First Avenue: E 61 St to E 72 St
Parking Protected Bicycle Path Extension

New York City Department of Transportation – Polly Trottenberg, Commissioner
After Analysis – Completed November 2013
Building upon previously completed improvements to other sections of First and Second Avenues, DOT implemented enhancements on First Avenue between E 61 St and E 72 St in summer 2012. The project included a new bicycle path with landscaped pedestrian safety islands and mixing zones for turning vehicles. Post implementation analysis indicates an increase in bicycle ridership with a reduction in crashes while maintaining motor vehicle throughput. In addition, crossings are shorter and new street trees have enhanced the neighborhood.

Results Summary:

Safety
• Total crashes fell by 9%
• Injuries for all users fell by 36%
• 70% decrease in cyclists riding on the sidewalk on First Ave

Mobility
• Vehicle volumes along the avenue have declined modestly
• First Ave travel times improved by 8% during the afternoon peak period (4-7pm)
• Bicycle volumes on First Ave increase by 45% on weekdays
• An acceptable Vehicle Level of Service was maintained after implementation

Economic Vitality/Quality of Life
• The project has had no adverse effects on FDNY and NYPD operations
• Created 70 parking spaces during afternoon peak period
• 14 trees planted within concrete safety islands
First Avenue: E 61\textsuperscript{st} St to E 72\textsuperscript{nd} St

Project Summary

Completed June 2012:

- Installed 0.6 miles of separated bicycle path with mixing zones
- Installed dedicated bicycle signal at E 72\textsuperscript{nd} St
- Constructed 14 landscaped pedestrian safety islands
- Removed afternoon peak period parking restrictions
First Avenue: E 61st St to E 72nd St

Safety – Crashes and Injuries

- Injuries for all users fell by 36%

Crashes, One-Year After Analysis
First Avenue (E. 61st to E. 72nd)

Source: NYPD AIS/TAMS Crash Database

Each before year period is the 12-month period beginning March 1 and ending February 28. The 1-yr after period is July 1, 2012 to June 30, 2013. The implementation period of March 1, 2012 to June 30, 2012 is excluded.

Source: NYPD AIS/TAMS Crash Database
First Avenue: E 61\textsuperscript{st} St to E 72\textsuperscript{nd} St

Safety – Crashes and Injuries

- Total crashes fell by 9%

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>'09/ '10</td>
<td>'10/ '12</td>
</tr>
<tr>
<td>Total Crashes</td>
<td>247</td>
<td>237</td>
</tr>
<tr>
<td>Crashes w/ Injuries</td>
<td>35</td>
<td>41</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Cyclist</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Total Injuries</td>
<td>43</td>
<td>46</td>
</tr>
</tbody>
</table>

Each before year period is the 12-month period beginning March 1 and ending February 28. The 1-yr after period is July 1, 2012 to June 30, 2013. The implementation period of March 1, 2012 to June 30, 2012 is excluded.

Source: NYPD AIS/TAMS Crash Database
• 70% decrease in cyclists riding on the sidewalk on First Ave

12-Hour Weekday Sidewalk Riding Volumes
(First Ave between E 67 St and E 68 St, 7:00a – 7:00p)

Note: Before data; average of single weekday counts between 7a & 7p on 3/20/12, 3/21/12 and 3/22/12; After data is the average of single weekday counts on 4/24/13, 6/25/13, 7/17/13, 9/17/13, 10/19/13
First Avenue: E 61st St to E 72nd St

Mobility – Vehicle Volumes

- Vehicle volumes along the avenue have declined modestly

Before: Average midweek peak volume week of May 16, 2010
After: Average midweek peak volume week of January 7, 2013
First Avenue: E 61\textsuperscript{st} St to E 72\textsuperscript{nd} St

Mobility – Travel Times

• First Ave travel times improved by 8% during the afternoon peak period (4-7pm)

Before: weekday average travel time derived from (2) runs every hour over 3 days conducted May 11-13, 2010
After: weekday average travel time derived from (4) runs every hour over 2 days conducted November 20-21, 2013
First Avenue: E 61st St to E 72nd St

Mobility – Level of Service

- An acceptable Vehicle Level of Service was maintained after implementation

## Level of Service of First Ave at E. 72nd Street

(PM Peak 6p-7p)

<table>
<thead>
<tr>
<th>Approach</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vehicles (v/hr)</td>
<td>Lane Group</td>
</tr>
<tr>
<td></td>
<td>V/C Ratio</td>
<td>Delay (s)</td>
</tr>
<tr>
<td>NB 1st Ave</td>
<td>L = 145</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>T = 2253</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>R = 130</td>
<td>0.29</td>
</tr>
<tr>
<td>WB E. 72nd St</td>
<td>L = 0</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>T = 162</td>
<td>0.30</td>
</tr>
<tr>
<td></td>
<td>R = 54</td>
<td>0.29</td>
</tr>
<tr>
<td>EB E. 72nd St</td>
<td>L = 118</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>T = 247</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>R = 0</td>
<td>0.44</td>
</tr>
<tr>
<td>Overall Intersection</td>
<td>Delay: 19.4(s) LOS: C</td>
<td>Delay: 20.5(s) LOS: C</td>
</tr>
</tbody>
</table>

Sat flow rate = 2050 vphpl
Bicycle volumes on First Ave increased by 45% on weekdays.

12-Hour Weekday Bicycle Volumes
(First Ave between E 67 St and E 68 St, 7:00a – 7:00p)

- March 2012: 768
- Apr 2013: 1,207
- Jun 2013: 1,050
- July 2013: 1,105
- Sept 2013: 975
- Oct 2013: 1,229

+45% Apr-Oct Average

Note: Before data; average of single weekday counts between 7a & 7p on 3/20/12, 3/21/12 and 3/22/12. After data; single weekday counts between 7a-7p on 4/24/13, 6/25/13, 7/17/13, 9/17/13, 10/19/13. Warm weather months (April-October) are averaged to provide a seasonal factor in comparison to other months.
First Avenue: E 61st St to E 72nd St

Quality of Life – Emergency Response

• The project has had no adverse effects on FDNY and NYPD operations

• NYPD confirmation date November 14, 2013
• FDNY confirmation date November 14, 2013
First Avenue: E 61st St to E 72nd St

Economic Vitality/Quality of Life

- Created 70 parking spaces during afternoon peak period
- 14 trees planted within concrete safety islands