

# MARTHA'S VINEYARD ***BEACH ROAD STUDY*** — VINEYARD HAVEN, TISBURY —



## Working Group Meeting 2

Virtual Meeting | October 2, 2023 | 1:00 PM EDT





# Zoom controls

-  • Listen in English
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Raissah,A.Kouame@dot.state.ma.us

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 Interpretation

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# Agenda

- 01 Working Group Ground Rules
- 02 Introductions
- 03 Status
- 04 Site Visit Observations
- 05 Safety Analysis
- 06 Flood Vulnerability
- 07 Moving Toward Conceptual Design Alternatives
- 08 Timeline & Next Steps
- 09 Discussion
- 10 Public Comment Period



<https://www.youtube.com/watch?v=CHd0z44hTQc>

# Introductions

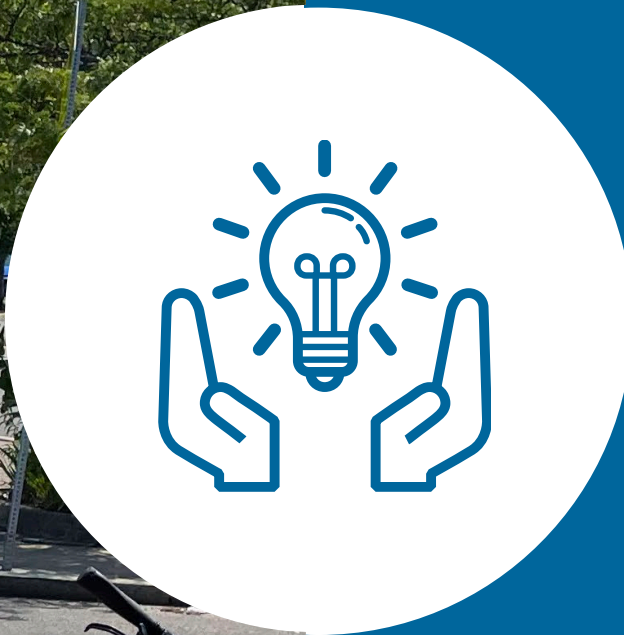
*Please state your name, pronouns, and affiliation.*



## Working Group Ground Rules

- All participants are requested to listen to the opinions of others to ensure a constructive and productive discussion.
- Members of the Working Group are asked to make every possible effort to attend the meetings consistently. However, if members are unable to attend, they should let the study team know if an alternate representative will participate on their behalf.
- All Working Group meetings will be recorded.
- Working Group members are allowed to show video and may keep their video on or off during the meeting. Meeting staff may mute you or turn off your video if the audio/video becomes distracting.
- All participants are asked to turn their computer notifications off and mute their cell phones and other electronic devices during meetings.

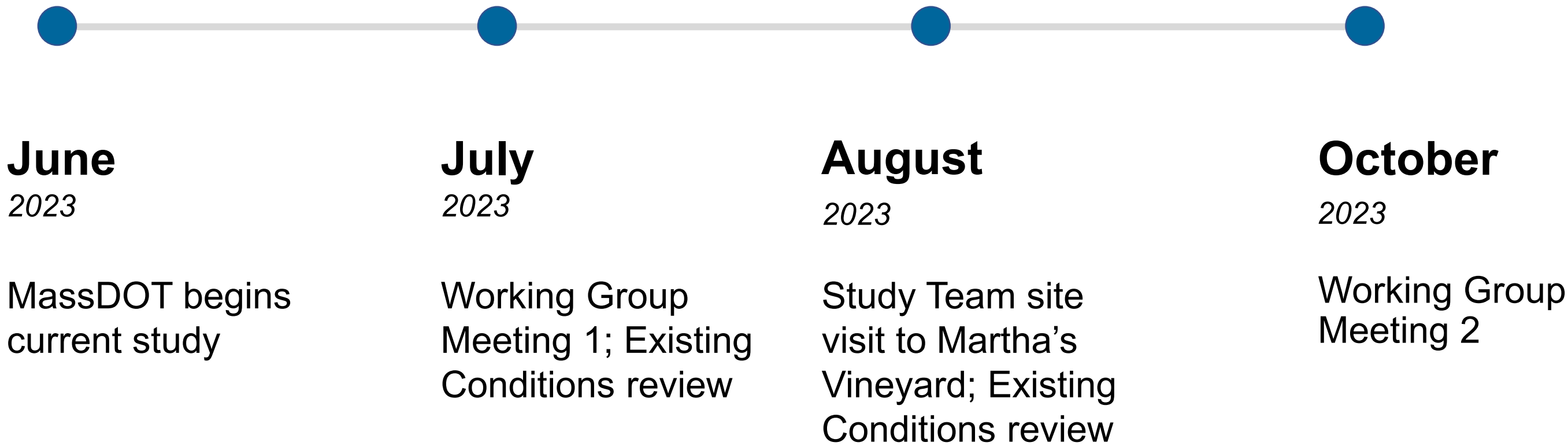




Status

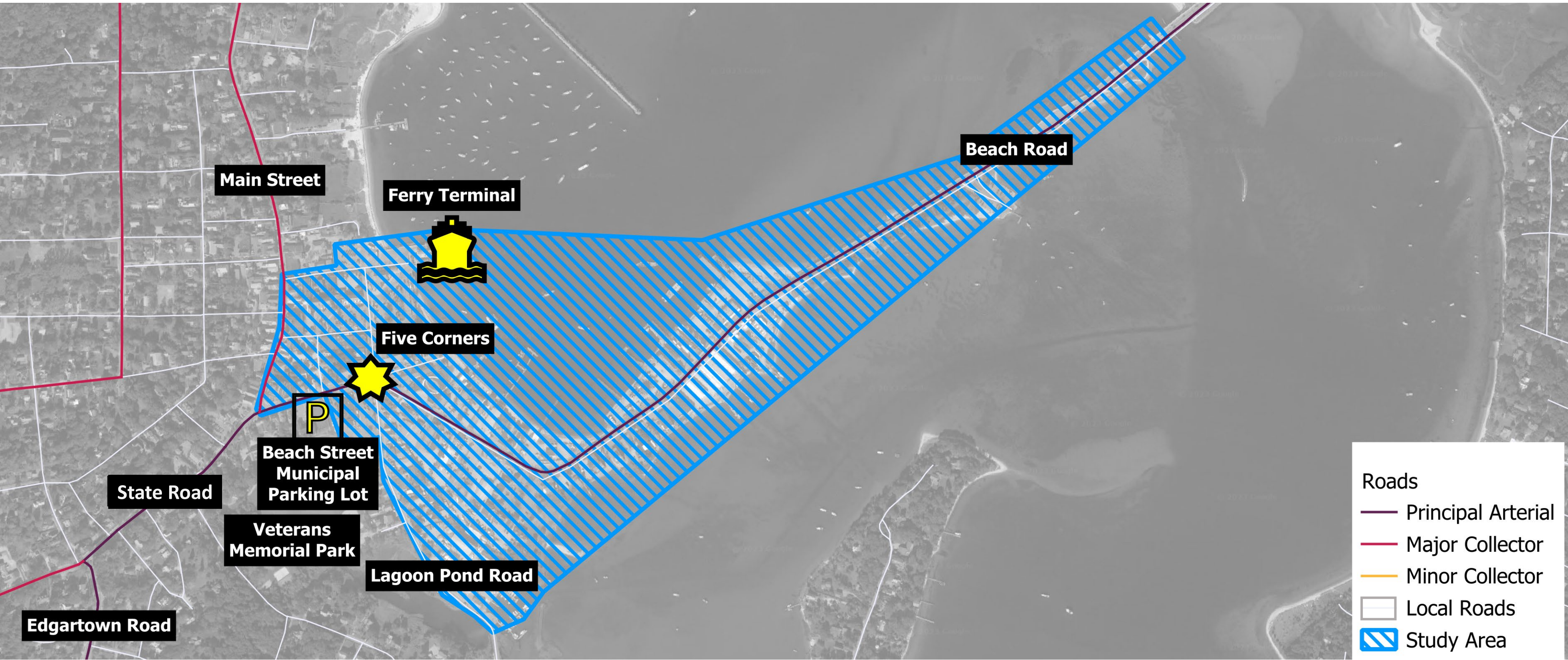


# How did we get here?





# Study Area



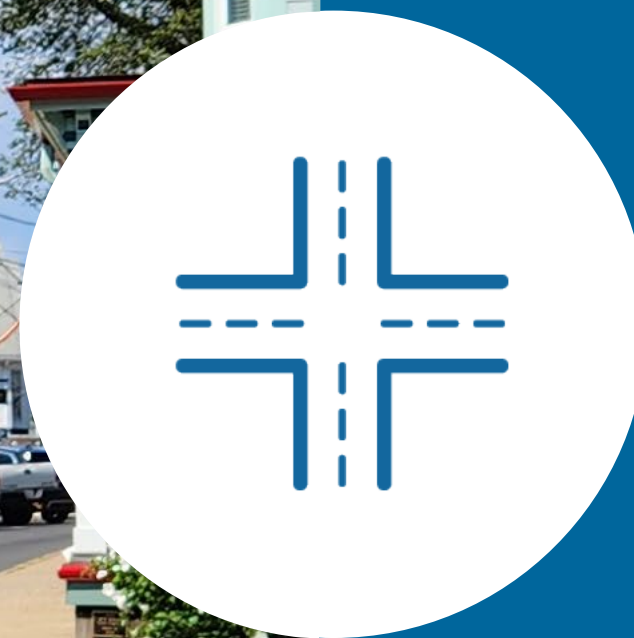


## Goals and Objectives

- Address **current and potential future flooding**
- **Involve local stakeholders**
- Consider impacts of the **Steamship Authority (including freight) and Vineyard Wind**
- Acknowledging and building on work done in 2015-2021, **evaluate roadway improvements** at Five Corners and on Beach Road to increase safety and comfort for all road users







# Site Visit Observations



## Pedestrian conditions

- Historic counts show a large volume of people walking through the study intersection (averaging 344 pedestrians/hour during the weekend peak period)
- Field observations confirm people walking are traveling to and through the intersection given the proximity to the ferry, bus stops, and destinations
- Field observations saw pedestrian activity heavier on Water Street, Beach Street, and Beach Road, but still notable on all crossings/approaches
- Sidewalks are narrow, often with obstructions from utility poles, hydrants, and signposts
- Large vehicles (buses) were noted to encroach on the narrow sidewalks to complete turning movements
- Curb ramps did not appear to be ADA compliant





## Bike conditions

- Historic counts show a large volume of people biking through the study intersection (averaging 80 bicyclists/hour during the weekend peak period)
- Field observations confirm people biking are traveling to and through the intersection given the proximity to the ferry, bus stops, and destinations
- There are painted bike lanes on Beach Road, however many bicyclists were observed riding on the sidewalk
- Gap in network between the bike lanes on Beach Road and the path off Beach Street west of the intersection
- Beach Street and Beach Road were observed to have higher bicycle movements, however historic counts noted Water Street to also have high volume





# Context: Modeled Traffic Volumes

Data is derived from the 2015 Roadway Safety Audit (data collected in July 2013)

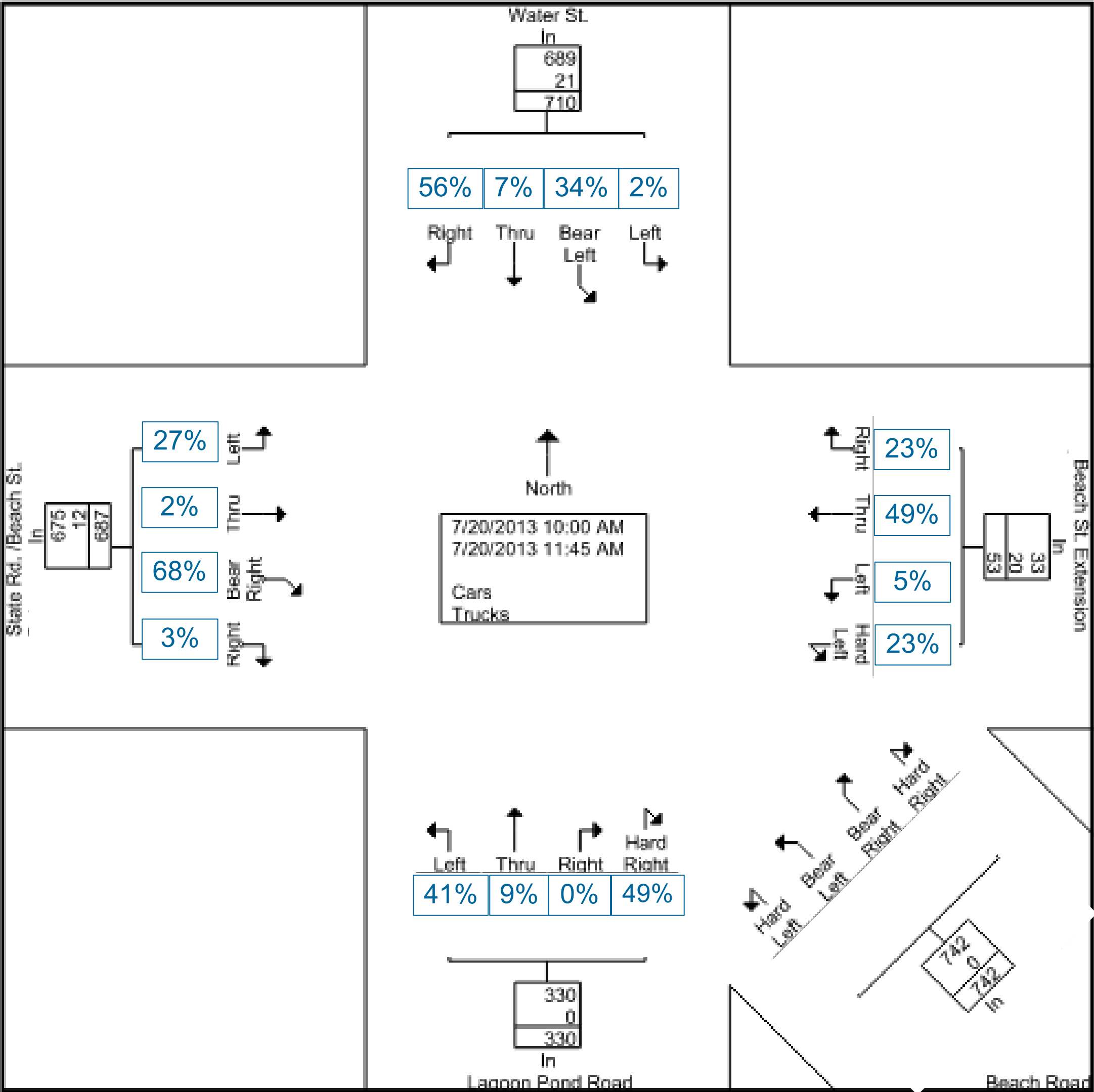
- No recent data has been collected
- The volumes have been projected from 2013 to 2023 using a 1% per-year growth rate selected by MassDOT

| Street Name      | AM Peak Volume (2013) | AM Peak Volume (2023) | PM Peak Volume (2013) | PM Peak Volume (2023) |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Water Street     | 599                   | 662                   | 723                   | 799                   |
| Beach Street     | 420                   | 464                   | 639                   | 706                   |
| Lagoon Pond Road | 515                   | 569                   | 744                   | 822                   |
| Beach Road       | 601                   | 664                   | 704                   | 778                   |



# 2013 Turning Movement Counts

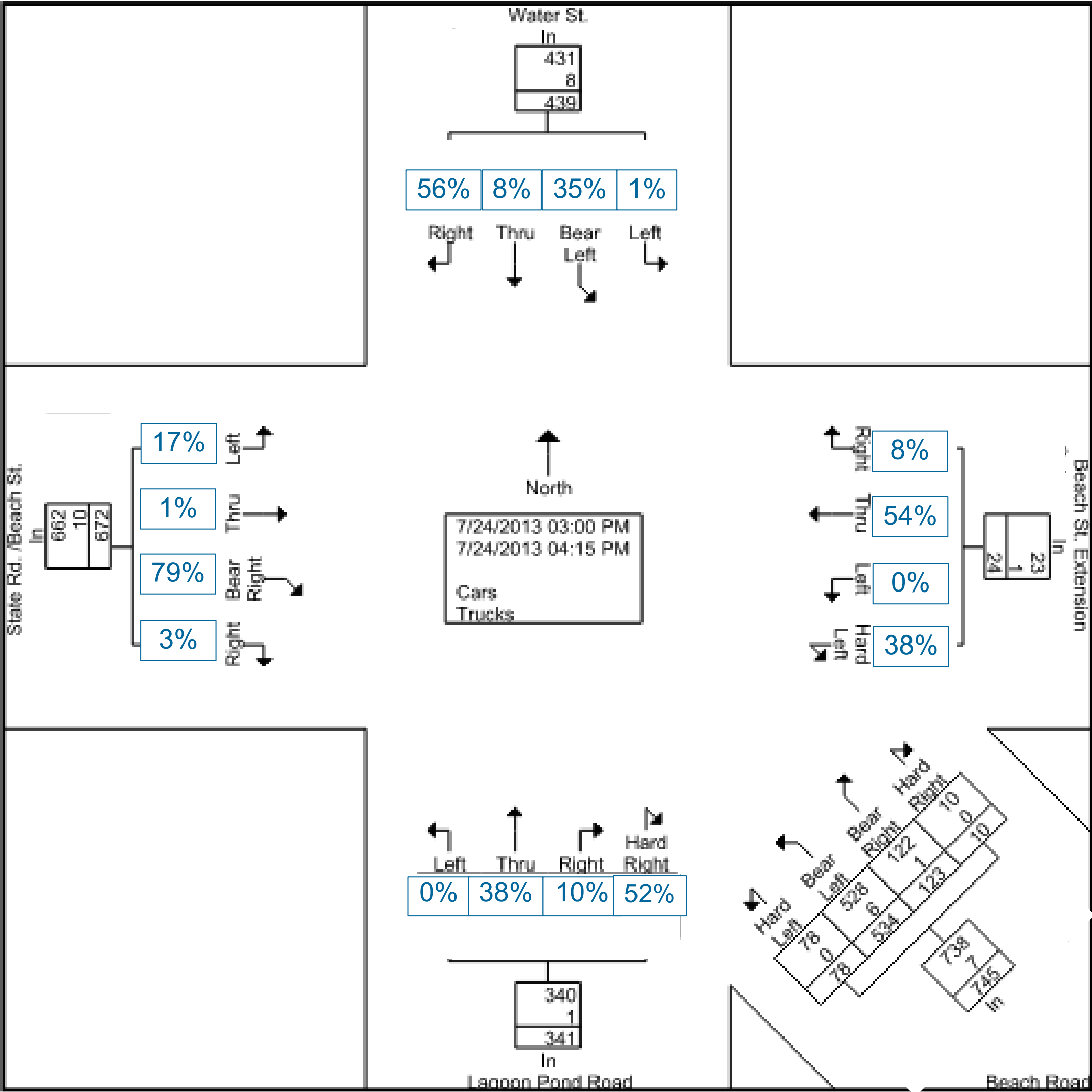
## Weekday Peak Period





# 2013 Turning Movement Counts

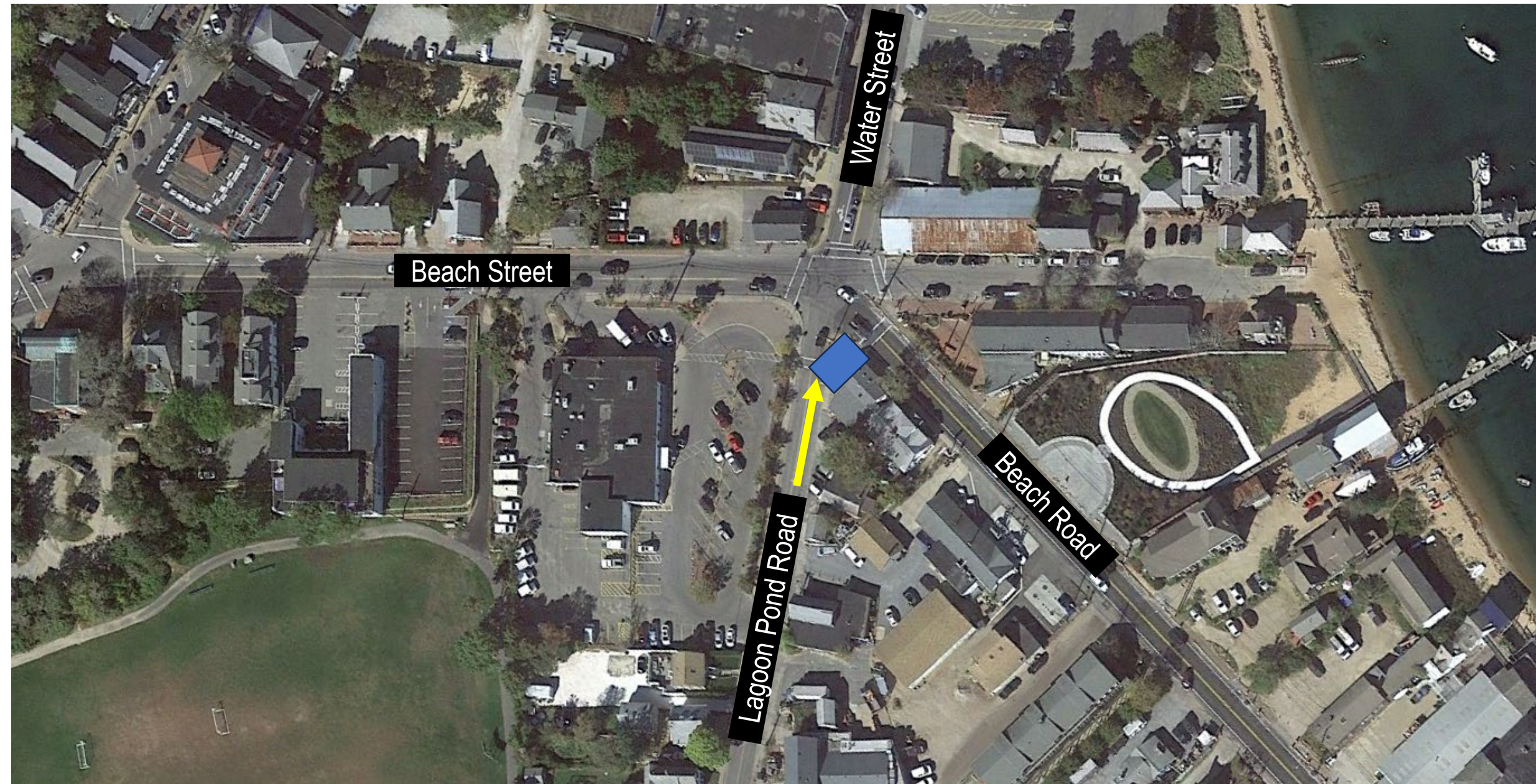
## Saturday Peak Period





## Sight Lines

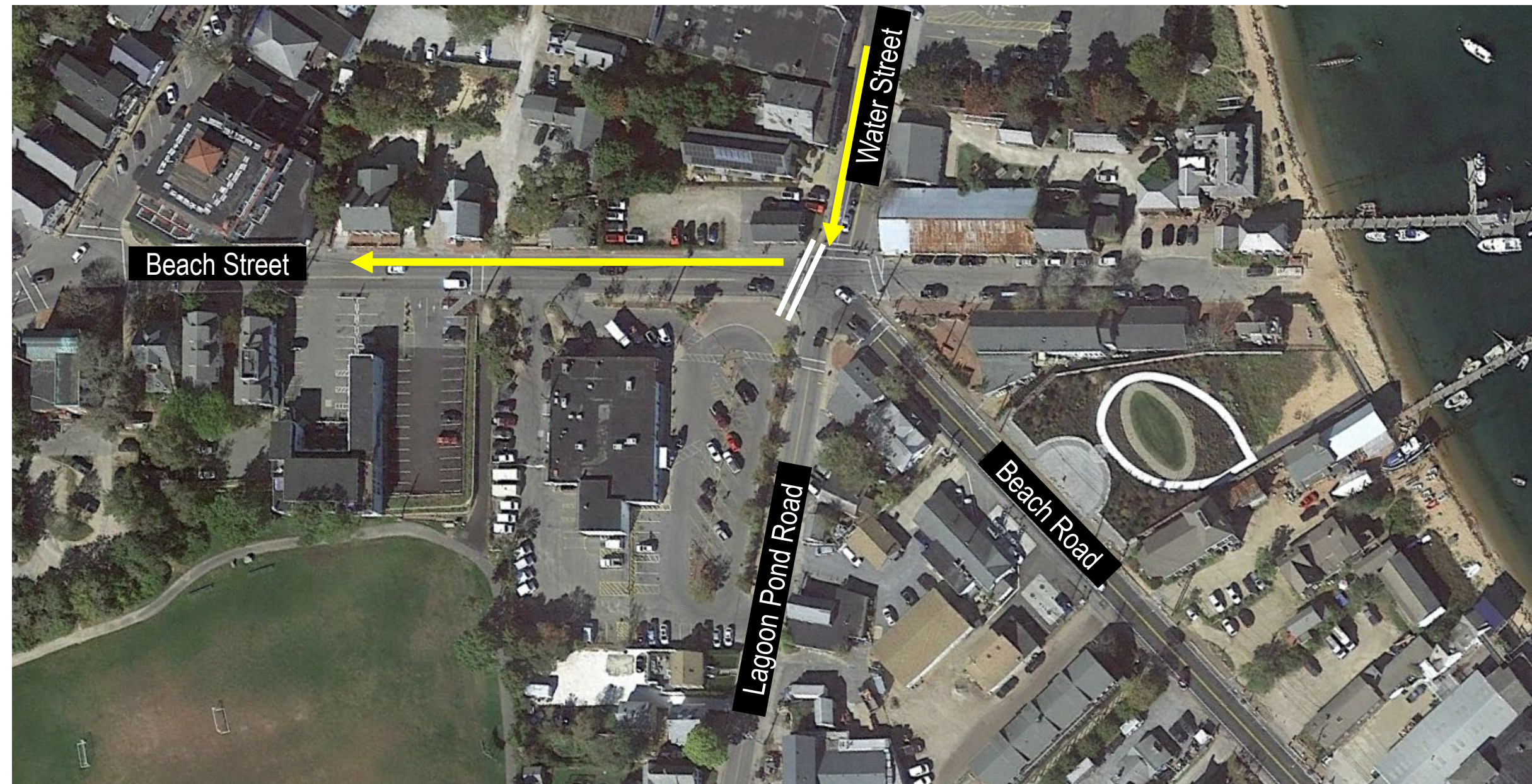
- **Sight lines on most corners meet minimum standards, some meet desirable standards**
- The experience of using the intersection may differ. Drivers on all approaches can be observed on the overhead camera advancing beyond the stop line to view conflicting traffic
- Lagoon Pond Road does not meet the minimum sight distance due to the bike shop building and the intersection geometry





## Turning Radius

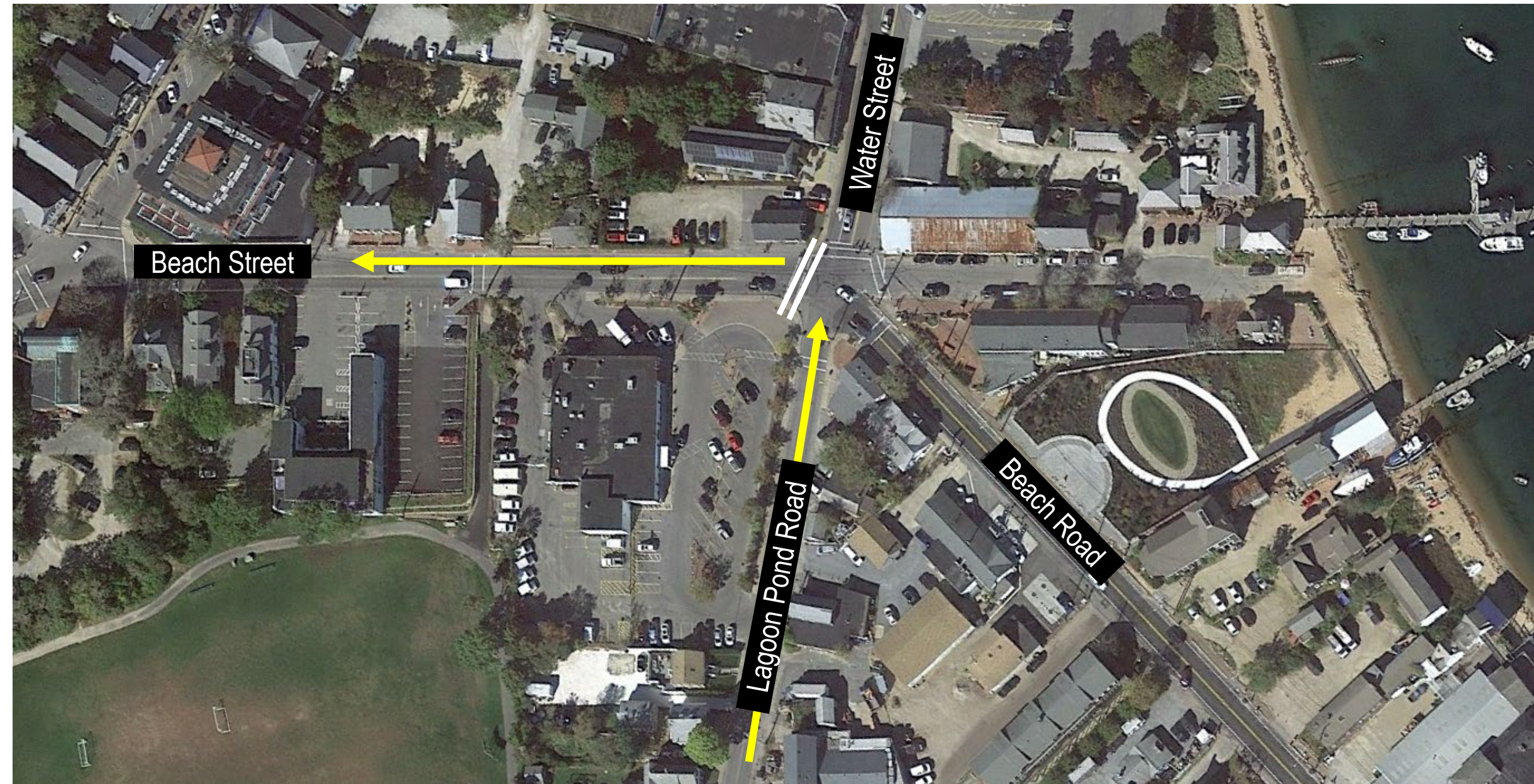
- **Turning radius from southbound Water Street to westbound Beach Street (and in reverse) appeared to be too tight for buses and trucks due to their size**
- Many observed instances of buses and trucks using southbound lane of Water Street or westbound lane of Beach Street
- Observed cars needing to back away from the intersection to accommodate turning buses and trucks
- Noted that turning vehicles encroached on pedestrians waiting at the corner





## Roadway Design

- The current design of Lagoon Pond Road northbound approach encourages fast speeds
  - Limited/low volume curb cuts
  - No curb/limited parking on the east side to provide friction
  - Lack of curb also gives the appearance of a wider roadway
  - Typically low volumes outside of the peak periods







# Safety Analysis



# Five Corners

Three clear crash clusters appear in Downtown Vineyard Haven (data from 2018-2022):

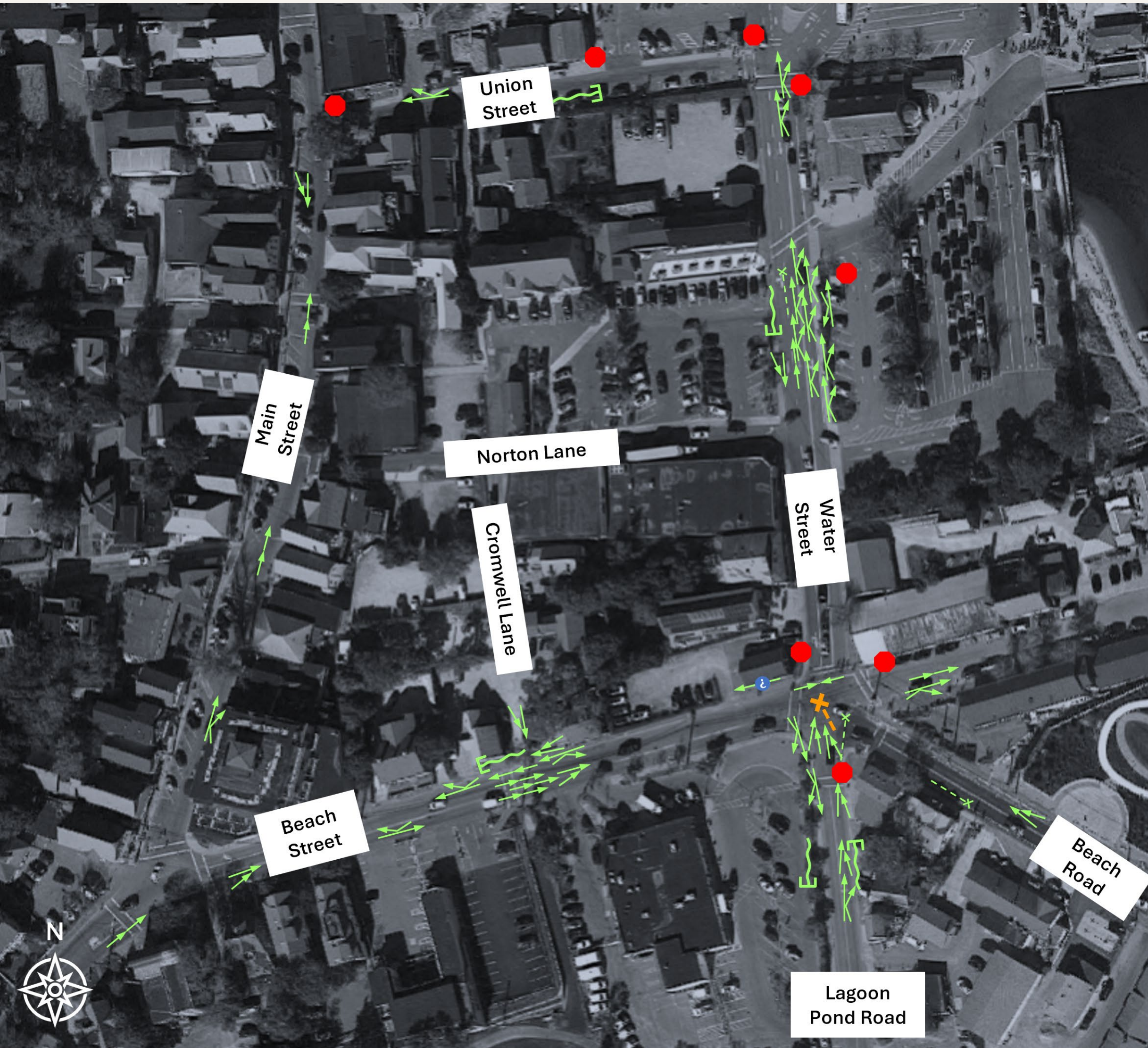
- 1. The Lagoon Pond Road entry to- and exit from- Beach Street
- 2. Stretch of Water Street northbound entering the ferry terminal
- 3. Stretch intersection of Beach Street and the Cromwell Lane alley

## LEGEND

- Rear End
- ↗ Angle
- Head On
- ↗ Side-Swipe Passing
- ↗ Side-Swipe Meeting
- x Pedestrian & Cyclist
- ~ Fixed Object
- ⓘ Other
- Stop Sign

## SEVERITY

- Fatality
- Serious Injury
- Other





# Southwest Area

A crash cluster exists on the western side of the bend in Beach Road, going in both directions.

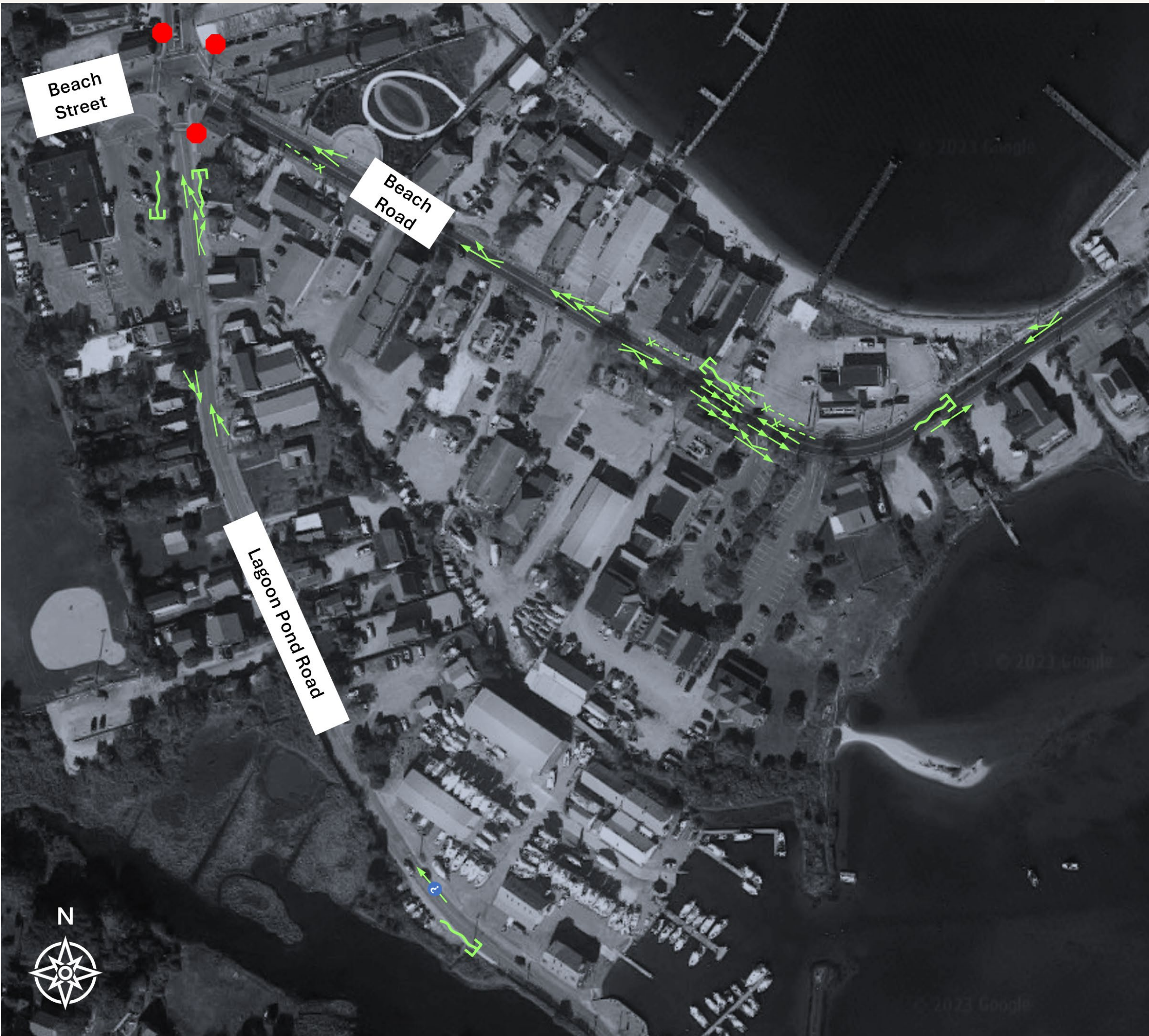
- A contributing factor could be that drivers speed up when approaching the intersection from Beach Street due to the difference in prescribed speed limits between Beach Road (30 mph) and Beach Street (20 mph)

## LEGEND

- Rear End
- ↗ Angle
- ↔ Head On
- ↗↘ Side-Swipe Passing
- ↘↗ Side-Swipe Meeting
- x Pedestrian & Cyclist
- ~ Fixed Object
- ⓘ Other
- Stop Sign

## SEVERITY

- Fatality
- Serious Injury
- Other





# Beach Road

- Several crashes occurred at the western end of the bridge.
- A fatal crash occurred under nighttime conditions, with a head-on collision, on this segment of road.

## LEGEND

- Rear End
- ↗ Angle
- ↔ Head On
- ↗ Side-Swipe Passing
- ↘ Side-Swipe Meeting
- Pedestrian & Cyclist
- ⊥ Fixed Object
- ⓘ Other
- Stop Sign

## SEVERITY

- Fatality
- Serious Injury
- Other







# Flood Vulnerability



Exposure to Sea Level Rise

Flood Vulnerability

Low elevations make the study area vulnerable to sea level rise-induced tidal flooding and coastal storms.

Tidal flooding:

- Inundated by Mean Higher High Water plus 3-ft sea level rise by 2070

Coastal storms:

- 50% to 100% annual chance of flooding in 2030
- 5 to 10 feet flood depth in a 100-year coastal flooding event in 2030.



|                                           | 2030    | 2050    | 2070    |
|-------------------------------------------|---------|---------|---------|
| Mean Sea Level relative to NAVD88         | 1.2 ft  | 2.5 ft  | 4.3 ft  |
| Mean Sea Level relative to 2020 Sea Level | 0.62 ft | 1.92 ft | 3.72 ft |

Source: [Massachusetts Coast Flood Risk Model](#)



## Flood Vulnerability (cont.)

**Drainage is a challenge at multiple locations in the study area. The main concern is at Beach Road Extension.**

- Current main drainage outfall, located at the foot of Beach Road Extension, faces regular blockage issues due to debris
- MassDOT Highway Division and District 5 are evaluating drainage and stormwater improvements on the State Highway, including State Road, Beach Street, and a portion of Beach Street Extension.
- Drainage solutions being considered by the Town of Tisbury for Veterans Park





# Timeline & Next Steps



Collect and analyze existing conditions data  
July/August 2023



Conduct site visit and sight distance analysis  
August 2023



Working Group meeting to review data collection and ongoing efforts, including context of alternatives  
October 2023  
**We are here**



Public meeting anticipated  
November 2023



Develop conceptual alternatives  
(Fall/Winter 2023-2024)  
  
Final Working Group and Public meetings in Winter 2024





# Working Group Member Discussion



## Prompts for Discussion

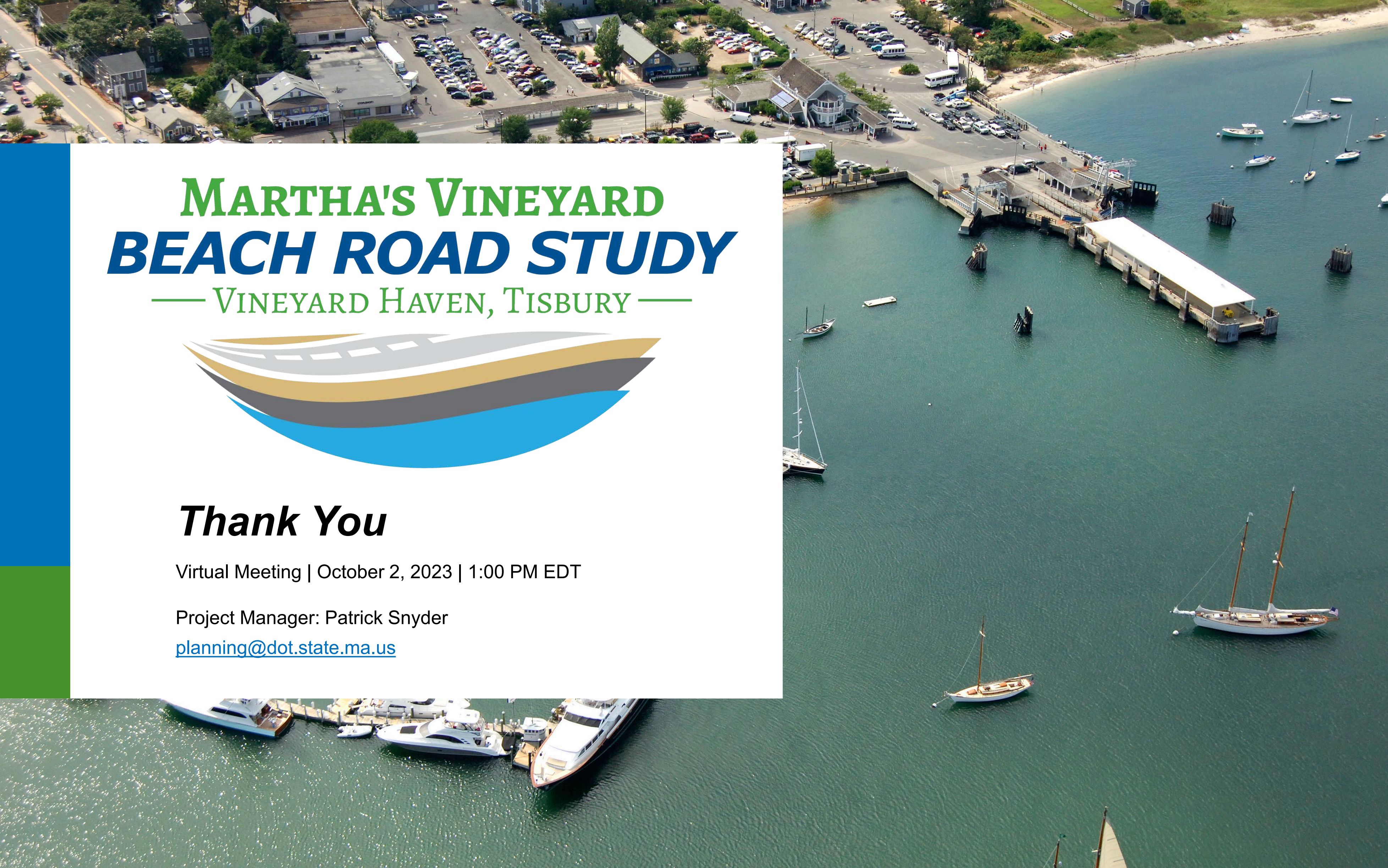
- Are there any unaddressed concerns within the Study Area that you would like to share with the team?
- Which challenges in the Study Area seem the most pertinent to you?
- Is there any other input that you would like to provide?





# Public Comment Period





# MARTHA'S VINEYARD **BEACH ROAD STUDY**

— VINEYARD HAVEN, TISBURY —



## ***Thank You***

Virtual Meeting | October 2, 2023 | 1:00 PM EDT

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