



# Medford: Main Street Intersection Improvements

*Thank you for joining us.  
This meeting will begin shortly.*







# Medford: Main Street Intersection Improvements

Public Information Meeting | Zoom Webinar

May 8, 2024 | 6:00 p.m.

Project File No. 611974





# Zoom Webinar Controls for Meeting



- Drop down menu to check microphone and speakers



- Raise your hand – \*9 for users dialing in



- If you are unable to access the internet or are having technical problems, please call into the meeting at **1.309.205.3325**, Webinar ID: **884.2887.3214**



Live Transcript



- Closed captioning automatically generated by Zoom
- Use the View button in the upper right-hand corner to adjust the meeting view settings to your preference

If you have trouble with the meeting technology during the presentation, please call:

[1.888.799.9666]



Audio Settings ^



Raise Hand



Q&A



Live Transcript

Leave

# Public Meeting Notes and Procedures

## Notification of Recording

This virtual public meeting will be recorded. The Massachusetts Department of Transportation may choose to retain and distribute the video, still images, audio, and/or transcript. All parts of this hearing are considered public record.

- By continuing attendance with this virtual public meeting, you consent to participate in a recorded event.

## Other Important Notes

- Your microphone and webcam are automatically disabled upon entering this hearing.
- The meeting will be open to questions and answers at the end of the formal presentation.
- Please take time to respond to our survey! Your feedback is important.

**Unauthorized use  
or distribution of  
this material is  
prohibited  
without consent  
of the  
MassDOT Comm  
unications  
Department**



## Notice of MassDOT's policy on diversity and civil rights

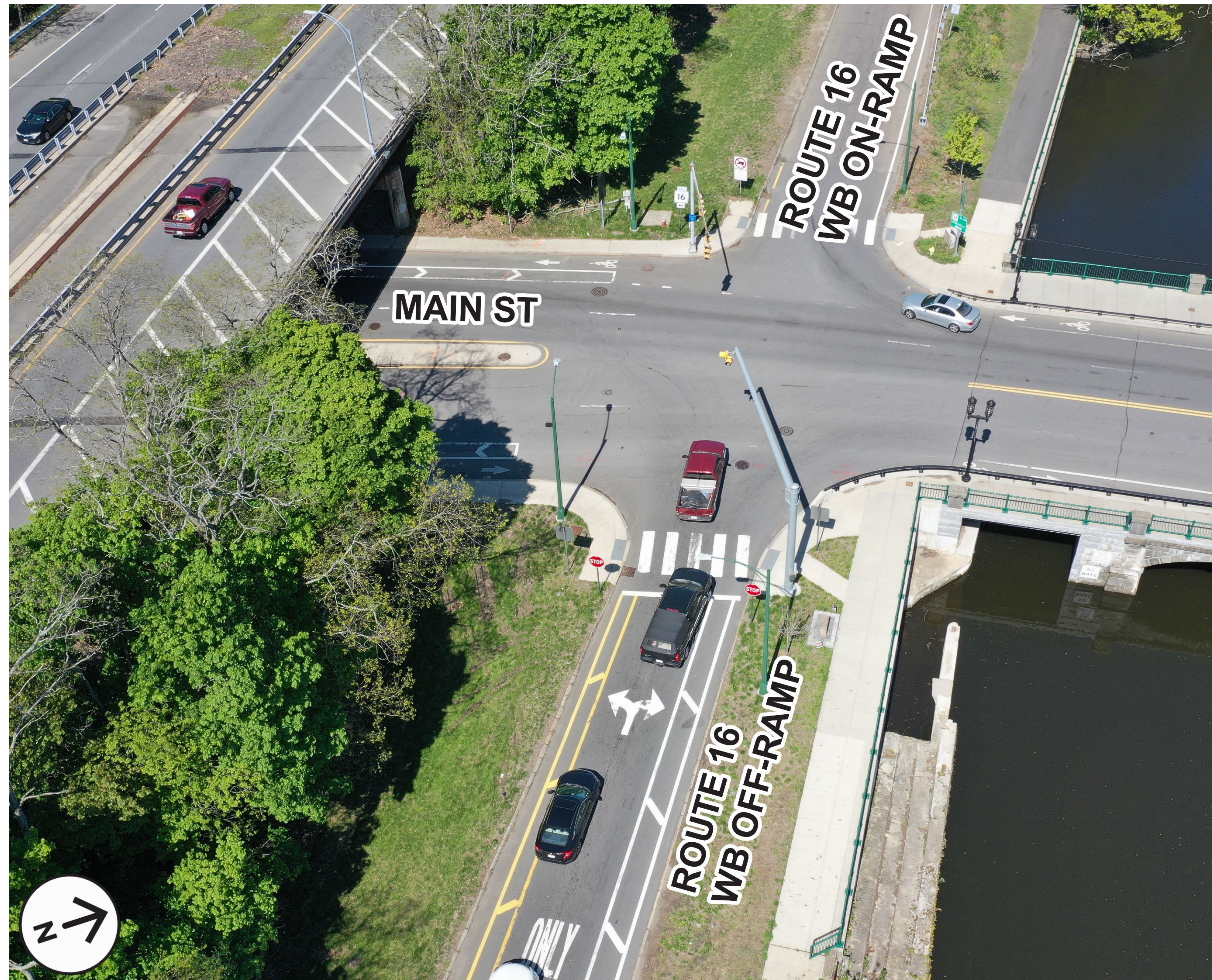
- All MassDOT activities, including public meetings, are free of discrimination.
- MassDOT complies with all federal and state civil rights requirements preventing discrimination based on sex, race, color, ancestry, national origin (limited English proficiency), religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status.
- We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit <https://www.mass.gov/nondiscrimination-in-transportation-program> to reach the Office of Diversity and Civil Rights.

**All questions and comments are welcome and appreciated; however, we do request that you refrain from any disrespectful comments.**



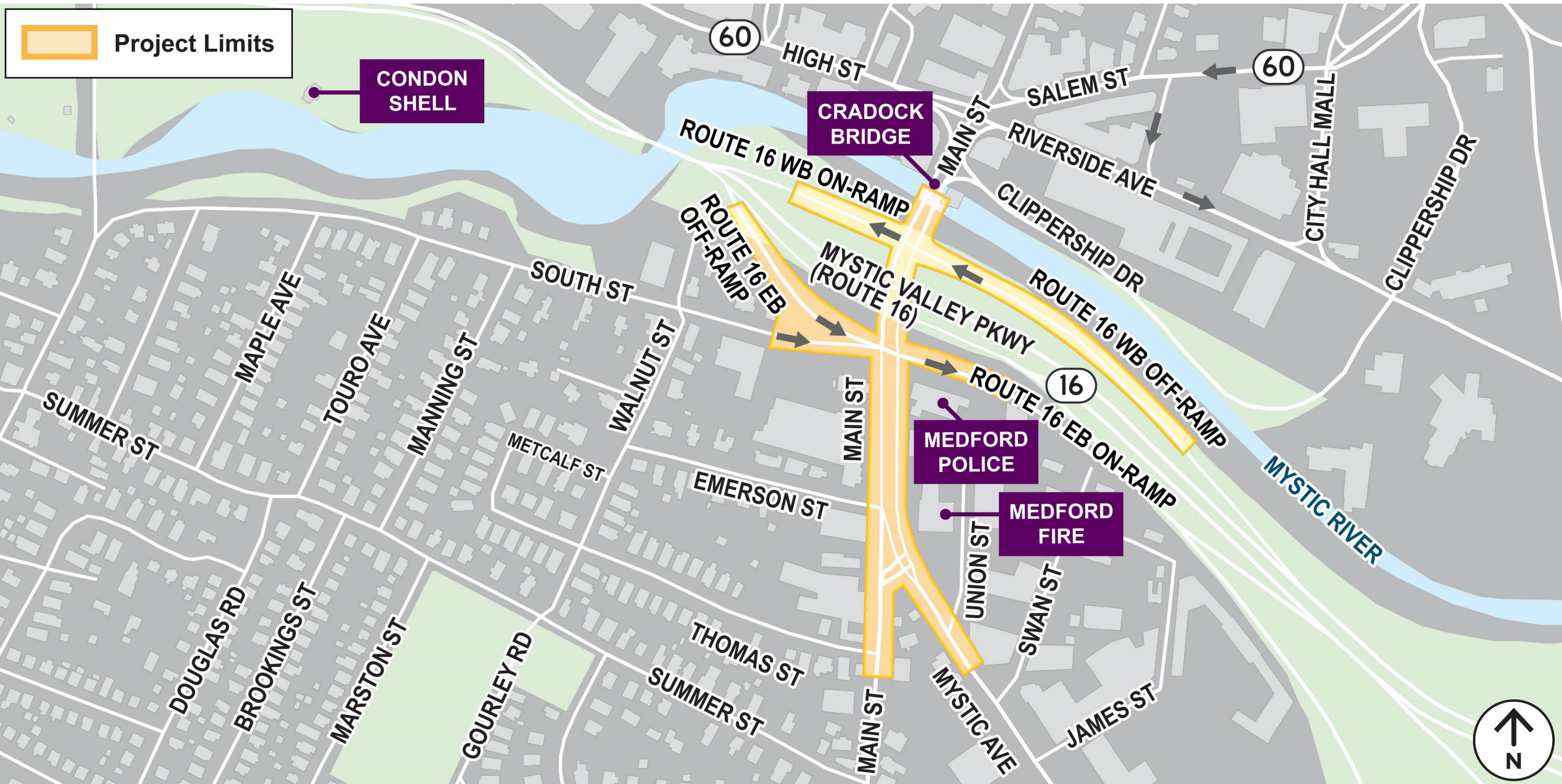
# Agenda

- 01 Project Location
- 02 Project Initiation
- 03 Existing Conditions
- 04 Project Goals
- 05 Alternatives Analysis
- 06 Proposed Design
- 07 Next Steps
- 08 Questions & Discussion





# Project Location





# Presentation Participants

## MassDOT

- Greg Frazier, Project Manager
- Michael Ruderman, Right-of-Way
- Kayla Sousa and Leah Grodstein, Producers
- Brian Fallon, District 4

- **City of Medford**

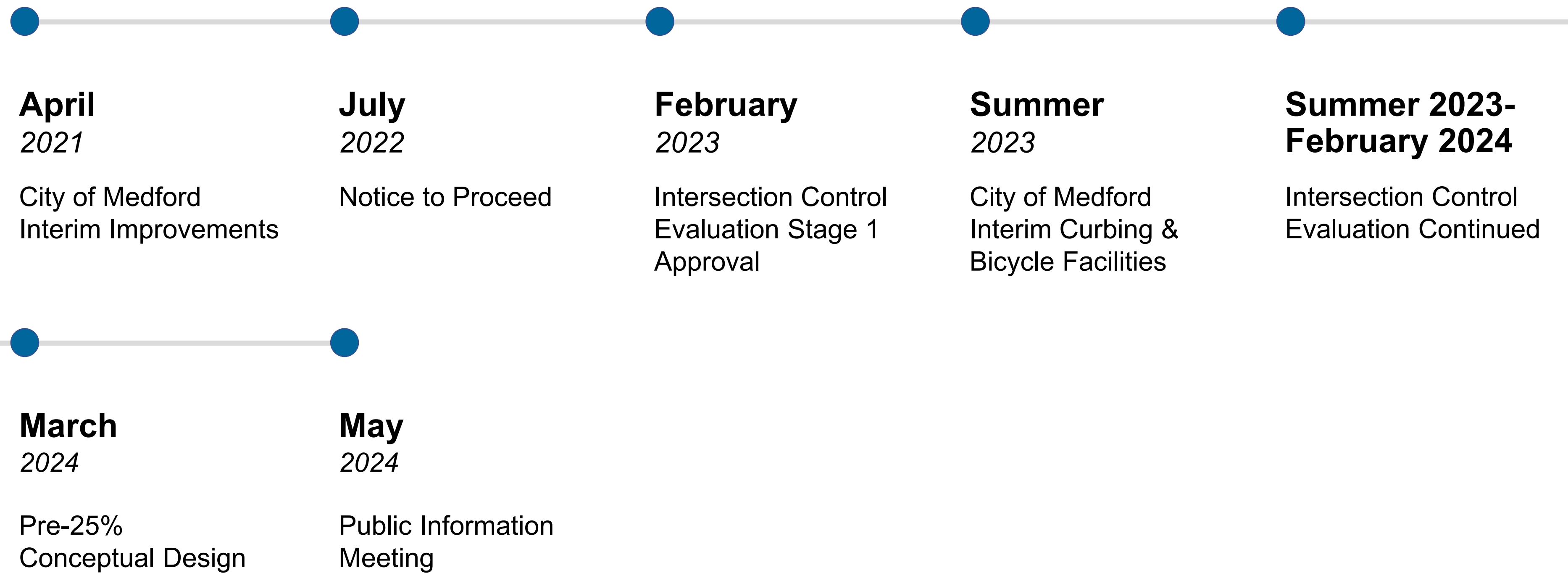
- Todd Blake, Director of Traffic & Transportation

- **Designer**

- Jessica Lizza, Howard Stein Hudson
- Grady Granville, Howard Stein Hudson



# How did we get here



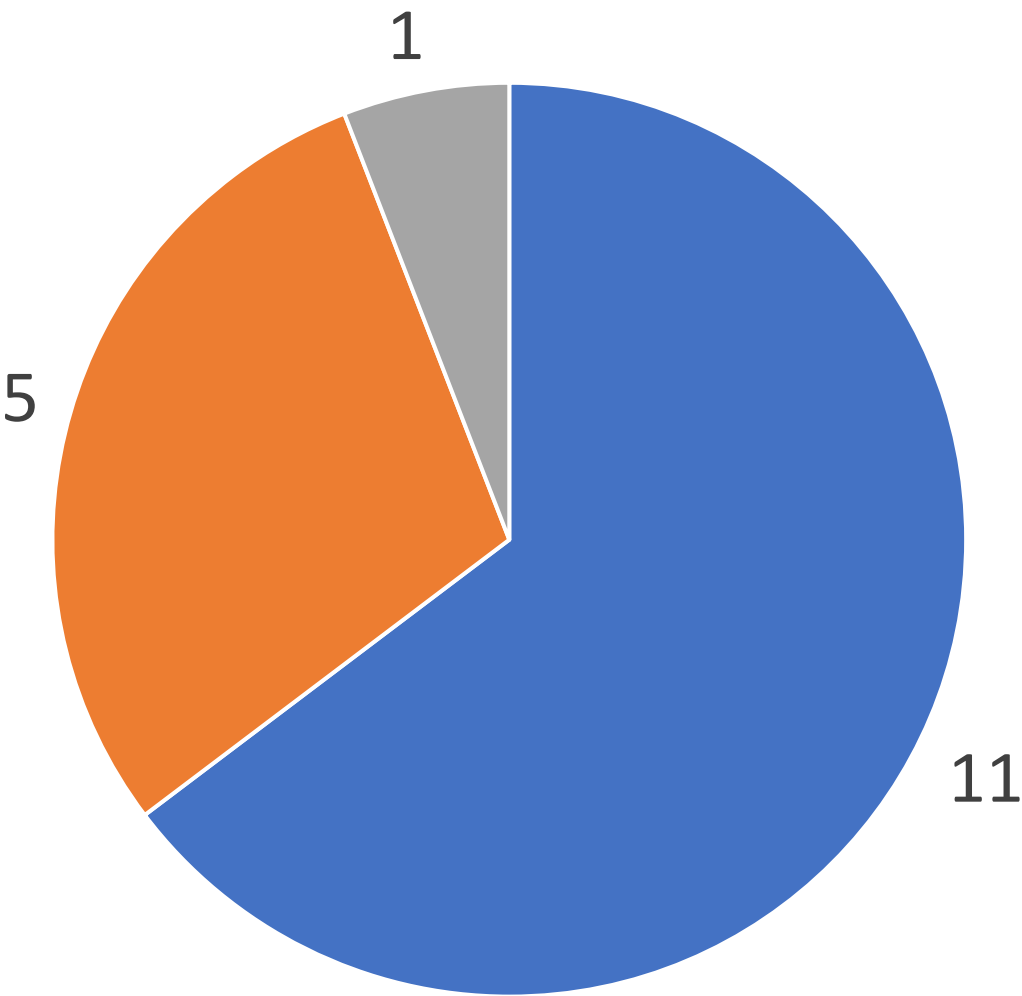




**Why was this  
project  
initiated?**



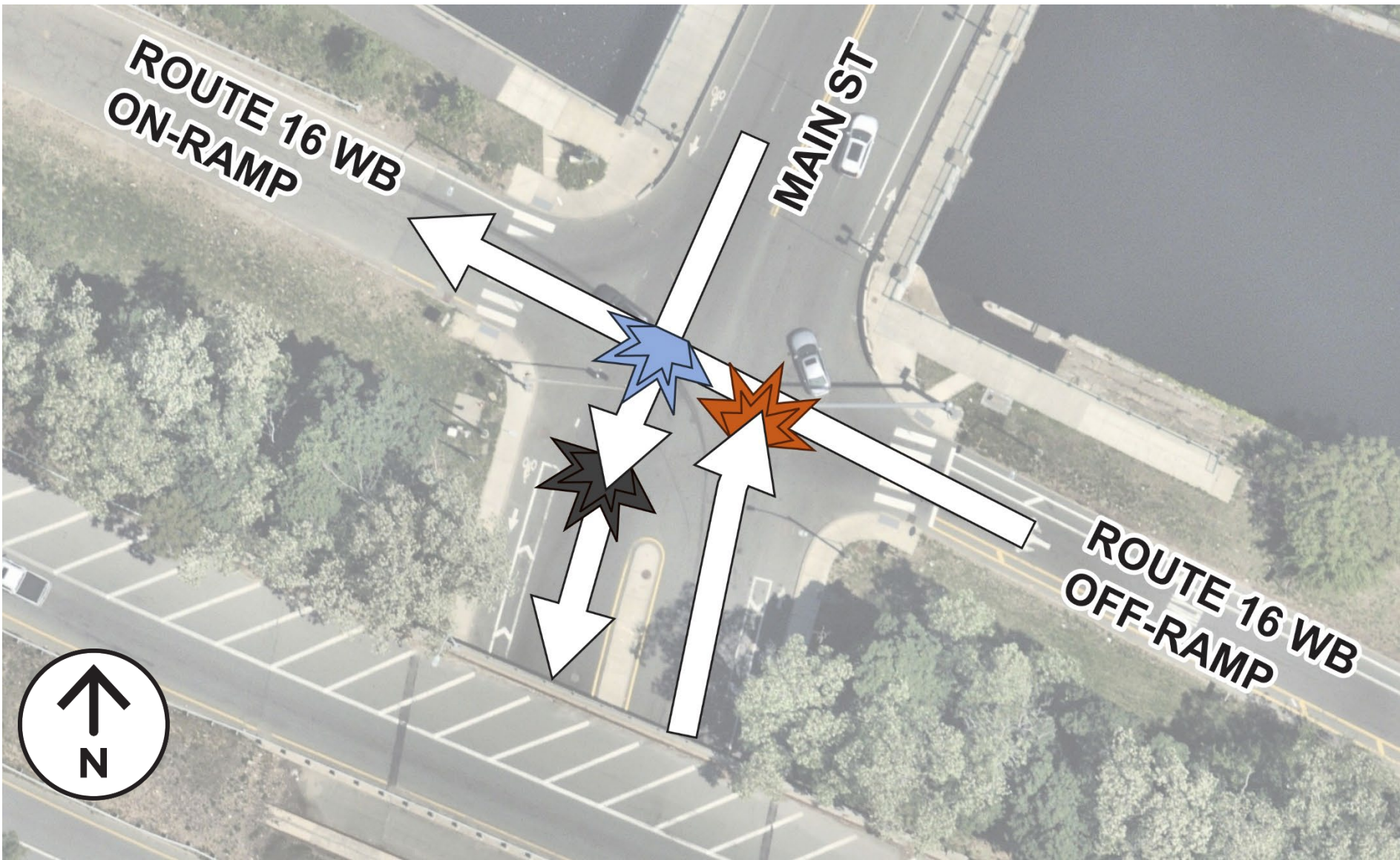
# High Crash Location Main Street at Route 16 WB Ramps



- 11 Crashes - Rte16 WB off-ramp & Main Street SB
- 5 Crashes - Rte16 WB off-ramp & Main Street NB
- 1 Crash - Main Street SB Rear-End

From 2017-2019, 21 collisions were recorded:

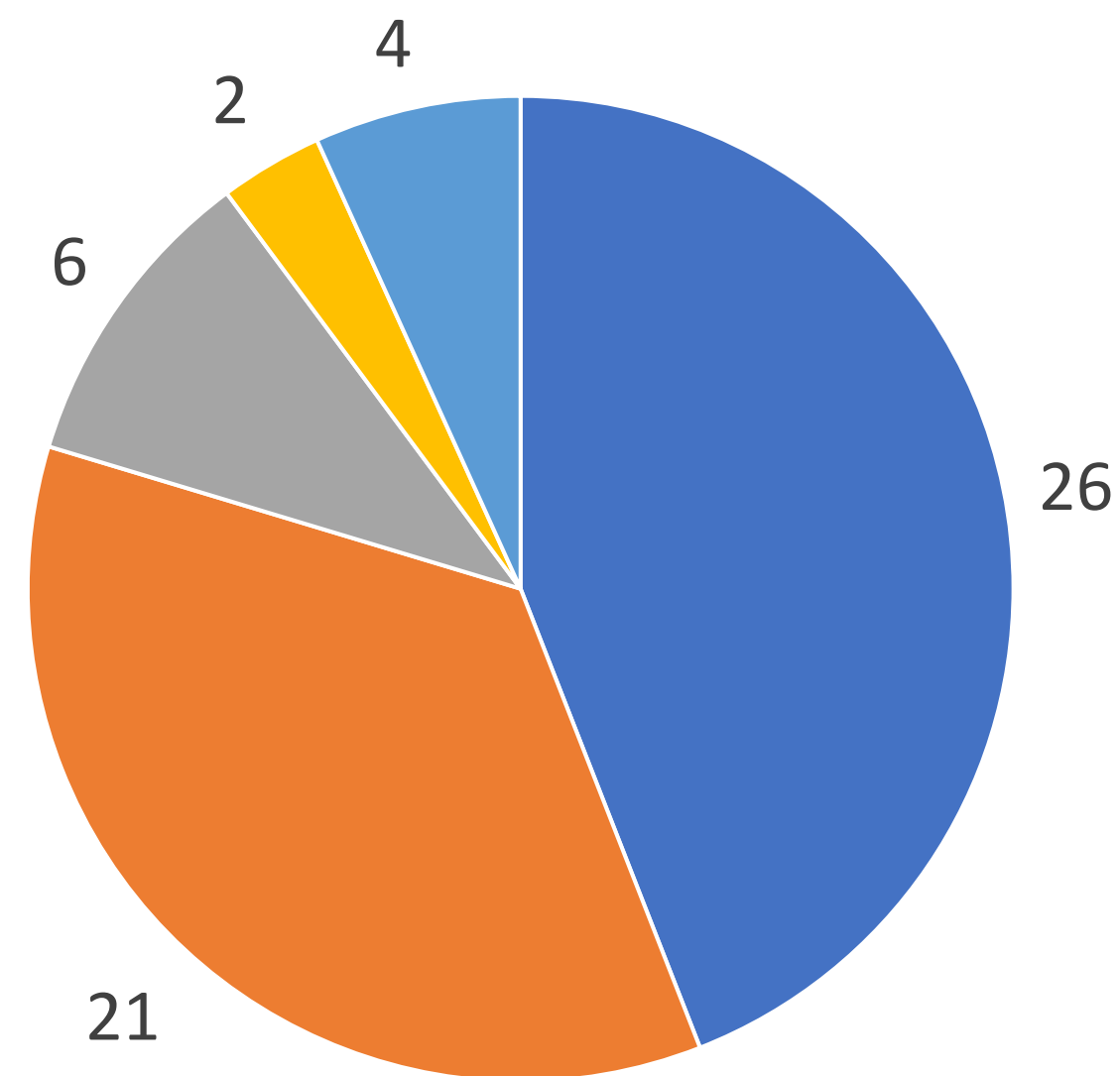
- 81% of collisions were angle crashes
- 29% of collisions resulted in personal injury





# High Crash Location

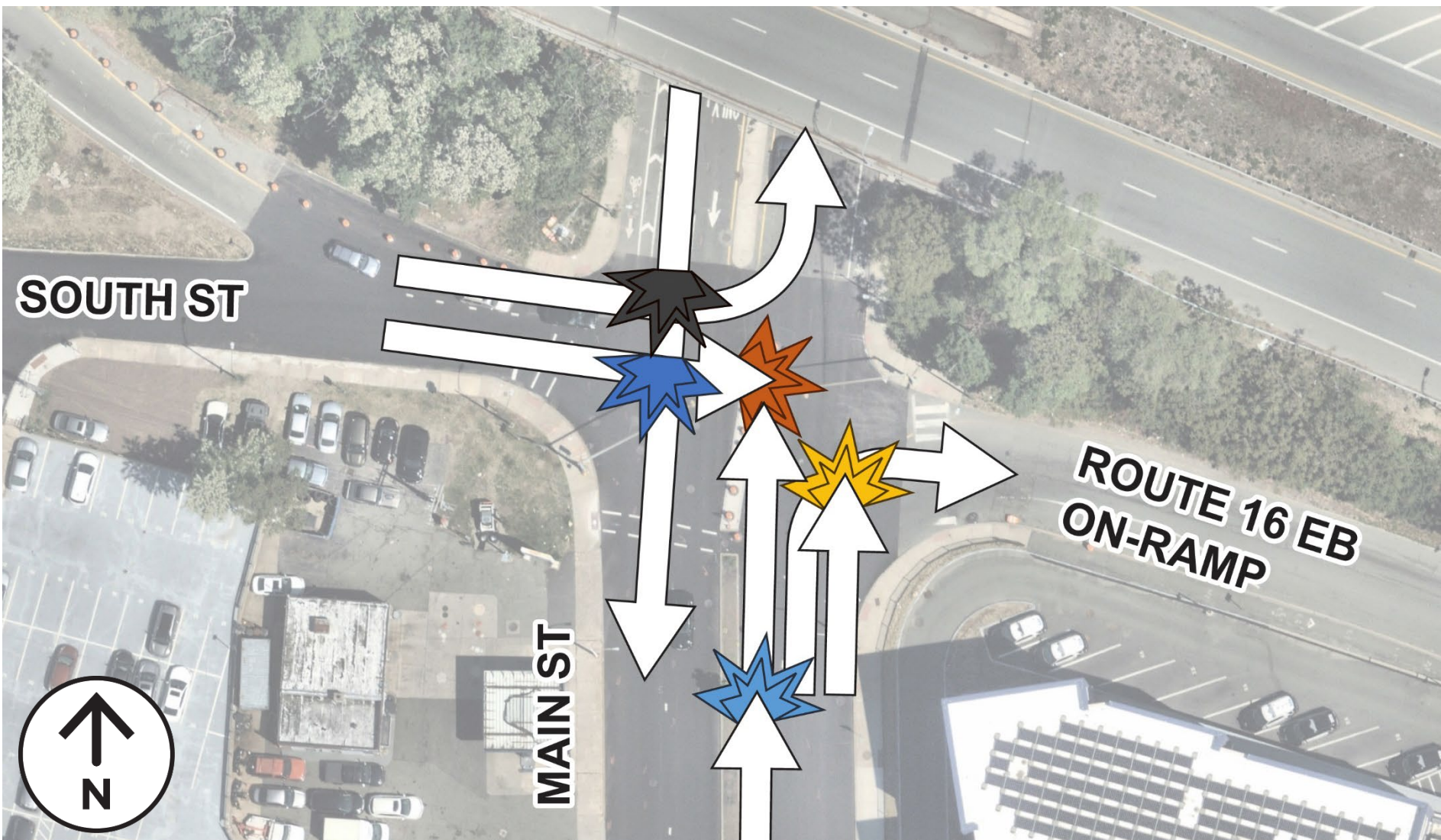
## Main Street at Route 16 EB Ramps/ South Street



- 26 Crashes - South Street EB & Main Street NB
- 21 Crashes - South Street EB & Main Street SB
- 6 Crashes - South Street left turns & Main Street NB
- 2 Crashes - Main Street right turns & Bikes NB
- 4 Crashes - Main Street NB Rear-Ends

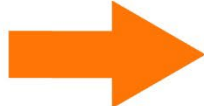
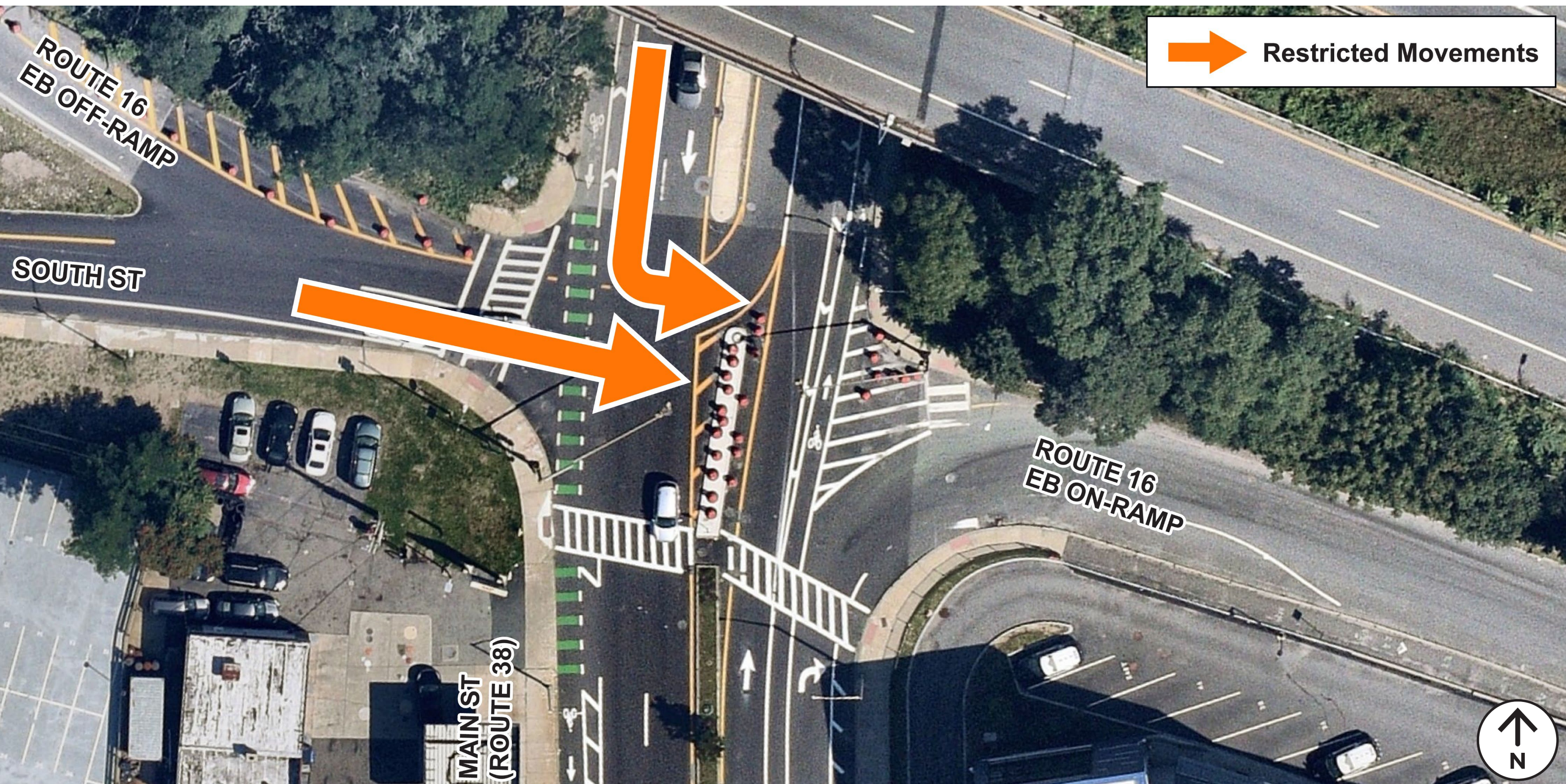
From 2017-2019:

- 78 reported collisions
- 68% of collisions were angle collisions
- 4% of collisions involved a pedestrian or bicyclist
- 22% of collisions resulted in personal injury





# Interim Improvements



Restricted Movements





## Main Street at Mystic Avenue/Emerson Street

### Main Street at Mystic Avenue:

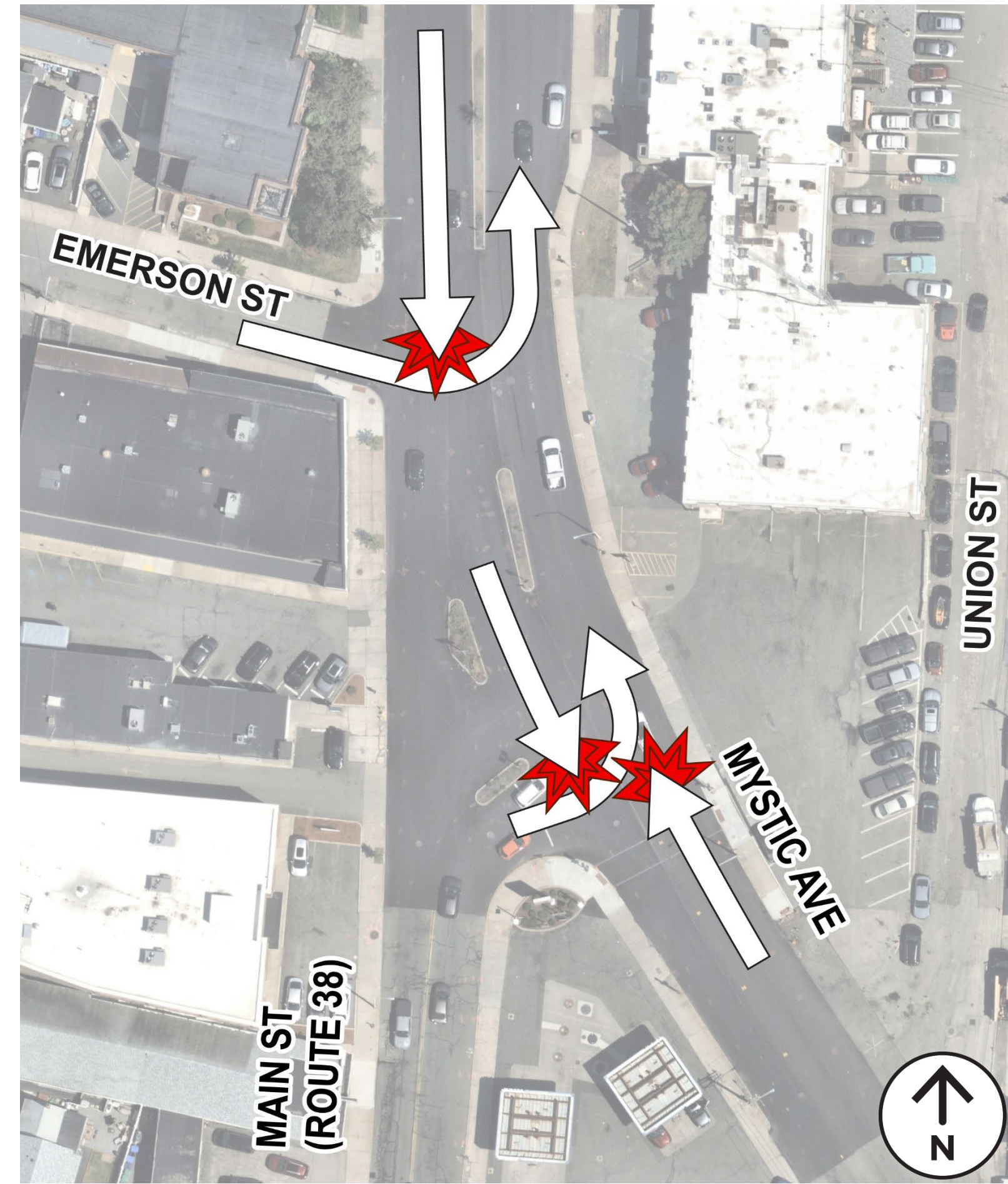
From 2017-2019, 17 collisions were recorded:

- 41% of collisions involved a left-turning vehicle from Main Street stop-controlled approach

### Main Street at Emerson Street:

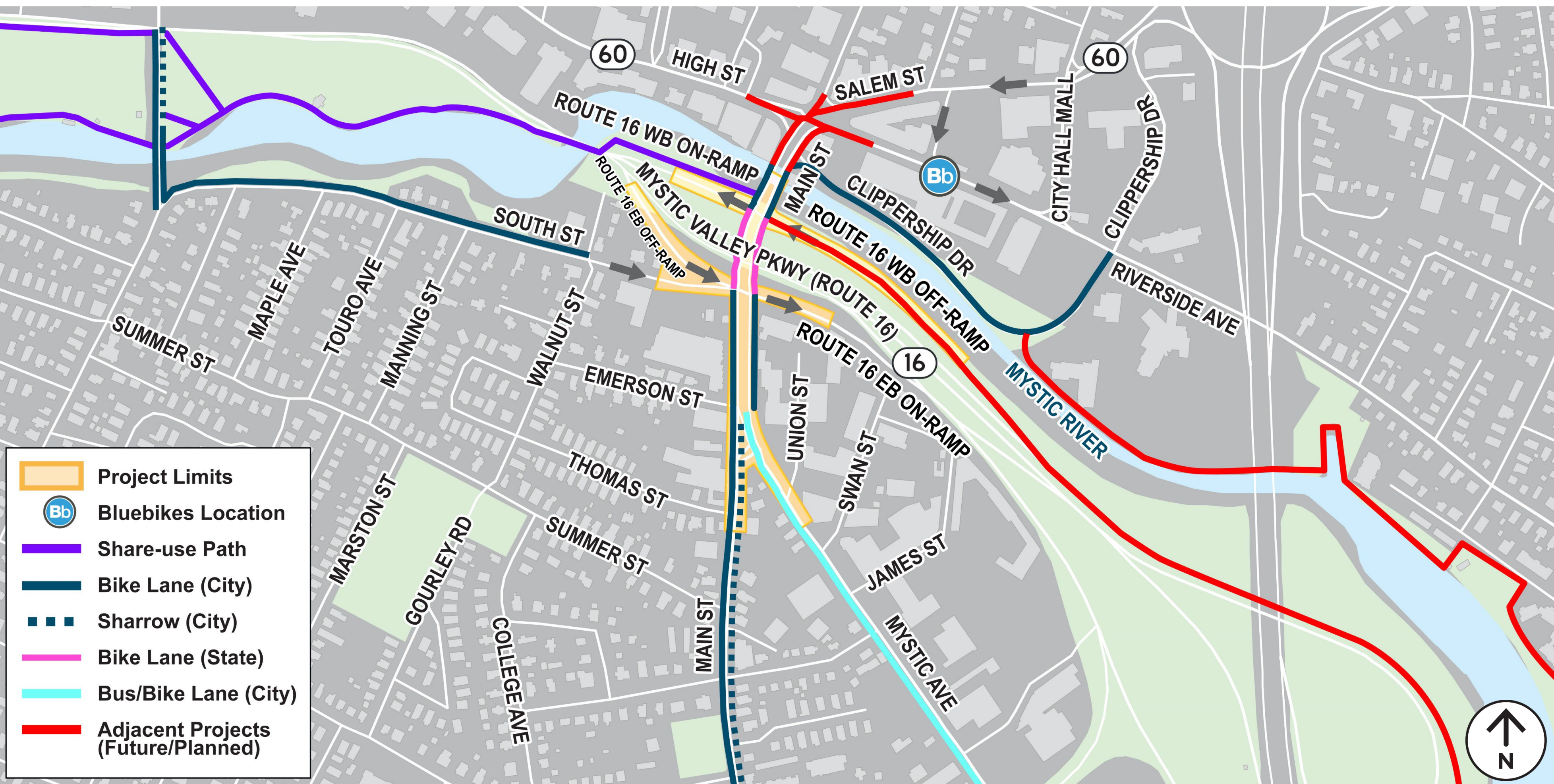
From 2017-2019, 14 collisions were recorded:

- 79% crashes occurred between southbound vehicles on Main Street and left-turning vehicles from Emerson Street
- 1 crash involved a pedestrian crossing Main Street on the crosswalk





# Bike Network







**What do we  
want to  
accomplish?**



## Project Goals

- Improve safety for people walking, biking, and driving through project area
- Improve intersection connections for people walking and biking
- Maintain acceptable traffic operations

## Project Considerations

- South Medford Connector Project (MassDOT Project #612499)
- Medford Square, City of Medford Project
- City of Medford Fire Department
- MassDOT Statewide Pedestrian and Bicycle Plans; City of Medford Complete Streets Policy
- MassDOT Healthy Transportation Policy Directives



## Project Scope

- Reconstruct the intersections of:
  - Main Street/Route 16 Westbound Ramps
  - Main Street/South Street/Route 16 Eastbound Ramps
  - Main Street/Mystic Avenue/Emerson Street
- Roadway realignment to encourage safe speeds/improve ped-bike visibility
- Roadway resurfacing and restriping
- Pedestrian sidewalk and curb ramp reconstruction
- Buffered bicycle lanes and share-use path construction





**What  
alternatives  
were  
considered?**



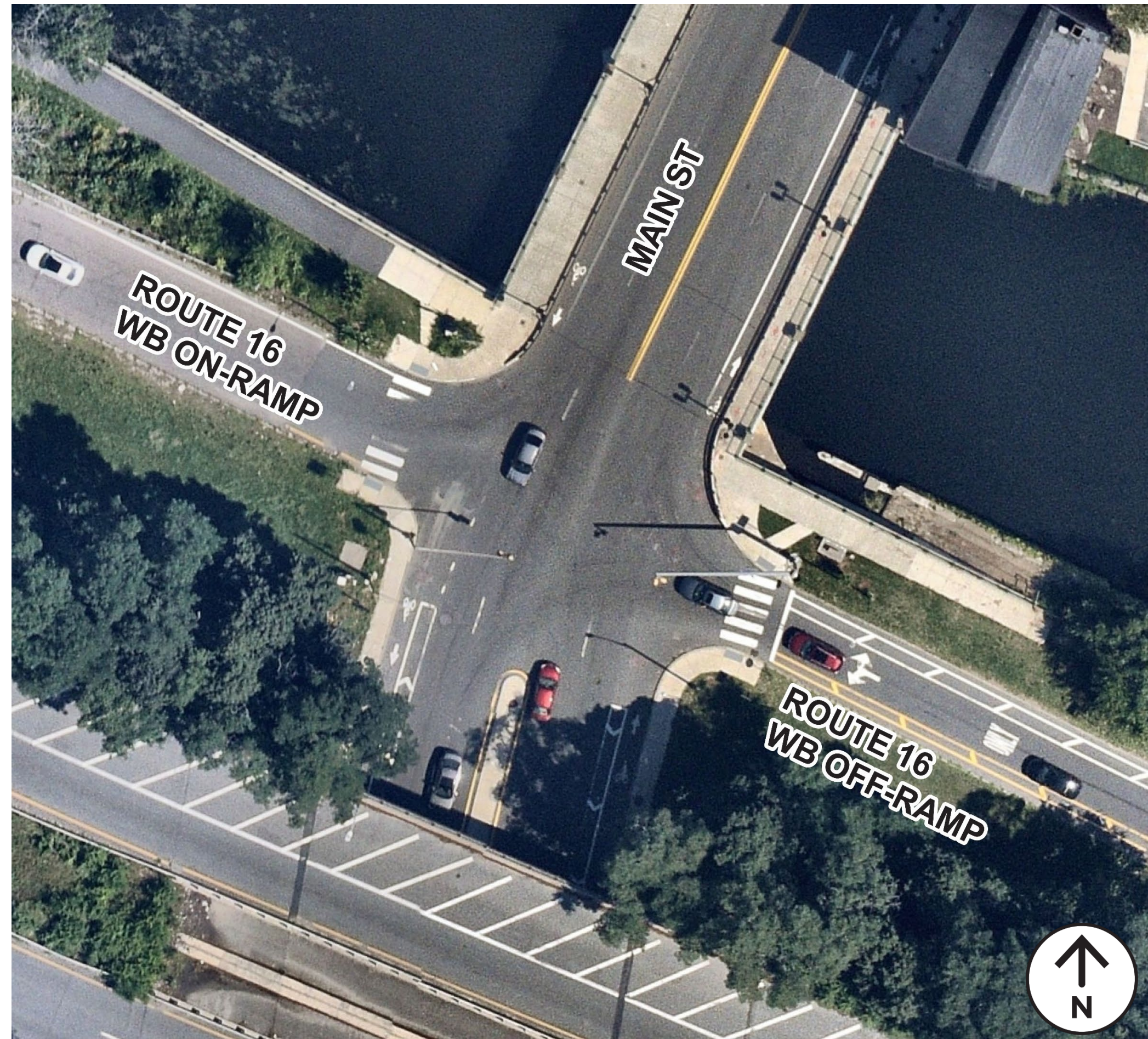
## Main Street at Route 16 Westbound Ramps

### Intersection Control:

- Signalized Intersection
- Modern Roundabout

### Pedestrian/Bike Facilities:

- Shared Use Paths
- Separated Bike Lanes





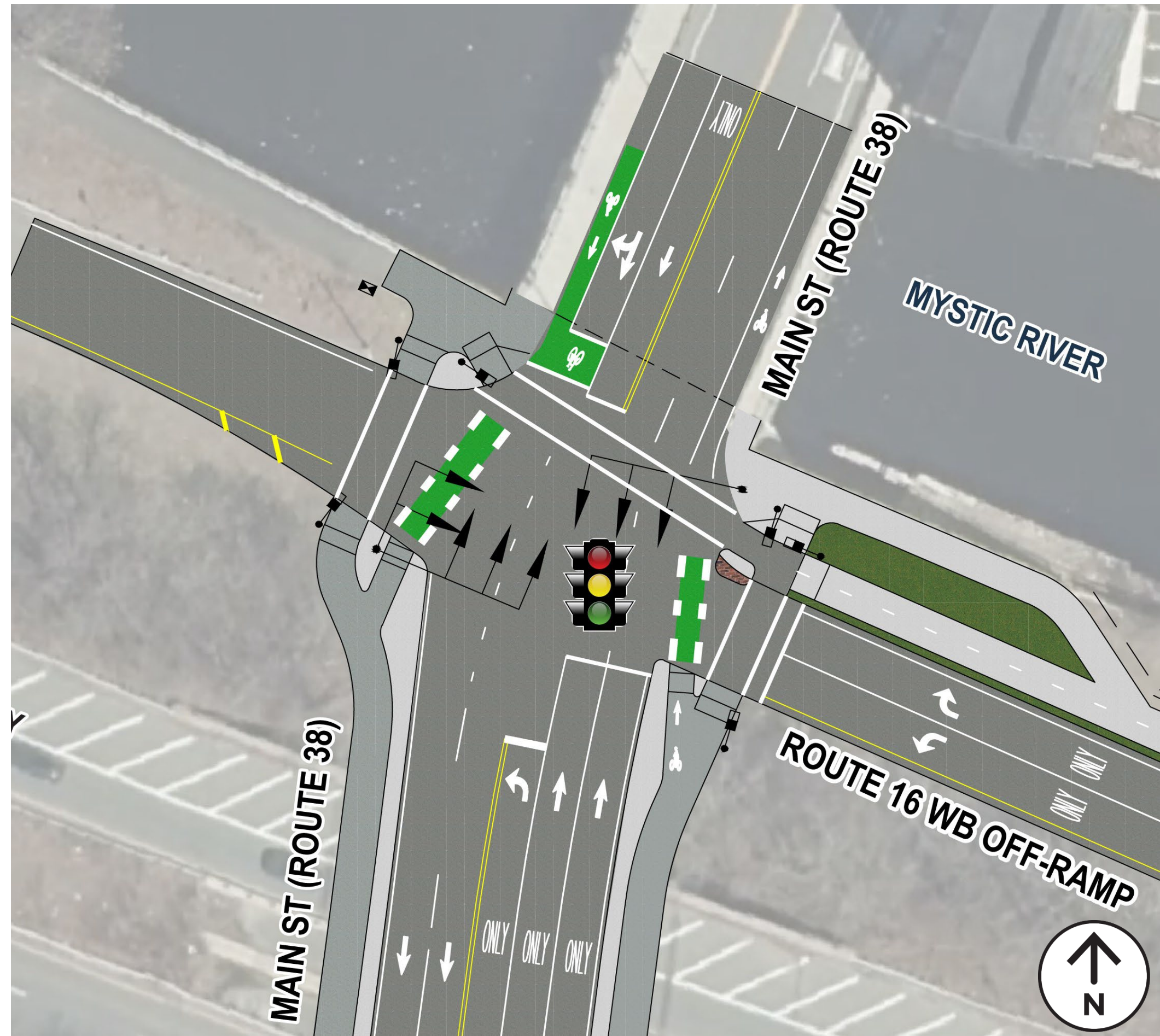
## Main Street at Route 16 Westbound Ramps Signalized Alternative

### Overview:

- Signalized control on all approaches to address factors of collision trends
- Improves ped/bike network connections via shared-use paths
- Provides critical east-west crosswalk without impacting Cradock Bridge
- Provides northbound left-turn pocket

### Challenges:

- Delayed pedestrian cycle due to concurrent phasing





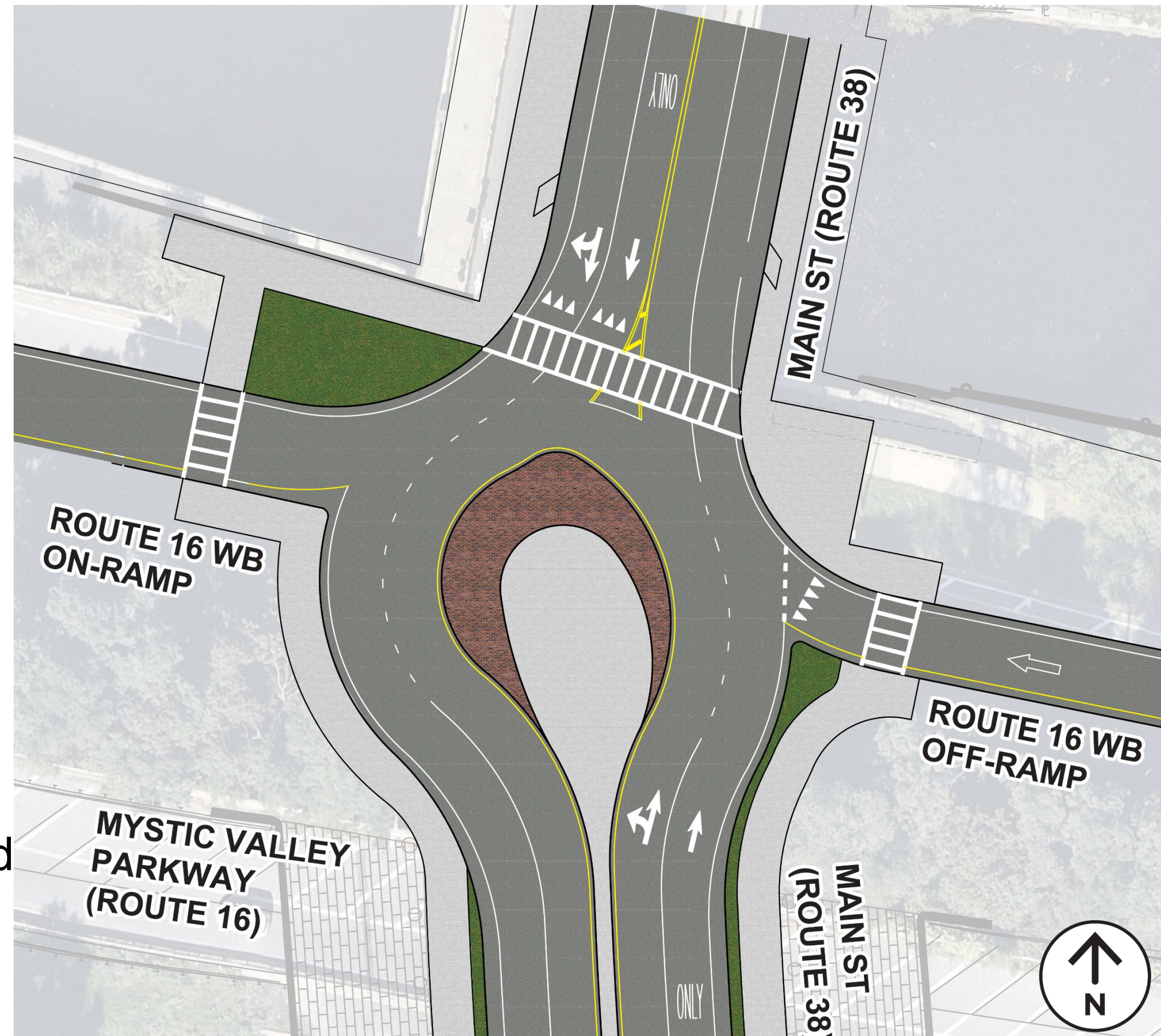
## Main Street at Route 16 Westbound Ramps Modern Roundabout Alternative

### Overview:

- Introduces U-turn movement on Main Street from northbound to southbound
- Provides traffic calming and encourages speed reduction

### Challenges:

- Lacks deflection needed to manage speeds
- Impacts to Cradock Bridge rail and Route 16 overpass bridge piers
- Lacks pedestrian refuge at unsignalized east-west crosswalk





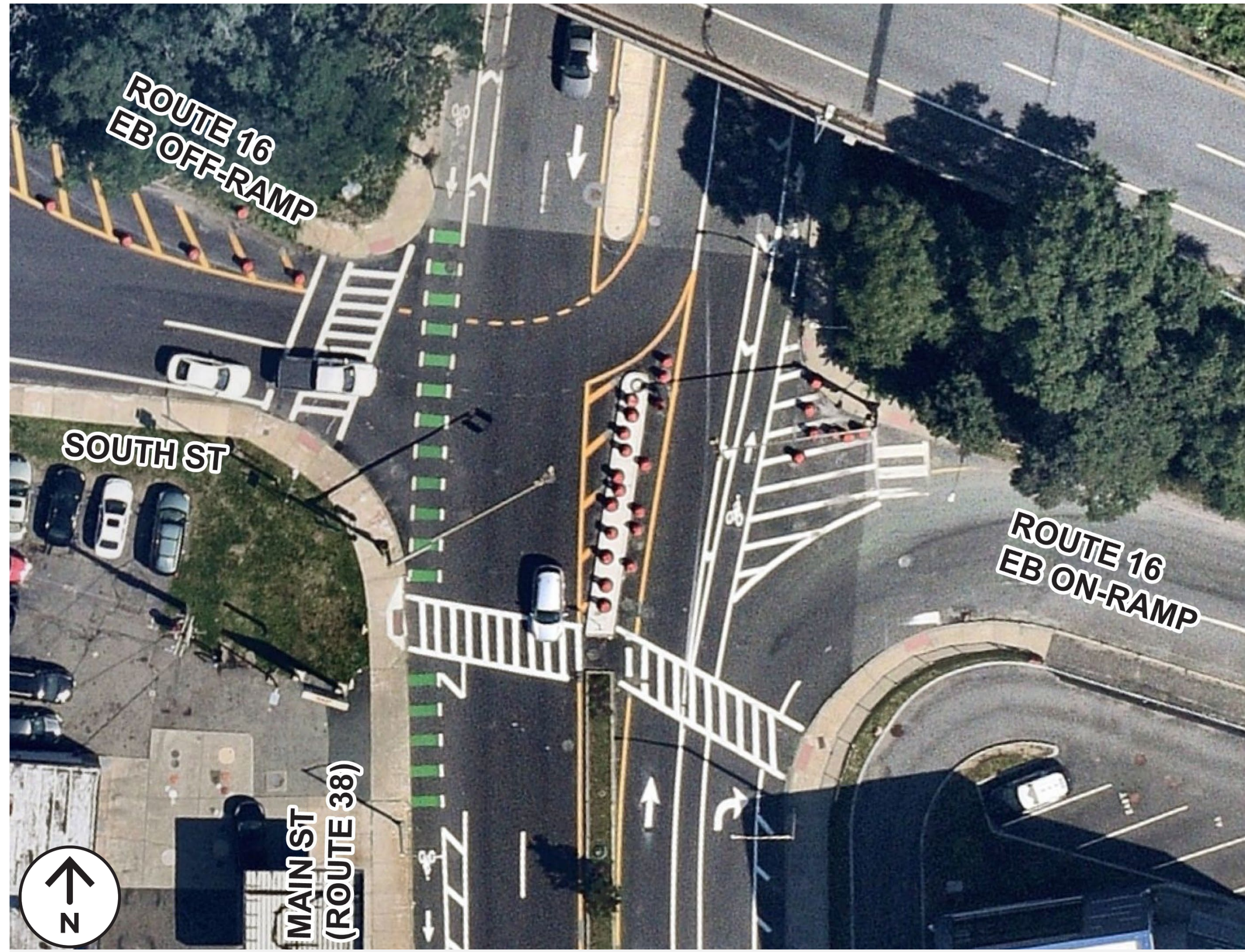
## Main Street at South Street/Route 16 Eastbound Ramps

### Intersection Control:

- Signalized Alternative 1
- Signalized Alternative 2
- Modern Roundabout

### Pedestrian/Bike Facilities:

- Shared Use Paths
- Separated Bicycle Lanes





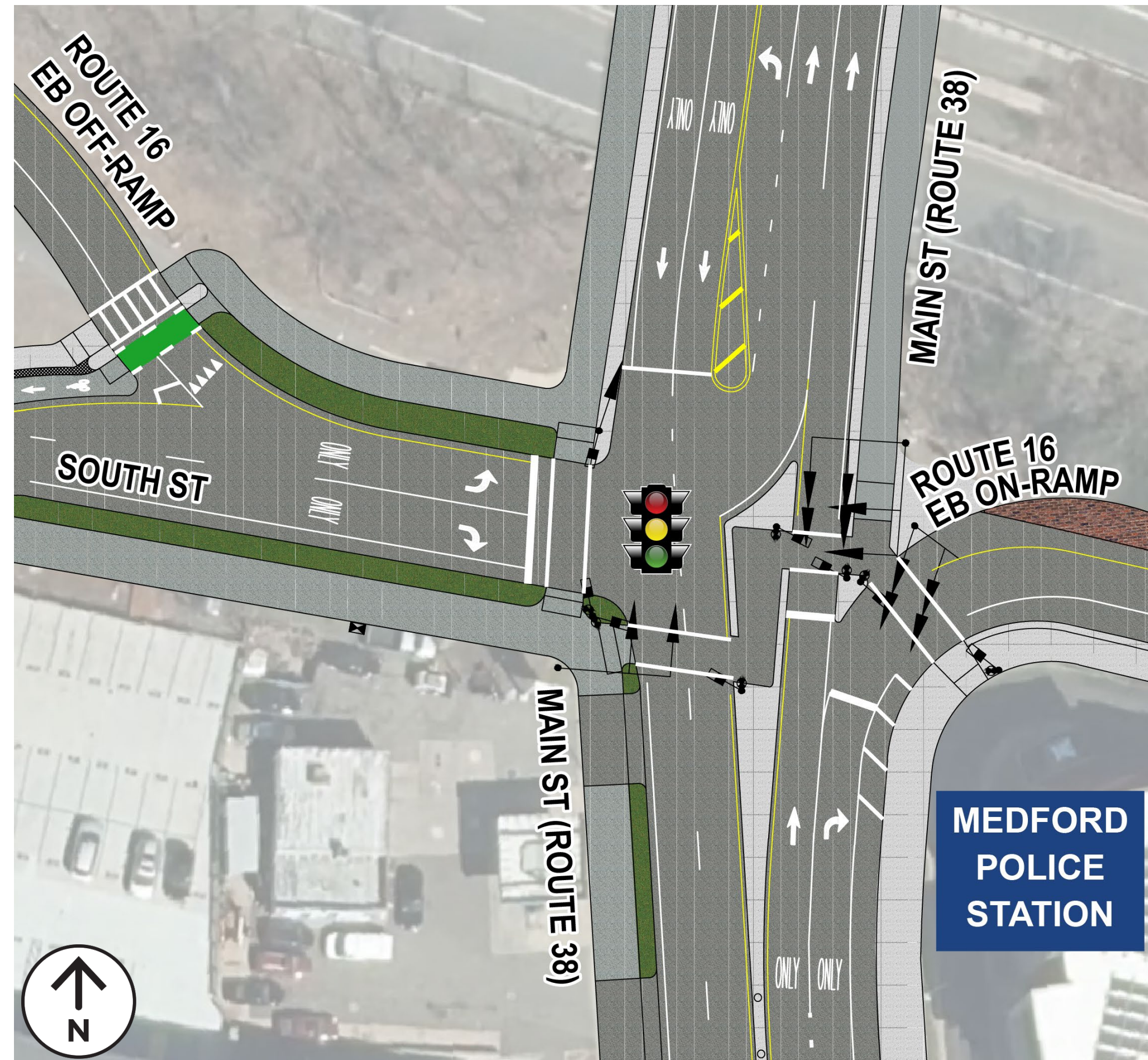
## Main Street at South Street/Route 16 Eastbound Ramps Signalized Alternative 1

### Overview:

- Signalized control on eastbound and southbound approaches
- Enhances interim improvements to address factors of collision trends
- Improves bike network connections via shared-use paths

### Challenges:

- Delayed pedestrian cycle due to concurrent phasing
- Maintains weaving on northbound departure (no recorded crashes)





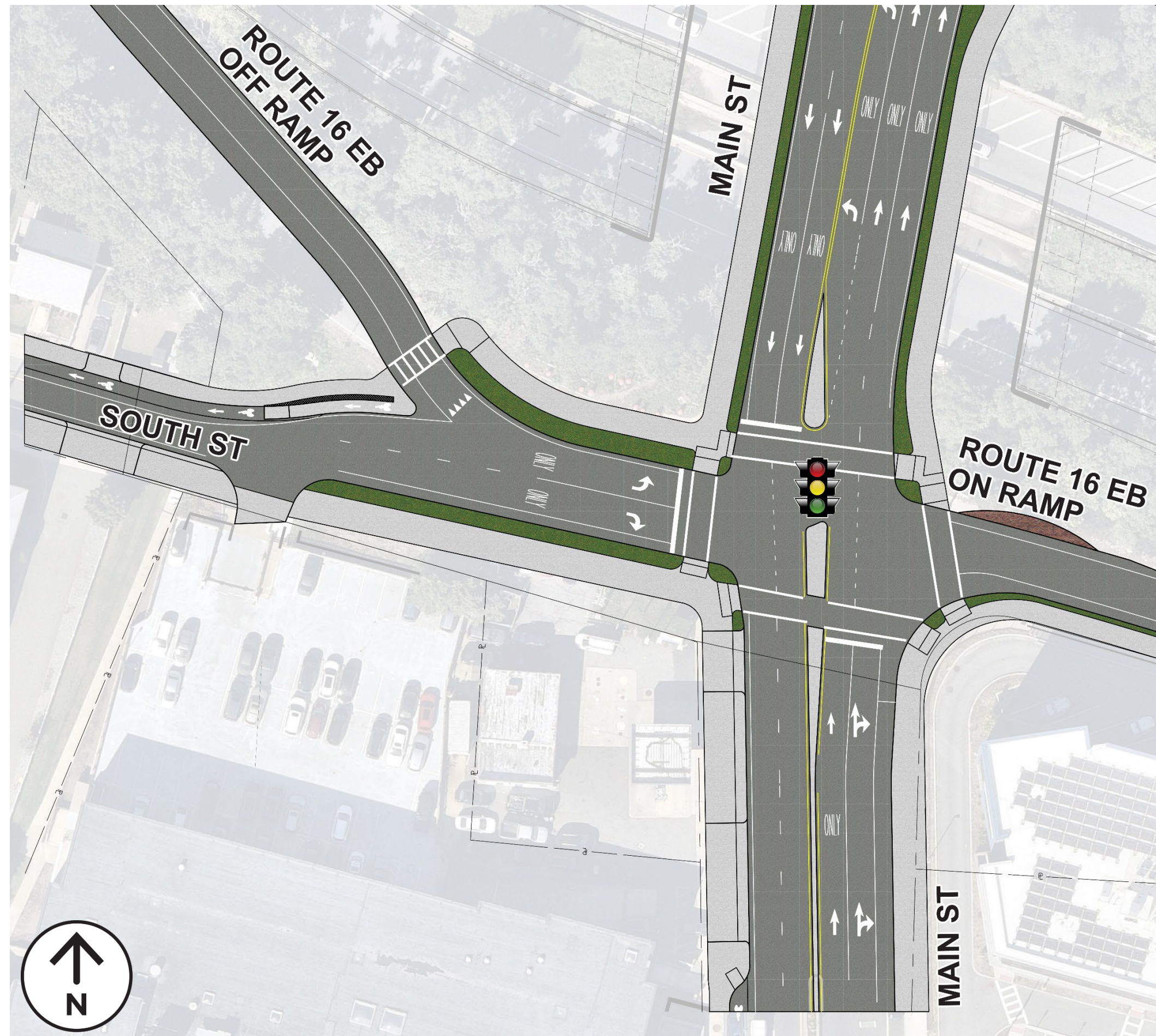
## Main Street at South Street/ Route 16 Eastbound Ramps Signalized Alternative 2

### Overview:

- Signalized control on all approaches
- Enhances interim improvements to address factors of collision trends
- Improves bike network connections via shared-use paths

### Challenges:

- Delayed pedestrian cycle due to concurrent phasing
- No physical restriction for southbound left turns (high crash historical trend)





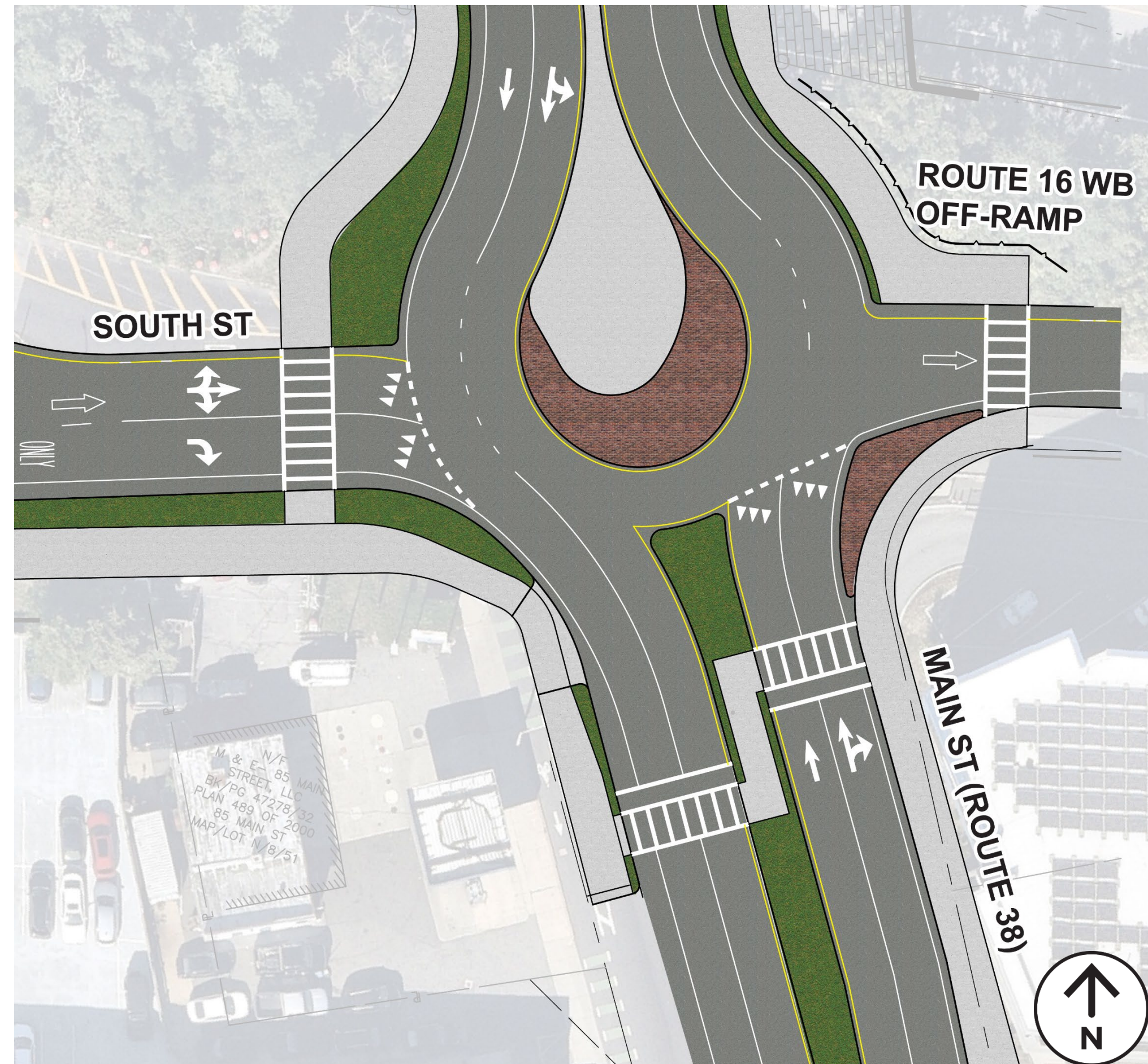
## Main Street at South Street/ Route 16 Eastbound Ramps Modern Roundabout Alternative

### Overview:

- Introduces U-turn and left-turn movement on Main Street from southbound travel

### Challenges:

- Lacks deflection needed to manage speeds and side swipe crashes
- Impacts to Route 16 overpass bridge piers





## Main Street at Mystic Avenue and Emerson Street

### Intersection Control:

- Signalized Intersection
- Modern Roundabout

### Pedestrian/Bike Facilities:

- Shared Use Paths
- Separated Bike Lanes





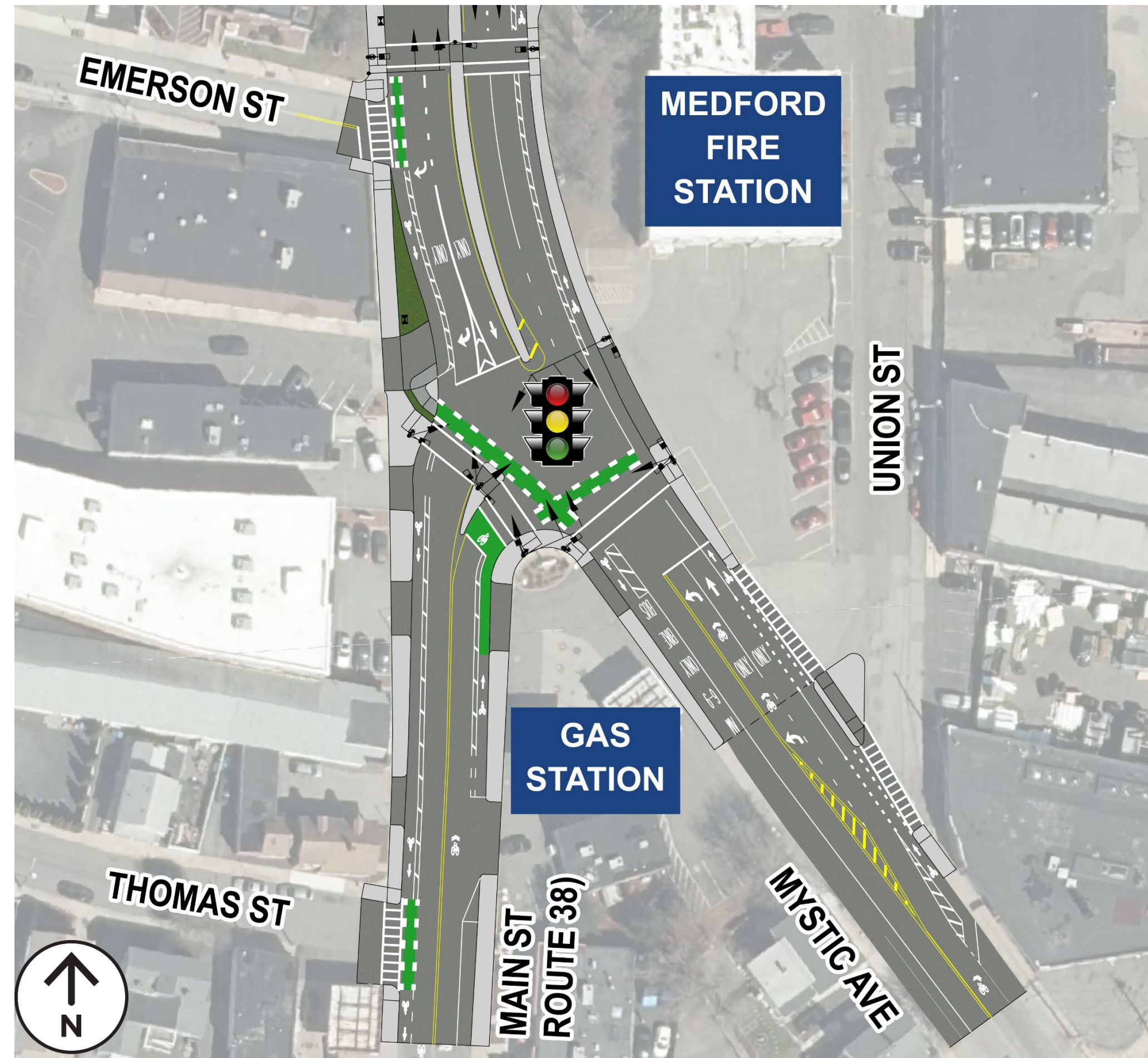
## Main Street at Mystic Avenue and Emerson Street Signalized Alternative

### Overview:

- Signalized control on all approaches
- Buffered bike facilities to provide additional comfort to cyclists

### Challenges:

- Delayed pedestrian cycle due to concurrent phasing





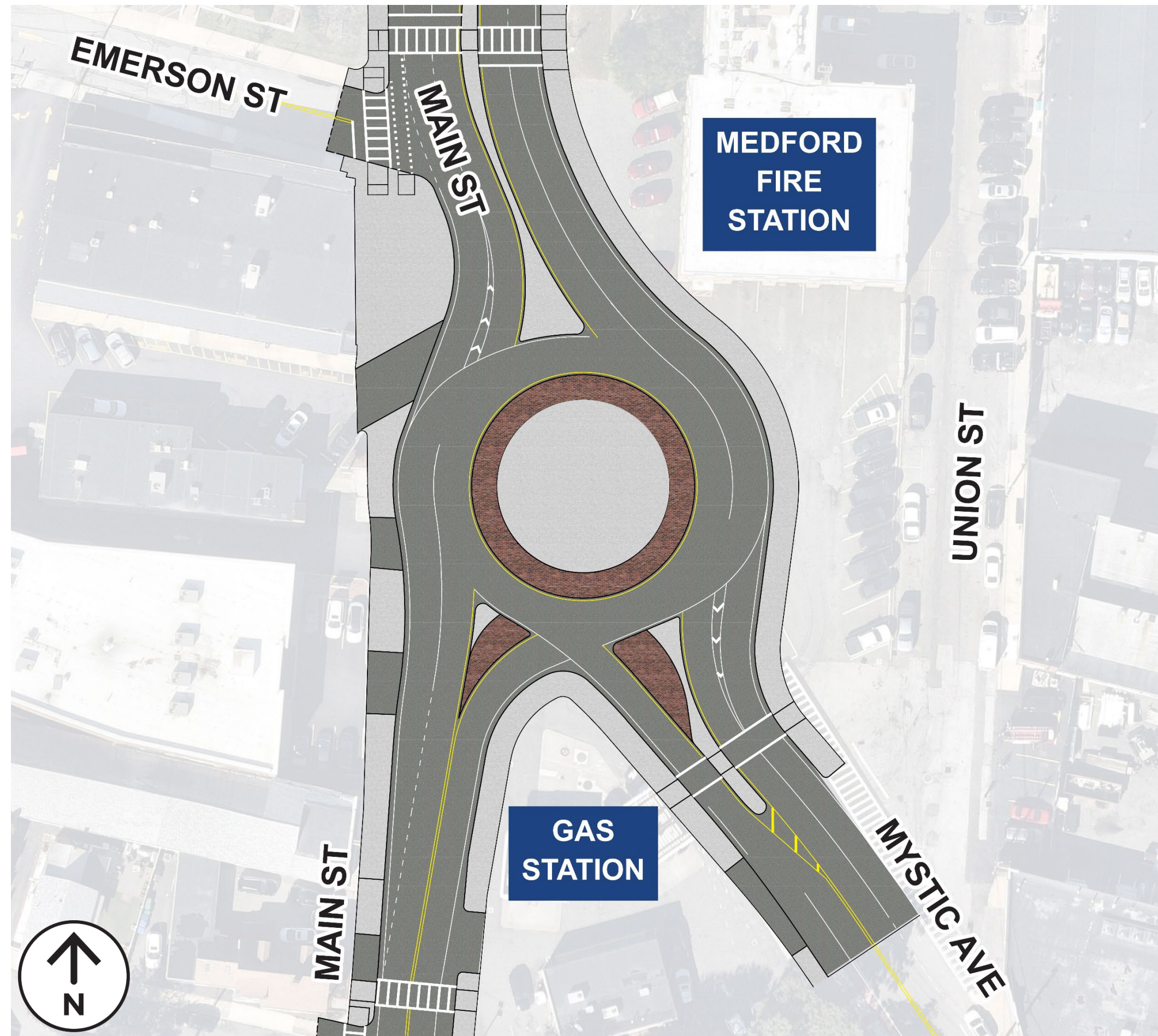
## Main Street at Mystic Avenue and Emerson Street Modern Roundabout Alternative

### Overview:

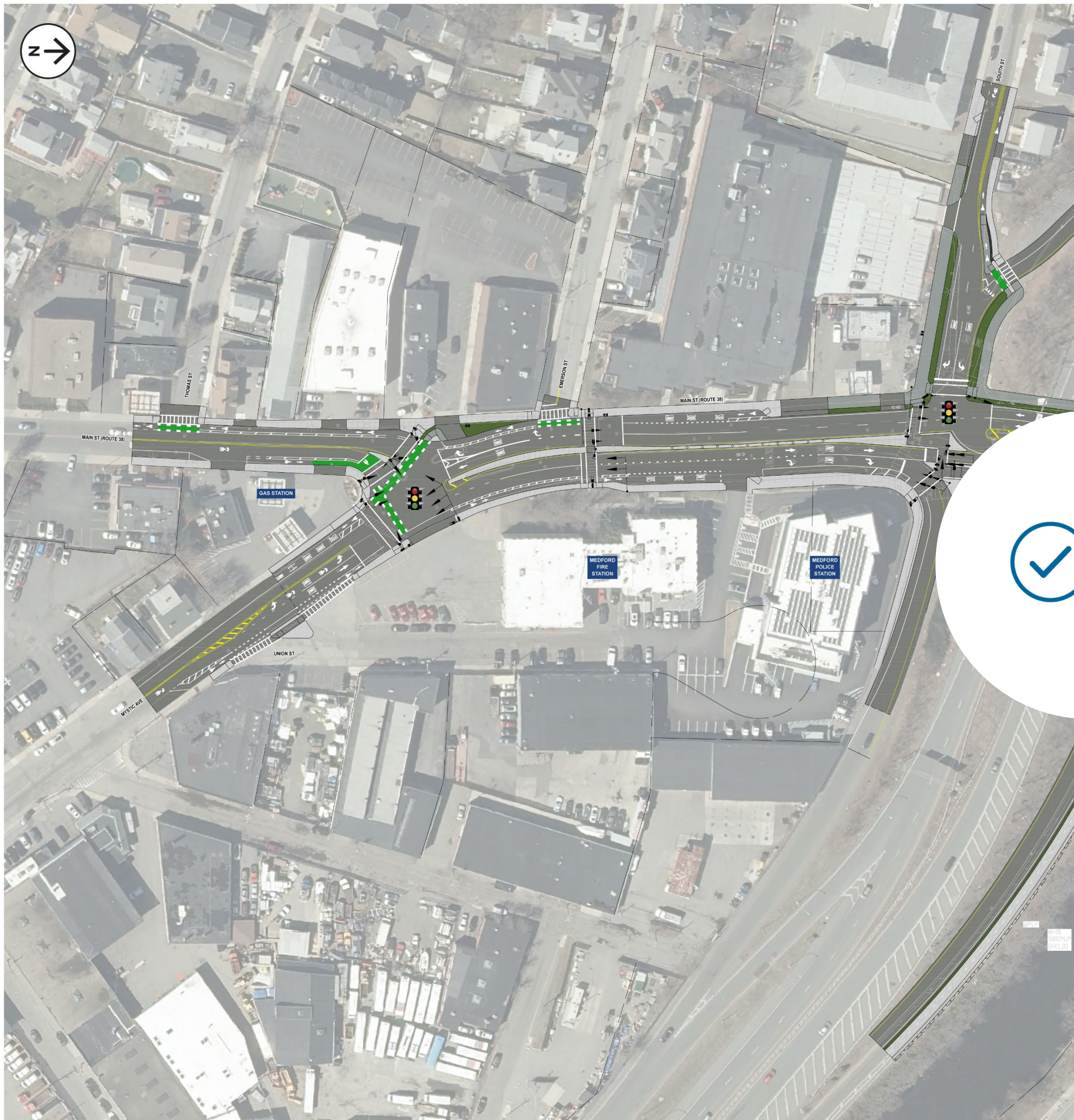
- Roadway geometry provides deflection and curvature to manage vehicular speeds

### Challenges:

- Permanent ROW impacts (approx. 9,880 sf) on Medford Fire and adjacent gas station
- Environmental concern with underground storage gas tanks
- Narrow shared-use paths



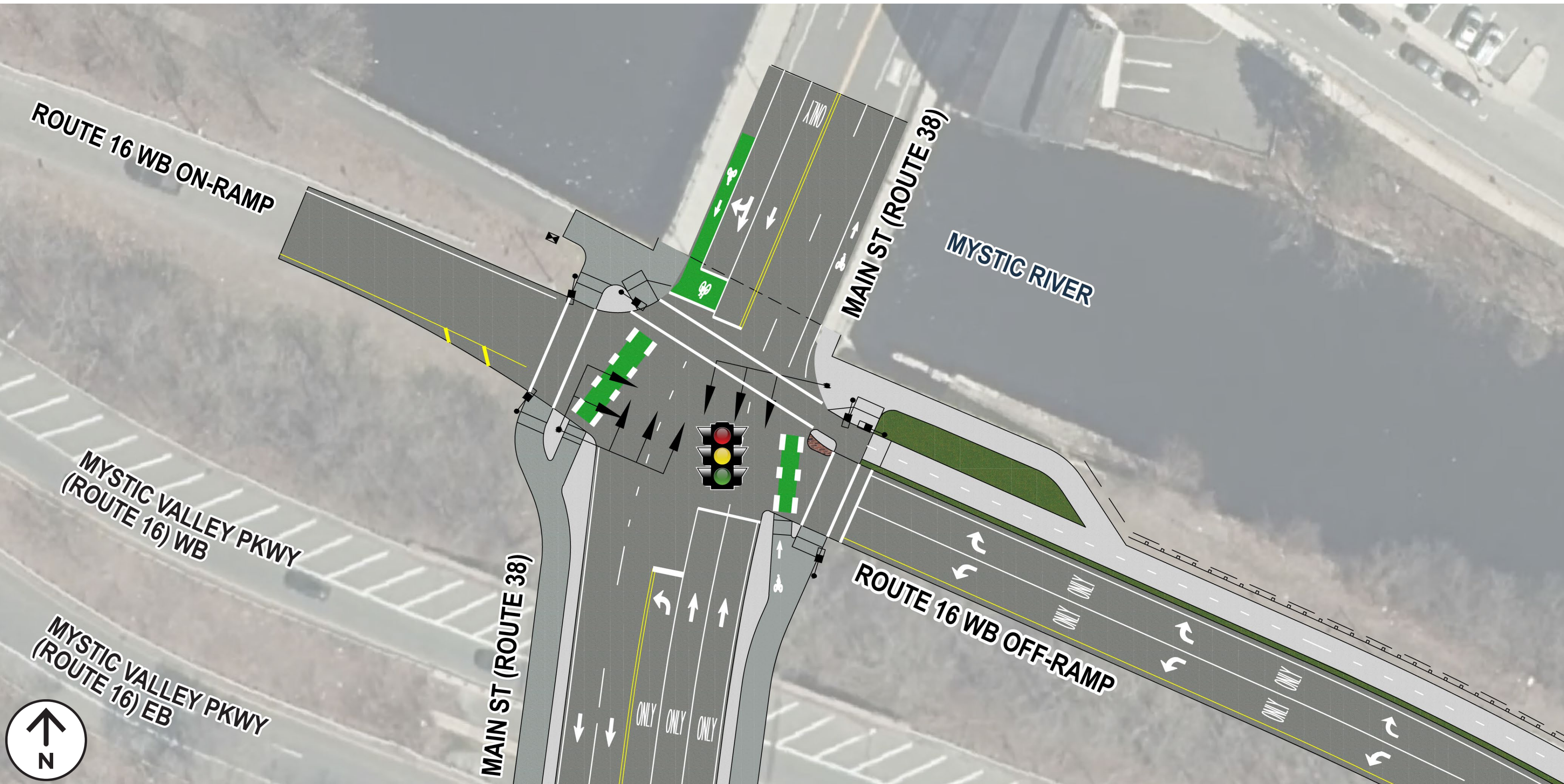




What is the preferred alternative?








# Proposed Design: Main Street at Route 16 Westbound Ramps





# Main Street at Route 16 Westbound Ramps Intersection Phasing



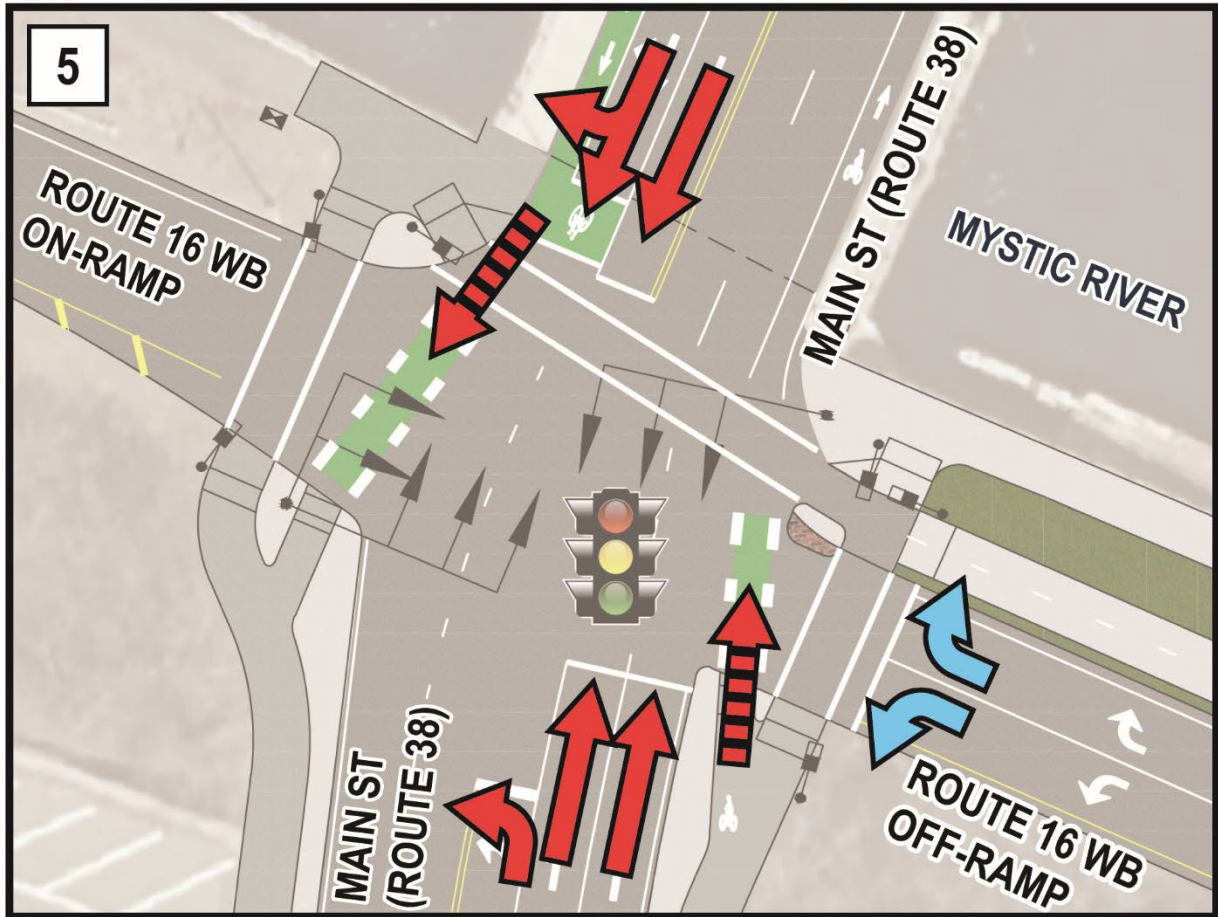
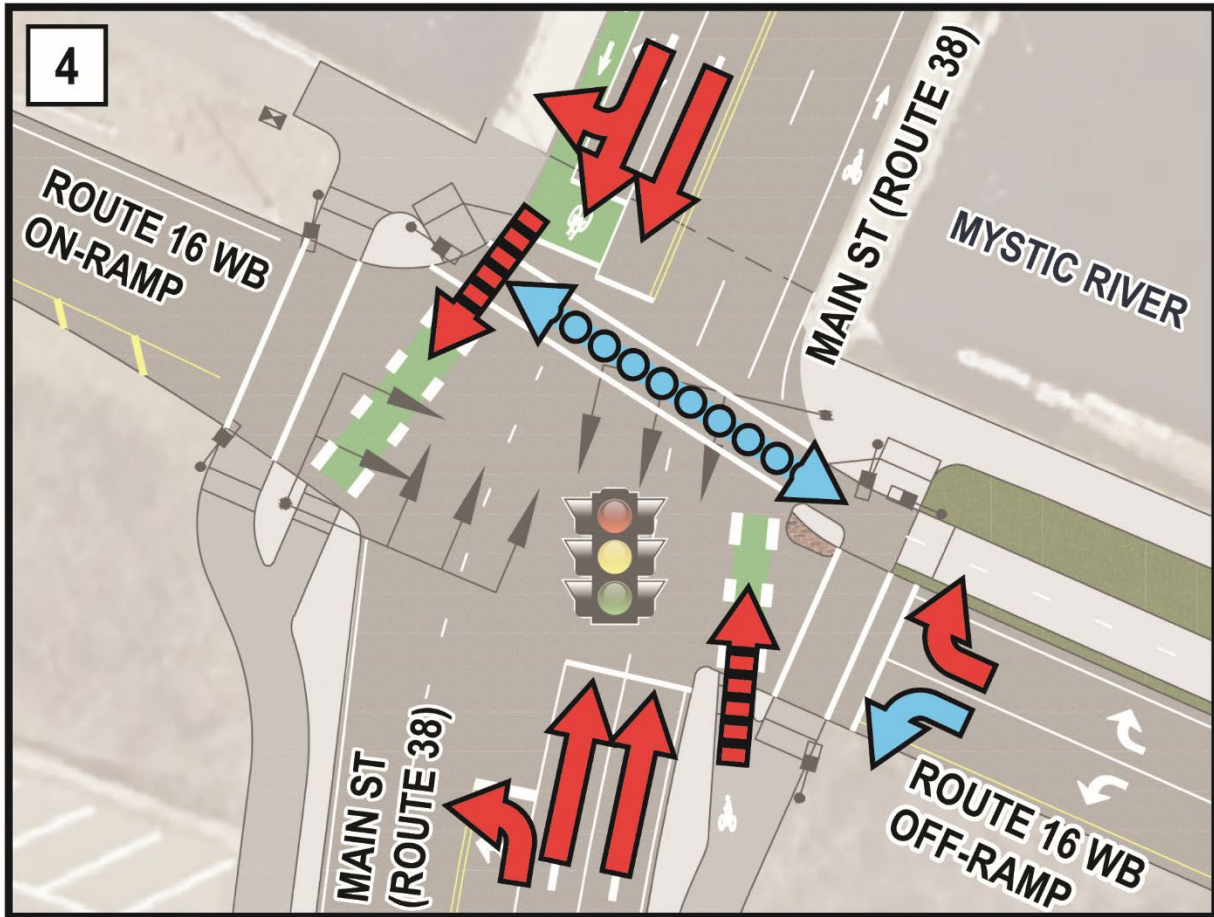
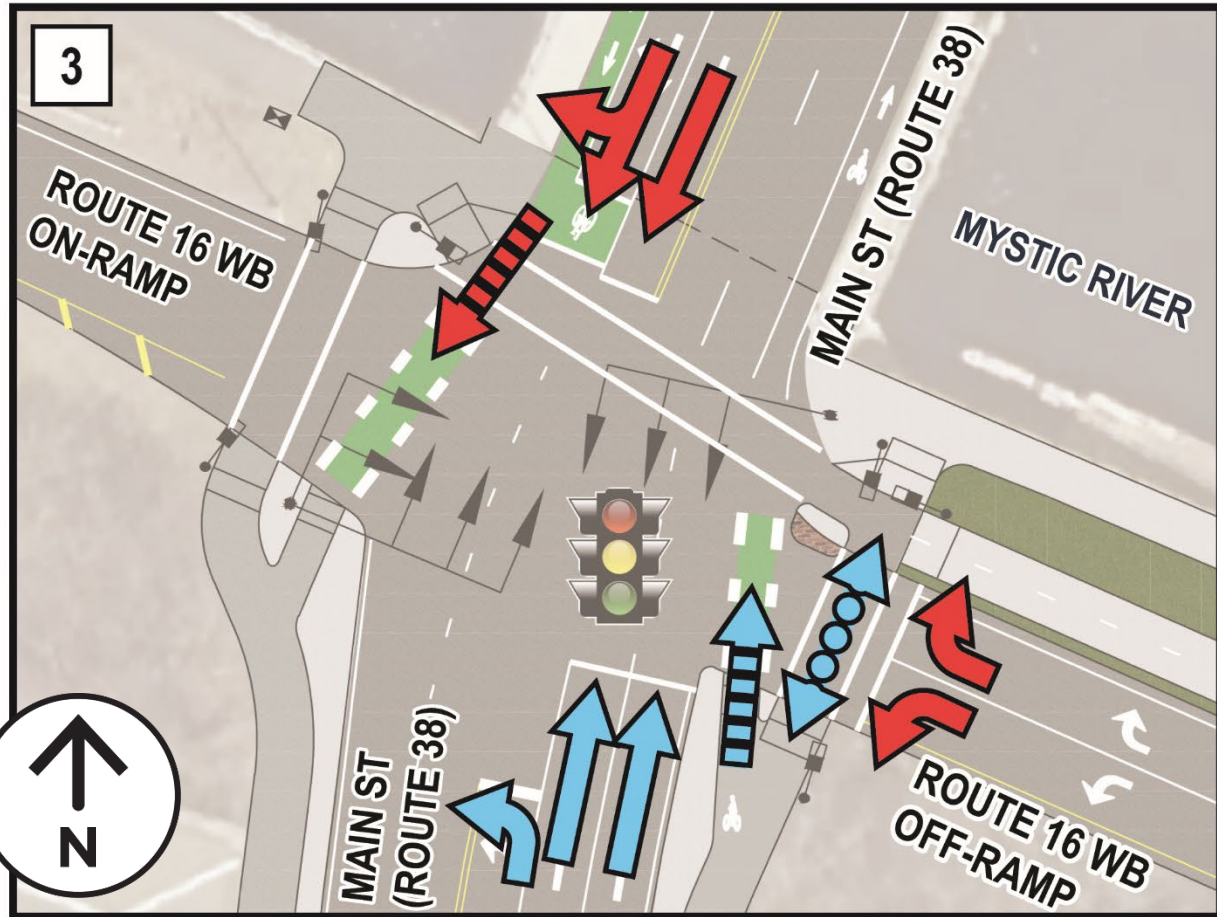
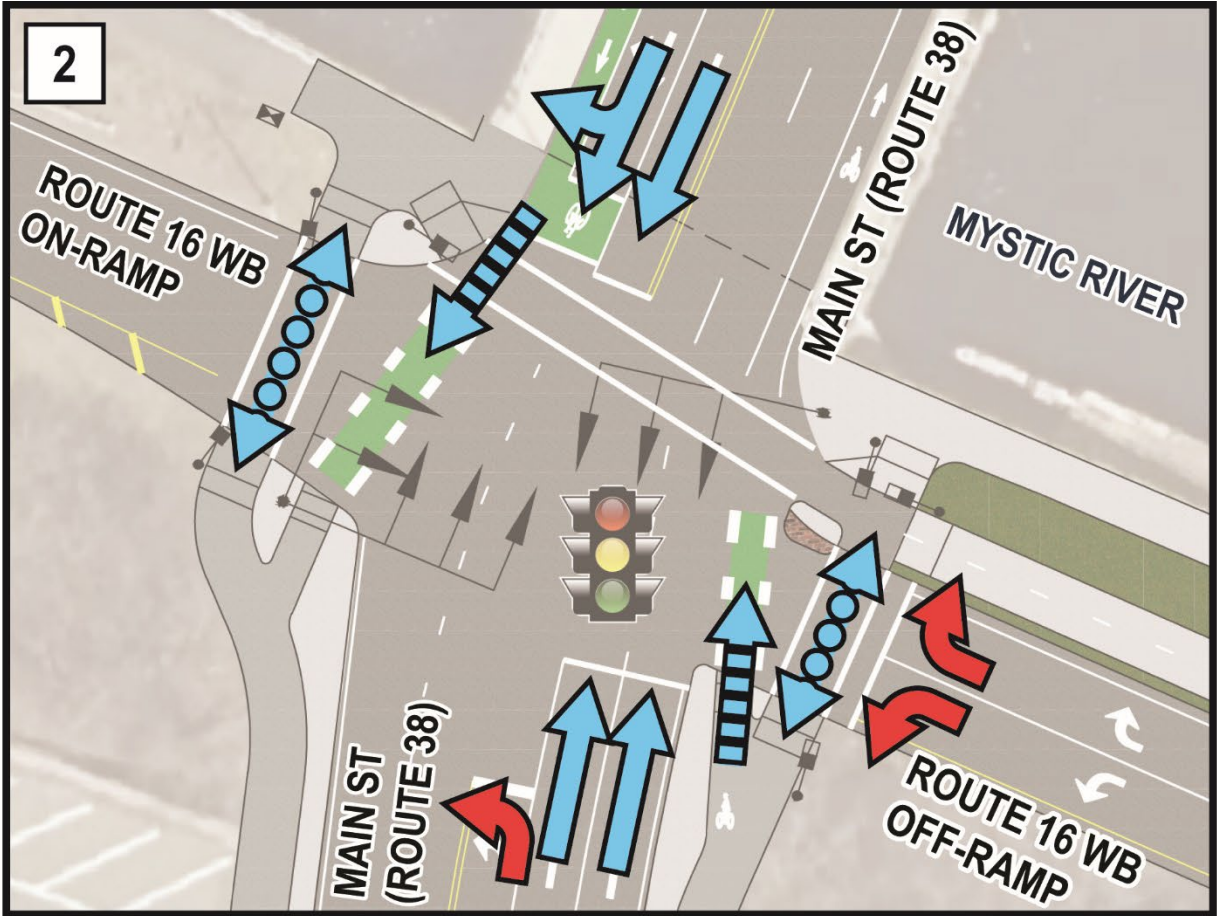
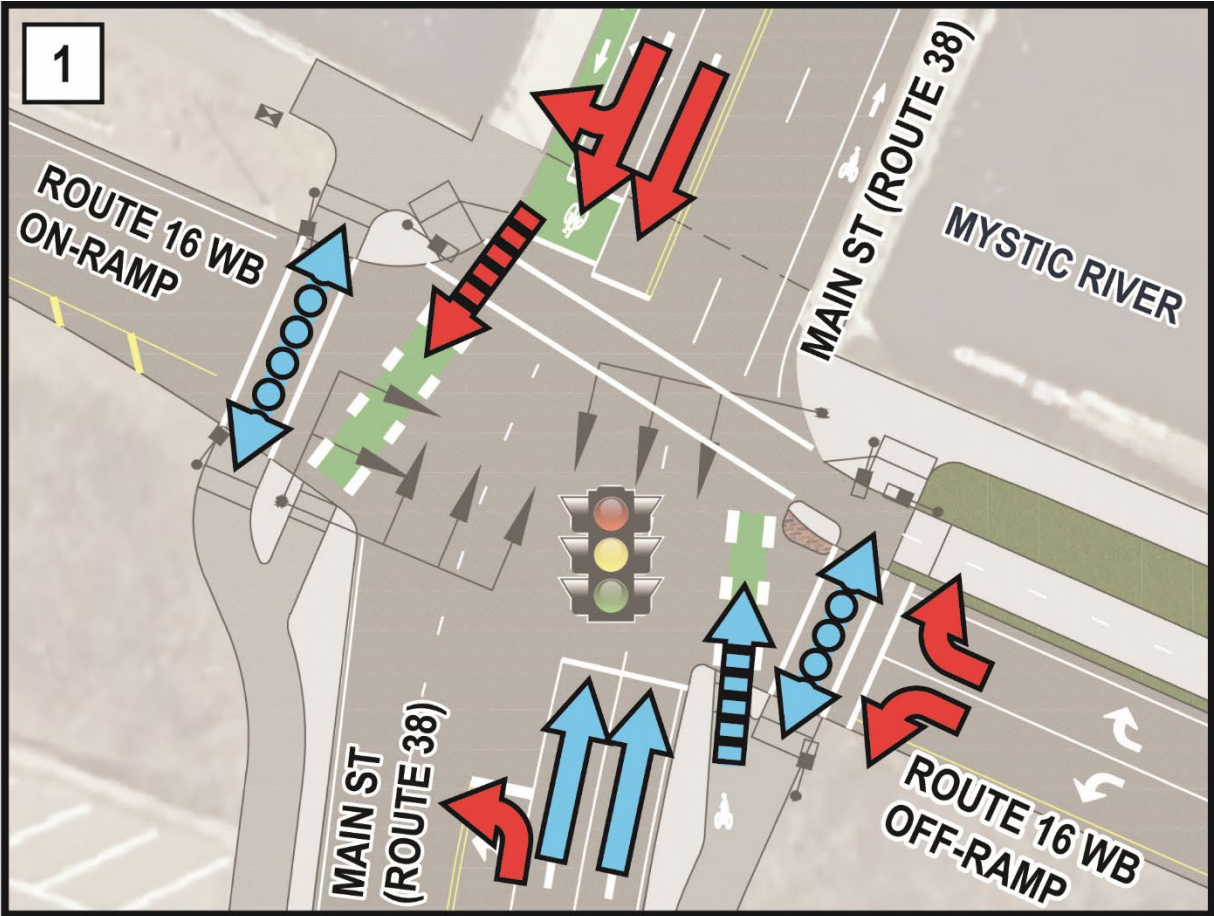
Vehicle

Pedestrian

Bicycle

Green Light

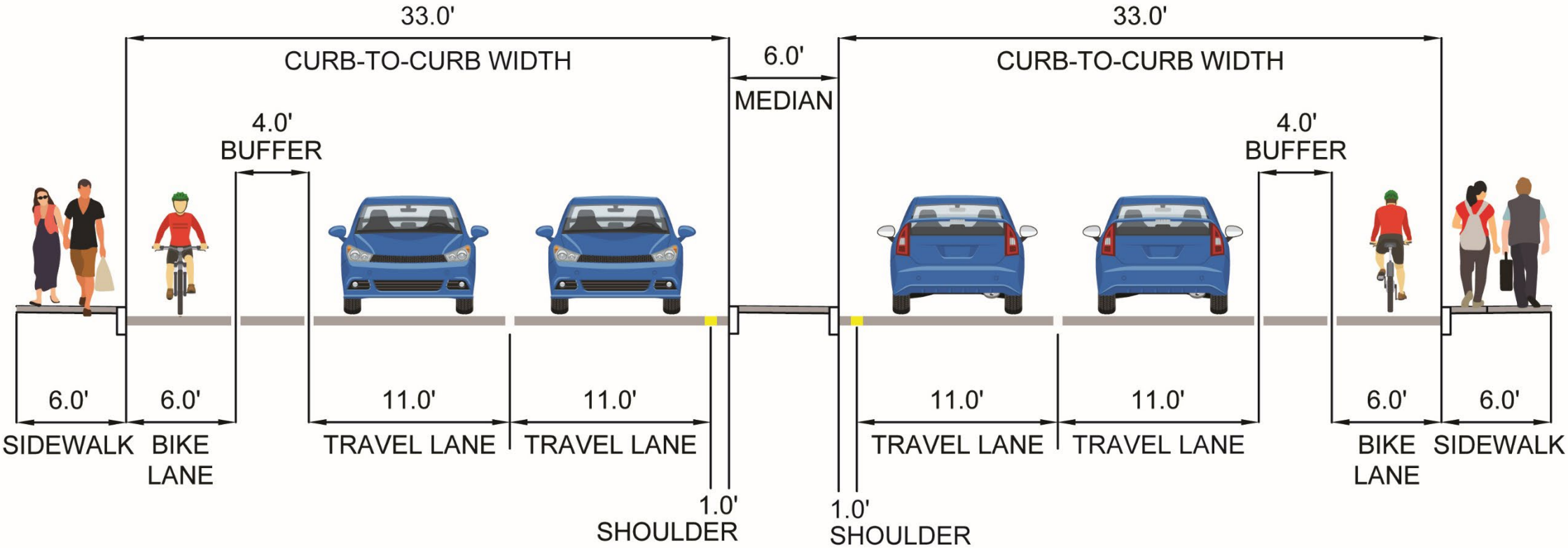
Red Light



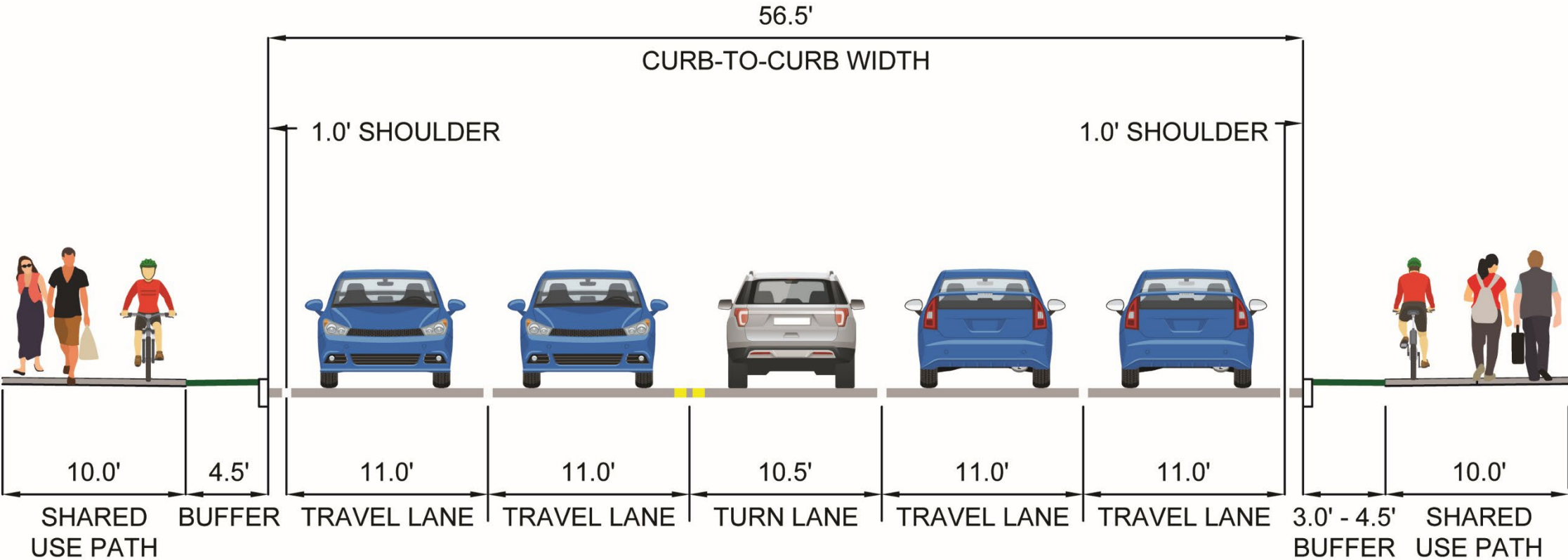


# Main Street: Under Route 16 Overpass

## EXISTING

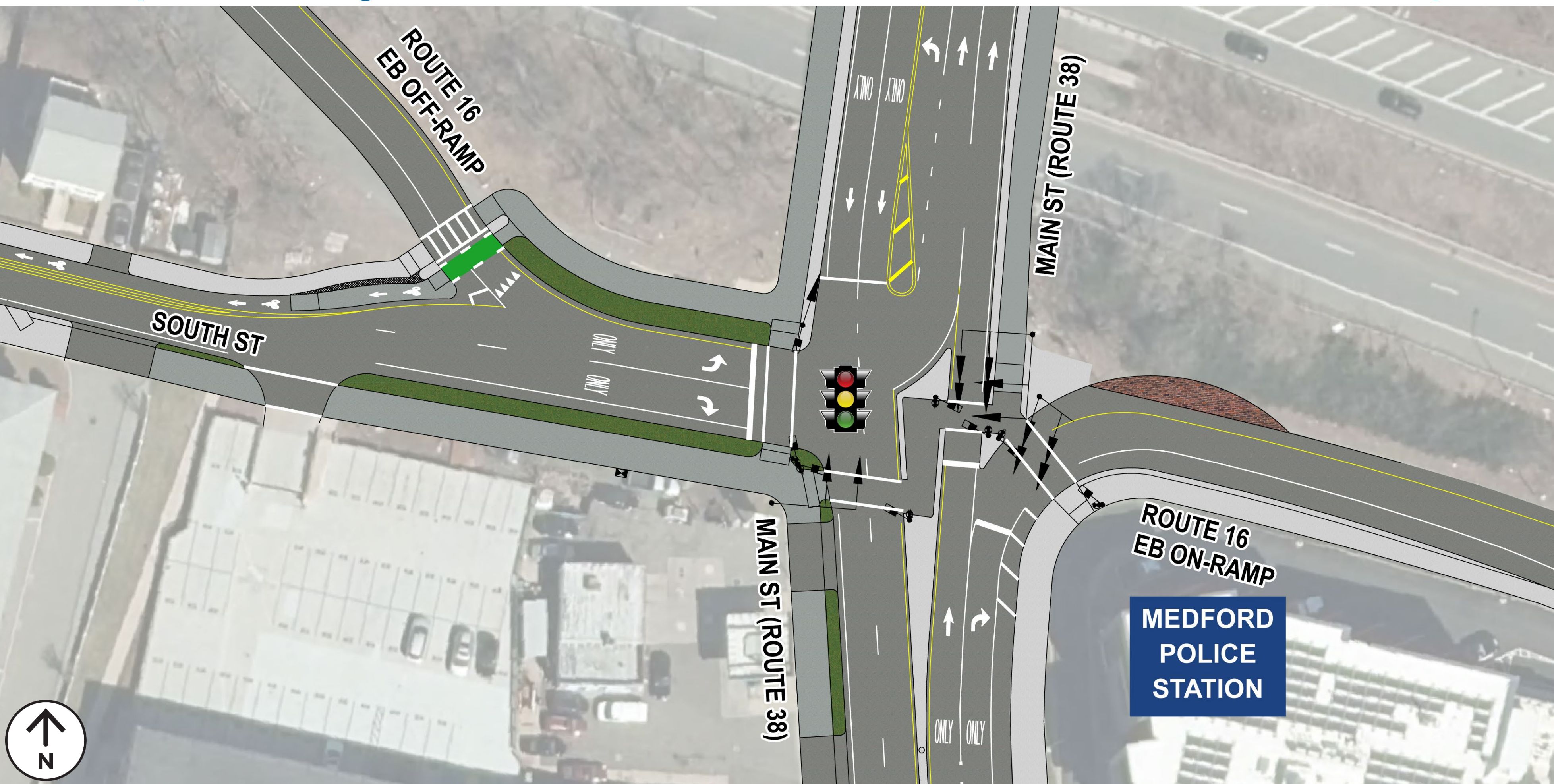


## PROPOSED










Proposed Design: Main Street/ South Street/ Route 16 Eastbound Ramps





# Main Street/ South Street/ Route 16 Eastbound Ramps Intersection Phasing



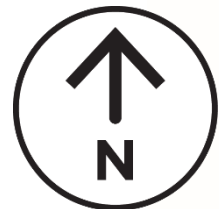
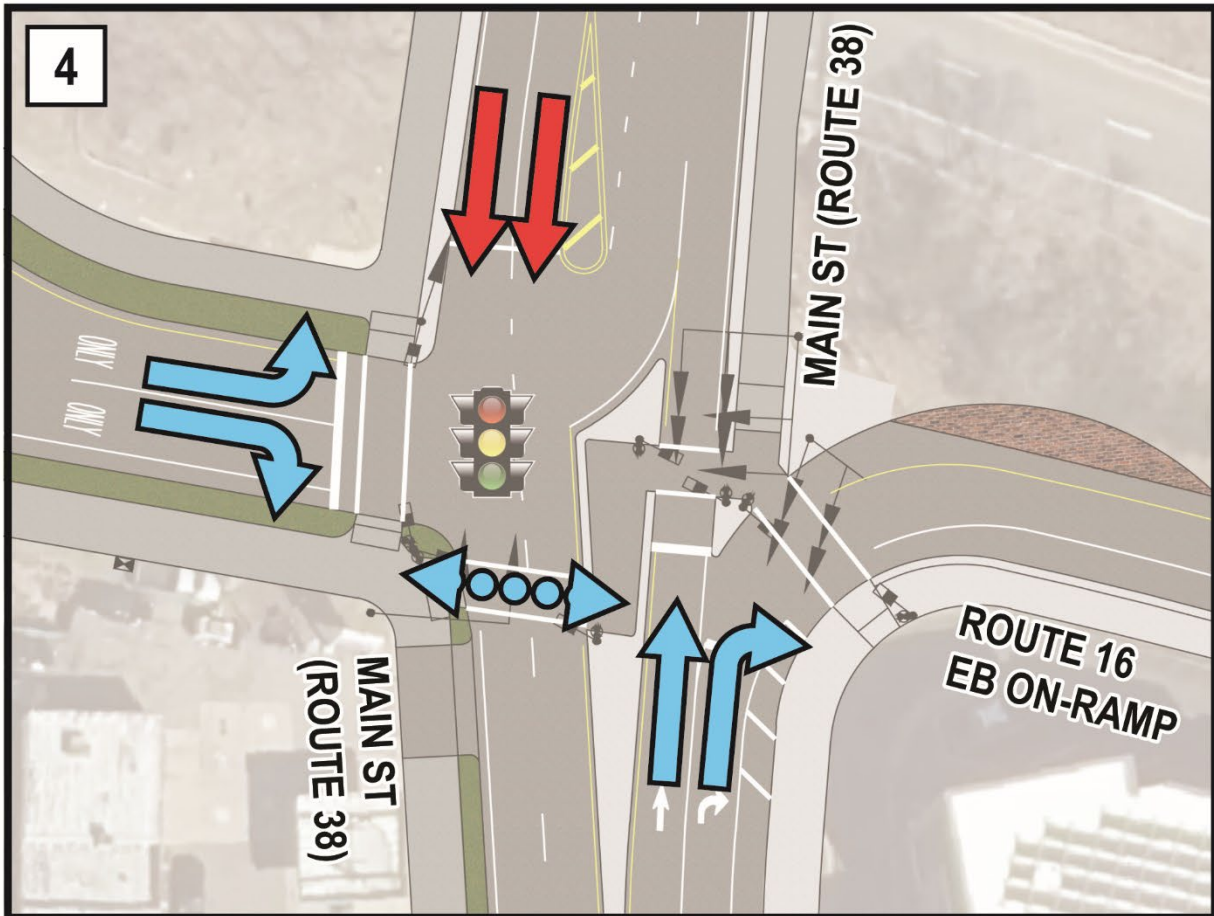
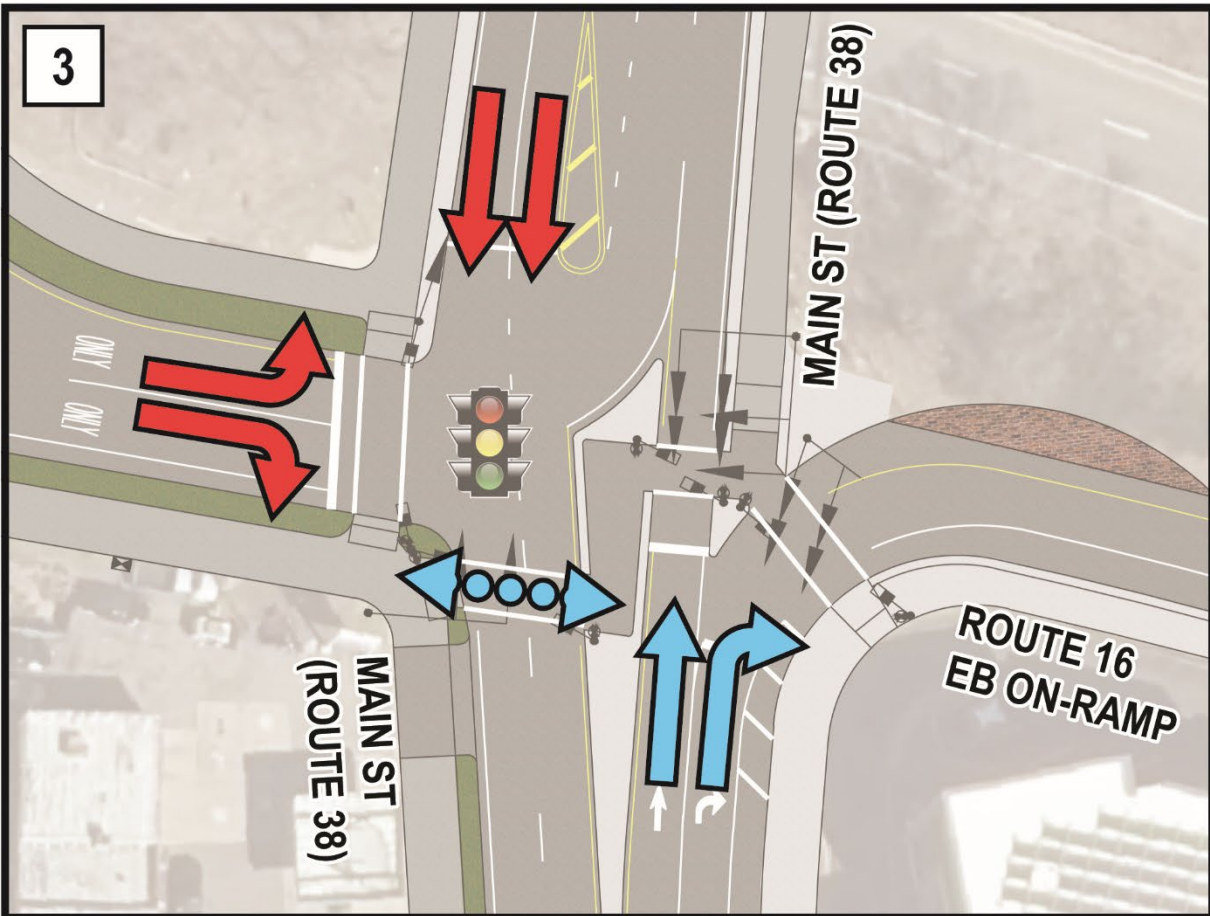
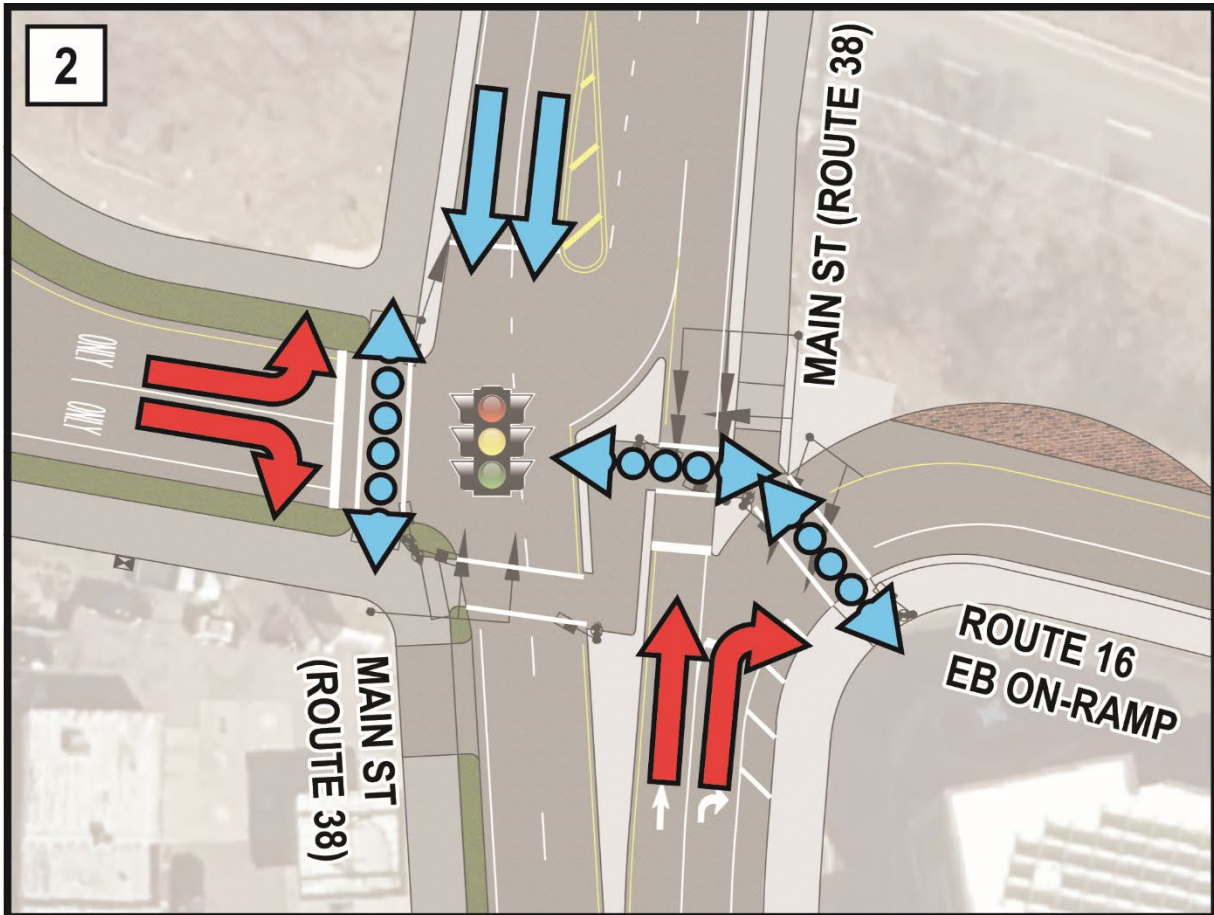
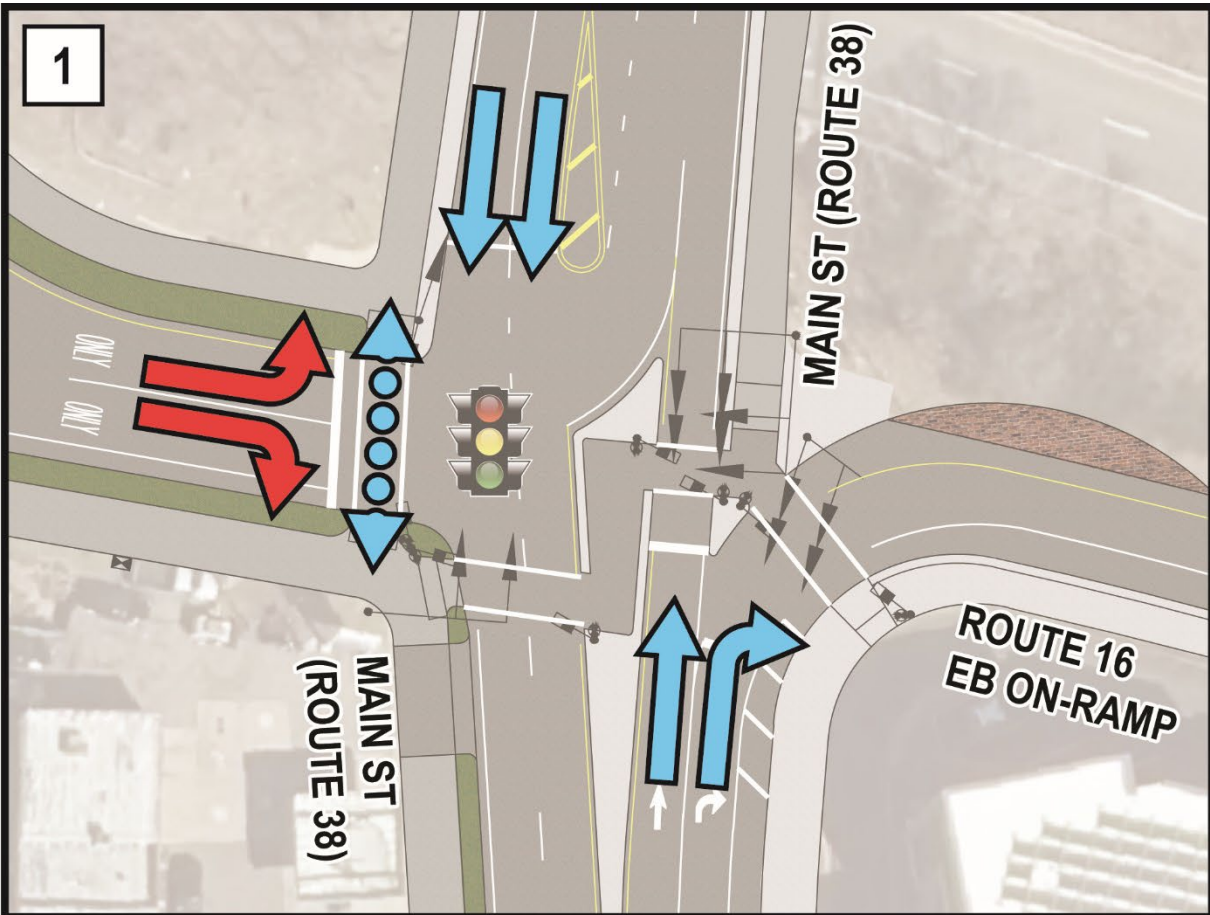
Vehicle

Pedestrian

Bicycle

Green Light

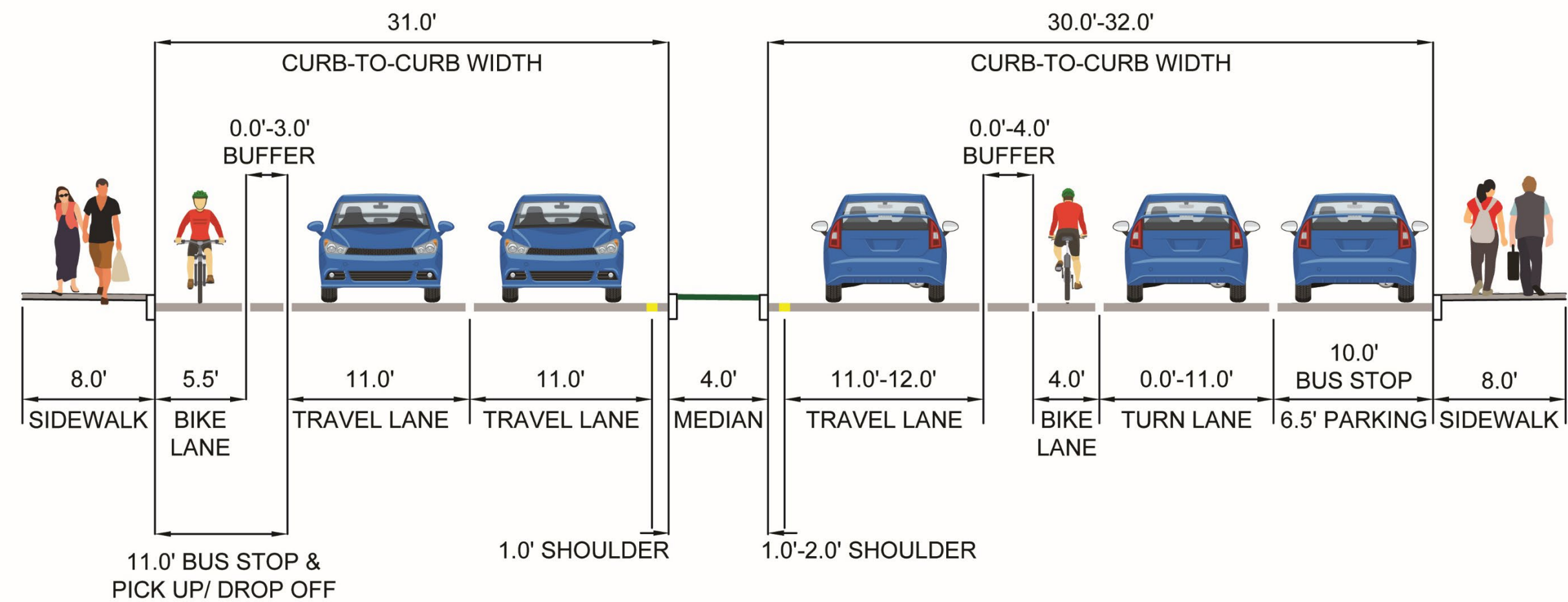
Red Light



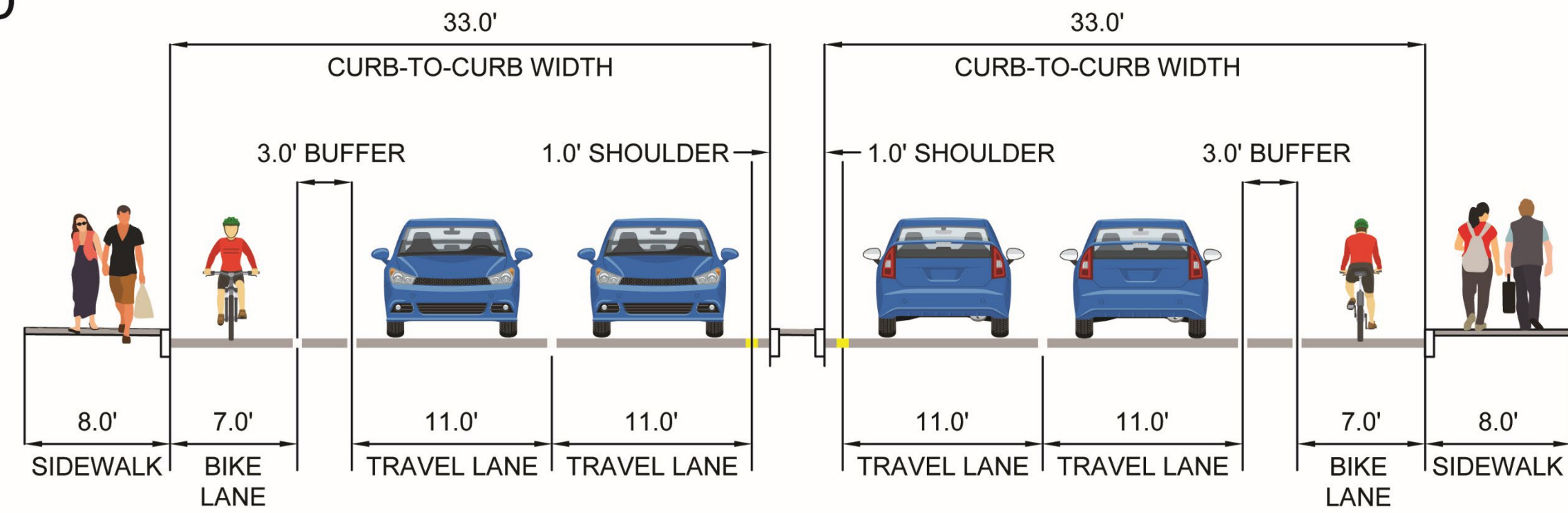


# Main Street- Between Route 16 EB Ramps and Mystic Avenue

## EXISTING



## PROPOSED

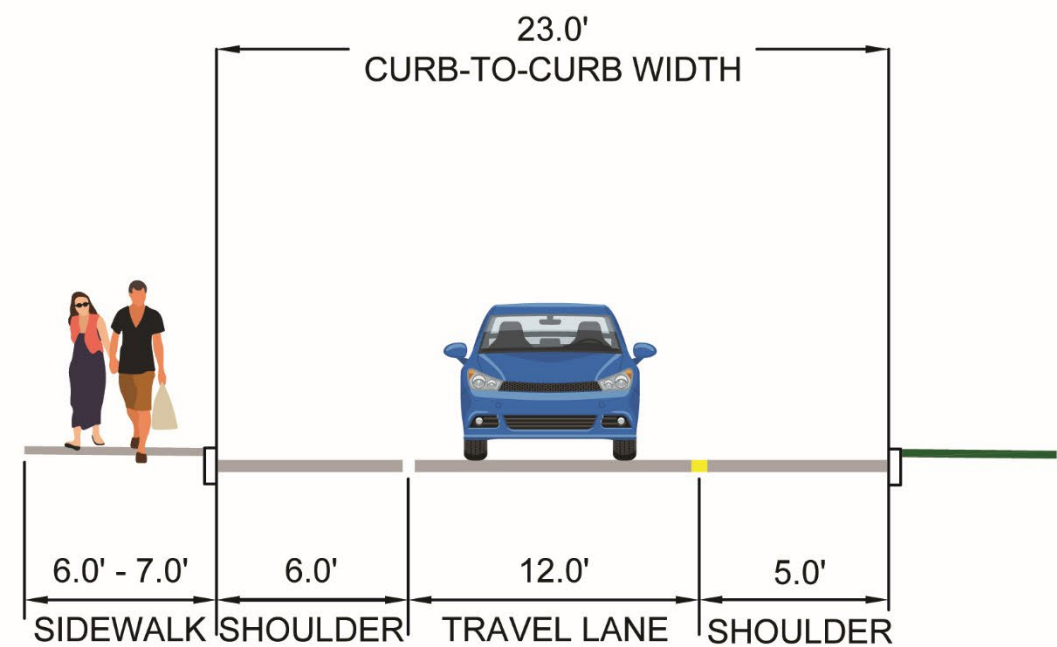




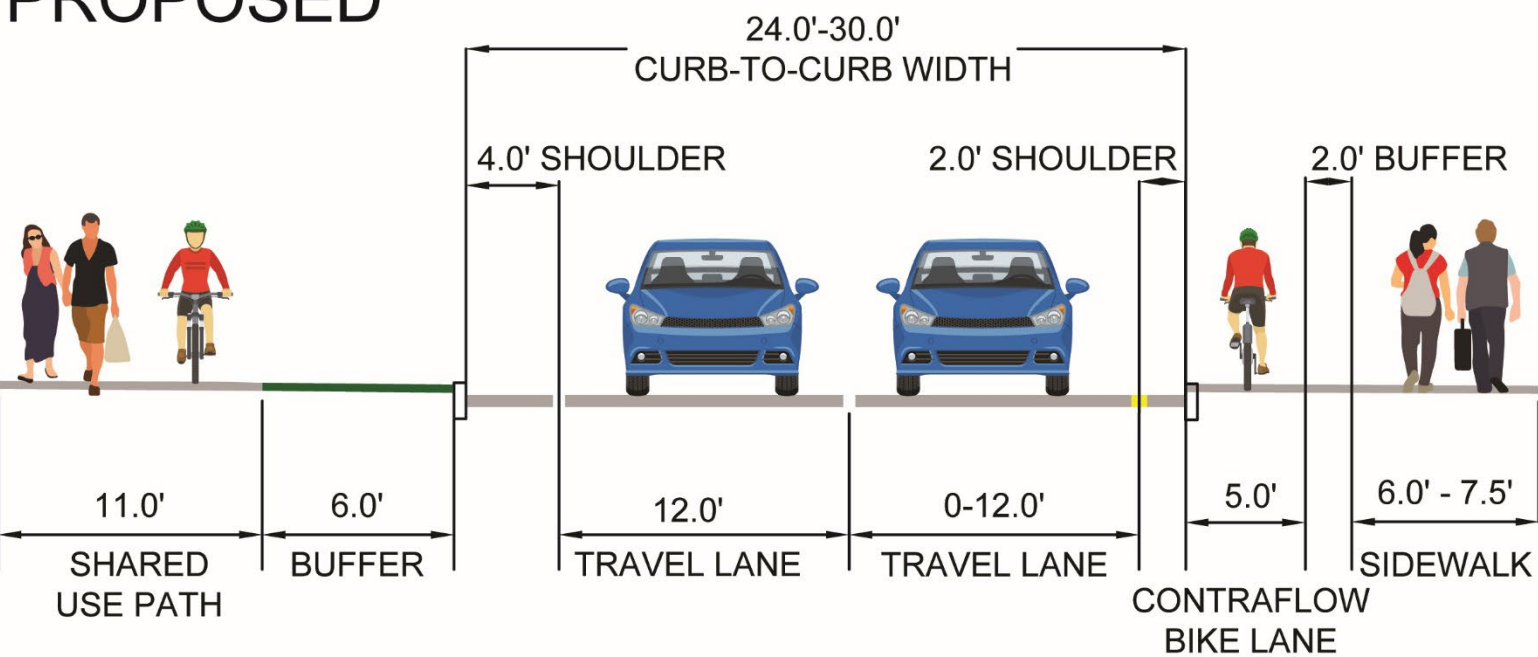
# South Street

## SOUTH STREET BETWEEN PROJECT LIMITS AND ROUTE 16 EB OFF RAMP

EXISTING

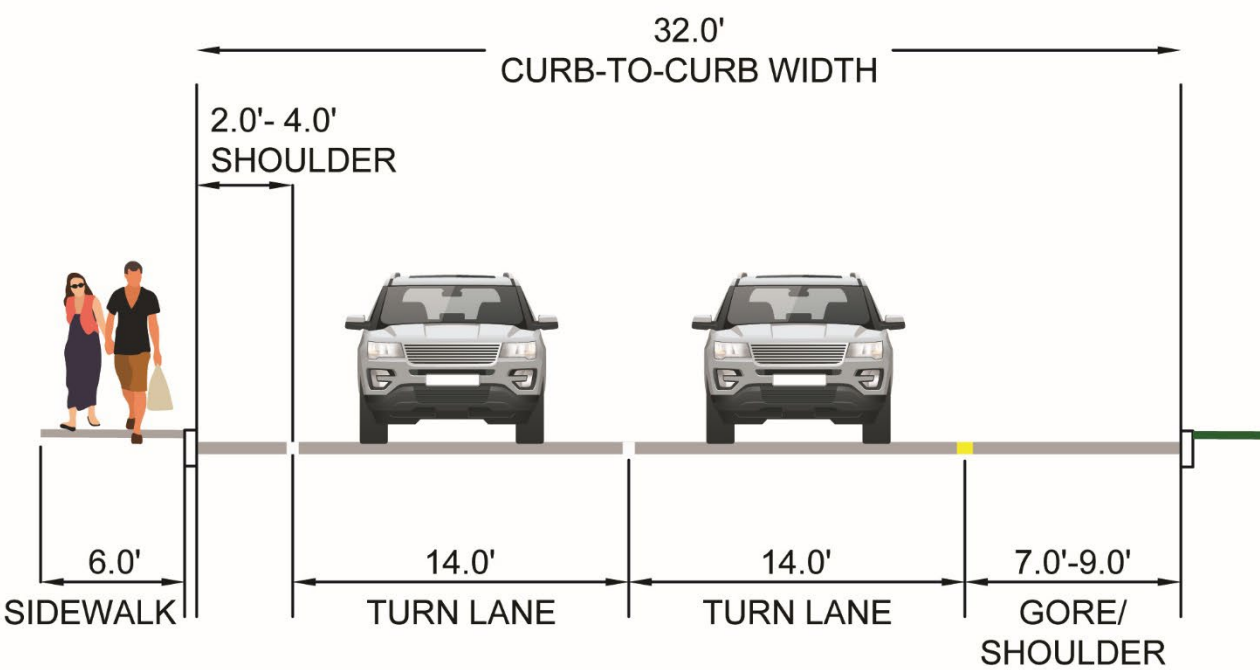


PROPOSED

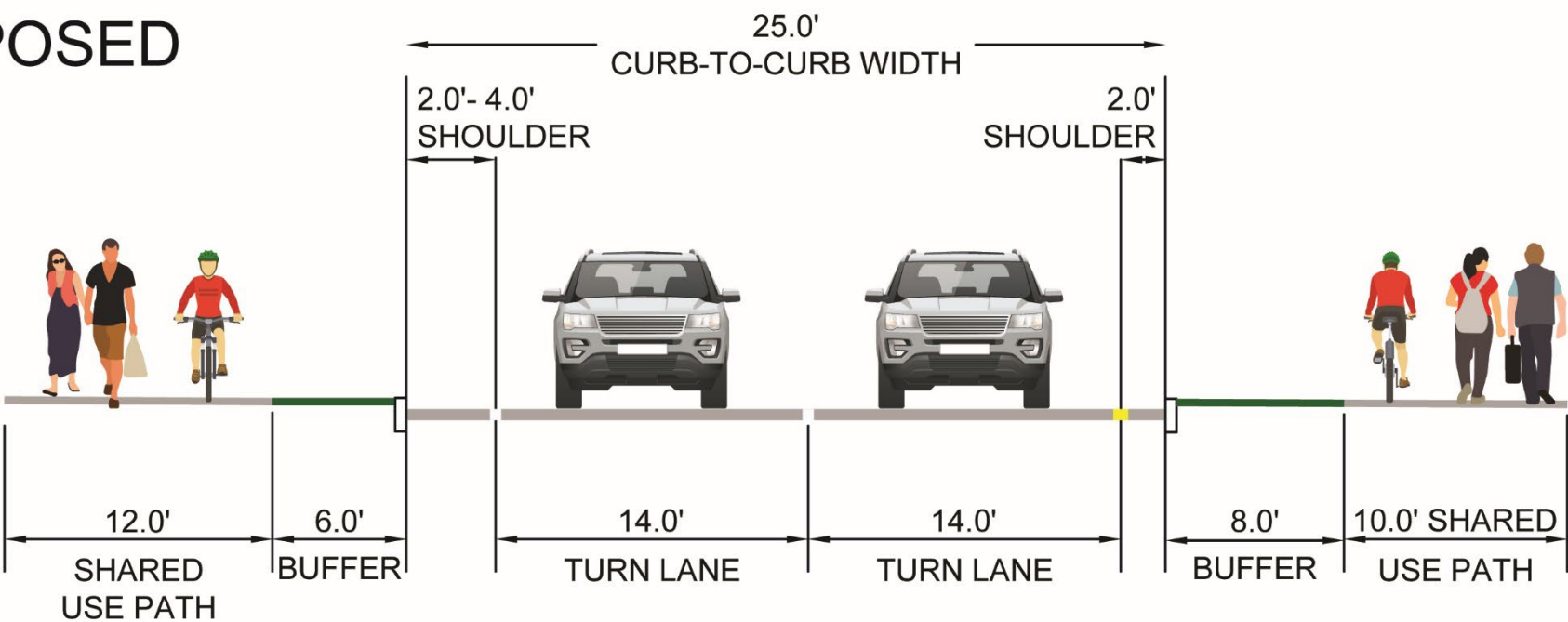


## SOUTH STREET BETWEEN ROUTE 16 EB OFF RAMP AND MAIN STREET

EXISTING



PROPOSED







# Proposed Design: Main Street at Mystic Avenue








# Main Street at Mystic Avenue Intersection Phasing

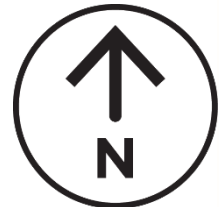
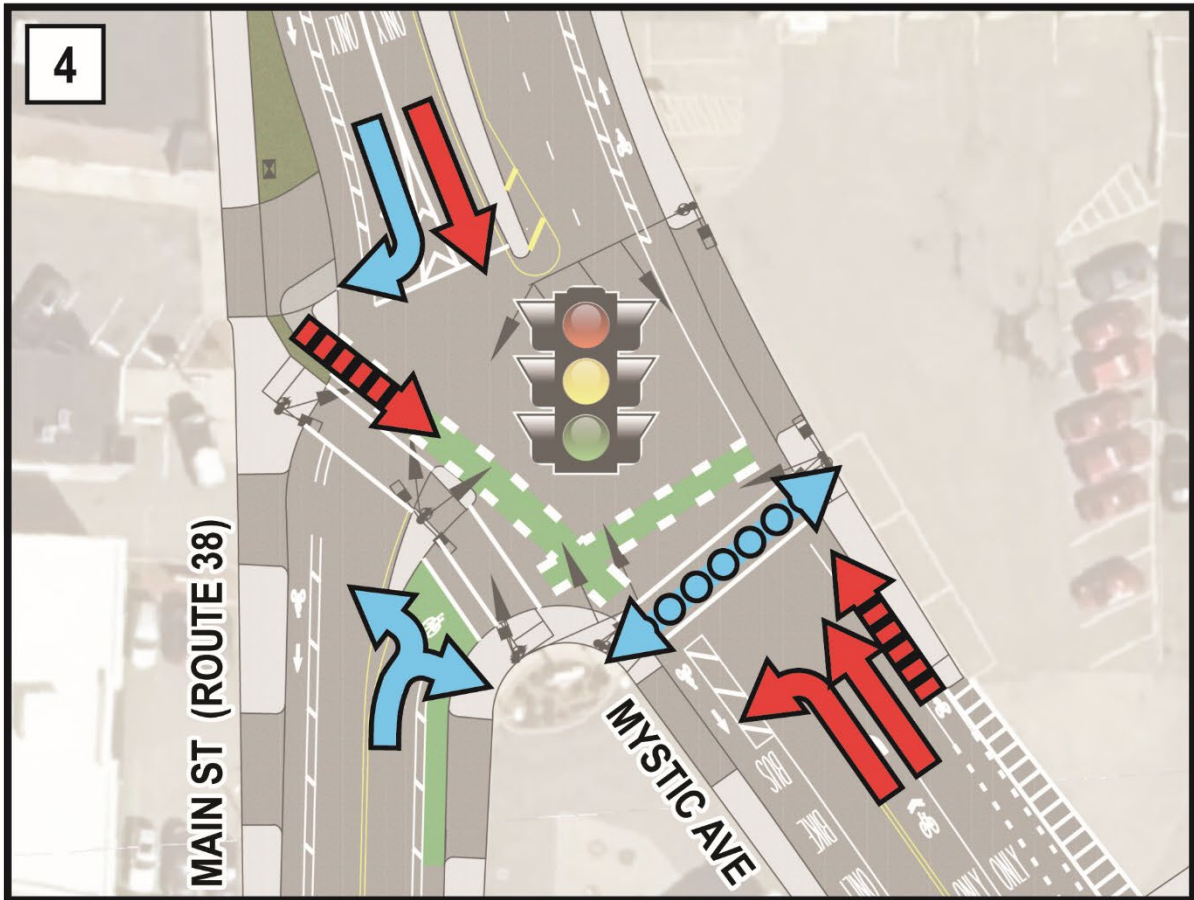
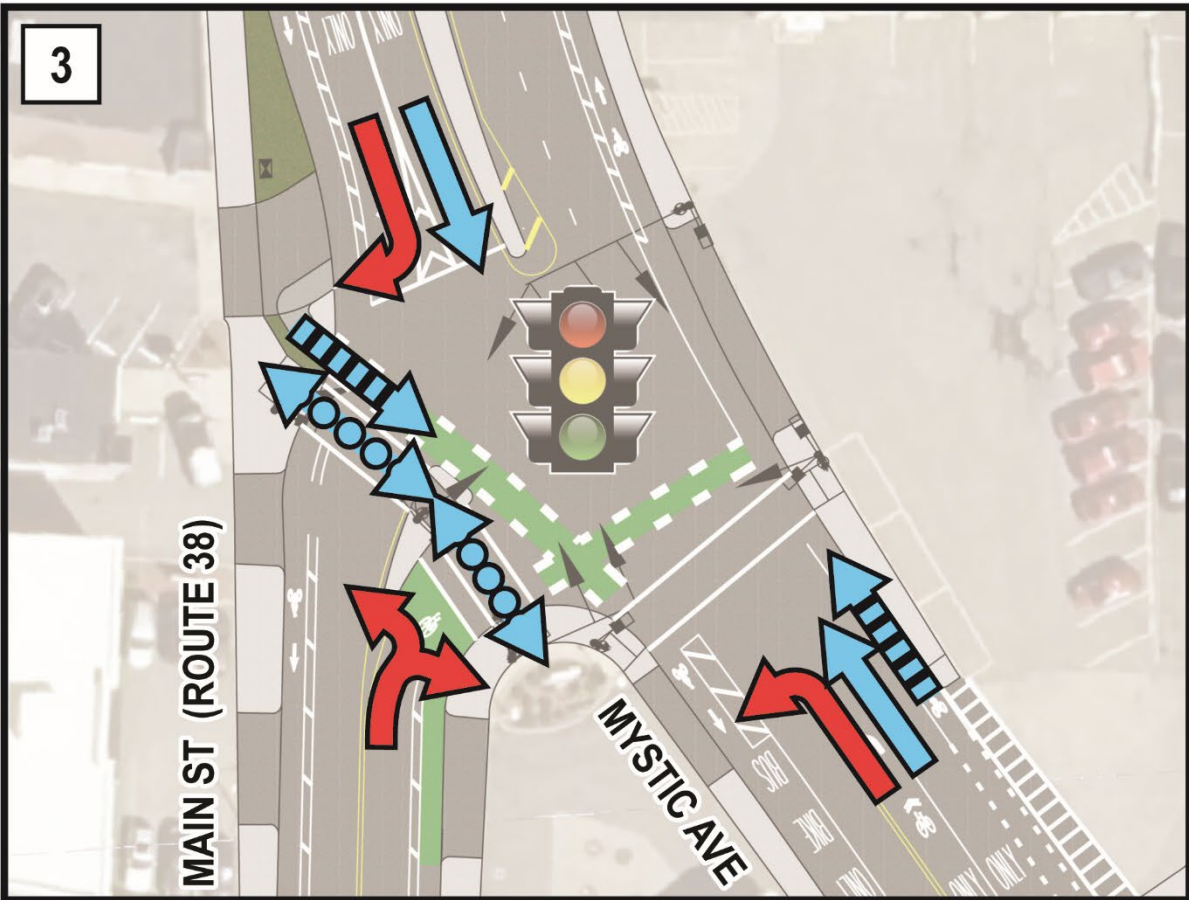
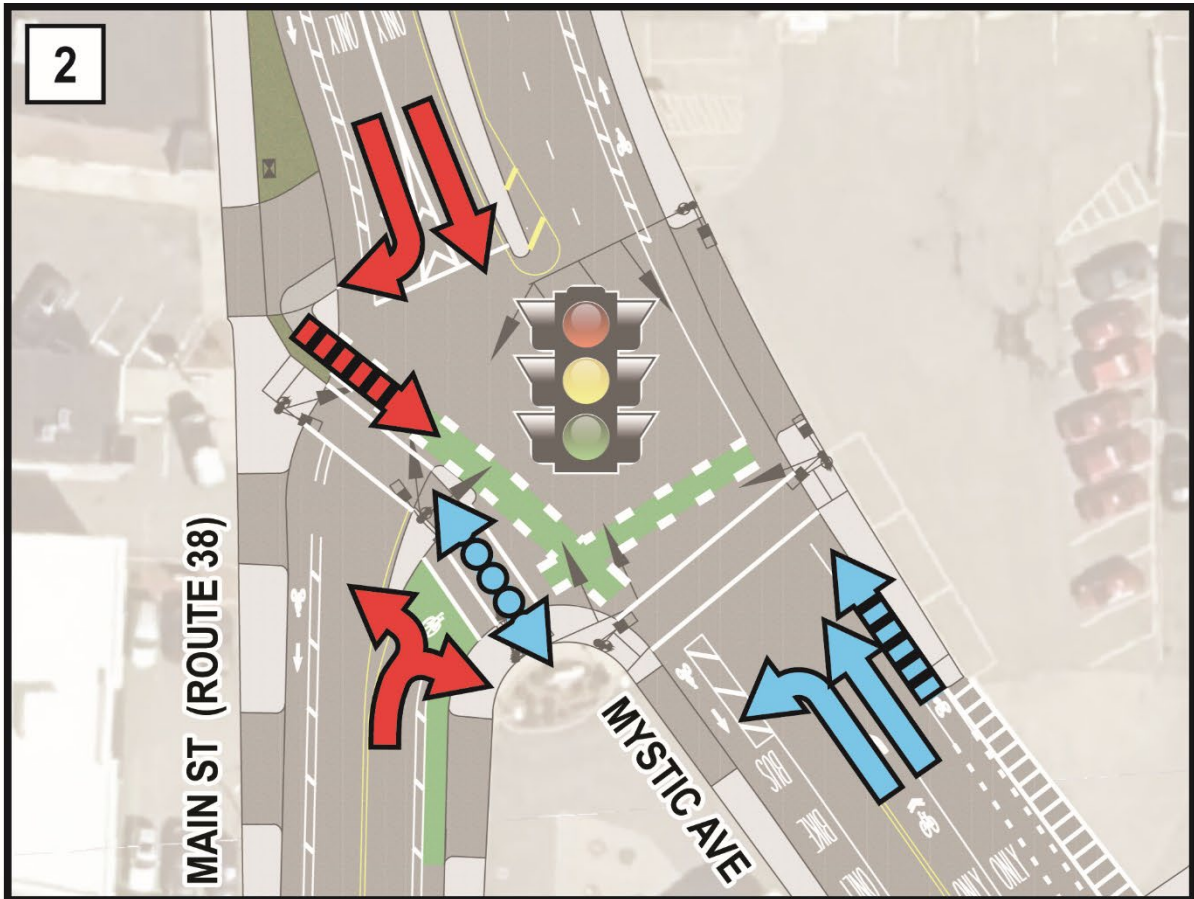
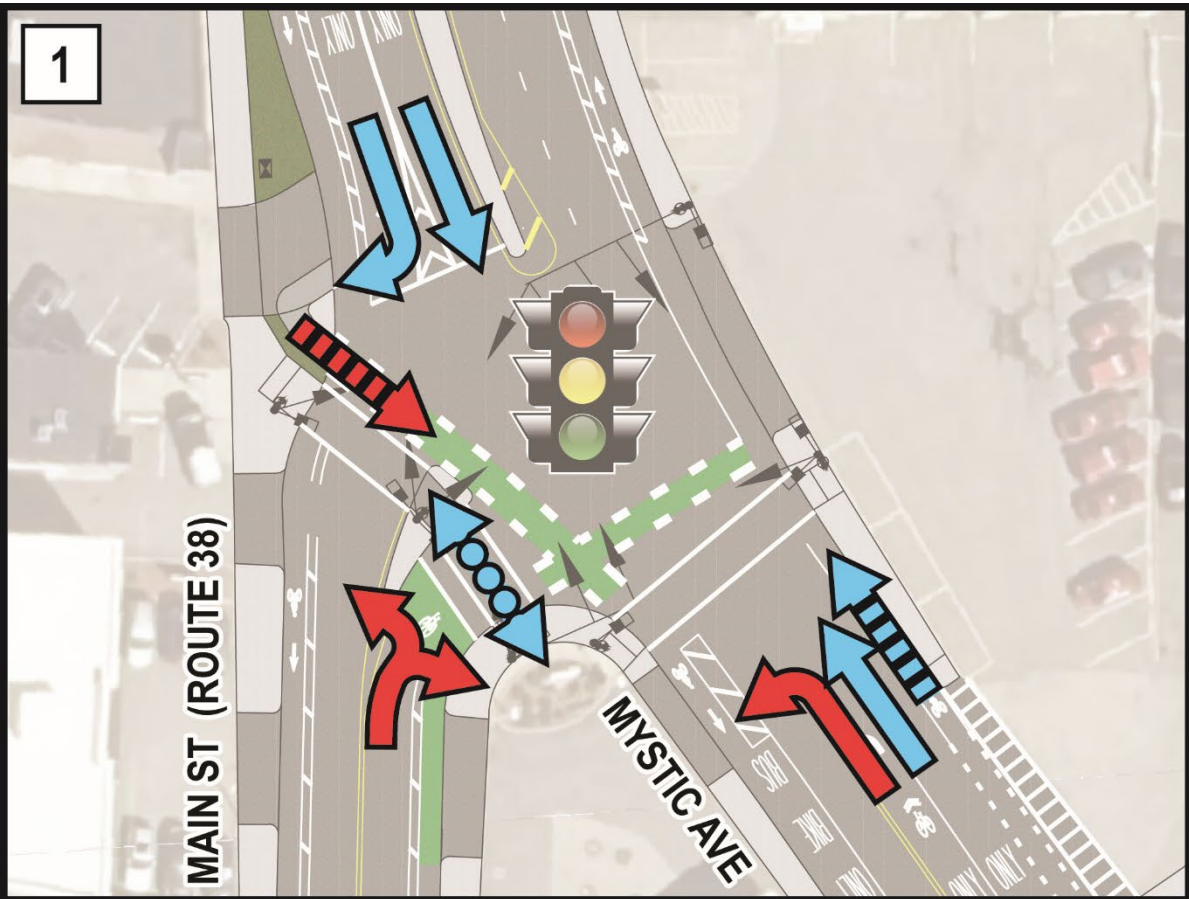
 Vehicle

 Pedestrian

 Bicycle

 Green Light

 Red Light

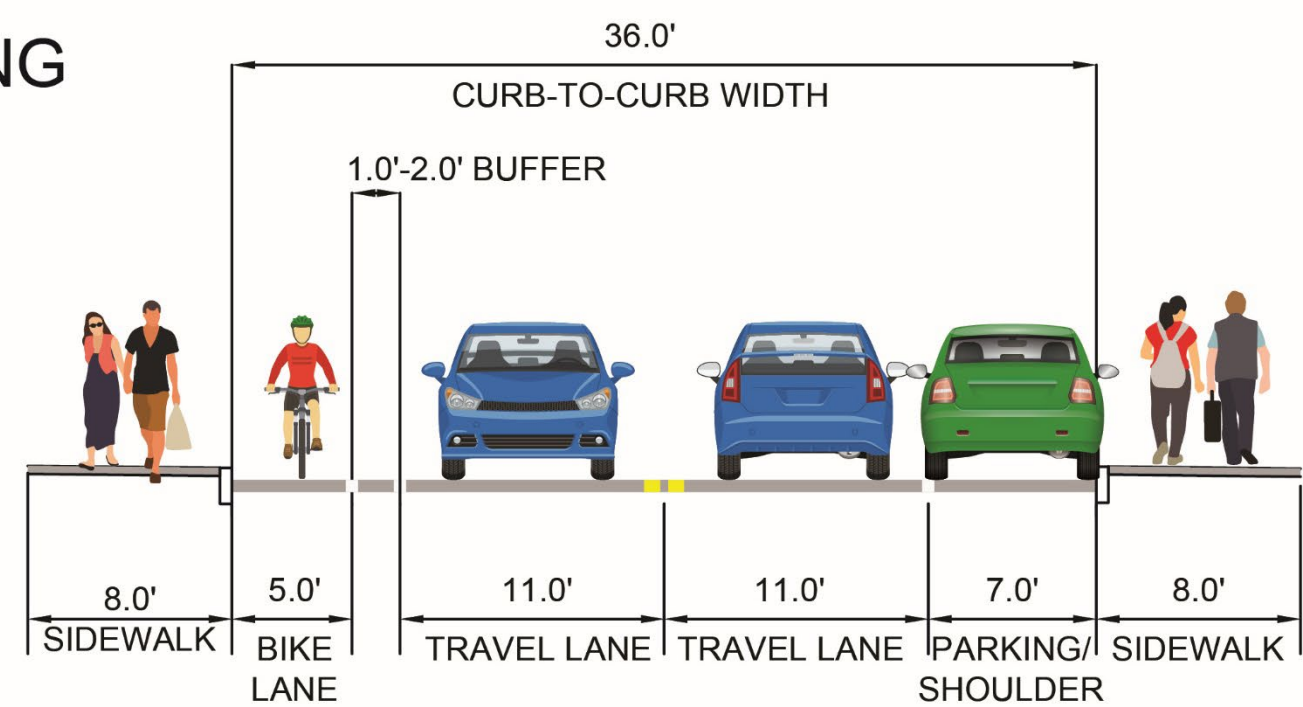




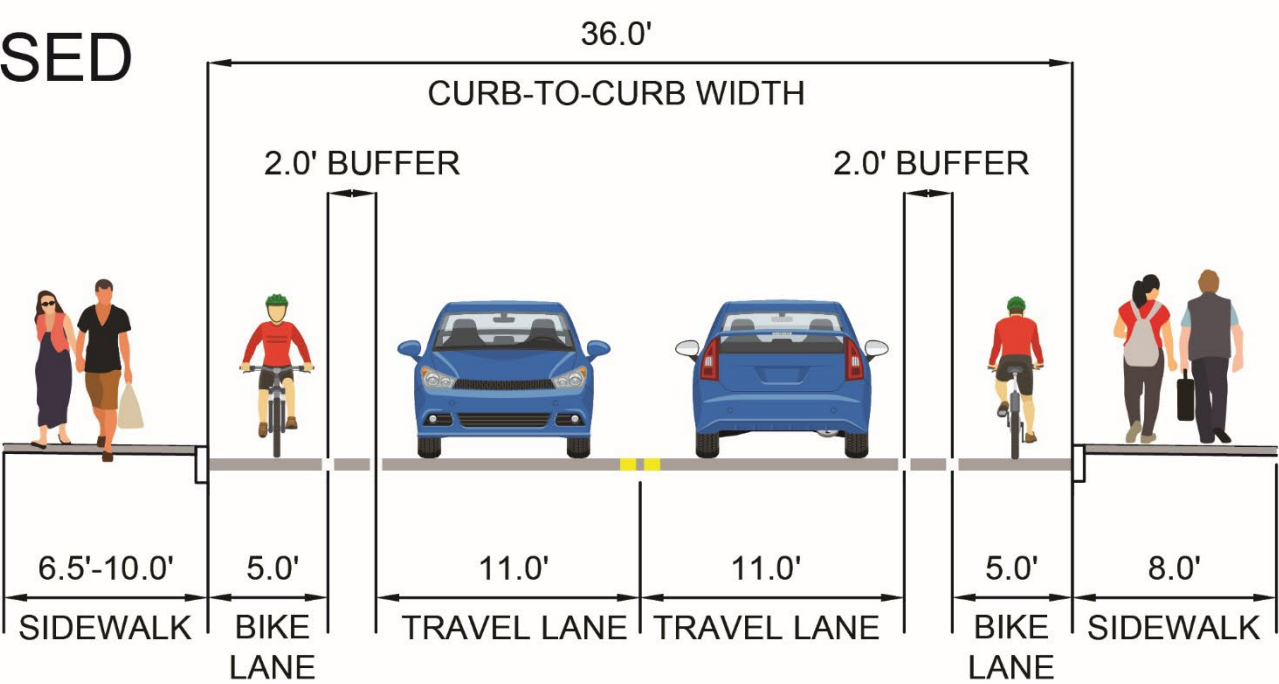
# Main Street and Mystic Avenue

## MAIN STREET BETWEEN MYSTIC AVENUE AND THOMAS STREET

EXISTING

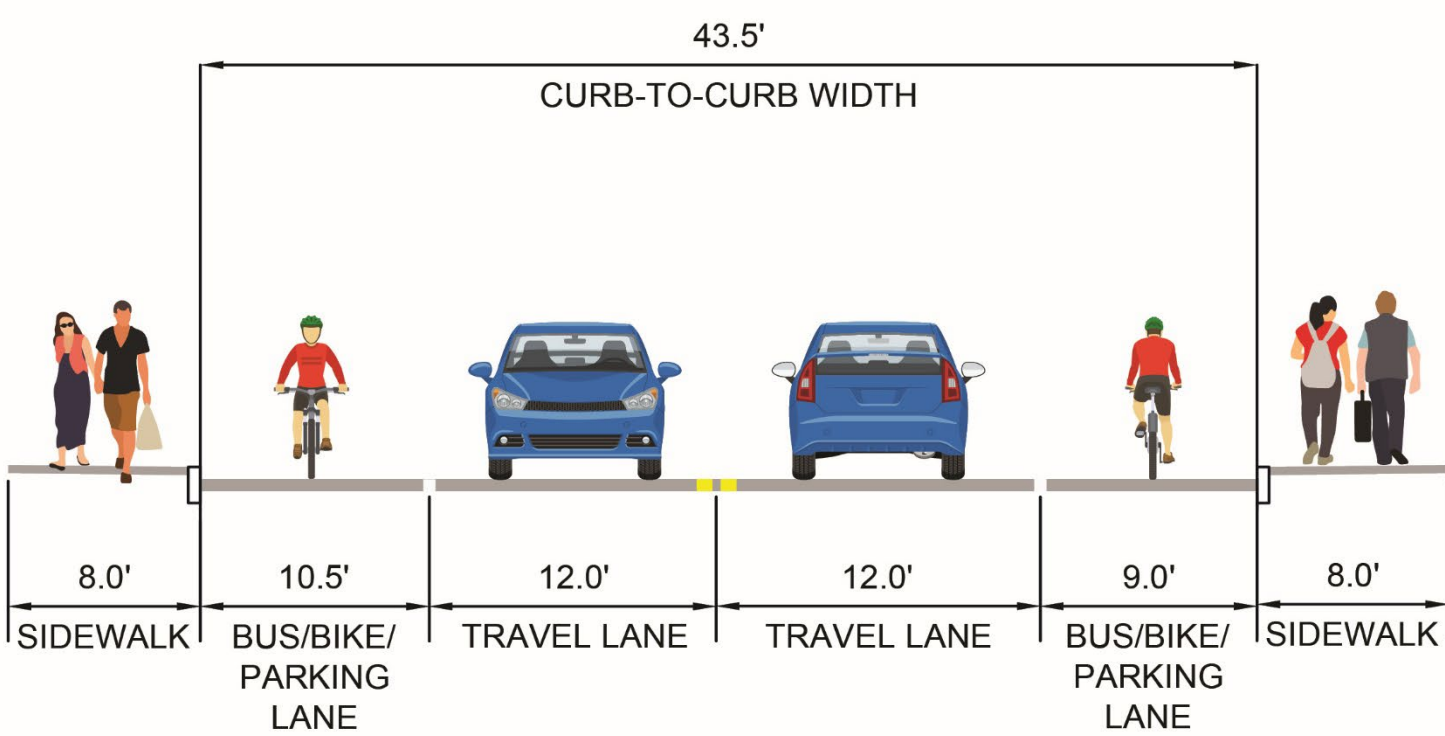


PROPOSED

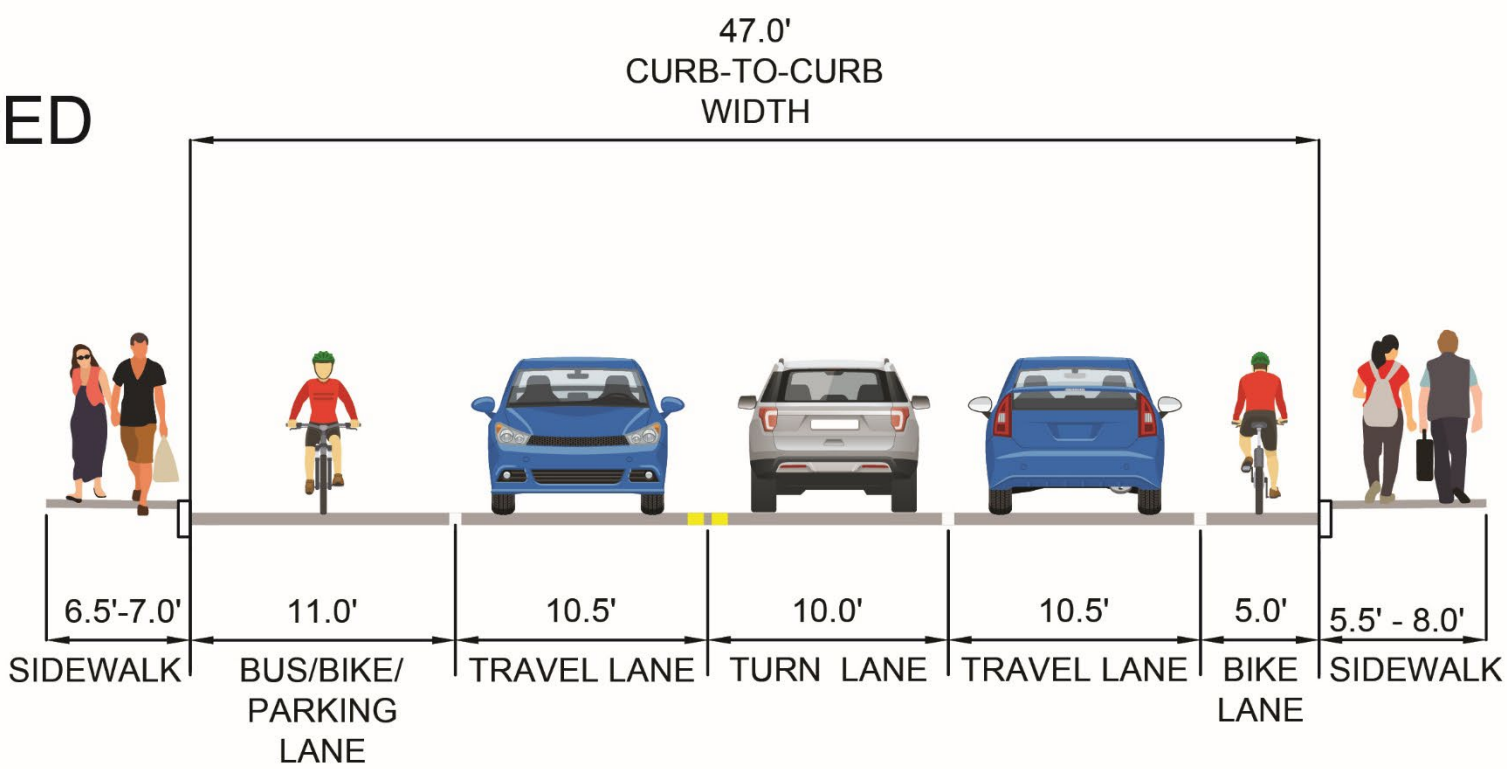


## MYSTIC AVENUE BETWEEN MAIN STREET AND UNION STREET

EXISTING



PROPOSED







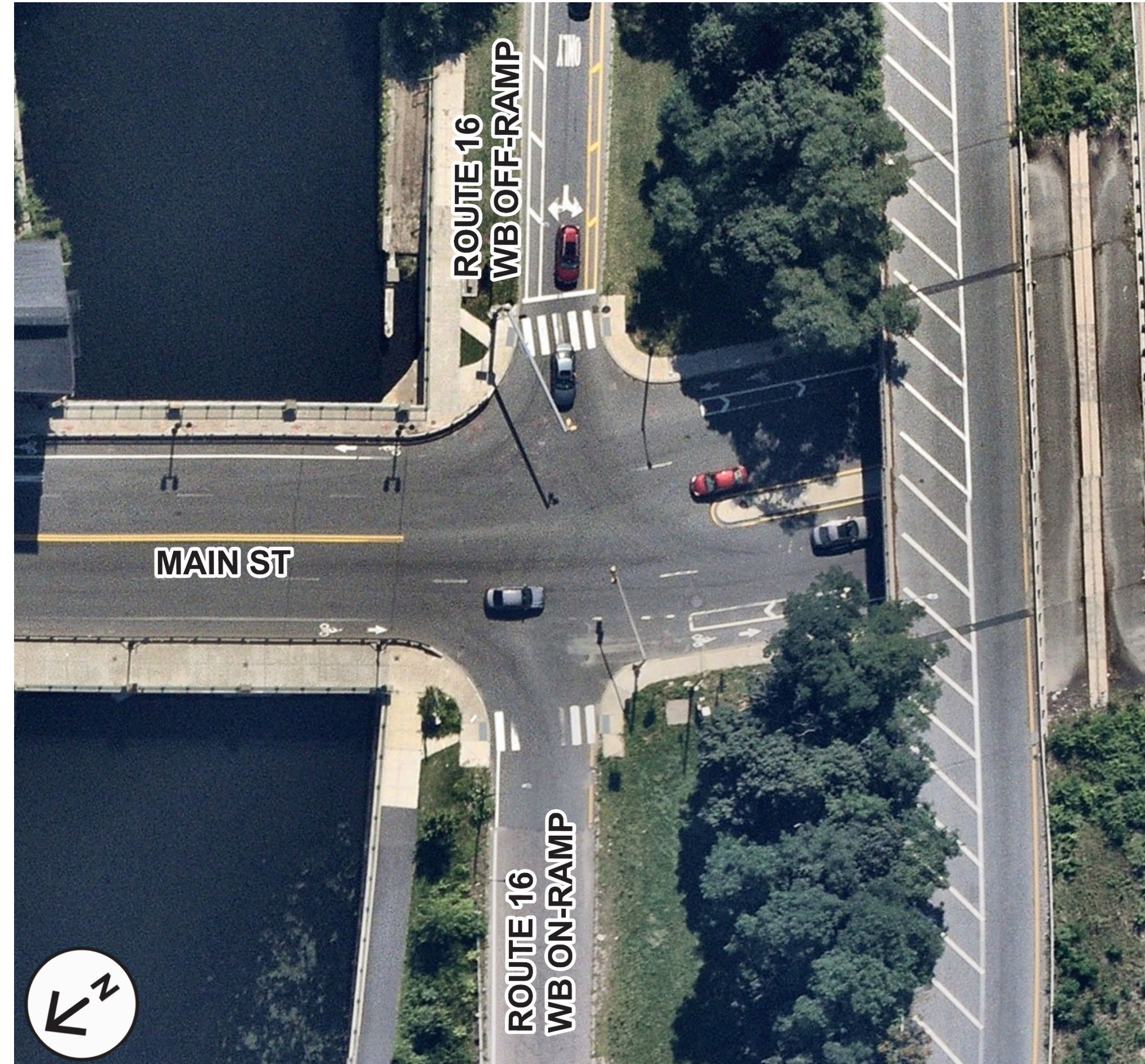
**What are the  
environmental,  
cultural  
resource, and  
community  
impacts?**



## Environmental, Cultural Resource, and Community Impacts

Project will evaluate/identify:

- Changes in impervious areas
- Best management practices to treat stormwater discharge
- Wetlands/waterways and acquire the necessary permitting
- Historic resources/potential hazmat sources
- Permits, reports, and environmental studies







**What are our  
next steps?**



# Our next steps – Estimated Schedule



25% Design  
Summer-Fall 2024



Design Public Hearing  
Winter 2025



75% Design  
Spring 2025



100% Design  
Summer 2025



Project Advertisement  
Summer 2026





**How will we  
keep you  
informed?**



## How to reach us

- Submit email comments to:  
[MassDOTProjectManagement@dot.state.ma.us](mailto:MassDOTProjectManagement@dot.state.ma.us)
- For project information visit the MassDOT Upcoming Events for Highway Division web site at  
<http://www.mass.gov/orgs/highway-division/events> or used the QR Code:
- Submit written comments to:  
Carrie Lavallee, P.E., Chief Engineer  
MassDOT  
10 Park Plaza  
Boston, MA 02116  
Attention: PROJECT MANAGEMENT, PROJECT FILE NO. 611974







# Questions and answers



# Thank You for Your Support

**City of Medford**

**Metropolitan Planning Organization**

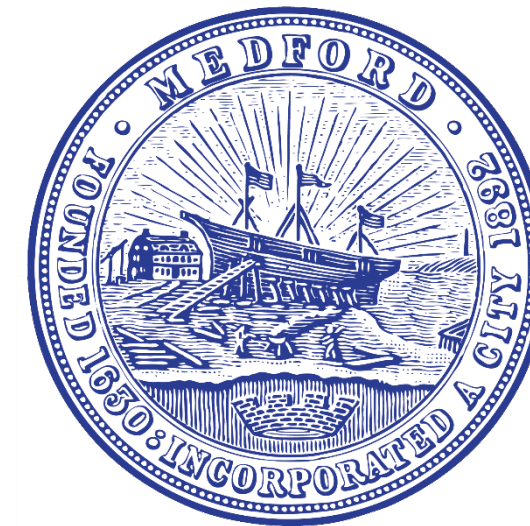
Boston Regional Metropolitan Planning Organization

**Community Organizations and Others**

Community Action Agency of Somerville

Partners for Youth and Disabilities

Registry of Motor Vehicles



REGISTRY OF MOTOR VEHICLES



## Questions and Answers



- “Raise your hand” to be unmuted for verbal questions; \*9 for attendees calling into the meeting



- To ask a question via phone, dial \*9 and the moderator will call out the last 4-digits of your phone number and unmute your audio when it is your turn



- Submit your questions and comments using the Q&A button (Alt + H)



- Please state your name before your question



- Please share only 1 question or comment at a time, limited to 2 minutes, to allow others to participate



- Please take a few minutes to complete the survey after the meeting to let us know how your experience was with this virtual meeting

**All questions and comments are subject to disclosure for public records. Please use these functions for project related business only.**





# ***Thank You***

*Main Street and South Street, Mystic  
Valley Parkway Ramps, and Mystic  
Avenue*

Zoom Webinar | May 8, 2024 | 6:00 P.M.

Project File No. 611974

MassDOTProjectManagement@dot.state.ma.us

