

# Melvin H. Kreps Middle School East Windsor, NJ



## School Travel Plan June 2014

Prepared by Greater Mercer TMA



**NEW JERSEY**  
Safe Routes to School



**GREATER  
MERCER**  
Discover Greener Paths



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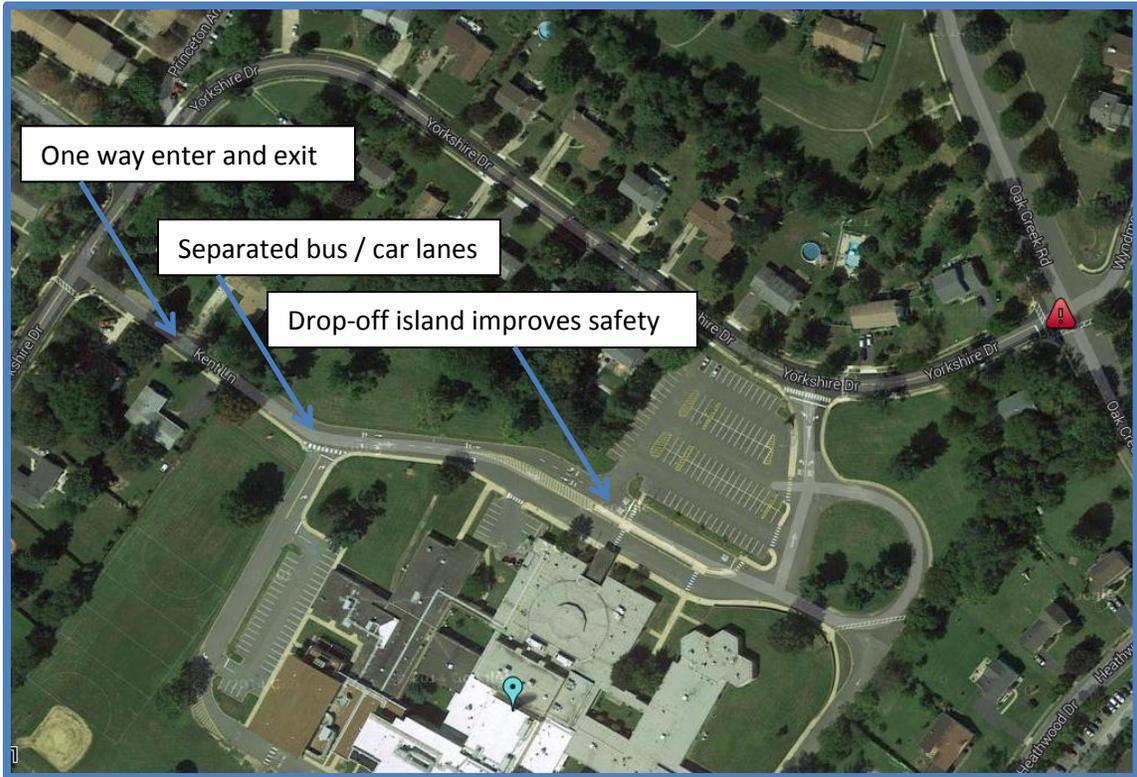
## Melvin H. Kreps Middle School Description:

Melvin H. Kreps Middle School is located at 5 Kent Lane East Windsor, New Jersey. For the 2013-2014 school year it houses approximately 1120 students in grades 6-8. The school day runs from 7:55am to 2:45pm. There are also sports and extra-curricular activities that run after school.

## Working Groups and Partnerships:

Organization	Role/ Responsibility	Contact
East Windsor Township	Community Partner	James Brady Township Manager 609.443.4000 x244 <a href="mailto:manager@east-windsor.nj.us">manager@east-windsor.nj.us</a>
Voorhees Transportation Center	Key Partner	Sean Meehan Project Manager 848.932.2860 <a href="mailto:smeehan@ejb.rutgers.edu">smeehan@ejb.rutgers.edu</a>
Greater Mercer Transportation Management Association	Key Partner	Jerry Foster Transportation Safety Educator 609.452.1491 x 227 <a href="mailto:jfoster@gmtma.org">jfoster@gmtma.org</a>
East Windsor Regional School District	Community Partner	Ingrid Reitano Transportation Supervisor 609.443.7873 <a href="mailto:ireitano@ewrsd.k12.nj.us">ireitano@ewrsd.k12.nj.us</a>



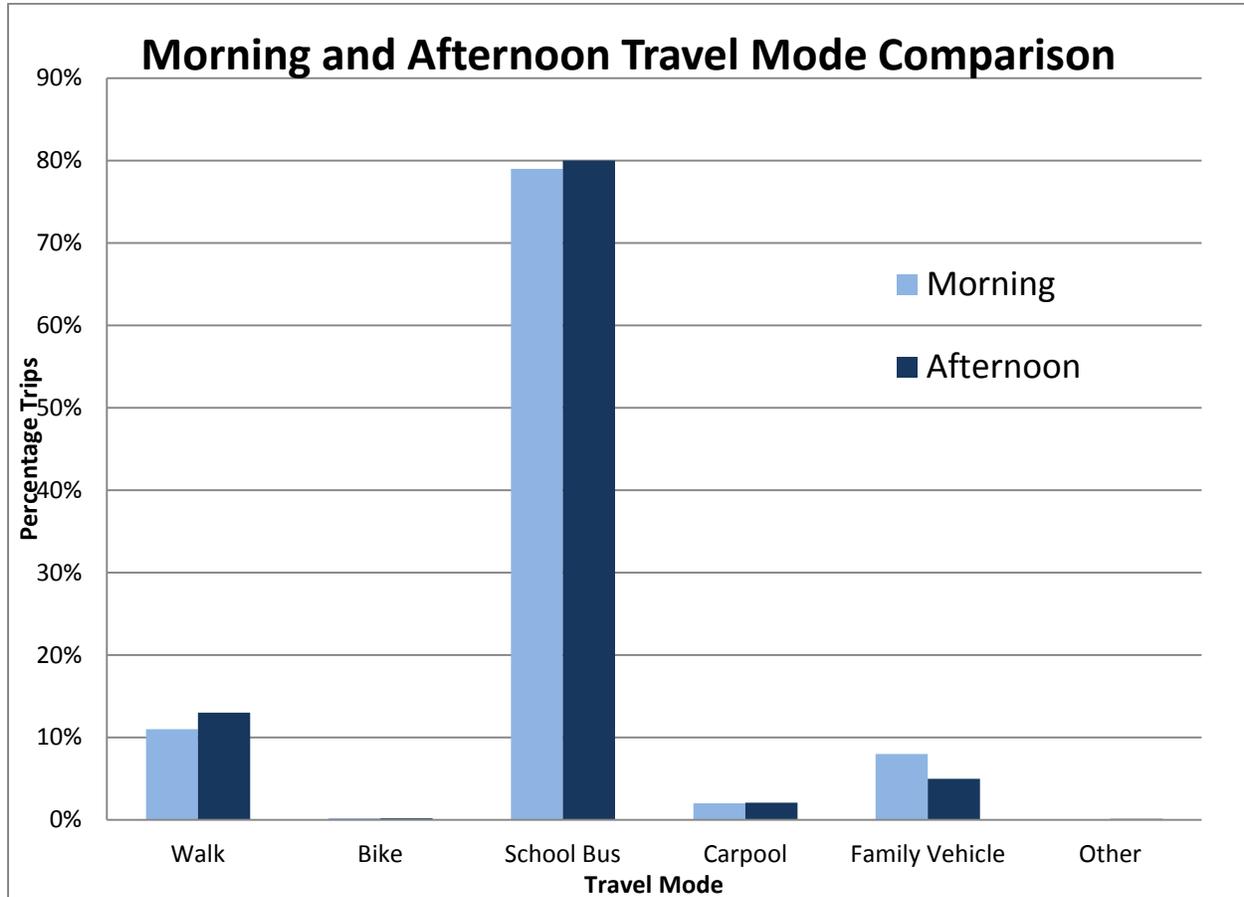


Bus and drop-off car traffic enters school grounds on Kent Lane, a one-way street. Buses stay in the right lane, while cars move to the left lane to queue up for the drop-off island area or move further left to the parking area. All vehicles exit onto Yorkshire Drive.



## Walk and Bike Barriers and Opportunities

In June 2014, a travel mode tally was taken in classrooms at Kreps Middle 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 5,961 students travel modes were recorded and the results can be found in the charts below.



Tally Totals						
	Walk	Bike	School Bus	Carpool	Family Vehicle	Other
Morning	11%	0.2%	79%	2%	8%	0.0%
Afternoon	13%	0.2%	80%	2%	5%	0.1%

The data shows that the majority, 79-80%, of students take the bus to and from school. Approximately 11-13% walk and another 5-8% ride in a family vehicle. The majority of students use the bus; “carpooling” on the school bus a good safe way to travel, reducing the number of cars on the roads and thereby decreasing traffic and air pollution. There is, however, the opportunity to increase the number of students walking and biking, and this report will outline some improvements to the transportation network that will allow for this. The 8<sup>th</sup> grade class trip occurred on the Tuesday of the Travel Tally. The students did not return to the school until 5pm; and the modes they used to travel home appeared different from the other two days of the survey. Due to this, the 8<sup>th</sup> grade Tuesday afternoon travel home was excluded from the results.

## Current Walking Area:



The green shaded area is the current walking area, while the bright green lines are 1 mile long, for reference.

## Pedestrian/Cyclist Crashes from Plan4Safety database, 2003-2014:



The pins show pedestrian and cyclist crashes in the Plan4Safety database according to severity – all fatalities, incapacitating and moderate injuries were mapped, while pain injuries within the school walking areas were mapped. No property damage only crashes were mapped. There were eight pedestrian / cyclist crashes within one mile of school, and only Dorchester at Devonshire had multiple crashes, but they were not necessarily all at the intersection, see Appendix A for crash details.

## Proposed Improvements



This map shows all proposed improvement locations - sidewalks as purple lines, intersections as bubbles – those with pedestrian crash history in yellow, with no crash history in green.

Two goals drive improvements to biking and walking to Kreps – (1) improve safety for existing walkers and (2) create four new safe walking areas within one mile of the school, by eliminating hazardous conditions.

The Federal Highway Administration’s 2012 guidance for improving pedestrian safety include the following proven countermeasures.<sup>1</sup>

1. Roundabouts – none are proposed here
2. Medians and Pedestrian Crossing Islands in Urban and Suburban Areas
3. Pedestrian Hybrid Beacon – the Rapid Flash Beacon is a lower cost alternative (see Appendix B)<sup>2</sup>

See Appendix C for pictures of regional examples of pedestrian safety improvements.

<sup>1</sup> <http://safety.fhwa.dot.gov/provencountermeasures/>

<sup>2</sup> <http://safety.fhwa.dot.gov/intersection/resources/techsum/fhwas09009/>

## Goal 1 – Improve Safety for Existing Walkers



The yellow bubble icons show pedestrian crash history within the walking area, at Dutch Neck & Brooktree/Wiltshire, Dutch Neck & Oak Creek, Oak Creek & Yorkshire/Wyndmoor and Dorchester & Devonshire.

GMTMA recommends pedestrian-activated rapid flashing beacons and pedestrian refuge islands to complement the existing high visibility crosswalks at the intersections with pedestrian crash history:

1. In Dutch Neck Road at Brooktree/Wiltshire
2. In Dutch Neck Road at Oak Creek Road
3. In Oak Creek Road at Yorkshire Drive / Wyndmoor Drive
4. In Dorchester Drive at Devonshire Drive

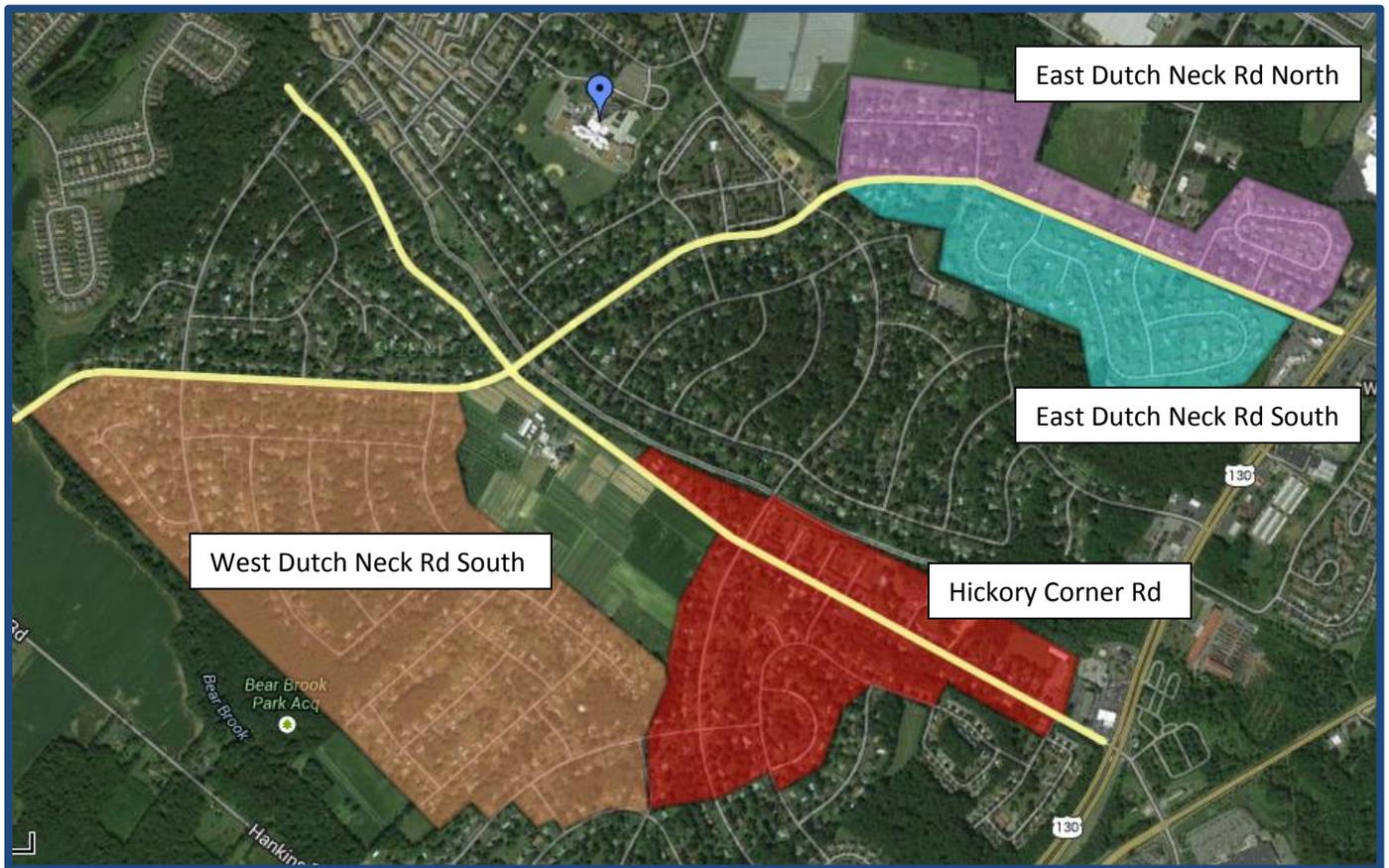
Sidewalk connections should be completed along Dutch Neck Road from Heathwood to Brooktree/Wiltshire, and ideally to Hickory Corner Road (a path, not far from the road, associated with Bear Brook Path makes the connection from a parking lot east of Bear Brook to Anker Park).

Last, pedestrian refuge islands are recommended at the intersections without pedestrian crash history, to calm traffic and provide pedestrians a place to wait in the middle of the wide roadway:

5. In Oak Creek Road at Wyndmoor Drive (north intersection)
6. In Dutch Neck Road at Heathwood

See supporting pictures in Appendix D.

## Goal 2 – Create Four Safe Walking Areas within One Mile of School



In practice, students within one mile of school are expected to walk unless they would have to use a hazardous route. The colored areas on the map identify areas within one mile of school that use buses because of a hazardous route, and proposes improvements to create a safe route to walk.

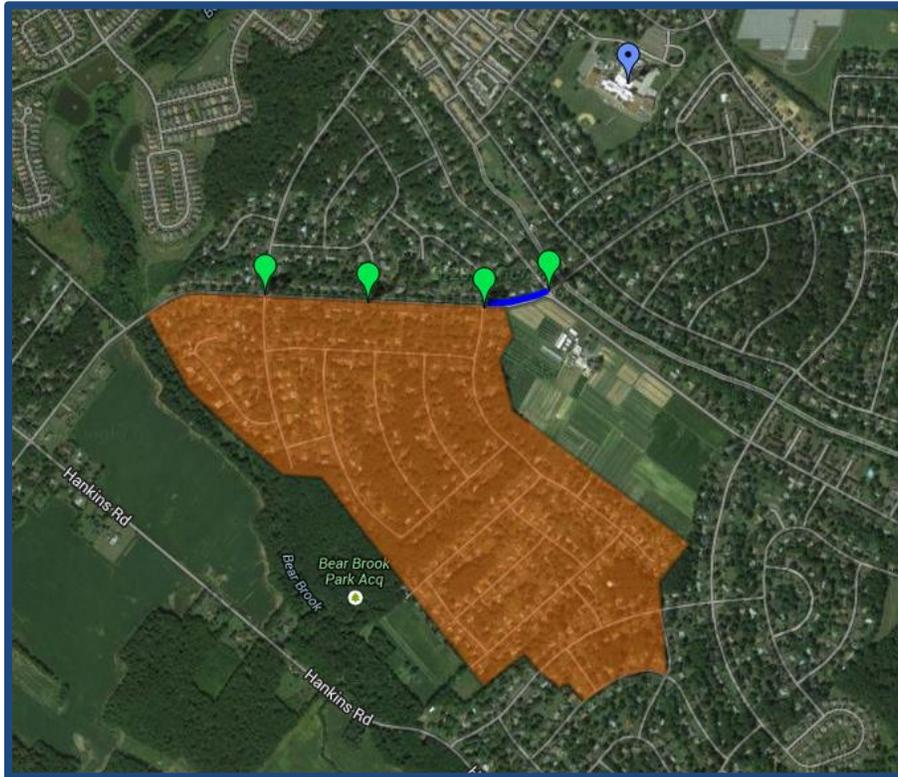
GMTMA recommends four opportunities to create safe walking areas within one mile of school (all areas approximate):

1. East Dutch Neck Rd North residences (purple area) – potential for K students to walk safely
2. East Dutch Neck Rd South residences (aqua area) – potential for L students to walk safely
3. West Dutch Neck Rd South residences (orange area) – potential for M students to walk safely
4. Hickory Corner Rd residences (red area) – potential for N students to walk safely

The following pages describe the recommended improvements to create each area. See supporting pictures in Appendices E – H.



*Safe Walking Area 3 - West Dutch Neck Rd South – see Appendix G for supporting pictures*



A short section of missing sidewalk on the north side of Dutch Neck Road and crossing improvements (high visibility crosswalks and pedestrian refuge islands) at Dorchester Drive, Drew Lane, Oxford Drive and Hickory Corner Road (to include the Bear Brook Path crossing) would enable safe walking from the orange area. Students using the Dorchester and Drew crossings are assumed to continue to Exeter and Surrey, then use the path and bridge across Bear Brook, while students using the Oxford crossing are assumed to use the new sidewalk and continue to Wiltshire.

*Safe Walking Area 4 - Hickory Corner Road – see Appendix H for supporting pictures*



The apartments north of Hickory Corner Rd and the residences south of Hickory Corner Rd require sidewalk sections as shown in purple. Crossing improvements at Oak Creek Rd, Knollwood Drive and One Mile Rd South (green bubble icons) should include pedestrian refuge islands and pedestrian-activated rapid flashing beacons, due to the higher posted speed limit.

## Evaluation/ 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.<sup>3</sup>

Engineering			
Action	Responsibility	Time Frame	Cost
<p>Goal - Improve safety of existing walkers:</p> <p>5 ft sidewalk north side Dutch Neck east of Wiltshire - \$60/ft * 620ft = \$37,200</p> <p>5 ft sidewalk south side Dutch Neck west of Heathwood to Hickory Corner - \$60/ft * 1520ft = \$91,200</p> <p>Pedestrian-activated rapid flashing beacons (\$40K) and pedestrian refuge islands (\$30K), high visibility crosswalks (\$2K) at intersections with pedestrian crash history (\$72K * 4 = \$288K total):</p> <ol style="list-style-type: none"> <li>1. Dutch Neck at Brooktree/Wiltshire</li> <li>2. Dutch Neck at Oak Creek</li> <li>3. Oak Creek at Yorkshire / Wyndmoor</li> <li>4. Dorchester at Devonshire</li> </ol> <p>Pedestrian refuge islands (\$30K) and high visibility crosswalks (\$2K) are recommended at intersections without pedestrian crash history (\$64K total):</p> <ol style="list-style-type: none"> <li>1. Oak Creek at Wyndmoor (north)</li> <li>2. Dutch Neck at Heathwood</li> </ol> <p>Note assumption that existing high visibility crosswalks will be re-painted w/ island installation.</p>	East Windsor Twp	Medium Term	est. \$480.4K
<p>Goal – Create Safe Walking Area 1 - East Dutch Neck Rd North</p> <p>5 ft sidewalks – 3175 ft * \$60/ft = \$190,500</p> <p>Crosswalk - \$2000</p> <p>Curb Cut + Detectable Warning = \$7900 * 2 = \$15,800</p>	East Windsor Twp	Medium Term	est. \$208.3K

<sup>3</sup> [http://www.saferoutesnj.org/wp-content/uploads/2013/07/srts\\_costs\\_NEW-FORMAT\\_FINAL.pdf](http://www.saferoutesnj.org/wp-content/uploads/2013/07/srts_costs_NEW-FORMAT_FINAL.pdf)

Goal – Create Safe Walking Area 2 - East Dutch Neck Rd South 5 ft sidewalks – 880 ft * \$60/ft = \$52,800 Crosswalk - \$2000	East Windsor Twp	Medium Term	est. \$54.8K
Goal – Create Safe Walking Area 3 - West Dutch Neck Rd South 5 ft sidewalks – 525 ft * \$60/ft = \$31,500 Pedestrian Islands - \$30,000 * 4 = \$120,000 Crosswalks - \$2,000 * 4 = \$8,000	East Windsor Twp	Medium Term	est. \$159.5K
Goal – Create Safe Walking Area 4 - Hickory Corner Rd 5 ft sidewalks – 6000ft * \$60/ft = \$360,000 Pedestrian Islands - \$30,000 * 3 = \$90,000 Crosswalks - \$2,000 * 3 = \$6,000	East Windsor Twp	Medium Term	est. \$456K

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	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
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<b>Enforcement</b>			
<b>Action</b>	<b>Responsibility</b>	<b>Time Frame</b>	<b>Cost</b>
Enforce speed limits (in general and specifically in school zones), pedestrians walking safely – no jaywalking etc., 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 Kreps Middle School.	Police	Ongoing	Low / Medium

<b>Evaluation</b>			
<b>Action</b>	<b>Responsibility</b>	<b>Time Frame</b>	<b>Cost</b>
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

\*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.

## Appendix A: Pedestrian Crashes from Plan4Safety Database

ID	Location	Year	Cross Street	Injury Level
156103	359 ROUTE 130 NORTH	2003	AMERICANA DINER PARKING LOT	Moderate Injury
156638	TOWN CENTER PLAZA	2003	PRIVATE PROPERTY	Moderate Injury
478832	CHATHAM COURT	2004		Moderate Injury
478937	OLD CRANBURY ROAD	2004	LOVELAND CT	Pain
478983	US 130	2004	Old Cranbury Rd	Fatal
479175	NJ 33	2004	Twin Rivers Drive	Moderate Injury
479308	US 130	2004		Incapacitating Injury
479334	NJ 33	2004	DAVIDSON ROAD	Incapacitating Injury
479446	I-95 N.J. TURNPIKE	2004		Incapacitating Injury
796914	ROUTE 571	2005	CR 535	Fatal
797048	MILFORD RD	2005	RT 33	Fatal
797060	DEVONSHIRE DR	2005	DORCHESTER DRIVE	Pain
797367	WINDSOR CASTLE APARTMENTS	2005	DORCHESTER DRIVE	Moderate Injury
797398	ROUTE 571	2005	Near Cedarville	Moderate Injury
797555	DUTCH NECK ROAD	2005	ROUTE 130	Pain
797582	MCDONALDS RT 130	2005	DUTCHNECK RD	Moderate Injury
1100540	ROUTE 539	2006	AIRPORT ROAD	Pain
1100556	OVERTON RD	2006	TWIN RIVERS DRIVE	Incapacitating Injury
1100646	US 130	2006	DUTCHNECK ROAD	Incapacitating Injury
1100887	1 LAKE DRIVE	2006		Pain
1100923	US 130	2006	TOWN CENTER DRIVE	Moderate Injury
1101150	US 130	2006	CR 571	Fatal
1400301	BENNINGTON DRIVE	2007	LAKE DRIVE	Moderate Injury
1400320	DENNISON DRIVE	2007	LAKE DRIVE	Moderate Injury
1400484	510 ROUTE 130 SOUTH (ROYAL PLAZE)	2007		Moderate Injury
1400638	670 ROUTE 33 (HESS)	2007		Moderate Injury
1701962	DICKINSON LN	2008	TENNYSON ROAD	Moderate Injury
1701974	PRINCETON ARMS EAST	2008		Pain
1701987	US 130	2008	DUTCH NECK ROAD	Moderate Injury
1702115	GARDENVIEW TERRACE	2008	NORTH MAIN ST	Incapacitating Injury
1702454	370 ROUTE 130	2008	ROUTE 130 SOUTH	Moderate Injury
2445063	WINDSOR CASTLE PARKING LOT	2009	DORCHESTER DRIVE	Pain
2673599	US 130	2010	DUTCHNECK RD	Incapacitating Injury
2673690	NJ 33	2010	TWINS RIVER DR NORTH / TWINS RIVER	Moderate Injury
2673846	DUTCH NECK RD	2010	WILTSHIRE DRIVE	Moderate Injury

2673858	DUTCH NECK ROAD	2010	OAK CREEK ROAD	Incapacitating Injury
2673886	PROBASCO ROAD	2010	BOLTON ROAD	Moderate Injury
3264729	US HIGHWAY 130	2011	DUTCHNECK RD	Moderate Injury
3375525	NJ HIGHWAY 33	2012	TWIN RIVERS DR N / TWIN RIVERS DR S	Incapacitating Injury
3424922	NJ HIGHWAY 33	2012	DAVIDSON RD	Pain
3446454	OAK CREEK RD	2012	YORKSHIRE DR	Moderate Injury
3475494	TENNYSON RD	2012	SHELLY CIR	Pain
3513107	RTE 571	2012	WILLIAM ST	Pain
3689975	319 ROUTE 130 N	2013	(TOWN CENTER PLAZA)	Fatal
3752506	MILLSTONE RD	2013	OLD TRENTON RD	Moderate Injury
3755353	370 RTE E 130 (PARKING LOT)	2013		Moderate Injury
3762656	MERCER CTY 630	2013	BRADFORD RD	Incapacitating Injury
3766727	370 RTE E 130 (PARKING LOT)	2013		Moderate Injury
3778733	RTE 539	2013	TOWN CENTER RD	Pain
3791464	CEDARVILLE RD	2013	WINDSOR PERRINEVILLE RD	Moderate Injury
3836989	US HIGHWAY 130	2013	HICKORY CORNER RD	Fatal
3913936	US HIGHWAY 130	2014	DUTCHNECK RD	Moderate Injury

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

Interim approval and guidance for use of the beacons referenced in the report was issued in 2008.<sup>4</sup>

Please refer to the pictures to confirm that the intersections at Lawrence Ave, Roxboro Rd and at Notre Dame High School conform to the Allowable Uses, cut/pasted here:

### 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.

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<sup>4</sup> [http://mutcd.fhwa.dot.gov/resources/interim\\_approval/ia11/fhwamemo.htm](http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm)

## 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

## Appendix D: Pictures supporting Goal 1 – Improve the Safety of Existing Walkers

### Missing sidewalk connections



Missing sidewalk connection on south side of Dutch Neck Rd, view looking west toward Hickory Corner Rd.



Missing sidewalk connection on north and south sides of Dutch Neck Rd from Brooktree/Wiltshire looking east.

## Intersections with pedestrian crash history:



1. Dutch Neck Rd at Wiltshire (behind) / Brooktree (ahead) – existing sidewalk is on the west (right in picture) side of Wiltshire, but crossing guard was stationed on the east (left) side, since students walked down Wiltshire in the road and crossed (straight) to Brooktree, which has no sidewalks on either side.



2. Dutch Neck Rd (behind and ahead) at Oak Creek Rd (left and right) – three legs have crosswalks



3. Oak Creek at Wyndmoor (right) and Yorkshire (left, toward school)



4. Dorchester Drive at Devonshire Drive – added complication of apartment driveway opposite side.

## Intersections with no pedestrian crash history



5. Oak Creek looking north at northern intersection with Wyndmoor (right). Car is stopped at Pebble Rd.



6. Dutch Neck Rd (right and left) at Heathwood (behind and forward), looking north.

## Appendix E: Goal 2 – Create Safe Walking Area 1 – East Dutch Neck Rd North

### Missing Sidewalk Connections



Dutch Neck Road looking west from US130, McDonalds driveway on left by path, missing sidewalk on north side.



Missing sidewalk connection from Busy Bee Nursery School to Scott Rd on north side of Dutch Neck Rd.

## Intersection



Dutch Neck (left and right) at One Mile Rd (behind and forward), missing high visibility crosswalk to connect proposed sidewalks along near side of Dutch Neck.

## Appendix F: Goal 2 – Create Safe Walking Area 2 – East Dutch Neck Rd South

### Missing Sidewalk



Dutch Neck Rd at Wilmor Rd, showing missing sidewalk on south (left) side.

### Intersection



Dutch Neck (left and right) at One Mile Rd (behind and forward), recommend (ideally, high visibility) crosswalk to connect path along opposite side of Dutch Neck.

## Appendix G: Goal 2 – Create Safe Walking Area 3 – West Dutch Neck Rd South

### Missing Sidewalks



Dutch Neck looking toward Hickory Corner from Oxford, missing sidewalk section across road on left.

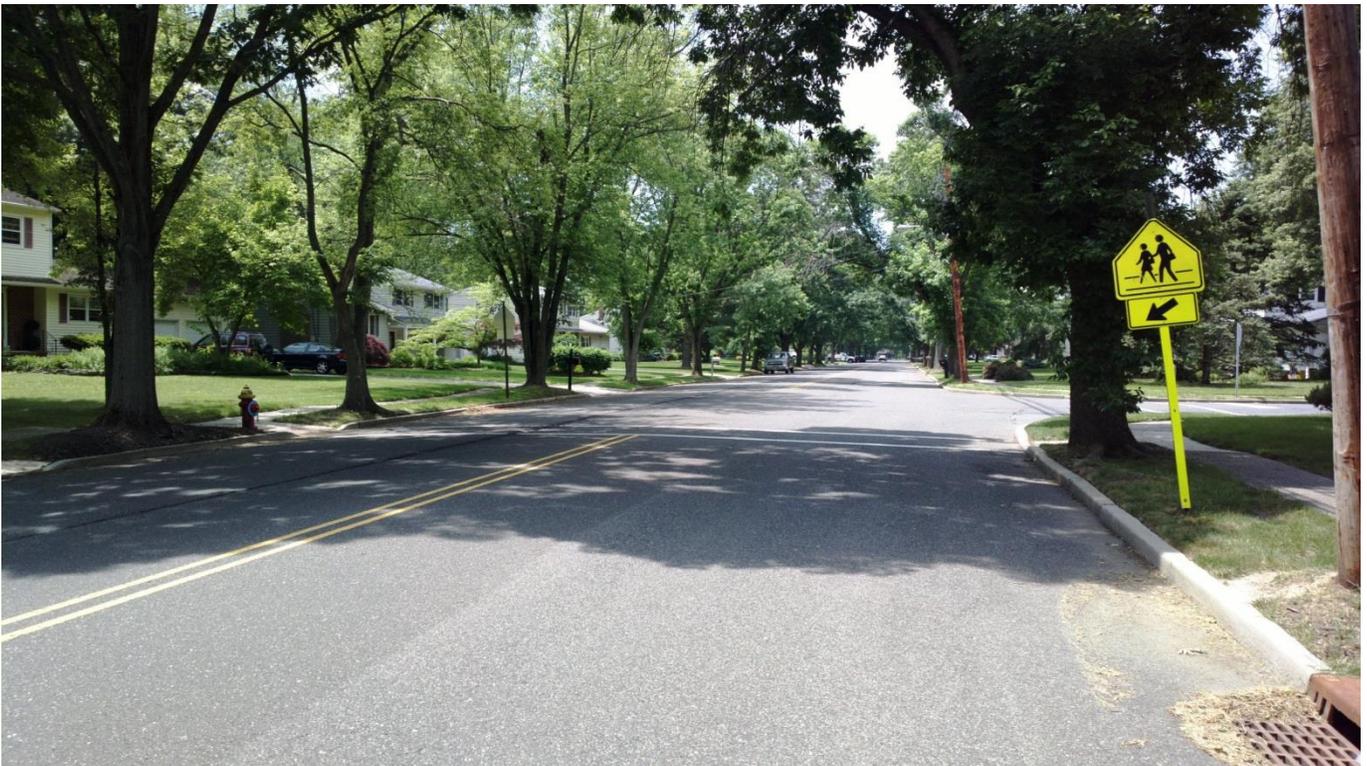
### Intersections



Dutch Neck Rd at Hickory Corner and Bear Brook Path - a pedestrian refuge island might include both crossings.



Dutch Neck Rd (behind and forward) at Oxford Drive (right) – recommend a pedestrian refuge island and crossing to complement the new sidewalk section on the north (left) side of Dutch Neck Rd.



Dutch Neck Rd at Drew Ln (right), recommend refuge island. Note crossing sign opposite side very near a tree, greatly reducing visibility.



Dorchester (behind and forward) at Dutch Neck Rd (left and right) – crosswalks and curb cuts on 3 legs.

## Appendix H: Goal 2 – Create Safe Walking Area 4 – Hickory Corner Rd

### Missing Sidewalks



Missing sidewalk east side of Hickory Corner Rd south of Anker Park, looking toward Oak Creek Rd, farm on right.



Missing sidewalk connection on Oak Creek Rd west of Hickory Corner Rd (at the stop sign).



Missing sidewalk on west (left) side of Oak Creek Rd, looking from Hickory Corner intersection.



Missing sidewalk on east (right) side of Oak Creek Rd, to connect the apartment parking lot to Bear Brook Path at the crosswalk ahead.



Missing sidewalks on both sides of Hickory Corner Road, looking northwest from near One Mile Rd South (Elks driveway).



Missing sidewalk connection from Hickory Corner branch library to Brookwood Gardens apartments.



Missing sidewalk connection south side of Hickory Corner Rd opposite Brookwood Gardens apartments.



Missing sidewalk connection south side of Hickory Corner Rd west of Knollwood intersection.

## Intersections



Hickory Corner Rd (behind and ahead) at Oak Creek Rd (left and right), high visibility crosswalks on 2 sides.



Hickory Corner Road at Knollwood (left).



Hickory Corner Rd at One Mile Rd South (entrance to Windsor Woods development), with high visibility crosswalk.