PRESENTATION OVERVIEW

1. Background
2. Proposal
3. Making It Work
4. Summary
Background
JAMAICA BAY GREENWAY

11 miles of recreational paths for biking and jogging

Provides access to **10,000 acres** of parks and beaches

**Gaps** in route

**Difficult to get to** from adjacent neighborhoods

100,000+ people use Jamaica Bay Greenway to visit park sites each year

*Source: National Park Service travel survey: Jamaica Bay Greenway Missing Links Study, 2010*
JAMAICA BAY GREENWAY IMPLEMENTATION PLAN

Goals and Process

- Improve access & connectivity to Greenway for adjacent neighborhoods

- Outreach began in 2014
- 3 rounds of workshops
- Multiple events including guided bicycle rides

Released Plan Summer 2016
- 26 potential projects
- 19 miles of new or enhanced greenway

March 2014
Round 1: Existing Conditions

Oct 2014
Round 2: Route Alternatives

May 2015
Round 3: Final Route Selection

July 2016
Plan Release
Background

JAMAICA BAY GREENWAY IMPLEMENTATION PLAN

Several Projects Already Completed

Ave V, Marine Park (2016)

Canarsie Pier (2015)

Paerdegat Ave N., Canarsie (2014)

Flatbush Ave Ramps, Marine Park (2017)
Priority project in plan improves access from neighborhood to:

- New Brigham Street – Lew Fidler Park
- Jamaica Bay Greenway entrance at Brigham St
- Plumb Beach
- Floyd Bennett Field
- Jacob Riis Park

Emmons Ave was the preferred connection identified through community planning process

Map is excerpt from Jamaica Bay Greenway Implementation Plan
STREET AMBASSADOR OUTREACH

On-Street Surveying

- Additional outreach to hear community response to Jamaica Bay Greenway Implementation Plan after the plan release
- 8 on-street outreach sessions held
- 50% of survey respondents lived in Community District 15

Outcome:

- 83% respondents more willing to bike on Jamaica Bay Greenway if dedicated space for cyclists is installed
- Most respondents rated bicycle and pedestrian connections as “needs improvement”

- 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

GREENWAY LONG TERM PLANNING

Greenway Plan for NYC
NYC Dept of City Planning, 1993

Shore Parkway Greenway Connector Master Plan
NYC Dept of City Planning, 2003

Fourth Regional Plan
Regional Planning Association, 2017

Schematic Greenway Plan
- Proposed Greenway connection along Emmons Ave

Proposed Route on Emmons
- Recommendations for bicycle connections to close gaps between Shore Parkway Greenway segments

Create a Tri-state Trail Network
- More than 1,620 miles of biking, hiking, and walking trails would put more than 8 million residents within a half-mile of a trail, increasing access by 25%.
Background

CYCLING SAFETY STUDY - 2017

Safer Cycling
BICYCLE RIDERSHIP AND SAFETY IN NEW YORK CITY

2017

The vast majority (89%) of cyclist fatalities occurred on streets without bike lanes (2006 – 2016)

Community District 15 is a Priority Bicycle District

High number of cyclists killed or severely injured
- 1 cyclist killed (2010-2014)
- 41 cyclists severely injured (2010-2014)

Low density bicycle network coverage (7%)
Proposal
PROJECT LOCATION

Provides access to Jamaica Bay Greenway from Sheepshead Bay

Creates new bike network connection & closes gap
EMMONS AVE: EXISTING CONDITIONS & ISSUES

Residential and commercial corridor, actively used by vehicles, pedestrians and cyclists

- Long crossings for pedestrians between residential/commercial and waterfront destinations
- No dedicated space for cyclists – signed bicycle route without markings
  - Bicycle ridership has more than doubled recently: 12 HR counts: 698 (2015), 871 (2017), 1417 (2019), 1571 (2021)
- High speeds on Emmons Ave during off-peak hours (88% of vehicles speeding above the limit)
- High crash corridor – 16 people killed or severely injured 2014-2018 (top third of Brooklyn corridors)
- Cyclists mix with westbound roadway traffic and double parked cars during evening peak hour
PARKING PROTECTED TWO-WAY BICYCLE PATH

Benefits

- Extends greenway experience into neighborhood
- Provides comfortable space for cyclists of varied ages and experience levels
- Reduces conflicts between cyclists and vehicles - reconfigured parking separates bikes from moving vehicles
- Increases predictability of cyclist location for drivers - path consolidates cyclists to one location
- Expands waterfront access, separates pedestrians on the promenade from cyclists by providing separate spaces
Proposal

1. EMMONS AVE: Shore Blvd to Ocean Ave

Existing Conditions

Emmons Ave at E 16th St, facing east
Proposal

1. PARKING PROTECTED TWO-WAY BICYCLE PATH

Emmons Ave: from Shore Blvd to Ocean Ave

- Shift painted median to create space for bicycle path
- Maintain all travel lanes and parking spaces
- Cyclists protected by parked cars
- Shorten crossing distances for pedestrians w/islands

Existing Conditions

Proposed Design
EMMONS AVE: Ocean Ave to Coyle St

Existing Conditions
Emmons Ave at Bedford Ave, facing east
**Proposed Design**

### 2 PARKING PROTECTED TWO-WAY BICYCLE PATH

**Emmons Ave: from Ocean Ave to Coyle St**

- Convert angled parking to parallel parking
- Establish parking along the waterfront
- Protect cyclists with parked cars
- Shorten crossing distances for pedestrians

**Existing Conditions**

**Proposed Design**
EMMONS AVE: Coyle St to Brigham St

Existing Conditions
Emmons Ave at Bragg St, facing east
PROTECTED TWO-WAY BICYCLE PATH

Emmons Ave: from Coyle St to Brigham St (two blocks)

- Maintain two lanes for vehicles approaching Belt Pkwy
- Bike path separated from traffic with bollards
- Create clear connection to greenway & new park entrance

Existing Conditions

<table>
<thead>
<tr>
<th>North Sidewalk</th>
<th>20' Moving &amp; Parking Lane</th>
<th>10' Moving Lane</th>
<th>10' Parking Lane</th>
<th>6'</th>
<th>10' Moving Lane</th>
<th>10' Parking Lane</th>
<th>20' Moving &amp; Parking Lane</th>
<th>South Sidewalk</th>
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Proposed Design

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<th>6'</th>
<th>8' Parking Lane</th>
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PEDESTRIAN IMPROVEMENTS

Median Tip Extensions at Signalized Intersections

- Median tip extensions shorten crossing distance, create waiting area for pedestrians
- Upgraded crosswalks improve visibility
- Signal timing changes improve pedestrian safety at key locations

Example: Adam Clayton Powell Blvd, MN

Existing Condition: Emmons Ave at Coyle St

Proposal Median Tip Extension

LEGEND
- Median Pedestrian Improvements
LOADING AND CURB ACCESS

Driveways

- Driveway access is maintained and indicated with dashed markings

Curb Access

- Design preserves loading and access along the south side of the street
- No Standing zones/markings near piers will provide flexibility for access

Curb Management Tools

- Potential for loading zones, parking regulation changes for pickup/drop-off, metering
# PARKING DESIGN TYPICAL

<table>
<thead>
<tr>
<th>Maintain Parking</th>
<th>Maintain Traffic Flow</th>
<th>Cyclist Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Convert angled parking to two rows of parallel parking</td>
<td>• Maintains eastbound travel lane</td>
<td>• Cyclists are separated from traffic by parked cars</td>
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</tbody>
</table>

### Existing

**North Sidewalk**

- 10 parking spaces

**Median**

**South Sidewalk**

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### Proposed

**North Sidewalk**

- 10 parking spaces

**Median**

**South Sidewalk**

Diagram for Illustrative Purposes Only
**Traffic Flow**

**Improvements**

- Traffic analysis conducted taking into account both summer and fall (school) volumes
- Maintain two lanes for vehicles approaching Belt Pkwy
- Install left turn lane and LPI at Nostrand Ave
- Implement signal timing adjustments at Shore Blvd to reduce congestion and improve pedestrian safety

**Existing Conditions: Coyle St to Brigham St**

- North Sidewalk:
  - 20' Moving & Parking Lane
  - 10' Moving Lane
  - 10' Parking Lane
  - 6'

- South Sidewalk:
  - 20' Moving & Parking Lane

**Proposed Design: Coyle St to Brigham St**

- North Sidewalk:
  - 20' Moving & Parking Lane
  - 10' Moving Lane
  - 10' Parking Lane
  - 6'
  - 8' Parking Lane
  - 10' Travel Lane
  - 10' Travel Lane

- South Sidewalk:
  - 3' Buffer
  - 4' 4'
Safety – Complete Street Redesign
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
Summary
Summary

Improved Bike and Pedestrian Safety and Access to Jamaica Bay Greenway

Project Benefits

• New two-way parking-protected bicycle lane
• Safer pedestrian crossings
• Reduced conflicts between bicycles, pedestrians, moving vehicles
• Maintained traffic flow and parking
Questions?
THANK YOU!