Reimagining State Street

Preliminary Design Concepts

October, 2020

Boston Public
Works Department

AGENDA

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

PROJECT TEAM

Boston Public Works Department
Ashley Biggins, Project Manager

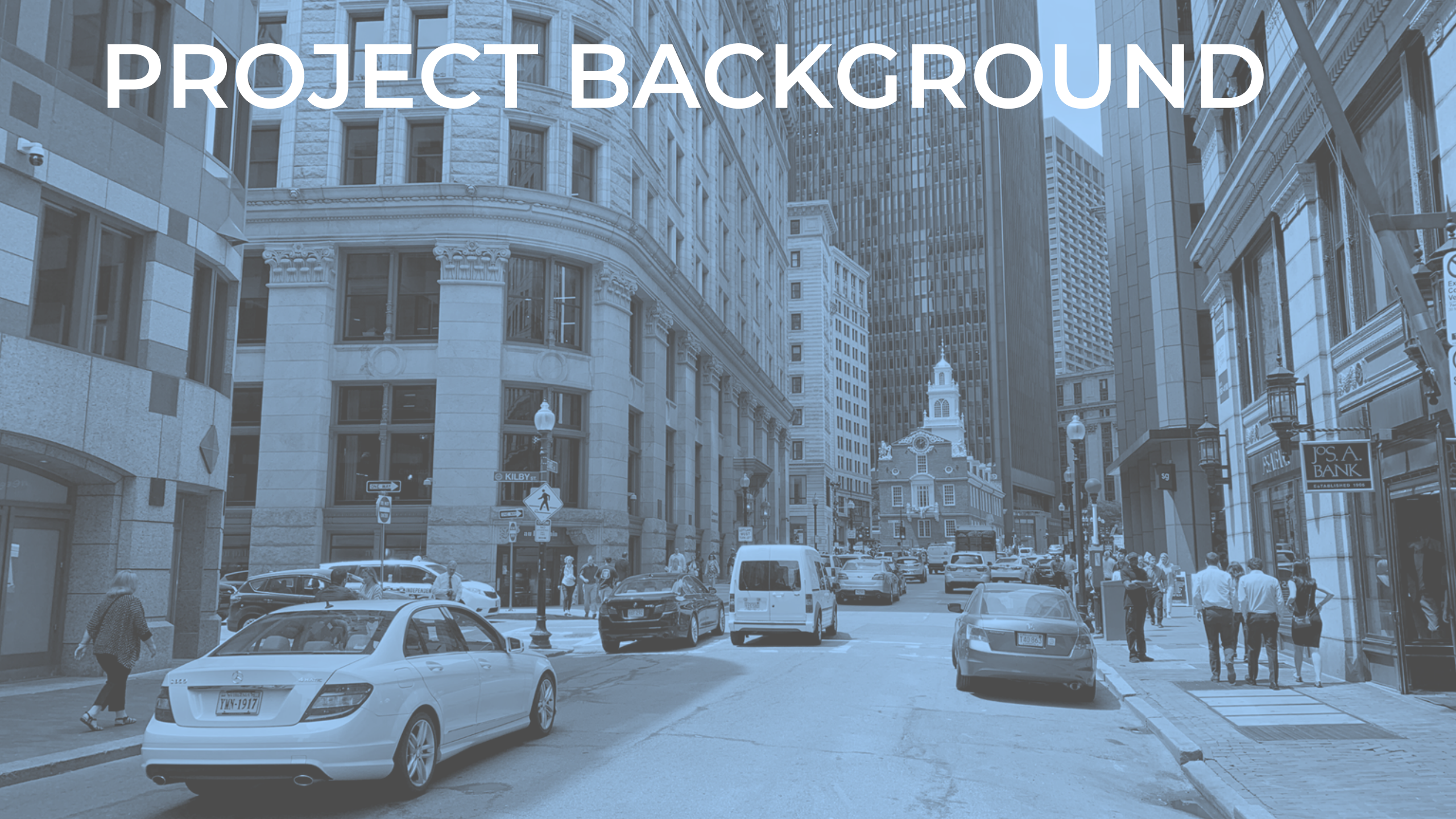
Greenman-Pedersen, Inc.
Project Consultant Engineer

City of Boston
Transportation Department

City of Boston
Planning & Development Agency

City of Boston
Neighborhood Services

PROJECT BACKGROUND

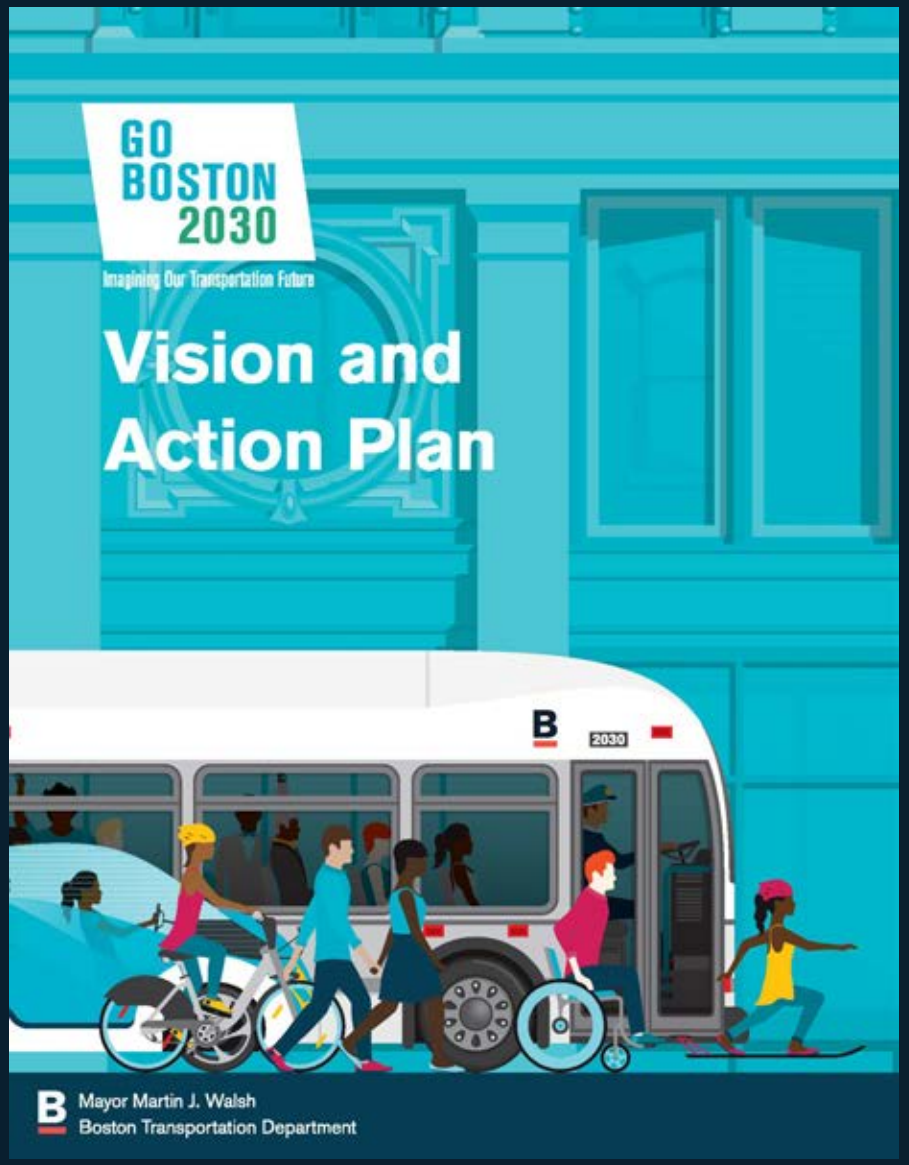


PROJECT CHARTER

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.

STATE STREET CONTEXT: Go Boston 2030



Sets goals, targets and an action plan for Boston's transportation system.

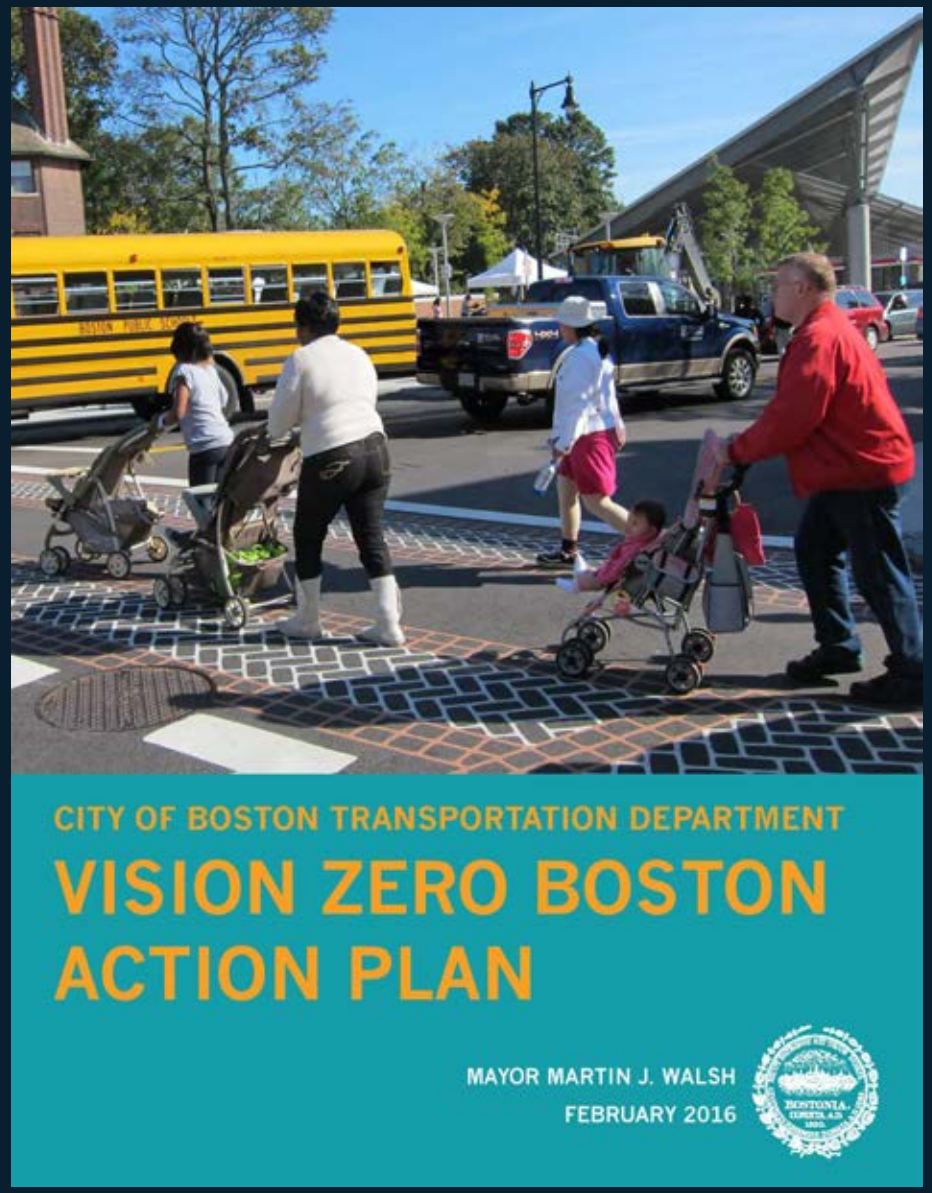
Aspirational targets address :

- **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:

Mode	Today		2030 Aspirational Goal
Transit	34%	↑	by one-third
Walk	14%	↑	by one-half
Bike	2%	↑	by fourfold
Drive Alone	39%	↓	by half
Carpool	6%	↓	marginally
Telecommute	5%	↑	marginally

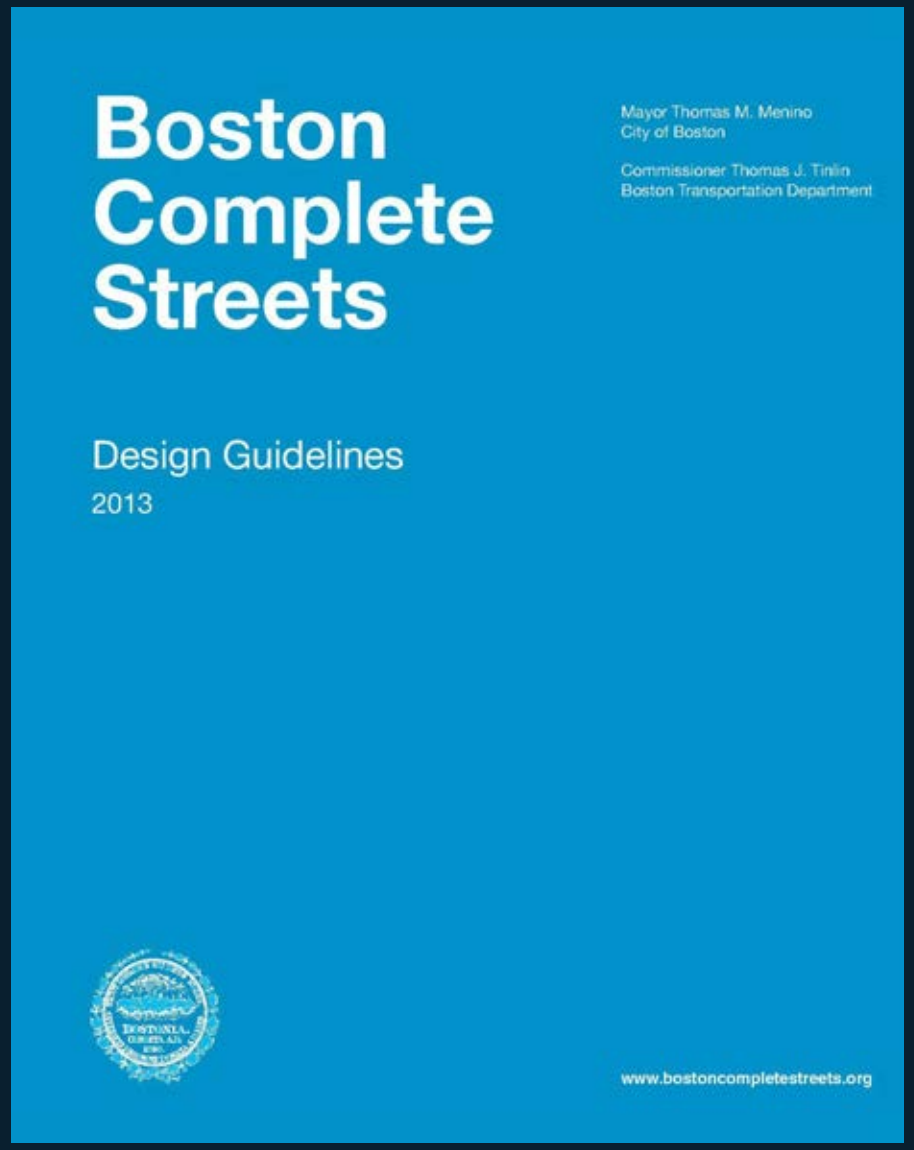
STATE STREET CONTEXT: Vision Zero



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."

STATE STREET CONTEXT: Design Guidelines



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

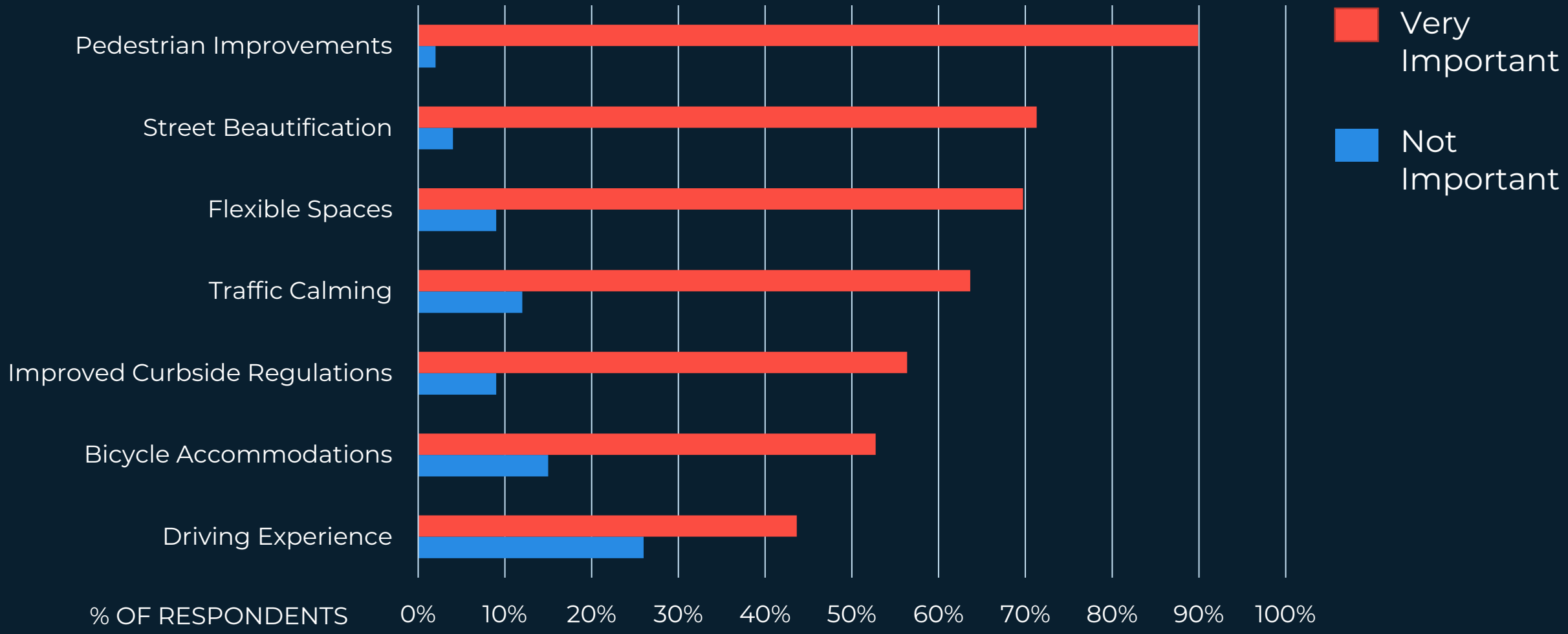
EXISTING CONDITIONS: Injury Crashes – 5 Years

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



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.

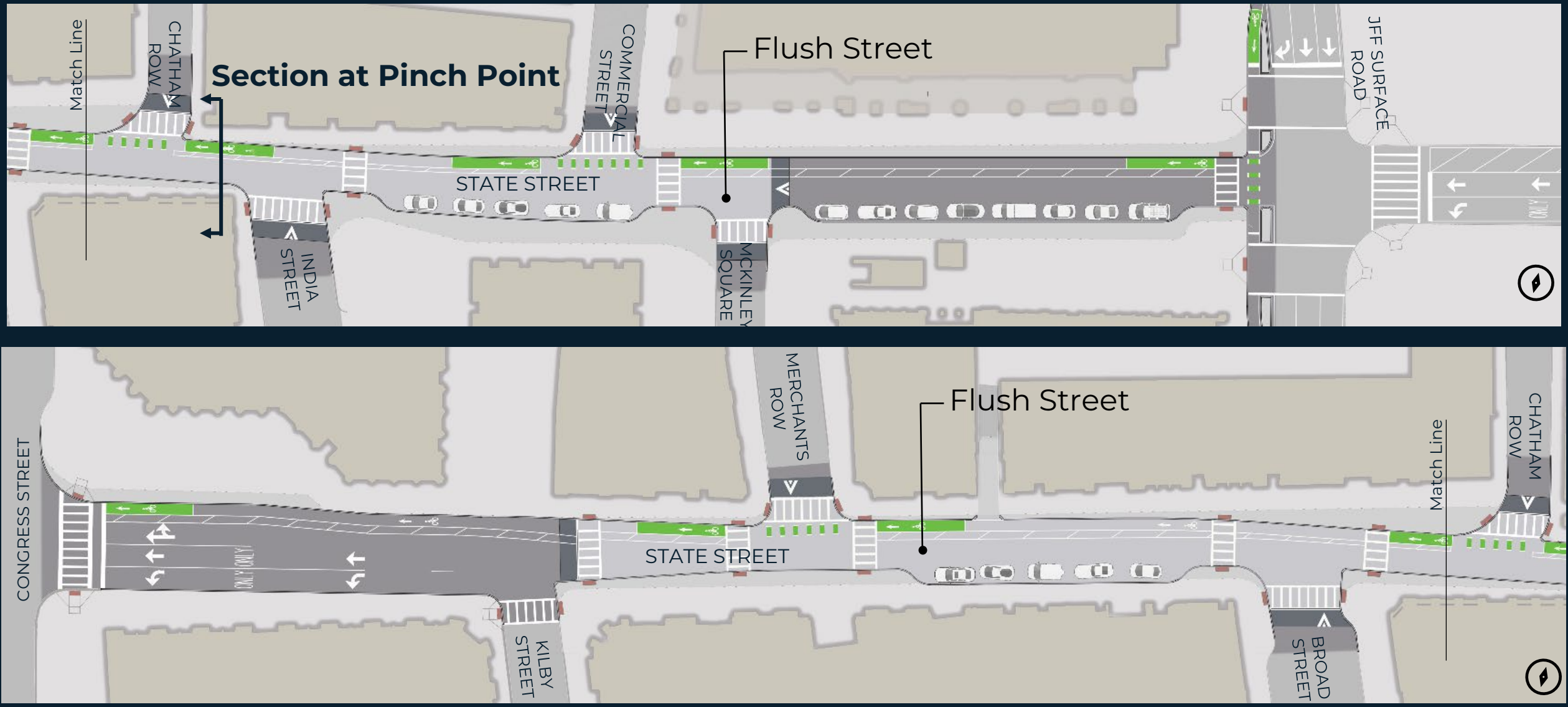
What is a Protected Intersection?

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.

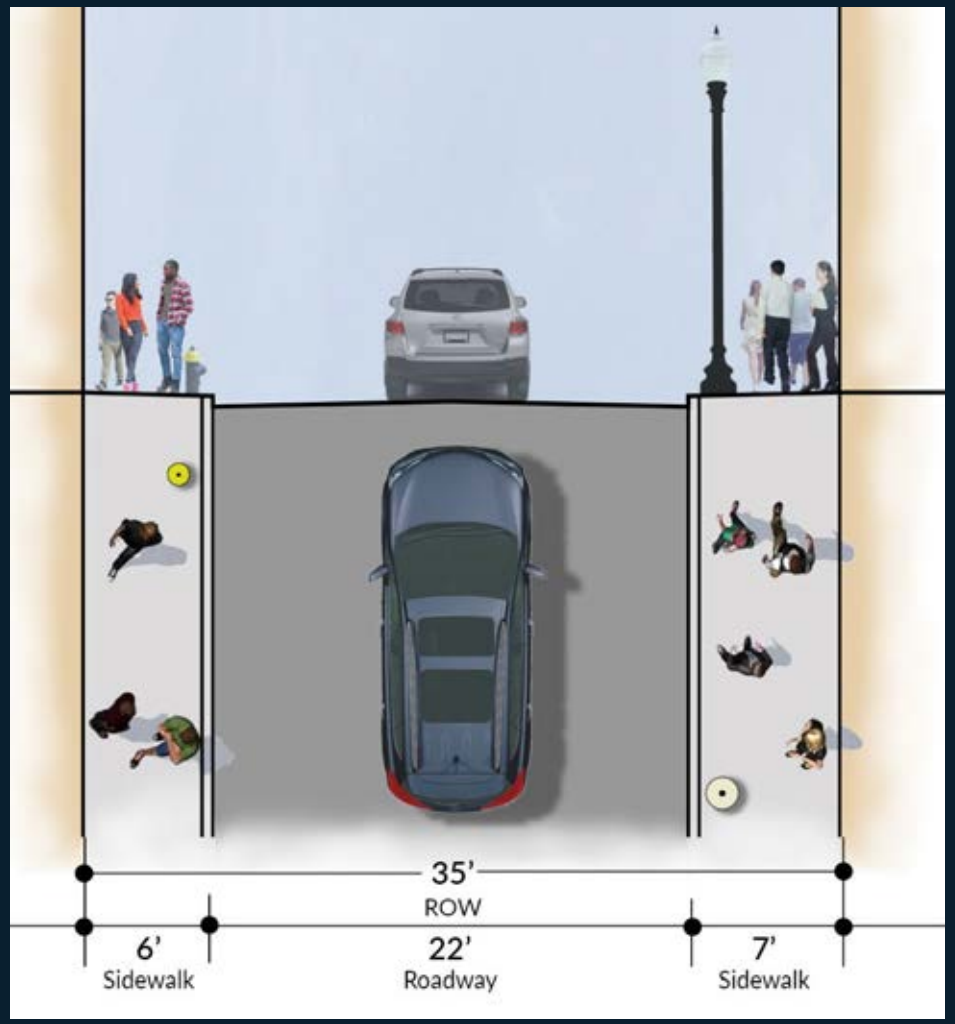
What is a Leading Pedestrian Interval (LPI)?

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.

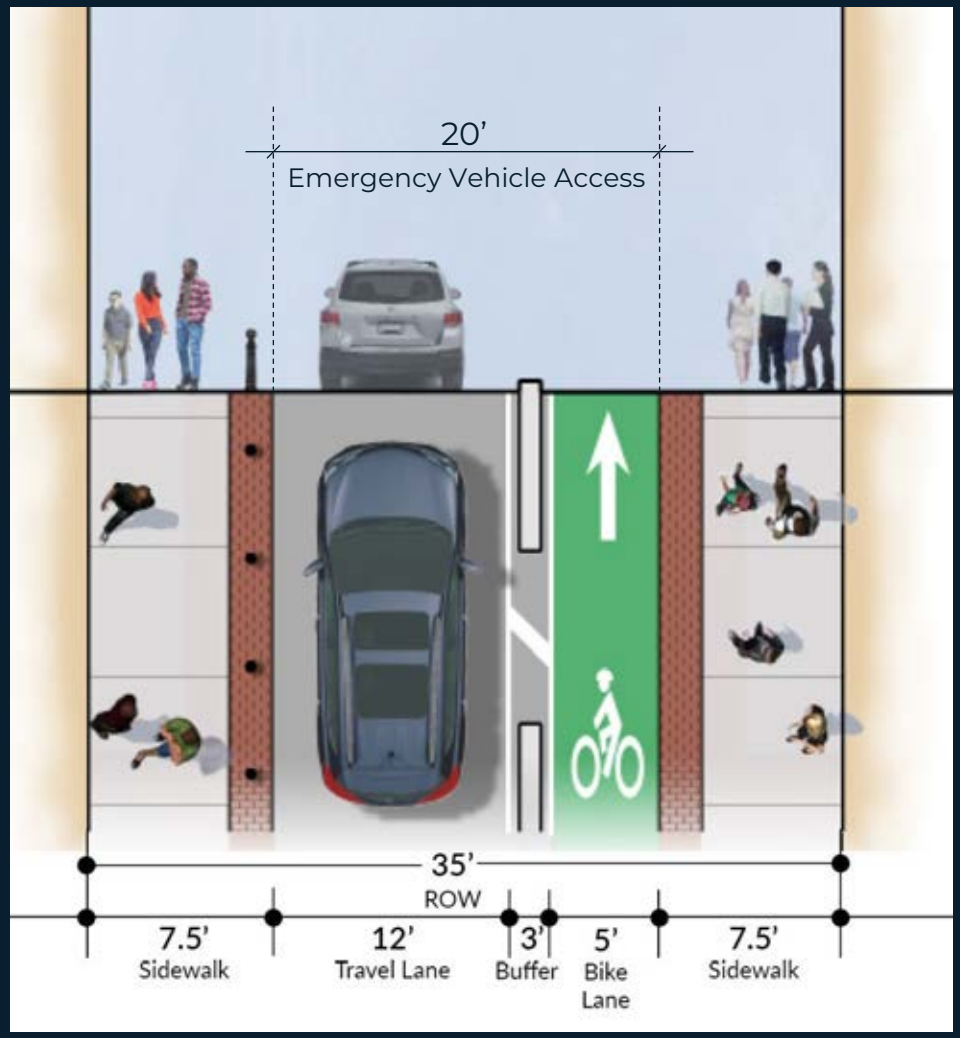
CONCEPTUAL DESIGN: Overview



CONCEPTUAL DESIGN: Section at Pinch Point



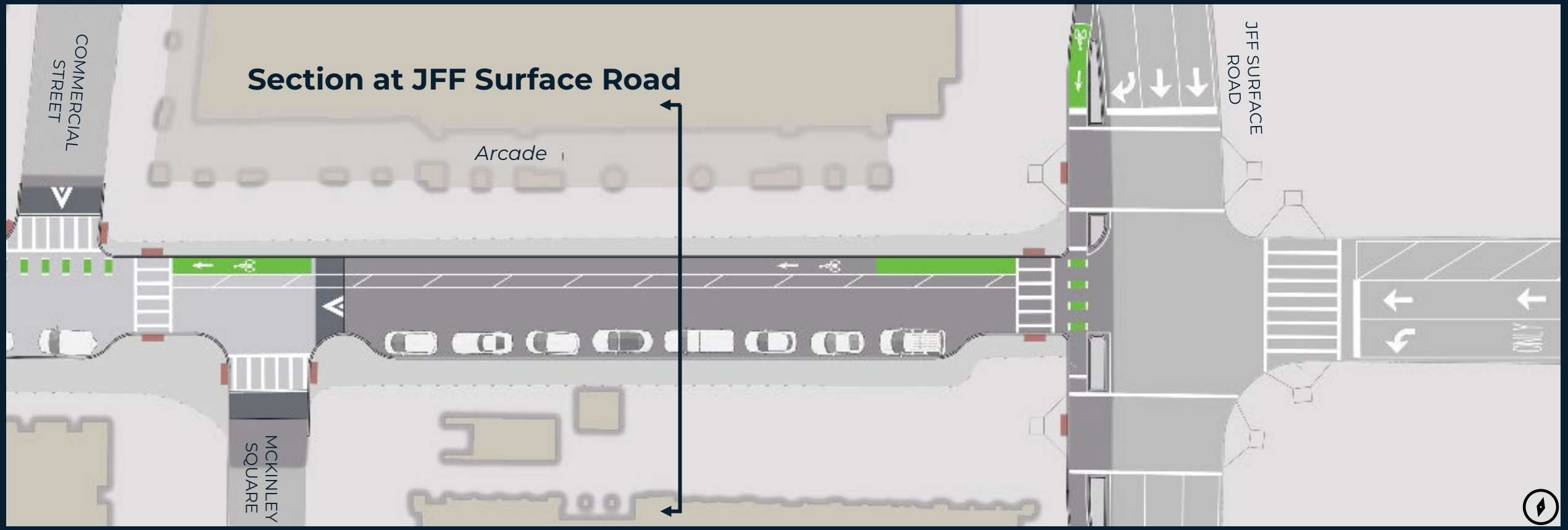
Existing



Proposed

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

CONCEPTUAL DESIGN: Section at East End



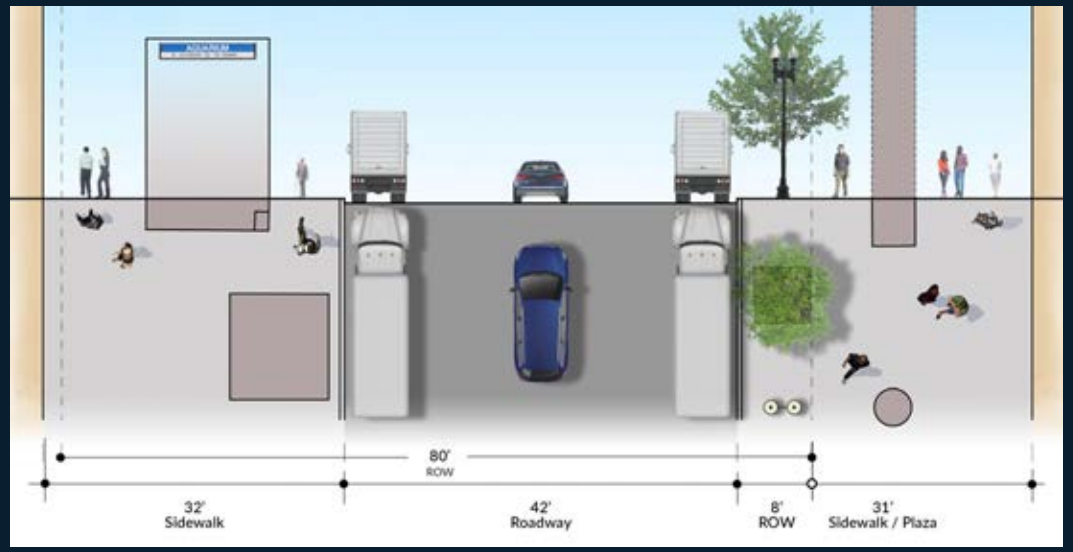
TWO OPTIONS FOR THIS SEGMENT

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



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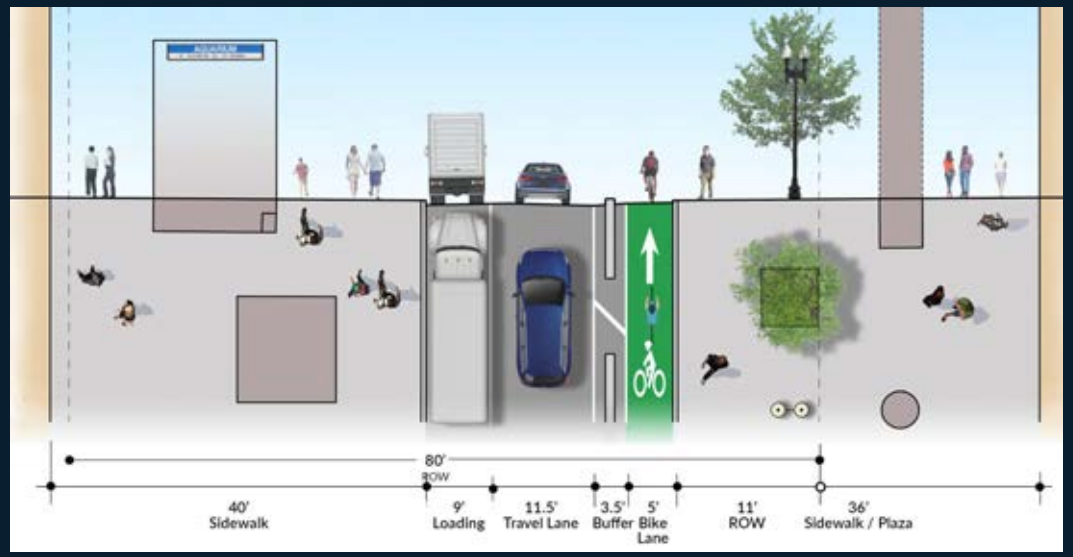
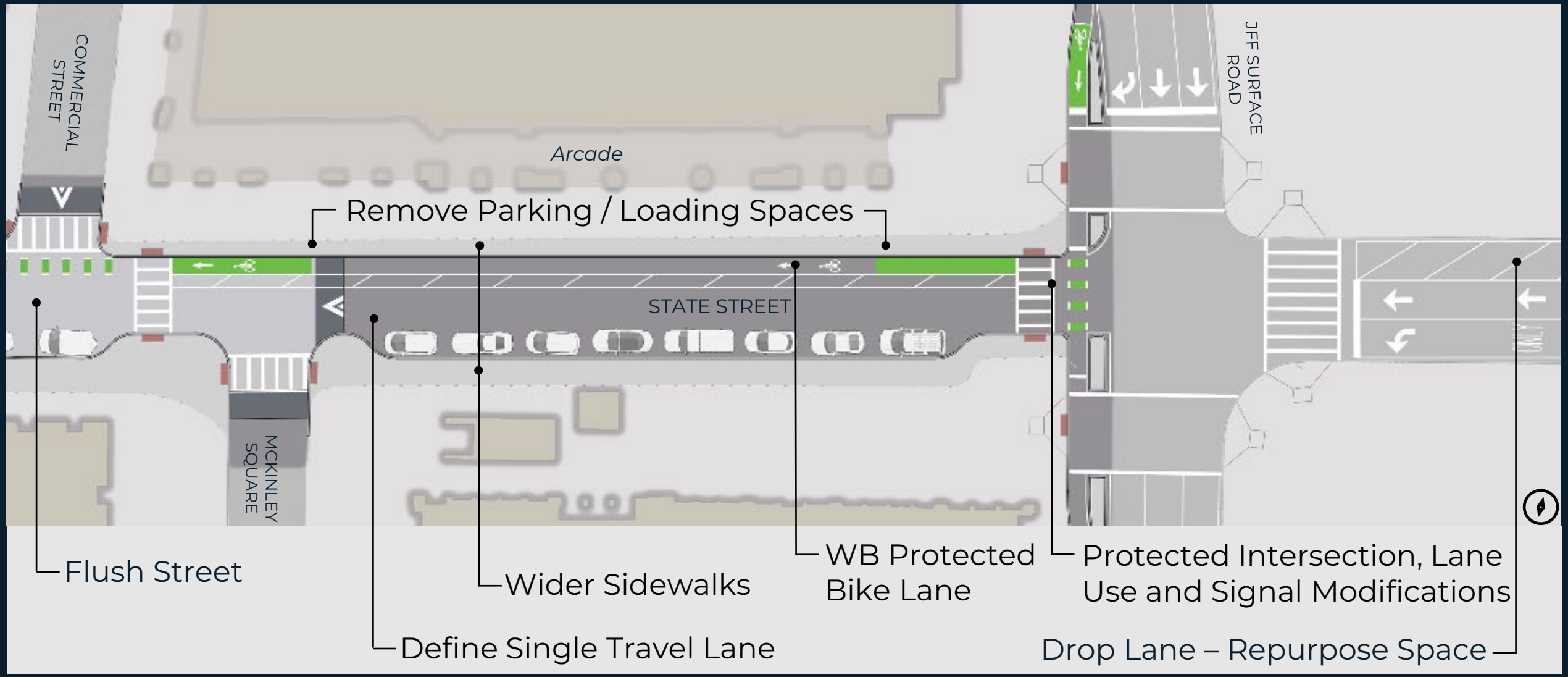


- One Travel Lane
- One Loading / Parking Lane
- Sidewalks + 13 feet
- Protected WB Bike Lane

CONCEPTUAL DESIGN: Plan at East End: Option 1

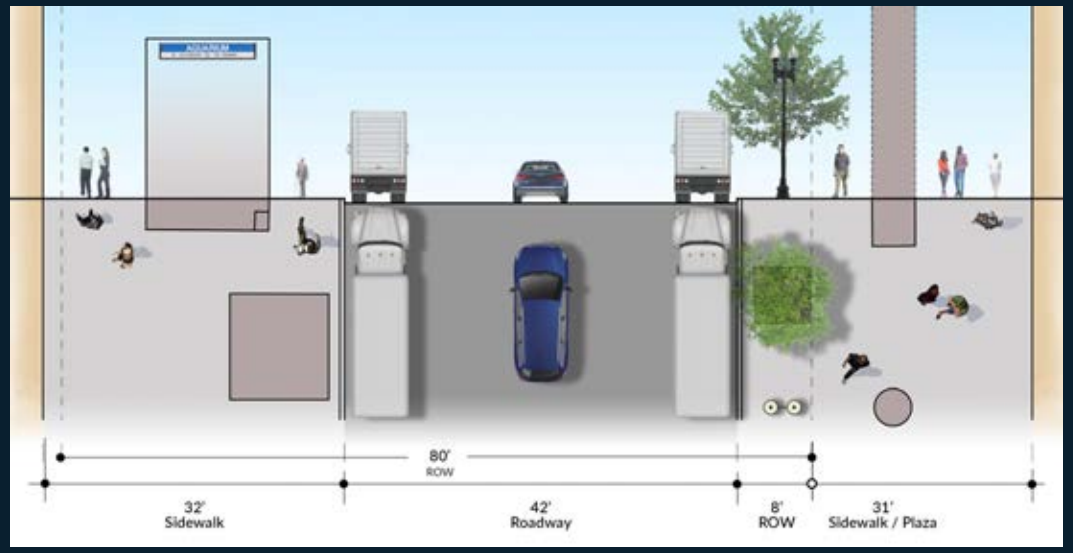
Option 1: Relocate North Side Tour Bus Parking



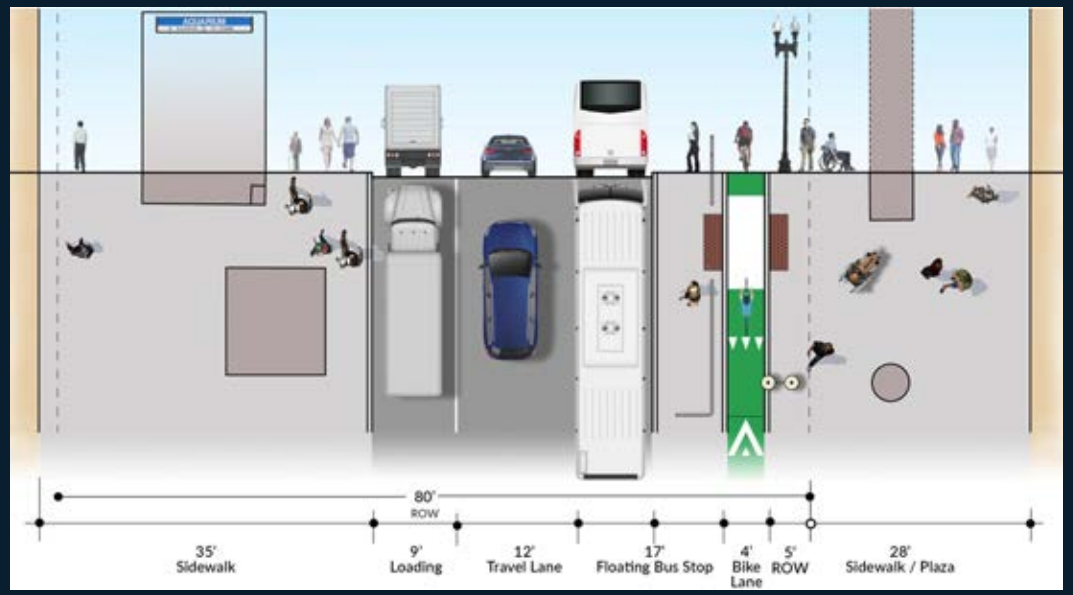
CONCEPTUAL DESIGN: Section at East End: Option 2

Option 2: North Side Floating Bus Stop

Existing



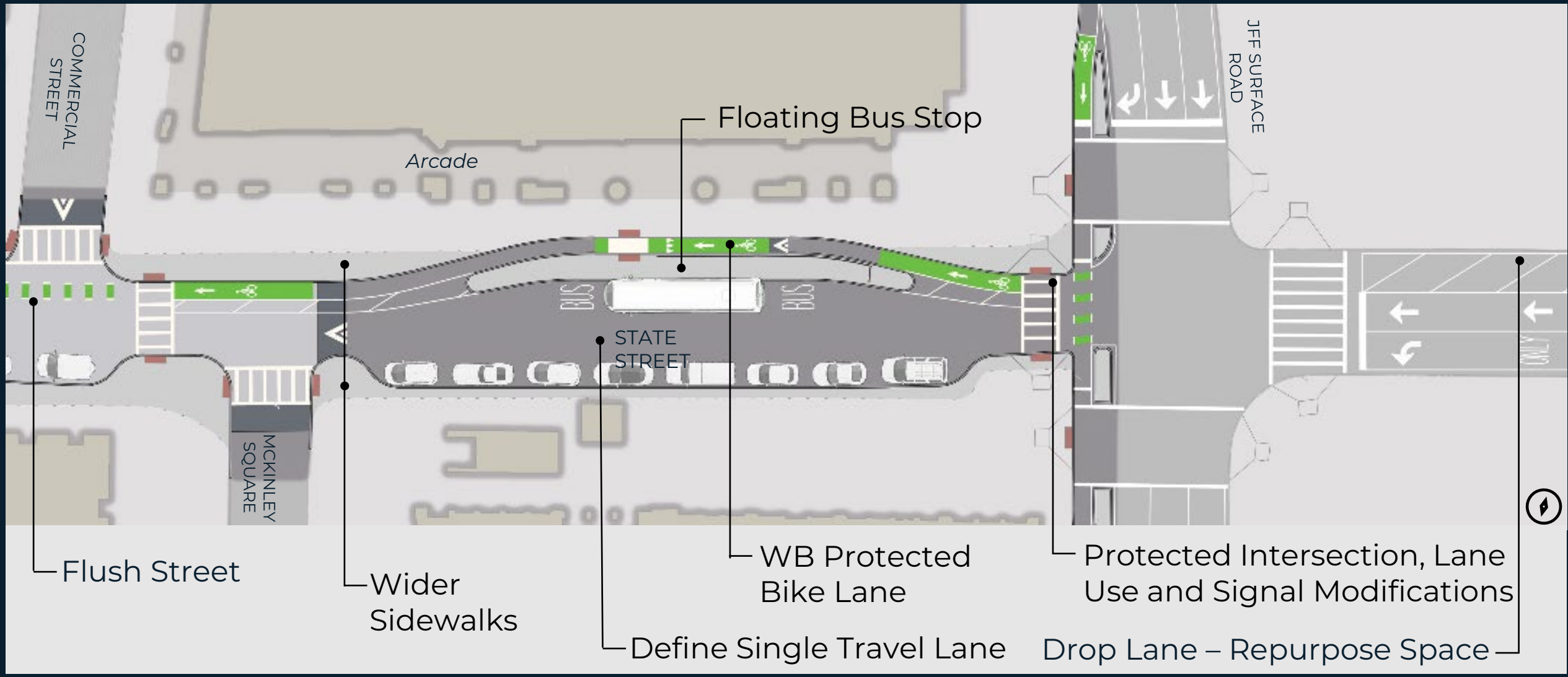
Proposed



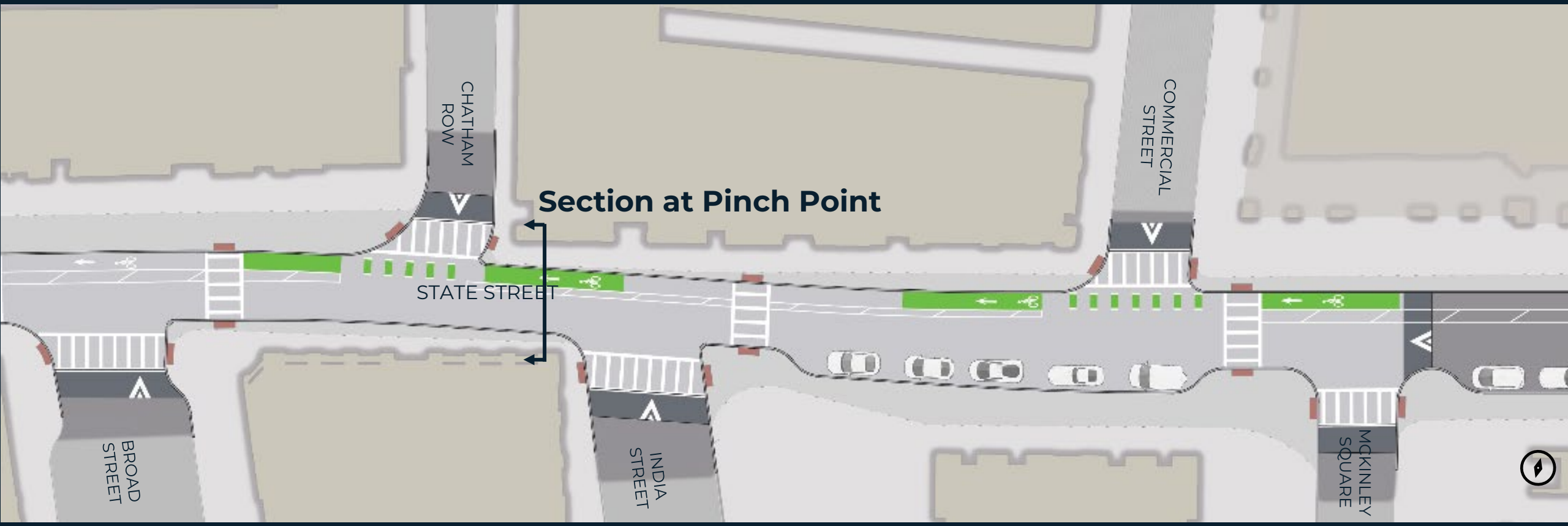
- One Travel Lane
- Floating Bus Stop and South Loading Zone
- Shift Sidewalk Alignment +0 feet
- Protected WB Bike Lane

CONCEPTUAL DESIGN: Plan at East End: Option 2

Option 2: North Side Floating Bus Stop



CONCEPTUAL DESIGN: Section at Pinch Point



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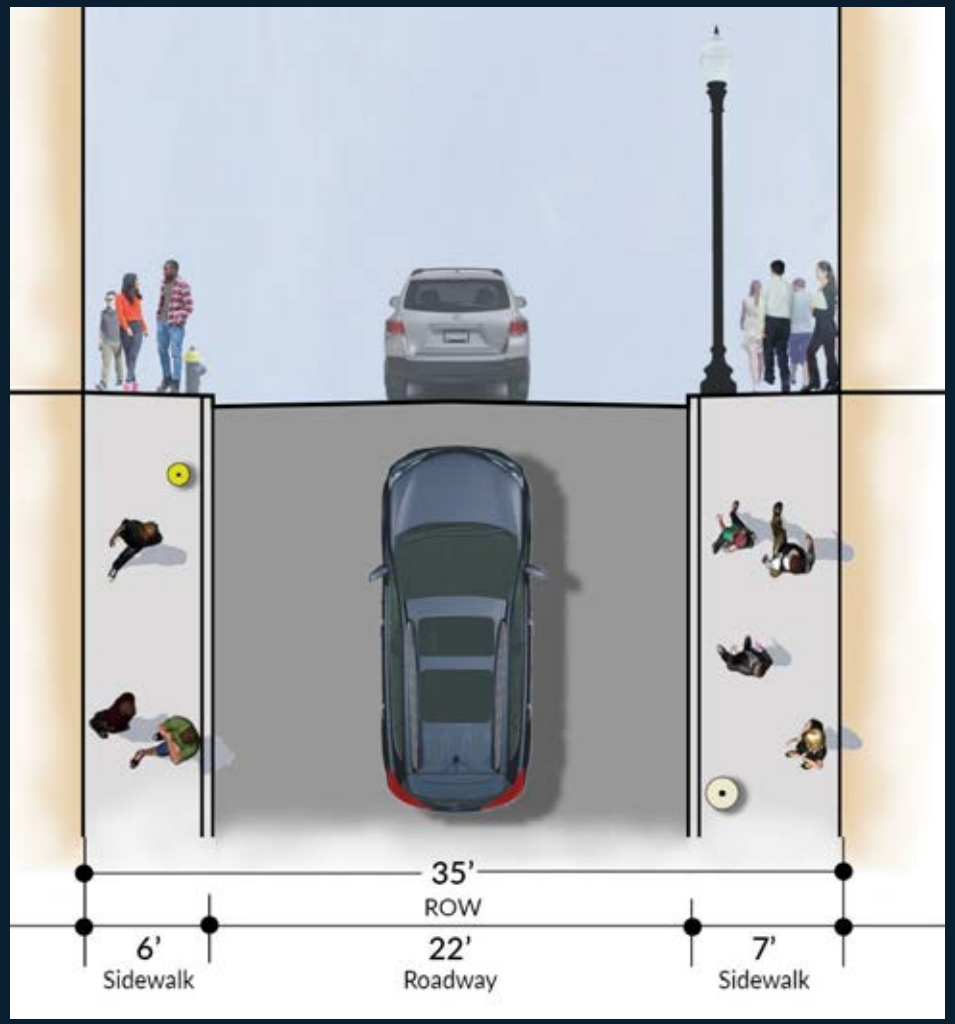

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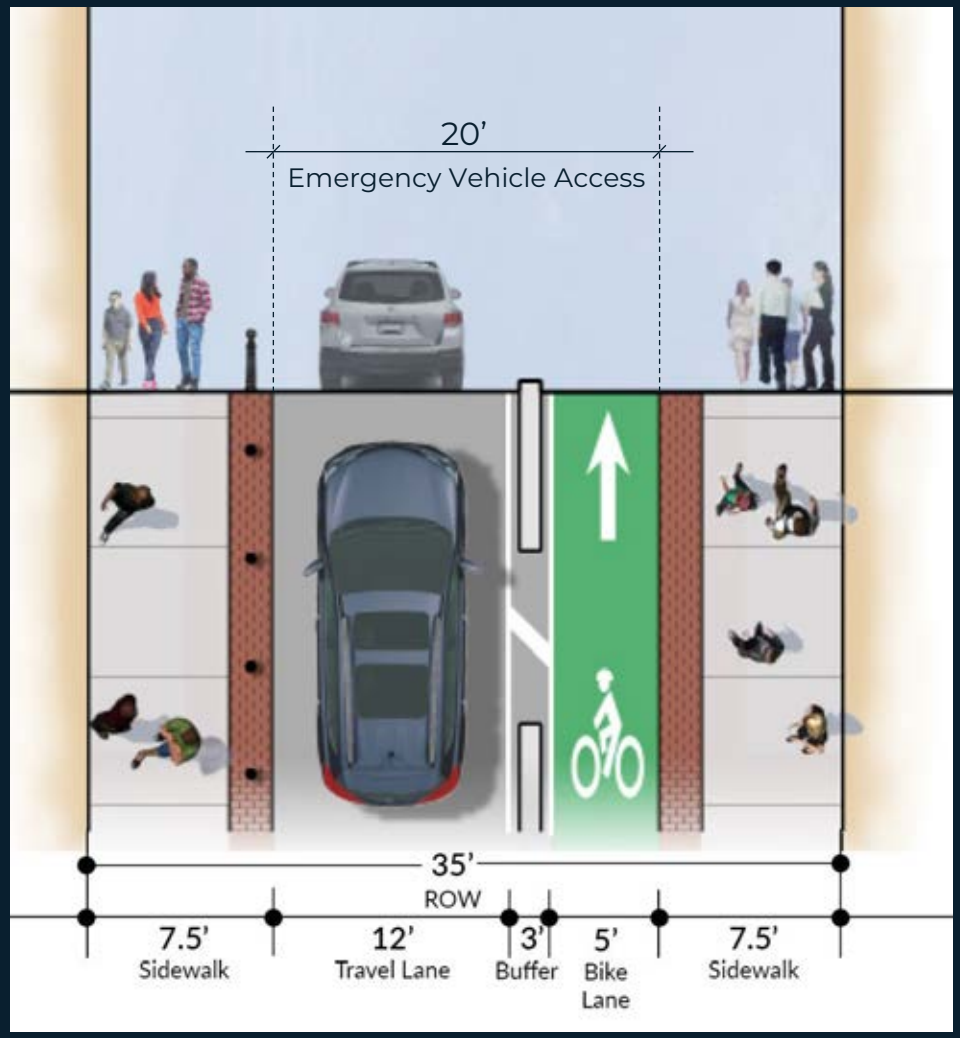
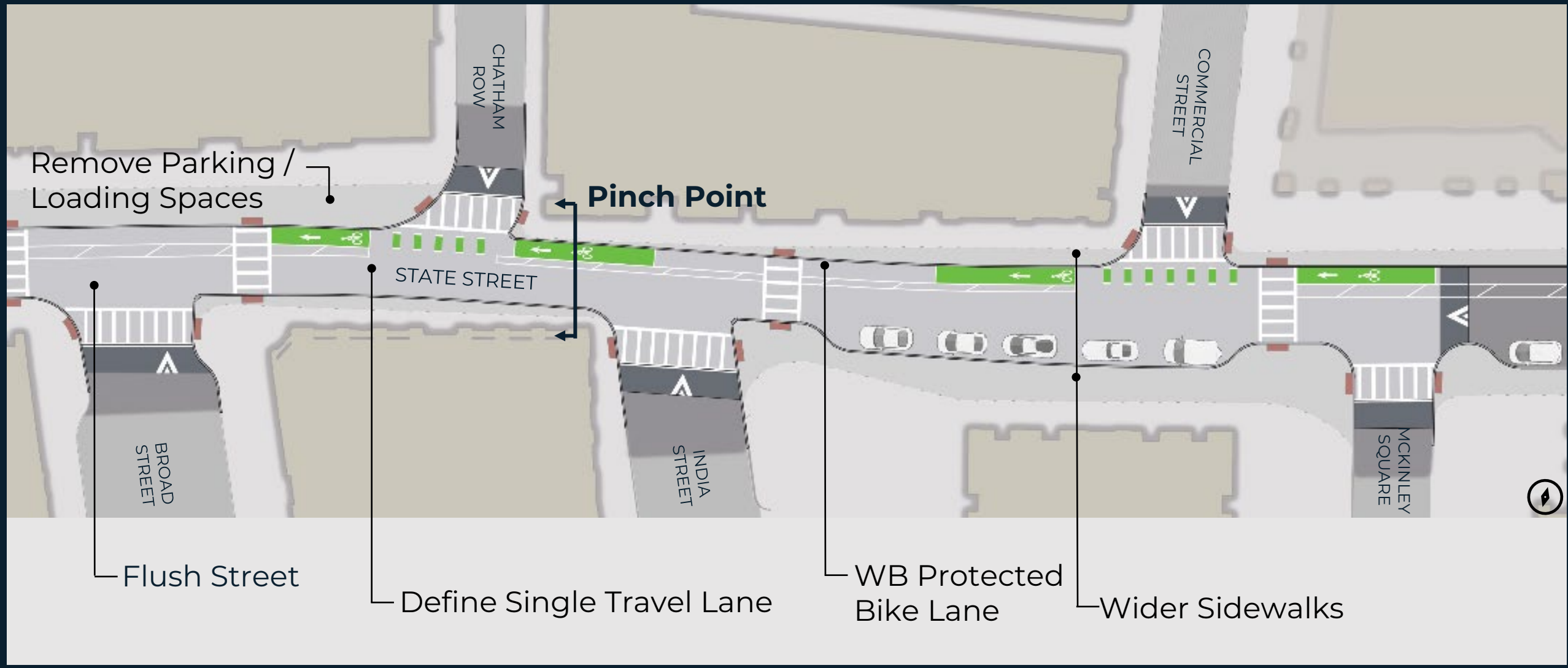


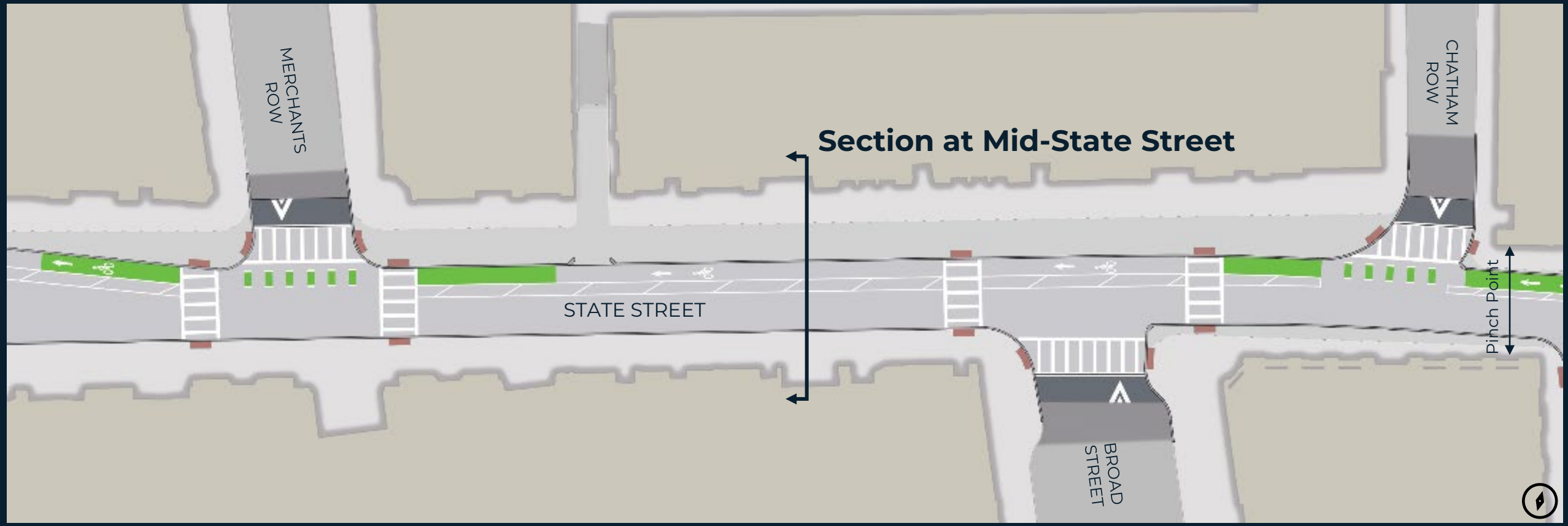
Proposed

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

CONCEPTUAL DESIGN: Plan at Pinch Point Area



CONCEPTUAL DESIGN: Section at Mid-State St.

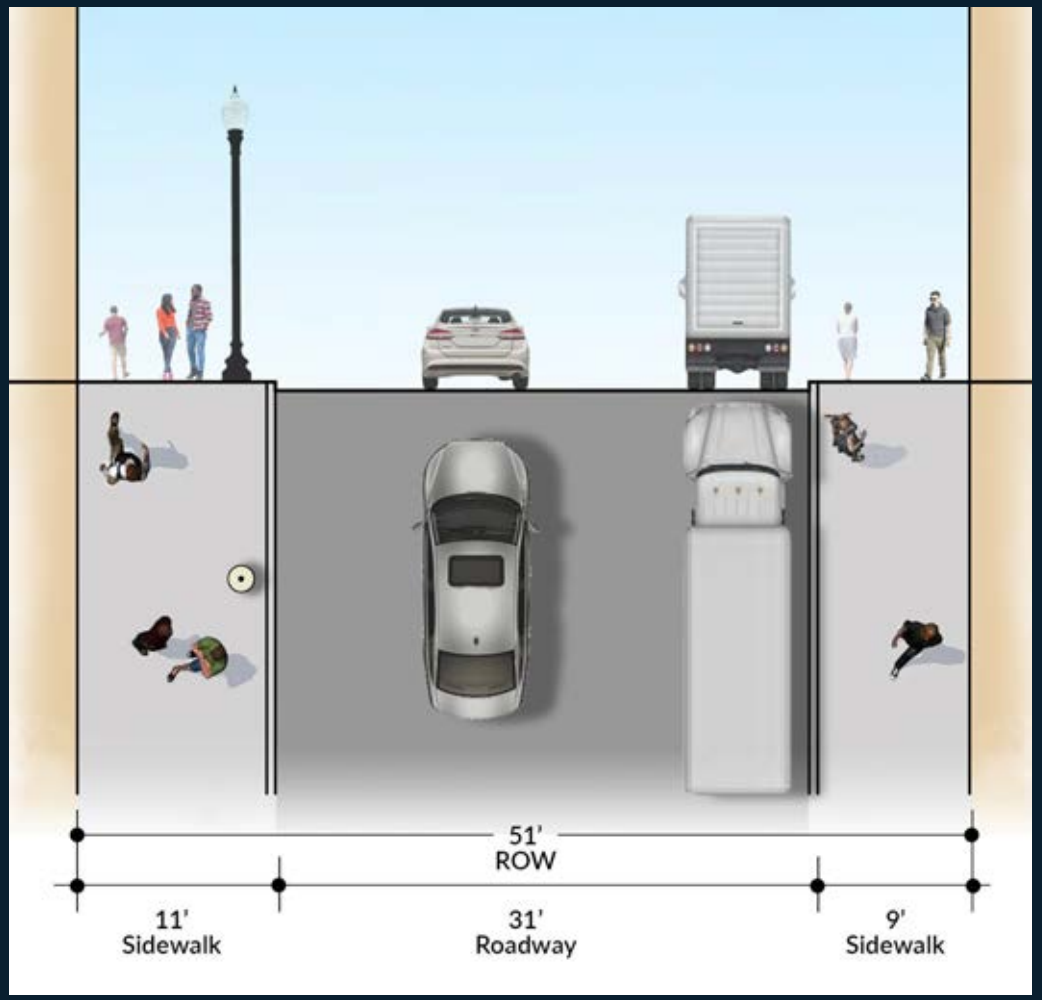


FOUR OPTIONS FOR THIS SEGMENT

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



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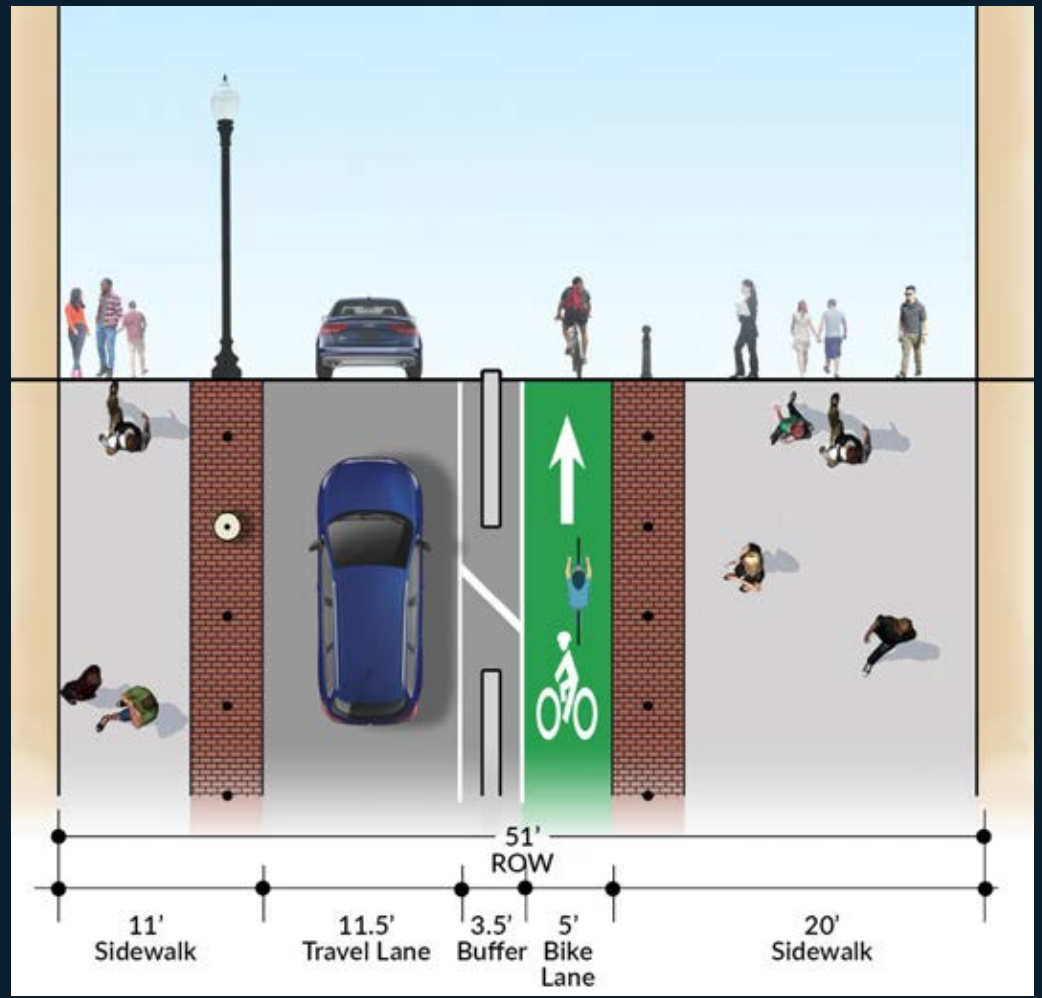
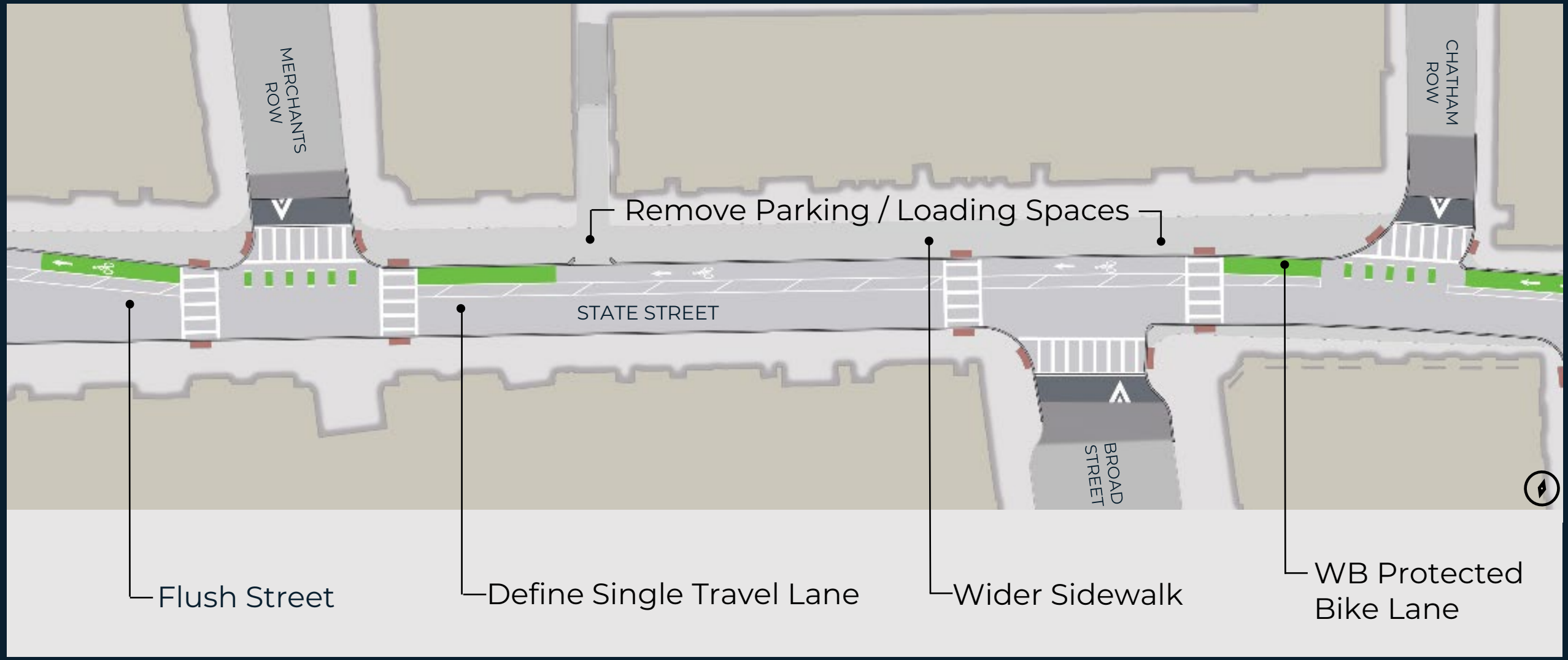


Proposed

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

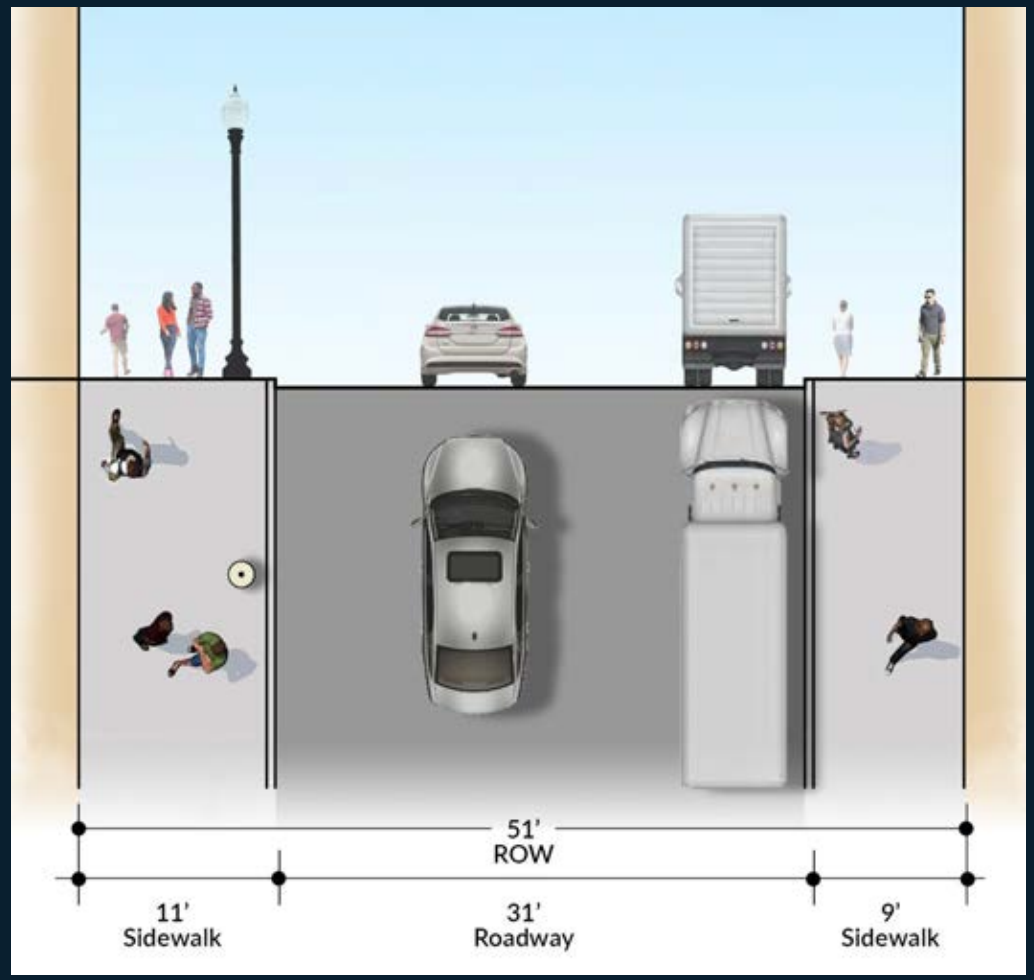
CONCEPTUAL DESIGN: Mid-State Section: Option 1

Option 1: Wide Sidewalk North Side – Relocate Loading



CONCEPTUAL DESIGN: Mid-State Section: Option 2

Option 2: Balance Sidewalks Both Sides – Relocate Loading



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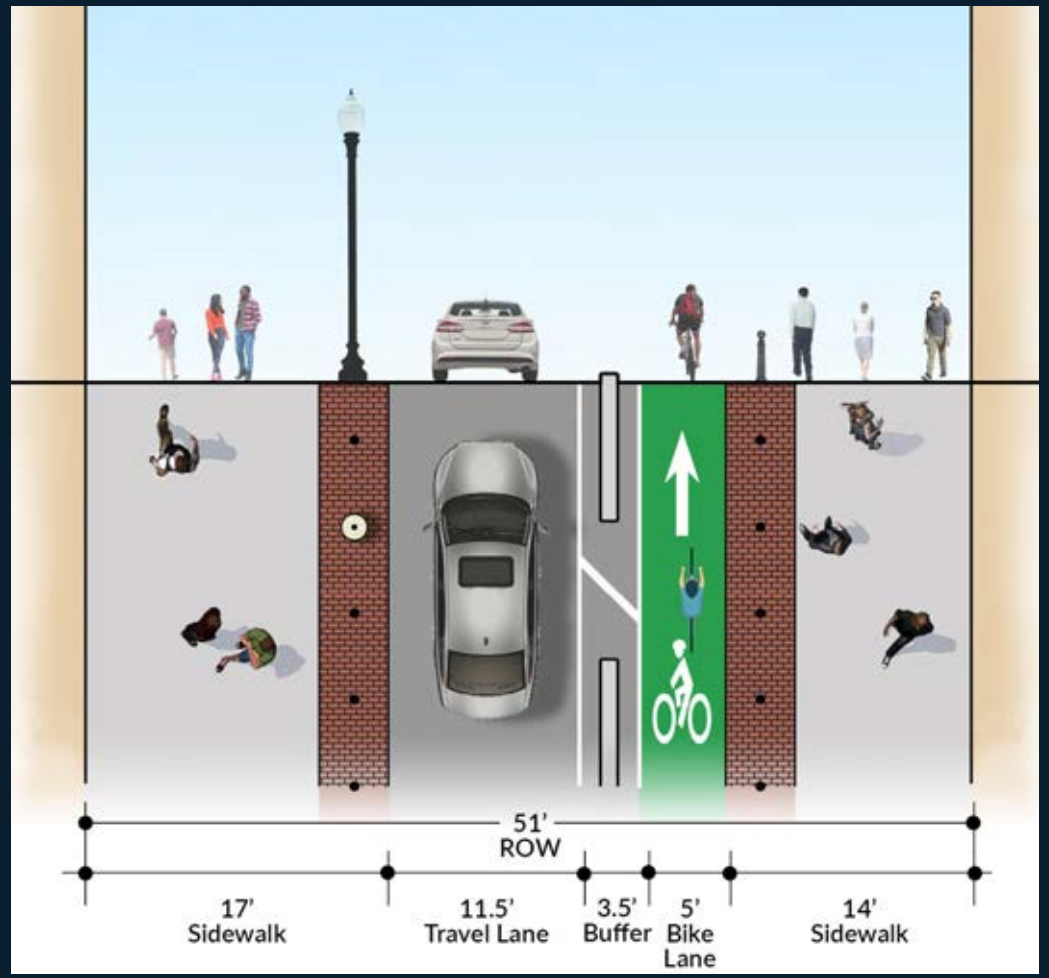
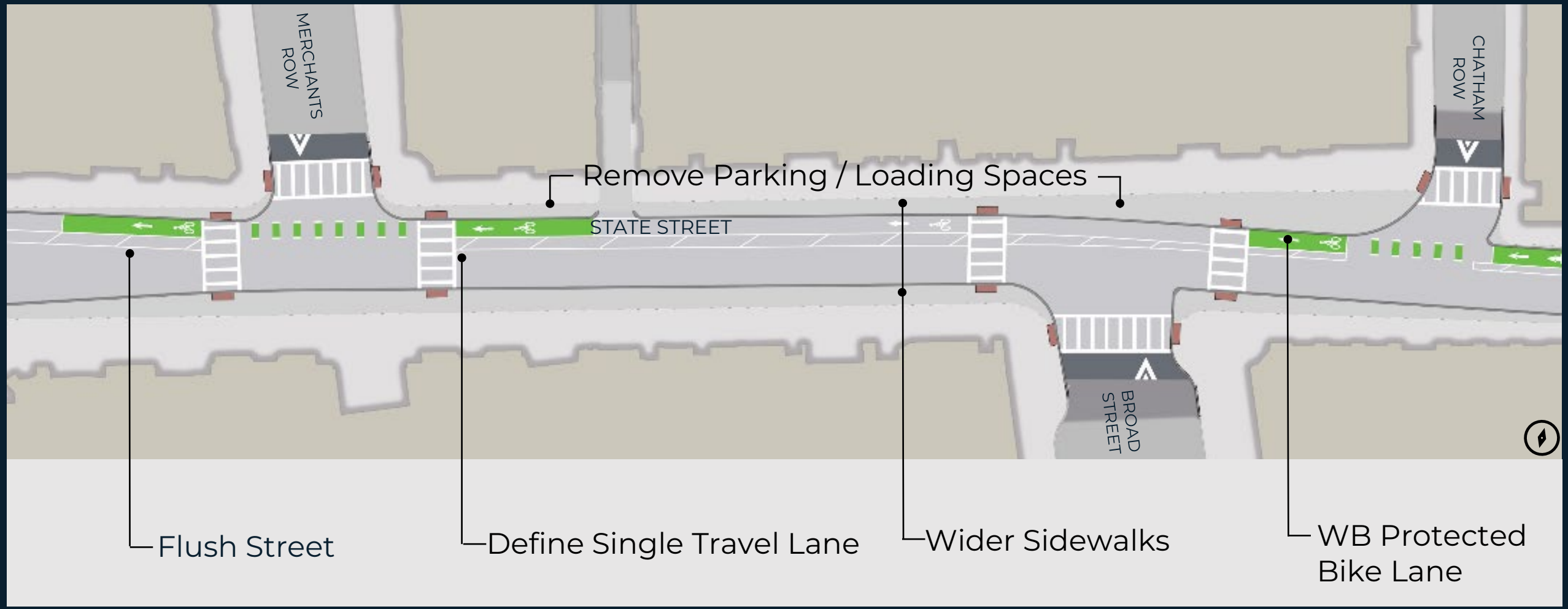


Proposed

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

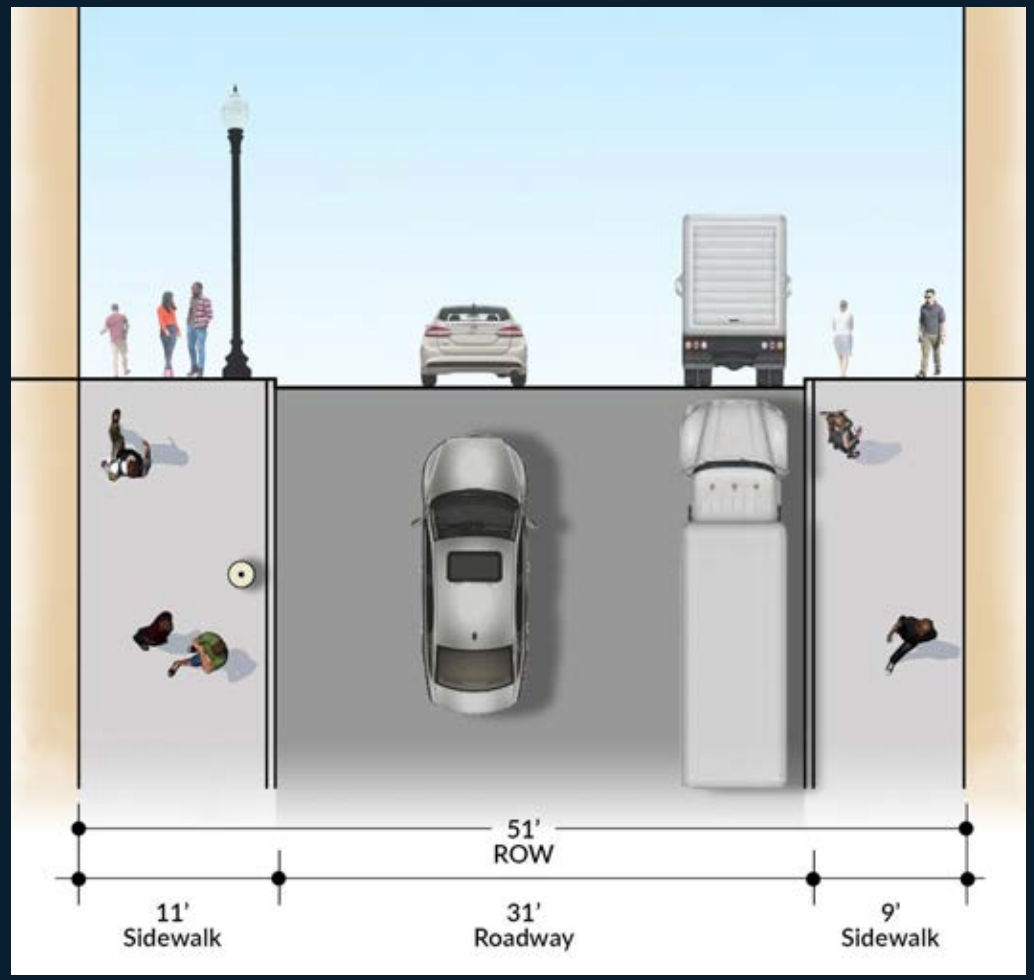
CONCEPTUAL DESIGN: Mid-State Section: Option 2

Option 2: Balance Sidewalks Both Sides – Relocate Loading



CONCEPTUAL DESIGN: Mid-State Section: Option 3

Option 3: Loading on the South Side



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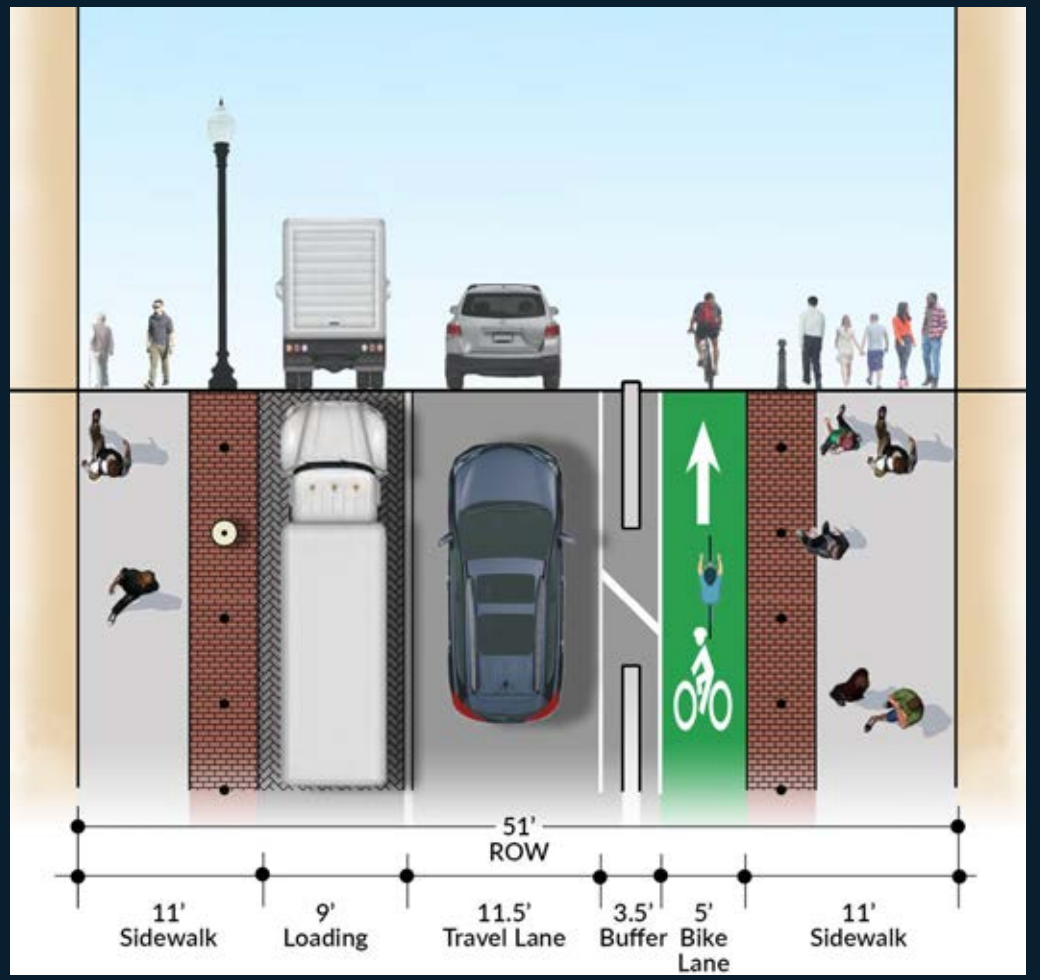
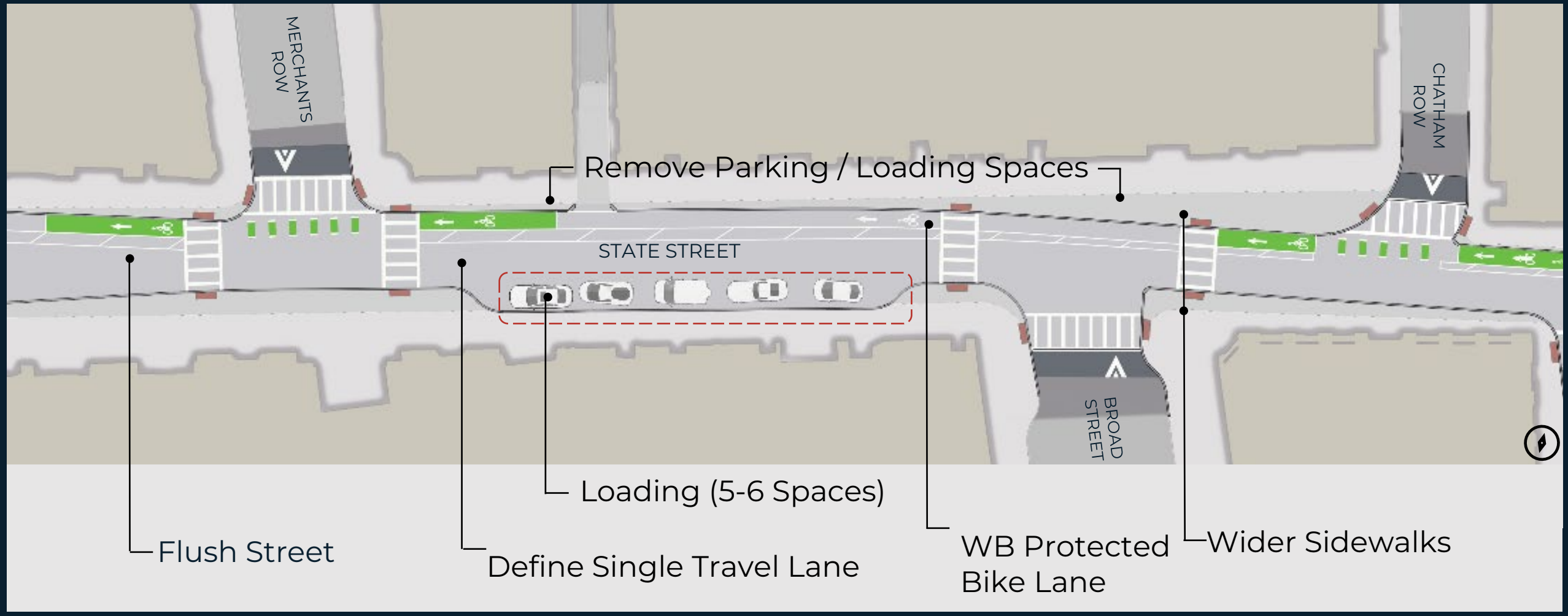


Proposed

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

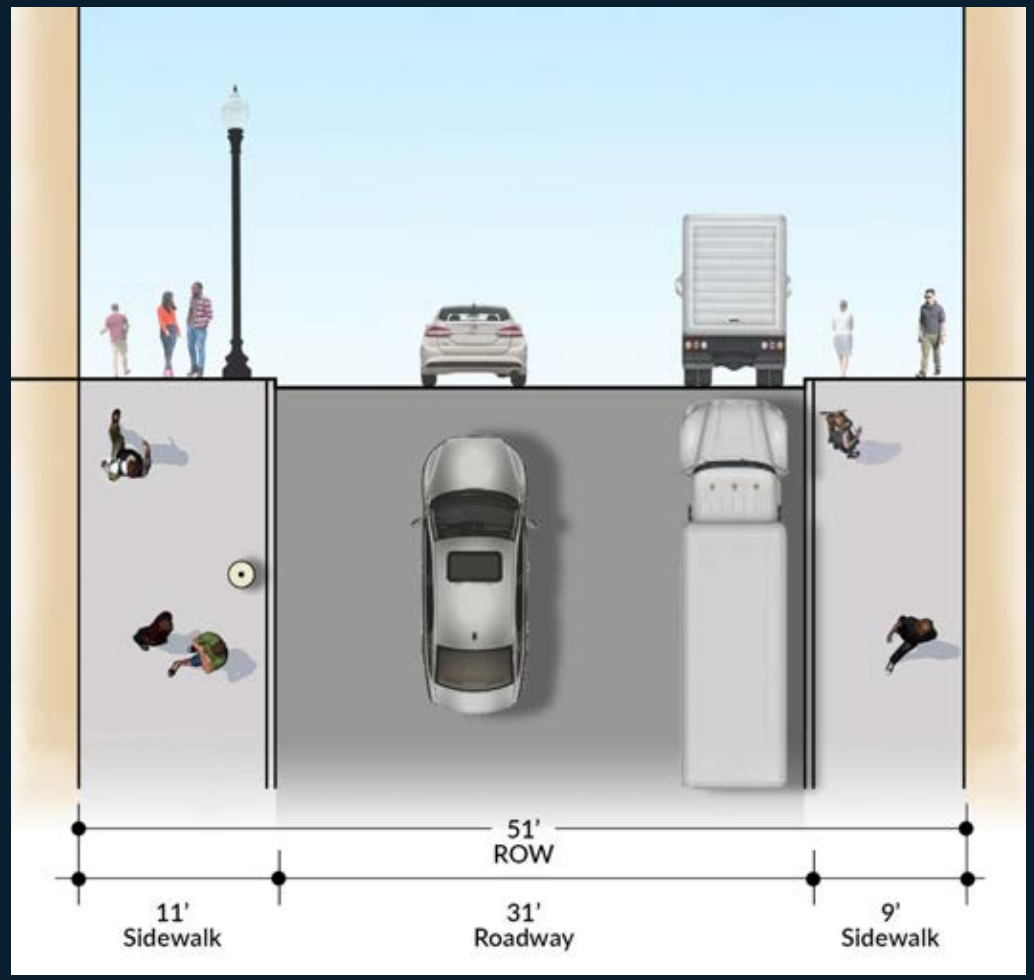
CONCEPTUAL DESIGN: Mid-State Section: Option 3

Option 3: Loading on the South Side



CONCEPTUAL DESIGN: Mid-State Section: Option 4

Option 4: Loading on the North Side



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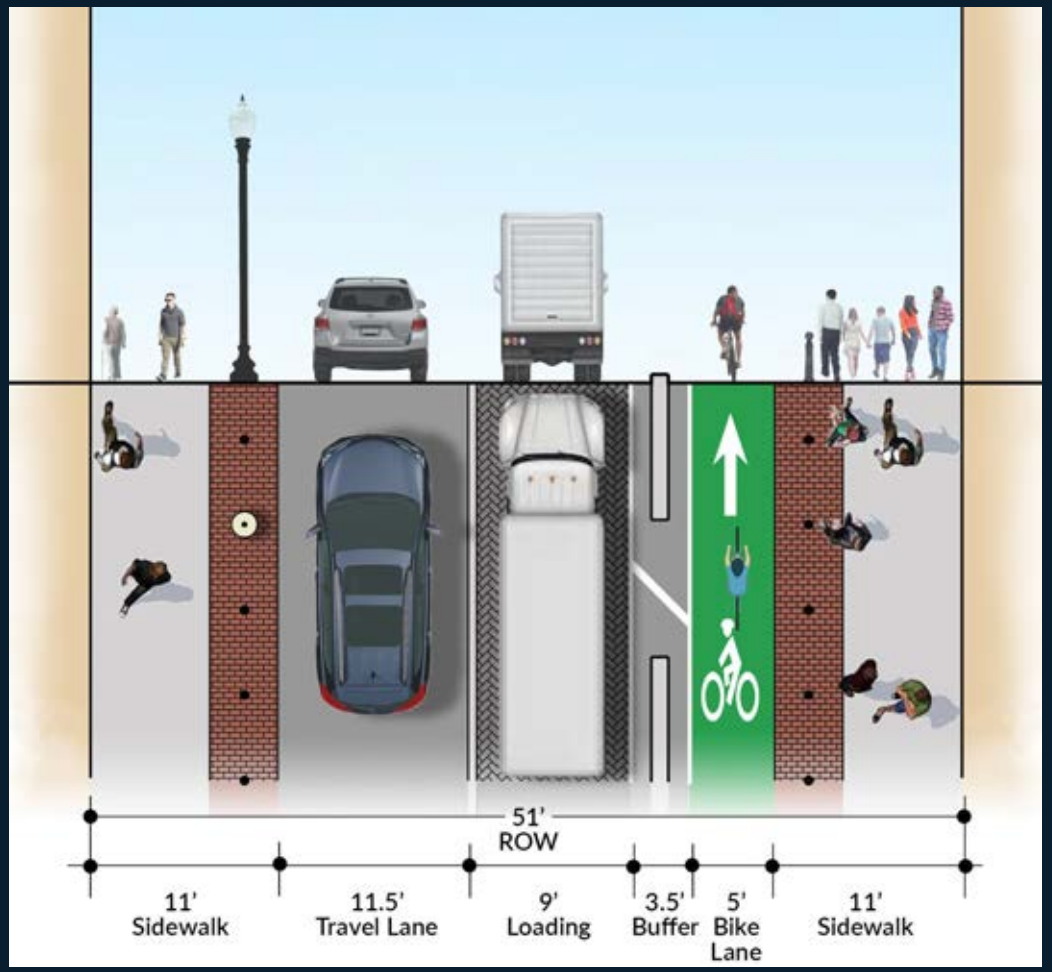
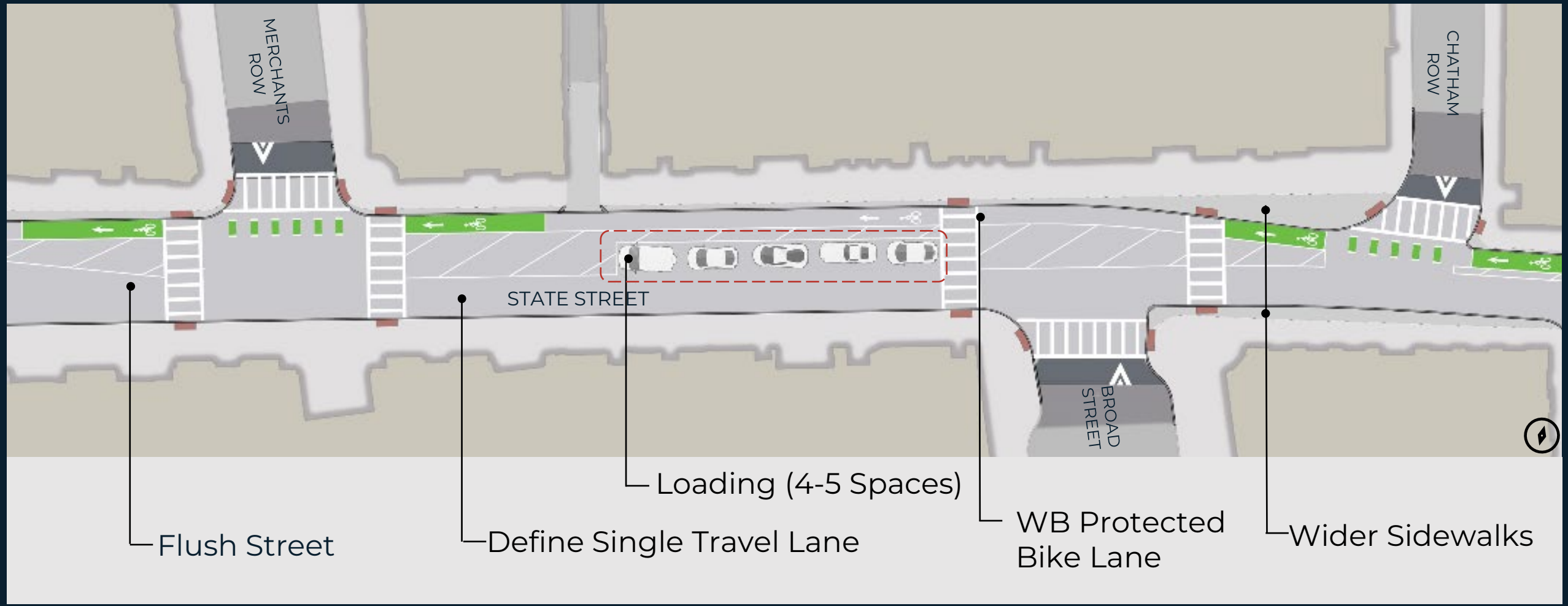


Proposed

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

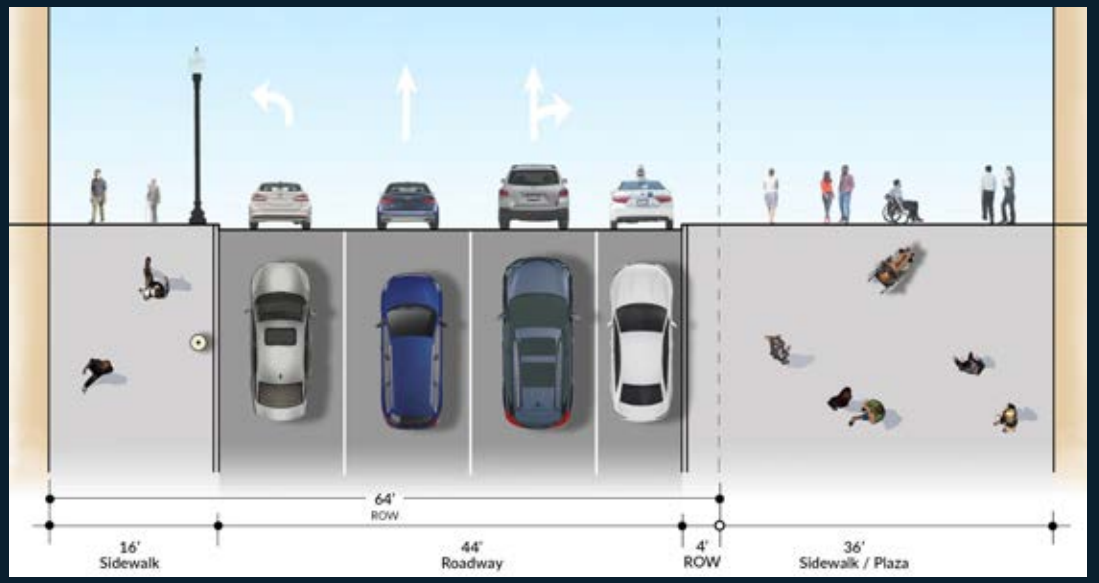
CONCEPTUAL DESIGN: Mid-State Section: Option 4

Option 4: Loading on the North Side

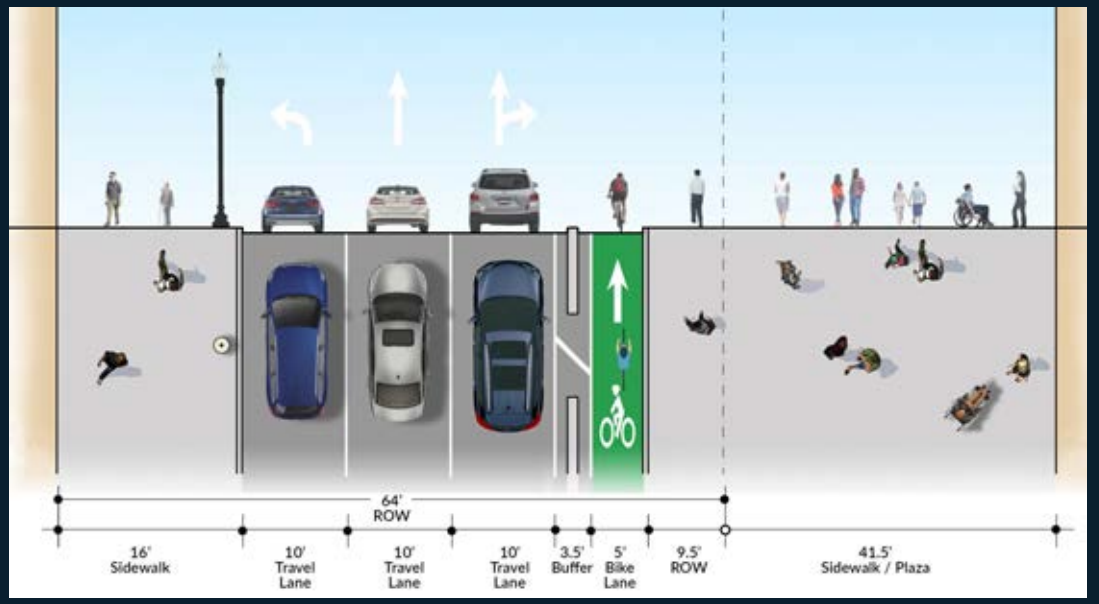


CONCEPTUAL DESIGN: Section at Congress Street

Existing

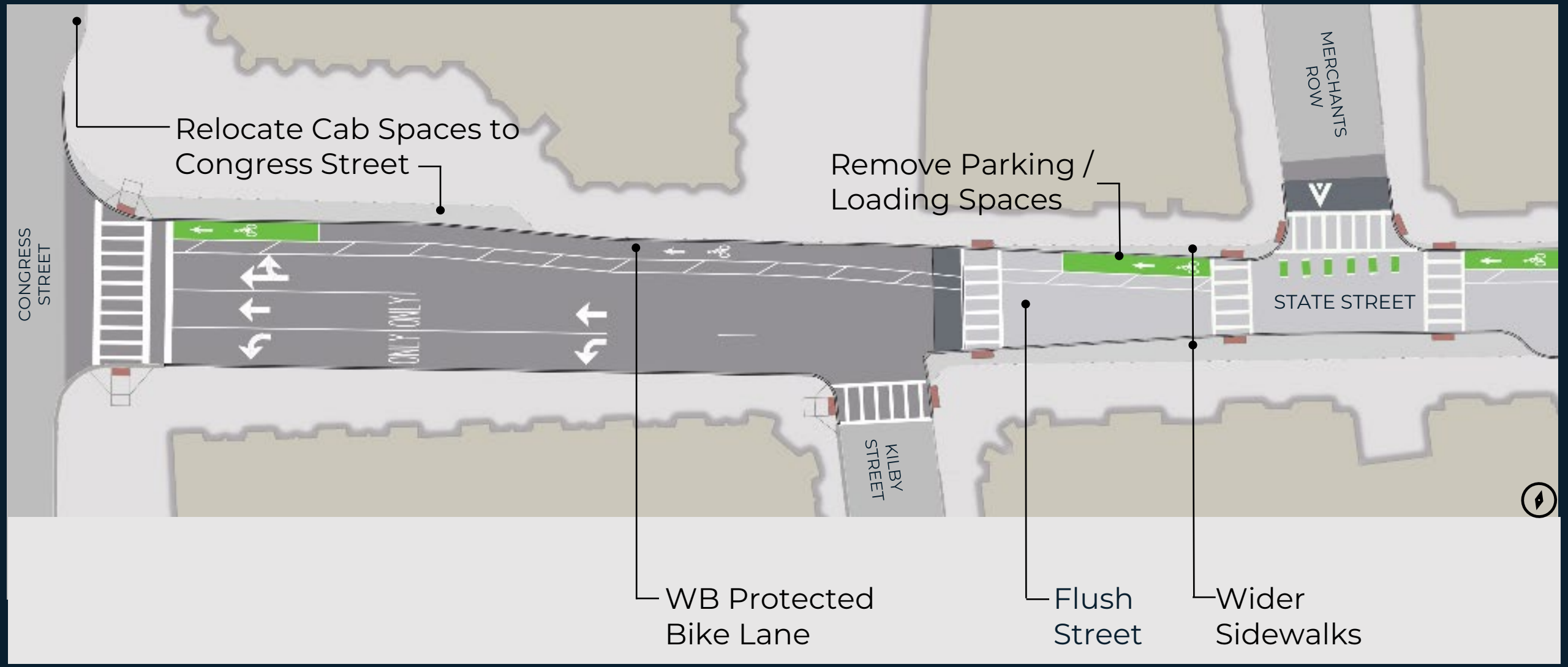


Proposed

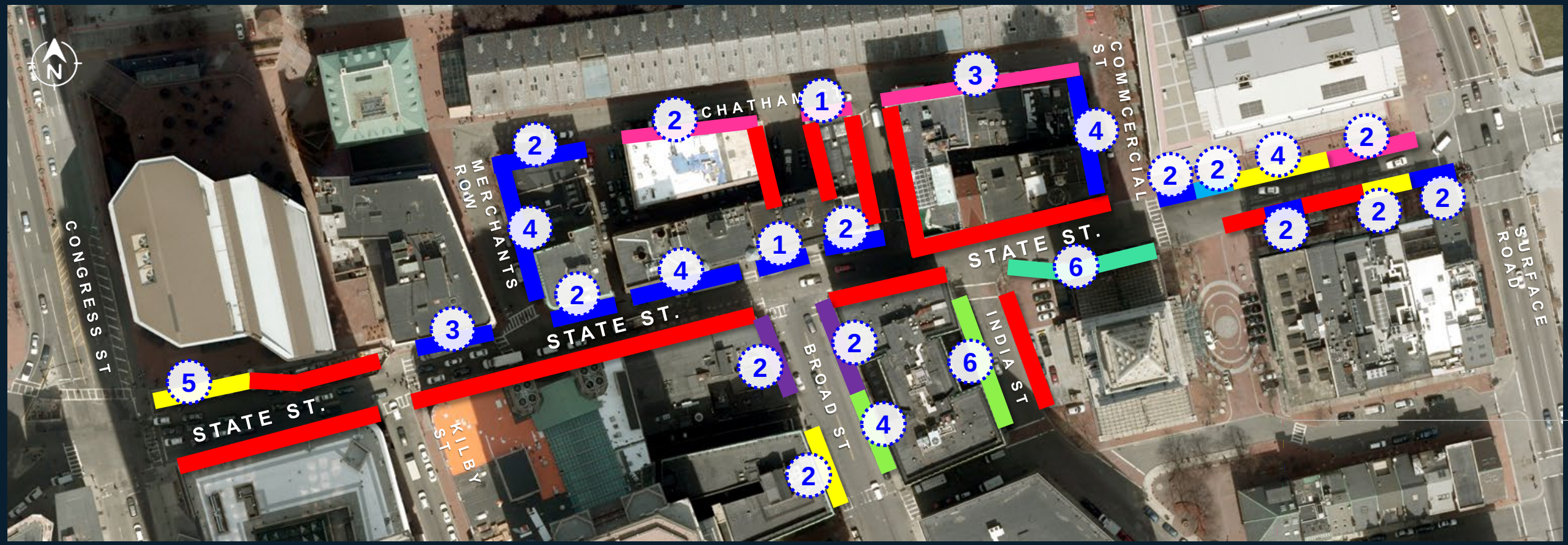


- Move the Cab Stand to Congress Street
- Protected WB Bike Lane
- Sidewalks + 5.5 feet

CONCEPTUAL DESIGN: Plan At Congress Street



CONCEPTUAL DESIGN: Existing Curb Regulations

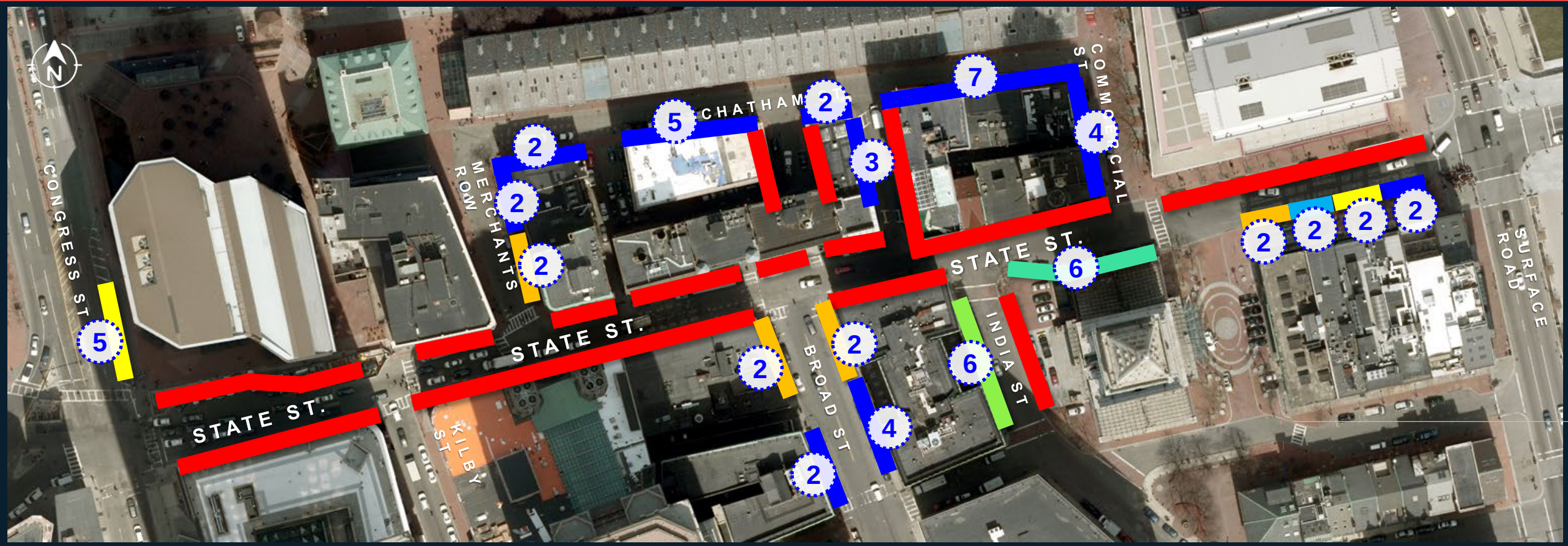


LEGEND

No Stopping		
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



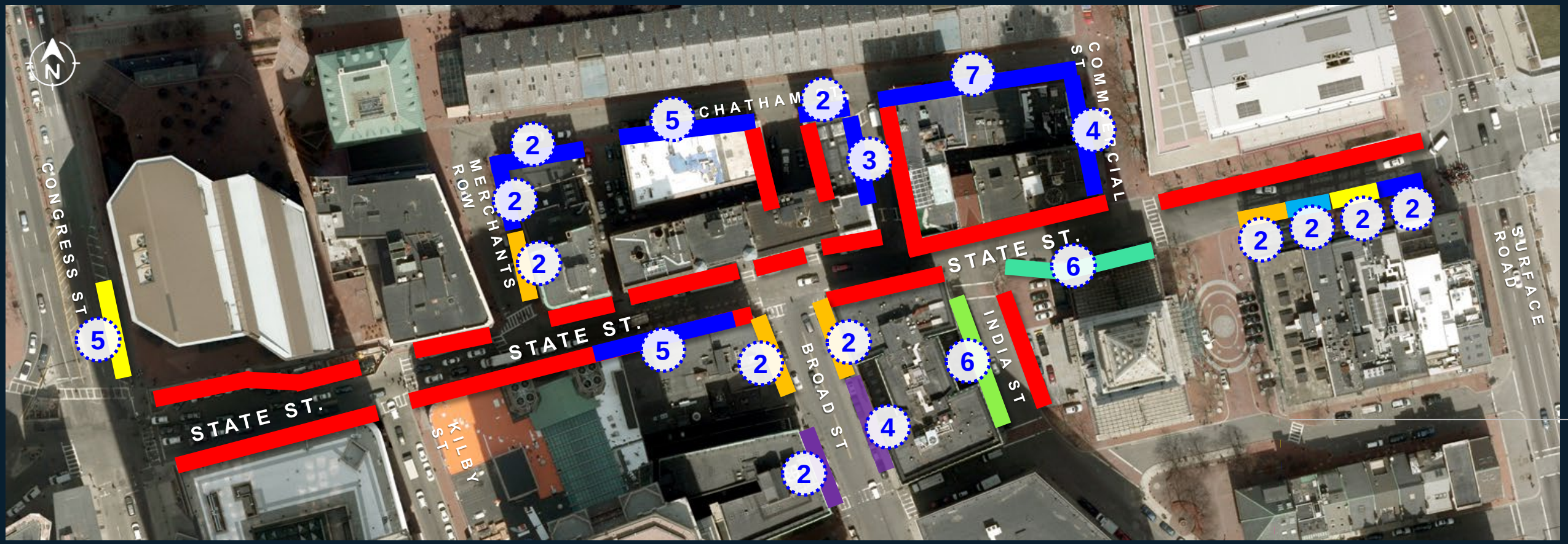
LEGEND

ZONE	# of SPACES	CHANGE
No Stopping		
Cab Stand/Valet	7 Spaces	-6 Spaces
Commercial Vehicles	33 Spaces	+5 Spaces
PUDO 5 Minutes	8 Spaces	+8 Spaces
General Metered	6 Spaces	-4 Spaces

ZONE	# of SPACES	CHANGE
Tour Bus Parking	0 Spaces	-8 Spaces
Commercial / General	0 Spaces	-4 Spaces
Private	6 Spaces	0 Spaces
Handicap	2 Spaces	2 Spaces
TOTAL	64 Spaces	

1 space = 20-feet
1 tour bus space = 40 feet

CONCEPTUAL DESIGN: Curb Regulation Concept 2



LEGEND

ZONE	# of SPACES	CHANGE
No Stopping		
Cab Stand/Valet	7 Spaces	-6 Spaces
Commercial Vehicles	32 Spaces	+4 Spaces
PUDO 5 Minutes	8 Spaces	+8 Spaces
General Metered	6 Spaces	-4 Spaces

ZONE	# of SPACES	CHANGE
Tour Bus Parking	0 Spaces	-8 Spaces
Commercial / General	6 Spaces	+2 Spaces
Private	6 Spaces	0 Spaces
Handicap	2 Spaces	2 Spaces
TOTAL	64 Spaces	

1 space = 20-feet
1 tour bus space = 40 feet

PILOT PROJECT

HEALTHY STREETS PILOT

Phase 1
Pilot

Phase 2
Pilot

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

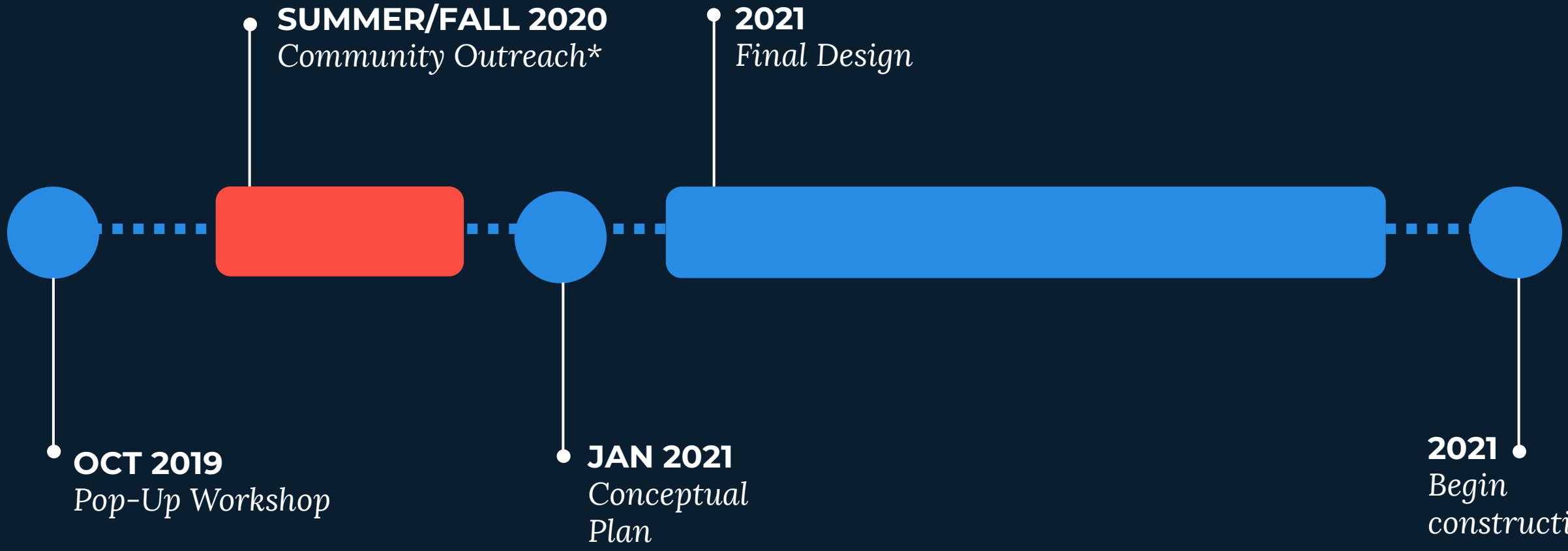
PHASE 1 PILOT: Data Collection - Daily Volumes

	2019	2020	% CHANGE
	29,000	5,900	- 80%
	10,700	4,600	- 60%
	350	240	- 30 %

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

SCHEDULE

PROJECT SCHEDULE:



*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