Prospect Park West
Traffic Calming & Bicycle Path

January 22, 2012 for TRB, Workshop on the NACTO Urban Bikeway Design Guide
Location / Context

- Park Slope
- Adjacent Prospect Park
- Approx. 1 mile
- High Bicycle Use
Project Timeline

- **Summer 2007:** Community Board Request Study
- **Spring 2009:** DOT presents proposal
- **Spring 2010:** Additional presentations
- **Summer 2010:** Initial implementation
- **Winter 2011:** Six-month preliminary findings presented
- **Summer 2011:** Enhancements added
- **Fall 2011:** Island design completed with community

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- **Spring 2012:** Islands to be constructed
Pre-Project Conditions

- 49’ wide street
  - 3 southbound travel lanes
  - 2 parking lanes
- Traffic volume does not warrant 3 travel lanes
- Speeding & reckless driving
- Long crossings
- Uncomfortable cycling environment
- Cyclists travel on sidewalk
Cross-Section

**Before**

<table>
<thead>
<tr>
<th>West Sidewalk</th>
<th>19' Combined Parking/Moving Lane</th>
<th>11' Moving Lane</th>
<th>19' Combined Parking/Moving Lane</th>
<th>East Sidewalk</th>
</tr>
</thead>
</table>

**After**

<table>
<thead>
<tr>
<th>West Sidewalk</th>
<th>19' Combined Parking/Moving Lane</th>
<th>11' Moving Lane</th>
<th>8' Floating Parking Lane</th>
<th>Buffer</th>
<th>East Sidewalk</th>
</tr>
</thead>
</table>

Images show the street before and after the transformation of the road layout.
Two-Way Side-Trolley

Two-Way Side-Path
<table>
<thead>
<tr>
<th>Park</th>
<th>Bike Path</th>
<th>Road</th>
</tr>
</thead>
</table>

- Trails parallel to a road
- Independent Control
Pedestrian Crossings
Weekday Bicycle Count Results - Before & After

- Weekday cycling has nearly **TRIPLED**
- Percentage of cyclists riding on the sidewalk **fell to 3%** from 46%

**Prospect Park West**
Between 3rd and 5th Streets
Cyclist Volumes – 12 Hour: 7am-7pm, Weekdays

**Notes:**
- 190% increase based on average of after counts compared to before count
- Data from a single weekday count (06/09/09; 08/17/10; 09/15/10; 10/12/10 and 11/09/10)

* 32% of these cyclists were children 12 years and younger and legally allowed to ride on the sidewalk
• Weekend cycling **DOUBLED**

**Prospect Park West**
Between 3rd and 5th Streets

Cyclist Volumes – 12 Hour: 7am-7pm, Weekends

**Notes:**
• 125% increase based on average of after counts compared to before count
• Data from a single weekday count (06/27/09; 08/21/10; 09/18/10; 10/09/10 and 11/13/10)
### Traffic Speed – Before & After

**Prospect Park West Between 5th and 6th Streets**

#### Percent of Vehicles Over 30 MPH

<table>
<thead>
<tr>
<th>Time Period</th>
<th>BEFORE</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>March 2009: 76%</td>
<td>July 2010: 11%</td>
</tr>
<tr>
<td>Mid Day</td>
<td>72%</td>
<td>-</td>
</tr>
<tr>
<td>PM Peak</td>
<td>73%</td>
<td>23%</td>
</tr>
<tr>
<td>Average</td>
<td>74%</td>
<td>20%</td>
</tr>
</tbody>
</table>

#### Average Speed (mph)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>BEFORE</th>
<th>AFTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>March 2009: 34.1</td>
<td>July 2010: 25.1</td>
</tr>
<tr>
<td>Mid Day</td>
<td>34.6</td>
<td>-</td>
</tr>
<tr>
<td>PM Peak</td>
<td>32.8</td>
<td>26.6</td>
</tr>
<tr>
<td>Average</td>
<td>33.8</td>
<td>26.6</td>
</tr>
</tbody>
</table>

**Source:** NYCDOT Radar Study

- **BEFORE:** 3 of every 4 vehicles broke speed limit
- **AFTER:** Only 1 in 5 vehicles exceed speed limit
**Traffic Volumes - Before & After**

### Prospect Park West Weekday Peak Hour Vehicle Volume Summary

<table>
<thead>
<tr>
<th></th>
<th>Pre-Implementation Average Volume*</th>
<th>Post-Implementation Volume**</th>
<th>Change in Volume</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carroll Street AM Peak Hour (8-9AM)</td>
<td>1,055</td>
<td>1,109</td>
<td>54</td>
<td>5%</td>
</tr>
<tr>
<td>Carroll Street PM Peak Hour (4-5PM)</td>
<td>991</td>
<td>1,010</td>
<td>19</td>
<td>2%</td>
</tr>
<tr>
<td>11th Street AM Peak Hour (8-9AM)</td>
<td>826</td>
<td>822</td>
<td>-5</td>
<td>-1%</td>
</tr>
<tr>
<td>11th Street PM Peak Hour (4-5PM)</td>
<td>1,035</td>
<td>1,008</td>
<td>-28</td>
<td>-3%</td>
</tr>
</tbody>
</table>

*Counts conducted April 2009 and May 2010
**Counts conducted October 2010

- PPW peak traffic volumes remain stable after implementation
Prospect Park West Combined Vehicle and Bicycle Counts

AM & PM Rush

Prospect Park West Commuter Volume has INCREASED

- Prospect Park West handles 13% & 9% more commuters during the AM & PM rushes, respectively

- Bicycle traffic comprises 12% of PM rush period traffic

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Counts</td>
<td>58***</td>
<td>210***</td>
<td>130***</td>
<td>386***</td>
</tr>
<tr>
<td>Motor Vehicle</td>
<td>2,700*</td>
<td>2,909**</td>
<td>2,807*</td>
<td>2,807**</td>
</tr>
<tr>
<td>Total</td>
<td>2,758</td>
<td>3,119</td>
<td>2,937</td>
<td>3,193</td>
</tr>
</tbody>
</table>

*Average of counts conducted April 21-23, 2009 and May 11-20, 2010 at Carroll St
**Counts conducted October 19-28, 2010 at Carroll St
***Bicycle counts conducted 06/09/09 and 10/12/10 at 4th St
• Prospect Park West provides the shortest travel times through Park Slope

Weekday travel time averages are derived from 48 runs conducted once every 30 minutes over two days along each corridor
Before travel time surveys conducted May 11-12, 2010
After travel time surveys conducted October 19-20, 2010
Safety

<table>
<thead>
<tr>
<th></th>
<th>Before Period*</th>
<th>After: 7/1/10 to 12/31/10</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Before</td>
<td>Average per 6 Months</td>
<td></td>
</tr>
<tr>
<td>Crashes</td>
<td>89</td>
<td>29.7</td>
<td>-15.7%</td>
</tr>
<tr>
<td>Crashes w/ Injury</td>
<td>16</td>
<td>5.3</td>
<td>-62.5%</td>
</tr>
<tr>
<td>Total Injuries</td>
<td>19</td>
<td>6.3</td>
<td>-21.1%</td>
</tr>
</tbody>
</table>

* Before period is the 2nd half (7/1 to 12/31) of 2007, 2008 and 2009

- Crashes are down 16%
- Crashes that cause injuries are down 63%
- Before the project, a crash was twice as likely to include an injury (18% vs. 8%)
- Injuries to all street users are down 21%
- No reported pedestrian injuries in the after period
- No pedestrian or cyclist injuries from ped-bike only crashes reported by NYPD

Motor vehicle crash data per NYPD, between Grand Army Plaza and Bartel Pritchard Square
Analysis compares the average of the three prior years (2007-09) between July 1 and December 31 only and July 1 to December 31, 2010
2011: Rumble Strips
2012: Pedestrian Islands

Bicycle and Pedestrian Pass-Throughs
Cobble Stone- Edged Tree Pits
Contextual Materials
A New Choice for Brooklynites
Thank You