

McKinley Avenue Campus Schools:

**R.L. Meinders Primary Learning Center
McKinley Avenue Elementary School
Stafford Intermediate School**



**Stafford Township, NJ
School Travel Plan
September 2020**

Prepared by Greater Mercer TMA



**NEW JERSEY
Safe Routes to School**



**GREATER
MERCER**
Discover Greener Paths



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Introduction

Stafford Township is located in Ocean County, NJ, and covers an area of nearly 55 square miles. It is the gateway to the Long Beach Island (LBI) resort communities. State Route 72 traverses Stafford Township and leads to the Manahawkin Bay Bridge. This bridge crosses Barnegat Bay and is the only connection between LBI and the mainland. The Garden State Parkway also crosses through Stafford Township, with Exit 63 connecting to State Route 72. There are two major 4-lane, high speed highways and one US Highway going through Stafford Township. These major highways have separated the residential communities of Stafford Township into distinct sections, and connecting from one residential section to another on foot or by bike is often challenging and sometimes dangerous.

According to the 2010 Census, Stafford Township had 26,535 residents. Manahawkin is the largest community within Stafford Township, with a population of approximately 2,400. Main Street in Manahawkin is US Route 9.

The township’s population really began to grow in the 1980s, when several new developments including, Colony Lakes, an expansion of Beach Haven West, and a transition for Ocean Acres, that went from being a summer homes community into a development of year-round single-family homes.

At the intersection of Main Street/US Route 9 and State Route 72 is the A. Paul King County Park, adjacent to Manahawkin Lake with a small swimming beach, a playground, fishing facilities, and a picnic pavilion. The park hosts numerous town events and festivals throughout the year. Also within the township is the 1,642-acre Manahawkin Wildlife Management Area, and the Edwin B. Forsyth National Wildlife Refuge area.

The Stafford Township School District had a total of 2,242 students enrolled in grades Pre-K through sixth grade for the 2018-19 school year. It is part of New Jersey’s Interdistrict Public School Choice

program, therefore students may be enrolled in Stafford Township schools without being residents of the township.

The schools and facility at the McKinley Avenue campus, with over two-thirds of the enrollment of the district, are:

Ronald L. Meinders Primary Learning Center,
McKinley Avenue Elementary School,
Stafford Intermediate School, and the
Stafford Township Arts Center (“STAC,” a shared school district and community facility)

Greater Mercer Transportation Management Association (TMA), a private transportation non-profit, was able to assess the current pedestrian and cyclist facilities, and propose improvements to increase both safe pedestrian and bicycle access and green commutation to the Primary Learning Center, McKinley Elementary, and Stafford Intermediated Schools.

This school travel plan identifies background and context about the McKinley Avenue school campus, observed pedestrian, cyclist, and traffic conditions, some recommended improvements, and an estimated timeline/cost breakdown.

Goals

Using the “Six E’s” of Safe Routes to School (Evaluation, Engineering, Education, Encouragement, Enforcement, Equity), Stafford Township and its school district would like to increase the number of bicycle riders and walkers at these schools.

McKinley Avenue Schools Descriptions

Picture 1: Intermediate School Entrance



This picture shows the Stafford Intermediate School driveway and parent drop-off area, adjacent to the entrance to the STAC.

The address for all three schools, Ronald L. Meinders Primary Learning Center (PLC), McKinley Avenue Elementary School, and Stafford Intermediate School, is 1000 McKinley Avenue, Manahawkin, New Jersey.

According to the Stafford Township School District Handbook 2018-19 and NJDOE statistics for the 2018-19 school year:

| | <u>Enrollment</u> | <u>Grade</u> |
|--------------------------|---------------------|-----------------------|
| Primary Learning Center | <u>279 students</u> | Kindergarten |
| McKinley Ave. Elementary | 259 students | 3 rd grade |
| | 310 students | 4 th grade |
| Subtotal | <u>569 students</u> | |
| Stafford Intermediate | 287 students | 5 th grade |
| | 358 students | 6 th grade |
| Subtotal | <u>645 students</u> | |
| McKinley campus total | 1,493 students | |

The **school hours** for each are as follows:

| | <u>School hours</u> | <u>Extended Day</u> | <u>Drop off</u> | <u>Pick up</u> |
|--------------------------|---------------------|------------------------------------|-----------------|-----------------|
| Primary Learning Center | 8:55am – 3:35pm | 6:30am -8:55am 3:30pm - 6:00pm | PLC main ent. | PLC main ent. |
| McKinley Ave. Elementary | 7:52am – 2:35pm | 6:30am-7:52am 2:30pm -6:00pm | PLC main ent. | McKinley dr. 23 |
| Stafford Intermediate | 7:47am – 2:30pm | 6:30am – 7:47am 2:25pm – 6:00pm | PLC main ent. | McKinley dr. 23 |

Current Safe Routes to School Programming

- 2020 “First Steps” Safe Routes to School Municipal Recognition for Stafford Township
- Safety patrol -for grades 2,4,6

Working Group

| Member Name | Organization/ Title | Role/ Responsibility | Contact Info |
|---------------------------------|--|-------------------------|---|
| Sean Meehan | Voorhees Transportation Center Project Manager | Key Partner | 848- 932-2860 smeehan@ejb.rutgers.edu |
| Jerry Foster | GMTMA Transportation Safety Educator | Key Partner | 609-452-1491 x227 jfoster@gmtma.org |
| Lisa Serieysslol | GMTMA SRTS Program Coordinator | Key Partner | 609-452-1491 x237 lserieysslol@gmtma.org |
| Matthew R. von der Hayden | Stafford- Township Administrator, and Green Team Advisory Comm. Secretary | Key Partner | 609-597-1000 x 8516 mvonderhayden@staffordnj.gov |
| Frank Little | Township Engineer | Key Partner | 732-267-2788 flittle@owenlittle.com |
| George Chidiac | Stafford Township School District Superintendent | School Partner | 609-978-5700 x1001 gchidiac@staffordschools.org |
| Lourdes LaGuardia | Stafford Township School District School Business Administrator | School Partner | 609-978-5700 x 1032 llaguardia@staffordschools.org |
| Linda Morris | Stafford Township School District Transportation Coordinator | School Partner | 609-978-5700 x 1062 lmorris@staffordschools.org |

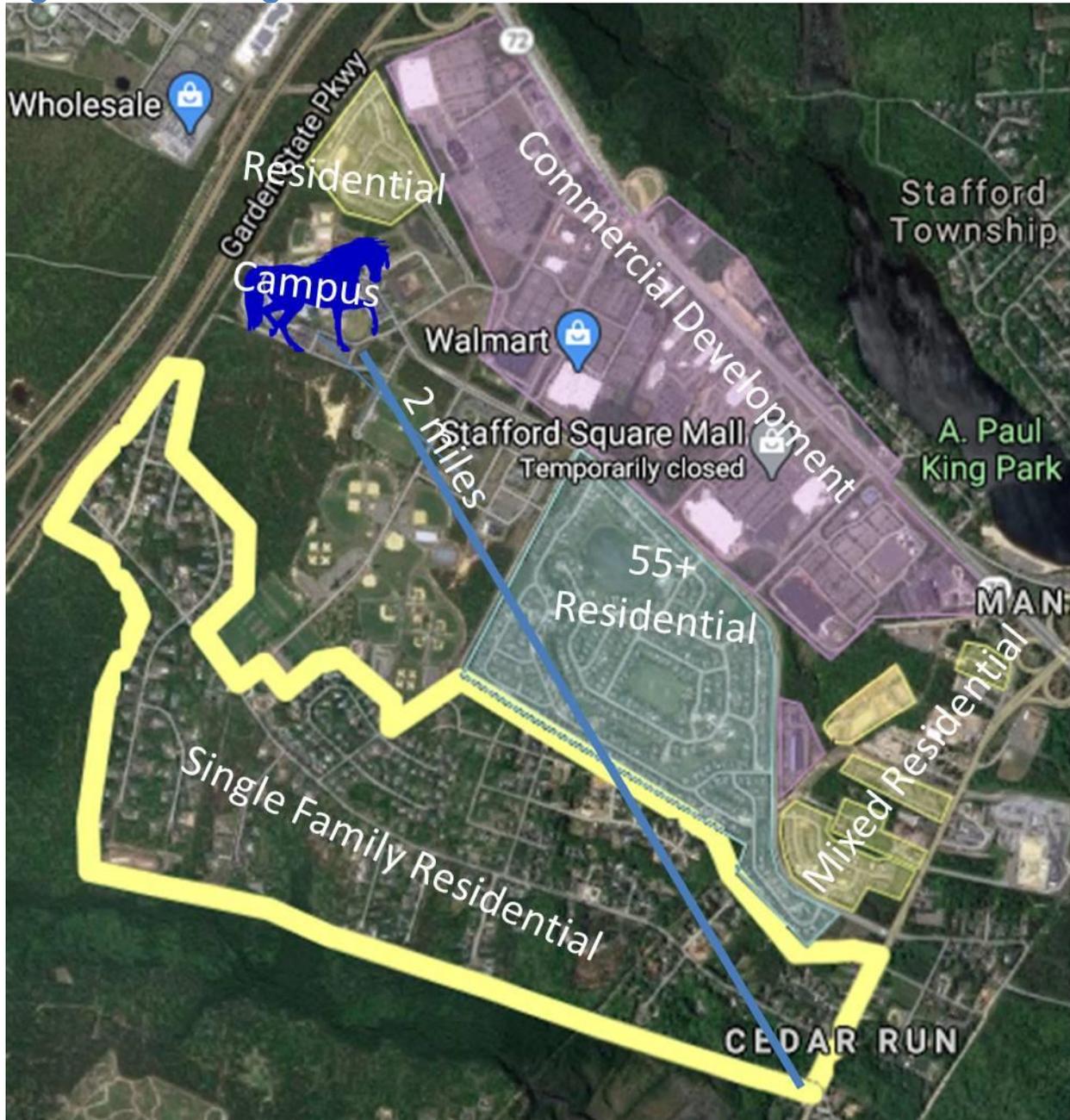
Partnerships

- Stafford Township School District
- Township of Stafford municipal government
- Township of Stafford Green Team Advisory Committee
- Stafford Township Police Department

Existing Conditions

Maps

Fig 1. School Neighborhood



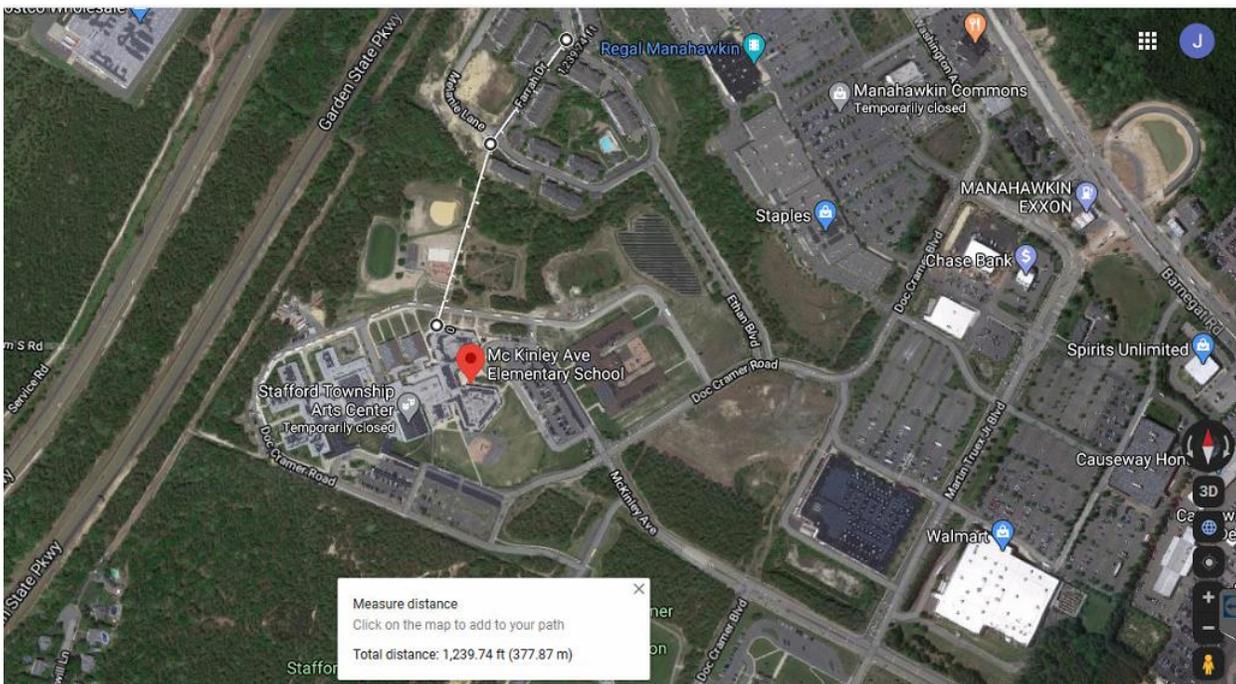
The school campus (Mustang icon) neighborhood is bounded by the Garden State Parkway to the north, Cedar Run to the south, US-9 to the east and SR 72 to the west. Students are permitted to walk or bike up to 2 miles to the campus.

Source: Google Maps

The McKinley Avenue campus (1000 McKinley Avenue, Manahawkin, New Jersey) is bordered by :

Garden State Parkway,
Landings at Manahawkin, a 55+ active adult residential area,
Manahawkin Commons shopping center with stores, restaurants, and movie theatre, accessed from State Route 72, McKinley Avenue, or Doc Cramer Road,
Stafford Township Park (53+ acres),
Doc Cramer Sports Complex, 75+ acres, and
Cedar Run residential neighborhoods, approximately 500 single-family homes and manufactured housing units, beyond the Doc Cramer Sports Complex

Fig 2. School and Community Performing Arts Campus



The campus contains 3 schools and a community arts center, bordered by playgrounds and parks, the Garden State Parkway, and a commercial district to the east. One residential development, the Landings at Manahawkin, is directly across the playground.

Source: Google Maps

Crossing Guard

Within the 2-mile distance to the McKinley Avenue schools there is one crossing guard located at the intersection of McKinley Avenue and Doc Cramer Blvd, the entrance and exit to the McKinley Avenue campus, according to Stafford Township Police.

However the Stafford Township Schools website indicates that there is no crossing guard at the entrance to the McKinley Avenue schools.

Arrival/Parking/Dismissal

McKinley Avenue Elementary and Stafford Intermediate Schools

Each school day between 7:30am and 7:50am about 1,200 students in grades 3rd through 6th arrive at the McKinley Avenue at campus. An additional 28 kindergarten students attend the Primary Learning Center, and they arrive at approximately 8:45am.

According to Principal Margaret Hoffman of McKinley Ave Elementary School, "...during the 2019-20 school year traffic backed up at the 4-way stop sign (McKinley Avenue & Doc Cramer Road), starting at approximately 7:40am as parents (who were dropping off students) from both McKinley and Intermediate began to line up for the driveway loops in front of both schools."

Within the nearly 1,200, about 570 students attend McKinley Ave Elementary School in 3rd and 4th grades. According to the principal during the 2019-20 school year, "approximately 500 students rode the bus, 40-60 students traveled to and from school via car, no students walked, and 1-2 students rode a bike to school only a few days in the early fall and late spring....those students live within a mile radius."

From the Stafford Schools website, Stafford Intermediate and McKinley Ave Elementary parents are reminded that the front loop is a single lane in the mornings, and are asked to be patient, wait their turn in the line-up, and not to attempt to pass another vehicle. For safety students are asked to exit the car from the passenger side only. <https://www.staffordschools.org/Page/1553>

Dismissal for 3rd through 6th grades (approx. 1,200 children) occurs at 2:30-2:35pm, with an estimated 28 school buses staged for pick up.

According to Principal Hoffman, "...dismissal is less hectic (traffic-wise) because we have many parents who start arriving about 45 minutes before school ends.

There are many before- and after-school enrichment programs offered, as well as an Extended Day child care program. All morning Extended Day sessions meet at Primary Learning Center. The hours offered are 6:30am until the start of school, when participating students are walked to their schools with supervision. Extended Day after-school program ends at 6:00pm.

Student Pick-up:

For pick-up parents are encouraged not to pick up their children from 2:00pm until 2:35pm, and utilization of the bus transportation is encouraged.

Ronald L Meinders Primary Learning Center:

Kindergarten children arrive at approximately 8:45-8:55am.

From the PLC website: "Important Pick Up Procedure: For safety purposes, parents are advised to not pick up their child(ren) between the hours of 3:15 pm and 3:35 pm unless it is for an emergency only. Parents are encouraged to utilize school bus transportation."

February 10, 2020 Walkability Audit

To gather ground-level observations, representatives from Greater Mercer TMA and Stafford Township School District (Superintendent, Transportation Services, and Facilities), and Stafford Township Administrator walked the perimeter of the McKinley Avenue school campus.

Photographs taken on the audit appear in this report under the section, "Recommended Infrastructure Improvements."

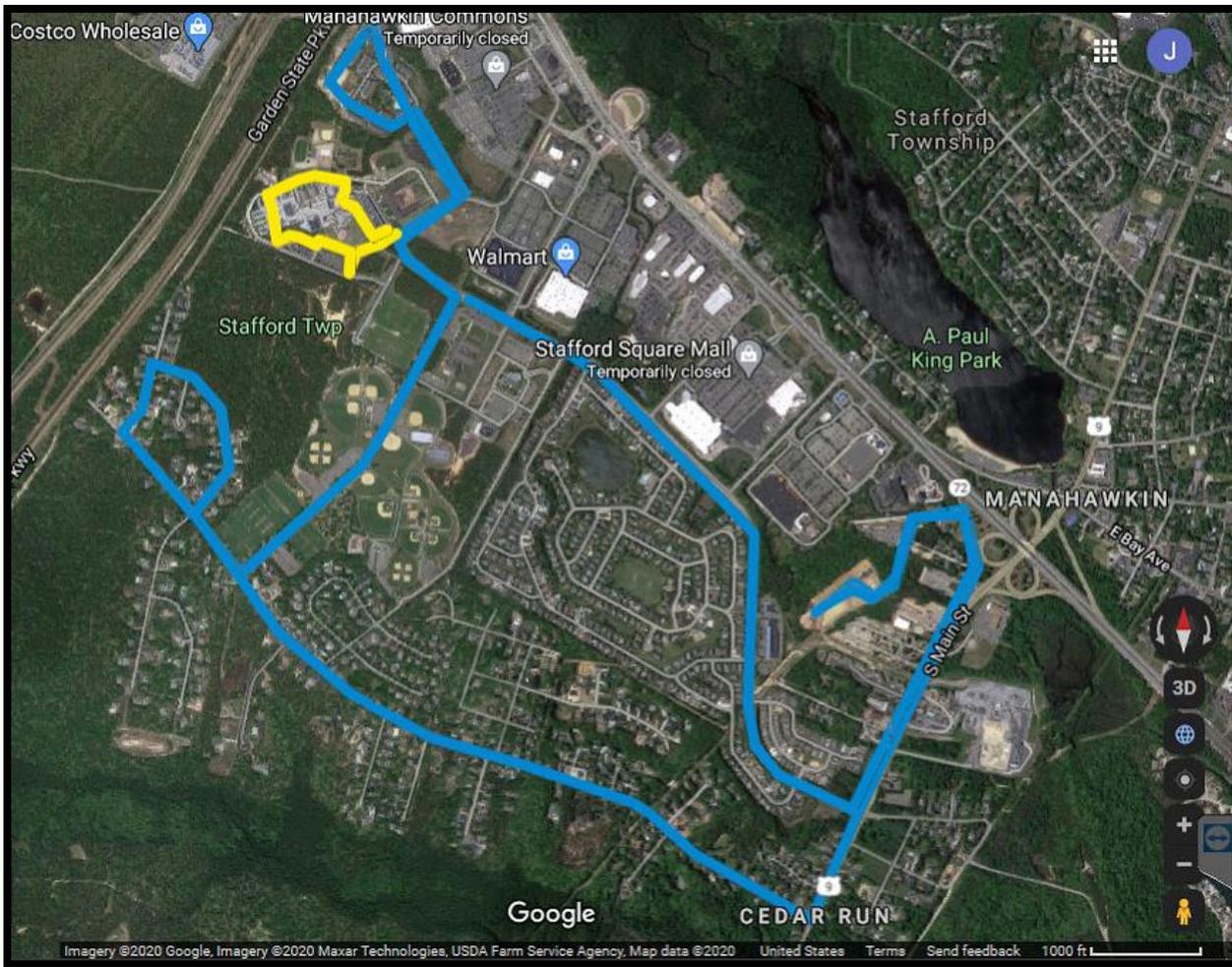
Due to the scale of the district's sending area we drove to nearby neighborhoods to survey walking and biking conditions. See Fig. 3 below.

The entrance/exit drive for McKinley Avenue Schools campus is at the intersection of McKinley Avenue and Doc Cramer Road. Each road near the approach to McKinley Avenue campus has a posted speed limit of 25 mph.

Also located on the campus is the Stafford Township Arts Center (STAC), a state-of-the-art performing arts venue with a seating capacity of 808. Its primary purpose is to serve as a school auditorium for the Stafford Township School District schools and their events. Throughout the calendar year the Stafford Township Board of Education opens the STAC for government and community use (magic shows, dance performances, musical theatre, comedy acts).

The Doc Cramer Sports Complex consists of fields for baseball, softball, football, and soccer, a hockey rink, and tennis courts. Any infrastructure modifications that would increase the walkability and bikeability to the Doc Cramer Sports Complex would have a significant effect on its overall accessibility for the community, due to the number of school-age students who use these facilities.

Fig 3. Walkability Audit Route



The yellow area shows the walking audit route, the blue shows the area toured by automobile.

Source: Google Maps

Walk/ Bike Barriers and Opportunities

The entrance to the McKinley Avenue campus is at the intersection of McKinley Avenue and Doc Cramer Boulevard. While the catchment area covers all of Stafford Township, the residential area to the south and east of the campus, known as Cedar Run, provides the safest potential routes to walk or bike to the McKinley Avenue schools.



On McKinley Avenue, at approximately 300 feet before the intersection with Doc Cramer Blvd, the speed limit is posted as "School Speed Limit 25 mph When Children Are Present." Another sign at approximately 500 feet prior to the intersection reads, "Speed Limit Strictly Enforced."



Doc Cramer Boulevard/Road, begins at Washington Avenue, and via Roosevelt Blvd, connects to State Route 72. At the beginning of Doc Cramer Blvd, within the area of the shopping centers to the left and right, there is one sign, “Speed Limit 25 mph.” This is about one-third mile from the entrance to the McKinley Avenue campus. The road changes name to Doc Cramer Road. There is no “Slow School Zone” sign or pavement marking on Doc Cramer Road on the approach to the McKinley Avenue schools campus.



In the Landings at Manahawkin residential area, from the intersection of Melanie Lane and Farrah Drive, there is access to a path into woods and a crossing over a small stream, leading to the baseball field, basketball court, running track, and playground of the schools of the McKinley Avenue campus.

Stocum S. Road This 1000-foot portion of Stocum Road runs between the Stafford Township Park, the Doc Cramer Disc Golf Course (DGC), and the Doc Cramer Park Expansion and Southern Youth Football fields.

From the point where Stocum S. Road intersects Doc Cramer Road, which encircles the McKinley Avenue campus, there are sidepaths through the Doc Cramer Sports Complex and along the northern/western side of Doc Cramer Boulevard for 0.6 miles, though the sidepath stops just under 0.1 mile to Oak Avenue (property owned by Stafford Township). There are painted crosswalks at the entrances/exits to the parking lots of the sports complex. Along Oak Avenue and its neighboring streets to the east, west and south there are over 200 single family homes.

Oak Avenue at US Route 9 is a distance of 2 miles from the McKinley Avenue campus. The speed limit at the beginning of Oak Avenue is 25 mph. There are sidewalks sporadically, on the north side of the street, and there is no shoulder in either direction.

McKinley Avenue is an alternate route from Oak Avenue and US Rt 9 to the McKinley Avenue campus. From Oak Avenue one would travel north on US Route 9 for 0.2 miles to McKinley Avenue, however sidewalks are again sporadic and the posted speed limit on that portion of US Rt 9 is 45 mph. At McKinley Avenue there is a sidewalk on the south side of the road. McKinley Avenue at US Rt 9 is a four-lane road with a speed limit of 45 mph.

Within 400 feet of the McKinley Avenue and US Route 9 intersection there are sidewalks on both sides of McKinley Avenue. At the intersection of Paul Farms Road is Pine Crest Village, an all-ages manufactured housing community, with 75 affordable 2-bedroom and 3-bedroom homes. Along McKinley Avenue there are no marked crosswalks or stop lines at Pine Grove Avenue or at either end of Oak Ridge Lane, and no marked crosswalks at either access to McKinley Plaza. At the intersections with Martin Truex Jr. Blvd, Captain Randolph Blvd, and General Grier Drive the crosswalk pavement markings appear to be badly faded.

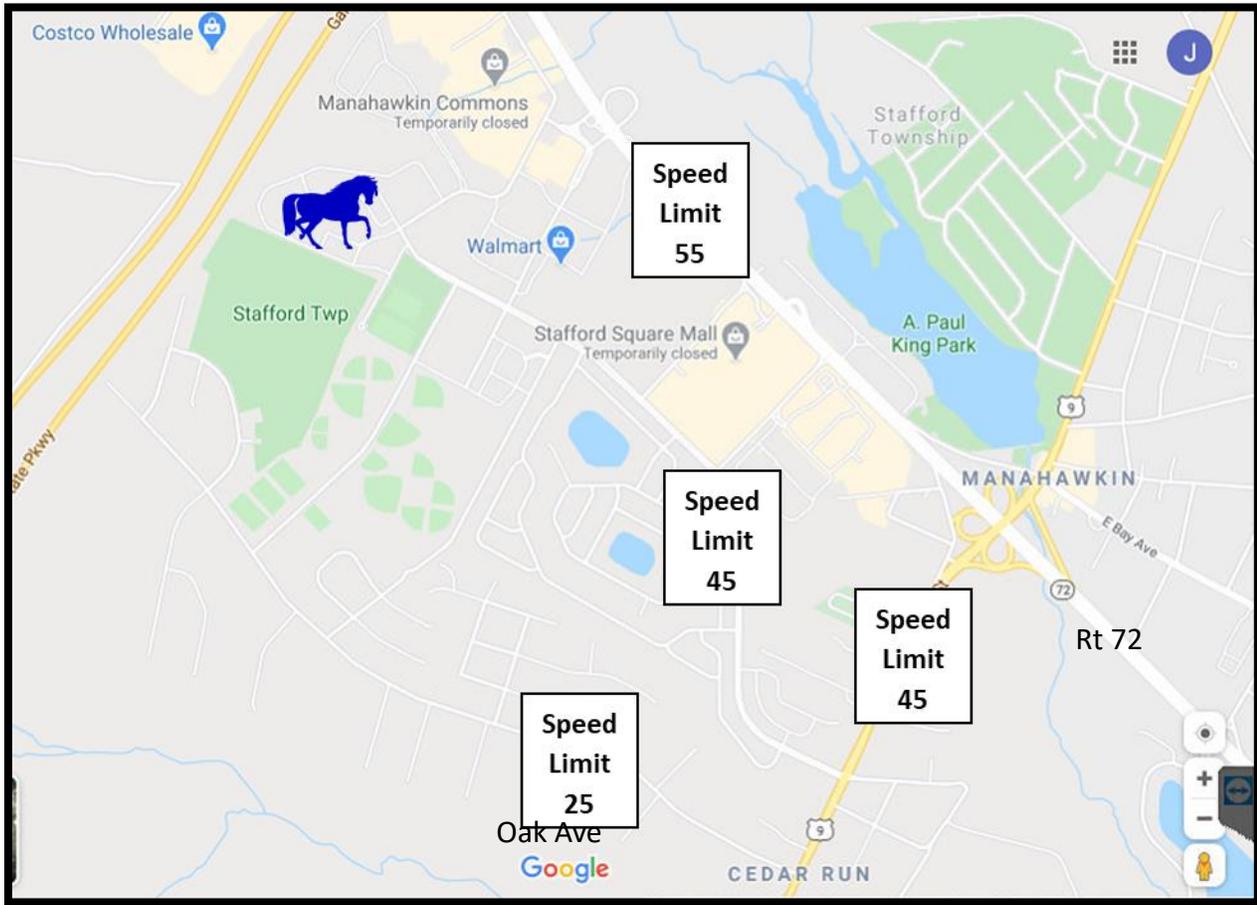
There is a sign, “School- Speed Limit 25 mph When Children are Present,“ near the intersection with Bishop Avenue, where McKinley Avenue remains a four-lane road, with a painted median. From that intersection heading toward Doc Cramer Road the road width begins to narrow, first with a grass median, then a painted one, and gradually becomes a two-lane road with wide shoulders.

Within the Cedar Run area and within the two-mile radius to McKinley Avenue campus there is Cornerstone at Grassy Hollow, located at 200 Back Road. There are 60 newly built 100% affordable family one-, two-, and three-bedroom rentals, with an additional 34 units under construction. Residents of Cornerstone can access McKinley Avenue and McKinley Plaza via the proposed Power Line Trail & connectors (see page 28).

Beyond the scope of School Travel Plans: State Route 72 presents pedestrians and the bicyclists with the most dangerous conditions and is the site of the most frequent and the most severe crashes (Fig. 5). Safe biking and walking facilities should be prioritized along this corridor.

Finally, the **Garden State Parkway** presents the single largest barrier to biking and walking connectivity in the Township. A bike and pedestrian connection across the Garden State Parkway may be implemented between Stafford Park Shopping Mall on the west side to Manahawkin Commons Shopping Mall on the east side, like the overpass at the Brick Park and Ride Commuter Parking Lot near Burnt Tavern Road. This would improve connectivity between the most densely populated neighborhoods of the Township with the largest school population at the McKinley Schools campus.

Fig 4. Area Speed Limits



Source: Google Maps

The schools campus is approached by McKinley Ave, posted 45mph speed limit or by Doc Cramer Road, posted speed limit 25 mph. All other area roads are 25mph until you get to the arterials, Rt 9 and Rt 72, also high speed roads.

Travel Tallies

Not available at time of reporting. To be conducted at a later date. Travel Tallies were not collected prior to the pandemic and if collected during the pandemic would not provide valid baseline data.

Table 1. Travel Tallies

School Policies

Transportation

From Stafford Township Transportation Coordinator, Mrs. Linda Morris: "Your Precious Cargo Rests in Our Capable Hands: That's the motto of the Transportation Department here in Stafford Township. Concern for safety and security are the two most prominent attributes of our staff. Our professional staff of 41 school bus drivers, attendants, mechanics, and secretaries team up to provide the safest, efficient, and most economical home-school transportation to over 2400 resident students in 31 vehicles traveling over 500,000 miles per year."

A list of Hazardous Roadways and those streets where students are not to cross in order to board or disembark from a school bus, can be found below. None of the streets listed are located in Cedar Run.

- ✓ No students are to cross the following streets:
 - Bay Avenue
 - Breakers Drive
 - Cedar Bridge Road, both in Warren Grove and Manahawkin.
 - Hilliard Blvd.
 - Lighthouse Drive
 - Mermaid Drive (Points south of the Mermaid/Breakers intersection). Students may cross if their bus stop is at or north of the Mermaid/Breakers Intersection.
 - Millcreek Road
 - Nautilus Drive
 - Neptune Drive
 - Route 539
 - Route 9
 - Route 72

Bus Rules and Regulations

From the Stafford Township School District Handbook 2018-19, page 28,

"Our [school bus] drivers have the tremendous responsibility of transporting 2,500 students daily. The... Bus Rules Handbook is sent home with students on the first day of school...It is extremely important for parents and students to know and adhere to the handbook's rules and regulations.

To avoid dangerous situations and accidents, students must follow bus safety rules and procedures. Parents should review their school's specific bus rules and procedures with their children. Then, make sure the children understand these general bus safety principles...."

Stafford Township Schools are part of the State Department of Education's Interdistrict Public School Choice Program. A student enrolled through the Choice program, who lives within 20 miles of the schools, is eligible for transportation.

Bike or Walk to School policy

From the Stafford Township School District website, staffordschools.org, Resources for Parents/Guardians, there is a student permission form for Bikers and Walkers, dated 2018:

“...The Stafford Township Board of Education will permit the use of bicycles and walking to and from school by pupils in grades three through six only within a two-mile radius of pupil’s home and school ...”

[Student Permission Form for Bikers and Walkers](#)

From the Stafford Township School District Handbook 2018-19, page 28, “Safety and Security -Bikers and Walkers:

“...For students living close enough to the school to ride their bikes (in grades five and six) or walk, the following conditions must be adhered to:

1. A written permission statement from the parent/guardian must be submitted to the school’s Principal (link below)
2. Bikers must wear required safety equipment and follow all rules set forth in Board of Education Regulation –Student Use of Vehicles on School Grounds.*
3. Students are expected to arrive at school on time. Lateness may result in suspension of this privilege.
4. Students will wait until all buses have left before they are dismissed.
5. Any witnessed reports of unsafe riding may result in loss of privilege.”

Also skateboards, scooters, and other vehicles that do not meet the definition of a bicycle are not permitted.

*Regulation#5514 :

[Student Use of Vehicles on School Grounds](#)

Safety Patrol

For students in grades 2, 4, and 6:

Stafford Township Board of Education Policy #5860: [Safety Patrol Policy](#)

From the Principal of McKinley Avenue Elementary School :

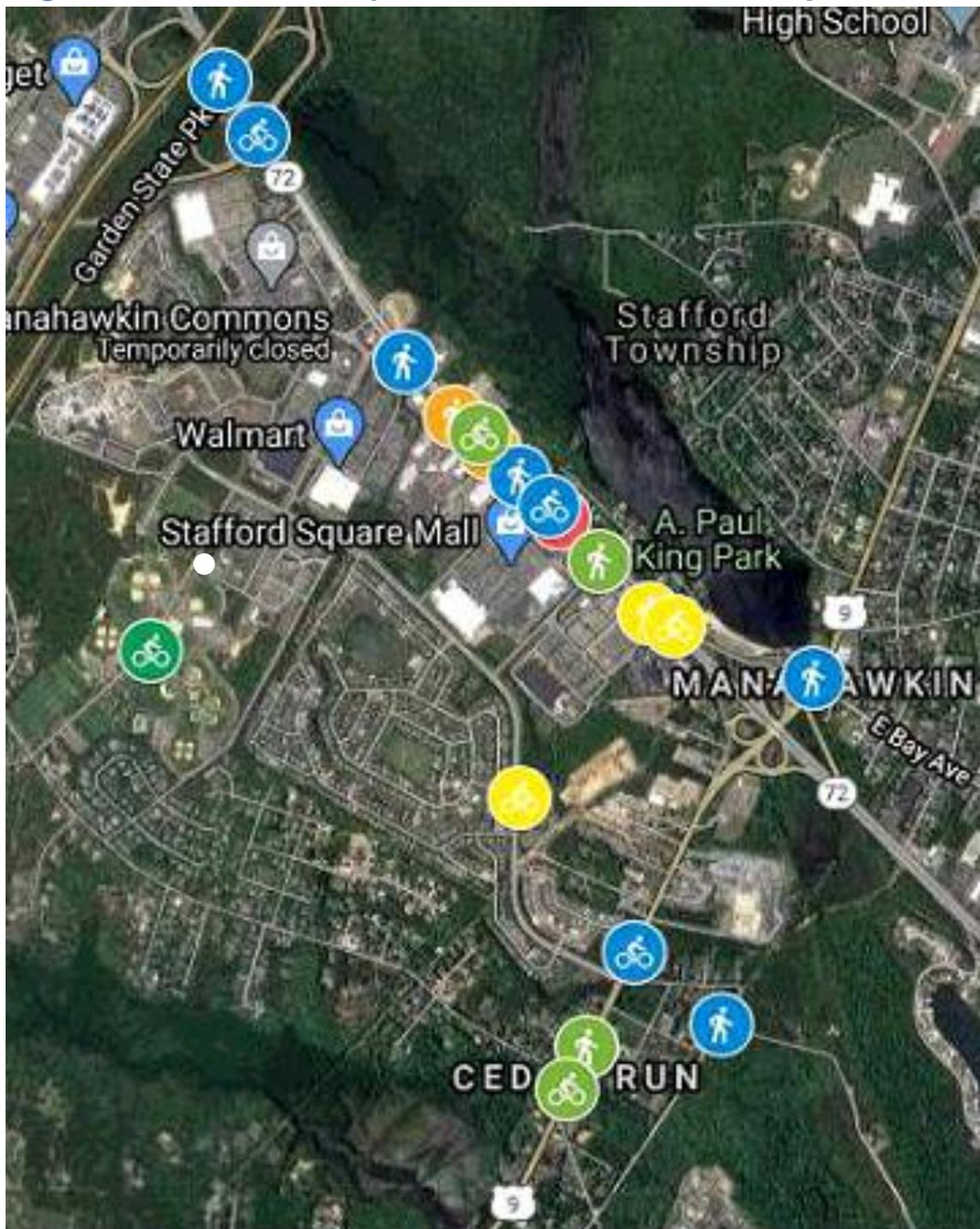
“Safety patrol students were trained by a staff member who uses his experience with peer mediation---- approximately 24 fourth grade students are involved in the program---those students are stationed in the hallways and along the sidewalks leading to the buses to encourage students to exit the building in a safe manner----safety patrol have also been used in the spring to take incoming 3rd graders on a mini tour of the building with their 2nd grade classes.

Safe Routes to School-Disabled Student Inclusion

- Maintenance of existing ADA-compliant pads and installation of additional 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 students with disabilities.

Crash Data

Fig. 5 Pedestrian and Cyclist Crash Data 2006-2016 (source – Numetric)



Red= Fatality, Orange=Serious Injury, Yellow= Moderate Injury, Blue= Pain, Green=No apparent injury 2006-2016.

Source: NJDHTS

A full list of Stafford Twp cyclist and pedestrian crashes from 2006-2016 is listed in Appendix A.

Identification of Problem Areas

Please see Figure 3 for the route map of the perimeter walk audit conducted at schools of the McKinley Avenue campus on February 10, 2020. In addition to the walk audit, we conducted a survey by car of surrounding neighborhoods, in order to get a better understanding of the local areas, and to identify improvements for future walking and biking to schools at McKinley Avenue campus.

Parent and administrative input and conversation would provide valuable input in determining priority areas.

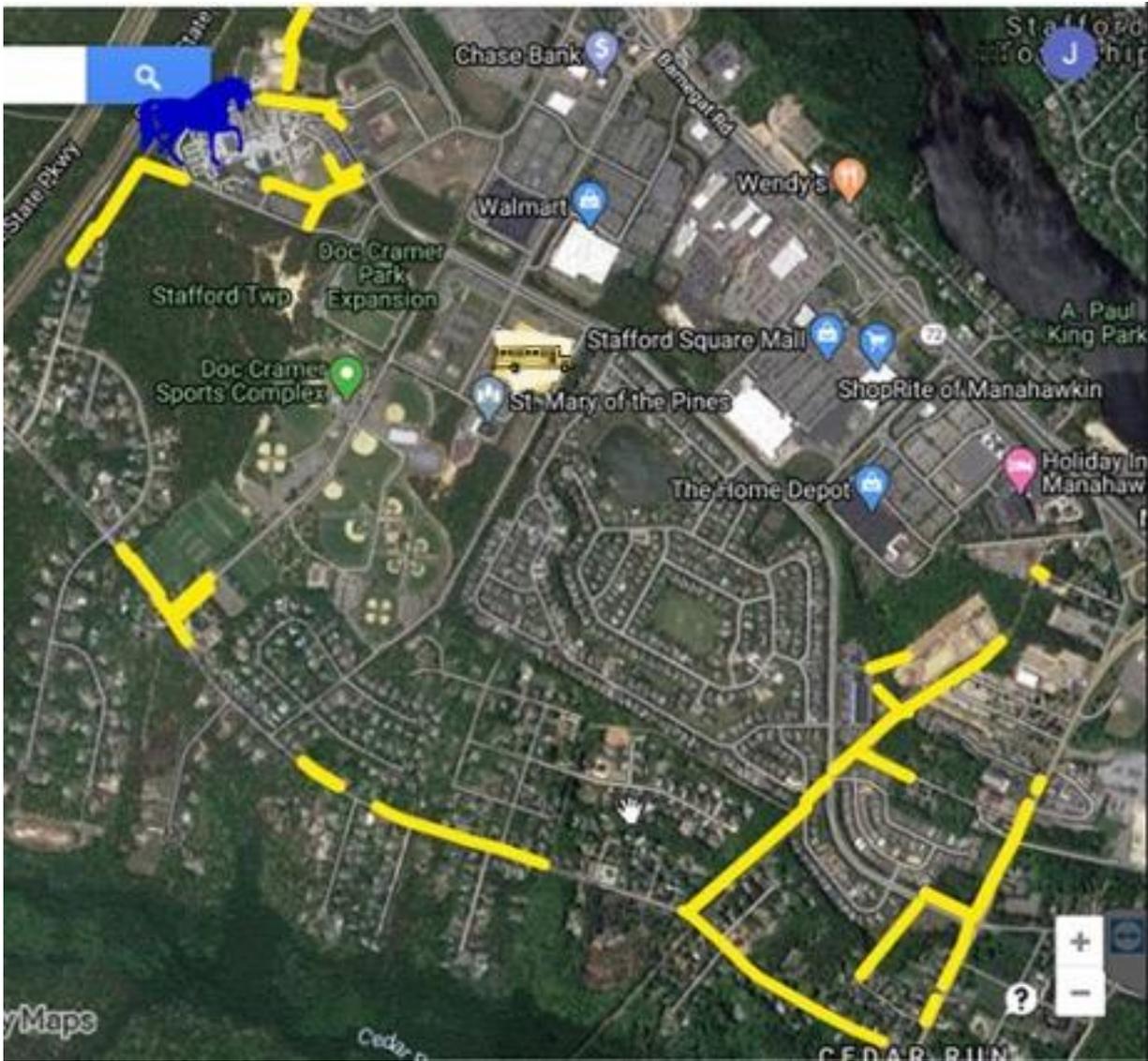
Recommended Infrastructure Improvements

In general:

- Greater Mercer TMA would like to see more students walk or bike to school. This could be achieved through street improvements that increase safety.
- Road and lane widths are wide which encourage speeding; therefore traffic-calming measures should be prioritized.
- Host Walk and Bike to School events and work on Safe Routes to School Recognition.

The following pages contain infrastructure recommendations. Photographs of current conditions precede a description of suggested improvements.

Fig. 6 Infrastructure Improvements Overview

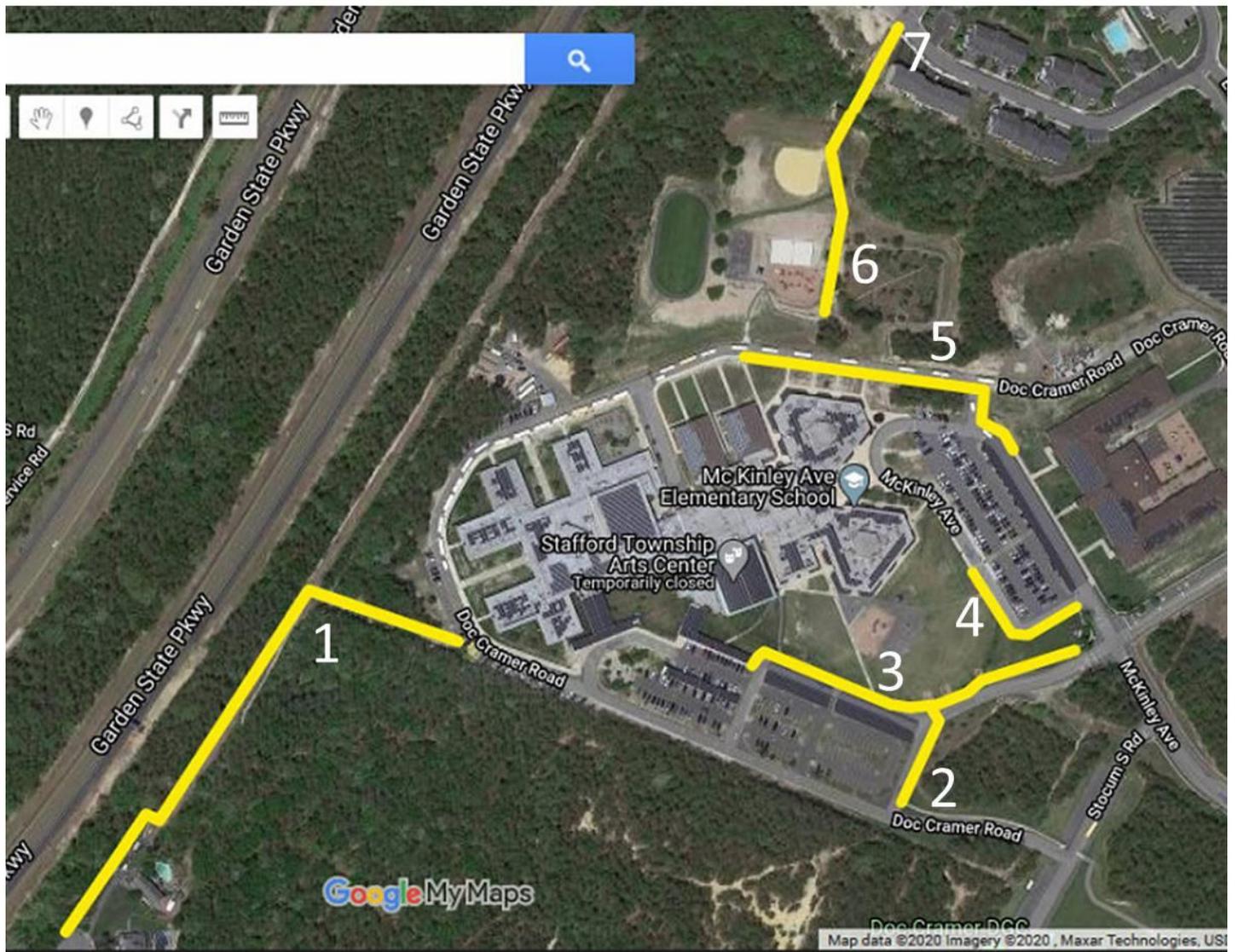


Source: Google Map-

Improvements (yellow) are described separately for those around and within the school campus area (blue mustang icon), and those in the surrounding neighborhood walking area including St. Mary of the Pines School (school bus icon), bounded by the GSP, SR 72, Rt 9 and Oak Ave.

Proposed School Campus Area Improvements

Fig. 7 Overview of McKinley Campus Area Proposed Improvements



Source: Google Maps

Proposed walking improvements include direct access to the Landings at Manahawkin residential development (7), through the playground (6), as well as to the homes on Whippoorwill Lane and neighboring streets (1), which are otherwise close to school but without a more direct route. Internal campus improvements allow access from the campus entrance (3 and 4) and from Doc Cramer Road (2) to the schools without having to walk in the road.



Proposed improvements (2 on map) would extend the sidewalk to the right to connect to the campus entrance. ADA-compliant truncated dome pads would be added to curb cuts.



Another proposed sidewalk (3 on map) would connect the campus entrance to the STAC performing arts center and the Intermediate School. ADA-compliant truncated dome pads would be incorporated into curb cuts.



A sidewalk (5 on map) along the back driveway would improve walking between schools, as well as connect the playground and further to the Landings at Manahawkin, see next picture.



A sidewalk (also 5 on map) from the back of the McKinley Ave Elementary School to the PLC Kindergarten would enable walking throughout the campus.



Extending the sidewalk (4 on map) from the elementary school to the campus entrance would avoid crossing through the multiple aisles of parking. ADA-compliant truncated dome pads would be incorporated into curb cuts.



The picture above shows the playground looking toward The Landings at Manahawkin (6 on map).



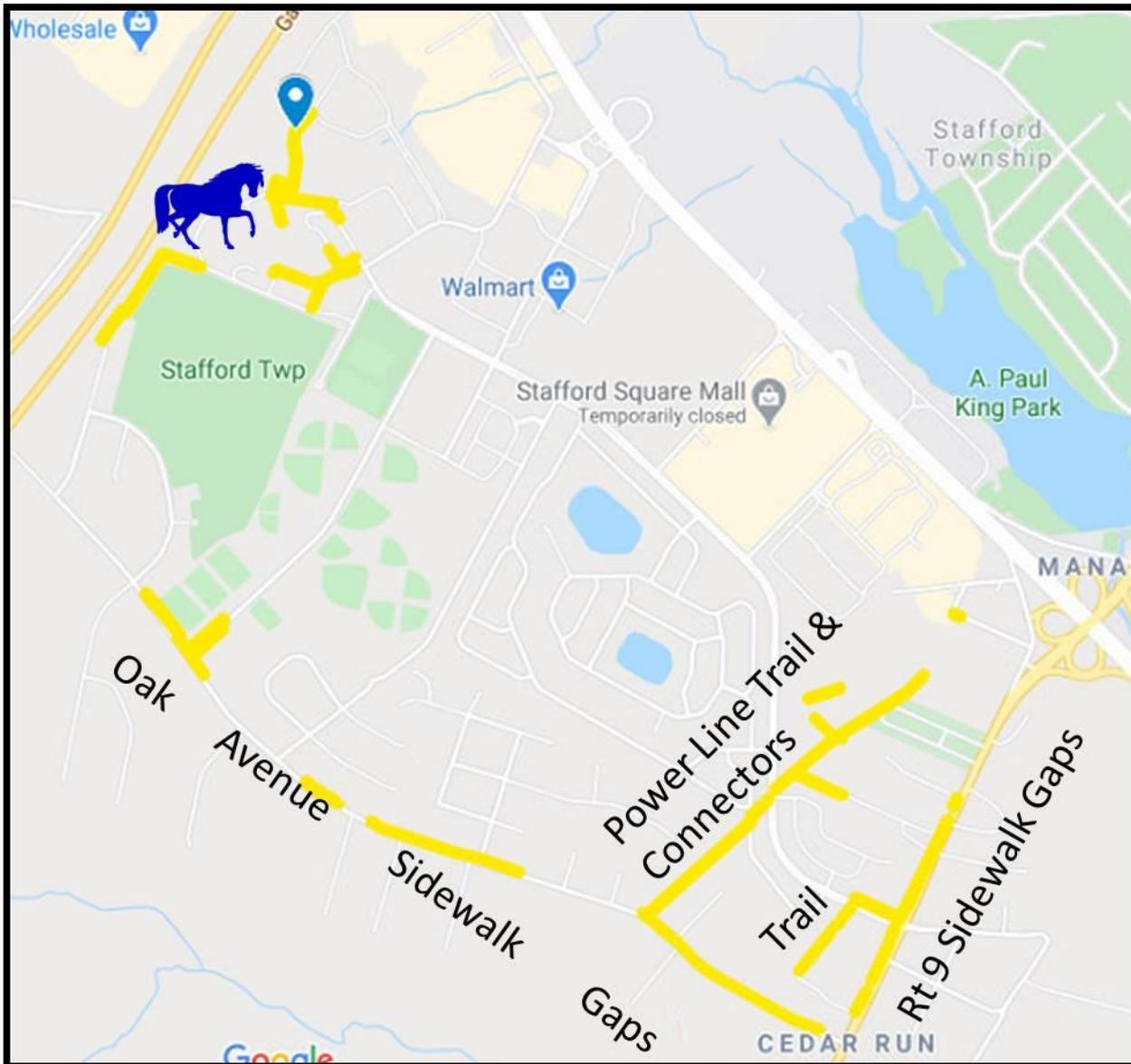
The picture above (6 on map) is from the gate at the Landings at Manahawkin looking toward the playground – a sidewalk addition would be the responsibility of the developer, see below from the street to the gate (7 on map).



Proposed Neighborhood Improvements

Proposed neighborhood improvements include filling in sidewalk gaps on Oak Avenue, Doc Cramer Blvd, McKinley Avenue and Route 9. Trails are proposed along the powerline to connect Oak Avenue to Cornerstone at Grassy Hollow, the new affordable housing development on Back Road, and connectors from Lange Drive, Bolton Lane, Cedar Run Apartments and the McKinley Plaza commercial development. A trail might also connect Cedar Hill Drive to McKinley Ave.

Fig. 8 Proposed Neighborhood Improvements



Source: Google Maps



Rt 9 sidewalk gaps - note the “goat path” along Rt 9 to McKinley Ave, to be filled with sidewalks.



Oak Ave sidewalk gaps at Doc Cramer Blvd

Goals and Actions:

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 shorter time frame and can be accomplished with the help of local partners. This “low-hanging fruit” can be prioritized for greater impact in a shorter period of time. However, traffic calming measures are key items to address allowing students more time to cross and greater visibility (larger driver field of vision at slow speeds).

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 2020 by NV5 to support the grant application process.¹

| Engineering | | | |
|-------------|----------------|------------|----------------|
| Action | Responsibility | Time Frame | Cost Estimates |
| | | | |

¹ <https://www.saferoutesnj.org/wp-content/uploads/2020/08/2020-Design-Treatment-Typical-Costs.pdf>

| | | | |
|--|------------------------|-------------|-------------------------------------|
| “Slow School Zone” improve signage and add pavement markings | Township | Short term | \$1,122 ea. |
| Campus internal sidewalk or path additions | School Board | Medium Term | \$60/ft * 2257 ft = \$135,420 |
| ADA truncated domes at multiple sidewalk junctions within campus | School Board | Short Term | \$250 ea. |
| Pedestrian crosswalk and stop line to be painted on Pine Grove Avenue at McKinley Avenue | Township | Short Term | \$1,656 |
| (2) Pedestrian crosswalks and (2) stop lines to be painted on Oak Ridge Lane at both intersections with McKinley Ave. | Township | Short Term | \$2,610 |
| (2) Pedestrian crosswalks to be painted and (2) stop lines to be refreshed at the entrances/exits to McKinley Plaza shopping center on McKinley Avenue | Township | Short Term | \$1,733 |
| Pedestrian crosswalk paint needs refreshing at McKinley Ave and Martin Truex Jr. Blvd | Township | Short Term | \$4,793 |
| Pedestrian crosswalk paint needs refreshing at McKinley Ave and Captain Randolph Blvd | Township | Short Term | \$4,320 |
| Pedestrian crosswalk paint needs refreshing at McKinley Ave and General Grier Drive | Township | Short Term | \$4,240 |
| Landings at Manahawkin to playground –sidewalk | Landings at Manahawkin | Short Term | \$60/ft * 200 ft = \$12,000 |
| Whippoorwill Ln to McKinley Ave campus -stone path | Township | Medium Term | \$60/ft * 1181 ft = \$70,860 |
| Oak Avenue and Doc Cramer Blvd - asphalt path additions | Township | Medium Term | \$95/ft * 1483 ft = \$140,885 |
| Oak Avenue sidewalks | Township | Medium Term | \$60/ft * 3268 ft = \$196,080 |
| Rt 9 sidewalks | Township | Medium Term | \$60/ft * 1589 ft = |

| | | | |
|---|----------|-------------|-------------------------------|
| | | | \$95,340 |
| McKinley Avenue sidewalks | Township | Medium Term | \$60/ft * 367 ft = \$22,020 |
| Back Rd – McKinley – Oak Trail and connectors (Atlantic City Electric) – stone dust | Township | Long Term | \$60/ft * 3870 ft = \$232,200 |
| Cedar Run – McKinley Trail – stone dust | Township | Long Term | \$60/ft * 650ft = \$39,000 |

| 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, PTOs | 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, PTOs, GMTMA, Community Groups | Ongoing | Low |
| Conduct student and parent surveys to see what actions and rewards could encourage them to walk to school more – and feel safer walking to school. | School, PTOs, GMTMA | Short Term | Low |
| Conduct Street Smart safety campaigns. | Police, GMTMA, Township | Ongoing | Low / Medium |

| 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 |
| Add more crossing guards to improve the safety of walking or biking to school | Police | Ongoing | Low / Medium |
| Enforce motorist compliance with crossing guard instructions | Police | Ongoing | Low / Medium |
| Enforce parking laws | Police | Ongoing | Low / Medium |

| Evaluation | | | |
|--|-----------------------|-------------------|-------------|
| Action | Responsibility | Time Frame | Cost |
| Conduct student travel tallies on annual basis | School | Annual | Low |

| | | | |
|---|-------------------------|------------|-----|
| Conduct bikeability audit of walking area | 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.

Evaluation

Task Force Timeline

Greater Mercer TMA will be in discussion with participating organizations about implementation progress.

Conclusions

Residential areas with students are limited in the adjacent areas of the schools campus, but biking and walking improvements within the campus will benefit all students, while proposed improvements in the surrounding neighborhood will encourage biking and walking to school, parks, and shopping.

The Covid-19 pandemic presents significant challenges to the education community, including maintaining social distance inside the buildings and when getting to and from school by bus. For those students whose parents may not feel comfortable sending their children on the bus, safe biking and walking improvements may provide acceptable social distancing as well as improved cost and convenience, compared to driving students to school. The district may want to consider encouraging biking and walking to school as an option to address this concern. While the pandemic is a rare occurrence, the duration of its impact on our way of life could be for several years. In any case it does highlight the need for resiliency planning that provides infrastructure to accommodate all modes of travel safely, including walking and biking.

Appendix A: Stafford Twp Pedestrian and Cyclist Crashes from New Jersey Department of Traffic and Highway Safety, 2006-2016

| Crash ID | Date | Crash Type | Crash Location |
|----------|--------------------|--------------|----------------------|
| 6908053 | January 11, 2006 | Pedestrian | OCEAN COUNTY 50 |
| 6908448 | March 2, 2006 | Pedestrian | GARDEN STATE PARKWAY |
| 6908054 | April 1, 2006 | Pedalcyclist | US 9 |
| 6908149 | May 16, 2006 | Pedestrian | EAST BAY AVENUE |
| 6908240 | September 23, 2006 | Pedestrian | NJ 72 |
| 6908281 | October 11, 2006 | Pedestrian | ROUTE 539 |
| 6908310 | October 27, 2006 | Pedalcyclist | NAUTILUS DRIVE |
| 7212495 | January 12, 2007 | Pedestrian | OCEAN COUNTY 50 |
| 7212497 | January 14, 2007 | Pedalcyclist | NJ 72 |
| 7212574 | March 1, 2007 | Pedestrian | NAUTILUS DR |
| 7212574 | March 1, 2007 | Pedestrian | NAUTILUS DR |
| 7212599 | March 21, 2007 | Pedestrian | NJ 72 |

| | | | |
|---------|--------------------|--------------|-----------------------------|
| 7212605 | March 24, 2007 | Pedestrian | 733 ROUTE 72 WEST |
| 7212640 | April 18, 2007 | Pedestrian | 25 ROUTE 9 SOUTH |
| 7212670 | May 5, 2007 | Pedestrian | 626 ROUTE 72 EAST |
| 7212704 | May 20, 2007 | Pedalcyclist | NJ 72 |
| 7212468 | June 28, 2007 | Pedalcyclist | NJ 72 |
| 7212813 | July 3, 2007 | Pedestrian | NAUTILUS DRIVE |
| 7212815 | July 5, 2007 | Pedestrian | 591 ROUTE 72 WEST |
| 7212816 | July 6, 2007 | Pedestrian | 297 ROUTE 72 WEST |
| 7212872 | July 27, 2007 | Pedalcyclist | NJ 72 |
| 7212960 | August 24, 2007 | Pedalcyclist | FORECASTLE ROAD |
| 7212971 | August 28, 2007 | Pedestrian | 525 ROUTE 72 WEST |
| 7212467 | October 24, 2007 | Pedestrian | US 9 |
| 7213117 | November 9, 2007 | Pedestrian | FLOAT AVENUE |
| 7213185 | December 12, 2007 | Pedestrian | NAUTILUS DRIVE |
| 7213219 | December 26, 2007 | Pedalcyclist | WEST BAY AVENUE |
| 7517727 | February 1, 2008 | Pedalcyclist | OCEAN COUNTY 50 |
| 7517913 | May 23, 2008 | Pedestrian | MILL CREEK RD |
| 7517936 | June 2, 2008 | Pedestrian | EAST BAY AVENUE |
| 7517960 | June 15, 2008 | Pedestrian | 245 STAFFORD PARK BOULEVARD |
| 7518170 | September 1, 2008 | Pedestrian | DANIELS DRIVE |
| 7518239 | October 10, 2008 | Pedestrian | OCEAN COUNTY 111 |
| 7518343 | December 12, 2008 | Pedestrian | SHOP RITE-297 ROUTE 72 WEST |
| 7818288 | January 22, 2009 | Pedestrian | 209 STAFFORD PARK BOULEVARD |
| 7818293 | January 27, 2009 | Pedestrian | EXXON-555 ROUTE 72 WEST |
| 7818306 | January 31, 2009 | Pedestrian | WALMART-525 ROUTE 72 WEST |
| 7818381 | March 26, 2009 | Pedestrian | 733 ROUTE 72 WEST |
| 7818461 | May 11, 2009 | Pedestrian | 600 ROUTE 9 NORTH-SRHS 9-10 |
| 7818483 | May 20, 2009 | Pedestrian | 1364 ROUTE 72 WEST-STAFFORD |
| 7818497 | May 25, 2009 | Pedalcyclist | NJ 72 |
| 7818556 | June 17, 2009 | Pedalcyclist | US 9 |
| 7818576 | June 26, 2009 | Pedalcyclist | MANAHAWKIN POST OFFICE 525 |
| 7818597 | July 3, 2009 | Pedalcyclist | MCKINLEY AVENUE |
| 7818625 | July 17, 2009 | Pedalcyclist | MORRIS BLVD |
| 7818628 | July 18, 2009 | Pedestrian | NJ 72 |
| 7818656 | July 30, 2009 | Pedalcyclist | MERMAID DRIVE |
| 7818673 | August 5, 2009 | Pedestrian | NJ 72 |
| 7818716 | August 18, 2009 | Pedestrian | OCEAN COUNTY 50 |
| 7818779 | September 14, 2009 | Pedalcyclist | EAST BAY AVENUE |
| 7818886 | November 9, 2009 | Pedestrian | NJ 72 |
| 7818901 | November 19, 2009 | Pedestrian | NJ 72 |
| 7818934 | December 6, 2009 | Pedalcyclist | NJ 72 |
| 3537778 | January 19, 2010 | Pedestrian | OCEAN COUNTY 105 |
| 3537781 | January 20, 2010 | Pedestrian | SPINNAKER AVENUE |
| 3537850 | February 28, 2010 | Pedalcyclist | WAWA-1400 ROUTE 72 WEST |

| | | | |
|---------|--------------------|--------------|--------------------------------|
| 3537906 | April 6, 2010 | Pedestrian | BROADWAY BOUND DANCE |
| 3537911 | April 7, 2010 | Pedestrian | EXXON-555 ROUTE 72 WEST |
| 3538031 | May 28, 2010 | Pedalcyclist | BJ'S EXIT/ENTRANCE |
| 3538140 | July 2, 2010 | Pedestrian | OCEAN COUNTY 111 |
| 3538713 | July 5, 2010 | Pedalcyclist | GARDEN STATE PARKWAY |
| 3538223 | July 29, 2010 | Pedalcyclist | OCEAN COUNTY 50 |
| 3538234 | August 1, 2010 | Pedestrian | 1504 ROUTE 72 WEST |
| 3538349 | September 5, 2010 | Pedestrian | STAFFORD SQUARE-297 ROUTE 72 |
| 3538379 | September 18, 2010 | Pedestrian | LIGHTHOUSE DR |
| 3538385 | September 20, 2010 | Pedalcyclist | ATLANTIS AVE |
| 3538439 | October 13, 2010 | Pedalcyclist | EAST BAY AVENUE |
| 3538519 | November 15, 2010 | Pedestrian | OXYCOCUS ROAD |
| 3538520 | November 15, 2010 | Pedestrian | SOUTHERN REGIONAL HS 9-10-600 |
| 3832867 | February 3, 2011 | Pedestrian | WALMART PARKING LOT-525 |
| 3833002 | April 23, 2011 | Pedestrian | OCEAN COUNTY 605 |
| 3833068 | May 26, 2011 | Pedestrian | STAFFORD PARK BOULEVARD |
| 3833094 | June 4, 2011 | Pedalcyclist | OCEAN COUNTY 50 |
| 3833098 | June 6, 2011 | Pedalcyclist | NJ 72 |
| 3833102 | June 6, 2011 | Pedalcyclist | NJ 72 |
| 3833172 | July 3, 2011 | Pedestrian | BJS WHOLESALE CLUB-321 MARTIN |
| 3833196 | July 10, 2011 | Pedalcyclist | MILL CREEK ROAD |
| 3833196 | July 10, 2011 | Pedalcyclist | MILL CREEK ROAD |
| 3833284 | August 7, 2011 | Pedestrian | SHOP RITE - 297 ROUTE 72 WEST |
| 3833606 | September 21, 2011 | Pedestrian | MERMAID DR |
| 3833407 | September 26, 2011 | Pedalcyclist | EAST BAY AVENUE |
| 4119367 | January 4, 2012 | Pedestrian | 321 MARTIN TRUEX JR BOULEVARD |
| 4119447 | February 27, 2012 | Pedestrian | RIDGEWAY AVE |
| 4119519 | March 29, 2012 | Pedestrian | NJ 72 |
| 4119540 | April 10, 2012 | Pedestrian | 245 STAFFORD PK BLVD (COSTCO |
| 4119654 | June 5, 2012 | Pedalcyclist | DOC CRAMEL BALL FIELDS-430 DOC |
| 4119656 | June 6, 2012 | Pedalcyclist | US 9 |
| 4119687 | June 15, 2012 | Pedalcyclist | 209 STAFFORD PARK BOULEVARD |
| 4119841 | July 5, 2012 | Pedestrian | 43 HONEYSUCKLE DRIVE |
| 4119890 | July 21, 2012 | Pedalcyclist | US 9 |
| 4119892 | July 22, 2012 | Pedalcyclist | STAFFORD PARK BOULEVARD |
| 4119984 | August 21, 2012 | Pedestrian | 489 NAUTILUS DRIVE |
| 4119985 | August 22, 2012 | Pedestrian | NJ 72 |
| 4120033 | September 11, 2012 | Pedestrian | 525 ROUTE 72 WEST |
| 4120104 | October 10, 2012 | Pedestrian | 309 EAST BAY AVENUE |
| 4120196 | November 17, 2012 | Pedalcyclist | US 9 |
| 4120249 | December 11, 2012 | Pedestrian | 321 MARTIN TRUEX JR BOULEVARD |
| 4120279 | December 24, 2012 | Pedestrian | 297 ROUTE 72 WEST |
| 4120286 | December 28, 2012 | Pedestrian | WASHINGTON AVE |
| 4403959 | January 30, 2013 | Pedestrian | LIGHTHOUSE DRIVE |

| | | | |
|----------|--------------------|--------------|-------------------------------|
| 4403974 | February 6, 2013 | Pedalcyclist | US 9 |
| 4403975 | February 6, 2013 | Pedestrian | 1140 ROUTE 72 WEST |
| 4404000 | February 18, 2013 | Pedestrian | 601 WASHINGTON AVENUE |
| 4404068 | April 5, 2013 | Pedalcyclist | EAST BAY AVENUE |
| 4404068 | April 5, 2013 | Pedalcyclist | EAST BAY AVENUE |
| 4404179 | May 26, 2013 | Pedestrian | NJ 72 |
| 4404280 | June 27, 2013 | Pedalcyclist | NJ 72 |
| 4404475 | August 21, 2013 | Pedalcyclist | OCEAN COUNTY 50 |
| 4404521 | September 5, 2013 | Pedestrian | 321 MARTIN TRUEX JR BLVD |
| 4404744 | December 4, 2013 | Pedestrian | 321 MARTIN TRUEX JR BOULEVARD |
| 8086487 | January 4, 2014 | Pedestrian | 297 ROUTE 72 WEST |
| 8086641 | April 5, 2014 | Pedestrian | 297 ROUTE 72 EAST |
| 8086666 | April 16, 2014 | Pedestrian | 244 ROUTE 72 WEST |
| 8086730 | May 17, 2014 | Pedestrian | MERMAID DRIVE |
| 8128134 | May 17, 2014 | Pedestrian | NJ HIGHWAY 72 |
| 8086738 | May 21, 2014 | Pedalcyclist | MILL CREEK ROAD |
| 8086754 | May 27, 2014 | Pedestrian | NJ 72 |
| 8128169 | July 5, 2014 | Pedalcyclist | NJ HIGHWAY 72 |
| 8128219 | July 28, 2014 | Pedalcyclist | OCEAN CTY 50 |
| 8344075 | September 12, 2014 | Pedalcyclist | OCEAN COUNTY 50 |
| 11830275 | January 7, 2015 | Pedalcyclist | STAFFORD PARK BOULEVARD |
| 11830372 | April 11, 2015 | Pedalcyclist | US 9 |
| 11830536 | July 13, 2015 | Pedestrian | US 9 |
| 11830620 | August 9, 2015 | Pedalcyclist | ROUTE 539 |
| 11830704 | September 27, 2015 | Pedalcyclist | OCEAN COUNTY 105 |
| 11830724 | October 11, 2015 | Pedalcyclist | US 9 |
| 11830767 | November 6, 2015 | Pedestrian | NJ 72 |
| 14874623 | April 23, 2016 | Pedestrian | MILL CREEK ROAD |
| 14874669 | May 28, 2016 | Pedestrian | MAYETTA LANDING ROAD |
| 14874692 | June 9, 2016 | Pedalcyclist | CLAUDIA LANE |
| 14874908 | October 14, 2016 | Pedestrian | NJ 72 |
| 14874957 | November 18, 2016 | Pedalcyclist | NEPTUNE DRIVE |
| 14874988 | December 7, 2016 | Pedalcyclist | BEACH LANE |
| 8997993 | January 19, 2017 | Pedestrian | US 9 |
| 8998002 | February 8, 2017 | Pedestrian | MATEY AVENUE |
| 8995024 | March 8, 2017 | Pedestrian | 600 NORTH MAIN STREET |
| 9028970 | May 2, 2017 | Pedalcyclist | OCEAN COUNTY 50 |
| 8995943 | May 16, 2017 | Pedalcyclist | OCEAN COUNTY 50 |
| 9066563 | August 4, 2017 | Pedalcyclist | OCEAN COUNTY 111 |
| 9168243 | October 20, 2017 | Pedalcyclist | EAST BAY AVENUE |
| 9626374 | September 14, 2018 | Pedalcyclist | NJ 72 |
| 9637314 | September 19, 2018 | Pedestrian | OCEAN COUNTY 50 |
| 9752534 | January 18, 2019 | Pedestrian | 297 ROUTE 72 WEST |
| 9952192 | July 9, 2019 | Pedestrian | 601 ROUTE 72 EAST |

| | | | |
|----------|-------------------|--------------|--------------|
| 9948432 | July 10, 2019 | Pedalcyclist | BUCCANEER LN |
| 10018433 | July 27, 2019 | Pedestrian | MURIEL DR |
| 10065024 | August 31, 2019 | Pedalcyclist | NJ 72 |
| 10097596 | October 10, 2019 | Pedalcyclist | NJ 72 |
| 10139242 | December 18, 2019 | Pedalcyclist | MERMAID DR |

Appendix B: FHWA Proven Safety Countermeasures

Appendix B: FHWA Proven Safety Countermeasures

The Federal Highway Administration is promoting safety through proven roadway design features.

For a full list, see: <https://safety.fhwa.dot.gov/provencountermeasures/>

The following local examples show bicycle and pedestrian safety features from the list of countermeasures and should be considered when analyzing traffic safety solutions.

Refuge Islands

Link: https://safety.fhwa.dot.gov/provencountermeasures/ped_medians/



- Reduces pedestrian crossing distance
- Greater pedestrian visibility
- Narrower lanes reduces driver speeding
- Flashing beacon alerts drivers
- Islands can be landscaped

Clarksville Rd, CR638, West Windsor NJ

Roundabouts

Link: <https://safety.fhwa.dot.gov/provencountermeasures/roundabouts/>



- Raised splitter island raised to form a pedestrian refuge
- Reduction in severe crashes
- Urban, rural, suburban options

George Dye Rd and Estates Blvd, Hamilton NJ

Hybrid Pedestrian Beacon (HAWK Signal)

Link: https://safety.fhwa.dot.gov/provencountermeasures/ped_hybrid_beacon/



State Road 35, Seaside Heights NJ



- Pedestrians can cross midblock or uncontrolled intersections
- Pedestrians activate the signal
- Motorists stop completely

Road Diet

Link: https://safety.fhwa.dot.gov/provencountermeasures/road_diets/



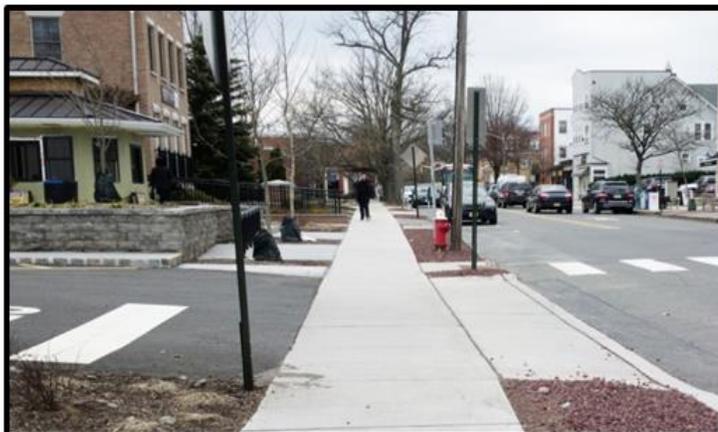
West Windsor, NJ



- Reconfigure four general travel lanes:
 - Two general travel
 - Center turn lane
 - Bike lanes

Walkways

Link: <https://safety.fhwa.dot.gov/provencountermeasures/walkways/>



Nassau Street, Princeton NJ



- Shared-use paths
- Streetscaping opportunities

Leading Pedestrian Interval

Link: https://safety.fhwa.dot.gov/provencountermeasures/lead_ped_int/



- Pedestrian given time prior to motorist green signal

Nassau Street, Princeton NJ