



Mass Ave Safety Improvements Community Meeting Dudley St to Alewife Brook Pkwy

Tuesday, September 14, 2021 | 6:00 p.m. | Zoom

Cycling Safety Ordinance Overview

2019: Cambridge City Council Passed the Cycling Safety Ordinance

Requires the construction of separated bike lanes when streets are being reconstructed as a part of the City's Five-Year Plan for Streets and Sidewalks and they have been designated for "Greater Separation" in the Bicycle Network Vision



Image: A separated bike lane in Brattle Sq; Credit: Kyle Klein

Cycling Safety Ordinance Overview - Continued

2020: Cambridge City Council Passed Amendments to the Cycling Safety Ordinance

The amendments set ambitious requirements for the installation of approximately 25 miles of separated bike lanes within the next five to seven years

The location of these facilities will be informed by both the Cambridge Bicycle Network Vision and specific requirements in the Ordinance



Image: Buffer area and flex posts next to the separated bike lane on Cambridge St; Credit: Kyle Klein

Cycling Safety Ordinance Overview - Continued

In general, the amendments to the Ordinance require the installation of separated bike lanes on:

- all of Massachusetts Ave;
- Broadway from Quincy St to Hampshire St;
- Cambridge St from Oak St to Second St;
- Hampshire St from Amory Street to Broadway;
- Garden St, eastbound from Huron Ave to Berkeley St, and westbound from Mason St to Huron Ave; and
- 11.6 miles of separated bike lanes in other locations that are a part of Bike Network Vision



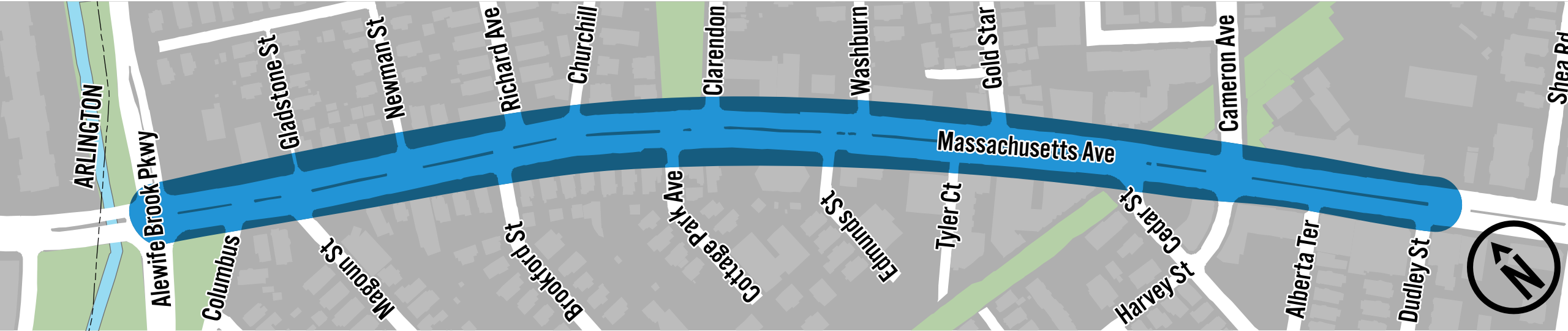
Learn more at
cambridgema.gov/cycling-safety-ordinance



Mass Ave Dudley St to Alewife Brook Pkwy Project Details

Project Area

Mass Ave between Dudley St and Alewife Brook Pkwy



Timeline

The ordinance sets an installation deadline of April 30, 2022 for us to install separated bike lanes on Mass Ave at the following locations:

- **Alewife Brook Pkwy to Dudley St**
- Beech St to Roseland St
- Waterhouse St to Cambridge St
- Plympton St to Bow St
- Small portions between Sidney St to Memorial Dr

We will conduct separate outreach for remaining sections of Mass Ave



Image: Linear Park facing Mass Ave

What is a quick-build project?

Quick-build projects allow us to make safety improvements more rapidly

Our quick-build toolbox includes:

- Pavement marking changes
- Installation of flex posts
- Changes to signage
- Some modifications to signal timing



Image: Brattle St 2-way Protected Bike Lane

What is not a quick-build project?



Source: Seattle.gov

Curb ramps and crosswalks



Source: suresealpaving.com

Curbs, catch basins and sewers

Why a quick-build project?

- Only a Quick-Build project would be installed in time to meet our Spring 2022 deadline
- Quick-Build projects can be installed significantly faster than typical construction projects
- Capital Construction projects must be programmed into the City's 5-year Sidewalk and Street Reconstruction Plan for funding and coordination with utilities



Design Constraints

We cannot move the median as part of a quick-build project

- We can only shift the layout of lanes on either side of the median

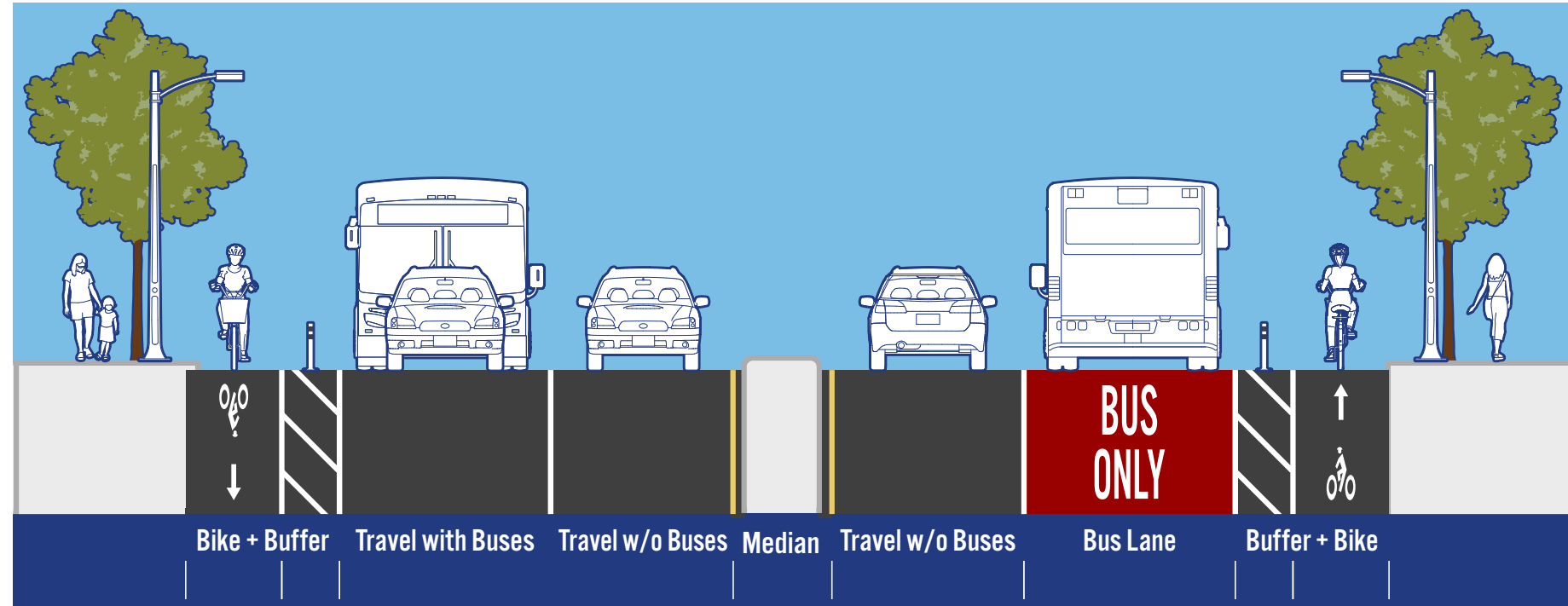


Image: Mass Ave near Dudley St

Proposed Typical Cross Section

From left to right:

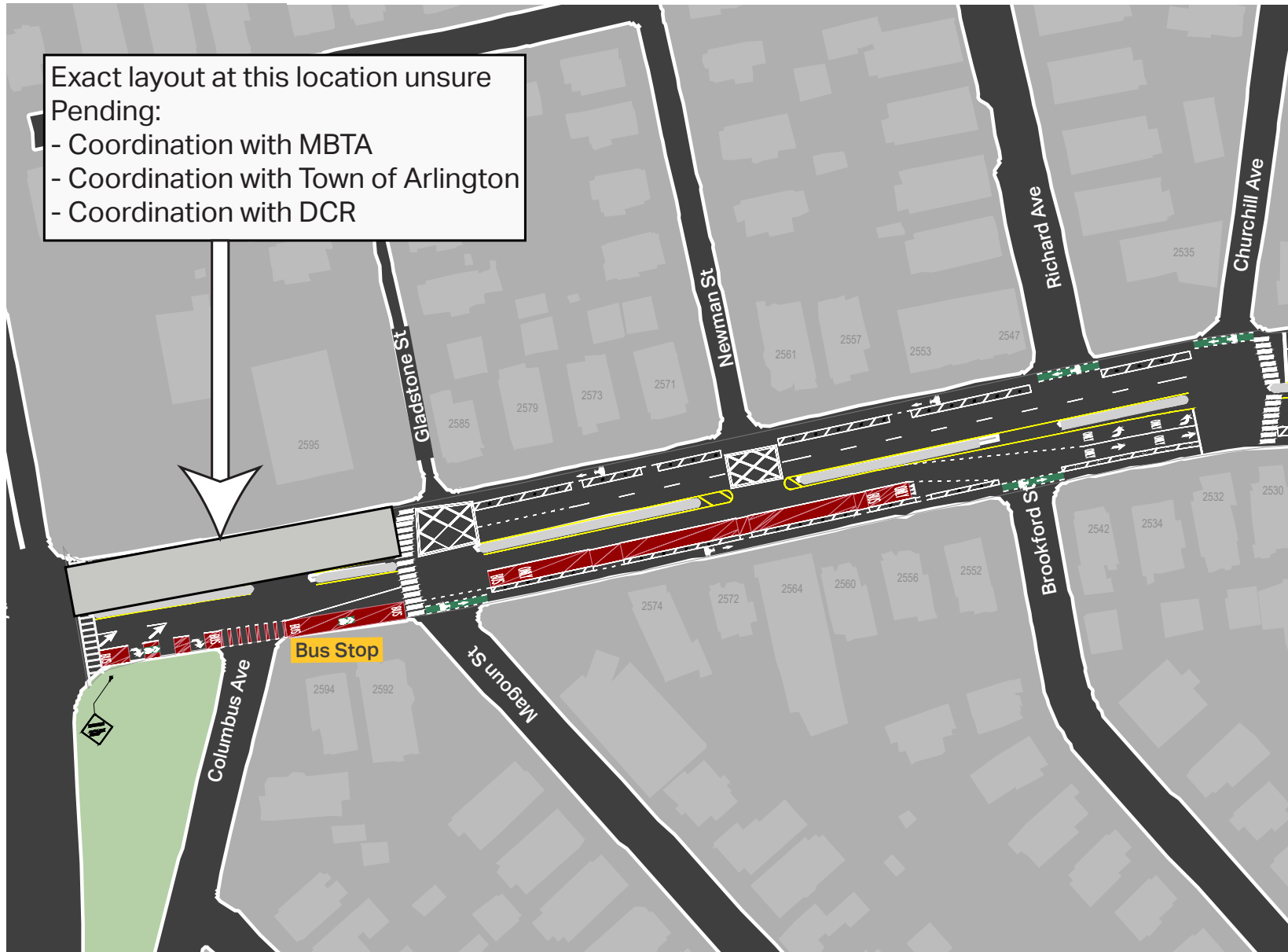
- Sidewalk
- Separated bike lane w/ buffer
- Two travel lanes
- Median
- Travel lane
- Bus lane
- Separated bike lane w/ buffer
- Sidewalk



To Arlington

To Porter Square

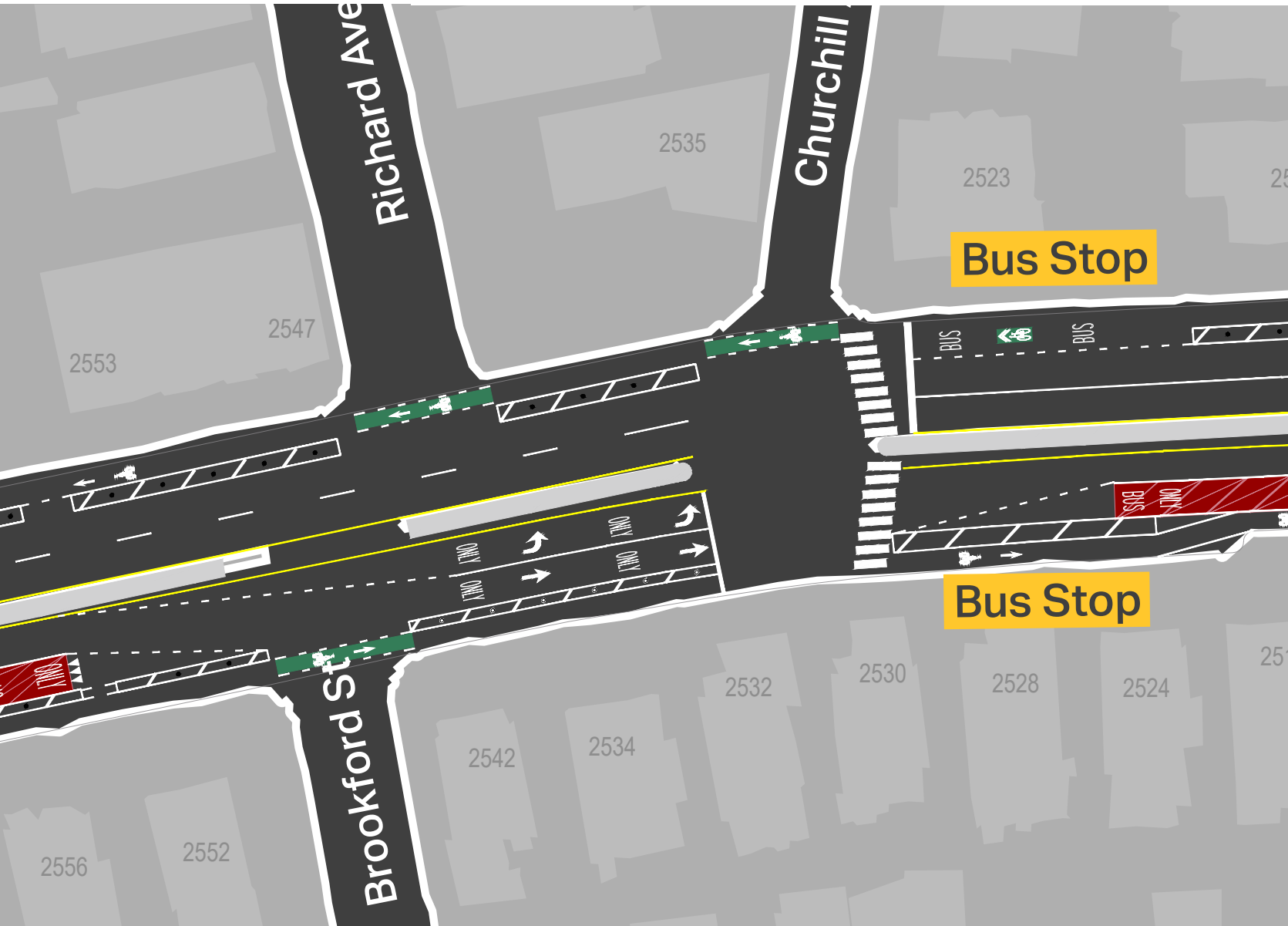
Alewife Brook Pkwy to Churchill Ave



General Improvements

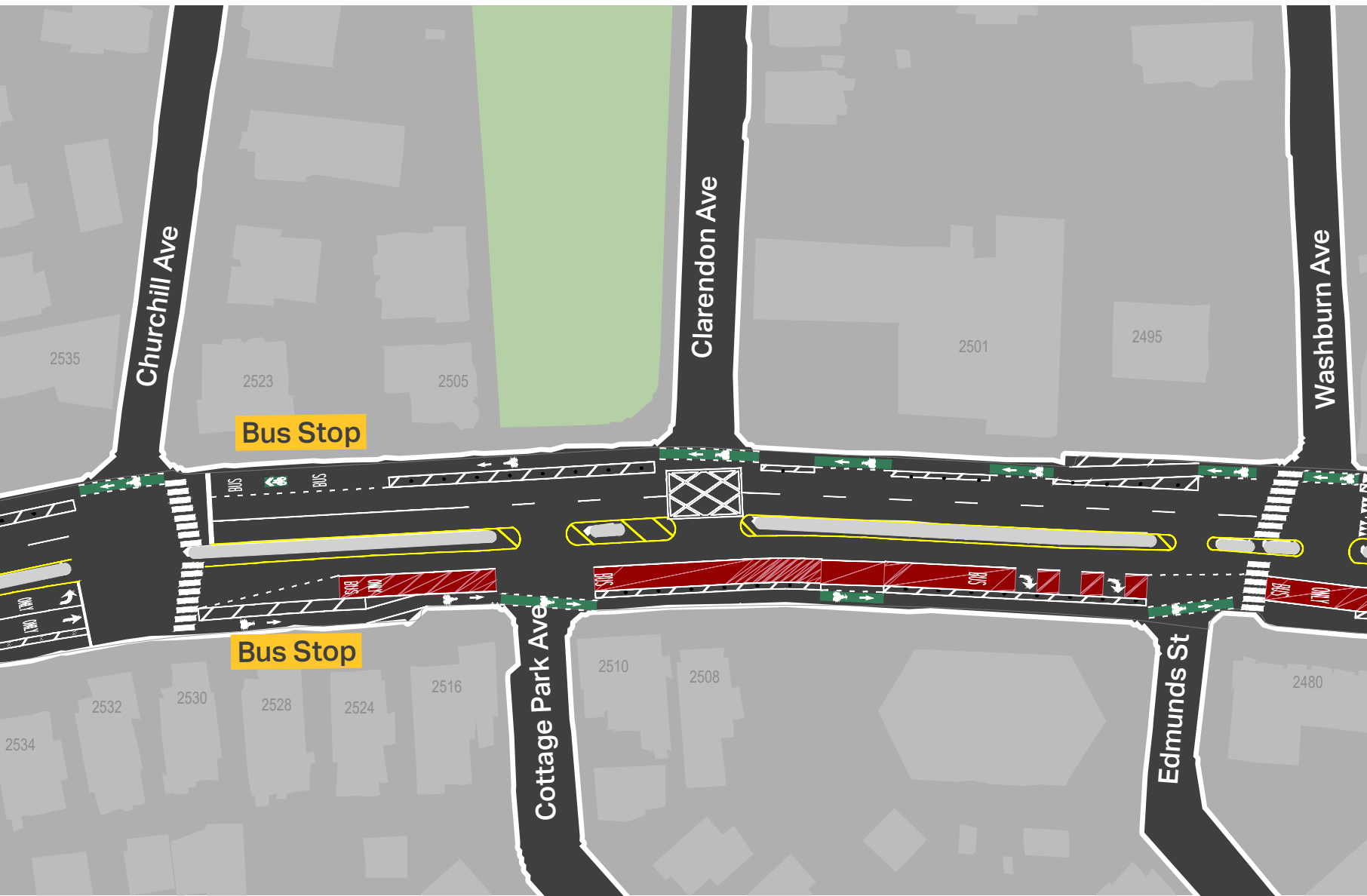
- Separated bike lanes in both directions
- Inbound bus lane

Churchill Ave Intersection



- New left turn lane onto Churchill Ave for access to schools
- Unable to bring the bus lane through the intersection due to high volume of left turns

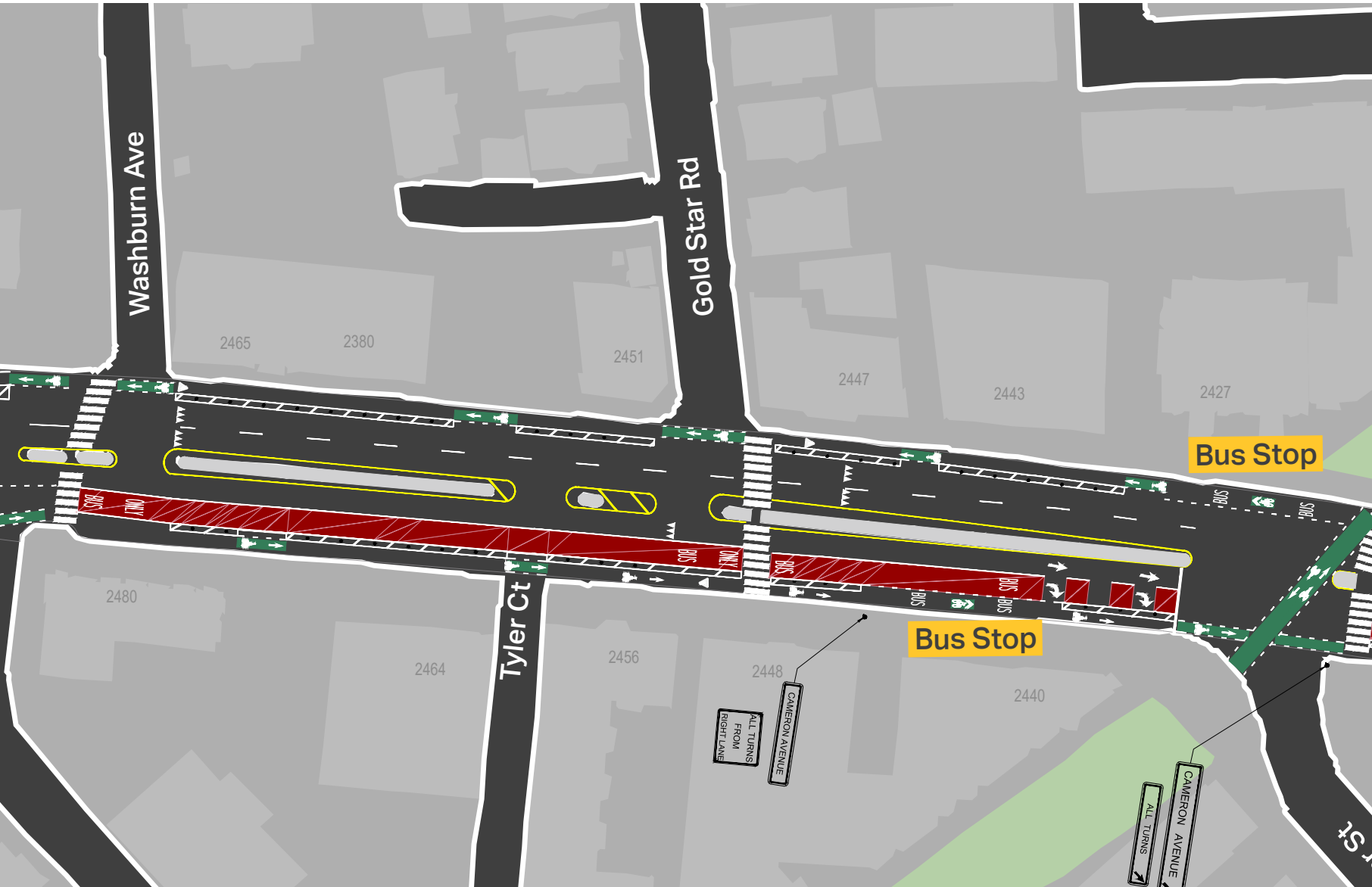
Churchill Ave to Washburn Ave



General Improvements

- Separated bike lanes in both directions
- Inbound bus lane

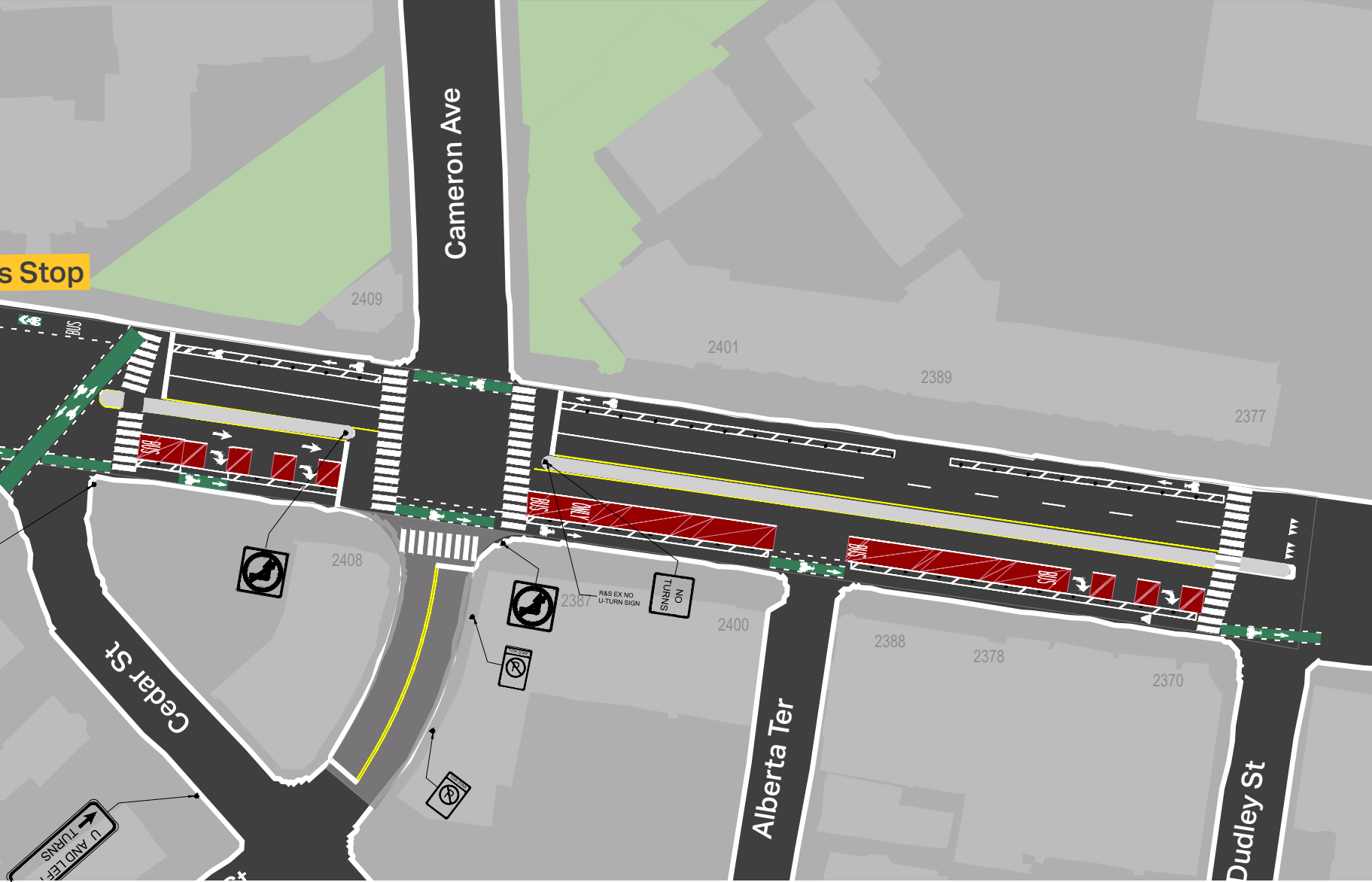
Washburn Ave to Linear Park



General Improvements

- Separated bike lanes in both directions
- Inbound bus lane

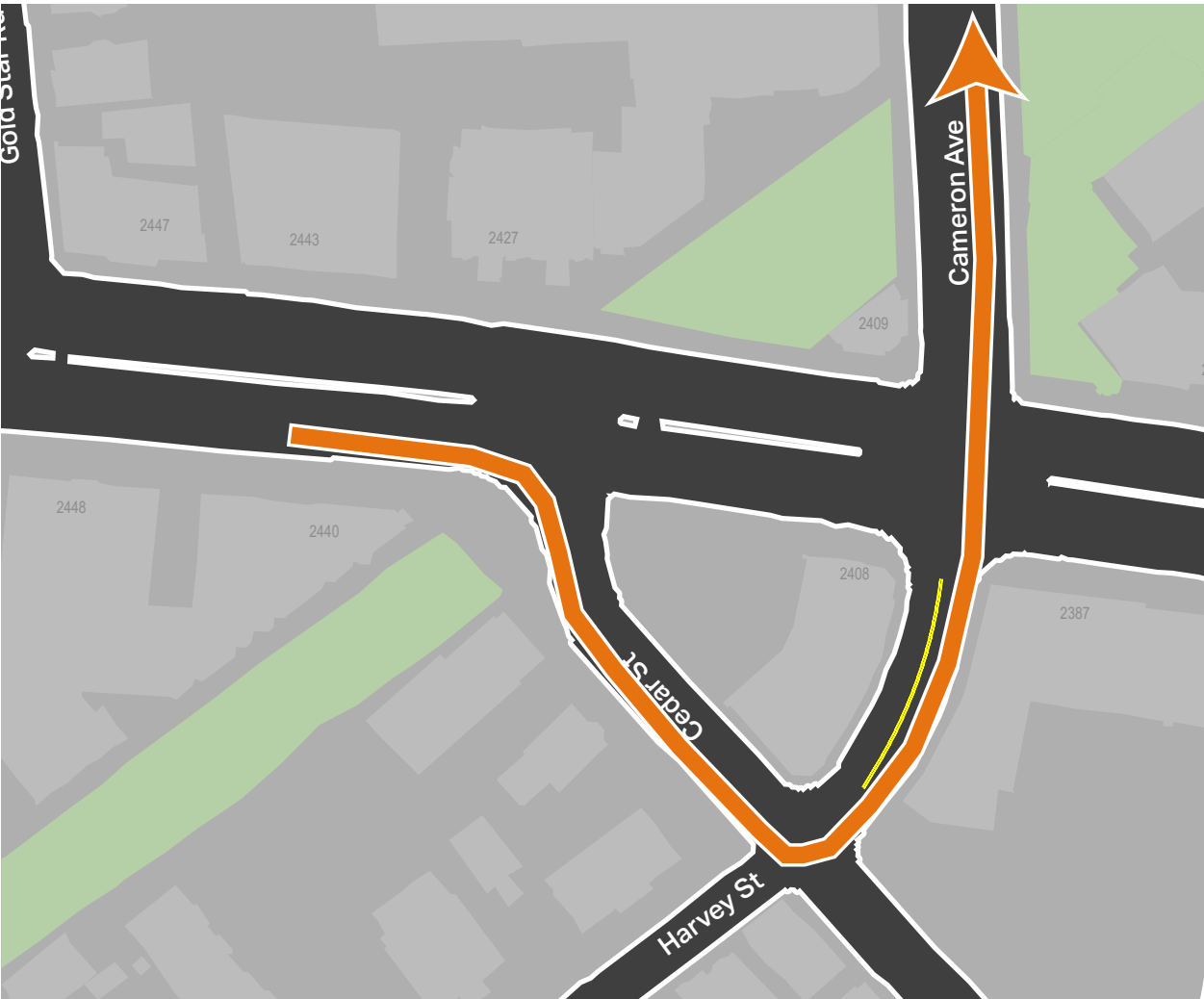
Linear Park to Dudley St



General Improvements

- Separated bike lanes in both directions
- Inbound bus lane
- Safer turns at Mass Ave and Cameron Ave intersection

Key Changes - Left Turns onto Cameron Ave



People driving who are turning left from Mass Ave to Cameron Ave will:

- Turn right onto Cedar St
- Turn left onto Harvey St
- Continue straight onto Cameron Ave at the light

This will result in:

- Safer movement for people driving
- Conversion of small section of Harvey St from one-way to two-way traffic

There will be:

- New signage to indicate proper travel patterns
- Modifications to signal timing

Key Changes - Separated Bike Lanes

- Separated bike lanes (SBLs) are being added in both directions

Separated Bike Lane Safety Benefits

- Dedicated space for biking
- Vertical separation between people on bikes and people in cars
- Shorter crossing distances for people walking

Separated Bike Lane Other Benefits

- Increased comfort for people biking
- Increased comfort for people driving as they know where to expect people biking



Top Image: Mt Auburn St before a separated bike lane was installed

Bottom Image: Mt Auburn St after a separated bike lane was installed in 2020

Key Changes - Inbound Bus Lane

- 7,190 riders per weekday (2018)
- Approximately 318 bus riders during AM rush hour (2018)
- Loading/drop off and pick up will be allowed in the bus lane during certain hours (i.e. after 9 a.m.)

Per the Envision Cambridge Mobility Plan

Partner with surrounding communities to create multijurisdictional bus rapid transit and bus priority routes. For example, collaborate with...Arlington on Route 77 improvements



Bus Lane Benefits

More Reliable Trips

- More reliable trips allow riders to plan with more accuracy
- Drivers can serve more passengers with fewer buses, allowing the MBTA to add service

Faster Trips

- Where we're proposing a dedicated bus lane, we expect travel times to improve

Results from Arlington Bus Lanes on Mass Ave

- On average, buses saved 5 - 6 minutes
- The most delayed buses saved over 10 minutes
- 40% reduction in trip variability



Key Changes - Bus Operations at MBTA Car House

Existing stop within the MBTA car house is not accessible to people with disabilities

- Stop is moved to the curb where accessible boarding can occur
- Existing stop at Trolley Square building is moved 250 feet up the street to ensure proper spacing

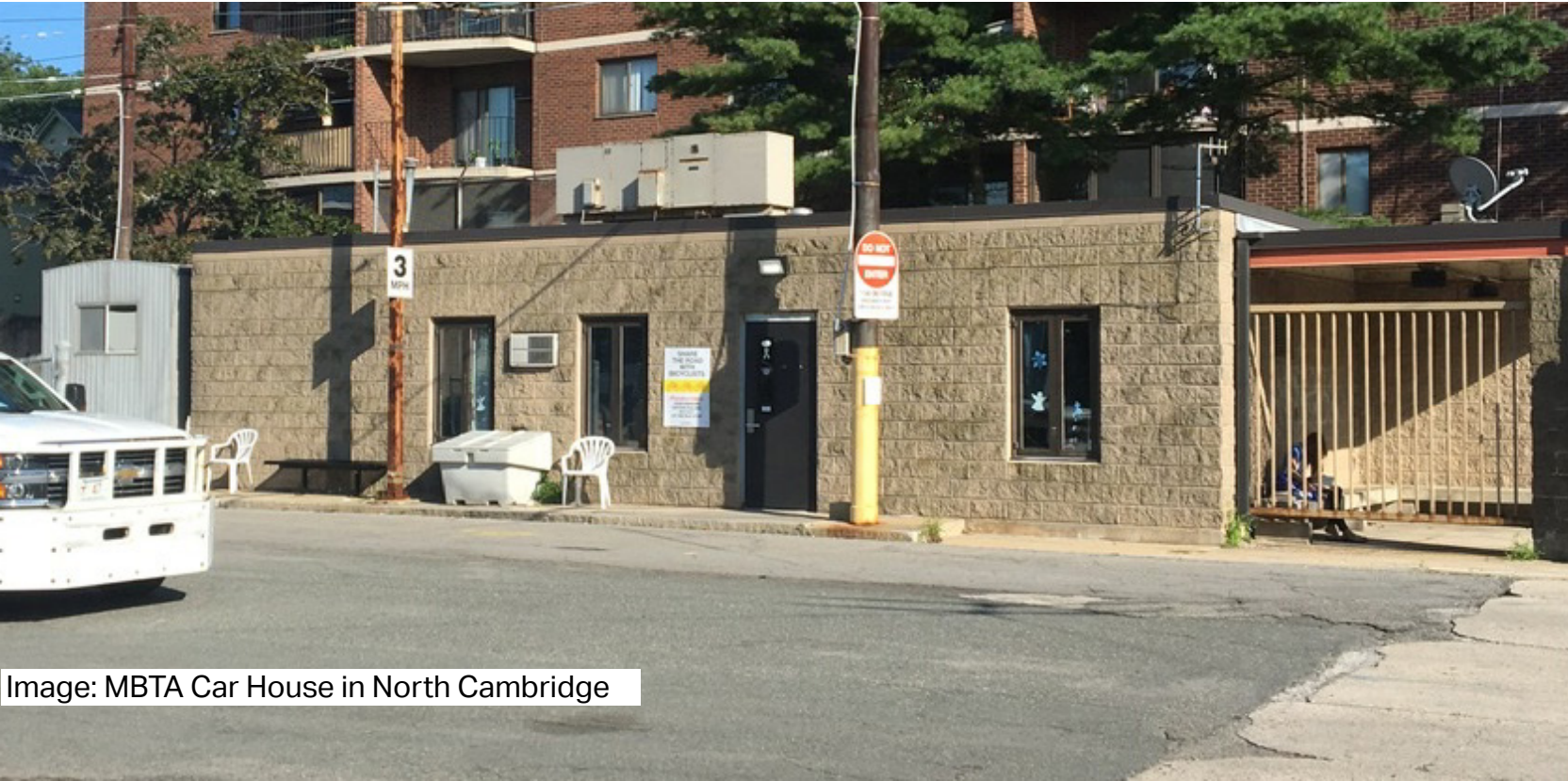


Image: MBTA Car House in North Cambridge



Image: In front of 2353 Mass Ave, new bus stop location

Key Changes - Parking

In order to install separated bike lanes, parking will be removed along the corridor

- Considering changes to side street parking, including the addition of metered parking
- Allowing use of the bus lane for loading, pick up/drop off during certain hours
- Removal of parking on Harvey St to allow for two-way operation



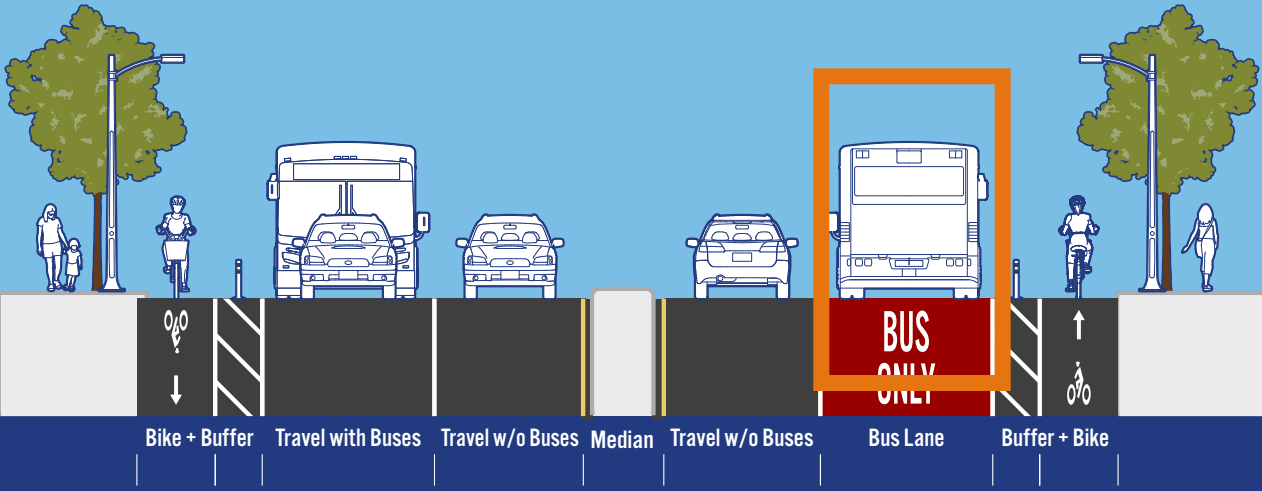
Possible Side Street Parking Meters and/or Loading Zones



What else did we consider?

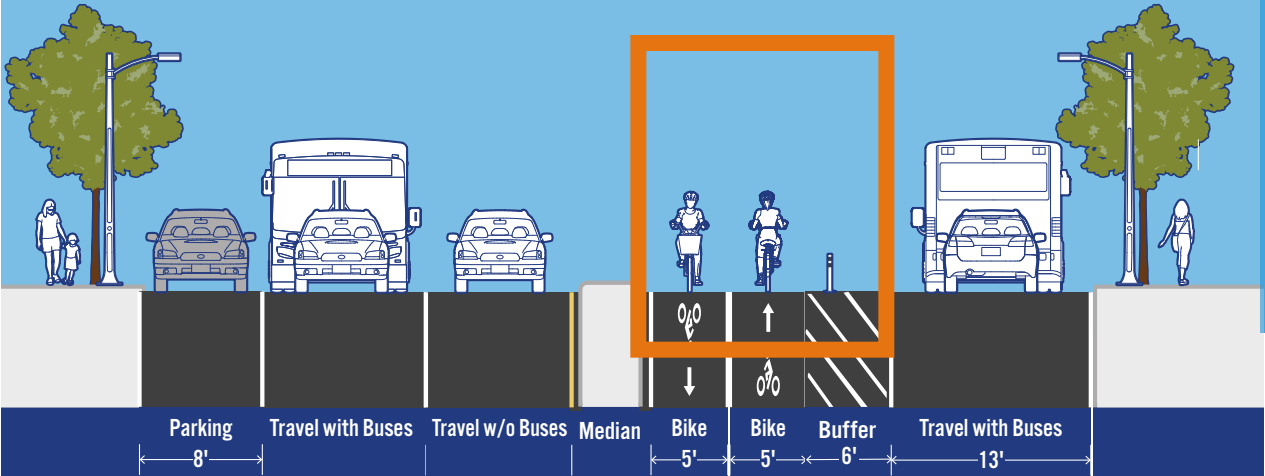
Parking Instead of the Inbound Bus/Travel Lane

- Removing a travel lane to allow for parking would result in significant delays and unreliability for the 77 bus, resulting in less service on the 77. Delays would also impact private vehicles and potentially spill over onto local residential streets
- Created fewer new spaces to park than typical due to frequent driveways and side streets



Center running two-way bike lane

- Would have the same traffic and bus impacts as a parking lane
- No safe method to transition people biking into and out of the facility on either end or to destinations along the corridor



Next Steps

- Additional coordination to address unresolved plans for:
 - What to do at the Alewife Brook Pkwy intersection
 - Layout for the northbound roadway
- Continued outreach on parking modifications with business owners and residents
- Additional information sharing prior to installation of bike lanes by end of November 2021

Further outreach on other sections of Mass Ave this Fall/Winter

