



ROUTE



Main Street

# Resurfacing and Road Diet Pilot Project



## Virtual Public Information Meeting

Tuesday, September 29, 2020 | 6:00 p.m. – 7:30 p.m.

Welcome! Participants will be muted on entry. The meeting will begin shortly.

# Notice of Recording

To keep an accurate record and transcript of today's meeting, this video, audio, and chat transcript will be recorded by the Department of Transportation (MassDOT).

By continuing with this virtual meeting, you are consenting to participate in a recorded event. The recordings and chat transcript will be considered a public record.

If you do not feel comfortable being recorded, please leave the meeting or turn off your camera and mute your microphone.



Section 1: Project Background

Section 2: Public Feedback and Revisions

Section 3: Pilot Schedule and Evaluation

Section 4: Q&A

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# Section 1: Project Background

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# Project Team

Section 1



**MassDOT Highway Division**  
Design, Construction, and Evaluation



**Howard Stein Hudson**  
Public Involvement

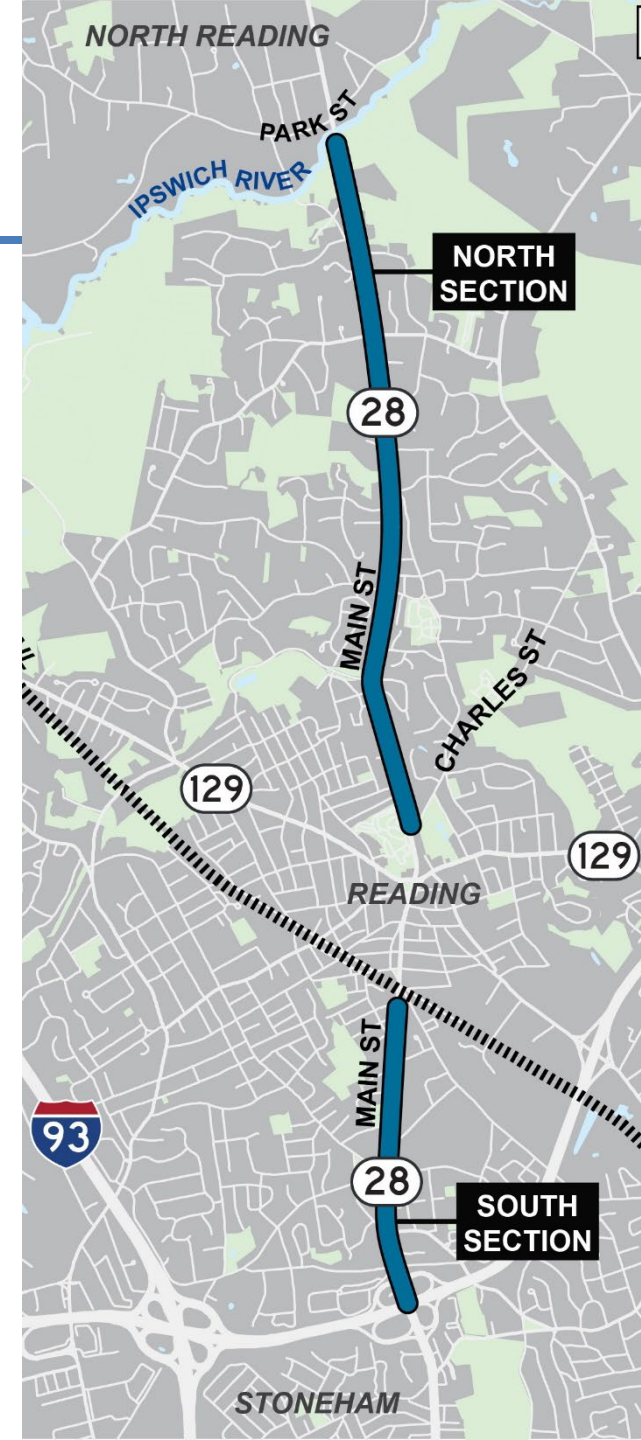
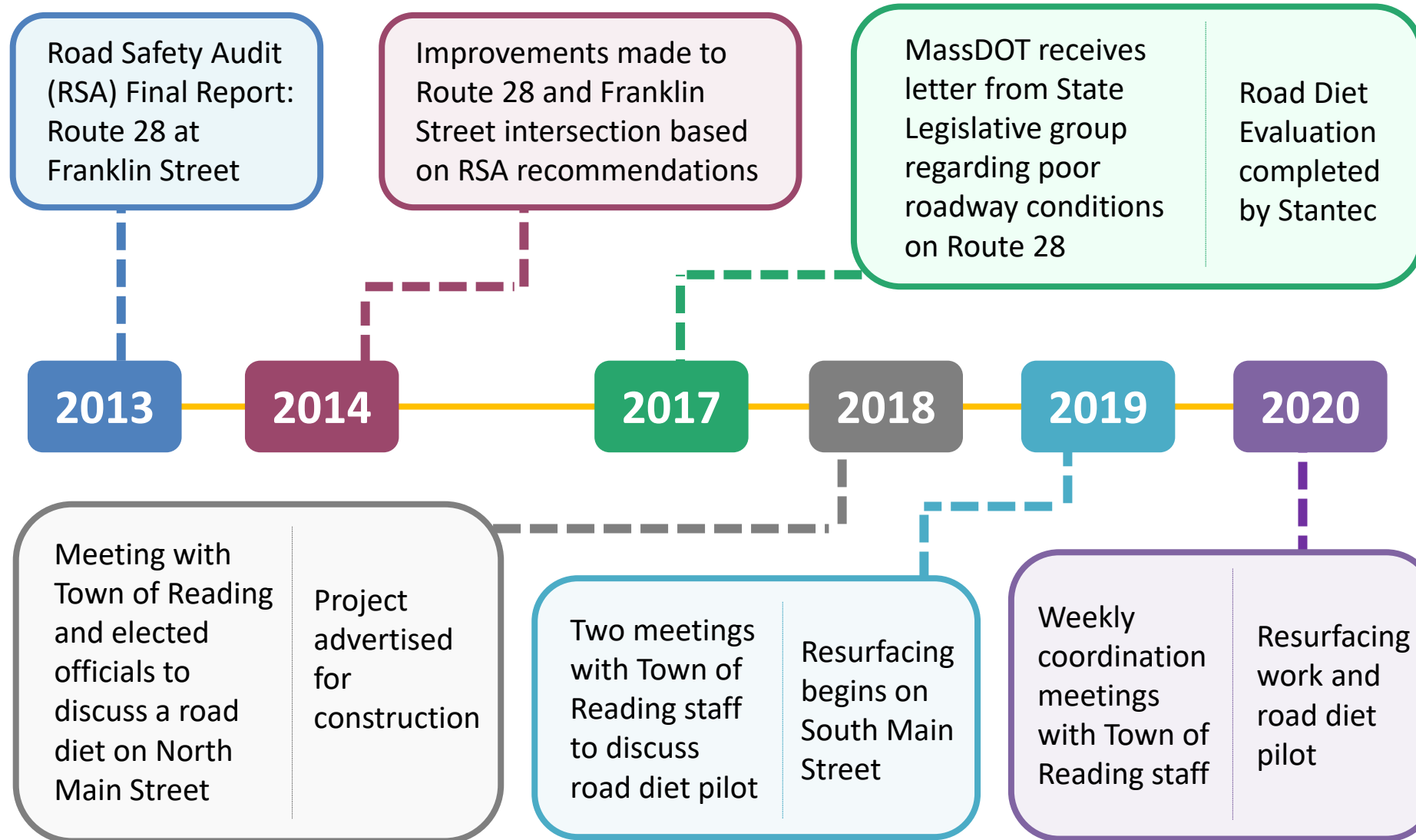


**Town of Reading**  
Municipal Outreach and Coordination



# Project History

## Section 1



# Project Purpose and Need

## Section 1

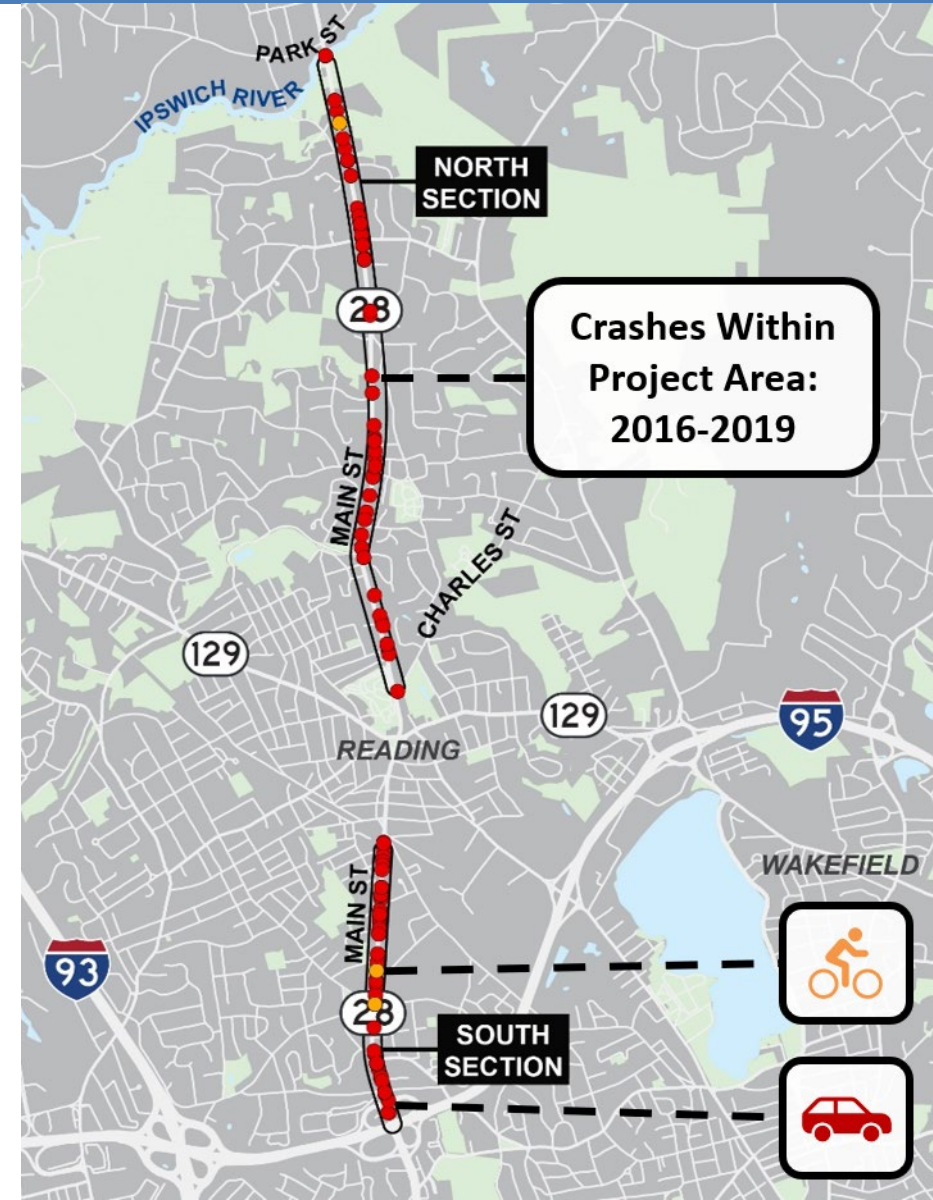
Average Crash Rate

**3.23**



Main St. Crash Rate

**8.17**



# Project Goals

## Section 1



Maintain a state of good repair along Route 28



Improve safety for people using Main Street



Calm vehicle traffic



Improve accessibility for pedestrians



Meet MassDOT Complete Streets and Healthy Transportation policies



# Project Summary

## Section 1



1. Resurface roadway



2. Improve sidewalks and crosswalks




3. Test a “road diet” on Main Street to improve safety and access

# Road Diet Pilot Design

## Section 1

- Followed FHWA and MassDOT road diet design standards
- Conducted analysis to compare before and after conditions
  - Compared average delays at all signalized intersections in the project area to test feasibility of new intersections configurations
- Adjusted design based on feedback from Town of Reading

	SUMMER AVE INTERSECTION				
	A.M.		P.M.		
	Before Pilot	During Pilot	Before Pilot	During Pilot	
Delay in seconds	14.4	9.4	6.9	11.7	

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## Section 2:

# Road Diets and Center Turn Lanes

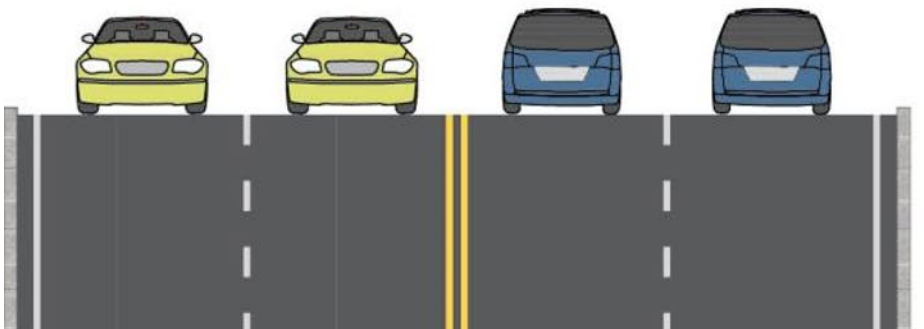
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# What is a 'Road Diet'?

## Section 1

1. Eliminates one or more vehicular travel lanes
2. Repurposes roadway space
3. Improves safety and mobility for all modes

Before Road Diet



During Road Diet

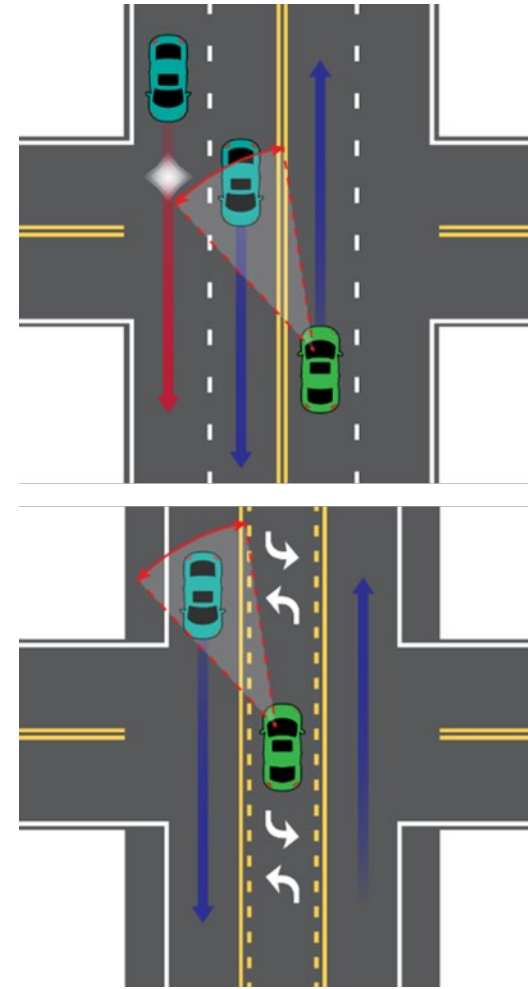


# Road Diet Results Nationwide

## Section 2

### Safety and Operational Benefits

- FHWA studies show road diets can have crash reductions of 19 to 47 percent
- Fewer travel lanes for drivers and pedestrians to cross
- Allows for separated left-turns at signalized intersections
- More consistent traffic flow



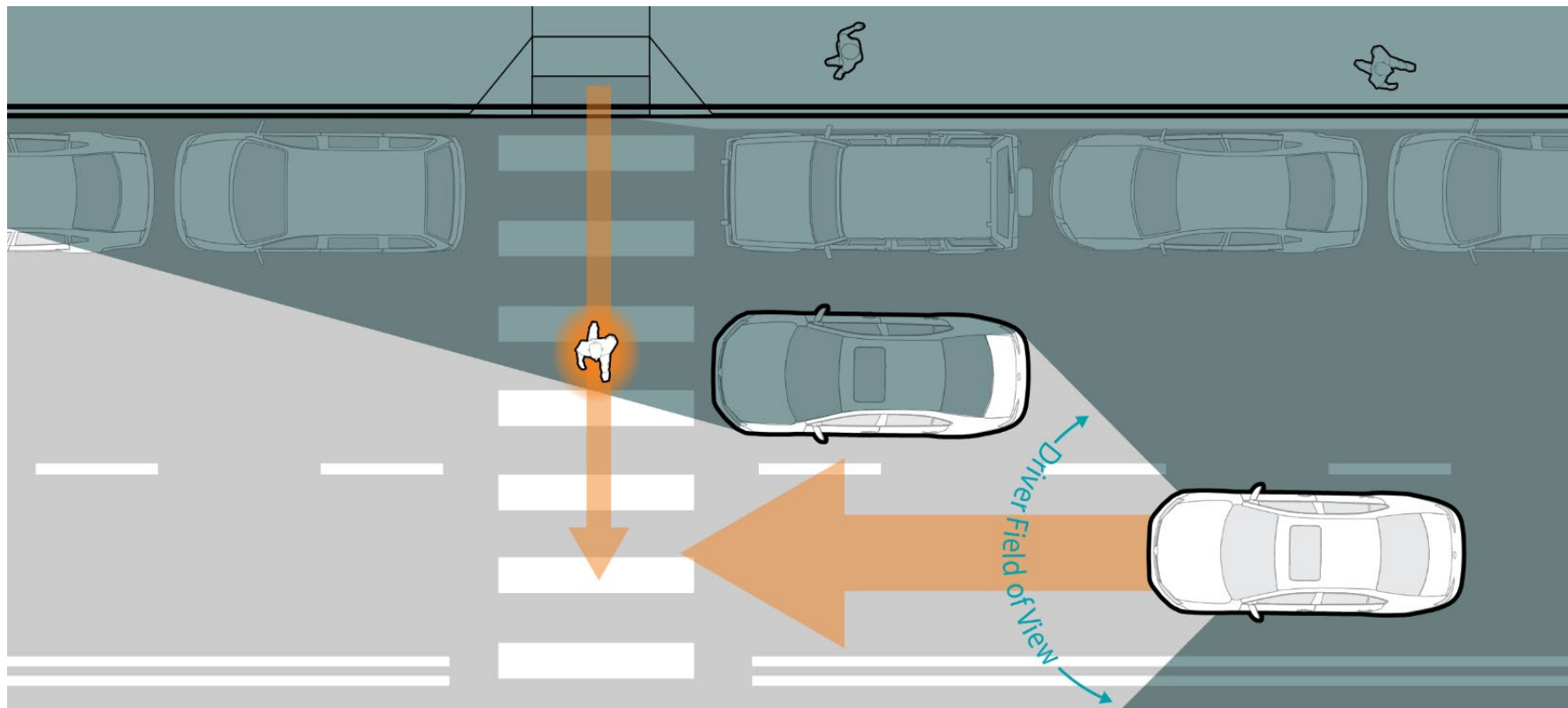
Left-turn Sight Distance on 4-Lane and 3-Lane Roads

Source: FHWA



## Safer Accommodations for Vulnerable Non-Motorized Users

- Reduced pedestrian crash risk

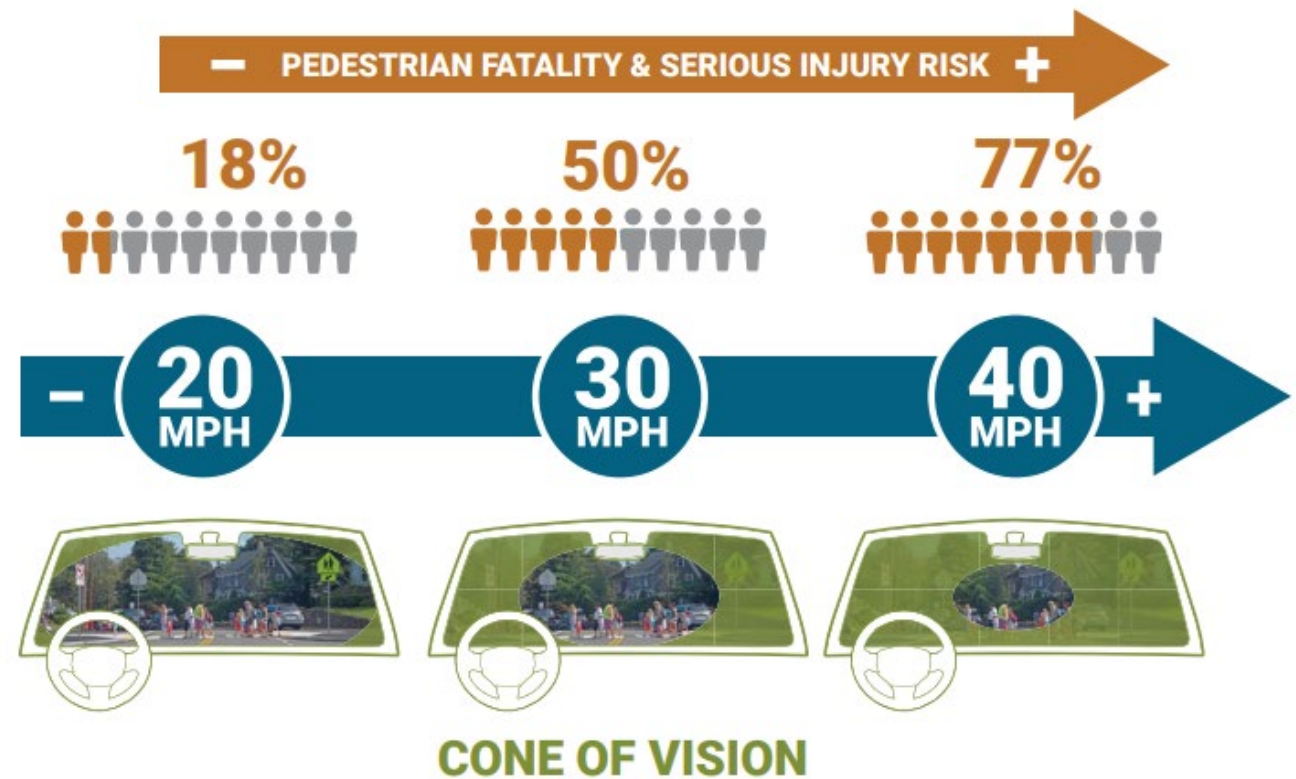


# Road Diet Results Nationwide

## Section 2

## Traffic Calming

- Fewer lanes can reduce speeds by eliminating passing
- Lowers speeds and fatal and injury crash rates



# Road Diet Results in Massachusetts

## Section 2

### Summer Street Road Diet Pilot

Hingham

- Speeds decreased as much as 5 mph
- Little to no travel time increase or traffic diversions
- Currently in design phase for permanent installation



*Photo credit: Jacob Wessel*

### Route 135

Wellesley

- 55% fewer crashes
- 69% fewer severe injury occurrences



### Nonantum Road

Boston, Newton, and  
Watertown

- 23% fewer crashes
- 32% fewer severe injury occurrences





# Road Diet Results in Massachusetts

## Section 2

### BEFORE



REPORTING PERIOD	AVG. TRAVEL TIMES (MIN.)
Oct. 2017	4.1
Apr. 2018	3.8
<b>Avg. Before Road Diet</b>	<b>4.0</b>
Oct. 2018	4.1
Apr. 2019	3.9
<b>Avg. After Road Diet</b>	<b>4.0</b>

### AFTER

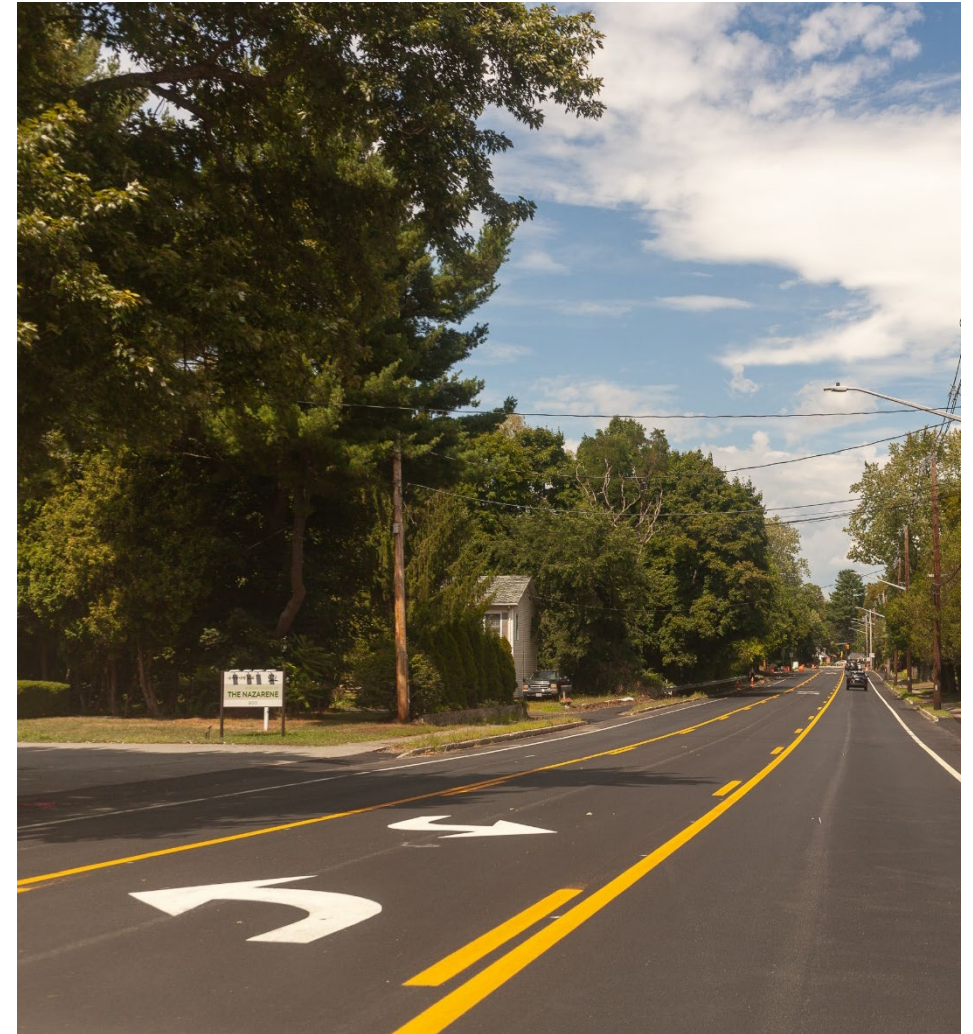


SPEED TEST LOCATIONS	MAX SPEED BEFORE (mph)	MAX SPEED AFTER (mph)
H St.–I St. (EB)	60-64	55-59
N St. (EB)	70+	50-54
N St. (WB)	65-69	50-54

# Center Turn Lanes

## Section 2

Center Turn Lanes...	Which Can Result In...
Remove stopped or slow left-turning vehicles from the through lanes	<ul style="list-style-type: none"><li>• Fewer rear-end collisions</li><li>• Reduced delay to through vehicles</li></ul>
Provide drivers a space to wait for an adequate gap in traffic before turning left	<ul style="list-style-type: none"><li>• Fewer side-swipe collisions</li></ul>
Create spatial separation between opposing lanes of traffic	<ul style="list-style-type: none"><li>• Fewer head-on collisions</li></ul>

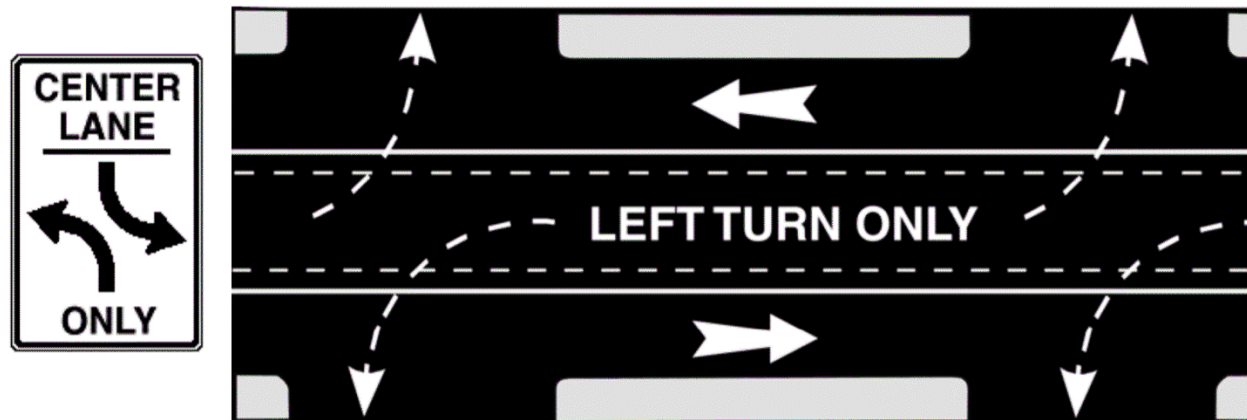




# Using Center Turn Lanes

## Section 2

- Drivers may not travel in a center turning lane
- Never use the center left turn lane as an ordinary traffic lane or for passing other vehicles
- Center left turn lanes should only be used when:
  - Making a left turn or a U-turn from the roadway when permitted
  - Making a left turn from a side street or driveway



# Turning Left From the Center Lane

## Section 2



1. Plan for the turn.



2. Signal your turn at least 100 feet before making the turn. On a highway, signal at least 500 feet before a turn.



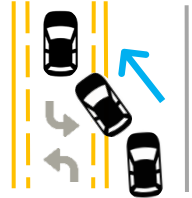
3. Reduce your speed.



4. Check your mirrors for traffic behind you and check the blind spot on your turning side.



5. Watch out for oncoming vehicles that may be using the center turn lane.



6. When it is safe and the center turn lane is clear, enter the center turn lane.



7. Make sure no part of your vehicle is blocking through traffic.



8. Wait in the center left turn lane until it is safe to turn left across the oncoming traffic lane.

# Section 3:

## Public Input and Design Revisions

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# Social Distance Outreach

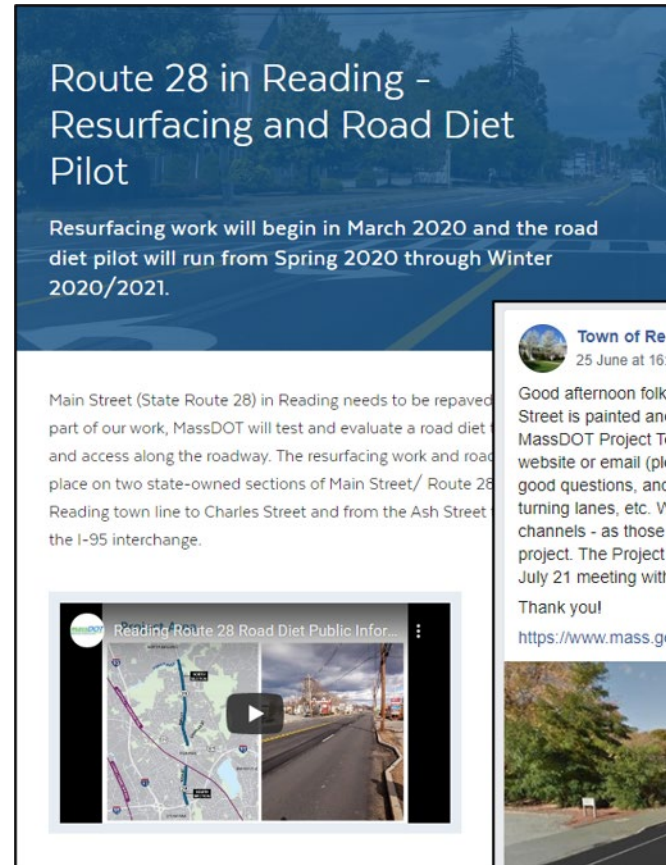
## Section 3

## MassDOT

- Project Webpage
  - Project info
  - Project Team email address
  - Online comment form
- Social Media Posts
- Video Presentation
  - 1,000+ views on YouTube
  - Rebroadcasted on RCTV

## Town of Reading

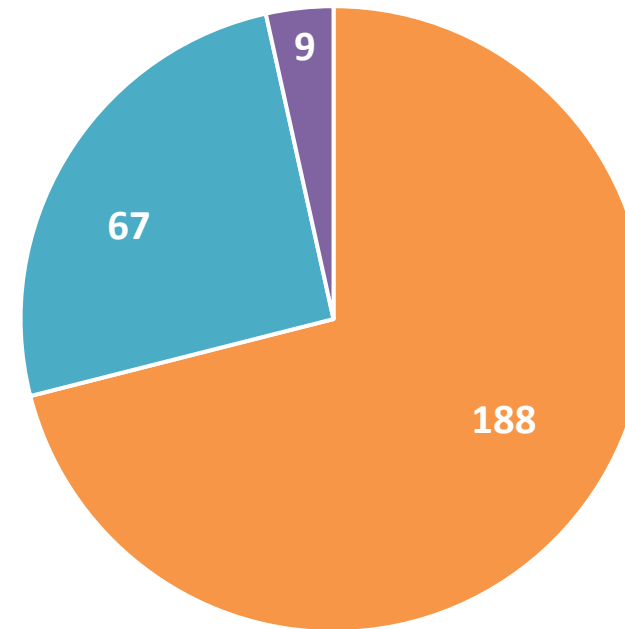
- Project Webpage
- Social Media Posts
- Reverse 9-1-1 Call
  - Sent to 20,000 residents



## Major Themes

- Anticipated traffic impacts
- Impacts of COVID-19 on evaluation
- Access to businesses
- Intersection configurations
- Bicycle accommodations
- Less speeding on Main Street
- How to use Center Turn Lanes

260+ Public Comments Received



Online Map Email Other



# Collaboration with Town Staff

## Section 3



- In addition to gathering input from the public, the project team has met with Town staff on a weekly basis beginning in February 2020.
- Input from Town staff has helped inform the project team's approach and pavement marking revisions.
- Presented project update to Town of Reading Parking Traffic Transportation Task Force (PTTTF) on June 4, 2020.
- Presented project update to Town of Reading Select Board on July 21, 2020.

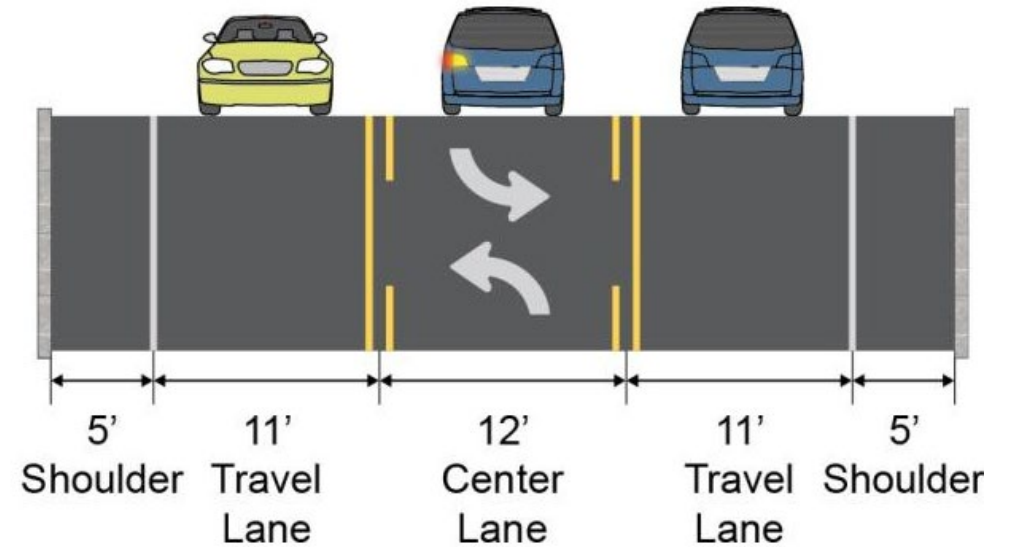
# Revisions to Lane Configurations

## Section 3

### ORIGINAL DESIGN



### REVISED DESIGN



# Revisions Between Minot St. and Ash St.

## Section 3





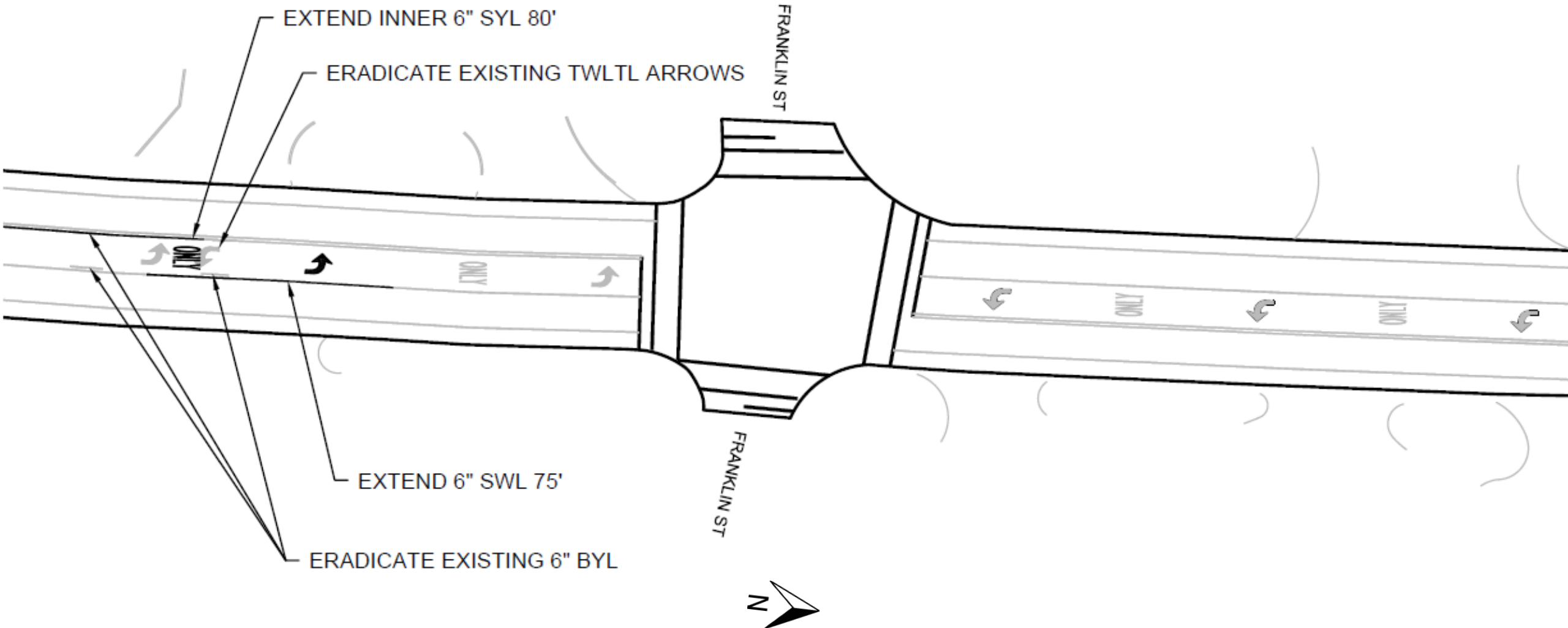
# Revisions to Main Street near Summer Avenue

## Section 3



# Franklin Street: Extended NB Left-turn Lane

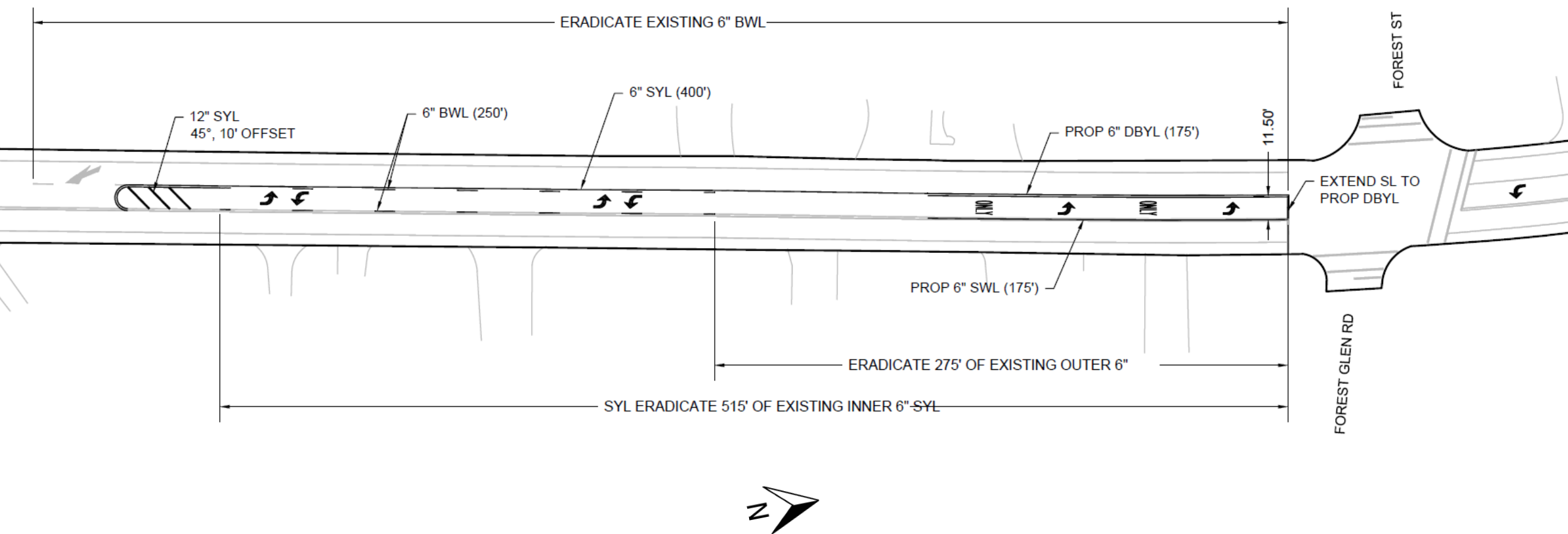
## Section 3





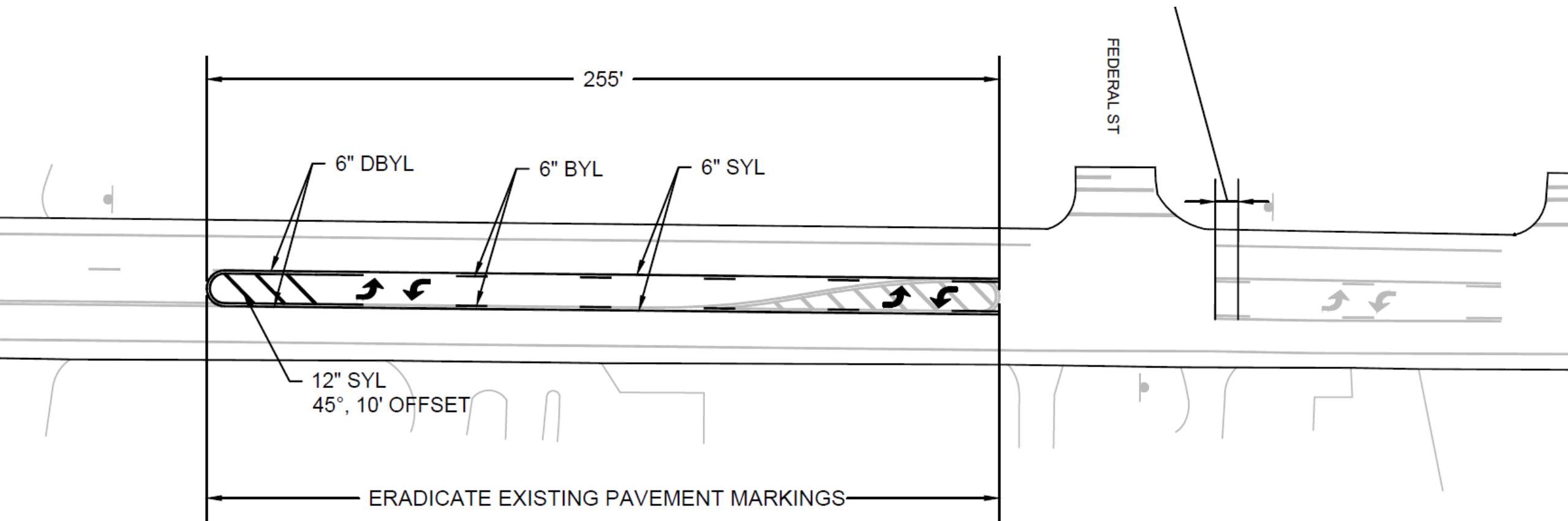
# Forest Street: Added NB Left-turn Lane

## Section 3



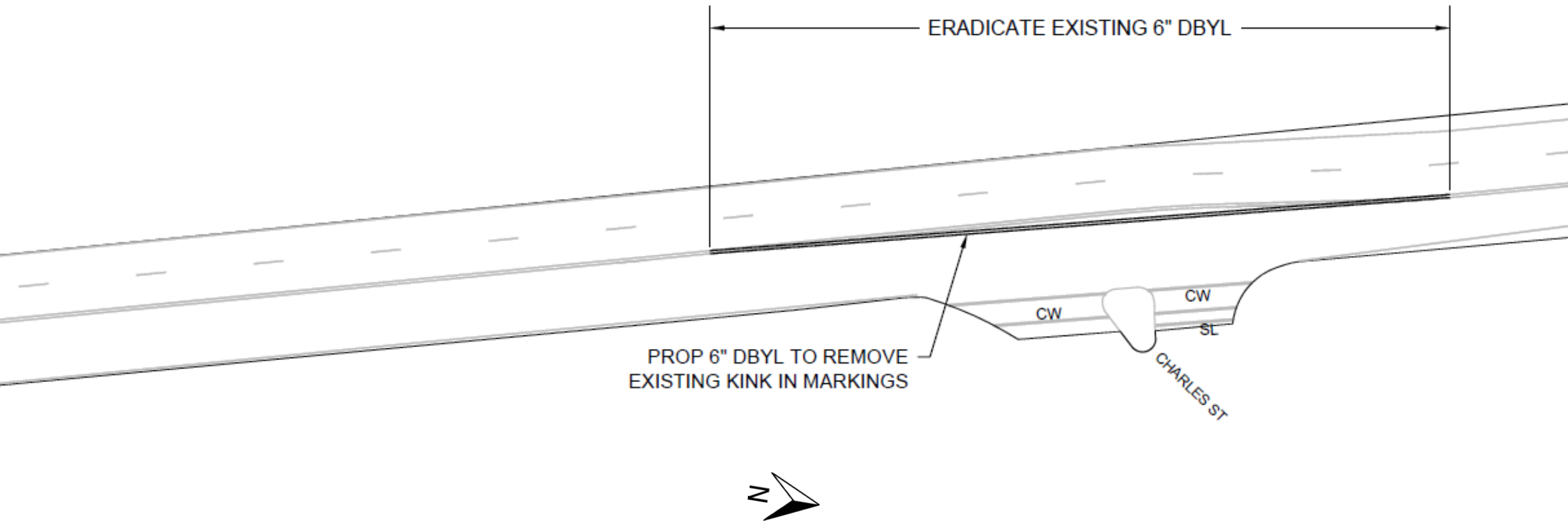
# Federal Street: Extended Center Turn Lane

## Section 3



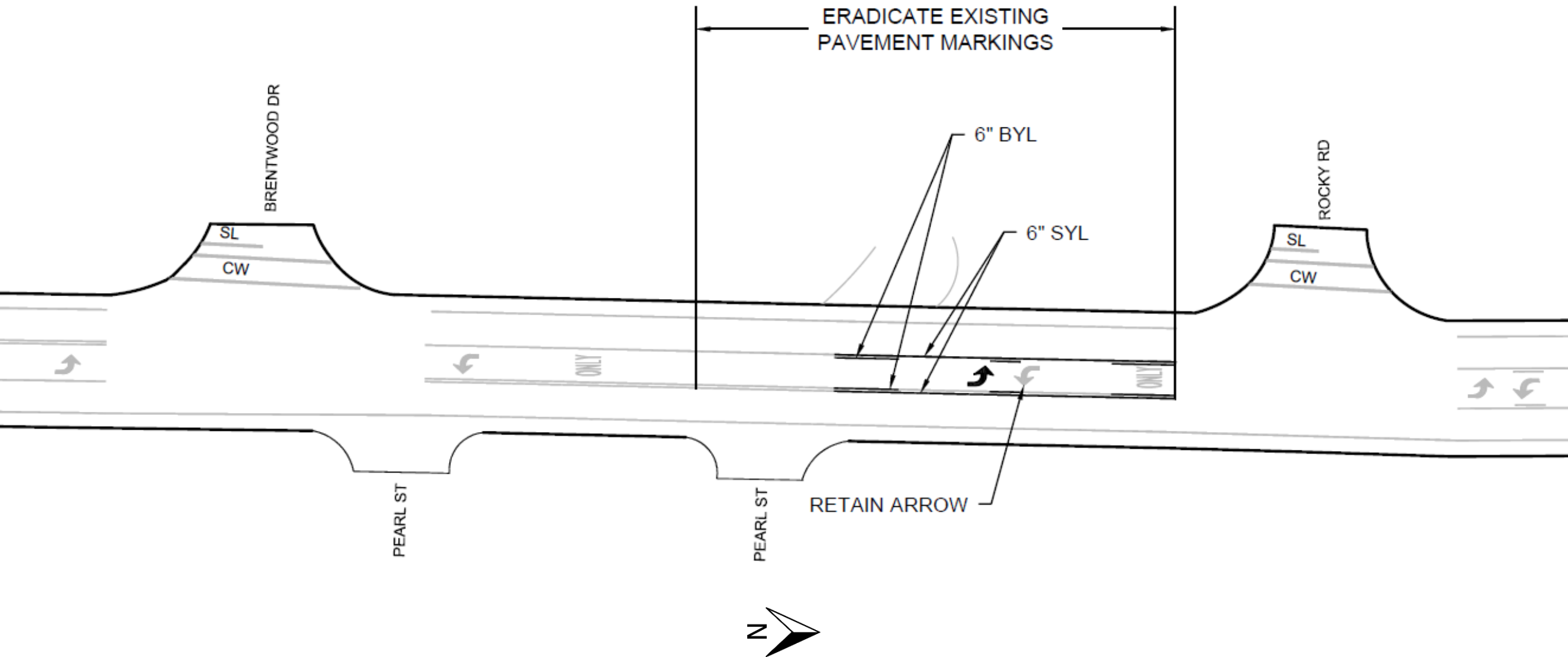
# Charles Street: Straightened Double Yellow Line

Section 3



# Pearl Street: Improved Access to Rocky Road

Section 3



# Section 4:

## Pilot Schedule and Evaluation

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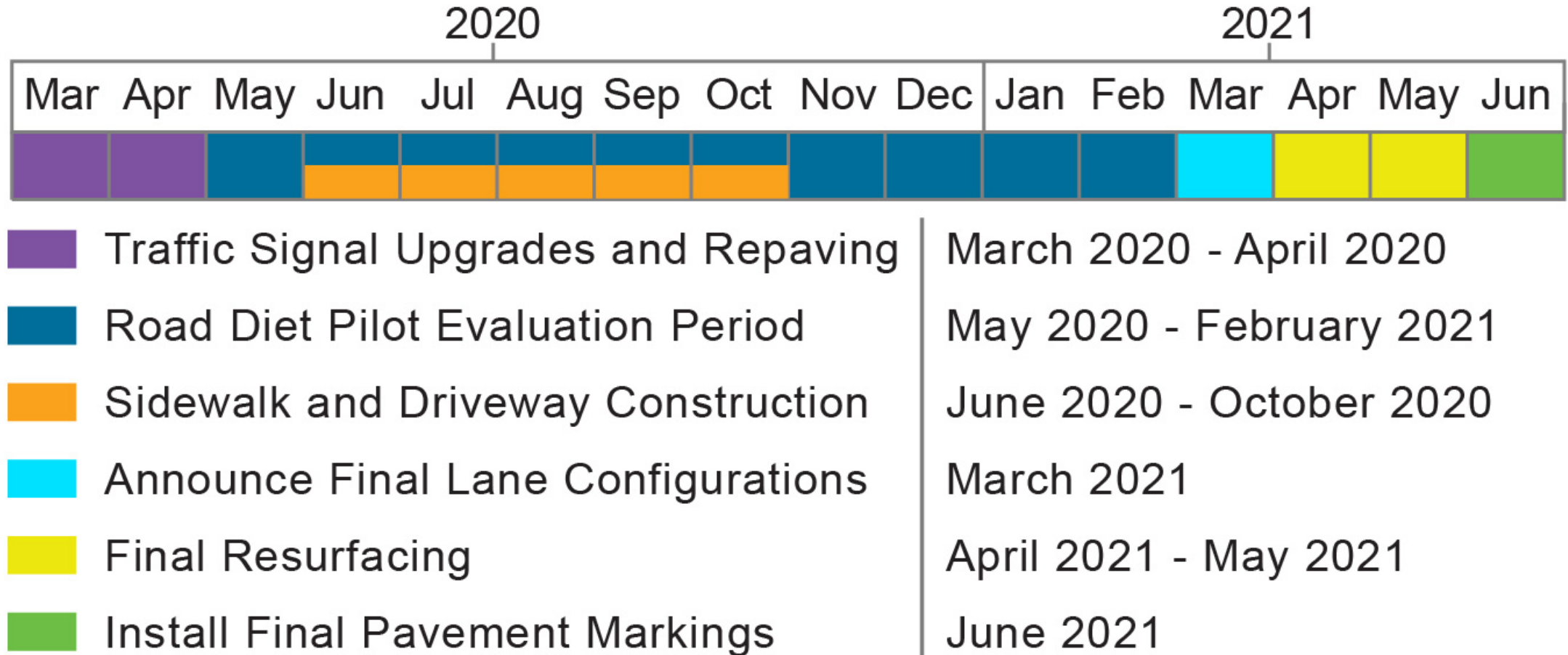
# Work Completed in 2020

## Section 4

Spring 2020	Summer 2020	Fall 2020
<ul style="list-style-type: none"><li>• Installed pilot pavement markings</li><li>• Made pavement marking revisions</li><li>• Began curb, sidewalk, and driveway construction</li><li>• National Grid began emergency gas repairs and upgrades on South Main St.</li></ul>	<ul style="list-style-type: none"><li>• Completed revisions to pilot pavement markings</li><li>• Completed construction of curb ramps, sidewalks, guard rails, and driveways on North Main St.</li><li>• National Grid completes emergency gas repairs and upgrades on South Main St.</li></ul>	<ul style="list-style-type: none"><li>• Complete upgrades to curbs, sidewalks, and driveways on South Main St.</li><li>• National Grid will complete road surface patch the South Main St.</li></ul>

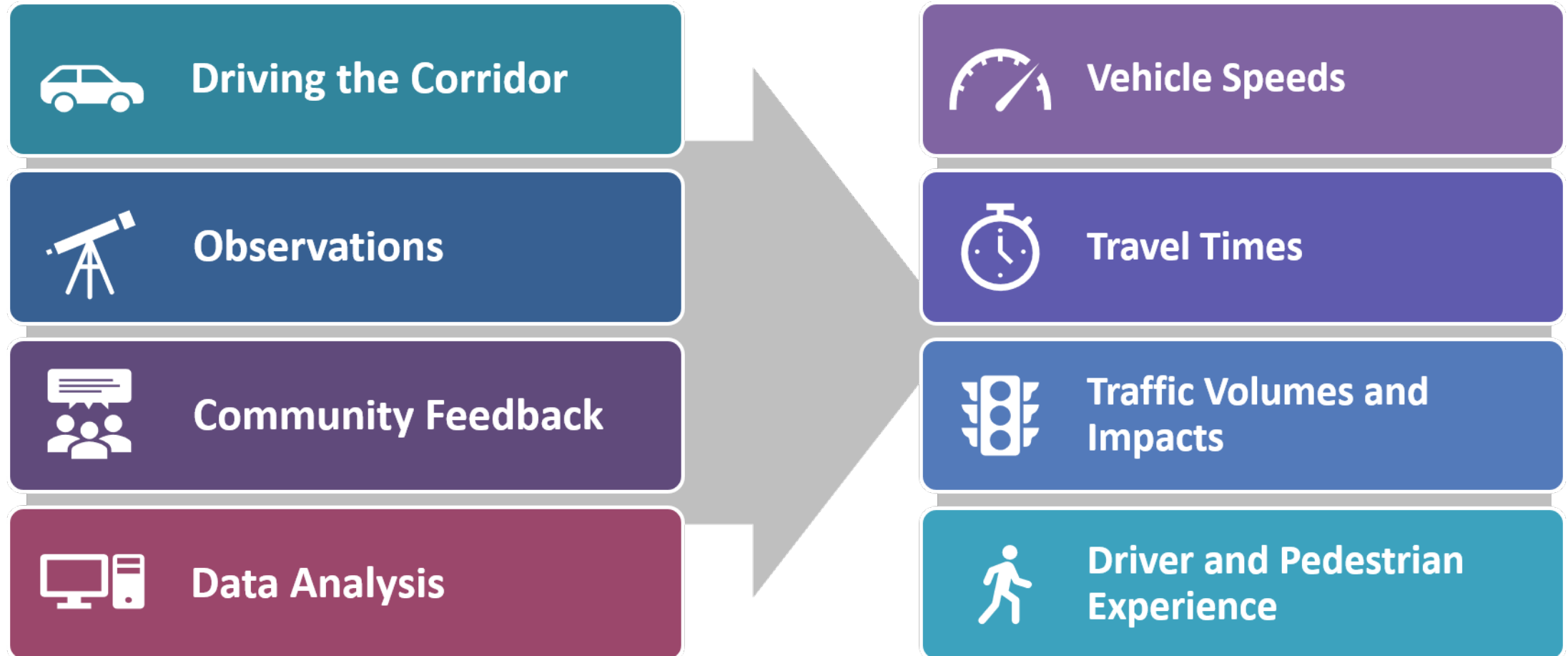
# Revised Project Schedule

## Section 4



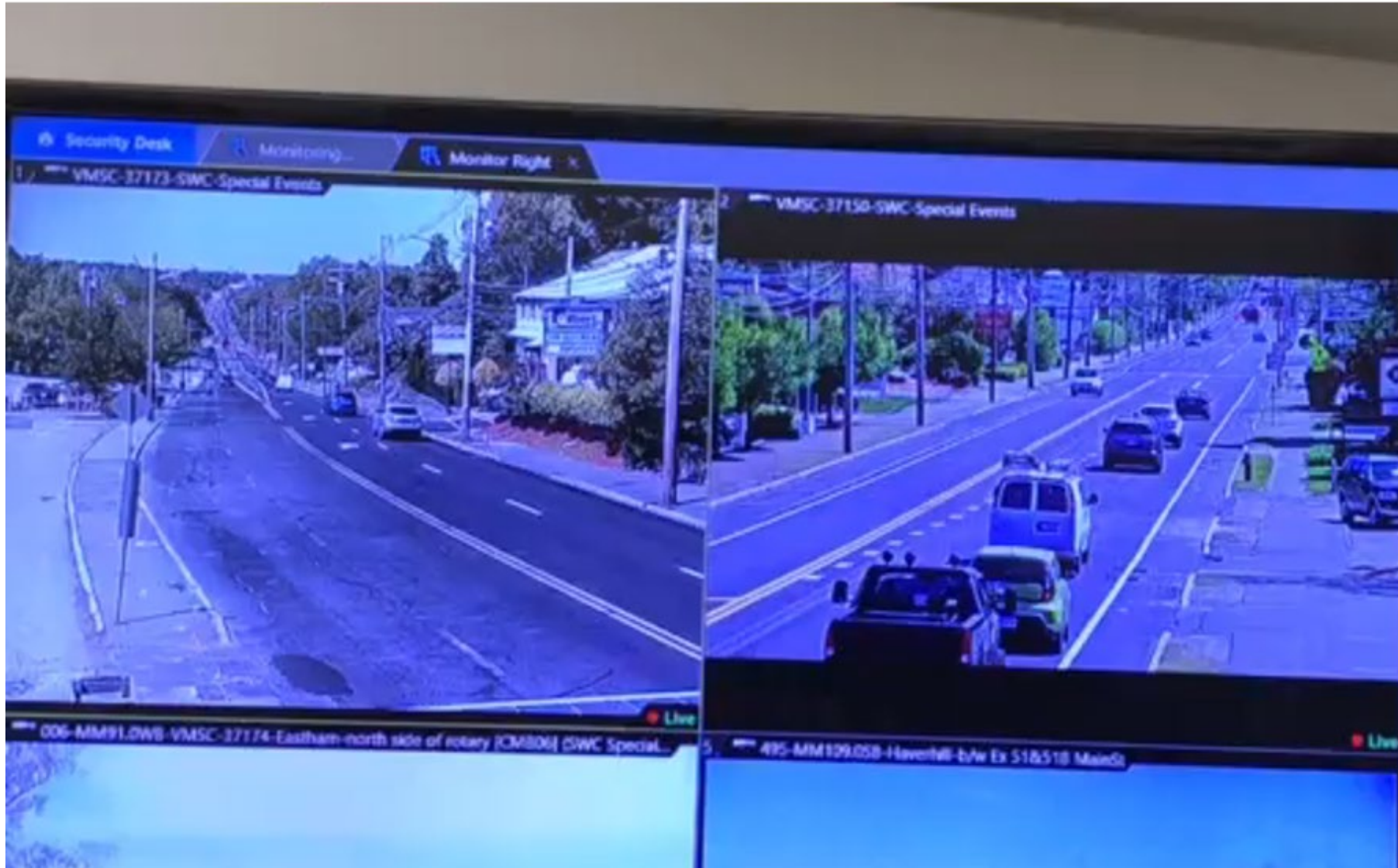
# Road Diet Pilot Evaluation

## Section 4



# Video Cameras

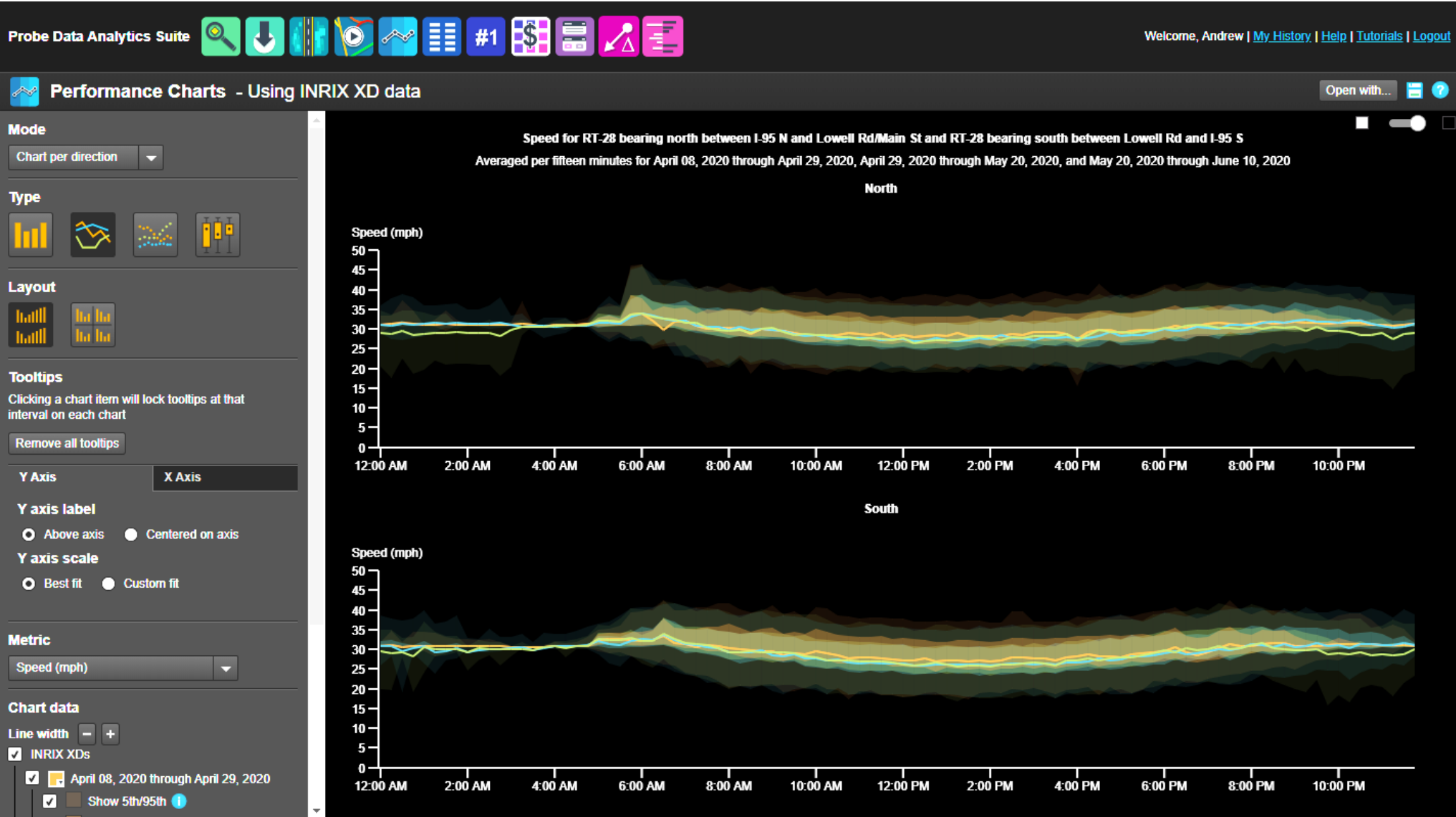
## Section 4



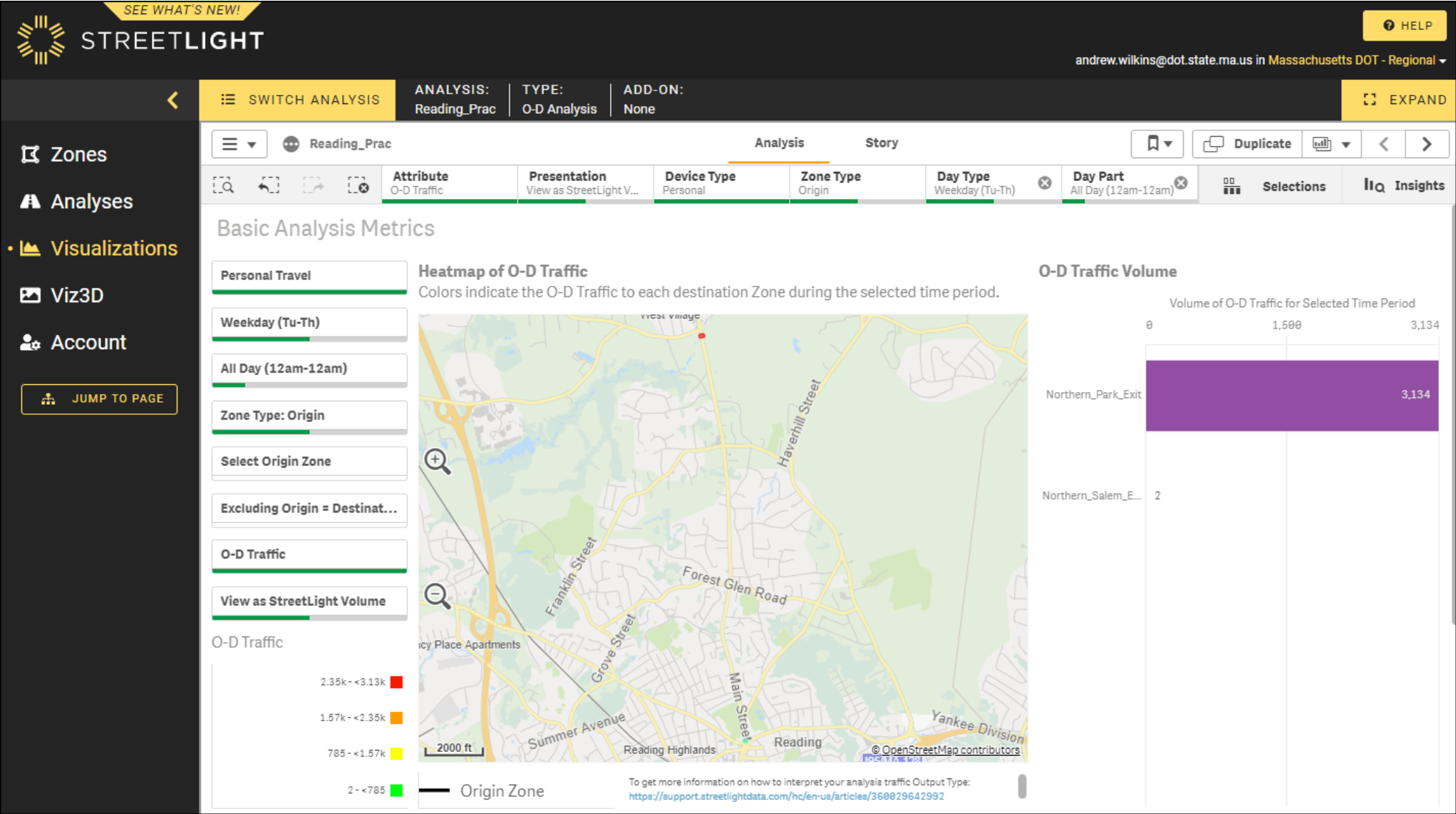
# Regional Integrated Transportation Information System (RITIS)



## Section 4







# StreetLight

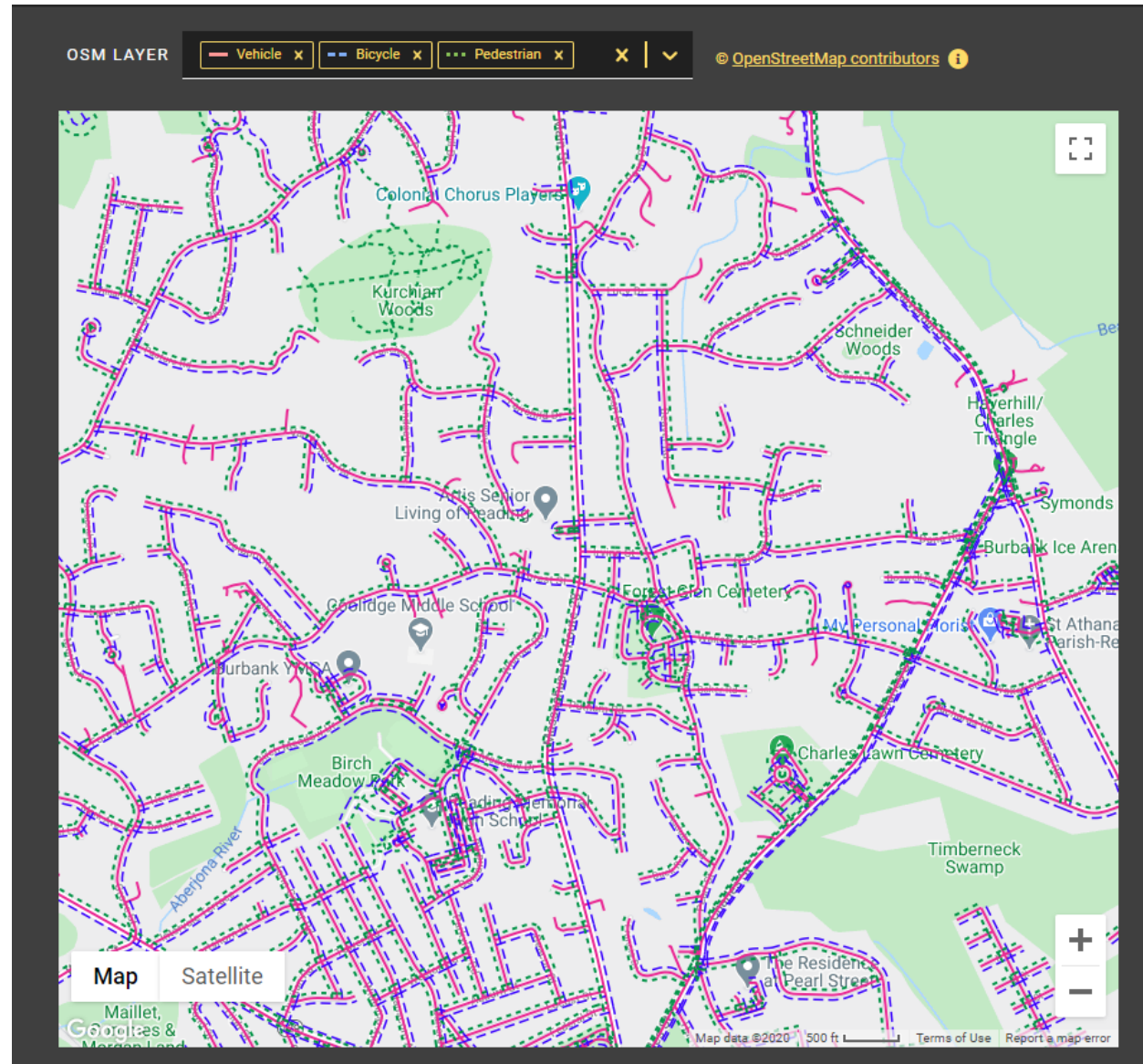
## Section 4

### Average Travel Speeds

- Northbound
- Southbound

### Average Travel Times

- Northbound
- Southbound

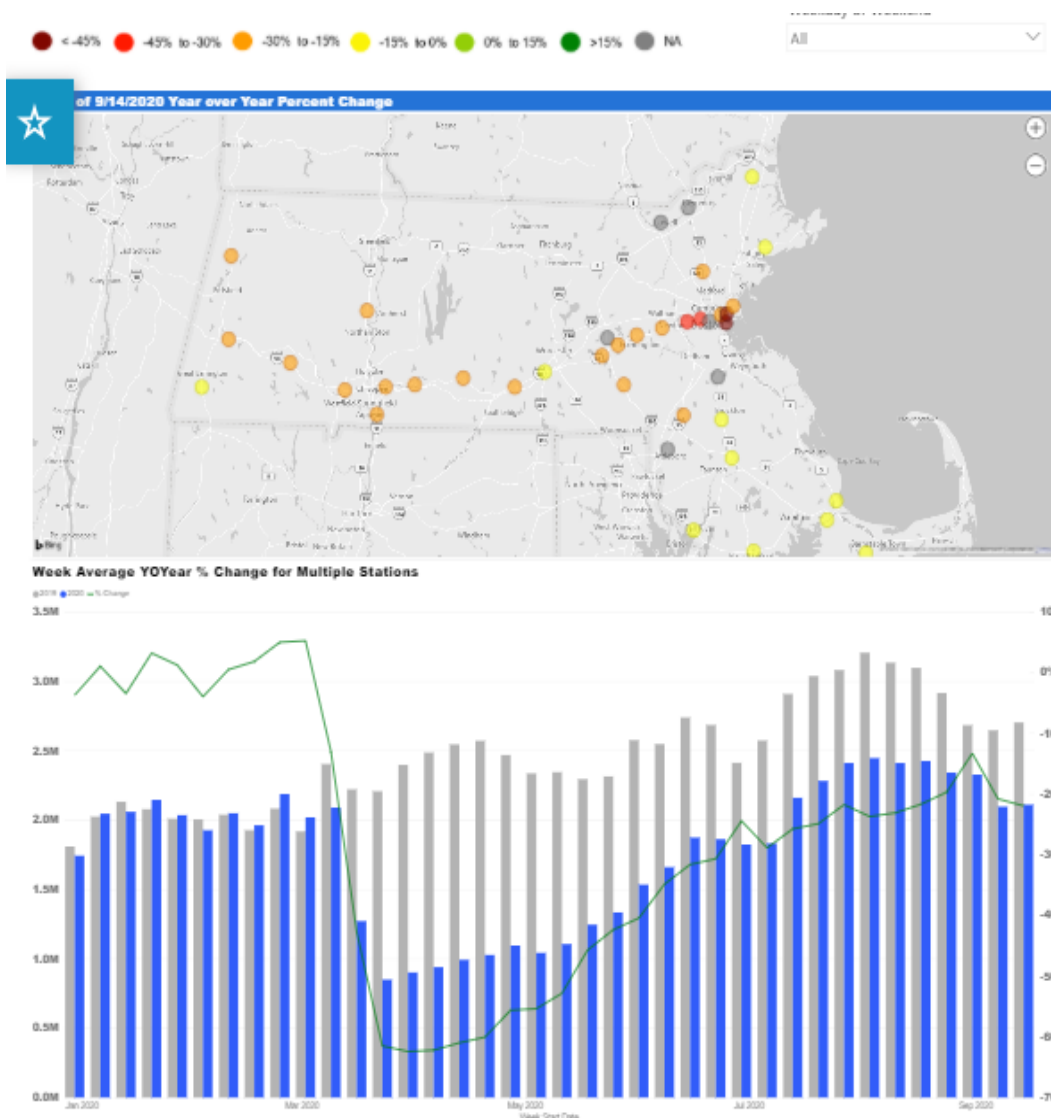


# MassDOT Mobility Dashboard

## Section 4

### Average Traffic Volumes at Select Count Locations (Weekly)

Feb. 1, 2020 - Sept. 13, 2020



### Traffic Volumes:

During the week of Monday, September 7th to Sunday, September 13th, 2020 average daily traffic volumes are still below 2019 levels and appeared to be leveling off, but peak period volumes have reached 2019 levels in some areas entering the city. It should be noted the Labor Day Holiday weeks are different in 2019 and 2020 so there may be larger variances in volume comparisons due to that.

The data captured at the 39 representative count stations across the various regions of the state show the following 2020 trends (data reported are weekly averages):

- Continue Public Outreach
  - Provide educational resources
  - Respond to questions, comments, and concerns
- Continue Gathering Public Input
  - Monitor project email address and online comment form
- Continue Collecting and Analyzing Data
- Continue Meeting Weekly and Coordinating with Town staff



# Q&A

## LEARN MORE

Visit: [mass.gov/route-28-in-reading-resurfacing-and-road-diet-pilot](https://mass.gov/route-28-in-reading-resurfacing-and-road-diet-pilot)

Search on Google: 'Route 28 Road Diet Pilot'

## CONTACT US

Email: [Route28Pilot@dot.state.ma.us](mailto:Route28Pilot@dot.state.ma.us)

Leave a Voicemail: (857) 246-8454