

Brattle Street Safety Improvement Project

Phase 2 Historical Commission Review: Sparks St to Fresh
Pond Pkwy

February 2, 2023 | 6:00 pm | Zoom

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

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

Street Design Elements

Separated Bikes Lanes: Types of Separators

1. Pre-Cast Concrete Curbs

- Reduce visual clutter
- More durable material

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

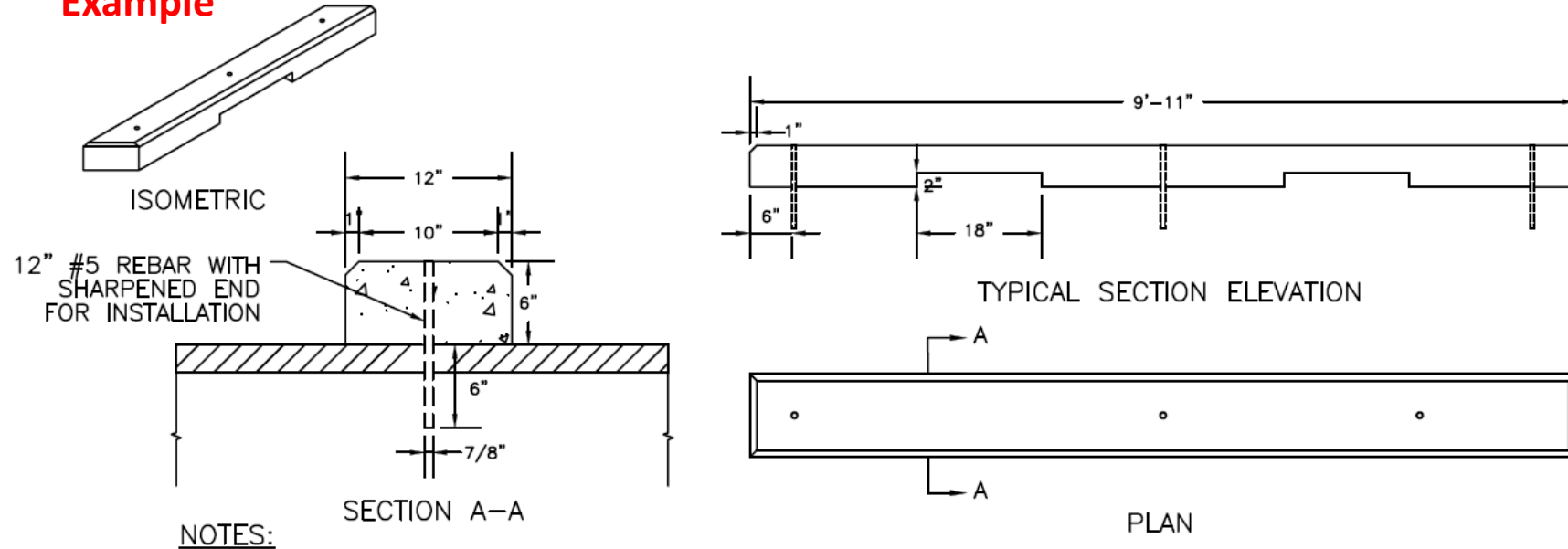


Example image of precast concrete curbing

Pre-Cast Concrete Curbs

Example Plan Set

Example



NOTES:

1. CONCRETE TO BE 5000 PSI, SULFATE RESISTANT WITH FIBER REINFORCEMENT.
2. UNITS TO BE SECURED USING #5 CORROSION RESISTANT REBAR HAND DRIVEN TO DEPTHS INDICATED.

12" PRECAST CONCRETE CURBING FOR BICYCLE LANES
(NOT TO SCALE)

Raised Pedestrian Crossing Island

- We will construct raised pedestrian crossing islands along the corridor
- Benefits over existing flush islands
- Provides more separation from traffic
 - Reduces conflicts between people biking, walking and driving



Existing flush crossing island, which does not protect people from traffic

Proposed pedestrian island, which does protect people from traffic

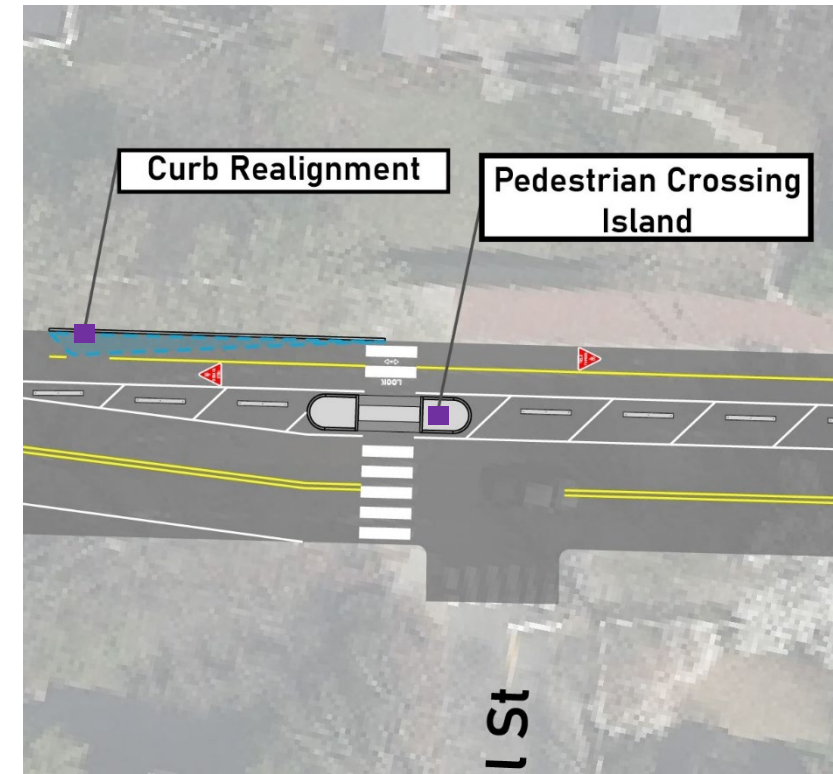
Curb Realignment

- 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



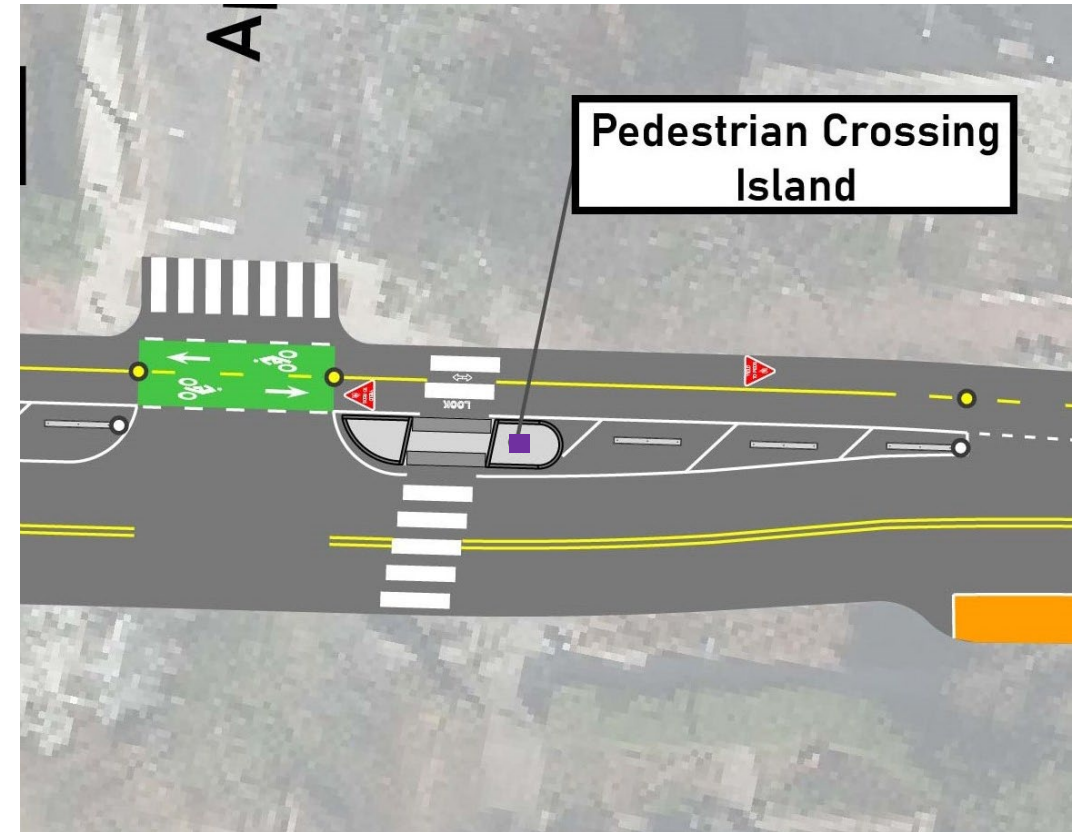
Photo of an existing curb bump out

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Raised Pedestrian Crossing Islands

- We will construct raised pedestrian crossing islands at five locations:
- These locations are:
 1. Appleton St
 2. Lowell St
 3. Fayerweather St/Elmwood Ave
 - East and west side of intersection
 4. Lexington Ave



Overview of Project Plans

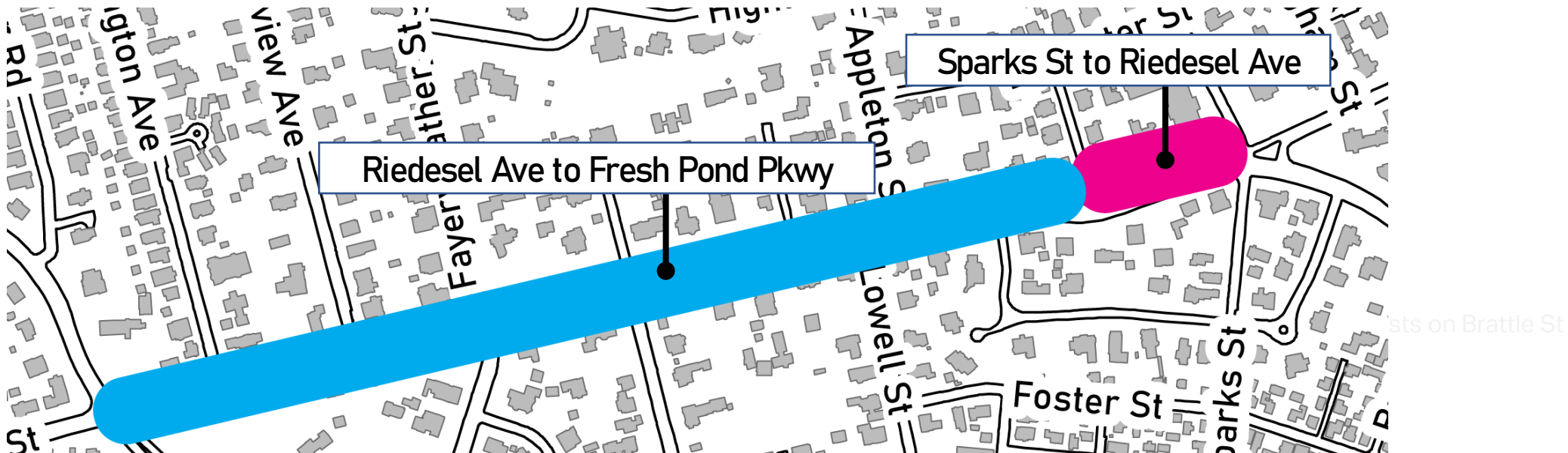
Overview of Project Plans

Riedesel Ave to Fresh Pond Pkwy

- Two-Way separated bike lane on north side of the street
- Parking on south side of street
- Precast curbing and flex-posts between the bike lane and travel lanes

Sparks St to Riedesel Ave

- Two-Way separated bike lane on north side of the street
- Has parking on both sides
- Precast curbing and flex-posts between the bike lane and travel lanes/parking

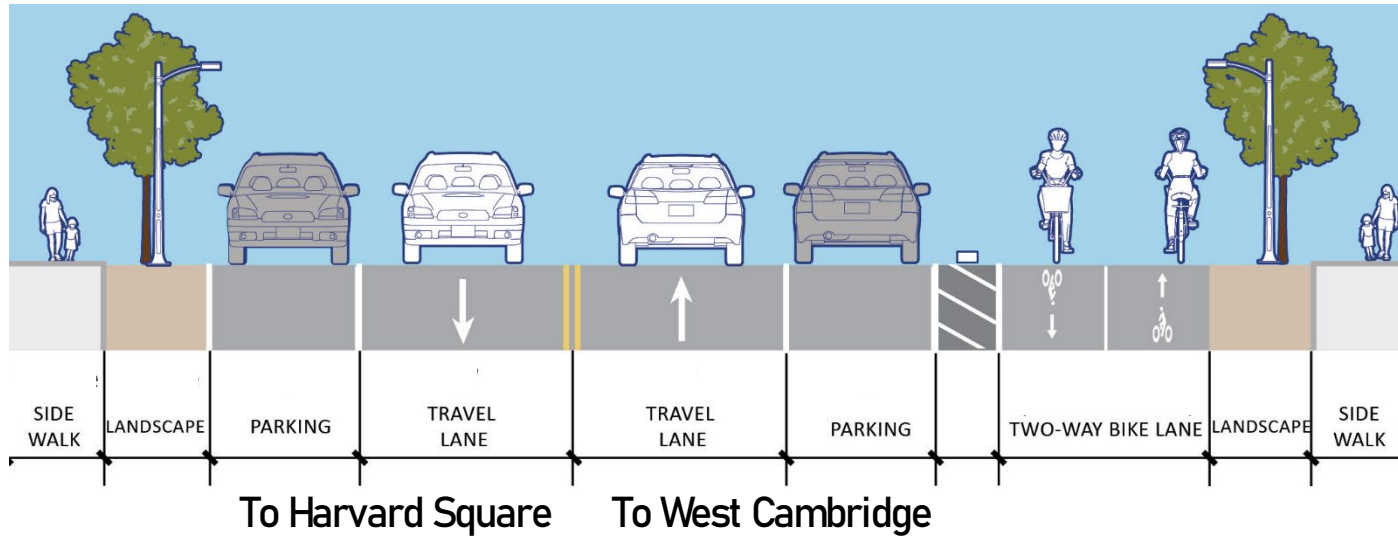


Sparks St to Riedesel Ave

Overview of Project Plans

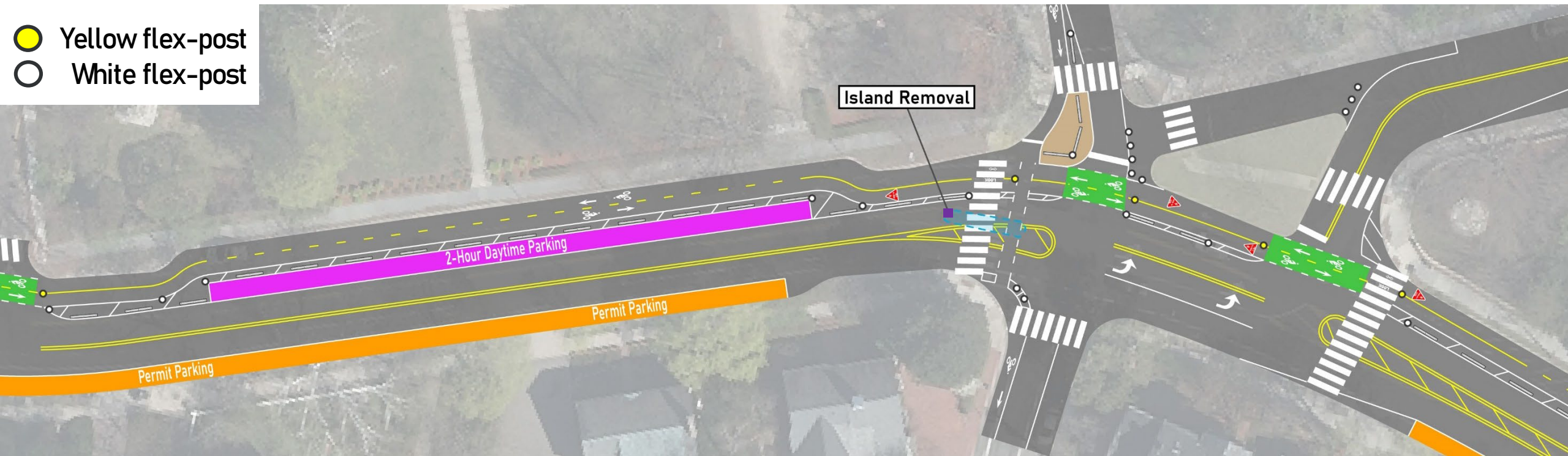
Typical Section: Sparks St to Riedesel Ave

- Two-way separated bike lane on north side of the street
- Precast curbing and flex-posts between the bike lane and travel lanes



Two-Way Separated Bike Lane Sparks St to Riedesel Ave

- Two-way separated bike lane on north side of the street
- Removal of existing pedestrian crossing island at Sparks St
- Precast curbing and flex-posts between bike lane and travel lanes



Pedestrian Crossing Island Removal

Brattle St at Sparks St

- To accommodate the proposed design, we will remove the existing crossing island at Brattle St and Sparks St
 - This crossing island was installed in 2010 as part of a previous project
 - We will replace the island with painted asphalt



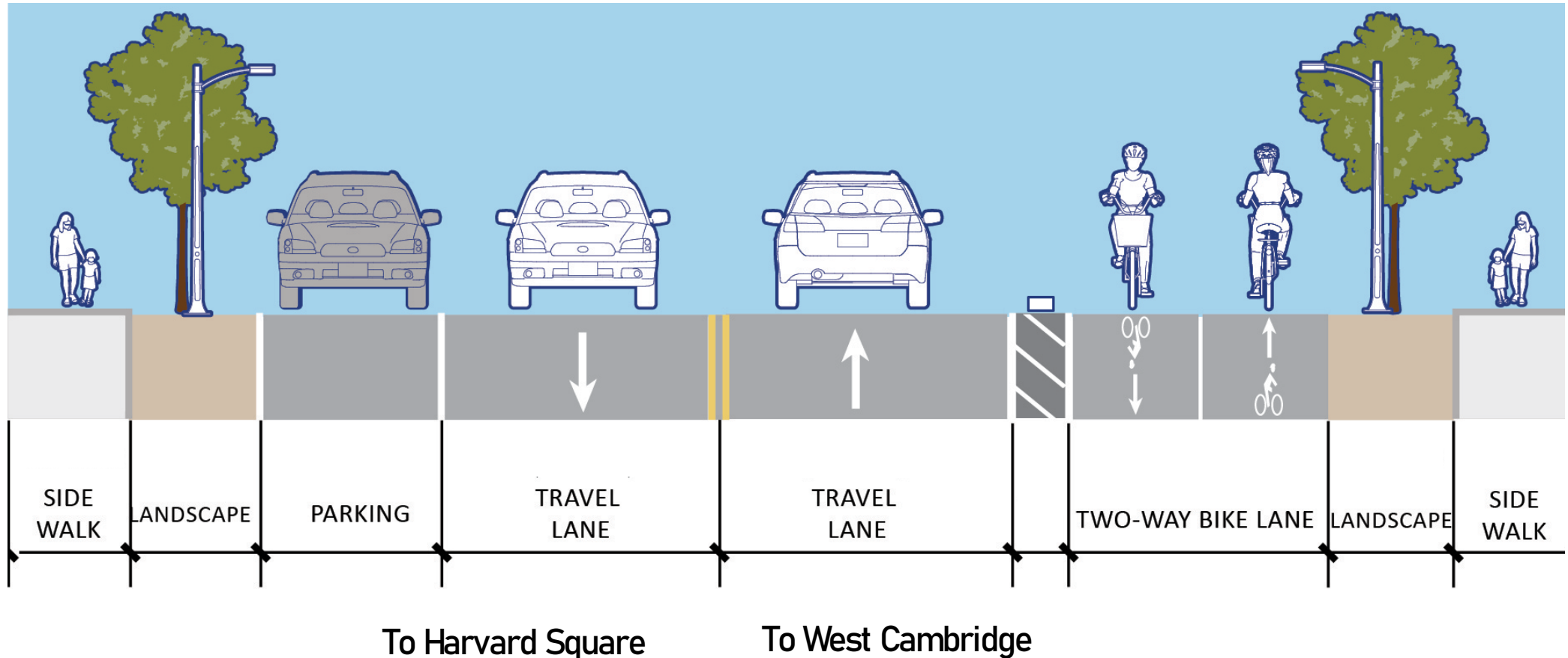
Existing Pedestrian Crossing island at Brattle St and Sparks St to be removed

Riedesel Ave to Fresh Pond Pkwy

Overview of Project Plans

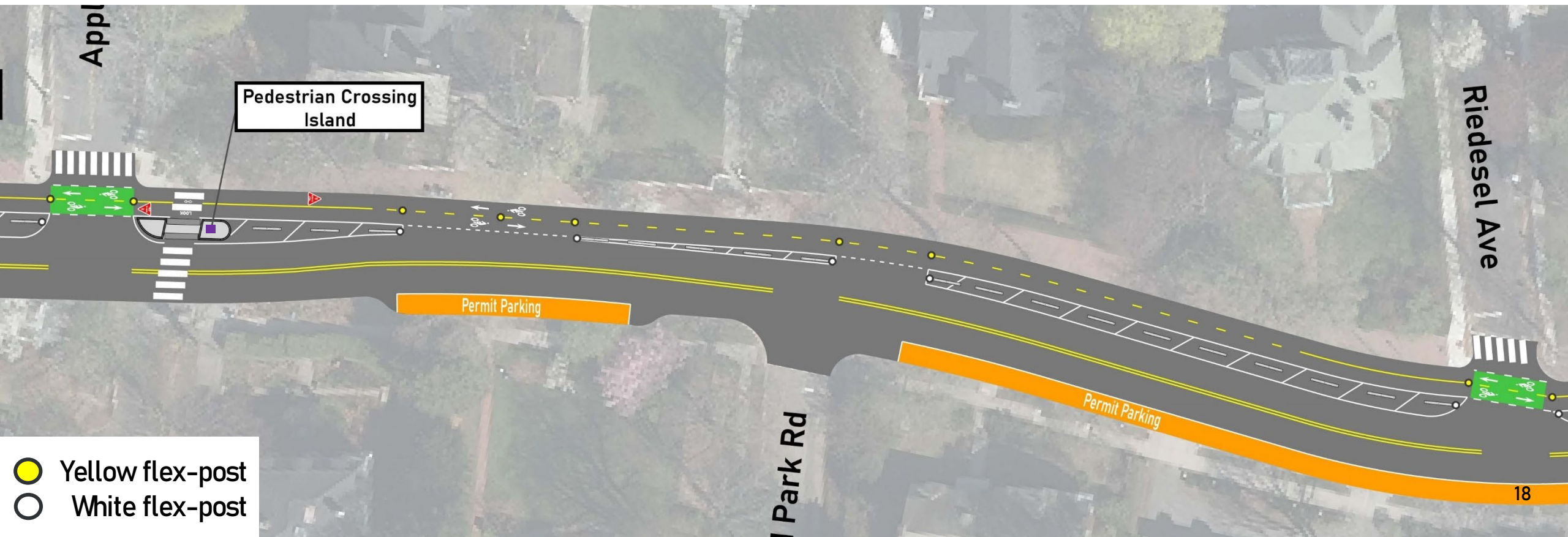
Typical Section: Riedesel Ave to Fresh Pond Pkwy

- Parking on one side of the street
- Precast curbing and flex-posts between bike lane and travel lanes



Two-Way Separated Bike Lane Riedesel Ave to Appleton St

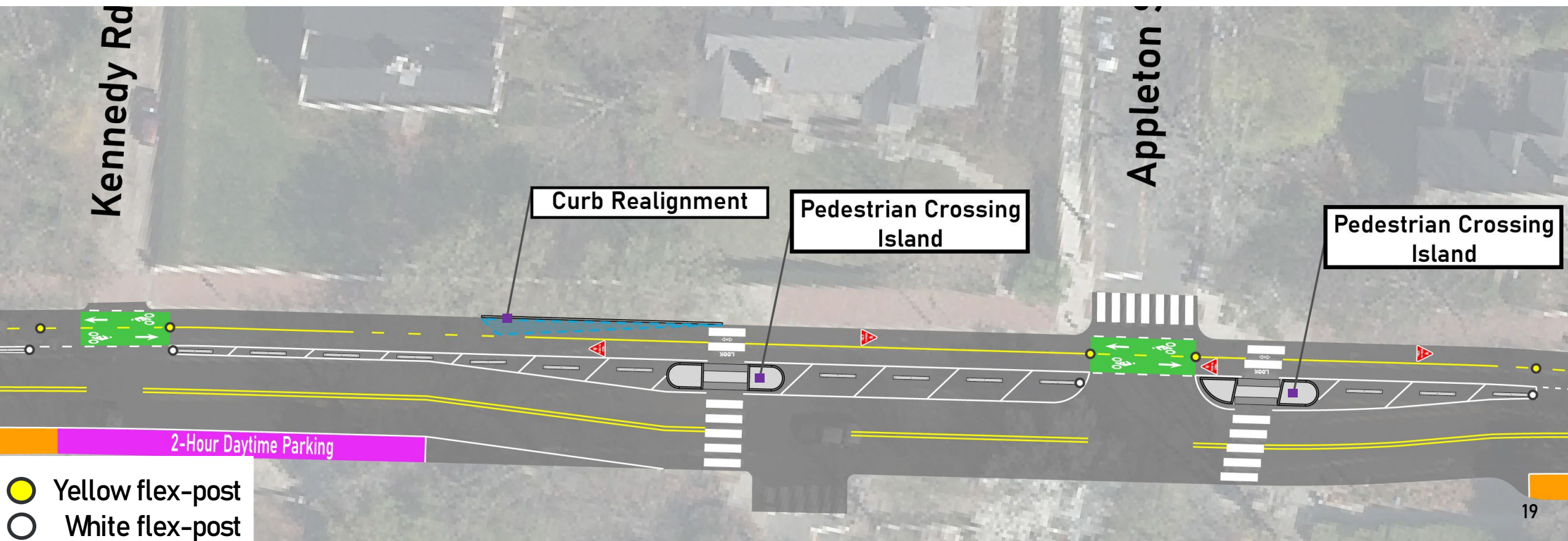
- Two-way separated bike lane on north side of the street
- Precast curbing, flex-posts and pedestrian crossing islands next to the bike lane



Two-Way Separated Bike Lane

Appleton St to Kennedy Rd

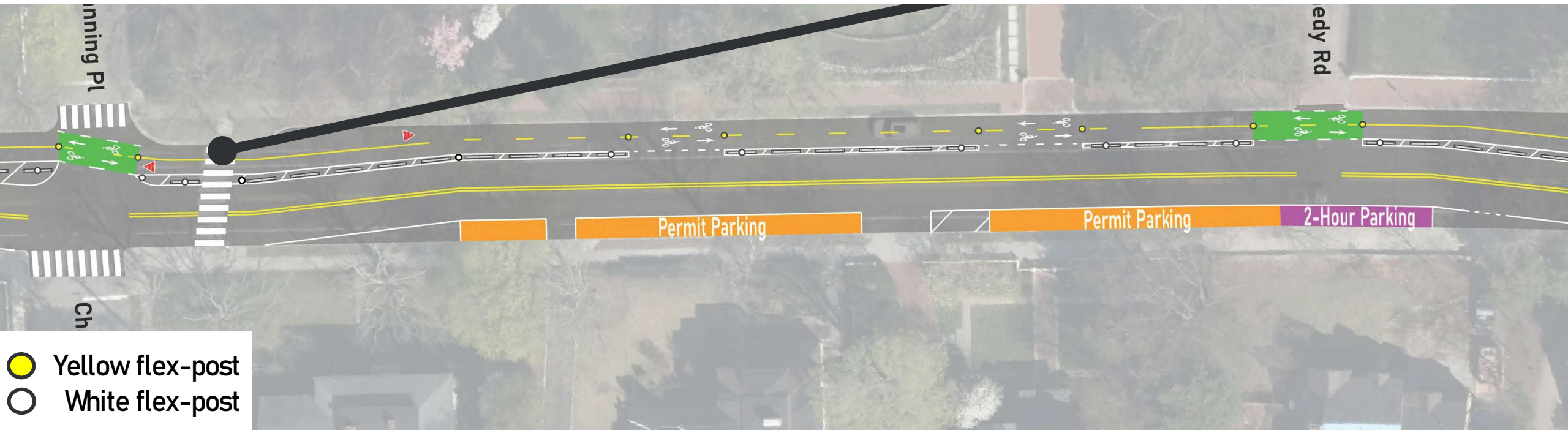
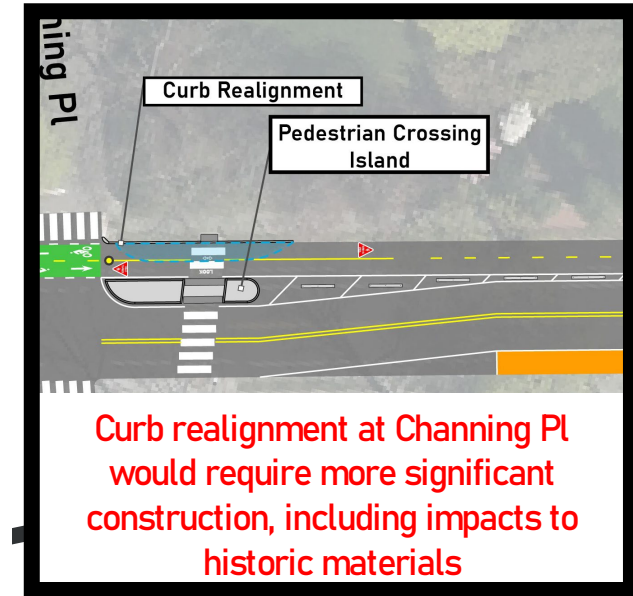
- Two-way separated bike lane on north side of the street
- Precast curbing, flex-posts and pedestrian crossing islands next to the bike lane



Two-Way Separated Bike Lane Kennedy Rd to Channing Pl

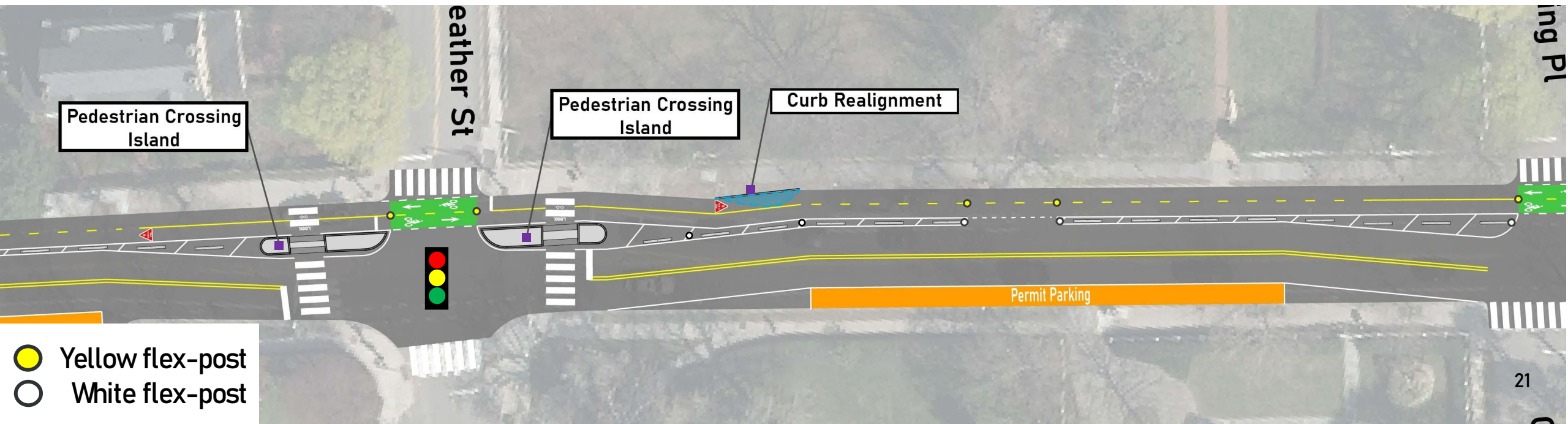
- Two-way separated bike lane on north side of the street
- Precast curbing and flex posts next to the bike lane
- No curb realignment or crossing island construction at Channing Pl
 - Realignment of the curb at this location would require reconstruction (lowering) of the existing sidewalk and the removal 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
- Precast curbing, flex post and pedestrian crossing islands next to the bike lane



Two-Way Separated Bike Lane

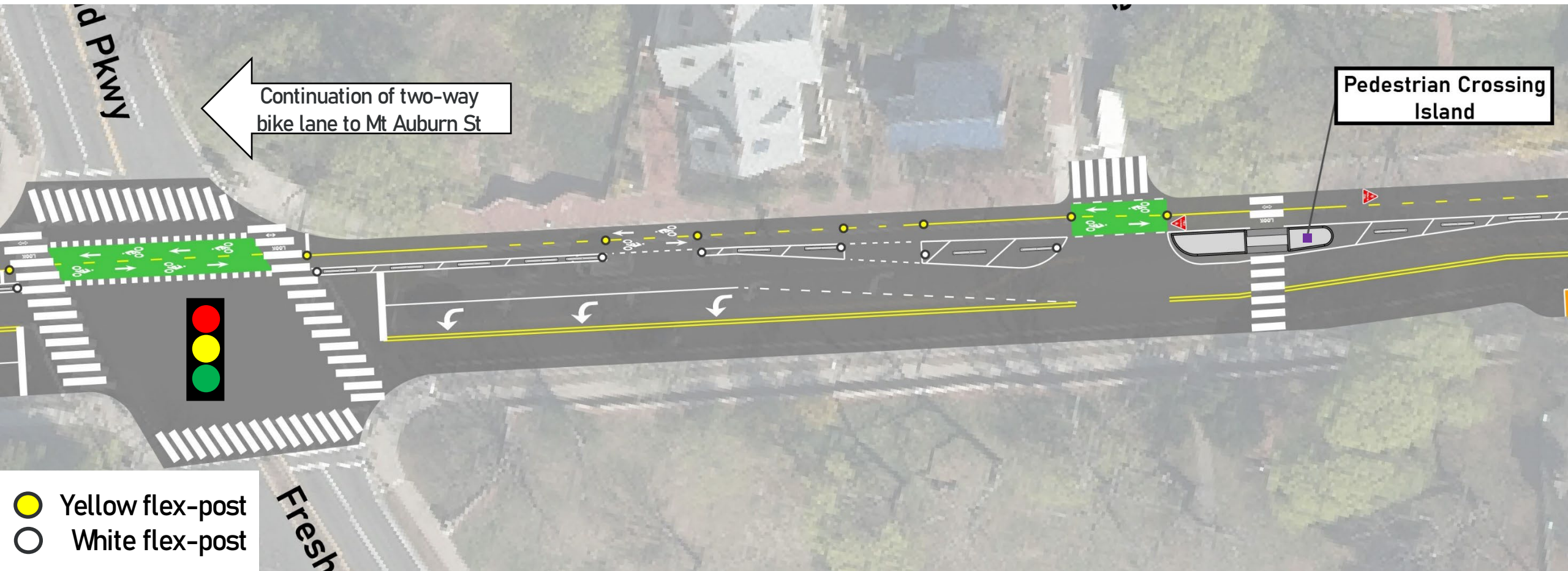
Fayerweather St to Lexington Ave

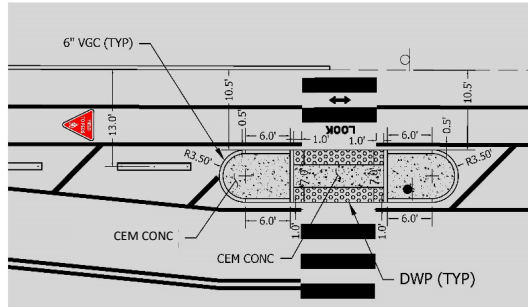
- Two-way separated bike lane on north side of the street
- Precast curbing, flex post and pedestrian crossing islands next to the bike lane



Two-Way Separated Bike Lane Lexington Ave to Fresh Pond Pkwy

- Two-way separated bike lane on north side of the street
- Precast curbing, flex post and pedestrian crossing islands next to the bike lane

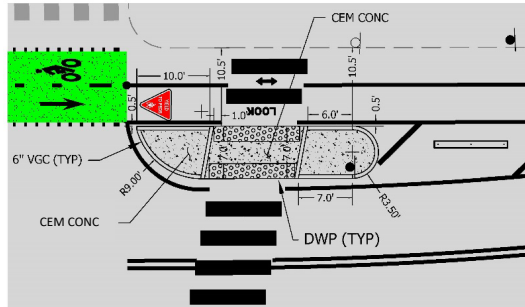




PEDESTRIAN REFUGE ISLAND
(LOWELL STREET)

NOTES:

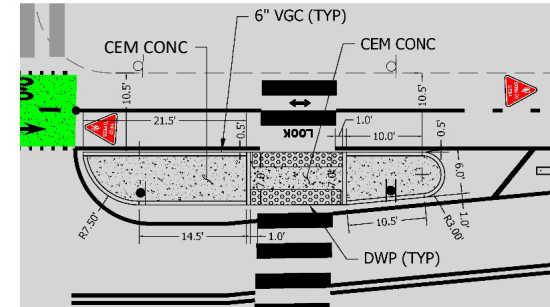
1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(APPLETON STREET)

NOTES:

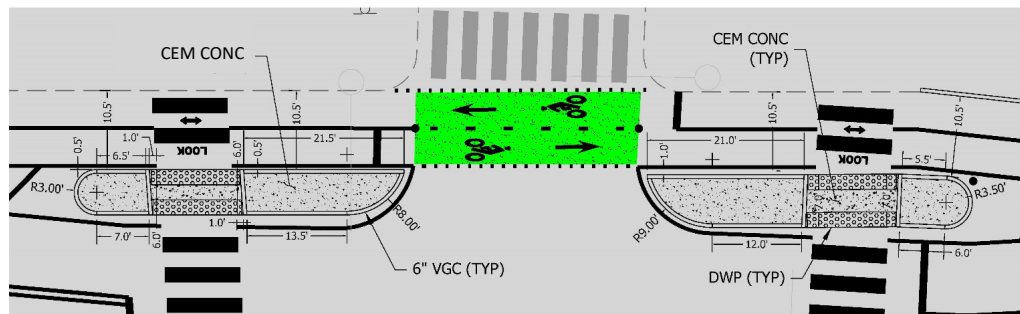
1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(LEXINGTON AVENUE)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)



PEDESTRIAN REFUGE ISLAND
(FAYERWEATHER STREET)

NOTES:

1. FACES OF CURB TO BE A MINIMUM OF 6" FROM EDGE OF BIKE LANE LINE (O.C.) AND 1' FROM EDGE OF VEHICLE LANE (O.C.)