21st Street (Hoyt Ave S to Queens Plaza)
Corridor Safety Improvements

New York City Department of Transportation – Office of Research, Implementation & Safety
Presented to Community Board 1 Transportation Committee – February 23, 2015
Project Location

• Two-mile corridor between Hoyt Ave S and Queens Plaza

• 60-foot wide road with two travel lanes in each direction

• Northern end of corridor within Astoria Senior Area

• Through truck route with large and heavy truck traffic

• Mix of industrial, commercial, institutional, and residential uses

• Q66, Q69 and Q100 bus routes serve the corridor
Existing Conditions

- Heavy traffic between the RFK and Queensboro bridges and truck traffic lead to high volumes throughout the day

- 60-foot street width creates long crossing distance for pedestrians

- Long sections without signals lead to speeding and jaywalking

- Empty parking spaces create wider moving lanes that contribute to speeding

- Left turns restricted during 7:00a-9:00a and 4:00p-7:00p
Safety Data: Project Need

- High severity crashes: 5 fatalities and 19 KSI (2009-2013)
- Designated High Crash Corridor in the top third of Queens corridors
- Increasing share of pedestrian injuries

### 21 St - Hoyt Ave S to Queens Plz N, QN

#### Injury Summary, 2009-2013 (5 Years)

<table>
<thead>
<tr>
<th></th>
<th>Total Injuries</th>
<th>Severe Injuries</th>
<th>Fatalities</th>
<th>KSI</th>
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</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>45</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Bicyclist</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>173</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>229</strong></td>
<td><strong>14</strong></td>
<td><strong>5</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

**Fatality location (2009 to present)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian</td>
<td>2</td>
</tr>
<tr>
<td>Bicyclist</td>
<td>1</td>
</tr>
<tr>
<td>Motor Vehicle Occupant</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Fatalities: NYC DOT
Injuries: NYS DOT
KSI: Persons Killed or Severely Injured
Leading pedestrian intervals (LPIs) provide **pedestrian-only walk time** before vehicles receive a green light.

7-second LPIs installed (2/4/15) to give pedestrians a head start crossing 21st St.

**Installed at 10 intersections** on 21st St:
- 30th Ave
- 31st Ave
- 31st Rd
- 31st Dr
- 34th Ave
- 36th Ave
- 37th Ave
- 38th Ave
- 40th Ave
- 41st Ave

LPIs **reduce pedestrian-vehicle conflicts**

Existing LPI at 21st St and Broadway
New traffic signal approved for the intersection of 21st St and 29th Ave

Adds new pedestrian crossing between 30th Ave and Astoria Blvd
  - Currently, 1,000 ft between pedestrian crossings at 30th Ave and Astoria Blvd

Safer crossings for vehicles traveling on 29th Ave

28th Ave, 30th Rd, 33rd Ave, and 39th Ave:
  - Studied for new traffic signals, but studies determined that signals are not warranted at these locations at this time
  - Signal studies can be reopened as conditions change
Planned: Street Lighting

- Majority of fatalities occurred during non-daylight hours

- Planned: **Enhance lighting on 21st St to improve visibility at night**

- Upgrade all existing street lights to **brighter LED lights** (Queens Plaza to Hoyt Ave S)
Proposal: Markings

- **Crosswalks refurbished and upgraded** to all high-visibility markings during Summer 2014

- **Proposal:** install parking lane stripe along the corridor
  - Better defines moving lanes
  - Calm traffics and helps reduce speeding
Proposal: Painted Curb Extensions

- **Install 12 painted curb extensions** along 21st St at the following 9 intersections:
  - 41st Ave (remove 2 parking spaces to accommodate turning vehicles)
  - 40th Ave
  - 35th Ave
  - Broadway
  - 31st Dr
  - 31st Rd
  - 30th Dr
  - 29th Ave
  - Hoyt Ave S

- Maintenance partner needed to keep painted areas clean

*Example of painted curb extension:*
Benefits of Proposal

• LPIs provide safer pedestrian crossings by reducing pedestrian-vehicle conflicts and giving pedestrians a head start before vehicles get the green light

• New traffic signal at 29th Ave allows for safer pedestrian and vehicle crossings

• Enhanced street lighting improves visibility for all road users

• Parking lane stripe defines moving lanes and helps calm traffic

• Painted curb extensions shorten crossing distances and slow turning vehicles
Questions?

Contact:
Queens Borough Commissioner’s Office at 212-839-2510 or qbc@dot.nyc.gov