

Safe Routes to School Program

Park Avenue Elementary School

231 Park Avenue, Orange NJ 07050



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NEW JERSEY
Safe Routes to School



U.S. Department of Transportation
Federal Highway Administration

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Executive Summary

A Safe Routes to School (SRTS) Travel Plan is a resource to encourage and increase the number of students walking or bicycling to school. It provides directions for schools, students, families and the city to build a safer walking and biking environment for residents.

School Travel Plans are site specific and describe the needs of each particular school being studied. The plan includes observations, ideas and an action plan to address issues and problem areas. The Plan covers five aspects of the Safe Routes to School program – Education, Encouragement, Enforcement, Evaluation, and Engineering.

The School Travel Plan outlines the timeframe and funding priorities to support a coordinated schedule of streetscape improvements. In fact, the New Jersey Safe Routes to School (SRTS) infrastructure funding program requires applicants to have an approved School Travel Plan in order to apply for a grant.

1. Goals

The goals of the Park Avenue Elementary School Travel Plan are:

- a. Identify any issues that impact safety on the key travel routes used by students
- b. Provide suggestions to improve the safety of the travel environment around school
- c. Prioritize the suggestions in terms of cost and time needed to make improvement.
- d. Propose solutions to encourage more students to walk and bike to school

2. Task Force

This School Travel Plan is the product of a robust and productive partnership. The Park Avenue Elementary School SRTS Task Force came together out of a shared community interest in improving the lives of students and residents. The involvement of local stakeholders is an important part of ensuring the sustainability of the SRTS initiative and the enactment of the Action Plan.

3. Community Barriers to Health

Concerns identified by volunteers and community members include:

- a. Unsafe intersections as crosswalks are absent or not very visible
- b. Speeding near Park Avenue School
- c. Unpleasant sidewalks that are littered with garbage

4. School Travel Data

In June 2017, Park Avenue Elementary School teachers conducted a School Travel Tally to determine how students travel to and from school. Typically 51 percent of students walk to school, 37 percent of students are driven to school, 8 percent use the school bus, 2 percent carpool, 2 percent use public transit and only 0.1 percent of students ride bicycles to school.

At dismissal, 54 percent of students walk home, 33 percent of students are driven home, 8 percent use the school bus, 3 percent carpool, 2 percent use public transit and 0.1 percent ride their bicycles home.

5. Barriers and Opportunities Identified for Safer Walking & Biking

The Safe Routes to School Taskforce and Community Partners conducted a detailed walkability assessment of the road conditions along the main routes used by the students to walk to school on March 30 and April 13, 2017. The major roads intersections surrounding the school include:

1. Park Avenue and Duane Street
2. Park Avenue and North Center Street
3. Park Avenue and Park Street

Key opportunities for street improvement around Park Avenue Elementary School include: painting new high visibility crosswalk striping, repainting crosswalk striping, painting stop sign bars, adding or realigning truncated dome pads and curb ramps to meet Americans with Disabilities Act (ADA) standards, installing “School Zone” signs or street markings, and devising efforts or holding campaigns to slow drivers on Park Avenue, which is a county road.

6. Action Plan

The Safe Routes to School program categorizes the Action Plan into the “Five E’s:” Education, Encouragement, Enforcement, Evaluation and Engineering. This is useful because it helps the school prioritize next steps. Some action items may be more urgently needed, so the school can execute the recommendations in any order they choose. This School Travel Plan recommends improvements that can be made to encourage safe walking and biking. The action plan can be used to support SRTS and other grant applications to fund pedestrian & bicycle improvements.

Key Actions/Recommendations in Action Plan include:

- Paint/repaint high visibility crosswalks along Park Ave., North Center St., Park Ave. & Elm St., Wallace St. & North Center St., William St. & Canfield St., Park Ave. & Park St., Park Ave. & State St., Elm St. & Hillyer St., Park Ave. & Watchung Ave., North Day St. & Park Ave.
- Install/Realign curb ramps and truncated domes at Wallace St. & North Center St., North Center St. & New St., William St. & Canfield St., Park Ave. & State St., Park Ave. & Elm St., Park Ave. & Ward St., Elm St. & Hillyer St.
- Repair/repave sidewalks at North Center St., Wallace St., State St., Duane St., and Washington St.
- Install traffic calming measures such as narrowing lanes, adding bike lanes, installing speed tables, speed humps, rumble strips or SLOW SCHOOL ZONE pavement markings, flashing SLOW or flashing STOP signs in the school zone.
- Conduct speed studies to analyze if traffic calming measures reduce speeds
- Hold a “Drive Slow & Safe on Park Avenue” campaign to slow traffic and alert drivers to “protect students & prevent crashes”
- Assist pedestrians by installing pedestrian countdown or signal heads at intersections

1. Walking and Cycling to Health

1.1 The Challenge

Over the past few decades, a number of societal and environmental changes have limited children's access to safe places where they can walk, bike and play. For example, increased traffic, neighborhoods that lack sidewalks and urban sprawl have contributed to a sharp decline in the number of students who walk or bike to school. Nationally, while 42 percent of children walked or biked to school in 1969, only 13 percent of children did so in 2001. Additionally, the popularity of television and video games as a means to entertain children has contributed to a more sedentary lifestyle. As a result, children and adolescents are less physically active than they were several generations ago.

The decrease in walking and biking to school and less physical forms of play has resulted in an alarming increase in childhood obesity. During the past four decades, the obesity rate for children ages 6 to 11 has more than quadrupled (from 4.2 to 17 percent), and the obesity rate for adolescents ages 12 to 19 has more than tripled (from 4.6 to 17.6 percent).

Developing policies and practices to address these environmental and social barriers to daily physical activity are critical to reducing and preventing obesity among children. Supporting "active transport" (or walking and bicycling) to school presents an excellent opportunity to increase daily physical activity among youth.¹

1.2. The Program

Safe Routes to School (SRTS) is a federal program that encourages, teaches, and enables children to safely bicycle and walk to school. The program aims to help children be more physically active with the intent to reduce chronic disease and prevent and reduce obesity. SRTS focuses on increasing the number of children walking and bicycling to school by building and repairing infrastructure such as sidewalks, crosswalks, and bicycle lanes. The program also encourages changes in travel behavior, supports increased enforcement of traffic laws around schools, and educates communities on the benefits and safety aspects of active transport. This report summarizes research on active transport to school. It also explores the factors that influence walking and biking to school, including the impact of SRTS programs.

The SRTS Program is a collaborative effort of multiple stakeholders that include community members, elected officials, city planners, and police departments. SRTS brings a community closer together by implementing programs such as walking school buses, walkability audits, bicycle rodeos and pedestrian safety presentations. The benefits of SRTS extend far beyond the schools into the community as a whole.

¹ Walking and Biking to School, Physical Activities and Health Outcomes, Robert Wood Johnson Foundation

A SRTS School Travel Plan “maps out” specific ways to improve pedestrian and bicycle travel to increase the number of students who walk and bike to school and to improve safety. A School Travel Plan identifies the following:

- Where students currently walk and bike?
- Where students would walk and bike if they could?
- What changes need to be made so that students can and will walk and bike to school?

The School Travel Plan identifies short term solutions for immediate action and implementation as well as long term solutions that may require planning and additional funds. Benefits of developing a School Travel Plan include:

- Creating partnerships between the school and surrounding community
- Generating ideas and actions so walking and bicycling is safer
- Building community excitement and support
- Making an application for a SRTS grant more competitive by demonstrating a connection between goals, actions and targets

1.3. The Team

The New Jersey Department of Transportation (NJDOT) funds and administers the SRTS program in New Jersey, and the Voorhees Transportation Center (VTC) at Rutgers’ University provides technical and administrative support.

EZ Ride

In New Jersey, Transportation Management Associations (TMAs) have taken the lead in coordinating the implementation of the SRTS programs. TMAs are non-profit organizations whose mission is to implement transportation programs and services like carpools, vanpools, shuttles, biking and walking that reduce congestion and improve air quality. EZ Ride is one of eight Transportation Management Associations (TMAs) in New Jersey and serves Bergen, Essex, Monmouth, Passaic and Union counties.

Park Avenue Elementary School Travel Plan Task Force

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2. District & School Profile

A school profile for Park Avenue Elementary School was developed using data from the Orange Public Schools District website, the Park Avenue Elementary School website, the New Jersey School Performance Report, and the National Center for Education Statistics.

Orange Public Schools serve approximately 5,185 students from Preschool – Grade 12. The district has one preschool, seven elementary schools (Preschool – Grade 8), one middle school (Grades 8 - 9), one career academy (Grades 9-12) and one high school (Grades 10 – 12). Student demographics are shown in Table 1 below.

Table 1: Orange Public Schools– Student Demographics

Ethnicity	# of Students
African-American	3,613
Hispanic	1,528
Caucasian	16
Asian/Pacific Islander	12
American Indian/Native American	3
Two or More Races	13
Gender	# of Students
Male	2,652
Female	2,533
Grade Level	# of Students
Pre-Kindergarten – Grade 4	2,461
Grade 5 - 8	1,345
Grade 9 - 12	1,100
Special Needs Students/Individualized Education Program	279

The Orange School district is classified by the NJ Department of Education as District Factor Group “A,” first among eight groupings, indicating the most underserved and disadvantaged community. A District Factor Group (DFG) is an indicator of the socioeconomic status of citizens in school districts of New Jersey. DFGs were first developed by the New Jersey Department of Education in 1975 for the purpose of comparing student performance on statewide assessments across demographically similar school districts.

2.1 Orange and Essex County Health Profile –Community Health Needs Assessment

In 2015, Hackensack UMC Mountainside completed a Community Health Needs Assessment to evaluate the health needs of individuals living within the hospital service area and Essex County, New Jersey. The purpose of the assessment was to gather current statistics and

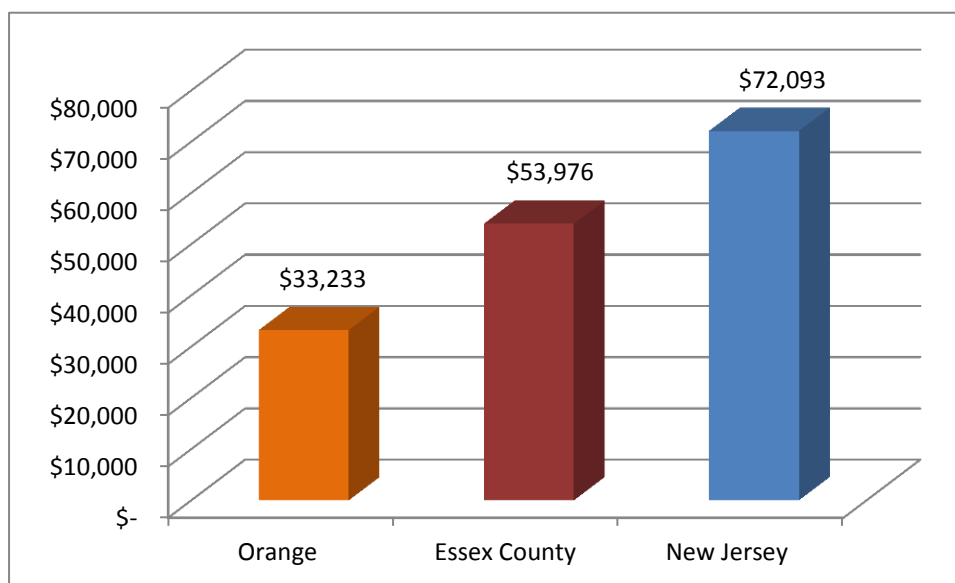
feedback regarding key health issues facing residents. The assessment identified the top three most pressing health issues as: Heart Disease, Overweight/Obesity, and Diabetes. The findings from the assessment were used by Hackensack UMC Mountainside to prioritize the needs of the community.

Understanding Social Determinants of Health

Conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. These conditions are known as social determinants of health. Poverty may limit healthy food access and coincide with unsafe neighborhoods and more education is a predictor of better health. Differences in health are striking in communities with poor social determinants of health such as unstable housing, low income, unsafe neighborhoods, or substandard education. By working to improve social determinants of health, we can improve individual and population health and help to advance health equity.

Source: Centers for Disease Control and Prevention

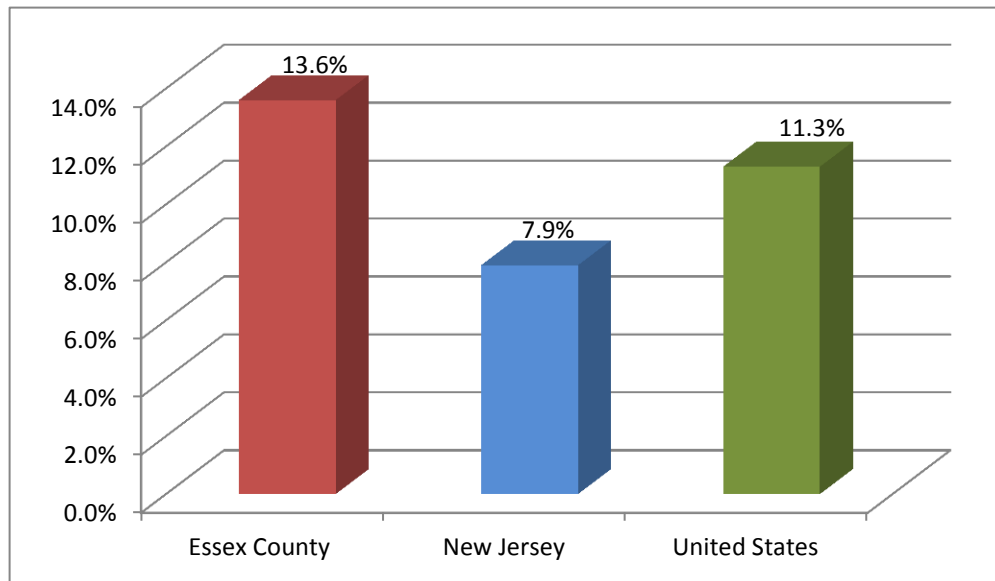
Chart 1: Median Household Income (2015)



American Community Survey 5-Year Estimates(2011-2015)

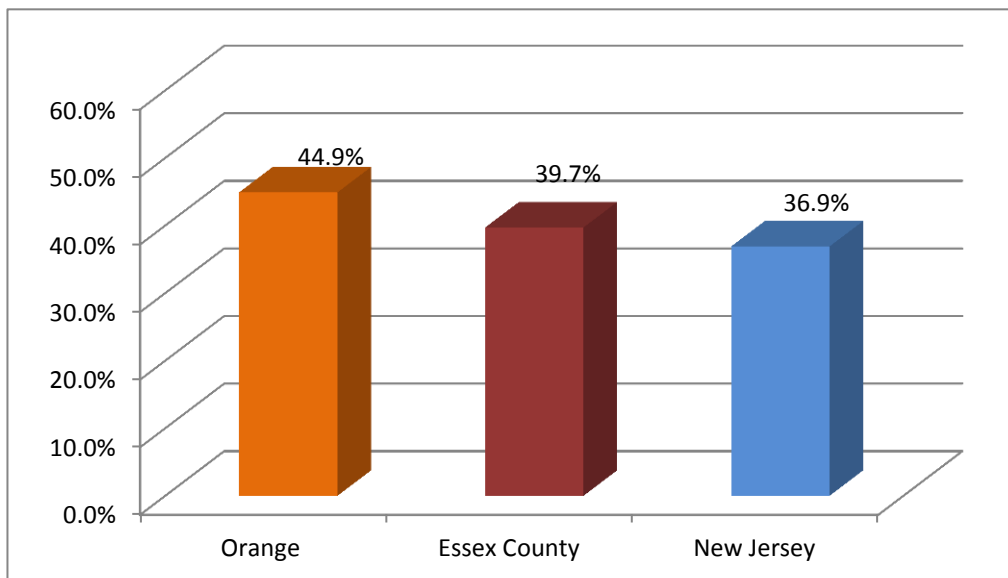
Essex County's economic wealth is not distributed evenly across all residents, as there are large urban areas that include a considerable number of poor and minority populations.

Chart 2: Percent of Families Living Below Poverty Level



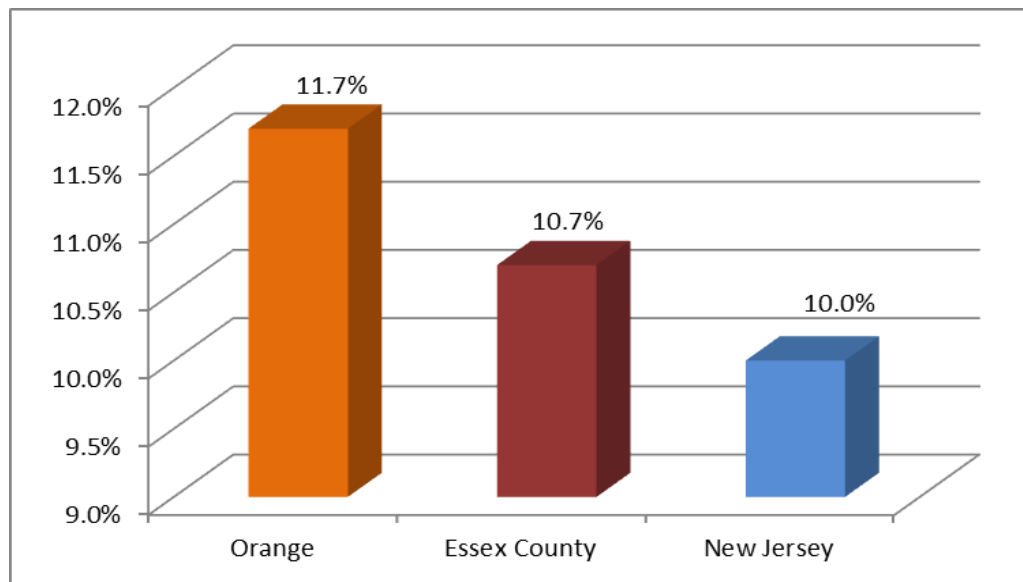
American Community Survey 5-Year Estimates (2009 - 2013)

Chart 3: Percent of Residents that are Obese



Citydata.com, 2013

Chart 4: Percent of Residents Diagnosed with Diabetes



Citydata.com, 2013

Media Viewing Habits

The American Academy of Pediatrics recommends that children spend a maximum of two hours per day on entertainment media like television, computers, and video games.

Exercise

The HHS 2008 Physical Activity Guidelines for Americans recommend that adults get at least thirty minutes of moderate to vigorous activity daily and that children get at least sixty minutes of moderate to vigorous physical activity daily.

Physical Activity

As per County Health Rankings.org, Essex County does not offer its residents adequate opportunities for physical activities with a poor physical environment ranking of 15.

The city is working to improve this and included plans to develop a bike network in their 2006 Master Plan. The bike network would improve and designate bike routes along streets that connect to the downtown area, schools, parks, and public transit.

2.2 Park Avenue Elementary School

“Park Avenue School's purpose is to nurture the ‘whole’ child by involving students and their families in the educational process through the use of collaboration, consensus and no-fault. Park Avenue School aims to provide students with the foundation to enable all students to become life-long readers, writers and mathematical thinkers. The school is comprised of students in preschool through grade seven and self-contained special education classes. We are proud of our students, faculty, support staff and the entire school community.

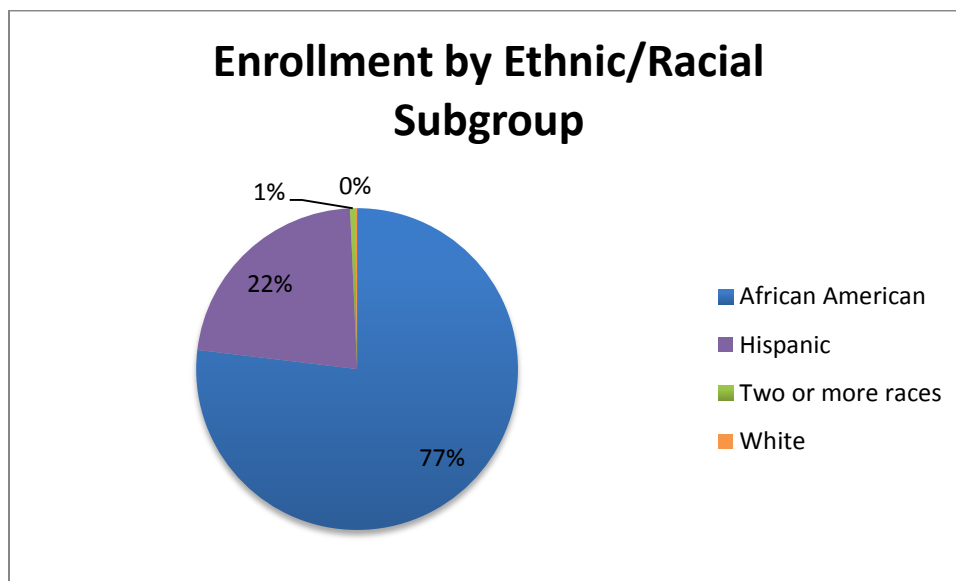
Park Avenue School provides a variety of opportunities for the building of essential skills and for the development of a positive self-awareness. The students at Park Avenue School are provided with instructional programs that address the district and state goals for each curricular area. Emphasis is placed on a literature-based, differentiated instructional approach to Language Arts and the use of manipulatives and problem-solving activities to enhance the Mathematics and Science programs.

As an extension to our regular academic school day program, Park Avenue School offers extended day and club activities which are geared towards preparing all students to be productive citizens. Afterschool and the 21st Century Learning Grant assist students in mastering the CCSS in Language Arts, Mathematics and Science. Additionally, Park Avenue School offers a variety of clubs and activities such as Science/Math Clubs, Computer/Book Clubs, Student Council/Sisterhood, Robotics, Bridge, Sewing, Debate, Intramurals, National Junior Honor Society, Sewing, Chorus, Dance and Band to build and strengthen all aspects of the ‘whole’ child.

Park Avenue School is a place where students are respected for who they are, parents are admired for what they do, students are expected to reach their full academic potential and faculty members work towards developing life-long learners”. Excerpt was edited from the NJ Academic Report school narrative by Principal Myron Hackett.

Park Avenue Elementary serves approximately 420 students in Kindergarten to Grade Seven. As Chart 1 below shows, about 77 percent of the students enrolled are African American, 22 percent are Hispanic, approximately .5 percent identified as two or more races, and .2 percent of students are White.

Chart 5: Park Avenue Elementary Enrollment by Student Ethnicity



New Jersey School Performance Report, 2015 – 2016. <https://rc.doe.state.nj.us/report.aspx?County=13&District=3880&School=120&SchoolYear=2015-2016&SY=1516>

The number of students has changed slightly from 446 in 2013 to 447 in 2014 and down to 420 in 2015. As shown in Table 2 below, English is the language spoken at home by 72.1 percent of the students. Spanish is spoken at home by 15.7 percent of students, and Haitian is spoken by 8.8 percent of students at home.

Table 2. Park Avenue Elementary School Language Diversity

Language Diversity	
Percent of students who speak the following languages at home	
English	72.1%
Spanish	15.7%
Haitian	8.8%
Creoles and pidgins, French-based	1.2%
Other Creoles and pidgins	.5%
Other	1.4%

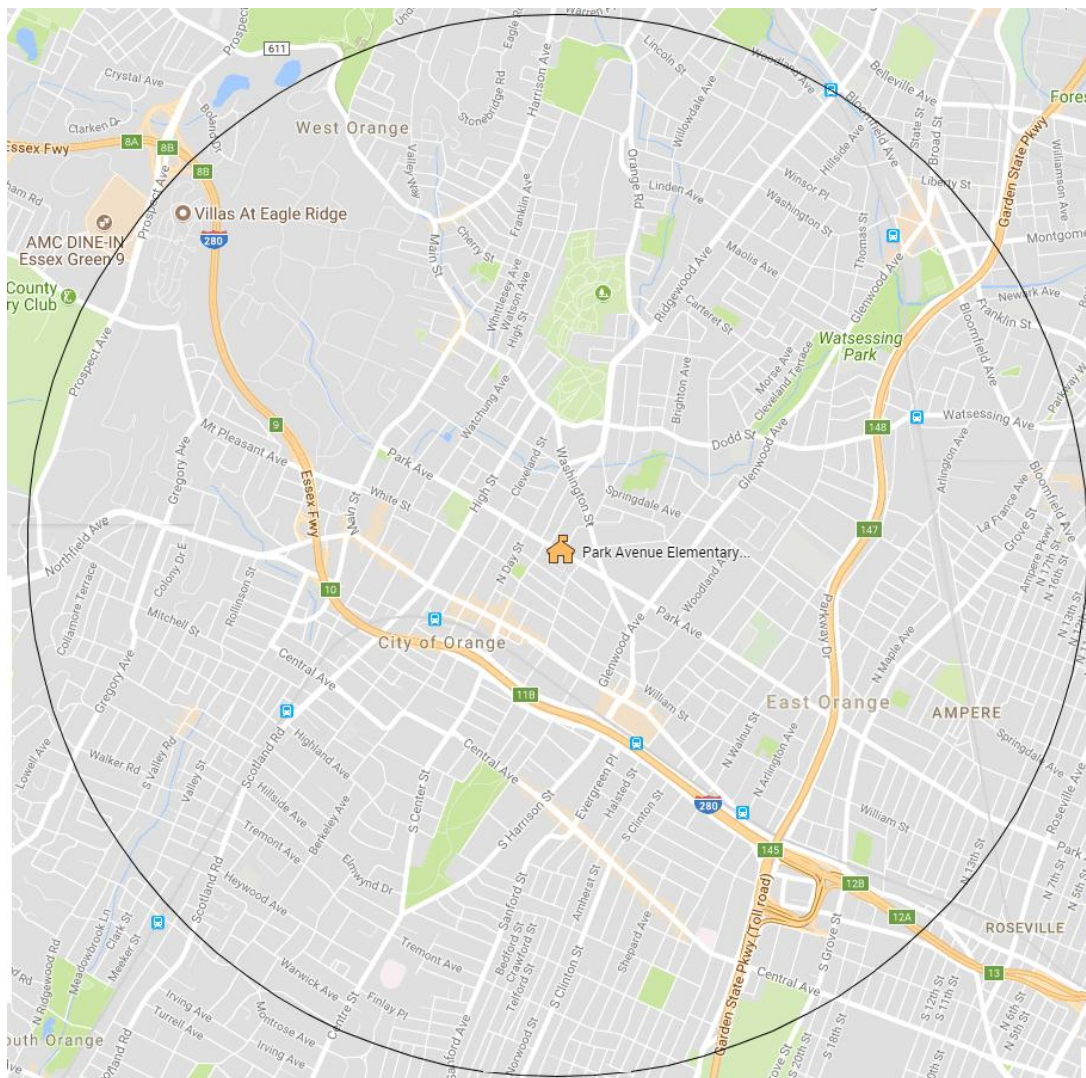
New Jersey School Performance Report, 2015 – 2016. <https://rc.doe.state.nj.us/report.aspx?County=13&District=3880&School=120&SchoolYear=2015-2016&SY=1516>

3. Journey to School

In the 1960s, about 50 percent of children in the United States walked or bicycled to school. Over the last few decades, concerns about vehicle traffic, safety for the children, and longer commutes have forced more and more parents to drive their children to school. This results in more traffic on the road and less children who walk to school. Today, on average only 15 percent of children walk or bike to school. Map 1 provides a broad overview of the residential area near Park Avenue Elementary School.

Map 1: Two Mile Radius around Park Avenue Elementary School

Map 1 shows a two-mile radius surrounding the schools. The neighborhood is in close proximity to Colgate Park and the Orange Downtown Area



3.1. Current Student Travel Environment

School Hours

The school day for Park Avenue Elementary School students starts at 8:30 am and the day ends at 3:00 pm Monday through Friday.

Drop-off/Pickup Procedure

Buses drop off and pick up students in the front of the school's entrance on Park Avenue. Parents drop off and pick up students at the same location.

Crossing Guards

A crossing guard is stationed at the intersection of Park Avenue and Duane Street in the morning from 7:00 – 9:00 am and in the afternoon from 3:00 – 4:00 pm.

Student Travel Mode

In June 2017, the teachers conducted a SRTS Student Travel Tally Survey to document how the children in their classes get to and from school. A total of 1,555 trips were documented and the data was analyzed by the NJ Safe Routes to School Resource Center at the Voorhees Transportation Center, Rutgers University.

As shown in Table 3, the analysis found that about 51 percent of children walk to school, 37 percent were driven to school, 8 percent rode the school bus, 2 percent carpooled to school, 2 percent used public transit, and less than 1 percent rode their bike to school. With regard to dismissal, the study showed that 54 percent of students walked home, 33 percent were driven home, 8 percent of students rode the school bus home, 3 percent carpooled home, 2 percent used public transit and less than 1 percent of students rode their bike home.

Table 3: Current Commute Mode

Mode	Arrival	Dismissal
Walk	51 percent	54 percent
Driven in personal car	37 percent	33 percent
School Bus	8 percent	8 percent
Carpool	2 percent	3 percent
Transit	2 percent	2 percent
Bike	0.1 percent	0.1 percent



3.2 Pedestrian Safety

EZ Ride conducted an analysis of the pedestrian-related crashes within a one-mile radius of the school over a 12-year period from 2003 to 2015 based on police incident reports. The reported incidents were plotted on Map 2.

Map 2: Pedestrian Crashes Within One Mile of Park Avenue Elementary, 2005-15

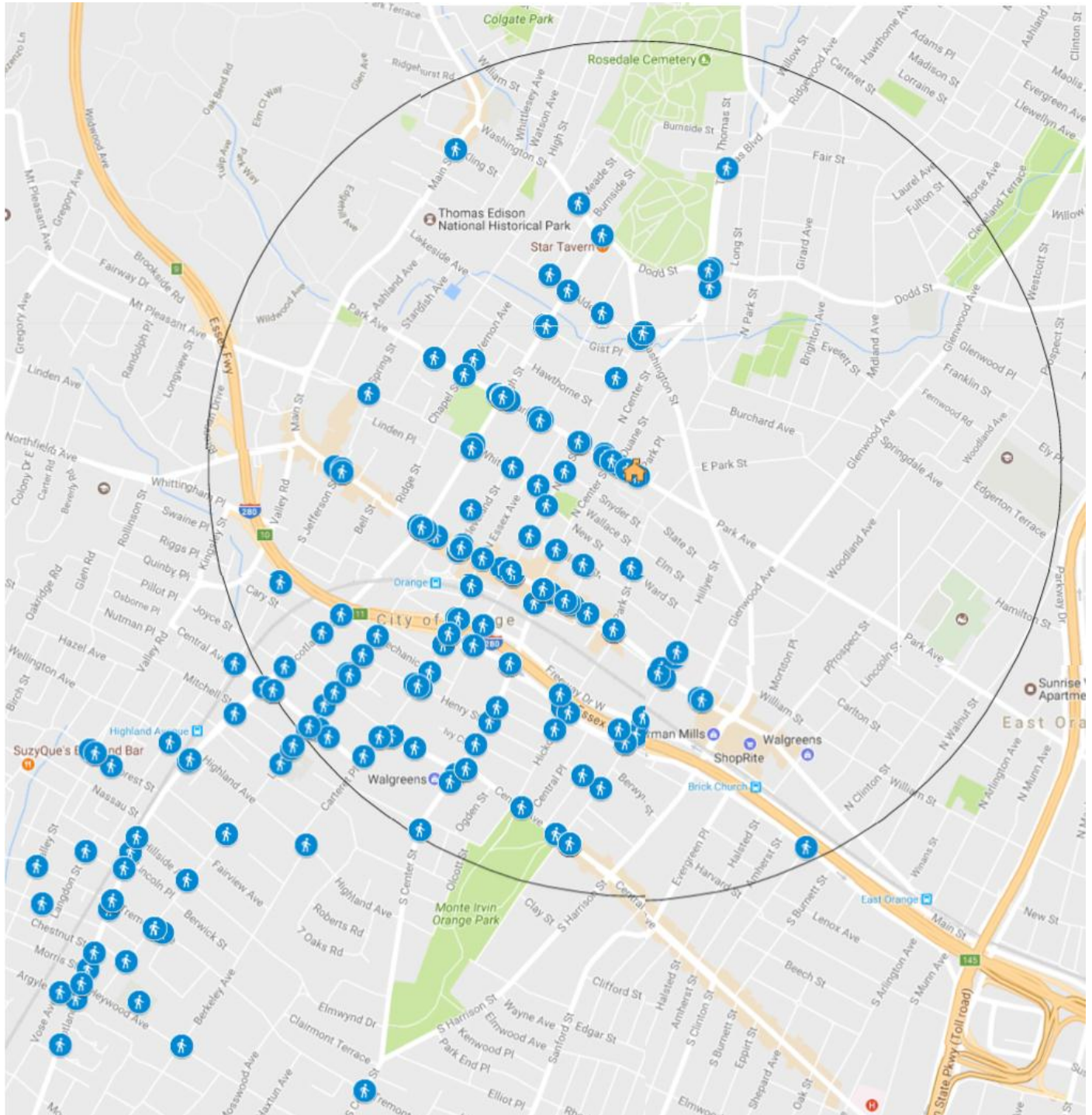


Table 5: Pedestrian Crashes by Age, In City of Orange (2005-2015)

Age	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total	Percent
0-10	3	3	3	7	3	3	6	6	1	1	1	37	10%
10-17	4	6	3	5	6	4	4	2	4	7	2	47	12%
18-35	6	13	13	7	6	11	11	6	14	9	13	109	29%
36-60	9	16	10	16	16	10	8	18	11	16	6	136	36%
60+	6	4	8	5	5	3	5	3	5	4	5	53	14%
Total	28	42	37	40	36	31	34	35	35	37	27	382	

For the City of Orange, there were 382 pedestrian crashes between the years 2005 – 15. On average, the City of Orange had 38 pedestrian crashes per year. While the majority of the crashes (78 percent) involved pedestrians aged 18 - 60+, about 22 percent (84) of the total incidents involved children in the 0-17 age group.

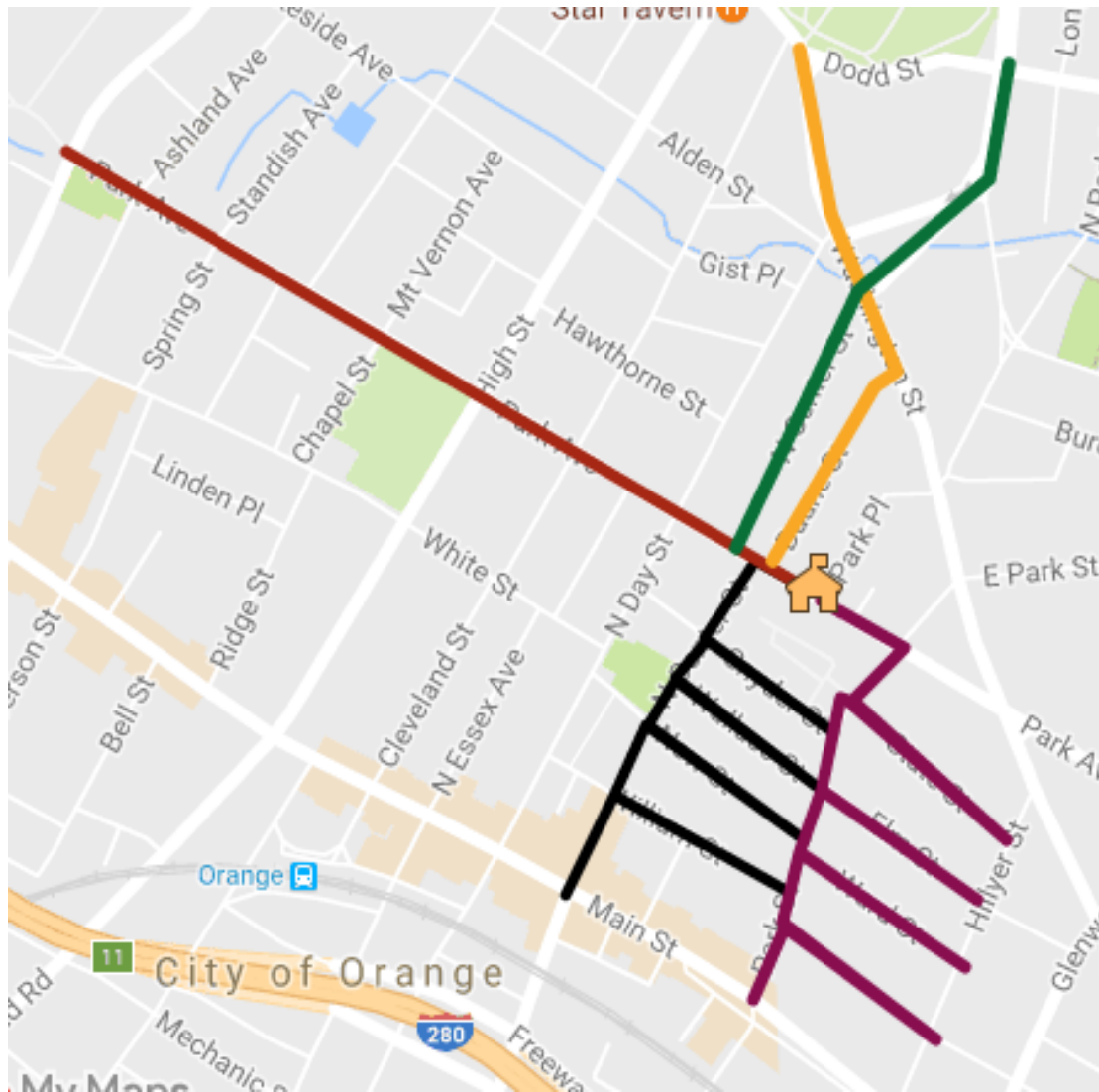
3.3 Walkability Assessment

The SRTS Task Force conducted a walkability assessment of the major routes used by students to get to Park Avenue School. School children and residents of all ages and abilities walk in and through the neighborhood.

A Walkability Assessment evaluates the sidewalks, roads, crosswalks, lighting, signs, signals, and conditions of the walking environment along the walking route. A walkability assessment identifies road improvements that can be made and notes what is currently done well. The SRTS Taskforce took photos of areas on each route. Comments and recommendations are listed with each photo and are summarized in the Action Plan at the end. Where there were similar conditions, they are noted by location under each picture that illustrates the type of improvement identified.

Map 3, on the following page, shows all five of the walking routes which were assessed.

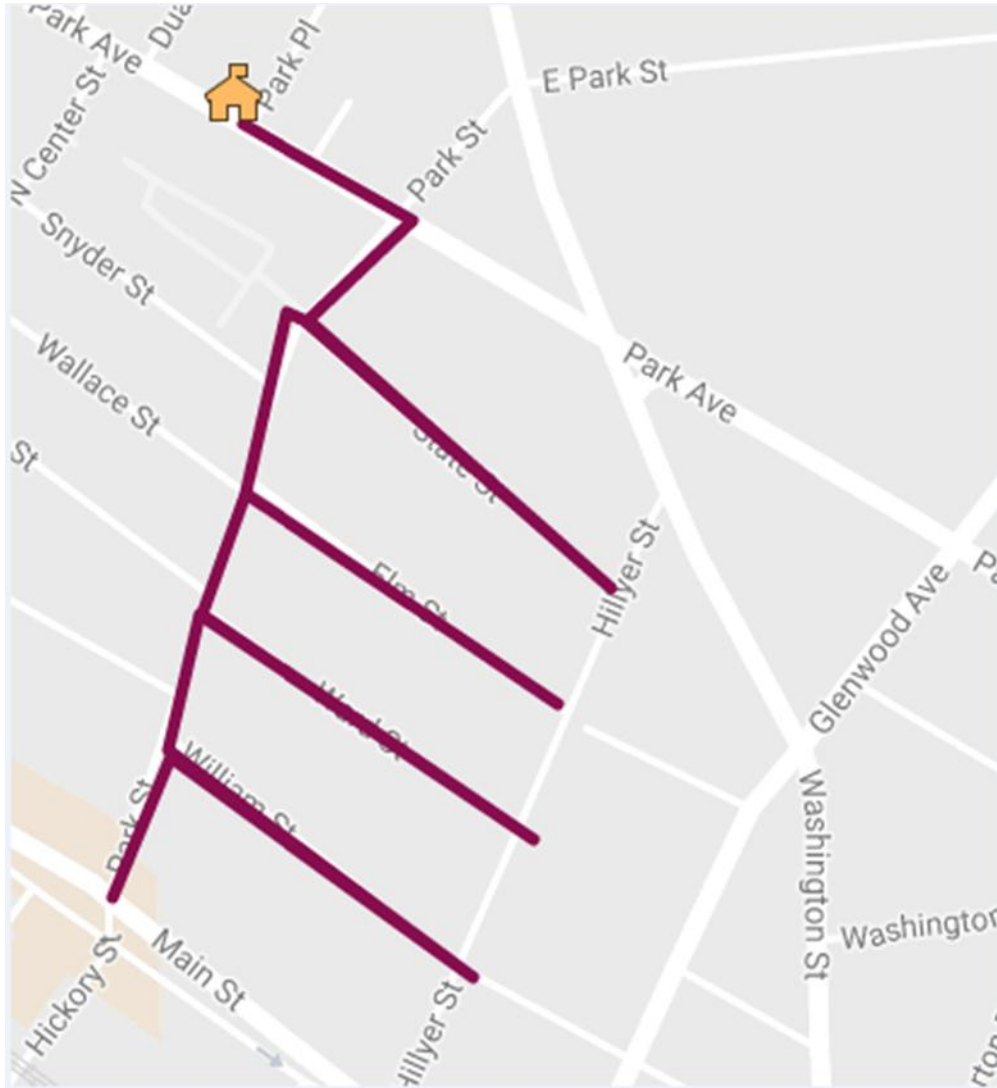
Map 3: Main Walking Routes



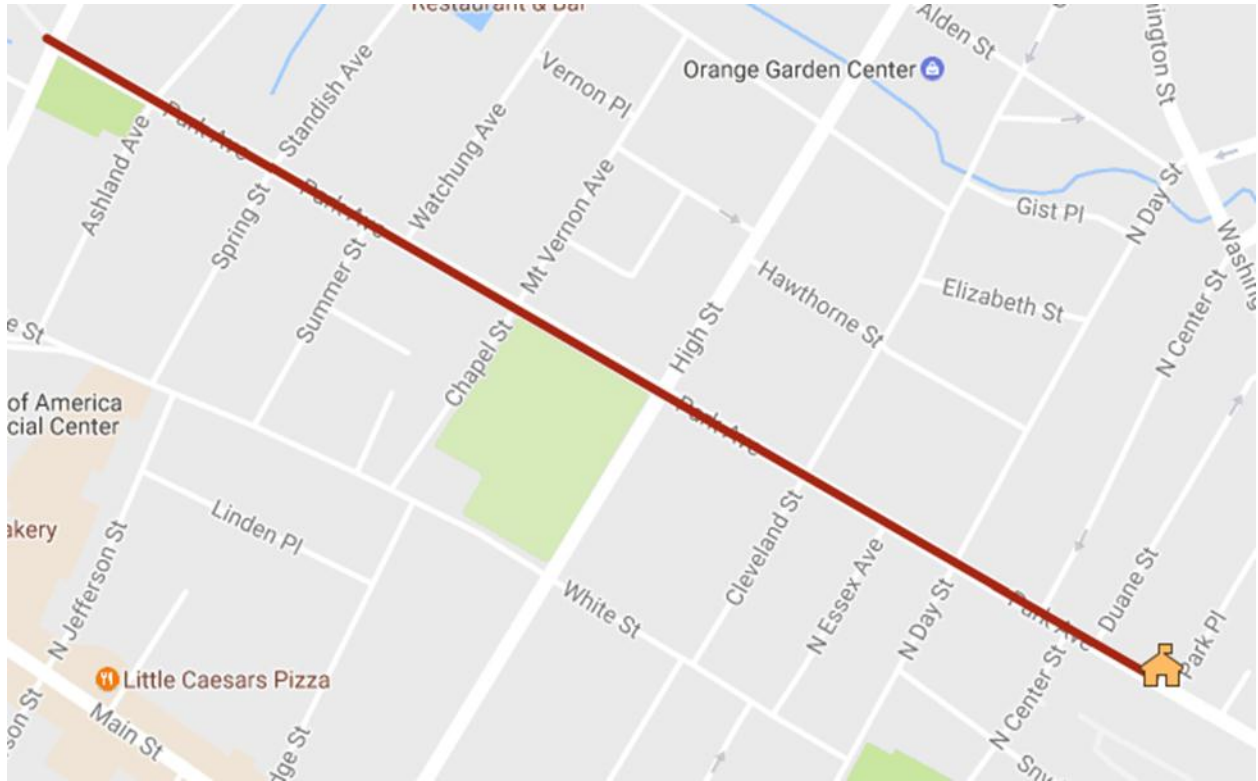
Route 1



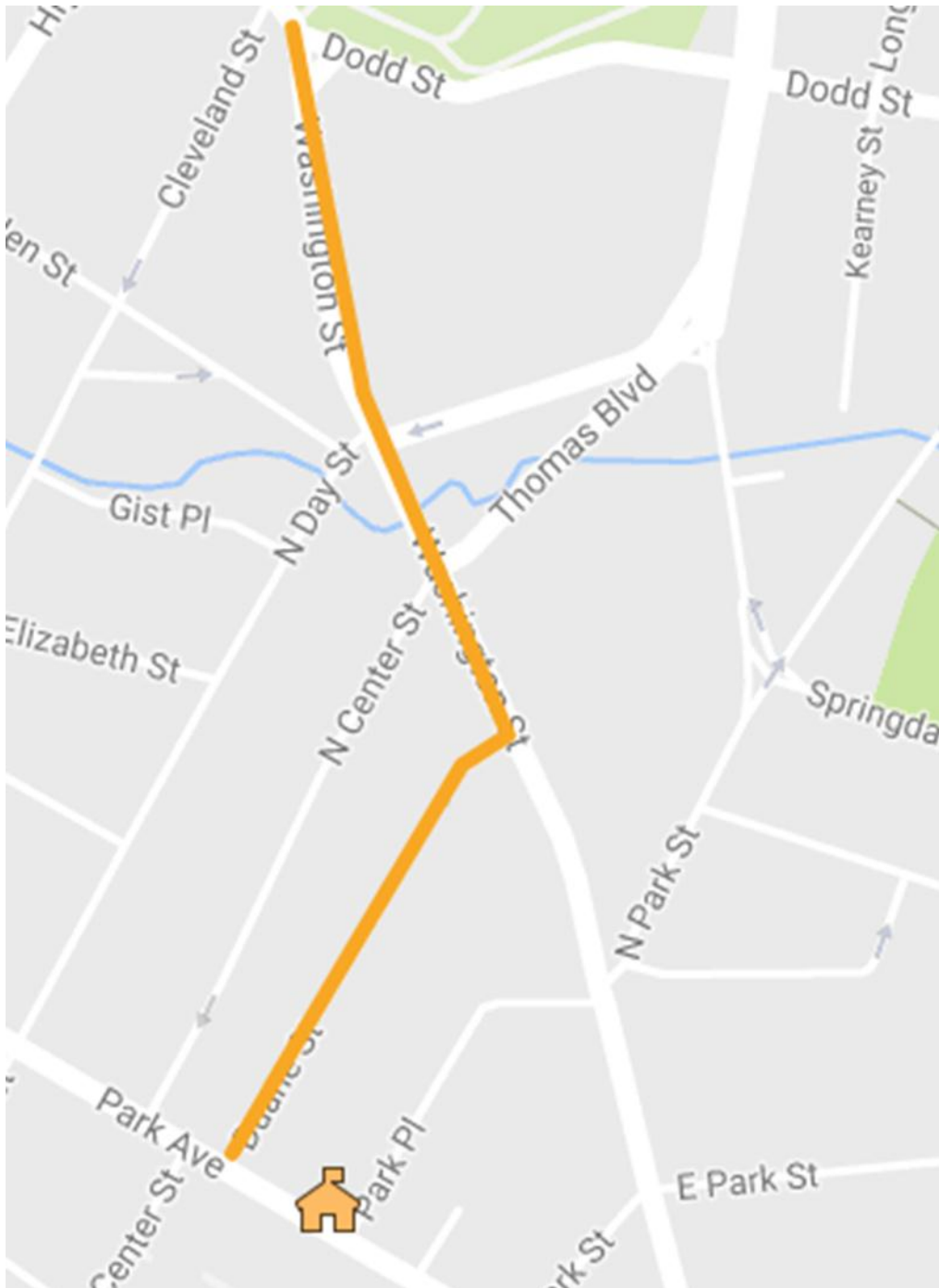
Route 2



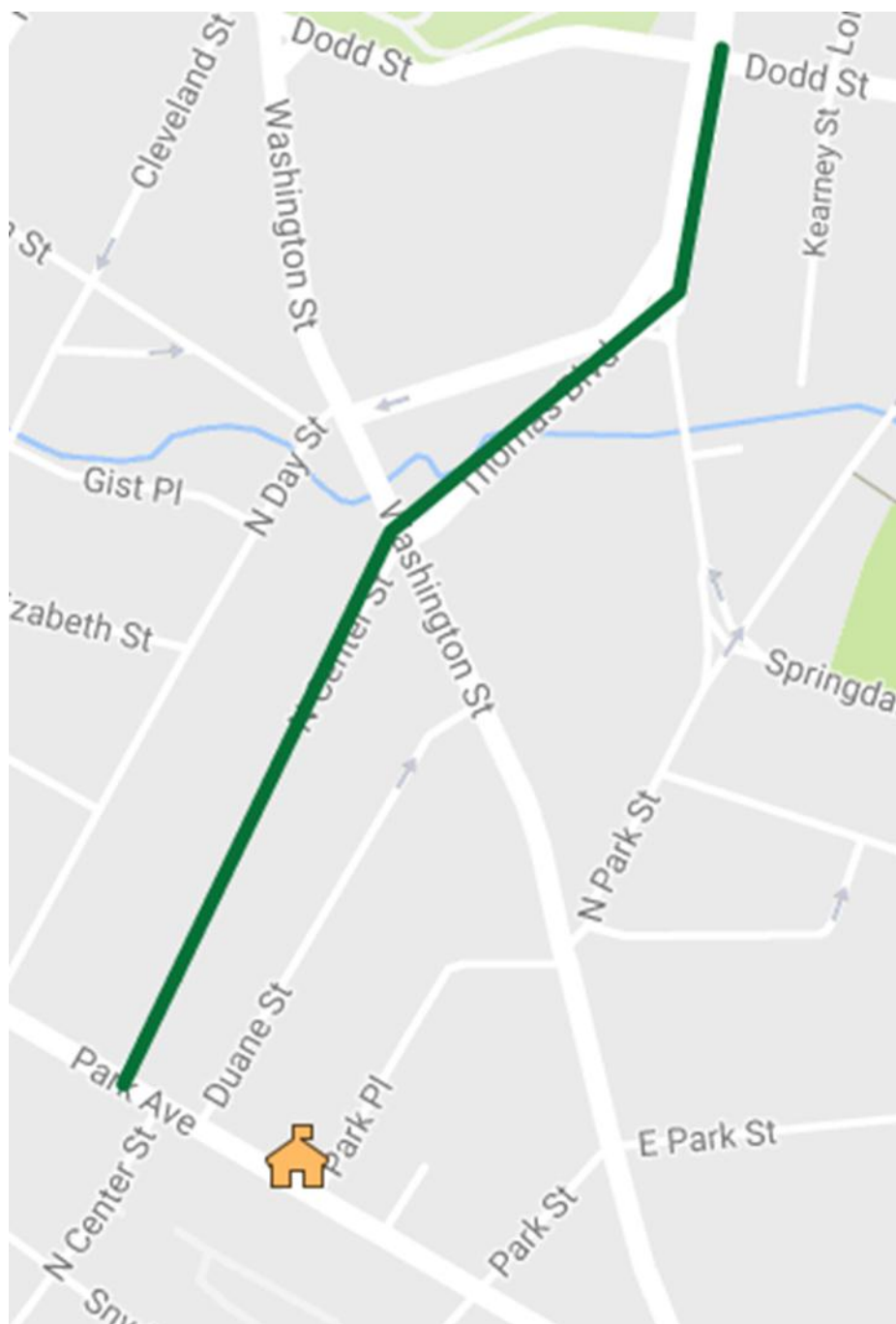
Route 3



Route 4



Route 5



1. Common Problems

1.1 Intersection



Crosswalk is Faded

Route 1

- Intersection of Park Ave. & North Center St.
- Intersection of North Center & New St.
- Intersection of Wallace & North Center St.
- Park Ave. in front of school

Route 2

- William St.

Route 3

- Intersection of Park Ave. & N.Day St.
- Intersection of Park Ave. & Watchung Ave.

Route 4

- Intersection of Thomas Blvd & Washington St.

Route 5

- Thomas Blvd.
- Intersection of Thomas Blvd & Dodd St



Unmarked Crosswalk

Route 1

- Intersection of William St. & Canfield St.

Route 2

- Intersection of Park Ave. & Park St.
- Intersection of Park Ave. & State St.
- Intersection of Park St. & Elm St.
- Intersection of Elm St. & Hillyer St.
- Intersection of Park St. & Ward St.
- Intersection of Ward St. & Hillyer St.
- Intersection of Park St. & William St.

Route 4

- Intersection of Duane St. & Washington St.
- Intersection of N. Day St. & Washington St.
- Intersection of Washington St. & Dodd St.

Route 5.

- Intersection of N. Center St. & Washington St.

1. Common Problems

1.1 Intersection



No Curb Ramp /Broken Curb Ramp

Route 1

- Intersection of William St. & Canfield St.

Route 2

- Intersection of Park St. & Ward St.
- Intersection of Park St. & William St.
- No curb ramp on midblock crossing on William St.

Route 5

- Thomas Boulevard



Misaligned or No Truncated Domes

Route 1

- Intersection of Park Ave. & N. Center St.
- Intersection of Snyder St. & N. Center St.
- Intersection of Wallace St. & N. Center St.
- Intersection of N. Center St & New St.
- Intersection of William St & Canfield St.

Route 2

- Intersection of Park Ave. & State St.
- Intersection of Park St. & Elm St.
- Intersection of Elm St. & Hillyer St.
- Intersection of Park St. & Ward St.
- Intersection of Ward St. & Hillyer St.
- Intersection of Park St & William St.

-Midblock crossing on William St.

Route 3

- Intersection of Park Ave. & N. Day St.
- Intersection of Park Ave. & Mount Vernon Ave.
- Intersection of Park Ave & Watchung Ave

Route 4

- Intersection of Duane St. & Washington St
- Intersection of N. Day St & Washington St
- Intersection of Thomas Blvd & Washington Ave.

Route 5

- Intersection of N. Center St. & Washington St.
- Thomas Blvd

1. Common Problems

1.2 Sidewalks



Broken/ Uneven Sidewalk

Route 1

-N. Center St.

-Wallace St.

Route 2

-State St.

Route 3

-Park Avenue

Route 4

-Duane St.

Route 4

-Washington St.



Narrow Sidewalk

Route 2

-State St.

1. Common Problems

1.3 Other



Illegal Parking

Route 1

-N. Center St.

Route 3

-Park Ave. in front of School

Route 5

-Park Avenue



Garbage/Litter

Route 1

-Intersection of William St. & Canfield St

Route 2

-Elm St.

Route 4

-Duane St.

-Washington St.

Route 5

-Park Ave.

1. Common Problems

1.3 Other



Abandoned Property/ Overgrown Foliage

Route 1

- Wallace St.
- N. Center St.

Route 4

- Washington St.



Wide Turning Radii

Route 1

- Intersection of Wallace St. & N. Center St.

Route 4

- Intersection of Washington St. & Dodd St.

1. Common Problems

1.3 Other



Down Power line

Route 4

-Washington Street



Cracked Streets/Potholes

Route 1

-New St.

Route 2

-State St.

Route 3

-Watchung Ave

2. Good Practices



Pedestrian Refuge

Route 5

-Thomas Blvd.



Crossing Guards

Route 1

-Intersection of Park Ave. & N. Center St.

Route 4

-Intersection of Washington St. & Thomas Blvd

4. Action Plan & Recommendations

The Safe Routes to School Action Plan is organized into the “Five E’s”: Education, Encouragement, Enforcement, Engineering and Evaluation. Additionally, each element of the Action Plan considers two parameters – time and cost as shown below. Together, they comprise a set of directions to help the community prioritize their action steps to increase safety for students. The tables below identify preliminary recommendations specific to this school and its immediate area. To realize the full benefit of the SRTS program, it is suggested that this School Travel Plan be used to apply for SRTS grant funds to fully implement all the action steps.

Timeframe Definition	Cost Definition
Short-term = less than 3 months	Low = Less than \$2,000
Mid-term = between 3 to 6 months	Medium = between \$2,000 and \$10,000
Long-term = longer than 6 months	High = more than \$10,000

1. Education: Programs to educate students, parents and the public about safe walking and biking

Education Actions	Responsibility	Time Frame	Cost
Circulate Travel Plan Report to BOE, PTO and school website	Board of Education	Short-term, Mid-term, Long-term	Low
Confirm School Zone signs adequately identify the school area	Board of Education	Short-term, Mid-term, Long-term	Low
Create and update Family Handbook that defines arrival and dismissal procedures with maps and text that defines drop-off/pick-up areas, the rules and procedures for driving or parking along local streets next to school	School, School Liaison, PTO	Long-term	Low
Notify parents/guardians and school staff by publishing information/updates in the Parent/Family Handbook, School Newsletters and on the school website	School	Long-term	Low
Invite EZ Ride to help with bicycle and pedestrian safety education with assemblies or Bike Rodeos, educate kids re: driveways and roads without signals	School, EZ Ride	Short-term, Mid-term, Long-term	Low
Integrate walking and safety education into classroom health/PE curriculum	School, EZ Ride	Short-term, Mid-term, Long-term	Low
Leverage Social Media to spread awareness of school safety zone and enforcement activities	School Action Team, PTO	Short-term, Mid-term, Long-term	Low

Develop drop-off/pick up procedure, help to reduce length of car lines and conflicts	School, PTO, Principal	Short-term, Mid-term, Long-term	Low
Cell phone free zone: In school, Outside during arrival and dismissal	Principal	Short-term, Mid-term, Long-term	Low

2. Encouragement: Programs to encourage or promote walking and biking

Encouragement Actions	Responsibility	Time Frame	Cost
The town can implement their Complete Streets Policy	City	Mid-term	Low
Hold a student poster or bookmark contest about Walking and Biking to school	School, EZ Ride	Short-term	Low
Circulate Travel Plan Report and District walking policy via the school website	VTC, EZ Ride, School	Short-term	Low
Host Bike/Walk to School Days throughout the school year	School, PTO, School Liaison, EZ Ride	Short-term, Mid-term, Long-term	Low
Participate in International Walk to School Day in October and NJ Walk and Bike to School Day in May/June	School Action Team, PTO, EZ Ride	Short-term, Mid-term, Long-term	Low
Utilize the school website to advance Safe Routes to School safety messages	EZ Ride, School Tech Coordinator	Mid-term, Long-term	Low
Establish and organize Bike Trains/Walking School Buses to connect students and families who are already walking or are considering walking/biking	School, EZ Ride	Mid-term, Long-term	Low

3. Enforcement: Activities to improve safety and security for those walking/biking to school

Enforcement Actions	Responsibility	Time Frame	Cost
Conduct bicycle registration and helmet giveaways at Back to School night	School, Police	Short-term, Mid-term, Long-term	Low
Consider training Walking School Bus volunteers to do crossing guard training	School Liaison, Police	Mid-term, Long-term	Low
Ask police to setup electric signs that post driver speed and remind people to not speed in school zone – twice a year	Police, School Liaison	Short-term, Long-term	Low
Discuss property maintenance with owners to keep existing sidewalks free of debris, garbage cans, and trim bushes so as to not impede students travel	School, PTO, Police	Short-term, Long-term	Low
Conduct StreetSmart NJ campaign near school crossings	Police, EZ Ride, NJTPA	Short-term	Low

Pedestrian Decoy/Cops in Crosswalk Operation – target unsafe drivers, especially during school commute time	City, Police, Board of Education	Long-term	Low
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4. Engineering: Infrastructure upgrades that improve walking and biking environment

Engineering Actions	Responsibility	Time Frame	Cost
Install sturdy bike racks near school entrance	City, School	Mid-term, Long term	Low
Post “Slow school Zone” signs and paint “Slow school zone” markings on roadways surrounding the school	City, Engineering,	Mid-term, Long term	Low
Paint or repaint high visibility crosswalks at Park Avenue, N. Center Street, Park Ave & Elm Street, Wallace St & N. Center St, William St & Canfield St, Park Ave & Park St, Park Ave & State St, Elm St & Hillyer St, Park Ave & Watchung Ave, N. Day St & Park Ave	City, Engineering	Short-term, Mid-term, Long term	Low
Install missing curb ramps, truncated dome pads at Wallace St & N. Center St, N. Center St & New St, William St & Canfield St, Park Ave & State St, Park Ave & Elm St, Park Ave & Ward St, Elm St & Hillyer St	City Engineering,	Short-term, Mid-term, Long term	High
Repair/repave sidewalks at N. Center St, Wallace St, State St, Duane St, Washington St	City Engineering, Residents	Short-term, Mid-term, Long term	Medium
Investigate traffic speeds around the school and post speed limit signs as traffic calming concepts	City Engineering, Police	Short-term, Mid-term, Long term	Low
Install School Zone signs that define the school area; install signs with augmented flashing beacons	City Engineering	Short-term, Mid-term, Long term	Low - Medium

5. Evaluation: Efforts to monitor & evaluate progress towards the achievement of SRTS goals

Evaluation Actions	Responsibility	Time Frame	Cost
Assess implementation of Complete Streets Policy	City	Mid-term	Low
Continue to conduct student travel tallies every two year to measure increase in #	School, EZ Ride	Short-term, Mid-term, Long term	Low

students walking, biking or carpooling			
Survey parents and students re safety and transportation needs	School Admin Team	Short term, mid-term, long term	Low
Monitor drop off and pick up process	School Admin. Team	Short term, Mid-term, Long term	Low
Monitor speeding in area	Police	Mid- Long term	Low
Improve communications between school officials and families establishing a convenient mechanism to share information and get feedback	School Admin Team, PTO, School Tech Coordinator	Short-term, Mid-term, Long term	Low

Conclusion

Community priorities should include repainting high visibility crosswalks and stop bars, repairing and repaving sidewalks to ensure they are level and even, and install pedestrian signals, curb ramps, truncated domes at frequently used intersections along the school routes. Many of the existing truncated domes are misaligned and need to be properly angled to safely direct those who are blind or visually impaired. As well, the City is urged to implement their Complete Streets policy and to work on elements in the Master Plan that support walking and biking.

The walkability audit demonstrated that Orange is a walkable community but there are many cracked, uneven sidewalks, a lack of crosswalks, and blocked pedestrian walkways that hinder a safe easy commute for students. The measures that are recommended in this school travel plan will improve the city's walkability, increase pedestrian safety, and encourage students and parents to walk and/or bike to school.

Through increased use of active transportation and the implementation of its Bike and Ped network, Orange may become a more appealing community by promoting walking and biking and by reducing air pollution and traffic congestion. Additionally, if more residents are able to safely walk and bicycle, the increased physical activity may positively impact the health of residents.

EZ Ride is proud to work with the community to improve safety and bring SRTS programming to the schools. It is hoped this School Travel Plan report will be used to apply for an SRTS infrastructure grant or other DOT grants to make the intersections, sidewalks, and streets safer for students to walk and bike to Park Avenue Elementary School.

Appendix A

Typical Opportunities for Improvement



LONG CROSSING DISTANCES

Long crossing distances prolong the exposure time of pedestrians to motorists and make it difficult to see the pedestrian signal head on the other side of the road.



PEDESTRIAN OBSTRUCTIONS

Obstructions in the pedestrian right-of-way impede pedestrian movement and safety.



LACK OF CURB CUTS

Sidewalks without curb cuts are an obstacle to parents with baby carriages as well as people with disabilities.



POOR MAINTENANCE

Without maintenance pedestrians can trip, it can be a liability issue, and people with disabilities can have trouble negotiating the area.

Typical Bicycle/Pedestrian Treatments



SHARED-USE ROADWAY

Can be a safe for bicyclists when:

- Width is sufficient
- Speeds are low
- Traffic volumes are low



BICYCLE LANE

- Provides a safe and comfortable environment for bicyclists
- An area that is delineated, but not separated from the roadway
- Typically 4' wide with a bicycle stencil



SHARED USE PATH (TRAIL)

- Offers connections and opportunities not provided in the roadway system
- Can provide valuable connections and recreational opportunities
- Typically 8'-10' wide



OTHER FACILITIES

- Bicycle Lockers
- Bicycle Racks on Transit
- Bicycle Racks
- Bicycle Safety Programs

Typical Bicycle/Pedestrian Treatments



SIDEWALKS

- A portion of the road ROW for the preferential or exclusive use of pedestrians
- Typically at least 5' wide
- Should be free of obstructions along its width and 80" high



CROSSWALKS

- Provides a designated crossing point
- Helps provide more predictable pedestrian movements
- Alerts drivers to pedestrian areas



SIGNAGE AND STRIPING

- Can help define pedestrian realm
- Provide visual cues for pedestrians and motorists
- Can augment other facilities



AMENITIES AND AESTHETICS

- Lets pedestrians know area was designed for their use
- Helps provide a safe and comfortable environment
- Helps provide sense of "place"

Typical Bicycle/Pedestrian Treatments



CURB EXTENSION

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection



FULL CLOSURE

- Can be used to eliminate neighborhood cut-throughs
- Eliminates vehicular access
- Allows pedestrian and bicycle access and egress



MID-BLOCK CROSSING

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Connects Pedestrian Generators



RAISED MEDIAN GATEWAY

- Provides Defined Entry
- Provides Cue to a Transition Area
- Aesthetically Pleasing
- Provides Pedestrian Refuge
- Reduction in Vehicle Speeds

Typical Traffic Calming Devices



GATEWAY

- Provides Defined Entry
- Provides Cue to a Transition Area
- Aesthetically Pleasing



CURB EXTENSION REDUCED TURNING

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection



RAISED

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Provides Pedestrian Refuge



BIKELANE

- Reduces Vehicle Speeds
- Produces Designated Lane for Bicyclists
- Provides Additional Buffer for Pedestrians

Typical Traffic Calming Devices



CURB EXTENSION

- Reduces Vehicle Speeds
- Reduces Pedestrian Crossing Distance
- Increases Pedestrian Visibility
- Protects Parking Area & Prevents Parking Close to Intersection



MEDIAN REFUGE

- Reduces Vehicle Speeds
- Reduces Pedestrian- Vehicle Conflict
- Reduces Pedestrian Crossing Distance
- Improves Aesthetics if well-maintained



MID-BLOCK CROSSING

- Reduces Vehicle Speeds
- Increases Pedestrians Visibility
- Reduces Pedestrian Crossing Distance
- Connects Pedestrian Generators



Sidewalks and Access

- Simplifies Crossing Movement
- Reinforces pedestrian priority
- Improves visibility
- Provides safe accessibility