



Brattle Street Safety Improvement Project Community Meeting

Phase 2: Sparks St to Mt Auburn St

January 31, 2023 | 6 p.m. | Zoom

Brattle Street Safety Improvement Project

Phase 2: Sparks St to Mt Auburn St

Fourth Community Meeting

January 31, 2023 | City of Cambridge

Project Website:

cambridgema.gov/BrattleStSafety

We are Recording

- We will post the recording of tonight's meeting on the project page

Cameras + Microphones

- Your camera is off
- We will enable your microphone only when you are speaking

Provide Feedback after the Presentation

- You will find information on how to give feedback at the end of the presentation

Agenda

- Planning Background
- Overview of Street Design Elements
- Project Design
 - Sparks St to Riedesel Ave
 - Riedesel Ave to Fresh Pond Pkwy
 - Fresh Pond Pkwy to Mt Auburn St
 - Intersections and Traffic Signals
- Ongoing Community Conversations
- Schedule/Next Steps
- Questions + Feedback

Project Limits

- Phase 1. Installed Fall 2022: Mason St to Sparks St.
- Phase 2. Coming 2023: Sparks St to Mt Auburn St



Phase 1

- We completed Phase 1 of the project last Fall



We installed concrete curbing last December



By bending Craigie St at Brattle St, we simplified the intersection, and improved conditions for all users

Planning Background

Separated Bike Lanes and the Bike Plan

Cycling Safety Ordinance Overview

2019: City Council Passed the Cycling Safety Ordinance

- Requires 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 when they have been designated for “Greater Separation” in the Bicycle Network Vision

2020: City Council Passed Amendments to the 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 is informed by both the Cambridge Bicycle Network Vision and specific requirements in the Ordinance.



Image: A separated bike lane on Brattle 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;
- Garden St, eastbound from Huron Ave to Berkeley St, and westbound from Mason St to Huron Ave;
- Broadway from Quincy St to Hampshire St;
- Cambridge St from Oak St to Second St;
- Hampshire St from Amory St to Broadway; and
- **11.6 miles of separated bike lanes in other locations within the Bicycle Network Vision**
 - **Brattle St is part of these 11.6 miles**

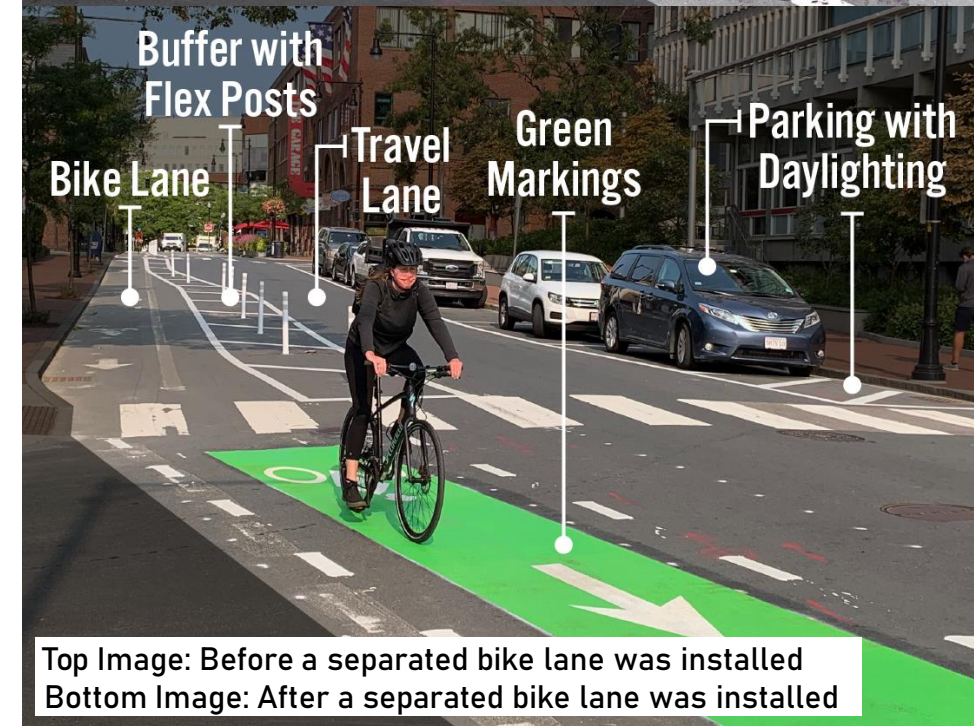
Learn more at
cambridgema.gov/cycling-safety-ordinance



Image: A person riding a bicycle on Ames Street; Credit: Kyle Klein

Separated Bike Lane Benefits

- Increases comfort and access for people of all ages and abilities
- Reduces crash and injury risk
- Eliminates threat of "dooring" from parked vehicles
- Reduces potential conflicts between vehicles and people biking
- Provides shorter crossing distance and increased separation from vehicles for people walking
- Encourages slower traffic speeds by visually narrowing the roadway width



Separated Bike Lane Benefits- Continued

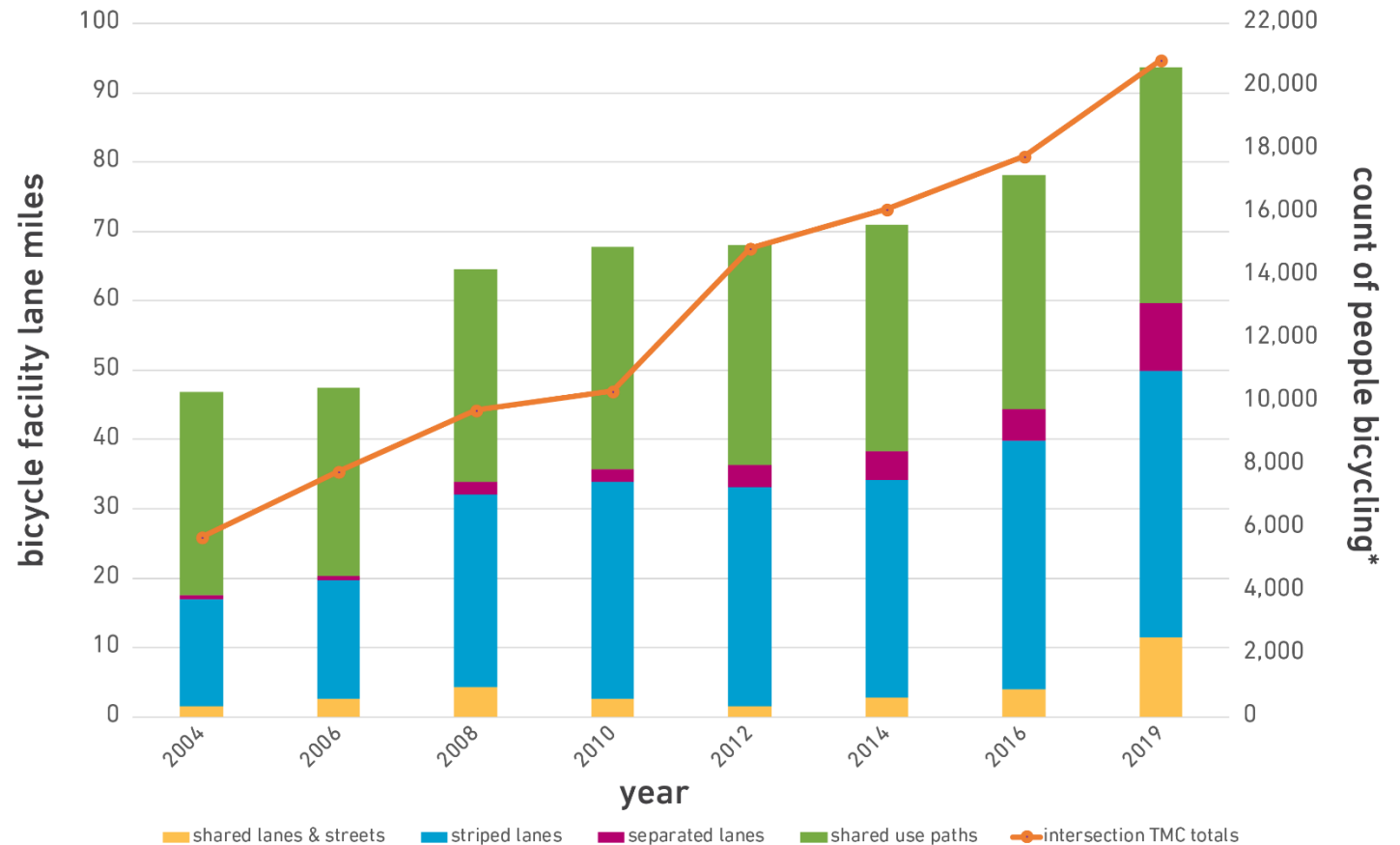
More people ride bicycles when we build more bicycle infrastructure.

A lack of safe and accessible routes and facilities for people of all ages and abilities prevents many people from biking.

As we've built more, we've enabled a wider variety of people to bike



BICYCLE FACILITY LANE MILES AND NUMBER OF PEOPLE BICYCLING (2004-2019)



Cambridge Bicycle Plan

Vision from the Cambridge Bicycle Plan:

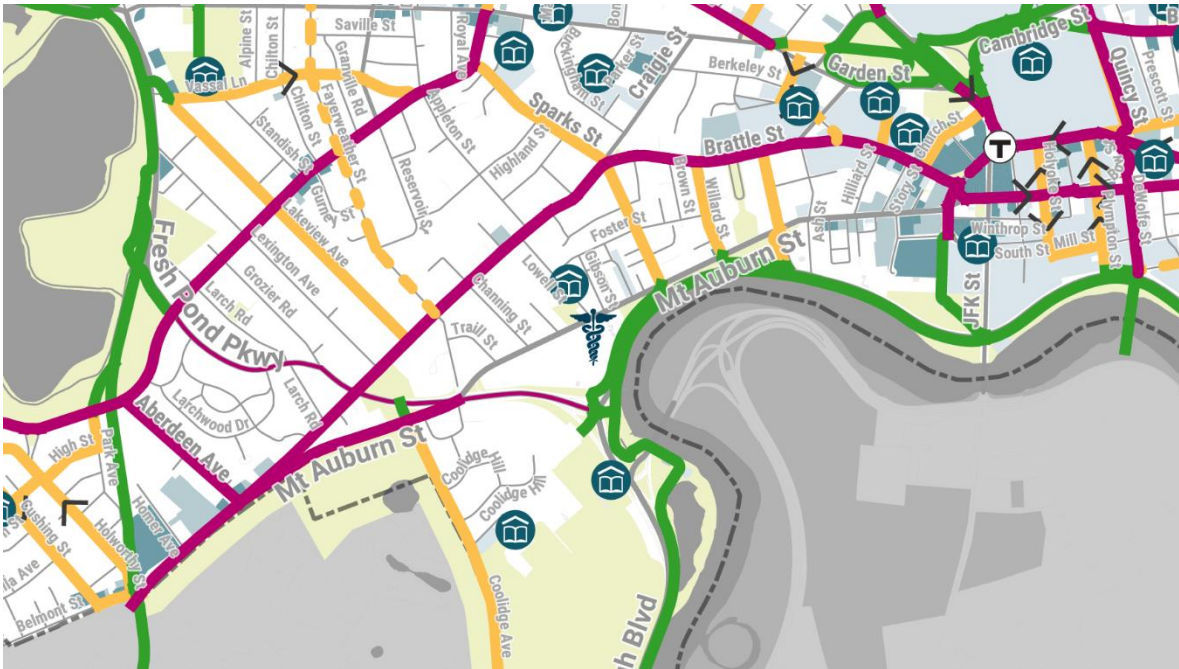
Cambridge will be a place where bicycling is equally available to everyone, all destinations can be reached by bike, and streets are designed to accommodate bicycling for people of all ages, abilities and identities.

A variety of barriers make it harder for people to choose to bicycle, even though they would like to. Creating safe and comfortable streets is a necessary condition to enable everyone to have this choice. This reflects the philosophy that people are at the center of transportation planning and design.



Brattle Street in the Cambridge Bicycle Plan

- Plan identifies need for separated bike lanes on Brattle Street
- Avoids busier streets with buses, such as Mt Auburn Street
- Connects West Cambridge to the Charles River and important locations to the east (e.g., Harvard and Central Squares)



Learn more at
cambridgema.gov/2020bikeplanupdate

Overview of Street Design Elements

Separated Bikes Lanes: Types of Separation

1. Pre-Cast Concrete Curbs

- Reduce visual clutter
- More durable material
- Can include reflective materials

2. Flex Posts

- Higher visibility
- Installed at driveways, side-streets, bends in the roadway
- Provides clarity to road users, plow operators
- Additional flex-posts may be needed based on ongoing operations needs



View of parking with separated bike lane in front of Holy Trinity Armenian Church

Separated Bike Lanes: Types of Separation

Pre-Cast Concrete Curbs and Flex Posts



Example image of pre-cast concrete curbs with strategically placed flex-posts

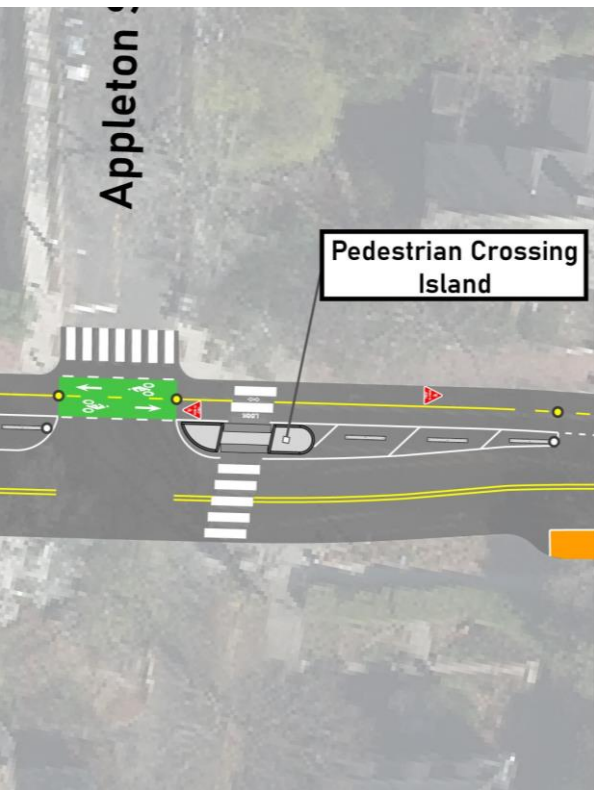
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Existing curbing installed last Fall

Pedestrian Crossing Islands

- We will construct pedestrian crossing islands along the corridor
- These will replace the existing flush islands along the street



Proposed Pedestrian Crossing Island at Appleton Street
City of Cambridge | Brattle Street Safety Improvement Project



Example image of a fully constructed raised pedestrian crossing island at the same location

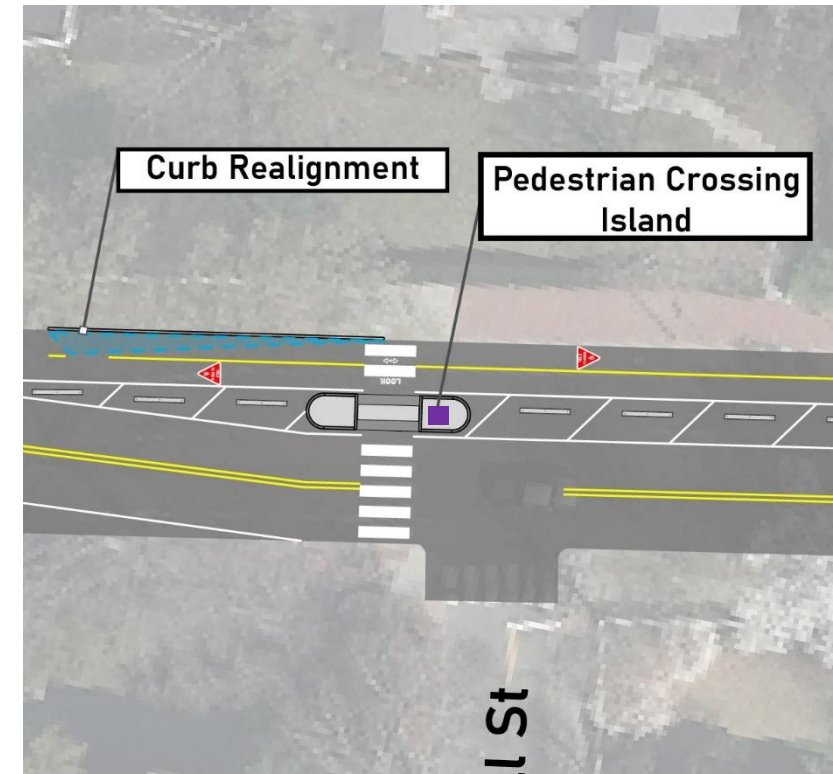
Curb Realignment

- To construct the proposed pedestrian crossing islands, we will realign the north curb at most crossing locations
- This will restore the streets previous curb line (ca. 2010) and does not affect the existing sidewalk



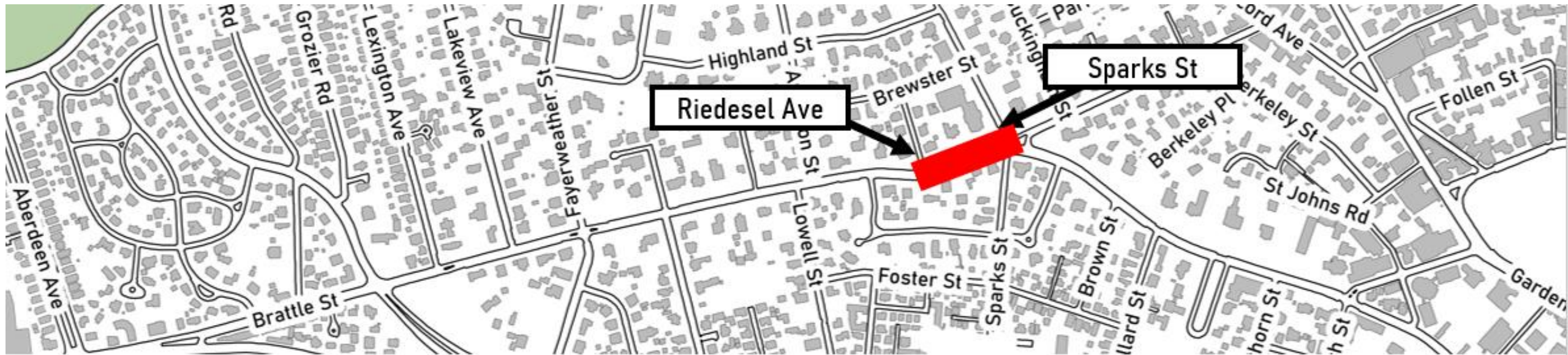
Photo of an existing curb bump out

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Project Design

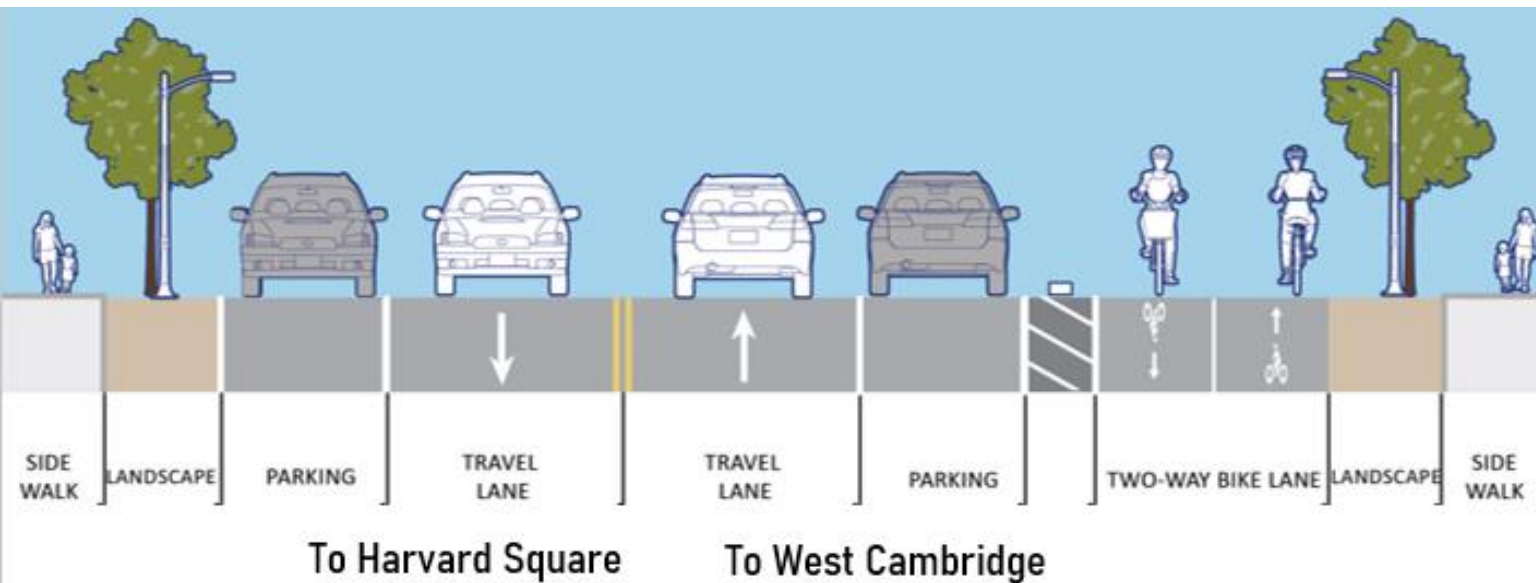
Sparks St to Riedesel Ave



Draft Design: Two-Way Separated Bike Lane

Sparks St to Riedesel Ave

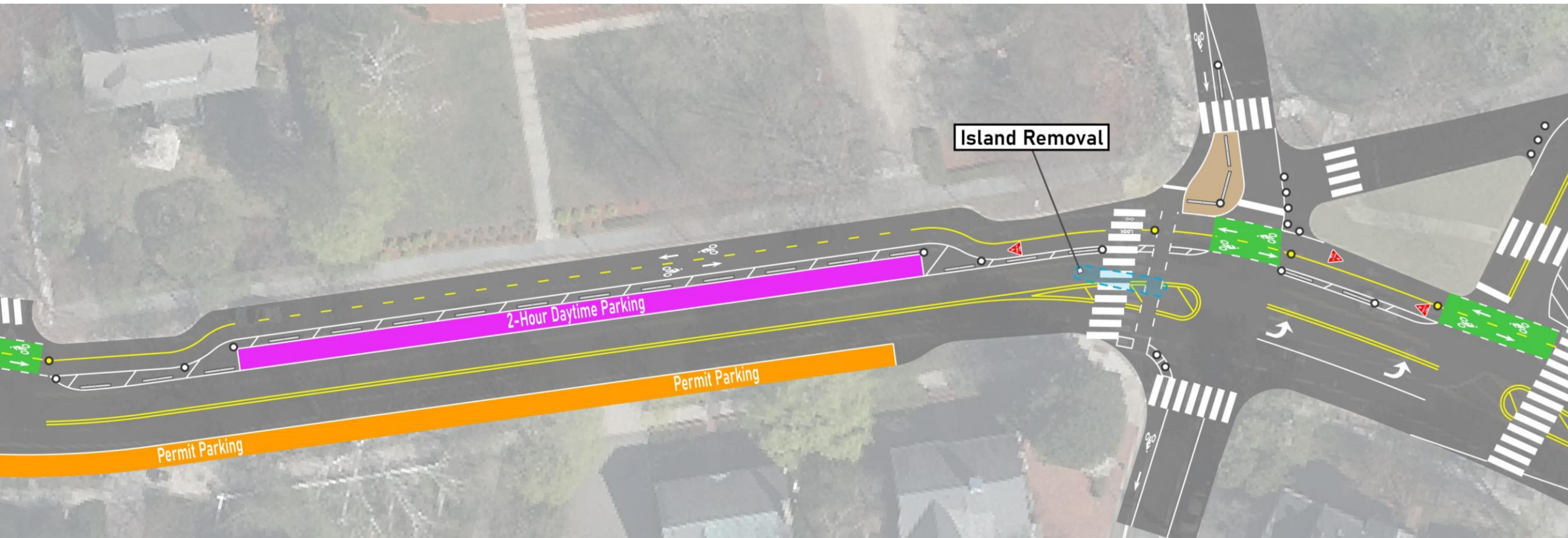
- Room for parking on both sides of the street
- Accommodates existing parking in front of Holy Trinity Armenian Church



View of parking with separated bike lane in front of Holy Trinity Armenian Church

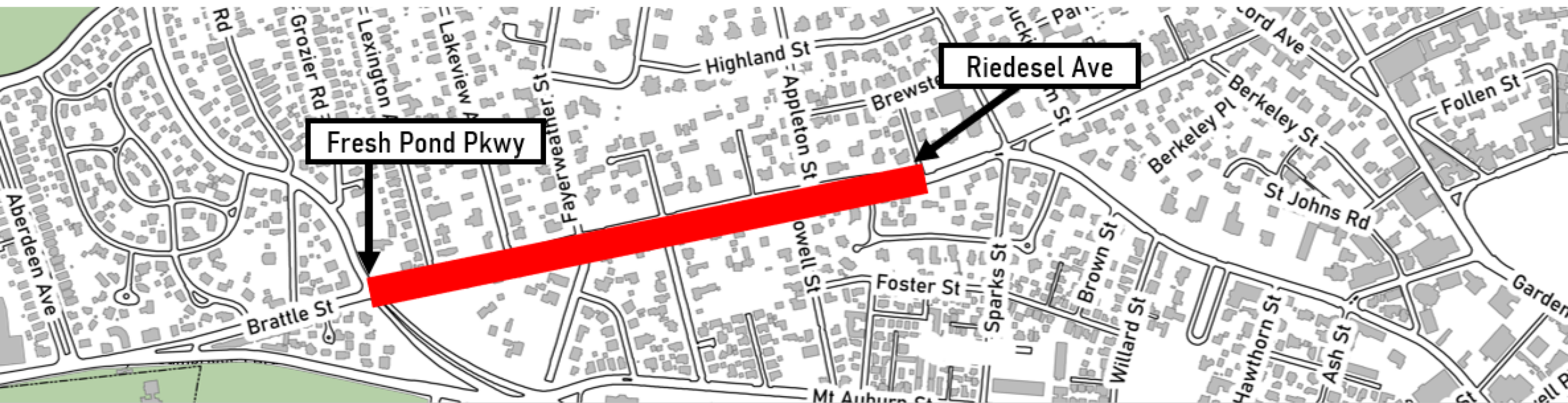
Two-Way Separated Bike Lane

Sparks St to Riedesel Ave



Project Design

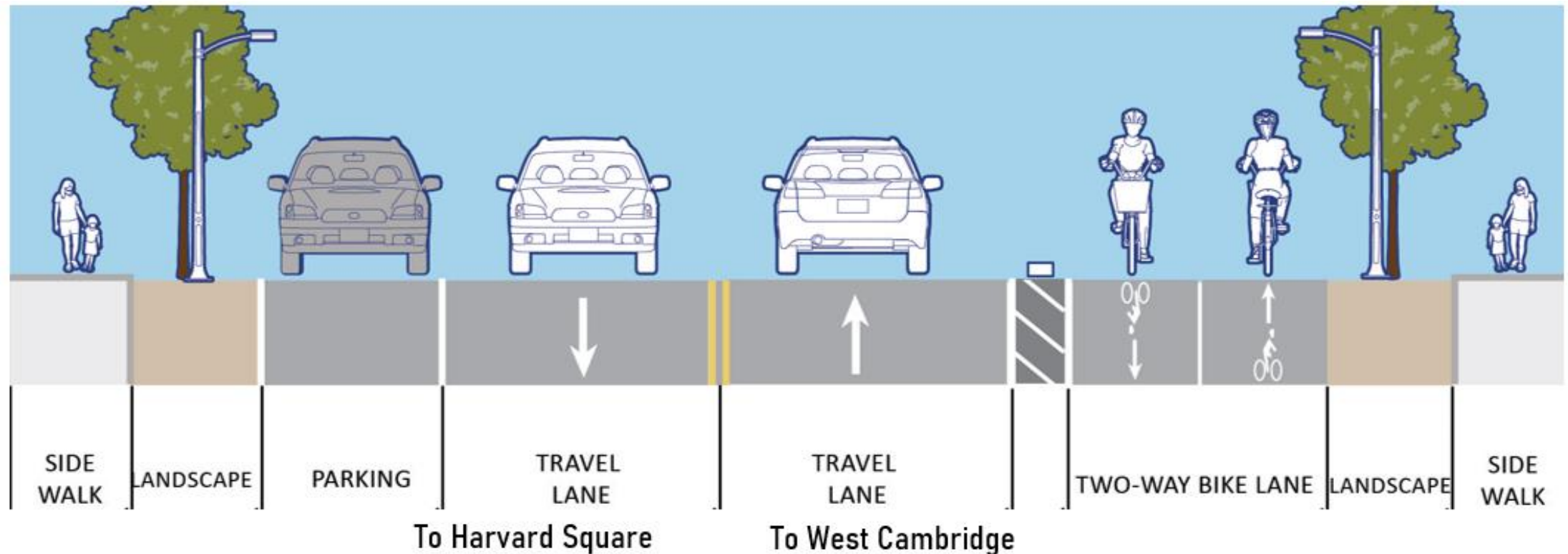
Riedesel Ave to Fresh Pond Pkwy



Draft Design: Two-Way Separated Bike Lane

Riedesel Ave to Fresh Pond Pkwy

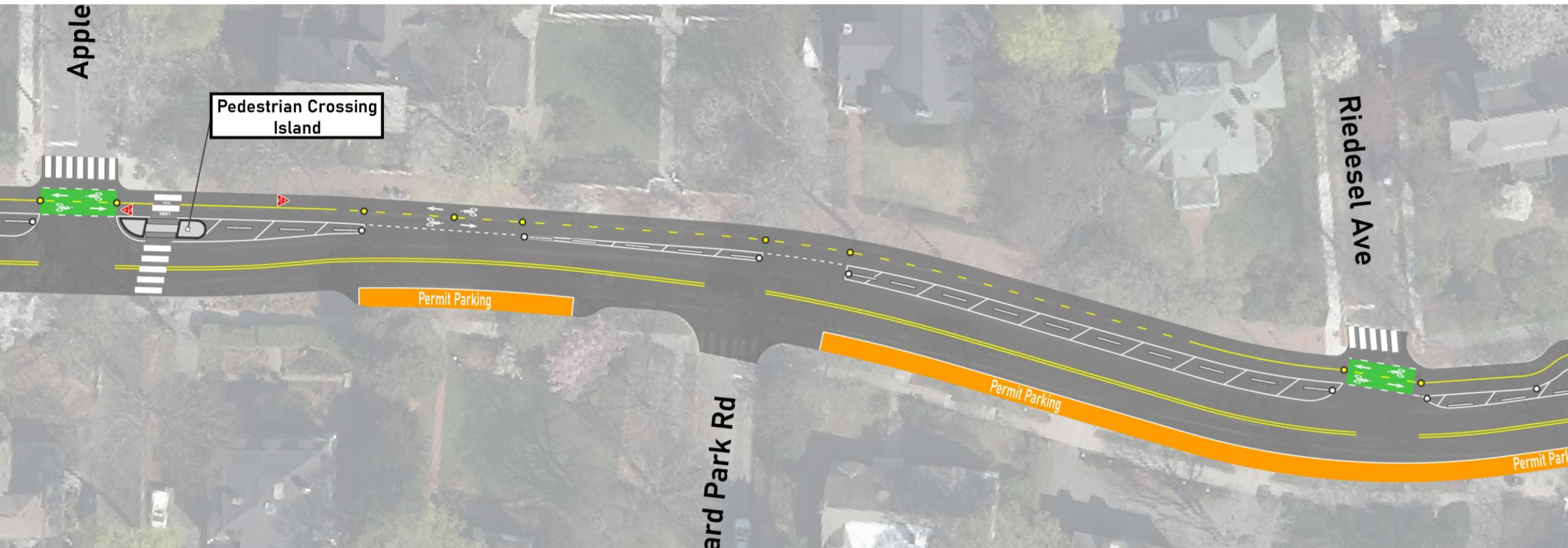
- Two-way separated bike lane on north side of the street
- Parking on south side of the street



Two-Way Separated Bike Lane

Riedesel Ave to Appleton St

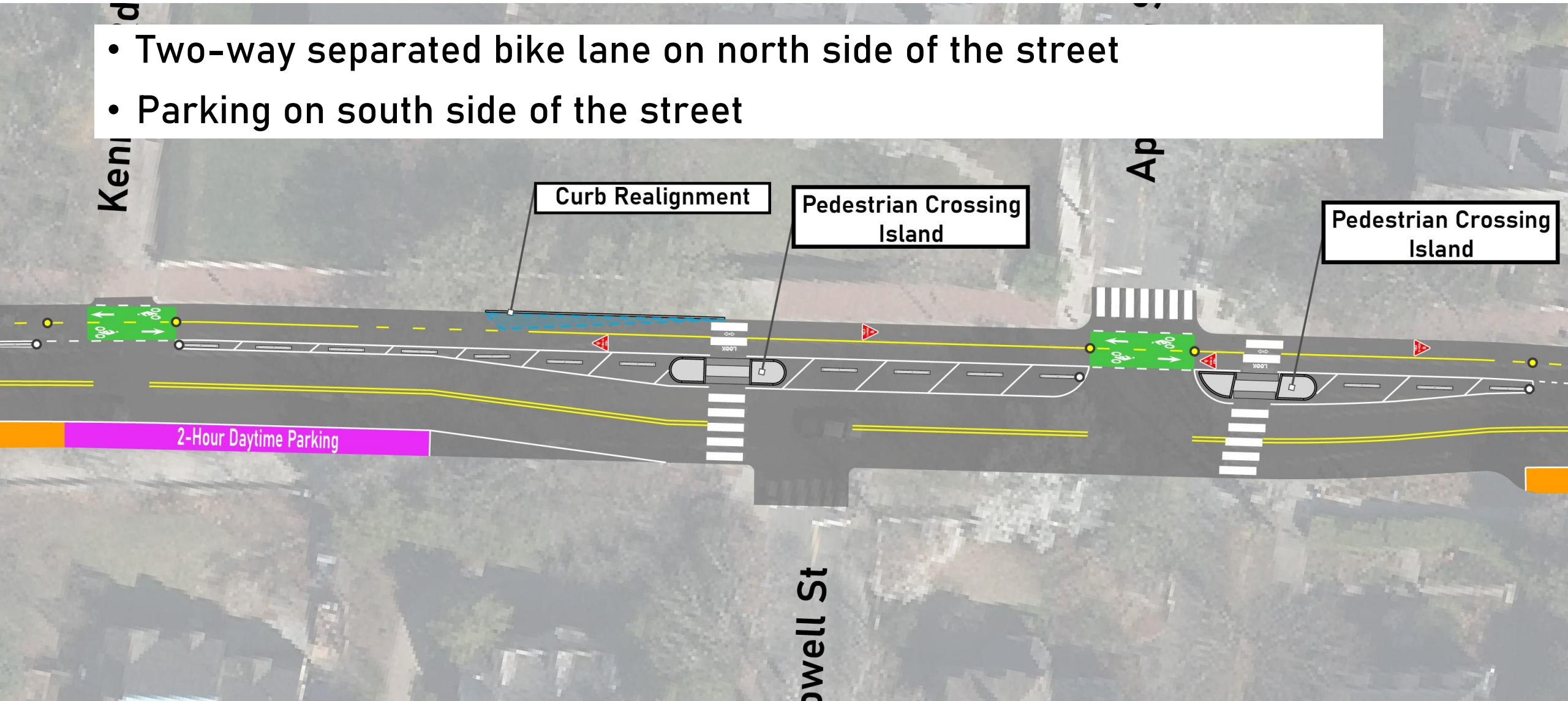
- Two-way separated bike lane on north side of the street
- Parking on south side of the street



Two-Way Separated Bike Lane

Appleton St to Kennedy Rd

- Two-way separated bike lane on north side of the street
- Parking on south side of the street

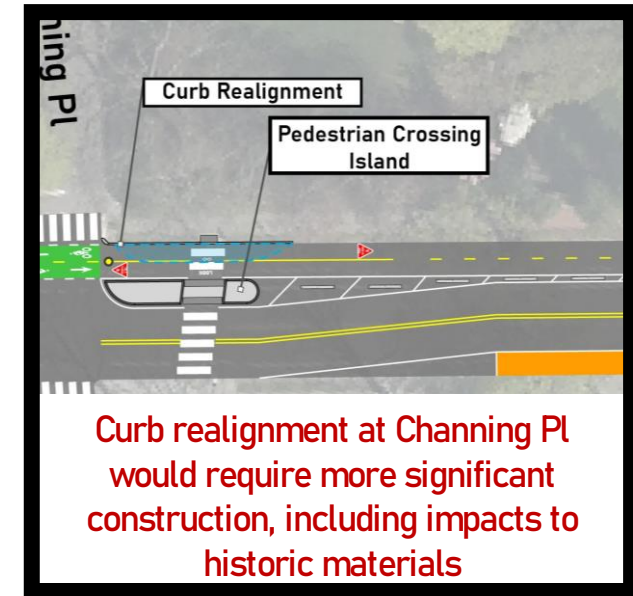


Two-Way Separated Bike Lane

Kennedy Rd to Channing Pl

- Two-way separated bike lane on north side of the street
- Precast curbing and flex posts next to the bike lane
- No curb realignment or crossing island construction at Channing Pl
 - Realignment of the curb at this location would require reconstruction (lowering) of the existing sidewalk and removal of a large, mature tree
 - The sidewalk is made of historic materials, which require additional time and coordination to replace

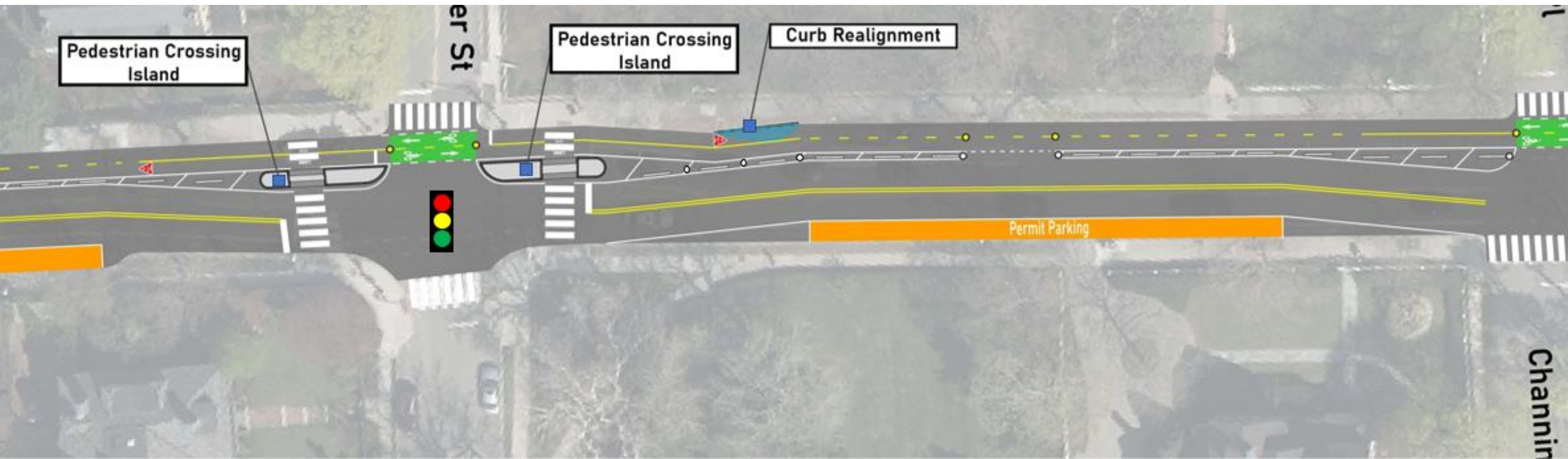
Curb Realignment Alternative



Two-Way Separated Bike Lane

Channing Pl to Fayerweather St

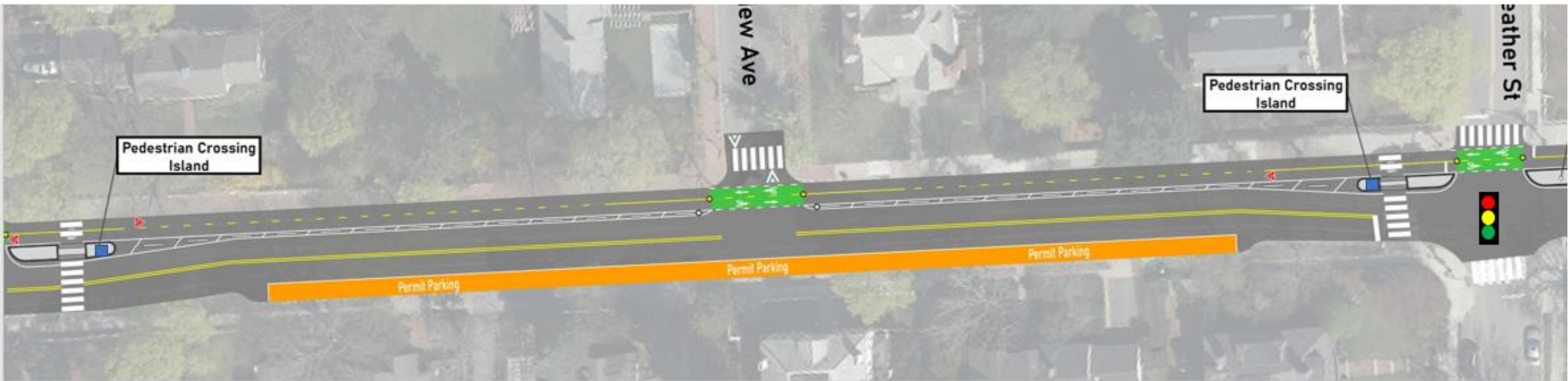
- Two-way separated bike lane on north side of the street
- Parking on south side of the street
 - Existing parking on north side of the street is relocated to south side



Two-Way Separated Bike Lane

Fayerweather St to Lexington Ave

- Two-way separated bike lane on north side of the street
- Parking on south side of the street



Two-Way Separated Bike Lane

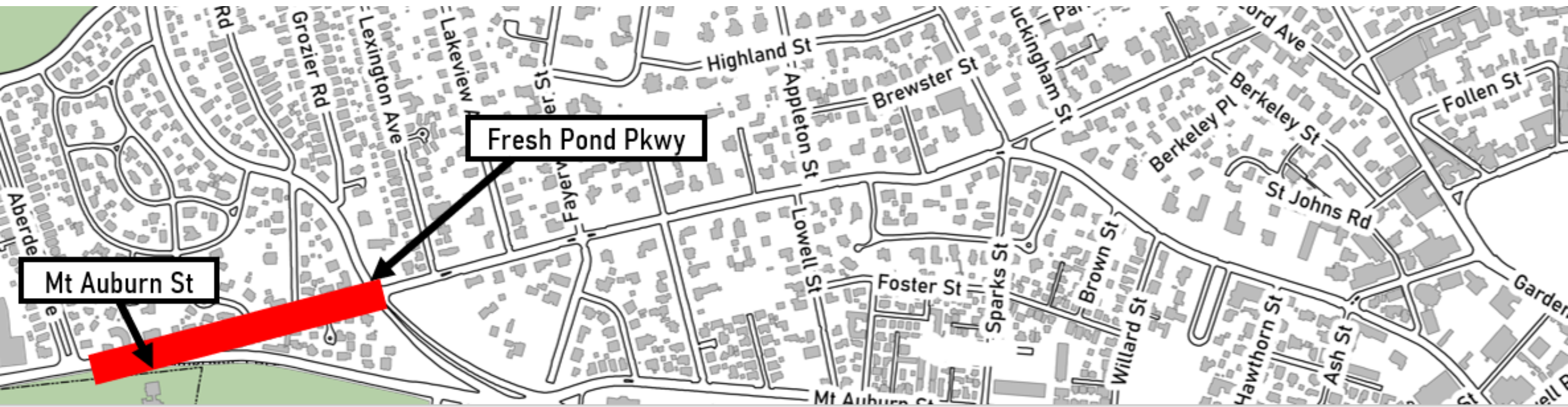
Lexington Ave to Fresh Pond Pkwy

- Two-way separated bike lane on north side of the street



Project Design

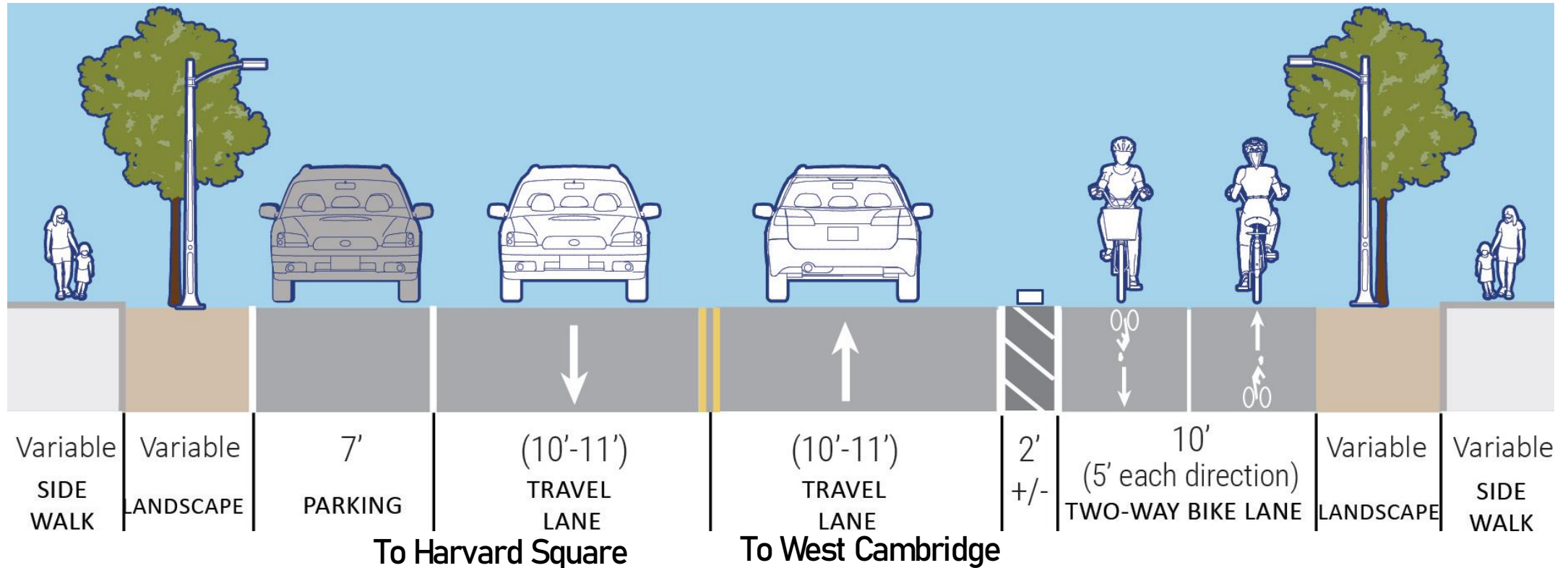
Fresh Pond Pkwy to Mt Auburn St



Draft Design: Two-Way Separated Bike Lane

Fresh Pond Pkwy to Mt Auburn St

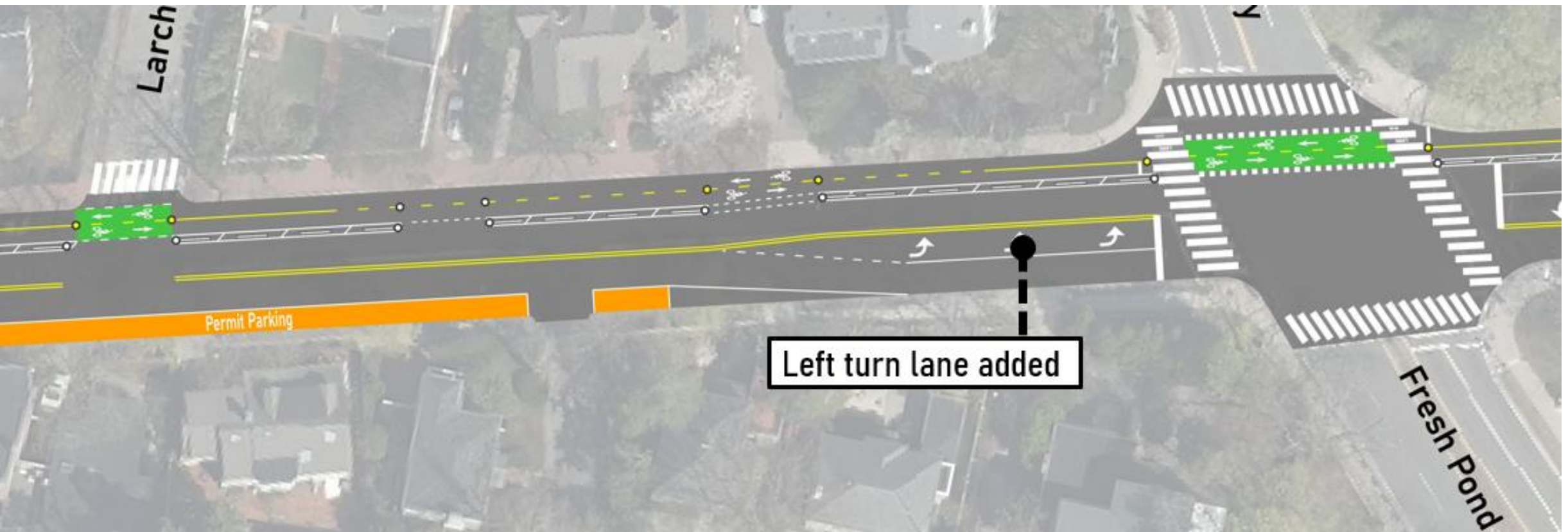
- Two-way separated bike lane on north side of the street
- Parking on south side of the street
 - Existing parking on north side of the street is removed



Two-Way Separated Bike Lane

Fresh Pond Pkwy to Larch Rd

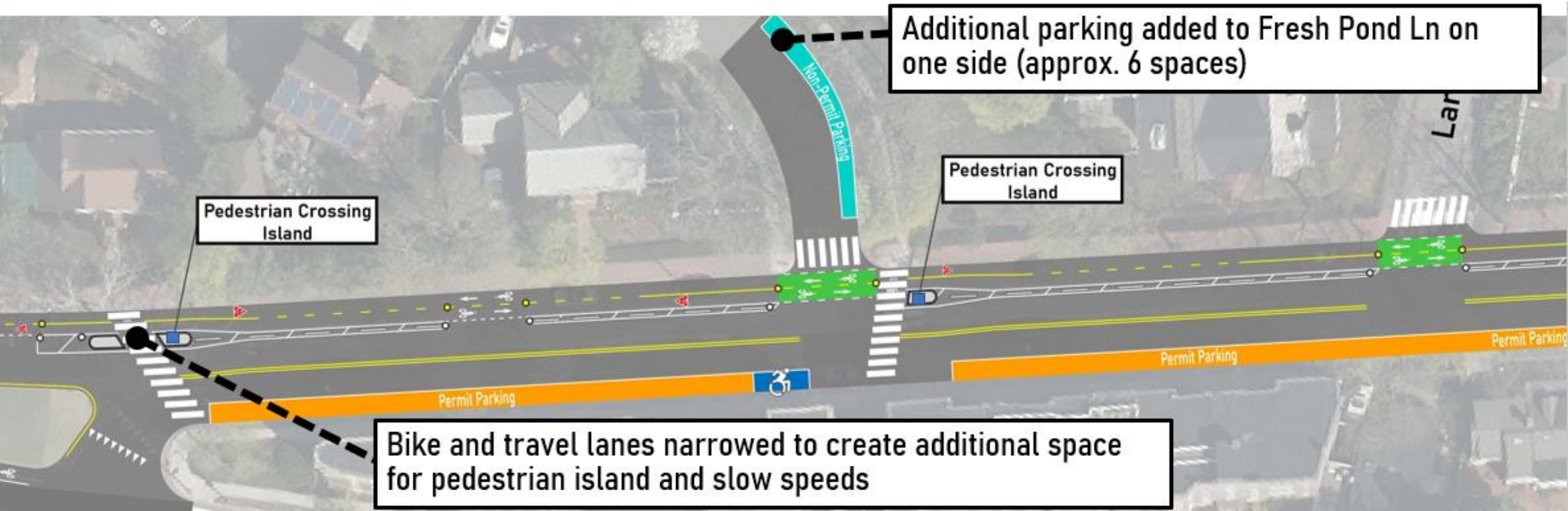
- Two-way separated bike lane on north side of the street
- Parking on south side of the street only
- Left turn lane added for traffic turning onto Fresh Pond Pkwy NB



Two-Way Separated Bike Lane

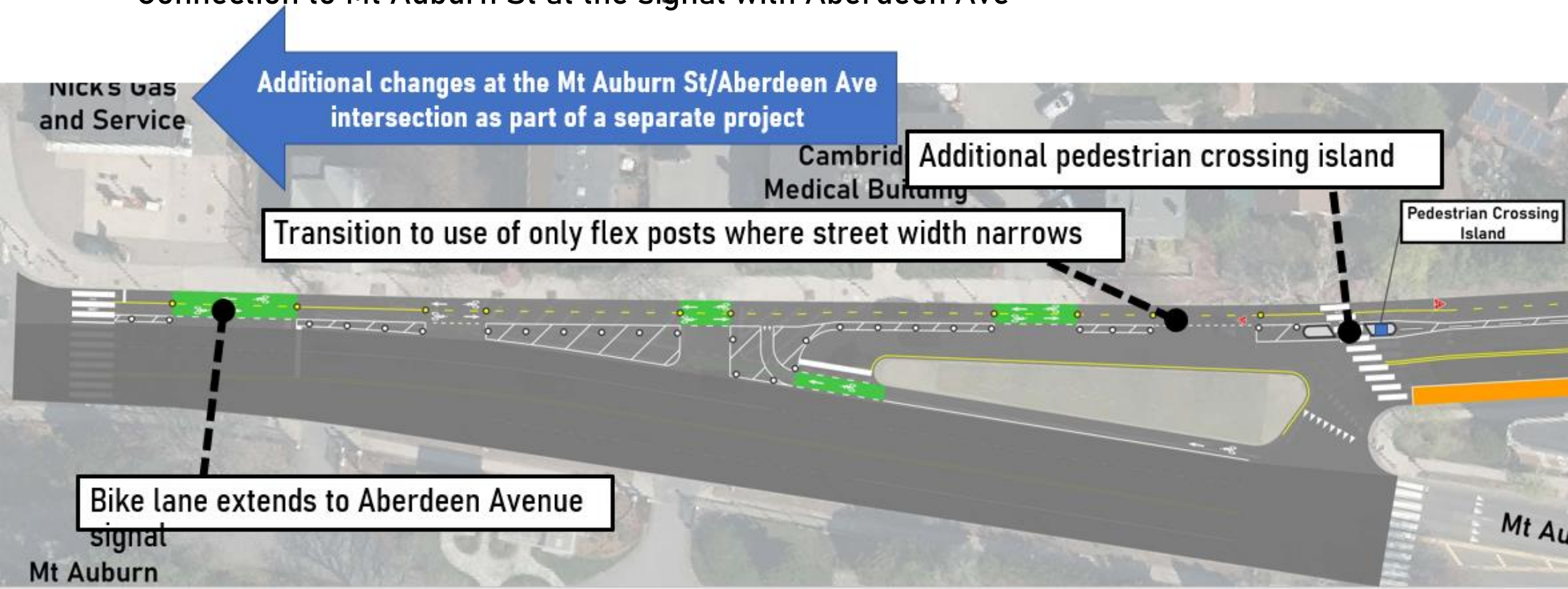
Larch Rd to Mt Auburn St

- Two-way separated bike lane on north side of the street
- Parking on south side of the street only
- Accessible/handicap parking in front of 246 Brattle St



Brattle St at Mt Auburn St

- Two-way separated bike lane on north side of the street
- Connection to Mt Auburn St at the signal with Aberdeen Ave



Parking Summary

Fresh Pond Pkwy to Mt Auburn St: - 24 spaces removed

Mt Auburn St to Fresh Pond Lane

- - 12 spaces removed

Fresh Pond Lane to Larch Rd

- - 6 spaces removed

Fresh Pond Pkwy to Larch Rd

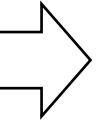
- - 12 spaces removed

Fresh Pond Lane

- 6 spaces added

Brattle St - Sparks St to Fresh Pond Pkwy

- Existing: ~ 100 spaces
- Proposed: ~ 90 spaces
- - 10 spaces removed



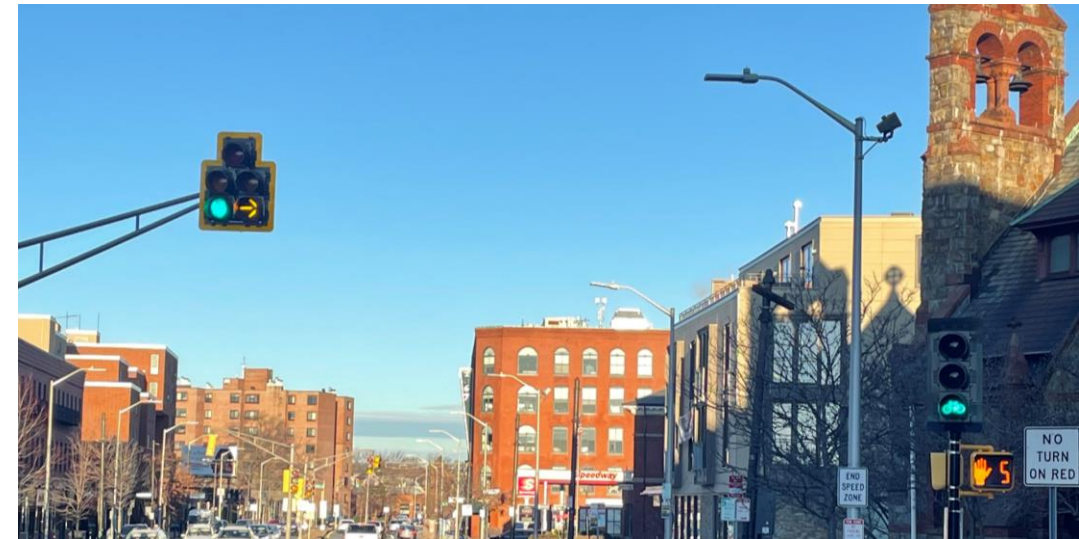
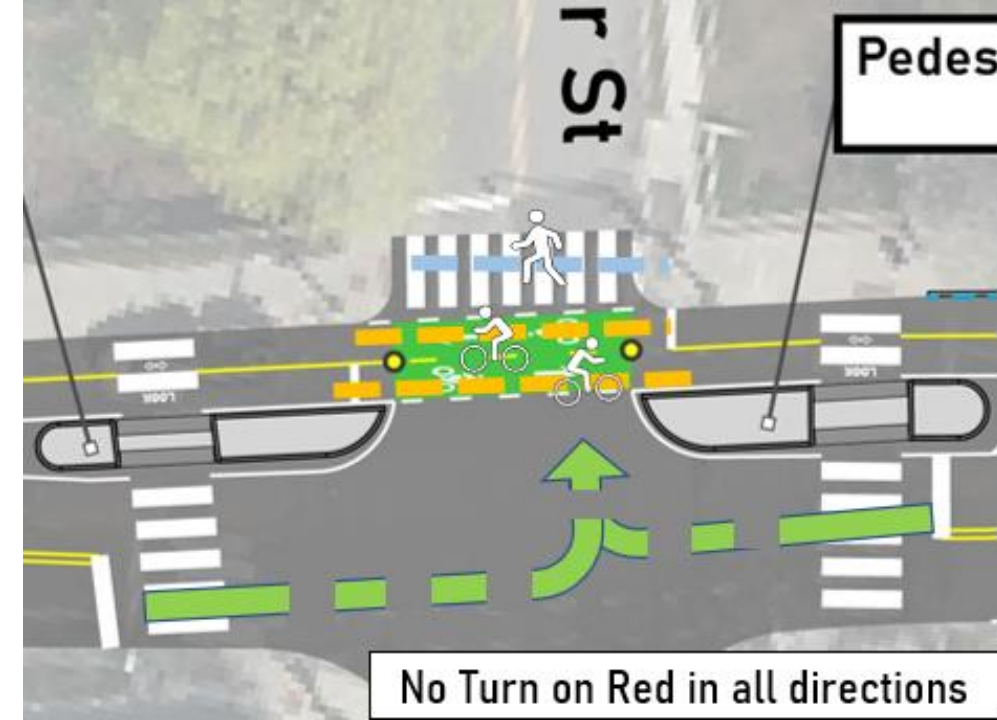
Project Design

Intersections and Traffic Signals



Brattle St at Fayerweather St

- Signals and signage will indicate to people driving to yield to people biking and walking when turning.
- Crossing islands will:
 - Slow vehicles while turning
 - Provide additional protection for people walking and biking
 - Improve visibility



Flashing yellow arrow signals on turns improve driver yielding

Brattle St at Fresh Pond Pkwy

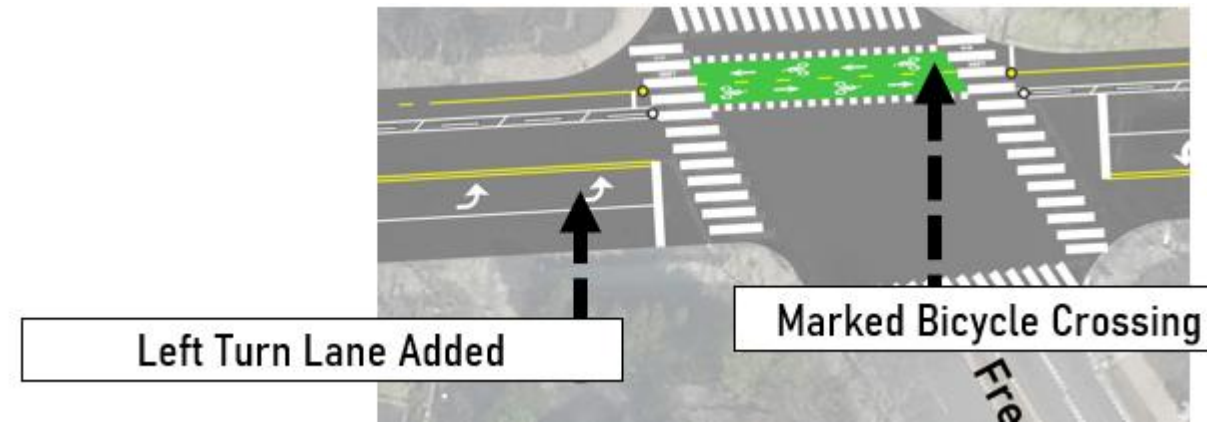
Overview of Signal Changes

At Brattle St and Fresh Pond Pkwy, we are proposing signal timing changes to reduce conflicts for all users. This includes:

- Installation of bicycle signals and bicycle markings
- Extension of No Turn on Red to all hours
- Left turn lane added for turns onto Fresh Pond Pkwy Northbound
- Flashing yellow arrows added for conflicts across the bike lane
- Improved signal phasing to reduce conflicts for pedestrians

This intersection falls under Department of Conservation and Recreation (DCR) jurisdiction

- DCR has the final call on changes to signal timing at this intersection



Brattle St at Fresh Pond Pkwy

First Phase

Brattle Street Westbound

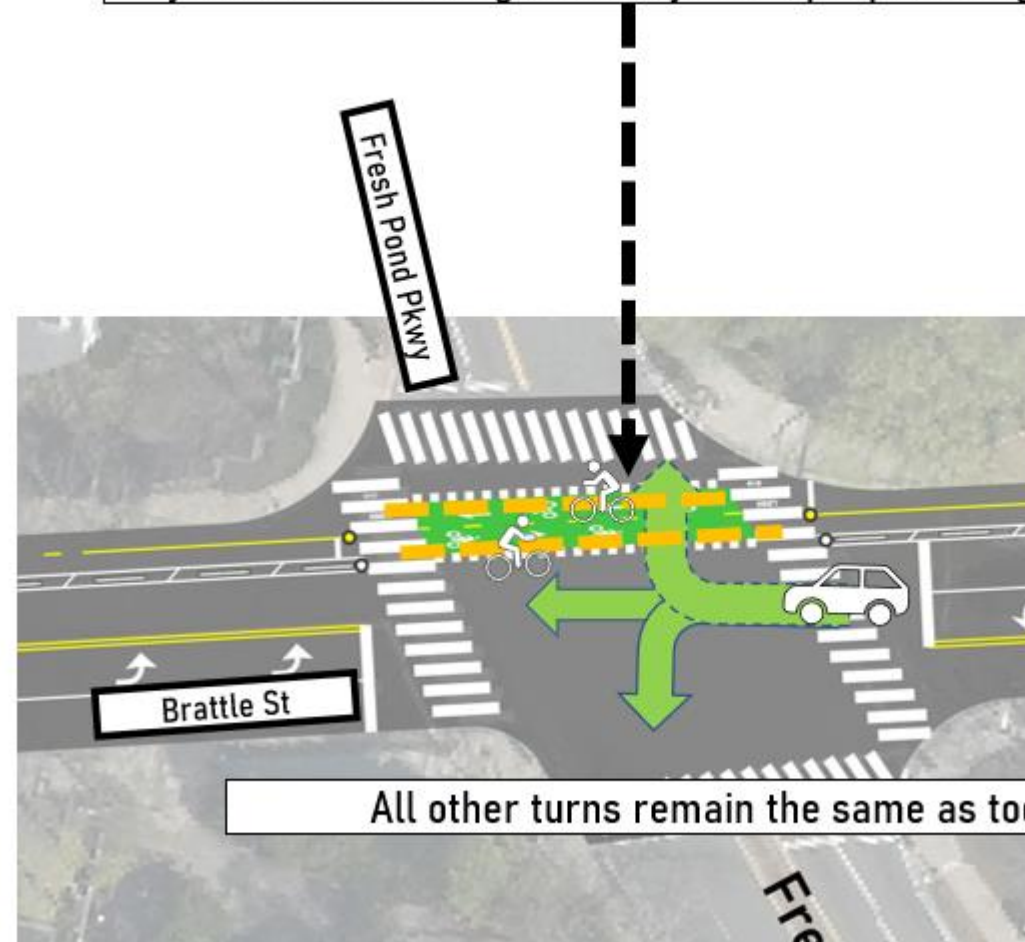
- Right turns onto Fresh Pond Pkwy yield crossing bike lane
- Bikes can go in both directions
- Bikes have a head start on vehicle traffic



Bike signals improve clarity for all road users

All changes to signal timing at Fresh Pond Pkwy and Brattle St require final DCR approval

Drivers turning right onto Fresh Pond Pkwy will have a flashing yellow arrow telling them to yield to people biking and walking



All other turns remain the same as today

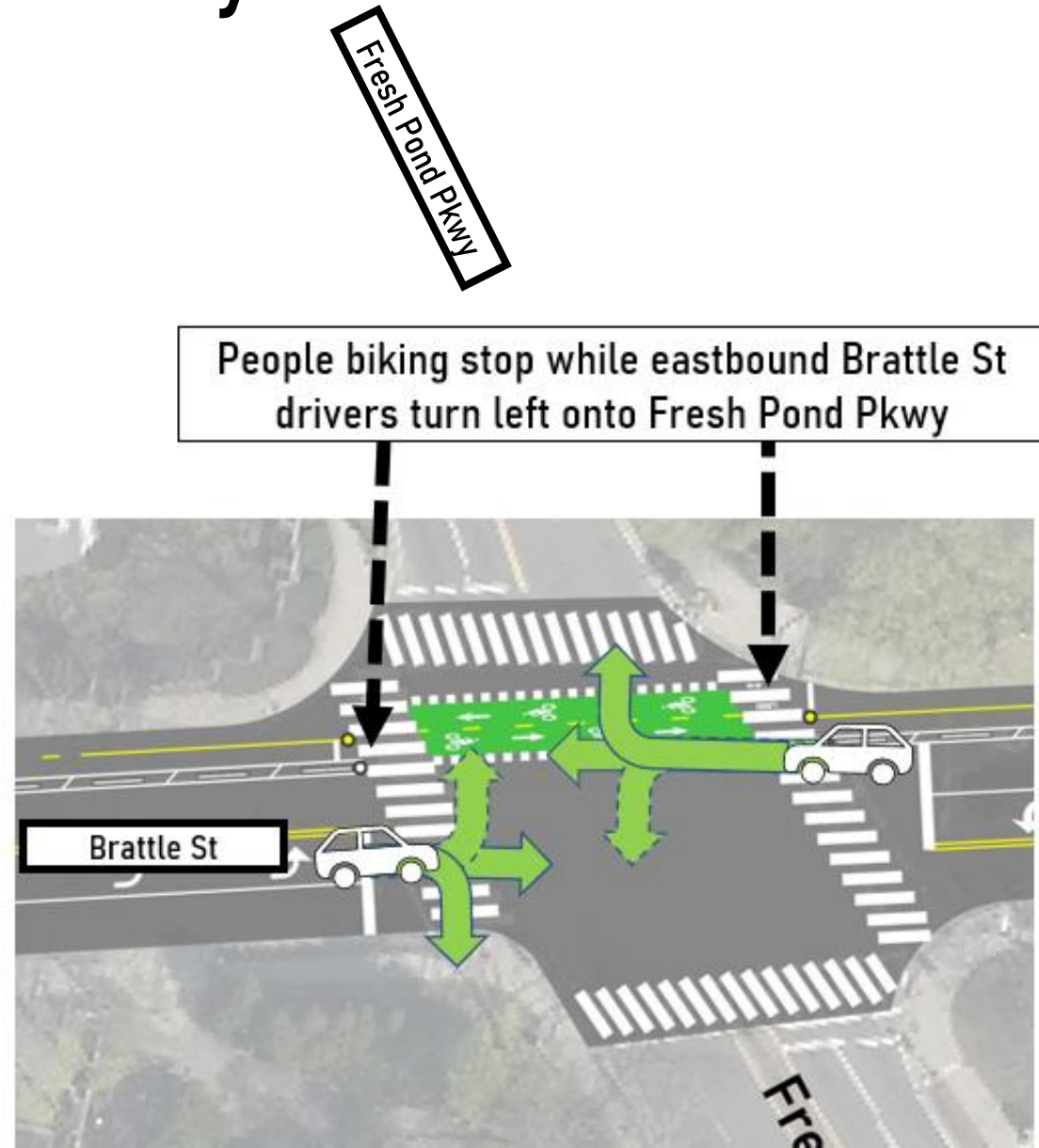
Brattle St at Fresh Pond Pkwy

Second Phase

Brattle Street Eastbound and Westbound

- All vehicles on Brattle St can go
- Left turns yield to oncoming vehicular traffic
- People biking are stopped

All changes to signal timing at Fresh Pond Pkwy and Brattle St require final DCR approval



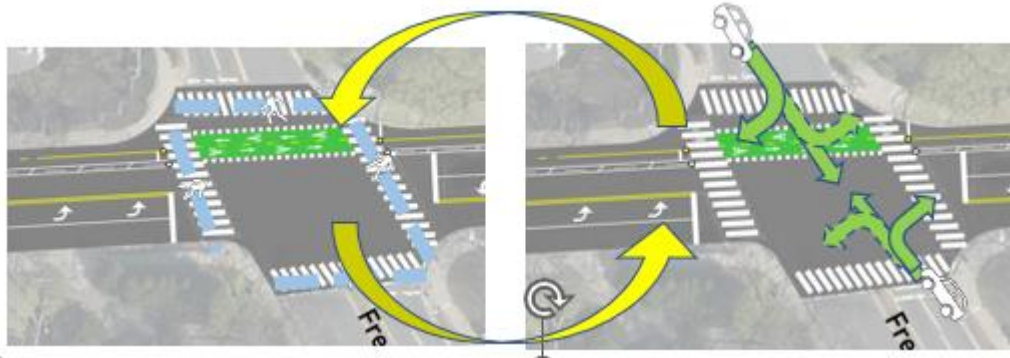
All changes to signal timing at Fresh Pond Pkwy and Brattle St require final DCR approval

Brattle St at Fresh Pond Pkwy

Third Phase

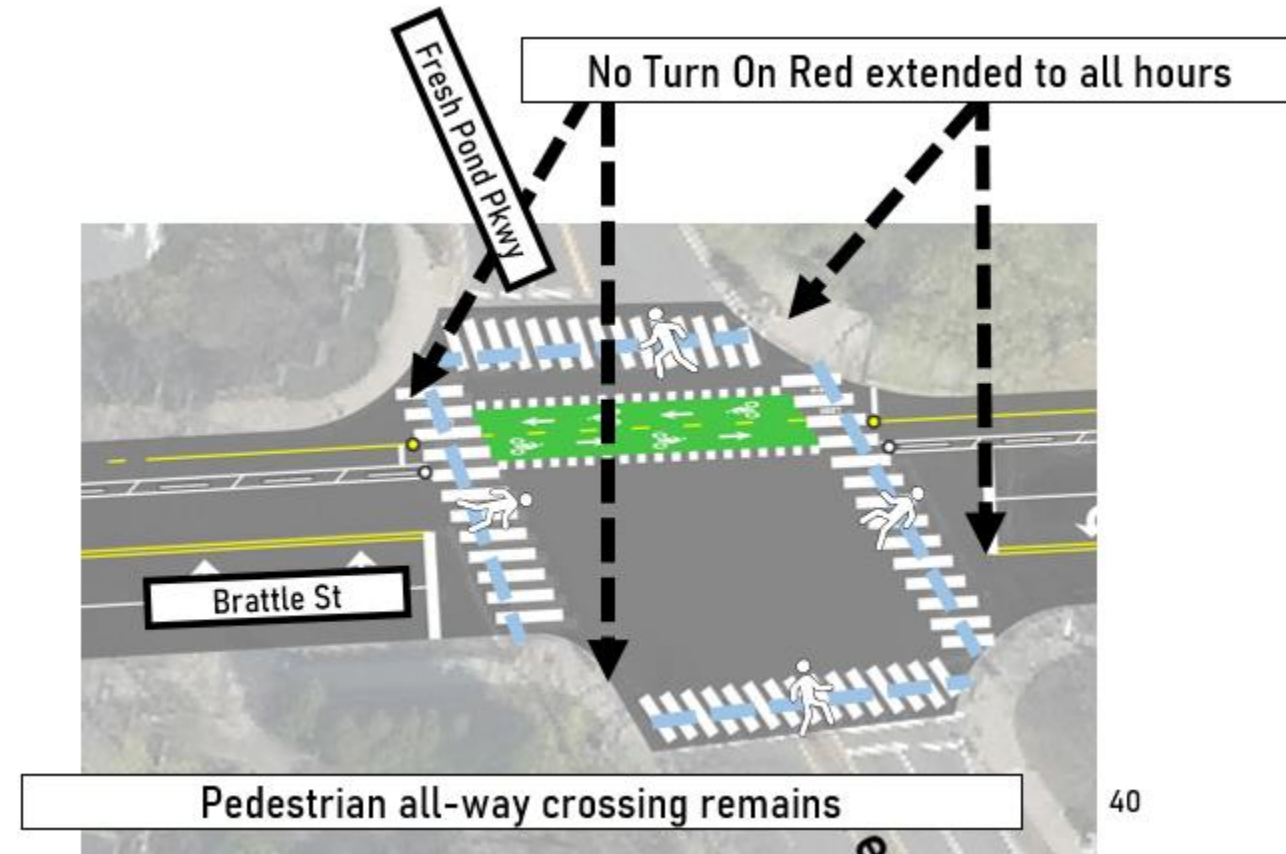
All-Way Pedestrian Crossing.

- All vehicles have a red light
- No turn on red extended to all hours
- To improve pedestrian comfort and safety, we will switch the pedestrian crossing to come on before Fresh Pond Pkwy traffic



We plan to change the timing of the pedestrian crossing in order to improve pedestrian safety

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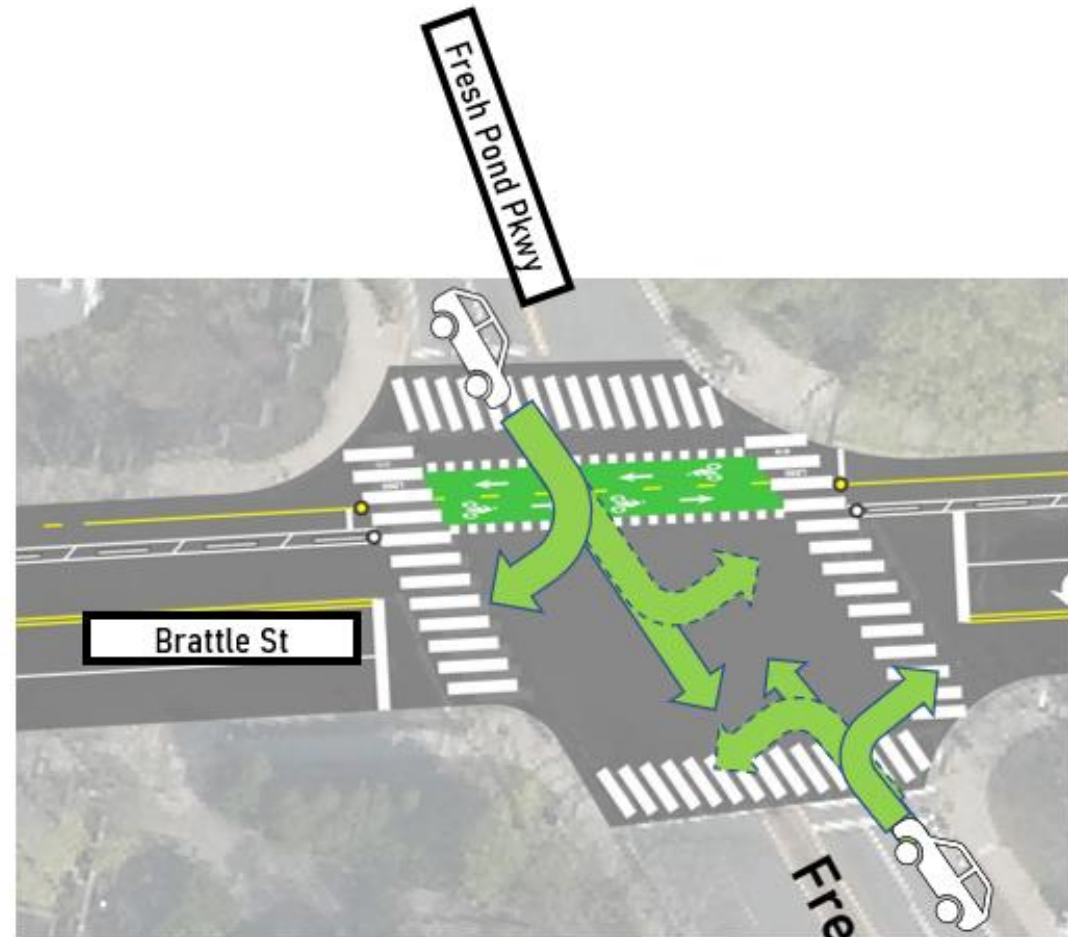


Brattle St at Fresh Pond Pkwy

Fourth Phase

Fresh Pond Pkwy

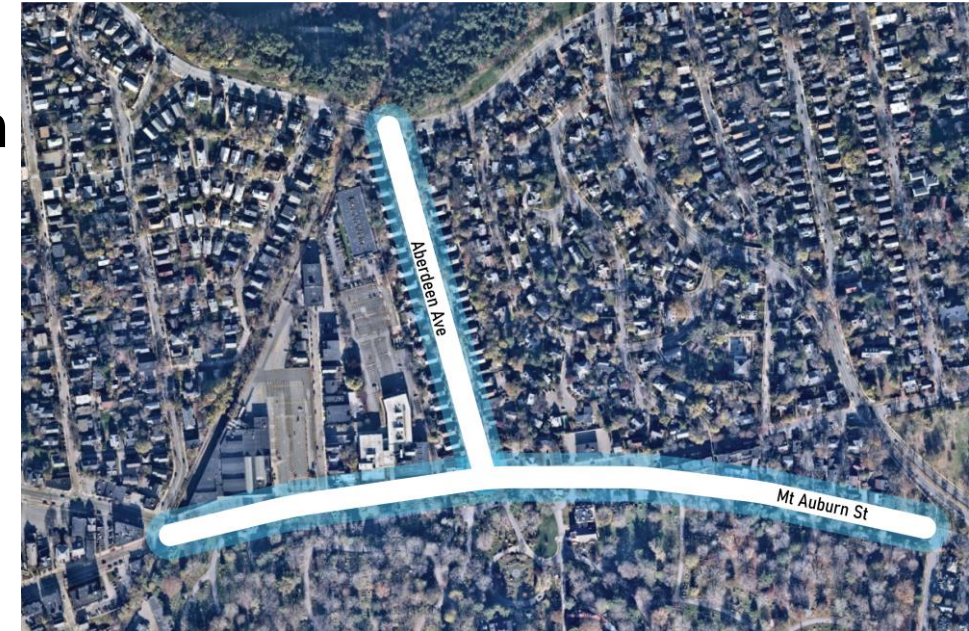
- All vehicles on Fresh Pond Pkwy proceed through the intersection
- By moving this phase to after the pedestrian crossing, we reduce the threat of vehicles being present in the intersection during the pedestrian phase



Mt Auburn St at Aberdeen Ave Signal Improvement Project

As part of a separate project, will construct new traffic signal equipment and consider changes to signal operations at Mt Auburn St and Aberdeen Ave

- The existing traffic signals are missing key features, for example:
 - All signals are street-side rather than overhead, because of previous overhead wiring
 - Not all movements have their own signal head (i.e. there is no red arrow to signal no left turn onto Aberdeen Ave)



The Mt Auburn at Aberdeen Signal Improvement Project will consider changes to both Mt Auburn St and Aberdeen Ave, including separated bike lanes on Aberdeen Ave and additional bus priority on Mt Auburn St

We anticipate holding a community meeting for the Mt Auburn/Aberdeen Ave Project in Spring 2023

Ongoing Community Conversations

What We've Heard Lately:

Make more Improvements for Pedestrian Safety. Key Changes:

- The latest design includes raised concrete pedestrian islands
- We've narrowed the bike lane at crosswalks, to encourage slower speeds where people cross

Reduce the impacts of parking loss. Key changes:

- We added changes to parking on select side-streets
- We're going to collect data on parking occupancy so that we can compare use before and after the project

Request from community members to consider one-way traffic to allow for more parking

Address cut-through traffic in the Larchwood neighborhood

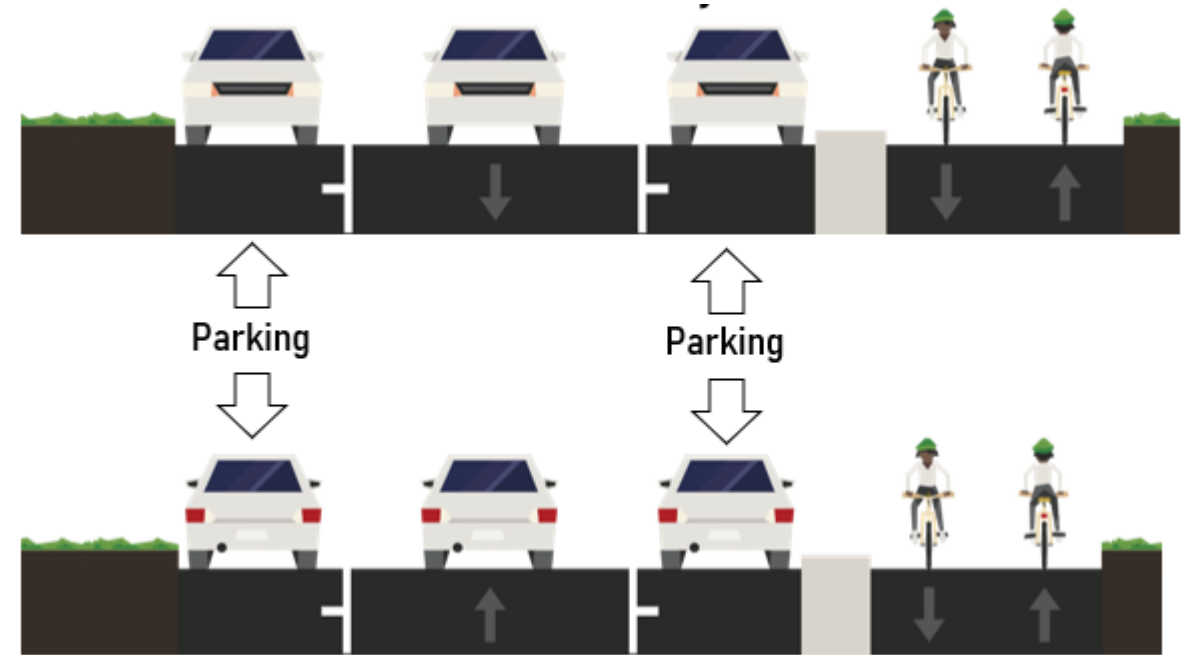


Photo of Brattle St at Larch Rd

What We've Heard Lately:

Community Request for a one-way conversion between Fresh Pond Pkwy and Mt Auburn St

- We looked at creating a one-way section of Brattle St
- This would have:
 - Allowed for parking on both sides of the street
 - Reduced the number of vehicles using Brattle St
- A one-way direction of travel would have negative impacts for emergency response vehicles



One-Way Brattle St with parking on both sides. We looked at both an eastbound and a westbound one-way conversion

We determined that Brattle Street is not a good location for a one-way conversion due to the impact on emergency response times and increased traffic

Schedule / Next Steps

Project Schedule

Tonight: Community Meeting #4

Thursday, February 2: Phase 2 Historical Commission Review

Spring 2023: Community Meeting to review Mt Auburn St at Aberdeen Ave Signal Improvement Project, Date TBD

Spring 2023: Brattle Street Pre-Construction/Pre-Installation Open House, Date TBD

Summer 2023: Project Implementation

Questions + Feedback

Questions + Feedback

- We will take comments in the order hands are raised
 - If calling in, dial *9 to raise your hand / *6 to unmute
- Additional questions can be asked using the Q+A function
- Approximately every 15 minutes, we will provide answers to questions
- The meeting is scheduled to end at 8:00 p.m.

www.cambridgema.gov/BrattleStSafety

Contact Information

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