

# WELCOME!

Comprehensive Development Plan  
Workshop: *Help Shape the Future of  
Bicycling in Newark*

Hosted by the Newark Bicycle Committee, City of Newark and WILMAPCO

## Purpose of Workshop

- We are developing the **Newark Bicycle Plan** to make bicycling a more safe and convenient choice for transportation and recreation. Recommendations will include bicycle routes and other infrastructure, bicycle education and safety program, programs to encourage cycling, and maintenance programs.
- Workshop is seeking community feedback on recommended projects and programs, and strengths, weaknesses, opportunities and threats as they relate to bicycling in Newark.
- Plan will become part of the updated **Comprehensive Development Plan**, scheduled for completion in September 2013.

## Past Planning

- Newark has a long history of planning for bicycling. Past Newark Bicycle Plans were completed in 1973, 1996 and 2002.
- Highlights of accomplishments since 2002 include completed the Hall and Pomeroy Trails, installed bike racks on Main Street, implemented bicycle safety checkpoint program, Newark Bike Project formed, bike racks added to most DART and University buses, and bike lanes improved on Elkton and Paper Mill roads.
- In 2010, Newark was designated a “Bronze” Bicycle Friendly Community through a process that provided feedback on what we are doing well, and areas for improvement.

## While You're Here

- Learn about draft recommendations.
- Talk with the planning team from the Newark Bicycle Committee, City of Newark and WILMAPCO.
- Share your ideas by commenting on displays, taking the “Sticker Surveys” and drawing on the maps.
- Fill out a Newark Bicycle Plan Community Survey.

**THANK YOU!**

# Bicycle Infrastructure and Innovations

## Bicycle route types



**Bike lane** is defined as a portion of the road that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists.



**Contra-flow bicycle lanes** are bicycle lanes designed to allow bicycles to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only.



**Buffered bike lanes** are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.



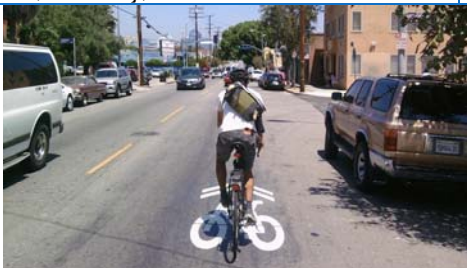
**Colored pavement** increases the visibility of the bicycle facility, identifies potential areas of conflict, and reinforces priority to bicyclists in conflict areas and in areas with pressure for illegal parking. Colored pavement can be used along the length of a bike route, or in priority areas i.e. bike box, driveway, or intersection.



**Bicycle boulevards** are local streets with low motorized traffic volumes and speeds, designated and designed to give bicycle travel priority. Bicycle Boulevards use signs, pavement markings, and traffic calming measures to discourage through trips by motor vehicles.



**Cycle track** is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk. Cycle tracks have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks. In situations where on-street parking is allowed cycle tracks are located to the curb-side of the parking (in contrast to bike lanes).



**Shared Lane Markings or "sharrows"** are road markings used to indicate a shared lane environment for bicycles and automobiles. Among other benefits shared lane markings reinforce the legitimacy of bicycle traffic on the street and recommend proper bicyclist positioning.



A **bicycle and pedestrian path** is separated from motorized vehicular traffic by an open space, barrier or curb. Paths may parallel the road or be within an independent right-of-way, such as on an abandoned railway or along a stream. Multi-use paths typically accommodate two-way travel and are open to pedestrians, bicyclists, in-line skaters, wheelchair users, joggers and other non-motorized users. They are typically surfaced in asphalt or concrete, but may have hard-packed/all-weather gravel or dirt surfaces. To safely accommodate a range of users, multi-use paths should be a minimum of 10' wide (but may be less in constrained conditions).

## Intersections



A **bike box** is a designated area in front of the traffic lane stop bar at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.



**Intersection crossing markings** indicate the intended path of bicyclists across intersections to guide bicyclists on a safe and direct path through intersections, including driveways and ramps. They provide a clear boundary between the paths of through bicyclists and either through or crossing motor vehicles in the adjacent lane.



A **bicycle signal** is typically used to provide guidance for bicyclists at intersections where they may have different needs from other road users (e.g., bicycle only movements, leading bicycle intervals).



**Pathway crossings** should include a variety of enhanced signage, pavement markings, lights etc., depending upon volume of pedestrian, bicycle and motor vehicle traffic at intersection

## Other facilities



**Bicycle parking** should include both short-term outdoor bike racks for trips to shopping, dining and school and long-term secure parking at workplaces. Bike racks have been added along Main Street with the intent to place bike parking close to the entrances to key destinations.



include expanding bike racks on buses all University and Unicity vehicles, adding bike storage to SEPTA vehicles, and publicizing the availability of lockers and racks at park and rides.

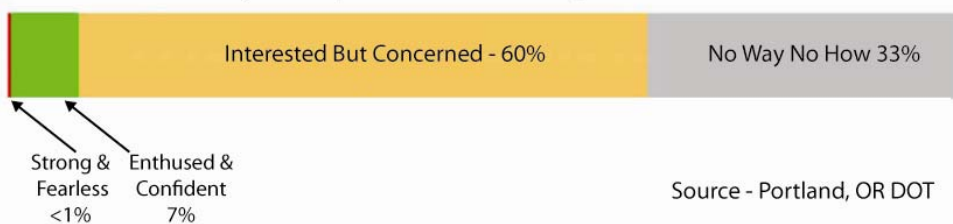
### Coordination with transit

allows for longer trips combining bus/train and bicycle, as well as the flexibility to bike one direction and take transit the other due to weather or time constraints. Coordination may



Bicycle **wayfinding** consists of signs and/or pavement markings to guide bicyclists to destinations along the preferred bicycle routes. In addition to destination directions, signs may include travel time and distance.

## Four Types of Cyclists By Proportion of Population



**Our Challenge:** Designing facilities that feel safe, comfortable and convenient to the 60% of people who would like to bike more but have concerns.

# Bicycle Education and Safety Programs

Use stickers to vote for your favorites

<b>Child Bicyclists</b>	Safe Routes to School	
	Safetytown	
	Bicycle Rodeos	
	Helmet distribution program	
	Recycle a bike program - kids fix up bikes and keep them or Earn-a-bike program through community service	
	Bicycle trips for kids programs	
	Educate parent groups and adult groups that supervise children, i.e. PTAs	
	<u>Other:</u>	
<b>Adult Bicyclists</b>	Bicycle Safety Checkpoints	
	Public awareness campaign on responsible behavior directed to bicyclists and drivers	
	Work with bicycle shops to provide incentives for purchase of helmets and lights	
	Develop materials and programs addressing the cycling needs of seniors, i.e. a tricycle program	
	Work with / encourage UD to educate students about proper, effective cycling and distribute bike safety pamphlets to students as part of registration	
	Effective Cycling course by the League of American Bicyclists (LAB)	
	UD effective cycling as a physical education course	
	Offer classes through the Senior Center and Parks and Recreation	
	Provide articles in community publications, newsletters	
	Encourage the medical industry to recommend cycling as a means of exercise	
	<u>Other:</u>	
<b>Motorists</b>	Campaigns to educate motorists on how to safely share the road with bicyclists and overall awareness of bicyclists' rights and responsibilities	
	Use public service space from newspapers, television, radio, bus advertising, posters and flyers mailed in utility bills and with parking permits	
	Signage on roadways, such as "Share the road" or "Bikes may use full lane"	
	<u>Other:</u>	
<b>Law Enforcement Officials</b>	Training for Newark and UD police on bicyclists' rights/responsibilities, how best to approach the bicyclist offender, and on what bicycling and motor vehicle offenses pose the greatest risk to cyclists	
	City should develop its own bicycle fine structure so that bicycle fines will not be excessive and officers will be more willing to impose them	
	Citation alternative program--attend education program, similar to auto traffic school, would allow fees to be waived.	
	Posted speed limits should be enforced. High auto speeds make bicyclists feel unsafe, discourage people from cycling, and increase the severity of collisions	
	Bike registration program and bike shops to register bikes when they are sold	
	<u>Other:</u>	

# Programs to Encourage Bicycling

Use stickers to vote for your favorites

<b>Promoting more bicycling</b>	Promote Bike to Work Day	
	Community events such as charity bike rides, costume rides, bike fairs and bicycle rodeos	
	Workplace promotion of bike commuting such as contests, rewards to bike commuters, and provision of lockers, bike parking and showers.	
	Public awareness campaign emphasizing the individual and community benefits of using a bicycle for daily trips., i.e. a city-wide contest for most miles bicycled, oldest bicyclist, farthest commuter, etc.	
	Offer easy social rides and family fun rides.	
	Promote existing facilities and programs.	
	Bike share program	
	Business promotions through Downtown Newark Partnership	
	Changes to development code for bicycle parking and facilities	
	Covered/indoor bicycle parking for commuters	
	<u>Other:</u>	

# Maintenance Plan

Use sticker to vote for your favorite

<b>Maintenance</b>	Street sweeping priority to bike routes	
	Publicize road maintenance reporting	
	Pothole repair priority to bike routes	
	Include improved bicycle facilities when paving and improving roadways	
	<u>Other:</u>	

# How did you learn about today's workshop?

Use sticker to tell us how

<b>Outreach</b>	Newspaper	
	Radio	
	City email	
	City website	
	Newark Bike Project	
	Bike Delaware	
	WILMAPCO newsletter	
	University of Delaware	
	<u>Other:</u>	

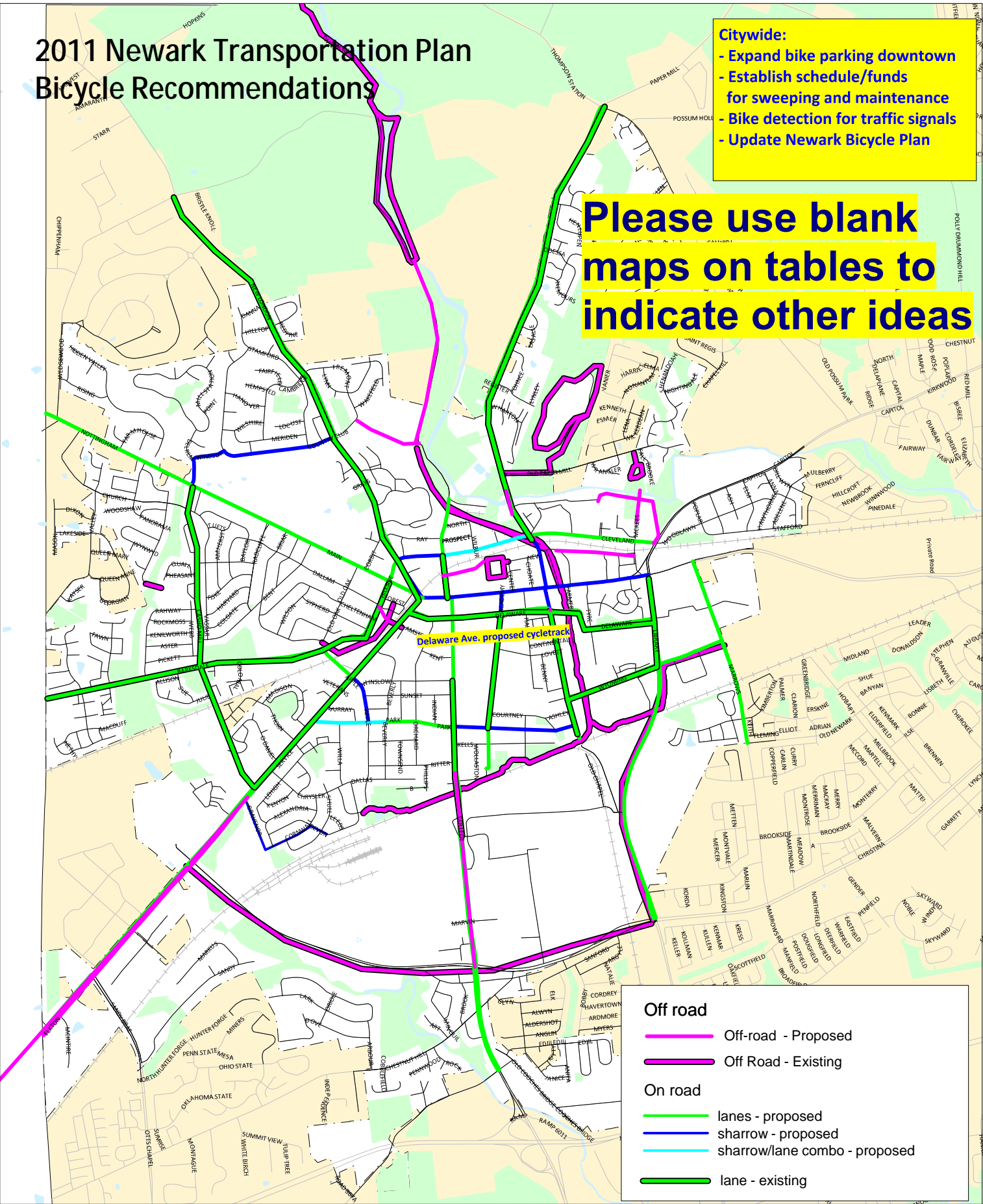


# 2011 Newark Transportation Plan Bicycle Recommendations

**Citywide:**

- Expand bike parking downtown
- Establish schedule/funds for sweeping and maintenance
- Bike detection for traffic signals
- Update Newark Bicycle Plan

**Please use blank maps on tables to indicate other ideas**



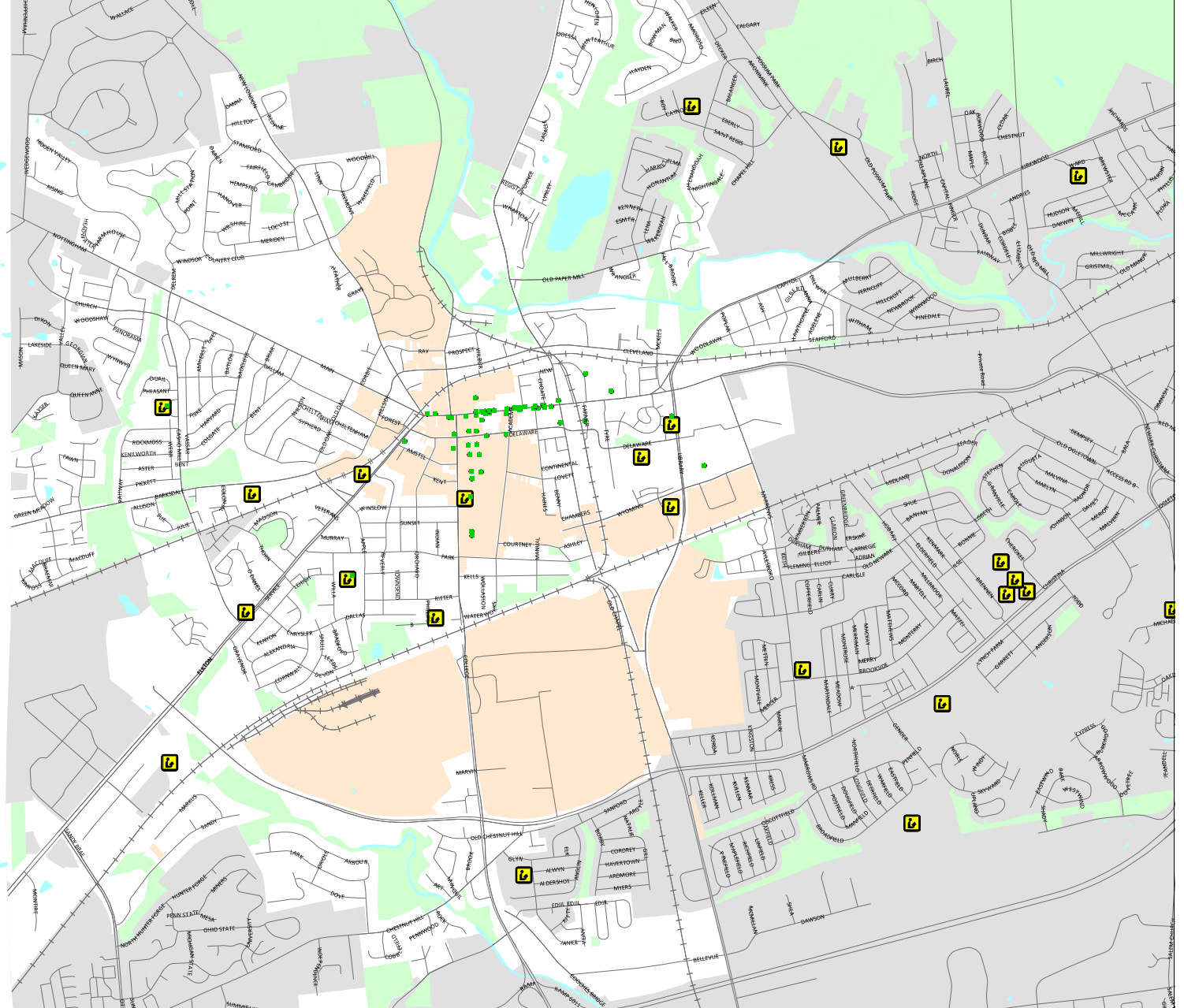
- Off road**
- Off-road - Proposed
  - Off Road - Existing
- On road**
- lanes - proposed
  - sharrow - proposed
  - sharrow/lane combo - proposed
  - lane - existing

Use GREEN stickers/markers to show where would you like more BIKE RACKS?

Use RED stickers/markers to show CHALLENGING routes and intersections?

Use BLUE stickers/markers to show where SWEEPING/MAINTENANCE is needed?

Use YELLOW stickers/markers to show us your FAVORITE routes/destinations?



	Road		Park/open space		Existing bike rack (not all shown)
	Railroad		University of Delaware		Schools and Libraries
			Water		