

WOODBINE SCHOOL DISTRICT STUDENT TRAVEL PLAN



**CROSS
COUNTY
CONNECTION**

TRANSPORTATION MANAGEMENT ASSOCIATION

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WOODBINE SCHOOL DISTRICT STUDENT TRAVEL PLAN

PREPARED BY:

CROSS COUNTY CONNECTION

TRANSPORTATION MANAGEMENT ASSOCIATION

AUGUST 2024



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NEW JERSEY Safe Routes



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ABOUT CROSS COUNTY CONNECTION TMA

Cross County Connection is the designated Transportation Management Association (TMA) for the seven-county southern New Jersey region: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem. Cross County Connection addresses the region's mobility needs by fostering the implementation and use of sustainable transportation modes.

Cross County Connection, a non-profit organization, was formally incorporated in 1989 through the efforts of a group of southern New Jersey business leaders, local governments, and state agencies to address traffic congestion and improve air quality in the region.

Cross County Connection's programs and services encourage and facilitate the safe use of public transit, shuttle services, carpooling, vanpooling, bicycling and walking for all. Additional services include public transit travel training, bicycling and walking safety programs, assistance with electric vehicle charging infrastructure and fleets, bicycle and pedestrian infrastructure planning, grant assistance and more. Services are provided to county and local governments, the business community, federal, state and regional transportation agencies, schools, social service organizations and the general public.

Mission Statement

Creating equitable, safe, and environmentally sustainable transportation options in South Jersey.

Vision Statement

To be the trusted resource empowering the South Jersey region to:

- Reduce pedestrian & bicyclist crashes in all communities
- Improve air quality and reduce traffic congestion through the increased use of commute alternatives
- Create a culture that embraces safe public transit, walking and biking as an everyday means of transportation for all

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Chapter 1:

Introduction

The Borough of Woodbine is a small, eight-square mile, rural community located in northwest Cape May County. Woodbine Elementary School is a K-8 school, serving as the only public school in the borough and Woodbine School District. The staff of Woodbine Elementary School and members of the local government recognize the correlation between transportation and the health of the student population.



Woodbine Elementary School educates students from kindergarten to 8th grade. Most of the borough's population live in single-family homes, concentrated in the northern area of the borough. Woodbine has a significant low-income population. It has the third highest percentage of students in Cape May County eligible for free or reduced lunch, at 80%.

For over a decade, the Borough of Woodbine has proven its dedication to pedestrian and bicyclist safety by implementing a Student Travel Plan in 2012 to increase the number of students walking and biking to school, create safe walking and biking environments, and reduce traffic congestion at arrival and dismissal times. When student travel tallies were collected as part of the 2012 Travel Plan, Woodbine Elementary reported that 30% of students walk or bike to school. Currently in 2024, the school reports 40% of students walk or bike, a notable increase since the 2012 Travel Plan was completed. Cross County Connection is working with Woodbine Elementary School to update the 2012 Student Travel Plan to continue this momentum and further their efforts to improve the safety of students who walk or bike to school.

Plan Goals

A Safe Routes to School (SRTS) Travel Plan “maps out” how to improve pedestrian and bicycle safety where children may walk or bike to school through policy, programming, and infrastructure recommendations. The goal is to increase the number of students that walk and bike, as well as improve safety for those who do. A Travel Plan aims to identify where students currently walk and bike, where they could walk and bike, and the changes needed to better accommodate students walking and biking to school.

This Student Travel Plan incorporates the five E's of SRTS: Evaluation, Engineering, Education, Encouragement, and Enforcement. These five categories provide the framework for the recommendations of the plan and help identify actions that may encourage more students to safely walk and bike to school.

Both short-term and long-term recommendations will be made, providing both immediate actions that can be put into place and those that will require further planning and coordination. Cross County Connection developed this plan in partnership with the SRTS Travel Plan Working Group members listed in Table 1. A Working Group meeting was held on January 24th, 2024, to establish travel plan priorities.

Table 1: Safe Routes to School Travel Plan Working Group

Name	Title	Organization	Role	Contact
Patrick Farley	Program Director	Cross County Connection TMA	Project Manager	farley@driveless.com
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Trooper Kat Alvaraz	NJSP School Safety Unit	NJ State Police, Woodbine Barracks	Enforcement	lpp8386@njsp.org

Student arrival and dismissal observations were held on February 21st, 2024, to observe the current walking and biking routes of Woodbine Elementary students. A walking audit was conducted on March 12th, 2024, to further evaluate the conditions of walking and biking infrastructure surrounding the school and along priority travel corridors.

Chapter 2: Community Profile

Woodbine Borough, shown in Map 1, has a population of 2,263 with most of the borough's 858 households living in single-family homes concentrated in the northern area of the municipality. Woodbine has a significant low-income population, with 1,178 residents living below two-times the poverty threshold (52%). In 2022, Woodbine's employment rate was just 44%.¹

Woodbine is located within the Pinelands Management Area and is crossed by three county roads that often act as alternative routes between the Philadelphia area and the Cape May County shore communities. Washington Avenue (CR 557), a north-south route, serves as the community's "main street". Dehirsch Avenue (CR 550) begins in Woodbine and heads west until it terminates at Route 9 near the bridge to Sea Isle City. Webster Street (CR 638), where Woodbine Elementary is situated, is an east-west route and can be used as a route to shore communities further south, including Avalon and Stone Harbor.

Woodbine Elementary School's location on Webster Street is shown in Map 2. To the east is the 250-acre Woodbine Developmental Center (WDC). The WDC provides a wide range of rehabilitation, behavioral and medical services and supports an estimated 700 men with developmental disabilities. According to Woodbine Elementary School community members, there is an influx of traffic from the WDC staff during school arrival and dismissal times.

Environmental Justice and Transportation Equity

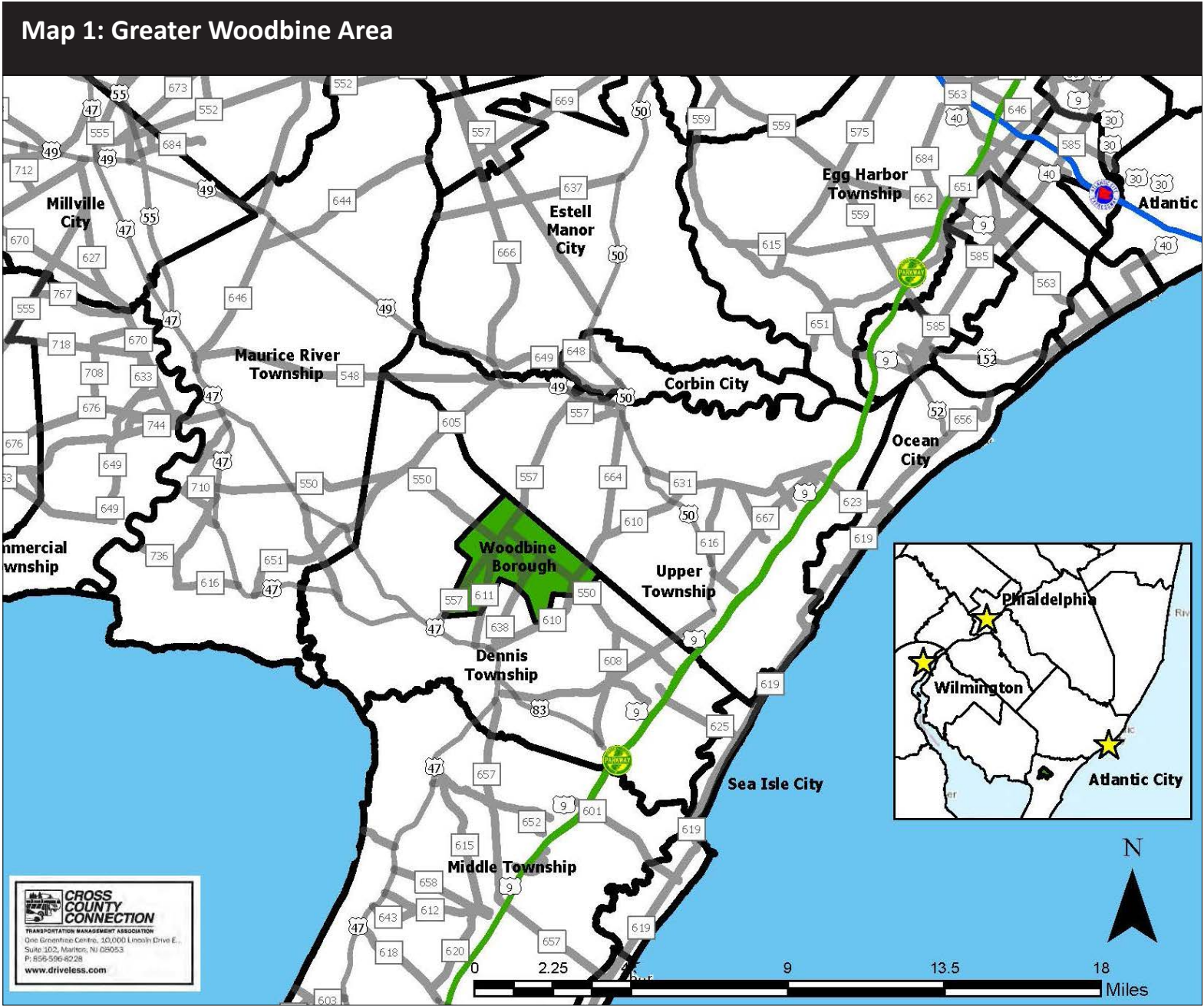
By focusing on making streets safer for students who walk and bike to school, the streets become safer for all road users. Equity and inclusiveness should be considered at all stages of the project – planning, design, and implementation. To ensure this plan results in equitable outcomes, an Environmental Justice (EJ) analysis was completed.

The U.S. Environmental Protection Agency (EPA) defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies." These

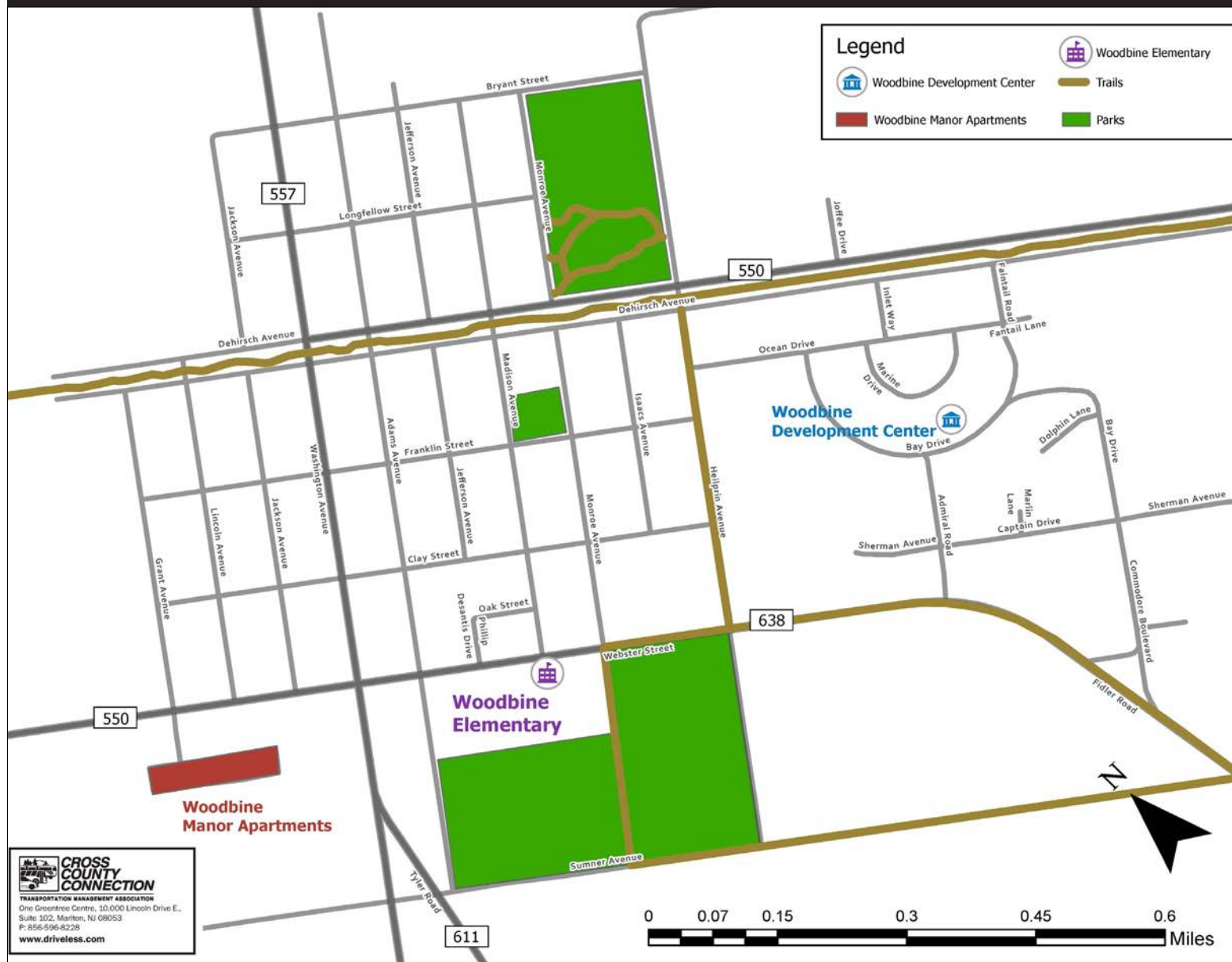


Credit: Stockton University

¹ United States Census Bureau 2022 American Community Survey 5-Year Estimates



Map 2: Woodbine Elementary School Location



are communities that, historically, have disproportionately suffered the negative outcomes often associated with an inaccessible transportation environment. These outcomes include limited mobility, poor air quality, reduced opportunities for exercise, and higher rates of crashes resulting in serious injury and death.

New Jersey's Environmental Justice Law defines EJ communities as census block groups where any of the following criteria are met: (1) at least 35 percent of individuals live in households that qualify as low-income, defined as at or below two-times the poverty threshold; (2) at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency. Woodbine is made up of two census block groups. The New Jersey Department of Environmental Protection (NJDEP) has designated both as Overburdened Communities.

Both census block groups have very similar demographic profiles. Across both block groups:

- 1,178 (52%) residents live in households two-times below the poverty threshold, qualifying as low-income
- 1,179 (52%) residents identify as non-white, qualifying as a minority

These percentages are both well above the NJDEP's qualifying criteria for an Overburdened Community.

Out of the 858 households in Woodbine Borough, 52 have limited English proficiency (6%). This is well below the language threshold set by the NJDEP for an overburdened community, however school faculty report some parents would benefit from Spanish translation services during outreach activities. The perspectives and experiences of non-English speakers are valuable input to making the community safer for all road-users.

While not a demographic indicator used in the NJDEP's EJ assessment, household access to a motor vehicle is an important factor to consider when addressing transportation equity. The United States Census Bureau estimates that 105 households in Woodbine do not have access to a vehicle (12%). Woodbine Elementary does not provide students with transportation to school, so if their household does not have access to a vehicle, the student has no other option than to walk or bike to school.

Woodbine Elementary School's Policy and Programs

Woodbine's Board of Education enacted a bicycle safety policy that permits students to ride bicycles to and from school. The school board's policy states that students can ride bicycles to school with signed consent from a parent or guardian. The school board's policy also follows in accordance with state law requiring all children riding a bicycle to wear a helmet. Any students who violate the helmet policy will have their bicycle riding privileges revoked. If students do not have a helmet, they cannot remove their bicycle from school property unless they are accompanied by their parent or guardian. The school provides bike racks for parking towards the rear of the school near the library.



Student Travel Corridors

Students who walk or bike to Woodbine Elementary School primarily use four travel corridors:

1. Webster Street (Grant Avenue to Heilprin Avenue)
2. Madison Avenue (Dehirsch Avenue to Webster Street)
3. Franklin Street (Washington Avenue to Heilprin Avenue)
4. Washington Avenue (Dehirsch Avenue to Webster Street)

These corridors, shown on Map 3, identified by school district staff and law enforcement, are focus areas for ongoing safety efforts and already feature continuous sidewalks.

Webster Street (CR 638)

There are notable concerns regarding speeding and traffic congestion on Webster Street during school arrival and dismissal times. The speed limit on Webster Street is 50-MPH east of Heilprin Avenue, less than 800 feet from the school, and reduces to 40-MPH in front of the school between Heilprin Avenue and Grant Avenue. During school arrival and dismissal there is a designated 25-MPH school zone directly in front of the school. Most students commuting from the Manor Apartments typically utilize the sidewalks on the south side of Webster Street, while those residing to the north must cross Webster Street to access the school.

Madison Avenue

Madison Avenue, a residential street with a 25-MPH speed limit, is a north-south travel route for students residing east of Washington Avenue. Madison Avenue terminates at Webster Street in front of Woodbine Elementary. The street also provides access to a community park and the Woodbine Railroad Trail. Lincoln Park, a second larger community park, is located one block east on Monroe Avenue. The east crossing of north Dehirsch Avenue (CR 550) at Madison Avenue is marked with decorative brick crosswalks and crosswalk warning signs with flashing beacons. There are no crosswalks or beacons for any of Madison Avenue's crossings of south Dehirsch Avenue.

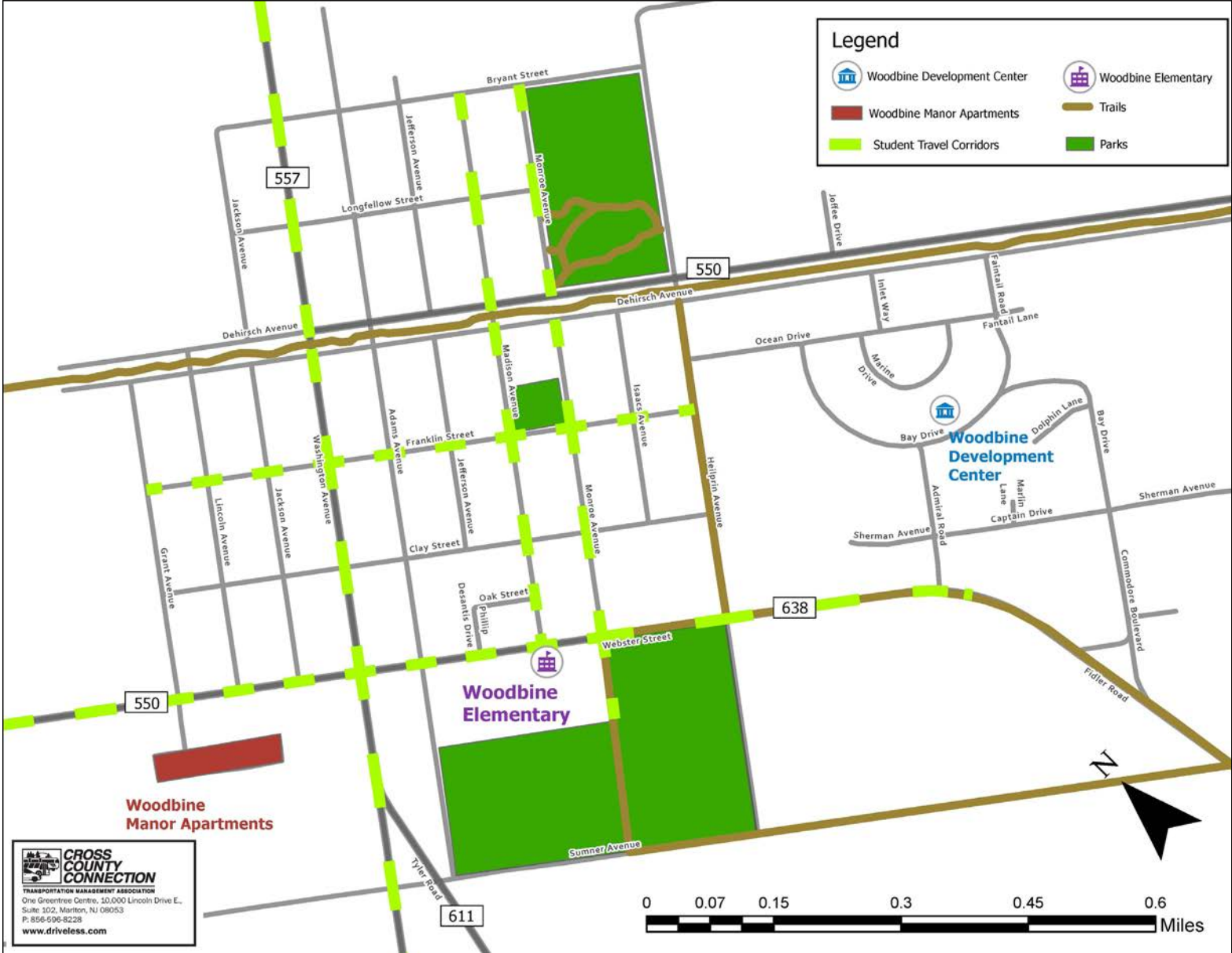
Franklin Street

Franklin Street, a residential street with a 25-MPH speed limit, is another reported east-west student travel route between Heilprin Avenue and Grant Avenue with a 25-MPH speed limit. It also provides access to Madison Avenue and is the location of the state police barracks. At its eastern end, Franklin Street connects to the Heilprin Avenue bike path. Decorative brick crosswalks are placed at the intersections of Washington Avenue and Adams Avenue, while other crossings between Heilprin Avenue and Washington Avenue are unmarked.

Washington Avenue (CR 557)

Washington Avenue is a county road that handles traffic passing through Woodbine. It also serves as Woodbine's commercial main street, with shops and restaurants, and has higher volumes of traffic based on observations. It has a 35-MPH speed limit from Webster Street to Dehirsch Avenue, where students would be traveling. It provides a direct connection to the Woodbine Railroad Trail at Dehirsch Avenue, where frequent pedestrian activity was observed. Traffic does not have to stop at any point on Washington Avenue. Every intersection is a two way stop with signs posted on the intersecting street, though a flashing yellow traffic

Map 3: Woodbine Elementary School Student Travel Corridors



light is located at its intersections with Webster Street and Dehirsch Avenue, where crossing traffic volumes are higher. Each intersection features brick pavers, with marked crosswalks delineated by concrete strips. While it is permitted, on-street parking volumes are low.

Washington Avenue (CR 557) is undergoing a five-phase revitalization, focusing on streetscape and pedestrian safety. Phases I-III are currently on-going and cover north Dehirsch Avenue to Webster Street. These improvements include bench installation, street lighting, landscaping, ADA ramps, and brick paver treatments at intersections. Additionally, similar traffic improvements are planned for Phase IV and V along Washington Avenue, both south and north of Webster Street and north Dehirsch Avenue.

Student Travel Modes

As a part of the Travel Plan Update, teachers at Woodbine Elementary School took a daily tally of transportation modes that their students used to get to and from school. This was done from Tuesday, April 9th through Thursday, April 11th, both in the morning and afternoon. The results of these tallies showed that the two main modes of transportation for students are walking and being driven in a family vehicle.

Travel tally results, shown in Table 2, reported that approximately 32% of students walk and less than 2% ride a bike. This combined 34-36% is close to the 40% estimate given by school representatives, and the bike/walk mode-share is likely higher in warmer weather. As for other modes, 65% of students are driven to school in a family vehicle, and under 2% carpool.

Creating a safer and more inviting walking environment in Woodbine can increase the number of trips that students and their parents make on foot rather than driving. Having a low percentage of students riding bikes to and from school indicates that there is room for improvement in the infrastructure surrounding the school to allow them to bike safely.

Students' travel mode behaviors varied slightly between arrival and dismissal, as shown in Table 2. Approximately 5% more students walked home from school in the afternoon than those that did on the way to school in the morning. Typically, this indicates that some parents may be trip-chaining, meaning dropping off their children at school as part of their morning work commute. Also, students are more likely to carpool in the morning than in the afternoon. The drop in carpooling and students being dropped off in the family vehicle explains this uptick in walking activity. As expected, students that rode bicycles to school also rode them home.

Table 2: Arrival vs. Dismissal Student Travel Tallies

	<i>Walk</i>	<i>Bike</i>	<i>Family Vehicle</i>	<i>Carpool</i>
<i>Daily Average</i>	31.71%	1.65%	64.92%	1.72%
<i>AM (Arrival)</i>	29.02%	1.64%	66.22%	3.13%
<i>PM (Dismissal)</i>	34.44%	1.65%	63.61%	0.30%

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Chapter 3: Existing Conditions

Existing Bicycle and Pedestrian Infrastructure

Existing bikeway infrastructure in Woodbine includes the Woodbine Railroad Trail, a shared-use path along Dehirsch Avenue (CR 550) featuring bicycle parking and seating. This trail connects to bicycle facilities in Dennis Township at its western terminus. A bicycle and pedestrian path along Heilprin Avenue connects Dehirsch Avenue and Webster Street. Additionally, the Eco Park Bikeway provides a shared-use path linking Woodbine Elementary School to Eco Park and accommodates bicycles, walkers, and horseback riders. These three trails are the only dedicated bicycle infrastructure, as there are no on-road bikeways. However, residential streets feature low traffic volumes making them a viable option for students in higher grade levels that are experienced bicyclists to use. Webster Street (CR 638) and Washington Avenue (CR 557) are not locations where student biking is recommended.



Woodbine Borough has an extensive sidewalk network, although some sections are in poor condition. Since the previous Travel Plan in 2012, most areas with missing sidewalks have been addressed. Remaining areas that require sidewalks are mostly farther from the school in more remote areas of the borough. There are no marked crosswalks on borough-owned roads, which see much lower volumes of traffic. Locations will be recommended for further evaluation to see if any borough-owned roads warrant a marked crosswalk where children travel to and from school. On Washington Avenue, pedestrian scale lighting was added to illuminate sidewalks and crosswalks.

At three intersections along Webster Street near the school, brick pavement has been added to the crosswalks and curb extensions. This brings more visibility to pedestrian crossings and slows vehicle speeds. This area of Webster Street is also a school zone, and the borough has implemented different signage including speed feedback signs, flashing pedestrian signs, and other pedestrian/crossing/school zone signage.

Prior Bicycle and Pedestrian Grants

In May of 2009, the Borough of Woodbine was awarded a Safe Routes to School Grant totaling \$275,000 for a Pedestrian and Bicycle Safety Program (Phase 1). The grant funding was used to improve pedestrian

infrastructure surrounding the school. The project targeted Webster Street (CR 638) and Washington Avenue (CR 557). The Pedestrian Safety component included an additional phase of the sidewalk program that addressed all areas close to the school and library that did not have sidewalks. Woodbine also constructed benches, street lighting, landscaping, ADA-compliant ramps, and decorative paving treatments at intersections and crosswalks through other funding sources.

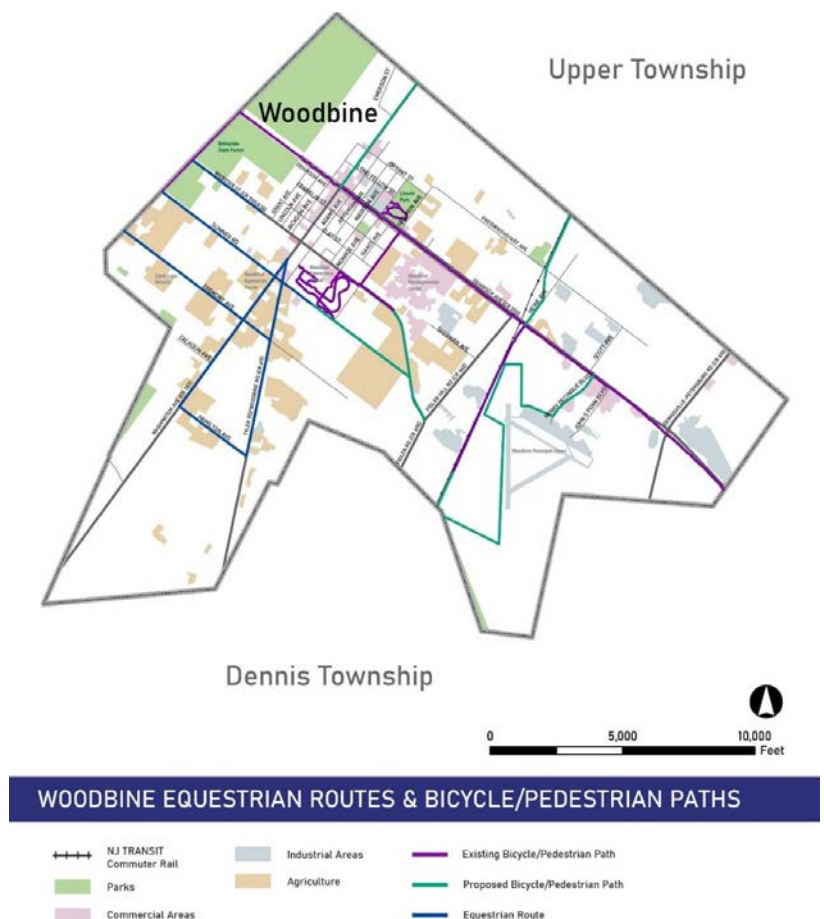


Planned Bicycle and Pedestrian Infrastructure

The Borough of Woodbine received a grant for a Bicycle and Pedestrian Master Plan, published in 2022. This plan outlined the existing bicycle and pedestrian infrastructure conditions in Woodbine, and detailed what improvements can be made. These improvements include intersection safety, crosswalks, signage, aesthetics, and more. The 2022 plan was reviewed in the making of this plan to inform recommendations. Notable planned projects detailed in the 2022 plan were:

- The Sumner Avenue Bike Trail Extension, which will extend the existing Woodbine Bikeway from the intersection of Heilprin Avenue and Sumner Avenue to Fidler Hill Road.
- The Fidler Hill Road Bike Trail Extension, linking the Woodbine Railroad Trail to bicycle facilities along Sumner Avenue.

Though not in a formal plan, based on-going conversations with Woodbine Borough, Cape May County is open to installing infrastructure such as Rectangular Rapid Flashing Beacons (RRFBs), raised crosswalks, multi-use trail connections, bike sharrows, wayfinding bike route signage, and traffic calming elements. These types of bicycle and pedestrian infrastructure improve safety and encourage more residents to walk and bike.



Crash History

To help identify areas with student travel safety concerns, recent crash histories were evaluated to identify problem areas. Two analyses were done, one focusing only on pedestrian and bicycle crashes and a second evaluating all crash types.

Bicycle and Pedestrian Crashes

Crashes from 2012-2023 that involved either a pedestrian or a bicyclist were examined over the 12-year period since the first Woodbine Elementary School Travel Plan was completed. Crash locations are shown in Map 4. There were five crashes involving a pedestrian. There were no crashes involving a bicyclist. Four resulted in minor injuries to the pedestrian, and one resulted in no injury. One crash occurred within a quarter-mile radius from the school, and another occurred within a half-mile. The ages of the crash victims are not reported, so it is not certain if children were victims.

Crash 1 occurred on 10/8/2015 at 6:41 AM at the intersection of Webster Street (CR 638) and Washington Avenue (CR 557). This is within a quarter mile of Woodbine Elementary. The pedestrian sustained a minor injury. The vehicle was traveling east on Webster Street. Crash 2 occurred on 7/31/2017 at 10:02 AM at the intersection of Dehirsch Avenue (CR 550) and Heilprin Avenue. This is within a half-mile of Woodbine Elementary. The pedestrian sustained a minor injury, and the vehicle was traveling east on Dehirsch Avenue.

All Crash Types

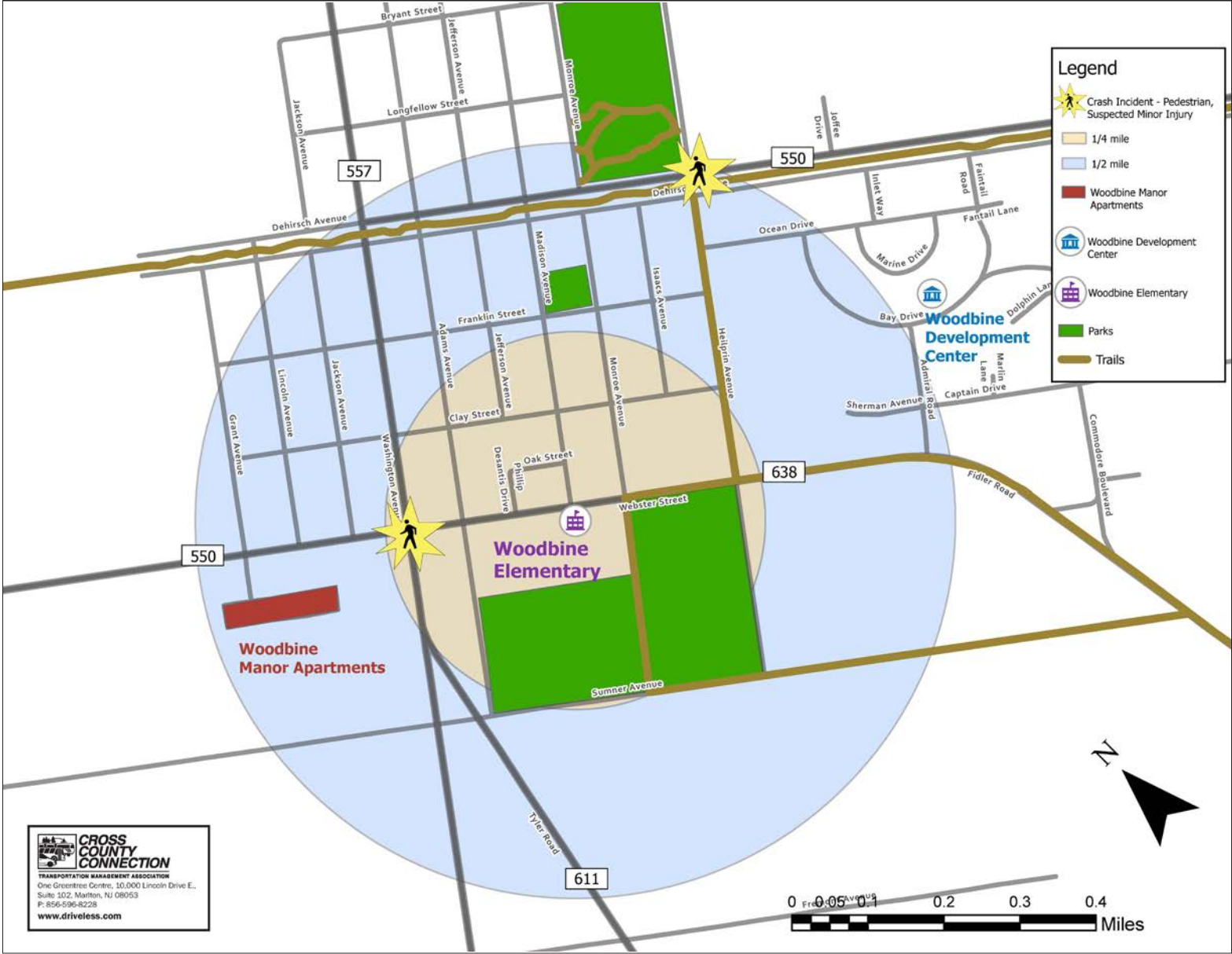
To further the analysis of roadway conditions surrounding Woodbine Elementary, all crashes occurring between 2018-2023 were used. This is still indicative of safety issues that can impact all road users. Locations with a clustering of crashes are shown in Map 5. Crash incidents that do not involve bicyclists or pedestrians are still indicative of safety issues impacting all road users and give insight into areas where pedestrian or bicycle crashes may not have occurred but could be likely in the future. There were a total of 160 crashes in Woodbine during the five-year period. Of these, 63 crashes occurred within a half-mile of Woodbine Elementary, and 35% of those crashes occurred within a quarter mile of the school.

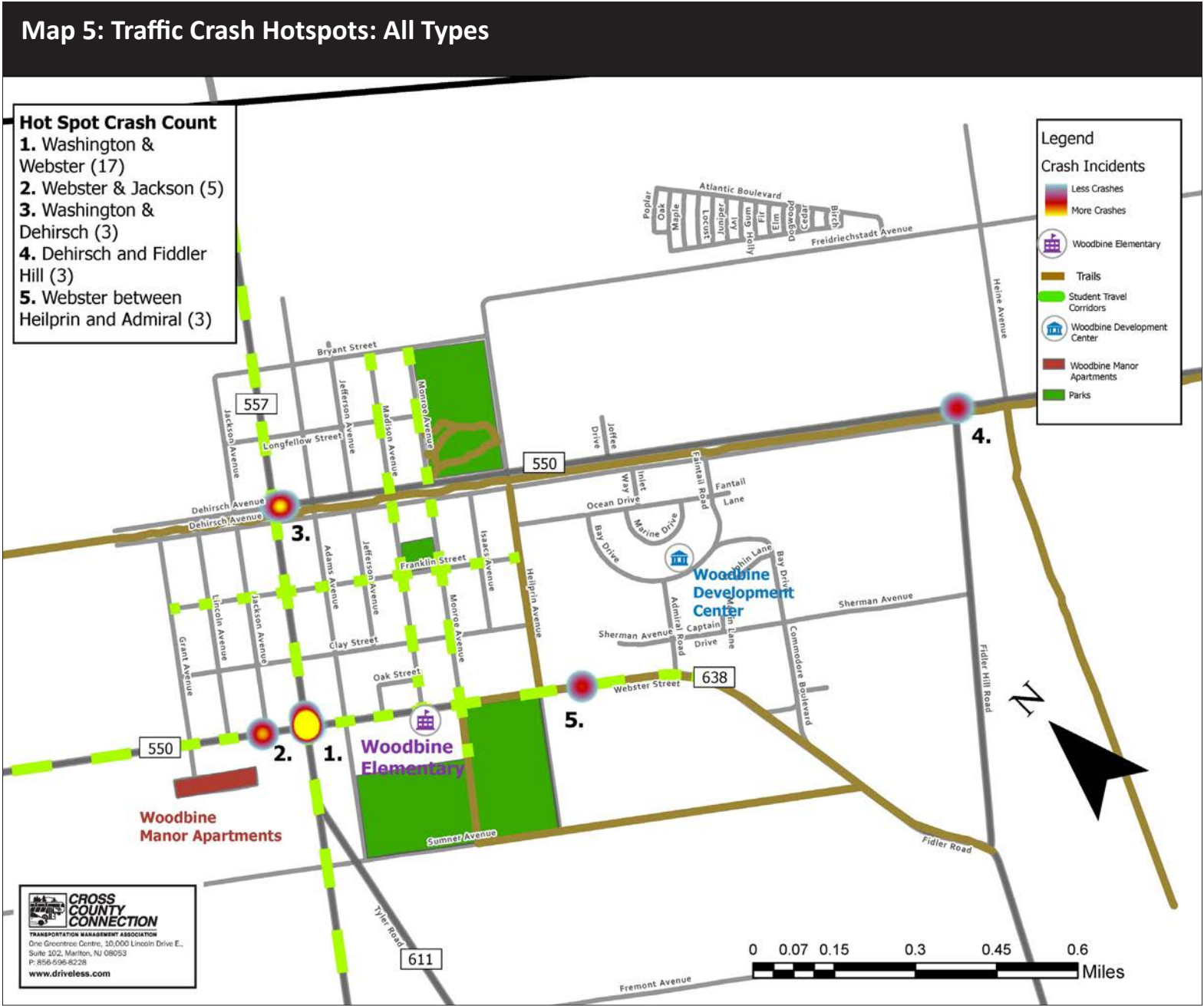
Crash hotspots were identified at intersections with the highest total crash count over the period, and the intersections with the top five instances of crashes in the borough are as follows:

- Webster Street (CR 638) & Washington Avenue (CR 557): 17 crashes (within ¼ mile of Woodbine Elementary School)
- Webster Street (CR 638) & Jackson Avenue: 4 crashes
- Washington Avenue (CR 557) & Dehirsch Avenue (CR 550): 4 crashes
- Fiddler Hill Road & Dehirsch Avenue (CR 550): 3 crashes
- Webster Street/Fiddler Hill Road (CR 628) corridor east of Heilprin Avenue: 3 crashes

The intersection of Webster Street and Washington Avenue is both the location of one of five crashes involving a pedestrian and has the highest concentration of total crashes, with 17 over the past five years. The intersection is within a quarter-mile from Woodbine Elementary School and is a location where many students were seen crossing on their way to school, making it a prime candidate for a more thorough evaluation.

Map 4: Bicycle and Pedestrian Crashes





Parent Feedback

Collecting feedback from parents is an essential part of the process in updating a school's travel plan. This ensures that areas they find unsafe are accounted for and that the recommendations will work for those who most need them. To receive public comments, Cross County Connection created a survey that was distributed to parents of Woodbine Elementary School students. This was distributed by physical flyers given to parents and digitally on social media. Parents were asked for input on their child's current travel behaviors and what safety concerns they have. The survey remained open for three weeks in March.

Cross County Connection staff gathered feedback in person at Woodbine Elementary School's parent/teacher conferences on March 26, 2024. Parents were asked to identify areas on a map of Woodbine where they are most concerned about their child's safety while walking or biking. Using this map, Cross County Connection staff were able to pinpoint various issues and concerns as well as make recommendations to create a safer environment.

Locations where parents frequently cited concerns are shown in Map 6. Parents were most concerned with the intersection of Washington Avenue and Webster Street, which also has the highest number of crashes. This is a two-way stop intersection with motorists traveling at high speeds and not stopping for pedestrians. Parents were especially concerned that there are currently no crossing guards at the intersection, leaving children to cross on their own.

School Observations

Observations took place on February 21, 2024. It was a clear and sunny day, comfortable for walking and biking, with temperatures in the low 40's. Students were observed from three different locations on noted school travel corridors as they arrived and then later left school. Staff made observations from the intersections of:

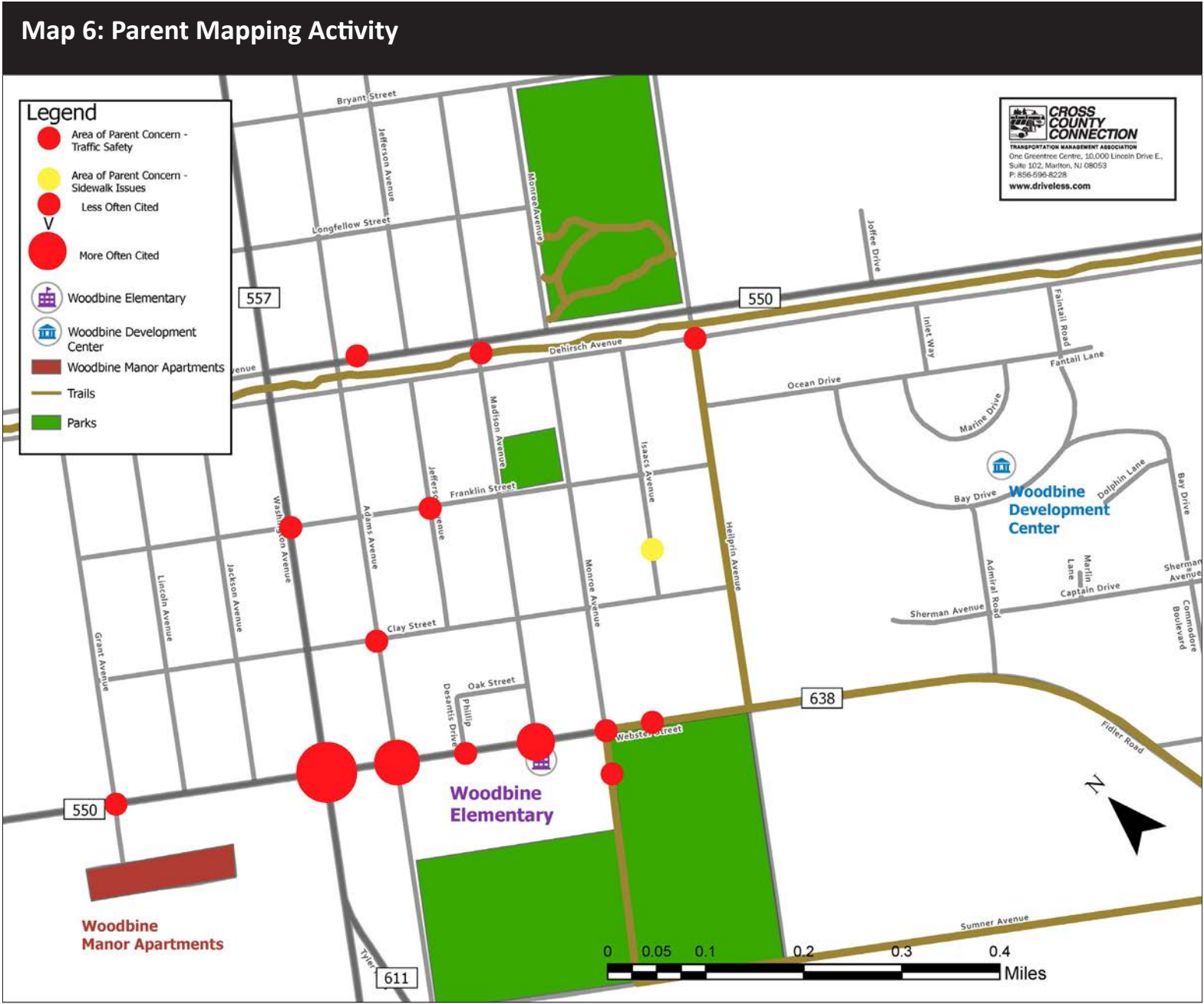
- Washington Avenue (CR 557) and Webster Street (CR 638)
- Monroe Avenue and Webster Street (CR 638), within view of the school entrances
- Dehirsch Avenue (CR 550) between Madison and Monroe Avenues

Arrival Observations

The student arrival period was between 8:00 AM and 8:20 AM. Most students were driven to school and were dropped off in the parking lot in the back of the school, complying with school arrival policies. Though some students were dropped off in front of the school, in violation of the policy for K-8 students.

Most students who walked used Webster Street to reach the school, with most coming from the Woodbine Manor Apartments, west of Washington Avenue. Students walked in groups or were accompanied by a parent or guardian. Children traveling from the Woodbine Manor apartments must cross at the intersection of Washington Avenue and Webster Street. In the absence of a crossing guard, older children made sure that younger children made it across the street safely.

Other groups of students were observed walking to school along Monroe Avenue or walking towards the school from the east using Webster Street. There was a single student on a bike using Monroe Avenue that used the bike parking in front of the Cape May County library branch attached to the school. No students



were observed crossing Dehirsch Avenue, which is approximately a ten-minute walk from the school.

Pedestrian behaviors:

- The only unsafe pedestrian behavior observed was that some students crossed Webster Street at Phillip DeSantis Drive, where there is no crosswalk in front of the school.

Motorist behaviors:

- The drivers dropping off students at the side entrance of the school used the cul-de-sac at the end of the street to turn around to return to Webster Street and did so in an orderly and courteous manner, exhibiting no behaviors that would impact pedestrian or bicyclist safety.
- Some motorists elected to drop their students off in front of the school and perform an illegal U-turn on Webster Street, which is especially concerning for the students crossing at Phillip DeSantis Drive.
- At the intersection of Washington Avenue and Webster Street, motorists were observed traveling above the speed limit and rarely stopped for students who were waiting to cross the street.

Dismissal Observations

The student dismissal period was observed from 2:00 PM to 2:30 PM. Woodbine uses a staggered dismissal, so students left the school in smaller groups throughout the thirty minutes. Students who walked to school in the morning left school mostly in the same groups, returning home using the same streets. Students who were driven to school walked towards the cars waiting for them on Monroe Avenue.

Pedestrian behaviors

- Parents/guardians who walked their students to school returned to walk their students home.

Motorist behaviors:

- As dismissal progressed, there was a steady flow of cars traveling along Monroe Avenue, picking up their students and turning around in the cul-de-sac. This was an orderly process and no explicitly unsafe behavior was observed.
- The intersection of Washington Avenue and Webster Street was once again the most concerning area for student travel due to speeding traffic.

Chapter 4: Student Travel Corridors Road Safety Audit

A group of participants completed a student travel Road Safety Audit (RSA) of the areas surrounding Woodbine Elementary School. Participants included Woodbine Elementary School staff and parents, and Cape May County planning and engineering staff. Cross County Connection staff led two teams on a walk along student travel corridors. During this walking assessment, members discussed the observations made by Cross County

Connection during student arrival and dismissal and were tasked with noting any existing infrastructure that could be helping or hindering students' ability to safely walk and bike to and from school. After the walking assessment, the RSA group discussed potential solutions to address the identified safety issues. These are reflected in this plan's recommendations.



Webster Street (CR 638)

Webster Street has roadway widths of up to 40 feet leading up to Woodbine Elementary School. The portion of the roadway in front of the school, between Madison Avenue and Heilprin Avenue, is 30 feet wide. Travel lanes account for 22 feet, and shoulders account for 8 feet of the roadway width. Parking is allowed on one side of the street directly in front of the school and is used for some staff parking as well as Pre-K pick-up and drop-off. Carleena Supp, Woodbine's former Superintendent and Principal, noted that there are times where parents for Pre-K pick-up/drop-off will park on the other side of the street, where parking is not allowed.

On Webster Street in front of the school, there are an abundance of signs. These are speed signs, pedestrian crossing signs, and other warning signs for motorists. The current number of signs placed in a relatively short distance has been noted by members of the walking assessment as unnecessary and excessive. Drivers may have "sign fatigue" and not notice each sign's specific intention.

The most noted negative behavior was motorists traveling at high speeds. The conditions that are potentially adding to this issue include the speed limits on the roads leading to Woodbine Elementary School. On both sides of Webster Street leading to the school, the speed limit drops dramatically over a short distance, from 50-MPH to 40-MPH to 25-MPH during school hours. This change happening over a short distance can explain why some motorists are traveling at faster speeds in the school zone, potentially missing the speed limit

signs or simply not paying attention.

Washington Avenue (CR 557)

Crosswalks in Woodbine have been updated since the previous travel plan. Many are within intersections repaved with brick, with concrete delineating the crosswalks. These crosswalks are aesthetically pleasing, but the crosswalk can get lost or be easily overlooked by motorists. Other crosswalks are striped with the ideal high-visibility continental pattern, and of the many along the corridor, only a few are faded and need re-striping. Some crossings along Webster Street and other areas have curb ramps, but no painted crosswalks. These intersections could benefit from striped crosswalks. Curb ramps in Woodbine are also up to date, with only a few needing further updates such as general upkeep or leveling.

Dehirsch Avenue (CR 550)

Dehirsch Avenue has a three-mile off-road trail for bicyclists and pedestrians. Heilprin Avenue also has an off-road trail. There are trails in a loop formation behind Woodbine Elementary School that are intended for recreational use. There are no bike lanes connecting the community to these trails, which could make accessing them difficult for those that do not live near them. There are many streets with wide, unused shoulder areas that can be assumed as a place for bicyclists to ride, but do not provide any protection for bicyclists or signage designating them for bicyclist use.

Neighborhood Streets: Madison Avenue, Monroe Avenue, and Franklin Street

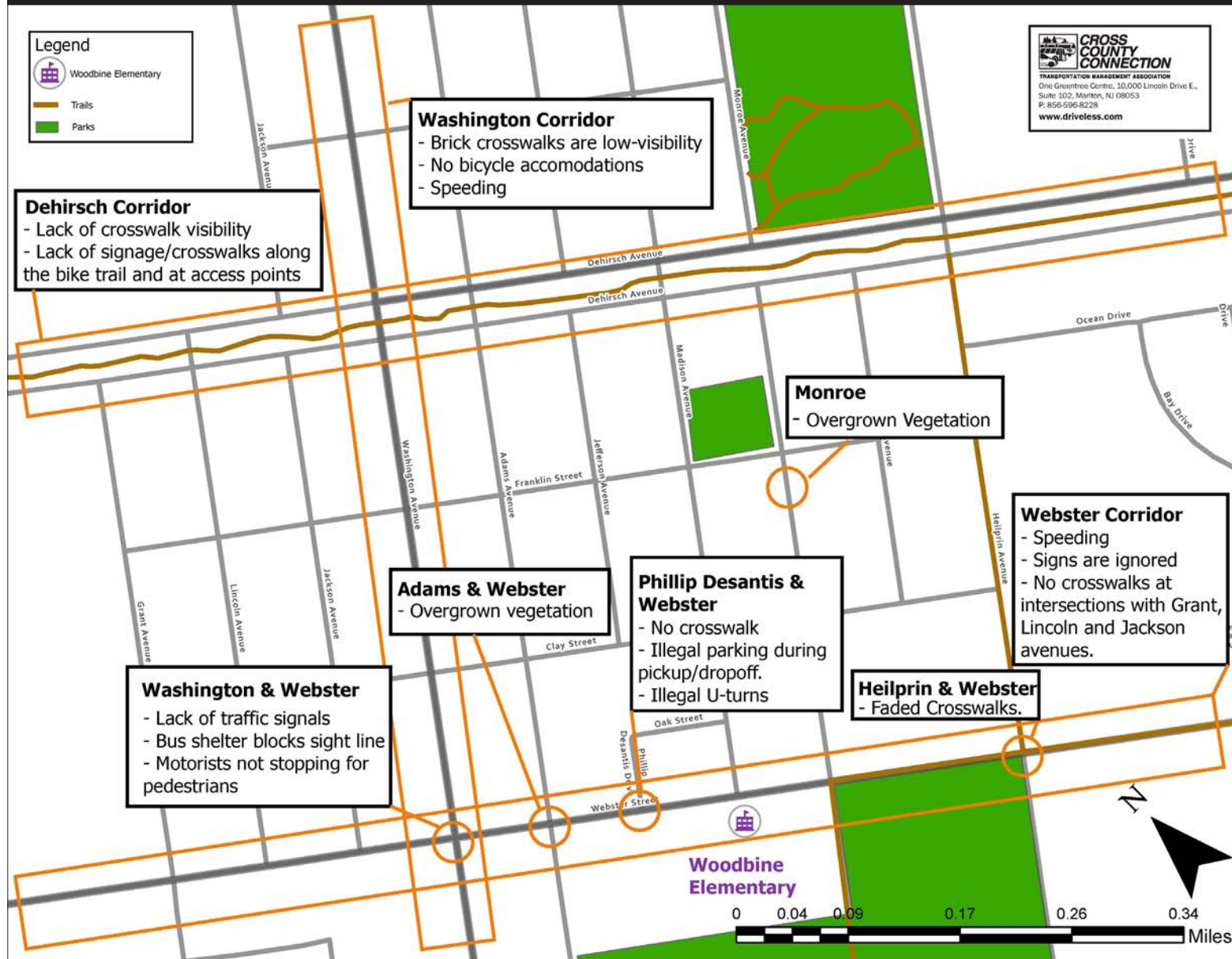
Sidewalks in Woodbine provide a well-connected pedestrian path for all. Issues noted along sidewalks were vegetation overgrowth and raised/uneven sidewalks in a few areas. Vegetation overgrowth was seen on portions of Franklin Street, Monroe Avenue, and Webster Street. Raised or uneven sidewalks were seen along Monroe Avenue.

Intersection of Webster Street (CR 638) & Washington Avenue (CR 557)

This intersection is a two-way stop, where the traffic on Webster Street must stop for traffic on Washington Avenue. Speeding has been a consistent issue here, as confirmed during observations and the walking assessment. This, in combination with the two-way stop and the high volume of traffic, largely explains why this intersection has had the highest number of crashes in Woodbine during the last five years. This specific intersection is wide and located within a section of roadway where approaching traffic on two ends have drastic speed limit reductions just before the intersection. Traffic coming from south Washington Avenue has a speed-limit change from 50-MPH to 35-MPH, and traffic coming from west Webster Street has a speed-limit change from 50-MPH to 40-MPH.

Woodbine has had difficulty in finding crossing guards who are willing and able work during school arrival and dismissal. With a lack of crossing guards, students are left on their own when crossing at the intersection of Webster Street & Washington Avenue. Drivers have been observed not stopping for students. This location and the issues observed have been cited by parents and all those involved in the RSA as a priority issue that needs to be addressed in order to encourage more walking and biking. If the inability to acquire crossing guards continues, it is imperative that the intersection be designed to slow and compel drivers to stop for pedestrians. All issues identified are shown in Map 7.

Map 7: Safety Issues for Students Walking and Biking to Woodbine Elementary School



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Chapter 5: Infrastructure Recommendations

Through consultation with the Student Travel Plan Working Group, potential infrastructure solutions are recommended for further study. Recommendations are suggested based on a review of state and federal engineering and planning resources and guides. There are countermeasures that have been shown to improve pedestrian and bicyclist safety and accessibility where similar issues have been present. Cross County Connection

recommends consulting with a licensed engineer to review the outlined recommendations and conduct necessary feasibility and design studies before progressing to project implementation.



Sources used include the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) (2023) and Proven Safety Countermeasures initiative (PSCi), the American Association of State Highway Transportation Officials' (AASHTO) Guide for the Development of Bicycle Facilities (2012), the National Association of City Transportation Officials' (NACTO) Urban Street Design Guide and Urban Bikeway Design Guide and the New Jersey Department of Transportation's (NJDOT) Complete Streets Design Guide.

All recommendations are shown in Map 8 at the end of this chapter.

Traffic Studies

In some cases, specific engineering studies will be required to determine if a location is eligible for the countermeasure recommended for consideration.

Speed Study

Location: Webster Street (CR 638)

With vehicle speeds being a commonly cited concern, Cape May County should conduct a speed study on Webster Street. According to Cape May County input, the speed limit can be lowered on streets where development is 50% or more residential land use. A 30-MPH limit would be ideal, as many traffic calming measures that could have the most impact are not recommended above this speed without special consideration. A lowered speed limit would better support the current 25-MPH school zone speed limit in

effect when children are present.

Reducing the speed limit would require additional warnings in the non-residential sections approaching the school where speed limits are as high as 50-MPH. These can include signs, pavement markings, and possibly rumble strips. Within the lower speed area between Washington Avenue and Heilprin Avenue, traffic calming measures would be used to physically reinforce the lowered speed limit.

Evaluate Warrants for a Traffic Signal

Locations: Washington Avenue (CR 557) & Webster Street (CR 638), Washington Avenue & Dehirsch Avenue (CR 550)

On Washington Avenue, the lack of the requirement to stop at any intersection in Woodbine paired with the speed limit decrease from 50-MPH to 35-MPH leads to both speeding and crashes at intersections along this route. It also encourages motorists not to stop for pedestrians trying to cross the street. A traffic signal, as recommended in the 2022 Woodbine Bicycle and Pedestrian Master Plan, regulating traffic in all directions should reduce crash frequency and severity and cause motorists to stop and allow pedestrians to cross the street safely. This would require a traffic study to determine if the warrants are met to justify a signal. If a signal is not appropriate, adding stops signs on Washington Avenue at these intersections should be considered.

Evaluate Warrants for a Four-Way Stop

Locations: Franklin Street & Washington Avenue (CR 557), Franklin Street & Madison Avenue, Monroe Avenue & Franklin Street

There are no intersections along student travel corridors with four-way stop signs or a traffic signal. For the most part in Woodbine, stop signs are only placed on the streets that travel east to west. They are rarely placed along the avenues that travel north to south. While the intersections of Madison Avenue and Monroe Avenue with Franklin Street have lower volumes of traffic than the county roads, these intersections are direct routes to Woodbine Elementary School and the location of a community park with a playground, distinguishing them from other residential intersections. The volume of children crossing at these intersections justifies a study to assess if adding stop signs to make a four-way stop is warranted.

Traffic Calming Measures

Traffic calming measures are infrastructure designed to slow drivers to a speed that is safe for vulnerable road users, including bicyclists, pedestrians, and children. Traffic calming methods typically use vertical or horizontal deflection. An example of a vertical measure is a speed hump. An example of horizontal measure is a curb extension.

Reduce Travel Lane Width

Locations: Washington Avenue (CR 557)

Reducing travel lane widths to as narrow as 10 feet can reduce vehicle speeds. This can be done by simply re-striping the roadway, a low-cost but effective solution. Re-striping narrower lanes can also leave room for bike lanes. Washington Avenue has wide lanes with no painted shoulders, and with roadway widths reaching up to 40 feet, this gives the appearance of 20 foot travel lanes. With reports of vehicles speeding along

Washington Avenue, this road would benefit from a lane width reduction.

Raised Intersection/Crosswalk

Locations: Madison Avenue & Webster Street (CR 638), Monroe Avenue & Webster Street

Raised intersections are traffic calming and pedestrian safety measures that can be especially useful in school zones to slow vehicle speeds and improve pedestrian visibility. Raised intersections are essentially large speed tables that extend through the entire width of the intersection.

Raised crosswalks require motorists to slow down as the street rises to act as a speed table. This also signals to the driver that pedestrians have priority in these locations. Raised intersections would be a visible way to indicate to drivers that they must exercise caution.

Raised intersections were implemented at three intersections along Lincoln Avenue in Haddonfield, NJ near their middle school. Raised crosswalks and intersections can be built using a brick pattern, like many intersections in Woodbine currently use. This would maintain Woodbine's current paving aesthetic. The effectiveness of raised crosswalks and intersections can be evaluated partially by looking at crash modification factors (CMFs). The CMF Clearinghouse is a resource that provides data on the proportion of crashes that would be expected after implementing various countermeasures.² Results under 1.00 indicate a reduction in crashes, and raised crosswalks received a score of 0.64. This means that raised crosswalks can lead to a 36% reduction in total crashes.



Curb Extensions

Locations: All Intersections/crossings on Washington Avenue (CR 557) and Webster Street (CR 638)

A curb extension, also referred to as bump-outs or bulb-outs, extends the curb line into the parking lane. This narrows the roadway at intersections, slowing motor vehicle speeds. They shorten pedestrian crossing

2. The CMF Clearinghouse is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

distance and improve pedestrian visibility by extending the curb line further into the street than parked vehicles, ensuring drivers can see pedestrians who are about to cross. Curb extensions have already been implemented on two corners of the intersection of Webster Street & Madison Avenue and can be made a consistent treatment throughout the school zone if raised crosswalks are ruled out as an option.

Within the commercial area along Washington Avenue, curb extensions would be an effective pedestrian safety measure to slow traffic and better allow people to cross the street when patronizing local businesses.

Pedestrian Refuge Islands

Locations: Webster Street (CR 638) & Washington Avenue (CR 557)

Pedestrian refuge islands are medians designed to enhance pedestrian visibility, narrow the travel lanes, and reduce motor vehicle speeds. A pedestrian refuge island can also improve safety and comfort by providing pedestrians with the option of waiting in the median area before beginning the next stage of the crossing if drivers fail to yield. According to the FHWA, Pedestrian refuge islands can reduce pedestrian crashes by 32%. These can be implemented at the intersection of Washington Avenue & Webster Street to slow vehicles in advance of the intersection, and provide additional safety to students crossing the street, especially when no crossing guard is present.

Warning Signs, Pavement Markings, and Beacons

The use of beacons, signs, and pavement markings are low-cost measures that have been shown to improve pedestrian safety.

Rectangular Rapid Flashing Beacons

Locations: Webster Street (CR 638) & Madison Avenue Intersection, Dehirsch Avenue (CR 550) & Washington Avenue (CR 557) Intersection

Rectangular Rapid Flashing Beacons (RRFBs) are flashing indicators that signal motorists to stop for a pedestrian who is crossing the street. These are push-button activated signals. RRFBs would be most effective at the intersection of Webster Street & Madison Avenue, directly in front of the school. This is a main connector between the school and the surrounding neighborhood. RRFBs can function similarly to a crossing guard. An RRFB would also be effective at the Woodbine Railroad Trail's crossing at Dehirsch Avenue and Washington Avenue. If it is determined not to add a traffic signal or additional stop signs at the intersection of Washington Avenue and Webster Street, an RRFB at the crosswalks with no stop control would be an effective alternative.

Mark Missing Crosswalks

Locations: Webster Street (CR 638) & Grant Avenue Intersection, Webster Street & Lincoln Avenue Intersection, Dehirsch Avenue (local side), Madison Avenue, Monroe Avenue

There are a few locations along the student travel corridors that lack marked crosswalks outside of Washington Avenue. Along Dehirsch Avenue on the smaller, local side of the street there are only two intersections with marked crosswalks. With Dehirsch Avenue being home to a multi-use trail, safe bicycle and pedestrian access is a priority. Crosswalks should be marked to connect residents and students to trail access points at Lincoln Avenue, Jefferson Avenue, Monroe Avenue, and Heilprin Avenue. Crosswalks would

also be beneficial at all intersections along Madison Avenue and Monroe Avenue, as they are student travel corridors.

Stripe Brick Crosswalks

Locations: Washington Avenue (CR 557) between Dehirsch Avenue (CR 550) and Webster Street (CR 638)

Thick, white stripes should be painted along the outside edges of the crosswalks located within the brick intersections. The current use of concrete strips to delineate the crosswalks can be hard to notice as they blend in with the rest of the intersection. Crosswalks along Dehirsch Avenue are good examples of a brick crosswalk with the edges delineated with thick, white stripes that should become the standard.



Consolidate Warning Signs

Locations: Webster Street (CR 638)

On Webster Street, between Adams Avenue and Monroe Avenue, there are approximately 25 different signs for motorists to pay attention to. While these signs are meant to provide safety, they may end up being ignored by motorists due to the number of reoccurring signs in a relatively short distance. Removing all but the most necessary signs at crosswalks should help improve their visibility. These can be paired with in-street signs placed in the centerline advising motorists to stop for pedestrians. For additional warnings, in-road pavement markings can be used.

Use Pavement Markings

Locations: Webster Street (CR 638) & Heilprin Avenue, Webster Street & Monroe Avenue, Webster Street & Madison Avenue, Webster Street & Washington Avenue (CR 557) Intersections

Pavement markings would be best utilized in advance of school crossings and the beginning of the school zone. Where the school zone begins on each end of Webster Street, pavement markings should read "SLOW SCHOOL". Pavement markings in advance of all school crossings on Webster Street and Washington Avenue should read "SCHOOL XING".

Pavement markings should also be considered where the speed limit drops as vehicles enter Woodbine. At Webster Street and Washington Avenue, two legs of the intersection come after a speed limit reduction zone. Pavement markings where the speed limit is reduced should read "SLOW __MPH" and state the new



speed limit. Optical speed bars could also be added between any pavement marking and crosswalk to give motorists the illusion that they are increasing in speed and to slow them down, especially at intersections near the speed limit reduction areas, such as Washington Avenue and Webster Street.

Remove Sidewalk Obstructions

Overgrown landscaping and raised sidewalk slabs may appear as minor nuisances but are especially harmful to persons with disabilities navigating a pedestrian pathway.

Overgrown Vegetation Removal

Locations: Monroe Avenue, Webster Street (CR 638)

Trees, shrubs, and other vegetation that grows along pedestrian walkways can often grow into the pedestrian right-of-way. This can be easily maintained by trimming any vegetation that is impeding on the sidewalk and prohibiting safe use by students. Woodbine Public Works could either handle this maintenance, or property owners can be notified that they must maintain their landscaping, so that it does not obstruct the sidewalk.



Remove Tripping Hazards

Locations: Monroe Avenue

Tripping hazards typically include a sidewalk that has become dislodged or cracked due to a variety of factors. When this occurs, that sidewalk becomes unsafe for pedestrians, especially young students and those with disabilities. There are a variety of methods to fix this issue, including grinding the sidewalk or raising it to be level with the rest of the walking surface.

Community Placemaking

During the audit, locations were pointed out that make the pedestrian environment feel unsafe and uncomfortable. These locations are opportunities to beautify the neighborhood and make it a more attractive and convenient place to walk, bike, or use public transit.

Replace Abandoned Lots with Pocket Park or Playground

Locations: Webster Street (CR 638) & Washington Avenue (CR 557), Webster Street & Lincoln Avenue

Along the main corridor surrounding Woodbine Elementary School, there are two vacant lots with abandoned buildings. These lots are a safety hazard, as it was observed that some children walking from school would attempt to enter the abandoned buildings. In addition to that, the space taken up by these vacant lots could be utilized to positively impact the community. This could be done in the form of a pocket park or playground. These would utilize the space that is there, provide a beneficial community outdoor space, and remove the hazard that comes with abandoned lots.

This is likely a long-term project as acquisition of the property may be subject to a formal legal process. If it

has not already been done so, a first step for Woodbine Borough would be to identify the current property owners.

Woodbine Borough should confer with Cape May County, to determine if a municipal pocket park is a fit for their Open Spaces Program. Eligible program activities include land acquisition and parks & recreation development. The Cape May County Open Spaces Program Guide (2023), available on the county website, will help a municipality identify navigate the process



Relocate Bus Shelter

Locations: Webster Street (CR 638) & Washington Avenue (CR 557)

At the intersection of Webster Street & Washington Avenue there is a NJ TRANSIT Bus Stop with a bus shelter. This shelter is useful for public transportation riders but is close to the road and hinders visibility from the east corner of the intersection. Vehicles being unable to see past the shelter will need to encroach into the crosswalk, blocking pedestrian travel.

According to New Jersey law, the power to designate bus stops rests with each municipality. Woodbine should contact NJ TRANSIT regarding relocating the bus shelter. NJ TRANSIT will work closely with each municipality and provide recommendations for safe and convenient bus stop locations along established bus routes, which the municipal governing body may accept or reject.



Improve Bicycle Facilities

Besides multi-use trails, there are no on-road bikeways in Woodbine. There are opportunities to improve the biking environment on borough streets that can improve access to the trails and Woodbine Elementary School.

“Share The Road” Designation with Sharrows

Locations: Madison Avenue (2012), Franklin Street (2012), Lincoln Avenue (connecting apartments to

Dehirsch Avenue trails)

The previous Student Travel Plan, completed in 2012, suggested designating some neighborhood streets as bicycle routes. This would give bicyclists a safer connection between amenities, including the school and public trails. The bike routes should include sharrow pavement markings and signs on the road alerting motorists to be mindful of bicyclists. Sharrows should only be used on streets where the speed limit is 35-MPH or less.

Sharrows are recommended on residential streets between Dehirsch Avenue and Webster Street. The MUTCD allows for signage alerting motorists of the required minimum clearance they must provide when passing bicyclists. New Jersey passed the Safe Passing Law in 2022. The law requires drivers, when approaching a bicyclist or any other type of vulnerable road user within the street, to either:

- Move over a lane, if there's one to move into
- On a single-lane road, pass with a minimum distance of at least four feet
- If four feet is not possible, slow to 25 mph and be prepared to stop until they can pass safely without endangering those sharing the road

Stripe Bike Lanes

Locations: Webster Street (CR 638), Washington Avenue (CR 557)

Wide shoulders are prominent throughout the borough. These shoulders can be utilized to be five-foot bike lanes on the main travel corridors connecting students to Woodbine Elementary School. Bike lanes on the side of roads can also work to slow traffic. To be made safer for students to use, the bike lanes should also incorporate a small buffer between the roadway and bike lanes. On portions of Webster Street, the current shoulders are as wide as seven feet. Washington Avenue has both wide shoulders and on street parking, which is not vastly used by residents. This parking could, in the future, be consolidated to one side of the road where it will be most used and allow more room for appropriate bicycle facilities upgrades.

Extend Muti-Use Trails

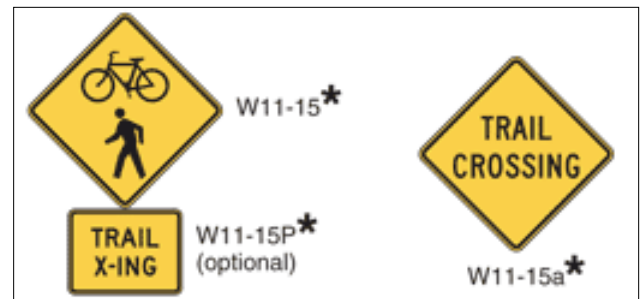
Locations: Webster Street (CR 638) between Adams Avenue & Monroe Avenue

Along Webster Street, east of the school, is a wide multi-use trail leading to the school. This trail can be utilized by both bicyclists and pedestrians. Continuing the trail along the west side of the school would give students a safe place to ride and walk to school. It can help students to avoid having to ride their bike on Webster Street, which sees heavier traffic than neighboring streets.

Install Trail Crossing Warning Signs

Locations: All Woodbine Railroad Trail Intersections

The Woodbine Railroad Trail is a valuable resource to the community. These trails span three miles and cross over multiple roads in Woodbine, leaving bicyclists vulnerable to motor vehicle traffic. Currently, there are no signs warning motorists of the trail crossings. MUTCD recommends using an optional “TRAIL X-ING” sign to warn motorists of the crossing bicycle and pedestrian traffic. This sign should also be supplemented by an “AHEAD” or “XX FEET” plaque to inform users where the crossing point is.



Stripe All Trail Crosswalks

Locations: All Woodbine Railroad Trail Intersections

In addition to the previous recommendation, the locations where the Woodbine Railroad Trail crosses over the roadway should be striped as a continental crosswalk. This will help to alert motorists to watch for crossing bicyclist and pedestrian traffic.

Revise Borough Complete Streets Policy

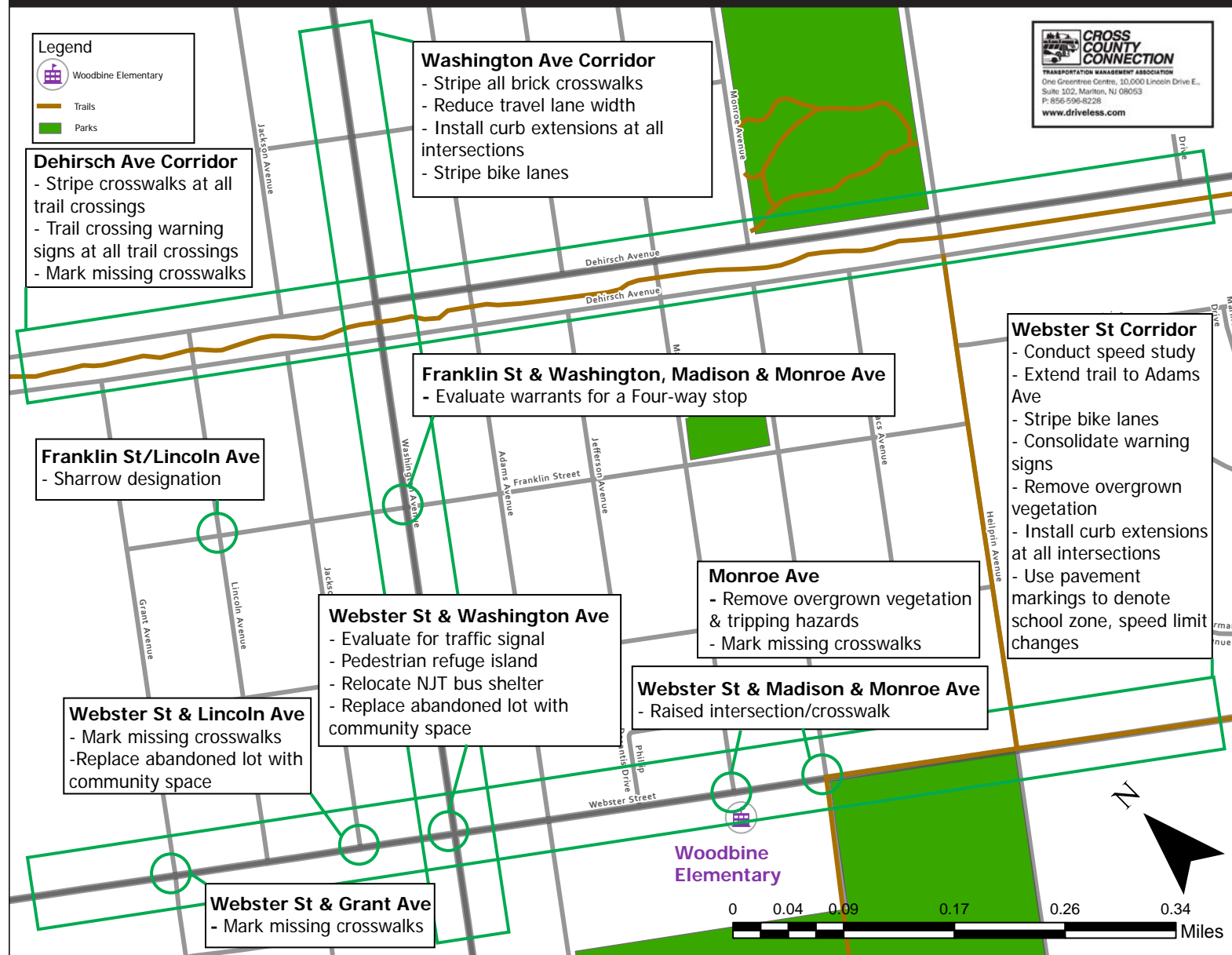
Woodbine should update its Complete Streets policy that was adopted in 2012. Complete Streets in New Jersey has advanced in the last decade based on lessons learned at the state and national level. NJDOT released the Complete & Green Streets for All: Model Complete Streets Policy & Guide in 2020. This document includes a model policy that better incorporates equity and environmental considerations. It also includes updated Complete Streets Checklists that can be used at every stage of transportation projects and roadway improvements to ensure a thorough process that does not miss opportunities to improve road safety for all. Municipalities with a Complete Streets policy also receive an additional point on NJDOT grant program applications.

Recommendations Summary

The above recommendations can be implemented by the Woodbine School District, Borough of Woodbine, and Cape May County as means to improve the safety of students walking and biking to school. Both have demonstrated a commitment to creating streets that are safe for all road users. RSA findings included in this report show that improving bicycle and pedestrian conditions around Woodbine Elementary School should be a priority for future safety efforts. This audit report highlights treatments that will help provide a more enjoyable walking and biking environment for students, residents, commuters, and visitors. All recommendations are shown in Map 8.

Addressing these recommended improvements will require Woodbine’s continued partnership with Cape May County and state and regional organizations such as the SJTPO, NJDOT, and Cross County Connection. Infrastructure improvements should be employed alongside education, encouragement, and enforcement programs to have the greatest impact.

Map 8: Recommendations



Chapter 6: Non-Infrastructure Recommended Actions

The strategies to achieve Student Travel Plan goals are categorized into actions, each of which falls under one of the five E's:

- Engineering (Covered in Chapter 5)
- Education
- Encouragement
- Enforcement
- Evaluation



Education

Education is an important component in developing an effective Safe Routes to School Program and addressing pedestrian and bicycle travel issues. These actions will ensure that children receive proper instruction on how to walk and bike safely while raising community awareness of the benefits of walking and bicycling. Table 3 details the recommended Education Actions.

Cross County Connection will provide in-school safety education and outreach materials for distribution to students, parents, and school staff. The outreach materials should include information about walking on sidewalks and crossing at marked crosswalks. This information may be circulated at parent-teacher meetings, school walking events, in class and included in the student handbook. This program also includes fun activities for students, such as a bookmark and poster contest. The purpose of the contest is to reinforce the safety lessons taught to students who participated in the Bicycle and/or Pedestrian Safety Program.

Woodbine Elementary School should continue to take advantage of Cross County Connection's Bicycle and Pedestrian Safety Program on a bi-annual basis. Additional information about the Bicycle and/or Pedestrian Safety Program is available on Cross County Connection TMA's website: driveless.com.

Table 3: Education Recommendations

Education Actions	Responsibility	Time frame
Creation and distribution of education materials to students, parents/guardians, and community members	Woodbine Elementary/Cross County Connection TMA/Voorhees Transportation Center	Ongoing
In-class education on safe walking and biking behavior and its health and environmental benefits	Woodbine Elementary/Cross County Connection TMA	Annual
Inclusion of SRTS elements in teacher and student handbooks	Woodbine Elementary	Annual
Participate in New Jersey's Safe Routes to School Webinar Program	Woodbine Elementary	Ongoing
Bicycle and/or Pedestrian Safety Presentations	Woodbine Elementary/Cross County Connection TMA	Bi-Annual

Encouragement

Events and programs are an effective way to get students excited and encourage them to walk and bike more. These programs are essential to building the momentum necessary to significantly change school travel habits. Woodbine Elementary School should hold walk to school events once a month as weather permits to encourage more students and parents to walk and bike to school. Events such as pep rallies provide students with pedestrian and bicycle safety information as well as generate excitement for future activities. Cross County Connection TMA will continue to provide informative and promotional materials to assist Woodbine Elementary in future encouragement events.

Some of the programs and events that should be held as Encouragement Actions are included in Table 4. Cross County Connection can assist the school with the planning and organization of these events, in addition to providing fun giveaway items that reward the students for biking and walking.

Table 4: Encouragement Recommendations

Encouragement Actions	Responsibility	Time Frame
Walking School Bus (WSB) Program	Woodbine Elementary/Cross County Connection TMA	Ongoing
Bicycle Rodeo	Woodbine Elementary/Cross County Connection TMA	Annual in Spring
Participation in International Walk to School Day	Woodbine Elementary	Annual in October
Participation in International Bike to School Day	Woodbine Elementary	Annual in May
Golden Sneaker Walking Challenge	Woodbine Elementary/Cross County Connection TMA	Monthly, Ongoing
Incentive Programs	Woodbine Elementary/Cross County Connection TMA	Throughout the school year

Walk and Bike to School Days

To further promote bicycling and walking, each school should participate in International Walk and International Bike to School Days, which are held in the months of October and May, respectively. For more information and to register your school's events during International Walk to School Day and Bike Month, visit www.saferoutesnj.org and <http://www.walkbiketoschool.org/>. Additionally, walking events should be implemented on an on-going basis throughout the school year.

Walking School Bus

A walking school bus is a group of children walking to school along a fixed route with one or more adults. 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.

The Walking School Bus Program was first held in Woodbine in 2012. Parent volunteers and teachers led walking groups originating from Woodbine Manor and the intersection of Lincoln Avenue and Madison Avenue to the elementary school. Giveaway items provided by Cross County Connection and the Alan M. Voorhees Transportation Center were distributed to participating students.

Golden Sneaker Walking Challenge

Cross County Connection has created The Golden Sneaker Walking Challenge, which is a program that tracks students' steps in the form of a competition between grades or classes. The program is designed for grades three through five that can be adapted and incentivized through partnerships with local merchants to reward students for safe behaviors. The program promotes pedestrian safety and the importance of walking as a part of a healthy lifestyle.



Students and teaching staff are given instructions provided by Cross County Connection. Students track their steps for a specified length of time, usually a week. At the end of the challenge, the class or grade with the most steps achieved wins the Golden Sneaker Award at a ceremony. Some schools simply conduct a daily tally of each student that walks or bikes to school.

Incentive programs are a good way to keep the momentum going with SRTS programs. The Golden Sneaker Walking Challenge has had success in towns such as Collingswood, Pedricktown, and Haddon Heights as students enjoyed tracking their daily footsteps in a friendly competition.

Bicycle Rodeo

A bicycle rodeo is a Safe Routes to School on-bike clinic that provides students in kindergarten through eighth

grade with the opportunity to practice and develop skills that will help them become safer bicyclists. Bicycle rodeos may vary in size and can be tailored to the needs and capabilities of the participants and the event organizers.

A bicycle rodeo has stations focusing on basic bicycle skills. 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 lessons on how to fit a helmet, signal for turns, and coming to a quick stop. Bicycle maintenance can also be taught using the ABC's of bicycling: Air, Brakes and Chain. Bicycle rodeos can be customized to fit the context and age of the students as there are many other skills and subjects that can be covered. Woodbine Elementary may consider resuming their previously held helmet giveaway program.



It is recommended that a law enforcement agency take the lead in conducting the bicycle rodeo. If available this could be the New Jersey State Police or the Cape May County Sheriff's Department Community Outreach Unit. Cross County Connection can assist in the coordination of a bicycle rodeo on school grounds. These programs will be essential to build the momentum necessary to significantly change school travel habits.

Enforcement

Enforcement of safe and lawful travel behavior around schools, on all travel corridors and throughout the borough by the New Jersey State Police Department is important to ensure a safe walking environment for children.

Enforcement actions to promote safe travel behavior can include speed enforcement, stopping for pedestrians when required, and illegal parking.

Evaluation

Evaluation provides an opportunity to track the success of your Safe Routes to School Program. Determining participation in walking and bicycling programs and parent surveys are just a few of the ways to gauge how much impact has been made through a school's efforts. Keeping track of the progress made with implementing recommendations of this travel plan is also important.

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. Performance measurements should include periodic walk and bike assessments, student arrival and departure tallies, parent surveys, and evaluation of participation in walking and bicycling events.

Additionally, implementing evaluation tools and performance measures are necessary to receive Safe Routes to School infrastructure grants. Submitting student travel tallies is a mandatory requirement to receive Safe Routes to School Infrastructure grant funding. Travel tallies must have been completed within two years when applying for funding. Additionally, being able to document outcomes from any Safe Routes to School efforts is beneficial for any type of grant submission involving infrastructure in/around schools.

Student travel tallies are typically held in-class by school staff to determine how children arrived at school that day over a period of a week. Tallies should be held at regular intervals to determine the impact of Safe Route to School activities on student travel choices. Ideally, they would be collected at least twice, once in the fall and once in the spring.

Other metrics that can be used to assess progress are:

- 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.

Certification Programs

Participating in certification programs also provides an effective framework to evaluate the success of Safe Routes to School efforts.

The Safe Routes to School Recognition Program rewards 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.

Sustainable Jersey is another certification program that rewards municipalities and schools for exemplary efforts in Safe Routes to Schools Programs. 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. Sustainable Jersey also offers technical assistance and grant programs open to certified schools.

The Borough of Woodbine and Woodbine School District should explore participating in both programs to evaluate how their efforts stack-up against their peers and create a road map to a more sustainable future. Cross County Connection is available to assist schools and municipalities with working towards certification and applying to both programs.

Anti-Idling

Poor air quality can negatively affect the health of students and staff. An anti-idling program is distinct from the SRTS program, but Cross County Connection can assist the Borough and School District with setting up

a program. 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. Many of the resources required can be found at nj.gov/dep/stophthesoot. The most important steps are:

- Pass an anti-idling resolution. A resolution will describe the harm idling vehicles can cause and the reasons limiting this activity is important for the health of the community.
- Post anti-idling signs in locations around schools. Signs can be purchased through NJDEP's Stop the Soot website
- Create an education program that informs students and parents why an anti-idling program is beneficial. Materials should demonstrate the harmful effects of idling, which may appear harmless, but negatively impacts their 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.

Chapter 7: Conclusion

Woodbine School District is committed to increasing the number of children walking and biking to school through its participation in the Safe Routes to School program. The school district's current SRTS program addresses students' safety through education, encouragement, and engineering activities. The district has sought to build upon this foundation and encourage more students to walk and bike to school. As a step in achieving this goal, they have partnered with Cross County Connection to develop the Woodbine School District Travel Plan.



This travel plan addresses existing and potential pedestrian and bicycle safety issues. Continued concerns about existing and potential safety issues consist of intersection and mid-block crossings, motorists speeding, and gaps in the bicycle and pedestrian infrastructure. It also provides guidance on methods to expand upon the school district's current programs and policies related to student bicycling and walking. The goal is to improve the physical and environmental health of Woodbine's students and the community.

Next Steps

Implementation of the Woodbine School District Travel Plan and 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 be employed alongside hands-on education and encouragement programs to maintain and improve momentum towards achieving the goals set forth by the SRTS Working Group. The following entities should undertake the actions below.

Borough of Woodbine:

- Partner with Cape May County to address the safety issues identified on county roads, including Webster Street and Washington Avenue.
- Pursue SRTS Infrastructure Grants and other grants administered by the NJDOT and the South Jersey Transportation Planning Organization (SJTPO) to implement recommendations identified in Chapter 5, such as roadway pavement markings, high-visibility crosswalks, traffic controls, speed limit adjustments, and other pedestrian and bicycle safety improvements.
- Coordinate with SJTPO on any future roadway plans. SJTPO is in the process of finalizing a Local Road Safety Plan for Cape May County. This plan can aid the borough with how to proceed with creating safer

roadways for all road users, including students and their families.

Woodbine School District:

- Work with Cross County Connection to continue administering pedestrian and bicycle safety education and encouragement activities.
- Work with Cross County Connection 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 walking and bicycling 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 Woodbine School District 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 guidance on appropriate funding sources and assistance with preparing grant applications.

The Borough of Woodbine is in the South Jersey Transportation Planning Organization (SJTPO) region. SJTPO is the Metropolitan Planning Organization (MPO) serving Atlantic, Cape May, Cumberland, and Salem Counties in southern New Jersey. SJTPO serves as a technical resource, provides access to funding, and works to provide a regional approach to address transportation planning and engineering issues. SJTPO reports available funding sources for local governments to apply to. This information can be found at <https://sjtpo.org/programs/funding-programs/>.

The Federal Highway Administration (FHWA) also provides a comprehensive and up-to-date listing of grant programs with potential eligibility for pedestrian and bicycle projects under U.S. Department of Transportation surface transportation funding programs. For information on current federal bicycle and pedestrian funding programs, visit https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/ and navigate to “Pedestrian and Bicycle Funding Opportunities”.

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.

Federal Grant Programs

Safe Streets and Roads for All Grant Program

The U.S. Department of Transportation (USDOT) established the Safe Streets and Roads for All (SS4A) discretionary program with funding from the Bipartisan Infrastructure Law. The SS4A program funds regional and local initiatives through grants to prevent roadway deaths and serious injuries. The program also supports the USDOT’s National Roadway Safety Strategy and goal of zero roadway deaths using a Safe System

Approach. Two types of grants are available: Planning and Demonstration Grants or Implementation Grants. Find more information about applying for an SS4A grants at transportation.gov/grants/SS4A.

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 design, construction or installation of sidewalks, crosswalks, signals, traffic-calming, and bicycle facilities within two miles of an elementary or middle school (K-12). Local and regional governments, school districts and individual schools are eligible to apply and receive direct funding. Find updates and information on SRTS funding at saferoutesnj.org/safe-routes-to-school-grants/.

Transportation Alternative (TA) Set-Aside

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). TA Set-Aside Grants are community-based, non-traditional transportation projects which expand travel choice, strengthen the local economy, improve the quality of life, and protect the environment. Eligible activities include bikeway construction, acquisition of right-of-way for bikeways and many other projects.

County and municipal governments that are responsible for the administration of local transportation safety programs are eligible to apply to the TA Set-Aside Program. The applicant must provide a responsible charge who meets federal requirements that they are a full-time employee of a local public agency.

Highway Safety Improvement Program (HSIP)

SJTPO works collaboratively with state and local agencies to address identified safety concerns within the SJTPO region, with funding through the federal Highway Safety Improvement Program (HSIP). The HSIP aims to significantly reduce fatalities and serious injuries on all public roads through a data-driven, strategic approach to improving highway safety. This includes roadways on and off the federal aid system, regardless of ownership.

Applying for funding through SJTPO's Local Safety Program requires applicants to follow an intuitive five-step, data driven process. [The Project Application and Program Guidance](#) document directs applicants through that process.

SJTPO has selected hot spot locations that would be eligible for this funding under five different lists. Woodbine has eligible project locations in two of these lists: High Crash Corridor (all types) and Bicycle and Pedestrian Crash Corridors. Both lists include portions of Webster Street and Dehirsch Avenue (CR 550) within the scope of this travel plan and are circled in yellow.

To find out more information on how to apply, reach out to SJTPO at info@sjtpo.org or call 856-794-1941.

State Grant Programs

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.

Safe Streets to Transit

The New Jersey Department of Transportation's Safe Streets to Transit (SSTT) Grant Program provides funding to counties and municipalities for projects that will improve pedestrian safety within a half-mile of transit facilities. The Borough of Woodbine has 10 NJ TRANSIT bus stops within a half mile of Woodbine Elementary School. Improving pedestrian facilities surrounding these bus stops will also improve pedestrian facilities for students.

This grant program gives priority to projects within a one-mile radius of a school, and to applicants who have adopted a Complete Streets Policy, making the Borough of Woodbine an ideal candidate. Typical eligible projects include intersection safety improvements, traffic control devices that benefit pedestrians, traffic calming measures, sidewalk reconstruction, pedestrian oriented lighting, sidewalk widening, and constructing curb ramps.

For more information regarding these state funding programs contact:

New Jersey Department of Transportation (NJDOT)
District Manager, NJDOT
1 Executive Campus
Route 70 West, 3rd Floor Cherry Hill, NJ 08002
Phone: 856-486-6618
Fax: 856-486-6771

Website: <https://njdotlocalaidrc.com/state-funded-programs/>

Other Funding Sources

NJDOT also provides resources for funding that comes from other sources outside of NJDOT. Those funding sources can be found at <https://njdotlocalaidrc.com/other-funding.php>.

Summary

The Woodbine School District Travel Plan was created through collaborative efforts of the Woodbine Safe Routes to School Working Group and Cross County Connection TMA. The travel plan addresses Woodbine School District's interest in improving pedestrian and bicyclist infrastructure to create a safer walking and bicycling environment for students to get to and from school. The Woodbine School District Travel Plan outlines the potential safety issues and concerns regarding pedestrian infrastructure within close proximity to the school and offers recommendations to address these 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 education and encouragement programs to maintain momentum towards achieving goals set forth by the Safe Routes to School program. Through current and past efforts, the Woodbine School District and Borough of Woodbine have demonstrated 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 for all.



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