HADDON HEIGHTS SCHOOL DISTRICT

ATLANTIC AVENUE • GLENVIEW AVENUE • SEVENTH AVENUE

JUNE, 2018 SCHOOL TRAVEL PLAN

NEW JERSEY
Safe Routes to School

CROSS COUNTY CONNECTION
TRANSPORTATION MANAGEMENT ASSOCIATION

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Haddon Heights School Travel Plan:

Atlantic Avenue Elementary
Glenview Avenue Elementary
Seventh Avenue Elementary

Prepared by:
Cross County Connection Transportation Management Association

June 2018

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.

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1. INTRODUCTION

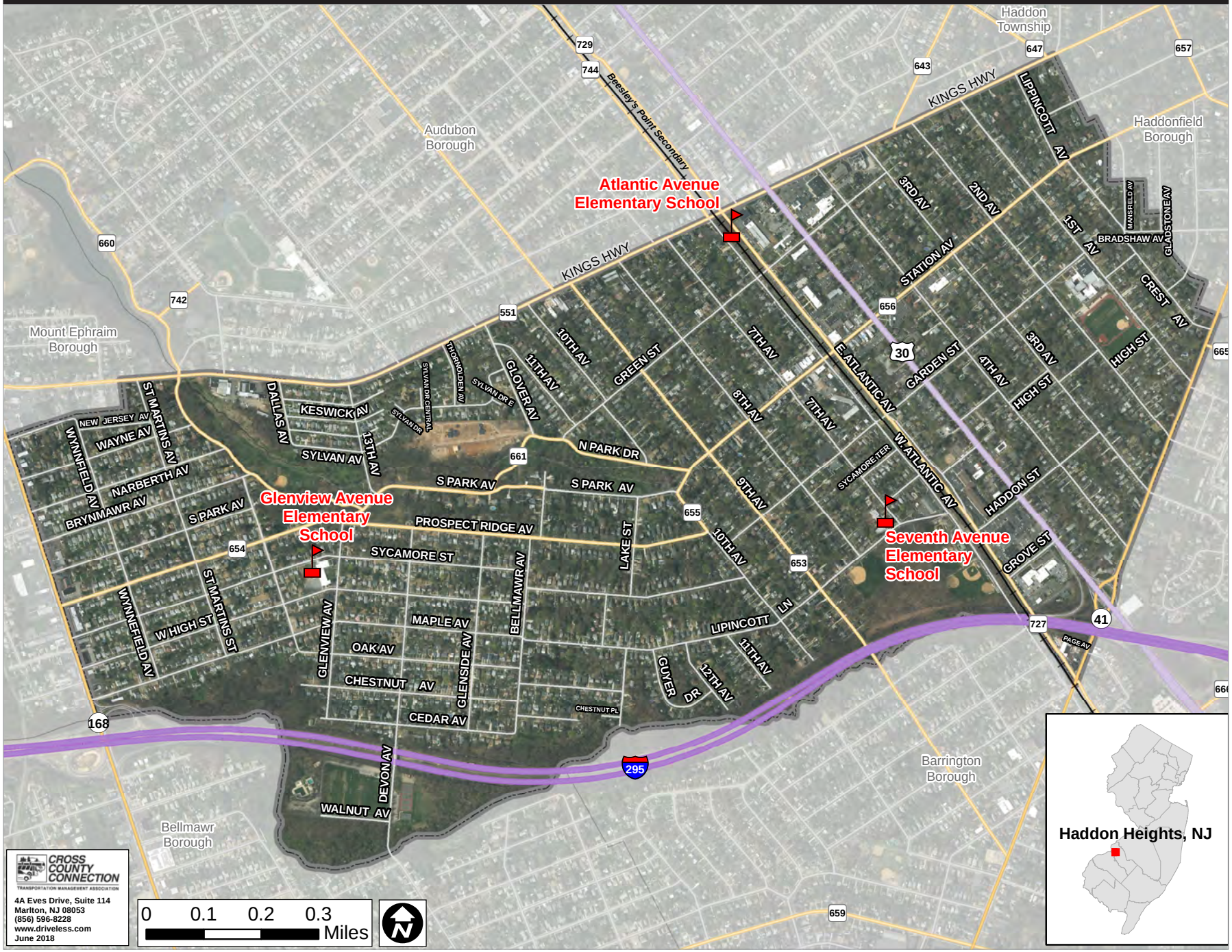
Less than 10 miles from Center City Philadelphia, is a quaint town called Haddon Heights. Home to a population of about 7,500 people with an area of 1.6 square miles, it is half the size of its neighbors, Haddonfield Borough and Haddon Township. Haddon Heights touts itself as a small town, "friendly community," and celebrates the fact that its children still walk to school.

Haddon Heights, shown on Map 1, was laid out in 1890 as a planned community, centered around a train station for the Atlantic City Railroad. The town was named Haddon Heights due to a higher elevation compared to its long established neighbor, Haddonfield. Small hills remain a noticeable feature when walking through the community. Since the town was planned around a train station, it features a traditional neighborhood design, with streets primarily laid out in a dense grid pattern. This provides an inherent walkable character to the borough.

Haddon Heights is located along several of the region's busiest roadways - the Black Horse Pike (Route 168), the White Horse Pike (Route 30) and Interstate 295. Kings Highway (CR 551 Spur) and Station Avenue (CR 656) are additional roadways in the community that handle a high volume of traffic. The locations of these roads, with respect to the schools are shown in Map 1.

The White Horse Pike is a busy commercial highway, which bisects the town and functions as the borough's professional office district. Station Avenue is Haddon Heights Main Street, with a two block section, west

MAP 1: LOCATION OF HADDON HEIGHTS BOROUGH, CAMDEN COUNTY, NJ



of the White Horse Pike, which serves as a traditional downtown with shops, restaurants and other small businesses lined along wide sidewalks.

The Haddon Heights Public School District serves students in pre-kindergarten through twelfth grade. The district consists of four public schools: three elementary schools serving grades pre-kindergarten through sixth grade; and a combined junior high and high school serving grades seven through 12. This School Travel Plan focuses on the three elementary public schools: Atlantic Avenue Elementary School (Pre-K – 6th), Seventh Avenue Elementary School (K – 6th) and Glenview Avenue Elementary School (K – 6th). The locations of these schools within Haddon Heights Borough are shown in Map 1.

Each school recognizes the importance of active transportation to the physical and environmental health of the children and the community. These schools seek 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, Haddon Heights Borough and School District have partnered with Cross County Connection to develop a Safe Routes to School (SRTS) Travel Plan. The Haddon Heights School Travel Plan was created in collaboration with representatives from Haddon Heights Borough, Haddon Heights Police Department, elementary school faculty and the Parent Teacher Association.

Goals

The purpose of the School Travel Plan is to provide a summary 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 Atlantic Avenue, Glenview Avenue and Seventh Avenue Elementary Schools. These objectives are consistent with the National Safe Routes to School Program goals for improving health of schoolchildren through increased activity, increased travel safety, and reducing reliance on motor vehicles to get to and from the 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

Report Overview

Chapter 2 assesses existing conditions of the student travel environment in Haddon Heights. Chapters 3 and 4 address the first “E” of the Safe Routes to School process- Engineering. Chapter 3, provides an overview of pedestrian and bicycle safety audit findings and describes potential infrastructure improvements to enhance safety of children walking and bicycling to school. Chapter 4 further discusses these audit findings and identifies specific issues and infrastructure improvements that should be considered in the immediate areas surrounding Haddon Heights’ three elementary schools. Chapter 5 details how to integrate the remaining 4 E’s of the Safe Routes to School Program – Education, Encouragement, Enforcement and Evaluation –by identifying actions and programs to encourage more students to safely walk or bike to school. Chapter 6 summarizes the findings and includes a list of resources to assist Haddon Heights Borough and Haddon Heights Public Schools with advancing their Safe Routes to School initiative.

Working Group

This Travel Plan was developed by Cross County Connection in partnership with the SRTS Working Group (refer to Table 1).

Table 1: Safe Routes to School Travel Plan Working Group

Organization	Role	Contact
Cross County Connection TMA	SRTS Program Assistance	Latifah Sunkett, SRTS Coordinator Sunkett@driveless.com
Cross County Connection TMA	SRTS Program Assistance	Patrick Farley, Sr. Land Use & Transportation Planner Farley@driveless.com
Atlantic and Seventh Avenue Elementary	Implementation	Chris Ormsby, Principal Ormsbyc@hhsd.k12.nj.us
Glenview Avenue Elementary	Implementation	Sam Sassano, Principal sassanos@hhsd.k12.nj.us
Atlantic Avenue School Parent Representative	Implementation	Kathryn Russo k8prusso@gmail.com
Seventh Avenue School Parent Representative	Implementation	Elizabeth Madden, Ehmadden1@yahoo.com
Haddon Heights Parent Teacher Group, Glenview Avenue School Parent Representative	Implementation	Danielle Linaris, Secretary dalinaris@gmail.com
Borough of Haddon Heights	Implementation	Bryan Schroeder, Borough Council bryanpschroeder@gmail.com
Haddon Heights Police Department	Enforcement	Brett Lightner, Patrolman blightner@haddonhts.com

Study Area and Scope

This Travel Plan was prepared for the members of the Haddon Heights Public Schools SRTS Working Group. It focuses on two components of a safe walking and biking environment:

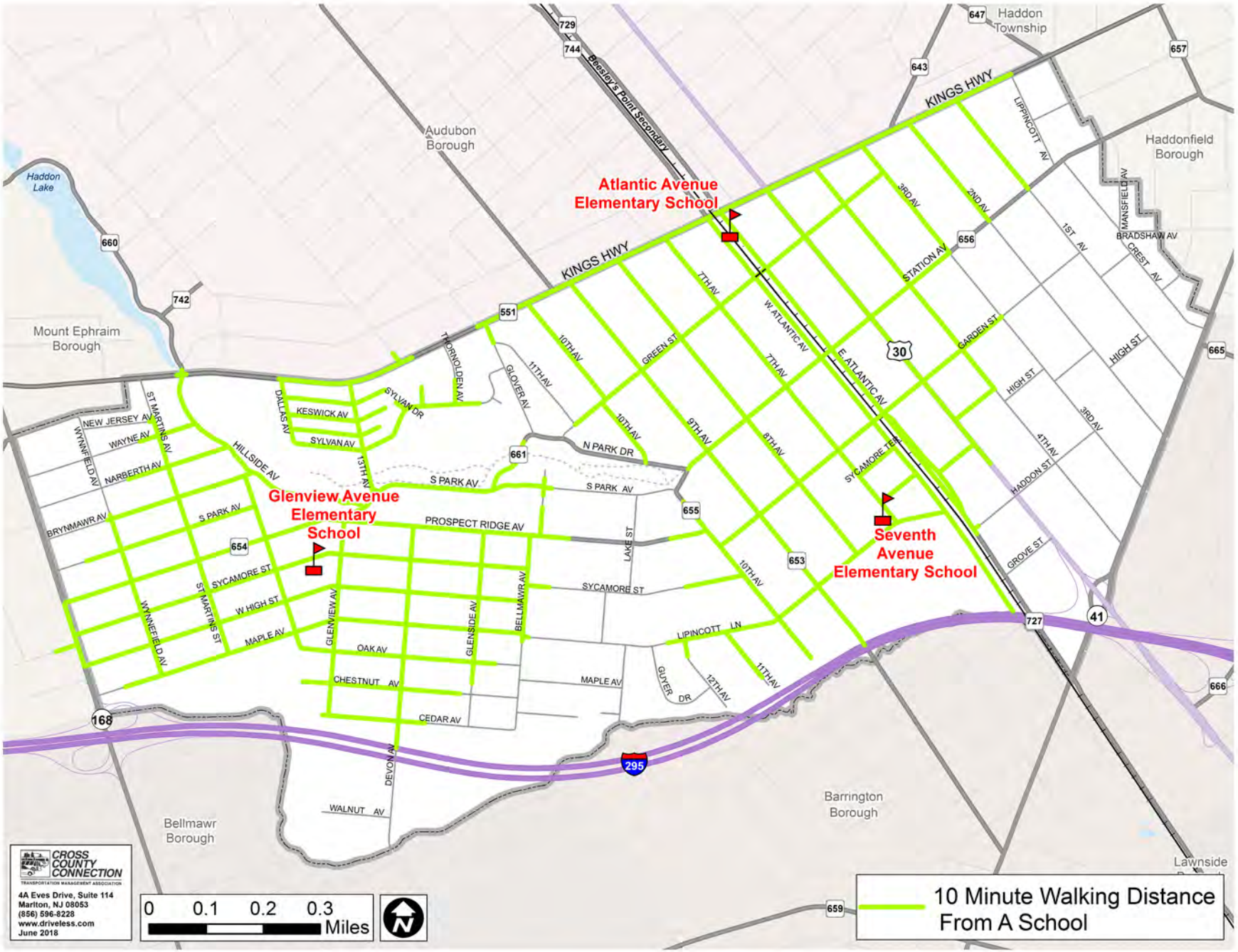
1. Walking and biking infrastructure
2. Non-infrastructure interventions, such as programs and policy

The infrastructure component of this Travel Plan considers the physical characteristics of Haddon Heights Borough's walking and bicycling environment from the perspective of students aged 5-12. Physical environment observations, analysis and recommendations are limited to areas where students can reasonably walk or bike to school, based on methodology developed by the National Center for Safe Routes to School (NCSRTS). A study area of an approximate ten-minute (half-mile) walk from each of the three schools was selected as the study areas for this Travel Plan: Atlantic Avenue, Glenview Avenue and Seventh Avenue Elementary Schools. The range of student travel within ten minutes is illustrated in Map 2. Approximately 47% of Atlantic Avenue, Glenview Avenue and Seventh Avenue Elementary students live within a ten minute walking distance from school.

Infrastructure recommendations largely stem from an audit process where documented student travel corridors, major student road crossings, and locations with recorded pedestrian and bicycle crashes were given the closest scrutiny.

Non-infrastructure recommendations are directed towards elementary school administration and faculty, Haddon Heights School District, Haddon Heights Police Department and Haddon Heights 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, which suit the needs of Haddon Heights Borough's small town setting.

MAP 2: TRAVEL PLAN SCOPE OF STUDY



Haddon Heights Borough ordinances and municipal activities were also considered.

Recommendations are directed towards the following outcomes that support this Travel Plan's goals:

- Create a safe and attractive environment that encourages students who live within a 10 minute walk to regularly walk or bike to school
- Improve infrastructure where needed to encourage biking to school
- Allow students and families living beyond a ten 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
- 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
- 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 Descriptions

Atlantic Avenue Elementary and Seventh Avenue Elementary Schools are closest in proximity, located on the east-side of Haddon Heights. Glenview Avenue Elementary School is on the west side of the borough. As Maps 3 through 5 show, students' home locations are dispersed throughout the borough. However, as expected, students attend the school closet to their home locations. Table 2 shows the number of students living within a 1/4 and a 1/2 mile from their school. These distances equate to approximately a five minute and ten minute walk to school respectively.

Table 2: Students Residing ¼ & ½ mile from School

School	# within 1/4 mile	% within 1/4 mile	# within 1/2 mile	% within 1/2 mile	Total Enrollment
Atlantic Avenue	7	5%	43	28%	156
Seventh Avenue	20	15%	84	64%	131
Glenview Avenue	71	26%	136	49%	278

Atlantic Avenue Elementary School

Of the 150 students attending Atlantic Avenue (pre-K–6) only seven students live within a quarter mile and 43 students live within a half mile from school. Green Street and East Atlantic Avenue are the designated streets for parents to drop-off and pickup students. Atlantic Avenue School's student home locations are shown in Map 3.

Seventh Avenue Elementary School

Seventh Avenue Elementary (K-6) has the smallest student body, with approximately 130 students. Only 15% of the student body lives within a quarter mile and 64% live within a half mile of the school. The school is adjacent to Haddon Heights Park, which includes a playground and multiple baseball and softball fields and is located across High Street from the school. Seventh Avenue and High Street are where parents are directed to drop-off and pick-up students. Parents are instructed to drop students off curbside on Seventh Avenue, on the same side of the street as the school building during arrival. During dismissal, parents are to park on High Street and have students walk to their cars. Seventh Avenue School's student home locations are shown in Map 4.

Glenview Avenue Elementary School

Glenview Avenue Elementary is the largest of the three elementary schools, with approximately 278 students. Of the 278 students, only 26% live within a quarter mile and 49% within a half mile of the school. It has one designated area for student drop-off, along West High Street, where parents are encouraged to park and walk students to the gate or to drop

students off curbside only. Students are dismissed from exits located on West High Street, Glenview Avenue and Sycamore Street, based on grade level. Parents who are picking up students meet their child near the exit from which they are being dismissed. Parents who drive may park in locations that are not directly in front of the school entrances and exits. Glenview Avenue School's student locations are shown in Map 5.

Morning and After School Care

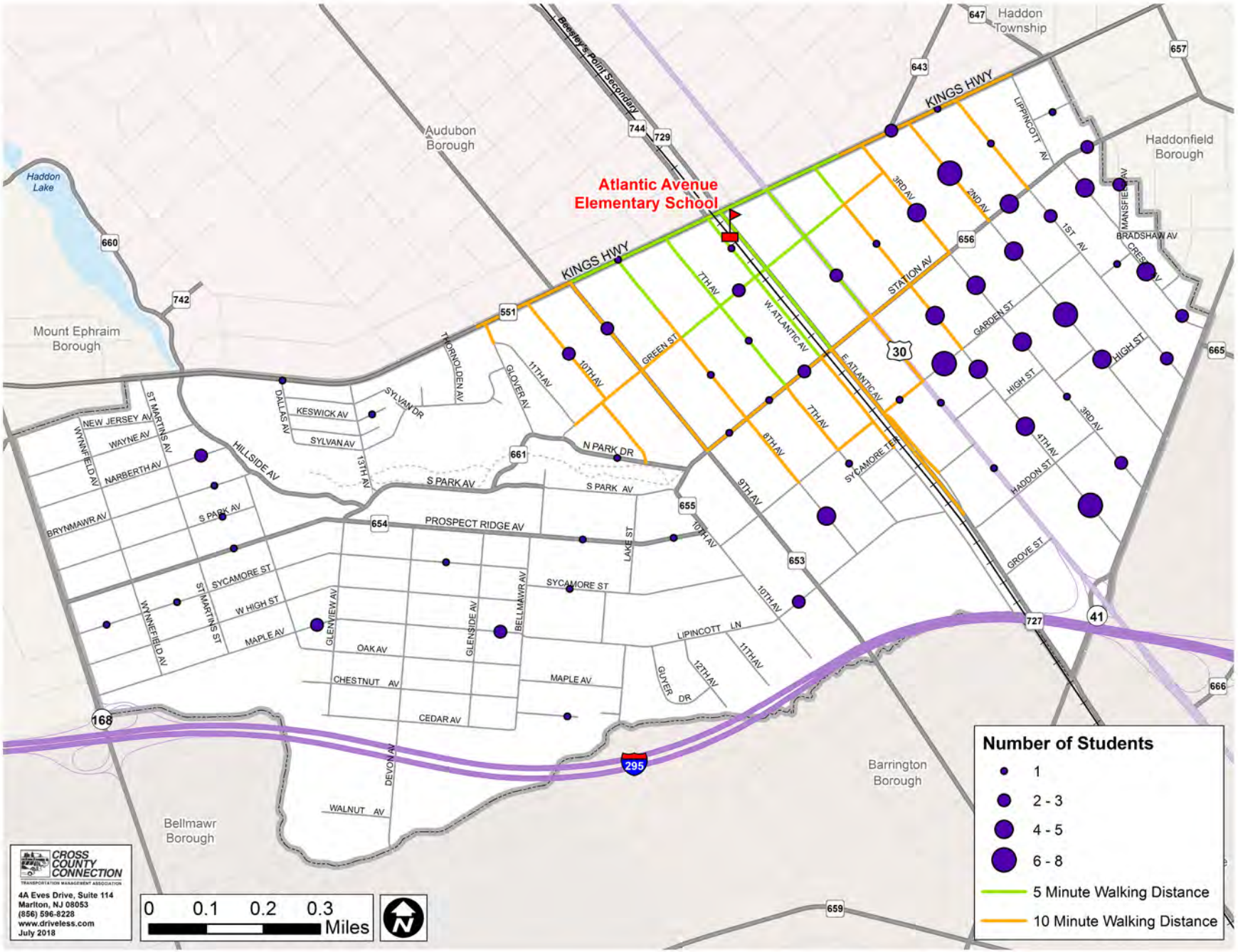
Child-care needs can impact student travel options and mode choice. Each school provides before- and after-care. Morning care hours are from 7:30 a.m. to 8:30 a.m. and available every day school is in session except when there is a one to two hour delayed opening. Each school offers the option of kindergarten aftercare through the school from 11:25 a.m. to 3:00 p.m. The schools then host the YMCA After-School Program from 3:00 p.m.-6:30 p.m. and serves grades K-6th. On half days, the YMCA After-School Program runs from 12:45 p.m.-6:30 p.m. There is a small percentage of total student body participating in morning and after school care hours, which has been recorded in Table 3.

Table 3: Students Enrolled in Before-and-After School Care Programs

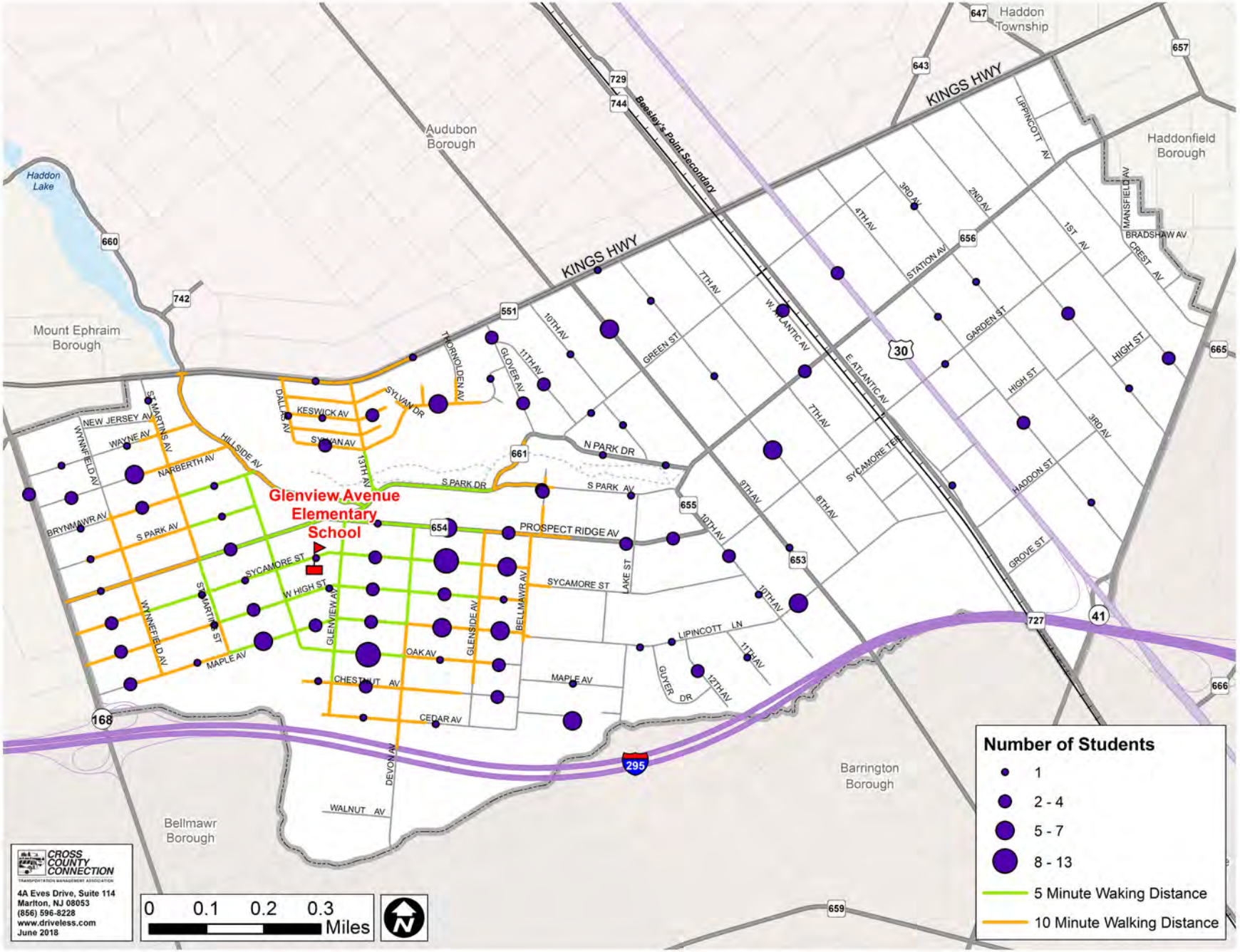
School	# AM Care students	% of total student body	# PM Care students	% of total student body	Total Population
Atlantic Avenue	15	10%	13	8%	156
Seventh Avenue	14	11%	13	10%	131
Glenview Avenue	10	4%	33	12%	278

Programs and activities should be developed for these children so they may participate in walk to school events that occur at the beginning of the school day. Special programs can also be developed and implemented while in these students are in the before/after care programs.

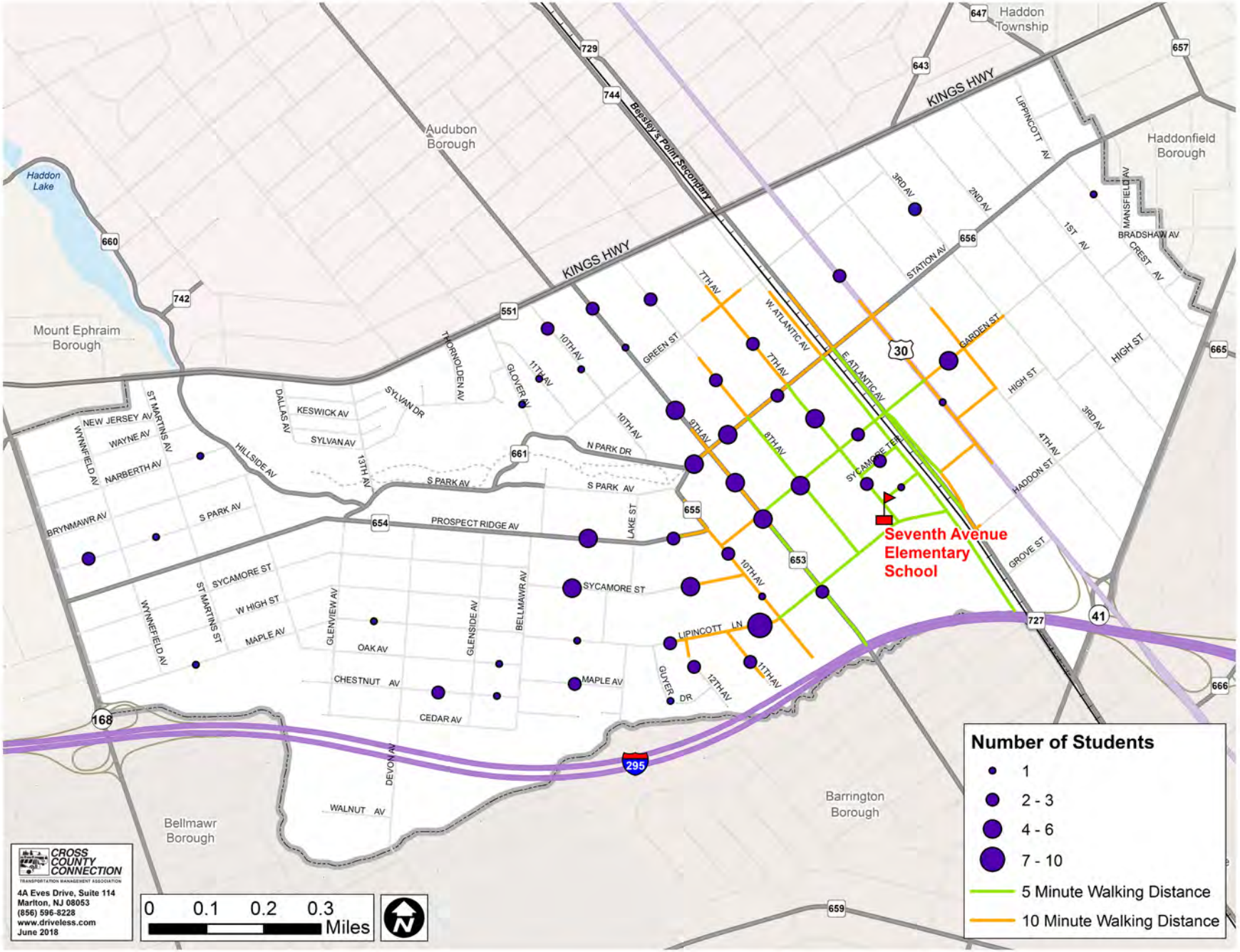
MAP 3 ATLANTIC AVENUE SCHOOL STUDENT LOCATIONS:



MAP 4: GLENVIEW AVENUE SCHOOL STUDENT LOCATIONS



MAP 5: SEVENTH AVENUE SCHOOL STUDENT LOCATIONS



2. EXISTING CONDITIONS

School Policies, Practices and Programs

The Haddon Heights School District is a walking-friendly district. Walking districts are common in geographically small municipalities, such as Haddon Heights, 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 Haddon Heights Schools' Principals, school policy toward walking is the same for each school. A child should:

- Start to school early enough to allot ample time for walking to school.
- Walk on the sidewalk
- If there is no sidewalk, (s) he should walk on the left side of the road facing traffic.
- Cross the street from the curb only when the police officer, crossing guard and/or safety patrol member gives permission.
- Not get out of automobiles in the middle of the street. Encourage them to get out at a curb and cross the street only where the crossing guard or safety patrol members are watching.
- Not touch or play with strange dogs, cats and other animals at any time. Dogs should be kept from following children to school. Animals are not permitted on school grounds.
- Not throw rocks, sticks, snow or ice at others or automobiles

- Report home immediately after school is dismissed. Loitering children are likely to get into unsafe situations.
- In September of every school year, all parents and/or guardians are asked to inform the school if their child(ren) has permission to walk home on a daily basis or if they will be picked up at the end of the school day.
- At dismissal time, students who walk will be dismissed first and students being picked up by a designated individual will be dismissed directly following walkers.

Additional Programs and Policies

The Haddon Heights School District supports an inclusion model to achieve the goal of having all special education students being included in the classroom with their general education peers. Varied special education programming options are offered district-wide to achieve this goal and support students and their individual educational needs. Students who engage in these programs are also offered busing which is approximately 4% of students' total. Below is a brief description of some of the programs:

Choice program: Haddon Heights offers the Choice Program, which is a program that enables approved Choice Districts to enroll K-12th grade students who do not reside within their districts without cost to their parents. The program increases educational opportunities for students and their families by giving parents the power to select a school program that best serves their child's individual needs. Busing is offered to students in the Choice Program.

Individualized education program (IEP): This program is designed to provide students with an educational plan that suits their specific needs. Busing is provided for those who are a part of the Individual Education Program (IEP). Glenview Avenue Elementary School is the only school that provides this service.

Municipal Policies and Practices

Haddon Heights Board of Education has passed a Resolution of Support for the Safe Routes to School Program, demonstrating a commitment to advancing the non-infrastructure components of the program. In terms of infrastructure, Haddon Heights Borough adopted a Complete Streets policy in 2014, demonstrating its commitment to improving safety for pedestrians, bicyclists, and other roadway users.

Complete Streets are roadways designed for users of all modes of travel, and any age or ability. A "complete street" will vary depending on local context, but common elements include sidewalks, crosswalks, curb ramps, bicycle lanes, and transit shelters. A Complete Streets policy directs transportation planners, engineers, other government staff and officials to consider and balance the needs of everyone using the road in transportation projects. It helps formalize the idea and practice of routinely accommodating all users in transportation projects.

Travel Mode

Student travel tallies are an analysis of student travel modes. The tallies were conducted by teachers at each school: Atlantic Avenue, Glenview Avenue and Seventh Avenue Elementary School (in April 2018) over a three day period (Tuesday, Wednesday, Thursday). The tallies were collected and averaged over three days to lessen the impact of student absences and weather conditions. The tables below show an average of student travel over three days. Results are shown for both morning arrivals in Table 4 (AM) and afternoon departure in Table 5 (PM) to determine if there are fluctuations in travel mode choice.

When collecting travel tallies, there was no distinction made between students who attend 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 largely impacted by the

students in before- and after-care, as the average number of students is 11% of the total student population.

Table 4: Student Population Travel Mode for AM ARRIVAL

Travel Mode	AA Students	% of Total	GA Students	% of Total	SA Students	% of Total
Walk	37	24%	61	22%	35	27%
Bike and Other Wheels	2	1%	5	2%	4	3%
Bus	11	7%	11	4%	0	0%
Car	100	64%	186	67%	81	62%
Carpool	8	5%	14	5%	11	8%
Total # of Students	158	--	277	--	131	--

Percentages may not total 100% due to rounding.

Table 5: Student Population Travel Mode for PM DISMISSAL

Travel Mode	AA Students	% of Total	GA Students	% of Total	SA Students	% of Total
Walk	62	40%	111	40%	58	44%
Bike and Other Wheels	3	1.7%	8	2.8%	6	4.6%
Bus	5	3%	14	5%	0	0%
Car	80	51%	131	47%	62	47%
Carpool	5	3%	14	5%	7	5%
Total # of Students	155	--	278	--	133	--

Percentages may not total 100% due to rounding.
In all tables: AA = Atlantic Avenue Elementary School, GA = Glenview Avenue Elementary School, SA = Seventh Avenue Elementary School

Atlantic Avenue Elementary School travel tallies were conducted during the week of April 23rd, 2018. 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, 69% of students traveled to school by car and during PM departure, 54% traveled by car, which suggests that 100 or more cars are converging on Atlantic Avenue's school grounds twice per day.

Approximately, a third of the student population is walking to and from school which indicates that some students are comfortable walking to school. Less than 10 students utilize bicycles or other wheels to get to school. This also shows that there may be opportunities to utilize safe routes to school non-infrastructure and infrastructure programming to encourage more students living nearby to bicycle and walk to school on a regular basis.

Glenview Avenue Elementary School travel tallies were also conducted during the week of April 23rd, 2018. The travel mode of 278 students was collected. Glenview saw higher rates of students traveling by car, when compared to Atlantic Avenue. While the percentage of those traveling by car is approximately the same as Atlantic Avenue at 71%, Glenview has double the students at 278. This number does decrease during PM departure with 52% traveling by car while the number of students walking increases from 22% in the AM to 40% in the PM. Though the increase in walking during the PM is significantly greater, there is still an opportunity to encourage more students to walk. At Glenview, less than 20 students rely on bicycles and others wheels to travel to school.

Seventh Avenue Elementary School travel tallies were conducted April 24th-26th. Due to rain, the travel tallies may not reflect the typical day of travel. As with the other schools, the walking rates at Seventh Avenue Elementary School are not high with only 27% walking during AM arrivals but 70% arriving in a vehicle. This number increases when the numbers of cars decrease during PM departures with 44% walking and 52% departing in a vehicle.

In all cases, when analyzing the student travel mode data from each school, the usage of bus, bike and other wheels accounts for less than 10% of the student population.

Student PM Dismissal at Glenview Avenue Elementary

The high percentage of students driven to school may be due to the fact that 30-40% of the student population from each school lives outside the ½ mile radius of their designated school. This is a high percentage, which makes bicycling and walking almost impossible. Therefore, infrastructure becomes a greater part of the focus when students are bicycling and walking to school. Also a factor, Haddon Heights Borough serves students from neighboring towns such as Barrington, Lawnside and Merchantville so students have to cross major roads like the White Horse Pike to get to school.

It seems some older students who are in 4th-6th grade and live within a half mile from the school will walk and bicycle to school. Younger students do not commonly walk or bike to school and if they do, they are accompanied by a parent. This is often the case because parents believe their children are 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 pedestrian infrastructure along some roads such as the White Horse Pike, East and West Atlantic Avenue, Prospect Ridge Boulevard and Station Avenue.

Due to the fact that some students live outside the borough, 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 who live within a half mile from the school, become more reassured and less hesitant to walk and bicycle to and from school.

Parent Concerns

Parents of students enrolled in Haddon Height's elementary schools were invited to share their thoughts to the Safe Routes to School Working Group members regarding how their children travel to and from school and the transportation issues they encounter. This was done to get a firsthand perspective from those ultimately responsible for determining how students will travel to and from school and to understand other factors that may prevent students from walking or bicycling to school. Responses helped identify the barriers preventing more students from bicycling and walking to school, as well as the conditions around the school during arrival and dismissal that impact every student regardless of their mode of travel. Common parent concerns are listed in Table 6.

Parents who are reluctant to allow their child to walk to school were asked to identify their specific concerns and provided open-ended

responses to the question asking them to identify their concerns. The responses recorded in the chart below were grouped into categories and based on the common themes identified in their answers.

Table 6: Common Parent Concerns

Parent Concern	Reasoning
Proximity	Students' homes are too far from their school to bicycle or walk
Age	Parents specifically cite that their child is too young to bicycle or walk
Lack of Supervision	Parents cite that 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;.
Stranger Danger	Parents tend to be less inclined to allow their child to walk due to perceived threats from others
Major Road Crossings	Parents identified certain locations, crossings and busy streets near the schools which are their greatest concern. The streets frequently mentioned were White Horse Pike, East and West Atlantic Avenue and Station Avenue.
Medical and Disability	Parents cite medical condition or disability as a barrier to their child bicycling or walking
Infrastructure	Missing or poor infrastructure was a leading concern, such as lack of sidewalks or damaged sidewalks and crosswalks with poor visibility
Other	Parents cited other reasons that were less prevalent and more specific to their particular situations

Crossing major streets was the most common concern cited by parents living within a half-mile from school that do not allow their child to walk. This concern along with lack of infrastructure was among the most prevalent responses shared by parents. General safety concerns, which includes age and lack of supervision, related to areas with high traffic volume was also a common theme found in responses from parents at all schools.

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 the rest of this chapter and in Chapters 3 and 4. With some parents citing concerns regard child's age, lack of supervision and stranger danger, there are issues that infrastructure improvements may not be able to fully address but can mollify some of these concerns. Programs, policies and practices that address these issues will be addressed in Chapter 5. Parent concerns, including those not specifically addressed above will be reflected throughout the remainder of this Travel Plan.

Existing Pedestrian Facilities

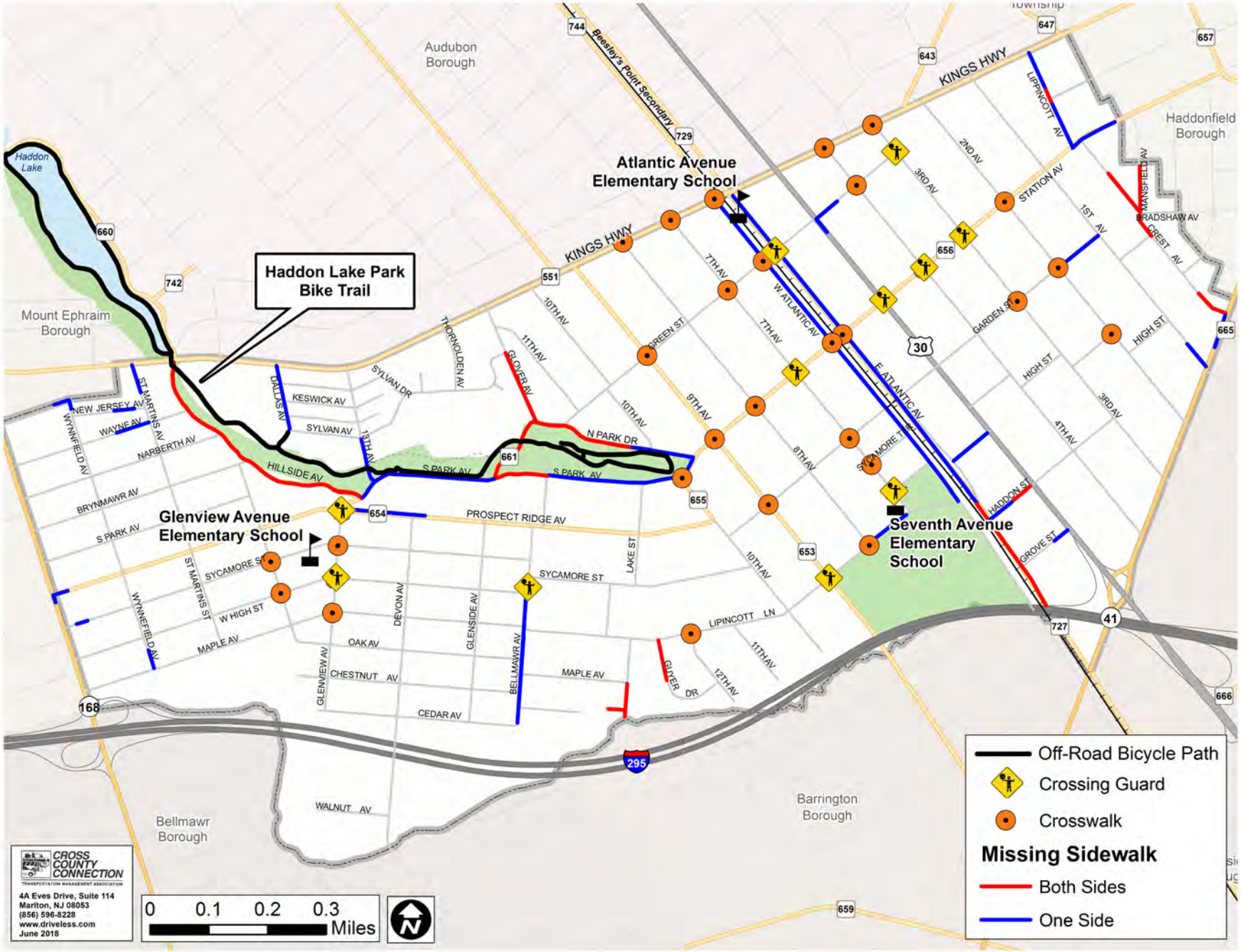
A majority of Haddon Heights Borough streets have continuous stretches of sidewalks on both sides of the street. There are some areas with sidewalk gaps, however. Some streets have sidewalks only on one side of the street. In a few areas, there are no sidewalks on either side of the street. These sidewalk gaps are shown in Map 6 along with marked crosswalks and crossing guard locations.

In terms of pedestrian crossings, marked crosswalks are numerous east of 10th Avenue, but become far more limited to the west. To assist with student crossings, the Haddon Heights Police Department oversees ten on-duty crossing guards during the school day. These crossing guards are distributed amongst areas immediately surrounding the Atlantic Avenue, Seventh Avenue and Glenview Avenue Schools, in addition to key points along common student travel corridors.

Existing Bicycle Facilities

Haddon Heights' existing bikeway network consists of off-road multi-use trails located within Haddon Lake Park, totaling 1.25 miles, which is also shown in Map 6. There are no on-road bikeways within the borough.

MAP 6: EXISTING BICYCLE AND PEDESTRIAN FACILITIES



Crash Data Analysis

Crash data for Haddon Heights Borough was collected for a five year period between 2012 and 2016. Data was acquired from Numeric Roads Crash Tool, a statewide database maintained by the Center for Advanced Infrastructure and Transportation (CAIT) at Rutgers University. Police crash investigation reports are collected through a federally mandated process to create the database. This data may have limitations including unreported crashes. Also, some crashes involving pedestrians and bicyclists may be relatively minor and go unreported to police. A crash is only reportable in New Jersey if it causes injury or property damage in excess of $500. Regardless, the CAIT database is a valuable tool to identify serious bicycle and pedestrian safety concerns in Haddon Heights.

Bicycle and Pedestrian Crashes

There were 14 crashes involving bicyclists and pedestrians during a five year period between 2012 and 2016 in Haddon Heights Borough. These consisted of seven bicycle crashes and seven pedestrian crashes, listed in Table 7 and shown on Map 7 on Page 19. Two crashes were fatal. A pedestrian was killed on the White Horse Pike and a bicyclist was killed on Hillside Avenue. Four crashes, one bicycle and three pedestrian, occurred during hours where school travel may be occurring (September – June; Monday – Friday; 7:00 AM – 9:00 AM or 2:00 PM – 4:00 PM). Only one of these crashes resulted in a complaint of pain. This crash occurred on the White Horse Pike.

The Black Horse Pike and White Horse Pike were the most frequent location of bicycle and pedestrian crashes, with four each. The White Horse Pike is especially of concern, because it significantly impacts student travel. Students residing east of the Pike, must cross it to reach the Atlantic Avenue and Seventh Avenue Schools. The White Horse Pike was the location of four pedestrian crashes, resulting in one fatality and three reported minor injuries. One crash occurred during student travel times on the White Horse Pike. Station Avenue is also a route commonly used by Atlantic Avenue and Seventh Avenue students. Two crashes were recorded on Station Avenue, one of which occurred during school travel times. None resulted in a reported injury.

Hillside Avenue and Devon Avenue were the site of crashes in proximity to the Glenview Avenue School and in locations where students may travel. Hillside Avenue was the location of a fatal bicycle crash and Devon Avenue was the location of a pedestrian crash that resulted in a moderate injury. Neither of these crashes occurred during school travel times.

Table 7: Haddon Heights Bicycle & Pedestrian Crashes, 2012-2016

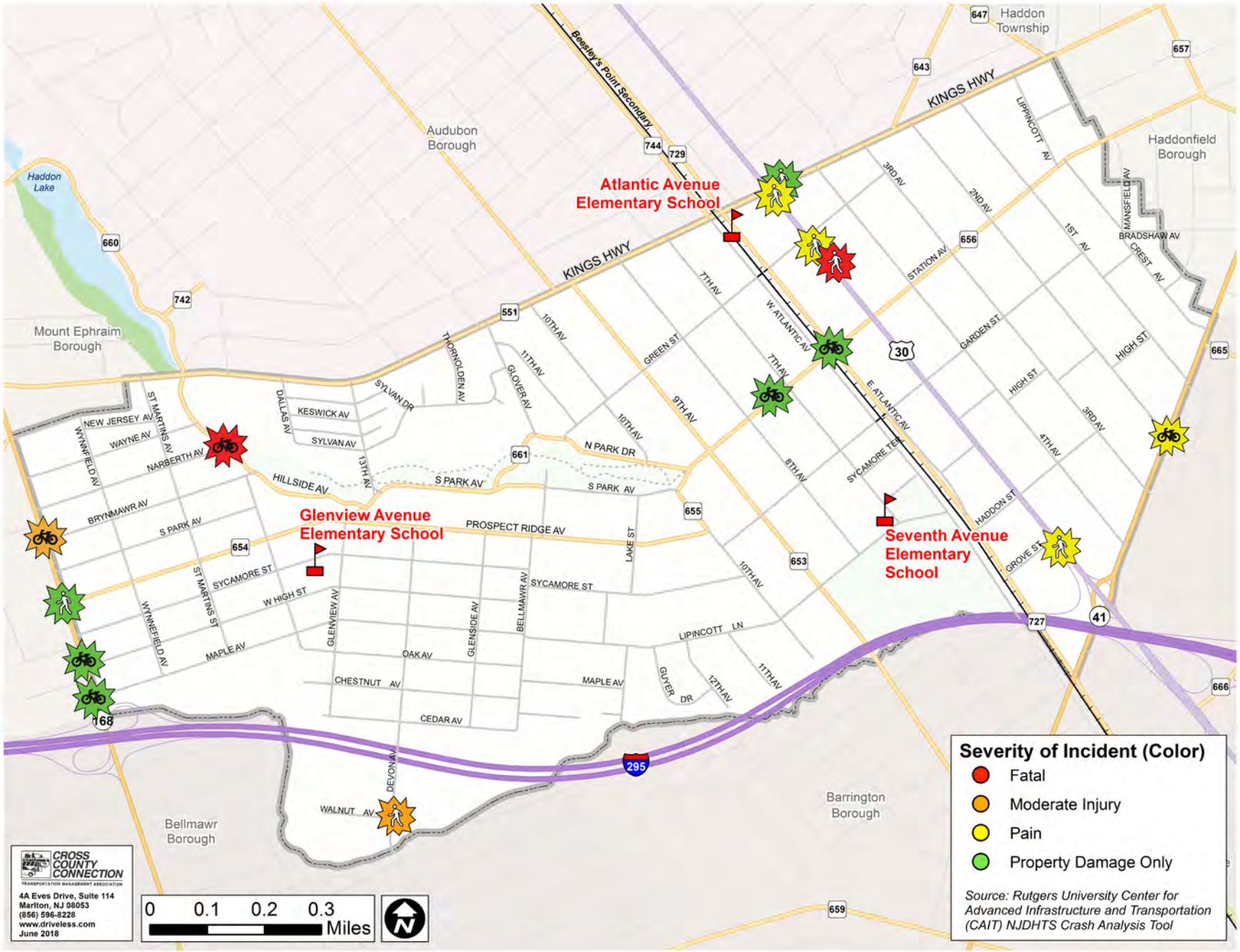
Location	Total Bike/Ped Crashes	# Bike Crashes	# Pedestrian Crashes	# During School Travel Times*	# Injury Reported
Black Horse Pike (NJ 168)	**4**	3	1	1	1 moderate
White Horse Pike (US 30)	**4**	0	4	1	1 fatal 3 minor
Station Avenue (CR 656)	**2**	2	0	1	None reported
Hillside Avenue (CR 661)	**1**	1	0	0	1 fatal
Kings Highway (CR 551 Spur)	**1**	0	1	1	None reported
Devon Avenue	**1**	0	1	0	1 moderate
Second Avenue	**1**	1	0	0	1 minor
Total	**14**	**7**	**7**	**4**	**2 fatal** **2 moderate** **4 minor**

** September – June; Monday – Friday; 7:00 AM – 9:00 AM or 2:00 PM – 4:00 PM*

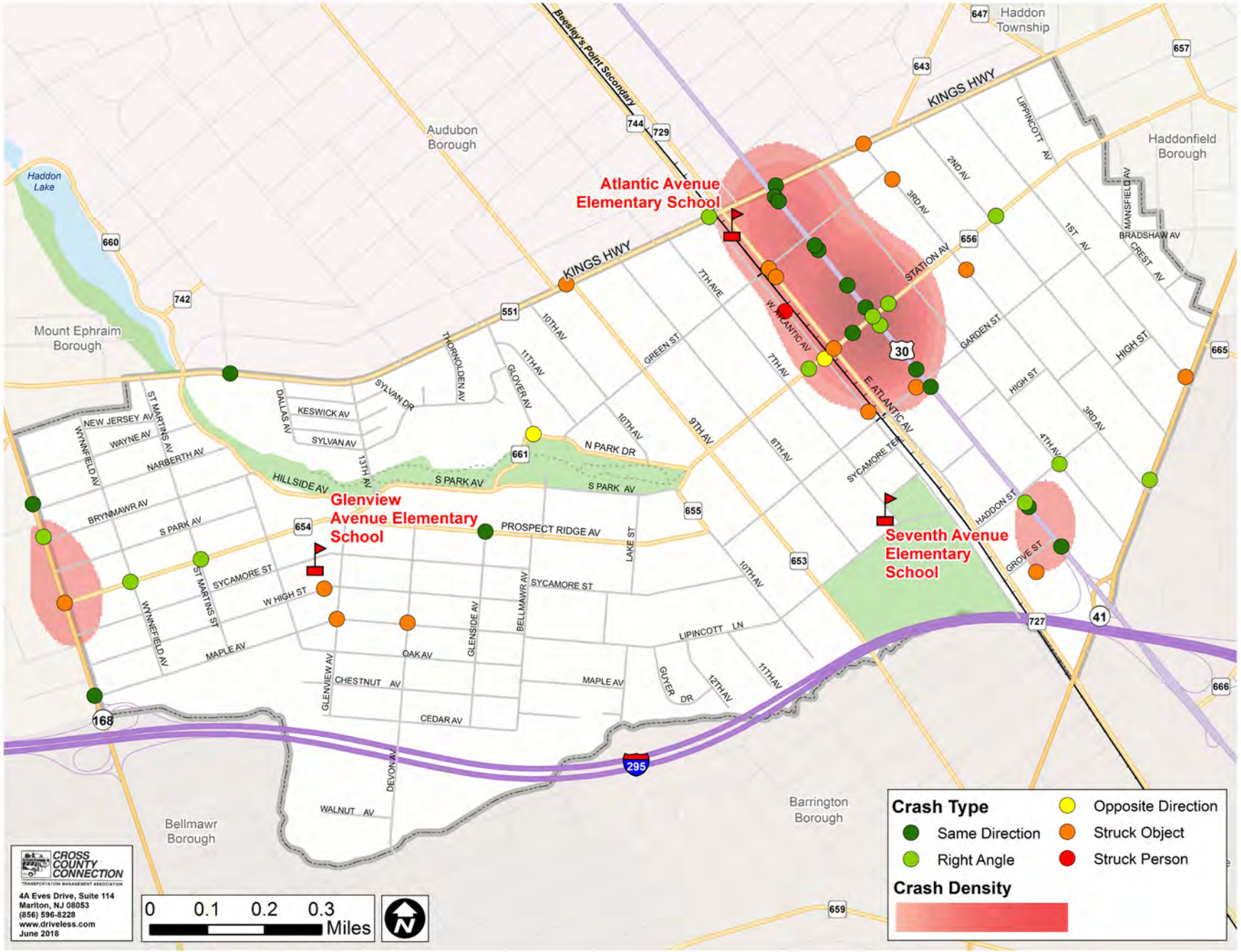
Vehicle Crashes During School Travel Hours

Map 8 on Page 20 shows total vehicle crashes, including those that did not involve a bicyclist or pedestrian, which occurred during school travel times (September – June; Monday – Friday; 7:00 AM – 9:00 AM or 2:00 PM – 4:00 PM). Crash hotspots are highlighted in red. The most severe crash hotspots include the White Horse Pike and Station Avenue business district, between 7th Avenue and the White Horse Pike. While not all of these crashes involved bicyclists or pedestrians, it does demonstrate areas of concern, which could impact student travel and be indicative of areas where pedestrian and bicycle safety need special focus.

MAP 7: HADDON HEIGHTS BICYCLE & PEDESTRIAN CRASHES (2012-2016)



MAP 8: HADDON HEIGHTS CRASH HOTSPOTS DURING SCHOOL TRAVEL TIMES* (ALL CRASH TYPES 2012-2016)



*September – June; Monday – Friday; 7:00 AM – 9:00 AM or 2:00 PM – 4:00 PM

3. GENERAL AUDIT FINDINGS & RECOMMENDATIONS

Infrastructure conditions in Haddon Heights Borough 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 at each of the three district elementary schools; arrival and dismal observations at the three schools; discussions with school staff and crossing guards; parent survey responses; and a review of crash history and other available data.

Walking audits conducted separately at the Atlantic Avenue, Seventh Avenue and Glenview Avenue Schools were the primary means used to identify infrastructure concerns and explore potential infrastructure improvements. Audits largely focus on student travel corridors within a ten minute walking distance (1/2 mile) from the school building. Travel corridors were identified with the assistance of the working group based on student locations, crossing guard locations and local knowledge of travel patterns and behaviors. Audit participants included parents from each school; an officer from Haddon Heights Police Department; and Cross County Connection TMA staff.

Overall, Haddon Heights Borough exhibits the characteristics of a pedestrian friendly community with a well-connected compact street network with few sidewalk gaps, and a 1.25 miles of multiuse trails. However, there are some negative issues affecting bicycle and pedestrian

safety throughout the borough. These issues should be addressed in order to serve two purposes:

1. Improve the safety and comfort of students currently walking and biking to school;
2. Remove barriers so more parents and students will choose to walk and bike to school

Recommendations are based on an assessment of existing conditions, input from the working group, findings from the audit, sound planning judgement, 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). These recommendations are intended to enhance safety and facilitate student travel to and from school. Recommendations found in the Haddon Heights School District Travel Plan are general in nature. Cross County Connection recommends further engineering analysis before implementing any of the suggestions in this plan.

More detailed infrastructure issues, specific to each school, will be discussed later in Chapter 4. Appendix A will provide more detail on the types bicycle and pedestrian improvement strategies identified to address these issues.

Strengths

On the positive side Haddon Heights Borough is relatively compact and has a largely connected network of local streets. This allows a student walking to select multiple travel paths to school and other destinations, with limited delay. In most instances, students can use a relatively direct path to each school. Most streets have built out sidewalks on both sides of the street and are in good condition and provide a uniform smooth surface for pedestrians to navigate. There are marked crosswalks in most locations where student travel is to be expected. Major crossings often feature warning signs, either curbside or in-street, to improve crosswalk visibility to motorists. Most local streets under borough jurisdiction are a reasonable width to accommodate motor vehicle travel and curbside parking, often 30 feet wide or less, and feature a high density of mature street trees. These features encourage slow traffic speeds, while providing a safe and pleasant setting to bike and walk. Haddon Heights also features a sizable network of parks, many of which provide multi-use trails, which are an ideal setting for young bicyclists.

Pedestrian Safety Issues

Wide Streets

Haddon Heights Borough does have a few wide and busy streets. These streets are the jurisdiction of Camden County and the New Jersey Department of Transportation (NJDOT). Studies have found that wide streets often encourage motorists to speed. In addition, their large crossing distances expose pedestrians to motor vehicle traffic for extended periods of time. Wide streets with fast moving traffic are difficult to cross for a pedestrian of any age. Children are extremely vulnerable, since they may not have developed the cognitive abilities and experience necessary to properly assess risks while crossing. The streets located in proximity to schools that featured the widest crossing distances are detailed in Table 8 on the next page.

Table 8: Streets with Long Crossing Distances

Street	Speed limit	Width	On-Street Parking	Jurisdiction
White Horse Pike (US 30)	35	40’	None	NJDOT
Station Ave.	25	40-48’	Uncommon except for business district	County
Prospect Ridge Blvd.	25	26-40’	Uncommon except for two block stretch between 10th and Bellmawr Ave.	County

The American Association of State Highway and Transportation Officials (AASHTO) states that collector and arterial roads should use lane widths between 10 or 12 feet, with lane widths of 12 feet only practical on higher speed, free flowing arterials. Since on-street parking is rare on large stretches of Station and Prospect Ridge Boulevard, lane widths can appear to be 20 feet wide.

Marked crosswalks are lacking on the White Horse Pike and Prospect Ridge Boulevard. Crosswalks exist at every intersection regardless if it is marked or unmarked, unless there is a sign prohibiting pedestrians from crossing, according to New Jersey State law. The lack of marked crosswalks on these wide busy streets makes it difficult for both pedestrians and motorists to understand their rights and responsibilities. Pedestrians may cross at any crosswalk, when safe, and a motorist must yield. Marked crosswalks make this clearer and should be considered in locations along these roads, where there is a substantial amount of pedestrian and vehicle traffic.

Recommendations

- Haddon Heights should explore traffic calming measures that reduce pedestrian crossing distances and slow traffic. Common traffic calming infrastructure strategies include curb extensions and pedestrian refuge islands.

Curb extensions and bike lane in Ocean City, NJ

- Where there are large gaps between marked crosswalks on White Horse Pike and Prospect Ridge Boulevard, engineering analysis should be conducted to identify additional appropriate locations for marked crosswalks. Marked crosswalks should be paired with additional pedestrian safety devices such as signage or signals.
- Specific improvements at student crossing locations along these streets will be discussed in further detail in the in Chapter 4.

Low Visibility Crosswalks

Marked crosswalks in Haddon Heights are often difficult to recognize within the roadway. Standard crosswalks, featuring two painted six

inch parallel lines are found at every crossing of the White Horse Pike. Zebra style crosswalks are also common on local streets, especially near schools. These too feature narrow 6 inch painted white lines, which often appeared to be worn and faded. These types of crosswalks are difficult for motorists to recognize, even when not worn.

The 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.

Recommendations

- Haddon Heights should replace existing zebra style crosswalks with continental crosswalks near schools and in areas with a high volume of pedestrian traffic.
- Along student travel corridors and within school zones, Haddon Heights should replace all exiting crosswalks with continental crosswalks and include the MUTCD's School Advance Crossing Assembly and School Crossing Assembly, also shown in Figure 1.
- In busy areas where a high volume of pedestrian and student travel are to be expected, such as the Station Avenue business district, Haddon Heights should consider installing rectangular rapid flashing beacons (RRFB) to improve pedestrian visibility and reinforce pedestrian right-of-way.

Narrow Sidewalks

Sidewalk widths along travel routes for students were sometimes narrow and did not provide enough space to accommodate the flow of children traveling to and from school. Sidewalks were often three to four feet wide, below FHWA's minimum recommended sidewalk width of five

Figure 1: Preferred Student Crossing Treatment

feet. Four feet makes it difficult for two pedestrians to pass each other or walk side by side. In addition, standards set forth under the American's With Disabilities Act (ADA) require a minimum five foot clear path width to accommodate two wheelchairs passing each other. In situations with a four foot sidewalk, ADA requires 5 foot "passing zones" at a minimum of 200 feet part to adequately accommodate wheelchairs and mobility devices.

Recommendations

- Require sidewalks five feet or greater in width for new development and when replacing damaged sidewalks.
- Consider wider sidewalks in areas with high volumes of pedestrian activity, such as area around schools, parks and local businesses.

Sidewalk Obstructions (Landscaping)

Audit participants frequently came upon sidewalks obstructed by vegetation and landscaping. Low lying tree branches made it difficult to continue walking without crouching. This could be a hazardous condition if a student is distracted. Some landscaping also protruded into the pedestrian path, reducing the effective width of already narrow sidewalks. The American 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 with 6.7 foot vertical clearance.

Recommendations

- Haddon Heights 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 4 foot horizontal clearance and 6.7 foot vertical clearance.
- Require residents trim trees and hedges as to not encroach into the pedestrian path and ensure minimum horizontal and vertical clearance.

Low hanging trees and landscaping obstruct sidewalk

- Explore a relationship with the Haddon Heights Shade Tree Commission to provide educational programming for residents on tree tending and landscape trimming. This program could also be coordinated with Sustainable Haddon Heights' community programs.

Missing ADA Compliant Curb-Ramps

A few intersections along student travel corridors do not have curb ramps and some existing curb ramps are not ADA compliant. Curb ramps are mandated at all pedestrian crossing locations whether they are marked or unmarked per the FHWA. Curb ramps allow wheelchair access, and safely accommodate other individuals with mobility limitations such as the blind and seniors. To be ADA compliant, curb ramps must have detectable warning surfaces (DWS) along the entirety of their outer edge,

to warn individuals with sight impairments that they are entering the roadway. A preferred DWS is provided in the form of a plastic mat fitted with truncated domes. On concrete, yellow or red mats are preferred. Some existing curb ramps in Haddon Heights were is a state of disrepair, with worn or damaged DWS. This occurred most frequently where the DWS were constructed of brick or stamped concrete.

A worn detectable warning surface and inadequate landing space

Recommendations

- Conduct an inventory of all intersections throughout the borough to assess the presence or state-of-repair of curb ramps.
- Curb ramps should be provided at all pedestrian crossings, whether they are mid-block or at an intersection. Curb ramps must be provided at all pedestrian crossings, whether they are marked or unmarked. The NJDOT Complete Streets design guide prefers providing two perpendicular curb ramps at every corner whenever possible. Two perpendicular ramps allow pedestrians, strollers, and wheelchairs to cross without being forced into the intersection, creating conflict with motor vehicle traffic.
- Blended transitions (depressed curbs) are another curb-ramp option specified in PROWAG that can be used as an alternative to a single diagonal curb ramp.
- In situations where design constraints allow only a single diagonal curb ramp, a 48 inch by 48 inch "clear space" must be provided at the bottom of the ramp outside of the parallel vehicle travel lane and within the space of the two crosswalk(s) it serves.
- Updated curb ramps should be fitted with a durable DWS. Brick lacks durability. Suggested materials are polymer, composite or cast-iron. Yellow is the preferred color for a DWS. The DWS must extend the full width of the ramp, with no gaps.

Lifted Sidewalks (Tree damaged sidewalks)

Street trees are one of Haddon Heights' greatest assets. They provide shade, limit storm water runoff, provide traffic calming effects, create a buffer between sidewalks and the street, and provide an aesthetically pleasing walking environment. However, many of the mature street trees in the borough are very old and tree species were not appropriately selected at the time to stay within the limited width of the planting strip where they are located. Tree roots frequently encroach into the pedestrian path, causing sidewalks to lift and create a significant tripping hazard for pedestrians, especially for smaller children. They pose additional risks to children riding bicycles or scooters to school. Any sidewalk lifting above a ¼ inch is a violation of ADA standards. Sidewalk lift was so frequent that most specific instances are too numerous to document in the more focused travel corridor recommendations to follow in this study.

Haddon Heights exhibited many best practices in curtailing further damage to sidewalks, without removing healthy trees. The Haddon Heights Shade Tree Commission has created a detailed list of appropriate street trees to plant in varying context. They also assist the borough in removing dead or dangerous tress from curbside locations. Sidewalks

were often reconstructed to curve around the tree roots in many locations. However, it was not clear if these sidewalks are reconstructed by the adjacent property owner or by Haddon Heights Borough. There are also additional measures that can be taken to address tree damaged sidewalks.

A severely lifted sidewalk neart Seventh Avenue School

Recommendations

- Haddon Heights, with the assistance of its Shade Tree Commission should conduct a borough-wide assessment of instances of tree damaged sidewalks. The assessment should document: location; degree of damage, including the height of lift; health of the tree; and potential remedies.
- If it does not do so already, Haddon Heights Borough should consider assuming responsibility for sidewalk damage that occurs as a result of street trees located within public rights-of-way, such as the planting strips that provide a buffer between the street and sidewalk. Funding to replace or repair sidewalks can be provided though grant programs or through a ten year municipal bond.
- An alternative is to create a sidewalk repair program with a 50/50 cost sharing agreement between the municipality and property owner. The property owner would make payments to the municipality over the length of the 10 year municipal bond at a low interest rate.
- In situations with minor lifting, sidewalks can be milled or shaved to remove tripping hazards. Concrete can be milled to within half of its original thickness.
- Concrete or asphalt ramps/wedges can be installed in areas with more significant lift, to create a smooth transition between the lower sidewalk surface and the lifted edge. ADA standards specify that the slope cannot exceed a 5% grade (1:20).
- In areas of significant damage, the practice of curving around the root structure with permission of the adjacent property owner is recommended.
- In constrained areas, porous flexible pavement technologies can be applied. Flexible pavements maintain a passible surface without cracking. Flexible sidewalk surfaces often include rubber. Washington DC uses a material called Flexi-Pave, a porous material made from recycled tire rubber and gravel.

Pedestrian Crossings of Conrail Tracks

There are four pedestrian crossings of the Conrail train tracks that run between West and East Atlantic Avenues. Station Avenue is the only at-grade crossing. The remaining crossings are either located above or below the tracks. The two pedestrian crossings of the greatest concern are the pedestrian bridge at Green Street and the tunnel at Garden Street. The Green Street pedestrian bridge and Garden Street tunnel are not ADA accessible, preventing or severely limiting use by individuals with disabilities. The Green Street pedestrian bridge also appears to be in a state of disrepair. The Garden Street tunnel is secluded and may feel

threatening to pedestrians. Discarded Christmas trees and other debris have been dumped in the stairwells. It is reported that most students and pedestrians cross at this location at-grade, presenting a safety issue. The tracks present a tripping hazard and there are no warning indicators that a train is approaching. No train activity was observed during observations. Train activity is reportedly infrequent, with only a few trains traveling through Haddon Heights in the evening, outside the morning and afternoon hours of school arrival and dismissal.

Recommendations

- Work with Conrail to inspect the Green Street Pedestrian Bridge for structural integrity.
- Consider retrofitting or replacing the Green Street Bridge to make it ADA accessible.
- Consider replacing the Garden Street tunnel with at-grade crossing with adequate warning signals
- If not feasible, consider adding security measures in the Garden Street Tunnel such as closed circuit television and improved lighting.
- Update the Garden Street tunnel to be ADA accessible.

General Street and Sidewalk Maintenance

Other than frequent tree-lift, sidewalks and crosswalks appear to be in good condition throughout Haddon Heights Borough. However, cracked sidewalk, crosswalk and street surfaces were observed. Some crosswalk markings were also worn and faded.

Recommendations

- Conduct a yearly assessment along school travel corridors and in the immediate blocks surrounding Haddon Heights' schools to identify minor maintenance issues such as cracking or otherwise damaged surfaces.
- Patch damaged street surfaces located within pedestrian crossing locations and sidewalks prior to the start of the school year.
- Repaint faded crosswalks prior to the start of the school year.

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, failure to yield to pedestrians in crosswalks and a failure to come to a complete stop at stop signs. Incidents of these behaviors were observed during the three walking audits. Failure to yield to pedestrians in the crosswalk were witnessed multiple times on Station Avenue. Failure to come to a complete stop was observed on East Atlantic Avenue and 9th Avenue. Speeding was observed on Station Avenue and 9th Avenue. The Haddon Heights Police Department has directed patrols to address recent complaints concerning these motorists' behaviors. Directed patrols in areas of student travel include:

Speeding Patrols:

- Prospect Ridge Boulevard
- 9th Avenue between Station Avenue and Kings Highway
- East Atlantic Avenue

Stop Sign Patrols

- Station Avenue Cross Streets
- 9th Avenue and West High Street
- West High Street at Guyer Avenue

Directed patrols are roving weekly patrols. Officers report that often their presence alone is enough to curtail the dangerous behaviors that are reported. They do occasionally issues citations, or offer warning to offenders. The effectiveness of the patrols are measured anecdotally, based on experiences of the officer or a noticed reduction in complaints

from local residents. In certain cases Haddon Heights Police Department will conduct more formal speed studies in areas that receive frequent complaints and share these findings with the borough Council and the public.

As mentioned, wide streets and travel lanes encourage speeding. This can help explain the prevalence of this issue on Station Avenue, 9th Avenue and Prospect Ridge Boulevard. In addition many of these streets have infrequent traffic controls requiring vehicles to stop, thus allowing vehicles to build up speed on long stretches of roadway.

Recommendations

- Haddon Heights PD should continue to conduct directed patrols along student travel corridors at the times of student arrival and dismissal.
- Haddon Heights PD should continue to remind motorists that they are required to stop at the white stop bar in advance of the crosswalk and ascertain if pedestrians are present, before proceeding through the crosswalk.
- Haddon Heights PD should consider a more formal evaluation of the effectiveness of directed patrols, such as counts of infractions and/or resident complaints before and after directed patrols. They could also conduct speed studies in anticipation of focused enforcement efforts and conduct another study a few weeks later to see if there is a lasting impact when patrols are not present.
- Traffic calming measures should be explored in areas of frequent speeding. Measures narrowing the roadway, such as curb extensions, neckdowns or center islands, have been shown to reduce traffic speeds by making the roadway more constrained. Chicanes, lateral shifts in the travel lane, are also effective measures to reduce speed and effectively break up long uninterrupted stretches of roadway.

Bicycle Safety Issues

Lack of Bikeways

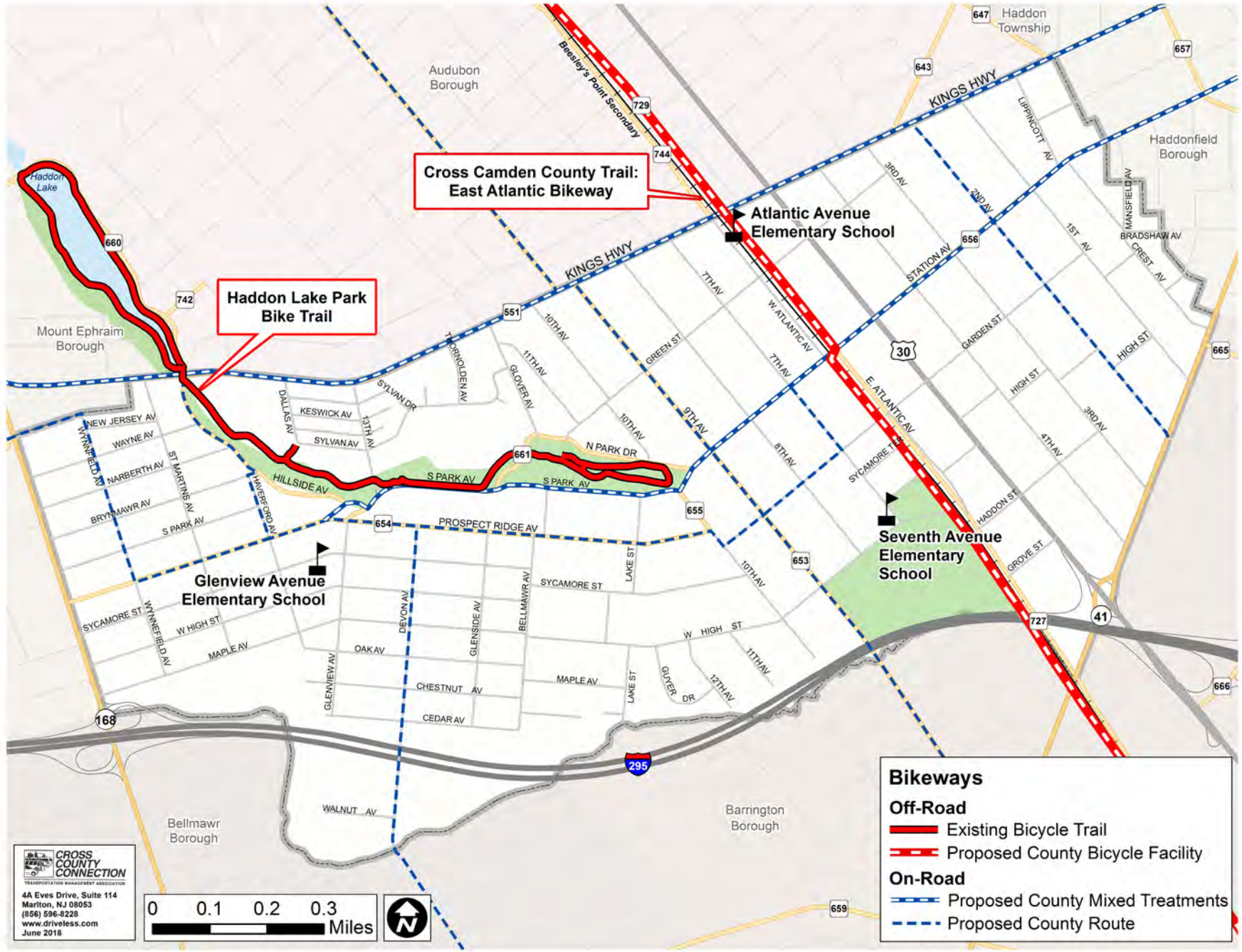
As mentioned in Chapter 2, Haddon Heights' bikeway network consists of a 1.25 mile trail in Haddon Lake Park. However, most of the residential streets in the borough appear to be comfortable for bicycle use, with low speeds and traffic volumes that should make sharing the road comfortable for most skill levels. County Roads, such as Station Avenue, Prospect Ridge Boulevard, 9th Avenue and Kings Highway, are much more unwelcoming. Traffic volume is often heavy and/or motor vehicle speeds are high. Clearly marked bicycle facilities, which separate bicyclists from motor vehicle traffic to the greatest extent possible, would provide a much higher level of safety and comfort.

Camden County has been working towards expanding the bikeway network throughout the County. Two studies directly impact the future development of bikeways in Haddon Heights Borough – the Cross Camden County Trail Feasibility Plan (County Trail Plan) and the Camden County Bicycling and Multi-Use Trails Plan (County Bike Plan). Proposed bikeways from these plans are shown in Map 9 and briefly summarized in Figure 2 on page 31.

Recommendations

- Work with Camden County, Conrail and other interested parties to implement the recommendations of these plans.
- Provide bikeway facilities that provide for the exclusive use of bicyclists along streets identified in the plan wherever possible. These facilities could include protected bike lanes, buffered bike lanes and standard bike lanes.
- When appropriate, use “Bikes May Use Full Lane” signs paired with sharrows on streets identified in the County Plan, where bicyclists and motorists must share the same space. These facilities should only be used where traffic volumes and speed

MAP 9: EXISTING & PROPOSED BIKEWAYS IN HADDON HEIGHTS BOROUGH



are low enough to where a majority of bicyclists would feel comfortable. Typically, these are streets with speed limits of 25 MPH or lower and traffic volumes below 3,000 motor vehicles per day.

- Seek funding assistance to prepare a municipal bicycle and pedestrian master plan to supplement the Camden County plans.

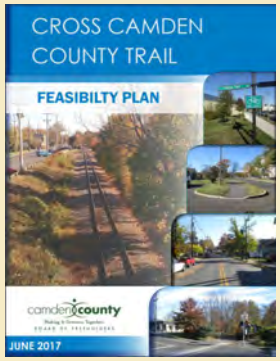
Bicycle Parking

Bicycle parking was observed at all three schools. Racks were typically "schoolyard" style racks. These racks accommodate multiple bikes with one rack, but have deficiencies in terms of bike security and with stabilizing a bike to avoid damage. They become cramped when full, making access to bike locks difficult. The ideal bike rack solution is placing multiple "U" style racks in close proximity to create a bicycle parking area. U-racks allow easier bike lock access to the frame of the bike, while also bracing the bike in two places, ensuring it does not tilt or fall and become damaged.

Multiple U-racks create a bicycle parking area

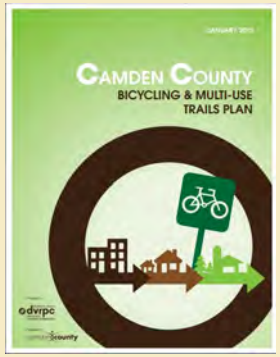
Figure 2: Camden County Bike & Trail Plan Proposals Impacting Haddon Heights

Cross Camden County Trail Feasibility Plan



- **Multi-use trail within the Conrail right-of-way** The trail is located to the east of the tracks as it enters the Borough from the north then switches to the west-side at Station Avenue.
- Consider retrofit or replacement of exiting pedestrian bridge over the tracks at Green Street
- Install a new crosswalk, curb extensions and Rectangular Rapid Flashing Beacons (RRFB) at the Station Avenue trail crossing.

The County Bicycling and Multi-Use Trails Plan



Identified two types of bikeway facilities in Haddon Heights:

1. **Recommended Routes** – Streets that are conformable environments for bicyclist and motorists to share the road, where pavement markings and signage would improve bicyclists' visibility and comfort. Streets identified as recommended bicycle routes include:

  - 2nd Avenue
  - 9th Avenue
  - Prospect Ridge Boulevard
  - Devon Avenue
  - Hillside Avenue/Haverford Avenue

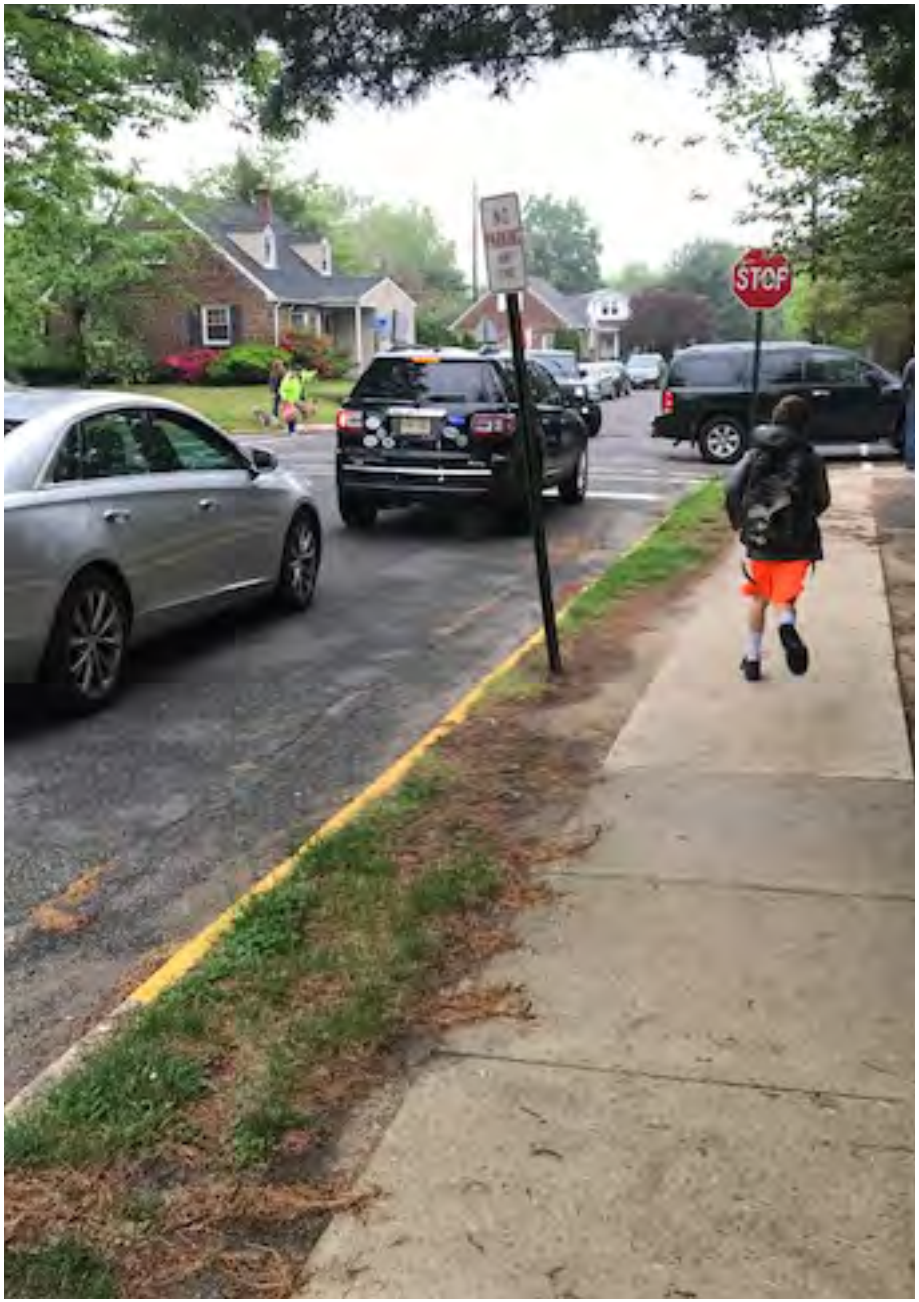
2. **Mixed Treatment** – Streets which should be considered for bike lanes or buffered bike lanes, but design constrains may limit their inclusion along the entirety of the roadway. Streets identified for mixed treatments include:

  - Station Avenue
  - South Park Avenue

Recommendations

- Replace the wave racks with groupings of the more secure "U" style.
- Bike racks should be located where people can see them, deterring would-be thieves. Ideal locations include interior courtyards or close to school entrances and windows.
- If students are using bikes to reach after school events that may end after dark, ensure that these locations are properly lit and safe.

4. STUDENT TRAVEL CORRIDOR RECOMMENDATIONS



This chapter addresses more specific issues found in the immediate vicinity of each school that were observed during the school travel safety audits. Cross County Connection staff led three separate audits at the Atlantic Avenue, Seventh Avenue and Glenview Avenue Schools. Audits were conducted along student travel corridors where you would most commonly find children walking and bicycling. Audit participants included the SRTS Working Group Parent Representatives and an officer from the Haddon Heights Police Department. Recommendations to address identified transportation safety concerns are provided for Haddon Heights Borough and the School District to consider.

Corridor Selection

Student travel corridors for the Atlantic Avenue, Seventh Avenue and Glenview Avenue Schools were identified based on student location data, crossing guard locations and input from the working group and school staff. Cross County Connection also observed student arrival and dismissal to better ascertain student travel patterns and adjust these corridors accordingly. Major corridors are those that feature high volumes of students walking and biking to school. Minor corridors are those that feature lower volumes, but commonly feed students into major travel corridors. Audits were conducted separately for each school along these student travel corridors. For more detail on walking audit routes see Appendix B.

This section describes each corridor, discusses safety concerns identified during the audits, and suggests infrastructure improvements to enhance safety and encourage safe walking and bicycling to and from each of the three schools.

Glenview Avenue School

An audit of Glenview Avenue School Student Travel Corridors was conducted on Monday, May 14, 2018. Audit participants included Cross County Connection staff, Patrolman Bret Lightner from the Haddon Heights Police Department and Glenview parent, Danielle Linaris. Pedestrian volumes were fairly light, during student arrival, due to a forecast for rain. Pedestrian activity was much higher in the afternoon, when weather conditions were sunny and warm. There was sporadic bike activity during both student arrival and dismissal.

Major student travel corridors include:

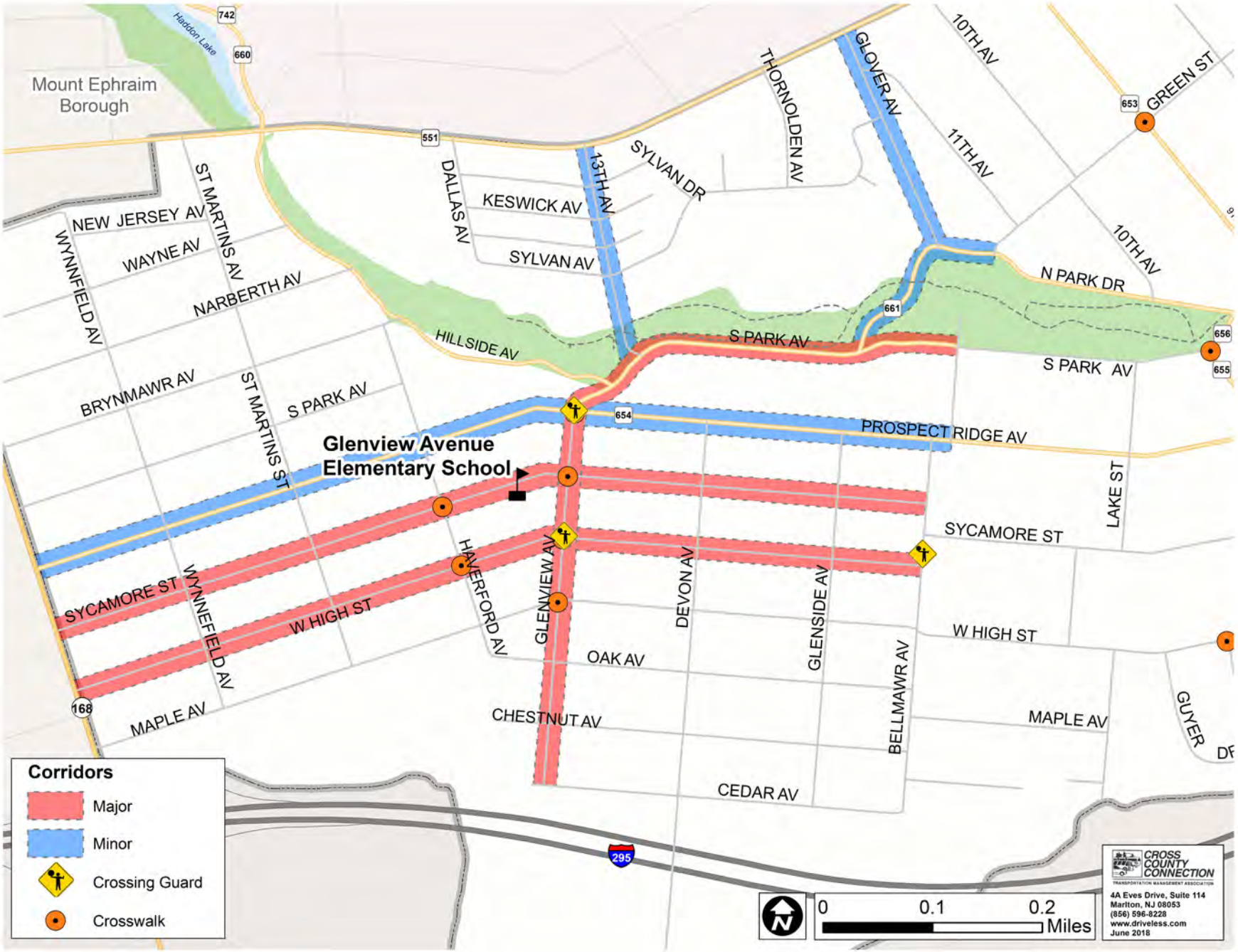
- South Park Avenue
- Glenview Avenue
- Sycamore Street
- West High Street

Minor student travel corridors include:

- Glover Avenue/North Park Drive
- 13th Avenue
- Prospect Ridge Boulevard

Major and minor student travel corridors for the Glenview Avenue Elementary School are shown on Map 10. Recommendations for Glenview Avenue School's student travel corridors are shown on Map 11, found on Page 51.

MAP 10: GLENVIEW AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDORS



Major Corridor: South Park Avenue (CR 661)

South Park Avenue is a common route to school for students travelling to the Glenview Avenue School from points north of Haddon Lake Park. South Park channels students towards Glenview Avenue, providing direct access to the school. At its western terminus, South Park becomes a pinch point where multiple student travel corridors coverage. A crossing guard is stationed at the end of this pinch-point, at South Park's intersection with Prospect Ridge Boulevard.

Roadway Characteristics

South Park Avenue is a two lane county roadway that serves two-way traffic. The roadway serves residences and provides access to Haddon Lake Park, which is part of Camden County's park system. It has a posted speed limit of 25 MPH. It provides a connection between two other Camden County Roads: Station Avenue and Prospect Ridge Boulevard.

South Park Avenue runs along the southern edge of Haddon Lake Park. The park setting provides a rural feel to the roadway, with winding turns, the occasional undulating hill and askew multi-point intersections. The western terminus off South Park Avenue is colloquially known as "Dead Man's Hill" due to its combination of a steep grade change and its askew intersection with Prospect Ridge Boulevard. Sidewalks are infrequent along South Park, adding to the rural feel.

South Park Avenue's pavement width is 30 feet. Curbside parking is permitted in front of residences and is utilized occasionally. All residences feature driveways for off-street parking.

Signage and traffic controls are infrequent along the student travel corridor to the Glenview School. Stop signs are located at 13th Avenue and Prospect Ridge Boulevard.

South Park Avenue Corridor Summary

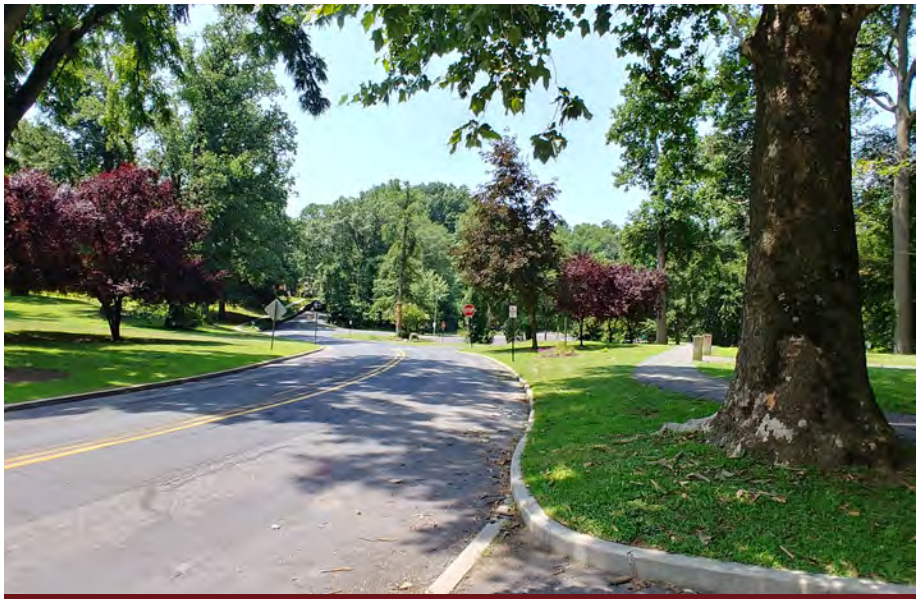
Land Use	Residential; park access
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low
Sidewalks	Intermittent sidewalks and side-path
Crosswalks	Zebra
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	Intersection of S. Park and Prospect Ridge Blvd./ Glenview Ave.
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace existing crosswalks with continental type; fill in sidewalk gaps; consider trail extension; widen existing trails; install ped warning sign assembly; consider RRFB; consider curb extensions at Prospect Ridge Blvd.; consider on-road bikeway

Transportation Concerns

- Sidewalks are infrequent along South Park Avenue. Often sidewalks, or paved multiuse trails, are only located on one side of the street as shown in Figure 3. There is no sidewalk or trail on either side of South Park Avenue between Bellmawr Avenue and Glover Avenue.

Figure 3: South Park Avenue Missing Sidewalks

- At the intersection of South Park and 13th Avenue, there is no direct connection to existing crosswalks, sidewalks, and multi-use trails that does not involve an unrealistic detour for students residing to the east. Pedestrians, especially children, will often take the most direct route to get to their destination, which here, would involve crossing the street outside of a crosswalk and either walking along the grass or in the street.
- There is no advanced warning of a pedestrian crossing at the crosswalk connecting the existing sidewalks near the Haddon Lake Park parking lot at the bottom of Dead Man's Hill.



South Park Ave & 13th Ave - Lack of sidewalks and no student crossing warning

- The existing multi-use trail through the park, which runs alongside South Park Avenue between Glover Avenue and 13th Avenue, is narrow (approximately 4-5 feet), which is inadequate to safely accommodate both pedestrians and bicyclists.
- Bicycle connections to the Haddon Lake Park trail system and to the Glenview Avenue School are lacking, which leads to underutilization of an attractive community asset. Portions of the trail network could be utilized to reach Glenview Avenue School, if connected to well-designed on-road bikeways. The Camden County Bicycling and Multiuse Trails Plan (County Bike Plan) calls for a "mixed treatment" along South Park Avenue, which could take the form of multiple on-road bikeway types.
- South Park's intersection with Prospect Ridge Boulevard and Glenview Avenue has a number of pedestrian safety issues:
  - ◊ There is no crosswalk provided on the north-side of the intersection to cross South Park Avenue. This is most likely due to visibility issues since the crossing location is at the crest of the hill.

◊ Pedestrian crossing distances of Prospect Ridge Boulevard are lengthy. The crossing distance is 40 feet on the east-side of the intersection and 50 feet long on the western side. The crossing on the west side adds an additional 10 feet, due to the diagonal orientation of the crosswalk.

◊ The askew intersection orients traffic in a manner that makes it difficult for traffic, turning left from South Park onto Prospect Ridge Boulevard, to see pedestrians in the crosswalk.

Recommendations

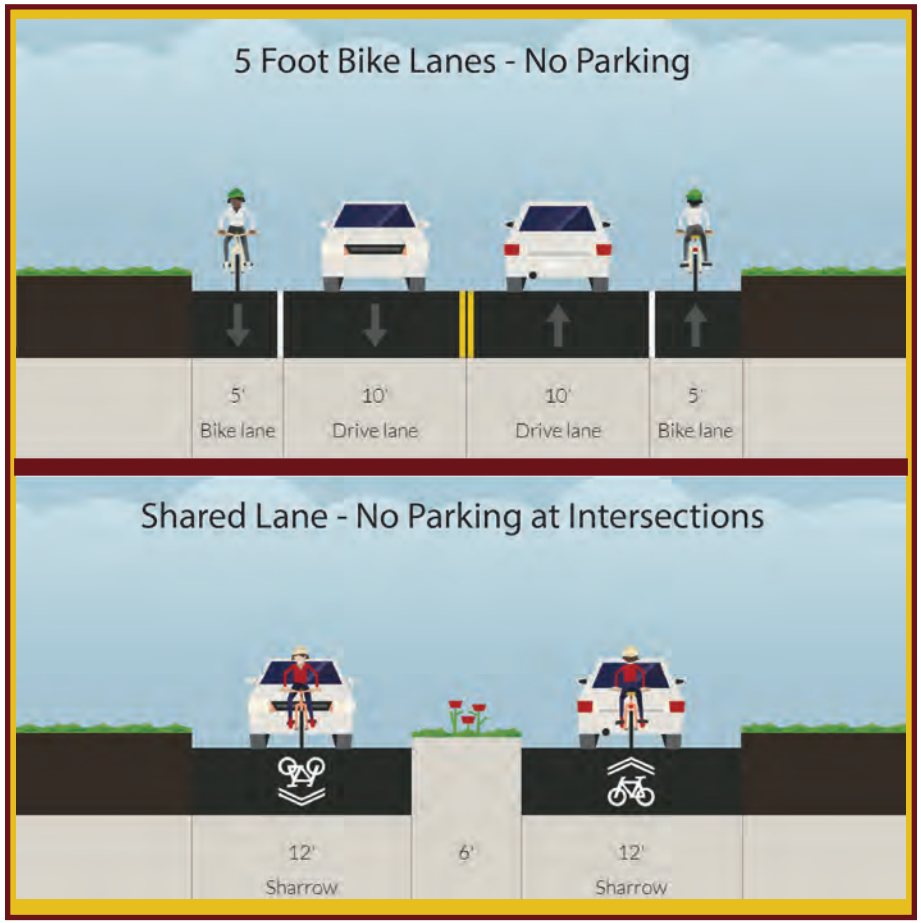
- Install sidewalks along the north-side of South Park Avenue between Bellmawr Avenue and the existing multi-use trail, to the east of Glover Avenue. Provide new ADA-accessible curb ramps and continental crosswalks to connect to the sidewalk and trail segments.
- Extend the newly constructed sidewalk further eastward along South Park Avenue. Provide a continental crosswalk to connect to the existing multi-use trail near the entrance to the McLaughlin-Norcross Memorial Dell.
- Install the sign assembly shown in Figure 1 on Page 24, consisting of a pedestrian sign (MUTCD W11-2), paired with a downward pointing diagonal arrow plaque (MUTCD W16-P) at the crosswalk location paired with some form of advanced warning sign assembly (See MUTCD Section 2C.50). Consider a Rectangular Rapid Flashing Beacon (RRFB), or some other warning beacon, to further improve visibility.
- Widen the multi-use trail alongside South Park Drive. AASHTO's Guide for the Development of Bicycle Facilities recommends a minimum width of eight feet, but encourages wider paths between 11 and 14 feet to provide an acceptable level of service in locations with frequent interactions between bicyclists and pedestrians.
- Consider bike lanes along South Park Drive. The 30 foot pavement width could accommodate two ten-foot travel lanes and two five-foot bike lanes, however this would require prohibiting on-street parking.

◊ If this in untenable, a shared lane should be designated with sharrows and "Bicyclist May Use Full Lane" signage (MUTCD R4-11). Traffic calming measures, such as short center islands (aka splitter islands) that do not block driveways, should be used to slow traffic and make sharing the road more comfortable for bicyclists. Guidance on appropriate traffic calming measures can be found in NACTO's Urban Bikeway Design Guide and NJDOT's Complete Streets Design Guide.

◊ The potential cross-section for both of these potential on-road bikeways are shown in Figure 4 on the next page.

A shared lane with a median to calm traffic

Figure 4: South Park Avenue On-Road Bikeway Options



- Replace all existing zebra-style crosswalks with continental crosswalks, made with a durable material such as thermoplastic.
- Consider curb extensions at the intersection of South Park Avenue and Prospect Ridge Boulevard. Extending the curb line would shorten pedestrian crossing distances and potentially provide more space to address the safety issues the askew intersection presents to pedestrians and motorists alike.
  - ◊ Curb extensions should be designed to accommodate any bikeway on Prospect Ridge Boulevard that results from the County Bike Plan recommendations. This is further discussed in the recommendations for Prospect Ridge Boulevard, on Page 50.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Major Corridor: Glenview Avenue

Glenview Avenue is the primary north-south route for a majority of students biking or walking to the Glenview Avenue School. It provides direct access to the school entrances on West High Street and Sycamore Street. Glenview Avenue is six blocks long. Glenview Avenue transitions into South Park Avenue, once you cross Prospect Ridge Boulevard. A crossing guard is stationed at Glenview's intersection with Prospect Ridge Boulevard. An additional guard is stationed at Glenview's intersection with West High Street, during AM student arrival, then is repositioned at Sycamore Street, during PM dismissal.

Roadway Characteristics

Glenview Avenue is a residential street that serves two-way traffic. It has a posted speed limit of 25 MPH. Glenview Avenue's pavement width is approximately 30 feet.

Curbside parking is restricted on the west-side of the street directly in front of the Glenview School building, but permitted elsewhere. On street parking rates were highest between Sycamore Street and Prospect Ridge Boulevard. On street parking provides a traffic calming effect, limiting vehicle speeds in the areas around the school.

There are marked crosswalks along Glenview at every intersection between Maple Avenue and Prospect Ridge Boulevard. There are crosswalks spanning Glenview Avenue at West High Street, Sycamore Street and Prospect Ridge Boulevard. A school crossing sign is posted at West High and at Sycamore Street in advance of the crosswalks spanning Glenview Avenue.

Transportation Concerns

- Sidewalks are narrow along Glenview Avenue, measuring between three and four feet wide.
- There is sidewalk lift created by a large tree near the southwest

GlenviewAvenue Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	High between Sycamore and Prospect Ridge. Low elsewhere.
Sidewalks	Continuous on both sides
Crosswalks	Standard two-line
Signals	None
Ped Signage	School crossing
Traffic calming	None, beside on street parking
Crossing Guards	Intersection with Prospect Ridge Blvd.; High/ Sycamore St.
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace existing crosswalks with continental type; repair tree damaged sidewalks; repair damaged street surface; replace existing sidewalks with new sections 5 ft. or wider when possible

corner of Glenview and Sycamore, which is a tripping hazard for pedestrians, children on scooters and individuals using mobility devices.

- All crosswalks are standard low-visibility crosswalks, which are difficult for motorists to discern.
- The street surface is extremely cracked and damaged at the intersection of Glenview and Sycamore Street.
- The student crossing location at Glenview and Prospect Ridge Boulevard has safety issues, which were previously addressed in the section detailing South Park Avenue on Page 38.

Recommendations

- When the opportunity arises to install new sidewalks along Glenview Avenue, they should be, at a minimum, five feet wide. In areas immediately surrounding the school with high volumes of pedestrian activity, wider sidewalks may be warranted. The NJDOT NJ School Zone Design Guide recommends eight to ten foot wide sidewalks in areas with significant pedestrian traffic.
- Explore remedies to address the lifted sidewalk near the southwest corner of Glenview Avenue and Sycamore Street. The sidewalk may need to be shifted to provide a more generous buffer around the root area.
- Replace all existing crosswalks with continental crosswalks, made with a durable material such as thermoplastic.
- Repave the intersection of Glenview Avenue and Sycamore Street to repair the damaged surface, prior to installing new crosswalks.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Major Corridor: Sycamore Street

Sycamore Street is one of two east-west routes for Glenview Avenue School students. A school entrance is located on Sycamore Street that is very busy at dismissal. The single bus for the Glenview Avenue School drops off a few students at this entrance. A crossing guard is stationed at the intersection of Sycamore Street and Glenview Avenue during student dismissal in the afternoon.

Roadway Characteristics

Sycamore Street is a residential street that is restricted to one-way traffic between 8:00 AM and 3:30 PM on school days. It serves two-way traffic at all other times. It has a posted speed limit of 25 MPH. Glenview Avenue's pavement width is approximately 30 feet.

Curbside parking is restricted on the south-side of the street, between the school entrance and the intersection with Glenview Avenue, but permitted elsewhere. On street parking rates were high on the block nearest to the school entrance.

Marked crosswalks are provided in the immediate vicinity of the school, at Sycamore Street's intersections with Haverford Avenue and Glenview Avenue. Most crosswalks featured school crossing warning signs.

Transportation Concerns

- Sidewalks are narrow along Sycamore Street, between three to four feet wide.
- All crosswalks were standard low-visibility crosswalks, which are difficult for motorists to discern.
- There is a student crossing location along Sycamore Street at Haverford Avenue that is not protected by a stop sign. A "Stop for Pedestrians" panel sign (MUTCD R1-6c) has recently been posted curbside at approaches to this uncontrolled crossing, which is not an MUTCD permitted use of this sign. This sign

Sycamore Street Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	One between 8:00 AM and 3:30 PM on school days. Two when school is not in session.
Parking Lanes	None marked, but on-street parking permitted.
On-street parking rate	High near school entrance. Low elsewhere.
Sidewalks	Continuous on both sides
Crosswalks	Standard two-line
Signals	None
Ped Signage	School crossing
Traffic calming	None, beside on street parking
Crossing Guards	Intersection with Glenview Ave in PM
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace existing crosswalks with continental type; install new crosswalks at Devon Ave; replace ped warning sign assembly at Haverford Ave; replace existing sidewalks with new sections 5 ft. or wider when possible

is only permitted in the centerline of the roadway. Haverford Avenue has no centerline, therefore a different sign assembly should be used instead. This sign assembly is detailed below.

Misuse of panel sign and low visibility crosswalk at Haverford Ave & Sycamore St

- There are no crosswalks at the intersection of Sycamore Street and Devon Avenue, a location with reported issues of speeding.

Recommendations

- When the opportunity arises to install new sidewalks along Sycamore Street, they should be, at a minimum, five feet wide. In areas immediately surrounding the school entrance, wider sidewalks may be warranted.
- Replace all existing crosswalks with continental crosswalks, made with a durable material such as thermoplastic.
- Replace the "Stop for Pedestrians" Panel Signs (MUTCD R1-6c), located at the intersection of Sycamore Street and Haverford Avenue with the school crossing sign assembly shown in Figure 1 on Page 24. This sign assembly consists of the School Sign (MUTCD S1-1) paired with a diagonal downward pointing arrow plaque (MUTCD W16-7P) at the crosswalk locations. In advance of the crosswalk an additional S1-1 sign should be paired with the "AHEAD" plaque (MUTCD W16-9P) to provide advanced warning of the crosswalk.
- Install crosswalks at all four legs of the uncontrolled intersection of Sycamore Street and Devon Avenue. These crosswalks should feature the School Crossing Sign Assembly shown in Figure 1 and described above.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Major Corridor: West High Street

West High Street is the second east-west route for Glenview Avenue School students. A school entrance is located on West High Street that acts as the primary student arrival drop-off point in the morning. This entrance is also busy during student dismissal in the afternoon. A crossing guard is stationed at High Street's intersection with Glenview Avenue during student arrival in the morning.

Roadway Characteristics

West High Street is a residential street that is restricted to one-way traffic between 8:00 AM and 3:30 PM on school days. It serves two-way traffic at all other times. It has a posted speed limit of 25 MPH. Glenview Avenue's pavement width is approximately 30 feet.

Curbside parking is restricted on the north-side of the street, between the school entrance and the intersection with Glenview Avenue, but permitted elsewhere. On street parking rates were very high at student arrival and dismissal, but light at other times.

Marked crosswalks are provided in the immediate vicinity of the school, at West High Street's intersections with Haverford Avenue and Glenview Avenue. Some crosswalks featured school crossing warning signs.

Transportation Concerns

- During the busiest moments of student drop-off, parents were observed rolling through the stop sign on High Street at Glenview Avenue.
- Some sidewalks are narrow along West High Street, between three to four feet wide.
- Landscaping overgrowth from a residential property, immediately west of the school grounds, obstructs student travel.

West High Street Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	One between 8:00 AM and 3:30 PM on school days. Two when school is not in session.
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low rates outside of student arrival and dismissal time
Sidewalks	Continuous on both sides
Crosswalks	Standard two-line
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	Glenview Ave.
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Enforce rolling stop violations; install new crosswalks at Devon Ave.; install ped warning sign assembly at Haverford Ave.; clear landscaping obstructions; replace existing sidewalks with new sections 5 ft. or wider when possible

- All crosswalks were standard low-visibility crosswalks, which are difficult for motorists to discern.
- There are no student crossing warning signs for the marked crosswalks along High Street at Haverford Avenue. This is an uncontrolled crossing with no stop signs.
- There are no crosswalks at the intersection of West High Street and Devon Avenue, a location with reported issues of speeding.

Recommendations

- Haddon Heights Police Department should occasionally conduct a rolling stop patrol at the intersection of West High Street and Glenview Avenue to reinforce that parents must come to a complete stop, before proceeding to the student drop-off area.
- When the opportunity arises to install new sidewalks along West High Street, they should be, at a minimum, five feet wide. In areas immediately surrounding the school entrance, wider sidewalks may be warranted.
- Require the property owner on the north-side of West High Street, immediately to the west of the fence-line of the school property, to trim their landscaping to provide an unobstructed path for student travel.
- Replace all existing crosswalks with continental crosswalks, made with a durable material such as thermoplastic.
- Install the school crossing sign assembly shown in Figure 1 on Page 24 at the crosswalks along West High Street at the intersection of Haverford Avenue. This sign assembly consists of the School Sign (MUTCD S1-1) paired with a diagonal downward pointing arrow plaque (MUTCD W16-7P) at the crosswalk locations. In advance of the crosswalk an additional S1-1 sign should be paired with the "AHEAD" plaque (MUTCD W16-9P) to provide advanced warning of the crosswalk.
- Install crosswalks at all four legs of the intersection of West High Street and Devon Avenue. These crosswalks should also feature the school crossing sign assembly described above.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Minor Corridor: Glover Avenue/North Park Avenue (CR 661)

Glover Avenue and North Park Avenue feed Glenview students, residing northwest of Haddon Lake Park, towards the primary travel corridor along South Park Avenue. These streets are far more rural in character than those found south of the park.

Roadway Characteristics

Glover Avenue is a two-way residential street, with a speed limit of 25 MPH. Glover Avenue's pavement width is between 22 and 30 feet. The roadway is widest between Kings Highway and Sylvan Drive, where there are also sidewalks. South of Sylvan Drive the road narrows and there are no sidewalks. On-street parking is uncommon, but permitted.

North Park Avenue (CR 661) is a two-way county road, with a speed limit of 25 MPH. Its pavement width varies between 22 to 30 feet. It is at its narrowest between Green Street and Glover Avenue, the area of primary concern in this study. There are no sidewalks on North Park Avenue and no observations of on-street parking.

There are no marked crosswalks on either of these streets.

Transportation Concerns

- There are no sidewalks on Glover Avenue between Sylvan Drive and the newly constructed housing on Fulling Mill Lane.
- There are no sidewalks on North Park Drive.
- There are no marked crosswalks at the intersection of Glover Avenue and North Park Ave.
- The intersection of Green and North Park Avenue is very wide, which leads to long pedestrian crossing distances and could promote high speed traffic.
- There is no warning signage in advance of the Haddon Lake Park Trail crossing of Glover Avenue.

Glover Avenue/North Park Avenue (CR 661) Corridor Summary

Land Use	Residential; park access
Speed Limit	25 MPH
Pavement width	25-30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low
Sidewalks	Intermittent/none
Crosswalks	None
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	None
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Fill in sidewalk gaps; Consider 15-20 MPH speed limit on Glover Ave.; install bike/ped warning sign assembly at trail crossing; install continental crosswalks where appropriate; adjust curb line at Green St. and N. Park Ave. to reduce curb radii

Recommendations

- Ideally, Glover Avenue would include sidewalks. Any opportunity to provide a sidewalk on Glover Avenue should be explored.
  - ◊ If sidewalks are not feasible, portions of Glover Avenue are approximately 22 feet wide. Narrow streets can reduce vehicle speeds to a point where pedestrians may feel comfortable sharing the same travel area. Slow speeds could be reinforced by posting a 15 or 20 MPH speed limit.
- Consider installing sidewalks on the south side of North Park Avenue, especially between Green Street and Glover Avenue. These sidewalks should provide curb ramps and continental crosswalks to connect to existing sidewalks on Green Street and Glover Avenue, south of Fulling Mill Lane.
- Consider adjusting the curb-lines at North Park Avenue's intersection with Green Street to reduce the curb radii to slow turning traffic.
- Install the trail crossing warning sign assembly shown in Figure 5. This consists of the Combined Bicycle and Pedestrian Sign (MUTCD W11-15) paired with the "Trail X-ING" plaque (MUTCD W11-15P) and the diagonal downward pointing arrow plaque (MUTCD W16-7P) at the crossing location. Install and advanced warning signs assembly at an appropriate distance from the trail crossing (See MUTCD Section 2C.50).
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Figure 5: Trail Crossing Warning Sign Assembly

Minor Corridor: 13th Avenue

13th Avenue is similar to Glover Avenue. It feeds Glenview students, residing north of Haddon Lake Park, towards the major travel corridor along South Park Avenue. Its sidewalk network is far more complete than Glover Avenue, however.

Roadway Characteristics

13th Avenue is a two-way residential street, with a speed limit of 25 MPH. 13th Avenue's pavement width is 30 feet. On-street parking is uncommon, but permitted. There are no marked crosswalks on 13th Avenue.

Transportation Concerns

- There is no sidewalk on the east side of 13th Avenue south of Sylvan Drive.
- Curb ramps are missing at many intersections along 13th Avenue.
- There is no warning signage in advance of the Haddon Lake Trail crossing of 13th Avenue.

Recommendations

- Consider installing a continental crosswalk at the intersection of 13th Avenue, which would direct students between existing sidewalks and provide notice of pedestrian crossing activity to motorists. Consider paring the crosswalks across 13th Avenue with the School Crossing Warning Assembly shown in Figure 1 on Page 24. Crosswalks could be considered at other intersections along 13th Avenue, as needed.
- Install the trail crossing warning sign assembly shown in Figure 5 on Page 47.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

13th Avenue Corridor Summary

Land Use	Residential; park access
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low
Sidewalks	Some small gaps
Crosswalks	None
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	None
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Consider continental crosswalks; retrofit curb-ramps to be ADA compliant; install bike/ped warning sign assembly at trail crossing; install continental crosswalks where appropriate; consider roundabouts

Minor Corridor: Prospect Ridge Boulevard (CR 654)

Prospect Ridge Boulevard impacts student travel to the Glenview Avenue School in two ways. First, students travelling from north of the Glenview School, must cross Prospect Ridge Boulevard. Second, some students use Prospect Ridge as an east-west route to reach the school.

Roadway Characteristics

Prospect Ridge Boulevard is a county road that operates as a two-way residential street, with a speed limit of 25 MPH. It is 40 feet wide near the Glenview School. On-street parking is uncommon, outside of a small stretch of the roadway between 10th Avenue and Lake Drive. The roadway is also much narrower at this point, measuring approximately 26-30 feet wide.

Transportation Concerns

- Speeding is a concern on Prospect Ridge Boulevard near the student crossing location at Glenview Avenue.
- There are no crosswalks along or across Prospect Ridge Boulevard outside of the South Park Avenue/Glenview Avenue location.
- Prospect Ridge Avenue is wide, creating long crossing distances that prolong pedestrian exposure to the higher speed traffic on Prospect Ridge Boulevard.
- Bicycle connections to the Glenview Avenue School are lacking. The Camden County Bike Plan called for a "bike route" along Prospect Ridge Boulevard, due to the design constraints that prevent easy installation of bike lanes. However, there are some designs that would allow bike lanes to be incorporated within a majority the existing right-of-way.

Recommendations

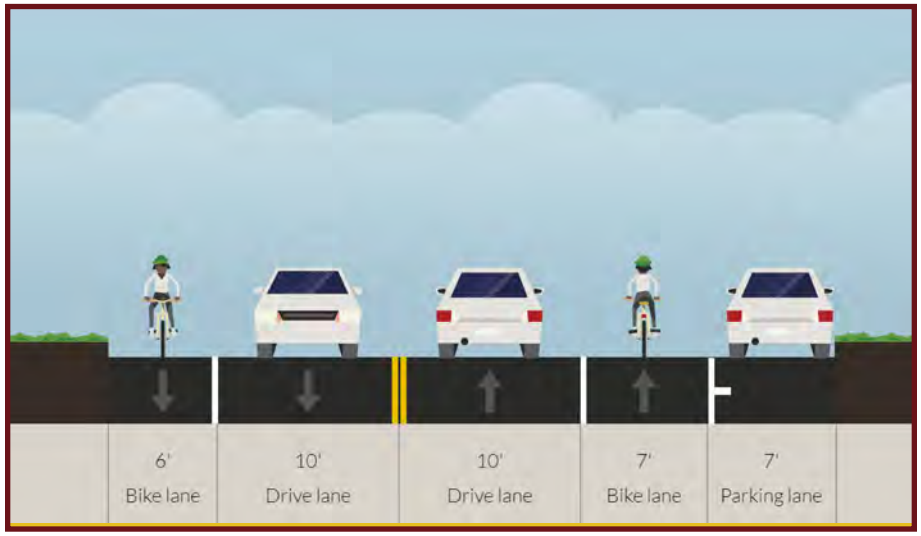
- Consider the recommendations for the student crossing location at South Park Avenue/Glenview Avenue on Page 38.

Prospect Ridge Boulevard (CR 654) Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	26' - 40'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low except for blocks between 10th Ave and Lake Dr
Sidewalks	Both sides, except for a small one-side portion between Devon and S. Park Ave
Crosswalks	Prospect Ridge, zebra
Signals	None
Ped Signage	In-street "Stop for Peds" sign
Traffic calming	None
Crossing Guards	S. Park Ave/Glenview Ave
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Intermittent tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace existing crosswalks with continental type; consider new crosswalks locations; consider curb extensions at S. Park Ave/Glenview Ave ; consider on-road bikeway

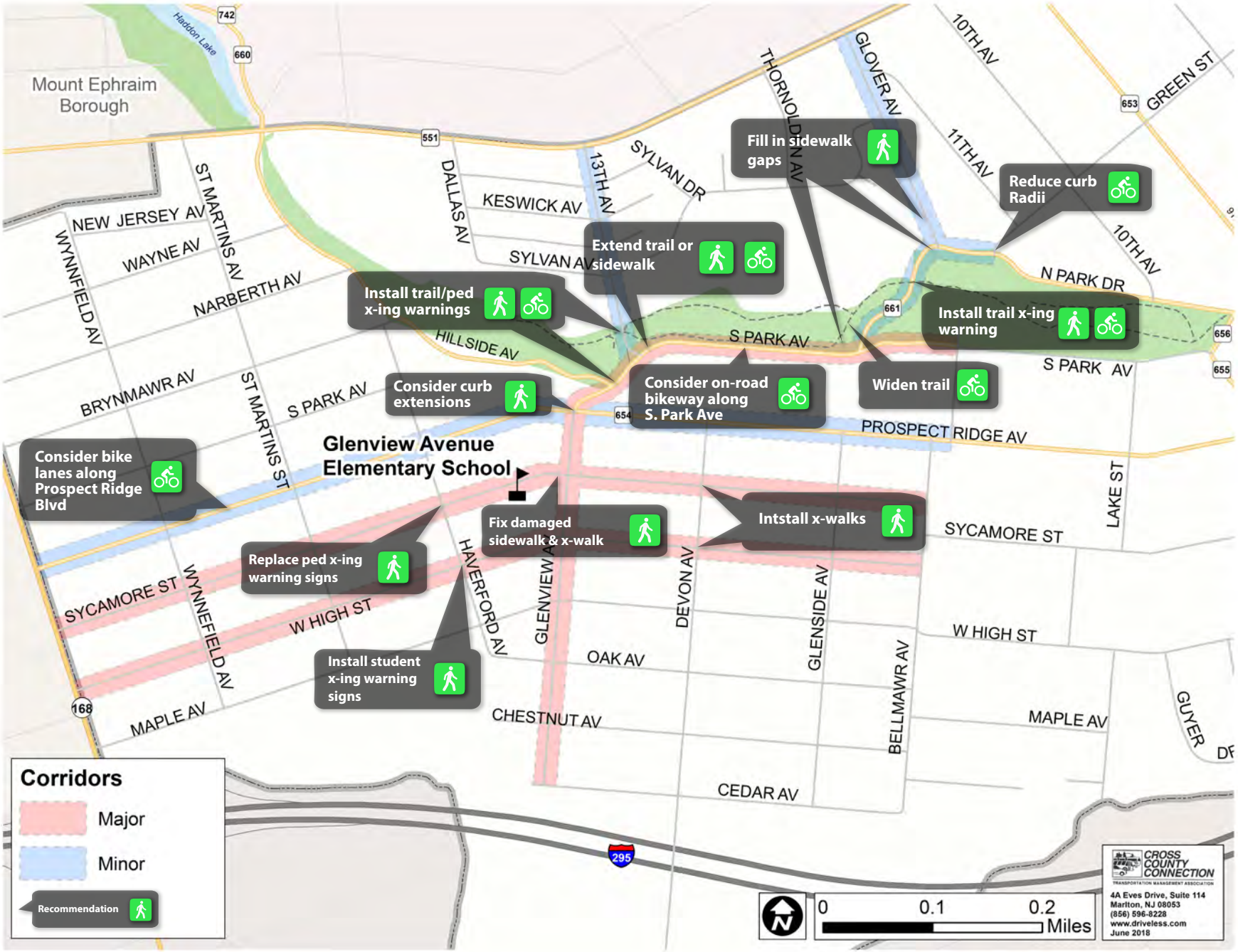
- Continental crosswalks should be considered at all intersections along Prospect Ridge Boulevard, due to the speed and volume of traffic observed.
- Consider installing continental crosswalks along Prospect Ridge Boulevard. Bellmawr Avenue was cited by Glenview parents as an area in need of a crosswalk.
- Consider bike lanes along Prospect Ridge Boulevard. If parking were restricted on the north-side of the street, the 40 foot pavement width could accommodate two 10 foot drive lanes, one seven foot parking lane on the south-side of the street, a seven foot bike lane next to the parking lane, and a five foot bike lane curbside on the north-side of the street. This cross-section is illustrated in Figure 6. This cross section could be modified to accommodate 11 foot travel lanes and reduced bike lane widths, though this could negatively impact bicyclists' safety.

Figure 6: Potential Cross-Section to Accommodate Bike Lanes on Prospect Ridge Boulevard



- In the alternative, and for sections of Prospect Ridge Boulevard that are narrower than 40 feet, a shared lane bike route could be designated with sharrows and "Bicyclist May Use Full Lane" signage (MUTCD R4-11). Traffic calming measures, such as curb extensions and short center islands (aka splitter islands) that do not block driveways, should be used to slow traffic and make sharing the road more comfortable for bicyclists. Guidance on appropriate traffic calming measures can be found in NACTO's Urban Bikeway Design Guide and NJDOT's Complete Streets Design Guide.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

MAP 11: GLENVIEW AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDOR RECOMMENDATIONS



Atlantic Avenue School

An audit of the Atlantic Avenue School Student Travel Corridors was conducted on Wednesday, May 16, 2018. Audit participants included Cross County Connection staff, Patrolman Bret Lightner from the Haddon Heights Police Department, Glenview School parent, Danielle Linaris and Atlantic Avenue School Parent, Kathryn Russo. Pedestrian volumes were fairly light, during student arrival, due to steady rain. Pedestrian activity was much higher in the afternoon, when weather conditions were drier. There was sporadic bike activity during both student arrival and dismissal.

Major student travel corridors include:

- East Atlantic Avenue
- Station Avenue

Minor student travel corridors include:

- Green Street
- 1st through 4th Avenues

Major and minor student travel corridors for the Atlantic Avenue Elementary School are shown on Map 12. Recommendations for Atlantic Avenue School's student travel corridors are shown on Map 13, found on Page 65.

MAP 12: ATLANTIC AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDORS

Major Corridor: East Atlantic Avenue (CR 727)

East Atlantic Avenue is a route for all students travelling to the Atlantic Avenue School. It is the location of the school's main entrance for both student arrival and dismissal. All students access the school from points south, most often using Station Avenue or Green Street to reach East Atlantic Avenue. A crossing guard is stationed at East Atlantic's intersection with Green Street.

Roadway Characteristics

East Atlantic Avenue is a two lane county roadway that serves two-way traffic. The roadway serves residences, including senior apartments, as well as some commercial uses. It runs to the east of freight rail tracks. Train activity is infrequent and limited to evenings. East Atlantic Avenue provides access to neighboring Audubon and Barrington, making it an attractive alternative to the White Horse Pike. It has a posted speed limit of 25 MPH, though traffic often appeared to be traveling faster.

East Atlantic Avenue's pavement width varies between 22 and 31 feet. Head-in diagonal parking is provided between Station Avenue and Green Street. Curbside parking is prohibited on East Atlantic Avenue, but stopping is permitted to let students out. Off-street parking is available for most businesses, apartment complexes and single family residences.

Signage and traffic controls are frequent. Stop signs are located at East Atlantic's intersections with Station Avenue and Green Street. High visibility continental crosswalks are provided at East Atlantic's intersection with Green Street. Lower visibility zebra crosswalks are provided at Station Avenue. There are flashing school zone signs at both approaches to the school grounds on East Atlantic Avenue. There are also school crossing sign assemblies at the crosswalks located at Green Street along with advanced crosswalks "AHEAD" warning sign

East Atlantic Avenue (CR 727) Corridor Summary

Land Use	Commercial; residential
Speed Limit	25 MPH
Pavement width	40'- 48'
Travel lanes	2
Parking Lanes	Curbside marked parallel spaces in the business district. Permitted, but not marked elsewhere.
On-street parking rate	High rates in the business district. Low rates elsewhere.
Sidewalks	Continuous on both sides
Crosswalks	Zebra
Signals	Traffic light at White Horse Pike
Ped Signage	Crosswalk warnings. In-street "Stop for Peds" signs
Traffic calming	None
Crossing Guards	3rd Ave; 4th Ave; White Horse Pike; 7th Ave
Ped-Scale Lighting	Between the White Horse Pike and 8th Ave
Bikeway	None
Bicycle signage	None
Street trees	Intermittent tree canopy
Driveways	Some commercial driveways in the business district. Frequent residential driveways elsewhere.
Suggested Improvements	Conduct traffic signal timing study at intersection with the White Horse Pike; consider curb extensions at pedestrian crossings; install some form of on-road bikeway; implement trail crossing at West Atlantic Avenue

assemblies. The crosswalks at Station Avenue are paired with in-street "Stop for Pedestrians" panel signs.

Transportation Concerns

- There are parent concerns regarding the traffic entering and exiting driveways for local businesses and the senior apartments located along East Atlantic Avenue. Motorists must cross the pedestrian path at the sidewalk level, which is ideal, but warnings regarding pedestrian activity could be strengthened.
- There are concerns with parents dropping off students on East Atlantic Avenue. The narrow street cannot adequately handle parked vehicles and two lanes of traffic during student arrival and dismissal times. In addition, parents often park in restricted areas at the intersection of East Atlantic and Green Street. These areas are demarcated by signs and painted yellow curbs. This creates visibility issues for pedestrians crossing at this intersection.
- Speeding is also a concern along East Atlantic Avenue.

Recommendations

- Apartment and commercial driveway exits could use stop signs and painted stop lines in advance of the sidewalk to remind motorists of the need to stop before crossing the sidewalk. Per the MUTCD, Stop lines should be between 12 and 24 inches thick.
- Parents could be prohibited from parking curbside on East Atlantic Avenue. They could be directed to the parking spaces south of the school on East Atlantic Avenue, or directed to the curbside parking on Green Street. Parking on Green Street is limited to 15 minutes, which is ample time for student drop-off. This area was utilized during observations, but there was some excess capacity. There also may be opportunities for satellite drop-of locations, which are discussed in Chapter 5.
- Parking restricted areas could be further delineated using flexible posts to "daylight" the intersection, which improves sightlines for motorists scanning for pedestrian activity. This treatment is shown in Figure 7.

Figure 7: "Daylighting" an Intersection Using Flex-Posts

Photo Credit: Rutgers Bloustein School of Planning and Public Policy

- Haddon Heights Borough could request that Camden County post a lower speed limit within the school zone surrounding the Atlantic Avenue School. This could be reinforced with the existing radar speed feedback sign for northbound traffic. An additional radar sign would need to be installed to warn southbound traffic. This could be further bolstered by enforcement efforts from Haddon Heights Police Department.

Major Corridor: Station Avenue (CR 656)

Station Avenue is the primary route to school for Atlantic Avenue students residing east of the White Horse Pike. It also accommodates students coming from some locations south and west of the school. Since Station Avenue functions as Haddon Heights' Main Street, it is also the location of potential student destinations after the school day ends. Travel patterns for the Atlantic Avenue School, Seventh Avenue School and Junior High and High Schools converge on Station Avenue. It bustles with activity during student arrival and drop-off times. A crossing guard is stationed at Station Avenue's intersections with 3rd Avenue, 4th Avenue, the White Horse Pike (US 30) and 7th Avenue.

Roadway Characteristics

Station Avenue is a two lane county roadway that serves two-way traffic. On the blocks between the White Horse Pike and Seventh Avenue, Station Avenue serves as the borough's business district and Main Street. Outside of those blocks, it is primarily residential in land use, featuring both single family homes and small apartment buildings. Station Avenue provides access to neighboring Haddonfield to the east. The road terminates at its intersection with 10th Avenue and South Park Avenue, near a war memorial, locally referred to as "the cannons." Station Avenue has a posted speed limit of 25 MPH, though traffic appeared to be travelling faster outside of the business district.

Station Avenue's pavement width varies between 40 and 48 feet. Curbside parking is only delineated in the commercial area between Seventh Avenue and the White Horse Pike, but it is permitted in most areas.

A traffic signal is located at the intersection of Station Avenue and the White Horse Pike. There are no additional stop signs or signals. Low visibility zebra-style crosswalks are provided at numerous intersections along Station Avenue. Many are paired with in-street "Stop for

Station Atlantic Avenue (CR 656) Corridor Summary

Land Use	Commercial; residential
Speed Limit	25 MPH
Pavement width	40'- 48'
Travel lanes	2
Parking Lanes	Curbside marked parallel spaces in the business district. Permitted, but not marked elsewhere.
On-street parking rate	High rates in the business district. Low rates elsewhere.
Sidewalks	Continuous on both sides
Crosswalks	Zebra
Signals	Traffic light at White Horse Pike
Ped Signage	Crosswalk warnings. In-street "Stop for Peds" signs
Traffic calming	None
Crossing Guards	3rd Ave; 4th Ave; White Horse Pike; 7th Ave
Ped-Scale Lighting	Between the White Horse Pike and 8th Ave
Bikeway	None
Bicycle signage	None
Street trees	Intermittent tree canopy
Driveways	Some commercial driveways in the business district. Frequent residential driveways elsewhere.
Suggested Improvements	Conduct traffic signal timing study at intersection with the White Horse Pike; consider curb extensions at pedestrian crossings; install some form of on-road bikeway; implement trail crossing at West Atlantic Avenue

Pedestrians" panel signs. Crosswalks near schools, use a school crossing warning sign assembly.

The Cross Camden County Trail is also planned to run alongside the rail tracks between East and West Atlantic Avenues. The trail will have a crossing at Station Avenue, which could benefit student travel.

Transportation Concerns

- The student crossing at the White Horse Pike can have issues with aggressive driving, most frequently from traffic turning left onto the White Horse Pike from Station Avenue. Crossing guards report some near misses and verbal harassment from motorists. The left turn signal phase is only a few seconds, allowing only a few cars to clear the intersection, potentially stoking driver frustration with the further delay caused by students crossing.
    - ◊ The through traffic phase for Station Avenue is also short, approximately 16-17 seconds, causing significant congestion that affects intersections to the west of the White Horse Pike. Traffic was observed backing up to West Atlantic Avenue during student arrival and drop-off times.
- Station Avenue's intersections with East Atlantic and West Atlantic Avenues is a major concern for parents and local businesses. It is the location of one reported bike crash and numerous motor vehicle crashes during student arrival and departure times. The intersections are congested and chaotic. Motorists are scanning for gaps in traffic and may not see pedestrians in crosswalks.
- Pedestrian crossing distances across Station Avenue are lengthy, up to 48 feet curb to curb, exposing students that walk to conflicts with traffic for prolonged periods of time.
- Motorists were often observed failing to stop for pedestrians in the crosswalk, or for those clearly waiting to cross the street, at multiple locations along Station Avenue.
- Speeding is a concern on Station Avenue on blocks outside of the business district.

Congestion at intersection of Station Ave and E Atlantic Ave

- Bicycle connections to the Station Avenue business district are lacking, which leads to underutilization of an attractive community asset. The Camden County Bike Plan calls for a "mixed treatment" along Station Avenue, which could take the form of multiple on-road bikeway types, including a shared lane bike route or bike lanes.
- The currently planned location of the Cross Camden County Trail crossing is currently not equipped to safely accommodate pedestrians and bicyclists crossing Station Avenue and will need to be retrofitted. This retrofit could provide an additional safe crossing location for students.

Recommendations

- Consider a traffic signal timing study to address congestion issues on Station Avenue. Additional time for left turning and through traffic on Station Avenue could relieve some driver

anxiety and lead to more courteous behavior toward pedestrians and the crossing guards.

◊ This study could also explore whether the current configuration of the intersection is optimal. Currently, it is difficult for left turning traffic to determine if there is on-coming traffic due to the lanes being offset to the left of each other. Reconfiguring the intersection to have no offset, allowing opposing left turning traffic to directly face each other, could improve visibility and free up space to consider better accommodating bicyclists and pedestrians at the intersection.

- Curb extensions should be considered for intersections along Station Avenue with frequent pedestrian activity. Curb extensions would shorten the curb to curb crossing distance, while also improving pedestrian visibility and providing a traffic calming effect to reduce speeds.

  ◊ High priority should be given to Station Avenue's intersections with East and West Atlantic Avenues. These curb extensions should be designed to accommodate the proposed Cross Camden County Trail and any bikeway provided along Station Avenue.

  ◊ The Cross Camden County Trail Feasibility Study recommends adding an additional crosswalk to the east-side of the intersection of Station and West Atlantic Boulevard. This crosswalk would be paired with a Rectangular Rapid Flashing Beacon (RRFB) to heighten pedestrian and bicyclist visibility and improve motorists' compliance with the requirement to stop. Haddon Heights should work with Camden County to ensure these measures are implemented along with the trail.

  ◊ Haddon Heights is working with Camden County to determine a pilot traffic calming treatment at the intersection of Station Avenue and East Atlantic Avenue. Pilot projects can effectively use paint and some form of physical barrier, such as flex-posts or potted plants to achieve the same desired effects of concrete and curbing. Examples of potential traffic calming pilot treatments are shown in Figure 8. The pilot should take into consideration the recommendations of this Travel Plan and Camden County's Bike and Trail Feasibility plans. If this pilot is successful, similar applications should be tested at all pedestrian crossings along Station Avenue.

- Consider bike lanes on Station Avenue. The 48 foot pavement width between Seventh Avenue and the White Horse Pike could accommodate five foot bike lanes and still maintain on-street parking. The 40 foot pavement width outside of these blocks would require prohibiting on-street parking on one side of the street in order to provide the space necessary to provide bike lanes. Potential bike lane configurations for these distinct sections of Station Avenue are shown in Figure 9.

  ◊ If this is untenable, a shared lane should be designated with sharrows and "Bicyclist May Use Full Lane" signage (MUTCD R4-11). Traffic calming measures, such as curb extensions, should be used to slow traffic and make sharing the road more comfortable for bicyclists. Guidance on appropriate traffic calming measures can be found in NACTO's Urban Bikeway Design Guide and NJDOT's Complete Streets Design Guide.

- Figure 10 demonstrates a potential redesign of Station Avenue's intersections with East and West Atlantic Avenues.

- All curb ramps appeared to be ADA compliant along Station Avenue, but some featured a single diagonal curb ramp design, which often direct persons with disabilities away from the crosswalk. If the opportunity arises, these curb ramps should be redesigned in a manner that provides a direct transition into the crosswalk, such as two perpendicular ramps or a blended transition.

Figure 8: Potential Traffic Calming Treatments for Pilot Projects

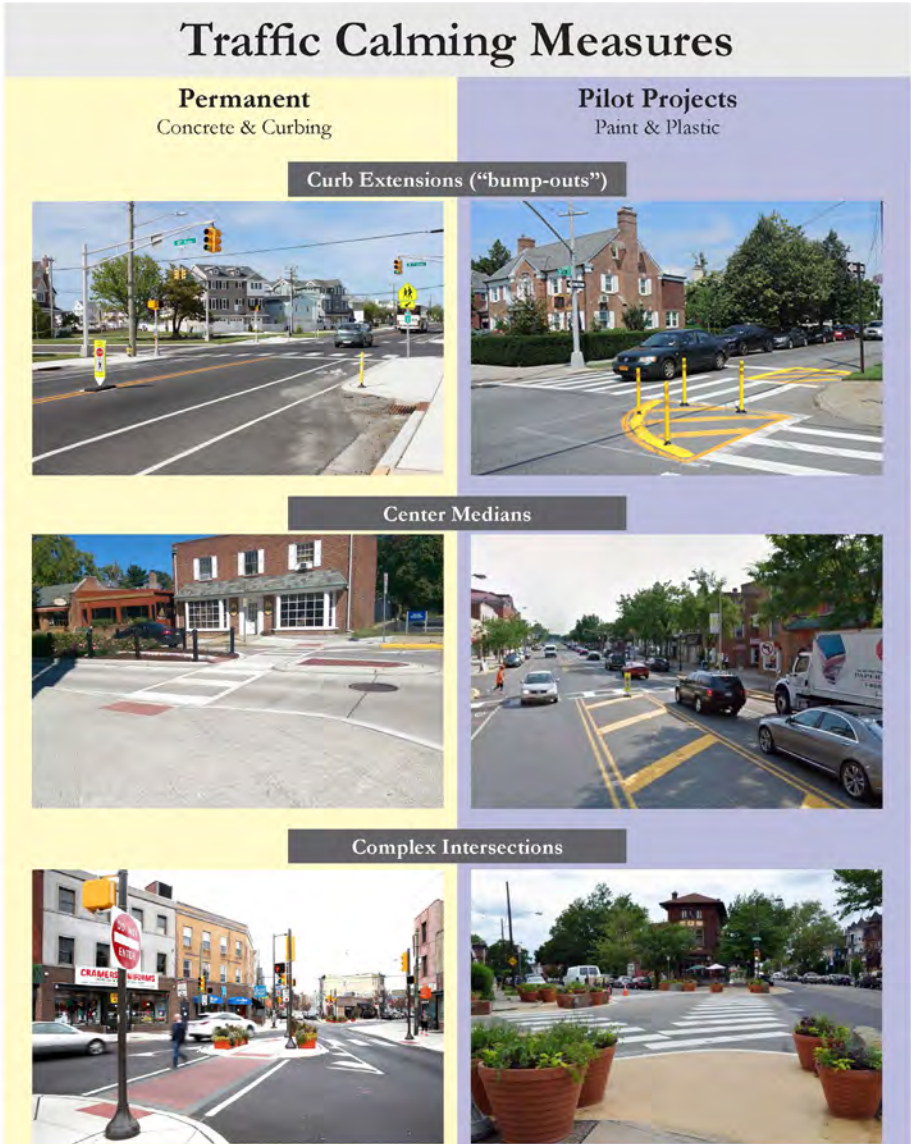


Figure 9: Potential Cross-Section to Accommodate Bike Lanes on Station Avenue

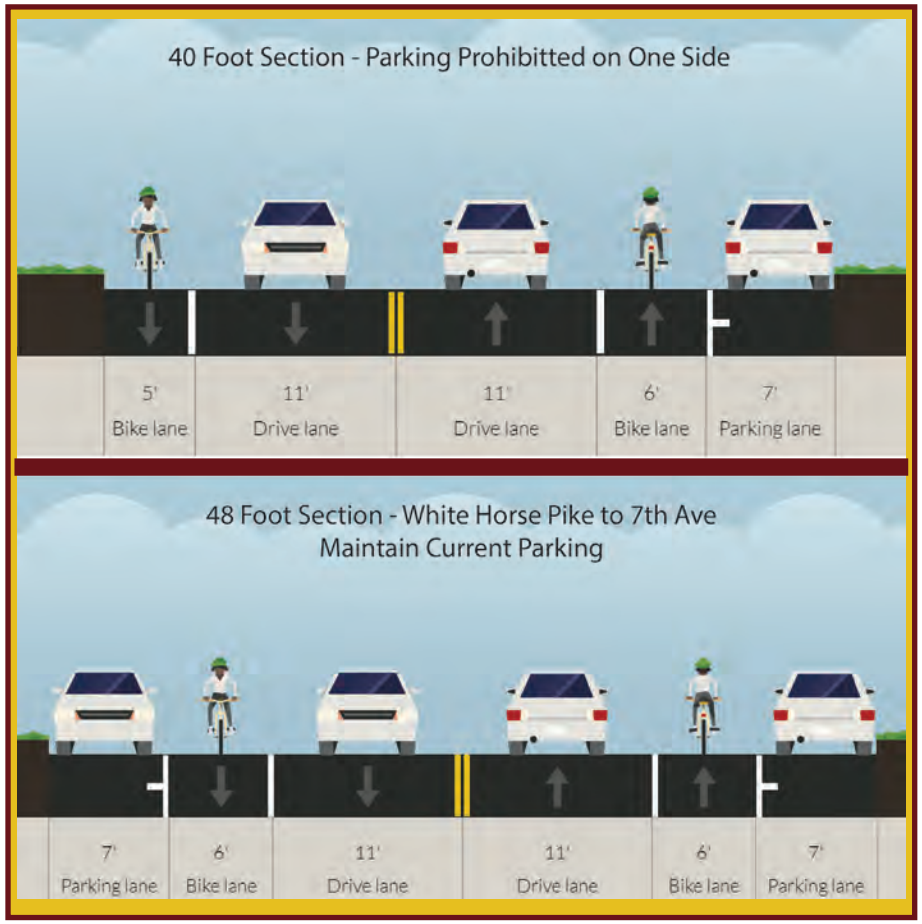
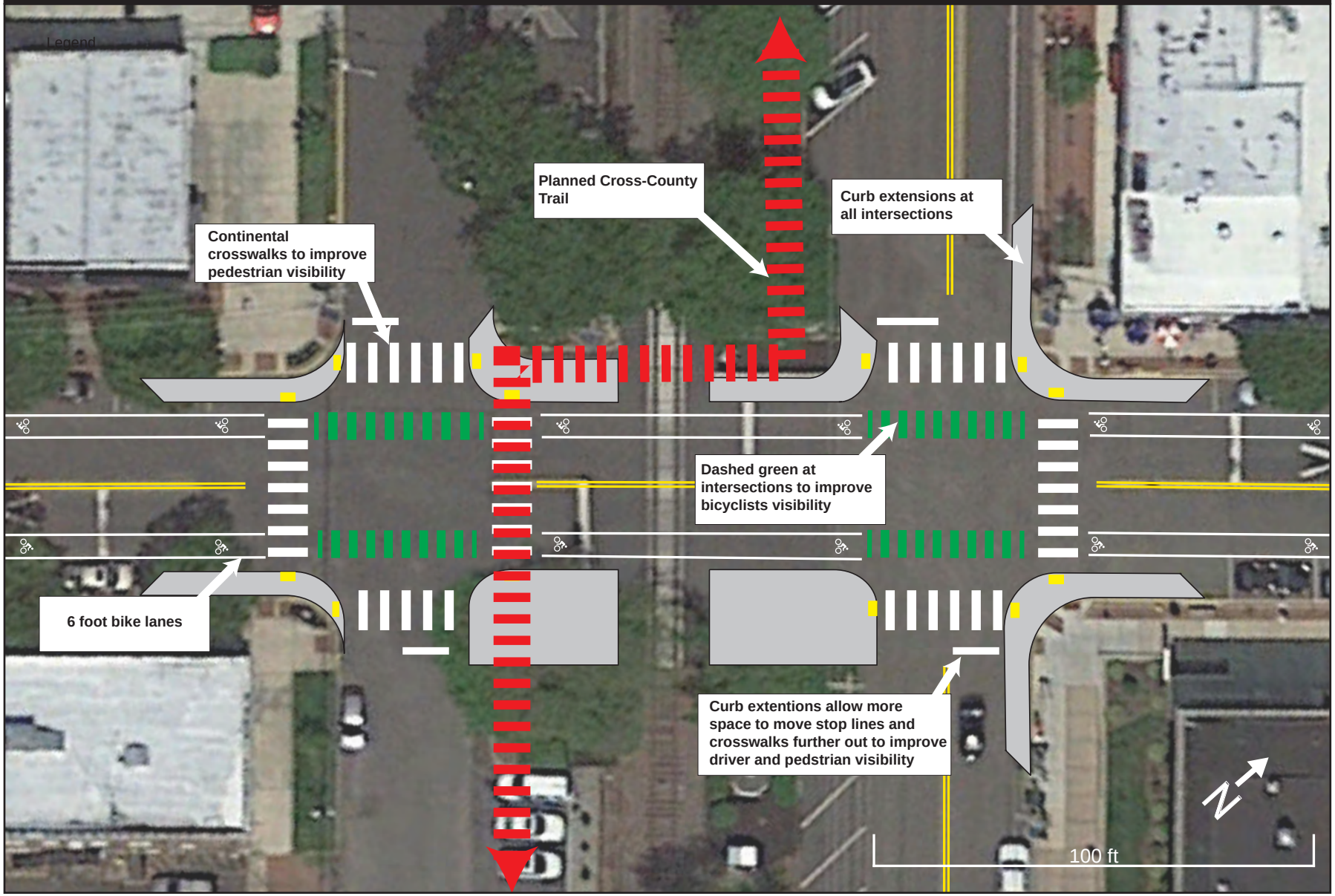


FIGURE 10: STATION AVENUE AT EAST AND WEST ATLANTIC DESIGN CONCEPT



For conceptual purposes only. Not drawn to accurate scale.

Minor Corridor: Green Street

Green Street is the route for students residing west of the Atlantic Avenue School. It features a pedestrian bridge over the freight rail tracks that provides access to the school entrance. Some parents will park on West Atlantic Avenue to avoid congestion and use this bridge to walk their children to the school entrance. A crossing guard is stationed at Green Street's intersection with East Atlantic Avenue.

Roadway Characteristics

Green Street is a residential street that serves one-way traffic. It has a posted speed limit of 25 MPH. Green Street's pavement width is approximately 25 feet. Curbside parking is permitted, but restricted to 15 minutes on the north side of the street, between East Atlantic Avenue and the White Horse Pike. On street parking rates were highest on this block. School faculty appeared to park on the south-side of the street, while some parents utilized the north-side for student drop-off.

There are continental crosswalks at Green Street's intersection with East Atlantic Avenue and at connections to the pedestrian bridge. Zebra crosswalks are used at all legs of Green Street's intersection with 9th Avenue. They are also used along the student travel path along Green Street, at 8th and 7th Avenue. There are stop signs for traffic using Green Street at every intersection between 10th Avenue and West Atlantic Avenue.

Transportation Concerns

- The pedestrian bridge is rusted in appearance and not ADA accessible.
- Speeding traffic using 9th Ave is cited as a parent concern at its intersection with Green Street. Parents feel it is dangerous for students to cross 9th Avenue at this location. Requests for a stop sign for traffic on 9th Avenue have been denied.
- There is an informal parking area on the grass next to the

Green Street Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	25'
Travel lanes	1
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low except for blocks between the White Horse Pike and East Atlantic Ave
Sidewalks	Continuous on both sides
Crosswalks	Continental and zebra
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	East Atlantic Ave
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Assess condition of pedestrian bridge, explore ADA accessible replacement or retrofit; consider curb extensions at 9th Ave;, replace low-visibility crosswalks with continental crosswalks; provide pedestrian crossing warning signage at 9th Ave; consider parking lot on West Atlantic near pedestrian bridge

pedestrian bridge that is utilized by parents dropping off their children. This could be paved to provide a uniform slip resident surface and a formal place to park for these parents. This Cross Camden County Trail Feasibility Study recommends connecting the trail to this bridge as an access point.

Recommendations

- Work with Conrail and Camden County to explore the possibility of retrofitting or replacing the bridge to be ADA accessible.
- Stop signs may improve the safety of students crossing 9th Avenue at Green Street. However, traffic calming measures, with or without a stop sign, such as curb extensions, would also benefit pedestrian safety at this intersection.
- Install wider continental crosswalks and pair it with an in-street "Stop for Pedestrians" panel sign (MUTCD R1-6c) to improve pedestrian visibility at all legs of the 9th Avenue and Green Street intersection.
    - ◊ A School Crossing Sign Assembly would further enhance pedestrian visibility. This sign assembly consists of the school sign (MUTCD S1-1) paired with a diagonal downward pointing arrow plaque (MUTCD W16-7P) at the crosswalk locations. In advance of the crosswalk an additional S1-1 sign should be paired with the "AHEAD" plaque (MUTCD W16-9P) to provide advanced warning of the crosswalk.
- Pave a parking area at the foot of the pedestrian bridge on West Atlantic Avenue to provide a safe space for parents to drop-off students and to serve those accessing the proposed Cross Camden County Trail that will connect to the east-side of the bridge.

Green Street pedestrian bridge

Minor Corridor: 1st through 4th Avenues

Due to the grid-pattern of Haddon Heights streets, 1st, 2nd, 3rd and 4th Avenues all feed Atlantic Avenue students to the major corridor of Station Avenue. There are crossing guards stationed at Station Avenue's intersections with 3rd and 4th Avenues.

Roadway Characteristics

1st, 2nd, 3rd and 4th Avenues are residential streets that serve two-way traffic. They have a posted speed limit of 25 MPH. On street parking rates appeared to be low on these streets. Pavement widths are approximately 30 feet wide.

There are zebra-style crosswalks at 2nd, 3rd and 4th Avenue's intersections with Station Avenue. Stop signs are provided at these four street's intersections with Garden Street and Station Avenue.

Transportation Concerns

- Curb ramps are missing at Station Avenue's intersections with 1st Avenue and 2nd Avenue.
- There are numerous other missing curb ramps at other intersections along 1st, 2nd, 3rd and 4th Avenues.
- Marked crosswalks are low visibility standard or zebra-style crosswalks.

Recommendations

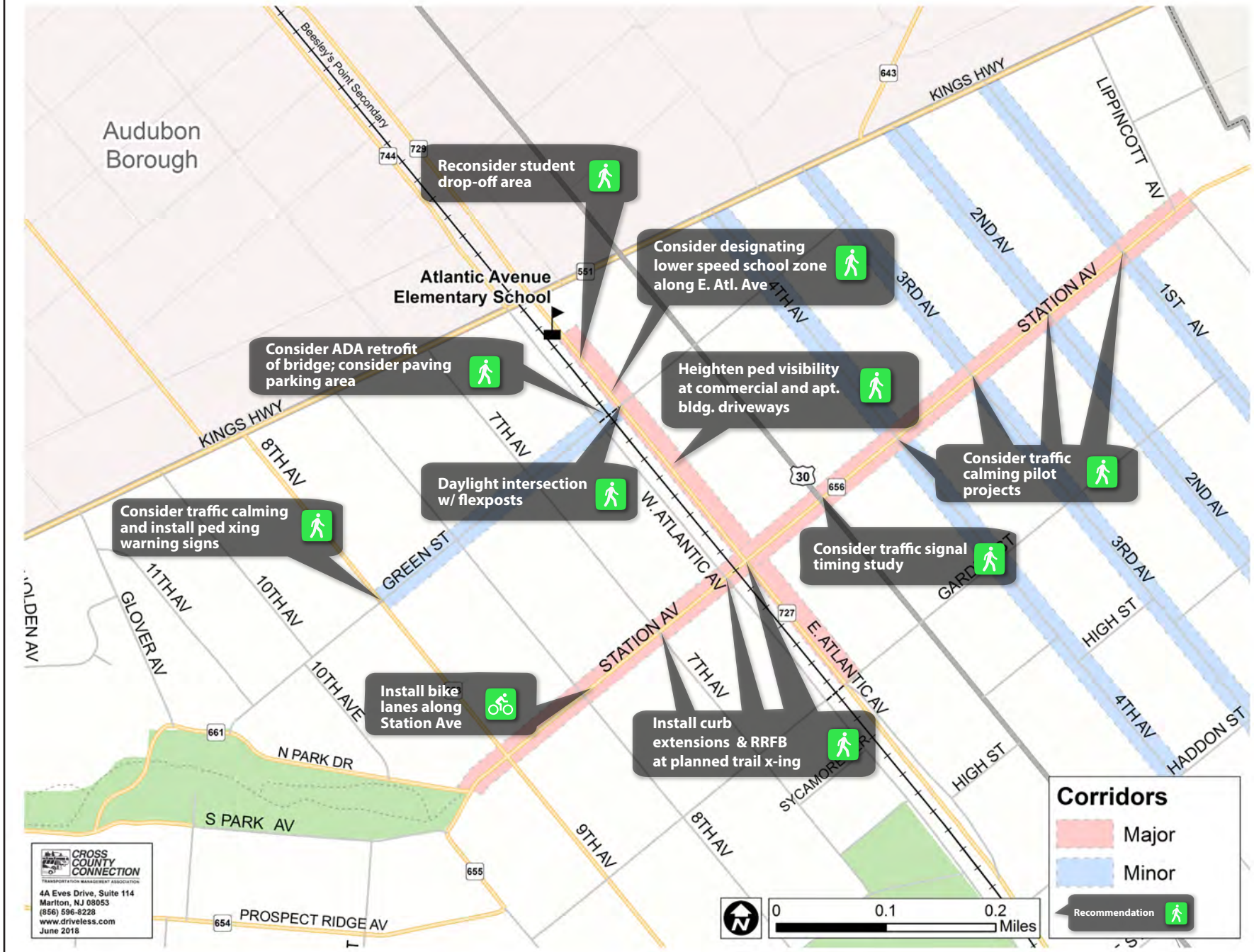
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.
- Replace all existing crosswalks with continental crosswalks, made with a durable material such as thermoplastic.
- As discussed in the recommendations for Station Avenue, consider pilot projects to ascertain the safety benefits of curb

1st through 4th Avenues Corridor Summaries

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted
On-street parking rate	Low
Sidewalks	Continuous on both sides
Crosswalks	Standard and zebra
Signals	None
Ped Signage	None
Traffic calming	None
Crossing Guards	3rd Ave and Station; 4th Ave and Station
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Retrofit non ADA compliant curb ramps; install continental crosswalks; test pilot traffic calming measures at intersections with Station Ave

extensions, or other traffic calming measures, at Station Avenue's intersection with 1st, 2nd, 3rd and 4th Avenues. Priority could be given to the designated school crossings at 3rd and 4th Avenues.

MAP 13: ATLANTIC AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDOR RECOMMENDATIONS



Seventh Avenue School

An audit of the Seventh Avenue School Student Travel Corridors was conducted on Tuesday, April 24, 2018. Audit participants included Cross County Connection staff, Patrolman Bret Lightner from the Haddon Heights Police Department and Glenview School parent, Danielle Linaris and Seventh Avenue School Parent, Elizabeth Madden. Pedestrian volumes were higher than at the other schools. This could be because weather was far more favorable. Biking and scooter activity on the sidewalks near the school were frequently observed.

Major student travel corridors include:

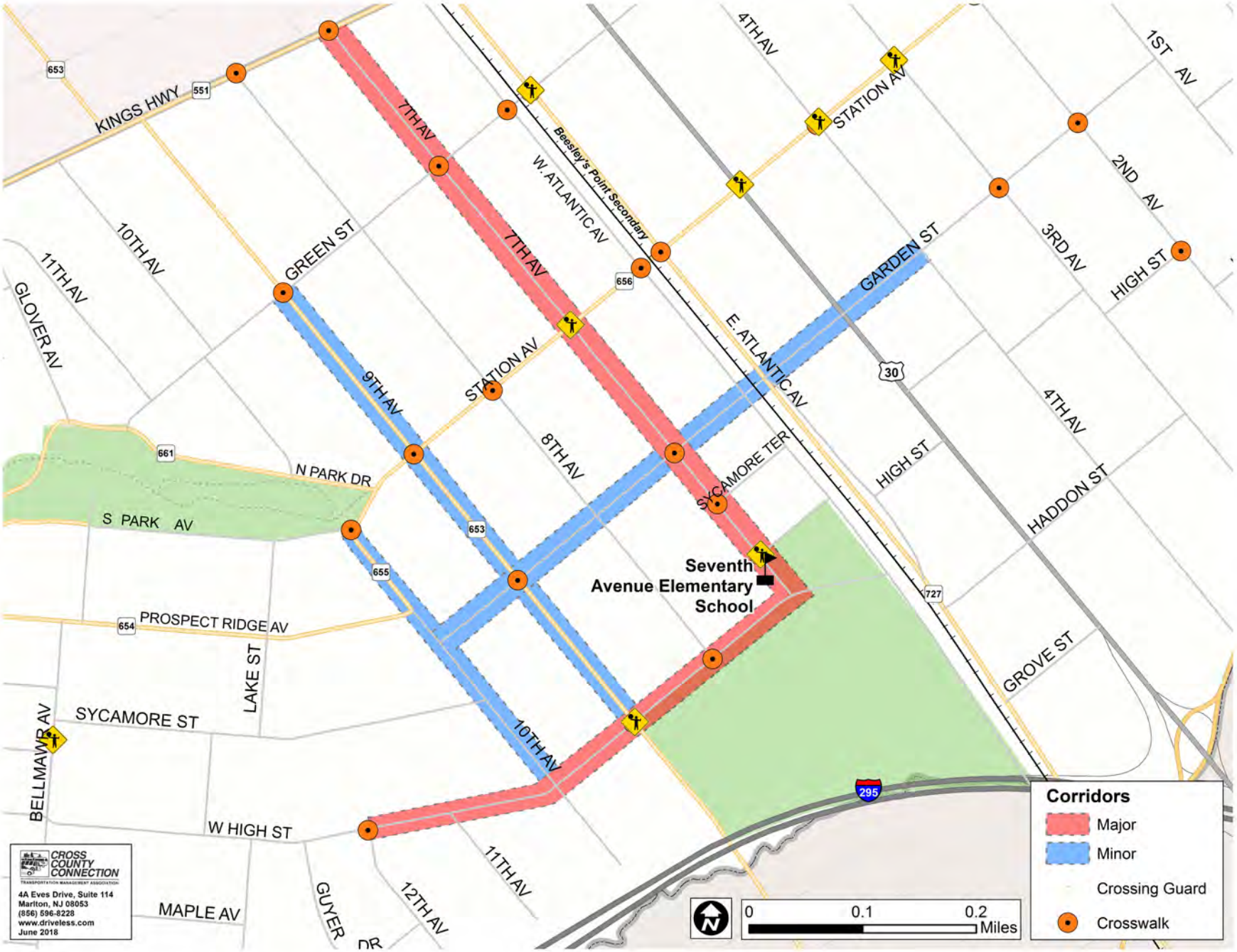
- 7th Avenue
- West High Street

Minor student travel corridors include:

- Garden Street
- 9th & 10th Avenues

Major and minor student travel corridors for the Seventh Avenue Elementary School are shown on Map 14. Recommendations for Seventh Avenue School's student travel corridors are shown on Map 15, found on Page 76.

MAP 14: SEVENTH AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDORS



Major Corridor: 7th Avenue

East Atlantic Avenue is the primary route to school for students residing north of the Seventh Avenue School. It is the location of the school's main entrance for both student arrival and dismissal. A crossing guard is stationed at 7th Avenue's intersection with West High Street.

Roadway Characteristics

7th Avenue is a residential street that serves one-way traffic. It has a posted speed limit of 25 MPH. 7th Avenue's pavement width is approximately 30 feet. Curbside parking is restricted on the west side of the street, directly in front of the school building. On street parking was common, but busiest during student drop-off and dismissal on the blocks near the school.

There are standard crosswalks at 7th Avenue's intersection with West High Street in front of the school. There is a continental and standard crosswalk to south of the school building, at 7th Avenue's intersection with Lippincott Lane and West High Street. Both of these intersections feature student crossing signs. There are zebra-style crosswalks at 7th Avenue's intersection with Station Avenue. These crosswalks are accompanied with an in-street "Stop for Pedestrians" panel sign. There are stop signs on 7th Avenue at the intersection of Lippincott Lane/West High Street, West Garden Street and Station Avenue.

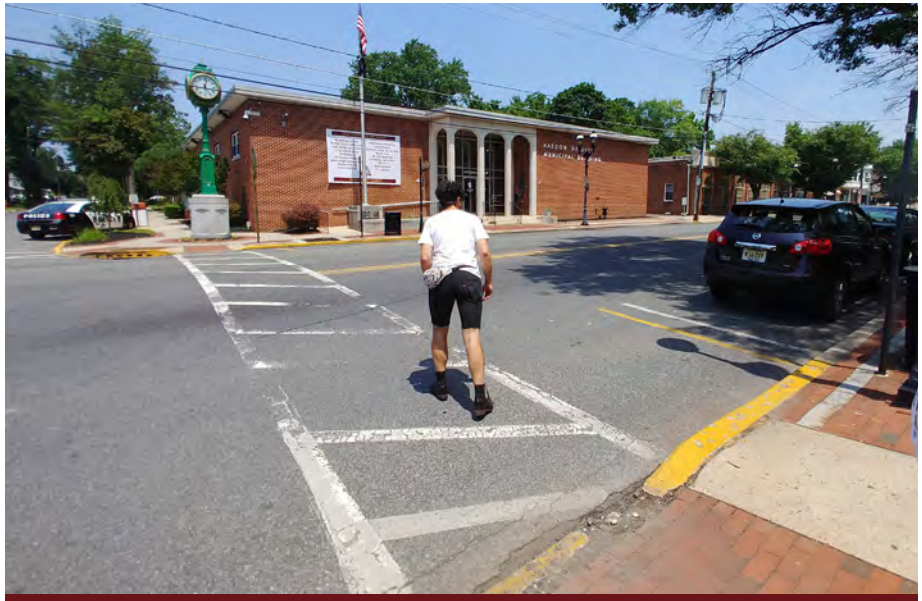
Transportation Concerns

- Sidewalks are narrow along 7th Avenue, measuring between three and four feet wide.
- Sidewalk damage and lifting from street trees is common, creating tripping hazards.
- Most marked crosswalks are low-visibility standard or zebra style crosswalks, which are difficult for motorists to discern.
- Parents and the crossing guard reported that it is difficult to see

7th Avenue Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted in most locations
On-street parking rate	Low to medium
Sidewalks	Continuous both sides
Crosswalks	Standard and zebra style
Signals	None
Ped Signage	School Crossing
Traffic calming	None
Crossing Guards	West High St.
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace low visibility crosswalks with high visibility continental crosswalks; replace existing sidewalks with new sections 5 ft. or wider when possible; retrofit curb-ramps to ADA compliant; restrict parking within 25 feet of crosswalk at intersection with Station Ave.; consider curb extensions at Station Ave.

pedestrians crossing Station Avenue from the south-east corner of its intersection with 7th Avenue. Parked vehicles in front of John's Friendly Market can obstruct motorists' ability to see pedestrians waiting to cross. There are parking spaces within ten feet of the crosswalk. New Jersey State law states parked cars should not be permitted within 25 feet of a crosswalk.



Car parked within 25 feet of crosswalk reduces pedestrian visibility

Recommendations

- When the opportunity arises to install new sidewalks along 7th Avenue, they should be, at minimum, five feet wide. In areas immediately surrounding the school, with high volumes of pedestrian activity, wider sidewalks may be warranted. The NJDOT School zone design guide recommends eight to ten foot wide sidewalks in areas with significant pedestrian traffic.
- Explore remedies to address the tree damaged and lifted sidewalks such as moving sidewalks out of root areas, grinding lifted edges to a uniform level, or flexible pavement surfaces.
- Remove any parking spaces that are within 25 feet of the crosswalk at the intersection of Station Avenue and 7th Avenue.
- Consider a pilot project to test curb extensions at the intersections of Station Avenue and 7th Avenue. Curb extensions would shorten the pedestrian crossing distance of Station Avenue and remedy the pedestrian visibility issues caused by cars parked in front of John's Friendly Market.
    - ◊ At the very least, or as an interim measure, flexible post could be installed to "daylight" the intersection and preventing cars from parking within 25 feet of the corner, therefore improving pedestrian visibility. This is demonstrated in Figure 7 on Page 55.

Major Corridor: West High Street

West High Street is the primary route to school for students residing west of the Seventh Avenue School. A crossing guard is stationed at West High Street's intersection with 9th Avenue.

Roadway Characteristics

West High Street is a two-way residential street. It has a posted speed limit of 25 MPH. West High Street's pavement width is approximately 30 feet.

Curbside parking is restricted near the intersection with 7th Avenue and in front of the ballfields near the school, but permitted elsewhere. On street parking rates are high near the school, as it appears to be a common location for school faculty parking. There is infrequent on-street parking elsewhere.

Marked crosswalks are provided at all four legs of West High Street's intersection with 9th Avenue. These are a mix of standard and zebra-style crosswalks. Crosswalks across 9th Avenue are paired with a school crossing warning sign. There is an additional standard crosswalk along West High Street at 8th Avenue.

Transportation Concerns

- Parents and crossing guard report that motorists frequently fail to come to a complete stop at the intersection of West High and 9th Avenue.
- Some sidewalks are narrow along West High Street, between three to four feet wide.
- Many crosswalks were standard low-visibility crosswalks, which are difficult for motorists to discern.
- Some curb ramps were not ADA compliant.

West High Street Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted in most locations
On-street parking rate	High rates between 8th and 7th Avenues. Low rates elsewhere.
Sidewalks	Continuous both sides
Crosswalks	Standard and zebra style
Signals	None
Ped Signage	School Crossing
Traffic calming	None
Crossing Guards	Glenview Ave.
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Enforce rolling stop violations; replace low visibility crosswalks with high visibility continental crosswalks; install School Crossing advanced warning sign assembly on 9th Ave; replace existing sidewalks with new sections 5 ft. or wider when possible; retrofit curb-ramps to ADA compliant

Recommendations

- Haddon Heights Police Department should continue to conduct a rolling stop patrol at the intersection of West High Street and 9th Avenue.
- When the opportunity arises to install new sidewalks along West High Street, they should be, at minimum, five feet wide. In areas immediately surrounding the school entrance, wider sidewalks may be warranted.
- Replace all existing crosswalks with high visibility continental crosswalks, made with a durable material such as thermoplastic.
- Supplement the existing student crossing warning signs located at the crosswalks with advanced crosswalk warning signs. This sign assembly consists of the school sign (MUTCD S1-1) paired with the "AHEAD" plaque (MUTCD W16-9P). They could feature a flashing beacon to provide a higher level of visibility to traffic on 9th Avenue.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

Minor Corridor: Garden Street

Garden Street is an east-west route for students travelling to the Seventh Avenue School. It is primarily used by students residing to the west of the school. There are no crossing guards stationed along Garden Street. Students from the Junior High and High School also use this route to reach their school, located east of the White Horse Pike.

Roadway Characteristics

Garden Street is two-way residential street with a posted speed limit of 25 MPH. Garden Street's pavement width is approximately 27 feet.

Curbside parking is permitted, but parking rates are low. Marked crosswalks are provided at all four legs of Garden Street's intersection with 9th Avenue. These are zebra-style crosswalks, paired with a School Crossing warning sign.

Transportation Concerns

- There is a hill that could obstruct motorists' view of students crossing 9th Avenue at Garden Street.
- Some crosswalks had low-visibility, which are difficult for motorists to discern.
- Some curb ramps were not ADA compliant.
- Sidewalk damage and lifting from street trees is common, creating tripping hazards.
- The pedestrian tunnel under the rail track between West Atlantic Avenue is dark and unwelcoming. Most pedestrians appear to cross the tracks at-grade.
- There is a marked crosswalk across the White Horse Pike at West High Street, far outside the preferred path of pedestrian travel for Junior High and High School students, who were frequently observed crossing at Garden Street, rather than in the crosswalk at West High Street. This also limits the ability of Seventh Avenue

Garden Street Corridor Summary

Land Use	Residential
Speed Limit	25 MPH
Pavement width	27'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted in most locations
On-street parking rate	Low
Sidewalks	Continuous both sides
Crosswalks	Zebra
Signals	None
Ped Signage	School Crossing
Traffic calming	None
Crossing Guards	None
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Replace low visibility crosswalks with high visibility continental crosswalks; install School Crossing advanced warning sign assembly on 9th Ave crossing; retrofit curb-ramps to ADA compliant; retrofit or replace pedestrian tunnel under tracks; consider pedestrian crossing of White Horse Pike at Garden St

School parents, residing east of the White Horse Pike, to walk their child to school.

Recommendations

- Replace any low visibility crosswalks with high visibility continental crosswalks, made with a durable material such as thermoplastic.
- Supplement the existing student crossing warning signs located at the crosswalks at 9th Avenue with advanced crosswalk warning signs. This sign assembly consists of the school sign (MUTCD S1-1) paired with the "AHEAD" plaque (MUTCD W16-9P). They could feature a flashing beacon to provide a higher level of visibility to traffic on 9th Avenue.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.
- Explore remedies to address the lifted sidewalk such as moving sidewalks out of root areas, grinding lifted edges to a uniform level or flexible pavement surfaces.
- Consider replacing the Garden Street tunnel with at-grade crossing with adequate warning signals. If not feasible, consider adding security measures in the Garden Street tunnel such as closed circuit television and improved lighting. The frequency of trains passing through the area is reportedly limited and outside of school travel hours.
- Move the current marked pedestrian crossing of the White Horse Pike at West High Street to Garden Street. Use high visibility continental crosswalks at this location.

Minor Corridor: 9th Avenue (CR 653) & 10th Avenue

9th Avenue and 10th Avenues are routes for Seventh Avenue School students to reach the High Street and Garden Street corridors during their travels to and from school. There is a crossing guard stationed at 9th Avenue's intersection with West High Street.

Roadway Characteristics

9th Avenue and 10th Avenues are both two-way residential streets. They both have a posted speed limit of 25 MPH. Their pavement width is approximately 30 feet. 9th Avenue is a county road for its entirety and provides access to the neighboring towns of Barrington and Audubon. 10th Avenue is designated as a county road for a one block portion between Prospect Ridge and Garden Street.

On 9th Avenue, marked crosswalks are provided at all four legs of its intersection with West High Street, Garden Street, Station Avenue and Green Street. These are narrow zebra-style crosswalks, often paired with a school crossing warning sign.

On 10th Avenue, crosswalks are provided at two legs of its intersection with Station Avenue and South Drive.

Curbside parking is permitted on both streets, but parking rates are low.

Transportation Concerns

- Concerns regarding the intersection of 9th Avenue and Green Street, which impact some Seventh Avenue Students were addressed in Green Street recommendations in the Atlantic Avenue School section of this Chapter on Page 62.
- Concerns at the intersection of 9th Avenue and West High Street were addressed in the Seventh Avenue School recommendations for West High Street on Page 71.
- Speeding is a frequently cited concern amongst parents on 9th

9th & 10th Avenue Corridor Summaries

Land Use	Residential
Speed Limit	25 MPH
Pavement width	30'
Travel lanes	2
Parking Lanes	None marked, but on-street parking permitted in most locations
On-street parking rate	Low
Sidewalks	Continuous both sides
Crosswalks	Standard and zebra style
Signals	None
Ped Signage	School Crossing
Traffic calming	None
Crossing Guards	West High St
Ped-Scale Lighting	None
Bikeway	None
Bicycle signage	None
Street trees	Continuous tree canopy cover
Driveways	Frequent residential driveways
Suggested Improvements	Expand speed enforcement directed patrols; replace low visibility crosswalks with high visibility continental crosswalks; consider curb extension at Station Ave; consider stop on Sycamore St; consider crosswalks at locations along 10th Ave; retrofit curb-ramps to ADA compliant

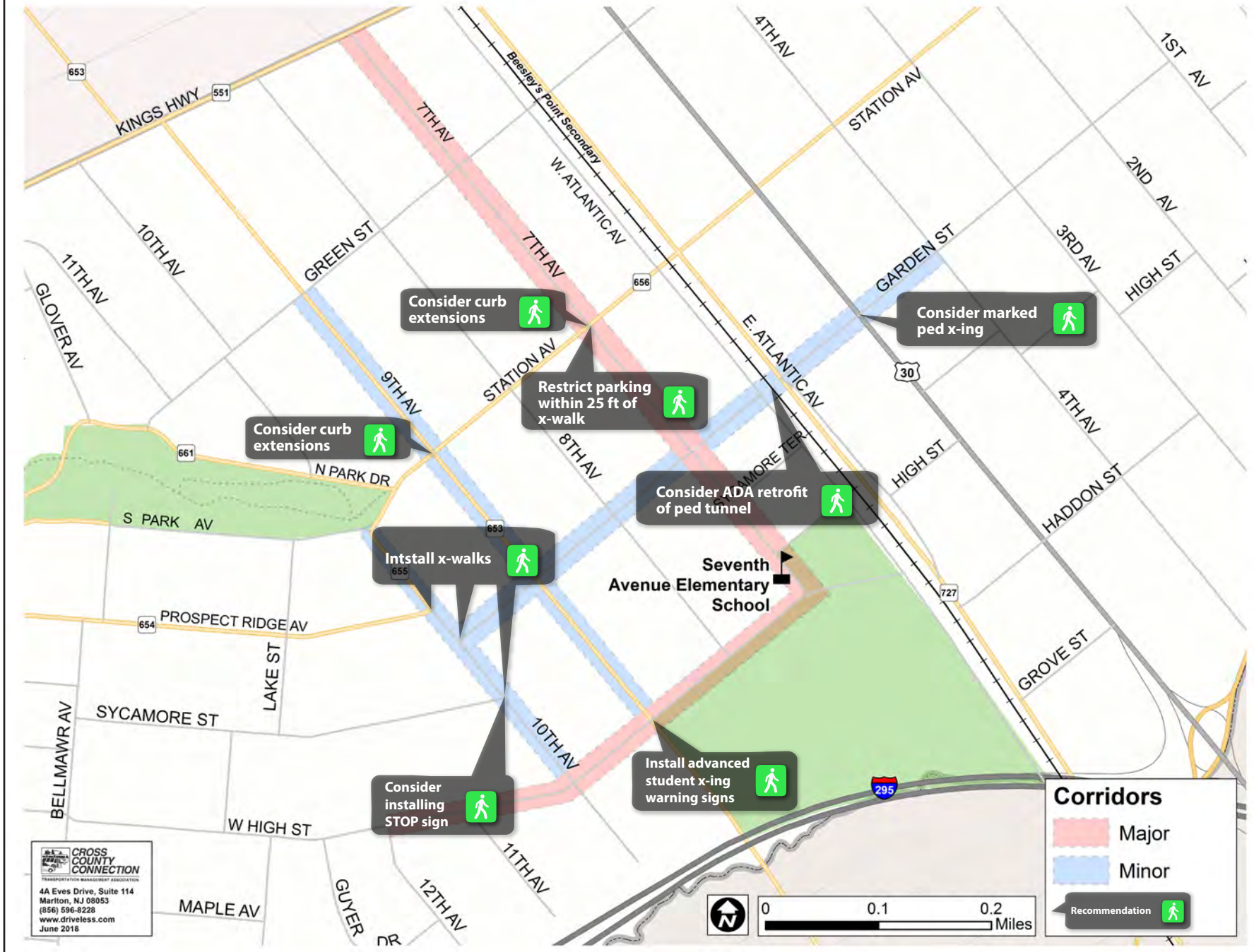
and 10th Avenues. Haddon Heights Police Department currently conducts directed patrols to address speeding on 9th Avenue between Station Avenue and Kings Highway.

- Speeding traffic and motorists failing to stop for pedestrians who have stepped into the crosswalk were observed at the intersection of 9th Avenue and Station Avenue during the audit process. Seventh Avenue students are directed to Cross at 7th Avenue to reach the Seventh Avenue School, however this is still a concern for times outside of school arrival and dismissal.
- 10th Avenue has no crosswalks along the student travel corridor between Station Avenue and West High Street. Crosswalks are infrequent along 10th Avenue in general.
- There is no stop sign on Sycamore Street directing traffic to stop at 10th Avenue, even though traffic on Sycamore must stop. This could be a safety issue for both motorists and pedestrians.
- Some curb ramps were not ADA compliant.

Recommendations

- Haddon Heights Police Department should continue to conduct a directed Speed Patrol, but consider expanding the area to the remainder of 9th Avenue and 10th Avenue.
- Replace any existing low visibility crosswalks with high visibility continental crosswalks, made with a durable material such as thermoplastic.
- Consider a pilot project to test curb extension at the intersections of Station Avenue and 9th Avenue. Curb extensions would shorten the pedestrian crossing distance of Station Avenue, improve pedestrian visibility and potentially encourage motorists to better comply with the need to stop for pedestrians.
- Consider installing a stop sign on Sycamore Street at 10th Avenue, since traffic is required to stop.
- Consider installing high visibility continental crosswalks along 10th Avenue at its intersections with Prospect Ridge Boulevard, Garden Street, Sycamore Street and West High Street. Crosswalks spanning 10th Avenue would also be appropriate at Garden Street and High Street, since these are student travel corridors.
- Retrofit all non-ADA compliant existing intersections with ADA compliant curb-ramps. Curb ramps are required at all pedestrian crossings, whether marked or unmarked.

MAP 15: SEVENTH AVENUE ELEMENTARY SCHOOL STUDENT TRAVEL CORRIDOR RECOMMENDATIONS



5. NON-INFRASTRUCTURE RECOMMENDED ACTIONS

The following are the recommended non-infrastructure actions to achieve the goals of the Haddon Heights School Travel Plan. These actions are commonly referred to as 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. When necessary, these actions should be adapted to 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. An anti-idling campaign, a program which falls outside the typical Safe Routes to School program, will also be discussed.

Education

Education efforts are an important component in developing a sustainable Safe Routes to School Program and to relieve pedestrian and bicycle travel issues. These actions can help change a community's perception of how children should travel to and from school safely. They will also ensure that children receive proper instruction on walking and bicycling while raising community awareness of the benefits of walking and bicycling. Table 9 details the recommended Education Actions.

Table 9: Education Actions

Education Actions	Responsibility	Time Frame
Creation and distribution of educational materials to students, parents/ guardians and community members	Haddon Heights Schools, Cross County Connection TMA and NJ Safe Routes to School Program	Ongoing
In-class education on safe walking practices, along with health and environmental benefits	Haddon Heights Schools and Cross County Connection TMA	Annually
Poster Contest	Haddon Heights Schools and Cross County Connection TMA	Annually
Inclusion of SRTS elements in Teacher and Student Handbooks	Haddon Heights Schools and Haddon Heights School District	Annually
Participate in New Jersey's SRTS Webinar Program	Haddon Heights Schools and Haddon Heights School District	Ongoing

Cross County Connection and the Alan M. Voorhees Transportation Center at Rutgers University, will provide safety education and outreach materials for distribution to students, parents and school staff. These materials may be circulated at parent-teacher meetings, school walking events, in-class, or included with municipal information. Pedestrian and bicycling safety education should also be addressed at parent-teacher meetings as well as safe driving habits. Inclusion of parents in educational programming is a good way to reinforce safety education at home.

Pedestrian Safety Presentation by Cross County Connection TMA
Students in third and fourth grade are taught the dos and don'ts of properly crossing a street using a mock streetscape including a road, signage and a crosswalk. Students are taught the meaning of each symbol that appears on street signage and other important pedestrian skills to use when walking to and from school.

Through active participation, students learn about the benefits of walking, ways to avoid potential hazards while walking, how to properly understand and obey pedestrian signals, cross roadways safely, and understand traffic flow. Many schools in southern New Jersey use the Pedestrian Safety Programs as a building block for their SRTS programs.

The Haddon Heights Schools should continue to take advantage of Cross County Connection's 3rd-4th Grade Pedestrian Safety Program on an annual basis. Cross County Connection has administered this program at Atlantic Avenue Elementary School and Seventh Avenue Elementary School on September 18th and 19th of 2017. With the assistance of Cross County Connection, Haddon Heights Schools have 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>Community Programs>Safe Routes to School.

To supplement Cross County Connection's 3rd-4th Grade Pedestrian Safety Program, it would be beneficial to the health and well-being of students to also 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. For more information visit www.bianj.org.

Poster Contest by Cross County Connection
The Poster Contest is typically held after conducting the Pedestrian Safety Presentation. The purpose of the contest is to reinforce the safety lessons taught to 3rd and 4th grade students who participated in the Pedestrian Safety Program. Students are asked to choose a theme (crossing the street safely, air pollution, exercise, etc.) to illustrate on a poster to show the importance of walking and bicycling to school and

the benefits of doing so. Six winners are chosen (three from both 3rd and 4th grade students) who convey their theme the best. The winners will be selected and presented to the school by Cross County Connection TMA. Winners will receive a bag with safety giveaways.

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. Haddon Heights schools should hold a walk to school event once a month to encourage more students to walk and bike to school.

Haddon Heights schools should conduct a walk to school event to encourage students and parents to walk and bike to school more. Additionally, Haddon Heights Schools, in partnership with the Haddon Heights Police Department, should consider holding a Bike Rodeo for children within the community to help teach the fundamentals of safe bicycling this fall. Some of the programs and events that should be held are included on Table 10. Cross County Connection can assist the schools with the planning and organization of these events.

Table 10: Encouragement Actions

Encouragement Actions	Responsibility	Time Frame
Walk to School Events	Haddon Heights Schools	Monthly
Participation in International Walk to School Day	Haddon Heights Schools	Annually in October
Walking School Bus (WSB) Pilot Program	Haddon Heights Schools and	Begin Fall 2018
Bicycle Rodeo	Haddon Heights Schools and Haddon Heights Police Department	Annually in Spring
Participation in International Bike to School Day	Haddon Heights Schools	Annually in May
Designate Satellite Drop Off/Pick Up areas	Haddon Heights Schools	
Police Department	Fall. Utilize during all walking events.	
Incentive Programs	Haddon Heights Schools	Utilize during all walk/ bike events

Walk and Bike to School Days

To further promote walking and bicycling, Haddon Heights schools should continue to participate in International Walk to School Day, which is held in October. Additionally, Haddon Heights schools 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. Additionally, walking events should be implemented on an on-going basis throughout the school year.

Satellite Drop-Off/Pick-Up Program

Given the number of students who live outside a half mile from school, it is not likely that they will participate in walk to school events. A Satellite Drop Off program would benefit these students and their parents. This

program will also benefit students who participate in the schools' before/aftercare program. Satellite locations also reduce traffic congestion around a school, while allowing any student to walk regularly, even if for a short distance.

Based on pedestrian infrastructure, location of crossing guards and other safety considerations, locations within walking distance of the schools are designated as drop-off/pick-up locations. 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.

The following are suggested locations f or the satellite program:

To Glenview Avenue Elementary School

- The McLaughlin-Norcross Memorial Dell (South Park Avenue and Prospect Boulevard)
- West High Street and St. Martins Street

To Atlantic Avenue Elementary School

- CVS Parking Lot (White Horse Pike and Kings Highway)
- Old train station on West Atlantic, South of Station Avenue (which has a lot of parking available)

To Seventh Avenue Elementary School

- Station Avenue and Prospect Ridge Boulevard
- Baseball park behind school (W High Street, Lippincott Lane and Barrington Avenue)

Incentivized Contests

A Golden Sneaker Award Program is an incentivized contest that can be run in various ways. Some schools tally each student that walks or bikes to school daily and 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 spray painting an old running shoe gold and mounting it on top of a trophy stand. Another contest consists of a "Walk across America" program, which consists of recording the footsteps taken by each homeroom to show how far they have walked from NJ. 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 Haddon Heights schools develop a pilot program this 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. This type of program could be very effective in Haddon Heights.

Bicycle Rodeo

A bicycle rodeo is an on-bike clinic with stations focusing on different areas of bicycle skills to properly ride the bicycles and bicycle maintenance to properly care for the bicycles. Bicycle rodeos provide an opportunity for bicyclists to practice and develop skills that will help them become better bicyclists and avoid injury and accidents. They typically include how to: fit a helmet, signal for turns, and come to quick stops. Bicycle maintenance can also be taught to students to teach them how to check the functionality of bicycles using the ABC's of bicycling: Air, Brakes

and Chain. The above list is by no means an exhaustive list of skills that can be included in a bicycle rodeo as there are many other skills and subjects that can be covered when it comes to learning bicycle safety. It is recommended that the police department take the lead in conducting the bike rodeo.

Enforcement

Enforcement of safe and lawful travel behavior around schools, on all travel corridors and throughout the borough by the Haddon Heights Police Department is important to ensuring a safe walking environment for children. Table 11 shows enforcement actions that can be conducted to increase pedestrian and bicycle safety.

Table 11: Enforcement Actions

Enforcement Action	Responsibility	Time Frame
Speed Enforcement	Haddon Heights Borough Police Department	Targeted + Ongoing
Pedestrian Decoy Program: to enforce motorists stopping for pedestrians in crosswalks	Haddon Heights Borough Police Department	Targeted + Ongoing
Jay-walking midblock	Haddon Heights Borough Police Department	Ongoing
Parking Enforcement	Haddon Heights Borough Police Department	Ongoing
Clear debris from sidewalks and obstructed road signs	Haddon Heights Borough Public Works Department, Haddon Heights Police Department, and Haddon Heights Residents	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 outcomes 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 the routes in order to check the quality of the surrounding neighborhood's infrastructure. Performance measurements should include periodic walk and bike assessments, student arrival and departure tallies, parents' 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 in 2016 or later for consideration in a grant application. 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.

Table 12 shows evaluation actions that will help Haddon Heights Schools to assess the success of their Safe Routes to School program and determine any needed improvements.

Table 12: Evaluation Actions

Evaluation Action	Responsibility	Time Frame
Student Arrival and Departure Travel Tallies	Haddon Heights Schools	Quarterly
Parent Survey	Haddon Heights Schools, CCCTMA	Annually
Tallies of student participation at walk/bike and other events	Haddon Heights Schools	All events

Whichever methods are chosen, focus on measuring the effects of the program by examining short-tern, 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.

Haddon Heights Schools conducted student travel tallies in the spring of 2018. 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 SRTS activities in student travel choices (usually held week long 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.

Anti-Idling Program

Poor air quality can negatively affect the health of students and staff. The Haddon Heights School District is encouraged to partner with Cross County Connection to establish a comprehensive anti-idling program at all of its schools. An anti-idling program is distinct from SRTS programming, but involves many of the same key elements of education, enforcement and encouragement, to improve student health.

Idling vehicles around the Haddon Heights schools 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.

Setting up an anti-idling program is inexpensive and requires just a few steps. Cross County Connection can assist the borough and School District with setting up a program. Available resources can be found on NJDEP's website.

The most important steps to set up a program are:

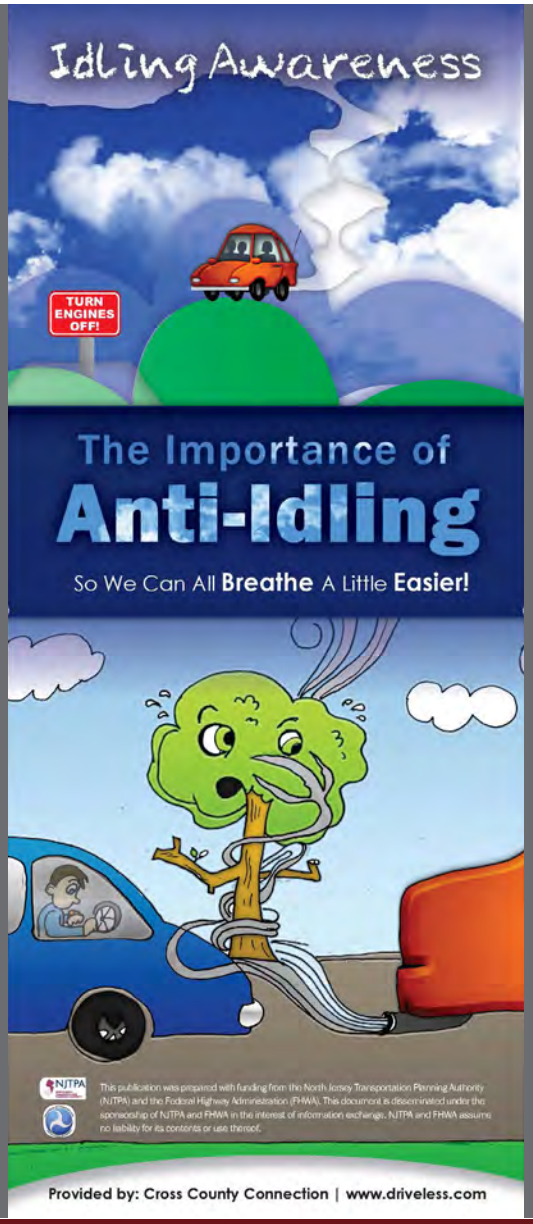
1. Pass an anti-idling resolution. A resolution will state the borough's commitment to improve air quality and student health; their goal to eliminate the problem; a description of the harm idling vehicles can cause; and the reasons limiting this activity is important for the health of the community.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

2. Create an enforcement plan that identifies 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. Atlantic Avenue, Glenview Avenue and Seventh Avenue Elementary Schools have been recognized as leaders 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. Haddon Heights Schools were awarded Silver Level. Haddon Heights Borough could utilize this recognition and receive additional points on their Sustainable Jersey Certification, which acknowledges municipalities and schools for their efforts toward sustainability and becoming greener.



Anti-idling palm card

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6. CONCLUSION

Haddon Heights Borough is committed to increasing the number of children who walk and bike to school through safety improvements and programs that encourage bicycling and walking and educate students about safety procedures. 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 Haddon Heights Police Department.

The Haddon Heights 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 local aid office. 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 SRTS Team. The following entities should undertake the actions listed below and outlined in more detail throughout this document to implement the Haddon Heights School Travel Plan.

Haddon Heights Borough and Police Department:

- Pursue SRTS Infrastructure grants and other grants through NJDOT and other sources, to implement recommendations identified in Chapter 3 and 4.
- Continue enforcement efforts and consider participating in the police pedestrian safety decoy program to increase compliance with New Jersey's "Stop and Stay Stopped" law.
- Establish a Complete Streets advisory committee to develop policies and procedures for walking and bicycling to school.

Haddon Heights Schools and School District:

- Continue partnering with Cross County Connection to continue to implement pedestrian safety education and encouragement activities.
- Continue partnering with Cross County Connection and the Voorhees Transportation Center 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 community in Haddon Heights.

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 Haddon Heights Schools' 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 funding sources. For more information on a specific program, please contact the granting agency or refer to the grant program guidelines found on the program websites as programs can change frequently.

Safe Routes to School Infrastructure Grants

Federal funding is available for SRTS projects that improve the safety of children walking or biking to school. The program is administered through NJDOT. Eligible projects may include the planning, 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 through the county, municipality or school district are eligible to apply and receive direct funding.

Transportation Alternatives Set-Aside Program

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 Surface Transportation Program (STP) Setaside 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 STP Setaside 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 STP Setaside funds include local and regional governments, transit agencies, school districts and individual schools.

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.

For more information regarding these three funding programs contact:

New Jersey Department of Transportation (NJDOT)
Website: http://www.state.nj.us/transportation/business/localaid/
District Manager, NJDOT
1 Executive Campus
Route 70 West, 3rd Floor Cherry Hill, NJ 08002
Phone: 856-486-6618
Fax: 856-486-6771

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 trainings, 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.

For more information regarding these three funding programs contact:

Sustainable Jersey Small Grants Program
Website: www.sustainablejersey.com
Email: grants@sustainablejersey.com
Phone: (609) 771-2836
Fax: (609) 637-5162

Summary
The Haddon Heights School Travel Plan was created through the collaborative efforts of the Haddon Heights Safe Routes to School Working Group and Cross County Connection TMA. This Travel Plan was undertaken to address Haddon Heights Schools' 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 Haddon Heights School Travel Plan outlines the potential safety issues and concerns regarding pedestrian and bicycle-

friendly infrastructure within close proximity to each of the three schools, 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 goals set forth by the School Travel Plan. Haddon Heights Schools have 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.

APPENDIX A

SAFE ROUTES TO SCHOOL INFRASTRUCTURE IMPROVEMENT STRATEGIES

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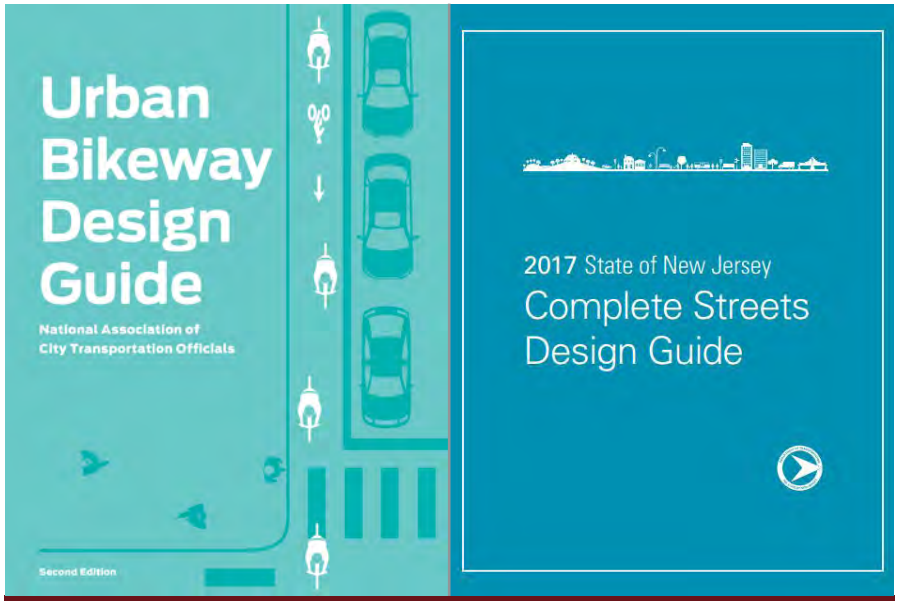
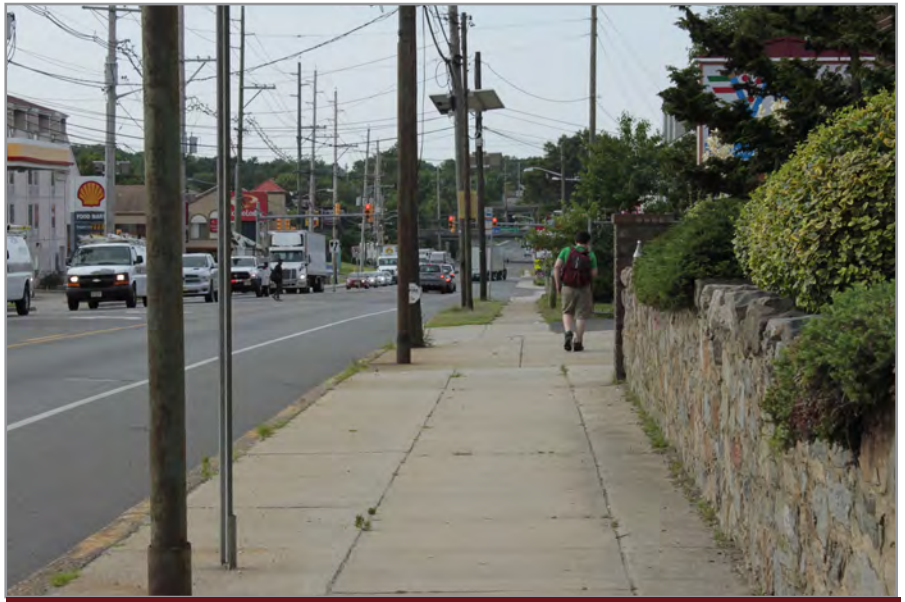
Safe Routes to School Infrastructure Improvement Strategies

This section provides a brief overview of common pedestrian and bicycle facilities that can enhance improve safety of students traveling to and from school. This section does not provide an exhaustive list of potential infrastructure improvements.

This is not intended to serve as a design guide. Project designers and engineers should consult peer reviewed and approved guidance. Guidance can be sought from NJDOT's School Zone Design Guide and Complete Streets Design Guides; the United State's Access Board's Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG); American Association of State Highway and Transportation Officials' (AASHTO) Guide for the Development of Bicycle Facilities; the National Association of City Transportation Officials' (NATCO) Urban Bikeway Design Guide, the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD), and others.



Examples of peer reviewed and approved national and local design guidance


Wide sidewalks along the Black Horse Pike provide comfortable separation from traffic

Pedestrian Improvements

Sidewalks

Sidewalks are travel lanes for pedestrians and individuals with disabilities. These facilities provide separation from motor vehicle traffic, which greatly increases safety and comfort. Sidewalks are often made of concrete, asphalt, or other materials. Sidewalk width should vary based on context and the anticipated volume of pedestrian traffic. The minimum sidewalk width is five feet. Sidewalks must ensure four feet of continuous clearance, free from any obstruction, per PROWAG guidelines.

Marked Crosswalks

Crosswalks exist at every intersection, regardless of whether they are marked or unmarked. Marked crosswalks, however, indicate preferred locations for pedestrians to cross, and help alert motorists to pedestrian crossing locations. Marked crosswalks may also be used to indicate school walking routes, and may be desirable to install in locations where there is a high volume of pedestrians, such as near schools and streets with significant commercial activity.

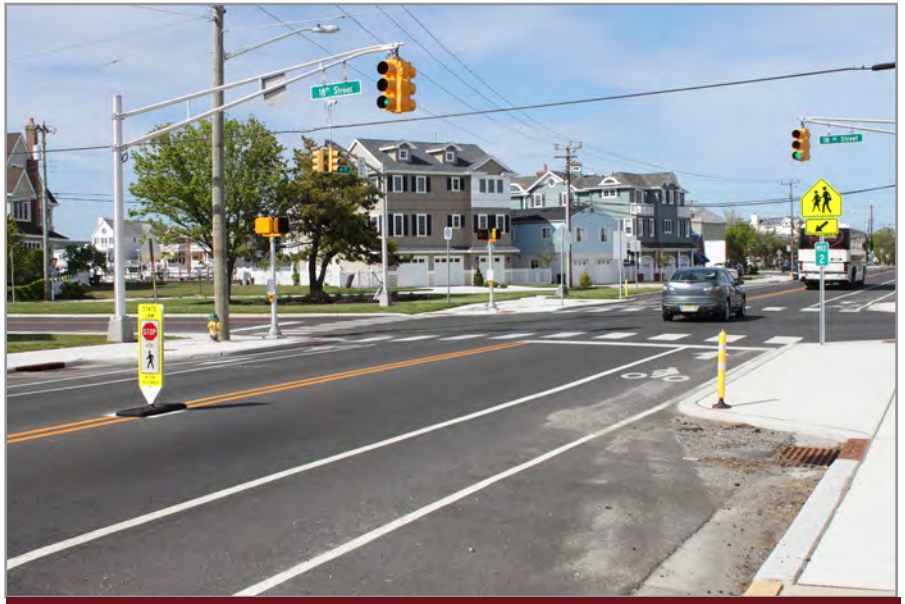
There are a variety of marked crosswalks that are permitted by the Manual on Uniform Traffic Control Devices (MUTCD); however, the NJDOT School Zone Design Guide exclusively recommends the installation of bar style crosswalks (also known as piano key or continental type) due to their high visibility and durability. This type of high visibility crosswalk design should be the standard in crossings located within school zones in addition to crossings, outside of the defined school zone, that are commonly used by students on their travel to and from school.

A high visibility bar-style "continental" crosswalk

Curb Extensions (bump-outs)

Curb extensions, also known as bump-outs or bulb-outs, extend the sidewalk or curb line into a parking lane, which reduces street width. This improves pedestrian crossings by reducing the distance required to cross the street. These facilities also increase visibility for pedestrians and clearly signal their intent to cross the street. As an added benefit, motorists are encouraged to slow down, as the narrowed street width sends a visual cue to motorists and increases their awareness of a pedestrian crossing location.

Curb extensions can be used at both intersections or mid-block pedestrian crossings. They are preferred where there is a parking lane and should be designed to accommodate bicyclists traveling outside the curb edge, if bike lanes are provided.



A curb extension at an intersection accommodating a bike lane

Pedestrian Crossing Islands

Pedestrian crossing islands, or pedestrian refuge islands, are raised islands located in the center of a roadway at an intersection or mid-block crosswalk. Installation of these facilities has been shown to decrease pedestrian-vehicle collisions. They can be used to narrow the roadway and reduce vehicle speeds. On multi-lane roadways, these facilities divide the crossing into two distinct phases. Pedestrians can more comfortably negotiate just one direction of vehicle travel at a time and have a safe space to wait for traffic heading in the other direction to clear. This is especially helpful to slower moving pedestrians, such as seniors, parents with young children and individuals with disabilities.

Pedestrian refuge islands should be a minimum of 6 feet wide per ADA guidelines to allow wheelchair and stroller users to safely wait on the island. Crossing islands are an effective means to both reduce pedestrian exposure to danger when crossing and slowing traffic at either intersection or mid-block crossing locations.

A pedestrian crossing island on a street with bike lanes

Signage

Signs may be used to complement crosswalks, and can be helpful in alerting motorists to busy crossing locations. This signage includes traditional pedestrian crossing signs, school-specific crossing signs, and signs with flashing warning lights.

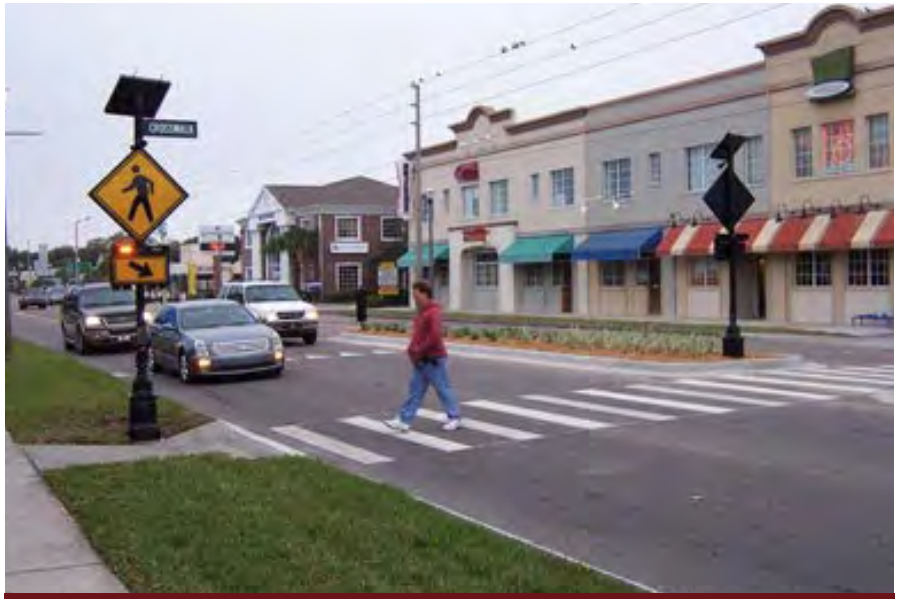
In-street signs can be installed at uncontrolled, mid-block pedestrian crossings to increase crosswalks visibility and encourage motorists to stop for pedestrians. These signs can only be installed at mid-block locations as they are prohibited by the 2009 MUTCD at signalized intersections. These signs can be permanently installed in the roadway or mounted on a portable base, which allows them to be easily taken in and out of the street. In-street signs must reflect the respective state law regarding whether motorists are required to yield or stop for pedestrians in a crosswalk. New Jersey law requires pedestrians to stop and stay stopped for pedestrians crossing the roadway within any marked crosswalk.

An in-street "Stop for Pedestrians" panel sign in advance of a crosswalk

Rectangular Rapid Flashing Beacons

Rectangular Rapid Flashing Beacons (RRFB) provide a more intense form of flashing light than a typical flashing warning sign. They are ideal for mid-block pedestrian crossing locations with a high-volume of pedestrian or motor vehicle traffic. RRFBs use an irregular amber colored flash pattern, similar to the pattern on a police vehicle. They are either activated by pedestrians manually through a push button, or they can be designed to detect pedestrians automatically. RRFBs may be installed on either two-lane or multi-lane roadways.

FHWA found that RRFBs located roadside increase motorists' rate of yielding significantly. A 2008 study found that going from a no-beacon arrangement to a four-beacon system (with two beacons on both the right and left side of the crossing) increased yielding from 18% to 88%.



A RRFB used at a pedestrian crossing island Credit: FHWA

Pavement Markings

School Zone pavement markings can be used as an additional warning where vehicle speeds are a concern. They should be placed close to school reduced speed zones or school speed limit sign assemblies. These markings are preferred on single lane local or collector streets, where they are visible from a distance and not obscured by heavy traffic.

School zone pavement marking Credit: DC Department of Transportation

Curb Ramps

Curb ramps provide access to sidewalks from the roadway, which is particularly important for people using wheelchairs, parents with strollers, or individuals that have difficulty negotiating curbs. Newly constructed or altered roadway projects are required to incorporate curb ramps in accordance with the Americans with Disabilities Act (ADA) design guidelines. ADA requirements also specify that curb ramps must be equipped with detectable warning surfaces (DWS) that provide a warning to visually impaired pedestrians.

Curb ramps should be provided at all crossings, whether they are mid-block or at an intersection. ADA Guidelines state that there should be two perpendicular curb ramps at every corner whenever possible, where each corner has two ramps installed perpendicular to the face of the curb. Two ramps also allow pedestrians, strollers, and wheelchairs to cross without being forced into the intersection, creating conflict with motor vehicle traffic. Sometimes a single diagonal ramp design is constructed to limit costs, or accommodate drainage concerns, but these significant safety drawbacks mentioned should be factored into any cost savings analysis.

The United State's Access Boards Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) is a resource for guidance on constructing ADA compliant curb ramps.

ADA complaint perpendicular curb ramps Credit: City of San Francisco

A poorly designed diagonal curb ramp

Bicycle Improvements

Bicycle Routes

Bicycle routes are a type of on-road bikeway. These facilities designate preferred routes for bicycle travel and indicate that a roadway is a shared travel environment for bicyclists and motorists. Bicycle routes can be marked with signs, such as "bike route" or "share the road" signs. These facilities may also be marked with "sharrow" pavement markings. Sharrows are commonly paired with signs alerting motorist that "bicycles may use the full lane." These markings inform motorists to expect bicyclists and show bicyclists where to ride. Bicycle route and share the road signs can also provide bicyclists with way-finding assistance.

These treatments are preferable on low-speed, low- volume roadways. Shared travel lanes should rarely be designated on roads with posted speed limits above 25 MPH.

A bike route designated with sharrows and a bikes "MAY USE FULL LANE" sign

Bicycle Lanes

Bicycle lanes designate space on a roadway for bicyclists with striping and pavement markings. These lanes, which are typically a minimum of five feet wide, are for the exclusive use of bicyclists and help to reduce conflicts between motorists and bicyclists.

Bicycle lanes are recommended on streets with a posted speed limit of 25 to 35 mph. According to NJDOT guidance on bike lanes, where additional space is available, buffered bicycle lanes should be considered. This is because standard bicycle lanes provide a minimal level of safety for cyclists. They often wedge a bicyclist between fast moving traffic and parked cars. To avoid conflicts with open car doors, bike lanes should be located outside the "door zone" of parked cars. A NACTO study showed that 60% percent of potential cyclists are not comfortable using a typical unprotected bicycle lane due to safety concerns.


A bike lane on Springdale Rd in Cherry Hill

Buffered Bicycle Lanes

The addition of a painted buffer enhances safety by increasing the space between motorists and bicyclists. Buffered bike lanes provide additional passing (or "shy") distance between bicyclists and motor vehicles, contributing to an increased sense of security and less risk of encroaching into the adjacent travel lane or the "door zone." Buffered bike lanes often increase the perception of safety and will encourage increased levels of bicycling. The minimum width of a buffered bike lane is 8 feet, featuring a five foot bike lane fitted with a three foot buffer. Where there is more space the bike lane can be wider, or an additional buffer between parked cars and the bike lane may be added.

Often, flexible plastic bollards are installed in these buffers as an inexpensive physical barrier to offer cyclists further protection from vehicle traffic and offer some of the benefits of a more substantial protected bike lane discussed below.

A buffered bike lane on Delaware Ave in Camden

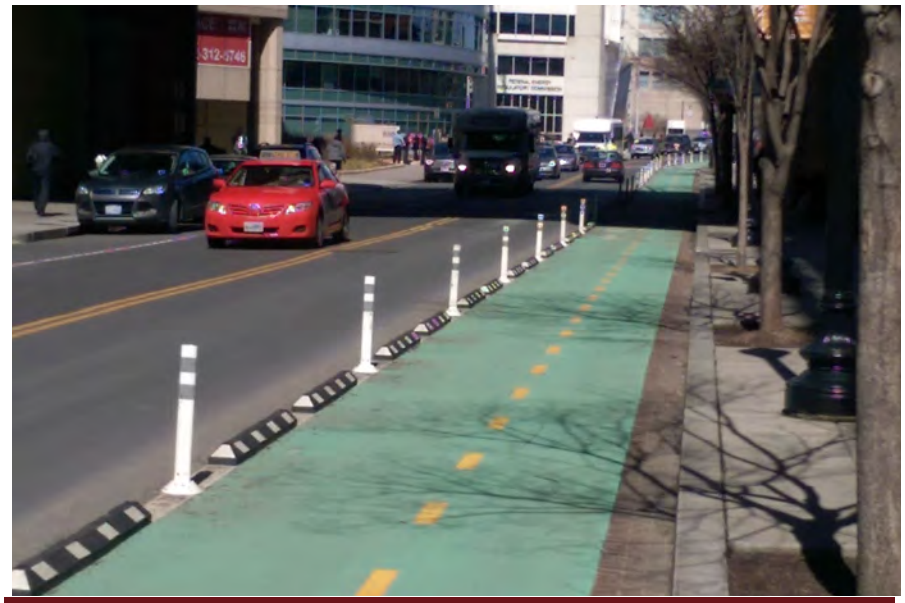
Protected (or Separated) Bike Lanes

Permanent physical protections, such as curbed medians, large concrete planters or modular curbs offer enhanced comfort and safety for bicyclists over painted buffers or plastic bollards. A lane of parked cars can also offer physical separation from moving vehicles. These facilities are often considered the most attractive by bicyclists, parents, and residents, and have been shown to increase the bottom line of nearby businesses. High-quality separated bikeways with connections to parks and other destinations can also encourage tourism and associated spending, which brings additional benefits to the local economy.

Separated bikeway design has advanced significantly in recent years, and comprehensive manuals exist including the NACTO Urban Bikeway Design Guide (also applicable for suburban and exurban jurisdictions) and FHWA Separated Bike Lane Planning and Design Guide, and most recently, NJDOT's New Jersey Complete Streets Design Guide. According to NJDOT's guide, protected bike lanes are the preferred treatment

Flex-posts create a protected bike lane Credit: Green Lane Project

on roads with high traffic volumes or speeds. Frequent driveways or intersections could limit their feasibility. Browning and Creek Roads may also be candidates for a more substantial protected bike lane. A pilot project testing how buffered bike lanes, fitted with flexible plastic bollards, may be a first step towards testing their effectiveness.



A two way protected bike lane in Washington DC using curb stops and flex posts

APPENDIX B

AUDIT ROUTES

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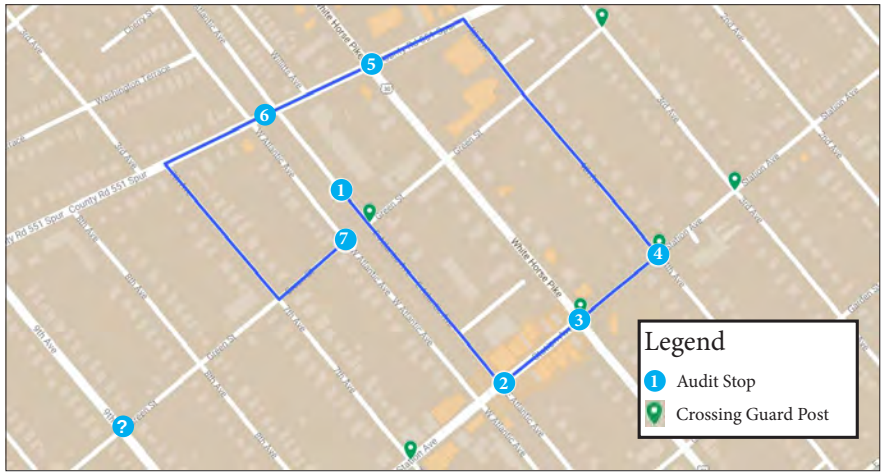
Atlantic Avenue Elementary SRTS Walking Audit

Audit distance: 1.15 miles
Audit time: Approximately 1 hour



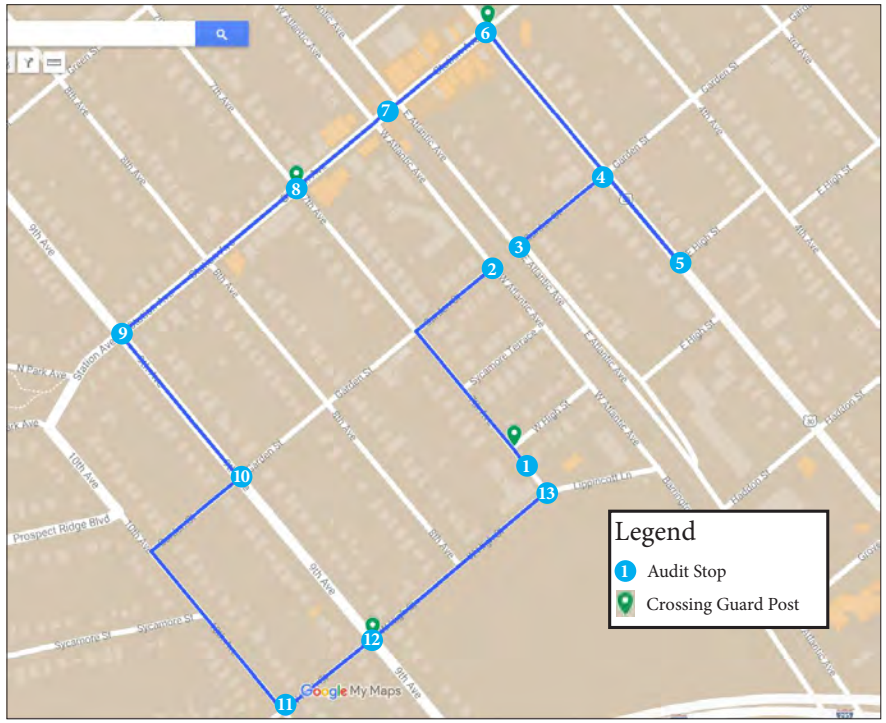
Audit Stops

1. Atlantic Ave School Entrance and East Atlantic Ave
2. East Atlantic Ave and Station Ave
3. Station Ave and White Horse Pike
4. Station Ave and 4th Ave
5. Kings Highway and White Horse Pike
6. Kings Highway and Rail Overpass
7. Green St and West Atlantic Ave/Pedestrian Bridge

?. Potential extra stop - Green St and 9th Ave

Seventh Avenue Elementary SRTS Walking Audit

Audit distance: 1.3 miles
Audit time: Approximately 1 hour

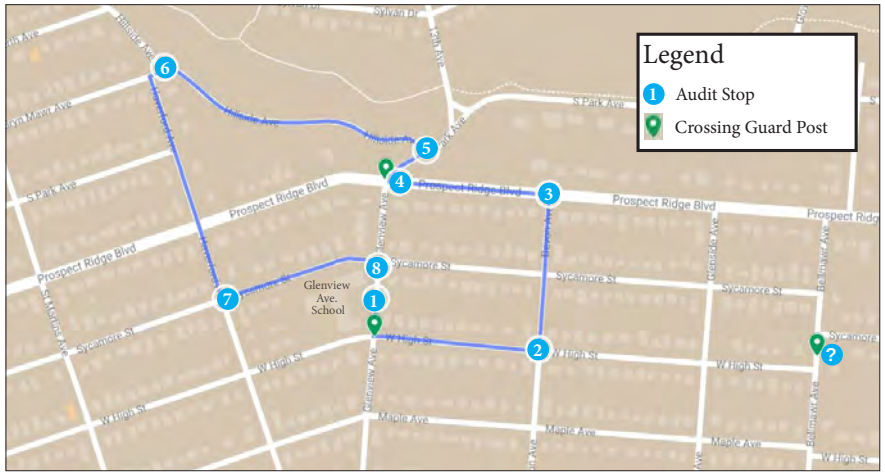


Audit Stops

1. Seventh Ave School Entrance and 7th Ave and High Street Student Crossing
2. Garden St and West Atlantic Ave - Railroad Crossing
3. East Atlantic Avenue
4. Garden St and White Horse Pike
5. E. High St and White Horse Pike Student Crossing
6. Station Ave and White Horse Pike
7. Station Ave and East/West Atlantic Avenues
8. Station Ave and 7th Ave
9. Station Ave and 9th Avenue
10. 9th Ave and Garden St
11. 10 th Ave and High St
12. High St and 9th Ave
13. High St and 7th Ave/Lippincott Ln

Glenview Avenue Elementary SRTS Walking Audit

Audit distance: 1 mile
Audit time: Approximately 1 hour



Audit Stops

1. Glenview Ave School Entrance
2. West High Street
3. Prospect Ridge Boulevard
4. Intersection of Prospect Ridge Blvd. and Glenview Ave.
5. Intersection of S. Park. Ave. and Hillside Ave.
6. Hillside Avenue
7. Intersection of Haverford Ave. and Sycamore St.
8. Glenview Ave. School

?. Potential extra stop - Intersection on Sycamore St and Bellmawr Ave