Study Goals

• Address community concerns by investigating the existing traffic conditions within the study area.

• Formulate long-term solutions to improve safety for all street users (pedestrians, bikes and motorists) and to ease congestion.
Study Objectives

• To encourage extensive public participation to ensure community input.

• To develop a set of recommendations and improvement measures to reduce vehicular congestion, improve pedestrian access and mobility throughout the study area.

• To evaluate/coordinate recent NYCDOT roadway improvements in the area.
Study Area - Broader Context
Subjects of Analysis

- Demographics
- Zoning & Land Use
- Traffic
- Parking
- Pedestrians & Bicycles
- Safety
- Public Transit
- Goods Movement
Demographic/Socio-Economic Data

### Study Area Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>33,613</td>
</tr>
<tr>
<td>1990</td>
<td>34,696</td>
</tr>
<tr>
<td>2000</td>
<td>38,500</td>
</tr>
<tr>
<td>2010</td>
<td>38,185</td>
</tr>
</tbody>
</table>

### Socio-Economic Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Study Area</th>
<th>Manhattan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Household Size</td>
<td>1.98</td>
<td>2.00</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$41,557</td>
<td>$47,030</td>
</tr>
<tr>
<td>Vehicles per Household</td>
<td>.19</td>
<td>.26</td>
</tr>
</tbody>
</table>
Journey to Work Mode Share

- Study Area: 47.3% Subway, 30.5% Walk, 7.7% Auto, 5.8% Bus, 4.0% Other
- Manhattan: 47.3% Subway, 25.0% Walk, 15.0% Auto, 12.0% Bus, 1.0% Other
- NYC: 47.3% Subway, 20.0% Walk, 15.0% Auto, 10.0% Bus, 8.0% Other

Legend:
- Red: Subway
- Purple: Walk
- Blue: Auto
- Green: Bus
- Teal: Other
Existing Zoning

Legend

- Study Area Boundary
- Zoning Districts
  - Residential - 30%
  - Commercial - 50%
  - Manufacturing - 20%
  - PARK

Scale

0 0.1 0.2Miles
Existing Land Use - Office
Existing Land Use - Commercial
Existing Land Use - Residential
Existing Land Use - Mixed Use
Traffic Data Collection Plan

- Manual Turning Movement Counts (19)
- Secondary Data
- Automatic Traffic Recorder (4)
- Pedestrian Count (6)
- Pedestrian Observation (20)
- Speed Run Corridors

Map showing traffic data collection locations in various areas of the city.
Intersection/ Approach LOS

- Approach w/ LOS E or Worse
- Approaches w/ LOS E or Worse

Observed Congestion

Intersection LOS
- 1 Approach w/ LOS E or Worse
- 2 Approaches w/ LOS E or Worse
- 3 Approaches w/ LOS E or Worse
Transit Service

- Six local bus lines
- Nine subway lines accessing nine subway stations
- Every major N/S corridor except Lafayette Street served by bus.
- Houston Street is the only E/W corridor served by bus but is also one of the least used bus lines (M21) in Manhattan
Bus Lines
## Parking Supply and Demand

<table>
<thead>
<tr>
<th></th>
<th>AM</th>
<th>MD</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OFF-STREET</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>2,600</td>
<td>2,600</td>
<td>2,600</td>
</tr>
<tr>
<td>Demand</td>
<td>1,900</td>
<td>1,975</td>
<td>1,610</td>
</tr>
<tr>
<td>Utilization</td>
<td>73%</td>
<td>76%</td>
<td>62%</td>
</tr>
<tr>
<td><strong>ON-STREET</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>1,675</td>
<td>2,115</td>
<td>2,140</td>
</tr>
<tr>
<td>Demand</td>
<td>1,525</td>
<td>2,155</td>
<td>2,185</td>
</tr>
<tr>
<td>Utilization</td>
<td>91%</td>
<td>102%</td>
<td>102%</td>
</tr>
<tr>
<td><strong>TOTAL PARKING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply</td>
<td>4,275</td>
<td>4,715</td>
<td>4,740</td>
</tr>
<tr>
<td>Demand</td>
<td>3,425</td>
<td>4,130</td>
<td>3,795</td>
</tr>
<tr>
<td>Utilization</td>
<td>80%</td>
<td>88%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Available On Street Parking
Metered Parking & Truck L/ UL

*L/UL – Loading and Unloading
Pedestrian Volume: AM
Accidents/ Fatalities (2008-2010)

1. 1 Ped fatality 2010
2. 1 Ped fatality 2009
3. 1 Bicycle fatality 2008
4. 5 Ped Accidents 2010
5. 1 Ped fatality 2009
6. 1 Bike fatality 2010
7. 1 Ped fatality 2010, 60% ped and bike accidents occur on Fri-Sat
8. 44% Rear End Accidents
Community Issues

• Congestion
  • Bowery/Houston Street
  • Weekend/Late Night Activities - Congestion & Quality of Life
  • Affects Emergency Response Time

• Bicycles & Pedestrians
  • Need for Bicycle Parking Analysis
  • Improved Medians for Pedestrians
  • Cyclists Failing to Observe Traffic Rules

• Study Area
  • Expand the Boundaries

• Safety
  • Some Intersections Identified as Unsafe for Pedestrians (Seniors and Schoolchildren)
    • Essex St./Delancey St.
    • Houston St./2nd Ave

• Parking
  • Overnight Regulations do not reflect late night activity

• Construction
  • Construction Related Congestion & Safety
Locations for Potential Improvements
DOT Initiatives

• Countdown Signals installed on Delancey St. (Aug 2011)

• Williamsburg Bridge Access Improvements

• Delancey Street Pedestrian Safety Initiative

• E. Houston Street Reconstruction (June 2013)
Next Steps

- Conduct Public Meeting
- Develop Short Term Recommendations
- Conduct Future Conditions Analysis
- Develop Improvement Measures
- Public Outreach
- Draft Report
- Implementation
## Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Initiation &amp; Literature Search</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Collection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAC Meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing Conditions Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech Memo #1: Existing Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Conditions Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop/Evaluate Improvements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech Memo #2: Future Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Report</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Qtr 1: Jan, Feb, Mar, Apr
Qtr 2: May, Jun, Jul, Aug
Qtr 3: Sep, Oct, Nov, Dec
Qtr 4: Jan, Feb, Mar, Apr

Schedule Timeline (2010-2012)
Thank You

Contact: Harvey LaReau at hlareau@dot.nyc.gov