact size, all of its student population lives well within two-miles of Clementon Elementary, making it an ideal Travel Plan participant.

The Borough of Clementon is located in the center of Camden County, approximately 17 miles from Philadelphia. It is an attractive commuter suburb, with the PATCO Lindenwold Station located less than two miles away, allowing access to Center City Philadelphia in 25 minutes. The borough is also known as the home of the more than a century old Clementon Amusement Park. In addition to its proximity to Philadelphia, Clementon is only a 45 minute drive from the shores of Atlantic City. With a population of about 5,000 people within an area of approximately two square miles, there is an inherent walkable character to the borough.

Niche.com ranked Clementon 17th on the "Best Places to Raise a Family in Camden County" list. Clementon offers residents a dense suburban feel and most residents own their homes. As shown on Map 1, the Borough of Clementon is located near one of the region's busiest roadways - the White Horse Pike (Route 30). The White Horse Pike is a busy commercial highway, which bisects the Borough of Clementon



and the Borough of Lindenwold. This area of the White Horse Pike is also lined with local shops, restaurants and other small businesses. Blackwood-Clementon Road, Chews Landing, Gibbsboro Road and Erial Road are additional local roadways that handle a high volume of traffic. These local roadways provide convenient access to neighboring towns such as Pine Hill, Blackwood and Lindenwold and also Interstate 295.

Clementon Elementary School recognizes the importance of active transportation to the physical and environmental health of its students and the community. The school seeks to increase the number of children who walk and bike to school. As part of their effort to create safe corridors for biking and walking, improving the health of students and reducing traffic congestion around the schools, the Borough of Clementon and its School District have partnered with Cross County Connection to develop a Safe Routes to School (SRTS) Travel Plan. The Clementon Elementary School Travel Plan was created in collaboration with representatives from the Borough of Clementon, the Clementon Board of Education, the Clementon Fire Department and the Clementon Police Department.

### Travel Plan Goals

The purpose of the School Travel Plan is to provide an assessment of existing walking and bicycling infrastructure conditions, identify potential infrastructure improvements and recommend additional educational and encouragement activities to facilitate safe walking and bicycling to and from the Clementon Elementary School. The goals for this Travel Plan are as follows:

- Encourage more students to walk and bike to school
- Create a safer walking and bicycling environment for students who wish to walk and bike to school
- Improve the overall health of schoolchildren through

increased physical activity

- Establish healthy lifestyle habits among schoolchildren that will continue into the future
- Reduce the negative environmental impact of automobile trips near the school, especially the effects of vehicles idling in close proximity to children

### Travel Plan Process

Clementon Elementary School's Travel Plan was formed with an emphasis on community outreach. Cross County Connection held several mapping exercises and created a parent survey to ensure there was a holistic view of the existing conditions in the Borough of Clementon. Chapters 2 and 3 will assess these conditions in depth and discuss the student travel environment by analyzing parent goals and student arrival and departure tallies.

The Clementon Elementary School Travel Plan seeks to address the 5 E's of Safe Routes to School(SRTS):

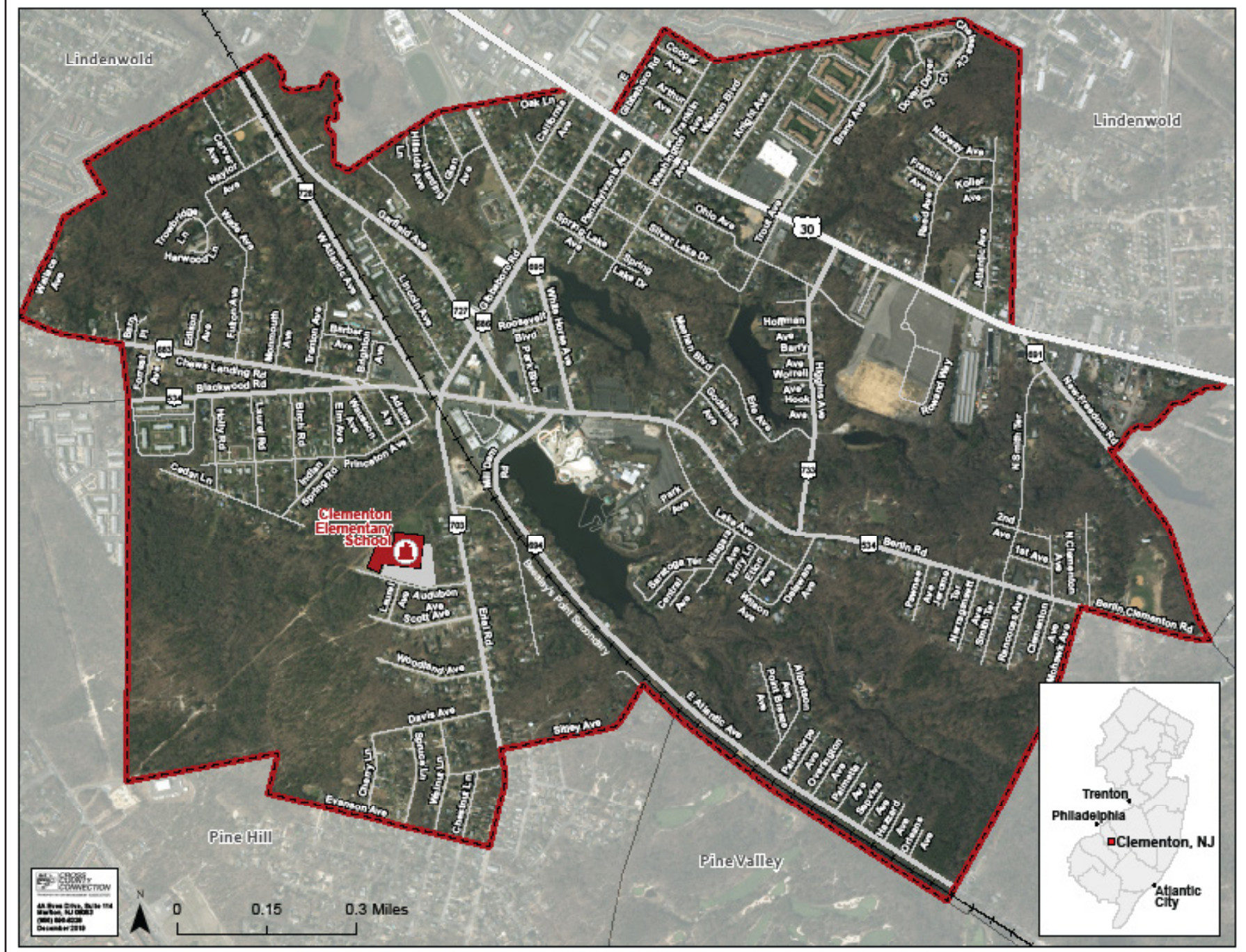
1. Engineering: making the environment safer for walking and bicycling
2. Encouragement: encouraging kids to walk and bike to school more often
3. Education: teaching kids and parents safe ways to walk and bike
4. Evaluation: checking to see how many kids are walking and biking as a result of the program or how conditions have improved
5. Enforcement: changing driver, pedestrian and bicyclist behavior as they travel together along the road

In addition to addressing the 5 E's of SRTS, the Travel Plan discusses:

- Building the SRTS Working Group to include representatives from the municipality, school and district.
- Preliminary data collection such as student location



# MAP 1: CLEMENTON ELEMENTARY SCHOOL LOCATION



data, crash records and other important data collection

- Parent outreach was a vital part of this Travel Plan. Parent feedback was provided through mapping exercises and a parent survey.
- The assessment of existing conditions through a bicycle and pedestrian safety audit and additional fieldwork.
- Recommendations: both infrastructure and non-infrastructure (policy, programming, enforcement and performance measures) that will increase safety for students walking and biking to school.
- Post study work developed with Clementon to implement and enhance strategies, funding opportunities and policies.

### Working Group

This Travel Plan was developed by Cross County Connection in partnership with the SRTS Working Group seen in Table 1.

### Study Area and Scope

The Clementon Elementary School Travel Plan focuses on two components of a safe walking and biking environment:

1. Walking and biking infrastructure
2. Non-infrastructure interventions, such as programs and policies

The infrastructure component of this Travel Plan considers the physical characteristics of Clementon Borough's walking and bicycling environment from the perspective of students aged 5-14. Physical environment observations, analysis and recommendations tend to be limited to areas where students can reasonably walk or bike to school. Typically, a twenty minute (one mile) walk from the school is selected as the primary focus of a School Travel Plan. Approximately 51% of Clementon Elementary students live within this twenty minute walking distance from the school, which is illustrated in Map 2.

**Table 1: Working Group Members**

| Organization                 | Role                    | Contact   |
|------------------------------|-------------------------|---|
| Cross County Connection TMA  | SRTS Program Assistance | Latifah Sunkett, SRTS Coordinator<br><a href="mailto:sunkett@driveless.com">sunkett@driveless.com</a>               |
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| Cross County Connection TMA  | SRTS Program Assistance | Eric Derer, Associate Transportation Specialist<br><a href="mailto:derer@driveless.com">derer@driveless.com</a>     |
| Clementon Board of Education | Implementation          | Kathleen Haines, Superintendent<br><a href="mailto:Hainesk@clementon.k12.nj.us">Hainesk@clementon.k12.nj.us</a>     |
| Clementon Board of Education | Implementation          | Jared Fudurich, Principal<br><a href="mailto:fudurichj@clementon.k12.nj.us">fudurichj@clementon.k12.nj.us</a>       |
| Clementon Board of Education | Implementation          | Christopher McKelvey, President<br><a href="mailto:mckelveyc@clementon.k12.nj.us">mckelveyc@clementon.k12.nj.us</a> |
| Clementon Board of Education | Implementation          | Christine Procopio, Teacher<br><a href="mailto:procopioc@clementon.k12.nj.us">procopioc@clementon.k12.nj.us</a>     |
| Clementon Board of Education | Implementation          | Danielle Aubry, Board Member/Parent<br><a href="mailto:aubryd@clementon.k12.nj.us">aubryd@clementon.k12.nj.us</a>   |
| Borough of Clementon         | Implementation          | Tom Weaver, Mayor<br><a href="mailto:tjweaverplumbing@comcast.net">tjweaverplumbing@comcast.net</a>                 |
| Borough of Clementon         | Implementation          | Mark Basehour, Borough Engineer<br><a href="mailto:mbasehour@bachdesigngroup.com">mbasehour@bachdesigngroup.com</a> |
| Clementon Police Department  | Enforcement             | Kimberly Ott, Class I Officer/<br>Crossing Guard<br><a href="mailto:ottdilks06@aol.com">ottdilks06@aol.com</a>      |



Infrastructure recommendations largely stem from an audit process where documented student travel corridors, major student crossings and locations with recorded pedestrian and bicycle crashes were prioritized. The focus of the audits were within one mile of the school. However, based on municipal, school and parent feedback, mapping analysis and field visits outside of the audit, several locations outside of the twenty minute walking distance were identified as important locations. Additionally, students may walk to school from any area of the borough since it is a walking district with no bus service provided. The entire borough therefore is considered the study scope for this Travel Plan in order to have the greatest impact.

Non-infrastructure recommendations are directed towards elementary school administration and faculty, Clementon School District, Clementon Police Department and Clementon Borough. Existing school policy and programming was reviewed. Recommendations stemming from this analysis were selected from successful practices employed in other Safe Routes to School Programs. Clementon Borough ordinances and municipal activities were also considered.

Recommendations are directed towards the following outcomes that support the Clementon Elementary School Travel Plan's goals:

1. Create a safe and attractive environment that encourages to regularly walk or bike to school.
2. Improve infrastructure where needed to encourage biking to school.
3. Allow students and families living beyond a twenty minute walk from school to explore walking and biking as an option to get to school, whether it be occasionally or as a regular part of their routine.
4. Reduce congestion and improve safety in the immediate area surrounding the school to benefit students unable to walk or bike to school, or live at a distance where biking and walking to school is impractical.

5. Ensure all students are thoroughly educated on safe walking and biking behaviors to ensure their safety in all aspects of their lives, beyond their trips to and from school.

### School Description

Clementon Elementary School is located near the southwest corner of Clementon Borough. The school is located on Audubon Avenue near Erial Road. The school services students from Pre-K to Grade 8, with students between the ages of three and fourteen. As of October 30, 2019, total enrollment was 513 students. As Map 2 shows, students' home locations are dispersed throughout the borough. Table 2 shows the number of students living within a half mile and one mile from the school. These distances equate to approximately a ten minute and twenty minute walk to school respectively, distances that should be a reasonable walk for most able-bodied students.

As shown in Table 2, of the 513 students attending Clementon Elementary School (pre K-8) 78 students live within a half mile and 263 students live within one mile from school. Out of the remaining 49% of students residing outside of this radius, many do walk. There is a student walking path located on Erial Road, which cuts through to the backside of the school parking lot. Parents drop off students in the school parking lot, where temporary traffic controls are in place to direct flow. Parents also drop off informally at several spots near the school, including a dirt lot on Erial Road across from the school walking path and in shopping center parking lots located at Erial Road and Berlin Road.

**Table 2: Number of students within a half mile and mile of school**

| 1/2 mile | % 1/2 mile | 1 mile | % 1 mile | Total School Enrollment |
|----------|------------|--------|----------|-------------------------|
| 78       | 15%        | 263    | 51%      | <b>513</b>              |

***Camp Clementon: Morning and After School Care Program***

Camp Clementon is a before and after school care program for students in grades K-8, who attend Clementon Elementary School. Camp Clementon operates according to the school calendar. The camp is open on the days that school is in session. If the school is closed for any reason (holidays, weather, etc.), camp is closed.

The session hours are as follows:

- Morning Care (AM Session): 7:00 AM–8:25 AM
- After School Care (PM Session): 3:15 PM–6:00 PM
- Early Dismissal After School Care: 12:40 PM–6:00 PM

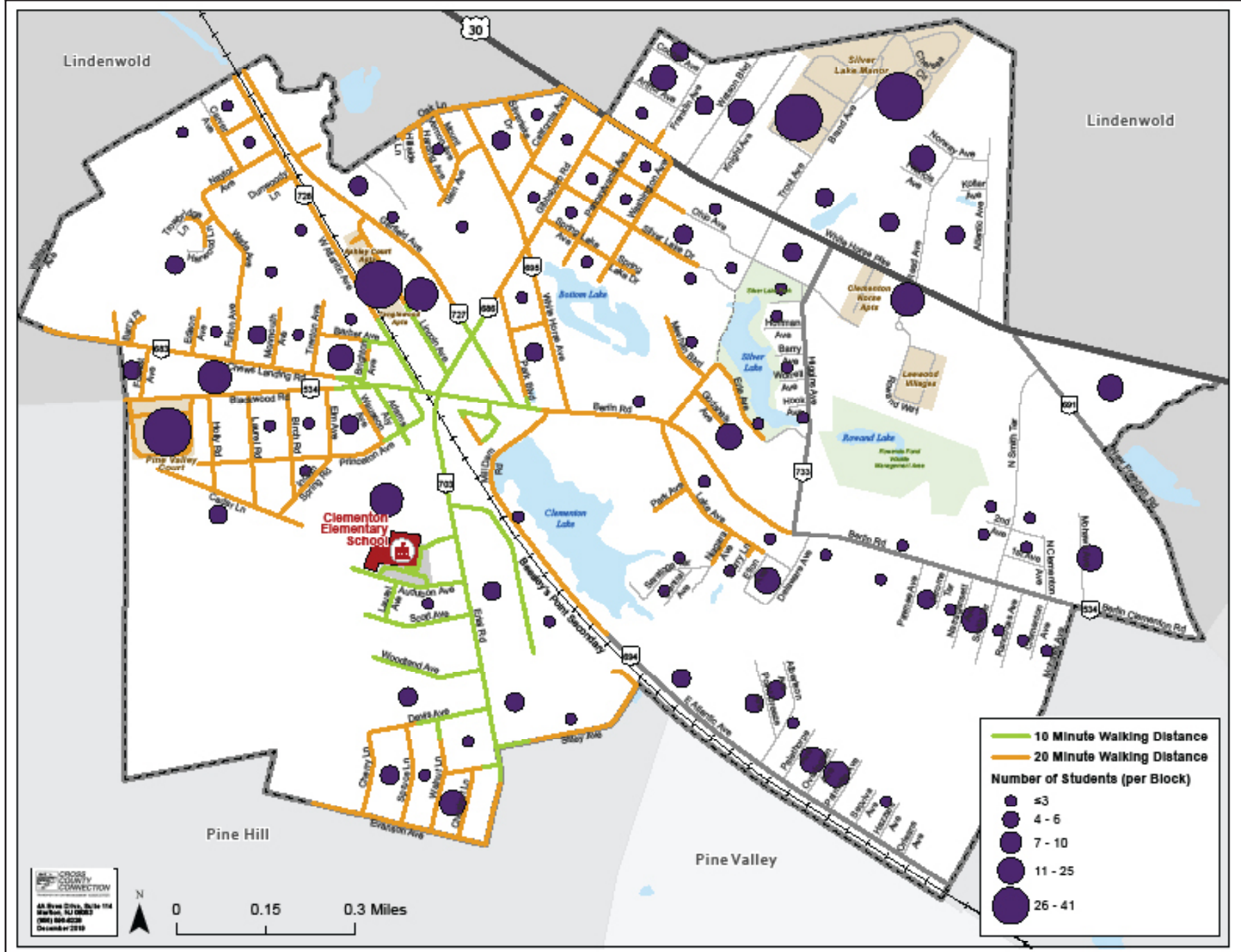
There is a small percentage of the total student body participating in the morning and after school care hours, which has been recorded in Table 3. In order for a student to participate in a sport or after-school activity, students are faced with additional bicycling and walking barriers due to the hours that these students travel to and from school. Additional barriers students may face when walking and biking to school at early morning or afternoon hours include poor lighting that limits their visibility to motorists.

**Table 3: Number of students attending AM and PM care**

| # AM care students | % of total student body | # PM care students | % of total student body | Total School Enrollment |
|--------------------|-------------------------|--------------------|-------------------------|-------------------------|
| 40                 | 8%                      | 90                 | 17.5%                   | <b>513</b>              |



## MAP 2: CLEMENTON ELEMENTARY SCHOOL STUDENT LOCATIONS



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## 2: PRELIMINARY FINDINGS

Several considerations are taken into account when parents decide how their children will get to Clementon Elementary School. This includes both non-infrastructure related school policies and perceived roadway safety issues related to walking and biking. To capture non-infrastructure considerations in the initial research for this report, Cross County Connection has outlined school policies, practices and programs that may affect a student's ability to walk and bike to school. Student travel modes were also recorded to gather existing walking and biking behaviors.

To understand the environment in which students walk and bike to school, parents were invited to provide input through a survey and mapping exercises. This allowed parents to express their concerns regarding existing infrastructure. Additionally, the outreach provided insight on why parents may or may not be inclined to allow their children to walk or bike to school. The results of the outreach efforts are summarized in this chapter.

### **School Policies, Practices and Programs**

The Clementon School District is a walking district. Walking districts are common in geographically small municipalities, such as Clementon, where students live within close proximity to school. According to state law, school districts are only required to provide transportation for K-8 students that live beyond two miles.





According to the Clementon School District's Student Handbook/Code of Conduct, the following rules are necessary to ensure the safe passage to and from school for those students who choose to ride their bicycles, scooters and/or skateboards. All areas including the parking lot, access roads, and walking paths are included in this agreement:

- Bicycle helmets must be worn. This is a state law. If you do not have a helmet, you are not permitted to ride a bike, scooter, or skateboard to and from school.
- All bicycles, scooters, and skateboards must be in proper working order with appropriate devices.
- Bicycles, scooters, and/or skateboards must be "walked" while on school property or in high student traffic areas such as the path and Erial Road during arrival and dismissal.
- Bicycles, scooters, and/or skateboards must be ridden on the sidewalks to and from school at all times. Students may not ride in the school parking lot, in the street on Erial Road, on the path, or on the sidewalks on school grounds.
- "Wheelies," tricks, or unconventional riding stunts are forbidden at all times.
- Only one person should be on a bicycle, scooter, and/or skateboard.
- All bicycles, scooters, and/or skateboards must be locked on the bike rack. Students will not be permitted to bring bicycles, scooters, and/or skateboards into the building.
- The school district is not responsible for missing or stolen bicycles, scooters and/or skateboards.

### **Wellness**

Clementon School District has decided to create this School Travel Plan with Cross County Connection as a part of their wellness program. Clementon Elementary School is making wellness for the whole body a priority.

The School District aims to promote a healthy lifestyle by encouraging good nutrition and physical activity at school and at home. Healthy eating and exercise habits such as walking and bicycling that are developed during childhood have the potential to last a lifetime.



Bike rack outside of Clementon Elementary. The school promotes healthy activities through its wellness policy and programs.

### ***Pupil Supervision and After School Dismissal Policy***

Clementon Elementary has specific policies related to when a student may walk home. Parents may request that their child not be allowed to walk or bike home unless they are accompanied by a parent or another parent-designated escort over the age of 18. In addition, no student is permitted to walk home from an extracurricular activity that ends after 4:00 PM. Students that are not subject to a parent requested prohibition are free to walk home from sports or any other extra-curricular activities that end before 4:00 PM, but only if school dismissal was at 3:15 PM. After 4:00 PM they need to be picked-up.

Students are also not permitted to walk or ride a bike, scooter, and/or skateboard to and from a school dance.

### Municipal Policies and Practices

Clementon Board of Education has passed a Resolution of Support for the Safe Routes to School (SRTS) Program, supporting the cause and committing to implement successful Safe Routes to School initiatives. In addition to supporting the SRTS program, the Borough of Clementon, in partnership with the Clementon School District has demonstrated its interest in improving safety for pedestrians, bicyclists, and other roadway users by contemplating adopting a Complete Streets policy. Complete Streets are roads designed for users of all modes of travel, and any age or ability. While a Complete Street policy will vary depending on local context, these roadways often include one or more elements such as sidewalks, crosswalks, curb ramps, bicycle lanes, and transit shelters. Adopting a Complete Streets policy directs transportation planners, engineers, other government staff and officials to consider and balance the needs of everyone in transportation projects, and it helps formalize the idea and practice of routinely accommodating all users in transportation projects.

### Travel Tallies

Student travel tallies are counts that capture how students are traveling to and from school. The tallies were conducted by teachers at Clementon Elementary School in September 2019 over a three day period (Tuesday, Wednesday, Thursday). The tallies were collected and averaged over the three days to lessen the impact of student absences and weather conditions. The tables below show an average of student travel modes over three days. Results are shown for both morning arrivals (AM) and afternoon departure (PM) in Table 4.

**Table 4: AM and PM Travel Mode**

| Travel Mode        | AM (%) | PM (%) |
|--------------------|--------|--------|
| Walk               | 23.5%  | 30.3%  |
| Bike, Other Wheels | 3.4%   | 3.4%   |
| Bus                | 1.3%   | 1.3%   |
| Family Vehicle     | 69.5%  | 61.8%  |
| Carpool            | 2.3%   | 3.2%   |

When collecting travel tallies, there was no distinction made between students who attend Camp Clementon, the elementary school's before- and after-school programs, versus students who travel to and from school during regular arrival and dismissal times. However, this number may not have been affected by the students in Camp Clementon as the average number of students is between 7.7% to 17.4% of the total student population.

Table 4 shows that a majority of students were dropped off and picked up by car. When combining carpooling with students being dropped off alone during the AM arrival, 71.8% of students traveled to school by car and during PM departure, 65% traveled by car, which suggests that approximately 300 or more cars are converging on Clementon Elementary School's grounds twice per day.

As the Borough of Clementon is roughly two miles, a sizable population of students that live inside the borough are within walking distance to the school. Based on the map showing student locations, there are 263 (51%) students that live within a one mile walking distance from the school. The remaining 250 (49%) students live outside of a one mile walk. The percentage of students that walk to school as a primary mode of travel is 23.5%. Of those who live within a 20-25 minute (approximately one mile) of Clementon Elementary, the remaining

28.5% are not walking to school or using a combination of travel modes to get to school. A small portion of this group includes the 1.3% of students with special needs that are bussed to school.

Some of the students not walking could be students from grades K-3. Younger students do not commonly walk or bike to school. This is often the case because parents believe their child is too young to walk or bike alone to school. School officials conveyed that many of these parents, living within a short walking distance, prefer the convenience of driving rather than accompanying their child on a walk to and from school. In addition, parents are also concerned for their child's safety due to the lack of consistent pedestrian infrastructure.

Due to the high number of students being driven, approximately 328 in the morning and 288 in the afternoon, school and municipal officials have reported traffic congestion during arrival and dismissal times, which can create dangerous conditions for students who are walking or bicycling to and from school. Ideally, an emphasis on encouragement activities and pedestrian improvements would help parents and students become more reassured and less hesitant to walk and bicycle to and from school. More students walking and biking to school would reduce congestion at arrival and dismissal, benefiting parents who have few options besides driving their child to school, since no busing is provided.

### Outreach

Cross County Connection conducted a month-long outreach and engagement period. This included connecting with parents, teachers, municipal officials, and the school district through a survey and several mapping exercises. The outreach period, which was conducted between November 21, 2019 and December 20, 2019, informed Cross County Connection on issues and concerns that may impact student travel safety and convenience. It also helped identify opportunities

that could be leveraged to encourage more students to walk and bike to school.

General safety concerns, which includes age and lack of supervision, related to areas with high traffic volume were among the most common concerns found in responses from parents with students in various grade levels. A summary of the survey findings and mapping exercises are summarized below.

## Survey Findings

### Participants

There were a total of 55 responses to ten survey questions. The survey was distributed to parents in person during Parent-Teacher Conferences and electronically by Clementon Elementary School using an on-line survey.

Parent responses represented students in all grade levels, as shown in Table 5. Home locations were distributed throughout the borough, but were generally clustered between Berlin Road and the White Horse Pike around Gibbsboro Road. Of the 55 respondents, two students were identified as having a disability that prevents them from walking or biking to school.

**Table 5: Student grade levels**

| Grade of Child        | Responses (%) |
|-----------------------|---------------|
| Pre-K or Kindergarten | 9%            |
| 1st - 3rd Grade       | 27%           |
| 4th - 6th Grade       | 44%           |
| 7th - 8th Grade       | 20%           |

### Travel Modes

Parents were asked to identify how often (1-2 days, 3-4 days, or 5 days) their child uses various travel modes to get to school. Travel modes included walk, bike, drop off (parking lot), drop off (satellite lot), carpool, or taxi/Uber/Lyft. Of the 55 respondents, 80% said their child

walks or bikes to school at least one to two days per week. Of those that walk or bike in a typical week, only 30% walk or bike five days per week. These findings align closely with the results of the student travel tallies in Table 4, which found that between 27% and 34% of students walked or biked to/from school when averaged over three days.

As part of the travel mode question, parents were asked to differentiate between dropping their child off in the school parking lot or at a satellite drop off location. A total of 84% of the respondents indicated dropping their child off in the school parking lot. Of those that drop off in the parking lot, 57% do so five days per week. Responses show that students are using more than one travel mode in a typical week. The least reported travel modes were satellite location drop-off with seven respondents, carpool with four respondents, and taxi/Uber/Lyft with two respondents.

The survey shows that 64% of respondents said that their child usually travels to school with their parent or guardian, and 69% travel with siblings or classmates. Only 9% of respondents said their student travels alone to school. When asked what they considered was a comfortable walking distance for their child to walk to school, responses were mixed between ¼ mile (33%), ½ mile (31%), and one mile (25%), while 11% identified that a distance of only one to two blocks or no distance at all is comfortable. Generally, respondents who identified walking and/or biking as a travel mode also said they were comfortable with walking distances between ½ and one mile.

There is no apparent correlation between the home location of respondents and travel mode. Respondents who indicated that their child walks to school often (between three and five days per week) lived throughout Clementon at varying distances from the school, up to one mile away.

### ***Safety Concerns and Limiting Factors***

Parents were asked to rate various infrastructure and environmental issues based on if they are a major issue, minor issue, or not an issue when walking and biking to school. The amount of speed and traffic were rated as major issues by 71% and 67% of respondents respectively. Unsafe crossings or intersections were also identified as a major issue by 57% of respondents. The least concerning issues were bicycle parking (not an issue for 89%) and availability of crossing guards (not an issue for 61%).

Parents were also asked to rate other limiting factors as major issues, minor issues, or not an issue in their decision to allow their child to walk or bike to school. Age of their child and personal safety of their child (related to bullying, theft, kidnapping, etc.) were rated as major issues by 47% and 44% of respondents respectively. Distance to the school was also identified as a major issue for 42% of respondents. The majority of respondents who said distance was a major issue also said that their children never walk or bike to school. Weather was a minor issue for 40%. Limiting factors related to personal circumstances, such as scheduling and access to a vehicle, were less concerning overall than limiting factors related to safety on roadways. The following were rated by the majority of respondents as non-issues: limited access to a car (not an issue for 81%), after school activities (not an issue for 75%), availability of adult supervision (not an issue for 62%), and family schedule (not an issue for 58%).

### ***Open-Ended Responses***

In an open-ended response, parents were asked to identify their biggest safety concern when their child is traveling to school. Responses were grouped based on recurring key words and themes. Of the 55 respondents, 29% identified the personal safety of their child as their biggest concern, particularly involving kidnappings or “stranger danger.” Some parents said they would allow their child to walk to school if they had adult supervision or could walk with other students.



A parent that has two children that attend the school, said they use an app called Life360 so they are aware of their children's movement while they walk to and from school. Many of these issues were brought up during the parent mapping exercises and are summarized in Table 6 on Page 15.

A full list of survey questions and responses can be found in Appendix 1.

### Mapping Exercises

Cross County Connection conducted an initial mapping exercise with staff from all levels of the Clementon School District to identify potential safety concerns and the location of existing crossing guards, common student travel corridors, and apartment complexes. This mapping exercise was supplemented during the parent-teacher conferences hosted at Clementon Elementary School by providing parents an opportunity to highlight additional challenges and opportunities students face when walking and biking to school. They were asked to complete the survey and mark a map with areas of concern throughout Clementon. The mapping exercises were conducted between November 21 and November 26, 2019. Attention was primarily directed towards walking, though parents were free to discuss issues related to biking and student drop-off and pick-up by automobile. Cross County Connection led the discussion, providing instruction and facilitated one-on-one chats where they could address parent's specific concerns. Parents were asked to share:

- Issues and concerns that may impact student travel safety and convenience
- Opportunities that could be leveraged to encourage more students to walk and bike to school
- Anticipated student travel corridors

The results of the individual mapping exercises were combined into one digital map and analyzed for areas of common concern.



A mapping and survey session conducted by Cross County Connection Staff

One-on-one conversations with teachers and parents proved valuable. There was polarity in the parent responses, as some parents said they would never allow their children to walk due to safety concerns. These parents brought up many of the same issues seen in the survey. These common concerns are summarized in Table 6 on the following page. Parents' apprehension to allowing their children to walk to school was not unanimous. During the mapping sessions, many parents stated that they allow their children to walk to school every day.

Although responses fell on opposite ends of the spectrum, there was a general agreement that more measures need to be put in place to ensure the safety of students who do choose to walk to school. Some of the parent suggested safety improvements included adding more crossing guards to create a crossing guard network similar to that of a "walking school bus."



Some of the parent suggested safety improvements included adding more crossing guards to create a crossing guard network similar to that of a “walking school bus.”

**Table 6: Common Parent Concerns**

| <b>Proximity</b>                              | The location of students' homes in proximity to the school is too far to bicycle or walk.  |
|---|--|
| <b>Age</b>                                    | Parents specifically cite that their child is too young to bicycle or walk.  |
| <b>Lack of Supervision</b>                    | Parents cite they do not want their child to walk alone, or without an adult, but do not specifically say their child is too young to walk; they simply prefer their child be supervised; more crossing guards are recommended.                          |
| <b>General Lack of Safety in Neighborhood</b> | Parents tend to be less inclined to allow their child to walk due to perceived threats from others, dark alleys and pathways or the threat of other unknown person(s) lurking.   |
| <b>Major Road Crossings</b>                   | Parents identified certain locations, crossings and busy streets near the schools which are their greatest concern. The streets frequently mentioned were White Horse Pike, Erial Road, Gibbsboro Road, Blackwood-Clementon Road and Chews Landing Road. |
| <b>Infrastructure</b>                         | Missing or poor infrastructure was a high priority concern as many sidewalks were not present or discontinued and/or obstructed due to trees; also, crosswalks had low visibility or were nonexistent.   |
| <b>Other</b>                                  | Parents cited other reasons that were less prevalent and more specific to their particular situations.   |

Concerns such as major road crossings, general traffic safety, and in some cases, granting more travel independence to students with disabilities can potentially be addressed through infrastructure improvements, which will be discussed in Chapter 4. With some

parents citing concerns regarding child's age, lack of supervision and stranger danger, some of these concerns are issues that infrastructure improvements may not be able to fully address but can mollify. Programs, policies and practices that address these issues will be addressed Chapter 5.

### ***Specific Locations of Concern***

The majority of concerns focused on arterial roads that students commonly travel on, including Gibbsboro Road, White Horse Pike and Erial Road.



Priority location identified by mapping exercises - Gibbsboro at Berlin Road

Gibbsboro Road at Berlin Road, approximately 1/3 of a mile from Clementon Elementary, was identified as the most concerning intersection due to poor infrastructure, heavy traffic, and the number of students crossing through the intersection.

White Horse Pike at Gibbsboro Road was identified as the second most concerning intersection due to heavy traffic and frequent accidents. White Horse Pike at Brand Avenue was also identified as a dangerous crossing. Pedestrian signal timing at both intersections was cited as a concern.

Several spots along Erial Road were also identified as concerns. The dirt lot at the intersection of Erial Road and Reading Avenue was identified as a busy crossing point. Speeding on this portion of Erial Road and congestion from parents dropping off students in the dirt lot was a major concern. Two parents said that a crossing guard is needed on the opposite side of the road from the dirt lot to assist with the volume of students. Two parents also said that a crossing guard is needed at Erial Road and Woodlane Avenue.



Dangerous crossing near the intersection of Erial and Berlin Road.

The sidewalk on the south side of Erial Road between Princeton Avenue and Audubon Avenue was identified as very narrow. The south

side sidewalk is utilized by students traveling from Princeton Avenue, which was identified by the school as a student corridor.

The woods behind the school, between Audubon Avenue and Cedar Lane, was identified by both the school and parents as a frequented cut-through for students. The railroad tracks separating Highland Avenue on the west-side from East Atlantic Avenue on the east-side were also identified as a cut-through for students on East Atlantic and students who are dropped off remotely in the back of the Clementon Lakes Shopping Plaza. Additionally, students walk along the railroad tracks near West Atlantic Avenue. These areas, while shortening travel time and getting students off busy roads, are unsupervised and potentially dangerous.

Parents and school faculty recommended some safety measures including adding a pedestrian bridge to go over Blackwood-Clementon Road and Gibbsboro Road. Parents and teachers recommended the pedestrian bridge to ensure students were not exposed to the high traffic volumes and to prevent accidents on the train tracks that parallel Blackwood-Clementon Road. This recommendation was considered in this Travel Plan, however, the costs associated with pedestrian bridge tend to be extremely high. This plan chose to focus on remedies that should be less costly to implement. If Clementon Borough decides to consider a pedestrian bridge, a feasibility study should be conducted to establish need and the associated costs.

### 3.EXISTING FACILITIES

Infrastructure conditions in the Borough of Clementon that impact a student's ability to walk and bike safely to school were identified during Travel Plan preparation. Conditions were identified during a thorough process that included walking audits near Clementon Elementary; student arrival and dismissal observations; discussions with school staff and crossing guards; parent survey responses (detailed in Chapter 2); and a review of crash history and other available data.

The following sections provide details on current walking and bicycling conditions throughout Clementon Borough.

#### **Existing Pedestrian Facilities**

Map 3 details the existing conditions of pedestrian facilities in Clementon. A majority of the roadways within Clementon are either missing sidewalks on both or one side of the street. Though there are several streets with no sidewalks, they are typically low density residential roadways. Due to the low volume of traffic on these residential streets, adding a sidewalk may not be feasible with the limited resources available. Most of the travel corridors surrounding the school have sidewalks on both sides of the road. These include major thoroughfares within Clementon including Erial Road, Berlin Road and the White Horse Pike. Several portions of the sidewalk are in poor condition or disrepair. Sidewalks near the train tracks along Erial and Berlin roads are uncomfortable to walk along due to a lack of buffer or curb between the cart-way and sidewalk. In general, when sidewalks are present along residential streets, they are in better condition than those on the major arterials.





Sidewalks in Clementon tend to be narrow, which can make them feel uncomfortable, unsafe or difficult to navigate in certain contexts. According to the NJDOT *Roadway Design Manual*, a satisfactory sidewalk width is five feet when separated from traffic by a buffer zone and seven feet when there is no shoulder or buffer zone. Sidewalks in Clementon are typically between three to five feet, with or without buffer zones and a shoulder.

Since Clementon is a walking district, some students are required to walk one mile or more to get to school. In an attempt to reduce travel time to school, students have created informal walking paths. Students were observed walking on the train tracks along West Atlantic Avenue. Students also cross over tracks to get from East Atlantic Avenue to Reading Avenue.

Other site specific issues arise along some travel corridors near the school. In this instance, guardrails are placed in a poor location which impedes someone's ability to walk or bike comfortably. The position of the guardrail makes it difficult for students to walk side by side or pass other oncoming or slower moving pedestrians. Pedestrian warning signs along this street are also placed behind the guardrail. This can make it hard for motorists to see pedestrian signage.

The guardrails in this location on Erial Road prevent motorists from leaving the roadway and crashing into the wooded area that drops below street level. There is a small creek at this location. The guardrail may be placed behind the sidewalk due to the constrained right-of-way of the existing bridge crossing the creek. If possible, this sidewalk should be widened with the guardrail relocated to the street-side of the sidewalk to shield pedestrians from traffic. As mentioned later in this report, Erial Road has excessively wide travel lanes, with space that can be re-purposed for pedestrians.

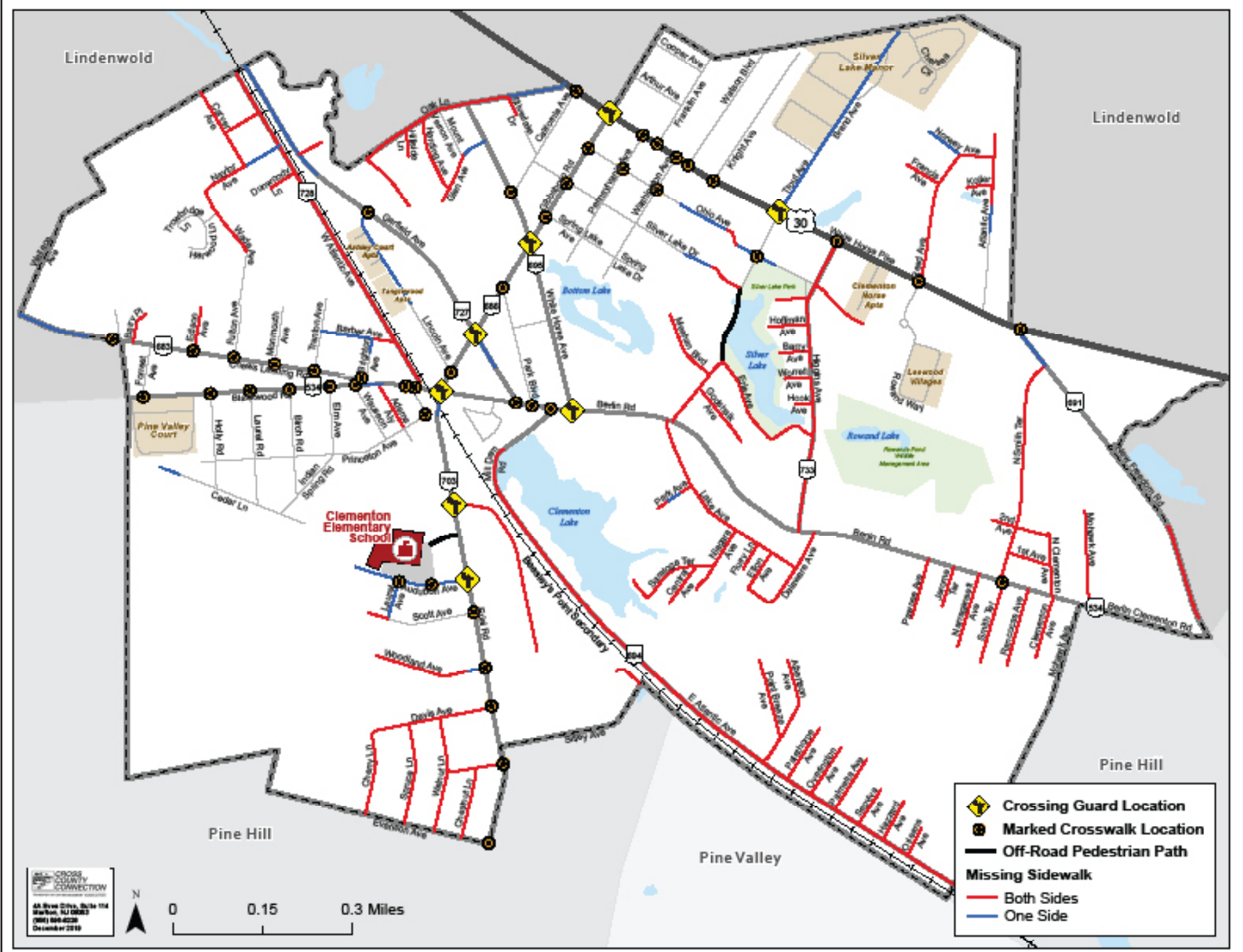


Guardrails Along Erial Road

In terms of pedestrian crossings, marked crosswalks are numerous surrounding Clementon Elementary School. Map 3 illustrates that these crosswalks are, typically located along the major thoroughfares of Berlin Road, Gibbsboro Road, White Horse Pike and Erial Road. The two most common types of marked crosswalks seen in the area are narrow low-visibility zebra and standard double line designs. According to the National Association of City Transportation Officials (NACTO) high visibility ladder, zebra and continental crossings are preferred over standard double line crosswalks as they are more likely to improve motorist yielding behavior.

To assist students with safely crossing the street, the Clementon Police Department oversees eight on-duty crossing guards during the school day. These crossing guards are distributed amongst major high speed roads surrounding the school, including Berlin Road, Gibbsboro Road, Erial Road and White Horse Pike.

## MAP 3: EXISTING CONDITIONS OF PEDESTRIAN FACILITIES, CLEMENTON, NJ



## Existing Bicycle Facilities

The Borough of Clementon does not have any on-road or off-road bicycle facilities. According to Clementon Elementary's Safe Routes to School student arrival and departure tally sheet, 4% of students bike to school. While there are currently no on- or off-road facilities in Clementon, several bikeways are proposed throughout the borough. According to the *Camden County Cycling and Multi-Use Trails Master Plan* (2015), Camden County is considering a total of 9.6 miles of off- and on-road facilities for Clementon.

Map 4 shows the location of bicycle facilities being considered within the borough. Clementon will also feature a segment of the proposed Camden County Link trail, an ambitious project that will provide a 33 mile trail running the length of Camden County from the Ben Franklin Bridge to Winslow Township. The portion traversing Clementon is expected to be approximately one mile. It will be located along the Conrail right-of-way which runs parallel to East Atlantic and West Atlantic Avenues. Since the trail will cross the intersection of Gibbsboro and Erial Road, the *Cross Camden County Trail Feasibility Plan* (2017) recommends improving curb ramps at all four corners of Gibbsboro Road to better accommodate bicyclists and persons with disabilities.

## Bicycle and Pedestrian Crashes

Crash data for Clementon Borough for the most recently available five-year period (2013-2017) was collected from the New Jersey Department of Transportation's Safety Voyager Crash Map Tool. Police crash investigation reports are collected through a federally mandated process to create the database. This data may have limitations including unreported crashes and near misses. A crash is only reportable in New Jersey if it causes injury or property damage in excess of \$500. Crash severity for both pedestrian and bicycle crashes is reported by the responding police officer based on the standards established in the New Jersey NJTR-1 Crash Report Manual.

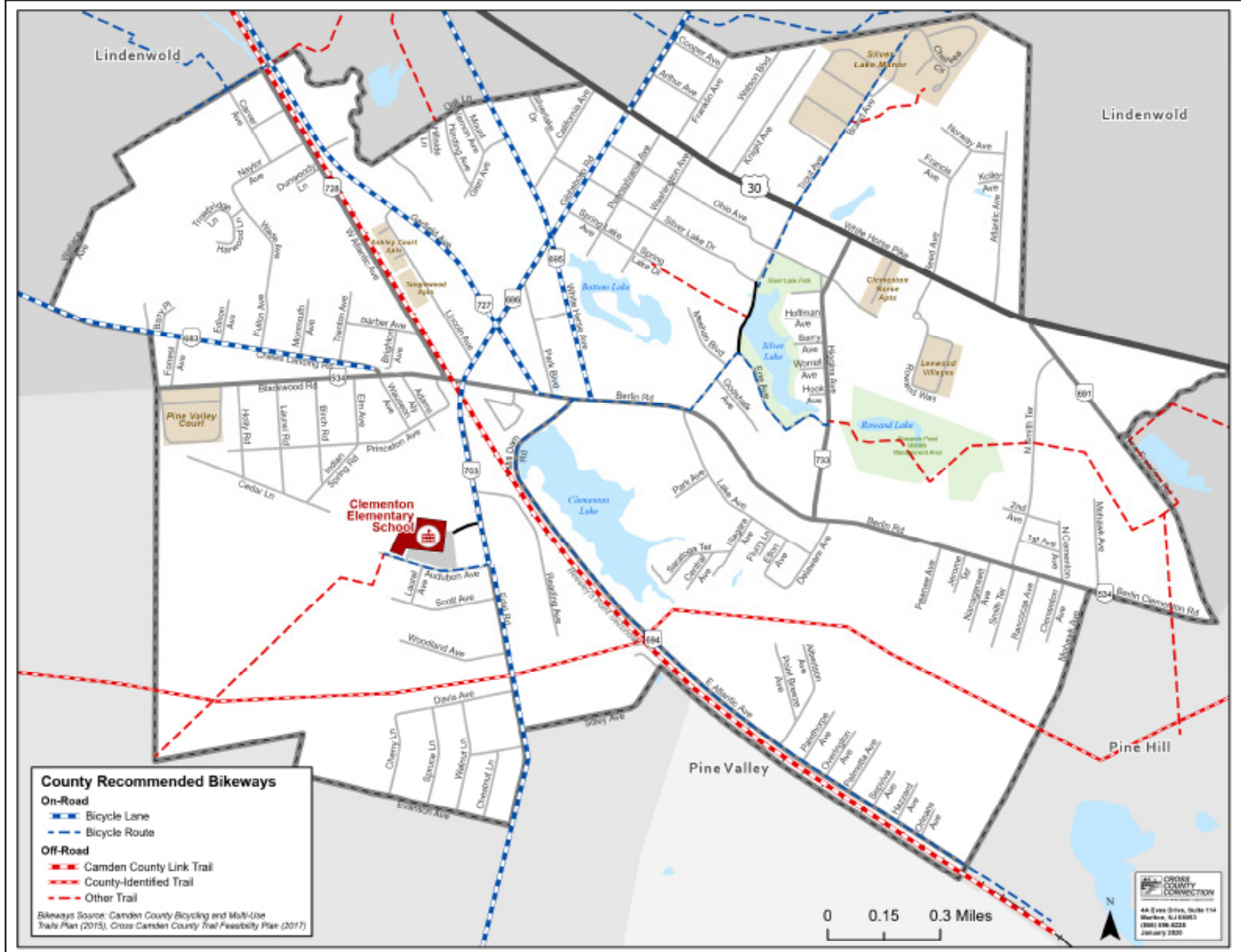


There were 28 reported crashes involving bicyclists and pedestrians during a five year period between 2013 and 2017 in Clementon Borough. These consisted of 18 pedestrian crashes and 10 bicycle crashes, as shown in Table 7 and Map 5. One pedestrian crash was fatal, which occurred on the White Horse Pike (US 30) at Gibbsboro Road. Three pedestrian crashes occurred during the hours when school travel may be occurring (September – June; Monday – Friday; 7:00 AM – 9:00 AM or 2:00 PM – 4:00 PM). All three crashes occurred between 2:45 PM and 3:30 PM and on Berlin Road. Two crashes resulted in a complaint of pain (Berlin Road at Gibbsboro Road and Berlin Road at White Horse Avenue) and one resulted in property damage only (Berlin Road at Garfield Avenue).

No bicycle and pedestrian crashes occurred within a half-mile walk of Clementon Elementary School. However, since students may walk from any point within Clementon Borough, all crashes within the borough should be of concern.



## MAP 4: PROPOSED BICYCLE FACILITIES IN CLEMENTON, NJ



**Table 7: Bicycle and Pedestrian Crashes in Clementon, NJ**

| Location                 | Total Crashes | # Of Bike Crashes | # Of Pedestrian Crashes | # Of Crashes During School Travel Time | Injury Reported   |
|--------------------------|---------------|-------------------|-------------------------|--|---|
| Berlin Road              | 10            | 3                 | 7                       | 3                                      | 5 Property Damage<br>4 Complaint of Pain<br>1 Moderate Injury                           |
| White Horse Pike (US 30) | 9             | 3                 | 6                       | 0                                      | 1 Fatality<br>1 Moderate Injury<br>3 Complaint of Pain<br>4 Property Damage             |
| Gibbsboro Road           | 8             | 4                 | 4                       | 0                                      | 3 Moderate Injury<br>4 Complaint of Pain<br>1 Property Damage                           |
| East Atlantic Avenue     | 1             | 0                 | 1                       | 0                                      | 1 Moderate Injury   |
| <b>Total</b>             | <b>28</b>     | <b>10</b>         | <b>18</b>               | <b>3</b>                               | <b>1 Fatality<br/>6 Moderate Injury<br/>11 Complaint of Pain<br/>10 Property Damage</b> |

Six of the 28 crashes (21%) occurred within 100 feet of the intersection of Berlin Road and Gibbsboro Road. This intersection is especially concerning because it significantly impacts student travel. Students coming from north of Blackwood-Clementon Road/Berlin Road must pass through this intersection to reach Erial Road and the student walking path. This intersection was also identified as a main travel corridor and will be discussed in more detail in the next chapter.

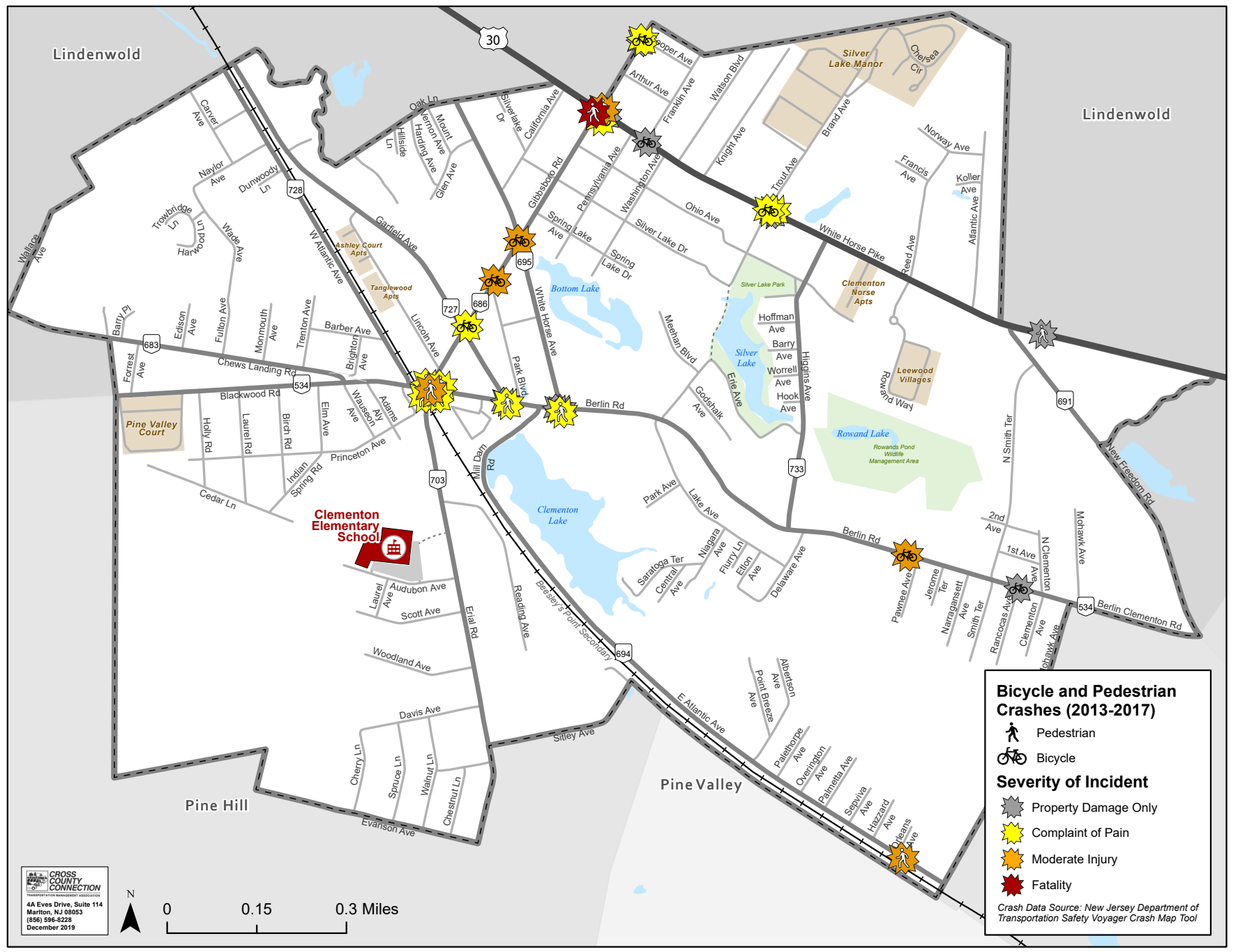
Eight of 28 crashes (29%) occurred on Berlin Road between Gibbsboro Road and White Horse Avenue. This stretch of Berlin Road, much like its intersection with Gibbsboro Road, is especially concerning because of its impact on student travel. Three of the eight crashes also occurred during hours when school travel was occurring.

The White Horse Pike (US 30) at Gibbsboro Road is another concerning intersection. Four crashes occurred at this intersection, including one fatality and one moderate injury.

An analysis of all vehicle crashes, including those that did not involve a bicyclist or pedestrian, was also conducted. Of the 735 crashes that occurred in Clementon Borough between 2013 and 2017, 20.4% (150) occurred during the hours when school travel might occur. The most severe crash hot-spots include the White Horse Pike at Gibbsboro Road and Gibbsboro Road at Berlin Road, further heightening the concern raised by the number and severity of pedestrian crashes at these locations. There were also six vehicle crashes that occurred in close proximity to Clementon Elementary School at Erial Road and Audubon Avenue. All six crashes were rear-end crashes that resulted in



# MAP 5: BICYCLE AND PEDESTRIAN CRASHES IN CLEMENTON, NJ



property damage only. While not all these crashes involved a bicyclist or pedestrian, it does indicate potential safety issues that could impact student travel and offer an opportunity to implement improvements that improve motorists' safety while also addressing the needs of pedestrians and bicyclists.

### Audit Findings

On October 30, 2019, Cross County Connection met with Clementon Elementary school officials, Clementon municipal engineers and parents for a walking audit of the travel corridors surrounding the elementary school. The goal of a walking audit is to assess the walking and biking conditions of roadways near the school and document issues that may negatively impact student travel.

Cross County Connection staff, school staff, borough officials and residents walked along the two routes listed below and shown in Figure 1:

- **Route 1:** Northbound on Erial Road, eastbound on Berlin Road, northbound on White Horse Avenue, southbound on Gibbsboro Road/Erial Road
- **Route 2:** Northbound on Erial Road, westbound on Blackwood-Clementon Road, southbound on Elm Avenue, eastbound on Princeton Road, southbound on Erial Road

Both walking routes were observed in the early afternoon on an overcast day with light rain. The following sections describe the initial findings and conditions seen along these routes.

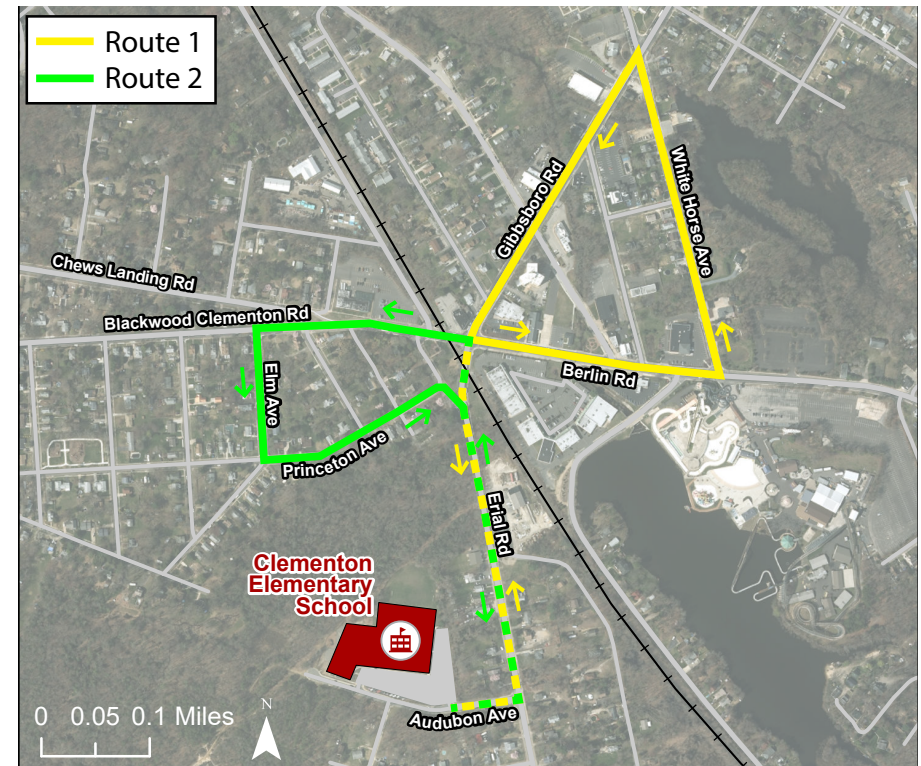


Figure 1: Walking Audit Routes

### Route 1 Audit Findings

#### Pedestrian Safety

- The sidewalks along this route, particularly along Erial Road and White Horse Avenue, are narrow.
- Guardrail placement further reduces functional sidewalk width and space available for snow clearance and sign placement.
- Pedestrian signal heads were broken or inoperable at observed locations.
- No curb ramps observed along the route appeared to be ADA-compliant.

**Motorist Behavior**

- Intersections along the route have wide and potentially dangerous corner radii, which could lead to careless driving. Reducing curb radii will tighten a driver's turning angle, which would reduce the speed of a turning vehicle. The National Association of City Transportation Officials (NACTO) recommends a curb radius of 10 - 15 feet. Reducing curb radii can also reduce pedestrian crossing distance as shown in Figure 2.
- Streets have faded lane striping, which could make it difficult for motorists to drive safely in dark or wet conditions and fail to properly notice pedestrians.

**Specific Concerning Locations on Audit Route 1**

These locations are located along Gibbsboro and Berlin Roads, arterials that students commonly travel on when going to school. It is imperative that improvements are made at these critical locations where a majority of students must pass through.

***Gibbsboro Road at Berlin Road***

- Pedestrian signal heads at the intersection are only activated if pushed and failed to operate properly during the audit. These signal heads should activate in coordination with the traffic signal.
- Crosswalks at this intersection are very faded and have potholes which present a tripping hazard. The crosswalks are also very long due to their angle. This issue can be alleviated by moving the stop bars back and straightening the crosswalks to create a more direct travel path, reducing the crossing distance.

***Berlin Road at East Atlantic and White Horse Avenue***

- The wide curb radius creates a long crossing distance for pedestrians.
- The push buttons and pedestrian signal heads are not operational.

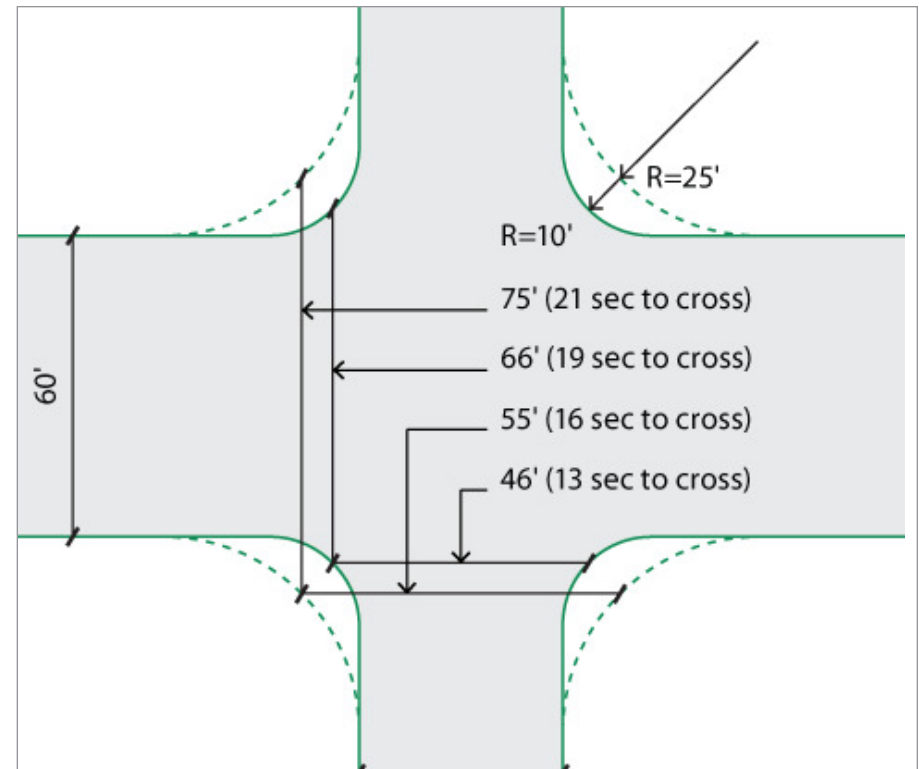


Figure 2: Corner Radii and Crossing Distances. Image Source: NACTO

***Gibbsboro Road and White Horse Avenue***

- Pedestrian signal heads were not operational nor did they have count down timers, making it very difficult for pedestrians and bicyclists to know when it is safe to cross the street.
- The geometry of the intersection makes for very long pedestrian crossing distances and poor sight distance for vehicular traffic approaching the crosswalk.
- There were no advanced pedestrian crossing warning signs in advance of the crosswalks.
- Existing signs located at the crosswalks were not high visibility.

*Garfield Avenue at Gibbsboro Road*

- The angle of the crosswalks increases the pedestrian crossing distance and the student's exposure to vehicles in the roadway.
- There are no painted stop bars at this intersection. Advance stop bars reinforce that motorists must stop for pedestrians.

***Route 2 Audit Findings***

Route two covered the western section of town. Cross County Connection staff and Clementon Elementary and Borough officials were able to observe the conditions of two main travel corridors, Erial Road and Blackwood-Clementon Road, along with local residential streets. The local streets observed, including Elm Avenue and Princeton Road, direct students towards the main arterials of Blackwood-Clementon Road and Erial Road.

***Pedestrian Safety***

- Overall, the sidewalks along the main arterials of Blackwood-Clementon Road and Erial Road are in poor condition and in need of repair.
- Sidewalks on the southern side of Blackwood-Clementon Road, from Gibbsboro Road to Wauseon Avenue, are three to four feet wide, below the AASHTO minimum standard and in violation of ADA requirements in some sections. Narrow sidewalks are not able to adequately accommodate groups of students walking together. They do not allow pedestrians to walk side by side or pass each other when traveling in opposite directions. This situation is especially pronounced for persons with disabilities using a wheelchair or other mobility assistance devices.
- The frequent presence of overgrown bushes and shrubs protruding into the sidewalk which further

reduces the functional sidewalk width.

- As seen during the audit of Route 1, guardrails are positioned behind the sidewalk, restricting usable sidewalk width. The guardrails are positioned along the inside edge of the sidewalk and thus would not protect students from cars that leave the roadway.
- Sidewalks along Elm Road and Princeton Avenue are in better condition and are wider (four to five feet) than those on the main arterials.
- Most of the crosswalks on Route 2 had high visibility crosswalks in good condition that were not faded.

***Motorist Behavior***

- The speed of turning traffic at intersections is a concern along Route 2, as it was on Route 1. Again, wide curb radii along motorists to make the turn at high speeds that pose a danger to cross pedestrians.
- Speeding is an issue on Erial Road. The width of the travel lanes encourages drivers to maintain high speeds through the school zone. Because of these circumstances, drivers may not see advance warning signs or school crossings as they are often traveling in excess of 40 mph when approaching the school zone where the speed reduces to 25 mph.



## **Specific Concerning Locations on Audit Route 2**

### *Princeton Avenue at Erial Road*

- Since Erial Road is on a downhill slope at this location, it could be difficult for children to see oncoming cars when they approach the intersection.
- Low hanging trees and shrubs add to visibility concerns.
- Erial Road's 30 foot width is excessive for a one way street and encourages traffic to travel at high speeds. Motorists' may not have enough time to react to children crossing the street.
- There is no buffer between the sidewalk and fast moving traffic on the western side of Erial Road.

### *Erial Road at Blackwood-Clementon Road*

- Wide curb radii allow motorists make turning movements at high speeds that are potentially dangerous to crossing pedestrians.

### *Blackwood-Clementon Road at Chews Landing Road*

- Children who pass through this intersection when walking to school face multiple points of conflict with traffic when crossing through both travel lanes, which may be difficult to navigate.
- Motorists in the westbound travel lane take that right turn at a high speed.
- The southern portion of Chews Landing road does not have a painted crosswalk, however there is a sidewalk leading up to the traffic island, which leads to a temptation to at this location.

### *Blackwood-Clementon Road at Erial Road/West Atlantic Avenue*

- The crosswalk near the Produce Junction on Blackwood-Clementon Road severely worn and faded. While the crosswalk design is high visibility, drivers may not notice it because of how faded it is
- There are no advance warning signs or pedestrian beacons that make drivers aware that they are approaching a pedestrian crossing.
- A curb ramp is only provided on the northern side of Blackwood-Clementon Road and there is no detectable warning surface (DWS) to notify the visually impaired they are entering the street.

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## 4. RECOMMENDATIONS

Infrastructure conditions in the Borough of Clementon that impact school walking and bicycling safety, both positively and negatively, were identified during the Travel Plan process. As detailed in the previous chapters, this process entailed:

- Review of relevant transportation plans
- Review of crash history and other available data
- Teacher and crossing guard feedback
- In-person parent mapping exercises and discussions
- A parent survey
- Review of existing facilities through aerial maps
- On-site walking audits

Recommendations are directed towards addressing conditions that impact travel mode choice for parents and students, potentially limiting their option to choose bicycling and walking as a practical means to travel to school. Recommendations are based on the planning experience of Cross County Connection staff and guidelines set by the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), the New Jersey Department of Transportation (NJDOT) and the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD).

Recommendations found in the Clementon School District Travel Plan are conceptual in nature. Cross County Connection recommends further engineering analysis before implementing any of the suggestions in this plan.



## General Recommendations

The general recommendations of this chapter address concerns that are seen throughout Clementon Borough that may impact student travel.

### *Pedestrian Safety*

#### Issue: Low Visibility Crosswalks

While there are high visibility crosswalks surrounding Clementon Elementary, many other marked crosswalks in the borough are often difficult to recognize within the roadway. The faded crosswalks reduce the visibility of pedestrian crossing locations. Crosswalks along the major thoroughfares of Gibbsboro Road, Berlin Road, and White Horse Pike are typically standard crosswalks, which feature two painted six inch parallel lines. This design is difficult for approaching motorists to see until they are very close to the crossing location. NACTO design guidelines prefer high visibility ladder and continental crossings over standard double line crosswalks.

NJDOT's NJ School Zone Design Guide specifies that continental crosswalks should be the default marked crosswalks along student travel corridors. Continental crosswalks feature wide bars and are often applied with thermoplastic or inlay tape, which are more durable and visible than standard paint. Crosswalks should be 10 to 15 feet wide. Crosswalks should be paired with additional pedestrian safety devices such as signage and/or signals depending on context. Figure 3 illustrates a properly designed continental crosswalk.

#### *Recommendations*

- Replace existing crosswalks with continental crosswalks near schools and in areas with a high volume of pedestrian traffic.

- Conduct an audit of crosswalk conditions within one mile of the school. Use this audit to prioritize crosswalk repainting at critical locations and high volume corridors where student travel is expected.
- Along primary walking routes identified in this report, replace existing crosswalks with continental striping.
- High volume crossing locations should also include MUTCD compliant advance crosswalk warning signs.
- In busy areas where a high volume of student travel is expected, consider installing additional pedestrian visibility enhancements such as Rectangular Rapid Flash Beacons (RRFB), seen in Figure 4.



Figure 3: Continental Style Crosswalks



Figure 4: Rectangular Rapid Flash Beacon (RRFB)

#### Issue: Conflicts at Intersections

Long crossing lengths and a lack of working pedestrian signals are an issue throughout Clementon Borough. Angled crosswalks cause students to spend more time in the roadway compared with a straight and direct crossing. This prolongs their exposure to conflicts with motorists. This is especially critical at locations where motorists are permitted to turn on red.



**Recommendations:**

- Explore traffic calming measures that reduce pedestrian crossing distances and slow traffic. Common calming infrastructure strategies include curb extensions and pedestrian refuge islands (Figure 5).
- Consider limiting right turn on red movements during school hours. This will prevent conflicts as students cross intersections (Figure 6).
  - ◇ At intersections where right turn on red movements are currently prohibited during school arrival and dismissal, signage could include specific days of the week and hours when cars are not allowed to make this movement, rather than vague language that may be left up to the interpretation of the driver such as “When Children Present.”
- Investigate the usage of a Leading Pedestrian Interval (LPI) at signalized intersections during school hours. If implemented, this will give students a head start when crossing the road. This should be considered at priority intersections where a high volume of student travel is expected (Figure 7).

**Issue: Missing Sidewalks**

As stated in the existing pedestrian facilities section of this report, a large portion of streets in the borough are also missing a sidewalk on either one or both sides.

**Recommendations:**

- The borough should make an effort to fill in sidewalk gaps where they can.

**Issue: Sidewalk Condition**

Much of the sidewalk network in Clementon meets the suggested width of five feet found in the NJDOT *Roadway Design Manual*. However, participants of both audit routes found sidewalks overgrown with




Figure 5: Curb Extension (Source: NACTO)



Figure 6: A No Right Turn on Red Sign with Clear Specifications

Figure 7: Leading Pedestrian Interval (LPI) information



**What is a leading pedestrian interval (LPI)?**

A leading pedestrian interval is an additional signal phase that gives pedestrians three - seven seconds before vehicles are given a green phase. This allows pedestrians to get a head start crossing an intersection, establishing their presence in the crosswalk before cars can turn left. FHWA finds that there is a **60%** reduction in pedestrian-vehicle crashes at intersections when this proven safety countermeasure is implemented. It should be noted that right turn on red must be prohibited at intersections with an LPI to avoid vehicles turning through the crosswalk at the time that should be dedicated solely to pedestrians.

Source: FHWA

vegetation and landscaping. Low lying tree limbs make it difficult to continue walking without crouching. Some landscaping also protruded into the pedestrian path, reducing the effective width of the narrow sidewalks.



Brush and landscaping protruding onto sidewalk

The Americans with Disabilities Act (ADA) Accessibility Guidelines and the United States Access Board's Proposed Guidelines for Accessible Rights-of-Way (PROWAG) require a four foot minimum clear pedestrian path free of obstruction with at least 6.7 feet of vertical clearance.

#### *Recommendations:*

- Clementon Borough should prune and trim trees and landscaping, located in public rights-of-way, which encroach into the pedestrian path. The pedestrian path must have a minimum four foot horizontal clearance and seven foot vertical clearance.
- Require residents trim trees and hedges as to not encroach into the pedestrian path and ensure minimum horizontal and vertical clearance.
- The Clementon Department of Code Enforcement states that it is "Unlawful to obstruct sidewalk, street or public place with any kind of wood, lumber, crates, stone, dirt, vehicle or other things." The school district should work with the Department of Code Enforcement and the Department of Public Works to identify violations and educate residents on proper tree tending and landscape trimming. Sustainable Camden County could be a potential partner to provide education and loan residents the proper maintenance tools.

#### *Motorist Behavior*

##### *Issue: High Vehicle Speeds*

Many of the roads that children must walk on to reach Clementon Elementary are high speed, particularly the main thoroughfares that students must navigate. Highway design elements that encourage high speeds often reduce pedestrian safety, conflicting with the goal to create a safe place for children to walk to school. Due to Clementon Borough being a walking district, some students have no choice but to use these streets.

As driver's speed increases, their stopping distance and ability to see pedestrians decreases. At 10 - 15 miles per hour (mph), a car will need 25 feet of distance to be able to stop for pedestrians. If the speed is increased to 30 - 35 mph, the stopping distance increases to 75 feet. At 40 mph, the distance is 118 feet. Similarly, as drivers speed increases,



their awareness and peripheral vision decreases, as illustrated in Figure 8. Safety for students is significantly reduced as speed increases. Children are especially vulnerable, since they may not have developed the cognitive abilities and experience necessary to properly assess risk and the closing distance of an oncoming vehicle while crossing.

*Recommendations:*

- Explore traffic calming measures that will reduce design speeds along roads where a high volume of student travel is expected. Traffic calming measures that reduce speed include reducing travel lane widths and speed tables.
- Specific improvements at student crossing locations and walking routes are covered later in this chapter.

**Issue: Dangerous Motorist's Behaviors**

Parents, working group members and crossing guards reported on some motorists' behaviors that are harmful to students traveling to school. These include speeding and failure to yield to pedestrians in crosswalks. Incidents of these behaviors were observed during the audits. Speeding was observed multiple times along Blackwood-Clementon Road, Gibbsboro Road and Erial Road.

Students must walk along state and county roads to reach Clementon Elementary. A lack of enforcement, road design that encourages speeding and a lack of accommodation for pedestrians on high speed roadways creates an unsafe walking and biking environment for Clementon Elementary students. State and county roadways in Clementon are used as thoroughfares for motorists and do not fully consider the needs of pedestrians walking to school. The road design is in conflict with the land uses and pedestrian activity surrounding the school.

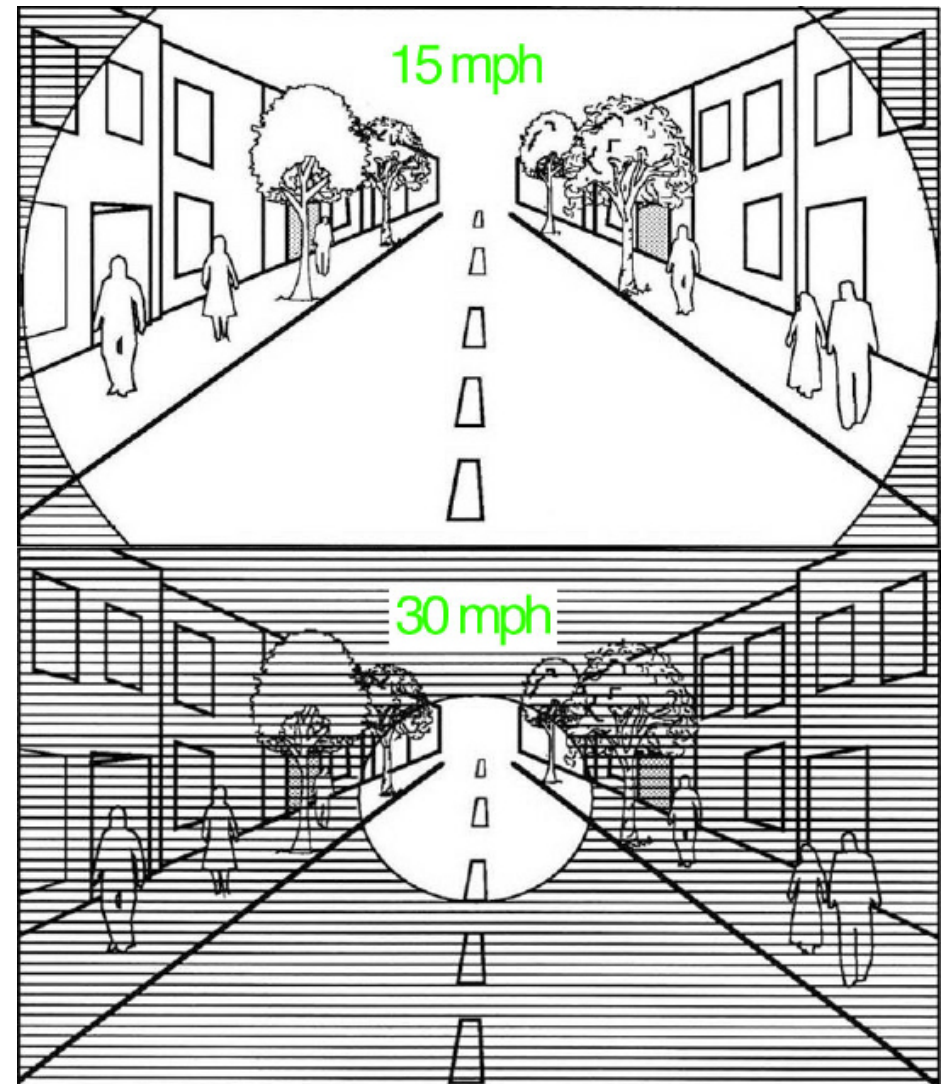


Figure 8: Effects of increased speed on a driver's visual focus Source: NACTO

*Recommendations:*

- Traffic calming measures should be explored in areas of frequent speeding.
- Measures that decrease crossing distance, such as curb extensions, neck-downs or center islands, have been shown to reduce traffic speeds by making the roadway more constrained. Center islands may be more effective on state highways that are wide and induce high speeds.
- Chicanes, lateral shifts in the travel lane, cause motorists to reduce speed and effectively break up long uninterrupted stretches of roadway. This type of traffic calming is more appropriate for residential streets or county roads where speeding is prevalent.
- Clementon Elementary should consider partnering with Clementon Police Department to conduct directed patrols along primary student walking routes to deter poor motorist behavior.
- Patrols should be conducted at the times of student arrival and dismissal.

**Corridor Recommendations**

The section below addresses issues specific to identified walking routes students use to travel to Clementon Elementary. Similar to the borough-wide recommendations in this section are based on a combination of walking audits and parent feedback and observation.

Primary student walking routes were identified by Cross County Connection staff and Working Group members. Student location data, crossing guard locations and input from the Working Group informed the decision to identify Erial Road and Gibbsboro Road as the two primary walking routes. Both Gibbsboro and Erial Road are corridors that most students must use to reach Clementon Elementary. Therefore, it is important to identify these roads as primary walking routes and recognize the need for improvement at high priority intersections

within these corridors in order to benefit the most students walking to school.

Secondary walking routes are streets that most commonly connect students to the primary walking routes. Recommendations to improve intersections and road segments along secondary walking routes are also included in this section.

**Erial Road**

Erial Road is a north-south thoroughfare that connects students directly to Clementon Elementary. Since Clementon Elementary is located on Erial Road, all students who are walking or biking must travel along the corridor. Therefore, it is important to prioritize any improvements recommended for this primary walking route.

Table 8 summarizes Erial Road's functional characteristics.

**Table 8: Erial Road Characteristics**

| Erial Road         |  |
|--------------------|--|
| Speed Limit        | 40 mph outside school zone, 25 mph inside school zone          |
| Connections        | Berlin Road, White Horse Pike                                  |
| Right of Way       | 50 feet - northern section<br>45 feet - near elementary school |
| On-Street Parking  | No   |
| Bicycle Facilities | No   |



Erial Road serves two way traffic and acts as a connection for motorists to major roads including Berlin Road and White Horse Pike. The road has a right-of-way of fifty feet at the northern section near Berlin Road and forty five feet near the entrance to Clementon Elementary. On street parking is not permitted on this corridor.

### ***Transportation Concerns***

Speeds along Erial Road vary. The northern segment of Erial Road has a posted speed of 40 mph. This section of road is very wide which encourages traffic to exceed the posted speed limit. As motorists approach Clementon Elementary heading southbound, they are expected to slow down to 25 mph within the school zone. The school zone is lacking visibility as drivers approach Clementon Elementary.

During the audits, speeding close to the school was raised as a concern. After the school zone, the posted speed returns to 40 mph. A school zone beacon is located close to the intersection by Clementon Elementary. Though there is signage on the road indicating an oncoming school zone and school crossings, it is often placed in difficult to see locations behind guardrails and in overgrown brush. Along with this, old sign posts are found in the middle of narrow sidewalks on the eastern side of Erial Road creating tripping hazards and further narrowing the walking path.

### ***Recommendations:***

- Replace all existing zebra-style crosswalks with continental crosswalks.
  - ◊ The crosswalks should be replaced with durable material such as thermoplastic. Consider inexpensive methods to pilot a curb extension at the intersection of Reading Avenue and Erial Road. Extending the curb line would reduce crossing distances at an intersection that is heavily used by students along with potentially slowing traffic.

- ◊ A pilot project (Figure 9) using inexpensive materials can be implemented with low-cost items such as flex delineators (\$20 - \$25/post) and acrylic asphalt paint (\$110/5 gallons).
- In the long term, consider widening the sidewalk to better accommodate students walking to school.
- In the short term, consider striping to reduce lane width along Erial Road. This will act as a buffer between cars and students walking on the sidewalk to school, increasing safety and comfort for students walking to school.
  - ◊ As a long term solution, consider adding a protected bike lane (Figure 10) connecting students biking along Erial Road to Clementon Elementary. A protected bike lane will provide a buffer between students walking to school and drivers and allow bicyclists to travel comfortably along Erial Road.
- Review NJ School Zone Design Guide and consider increasing the boundaries of the reduced speed school zone of 25 mph.
  - ◊ Any efforts to reduce the speed of vehicles to the 25 mph limit in the school zone will significantly reduce the risk of a student incurring a fatal or serious injury if there is a crash.
  - ◊ Consider increasing the visibility of the current zone with pavement markings and speed feedback signs. These features could also be incorporated into proposed expanded school zone.

## Intersections

The following section highlights intersection specific recommendations and improvements along Erial Road:

### Princeton at Erial Road

The intersection of Princeton and Erial Road is a dangerous intersection due to the combination of high speed traffic, visibility issues and narrow sidewalks without a buffer. The recommendations below address these issues.

### Recommendations:

- Replace the existing north-south and east-west zebra-style crosswalks with continental crosswalks.
  - ◊ Consider using high durability materials for the crosswalks such as thermoplastic.
- Consider adding a T-intersection sign at the intersection of Blackwood-Clementon Road and Erial Road to warn motorists of the upcoming intersection where students are walking.
- Use traffic calming measures to reduce vehicle speed as they approach the Princeton Avenue and Erial Road intersection.
  - ◊ This can be achieved through two measures:
    1. A curb extension at the intersection of Blackwood-Clementon Road and Erial Road to increase the turning radius for vehicles turning right onto Erial Road.
    2. Decrease the width of the travel lane on Erial Road between Blackwood-Clementon Road and Princeton Avenue by adding a shoulder to both sides of the road segment.
      - ◊ In order to create a comfortable space for students who are walking and biking to school, the shoulder striping should be 7 feet on both sides of the roadway.



Figure 9: Curb extensions



Figure 10: Protected bike lane

**Reading Avenue at Erial Road**

The intersection of Reading Avenue and Erial Road is currently used as a remote drop off location by parents since the elementary school parking lot gets very crowded. In the afternoon, almost all students pass through this intersection during school dismissal. This can cause issues for the crossing guard, as students will walk out into the street before reaching the intersection if the crossing guard is already stopping traffic.



Children crossing outside of the crosswalk

**Recommendations:**

- Meet with local property owners and municipal officials to address and potentially formalize the current satellite drop-off lot that parents are currently using.
  - ◊ If the drop-off lot cannot be formalized, be sure to send out an email and letter announcement informing parents they cannot drop their children off by car at this location.
- If warranted, consider a Rectangular Rapid Flashing Beacon (RRFB) signal at this intersection. A majority of students cross at this intersection on their way to and from school. A high volume of students cross this intersection at the same time during afternoon dismissal hours.

**Audubon Ave at Erial Road**

Audubon Ave at Erial Road is the entrance to the school used by parents who are dropping students off. The intersection is within the school zone, making the speed limit 25 mph. A NJ TRANSIT 403 bus line stop is located on the northern side of Audubon Avenue. This bus stop could conflict with parents dropping children off.

**Recommendations:**

- Replace the existing zebra-style crosswalks with continental crosswalks.
  - ◊ Use high durability materials for the crosswalks such as thermoplastic.
- Add a stop bar in the southbound direction at the northern point of the intersection in advance of the crosswalk. This creates further indication for drivers to stop as students cross the intersection.
- Consider adding a crosswalk at the southernmost point of the intersection. To do so, the stop bar in the northbound direction should be pushed back.
- Contact NJ TRANSIT to discuss moving the bus stop from the northern side of the intersection to the southern side. This could avoid potential conflicts between students crossing the intersection and cars maneuvering past a stopped bus.

**Secondary Corridors****Princeton Road**

Princeton Road is an important secondary corridor that connects to Erial Road. It has many positive attributes that creates a positive walking environment for students traveling to school. The speed limit of 25, along with a buffer between the road and sidewalk, helps create a low stress walking and biking environment. Table 9 highlights the characteristics of Princeton Road.



Most of the intersections along Princeton Road are not marked with a zebra style or double line crosswalks. The width of the sidewalk along Princeton Avenue is approximately four feet which does not meet AASHTO standards of five feet.

**Table 9: Princeton Road Characteristics**

| Princeton Road     |            |
|--------------------|------------|
| Speed Limit        | 25 mph     |
| Connections        | Erial Road |
| Right of Way       | 28'        |
| On-Street Parking  | Yes        |
| Bicycle Facilities | No         |

**Recommendations:**

- Mark unmarked intersections along Princeton Avenue with high visibility continental style crosswalks.



A secondary walking route with a low stress walking environment in Clementon

Table 10 shows the recommendations along Erial Road by cost and time horizon. For this report, low cost recommendations are between \$5,000 - \$25,000 and have low maintenance costs. Medium costs range between \$25,000 - \$100,000 with more upkeep and maintenance involved. High cost projects are \$100,000 and above and have a high cost of maintenance. Typically, the higher the cost of a recommendation, the longer it will take to implement. Map 6 highlights where recommendations are located along the corridor along with the recommendation type and cost. Estimated costs were determined using cost estimates from New Jersey Safe Routes to School, which can be found at:

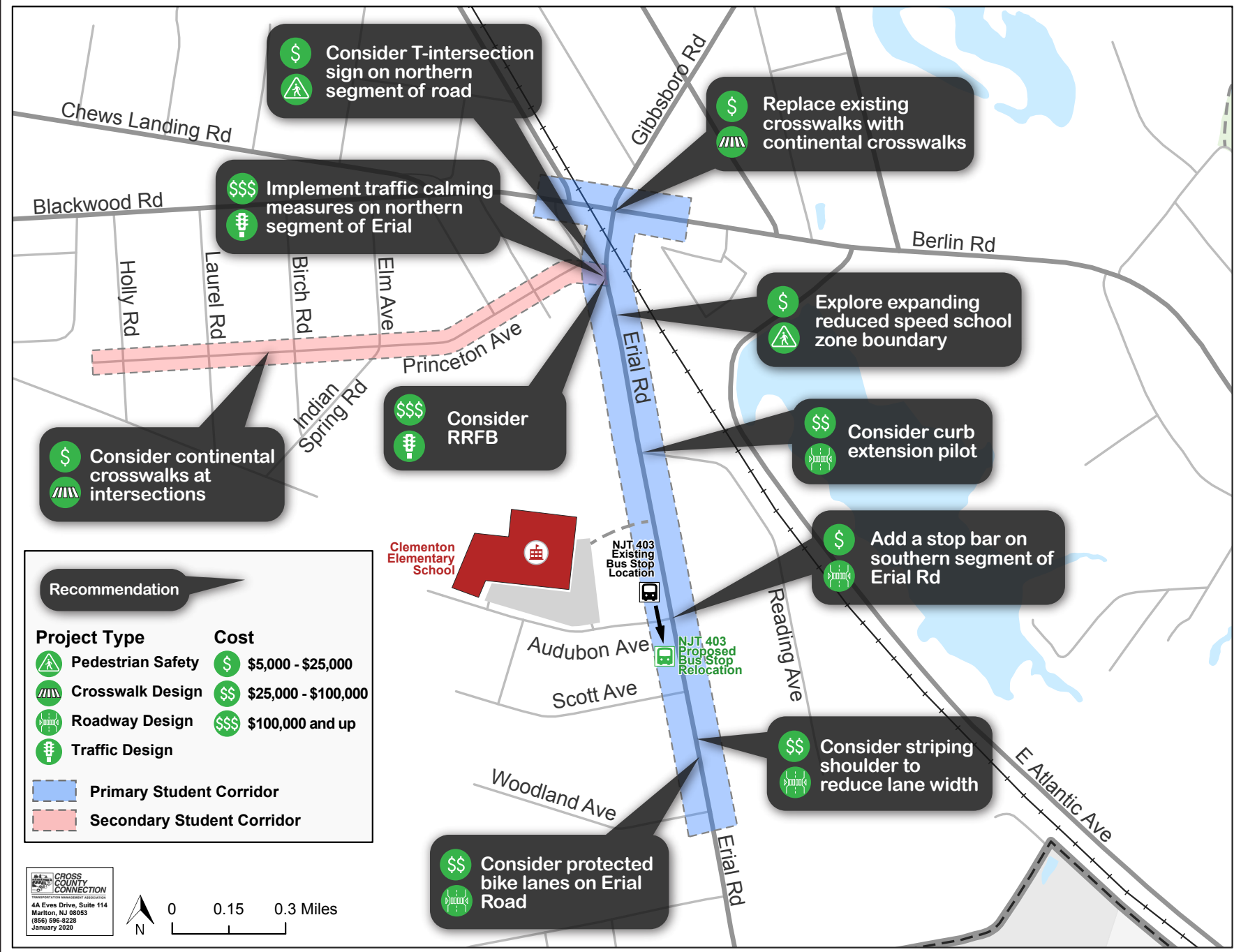
[\(www.saferoutesnj.org/estimating-improvement-costs-for-srts/\)](http://www.saferoutesnj.org/estimating-improvement-costs-for-srts/).



**Table 10: Erial Road Corridor Recommendations**

| Recommendation  | Location   | Cost        | Time Horizon      |
|---|--|-------------|-------------------|
| Replace existing crosswalks with continental style crosswalks.  | Corridor-wide  | Low cost    | Short-medium term |
| Consider an inexpensive curb extension to reduce crossing distance.   | Intersection of Erial Road and Reading Avenue                  | Medium cost | Short term        |
| Consider adding striping to reduce lane width along Erial Road.   | Corridor-wide  | Medium cost | Short-medium term |
| Consider adding a protected bike lane along both of Erial Road.   | Corridor-wide  | Medium cost | Medium-long term  |
| Explore expanding the reduced speed school zone boundary on Erial Road.   | Corridor wide  | Low cost    | Short term        |
| Consider adding a T-intersection sign on the northern segment of Erial Road.  | Erial Road at Princeton Avenue                                 | Low cost    | Medium term       |
| Implement traffic calming measures on the northern segment of Erial Road.   | Erial Road between Blackwood-Clementon Road and Princeton Road | High cost   | Long term         |
| Consider a RRFB signal at high volume intersections   | Erial Road at Reading Avenue                                   | High cost   | Long term         |
| Add a stop bar on the southern segment of Erial Road to increase driver awareness.  | Erial Road at Audubon Avenue                                   | Low cost    | Short term        |
| Consider contacting NJ TRANSIT moving the bus stop location at Audubon Avenue to reduce students and motorists at the intersection. | Erial Road at Audubon Avenue                                   | Low Cost    | Medium term       |
| Consider striping high visibility continental crosswalks at intersection with unmarked crosswalks                                   | Princeton Avenue between Holly Road and Erial Road             | Low cost    | Short term        |

## MAP 6: ERIAL ROAD RECOMMENDATIONS



## Gibbsboro Road

Gibbsboro Road is a north-south thoroughfare that connects students living in the northern section of Clementon to the elementary school. While there are more commercial uses along Gibbsboro Road, a large number of students live in the neighborhoods surrounding the corridor. This creates more secondary walking routes along Gibbsboro Road when compared to Erial Road. Gibbsboro Road acts as a spine for students walking to school from the northern sections of Clementon, making improvements along the corridor high priority.

Gibbsboro Road serves two way traffic and connects motorists to US Route 30 (White Horse Pike). The road has a right-of-way of sixty feet, making it larger and more difficult to cross than Erial Road. The north and southbound travel lanes are typically twenty two feet, splitting into two lanes of eleven feet where right or left turn only lanes are needed at intersections. There are several public facilities along Gibbsboro Road, including the Clementon Housing Authority, police department and library.

### ***Transportation Concerns***

Table 11 highlights the characteristics of Gibbsboro Road. The speed limit on Gibbsboro Road from Berlin Road to White Horse Pike is 35 mph. Though the posted speed is lower on Erial Road, the street is wide, creating a longer crossing time at intersections and any crossing areas for students. Several crosswalks at high priority intersections are also not properly aligned, adding additional crossing distance for students walking to school.

There is existing signage along Gibbsboro Road, but the signs do not use retro-reflective materials. Advance warning signs for pedestrian crossings are also missing along much of the thoroughfare. Crosswalks along the corridor are very faded and some are not high visibility.

**Table 11: Gibbsboro Road Characteristics**

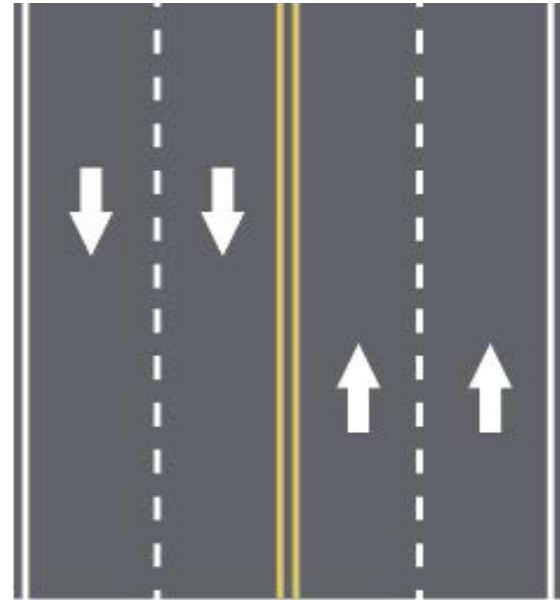
| Gibbsboro Road     |                  |
|--------------------|------------------|
| Speed Limit        | 35 mph           |
| Connections        | White Horse Pike |
| Right of Way       | 60'              |
| On-Street Parking  | No               |
| Bicycle Facilities | No               |

Travel lanes along Gibbsboro Road are poorly marked. Travel lanes in one direction vary from one to two lanes depending on what segment of the road motorists are traveling on. The wide lanes and multiple turning movements along the road cause vehicles to travel above the speed limit and maneuver around left and right turning vehicles when two lanes are present. Other conflicts are seen at small intersections along Gibbsboro Road. Neighborhood roads connecting to Gibbsboro Road are not aligned at a right angle. This creates a wide turning radius for cars along with the need for cars to roll into crosswalks when making left or right turns onto Gibbsboro Road from neighborhood streets like Garfield Avenue and Park Boulevard.

### ***Recommendations:***

- Replace existing zebra and double line style crosswalks with high visibility continental crosswalks along Gibbsboro Road.
- Consider aligning skewed crosswalks to reduce crossing distance for students.

- ◇ Specific intersections where this an issue will be addressed below.
- Consult with engineers and research the feasibility of a road diet (Figure 11) for the portion of Gibbsboro Road between Berlin Road and White Horse Pike
  - ◇ A road diet along this road will reduce the width of each travel lane and minimize conflicts between pedestrians and motorists by providing a left turn lane.
- Add advance warning signs for pedestrian crossings along Gibbsboro Road.
- Consider a reduction of speed along Gibbsboro Road from 35 mph to 30 or 25 mph. This will help increase safety for students walking to school on Gibbsboro Road.
  - ◇ This recommendation will work well in combination with the implementation of traffic calming measures such as a road diet, speed bumps or decreased lane width.



### ***Intersections***

The following sections shows intersection specific recommendations and improvements along the Gibbsboro Road.

#### ***Berlin at Gibbsboro Road***

Almost all students need to cross the intersection of Berlin Road and Gibbsboro Road to reach Clementon Elementary School. Improvements could be implemented to make this intersection safer for a large portion of students walking and biking to school.

Pedestrian signal-heads at this intersection are old and do not work correctly. Crosswalks at this intersection are also very faded and may be hard for motorists to see during the evening hours. At all four points of the intersection, crossing distance is very long, creating potential for more conflicts between motorists and elementary students.

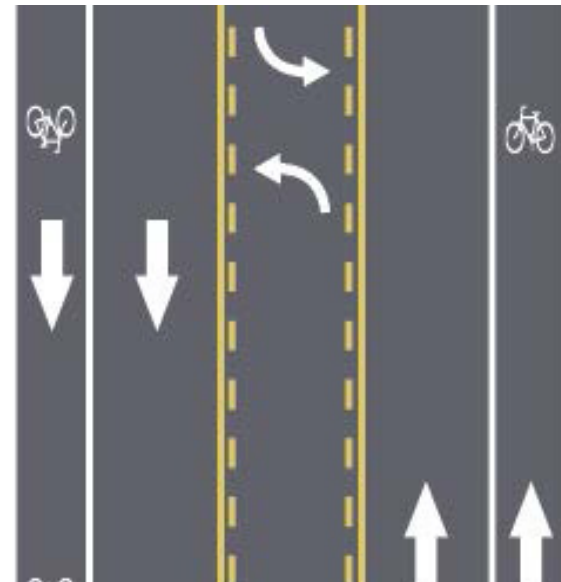


Figure 11: Road diet treatment before and after



***Recommendations***

- Consider a Leading Pedestrian Interval (LPI) at this intersection. An LPI would give students a head start in crossing the intersection before cars are allowed any movements.
  - ◊ To implement this recommendation, the county must enact a no turn on red policy during school hours at the intersection.
- Repaint all crosswalks with high visibility continental style bars.
- Consider aligning crosswalks on the eastern and northern sides of the intersection.
  - ◊ To do this, stop bars on the east and north quadrants should be pushed back so the crosswalk will cover less distance.

***White Horse Ave at Gibbsboro Road***

As with other intersections along Gibbsboro Road, the secondary road does not align at a right angle. This could cause motorists to encroach on crosswalks as they make turning movements off of White Horse Avenue. Since this intersection is signalized, right turn movements are restricted. However, the sign is vague and says no turn on red when children are present. Pedestrian signal heads at this intersection are not operational.

***Recommendations***

- Align intersection and move stop bars back at the south side of the intersection. This will greatly reduce crossing distance for students crossing Gibbsboro Road.
- Revise the language of the “no right turn on red” sign. Instead of saying ‘when children are present’, the sign should specifically state the days and hours vehicles are not allowed to make a right turn on red.

- Replace pedestrian signal heads at this intersection. If it is warranted by student travel, consider adding a leading pedestrian interval to the signal pattern and restrict right turn on red movements completely.

***White Horse Pike at Gibbsboro Road***

White Horse Pike is a major highway and could be dangerous for students to cross since it is 60 feet curb to curb. Like many crosswalks in Clementon, the intersection features double line crosswalks. Students walking towards this intersection may be inclined to cross White Horse Pike before reaching the intersection because it will make for a shorter journey to school.

***Recommendations***

- Replace double line crosswalks at White Horse Pike with high visibility continental style crosswalks.
- Consider installing a Pedestrian Hybrid Beacon (HAWK) beacon at Franklin Avenue and White Horse Pike. This intersection is closer to residential streets and will provide a safe crossing for students who live in the adjacent neighborhood.
  - ◊ A HAWK is a traffic control device intended to help pedestrians cross busy or high speed roadways at mid-block crossings.
  - ◊ If a HAWK is not warranted, consider a lower-cost option, such as the combination of a mid-block neck-down/bump out and the installation of a RRFB. This can be implemented at the same location as the HAWK.



A HAWK in operation in Ocean City, New Jersey

## ***Secondary Corridors***

### **Garfield Avenue**

Garfield Avenue is a secondary corridor that connects to the primary walking route of Gibbsboro Road. It is a two-way residential street with a 34 foot cart-way comprised of two ten foot travel lanes and a seven foot parking lane on both sides. Walking along this street feels comfortable, with four foot sidewalks and a three foot grass buffer on both sides. Certain segments of sidewalk on the west side of the corridor are missing a buffer.

### **Lincoln Avenue**

Lincoln Avenue runs parallel to Garfield Avenue and has similar characteristics. The roadway is also parallel to active train tracks that cut through Clementon. Parents and Clementon school staff pointed out that students choose to walk along the tracks rather than on Lincoln Avenue. These tracks are expected to be part of Camden County's Link Trail. On the northern segment of Lincoln Avenue, several apartment buildings create gaps in the sidewalk.

The characteristics of Garfield and Lincoln Avenues are shown in Table 12.

**Table 12: Garfield and Lincoln Avenue Characteristics**

| Garfield Avenue and Lincoln Avenue |                |
|------------------------------------|----------------|
| Speed Limit                        | 25 mph         |
| Connections                        | Gibbsboro Road |
| Right of Way                       | 35' / 32'      |
| On-Street Parking                  | Yes            |
| Bicycle Facilities                 | No             |

***Recommendations:***

- Add a buffer strip along sidewalks where it is missing on Garfield Avenue
- Pursue an educational campaign that warns students against walking along the train tracks parallel to streets such as Lincoln Avenue and West Atlantic Avenue.
  - ◊ If this is not effective, make parents aware that children may not walk along the tracks behind Lincoln Avenue.
- Pursue enhancements to the Conrail right-of-way with Camden County in an effort to move forward on the Lincoln Avenue portion of the Camden County's cross-county Link Trail.
- Clementon Borough should consider signing a resolution in support of the Circuit Trails.
  - ◊ This will indicate to Camden County that the borough supports additions of trails in Clementon.
  - ◊ More information on the Circuit can be found here: <https://circuittrails.org/>

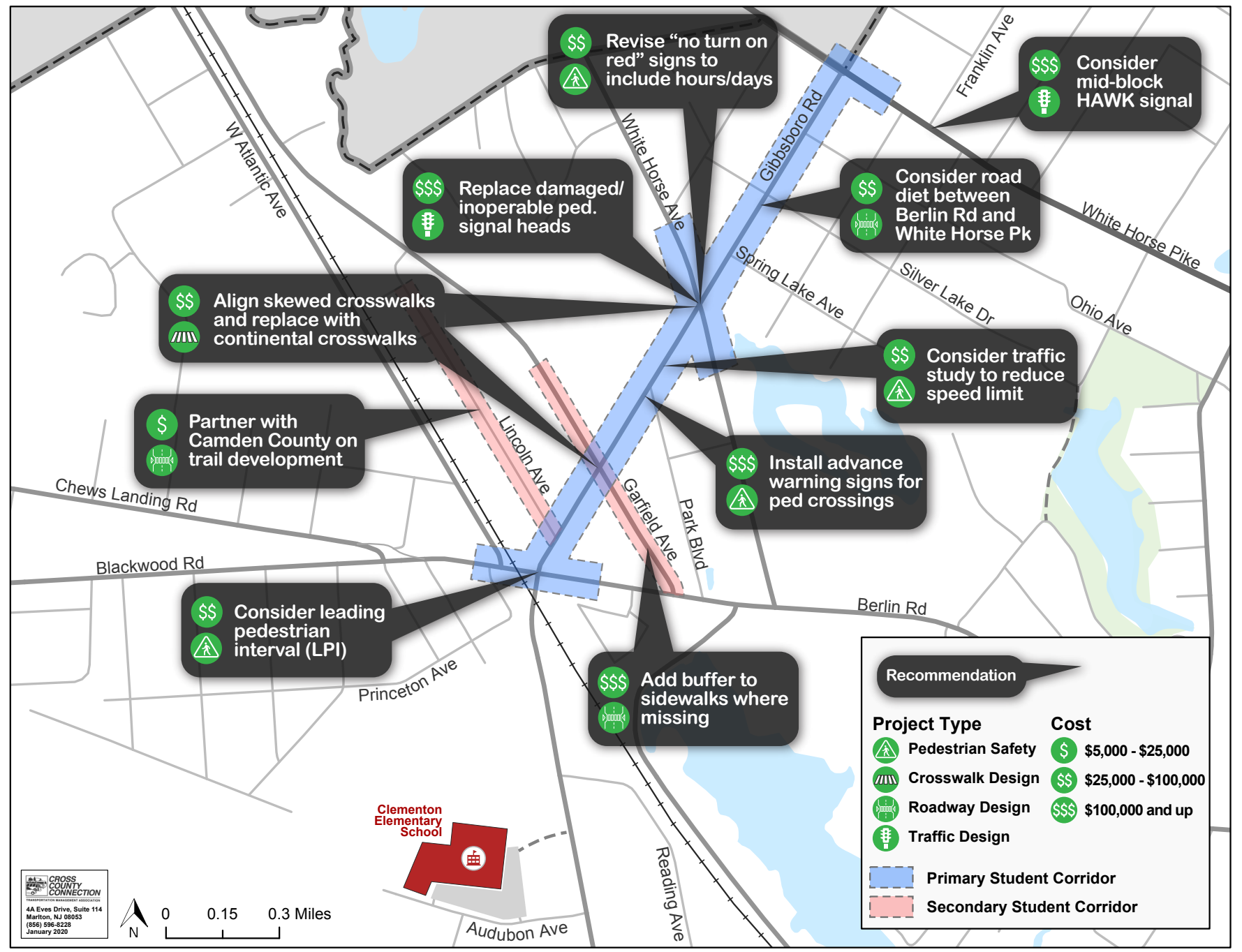
Table 13 summarizes the recommendations for the Gibbsboro Road corridor organized by cost and time horizon. Map 7 lays out where these recommendations can be implemented along the corridor.

**Table 13: Gibbsboro Road Recommendations**

| Recommendation   | Location  | Cost        | Time Horizon      |
|--|---|-------------|-------------------|
| Replace existing crosswalks with continental style crosswalks.   | Corridor-wide   | Low cost    | Short-medium term |
| Consider aligning skewed crosswalks to reduce crossing distance for students.  | Corridor-wide   | Low cost    | Medium-long term  |
| Consult with engineers about the feasibility of a road diet between Berlin Road and White Horse Pike.                    | Gibbsboro Road between Berlin Road and White Horse Pike | Low cost    | Medium-long term  |
| Consider conducting a traffic study in an effort to reduce the speed on Gibbsboro Road from 35 mph to 30 or 25 mph.      | Corridor wide   | Low Cost    | Long Term         |
| Add advance warning signs for pedestrian crossings along Gibbsboro Road.   | Corridor wide   | Medium cost | Short-medium term |
| Consider a leading pedestrian interval (LPI) to give students more visibility when crossing high priority intersections. | Berlin Road at Gibbsboro Road                           | Medium Cost | Short-medium term |
| Revise "no turn on red" signs to state the days and hours vehicles cannot make a right turn on red.                      | Berlin Road at Gibbsboro Road                           | Medium Cost | Short-medium term |
| Replace damaged / inoperable pedestrian signal heads.  | White Horse Ave at Gibbsboro Road                       | High cost   | Long term         |
| Consider installing a mid-block HAWK or RRFB signal to increase safety for students crossing White Horse Pike.           | Franklin Avenue at White Horse Pike                     | High cost   | Long term         |
| Add grass buffer between street and sidewalk when there opportunity to replace sidewalks lacking one                     | Garfield Avenue   | High-cost   | Long term         |
| Partner with Camden County and assist with efforts to develop the cross-county Link Trail                                | Lincoln Avenue  | Low cost    | Long term         |



# MAP 7: GIBBSBORO ROAD RECOMMENDATIONS



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## 5. NON-INFRASTRUCTURE RECOMMENDED ACTIONS

The following are the recommended non-infrastructure actions to achieve the goals of the Clementon Elementary School Travel Plan. Maximizing the number and safety of students walking and biking to school requires a comprehensive approach that addresses the 5 E's of Safe Routes to School: Education, Encouragement, Enforcement, Evaluation and Engineering. The 5th E, Engineering, has been discussed in detail in Chapters 3 and 4. This chapter addresses the remaining E's. When necessary, these actions should also accommodate the needs of students who are unable to regularly walk or bike to school due to disabilities and the students enrolled in the before- and after-school programs who may walk outside of the normal school hours.

### Education

The first E, education, is an important component in developing an effective Safe Routes to School Program addressing pedestrian and bicycle travel issues. Actions that fall under education can help change a community's perception of how children travel to and from school and ensure they are able to do so safely. For Clementon Elementary School, these actions should be adapted to educate students on the dangers of walking on railroad tracks near East and West Atlantic Avenue and cutting through the woods behind the school.



These actions will also ensure that children receive proper instruction on walking and bicycling while raising community awareness of the benefits of walking and bicycling.

Cross County Connection will provide safety education and outreach materials for distribution to students, parents and school staff. The outreach materials should include information about walking on sidewalks, not on the railroad tracks or improperly lit areas. This information may be circulated at parent-teacher meetings, school walking events, in class, and included in the student handbook. Pedestrian and bicycling safety education should also be addressed at parent-teacher meetings. These meetings could also provide an opportunity to engage parents in a dialog about safe driving habits, especially in areas where students are walking or biking to school. Inclusion of parents in educational programming is a good way to reinforce safety education at home.

### ***Bicycle and Pedestrian Safety Presentation***

Cross County Connection teaches students in third, fourth and fifth grade how to properly and safely cross a street when bicycling and walking using a mock streetscape. The streetscape includes a road, street signs and a crosswalk. Students are taught the meaning of each symbol that appears on street signs and other important pedestrian skills to use when walking to and from school.

Through active participation, students learn about the benefits of bicycling and walking, ways to avoid potential hazards, how to properly understand and obey traffic signs and signals, how to cross the street safely, and how to understand traffic flow. Many schools in southern New Jersey use Cross County Connection's Bicycle and Pedestrian Safety Program as a foundational building block for their Safe Route to School programs.

Clementon Elementary School should continue to take advantage of Cross County Connection's 3rd-5th Grade Pedestrian Safety Program

on an annual basis. Cross County Connection has administered this program at Clementon Elementary School several times in 2019, including during the Clementon Elementary School Summer Camp. With the assistance of Cross County Connection, Clementon Elementary School has also participated in a number of walk to school events during October's Walk to School Month celebration. Additional information about the Pedestrian Safety Program is available on Cross County Connection TMA's website: [driveless.com](https://driveless.com).



Safe Routes to School bike rodeo event

To supplement Cross County Connection's 3rd-5th Grade Pedestrian Safety Program, it would be beneficial to the health and well-being of students to take advantage of other programs available to schools, which teach children safe bicycling and walking. One such program is offered by the Brain Injury Alliance of New Jersey. This program provides information on how to prevent brain injuries while cycling. For more information visit <https://bianj.org/prevention/childhood-safety/>.



### ***Bookmark and Poster Contest***

Cross County Connection's Bookmark and Poster Contest is typically held after conducting the Bicycle and Pedestrian Safety Presentation. The purpose of the contest is to reinforce the safety lessons taught to 3rd through 5th grade students who participated in the Bicycle and Pedestrian Safety Program. These contests allow students to create their own bookmarks or posters. Students choose a theme (crossing the street safely, air pollution, exercise, etc.) to illustrate on a poster or bookmark. Students are to show the importance of walking and bicycling to school and the benefits of doing so through the theme they have chosen. Six winners are selected (two students from each grade) who convey their theme the best. The winners will be selected and presented to the school by Cross County Connection. Winners will receive a bag with safety giveaways.

Table 14 details the recommended Education Actions.

**Table 14: Education Actions**

| Education Actions   | Responsibility  | Time Frame |
|---|---|------------|
| Creation and distribution of educational materials to students, parents/guardians and community members | Clementon Elementary School, Clementon School District, Cross County Connection | Ongoing    |
| In-class education on safe walking practices, along with health and environmental benefits              | Clementon Elementary School and Cross County Connection                         | Annually   |
| Poster/bookmark contest   | Clementon Elementary School and Cross County Connection                         | Annually   |
| Inclusion of SRTS elements in teacher and student handbooks   | Clementon Elementary School and Cross County Connection                         | Annually   |
| Participate in New Jersey's SRTS webinar program  | Clementon Elementary School and Clementon School District                       | Ongoing    |

### **Encouragement**

Encouragement actions promote walking and bicycling to school through programs such as walking school buses, satellite walking events, a Golden Sneaker Award, and other activities that generate excitement about walking and bicycling. These programs are essential to building the momentum necessary to significantly change school travel habits. Clementon Elementary School should hold a walk to school event once a month to encourage more students and parents to walk and bike to school and in their everyday lives.

### ***Bicycle Rodeo***

Additionally, Clementon Elementary School, in partnership with the Borough of Clementon Police Department, should consider holding a Bike Rodeo for children within the community to help teach the fundamentals of safe bicycling during the spring or summer. A bicycle rodeo is a Safe Routes to School on-bike clinic that provides students in kindergarten through eighth grades with the opportunity to practice and develop skills that will help them become safer bicyclists. Bicycle rodeos may vary in size and can be tailored to the needs and capabilities of the participants and the event organizers.

It is recommended that the police department take the lead in conducting the bicycle rodeo. The most important part of a bicycle rodeo is to ensure there is a safe and encouraging environment where students can learn, practice and demonstrate their bicycle skills while having fun.

### ***Walk and Bike to School Days***

To further promote walking and bicycling, Clementon Elementary School should continue to participate in International Walk to School Day, which is held in October. Additionally, Clementon Elementary School should participate in International Bike to School Day, held in May, which is also New Jersey's Walk and Bike to School Month. For more information and to register events during International Walk to School Day and Bike Month, visit [www.saferoutesnj.org](http://www.saferoutesnj.org).

Additionally, walking events should be implemented on an on-going basis throughout the school year.

### ***Satellite Drop-Off/Pick-Up Program***

Given the large number of students who live further than a 15-20 minute walk from school, it is likely that some students will still be hesitant to participate in walking activities based on distance alone. A Satellite Drop-Off program would benefit these students and their parents by allowing them to participate in walking and biking activities, even if for a short distance, and help to reduce congestion around the school by reducing the number of vehicles in the school parking lot. This program will also benefit students who participate in the schools' before/aftercare program. A designated satellite drop-off and pick-up program would help mitigate issues that may occur from parents utilizing a makeshift satellite drop-off and pick-up area.

Based on pedestrian infrastructure, location of crossing guards and other safety considerations, locations within walking distance of the school are typically designated as satellite drop-off/pick-up locations. Some locations to consider are nearby parks, playgrounds and/or municipally owned lots. Parents drive their children to these locations and drop them off. They can then walk the remainder of the way to school on their own or be accompanied by a designated chaperone waiting for the students. The police department should be involved in the designation of these locations and be present initially to ensure the safety of the students and supervise the drop-off procedures. The satellite drop-off/pick-up program should be utilized with all walk to school events.

### ***Incentive Contests***

The Golden Sneaker Walking Challenge is a program in which students track their steps using pedometers in the form of a competition between grades or classes. The program is designed for grades three through five that can be adapted through partnerships with local merchants

to reward students for safe behaviors. The program is designed to promote pedestrian safety and the importance of walking as a part of a healthy lifestyle. Students are given instructions and a pedometer provided by Cross County Connection. Students track their steps for a specified length of time, usually a week. At the end of the challenge, the class or grade with the most steps achieved wins the Golden Sneaker Award Trophy. Some schools simply conduct a daily tally of each student that walks or bikes to school. At the end of each month the homeroom with the most walking and bicycling students will earn the "Golden Sneaker." A Golden Sneaker Award can be created by the school by simply spray painting a running shoe gold and mounting it on top of a trophy stand.

Another contest includes the "Walk Across America" program, which consists of recording the footsteps taken by each homeroom to show how far they have walked from New Jersey. Once a homeroom reaches a designated state, students are rewarded. Incentive programs are a good way to keep the momentum going with the Safe Routes to School programs.

### ***Walking School Bus***

A walking school bus is a group of children walking to school along a fixed route with one or more adults. It is suggested that Clementon Elementary School develop a pilot program next fall. By doing so, younger students will be given the opportunity to learn about safe pedestrian practices, while familiarizing themselves with their neighborhoods. Walking school buses provide an opportunity for parents to get to know one another and alleviate some concerns about their children walking to school unsupervised. Clementon parents expressed interest in creating a Walking School Bus with Crossing Guards as the "supervisors" of the students. Crossing Guards would be stationed along a predetermined route and groups of students would walk from one crossing guard to the next. Based on conversations with existing Crossing Guards and observance of their interactions with the

families in Clementon, this type of program could be very effective in Clementon.

Some of the programs and events that should be held are included on Table 15. Cross County Connection assists schools with the planning and organization of these events.

**Table 15: Encouragement Actions**

| Encouragement Actions                             | Responsibility   | Time Frame                 |
|---|--|----------------------------|
| Walk to School Day events                         | Clementon Elementary School                              | Monthly                    |
| Participation in Interational Walk to School Day  | Clementon Elementary School                              | October (Annually)         |
| Walking School Bus (WSB) Pilot Program            | Clementon Elementary School, Clementon Police Department | Begin in Fall 2020         |
| Bicycle Rodeo                                     | Clementon Elementary School, Clementon Police Department | Annually in Spring         |
| Participation in International Bike to School Day | Clementon Elementary School                              | Annually in May            |
| Designate satellite drop off/ pick up areas       | Clementon Elementary School, Clementon Police Department | Spring and Fall            |
| Incentive programs                                | Clementon Elementary School                              | Throughout the school year |

## Enforcement

The Clementon Police Department's Enforcement of safe and lawful travel behavior around schools and on all travel corridors throughout the borough is important to ensure a safe walking environment for children. Table 16 shows enforcement actions that can be conducted to increase pedestrian and bicycle safety.

**Table 16: Enforcement Actions**

| Enforcement Action  | Responsibility                         | Time Frame           |
|---|--|----------------------|
| Speed enforcement   | Borough of Clementon Police Department | Targeted and ongoing |
| Pedestrian Decoy Program: enforces motorists stopping for pedestrians | Borough of Clementon Police Department | Targeted and ongoing |
| Jay-walking/mid-block crossing prevention                             | Borough of Clementon Police Department | Ongoing              |
| Legal parking enforcement   | Borough of Clementon Police Department | Ongoing              |
| Clear debris from sidewalk and obstruction of road signs              | Borough of Clementon Police Department | Ongoing              |

## Evaluation

Determining participation in walking and bicycling programs and identifying parent concerns are an important part of the Safe Routes to School program. Evaluating the outcomes of the recommendations in the School Travel Plan allows school staff to determine the success of the Safe Routes to School program activities and how they might prioritize and modify their efforts to encourage more children to walk and bike to school.

Evaluating and modifying efforts to improve outcomes enables an understanding of what works and helps to ensure the success of future investments in time and money. Since implementation of the Travel Plan may be long-term, tracking progress provides benchmarks and rationale for continued investment. Ideally, evaluations should be completed each year while walking and bicycling student travel corridors in order to check the quality of the surrounding neighborhood's infrastructure. Performance measurements should include student arrival and departure tallies, parent surveys and evaluation of participation in walking and bicycling events.

Additionally, implementing evaluation tools and performance measures are necessary to receive Safe Routes to School infrastructure grants. Student Travel Tallies are now mandatory for a Safe Routes to School Infrastructure grant application. Currently, the Travel Tallies must have been completed within two years of the application submission date to be considered for funding. Additionally, being able to document outcomes from any Safe Routes to School efforts is beneficial for any type of grant submission involving infrastructure in/ around schools.

Clementon Elementary School conducted student travel tallies in the Fall of 2019. Student travel tallies are held in-class by school staff to determine how children arrived at school that day. Tallies should be held at regular intervals to determine the impact of Safe Route to School activities in student travel choices (taken each day for a week to gain accurate data). Tallies should also be compared quarterly to measure success. Parent surveys may be sent home with children or distributed to parents electronically to determine parent attitudes and concerns about children walking or bicycling to school.

Table 17 shows evaluation actions that will help Clementon Elementary School assess the success of their Safe Routes to School program and determine any needed improvements. Focus should be put on

measuring the effects of programming by examining short-term, medium-term, and long-term goals. The success of the School Travel Plan can be evaluated by qualitative metrics such as:

- Activity of the school transportation committee
- School policy changes that support walking and bicycling
- Integration of active transportation into the school curriculum such as bicycling education conducted in physical education class
- Participation in walk and bicycle to school days, including parent involvement
- Coordination with local governments and organizations to promote active transportation

If goals are not achieved, be sure to re-evaluate and make changes to achieve objectives.

**Table 17: Evaluation Actions**

| Evaluation Action   | Responsibility  | Time Frame |
|---|---|------------|
| Student arrival and departure tallies   | Clementon Elementary School                                 | Quarterly  |
| Parent survey   | Clementon Elementary School and Cross County Connection TMA | Annually   |
| Account of student participation at walk/bike and other events                                | Clementon Elementary School                                 | All events |
| Comparison of student participation at Safe Routes to School event from one event to the next | Clementon Elementary School                                 | All events |



## Anti-Idling Program

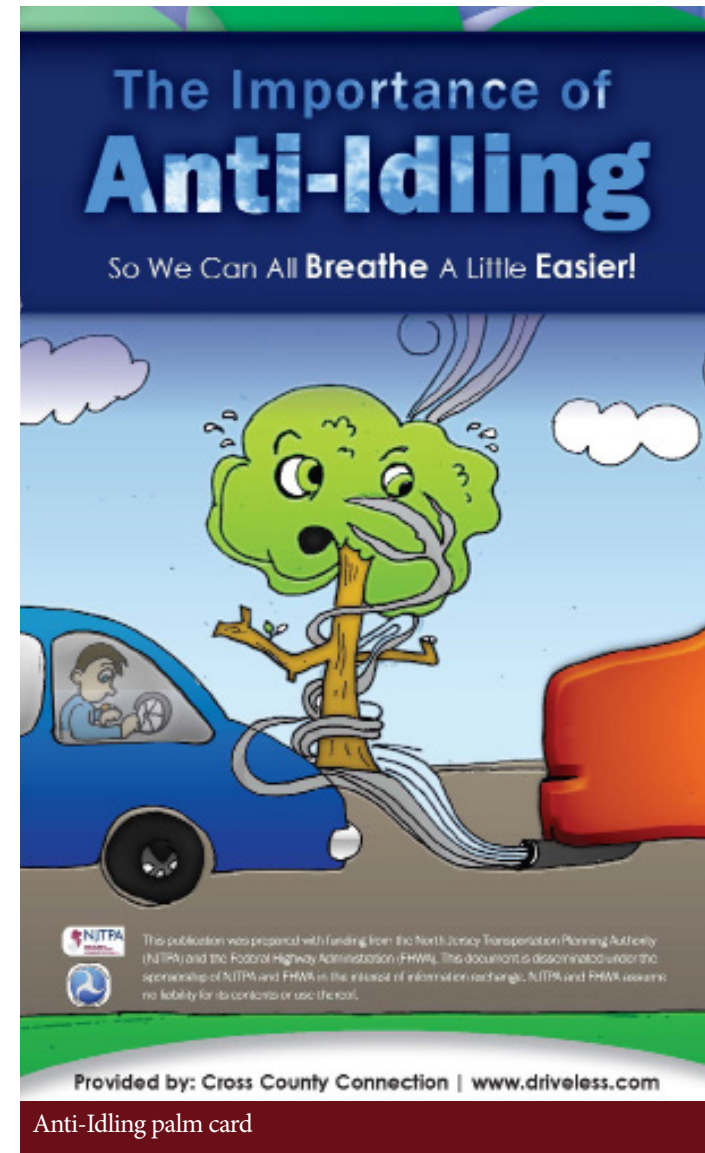
Poor air quality can negatively affect the health of students and staff. Clementon Elementary School is encouraged to partner with Cross County Connection to establish an anti-idling program. An anti-idling program involves many of the same key elements of any SRTS activity including education, enforcement and encouragement, to improve student health.

Idling vehicles around Clementon Elementary School contribute harmful emissions including carbon monoxide. According to the New Jersey Department of Environmental Protection (NJDEP), an idling vehicle emits 20 times more pollution than when it is traveling at 30 MPH. This is especially problematic in areas around schools. Children breathe up to 50% more air per pound of body weight than adults. This makes them especially vulnerable to the negative health issues caused by poor air quality, such as asthma. Additionally, New Jersey State Law states that no person shall cause, suffer, allow, or permit the engine of a diesel or gas powered motor vehicle to idle for more than three consecutive minutes if the vehicle is not in motion. While there are some exceptions to the law, this is the standard and should be followed to reduce carbon monoxide emissions and air pollution.

Setting up an anti-idling program is inexpensive and requires just a few steps. Cross County Connection can assist the Borough of Clementon and its School District with setting up a program. Available resources can be found on NJDEP's website at [www.nj.gov/dep/stophthesoot](http://www.nj.gov/dep/stophthesoot) or [www.saferoutesnj.org](http://www.saferoutesnj.org).

The steps to set up a program are:

1. Pass an anti-idling resolution. A resolution will state the borough's commitment to improve air quality and student health; their goal to eliminate the problem; a description of the harm idling vehicles can cause; and the reasons limiting this activity is important for the



health of the community. A sample resolution can be found at NJDEP's website.

2. Create an enforcement plan that maps the specific locations where an anti-idling program will be carried out. This plan will provide instruction to local police regarding the law, how to enforce it, and why it is important to enforce it.
3. Post anti-idling signs in locations around schools. Signs are available on NJDEP's website at a nominal cost.
4. Create an education program that informs students and parents as to why an anti-idling program is beneficial. Distribute materials that demonstrate the harmful effects of idling, which may appear harmless, but negatively impacts children's health. The program could entail distributing Cross County Connection's Anti-Idling Palm Card and activities that involve the students, such as an anti-idling awareness poster contest. Educational materials are available at no cost.

Additionally, an anti-idling program receives points for both the Safe Routes to School and Sustainable Jersey Certification programs. Clementon Elementary School has been recognized as a leader through the New Jersey Safe Routes to School Recognition Program. This is a program that recognizes municipalities and schools for their commitment and support of the Safe Routes to School program. There are four qualifying levels: First Step, Bronze, Silver and Gold Level. Clementon Elementary School was awarded Bronze Level in 2019. The Borough of Clementon could utilize this recognition and receive points on their Sustainable Jersey Certification, which acknowledges municipalities and schools for their efforts toward sustainability and becoming greener.

## 6. CONCLUSION

The Borough of Clementon is committed to increasing the number of children who walk and bike to school through safety improvements and programs that encourage safe bicycling and walking. The borough currently addresses child bicycling and walking by providing a Safe Routes to School Program that includes education and encouragement activities as well as enforcement by the Clementon Police Department. The Clementon Elementary School Travel Plan was developed to address the school district's interest in improving the conditions in which students bicycle and walk to school. Continued concerns about existing and potential safety issues consist of motorists speeding, intersection and mid-block crossings and gaps in the bicycle and pedestrian infrastructure.

### Next Steps

Implementation of this plan and the sustained success of any effort to increase walking and bicycling to school will require a continued partnership among local organizations and regional organizations such as the Delaware Valley Regional Planning Commission (DVRPC) and New Jersey Department of Transportation (NJDOT) Local Aid office. NJDOT and DVRPC distribute and administer infrastructure grants to municipalities in Camden County. Infrastructure improvements must be employed alongside hands-on education, encouragement and enforcement programs to maintain and improve momentum towards achieving the goals set forth by the Safe Routes to School Team. The following entities should undertake the actions listed below and outlined in more detail throughout this document to implement the Clementon Elementary School Travel Plan.



### The Borough of Clementon and Police Department:

- Pursue SRTS Infrastructure grants and other grants through NJDOT and other sources, to implement recommendations identified in Chapter 4.
- Continue enforcement efforts and consider participating in the police pedestrian safety decoy program, also known as “Cops in Crosswalks”, to increase compliance with New Jersey’s “Stop and Stay Stopped” law. Funding for this program can be sought through the New Jersey Division of Highway Traffic Safety.
- Partner with Cross County Connection to design and adopt a Complete Streets policy.
- Establish a Complete Streets advisory committee to develop policies and procedures for evaluation of walking and bicycling infrastructure around Clementon Elementary school.

### Clementon Elementary School and School District:

- Continue partnering with Cross County Connection to continue to implement pedestrian and bicycle safety education and encouragement activities.
- Continue partnering with Cross County Connection on evaluation efforts, such as conducting student travel tallies and parent surveys, in order to modify the SRTS program where necessary.

Through continued partnerships, the expertise of the various partners will create a strong Safe Routes to School program that will ultimately improve walking and bicycling safety for the students and the Clementon community.

### Funding Resources

Implementation of engineering improvements can be expensive. Fortunately, there are funding programs at the state and federal level dedicated to assisting with the implementation of projects that would improve the safety of Clementon Elementary School students walking

and bicycling to school. These funding programs are competitive, have deadlines and the application process requires time to complete. The programs listed below receive far more funding requests than can be obligated. Cross County Connection is available to provide assistance in determining appropriate funding sources and reviewing grant applications.

The funding programs listed below are provided as a general guide and are not an exhaustive list of available sources. For more information on a specific program, please contact the reference agency or refer to guidelines found on the program websites.

#### ***Safe Routes to School (SRTS) Infrastructure Program***

Federal funding is available for SRTS infrastructure projects that improve the safety of children walking or biking to school. The program is administered through NJDOT. Eligible projects may include the design, construction or installation of sidewalks, crosswalks, signals, traffic-calming and bicycle facilities within two miles of an elementary or middle school (K-8). Local and regional governments, school districts and individual schools are eligible to apply and receive direct funding.

In fiscal year (FY) 2018, \$8.62 million was awarded to 18 municipalities for the infrastructure aspect of the SRTS grant. Of the allotted amount, approximately 17% went to South Jersey municipalities. Within the region, grant awards ranged from \$156,000 to \$502,000.

**Program Website:** <https://njdotlocalaidrc.com/federally-funded-programs/safe-routes-to-school>

**Program Contact:** Division of Local Aid and Economic Development, District 4  
New Jersey Department of Transportation  
**Phone:** (856)-486-6618



***Transportation Alternatives Set-Aside Program (TAP)***

The New Jersey Department of Transportation (NJDOT) offers funding for the Transportation Alternatives Set-Aside Program (TA Set-Aside), which is federally funded and administered by NJDOT, in partnership with North Jersey Transportation Planning Authority (NJTPA), the Delaware Valley Regional Planning Commission (DVRPC), and the South Jersey Transportation Planning Organization (SJTPO). This federal funding is set aside to foster more livable communities and promote alternative modes of transportation such as biking and walking. Eligible activities include bikeway construction, acquisition of right-of-way for bikeways and many other projects.

Activities funded by the Transportation Alternatives (TA) Set-Aside were previously funded by the Transportation Alternatives Program (TAP) and the Transportation Enhancements (TE) Program in previous federal transportation bills. A key feature of the TA Set-Aside Program in the current federal transportation bill (FAST Act) is the funding eligibility for projects dedicated to the construction, planning and design of infrastructure projects that provide “safe routes for non-drivers,” which includes children, seniors and persons with disabilities. While NJDOT has historically provided the 20% match required under federal transportation legislation, their level of participation is not guaranteed. Eligible project sponsors for TA Set-Aside funds include any state agency, county or municipal government or private non-profit organization.

***Municipal Aid Program***

Municipal Aid is a state-funded program administered by NJDOT for roadway and bridge improvements, which may include the installation of bicycle and pedestrian facilities. Each county is appropriated funds for their constituent municipalities based on a formula. Municipalities must submit applications detailing a potential project to their local NJDOT District Office.

School districts and individual schools are not eligible to apply for these funds directly, but they should encourage their municipal government to apply for these funds and direct them towards improving bicycle and pedestrian safety around their schools.

**Website:** <https://www.njdotlocalaidrc.com/state-funded-programs/municipal-aid>

**Program Contact:** Division of Local Aid and Economic Development, District 4  
New Jersey Department of Transportation  
**Phone:** (856)-486-6618

***Highway Safety Improvement Program (HSIP)***

The Federal Highway Safety Improvement Program (HSIP) is a program dedicated to reducing fatalities and serious injuries along public roads, including county and local roads. The program is administered locally through the DVRPC and SJTPO, the two MPOs covering South Jersey. The Borough of Clementon would work with DVRPC on HSIP grants.

The application process for HSIP funded programs are data-driven and include problem identification, countermeasure selection and cost-benefit analysis. Proposals must demonstrate a location’s crash history, using multi-year data, and clearly show how suggested improvements will address an identified safety issue in order to reduce crash frequency and/or severity. FHWA’s Proven Safety Countermeasures are recommended to be considered in all HSIP projects. DVRPC staff is available for assistance during the application process if needed.

NJDOT allocates HSIP funding to two programs administered through local MPO’s – the Local Safety Program (LSP) and the High Risk Rural Road Program (HRRRP).

**Local Safety Program (LSP)**

LSP supports the construction of high-impact safety improvements on county and local roadways. Projects funded by this program include new and upgraded traffic signals, signage, pedestrian indications, crosswalks, curb-ramps, pavement markings and other bicycle and pedestrian improvements related to safety and mobility.

**High Risk Rural Roads Program (HRRRP)**

HRRRP provides funding for improvements that address safety problems on roadways functionally classified as rural major collectors, rural minor collectors or rural local roads. Eligible projects must be on roadways with a crash rate that exceeds the statewide average for their functional class. Projects funded through this program have used countermeasures including skid resistant surface treatments, reflective pavement markings and advanced warning signs. HRRRP funds may be used for all phases of a project, including design, right of way acquisition and construction.

In FY 2018, there was \$7 million in HSIP funding available to DVRPC member counties and municipalities.

**Program Website:** <https://www.dvrpc.org/Transportation/Safety/LocalSafetyProgram>

**Program Contact:** Kevin S. Murphy, Delaware Valley Regional Planning Commission (DVRPC), Principal Transportation Planner

**Email:** kmurphy@dvrpc.org

**Phone:** (215) 592-1800

**Transportation and Community Development Initiative (TCDI)**

The Transportation and Community Development Initiative (TCDI) program supports smart growth initiatives that implement the goals of *Connections 2045*, the Delaware Valley Regional Planning Commission's (DVRPC) regional long range plan. Clementon is eligible for this funding source as they are located within DVRPC's region.

The TCDI program is not an infrastructure grant. It supports a wide range of project development initiatives including planning, ordinance design, preliminary engineering, market analysis, feasibility studies and capacity building that spark public or private investment in smart growth.

In FY 2019, a total of six projects within the South Jersey region received funding for a total of \$507,000. The grant awards ranged from \$50,000 - \$100,000. Projects funded within the region include a joint bicycle and pedestrian master plan in Collingswood and Haddon Township, a Burlington County Route 541 corridor study and a downtown circulation plan in Burlington City.

**Program Website:** <https://www.dvrpc.org/TCDI/>

**Program Contact:** Karen Cilurso, Manager, Community Revitalization, Delaware Valley Regional Planning Commission

**Email:** kpcilurso@dvrpc.org

**Phone:** (215) 238-2876

**Sustainable Jersey Program**

The Sustainable Jersey program identifies resources to help municipalities and/or schools develop a comprehensive sustainable community program. This includes financial resources in the form of grants and incentives, and technical support in the form of training, access to support organizations, and guidance material.

Through Sustainable Jersey for Schools, actions such as adopting a Safe Routes to School District policy (school district only), creating a school travel plan and pedestrian and bicycle safety and promotion initiatives can help schools and school districts earn points towards Sustainable Jersey certification. Funding and grants are available as well for schools and school districts that are recognized through the Sustainable Jersey Certification program.

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**Program Website:** [www.sustainablejersey.com](http://www.sustainablejersey.com)

**Email:** [grants@sustainablejersey.com](mailto:grants@sustainablejersey.com)

**Phone:** (609)-771-2836

**Fax:** (609)-637 5162

### Summary

The Clementon Elementary School Travel Plan was created through the collaborative efforts of the Clementon Safe Routes to School Working Group and Cross County Connection TMA. This Travel Plan was undertaken to address Clementon Elementary School's interest in improving and incorporating new bicycle and pedestrian infrastructure to create a safer walking and bicycling environment for students to travel to and from school. The Clementon Elementary School Travel Plan outlines the potential safety issues and concerns regarding pedestrian and bicycle infrastructure within close proximity to the school, and offers recommendations to address the areas of concern.

The sustained success of any effort to increase walking and bicycling to school will require continued partnership among local and regional organizations. Infrastructure improvements must coincide with hands-on education and encouragement programs to maintain momentum towards achieving the goals set forth by the School Travel Plan. Clementon Elementary School has demonstrated through current and past efforts, that they are committed to creating a community that promotes healthy and active lifestyles for students, as well as providing a safe environment for walking and bicycling.

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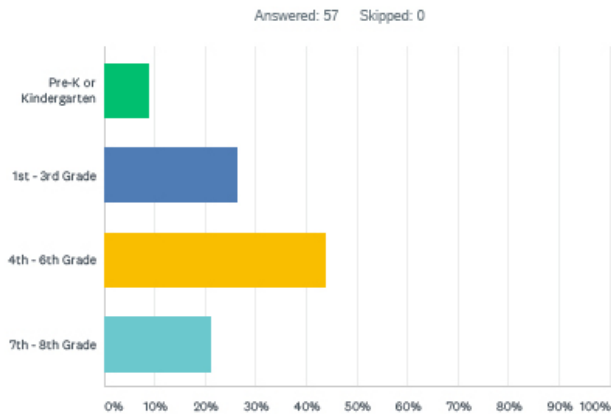
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## **APPENDIX 1:**

# **CLEMENTON ELEMENTARY SURVEY RESULTS**

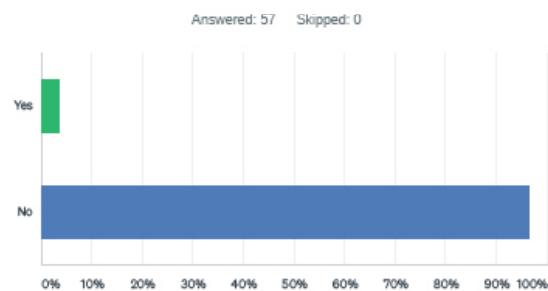
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## 1. What grade is your child currently enrolled?



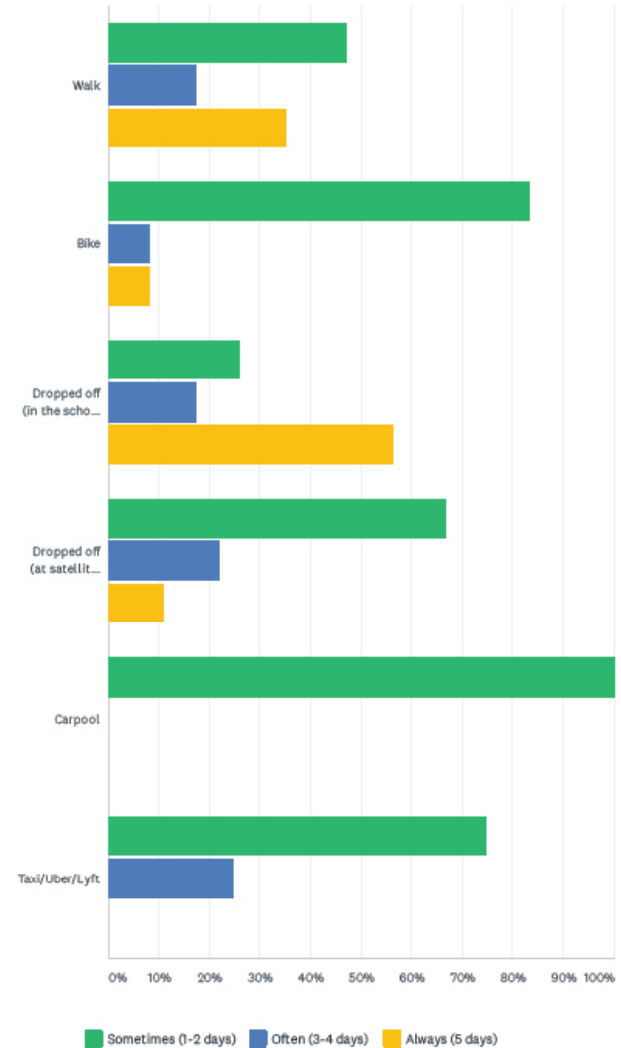
| ANSWER CHOICES        | RESPONSES |           |
|-----------------------|-----------|-----------|
| Pre-K or Kindergarten | 8.77%     | 5         |
| 1st - 3rd Grade       | 26.32%    | 15        |
| 4th - 6th Grade       | 43.80%    | 25        |
| 7th - 8th Grade       | 21.05%    | 12        |
| <b>TOTAL</b>          |           | <b>57</b> |

## 2. Does your child have a disability that prevents them from walking or biking to school?



| ANSWER CHOICES | RESPONSES |           |
|----------------|-----------|-----------|
| Yes            | 3.51%     | 2         |
| No             | 96.49%    | 55        |
| <b>TOTAL</b>   |           | <b>57</b> |

## 3. In a typical week, how often does your child use the following travel modes to get to school?

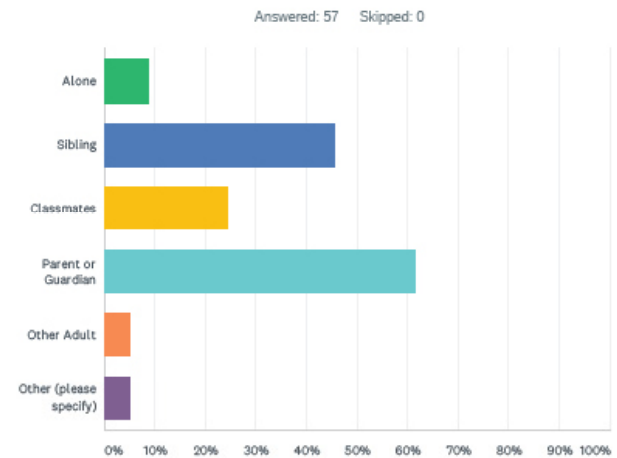


### 3. In a typical week, how often does your child use the following travel modes to get to school? - Con't

|   | SOMETIMES (1-2 DAYS) | OFTEN (3-4 DAYS) | ALWAYS (5 DAYS) | TOTAL |
|---|----------------------|------------------|-----------------|-------|
| Walk                                    | 47.06%<br>16         | 17.65%<br>6      | 35.29%<br>12    | 34    |
| Bike                                    | 83.33%<br>10         | 8.33%<br>1       | 8.33%<br>1      | 12    |
| Dropped off (in the school parking lot) | 26.09%<br>12         | 17.39%<br>8      | 56.52%<br>26    | 46    |
| Dropped off (at satellite location)     | 66.67%<br>6          | 22.22%<br>2      | 11.11%<br>1     | 9     |
| Carpool                                 | 100.00%<br>4         | 0.00%<br>0       | 0.00%<br>0      | 4     |
| Taxi/Uber/Lyft                          | 75.00%<br>3          | 25.00%<br>1      | 0.00%<br>0      | 4     |

| # | OTHER (PLEASE SPECIFY)                             | DATE               |
|---|--|--------------------|
| 1 | My kid never walks unsafe                          | 12/4/2019 4:33 PM  |
| 2 | Currently she gets the bus with being in preschool | 12/3/2019 9:33 AM  |
| 3 | No answer  | 11/26/2019 1:18 PM |

### 4. With whom do you usually travel?

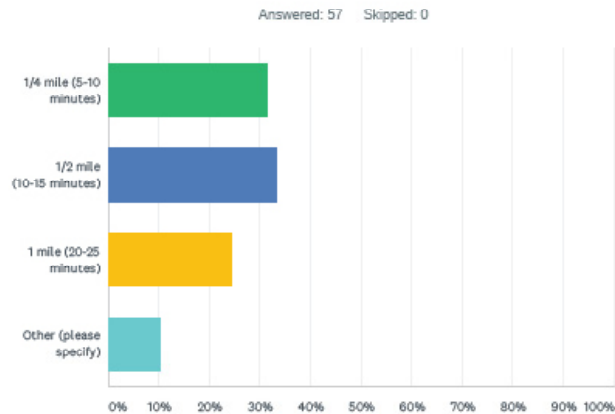


| ANSWER CHOICES         | RESPONSES |
|------------------------|-----------|
| Alone                  | 8.77% 5   |
| Sibling                | 45.61% 26 |
| Classmates             | 24.56% 14 |
| Parent or Guardian     | 61.40% 35 |
| Other Adult            | 5.26% 3   |
| Other (please specify) | 5.26% 3   |
| Total Respondents: 57  |           |

| # | OTHER (PLEASE SPECIFY) | DATE               |
|---|------------------------|--------------------|
| 1 | Neighbors kids         | 12/13/2019 8:39 AM |
| 2 | Friends                | 12/3/2019 6:39 PM  |
| 3 | Bus                    | 12/3/2019 9:33 AM  |



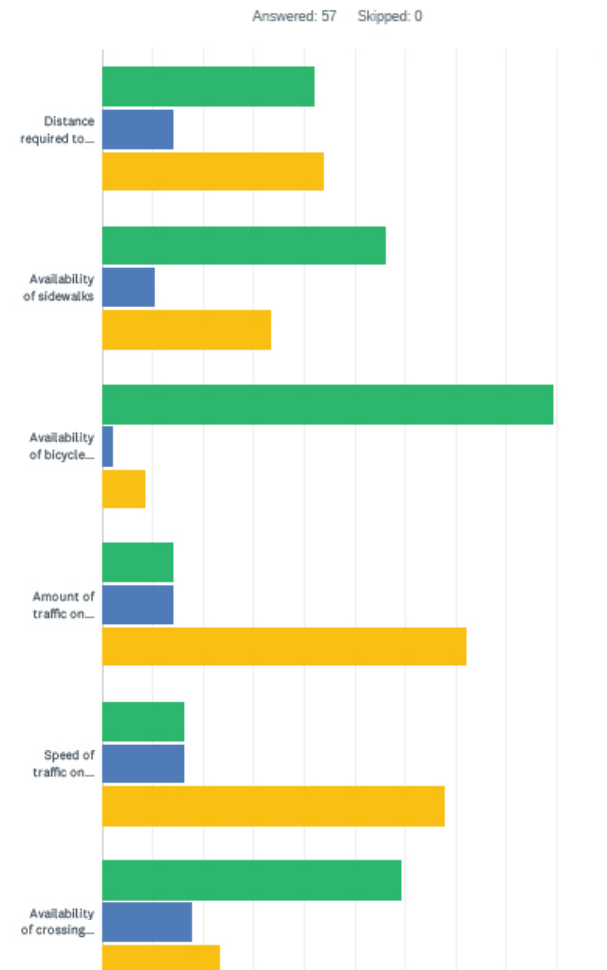
## 5. What do you consider a comfortable distance for your children to walk to school?



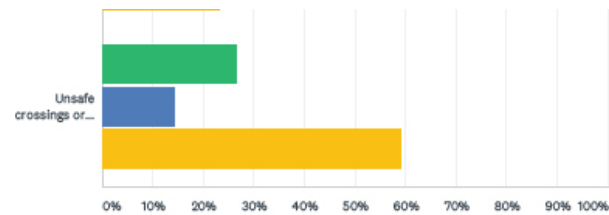
| ANSWER CHOICES           | RESPONSES |
|--------------------------|-----------|
| 1/4 mile (5-10 minutes)  | 31.58% 18 |
| 1/2 mile (10-15 minutes) | 33.33% 19 |
| 1 mile (20-25 minutes)   | 24.56% 14 |
| Other (please specify)   | 10.53% 6  |
| TOTAL                    | 57        |

| # | OTHER (PLEASE SPECIFY)   | DATE              |
|---|--|-------------------|
| 1 | A block  | 12/4/2019 4:33 PM |
| 2 | Due to the high volume/busy roads, I personally don't feel comfortable with them walking at all since we live almost 2 miles from the school | 12/3/2019 9:36 AM |
| 3 | It's too far for my preschooler to walk  | 12/3/2019 9:33 AM |
| 4 | Will not walk due to his autism and the busy road  | 12/3/2019 9:08 AM |
| 5 | Two blocks   | 12/3/2019 8:59 AM |
| 6 | None   | 12/3/2019 8:55 AM |

## 6. What are the issues children in Clementon face when walking and biking to school?



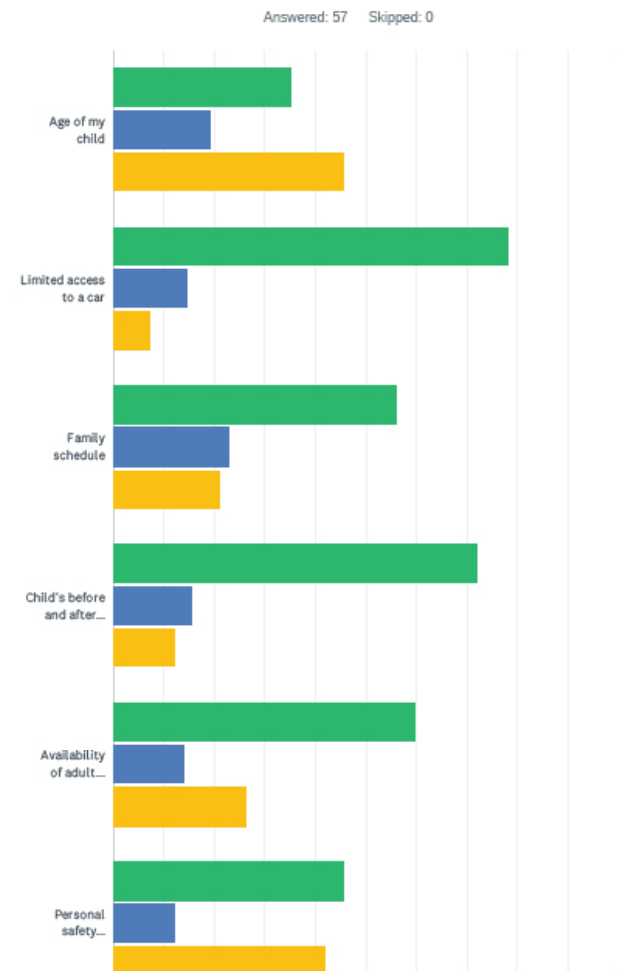
## 6. What are the issues children in Clementon face when walking and biking to school? - Con't



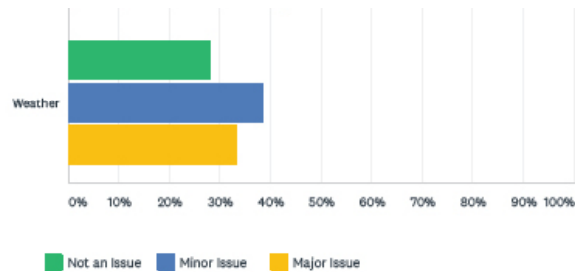
Not an issue Minor issue Major issue

|  | NOT AN ISSUE | MINOR ISSUE  | MAJOR ISSUE  | TOTAL |
|--|--------------|--------------|--------------|-------|
| Distance required to travel to and from school | 42.11%<br>24 | 14.04%<br>8  | 43.86%<br>25 | 57    |
| Availability of sidewalks                      | 56.14%<br>32 | 10.53%<br>6  | 33.33%<br>19 | 57    |
| Availability of bicycle parking                | 89.36%<br>42 | 2.13%<br>1   | 8.51%<br>4   | 47    |
| Amount of traffic on roads                     | 14.04%<br>8  | 14.04%<br>8  | 71.93%<br>41 | 57    |
| Speed of traffic on roads                      | 16.07%<br>9  | 16.07%<br>9  | 67.86%<br>38 | 56    |
| Availability of crossing guards                | 58.93%<br>33 | 17.86%<br>10 | 23.21%<br>13 | 56    |
| Unsafe crossings or intersections              | 26.79%<br>15 | 14.29%<br>8  | 58.93%<br>33 | 56    |

## 7. What are the issues you consider in your decision to allow your child to walk and/or bike to school?



## 7. What are the issues you consider in your decision to allow your child to walk and/or bike to school? - Con't



|  | NOT AN ISSUE | MINOR ISSUE  | MAJOR ISSUE  | TOTAL |
|--|--------------|--------------|--------------|-------|
| Age of my child  | 35.09%<br>20 | 19.30%<br>11 | 45.61%<br>26 | 57    |
| Limited access to a car  | 78.18%<br>43 | 14.55%<br>8  | 7.27%<br>4   | 55    |
| Family schedule  | 56.14%<br>32 | 22.81%<br>13 | 21.05%<br>12 | 57    |
| Child's before and after school activities                     | 71.93%<br>41 | 15.79%<br>9  | 12.28%<br>7  | 57    |
| Availability of adult supervision                              | 59.65%<br>34 | 14.04%<br>8  | 26.32%<br>15 | 57    |
| Personal safety (bullying, theft, abandoned buildings, etc...) | 45.61%<br>26 | 12.28%<br>7  | 42.11%<br>24 | 57    |
| Weather  | 28.07%<br>16 | 38.60%<br>22 | 33.33%<br>19 | 57    |

