

**John Federico, PE, PP, AICP**  
**Urban Engineers**

# BICYCLE & PEDESTRIAN MASTER PLANS

- System-wide plans
  - Network approach to implementing Complete Streets and re-balancing the transportation system
- Physical improvements
  - Bike lanes, pedestrian crossings, sidewalks, etc.
- Program/policy actions
  - Zoning/ordinance modifications, education, enforcement, etc.

# BICYCLE & PEDESTRIAN MASTER PLANS

- Comprehensive and multi-modal approach:
  - Bicycle/pedestrian safety and access;
  - Traffic circulation, transit access, parking;
  - Urban design/place-making
- Keys to successful implementation:
  - Work closely with key stakeholders to develop plan
  - Develop graphics that clearly convey the recommendations
  - Develop concepts in enough detail to carry forward
  - Identify “immediate action” items
  - Develop plan with an eye towards grant applications

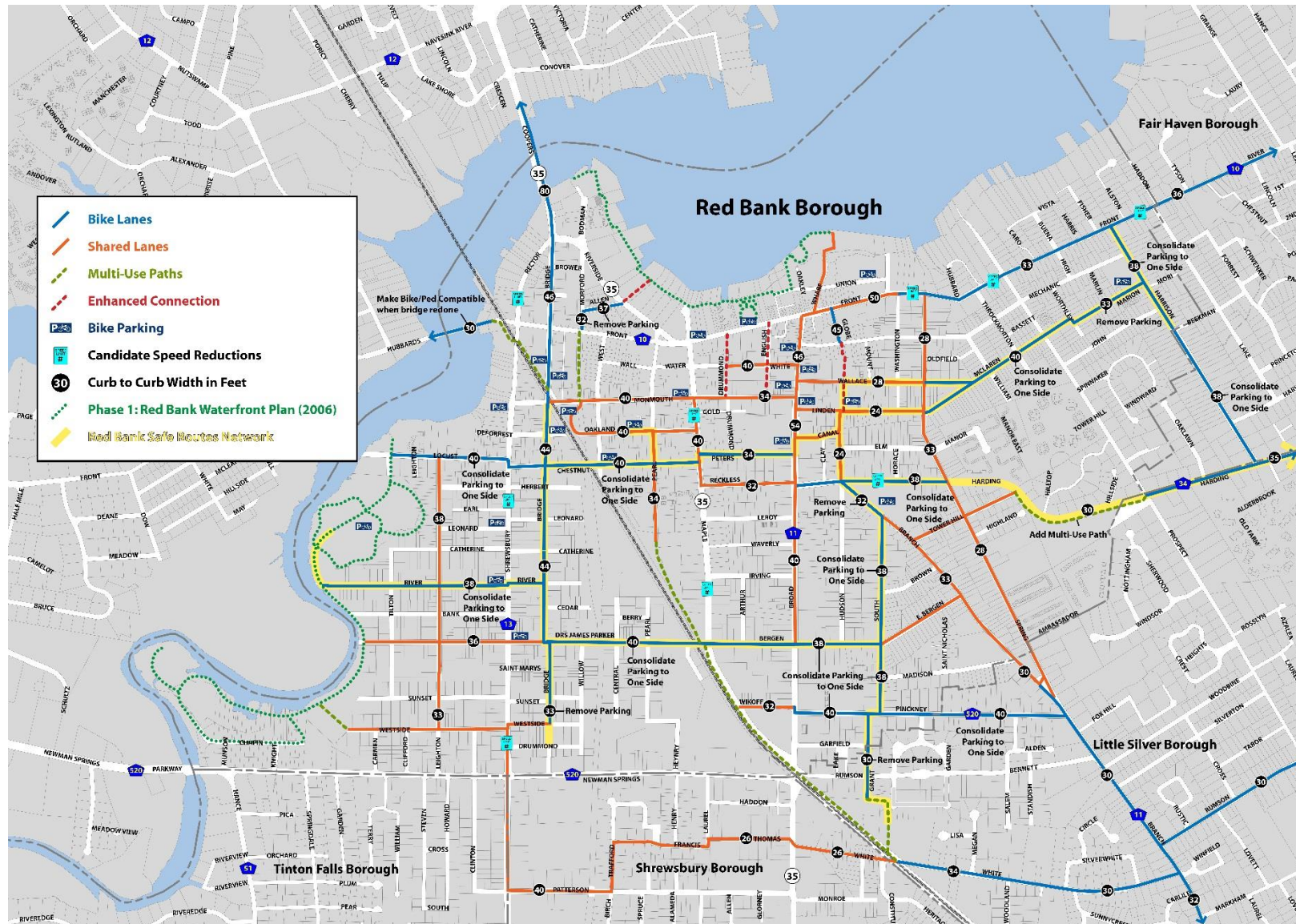
# CASE STUDY: RED BANK, NJ - 2010

- **Borough of Red Bank**

- 1.75 square miles
- 12,200 residents
- Compact, walkable downtown
- “Red Bank Safe Routes” - need for safer bike/ped environment
- Adopted CS Policy in 2010

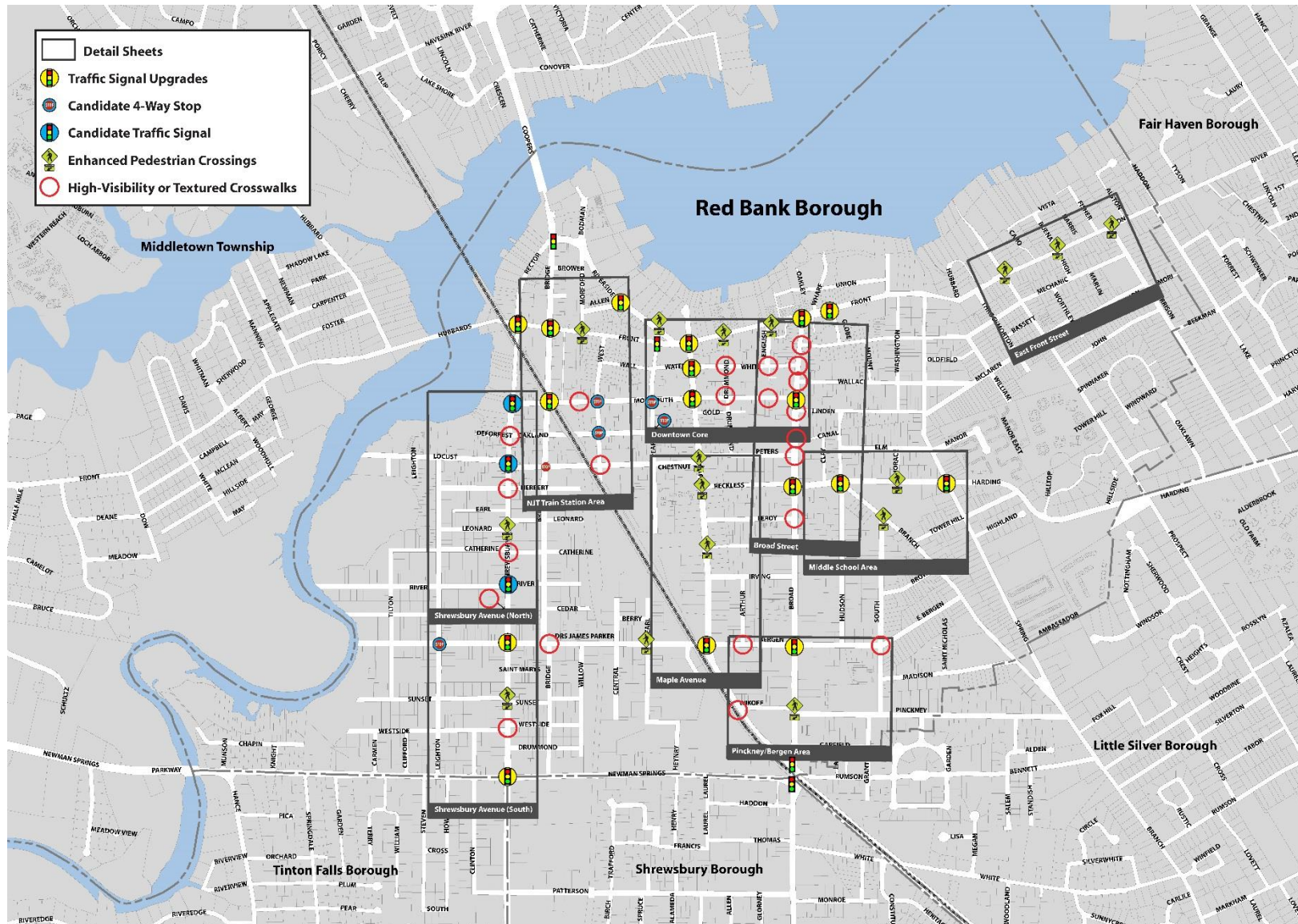


# BICYCLE NETWORK PLAN





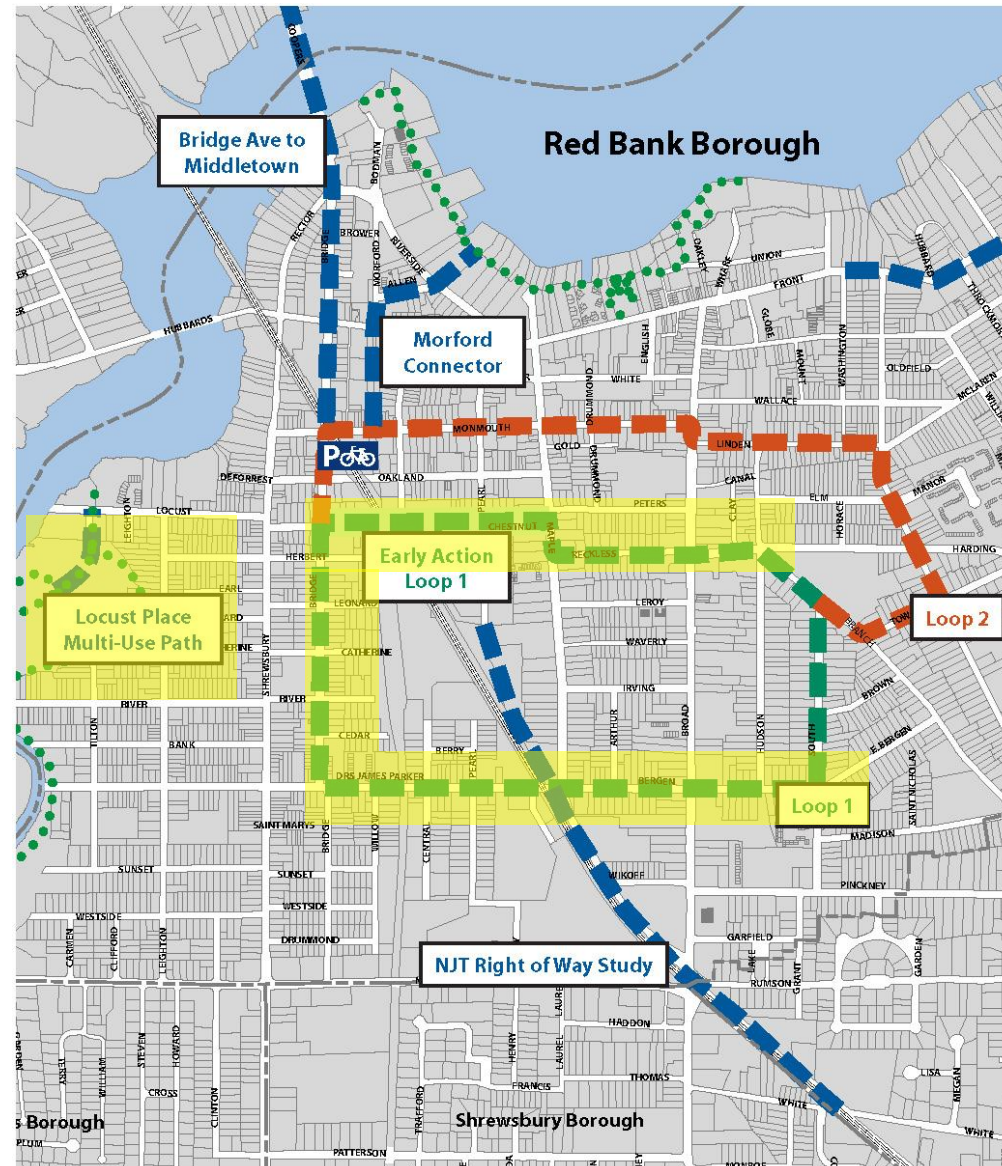
# PEDESTRIAN NETWORK PLAN



# PROGRESS TO-DATE

- **Bike Lanes**
  - Bridge Street
- **Sharrows**
  - Chestnut Street
  - Peters Place
  - Bergen Place \*
- **Multi-use Path**
  - Locust Place \*
- **Wider Sidewalks**

\* *under design*



# CASE STUDY: RED BANK, NJ - 2010

- **Keys to success:**
  - Wide-spread knowledge and participation – strong local advocacy for SRTS
  - Adopting Bike/Ped Plan into Master Plan (2011)
  - Realistic implementation strategy
  - Partnering with Monmouth County



# CASE STUDY: NORTHFIELD, NJ – 2015

- **City of Northfield**

- 3.5 square miles
- 8,000 residents
- “Gateway to Shore”
- Develop bike/ped network to connect key destinations

- **Key Activity Generators:**

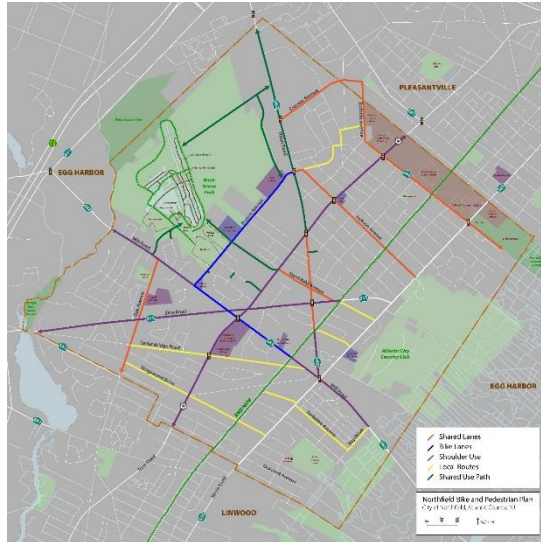
- *Northfield Bike Path*
- *Northfield Community School*
- *Commercial Areas*



# CASE STUDY: NORTHFIELD, NJ – 2015

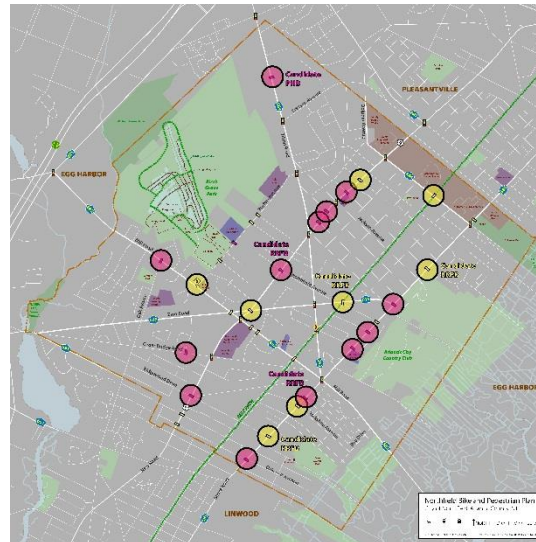
## Bicycle Plan

- Bike Lanes / Shared Roads
- Multi-Use Paths



## Pedestrian Plan

- Road Crossings
- Sidewalk Connections



## Focus Area Plans

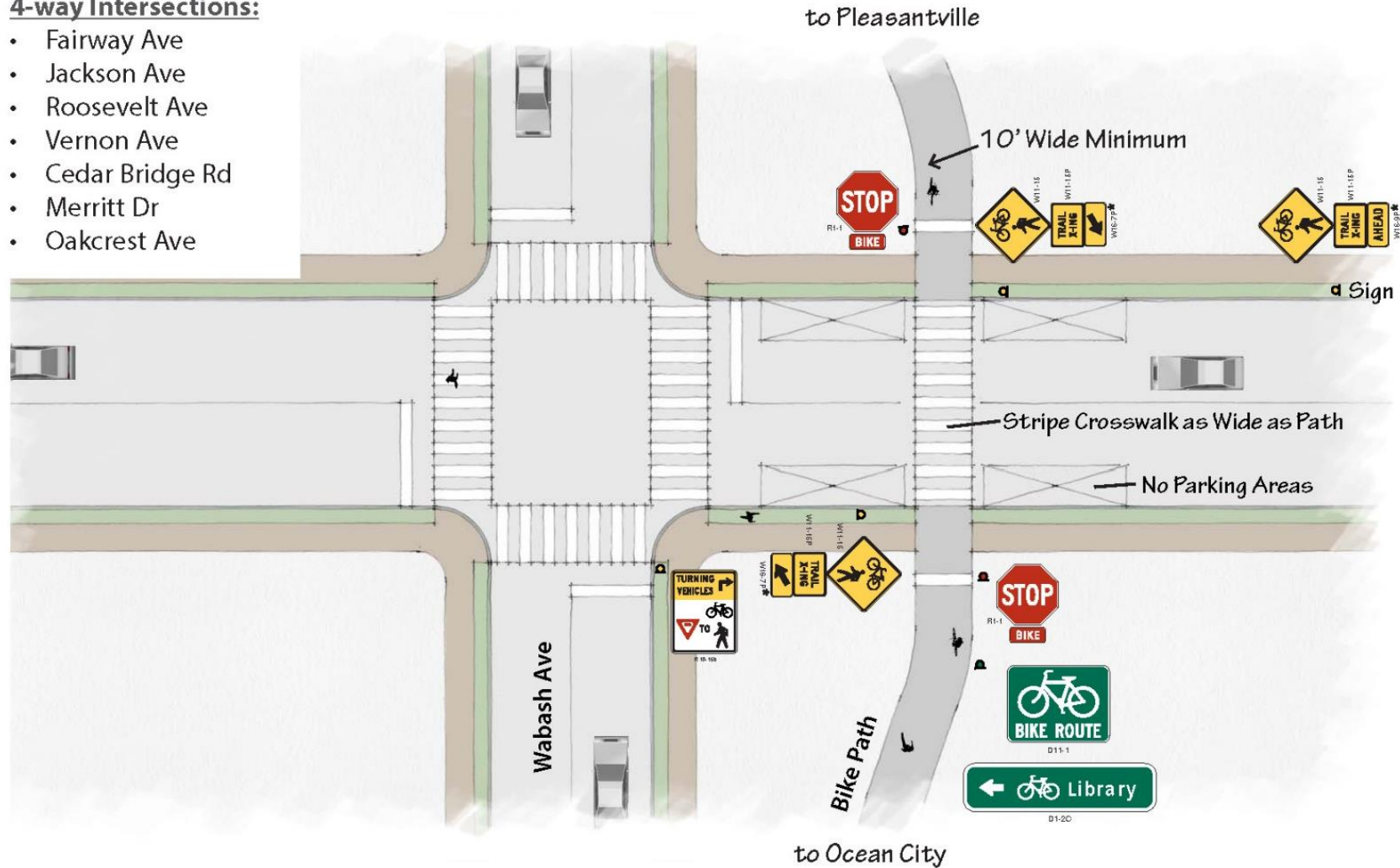
- Integrated Concept Plans
- Traffic, Transit, Parking



# NORTHFIELD BIKE PATH

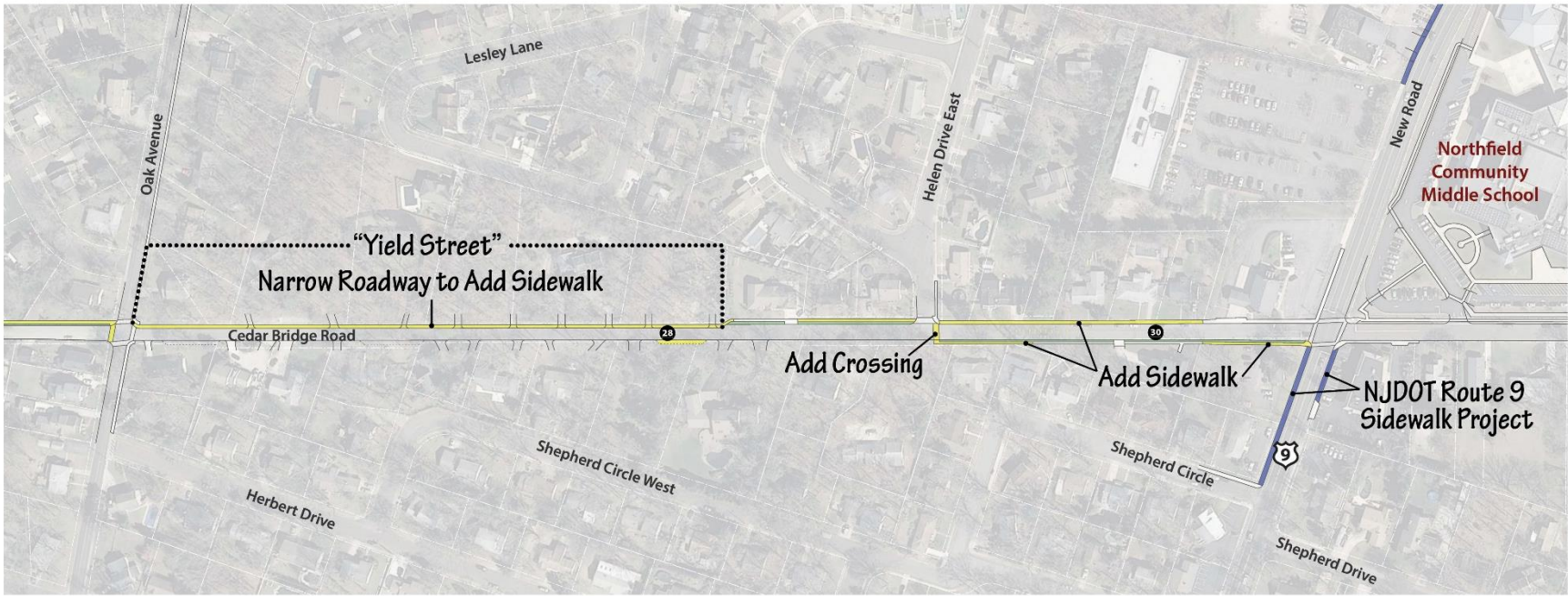
## 4-way Intersections:

- Fairway Ave
- Jackson Ave
- Roosevelt Ave
- Vernon Ave
- Cedar Bridge Rd
- Merritt Dr
- Oakcrest Ave





# NORTHFIELD COMMUNITY SCHOOL



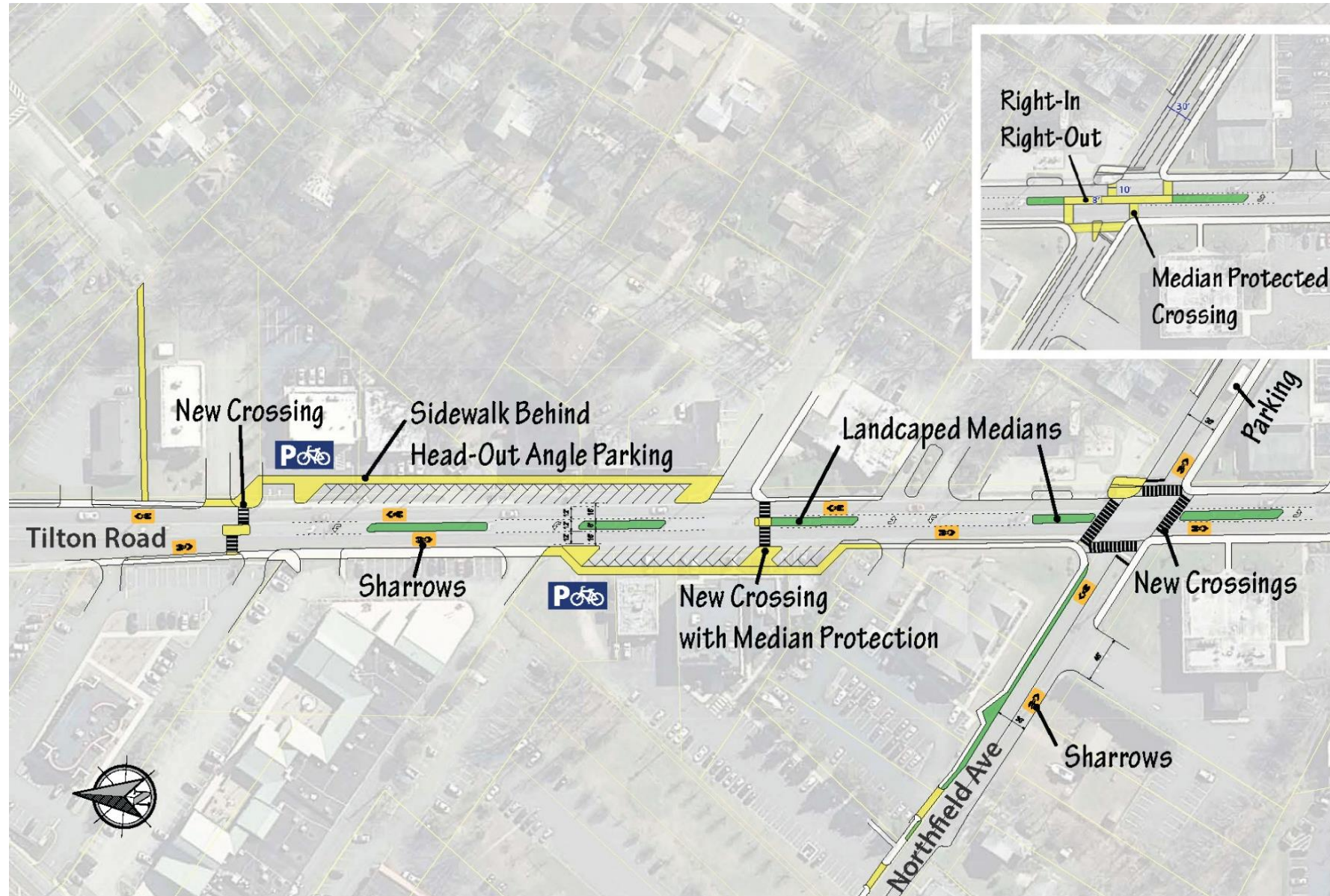


# TILTON ROAD COMMERCIAL CENTER



- Commercial corridor
- Posted speed = 35 mph
- ADT ~ 13,000 vpd
- Narrow (2') shoulders
- Uncontrolled access
- Missing sidewalks

# TILTON ROAD COMMERCIAL CENTER





# POLICY RECOMMENDATIONS

## A. Driveway Width (215-92): (Commercial and Industrial)

### Current Code

- One-way: Min (30'), Max (34')
- Two-way: Min (30'), Max (46')

### Recommended Change

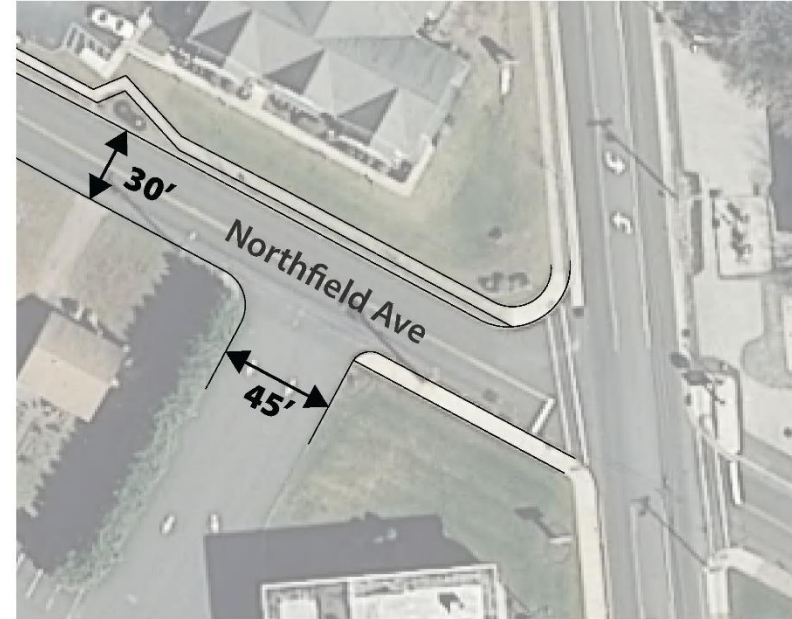
- One-way: Min (10'), Max (15')
- Two-way: Min (20'), Max (30')

## B. Sidewalk Width (215-112):

- Increase minimum width from 4' to 5'

## C. Complete Streets Policy

## D. Bicycle Parking Ordinance



# CASE STUDY: NORTHFIELD, NJ – 2015

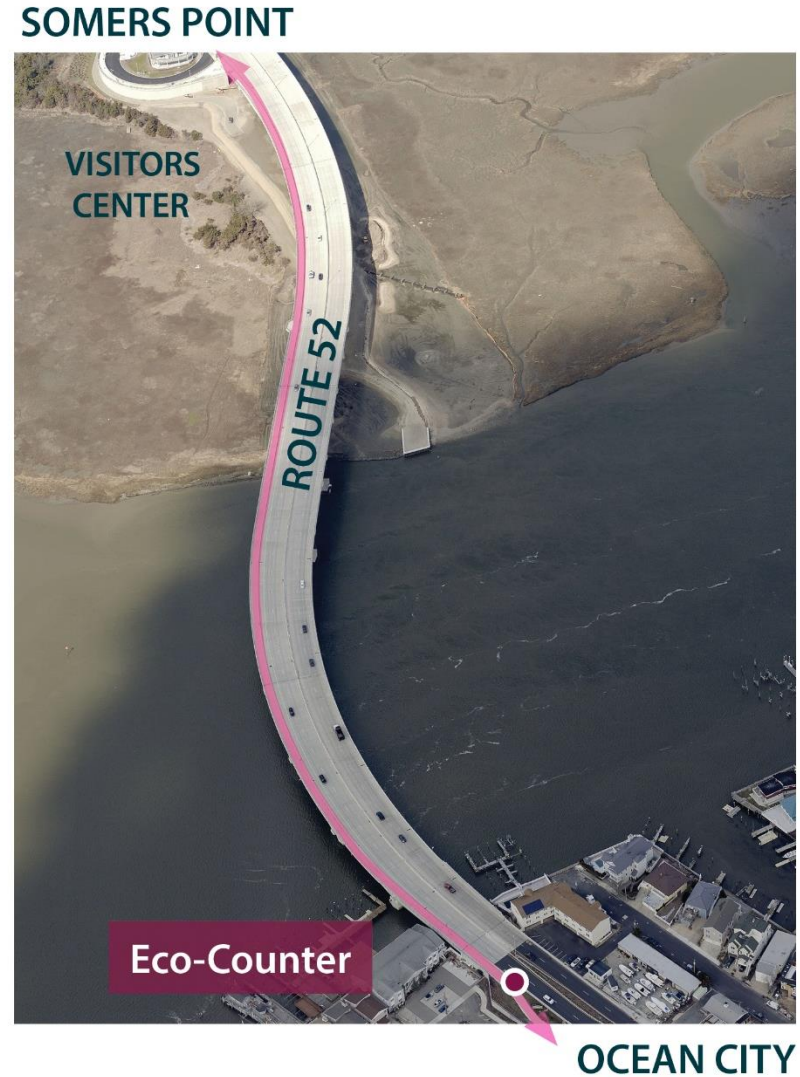
- **Current implementation actions:**

- Pursuing grants for Bike Path recommendations
- Exploring sidewalk alternatives for Cedar Bridge Road
- Working to adopt Bike/Ped Plan into Master Plan and develop a Complete Streets policy



# ROUTE 52 BRIDGE REPLACEMENT

- **Purpose:**
  - Evaluate CS projects
  - Communicate successes
- **Bridge Replacement Project**
  - Completed in 2012 by NJDOT
  - New Visitors Center and Scenic Overlook area
  - Included a 10' wide paved shared-use path



# ROUTE 52 BRIDGE REPLACEMENT





# ECO-COUNTER

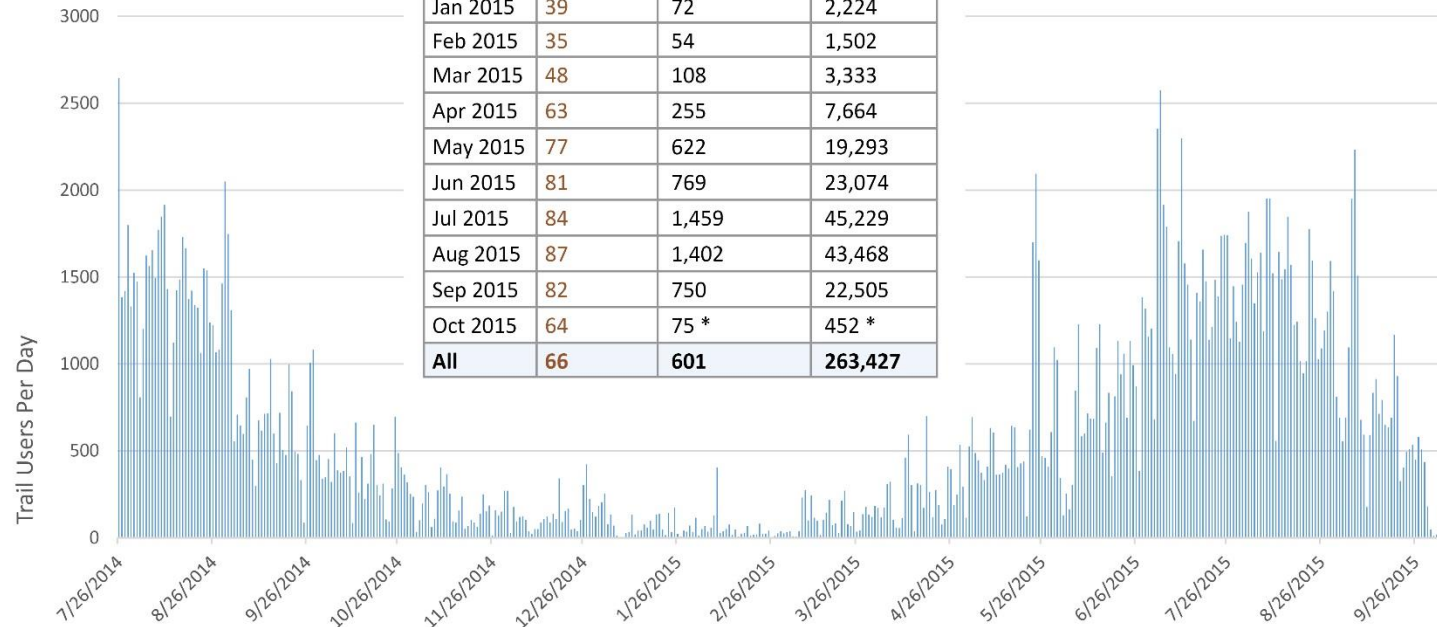
- Installed by NJDOT in July 2014
- Bi-directional counts of bicycles and pedestrians
- Passive infrared detection to capture all users
- ZELT inductive loops to classify bicyclists



# TRAIL USAGE – CUMULATIVE

## Total Trail Users (July 26, 2014 - October 6, 2015)

	Average High Temp	Average Users Per Day	Total Users
Jul 2014	82	1,682	10,102
Aug 2014	81	1,432	44,386
Sep 2014	78	657	19,715
Oct 2014	67	365	11,313
Nov 2014	54	168	5,047
Dec 2014	48	133	4,120
Jan 2015	39	72	2,224
Feb 2015	35	54	1,502
Mar 2015	48	108	3,333
Apr 2015	63	255	7,664
May 2015	77	622	19,293
Jun 2015	81	769	23,074
Jul 2015	84	1,459	45,229
Aug 2015	87	1,402	43,468
Sep 2015	82	750	22,505
Oct 2015	64	75 *	452 *
<b>All</b>	<b>66</b>	<b>601</b>	<b>263,427</b>



Weather - High Temperature in Fahrenheit  
Source: Weather Underground (Atlatntic City Airport)

Average High Temperature: **66°**

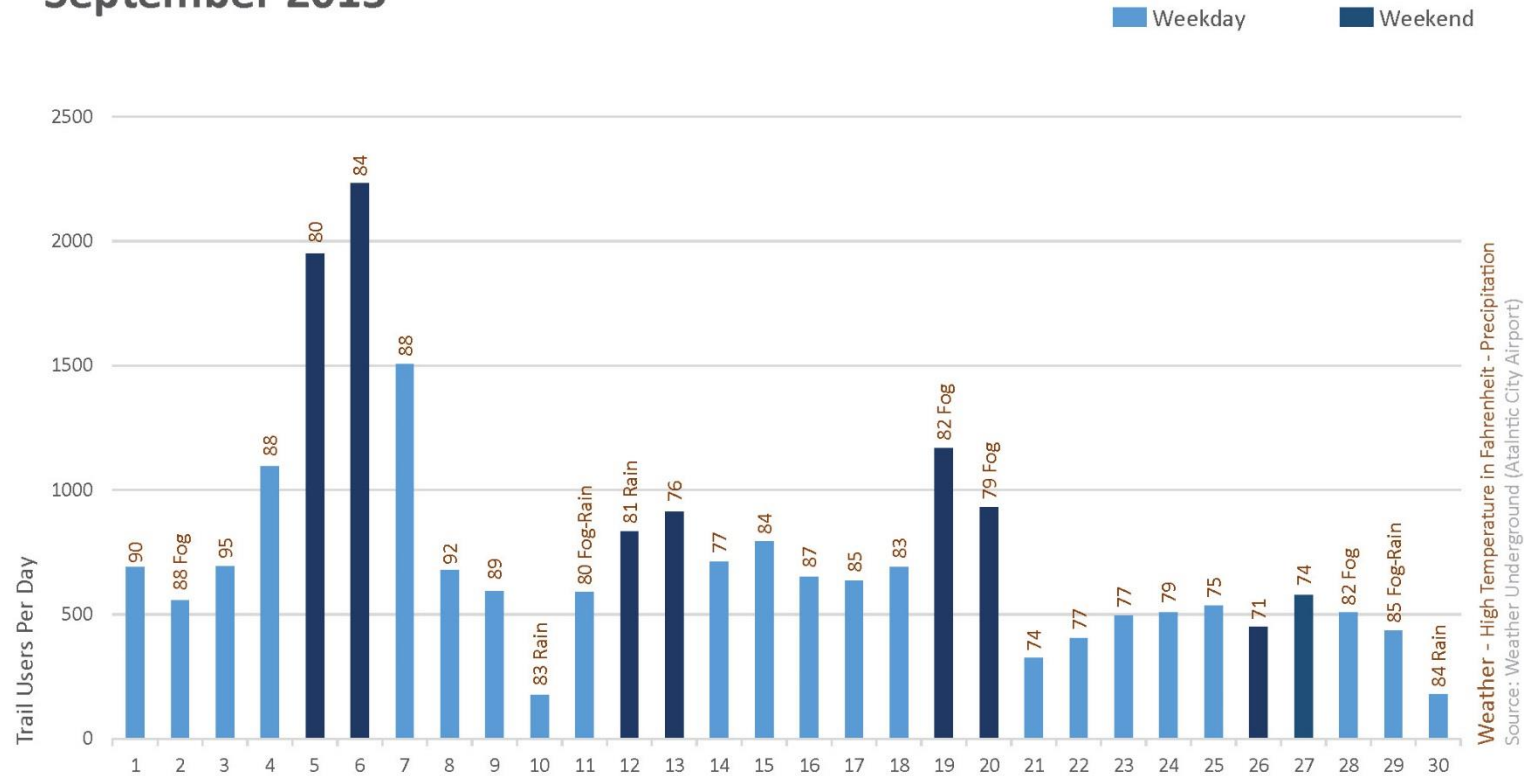
Average Number of Trail Users: **601**

Total Trail Users: **263,427**  
Bike: **99,971** Ped: **163,456**



# TRAIL USAGE – BY MONTH

September 2015



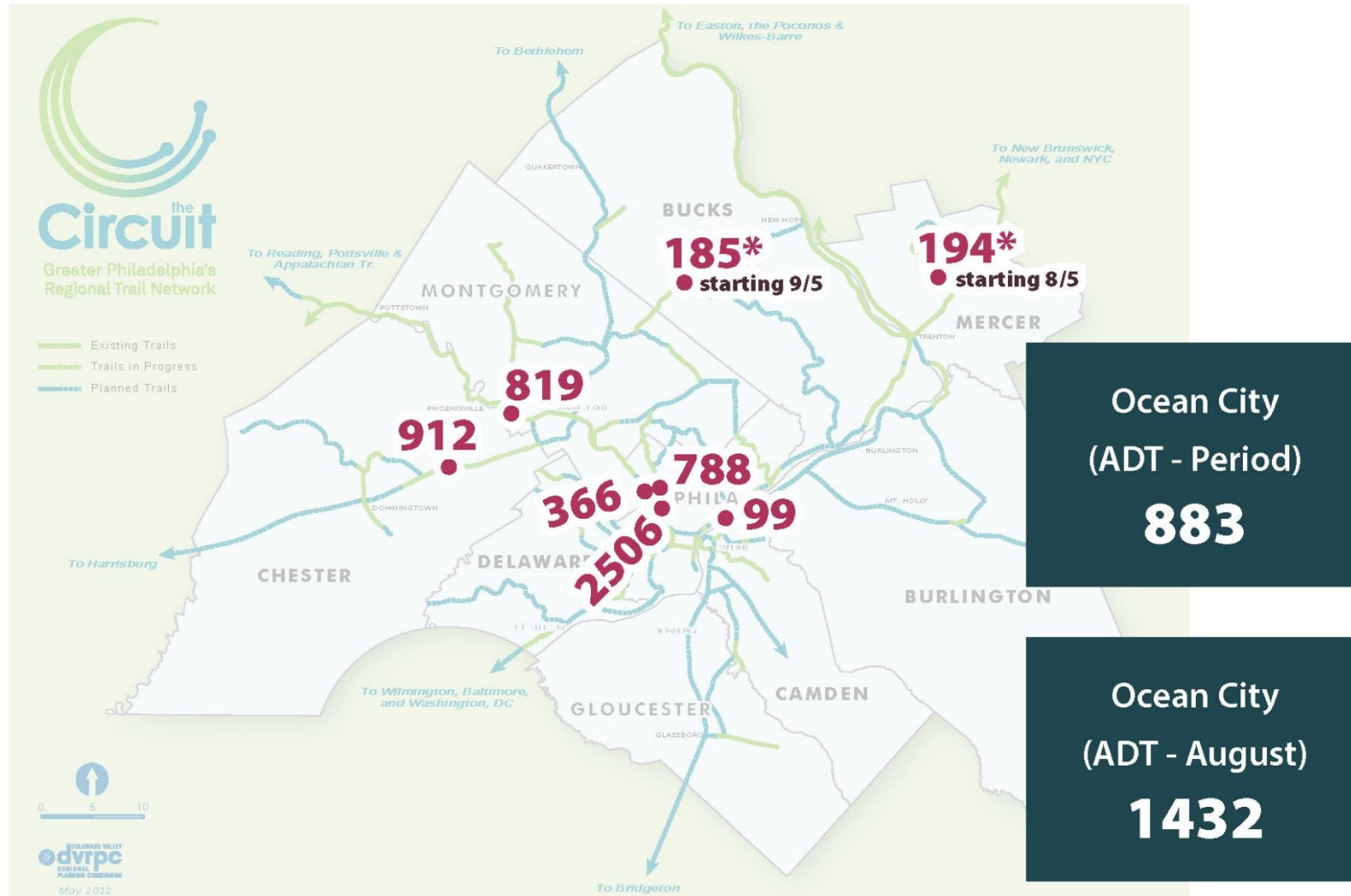
Average High Temperature: **82°**

Average Number of Trail Users: **750**

Total Trail Users: **22,505**  
Bike: **8,647** Ped: **13,858**

# COMPARISON WITH REGIONAL TRAILS

## DVRPC Counts - Average Daily Totals (July 25 - October 31)



# ROUTE 52 BRIDGE REPLACEMENT

- **Important Complete Streets investment**
  - Provides recreational opportunities in a natural setting
  - Promotes an active/healthy lifestyle
  - Enhances community livability & tourism opportunities
  - People are using it in large numbers!