



Welcome!

Cambridge Cycling Safety Ordinance Advisory Group Meeting 5: July 25, 2023

Quick check-in as you arrive: What's your favorite summer food/meal?

Agenda

4:00 Welcome

4:10 City Updates

4:30 Mid-Mass Ave Design Process and Decision Making

5:45 Next Steps

5:50 Public Comment

6:00 Adjourn

Discussion Guidelines

- Respect all participants (members, staff, public)
- Bring as much eagerness to listen deeply for understanding as to speak
- Be curious about and open to different perspectives and sources of information
- Keep the focus on what we can create together
- Do not stereotype groups
- Focus on the issues, including raising perspectives and concerns from relevant stakeholder groups

City Updates: Economic Impact Study

- Two meetings in the past month:
 - July 17 information session on study methodology and data sets (presentation is posted online)
 - July 20 Economic Development & University Relations Committee meeting
- July: Surveys sent to retail, personal services, professional, and medical businesses in Cambridge
 - Translated into 7 languages: Amharic, Arabic, Haitian Creole, Korean, Portuguese, Simplified Chinese, Spanish
- July 10 to August 10: Sidewalk customer surveys in commercial areas
 - Future surveying will be conducted in Fall 2023 and Winter 2024
- Fall 2023: Report release and Council presentation
- Ongoing long-term reporting planned
- New webpage to find updates:
www.cambridgema.gov/CDD/Projects/EconDev/cyclingsafetyordinanceeconomicimpactstudy

Project Updates: Brattle Street

- Road markings are complete to add two-way bike lanes between Sparks Street and Mount Auburn Street.
- Temporary cones are separating the bike lane from the travel lane. We will install concrete curbs, flex posts, and final project signage in the next few weeks.
- There is now a two way bike lane running the length of Brattle Street, from Harvard Square to Mount Auburn Street.



Project Updates

- **Hampshire Street**: Sidewalk reconstruction work is underway to ensure sidewalks and ramps comply with ADA. We are installing metered spaces on Prospect Street, and adding two accessible spaces on Inman Street and Prospect Street. Next, we will mill and pave the road, install new pavement markings, and install flex posts.
- **Huron Ave and Cushing Plaza Improvements**: Curb and sidewalk construction, including ramp repairs, continue.
- **Main Street**: Survey open for feedback on design options, planning more outreach.
- **Mass Ave Partial Construction Project**: First of two working group site walks is scheduled for August 3.
- **River Street Infrastructure and Streetscape Project**: Water, sewer, and drain work continue.

Learn more at www.cambridgema.gov/cso-projects.

Mid-Mass. Ave. Design Process and Decision-Making

- Discussion of the design process for the Mid- Mass Ave Safety Improvement Project (between Central and Harvard)
- Explanation of how we weigh decisions and design options for CSO projects in the context of limited street space

Background + Context

- In Fall 2021, the City installed .92 miles (.46 miles in each direction) of separated bike lanes on Mass Ave between Trowbridge Street and Inman Street.
- The Cycling Safety Ordinance required us to install separated bike lanes on this section of Mass Ave by May 2022.
- Timeline:
 - March 2021: Posters placed in project area with information on draft design plans. Community members invited to weigh in via web map, comment forms, web conferences, phone + email conversations.
 - May 26: Online community meeting on updated plans.
 - May to June: Second community feedback period.
 - August – September: Installation



MID-MASS AVE

Design Considerations and Limitations



What width requirements do we have?

- Standards for minimum travel and parking lane widths:
 - 10-foot travel lanes (10.5-foot for streets with a lot of buses and trucks)
 - 7-foot parking lanes (8-foot for loading/trucks)
- City minimum for separated bike lanes: 8 feet
 - 7-foot minimum between curb and flex posts
 - 1-foot: size of flex post and white line on other side of flex post
- Why can't we have narrower bike lanes?
 - 7 feet: Minimum to fit street sweeping and snow removal equipment between the flex post and the curb.
 - Door zone: We need to give enough hatched-off buffer space between parking lanes and bike lanes so that people in cars don't open doors into people biking.
 - Bike lanes should fit all types of bikes, including cargo bikes and recumbent cycles.
- Standards are common to other cities

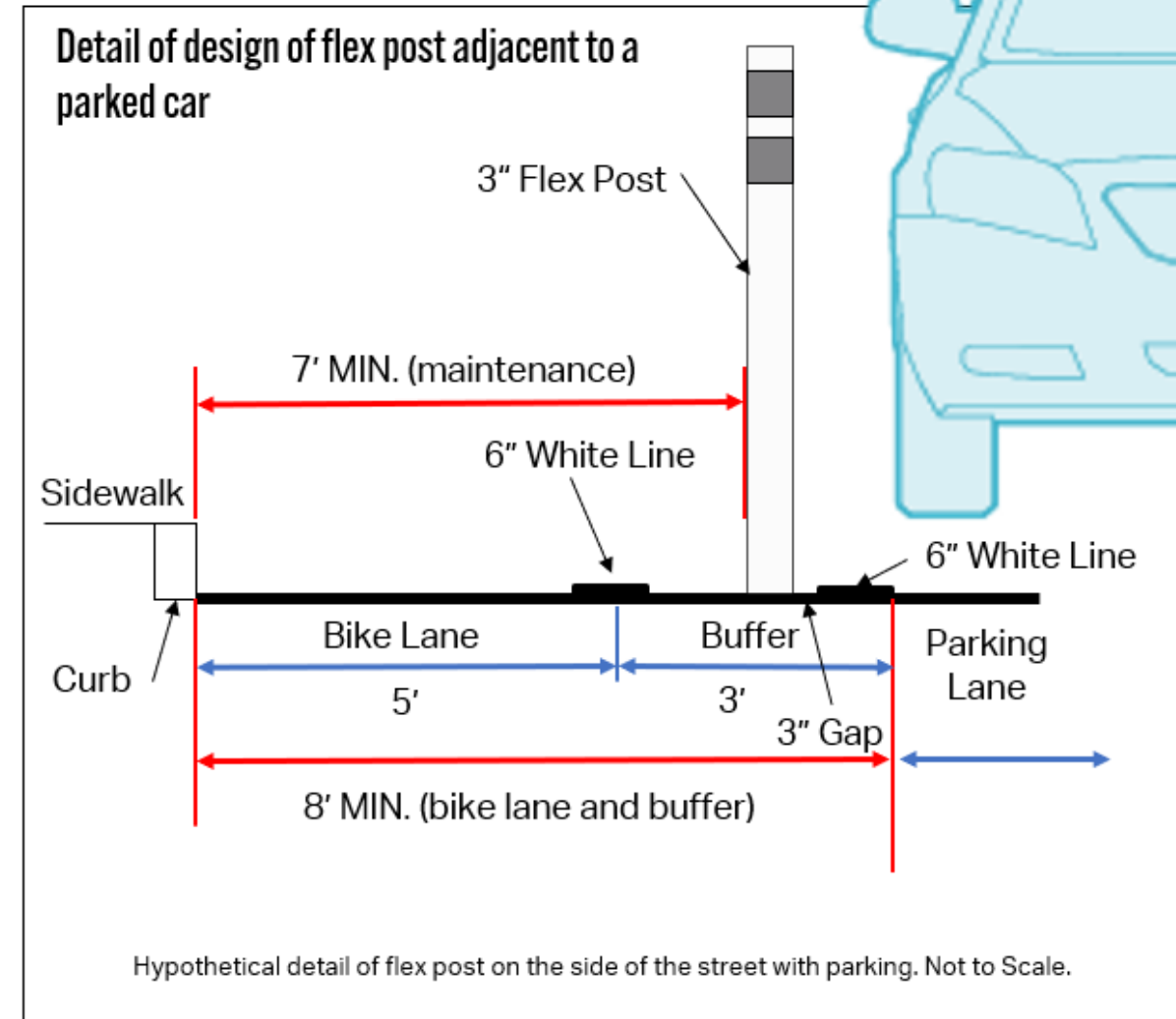




Photo Credit: Fort Collins Bikes



Separated bike lane width best practices

- [Federal Highway Administration Separated Bike Lane Planning and Design Guide:](#)
 - “Total width between the curb and vertical element should be at least the fleet maintenance vehicle width. Widths narrower than 7 feet often require specialized equipment.”
- [MassDOT Separated Bike Lane Planning & Design Guide:](#)
 - Bike lane width: 6.5 feet recommended for less than 150 cyclists/hour, 5 feet minimum
 - Buffer area + flex post width: 6 feet recommended, 2 feet minimum
- [Denver Bikeway Design Guidelines:](#)
 - One-way protected lane dimensions: 5 feet minimum width
 - Buffer dimensions: 3 feet minimum width
- [New York City Street Design Manual:](#)
 - One-way protected bike lane dimensions: 4 feet minimum width
 - Buffer area dimensions: 3 feet minimum width
- [Capital Regional District Pedestrian and Cycling Master Plan Design Guidelines \(British Columbia, Canada\):](#)
 - Physically separated bike lane minimum width: 2.5 meters (8.2 feet)
 - Buff zone width: 0.6 to 1 meters (1.6 to 3.3 feet)

Street Width on Mid-Mass Ave

- To fit one parking/loading lane, two travel lanes, and separated bike lanes, space between curbs must be at least 43 feet wide (~45 feet for trucks/buses/loading).
- To fit two parking/loading lanes, two travel lanes, and separated bike lanes, space between curbs must be at least 50 feet wide (~53 feet for trucks/bus/loading).

- Trowbridge Street to Bay Street

(orange): ~41 feet

- No Parking/Loading

- Bay Street to Bigelow Street

(blue): ~44.5 feet

- One lane Parking/Loading

- Bigelow Street to Inman Street

(purple): ~48.5 feet to ~51.5 feet

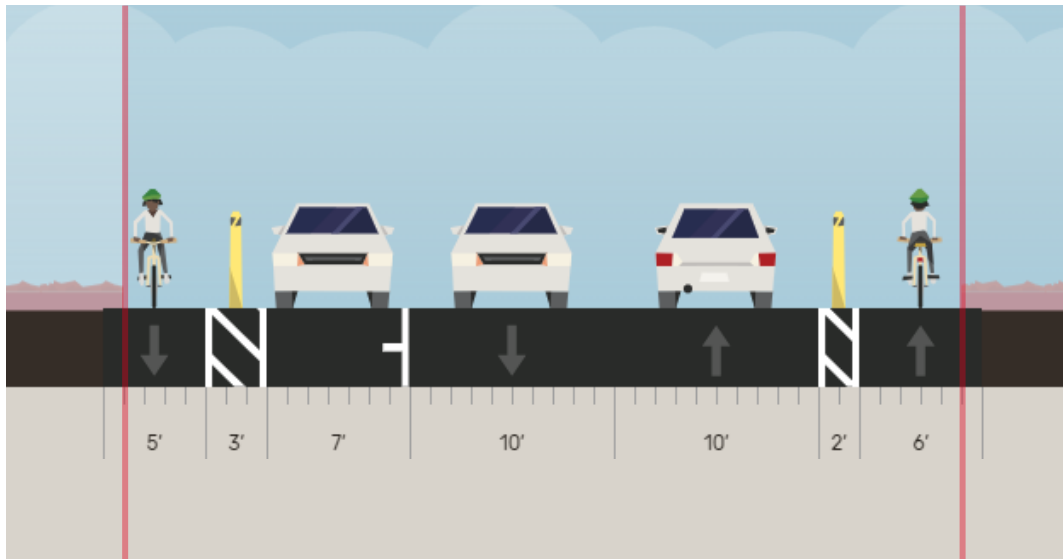
- Two lanes of parking/loading for a small portion of the block



Street Width on Mid-Mass Ave

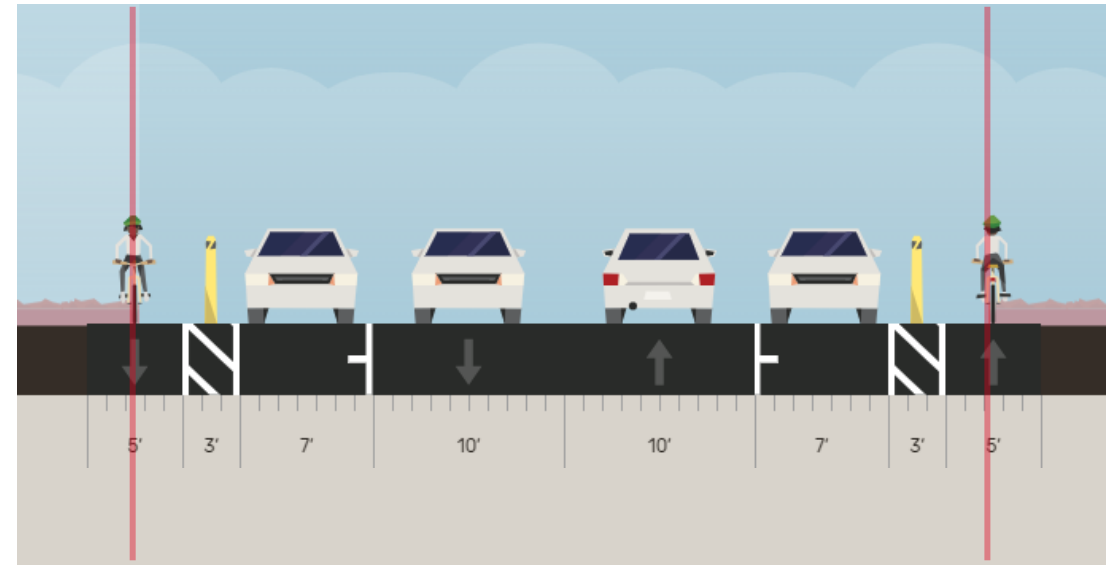
Trowbridge Street to Bay Street

- Width: 41 feet
- Needed to fit a parking/loading lane: At least 43 feet (~45 feet to meet minimums for trucks/buses)



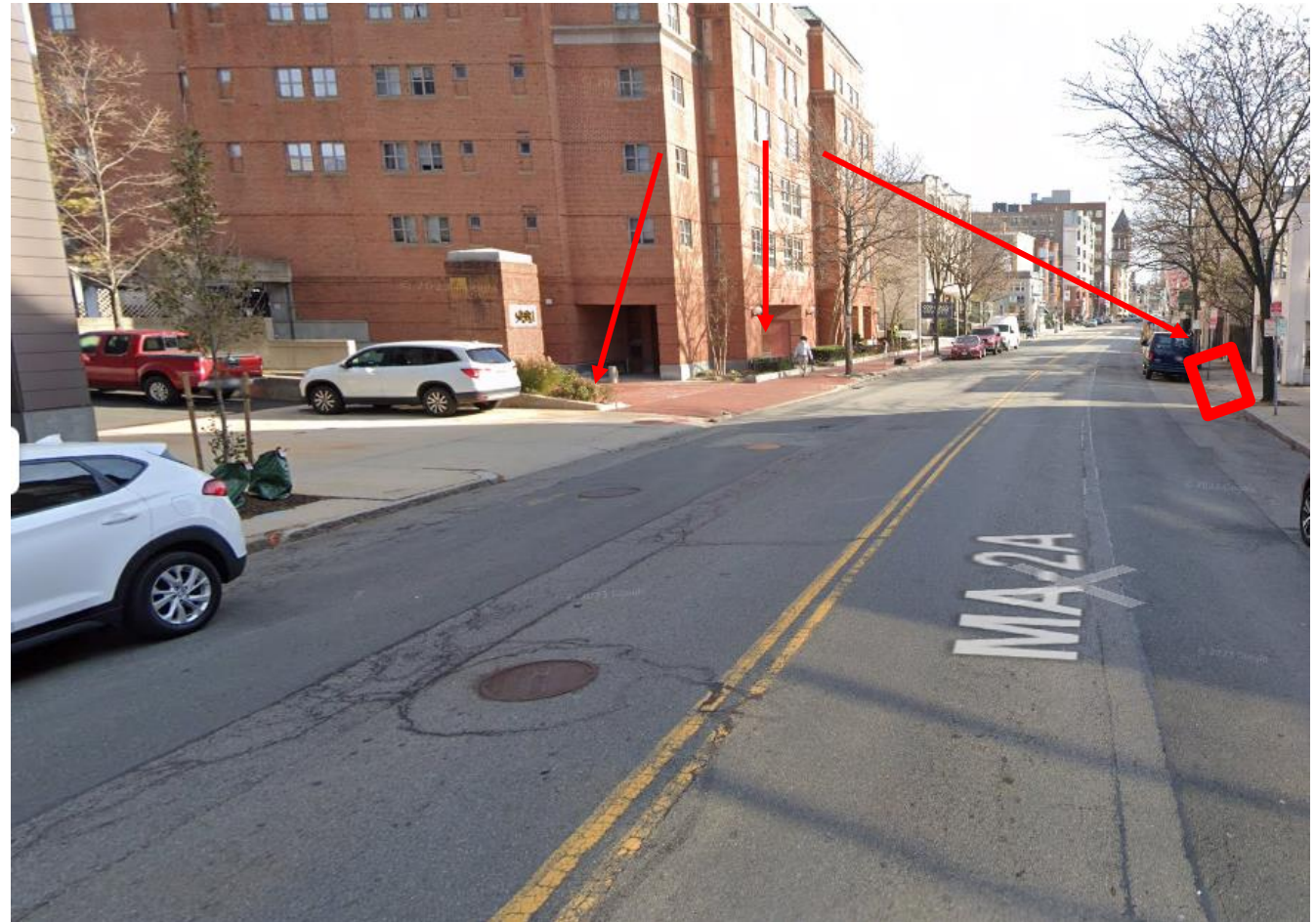
Bay Street to Bigelow Street:

- Width: 44.5 feet
- Needed to fit two parking/loading lanes: At least 50 feet (~53 feet to meet minimums for trucks/buses)



Driveways, Curb Cuts, and Parking

- The number of curb cuts, side streets, and driveways impacts the number of parking spaces we can fit on one side of the street.
 - More curb cuts, driveways, etc. = less parking
 - Fewer curb cuts = more parking
- Decisions when choosing the side of the street to put parking on:
 - Optimize # of spaces?
 - Where is it important to have meters or loading? Balance proximity and quantity of spots
 - Community feedback



Mass Ave near Hancock Street, 2020 (© Google Streetview)

Other Considerations

- **Safety and visibility**
 - Daylighting: Space where there's no parking allowed near crosswalks, curb cuts, and corners so that drivers' views of the crosswalk, bike lane, and side streets aren't blocked by parked cars.
 - More daylighting space is needed when bike lanes are behind the parking lane.
- **Should parking lane side be consistent for the whole corridor?**
 - Switching the sides that parking is on gives opportunity for cars traveling in either direction to park without turning around.
 - Keeping the parking side consistent for a while is more predictable.
 - Switching parking sides from one side to another is an option. This creates a shift in the travel lane (chicane) that slows traffic.



Other Considerations

- **What are the buildings on each side of the street?**
 - Are there businesses? What are their needs for the curb? (Customer parking, quick pick up/drop off, loading, etc.)
 - Are there residential buildings? Do most residences have driveways or off-street parking?
- **Fire hydrant locations**
- **Outdoor dining**
- **Bus stops and accessible parking** (have more design flexibility than other curb uses in the CSO)



MID-MASS AVE

Decision-Making

With design considerations and limitations in mind, how do we make decisions?



Questions for Community

- Which side of the block should we keep parking on? *(Can switch sides between blocks.)*
- What should parking regulations be?
 - As part of each project, we can change the mix of loading zones, meters, accessible spaces, permit-only spaces, etc. on the street.
 - We do our best to balance parking needs of businesses, residents, workers, shoppers, etc.
- Should we move the bus stop in front of City Hall to create new parking spaces?
- How should we change parking on side streets? *Some examples on Mid-Mass Ave:*
 - Adding new metered spaces and loading zones



Signs were different based on what questions we were asking about each block.

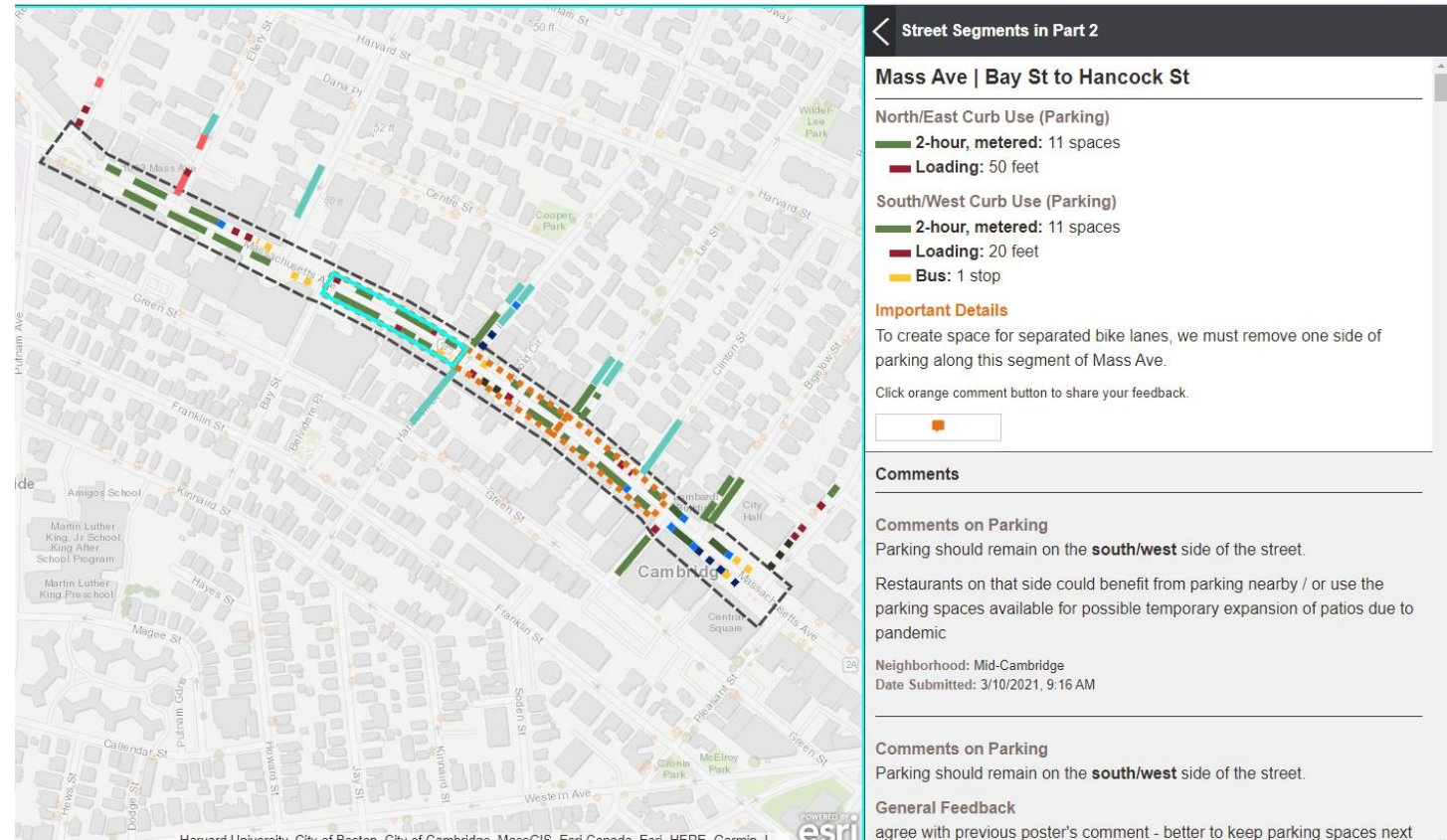
Feedback on Mid-Mass Ave

March 2021: Online feedback map and comment form about which side to keep parking on for each street section.

- 500 comments (about 125 commenters)

March-April 2021: Business survey on delivery and parking needs, opportunity to schedule one-on-one conversations. 50 businesses received flyers to inform them about the survey.

- 17 responses



Online feedback map.

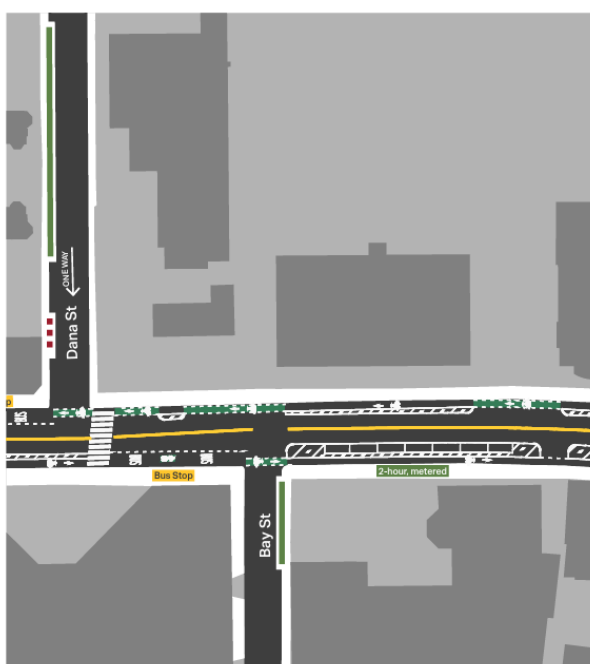
Feedback on Mid-Mass Ave

May 2021: Community meeting presenting the design and proposed parking changes.

May-June 2021: Comment period on designs shared at community meeting. Community members could fill out a feedback form or email project staff.

- 30 comments

Dana St to west of Hancock St



The diagram illustrates the proposed safety improvements for Mid-Mass Ave between Dana St and Hancock St. It shows a street layout with Dana St on the left and Bay St on the right. A bus stop is located on Dana St. The diagram highlights changes to the 2-hour metered parking spaces and bus stop area. A legend on the right details the 'General Improvements' and 'Parking Changes on Mass Ave'.

General Improvements

- New crosswalk signs at Dana St
- New high-visibility signs at the bus stop
- Separated bike lanes in both directions
 - Shorter crossing distances for people walking
 - Increased safety and comfort for people biking

Parking Changes on Mass Ave

Before	After
2-hr meter: 10 spaces	2-hr meter: 7 spaces
Bus: 1 stop	Bus: 1 stop
Loading: 30 feet	

City of Cambridge | Mid-Mass Ave Safety Improvement Project

Slide from May 2021 Community Meeting

Decisions on Mid-Mass Ave



Based on community feedback, we **kept parking on the south side of the street.**

We could keep more parking and loading spaces on the south side, because there are more side streets and curb cuts on the north side of the street.

On every block, more community support for keeping parking on south side of the street.



On Mass Ave itself:

Prioritized metered parking.

We kept existing outdoor dining and one loading zone.



In front of City Hall:

We prioritized accessible parking for people with disability plates/placards, accessible loading, accessible taxi stand, and bus stops.

Kept the existing bus stop location.

We choose these uses instead of metered spaces.



On side streets:

Changed 8 unrestricted and non-metered spaces to two-hour meters.

Changed 13 permit-only spaces to two-hour meters.

Added 4 two-hour meters in former "no parking" areas.

Changed 3 unrestricted spaces to a large loading zone.

Added 1 loading zone in a former "no parking" area.

More changes after installation.

Changes After Installation

- Changed a metered space on Mass Ave near Hancock Street to an accessible space
- Changed a metered space on Hancock Street to an accessible space
- Changed "No Stopping" area on Hancock Street to a loading zone
- New accessible space on Ellery Street



A worker installs new lines on Mass Ave

Street Design Process Summary

1

Look at width of street between curbs and determine what we can accommodate in addition to separated bike lanes

2

Keep parking and loading where possible with space constraints

3

Ask community feedback about what type of parking/loading spaces to keep, and where

4

Monitor after installation and adjust to address issues

For each corridor, our final design reflects constraints and conditions, and is as responsive as possible to community feedback.

- Any questions?
- Any feedback on how we can make this process clearer for the community?
- Anything particularly helpful in clarifying (or that remains unclear) that we can emphasize in future presentations?

NEXT STEPS

- ❑ What would you like to cover in upcoming meetings?
 - ❑ *What does success look like for this group?*
 - ❑ *Wave 4/Post-installation Phase*
 - ❑ *Continue to look at engagement and outreach strategies:*
 - ❑ *How to effectively connect with harder-to-reach stakeholders? What channels and liaisons can the City work through?*
 - ❑ *Messaging about overall plan and goals for the CSO*
- ❑ Next meeting: Tuesday September 26, 4-6 PM (Hybrid)

Check out the CSO Advisory Group website for resources and info:
camb.ma/cso-advisory-committee

PUBLIC COMMENT

Public comments welcome

- Share thoughts in Q&A or verbally
- To comment verbally, raise your hand (virtual or in-person) or signal interest in Q&A window
- Limit comments to 2 minutes; may need to adjust if many speakers

Please keep all comments...

- On-point
- Respectful
- Focused on issues (not individuals)