

Borough of Woodbine Safe Routes to School Travel Plan

Woodbine Elementary School

September 2012



NEW JERSEY
Safe Routes
to School



CROSS
COUNTY
CONNECTION

TRANSPORTATION MANAGEMENT ASSOCIATION

Woodbine Elementary School Travel Plan

Prepared by:

Cross County Connection Transportation Management Association

September 2012

Cross County Connection Transportation Management Association was formally incorporated in 1989 through the efforts of a group of southern New Jersey business leaders, local government officials, and representatives from the New Jersey Department of Transportation and New Jersey Transit Corporation to address mobility issues in the region and reduce the number of vehicles on state and local roadways. Today, Cross County Connection is a non-profit organization partnering with the New Jersey Department of Transportation, New Jersey Transit, Federal Highway Administration 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.

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INTRODUCTION

The Borough of Woodbine is a small, suburban community located in northwest Cape May County. Woodbine Elementary is the only public K-8 school in the borough, and only school in the Woodbine School District. The staff of Woodbine Elementary and members of the local government recognize the correlation between active transportation and the health of the student population. In an effort to increase the number of children that walk or bike to school, create safe walking and biking environments and reduce traffic congestion at arrival and dismissal times, the Borough of Woodbine has chosen to develop a Travel Plan.

This Travel Plan incorporates the 5 E's of Safe Routes to School (SRTS): Evaluation, Engineering, Education, Encouragement and Enforcement. These five categories provide the framework for the recommendations of the plan and help to identify actions that may encourage more students to safely walk and bike to school. The plan was created through guidance from the faculty of Woodbine Elementary and New Jersey State Police, with support from the Borough.

SCHOOL DESCRIPTION

Woodbine Elementary, shown on Map 1, is located on Webster Street in a suburban residential area approximately two blocks east of Washington Avenue (CR 557), between Monroe Avenue and Adams Avenue. The borough is situated fully in the Pinelands Management Area, and is intersected by six county roads: CR 550, 557, 610, 611, 638, and 660. County Route 550 also serves as an alternate to Routes 55 and 47, which are commuter routes north to Philadelphia, and connections between the Delaware Valley and Cape May County.

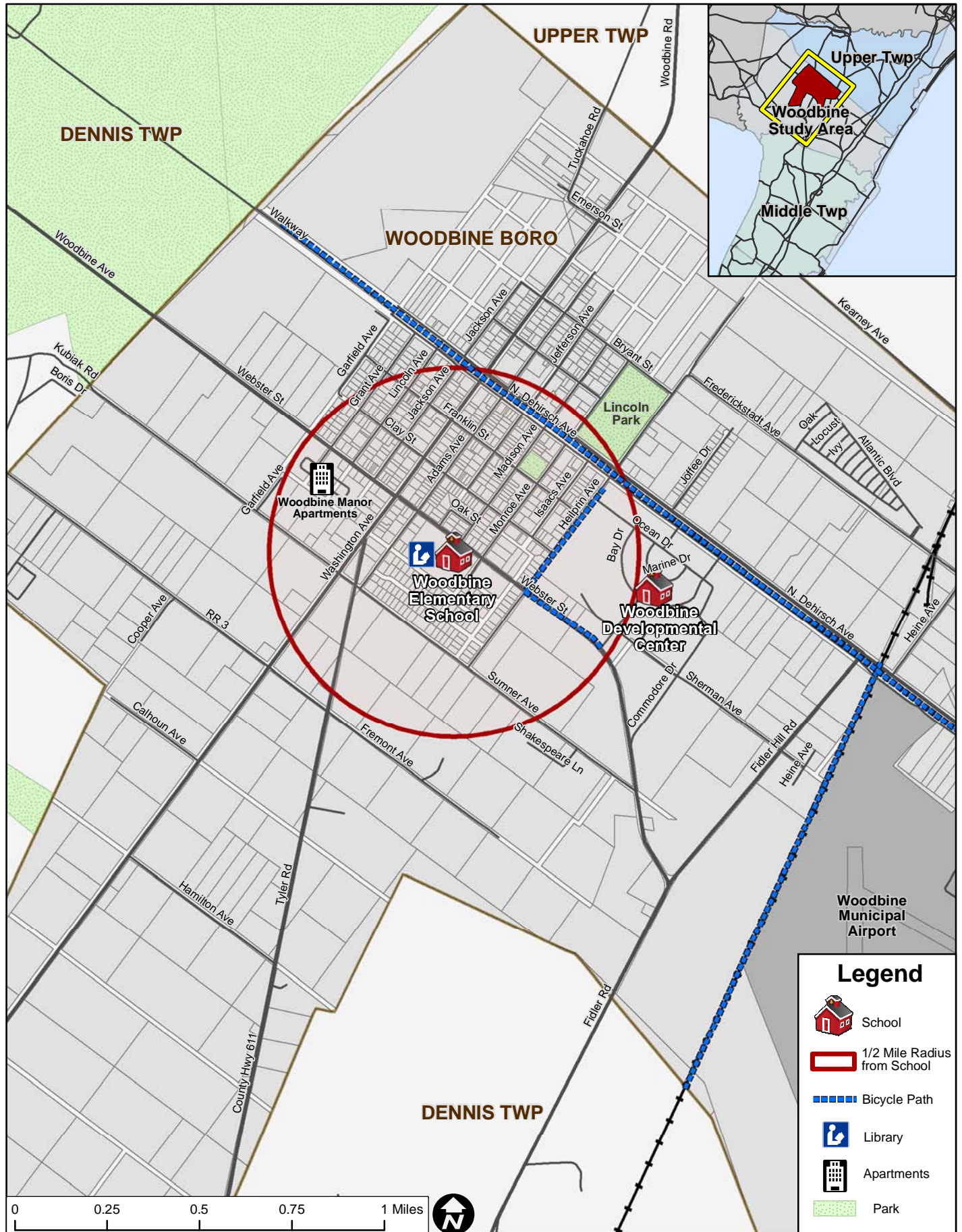
The borough has two recreation areas: a park located on Franklin Street between Madison and Monroe Avenues; and Lincoln Park, located on North DeHirsch Avenue (CR 550), between Monroe and Heilprin Avenues. A paved bikeway extends the entire length of the borough between North DeHirsch Avenue and DeHirsch Avenue, from Belleplain State Forest at its western terminus to the borough line in the east.

Most of the borough's population is concentrated in the northern part of the municipality in single family residences. Woodbine Manor is the only notable apartment community, located on Webster Street approximately five blocks northwest of the Elementary School. Commercial land uses including retail businesses are concentrated on Washington Avenue, between Bryant and Webster Streets, and on DeHirsch Avenue, between Madison and Washington Avenues.

There are two major corridors in the borough: Washington Avenue (CR 557/550), which functions as the borough's "main street", and North DeHirsch Avenue. Washington Avenue is currently in the middle of an ongoing five-phase revitalization initiative, with streetscape and pedestrian safety elements. Phases I-III of the project included improvements between North DeHirsch Avenue and Webster Street. These enhancements included the installation of benches, street lighting, landscaping, ADA ramps and paver treatments to intersections and crosswalks in the main street business area. Phases IV and V include

Map I. Woodbine Elementary School Travel Plan Area

Woodbine Elementary School Travel Plan, September 2012



Data Source: Cape May County

the same improvements in other areas on Washington Avenue, south of Webster Street and north of North DeHirsch Avenue.

The Borough of Woodbine has a substantial number of low-income residents. Nearly 40% of the 2,391 residents, including over one-third of children under the age of 18 years are living in poverty¹. The Borough of Woodbine also has the third-highest percentage of students who are eligible for free or reduced lunch in Cape May County at 80%². Recent studies have shown that lower income children have higher obesity rates, which makes active modes of transportation even more important to the health and well-being of school-age children in Woodbine³. Cape May County also has higher rates of adult obesity, diabetes and inactivity than New Jersey overall⁴, and ranked among the state's highest in diabetes-related hospital admissions⁵.

EXISTING POLICIES & PRACTICES

The Woodbine School District is a walking district. Students are permitted to bike to school and are required to wear a helmet. The Borough of Woodbine provides crossing guards at the following intersections, also shown in Map 2:

- Washington Avenue and Webster Street
- Webster Street and Madison Avenue

During student arrival and dismissal times, teachers are assigned various monitoring posts on school grounds along Webster Street to monitor pedestrian activity. Each year, Woodbine Elementary supplies students and parents with a handbook outlining the student travel policy. No pupil is permitted to leave before the end of the day without permission of the Superintendent.

A Bicycle and Pedestrian Action Plan was prepared for the Borough of Woodbine in May 2008. The study was funded through the New Jersey Department of Transportation's Local Transportation Planning Assistance Program. It identified existing travel conditions and behaviors, and made recommendations on policy and education programs, bicycle infrastructure and pedestrian infrastructure improvements. This Travel Plan focuses on the safety and mobility of schoolchildren, and will incorporate recommendations contained in the Bicycle and Pedestrian Action Plan.

1 U.S. Census Bureau, American Community Survey 2006-2010, accessed on 6/25/2012, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_5YR_S1701&prodType=table

2 New Jersey Department of Education 2009-2010, accessed on 6/25/2012, <http://www.state.nj.us/education/data/>

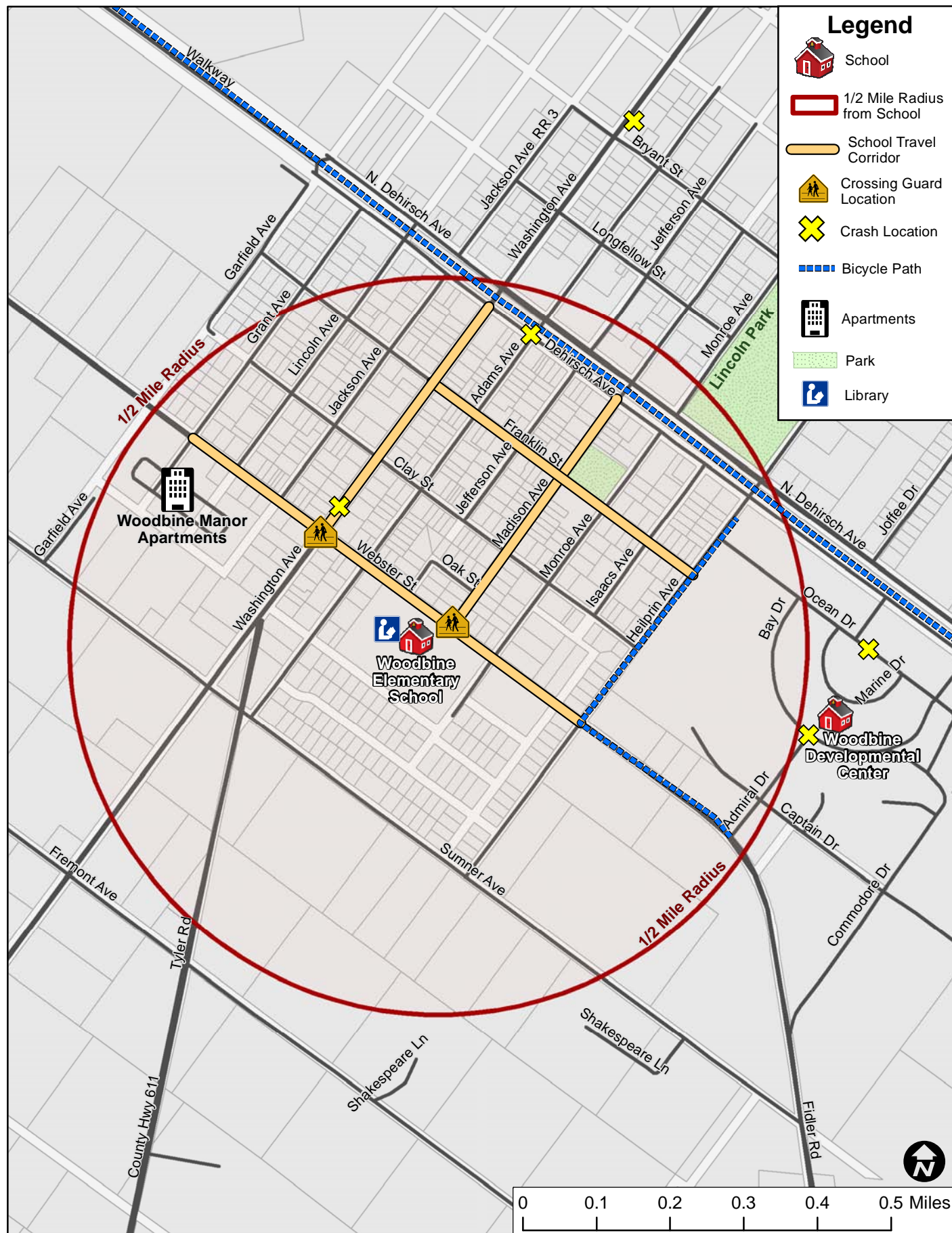
3 Journal of the American Medical Association, Obesity Prevalence Among Low-Income, Preschool-Aged Children—United States, 1998-2008, 2010;303(1):28-30, accessed on 7/31/2012, <http://jama.jamanetwork.com/article.aspx?articleid=185161>

4 Centers for Disease Control, SMART: BRFSS City and County Data, 2010, accessed on 7/31/2012, <http://apps.nccd.cdc.gov/BRFSS-SMART/index.asp>

5 Cape May County Health Department, Summary of NJDHSS Prevention Quality Indicators Report for Cape May County, 2010, accessed on 7/31/2012, http://www.capemaycountygov.net/FCpdf/cmc%20_pqi_2005_rpt.pdf.

Map 2. Woodbine Elementary Crossing Guard & Crash Locations

Woodbine Elementary School Travel Plan, September 2012



WALK/BIKE BARRIERS & OPPORTUNITIES

Working Group

| Organization | Role | Contact |
|-------------------------------------|---|--|
| Cross County Connection TMA | SRTS Program Assistance | David Calderetti, SRTS Coordinator calderetti@driveless.com |
| Cross County Connection TMA | SRTS Program Assistance | Graydon Newman, Land Use & Transportation Specialist newman@driveless.com |
| Borough of Woodbine School District | Program Administration & Implementation | Lynda Towns, Superintendent ltowns@woodbine.capemayschools.com |
| Woodbine Elementary | Implementation & School Champion | Jessica Pikolycky, 2nd Grade Teacher jpikolycky@woodbine.capemayschools.com |
| Woodbine Elementary | Implementation | Anthony DeVico, Vice Principal adevico@woodbine.capemayschools.com |
| Woodbine Elementary | Implementation | Jacklyn Merollo, PE Teacher jmerollo@woodbine.capemayschools.com |
| NJ State Police, Woodbine Barracks | Enforcement | Sgt. Dean Rocap (609) 861-5698 |

This plan was developed by Cross County Connection TMA in partnership with the SRTS Working Group members listed above. An introductory Safe Routes to School meeting was held on 10/20/2011 with Superintendent Linda Towns, a follow-up meeting establishing the Working Group and setting priorities on 11/15/2011, and a Walking School Bus train the trainer session was held on 4/23/2012. Input by law enforcement and school staff, along with data collection for the plan occurred during and outside of meetings.

A walking audit was conducted on 6/8/2012 to evaluate walking and biking conditions, as well as to identify areas for improvement. Cross County Connection conducted the audit with the input of the Working Group. The audit was held in dry, warm weather during the morning and early afternoon. Walking and biking behavior was observed during school dismissal.

Travel Patterns

A single-day student travel tally was conducted by Woodbine Elementary staff in the Fall of 2011. Tally results as reported by the school are shown in Table 1. Approximately 70% of students were driven to school, while only 30% of all students arrived to school by either walking or biking, with a majority of those walking. Courtesy busing is not provided.

| Table 1. School Travel Information, Woodbine Elementary School | | |
|---|--------------------|-------|
| Location | 801 Webster Street | |
| Grades | PK-8 | |
| Arrival time | 8:20 AM | |
| Dismissal time | 2:30 PM | |
| Student Population | 220 | |
| that walk | 57 | 25.9% |
| that bike | 8 | 3.6% |
| that get driven | 155 | 70.5% |

School staff noted that many students walk to school from the Manor Apartments on Webster Street. Students are currently picked up and dropped off in front of the school on Webster Street. A significant number of vehicles were observed queuing in front of the school during arrival and dismissal times, which was identified as a concern by school staff.

Bicycle Facilities

The bikeway network in Woodbine consists of two major facilities, both shown on Map 2: the paved Woodbine Railroad Trail located adjacent to Dehirsch Avenue, extending from Belleplain State Forest just west of Grant Avenue, to the borough line in the east; and the Heilprin Avenue bikeway located on the east side of Heilprin, extending from approximately 50 feet south of DeHirsch Avenue to Webster Avenue, and continuing east to Admiral Road on the north side of Webster Avenue. Admiral Road is an access point for the Woodbine Developmental Center.

Currently there are no bikeways that connect to Woodbine Elementary. The Bicycle and Pedestrian Action Plan recommends installation of on-road bike lanes or “shared road” treatments for the length of Webster Street and Washington Avenue. An example of a shared road treatment is shown in Figure 1.

Figure 1. Sharrow Pavement Marking



Bicycle parking for approximately ten bikes is provided at the rear entrance to Woodbine Elementary, near the gymnasium entrance. Parking for approximately nine bikes is also available at the entrance of the Woodbine Library adjacent to the school, shown in Figure 2. Bicycle parking is available at other locations throughout the borough, including along the Woodbine Railroad Trail at Washington Avenue.

Figure 2. Bicycle Parking at the Woodbine Library



Bicycle and Pedestrian Crashes

Between 2007 and 2011, there were three vehicle crashes involving pedestrians and two vehicle crashes involving bicyclists in Woodbine. Of those five accidents, shown on Map 2, two occurred during the hours of 7:30AM-8:30AM and 2:00PM-4:30PM, when schoolchildren are most likely to be traveling. These incidents occurred on Ocean Drive, an access road to the Woodbine Developmental Center which is outside of the Travel Plan study area.

Travel Safety Concerns

Travel safety concerns were identified through walking audits, meetings with law enforcement and meetings with school staff, who related parent feedback they have received. Four major safety concerns were identified:

Speeding and High Traffic Volume - School officials identified vehicle speeding as a safety concern on three corridors in the borough: Webster Street between Heilprin Avenue and Grant Avenue; North Dehirsch Avenue between Heilprin Avenue and Washington Avenue; and Franklin Street between Heilprin Avenue and Washington Avenue. High traffic volumes on Washington Avenue, Webster Street and North Dehirsch Avenue were also identified as concerns. Significant truck volumes were observed on North Dehirsch Avenue.

Crosswalks - Many crosswalks remain unmarked on corridors where student walking traffic is common. The Borough has installed and renovated several crosswalks on Washington Avenue and North Dehirsch Avenue based on recommendations from the 2008 Bicycle and Pedestrian Action Plan, however there are still safety concerns for crossing North Dehirsch Avenue in particular.

Missing Sidewalks - Sidewalk coverage and condition in the borough is very good in general, however there are a few areas where sidewalks are absent. Sidewalks are not currently present on the west side of Jackson Avenue, the west side of Isaacs Avenue, the west side of Grant Avenue, both sides of

Desantis Drive, and other locations noted in the Engineering Actions section of this document.

Vegetation Overgrowth/Maintenance - Several locations were identified where vegetation either limited sidewalk access or obscured safety warning signage. Vegetation maintenance on these corridors is important to ensure safe walking conditions for children as well as adequate crossing warning for motorists.

Bicycle Facilities – Biking is a great way for children to get to school, especially for children living more than half a mile from school. Currently there is not a bikeway connection, such as a bicycle lane or bike path, to Woodbine Elementary. There are also currently very few students biking to school despite the availability of bicycle parking at the school and that the majority of the students live within a bikeable distance.

Biking on sidewalks is permitted in the borough, however sidewalks are not built for bicycle travel and biking on sidewalks often results in conflicts with pedestrians. For children under 10, it is appropriate and even desirable for them to ride with parental supervision on sidewalks away from vehicle traffic. For older students that have received bicycle safety instruction, it may be appropriate to ride on roadways that safely accommodate bike travel. Students at any age should always wear a properly fitting bicycle helmet.

Many residential streets in the city are already conducive to general bicycle travel due to their low volume and low traffic speeds, but lack additional amenities that would increase safety and encourage bike travel to schools.

Primary School Travel Corridors

There are four primary travel corridors for Woodbine Elementary students who chose to walk or bike to school: Webster Street (Grant to Heilprin), Madison Avenue (DeHirsch to Webster), Franklin Street (Washington to Heilprin) and Washington Avenue (DeHirsch to Webster). These corridors were identified by school district staff and law enforcement as areas where children currently walk and as focus areas for safety efforts. Sidewalks are present and continuous on all of the identified corridors.

Webster Street

Webster Street is a moderate volume east-west county road, designated CR 638 east of Washington Avenue and CR550 west of Washington Avenue. Woodbine Elementary is located on Webster Street. The SRTS team raised concerns about speeding and vehicle congestion on Webster Street at arrival and dismissal times. The speed limit east of Heilprin Avenue is 50MPH, which drops to 40MPH between Heilprin and Grant Avenue. A 25MPH school zone is designated in front of the school.

Students walking or biking from the Manor Apartments most often travel only on the south side of Webster to get to the school. Students living north of Webster must cross Webster at some point to reach the school. Crossing guards are posted at the Madison and Washington Avenue intersections. Currently there are flashing crosswalk beacons at both approaches to the marked continental-type crosswalk on Webster at the intersection of Madison Avenue. As mentioned earlier, a crossing guard is posted at this location and the Washington Avenue intersection during arrival and dismissal times. Nearly all students must travel on, or cross Webster Street to access the school. Crossings of Webster are marked at Washington Avenue with a paver crosswalk, and Madison Avenue.

The Heilprin Avenue multi-use path continues east on Webster Street, from Heilprin however there is no connection between Woodbine Elementary and the path.

Vehicle congestion at arrival and dismissal times is common. Parents pickup and dropoff students in front of the school on Webster, and often park in front of the school before dismissal, as shown in Figure 3. The increased potential for pedestrian-vehicle conflicts due to this congestion is a concern.

Figure 3. Webster St at Dismissal Time



Transportation concerns:

- High-speed by through traffic was reported by the SRTS team and observed in field observation.
- There are no bicycle accommodations on Webster Street. The 2008 Bicycle and Pedestrian Action Plan recommends installation of shared road treatments on the length of Webster Street in Woodbine.
- Traffic congestion and queuing at arrival and dismissal times creates a potential safety hazard for pedestrians crossing Webster Street.
- Vegetation is encroaching on the sidewalk at the south side of Webster Street, east of the Washington Avenue intersection, shown in Figure 4. This sidewalk is a main walking area for schoolchildren.
- Crossings of Heilprin Avenue at the intersection of Heilprin and Webster Street are not marked.

Figure 4. Webster St East of Washington Ave

Franklin Street

Franklin Street is a local, low-volume east-west residential street extending from Heilprin Avenue to Grant Avenue. The posted speed limit is 25MPH. A recreation area and State Police Barracks are located on Franklin Street between Madison Avenue and Monroe Avenue. The eastern end of Franklin Street, shown in Figure 5, connects to the Heilprin Avenue Bikeway. Paver crosswalk treatments are installed at both the intersections of Washington Avenue and Adams Avenue. All other crosswalks between Heilprin Avenue and Washington Avenue are unmarked.

The SRTS Team noted that Franklin is used as a cut-through to and from Washington Avenue for traffic entering and leaving the Woodbine Developmental Center.

Transportation Concerns:

- Vehicle speeding at school arrival and dismissal times is a safety concern on Franklin Street. Traffic on Franklin is not stop-controlled between Heilprin and Washington Avenues.
- Crossings at Madison Avenue are not marked. This is a well-used crossing for students and is located adjacent to a recreation area.
- Significant overgrowth, shown in Figure 6, was observed obstructing sidewalk movement on the south side of Franklin Street, between Isaacs and Heilprin Avenues.

Figure 5. Franklin St Facing West From Heilprin Ave



Figure 6. Franklin St Between Isaacs Ave and Heilprin Ave



Madison Avenue

Madison Avenue is a local, low-volume north-south residential street extending from Webster Street to Longfellow Avenue. The posted speed limit is 25MPH. Madison Avenue terminates in front of Woodbine Elementary, shown in Figure 7, and is a main travel corridor for schoolchildren living between Washington and Heilprin Avenues. A recreation area is located adjacent to Madison at Franklin Street. Madison is also a direct connection to the Woodbine Railroad Trail and located one block west of Lincoln Park. The east crossing of North DeHirsch Avenue at Madison is marked with pavers and crosswalk warning signs with flashing beacons, as shown in Figure 8.

Transportation Concerns:

- Crossings of DeHirsch Avenue at Madison Avenue are not marked.
- Crossings of Madison Avenue at Franklin Street are not marked, shown in Figure 9.
- There are no bicycle accommodations on Madison Avenue.

Figure 7. Crossing of Webster St at Madison Ave



Figure 8. North DeHirsch Ave Crossing at Madison Ave



Figure 9. Madison Ave Crossing at Franklin St



Washington Avenue (CR 550)

Washington Avenue is a moderate-volume county road running northeast-southwest that functions as the commercial main street of Woodbine. The speed limit on the road is 35MPH from Webster Street to Dehirsch Avenue. Washington Avenue vehicle traffic is uncontrolled with the exception of the signalized Webster Avenue intersection. Intersections from Webster Street, shown in Figure 10, to Dehirsch Avenue are marked and surfaced with brick pavers since 2008. On-street parking is permitted on this segment. Pedestrian seating is installed on the length of this segment as well. Washington Avenue connects to the Woodbine Railroad Trail near Dehirsch Avenue.

Installation of a shared road treatment is recommended by the 2008 Bicycle and Pedestrian Action Plan.

Transportation Concerns:

- There are no bicycle accommodations on Washington Avenue.

Figure 10. Washington Avenue at Webster Street, Facing South



Other Safety/Connectivity Concerns:

North DeHirsch Avenue (CR 550)

North DeHirsch Avenue is a moderate-volume county road running east-west. The speed limit for the segment from Heilprin Avenue to Washington Avenue is 40MPH, however the SRTS Team reported that vehicle speeding is common. Significant truck traffic was observed on North DeHirsch Avenue during field visits. North DeHirsch is stop-controlled at Washington Avenue only.

Crosswalks are marked at the west side of Jefferson Avenue, east side of Madison Avenue, both sides of Washington Avenue and the west side of Heilprin Avenue. With the exception of Washington Avenue, all crossings of North DeHirsch between Washington and DeHirsch are uncontrolled. Advanced warning signage is installed at both approaches of the crossing of North DeHirsch at Madison and Jefferson Avenues. Flashing beacons are installed on the crosswalk warning signage at the Madison Avenue crosswalk. A bike crossing is designated at Jefferson Avenue, however there is no bicycle facility north of North DeHirsch Avenue.

Transportation Concerns:

- The SRTS Team identified crossing North DeHirsch as a significant safety concern for children.
- Vegetation obscures crossing signage on the north side of North DeHirsch Avenue at the Jefferson Street intersection, shown in Figure 11, and on the north side of the Madison Avenue intersection.

Missing Sidewalks

There are several streets, such as Philip DeSantis Drive shown in Figure 12, with observed schoolchildren traffic that have gaps in sidewalk coverage. Though these streets are not primary travel corridors, the safety of children using them would be improved by the installation of sidewalks.

Figure 11. Pedestrian Crossing Sign at Jefferson Ave



Figure 12. Philip DeSantis Dr



Bikeway Connection

The recently constructed Heilprin Avenue multi-use path does not currently connect to the Woodbine Railroad Trail, as shown in Figure 13. The Heilprin Avenue path terminates at a NJ TRANSIT bus shelter south of DeHirsch Avenue. Bicyclists wishing to connect to the Railroad Trail must continue on Heilprin Avenue, cross DeHirsch Avenue and turn onto the trail. A continuous off-road connection between these two bikeways would be preferred, especially for path users who are not comfortable or too young to be riding on the road.

Figure 13. Northern Terminus of the Heilprin Ave Bikeway



GOALS AND ACTIONS

Goals

- To encourage more students to walk and bike to and from school.
- To improve the health of schoolchildren through increased physical activity.
- To make it safer for children to walk and bike to and from school.
- To establish healthy lifestyle habits among schoolchildren.
- To reduce traffic congestion around schools at arrival and dismissal times.
- To reduce the negative environmental impacts of automobile trips to schools.

Actions

The following are strategies to achieve the goals listed above by addressing the five E's: Education, Encouragement, Enforcement, Engineering and Evaluation.

I. Education

Education efforts are an important component of developing a sustainable Safe Routes to School Program. These actions can help change community expectations about how children should travel to school, and ensure that children receive proper instruction on walking and biking safely.

| 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 the health and environmental benefits of walking and biking | Woodbine Elementary/Cross County Connection TMA | 2012-2013 School Year, Annual |
| In-class education on safe walking and biking behavior | Woodbine Elementary/Cross County Connection TMA | 2012-2013 School Year, 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 |

Woodbine Elementary has pursued education efforts in the past, having worked with the Brain Injury Association of New Jersey to deliver the Kids on the Block Brain Injury Awareness and Prevention

Program. During field audits, bicyclists were observed riding against traffic, on sidewalks and without helmets. This Plan recommends that additional bicycle safety and riding instruction be performed to reduce unsafe riding behavior in the borough. Cross County Connection will provide bicycle safety and riding instruction upon request of school staff. Cross County Connection will also administer in-class pedestrian and bicycling safety instruction at the elementary school as requested. Bicycle and pedestrian education efforts should highlight designated crossing locations of Webster Street, North DeHirsch Avenue and Washington Avenue. Woodbine Elementary may consider resuming their previously held helmet giveaway program.

Cross County Connection TMA and the Alan M. Voorhees Transportation Center will make safety education and outreach materials available for the 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 notices.

II. Encouragement

Encouragement actions promote walking and biking to school through programs such as walking school buses, a Golden Sneaker Award Program and other strategies that generate excitement around walking and biking. These programs are essential to building the momentum necessary to significantly change school travel habits and create a sustained, successful SRTS program.

| Encouragement Actions | Responsibility | Time frame |
|---|---|------------------------|
| Walking and Biking Pep Rally | Jessica Pikolycky, SRTS Champion/Linda Anderson-Towns, Superintendent/Cross County Connection TMA | Fall 2012, Spring 2013 |
| Walking School Bus Program | Jessica Pikolycky, SRTS Champion/Cross County Connection TMA | 2012-13 School Year |
| 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 Award Program | Woodbine Elementary | Monthly |

Woodbine Elementary kicked off their Safe Routes to School program in spring 2012 with a Walking and Biking Pep Rally. 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.

A Walking School Bus Program began with a kick-off event held on May 18, 2012. Parent volunteers and teachers led walking groups originating from Woodbine Manor and the intersection of Lincoln and

Madison Avenues to the elementary school. Giveaway items provided by Cross County Connection and the Alan M. Voorhees Transportation Center were distributed to participating students. Woodbine Elementary will continue this program through the 2012-2013 school year.

The Borough of Woodbine will participate in both International Walk and International Bike to School Days, which are held in the months of October and May, respectively. School events may be registered online by visiting www.walkbiketoschool.org.

Woodbine Elementary has also put together a school-wide Golden Sneaker Award Program. Each student who walks to school will be tallied daily, and at the end of each month the homeroom with the most walking students will earn the "Golden Sneaker."

III. Enforcement

Enforcement of safe and lawful travel behavior around schools, on primary school travel corridors and throughout the borough is important to ensuring a safe walking and biking environment for children. The New Jersey State Police currently works with the school district to help ensure schoolchildren travel safety.

| Enforcement Actions | Responsibility | Time frame |
|--|-------------------------|------------|
| Speed enforcement | New Jersey State Police | Ongoing |
| Stop enforcement for pedestrian crosswalks | New Jersey State Police | Ongoing |

Franklin Street, Webster Street and North DeHirsch Avenue should be targeted for enforcement due to concerns about speeding on these corridors. In addition to existing efforts, participation in New Jersey's Pedestrian Decoy Safety Program⁶ should be considered. This program has been a successful enforcement tool in many New Jersey communities to ensure that vehicles stop for pedestrians at crosswalks and obey New Jersey's "Stop and Stay Stopped" law (NJ 39:4-36).

IV. Engineering

Engineering recommendations in this Travel Plan, shown in Map 3, focus on low-cost safety improvements in primary school travel corridors that can be implemented in a short time frame. The Borough of Woodbine has already made pedestrian safety and streetscape enhancements to Washington Avenue, installed a multi-use path on Heilprin Avenue and installed crosswalk safety improvements on North DeHirsch Avenue, but there are additional locations in need of improvement that may be addressed without high-cost "brick and mortar" projects.

Recommendations:

Bicycle Accommodations on Primary School Travel Corridors

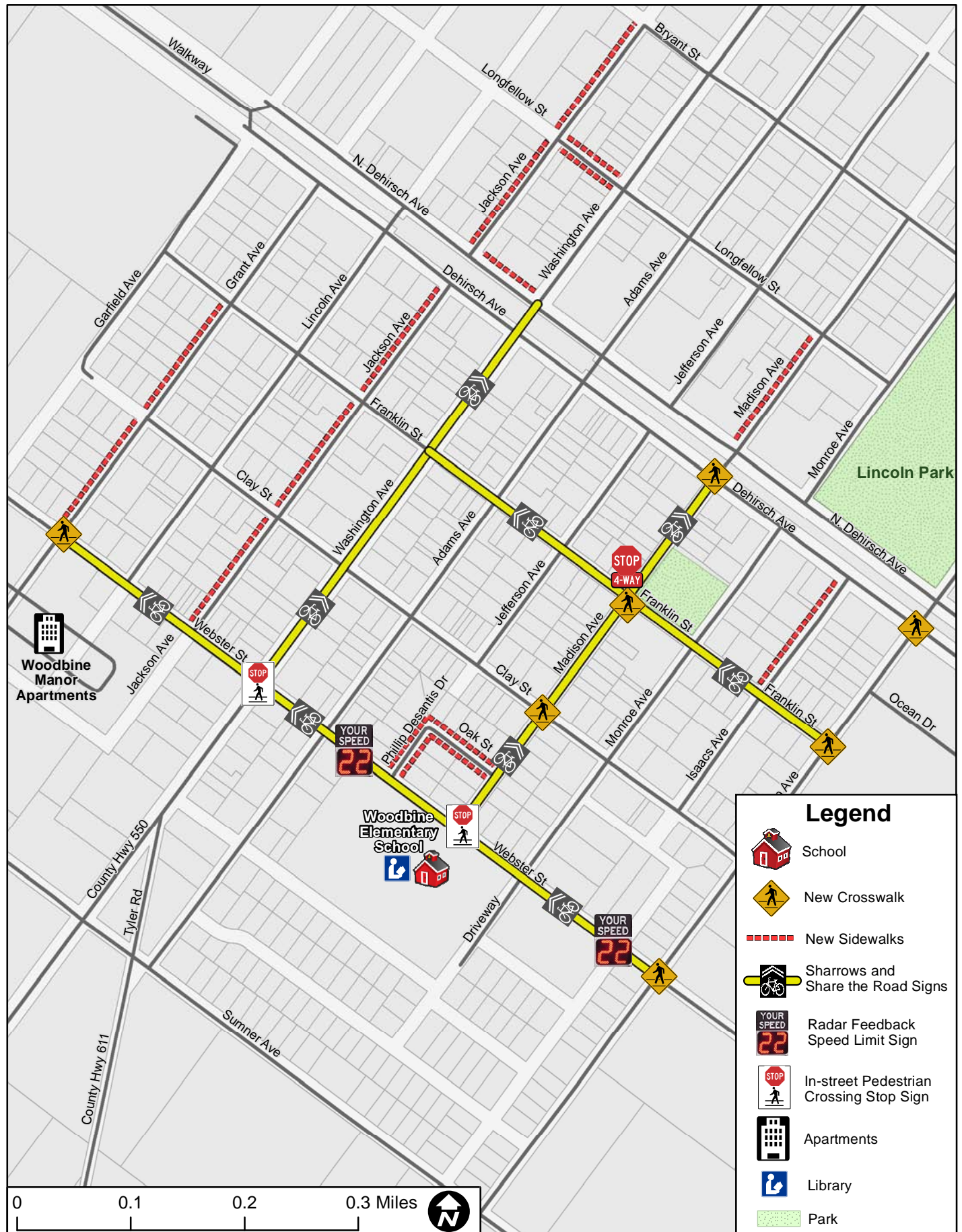
Bicycle facilities have been proposed on two of the priority travel corridors through the 2008 Bicycle and Pedestrian Action Plan. Webster Street and Washington Avenue. This Plan recommends installation of bicycle facilities on Webster Street and Washington Avenue consistent with the Action Plan. In addition to these planned bikeways, this Plan recommends that Madison Avenue and Franklin Street be designated as "shared roads" with appropriate signage and pavement markings.

Shared lane pavement markings, or "sharrows," designate a roadway as a shared travel environment for bicycles and automobiles. These markings, seen in Figure 14, alert automobile drivers to expect and share the road with cyclists, designate a roadway as a preferable bicycle route and guide cyclists on where to ride in the lane. "Share the Road" (W16-1P) signage, also shown in Figure 14, may be used in

⁶ "Cops in Crosswalks": Pedestrian Decoy Enforcement in New Jersey" (2010), Pedestrian and Bicycle Information Center, Accessed on 5/21/12, <http://www.walkinginfo.org/library/details.cfm?id=4649>.

Map 3. Woodbine Elementary Recommended Engineering Improvements

Woodbine Elementary School Travel Plan, September 2012



Data Source: Cape May County

combination with sharrows. Guidance on shared lane marking installation is found in Section 9C.07 of the Manual on Uniform Traffic Control Devices (MUTCD).

Consistent with the 2008 Bicycle and Pedestrian Action Plan, this Plan recommends installation of sharrow pavement markings and “Share the Road” signs on:

- Webster Street (Heilprin Avenue to Grant Avenue)
- Washington Avenue (North DeHirsch Avenue to Webster Street)

Recommend installation of sharrow pavement markings and “Share the Road” signs on:

- Madison Avenue (Webster Street to DeHirsch Avenue)
- Franklin Street (Washington Avenue to Heilprin Avenue)

Crosswalk Markings and Improvements

Several crosswalks located on the primary school travel corridors are unmarked. High visibility marked crosswalks are important in locations with significant pedestrian traffic because it both alerts cars to the presence of a crosswalk and designates proper crossing locations to pedestrians. Additional unmarked crossings located in the study area but not in priority corridors are recommended for improvement to increase safety of crosswalks likely to be used by children.

Recommend installing appropriate crosswalk markings at:

- All crossings at Madison Avenue and Franklin Street
- All crossings at Madison Avenue and Clay Street
- South side crossing of Madison Avenue at DeHirsch Avenue
- West side crossing of DeHirsch Avenue at Heilprin Avenue
- Both crossings of DeHirsch Avenue at Madison Avenue
- North side crossing of Heilprin Avenue at Webster Street
- North side crossing of Heilprin Avenue at Franklin Street
- South side crossing of Heilprin Avenue at DeHirsch Avenue
- South side crossing of Grant Avenue at Webster Street

Mobile in-street pedestrian crossing signage should be considered for placement at heavily used crossing locations during arrival and dismissal times. Signage shown in Figure 15 may be mounted on a portable base to allow for easy placement and removal. This mobile signage should be monitored and placed at crossing locations approximately 45 minutes before school commences, and removed approximately 30 minutes after school dismissal. Signage should be placed in the roadway centerline

Figure 14. Shared Road Designation



Source: MUTCD

Figure 15. In-street Crossing Signage



Source: MUTCD

adjacent to the crosswalk.

Recommend placement of mobile in-street pedestrian crossing signage at:

- South side crossing of Washington Avenue at Webster Street intersection
- Both crossings of Webster Street at Washington Avenue intersection
- East side crossing of Webster Street at Madison Avenue intersection

As recommended by the 2008 Bicycle and Pedestrian Action Plan, a flashing warning beacon was installed on Webster Street at the Heilprin Avenue intersection for westbound traffic, and at the Philip DeSantis Drive intersection for eastbound traffic. The SRTS Team identified speeding on Webster Street as a continued concern after the installation of the flashing beacon.

Driver feedback signage have been used with success in New Jersey to reduce speeds in school zone. These signs use radar to display the current speed of approaching vehicles. They may be permanently mounted with school zone warning signs, such as the example shown in Figure 16, or mounted separately.

This Plan recommends consideration of installing electronic driver feedback signage at east and west-bound approaches to the school zone on Webster Street.

Stop Controls on Franklin Street

The SRTS Team identified vehicle speeding on Franklin Street as a safety concern. To reduce speeds on Franklin Street and increase the safety of children crossing Franklin at Madison Avenue, this Plan recommends installation of a four-way stop control at the intersection of Franklin Street and Madison Avenue. Vehicle traffic is currently free-flow on Franklin Street and stop-controlled on Madison Avenue. The current configuration prioritizes vehicular traffic flow on Franklin Street over pedestrian crossing movements. Installation of additional stop signs or other traffic calming devices on Franklin Street may be considered to further slow traffic.

Additional Wayfinding Signage

Wayfinding signage and markings provide direction to students and parents and mark roads as preferred travel routes. Wayfinding could include paint markings designating preferred corridors by color or markers, such as the one pictured in Figure 17, that designate safe

Figure 16. Radar Feedback Sign



Source: Arizona DOT

Figure 17. SRTS Route Marker



Source: Decatur Active Living

travel routes. These markings and signs also increase visibility of walking routes among the community and encourage more children to walk or bike to school.

This plan recommends consideration of additional wayfinding markings or signage to be placed on primary school travel corridors.

Install Missing Sidewalks

While all primary school travel corridors have continuous sidewalk coverage, there are several locations near Woodbine Elementary that do not have sidewalks. Recommendations included in this Plan are consistent with recommendations included in the 2008 Bicycle and Pedestrian Action Plan. Since 2008, the Borough has been very active constructing sidewalks to eliminate gaps in their sidewalk network.

Recommend installing sidewalks and appropriate ADA-compliant curb cuts on:

- Both sides of Philip DeSantis Drive (Webster Street to Madison Avenue)
- West side of Isaacs Avenue (DeHirsch Avenue to Franklin Street)
- West side of Madison Avenue (North DeHirsch Street to Longfellow Street)
- West side of Jackson Avenue (Webster Street to Bryant Street)
- West side of Grant Avenue (Webster Street to Franklin Street)
- Both sides of Longfellow Street, shown in Figure 18 (Washington Avenue to Jackson Avenue)
- North side of North DeHirsch Avenue (Washington Avenue to Jackson Avenue)

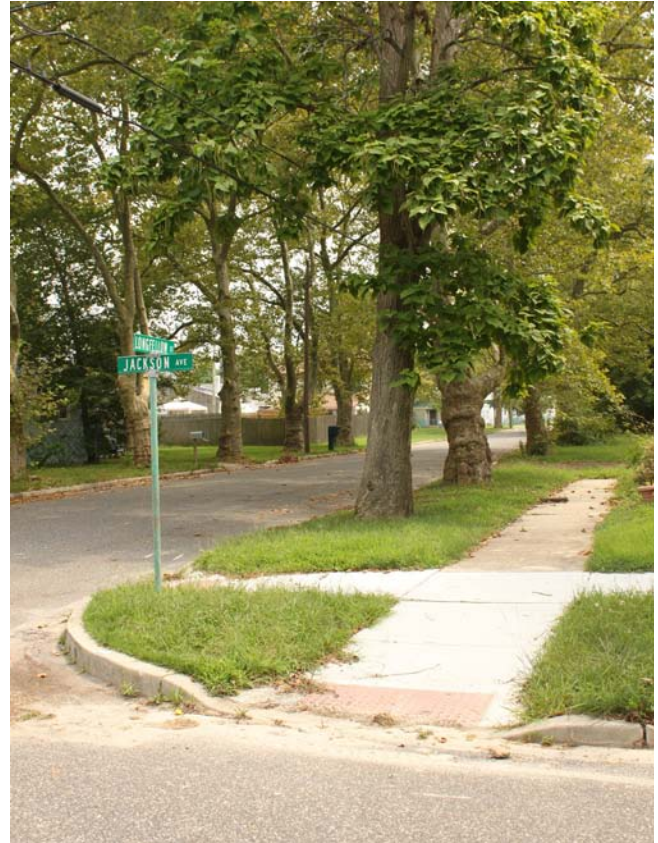
Vegetation Maintenance

Field audits identified several locations in the borough where vegetation obstructed sidewalks and crossing warning signage. Maintenance of vegetation at these locations is important to ensure that sidewalks remain obstruction-free for pedestrians and that warning signage is visible to drivers. Maintenance responsibilities will be subject to ownership of adjacent parcels and signage.

Recommend trimming and maintenance at:

- South side of Franklin Street between Heilprin Avenue and Isaacs Avenue, sidewalk obstructed

Figure 18. Webster St East of Washington Ave



- North side DeHirsch Avenue at east side of Madison Avenue intersection, signage obscured, shown in Figure 19
- North side of North DeHirsch Avenue at east side of Jefferson Avenue intersection, signage obscured
- South side of Webster Street at east side of Washington Avenue intersection, sidewalk obstructed

Bikeway Connections

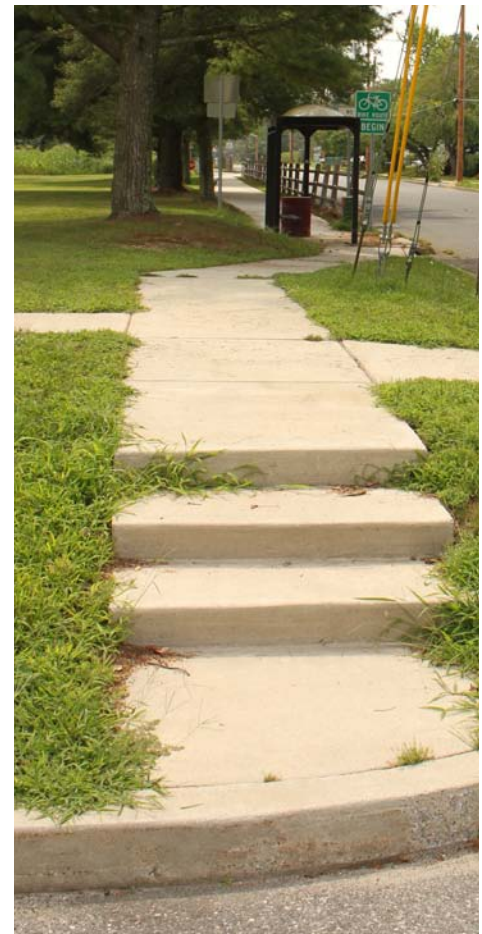
Currently, the Heilprin Avenue multi-use path does not connect to the Woodbine Railroad Trail. As shown previously in the Primary Travel Corridors section, the Heilprin Avenue path terminates in the north at the NJ TRANSIT bus shelter approximately 75 feet south of DeHirsch Avenue. Path users are currently forced into the roadway and must cross DeHirsch Avenue to access the Railroad Trail. North of the bus shelter, the path reduces in width and stairs extend to DeHirsch Avenue, as shown in Figure 20.

This Plan recommends investigating the feasibility of connecting the Heilprin Avenue multi-use path to the Woodbine Railroad Trail. This connection might be made by extending the Heilprin Avenue path northeast past the bus shelter through widening of the current walkway, installation of an ADA-compatible ramp and installation of a path crossing at the eastern crossing of DeHirsch Avenue at Heilprin. A connection may also be made through installation of a mid-block path crossing of Heilprin Avenue at the current northern terminus of the path, widening of the walkway on the west side of Heilprin Avenue and installation of a path crossing at the western crossing of DeHirsch Avenue at Heilprin.

Figure 19. Pedestrian Crossing Sign at Madison Ave



Figure 20. North of Heilprin Ave Path



V. Evaluation

Determining participation in walking and biking programs, how many children walk and bike to school, and parent concerns is an important part of a SRTS program. Evaluating these factors allows school staff to determine the success of their SRTS activities and how they might best prioritize and modify their efforts to get more children walking and biking.

| Evaluation Actions | Responsibility | Time frame |
|----------------------|--|-------------------|
| Student Travel Tally | School District | Summer/ Fall 2012 |
| Parent Survey | School District/Cross County Connection TMA/Voorhees Transportation Center | Fall 2012 |

Woodbine Elementary School staff should conduct student tallies and/or parent surveys to measure the number of children walking and bicycling. Student 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. Tallies should also be compared yearly to measure annual 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. Survey results may be submitted to the Voorhees Transportation Center for compilation and reporting. Cross County Connection TMA will assist schools in assessing results and coordinating follow-up activities, if desired.

Additional information on evaluation methods is available at the New Jersey Safe Routes to School website: <http://www.saferoutesnj.org/resources/stp/measuring-progress/>

CONCLUSION

Woodbine Elementary School is committed to increasing the number of children that walk and bike to school through safety improvements and programs that educate and encourage biking and walking. The Borough and School District currently address child walking safety by providing crossing guards at busy crossings, and have proactively pursued pedestrian safety improvements and bicycle infrastructure in the borough. This Travel Plan was commissioned to address the School's interest in walking and biking programs, and its continued concerns about existing and potential safety issues due to high-speed roads, road crossings, and walking and biking infrastructure gaps in the borough.

The Plan outlines several education and encouragement programs that the School District is either actively pursuing or has expressed interest, including a walking school bus program, encouragement programs and events, and participation in walk/bike to school month activities. Infrastructure improvements such as crosswalk installation/signage, bikeways and shared road treatments were recommended on the priority travel corridors of Washington Avenue, Webster Street, Franklin Street and Madison

Avenue. Implementing these improvements will make the walking and biking environment safer, better connected and more attractive for schoolchildren and the community.

Implementation of this Plan and the sustained success of any effort to increase walking and biking 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 momentum towards achieving the goal of reducing the more than 70% of children in the borough who are currently driven to school. The Woodbine School District and Borough of Woodbine have demonstrated through past successes and current efforts that they are committed to both creating a community that fosters active and healthy children, and providing a safe environment for walking and biking.