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



- Summer 2010: Initial implementation
- Winter 2011: Six-month preliminary findings presented
- Summer 2011: Enhancements added
- Fall 2011: Island design completed with community
- **Spring 2012**: Islands to be constructed



Prospect Park West: 1940s

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



New Prospect Park West





Two-Way Side-Trolley

Two-Way Side-Path

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Pedestrian Crossings - Inspiration



Trails parallel to a road **Independent Control**

Pedestrian Crossings







Weekday Bicycle Count Results- Before & After



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

Notes:

Cyclists

•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)

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



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

Weekend Bicycle Count Results- Before & After

Weekend cycling DOUBLED





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

•BEFORE: 3 of every 4 vehicles broke speed limit •AFTER: Only 1 in 5 vehicles exceed speed limit

Prospect Park West
Between 5 th and 6 th Streets
Percent of Vehicles Over 30 MPH

	BEFORE	AFTER		
Time Period	March 2009	July 2010	October 2010	
AM Peak	76%	11%	22%	
Mid Day	72%	-	31%	
PM Peak	73%	23%	14%	
Average	74%	20%		

Prospect Park West Between 5th and 6th Streets Average Speed (mph)

	BEFORE	AFTER		
Time Period	March 2009	July 2010	October 2010	
AM Peak	34.1	25.1	27.7	
Mid Day	34.6	-	27.9	
PM Peak	32.8	26.6	25.9	
Average	33.8	26.6		

Traffic Volumes- Before & After

Prospect Park West Weekday Peak Hour Vehicle Volume Summary

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

*Counts conducted April 2009 and May 2010

**Counts conducted October 2010

• PPW peak traffic volumes remain stable after implementation

Combined Vehicle and Bicycle Counts

Prospect Park West Combined Vehicle and Bicycle Counts



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

*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

Travel Times - Before & After (12-Hour Average)

Park Slope North-South Corridor Travel Times

Union Street -15th Street

Weekday Average, 7am-7pm



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

	Before Period*		After:	Percent	
	Total Before	Average per 6 Months	7/1/10 to 12/31/10	Change	
Crashes	89	29.7	25	-15.7%	
Crashes w/ Injury	16	5.3	2	-62.5%	
Total Injuries	19	6.3	5	-21.1%	

* 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

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