

Porter Square Safety Improvement Project

Community Meeting Roseland St to Beech St

Tuesday, April 26, 2022 | 6:00 p.m. | Zoom

Agenda

- Project Background
- Community Feedback
- Design Considerations
- What We've Changed
- Additional Details
- Summary + Next Steps
- Questions + Answers

Project Background

Project Area

Mass Ave between Roseland St
and Beech St



Cycling Safety Ordinance

- Builds on our policy foundation of supporting multimodal transportation
- Ordinance calls for quick-build on this section of Mass Ave this year
- Porter Square is the last major section of quick-build on Mass Ave
 - We are making small quick-build adjustments on Mass Ave near MIT this spring as well

www.cambridgema.gov/CyclingSafetyOrdinance



Image: Kyle Klein

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



Street Design vs Enforcement vs Education

Street Design

- A Safe System is human-centered approach to street design- engineered to prevent errors as much as possible and lessen the impacts of errors when they do happen.
- Shifts away from individual blame
- Keep road users safe by designing for the most vulnerable (e.g., people not in cars)
- Crash prevention is more effective than crash mitigation (e.g., helmets)

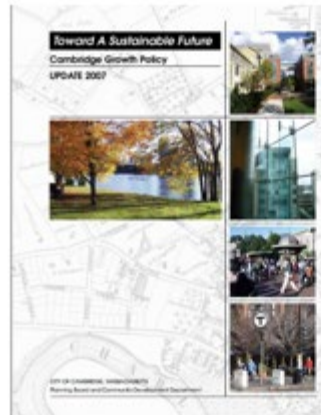
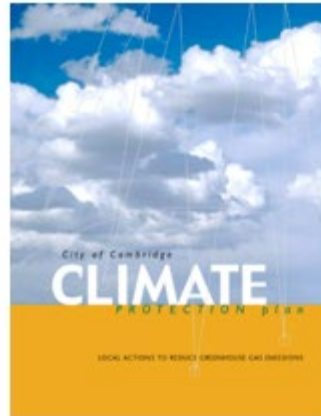
*Example: A momentary distraction can mean a driver doesn't see a cyclist or vice versa.
Providing separation between people in cars and people on bikes decreases the chances that a momentary distraction leads to a deadly crash.*

Enforcement and Education

- Enforcement and Education are supplemental to proper street design, not a replacement

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

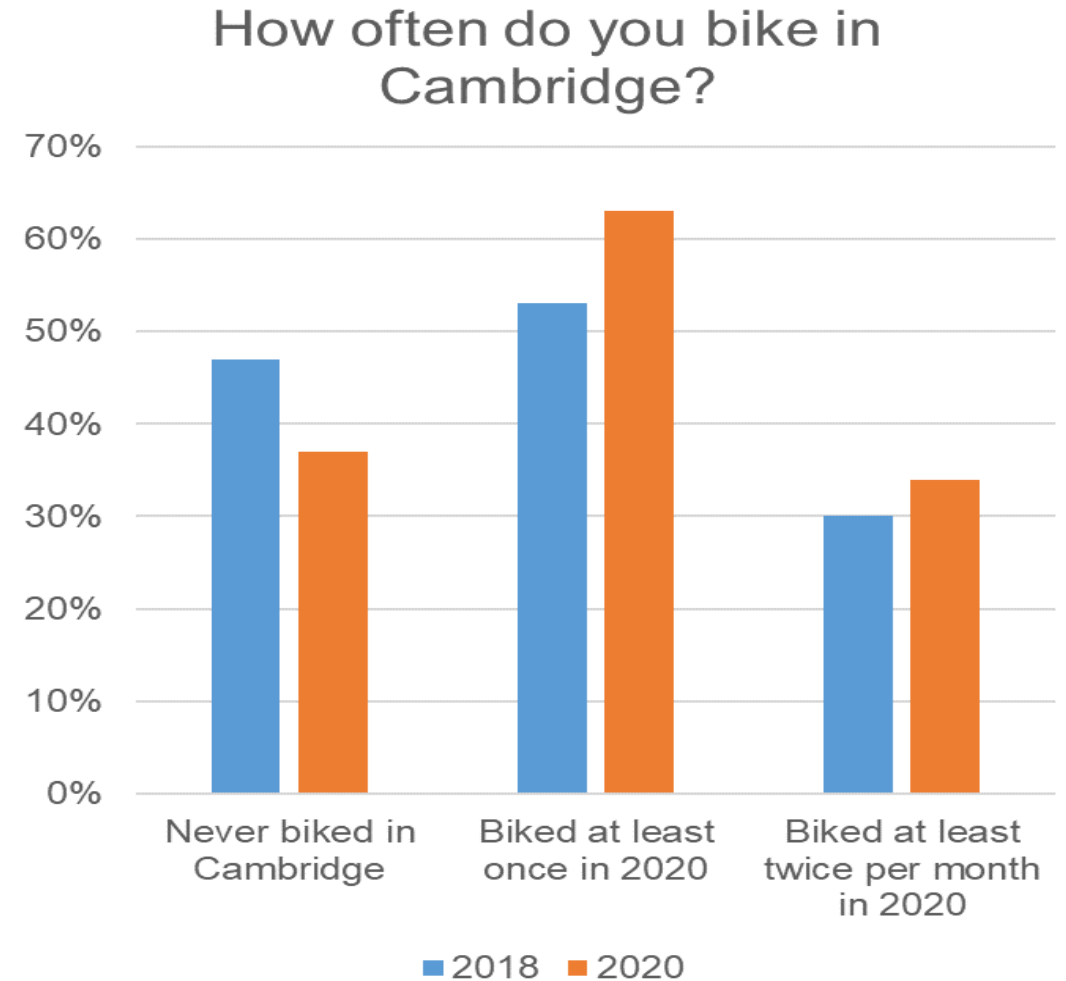


► Cycling Safety Ordinance



Cambridge Residents Biking

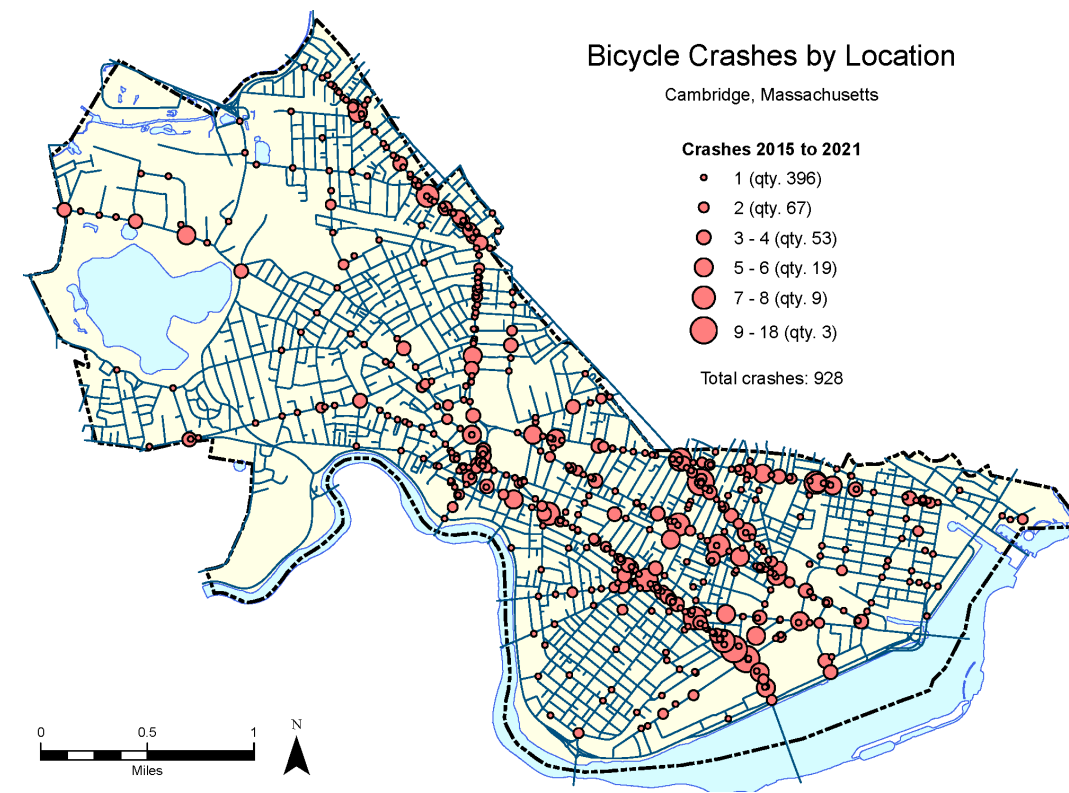
- Over 60% of Cambridge residents reported biking at least once in 2020
- Over 30% of Cambridge residents biked on a regular basis (2+ times per month)
- 53% of people who did not bike in 2020 wanted to bike more



Source: Resident telephone and online survey, 2020 ⁹

Crash data

- Porter Square is a high crash location
- Bicyclists are disproportionate involved in injury causing crashes



Crashes in Porter Square (Regent St to Arlington St, 2019 – 2022)

| Involved | Number of Crashes | Number of Injury Crashes | Share of Injury Crashes |
|------------|-------------------|--------------------------|-------------------------|
| Bicyclist | 8 | 7 | 70% |
| Driver | 42 | 1 | 10% |
| Pedestrian | 3 | 2 | 20% |

Total Crashes = 42, Source: Cambridge Police Department

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



Image: Main St - 2016

Vision For Mass Ave



Image: Ames St - 2017

Community Feedback

Survey Results

- We opened a community survey following to first meeting
- The goal of this survey was to obtain general project feedback that informs our design

What we heard

- Total number of responses - 1070
- Overwhelming concern about safety from all respondents
 - 774 total responses mention safety
- Other comments included:
 - Strong support for improved bike lanes
 - Retain as much parking as possible
 - Improve transit service
 - Support businesses and neighborhood vitality

What we'll do

- We are providing as much parking with the project area as we can, while still achieving the project's goal of safe, separated bike lanes

Community Feedback Survey

"Listen to business concerns"

"This project will make it feel more safe to bike and walk"

"Not enough to address pedestrian safety"

"Make Porter more reliable for transit riders"

"Concerned about safety and parking"

"I support the addition of protected bike lanes—I drive a car and am on edge because I don't want to hit a cyclist"

"Concerned that it will be only partially implemented"

Business Outreach

- On April 13, we visited businesses to provide information and receive feedback
- We shared a pamphlet about the project, which is posted to the project page

What we heard

- Provide as much parking and loading as possible while still meeting the project goals
- Desire to coordinate changes closely with businesses
- Modify side streets before making changes on Mass Ave
- Communicate directly and frequently with businesses

Porter Square Safety Improvements

City of Cambridge | Porter Square Safety Improvement Project

Project Background

To achieve a safe street design for people of all ages and abilities, safety improvements are coming to Mass Ave between Roseland Street and Beech Street

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
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Project Area



Mass Ave Today



Main Street - 2016

Vision for Mass Ave



Ames St - 2017

Key Features

Loading Zones



Accessible/disability parking



Metered Side Street Parking



| | | | |
|---|---|---|--|
|  Adds new accessible/disability parking spaces |  Improves safety for all users |  Adds separated bike lanes in both directions |  Removes metered parking on Mass Ave |
|  Creates new loading zone between Allen Street and Davenport Street |  Loading and valet on Upland Road |  Metered Parking on side streets |  Keeps two travel lanes |

Design Considerations

Porter Sq vs the MassAve4

- The MassAve4 refers to four sections of Mass Ave:
 - 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



Design Considerations – MBTA Overhead Wires

What we know right now

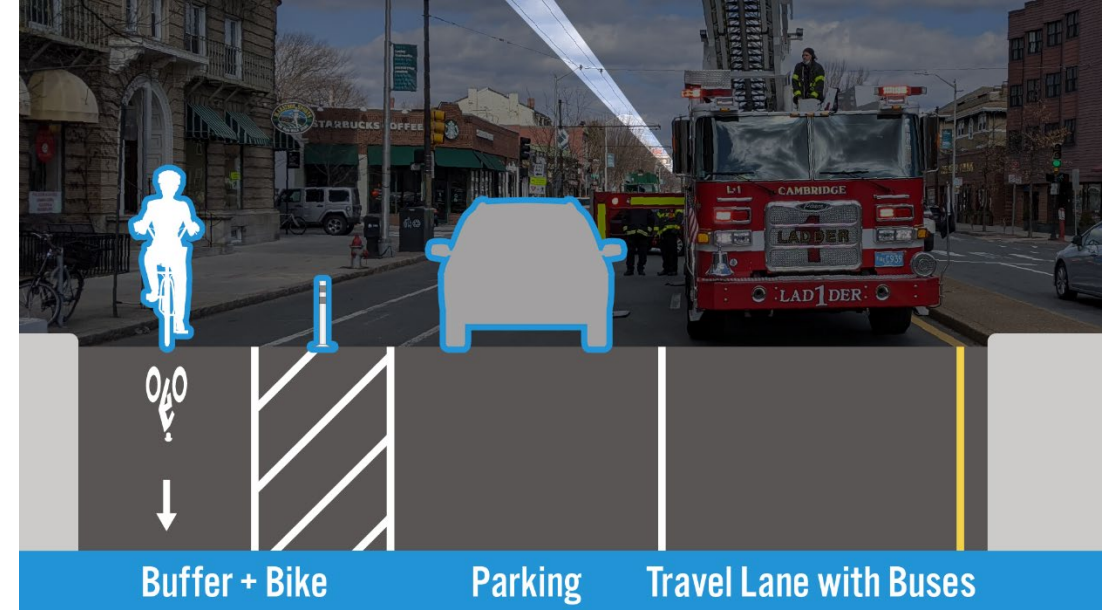
- Conversations with the MBTA are ongoing
- The MBTA is committed to taking down the wires
- Tonight, we are sharing a modified design that assumes the wires are removed in the near future

What this means

- Parking cannot “float” off the curb while the wires are up

However...

- We can install 30-minute loading



Design Considerations – Fire Response

- Conversations with the Cambridge Fire Department have progressed since our first work on Mass Ave last Fall
- What this means now:

On Streets with Overhead Wires

- We can install loading zones underneath the wires
- With loading zones, the driver of the vehicle is typically nearby and can move the vehicle during an emergency
- We have created a new regulation that allows for 30-minute loading



Image: Fire truck on Mass Ave

Design Considerations - Median

- The Mass Ave 4 team is looking at the median in Porter Square and on sections of Mass Ave to the north and south

What we know now

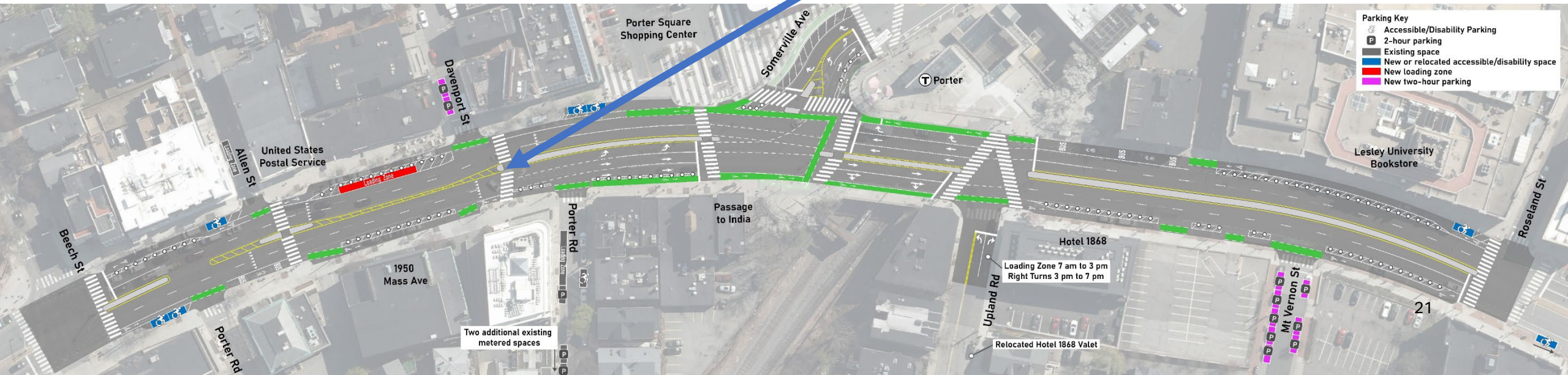
- The median provides refuge for pedestrians at crosswalks
- Because of the overhead wires, traffic signal equipment is located on the medians
- In some locations, removing the median requires deep excavation, for example, to relocate signal equipment and provide drainage



Design Considerations - Median

Beech St to Upland Rd

- Some of the median in this section is already removed
- Removing other sections would remove crossing islands for pedestrians or require significant work, such as deep excavation, the removal of signal equipment, or bridge work
- No further median removal in this section is recommended at this time



Design Considerations - Median

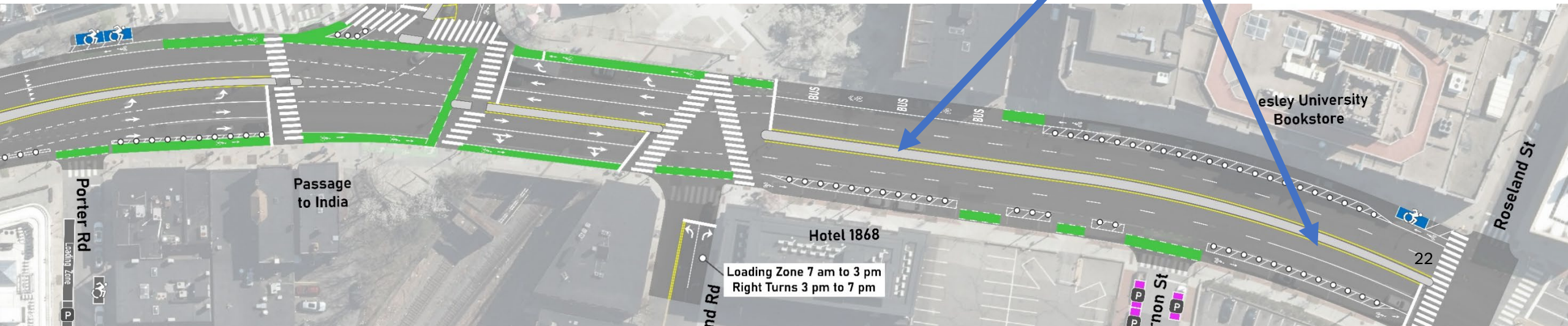
New

Upland Rd to Roseland St

- We need to keep the median in locations where we have traffic signals and crosswalks
- A long section of median, about 400', between Upland Rd and Roseland St has no traffic signal equipment and can be removed without deep excavation
- Doing so can provide more flexibility in our quick build design
- **We will remove approximately 400' feet of median between Upland and Roseland this spring and summer, leaving crossing islands in place at each intersection.**



Section of Median to be Removed



Design Flexibility with Median Removal

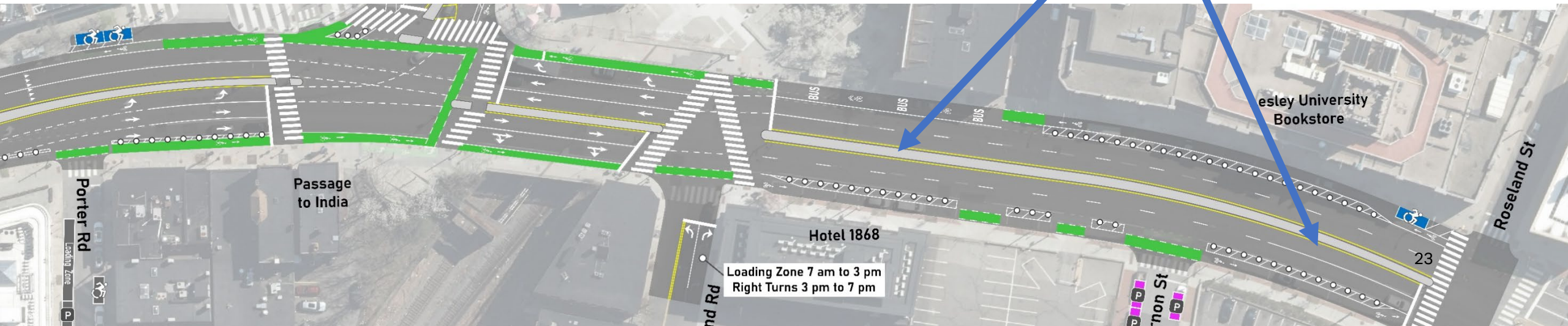
New

Upland Rd to Roseland St

- This will provide approximately 6 additional feet to work with in our quick build design
- We evaluated two uses for this space
 - Valet/Loading
 - Bus priority
- Based on community and business feedback, we will be installing valet/loading



Section of Median to be Removed



Evaluation of Loading and Valet

Loading and Valet

- We heard significant community concerns over valet on Upland Road
- We heard significant community concerns about removal of parking negatively impacting small business.
- We heard significant desire for metered parking when constraints (e.g. overhead wires) are removed

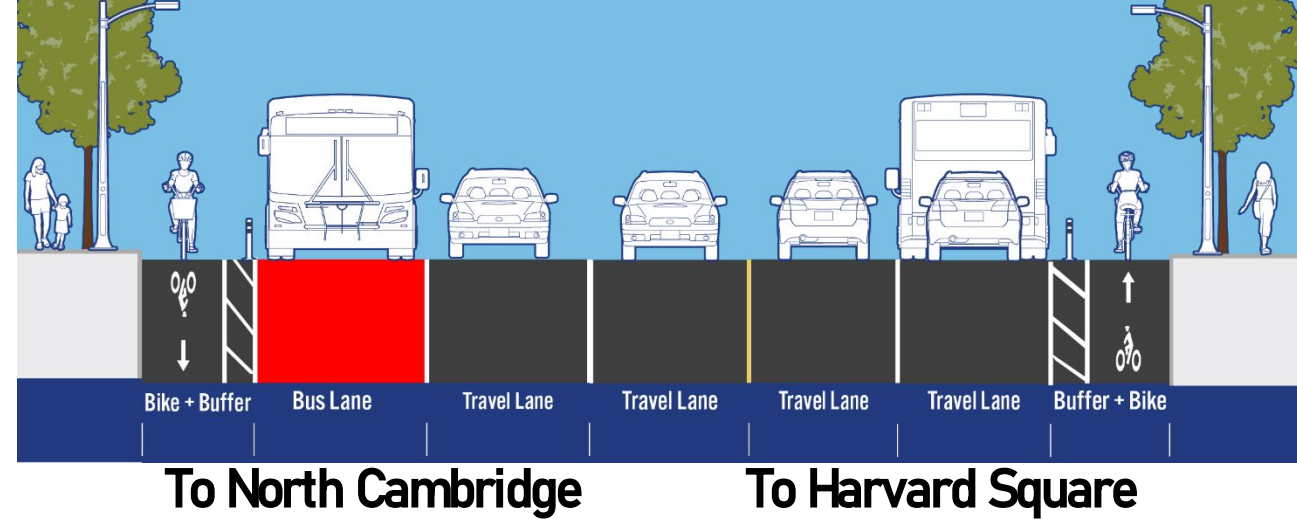
Benefits

- This reduces neighborhood impacts related to the valet and increases access to local businesses
- When the overhead wires are removed, we can reevaluate if we should convert these spaces to longer term parking (1-2 hours) or remain loading (15-30 minutes).
- This could add 4-6 metered spaces on Mass Ave in the future and provides 30-minute loading and valet in the near term



Evaluation of Alternatives

- Bus Priority

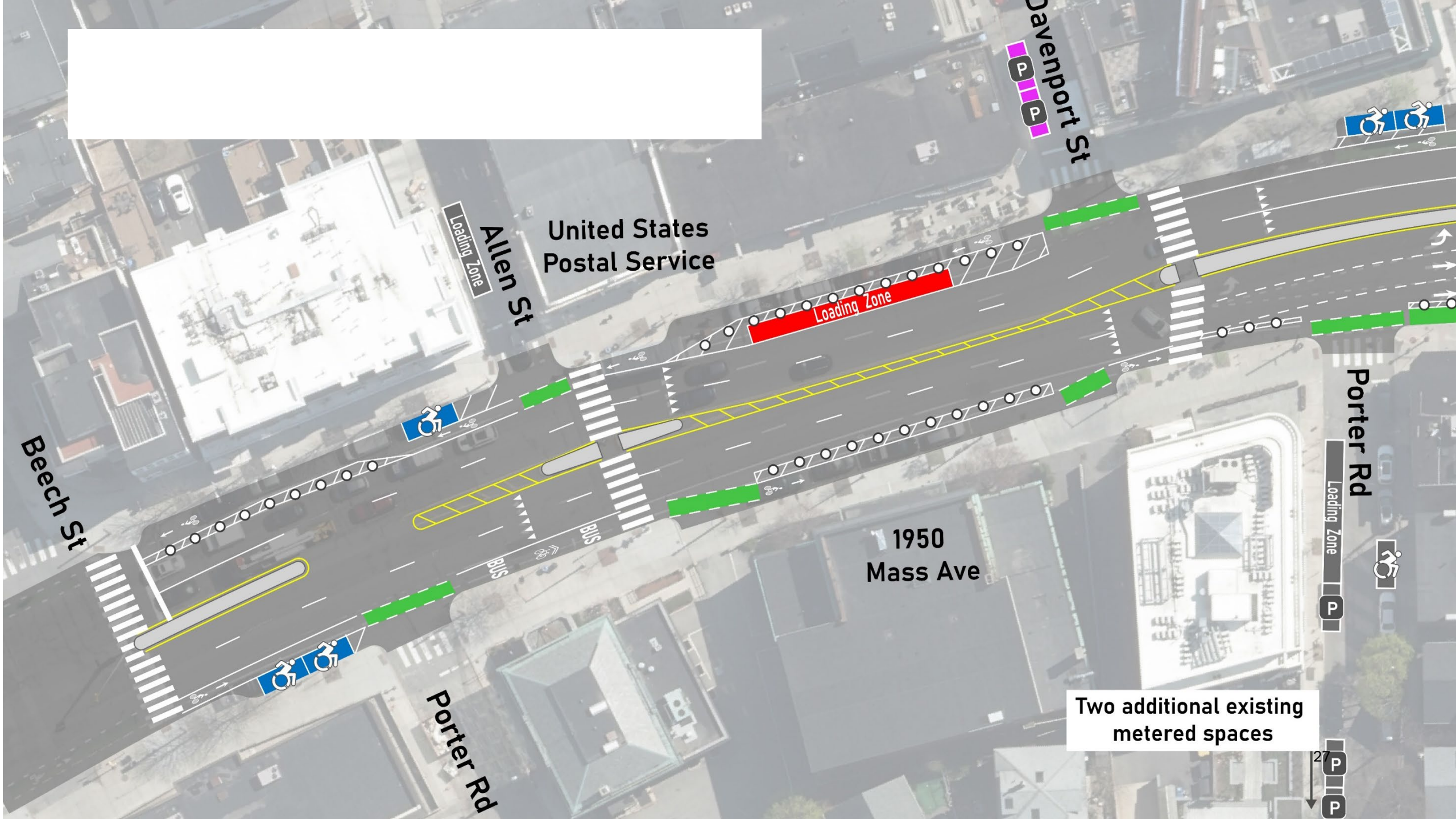
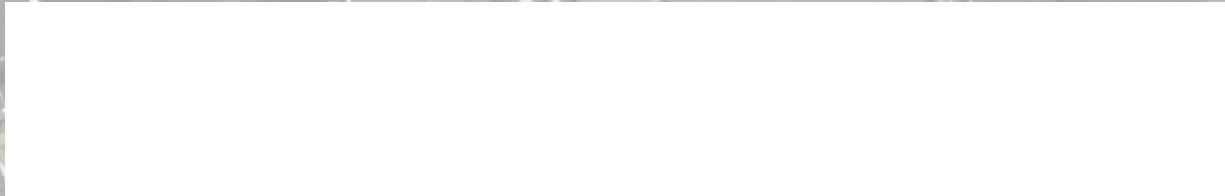


- Removal of the median and narrowing of travel lanes could provide enough space to add a section of dedicated bus lane from just north of the Roseland intersection to connect to the bus stop next to Porter Square station.
- Transit riders experience significant delay and unreliability in Porter Square
- Delay is most severe in the northbound direction
- We heard significant community desire for more bus priority on Mass Ave

Discussion of tradeoffs

- We are not implementing a bus priority lane now, but will evaluate bus lanes through Porter Square as part of the Mass Ave 4 projects
- The MassAve4 project offers the opportunity to discuss a longer bus lane along the rest of the Mass Ave corridor north of Harvard Square
- Providing loading and parking now does not preclude transit priority in the future

What We've Changed



United States
Postal Service

Allen St

Loading Zone

Beech St

Porter Rd

1950
Mass Ave

Two additional existing
metered spaces

Porter Rd

Loading Zone

Davenport St

Beech St to Porter Rd – Key Features

Northbound Loading Zone – Allen St to Davenport St

What we heard

- Clarify who can use a loading zone
- Extend the amount of time it can be used

What we'll do

- We will create a new loading regulation that allows for 30-minute parking by all vehicles
- Signage will indicate the 30-minute limit
- Other loading zones in the city will retain their current regulation:
 - 15 minutes for passenger vehicles, 30 minutes for commercial vehicles

Beech St to Porter Rd – Key Features

Accessible/Disability Parking

- On Monday, April 11 we conducted a site walk with Cambridge's Americans with Disabilities Act (ADA) Coordinator
- On Thursday, April 14, we presented changes to accessible/disability parking at the Cambridge Commission for Persons with Disabilities

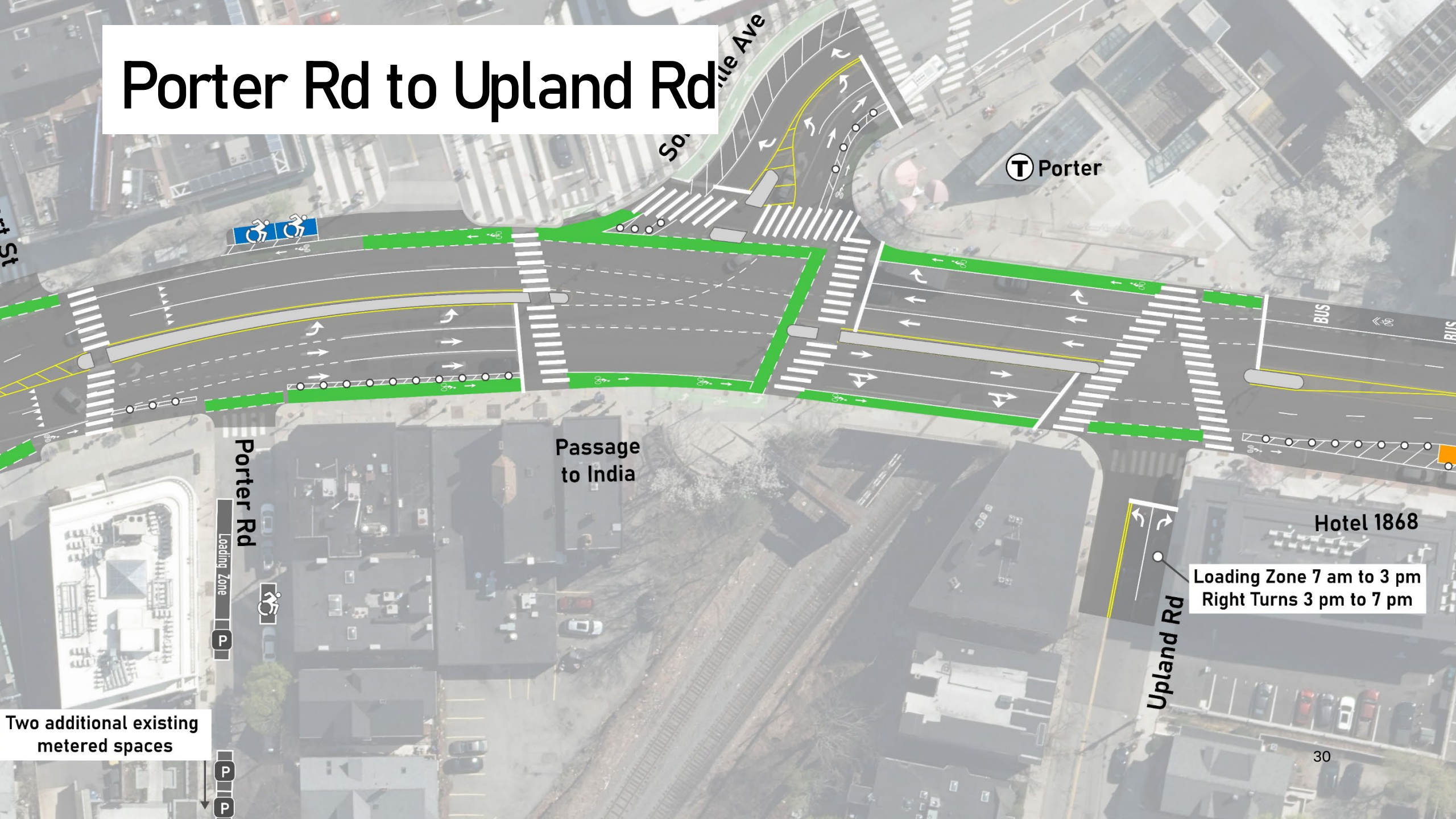
What we heard

- Address sidewalk accessibility where the new spaces are proposed
- Place spaces close to crosswalks

What we'll do

- Implement additional features to better serve people with disabilities
- Relocate items on the sidewalk that block spaces

Porter Rd to Upland Rd



T Porter

Passage
to India

Hotel 1868

Loading Zone 7 am to 3 pm
Right Turns 3 pm to 7 pm

Upland Rd

Porter Rd

Loading Zone

Two additional existing
metered spaces

Porter Rd to Upland Rd – Key Feature

Modifications on Upland Rd

What we heard

- Thoroughly analyze traffic impacts
- Mitigate cut-through traffic on Mt Vernon St
- Restrict parking during afternoon rush

What we'll do

- Instead of parking, we will only allow short-term loading
- No loading or parking will be allowed between 3 pm and 7 pm

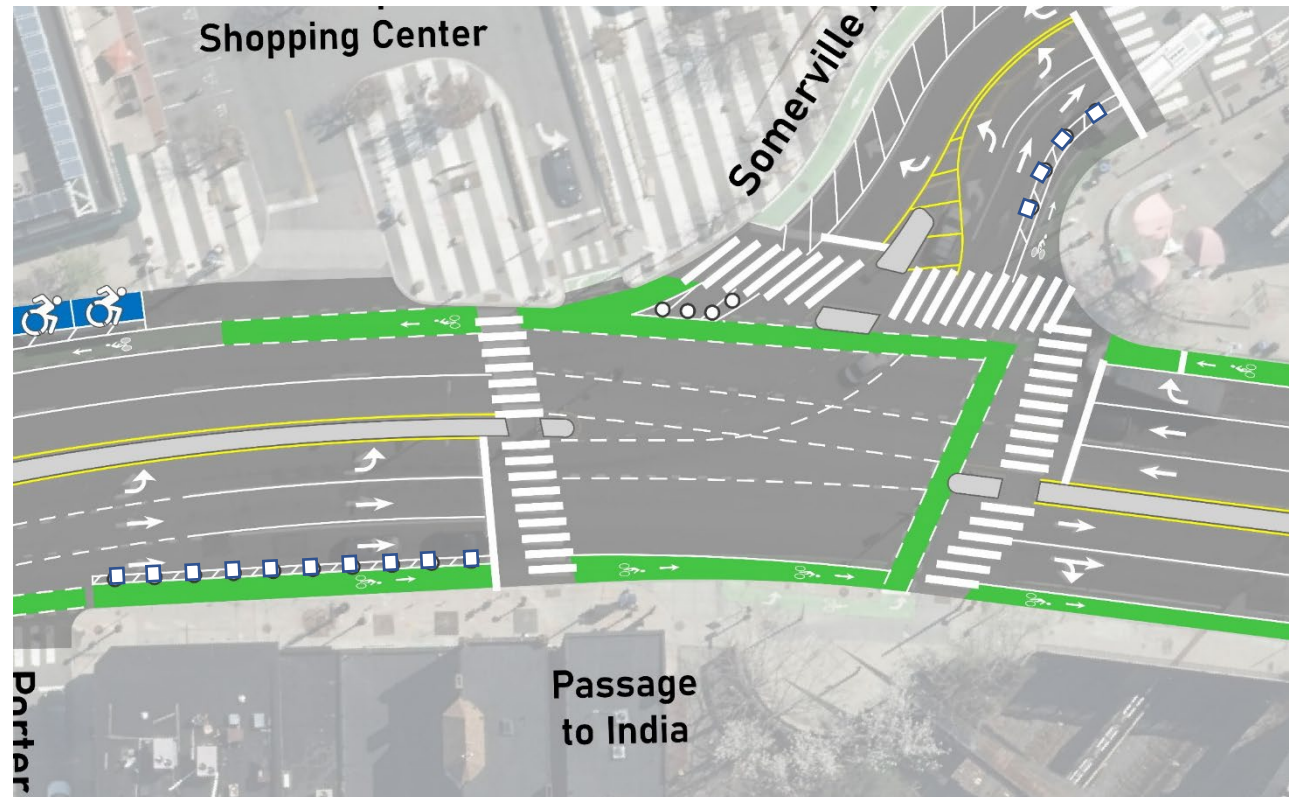
Porter Rd to Upland Rd – Constrained Sections

What we heard


- Add separation in constrained sections

What we'll do

- Flex-posts are added as shown in two separate locations
- Travel lanes on Mass Ave Southbound approaching Somerville Ave are narrowed
- No separation on the MBTA bridge



Upland Rd to Roseland St

 Porter

Parking Key



 Accessible/Disability Parking



 2-hour parking



 Existing space



 New or relocated accessible/disability space



 New loading zone



 New valet zone



 New two-hour parking

Lesley University
Bookstore

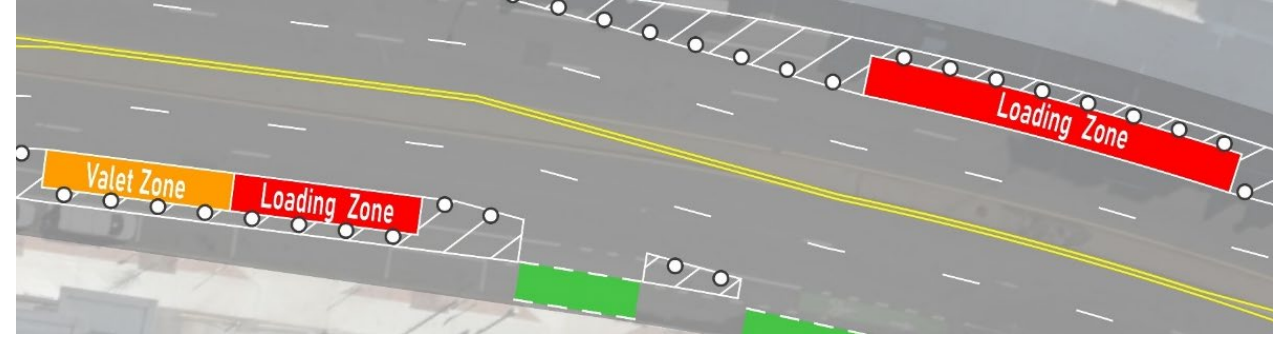
Hotel 1868
Loading Zone 7 am to 3 pm
Right Turns 3 pm to 7 pm

New

Mt Vernon St

Roseland St

Upland Rd to Roseland St – Key Features



Floating Loading and Valet What we heard

- Concerns about relocation of valet zone to Upland Rd
- Desire to support neighborhood businesses with curbside loading

What we'll do

- We are including loading and valet in the latest plans:
 - Two valet spaces on Mass Ave
 - Approximately 40 ft of loading zone southbound
 - Approximately 80 ft of loading zone northbound



Upland Rd to Roseland St – Key Features

Extended bus stop at Porter Square Station

What we heard

- Likely use of bus stop for illegal parking

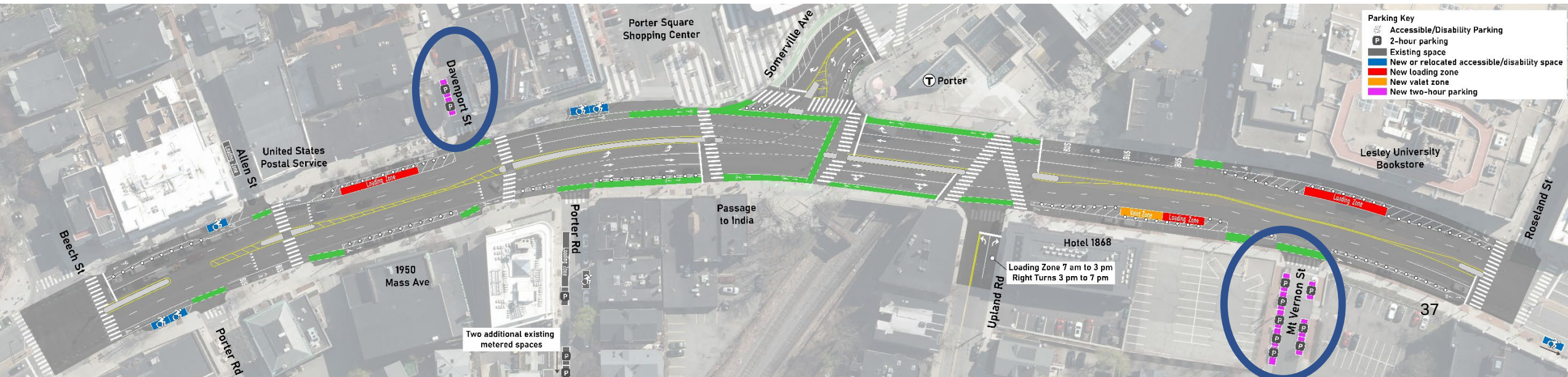
What we'll do

- We have provided loading nearby to address demand in the area
- We will monitor use of the bus stop
- If the extended bus stop is not meeting its intended goals, we will address issues as they arise

Additional Details

Side Street Metered Parking

- We have heard a strong desire from business owners to provide parking
- Metered parking will be added to some side streets
- Some parking will remain on Mass Ave (30-minute loading zones, accessible/disability parking, valet)



Side Street Metered Parking, cont.

- Mt Vernon St
 - 8 total 2-hour parking spaces are proposed
 - 5 on the north side, 3 on the south side
 - No parking changes in front of residences
- Davenport St
 - Two new 2-hour metered spaces created in an unneeded “No Stopping” area

Parking Summary

- We are retaining or adding a significant amount of parking
- Despite the removal of 31 metered parking spaces on Mass Ave, the net loss in non-resident parking in the area is only 7 spaces

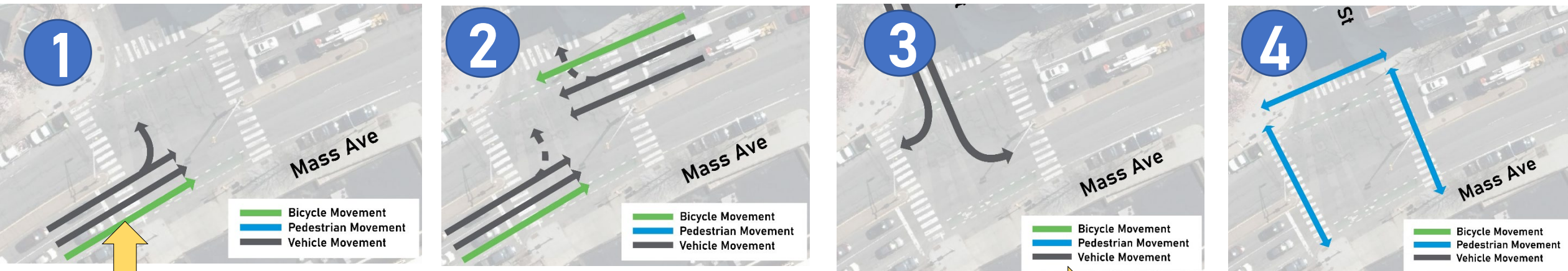
| | Metered Parking | 15-minute Loading | 30- minute Loading | Accessible/ Disability Parking | Valet | Taxi Stand |
|---|--------------------|----------------------|-----------------------|--------------------------------------|-------|------------|
| Mass Ave | | | | | | |
| Remove | -31 | | | | | -2 |
| Retain | | | | 1 | 2 | |
| Add | | | +10 (Approx.) | +4 | | |
| Side Streets (Davenport St, Upland Rd, Porter Rd, Mt Vernon St) | | | | | | |
| Retain | 4 | 4 | | 1 | | |
| Add | +10 | +2 | | | | |
| Net Change (+/-) | -21 | +2 | +10 (Approx.) | +4 | | -2 |
| Total | | | | | | -7 |

Mass Ave at Beech St – Signal Timing

- Changes to signal timing will address safety concerns without increasing delay for transit
- People will be able to cross Beech St while traffic on Mass Ave is moving
 - A compliance study found that about 70% of people already cross Beech St while traffic on Mass Ave is moving
- People walking and biking will have a head start
- Left turns onto Beech St from Mass Ave Southbound will have a dedicated arrow at the end of the signal cycle instead of at the beginning

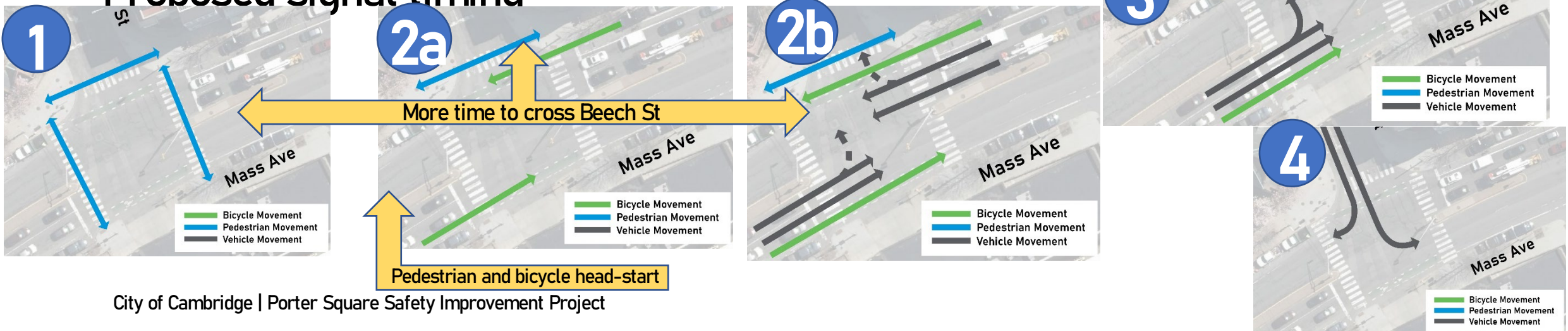
Mass Ave at Beech St – Signal Timing, cont.

Existing signal timing



Switching when left turns onto Beech St go allows for additional pedestrian crossing time

Proposed signal timing



More time to cross Beech St

Pedestrian and bicycle head-start

Summary + Next Steps

Project Schedule

Project Implementation

- **May 2022:** Changes to side-street parking
- **May-July:** Changes to Mass Ave
 - Work is weather dependent
 - Exact dates are not determined
 - Median work would occur during the day
 - Most pavement markings will occur at night
 - Parking restrictions will be posted at least 48 hours in advance

Questions + Answers

Communications

- We will continue to communicate as we reach implementation

Stay Informed

- Sign up for the mailing list for the latest updates as implementation approaches
- Sign up for the City's daily email updates
- Visit the project webpage below for the latest information

cambridgema.gov/porter-square-cycling-safety

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