

Porter Square Safety Improvement Project

Community Meeting Roseland St to Beech St

Tuesday, March 15, 2022 | 6:00 p.m. | Zoom

Agenda

- Project Background
- Community Feedback
- Review of Alternatives
- Summary + Next Steps
- Questions + Answers

Planning Background

Project Area

Mass Ave between Roseland St
and Beech St



Cycling Safety Ordinance

- Builds on our policy foundation of supporting multimodal transportation
- Ordinance has stated deadline of April 30, 2022 for quick-build projects on Mass Ave
- Porter Square is the last major section of quick-build on Mass Ave
 - We are making small quick-build adjustments on South Mass Ave near MIT this spring as well

www.cambridgema.gov/CyclingSafetyOrdinance



What drives our street design?

We design for people of ALL ages and abilities. This includes:

- People who may not have access to a car
- Creating safe and accessible facilities, including bike lanes, that can be used by a wide range of people

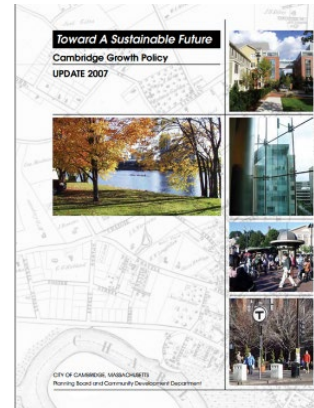
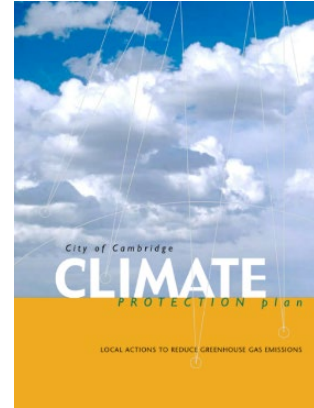
How we think about vehicle congestion and delay

- Moving people slowly is moving people safely
- We do not prioritize eliminating delay for people driving alone



Cambridge Policies that Support Sustainable Transportation

- Vehicle Trip Reduction Ordinance
- Parking & Transportation Demand Ordinance
- Climate Protection Plan
- School Wellness Policy
- Envision Cambridge



► Complete Streets



► Vision Zero

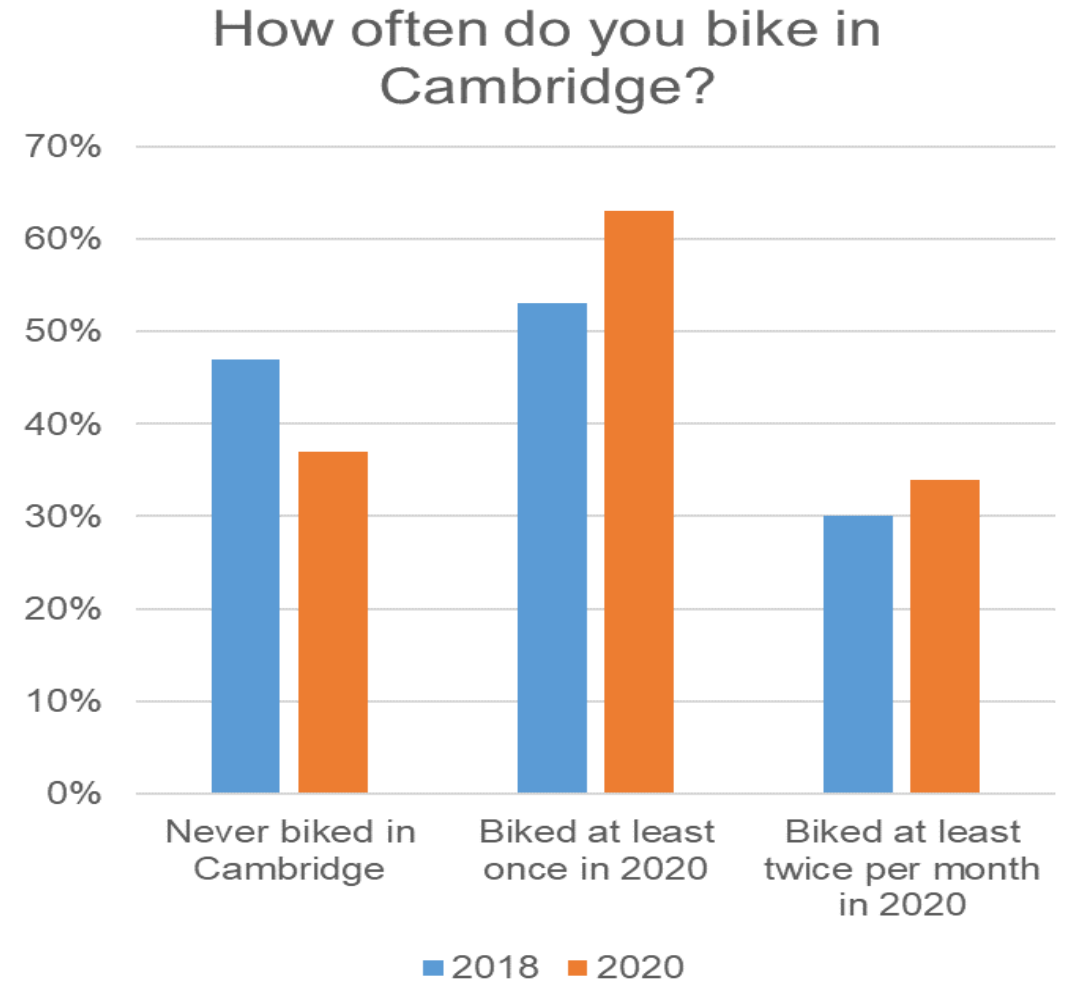


► Cycling Safety Ordinance



Cambridge Residents Biking

- Over 60% of Cambridge residents reported biking at least once in 2020
- Over 30% of Cambridge residents biked on a regular basis (2+ times per month)
- 53% of people who did not bike in 2020 wanted to bike more



Source: Resident telephone and online survey, 2020 9

Separated Bike Lane Benefits

- Safe and comfortable for people of all ages and abilities
- Fewer crashes
- Eliminates threat of "dooring" from parked vehicles
- Buffer space reduces conflicts between turning vehicles and people biking
- Shorter crossing distance for people walking
- Enables more people to choose cycling as a transportation option
- Increases comfort for drivers as they know where to expect a person biking
- Supports city's climate goals

Mass Ave Today



Main St - 2016

Vision For Mass Ave



Ames St - 2017

Porter Sq vs the MassAve4

- The MassAve4 refers to four sections of Mass Ave
- These are:
 - Dudley St to Beech St
 - Roseland St to Waterhouse St
 - Two large bus stops in Harvard Sq
- The MassAve4 projects will install separated bike lanes, but on a slightly longer timeline
- We are designing separated bike lanes in Porter Square separately from the MassAve4



Project Timeline Extension

- At the March 7, 2022 City Council meeting, the City Manager submitted a letter indicating that improvements to Porter Square will not be implemented by the original April 30, 2022 deadline
- Project implementation will take place as quickly as possible within this construction season
- The extended timeline will create space for additional community outreach and engagement, and allow us to carefully plan and manage project implementation
- The City Council approved this letter by an 8-1 vote

Project Background

Design Considerations – Quick-Build

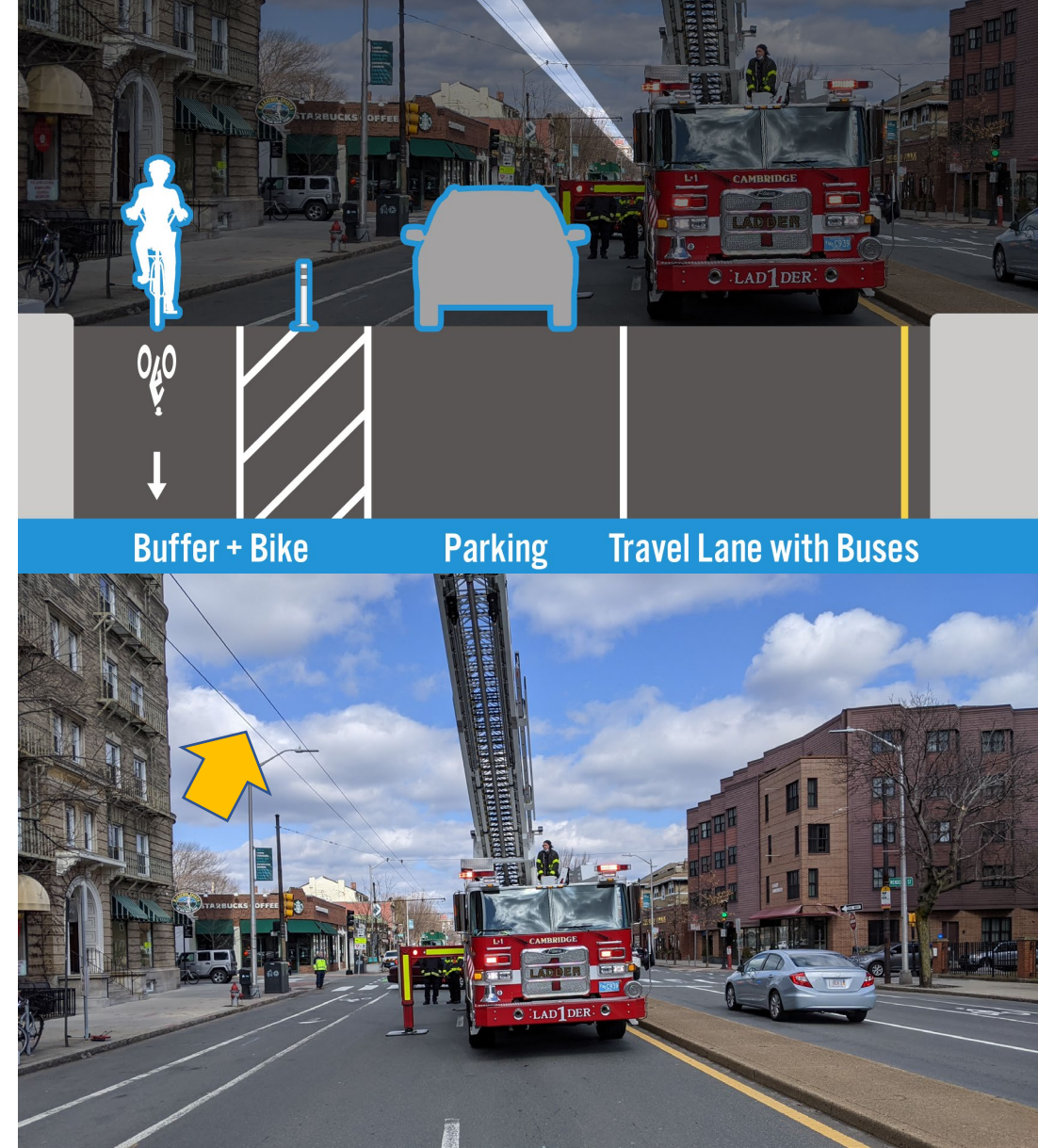
- The timeline for the Cycling Safety Ordinance requires us to complete this project using quick-build materials
- Our quick-build toolbox includes:
 - Pavement marking changes
 - Installation of flex posts
 - Changes to signage
 - Some modifications to signal timing



Image: Quick-build bike and bus lanes near Central Sq

Design Considerations – Catenary and Median

- Parking cannot “float off the curb”
 - Overhead wires (catenary) interfere with fire response when fire trucks are parked in the left lane
 - Median location does not allow truck to properly deploy stabilizers when in the left lane
 - Turned-off wires still create similar hazards



MBTA Overhead Wires (Catenary)

- The MBTA held a community meeting to provide an update on its bus electrification process on February 15th
- Trolley buses are currently out of service, and replaced with diesel buses
- The MBTA has no schedule for removal of the overhead wires
- This project is not dependent on the removal of the overhead wires. As a quick-build project, we can make further changes easily if the wires are removed.
- We are working with the MBTA regarding their schedule for this work

Ongoing Engagement

- **Community meeting held on Tuesday, January 25th**
 - Included project introduction, potential layouts and background information
 - A recording of the meeting, a copy of the slides and a transcript of the meeting is available at the project webpage, below
- **Feedback Survey opened following first community meeting**
 - Close to 1,000 responses so far
 - Approximately 600 additional emails
 - The survey remains open

www.cambridgema.gov/porter-square-cycling-safety

Community Feedback

Upland Rd

- At our last community meeting, we shared possible changes to Upland Rd that made it one-way
- This would allow us to improve travel flow on Mass Ave

What we heard

- Based on community feedback, Upland Rd will remain two-way

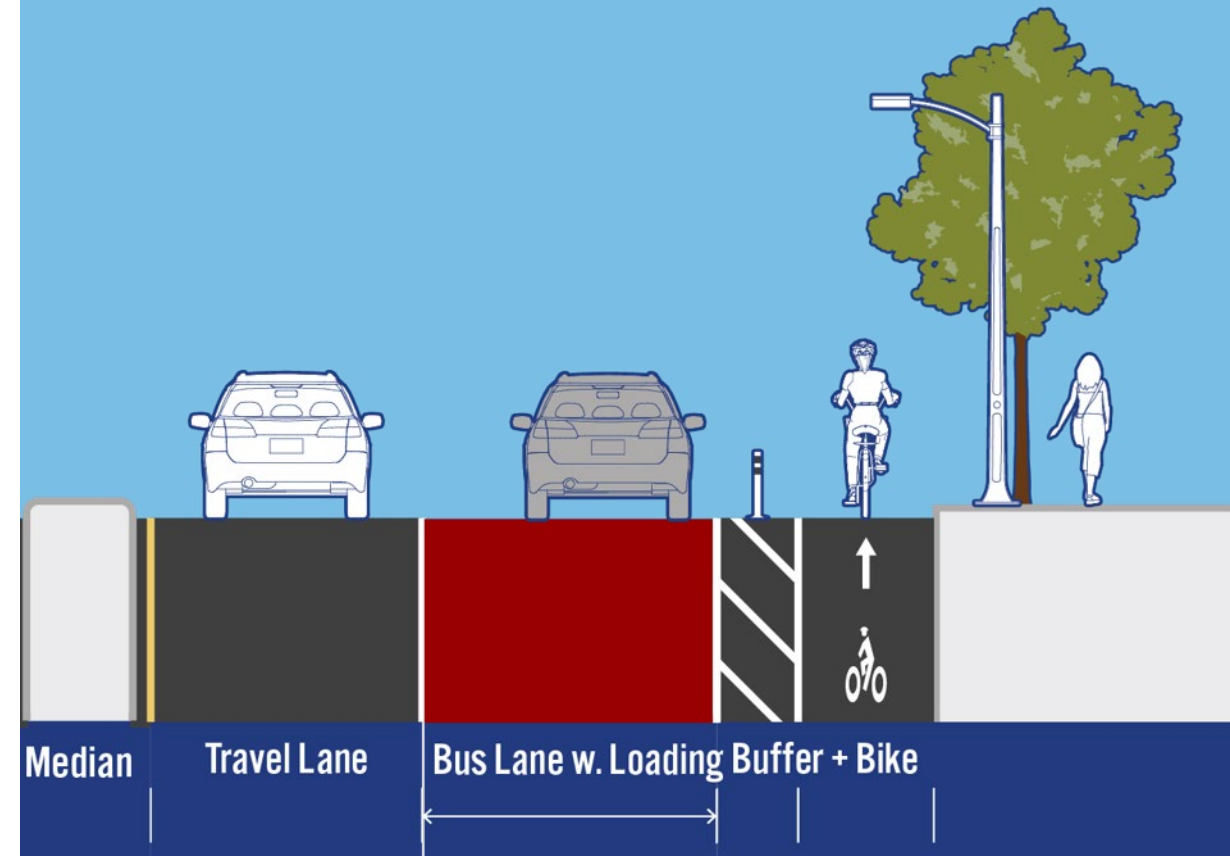


Parking/Loading

- At our last community meeting, we discussed possibilities for part-time loading on Mass Ave

What we heard

- Customers sometimes want more than 15 minutes to park
- Loading zones do not meet the needs of customers visiting businesses
- Public desire for longer term parking (1-2 hours)

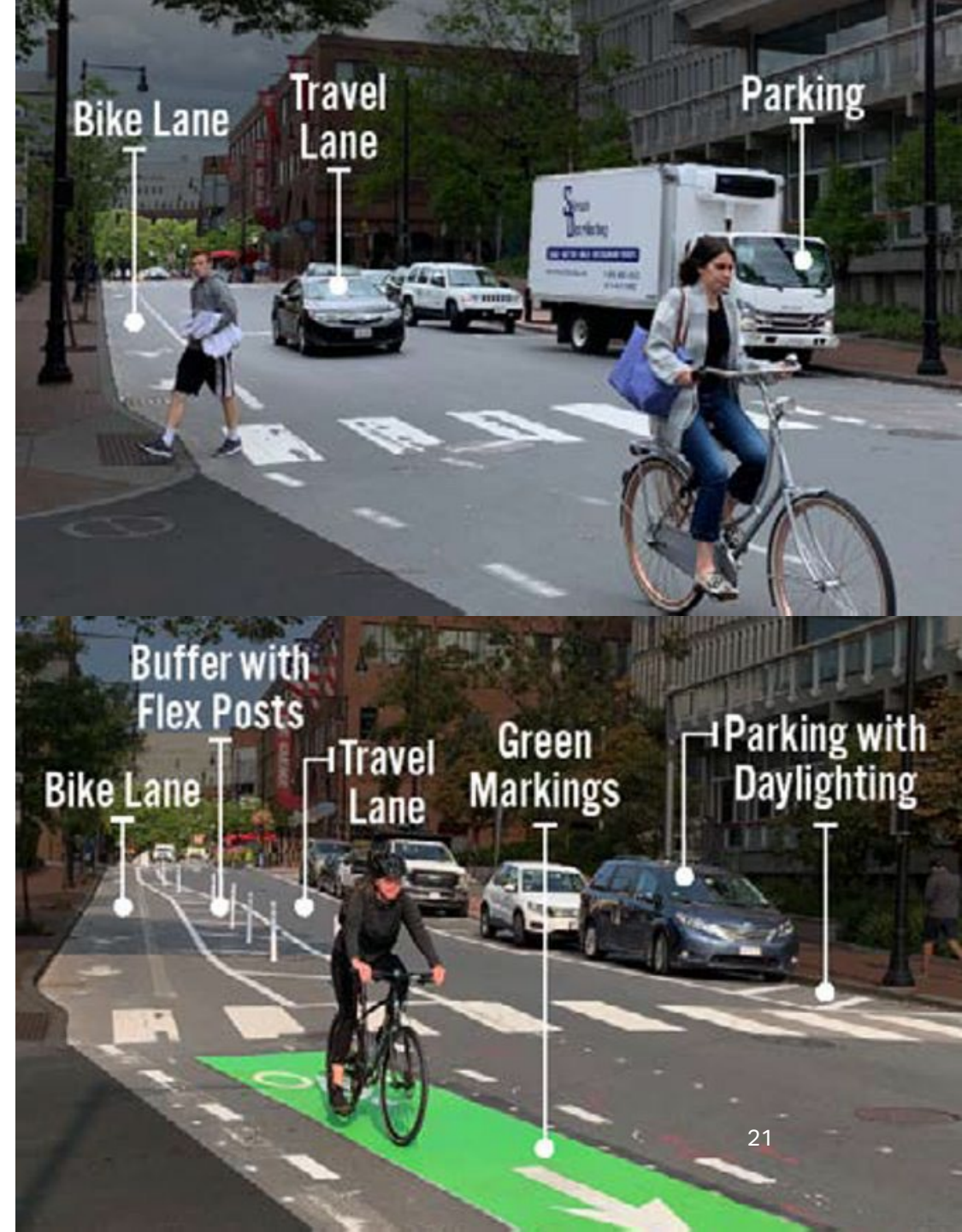


Separated Bike Lanes

- At the first community meeting, we discussed separated bike lanes

What we heard

- Significant community support for separated bike lanes
- Address additional safety issues
 - Improve safety at intersections
 - Continuous separation
 - Address maintenance, (i.e., snow clearance, street sweeping and paving)

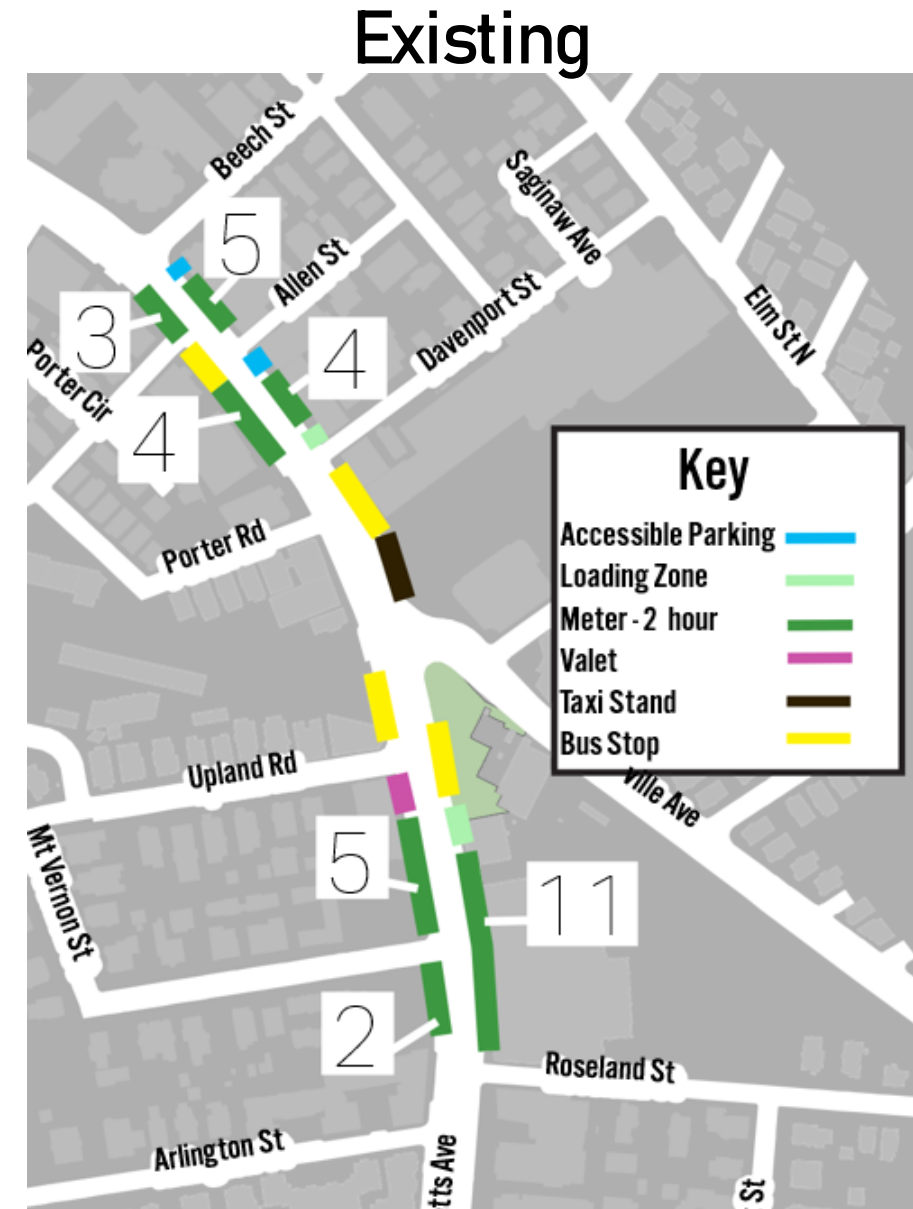


On-Street Parking

- Project will install separated bike lanes to meet project goals
 - This requires us to remove 34 metered spaces from Mass Ave

What we heard

- Work closely with business owners to understand their needs
- Include loading zones wherever possible
- Increase accessible/disability parking
- Relocate some metered parking to side-streets



Preferred Alternative

Beech St to Porter Rd

- Two travel lanes in both directions
- Separated bike lanes in both directions

Key Features

1. Loading zone between Allen St and Davenport St
2. Additional accessible/disability parking spaces

Beech St to Porter Rd – Key Features

Northbound Loading Zone

- Loading Northbound between Allen St and Davenport St
- Loading is available at all hours during the day
- No overnight parking
- Existing overhead wires prevent the installation of longer-term parking

Existing



Proposed



Beech St to Porter Rd – Key Features

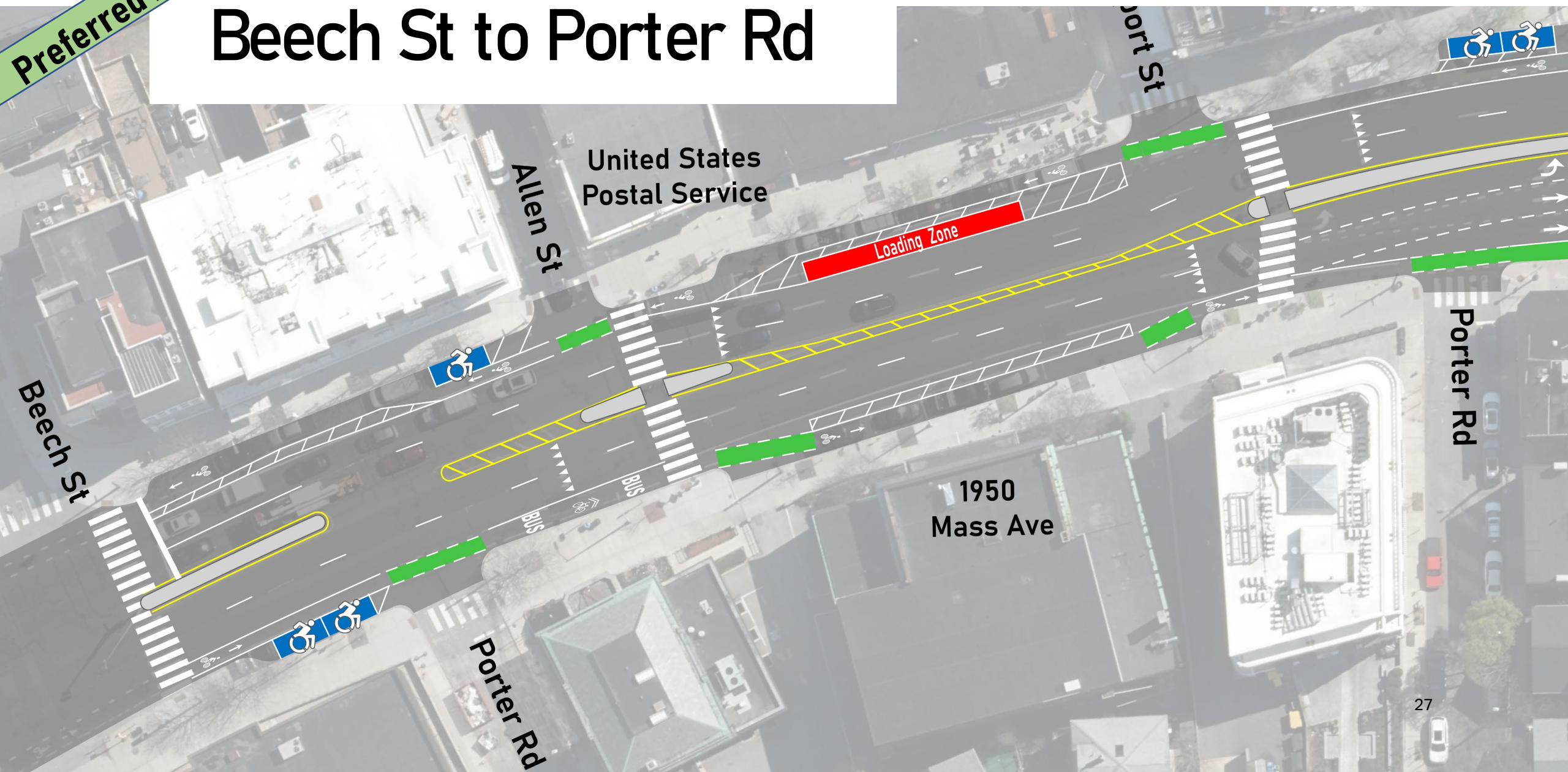
Additional accessible/disability parking

- We are seeking opportunities to increase the number of accessible/disability parking spaces in this section of Mass Ave
- We can increase the total number of accessible/disability spaces north of Porter Square from 2 to 5
- The existing accessible/disability space in front of the Post Office may need to be relocated to a new location nearby
 - This allows for installation of a loading zone between Allen St and Davenport St



Preferred Alternative

Beech St to Porter Rd



Porter Rd to Upland Rd

- Maintains existing travel lanes and turn lanes on Mass Ave

Key Features

1. Safety Improvements at the Somerville Ave intersection
2. Additional parking on Upland Rd

Constraints

- Short sections where bike lane separation creates additional challenges

Porter Rd to Upland Rd – Key Features

Somerville Ave Intersection Safety Improvements

- Single through lane in either direction on Somerville Ave between White Street and Mass Ave
 1. Slower speeds through the intersection
 2. Improves turning for large vehicles
 3. Discourages weaving
 4. Increased safety for all users
- Improved separation for bicyclists on Somerville Ave from Mass Ave to White St
 - We must conduct further analysis to determine extent of separation



Porter Rd to Upland Rd – Key Features

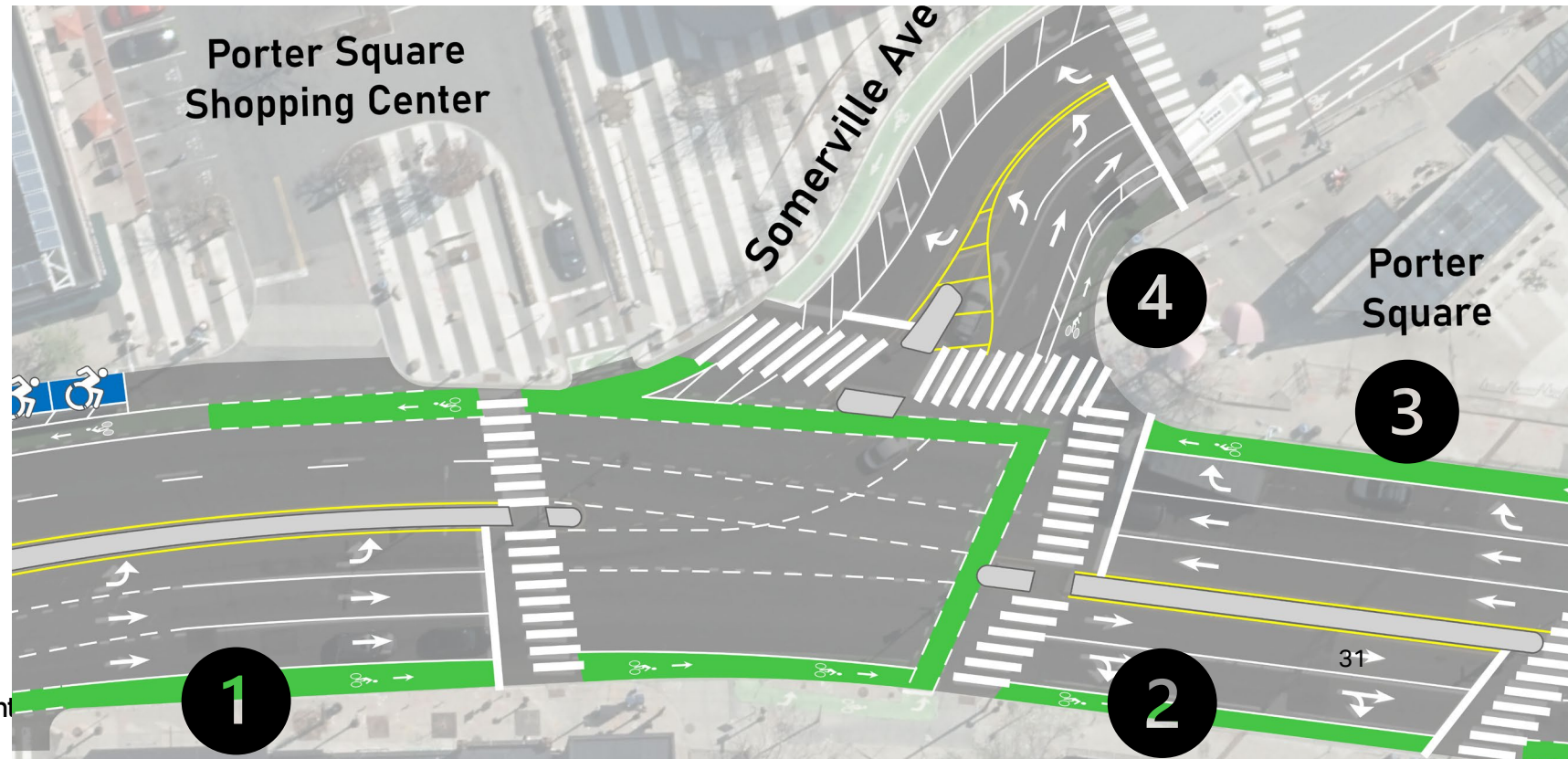
Additional parking on Upland Rd

- Metered parking is being removed from Mass Ave
 - To address this, we are able install two parking spaces on Upland Rd
 - No impact to resident parking
 - Removes existing right-turn lane
 - Upland Rd remains two-way
 - Vehicles turn left and right onto Mass Ave from the same lane
- These changes are optional



Porter Rd to Upland Rd - Constraints

- In key sections of Porter Square, separated bike lanes create significant challenges
- More analysis needed to determine if we can provide full separation at these locations



Upland Rd to Roseland St

- Two travel lanes in both directions
- Separated bike lanes in both directions

Key Features

1. Extended bus stop at Porter Square Station
2. Parking modifications on Mt. Vernon St

Upland Rd to Roseland St – Key Features

Extended bus stop at Porter Square Station

- Existing bus stop is extended approximately 50 feet
 - Multiple bus routes serve Porter Square station
- Allows for more efficient boarding
 - Two buses can serve the stop at once
- Improves accessibility



Upland Rd to Roseland St – Key Features

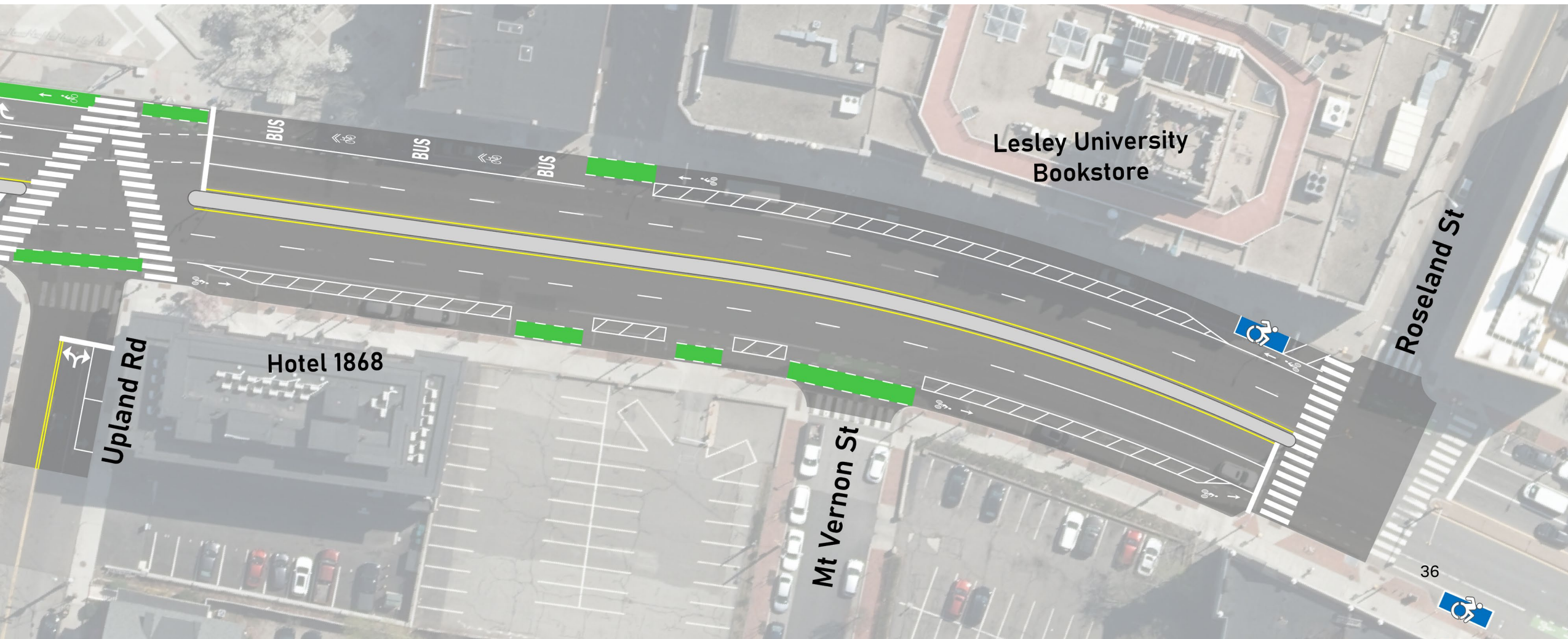
Parking modification on Mt Vernon St

- To offset the loss of parking on Mass Ave, we can relocate metered spaces to Mt Vernon St
- Number of spaces is subject to community feedback
- Parking changes unlikely in front of residential homes
- These changes are optional



Preferred Alternative

Upland Rd to Roseland St



Alternatives 2A, 2B + 3 (Not preferred)

Alternative 2A

One travel lane, one loading lane, separated bike lanes

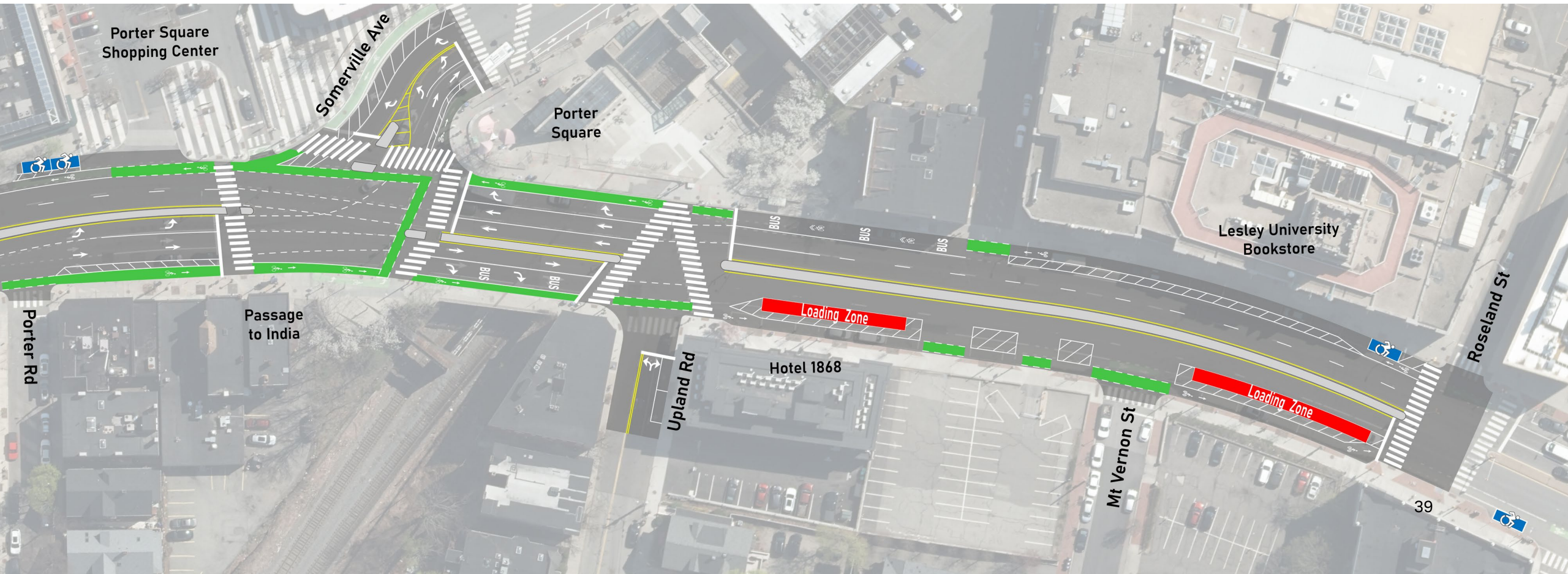
- Single travel lane starting just prior to Somerville Ave on Massachusetts Ave Southbound
- Fills in missing separation of bike lane on Mass Ave SB from Porter Rd to Somerville Ave
- Creates approximately six spaces for loading south of Upland Rd

Constraints

- Requires elimination of second through lane prior to Somerville Ave
 - Creates traffic bottleneck just prior to intersection
 - **People riding transit and people driving would experience 3 to 5 minutes of added delay**
- We cannot convert loading spaces into metered spaces unless overhead wires are removed

Alternative 2A

One travel lane, one loading lane, separated bike lanes



Alternative 2B

One travel lane, Bus lane with part-time loading, separated bike lanes

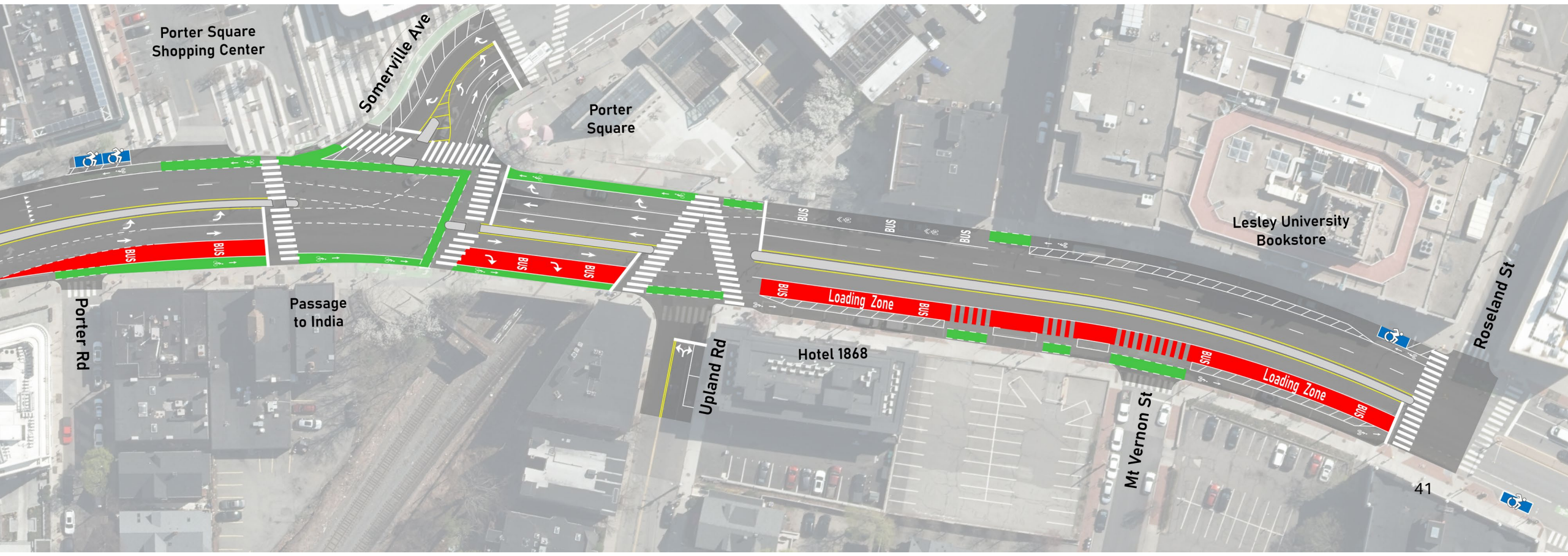
- Single travel lane for people driving starting just prior to Somerville Ave on Massachusetts Ave Southbound
- Introduces bus lane south of the square
- Requires elimination of second travel at Somerville Ave intersection
- Bus lane could be used as loading during certain hours of the day

Constraints

- Bus lane creates new traffic bottleneck
 - **People riding transit would experience 3 to 5 minutes of added delay before the bus reaches the bus lane**
 - **Lane would not serve the location where the traffic delay occurs**
 - **Same delay impact for transit riders as Alternative 2A**
- We cannot convert loading spaces into metered spaces unless overhead wires are removed
- Loading hours are limited

Alternative 2B

One travel lane, Bus lane with part-time loading, separated bike lanes



Alternative 3

Dedicated bus lanes in both directions

- Bus lanes improve travel times and reliability when implemented appropriately for bus operations
- Our analysis shows that all of Mass Ave north of Harvard Square would benefit from additional bus priority

However,

- Bus lanes only from Beech St to Roseland St do not provide intended benefit
- Creates new traffic bottlenecks north and south of Porter Square
 - Bus lanes would not be long enough to get around lines of cars
 - Connections to other facilities are needed so buses can avoid spillover congestion
- We can fully evaluate bus lanes as the Mass Ave 4 projects proceed
 - This would include an evaluation of bus lanes in Porter Square

Summary

Preferred Alternative	Alternative 2A	Alternative 2B	Alternative 3
Congestion and traffic is unaffected by project	Increases delay without addressing transit needs	Increases delay without addressing transit needs	Increases delay without addressing transit needs
No Loading or Parking on Mass Ave south of square	Loading between Upland Rd and Roseland St throughout the day	Loading between Upland Rd and Roseland St during certain hours	Loading between Upland Rd and Roseland St during certain hours

Next Steps

Project Schedule

Community Engagement

- In-person engagement this Saturday, March 19th
 - 10 a.m. to 2 p.m.
 - Lunder Arts Center, 1801 Mass Ave
 - We are monitoring weather forecasts for Saturday
 - If changes to event are needed, we will post online by Friday (3/18)
- Third community meeting expected to take place in late April

Project Implementation

- Project implementation will take place in 2022
 - Due to the need for continued engagement, we will not meet the original April 30 deadline for the project

Feedback

- We will take comments in the order hands are raised
- Additional questions can be asked using the Q+A function
- In order to allow everyone to speak, please try to limit your time to 1 minute
- Approximately every 15 minutes, we will provide answers to questions
- The meeting is scheduled to end at 8:00 p.m.

Contact Information

- Brooke McKenna, Assistant Director for Street Management
- 617-349-4723
- bmckenna@cambridgema.gov

cambridgema.gov/porter-square-cycling-safety