

## **Route 12 (Central Street)** Leominster, MA



## **Project Team**

- MassDOT Highway Division
  - Project Proponent



- Green International Affiliates
  - Design Consultant



#### **GREEN INTERNATIONAL AFFILIATES, INC.** *Civil and Structural Engineers*



## Agenda

01 Project Area

02 Existing Issues

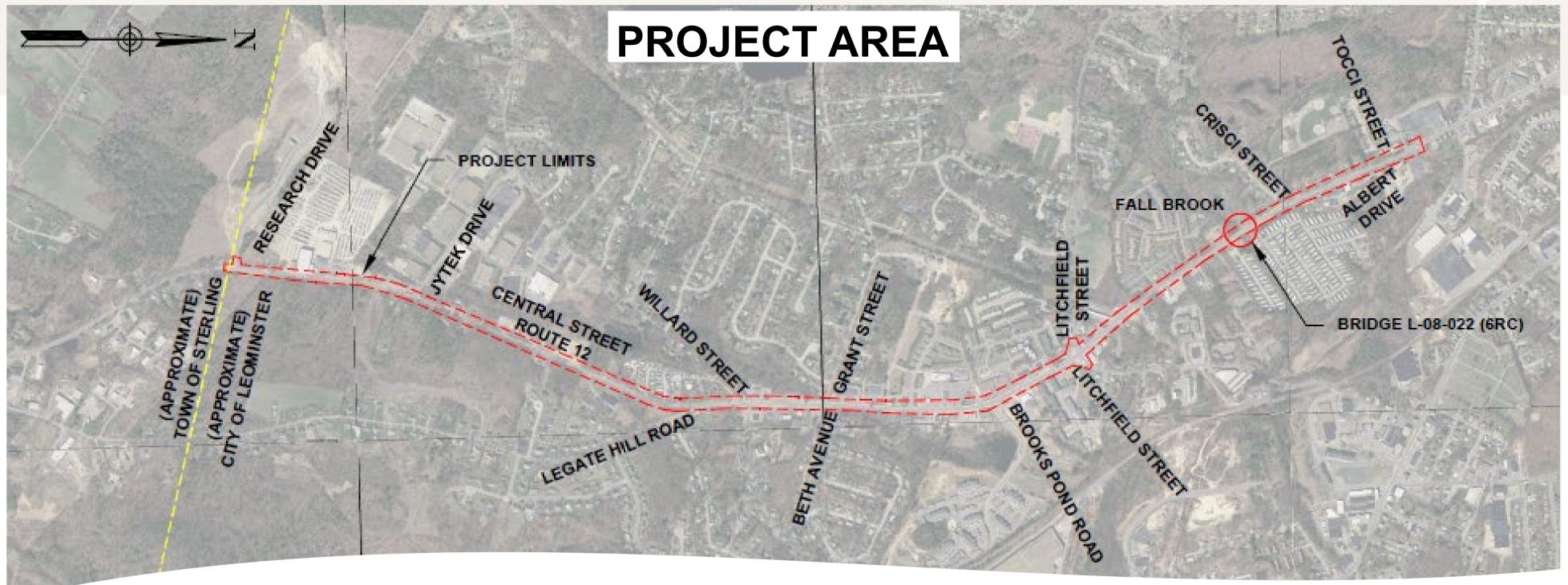
- **03** Existing Conditions
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Why was this project initiated?



## Existing **Conditions**

- Location Leominster, MA
- **Project Limits** Sterling Town Line to Tocci Street • Roadway Classification – Urban Principal Arterial • **Project Length –** 2.55 Miles (13,455 feet) • Posted Speed Limit / Design Speed – 40 mph / 40 mph

- Average Daily Traffic 15,200 vehicles



## Existing Issues & Reasons for Project Initiation

- **Poor Pavement Conditions**  $\bullet$
- High Crash History
- Fall Brook Bridge Deteriorating
- Intersection Safety at Litchfield Street ullet
- No Bicycle Accommodations ullet
- Insufficient / Non-ADA Compliant Pedestrian Accommodations
- Poor Driveway Access Control ullet
- Substandard / Deteriorating Drainage



#### Fall Brook Bridge

Deteriorating Foundation, Damaged / Aging Supports







#### **Route 12 / Litchfield Street**

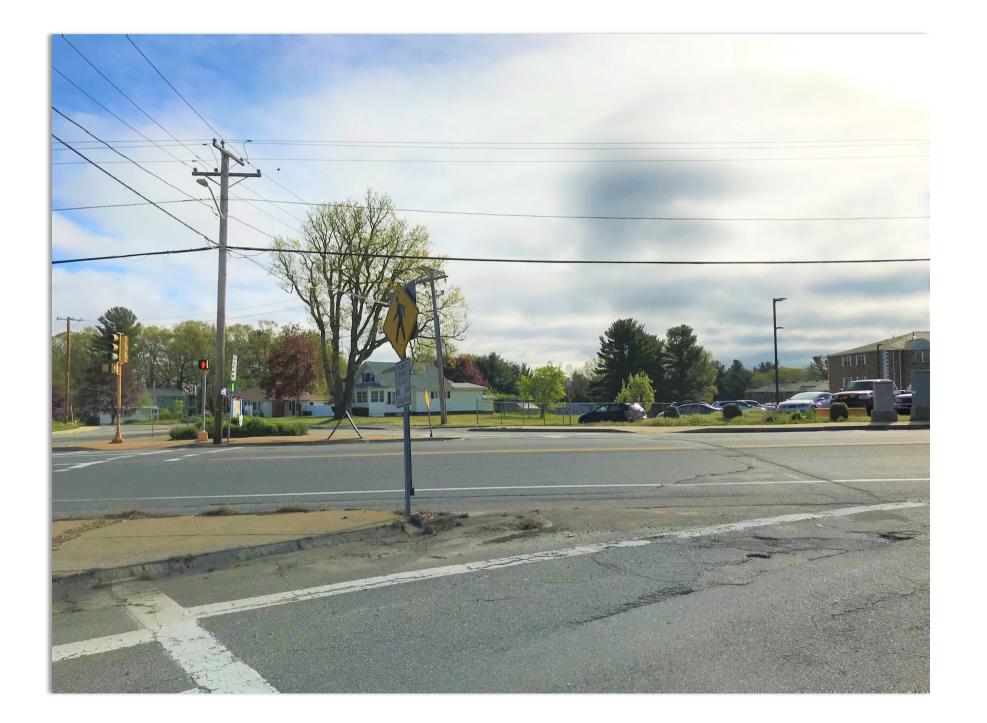
Non-ADA Compliant Ramps and Sidewalks, Faded Crosswalks, Non-Compliant Signal Equipment





#### **Route 12 / Litchfield Street**

Poor pavement conditions, Non-MUTCD Compliant Signage







#### **MASSACHUSETTS DEPARTMENT OF TRANSPORTATION**

Non-Compliant Sidewalks, Route 12 – Central Street Lack of designated Bicycle Facilities





#### Route 12 – Central Street Poor Access Management



#### **MASSACHUSETTS DEPARTMENT OF TRANSPORTATION**

#### **Route 12 – Central Street**

Culvert plugged with sediment





#### Culvert plugged with sediment, overgrown **Route 12 – Central Street**





# What do we want to accomplish?

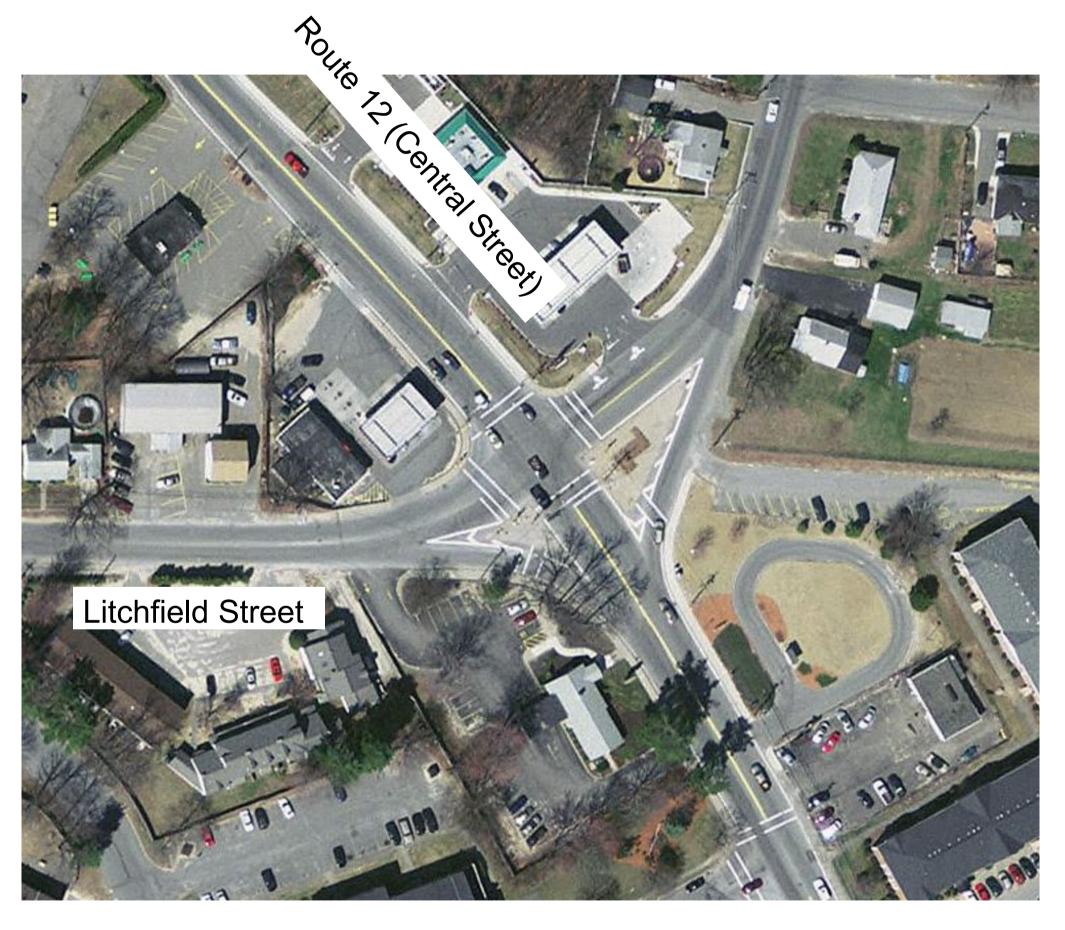
## **Project Goals**

- Improve the roadway surface
- Rehabilitation / Reconstruction of the Route 12 bridge over Fall Brook
- Improve the traffic signal at Willard Street intersection
- Improve the traffic signal at Fire Station driveway
- Improve Bicycle and Pedestrian Accommodations
- Improve Roadway Signage and Pavement Markings  ${\bullet}$
- Reduce vehicle conflict points throughout corridor  ${\color{black}\bullet}$
- Improve Drainage Infrastructure



## **Project Goals**

- Provide Roundabout at Litchfield Street Intersection
  - Improve intersection Level of Service
  - Provide Shared Use Path for cyclist and pedestrian around roundabout
  - Reduce number of collisions







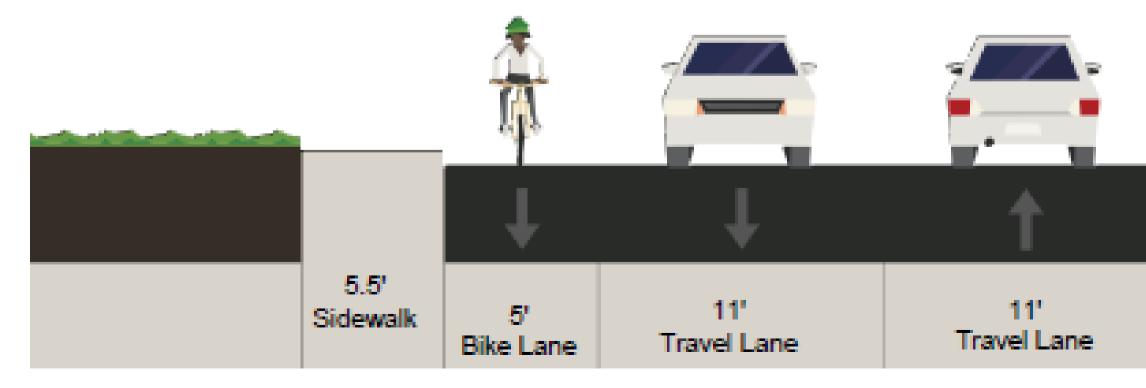
# What are the proposed improvements?

#### **Proposed Improvements Route 12 Corridor**

- Mill and Structural Overlay to improve roadway surface
- Proposed ADA compliant sidewalks improving pedestrian connectivity
- New on-road bicycle accommodation being provided
- Implement improved intersection geometry to accommodate vehicles
- Driveway access management to eliminate conflict points
- Install MUTCD compliant signing and striping
- Upgrade drainage systems and culverts to current design standards
- Utility relocations to accommodate new design

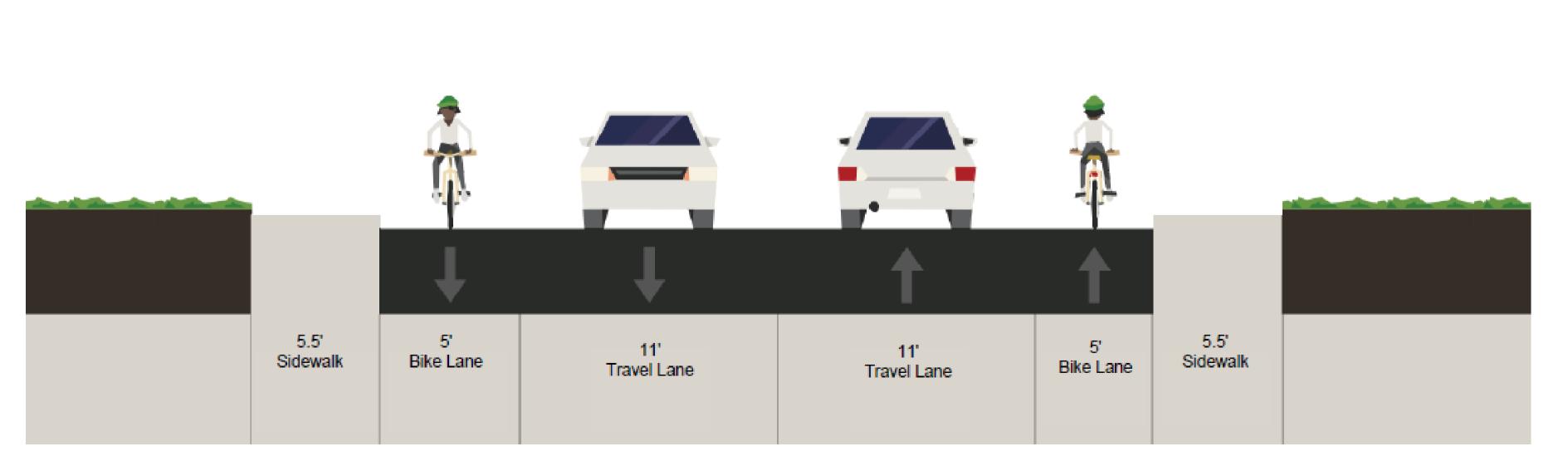


#### Proposed Cross Section Route 12 Corridor – South of Legate Hill Road





#### **Proposed Cross Section** Route 12 Corridor – North of Legate Hill Road





#### **Proposed Improvements Route 12 / Willard Street**

- Updated pavement markings, includes turn lanes, crosswalks ullet
- New pedestrian signals ullet
- Advanced vehicle detection, optimized signal timing •

#### **Route 12 / Fire Station Driveway**

- Updated pavement markings
- New mast arms
- New emergency vehicle preemption ullet



#### **Proposed Improvements Route 12 / Litchfield Street Roundabout**

- Single Lane Roundabout 18'-0" Minimum within Roundabout
- Truck Apron 13'-6" Minimum within roundabout ullet
- Landscaped Center Island ullet
- 8'-0" to 10'-0" Shared Use Path around Roundabout  $\bullet$
- Pushbutton activated Flashing Beacons on Central Street legs for lacksquarecrosswalks
- Cement Concrete Splitter Islands on approaches
- Full Depth Pavement Reconstruction •
- Staged Construction with Truck Detours  $\bullet$



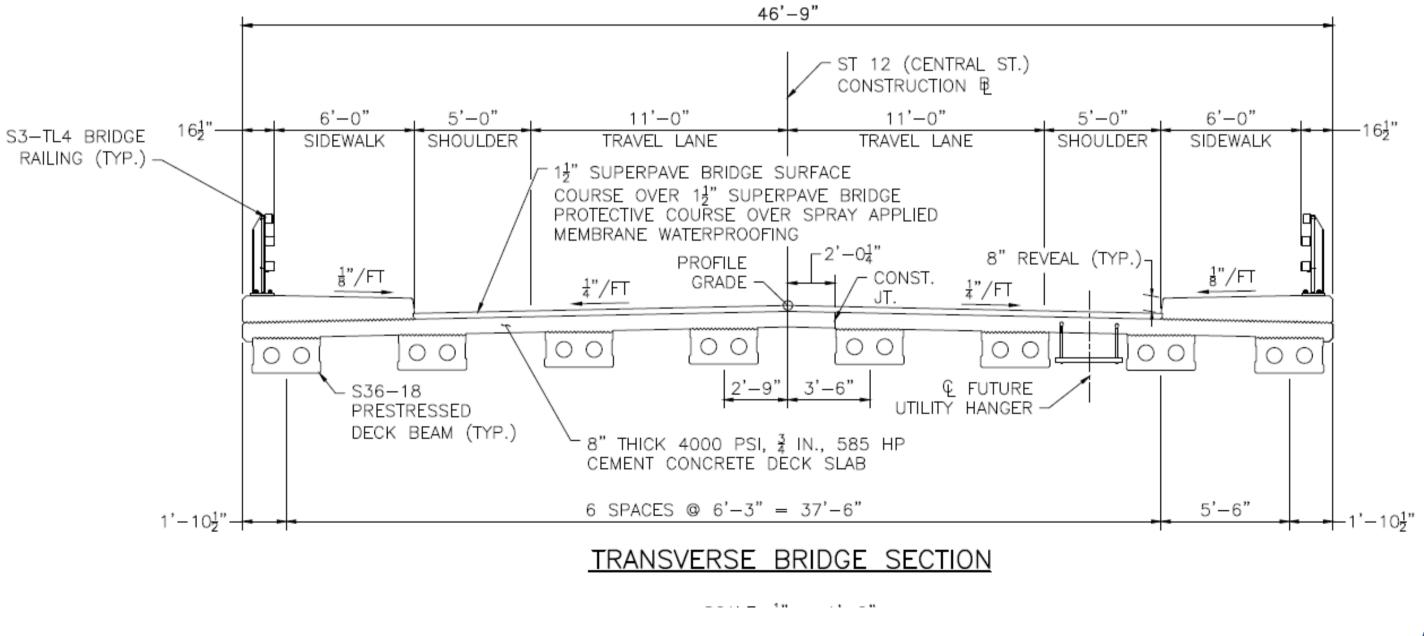
#### **Proposed Route 12 / Litchfield Street Roundabout**





#### **Proposed Improvements – Fall Brook Bridge**

- Single Span Bridge with Concrete Deck Beams
- Integral Abutments behind Existing
- Two 5'-0" shoulders, two 11'-0" lanes, two 5'-6" sidewalks
- Staged Construction









## **Right of Way (ROW) discussion – 25% Design**

- Responsible for acquiring all necessary rights in public land for design, construction, and implementation of a project.
- Affected property owners will be contacted by personnel from the ROW Bureau or consultants representing MassDOT.
- Procedures must comply with state and federal regulations governing the acquisition process.
  - Property owners are protected under Massachusetts General Laws, primarily Chapter 79.
  - If project receives federal funds, property owners are further protected under Title III of the Real Property Act of 1970, as amended.
- Fee takings, permanent easements, and/or temporary construction easements may be required.





What are the environmental, cultural resource, and comunity impacts?

#### **Environmental Permitting**

- U.S Army Corps of Engineers, New England Division, General Permit •
- Wetland Protection Act (WPA) ullet

#### **Resource Impacts**

- Minor Impacts to vegetated wetlands
  - Early Environmental Checklist
  - Water Quality Data Form

#### **Community Benefits**

- Increased pedestrian and bicycle connectivity / safety
- ADA Compliancy
- Improved Traffic Flow



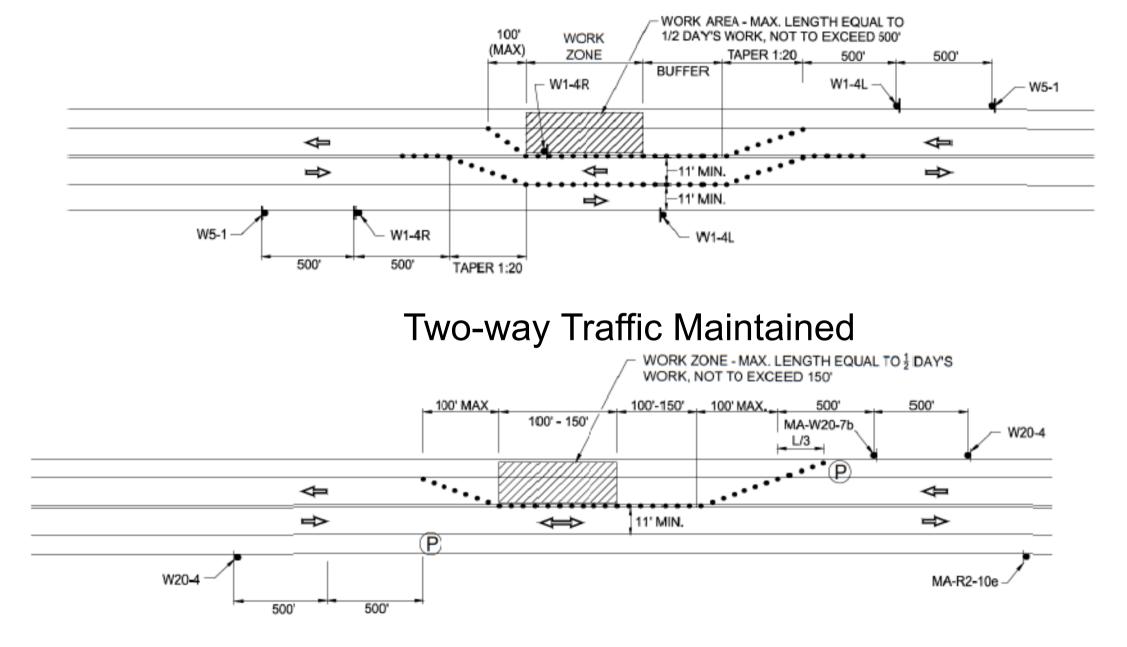




# What is the construction funding and phasing?

## **Construction Phasing**

- Traffic Impacts will be minimized
  wherever possible
- Lane Closures
  - Lane Shift to maintain two-way travel wherever possible
  - One lane alternating when lane shift not possible
- Potential for short term detours during normal work hours
- Site specific phasing at Litchfield
  Street 2-way traffic will be
  maintained



**One-Lane Alternating** 



## Construction Phasing – Fall Brook Bridge

- One-Lane alternating traffic
  - Temporary Signal Installed
  - Delays anticipated
  - Phased to minimize construction duration length







## Funding

#### **Construction 100% Funded**

- Federal and State Funding ullet
- Estimated total Project Cost ~ \$18.5 Million ullet
  - Does not include any right of way acquisition costs
  - Project currently programmed for 2024 TIP year
- Right of Way acquisitions will be acquired on behalf of the state •



## Our next steps





25% Public Design Hearing December 2022 File Environmental Permits March 2023



Complete 75% Design May 2023



Complete Final Design January 2024



Advertising Date September 2024





How will we keep you informed?

## **MAIL: Submit comments to:**

Carrie Lavallee, P.E.

Chief Engineer – MassDOT

Suite 6340

10 Park Plaza

Boston, MA 02116

Attn: Project Management

Project File No. 604499

#### **EMAIL: Submit comments to:**

Carrie Lavallee, P.E.

Chief Engineer MassDOT

dot.feedback.highway@state.ma.us

Use Subject: MassDOT Project File No. 604499

#### **Public Hearing Website:**

www.mass.gov/massdot-highway-design-public-hearings





## Questions and discussion



