

### 3. Describe the proposed alteration(s), construction or demolition in the space provided below: (cont.)

- This project will install quick build separated bike lanes on Brattle St from Mason St to Craigie St within the existing roadway. Parking will be removed on the north side of the street.
- Quick build bike lanes are installed by reallocating space within the existing right of way, without significant construction. Materials include pavement markings, signs, and flex posts. In this project, we will be introducing a new concrete barrier to improve the separation between vehicles and bicycles, and to decrease the number of flex posts required.
- Small curb modifications are expected as a part of this work at Brattle St and Longfellow Park and Brattle St and Willard St. At both locations, the northside curb will be placed back approximately two feet from its existing locations. At Longfellow Park, ADA-compliant tactile strips will be added to the pedestrian ramp. These changes will result in a slightly smaller grass strip in both locations on the north side of the street. These modifications will not affect the existing bluestone sidewalk at either location.
- At the intersection of Brattle St., Craigie Street, and Sparks Street, a small portion of Craigie Street will be closed using temporary materials and traffic on Craigie will move to the roadway east of the triangle. This will significantly simplify the intersection and improve safety for all users.
- This application represents phase 1 of a two phase project that will eventually extend the separated bicycle lanes along Brattle Street to Mt. Auburn Street. Detailed design work for phase 2 will take place over the next year, and we will return to the Commission as needed for phase 2.

# Implementation Schedule

## Late Summer 2022

### Phase 1 – Mason St to Sparks St

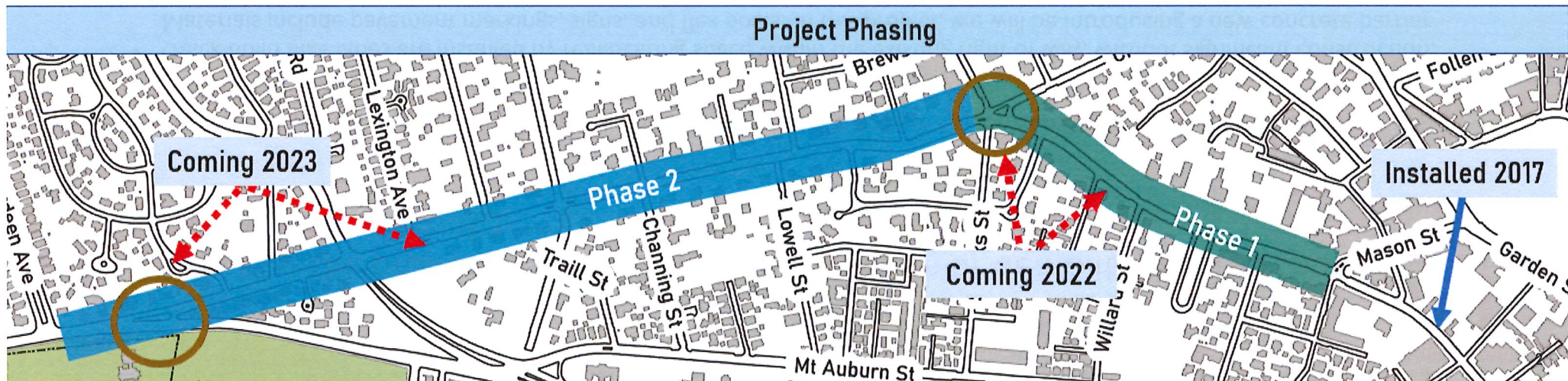
- Separated bike lanes
- Safety improvements at Brattle St and Sparks St/Craigie St intersection



## Spring/Summer 2023

### Phase 2 – Sparks St to Mt Auburn St

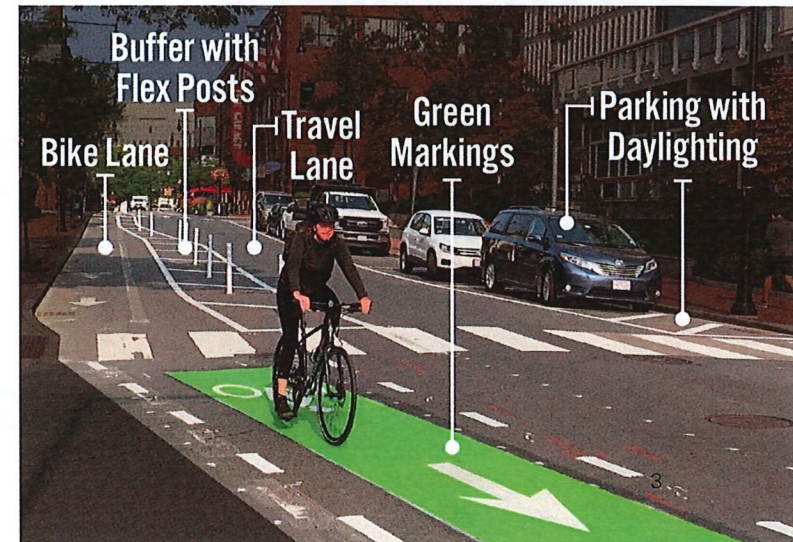
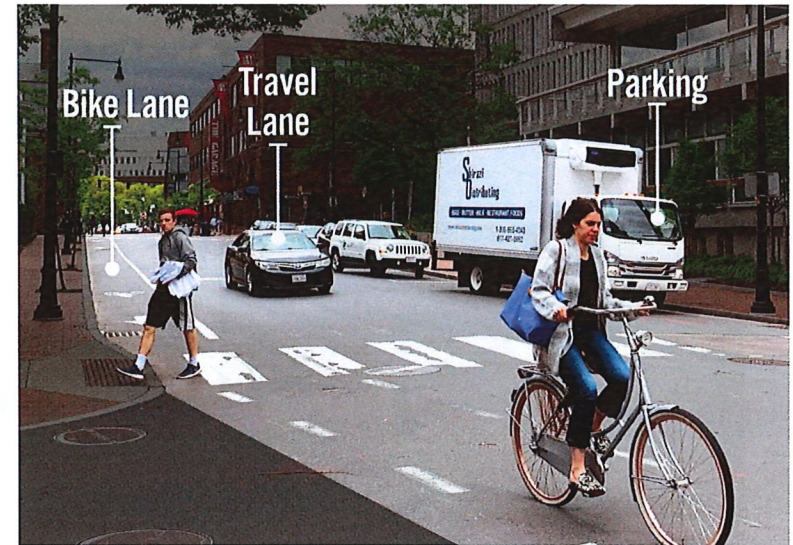
- Separated bike lanes
- Safety improvements west of Sparks St
- Intersection improvements at Brattle St/Mt Auburn St/Aberdeen Ave





# 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



# Street Design vs Enforcement vs Education

## Street Design

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

## Enforcement and Education

- Enforcement and education are supplemental to proper street design, not replacements

### Example:

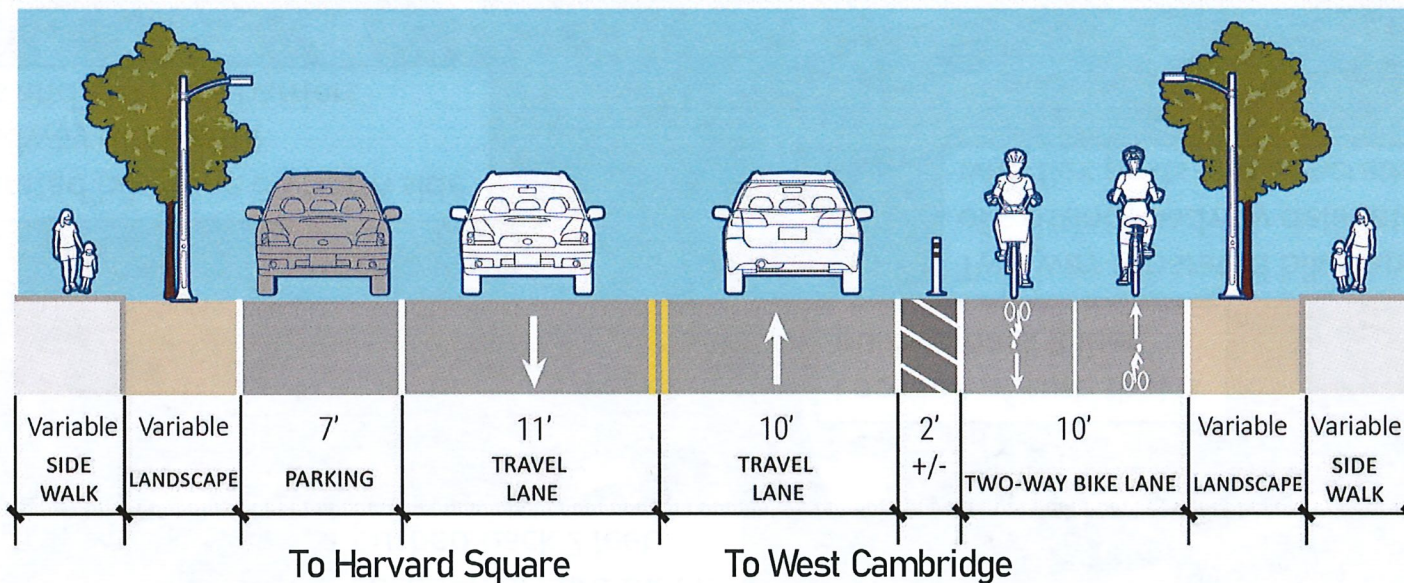
A momentary distraction can mean a driver doesn't see a cyclist or vice versa.

Providing separation between people in cars and people on bikes decreases the chance that a momentary distraction leads to a deadly crash.

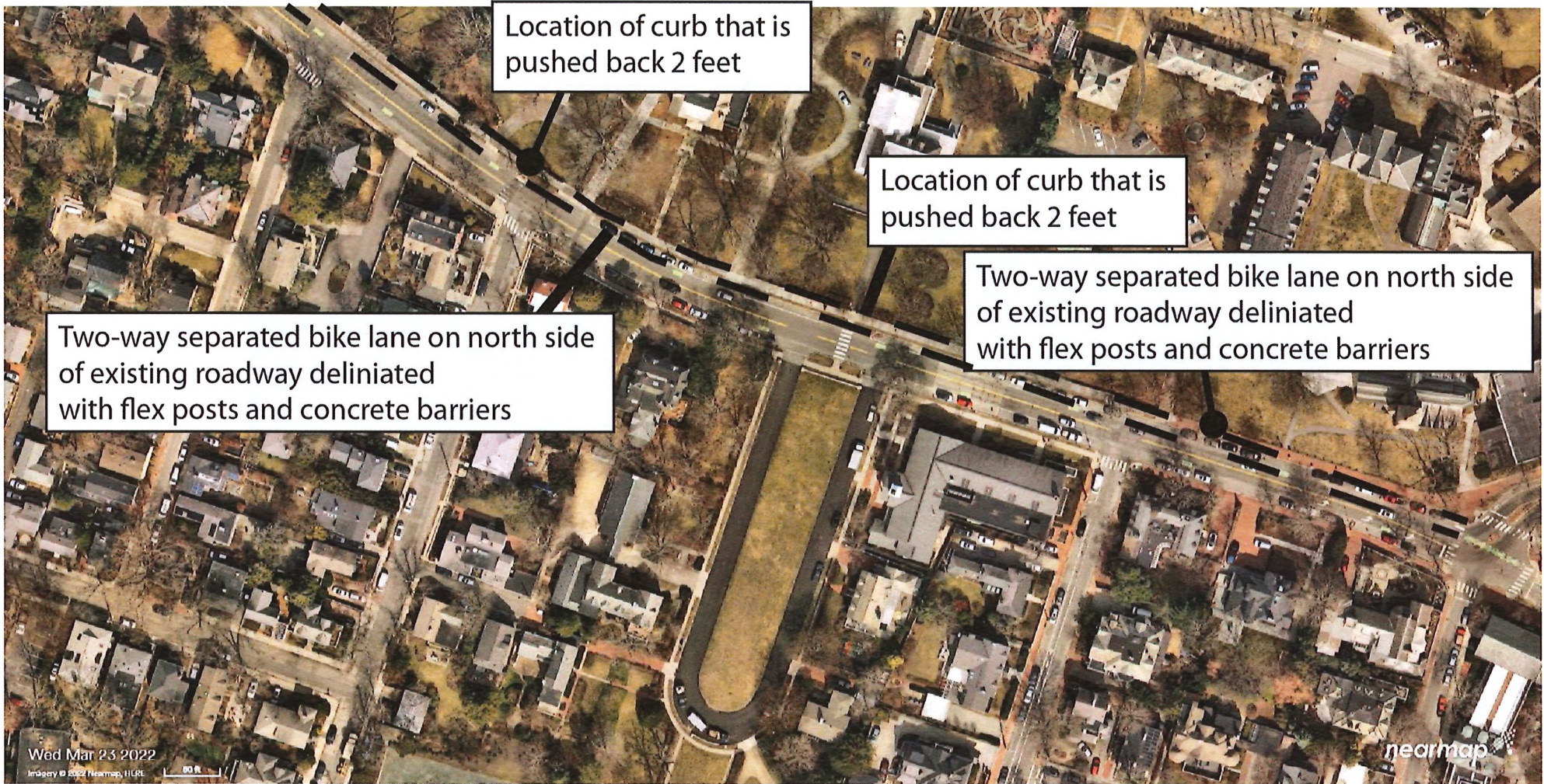


# Draft Design: Two-Way Separated Bike Lane

- Room for parking on one side of the street
- People biking will need to cross the road to access the south side of the street







Location of curb that is pushed back 2 feet

Location of curb that is pushed back 2 feet

Two-way separated bike lane on north side of existing roadway delineated with flex posts and concrete barriers

Two-way separated bike lane on north side of existing roadway delineated with flex posts and concrete barriers



# Separated Bike Lanes: Types of Separation

## 1. Pre-Cast Concrete Curbs

- Reduce visual clutter
- More durable material

## 2. Flex Posts

- Higher visibility
- Installed at driveways, side-streets, other key locations
- Provide most clarity to road users

# Separated Bike Lanes: Types of Separation

## Pre-Cast Concrete Curbs and Flex Posts



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

City of Cambridge | Brattle St Separated Bike Lanes & Intersection Safety Improvements



# Separated Bike Lanes: Types of Separation

## Pre-Cast Concrete Curbs



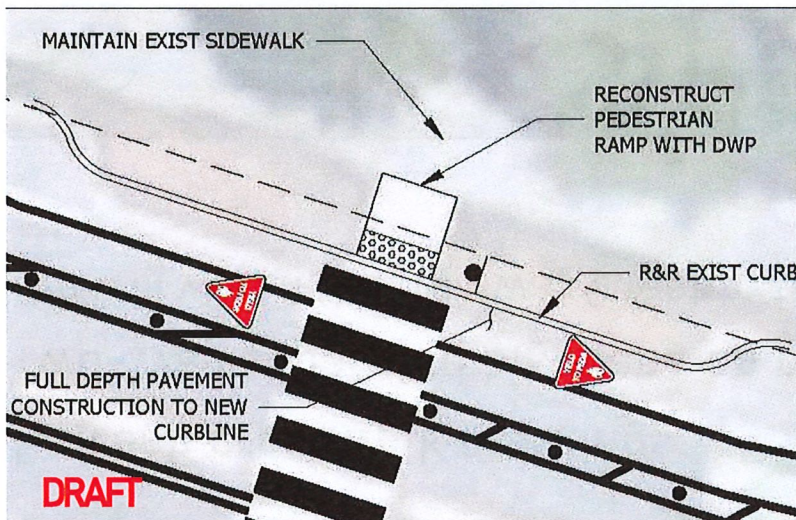
Example image of pre-cast concrete curbs without flex posts





# Pedestrian Crossing – Brattle St @ Longfellow Pk

- Two-way separated bike lane on north side of street
- We will widen the roadway 2 feet to fit the preferred cross section
- Curb modifications will address accessibility for people with disabilities



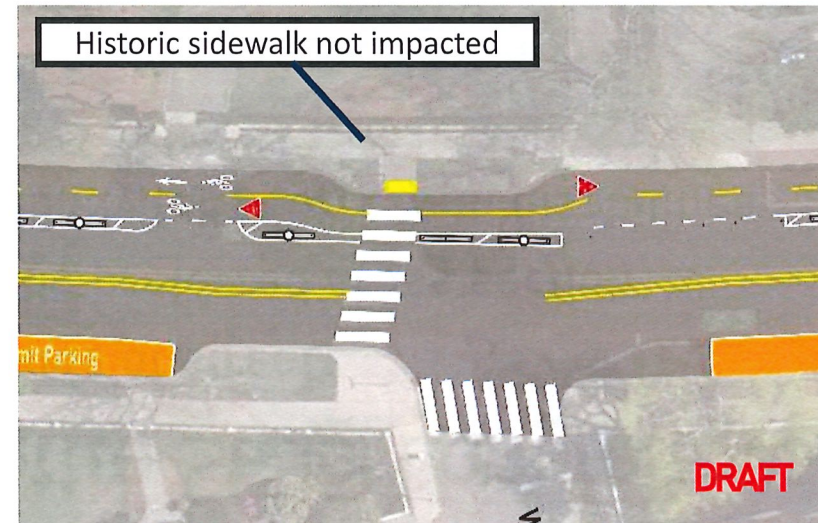
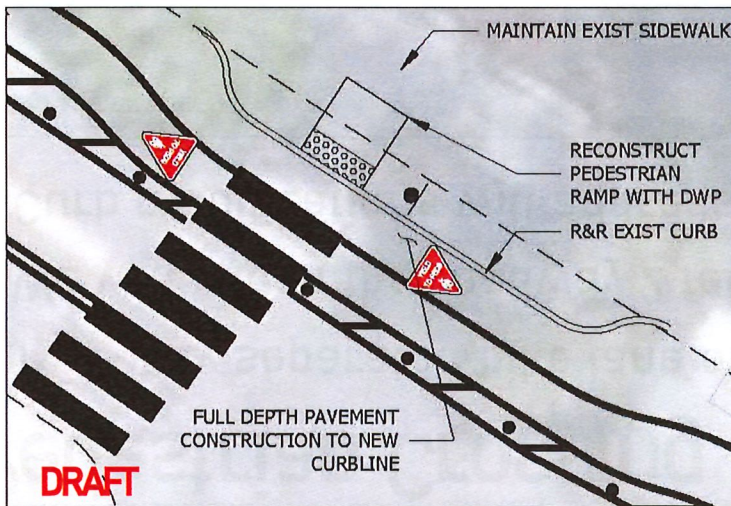
Longfellow Park Crossing



Rendering of Longfellow Park Crossing

# Pedestrian Crossing – Brattle St @ Willard St

- Refresh crosswalk markings
- Two-Way separated bike lane on north side of street
- We will widen the roadway 2 feet to fit the preferred cross section

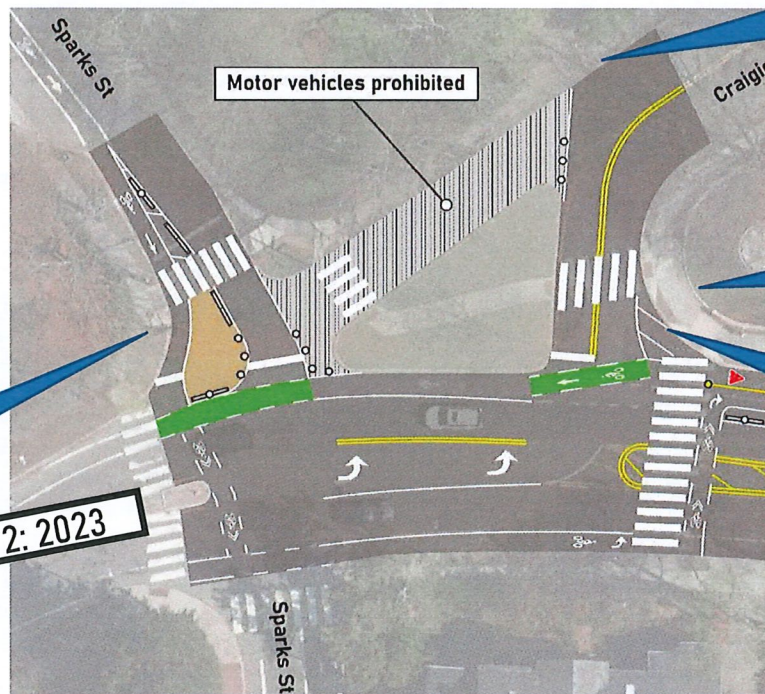




# Intersection Improvements

## Sparks St / Craigie St / Brattle St

- Creates two distinct intersections
  1. Brattle St @ Craigie St
  2. Brattle St @ Sparks St
- Includes interim bicycle markings until Phase 2 next year



Retain driveway access

Retain existing historic curbs and sidewalks

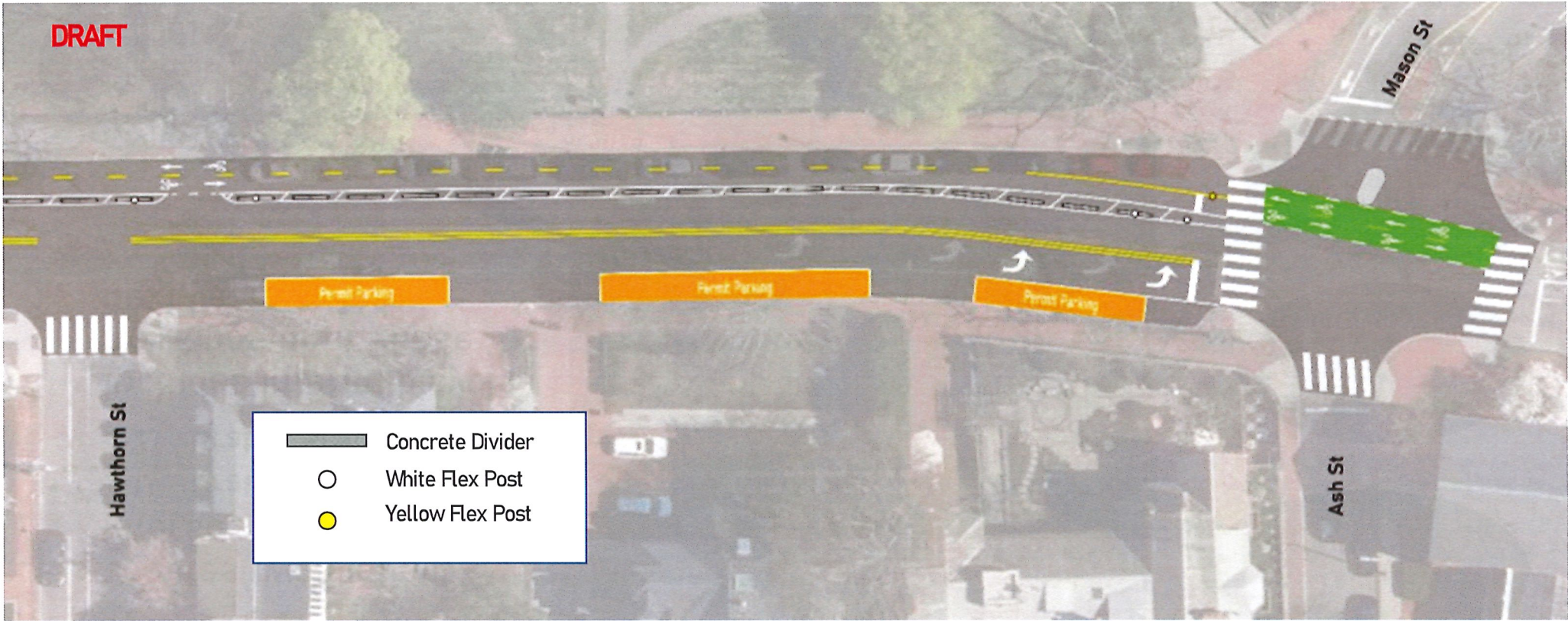
“Bend” Craigie St into Brattle St

Painted crossing island with vertical barriers

Brattle Street Phase 1 | Sparks Street/Craigie St

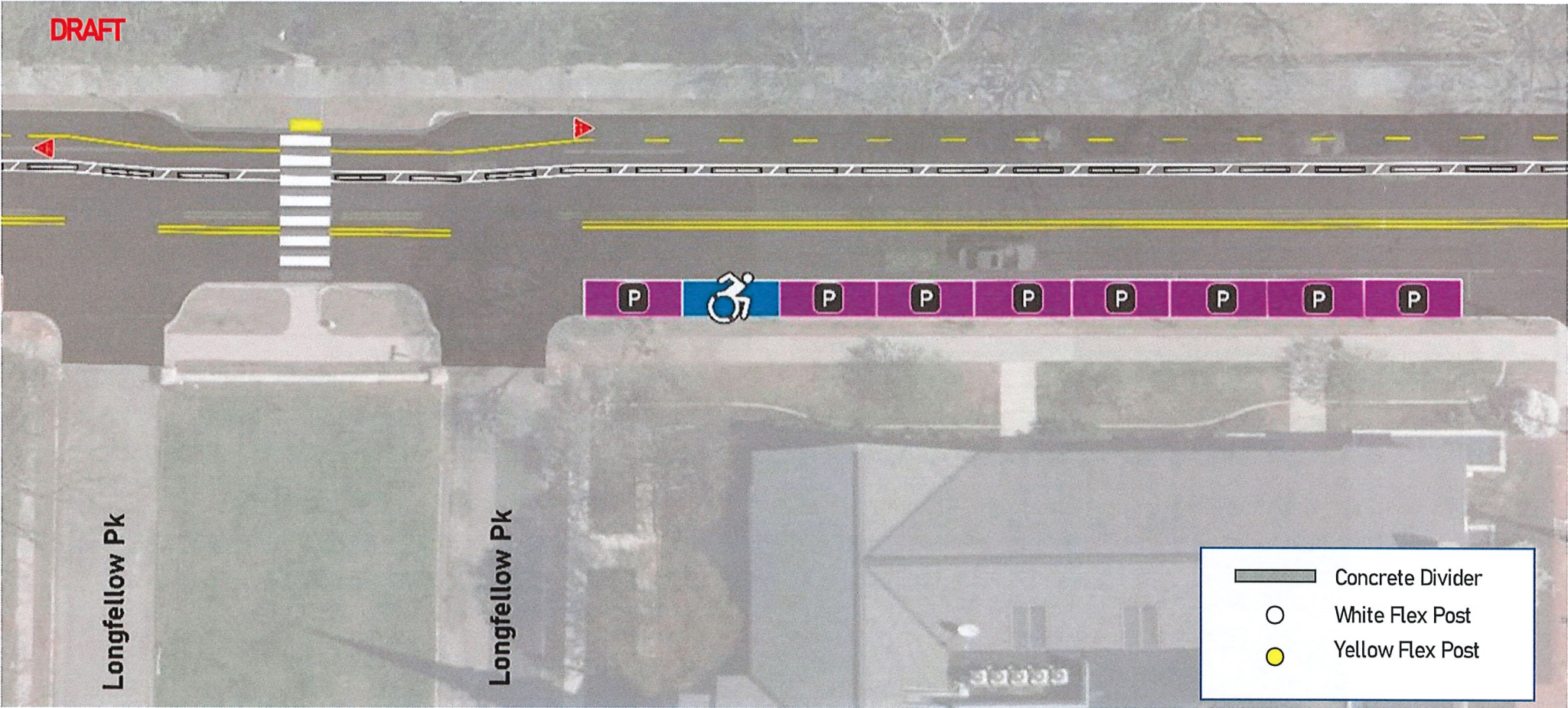
# Project Plans

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# Project Plans





# Project Plans





# Project Plans



