Reimagining State Street
Preliminary Design Concepts
October, 2020
AGENDA

1. WELCOME
2. PROJECT BACKGROUND
3. PRELIMINARY DESIGN CONCEPTS
4. SCHEDULE
PROJECT TEAM

Boston Public Works Department
Ashley Biggins, Project Manager

Greenman-Pedersen, Inc.
Project Consultant Engineer

City of Boston
Transportation Department

City of Boston
Planning & Development Agency

City of Boston
Neighborhood Services
PROJECT BACKGROUND
State Street is one of Boston’s oldest and most iconic streets. Its current configuration makes for a disjointed experience for pedestrians and motorists.

This project is an opportunity to apply a ‘People First’ approach to the design of State Street. The new design will provide a more balanced experience for all street users by offering safety, mobility, and overall functionality improvements for this corridor.
Sets goals, targets and an action plan for Boston’s transportation system.

Aspirational targets address:

- **Improving Safety** - Eliminate fatalities and severe injuries
- **Expanding Access** - 10-minute walk to transit, bike/car share
- **Ensuring Reliability** - Reduce average commute by 10 percent
- **Reducing Car Use** - See below
- **Reducing Emissions** - Carbon neutral by 2050
- **Increasing Affordability** - Reduce transportation costs for low-income households

2030 Targets for Commute Mode Shift:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Today</th>
<th>2030 Aspirational Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit</td>
<td>34%</td>
<td>➡️ by one-third</td>
</tr>
<tr>
<td>Walk</td>
<td>14%</td>
<td>➡️ by one-half</td>
</tr>
<tr>
<td>Bike</td>
<td>2%</td>
<td>➡️ by fourfold</td>
</tr>
<tr>
<td>Drive Alone</td>
<td>39%</td>
<td>➡️ by half</td>
</tr>
<tr>
<td>Carpool</td>
<td>6%</td>
<td>➡️ marginally</td>
</tr>
<tr>
<td>Telecommute</td>
<td>5%</td>
<td>➡️ marginally</td>
</tr>
</tbody>
</table>
STATE STREET CONTEXT: Vision Zero

Provides an action plan to eliminate fatalities and serious injuries from traffic crashes.

“Human life takes priority over mobility and other objectives of the road system. The street system will be safe for all users, for all modes of transportation, in all communities, and for people of all ages and abilities.”
Provides citywide design principles and guidelines for streets that are:

- Multimodal
- Green
- Smart

“Streets are designed for pedestrians of all ages and abilities, bicyclists, transit users and motor vehicles. Multimodal designs ensure Boston’s streets are safe and shared comfortably by all users…..”
STATE STREET CONTEXT: Connect Historic Boston
EXISTING CONDITIONS: Injury Crashes – 5 Years

78% of injury crashes on State Street involve bikes and pedestrians

State Street is on Boston’s Vision Zero High Crash Network for Bicycles
PUBLIC FEEDBACK THEMES

State Street Design Priorities

- Pedestrian Improvements
- Street Beautification
- Flexible Spaces
- Traffic Calming
- Improved Curbside Regulations
- Bicycle Accommodations
- Driving Experience

% OF RESPONDENTS

Very Important
Not Important
PUBLIC FEEDBACK THEMES

Near unanimous agreement to **place a priority on pedestrians** (i.e. wider sidewalks and safer crossings) (Very Important to 90% of respondents).

Strong support for street **beautification, traffic calming, bicycle improvements, flexible design** (Very Important to 50-70% of respondents).

Strong support for **improving curb regulations** to reduce loading/parking/double parking which exacerbates congestion (Very Important to 60% of respondents).

Debate about accommodating vehicles. A desire to reduce/eliminate vehicles on State Street vs. identification of State Street as a vital link for vehicles. **Concern about accommodating vehicles at the expense of others.** (Very Important to 44% of respondents).
PRELIMINARY DESIGN CONCEPTS
STREET DESIGN ELEMENTS

DEFINE SINGLE TRAVEL LANE

- Increase Safety for Pedestrians and Bicyclists
- Increase Space for Pedestrians and Bicyclists
- Eliminate Confusion for Drivers
- Reduce Temptation to Double Park / Pass other Cars
- Capacity Flows from Pinch Point
STREET DESIGN ELEMENTS

PROVIDE WIDER SIDEWALKS and SAFER CROSSINGS

• Increase Space for Pedestrians
• Improve Visibility of Crosswalks
• Improve Accessibility (sidewalk width, cross slope, stable surface and crossings)
STREET DESIGN ELEMENTS

PROVIDE PROTECTED BIKE LANE

• Increase Safety for Bicyclists
• Formalize Key Link in Boston’s Network – Connect Historic Boston and Connect Downtown
STREET DESIGN ELEMENTS

DIRECT LOADING AWAY FROM STATE STREET

- To reduce congestion and improve overall mobility
- Maximize limited space for moving people
STREET DESIGN ELEMENTS

FLEXIBLE DESIGN

• Increase opportunities for special events and outdoor activity
• Allow the roadway to respond to changing transportation needs
STREET DESIGN ELEMENTS

RECONFIGURE INTERSECTIONS

• Improve safety for all users
• Calm Turning Vehicles
• Signalization Modifications (Lead Pedestrian Interval (LPI))
• Bike Accommodations
• Improve Visibility at Pedestrian Crossings
• Lane Striping
What is a Flush Street?

On a ‘Flush Street’ the sidewalks are at the same level as the street so there are no curbs. Vehicles can be separated from pedestrians by street elements such as bollards, planters, street furniture. A Flush Street provides opportunities to reconfigure street space for special uses or events.
What is a Protected Intersection?

A Protected Intersection uses corner islands to slow vehicles as they turn the corner and improve visibility of bicyclists and pedestrians. This creates a safer crossing for bicyclists and pedestrians.
What is a Leading Pedestrian Interval (LPI)?

A Leading Pedestrian Interval (LPI) gives pedestrians a 'walk' indication 3 to 7 seconds ahead of vehicles getting a green light in the same direction of travel. LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles, improving safety in locations with conflicting movements.
CONCEPTUAL DESIGN: Overview

Section at Pinch Point

Flush Street

Flush Street
CONCEPTUAL DESIGN: Section at Pinch Point

Existing

- Narrowed Travel Lane
- Sidewalks +2 Feet
- Protected WB Bike Lane

Proposed

- Emergency Vehicle Access 20'

6' Sidewalk
22' Roadway
7' Sidewalk
35' ROW

7.5' Sidewalk
12' Travel Lane
3' Buffer
5' Bike Lane
7.5' Sidewalk
35' ROW
CONCEPTUAL DESIGN: Section at East End

Section at JFF Surface Road

TWO OPTIONS FOR THIS SEGMENT

Option 1: Relocate North Side Tour Bus Parking
Option 2: North Side Floating Bus Stop
CONCEPTUAL DESIGN: Section at East End: Option 1

Option 1: Relocate North Side Tour Bus Parking

Existing

• One Travel Lane
• One Loading / Parking Lane
• Sidewalks + 13 feet
• Protected WB Bike Lane

Proposed

• One Travel Lane
• One Loading / Parking Lane
• Sidewalks + 13 feet
• Protected WB Bike Lane
CONCEPTUAL DESIGN: Plan at East End: Option 1

Option 1: Relocate North Side Tour Bus Parking

- Remove Parking / Loading Spaces
- Flush Street
- Wider Sidewalks
- Define Single Travel Lane
- WB Protected Bike Lane
- Protected Intersection, Lane Use and Signal Modifications
- Drop Lane – Repurpose Space
CONCEPTUAL DESIGN: Section at East End: Option 2

Option 2: North Side Floating Bus Stop

Existing

- One Travel Lane
- Floating Bus Stop and South Loading Zone
- Shift Sidewalk Alignment +0 feet

Proposed

- Protected WB Bike Lane
CONCEPTUAL DESIGN: Plan at East End: Option 2

Option 2: North Side Floating Bus Stop

- Floating Bus Stop
- WB Protected Bike Lane
- Define Single Travel Lane
- Wider Sidewalks
- Flush Street
- Protected Intersection, Lane Use and Signal Modifications
- Drop Lane – Repurpose Space
CONCEPTUAL DESIGN: Section at Pinch Point
CONCEPTUAL DESIGN: Section at Pinch Point

Existing

- Narrowed Travel Lane
- Sidewalks +2 Feet
- Protected WB Bike Lane

Proposed
CONCEPTUAL DESIGN: Plan at Pinch Point Area

- Define Single Travel Lane
- WB Protected Bike Lane
- Wider Sidewalks

- Flush Street
- Remove Parking / Loading Spaces
- Pinch Point
**FOUR OPTIONS FOR THIS SEGMENT**

Option 1: Wide Sidewalk North Side – Relocate Loading
Option 2: Balance Sidewalk Both Sides – Relocated Loading
Option 3: Loading on the South Side
Option 4: Loading on the North Side
CONCEPTUAL DESIGN: Mid-State Section: Option 1

Option 1: Wide Sidewalk North Side – Relocate Loading

- One Travel Lane
- Sidewalks + 11 feet
- Protected WB Bike Lane

Existing

Proposed
CONCEPTUAL DESIGN: Mid-State Section: Option 1

Option 1: Wide Sidewalk North Side – Relocate Loading

- Flush Street
- Define Single Travel Lane
- Wider Sidewalk
- WB Protected Bike Lane
- Remove Parking / Loading Spaces
CONCEPTUAL DESIGN: Mid-State Section: Option 2

Option 2: Balance Sidewalks Both Sides – Relocate Loading

- One Travel Lane
- Sidewalks + 11 feet
- Protected WB Bike Lane

Existing

Proposed
CONCEPTUAL DESIGN: Mid-State Section: Option 2

Option 2: Balance Sidewalks Both Sides – Relocate Loading

- Flush Street
- Define Single Travel Lane
- Wider Sidewalks
- WB Protected Bike Lane
- Remove Parking / Loading Spaces
CONCEPTUAL DESIGN: Mid-State Section: Option 3

Option 3: Loading on the South Side

- One Travel Lane
- Sidewalks +2 feet
- Protected WB Bike Lane

Existing

Proposed
CONCEPTUAL DESIGN: Mid-State Section: Option 3

Option 3: Loading on the South Side

- Remove Parking / Loading Spaces
- Loading (5-6 Spaces)
- Define Single Travel Lane
- WB Protected Bike Lane
- Wider Sidewalks
- Flush Street
CONCEPTUAL DESIGN: Mid-State Section: Option 4

Option 4: Loading on the North Side

Existing

Proposed

- One Travel Lane
- Sidewalks +2 feet
- Protected WB Bike Lane
CONCEPTUAL DESIGN: Mid-State Section: Option 4

Option 4: Loading on the North Side

- Flush Street
- Define Single Travel Lane
- Loading (4-5 Spaces)
- WB Protected Bike Lane
- Wider Sidewalks
CONCEPTUAL DESIGN: Section at Congress Street

Existing

Proposed

- Move the Cab Stand to Congress Street
- Protected WB Bike Lane
- Sidewalks + 5.5 feet
CONCEPTUAL DESIGN: Plan At Congress Street

- Relocate Cab Spaces to Congress Street
- Remove Parking / Loading Spaces
- WB Protected Bike Lane
- Wider Sidewalks
- Flush Street
CONCEPTUAL DESIGN: Existing Curb Regulations

Legend:
- No Stopping: 13 Spaces
- Cab Stand/Valet: 13 Spaces
- Commercial Vehicles: 28 Spaces
- General Metered: 10 Spaces
- Tour Bus Parking: 8 Spaces
- Commercial / General: 4 Spaces
- Private: 6 Spaces
- Handicap: 2 Spaces
- TOTAL: 71 Spaces

1 space = 20-feet
1 tour bus space = 40 feet
### Conceptual Design: Curb Regulation Concept 1

<table>
<thead>
<tr>
<th>ZONE</th>
<th># of SPACES</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Stopping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cab Stand/Valet</td>
<td>7 Spaces</td>
<td>-6 Spaces</td>
</tr>
<tr>
<td>Commercial Vehicles</td>
<td>33 Spaces</td>
<td>+5 Spaces</td>
</tr>
<tr>
<td>PUDO 5 Minutes</td>
<td>8 Spaces</td>
<td>+8 Spaces</td>
</tr>
<tr>
<td>General Metered</td>
<td>6 Spaces</td>
<td>-4 Spaces</td>
</tr>
<tr>
<td>Total</td>
<td>64 Spaces</td>
<td></td>
</tr>
</tbody>
</table>

### Change in Spaces

<table>
<thead>
<tr>
<th>ZONE</th>
<th># of SPACES</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tour Bus Parking</td>
<td>0 Spaces</td>
<td>-8 Spaces</td>
</tr>
<tr>
<td>Commercial / General</td>
<td>0 Spaces</td>
<td>-4 Spaces</td>
</tr>
<tr>
<td>Private</td>
<td>6 Spaces</td>
<td>0 Spaces</td>
</tr>
<tr>
<td>Handicap</td>
<td>2 Spaces</td>
<td>2 Spaces</td>
</tr>
<tr>
<td>Total</td>
<td>64 Spaces</td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- 1 space = 20-feet
- 1 tour bus space = 40 feet
**CONCEPTUAL DESIGN: Curb Regulation Concept 2**

### ZONE # of SPACES CHANGE

- **No Stopping**
  - Spaces: 7
  - Change: -6 Spaces

- **Cab Stand/Valet**
  - Spaces: 32
  - Change: +4 Spaces

- **PUDO 5 Minutes**
  - Spaces: 8
  - Change: +8 Spaces

- **General Metered**
  - Spaces: 6
  - Change: -4 Spaces

- **Tour Bus Parking**
  - Spaces: 0
  - Change: -8 Spaces

- **Commercial / General**
  - Spaces: 6
  - Change: +2 Spaces

- **Private**
  - Spaces: 6
  - Change: 0 Spaces

- **Handicap**
  - Spaces: 2
  - Change: +2 Spaces

### TOTAL
- Spaces: 64

**LEGEND**

- 1 space = 20 feet
- 1 tour bus space = 40 feet
PILOT PROJECT
HEALTHY STREETS PILOT

Phase 1 Pilot

Phase 2 Pilot

INSERT IMAGE OF PHASE 2
PHASE 2 PILOT

• Better Definition of Pedestrian and Bike Zones
  • Flex Posts
  • Striping and Signage
  • Surface Paint for Pedestrian and Bicyclist Zones

• Curbside Use Regulation Changes

• Ongoing Data Collection
### PHASE 1 PILOT: Data Collection - Daily Volumes

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>% CHANGE</th>
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<tbody>
<tr>
<td>Walking</td>
<td>29,000</td>
<td>5,900</td>
<td>- 80%</td>
</tr>
<tr>
<td>Cars</td>
<td>10,700</td>
<td>4,600</td>
<td>- 60%</td>
</tr>
<tr>
<td>Bikes</td>
<td>350</td>
<td>240</td>
<td>- 30 %</td>
</tr>
</tbody>
</table>

*Travel times and queue observations taken in Aug 2020 for future comparison.*
SCHEDULE
PROJECT SCHEDULE:

OCT 2019
Pop-Up Workshop

SUMMER/FALL 2020
Community Outreach*

JAN 2021
Conceptual Plan

2021
Final Design

2021
Begin construction

*Community outreach events will conform to social distancing guidelines.
HOW TO PROVIDE INPUT:

Project Website: https://www.boston.gov/state-street

- Project Information and Updates
- Project Presentations
- General Online Survey
- Pilot Project Online Survey

Ashley Biggins, Boston Public Works Department: Ashley.biggins@boston.gov