

# Route 8

## Interchanges 22-30

### Deficiencies/Needs Study

Stakeholder Group Meeting #1

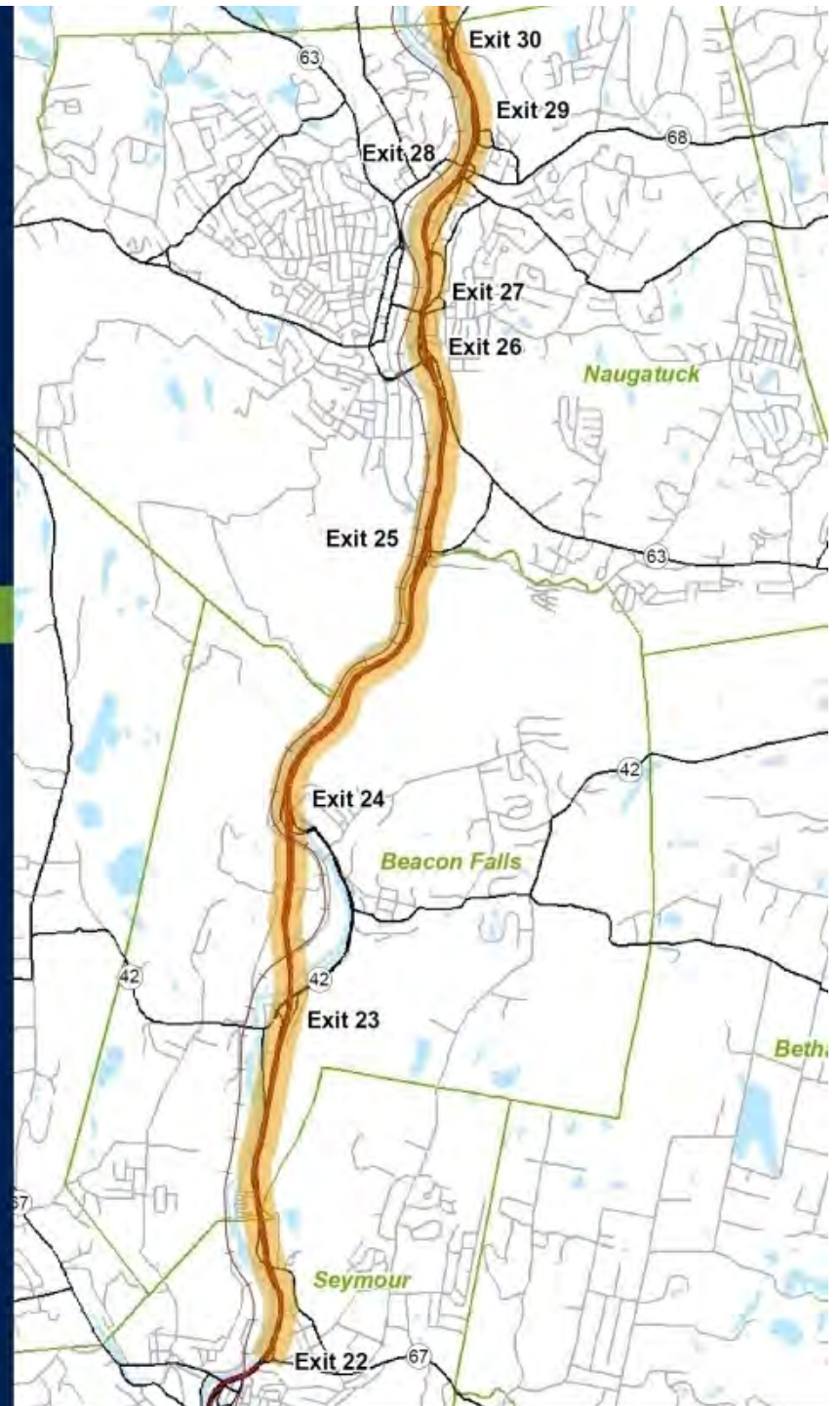
prepared for:



presented by:

*Vanasse Hangen Brustlin, Inc.* 

February 10, 2009



# Route 8

## Deficiencies/Needs Study

### Agenda

- Introductions
- Study Purpose and Goals
- Study Overview
- Summary of Existing Conditions
- Summary of Future Conditions
- Input from Stakeholders
- Next Steps

# Route 8 Deficiencies/Needs Study

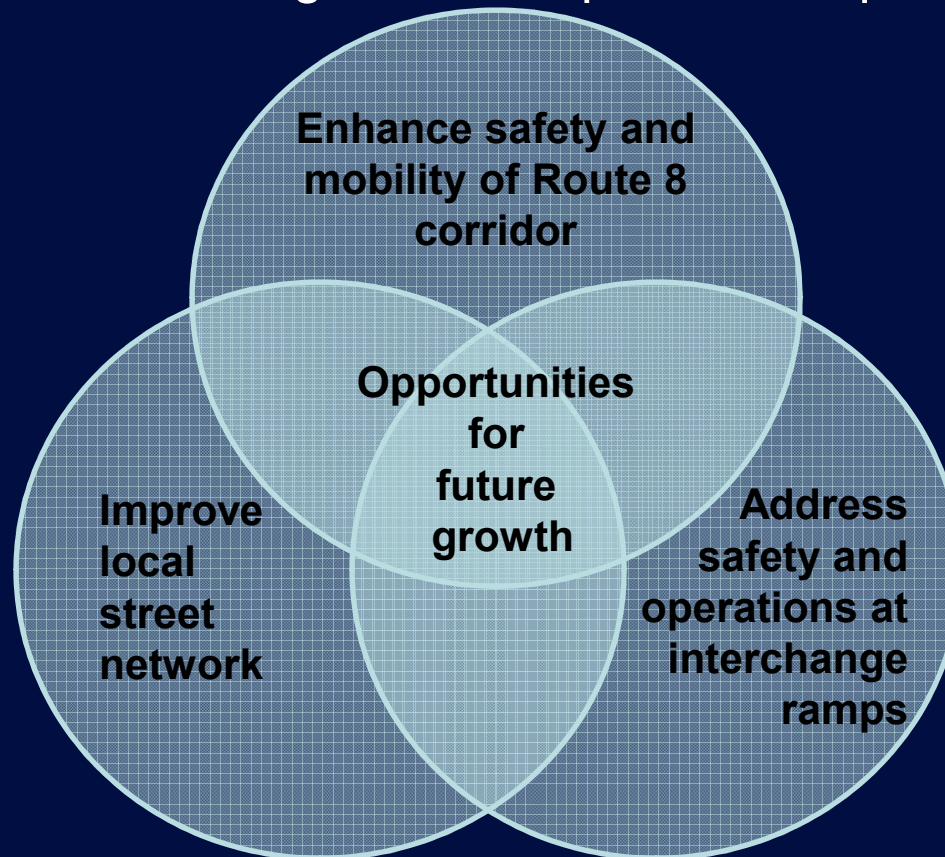
## Introductions

- Connecticut Department of Transportation
- Valley Council of Governments (VCOG)
- COG of Central Naugatuck Valley (COGCNV)
- Vanasse Hangen Brustlin, Inc. (VHB)

# Route 8 Deficiencies/Needs Study

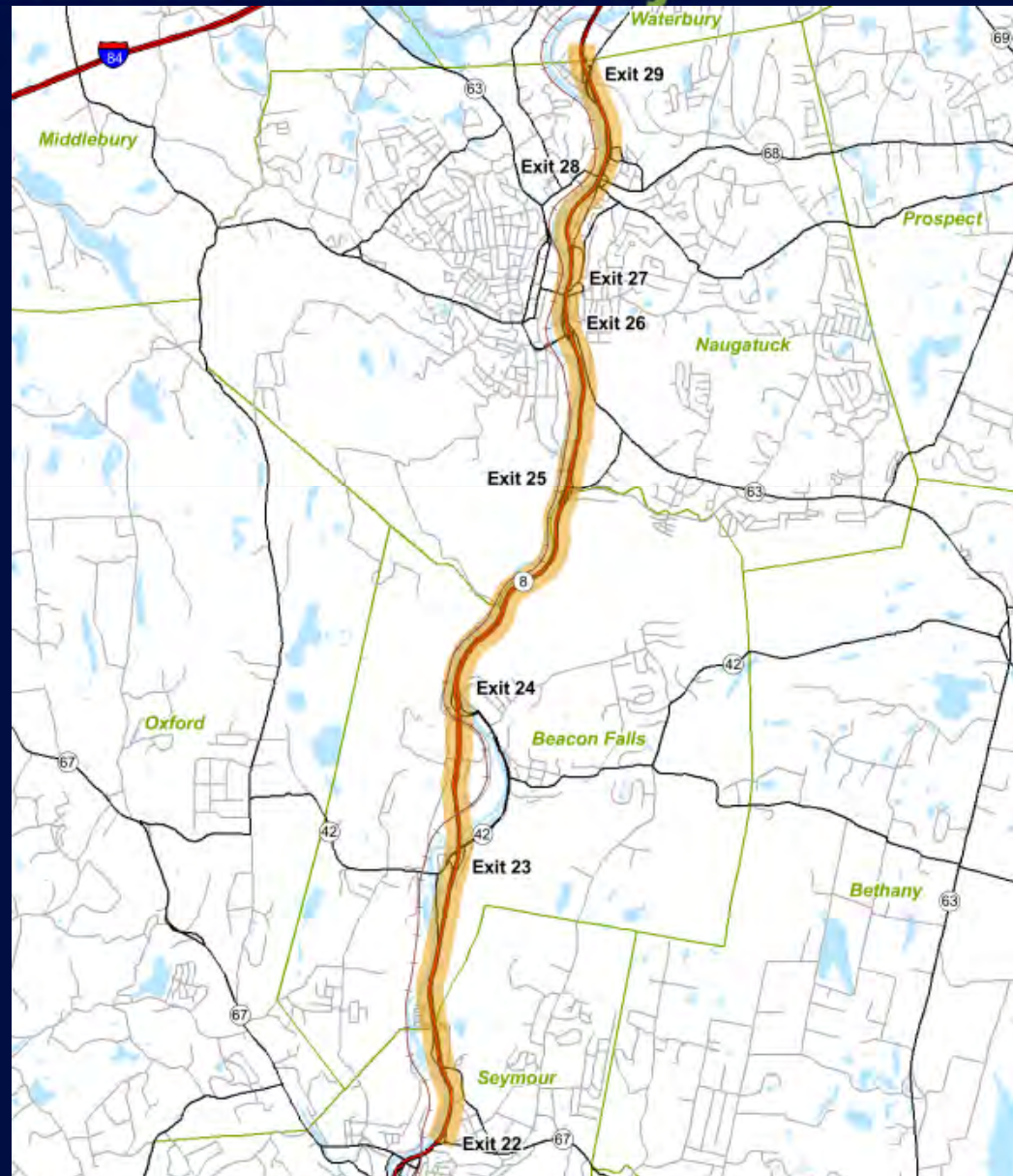
## Study Purpose and Goals

- Identify current and future transportation deficiencies
- Establish near and long-term transportation improvement needs



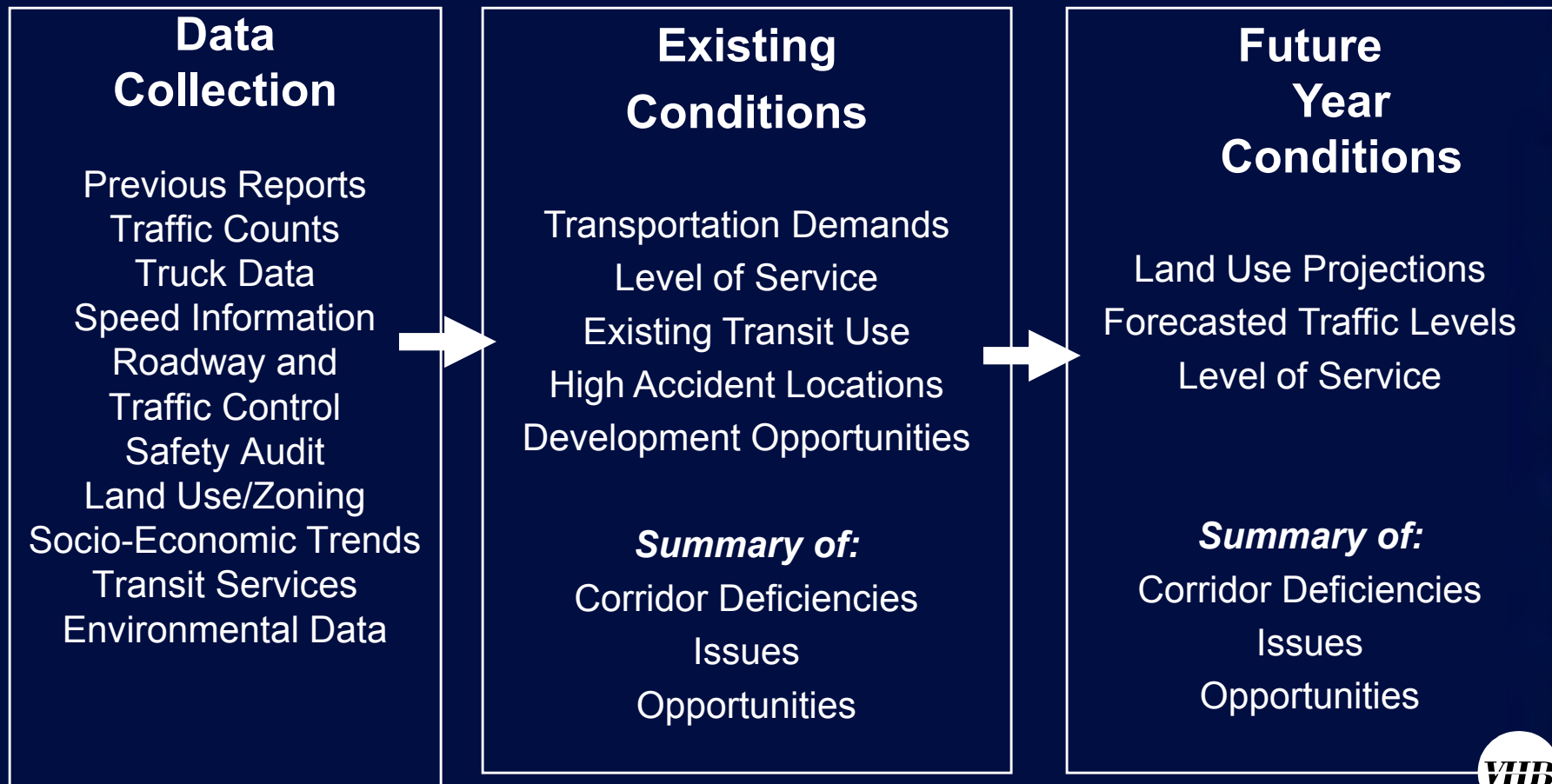
# Route 8 Deficiencies/Needs Study

## Study Area



# Route 8 Deficiencies/Needs Study

## Transportation Study Process

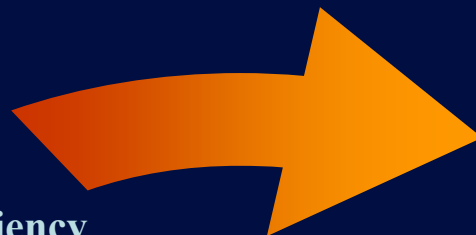


# Route 8 Deficiencies/Needs Study

## Alternatives Development / Refinement

### Define Existing/Future Deficiency

Safety  
Capacity  
Mobility



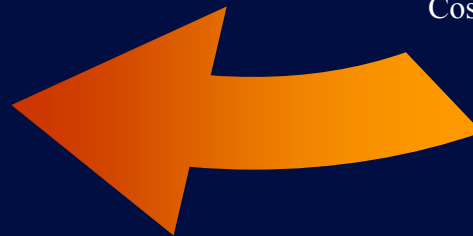
### Identify Alternatives

Traffic and Roadway Modifications  
Demand Management/Transit Options  
Intelligent Transportation Systems



### Preliminary Alternatives Screening

Planning Charrettes  
Cost Estimates/ Benefits



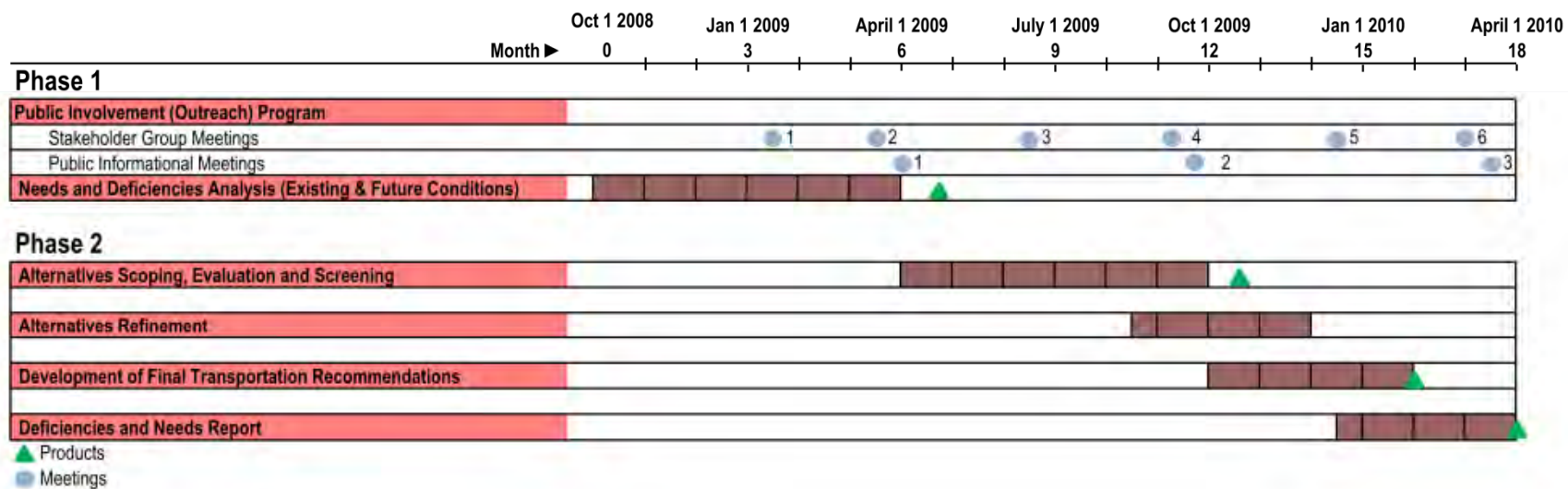
### Alternative Evaluation

Mobility/Safety  
Environmental  
Land Use/Economic  
Community Effects

# Route 8 Deficiencies/Needs Study

## Study Schedule

Connecticut Department of Transportation  
Route 8 Deficiencies and Needs Study (124-164)  
STUDY SCHEDULE



### Public Process

- Connecticut Department of Transportation
- Valley Council of Governments (VCOG)
- COG of Central Naugatuck Valley (COGCVN)
- Stakeholder Group



Local Outreach Meetings



Public Informational Meetings



# Route 8

## Deficiencies/Needs Study

### Summary of Existing Conditions

- Roadway Geometrics
- Structural Conditions
- Traffic Operations
- Transit Services
- Environmental Constraints
- Accident Analysis

# Route 8

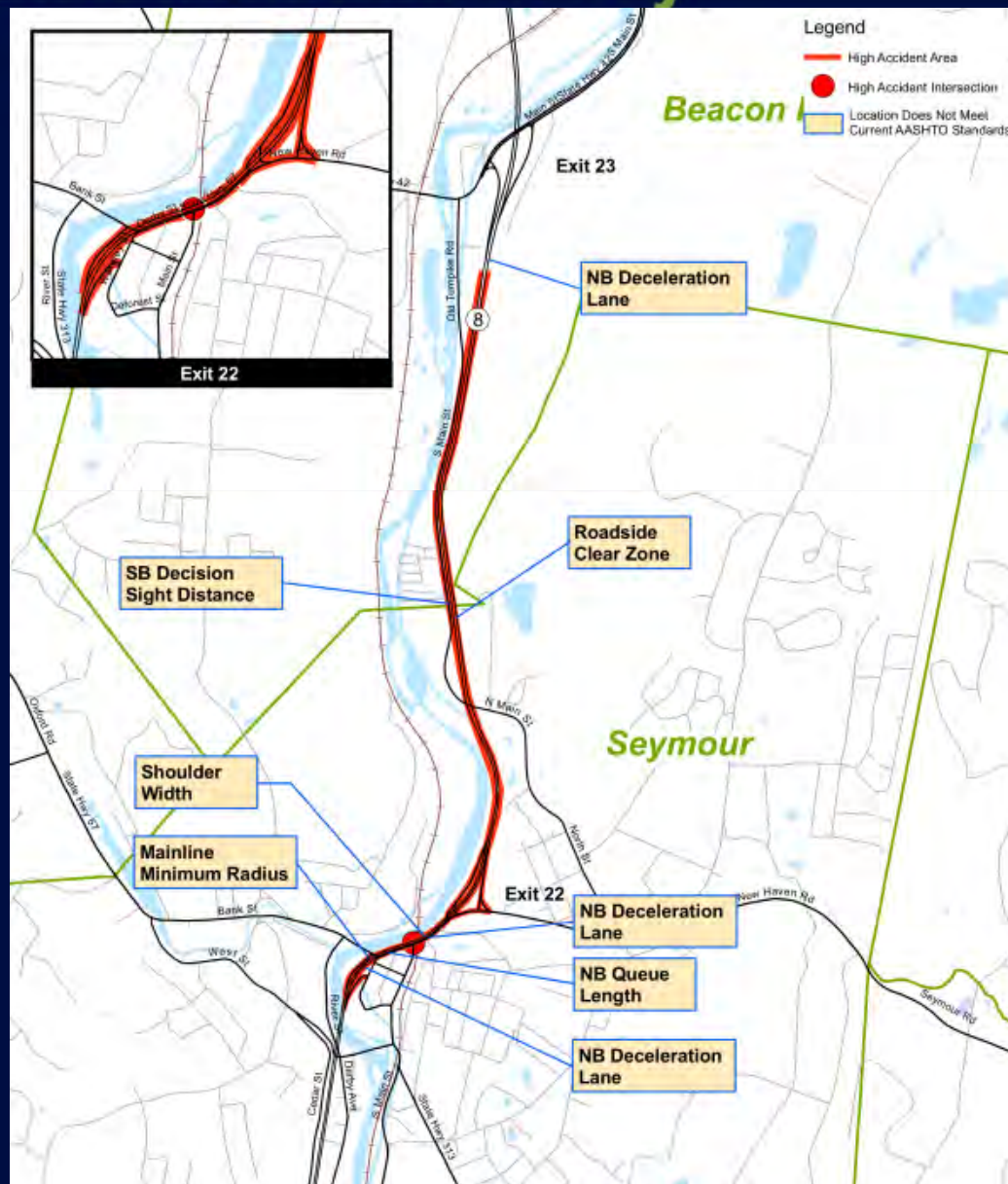
## Deficiencies/Needs Study

### Mainline Geometrics

- Inadequate deceleration and acceleration lengths
- Weaving locations
- Limited queuing distances at off ramps
- Excessive roadway curvature
- Narrow shoulder widths
- Inadequate decision sight distance at ramps

# Route 8 Deficiencies/Needs Study

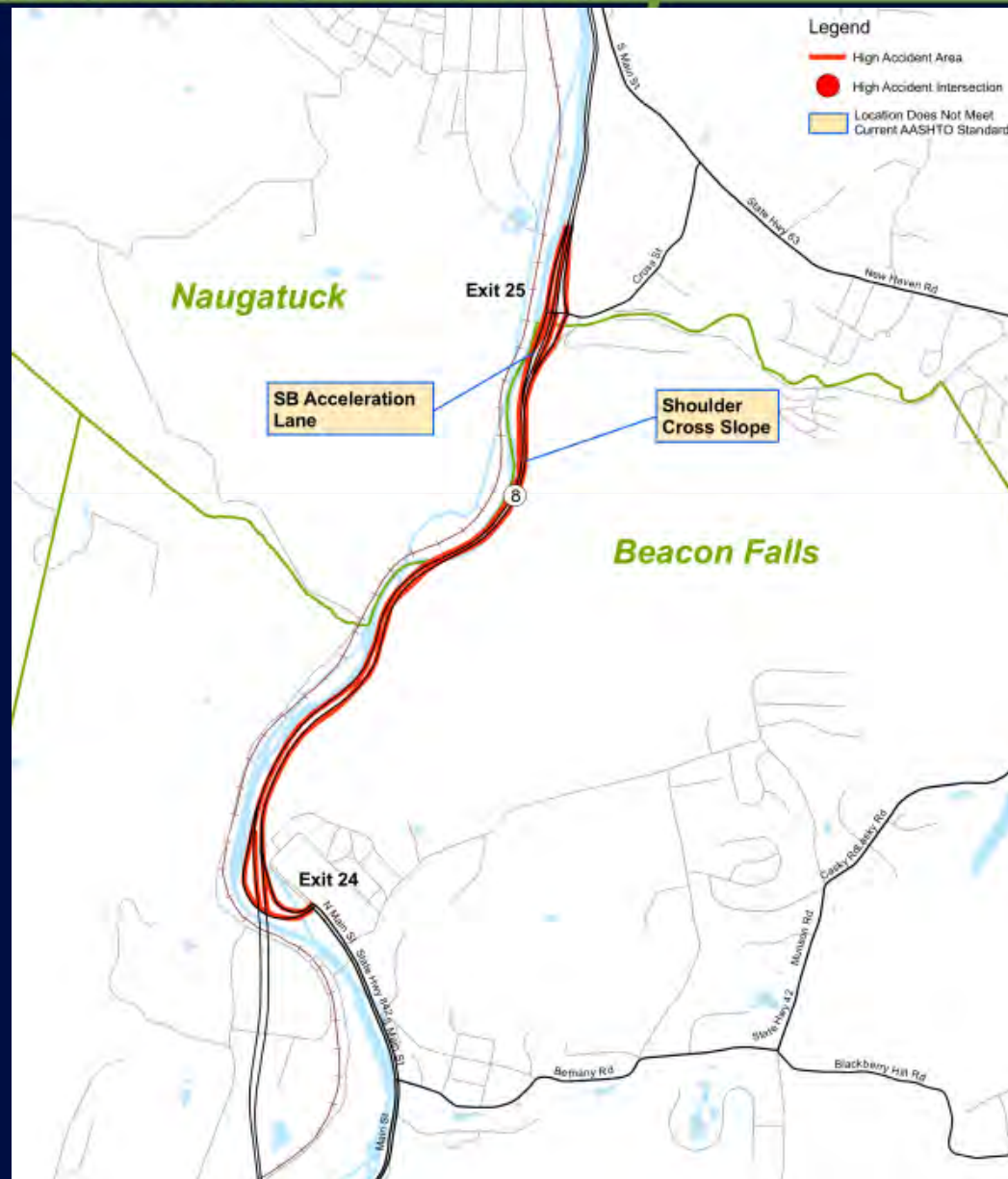
## Exits 22-23 Mainline Geometrics



# Route 8

## Deficiencies/Needs Study

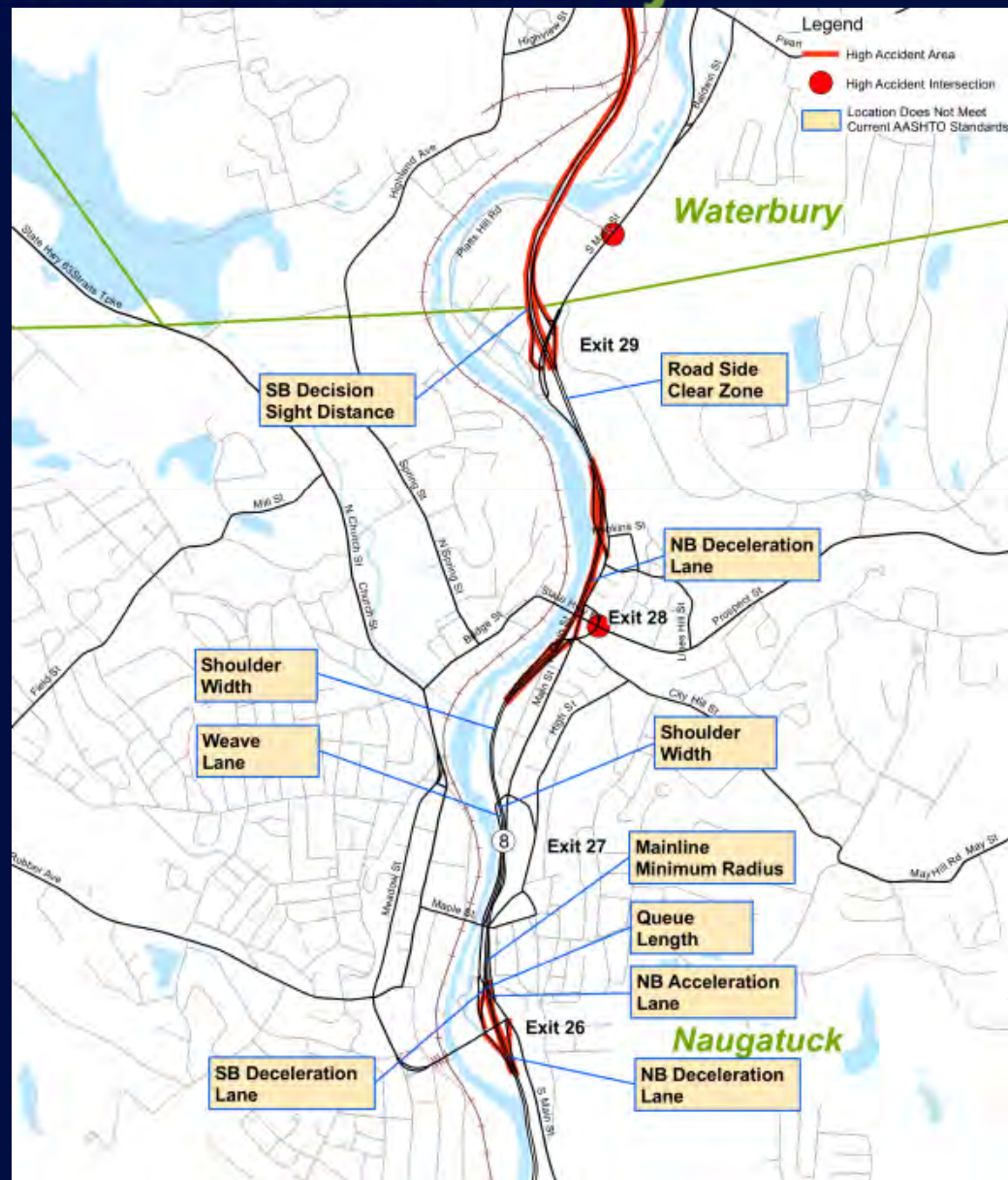
### Exits 24-25 Mainline Geometrics



# Route 8

## Deficiencies/Needs Study

### Exits 26-30 Mainline Geometrics



# Route 8

## Deficiencies/Needs Study

### Mainline Structures

- >50% of bridge structures have operational deficiencies
  - Noncompliant bridge railings, transitions and approach guardrails
- 25% of bridge structures provide inadequate vertical/horizontal clearances
- All bridges in fair to good physical condition

# Route 8

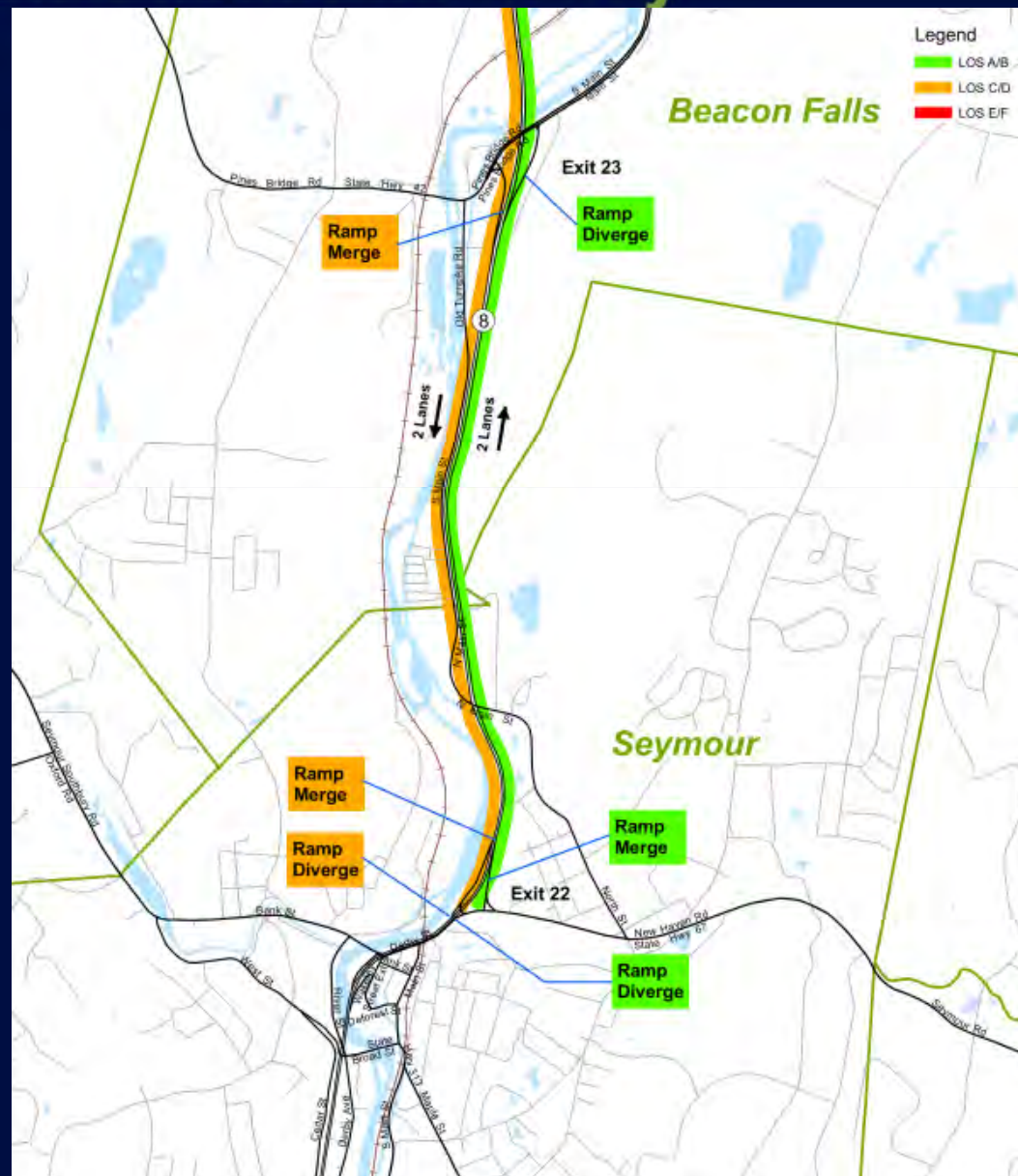
## Deficiencies/Needs Study

### Existing Traffic Operations

- Mainline
- Weaves
- Ramps
- Signalized Intersections
- Unsignalized Intersections

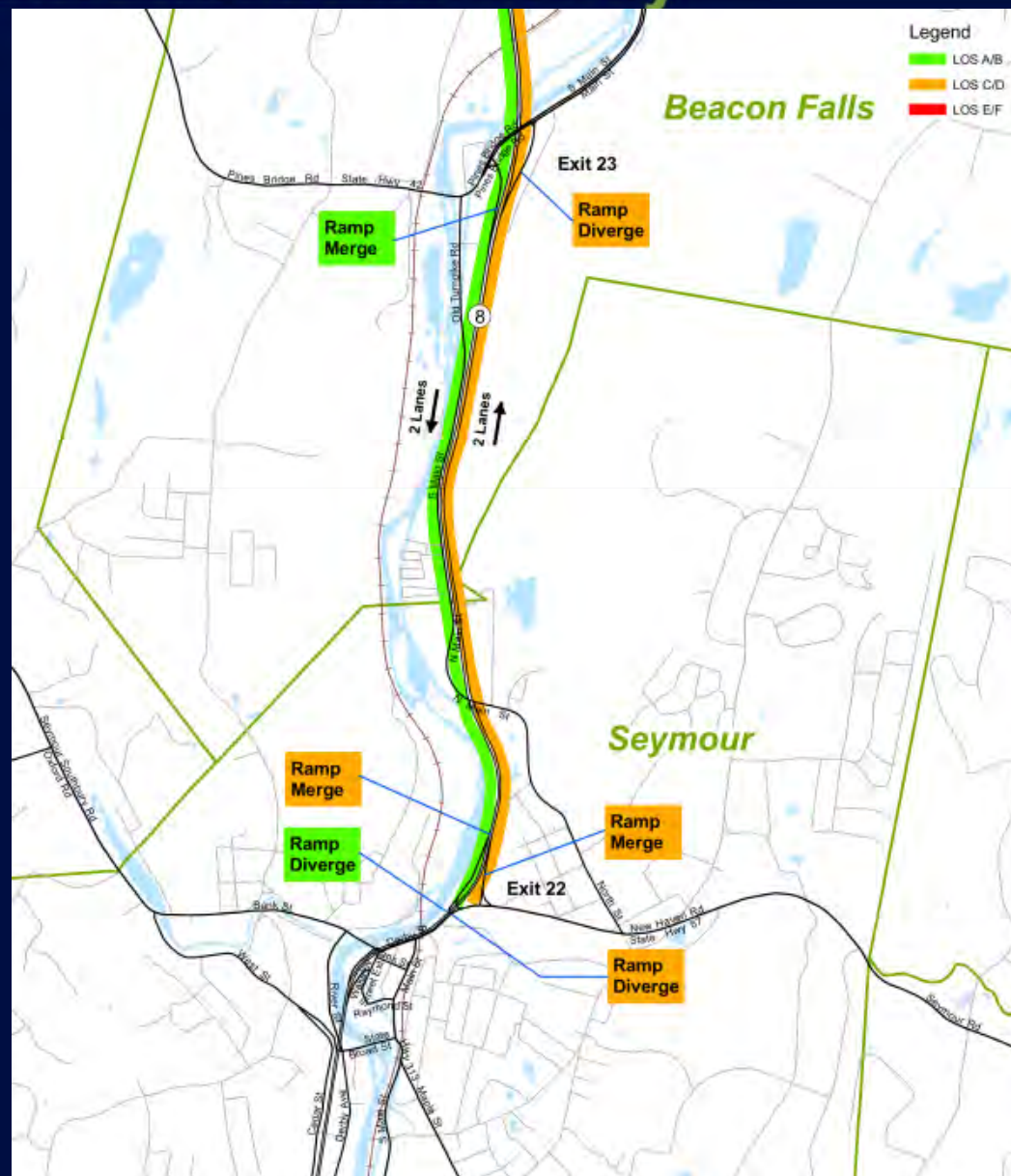
# Route 8 Deficiencies/Needs Study

Exits 22-23  
Mainline  
Ramps  
Weaves  
AM Peak  
(Year 2008)



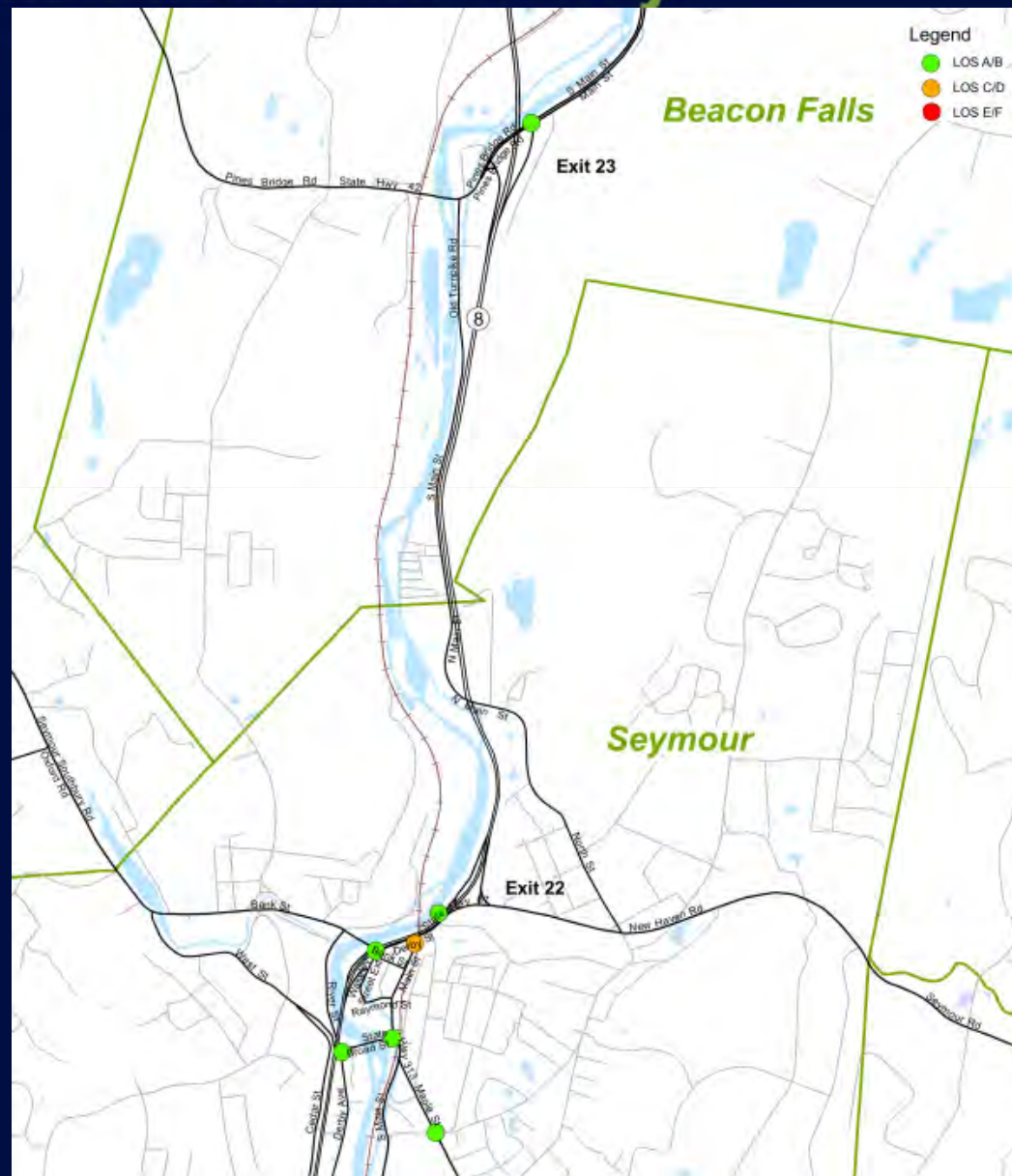
# Route 8 Deficiencies/Needs Study

Exits 22-23  
Mainline  
Ramps  
Weaves  
PM Peak  
(Year 2008)



# Route 8 Deficiencies/Needs Study

Exits 22-23  
Signalized  
Intersections  
AM Peak  
(Year 2008)



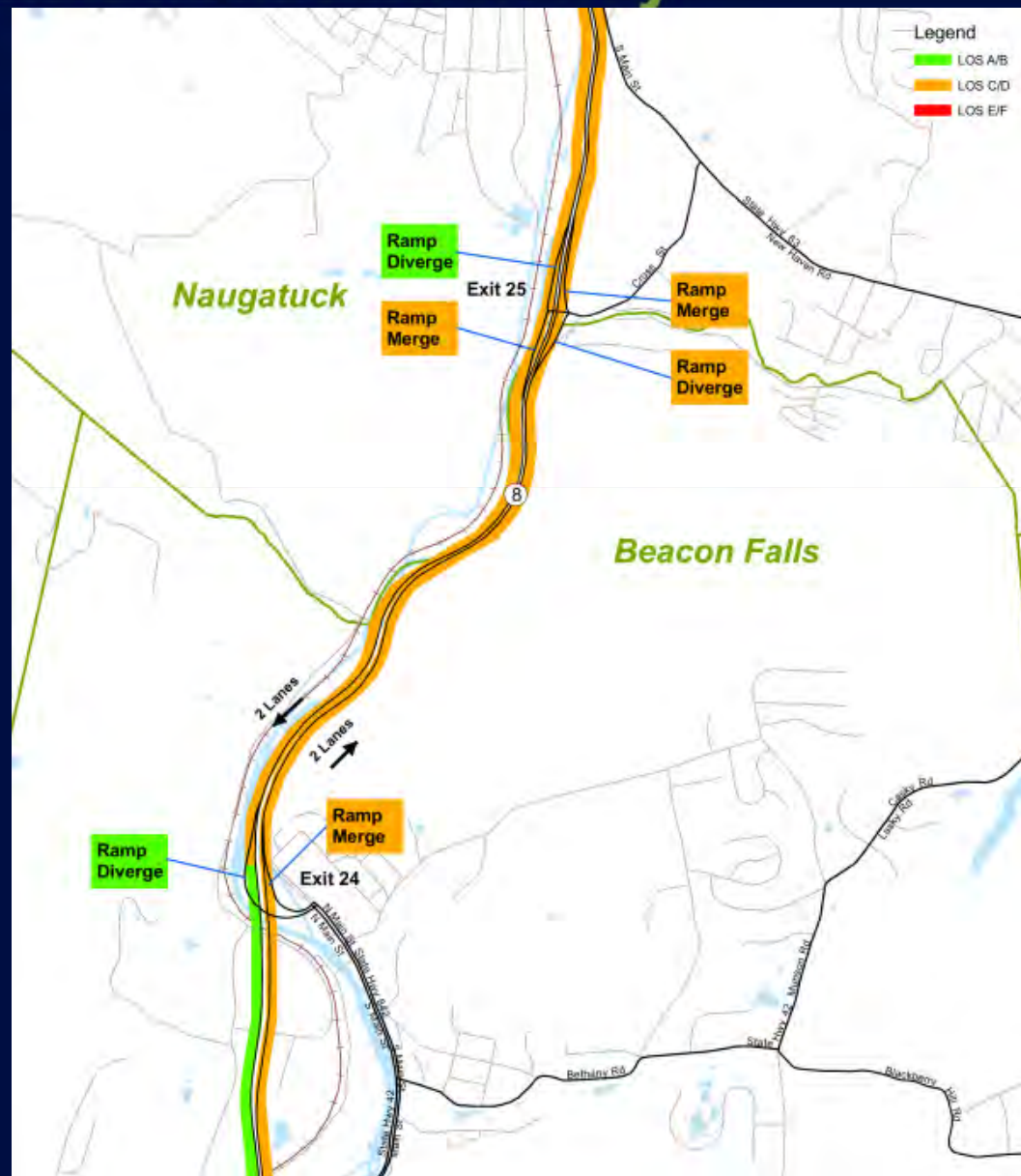




# Route 8

## Deficiencies/Needs Study

Exits 24-25  
Mainline  
Ramps  
Weaves  
PM Peak  
(Year 2008)

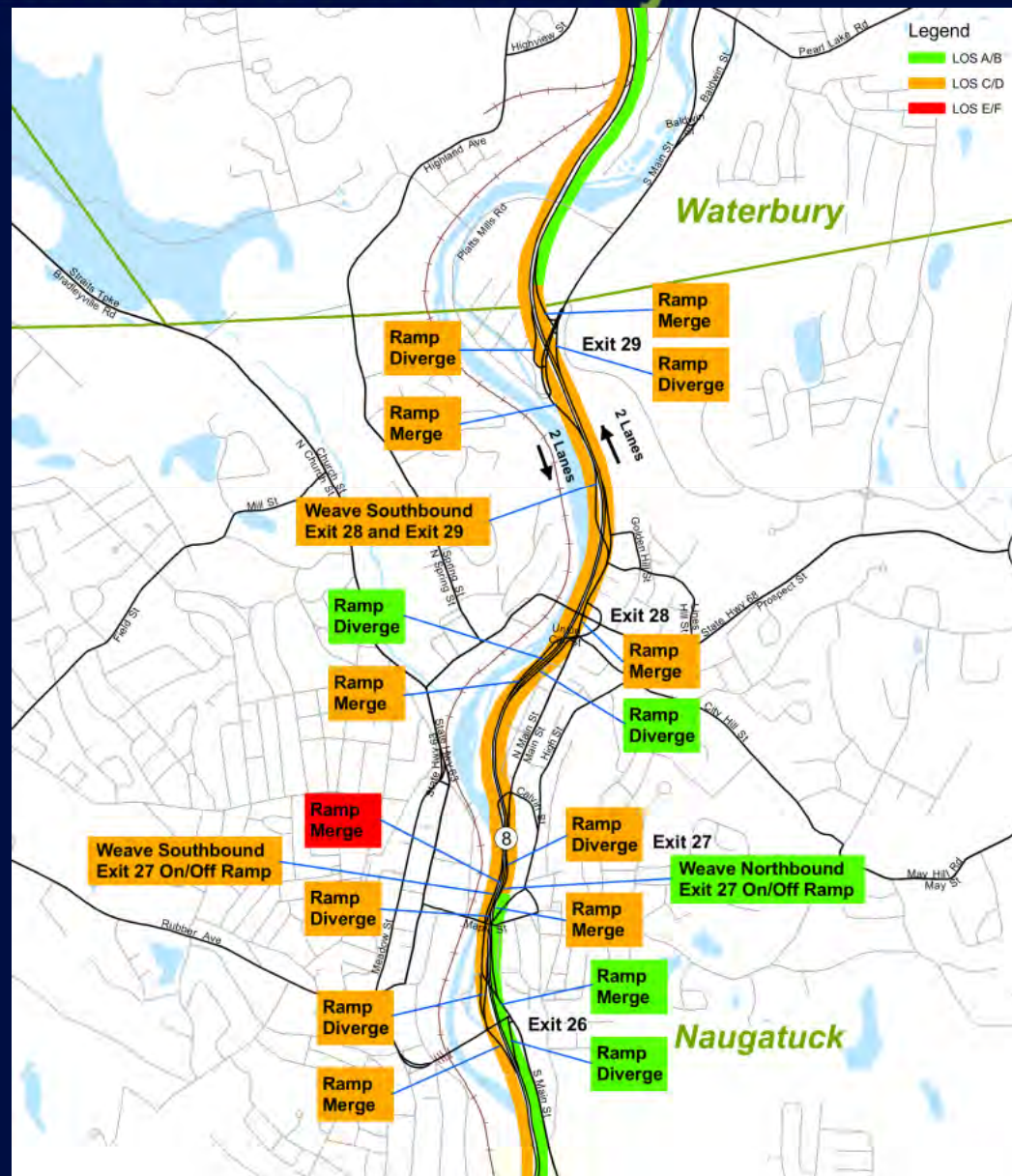






# Route 8 Deficiencies/Needs Study

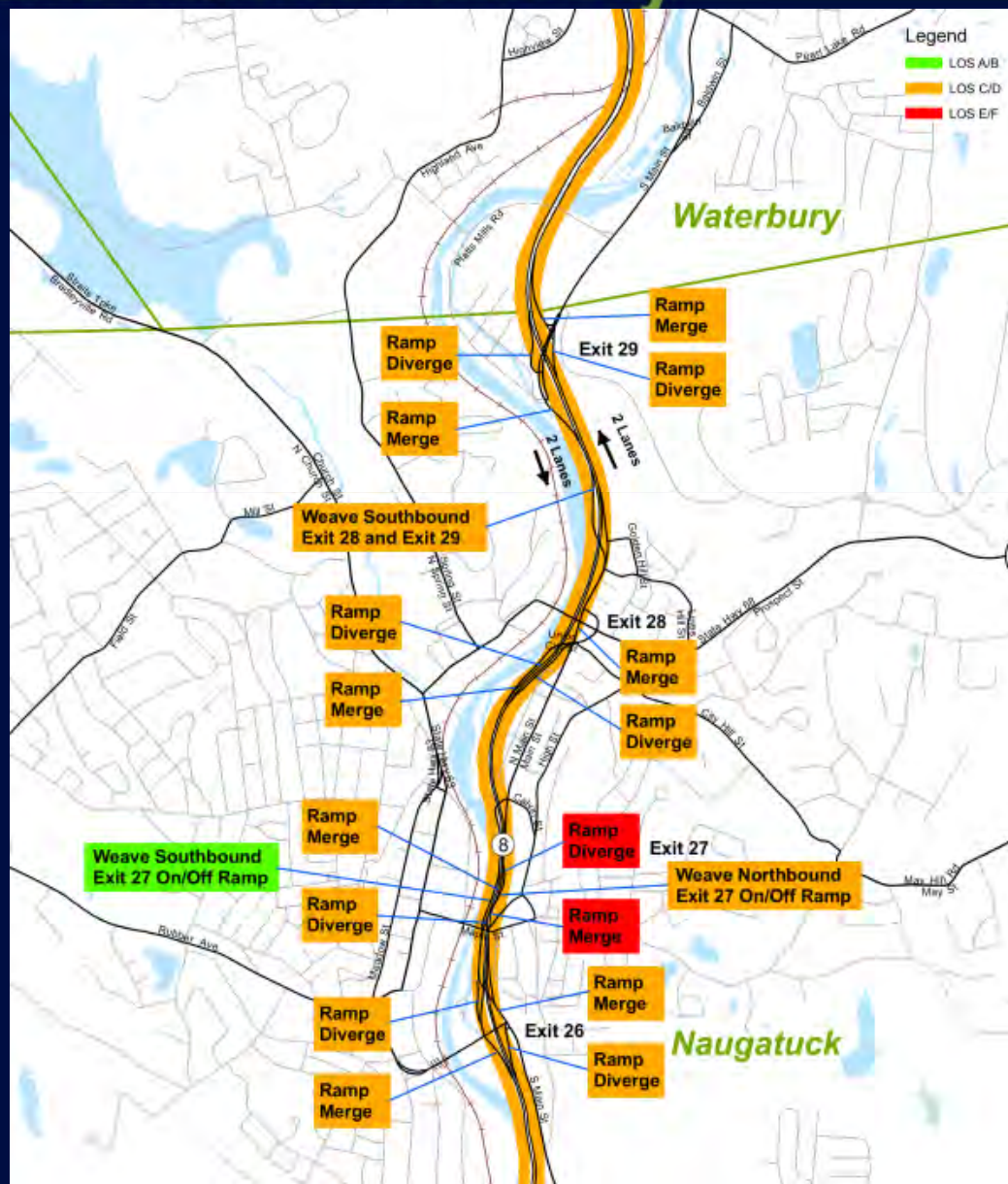
Exits 26-30  
Mainline  
Ramps  
Weaves  
AM Peak  
(Year 2008)



# Route 8

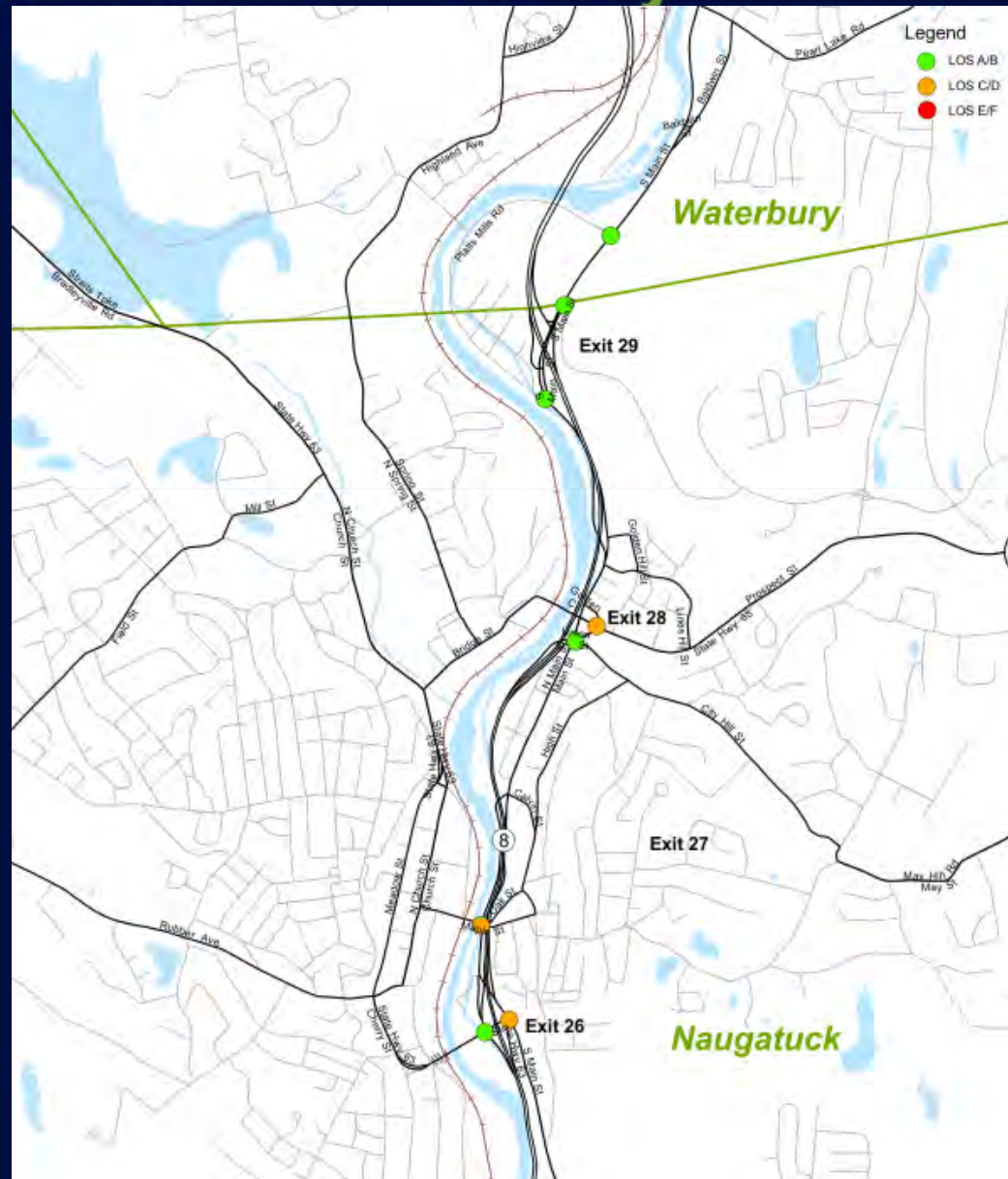
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Exits 26-30  
Mainline  
Ramps  
Weaves  
PM Peak  
(Year 2008)



# Route 8 Deficiencies/Needs Study

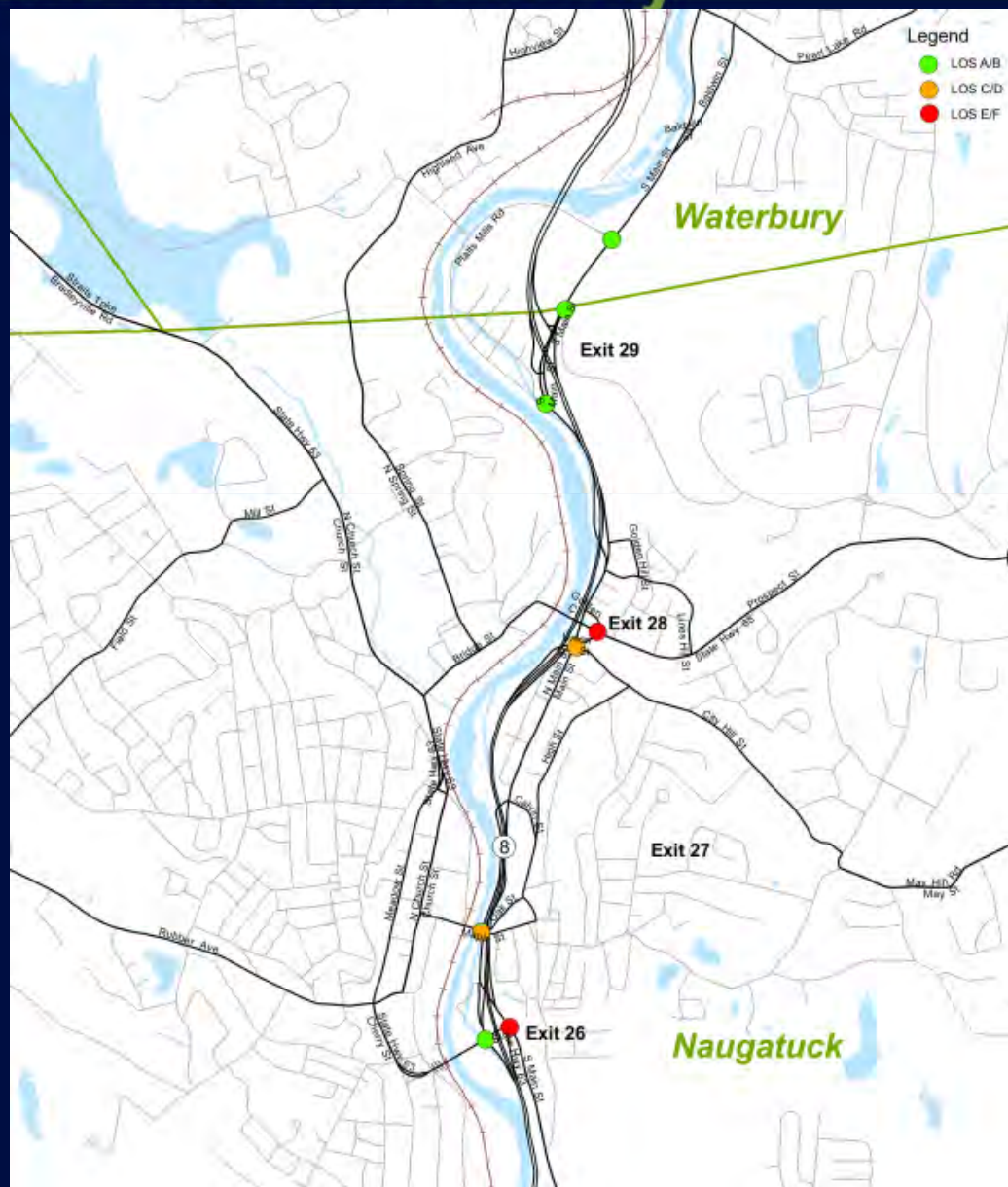
Exits 26-30  
Signalized  
Intersections  
AM Peak  
(Year 2008)



# Route 8

## Deficiencies/Needs Study

Exits 26-30  
Signalized  
Intersections  
PM Peak  
(Year 2008)



# Route 8 Deficiencies/Needs Study

## Summary of Deficient Locations

Summary of Deficient Locations (LOS E or F)			
	Total Locations Reviewed	Morning Peak Hour	Evening Peak Hour
		2008	2008
Mainline			
Northbound	9	-	-
Southbound	9	-	-
Ramps			
Northbound	14	-	2
Southbound	14	2	-
Weaves	3	-	-
Signalized Intersections	16	-	3
Unsignalized Intersections	17	1	1

# Route 8

## Deficiencies/Needs Study

### Transit Services (to be completed)

- Compile available transit data:
  - Routes
  - Schedules
  - Ridership
  - Station/Stop locations
- Bus & rail service performance measures
- Identify opportunities for enhanced transit

# Route 8

## Deficiencies/Needs Study

### Environmental Conditions (to be completed)

- Compile available environmental data:
  - Land Use & ROW
  - Surface & Underground Water Resources
  - Wetlands
  - Cultural Resources
- Identify constraints in anticipation of the evaluation of Alternatives

# Route 8 Deficiencies/Needs Study

## Accident Analysis (1/1/2005-12/31/2007)

- 873 Accidents
- 11% involved Trucks
- 35% occurred during wet conditions
- 30% reported “Speed Too Fast For Conditions”
- 55% were “Fixed Object” type

# Route 8

## Deficiencies/Needs Study

### Summary of Future Conditions

- Population growth
- Traffic growth
- Traffic operations

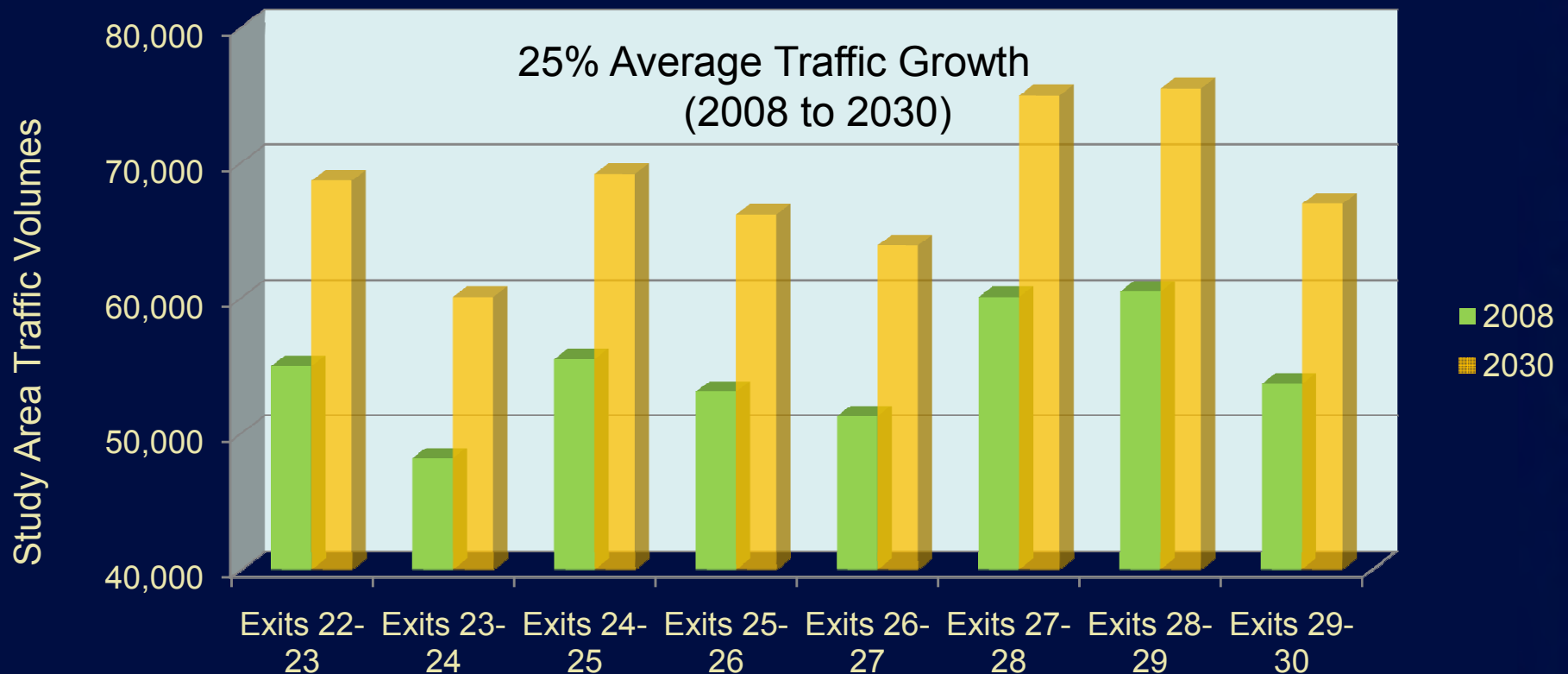
# Route 8 Deficiencies/Needs Study

## Study Area Demographics

Municipality	2008 Population	2030 Population	% Change
Seymour	14,700	16,900	14.9%
Beacon Falls	6,000	7,400	23.3%
Naugatuck	32,400	35,900	10.8%
Waterbury	107,400	107,400	0%

# Route 8 Deficiencies/Needs Study

## Route 8 Corridor Traffic Growth



# Route 8

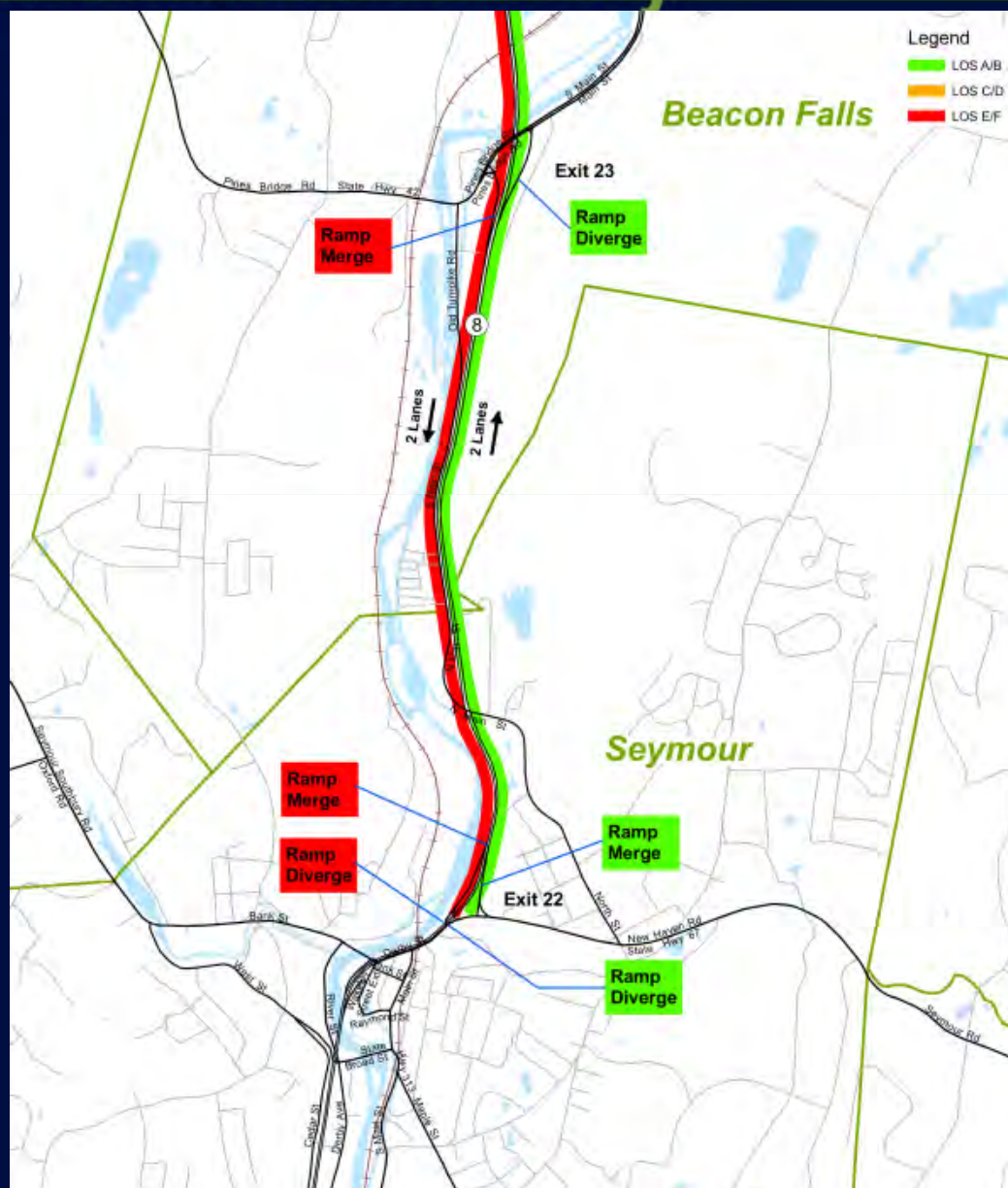
## Deficiencies/Needs Study

### Future Traffic Operations

- Mainline
- Weaves
- Ramps
- Signalized Intersections
- Unsignalized Intersections

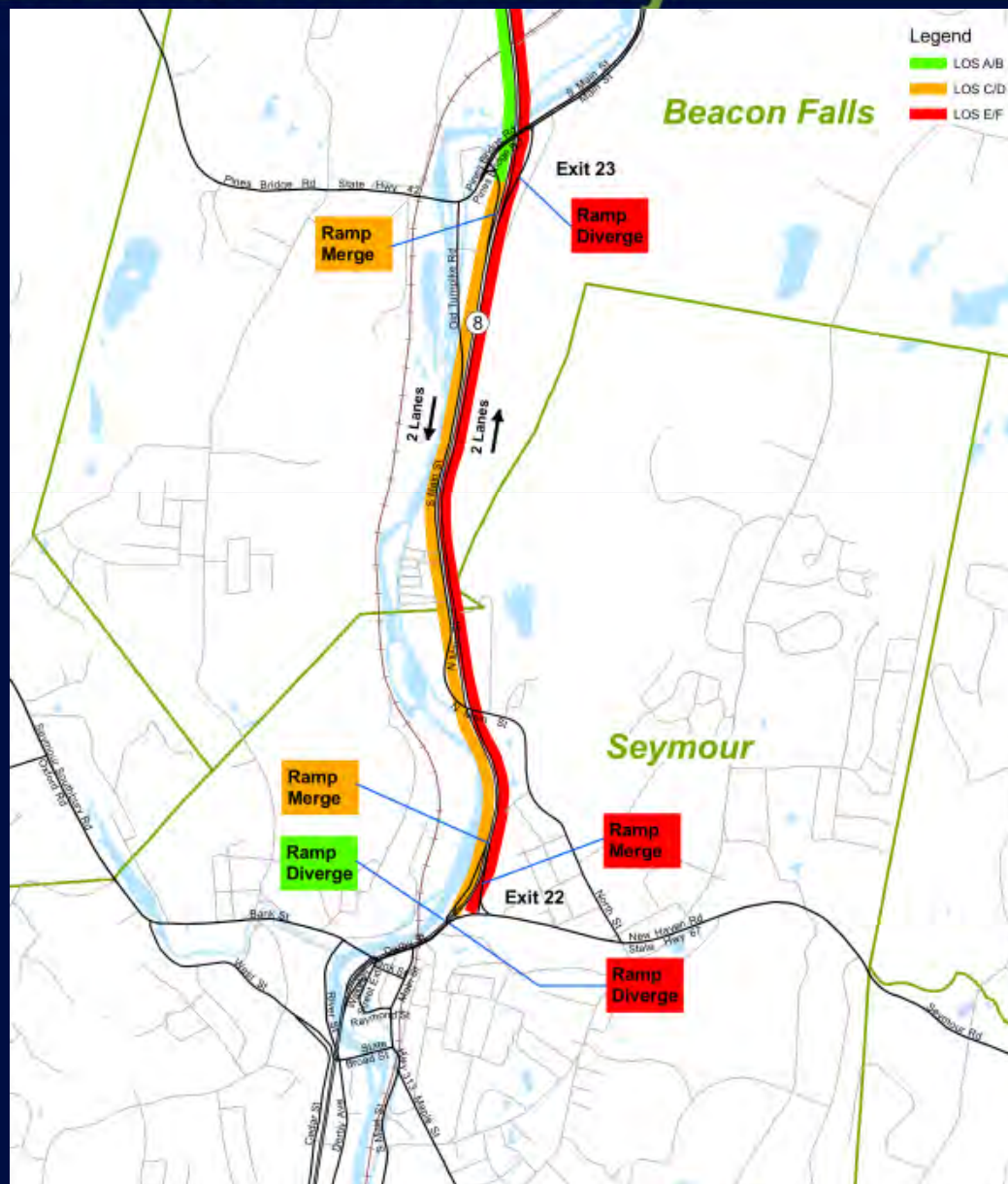
# Route 8 Deficiencies/Needs Study

Exits 22-23  
Mainline  
Ramps  
Weaves  
AM Peak  
(Year 2030)



# Route 8 Deficiencies/Needs Study

Exits 22-23  
Mainline  
Ramps  
Weaves  
PM Peak  
(Year 2030)

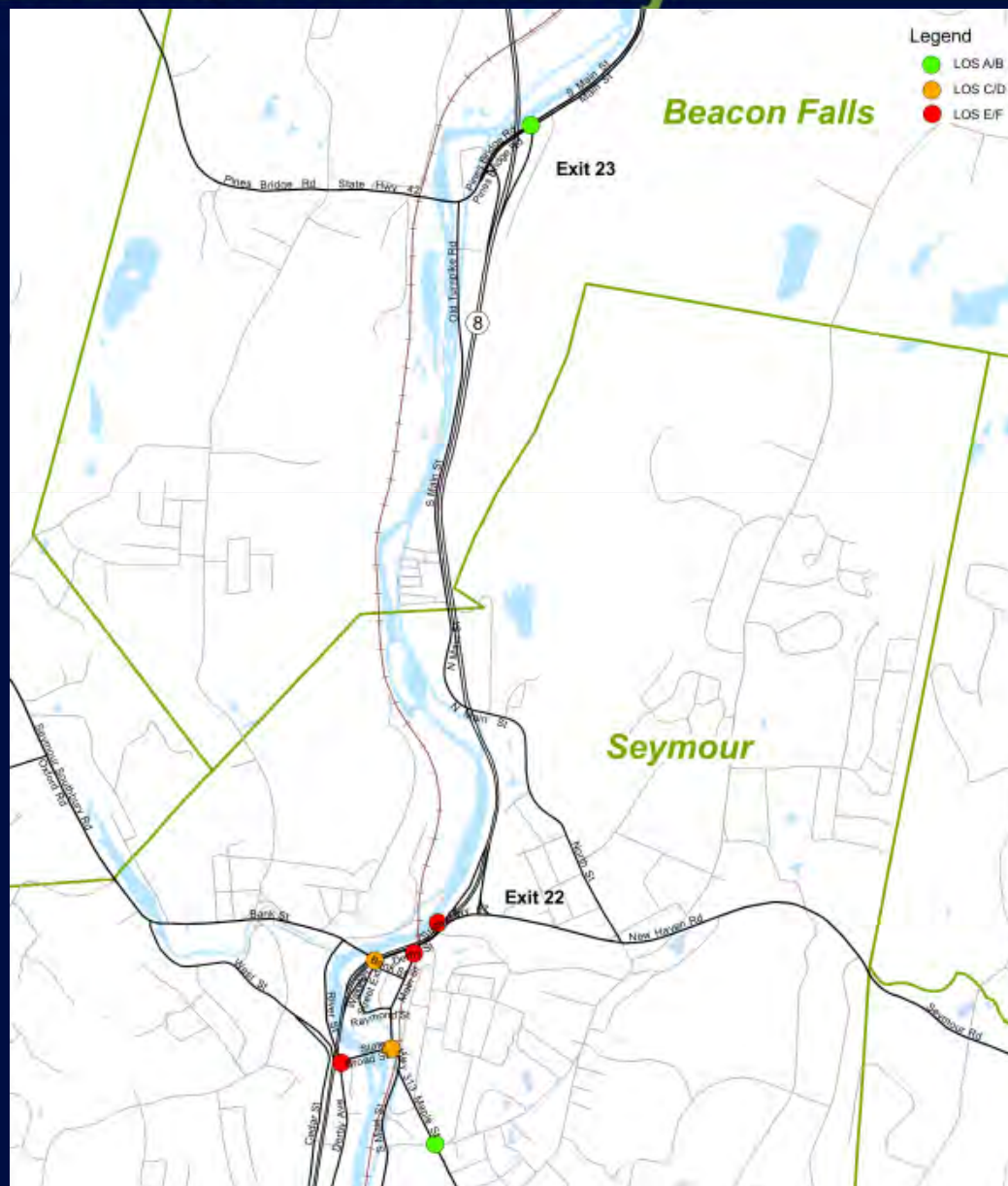




# Route 8

## Deficiencies/Needs Study

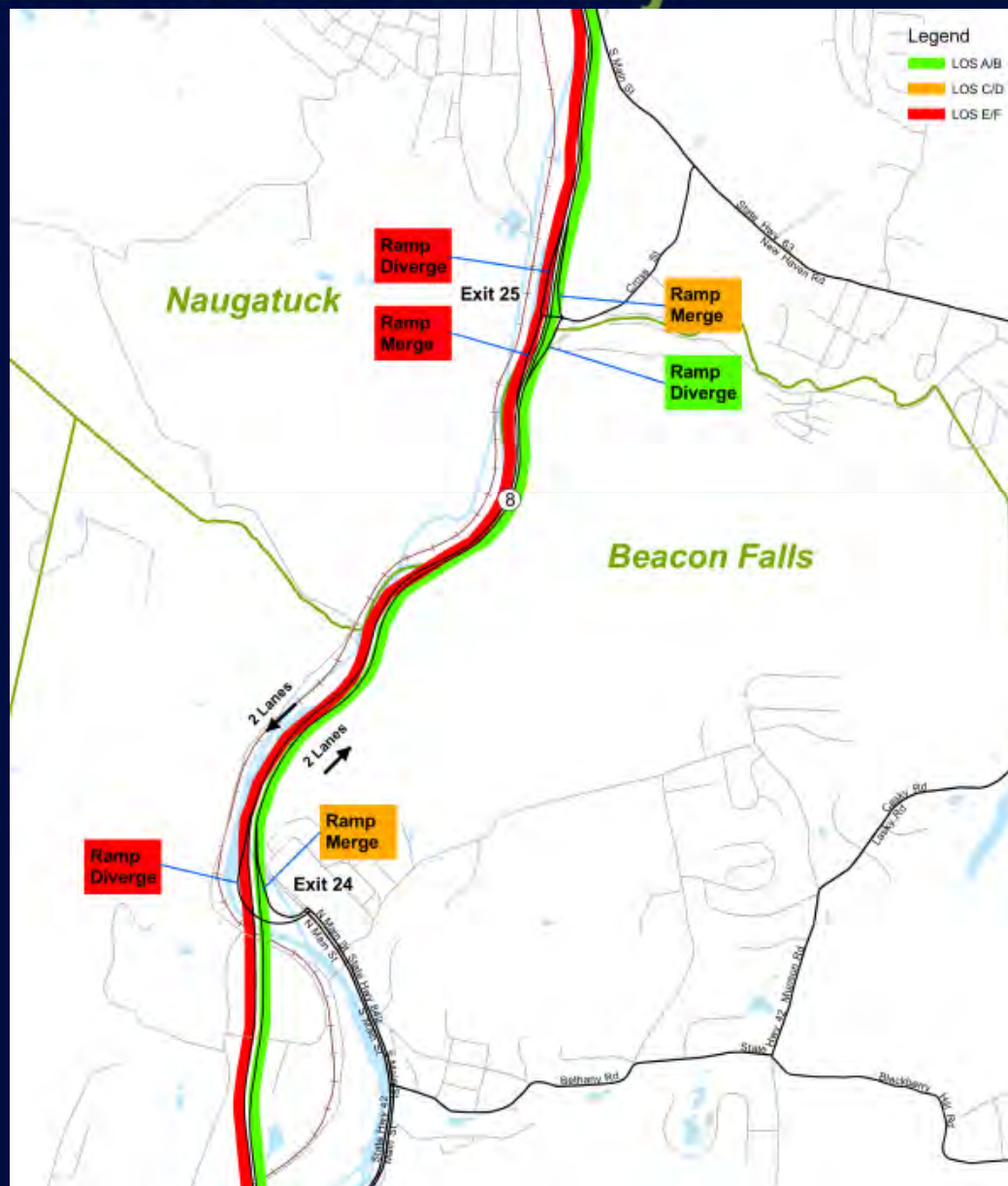
Exits 22-23  
Signalized  
Intersections  
PM Peak  
(Year 2030)



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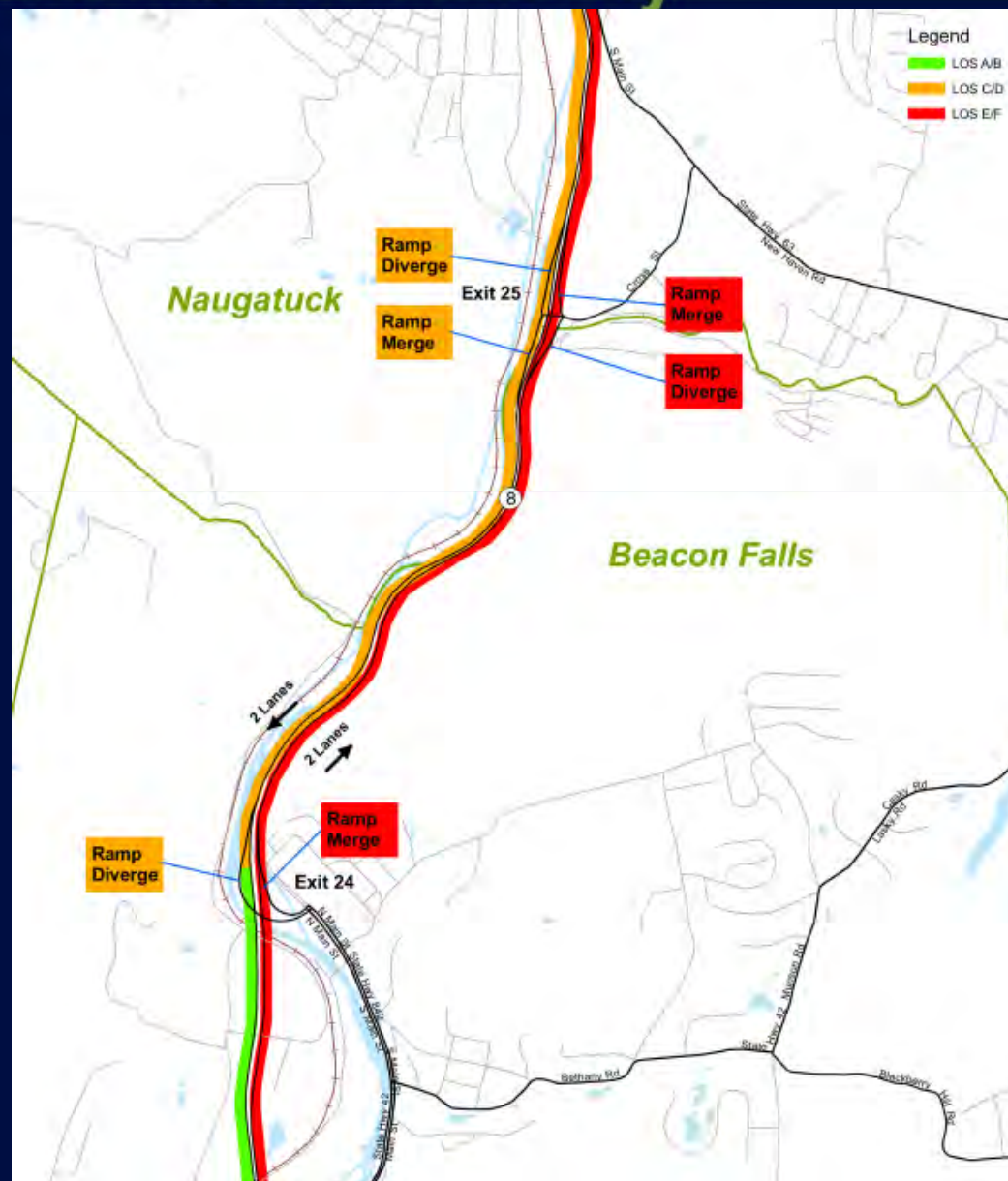
## Deficiencies/Needs Study

Exits 24-25  
Mainline  
Ramps  
Weaves  
AM Peak  
(Year 2030)



# Route 8 Deficiencies/Needs Study

Exits 24-25  
Mainline  
Ramps  
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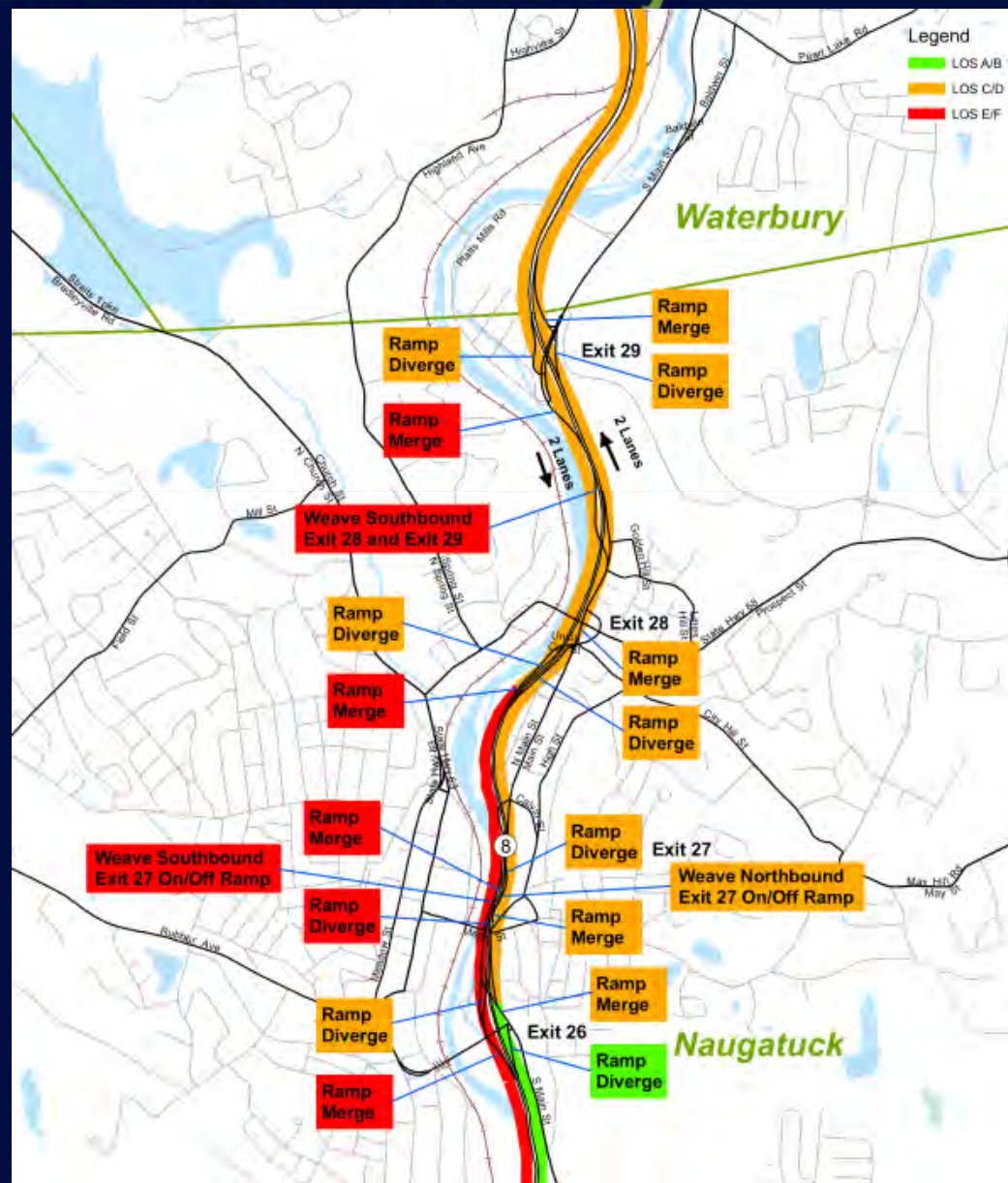




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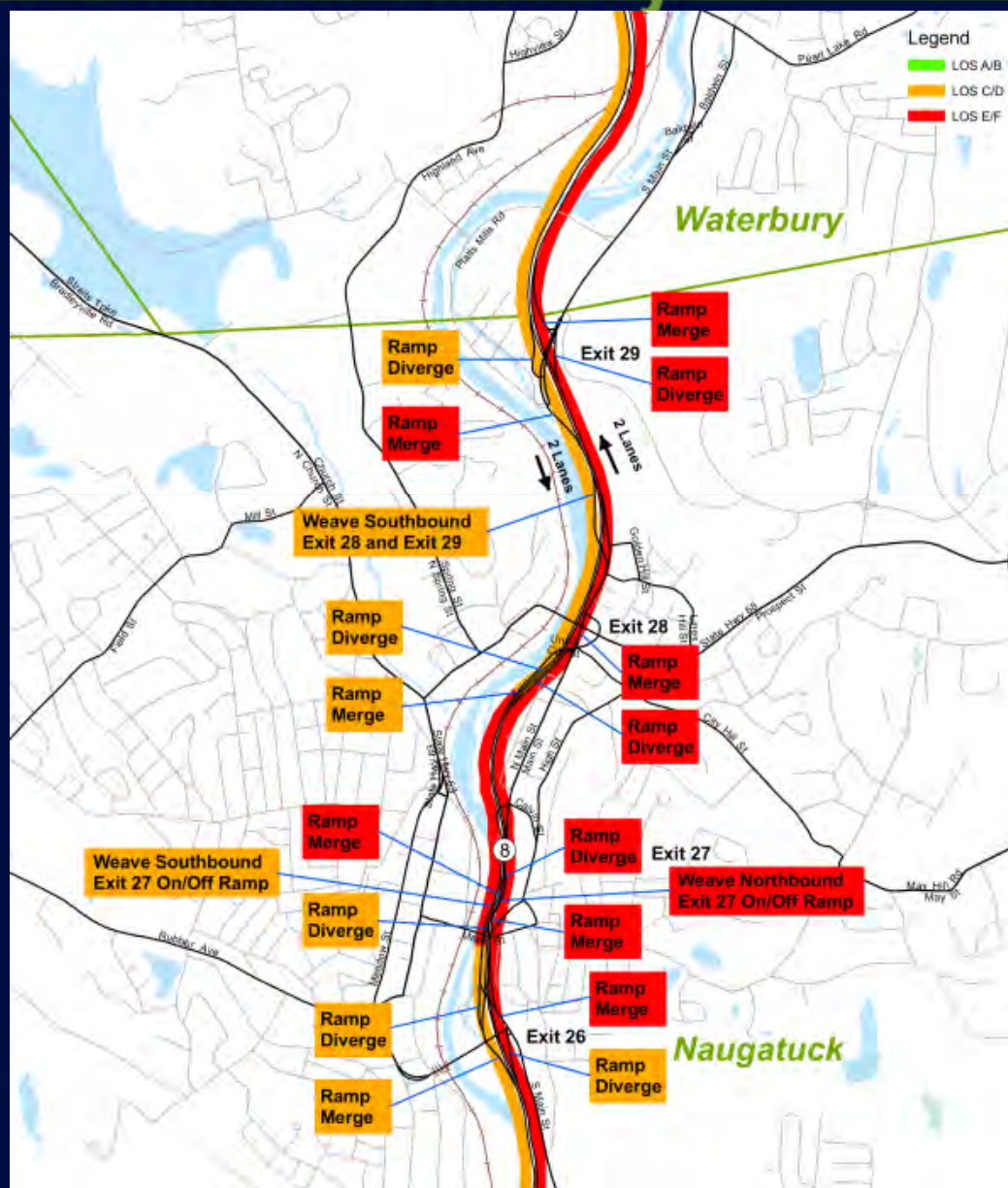
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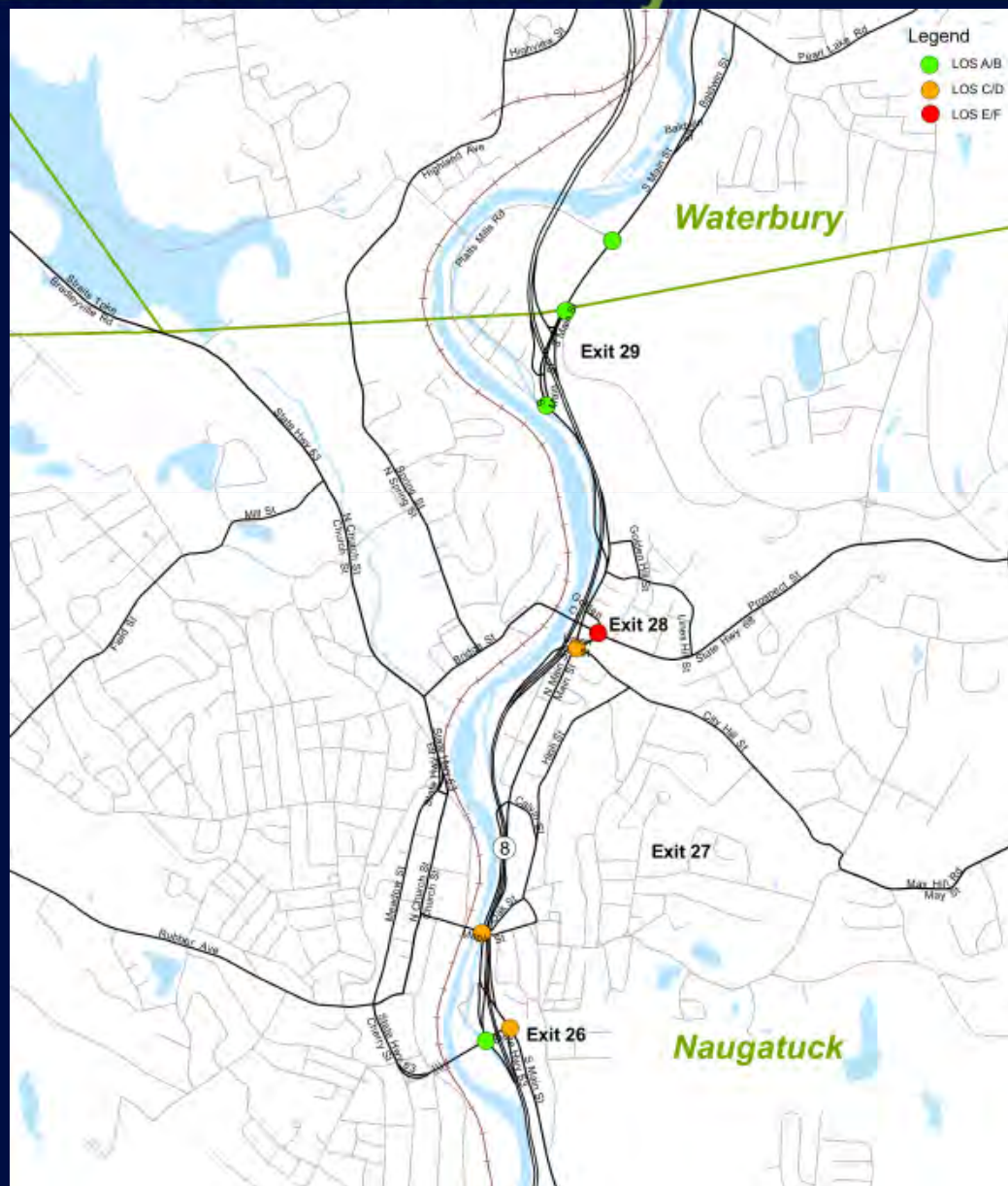
Exits 26-30  
Mainline  
Ramps  
Weaves  
PM Peak  
(Year 2030)



# Route 8

## Deficiencies/Needs Study

Exits 26-30  
Signalized  
Intersections  
AM Peak  
(Year 2030)





# Route 8 Deficiencies/Needs Study

## Existing vs. Future Traffic Operations

**Summary of Deficient Locations (LOS E or F)**

	Total Locations Reviewed	Morning Peak Hour		Evening Peak Hour	
		2008	2030	2008	2030
Mainline					
Northbound	9	-	-	-	8
Southbound	9	-	6	-	1
Ramps					
Northbound	14	-	-	2	13
Southbound	14	2	11	-	2
Weaves	3	-	2	-	1
Signalized Intersections	16	-	2	3	7
Unsignalized Intersections	17	1	2	1	5

# Route 8 Deficiencies/Needs Study

## Stakeholder Group Input

- Existing Conditions
- Future Conditions
- Other Issues

Study Website

[www.route8study.com](http://www.route8study.com)



# Route 8 Deficiencies/Needs Study

## Current Initiatives

- Route 67/42 Connector Road Study
- I-84/Route 8 Waterbury Interchange Needs Study
- Waterbury Branch Line Needs and Feasibility Study

# Route 8

## Deficiencies/Needs Study

### Next Steps

- Inventory Transit Services
- Identify Environmental Constraints
- Alternatives Scoping, Evaluation and Screening
- Alternatives Refinement
- Development of Final Transportation Recommendations
- Deficiencies and Needs Report