NAVY STREET
SANDS STREET TO FLUSHING AVE

Presented to Community Board 2
June 18, 2020
Project Area Location

- Existing Navy St bike lane installed in 2004 is a key connection to the Manhattan Bridge and the Brooklyn Waterfront Greenway
- Sands St separated path constructed in 2009
- Flushing Ave separated path completion scheduled for autumn 2020
Existing Conditions Bicycle Route

• Heavy bike volumes
  o 2,867 bikes 12-hr weekday count
  o 4,070 bikes 18-hr weekday count
  o 596 bikes 2-hr weekend peak

  September 2016

• Standard bike lanes vulnerable to double parking

• Northbound left turn on to Sands St presents conflicts with motor vehicles
### Navy Street Protected Bike Lane

#### Project Area Safety

**Navy Street**  
Flushing Ave to Sands St  
Crash History 2013-2017

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>15</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>37</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

- People on bikes make up 60% of serious injuries on Navy St
- Frequent conflicts between bikes and motor vehicles
Issues Motor Vehicle Conflicts

- Majority of northbound cyclists turn left at Sands St
- Lack of protected lane causes some cyclists to leave bike lane to reduce conflict- travel in southbound lane
- Backups in northbound left turn lane prompt some motorists to drive in bike lane
- Majority of southbound cyclists turn left at Flushing Ave
Proposed Design Goals

- Upgrade bike route to Manhattan Bridge
- Improve pedestrian safety
- Reduce conflicts between people on bikes and in motor vehicles
  - Reduce wrong-way cycling
  - Reduce turning conflicts
- Improve cyclist safety and comfort
  - Reduce double parking in bike lane
  - Increase distance from traffic
- Maintain motor vehicle circulation
Proposed Design

Existing

- Narrower roadway discourages off-peak speeding
- Buffer discourages double parking and keeps bike lane clear of parked vehicles
- Reduces double parking in bike lane
- Removes 14 parking spaces from east curb of Navy St

Proposed

Prospect Park West, Brooklyn
Proposed Design Navy St at Sands St

- Two-way parking protected bike lane connects Flushing Ave to Sands St
- Bike waiting box facilitates two-stage crossing for northbound bikes turning left at Sands St
- Southbound standard bike lane permits direct path to bike lanes south of Flushing Ave
- NB B62 bus stop on the SE corner of Navy St and Sands St to be relocated to NE corner on the far side of intersection
- NB B57 and B69 bus stop on the SE corner of Navy St and Sands St to be relocated to NW corner onto Sands St
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**

<table>
<thead>
<tr>
<th>Category</th>
<th>3-year Averages Before</th>
<th>3-year Averages After</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Injuries</td>
<td>1,477</td>
<td>1,263</td>
<td>-15%</td>
</tr>
<tr>
<td>MV Occupant Injuries</td>
<td>627</td>
<td>533</td>
<td>-15%</td>
</tr>
<tr>
<td>Pedestrian Injuries</td>
<td>628</td>
<td>499</td>
<td>-21%</td>
</tr>
<tr>
<td>Cyclist Injuries</td>
<td>224</td>
<td>231</td>
<td>3%</td>
</tr>
</tbody>
</table>

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  Project Benefits

- Creates a safer, more direct and comfortable experience for cyclists
- Reduces wrong-way cycling and conflicts between bikes and motor vehicles
- Increases pedestrian safety by organizing roadway and calming traffic
- Discourages speeding by narrowing roadway
- Discourages blocking the bike lane
- Maintains traffic capacity