

# Broadway – Amsterdam – West 71<sup>st</sup> Street Pedestrian Safety Intersection Redesign

2010



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Office Research, Implementation and Safety

# Project Background

- Elected Officials interest in improving intersection
- Upper West Side Senior Pedestrian focus area
- Upper West Side Transportation Study
- NYPD High Crash Location
- CB 7 requested pedestrian safety improvements
- Community group support



# Existing Conditions

- Irregular, multi-legged intersection
- Wide streets with long crossing distances
- High pedestrian volumes due to heavy transit and retail uses
- High percentile of crashes for all modes

## Ranked in 94<sup>th</sup> Percentile for pedestrian crashes

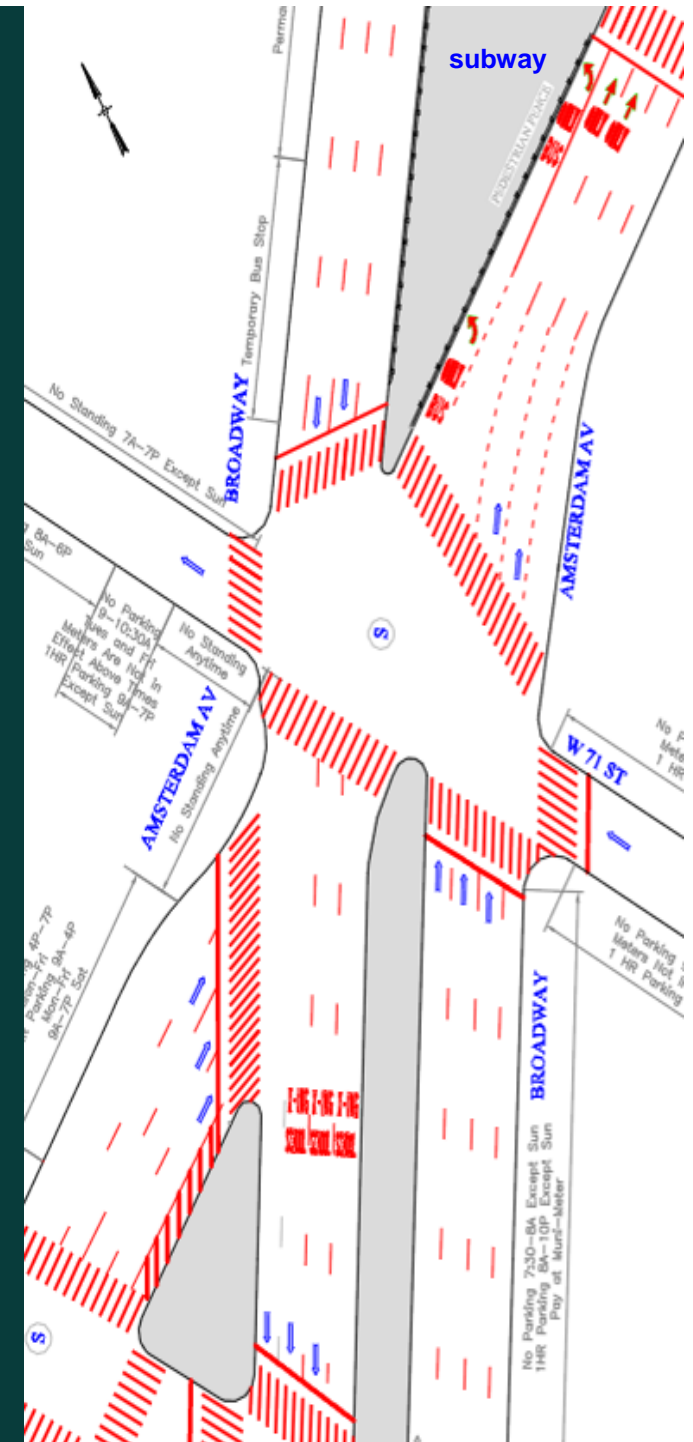
### On Street from Street to Street

2004-2008 (Five Years)

	Total Injuries	Avg Inj/Yr	Severity Percentile of Borough Intersections*
Pedestrian	15	3	94%
Bicyclist	4	0.8	88%
Motor Vehicle Occupant	18	3.6	80%
<b>Total Injuries</b>	<b>37</b>	<b>7.4</b>	<b>90%</b>

Source Data: NYS Dept. of Motor Vehicles (Injuries and Severity)  
NYCDOT (Fatalities)

\* Percentile of Borough Intersections: Percentage of intersections in the same borough with fewer crashes per year, after accounting for severity of crashes.



# Existing Conditions



West 71<sup>st</sup> St. and Amsterdam, facing north

- Long crossing distances and not enough time to cross the street
- Multiple pedestrian/vehicle conflict points
- Heavy vehicular volumes with numerous trucks and buses



SB Broadway and NB Broadway/Amsterdam, facing north



West 71<sup>st</sup> St at Broadway and Amsterdam, facing south

# Benefits of Proposal

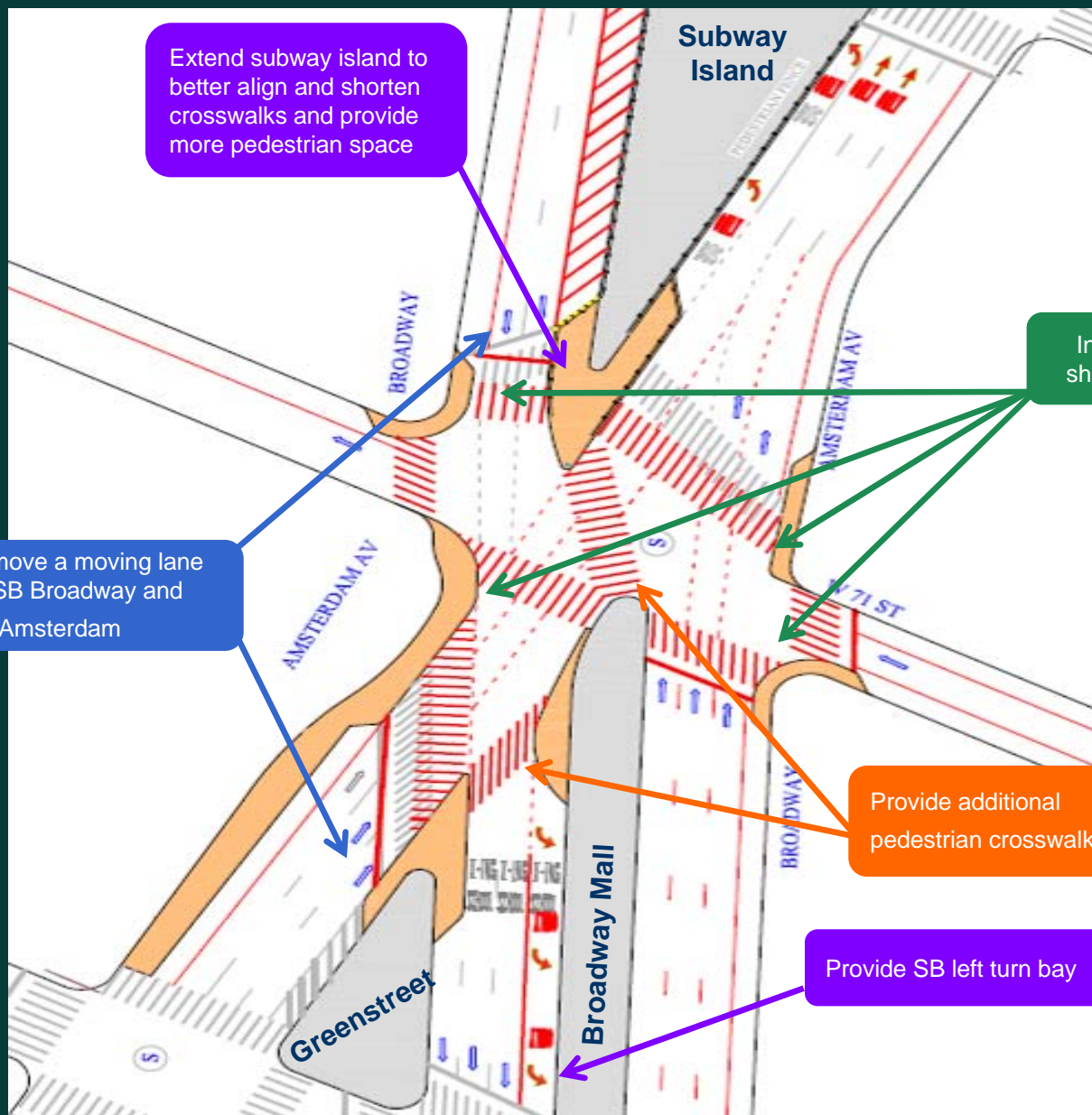
- Shorter, safer pedestrian crossings
- Better street alignment
- Additional pedestrian space
- Additional crossing opportunities
- More time to cross the street
- Reduces pedestrian/vehicular conflicts
- Slows turning vehicles



# Rendering



# Proposal



Extend subway island to better align and shorten crosswalks and provide more pedestrian space

Remove a moving lane on SB Broadway and NB Amsterdam

Install curb extensions to shorten crossing distances

Provide additional pedestrian crosswalks

Provide SB left turn bay

# Proposal

## Broadway at Amsterdam and West 71st Street

### Level of Service (LOS) Summary

		Existing Conditions									Proposed Conditions								
Intersection Approach¹	Mvmt²	AM Peak (8:00 - 9:00 am)			MD Peak (1:00 - 2:00 pm)			PM Peak (5:00 - 6:00 pm)			AM Peak (8:00 - 9:00 am)			MD Peak (1:00-2:00 pm)			PM Peak (5:00-6:00 pm)		
		v/c Ratio	Avg Delay	LOS	v/c Ratio	Avg Delay	LOS	v/c Ratio	Avg Delay	LOS	v/c Ratio	Avg Delay	LOS	v/c Ratio	Avg Delay	LOS	v/c Ratio	Avg Delay	LOS
Broadway at Amsterdam and West 71st Street																			
WB - West 71st Street	TR	0.61	35.3	D	0.36	29.3	C	0.33	28.5	C	0.61	35.3	D	0.38	29.8	C	0.33	28.5	C
NB - Amsterdam Avenue	T	0.61	34.0	C	0.84	41.1	D	0.84	39.5	D	0.67	33.6	C	0.90	36.7	D	0.90	42.9	D
NB - Broadway	T	0.63	28.8	C	0.63	28.8	C	0.69	30.0	C	0.79	36.6	D	0.79	36.6	D	0.86	40.6	D
SB - Broadway	TR	0.60	27.7	C	0.54	26.8	C	0.59	27.5	C	0.95	54.1	D	0.78	34.1	C	0.95	51.6	D
Overall Intersection			30.6	C		32.9	C		33.0	C		41.2	D		38.0	D		44.1	D

Notes: <sup>1</sup>Intersection approaches: EB=eastbound, WB=westbound, NB=northbound, SB=southbound

<sup>2</sup>Intersection movement: L=left turn, T=through, R=right turn, LT=left-through, TR=through-right

- The average delay for SB Broadway increases by 19 seconds
- The average delay for NB Broadway increases by 8 seconds
- The average delay for NB Amsterdam and WB West 71<sup>st</sup> Street remain relatively unchanged

# Next Steps

- Complete Survey: Fall 2010
- Finalize design: Fall 2010
- Implementation
  - Operational: Anticipated Spring 2011
  - Capital construction: Anticipated late 2011

Example of Operational Changes



The Bronx Hub

Questions?

Thank  
You

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