# Cycling Safety Ordinance

# Agenda

- What are we trying to do?
- How do we get there? (Background)
- Cycling Safety Ordinance
- Construction & Quick Build (Implementation)
- Next Steps

# What are we trying to do?

# Cambridge:
# A Sustainable and Livable City


# Cycling Opportunities for Everyone

Age

Experience

Physical Ability

Race

Gender

Cultural Background

Language

Economic Situation


# How do we get there?

# What drives our street design?

We design for people of ALL ages and abilities.

This means including:

- People who may not have access to a car
- Safe and accessible facilities, including bike lanes, that can be used by a wide range of people

How we think about vehicle congestion and delay:

- Moving people slowly is moving people safely
- We do not prioritize eliminating delay for people driving alone

Focus is on moving people and goods, not their vehicles

- Buses run less frequently than cars and carry more people
- Need to accommodate access for trucks and local deliveries

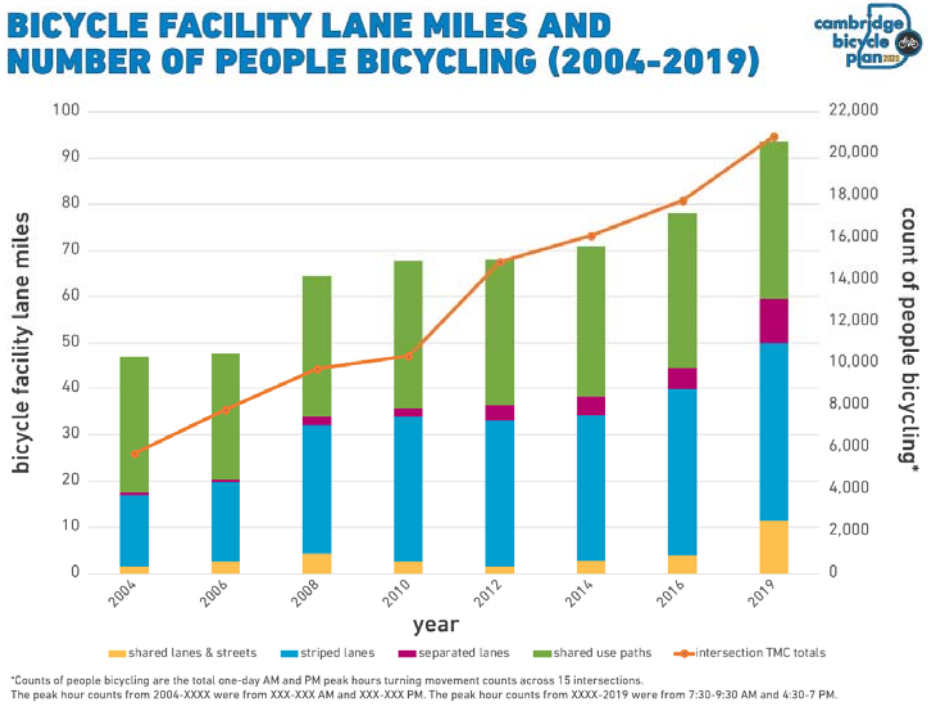
# What drives our street design?

Many policies and plans are foundational to our work, not only the Cycling Safety Ordinance

- 1992 Cambridge Vehicle Trip Reduction Ordinance,
- 1993/2007 Cambridge Growth Policy,
- 2016 Complete Streets Policy,
- 2016 Vision Zero Policy

# BACKGROUND

- Good design gives people safe choices
- More people bicycle when there are places for them to bike
- New high-quality facilities will attract new riders, not only accommodate existing cyclists.



# Safe Systems Approach to Designing our Roads

A Safe System is human-centered approach designed to prevent errors as much as possible and lessen the impacts of errors when they do happen.

- uses vehicle or roadway design and operational changes to achieve safe roadways and save lives

- Provides a *safety-net* for users by anticipating human error and minimize the negative impacts of those errors.

*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 chances that a momentary distraction leads to a deadly crash.*

*Example: In a crosswalk where pedestrians and drivers have to occupy the same space reducing speed limits and installing raised devices decreases the likelihood of a fatal collision.*

# Separated Bike Lane Benefits

- Fewer crashes
- Eliminates threat of “dooring” from parked vehicles
- Buffer space reduces conflicts between turning vehicles and people biking
- Extra distance gives extra reaction time when a conflict does come up.
- Shorter crossing distances for people walking
- Increased comfort for people biking of all ages and abilities
- Increased comfort for people driving as they know where to expect people biking
- Enables more people to choose cycling as a transportation option
- Supports City’s climate goals



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

# Cycling Safety Ordinance

# What is the Purpose of the Cycling Safety Ordinance? (CSO)

- Sets an accelerated timeline for implementation of a citywide network of separated bike lanes, providing a safe and comfortable transportation network for people who opt to get around by bike.
- Support the City's work around improving safety and comfort for cyclists
- Support Vision Zero and Complete Streets Goals.
- Supports climate goals

# Cycling Safety Ordinance

## 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

## 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

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

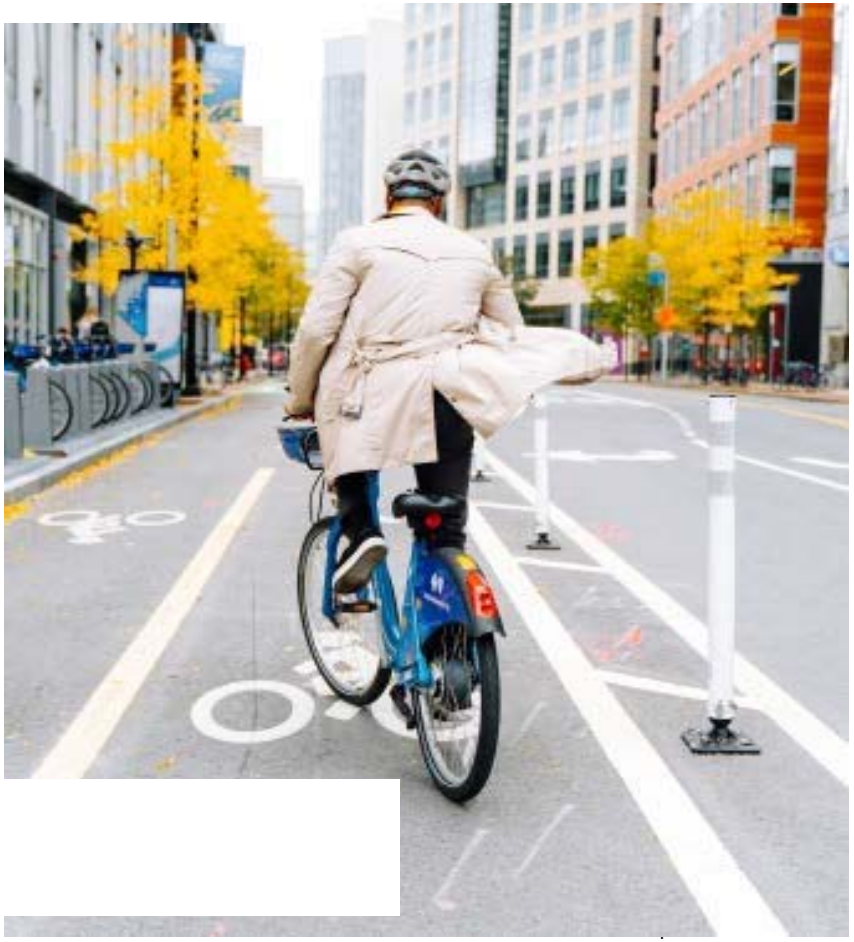
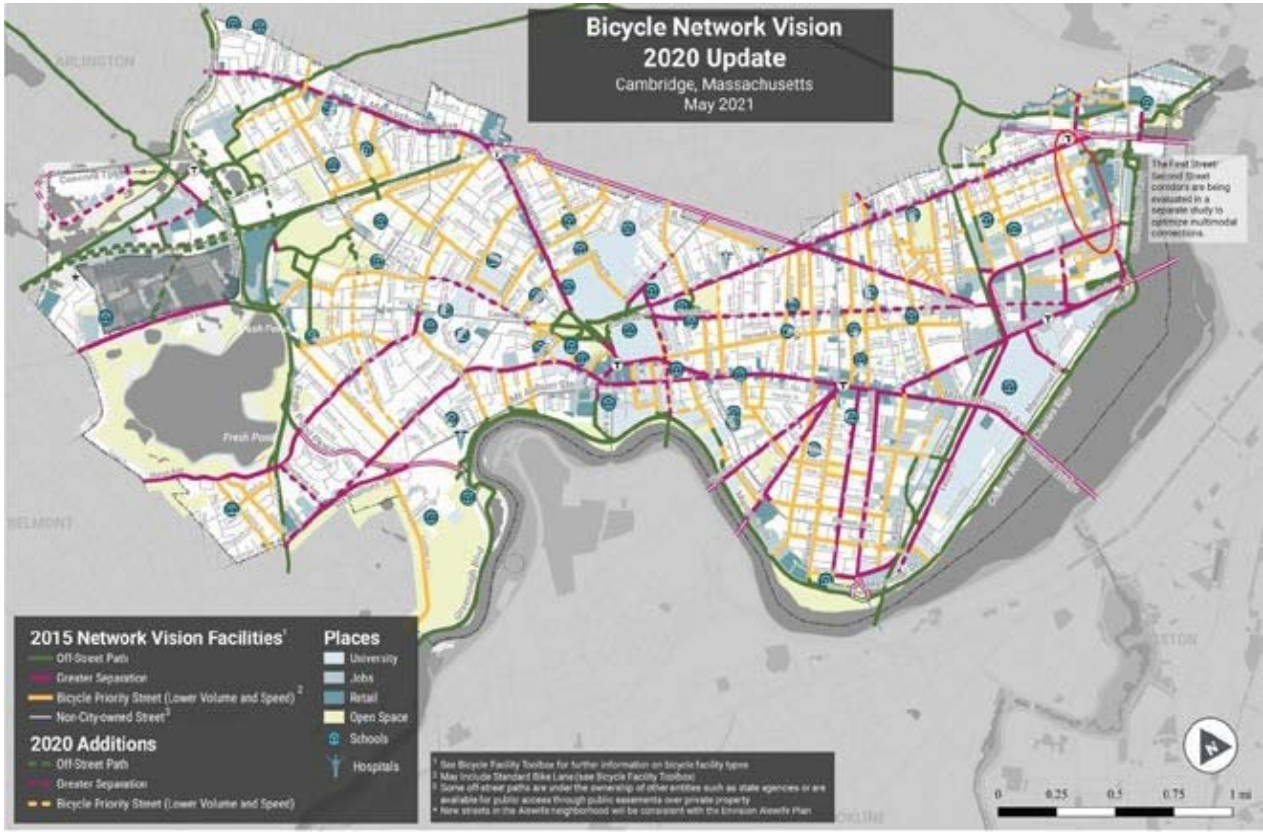


Image: A separated bike lane on Ames St

# Cycling Safety Ordinance

## How are street selected for the Cycling Safety Ordinance?



# Cycling Safety Ordinance

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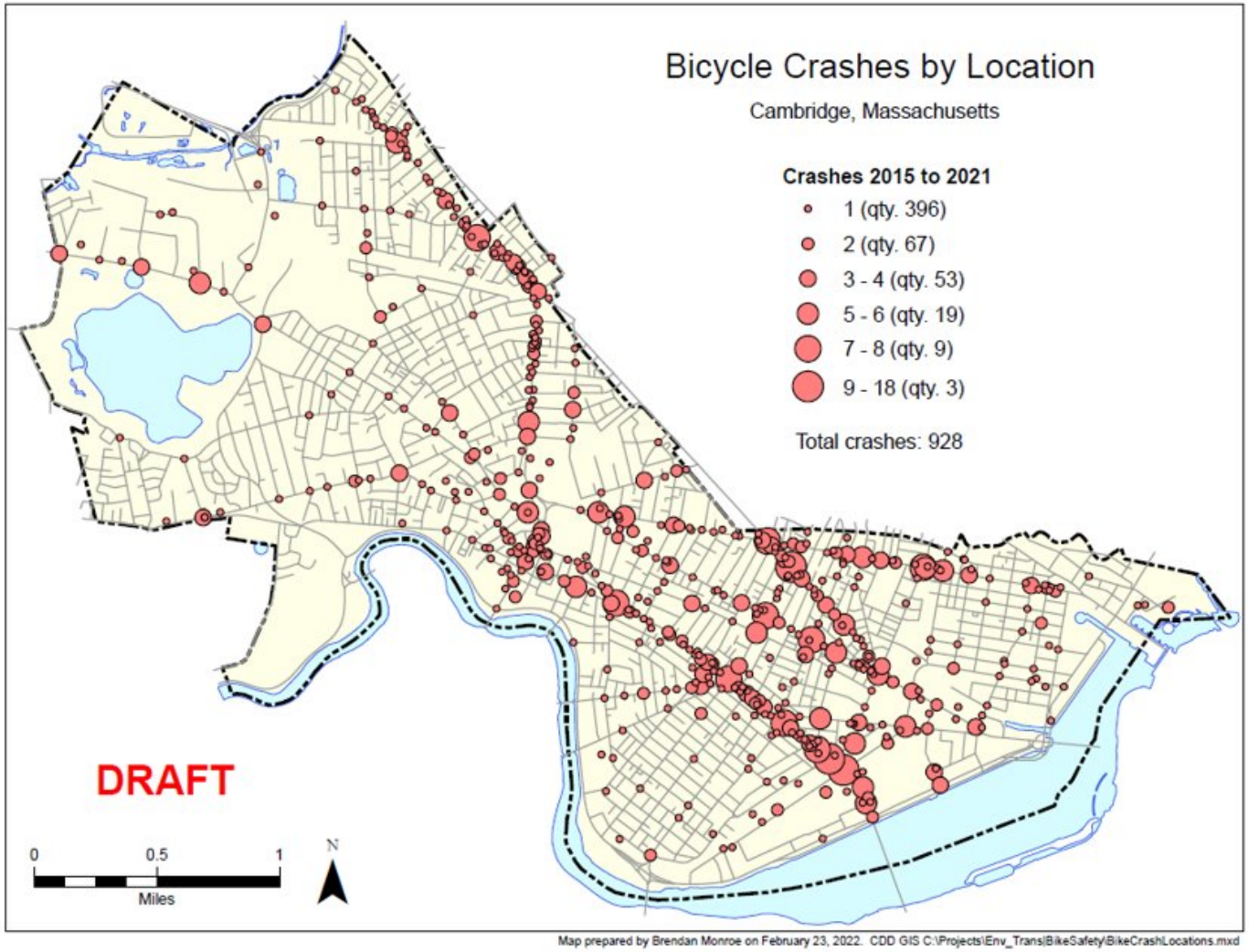


# Construction
# &
# Quick-build

# Two Methods of Implementing Separated Bike Lanes

**Construction** takes multiple years, requires significant funding, and coordination with outside partners such as utility companies

**Quick-Build** projects can be done in 5 months to a year and do not include any underground work

## Construction Projects

# What Construction Allows

*Construction projects allow a more holistic approach to street design*

During one project we can:

- Make accessibility improvements
- Address paving issues
- Upgrade sidewalks and ramps
- Enhance stormwater management
- Implement traffic calming
- Plant new street trees and expand green infrastructure
- Create new bike facilities, upgrade bus stops, add bus lanes
- And more!

## Construction Projects

# How Projects are Selected

- Large construction projects are developed and budgeted through:
  - Annual 5-Year Capital Budget
  - 5-Year Street and Sidewalk Plan
  - 10-Year Sewer and Drain Infrastructure Plan
- Prioritization process includes considering regulatory requirements, infrastructure conditions, accessibility, need for bike facilities, and opportunities to expand the tree canopy


## Considerations for Construction Projects

# Utility Infrastructure

We work to:

- Address deteriorated infrastructure
- Improve sewer and drainage systems

Example: We replaced a 100+ year old 40" water transmission main on Huron Avenue

## Considerations for Construction Projects

# Utility Infrastructure

- We also work to:
- Reduce backups and flooding
- Eliminate sanitary sewer overflows and reduce combined sewer overflows
- Improve water quality in the Charles River and Alewife Brook

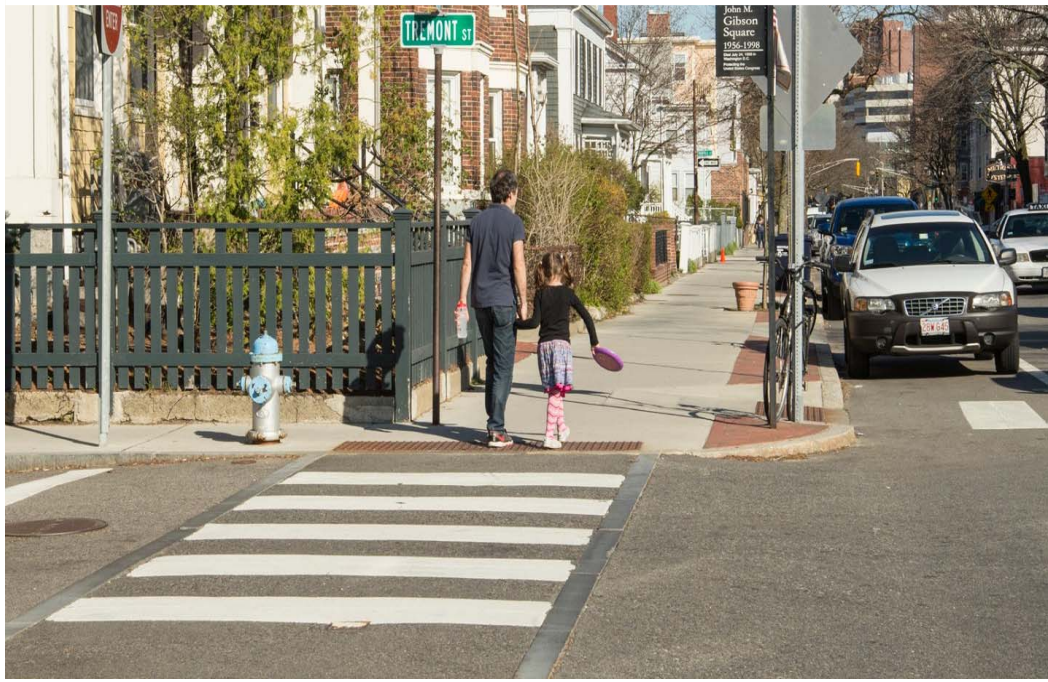
Example: Through 20 years of investments in infrastructure that improves water quality, the Charles River quality rating improved from D to B

# Implementation

## Considerations for Construction Projects

# Accessibility

- We want our sidewalks to be inviting and usable by people of all ages and abilities; including people using wheelchairs or walkers, or pushing strollers
- Both Federal and State regulations require us to ensure that newly constructed sidewalks are accessible
- Our goal is Universal Design

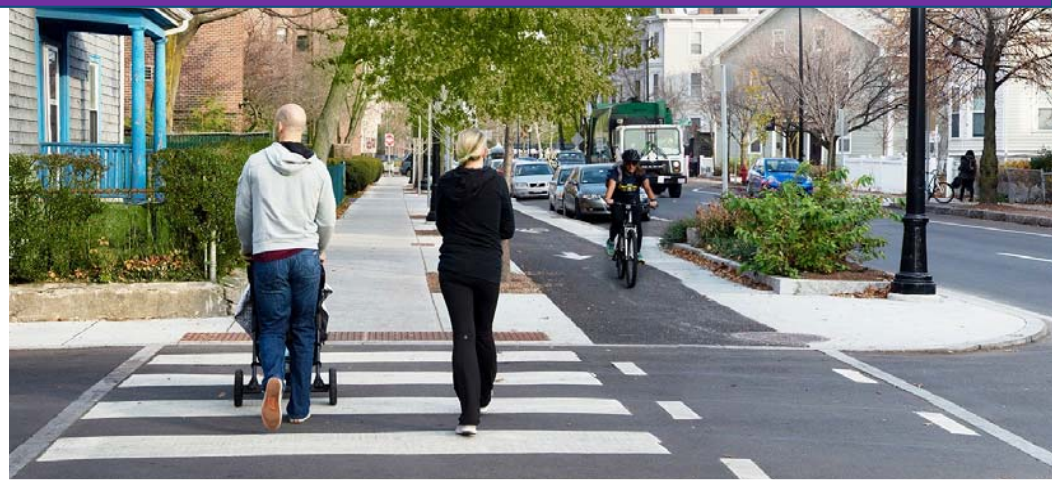


# Implementation

## Example Construction Project
## Western Avenue

$25 million+ utility project that:

- Upgraded the gas, water, sewer, stormwater, new stormwater outfall, and lighting systems
- Updated sidewalks, added a separated bike lane, created new open spaces, and added new street trees



## Example Construction Project

# Huron Ave from Fresh Pond Parkway to Glacken Field

$2 million street and sidewalk project that will:

- Replace a water main
- Add a sidewalk and accessible bus stops along Fresh Pond Reservation
- Add 2-way separated bike lane
- Provide spot drainage improvements

## Quick-Build Projects

# What Quick-Build Allows

*Quick-build projects allow us to make safety improvements more rapidly and adjust designs if needed after a project is first installed.*

Our quick-build toolbox includes:

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

## Quick-Build Projects

# Spot Improvements

Spot improvements go beyond the standard toolbox; we can:

- Repave in areas that were previously parking and have poor pavement quality
- Install accessible ramps
- Address minor drainage issues to prevent puddles and ice without impacting utilities

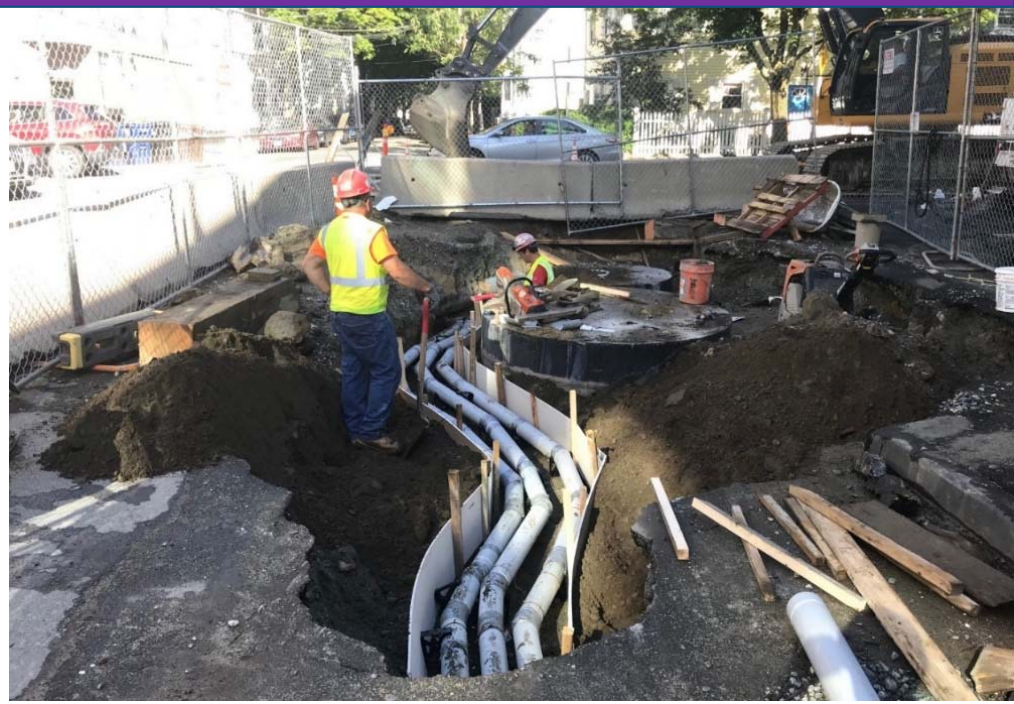
*Example: Cambridge Street before the recent repaving*

The bike lane was installed in an area that was previously parking. Variations in the pavement lead to ponding and debris building up in the bike lane.

## Quick-Build Projects

# Spot Improvements

- Can involve more work than anticipated due to conflicts with existing utilities
- Significant risk of scope creep working around existing utilities – 100+ year old water mains and gas mains



*Example: Utility conflicts on Cardinal Medeiros*

Spot improvements are challenging to properly scope.

## Example Quick-Build Project

# Brattle Street

- Provide a two-way separated bike lane between Eliot Street and Mason Street
- Addressed the need for comfortable, protected bicycle access to Harvard Square from the west
- Eliminated an underused travel lane leading to reduced speeds and shorter pedestrian crossings

## Example Quick-Build Project

# Mt Auburn Street

- Provided a one-way separated bike lane between Eliot Street and Banks Street
- Provided a “Bus/Bike Only” lane between Banks Street and Putnam Ave
- Refreshed crosswalks
- Signal timing changes to improve safety along the corridor

# Next Steps

# Design Process

- Every project, whether capital or quick build, has its own design process with community outreach and input.
- Every project is different- the process and timelines depend on the context of a specific corridor.
- Certain elements of a project are fixed
  - Example: all CSO projects will include separated bike lanes
- Certain elements are more flexible based on the context and community feedback
  - Example: traffic calming in a capital project

# What do we consider besides bike lanes?

- Public safety
- Supporting small business
- Improving pedestrian experience and safety
- Improving transit
- City exploring additional ways to mitigate the impacts of parking loss.

# Cycling Safety Ordinance advisory group

- New advisory group being formed to advise on CSO implementation
- Will provide a venue for ongoing discussions about projects being implemented under the CSO
- Group will be made up mostly of members of existing Boards and Commissions and other formal and informal advisory groups, along with a limited number of additional community members.
- The group will discuss and provide input on topics such as community notification and public outreach, project evaluation and community feedback, and strategies to enhance and mitigate the impacts of these projects

# Current Projects

- Porter Square- Mass Ave from Roseland to Beech- Quick Build implementation
- Mass4- Mass Ave Waterhouse to Roseland and Beach to Dudley- Planning process to determine future implementation method and timeline.
- Mass4- Harvard Square Bus Stops- planning for future implementation

# Current Projects and Upcoming Meetings

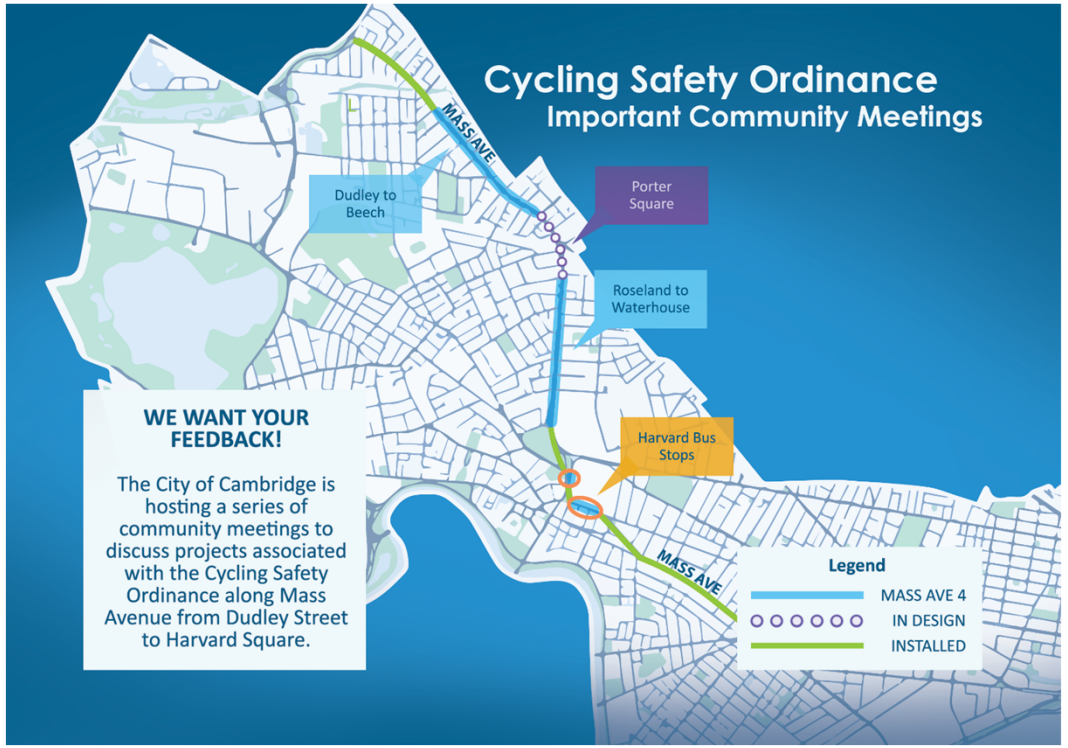
**MEETING INFORMATION**

**Dudley to Beech and Roseland to Waterhouse**
Thursday, March 3rd, 2022
6:00 – 8:00 PM via Zoom

**Harvard Square Bus Stops and Kiosk Construction Update**
Thursday, March 10th, 2022
6:00 – 8:00 PM via Zoom

**Porter Square**
Tuesday, March 15th, 2022
6:00 – 8:00 PM via Zoom

*Still have questions or feedback?*
Join City staff in person on
Saturday, March 19th, 2022
10:00 AM – 2:00 PM
Outside Lunder Arts Center
1801 Mass Avenue



# Questions?

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