

# Philadelphia Pike Pedestrian Safety Audit Study

JANUARY 2018



**RK&K**

## I. Introduction

DelDOT received a request to improve safety for pedestrians along Philadelphia Pike (US 13B), between Lea Boulevard and the Delaware / Pennsylvania State Line, which is located north of the City of Wilmington in New Castle County, Delaware. The request was submitted by Senator Harry B. McDowell, Representative Bryon H. Short, Ms. Tracie Baker, Mr. Ed Podralski, Mr. Scott MacKenzie and Mrs. Lynn Barber, after Ms. Baker's partner was involved in one of the two fatal pedestrian crashes reported on Philadelphia Pike near the Claymont Liquor Store.

Following Ms. Baker's request, DelDOT initiated a Pedestrian Safety Audit Study on Philadelphia Pike between Lea Boulevard and the Delaware / Pennsylvania State Line. The purpose of this study is to evaluate existing pedestrian facilities, roadway lighting, and pedestrian / bike crash history in order to identify potential safety improvements for pedestrians within the study corridor.

## II. Relevant Projects / Studies

### A. Philadelphia Pike Pavement & Rehabilitation Project / Road Diet between Governor Printz Boulevard and Rolling Road

DelDOT completed a road diet project on the section of Philadelphia Pike between Governor Printz Boulevard and Rolling Road in 2012. DelDOT completed a before and after study of the road diet in November 2016, to identify operational and safety impacts of using road diets in Delaware.

A review of the crash data for the three (3) year period before and after the road diet project was completed showed a decrease in the total number of crashes along Philadelphia Pike within the study area. The traffic volume data showed that daily traffic volumes have increased on Philadelphia Pike while they have decreased on Governor Printz Boulevard, which could serve as a potential diversion route. The results from the operational analysis showed minor increases to the overall delay and maximum queues at the signalized intersections within the study corridor; however, all of the key intersections still operate at an acceptable level of service (LOS).

DelDOT collected spot speed data at several locations along Philadelphia Pike after the road diet project was complete. The results from the speed study showed higher posted speed limit compliance along the road diet section of Philadelphia Pike compared to the sections north and south of the road diet.

In addition, curb ramp inventory was completed along the project segment of Philadelphia to assess the curb ramp compliance to the Americans with Disabilities Act (ADA) requirements. It appears the curb ramp improvements will be completed as a part of another project; therefore, it will not be discussed as a part of this Pedestrian / Bicycle Safety Audit Study. Findings from the curb ramp assessment are attached in Appendix A.

### B. North Claymont Area Master Plan (NCAMP) / Claymont Station Relocation Project

The Wilmington Area Planning Council (WILMAPCO) published the **North Claymont Area Master Plan (NCAMP)** in January 2017. NCAMP provides a framework and recommendations for the redevelopment of the area surrounding Philadelphia Pike, between I-495 and the Delaware-Pennsylvania State Line. The master plan includes redeveloping the former EVRAZ Steel Plant, located along Philadelphia Pike between I-495 and Naamans Road.

RK&K is currently working on the site design of the new Claymont Rail Station as well as the Spine Road connecting the new station and Philadelphia Pike. As a part of the project, RK&K is also tasked to complete traffic analyses of the project area to determine the needed intersection treatment and lane configuration for Philadelphia Pike as well as the Spine Road within the project area. Based on the traffic analyses, the intersection of Philadelphia Pike and the Spine Road is expected to be improved as a part of the Claymont Station Relocation project.

### C. Seminole Avenue Traffic Study Request

DeIDOT received a request to review the signal timing at the intersection of Philadelphia Pike and Seminole Avenue/ Wiltshire Road from the Claymont Terrace Civic Association. Ms. Jeanette Matinas, Claymont Terrace Civic Association President, cited the close proximity to Claymont Elementary School and the U.S. Post Office as the basis for changes at the intersection. More specifically, Ms. Matinas requested left-turn signals on the Philadelphia Pike approaches at the intersection, adjustments to the signal timing on Seminole Avenue, and an exclusive pedestrian phase. DeIDOT's Transportation Management Center (TMC) is currently implementing the remedial measures.

## III. Roadway Characteristics

### A. Roadway Characteristics

The study corridor of Philadelphia Pike (US13/US13B) is classified as a minor arterial per DeIDOT's **2015 Functional Classification Map of Delaware Roads** (ArcGIS, as of 3/3/2015). Philadelphia Pike is a two-way roadway, which connects to the Delaware-Pennsylvania State Line to the north and the Delaware-Maryland State Line to the south. For the purpose of this study, it will be assumed that Philadelphia Pike is oriented in a north-south direction.

The study corridor of Philadelphia Pike is approximately six (6) miles long, over which, the annual average daily traffic (AADT), posted speed limit, lane configuration, and land use vary. The AADT and posted speed limit are provided by breakpoint, from DeIDOT's **2016 Traffic Summary**, in Table 1 and on the study area map (Figure 1).

#	Segment beginning point		Segment end point		2016 ADT	Posted Speed Limit
	Road Name	MP	Road Name	MP		
1	Lea Blvd.	2.56	Edgemoor Road	2.85	8,265 VPD	35 MPH
2	Edgemoor Road	2.85	Marsh Road	3.25	9,870 VPD	40 MPH
3	Marsh Road	3.25	Washington St. Extension	3.64	7,684 VPD	40 MPH
4	Washington St. Extension	3.64	Silverside Rd	5.13	10,039 VPD	40 / 45 MPH
5	Silverside Road	5.13	Governor Printz Blvd.	6.82	14,354 VPD	40 MPH
6	Governor Printz Blvd.	6.82	I-495	7.41	22,072 VPD	35 MPH
7	I-495	7.41	SR 92 (Naamans Road)	8.06	15,222 VPD	35 MPH
8	SR 92 (Naamans Road)	8.06	Pennsylvania State Line	8.48	7,173 VPD	35 MPH



**Philadelphia Pike Study Area Map**

**RK&K** June 2017 Figure 1

## B. Signalized Intersections: Pedestrian Signal Operations

There are ten (10) signalized intersections within the study corridor. In April 2017, RK&K visited each of the signalized intersections to observe the operations of the pedestrian signals and to test each of the push buttons at the intersections. The field technicians noted the presence of pedestrian signal heads for each leg of the intersection as well as pedestrian signal timing operations. A summary of the observations are provided in Table 2.

Table 2: Pedestrian Signal Operations				
Road Name	Signal Notes			
	East Leg	West Leg	North Leg	South Leg
Lea Boulevard	Fixed	Fixed	N/A	Actuated
Shipleigh Road	Fixed	Fixed	N/A	Actuated
Marsh Road	Fixed	Fixed	Actuated	Actuated
Washington St. Extension	N/A	Fixed	N/A	Actuated
Duncan Road	Fixed	N/A	Actuated	N/A
Bellevue Parkway	Fixed	Fixed	Actuated	N/A
Silverside Road	Actuated	Actuated	N/A	Actuated
Holly Oak Road	Fixed	Fixed	Actuated	N/A
Rolling Road	N/A	Fixed	Actuated	Actuated
Maple Road	N/A	Fixed	Actuated	Actuated
Harvey Road	Fixed	Fixed	Actuated	Actuated
Commonwealth Avenue	Fixed	N/A	Actuated	Actuated
Governor Printz Boulevard	Actuated	N/A	Actuated	N/A
Seminole Avenue	Fixed	Fixed	Actuated	Actuated
Manor Avenue	Fixed	Fixed	Actuated	Actuated
Myrtle Avenue	Actuated	Actuated	Actuated	Actuated
SR 92 (Naamans Rd)	N/A	Fixed	N/A	N/A

**Philadelphia Pike at Holly Oak Road:** There is a No Pedestrians sign (R9-3) and "USE SIDEWALK" sign mounted on the northeast corner at the intersection of Philadelphia Pike and Holly Oak Road (See picture 1). This combination of signs may be confusing to pedestrians. If the purpose of the signs is to guide pedestrians to use the existing crosswalk on the south leg of the intersection, a different combination of signs should be used (DE MUTCD, Section 2B.51).

**Philadelphia Pike at Wiltshire Road:** The existing street name sign for Wiltshire Road is obstructing the pedestrian signal head on the east leg of the intersection (See picture 2). The street name sign for Wiltshire Road should be relocated.

## C. Vehicular Speeds

A speed study was conducted on March 9, 2017, using a conventional radar gun, at three (3) locations on Philadelphia Pike. Vehicle speeds were measured with the radar gun and the data was then used to determine the 85<sup>th</sup> percentile speed for each of the locations. The results of the speed study are provided in Table 3 and the raw speed data is attached in Appendix B.

Table 3: Radar Speed Study Results					
Location	Direction	Existing Speed Limit	85 <sup>th</sup> Percentile Speed	% Vehicles Over Speed Limit	% Vehicles 5 MPH Over Speed Limit
1	Northbound	40 MPH	53 MPH	94%	70%
	Southbound	40 MPH	54 MPH	90%	78%
	Combined	40 MPH	54 MPH	94%	75%
2	Northbound	45 MPH	59 MPH	94%	74%
	Southbound	45 MPH	54 MPH	67%	43%
	Combined	45 MPH	56 MPH	80%	59%
3	Northbound	40 MPH	49 MPH	94%	36%
	Southbound	40 MPH	50 MPH	86%	56%
	Combined	40 MPH	50 MPH	81%	50%

**Location 1:** Radar data was collected along Philadelphia Pike at a location between Rolling Road and Holly Oak Road. This section of Philadelphia Pike has a posted speed limit of 40 MPH. The combined 85<sup>th</sup> percentile speed for northbound and southbound Philadelphia Pike at the radar location was found to be 54 MPH, which indicates that 85 percent of traffic in this area is traveling at or below 54 MPH. In addition, the data revealed that seventy-five percent (75%) of vehicles were traveling at speeds 5 MPH or greater than the posted speed limit of 40 MPH.

**Location 2:** Radar data was collected along Philadelphia Pike at a point just north of Bellevue Parkway. This section of Philadelphia Pike has a posted speed limit of 45 MPH. The combined 85<sup>th</sup> percentile speed for northbound and southbound Philadelphia Pike at the radar location was found to be 56 MPH, which indicates that 85 percent of traffic in this area is traveling at or below 56 MPH. In addition, the data revealed that fifty-nine percent (59%) of vehicles were traveling at speeds 5 MPH or greater than the posted speed limit of 45 MPH.

**Location 3:** Radar data was collected along Philadelphia Pike at a location between Shipley Road and Marsh Road. This section of Philadelphia Pike has a posted speed limit of 40 MPH. The combined 85<sup>th</sup> percentile speed for northbound and southbound Philadelphia Pike at the radar location was found to be 50 MPH, which indicates that 85 percent of traffic in this area is traveling at or below 50 MPH. In addition, the data revealed that fifty percent (50%) of vehicles were traveling at speeds 5 MPH or greater than the posted speed limit of 40 MPH.

#### D. Transit data for DART Bus Route 1

RK&K received ridership data for the study corridor from the Delaware Transit Corporation (DTC). A breakdown of the average number of riders getting onto and off of buses, at each bus stop, is provided in table 4. This list includes all of the bus stops near signalized intersections as well as bus stops with a significant average weekday rider volumes within the study corridor of Philadelphia Pike. The original ridership data from DTC is attached in Appendix C.

Table 4: Transit Data: DART Route 1 (Philadelphia Pike) Average Weekday Daily Number of Riders per bus stop location						
Stop Name	Outbound (NB)			Inbound (SB)		
	On	Off	Total	On	Off	Total
44 <sup>th</sup> Street (Near Lea Blvd)	-	-	-	24	5	29
Forman Mills (Near Lea Blvd)	9	12	21	14	6	20
Edgemoor Rd	3	7	10	4	2	6
Marsh Rd	2	6	8	2	5	7
Washington St. Ext.	2	10	12	8	4	12
Duncan Rd	7	6	13	3	2	5
Bellevue Pkwy/Cauffiel Pkwy	3	3	6	8	3	11
Silverside Rd	8	16	24	26	10	36
Holly Oak Rd	22	13	36	9	19	28
Rolling Rd	1	1	2	0	0	0
Maple Road	2	13	15	5	2	7
Harvey Road	22	70	92	68	21	89
Pennsylvania / Princeton Ave	5	25	30	31	6	37
Commonwealth Ave	3	38	41	31	6	37
Stockdale Ave/ Lawson Ave	6	25	31	21	5	26
Gov. Printz Blvd/ Franklin Ave	1	9	10	7	2	9
Manor Ave/ Seminole Ave	2	15	17	14	3	17
Archmere Academy	6	20	26	26	7	33
Alcott Ave	0	0	0	-	-	-
Citi Steel	0	0	0	-	-	-

#### IV. Bike & Pedestrians Crash History

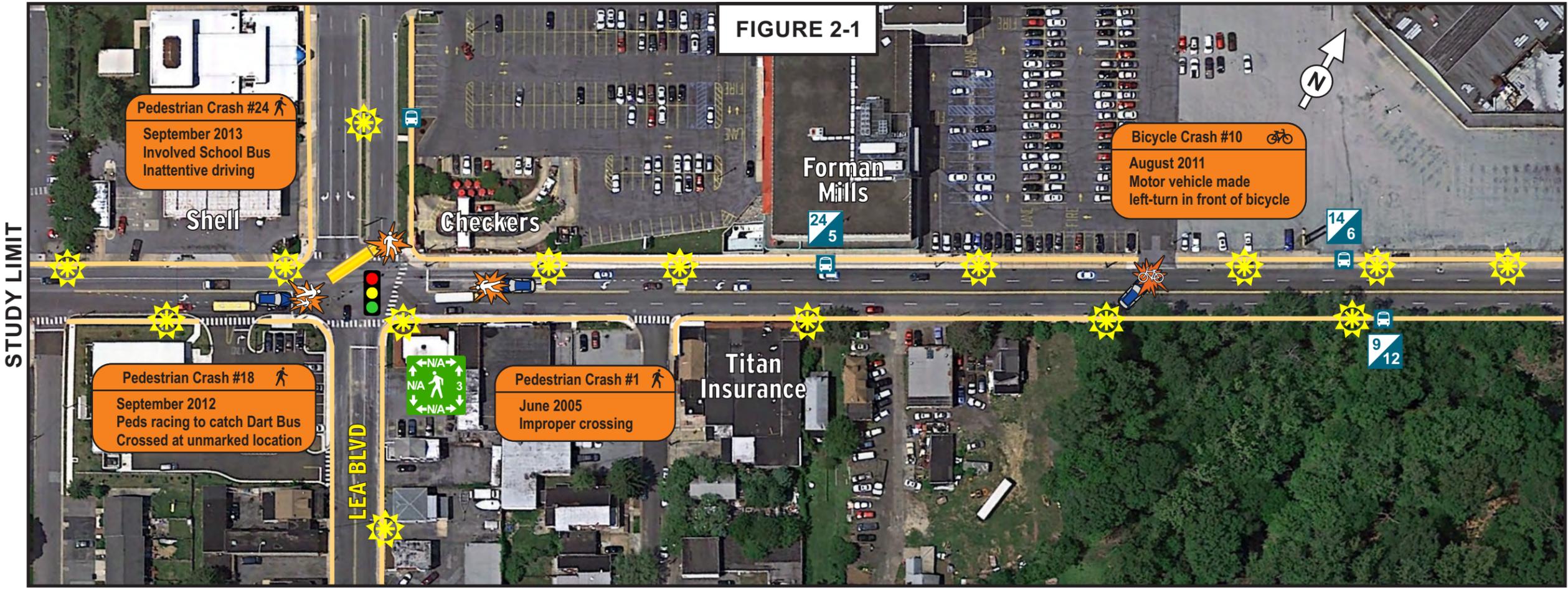
DelDOT provided crash reports for the study segment of Philadelphia Pike, between Lea Boulevard and the Delaware/ Pennsylvania State Line, for the period of 2005 through 2016. According to the crash data, there were thirty-eight (38) reported crashes involving pedestrian(s) and twelve (12) reported crashes involving bicyclist(s). Each of the crashes is numbered and shown on the crash diagram (Figures 2-1 through 2-24) and a summary of the trends for each intersection/ segment is detailed below.

##### Philadelphia Pike at Lea Boulevard

- Pedestrian Injury Crash #1 (Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Lea Boulevard on Tuesday, June 21, 2005. The pedestrian attempted to cross Philadelphia Pike just north of Lea Boulevard. The crash was attributable to the pedestrian crossing the roadway without checking for vehicles approaching on southbound Philadelphia Pike.
- Pedestrian Injury Crash #18 (Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Lea Boulevard on Saturday, September 22, 2012. Two pedestrians (Age 21 & 3 years old) attempted to cross Philadelphia Pike, just south of Lea

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line  
JUNE 2017



**LEGEND**

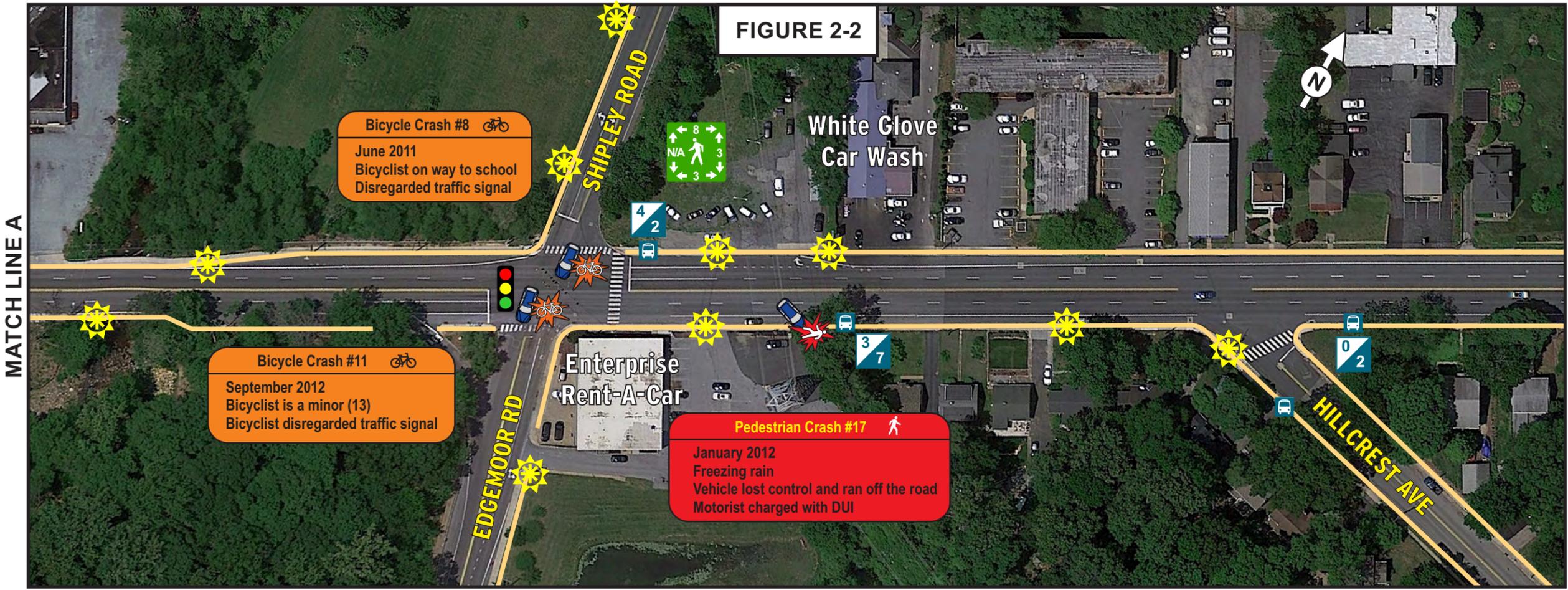
- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)

**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet



STUDY LIMIT

MATCH LINE A

MATCH LINE A

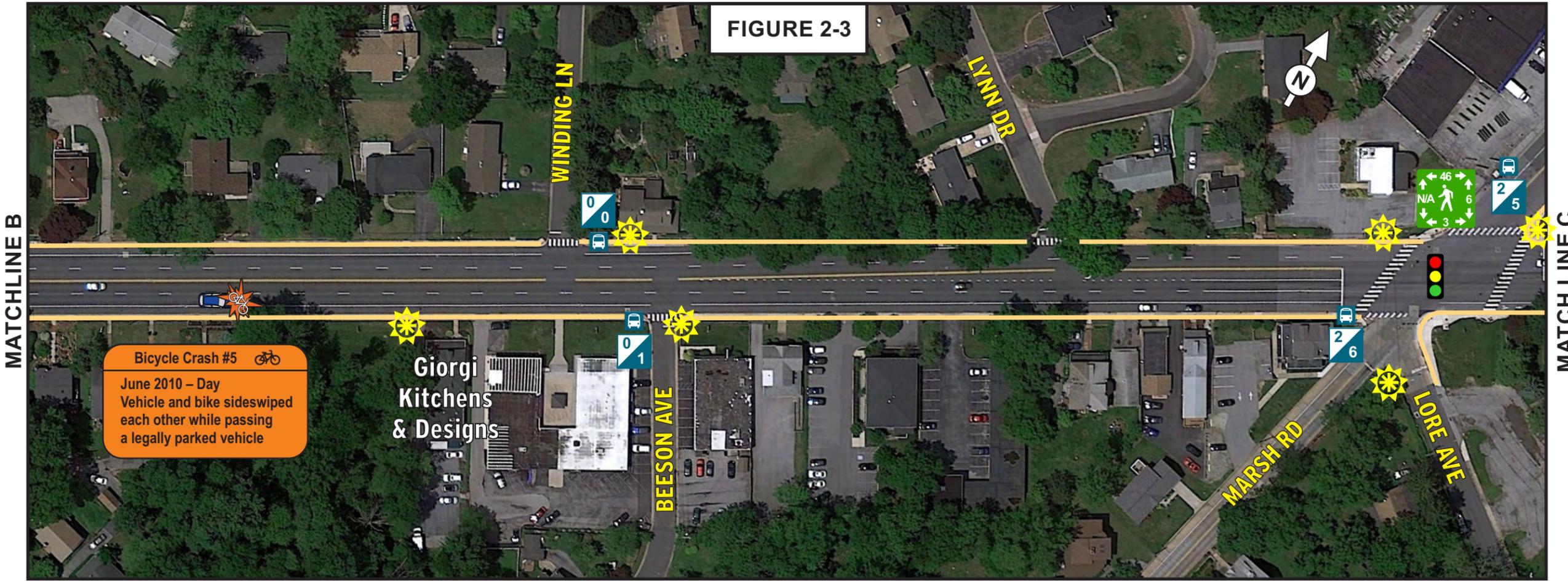
MATCH LINE B

FIGURE 2-1

FIGURE 2-2

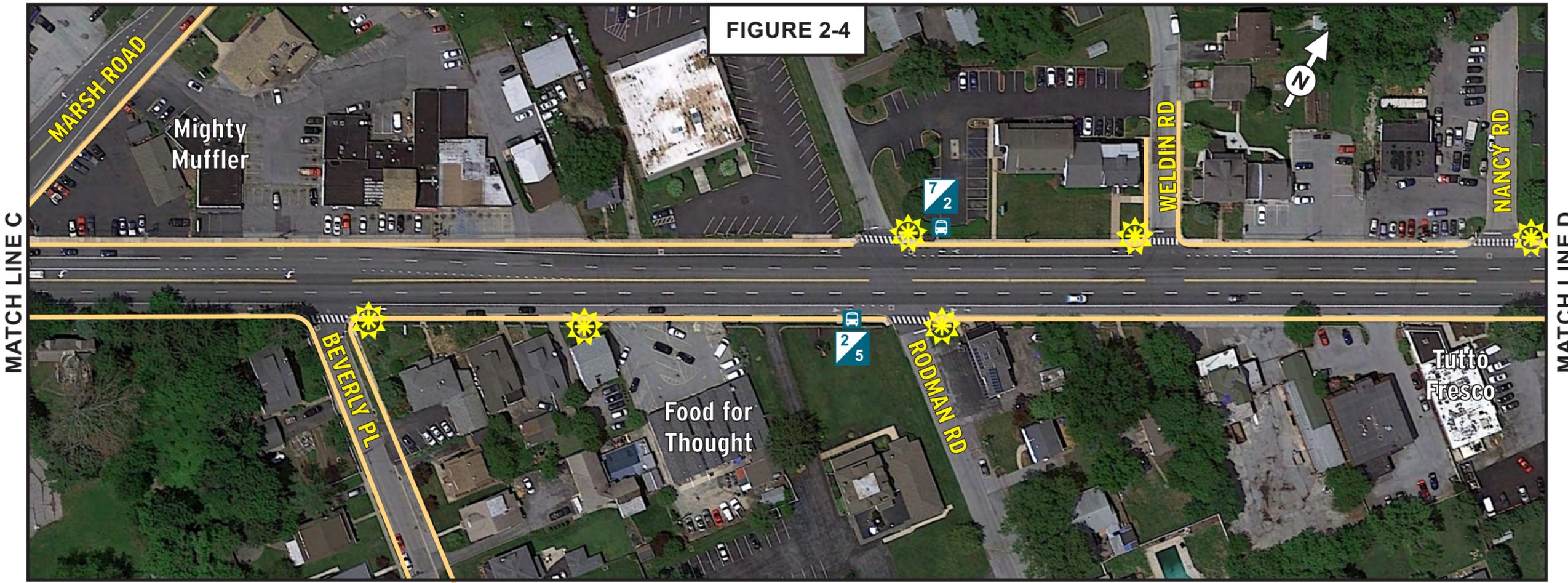
# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line  
JUNE 2017



**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)



**CRASH TYPES**

- Pedestrian Non-injury Crash
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- Bicycle Fatal Crash
- Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line  
JUNE 2017

**LEGEND**

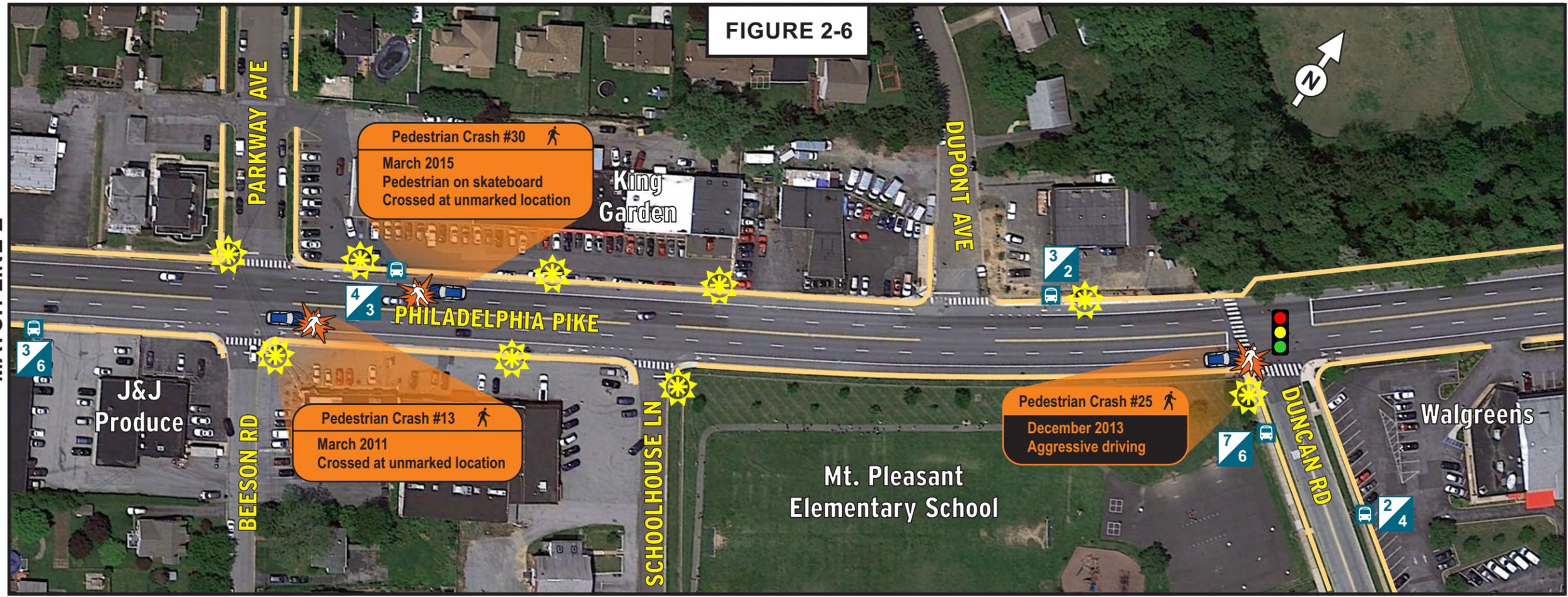
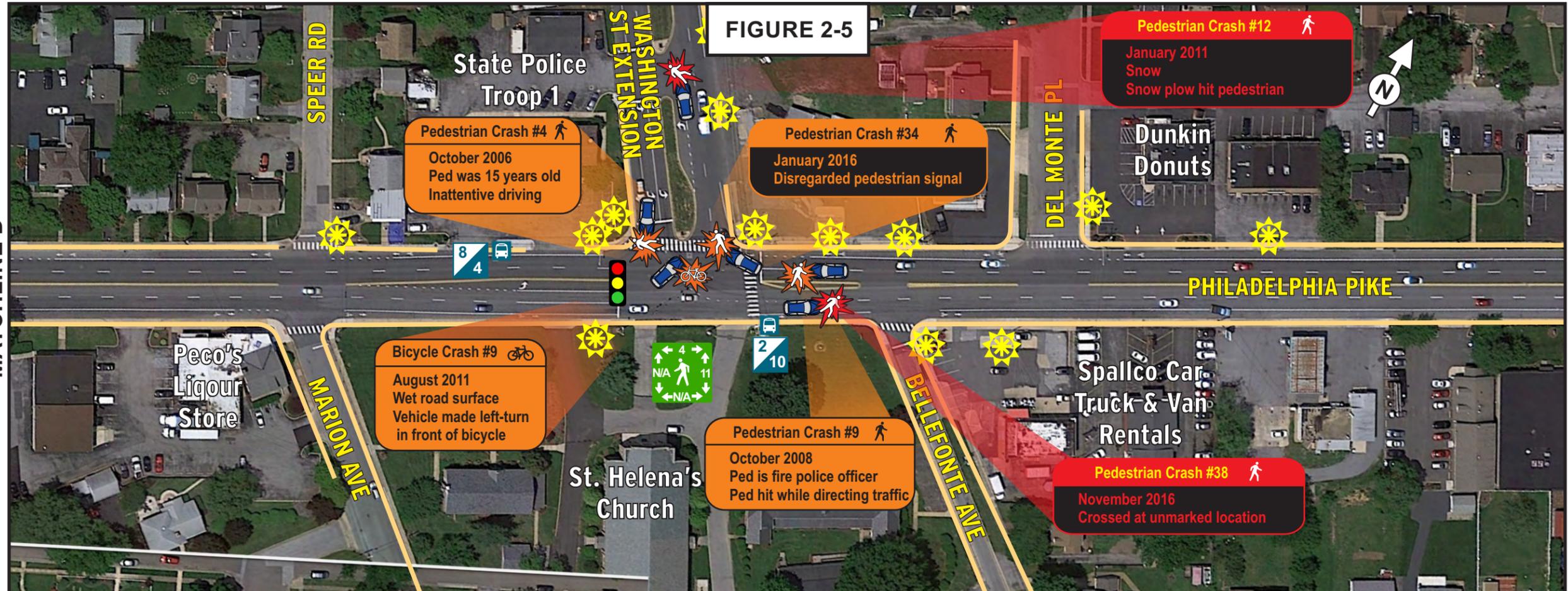
- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)

**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet



MATCHLINE D

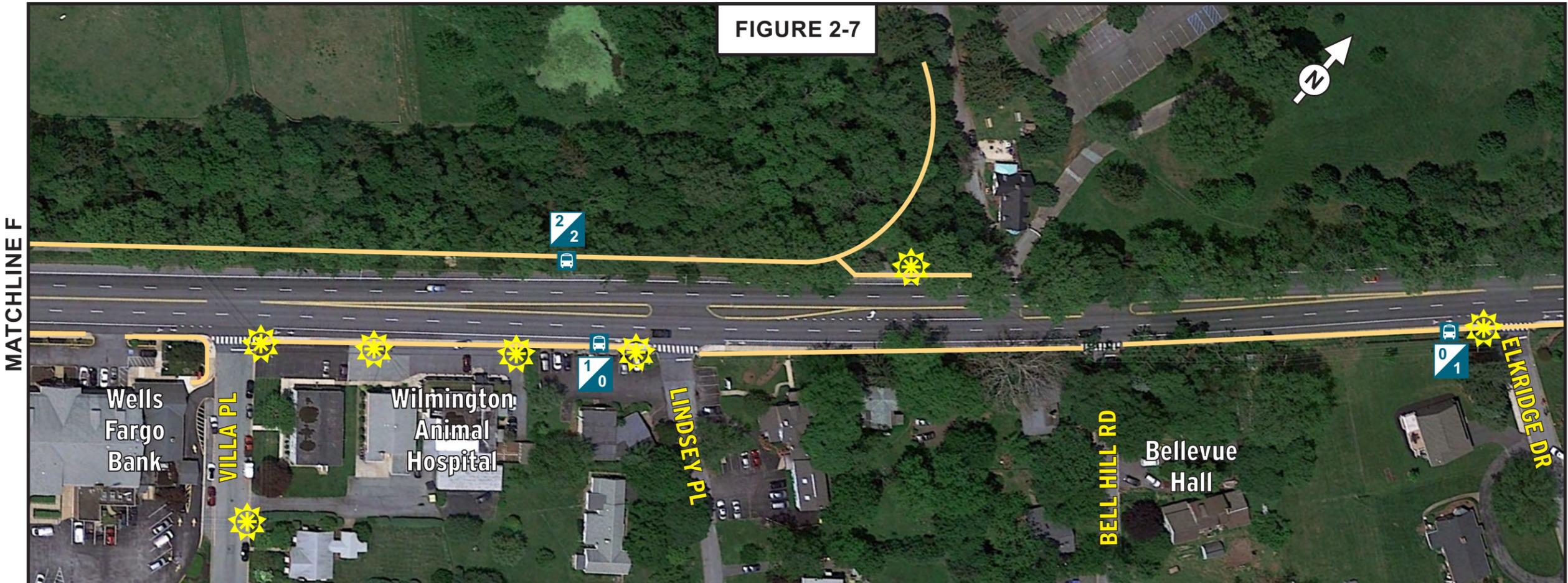
MATCHLINE E

MATCHLINE E

MATCHLINE F

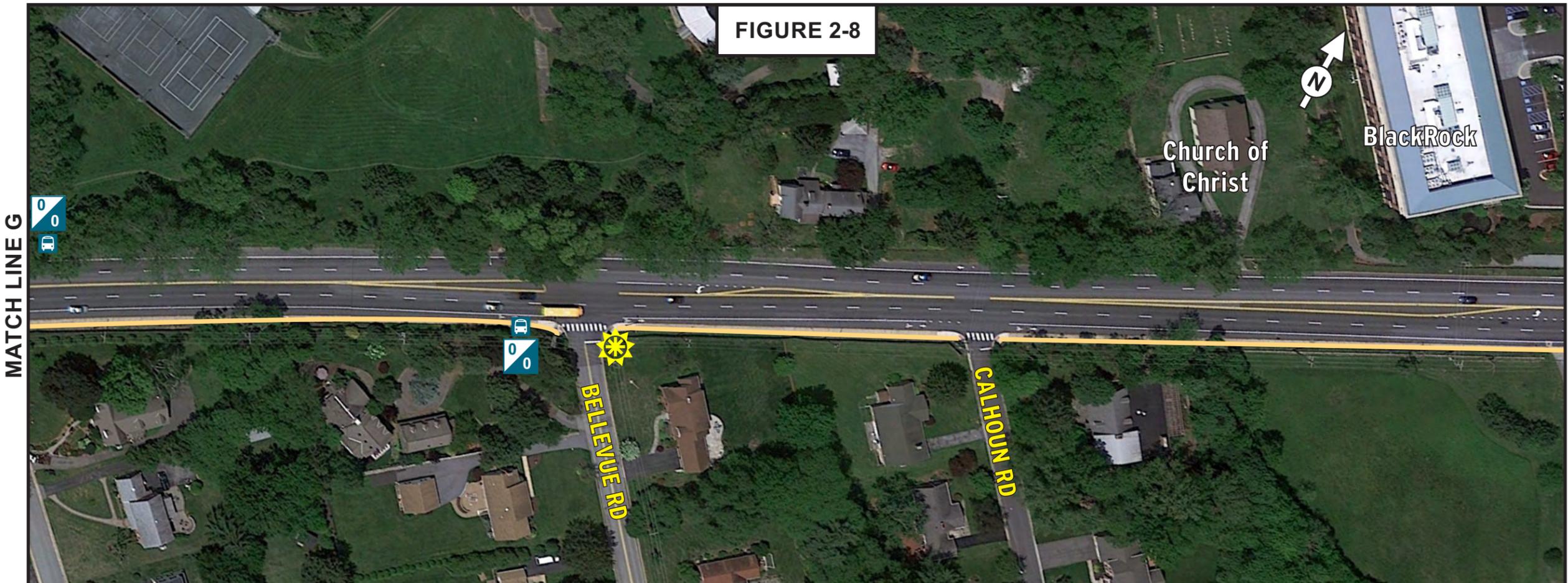
# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line  
JUNE 2017



**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)



**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line  
JUNE 2017

**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)

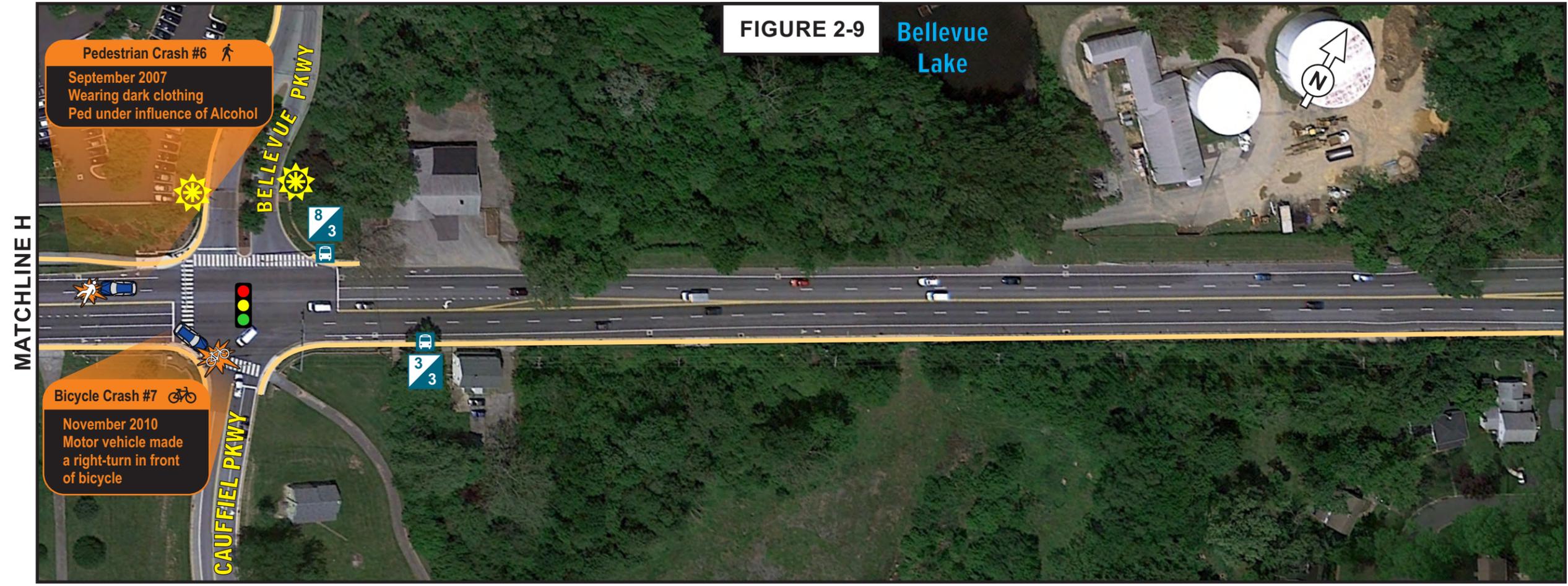
**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Dark Nighttime Crash

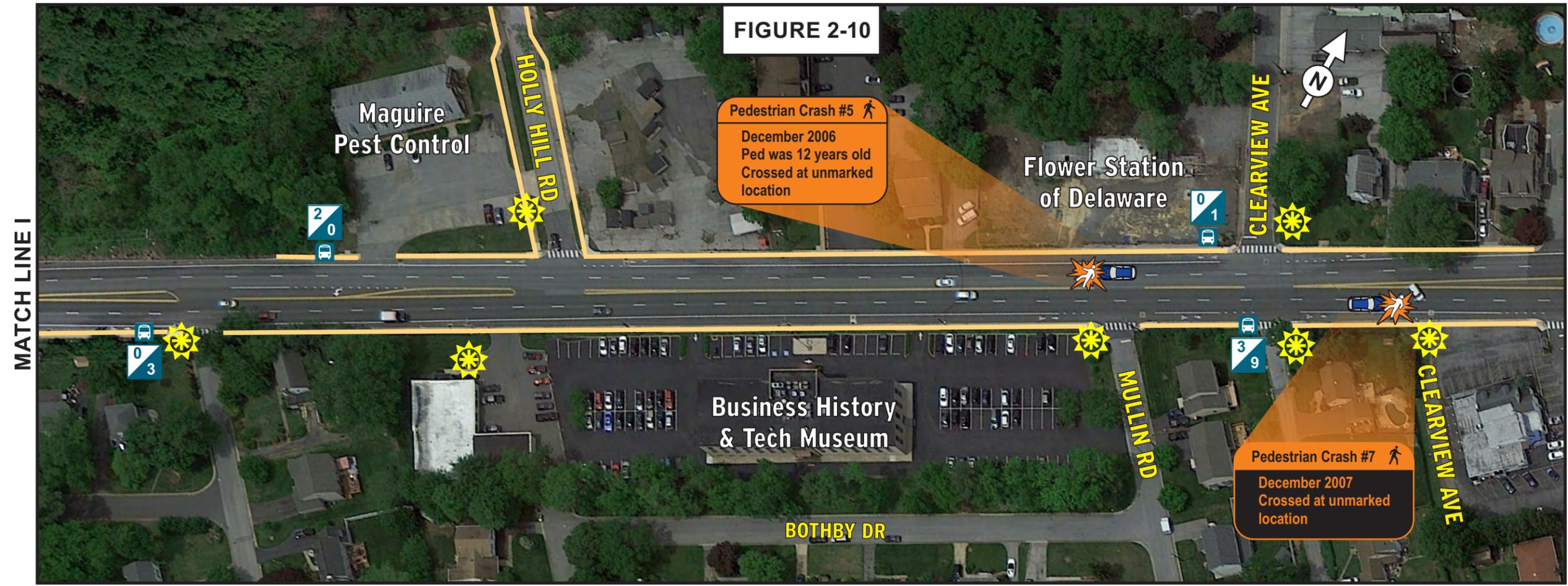
Crash study period-  
January 2005 through  
April 2016

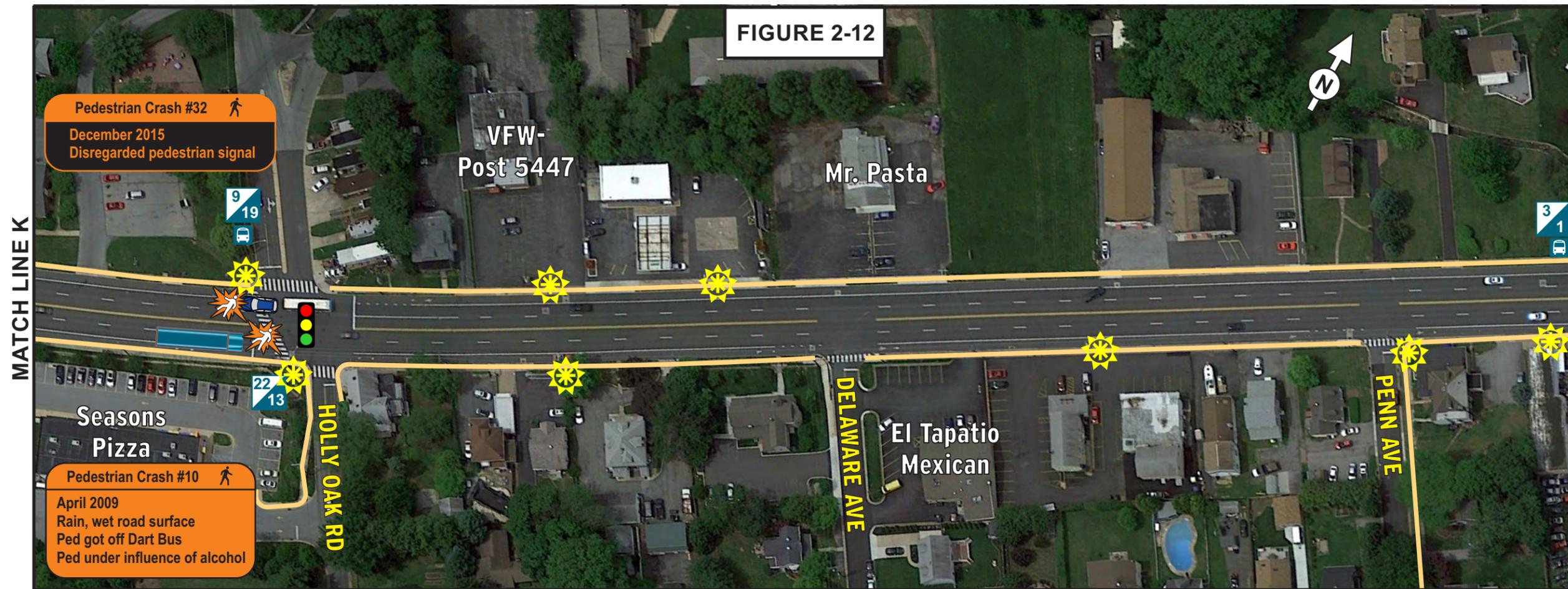
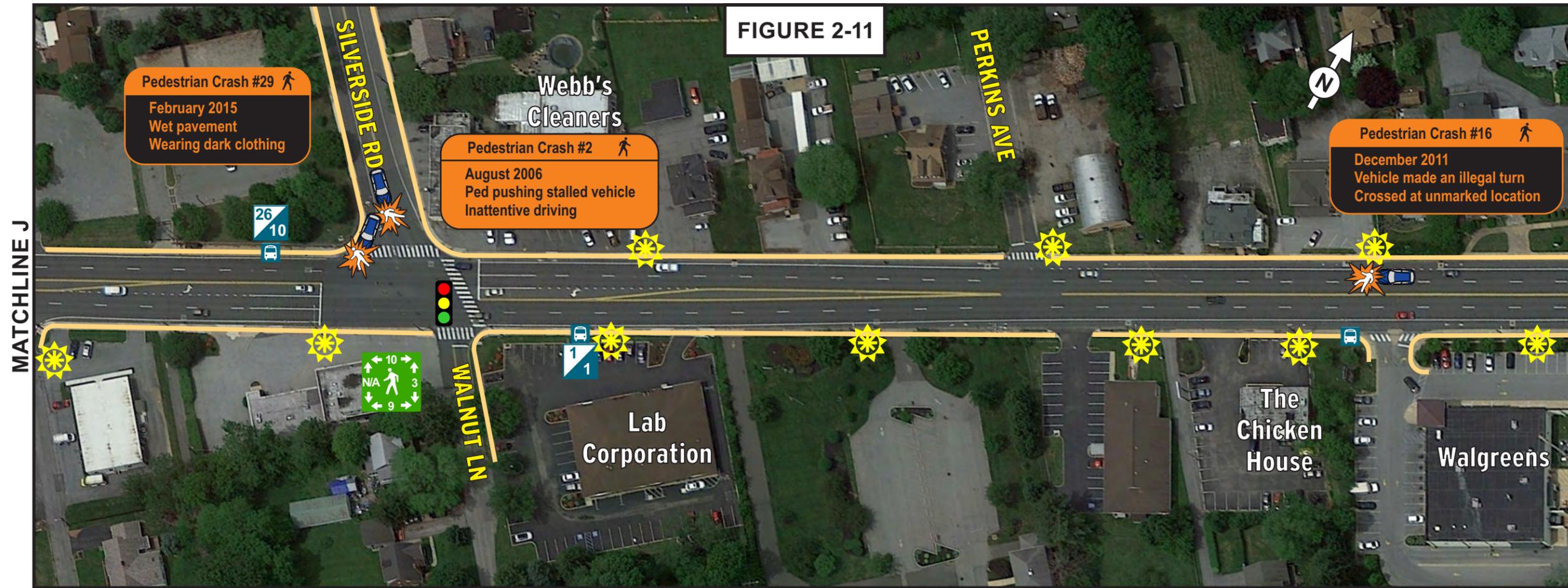
0 50 100 150 200 Feet

**FIGURE 2-9** Bellevue Lake



**FIGURE 2-10**





# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JUNE 2017

## LEGEND

-  Traffic Signal
-  Existing Bus Stop
-  Bus Board/Alight
-  Existing Luminaire
-  Existing Sidewalk
-  Average Hourly Ped Volume (highest of 3 peaks)

## CRASH TYPES

-  Pedestrian Non-injury Crash
-  Bicycle Non-injury Crash
-  Pedestrian Injury Crash
-  Bicycle Injury Crash
-  Pedestrian Fatal Crash
-  Bicycle Fatal Crash
-  Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

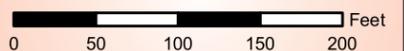


FIGURE 2-13

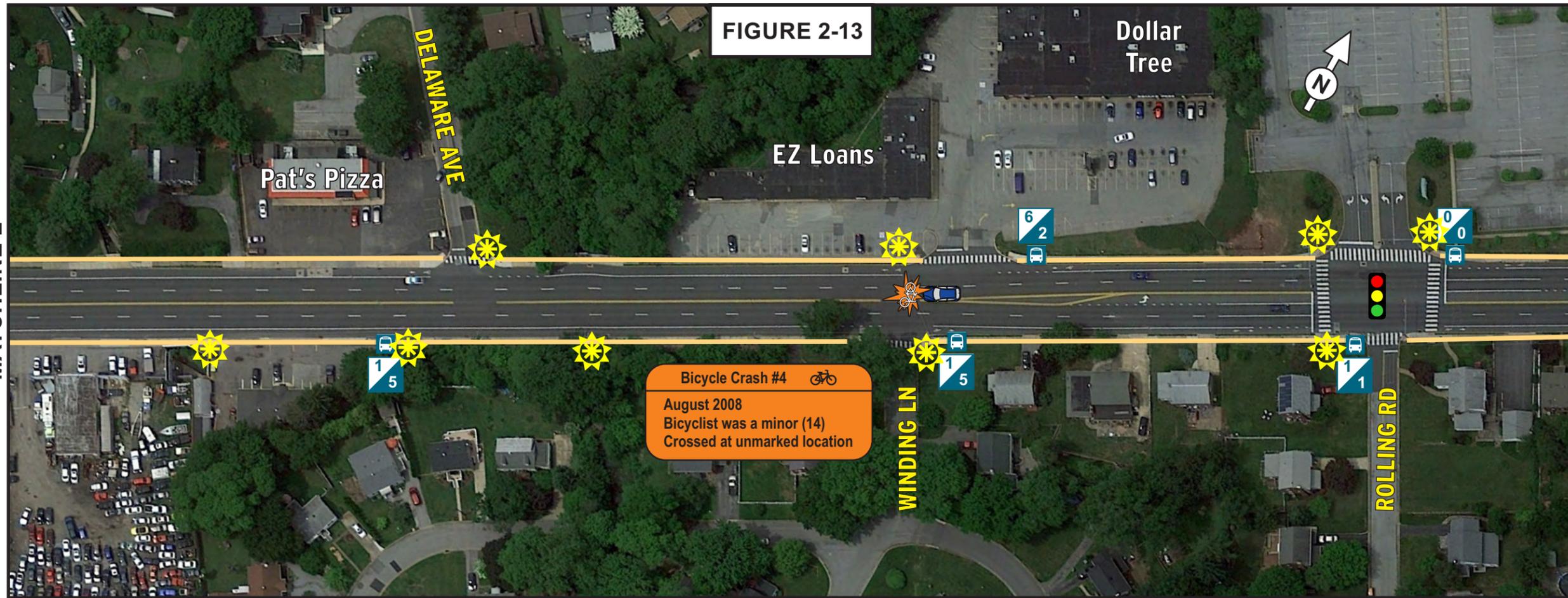
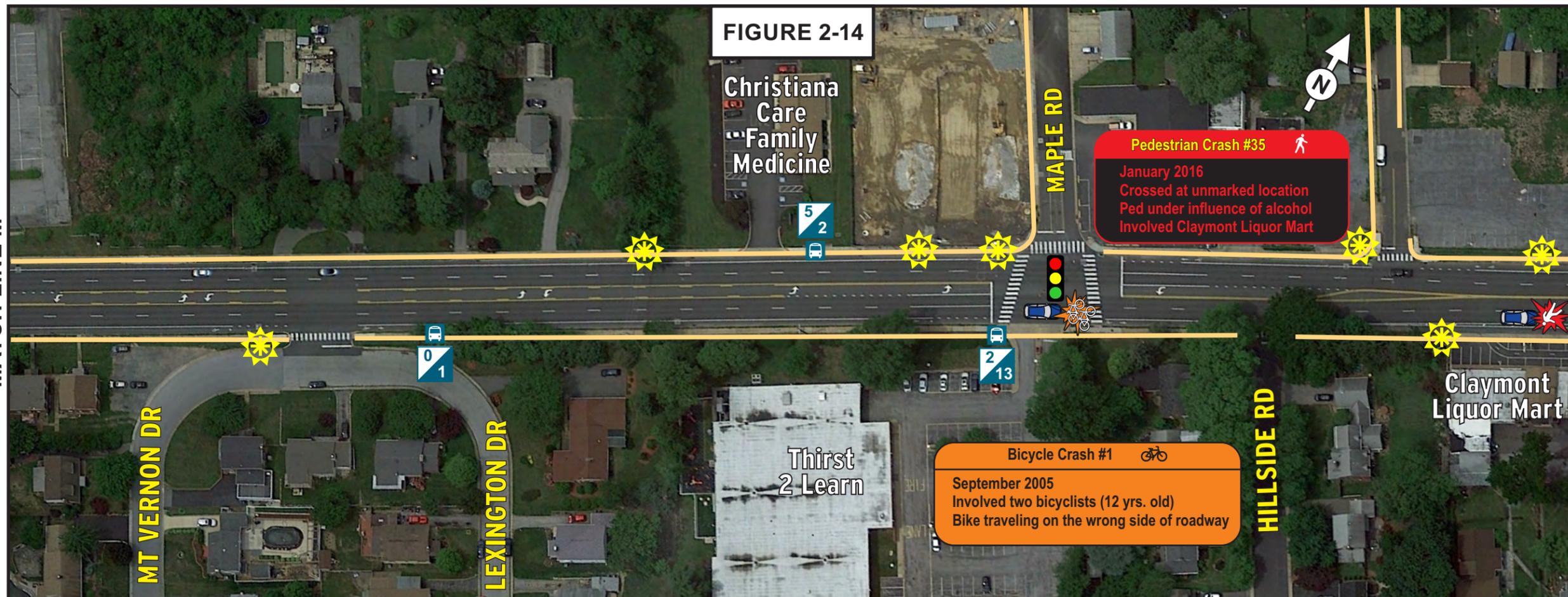


FIGURE 2-14



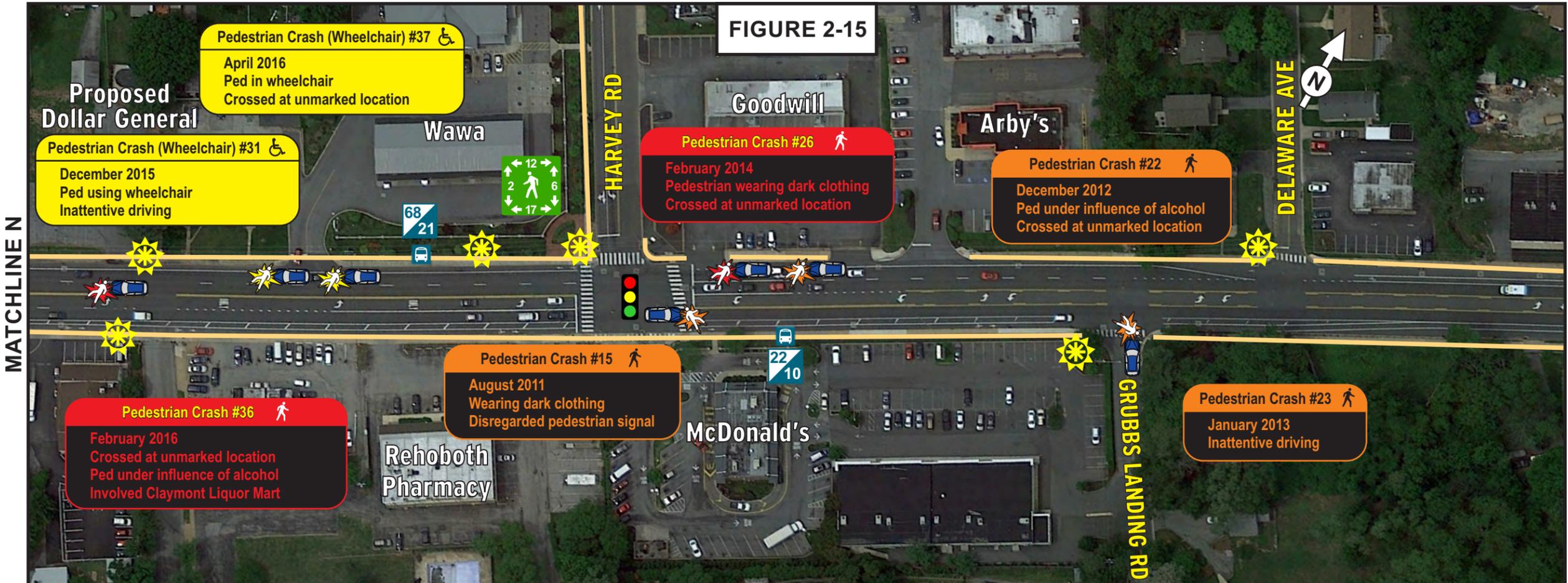


FIGURE 2-15

**Philadelphia Pike  
Pedestrian Safety  
Audit Study**  
*Lea Blvd. to DE-PA  
State Line*  
JUNE 2017

**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)

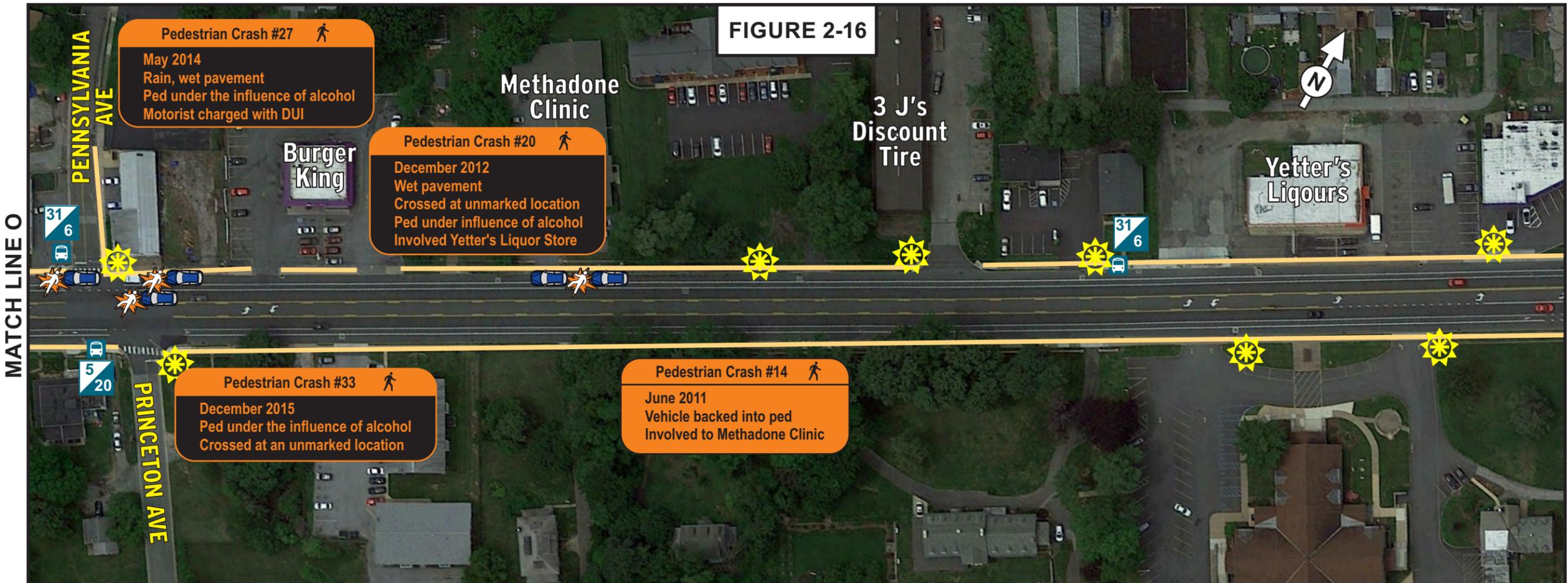
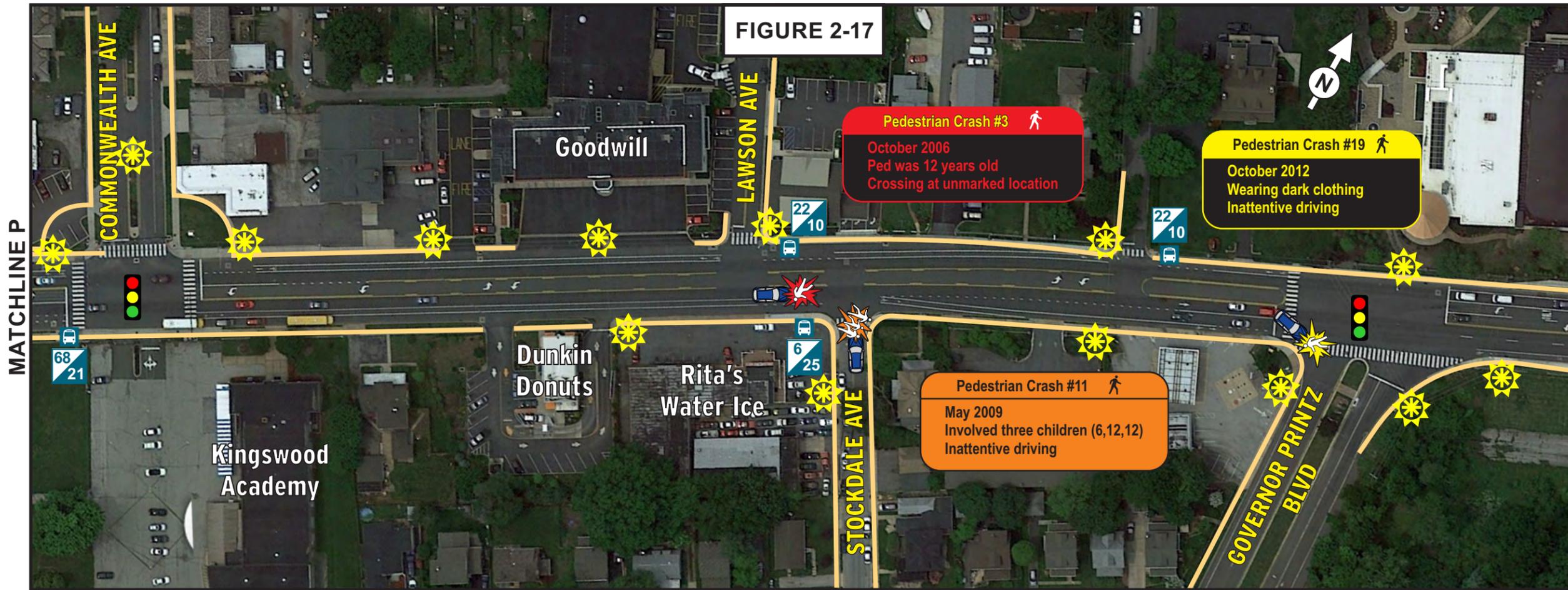


FIGURE 2-16

**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Nighttime Crash

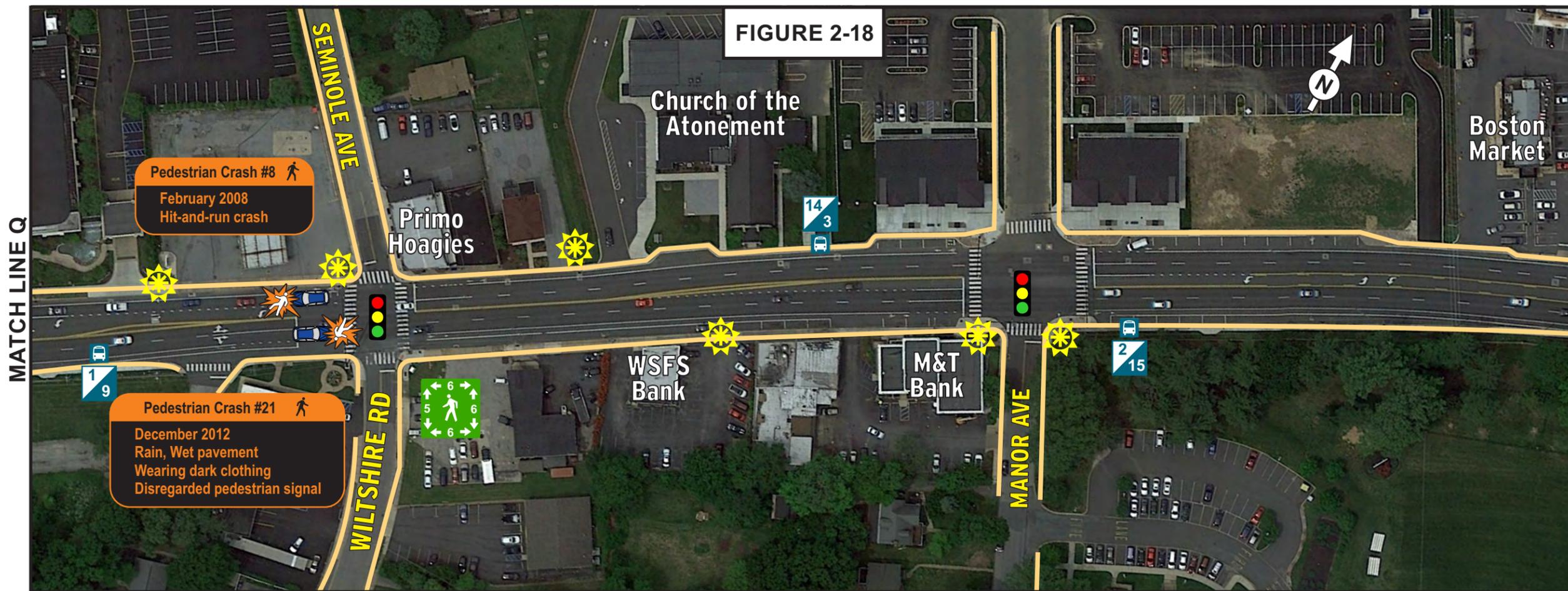
Crash study period-  
January 2005 through  
April 2016



**Philadelphia Pike Pedestrian Safety Audit Study**  
Lea Blvd. to DE-PA State Line  
JUNE 2017

**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)



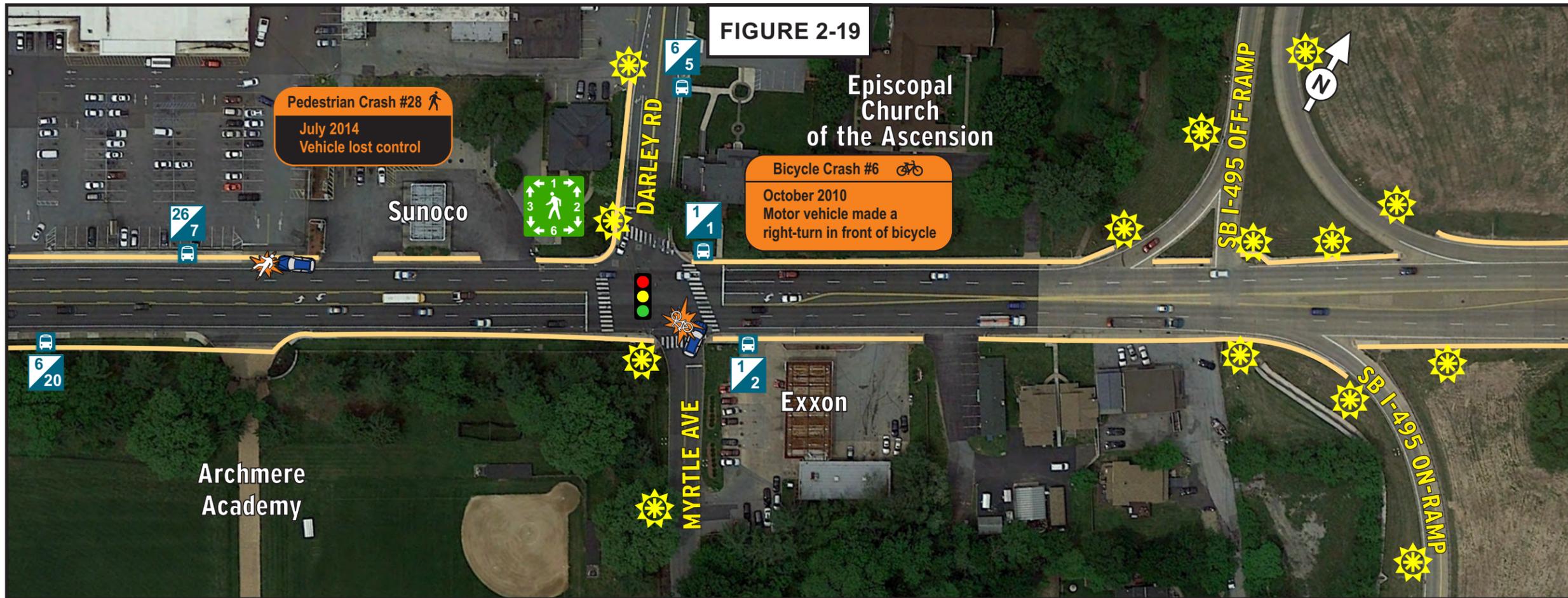
**CRASH TYPES**

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- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

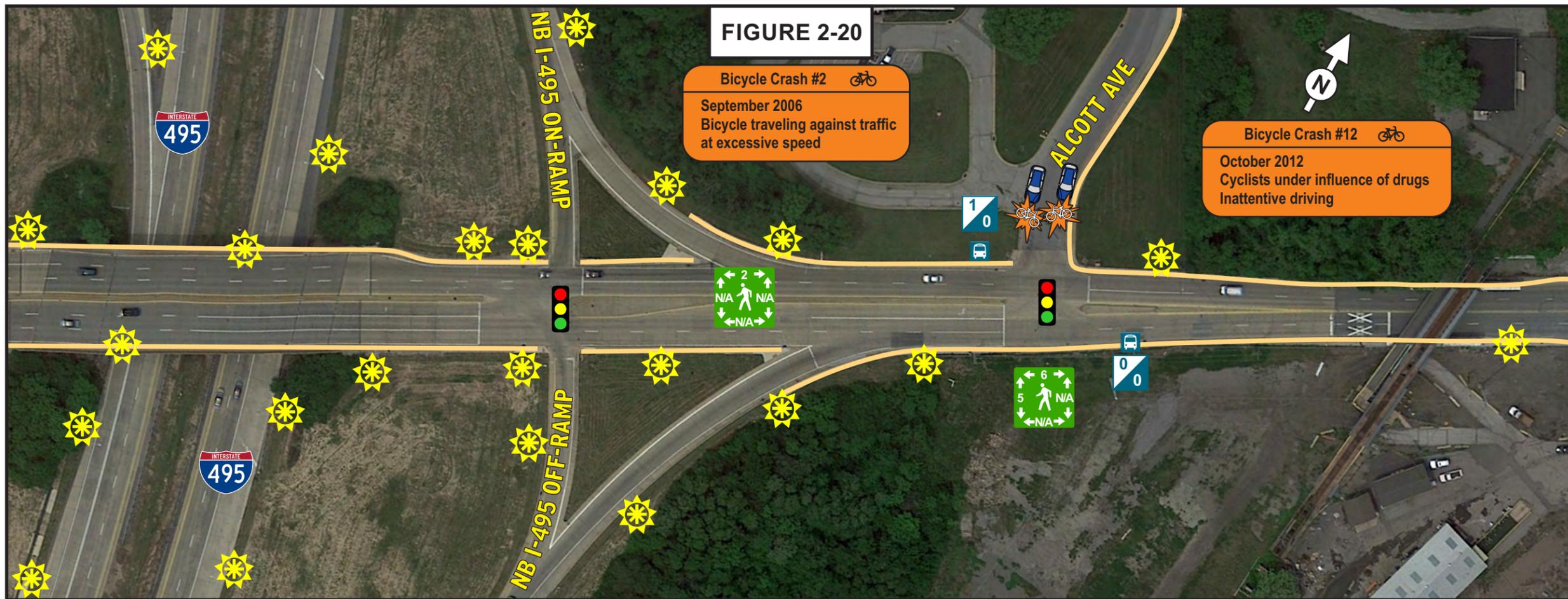
0 50 100 150 200 Feet

MATCHLINE R



MATCHLINE S

MATCHLINE S



MATCHLINE T

FIGURE 2-21



**Philadelphia Pike  
Pedestrian Safety  
Audit Study**

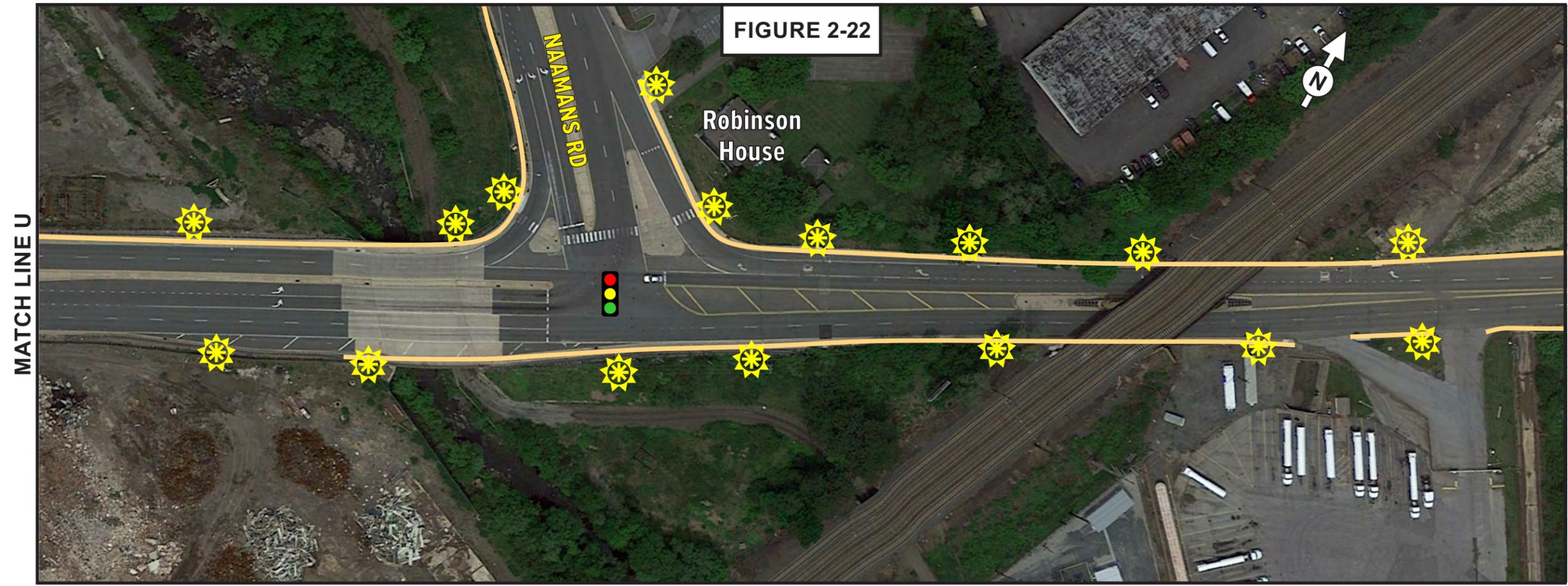
Lea Blvd. to DE-PA  
State Line

JUNE 2017

**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Bus Board/Alight
- Existing Luminaire
- Existing Sidewalk
- Average Hourly Ped Volume (highest of 3 peaks)

FIGURE 2-22



**CRASH TYPES**

- Pedestrian Non-injury Crash
- Bicycle Non-injury Crash
- Pedestrian Injury Crash
- Bicycle Injury Crash
- Pedestrian Fatal Crash
- Bicycle Fatal Crash
- Dark Nighttime Crash

Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet

MATCHLINE V

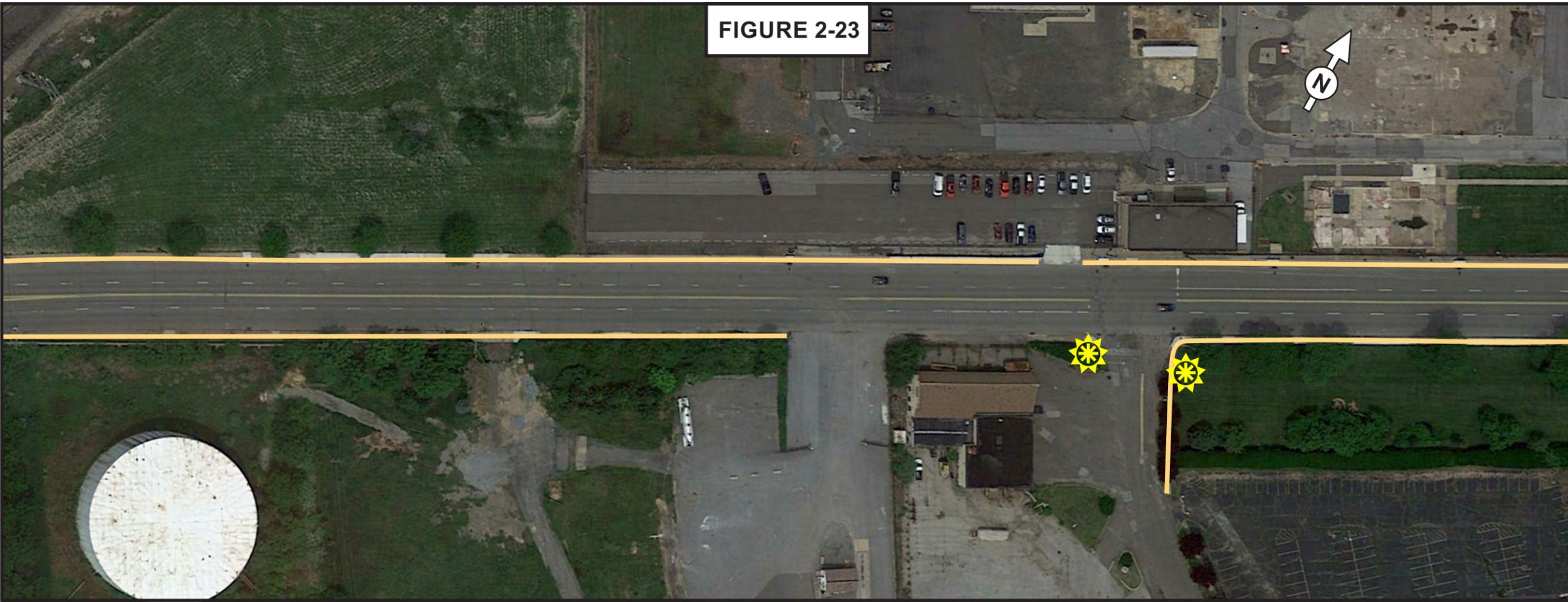


FIGURE 2-23

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA  
State Line

JUNE 2017

MATCHLINE W

### LEGEND

-  Traffic Signal
-  Existing Bus Stop
-  Bus Board/Alight
-  Existing Luminaire
-  Existing Sidewalk
-  Average Hourly Ped Volume (highest of 3 peaks)

MATCHLINE W

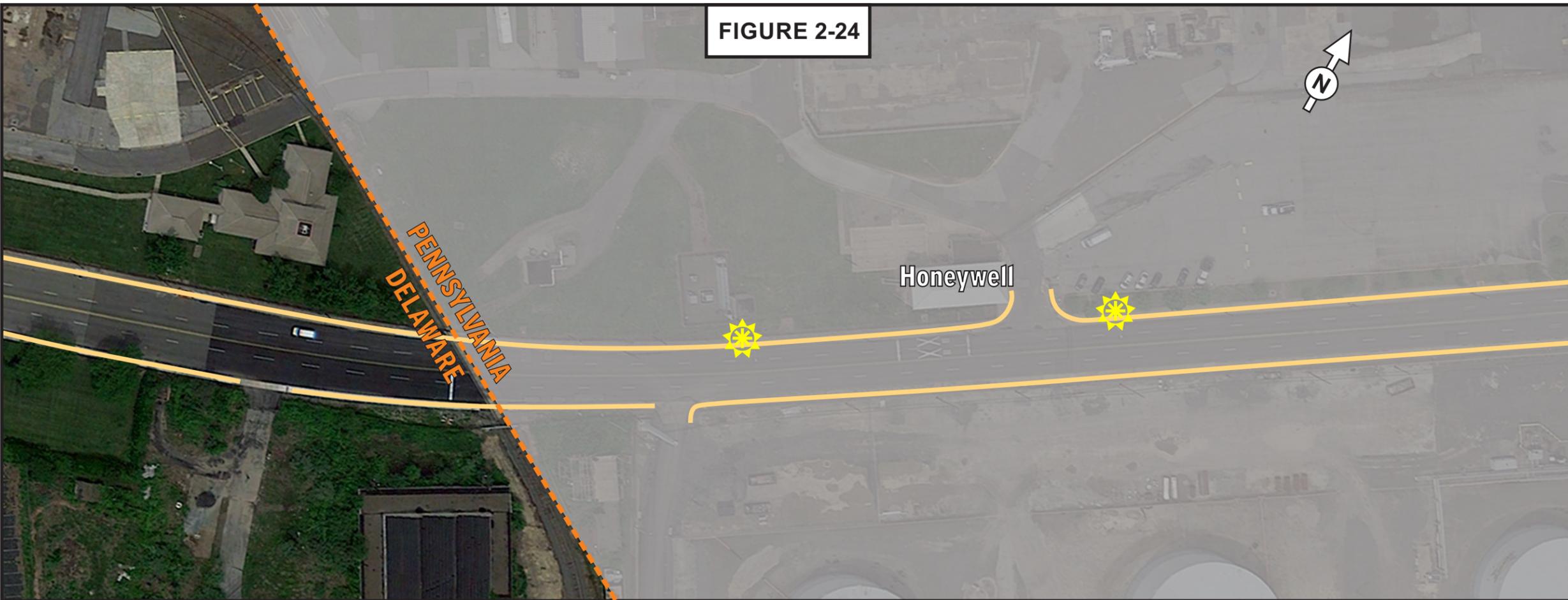


FIGURE 2-24

### CRASH TYPES

-  Pedestrian Non-injury Crash
-  Bicycle Non-injury Crash
-  Pedestrian Injury Crash
-  Bicycle Injury Crash
-  Pedestrian Fatal Crash
-  Bicycle Fatal Crash
-  Dark
-  Nighttime Crash

Crash study period-  
January 2005 through  
April 2016



Boulevard, in order to catch a bus at the dart bus stop on the northwest quadrant of the intersection. The pedestrians ran in front of a vehicle traveling northbound on Philadelphia Pike. The crash was attributable to the pedestrians crossing at a midblock location and inattentive driving.

- **Pedestrian Injury Crash #24 (Cloudy, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Lea Boulevard on Monday, September 16, 2013. The crash occurred within the marked crosswalk on the west leg of the intersection. The pedestrian was walking in the crosswalk when a vehicle made a left-turn from NB Philadelphia Pike. The crash was attributable to the motorist failing to yield the right-of-way.

#### Philadelphia Pike between Lea Boulevard and Shipley Road

- **Bicycle Crash #10 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred on Philadelphia Pike at the entrance to Forman Mills on Wednesday, August 31, 2011. A bicyclist was traveling southbound on Philadelphia Pike when it was hit by a motor vehicle turning left into a parking lot from northbound Philadelphia Pike. The crash was attributable to the motorist failing to yield the right-of-way to the bicycle.

#### Philadelphia Pike at Shipley Road

- **Pedestrian Crash #17 (Fatal, Freezing Rain, Daylight, Wet):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and Shipley Road on Saturday, January 21, 2012. The crash involved a motor vehicle traveling southbound on Philadelphia Pike and a pedestrian waiting at the Dart Bus Stop just north of Shipley Road. The motorist lost control of the vehicle and the vehicle left the roadway where it hit the pedestrian. The crash was attributable to a motorist traveling too fast for roadway conditions, while under the influence of alcohol.
- **Bicycle Crash #8 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and Shipley Road on June 8, 2011. The crash involved a motor vehicle traveling southbound on Philadelphia Pike and a bicyclist (Age 14) attempting to travel across Philadelphia Pike. The crash was attributable to the bicyclist disregarding the pedestrian signal.
- **Bicycle Crash #11 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred near the intersection of Philadelphia Pike and Shipley Road on Wednesday, September 26, 2012. The crash involved a motor vehicle traveling southbound on Philadelphia Pike and a bicyclist (Age 13) attempting to travel eastbound across Philadelphia Pike. The crash was attributable to the bicyclist disregarding the pedestrian signal.

#### Philadelphia Pike at Winding Lane

- **Bicycle Crash #5 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred in the northbound lanes of Philadelphia Pike, just south of Winding Lane, on Saturday, June 12, 2010. The crash involved a motor vehicle and bicycle traveling northbound on Philadelphia Pike. The motor vehicle and bicycle sideswiped each other while passing a legally parked car on Philadelphia Pike.

#### Philadelphia Pike at Washington Street Extension

There were five (5) pedestrian crashes and one (1) bicycle crash reported within the study period. Two (2) of the pedestrian crashes resulted in a fatality.

- **Pedestrian Crash #4 (Injury, Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and the Washington Street Extension on Tuesday, October 31, 2006. The crash involved a pedestrian (Age 15) traveling southbound across the Washington Street Extension and a vehicle making a right-turn from the Washington Street Extension. The pedestrian was still in the crosswalk after the pedestrian clearance interval was over. The crash was attributable to a combination of inattentive driving and the pedestrian disregarding the pedestrian signal.

- **Pedestrian Crash #9 (Injury, Sun Glare, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and the Washington Street Extension on Thursday, October 30, 2008. The crash involved a fire police officer directing traffic on Philadelphia Pike. The crash was attributable to miscommunication between the motorist and the fire police officer.
- **Pedestrian Crash #12 (Fatal, Clear, Dark-not-lighted, Snow):** A fatal pedestrian crash occurred at the intersection of Philadelphia Pike and the Washington Street Extension on Thursday, January 27, 2011. The crash occurred during a snow storm and involved a snow plow in the median opening on the Washington Street Extension, just west of Philadelphia Pike. The pedestrian was hit by the snow plow when the snow plow made a U-turn in the median opening.
- **Pedestrian Crash #34 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and the Washington Street Extension on Saturday, January 2, 2016. The crash involved a pedestrian traveling northbound in the marked crosswalk across the Washington Street Extension and vehicle making a right-turn from southbound Philadelphia Pike. The pedestrian was still in the crosswalk after the pedestrian clearance interval was over. The crash was attributable to a combination of inattentive driving and the pedestrian disregarding the pedestrian signal.
- **Bicycle Crash #9 (Injury, Cloudy, Daylight, Wet):** A bicycle crash occurred at the intersection of Philadelphia Pike and the Washington Street Extension on Saturday, August 13, 2011. The crash involved a bicyclist traveling southbound on Philadelphia Pike and a motor vehicle making a left-turn onto the Washington Street Extension from northbound Philadelphia Pike. The crash was attributable to the motorist failing to yield-the-right-of-way to the bicyclist.
- **Pedestrian Crash #38 (Fatal, Clear, Dark-not-lighted, Dry):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and the Washington Street Extension on Thursday, November 17, 2016. The crash occurred in the northbound lanes of Philadelphia Pike, approximately 50 feet north of the Washington Street Extension, and involved a pedestrian attempting to cross Philadelphia Pike at an unmarked midblock location.

#### **Philadelphia Pike between the Washington Street Extension and Duncan Road**

There were two (2) pedestrian crashes, which resulted in personal injury. Both of the crashes occurred during the daytime and both of the crashes involved pedestrians crossing at a midblock location.

- **Pedestrian Crash #13 (Injury, Cloudy, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Parkway Avenue on Wednesday, March 9, 2011. The crash involved a pedestrian crossing Philadelphia Pike, just north of Parkway Avenue, at an unmarked location and a vehicle making a left-turn onto northbound Philadelphia Pike from Parkway Avenue. The crash was attributable to inattentive driving.
- **Pedestrian Crash #30 (Injury, Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Parkway Avenue on Thursday, March 12, 2015. The crash involved a pedestrian (15 years old) crossing Philadelphia Pike at an unmarked location while using a skateboard. The pedestrian was hit by a vehicle traveling southbound on Philadelphia Pike. The crash was attributable to the pedestrian crossing Philadelphia Pike at an unmarked midblock location.

#### **Philadelphia Pike at Duncan Road**

- **Pedestrian Crash #25 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Duncan Road on Friday, December 13, 2013. The crash involved a pedestrian traveling westbound across Philadelphia Pike and a motor vehicle traveling northbound on Philadelphia Pike. The crash was a hit-and run and was attributable to aggressive driving.

**Philadelphia Pike at Bellevue Parkway**

There was one (1) pedestrian and one (1) bicycle crash reported within the crash period. Both of the crashes resulted in personal injury and occurred at night.

- **Pedestrian Crash #6 (Injury, Clear, Dark-not-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Bellevue Parkway on Saturday, September 8, 2007. The crash occurred in the southbound lanes of Philadelphia Pike, approximately 50 feet south of Bellevue Parkway. The pedestrian was under the influence of alcohol at the time of the crash and was wearing dark clothing, which would have made it difficult for the motorist to see him.
- **Bicycle Crash #7 (Injury, Clear, Dusk, Dry):** A bicycle crash occurred near the intersection of Philadelphia Pike and Bellevue Parkway on Friday, November 12, 2010. The crash occurred at dusk and it involved a motor vehicle and a bicycle traveling northbound on Philadelphia Pike. As the bicyclist was traveling north across Cauffiel Parkway, the motor vehicle made a right-turn onto Cauffiel Parkway in front of him. The crash was attributable to the motorist failing to yield the right-of-way to the bicyclists.

**Philadelphia Pike at Clearview Avenue**

There were two (2) crashes involving pedestrians, which resulted in personal injury.

- **Pedestrian Crash #5 (Injury, Clear, Daylight, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Clearview Avenue on Friday, December, 29, 2006. Three (3) pedestrians were attempting cross Philadelphia Pike when they saw an approaching vehicle. Two (2) of the pedestrians stopped for the vehicle, but the third pedestrian continued across the southbound lanes in front of the motor vehicle and was subsequently hit by the motor vehicle.
- **Pedestrian Crash #7 (Injury, Rain, Dark-lighted, Wet):** A pedestrian crash occurred approximately 80 feet north of Clearview Avenue on Thursday December 13, 2007. The crash involved a motor vehicle traveling northbound and a pedestrian crossing the roadway. The crash was attributable to the pedestrian running in front of the vehicle.

**Philadelphia Pike at Silverside Road**

There were two (2) pedestrian crashes, which resulted in personal injury.

- **Pedestrian Crash #2 (Injury, Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Silverside Road on Monday, August 7, 2006. A motor vehicle stalled on the eastbound approach to the intersection and the occupant of the vehicle got out to push the vehicle. During this time a motor vehicle attempted to pass the stalled vehicle. The pedestrian (stalled vehicle's occupant) reported that the passing vehicle bumped him.
- **Pedestrian Crash #29 (Injury, Clear, Dark-lighted, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Silverside Road on Monday, February 9, 2015. The crash involved a pedestrian walking northbound on the crosswalk across Silverside Road and a motor vehicle making a right-turn from Silverside Road. The crash occurred at night on wet pavement. The crash report noted that the pedestrian was wearing dark clothing and walked in front of the motor vehicle.

**Philadelphia Pike at Holly Oak Road**

There were three (3) pedestrian crashes, which resulted in personal injury. Two (2) of the crashes occurred at night.

- **Pedestrian Crash #10 (Injury, Rain, Daylight, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Holly Oak Road on Monday, April 20, 2009. The crash involved a pedestrian getting off of a DART bus and then immediately running across Philadelphia Pike, without checking for traffic. The pedestrian was under the influence of alcohol at the time of the crash.

- **Pedestrian Crash #16 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Holly Oak Road on Saturday, December 17, 2011. The crash occurred approximately 400 feet south of Holly Oak Road, in front of Walgreens. The crash involved a pedestrian crossing Philadelphia Pike at an unmarked midblock location. The crash was attributable to a motor vehicle making a right-turn out of a right-in/right-out access at Walgreens.
- **Pedestrian Crash #32 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Holly Oak Road on Sunday, December 19, 2015. The crash involved a pedestrian attempting to cross Philadelphia Pike at the marked crosswalk and a vehicle traveling southbound on Philadelphia Pike. The crash was partly attributable to the pedestrian disregarding the pedestrian signal.

#### Philadelphia Pike at Winding Lane

- **Bicycle Crash #4 (Injury, Clear, Daylight, Dry):** A bicycle crash was reported at the intersection of Philadelphia Pike and Winding Lane on Friday, August 1, 2008. The crash involved a bicyclist attempting to travel eastbound across Philadelphia Pike and a motor traveling southbound on Philadelphia Pike.

#### Philadelphia Pike at Maple Road

- **Bicycle Crash #1 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and Maple Road on Thursday, September 29, 2005. The crash involved two bicyclists (both age 12) traveling southbound in the northbound shoulder for Philadelphia Pike. A motor vehicle made a right-turn in front of the bicycles from Maple Lane. The crash was attributable to the inattentive driving and the bicyclists traveling on the wrong side of the roadway.

#### Philadelphia Pike at Harvey Road

- **Pedestrian Crash #15 (Injury, Cloudy, Dark-lighted, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Harvey Road on Monday, August 15, 2011. The pedestrian attempted to cross Philadelphia Pike between the Goodwill and the McDonalds, where the pedestrian was struck by a vehicle traveling northbound on Philadelphia Pike. The pedestrian disregarded the pedestrian signal at the intersection. It should be noted that the pedestrian was wearing dark clothing.
- **Pedestrian Crash #22 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Harvey Road on Friday, December 21, 2012. The pedestrian attempted to cross Philadelphia Pike at an unmarked location, where the pedestrian was struck by a vehicle traveling southbound on Philadelphia Pike. The crash was attributable to the pedestrian crossing at an unmarked location at nighttime. The crash was also attributable to the pedestrian being under the influence of alcohol.
- **Pedestrian Crash #23 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Harvey Road on Tuesday, January 15, 2013. The crash involved a pedestrian walking south across Grubbs Landing Road and a vehicle traveling westbound on Grubbs Landing Road. The crash was attributable to the motorist failing to yield-the-right of way to the pedestrian.
- **Pedestrian Crash #26 (Fatal, Clear, Dark-not-lighted, Dry):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and Harvey Road on Wednesday, February 26, 2014. The crash occurred in the southbound lanes of Philadelphia Pike, directly in front of the McDonalds, and it involved a motor vehicle traveling southbound on Philadelphia Pike and a pedestrian crossing Philadelphia Pike at a midblock location. The crash occurred at night and was attributable to the pedestrian crossing at an unmarked location. It was also noted that it would have been difficult to see the pedestrian, because the pedestrian was wearing dark clothing and was not carrying a flashlight.

- **Pedestrian Crash #31 (PDO, Clear, Daylight, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Harvey Road on Thursday, December 10, 2015. The crash involved a pedestrian, in a wheelchair, traveling in the shoulder for southbound Philadelphia Pike and a vehicle turning from the Wawa exit just south of Harvey Road. The crash was attributable to the motorist failing to check for pedestrians.
- **Pedestrian Crash #35 (Fatal, Clear, Dark-not-lighted, Dry):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and Harvey Road on Sunday, January 31, 2016. The crash occurred north of Claymont Liquor store and it involved a pedestrian crossing Philadelphia Pike at an unmarked mid-block location. The pedestrian was under the influence of alcohol at the time of the crash.
- **Pedestrian Crash #36 (Fatal, Clear, Dark-not-lighted, Dry):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and Harvey Road on Monday, February 29, 2016. The crash occurred north of Claymont Liquor store and it involved a pedestrian crossing Philadelphia Pike at an unmarked mid-block location. The pedestrian was under the influence of alcohol and had just left Claymont Liquor Store.
- **Pedestrian Crash #37 (PDO, Clear, Daylight, Dry):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Harvey Road on Friday, April 8, 2016. The crash involved a pedestrian, in a wheelchair, crossing Philadelphia Pike just south of Harvey Road and a vehicle turning left from the Wawa exit. The crash was attributable to the pedestrian crossing Philadelphia Pike at an unmarked location.

#### Philadelphia Pike at Pennsylvania Avenue:

- **Pedestrian Crash #14 (injury, Clear, Daylight, Dry):** A pedestrian crash occurred in front of the Methadone Clinic, which is located near Pennsylvania Avenue, on Thursday, June 9, 2011. The crash involved a motor vehicle backing into a pedestrian. It should be noted that the motorist and the pedestrian had just been treated at the Methadone Clinic.
- **Pedestrian Crash #20 (Injury, Cloudy, Dark-lighted, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Pennsylvania Avenue on Monday, December 10, 2012. The crash involved a pedestrian crossing Philadelphia Pike at an unmarked location and a vehicle traveling southbound on Philadelphia Pike. The crash was attributable to the pedestrian crossing at an unmarked location while being under the influence of alcohol. It should be noted that the pedestrian had just left Yetter's Liquors.
- **Pedestrian Crash #27 (Injury, Rain, Dark-lighted, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Pennsylvania Avenue on Saturday, May 3, 2014. The crash involved a pedestrian walking in the southbound lanes of Philadelphia Pike and a motor vehicle traveling southbound on Philadelphia Pike. The crash was attributable to the motorist and the pedestrian being under the influence of alcohol.
- **Pedestrian Crash #33 (Injury, Rain, Dark-lighted, Wet):** A pedestrian crash occurred at the intersection of Philadelphia Pike and Pennsylvania Avenue on Wednesday, December 23, 2015. The crash involved a pedestrian crossing (WB) Philadelphia Pike and a motor vehicle traveling southbound on Philadelphia Pike. The crash was attributable to the pedestrian being under the influence of alcohol at the time of the crash.

#### Philadelphia Pike at Stockdale Avenue:

- **Pedestrian Crash #3 (Fatal, Cloudy, Dark-lighted, Dry):** A fatal pedestrian crash occurred near the intersection of Philadelphia Pike and Stockdale Avenue on Friday, October 6, 2006. The crash involved a pedestrian (Age 12) attempting to cross Philadelphia Pike at an unmarked location and a motor vehicle traveling northbound on Philadelphia Pike. The crash was attributable to the pedestrian crossing at an unmarked location at night.
- **Pedestrian Crash #11 (Injury, Cloudy, Daylight, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Stockdale Avenue on Saturday, May 9, 2009. The crash

involved three pedestrians (Age 6, 12 and 12) traveling southbound across Stockdale Avenue and a vehicle making a right-turn onto northbound Philadelphia Pike from Stockdale Avenue. The pedestrians saw the vehicle come to a complete stop and they proceeded to walk in front of the vehicle. The crash was attributable to inattentive driving.

#### Philadelphia Pike at Governor Printz Boulevard:

- **Pedestrian Crash #19 (PDO, Clear, Dark-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Governor Printz Boulevard on Tuesday, October 16, 2012. The crash involved a pedestrian traveling northbound across Governor Printz Boulevard and a motor vehicle making a right-turn onto Governor Printz Boulevard from Philadelphia Pike.

#### Philadelphia Pike at Manor Avenue:

- While there were no reported pedestrian / bicycle related crashes at the intersection, crash data analysis revealed that one of the southbound rear-end crashes reported at the intersection may have been attributable to sun-glare, according to the police accident report.

#### Philadelphia Pike at Wiltshire Boulevard

- **Pedestrian Crash #8 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Wiltshire Boulevard on Sunday, February 10, 2008. The crash involved a pedestrian traveling west across Philadelphia Pike and a motor vehicle traveling southbound on Philadelphia Pike. The motor vehicle fled after the crash.
- **Pedestrian Crash #21 (Injury, Rain, Dark-lighted, Wet):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Wiltshire Boulevard on Thursday, December 20, 2012. The crash involved a pedestrian traveling westbound across Philadelphia Pike and a motor vehicle traveling northbound on Philadelphia Pike. The pedestrian disregarded the pedestrian signal while crossing Philadelphia Pike. The police report noted that the pedestrian was wearing dark clothing at the time of the crash.
- Crash data analysis also revealed that one of the northbound rear-end crashes reported at the intersection may have been attributable to sun-glare, according to the police accident report.

#### Philadelphia Pike at Darley Road

- **Pedestrian Crash #28 (Injury, Clear, Dark-lighted, Dry):** A pedestrian crash occurred near the intersection of Philadelphia Pike and Darley Road on Wednesday, July 16, 2014. The pedestrian was walking on the sidewalk in front of the Claymont Shopping Center. A motor vehicle traveling southbound on Philadelphia Pike lost control and left the roadway where it hit the pedestrian.
- **Bicycle Crash #6 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and Darley Road on Saturday, October 30, 2010. The bicyclist was traveling southbound on the northbound side of Philadelphia Pike. A motor vehicle made a right-turn from Myrtle Avenue in front of the bicyclist. The crash was attributable to the motorist failing to check for pedestrians and bicycles approaching from the right.

#### Philadelphia Pike at Alcott Avenue

- **Bicycle Crash #2 (Injury, Clear, Daylight, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and Alcott Avenue on Wednesday, September 6, 2006. The crash involved a bicycle crossing Alcott Avenue and a motor vehicle making a right-turn from Alcott Avenue. The crash was attributable to the bicycle traveling in the wrong direction.
- **Bicycle Crash #12 (Injury, Clear, Dark, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and Alcott Avenue on Wednesday, October 17, 2012. The crash involved a bicycle traveling northbound on Philadelphia Pike and a motor vehicle making a right-turn from Alcott Avenue. The bicyclist was under the influence of drugs at the time of the crash.

### Philadelphia Pike at Former EVRAZ Steel Site

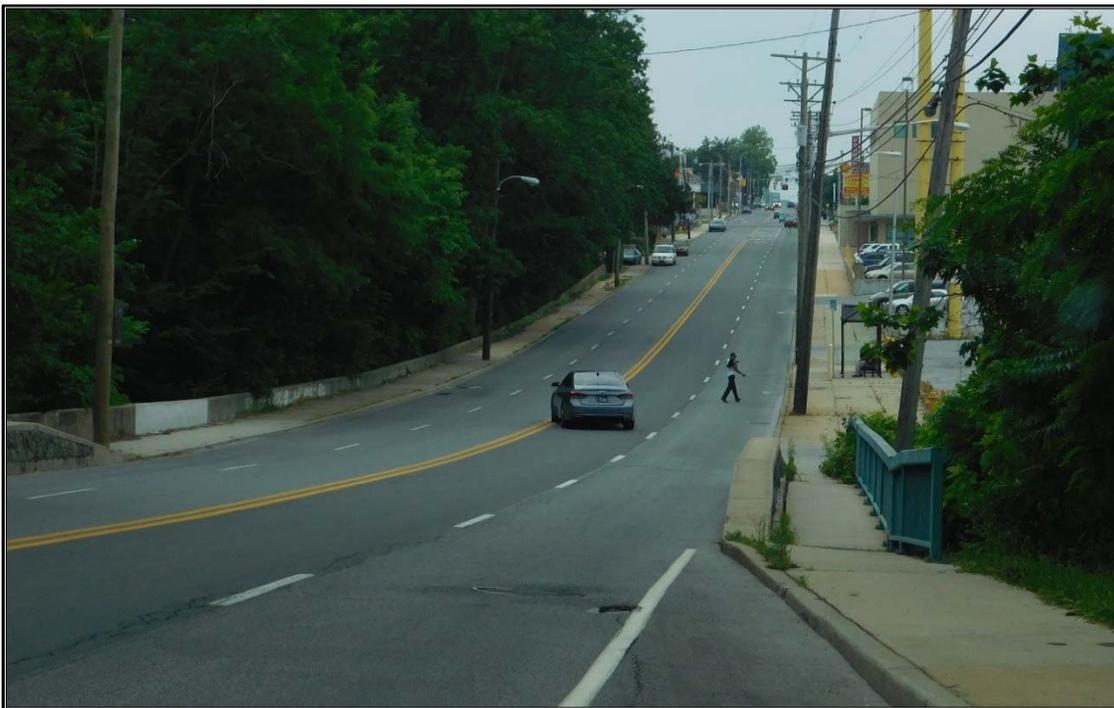
- **Bicycle Crash #3 (Injury, Cloudy, Daylight, Dry):** A bicycle crash occurred at the intersection of Philadelphia Pike and the access for the old steel plant on Thursday, August 23, 2007. The crash involved a bicycle traveling northbound on Philadelphia Pike and a motor vehicle making a right-turn from Alcott Avenue. The crash was attributable to the motorist failing to yield the right-of-way to the bicyclist.

## V. Observed Issues / Potential short-term Improvements

DelDOT staff from the Traffic, Planning and Safety Sections and the representatives from the Delaware State Police (DSP) completed a walkthrough of the study segment of Philadelphia Pike in 2016, to identify issues with existing pedestrian facilities and areas for improvement. A detailed list of existing issues is provided below for each intersection and a list of improvement options is provided in Table 8 and Figures 3-1 through 3-24.

### Philadelphia Pike at Lea Boulevard

- **Inadequate Intersection Lighting:** There are existing overhead luminaries in the northeast and southwest quadrants of the intersection; however, there is no overhead roadway lighting present in the northwest and southeast quadrants of the intersection.
- **Crosswalks:** There is no existing marked crosswalk across Philadelphia Pike on the south leg of the intersection.
- **Pedestrian-Vehicle Conflicts:** The crash data revealed conflicts between pedestrians using the marked crosswalk on the west leg of the intersection and motor vehicles making a right-turn from the eastbound Lea Boulevard approach to the intersection.
- **Uncontrolled Midblock Crossings:** During the field visit, pedestrians were observed crossing Philadelphia Pike at unmarked midblock locations north of Lea Boulevard, particularly in front of the Foreman Mills parking lot.



Picture 1: Pedestrian Crossing Philadelphia Pike at Mid-Block Location north of Lea Boulevard

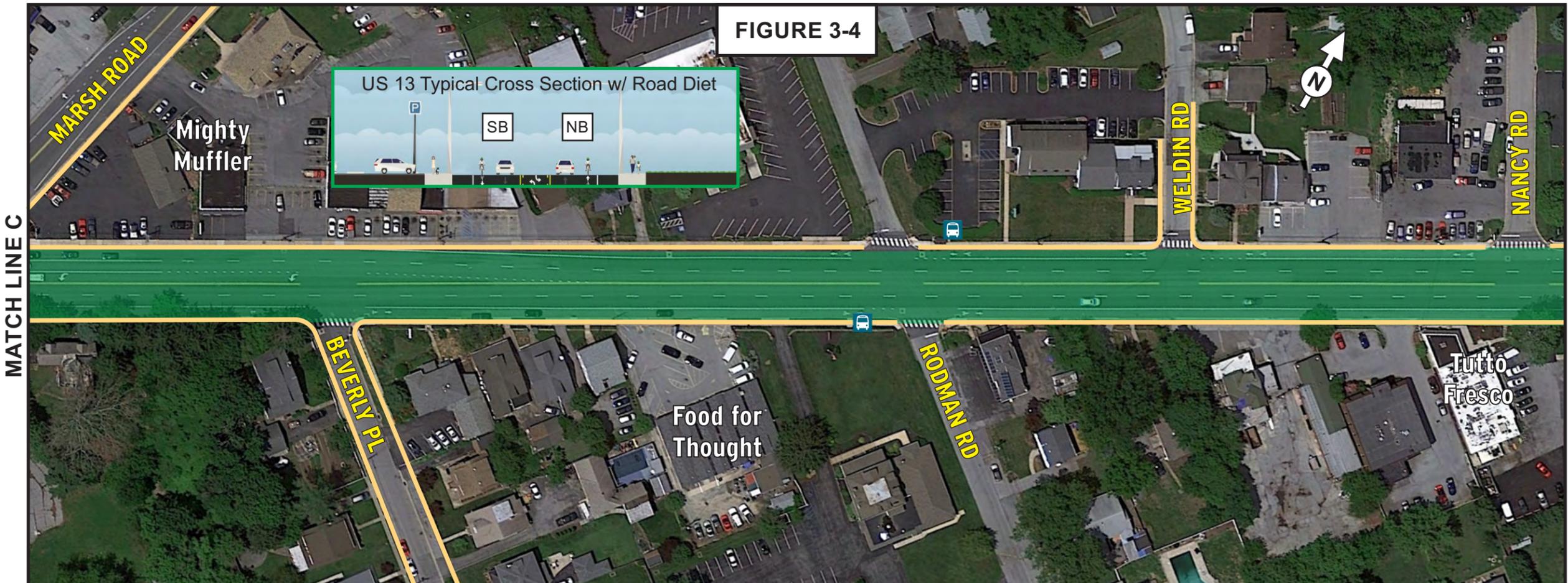
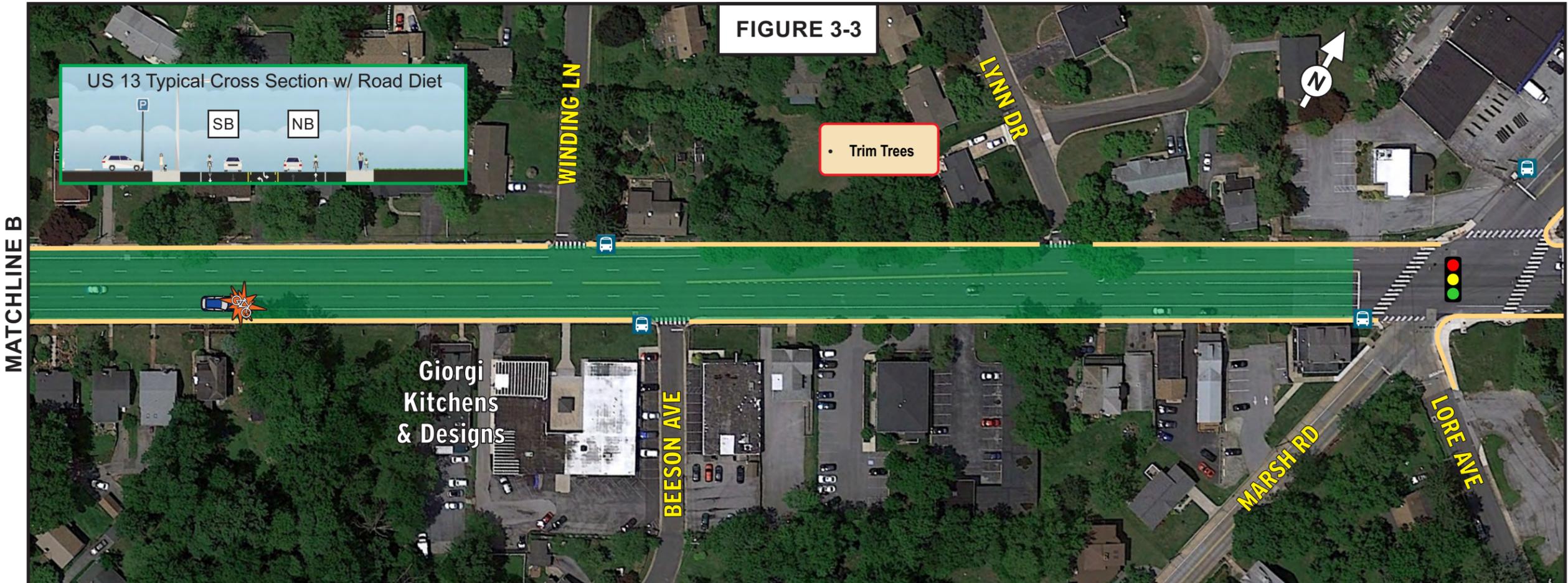


**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet

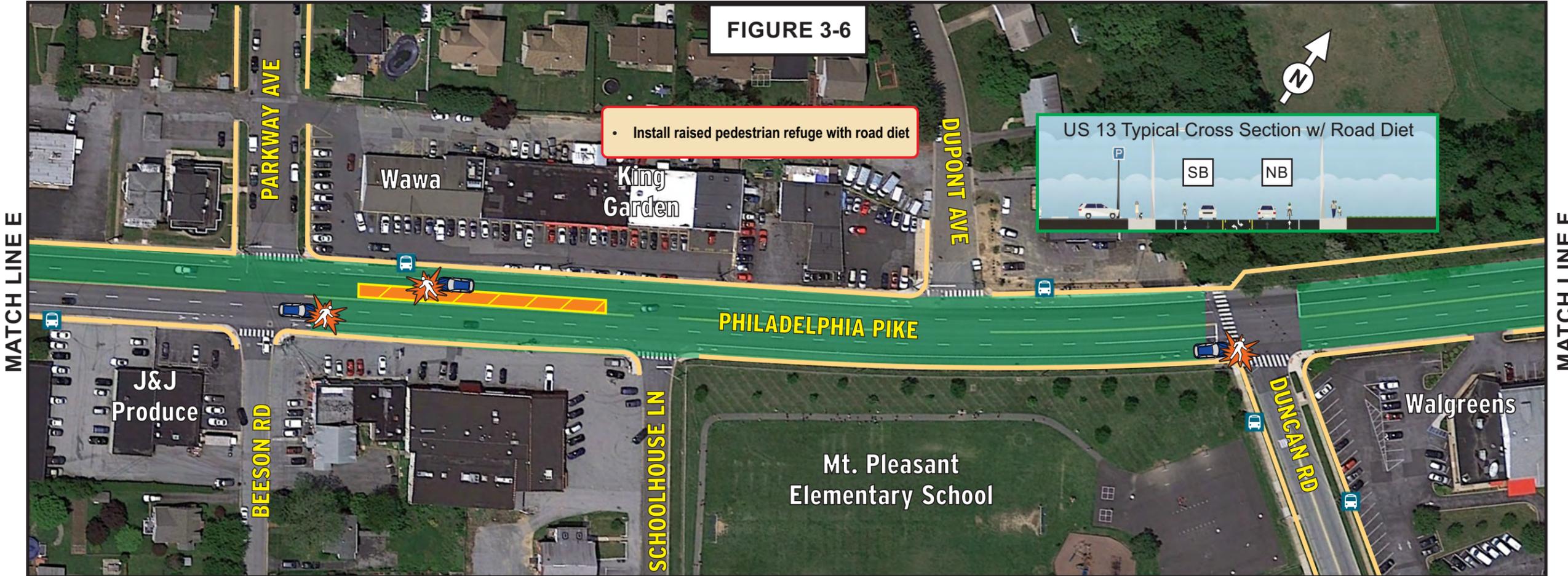
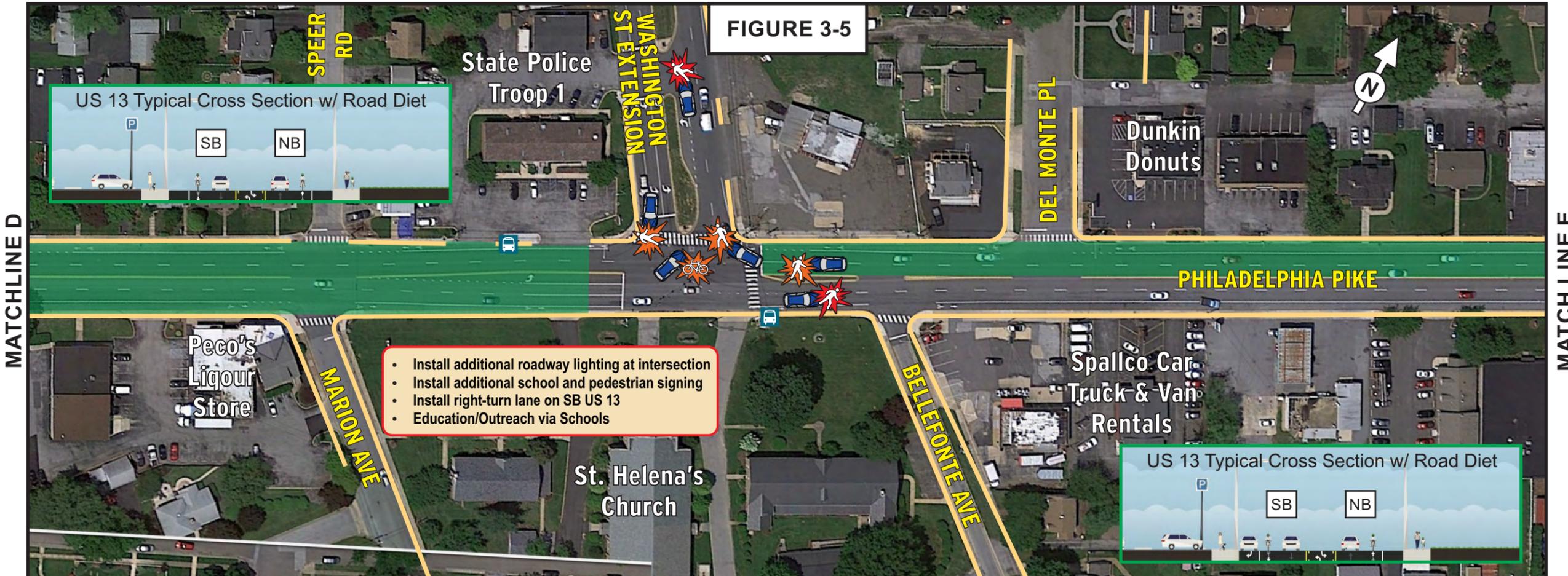
Crash study period-  
 January 2005 through  
 April 2016

**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet



Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND

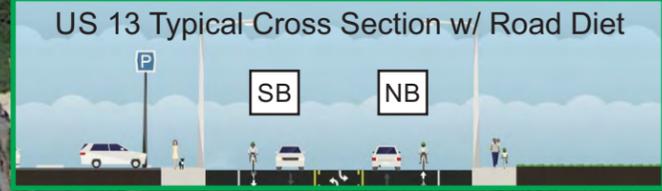
-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet

Crash study period-  
January 2005 through  
April 2016

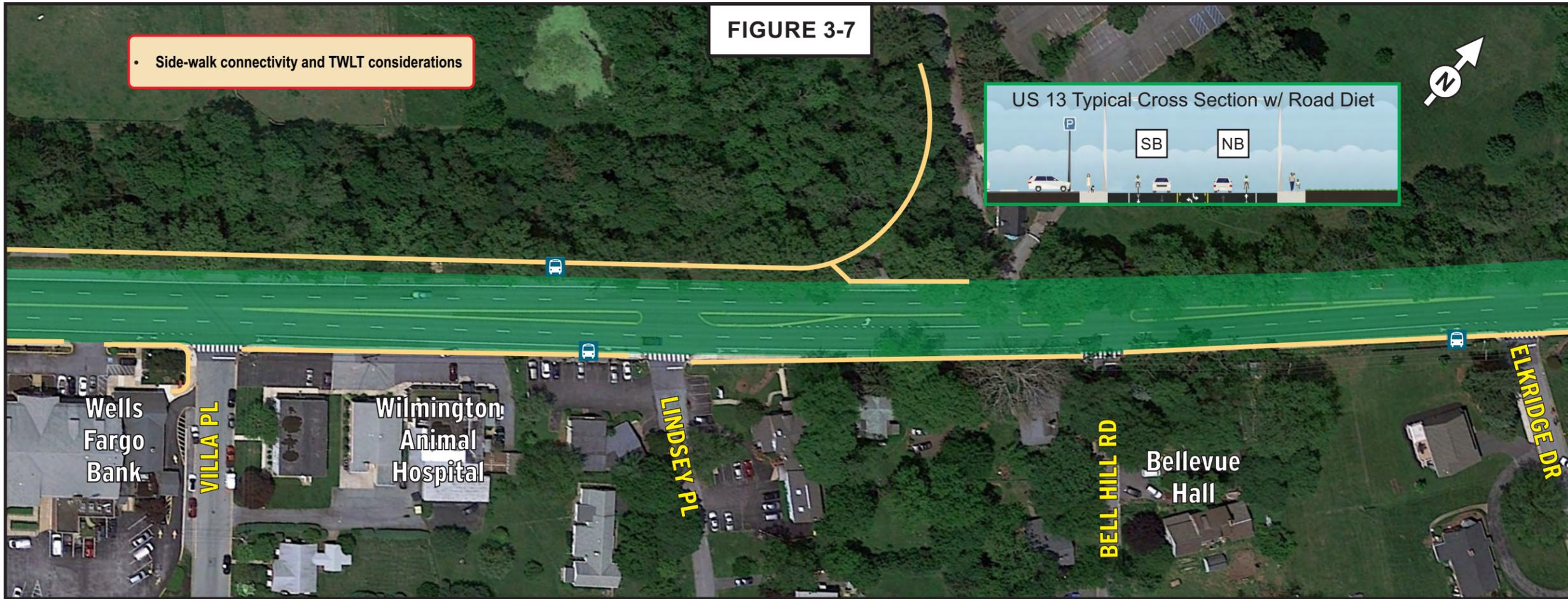


FIGURE 3-7

Side-walk connectivity and TWLT considerations

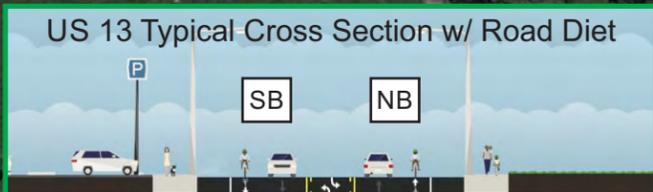


MATCHLINE F

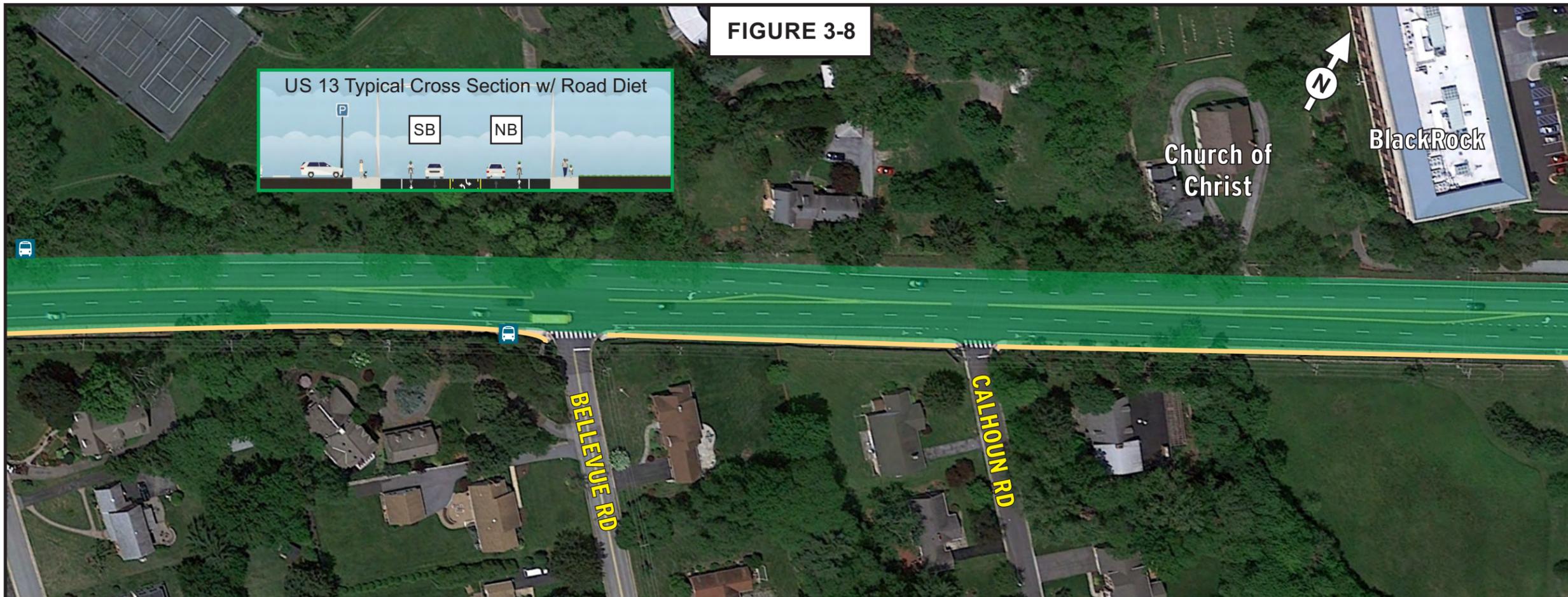


MATCHLINE G

FIGURE 3-8



MATCHLINE G



MATCHLINE H

**Philadelphia Pike  
Pedestrian Safety  
Audit Study**

*Lea Blvd. to DE-PA  
State Line*

**JANUARY 2018**

**LEGEND**

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

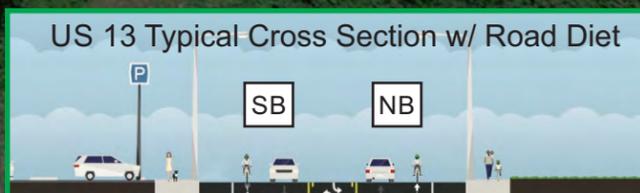
 Proposed Crosswalk

 Road Diet

**FIGURE 3-9** **Bellevue  
Lake**

• Channelize right-turn lane on EB Bellevue Pkwy approach to US 13 with road diet

• Channelize right-turn lane on WB Cauffiel Pkwy approach to US 13 with road diet  
• Re-Align Sidewalk Parallel to US 13



MATCHLINE H

MATCHLINE I

**FIGURE 3-10**

Maguire  
Pest Control

Flower Station  
of Delaware

Business History  
& Tech Museum

• Remove bus stop

US 13 Typical Cross Section w/ Road Diet

MATCHLINE I

MATCHLINE J

*Crash study period-  
January 2005 through  
April 2016*

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

 Proposed Crosswalk

 Road Diet

FIGURE 3-11

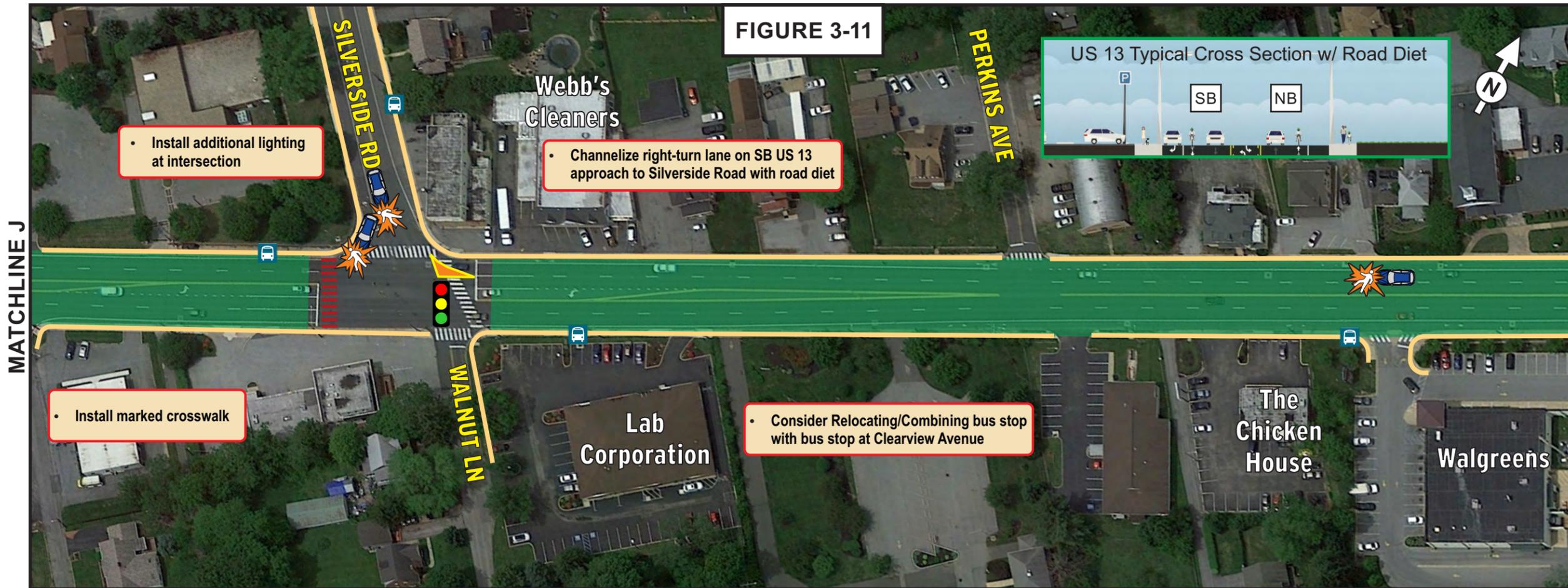
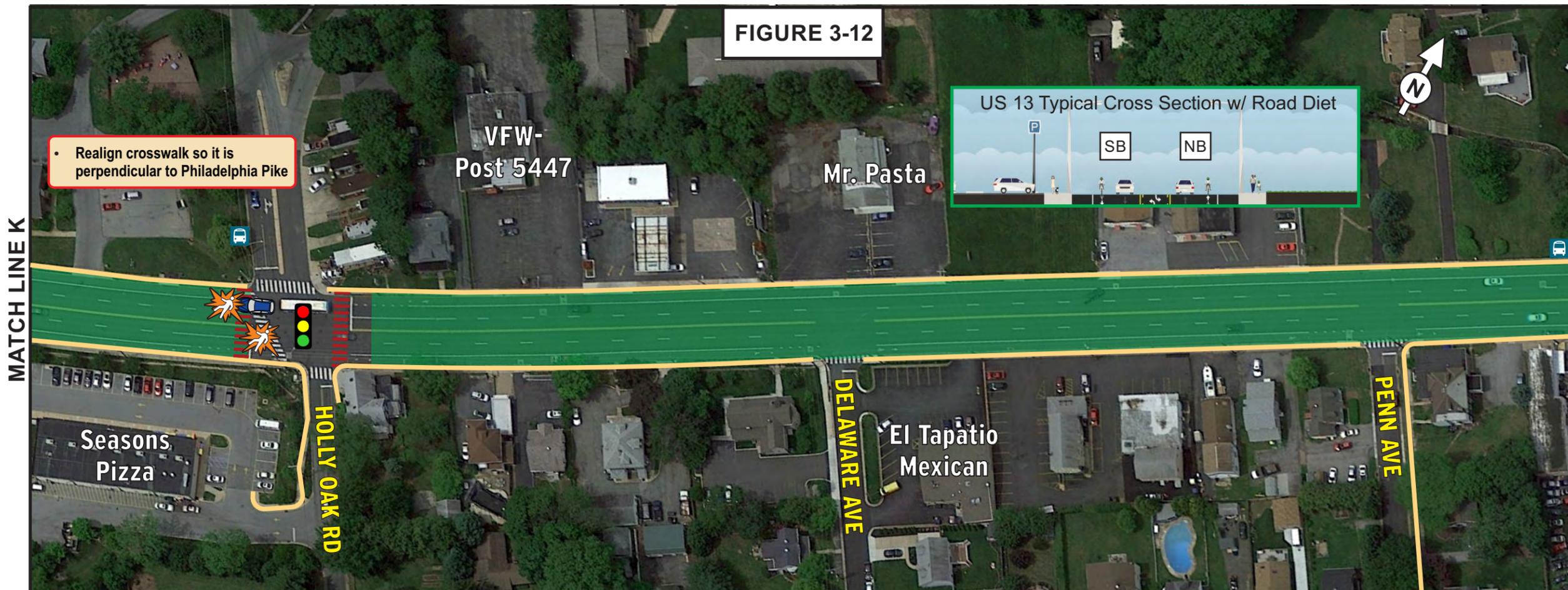


FIGURE 3-12



Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet

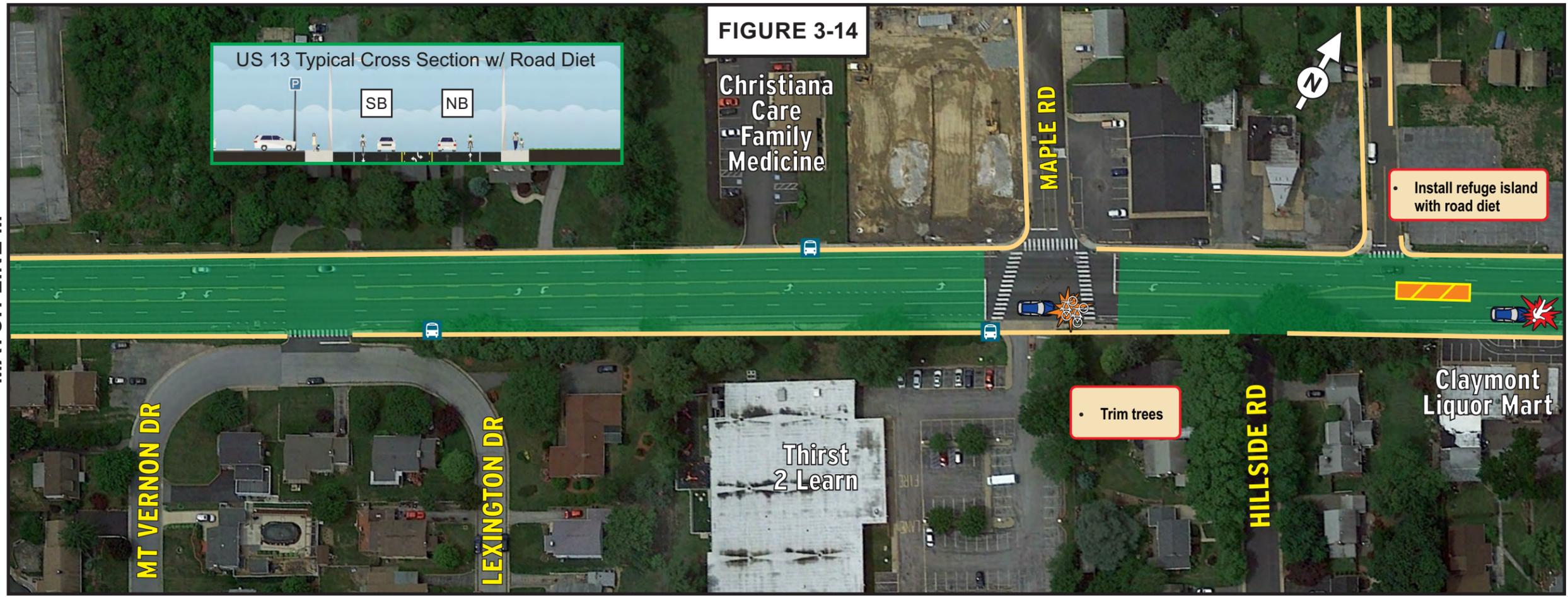
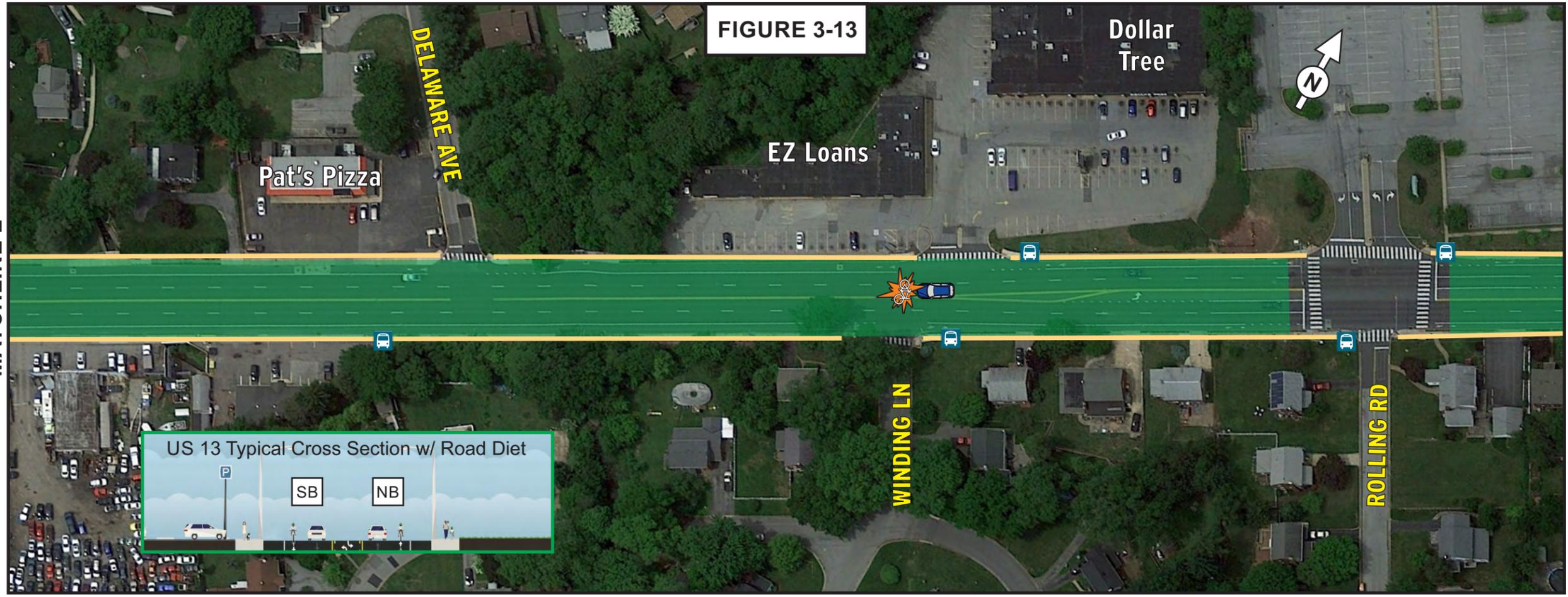
**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

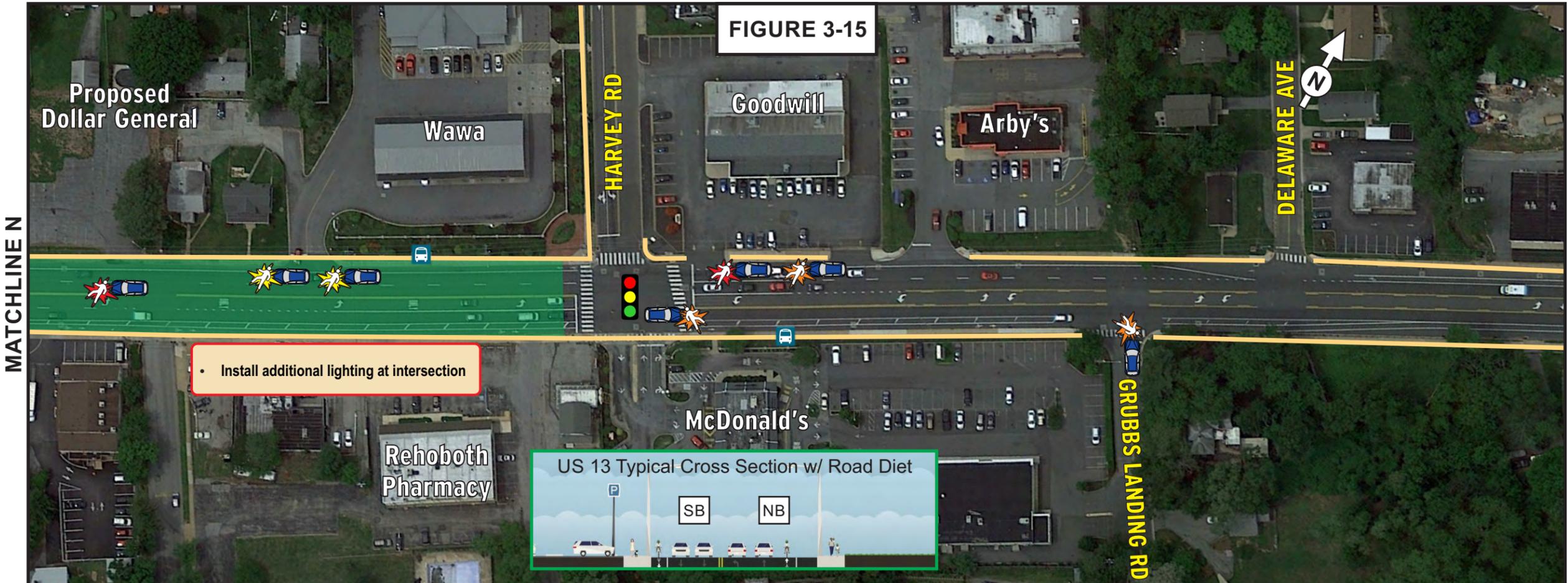
- Traffic Signal
- Existing Bus Stop
- Existing Sidewalk
- Proposed Crosswalk
- Road Diet

Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

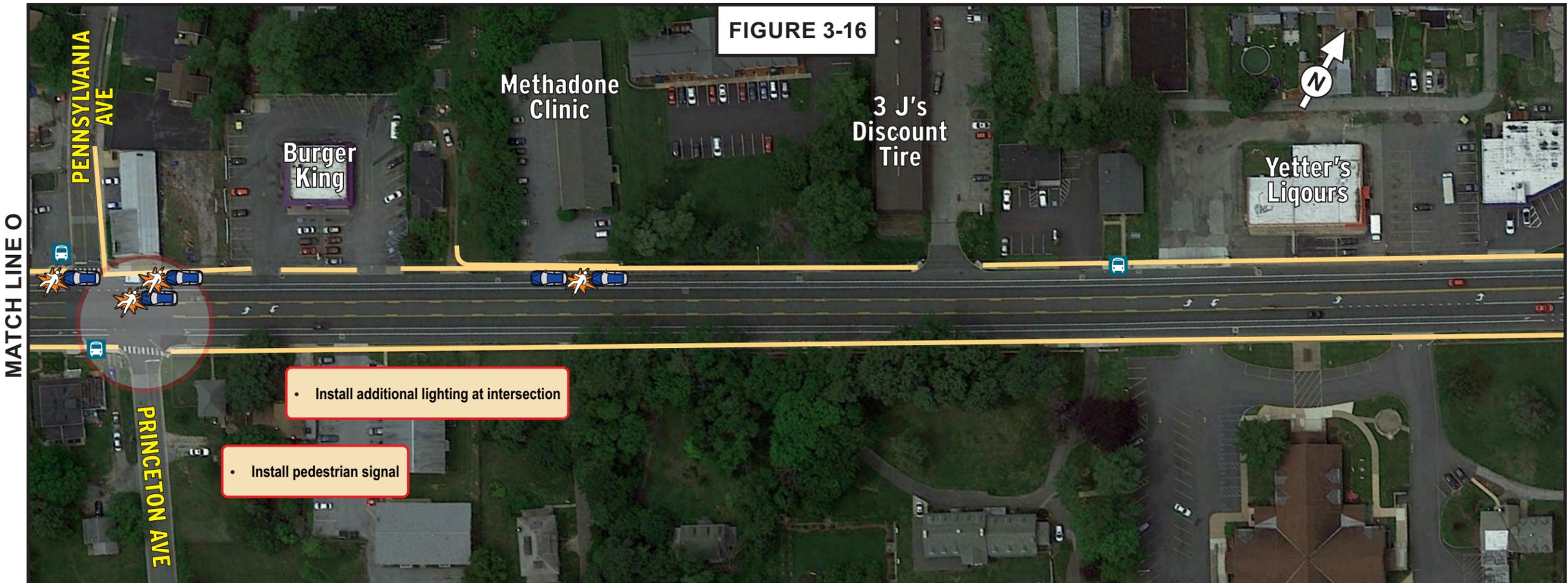


**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018



**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Existing Sidewalk
- Proposed Crosswalk
- Road Diet



Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

 Proposed Crosswalk

 Road Diet

FIGURE 3-17

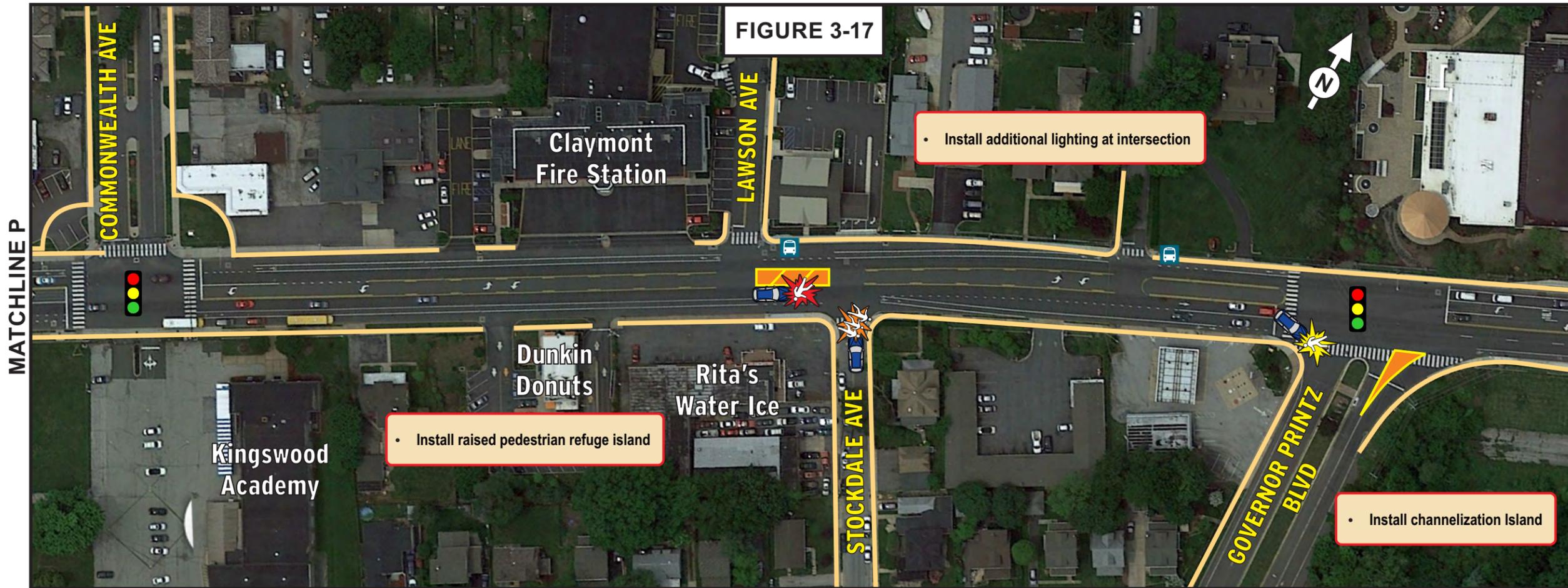
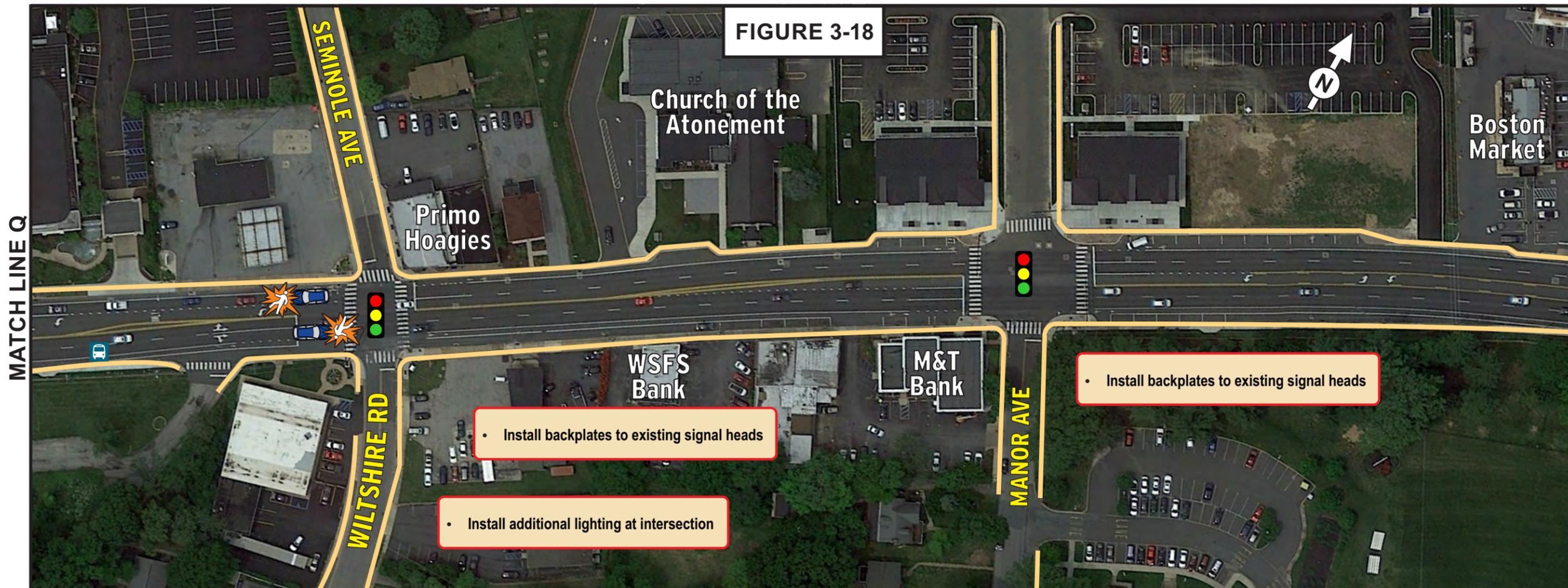
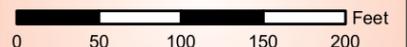


FIGURE 3-18



Crash study period-  
January 2005 through  
April 2016



# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

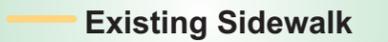
## LEGEND



Traffic Signal



Existing Bus Stop



Existing Sidewalk

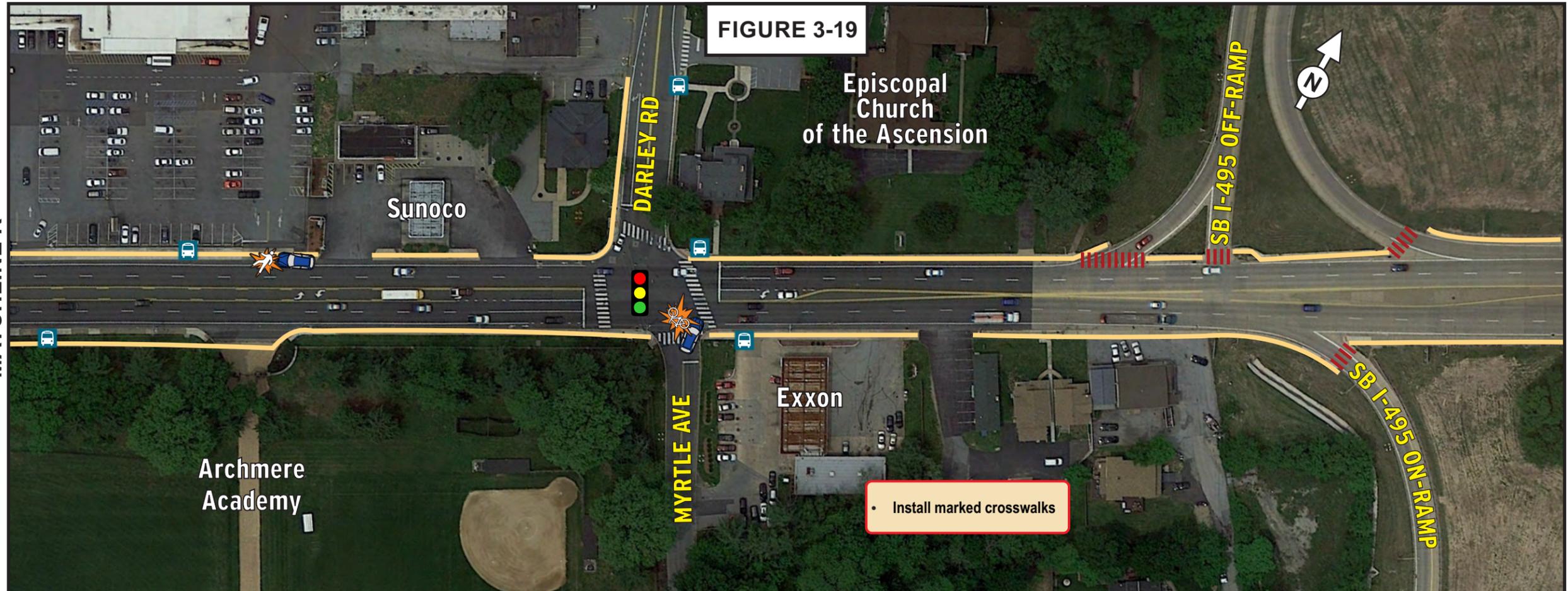


Proposed Crosswalk



Road Diet

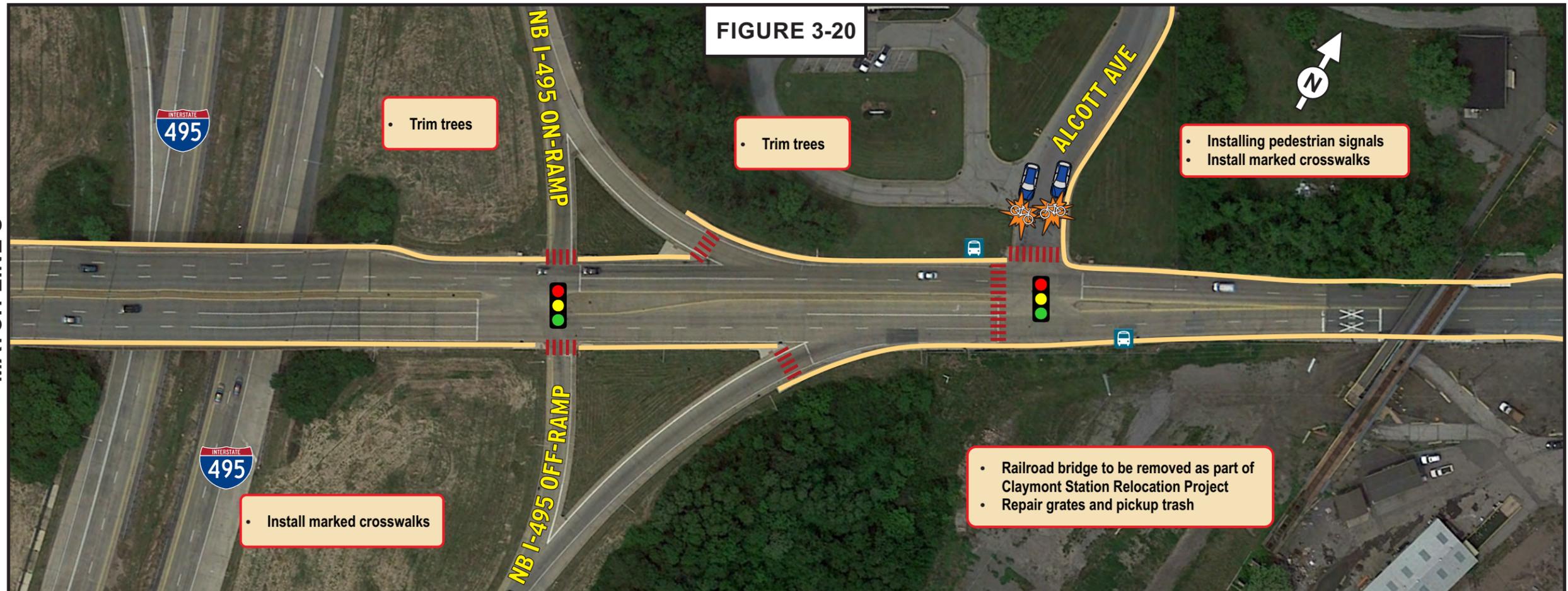
FIGURE 3-19



MATCHLINE R

MATCHLINE S

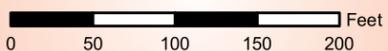
FIGURE 3-20



MATCHLINE S

MATCHLINE T

Crash study period-  
January 2005 through  
April 2016



# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

 Proposed Crosswalk

 Road Diet

FIGURE 3-21

• Intersection to be improved as part of Claymont Station Relocation Project

(Former)  
EVRAZ  
Steel Site

MATCHLINE T

MATCHLINE U

FIGURE 3-22

• Consider installing marked crosswalk and pedestrian signals

• Repair grates and pickup trash

NAAMANS RD

Robinson  
House

MATCHLINE U

MATCHLINE V

Crash study period-  
January 2005 through  
April 2016



# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

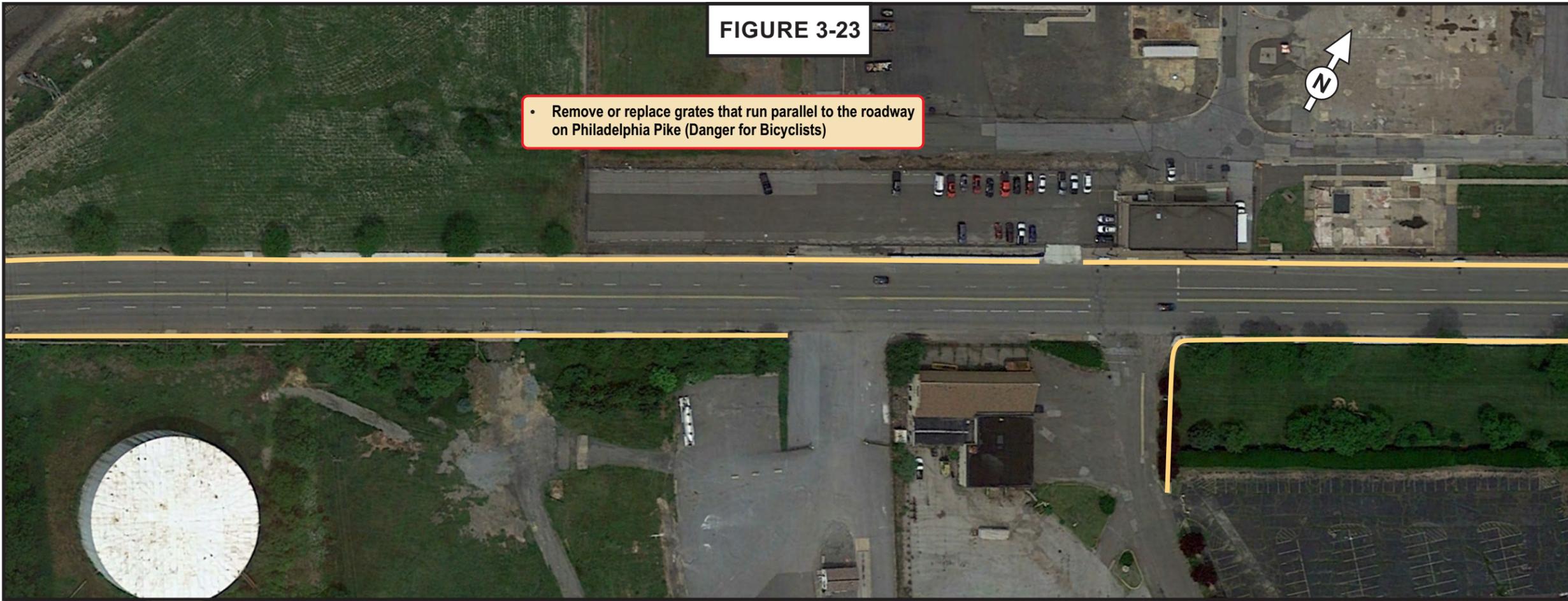
 Proposed Crosswalk

 Road Diet

FIGURE 3-23

- Remove or replace grates that run parallel to the roadway on Philadelphia Pike (Danger for Bicyclists)

MATCHLINE V



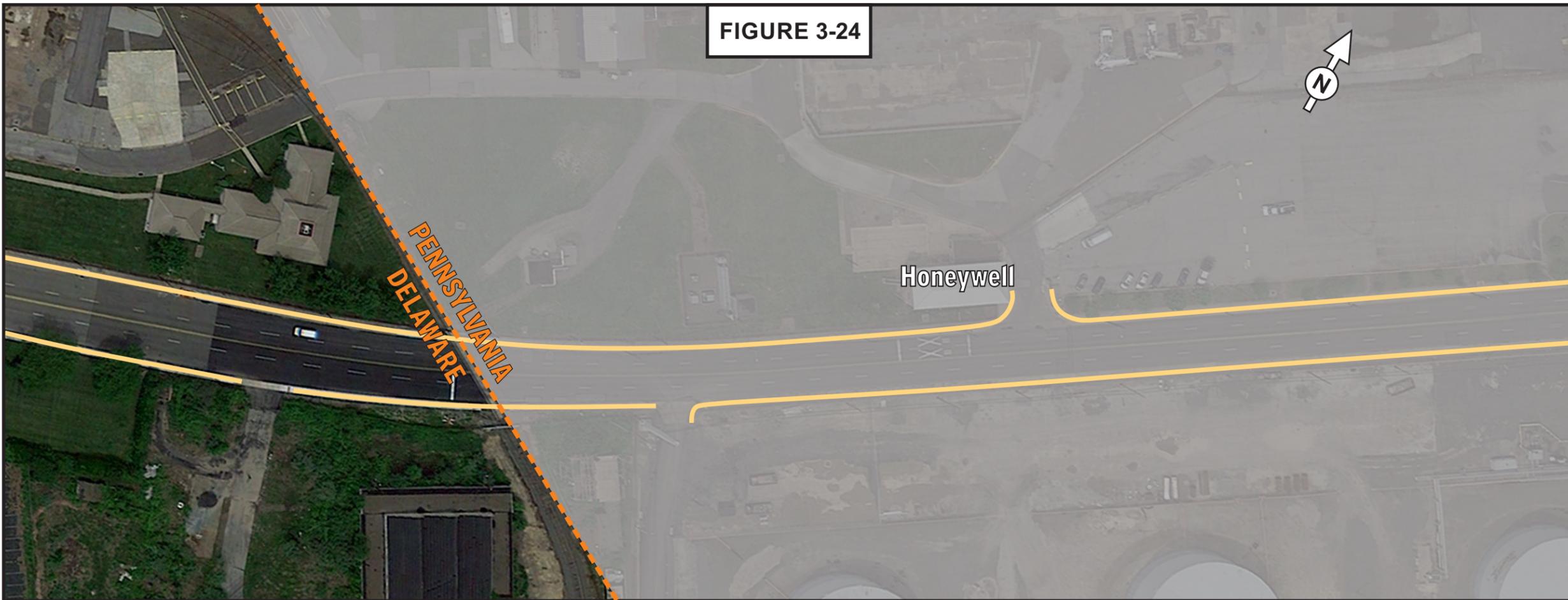
MATCHLINE W

FIGURE 3-24

Honeywell

PENNSYLVANIA  
DELAWARE

MATCHLINE W



Crash study period-  
January 2005 through  
April 2016

0 50 100 150 200 Feet

**Philadelphia Pike at Shipley Road**

- **Inadequate Intersection Lighting:** There is no existing overhead lighting at the intersection of Philadelphia Pike and Shipley Road.
- **Right-turn channelization:** During the field walkthrough, DeIDOT staff identified channelization of the right-turn lane on Philadelphia Pike (southbound) as a potential improvement.

**Philadelphia Pike at Marsh Road**

- **Potential Closure:** Lore Avenue may be permanently closed at its intersection with Marsh Road as part of another project.

**Philadelphia Pike at Washington Street Extension**

- **Inadequate Intersection Lighting:** There is no existing overhead lighting next to the existing bus stop.
- **Audible Pedestrian Signal:** During the field walkthrough, field staff identified the need the installation of audible pedestrian signals due to the number of school students using the crosswalks at the intersection.
- **Pedestrian and school signing:** During the field walkthrough, field staff identified the need for additional pedestrian and school signing.

**Philadelphia Pike at Beeson Avenue/ Parkway Avenue**

- **Uncontrolled Midblock Crossings:** During the field visit, pedestrians were observed crossing Philadelphia Pike at unmarked midblock locations in front of the Wawa, located just north of Parkway Avenue. The crash data indicated that two (2) of the pedestrian crashes were attributable to pedestrians crossing Philadelphia Pike at midblock locations near the Wawa.



**Picture 2:** Pedestrians Crossing Philadelphia Pike at Mid-Block Location north of Beeson Road

### Philadelphia Pike at Bellevue Parkway

- **Right-turn channelization:** During the field walkthrough, DelDOT staff identified channelization of the right-turn lanes on Bellevue Parkway and Cauffiel Parkway as potential improvements.

### Philadelphia Pike at Silverside Road

- **Inadequate Intersection Lighting:** There is no overhead lighting present on the northwest, northeast, and southwest quadrants of the intersection.
- **Crosswalks:** There is no existing marked crosswalk across Philadelphia Pike on the south leg of the intersection.
- **Right-turn channelization:** During the field walkthrough, DelDOT staff identified channelization of the right-turn lanes on southbound Philadelphia Pike as a potential improvement.

### Philadelphia Pike at Hillside Road

- **Overgrown trees:** During the field walkthrough, DelDOT staff noted that the trees along the east side of Philadelphia Pike should be trimmed.

### Philadelphia Pike between Hillside Road and Harvey Road

- **Uncontrolled Midblock Crossings:** There were multiple crashes involving pedestrians crossing Philadelphia Pike at midblock locations between Hillside Road and Harvey Road. Two (2) of these crashes resulted in fatalities.



Picture 3: Pedestrian Crossing Philadelphia Pike at Mid-Block Location in front of Claymont Liquor

### Philadelphia Pike at Harvey Road

- **Inadequate Intersection Lighting:** There is no overhead lighting present on the northwest, northeast, and southeast quadrants of the intersection. Three (3) of the reported pedestrian crashes at Harvey Road occurred at night and one (1) of the crashes resulted in a fatality.

### Philadelphia Pike at Pennsylvania Avenue

- **Inadequate Intersection Lighting:** There is no overhead lighting present on the southwest and southeast quadrants of the intersection. Three (3) of the reported pedestrian crashes at Pennsylvania Avenue occurred at night.
- **Uncontrolled Midblock Crossings:** Two (2) of the pedestrian crashes were attributable to pedestrians crossing Philadelphia Pike at a midblock location near Princeton Avenue. It should be noted that three (3) of the reported crashes involved pedestrians under the influence of alcohol.



Picture 4: Pedestrian waiting within the TWLT Lane on Philadelphia Pike south of Pennsylvania Avenue

### Philadelphia Pike at Lawson Avenue/ Stockdale Avenue

- **Raised pedestrian refuge island:** One (1) of the pedestrian crashes at the intersection of Lawson Avenue and Stockdale Avenue resulted in a fatality and it occurred at night. A raised pedestrian refuge island was identified as a possible improvement option during the field walkthrough.

### Philadelphia Pike at Governor Printz Boulevard

- **Right-turn channelization:** During the field walkthrough, DelDOT staff identified channelization of the right-turn lane on Governor Printz Boulevard as a potential improvement.

**Philadelphia Pike at Manor Avenue**

- **No Turn on Red Arrow (Symbol) Sign:** Mr. Bill McGlinchey, who is a local resident, expressed his concern for driver confusion attributable to the existing No Turn on Red Arrow sign with arrow symbol, facing the northbound Philadelphia Pike Approach. He requested DelDOT to consider replacing the existing sign with the text-only version of the sign.

**Philadelphia Pike at Seminole Avenue/ Wiltshire Road**

- **Inadequate Intersection Lighting:** There is one (1) overhead luminaire present on the southwest quadrant of the intersection. Two (2) of the pedestrian crashes occurred at night.

**Philadelphia Pike at I-495**

- **Missing Crosswalks:** There are continuous sidewalks along the east and west side of Philadelphia Pike at the I-495 Ramps. However, there are no marked crosswalks to connect the existing sidewalks.
- **Overgrown trees:** During the field walkthrough, DelDOT staff noted that the trees along the west side of Philadelphia Pike need to be trimmed.

**Philadelphia Pike at Alcott Avenue**

- **Missing Crosswalks:** There are continuous sidewalks along the east and west side of Philadelphia Pike at Alcott Avenue. However, there are no marked crosswalks at Alcott Avenue to connect the existing sidewalks.

**Philadelphia Pike at SR 92 (Naamans Road)**

- **Missing Crosswalks:** There are continuous sidewalks along the east and west side of Philadelphia Pike at SR 92. However, there is no crosswalk for pedestrians to cross Philadelphia Pike at the intersection.

**Philadelphia Pike between SR 92 and the Delaware/ Pennsylvania State Line**

- **Storm Grates:** There are storm grates along SR 92 that run parallel to the roadway, which creates a safety hazard for bicyclists. The storm grates underneath of the railroad bridge, north of SR 92 were dislodge, which creates a safety hazard for bicyclists.

**Corridor Wide Issues / Improvements**

- **Roadway Lighting:** During the field walkthrough, field staff identified the need for additional roadway lighting throughout the corridor. DelDOT Traffic Section will conduct a lighting assessment study along Philadelphia Pike between Lea Boulevard and the DE / PA Line and install additional roadway lighting where needed.
- **Speed Limits:** During the field walkthrough, field staff identified the various speed limits within the study corridor of Philadelphia Pike. DelDOT Traffic Section will determine the feasibility of implementing a uniform speed limit within the Philadelphia Pike study corridor.
- **Vegetation:** Field staff identified a few locations where roadside vegetation is intruding into the sidewalks and shoulder within the study corridor or Philadelphia Pike. The locations were forwarded to the DelDOT North District and the intruding vegetation will be trimmed.
- **Pedestrians crossing at Mid-Block Locations:** As noted earlier, many pedestrians crossing at mid-block locations near the unsignalized intersections were observed during the field review. In order to determine the types of the future pedestrian safety improvement treatments at or near the unsignalized intersections, analyses utilizing the methodology specified in the NCHRP Report 562 (Improving Pedestrian Safety at Unsignalized Crossings) were completed. NCHRP Report 562 presents a guideline for use in selecting pedestrian crossing treatments for unsignalized intersections and mid-block locations, based on input variables such as peak hour pedestrian volume, street crossing width and the major road peak hour vehicular volume. Specifically, NCHRP Report 562 analysis uses the methodology defined in the Highway Capacity Manual

(HCM) to calculate the pedestrian delay and give recommendation in the following five (5) treatment categories:

- No treatment
- Marked Crosswalk
- Enhanced, High Visibility or Active-when-present Devices (i.e. Rapid Flashing Beacons)
- Red Beacon (i.e. HAWK)
- Conventional Traffic Control Signal

For the purpose of this analysis, peak hour volume for the Philadelphia Pike approaches were calculated using the Annual Average Daily Traffic (AADT) volume provided in the Traffic Summary 2016, published by DelDOT. The Traffic Summary 2016 provides the AADT for the following Philadelphia Pike segments:

- Between Lea Boulevard and Shipley Road (8,265 vpd)
- Between Shipley Road and Marsh Road (9,870 vpd)
- Between Marsh Road and Washington Street Extension (7,684 vpd)
- Between Washington Street Extension and Silverside Road (10,039 vpd)
- Between Silverside Road and Governor Printz Boulevard (14,354 vpd)
- Between Governor Printz Boulevard and I-495 (22,072 vpd)
- Between I-495 and Naamans Road (15,222 vpd)
- Between Naamans Road and DE / PA State Line (7,173 vpd)

Then the peak hour volume for each Philadelphia Pike segment was calculated using the AADT and the K-factors derived from a Philadelphia Pike tube count data collected as a part of the Claymont Station Relocation Project. Table 5 shows the K-Factors used in the peak hour volume calculations:

<b>Table 5 Philadelphia Pike Hourly Volume K-Factors</b>			
<b>AM Hours</b>	<b>K-Factor</b>	<b>PM Hours</b>	<b>K-Factor</b>
0:00 AM - 1:00 AM	0.007	12:00 PM - 1:00 PM	0.051
1:00 AM - 2:00 AM	0.004	1:00 PM - 2:00 PM	0.053
2:00 AM - 3:00 AM	0.003	2:00 PM - 3:00 PM	0.055
3:00 AM - 4:00 AM	0.004	3:00 PM - 4:00 PM	0.068
4:00 AM - 5:00 AM	0.007	4:00 PM - 5:00 PM	0.077
5:00 AM - 6:00 AM	0.024	<b>5:00 PM - 6:00 PM</b>	<b>0.083</b>
6:00 AM - 7:00 AM	0.054	6:00 PM - 7:00 PM	0.071
7:00 AM - 8:00 AM	0.072	7:00 PM - 8:00 PM	0.048
8:00 AM - 9:00 AM	0.069	8:00 PM - 9:00 PM	0.04
9:00 AM - 10:00 AM	0.049	9:00 PM - 10:00 PM	0.032
10:00 AM - 11:00 AM	0.043	10:00 PM - 11:00 PM	0.023
11:00 AM - 12:00 PM	0.049	11:00 PM - 12:00 PM	0.014

The tube count data revealed that the highest hourly volume (8.3%) on the Philadelphia Pike corridor occurs between 5:00 PM and 6:00 PM. Since the NCHRP Report 562 analysis only requires the highest one hour volume, the K-factor of 0.083 was used to calculate the peak hour volume for the Philadelphia Pike segments defined in the Traffic Summary 2016. In addition, since it was not feasible to collect the peak hour pedestrian volumes for all mid-block and unsignalized locations along the study segment of Philadelphia Pike, the peak hour pedestrian volume crossing Philadelphia

Pike was assumed to be 20 pedestrians per hour, as the minimum peak hour pedestrian volume needed for the NCHRP Report 562 analysis is 20. Within the Philadelphia Pike corridor, the sub-section from Washington Street Extension to Silverside Road and the sub-section from Silverside Road to Governor Printz Boulevard was selected for the NCHRP Report 562 analysis. Table 6 shows the inputs used for the NCHRP Report 562 analysis as well as the recommendations.

	<b>Speed Limit</b>	<b>Peak Hour Ped Volume</b>	<b>2016 AADT</b>	<b>Peak Hour Vehicular Volume</b>	<b>Ped Crossing Distance</b>	<b>Recommendation</b>
Washington Street Ext. to Silverside Road (45 MPH)	45 MPH	20 per hour	10,039	833 vph	60 ft	<b>Enhanced or Active</b>
Silverside Road to Gov. Printz Boulevard	40 MPH	20 per hour	14,354	1,191 vph	60 ft	<b>Red Beacon</b>

**\*Assumptions**

- Area population is assumed to be greater than 10,000 for all locations
- Peak hour pedestrian volume is assumed to be 20 peds / hour for all locations
- AADT was referenced from DelDOT's 2016 Traffic Summary
- Peak hour K-factor was derived based on a tube count data collected near the I-495 Interchange
- 15th Percentile pedestrian speed is assumed to be greater than 3.5 ft/sec for all locations
- Driver Compliance for pedestrian is assumed to be high for all locations

Based on the year 2016 conditions, the results from the NCHRP Report 562 analyses indicated that Enhanced High Visibility Improvements such as signing and pavement markings or Active-when-present devices such as Rectangular Rapid Flashing Beacons (RRFB) could be considered along the Philadelphia Pike segment between Washington Street and Silverside Road. In addition, the results also indicated that Red Beacon (Pedestrian Signal or HAWK Beacon) should be considered along the Philadelphia section between Silverside Road and Governor Printz Boulevard.

## VI. Long Term Improvement: Road Diet between Lea Boulevard and Rolling Road

A Road Diet is generally described as a roadway reconfiguration solution that consists of removing vehicle lanes from a roadway and repurposing the extra space for other uses or travelling modes, such as parking, sidewalks, bicycle lanes, transit use, reversible turn lanes, medians or pedestrian refuge islands. Road Diets, when applied in, provide operational benefits, and diversify transportation modes to better accommodate all road users. Road Diets are typically accomplished primarily by restriping pavement. Therefore, they are often a low-cost improvement, particularly when planned in conjunction with reconstruction or appropriate locations, often on four- or five-lanes roadways with light or moderate traffic volumes, have the potential to improve safety resurfacing projects.

DelDOT previously completed a Road Diet feasibility study on Philadelphia Pike between Rolling Road and Governor Printz Boulevard in May 2009. Based on the favorable findings from the study, DelDOT decided to implement a Road Diet on Philadelphia Pike between Rolling Road and Governor Printz Boulevard, and construction of the project began in the spring of 2012 and was completed in the autumn of 2012.

RK&K completed a Before and After study to evaluate the operational and safety impacts of a Road Diet Project that DelDOT implemented within the section of Philadelphia Pike between Rolling Road and Governor Printz Boulevard. The following is a summary of the key findings from the before / after study:

- **Safety:** Crash data indicate that the total number of vehicular crashes decreased by 13% in the 3-year period after the project was completed. Similarly, the crash rate has decreased by 11% in the same period. However, there have been six (6) pedestrian involved crashes in the 3-year “after” period following the implementation of the Road Diet. Additionally, within the past 10 years, three (3) pedestrian fatalities have occurred within the study area, one prior to and following the implementation of the Road Diet. Both fatal pedestrian crashes that occurred after the Road Diet project involved an intoxicated pedestrian.
- **Speeds:** Speed data shows that motorists within the 1-mile Road Diet segment show considerably higher compliance to the posted speed limit than approaching or departing it. Approximately 85% of motorists exceed the speed limit approaching the Road Diet Segment, yet only 60% of motorists exceed the speed limit within the project limits. After departing the Road Diet segment, approximately 85% of motorists exceed the speed limit again.
- **Traffic Volume & Diversions:** Traffic volume data indicate that contrary to expectations, daily traffic volumes have increased on Philadelphia Pike by approximately 10% after implementation of the Road Diet Project. Furthermore, traffic volumes on a potential diversion route, Governor Prints Boulevard, have decreased since the implementation of the project.
- **Operations:** Operational analyses indicate minor increases in the overall delay at the intersection of Philadelphia Pike and Governor Printz Boulevard operates slightly better today than it did prior to implementation of the Road Diet, due possibly to improved signal timing and/or shifts in traffic volumes among the various turning movements.

Since the previously implemented Road Diet Project showed improvements in safety, speed limit compliance and traffic operations and the study section of Philadelphia Pike appear to have lower AADT's compared to the section where road diet have already been implemented previously, it appears that a Road Diet may be applicable for the Philadelphia Pike section between Lea Boulevard and Rolling Road, based on the guidelines provided in FHWA's [Road Diet Informational Guide](#). Therefore, another Road Diet Feasibility Study was completed for the section of Philadelphia Pike between Lea Boulevard and Rolling Road.

The software SYNCHRO / SimTraffic (Version 9) was utilized to perform capacity analyses and traffic simulation modeling for the study corridor of Philadelphia Pike. SYNCHRO is a traffic analysis tool that utilized the methods from the Year 2000 and 2010 editions of the Highway Capacity Manual to determine the capacity and various measures of effectiveness to describe the relative operation of signalized and unsignalized intersections. SYNCHRO is also used as a tool to determine optimum traffic signal timings for a single intersection or for a series of coordinated or uncoordinated signalized intersections. SimTraffic is a microscopic traffic simulation program, which utilizes the information from SYNCHRO to build a model of traffic conditions for two or more intersecting roads. Like SYNCHRO, SimTraffic provides a variety of measures of traffic operations, including average control delay, queue length, Level of Service and travel time.

SYNCHRO and SimTraffic models were developed for the study corridor of Philadelphia Pike to quantify the operation of the key intersections for the following three (3) scenarios:

**Scenario 1:** Year 2017 Existing Condition

**Scenario 2:** Year 2017 Lane Reduction

**Scenario 3:** Year 2027 Lane Reduction

In order to build the balanced volume network needed for the existing condition models, RK&K completed 6-hour turning movement counts at the intersections along the Philadelphia Pike corridor between Lea Boulevard and Harvey Road. The balanced volume network and the latest DelDOT traffic signal timing data were used to create the 2017 Existing Conditions SYNCHRO models. The collected traffic volume data are attached in Appendix D and the used signal timing data is attached in Appendix E.

Travel time data was collected for both northbound and southbound Philadelphia Pike between Lea Boulevard to the south and Harvey Road to the north. Five (5) travel time runs were recorded for both the southbound and the northbound directions during the AM peak hour and the PM peak hour and the runs were averaged. The collected travel time data are attached in Appendix F. The travel time output from the SimTraffic models were calibrated within 10% of the travel time data collected during the field observations. Table 7 shows the field measured travel time, the calibrated SimTraffic travel time and the differential between the two.

Travel Direction	AM Peak Hour Travel Time*			PM Peak Hour Travel Time*		
	Field	SimTraffic	% Difference	Field	SimTraffic	% Difference
Northbound Lea Boulevard to Harvey Road	358	346	- 3.4%	339	353	4.1%
Southbound Harvey Road to Lea Boulevard	338	364	7.7%	376	360	-4.3%

\*Seconds

Once the existing SimTraffic models were calibrated, they were used as the base for the SimTraffic models for Scenario 2 and Scenario 3. Scenario 2 SimTraffic models were created by incorporating geometric changes (i.e. lane reduction) to the base models while retaining the 2017 traffic volumes. Separate left-turn and right-turn lanes are assumed for the Philadelphia Pike approaches at the signalized intersections. It should be noted that while coordinating with the DelDOT Planning Section, it was revealed that there is another Road Diet Project being considered for Washington Street Extension between Philadelphia Pike and Washington Street, in which the number of travel lanes will be reduced to one-lane each direction; however, the existing double left-turn lanes from the eastbound Washington Street Extension on to northbound Philadelphia Pike will be retained. Therefore, it was assumed that the northbound Philadelphia Pike section between Washington Street Extension and Beeson Road would remain two (2) through lanes in order to provide two receiving lanes for the double left-turns from the eastbound Washington Street Extension approach.

Scenario 3 SimTraffic models retained all of the geometric features and lane configurations used in Scenario 2; however, the traffic volumes were increased by 0.5% annual growth rate in order to assume year 2027 traffic volumes. A 0.5% annual growth rate was assumed since very little future development is expected in the area near the Philadelphia Pike corridor where Road Diet is being considered. Table 8 shows the delay and LOS results from the AM peak hour SimTraffic analyses and Table 9 shows the delay and LOS results from the PM peak hour SimTraffic analyses. All of the SimTraffic reports are attached in Appendix G.

Table 8: Philadelphia Pike Intersection Delay / LOS - AM Peak Hour						
Crossing Intersection	2017 Existing		2017 Lane Reduction		2027 Lane Reduction	
	Delay <sup>1</sup>	LOS	Delay1	LOS	Delay <sup>1</sup>	LOS
Lea Boulevard	18	B	18	B	19	B
Shipley Road	18	B	18	B	18	B
Marsh Road	14	B	15	B	16	B
Washington Street Extension	12	B	16	B	17	B
Parkway Avenue <sup>2</sup>	2	A	2	A	3	A
Duncan Road	6	A	7	A	7	A
Bellevue Parkway	12	B	16	B	16	B
Silverside Road	10	B	13	B	13	B
Holly Oak Road	4	A	6	A	6	A
Rolling Road	2	A	3	A	3	A
Maple Road	7	A	10	A	10	A
Harvey Road	19	B	23	C	23	C

<sup>1</sup> Seconds per Vehicle

<sup>2</sup> Unsignalized Intersection

Table 9: Philadelphia Pike Intersection Delay / LOS - PM Peak Hour						
Crossing Intersection	2017 Existing		2017 Lane Reduction		2027 Lane Reduction	
	Delay <sup>1</sup>	LOS	Delay1	LOS	Delay <sup>1</sup>	LOS
Lea Boulevard	20	C	21	C	22	C
Shipley Road	17	B	18	B	18	B
Marsh Road	14	B	17	B	17	B
Washington Street Extension	13	B	21	C	21	C
Parkway Avenue <sup>2</sup>	2	A	3	A	3	A
Duncan Road	6	A	8	A	8	A
Bellevue Parkway	17	B	21	C	22	C
Silverside Road	12	B	15	B	15	B
Holly Oak Road	6	A	8	A	8	A
Rolling Road	1	A	2	A	2	A
Maple Road	5	A	7	A	7	A
Harvey Road	20	B	30	C	37	D

<sup>1</sup> Seconds per Vehicle

<sup>2</sup> Unsignalized Intersection

SimTraffic analyses from Scenario 1 (2017 Existing) indicated that all of the signalized intersections within the study segment of Philadelphia Pike currently operate with minimal or no delay (LOS A & B) during both the AM and the PM peak hours, with the exception of the Lea Boulevard intersection, which appears to operate with minimal delay (LOS B) during the AM peak hour and moderate delay (LOS C) during the PM peak hour.

SimTraffic analyses from Scenario 2 (2017 Lane Reduction) showed that all of the signalized intersections within the study segment of Philadelphia Pike are expected to operate with moderate or less delay (LOS C or better) during both the AM and the PM peak hours. This indicates the signalized intersections along the study segment of Philadelphia Pike are expected to operate acceptably with the year 2017 existing traffic volume after the proposed reduction in number of travel lanes.

SimTraffic analyses from Scenario 3 (2027 Lane Reduction) also showed that all of the signalized intersections within the study segment of Philadelphia Pike are expected to operate with moderate or less delay (LOS C or better) during both the AM and the PM peak hours, with the exception of the Harvey Road intersection. Based on the results from the SimTraffic analyses, The Harvey Road intersection is expected to operate with moderate delay (LOS C) during the AM peak hour and considerable delay (LOS D) during the PM peak hour. It should be noted that the number of lanes on Philadelphia Pike immediately north and south of the Harvey Road intersection has already been reduced as a part of the 2012 Road Diet Project. This indicates the signalized intersections within the proposed Road Diet section of Philadelphia Pike are also expected to operate acceptably with the 2027 forecasted traffic volume after the proposed reduction in number of travel lanes.

Since the proposed lane reduction is expected to increase the queue lengths for the through movements on Philadelphia Pike at the signalized intersections, 95<sup>th</sup> percentile queue lengths for the Philadelphia Pike approaches at each signalized intersections were also monitored. Tables 10 and 11 shows the 95<sup>th</sup> percentile queue lengths observed in SimTraffic models for the AM peak and the PM peak hours, respectively.

**Table 10:  
Philadelphia Pike Approaches 95<sup>th</sup> Percentile Queue Lengths\* at Signalized Intersections  
AM Peak Hour**

Crossing Intersection	2017 Existing		2017 Lane Reduction		2027 Lane Reduction	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
Lea Boulevard	90	130	100	135	95	145
Shipleigh Road	60	70	85	90	100	115
Marsh Road	65	100	105	115	120	160
Washington Street Extension	60	175	115	315	105	340
Duncan Road	70	60	115	100	115	90
Bellevue Parkway	90	150	170	280	175	295
Silverside Road	15	75	95	200	85	250
Holly Oak Road	50	85	80	135	75	120
Rolling Road	30	40	30	60	30	50
Maple Road	70	90	105	230	95	210
Harvey Road	205	220	200	490	200	470

\* Rounded to the nearest 5 feet

**Table 11:  
Philadelphia Pike Approaches 95<sup>th</sup> Percentile Queue Lengths\* at Signalized Intersections  
PM Peak Hour**

Crossing Intersection	2017 Existing		2017 Lane Reduction		2027 Lane Reduction	
	Northbound	Southbound	Northbound	Southbound	Northbound	Southbound
Lea Boulevard	120	160	125	175	130	180
Shiple Road	85	60	155	90	170	80
Marsh Road	75	85	175	130	155	145
Washington Street Extension	60	190	115	420	115	435
Duncan Road	70	60	135	120	135	120
Bellevue Parkway	135	130	295	230	320	250
Silverside Road	85	130	190	265	185	220
Holly Oak Road	70	90	145	140	165	145
Rolling Road	20	25	35	20	75	30
Maple Road	80	70	140	190	150	185
Harvey Road	250	250	265	805	275	1345

\* Rounded to the nearest 5 feet

As expected, a significant increase in the 95<sup>th</sup> percentile queue lengths were observed from the 2017 Lane reduction models in comparison to the 2017 Existing models, attributable to the number of travel lanes on Philadelphia Pike being reduced to one (1) lane on each direction. Although the 95<sup>h</sup> percentile queue lengths increased significantly after the lane reduction, none of the Philadelphia Pike through movement queue lengths observed in SimTraffic models spilled back to the most immediate upstream signalized intersection. In addition, due to the minimal increase in the year 2017 volumes and the year 2027 volumes, marginal changes in the 95<sup>th</sup> percentile queue lengths were observed in the 2027 Lane Reduction models, with the exception of the southbound Philadelphia Pike through movement at the Harvey Road intersection. A significant increase in the 95<sup>th</sup> percentile queue lengths were observed for the southbound Philadelphia Pike through movement at the Harvey Road intersection during the PM peak hour, which appears to be attributable to the heavy volume on the southbound Philadelphia Pike approach.

## VII. Conclusions & Recommendations

A review of the crash data showed that there were several night-time pedestrian / bicycle crashes resulting in fatality or personal injury. In many instances the pedestrian was walking without a light while wearing dark clothing. Adding additional roadway lighting may increase the visibility of pedestrians walking along the study corridor; therefore, DelDOT recommends installing roadway lighting along the section of Philadelphia Pike between Lea Boulevard and DE / PA line in places where there is no roadway lighting currently.

Field observations revealed that pedestrians and bicyclists frequently cross Philadelphia Pike at midblock locations. A review of the crash data showed that many of the crashes involved pedestrians being struck when they attempted to cross Philadelphia Pike at unmarked midblock locations. Field observations also showed pedestrians walking down the center of Philadelphia Pike, while they waited for a gap in traffic to cross the road. Field observations and the crash data review revealed that right-turn channelization islands at several intersections within the study corridor could improve pedestrian safety.

Capacity analyses completed to determine the feasibility of implementing a Road Diet project between Philadelphia Pike between Lea Boulevard and Rolling Road showed that all of the signalized intersections within the proposed Road Diet segment are expected to operate acceptably (LOS C or better) with both the year 2017 existing traffic volume and the year 2027 forecasted traffic volume. This indicates that a Road Diet project may be feasible for the section of Philadelphia Pike between Lea Boulevard and Rolling Road.

As observed during the field observations, the pedestrians are expected to continue to cross Philadelphia Pike at mid-block locations. Installing raised pedestrian refuge islands at the frequent mid-block crossing locations in conjunction with the proposed Road Diet may improve pedestrian safety. The summary of the short-term, mid-term and long-term improvement recommendations are listed in Table 12.

<b>Table 12: Philadelphia Pike Improvement Options</b>	
<b>Priority</b>	<b>Recommendations</b>
<b>Corridor Wide</b>	
Short-term	<ul style="list-style-type: none"> <li>• Implement uniform speed limit along Philadelphia Pike</li> <li>• Improve roadway signing / pavement markings to promote pedestrian safety</li> <li>• Trim vegetation intruding onto the sidewalks and shoulder lane</li> </ul>
Mid-term	Install additional roadway lighting along Philadelphia Pike
Long-term	<ul style="list-style-type: none"> <li>• Road diet on Philadelphia Pike between Lea Boulevard and Harvey Road</li> <li>• Coordinate bus stop consolidation with DTC</li> </ul>
<b>Philadelphia Pike at Lea Boulevard</b>	
Short-term	<ul style="list-style-type: none"> <li>• Install additional overhead lighting at the intersection</li> <li>• Install marked crosswalk across the south leg of the intersection</li> <li>• Implement No-turn-on-red restriction for eastbound Lea Boulevard</li> </ul>
<b>Philadelphia Pike at Shipley Road / Edgemoor Road</b>	
Short-term	Install overhead lighting at the intersection
Long-term	Install and Channelize right-turn lane on southbound Philadelphia Pike (w/ Road diet)
<b>Philadelphia Pike at Washington Street Extension</b>	
Short-term	<ul style="list-style-type: none"> <li>• Install additional overhead lighting at the intersection</li> <li>• Install additional pedestrian and school zone signs</li> <li>• Consider Pedestrian Safety education / outreach via nearby schools</li> </ul>
Long-term	Maintain right-turn lane on the southbound Philadelphia Pike approach (w/ Road Diet)
<b>Philadelphia Pike at Beeson Avenue/ Parkway Avenue</b>	
Long-term	<ul style="list-style-type: none"> <li>• Provide raised pedestrian refuge island on Philadelphia Pike between Beeson Avenue and School House Lane (w/ Road Diet)</li> <li>• Consider Active / Enhanced Pedestrian Crossing (w/ Road Diet)</li> </ul>
<b>Philadelphia Pike at Bellevue Parkway / Cauffiel Parkway</b>	
Long-term	<ul style="list-style-type: none"> <li>• Channelize right-turn lanes from Bellevue Parkway and Cauffiel Parkway (w/ Road Diet)</li> <li>• Realign crosswalk across Cauffiel Parkway to make it parallel to Philadelphia Pike</li> </ul>
<b>Philadelphia Pike at Silverside Road</b>	
Short-term	<ul style="list-style-type: none"> <li>• Install additional overhead lighting at the intersection</li> <li>• Install marked crosswalk across Philadelphia Pike</li> </ul>
Long-term	<ul style="list-style-type: none"> <li>• Coordinate with DTC to determine the feasibility of consolidating / relocating bus stop with nearby Clearview Avenue bus stop</li> <li>• Channelize right-turn lane on the southbound Philadelphia Pike approach (w/ Road Diet)</li> </ul>
<b>Philadelphia Pike at Holly Oak Road</b>	
Long-term	Realign crosswalks to be perpendicular to Philadelphia Pike

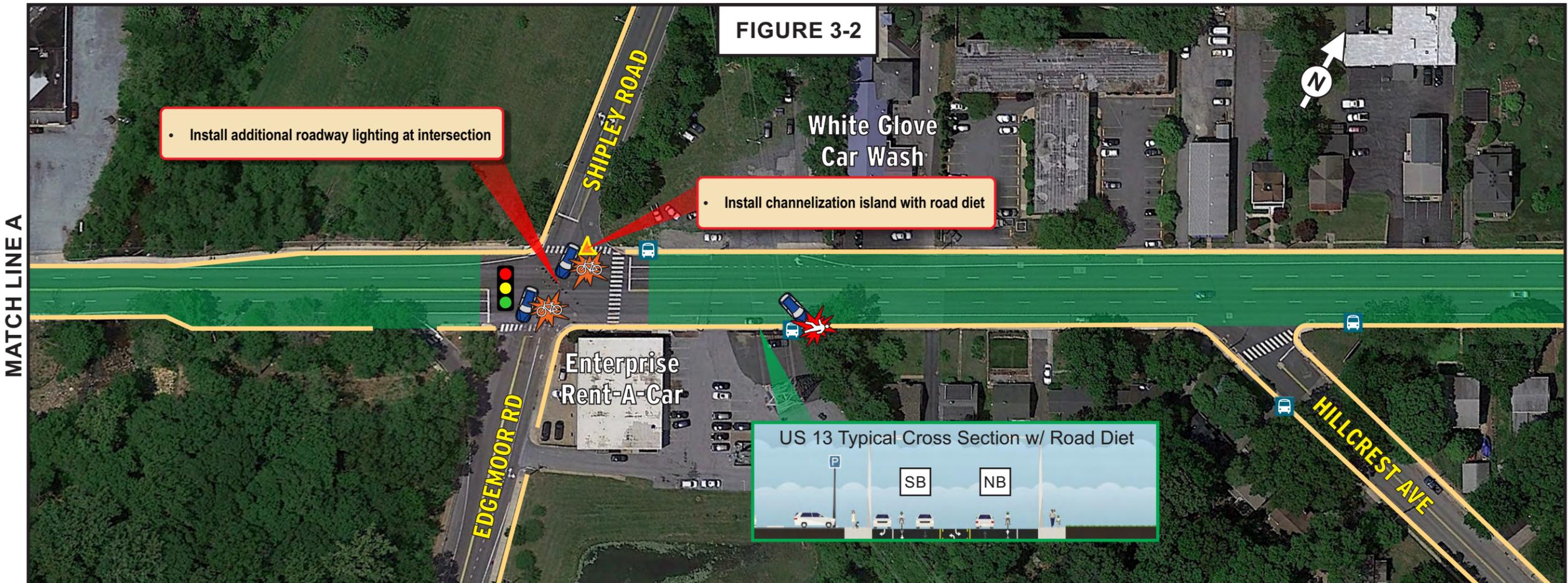
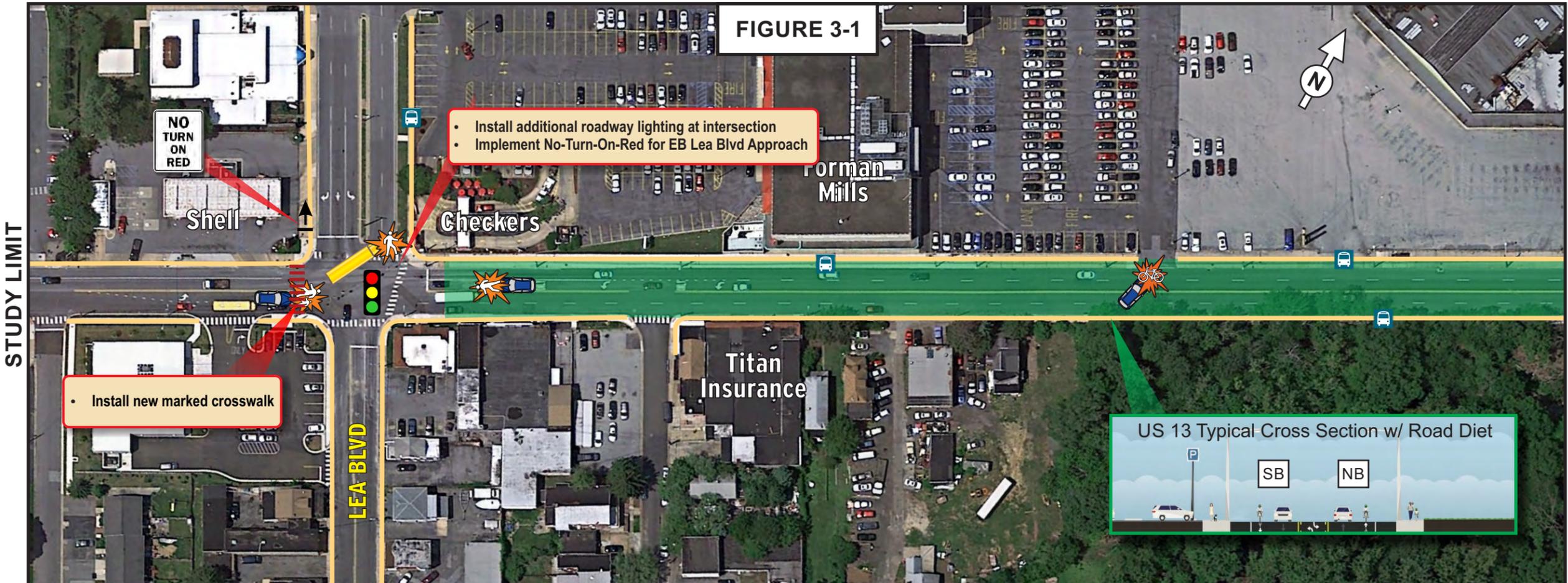
<b>Table 12: Philadelphia Pike Improvement Options (Continued)</b>	
<b>Priority</b>	<b>Recommendations</b>
<b>Philadelphia Pike at Hillside Road</b>	
Short-term	Trim trees along the east side of Philadelphia Pike, north of Hillside Road
Long-term	Install raised pedestrian refuge on Philadelphia Pike between Hillside Road and Harvey Road (w/ Road Diet)
<b>Philadelphia Pike at Harvey Road</b>	
Short-term	Install additional overhead lighting at the intersection
<b>Philadelphia Pike at Pennsylvania Avenue / Princeton Avenue</b>	
Short-term	Install additional overhead lighting at the intersection
Long-term	Consider installing a Pedestrian Signal or HAWK beacon
<b>Philadelphia Pike at Lawson Avenue/ Stockdale Avenue</b>	
Short-term	Install additional overhead lighting at the intersection
Long-term	Install raised pedestrian refuge on Philadelphia Pike between Lawson Avenue and Stockdale Avenue (w/ Road Diet)
<b>Philadelphia Pike at Governor Printz Boulevard</b>	
Long-term	Install a right-turn channelization island on the Governor Printz Boulevard approach (w/ Road Diet)
<b>Philadelphia Pike at Seminole Avenue/ Wiltshire Road</b>	
Short-term	<ul style="list-style-type: none"> <li>• Install additional overhead lighting at the intersection</li> <li>• Install back-plates on traffic signal heads facing the Philadelphia Pike approaches</li> </ul>
<b>Philadelphia Pike at Manor Avenue</b>	
Short-term	<ul style="list-style-type: none"> <li>• Install back-plates on traffic signal heads facing the Philadelphia Pike approaches</li> <li>• Replace the existing 'No Turn on Red Arrow' sign with arrow symbol facing the northbound Philadelphia Pike approach with a 'No Turn on Red Arrow'</li> </ul>
<b>Philadelphia Pike at I-495*</b>	
Short-term	Trim trees along Philadelphia Pike near I-495
Long-term	Install marked crosswalks across I-495 ramps to connect existing sidewalks
<b>Philadelphia Pike at Alcott Avenue*</b>	
Long-term	<ul style="list-style-type: none"> <li>• Install marked crosswalks across Alcott Avenue and Philadelphia Pike</li> <li>• Install pedestrian signals to control marked crosswalks proposed above</li> </ul>
<b>Philadelphia Pike at SR 92 (Naamans Road)*</b>	
Long-term	<ul style="list-style-type: none"> <li>• Install marked crosswalks across Philadelphia Pike</li> <li>• Install pedestrian signals to control marked crosswalk proposed above</li> </ul>
<b>Philadelphia Pike between SR 92 and the DE / PA State Line*</b>	
Short-term	Coordinate with DelDOT North District to repair or reposition storm grates

\*Recommendations may be affected by the Claymont Rail Station Relocation Project

**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet



Crash study period-  
 January 2005 through  
 April 2016

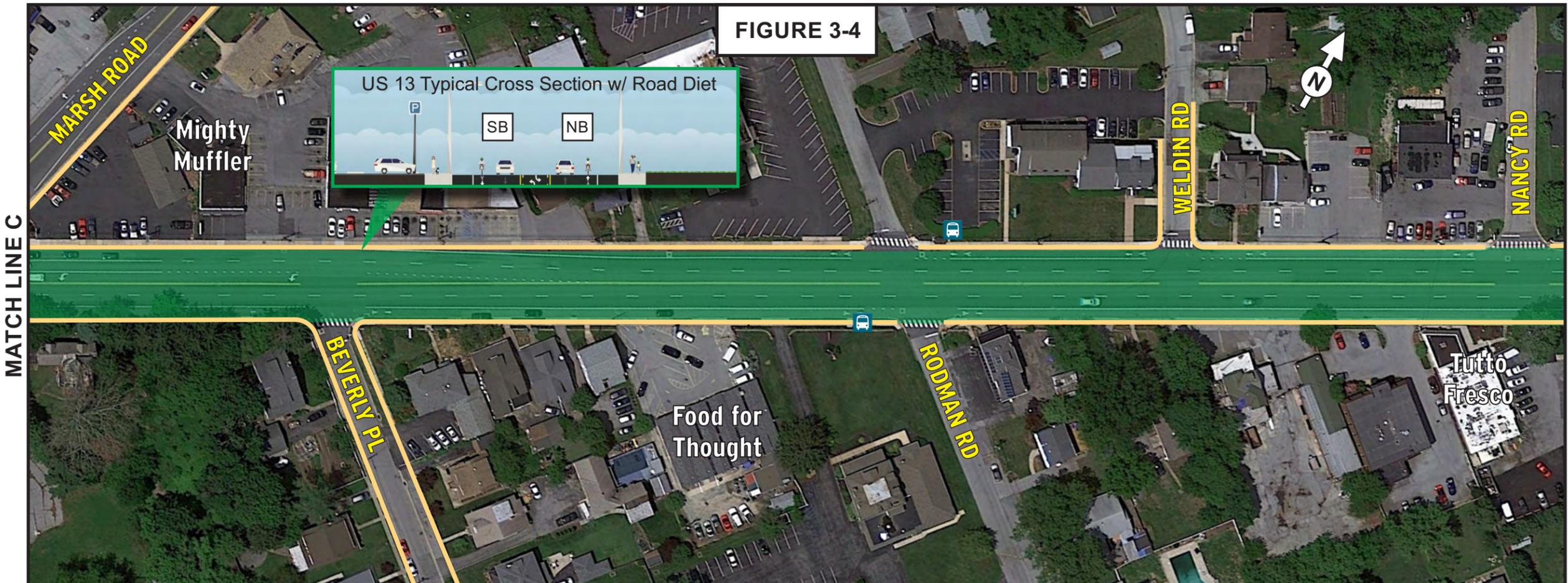
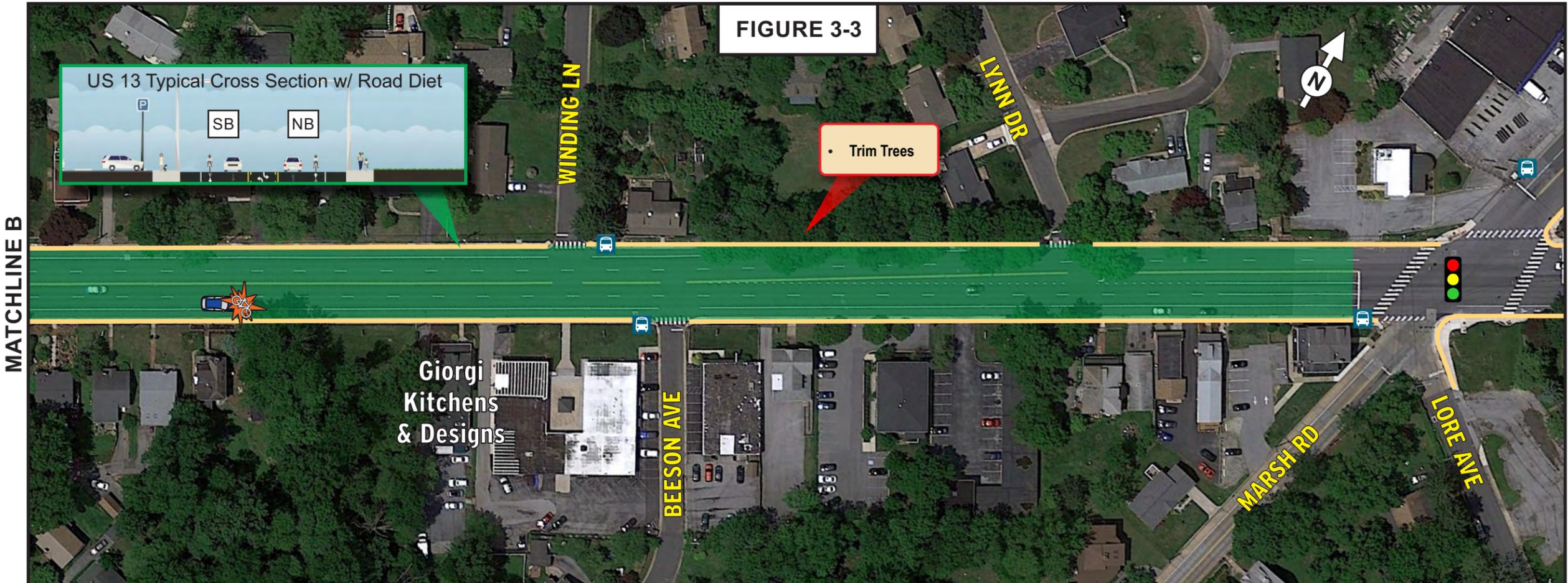
0 50 100 150 200 Feet

**Philadelphia Pike  
Pedestrian Safety  
Audit Study**  
*Lea Blvd. to DE-PA  
State Line*  
JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet

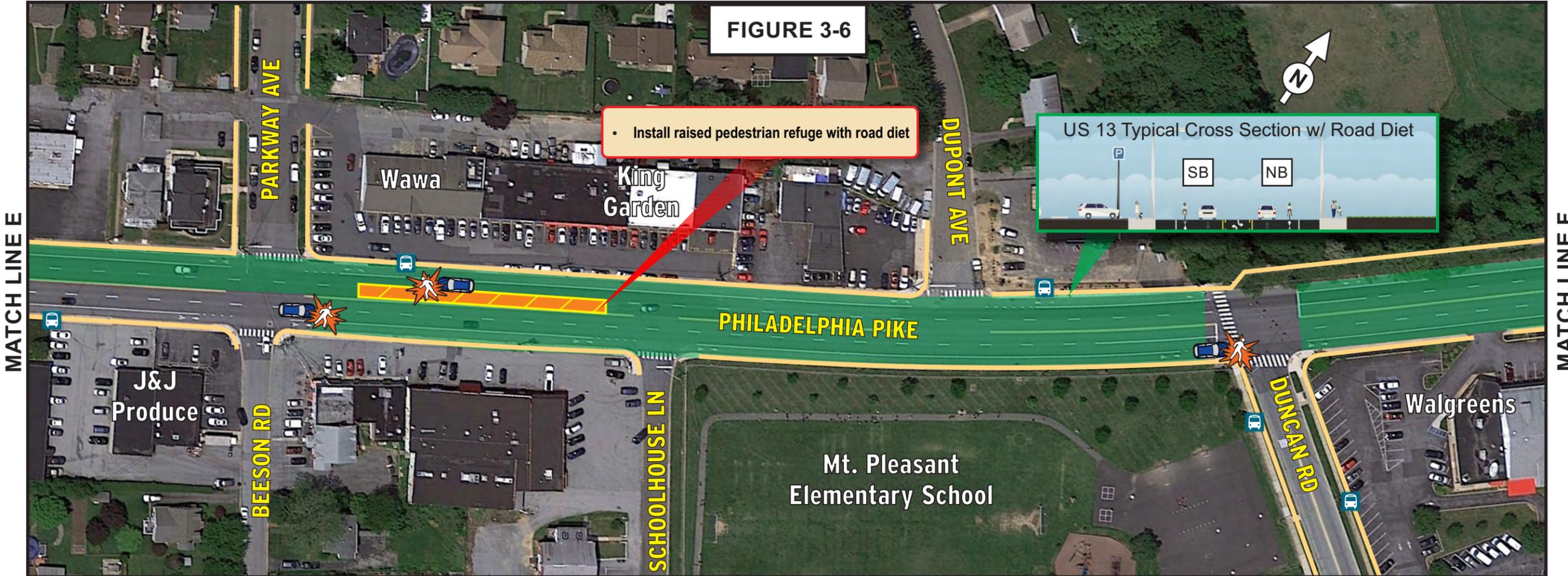
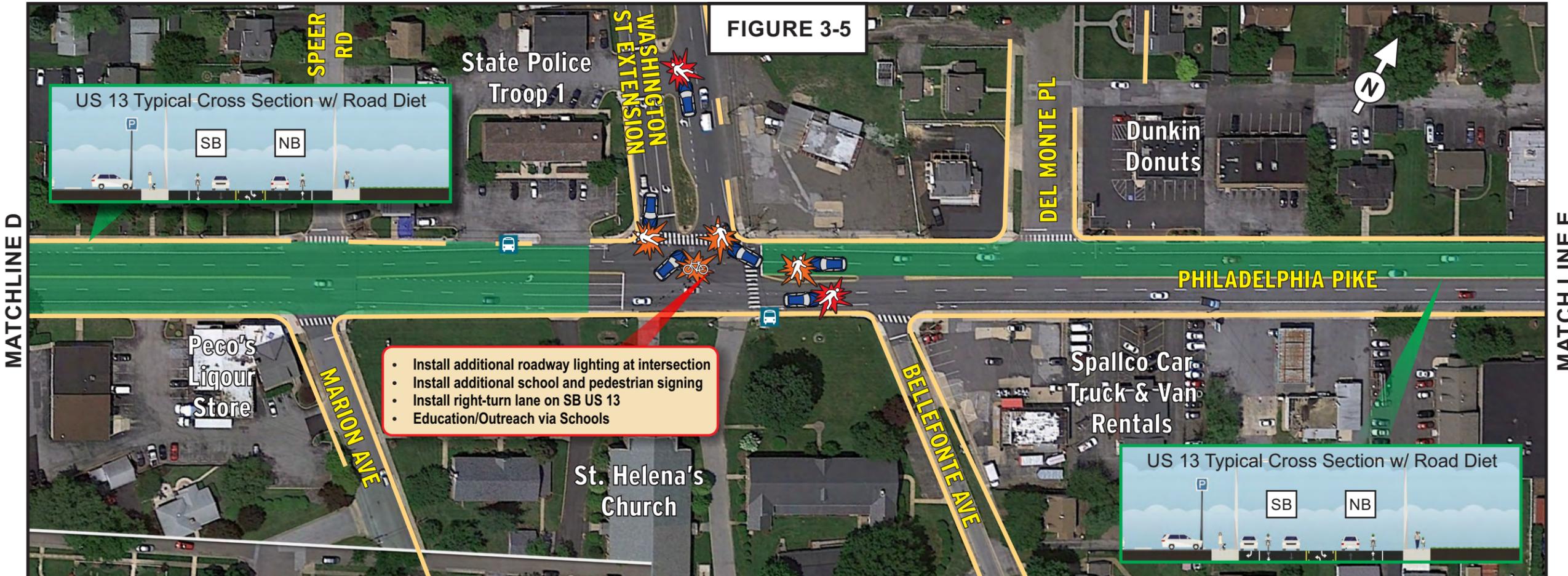
Crash study period-  
*January 2005 through  
April 2016*

**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet



Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND



Traffic Signal



Existing Bus Stop



Existing Sidewalk



Proposed Crosswalk

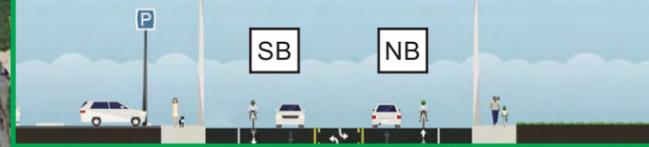


Road Diet

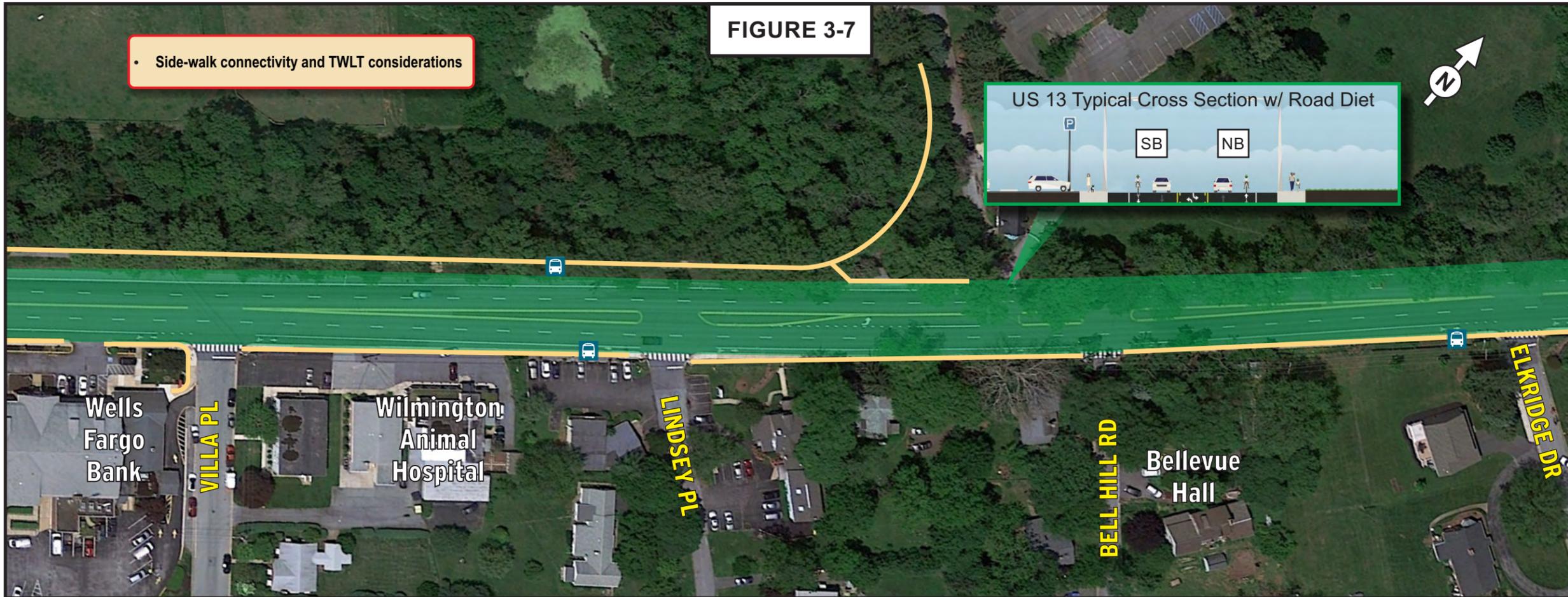
FIGURE 3-7

• Side-walk connectivity and TWLT considerations

US 13 Typical Cross Section w/ Road Diet



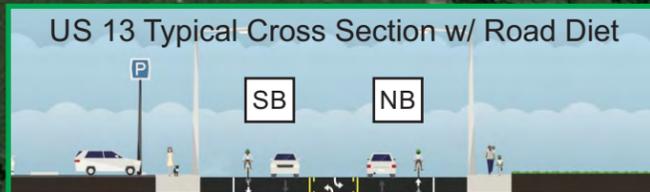
MATCHLINE F



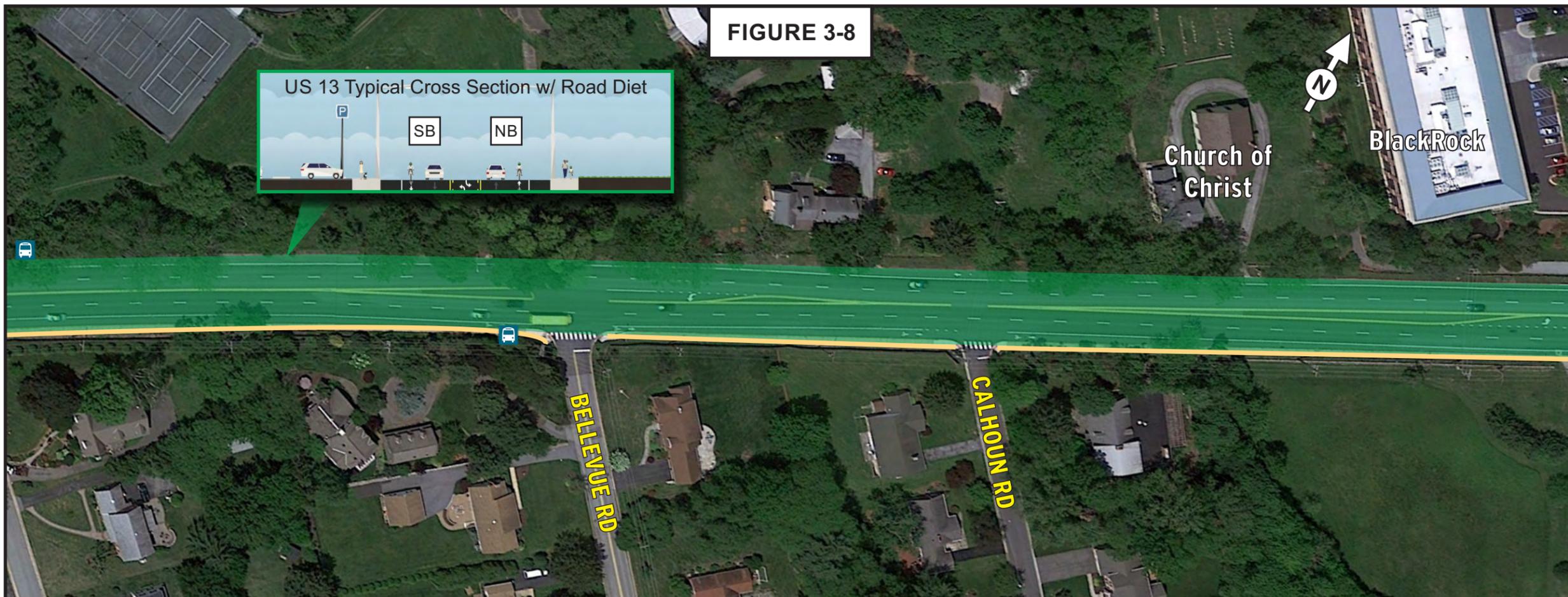
MATCHLINE G

FIGURE 3-8

US 13 Typical Cross Section w/ Road Diet

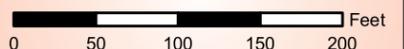


MATCHLINE G



MATCHLINE H

Crash study period-  
January 2005 through  
April 2016



**Philadelphia Pike  
Pedestrian Safety  
Audit Study**

*Lea Blvd. to DE-PA  
State Line*

**JANUARY 2018**

**LEGEND**

 Traffic Signal

 Existing Bus Stop

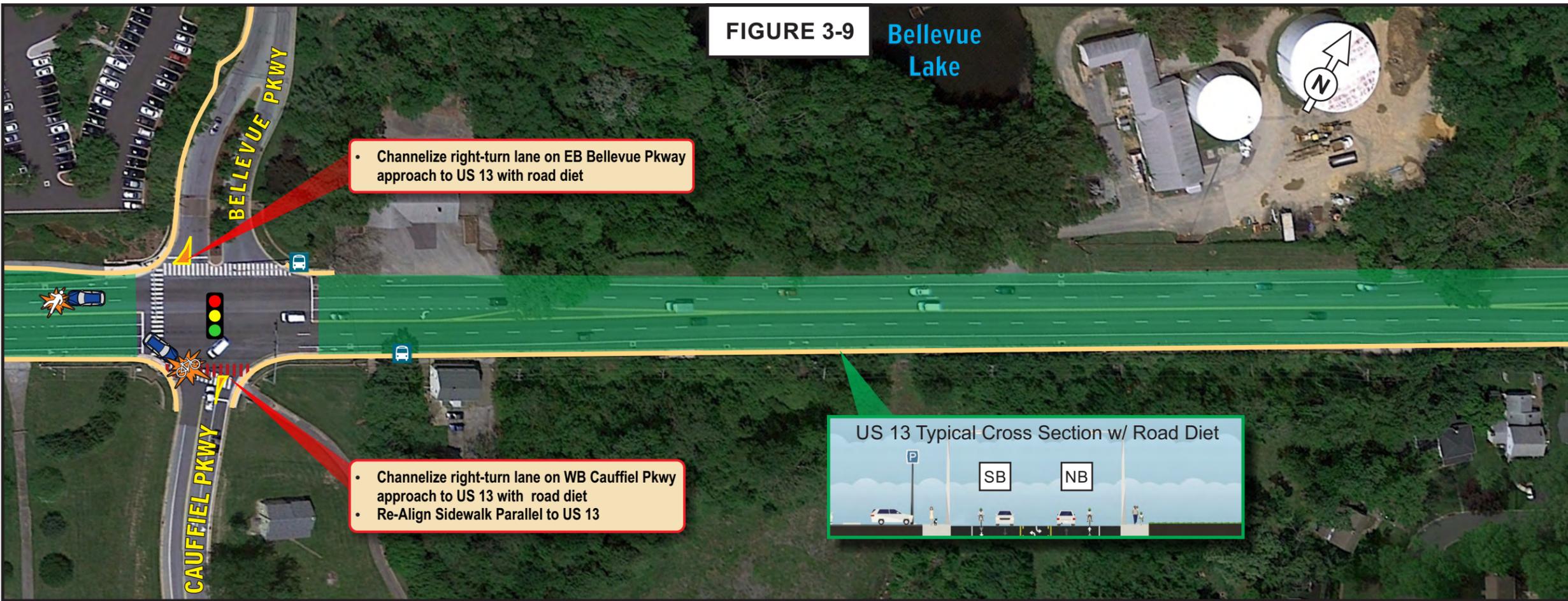
 Existing Sidewalk

 Proposed Crosswalk

 Road Diet

**FIGURE 3-9** **Bellevue  
Lake**

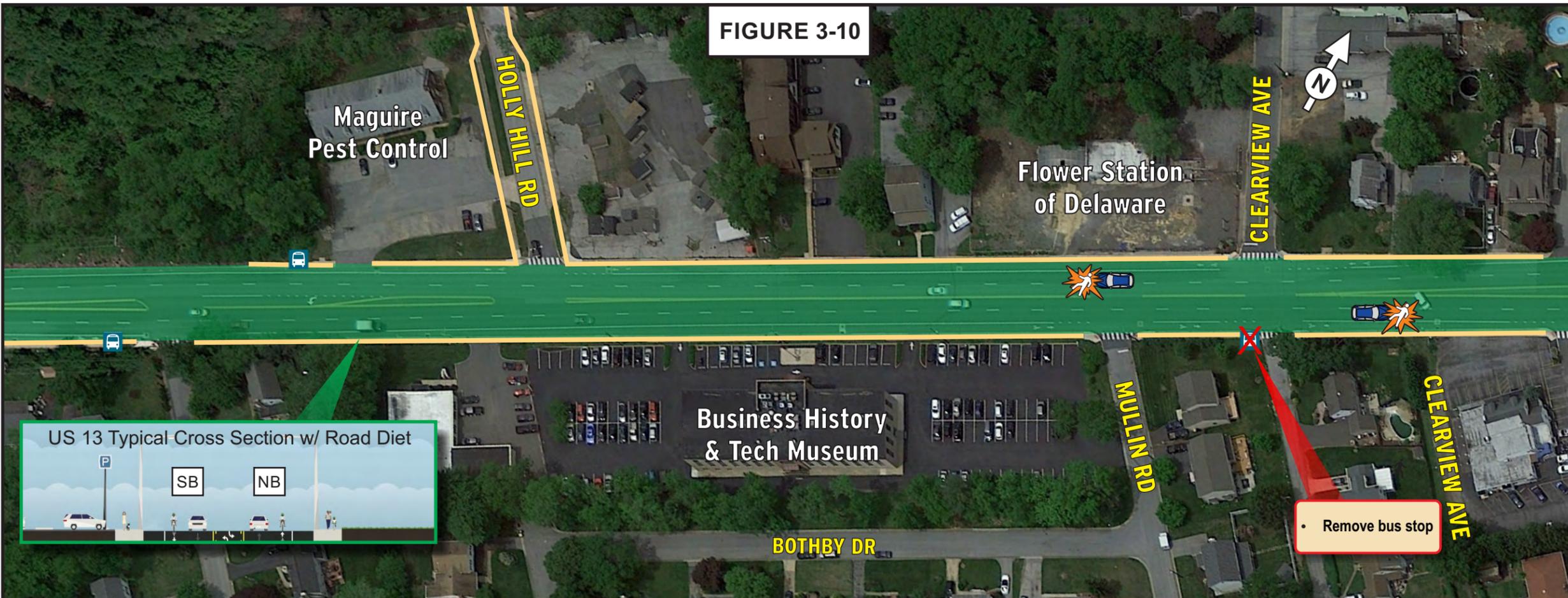
MATCHLINE H



MATCHLINE I

**FIGURE 3-10**

MATCHLINE I



MATCHLINE J

*Crash study period-  
January 2005 through  
April 2016*

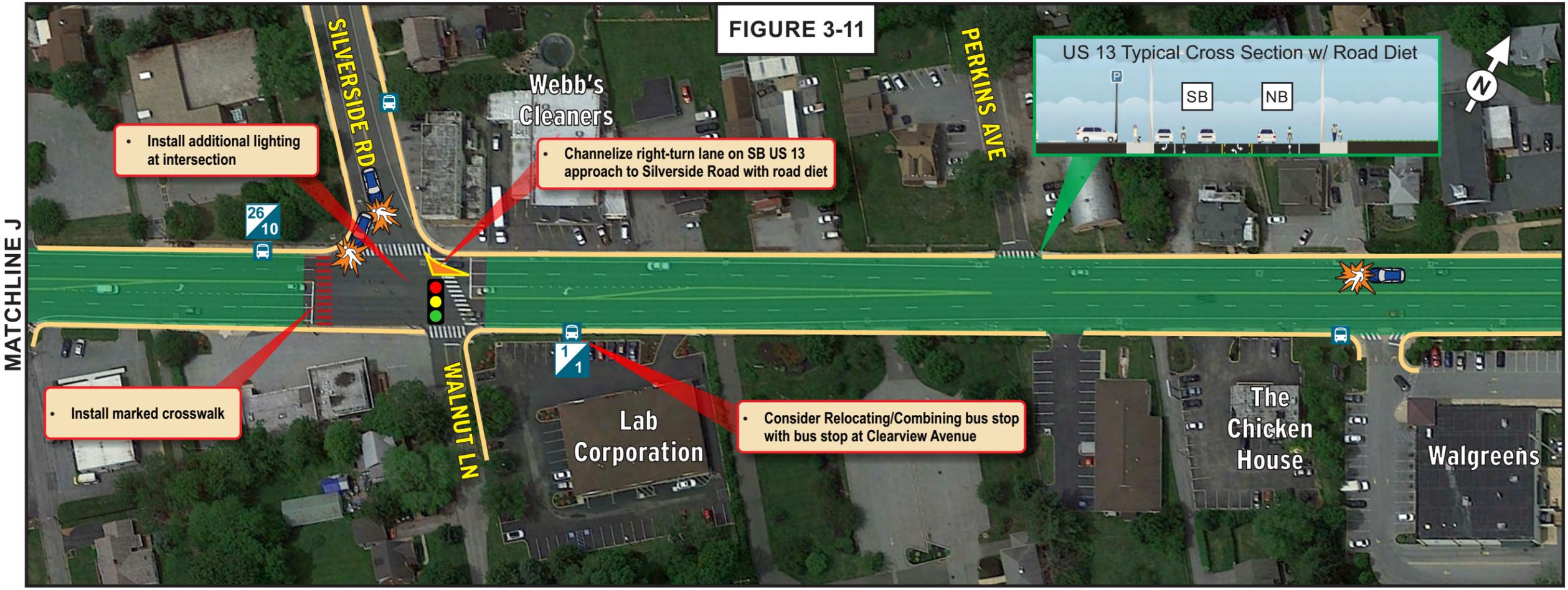


**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

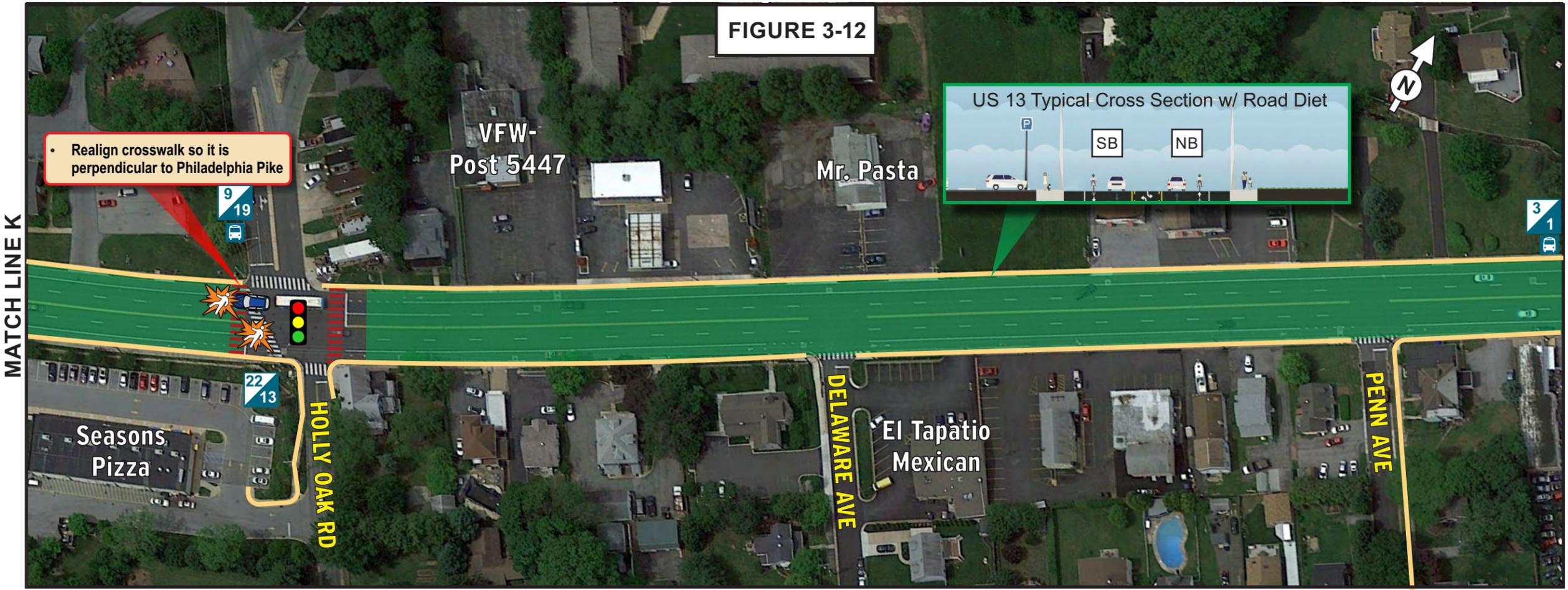
**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet

**FIGURE 3-11**



**FIGURE 3-12**



Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

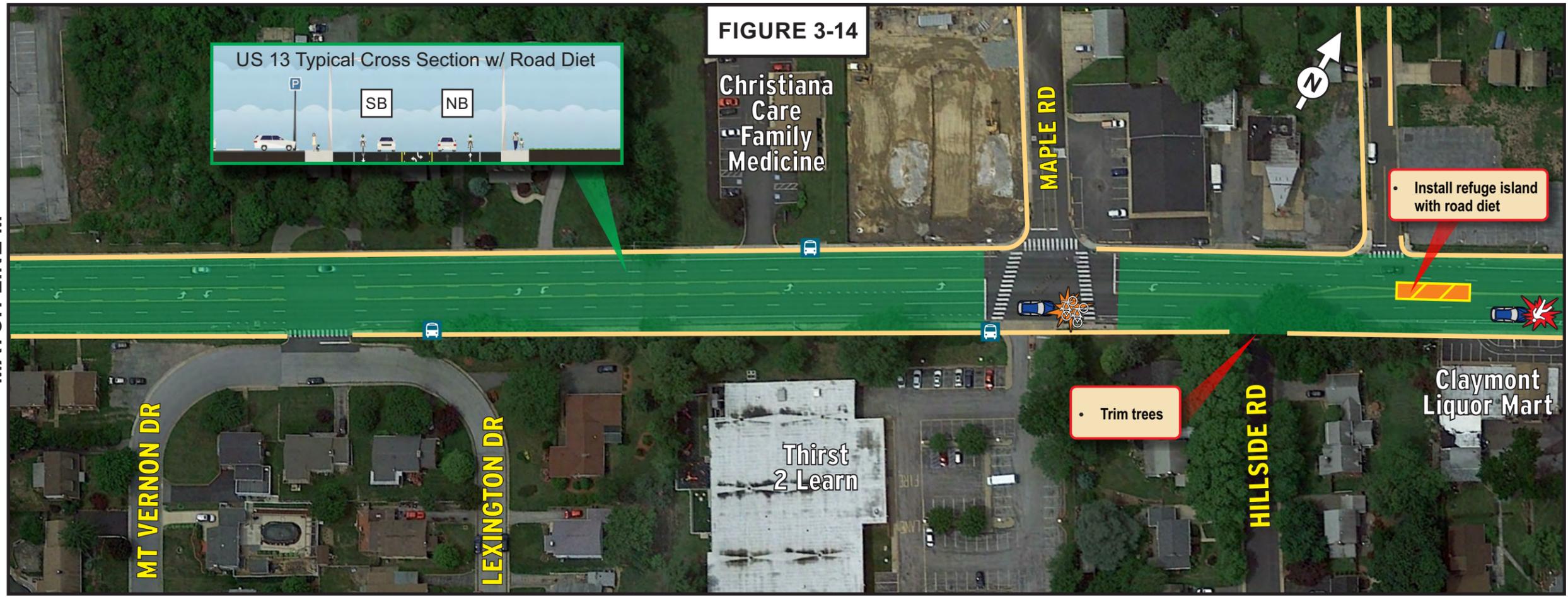
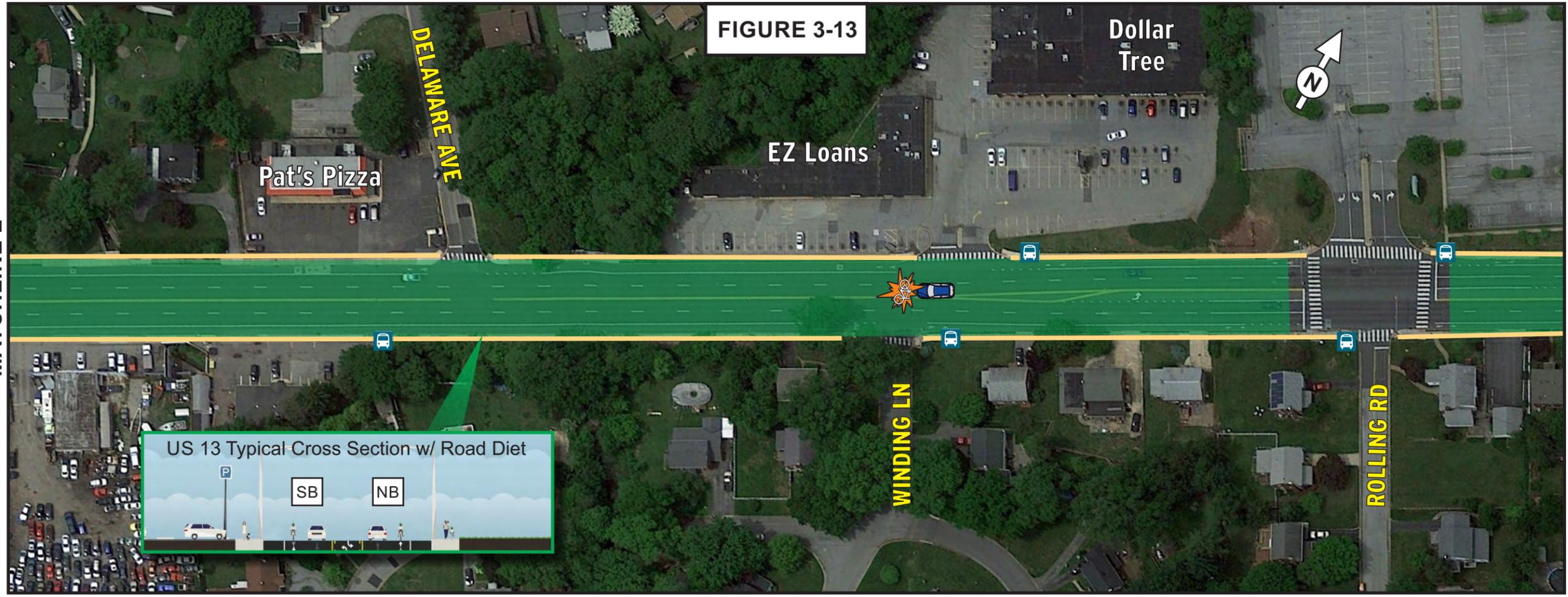
**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

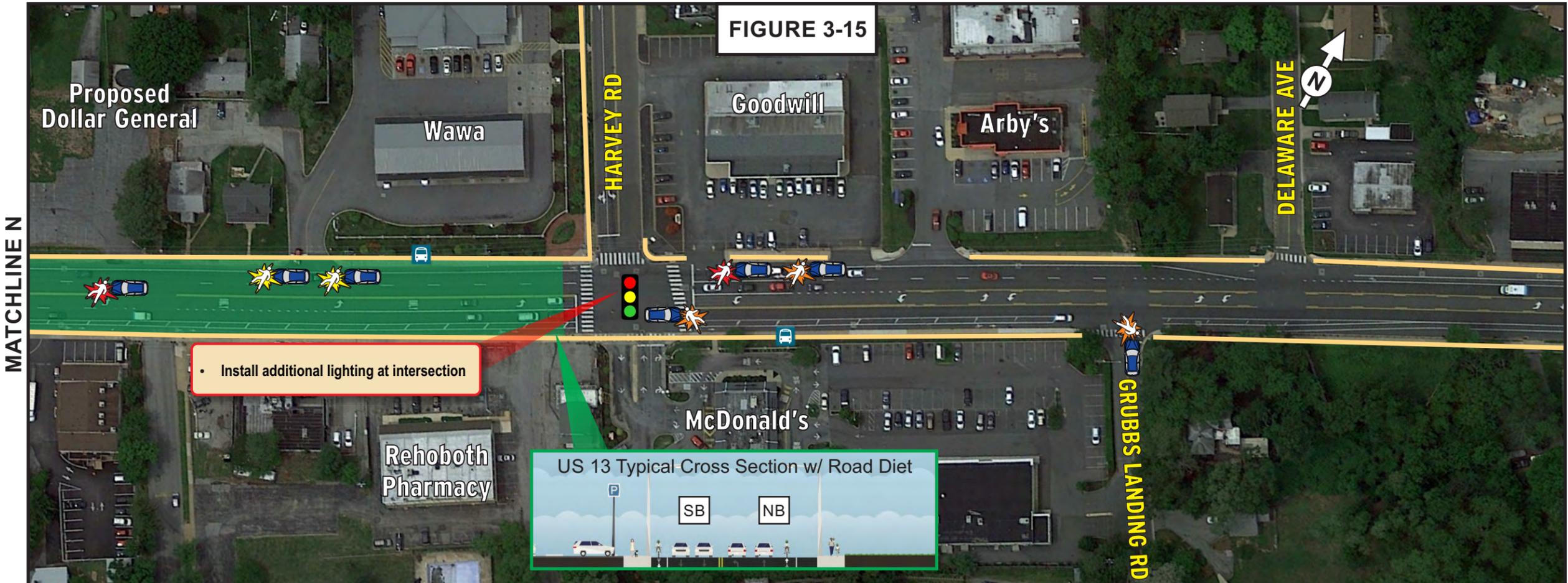
- Traffic Signal
- Existing Bus Stop
- Existing Sidewalk
- Proposed Crosswalk
- Road Diet

Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

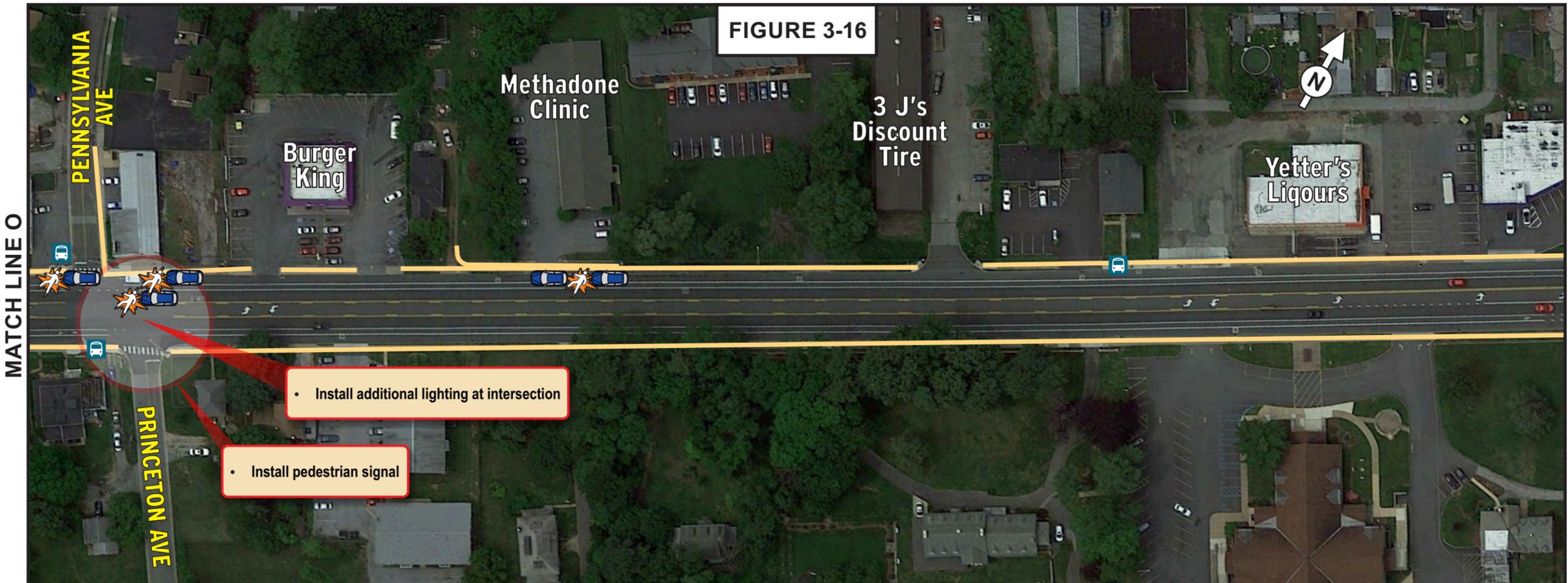


**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018



**LEGEND**

- Traffic Signal
- Existing Bus Stop
- Existing Sidewalk
- Proposed Crosswalk
- Road Diet



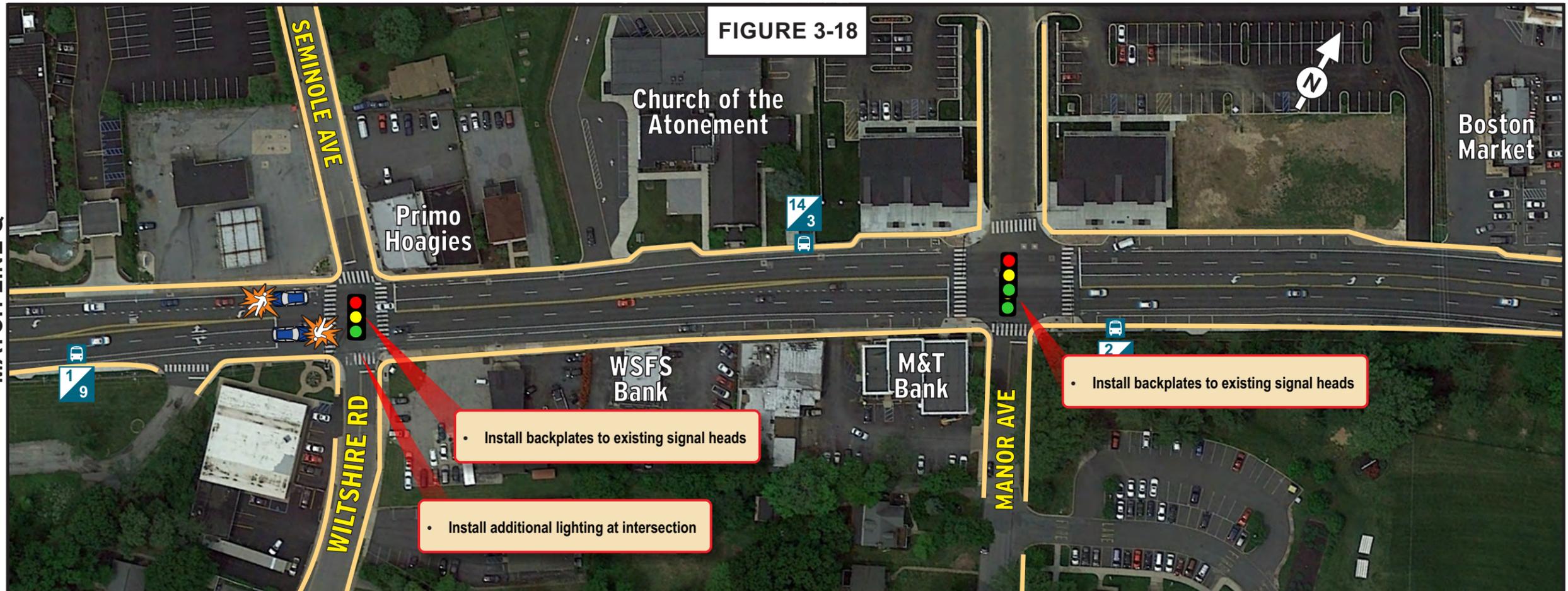
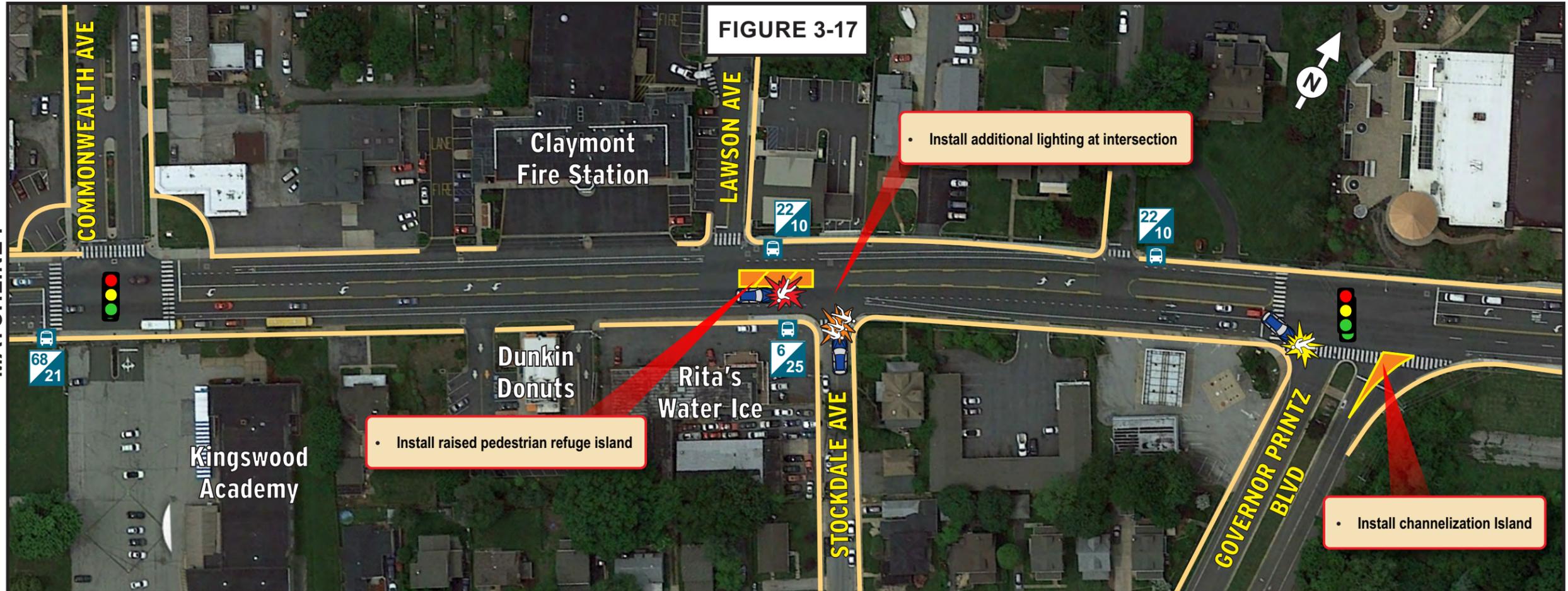
Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

**Philadelphia Pike Pedestrian Safety Audit Study**  
 Lea Blvd. to DE-PA State Line  
 JANUARY 2018

**LEGEND**

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet



Crash study period-  
 January 2005 through  
 April 2016

0 50 100 150 200 Feet

# Philadelphia Pike Pedestrian Safety Audit Study

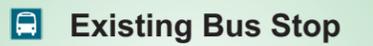
Lea Blvd. to DE-PA State Line

JANUARY 2018

## LEGEND



Traffic Signal



Existing Bus Stop



Existing Sidewalk



Proposed Crosswalk



Road Diet

FIGURE 3-19

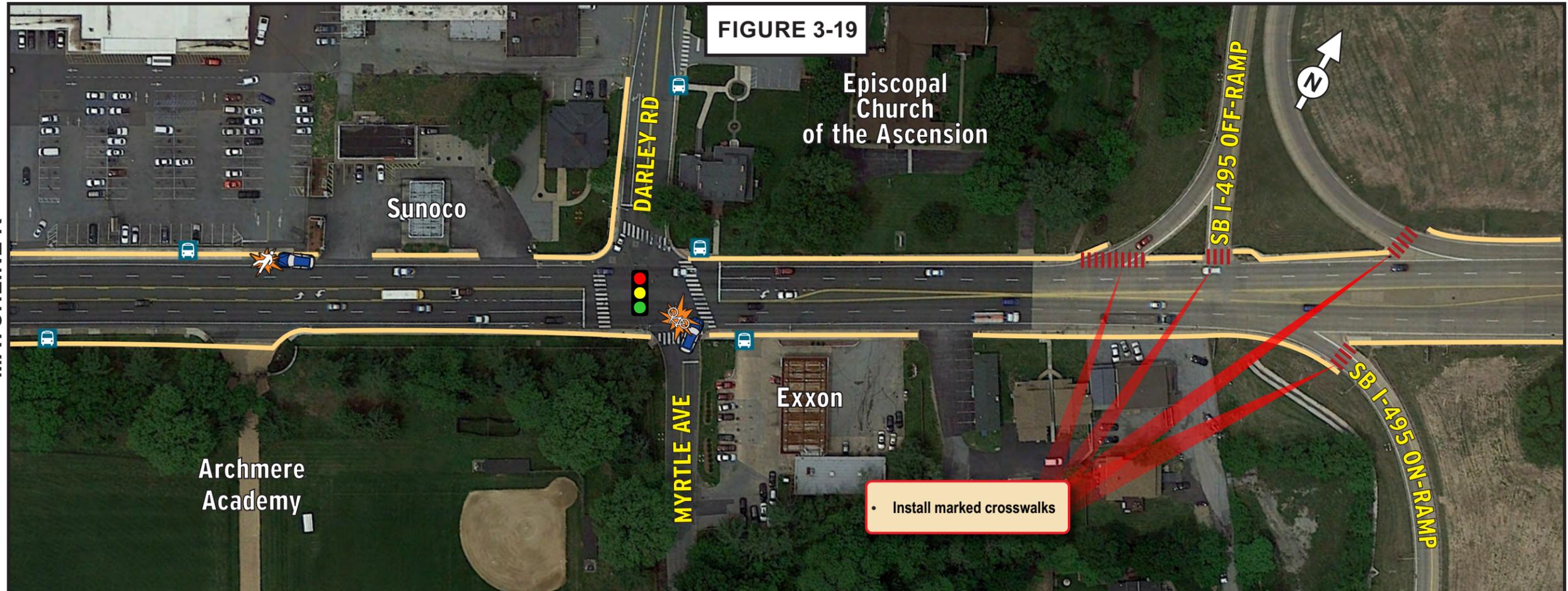
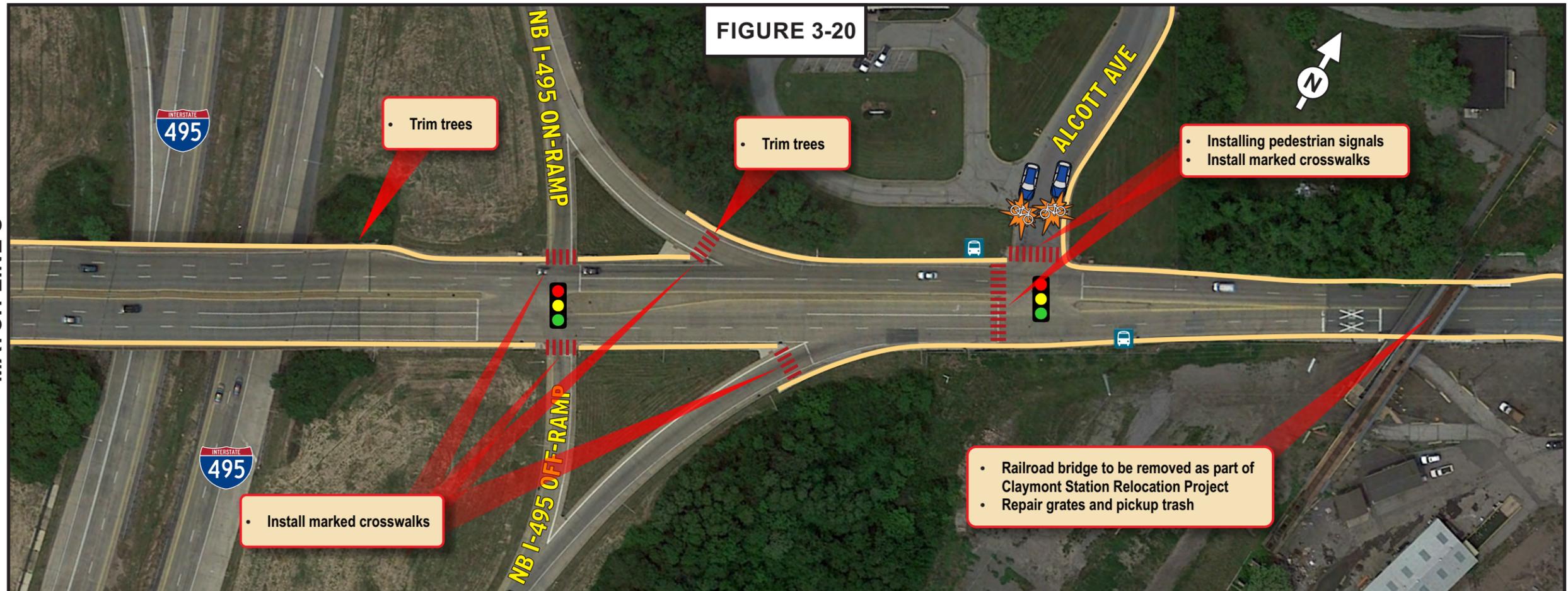


FIGURE 3-20



Crash study period-  
January 2005 through  
April 2016



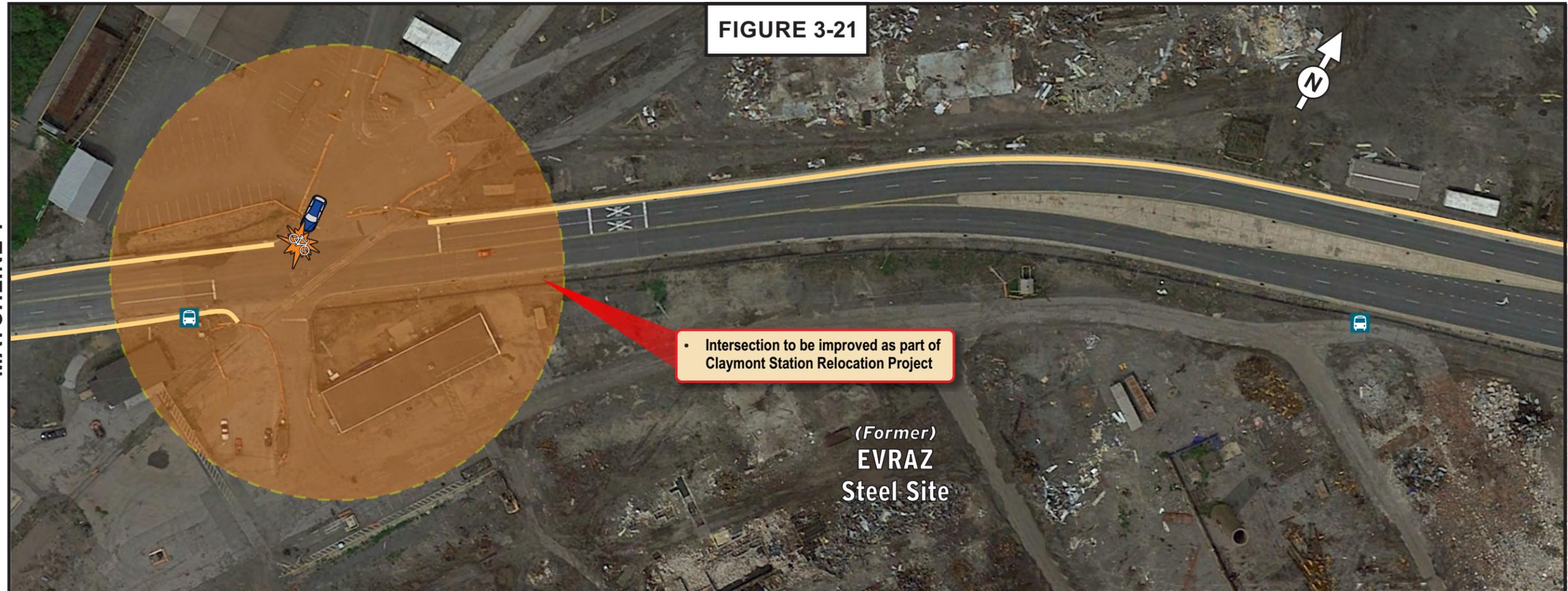
# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA State Line

JANUARY 2018

FIGURE 3-21

MATCHLINE T



• Intersection to be improved as part of Claymont Station Relocation Project

(Former) EVRAZ Steel Site

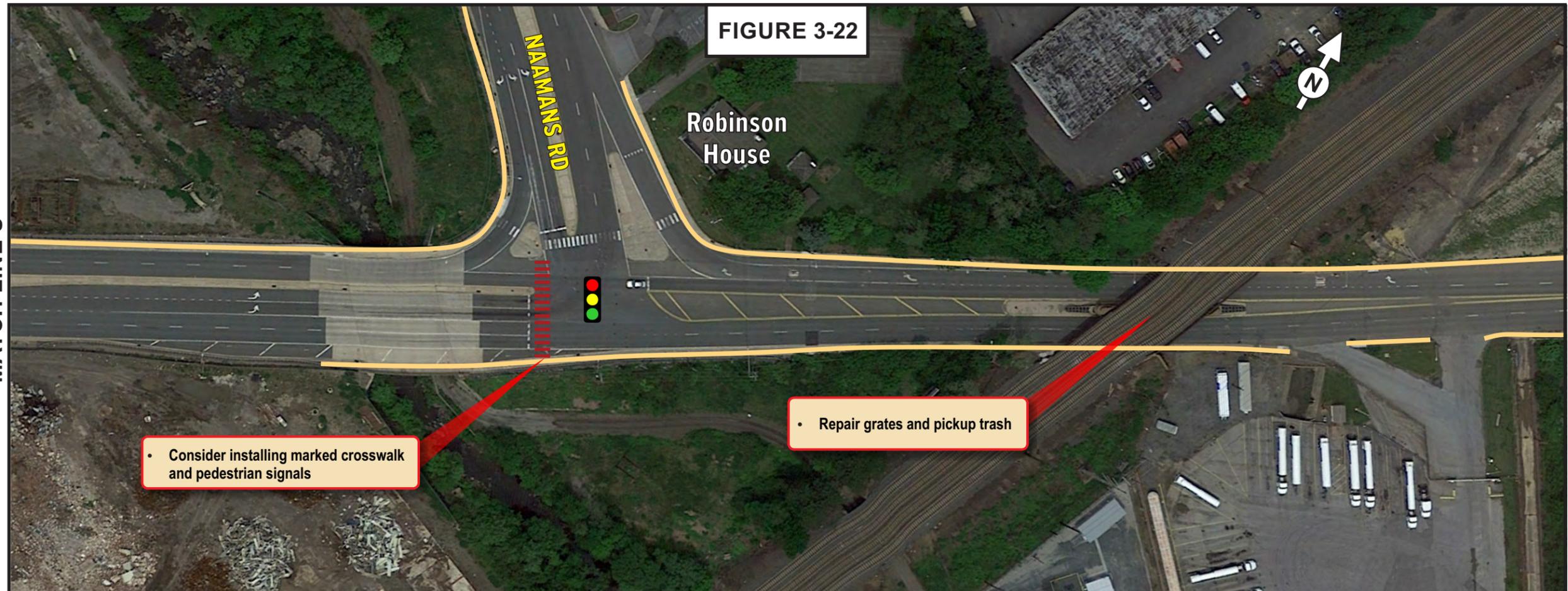
MATCHLINE U

## LEGEND

-  Traffic Signal
-  Existing Bus Stop
-  Existing Sidewalk
-  Proposed Crosswalk
-  Road Diet

FIGURE 3-22

MATCHLINE U



• Consider installing marked crosswalk and pedestrian signals

• Repair grates and pickup trash

Robinson House

NAAMANS RD

MATCHLINE V

Crash study period-  
January 2005 through  
April 2016



# Philadelphia Pike Pedestrian Safety Audit Study

Lea Blvd. to DE-PA  
State Line

JANUARY 2018

## LEGEND

 Traffic Signal

 Existing Bus Stop

 Existing Sidewalk

 Proposed Crosswalk

 Road Diet

FIGURE 3-23

• Remove or replace grates that run parallel to the roadway on Philadelphia Pike (Danger for Bicyclists)

MATCHLINE V

MATCHLINE W

FIGURE 3-24

Honeywell

PENNSYLVANIA  
DELAWARE

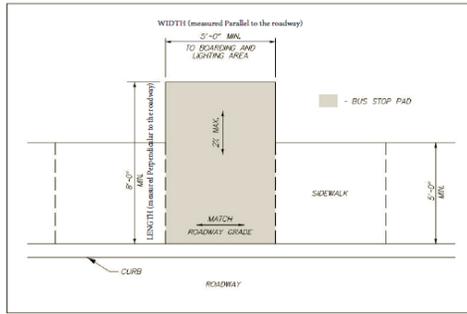
MATCHLINE W

Crash study period-  
January 2005 through  
April 2016



**APPENDIX A**

**ADA Curb Ramp Assessment**



PHILADELPHIA PIKE BUS STOP EVALUATION FROM 28TH STREET TO MYRTLE AVENUE/DARLEY ROAD

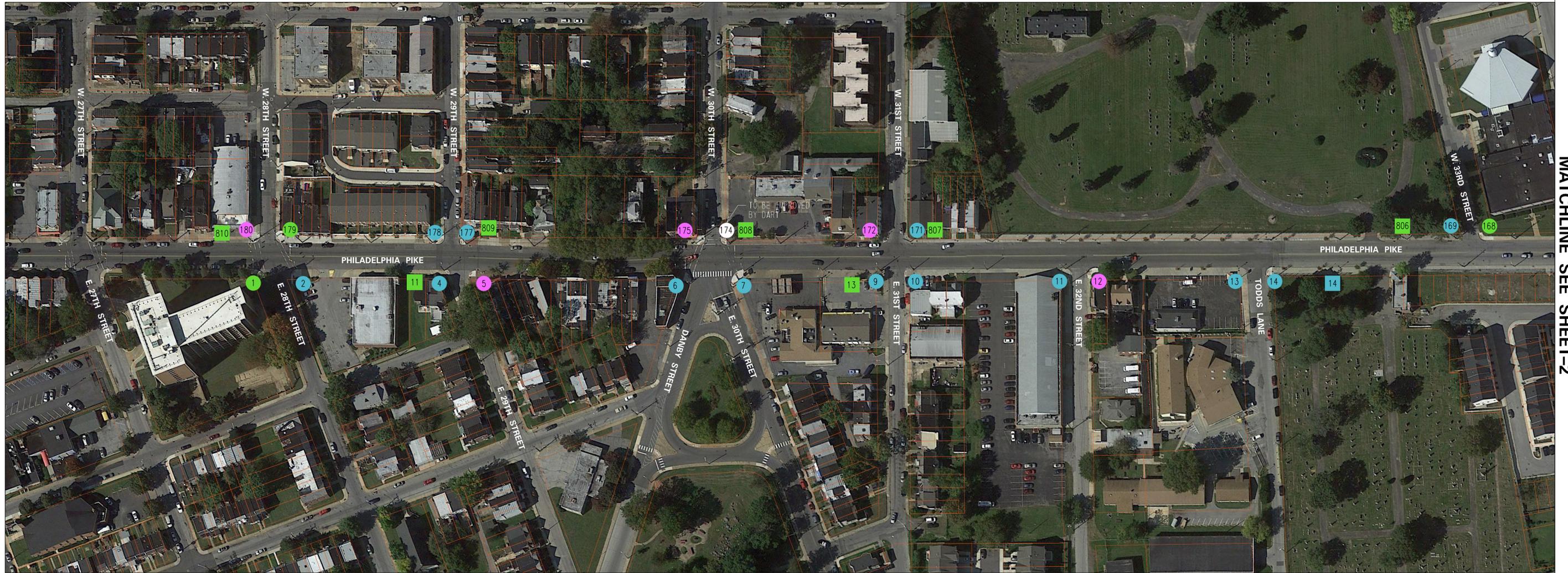
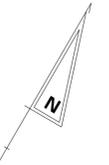
Bus Stop ID Number	11	13	14	16	17	18	20	22	23	24	25	27	28	29	
Location	29th St.	31st St.	Todds Ln.	35th St.	38th St.	E. 40th St.	W. Lea Blvd.	OP Forman Mills	Edgemoor Rd.	Hillcrest Ave.	Beeson Ave.	Marsh Rd.	Rodman Rd.	OP Wash St. EXT	
Direction	NB	NB	NB	NO BUS STOP AT THIS LOCATION	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	
Width (ft)	5	5			5	5.8	18	4.7	5	4.8	3.7	4.5	5	5	5
Length (ft)	8	12			11.5	9	11	7	5	4.5	5	5	5	8	8
Width Slope	0.9	1.5			0.8	0.8	3.1	0.9	7.4	7.0	3.9	7.9	1.2	1.3	1.3
Length Slope	1.8	1.3			1.1	0.5	0.3	0.3	6.9	5.2	1.5	1.7	5.4	1.6	1.6
Road Slope	1.4	0.8			0.5	1.9	2.9	1.7	6.5	5.9	6.2	5.8	2.4	1.1	1.1
Bus Shelter	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Constraint	NONE	NONE	NONE		NONE	NONE	UTILITY POLE	NONE	BRIDGE	NONE	NONE	NONE	NONE	NONE	NONE
Compliant	YES	YES	Improve under P&R		YES	YES	YES	YES	Improve under P&R	Improve under P&R	Improve under P&R	Improve under P&R	Improve under P&R	YES	
Comments			No bus pad exists, part of existing sidewalk			Bus pad is part of the sidewalk		Bus stop is located on 7' wide sidewalk on a bridge						Bus Pad is covered by grass	
Bus Stop ID Number	30	31	681	683	684	698	700	3813	46	702	3429	706	707	708	
Location	Beeson Rd.	Duncan Rd.	Lindsey Pl.	Esbridge Dr.	Bellevue Rd.	OP Bellevue CORP	Delaire-Sunset Dr.	E. Clearview Ave.	Silverside Rd.	E. Holly Oak Rd.	OP Delaware Ave.	Winding Ln.	Rolling Rd.	Lexington Dr.	
Direction	NB	NB	NB	NB	NO BUS STOP AT THIS LOCATION	NB	NB	NB	NB	NB	NB	NB	NB	NB	
Width (ft)	5	5	5	4.7		5	6.5	5	5	5	4	5	5	4.2	5
Length (ft)	5	8	5	5		8	8	6	8	5	5	5	8	5.2	8
Width Slope	2.4	0.1	4.7	3.3		3.3	1.3	2.1	0.6	3.9	1.9	5.3	8.4	0.3	0.3
Length Slope	2.8	2.3	2.0	5.3		2.5	4.8	4.7	2.4	1.8	2.4	3.4	0.1	3.0	3.0
Road Slope	2.1	0.5	2.7	3.8		4.6	1.7	2.5	0.3	2.6	1.3	5.7	5.7	1.0	1.0
Bus Shelter	NO	NO	NO	NO		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Constraint	NONE	NONE	NONE	NONE		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Compliant	Improve under P&R	YES	Improve under P&R	Improve under P&R		YES	Design Required	Improve under P&R	YES	Improve under P&R	Improve under P&R	Improve under P&R	Design Required	YES	
Comments		Bench on bus pad	Bus Pad on approach ramp			Bus pad covered by grass	Bus pad on appr. ramp and covered by grass		Bus pad covered by grass		W-Beam guard rail, Coordinate with DART to relocate		Bus pad on approach ramp	Need to trim plants on pad	
Bus Stop ID Number	709	711	712	714	715	716	718	155	158	754	755	756	757	759	
Location	OP Maple Rd.	Op Harvey Rd.	Princeton Ave.	OP Commonwealth Ave.	Stockdale Ave.	G.P.B.	Manor Rd.	Darley Rd.	Darley Rd.	Seminole Ave.	Franklin Ave.	OP Stockdale Ave.	Commonwealth Ave.	Pennsylvania Ave.	
Direction	NB	NB	NB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB	SB	
Width (ft)	5	9	8	8	4.8	5	5	5	5	5	5	5	5	5	
Length (ft)		8	8	9	5	8	8	8	8	18	8	8	5	8	
Width Slope		3.5	1.7	0.2	0.8	0.4	0.7	1.4	0.2	1.3	2.2	2.9	1.6	2.4	
Length Slope		3.5	0.4	0.8	1.4	0.8	1.9	2.1	1.9	1.5	2.6	1.3	1.0	1.8	
Road Slope		3.4	3.4	0.8	1.2	0.5	1.0	0.6	0.2	1.2	2.5	2.7	0.6	2.3	
Bus Shelter	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	
Constraint	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
Compliant	Improve under P&R	Improve under P&R	YES	YES	Improve under P&R	YES	YES	YES	YES	YES	YES	YES	Improve under P&R	YES	
Comments	Sign on signal pole on the approach ramp, coordinate with DART for relocation.									9 x 5 bus shelter					

**PHILADELPHIA PIKE BUS STOP EVALUATION FROM 28TH STREET TO MYRTLE AVENUE/DARLEY ROAD**

Bus Stop ID Number	760	761	763	764	765	767	52	770	106	821	825	826	828	791	
Location	Harvey Rd.	Maple Rd.	OP Rolling Dr.	OP Winding Ln.	W. Delaware Ave.	Holly Oak Rd.	Silverside Rd.	Clearview Ave.	OP Sunset Dr-DEL	Bellevue Corp Cr.	OP Bellevue Rd.	OP Eskridge Dr.	OP Lindsey Pl.	Dupont Ave.	
Direction	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	
Width (ft)	5	5	5	5	5	5	5	5	5	5	20	NO BUS STOP AT THIS LOCATION	5	8	
Length (ft)	8	8	5	8	5	8	8	5	8	8	4		8	8	
Width Slope	1.4	0.9	6	6.8	2.3	3.1	0.7	5.1	3.5	3.2	3.9		3.3	1.2	
Length Slope	2.5	2.0	2.6	3.4	1.0	2.6	5.2	0.2	8.9	1.3	2.3		9.3	2	
Road Slope	0.1	1.2	5.1	5.1	3.8	2.6	1.8	1.4	3.7	5.3	5.0		3.4	0.7	
Bus Shelter	YES	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO		NO	NO	NO
Constraint	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	UTILITY POLE	NONE		NONE	NONE	NONE
Compliant	YES	YES	Improve under P&R	Improve under P&R	Improve under P&R	YES	Improve under P&R	Improve under P&R	Improve under P&R	Improve under P&R	Improve under P&R		Improve under P&R	Improve under P&R	YES
Comments	9.5 x 5 bus shelter					10 x 3 bus shelter	10 x 5 bus shelter damaged	Bus pad on approach ramp, coordinate with DART for relocation		Bus Pad needs to be widened due to the utility pole	Bus pad covered by grass				

Bus Stop ID Number	792	793	795	55	797	799	800	834	56	801	802	803	804	806
Location	Parkway Ln.	Washington St. EXT.	Weldin Ln.	Marsh Rd.	Winding Ln.	Shipleigh Rd.	Forman Mills	44th St.	Lea Blvd.	41st St.	40th St.	38th St.	36th St.	33rd St.
Direction	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB
Width (ft)	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Length (ft)	5	8	8	8	5	8	8	12	11.5	5	5	8	7.7	
Width Slope	5.1	0.5	2.8		9.3	6	0.2	3.2	3.0	3.2	3.4	0.6	0.7	0.9
Length Slope	6.1	2.0	0.1		1.5	2.7	1.3	1.7	0.9	1.0	0.4	1.2	2.8	3.3
Road Slope	3.1	0.6	0.7		6.5	5.4	1.4	3.2	2.5	2.6	2.4	0.1	0.2	1.1
Bus Shelter	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES
Constraint	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Compliant	Improve under P&R	YES	YES	Improve under P&R	Improve under P&R	YES	YES	YES	YES	Improve under P&R	Improve under P&R	YES	Improve under P&R	YES
Comments			10 x 3 bus shelter	No bus pad. Bus stop sign is on the ramp at corner. A bus ramp should be installed to the north of Marsh Rd.	Sign is hidden between tree branches		10 x 5 bus shelter							15 x 5 bus shelter

Bus Stop ID Number	807	808	809	810										
Location	31st St.	30th St.	29th St.	28th St.										
Direction	SB	SB	SB	SB										
Width (ft)	5	5	5	5										
Length (ft)	8	8	10.5	8										
Width Slope	0.1	1.0	0.9	3.9										
Length Slope	2	1.9	0.9	0.3										
Road Slope	0.5	1.4	0.4	4.5										
Bus Shelter	NO	YES	NO	YES										
Constraint	NONE	NONE	NONE	NONE										
Compliant	YES	YES	YES	YES										
Comments		15 x 3 bus shelter		10 x 5 bus shelter										

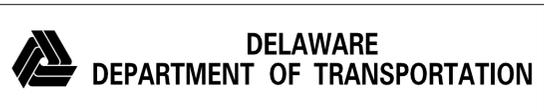


MATCHLINE SEE SHEET-2

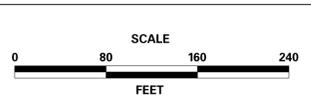
RAMP		DRIVEWAY	
<span style="color: green;">●</span> #	COMPLIANT	<span style="color: green;">▴</span> #	COMPLIANT
<span style="color: cyan;">●</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▴</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">●</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▴</span> #	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">◻</span> D#	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: cyan;">◻</span> D#	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">◻</span> D#	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

LEGEND

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ADDENDUMS / REVISIONS

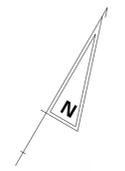


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT TXXXXXXXXX	BRIDGE NO. <b>X</b>
COUNTY NEW CASTLE	DESIGNED BY: AF
	CHECKED BY: TTF

**CURB RAMP INVENTORY**

SHEET NO. 1
TOTAL SHTS. 13

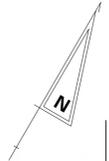


MATCHLINE SEE SHEET-1

MATCHLINE SEE SHEET-3

RAMP		DRIVEWAY	
<span style="color: green;">■</span>	COMPLIANT	<span style="color: green;">■</span>	COMPLIANT
<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">▢</span>	COMPLIANT	<span style="color: green;">▢</span>	COMPLIANT
<span style="color: cyan;">▢</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▢</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">▢</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▢</span>	NON-COMPLIANT, DESIGN REQUIRED

**LEGEND**



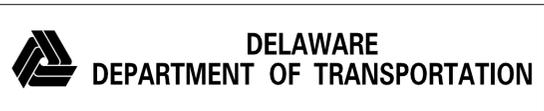
MATCHLINE SEE SHEET-2

MATCHLINE SEE SHEET-4

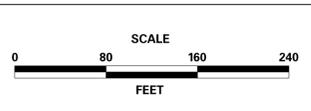
**LEGEND**

- |  |  |
|--|--|
| <b>RAMP</b>                                  | <b>DRIVEWAY</b>                              |
| ● COMPLIANT                                  | ■ COMPLIANT                                  |
| ● NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ● NON-COMPLIANT, DESIGN REQUIRED             | ■ NON-COMPLIANT, DESIGN REQUIRED             |
| <b>BUS STOP</b>                              | <b>SIDEWALK</b>                              |
| ■ COMPLIANT                                  | ▶ COMPLIANT                                  |
| ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ▶ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ■ NON-COMPLIANT, DESIGN REQUIRED             | ▶ NON-COMPLIANT, DESIGN REQUIRED             |

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ADDENDUMS / REVISIONS	

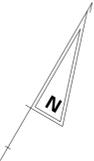


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXX	DESIGNED BY: AF	
COUNTY	CHECKED BY: TTF	
NEW CASTLE		

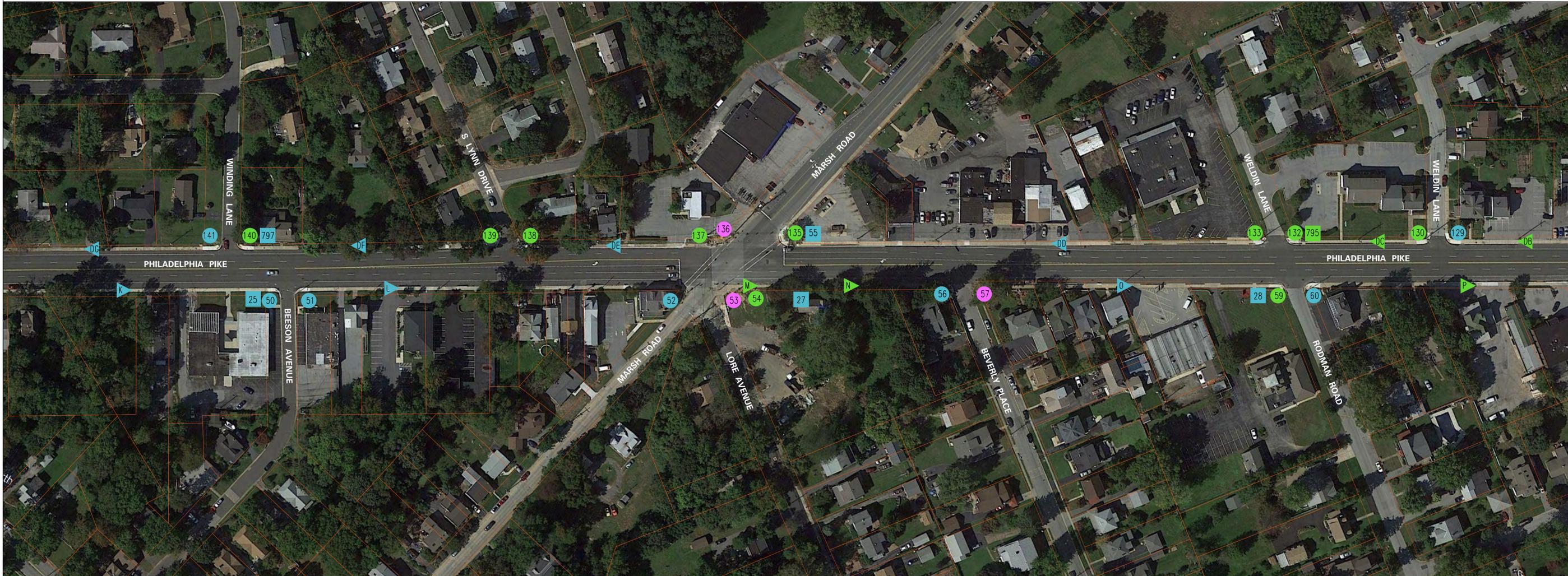
<b>CURB RAMP INVENTORY</b>
----------------------------

SHEET NO.	3
TOTAL SHTS.	13



MATCHLINE SEE SHEET-3

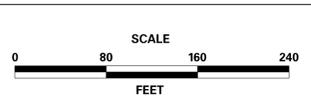
MATCHLINE SEE SHEET-5



RAMP		DRIVEWAY	
<span style="color: green;">#</span>	COMPLIANT	<span style="color: green;">#</span>	COMPLIANT
<span style="color: cyan;">#</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">#</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">#</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">#</span>	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">D#</span>	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: cyan;">D#</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">D#</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

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ADDENDUMS / REVISIONS

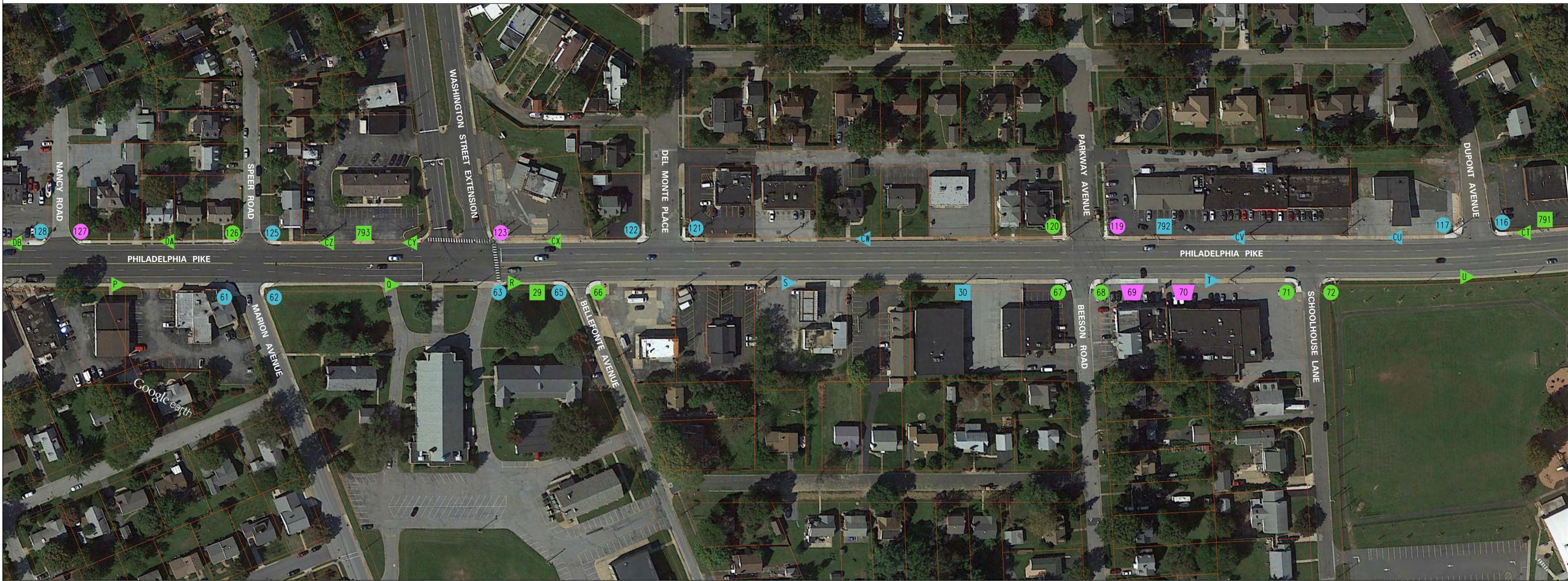
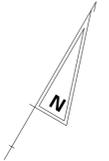


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY: AF	
COUNTY	CHECKED BY: TTF	
NEW CASTLE		

**CURB RAMP INVENTORY**

SHEET NO.	4
TOTAL SHTS.	13



MATCHLINE SEE SHEET-4

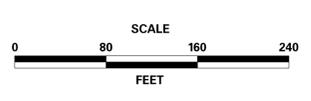
MATCHLINE SEE SHEET-6

**LEGEND**

- |  |  |
|--|--|
| <b>RAMP</b>                                  | <b>DRIVEWAY</b>                              |
| ● COMPLIANT                                  | ■ COMPLIANT                                  |
| ● NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ● NON-COMPLIANT, DESIGN REQUIRED             | ■ NON-COMPLIANT, DESIGN REQUIRED             |
| <b>BUS STOP</b>                              | <b>SIDEWALK</b>                              |
| ■ COMPLIANT                                  | ▶ COMPLIANT                                  |
| ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ▶ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ■ NON-COMPLIANT, DESIGN REQUIRED             | ▶ NON-COMPLIANT, DESIGN REQUIRED             |

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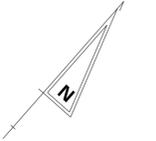
ADDENDUMS / REVISIONS



**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT TXXXXXXXXX	BRIDGE NO. <b>X</b>
COUNTY NEW CASTLE	DESIGNED BY: AF
	CHECKED BY: TTF

<b>CURB RAMP INVENTORY</b>
SHEET NO. 5
TOTAL SHTS. 13



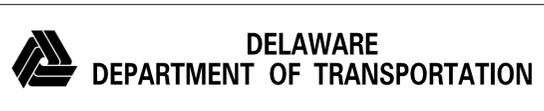
MATCHLINE SEE SHEET-5

MATCHLINE SEE SHEET-7

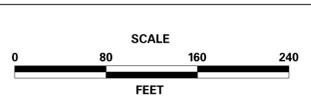
**LEGEND**

- |  |  |
|--|--|
| <b>RAMP</b>                                  | <b>DRIVEWAY</b>                              |
| ● COMPLIANT                                  | ■ COMPLIANT                                  |
| ● NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ● NON-COMPLIANT, DESIGN REQUIRED             | ■ NON-COMPLIANT, DESIGN REQUIRED             |
| <b>BUS STOP</b>                              | <b>SIDEWALK</b>                              |
| ■ COMPLIANT                                  | ▶ COMPLIANT                                  |
| ■ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | ▶ NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| ■ NON-COMPLIANT, DESIGN REQUIRED             | ▶ NON-COMPLIANT, DESIGN REQUIRED             |

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ADDENDUMS / REVISIONS

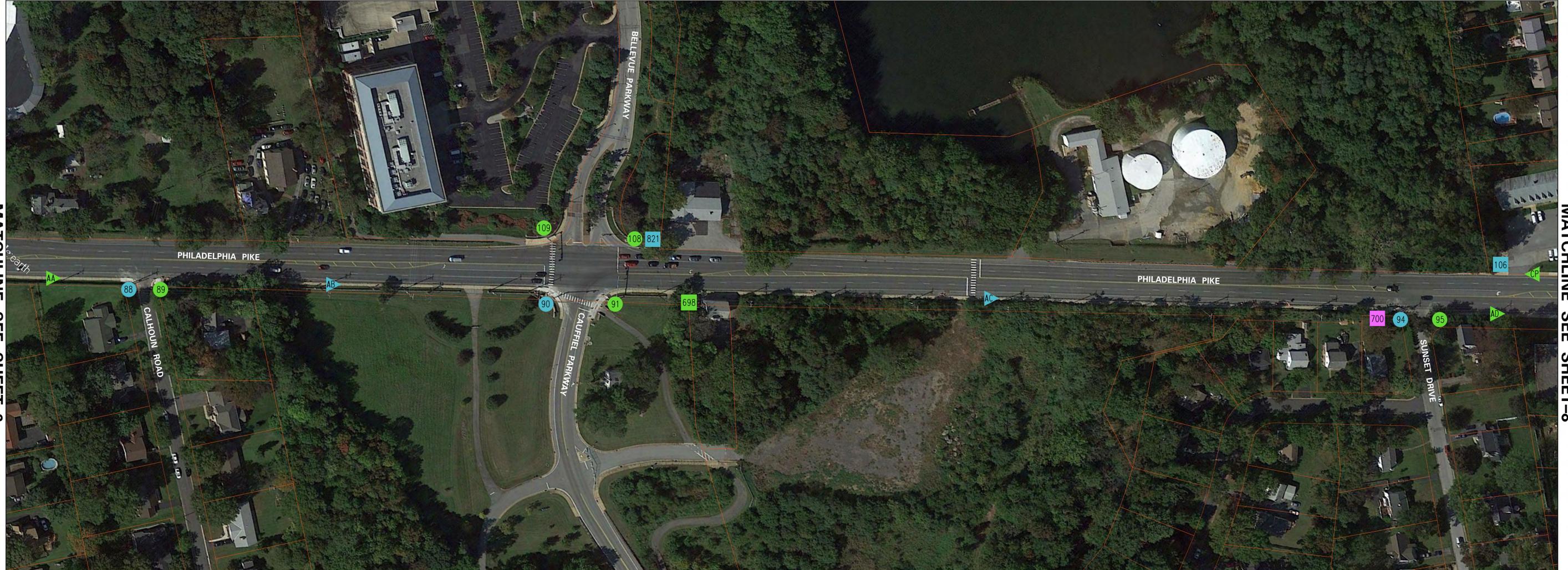
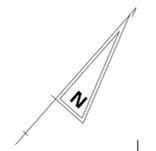


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY:	AF
COUNTY	CHECKED BY:	TTF
NEW CASTLE		

<b>CURB RAMP INVENTORY</b>
----------------------------

SHEET NO.	6
TOTAL SHTS.	13



MATCHLINE SEE SHEET-6

MATCHLINE SEE SHEET-8

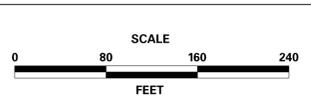
**LEGEND**

- |  |  |
|--|--|
| <b>RAMP</b>  | <b>DRIVEWAY</b>  |
| <span style="color: green;">●</span> COMPLIANT   | <span style="color: green;">▲</span> COMPLIANT                                 |
| <span style="color: cyan;">●</span> NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R                           | <span style="color: cyan;">▲</span> NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| <span style="color: magenta;">●</span> NON-COMPLIANT, DESIGN REQUIRED                                    | <span style="color: magenta;">▲</span> NON-COMPLIANT, DESIGN REQUIRED          |
| <b>BUS STOP</b>  | <b>SIDEWALK</b>  |
| <span style="border: 1px solid green; padding: 2px;">D#</span> COMPLIANT                                 | <span style="color: green;">▶</span> COMPLIANT                                 |
| <span style="border: 1px solid cyan; padding: 2px;">D#</span> NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R | <span style="color: cyan;">▶</span> NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R |
| <span style="border: 1px solid magenta; padding: 2px;">D#</span> NON-COMPLIANT, DESIGN REQUIRED          | <span style="color: magenta;">▶</span> NON-COMPLIANT, DESIGN REQUIRED          |

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**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

ADDENDUMS / REVISIONS

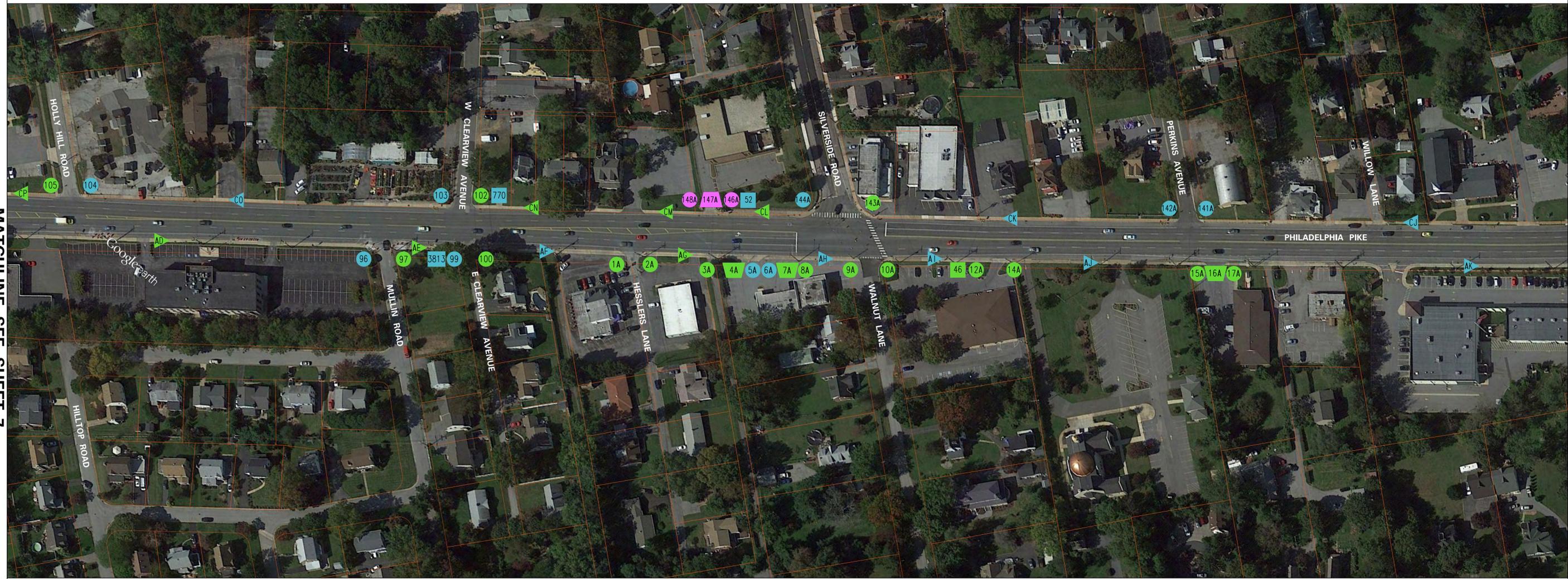
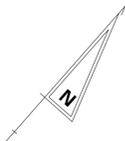


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY: AF	
COUNTY	CHECKED BY: TTF	
NEW CASTLE		

**CURB RAMP INVENTORY**

SHEET NO.	7
TOTAL SHTS.	13

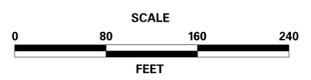


MATCHLINE SEE SHEET-7

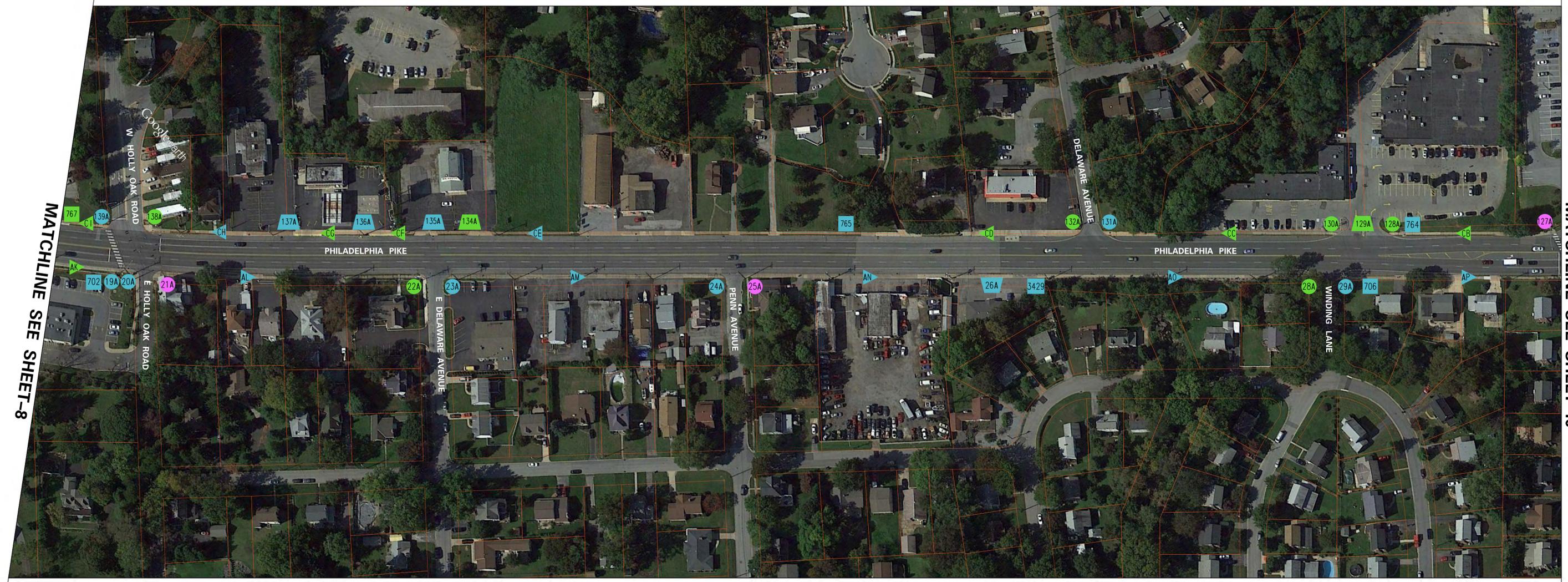
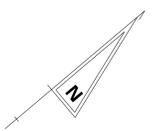
MATCHLINE SEE SHEET-9

RAMP		DRIVEWAY	
<span style="color: green;">●</span> #	COMPLIANT	<span style="color: green;">▶</span> #	COMPLIANT
<span style="color: cyan;">●</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">●</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span> #	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">D</span> #	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: cyan;">D</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">D</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

**LEGEND**



CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY:	AF
COUNTY	CHECKED BY:	TTF
NEW CASTLE		



MATCHLINE SEE SHEET-8

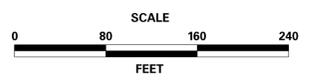
MATCHLINE SEE SHEET-10

RAMP		DRIVEWAY	
<span style="color: green;">■</span> #	COMPLIANT	<span style="color: green;">■</span> #	COMPLIANT
<span style="color: blue;">■</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: blue;">■</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: pink;">■</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: pink;">■</span> #	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">▶</span> D#	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: blue;">▶</span> D#	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: blue;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: pink;">▶</span> D#	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: pink;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

**LEGEND**



ADDENDUMS / REVISIONS

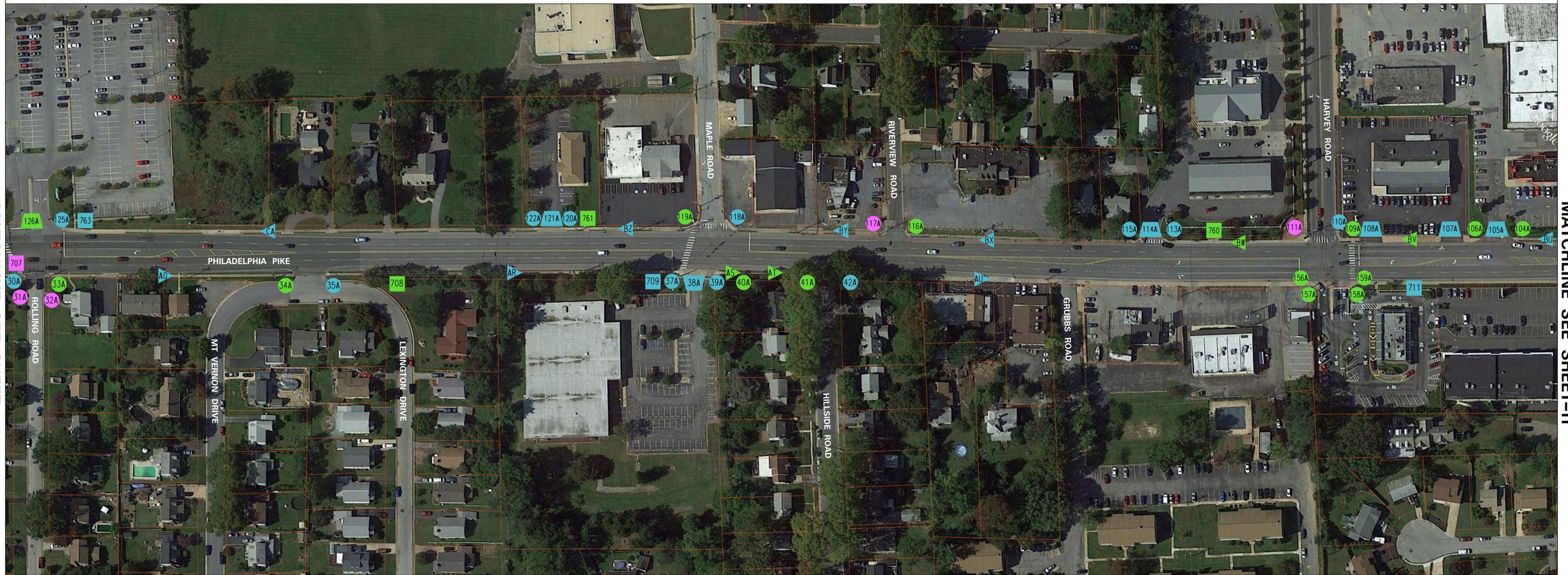
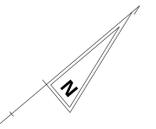


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY:	AF
COUNTY	CHECKED BY:	TTF
NEW CASTLE		

<b>CURB RAMP INVENTORY</b>	SHEET NO.	9
	TOTAL SHTS.	13

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MATCHLINE SEE SHEET-9

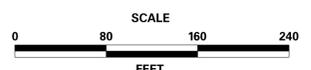
MATCHLINE SEE SHEET-11

RAMP		DRIVEWAY	
<span style="color: green;">■</span>	COMPLIANT	<span style="color: green;">■</span>	COMPLIANT
<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">■</span>	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

LEGEND



ADDENDUMS / REVISIONS



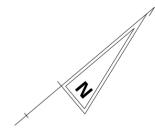
**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY:	AF
COUNTY	CHECKED BY:	TTF
NEW CASTLE		

**CURB RAMP INVENTORY**

SHEET NO.	10
TOTAL SHTS.	13

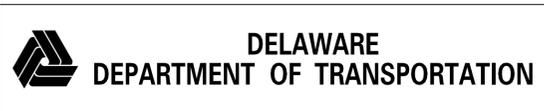
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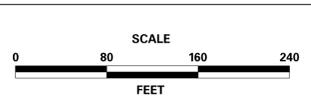
MATCHLINE SEE SHEET-10

RAMP		DRIVEWAY	
<span style="color: green;">■</span>	COMPLIANT	<span style="color: green;">■</span>	COMPLIANT
<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">■</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">■</span>	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">▲</span>	COMPLIANT	<span style="color: green;">▲</span>	COMPLIANT
<span style="color: cyan;">▲</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▲</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">▲</span>	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▲</span>	NON-COMPLIANT, DESIGN REQUIRED

C:\DMS\PIWISE\ARDAL\ANF\AGHRY\MS45276\XS\_BORDER.DGN



ADDENDUMS / REVISIONS

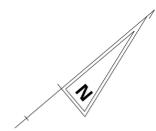


**PHILADELPHIA PIKE  
PAVEMENT REHABILITATION**

CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY: AF	
COUNTY	CHECKED BY: TTF	
NEW CASTLE		

**CURB RAMP INVENTORY**

SHEET NO.	11
TOTAL SHTS.	13

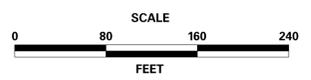


MATCHLINE SEE SHEET-11

MATCHLINE SEE SHEET-13

RAMP		DRIVEWAY	
<span style="color: green;">●</span> #	COMPLIANT	<span style="color: green;">■</span> #	COMPLIANT
<span style="color: cyan;">●</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">■</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">●</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">■</span> #	NON-COMPLIANT, DESIGN REQUIRED
BUS STOP		SIDEWALK	
<span style="color: green;">◻</span> #	COMPLIANT	<span style="color: green;">▶</span>	COMPLIANT
<span style="color: cyan;">◻</span> #	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R	<span style="color: cyan;">▶</span>	NON-COMPLIANT, IMPROVE BY DETAIL UNDER P&R
<span style="color: magenta;">◻</span> #	NON-COMPLIANT, DESIGN REQUIRED	<span style="color: magenta;">▶</span>	NON-COMPLIANT, DESIGN REQUIRED

**LEGEND**



CONTRACT	BRIDGE NO.	<b>X</b>
TXXXXXXXXXX	DESIGNED BY: AF	
COUNTY	CHECKED BY: TTF	
NEW CASTLE		

SHEET NO.	12
TOTAL SHTS.	13

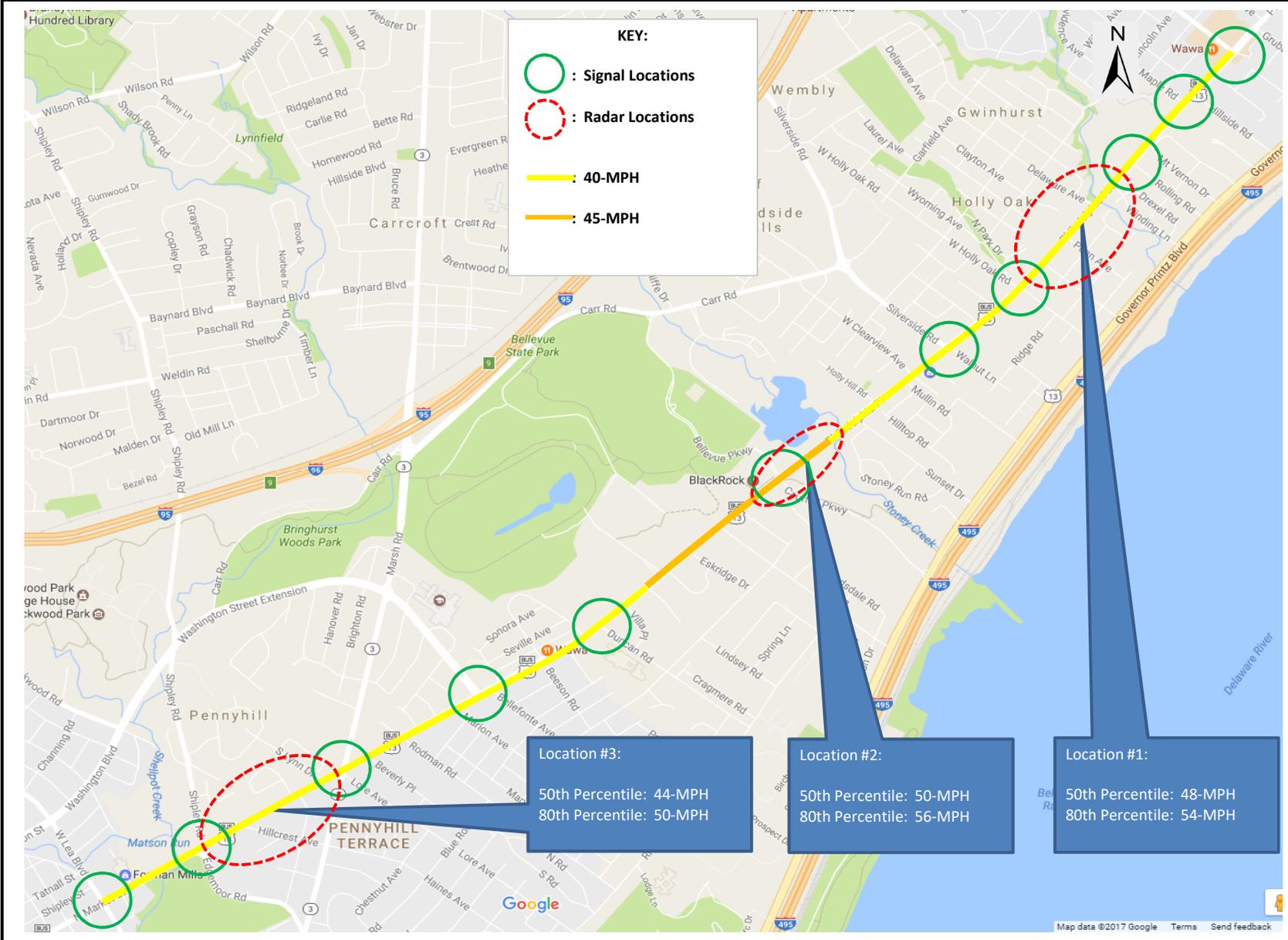
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**APPENDIX B**

**Speed Study Data**

**US13B Philadelphia Pike (N24) From Harvey Road (N281) to Lea Boulevard (N502):  
Radar Locations:**









**APPENDIX C**

**DART Ridership Data**

## Philadelphia Pike - DART Route 1

### Average daily trips per stop

STOPID	STOPNAME - Weekday	ON	OFF	TOTAL	
22	PHILADELPHIA PK & OP FORMAN	9	12	21	x
23	PHILADELPHIA PK & EDGEMOOR R	3	7	10	x
24	PHILADELPHIA PK & HILLCREST	0	2	3	x
25	PHILADELPHIA PK & BEESON AVE	0	1	1	#1 x
27	PHILADELPHIA PK & MARSH RD	2	6	8	x
28	PHILADELPHIA PK & RODMAN RD	2	5	7	x
29	PHILADELPHIA PK & OP WASH ST	2	10	12	x
30	PHILADELPHIA PK & BEESON RD	3	6	9	#2 x
31	PHILADELPHIA PK & DUNCAN RD	7	6	13	x
32	HILLCREST AVE & PHILADELPHIA	0	2	2	no
680	DUNCAN RD & PHILADELPHIA PK	2	4	6	x
681	PHILADELPHIA PK & LINDSEY PL	1	0	2	x
683	PHILADELPHIA PK & ESKRIDGE D	0	1	1	x
684	PHILADELPHIA PK & BELLEVUE R	0	0	1	x
767	PHILADELPHIA PK & HOLLY OAK	22	13	35	out of order <b>SB</b>
698	PHILADELPHIA PK & OP BELLEVVU	3	3	6	x
700	PHILADELPHIA PK & DELAIRE-SU	0	3	4	x
3813	PHILADELPHIA PK & E CLEARVIE	3	9	12	x
46	PHILADELPHIA PK & SILVERSIDE	8	16	24	x
3790	SILVERSIDE RD & PHILADEL	1	1	2	x - EB
702	PHILADELPHIA PK & HOLLY OAK	9	19	29	x <b>NB</b>
3429	PHILADELPHIA PIKE OP DELAWAR	1	5	6	x
706	PHILADELPHIA PK & WINDING LN	1	5	6	x
707	PHILADELPHIA PK & ROLLING RD	1	1	2	x
708	PHILADELPHIA PK & LEXINGTON	0	1	2	x
709	PHILADELPHIA PK & OP MAPLE R	2	13	15	x
711	PHILADELPHIA PK & OP HARVEY	22	70	91	x
712	PHILADELPHIA PK & PRINCETON	5	25	30	x
714	PHILADELPHIA PK & OP COMMONW	3	38	41	x
715	PHILADELPHIA PK & STOCKDALE	6	25	31	x
716	PHILADELPHIA PK & GOVERNOR P	1	9	10	x
718	PHILADELPHIA PK & MANOR AVE	2	15	17	x
155	PHILADELPHIA PK & ARCHMERE A	6	20	25	x
720	MYRTLE AVE & PHILADELPHIA PK	1	2	3	x
722	DARLEY RD & OP LENAPE WAY	6	5	12	x
739	PHILADELPHIA PK & ALCOTT AVE	0	0	0	x
740	PHILADELPHIA PK & CITI STEEL	0	0	0	x
50	NAAMANS RD & PHILADELPHIA PK	0	1	1	x
741	NAAMANS RD & RIDGE RD	0	2	2	
3065	KNOLLWOOD COMMUNITY	1	0	1	separate
751	DARLEY RD & LENAPE WAY	4	7	11	in
721	MYRTLE AVE & PHILADELPHIA PK	1	1	2	x
158	PHILADELPHIA PK & OP ARCHMER	26	7	34	x
754	PHILADELPHIA PK & SEMINOLE A	14	3	16	x
755	PHILADELPHIA PK & FRANKLIN A	7	2	9	x
756	PHILADELPHIA PK & LAWSON AVE	21	5	26	x

**Governor Printz Blvd**

757	PHILADELPHIA PK & COMMONWEAL	31	6	37	x
759	PHILADELPHIA PK & PENNSYLVAN	31	6	37	x
760	PHILADELPHIA PK & HARVEY RD	68	21	89	x
761	PHILADELPHIA PK & MAPLE RD	5	2	7	x
763	PHILADELPHIA PK & OP ROLLING	0	0	1	x
764	PHILADELPHIA PK & OP WINDING	6	2	8	x
765	PHILADELPHIA PK & W DELAWARE	3	1	4	x
52	PHILADELPHIA PK SILVERSIDE R	26	10	36	x
770	PHILADELPHIA PK & CLEARVIEW	0	1	1	x
772	PHILADELPHIA PK & OP SUNSET	2	0	3	x
821	PHILADELPHIA PK & BELLEVUE C	8	3	11	x
825	PHILADELPHIA PK & OP BELLEVU	1	0	1	out
826	PHILADELPHIA PK & OP ESKRIDG	0	0	0	x
828	PHILADELPHIA PK & OP LINDSEY	2	2	3	x
830	DUNCAN RD & PHILADELPHIA PK	3	3	6	x
790	HILLCREST AVE & PHILADELPHIA	1	1	2	out
791	PHILADELPHIA PK & DUPONT AVE	3	2	5	x
792	PHILADELPHIA PK & PARKWAY LN	4	3	7	x
793	PHILADELPHIA PK & WASHINGTON	8	4	12	x
795	PHILADELPHIA PK & WELDIN LN	7	2	9	x
55	PHILADELPHIA PK & MARSH RD	2	5	7	x
797	PHILADELPHIA PK & PENNYACRES	0	0	0	xx
799	PHILADELPHIA PK & SHIPLEY RD	4	2	7	x
800	PHILADELPHIA PK & FORMAN MIL	14	6	20	
834	PHILADELPHIA PK & 44TH ST	24	5	29	

757 and 759 exactly the same

Duncan Avenue

## **APPENDIX D**

### **Traffic Volume Data**



81 Mosher Street  
Baltimore, MD 21217

Loc: Philadelphia Pike & Gov. Printz Rd  
County: New Castle  
Weather: Cloudy  
Counter: DR, BB

File Name : Philadelphia Pike@Gov.Printz Blvd  
Site Code : 13162B  
Start Date : 5/10/2016  
Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	Philadelphia Pike From North					Governor Printz Blvd From East					Philadelphia Pike From South					- From West					Int. Total
	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	
07:00 AM	0	99	14	0	113	39	0	10	0	49	4	151	0	0	155	0	0	0	0	0	317
07:15 AM	0	119	20	0	139	36	0	8	0	44	11	150	0	0	161	0	0	0	0	0	344
07:30 AM	0	134	14	0	148	44	0	19	0	63	4	146	0	0	150	0	0	0	0	0	361
07:45 AM	0	182	31	0	213	34	0	10	0	44	11	209	0	0	220	0	0	0	0	0	477
Total	0	534	79	0	613	153	0	47	0	200	30	656	0	0	686	0	0	0	0	0	1499
08:00 AM	0	196	18	0	214	34	0	8	0	42	4	141	0	0	145	0	0	0	0	0	401
08:15 AM	0	168	10	0	178	28	0	10	0	38	7	120	0	0	127	0	0	0	0	0	343
08:30 AM	0	193	20	0	213	33	0	11	0	44	6	116	0	0	122	0	0	0	0	0	379
08:45 AM	0	142	19	0	161	28	0	10	0	38	10	143	0	0	153	0	0	0	0	0	352
Total	0	699	67	0	766	123	0	39	0	162	27	520	0	0	547	0	0	0	0	0	1475
*** BREAK ***																					
11:00 AM	0	109	21	0	130	29	0	4	0	33	3	107	0	0	110	0	0	0	0	0	273
11:15 AM	0	106	9	0	115	23	0	3	0	26	5	104	0	0	109	0	0	0	0	0	250
11:30 AM	0	92	20	0	112	15	0	1	0	16	5	113	0	0	118	0	0	0	0	0	246
11:45 AM	0	119	23	0	142	24	0	6	0	30	6	114	0	0	120	0	0	0	0	0	292
Total	0	426	73	0	499	91	0	14	0	105	19	438	0	0	457	0	0	0	0	0	1061
12:00 PM	0	128	19	0	147	22	0	4	0	26	5	116	0	0	121	0	0	0	0	0	294
12:15 PM	0	131	17	1	149	21	0	7	0	28	3	141	0	0	144	0	0	0	0	0	321
12:30 PM	0	107	15	0	122	29	0	10	0	39	5	132	0	0	137	0	0	0	0	0	298
12:45 PM	0	113	21	0	134	20	0	7	0	27	5	106	0	0	111	0	0	0	0	0	272
Total	0	479	72	1	552	92	0	28	0	120	18	495	0	0	513	0	0	0	0	0	1185
*** BREAK ***																					
04:00 PM	0	163	37	0	200	40	0	11	0	51	4	137	0	0	141	0	0	0	0	0	392
04:15 PM	0	151	28	0	179	34	0	11	0	45	4	129	0	0	133	0	0	0	0	0	357
04:30 PM	0	204	33	0	237	34	0	9	0	43	4	157	0	0	161	0	0	0	0	0	441
04:45 PM	0	207	36	0	243	38	0	9	0	47	11	185	0	0	196	0	0	0	0	0	486
Total	0	725	134	0	859	146	0	40	0	186	23	608	0	0	631	0	0	0	0	0	1676
05:00 PM	0	236	61	0	297	27	0	8	0	35	9	182	0	0	191	0	0	0	0	0	523
05:15 PM	0	193	35	0	228	43	0	10	0	53	6	146	0	0	152	0	0	0	0	0	433
05:30 PM	0	188	52	0	240	32	0	13	0	45	13	169	0	0	182	0	0	0	0	0	467
05:45 PM	0	229	40	0	269	37	0	6	0	43	6	163	0	0	169	0	0	0	0	0	481
Total	0	846	188	0	1034	139	0	37	0	176	34	660	0	0	694	0	0	0	0	0	1904



81 Mosher Street  
Baltimore, MD 21217

Loc: Philadelphia Pike & Gov. Printz Rd  
County: New Castle  
Weather: Cloudy  
Counter: DR, BB

File Name : Philadelphia Pike@Gov.Printz Blvd  
Site Code : 13162B  
Start Date : 5/10/2016  
Page No : 2

Groups Printed- Vehicles - Trucks

	Philadelphia Pike From North					Governor Printz Blvd From East					Philadelphia Pike From South					- From West					Int. Total
	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	Right	Thru	Left	U-turn	App. Total	
Grand Total	0	3709	613	1	4323	744	0	205	0	949	151	3377	0	0	3528	0	0	0	0	0	8800
Apprch %	0	85.8	14.2	0		78.4	0	21.6	0		4.3	95.7	0	0		0	0	0	0		
Total %	0	42.1	7	0	49.1	8.5	0	2.3	0	10.8	1.7	38.4	0	0	40.1	0	0	0	0	0	
Vehicles	0	3662	588	1	4251	730	0	205	0	935	149	3337	0	0	3486	0	0	0	0	0	8672
% Vehicles	0	98.7	95.9	100	98.3	98.1	0	100	0	98.5	98.7	98.8	0	0	98.8	0	0	0	0	0	98.5
Trucks	0	47	25	0	72	14	0	0	0	14	2	40	0	0	42	0	0	0	0	0	128
% Trucks	0	1.3	4.1	0	1.7	1.9	0	0	0	1.5	1.3	1.2	0	0	1.2	0	0	0	0	0	1.5







110 South Poplar Street  
Wilmington, DE

Loc: Philadelphia Pike & Harvey Rd  
County: New Castle  
Weather: Drizzle off & on  
Counter: RMF, DR

File Name : Philadelphia Pike@Harvey Rd  
Site Code : 14144.18  
Start Date : 5/17/2016  
Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	Philadelphia Pike Southbound					McDonalds Entrance/Exit Westbound					Philadelphia Pike Northbound					Harvey Road Eastbound					Int. Total
	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	
06:30 AM	3	55	28	0	86	2	5	4	0	11	12	66	4	0	82	46	8	18	0	72	251
06:45 AM	6	82	33	0	121	1	5	2	0	8	16	83	4	0	103	54	4	13	0	71	303
Total	9	137	61	0	207	3	10	6	0	19	28	149	8	0	185	100	12	31	0	143	554
07:00 AM	6	91	39	0	136	2	1	2	0	5	9	73	1	0	83	63	6	24	0	93	317
07:15 AM	4	101	47	0	152	4	5	3	0	12	23	78	7	0	108	69	7	12	0	88	360
07:30 AM	6	118	55	0	179	3	6	2	0	11	18	87	5	0	110	101	15	31	0	147	447
07:45 AM	6	134	53	0	193	4	3	2	0	9	21	78	3	0	102	76	3	30	0	109	413
Total	22	444	194	0	660	13	15	9	0	37	71	316	16	0	403	309	31	97	0	437	1537
08:00 AM	4	116	35	0	155	7	1	1	0	9	16	75	6	0	97	48	7	22	0	77	338
08:15 AM	12	165	47	0	224	11	9	4	0	24	19	74	7	0	100	47	10	23	0	80	428
08:30 AM	5	158	44	0	207	12	2	4	0	18	24	91	9	0	124	37	12	28	0	77	426
08:45 AM	6	128	35	0	169	6	3	6	0	15	26	71	9	0	106	48	4	31	0	83	373
Total	27	567	161	0	755	36	15	15	0	66	85	311	31	0	427	180	33	104	0	317	1565
*** BREAK ***																					
04:00 PM	7	132	36	0	175	2	6	2	0	10	36	98	8	0	142	62	8	23	0	93	420
04:15 PM	7	140	60	0	207	8	1	1	0	10	18	80	8	0	106	73	6	27	0	106	429
04:30 PM	7	127	70	0	204	3	7	5	0	15	30	120	7	0	157	55	5	17	0	77	453
04:45 PM	3	140	45	0	188	4	4	3	0	11	19	90	12	0	121	72	5	25	0	102	422
Total	24	539	211	0	774	17	18	11	0	46	103	388	35	0	526	262	24	92	0	378	1724
05:00 PM	3	161	59	0	223	4	2	5	0	11	36	109	12	0	157	69	5	29	0	103	494
05:15 PM	2	122	61	0	185	7	6	6	0	19	31	117	9	0	157	59	4	30	0	93	454
05:30 PM	2	137	39	0	178	2	6	6	0	14	36	101	9	0	146	72	10	30	0	112	450
05:45 PM	5	169	45	0	219	3	4	4	0	11	35	123	5	0	163	59	2	32	0	93	486
Total	12	589	204	0	805	16	18	21	0	55	138	450	35	0	623	259	21	121	0	401	1884
06:00 PM	6	170	60	0	236	6	7	6	0	19	26	102	8	0	136	53	6	21	0	80	471
06:15 PM	3	138	41	0	182	6	2	2	0	10	30	91	7	0	128	53	3	16	0	72	392
Grand Total	103	2584	932	0	3619	97	85	70	0	252	481	1807	140	0	2428	1216	130	482	0	1828	8127
Apprch %	2.8	71.4	25.8	0		38.5	33.7	27.8	0		19.8	74.4	5.8	0		66.5	7.1	26.4	0		
Total %	1.3	31.8	11.5	0	44.5	1.2	1	0.9	0	3.1	5.9	22.2	1.7	0	29.9	15	1.6	5.9	0	22.5	
Vehicles	103	2561	918	0	3582	97	85	69	0	251	478	1786	138	0	2402	1207	129	476	0	1812	8047
% Vehicles	100	99.1	98.5	0	99	100	100	98.6	0	99.6	99.4	98.8	98.6	0	98.9	99.3	99.2	98.8	0	99.1	99
Trucks	0	23	14	0	37	0	0	1	0	1	3	21	2	0	26	9	1	6	0	16	80
% Trucks	0	0.9	1.5	0	1	0	0	1.4	0	0.4	0.6	1.2	1.4	0	1.1	0.7	0.8	1.2	0	0.9	1



110 South Poplar Street  
Wilmington, DE

Loc: Philadelphia Pike & Harvey Rd  
County: New Castle  
Weather: Drizzle off & on  
Counter: RMF, DR

File Name : Philadelphia Pike@Harvey Rd  
Site Code : 14144.18  
Start Date : 5/17/2016  
Page No : 2

Start Time	Philadelphia Pike Southbound					McDonalds Entrance/Exit Westbound					Philadelphia Pike Northbound					Harvey Road Eastbound					Int. Total
	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	Left	Thru	Right	U-turn	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	6	118	55	0	179	3	6	2	0	11	18	87	5	0	110	101	15	31	0	147	447
07:45 AM	6	134	53	0	193	4	3	2	0	9	21	78	3	0	102	76	3	30	0	109	413
08:00 AM	4	116	35	0	155	7	1	1	0	9	16	75	6	0	97	48	7	22	0	77	338
08:15 AM	12	165	47	0	224	11	9	4	0	24	19	74	7	0	100	47	10	23	0	80	428
Total Volume	28	533	190	0	751	25	19	9	0	53	74	314	21	0	409	272	35	106	0	413	1626
% App. Total	3.7	71	25.3	0		47.2	35.8	17	0		18.1	76.8	5.1	0		65.9	8.5	25.7	0		
PHF	.583	.808	.864	.000	.838	.568	.528	.563	.000	.552	.881	.902	.750	.000	.930	.673	.583	.855	.000	.702	.909
Vehicles	28	525	185	0	738	25	19	8	0	52	74	307	20	0	401	268	35	101	0	404	1595
% Vehicles	100	98.5	97.4	0	98.3	100	100	88.9	0	98.1	100	97.8	95.2	0	98.0	98.5	100	95.3	0	97.8	98.1
Trucks	0	8	5	0	13	0	0	1	0	1	0	7	1	0	8	4	0	5	0	9	31
% Trucks	0	1.5	2.6	0	1.7	0	0	11.1	0	1.9	0	2.2	4.8	0	2.0	1.5	0	4.7	0	2.2	1.9
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	161	59	0	223	4	2	5	0	11	36	109	12	0	157	69	5	29	0	103	494
05:15 PM	2	122	61	0	185	7	6	6	0	19	31	117	9	0	157	59	4	30	0	93	454
05:30 PM	2	137	39	0	178	2	6	6	0	14	36	101	9	0	146	72	10	30	0	112	450
05:45 PM	5	169	45	0	219	3	4	4	0	11	35	123	5	0	163	59	2	32	0	93	486
Total Volume	12	589	204	0	805	16	18	21	0	55	138	450	35	0	623	259	21	121	0	401	1884
% App. Total	1.5	73.2	25.3	0		29.1	32.7	38.2	0		22.2	72.2	5.6	0		64.6	5.2	30.2	0		
PHF	.600	.871	.836	.000	.902	.571	.750	.875	.000	.724	.958	.915	.729	.000	.956	.899	.525	.945	.000	.895	.953
Vehicles	12	589	203	0	804	16	18	21	0	55	138	450	34	0	622	259	21	121	0	401	1882
% Vehicles	100	100	99.5	0	99.9	100	100	100	0	100	100	100	97.1	0	99.8	100	100	100	0	100	99.9
Trucks	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
% Trucks	0	0	0.5	0	0.1	0	0	0	0	0	0	0	2.9	0	0.2	0	0	0	0	0	0.1



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Maple Rd  
County: New Castle  
Weather: Clear  
Counter:

File Name : US13@MapleRd  
Site Code : 14144.18  
Start Date : 2/21/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US13 Southbound					Maple Road Westbound					US13 Northbound					Maple Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	94	1	0	96	1	0	2	1	4	2	83	1	0	86	2	0	6	0	8	194
07:15 AM	2	105	4	0	111	2	0	2	1	5	2	78	2	0	82	1	0	9	2	12	210
07:30 AM	7	113	2	0	122	1	0	7	0	8	6	99	1	2	108	2	0	2	2	6	244
07:45 AM	2	126	6	0	134	0	0	0	0	0	3	71	2	0	76	5	0	8	0	13	223
Total	12	438	13	0	463	4	0	11	2	17	13	331	6	2	352	10	0	25	4	39	871
08:00 AM	1	139	9	0	149	0	0	4	4	8	7	75	5	3	90	9	0	15	0	24	271
08:15 AM	5	128	32	0	165	2	1	3	9	15	21	83	3	15	122	18	0	21	0	39	341
08:30 AM	5	143	18	0	166	2	0	7	1	10	10	98	3	1	112	30	0	19	1	50	338
08:45 AM	5	142	10	1	158	3	0	4	0	7	6	88	0	0	94	17	0	9	1	27	286
Total	16	552	69	1	638	7	1	18	14	40	44	344	11	19	418	74	0	64	2	140	1236
*** BREAK ***																					
04:00 PM	6	144	2	0	152	0	0	1	0	1	4	109	1	0	114	3	0	4	2	9	276
04:15 PM	1	131	1	0	133	1	1	4	0	6	6	123	0	0	129	2	0	4	1	7	275
04:30 PM	4	127	4	0	135	0	0	4	0	4	10	138	1	0	149	2	0	5	1	8	296
04:45 PM	3	128	4	0	135	2	0	3	1	6	3	131	0	0	134	3	0	7	2	12	287
Total	14	530	11	0	555	3	1	12	1	17	23	501	2	0	526	10	0	20	6	36	1134
05:00 PM	10	122	7	0	139	2	0	1	0	3	6	143	1	0	150	2	0	6	0	8	300
05:15 PM	11	133	7	0	151	2	0	6	0	8	5	152	2	0	159	5	0	6	3	14	332
05:30 PM	1	133	6	0	140	5	0	11	2	18	2	138	4	0	144	2	0	2	5	9	311
05:45 PM	1	132	5	0	138	1	0	6	2	9	10	153	2	0	165	3	0	4	1	8	320
Total	23	520	25	0	568	10	0	24	4	38	23	586	9	0	618	12	0	18	9	39	1263
Grand Total	65	2040	118	1	2224	24	2	65	21	112	103	1762	28	21	1914	106	0	127	21	254	4504
Apprch %	2.9	91.7	5.3	0		21.4	1.8	58	18.8		5.4	92.1	1.5	1.1		41.7	0	50	8.3		
Total %	1.4	45.3	2.6	0	49.4	0.5	0	1.4	0.5	2.5	2.3	39.1	0.6	0.5	42.5	2.4	0	2.8	0.5	5.6	
Vehicles	63	1989	114	1	2167	24	2	62	21	109	98	1717	28	21	1864	102	0	124	21	247	4387
% Vehicles	96.9	97.5	96.6	100	97.4	100	100	95.4	100	97.3	95.1	97.4	100	100	97.4	96.2	0	97.6	100	97.2	97.4
Heavy Vehicles	2	51	4	0	57	0	0	3	0	3	5	45	0	0	50	4	0	3	0	7	117
% Heavy Vehicles	3.1	2.5	3.4	0	2.6	0	0	4.6	0	2.7	4.9	2.6	0	0	2.6	3.8	0	2.4	0	2.8	2.6



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Maple Rd  
County: New Castle  
Weather: Clear  
Counter:

File Name : US13@MapleRd  
Site Code : 14144.18  
Start Date : 2/21/2017  
Page No : 2

Start Time	US13 Southbound					Maple Road Westbound					US13 Northbound					Maple Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	7	113	2	0	122	1	0	7	0	8	6	99	1	2	108	2	0	2	2	6	244
07:45 AM	2	126	6	0	134	0	0	0	0	0	3	71	2	0	76	5	0	8	0	13	223
08:00 AM	1	139	9	0	149	0	0	4	4	8	7	75	5	3	90	9	0	15	0	24	271
08:15 AM	5	128	32	0	165	2	1	3	9	15	21	83	3	15	122	18	0	21	0	39	341
Total Volume	15	506	49	0	570	3	1	14	13	31	37	328	11	20	396	34	0	46	2	82	1079
% App. Total	2.6	88.8	8.6	0		9.7	3.2	45.2	41.9		9.3	82.8	2.8	5.1		41.5	0	56.1	2.4		
PHF	.536	.910	.383	.000	.864	.375	.250	.500	.361	.517	.440	.828	.550	.333	.811	.472	.000	.548	.250	.526	.791
Vehicles	15	490	47	0	552	3	1	14	13	31	33	310	11	20	374	32	0	44	2	78	1035
% Vehicles	100	96.8	95.9	0	96.8	100	100	100	100	100	89.2	94.5	100	100	94.4	94.1	0	95.7	100	95.1	95.9
Heavy Vehicles	0	16	2	0	18	0	0	0	0	0	4	18	0	0	22	2	0	2	0	4	44
% Heavy Vehicles	0	3.2	4.1	0	3.2	0	0	0	0	0	10.8	5.5	0	0	5.6	5.9	0	4.3	0	4.9	4.1
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	10	122	7	0	139	2	0	1	0	3	6	143	1	0	150	2	0	6	0	8	300
05:15 PM	11	133	7	0	151	2	0	6	0	8	5	152	2	0	159	5	0	6	3	14	332
05:30 PM	1	133	6	0	140	5	0	11	2	18	2	138	4	0	144	2	0	2	5	9	311
05:45 PM	1	132	5	0	138	1	0	6	2	9	10	153	2	0	165	3	0	4	1	8	320
Total Volume	23	520	25	0	568	10	0	24	4	38	23	586	9	0	618	12	0	18	9	39	1263
% App. Total	4	91.5	4.4	0		26.3	0	63.2	10.5		3.7	94.8	1.5	0		30.8	0	46.2	23.1		
PHF	.523	.977	.893	.000	.940	.500	.000	.545	.500	.528	.575	.958	.563	.000	.936	.600	.000	.750	.450	.696	.951
Vehicles	22	512	25	0	559	10	0	23	4	37	23	582	9	0	614	12	0	18	9	39	1249
% Vehicles	95.7	98.5	100	0	98.4	100	0	95.8	100	97.4	100	99.3	100	0	99.4	100	0	100	100	100	98.9
Heavy Vehicles	1	8	0	0	9	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	14
% Heavy Vehicles	4.3	1.5	0	0	1.6	0	0	4.2	0	2.6	0	0.7	0	0	0.6	0	0	0	0	0	1.1



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Rolling Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@RollingRd  
Site Code : 00000000  
Start Date : 2/21/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US 13 Southbound					Rolling Road Westbound					US 13 Northbound					Rolling Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	102	0	0	102	1	0	2	1	4	0	82	0	0	82	0	0	0	0	0	188
07:15 AM	0	111	0	0	111	1	0	4	0	5	0	79	2	0	81	0	0	0	1	1	198
07:30 AM	2	113	0	0	115	0	0	2	0	2	0	95	0	0	95	0	0	0	1	1	213
07:45 AM	0	131	0	0	131	0	0	3	0	3	0	68	1	0	69	0	0	0	0	0	203
Total	2	457	0	0	459	2	0	11	1	14	0	324	3	0	327	0	0	0	2	2	802
08:00 AM	2	147	0	0	149	0	0	3	2	5	0	85	0	0	85	0	0	0	1	1	240
08:15 AM	2	156	1	0	159	1	0	5	0	6	0	106	1	0	107	0	0	0	0	0	272
08:30 AM	1	168	0	0	169	0	0	3	0	3	0	103	0	0	103	0	0	0	0	0	275
08:45 AM	1	157	0	0	158	3	0	3	0	6	0	89	1	0	90	0	0	0	0	0	254
Total	6	628	1	0	635	4	0	14	2	20	0	383	2	0	385	0	0	0	1	1	1041
*** BREAK ***																					
04:00 PM	1	145	0	0	146	2	0	3	0	5	0	105	4	0	109	0	0	0	3	3	263
04:15 PM	5	132	0	0	137	0	0	0	0	0	0	124	0	0	124	0	0	0	2	2	263
04:30 PM	1	129	0	0	130	0	0	4	0	4	0	144	0	0	144	0	0	0	0	0	278
04:45 PM	2	130	0	0	132	0	0	2	0	2	0	135	0	0	135	0	0	0	1	1	270
Total	9	536	0	0	545	2	0	9	0	11	0	508	4	0	512	0	0	0	6	6	1074
05:00 PM	1	126	0	0	127	0	0	0	0	0	0	149	1	0	150	0	0	0	0	0	277
05:15 PM	3	134	0	0	137	2	0	0	0	2	0	156	1	0	157	0	0	0	2	2	298
05:30 PM	4	136	0	0	140	1	0	1	1	3	0	146	1	0	147	0	0	0	5	5	295
05:45 PM	0	137	0	1	138	1	1	4	0	6	1	162	1	0	164	0	0	0	1	1	309
Total	8	533	0	1	542	4	1	5	1	11	1	613	4	0	618	0	0	0	8	8	1179
Grand Total	25	2154	1	1	2181	12	1	39	4	56	1	1828	13	0	1842	0	0	0	17	17	4096
Apprch %	1.1	98.8	0	0		21.4	1.8	69.6	7.1		0.1	99.2	0.7	0		0	0	0	100		
Total %	0.6	52.6	0	0	53.2	0.3	0	1	0.1	1.4	0	44.6	0.3	0	45	0	0	0	0.4	0.4	
Vehicles	25	2102	1	1	2129	12	1	38	4	55	1	1779	13	0	1793	0	0	0	17	17	3994
% Vehicles	100	97.6	100	100	97.6	100	100	97.4	100	98.2	100	97.3	100	0	97.3	0	0	0	100	100	97.5
Heavy Vehicles	0	52	0	0	52	0	0	1	0	1	0	49	0	0	49	0	0	0	0	0	102
% Heavy Vehicles	0	2.4	0	0	2.4	0	0	2.6	0	1.8	0	2.7	0	0	2.7	0	0	0	0	0	2.5



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Rolling Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@RollingRd  
Site Code : 00000000  
Start Date : 2/21/2017  
Page No : 2

Start Time	US 13 Southbound					Rolling Road Westbound					US 13 Northbound					Rolling Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	2	113	0	0	115	0	0	2	0	2	0	95	0	0	95	0	0	0	1	1	213
07:45 AM	0	131	0	0	131	0	0	3	0	3	0	68	1	0	69	0	0	0	0	0	203
08:00 AM	2	147	0	0	149	0	0	3	2	5	0	85	0	0	85	0	0	0	1	1	240
08:15 AM	2	156	1	0	159	1	0	5	0	6	0	106	1	0	107	0	0	0	0	0	272
Total Volume	6	547	1	0	554	1	0	13	2	16	0	354	2	0	356	0	0	0	2	2	928
% App. Total	1.1	98.7	0.2	0		6.2	0	81.2	12.5		0	99.4	0.6	0		0	0	0	100		
PHF	.750	.877	.250	.000	.871	.250	.000	.650	.250	.667	.000	.835	.500	.000	.832	.000	.000	.000	.500	.500	.853
Vehicles	6	530	1	0	537	1	0	12	2	15	0	335	2	0	337	0	0	0	2	2	891
% Vehicles	100	96.9	100	0	96.9	100	0	92.3	100	93.8	0	94.6	100	0	94.7	0	0	0	100	100	96.0
Heavy Vehicles	0	17	0	0	17	0	0	1	0	1	0	19	0	0	19	0	0	0	0	0	37
% Heavy Vehicles	0	3.1	0	0	3.1	0	0	7.7	0	6.3	0	5.4	0	0	5.3	0	0	0	0	0	4.0
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	126	0	0	127	0	0	0	0	0	0	149	1	0	150	0	0	0	0	0	277
05:15 PM	3	134	0	0	137	2	0	0	0	2	0	156	1	0	157	0	0	0	2	2	298
05:30 PM	4	136	0	0	140	1	0	1	1	3	0	146	1	0	147	0	0	0	5	5	295
05:45 PM	0	137	0	1	138	1	1	4	0	6	1	162	1	0	164	0	0	0	1	1	309
Total Volume	8	533	0	1	542	4	1	5	1	11	1	613	4	0	618	0	0	0	8	8	1179
% App. Total	1.5	98.3	0	0.2		36.4	9.1	45.5	9.1		0.2	99.2	0.6	0		0	0	0	100		
PHF	.500	.973	.000	.250	.968	.500	.250	.313	.250	.458	.250	.946	1.00	.000	.942	.000	.000	.000	.400	.400	.954
Vehicles	8	525	0	1	534	4	1	5	1	11	1	608	4	0	613	0	0	0	8	8	1166
% Vehicles	100	98.5	0	100	98.5	100	100	100	100	100	100	99.2	100	0	99.2	0	0	0	100	100	98.9
Heavy Vehicles	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13
% Heavy Vehicles	0	1.5	0	0	1.5	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	1.1



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Holly Oak Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@HollyOakRd  
Site Code : 14144.18  
Start Date : 2/16/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US 13 Southbound					E Holly Oak Road Westbound					US 13 Northbound					W Holly Oak Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	3	98	2	0	103	1	1	0	2	4	0	68	3	2	73	2	3	2	2	9	189
07:15 AM	1	117	2	0	120	1	0	2	1	4	4	77	3	0	84	1	2	11	0	14	222
07:30 AM	4	126	1	1	132	4	2	4	2	12	2	63	2	2	69	5	1	6	5	17	230
07:45 AM	6	141	1	0	148	1	0	1	1	3	0	79	2	0	81	1	1	3	1	6	238
Total	14	482	6	1	503	7	3	7	6	23	6	287	10	4	307	9	7	22	8	46	879
08:00 AM	6	117	1	0	124	2	1	4	0	7	4	80	0	0	84	3	0	6	0	9	224
08:15 AM	7	152	1	0	160	3	0	4	0	7	4	71	0	1	76	1	0	11	2	14	257
08:30 AM	8	140	4	0	152	3	0	4	3	10	3	72	1	2	78	3	0	3	4	10	250
08:45 AM	5	129	2	0	136	1	0	2	0	3	2	81	1	0	84	2	3	4	0	9	232
Total	26	538	8	0	572	9	1	14	3	27	13	304	2	3	322	9	3	24	6	42	963
*** BREAK ***																					
04:00 PM	9	104	5	0	118	7	1	7	0	15	2	106	0	5	113	4	0	4	3	11	257
04:15 PM	9	100	9	0	118	3	2	5	1	11	4	118	3	0	125	4	2	2	2	10	264
04:30 PM	9	96	7	0	112	8	2	4	0	14	5	116	2	0	123	5	1	2	0	8	257
04:45 PM	9	99	6	0	114	4	4	6	1	15	5	113	0	0	118	2	0	8	1	11	258
Total	36	399	27	0	462	22	9	22	2	55	16	453	5	5	479	15	3	16	6	40	1036
05:00 PM	7	126	7	0	140	8	3	13	0	24	7	149	4	0	160	7	0	6	0	13	337
05:15 PM	7	113	7	0	127	7	1	13	0	21	7	135	3	0	145	6	1	4	2	13	306
05:30 PM	10	126	4	0	140	10	1	11	4	26	2	145	7	0	154	2	2	3	1	8	328
05:45 PM	8	101	7	0	116	5	4	5	0	14	3	129	2	2	136	8	0	8	1	17	283
Total	32	466	25	0	523	30	9	42	4	85	19	558	16	2	595	23	3	21	4	51	1254
Grand Total	108	1885	66	1	2060	68	22	85	15	190	54	1602	33	14	1703	56	16	83	24	179	4132
Apprch %	5.2	91.5	3.2	0		35.8	11.6	44.7	7.9		3.2	94.1	1.9	0.8		31.3	8.9	46.4	13.4		
Total %	2.6	45.6	1.6	0	49.9	1.6	0.5	2.1	0.4	4.6	1.3	38.8	0.8	0.3	41.2	1.4	0.4	2	0.6	4.3	
Vehicles	106	1835	66	1	2008	67	22	82	15	186	50	1551	33	14	1648	56	16	74	24	170	4012
% Vehicles	98.1	97.3	100	100	97.5	98.5	100	96.5	100	97.9	92.6	96.8	100	100	96.8	100	100	89.2	100	95	97.1
Heavy Vehicles	2	50	0	0	52	1	0	3	0	4	4	51	0	0	55	0	0	9	0	9	120
% Heavy Vehicles	1.9	2.7	0	0	2.5	1.5	0	3.5	0	2.1	7.4	3.2	0	0	3.2	0	0	10.8	0	5	2.9



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Holly Oak Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@HollyOakRd  
Site Code : 14144.18  
Start Date : 2/16/2017  
Page No : 2

Start Time	US 13 Southbound					E Holly Oak Road Westbound					US 13 Northbound					W Holly Oak Road Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	4	126	1	1	132	4	2	4	2	12	2	63	2	2	69	5	1	6	5	17	230
07:45 AM	6	141	1	0	148	1	0	1	1	3	0	79	2	0	81	1	1	3	1	6	238
08:00 AM	6	117	1	0	124	2	1	4	0	7	4	80	0	0	84	3	0	6	0	9	224
08:15 AM	7	152	1	0	160	3	0	4	0	7	4	71	0	1	76	1	0	11	2	14	257
Total Volume	23	536	4	1	564	10	3	13	3	29	10	293	4	3	310	10	2	26	8	46	949
% App. Total	4.1	95	0.7	0.2		34.5	10.3	44.8	10.3		3.2	94.5	1.3	1		21.7	4.3	56.5	17.4		
PHF	.821	.882	1.00	.250	.881	.625	.375	.813	.375	.604	.625	.916	.500	.375	.923	.500	.500	.591	.400	.676	.923
Vehicles	23	513	4	1	541	10	3	11	3	27	8	275	4	3	290	10	2	21	8	41	899
% Vehicles	100	95.7	100	100	95.9	100	100	84.6	100	93.1	80.0	93.9	100	100	93.5	100	100	80.8	100	89.1	94.7
Heavy Vehicles	0	23	0	0	23	0	0	2	0	2	2	18	0	0	20	0	0	5	0	5	50
% Heavy Vehicles	0	4.3	0	0	4.1	0	0	15.4	0	6.9	20.0	6.1	0	0	6.5	0	0	19.2	0	10.9	5.3
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	7	126	7	0	140	8	3	13	0	24	7	149	4	0	160	7	0	6	0	13	337
05:15 PM	7	113	7	0	127	7	1	13	0	21	7	135	3	0	145	6	1	4	2	13	306
05:30 PM	10	126	4	0	140	10	1	11	4	26	2	145	7	0	154	2	2	3	1	8	328
05:45 PM	8	101	7	0	116	5	4	5	0	14	3	129	2	2	136	8	0	8	1	17	283
Total Volume	32	466	25	0	523	30	9	42	4	85	19	558	16	2	595	23	3	21	4	51	1254
% App. Total	6.1	89.1	4.8	0		35.3	10.6	49.4	4.7		3.2	93.8	2.7	0.3		45.1	5.9	41.2	7.8		
PHF	.800	.925	.893	.000	.934	.750	.563	.808	.250	.817	.679	.936	.571	.250	.930	.719	.375	.656	.500	.750	.930
Vehicles	32	458	25	0	515	30	9	41	4	84	19	554	16	2	591	23	3	19	4	49	1239
% Vehicles	100	98.3	100	0	98.5	100	100	97.6	100	98.8	100	99.3	100	100	99.3	100	100	90.5	100	96.1	98.8
Heavy Vehicles	0	8	0	0	8	0	0	1	0	1	0	4	0	0	4	0	0	2	0	2	15
% Heavy Vehicles	0	1.7	0	0	1.5	0	0	2.4	0	1.2	0	0.7	0	0	0.7	0	0	9.5	0	3.9	1.2

**CARS TURNING MOVEMENT COUNT - SUMMARY**

Intersection of: Philadelphia Pike  
and: Silverside Road  
Location: Wilmington, Delaware

Counted by: VCU  
Date: December 15, 2015  
Weather: Sunny / Cool  
Entered by: AW

Tuesday



Star Rating: 5

TIME	TRAFFIC FROM NORTH on: Silverside Road					TRAFFIC FROM SOUTH on: Walnut Lane					TRAFFIC FROM EAST on: Philadelphia Pike					TRAFFIC FROM WEST on: Philadelphia Pike					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
<b>AM</b>																					
6:00 - 6:15	4	0	5	0	9	0	0	0	0	0	6	21	1	0	28	0	18	2	0	20	57
6:15 - 6:30	12	0	8	0	20	0	0	0	0	0	10	27	0	0	37	0	24	13	0	37	94
6:30 - 6:45	15	1	4	0	20	0	1	0	0	1	16	33	1	0	50	0	12	14	0	26	97
6:45 - 7:00	14	0	16	0	30	0	0	0	0	0	23	53	0	0	76	1	33	13	0	47	153
7:00 - 7:15	31	2	19	0	52	0	2	1	0	3	22	72	0	0	94	2	46	21	0	69	218
7:15 - 7:30	35	2	24	0	61	0	1	3	0	4	33	71	1	0	105	1	55	35	0	91	261
7:30 - 7:45	36	2	22	0	60	1	0	1	0	2	44	77	2	0	123	1	51	47	0	99	284
7:45 - 8:00	57	0	29	0	86	2	1	1	0	4	45	92	1	0	138	0	51	45	0	96	324
8:00 - 8:15	35	0	22	0	57	0	0	2	0	2	44	95	0	0	139	1	47	35	0	83	281
8:15 - 8:30	43	0	25	0	68	1	1	0	0	2	55	113	1	0	169	1	56	37	0	94	333
8:30 - 8:45	48	2	18	0	68	2	1	0	0	3	39	107	0	0	146	3	62	43	0	108	325
8:45 - 9:00	38	3	25	0	66	1	1	0	0	2	30	86	4	0	120	1	59	45	0	105	293
<b>3 Hr Totals</b>	<b>368</b>	<b>12</b>	<b>217</b>	<b>0</b>	<b>597</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>23</b>	<b>367</b>	<b>847</b>	<b>11</b>	<b>0</b>	<b>1225</b>	<b>11</b>	<b>514</b>	<b>350</b>	<b>0</b>	<b>875</b>	<b>2720</b>
<b>1 Hr Totals</b>																					
6:00 - 7:00	45	1	33	0	79	0	1	0	0	1	55	134	2	0	191	1	87	42	0	130	401
6:15 - 7:15	72	3	47	0	122	0	3	1	0	4	71	185	1	0	257	3	115	61	0	179	562
6:30 - 7:30	95	5	63	0	163	0	4	4	0	8	94	229	2	0	325	4	146	83	0	233	729
6:45 - 7:45	116	6	81	0	203	1	3	5	0	9	122	273	3	0	398	5	185	116	0	306	916
7:00 - 8:00	159	6	94	0	259	3	4	6	0	13	144	312	4	0	460	4	203	148	0	355	1087
7:15 - 8:15	163	4	97	0	264	3	2	7	0	12	166	335	4	0	505	3	204	162	0	369	1150
7:30 - 8:30	171	2	98	0	271	4	2	4	0	10	188	377	4	0	569	3	205	164	0	372	1222
7:45 - 8:45	183	2	94	0	279	5	3	3	0	11	183	407	2	0	592	5	216	160	0	381	1263
8:00 - 9:00	164	5	90	0	259	4	3	2	0	9	168	401	5	0	574	6	224	160	0	390	1232
<b>PEAK HOUR</b>	<b>183</b>	<b>2</b>	<b>94</b>	<b>0</b>	<b>279</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>183</b>	<b>407</b>	<b>2</b>	<b>0</b>	<b>592</b>	<b>5</b>	<b>216</b>	<b>160</b>	<b>0</b>	<b>381</b>	<b>1263</b>
<b>7:45 - 8:45</b>																					
<b>PM</b>																					
3:00 - 3:15	34	7	43	0	84	2	0	0	0	2	37	64	1	0	102	4	73	41	0	118	306
3:15 - 3:30	41	4	47	0	92	0	5	0	0	5	27	71	2	0	100	1	69	21	0	91	288
3:30 - 3:45	32	0	39	0	71	0	3	0	0	3	52	85	1	0	138	0	98	33	0	131	343
3:45 - 4:00	33	2	37	0	72	2	0	0	0	2	45	92	0	0	137	3	90	34	0	127	338
4:00 - 4:15	40	3	55	0	98	1	2	0	0	3	26	64	2	0	92	0	84	37	0	121	314
4:15 - 4:30	39	6	47	0	92	1	0	2	0	3	39	71	2	0	112	0	82	30	0	112	319
4:30 - 4:45	51	1	38	0	90	0	1	0	0	1	42	78	1	0	121	1	95	39	0	135	347
4:45 - 5:00	41	3	46	0	90	1	3	1	0	5	34	103	0	0	137	2	81	33	0	116	348
5:00 - 5:15	81	2	58	0	141	0	1	1	0	2	39	86	3	0	128	4	106	60	0	170	441
5:15 - 5:30	56	4	44	0	104	0	3	1	0	4	38	96	0	0	134	2	100	48	0	150	392
5:30 - 5:45	42	5	46	0	93	2	1	2	0	5	37	82	1	0	120	3	105	55	0	163	381
5:45 - 6:00	35	5	48	0	88	0	3	1	0	4	26	63	0	0	89	0	97	40	0	137	318
<b>3 Hr Totals</b>	<b>525</b>	<b>42</b>	<b>548</b>	<b>0</b>	<b>1115</b>	<b>9</b>	<b>22</b>	<b>8</b>	<b>0</b>	<b>39</b>	<b>442</b>	<b>955</b>	<b>13</b>	<b>0</b>	<b>1410</b>	<b>20</b>	<b>1080</b>	<b>471</b>	<b>0</b>	<b>1571</b>	<b>4135</b>
<b>1 Hr Totals</b>																					
3:00 - 4:00	140	13	166	0	319	4	8	0	0	12	161	312	4	0	477	8	330	129	0	467	1275
3:15 - 4:15	146	9	178	0	333	3	10	0	0	13	150	312	5	0	467	4	341	125	0	470	1283
3:30 - 4:30	144	11	178	0	333	4	5	2	0	11	162	312	5	0	479	3	354	134	0	491	1314
3:45 - 4:45	163	12	177	0	352	4	3	2	0	9	152	305	5	0	462	4	351	140	0	495	1318
4:00 - 5:00	171	13	186	0	370	3	6	3	0	12	141	316	5	0	462	3	342	139	0	484	1328
4:15 - 5:15	212	12	189	0	413	2	5	4	0	11	154	338	6	0	498	7	364	162	0	533	1455
4:30 - 5:30	229	10	186	0	425	1	8	3	0	12	153	363	4	0	520	9	382	180	0	571	1528
4:45 - 5:45	220	14	194	0	428	3	8	5	0	16	148	367	4	0	519	11	392	196	0	599	1562
5:00 - 6:00	214	16	196	0	426	2	8	5	0	15	140	327	4	0	471	9	408	203	0	620	1532
<b>PEAK HOUR</b>	<b>220</b>	<b>14</b>	<b>194</b>	<b>0</b>	<b>428</b>	<b>3</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>16</b>	<b>148</b>	<b>367</b>	<b>4</b>	<b>0</b>	<b>519</b>	<b>11</b>	<b>392</b>	<b>196</b>	<b>0</b>	<b>599</b>	<b>1562</b>
<b>4:45 - 5:45</b>	<b>220</b>	<b>14</b>	<b>194</b>	<b>0</b>	<b>428</b>	<b>3</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>16</b>	<b>148</b>	<b>367</b>	<b>4</b>	<b>0</b>	<b>519</b>	<b>11</b>	<b>392</b>	<b>196</b>	<b>0</b>	<b>599</b>	<b>1562</b>

# HEAVY TRUCKS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Philadelphia Pike  
and: Silverside Road  
Location: Wilmington, Delaware

Counted by: VCU  
Date: December 15, 2015  
Weather: Sunny / Cool  
Entered by: AW

Tuesday



Star Rating: 5

TIME	TRAFFIC FROM NORTH on: Silverside Road					TRAFFIC FROM SOUTH on: Walnut Lane					TRAFFIC FROM EAST on: Philadelphia Pike					TRAFFIC FROM WEST on: Philadelphia Pike					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
<b>AM</b>																					
6:00 - 6:15	1	0	0	0	1	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	4
6:15 - 6:30	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	1	1	0	0	2	6
6:30 - 6:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	7	0	0	7	12
6:45 - 7:00	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	5	2	0	7	11
7:00 - 7:15	0	0	1	0	1	0	0	0	0	0	0	3	0	0	3	0	3	4	0	7	11
7:15 - 7:30	0	0	5	0	5	0	0	0	0	0	0	3	0	0	3	1	4	2	0	7	15
7:30 - 7:45	0	0	5	0	5	0	0	0	0	0	3	4	0	0	7	0	5	1	0	6	18
7:45 - 8:00	0	0	1	0	1	0	0	0	0	0	2	8	0	0	10	0	2	0	0	2	13
8:00 - 8:15	1	0	1	0	2	0	0	0	0	0	1	4	0	0	5	0	3	4	0	7	14
8:15 - 8:30	1	0	3	0	4	0	0	0	0	0	1	7	0	0	8	1	3	0	0	4	16
8:30 - 8:45	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	3	3	0	6	12
8:45 - 9:00	0	0	2	0	2	0	0	0	0	0	1	9	0	0	10	1	2	0	0	3	15
<b>3 Hr Totals</b>	<b>4</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>4</b>	<b>38</b>	<b>16</b>	<b>0</b>	<b>58</b>	<b>147</b>
<b>1 Hr Totals</b>																					
6:00 - 7:00	2	0	0	0	2	0	0	0	0	0	3	12	0	0	15	1	13	2	0	16	33
6:15 - 7:15	1	0	1	0	2	0	0	0	0	0	2	13	0	0	15	1	16	6	0	23	40
6:30 - 7:30	0	0	6	0	6	0	0	0	0	0	2	13	0	0	15	1	19	8	0	28	49
6:45 - 7:45	0	0	11	0	11	0	0	0	0	0	5	12	0	0	17	1	17	9	0	27	55
7:00 - 8:00	0	0	12	0	12	0	0	0	0	0	5	18	0	0	23	1	14	7	0	22	57
7:15 - 8:15	1	0	12	0	13	0	0	0	0	0	6	19	0	0	25	1	14	7	0	22	60
7:30 - 8:30	2	0	10	0	12	0	0	0	0	0	7	23	0	0	30	1	13	5	0	19	61
7:45 - 8:45	2	0	5	0	7	0	0	0	0	0	5	24	0	0	29	1	11	7	0	19	55
8:00 - 9:00	2	0	6	0	8	0	0	0	0	0	4	25	0	0	29	2	11	7	0	20	57
<b>PEAK HOUR</b>																					
<b>7:45 - 8:45</b>	<b>2</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>1</b>	<b>11</b>	<b>7</b>	<b>0</b>	<b>19</b>	<b>55</b>
<b>PM</b>																					
3:00 - 3:15	0	0	3	0	3	0	0	0	0	0	1	3	0	0	4	0	5	0	0	5	12
3:15 - 3:30	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	10	2	0	12	19
3:30 - 3:45	1	0	0	0	1	0	0	0	0	0	3	4	0	0	7	0	3	2	0	5	13
3:45 - 4:00	3	0	1	0	4	0	0	0	0	0	3	5	0	0	8	1	6	0	0	7	19
4:00 - 4:15	1	1	0	0	2	0	0	0	0	0	1	4	0	0	5	0	4	1	0	5	12
4:15 - 4:30	1	0	1	0	2	0	0	0	0	0	1	4	0	0	5	0	3	0	0	3	10
4:30 - 4:45	1	0	2	0	3	0	0	0	0	0	1	2	0	0	3	0	4	1	0	5	11
4:45 - 5:00	2	1	2	0	5	0	0	0	0	0	0	3	0	0	3	0	3	2	0	5	13
5:00 - 5:15	0	0	1	0	1	0	0	0	0	0	2	2	0	0	4	0	4	1	0	5	10
5:15 - 5:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6
5:30 - 5:45	2	0	0	0	2	0	0	0	0	0	2	4	0	0	6	0	1	0	0	1	9
5:45 - 6:00	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
<b>3 Hr Totals</b>	<b>12</b>	<b>2</b>	<b>10</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>1</b>	<b>45</b>	<b>9</b>	<b>0</b>	<b>55</b>	<b>137</b>
<b>1 Hr Totals</b>																					
3:00 - 4:00	4	0	4	0	8	0	0	0	0	0	8	18	0	0	26	1	24	4	0	29	63
3:15 - 4:15	5	1	1	0	7	0	0	0	0	0	8	19	0	0	27	1	23	5	0	29	63
3:30 - 4:30	6	1	2	0	9	0	0	0	0	0	8	17	0	0	25	1	16	3	0	20	54
3:45 - 4:45	6	1	4	0	11	0	0	0	0	0	6	15	0	0	21	1	17	2	0	20	52
4:00 - 5:00	5	2	5	0	12	0	0	0	0	0	3	13	0	0	16	0	14	4	0	18	46
4:15 - 5:15	4	1	6	0	11	0	0	0	0	0	4	11	0	0	15	0	14	4	0	18	44
4:30 - 5:30	3	1	5	0	9	0	0	0	0	0	3	11	0	0	14	0	13	4	0	17	40
4:45 - 5:45	4	1	3	0	8	0	0	0	0	0	4	13	0	0	17	0	10	3	0	13	38
5:00 - 6:00	3	0	1	0	4	0	0	0	0	0	4	12	0	0	16	0	7	1	0	8	28
<b>PEAK HOUR</b>																					
<b>4:45 - 5:45</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>10</b>	<b>3</b>	<b>0</b>	<b>13</b>	<b>38</b>

**RTOR TURNING MOVEMENT COUNT - SUMMARY**

Intersection of: Philadelphia Pike  
and: Silverside Road  
Location: Wilmington, Delaware

Counted by: VCU  
Date: December 15, 2015  
Weather: Sunny / Cool  
Entered by: AW

Tuesday



Star Rating: 5

TIME	TRAFFIC FROM NORTH on: Silverside Road					TRAFFIC FROM SOUTH on: Walnut Lane					TRAFFIC FROM EAST on: Philadelphia Pike					TRAFFIC FROM WEST on: Philadelphia Pike					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
<b>AM</b>																					
6:00 - 6:15	2				2	0				0	0				0	0				0	2
6:15 - 6:30	6				6	0				0	1				1	0				0	7
6:30 - 6:45	12				12	0				0	1				1	0				0	13
6:45 - 7:00	13				13	0				0	2				2	0				0	15
7:00 - 7:15	23				23	0				0	1				1	0				0	24
7:15 - 7:30	25				25	0				0	7				7	0				0	32
7:30 - 7:45	27				27	1				1	5				5	0				0	33
7:45 - 8:00	43				43	2				2	5				5	0				0	50
8:00 - 8:15	26				26	0				0	4				4	0				0	30
8:15 - 8:30	26				26	0				0	3				3	0				0	29
8:30 - 8:45	34				34	1				1	3				3	0				0	38
8:45 - 9:00	28				28	1				1	1				1	0				0	30
<b>3 Hr Totals</b>	265	0	0	0	265	5	0	0	0	5	33	0	0	0	33	0	0	0	0	0	303
<b>1 Hr Totals</b>																					
6:00 - 7:00	33	0	0	0	33	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	37
6:15 - 7:15	54	0	0	0	54	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	59
6:30 - 7:30	73	0	0	0	73	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	84
6:45 - 7:45	88	0	0	0	88	1	0	0	0	1	15	0	0	0	15	0	0	0	0	0	104
7:00 - 8:00	118	0	0	0	118	3	0	0	0	3	18	0	0	0	18	0	0	0	0	0	139
7:15 - 8:15	121	0	0	0	121	3	0	0	0	3	21	0	0	0	21	0	0	0	0	0	145
7:30 - 8:30	122	0	0	0	122	3	0	0	0	3	17	0	0	0	17	0	0	0	0	0	142
7:45 - 8:45	129	0	0	0	129	3	0	0	0	3	15	0	0	0	15	0	0	0	0	0	147
8:00 - 9:00	114	0	0	0	114	2	0	0	0	2	11	0	0	0	11	0	0	0	0	0	127
<b>PEAK HOUR</b>																					
<b>7:45 - 8:45</b>	129	0	0	0	129	3	0	0	0	3	15	0	0	0	15	0	0	0	0	0	147
<b>PM</b>																					
3:00 - 3:15	15				15	0				0	5				5	0				0	20
3:15 - 3:30	25				25	0				0	3				3	0				0	28
3:30 - 3:45	17				17	0				0	5				5	0				0	22
3:45 - 4:00	17				17	0				0	5				5	0				0	22
4:00 - 4:15	26				26	1				1	9				9	0				0	36
4:15 - 4:30	25				25	0				0	6				6	0				0	31
4:30 - 4:45	33				33	0				0	6				6	0				0	39
4:45 - 5:00	19				19	1				1	3				3	0				0	23
5:00 - 5:15	38				38	0				0	5				5	0				0	43
5:15 - 5:30	25				25	0				0	2				2	0				0	27
5:30 - 5:45	21				21	0				0	7				7	0				0	28
5:45 - 6:00	22				22	0				0	3				3	0				0	25
<b>3 Hr Totals</b>	283	0	0	0	283	2	0	0	0	2	59	0	0	0	59	0	0	0	0	0	344
<b>1 Hr Totals</b>																					
3:00 - 4:00	74	0	0	0	74	0	0	0	0	0	18	0	0	0	18	0	0	0	0	0	92
3:15 - 4:15	85	0	0	0	85	1	0	0	0	1	22	0	0	0	22	0	0	0	0	0	108
3:30 - 4:30	85	0	0	0	85	1	0	0	0	1	25	0	0	0	25	0	0	0	0	0	111
3:45 - 4:45	101	0	0	0	101	1	0	0	0	1	26	0	0	0	26	0	0	0	0	0	128
4:00 - 5:00	103	0	0	0	103	2	0	0	0	2	24	0	0	0	24	0	0	0	0	0	129
4:15 - 5:15	115	0	0	0	115	1	0	0	0	1	20	0	0	0	20	0	0	0	0	0	136
4:30 - 5:30	115	0	0	0	115	1	0	0	0	1	16	0	0	0	16	0	0	0	0	0	132
4:45 - 5:45	103	0	0	0	103	1	0	0	0	1	17	0	0	0	17	0	0	0	0	0	121
5:00 - 6:00	106	0	0	0	106	0	0	0	0	0	17	0	0	0	17	0	0	0	0	0	123
<b>PEAK HOUR</b>																					
<b>4:45 - 5:45</b>	103	0	0	0	103	1	0	0	0	1	17	0	0	0	17	0	0	0	0	0	121

**PEDESTRIAN OBSERVATIONS - SUMMARY**

Intersection of: Philadelphia Pike  
and: Silverside Road  
Location: Wilmington, Delaware

Counted by: VCU  
Date: December 15, 2015  
Weather: Sunny / Cool  
Entered by: AW

Tuesday  
Star Rating: 5  


TIME	NORTH LEG Silverside Road	SOUTH LEG Walnut Lane	EAST LEG Philadelphia Pike	WEST LEG Philadelphia Pike
<b>AM</b>				
6:00 - 6:15	1	0	0	0
6:15 - 6:30	2	0	1	0
6:30 - 6:45	3	0	1	0
6:45 - 7:00	1	0	0	0
7:00 - 7:15	1	0	1	0
7:15 - 7:30	0	2	0	0
7:30 - 7:45	0	0	0	0
7:45 - 8:00	1	0	0	0
8:00 - 8:15	0	0	0	0
8:15 - 8:30	0	3	1	0
8:30 - 8:45	0	0	0	0
8:45 - 9:00	0	0	0	0
<b>TOTALS</b>	<b>9</b>	<b>5</b>	<b>4</b>	<b>0</b>
<b>PM</b>				
3:00 - 3:15	8	0	0	0
3:15 - 3:30	1	3	1	0
3:30 - 3:45	1	1	0	0
3:45 - 4:00	0	0	0	0
4:00 - 4:15	1	1	0	0
4:15 - 4:30	2	1	0	0
4:30 - 4:45	3	4	0	0
4:45 - 5:00	1	3	0	0
5:00 - 5:15	0	0	0	0
5:15 - 5:30	1	1	0	0
5:30 - 5:45	0	1	0	0
5:45 - 6:00	2	3	0	0
<b>TOTALS</b>	<b>20</b>	<b>18</b>	<b>1</b>	<b>0</b>

**TOTALS TURNING MOVEMENT COUNT - SUMMARY**

Intersection of: Philadelphia Pike  
and: Silverside Road  
Location: Wilmington, Delaware

Counted by: VCU  
Date: December 15, 2015  
Weather: Sunny / Cool  
Entered by: AW

Tuesday



Star Rating: 5

TIME	TRAFFIC FROM NORTH on: Silverside Road					TRAFFIC FROM SOUTH on: Walnut Lane					TRAFFIC FROM EAST on: Philadelphia Pike					TRAFFIC FROM WEST on: Philadelphia Pike					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
<b>AM</b>																					
6:00 - 6:15	5	0	5	0	10	0	0	0	0	0	7	23	1	0	31	0	18	2	0	20	61
6:15 - 6:30	13	0	8	0	21	0	0	0	0	0	10	30	0	0	40	1	25	13	0	39	100
6:30 - 6:45	15	1	4	0	20	0	1	0	0	1	16	38	1	0	55	0	19	14	0	33	109
6:45 - 7:00	14	0	16	0	30	0	0	0	0	0	25	55	0	0	80	1	38	15	0	54	164
7:00 - 7:15	31	2	20	0	53	0	2	1	0	3	22	75	0	0	97	2	49	25	0	76	229
7:15 - 7:30	35	2	29	0	66	0	1	3	0	4	33	74	1	0	108	2	59	37	0	98	276
7:30 - 7:45	36	2	27	0	65	1	0	1	0	2	47	81	2	0	130	1	56	48	0	105	302
7:45 - 8:00	57	0	30	0	87	2	1	1	0	4	47	100	1	0	148	0	53	45	0	98	337
8:00 - 8:15	36	0	23	0	59	0	0	2	0	2	45	99	0	0	144	1	50	39	0	90	295
8:15 - 8:30	44	0	28	0	72	1	1	0	0	2	56	120	1	0	177	2	59	37	0	98	349
8:30 - 8:45	48	2	18	0	68	2	1	0	0	3	40	112	0	0	152	3	65	46	0	114	337
8:45 - 9:00	38	3	27	0	68	1	1	0	0	2	31	95	4	0	130	2	61	45	0	108	308
<b>3 Hr Totals</b>	372	12	235	0	619	7	8	8	0	23	379	902	11	0	1292	15	552	366	0	933	2867
<b>1 Hr Totals</b>																					
6:00 - 7:00	47	1	33	0	81	0	1	0	0	1	58	146	2	0	206	2	100	44	0	146	434
6:15 - 7:15	73	3	48	0	124	0	3	1	0	4	73	198	1	0	272	4	131	67	0	202	602
6:30 - 7:30	95	5	69	0	169	0	4	4	0	8	96	242	2	0	340	5	165	91	0	261	778
6:45 - 7:45	116	6	92	0	214	1	3	5	0	9	127	285	3	0	415	6	202	125	0	333	971
7:00 - 8:00	159	6	106	0	271	3	4	6	0	13	149	330	4	0	483	5	217	155	0	377	1144
7:15 - 8:15	164	4	109	0	277	3	2	7	0	12	172	354	4	0	530	4	218	169	0	391	1210
7:30 - 8:30	173	2	108	0	283	4	2	4	0	10	195	400	4	0	599	4	218	169	0	391	1283
7:45 - 8:45	185	2	99	0	286	5	3	3	0	11	188	431	2	0	621	6	227	167	0	400	1318
8:00 - 9:00	166	5	96	0	267	4	3	2	0	9	172	426	5	0	603	8	235	167	0	410	1289
<b>PEAK HOUR</b>	185	2	99	0	286	5	3	3	0	11	188	431	2	0	621	6	227	167	0	400	1318
<b>7:45 - 8:45</b>	185	2	99	0	286	5	3	3	0	11	188	431	2	0	621	6	227	167	0	400	1318
<b>PM</b>																					
3:00 - 3:15	34	7	46	0	87	2	0	0	0	2	38	67	1	0	106	4	78	41	0	123	318
3:15 - 3:30	41	4	47	0	92	0	5	0	0	5	28	77	2	0	107	1	79	23	0	103	307
3:30 - 3:45	33	0	39	0	72	0	3	0	0	3	55	89	1	0	145	0	101	35	0	136	356
3:45 - 4:00	36	2	38	0	76	2	0	0	0	2	48	97	0	0	145	4	96	34	0	134	357
4:00 - 4:15	41	4	55	0	100	1	2	0	0	3	27	68	2	0	97	0	88	38	0	126	326
4:15 - 4:30	40	6	48	0	94	1	0	2	0	3	40	75	2	0	117	0	85	30	0	115	329
4:30 - 4:45	52	1	40	0	93	0	1	0	0	1	43	80	1	0	124	1	99	40	0	140	358
4:45 - 5:00	43	4	48	0	95	1	3	1	0	5	34	106	0	0	140	2	84	35	0	121	361
5:00 - 5:15	81	2	59	0	142	0	1	1	0	2	41	88	3	0	132	4	110	61	0	175	451
5:15 - 5:30	56	4	44	0	104	0	3	1	0	4	38	100	0	0	138	2	102	48	0	152	398
5:30 - 5:45	44	5	46	0	95	2	1	2	0	5	39	86	1	0	126	3	106	55	0	164	390
5:45 - 6:00	36	5	48	0	89	0	3	1	0	4	26	65	0	0	91	0	97	40	0	137	321
<b>3 Hr Totals</b>	537	44	558	0	1139	9	22	8	0	39	457	998	13	0	1468	21	1125	480	0	1626	4272
<b>1 Hr Totals</b>																					
3:00 - 4:00	144	13	170	0	327	4	8	0	0	12	169	330	4	0	503	9	354	133	0	496	1338
3:15 - 4:15	151	10	179	0	340	3	10	0	0	13	158	331	5	0	494	5	364	130	0	499	1346
3:30 - 4:30	150	12	180	0	342	4	5	2	0	11	170	329	5	0	504	4	370	137	0	511	1368
3:45 - 4:45	169	13	181	0	363	4	3	2	0	9	158	320	5	0	483	5	368	142	0	515	1370
4:00 - 5:00	176	15	191	0	382	3	6	3	0	12	144	329	5	0	478	3	356	143	0	502	1374
4:15 - 5:15	216	13	195	0	424	2	5	4	0	11	158	349	6	0	513	7	378	166	0	551	1499
4:30 - 5:30	232	11	191	0	434	1	8	3	0	12	156	374	4	0	534	9	395	184	0	588	1568
4:45 - 5:45	224	15	197	0	436	3	8	5	0	16	152	380	4	0	536	11	402	199	0	612	1600
5:00 - 6:00	217	16	197	0	430	2	8	5	0	15	144	339	4	0	487	9	415	204	0	628	1560
<b>PEAK HOUR</b>	224	15	197	0	436	3	8	5	0	16	152	380	4	0	536	11	402	199	0	612	1600
<b>4:45 - 5:45</b>	224	15	197	0	436	3	8	5	0	16	152	380	4	0	536	11	402	199	0	612	1600



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Bellevue Pkwy  
County: New Cast;e  
Weather: Clear  
Counters:

File Name : US13@BellevuePkwy  
Site Code : 14144.18  
Start Date : 2/15/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US 13 Southbound					Cauffiel Parkway Westbound					US 13 Northbound					Bellevue Parkway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	16	72	17	0	105	4	11	14	3	32	10	39	2	0	51	0	1	4	0	5	193
07:15 AM	15	103	16	0	134	5	9	19	0	33	14	55	1	0	70	0	1	4	0	5	242
07:30 AM	26	76	29	0	131	4	22	25	0	51	14	51	3	0	68	4	2	5	0	11	261
07:45 AM	21	79	42	0	142	2	38	33	0	73	27	78	6	0	111	2	2	5	0	9	335
Total	78	330	104	0	512	15	80	91	3	189	65	223	12	0	300	6	6	18	0	30	1031
08:00 AM	10	65	52	0	127	2	36	29	0	67	21	65	2	0	88	2	3	4	0	9	291
08:15 AM	25	72	47	0	144	4	33	24	0	61	18	64	0	0	82	4	1	0	0	5	292
08:30 AM	21	83	71	1	176	0	28	18	1	47	17	73	2	1	93	10	2	6	0	18	334
08:45 AM	15	68	63	0	146	1	20	22	0	43	12	72	1	0	85	1	0	2	0	3	277
Total	71	288	233	1	593	7	117	93	1	218	68	274	5	1	348	17	6	12	0	35	1194
*** BREAK ***																					
04:00 PM	34	80	2	1	117	3	0	18	1	22	5	70	6	0	81	16	19	10	0	45	265
04:15 PM	26	97	4	0	127	5	1	25	0	31	3	85	1	0	89	7	16	6	0	29	276
04:30 PM	24	72	1	0	97	4	3	25	0	32	3	99	3	0	105	13	33	20	0	66	300
04:45 PM	37	90	2	0	129	3	0	22	0	25	5	98	5	0	108	11	17	9	0	37	299
Total	121	339	9	1	470	15	4	90	1	110	16	352	15	0	383	47	85	45	0	177	1140
05:00 PM	50	114	2	0	166	5	1	21	1	28	1	100	2	1	104	28	41	24	0	93	391
05:15 PM	38	82	1	0	121	1	2	17	0	20	6	70	2	0	78	40	35	15	0	90	309
05:30 PM	19	93	1	0	113	5	3	20	2	30	1	95	3	0	99	44	21	11	0	76	318
05:45 PM	29	105	4	0	138	4	2	13	1	20	5	78	5	0	88	28	25	10	0	63	309
Total	136	394	8	0	538	15	8	71	4	98	13	343	12	1	369	140	122	60	0	322	1327
Grand Total	406	1351	354	2	2113	52	209	345	9	615	162	1192	44	2	1400	210	219	135	0	564	4692
Apprch %	19.2	63.9	16.8	0.1		8.5	34	56.1	1.5		11.6	85.1	3.1	0.1		37.2	38.8	23.9	0		
Total %	8.7	28.8	7.5	0	45	1.1	4.5	7.4	0.2	13.1	3.5	25.4	0.9	0	29.8	4.5	4.7	2.9	0	12	
Vehicles	391	1309	346	2	2048	45	209	336	9	599	152	1151	41	2	1346	208	218	129	0	555	4548
% Vehicles	96.3	96.9	97.7	100	96.9	86.5	100	97.4	100	97.4	93.8	96.6	93.2	100	96.1	99	99.5	95.6	0	98.4	96.9
Heavy Vehicles	15	42	8	0	65	7	0	9	0	16	10	41	3	0	54	2	1	6	0	9	144
% Heavy Vehicles	3.7	3.1	2.3	0	3.1	13.5	0	2.6	0	2.6	6.2	3.4	6.8	0	3.9	1	0.5	4.4	0	1.6	3.1



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Bellevue Pkwy  
County: New Cast;e  
Weather: Clear  
Counters:

File Name : US13@BellevuePkwy  
Site Code : 14144.18  
Start Date : 2/15/2017  
Page No : 2

Start Time	US 13 Southbound					Cauffiel Parkway Westbound					US 13 Northbound					Bellevue Parkway Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	26	76	29	0	131	4	22	25	0	51	14	51	3	0	68	4	2	5	0	11	261
07:45 AM	21	79	42	0	142	2	38	33	0	73	27	78	6	0	111	2	2	5	0	9	335
08:00 AM	10	65	52	0	127	2	36	29	0	67	21	65	2	0	88	2	3	4	0	9	291
08:15 AM	25	72	47	0	144	4	33	24	0	61	18	64	0	0	82	4	1	0	0	5	292
Total Volume	82	292	170	0	544	12	129	111	0	252	80	258	11	0	349	12	8	14	0	34	1179
% App. Total	15.1	53.7	31.2	0		4.8	51.2	44	0		22.9	73.9	3.2	0		35.3	23.5	41.2	0		
PHF	.788	.924	.817	.000	.944	.750	.849	.841	.000	.863	.741	.827	.458	.000	.786	.750	.667	.700	.000	.773	.880
Vehicles	80	279	164	0	523	8	129	108	0	245	75	242	9	0	326	10	7	12	0	29	1123
% Vehicles	97.6	95.5	96.5	0	96.1	66.7	100	97.3	0	97.2	93.8	93.8	81.8	0	93.4	83.3	87.5	85.7	0	85.3	95.3
Heavy Vehicles	2	13	6	0	21	4	0	3	0	7	5	16	2	0	23	2	1	2	0	5	56
% Heavy Vehicles	2.4	4.5	3.5	0	3.9	33.3	0	2.7	0	2.8	6.3	6.2	18.2	0	6.6	16.7	12.5	14.3	0	14.7	4.7
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	50	114	2	0	166	5	1	21	1	28	1	100	2	1	104	28	41	24	0	93	391
05:15 PM	38	82	1	0	121	1	2	17	0	20	6	70	2	0	78	40	35	15	0	90	309
05:30 PM	19	93	1	0	113	5	3	20	2	30	1	95	3	0	99	44	21	11	0	76	318
05:45 PM	29	105	4	0	138	4	2	13	1	20	5	78	5	0	88	28	25	10	0	63	309
Total Volume	136	394	8	0	538	15	8	71	4	98	13	343	12	1	369	140	122	60	0	322	1327
% App. Total	25.3	73.2	1.5	0		15.3	8.2	72.4	4.1		3.5	93	3.3	0.3		43.5	37.9	18.6	0		
PHF	.680	.864	.500	.000	.810	.750	.667	.845	.500	.817	.542	.858	.600	.250	.887	.795	.744	.625	.000	.866	.848
Vehicles	133	387	8	0	528	15	8	71	4	98	12	336	12	1	361	140	122	58	0	320	1307
% Vehicles	97.8	98.2	100	0	98.1	100	100	100	100	100	92.3	98.0	100	100	97.8	100	100	96.7	0	99.4	98.5
Heavy Vehicles	3	7	0	0	10	0	0	0	0	0	1	7	0	0	8	0	0	2	0	2	20
% Heavy Vehicles	2.2	1.8	0	0	1.9	0	0	0	0	0	7.7	2.0	0	0	2.2	0	0	3.3	0	0.6	1.5



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Duncan Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@DuncanRd  
Site Code : 14144.18  
Start Date : 2/14/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US 13 Southbound					Duncan Road Westbound					US 13 Northbound					Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	3	82	0	0	85	14	0	8	1	23	0	45	7	0	52	0	0	0	0	0	160
07:15 AM	3	140	0	0	143	18	0	6	3	27	0	69	18	1	88	0	0	0	0	0	258
07:30 AM	4	83	0	0	87	20	0	7	0	27	0	83	10	3	96	0	0	0	0	0	210
07:45 AM	13	97	0	0	110	18	0	7	2	27	0	78	24	1	103	0	0	0	0	0	240
Total	23	402	0	0	425	70	0	28	6	104	0	275	59	5	339	0	0	0	0	0	868
08:00 AM	11	72	0	0	83	21	0	8	0	29	0	70	25	0	95	0	0	0	0	0	207
08:15 AM	11	74	0	0	85	13	0	10	3	26	0	80	36	0	116	0	0	0	0	0	227
08:30 AM	18	70	0	0	88	28	0	12	0	40	0	72	71	2	145	0	0	0	0	0	273
08:45 AM	27	93	0	0	120	40	0	19	1	60	0	64	39	0	103	0	0	0	0	0	283
Total	67	309	0	0	376	102	0	49	4	155	0	286	171	2	459	0	0	0	0	0	990
*** BREAK ***																					
04:00 PM	16	86	0	0	102	15	0	20	0	35	2	67	18	1	88	0	0	0	2	2	227
04:15 PM	10	89	0	0	99	15	0	10	1	26	1	93	15	0	109	0	0	0	0	0	234
04:30 PM	20	96	2	0	118	17	0	12	1	30	0	81	21	2	104	0	0	0	2	2	254
04:45 PM	10	99	1	1	111	14	0	8	2	24	8	96	20	0	124	0	0	0	1	1	260
Total	56	370	3	1	430	61	0	50	4	115	11	337	74	3	425	0	0	0	5	5	975
05:00 PM	13	90	1	0	104	15	0	11	3	29	2	93	29	4	128	0	0	0	0	0	261
05:15 PM	12	99	0	0	111	22	0	18	2	42	0	107	24	4	135	0	0	0	1	1	289
05:30 PM	10	109	0	0	119	20	0	12	1	33	1	80	24	0	105	0	0	0	2	2	259
05:45 PM	9	95	8	0	112	22	0	8	1	31	6	90	25	2	123	0	0	0	2	2	268
Total	44	393	9	0	446	79	0	49	7	135	9	370	102	10	491	0	0	0	5	5	1077
Grand Total	190	1474	12	1	1677	312	0	176	21	509	20	1268	406	20	1714	0	0	0	10	10	3910
Apprch %	11.3	87.9	0.7	0.1		61.3	0	34.6	4.1		1.2	74	23.7	1.2		0	0	0	100		
Total %	4.9	37.7	0.3	0	42.9	8	0	4.5	0.5	13	0.5	32.4	10.4	0.5	43.8	0	0	0	0.3	0.3	
Vehicles	182	1427	12	1	1622	309	0	160	21	490	20	1222	391	20	1653	0	0	0	10	10	3775
% Vehicles	95.8	96.8	100	100	96.7	99	0	90.9	100	96.3	100	96.4	96.3	100	96.4	0	0	0	100	100	96.5
Heavy Vehicles	8	47	0	0	55	3	0	16	0	19	0	46	15	0	61	0	0	0	0	0	135
% Heavy Vehicles	4.2	3.2	0	0	3.3	1	0	9.1	0	3.7	0	3.6	3.7	0	3.6	0	0	0	0	0	3.5



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Duncan Rd  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@DuncanRd  
Site Code : 14144.18  
Start Date : 2/14/2017  
Page No : 2

Start Time	US 13 Southbound					Duncan Road Westbound					US 13 Northbound					Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	4	83	0	0	87	20	0	7	0	27	0	83	10	3	96	0	0	0	0	0	210
07:45 AM	13	97	0	0	110	18	0	7	2	27	0	78	24	1	103	0	0	0	0	0	240
08:00 AM	11	72	0	0	83	21	0	8	0	29	0	70	25	0	95	0	0	0	0	0	207
08:15 AM	11	74	0	0	85	13	0	10	3	26	0	80	36	0	116	0	0	0	0	0	227
Total Volume	39	326	0	0	365	72	0	32	5	109	0	311	95	4	410	0	0	0	0	0	884
% App. Total	10.7	89.3	0	0		66.1	0	29.4	4.6		0	75.9	23.2	1		0	0	0	0		
PHF	.750	.840	.000	.000	.830	.857	.000	.800	.417	.940	.000	.937	.660	.333	.884	.000	.000	.000	.000	.000	.921
Vehicles	35	310	0	0	345	72	0	29	5	106	0	294	89	4	387	0	0	0	0	0	838
% Vehicles	89.7	95.1	0	0	94.5	100	0	90.6	100	97.2	0	94.5	93.7	100	94.4	0	0	0	0	0	94.8
Heavy Vehicles	4	16	0	0	20	0	0	3	0	3	0	17	6	0	23	0	0	0	0	0	46
% Heavy Vehicles	10.3	4.9	0	0	5.5	0	0	9.4	0	2.8	0	5.5	6.3	0	5.6	0	0	0	0	0	5.2
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	13	90	1	0	104	15	0	11	3	29	2	93	29	4	128	0	0	0	0	0	261
05:15 PM	12	99	0	0	111	22	0	18	2	42	0	107	24	4	135	0	0	0	1	1	289
05:30 PM	10	109	0	0	119	20	0	12	1	33	1	80	24	0	105	0	0	0	2	2	259
05:45 PM	9	95	8	0	112	22	0	8	1	31	6	90	25	2	123	0	0	0	2	2	268
Total Volume	44	393	9	0	446	79	0	49	7	135	9	370	102	10	491	0	0	0	5	5	1077
% App. Total	9.9	88.1	2	0		58.5	0	36.3	5.2		1.8	75.4	20.8	2		0	0	0	100		
PHF	.846	.901	.281	.000	.937	.898	.000	.681	.583	.804	.375	.864	.879	.625	.909	.000	.000	.000	.625	.625	.932
Vehicles	44	386	9	0	439	79	0	45	7	131	9	366	101	10	486	0	0	0	5	5	1061
% Vehicles	100	98.2	100	0	98.4	100	0	91.8	100	97.0	100	98.9	99.0	100	99.0	0	0	0	100	100	98.5
Heavy Vehicles	0	7	0	0	7	0	0	4	0	4	0	4	1	0	5	0	0	0	0	0	16
% Heavy Vehicles	0	1.8	0	0	1.6	0	0	8.2	0	3.0	0	1.1	1.0	0	1.0	0	0	0	0	0	1.5



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Parkway Ave  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@ParkwayAve  
Site Code : 14144.18  
Start Date : 2/14/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US 13 Southbound					Beeson Road Westbound					US 13 Northbound					Parkway Avenue Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	104	3	0	108	6	0	9	0	15	13	51	3	0	67	4	0	22	0	26	216
07:15 AM	2	153	2	0	157	10	2	6	0	18	10	108	6	0	124	0	1	29	1	31	330
07:30 AM	3	102	3	2	110	11	0	10	1	22	11	113	5	0	129	2	2	23	0	27	288
07:45 AM	3	101	4	0	108	7	1	9	1	18	4	104	5	1	114	1	2	21	1	25	265
Total	9	460	12	2	483	34	3	34	2	73	38	376	19	1	434	7	5	95	2	109	1099
08:00 AM	3	82	3	2	90	7	1	6	0	14	8	120	3	0	131	3	1	18	0	22	257
08:15 AM	3	81	1	1	86	5	1	6	1	13	9	120	8	0	137	9	0	16	0	25	261
08:30 AM	5	127	1	2	135	5	1	5	0	11	7	138	8	1	154	7	1	11	0	19	319
08:45 AM	2	122	0	0	124	5	1	3	0	9	12	91	3	0	106	6	3	20	0	29	268
Total	13	412	5	5	435	22	4	20	1	47	36	469	22	1	528	25	5	65	0	95	1105
*** BREAK ***																					
04:00 PM	4	103	4	1	112	2	1	2	0	5	8	86	9	0	103	4	0	15	2	21	241
04:15 PM	2	95	1	1	99	2	0	3	1	6	8	117	9	0	134	6	0	12	5	23	262
04:30 PM	2	101	4	0	107	3	0	2	0	5	9	105	7	0	121	3	2	13	1	19	252
04:45 PM	2	94	3	0	99	4	0	5	2	11	12	126	13	0	151	4	4	11	3	22	283
Total	10	393	12	2	417	11	1	12	3	27	37	434	38	0	509	17	6	51	11	85	1038
05:00 PM	3	98	4	0	105	2	0	3	2	7	11	127	12	0	150	5	2	17	5	29	291
05:15 PM	4	107	2	0	113	8	0	4	2	14	5	132	12	0	149	4	1	12	4	21	297
05:30 PM	2	102	2	0	106	5	4	1	0	10	9	110	16	1	136	5	3	21	4	33	285
05:45 PM	3	100	6	1	110	2	0	2	0	4	9	113	13	0	135	1	2	12	1	16	265
Total	12	407	14	1	434	17	4	10	4	35	34	482	53	1	570	15	8	62	14	99	1138
Grand Total	44	1672	43	10	1769	84	12	76	10	182	145	1761	132	3	2041	64	24	273	27	388	4380
Apprch %	2.5	94.5	2.4	0.6		46.2	6.6	41.8	5.5		7.1	86.3	6.5	0.1		16.5	6.2	70.4	7		
Total %	1	38.2	1	0.2	40.4	1.9	0.3	1.7	0.2	4.2	3.3	40.2	3	0.1	46.6	1.5	0.5	6.2	0.6	8.9	
Vehicles	43	1627	42	10	1722	83	12	75	10	180	140	1698	128	3	1969	63	24	264	27	378	4249
% Vehicles	97.7	97.3	97.7	100	97.3	98.8	100	98.7	100	98.9	96.6	96.4	97	100	96.5	98.4	100	96.7	100	97.4	97
Heavy Vehicles	1	45	1	0	47	1	0	1	0	2	5	63	4	0	72	1	0	9	0	10	131
% Heavy Vehicles	2.3	2.7	2.3	0	2.7	1.2	0	1.3	0	1.1	3.4	3.6	3	0	3.5	1.6	0	3.3	0	2.6	3



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Parkway Ave  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@ParkwayAve  
Site Code : 14144.18  
Start Date : 2/14/2017  
Page No : 2

Start Time	US 13 Southbound					Beeson Road Westbound					US 13 Northbound					Parkway Avenue Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	3	102	3	2	110	11	0	10	1	22	11	113	5	0	129	2	2	23	0	27	288
07:45 AM	3	101	4	0	108	7	1	9	1	18	4	104	5	1	114	1	2	21	1	25	265
08:00 AM	3	82	3	2	90	7	1	6	0	14	8	120	3	0	131	3	1	18	0	22	257
08:15 AM	3	81	1	1	86	5	1	6	1	13	9	120	8	0	137	9	0	16	0	25	261
Total Volume	12	366	11	5	394	30	3	31	3	67	32	457	21	1	511	15	5	78	1	99	1071
% App. Total	3	92.9	2.8	1.3		44.8	4.5	46.3	4.5		6.3	89.4	4.1	0.2		15.2	5.1	78.8	1		
PHF	1.00	.897	.688	.625	.895	.682	.750	.775	.750	.761	.727	.952	.656	.250	.932	.417	.625	.848	.250	.917	.930
Vehicles	12	349	11	5	377	29	3	30	3	65	30	433	21	1	485	15	5	75	1	96	1023
% Vehicles	100	95.4	100	100	95.7	96.7	100	96.8	100	97.0	93.8	94.7	100	100	94.9	100	100	96.2	100	97.0	95.5
Heavy Vehicles	0	17	0	0	17	1	0	1	0	2	2	24	0	0	26	0	0	3	0	3	48
% Heavy Vehicles	0	4.6	0	0	4.3	3.3	0	3.2	0	3.0	6.3	5.3	0	0	5.1	0	0	3.8	0	3.0	4.5
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	98	4	0	105	2	0	3	2	7	11	127	12	0	150	5	2	17	5	29	291
05:15 PM	4	107	2	0	113	8	0	4	2	14	5	132	12	0	149	4	1	12	4	21	297
05:30 PM	2	102	2	0	106	5	4	1	0	10	9	110	16	1	136	5	3	21	4	33	285
05:45 PM	3	100	6	1	110	2	0	2	0	4	9	113	13	0	135	1	2	12	1	16	265
Total Volume	12	407	14	1	434	17	4	10	4	35	34	482	53	1	570	15	8	62	14	99	1138
% App. Total	2.8	93.8	3.2	0.2		48.6	11.4	28.6	11.4		6	84.6	9.3	0.2		15.2	8.1	62.6	14.1		
PHF	.750	.951	.583	.250	.960	.531	.250	.625	.500	.625	.773	.913	.828	.250	.950	.750	.667	.738	.700	.750	.958
Vehicles	12	401	14	1	428	17	4	10	4	35	34	477	52	1	564	15	8	60	14	97	1124
% Vehicles	100	98.5	100	100	98.6	100	100	100	100	100	100	99.0	98.1	100	98.9	100	100	96.8	100	98.0	98.8
Heavy Vehicles	0	6	0	0	6	0	0	0	0	0	0	5	1	0	6	0	0	2	0	2	14
% Heavy Vehicles	0	1.5	0	0	1.4	0	0	0	0	0	0	1.0	1.9	0	1.1	0	0	3.2	0	2.0	1.2



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Washington St Ext  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@WashingtonStExt  
Site Code : 14144.18  
Start Date : 2/22/2017  
Page No : 1

Groups Printed- Vehicles - Heavy Vehicles

Start Time	US13 Southbound					Washington St Ext Westbound					US13 Northbound					Washington St Ext Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	19	58	7	85	0	0	0	4	4	65	50	0	0	115	62	0	16	1	79	283
07:15 AM	0	56	164	3	223	0	0	1	0	1	50	69	0	0	119	79	0	24	1	104	447
07:30 AM	0	86	121	0	207	1	6	2	0	9	60	61	0	0	121	73	0	9	0	82	419
07:45 AM	1	101	122	0	224	0	0	0	0	0	40	70	0	0	110	66	0	17	1	84	418
Total	2	262	465	10	739	1	6	3	4	14	215	250	0	0	465	280	0	66	3	349	1567
08:00 AM	0	68	58	0	126	0	0	0	0	0	30	81	0	0	111	67	0	19	1	87	324
08:15 AM	0	64	89	0	153	0	0	0	0	0	22	82	0	0	104	92	0	13	0	105	362
08:30 AM	1	81	86	0	168	0	1	0	0	1	29	69	0	0	98	73	0	15	0	88	355
08:45 AM	1	82	97	0	180	0	1	0	0	1	26	62	0	0	88	64	0	24	1	89	358
Total	2	295	330	0	627	0	2	0	0	2	107	294	0	0	401	296	0	71	2	369	1399
*** BREAK ***																					
05:00 PM	0	85	79	1	165	2	5	0	0	7	23	77	0	0	100	66	0	57	1	124	396
05:15 PM	1	83	69	1	154	0	2	0	2	4	23	106	0	0	129	80	0	46	0	126	413
05:30 PM	0	88	56	0	144	0	1	0	0	1	26	74	0	0	100	62	0	50	2	114	359
05:45 PM	0	90	69	1	160	0	1	0	2	3	25	73	0	0	98	49	1	35	0	85	346
Total	1	346	273	3	623	2	9	0	4	15	97	330	0	0	427	257	1	188	3	449	1514
Grand Total	5	903	1068	13	1989	3	17	3	8	31	419	874	0	0	1293	833	1	325	8	1167	4480
Apprch %	0.3	45.4	53.7	0.7		9.7	54.8	9.7	25.8		32.4	67.6	0	0		71.4	0.1	27.8	0.7		
Total %	0.1	20.2	23.8	0.3	44.4	0.1	0.4	0.1	0.2	0.7	9.4	19.5	0	0	28.9	18.6	0	7.3	0.2	26	
Vehicles	5	874	1047	13	1939	3	17	3	8	31	413	834	0	0	1247	815	1	318	8	1142	4359
% Vehicles	100	96.8	98	100	97.5	100	100	100	100	100	98.6	95.4	0	0	96.4	97.8	100	97.8	100	97.9	97.3
Heavy Vehicles	0	29	21	0	50	0	0	0	0	0	6	40	0	0	46	18	0	7	0	25	121
% Heavy Vehicles	0	3.2	2	0	2.5	0	0	0	0	0	1.4	4.6	0	0	3.6	2.2	0	2.2	0	2.1	2.7



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Washington St Ext  
County: New Castle  
Weather: Clear  
Counters:

File Name : US13@WashingtonStExt  
Site Code : 14144.18  
Start Date : 2/22/2017  
Page No : 2

Start Time	US13 Southbound					Washington St Ext Westbound					US13 Northbound					Washington St Ext Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	86	121	0	207	1	6	2	0	9	60	61	0	0	121	73	0	9	0	82	419
07:45 AM	1	101	122	0	224	0	0	0	0	0	40	70	0	0	110	66	0	17	1	84	418
08:00 AM	0	68	58	0	126	0	0	0	0	0	30	81	0	0	111	67	0	19	1	87	324
08:15 AM	0	64	89	0	153	0	0	0	0	0	22	82	0	0	104	92	0	13	0	105	362
Total Volume	1	319	390	0	710	1	6	2	0	9	152	294	0	0	446	298	0	58	2	358	1523
% App. Total	0.1	44.9	54.9	0		11.1	66.7	22.2	0		34.1	65.9	0	0		83.2	0	16.2	0.6		
PHF	.250	.790	.799	.000	.792	.250	.250	.250	.000	.250	.633	.896	.000	.000	.921	.810	.000	.763	.500	.852	.909
Vehicles	1	299	372	0	672	1	6	2	0	9	152	279	0	0	431	287	0	56	2	345	1457
% Vehicles	100	93.7	95.4	0	94.6	100	100	100	0	100	100	94.9	0	0	96.6	96.3	0	96.6	100	96.4	95.7
Heavy Vehicles	0	20	18	0	38	0	0	0	0	0	0	15	0	0	15	11	0	2	0	13	66
% Heavy Vehicles	0	6.3	4.6	0	5.4	0	0	0	0	0	0	5.1	0	0	3.4	3.7	0	3.4	0	3.6	4.3
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	85	79	1	165	2	5	0	0	7	23	77	0	0	100	66	0	57	1	124	396
05:15 PM	1	83	69	1	154	0	2	0	2	4	23	106	0	0	129	80	0	46	0	126	413
05:30 PM	0	88	56	0	144	0	1	0	0	1	26	74	0	0	100	62	0	50	2	114	359
05:45 PM	0	90	69	1	160	0	1	0	2	3	25	73	0	0	98	49	1	35	0	85	346
Total Volume	1	346	273	3	623	2	9	0	4	15	97	330	0	0	427	257	1	188	3	449	1514
% App. Total	0.2	55.5	43.8	0.5		13.3	60	0	26.7		22.7	77.3	0	0		57.2	0.2	41.9	0.7		
PHF	.250	.961	.864	.750	.944	.250	.450	.000	.500	.536	.933	.778	.000	.000	.828	.803	.250	.825	.375	.891	.916
Vehicles	1	340	273	3	617	2	9	0	4	15	95	326	0	0	421	257	1	185	3	446	1499
% Vehicles	100	98.3	100	100	99.0	100	100	0	100	100	97.9	98.8	0	0	98.6	100	100	98.4	100	99.3	99.0
Heavy Vehicles	0	6	0	0	6	0	0	0	0	0	2	4	0	0	6	0	0	3	0	3	15
% Heavy Vehicles	0	1.7	0	0	1.0	0	0	0	0	0	2.1	1.2	0	0	1.4	0	0	1.6	0	0.7	1.0



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Marsh Rd  
County: New Castle  
Weather: Clear  
Counter: BML, JML, & GBP

File Name : US13@MarshRd  
Site Code : 14144.18  
Start Date : 2/8/2017  
Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	US 13 Southbound						Lore Road Southwestbound						Marsh Road Westbound						US 13 Northbound						Marsh Road Eastbound						Int. Total	
	Left (Lore)	Left	Thru	Right	Peds	App. Total	Left (Marsh)	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Right (Lore)	Peds	App. Total	Left	Thru	Right (Lore)	Right	Peds	App. Total	Left	Thru (Lore)	Thru	Right	Peds	App. Total		
07:00 AM	1	15	35	6	0	57	0	1	1	3	1	6	1	19	24	0	2	46	12	45	3	1	0	61	0	1	10	4	0	15	185	
07:15 AM	0	14	40	3	0	57	0	4	4	3	0	11	1	19	22	0	0	42	8	33	0	1	0	42	2	1	17	16	0	36	188	
07:30 AM	0	22	52	4	0	78	0	4	3	2	1	10	2	16	14	0	1	33	10	38	0	1	0	49	1	1	17	15	0	34	204	
07:45 AM	0	16	62	4	0	82	0	4	6	0	0	10	0	28	12	0	0	40	12	27	0	0	0	39	3	2	15	11	0	31	202	
Total	1	67	189	17	0	274	0	13	14	8	2	37	4	82	72	0	3	161	42	143	3	3	0	191	6	5	59	46	0	116	779	
08:00 AM	0	10	51	4	0	65	1	0	3	1	1	6	0	33	20	0	0	53	12	47	2	1	0	62	0	5	16	10	0	31	217	
08:15 AM	2	9	41	6	0	58	1	4	7	1	1	14	0	30	25	0	0	55	13	38	0	1	0	52	2	4	8	11	0	25	204	
08:30 AM	1	16	60	8	0	85	0	4	3	0	0	7	0	19	13	0	0	32	11	49	1	1	0	62	5	1	12	27	0	45	231	
08:45 AM	2	10	67	5	0	84	0	1	3	1	0	5	1	22	12	0	0	35	9	47	0	3	0	59	7	2	12	28	0	49	232	
Total	5	45	219	23	0	292	2	9	16	3	2	32	1	104	70	0	0	175	45	181	3	6	0	235	14	12	48	76	0	150	884	
*** BREAK ***																																
04:00 PM	1	17	40	5	0	63	0	0	3	2	1	6	0	16	10	0	2	28	13	49	0	0	0	62	5	2	26	15	0	48	207	
04:15 PM	1	26	46	5	0	78	0	2	4	0	0	6	1	26	12	0	0	39	8	45	3	3	0	59	2	8	19	21	0	50	232	
04:30 PM	0	16	60	8	0	84	0	0	3	1	0	4	0	36	17	0	1	54	21	52	2	1	0	76	3	5	17	11	0	36	254	
04:45 PM	0	25	54	6	0	85	0	0	3	2	0	5	0	29	13	0	0	42	6	58	5	2	0	71	5	3	19	14	0	41	244	
Total	2	84	200	24	0	310	0	2	13	5	1	21	1	107	52	0	3	163	48	204	10	6	0	268	15	18	81	61	0	175	937	
05:00 PM	3	18	64	6	0	91	0	2	2	1	0	5	2	19	22	0	1	44	14	54	1	5	0	74	1	8	24	15	0	48	262	
05:15 PM	2	22	62	7	0	93	0	1	2	0	0	3	2	20	10	0	1	33	18	49	2	2	0	71	3	13	32	14	0	62	262	
05:30 PM	0	24	54	5	0	83	0	1	2	0	0	3	1	40	21	0	0	62	7	70	3	3	0	83	5	11	22	16	0	54	285	
05:45 PM	0	14	52	5	0	71	0	2	1	0	0	3	1	28	17	0	1	47	12	50	1	1	2	66	1	7	22	11	0	41	228	
Total	5	78	232	23	0	338	0	6	7	1	0	14	6	107	70	0	3	186	51	223	7	11	2	294	10	39	100	56	0	205	1037	
Grand Total	13	274	840	87	0	1214	2	30	50	17	5	104	12	400	264	0	9	685	186	751	23	26	2	988	45	74	288	239	0	646	3637	
Approch %	1.1	22.6	69.2	7.2	0		1.9	28.8	48.1	16.3	4.8		1.8	58.4	38.5	0	1.3		18.8	76	2.3	2.6	0.2		7	11.5	44.6	37	0			
Total %	0.4	7.5	23.1	2.4	0	33.4	0.1	0.8	1.4	0.5	0.1	2.9	0.3	11	7.3	0	0.2	18.8	5.1	20.6	0.6	0.7	0.1	27.2	1.2	2	7.9	6.6	0	17.8		
Vehicles	13	267	795	85	0	1160	2	29	49	16	4	100	10	394	255	0	9	668	180	713	23	25	2	943	43	74	279	210	0	606	3477	
% Vehicles	100	97.4	94.6	97.7	0	95.6	100	96.7	98	94.1	80	96.2	83.3	98.5	96.6	0	100	97.5	96.8	94.9	100	96.2	100	95.4	95.6	100	96.9	87.9	0	93.8	95.6	
Trucks	0	7	45	2	0	54	0	1	1	1	1	4	2	6	9	0	0	17	6	38	0	1	0	45	2	0	9	29	0	40	160	
% Trucks	0	2.6	5.4	2.3	0	4.4	0	3.3	2	5.9	20	3.8	16.7	1.5	3.4	0	0	2.5	3.2	5.1	0	3.8	0	4.6	4.4	0	3.1	12.1	0	6.2	4.4	



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Marsh Rd  
County: New Castle  
Weather: Clear  
Counter: BML, JML, & GBP

File Name : US13@MarshRd  
Site Code : 14144.18  
Start Date : 2/8/2017  
Page No : 2

Start Time	US 13 Southbound						Lore Road Southwestbound						Marsh Road Westbound						US 13 Northbound						Marsh Road Eastbound						Int. Total	
	Left (Lore)	Left	Thru	Right	Peds	App. Total	Left (Marsh)	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Right (Lore)	Peds	App. Total	Left	Thru	Right (Lore)	Right	Peds	App. Total	Left	Thru (Lore)	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1 Peak Hour for Entire Intersection Begins at 07:30 AM																																
07:30 AM	0	22	52	4	0	78	0	4	3	2	1	10	2	16	14	0	1	33	10	38	0	1	0	49	1	1	17	15	0	34	204	
07:45 AM	0	16	62	4	0	82	0	4	6	0	0	10	0	28	12	0	0	40	12	27	0	0	0	39	3	2	15	11	0	31	202	
08:00 AM	0	10	51	4	0	65	1	0	3	1	1	6	0	33	20	0	0	53	12	47	2	1	0	62	0	5	16	10	0	31	217	
08:15 AM	2	9	41	6	0	58	1	4	7	1	1	14	0	30	25	0	0	55	13	38	0	1	0	52	2	4	8	11	0	25	204	
Total Volume	2	57	206	18	0	283	2	12	19	4	3	40	2	107	71	0	1	181	47	150	2	3	0	202	6	12	56	47	0	121	827	
% App. Total	0.7	20.1	72.8	6.4	0		5	30	47.5	10	7.5		1.1	59.1	39.2	0	0.6		23.3	74.3	1	1.5	0		5	9.9	46.3	38.8	0			
PHF	.250	.648	.831	.750	.000	.863	.500	.750	.679	.500	.750	.714	.250	.811	.710	.000	.250	.823	.904	.798	.250	.750	.000	.815	.500	.600	.824	.783	.000	.890	.953	
Vehicles	2	55	191	17	0	265	2	11	19	4	2	38	2	104	66	0	1	173	45	138	2	3	0	188	6	12	52	45	0	115	779	
% Vehicles	100	96.5	92.7	94.4	0	93.6	100	91.7	100	100	66.7	95.0	100	97.2	93.0	0	100	95.6	95.7	92.0	100	100	0	93.1	100	100	92.9	95.7	0	95.0	94.2	
Trucks	0	2	15	1	0	18	0	1	0	0	1	2	0	3	5	0	0	8	2	12	0	0	0	14	0	0	4	2	0	6	48	
% Trucks	0	3.5	7.3	5.6	0	6.4	0	8.3	0	0	33.3	5.0	0	2.8	7.0	0	0	4.4	4.3	8.0	0	0	0	6.9	0	0	7.1	4.3	0	5.0	5.8	

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	3	18	64	6	0	91	0	2	2	1	0	5	2	19	22	0	1	44	14	54	1	5	0	74	1	8	24	15	0	48	262
05:15 PM	2	22	62	7	0	93	0	1	2	0	0	3	2	20	10	0	1	33	18	49	2	2	0	71	3	13	32	14	0	62	262
05:30 PM	0	24	54	5	0	83	0	1	2	0	0	3	1	40	21	0	0	62	7	70	3	3	0	83	5	11	22	16	0	54	285
05:45 PM	0	14	52	5	0	71	0	2	1	0	0	3	1	28	17	0	1	47	12	50	1	1	2	66	1	7	22	11	0	41	228
Total Volume	5	78	232	23	0	338	0	6	7	1	0	14	6	107	70	0	3	186	51	223	7	11	2	294	10	39	100	56	0	205	1037
% App. Total	1.5	23.1	68.6	6.8	0		0	42.9	50	7.1	0		3.2	57.5	37.6	0	1.6		17.3	75.9	2.4	3.7	0.7		4.9	19	48.8	27.3	0		
PHF	.417	.813	.906	.821	.000	.909	.000	.750	.875	.250	.000	.700	.750	.669	.795	.000	.750	.750	.708	.796	.583	.550	.250	.886	.500	.750	.781	.875	.000	.827	.910
Vehicles	5	78	226	23	0	332	0	6	7	1	0	14	4	107	70	0	3	184	50	217	7	11	2	287	10	39	100	54	0	203	1020
% Vehicles	100	100	97.4	100	0	98.2	0	100	100	100	0	100	66.7	100	100	0	100	98.9	98.0	97.3	100	100	100	97.6	100	100	100	96.4	0	99.0	98.4
Trucks	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	0	0	2	1	6	0	0	0	7	0	0	0	2	0	2	17
% Trucks	0	0	2.6	0	0	1.8	0	0	0	0	0	0	33.3	0	0	0	0	1.1	2.0	2.7	0	0	0	2.4	0	0	0	3.6	0	1.0	1.6



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Shipley Road  
County: New Castle  
Weather: Clear  
Counters: BJS & GBP

File Name : US13@ShipleyRd  
Site Code : 14144.18  
Start Date : 2/8/2017  
Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	US13 Southbound					SHIPLEY ROAD Westbound					US13 Northbound					SHIPLEY ROAD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	3	33	16	0	52	14	19	7	0	40	3	45	4	0	52	7	17	2	0	26	170
07:15 AM	2	56	12	0	70	21	21	2	0	44	5	30	5	0	40	6	14	3	0	23	177
07:30 AM	2	71	24	0	97	32	31	2	0	65	4	35	12	0	51	7	20	8	1	36	249
07:45 AM	2	79	9	0	90	38	30	4	0	72	4	34	7	0	45	6	16	11	4	37	244
Total	9	239	61	0	309	105	101	15	0	221	16	144	28	0	188	26	67	24	5	122	840
08:00 AM	5	51	12	0	68	24	30	3	0	57	6	47	11	0	64	4	22	11	0	37	226
08:15 AM	2	61	8	0	71	16	37	5	0	58	5	42	13	0	60	8	13	11	2	34	223
08:30 AM	3	69	10	0	82	23	33	3	0	59	6	45	8	0	59	4	13	9	0	26	226
08:45 AM	3	91	7	0	101	20	25	6	0	51	0	54	6	0	60	8	14	11	2	35	247
Total	13	272	37	0	322	83	125	17	0	225	17	188	38	0	243	24	62	42	4	132	922
*** BREAK ***																					
04:00 PM	8	45	7	1	61	18	20	2	0	40	3	60	24	0	87	11	35	5	2	53	241
04:15 PM	4	50	11	2	67	20	33	6	0	59	9	57	29	0	95	7	27	13	2	49	270
04:30 PM	5	65	7	0	77	14	31	3	0	48	7	67	29	0	103	12	46	10	0	68	296
04:45 PM	1	57	6	2	66	19	33	4	0	56	3	67	20	0	90	13	38	7	0	58	270
Total	18	217	31	5	271	71	117	15	0	203	22	251	102	0	375	43	146	35	4	228	1077
05:00 PM	2	66	11	0	79	22	27	3	0	52	8	60	33	0	101	17	29	5	3	54	286
05:15 PM	4	56	17	0	77	16	24	2	0	42	5	66	27	0	98	14	40	10	0	64	281
05:30 PM	6	61	5	0	72	15	28	6	4	53	5	65	18	0	88	15	37	5	0	57	270
05:45 PM	4	57	11	0	72	17	17	10	1	45	8	55	26	2	91	8	37	3	1	49	257
Total	16	240	44	0	300	70	96	21	5	192	26	246	104	2	378	54	143	23	4	224	1094
Grand Total	56	968	173	5	1202	329	439	68	5	841	81	829	272	2	1184	147	418	124	17	706	3933
Apprch %	4.7	80.5	14.4	0.4		39.1	52.2	8.1	0.6		6.8	70	23	0.2		20.8	59.2	17.6	2.4		
Total %	1.4	24.6	4.4	0.1	30.6	8.4	11.2	1.7	0.1	21.4	2.1	21.1	6.9	0.1	30.1	3.7	10.6	3.2	0.4	18	
Vehicles	51	889	169	5	1114	317	418	64	5	804	77	782	260	2	1121	145	409	99	17	670	3709
% Vehicles	91.1	91.8	97.7	100	92.7	96.4	95.2	94.1	100	95.6	95.1	94.3	95.6	100	94.7	98.6	97.8	79.8	100	94.9	94.3
Trucks	5	79	4	0	88	12	21	4	0	37	4	47	12	0	63	2	9	25	0	36	224
% Trucks	8.9	8.2	2.3	0	7.3	3.6	4.8	5.9	0	4.4	4.9	5.7	4.4	0	5.3	1.4	2.2	20.2	0	5.1	5.7



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Shipley Road  
County: New Castle  
Weather: Clear  
Counters: BJS & GBP

File Name : US13@ShipleyRd  
Site Code : 14144.18  
Start Date : 2/8/2017  
Page No : 2

Start Time	US13 Southbound					SHIPLEY ROAD Westbound					US13 Northbound					SHIPLEY ROAD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	2	71	24	0	97	32	31	2	0	65	4	35	12	0	51	7	20	8	1	36	249
07:45 AM	2	79	9	0	90	38	30	4	0	72	4	34	7	0	45	6	16	11	4	37	244
08:00 AM	5	51	12	0	68	24	30	3	0	57	6	47	11	0	64	4	22	11	0	37	226
08:15 AM	2	61	8	0	71	16	37	5	0	58	5	42	13	0	60	8	13	11	2	34	223
Total Volume	11	262	53	0	326	110	128	14	0	252	19	158	43	0	220	25	71	41	7	144	942
% App. Total	3.4	80.4	16.3	0		43.7	50.8	5.6	0		8.6	71.8	19.5	0		17.4	49.3	28.5	4.9		
PHF	.550	.829	.552	.000	.840	.724	.865	.700	.000	.875	.792	.840	.827	.000	.859	.781	.807	.932	.438	.973	.946
Vehicles	10	246	52	0	308	105	113	12	0	230	16	144	40	0	200	24	68	37	7	136	874
% Vehicles	90.9	93.9	98.1	0	94.5	95.5	88.3	85.7	0	91.3	84.2	91.1	93.0	0	90.9	96.0	95.8	90.2	100	94.4	92.8
Trucks	1	16	1	0	18	5	15	2	0	22	3	14	3	0	20	1	3	4	0	8	68
% Trucks	9.1	6.1	1.9	0	5.5	4.5	11.7	14.3	0	8.7	15.8	8.9	7.0	0	9.1	4.0	4.2	9.8	0	5.6	7.2
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	2	66	11	0	79	22	27	3	0	52	8	60	33	0	101	17	29	5	3	54	286
05:15 PM	4	56	17	0	77	16	24	2	0	42	5	66	27	0	98	14	40	10	0	64	281
05:30 PM	6	61	5	0	72	15	28	6	4	53	5	65	18	0	88	15	37	5	0	57	270
05:45 PM	4	57	11	0	72	17	17	10	1	45	8	55	26	2	91	8	37	3	1	49	257
Total Volume	16	240	44	0	300	70	96	21	5	192	26	246	104	2	378	54	143	23	4	224	1094
% App. Total	5.3	80	14.7	0		36.5	50	10.9	2.6		6.9	65.1	27.5	0.5		24.1	63.8	10.3	1.8		
PHF	.667	.909	.647	.000	.949	.795	.857	.525	.313	.906	.813	.932	.788	.250	.936	.794	.894	.575	.333	.875	.956
Vehicles	15	228	43	0	286	69	96	21	5	191	26	237	101	2	366	54	142	18	4	218	1061
% Vehicles	93.8	95.0	97.7	0	95.3	98.6	100	100	100	99.5	100	96.3	97.1	100	96.8	100	99.3	78.3	100	97.3	97.0
Trucks	1	12	1	0	14	1	0	0	0	1	0	9	3	0	12	0	1	5	0	6	33
% Trucks	6.3	5.0	2.3	0	4.7	1.4	0	0	0	0.5	0	3.7	2.9	0	3.2	0	0.7	21.7	0	2.7	3.0



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Lea Blvd  
County: New Castle  
Weather: Clear  
Counters: BJS & GBP

File Name : US13@LeaBlvd  
Site Code : 14144.18  
Start Date : 2/7/2017  
Page No : 1

Groups Printed- Vehicles - Trucks

Start Time	US13 Southbound					LEA BLVD Westbound					US13 Northbound					LEA BLVD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	13	27	6	1	47	11	26	6	0	43	7	38	9	1	55	8	24	8	1	41	186
07:15 AM	8	49	17	0	74	22	31	15	0	68	13	32	10	1	56	9	16	5	3	33	231
07:30 AM	8	60	25	1	94	24	46	14	0	84	10	37	20	1	68	10	25	7	2	44	290
07:45 AM	12	62	33	0	107	15	54	12	2	83	19	31	11	1	62	24	39	20	7	90	342
Total	41	198	81	2	322	72	157	47	2	278	49	138	50	4	241	51	104	40	13	208	1049
08:00 AM	13	59	11	1	84	20	31	17	2	70	12	28	9	1	50	16	40	17	4	77	281
08:15 AM	8	54	12	1	75	13	33	15	0	61	12	36	8	0	56	15	26	10	1	52	244
08:30 AM	14	46	18	1	79	14	44	18	1	77	13	34	15	0	62	17	32	19	1	69	287
08:45 AM	33	61	17	3	114	15	25	18	0	58	12	31	16	0	59	11	33	26	1	71	302
Total	68	220	58	6	352	62	133	68	3	266	49	129	48	1	227	59	131	72	7	269	1114
*** BREAK ***																					
04:00 PM	20	43	12	1	76	18	41	11	1	71	24	41	27	0	92	15	58	20	6	99	338
04:15 PM	21	38	15	4	78	19	46	22	2	89	16	42	18	2	78	19	50	18	10	97	342
04:30 PM	12	51	16	2	81	16	47	5	0	68	17	40	20	2	79	27	63	20	4	114	342
04:45 PM	8	44	23	0	75	29	51	11	0	91	19	45	24	1	89	18	35	21	7	81	336
Total	61	176	66	7	310	82	185	49	3	319	76	168	89	5	338	79	206	79	27	391	1358
05:00 PM	9	41	19	0	69	18	38	11	1	68	19	46	21	0	86	30	54	15	1	100	323
05:15 PM	15	44	13	1	73	27	34	10	3	74	19	50	23	2	94	33	44	15	4	96	337
05:30 PM	12	46	11	0	69	12	34	9	0	55	19	59	10	0	88	19	36	20	3	78	290
05:45 PM	8	50	26	1	85	23	38	10	0	71	11	43	20	2	76	25	31	10	5	71	303
Total	44	181	69	2	296	80	144	40	4	268	68	198	74	4	344	107	165	60	13	345	1253
Grand Total	214	775	274	17	1280	296	619	204	12	1131	242	633	261	14	1150	296	606	251	60	1213	4774
Apprch %	16.7	60.5	21.4	1.3		26.2	54.7	18	1.1		21	55	22.7	1.2		24.4	50	20.7	4.9		
Total %	4.5	16.2	5.7	0.4	26.8	6.2	13	4.3	0.3	23.7	5.1	13.3	5.5	0.3	24.1	6.2	12.7	5.3	1.3	25.4	
Vehicles	166	727	261	17	1171	283	565	194	12	1054	226	592	250	14	1082	287	564	235	60	1146	4453
% Vehicles	77.6	93.8	95.3	100	91.5	95.6	91.3	95.1	100	93.2	93.4	93.5	95.8	100	94.1	97	93.1	93.6	100	94.5	93.3
Trucks	48	48	13	0	109	13	54	10	0	77	16	41	11	0	68	9	42	16	0	67	321
% Trucks	22.4	6.2	4.7	0	8.5	4.4	8.7	4.9	0	6.8	6.6	6.5	4.2	0	5.9	3	6.9	6.4	0	5.5	6.7



110 South Poplar Street  
Wilmington, DE

Loc: US 13 @ Lea Blvd  
County: New Castle  
Weather: Clear  
Counters: BJS & GBP

File Name : US13@LeaBlvd  
Site Code : 14144.18  
Start Date : 2/7/2017  
Page No : 2

Start Time	US13 Southbound					LEA BLVD Westbound					US13 Northbound					LEA BLVD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	8	60	25	1	94	24	46	14	0	84	10	37	20	1	68	10	25	7	2	44	290
07:45 AM	12	62	33	0	107	15	54	12	2	83	19	31	11	1	62	24	39	20	7	90	342
08:00 AM	13	59	11	1	84	20	31	17	2	70	12	28	9	1	50	16	40	17	4	77	281
08:15 AM	8	54	12	1	75	13	33	15	0	61	12	36	8	0	56	15	26	10	1	52	244
Total Volume	41	235	81	3	360	72	164	58	4	298	53	132	48	3	236	65	130	54	14	263	1157
% App. Total	11.4	65.3	22.5	0.8		24.2	55	19.5	1.3		22.5	55.9	20.3	1.3		24.7	49.4	20.5	5.3		
PHF	.788	.948	.614	.750	.841	.750	.759	.853	.500	.887	.697	.892	.600	.750	.868	.677	.813	.675	.500	.731	.846
Vehicles	37	222	75	3	337	68	141	54	4	267	45	122	48	3	218	62	124	47	14	247	1069
% Vehicles	90.2	94.5	92.6	100	93.6	94.4	86.0	93.1	100	89.6	84.9	92.4	100	100	92.4	95.4	95.4	87.0	100	93.9	92.4
Trucks	4	13	6	0	23	4	23	4	0	31	8	10	0	0	18	3	6	7	0	16	88
% Trucks	9.8	5.5	7.4	0	6.4	5.6	14.0	6.9	0	10.4	15.1	7.6	0	0	7.6	4.6	4.6	13.0	0	6.1	7.6
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	9	41	19	0	69	18	38	11	1	68	19	46	21	0	86	30	54	15	1	100	323
05:15 PM	15	44	13	1	73	27	34	10	3	74	19	50	23	2	94	33	44	15	4	96	337
05:30 PM	12	46	11	0	69	12	34	9	0	55	19	59	10	0	88	19	36	20	3	78	290
05:45 PM	8	50	26	1	85	23	38	10	0	71	11	43	20	2	76	25	31	10	5	71	303
Total Volume	44	181	69	2	296	80	144	40	4	268	68	198	74	4	344	107	165	60	13	345	1253
% App. Total	14.9	61.1	23.3	0.7		29.9	53.7	14.9	1.5		19.8	57.6	21.5	1.2		31	47.8	17.4	3.8		
PHF	.733	.905	.663	.500	.871	.741	.947	.909	.333	.905	.895	.839	.804	.500	.915	.811	.764	.750	.650	.863	.930
Vehicles	41	172	66	2	281	78	139	40	4	261	68	192	72	4	336	105	161	60	13	339	1217
% Vehicles	93.2	95.0	95.7	100	94.9	97.5	96.5	100	100	97.4	100	97.0	97.3	100	97.7	98.1	97.6	100	100	98.3	97.1
Trucks	3	9	3	0	15	2	5	0	0	7	0	6	2	0	8	2	4	0	0	6	36
% Trucks	6.8	5.0	4.3	0	5.1	2.5	3.5	0	0	2.6	0	3.0	2.7	0	2.3	1.9	2.4	0	0	1.7	2.9

**APPENDIX E**

**Traffic Signal Timesheet Data**

**INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED**

Signal Permit Number: N-095P  
 Date of Timesheet: 11/23/11  
 Controller Type: EPAC  
 Coordination Type: ACTRA

Location: PHILADELPHIA PIKE + ROLLING RD  
 Revision Number: A.1  
 Monitor Type: NEMA+  
 Coordination Address: 16  
 Baud Rate: 1200

**Phase Data**

PHASE #	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
PHASE	<u>SB</u>	<u>NB</u>			<u>NB</u>	<u>SB</u>		
LOCATION	<u>LT</u>	<u>PHILY PIKE</u>	<u>WB</u>	<u>EB</u>	<u>LT</u>	<u>PHILY PIKE</u>		
MIN GRN	<u>5</u>	<u>10</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>10</u>		
PASS/10	<u>40</u>	<u>50</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>50</u>		
MAX I	<u>20</u>	<u>45</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>45</u>		
MAX II	<u>20</u>	<u>45</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>45</u>		
YEL/10	<u>30</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>30</u>	<u>40</u>		
RED/10	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>		
AINI/10								
MAX INI								
CAR BEF								
REDUCE								
MGAP/10								
WALK		<u>7</u>	<u>7</u>	<u>7</u>		<u>7</u>		
PED CLR		<u>7</u>	<u>13</u>	<u>13</u>		<u>17</u>		
EXT PCL		<u>0</u>	<u>0</u>	<u>0</u>		<u>0</u>		
INITIAL	<u>1</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>4</u>		
NA RESP								
V. RECALL		<u>2</u>				<u>2</u>		
P. RECALL								
NL MEM	<u>1</u>				<u>1</u>			
2 ENTRY		<u>1</u>				<u>1</u>		
SPCL SEQ								
OMIT Ø	<u>2</u>				<u>6</u>			
OCAL Ø								

**OVERLAP DATA**

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
OVERLAP LOCATION	<u>PHASE 2 PED</u>	<u>PHASE 4 PED</u>	<u>PHASE 6 PED</u>	<u>PHASE 3 PED</u>
OVERLAP PHASES				

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ ROLLING RD-N095P

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N095P

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	10	5	5	5	10	0	0
Passage Time	4.00	5.00	4.00	4.00	4.00	5.00	0.00	0.00
Yellow Clearance	3.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Max 1	20	45	25	25	20	45	0	0
Max 2	20	45	20	20	20	45	0	0
Walk Time	0	7	7	7	0	7	0	0
Ped Clearance	0	7	13	13	0	17	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	False	True	False	False	False

Intersection : PHILA PIKE @ ROLLING RD-N095P

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N095P

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	15	39	21	15	15	39	0	0	0
D 1/S 4 (CL = 75)	12	33	15	15	12	33	0	0	0
D 2/S 1 (CL = 100)	13	39	24	24	13	39	0	0	0
D 2/S 2 (CL = 100)	12	46	24	18	18	40	0	0	0
D 2/S 3 (CL = 100)	15	36	27	22	15	36	0	0	0
D 3/S 1 (CL = 120)	15	45	30	30	15	45	0	0	0
D 3/S 2 (CL = 120)	15	54	30	21	21	48	0	0	0
D 3/S 3 (CL = 120)	15	47	29	29	15	47	0	0	0
D 4/S 2 (CL = 150)	15	75	30	30	24	66	0	0	0

Plan	Offset
1/2/1	69
1/4/1	70
2/1/1	33
2/2/1	15
2/3/1	20
3/1/1	33

Plan	Offset
3/2/1	10
3/2/2	58
3/3/1	95
3/3/3	53
4/2/1	18

Plan	Offset
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**Intersection :** PHILA PIKE @ ROLLING RD-N095P

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N095P

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

INTERSECTION TIMESHIFT PACKET  
NOTICE TO PROCEED

Signal Permit Number: A120  
 Date of Timesheet: 12/6/10  
 Controller Type: EPAL  
 Coordination Type: ACTRA

Location: PHILADELPHIA AVE + MARNEY RD  
 Revision Number: 2  
 Monitor Type: WEMA  
 Coordination Address: 11  
 Band Rate: 1200

Phase Data

PHASE #	1	2	3	4	5	6	7	8
PHASE	SB	NB		EB	WB	SB		
LOCATION	LT	Right Turn	WB	EB	LT	Right Turn		
MIN CYCLE	5	15	5	5	5	15		
PASS/10	30	40	150	40	30	40		
MAX I	20	45	20	20	20	45		
MAX II	20	45	20	20	20	45		
YIELD	30	50	40	40	30	30		
REF/10	20	20	20	20	20	20		
ARND/10								
MAX INI								
CAR REF								
REDUCE								
MON/10								
WALK		7	7	7		7		
PEDEST		11	11	11		7		
EXT PCI		0	0	0		0		
INITIAL	1	4	1	1	1	4		
NA RESP								
V RESP		2				2		
P RECALL								
RL MEM	1				1			
Z ENTRY		1				1		
SPEC. SLO								
DMIT @	2				2			
OCAL @								

OVERLAP DATA

	A	B	C	D
OVERLAP LOCATION	Phase 2 Ped	Phase 4 Ped	Phase 6 Ped	Phase 3 Ped
OVERLAP PHASES				

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ HARVEY RD-N120

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N120

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	15	5	5	5	15	0	0
Passage Time	3.00	4.00	4.00	4.00	3.00	4.00	0.00	0.00
Yellow Clearance	3.00	5.00	4.00	4.00	3.00	5.00	4.00	3.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	0.00	2.00
Max 1	20	45	20	30	20	45	0	0
Max 2	20	45	20	20	20	45	0	0
Walk Time	0	7	7	7	0	7	0	0
Ped Clearance	0	14	11	11	0	7	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Max	OFF	OFF	OFF	Max	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	False	True	False	False	False

Intersection : PHILA PIKE @ HARVEY RD-N120

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N120

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	18	33	18	21	18	33	0	0	0
D 1/S 4 (CL = 75)	12	33	15	15	12	33	0	0	0
D 2/S 1 (CL = 100)	18	36	15	31	18	36	0	0	0
D 2/S 2 (CL = 100)	15	42	18	25	23	34	0	0	0
D 2/S 3 (CL = 100)	16	36	15	33	16	36	0	0	0
D 3/S 1 (CL = 120)	15	47	25	33	18	44	0	0	0
D 3/S 2 (CL = 120)	15	50	25	30	24	41	0	0	0
D 3/S 3 (CL = 120)	15	50	25	30	21	44	0	0	0
D 4/S 2 (CL = 150)	15	75	24	36	25	65	0	0	0

Plan	Offset
1/2/1	57
1/4/1	55
3/3/1	65
3/3/3	53

Plan	Offset
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Plan	Offset
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**Intersection :** PHILA PIKE @ HARVEY RD-N120

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N120

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED

Signal Permit Number: N121  
 Date of Timesheet: 2/6/13  
 Controller Type: EPAC  
 Coordination Type: ACTRA

Location: PHILADELPHIA PIKE @ MAPLE RD  
 Revision Number: B.1  
 Monitor Type: NEMAT  
 Coordination Address: 12 BALD 1200

Phase Data

PHASE #	1	2	3	4	5	6	7	8
PHASE	SB	NB		EB	NB	SB		WB
LOCATION	LT	PHILY PK		EB	LT	PHILY PK		WB
MIN GRN	5	15		5	5	15		5
PASS/10	30	40		40	30	40		40
MAX I	20	45		20	20	45		20
MAX II	20	45		20	20	45		20
YEL/10	30	40		40	30	40		40
RED/10	20	20		20	20	20		20
WALK				7		7		7
PED CLR				14		9		14
EXT PCL				0		0		0
WOFF/10				70				70
WMODE								
ARIW								
INITIAL	1	4		1	1	4		1
NA RESP								
V. RECALL		2				2		
P. RECALL								
NL MEM	1			1	1			1
2 ENTRY		1		1		1		1
SPC SEQ								
OMIT Ø	2				6			
OCAL Ø								

OVERLAP DATA

	A	B	C	D
OVERLAP LOCATION		PHASE 4 PED	PHASE 6 PED	PHASE 8 PED
OVERLAP PHASES				

**\*\*DO NOT USE TIMESHEET\*\***

**\*\*UNDER CONSTRUCTION\*\***

2/12/13

✓ OK TO USE TIMESHEET

2/13/13 1135

# Delaware Department of Transportation

## Traffic Signal Timing Record

**Intersection :** PHILA PIKE @ MAPLE AV-N121

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N121

**Zone Mode :** TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	15	0	5	5	15	0	5
Passage Time	3.00	4.00	0.00	4.00	3.00	4.00	0.00	4.00
Yellow Clearance	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00
Red Clearance	2.00	2.00	1.00	2.00	2.00	2.00	1.00	2.00
Max 1	20	45	0	30	20	45	0	30
Max 2	20	45	0	20	20	45	0	20
Walk Time	0	0	0	7	0	7	0	7
Ped Clearance	0	0	0	14	0	9	0	14
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	True	True	False	False	True

Intersection : PHILA PIKE @ MAPLE AV-N121

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N121

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	18	39	0	33	18	39	0	33	0
D 1/S 4 (CL = 75)	12	35	0	28	12	35	0	28	0
D 2/S 1 (CL = 100)	18	49	0	33	18	49	0	33	0
D 2/S 2 (CL = 100)	18	47	0	35	18	47	0	35	0
D 2/S 3 (CL = 100)	15	55	0	30	15	55	0	30	0
D 3/S 1 (CL = 120)	18	66	0	36	18	66	0	36	0
D 3/S 2 (CL = 120)	21	63	0	36	21	63	0	36	0
D 3/S 3 (CL = 120)	15	75	0	30	15	75	0	30	0
D 4/S 2 (CL = 150)	24	81	0	45	24	81	0	45	0

Plan	Offset
1/2/1	69
1/4/1	65
2/1/1	25
2/2/1	13
3/1/1	12
3/2/1	65

Plan	Offset
3/3/1	69
4/2/1	18

Plan	Offset
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**Intersection :** PHILA PIKE @ MAPLE AV-N121

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N121

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED**

Signal Permit Number: N122  
 Date of Timesheet: 11/23/11  
 Controller Type: EPAC  
 Coordination Type: ACTRA

Location: PHILADELPHIA PIKE + HOLLY OAK RD  
 Revision Number: A.1  
 Monitor Type: NEMAT  
 Coordination Address: 13  
 Baud Rate: 1200

**Phase Data**

PHASE #	1	2	3	4	5	6	7	8
PHASE		NB		EB		SB		WB
LOCATION		PHILY PIKE		EB		PHILY PIKE		WB
MIN GRN		15		5		15		5
PASS/10		40		40		40		40
MAX I		45		20		45		20
MAX II		45		20		45		20
YEL/10		40		40		40		40
RED/10		20		20		20		20
AINI/10								
MAX INI								
CAR BEF								
REDUCE								
MGAP/10								
WALK		7		7		7		
PED CLR		7		14		8		
EXT PCL		0		0		0		
INITIAL		4		1		4		1
NA RESP								
V. RECALL		2				2		
P. RECALL								
NL MEM								
2 ENTRY		1		1		1		1
SPCL SEQ								
OMIT Ø								
OCAL Ø								

**OVERLAP DATA**

	A	B	C	D
OVERLAP LOCATION	PHASE 2 PED	PHASE 4 PED	PHASE 6 PED	
OVERLAP PHASES				

**\*\*DO NOT USE TIMESHEET\*\*  
 \*\*UNDER CONSTRUCTION\*\***

✓ 12/16/11  
 OK TO USE TIMESHEET  
 10/12/12 @ 1300

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ HOLLY OAK RD-N122

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N122

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	0	15	0	5	0	15	0	5
Passage Time	0.00	4.00	0.00	4.00	0.00	4.00	0.00	4.00
Yellow Clearance	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Red Clearance	1.00	2.00	1.00	2.00	1.00	2.00	1.00	2.00
Max 1	0	45	0	30	0	45	0	30
Max 2	0	45	0	20	0	45	0	20
Walk Time	0	7	0	7	0	7	0	0
Ped Clearance	0	7	0	14	0	8	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	0	0	0	0	0	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	False							

Intersection : PHILA PIKE @ HOLLY OAK RD-N122

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N122

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	0	55	0	35	0	55	0	35	0
D 1/S 4 (CL = 75)	0	47	0	28	0	47	0	28	0
D 2/S 1 (CL = 100)	0	70	0	30	0	70	0	30	0
D 2/S 2 (CL = 100)	0	65	0	35	0	65	0	35	0
D 2/S 3 (CL = 100)	0	70	0	30	0	70	0	30	0
D 3/S 1 (CL = 120)	0	90	0	30	0	90	0	30	0
D 3/S 2 (CL = 120)	0	85	0	35	0	85	0	35	0
D 3/S 3 (CL = 120)	0	90	0	30	0	90	0	30	0
D 4/S 2 (CL = 150)	0	105	0	45	0	105	0	45	0

Plan	Offset
1/2/1	5
1/4/1	22
2/1/1	65
2/2/1	45
2/3/1	35
3/1/1	60

Plan	Offset
3/2/1	45
3/3/1	15
4/2/1	74

Plan	Offset
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**Intersection :** PHILA PIKE @ HOLLY OAK RD-N122

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N122

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED

Signal Permit Number: N123  
 Date of Timesheet: 10/1/12  
 Controller Type: EPAC  
 Coordination Type: ACTRA

Location: PHILADELPHIA PIKE @ SILVERSIDE RD  
 Revision Number: B.1  
 Monitor Type: NEMA 1  
 Coordination Address: 14  
 Baud Rate: 1200

Phase Data

PHASE #	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
PHASE	<u>SB</u>	<u>NB</u>		<u>EB</u>	<u>NB</u>	<u>SB</u>		<u>WB</u>
LOCATION	<u>LT</u>	<u>PHILLY PIKE</u>			<u>LT</u>	<u>PHILLY PIKE</u>		
MIN GRN	<u>5</u>	<u>15</u>		<u>5</u>	<u>5</u>	<u>15</u>		<u>5</u>
PASS/10	<u>30</u>	<u>40</u>		<u>40</u>	<u>30</u>	<u>40</u>		<u>40</u>
MAX I	<u>20</u>	<u>45</u>		<u>20</u>	<u>20</u>	<u>45</u>		<u>20</u>
MAX II	<u>20</u>	<u>45</u>		<u>20</u>	<u>20</u>	<u>45</u>		<u>20</u>
YEL/10	<u>30</u>	<u>40</u>		<u>40</u>	<u>30</u>	<u>40</u>		<u>40</u>
RED/10	<u>20</u>	<u>20</u>		<u>20</u>	<u>20</u>	<u>20</u>		<u>20</u>
AINI/10								
MAX INI								
CAR BEF								
REDUCE								
MGAP/10								
WALK		<u>7</u>				<u>7</u>		<u>7</u>
PED CLR		<u>7</u>				<u>15</u>		<u>15</u>
EXT PCL		<u>0</u>				<u>0</u>		<u>0</u>
INITIAL	<u>1</u>	<u>4</u>		<u>1</u>	<u>1</u>	<u>4</u>		<u>1</u>
NA RESP								
V. RECALL		<u>2</u>				<u>2</u>		
P. RECALL								
NL MEM	<u>1</u>				<u>1</u>			
2 ENTRY		<u>1</u>		<u>1</u>		<u>1</u>		<u>1</u>
SPCL SEQ								
OMIT Ø	<u>2</u>				<u>6</u>			
OCAL Ø								

OVERLAP DATA

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
OVERLAP LOCATION	<u>PHASE 2 PED</u>		<u>PHASE 6 PED</u>	<u>PHASE 8 PED</u>
OVERLAP PHASES				

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ SILVERSIDE-N123

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N123

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	15	0	5	5	15	0	5
Passage Time	3.00	4.00	0.00	4.00	3.00	4.00	0.00	4.00
Yellow Clearance	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00
Red Clearance	2.00	2.00	1.00	2.00	2.00	2.00	1.00	2.00
Max 1	20	45	0	30	20	45	0	30
Max 2	20	45	0	20	20	45	0	20
Walk Time	0	7	0	0	0	7	0	7
Ped Clearance	0	7	0	0	0	15	0	15
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	False	True	False	False	False

Intersection : PHILA PIKE @ SILVERSIDE-N123

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N123

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	18	39	0	33	18	39	0	33	0
D 1/S 4 (CL = 75)	12	34	0	29	12	34	0	29	0
D 2/S 1 (CL = 100)	18	46	0	36	18	46	0	36	0
D 2/S 2 (CL = 100)	12	53	0	35	18	47	0	35	0
D 2/S 3 (CL = 100)	21	42	0	37	21	42	0	37	0
D 3/S 1 (CL = 120)	21	60	0	39	21	60	0	39	0
D 3/S 2 (CL = 120)	15	70	0	35	15	70	0	35	0
D 3/S 3 (CL = 120)	21	60	0	39	21	60	0	39	0
D 4/S 2 (CL = 150)	15	90	0	45	30	75	0	45	0

Plan	Offset
1/2/1	17
1/4/1	23
2/1/1	80
2/2/1	53
2/3/1	54
3/1/1	78

Plan	Offset
3/2/1	50
3/3/1	19
4/2/1	77

Plan	Offset
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**Intersection :** PHILA PIKE @ SILVERSIDE-N123

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N123

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED

Signal Permit Number: N124  
 Date of Timesheet: 9/17/12  
 Controller Type: EPAC  
 Coordination Type: ACTRA

Location: PHILADELPHIA PIKE @ DUNCAN RD  
 Revision Number: B.1  
 Monitor Type: NEMAT  
 Coordination Address: 15 @ 1200

Phase Data

PHASE #	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
PHASE		<u>NB</u>		<u>WB</u>		<u>SB</u>		
LOCATION		<u>PHILLY PIKE</u>		<u>WB</u>		<u>PHILLY PIKE</u>		
MIN GRN		<u>15</u>		<u>5</u>		<u>15</u>		
PASS/10		<u>40</u>		<u>40</u>		<u>40</u>		
MAX I		<u>45</u>		<u>20</u>		<u>45</u>		
MAX II		<u>45</u>		<u>20</u>		<u>45</u>		
YEL/10		<u>50</u>		<u>40</u>		<u>50</u>		
RED/10		<u>20</u>		<u>20</u>		<u>20</u>		
WALK		<u>7</u>		<u>7</u>				
PED CLR		<u>7</u>		<u>12</u>				
EXT PCL		<u>0</u>		<u>0</u>				
WOFF/10				<u>70</u>				
WMODE				<u>0</u>				
ARIW								
INITIAL		<u>4</u>		<u>1</u>		<u>4</u>		
NA RESP								
V. RECALL		<u>2</u>				<u>2</u>		
P. RECALL								
NL MEM								
2 ENTRY		<u>1</u>				<u>1</u>		
SPC SEQ								
OMIT Ø								
OCAL Ø								

OVERLAP DATA

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
OVERLAP LOCATION	<u>PHASE 2 PED</u>	<u>PHASE 4 PED</u>		
OVERLAP PHASES				

**\*\*DO NOT USE TIMESHEET\*\***  
**\*\*UNDER CONSTRUCTION\*\***

✓ 10/1/12  
 OK TO USE TIMESHEET  
10/2/12 @ 1150

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ DUNCAN RD-N124

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N124

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	0	15	0	5	0	15	0	0
Passage Time	0.00	4.00	0.00	4.00	0.00	4.00	0.00	0.00
Yellow Clearance	4.00	5.00	3.00	4.00	4.00	5.00	4.00	4.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Max 1	0	45	0	20	0	45	0	0
Max 2	0	45	0	20	0	45	0	0
Walk Time	0	7	0	7	0	0	0	0
Ped Clearance	0	7	0	12	0	0	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	0	0	0	0	0	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	False							

Intersection : PHILA PIKE @ DUNCAN RD-N124

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N124

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	0	55	0	35	0	55	0	0	0
D 1/S 4 (CL = 75)	0	49	0	26	0	49	0	0	0
D 2/S 1 (CL = 100)	0	64	0	36	0	64	0	0	0
D 2/S 2 (CL = 100)	0	64	0	36	0	64	0	0	0
D 2/S 3 (CL = 100)	0	64	0	36	0	64	0	0	0
D 3/S 1 (CL = 120)	0	84	0	36	0	84	0	0	0
D 3/S 2 (CL = 120)	0	84	0	36	0	84	0	0	0
D 3/S 3 (CL = 120)	0	84	0	36	0	84	0	0	0
D 4/S 2 (CL = 150)	0	115	0	35	0	115	0	0	0

Plan	Offset
1/2/1	20
1/4/1	25
2/1/1	60
2/2/1	47
2/3/1	18
3/1/1	33

Plan	Offset
3/2/1	44
3/3/1	108
4/2/1	135

Plan	Offset
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**Intersection :** PHILA PIKE @ DUNCAN RD-N124

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N124

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

INTERSECTION TIMESHEET PACKET  
NOTICE TO PROCEED

Signal Permit Number: N125  
 Date of Timesheet: 9/15/15  
 Controller Type: EPAC  
 Coordination Type: TACTICS

Location: PHILADELPHIA AVE @ WASHINGTON ST EXT  
 Revision Number: B.1  
 Monitor Type: NEMA+  
 Coordination Address: 16  
 Baud Rate: 1200

Phase Data

PHASE #	1	2	3	4	5	6	7	8
PHASE		NB	CAMDEN	WASH	NB	SB		
LOCATION		PHILLY AVE	EXIT	ST EXT	LT	PHILLY AVE		
MIN GRN		15	5	5	5	15		
PASS/10		50	40	40	30	50		
MAX I		40	20	20	15	40		
MAX II		40	20	20	15	40		
YEL/10		50	40	40	50	50		
RED/10		20	20	20	20	20		
WALK			7			7		
PED CLR			12			25		
EXT PCL			0			0		
WOFF/10								
WMODE								
ARIW								
INITIAL		4	1	1	1	4		
NA RESP								
V. RECALL		2				2		
P. RECALL								
NL MEM					1			
2 ENTRY		1				1		
SPC SEQ								
OMIT Ø								
OCAL Ø								

OVERLAP DATA

	A	B	C	D
OVERLAP LOCATION	PHASE 3 PED		PHASE 6 PED	
OVERLAP PHASES				

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ WASH ST EXT-N125

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N125

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	0	15	5	5	5	15	0	0
Passage Time	0.00	5.00	4.00	4.00	3.00	5.00	0.00	0.00
Yellow Clearance	4.00	5.00	4.00	4.00	5.00	5.00	4.00	4.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Max 1	0	40	20	20	15	40	0	0
Max 2	0	40	20	20	15	40	0	0
Walk Time	0	0	7	0	0	7	0	0
Ped Clearance	0	0	12	0	0	25	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	0	0	0	0	0	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	False	False	False	False	True	False	False	False

Intersection : PHILA PIKE @ WASH ST EXT-N125

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N125

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	0	54	15	21	14	40	0	0	0
D 1/S 4 (CL = 75)	0	51	12	12	12	39	0	0	0
D 2/S 1 (CL = 100)	0	60	16	24	18	42	0	0	0
D 2/S 2 (CL = 100)	0	62	14	24	20	42	0	0	0
D 2/S 3 (CL = 100)	0	60	12	28	18	42	0	0	0
D 3/S 1 (CL = 120)	0	64	26	30	21	43	0	0	0
D 3/S 2 (CL = 120)	0	75	15	30	24	51	0	0	0
D 3/S 3 (CL = 120)	0	64	26	30	21	43	0	0	0
D 4/S 2 (CL = 150)	0	88	26	36	28	60	0	0	0

Plan	Offset
2/1/1	59
2/2/1	42
2/3/1	15
3/1/1	45
3/2/1	43
3/3/1	21

Plan	Offset
4/2/1	148

Plan	Offset
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**Intersection :** PHILA PIKE @ WASH ST EXT-N125

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N125

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

LOCATION OF SIGNAL: PHILADELPHIA PIKE & BELLEVUE DR/CAULFIEL CONNECTOR

DATE OF CHART : 7/22/2011  
 DATE INSTALLED: 7/10/2012  
 CONTROLLER TYPE: EPAC  
 COORDINATION TYPE: ACTRA  
 COORDINATION ADDRESS: 1

CHART REVISION: A.1  
 CABINET TYPE: PCOM  
 MONITOR TYPE: NEMA+  
 BAUD RATE: 9600  
 CDMA/IP 173.23.100.17

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION	SBLT	NB PHILA PIKE	WB	EB	NBLT	SB PHILA PIKE		
MIN GRN	5	15	5	5	5	15	0	0
PASS/10	40	50	40	40	40	50	0	0
MAX #1	20	30	20	20	20	30	0	0
MAX #2	20	30	20	20	20	30	0	0
YEL/10	30	50	40	40	30	50	0	0
RED/10	20	20	20	20	20	20	0	0

AINI/10	0	0	0	0	0	0	0	0
MAX INI	0	0	0	0	0	0	0	0
TIM BEF	0	0	0	0	0	0	0	0
CAR BEF	0	0	0	0	0	0	0	0
TIME TO	0	0	0	0	0	0	0	0
MGAP/10	0	0	0	0	0	0	0	0

WALK	0	7	0	7	0	7	0	0
PED CLR	0	13	0	15	0	22	0	0
EXT PCL	0	0	0	0	0	0	0	0

INITIAL	1	4	1	1	1	4	0	0
NA RESP	0	0	0	0	0	0	0	0

V. RECALL	0	2	0	0	0	2	0	0
P. RECALL	0	0	0	0	0	0	0	0

NL MEM.	1	0	0	0	1	0	0	0
2 ENTRY	0	1	0	0	0	1	0	0

SPCL SEQ OMIT PH	2	0	0	0	6	0	0	0
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OCAL PHASE	0	0	0	0	0	0	0	0
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OVERLAP DATA

OVERLAP/ LOCATION PHASES	A	B	C	D
PHASE 2 PED		PHASE 4 PED	PHASE 6 PED	

\*\* INTERSECTION NOTES \*\*

- 1 PHASES 1 & 5 ARE PERMISSIVE LEFT TURNS(5 SECTION HEAD)
- 2 YELLOW TRAP MODIFIED: PHASE 1 OMITED BY PHASE 2, PHASE 5 OMITTED BY PHASE 6
- 3 PED DISPLAYS ARE COUNTDOWN
- 4 SYSTEM DETECTORS
- 5 PREEMPT: TRANS(PRIORITY) = NB & SB, EB OR WB  
 : EMERG(PREEMPT) = NB & SB, EB OR WB

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ BELLEVUE RD-N604

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N604

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	15	5	5	5	15	0	0
Passage Time	4.00	5.00	4.00	4.00	4.00	5.00	0.00	0.00
Yellow Clearance	3.00	5.00	4.00	4.00	3.00	5.00	4.00	4.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Max 1	20	30	25	25	20	30	0	0
Max 2	20	30	20	20	20	30	0	0
Walk Time	0	7	0	7	0	7	0	0
Ped Clearance	0	13	0	15	0	22	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Min	OFF	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	False	True	False	False	False

Intersection : PHILA PIKE @ BELLEVUE RD-N604

Zone : N048 PHILA PIKE WASHINGTON ST > HARVEY

Alias : N604

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 90)	14	36	18	22	14	36	0	0	0
D 1/S 4 (CL = 75)	12	36	14	13	12	36	0	0	0
D 2/S 1 (CL = 100)	18	36	24	22	18	36	0	0	0
D 2/S 2 (CL = 100)	15	36	19	30	15	36	0	0	0
D 2/S 3 (CL = 100)	18	36	22	24	18	36	0	0	0
D 3/S 1 (CL = 120)	18	42	30	30	18	42	0	0	0
D 3/S 2 (CL = 120)	18	45	24	33	18	45	0	0	0
D 3/S 3 (CL = 120)	21	39	30	30	12	48	0	0	0
D 4/S 2 (CL = 150)	24	66	30	30	24	66	0	0	0

Plan	Offset
1/2/1	67
1/4/1	70
2/1/1	25
2/2/1	10
2/3/1	90
3/2/1	13

Plan	Offset
3/3/1	81
4/2/1	101

Plan	Offset
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**Intersection :** PHILA PIKE @ BELLEVUE RD-N604

**Zone :** N048 PHILA PIKE WASHINGTON ST > HARVEY

**Alias :** N604

**Zone Mode :** TOD

**Everyday** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

00:01 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekdays** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

06:30 Pattern Change to 211 - 100 SB for N048 PHILA PIKE WASHINGTON ST > HARVEY

09:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

15:30 Pattern Change to 231 - 100 NB for N048 PHILA PIKE WASHINGTON ST > HARVEY

18:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

20:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

**Weekends** Time of Day Changes for N048 PHILA PIKE WASHINGTON ST > HARVEY

08:00 Pattern Change to 121 - 90 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

21:00 Pattern Change to 141 - 75 BAL for N048 PHILA PIKE WASHINGTON ST > HARVEY

PERMIT # N126

LOCATION OF SIGNAL: PHILADELPHIA PIKE & MARSH RD

DATE OF CHART : 5/4/2012  
 DATE INSTALLED: 7/9/2012  
 CONTROLLER TYPE: EPAC  
 COORDINATION TYPE: ACTRA  
 COORDINATION ADDRESS: 17

CHART REVISION: A.1  
 CABINET TYPE: PCOM  
 MONITOR TYPE: NEMA+  
 BAUD RATE: 1200  
 CDMA

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION	SBLT	NB PHILA PIKE	MARSH RD	LORE AVE	EBLT	SB PHILA PIKE		
MIN GRN	5	15	5	5	5	15	0	0
PASS/10	30	40	40	40	30	40	0	0
MAX #1	20	40	20	20	20	40	0	0
MAX #2	20	40	20	20	20	40	0	0
YEL/10	30	40	40	40	30	40	0	0
RED/10	20	20	20	20	20	20	0	0

AINI/10	0	0	0	0	0	0	0	0
MAX INI	0	0	0	0	0	0	0	0
TIM BEF	0	0	0	0	0	0	0	0
CAR BEF	0	0	0	0	0	0	0	0
TIME TO	0	0	0	0	0	0	0	0
MGAP/10	0	0	0	0	0	0	0	0

WALK	0	7	7	7	0	7	0	0
PED CLR	0	7	15	15	0	15	0	0
EXT PCL	0	0	0	0	0	0	0	0

INITIAL	1	4	1	1	1	4	0	0
NA RESP	0	0	0	0	0	0	0	0

V. RECALL	0	2	0	0	0	2	0	0
P. RECALL	0	0	0	0	0	0	0	0

NL MEM.	1	0	0	0	1	0	0	0
2 ENTRY	0	1	0	0	0	1	0	0

SPCL SEQ OMIT PH	2	0	0	0	6	0	0	0
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OCAL PHASE	0	0	0	0	0	0	0	0
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OVERLAP DATA

OVERLAP/ LOCATION PHASES	A	B	C	D
	PHASE 2 PED	PHASE 3 PED	PHASE 6 PED	PHASE 4 PED

\*\* INTERSECTION NOTES \*\*

- 1 PHASES 1 & 5 ARE PERMISSIVE LEFT TURNS(5 SECTION HEADS)
  - 2 YELLOW TRAP MODIFIED: PHASE OMITTED BY PHASE 2, PHASE 5 OMITTED BY PHASE 6
  - 3 PEDS ARE COUNTDOWN DISPLAYS
  - 4 RT TURN RED ARROW ACTIVATED W/PHASE 3 WALK. PHASE 3 MONITORED ON SCR 10R
  - 5 PREEMPT: TRANS(PRIORITY) = NB & SB, MARSH OR LORE
- : EMERG(PREEMPT) = NB & SB, MARSH OR LORE

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : PHILA PIKE @ MARSH RD-N126

Zone : N047 PHILA PIKE 40TH ST > MARSH RD

Alias : N126

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	5	15	8	5	5	15	0	0
Passage Time	3.00	4.00	4.00	4.00	3.00	4.00	0.00	0.00
Yellow Clearance	3.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00
Red Clearance	2.00	2.00	2.00	2.00	2.00	2.00	0.00	0.00
Max 1	20	60	20	40	20	60	0	0
Max 2	20	40	20	20	20	40	0	0
Walk Time	0	7	7	7	0	7	0	0
Ped Clearance	0	7	15	15	0	15	0	0
ExtPed Clearance	NORMAL							
Special Seq Omit	2	0	0	0	6	0	0	0
Vehicle Recall	OFF	Min	Max	OFF	OFF	Min	OFF	OFF
Pedestrian Recall	OFF							
Memory Lock	True	False	False	False	True	False	False	False

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 75)	12	33	18	12	12	33	0	0	0
D 2/S 2 (CL = 90)	15	36	24	15	15	36	0	0	0
D 3/S 1 (CL = 100)	15	39	31	15	15	39	0	0	0
D 3/S 2 (CL = 100)	15	42	28	15	15	42	0	0	0
D 3/S 3 (CL = 100)	15	35	35	15	15	35	0	0	0
D 4/S 2 (CL = 120)	15	60	30	15	15	60	0	0	0

**Intersection : PHILA PIKE @ MARSH RD-N126**

**Zone : N047 PHILA PIKE 40TH ST > MARSH RD**

**Alias : N126**

**Zone Mode : TOD**

<b>Plan</b>	<b>Offset</b>
<b>1/2/1</b>	<b>50</b>
<b>2/2/1</b>	<b>13</b>
<b>3/1/1</b>	<b>4</b>
<b>3/2/1</b>	<b>3</b>
<b>3/3/1</b>	<b>85</b>
<b>4/2/1</b>	<b>95</b>

<b>Plan</b>	<b>Offset</b>
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<b>Plan</b>	<b>Offset</b>
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**Everyday** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

00:01 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**Weekdays** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

06:30 Pattern Change to 311 - 100 SB for N047 PHILA PIKE 40TH ST > MARSH RD

09:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

15:30 Pattern Change to 331 - 100 NB for N047 PHILA PIKE 40TH ST > MARSH RD

18:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

20:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**Weekends** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

08:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

21:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

DATE OF CHART : 3/6/2009  
 DATE INSTALLED: 1/10/2011  
 CONTROLLER TYPE: EPAC  
 COORDINATION TYPE: ACTRA  
 COORDINATION ADDRESS: 18

CHART REVISION: A.1  
 CABINET TYPE: PCOM  
 MONITOR TYPE: NEMA+  
 BAUD RATE: 1200

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION		NB PHILA PK		EB SHIPLEY		SB PHILA PK		WB EDMOOR
MIN GRN	0	15	0	5	0	15	0	5
PASS/10	0	40	0	40	0	40	0	40
MAX #1	0	40	0	30	0	40	0	30
MAX #2	0	40	0	30	0	40	0	30
YEL/10	0	40	0	40	0	40	0	40
RED/10	0	20	0	20	0	20	0	20
AINI/10	0	0	0	0	0	0	0	0
MAX INI	0	0	0	0	0	0	0	0
TIM BEF	0	0	0	0	0	0	0	0
CAR BEF	0	0	0	0	0	0	0	0
TIME TO	0	0	0	0	0	0	0	0
MGAP/10	0	0	0	0	0	0	0	0
WALK	0	7	0	0	0	7	0	7
PED CLR	0	14	0	0	0	7	0	12
EXT PCL	0	0	0	0	0	0	0	0
INITIAL	0	4	0	1	0	4	0	1
NA RESP	0	0	0	0	0	0	0	0
V. RECALL	0	2	0	0	0	2	0	0
P. RECALL	0	0	0	0	0	0	0	0
NL MEM.	0	0	0	0	0	0	0	0
2 ENTRY	0	1	0	1	0	1	0	1

OVERLAP DATA

	A	B	C	D
OVERLAP/ LOCATION PHASES	PHASE 2 PED		PHASE 6 PED	PHASE 8 PED

\*\* INTERSECTION NOTES \*\*

- 1 THIS REVISION FOR ADDING PEDS AND SYSTEM LOOPS

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- 2 PREEMPT: TRANS(PRIORITY) = NB & SB OR EB & WB

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- : EMERG(PREEMPT) = NB & SB OR EB & WB

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- 3

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- 4

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- 5

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# Delaware Department of Transportation

## Traffic Signal Timing Record

**Intersection :** PHILA PIKE @ EDGEMOOR RD-N127

**Zone :** N047 PHILA PIKE 40TH ST > MARSH RD

**Alias :** N127

**Zone Mode :** TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	0	15	0	5	0	15	0	5
Passage Time	0.00	4.00	0.00	4.00	0.00	4.00	0.00	4.00
Yellow Clearance	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Red Clearance	0.00	2.00	0.00	2.00	0.00	2.00	0.00	2.00
Max 1	0	40	0	40	0	40	0	40
Max 2	0	40	0	30	0	40	0	30
Walk Time	0	7	0	0	0	7	0	7
Ped Clearance	0	14	0	0	0	7	0	12
ExtPed Clearance	NORMAL							
Special Seq Omit	0	0	0	0	0	0	0	0
Vehicle Recall	OFF	Max	OFF	OFF	OFF	Max	OFF	Max
Pedestrian Recall	OFF							
Memory Lock	False							

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 75)	0	48	0	27	0	48	0	27	0
D 2/S 2 (CL = 90)	0	55	0	35	0	55	0	35	0
D 3/S 1 (CL = 100)	0	59	0	41	0	59	0	41	0
D 3/S 2 (CL = 100)	0	65	0	35	0	65	0	35	0
D 3/S 3 (CL = 100)	0	50	0	50	0	50	0	50	0
D 4/S 2 (CL = 120)	0	75	0	45	0	75	0	45	0

**Intersection :** PHILA PIKE @ EDGEMOOR RD-N127

**Zone :** N047 PHILA PIKE 40TH ST > MARSH RD

**Alias :** N127

**Zone Mode :** TOD

Plan	Offset
2/2/1	40
3/1/1	15
3/2/1	34
3/3/1	19
4/2/1	40

Plan	Offset
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Plan	Offset
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**Everyday** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

00:01 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**Weekdays** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

06:30 Pattern Change to 311 - 100 SB for N047 PHILA PIKE 40TH ST > MARSH RD

09:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

15:30 Pattern Change to 331 - 100 NB for N047 PHILA PIKE 40TH ST > MARSH RD

18:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

20:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**Weekends** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

08:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

21:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

PERMIT # N212

LOCATION OF SIGNAL: 43RD ST AND MARKET ST

DATE OF CHART : 7/22/2011  
 DATE INSTALLED: 1/30/2012  
 CONTROLLER TYPE: EPAC  
 COORDINATION TYPE: ACTRA  
 COORDINATION ADDRESS: 19

CHART REVISION: A.1  
 CABINET TYPE: PCOM  
 MONITOR TYPE: NEMA+  
 BAUD RATE: 1200  
 CDMA

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION	SBLT	NB US 13	WBLT	EB LEA BLVD	NBLT	SB US 13	EBLT	WB LEA BLVD
MIN GRN	5	15	5	5	5	15	5	5
PASS/10	30	40	30	30	30	40	30	30
MAX #1	20	40	20	40	20	40	20	40
MAX #2	20	40	20	40	20	40	20	40
YEL/10	30	40	30	40	30	40	30	40
RED/10	20	20	20	20	20	20	20	20

AINI/10	0	0	0	0	0	0	0	0
MAX INI	0	0	0	0	0	0	0	0
TIM BEF	0	0	0	0	0	0	0	0
CAR BEF	0	0	0	0	0	0	0	0
TIME TO	0	0	0	0	0	0	0	0
MGAP/10	0	0	0	0	0	0	0	0

WALK	0	7	0	0	0	7	0	7
PED CLR	0	11	0	0	0	18	0	8
EXT PCL	0	0	0	0	0	0	0	0

INITIAL	1	4	1	1	1	4	1	1
NA RESP	0	0	0	0	0	0	0	0

V. RECALL	0	2	0	0	0	2	0	0
P. RECALL	0	0	0	0	0	0	0	0

NL MEM.	1	0	1	0	1	0	1	0
2 ENTRY	0	1	0	1	0	1	0	1

SPCL SEQ OMIT PH	2	0	0	0	6	0	0	0
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OVERLAP DATA

	A	B	C	D
OVERLAP/ LOCATION PHASES	PHASE 2 PED		PHASE 6 PED	PHASE 8 PED

\*\* INTERSECTION NOTES \*\*

- 1 PHASES 1, 3, 5 & 7 ARE PERMISSIVE LEFT TURNS(5 SECTION HEADS)
- 2 YELLOW TRAP MODIFIED: PHASE 1 OMITTED BY PHASE 2; PHASE 5 OMITTED BY PHASE 6
- 3 COUNTDOWN PED DISPLAYS
- 4 SYSTEM DETECTORS
- 5 PREEMPT: TRANS(PRIORITY) = NB & SB OR EB & WB  
 : EMERG(PREEMPT) = NB & SB OR EB & WB

# Delaware Department of Transportation

## Traffic Signal Timing Record

Intersection : 40 TH ST @ MARKET ST-N227

Zone : N047 PHILA PIKE 40TH ST > MARSH RD

Alias : N227

Zone Mode : TOD

Phase	1	2	3	4	5	6	7	8
Minimum Green	0	10	0	5	0	10	0	5
Passage Time	0.00	3.00	0.00	3.00	0.00	3.00	0.00	3.00
Yellow Clearance	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Red Clearance	1.00	2.00	1.00	2.00	1.00	2.00	1.00	2.00
Max 1	0	65	0	30	0	65	0	30
Max 2	0	30	0	20	0	30	0	20
Walk Time	0	7	0	7	0	7	0	7
Ped Clearance	0	7	0	7	0	7	0	7
ExtPed Clearance	NORMAL							
Special Seq Omit	0	0	0	0	0	0	0	0
Vehicle Recall	OFF	Max	OFF	OFF	OFF	Max	OFF	OFF
Pedestrian Recall	OFF	Ped	OFF	OFF	OFF	Ped	OFF	OFF
Memory Lock	False							

Phase	1	2	3	4	5	6	7	8	9
D 1/S 2 (CL = 75)	0	49	0	26	0	49	0	26	0
D 2/S 2 (CL = 90)	0	55	0	35	0	55	0	35	0
D 3/S 1 (CL = 100)	0	64	0	36	0	64	0	36	0
D 3/S 2 (CL = 100)	0	64	0	36	0	64	0	36	0
D 3/S 3 (CL = 100)	0	64	0	36	0	64	0	36	0
D 4/S 2 (CL = 120)	0	75	0	45	0	75	0	45	0

**Intersection :** 40 TH ST @ MARKET ST-N227

**Zone :** N047 PHILA PIKE 40TH ST > MARSH RD

**Alias :** N227

**Zone Mode :** TOD

Plan	Offset
1/2/1	37
2/2/1	86
3/1/1	50
3/2/1	34
3/3/1	32
4/2/1	39

Plan	Offset
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Plan	Offset
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**Everyday** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

00:01 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**Weekdays** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

06:30 Pattern Change to 311 - 100 SB for N047 PHILA PIKE 40TH ST > MARSH RD

09:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

15:30 Pattern Change to 331 - 100 NB for N047 PHILA PIKE 40TH ST > MARSH RD

18:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

20:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

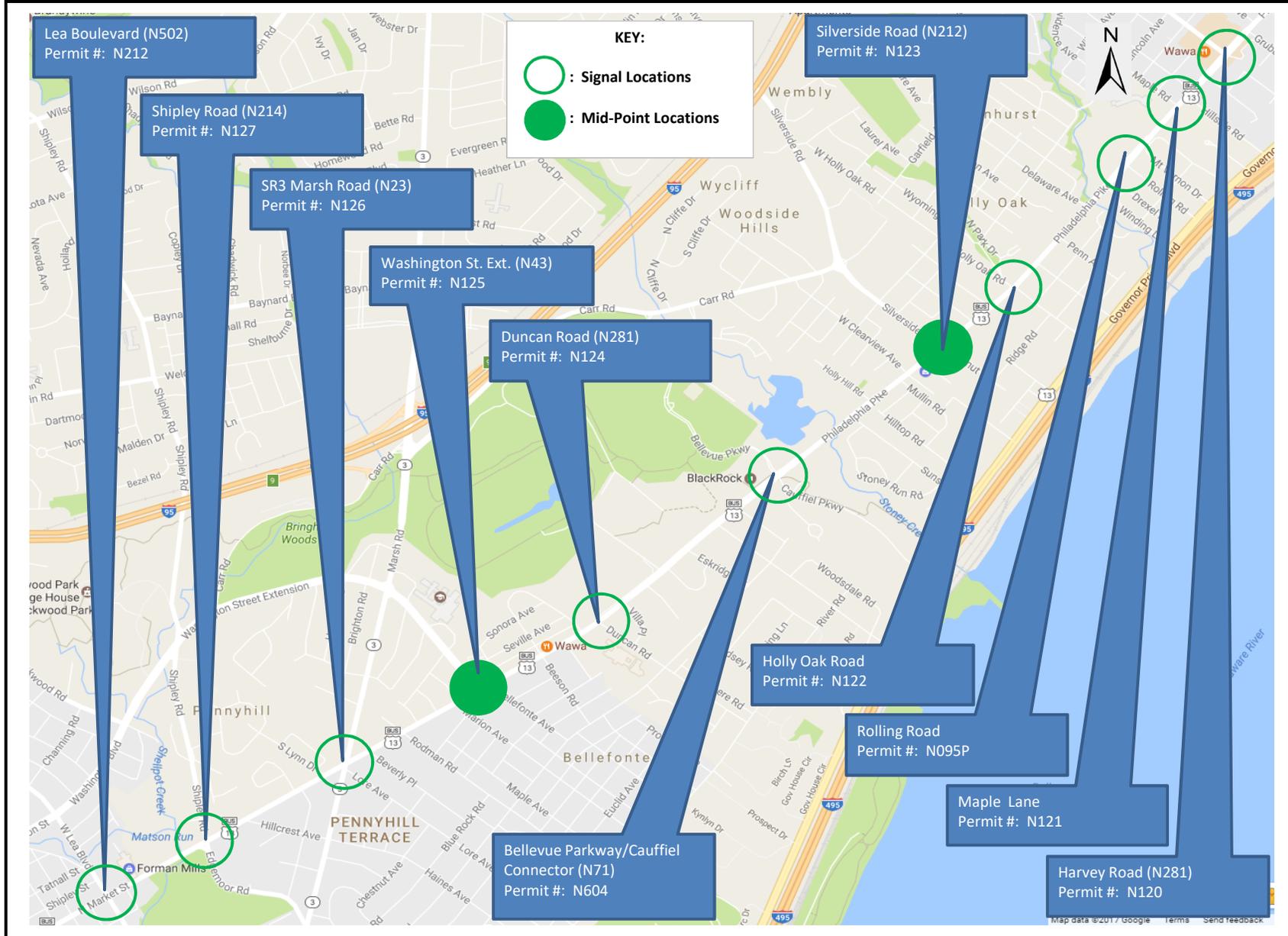
**Weekends** Time of Day Changes for N047 PHILA PIKE 40TH ST > MARSH RD

08:00 Pattern Change to 221 - 90 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

21:00 Pattern Change to 121 - 75 BAL for N047 PHILA PIKE 40TH ST > MARSH RD

**APPENDIX F**  
**Travel Time Data**

**US13B Philadelphia Pike (N24) From Harvey Road (N281) to Lea Boulevard (N502):  
Travel Time:**



**Northbound US13 Philadelphia Pike Travel Time Runs (Seconds)**

Run	Lea Boulevard to Shipley Road	Shipley Road to Marsh Road	Marsh Road to Washington Street Ext.	Washington Street Ext. to Duncan Road	Duncan Road to Bellevue Parkway	Bellvue Parkway to Silverside Road	Silverside Road to Holly Oak Road	Holly Oak Road to Rolling Road	Rolling Road to Maple Road	Maple Road to Harvey Road	Total
1	27.66	36.54	63.73	31.67	44.06	40.68	19.63	34.80	16.66	49.83	365.26
2	27.38	32.70	68.24	32.33	42.73	40.00	19.07	32.26	16.13	56.74	367.58
3	28.11	32.43	51.54	31.13	43.70	40.27	20.21	34.00	16.72	59.65	357.76
4	27.47	31.44	51.40	34.63	42.47	40.10	20.29	34.01	17.36	48.87	348.04
5	27.08	36.66	54.07	31.33	43.11	39.57	19.54	34.22	16.37	59.47	361.42
<b>Average</b>	<b>27.54</b>	<b>33.95</b>	<b>57.80</b>	<b>32.22</b>	<b>43.21</b>	<b>40.12</b>	<b>19.75</b>	<b>33.86</b>	<b>16.65</b>	<b>54.91</b>	<b>360.01</b>

**Southbound US13 Philadelphia Pike Travel Time Runs (Seconds)**

Run	Harvey Road to Maple Road	Maple Road to Rolling Road	Rolling Road to Holly Oak Road	Holly Oak Road to Silverside Road	Silverside Road to Bellevue Parkway	Bellevue Parkway to Duncan Road	Duncan Road to Washington Street Ext.	Washington Street Ext. to Marsh Road	Marsh Road to Shipley Road	Shipley Road to Lea Road	Total
1	19.31	17.40	34.40	19.06	41.40	48.07	28.13	30.94	31.92	24.74	295.37
2	17.94	16.44	35.23	19.75	41.94	47.08	86.00	33.04	30.98	25.39	353.79
3	16.64	16.58	34.30	20.20	42.10	45.76	80.78	33.53	30.77	32.87	353.53
4	19.41	17.13	33.93	19.36	40.77	45.89	27.71	68.31	35.80	40.07	348.38
5	17.27	16.91	34.36	19.70	41.30	45.57	69.03	45.23	32.90	30.91	353.18
<b>Average</b>	<b>18.11</b>	<b>16.89</b>	<b>34.44</b>	<b>19.61</b>	<b>41.50</b>	<b>46.47</b>	<b>58.33</b>	<b>42.21</b>	<b>32.47</b>	<b>30.80</b>	<b>340.85</b>

**Notes:**

1. X-ing guard(s) at Washington Street Extension observed at 7:10 (run 1) and 7:26a (run 2) while traveling northbound. X-ing guard(s) were gone by the third run at 7:43a.
2. X-ing guard(s) at Washington Street Extension observed at 7:20a (run2) weren't present for run1 while traveling southbound. X-ing guard(s) were gone by the third run at 7:36a.
3. **Travel Speed was between 40-50 MPH.**
4. AM Peak Period = 7a-9a.
5. **Green** = Lowest Time; **Red** = Highest Time.

**Northbound US13 Philadelphia Pike Travel Time Runs (Seconds)**

Run	Lea Boulevard to Shipley Road	Shipley Road to Marsh Road	Marsh Road to Washington Street Ext.	Washington Street Ext. to Duncan Road	Duncan Road to Bellevue Parkway	Bellvue Parkway to Silverside Road	Silverside Road to Holly Oak Road	Holly Oak Road to Rolling Road	Rolling Road to Maple Road	Maple Road to Harvey Road	Total
1	73.76	39.17	45.36	31.83	45.56	52.84	22.04	32.86	16.13	18.87	378.42
2	28.62	32.87	35.83	35.23	43.87	38.97	19.13	32.37	16.13	16.11	299.13
3	29.38	52.61	30.23	27.59	44.04	47.80	18.87	31.94	15.93	18.13	316.52
4	28.68	32.33	57.91	31.21	45.55	38.92	21.09	33.35	16.63	25.51	331.18
5	65.28	46.98	36.72	28.44	46.01	56.83	22.10	34.11	16.90	17.36	370.73
<b>Average</b>	<b>45.14</b>	<b>40.79</b>	<b>41.21</b>	<b>30.86</b>	<b>45.01</b>	<b>47.07</b>	<b>20.65</b>	<b>32.93</b>	<b>16.34</b>	<b>19.20</b>	<b>339.20</b>

**Southbound US13 Philadelphia Pike Travel Time Runs (Seconds)**

Run	Harvey Road to Maple Road	Maple Road to Rolling Road	Rolling Road to Holly Oak Road	Holly Oak Road to Silverside Road	Silverside Road to Bellevue Parkway	Bellevue Parkway to Duncan Road	Duncan Road to Washington Street Ext.	Washington Street Ext. to Marsh Road	Marsh Road to Shipley Road	Shipley Road to Lea Road	Total
1	19.33	18.03	34.92	71.81	49.70	47.11	66.06	51.07	61.37	30.37	449.77
2	19.02	16.33	35.60	52.17	45.41	45.89	27.73	31.94	40.46	32.17	346.72
3	16.34	16.97	33.37	21.99	43.16	63.41	28.70	31.46	43.34	32.77	331.51
4	18.20	16.77	34.21	63.69	44.31	45.74	29.17	30.17	33.42	29.61	345.29
5	18.45	16.39	34.01	59.70	45.39	47.14	30.73	31.64	38.70	86.54	408.69
<b>Average</b>	<b>18.27</b>	<b>16.90</b>	<b>34.42</b>	<b>53.87</b>	<b>45.59</b>	<b>49.86</b>	<b>36.48</b>	<b>35.26</b>	<b>43.46</b>	<b>42.29</b>	<b>376.40</b>

**Notes:**

1. Travel Speed was between 40-50 MPH.
2. PM Peak Period = 4p-6p.
3. **Green** = Lowest Time; **Red** = Highest Time.

**APPENDIX G**  
**SimTraffic Reports**

**Existing Conditions**

**AM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.9	0.3	0.3	0.3	0.3	0.0	0.3	1.1	0.0	0.1	2.5	0.6
Total Del/Veh (s)	37.7	30.9	9.5	45.8	45.4	7.1	13.9	12.7	8.1	13.7	16.8	11.5
Stop Delay (hr)	2.6	0.2	0.2	0.3	0.2	0.0	0.2	0.7	0.0	0.1	1.6	0.5
Stop Del/Veh (s)	33.3	26.3	8.5	43.7	42.2	6.7	12.1	8.3	6.5	10.6	11.1	8.8

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	8.7
Total Del/Veh (s)	19.2
Stop Delay (hr)	6.8
Stop Del/Veh (s)	15.0

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.4	0.5	0.1	0.1	0.1	0.1	0.3	0.0	0.0	0.5	0.1	2.1
Total Del/Veh (s)	41.4	38.1	42.1	39.8	10.2	6.4	3.2	1.7	4.5	3.4	4.1	6.9
Stop Delay (hr)	0.4	0.5	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.0	1.5
Stop Del/Veh (s)	38.8	37.0	40.0	36.3	9.2	4.7	1.1	0.8	3.0	1.6	3.1	5.0

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.3	0.5
Total Del/Veh (s)	42.4	7.0	0.7	0.3	3.0	1.9	1.7
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	40.1	6.3	0.2	0.2	1.0	0.3	0.6

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0
Total Del/Veh (s)	12.9	12.7	4.9	9.7	10.5	4.0	6.5	4.0	4.3	4.5	3.9	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	10.6	10.4	4.3	7.6	8.0	3.4	4.8	1.3	1.8	2.7	1.1	0.4

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	1.2
Total Del/Veh (s)	4.2
Stop Delay (hr)	0.4
Stop Del/Veh (s)	1.6

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.0	0.2	0.0	0.0	0.0	0.6	0.4	0.0	0.0	1.5	0.4
Total Del/Veh (s)	18.9	15.7	4.0	17.5	24.3	4.6	11.8	5.4	2.7	9.4	13.4	8.3
Stop Delay (hr)	0.5	0.0	0.2	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.8	0.2
Stop Del/Veh (s)	16.6	10.6	3.4	15.2	21.7	4.1	8.8	2.8	2.0	6.5	7.0	4.7

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	3.7
Total Del/Veh (s)	10.2
Stop Delay (hr)	2.4
Stop Del/Veh (s)	6.6

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.2	0.1	0.0	0.1	1.0	0.2	0.3	0.8	0.0	0.2	1.1	0.3
Total Del/Veh (s)	41.1	35.9	4.9	27.8	24.9	4.7	13.2	11.0	4.1	8.5	11.7	7.3
Stop Delay (hr)	0.2	0.1	0.0	0.1	0.8	0.1	0.2	0.5	0.0	0.1	0.6	0.2
Stop Del/Veh (s)	38.8	32.9	4.3	24.7	21.4	3.8	10.0	6.8	3.1	5.9	6.4	4.9

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.4
Total Del/Veh (s)	12.2
Stop Delay (hr)	3.1
Stop Del/Veh (s)	8.6

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.2	0.3	0.0	0.1	0.3	1.6
Total Del/Veh (s)	35.3	17.6	3.0	1.6	5.6	3.2	6.5
Stop Delay (hr)	0.7	0.2	0.1	0.0	0.0	0.1	1.2
Stop Del/Veh (s)	32.6	16.1	1.4	1.0	3.8	1.3	4.8

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Del/Veh (s)	11.5	10.5	5.2	10.5	10.6	5.3	2.2	0.9	0.2	2.3	0.7	0.1
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	8.9	7.1	4.3	8.2	7.7	4.5	0.9	0.0	0.0	1.3	0.0	0.0

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.5
Total Del/Veh (s)	1.8
Stop Delay (hr)	0.3
Stop Del/Veh (s)	0.9

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.1	0.1	0.1	0.3	0.4	0.8	0.6	4.3
Total Del/Veh (s)	28.5	4.7	49.9	8.0	4.8	10.3	7.0	11.6
Stop Delay (hr)	1.9	0.1	0.1	0.2	0.2	0.5	0.4	3.3
Stop Del/Veh (s)	25.6	3.3	46.3	5.7	2.6	6.3	4.8	8.9

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.2	0.0	0.0	0.6	0.4	0.2	0.5	0.0	0.0	0.0
Total Del/Veh (s)	20.7	21.4	15.7	2.7	17.5	19.2	15.9	14.8	10.6	6.7	3.9	13.5
Stop Delay (hr)	0.0	0.1	0.2	0.0	0.0	0.4	0.3	0.2	0.3	0.0	0.0	0.0
Stop Del/Veh (s)	18.4	19.8	11.6	2.7	14.4	13.9	14.8	11.5	5.8	4.3	2.2	11.3

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Total Delay (hr)	0.3	0.7	0.0	0.0	0.1	0.2	0.0	3.6
Total Del/Veh (s)	17.2	11.9	6.2	33.4	33.5	34.6	37.0	14.3
Stop Delay (hr)	0.3	0.5	0.0	0.0	0.1	0.2	0.0	2.8
Stop Del/Veh (s)	15.0	8.1	4.8	30.9	30.0	33.3	35.7	10.9

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.6	0.2	1.4	1.2	0.1	0.0	0.3	0.0	0.0	0.5	0.1
Total Del/Veh (s)	40.6	33.4	13.6	43.6	34.4	16.0	7.4	5.5	2.3	7.6	8.3	4.8
Stop Delay (hr)	0.3	0.5	0.2	1.3	1.0	0.1	0.0	0.2	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	38.3	29.2	13.0	39.7	28.8	13.8	5.2	3.2	0.0	4.9	3.5	1.6

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.6
Total Del/Veh (s)	18.0
Stop Delay (hr)	3.7
Stop Del/Veh (s)	14.4

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.3	0.3	0.0	0.0	0.0
Total Delay (hr)	0.8	1.0	0.1	0.8	1.5	0.3	0.2	0.3	0.1	0.1	0.5	0.1
Total Del/Veh (s)	42.9	28.5	3.9	38.3	33.4	19.8	12.8	8.0	3.5	8.9	7.5	3.7
Stop Delay (hr)	0.7	0.8	0.1	0.7	1.2	0.3	0.1	0.2	0.0	0.1	0.3	0.1
Stop Del/Veh (s)	39.6	23.6	3.6	34.3	27.5	17.4	10.1	4.7	2.4	7.4	4.0	2.4

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.2
Total Delay (hr)	5.6
Total Del/Veh (s)	17.8
Stop Delay (hr)	4.6
Stop Del/Veh (s)	14.4

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.2	0.0	0.2	0.0	0.6
Total Del/Veh (s)	2.8	4.5	2.1	2.1	2.3	2.6	2.7
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	2.5	3.1	0.2	0.2	0.2	0.3	0.9

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.0	0.1	0.5
Total Del/Veh (s)	5.2	4.4	1.7	1.1	0.8	1.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.1	3.7	0.2	0.2	0.1	0.4

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.4	0.1	0.7
Total Del/Veh (s)	3.0	4.1	1.6	0.7	2.7	2.1	2.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.9	3.6	0.1	0.1	0.2	0.2	0.3

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.2
Total Del/Veh (s)	1.0	0.4	1.1	0.5	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.1	0.1

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.2
Total Delay (hr)	47.0
Total Del/Veh (s)	33.7
Stop Delay (hr)	31.0
Stop Del/Veh (s)	22.3

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	1.6	18.4	0.2	39
Edgemoor Road	11	5.5	13.3	0.1	23
Marsh Road	10	11.0	40.8	0.4	36
	62	2.6	18.4	0.2	43
	9	4.5	16.9	0.2	36
	68	1.7	8.9	0.1	39
Beeson Road	8	0.9	7.3	0.1	42
School Lane	74	1.0	8.3	0.1	42
Duncan Road	7	3.0	8.5	0.1	30
	58	1.2	13.9	0.2	43
Bellevue Parkway	6	11.0	39.3	0.4	39
	57	3.4	16.0	0.2	41
Walnut Lane	5	5.4	31.4	0.4	41
E. Holly Oak Road	4	4.4	22.1	0.2	38
	63	1.6	30.4	0.4	45
Rolling Road	3	0.7	5.7	0.1	38
Maple Road	2	3.2	18.2	0.2	39
Dummy Node	71	1.6	9.2	0.1	42
McDonalds Access	1	12.6	18.6	0.1	15
Total		76.9	345.5	3.6	38

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	3.1	9.1	0.1	32
Maple Road	2	3.4	11.6	0.1	34
Super Fresh Access	3	2.0	16.8	0.2	42
	63	0.4	5.0	0.1	43
W. Holly Oak Road	4	3.9	32.7	0.4	42
Silverside Road	5	13.3	31.0	0.2	27
	57	3.8	31.2	0.4	41
Bellevue Parkway	6	11.7	23.7	0.2	28
	58	3.9	33.3	0.4	46
	7	3.2	15.6	0.2	39
Wawa	74	1.1	6.4	0.1	40
Parkway Avenue	8	0.7	8.2	0.1	42
	68	0.8	7.1	0.1	43
Washington Street Ex	9	10.2	16.7	0.1	21
	62	2.7	15.1	0.2	41
Marsh Road	10	11.9	27.3	0.2	29
Shipleigh Road	11	8.9	39.5	0.4	37
	59	1.4	9.2	0.1	33
W Lea Boulevard	12	7.5	24.1	0.2	30
Total		94.0	363.6	3.6	36

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	B60	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	T	LT	R	L	TR	L	T	TR
Maximum Queue (ft)	318	192	6	101	54	81	255	47	224	240
Average Queue (ft)	160	58	0	36	9	34	100	13	101	119
95th Queue (ft)	277	132	5	80	35	68	206	35	186	218
Link Distance (ft)	300	300	203	209	209	359	359		870	870
Upstream Blk Time (%)	1									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)								200		
Storage Blk Time (%)									0	
Queuing Penalty (veh)									0	

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	122	106	69	49	75	104	31	141	136
Average Queue (ft)	33	35	22	14	10	25	4	33	32
95th Queue (ft)	85	80	57	40	42	71	19	88	89
Link Distance (ft)	559		270		974	974		512	512
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		250		175			150		
Storage Blk Time (%)								0	
Queuing Penalty (veh)								0	

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LTR	T	TR	L	T	TR
Maximum Queue (ft)	76	39	62	27	52	70
Average Queue (ft)	19	3	5	1	5	8
95th Queue (ft)	53	17	28	9	26	40
Link Distance (ft)	611	249	249		974	974
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				150		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	LT	TR	LT	TR
Maximum Queue (ft)	30	56	65	57	66	90	108
Average Queue (ft)	9	20	23	15	15	24	34
95th Queue (ft)	29	50	53	43	48	62	86
Link Distance (ft)	739		512	1146	1146	1912	1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155					
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	130	70	40	133	61	65	16	131	182
Average Queue (ft)	54	39	11	46	11	16	1	55	74
95th Queue (ft)	104	63	34	93	39	46	7	112	147
Link Distance (ft)	212	212	742		1809	1809		1146	1146
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				125			100		
Storage Blk Time (%)				0				1	
Queuing Penalty (veh)				0				0	

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	79	52	156	75	103	117	124	70	136	185
Average Queue (ft)	22	14	78	33	38	40	36	26	46	78
95th Queue (ft)	60	41	142	60	78	88	87	54	100	148
Link Distance (ft)	245		597			2199	2199		903	903
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		210	150			125		
Storage Blk Time (%)	0				0	0			0	
Queuing Penalty (veh)	0				0	0			0	

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	TR	LT	TR
Maximum Queue (ft)	164	94	99	89	91
Average Queue (ft)	68	24	29	20	19
95th Queue (ft)	125	63	68	56	59
Link Distance (ft)	988	320	320	812	812
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	LT	LT	TR
Maximum Queue (ft)	80	73	50	34	3
Average Queue (ft)	37	33	8	3	0
95th Queue (ft)	64	59	32	19	2
Link Distance (ft)	581	583	390	449	449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	R	LTR	L	T	TR	T	TR
Maximum Queue (ft)	167	142	56	55	89	68	76	127	225
Average Queue (ft)	75	70	28	7	34	17	24	43	87
95th Queue (ft)	134	124	50	31	68	48	58	98	173
Link Distance (ft)	954	954		300		803	803	426	426
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			105		100				
Storage Blk Time (%)		2			0	0			
Queuing Penalty (veh)		2			0	0			

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	TR>	<L	T	TR	<LR>
Maximum Queue (ft)	83	19	150	77	78	92	76	92	130	101
Average Queue (ft)	22	2	60	14	21	23	23	27	50	32
95th Queue (ft)	57	12	120	48	52	63	58	72	102	76
Link Distance (ft)	791		928		2017	2017		1060	1060	736
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		250			300			
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB	
Directions Served	L	TR	L	TR	LT	T	LT	T	R	
Maximum Queue (ft)	66	121	154	192	106	89	70	92	54	
Average Queue (ft)	14	46	80	91	31	21	11	25	11	
95th Queue (ft)	42	99	142	162	73	61	40	69	35	
Link Distance (ft)	250	250		920	382	382	2017	2017		
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			150						150	
Storage Blk Time (%)			1	2						
Queuing Penalty (veh)			1	2						

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	
Directions Served	L	T	R	L	TR	L	TR	L	TR	
Maximum Queue (ft)	127	173	69	149	276	76	117	61	173	
Average Queue (ft)	48	70	25	56	132	24	38	15	58	
95th Queue (ft)	97	140	55	126	229	60	89	46	131	
Link Distance (ft)		449	449		308		1757	922	922	
Upstream Blk Time (%)	0									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)	200			75		100				
Storage Blk Time (%)		0		5	28	0	1			
Queuing Penalty (veh)		0		12	21	0	0			

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	22	74
Average Queue (ft)	6	40
95th Queue (ft)	21	64
Link Distance (ft)	891	905
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	62	31
Average Queue (ft)	32	7
95th Queue (ft)	56	29
Link Distance (ft)	746	624
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	29	58
Average Queue (ft)	8	23
95th Queue (ft)	29	48
Link Distance (ft)	554	830
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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**Movement**

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

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**Network Summary**

Network wide Queuing Penalty: 39

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	9.0	25.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.0	53.3	8.5	22.0	7.0	50.2
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	73	0	33	0	47	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	12	18	0	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	43.0	27.0	13.0	43.0	27.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	5.8	87.0	10.8	6.5	85.5	10.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	91	9	9	78	9	9
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	91	0	0	91	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	8.0	33.0	18.0	18.0	8.0	33.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.2	217.8	8.4	6.3	0.0	208.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	97	76	78	94	100	79
Cycles @ Minimum (%)	3	0	0	6	0	0
Cycles Maxed Out (%)	0	24	0	0	0	21
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	55.3	7.7	55.3	7.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	8	10	8	10
Cycles @ Minimum (%)	2	15	2	15
Cycles Maxed Out (%)	92	0	21	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	40.0	30.0	13.0	40.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	5.5	39.1	13.5	8.6	27.0	13.5
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	7	0	0
Cycles @ Minimum (%)	0	2	5	7	12	5
Cycles Maxed Out (%)	0	100	0	0	3	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	18.0	16.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	7.8	32.7	13.3	7.9	8.8	31.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	NA
Cycles Skipped (%)	39	2	2	41	31	0
Cycles @ Minimum (%)	5	10	0	9	3	6
Cycles Maxed Out (%)	0	98	2	0	0	18
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	72.6	11.4	72.6
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	3	3	3
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	97	0	97
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	9.0	18.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	45.9	8.2	13.1	10.1	33.9
g/C Ratio	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	0	88	0	24	0
Cycles @ Minimum (%)	0	0	0	0	10
Cycles Maxed Out (%)	17	0	2	3	100
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	33.0	25.0	9.0	10.0	34.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	24.8	15.9	8.2	7.5	22.0
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	24	50	0
Cycles @ Minimum (%)	0	19	0	3	0	0
Cycles Maxed Out (%)	0	100	2	3	0	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	53.0	35.0	53.0	35.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	66.2	18.9	66.2	18.9
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	63.9	23.9	63.9	23.9
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	28	100	28
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Existing Conditions**

**PM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.7	0.2	0.2	0.2	0.3	0.1	0.7	1.8	0.1	0.1	3.5	0.9
Total Del/Veh (s)	36.3	28.8	7.9	40.9	48.3	9.7	16.8	13.4	8.5	15.6	21.5	14.9
Stop Delay (hr)	2.4	0.1	0.2	0.2	0.3	0.1	0.6	1.0	0.1	0.1	2.3	0.6
Stop Del/Veh (s)	31.9	24.4	7.1	38.4	44.8	8.9	14.0	7.8	6.0	12.3	14.2	11.0

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	10.6
Total Del/Veh (s)	19.8
Stop Delay (hr)	7.9
Stop Del/Veh (s)	14.7

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.2	0.1	0.1	0.0	0.6	0.0	0.0	0.4	0.0	1.6
Total Del/Veh (s)	41.4	42.9	42.1	9.3	4.1	3.4	2.3	5.2	2.9	2.6	4.5
Stop Delay (hr)	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.8
Stop Del/Veh (s)	38.9	42.0	39.4	8.1	2.5	0.7	0.6	3.2	0.8	1.2	2.2

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.2	0.4
Total Del/Veh (s)	49.9	9.3	0.6	0.2	4.7	1.6	1.2
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	47.0	8.5	0.1	0.1	2.9	0.1	0.3

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.1	0.1	1.0	0.0	0.1	0.7	0.0
Total Del/Veh (s)	17.1	12.4	4.8	13.1	12.4	5.9	8.7	6.1	4.5	8.7	5.3	3.1
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.2	0.0
Stop Del/Veh (s)	14.5	9.8	4.1	10.3	9.3	4.8	4.6	1.5	1.5	5.9	1.4	1.0

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	2.2
Total Del/Veh (s)	6.3
Stop Delay (hr)	0.8
Stop Del/Veh (s)	2.3

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	1.1	0.1	0.2	0.0	0.0	0.0	0.7	0.9	0.0	0.0	1.5	0.4
Total Del/Veh (s)	20.7	23.5	3.9	17.4	13.2	3.7	13.5	8.2	5.3	14.9	15.8	8.8
Stop Delay (hr)	1.0	0.1	0.2	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.8	0.2
Stop Del/Veh (s)	17.5	17.7	3.1	15.2	10.6	3.2	9.4	3.8	3.9	9.9	8.7	5.0

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.0
Total Del/Veh (s)	11.8
Stop Delay (hr)	3.2
Stop Del/Veh (s)	7.6

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.9	0.1	0.1	0.1	0.1	0.1	2.1	0.0	0.6	1.4	0.0
Total Del/Veh (s)	23.1	24.1	5.7	35.4	34.7	5.5	16.0	20.3	10.3	15.1	13.3	8.5
Stop Delay (hr)	0.8	0.7	0.1	0.1	0.1	0.1	0.1	1.4	0.0	0.4	0.9	0.0
Stop Del/Veh (s)	19.2	19.6	3.7	32.5	31.4	4.7	12.5	13.7	8.4	11.5	7.9	6.6

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	6.6
Total Del/Veh (s)	17.1
Stop Delay (hr)	4.7
Stop Del/Veh (s)	12.3

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.2	0.0	0.3	0.0	0.1	0.4	0.0	1.9
Total Del/Veh (s)	34.7	17.5	6.1	3.4	1.2	6.9	3.5	1.6	6.3
Stop Delay (hr)	0.7	0.2	0.0	0.1	0.0	0.1	0.1	0.0	1.2
Stop Del/Veh (s)	31.2	15.7	4.6	1.4	0.7	4.8	1.2	0.9	4.2

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Total Del/Veh (s)	11.0	13.3	5.4	9.2	11.3	5.4	3.1	1.0	0.3	3.9	1.1	0.3
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	8.4	9.6	4.3	6.8	7.8	4.5	1.5	0.0	0.0	2.3	0.0	0.0

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.6
Total Del/Veh (s)	1.8
Stop Delay (hr)	0.2
Stop Del/Veh (s)	0.7

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	2.2	0.4	0.1	0.4	0.4	1.3	0.6	5.3
Total Del/Veh (s)	28.1	6.9	41.3	10.3	5.4	13.3	8.7	13.0
Stop Delay (hr)	1.9	0.3	0.1	0.3	0.2	0.8	0.4	4.0
Stop Del/Veh (s)	24.9	4.7	37.9	7.4	2.9	8.3	6.1	9.7

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.2	0.7	0.1	0.0	0.5	0.2	0.2	0.9	0.0	0.0	0.0
Total Del/Veh (s)	20.1	21.1	17.1	3.7	17.8	15.8	12.9	14.8	12.3	11.8	6.4	18.8
Stop Delay (hr)	0.0	0.2	0.5	0.0	0.0	0.3	0.2	0.2	0.5	0.0	0.0	0.0
Stop Del/Veh (s)	17.0	18.2	11.8	3.1	15.2	10.7	11.9	11.1	6.6	9.6	3.9	16.3

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.4	0.7	0.1	0.1	0.1	4.2
Total Del/Veh (s)	16.9	11.6	7.7	42.4	38.4	13.8
Stop Delay (hr)	0.3	0.5	0.0	0.1	0.1	2.9
Stop Del/Veh (s)	14.1	7.3	5.9	39.2	37.2	9.7

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.7	1.5	0.1	0.7	0.8	0.1	0.1	0.5	0.1	0.0	0.5	0.1
Total Del/Veh (s)	43.4	35.5	21.3	47.2	31.8	12.3	11.5	7.3	2.3	10.3	7.1	4.5
Stop Delay (hr)	0.6	1.2	0.1	0.7	0.7	0.1	0.1	0.3	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	40.6	30.2	19.8	43.8	26.7	10.9	9.1	4.7	0.0	6.2	2.5	1.3

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.1
Total Del/Veh (s)	17.2
Stop Delay (hr)	4.0
Stop Del/Veh (s)	13.5

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.4	0.4	0.0	0.0	0.0
Total Delay (hr)	1.7	1.3	0.1	0.7	1.3	0.2	0.3	0.5	0.1	0.2	0.7	0.1
Total Del/Veh (s)	44.8	28.1	3.9	36.4	30.7	17.7	14.6	9.8	5.2	14.7	12.4	6.7
Stop Delay (hr)	1.5	1.1	0.1	0.7	1.0	0.2	0.2	0.3	0.1	0.2	0.4	0.1
Stop Del/Veh (s)	40.6	22.5	3.6	32.5	24.8	15.8	11.1	5.3	3.2	13.0	7.3	4.9

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.2
Total Del/Veh (s)	20.2
Stop Delay (hr)	5.8
Stop Del/Veh (s)	16.1

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.2	0.0	0.3	0.2	0.8
Total Del/Veh (s)	3.3	4.2	2.6	2.3	3.3	3.1	3.1
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	2.9	3.0	0.2	0.2	0.3	0.3	0.5

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.3	0.0	0.1	0.0	0.7
Total Del/Veh (s)	5.6	4.3	1.7	1.1	1.2	0.2	2.0
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	4.3	3.5	0.2	0.1	0.1	0.1	0.7

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.4	0.0	0.5	0.1	1.1
Total Del/Veh (s)	4.1	5.9	2.3	1.0	3.5	2.5	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.4	5.0	0.1	0.1	0.2	0.1	0.2

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.2	0.0	0.3
Total Del/Veh (s)	3.8	3.9	0.9	0.3	1.5	0.8	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.1	3.3	0.0	0.0	0.1	0.1	0.1

Total Network Performance

Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.2
Total Delay (hr)	59.7
Total Del/Veh (s)	39.0
Stop Delay (hr)	36.7
Stop Del/Veh (s)	24.0

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	2.0	17.5	0.2	41
Edgemoor Road	11	7.3	14.4	0.1	21
Marsh Road	10	12.5	40.6	0.4	36
	62	3.2	18.7	0.2	42
	9	5.5	16.7	0.2	37
	68	1.9	8.7	0.1	40
Beeson Road	8	1.0	7.0	0.1	44
School Lane	74	0.9	7.7	0.1	45
Duncan Road	7	3.4	8.5	0.1	30
	58	1.4	13.1	0.2	46
Bellevue Parkway	6	20.3	47.2	0.4	33
	57	5.2	16.8	0.2	39
Walnut Lane	5	8.2	32.9	0.4	39
E. Holly Oak Road	4	6.7	22.4	0.2	38
	63	2.7	29.2	0.4	47
Rolling Road	3	0.6	5.1	0.1	42
Maple Road	2	3.4	17.3	0.2	41
Dummy Node	71	2.3	10.0	0.1	39
McDonalds Access	1	13.4	18.9	0.1	15
Total		102.0	352.5	3.6	37

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	4.1	9.7	0.1	29
Maple Road	2	2.9	10.6	0.1	37
Super Fresh Access	3	1.6	15.4	0.2	46
	63	0.2	4.5	0.1	48
W. Holly Oak Road	4	5.3	31.8	0.4	43
Silverside Road	5	15.8	31.8	0.2	26
	57	4.2	29.4	0.4	44
Bellevue Parkway	6	13.3	24.8	0.2	27
	58	4.9	31.8	0.4	49
	7	3.5	14.8	0.2	41
Wawa	74	1.6	6.5	0.1	39
Parkway Avenue	8	1.1	7.9	0.1	44
	68	1.2	7.2	0.1	43
Washington Street Ex	9	13.4	19.8	0.1	18
	62	4.2	16.4	0.2	37
Marsh Road	10	11.4	26.4	0.2	30
Shipleigh Road	11	7.5	35.6	0.4	41
	59	1.3	8.5	0.1	36
W Lea Boulevard	12	12.4	27.4	0.2	26
Total		109.8	360.3	3.6	36

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	R	L	TR	L	T	TR
Maximum Queue (ft)	279	108	79	45	151	321	36	234	288
Average Queue (ft)	149	45	31	18	62	136	9	108	145
95th Queue (ft)	247	85	67	43	114	251	30	201	249
Link Distance (ft)	300	300	209	209	359	359		870	870
Upstream Blk Time (%)	0					0			
Queuing Penalty (veh)	0					0			
Storage Bay Dist (ft)							200		
Storage Blk Time (%)								0	
Queuing Penalty (veh)								0	

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	51	50	74	28	70	102	37	92	98
Average Queue (ft)	14	12	24	5	13	28	9	19	21
95th Queue (ft)	41	38	56	20	47	78	30	64	68
Link Distance (ft)	559		270		974	974		512	512
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		250		175			150		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LTR	T	TR	L	T	TR
Maximum Queue (ft)	36	47	67	22	42	53
Average Queue (ft)	8	2	3	3	2	3
95th Queue (ft)	29	17	22	17	17	23
Link Distance (ft)	611	249	249		974	974
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				150		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	LT	TR	LT	TR
Maximum Queue (ft)	49	47	85	85	95	106	115
Average Queue (ft)	17	11	34	28	31	34	37
95th Queue (ft)	43	36	65	63	71	79	88
Link Distance (ft)	739		512	1146	1146	1912	1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155					
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	191	77	43	128	110	104	24	134	174
Average Queue (ft)	81	39	10	52	28	35	2	51	59
95th Queue (ft)	149	67	33	101	79	86	12	113	130
Link Distance (ft)	212	212	742		1809	1809		1146	1146
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)				125			100		
Storage Blk Time (%)				0	0			2	
Queuing Penalty (veh)				1	0			0	

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	224	172	58	51	48	160	176	121	142	153
Average Queue (ft)	127	36	18	24	12	71	74	51	52	69
95th Queue (ft)	204	112	47	44	38	132	134	98	110	128
Link Distance (ft)	249		597			2199	2199		906	906
Upstream Blk Time (%)	0									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)		150		210	150			125		
Storage Blk Time (%)	4	0				1		0	0	
Queuing Penalty (veh)	2	0				0		1	1	

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	LT	TR	LT	TR
Maximum Queue (ft)	174	66	94	92	101
Average Queue (ft)	69	22	28	22	18
95th Queue (ft)	137	57	68	60	61
Link Distance (ft)	988	319	319	812	812
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	78	45	45	4	47	13
Average Queue (ft)	35	20	9	0	5	0
95th Queue (ft)	63	46	32	3	23	10
Link Distance (ft)	581	581	390	390	449	449
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	R	LTR	L	T	TR	T	TR
Maximum Queue (ft)	131	144	103	33	108	64	91	148	217
Average Queue (ft)	72	69	49	7	44	14	23	52	103
95th Queue (ft)	118	121	84	28	91	42	59	115	189
Link Distance (ft)	954	954		300		803	803	426	426
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			105		100				
Storage Blk Time (%)		2	0		1	0			
Queuing Penalty (veh)		4	0		1	0			

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	TR>	<L	T	TR	<LR
Maximum Queue (ft)	130	32	137	45	92	99	74	78	99	58
Average Queue (ft)	49	3	48	8	30	33	28	21	44	15
95th Queue (ft)	104	16	106	30	69	74	64	57	85	43
Link Distance (ft)	791		928		2017	2017		1059	1059	743
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		250			300			
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	T	LT	T	R
Maximum Queue (ft)	100	205	87	131	98	88	64	89	45
Average Queue (ft)	33	83	44	64	40	31	11	20	6
95th Queue (ft)	78	164	82	114	84	73	37	58	26
Link Distance (ft)	250	250		920	382	382	2017	2017	
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)			150						150
Storage Blk Time (%)				0					
Queuing Penalty (veh)				0					

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	175	178	49	145	221	100	150	66	200
Average Queue (ft)	86	87	21	51	98	27	58	18	82
95th Queue (ft)	150	154	46	111	183	68	118	48	158
Link Distance (ft)		449	449		308		1757	922	922
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	200			75		100			
Storage Blk Time (%)	0	0		4	22	0	1		
Queuing Penalty (veh)	0	0		7	17	0	1		

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB	SB
Directions Served	R	R	TR
Maximum Queue (ft)	24	55	3
Average Queue (ft)	7	31	0
95th Queue (ft)	23	50	3
Link Distance (ft)	891	905	803
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	83	57
Average Queue (ft)	38	26
95th Queue (ft)	64	48
Link Distance (ft)	746	626
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB	SB
Directions Served	R	R	T
Maximum Queue (ft)	37	31	6
Average Queue (ft)	10	10	0
95th Queue (ft)	33	33	0
Link Distance (ft)	554	830	359
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	28	29
Average Queue (ft)	7	8
95th Queue (ft)	27	28
Link Distance (ft)	567	579
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Network Summary

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Network wide Queuing Penalty: 36

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Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	11.0	29.0	9.0	27.0	11.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.6	54.9	8.1	22.0	9.5	45.4
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	81	0	30	0	21	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	12	9	6	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	10.0	49.0	24.0	10.0	49.0	24.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	6.1	99.6	8.0	5.4	101.9	8.0
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	84	16	24	91	19	24
Cycles @ Minimum (%)	6	0	3	3	0	3
Cycles Maxed Out (%)	0	84	0	0	81	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	10.0	30.0	21.0	16.0	10.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	0.0	302.1	8.1	0.0	0.0	296.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	100	93	88	100	100	93
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	7	0	0	0	7
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	43.8	8.8	43.8	8.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	2	2	2	2
Cycles @ Minimum (%)	2	7	2	7
Cycles Maxed Out (%)	98	0	13	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	16.0	36.0	31.0	16.0	36.0	31.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	9.9	36.5	16.4	9.0	25.2	16.4
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	5	0	0
Cycles @ Minimum (%)	0	2	2	2	18	2
Cycles Maxed Out (%)	0	100	4	0	0	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	16.0	18.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	9.7	24.6	8.1	19.2	7.7	33.1
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	13	0	40	0	78	0
Cycles @ Minimum (%)	0	13	0	0	0	4
Cycles Maxed Out (%)	3	100	0	10	0	17
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	77.3	11.8	77.3
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	5	6
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	94	0	94
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	5.0	22.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	46.8	6.6	14.7	11.2	34.1
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	2	81	0	24	2
Cycles @ Minimum (%)	0	0	0	0	4
Cycles Maxed Out (%)	17	3	2	3	98
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	29.0	29.0	9.0	10.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	25.8	18.2	7.1	6.6	22.7
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	59	41	0
Cycles @ Minimum (%)	0	14	0	3	0	0
Cycles Maxed Out (%)	0	100	7	0	0	5
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	44.0	44.0	44.0	44.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	68.9	19.3	68.9	19.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	62.3	25.7	62.3	25.7
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	41	100	41
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Proposed Conditions 1**

**AM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.8	0.3	0.4	0.3	0.2	0.0	0.4	1.2	0.0	0.2	4.1	0.6
Total Del/Veh (s)	37.5	31.5	13.9	47.6	44.1	8.3	18.2	13.0	4.9	18.3	27.5	10.8
Stop Delay (hr)	2.5	0.2	0.4	0.3	0.2	0.0	0.3	0.8	0.0	0.1	2.6	0.3
Stop Del/Veh (s)	32.9	26.7	12.9	45.4	41.1	7.9	15.1	8.6	3.5	11.7	17.5	5.4

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	10.7
Total Del/Veh (s)	23.0
Stop Delay (hr)	7.9
Stop Del/Veh (s)	17.0

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.4	0.5	0.0	0.1	0.0	0.1	0.4	0.0	0.0	1.2	0.1	3.0
Total Del/Veh (s)	38.4	37.9	35.4	40.4	8.1	9.8	4.7	2.7	9.3	8.1	6.9	9.8
Stop Delay (hr)	0.4	0.5	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.4	0.1	1.8
Stop Del/Veh (s)	35.9	36.5	33.2	37.5	7.1	7.0	1.6	1.5	4.9	3.0	4.0	5.9

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.5	0.7
Total Del/Veh (s)	38.0	6.6	0.8	0.1	4.6	3.0	2.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	35.9	5.9	0.2	0.0	1.7	0.2	0.6

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.9	0.0
Total Del/Veh (s)	12.6	8.8	5.8	11.1	10.1	4.5	10.4	5.2	4.1	8.2	5.6	4.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	10.4	6.5	5.2	8.9	7.6	3.8	7.6	1.2	0.9	4.2	1.2	1.6

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	1.6
Total Del/Veh (s)	5.8
Stop Delay (hr)	0.5
Stop Del/Veh (s)	1.8

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.0	0.3	0.0	0.0	0.0	0.6	0.6	0.0	0.0	1.9	0.4
Total Del/Veh (s)	19.7	20.5	6.6	14.5	19.3	4.1	13.1	8.3	3.3	13.9	17.3	7.4
Stop Delay (hr)	0.6	0.0	0.3	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.9	0.1
Stop Del/Veh (s)	17.2	15.1	5.9	12.6	16.9	3.5	9.0	3.6	2.0	7.2	8.3	2.4

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.6
Total Del/Veh (s)	12.5
Stop Delay (hr)	2.7
Stop Del/Veh (s)	7.3

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.2	0.1	0.0	0.1	1.0	0.2	0.3	1.1	0.0	0.3	1.7	0.5
Total Del/Veh (s)	41.8	32.6	6.1	27.5	27.7	5.5	15.1	14.1	10.3	14.4	17.4	11.7
Stop Delay (hr)	0.2	0.1	0.0	0.1	0.9	0.2	0.2	0.6	0.0	0.2	0.8	0.3
Stop Del/Veh (s)	39.5	29.8	5.6	24.4	24.0	4.7	10.9	8.0	7.5	8.2	8.2	7.1

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.6
Total Del/Veh (s)	15.8
Stop Delay (hr)	3.6
Stop Del/Veh (s)	10.1

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.7	0.2	0.4	0.1	0.1	0.4	1.9
Total Del/Veh (s)	35.2	16.6	4.8	2.1	7.7	3.9	7.4
Stop Delay (hr)	0.7	0.2	0.1	0.0	0.0	0.1	1.2
Stop Del/Veh (s)	32.4	15.3	1.6	1.2	5.3	1.5	4.9

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.0
Total Del/Veh (s)	12.1	13.0	6.1	11.9	12.8	6.5	3.4	1.4	0.3	3.8	1.3	0.3
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	9.6	10.0	5.2	9.7	9.4	5.6	1.5	0.0	0.0	2.2	0.0	0.1

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.7
Total Del/Veh (s)	2.4
Stop Delay (hr)	0.3
Stop Del/Veh (s)	1.1

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	0.5	0.6	0.2
Total Delay (hr)	2.5	0.1	0.1	0.4	0.6	1.4	1.0	6.0
Total Del/Veh (s)	32.4	5.2	40.5	10.8	7.3	17.8	12.7	16.2
Stop Delay (hr)	2.2	0.1	0.1	0.3	0.3	0.8	0.7	4.4
Stop Del/Veh (s)	28.6	4.2	37.0	7.7	3.9	10.5	8.9	12.0

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Total Delay (hr)	0.0	0.1	0.3	0.0	0.0	0.6	0.3	0.3	0.6	0.0	0.0	0.0
Total Del/Veh (s)	27.8	20.5	17.1	3.3	20.7	19.4	16.7	16.0	12.8	12.4	5.7	15.2
Stop Delay (hr)	0.0	0.1	0.2	0.0	0.0	0.4	0.3	0.2	0.3	0.0	0.0	0.0
Stop Del/Veh (s)	26.3	18.5	13.1	3.4	18.7	14.2	15.6	11.7	6.7	9.1	1.9	12.2

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.0
Total Delay (hr)	0.3	0.8	0.0	0.0	0.1	0.2	0.0	3.8
Total Del/Veh (s)	18.5	12.4	3.8	41.8	33.9	33.9	36.5	15.2
Stop Delay (hr)	0.3	0.5	0.0	0.0	0.1	0.2	0.0	2.8
Stop Del/Veh (s)	15.3	7.8	2.5	38.1	31.0	32.4	34.9	11.2

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.3	0.7	0.2	1.3	1.2	0.1	0.0	0.3	0.0	0.0	0.6	0.1
Total Del/Veh (s)	39.5	31.5	13.4	41.5	34.5	20.1	8.7	5.1	2.1	11.5	9.3	5.1
Stop Delay (hr)	0.2	0.6	0.2	1.1	1.0	0.1	0.0	0.1	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	37.4	27.3	12.7	37.6	28.9	17.9	6.3	2.6	0.0	7.6	3.6	1.6

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.7
Total Del/Veh (s)	17.9
Stop Delay (hr)	3.6
Stop Del/Veh (s)	13.9

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.3	0.3	0.1	0.0	0.0
Total Delay (hr)	0.7	0.9	0.1	0.8	1.5	0.3	0.2	0.3	0.1	0.1	0.6	0.1
Total Del/Veh (s)	43.1	27.7	3.6	38.7	33.4	19.4	12.9	9.0	3.9	10.5	8.1	3.9
Stop Delay (hr)	0.7	0.8	0.1	0.7	1.3	0.3	0.2	0.2	0.0	0.1	0.3	0.1
Stop Del/Veh (s)	39.9	22.9	3.5	34.4	27.4	17.1	10.1	5.4	2.8	7.3	4.5	2.6

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	5.8
Total Del/Veh (s)	18.0
Stop Delay (hr)	4.6
Stop Del/Veh (s)	14.5

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.3	0.2	0.0	0.3	0.0	0.8
Total Del/Veh (s)	3.7	5.3	3.0	1.9	3.6	2.8	3.7
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.5	4.0	0.2	0.1	0.2	0.2	1.1

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.3	0.0	0.2	0.7
Total Del/Veh (s)	7.8	5.7	1.9	1.1	1.6	2.1
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	6.8	5.3	0.1	0.2	0.2	0.6

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.8	0.1	1.2
Total Del/Veh (s)	7.1	4.0	2.0	1.0	4.7	2.3	3.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	7.0	3.6	0.1	0.1	0.1	0.1	0.3

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.0	0.2	0.0	0.4
Total Del/Veh (s)	2.2	0.7	1.4	0.7	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	0.0	0.1

Total Network Performance

Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.4
Total Delay (hr)	57.0
Total Del/Veh (s)	40.5
Stop Delay (hr)	34.6
Stop Del/Veh (s)	24.6

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	1.9	18.8	0.2	38
Edgemoor Road	11	5.1	12.8	0.1	24
Marsh Road	10	13.3	43.2	0.4	34
	62	3.6	19.5	0.2	40
	9	7.4	19.9	0.2	31
	68	1.9	9.2	0.1	38
Beeson Road	8	1.4	7.8	0.1	40
School Lane	74	2.3	9.7	0.1	36
Duncan Road	7	4.8	10.1	0.1	25
	58	1.9	14.7	0.2	41
Bellevue Parkway	6	14.1	42.5	0.4	36
	57	4.1	16.7	0.2	40
Walnut Lane	5	8.3	34.4	0.4	37
E. Holly Oak Road	4	5.7	23.3	0.2	36
	63	2.4	31.2	0.4	44
Rolling Road	3	0.8	5.7	0.1	38
Maple Road	2	4.8	19.8	0.2	36
Dummy Node	71	2.1	9.8	0.1	40
McDonalds Access	1	13.0	19.1	0.1	15
Total		98.8	368.0	3.6	35

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	5.5	11.5	0.1	25
Maple Road	2	8.1	16.3	0.1	24
Super Fresh Access	3	3.2	18.0	0.2	39
	63	0.4	5.1	0.1	42
W. Holly Oak Road	4	5.6	34.6	0.4	40
Silverside Road	5	17.4	35.2	0.2	24
	57	5.0	32.4	0.4	40
Bellevue Parkway	6	17.4	29.5	0.2	22
	58	5.5	34.9	0.4	44
	7	3.9	16.3	0.2	37
Wawa	74	1.4	6.7	0.1	38
Parkway Avenue	8	1.3	8.7	0.1	40
	68	1.6	8.0	0.1	38
Washington Street Ex	9	17.7	24.7	0.1	14
	62	4.3	16.8	0.2	37
Marsh Road	10	12.5	27.9	0.2	28
Shipleigh Road	11	10.0	40.6	0.4	36
	59	1.4	9.2	0.1	33
W Lea Boulevard	12	8.1	24.7	0.2	29
Total		130.5	401.1	3.6	33

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	B60	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	T	LT	R	L	TR	L	T	R
Maximum Queue (ft)	325	162	21	100	57	113	256	189	624	225
Average Queue (ft)	153	58	1	35	10	43	98	27	226	74
95th Queue (ft)	277	118	17	81	37	91	199	107	492	215
Link Distance (ft)	305	305	203	209	209		359		870	
Upstream Blk Time (%)	1								0	
Queuing Penalty (veh)	0								0	
Storage Bay Dist (ft)						150		200		150
Storage Blk Time (%)							2		16	
Queuing Penalty (veh)							2		38	

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	97	120	59	65	173	64	278
Average Queue (ft)	33	41	19	17	36	8	94
95th Queue (ft)	80	96	50	46	103	39	230
Link Distance (ft)	570		286		974		514
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		250		175		150	
Storage Blk Time (%)					0		3
Queuing Penalty (veh)					0		1

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	50	56	24	100
Average Queue (ft)	19	5	2	13
95th Queue (ft)	44	29	13	59
Link Distance (ft)	622	248		974
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	34	61	64	48	109	87	181
Average Queue (ft)	8	19	26	6	30	12	59
95th Queue (ft)	29	52	54	26	78	47	136
Link Distance (ft)	746		520		1150		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155		50		100	
Storage Blk Time (%)				0	2		1
Queuing Penalty (veh)				1	0		0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	T	R
Maximum Queue (ft)	140	108	39	132	140	57	272	173
Average Queue (ft)	65	46	9	51	45	3	105	37
95th Queue (ft)	116	85	32	96	101	27	200	108
Link Distance (ft)	227	227	755		1813		1150	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				125		100		100
Storage Blk Time (%)				0	0		7	0
Queuing Penalty (veh)				0	1		13	0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	68	55	189	77	90	227	199	357
Average Queue (ft)	18	14	77	32	37	80	40	142
95th Queue (ft)	49	43	142	62	71	168	115	282
Link Distance (ft)	255		607			2198		904
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		210	150		125	
Storage Blk Time (%)			0			1		9
Queuing Penalty (veh)			0			1		8

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	148	141	57	149
Average Queue (ft)	68	50	12	35
95th Queue (ft)	127	116	39	102
Link Distance (ft)	996	318		814
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)		9		0
Queuing Penalty (veh)		0		0

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	80	67	54	32	15
Average Queue (ft)	39	32	11	5	1
95th Queue (ft)	66	57	38	23	12
Link Distance (ft)	589	590			449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50	50	
Storage Blk Time (%)			0	0	0
Queuing Penalty (veh)			1	0	0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	L	R	LTR	L	T	TR
Maximum Queue (ft)	234	194	90	40	101	137	410
Average Queue (ft)	117	49	29	5	43	53	161
95th Queue (ft)	200	138	63	26	84	113	313
Link Distance (ft)	968	968		297		808	425
Upstream Blk Time (%)							0
Queuing Penalty (veh)							2
Storage Bay Dist (ft)			105		150		
Storage Blk Time (%)		1				0	
Queuing Penalty (veh)		1				0	

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	R>	<L	T	R	<LR>
Maximum Queue (ft)	96	23	148	52	120	30	79	144	46	99
Average Queue (ft)	22	2	52	13	43	4	20	53	8	33
95th Queue (ft)	61	12	116	40	103	19	56	113	30	72
Link Distance (ft)	791		925		2017			1055		754
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		150		200	150		150	
Storage Blk Time (%)					0		0	0		
Queuing Penalty (veh)					0		0	0		

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	L	T	R
Maximum Queue (ft)	53	160	168	196	47	127	14	137	74
Average Queue (ft)	13	52	75	94	8	36	1	36	9
95th Queue (ft)	38	113	135	169	32	85	7	92	32
Link Distance (ft)	254	254		924		384		2017	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			150		100		150		150
Storage Blk Time (%)			0	2	0	0		0	
Queuing Penalty (veh)			1	2	0	0		0	

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	117	176	71	149	261	99	135	99	174
Average Queue (ft)	45	68	26	61	132	25	45	13	61
95th Queue (ft)	93	132	57	132	232	68	102	52	136
Link Distance (ft)		449	449		318		1757		921
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	200			75		100		100	
Storage Blk Time (%)		0		7	29	1	1		2
Queuing Penalty (veh)		0		16	22	1	1		1

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	25	85
Average Queue (ft)	6	42
95th Queue (ft)	23	69
Link Distance (ft)	904	912
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB	SB
Directions Served	R	R	TR
Maximum Queue (ft)	74	24	31
Average Queue (ft)	34	7	1
95th Queue (ft)	60	24	20
Link Distance (ft)	752	621	390
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	36	50
Average Queue (ft)	7	23
95th Queue (ft)	27	46
Link Distance (ft)	563	841
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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**Movement**

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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**Network Summary**

Network wide Queuing Penalty: 111

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	9.0	25.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.5	52.9	8.6	21.3	7.4	49.6
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	67	0	36	0	39	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	18	24	0	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	43.0	27.0	13.0	43.0	27.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	7.8	85.7	11.2	6.8	84.2	11.2
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	90	9	9	81	9	9
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	91	0	0	91	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	8.0	33.0	18.0	18.0	8.0	33.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	0.0	207.6	7.1	0.0	0.0	208.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	100	79	72	100	100	79
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	21	0	0	0	21
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	57.9	7.6	57.9	7.6
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	7	6	7	6
Cycles @ Minimum (%)	2	19	2	19
Cycles Maxed Out (%)	93	0	24	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	40.0	30.0	13.0	40.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	8.4	37.6	13.6	8.8	26.6	13.6
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	14	0	0
Cycles @ Minimum (%)	0	2	2	5	9	2
Cycles Maxed Out (%)	0	100	4	0	5	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	18.0	16.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	8.3	36.6	13.6	7.6	8.3	36.2
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01	NA
Cycles Skipped (%)	41	2	0	44	37	0
Cycles @ Minimum (%)	3	4	0	6	3	2
Cycles Maxed Out (%)	0	98	5	0	0	28
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	77.8	11.3	77.8
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	6	6
Cycles @ Minimum (%)	0	3	0
Cycles Maxed Out (%)	94	0	94
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	9.0	18.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	52.2	7.3	17.2	10.7	39.3
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	2	88	0	23	2
Cycles @ Minimum (%)	0	0	0	0	5
Cycles Maxed Out (%)	30	0	7	6	98
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	33.0	25.0	9.0	10.0	34.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	25.4	15.6	8.0	6.8	22.3
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	27	40	0
Cycles @ Minimum (%)	0	17	0	0	0	0
Cycles Maxed Out (%)	0	100	5	3	0	2
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	53.0	35.0	53.0	35.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	65.8	19.6	65.8	19.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	63.8	24.2	63.8	24.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	31	100	31
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Proposed Conditions 1**

**PM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	2.6	0.2	0.4	0.2	0.3	0.1	1.0	1.7	0.1	0.2	7.4	1.5
Total Del/Veh (s)	37.2	30.7	12.7	47.7	43.4	9.2	26.4	13.8	8.7	43.9	44.5	25.3
Stop Delay (hr)	2.3	0.1	0.4	0.2	0.2	0.1	0.9	1.0	0.1	0.1	4.8	0.8
Stop Del/Veh (s)	33.1	26.0	12.0	45.7	40.2	8.8	22.1	8.2	6.5	30.1	28.7	14.1

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	15.7
Total Del/Veh (s)	29.5
Stop Delay (hr)	11.1
Stop Del/Veh (s)	20.8

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.2	0.1	0.1	0.0	0.8	0.0	0.1	1.0	0.0	2.5
Total Del/Veh (s)	42.8	37.5	41.0	11.0	7.2	4.6	1.9	9.8	6.6	4.4	6.8
Stop Delay (hr)	0.2	0.2	0.1	0.1	0.0	0.2	0.0	0.0	0.2	0.0	1.0
Stop Del/Veh (s)	40.6	36.7	38.8	10.0	4.1	1.1	0.6	5.5	1.6	2.1	2.8

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.4	0.6
Total Del/Veh (s)	46.7	5.8	0.8	0.0	6.0	2.4	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	44.9	5.2	0.1	0.0	3.2	0.1	0.3

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.1	0.1	0.1	0.1	1.3	0.0	0.1	0.9	0.0
Total Del/Veh (s)	16.2	14.2	5.2	15.7	18.1	8.2	11.2	8.1	5.0	11.9	6.5	4.6
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.3	0.0	0.1	0.2	0.0
Stop Del/Veh (s)	14.1	11.9	4.5	13.2	15.2	7.2	6.2	1.9	1.3	7.6	1.7	1.8

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	2.8
Total Del/Veh (s)	7.9
Stop Delay (hr)	1.0
Stop Del/Veh (s)	2.8

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.1	0.1	0.3	0.0	0.1	0.0	1.0	1.5	0.0	0.0	2.1	0.4
Total Del/Veh (s)	20.0	19.7	6.0	23.6	20.8	7.7	18.2	12.3	7.1	13.5	22.2	8.1
Stop Delay (hr)	0.9	0.1	0.3	0.0	0.1	0.0	0.7	0.7	0.0	0.0	1.3	0.2
Stop Del/Veh (s)	17.0	14.7	5.2	21.6	18.1	7.1	12.5	5.7	3.9	7.4	13.1	3.5

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	6.6
Total Del/Veh (s)	14.9
Stop Delay (hr)	4.2
Stop Del/Veh (s)	9.4

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.1
Total Delay (hr)	1.2	1.1	0.1	0.1	0.1	0.2	0.1	2.8	0.1	0.8	1.8	0.0
Total Del/Veh (s)	29.5	30.4	8.3	34.6	47.3	8.1	16.4	25.4	15.5	20.2	15.7	10.6
Stop Delay (hr)	1.1	0.9	0.1	0.1	0.1	0.2	0.0	1.7	0.1	0.6	1.0	0.0
Stop Del/Veh (s)	25.7	25.9	6.4	32.4	44.2	7.7	11.2	15.7	10.8	15.4	8.4	6.8

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	8.4
Total Del/Veh (s)	21.3
Stop Delay (hr)	5.9
Stop Del/Veh (s)	14.9

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.8	0.2	0.0	0.5	0.1	0.1	0.5	0.0	2.3
Total Del/Veh (s)	38.1	19.1	9.8	5.0	1.9	9.9	4.4	2.0	7.6
Stop Delay (hr)	0.8	0.2	0.0	0.2	0.0	0.1	0.2	0.0	1.5
Stop Del/Veh (s)	35.2	17.4	7.5	1.6	0.9	7.4	1.5	1.0	4.8

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0
Total Del/Veh (s)	12.6	14.5	6.7	13.8	12.8	7.2	4.1	1.8	0.5	4.7	1.6	0.4
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	10.3	11.5	5.9	11.7	9.9	6.5	2.0	0.1	0.1	2.4	0.0	0.0

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.8
Total Del/Veh (s)	2.6
Stop Delay (hr)	0.3
Stop Del/Veh (s)	1.0

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	2.2	3.8	1.1
Total Delay (hr)	2.6	0.5	0.0	0.7	0.6	2.9	1.4	8.7
Total Del/Veh (s)	32.8	8.8	39.4	15.9	7.7	26.6	22.2	20.5
Stop Delay (hr)	2.3	0.4	0.0	0.5	0.3	1.9	1.1	6.6
Stop Del/Veh (s)	28.8	7.4	36.5	12.5	4.0	17.5	16.7	15.5

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0
Total Delay (hr)	0.1	0.3	0.8	0.1	0.0	0.5	0.3	0.3	1.3	0.0	0.0	0.0
Total Del/Veh (s)	20.5	23.1	19.3	4.0	20.3	16.7	14.6	18.2	17.4	12.8	7.1	21.9
Stop Delay (hr)	0.0	0.2	0.6	0.1	0.0	0.4	0.3	0.2	0.7	0.0	0.0	0.0
Stop Del/Veh (s)	17.9	20.4	14.1	3.5	16.8	11.8	13.7	12.8	9.3	10.0	3.3	17.2

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.1	0.1	0.1	0.0
Total Delay (hr)	0.5	1.1	0.0	0.0	0.1	5.4
Total Del/Veh (s)	22.4	15.1	4.8	35.0	34.3	16.6
Stop Delay (hr)	0.4	0.6	0.0	0.0	0.1	3.7
Stop Del/Veh (s)	18.0	9.0	2.3	32.7	33.6	11.4

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	0.7	1.3	0.1	0.8	1.0	0.1	0.1	0.7	0.1	0.0	0.6	0.1
Total Del/Veh (s)	41.9	34.1	18.5	47.6	34.0	14.8	15.0	9.8	2.4	13.5	8.5	5.1
Stop Delay (hr)	0.6	1.1	0.1	0.7	0.8	0.1	0.1	0.4	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	39.4	29.4	17.5	44.6	28.8	13.1	11.7	6.1	0.0	7.2	3.1	1.3

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.5
Total Del/Veh (s)	18.0
Stop Delay (hr)	4.2
Stop Del/Veh (s)	13.9

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.4	0.4	0.0	0.0	0.0
Total Delay (hr)	1.7	1.4	0.1	0.8	1.2	0.2	0.3	0.5	0.1	0.2	0.7	0.2
Total Del/Veh (s)	46.9	29.1	3.7	38.7	29.5	18.0	15.9	9.2	5.8	16.7	12.3	6.8
Stop Delay (hr)	1.6	1.1	0.1	0.7	1.0	0.2	0.2	0.3	0.1	0.2	0.4	0.1
Stop Del/Veh (s)	42.8	23.6	3.4	35.0	24.0	16.1	12.5	5.3	4.1	12.5	7.4	4.8

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.4
Total Del/Veh (s)	20.5
Stop Delay (hr)	6.0
Stop Del/Veh (s)	16.6

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.6	0.2	1.3
Total Del/Veh (s)	4.2	4.8	3.4	2.9	6.2	3.8	4.6
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.9	3.8	0.2	0.1	0.3	0.2	0.6

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.1	0.3	0.0	0.4	0.0	1.2
Total Del/Veh (s)	13.5	6.2	2.1	0.9	3.0	0.4	3.7
Stop Delay (hr)	0.4	0.1	0.0	0.0	0.1	0.0	0.6
Stop Del/Veh (s)	12.2	5.6	0.1	0.3	0.8	0.1	1.7

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.0	0.0	0.5	0.0	1.0	0.1	1.7
Total Del/Veh (s)	7.3	7.3	2.8	1.2	6.0	3.2	4.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	7.2	7.1	0.1	0.1	0.1	0.1	0.2

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.2	0.0	0.5
Total Del/Veh (s)	5.2	5.2	1.8	0.5	2.1	0.8	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.5	4.6	0.0	0.0	0.1	0.1	0.1

Total Network Performance

Denied Delay (hr)	1.0
Denied Del/Veh (s)	0.7
Total Delay (hr)	77.9
Total Del/Veh (s)	48.4
Stop Delay (hr)	46.8
Stop Del/Veh (s)	29.1

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	2.1	19.0	0.2	37
Edgemoor Road	11	9.8	17.5	0.1	18
Marsh Road	10	18.5	48.0	0.4	31
	62	4.1	19.9	0.2	39
	9	7.9	20.5	0.2	30
	68	2.1	9.4	0.1	37
Beeson Road	8	1.9	8.3	0.1	37
School Lane	74	1.9	9.2	0.1	37
Duncan Road	7	4.9	10.4	0.1	25
	58	2.0	14.7	0.2	41
Bellevue Parkway	6	25.4	53.7	0.4	29
	57	6.0	18.6	0.2	36
Walnut Lane	5	12.3	37.7	0.4	34
E. Holly Oak Road	4	8.7	26.2	0.2	32
	63	3.6	32.2	0.4	42
Rolling Road	3	0.8	5.8	0.1	37
Maple Road	2	4.6	19.6	0.2	36
Dummy Node	71	2.8	10.6	0.1	37
McDonalds Access	1	13.8	19.8	0.1	14
Total		133.1	401.0	3.6	33

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	6.9	13.0	0.1	22
Maple Road	2	6.7	14.8	0.1	26
Super Fresh Access	3	2.4	17.5	0.2	41
	63	0.2	4.9	0.1	44
W. Holly Oak Road	4	6.5	35.4	0.4	39
Silverside Road	5	22.2	39.8	0.2	21
	57	4.9	32.2	0.4	40
Bellevue Parkway	6	15.7	27.8	0.2	24
	58	5.6	34.9	0.4	44
	7	4.4	16.9	0.2	36
Wawa	74	2.2	7.5	0.1	34
Parkway Avenue	8	1.6	9.1	0.1	38
	68	3.2	9.5	0.1	32
Washington Street Ex	9	27.3	36.4	0.1	10
	62	7.7	19.8	0.2	31
Marsh Road	10	15.3	30.7	0.2	26
Shipleigh Road	11	8.9	39.9	0.4	37
	59	1.1	8.9	0.1	35
W Lea Boulevard	12	12.3	28.9	0.2	25
Total		155.0	427.8	3.6	31

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	R	L	TR	L	T	R
Maximum Queue (ft)	282	147	97	68	173	286	190	1017	225
Average Queue (ft)	143	48	30	19	75	134	16	346	115
95th Queue (ft)	243	101	69	53	148	263	85	803	276
Link Distance (ft)	305	305	210	210		359		2188	
Upstream Blk Time (%)	0					0			
Queuing Penalty (veh)	0					0			
Storage Bay Dist (ft)					150		200		150
Storage Blk Time (%)					0	5		26	
Queuing Penalty (veh)					2	7		59	

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	66	70	67	42	176	104	261
Average Queue (ft)	15	15	23	9	50	15	69
95th Queue (ft)	48	48	55	33	141	58	189
Link Distance (ft)	570		286		974		514
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		250		175		150	
Storage Blk Time (%)					0		1
Queuing Penalty (veh)					0		0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	39	73	27	47
Average Queue (ft)	9	5	4	3
95th Queue (ft)	33	36	19	22
Link Distance (ft)	622	248		974
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	46	48	112	55	198	95	167
Average Queue (ft)	16	10	40	9	64	21	60
95th Queue (ft)	43	35	81	34	146	58	142
Link Distance (ft)	746		520		1150		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155		50		100	
Storage Blk Time (%)				1	6		2
Queuing Penalty (veh)				5	1		1

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	T	R
Maximum Queue (ft)	211	108	61	177	248	26	349	161
Average Queue (ft)	91	47	14	71	92	2	123	43
95th Queue (ft)	165	83	44	141	190	14	263	120
Link Distance (ft)	227	227	755		1813		1150	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)				125		100		100
Storage Blk Time (%)				2	4		11	0
Queuing Penalty (veh)				7	7		20	0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	B17	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	T	LT	R	L	TR	L	TR
Maximum Queue (ft)	318	175	30	83	65	98	366	185	322
Average Queue (ft)	162	42	1	23	26	10	160	61	116
95th Queue (ft)	282	137	17	61	53	55	293	122	228
Link Distance (ft)	255		282	607			2198		904
Upstream Blk Time (%)	3								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		150			210	150		125	
Storage Blk Time (%)	11	0					10	0	7
Queuing Penalty (veh)	6	0					2	2	9

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR
Maximum Queue (ft)	164	39	202	69	199
Average Queue (ft)	73	4	53	19	40
95th Queue (ft)	136	22	136	52	121
Link Distance (ft)	996		318		814
Upstream Blk Time (%)			0		
Queuing Penalty (veh)			0		
Storage Bay Dist (ft)		25		150	
Storage Blk Time (%)		2	10		0
Queuing Penalty (veh)		8	1		0

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	L
Maximum Queue (ft)	99	69	50	3	30
Average Queue (ft)	38	22	10	0	6
95th Queue (ft)	70	54	34	4	23
Link Distance (ft)	589	590		390	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			50		50
Storage Blk Time (%)			0		
Queuing Penalty (veh)			1		

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	L	R	LTR	L	T	TR
Maximum Queue (ft)	238	198	136	34	140	147	426
Average Queue (ft)	129	41	54	3	53	53	229
95th Queue (ft)	207	124	96	19	103	116	421
Link Distance (ft)	968	968		297		808	425
Upstream Blk Time (%)							2
Queuing Penalty (veh)							14
Storage Bay Dist (ft)			105		150		
Storage Blk Time (%)		1	1		0	0	
Queuing Penalty (veh)		2	1		1	0	

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	R>	<L	T	R	<LR
Maximum Queue (ft)	153	28	155	90	219	75	80	160	47	49
Average Queue (ft)	60	2	53	14	78	7	23	64	8	12
95th Queue (ft)	126	13	114	54	175	27	59	131	28	36
Link Distance (ft)	791		925		2017			1054		756
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		150		200	150		150	
Storage Blk Time (%)	0				2			1		
Queuing Penalty (veh)	0				1			1		

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	L	T	R
Maximum Queue (ft)	102	186	106	178	77	216	25	133	38
Average Queue (ft)	33	77	46	79	11	76	2	31	7
95th Queue (ft)	77	150	90	146	46	156	11	90	27
Link Distance (ft)	254	254		924		384		2017	
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)			150		100		150		150
Storage Blk Time (%)			0	1	0	4		0	
Queuing Penalty (veh)			0	0	0	1		0	

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	196	234	65	147	228	83	144	114	217
Average Queue (ft)	94	94	27	55	106	32	63	29	84
95th Queue (ft)	172	174	59	117	198	70	126	88	173
Link Distance (ft)		449	449		318		1757		921
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	200			75		100		100	
Storage Blk Time (%)	1	0		8	21	0	2	0	4
Queuing Penalty (veh)	2	0		15	17	0	1	0	2

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	26	65
Average Queue (ft)	7	30
95th Queue (ft)	24	53
Link Distance (ft)	904	912
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB	SB
Directions Served	R	R	TR
Maximum Queue (ft)	109	48	117
Average Queue (ft)	46	23	15
95th Queue (ft)	91	44	86
Link Distance (ft)	752	621	390
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB	NB
Directions Served	R	R	TR
Maximum Queue (ft)	33	29	18
Average Queue (ft)	10	7	1
95th Queue (ft)	32	26	11
Link Distance (ft)	563	841	514
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	33	34
Average Queue (ft)	8	8
95th Queue (ft)	30	30
Link Distance (ft)	575	587
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Network Summary

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Network wide Queuing Penalty: 198

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Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	11.0	29.0	9.0	27.0	11.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.2	56.6	8.2	21.3	9.1	47.0
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	84	0	35	0	21	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	18	16	6	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	10.0	49.0	24.0	10.0	49.0	24.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	6.3	109.3	8.8	5.9	111.2	8.8
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	79	26	32	88	29	32
Cycles @ Minimum (%)	6	0	0	3	0	0
Cycles Maxed Out (%)	0	74	0	0	71	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	10.0	30.0	21.0	16.0	10.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	0.0	535.8	7.2	0.0	0.0	425.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	100	96	88	100	100	97
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	4	0	0	0	3
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	49.1	9.3	49.1	9.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	4	4	4
Cycles @ Minimum (%)	0	6	0	6
Cycles Maxed Out (%)	96	0	17	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	16.0	36.0	31.0	16.0	36.0	31.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	6.6	38.4	18.0	10.0	26.5	18.0
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	10	0	0
Cycles @ Minimum (%)	0	0	2	0	9	2
Cycles Maxed Out (%)	0	100	6	0	6	6
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	16.0	18.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	9.4	30.8	8.7	21.0	8.1	41.3
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	11	0	38	0	84	0
Cycles @ Minimum (%)	0	3	0	0	0	0
Cycles Maxed Out (%)	3	100	0	17	0	26
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	76.3	12.5	76.3
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	3	3	3
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	97	0	97
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	5.0	22.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	55.9	6.4	20.6	11.1	41.2
g/C Ratio	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	0	91	0	17	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	43	6	13	9	100
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	29.0	29.0	9.0	10.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	27.5	21.2	7.0	7.1	23.9
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	62	41	0
Cycles @ Minimum (%)	0	9	0	3	0	0
Cycles Maxed Out (%)	0	100	5	0	0	2
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	44.0	44.0	44.0	44.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	67.7	20.3	67.7	20.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	62.0	26.0	62.0	26.0
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	44	100	44
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Proposed Conditions 2**

**AM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.8	0.3	0.4	0.4	0.3	0.0	0.4	1.2	0.0	0.2	4.0	0.5
Total Del/Veh (s)	38.8	32.7	15.1	48.6	51.0	7.4	20.3	12.8	6.2	21.9	26.4	9.6
Stop Delay (hr)	2.5	0.3	0.4	0.4	0.3	0.0	0.3	0.7	0.0	0.1	2.5	0.2
Stop Del/Veh (s)	34.5	27.8	14.1	46.4	47.7	6.9	17.0	8.2	4.6	14.7	16.5	4.4

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	10.6
Total Del/Veh (s)	23.1
Stop Delay (hr)	7.9
Stop Del/Veh (s)	17.1

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.4	0.6	0.0	0.1	0.1	0.1	0.4	0.0	0.0	1.2	0.1	2.9
Total Del/Veh (s)	40.9	41.5	43.3	43.2	10.7	8.3	4.2	1.8	8.9	7.8	5.9	9.5
Stop Delay (hr)	0.4	0.5	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.4	0.0	1.7
Stop Del/Veh (s)	38.3	40.2	40.9	40.2	9.5	5.7	1.5	0.7	4.8	2.6	3.2	5.7

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.5	0.7
Total Del/Veh (s)	48.2	7.6	0.8	0.6	4.6	2.9	2.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	46.0	6.8	0.1	0.4	1.0	0.2	0.6

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.1	0.8	0.0
Total Del/Veh (s)	17.2	11.7	5.5	14.6	16.2	5.2	12.3	4.6	3.7	9.0	5.1	5.0
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	15.0	9.5	4.9	12.5	13.3	4.5	8.6	1.1	1.1	5.2	1.0	1.7

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	1.5
Total Del/Veh (s)	5.4
Stop Delay (hr)	0.5
Stop Del/Veh (s)	1.8

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.0	0.3	0.0	0.0	0.0	0.6	0.4	0.0	0.0	2.0	0.4
Total Del/Veh (s)	21.4	19.6	6.7	27.2	15.4	8.1	12.8	6.3	2.6	12.2	17.7	7.9
Stop Delay (hr)	0.6	0.0	0.3	0.0	0.0	0.0	0.4	0.2	0.0	0.0	1.0	0.1
Stop Del/Veh (s)	19.0	15.4	6.1	24.8	12.9	7.5	8.9	2.4	1.4	5.3	8.7	2.9

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.6
Total Del/Veh (s)	12.5
Stop Delay (hr)	2.8
Stop Del/Veh (s)	7.5

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.1	1.1	0.2	0.3	1.1	0.0	0.3	1.8	0.6
Total Del/Veh (s)	36.7	38.2	6.9	27.2	28.2	5.8	14.8	13.8	6.8	13.8	17.5	11.8
Stop Delay (hr)	0.1	0.1	0.0	0.1	1.0	0.2	0.2	0.6	0.0	0.2	0.8	0.3
Stop Del/Veh (s)	34.4	35.2	6.5	24.1	24.4	4.9	11.0	7.4	4.9	7.7	8.1	7.0

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.7
Total Del/Veh (s)	15.8
Stop Delay (hr)	3.6
Stop Del/Veh (s)	10.0

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.7	0.2	0.4	0.1	0.1	0.3	1.9
Total Del/Veh (s)	34.1	17.2	5.0	2.1	7.4	3.6	7.3
Stop Delay (hr)	0.7	0.2	0.1	0.0	0.0	0.1	1.2
Stop Del/Veh (s)	31.4	15.6	1.6	1.1	5.3	1.3	4.8

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.0
Total Del/Veh (s)	11.2	11.0	5.9	13.3	13.1	7.4	3.2	1.3	0.2	3.3	1.2	0.3
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	8.8	7.7	5.0	11.1	9.6	6.6	1.5	0.0	0.0	1.7	0.0	0.0

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.7
Total Del/Veh (s)	2.4
Stop Delay (hr)	0.3
Stop Del/Veh (s)	1.1

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.0	0.9	0.7	0.4
Total Delay (hr)	2.3	0.1	0.1	0.4	0.5	1.5	1.2	6.2
Total Del/Veh (s)	30.0	5.3	55.5	11.8	7.1	18.5	14.8	16.6
Stop Delay (hr)	2.0	0.1	0.1	0.3	0.3	0.9	0.9	4.5
Stop Del/Veh (s)	26.4	4.4	51.5	8.6	3.6	10.9	10.5	12.1

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.3	0.1	0.0	0.6	0.3	0.3	0.7	0.0	0.0	0.0
Total Del/Veh (s)	19.3	21.7	18.8	3.6	21.3	20.2	17.1	15.9	14.0	10.9	4.9	21.3
Stop Delay (hr)	0.0	0.1	0.2	0.1	0.0	0.5	0.3	0.2	0.4	0.0	0.0	0.0
Stop Del/Veh (s)	17.6	19.9	14.4	3.7	17.5	14.7	16.0	11.3	7.7	8.5	1.8	17.9

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.3	0.1	0.1	0.1	0.2	0.0
Total Delay (hr)	0.3	1.0	0.0	0.1	0.2	0.2	0.1	4.2
Total Del/Veh (s)	20.1	15.5	4.3	36.8	36.7	30.0	33.2	16.5
Stop Delay (hr)	0.3	0.6	0.0	0.0	0.2	0.2	0.1	3.1
Stop Del/Veh (s)	16.7	10.2	2.7	33.8	33.8	28.5	31.7	12.3

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.6	0.1	1.4	1.1	0.1	0.0	0.3	0.0	0.0	0.6	0.1
Total Del/Veh (s)	42.9	31.6	13.3	42.0	31.8	16.7	7.5	5.6	2.2	14.2	9.5	5.3
Stop Delay (hr)	0.3	0.5	0.1	1.2	0.9	0.1	0.0	0.2	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	40.7	27.6	12.7	38.1	26.4	15.1	5.4	2.9	0.0	9.3	3.7	1.7

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	4.7
Total Del/Veh (s)	17.9
Stop Delay (hr)	3.7
Stop Del/Veh (s)	14.0

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.3	0.3	0.1	0.0	0.0
Total Delay (hr)	0.9	1.1	0.1	0.7	1.6	0.3	0.2	0.3	0.1	0.1	0.6	0.1
Total Del/Veh (s)	50.8	29.1	3.8	35.8	32.1	19.3	13.1	8.0	4.5	10.8	8.7	4.7
Stop Delay (hr)	0.9	0.9	0.1	0.6	1.3	0.3	0.2	0.2	0.0	0.1	0.3	0.1
Stop Del/Veh (s)	47.5	24.2	3.6	31.5	25.9	16.7	10.4	4.8	3.2	7.6	4.8	2.9

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	6.2
Total Del/Veh (s)	18.8
Stop Delay (hr)	5.0
Stop Del/Veh (s)	15.1

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	0.2	0.2	0.0	0.3	0.0	0.8
Total Del/Veh (s)	3.3	4.9	2.9	2.1	3.8	3.2	3.7
Stop Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	3.0	3.6	0.2	0.2	0.2	0.2	0.9

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.3	0.0	0.2	0.7
Total Del/Veh (s)	7.8	8.4	2.0	1.0	1.7	2.2
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	6.7	8.0	0.1	0.3	0.2	0.6

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.8	0.1	1.2
Total Del/Veh (s)	7.9	4.2	1.9	1.1	4.9	2.5	3.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	7.8	3.7	0.1	0.1	0.1	0.1	0.3

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.0	0.2	0.0	0.4
Total Del/Veh (s)	2.2	0.6	1.3	0.6	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.1	0.1	0.0	0.1

Total Network Performance

Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.4
Total Delay (hr)	57.9
Total Del/Veh (s)	41.0
Stop Delay (hr)	35.3
Stop Del/Veh (s)	25.0

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	1.8	18.6	0.2	38
Edgemoor Road	11	5.6	13.4	0.1	23
Marsh Road	10	14.5	44.6	0.4	33
	62	3.5	19.4	0.2	40
	9	6.9	19.3	0.2	32
	68	2.0	9.3	0.1	38
Beeson Road	8	1.3	7.7	0.1	40
School Lane	74	2.3	9.6	0.1	36
Duncan Road	7	5.0	10.4	0.1	25
	58	2.1	14.8	0.2	41
Bellevue Parkway	6	13.8	42.0	0.4	37
	57	4.4	17.0	0.2	39
Walnut Lane	5	6.3	31.9	0.4	40
E. Holly Oak Road	4	4.9	22.4	0.2	38
	63	2.1	30.7	0.4	44
Rolling Road	3	0.8	5.7	0.1	38
Maple Road	2	4.2	19.0	0.2	37
Dummy Node	71	2.0	9.7	0.1	40
McDonalds Access	1	12.5	18.5	0.1	15
Total		96.0	364.2	3.6	36

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	5.6	11.7	0.1	25
Maple Road	2	7.8	16.0	0.1	24
Super Fresh Access	3	3.1	17.9	0.2	40
	63	0.4	5.0	0.1	43
W. Holly Oak Road	4	5.1	34.0	0.4	40
Silverside Road	5	17.9	35.7	0.2	24
	57	5.1	32.3	0.4	40
Bellevue Parkway	6	17.5	29.6	0.2	22
	58	5.6	34.8	0.4	44
	7	3.6	16.0	0.2	38
Wawa	74	1.4	6.7	0.1	38
Parkway Avenue	8	1.2	8.6	0.1	40
	68	1.7	8.1	0.1	38
Washington Street Ex	9	18.4	25.9	0.1	14
	62	4.6	17.0	0.2	36
Marsh Road	10	15.6	31.0	0.2	25
Shipleigh Road	11	10.6	41.4	0.4	35
	59	1.4	9.2	0.1	33
W Lea Boulevard	12	8.7	25.3	0.2	28
Total		135.1	406.2	3.6	32

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	LT	R	L	TR	L	T	R
Maximum Queue (ft)	302	170	116	53	140	230	165	558	225
Average Queue (ft)	149	56	41	8	46	100	21	219	68
95th Queue (ft)	256	127	91	32	111	200	84	468	206
Link Distance (ft)	305	305	209	209		359		870	
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)					150		200		150
Storage Blk Time (%)					0	2		16	
Queuing Penalty (veh)					0	2		37	

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	115	142	70	56	155	60	261
Average Queue (ft)	31	39	20	16	32	7	90
95th Queue (ft)	80	95	54	45	96	36	212
Link Distance (ft)	570		286		974		514
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		250		175		150	
Storage Blk Time (%)					0		2
Queuing Penalty (veh)					0		0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	59	51	22	81
Average Queue (ft)	20	5	1	10
95th Queue (ft)	50	28	11	48
Link Distance (ft)	622	248		974
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	41	64	67	45	102	88	160
Average Queue (ft)	9	19	25	5	27	11	50
95th Queue (ft)	31	51	58	23	73	45	119
Link Distance (ft)	746		520		1150		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155		50		100	
Storage Blk Time (%)				0	2		1
Queuing Penalty (veh)				2	0		0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	T	R
Maximum Queue (ft)	133	101	47	132	117	26	295	175
Average Queue (ft)	62	46	11	53	31	3	122	47
95th Queue (ft)	115	83	37	103	83	18	248	134
Link Distance (ft)	227	227	755		1813		1150	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				125		100		100
Storage Blk Time (%)				0	0		9	0
Queuing Penalty (veh)				1	0		17	0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	LT	R	L	TR	L	TR
Maximum Queue (ft)	72	59	193	83	141	239	175	359
Average Queue (ft)	18	15	80	32	35	80	37	141
95th Queue (ft)	53	42	154	60	80	176	106	294
Link Distance (ft)	255		607			2198		904
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		150		210	150		125	
Storage Blk Time (%)			0		0	2		8
Queuing Penalty (veh)			0		0	2		7

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	172	151	47	131
Average Queue (ft)	68	50	11	32
95th Queue (ft)	132	115	34	92
Link Distance (ft)	996	318		814
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)		9		0
Queuing Penalty (veh)		0		0

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	76	75	53	30
Average Queue (ft)	38	31	11	3
95th Queue (ft)	62	60	39	17
Link Distance (ft)	589	590		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			50	50
Storage Blk Time (%)			0	0
Queuing Penalty (veh)			1	0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	L	R	LTR	L	T	TR
Maximum Queue (ft)	232	164	62	55	106	135	409
Average Queue (ft)	118	39	27	5	43	49	171
95th Queue (ft)	204	106	53	27	86	105	338
Link Distance (ft)	968	968		297		808	425
Upstream Blk Time (%)							0
Queuing Penalty (veh)							3
Storage Bay Dist (ft)			105		150		
Storage Blk Time (%)		1	0		0	0	
Queuing Penalty (veh)		0	0		0	0	

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	R>	<L	T	R	<LR>
Maximum Queue (ft)	64	29	160	88	181	29	80	237	34	95
Average Queue (ft)	22	2	60	12	49	4	18	64	7	34
95th Queue (ft)	54	14	124	46	120	18	52	159	27	69
Link Distance (ft)	791		925		2017			1055		754
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		150		200	150		150	
Storage Blk Time (%)					1			1		
Queuing Penalty (veh)					0			1		

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	L	T	R
Maximum Queue (ft)	62	138	178	185	63	142	35	152	71
Average Queue (ft)	16	47	78	89	9	42	3	39	12
95th Queue (ft)	47	105	142	161	37	100	17	113	47
Link Distance (ft)	254	254		924		384		2017	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			150		100		150		150
Storage Blk Time (%)			1	2		1		0	
Queuing Penalty (veh)			1	2		0		0	

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	144	178	59	149	308	88	111	105	190
Average Queue (ft)	55	77	26	68	144	26	41	16	64
95th Queue (ft)	113	153	54	149	256	64	93	57	146
Link Distance (ft)		449	449		318		1757		921
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	200			75		100		100	
Storage Blk Time (%)	0	0		7	29	0	1	0	3
Queuing Penalty (veh)	0	0		15	22	0	0	0	1

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	22	74
Average Queue (ft)	5	40
95th Queue (ft)	20	65
Link Distance (ft)	904	912
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB	SB
Directions Served	R	R	TR
Maximum Queue (ft)	64	35	37
Average Queue (ft)	31	6	2
95th Queue (ft)	54	25	21
Link Distance (ft)	752	621	390
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	29	58
Average Queue (ft)	9	23
95th Queue (ft)	30	48
Link Distance (ft)	563	841
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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**Movement**

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

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**Network Summary**

Network wide Queuing Penalty: 114

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	9.0	25.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	6.1	52.1	8.6	21.3	7.5	50.1
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	67	0	29	0	47	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	21	21	0	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	43.0	27.0	13.0	43.0	27.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	6.5	88.1	10.5	7.6	88.8	10.5
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	90	9	9	87	9	9
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	91	0	0	91	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	8.0	33.0	18.0	18.0	8.0	33.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	0.0	211.1	7.7	8.3	0.0	209.4
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	100	82	78	97	100	82
Cycles @ Minimum (%)	0	0	0	3	0	0
Cycles Maxed Out (%)	0	18	0	0	0	18
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	61.4	7.7	61.4	7.7
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	9	9	9	9
Cycles @ Minimum (%)	0	19	0	19
Cycles Maxed Out (%)	91	0	29	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	13.0	40.0	30.0	13.0	40.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	9.5	39.0	12.9	9.0	27.3	12.9
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	9	0	0
Cycles @ Minimum (%)	0	2	5	2	7	5
Cycles Maxed Out (%)	0	100	0	2	2	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	18.0	16.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	7.8	39.2	13.6	7.6	8.2	37.4
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	44	4	0	47	33	2
Cycles @ Minimum (%)	0	4	0	6	0	2
Cycles Maxed Out (%)	0	96	5	0	0	26
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	76.3	12.5	76.3
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	6	6	6
Cycles @ Minimum (%)	0	0	0
Cycles Maxed Out (%)	94	0	94
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	9.0	18.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	49.5	7.7	16.7	10.3	37.7
g/C Ratio	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	0	91	0	28	0
Cycles @ Minimum (%)	0	0	0	0	2
Cycles Maxed Out (%)	30	0	9	3	100
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	33.0	25.0	9.0	10.0	34.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	26.3	16.6	7.9	7.1	22.5
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	21	37	0
Cycles @ Minimum (%)	0	14	0	0	0	0
Cycles Maxed Out (%)	0	100	4	0	0	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	53.0	35.0	53.0	35.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	65.4	19.6	65.4	19.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	64.5	26.3	64.5	26.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	46	100	46
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

**Proposed Conditions 2**

**PM Peak Hour**

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.6	0.2	0.5	0.2	0.3	0.1	1.1	1.8	0.1	0.3	10.9	2.3
Total Del/Veh (s)	37.0	31.3	14.4	46.4	46.0	9.5	26.7	13.8	7.4	76.0	63.5	40.2
Stop Delay (hr)	2.3	0.2	0.5	0.2	0.3	0.1	0.9	1.0	0.1	0.2	7.5	1.5
Stop Del/Veh (s)	32.6	26.7	13.6	44.4	42.9	9.1	22.2	8.1	5.1	54.6	43.7	25.7

1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	20.3
Total Del/Veh (s)	37.4
Stop Delay (hr)	14.7
Stop Del/Veh (s)	26.9

2: Philadelphia Pike #1 & Maple Road Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0
Total Delay (hr)	0.2	0.2	0.1	0.1	0.1	0.9	0.0	0.1	1.0	0.0	2.7
Total Del/Veh (s)	40.2	39.7	35.2	12.3	9.0	5.1	2.7	11.2	6.5	5.7	7.1
Stop Delay (hr)	0.2	0.2	0.1	0.1	0.0	0.2	0.0	0.0	0.2	0.0	1.1
Stop Del/Veh (s)	37.9	38.8	32.7	11.2	5.2	1.0	0.7	6.9	1.5	2.7	2.9

3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	0.0	0.2	0.0	0.0	0.4	0.7
Total Del/Veh (s)	64.5	11.9	1.2	0.3	7.3	2.5	2.1
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	62.1	11.2	0.2	0.2	3.7	0.1	0.5

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.1	0.1	0.1	0.1	1.4	0.0	0.1	0.9	0.0
Total Del/Veh (s)	17.2	10.1	5.8	18.9	20.2	9.4	13.4	8.4	6.5	13.4	6.4	3.0
Stop Delay (hr)	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.1	0.2	0.0
Stop Del/Veh (s)	15.0	8.0	5.3	16.5	17.3	8.5	8.2	1.9	1.6	9.1	1.5	0.9

4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	3.0
Total Del/Veh (s)	8.2
Stop Delay (hr)	1.1
Stop Del/Veh (s)	2.9

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	0.1	0.3	0.0	0.0	0.0	0.9	1.4	0.0	0.0	1.9	0.4
Total Del/Veh (s)	21.3	19.0	6.3	23.8	17.6	5.8	16.8	11.4	11.3	13.9	19.9	7.8
Stop Delay (hr)	1.1	0.0	0.3	0.0	0.0	0.0	0.6	0.6	0.0	0.0	1.1	0.1
Stop Del/Veh (s)	18.0	13.3	5.5	21.8	15.5	5.2	11.2	5.0	7.2	7.5	11.0	3.0

5: Philadelphia Pike #1 & Silverside Road/Walnut Lane Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	6.4
Total Del/Veh (s)	14.3
Stop Delay (hr)	3.9
Stop Del/Veh (s)	8.8

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	1.2	1.0	0.1	0.1	0.1	0.2	0.1	2.9	0.1	0.8	1.9	0.0
Total Del/Veh (s)	28.6	30.2	9.3	37.8	43.8	8.4	19.3	26.4	21.3	21.7	16.2	10.2
Stop Delay (hr)	1.0	0.9	0.1	0.1	0.1	0.2	0.0	1.8	0.1	0.6	1.0	0.0
Stop Del/Veh (s)	24.7	25.6	7.2	35.4	40.6	7.9	13.4	16.5	16.6	16.1	8.8	6.8

6: Philadelphia Pike #1 & Bellevue Parkway Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	8.6
Total Del/Veh (s)	21.8
Stop Delay (hr)	6.0
Stop Del/Veh (s)	15.2

7: Philadelphia Pike #1 & Duncan Road Performance by movement

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay (hr)	0.9	0.3	0.0	0.5	0.1	0.1	0.5	0.0	2.3
Total Del/Veh (s)	38.5	20.1	7.4	4.9	2.1	8.8	4.2	2.5	7.6
Stop Delay (hr)	0.8	0.2	0.0	0.2	0.0	0.1	0.2	0.0	1.5
Stop Del/Veh (s)	35.6	18.6	4.8	1.6	1.2	6.1	1.3	1.5	4.9

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.2	0.0
Total Del/Veh (s)	12.7	13.4	7.5	16.2	14.1	6.1	4.3	1.9	0.5	3.9	1.7	0.3
Stop Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	10.5	10.4	6.6	14.2	11.0	5.4	2.2	0.1	0.1	1.9	0.0	0.0

8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.9
Total Del/Veh (s)	2.8
Stop Delay (hr)	0.4
Stop Del/Veh (s)	1.1

9: Philadelphia Pike #1 & Washington Street Ext Performance by movement

Movement	EBL	EBR	WBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	2.1	2.6	1.0
Total Delay (hr)	2.6	0.5	0.1	0.7	0.6	3.0	1.4	8.9
Total Del/Veh (s)	33.1	9.9	69.5	16.3	7.8	26.6	21.4	20.7
Stop Delay (hr)	2.3	0.5	0.1	0.6	0.3	2.0	1.0	6.7
Stop Del/Veh (s)	29.1	8.4	65.8	12.6	4.2	17.6	16.0	15.6

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Total Delay (hr)	0.1	0.3	0.8	0.1	0.0	0.5	0.4	0.3	1.1	0.0	0.0	0.0
Total Del/Veh (s)	22.1	24.7	19.8	4.2	18.6	17.4	16.8	20.0	15.8	14.6	6.2	25.3
Stop Delay (hr)	0.1	0.3	0.6	0.1	0.0	0.4	0.3	0.2	0.6	0.0	0.0	0.0
Stop Del/Veh (s)	18.9	21.9	14.7	3.6	15.8	12.2	15.9	14.1	8.3	10.3	3.1	19.9

10: Philadelphia Pike #1 & Marsh Road & Lore Avenue Performance by movement

Movement	SBL	SBT	SBR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.3	0.1	0.1	0.0
Total Delay (hr)	0.5	1.0	0.0	0.1	0.1	5.4
Total Del/Veh (s)	23.2	14.6	4.6	49.3	37.4	16.9
Stop Delay (hr)	0.4	0.6	0.0	0.1	0.1	3.7
Stop Del/Veh (s)	18.5	8.5	2.4	46.6	36.6	11.7

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.6	1.3	0.1	0.8	0.9	0.1	0.1	0.7	0.1	0.0	0.6	0.1
Total Del/Veh (s)	43.0	32.4	20.2	44.8	33.1	16.4	12.0	10.4	2.4	10.7	8.2	5.2
Stop Delay (hr)	0.5	1.2	0.1	0.7	0.7	0.1	0.1	0.5	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	40.7	27.7	19.0	41.8	27.9	14.8	9.0	6.5	0.0	5.4	2.8	1.0

11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	5.3
Total Del/Veh (s)	17.7
Stop Delay (hr)	4.1
Stop Del/Veh (s)	13.5

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.3	0.1	0.0	0.0
Total Delay (hr)	1.9	1.4	0.1	0.9	1.3	0.2	0.3	0.6	0.1	0.3	0.7	0.2
Total Del/Veh (s)	51.9	29.8	3.5	40.6	31.1	17.4	15.4	10.0	5.2	19.3	12.8	7.9
Stop Delay (hr)	1.7	1.1	0.1	0.9	1.1	0.2	0.2	0.3	0.1	0.2	0.4	0.1
Stop Del/Veh (s)	47.5	24.3	3.3	36.8	25.3	15.2	12.2	5.8	3.6	15.1	7.8	5.5

12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	8.0
Total Del/Veh (s)	21.8
Stop Delay (hr)	6.5
Stop Del/Veh (s)	17.6

62: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.3	0.0	0.6	0.2	1.3
Total Del/Veh (s)	4.3	4.6	3.0	2.3	6.3	3.9	4.5
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.9	3.7	0.1	0.1	0.2	0.3	0.5

68: Philadelphia Pike #1 Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.3	0.0	0.4	0.0	1.3
Total Del/Veh (s)	14.8	6.6	2.1	1.1	3.0	0.6	3.8
Stop Delay (hr)	0.4	0.1	0.0	0.0	0.1	0.0	0.6
Stop Del/Veh (s)	13.6	5.9	0.1	0.2	0.7	0.1	1.9

71: Philadelphia Pike #1 & Dummy Node Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.6	0.0	1.0	0.1	1.8
Total Del/Veh (s)	7.4	9.2	3.1	1.3	6.1	3.2	4.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	7.3	8.9	0.1	0.2	0.1	0.1	0.2

74: Philadelphia Pike #1 & Wawa/School Lane Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.0	0.3	0.0	0.6
Total Del/Veh (s)	5.6	5.7	1.9	0.5	2.1	0.7	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.0	5.0	0.0	0.0	0.1	0.1	0.2

Total Network Performance

Denied Delay (hr)	1.0
Denied Del/Veh (s)	0.6
Total Delay (hr)	84.3
Total Del/Veh (s)	52.0
Stop Delay (hr)	51.2
Stop Del/Veh (s)	31.5

Arterial Level of Service: NB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	59	2.4	19.2	0.2	37
Edgemoor Road	11	10.4	18.2	0.1	17
Marsh Road	10	16.9	46.7	0.4	31
	62	3.6	19.4	0.2	40
	9	8.1	20.6	0.2	30
	68	2.2	9.6	0.1	37
Beeson Road	8	2.0	8.4	0.1	37
School Lane	74	1.9	9.3	0.1	37
Duncan Road	7	5.0	10.4	0.1	24
	58	2.0	14.8	0.2	41
Bellevue Parkway	6	26.4	54.9	0.4	28
	57	5.8	18.4	0.2	36
Walnut Lane	5	11.4	36.8	0.4	35
E. Holly Oak Road	4	9.0	26.5	0.2	32
	63	4.0	32.8	0.4	42
Rolling Road	3	1.2	6.2	0.1	35
Maple Road	2	5.1	20.1	0.2	35
Dummy Node	71	3.2	11.0	0.1	36
McDonalds Access	1	13.7	19.8	0.1	14
Total		134.3	402.9	3.6	32

Arterial Level of Service: SB #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dummy Node	71	7.0	13.1	0.1	22
Maple Road	2	6.6	14.7	0.1	27
Super Fresh Access	3	2.6	17.5	0.2	40
	63	0.3	4.9	0.1	44
W. Holly Oak Road	4	6.4	35.2	0.4	39
Silverside Road	5	19.9	37.4	0.2	22
	57	5.1	32.3	0.4	40
Bellevue Parkway	6	16.2	28.4	0.2	23
	58	5.8	35.0	0.4	44
	7	4.2	16.5	0.2	36
Wawa	74	2.2	7.5	0.1	34
Parkway Avenue	8	1.7	9.1	0.1	38
	68	3.1	9.5	0.1	32
Washington Street Ex	9	26.9	36.0	0.1	10
	62	7.7	19.9	0.2	31
Marsh Road	10	14.4	30.0	0.2	26
Shipleigh Road	11	8.4	39.2	0.4	37
	59	1.1	9.0	0.1	34
W Lea Boulevard	12	12.8	29.5	0.2	24
Total		152.4	424.8	3.6	31

Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Movement	EB	EB	B60	WB	WB	NB	NB	SB	SB	SB	B13
Directions Served	L	TR	T	LT	R	L	TR	L	T	R	T
Maximum Queue (ft)	303	142	9	82	66	174	350	128	1445	225	46
Average Queue (ft)	144	55	0	28	19	84	131	14	490	106	2
95th Queue (ft)	249	112	7	69	51	169	276	78	1347	267	37
Link Distance (ft)	305	305	203	210	210		359		2188		1048
Upstream Blk Time (%)	0						0		1		
Queuing Penalty (veh)	0						1		0		
Storage Bay Dist (ft)						150		200		150	
Storage Blk Time (%)						0	5		27		
Queuing Penalty (veh)						2	8		63		

Intersection: 2: Philadelphia Pike #1 & Maple Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	72	67	67	99	209	68	235
Average Queue (ft)	18	17	23	16	55	13	74
95th Queue (ft)	54	51	57	63	148	45	184
Link Distance (ft)	570		286		974		514
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		250		175		150	
Storage Blk Time (%)					0		1
Queuing Penalty (veh)					0		0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Movement	WB	NB	SB	SB
Directions Served	LTR	TR	L	TR
Maximum Queue (ft)	46	139	28	66
Average Queue (ft)	10	14	4	5
95th Queue (ft)	35	74	20	31
Link Distance (ft)	622	248		974
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			150	
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	52	57	103	66	191	61	205
Average Queue (ft)	16	11	41	12	73	19	60
95th Queue (ft)	42	39	82	43	165	50	143
Link Distance (ft)	746		520		1150		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		155		50		100	
Storage Blk Time (%)				1	7	0	2
Queuing Penalty (veh)				7	1	0	1

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Movement	EB	EB	WB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	T	R
Maximum Queue (ft)	209	112	43	188	262	62	250	174
Average Queue (ft)	100	48	12	66	88	4	112	48
95th Queue (ft)	178	86	37	137	184	30	218	128
Link Distance (ft)	227	227	755		1813		1150	
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)				125		100		100
Storage Blk Time (%)				0	3		10	0
Queuing Penalty (veh)				2	6		17	0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Movement	EB	EB	B17	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	T	LT	R	L	TR	L	TR
Maximum Queue (ft)	321	174	21	100	70	104	391	189	322
Average Queue (ft)	163	39	1	25	29	10	166	73	124
95th Queue (ft)	288	126	16	71	57	56	319	157	248
Link Distance (ft)	255		282	607			2198		904
Upstream Blk Time (%)	2								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)		150			210	150		125	
Storage Blk Time (%)	12	0					11	1	7
Queuing Penalty (veh)	7	0					2	4	10

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR
Maximum Queue (ft)	170	38	202	134	190
Average Queue (ft)	75	4	53	21	38
95th Queue (ft)	141	20	135	70	121
Link Distance (ft)	996		318		814
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25		150	
Storage Blk Time (%)		1	10		0
Queuing Penalty (veh)		4	1		0

Intersection: 8: Philadelphia Pike #1 & Parkway Avenue/Beeson Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	104	71	48	29
Average Queue (ft)	41	26	10	5
95th Queue (ft)	75	58	35	22
Link Distance (ft)	589	590		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			50	50
Storage Blk Time (%)			0	
Queuing Penalty (veh)			1	

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	L	R	LTR	L	T	TR
Maximum Queue (ft)	244	156	144	44	132	137	440
Average Queue (ft)	129	36	61	5	60	52	237
95th Queue (ft)	209	105	111	24	111	115	435
Link Distance (ft)	968	968		297		808	425
Upstream Blk Time (%)							2
Queuing Penalty (veh)							15
Storage Bay Dist (ft)			105		150		
Storage Blk Time (%)		1	2		0	0	
Queuing Penalty (veh)		1	2		1	0	

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SW
Directions Served	<LT	R	LTR	L	T	R>	<L	T	R	<LR
Maximum Queue (ft)	181	62	126	89	188	36	86	170	47	54
Average Queue (ft)	65	4	52	14	66	8	22	66	9	15
95th Queue (ft)	145	37	109	59	153	27	58	143	32	43
Link Distance (ft)	791		925		2017			1054		756
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		175		150		200	150		150	
Storage Blk Time (%)	0				1			1		
Queuing Penalty (veh)	0				1			1		

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	L	T	R
Maximum Queue (ft)	81	170	114	168	68	215	31	132	33
Average Queue (ft)	28	81	49	75	13	84	3	28	6
95th Queue (ft)	67	150	96	147	47	168	15	81	24
Link Distance (ft)	254	254		924		384		2017	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			150		100		150		150
Storage Blk Time (%)				1		4		0	
Queuing Penalty (veh)				0		1		0	

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	203	245	73	149	262	108	155	124	211
Average Queue (ft)	97	96	26	65	118	33	64	29	89
95th Queue (ft)	186	205	58	131	216	79	132	87	180
Link Distance (ft)		449	449		318		1757		921
Upstream Blk Time (%)					0				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	200			75		100		100	
Storage Blk Time (%)	2	0		10	23	0	2	0	5
Queuing Penalty (veh)	5	0		20	19	1	1	1	3

Intersection: 62: Philadelphia Pike #1

Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	26	60
Average Queue (ft)	5	30
95th Queue (ft)	21	54
Link Distance (ft)	904	912
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 68: Philadelphia Pike #1

Movement	EB	WB	SB
Directions Served	R	R	TR
Maximum Queue (ft)	124	51	162
Average Queue (ft)	48	23	12
95th Queue (ft)	94	45	77
Link Distance (ft)	752	621	390
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 71: Philadelphia Pike #1 & Dummy Node

Movement	EB	WB	NB
Directions Served	R	R	TR
Maximum Queue (ft)	29	33	53
Average Queue (ft)	9	8	2
95th Queue (ft)	29	29	19
Link Distance (ft)	563	841	514
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

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Intersection: 74: Philadelphia Pike #1 & Wawa/School Lane

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Movement	EB	WB
Directions Served	R	R
Maximum Queue (ft)	33	34
Average Queue (ft)	8	8
95th Queue (ft)	29	31
Link Distance (ft)	575	587
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

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Network Summary

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Network wide Queuing Penalty: 213

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Intersection: 1: Philadelphia Pike #1/Philadelphia Pike & Harvey Road/McDonalds Access

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	11.0	29.0	9.0	27.0	11.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	5.9	57.8	8.4	21.9	9.6	49.1
g/C Ratio	-0.01	NA	-0.01	NA	-0.01	NA
Cycles Skipped (%)	81	0	44	0	27	0
Cycles @ Minimum (%)	0	0	0	0	0	0
Cycles Maxed Out (%)	0	100	21	16	12	100
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 2: Philadelphia Pike #1 & Maple Road

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	10.0	49.0	24.0	10.0	49.0	24.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	C-Min	None
Avg. Green (s)	5.7	104.9	9.3	6.2	105.8	9.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	78	23	27	87	22	27
Cycles @ Minimum (%)	3	0	0	3	0	0
Cycles Maxed Out (%)	0	77	0	0	78	0
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 3: Philadelphia Pike #1 & Super Fresh Access/Rolling Road

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	10.0	30.0	21.0	16.0	10.0	30.0
Minimum Green (s)	5.0	10.0	5.0	5.0	5.0	10.0
Recall	None	C-Min	None	None	None	C-Min
Avg. Green (s)	8.0	292.3	7.8	0.0	0.0	280.9
g/C Ratio	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	97	89	84	100	100	93
Cycles @ Minimum (%)	3	0	0	0	0	0
Cycles Maxed Out (%)	0	11	0	0	0	7
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 4: Philadelphia Pike #1 & W. Holly Oak Road/E. Holly Oak Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	64.0	24.0	64.0	24.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	Min	None
Avg. Green (s)	50.7	9.3	50.7	9.3
g/C Ratio	-0.01	-0.01	-0.01	-0.01
Cycles Skipped (%)	4	2	4	2
Cycles @ Minimum (%)	0	4	0	4
Cycles Maxed Out (%)	96	0	17	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 5: Philadelphia Pike #1 & Silverside Road/Walnut Lane

Phase	1	2	4	5	6	8
Movement(s) Served	SBL	NBTL	EBTL	NBL	SBTL	WBTL
Maximum Green (s)	16.0	36.0	31.0	16.0	36.0	31.0
Minimum Green (s)	5.0	15.0	5.0	5.0	15.0	5.0
Recall	None	C-Min	None	None	Min	None
Avg. Green (s)	7.7	39.6	18.9	9.7	27.3	18.9
g/C Ratio	-0.01	NA	NA	-0.01	NA	NA
Cycles Skipped (%)	97	0	0	10	0	0
Cycles @ Minimum (%)	0	0	2	2	6	2
Cycles Maxed Out (%)	0	100	4	0	4	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 6: Philadelphia Pike #1 & Bellevue Parkway

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	WBTL	EBTL	NBL	SBTL
Maximum Green (s)	13.0	29.0	16.0	18.0	13.0	29.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	10.2	29.4	9.0	21.0	8.8	39.7
g/C Ratio	-0.01	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	16	2	38	0	87	2
Cycles @ Minimum (%)	0	9	0	0	0	2
Cycles Maxed Out (%)	5	98	0	19	0	26
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 7: Philadelphia Pike #1 & Duncan Road

Phase	2	4	6
Movement(s) Served	NBTL	WBTL	SBTL
Maximum Green (s)	57.0	30.0	57.0
Minimum Green (s)	15.0	5.0	15.0
Recall	C-Min	None	C-Min
Avg. Green (s)	78.4	12.3	78.4
g/C Ratio	-0.01	-0.01	-0.01
Cycles Skipped (%)	3	3	3
Cycles @ Minimum (%)	0	3	0
Cycles Maxed Out (%)	97	0	97
Cycles with Peds (%)	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 9: Philadelphia Pike #1 & Washington Street Ext

Phase	2	3	4	5	6
Movement(s) Served	NBTL	WBTL	EBL	NBL	SBT
Maximum Green (s)	54.0	5.0	22.0	11.0	35.0
Minimum Green (s)	15.0	4.0	5.0	5.0	15.0
Recall	Min	None	None	None	C-Min
Avg. Green (s)	55.1	6.7	19.8	11.4	40.3
g/C Ratio	-0.01	-0.01	NA	-0.01	-0.01
Cycles Skipped (%)	3	90	0	17	3
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	45	10	13	9	98
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 10: Philadelphia Pike #1 & Marsh Road & Lore Avenue

Phase	1	2	3	4	5	6
Movement(s) Served	SBL	NBTL	EBWB	SWL	NBL	SBTL
Maximum Green (s)	10.0	29.0	29.0	9.0	10.0	30.0
Minimum Green (s)	5.0	15.0	5.0	5.0	5.0	15.0
Recall	None	C-Min	None	None	None	Min
Avg. Green (s)	0.0	28.5	21.4	7.4	6.9	24.9
g/C Ratio	-0.01	NA	NA	-0.01	-0.01	NA
Cycles Skipped (%)	100	0	0	61	43	0
Cycles @ Minimum (%)	0	8	0	0	0	0
Cycles Maxed Out (%)	0	100	9	0	0	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 11: Philadelphia Pike #1 & Shipley Road/Edgemoor Road

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	44.0	44.0	44.0	44.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Min	None	C-Min	None
Avg. Green (s)	67.4	20.3	67.4	20.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	0	100	0
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
Number of Complete Cycles : 0

Intersection: 12: Philadelphia Pike/Philadelphia Pike #1 & W Lea Boulevard/E. Lea Boulevard

Phase	2	4	6	8
Movement(s) Served	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	58.0	30.0	58.0	30.0
Minimum Green (s)	15.0	5.0	15.0	5.0
Recall	C-Max	None	C-Max	None
Avg. Green (s)	61.3	26.7	61.3	26.7
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	100	53	100	53
Cycles with Peds (%)	0	0	0	0

Controller Summary

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0