

WEST CAPE MAY SCHOOL DISTRICT

WEST CAPE MAY ELEMENTARY



NEW JERSEY

Safe Routes to School



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CONNECTION

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West Cape May Elementary School Travel Plan

Prepared by:

**Cross County Connection
Transportation Management Association**

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Cross County Connection Transportation Management Association was formally incorporated in 1989 through 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 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 them 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 negative environmental impacts of automobile trips to school, and to establish healthy lifestyle habits of among schoolchildren through increased physical activity

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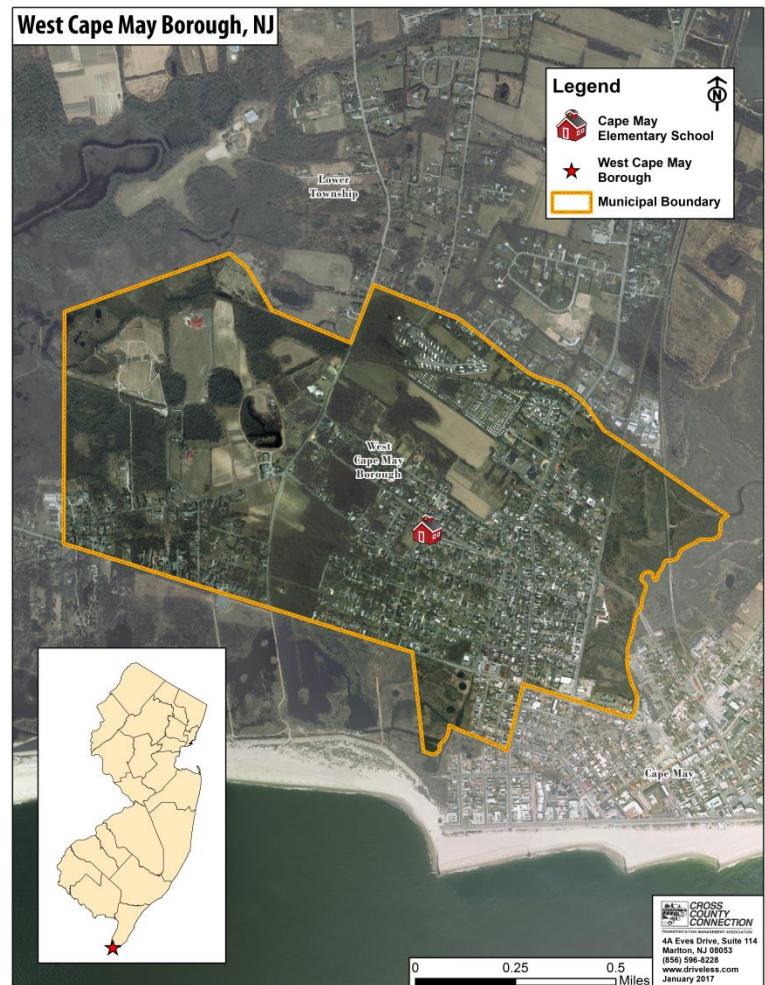
(Photographs Courtesy of Cross County Connection TMA unless otherwise noted)

1. INTRODUCTION

The rural community of West Cape May Borough is located in southern Cape May County, neighboring Lower Township to the west and the City of Cape May to the east (Map 1). As of the 2010 US Census, the Borough's population is 1,024 with an area of 1.175 square miles.

The West Cape May School District serves students in Pre-Kindergarten through sixth grade. The district consists of one school: West Cape May Elementary (Pre-K-6). West Cape May Elementary School recognizes the importance of active transportation for the health of children and the environmental health of their community. The school seeks to increase the number of children who walk or bike to school. As part of the district's effort to create safe pedestrian corridors, improve the health of students and reduce traffic congestion around the school, the administration has chosen to develop a Safe Routes to School (SRTS) Travel Plan. The West Cape May School Travel Plan was created in collaboration with municipal representatives of West Cape May Borough and officials from the School District.

Map 1: Location of West Cape May Borough



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 West Cape May Elementary School. 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 to and from 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

Project Overview

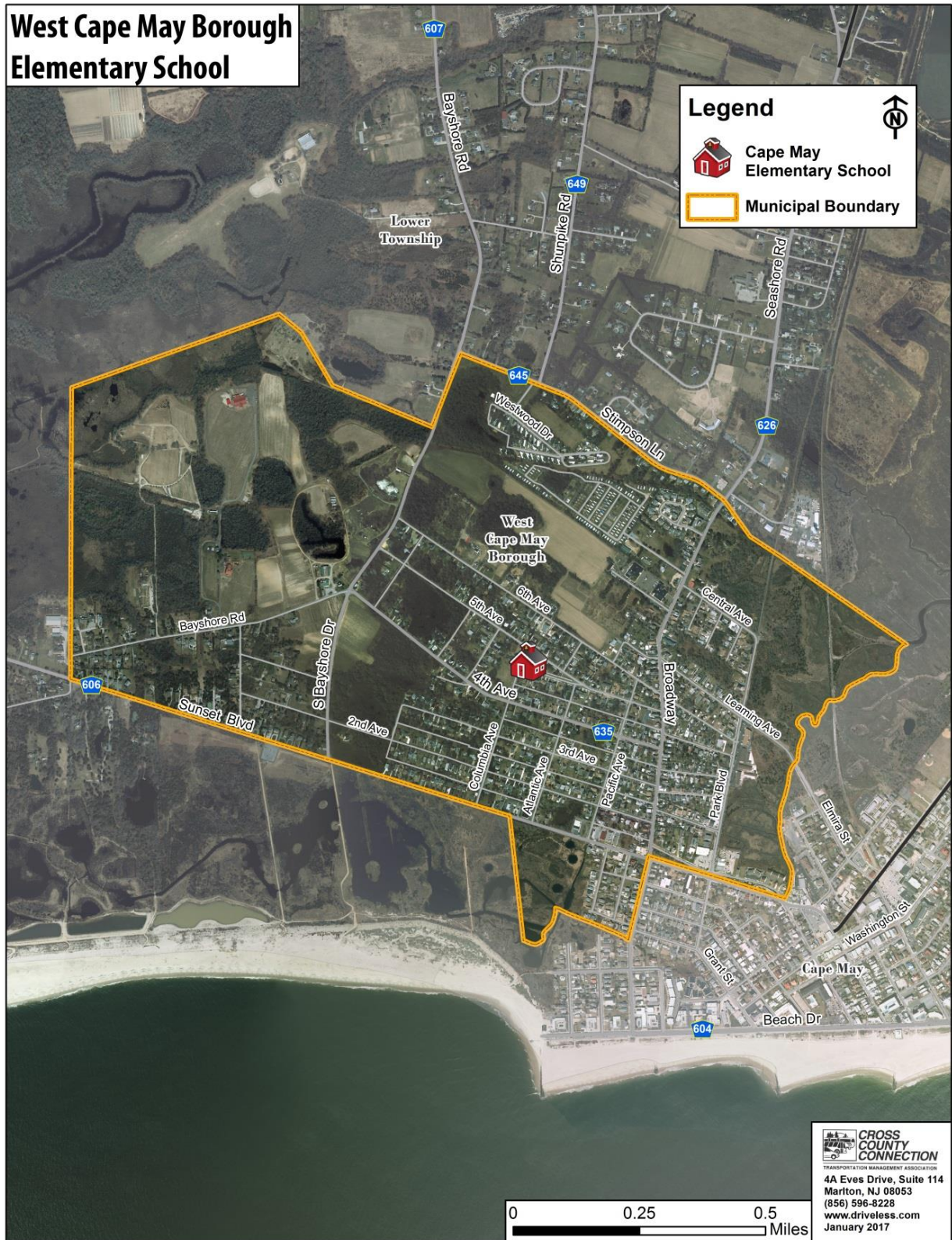
Chapter 2 provides a brief overview of potential infrastructure improvements and treatments to enhance safety for children walking and bicycling to school. Chapter 3 assesses existing conditions and crash locations, while Chapter 4 identifies potential improvements for specific corridors based on the existing conditions analysis, input from Borough and School District representatives, and a walking audit of the area surrounding West Cape May Elementary School. Chapter 5 emphasizes how to integrate the 5 E's of the SRTS Program, which are: Evaluation, Engineering, Education, Encouragement and Enforcement, 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 West Cape May Borough and West Cape May School District with advancing their SRTS initiative.

School Descriptions

As Shown in Map 2, West Cape May Elementary is centrally located within West Cape May Borough. The school is bordered by Fifth Avenue to the north and Moore Street and Columbia Avenue to the south. Green Street borders the school to the west, with a playground and residential properties between the street and the school. West Cape May Elementary is located in a residential area, conducive to walking and bicycling where appropriate infrastructure exists. Bicycle racks are located along the northern side of the school next to each student entrance.



Map 2: West Cape May Elementary Location



Working Group

This Travel Plan was developed by Cross County Connection in partnership with the SRTS working group members listed below (Table 1). Alfred Savio, Principal/Superintendent, was the primary contact for the Travel Plan and coordinated input from West Cape May School District and the Borough.

Table 1: West Cape May School District SRTS Working Group

Organization	Role	Contact
Cross County Connection TMA	SRTS Program Assistance	Sean Schweitzer, SRTS Coordinator Schweitzer@driveless.com
Borough of West Cape May	Implementation	Dr. Alfred Savio, Principal/Superintendent fsavio@wcm.capemayschools.com
West Cape May Environmental Commission	Implementation	Tom Bocket, Environmental Commission docboc@comcast.net
West Cape May Elementary Green Team	Implementation	Inga La Puma, Student Parent ingalapuma@gmail.com
West Cape May Department of Public Works	Implementation	Gregory M. Basile, West Cape May Department of Public Works Director gbasile@westcapemay.us
Cape May Police Department	Enforcement	Anthony Marino, Police Chief amarino@capemaycity.com

Study Area and Scope

This Travel Plan was prepared for the members of the West Cape May School District SRTS working group. The Travel Plan considers the physical characteristics of West Cape May Borough's walking and bicycling infrastructure from the perspective of students aged 5-12. Physical environment observations, analysis and recommendations are limited to areas where these students could walk or bike to school, based on methodology developed by the National Center for Safe Routes to School (NCSRTS). In order to prioritize the most critical physical infrastructure improvements to benefit the most students, areas closest to the school were selected for detailed analysis and recommendations in this Travel Plan. A study area of approximately ten minutes (half a mile) walking radius was selected for West Cape May Elementary School. The range of student travel within ten minutes is illustrated in Map 3. For infrastructure prioritization purposes, the area immediately surrounding the school, county roads, and roads with recorded pedestrian crashes were the focus of the study.

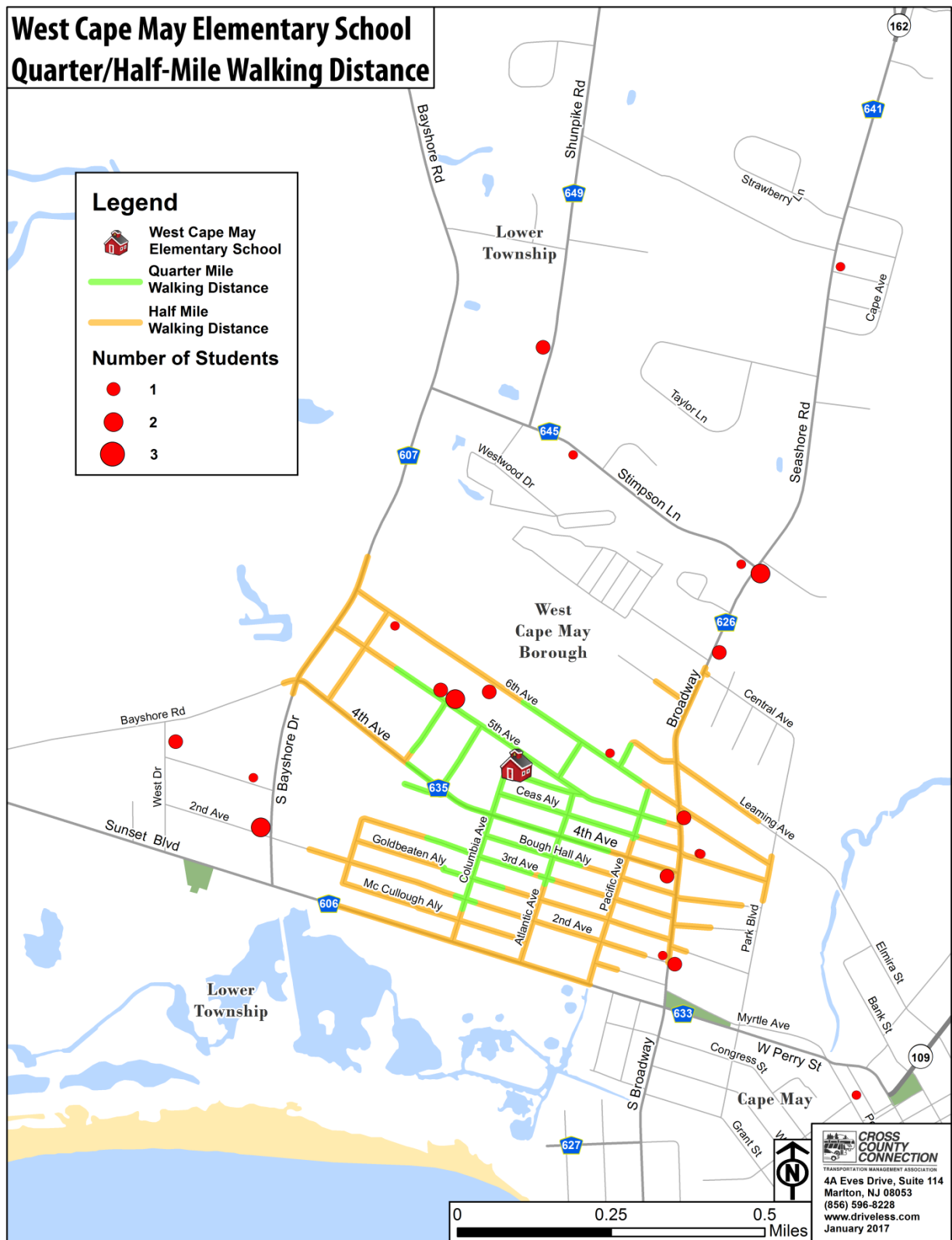
The school serves students from West Cape May Borough and Lower Township (Map 4). Students who attend West Cape May Elementary School and whose homes are located within this ten minute walking radius are dispersed throughout the Borough, as illustrated in Map 3. With consideration to student locations, a ten minute walking distance was chosen to encompass a portion of the students that can reasonably be expected to walk to school. Approximately 40% of current students live within a ten minute walking radius, while 60% live at distances where walking may be impractical.

The Travel Plan's infrastructure improvements are targeted within this 10 minute walk radius, primarily in the areas immediately surrounding West Cape May Elementary that stand to benefit the greatest number of students. Non-infrastructure recommendations are directed towards West Cape May Elementary, the school district and West Cape May 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 West Cape May Elementary's rural setting. West Cape May Borough ordinances and municipal activities were also considered. Recommendations directed towards West Cape May Borough should benefit all pedestrians and bicyclists in this unique small town that exhibits characteristics of both a rural and summer resort community.

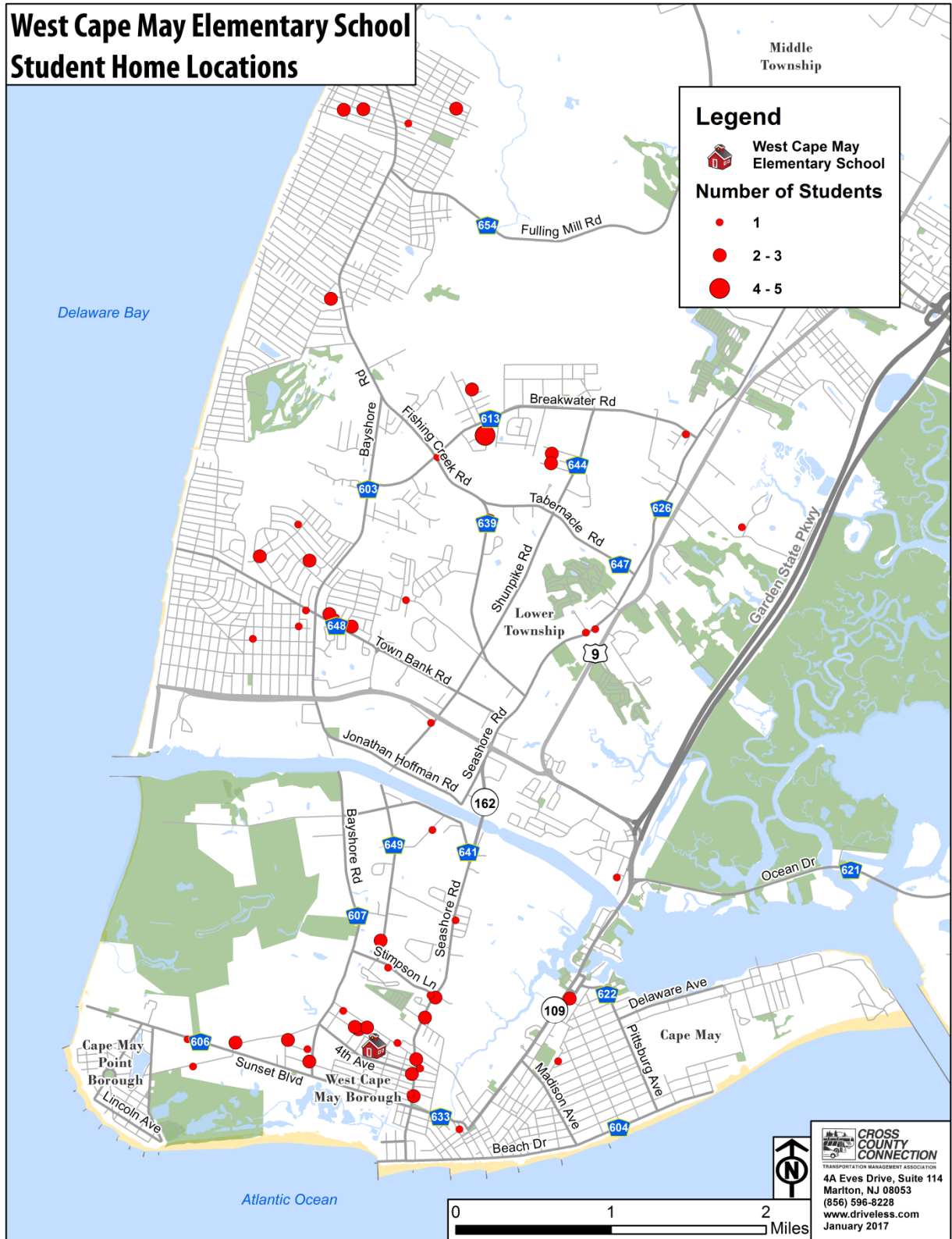
Recommendations are directed towards the following outcomes that support this Travel Plan's goals:

1. Create a safe and attractive environment that encourages students, living within a 10 minute walking radius, to regularly walk or bike to school
2. Allow students and families living beyond the ten minute walking radius to explore walking and biking as an option to get to school, whether it be occasionally or as a regular part of their routine
3. 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
4. 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.

Map 3: West Cape May Elementary Quarter/Half-Mile Walking Distance



Map 4: West Cape May Elementary Student Home Locations



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2: INFRASTRUCTURE IMPROVEMENT STRATEGIES

Communities can implement a variety of infrastructure improvements to enhance safety for bicyclists and pedestrians and facilitate safe and convenient student travel to and from school. This chapter provides a brief overview of common pedestrian and bicycle facilities, some of which are identified as potential improvements in Chapter 4. This chapter is intended to familiarize readers with these design treatments, but does not provide an exhaustive list of potential infrastructure improvements. Additionally, this chapter is not intended to serve as a design guide. Project designers and engineers should consult the respective engineering guidance when designing and implementing these facilities, such as NJDOT's *School Zone Design Guide*, American Association of State Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highway and Streets*, AASHTO's *Guide for the Development of Bicycle Facilities*, the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (MUTCD), the National Association of City Transportation Officials' (NATCO) *Urban Bikeway Design Guide*, New Jersey Department of Transportation's (NJDOT) *Roadway Design Manual*, and others.

Pedestrian Improvements

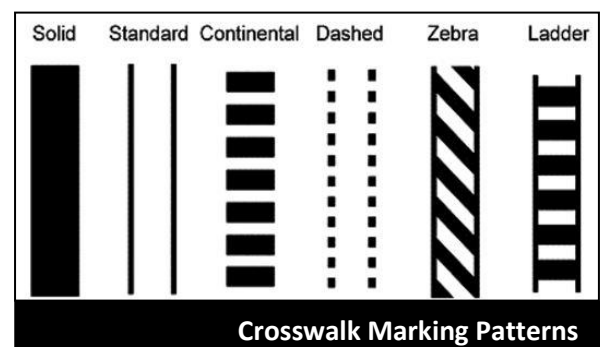
Sidewalks

Sidewalks are travel lanes for pedestrians. These facilities separate pedestrian travel from motor vehicle traffic, which greatly increases safety for walkers. Sidewalks are typically a minimum of five-feet wide and are often made of concrete, asphalt, or other materials. Biking on sidewalks is not permitted in West Cape May Borough. Bicycling on sidewalks can result in conflicts with pedestrians, which may create safety concerns. While it is appropriate for young children to ride on sidewalks with parental supervision, it may be appropriate for older children that receive bicycle safety education to ride on roadways that safely accommodate bike travel. Students at any age should always wear a properly fitted bicycle helmet.



Marked Crosswalks

Crosswalks exist at every intersection, regardless of whether they are marked with paint. Marked crosswalks, however, indicate preferred locations for pedestrians to cross, and help alert motorists to pedestrian crossing locations. Additionally, in New Jersey, motorists are required to stop for pedestrians in marked crosswalks, but are only required to yield to pedestrians in unmarked crosswalks. Marked crosswalks may also be used to indicate school



walking routes, and may be desirable to install in locations where there are many pedestrians, such as in downtown areas and near schools. 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.

Signage

Signs and pavement markings may be used to complement crosswalks, and can be helpful in alerting motorists to busy crossing locations. Chapter 3 of the *New Jersey School Zone Design Guide* details standards and guidance for the use of school zone signage, pavement markings, and related devices. 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 help make crosswalks more visible to drivers and encourage them 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. These 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 motorists to stop and stay stopped for pedestrians crossing the roadway within any marked crosswalk.

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



Flashing School Zone Signs, Rt. 40, Woodstown, NJ



In-Street Sign, Ocean City, NJ



School Speed Limit Sign, Ocean City, NJ

Curb Ramp

Curb ramps provide access to sidewalks from the roadway, which is particularly important for people using wheelchairs, people with strollers, or individuals that have difficulty stepping up and down 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. Intersections should have two perpendicular curb ramps per corner, as opposed to a single diagonal ramp, because visually impaired individuals use these ramps to orient themselves towards crosswalks. Two ramps also allow pedestrians, strollers, and wheelchairs to cross without being forced into the intersection. ADA Guidelines state that curb ramps should be perpendicular wherever possible, where each corner has two ramps installed perpendicular to the face of the curb.



Curb Ramps, Ocean City, NJ

Paved Shoulders

Paved shoulders benefit pedestrians, bicyclists and drivers. Shoulders should not be considered a good substitute for sidewalks in urban areas, but may be adequate in rural communities with low speeds and traffic volume. They provide a place for pedestrians and bicyclists to travel that is removed from the motor vehicle travel lane and reduce the likelihood of crashes from run-off-the-road motor vehicle crashes. Providing shoulders on existing roadways or including them in new roadway projects can also be justified by the safety benefit provided to drivers of motor vehicles. An edge line should be marked to separate the shoulder from the roadway.



Paved Shoulder, Pitman, NJ

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 signage, such as “bike route” or “share the road” signs. These facilities may also be marked with “sharrow” pavement markings. 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 wayfinding assistance. These treatments are preferable on low-speed, low- volume roadways.



Bicycle Lanes

Bicycle lanes are another type of on-street bikeway. The installation of bicycle lanes designates 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. Standard bicycle lanes provide a minimal level of safety for cyclists.



Buffered Bicycle Lanes

A buffered bicycle lane is a conventional bike lane paired with a designated buffer space separating the bike lane from the adjacent motor vehicle travel lane and/or parking lane. The addition of a painted buffer enhances safety by increasing the space between motorists and bicyclists.



Protected Bikeways

Permanent physical protections, such as planters, modular curbs, trees, concrete sculptures, or pylons 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 cyclists, 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



Parking Separated Bikeway, Washington,

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*. Often, flexible plastic bollards are installed as an inexpensive physical barrier to offer cyclists further protection from vehicle traffic. Safe Routes to School programs have installed protected bicycle lanes with plastic bollards for use by children traveling to school.

Bicycle Parking

Bicycle parking provides a means to secure a bicycle for up to a few hours. However, it often lacks the ability to protect a bicycle from the ill-effects of weather and is easily accessible to potential thieves. Bike racks should adequately hold the bicycle upright by supporting in two places, not allow the front wheel to tip over and potentially become damaged and be designed to allow a u-lock to secure both the front frame and wheel of a bicycle. Commonly used and effective types or racks include the “inverted u” and “post and ring” style racks. Common racks that do not provide proper support and security are “schoolyard” style racks and “wave” racks. These racks only support the bicycle in one place, most often the wheel, potentially damaging the bike and making it difficult to secure both the bike frame and wheels.



U-Rack, Source: Bicycle Coalition of Greater PHL

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3. EXISTING CONDITIONS

School Policies and Practices

At the beginning of each school year, students and parents of West Cape May Elementary School are issued student handbooks outlining school transportation and arrival/dismissal policies. The student handbooks can also be found on the school district's website. Students are permitted to walk or bike to school and the school is equipped with bicycle racks. West Cape May Borough does not provide crossing guards, however the school board has recently approved the hiring of a Safety Patrol Coordinator. The Safety Patrol Coordinator will be in charge of safely crossing students and training fifth and sixth graders who are interested in becoming Safeties. The Safety Patrol Coordinator and Safeties will help escort students along Moore Street and Fifth Avenue on the side closest to the school property.

West Cape May Elementary School Drop off & Pick up Policies

According to the West Cape May Elementary School student handbook, students are to report to their specific exterior classroom doors at 8:00am. Each grade has a specific door to enter from leading them directly into their classroom. Supervision of students before 8:00am is not available, so students should not arrive before 8:00am. Students who arrive after 8:05am must enter through the main entrance and report to the main office.

Parents are encouraged to drop off and pick up students along Fifth Avenue and Moore Street on the side closest to the school. Staff members are required to park along Fifth Avenue and Moore Street on the opposite side of the street from the school as stated in a memorandum distributed to staff by the Superintendent.

Dismissal of students begins at 2:45pm. No student shall be dismissed from school prior to 2:45pm unless the student's parent or guardian signs the student out from the main office first. Students can be picked up outside of their designated classroom doors. Students not picked up promptly at 2:45pm will be sent to the After School Program, where parents will be charged \$1.00 per minute up to \$25.00 per day.

The After School Program operates Monday through Friday from 2:45pm to 4:30pm (6pm with two days advance notice). The program is a self-supporting endeavor and in order to receive these services, tuition must be paid prior to attendance.

Municipal Policies and Practices

West Cape May Borough and School District passed a Resolution of Support regarding the Safe Routes to School Program, supporting the cause and committing to implementing a successful Safe Routes to School Program. In addition to supporting the Safe Routes to School (SRTS) program, West Cape May Borough has demonstrated its interest in improving safety for pedestrians, bicyclists, and other roadway users by contemplating adopting a Complete Streets policy. Complete Streets are roadways designed for users of all modes of travel, and any age or ability. While a Complete Street will vary depending on local context, these roadways often include one or more elements such as sidewalks, crosswalks, curb ramps, bicycle lanes, and transit shelters. Adopting a Complete Streets policy directs

transportation planners, engineers, other government staff and officials to consider and balance the needs of everyone in transportation projects, and it helps formalize the idea and practice of routinely accommodating all users in transportation projects

Travel Mode

Student travel tallies were conducted by teachers at West Cape May Elementary (in fall 2016) over a three day period (Tuesday, Wednesday, Thursday). A breakdown of how students travel to school is shown in Table 2.

Table 2: Student Population Travel Mode

Travel Mode	Students	% Total
Walk	10	9%
Bike and Other Wheels	7	6%
Bus	0	0%
Car	91	85%
Total Students	108	100%

West Cape May Elementary School does not provide busing for students, including those who live in Lower Township. As shown in Table 2, only 15% of students at West Cape May Elementary walk/bike to school, whereas 85% of school students from West Cape May Elementary are driven to and from school.

Approximately 60% of students live outside the Borough in Lower Township and are not within walking distance to the school. Of the 108 students attending West Cape May Elementary, only 31 live within a half-mile walking distance from the school. 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. This is often the case because parents believe their child is too young to walk or bike alone to school. School officials conveyed that many of these parents, living within a short walking distance, prefer the convenience of driving rather than accompanying their child on a walk to and from school. In addition, parents are also concerned for their child's safety due to the lack of pedestrian infrastructure along less trafficked roads such as Columbia Avenue, Second Avenue, Third Avenue, Fourth Avenue, and Fifth Avenue.

Due to the fact that 60% of students live outside the Borough and not within walking distance, 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 radius from the school, become more reassured and less hesitant to walk and bicycle to and from



school. More students walking and biking to school would reduce congestion at arrival and dismissal, benefitting parents who have few options besides driving their child to school, since no busing is provided.

Bicycle Facilities

West Cape May has limited existing bicycle infrastructure throughout the Borough. The only streets that currently have designated bicycle lanes are Myrtle Avenue, from Broadway to Park Boulevard; Park Boulevard, from Myrtle Avenue to Central Avenue; and Central Avenue, from Park Boulevard to Broadway Avenue. Other designated bicycle lanes that are just outside the Borough of West Cape May are along Seashore Road, starting at Stimpson Road heading north. The other road is Beach Drive, which is a designated off-road bicycle route along the boardwalk. Second, Third, and Fourth Avenue should consider installing sharrows considering the width of each Avenue and low speed limits (*See Chapter 4 for detailed recommendations*).

Bicycle and Pedestrian Crashes

There were two bicycle crashes and zero pedestrian crashes between 2011 and 2016 in West Cape May Borough, shown in Table 3 and Map 5. Crash data was collected from Plan4Safety, 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. Some crashes involving bicyclists may be relatively minor and go unreported to police. Further, when police are involved, a crash is only reportable in New Jersey if it causes injury or property damage in excess of \$500. Another limitation may be the thoroughness of the police crash investigation reports. Reports are often incomplete and have null or unknown values. Regardless, the Plan4Safety database is a valuable tool to identify serious bicycle concerns in West Cape May.

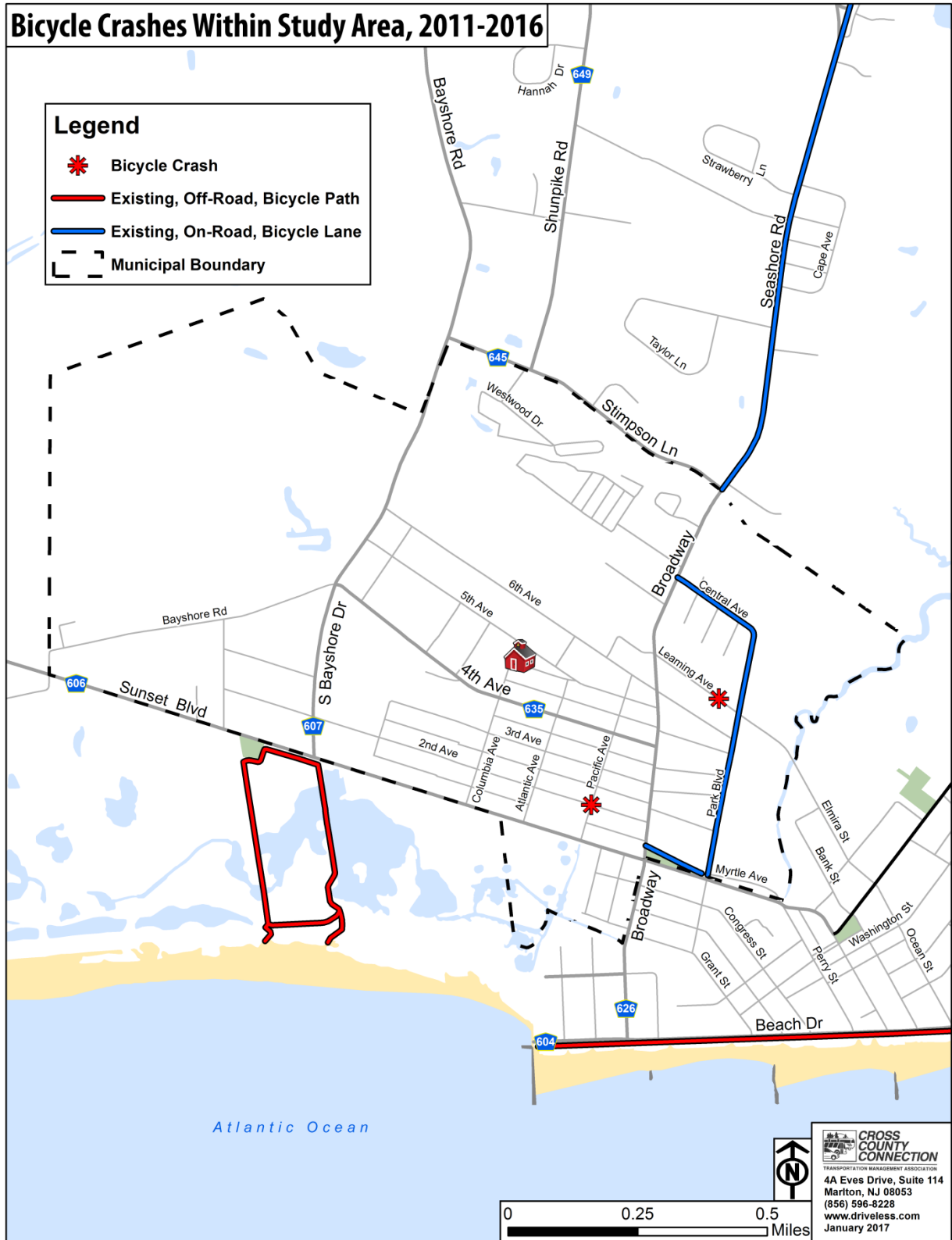
Bicycle Crashes

A total of two bicycle crashes occurred within the Borough of West Cape May. In both incidents, a moving vehicle struck a bicyclist. These crashes did not occur on routes used by students to walk to school. The bicycle crash that occurred on Leaming Avenue was north east of West Cape May Elementary, where no currently students live or would use to walk or bike to school. Both crashes occurred outside of arrival and dismissal times. These crashes are shown on Map 5 indicated by red symbols.

Table 3: Study Area Bicycle Crashes, 2011-2016

Location	Date	Time	Injuries	Total Cyclists Involved
Leaming Avenue	6/27/2014	6:48 AM	Yes	1
Second Avenue & Pacific Avenue	8/27/2015	2:38 PM	Moderate	1

Map 5: West Cape May Borough Bicycle Crashes and Facilities



4. AUDIT FINDINGS AND CORRIDOR RECOMMENDATIONS

A walking audit was conducted on November 9, 2016 to assess walking and bicycling conditions and document areas in need of infrastructure improvement. The study area consists of approximately a ten minute walking radius (half a mile) from West Cape May Elementary School. The following analysis is based on observations from the walking audit, arrival procedure observations, and discussions with participants from the SRTS working group, who relayed input from parents. The working group met with Cross County Connection prior to the audit to provide specific input to guide the assessment of existing conditions. The audit was held in scattered showers from 7:45 AM to 10:00 AM with a temperature of approximately 48 degrees. Participants included the Superintendent; an officer from West Cape May Police Department; and Cross County Connection's Safe Routes to School Coordinator and Research Assistant.

Corridor Selection

The student population of West Cape May Elementary School is dispersed throughout the Borough, with the majority of students coming from Lower Township. The corridors that were selected for observation were chosen due to immediate proximity to the school and by students living southeast and southwest of the school where the roads selected have ample space for pedestrian and bicycle improvements. Audits were conducted along student travel corridors identified by the working group, which consisted of school officials and parents and are shown in Map 6 and listed below.

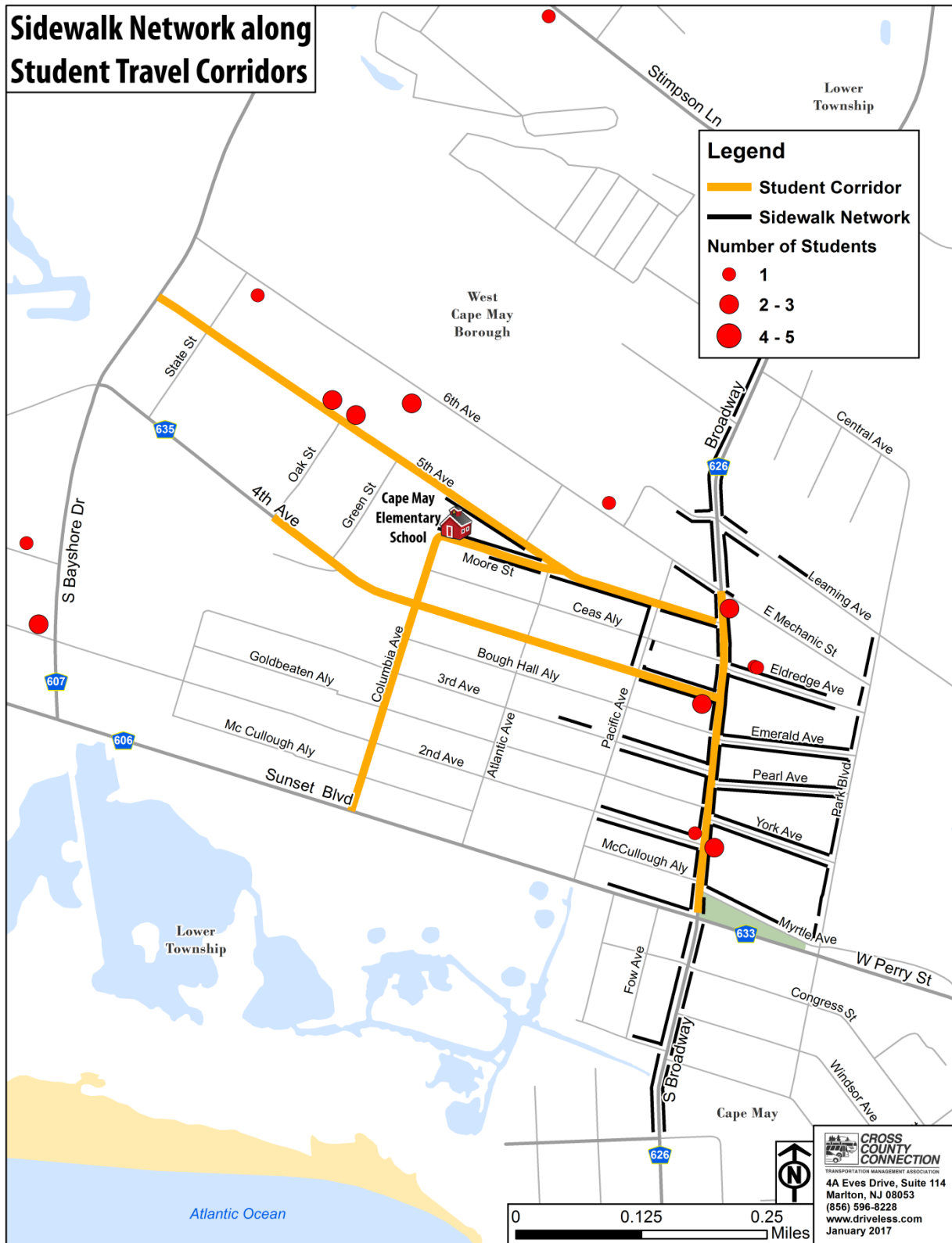
Student travel corridors include:

- Columbia Avenue
- Moore Street
- Fifth Avenue
- Broadway
- Fourth Avenue

The majority of the corridors within West Cape May Borough have intermittent to no sidewalk connectivity and little ADA compliancy (*see Map 6 for existing sidewalk connectivity*). Broadway is the only corridor that has a network of connected sidewalk and ADA compliant curb ramps. For other corridors, safety concerns are identified and suggested infrastructure improvements are outlined to encourage safe walking and bicycling to and from West Cape May Elementary. Recommended improvements are shown in Map 7 and are discussed in more detail throughout the chapter. The following types of improvements contained in these recommendation can be implemented throughout West Cape May Borough, in areas where the safety of non-motorized road users are a concern.

These recommendations are based on an assessment of existing conditions, input from the working group, findings from the audit, sound planning judgment, and guidelines set by the American Association of State Highway and Transportation Officials (AASHTO), the National Association of City Transportation Officials (NACTO), and the New Jersey Department of Transportation (NJDOT). These recommendations are intended to enhance safety and facilitate student travel to and from school. Recommendations found in the West Cape May School Travel Plan are general in nature, and Cross County Connection recommends further engineering analysis before implementing any of the recommendations in this plan.

Map 6: Sidewalk Network along Student Travel Corridors



Overall Recommendations

West Cape May Borough maintains a rural character, which is reflected in the nature of its transportation network. Sidewalks are uncommon outside of the commercial corridor along Broadway (CR 626). Dedicated bikeways, such as bike lanes and paved multi-use paths are also uncommon. However, this does not create a hostile or unwelcoming environment for school aged children walking and bicycling within the community. Traffic volumes and speeds are low on a majority of the roadways. The needs of most pedestrians and bicyclists can be adequately accommodated as a shared environment with motor vehicles, as long as traffic speeds are kept low and adequate indication is provided to motorists. On a few priority corridors, physical separation may be warranted due to anticipated high volumes of young children walking to and from school.

Maintaining low travel speeds and creating a safe and accommodating environment for students at West Cape May Elementary can be achieved with modest infrastructure investments and improvements. Improvements will range from minor changes, merely involving paint and street signs, to more robust approaches involving installing sidewalks or alternative sidewalk treatments.

It should be noted that, while the primary purpose of these proposed improvements is to encourage parents and guardians to allow their child to walk or bike to school, it is also designed to improve the safety of students being dropped off by car. All recommendations are directed towards addressing the safety and air quality concerns associated with the congestion currently observed during arrival and dismissal.

First, improving the walking and biking environment should alleviate many safety concerns and hopefully result in more students, who live within a reasonable distance of West Cape May Elementary, walking and biking to school. Every student that walks and bikes is one less car contributing to congestion.

Second, as noted 60% of students live beyond a ten minute walk from West Cape May Elementary. Ideally, through infrastructure improvements paired with the programs detailed in Chapter 5, such as satellite drop-off locations and walking school buses, these students will have the opportunity to walk and bike on occasion. It is assumed, however, that many of these students will still primarily be dropped off by car. Proposed improvements in the immediate area around the school seek to expand the effective drop-off and pick up area, while providing additional safe spaces for children walking between the car and the school entrance. This Travel Plan seeks to improve conditions for all students and their families, regardless of their ability to regularly walk and bike to school.

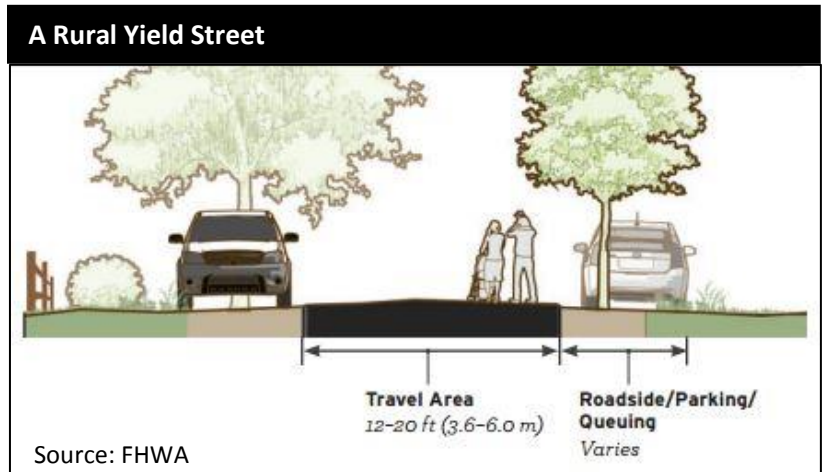
Visually or Physically Narrowing Roadways

The most effective means to create safe and accommodating shared spaces for pedestrians, bicyclists, and persons with disabilities is to narrow roadways to limit vehicle speeds. Roadways can either be physically narrowed using hard infrastructure, such as curbing or parked vehicles, or they can be visually narrowed through approaches such as painting shoulders. Even approaches such as planting street trees close to the roadway can create a sense that the roadway has narrowed and more caution should be taken. Many of these approaches fall under the umbrella of traffic calming, which is discussed in more detail below.

Creating “Yield Streets”

In areas such as West Cape May where on-street parking is fairly uncommon, roadways can function effectively between 24 to 28 feet wide where on-street parking is allowed on both sides of the street. Streets can be as narrow as 16 feet wide where parking is accommodated only on one side of the street. These types of streets are often referred to as “Yield Streets.” Yield streets accommodate on-street parking and bi-directional

traffic. They can function effectively where parked vehicles occupy approximately 40-60% or less of available curb space. A motorist simply yields to oncoming traffic by pulling into a gap between parked cars. These types of streets were common in traditional neighborhood design, and can be found locally in many older suburban communities outside Philadelphia, such as Collingswood and Haddonfield in Camden County. Many of the street widths surrounding West Cape May Elementary are in excess of 30 feet. Embracing this type of design can free up road space to dedicate to infrastructure that can improve safety for all road users in West Cape May.



Traffic Calming

Traffic calming uses physical features to alter driver behavior and reduce vehicle speeds. These features can be vertical, such as speed bumps and cushions, or they can be interventions that narrow a roadway, such as curb extension, also known as bump-outs, and chicanes. Speed bumps may not be necessary to slow traffic in the area around the school, but roadway narrowing techniques such as creating bump-outs or mid-block pinch-points could be explored.

A curb extension is applied at intersections and narrows the roadway at the corners. It creates a gateway onto a street and indicates a transition to a slower environment. Curb extensions are effective in that they lower speeds, while also reducing the crossing distance for a pedestrian, which limits their exposure to traffic. Pinch-points, also known as chokers, are used mid-block and attempt to limit vehicle speeds between intersections. In the case of the area around West Cape May Elementary, an area lacking hard curbs, flexible low-cost interventions could be explored to create these types of traffic calming devices. These can include the use of large potted plants, colored paint or flexible posts.



Crosswalks

Many crosswalks are not marked in West Cape May Borough. Of those that are marked, almost all feature low-visibility striping patterns. This is especially concerning on high-volume roads with higher speed limits such as along Broadway. High visibility crosswalks should be provided more frequently along Broadway and at intersections close to West Cape May Elementary, at intervals of no greater than 500 feet, as per NJDOT guidelines. High-visibility bar style crosswalks should be considered at all intersections within a quarter mile from the school, and any additional busy intersections within the West Cape May Borough.

A High Visibility Ladder Style Crosswalk



Missing Sidewalk Segments

There are intermittent missing sidewalk segments throughout West Cape May Borough and more specifically along roads that make up the perimeter of the school. Some of these interruptions to the sidewalk network are located on student travel corridors, posing a safety concern for students who walk or bike to school. This is a concern to parents and deters them from allowing their child to walk and bicycle to school on their own. Sidewalks should be installed to complete these missing segments wherever feasible to create a cohesive sidewalk network, allowing students to walk from their homes without having to walk in roadways. Missing sidewalk segments along student travel corridors that lack ADA-compliant curb ramps are shown in Map 6.

Missing Sidewalk on Moore Street



However, sidewalks may not always be a feasible means to accommodate pedestrians on West Cape May's rural streets. Sidewalks can be expensive to install. Installation should be targeted to those areas where they are most needed. Sidewalks also require maintenance, which often is the responsibility of the property owner. Property owners may be unwilling to have a sidewalk installed in front of their houses, which could lead to a lengthy process that would result in a fragmented pedestrian network.

Alternatives to Sidewalks

There are alternative means to accommodate pedestrians that can function in a similar manner as sidewalks. These treatments often use cheaper materials such as paint, flexible posts, planters, or stamped concrete to create a dedicated space for pedestrians and persons with disabilities. Some of these alternative sidewalk treatments are demonstrated in Figure 1.

Alternative sidewalk treatments could be explored on one or two streets as a pilot project. A pilot project selects just a few areas to try out a new and innovative infrastructure to determine its effectiveness. Pilot projects are a method to test out an approach in a real-world setting, demonstrate its value, and gather public support before implementing measures on a borough-wide scale. A pilot project could encourage more children to walk to school and demonstrate a demand for dedicated space for pedestrians. Materials used to construct an alternative sidewalk pilot project should be flexible to respond to community input and concerns. These materials include the planters, flexible posts and paint mentioned above. If the pilot is a success, these flexible materials can be replaced by infrastructure that is more permanent, such as curbing and landscaping.

Figure 1: Sidewalk Alternatives for Rural Communities



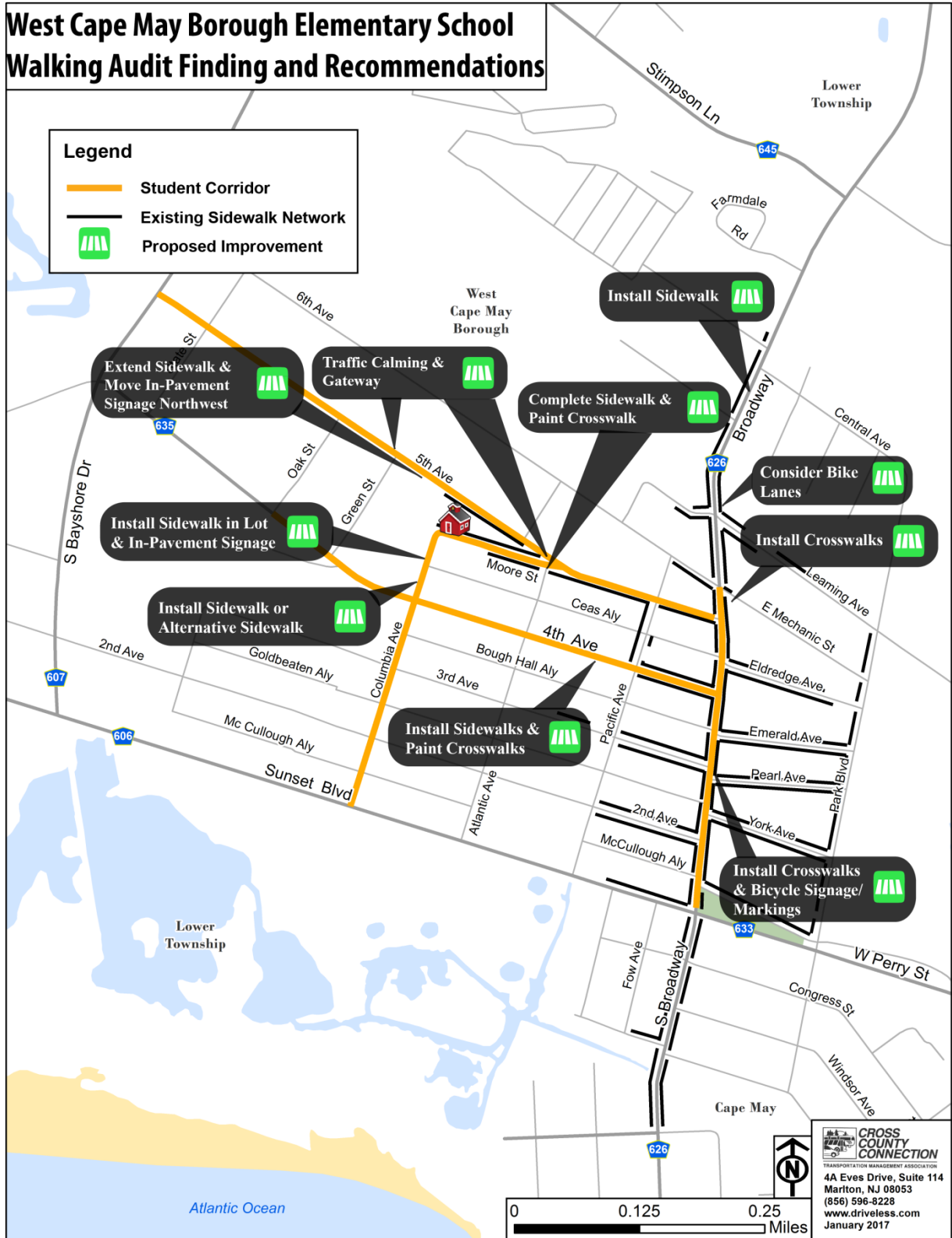
ADA Improvements

ADA improvements, including the installation of curb ramps should be implemented at major intersections along Broadway and at intersections close to the school with pedestrian facilities (e.g. crosswalks or sidewalks) where they are missing or are faded.

Additional recommendations are tailored to each student travel corridor and described in the following section.



Map 7: Recommended Infrastructure Improvements



Corridor: Columbia Avenue

Columbia Avenue is a recommended travel route for students attending West Cape May Elementary. At the time of this study, no students reside south of West Cape May Elementary. However, students may live south of the campus in the future. If students were to live in these areas, Columbia provides direct access to West Cape May Elementary.

Roadway Characteristics

Columbia Avenue is a two lane road, which can accommodate on-street parking on both sides. It merges with Moore Street perpendicularly at West Cape May Elementary. It is a prime north-south corridor for students living south of the school. Columbia Avenue has a speed limit of 25 miles per hour (not posted). It is a residential street with minimal traffic, making it an ideal corridor for students to use when walking and bicycling to school.

There are intermittent driveways along Columbia Avenue, which could pose a problem for students walking and bicycling to school. The roads Columbia Avenue intersects (Sunset Boulevard, 2nd Avenue, 3rd Avenue, and 4th Avenue) lack ADA compliancy, sidewalks, and high-visibility crosswalks. There is also no lighting along the street. These factors could make it unsafe for students walking at dusk and dawn where drivers may not be able to clearly see students walking and bicycling to school.

Speed Limit	25 MPH (not posted)
Travel lanes	2, 18' (not marked)
Parking Lanes	2 spaces on eastern side, south of school
Sidewalks	None
Crosswalks	None
Signals	None
Signage	"Slow School Zone" and stop sign ahead sign
Curb extensions	None
Crossing Guards	None
Ped-Scale Lighting	None
Bicycle lanes	None
Bicycle signage	None
Driveways	Intermittent
Median	No
Suggested Improvements	Install sidewalk between Moore and 4 th Ave. Consider alternative sidewalk treatment on the remainder of the corridor, or paint shoulders. Paint high-visibility continental crosswalks throughout corridor (especially across Fourth Street) and install pedestrian crossing signs at intersections. Install school signage farther south of school on Columbia Avenue.

Transportation Concerns

There are no sidewalks present on both sides of Columbia, forcing any students potentially walking to school to walk in the road. There are no visible crosswalks at any of its intersections, creating an unsafe environment for students to cross intersecting streets. This is a significant concern at its intersection with 4th Avenue (CR 635), which features a 30 MPH speed limit. There is a "slow school zone" sign abruptly right at the end of Columbia Avenue right at the school, which makes drivers unaware of students possibly walking and bicycling to school further south on Columbia Avenue. At 36 feet, and due to a limited amount of on-street parking, Columbia Avenue also appears very wide for a residential street, which could lead to speeding.

Recommendations

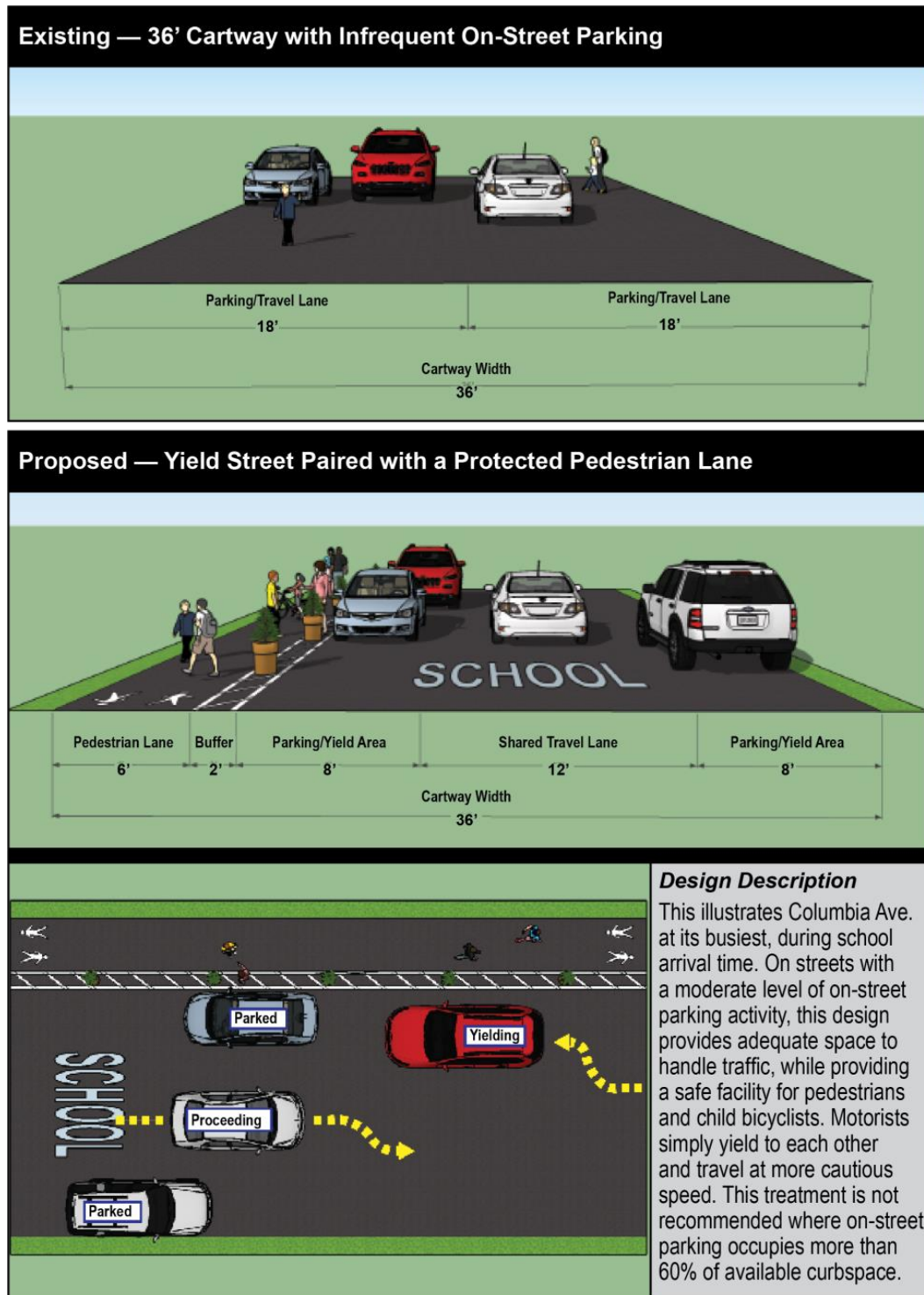
- High-visibility bar-style crosswalks should be painted to facilitate pedestrian crossing across Second Avenue, Third Avenue and Fourth Avenue.
- School Zone Pavement Markings should be installed just north of the intersection of Columbia Avenue and Fourth Street making drivers aware that a school is located on the corridor.
- Sidewalks should be installed between Moore Street and Fourth Avenue, ideally on both sides of the roadway. At the least, a sidewalk could be installed on the lot to the southwest of the school building. Utility poles and concerned property owners could be a limiting factor along the remainder of the block.
- Where concrete sidewalks cannot be installed, Columbia Avenue is an attractive candidate for an alternative sidewalk treatment pilot project. If students were to locate in areas south of West Cape May Elementary, the entire corridor south of 4th Avenue could be included as part of the pilot. A potential treatment using a protected pedestrian lane is shown below (Figure 2) and further detailed in Figure 3. This facility features a 6 foot pedestrian lane paired with a 2 foot buffer. The buffer could use flexible posts or potted plants to create a physical barrier between pedestrians and parked vehicles or traffic. The most logical place to install this type of facility would be on the west side of Columbia Avenue. This would eliminate the need to cross Moore Street, a busy street during arrival and dismissal times. At 8 feet, this facility is the size of a parking lane. Parking could be restricted to create the necessary space to install the facility, or parking can be maintained and the street can function as a “Yield Street,” since parking volumes are fairly low. This facility has the added benefit of providing additional street frontage where parents can safely drop off students, relieving some congestion on Moore Street. Other treatments highlighted in Figure 3 could also be explored as an alternative to this protected pedestrian lane.

Figure 2: Protected Pedestrian Lane on Columbia Avenue



- Painted shoulders are another potential option to visually narrow the roadway, slow vehicle speeds and provide a space for bicyclists and pedestrians, if an alternative sidewalk treatment is determined to not be warranted.

Figure 3: Proposed Pedestrian Lane on the West Side of Columbia Avenue



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Corridor: Moore Street

Moore Street is a recommended travel route for students who attend West Cape May Elementary because it forms part of the perimeter of the school and has connected pedestrian facilities on the northern side, from 5th Avenue to Columbia Avenue.

Roadway Characteristics

Moore Street is a 15 mile per hour residential street where parents, during arrival and dismissal times, park on both sides of the street. Moore Street has low traffic volumes and vehicle speed has not been cited as an issue. There are no crosswalks painted along Moore Street. On the southern side of Moore Street, there is partial sidewalk, whereas, the northern side has complete sidewalks. At the eastern end of Moore Street, where it merges with Fifth Avenue, there is a radar speed sign, prompting drivers to be conscious of their speed and slow down.

Transportation Concerns

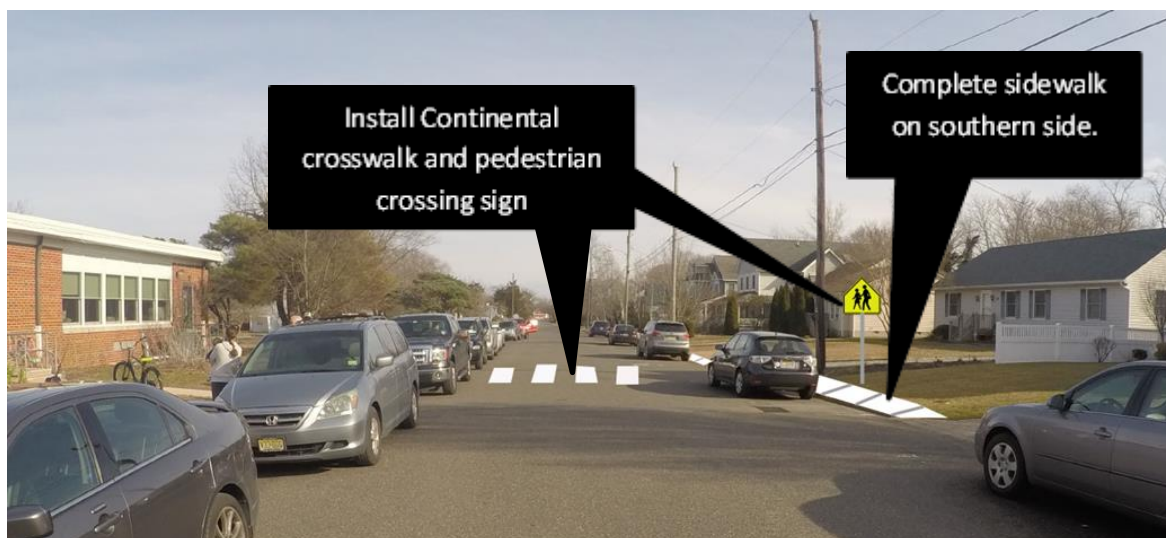
The sidewalk network on the southern side of Moore Street is incomplete. There are no high-visibility crosswalks present along Moore Street, making crossing the street hazardous for students. There are no speed limit signs, school zone signs, or pavement markings along Moore Street indicating to drivers to slow down and be aware of students.

Recommendations

- A high-visibility crosswalk with ADA compatible curb ramps should be installed across Moore Street at its intersection with Atlantic Avenue, where it merges with Fifth Avenue. Students travelling from the east would be using the sidewalk on the south side of Fifth Avenue and require a place to cross Moore Street to access the sidewalk and school building on the northern side of the street. This location also provides a crossing prior the portion of Moore Street where congestion has been cited as an issue during student arrival. School crossing signs should be considered to alert motorists approaching the school of this crossing.

Speed Limit	15 MPH (not posted)
Travel lanes	2, 14'
Parking Lanes	Not designated; but parents park on both sides during drop-off and pickup.
Sidewalks	Continuous on the northern side and partial on the southern side.
Crosswalks	None
Signals	Radar speed sign at the eastern end where Moore Street merges into 5 th Street.
Signage	"Slow School Zone" sign
Curb extensions	From eastern side of the school to 5 th Street.
Crossing Guards	None
Ped-Scale Lighting	None
Bicycle lanes	None
Bicycle signage	None
Street trees	Intermittent
Driveways	Many on southern side
Median	No
Suggested Improvements	Install sidewalk on southern side of Moore Street. Install speed limit signs and school zone signs. Paint high-visibility crosswalk in front of school mid-block. Install no parking signs in front of school.

- In general, a few school zone signs, speed limit signs, and potentially school zone and speed limit pavement markings should be installed where Fifth Avenue transitions to Moore Street to make drivers aware of students walking and bicycling in the area.
- The intersection of Moore Street, Fifth Avenue, and Atlantic Avenue is also a potential candidate for a traffic calming gateway treatment, using paint and potted plants to narrow the roadway and indicate a transition into an area where traffic should reduce their speed. This treatment will be discussed further in the recommendations for Fifth Avenue.
- Ideally, sidewalks should be installed on the southern side of Moore Street to complete the sidewalk network. If this were to occur, a high-visibility mid-block crosswalk with ADA compatible curb ramps should be installed across Moore Street in front of West Cape May Elementary to facilitate student crossing of the street in front of the school.



Corridor: Fifth Avenue

Fifth Avenue is an east-west corridor and is located to the north of West Cape May Elementary School on an angle. Fifth Avenue is a major corridor used by parents dropping off and picking up students. It also functions as a logical travel corridor for students who are located to the east and northwest of Cape May Elementary.

Roadway Characteristics

Fifth Avenue is a two-way street with no posted speed limit and one school zone sign installed just before approaching West Cape May Elementary from the west. To the east, there is a radar sign where Fifth Avenue merges with Moore Street. Fifth Avenue is a major east-west corridor for parents to use when dropping off and picking up students. It has no painted crosswalks or shoulders. There is only a small stretch of sidewalk on the southern side of the road, in front of the school. School faculty are required to park on the northern side of Fifth Avenue so parents can drop-off and pick up students on the southern side along the sidewalk. Vehicles dropping off students were observed parking along Fifth Avenue from Green Street to where Fifth Avenue and Moore Street merge.

Transportation Concerns

There is discontinued sidewalk on the southern side of Fifth Avenue. The existing sidewalk on the southern side does not extend the entire length of the block to adequately capture the area where student drop-off was observed. There are no high-visibility crosswalks along the corridor. Parents will sometimes park on the northern side of Fifth Avenue and walk their child across the street. There is no indication to motorists to expect this crossing behavior. The existing curb cuts along Fifth Avenue are not ADA compliant. There are no speed limit signs alerting drivers to the proper speed to proceed through the school zone. The "School Zone" sign and School Pavement Markings are too close to the school to allow adequate time for drivers to slow down before entering an area of the roadway where students are expected to be present. School staff and parents have cited speeding as an issue along Fifth Avenue.

Speed Limit	25 MPH (not posted)
Travel lanes	2, 16'
Parking Lanes	Not designated; but on both sides during drop-off and pickup. Faculty park along northern side.
Sidewalks	No sidewalks on the northern side and partial on southern side.
Crosswalks	None
Signals	None
Signage	School Zone sign and "School" painted on road.
Curb extensions	None
Crossing Guards	None
Ped-Scale Lighting	None
Bicycle lanes	None
Bicycle signage	None
Street trees	Intermittent tree canopy cover
Driveways	Many on both sides of street
Median	None
Suggested Improvements	Paint high-visibility crosswalk across Fifth Avenue in front of school. Extend sidewalk on southern side. Install bicycle lanes. Make sure ADA compliant curb cuts are installed. Install visible school zone signs and speed limit signs farther down Fifth Avenue.

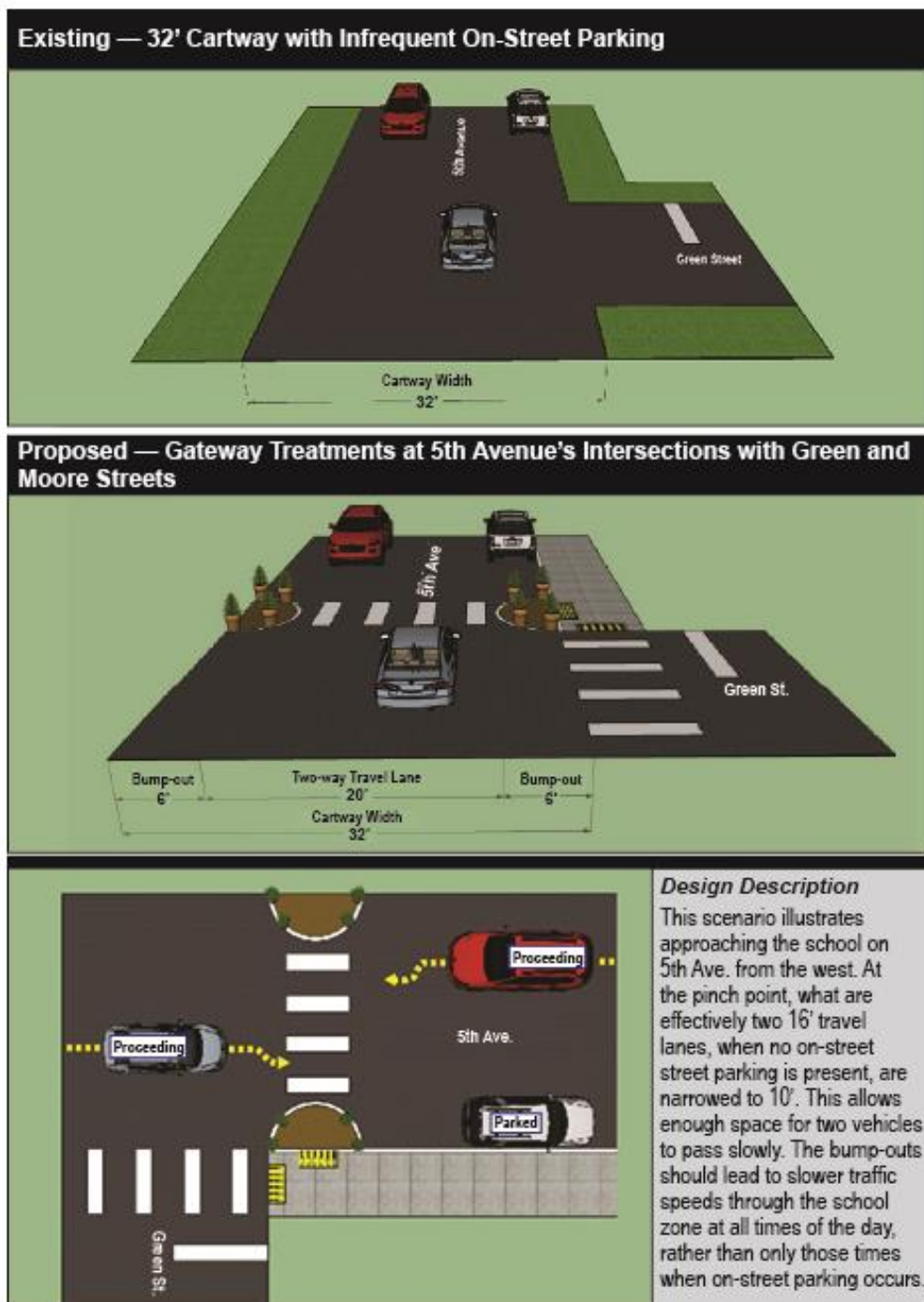
Recommendations

- Sidewalk along the southern side of Fifth Avenue should be extended to Green Street, and eastward to the existing sidewalks on Moore Street, to adequately capture the observed student drop-off area. There is a single residence between the school grounds at Fifth Avenue's intersection with Green Street. Installing a new sidewalk will require consultation with the property owner.
- Fifth Avenue is another attractive candidate to be included in a pilot to test an alternative sidewalk treatment. The entirety of Fifth Avenue, between Broadway and Bayshore Road, has been designated as a travel corridor for students, but its sidewalk network is fragmented. There are no sidewalks west of the school. The southern side of Fifth Avenue between the school grounds, where the sidewalk currently ends, and Bayshore Avenue may be an appropriate location to paint a two-way walking path that is 4 to 6 feet wide, paired with a 2 foot buffer. There should be enough space to accommodate this type of facility within the 32 foot cartway. This could also effectively extend the student drop-off area, beyond the school grounds. Parents of older students may feel comfortable dropping their children off a block or two away from the school, and then turning down Oak or Green Street to avoid the congested areas immediately in front of the school.
- If having a path only on one side of the street is not ideal, methods to install alternative sidewalks on both sides of the street, at least between Bayshore and Green Street, could also be explored. However, there may be issues in the areas immediately in front of the school where student drop-off is frequent. The appropriate width of such a facility would have to be factored into the need to provide on street-parking in the areas around the school. A narrow "Yield Street" may not function well in this area, during student drop-off times. The entire 32 foot cartway may have to be maintained in this small area. Nothing short of installing a concrete sidewalk across from the school, on the northern side of Fifth Avenue between Green Street and Moore Street could adequately accommodate everyone's needs in this area.
- Fifth Avenue, between Moore and Green Street, may also be an attractive candidate to include flexible and low-costs traffic calming interventions as part of a pilot project. Speeding has been reported as an issue in this area. Speeds may rise at times outside of student drop-off when parking is less frequent and the street is less congested. Gateway treatments, highlighted in Figure 4, using paint paired with flexible posts or potted plants could be an effective way to narrow the roadway at intersections and indicate to drivers that they are entering a slow zone. These gateway treatments would serve as bump-outs that would reduce the pedestrian crossing distance. Midblock checkpoints could also be created in a similar fashion in areas where midblock crossing may be expected, such as in front of school entrances. These types of interventions should be paired with high visibility crosswalks.
- Paint high-visibility crosswalks at intersections along Fifth Avenue as well as in front of West Cape May Elementary.

- Painted shoulders are also a consideration along Fifth Avenue in order to dedicate space for bicyclists and pedestrians trying to reach the school.
- West Cape May Borough should install additional high-visibility “school zone” signage and post speed limit signs along Fifth Avenue approaching West Cape May Elementary.
- Sidewalk should be extended further west on Fifth Avenue to give drivers enough time to become aware of students. The addition of the gateway treatment stated above would assist with this and the appropriate placement of the markings should be planned along with any potential treatment.



Figure 4: Proposed Gateway Treatment on 5th Avenue in Front of School



Corridor: Broadway (County Road 626)

Broadway is a recommended travel route for students attending West Cape May Elementary due to the presence of connected pedestrian facilities, its proximity to the school and its function as an important north-south connection between school grounds and students' homes. Broadway is a major corridor within West Cape May providing access to recreation (Wilbraham Park), retail and public services. Broadway provides a direct connection to the City of Cape May, a popular tourist destination in the summer months. Broadway is also part of the NJDOT High Point Cape May Bike Route. This route totals 238 miles and traverses the center of the state.

Roadway Characteristics

Broadway is a county road (CR 626) and is a major north-south corridor in West Cape May Borough. Broadway connects with Beach Avenue to the south and turns into Seashore Road to the north, providing access to Delsea Drive (Route 47). Broadway has a posted speed limit of 30 miles per hour within West Cape May Borough. There is continuous sidewalk on the western side of Broadway. No parking is permitted on this side of the road. Sidewalks are continuous on the eastern portion of Broadway from the southern town border to Leaming Avenue where they become disconnected. Parking is permitted on the eastern side of Broadway. Parking lanes are not striped.

Speed Limit	30 MPH
Travel lanes	2, 17'
Parking Lanes	East shoulder used for parking
Sidewalks	Continuous sidewalk on both sides of Broadway
Crosswalks	At major intersections, standard and continental style
Signals	Sunset Boulevard includes pedestrian countdown signal
Signage	15 minute parking is permitted northbound on Broadway, pedestrian crosswalk signage, "no parking this side of street" southbound on Broadway
Curb extensions	None None
Crossing Guards	None
Ped-Scale Lighting	None
Bicycle lanes	None
Bicycle signage	"Wrong side ride right" signs
Street trees	Minimal tree canopy cover
Driveways	Some
Median	None
Suggested Improvements	Consider installing high-visibility crosswalks across Broadway. Install "Sharrows" signs and additional bicycle signage along Broadway.

Transportation Concerns

Broadway serves as a connection for students traveling north or south to West Cape May Elementary School. It features two 17 foot travel lanes, which is very wide for a roadway with a speed limit of 30 miles per hour. Speeding could present an issue to children travelling along or across Broadway. There were no bicycle or pedestrian crashes on Broadway between 2011 and 2015. However, the lack of bicycle lanes and signage informing motorists of the presence of cyclists on this road may create unsafe conditions for bicyclists. Wrong-way riding was also reported to be a frequent occurrence on

Broadway. In addition to serving as a travel corridor for West Cape May Elementary students, Broadway also serves as part of NJDOT's High Point to Cape May Bike Route, and has been cited as a common place to find bicyclists, especially during the warmer months.

Conditions for pedestrians are not ideal in their current state. There is a lack of crosswalks and sidewalk gaps on the eastern portion of Broadway, north of Leaming Avenue, which may force children to walk on the shoulder of a 30 mile per hour segment of the road. The few existing crosswalks appear faded and may be less visible to drivers, creating unsafe conditions for children walking to and from school.

Recommendations

- The sidewalk network should be completed on the eastern portion of Broadway, north of Leaming Avenue.
- Faded crosswalks should be repainted to facilitate safe student crossing and preserve pedestrian crossing sight-lines. Consider installing high-visibility crosswalks in place of standard existing crosswalks.
- Additional high visibility crosswalks should be considered. Fifth Avenue is an ideal candidate for a high visibility crosswalk since it has been identified as a student travel corridor and is located near many of Broadway's local businesses that could draw additional pedestrian activity.
- Bikeway signage should be installed both northbound and southbound on Broadway to inform drivers that bicyclists may be present on the roadway. The most effective sign would be the "Bicycles May Use Full Lane" (R4-11) signs obtained in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). Studies have shown that "Bicycles May Use Full Lane" signs register better with motor vehicle drivers and increase awareness that bicycle traffic will be sharing the travel lane with motor vehicles.
- In areas, where Broadway has no shoulder and on street parking is required to serve local businesses, sharrow pavement markings paired with the "Bicycles May Use Full Lane" sign, will further reinforce that motorists should expect to share the street with bicycles. The sharrows also provide the benefit of guiding bicyclists where they should position themselves on the roadway and which direction they should be travelling. This may address the issue of wrong-way riding.
- North of Mechanic Street, travel lanes could be narrowed to provide a bike lane, at least 5 feet in width to accommodate bicyclists and eventually connect to the bike lanes that currently begin at Stimpson Lane heading north.



Pedestrian Crossing Sign on Broadway



Wrong Side Ride Right Sign on Broadway

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Corridor: Fourth Avenue (County Road 635)

Fourth Avenue is a recommended corridor for students because of its proximity to West Cape May Elementary School. Fourth Avenue serves as a connection between South Bayshore Drive and Broadway which are major north-south corridors in the area.

Roadway Characteristics

Fourth Avenue is a two-lane road with a posted speed limit of 30 miles per hour. Sidewalk is present on Fourth Avenue between Pacific Avenue and Broadway (CR 626). There is no sidewalk network present west of Pacific Avenue. On-street parking is permitted on both sides of the road.

Crosswalks are provided at Pacific Avenue and Broadway. Crosswalks located at the intersection of Fourth Avenue and Pacific are standard crosswalks. The crosswalk located on Broadway is a high-visibility bar crosswalk.

Transportation Concerns

A lack of sidewalk along Fourth Avenue west of Pacific Avenue can create hazardous conditions for students walking and bicycling to and from West Cape May Elementary School.

Recommendations

Sidewalks should be installed along Fourth Avenue, particularly within a quarter-mile walking distance to West Cape May Elementary School.

Speed Limit	30 MPH
Travel lanes	2, 8-12'
Parking Lanes	1, 6'
Sidewalks	Continuous between Pacific Avenue and Broadway. No sidewalk is present east of Pacific Avenue.
Crosswalks	Standard crosswalks at all intersections along Pacific Avenue. Standard bar crosswalk present along Broadway
Signals	None
Signage	None
Curb	None
Crossing Guards	None
Ped-Scale	None
Bicycle lanes	None
Bicycle signage	None
Street trees	Minimal tree canopy cover
Driveways	Many
Median	None
Suggested Improvements	Add high-visibility crosswalks along Columbia Avenue. Replace existing crosswalks with high visibility crosswalks. Install sidewalk west of Pacific Avenue.

Existing crosswalks should be replaced with high-visibility crosswalks at the intersection of Fourth Avenue and Pacific Avenue. High-visibility crosswalks and ADA compliant curb ramps should be installed across Fourth Avenue at the intersection of Columbia.



Summary of Recommendations

The recommendations that have been suggested for each major and minor corridor observed during the walking audit should be examined further prior to implementation.

In summary, the above recommendations for each corridor are based on existing conditions observed during the walking audit and information obtained from school and municipal representatives. Recommendations are targeted towards improving the safety of all students attending West Cape May Elementary School. Students living within a reasonable walking distance from the school will benefit from an improved walking and biking environment. Students who are driven to school will benefit from expanded pick-up and drop-off areas that are less congested and safer. Many of these recommendations can be implemented in a short time frame, while others will take more time to implement. These recommendations should be reviewed by the municipal engineer to ensure design standards and regulations are implemented. Many of these improvements can be implemented Borough-wide if the municipal engineer finds them worth addressing as well as other areas of concern for non-motorized road users.

Funding opportunities are available for infrastructure improvements and are discussed in Chapter 6. In addition to these improvements, West Cape May Elementary should also implement educational programs to ensure children and parents know how to be safe pedestrians and bicyclists, as discussed in the following chapter.

5. NON-INFRASTRUCTURE RECOMMENDED ACTIONS

The following are the recommended non-infrastructure actions suggested to achieve the goals of the West Cape May Elementary School Travel Plan by addressing the 5 E's of Safe Routes to School: Education, Encouragement, Enforcement, Engineering, and Evaluation.

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 biking. Table 4 details the recommended Education Actions.

In the past, Cross County Connection has conducted the pedestrian safety presentation at the school and the West Cape May Police Department has conducted bike rodeos annually in the spring coinciding with their bike-a-thon where students bicycle around West Cape May Borough.

Table 4: Education Actions

Education Actions	Responsibility	Time Frame
Creation and distribution of educational materials to students, parents/guardians and community members	West Cape May Elementary/Cross County Connection TMA/NJSRTS Program	Ongoing
In-class education on safe walking practices, along with health and environmental benefits	West Cape May Elementary/Cross County Connection TMA	Annually
Inclusion of SRTS elements in Teacher and Student Handbooks	West Cape May Elementary	Annually
Participate in New Jersey's SRTS Webinar Program	West Cape May Elementary	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.

West Cape May Elementary should continue to take advantage of Cross County Connection's 3rd-4th Grade Pedestrian Safety Program on an annual basis. Additional information about the Pedestrian Safety Program is available on Cross County Connection TMA's website: (<http://driveless.com/TransportationPlanning/SafeRoutes.html>).

Through active participation, students will 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 program as a building block for their SRTS programs.

To supplement Cross County Connection's 3rd-4th Grade Pedestrian Safety Program, it would be beneficial to the health and well-being of students from West Cape May Elementary to also take advantage of other programs available to schools, which teach children safe bicycling and walking, such as the Brain Injury Alliance of New Jersey's program for 5th-8th grade students (<http://bianj.org/>).

Encouragement

Encouragement actions promote walking and biking 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 biking. These programs are essential to building the momentum necessary to significantly change school travel habits. West Cape May Elementary should hold a walk to school event once a month to encourage more students to walk and bike to school.

West Cape May Elementary should conduct a walk to school event within the Borough to encourage students and parents to walk and bike to school more. West Cape May Elementary should continue to hold a Bike Rodeo for children within the community to help teach the fundamentals of safe bicycling to and from school and also within the community this spring. Some of the programs and events that are held and should continue to be held are included on Table 5.

Table 5: Encouragement Actions

Encouragement Actions	Responsibility	Time Frame
Walk to School Event	West Cape May Elementary	Spring 2017 kick-off with monthly events
Bicycle Rodeo	West Cape May Elementary/Cross County Connection TMA/ West Cape May Police Department	Spring 2017
Participation in International Walk to School Day	West Cape May Elementary	Annually in October
Participation in International Bike to School Day	West Cape May Elementary	Annually in May
Poster Contest as a follow-up to Pedestrian Safety Presentation	West Cape May Elementary/Cross County Connection TMA	Spring 2017

Below are events and presentations West Cape May Elementary has conducted in the past and events that should be conducted to further the Safe Routes to School program.

(Satellite Drop-Off) – Walk to School Day

To further promote walking and bicycling, West Cape May Elementary should participate in International Walk to School Day and International Bike to School Day, which are held in the months of October and May, respectively. School events may be registered online by visiting www.walkbiketoschool.org. West Cape May Elementary should hold a walk to school event in April which is New Jersey's Walk and Bike to School Month to continue their program. International Walk to School Day in October can act as the official annual kick off to the schools' SRTS Programs.

West Cape May Elementary should hold a satellite drop-off walk to school event which would help to include students who live outside of West Cape May. Students and parents could meet at the West Cape May Fire Department (pending permission to use parking lot from the fire department), which is located a ½ mile north of the school, and walk from the fire department to the school. There is ample parking for parents to park at the fire department and the route from the fire department to the school has connected sidewalks the entire route, making it safe for students and parents to do so. A member of the police department should be present as well along Broadway where vehicular traffic is most prevalent along the route. A satellite drop-off event should take place initially monthly and then ultimately become a weekly occurrence.

Pedestrian Safety Presentation by Cross County Connection

Cross County Connection conducted the Pedestrian Safety presentation for 3rd and 4th grade students at the school in the fall of 2016. West Cape May Elementary should continue to have Cross County Connection conduct the presentation every fall to teach students how to walk and bike to school safely. Students are taught the do's and don'ts of properly crossing a street using a mock streetscape including a road and crosswalk. Students are taught road sign recognition and other important pedestrian skills to use when walking to and from school.

Poster Contest by Cross County Connection

A 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.

Golden Sneaker Award

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/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. Incentive programs are a good way to keep the momentum going with SRTS 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 West Cape May School District develop a pilot program during the school year. By doing so, younger students will be given the opportunity to learn about safe pedestrian practices, while familiarizing themselves with their neighborhoods.

Bicycle Rodeo

Cross County Connection can assist the school and the Police Department in the planning of a bicycle rodeo on school grounds. Bicycle rodeos are used to teach a large group of schoolchildren safe bicycling practices, such as how to fit a helmet, signal for turns, and come to quick stops. Bicycle maintenance is also checked and taught to students.

Enforcement

Enforcement of safe and lawful travel behavior around schools, on all travel corridors and throughout the Borough is important to ensuring a safe walking environment for children. Table 6 shows enforcement actions that can be conducted to increase pedestrian and bicycle safety around the school.

Table 6: Enforcement Actions

Enforcement Action	Responsibility	Time Frame
Speed Enforcement	West Cape May Borough Police	Targeted + Ongoing
Jay-walking midblock	West Cape May Borough Police	Ongoing
Parking Enforcement	West Cape May Borough Police	Ongoing

Evaluation

Determining participation in walking and bicycling programs and identifying parent concerns are an important part of the SRTS program. Evaluating these factors allows school staff to determine the success of their SRTS activities and how they might prioritize and modify their efforts to encourage more children to walk and bike to school. Table 7 shows evaluation actions that will help West Cape May Elementary to assess the success of their Safe Routes to School program and determine any needed improvements.

Table 7: Evaluation Actions

Evaluation Action	Responsibility	Time Frame
Student Travel Tally	West Cape May Elementary	2016-2017 School Year; Quarterly
Parent Survey	West Cape May Elementary/Cross County Connection TMA/ Voorhees Transportation Center	2016-2017 School Year; Annually

West Cape May Elementary conducted student travel tallies in the fall of 2016. 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 biking to school.

Engineering

Engineering recommendations in this Travel Plan are discussed in Chapter 4 and shown on Map 8. These recommendations focus on safety improvements throughout the study area surrounding the school. These recommendations are general in nature and should be examined further by engineering staff. Any improvement would require appropriate engineering analysis and would be subject to appropriate design guidelines and regulations, such as the Manual on Uniform Traffic Control Devices (MUTCD). West Cape May Borough should also strongly consider adopting a Complete Streets policy, which will help to implement best practices for all modes of transportation when future infrastructure projects are being considered within the Borough. For more information on a Complete Street policy, visit <http://driveless.com/TransportationPlanning/CompleteStreets.html>.

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6. CONCLUSION

West Cape May Borough is committed to increasing the number of children who walk and bike to school through safety improvements and programs that encourage walking/bicycling and educate students about safety procedures. The Borough currently addresses child walking safety by providing a Safe Routes to School Program that includes education and encouragement activities. The West Cape May School Travel Plan was developed to address the school district's interest in improving walking and bicycling programs, and the continued concerns about existing and potential safety issues due to speeding, road crossings and pedestrian infrastructure gaps in the community it serves.

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 and regional organizations. Infrastructure improvements must be employed alongside hands-on education and encouragement 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 West Cape May School Travel Plan.

West Cape May Borough:

- Pursue SRTS Infrastructure grants and other grants administered by NJDOT and the South Jersey Transportation Planning Organization (SJTPO) to implement recommendations identified in Chapter 4, such as repainting crosswalks, installing additional high-visibility continental crosswalks, pedestrian signage, installing sidewalks where feasible to do so, and other pedestrian and bicycle safety improvements.
- Continue enforcement efforts and consider participating in the pedestrian safety decoy program to increase compliance with New Jersey's "Stop and Stay Stopped" law.
- Work with Cross County Connection TMA to set up a Complete Streets advisory committee to develop policies and procedures.

West Cape May Elementary:

- Work with Cross County Connection to continue to have and administer pedestrian safety education and encouragement activities.
- Work with Cross County Connection and the Voorhees Transportation Center to continue 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 walk and bicycle safety for the students and the community.

Funding Resources

Implementation of engineering improvements can be expensive. Fortunately, there are funding programs at the state and federal level dedicated to assisting with the implementation of projects that would improve the safety of West Cape May Elementary 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 preparing 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 (SRTS) INFRASTRUCTURE PROGRAM

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 are eligible to apply and receive direct funding.

SURFACE TRANSPORTATION PROGRAM (STP) SETASIDE

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 disabled persons. 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 the bicycle and pedestrian safety around their schools.

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 to move up in 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:

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

Summary

The West Cape May School Travel Plan was created through the collaborative efforts of the West Cape May Safe Routes to School working group and Cross County Connection TMA. This Travel Plan was undertaken to address West Cape May Elementary's interest in improving and incorporating new pedestrian infrastructure to create a safer walking and bicycling environment for students to get to and from school. The West Cape May Travel Plan outlines the potential safety issues and concerns regarding pedestrian infrastructure within close proximity to West Cape May Elementary, 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 Safe Routes to School working group. West Cape May Elementary and West Cape May Borough 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.