Harbor Ride

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Transportation Engineering Capstone
Outline

• Objectives
• Project Overview
• Proposed Design
Objectives

- Feasible bike trail
- Short-term design
- Safe and comfortable travel
- Connections to network
- Separation
Project Overview

- Two-way separated cycle track
- 1.8 miles long
- High pedestrian and vehicular volumes
- Connections to existing network
Intended Users

- Commuters
- Recreation and tourism
- People getting off buses, trains, and ferryboats
Harbor Ride

Typical Design Features

Bicycle Crossings
Typical Design Features

Bollards
Harbor Ride

Kneeland Street
Kneeland Street

Existing Conditions

Proposed Design
Harbor Ride

Existing Conditions

Proposed Design
Harbor Ride

Atlantic Ave along South Station

Existing Conditions
Which side?

• East side-
  • Cab stand
  • Frequent pedestrian traffic
  • No intersections

• West side-
  • Bulb outs
  • Heavy vehicular traffic
  • Multiple intersections
Atlantic Ave at South Station
Vehicular Turning Movements and Pedestrian Counts
3/27/2009  7:45 AM - 8:45 AM

<table>
<thead>
<tr>
<th>Vehicular Turning Movement</th>
<th>Beach St.</th>
<th>East St.</th>
<th>Essex St.</th>
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<td></td>
<td>150</td>
<td>40</td>
<td>267</td>
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Total = 457 (88%)

<table>
<thead>
<tr>
<th>East Side</th>
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<tbody>
<tr>
<td>Cab</td>
</tr>
<tr>
<td>Ped (in)</td>
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<tr>
<td>30</td>
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</tbody>
</table>

Total = 62 (12%)
Proposed Design

• Minimizes conflicts
• No issues with traffic signal at Kneeland Street
• Adequate buffer for people to access vehicles
• Low construction costs
Atlantic Ave / Summer Street Crossing
Harbor Ride

Atlantic Ave along the Rose Kennedy Greenway (RKG)

Where to put the path?
On the Sidewalk

Findings:
Widths insufficient
In the Street

**3rd Lane Usage:**

- **Travel Lane:**
  - Elimination impossible

- **Public Parking:**
  - Elimination possible

- **Trolley/Bus/Limo:**
  - Elimination difficult

***Delivery Vehicles***
Harbor Ride

On the RKG
Commercial Street

Existing Conditions

Proposed Design

Harbor Ride
**Conclusions**

- Space available
- Safe
- Comfortable
- Promote sustainable travel
- Feasible