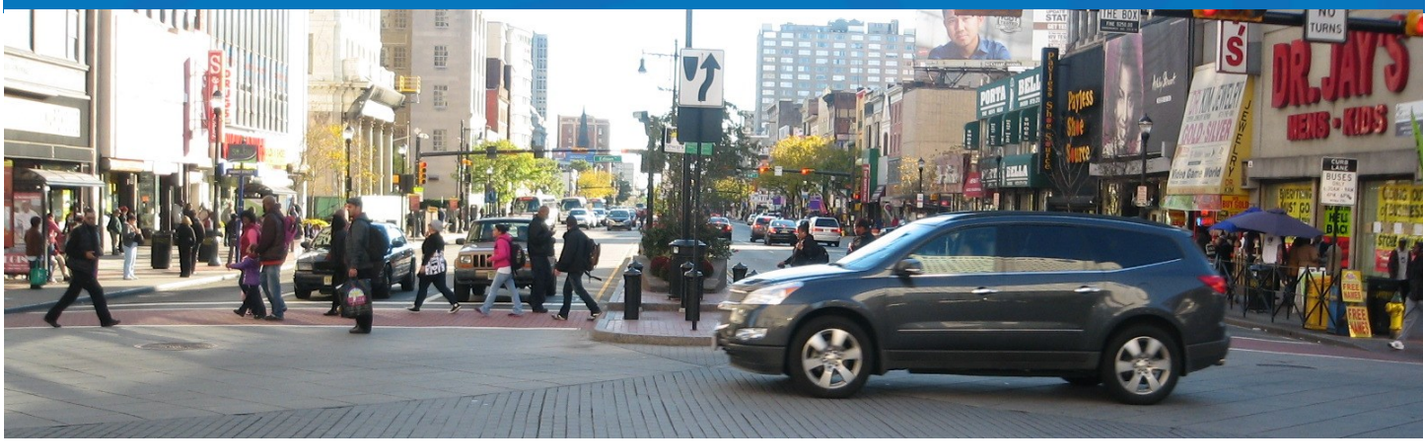
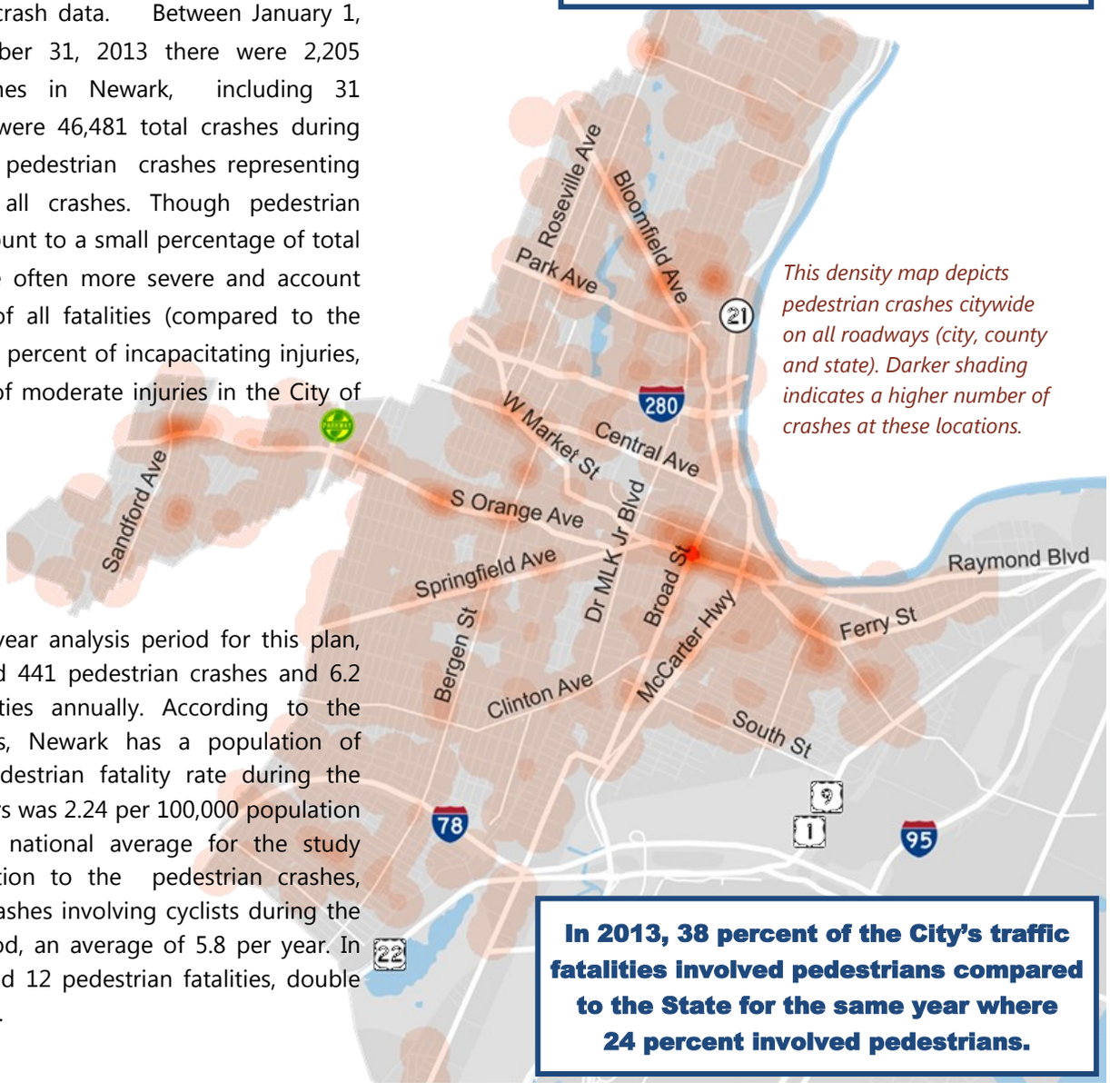
INTRODUCTION



RECENT CRASH HISTORY

Pedestrians account for fewer than 5 percent of all crashes, but 34 percent of all fatalities in the City.

The Newark Pedestrian Safety Action Plan looks at five years of crash data. Between January 1, 2009 to December 31, 2013 there were 2,205 pedestrian crashes in Newark, including 31 fatalities. There were 46,481 total crashes during this period, with pedestrian crashes representing 4.7 percent of all crashes. Though pedestrian crashes only amount to a small percentage of total crashes, they are often more severe and account for 34 percent of all fatalities (compared to the State at 29%), 28 percent of incapacitating injuries, and 24 percent of moderate injuries in the City of Newark.

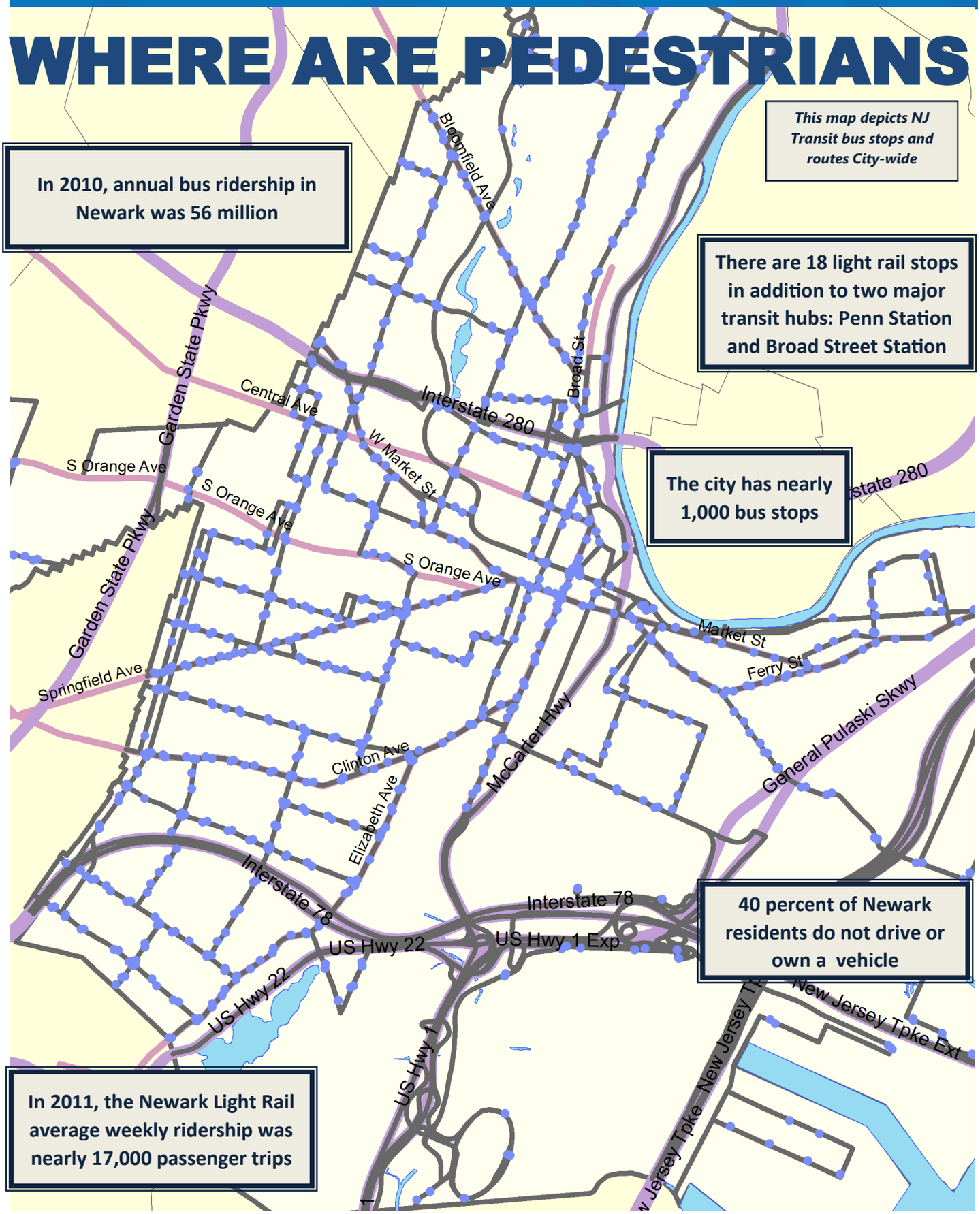


This density map depicts pedestrian crashes citywide on all roadways (city, county and state). Darker shading indicates a higher number of crashes at these locations.

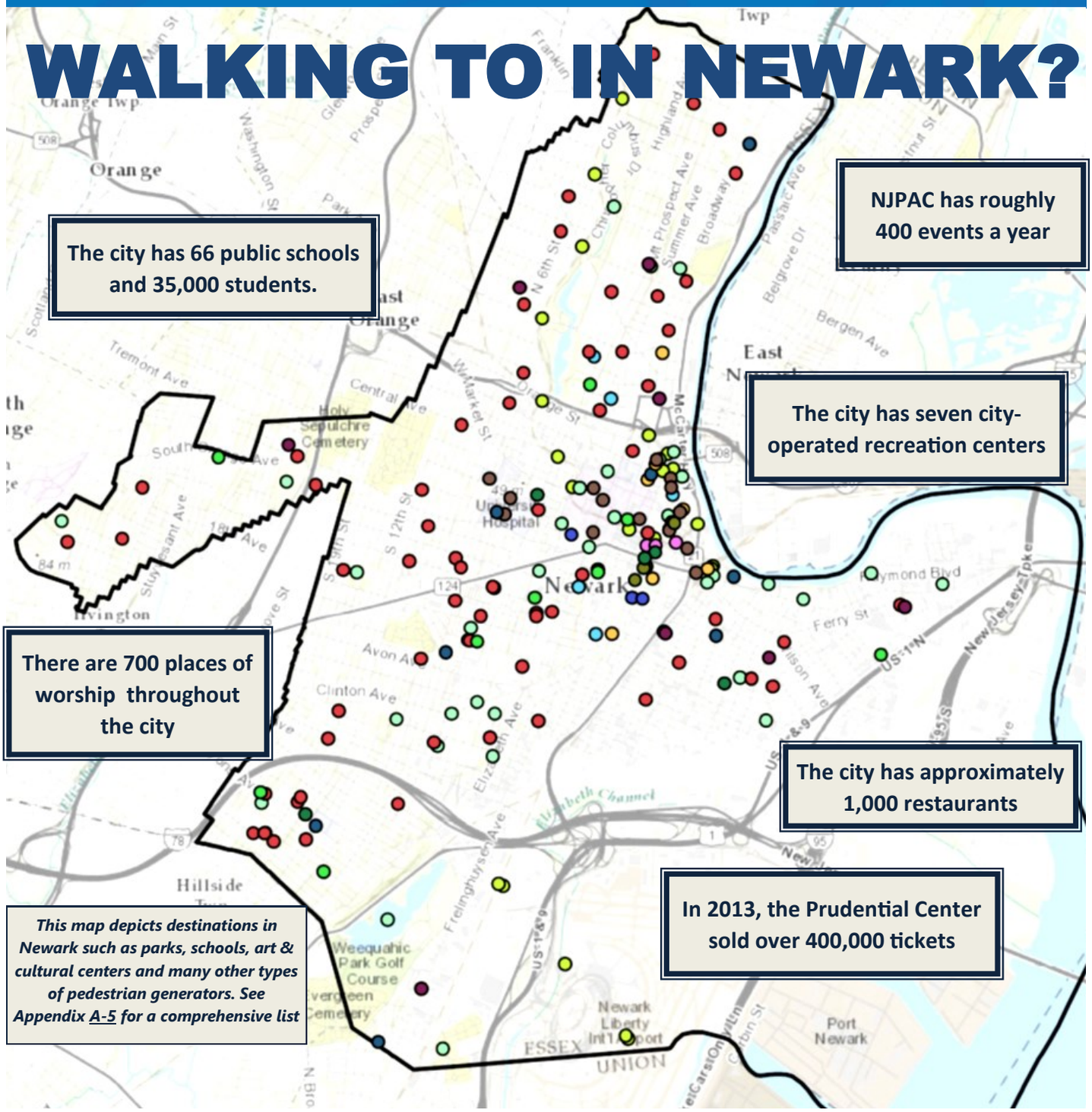
During the five year analysis period for this plan, the city averaged 441 pedestrian crashes and 6.2 pedestrian fatalities annually. According to the 2010 US Census, Newark has a population of 277,140. The pedestrian fatality rate during the study period years was 2.24 per 100,000 population (slightly below national average for the study period). In addition to the pedestrian crashes, there were 29 crashes involving cyclists during the same study period, an average of 5.8 per year. In 2010, the city had 12 pedestrian fatalities, double the previous year.

In 2013, 38 percent of the City's traffic fatalities involved pedestrians compared to the State for the same year where 24 percent involved pedestrians.

WHERE ARE PEDESTRIANS



WALKING TO IN NEWARK?



The city has 66 public schools and 35,000 students.

NJPAC has roughly 400 events a year

The city has seven city-operated recreation centers

There are 700 places of worship throughout the city

The city has approximately 1,000 restaurants

In 2013, the Prudential Center sold over 400,000 tickets

This map depicts destinations in Newark such as parks, schools, art & cultural centers and many other types of pedestrian generators. See Appendix A-5 for a comprehensive list

Everyone is a pedestrian in Newark, whether you are a resident, student, employee or a visitor. Students walk to school, residents catch buses to work or make visits to the corner market, employees walk from transit to their places of work and to restaurants during lunch, kids walk with their parents to parks, families walk to places of worship, and out-of-towners walk to the Prudential Center or NJ PAC to catch a game or show.

INTRODUCTION

CURRENT AND PAST EFFORTS

For more than a decade, the City of Newark has been focused on providing safe streets for all users. Initially, in the early 2000s, efforts focused on school safety and pedestrian safety with the city employing numerous engineering measures. But more recently, education and enforcement have been introduced in an effort to employ the 3 E's of safety (engineering, education and enforcement). Additionally, in 2012 the city adopted a Complete Streets Policy. Current and past efforts by the city to increase pedestrian and bicycle safety are highlighted in the table below:

"The City of Newark is committed to creating street corridors and intersections that safely accommodate all users of all abilities" - excerpt from Newark's complete streets policy resolution adopted September 6, 2012

Projects	Description/Scope	Year Completed
School Flashing Signal Program	Established School Slow Zones at 32 schools by installing 67 school flashing signals. The speed limit is posted at 20 mph when school signals are flashing.	**2006**
School Safety Program	Installed advanced warning and school crossing signs at 315 intersections.	**2007**
Pedestrian Safety Program	Installed pedestrian crossing signs and restriped crosswalks at 185 intersections.	**2009**
West Ward Traffic Calming	Installed traffic calming measures along 43 streets including 60 speed humps, one speed table, corner bump-outs, lane diets (i.e. lane width reduction), rumble strips and warning signs.	**2012**
Central Ward Traffic Calming	Installed traffic calming measures along 10 streets including 15 speed humps, corner bump-outs, lane diets, rumble strips and warning signs.	**2012**
Citywide Traffic Calming	Installed 120 speed humps along neighborhood streets and school zones, and a Rectangular Rapid Flashing Beacon (RRFB) at W. Market Street and 4th Street/Littleton Avenue.	**2014**

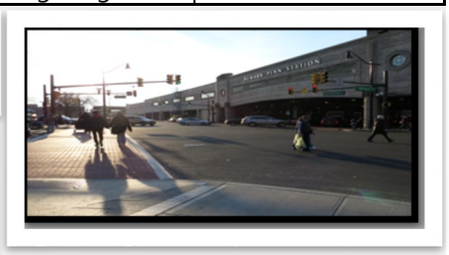
INTRODUCTION

Projects	Description/Scope	Year Completed
Dr. Martin King Jr. Blvd and Spruce St, Bloomfield Ave and Mt. Prospect Ave	Installed corner bump-outs, new traffic signals with pedestrian countdown signals, new signs, school flashing signals and center medians.	**2006**
West Market St, 4th St and Littleton Ave	Installed corner bump-outs, center medians with pedestrian refuge, new signs and high visibility stamped brick crosswalks.	**2005**
Raymond Blvd (between Freeman St and Somme St)	Installed two new traffic signals with pedestrian countdown signals, guide rails, high visibility stamped brick crosswalks, new signs and new pavement markings.	**2006**
Broad Street Streetscape Project (between Franklin St and New St)	Replaced eleven existing traffic signals and added pedestrian countdown signals, new curb and sidewalks, ADA curb ramps, corner bump-outs, landscaped center medians with pedestrian refuge, pedestrian fencing, new street lighting, street furniture, bus shelters, high visibility stamped brick crosswalks, new signs, lane diet and new pavement markings.	**2015**

Ferry Street Streetscape Project (between Raymond Plaza East and Merchant St)	Replaced six existing traffic signals and added pedestrian countdown signals, corner bump-outs, new curb and sidewalks, ADA curb ramps, new street lighting, street furniture, high visibility stamped brick crosswalks, a pedestrian safety island, new signs and new pavement markings.	**2012**
Norfolk Street, Jones Street and Irvine Turner Blvd Traffic Calming Project	Replaced six existing traffic signals and added pedestrian countdown signals. Upgraded three existing traffic signals to include pedestrian countdown signals and left turn signals. This project also included new curb and sidewalks, ADA curb ramps, raised intersections, new signs, lane diet, bike lanes and landscaping medians.	**2012**
Newark Greenway Bicycle Route Project	Installed bike lanes to connect Weequahic Park in the South Ward to Branch Brook Park in the North Ward.	**2015**
Wilson Ave Traffic Signals Project	Replaced two existing traffic signals and added pedestrian countdown signals and added two new traffic signals with pedestrian countdown signals. This project also included new ADA curb ramps, new sidewalks, warning and regulatory signs and new pavement markings.	**2014**

INTRODUCTION

Projects	Description/Scope	Year Completed
Clinton Ave and South Orange Ave Streetscape	Replaced eight existing traffic signals and added pedestrian countdown signals, new curb and sidewalks, ADA curb ramps, corner bump-outs, LED street lighting, lane diets, street furniture, new signs and new pavement markings.	**2014**
Mt. Prospect Ave and Lower Broadway Streetscape	Replaced seven existing traffic signals and added pedestrian countdown signals, new curb and sidewalks, ADA curb ramps, corner bump-outs, LED street lighting, lane diets, street furniture, new signs and pavement markings including reverse angle parking on Lower Broadway and protected bike lanes on Mt. Prospect Ave.	**2015**
Citywide Bike Lanes	Constructed ten miles of bike lanes, connecting city and county parks, Rutgers University and NJIT, schools and several commercial corridors.	**Ongoing Since 2011**
Penn Station Circulation	Replaced four existing traffic signals and added pedestrian countdown signals and audible push buttons, new ADA curb ramps, corner bump-outs, imprinted crosswalks and LED street lighting.	**2013**

Project Red Light - Red Light Photo Enforcement Pilot Program	Installed cameras at 19 high crash intersections. Cameras that were in operation for five years yielded a 100 percent reduction in right-angle crashes, 83 percent reduction in rear-end crashes and 83 percent reduction in total number of crashes.	**2014**
NJ Street Smart Pedestrian Safety Education Pilot Campaign	Participated in the Street Smart NJ pilot campaign, a public education, awareness and enforcement campaign. The city partnered with local businesses, business improvement districts, higher educational institutions, non-profit organizations and neighborhood associations.	**Ongoing Since 2013**
Pediatric Pedestrian Injury Prevention Partnership (PIPP)	Community coalition including public health professionals, law enforcement, school representatives, local governmental, advocacy and community-based agencies supporting each other's applications for grant funding and collaborating on local safety programs. The New Jersey Trauma Center (NJTC) partners with Newark Public Schools to provide pedestrian safety education programs to students to reduce the incidence of traumatic injuries due to pedestrian related crashes.	**Ongoing Since 2009**

INTRODUCTION

DATA AND ANALYSIS

Pedestrian and bicycle crash information citywide was analyzed during this study. Five years of crash data from 2009-2013 was used to rank the highest crash volume and most severe intersections and corridors throughout the city. From this ranking, the top 10 intersections and corridors under the city's jurisdiction were identified and further reviewed for potential safety improvements detailed in the Implementation chapter of this plan.

COMMUNITY OUTREACH

Concurrent with the data and analysis, there was community outreach throughout the development of this plan. Stakeholders and Steering Committee members were identified at the start of the project. Steering committee members helped guide decisions on public outreach, and provided input on the policies, toolbox of improvements and other recommendations in the plan. Stakeholder and steering committee members included community leaders, hospitals, higher learning institutions, large employers and venues in the Central Business District (such as Prudential, the Prudential Center and NJPAC), the Department of Education, business leaders, interested agencies (such as FHWA, NJ Department of Transportation, and the Essex County Sherriff's office), and other groups. A complete list of stakeholder and steering committee members can be found in the Acknowledgements.

Three public information centers were held in different locations in the city to gather input from different wards:

- November 12, 2014-Prospect Firehouse, East Ward
- March 26, 2015-La Casa de Don Pedro, Central Ward
- June 4, 2015-First Zion Hill Missionary Baptist Church, South Ward

At each meeting, the plan's progress was presented and workshop exercises were conducted to gather input from the public attendees.

In addition, visitors to the PSE&G Plaza Farmer's Market on June 11, 2015 were surveyed on their views of the project and its recommended improvements.

IMPLEMENTATION

The Pedestrian and Bicycle Plan is the Safety Action Plan "roadmap" to identify existing locations in need of improvements through data-driven and community-driven approaches, along with methods to identify additional locations in need of improvement. The plan will be used to guide the city's with future decisions in prioritizing safety improvements.

This section of the Pedestrian and Bicycle Safety Action Plan describes the recommended methods for implementing the 3-E strategies and policies developed through the data-driven and community-driven plan. First, the recommended implementation method of pedestrian and bicycle safety engineering improvements at high crash locations is described for intersections and corridors. Next, options for implementing bike facilities are presented. The partners and funding options to provide the capital investment, design and construction resources, and permitting and approvals for implementing projects developed under the Pedestrian and Bicycle Safety Action Plan strategies are named. Finally, the integration of the NJTPA's Street Smart NJ Campaign into the Pedestrian and Bicycle Safety Action Plan for its education and enforcement strategies is presented.

Many activities have been completed or are currently underway that can reduce the severity and frequency of pedestrian crashes. The City of Newark, NJTPA, NJ Division of Highway Traffic Safety (NJDHTS), NJ Department of Transportation (NJDOT) and Urban Enterprise Zones (UEZs) have funded these activities.

TOOLBOX OF IMPROVEMENTS

The toolbox is a set of potential strategies intended to improve pedestrian and bicycle safety citywide. It includes physical strategies (engineering), education, enforcement and policy strategies. The toolbox is a part of this plan beginning on page 6-1 where the strategies summarized below are explained in detail.

Engineering

A scan of current and feasible pedestrian and bicycle safety improvements and policies to potentially reduce the severity and frequency of pedestrian crashes was undertaken in Newark, New York City, New Jersey and nationally. The resulting research and recommended toolbox of improvements is presented herein. The City of Newark Pedestrian and Bicycle Safety Action Plan Toolbox is composed of five sections of engineering improvements:

Street Design – strategies to improve the safety and appearance of walking along city streets, such as sidewalks with adequate area for street furniture, pedestrian zones and building frontages, street trees to beautify the street and calm traffic, lighting to illuminate pedestrians, proper access to transit and bus stops, and, in the case that pedestrian crossings must be prohibited, pedestrian fencing.

Intersection and Crossing Design – curb ramps to provide access to crossings for all users, curb extensions to reduce the pedestrian crossing distance and calm traffic,

crosswalks to establish a marked crossing for pedestrians, medians/center islands to provide pedestrian refuge while crossing streets, pedestrian signals to indicate when to legally cross a street, Rectangular Rapid Flashing Beacons and in-road "Stop for Pedestrians" signs to increase vehicular compliance with stop for pedestrians in crosswalk laws, midblock crossings to legally establish pedestrian right-of-way to cross and pedestrian signal timing strategies to increase crossing times or lead pedestrian intervals, which gives pedestrians a head start.

Sample strategies from the Toolbox

Speed Control – rumble strips, speed humps and speed tables, center medians, gateway treatments, chicanes, chokers, diverters, roundabouts, and road diets to calm traffic, dedicate more of the street space to pedestrian and bicycle use and for beautifying neighborhoods.

Bicycle Lanes, Paths and Routes – shared roadways or bicycle boulevards to provide warning to vehicles that bikes may be present, bike lanes (unbuffered, buffered and separated) to indicate a separate travel way for cyclists, contraflow or two-way separated bike lanes to provide more direct routes for cyclists against traffic, or a multiuse path that is completely separated from streets.

Bicycle Intersection Tools – bike boxes, bike signals, two-stage turn queue boxes, mixing zones and striping through intersections to facilitate turning movements for bikes across through traffic and navigating intersections.

TOOLBOX OF IMPROVEMENTS

Education, Enforcement and Policy

The toolbox also contains a section on pedestrian and bicycle safety policies, which include strategies and approaches toward the goal of reducing or eliminating pedestrian and bicycle fatalities in the City of Newark. Those policies are:

Vision Zero Policy – a policy with the message that no pedestrian or bicycle deaths are acceptable

Neighborhood Slow Zone – reduces speeds below prevailing limits in a residential area

Arterial Slow Zone – reduces speeds below prevailing limits in commercial area

School Slow Zone – reduces speeds near school

Lateral Clearance for Motor Vehicles When Passing Bicyclists – provides the city the option to pass a law to protect bicyclists from passing vehicles by providing a safe distance between cyclists and passing vehicles

Police Enforcement – allows for more aggressive enforcement of vehicle and traffic safety laws in support of the Pedestrian and Bicycle Safety Action Plan

Education & Outreach – advocates for the city to pursue additional community education and outreach activities such as Street Smart NJ to educate pedestrians, cyclists and motorists on the need to follow vehicle and traffic safety laws.

No-Turn-on-Red Prohibition – a citywide ban on turning while traffic signals are red

Reduced Speed Limit on County & State Roads – Newark's local streets are set at 25 miles per hour, but Essex County and state routes have higher speed limits

Automated Pedestrian Signals – the removal of pedestrian pushbuttons (except where Accessible Pedestrian Signals are needed) to reinforce the behavior of motorists to expect pedestrians crossing at signalized intersections at any time, citywide; also includes the option for pedestrian detection to actuate traffic signals or beacons to provide WALK phases