

Bay Head School

Bay Head, NJ



School Travel Plan

June 2016

Prepared by Greater Mercer TMA



NEW JERSEY
Safe Routes to School



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School Description

Bay Head School Description:

Bay Head Elementary School is located at 145 Grove St. Bay Head, New Jersey. In the 2015-2016 school year, there were 149 students in grades Kindergarten to eighth grade. The school day runs from 8:00am to 2:30pm. There are also sports and extra-curricular activities that run after school.

Working Groups and Partnerships

Organization	Role/ Responsibility	Contact
GO! Bay Head	Community Partner	Tom Charlton Co-Chair, Mayor Wellness Campaign 973-454-7352 gobayhead@gmail.com
Bay Head School	Community Partner	Frank Comardo Bay Head School Principal camardo@bayheadschoool.org
Voorhees Transportation Center	Key Partner	Sean Meehan Project Manager 848.932.2860 smeehan@ejb.rutgers.edu
Greater Mercer Transportation Management Association	Key Partner	Jerry Foster Transportation Safety Educator 609.452.1491 x 227 jfoster@gmtma.org
Greater Mercer Transportation Management Association	Key Partner	Ian Henderson Sustainable Transportation Coordinator 609.452.1491x237 ihenderson@gmtma.org
GO! Bay Head	Community Partner	Kirsten Hinds Parent Champion kirhinds@aol.com
GO! Bay Head	Community Partner	Char Charlton Resident Champion gobayhead@gmail.com

Partnerships

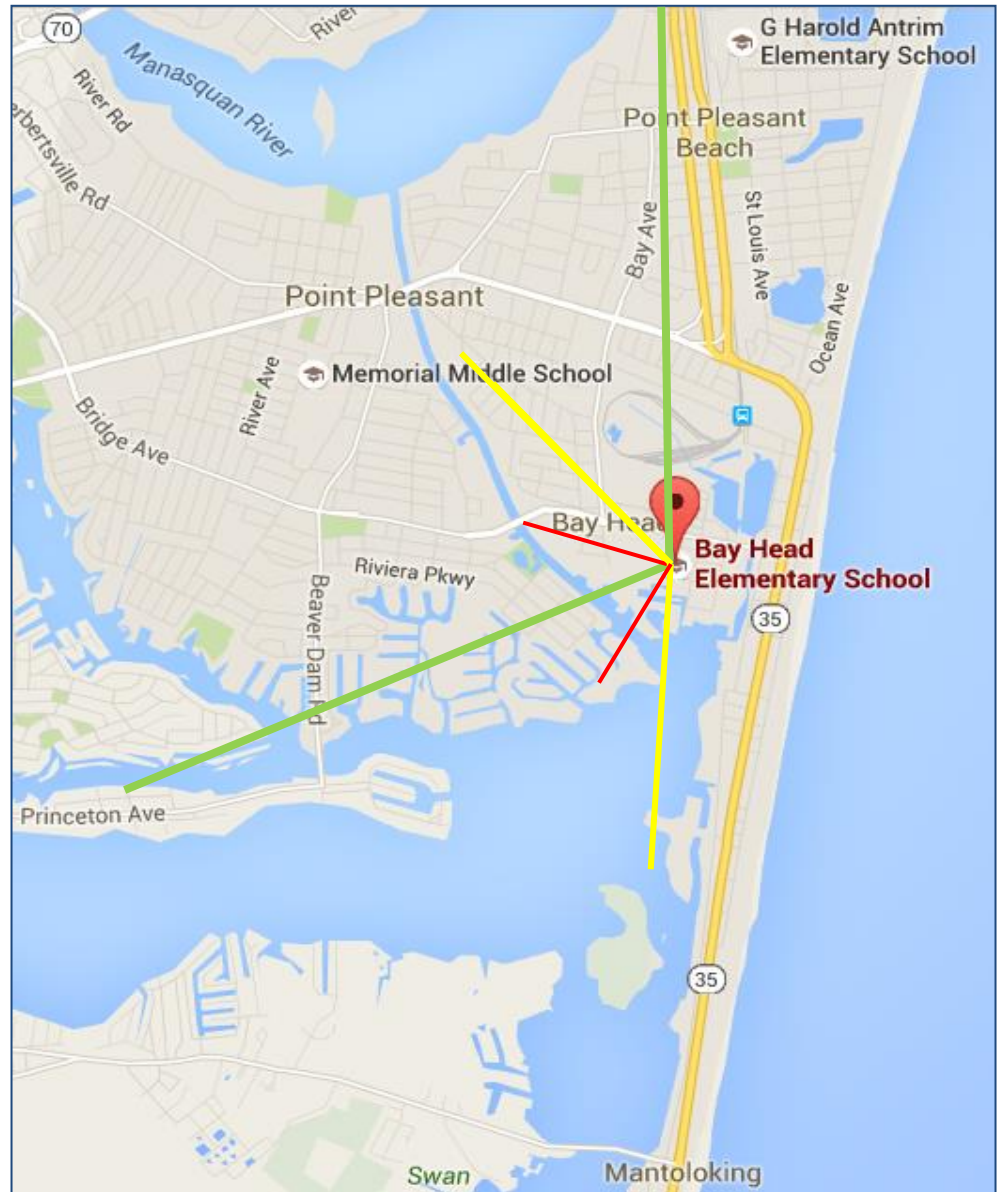
- GO! Bay Head

- Bay Head Police Department

School Neighborhood

Bay Head is a .7 square mile shore community immediately surrounded by residential areas and is less than a half mile from the beach. The Bay Head Yacht Club, alongside Bay Head Harbor, is located two blocks south of the school. Twilight Lake is located 2 blocks north. A NJ Transit Bay Head Station is located within half a mile north. While there are about 1000 residents year-round, the population swells to almost 10,000 people in the summertime.

A Complete Streets Bicycle and Pedestrian plan was developed for Bay Head Borough through the New Jersey Department of Transportation's (NJDOT) Local Bicycle and Pedestrian Planning Assistance Program with support from the RBA Group and Stokes Creative Group. The plan presents a vision and implementation strategy to provide for a safer, stronger, and more efficient bicycle and pedestrian network. A final draft of the plan was completed December 2015.



Green Lines =2 miles long. Yellow lines =1 mile long. Red lines= ½ mile

Student Ridership Survey

In preparation for the Bicycle Master Plan, 75 students in grades four through eight were surveyed during 2015's Bay Head School bike week. The following results were recorded¹:

- 95% ride a bike with 57% saying it is the easiest way to get around
- 72% of the students ride in the streets
- The students indicated that the following improvements would make *bicycling* safer and easier: bike lanes (74%); less traffic (60%); more paths and trails (53%)
- The students indicated that the following improvements would make *walking* safer and easier: more paths and trails (55%); less traffic (55%); more benches and places to hangout (51%); and more crosswalks (51%).

Neighborhood Interest Survey

In addition to surveying students, an online survey option was presented and 38 submissions yielded the following¹:

- 70% of respondents indicated that the Borough should spend money on creating an on-street bicycle network within the Borough. This was closely followed by increasing the safety at key intersections.
- In order to improve walking, almost 60% of people would like the Borough to spend money to increase the safety at key intersections.

¹RBA Group, and Stokes Creative Group. Borough of Bay Head Complete Streets. Rep. <http://www.bayheadnj.org/>. Bicycle and Pedestrian Plan.

Bay Head School Drop off and Pick up:

- A.M drop off before school
 - Student drop-off in front of the school. Traffic flows from Holly Street east on Grove Street.
 - Meadow Avenue is used for staff parking and children who ride bicycles.
 - If a parent needs to come into the school, they must park in a non-yellow curbed area.
- P.M pick Up at 2:30pm
 - Grades K-2 dismiss at the main entrance.
 - Grades 3 and 4 dismiss through the doors by the flagpole.
 - Students in grades 5-8 are dismissed on their own.

Travel Routes



School drop-off and pick-up driving locations. Crossing guard at Bridge and West Lake Ave noted by reflective vest icon.

School Policies

- K-4 Students riding to and from school must be accompanied by an adult.
- Students in grades 5-8 may ride bicycles to school on their own, but must follow the biking safety guidelines.
- All students must wear helmets with the straps connected.
- Bikers must follow the traffic rules, such as biking on the right side of the road and stopping for stop signs and red lights.
- Bike racks are provided at the school.
- Skateboards, scooters, or rollerblades are not permitted at any time.
- When biking on Bridge Avenue, cross at the crossing guard on the corner of Bridge Ave. and West Lake Ave.
- It is recommended that riders approach the front of the school going West on Grove St. traveling on the right side of the road, then walk their bikes across the street.

Crossing Guards

- During regular school days, the crossing guard is on duty from 7:20-8:20am, 11:20-12:20pm, and 2:20-3:20pm.

Current Safe Routes to School Programming

- Bay Head achieved Gold Safe Routes to School municipal recognition in May 2016-School bike safety weeks (assemblies and clinics), Walking Wednesdays, Bike to School Day, adopted Complete Streets Policy, Bicycle/Pedestrian Master Plan, Promoter of Walking School Bus App

Safe Routes to School-Disabled Student Inclusion

- Maintenance of current ADA-compliant pads and addition of pads to sidewalks to enable access during Walk to School events
- Adjust safety presentation styles for those with ADHD and other learning obstacles
- During schoolwide walk audit events, tailor routes for special needs students
- Train the Trainers approach- Pass along safety education to the aides who have to tailor educational needs based on individual student plans
- Look into funding sources for purchasing specially-tailored bicycles for disabled.

Parking

- No parking is permitted in front of the school (yellow curb) and double parking is forbidden.

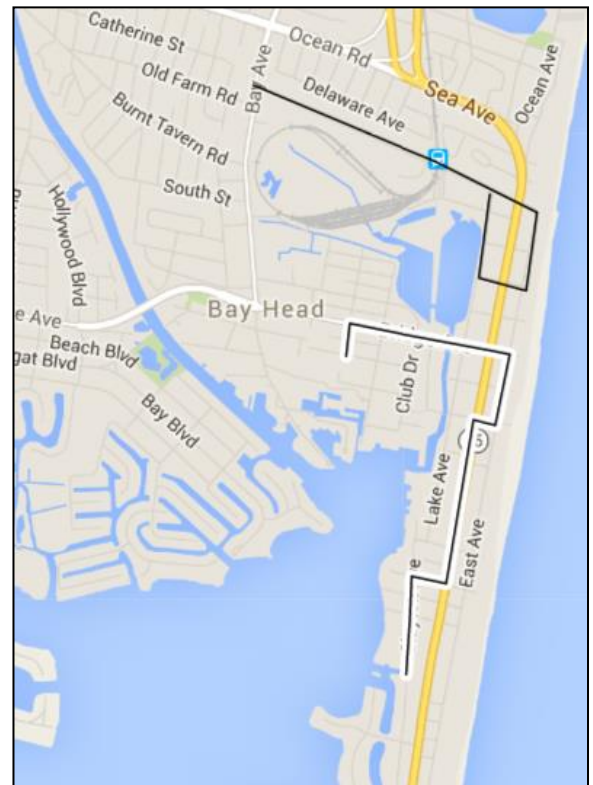
Walk/Bike Barriers and Opportunities

Identification of Problem Areas

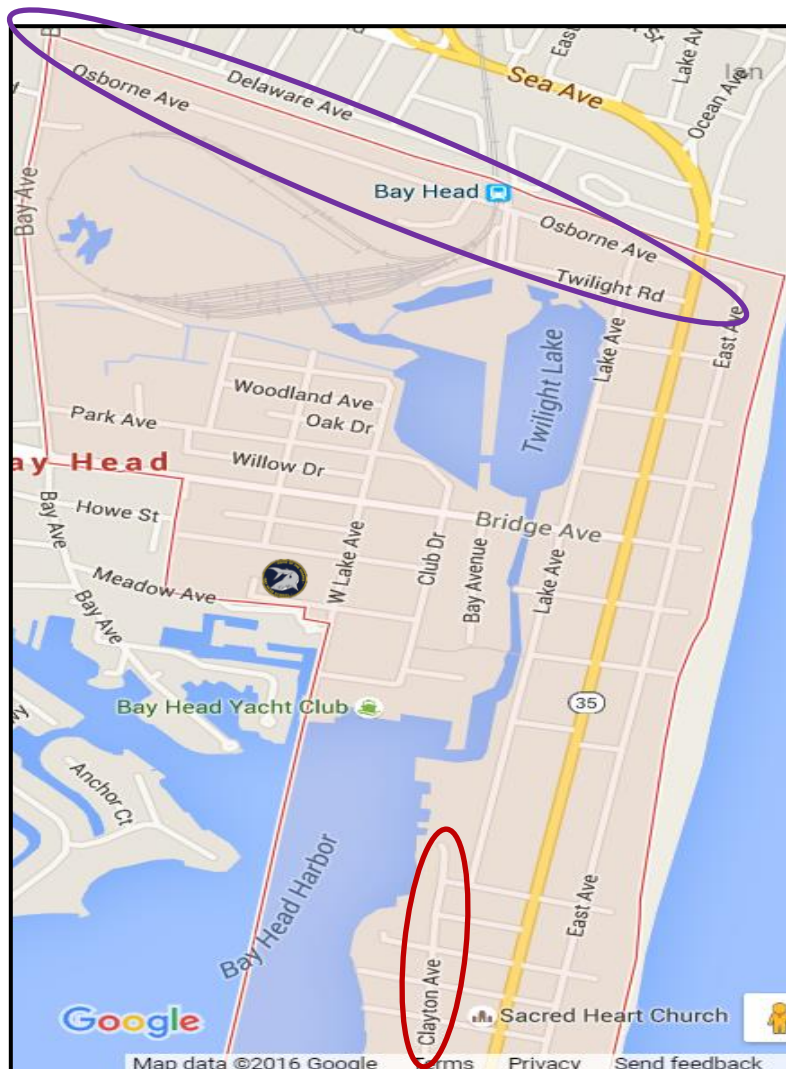
Particular areas of focus have been determined through informal walk audits in Spring 2016 and discussions with Go Bay Head, the Bay Head Police, and the Bay Head School.

Bay Head, with funding from NJDOT, worked alongside RBA Group and completed its Bicycle and Pedestrian Plan in December 2015. Public input was consulted after a lengthy comments period and various public meetings.

The Greater Mercer TMA suggestions in this travel plan reflect agreement with Bay Head's Bicycle and Pedestrian plan actions.



Location of Walkability Audits- May 2016



Problem Areas. Bay Head school is marked by shark icon.

Problem Areas and Concerns

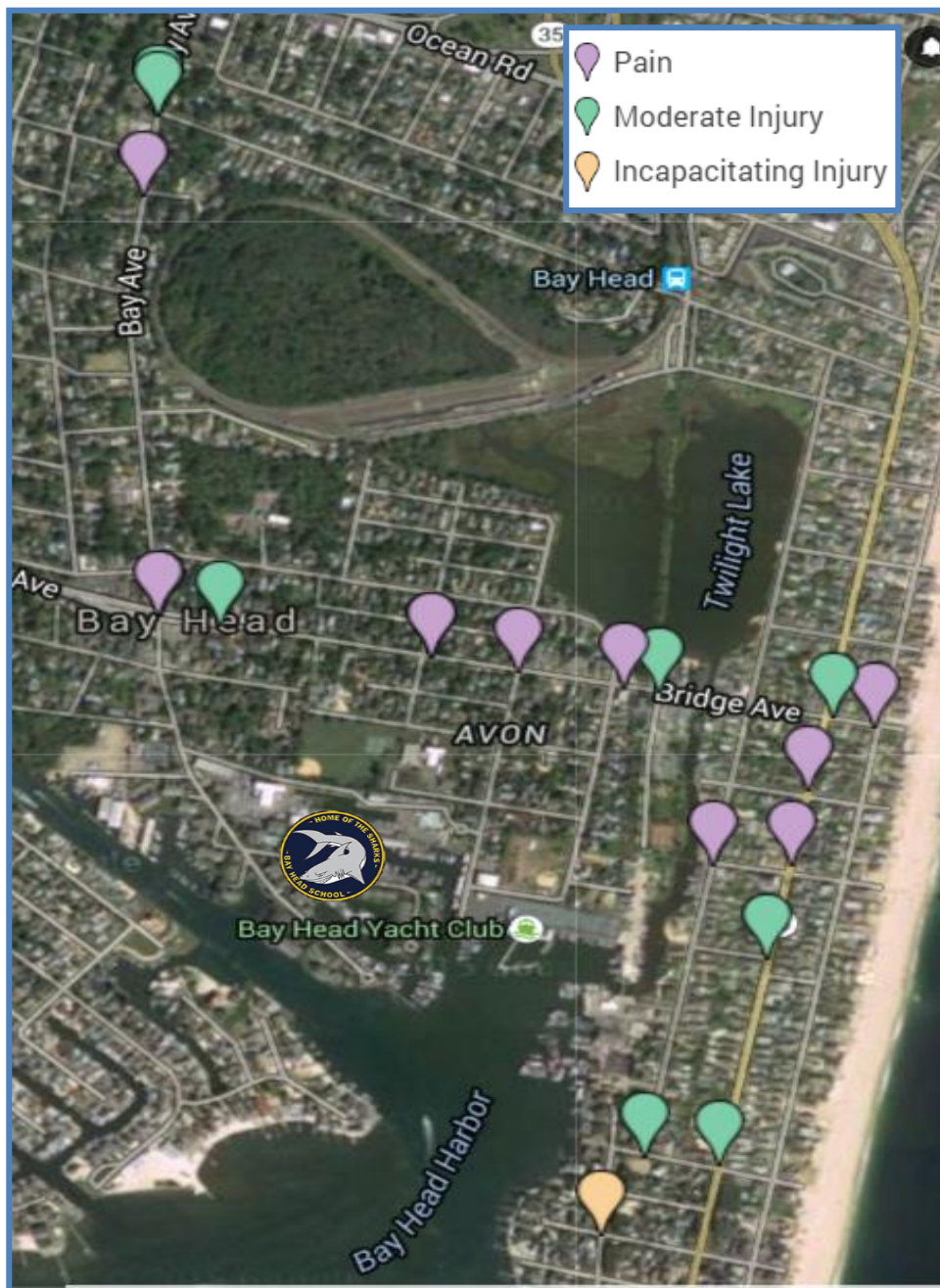
Due to the small size of Bay Head, every street is a potential walking or biking route for a student to walk to school. Therefore, trouble spots can be identified by lack of sidewalk connectivity. Additionally, the school is used for events over the summer, so safer connections would be welcome year-round. The population also significantly swells in the summertime and sidewalks are heavily-utilized.

Clayton Avenue (red oval), which lacks sidewalks, is where a 10 year-old girl bicyclist was struck by a car in August 2015. Clayton improvements would also pull students off Rt. 35 and away from East Avenue beach traffic.

Osbourne Avenue (purple oval) is a long, residential street that has a number of gaps within its sidewalk network (see “Goals and Actions” section for recommendations).

There have been pedestrian and cyclist crashes along each major junction with Bridge Ave or Rt. 35 within the past 11 years (See below. Crash details in Appendix A). Review of ADA-compliant pads, crosswalk striping, and pedestrian signage should be revisited.

Plan4Safety Pedestrian/Cyclist Crashes 2005-2015

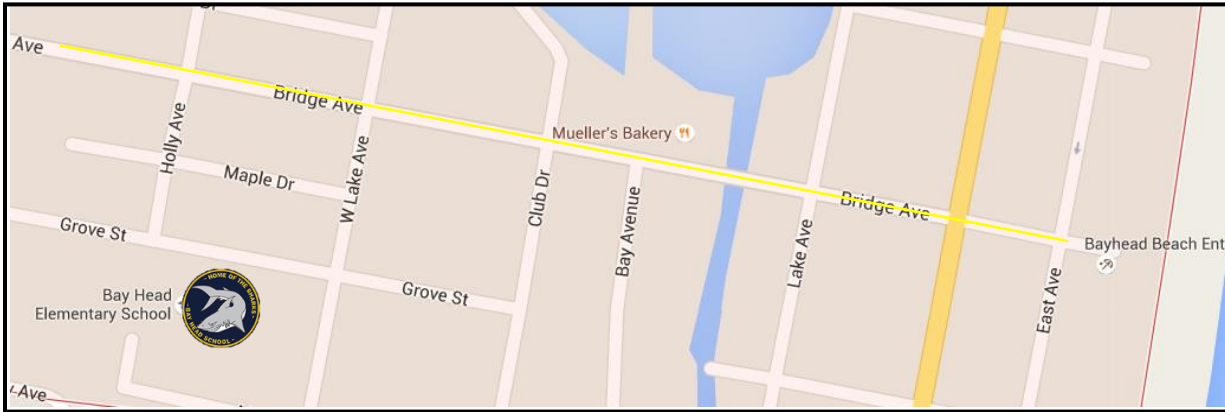


Bay Head School is marked by the shark mascot icon. See Appendix A for crash details. The incapacitating injury was a 10 year-old girl cyclist in August 2015.

High Traffic Corridor

Bridge Avenue includes Mueller's Bakery where students often stop before or after school. Students meet at the Bay Head Fire Station for Walking Wednesday departures. There is also a beach entrance that has heavier pedestrian foot traffic.

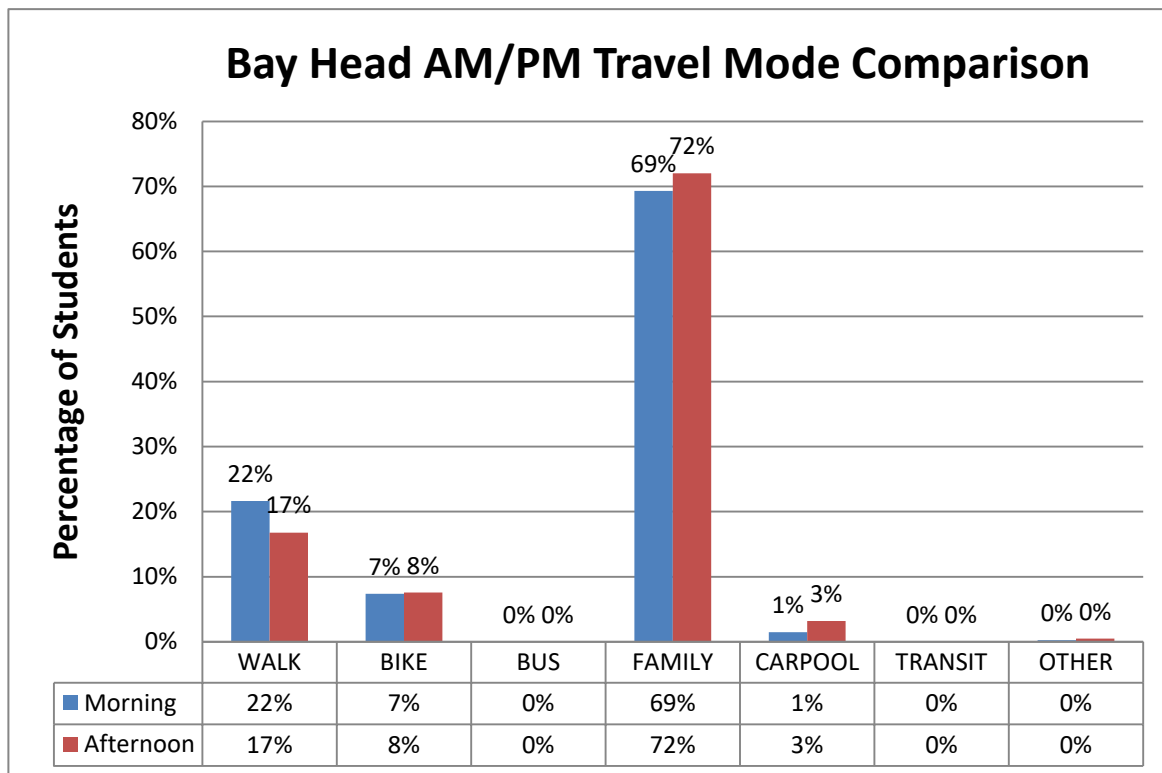
Bridge Avenue



As reported in the Bay Head Complete Streets Bicycle and Pedestrian Plan, top destinations for both walking and bicycling were the beach, Mueller’s Bakery, and their friend’s house¹.

Travel Tallies

In June 2016, travel mode tallies were taken in classrooms at Bay Head School. For three days (Tuesday, Wednesday and Thursday) of one week the students were asked “How did you arrive at school today?” and “How do you plan to leave for home after school?” The students then raised their hands and were counted for each travel mode: walk, bike, school bus, carpool, take a family vehicle or other. Over the three days percent of students travel modes were recorded and the results can be found in the charts below.



In each instance, there were almost the same number of students who used the same mode of transportation in both the morning and afternoon. There was a slightly higher number of students who walk to school in the morning and slightly more students being driven in the afternoon. Afterschool activities may account for these differences.

Goals and Actions

- Greater Mercer TMA would like to see more students walk or bike to school.
- Improve Clayton Ave (the location of the child pedestrian crash last summer), calm traffic on Bridge Ave where many students congregate, and connect the sidewalks on Osbourne.
- Continue to host Walk and Bike to School events and increase Walking School Bus app use
- Assist Bay Head in its implementation of the Complete Streets Bicycle and Pedestrian Master Plan
- Expand Safe Routes to School educational programming

Recommended Infrastructure Improvements

Osbourne Ave



Source: Bay Head Bicycle and Pedestrian Master Plan



Osbourne Ave:

- Reduce the sidewalk stoppages by adding sidewalks where there are none.
- Use a Continental style crosswalk design for crosswalk lines for greater visibility
- At 25mph, Osbourne is heavily utilized by pedestrians and bicyclists. Advisory bike lanes (dashed lanes) could be added after removing the center yellow markings.
- Add pedestrian scale lighting

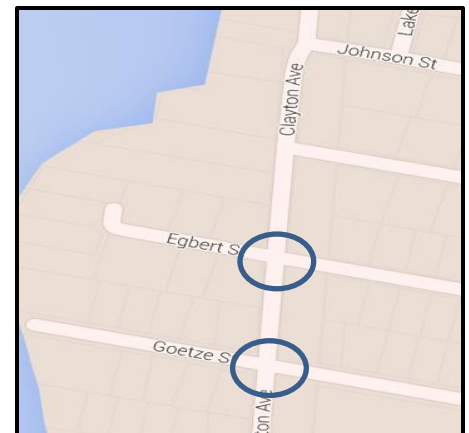
Clayton Ave





Clayton Ave:

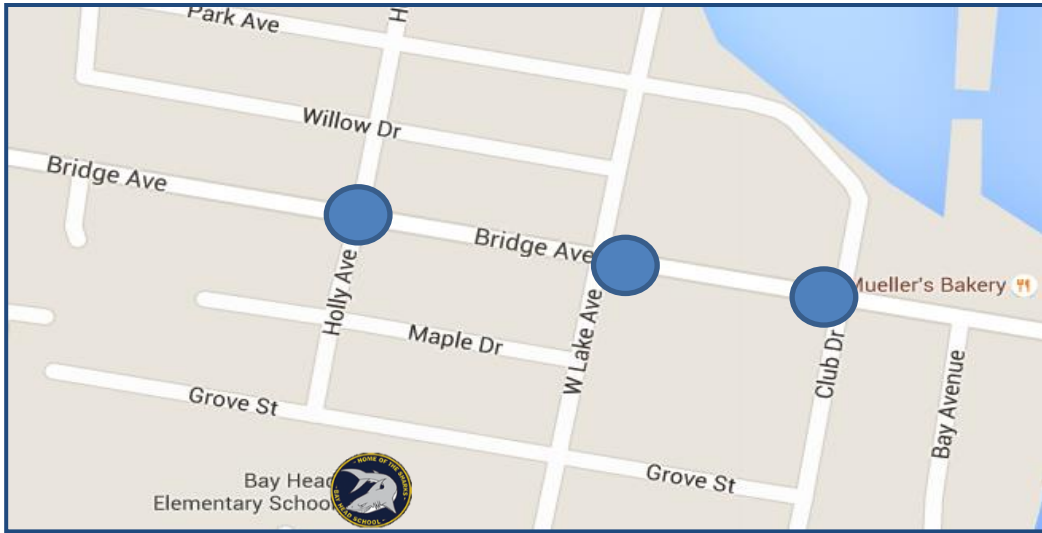
- Add sidewalks on both sides and their accompanying ADA-compliant curb ramps
- Install pedestrian signals
- Traffic calming through speed bumps or chicane. Chicane effect could also be created using parking on alternate sides of the street. The street is currently 25mph.
- Make intersections Clayton/Egbert and Clayton Ave/Goetze St into 4-way stops by adding stop signs and Continental crosswalks (see right)



Other Bay Head Streets

Curb Extensions with Bicycle Forward Stop Bars

In order to both decrease crossing distance and visually narrow the street (traffic calming), curbs could be extended at three key Bridge Avenue intersections: Bridge/Holly Ave, Bridge/West Lake Ave, Bridge/Club Dr (see below)



Town Center (Bridge Ave) Mid-block

Despite current signage and 25 mph speed limit, motorists are failing to stop for pedestrians. A Rectangular Rapid Flashing Beacon would provide high visibility for drivers to indicate they should stop.



Bridge Avenue and Bay Avenue Intersection

- A Continental style crosswalk would make more of a visual impact than the current crosswalk lines.
- American Disabilities Act-compliant pads at three of the corners are needed.
- Countdown pedestrian signal upgrades.
- Reduce curb radius to limit turning speeds

- Crossing distances along Bay Ave (35 mph at intersection) are greater than 60 feet. Pedestrian refuge islands would increase crossing time for younger walkers, wheelchairs, or elderly



Bike Parking at Bay Head School

- Covered selections will provide weather-resistant and aesthetically-pleasing options for students



Action Plan:

This plan of action is intended to increase safety for students on their walk to and from school and when appropriate, encourage more students to walk. The table below identifies those actions, a responsible party for implementing them, a time frame, and a level of cost. Many actions identified as “short-term” and “low cost” can make a big difference in a short time and can be accomplished with the help of local partners.

Cost estimates are for planning purposes only – a professional engineer should prepare the actual estimates used for grant application. These estimates were prepared using the SRTS Implementation Cost sheet prepared in 2014 to support the grant application process.¹

Engineering			
Action	Responsibility	Time Frame	Cost
Reduce Sidewalk Stoppages by adding sidewalk	Bay Head	Medium	Est. \$250/sq ft
Restripe crosswalk over Osbourne	Bay Head	Medium	Est. \$2K
Advisory bike lane markings on Osbourne	Bay Head	Medium	Est. \$16K-33K/mile
Pedestrian scale lighting on Osbourne	Bay Head	Medium	Est. \$2-4K
Clayton Ave Sidewalks	Bay Head	Medium	Est. \$40/ ft
Install pedestrian signals on Clayton Ave	Bay Head	Medium	Est. \$200K
Clayton Ave speed bumps or chicane	Bay Head	Medium	Est. \$3-4.5K speed bump, \$25K chicane
Clayton Ave/Egbert St. and Clayton Ave/Goetze St. stop signs for 4-way stop	Bay Head	Medium	Est. \$200 x 4 = \$800
Covered bike parking structures for Bay Head School	Bay Head	Medium	Est. \$3.5-15K
Other bike parking structures	Bay Head	Medium	Est. \$1K
Curb extensions for three intersections	Bay Head	Medium	

¹ http://www.saferoutesnj.org/wp-content/uploads/2013/07/srts_costs_NEW-FORMAT_FINAL.pdf

Town Center mid-block Rectangular Rapid Flashing Beacon	Bay Head	Medium	Est. \$30-40K
Bridge Ave/Bay Ave Crosswalks	Bay Head	Medium	Est. \$2K
Bridge Ave/Bay Ave Pedestrian Signals and ADA-compliant pads	Bay Head	Medium	Est. \$200K

Education			
Action	Responsibility	Time Frame	Cost
Educate students, family members, bus drivers and school employees about drop-off/ pick up zones. Make sure everyone knows the best way to keep students safe and to quickly dismiss students from school.	School, School District	Short Term / Ongoing	Low
Increase community outreach about the health benefits of walking and biking to school.	School, PTO	Short Term	Low
Conduct community wide outreach about Safe Routes to School actions such as walking and biking safety.	School, GMTMA	Short Term/ Ongoing	Low
Establish a program to encourage students to walk and/or bike to school. Examples: Golden Sneaker Award, Walking Wednesday, Walking School Bus, Bike Train	School, GMTMA	Short Term/ Ongoing	Low
Educate community and responsible parties about snow removal on sidewalks near schools.	Public Works	Short Term/ Ongoing	Low

Encouragement			
Action	Responsibility	Time Frame	Cost

Establish main walking routes, safety corridors, walking school buses – safety in numbers.	School, PTO, GMTMA, Community Groups	Ongoing	Low
Conduct Student and Parent survey to see what actions and rewards could encourage them to walk to school more – and feel safer walking to school.	School, PTO, GMTMA	Short Term	Low

Enforcement			
Action	Responsibility	Time Frame	Cost
Enforce speed limits (in general and specifically in school zones), pedestrians walking safely, drivers watching for pedestrians especially at times when students are going to/ from school.	Police	Ongoing	Low / Medium
Enforce motorist compliance with crossing guard instructions	Police	Ongoing	Low / Medium
Enforce parking laws.	Police	Ongoing	Low / Medium
Conduct structured crosswalk enforcement campaign.	Police	Ongoing	Low / Medium
Increase law enforcement presence seen in the vicinity of Black and Rogers Elementary Schools.	Police	Ongoing	Low / Medium

Evaluation			
Action	Responsibility	Time Frame	Cost
Conduct periodic travel mode choice surveys (teacher tallies)	School	Annual	Low
Conduct bikeability audit of walking area	School, Township, GMTMA	Short Term	Low

Tour the areas with school, township and TMA personnel to identify areas for improvement	School, Township, GMTMA	Short Term	Low
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*Explanation of funding- Greater Mercer TMA is funded through the New Jersey Department of Transportation to offer advice and assistance in starting safe Routes to School programs and projects. Greater Mercer TMA can help with walk and bike to school events, walking school bus programs, youth bicycle and pedestrian education, school travel plans, and surveys that provide evaluation and feedback on local programs.

Measuring Progress

Task Force Timeline

Greater Mercer TMA will be in discussion with participating organizations about implementation progress. In particular, GMTMA will monitor the progress of the Bay Head Bicycle and Pedestrian Master Plan and continue to provide input.

Appendix A: Princeton Pedestrian Crashes from the Plan4Safety Database, 2005-2015

ID	Crash Year	Crash Location	Cross Street	Severity
3521163	2010	OCEAN COUNTY 632	CLUB DR	Pain
3521200	2010	OCEAN COUNTY 632	CLUB DR	Moderate Injury
3817513	2011	LAKE AVE	MOUNT ST	Pain
4104044	2012	OCEAN COUNTY 632	BAY AVE	Moderate Injury
4104052	2012	NJ 35	CR 632 / BRIDGE AVE	Moderate Injury
4104083	2012	OCEAN COUNTY 604	CR 2 / OSBORN AVE	Moderate Injury
4387519	2013	OCEAN COUNTY 632	HOLLY AVE	Pain
4387523	2013	BAY AVE	OSBORNE AVE	Pain
5019788	2005	NJ 13	BAY AVE	Moderate Injury
5019796	2005	OCEAN COUNTY 604	OSBORNE AVE	Moderate Injury
6892439	2006	BRIDGE AVE	EAST AVE	Pain
7196307	2007	NJ 35	JOHNSON ST	Moderate Injury
7196322	2007	NJ 35	MOUNT ST	Pain
7501907	2008	NJ 35	BRIDGE AVE	Pain
7501918	2008	OSBORNE AVE	BAY AVE	Pain
7802040	2009	NJ 35	FORSYTH ST	Moderate Injury
7802085	2009	WEST LAKE AVE	BRIDGE AVE	Pain
8079890	2014	651 LAKE AVE	JOHNSON ST	Moderate Injury
8169716	2014	OCEAN COUNTY 604	CR 13 / BRIDGE AVE	Pain
8412096	2015	CLAYTON AVE	EGBERT ST	Incapacitating Injury
8412103	2015	OCEAN COUNTY 632	HOLLY AVE	Pain
8460195	2015	OCEAN COUNTY 604	CEDAR DR	Pain

Appendix B: Use of Rectangular Rapid Flashing Beacons (IA-11)

Allowable Uses:

- a. An RRFB shall only be installed to function as a Warning Beacon (see 2003 MUTCD Section 4K.03).
- b. An RRFB shall only be used to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with a diagonal downward arrow (W16-7p) plaque, located at or immediately adjacent to a marked crosswalk.
- c. An RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, or traffic control signals. This prohibition is not applicable to a crosswalk across the approach to and/or egress from a roundabout.
- d. In the event sight distance approaching the crosswalk at which RRFBs are used is less than deemed necessary by the engineer, an additional RRFB may be installed on that approach in advance of the crosswalk, as a Warning Beacon to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with an AHEAD: (W16-9p) plaque. This additional RRFB shall be supplemental to and not a replacement for RRFBs at the crosswalk itself.

Appendix C: Safe Pedestrian Crossing Examples – Refuges, Roundabouts, etc.

Refuge Islands



Above and below from Clarksville Rd, CR638, West Windsor - note the pedestrian signal buttons are inoperable – installed August 2009.



The flashing beacon on the right has incandescent lights and a regular, up and down blinking pattern in one direction.



This midblock crossing island example, from Eggerts Crossing Road in Lawrence, is near Lawrence Intermediate School.



Currently midblock, the covered signal lights suggest this refuge island may be at an intersection once the arts and transit center is finished, on Alexander St in Princeton.



The pictures above and below are from the same intersection, on New Edinburg Rd in West Windsor - above shows approaching the intersection, below the crossing from the point of view of a right-turning vehicle.



Roundabouts



Above - George Dye Rd and Estates Blvd in Hamilton. Below, the splitter island is raised and extended to both sides of the crosswalk to form a pedestrian refuge, from Alexander St in Princeton.



Paint and signs



Above, extra width of George Dye Rd in Hamilton was visually narrowed by painting a parking lane and a bike lane.



Above, this crossing is enhanced by an In-Street Pedestrian Crossing sign, on One Mile Rd in East Windsor.

Bulb-out



Bulb-out on the right improves visibility and shortens the pedestrian crossing distance, from Alexander St, Princeton.

Rapid Flashing Beacon



Rapid flashing LED lights are brighter and have an irregular flashing pattern to alert motorists. Each pole has lights that flash both directions when a pedestrian pushes the button. Princeton-Hightstown Rd (CR571), West Windsor