ASTORIA BIKE NETWORK AND PROTECTED BIKE LANES

Public Workshop
Presented to Queens Community Board 1 - February 11, 2020
AGENDA

1. Presentation/Overview (15 min)
2. Facilitated discussion/feedback (45 min)
3. Group Share Back (15 min)
Introduction
Overview

Workshop Goals

• Gather feedback that will help us develop a north-south protected bicycle route as specified in the Green Wave Plan

• Gather feedback that will help us plan an expanded bicycle network in Astoria
Interest in Improved Bike Access in Astoria

224,166 Citi Bike trip starts & ends occurred in Community District 1 in its first summer (July, Aug, Sept 2018)

NYCHA residents 16 and older qualify for a discounted annual membership of $5/month
**Background**

**Green Wave** A Plan for Cycling in New York City

**Analysis of fatalities – key findings (2014 - 2019):**
- Nearly 90% of fatalities happened on streets without bike lanes
- 60% of fatalities happened at intersections
  - 23% involved a vehicle turn
  - 16% involved a driver’s failure to yield the right of way

**Green Wave Plan:**

**Citywide Protected Bike Lane Network:**
- Build 30 miles of protected bicycle lane annually
- Build 75 miles of bicycle infrastructure in 10 Bicycle Priority Districts (7 in Brooklyn, 3 in Queens) by 2022

**Better Design:**
- Implement new design standards based on national & international best practice to enhance safety at intersections
- Continue piloting new designs with rigorous safety analysis

**Education and Outreach:**
- Launch next phase of Vision Zero public awareness campaign, educating drivers with a focus on cyclist safety and expand the “Get There” bicycle encouragement/rules of road campaign.
- Educate all street users about safe truck operation on city streets
- Increase helmet giveaways and helmet use encouragement

**NYPD Enforcement**
- Target enforcement on highest risk activities: speeding, failing to yield, blocking bike lanes, oversized trucks/trucks off route
Background

Safety Benefits of Bicycle Infrastructure

Bike Lane Projects Increase Safety for All Road Users

- Markings organize the roadway
- Standard width lanes discourage speeding
- Bike lanes provide dedicated space for cyclists, increase predictability of cyclist location for drivers + pedestrians
- Upgraded crosswalks improve visibility and pedestrian safety
Safety Benefits of Bicycle Infrastructure

Street designs that include protected bike lanes increase safety for all users

- 15% drop in all crashes with injuries
- 21% drop in pedestrian injuries

on streets where protected bike lanes were installed 2007-2017

Injuries to cyclists increase only 3%, despite a 61% bike volume increase

Protected Bike Lanes
Before and After Crash Data, 2007 - 2017

Data from 25 separate protected bicycle lane projects installed from 2007-2014 with 3 years of after data. Includes portions of 1 Ave, 2 Ave, 8 Ave, 9 Ave, Broadway, Columbus Ave, Hudson St, Lafayette St / 4 Ave, Sands St, Allen/Pike St, Kent Ave, Prospect Park West, Flushing Ave, Bruckner Blvd & Longfellow Ave, Imlay St / Conover St, Paerdegat Ave. Only sections of projects that included protected bike lanes were analyzed.

Source: NYPD AIS/TAMS Crash Database
Project Focus Area

**Existing Bike Network**

- New waterfront routes (protected lanes on 20th Ave, Hoyt Ave N, Shore Blvd)
- Connections to parks
- Difficult to access some destinations (Central Astoria, new protected lanes, transit connections)
- Street network challenging to navigate
Background

Project Focus Area

Street Network Issues
- Discontinuous streets
- Irregular street grid
- Narrow street widths
- Difficult connection to bridges
- Boundaries - Northern Blvd, Grand Central Pkwy

Project Goals

Close gaps in bicycle network
- Connections to ferry, subway
- Connections to bridges: RFK, Roosevelt Island, Queensboro, Honeywell St
- Connections to adjacent neighborhoods

Improve safety for all road users
DOT Street Improvement Projects Toolkit

Markings – Organize the Roadway to Increase Safety

- High Visibility Crosswalks
- Flush Medians, Turn Lanes
- Bike Lanes

Colored Paint – Designate Roadway Space for New Uses

- Curb Extensions
- Bus Lanes
- Protected Bike Lanes
Shared Bicycle Lanes

**Benefits**

Alert drivers and cyclists of shared space

Provide wayfinding for people on bikes

Guide cyclists away from open car doors

**Considerations**

Can be less comfortable for novice cyclists, may have less traffic calming benefits

No parking loss: typically fits in between existing travel and parking lanes
Conventional Bicycle Lanes

Benefits

Discourage speeding by visually narrowing the road

Increase predictability by clearly defining road space for each user

Considerations

No physical separation between vehicles and cyclists

No parking loss - typically fits in between existing travel and parking lanes
Protected Bicycle Lanes

**Benefits**

Maximizes traffic calming by physically narrowing roadways

Increases safety for all road users by shortening crossing distances for pedestrians, and separating people driving and biking

Encourages wider range of people to try riding a bike

**Considerations**

Typically removes parking spaces

May require removal of a travel lane
Proposed Bicycle Routes
Draft North-South Protected Bike Routes

**Proposed Bicycle Routes**

1. **Crescent St**: two-way protected path
2. **31st St**: pedestrian & transit access improvements under the elevated – with protected bicycle lanes in each direction

**Priorities**

- Link to bridges: RFK, Queensboro, Honeywell St
- Continuous uninterrupted routes
- Connect to Long Island City
- Opportunities to improve transit accessibility
Proposed Bicycle Routes

Crescent St - Concept

Existing (Typical): Crescent St
Potential Example: Kent Ave, BK
Proposed Bicycle Routes

31st St - Concept

Existing: 31st St at Ditmars Blvd

Potential Example: Westchester Ave, BX
‘Bus Stops Under the Elevated’ Improvements

Potential Example: Chicago Bike Lanes Under the El
**Project Proposal**

**Priorities**

- Close gaps in bicycle network
- Improve access to destinations and transit
- Improve safety for all road users

**Conventional & Shared Bike Lane Network Expansion**

**Proposed Routes**

1. North-south: Ditmars to Astoria
2. East-west: to Astoria Park
3. East-west: Roosevelt Island Bridge Connection
4. North-south: LIC to Astoria
5. Honeywell St Bridge Connections
6. RFK Bridge Connector

- Minimal parking loss
- No travel lane removal
Proposed Bicycle Routes

Standard & Shared Lanes

Existing: 43rd St, facing south

Shared Lanes

Standard Bicycle Lanes
Summary
Next Steps

**Spring – Summer 2020**
- Follow-up Community Engagement
  - *Share workshop feedback and conventional & shared bicycle routes network*
  - *Present protected bicycle route design*

**Summer - Fall 2020**
- Begin implementation of conventional bicycle lanes
- Begin implementation of a protected bicycle route
Workshop Goals

• Gather feedback on north-south protected bicycle route as specified in the Green Wave Plan

• Gather feedback that will help us expand the bike network in Astoria

Project Goals

• Close gaps in bicycle network
• Improve access to destinations and transit
• Improve safety for all road users
Table Exercises

Facilitated discussion & feedback

Groups share back
Questions?

THANK YOU!
Appendix
Bicycle Facility Types

**Protected Bike Lanes**
- Provide separation between cyclists and traffic
- Create shorter, safer pedestrian crossings
- May include floating parking, narrower roadway has traffic calming effect

**Conventional Bike Lanes**
- Create dedicated space for people on bikes and in cars
- Increase predictability for all road users
- Visually narrow the roadway, reduces crashes with injuries

**Shared Lanes**
- Alert drivers and cyclists of shared space
- Provide wayfinding for people on bikes
- Guide bicycles away from open car doors
Conventional & Shared Bike Lane Network Expansion

Priorities
- Close gaps in bicycle network
- Improve access to destinations and transit
- Improve safety for all road users

Proposed Routes
1. North-south: Ditmars to Astoria
2. East-west: to Astoria Park
3. East-west: Roosevelt Island Bridge Connection
4. North-south: LIC to Astoria
5. Honeywell St Bridge Connections
6. RFK Bridge Connector

Minimal parking loss
No travel lane removal
Bike lanes create a new north-south connection
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No parking loss or travel lane removal

**1 North-South Connection**

No Parking Loss

**A 42nd St, 43rd St**
(20th Ave to 23rd Ave)

**Existing**
- 34' Travel & Parking Lane

**Proposed**
- 9' Parking Lane
- 11' Travel Lane
- 5' 90° Parking Lane

**B 43rd St, 44th St**
(Astoria Blvd S to 34th Ave)

**Existing**
- 30' Combined Travel & Parking Lane

**Proposed**
- 17' Combined Travel & Parking Lane
- 5' 90° Parking Lane
- 8' Parking Lane

**LEGEND**
- Proposed Route
- Existing Bicycle Facilities
  - Protected Path
  - Bicycle Lane
  - Shared Lane
  - Signed Route

**APPENDIX**
North-south Connection Across Grand Central Pkwy

Shared lanes connect north-south pair across Grand Central

- Provide wayfinding for cyclists
- Connect across Grand Central Pkwy, Astoria Blvd
- Curbside lane on Astoria Blvd S. removes 3 parking spaces

Legend:

- Proposed Bicycle Facilities
- Bicycle Lane
- Shared Lane
23rd Ave: 19th St to 46th St

2 Astoria Park Connection

No Parking Loss

Shared lanes create an east-west connection

- Organize roadway, calm traffic
- Provide wayfinding for cyclists
- No parking loss or travel lane removal
- Connect between Astoria Park, Ditmars neighborhood

23rd Ave: 19th St to 43rd St

Existing

Proposed

LEGEND

Proposed Route
Existing Bicycle Facilities
Protected Path
Bicycle Lane
Shared Lane
Signed Route
36th Ave: Vernon Blvd to 29th St

Roosevelt Island Bridge Connection

No Parking Loss

Shared and standard lanes connect to Roosevelt Island
- Organize roadway, calm traffic
- Provide dedicated space and wayfinding for cyclists
- No parking loss or travel lane removal

36th Ave (Vernon Blvd to 24th St)

Existing
- 25’ Travel & Parking Lane

Proposed
- 9’ Parking Lane
- 11’ Travel Lane
- 9’ Parking Lane

36th Ave (24th St to 29th St)

Existing
- 25’ Travel & Parking Lane
- 18’ Travel & Parking Lane

Proposed
- 8’ Parking Lane
- 10’ Shared Lane
- 10’ Shared Lane
- 8’ Parking Lane

Legend:
- Existing Bicycle Facilities
- Proposed Route
- Protected Path
- Bicycle Path
- Signed Route
Long Island City to Astoria Connection

No Parking Loss

Bike lanes create a connection to Long Island City
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No parking loss or travel lane removal
- Connects cyclists to continue under bridge

22nd St, 23rd St: Queens Plaza N to 36th Ave

APPENDIX
Bike lanes create a connection to Honeywell St Bridge
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No parking loss or travel lane removal
- Connect to existing lanes on 28 St, 29 St, Honeywell St
Bike lanes create a new north-south connection
- Organize roadway, calm traffic
- Provide dedicated space for cyclists
- No parking loss or travel lane removal
Existing Bicycle Lanes in Community District 1

Protected Bicycle Lanes
- 20th Ave – Traffic Calming and Park Access
- Hoyt Ave North – RFK Bridge Access
- Shore Blvd – Astoria Park Path
- Vernon Blvd – Queens Waterfront Greenway
- Waterfront path in Ralph DeMarco Park

Conventional & Shared Bicycle Lanes
- North-south route: 21st St
- North-south pairs: 35th/36th St, 28th/29th St
- East-west: 31st Ave, 34th Ave, 20th Ave
Recent Queens DOT Bicycle Projects

New Bicycle Routes in Queens 2017-2019

Protected Bicycle Lanes
- Queens Blvd Phases 1, 2, 3
- 111<sup>th</sup> Street
- 43<sup>rd</sup> Ave, Skillman Ave
- Northern Blvd
- Shore Front Pkwy (Rockaway)
- Beach 94<sup>th</sup> St
- Cypress Hills St
- Alley Pond Park Connector – 223 St, East Hampton Blvd
- Hoyt Ave North
- 210<sup>th</sup> St, Oceania Ave

Neighborhood Bicycle Networks
- Flushing
- CB 8 – Queens College, St. Johns Univ, Cunningham Park connections
- CBs 2, 3, 4, 5