

# The New Mix: Long-term Plan for the I-84 - Route 8 “Mixmaster” Interchange



**HNTB**

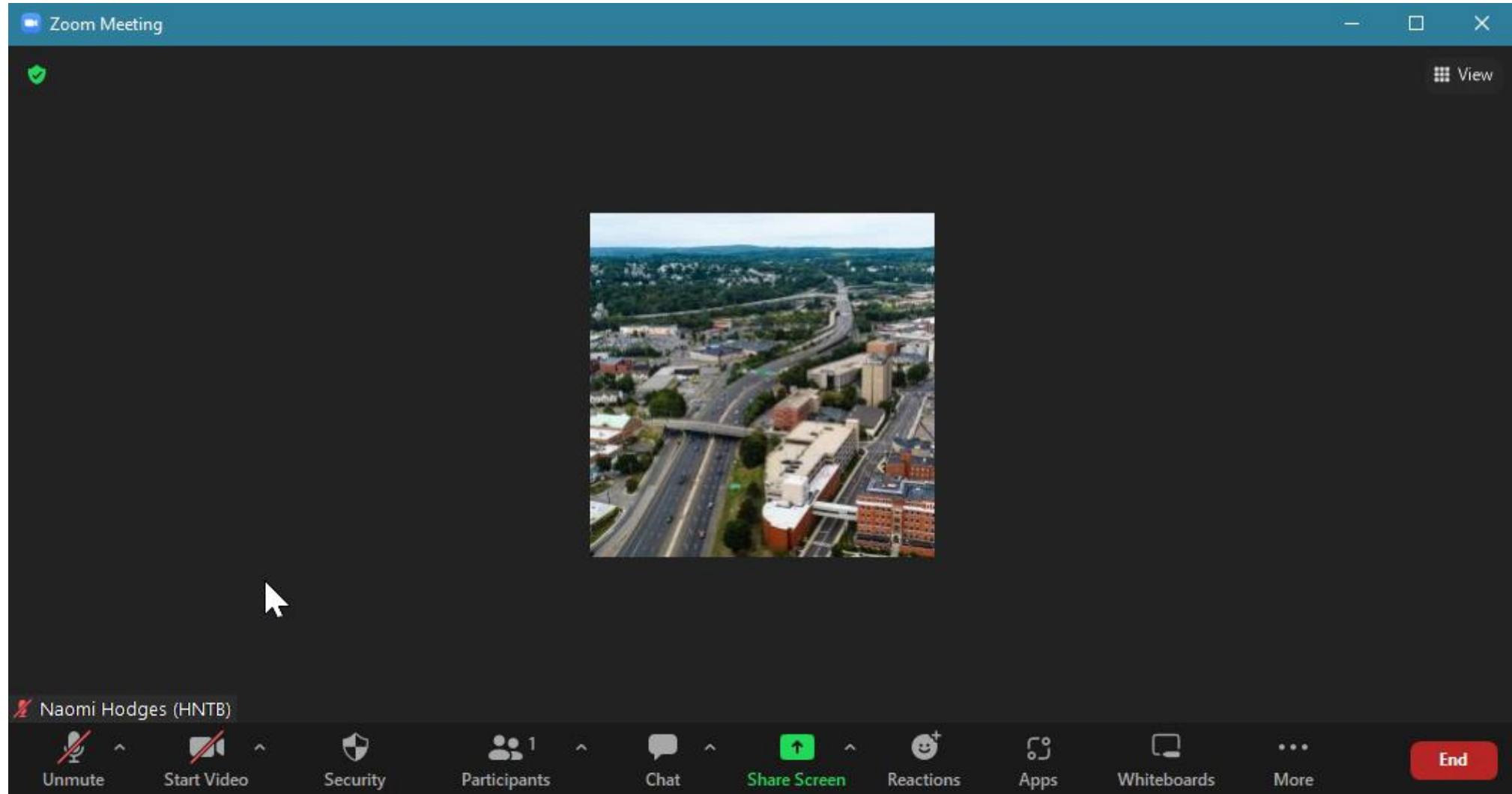
**84**new  
mix

# Welcome!



**HNTB**

# How To Zoom: Camera, Mute, Chat, & Raise Hand



## How To Zoom: Select Real-Time Translation

Real Time Translation:

# Zoom Meeting Protocols

To ensure meetings are productive, friendly, and efficient, we request that attendees adhere to the following:

- Use respectful language & standard, professional meeting decorum.
- Remain muted when not speaking.
- Hold questions until after the presentation.
- Please note that if a backlog of pending questions and/or comments occurs we will ask that attendees limit initial comments to 2 minutes so that everyone has a chance to speak. Once everyone has had the opportunity to speak, we will then allow attendees who have additional comments more time.



# The *New Mix* Leadership Team



## Connecticut Department of Transportation

- Nilesch Patel, PE, Principal Engineer
- Scott Roberts, PE, Project Manager
- Jonathan Dean, PE, Project Manager
- Joe Belrose, EIT, Project Engineer

## HNTB Corporation

- Jacob Argiro, PE, Project Manager
- David Schweitzer, PE, Deputy Project Manager
- Chris Fagan, PE, Project Engineer
- Naomi Hodges, Environmental Lead
- Anna Mariotti, Public Information & Involvement



# Agenda



- Introduction
- Public Involvement Overview
- Historical and Community Context
- New Mix Project Overview
- Planning and Environmental Linkages (PEL) & PEL Study Progress
- Next Steps
- Questions & Comments

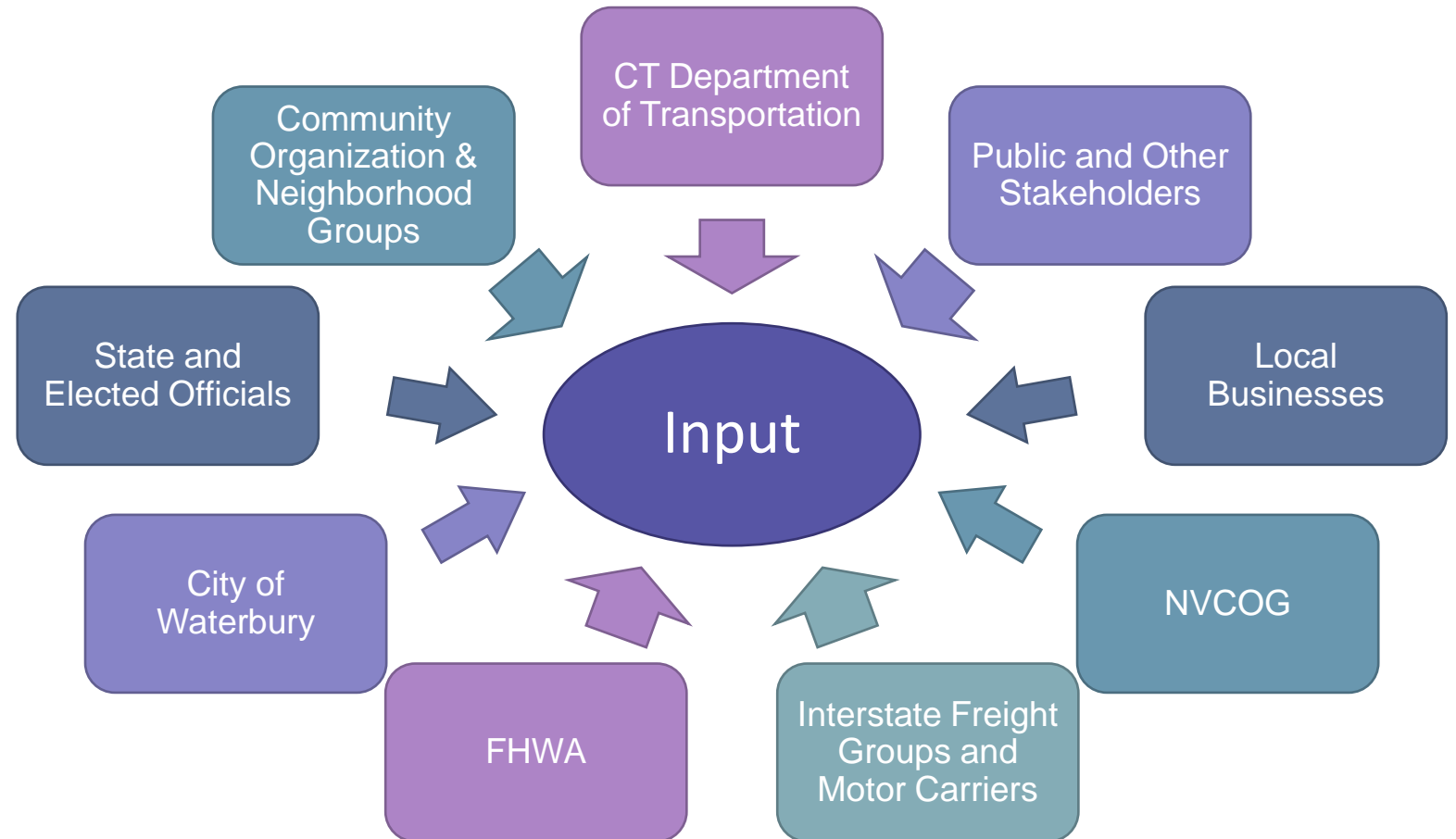
# Public Involvement & Information



# *The New Mix* PEL Study Participation

## Public & Stakeholder Outreach Includes

- Mayor of Waterbury
- Waterbury Board of Alders
- NVCOG
- City Department Heads
- Neighborhood organizations
- Chamber of Commerce & Economic Development
- Large Employers
- Environmental Groups
- Community Organizations
- Title VI & Environmental Justice populations



Recordings of all PAC Meetings can be found at:  
[www.newmixwaterbury.com/public-involvement/project-advisory-committee/](http://www.newmixwaterbury.com/public-involvement/project-advisory-committee/)

# *The New Mix* PEL Study: Outreach Methods



Communication methods will be multi-faceted and include:

- Newsletters & updates via email (including sharing such information through community organizations)
- Social Media
- Project website with question & comment forms
- Public meetings
- Project Advisory Committee

# Title VI - Civil Rights

- Demographic Survey appreciated:  
<https://bit.ly/CTDOT-Feedback>
- Civil Rights flyer available:  
<https://bit.ly/CTDOTCivilRights>
- No Person shall, on the basis of race, color or national origin, be excluded from participation or subject to discrimination in the development of this project.



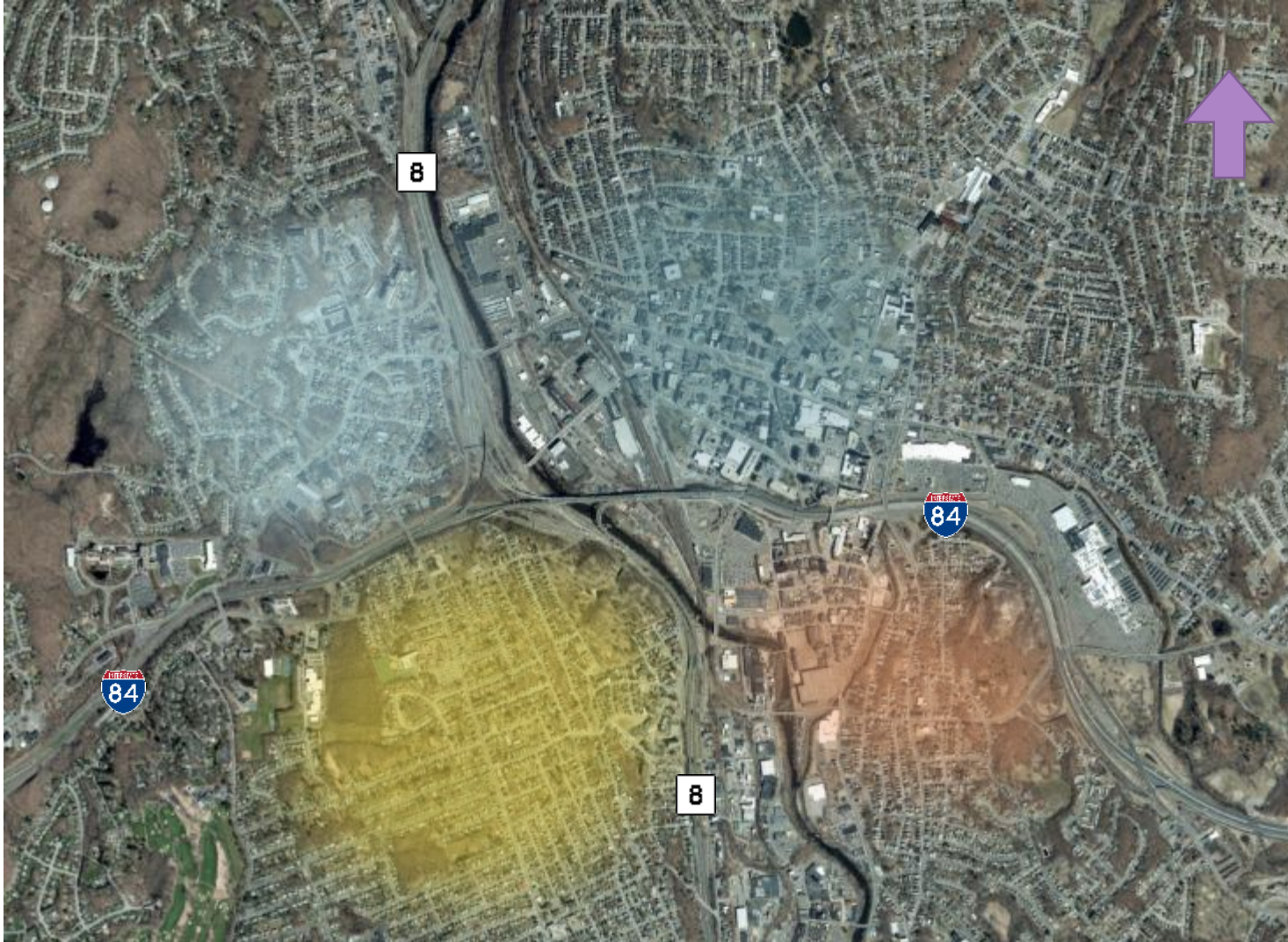
# Transportation & Development in Waterbury: Historical & Community Context





# Community Context

## Historic Development Patterns: 1960 – Today



## The Interchange Today

I-84 and Route 8 divide Waterbury into quadrants

Highway development = “progress”

- I-84 and Route 8 construction created permanent and continuous barriers
- Loss of connectivity
- Reliance on personal automobiles
- Recurring congestion



# Mixmaster History (Original Construction)

- Series of 10-12 projects had to be done in order to complete the initial structure of the Mixmaster, at an approximate cost of \$48M, with construction projects spanning from 1962-1981.



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mix



# Rehabilitation of Mixmaster

- 5 rehabilitation projects 1988-2020

## ***Ongoing Rehabilitation of Mixmaster Project***

- Deck Replacements/Repairs
- Steel Strengthening/Repairs
- Concrete Repairs
- Pavement Improvement
- Guiderail Replacement
- Barrier Wall Modifications
- Temporary Bypass

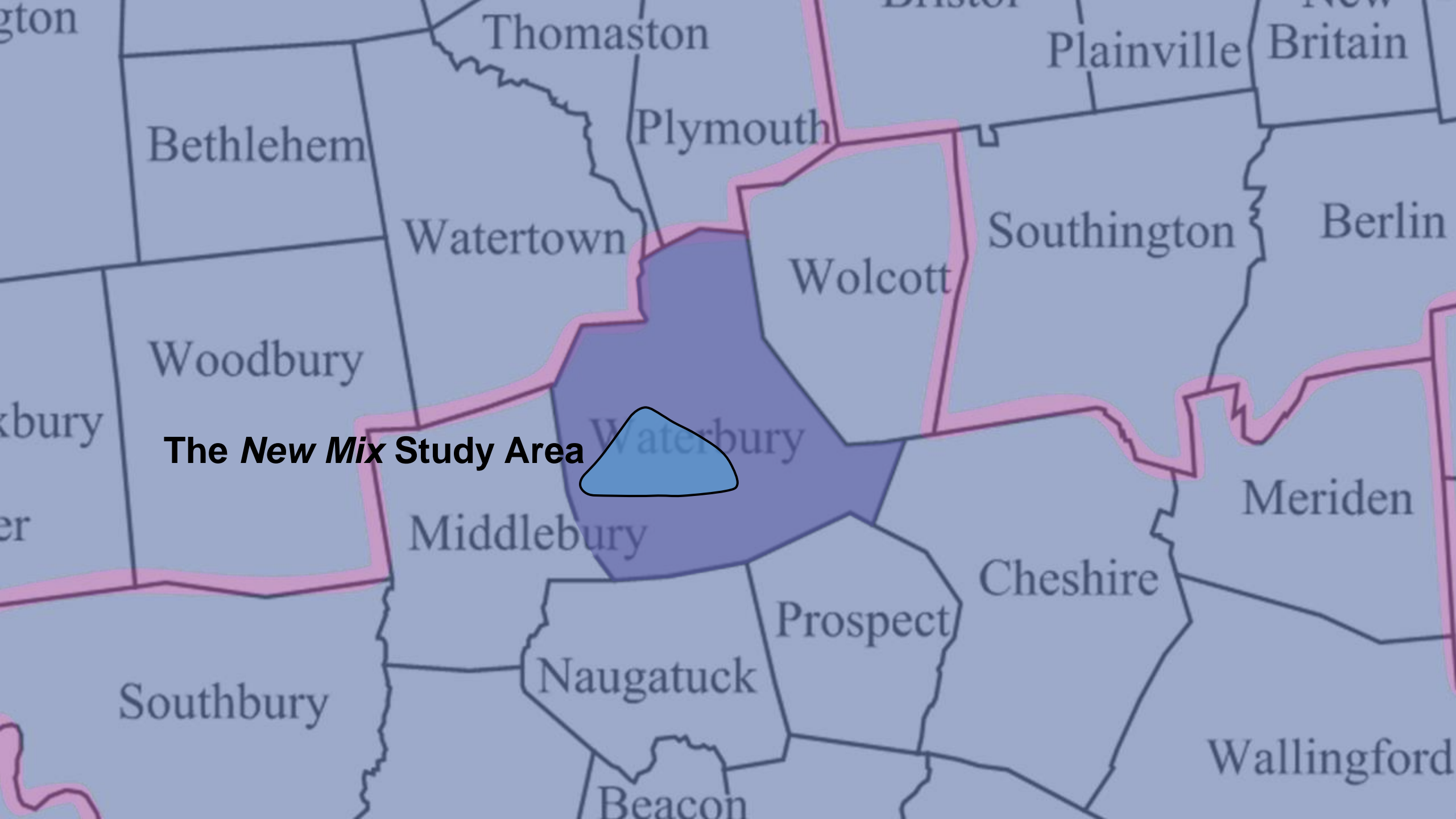


*Current Major Rehabilitation, in Construction Spring 2018-Summer 2023*



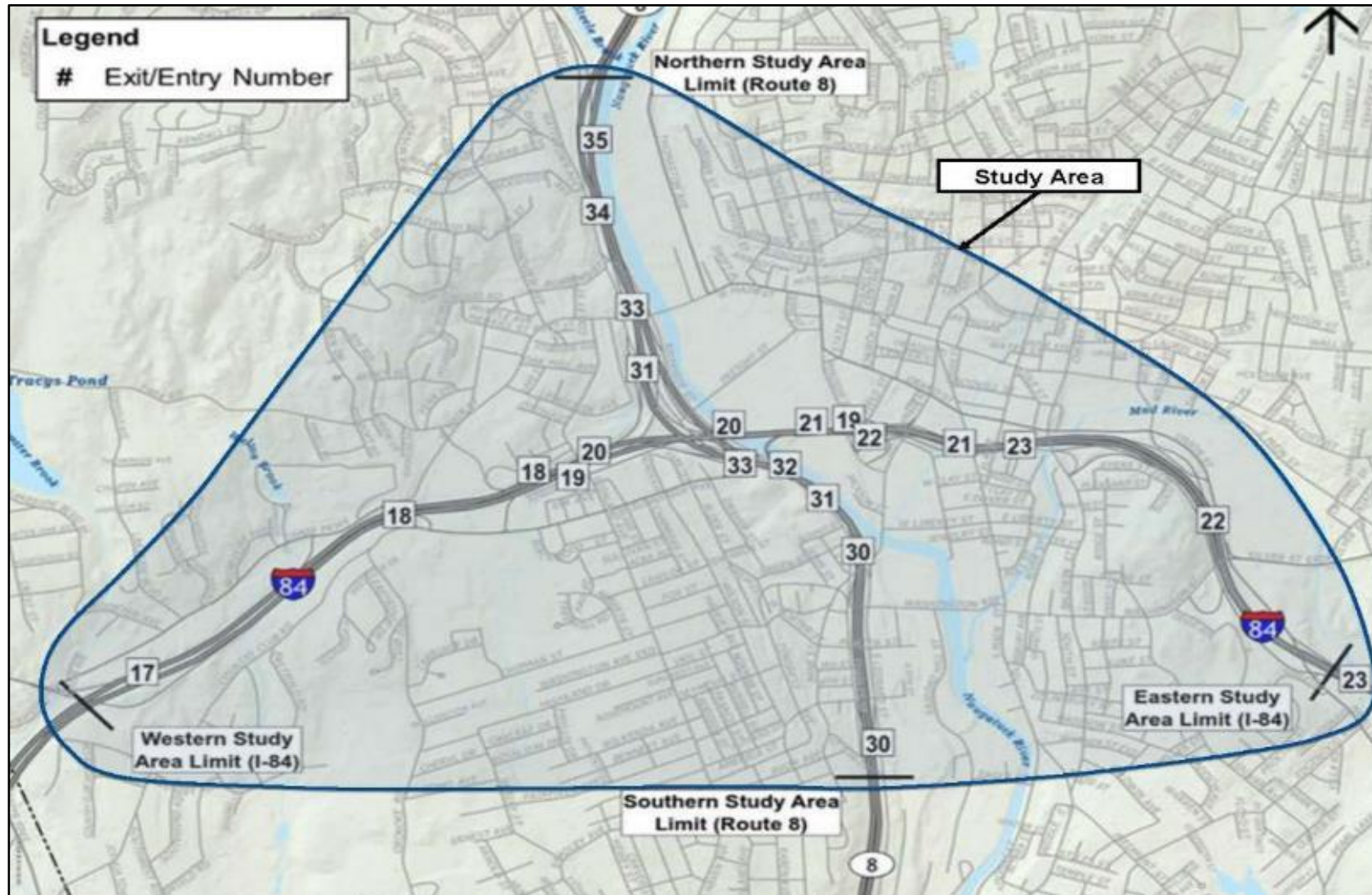
# New Mix Overview





**The *New Mix* Study Area**

# The *New Mix* Study Area





# The *New Mix*

- Long-term plan for the future of the Mixmaster post-2045.
- Overarching vision is to:
  - Modernize the Mixmaster
  - Improve safety & functionality
  - Reduce congestion
  - Complement the economic development and community goals of the City of Waterbury
  - Serve Connecticut's transportation needs for decades to come
- Projects may occur over time



# General Nature of Anticipated Projects



## Early Action Projects

Improvements to local roads and intersections

## Near-Term Projects

Improvements to highway approaching Mixmaster compatible with Long-Term Projects

## Long-Term Projects

Reconstruction of core interchange structures



# Planning and Environmental Linkages (PEL) Study Overview





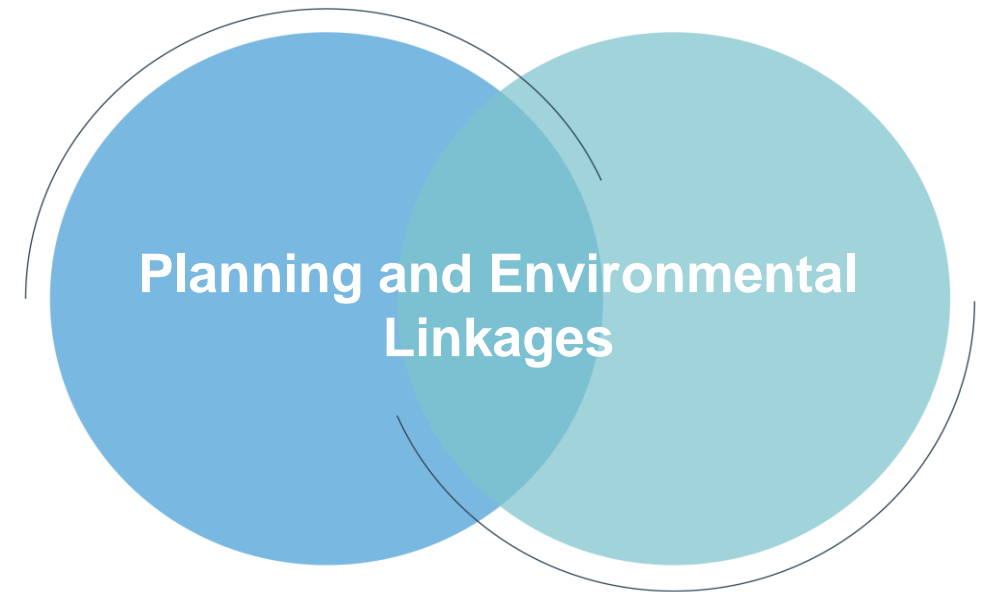
# **Planning and Environment Linkages (PEL)**

# What is a PEL Study?

## Planning and Environmental Linkages (PEL) Study

- Federal Highway Administration (FHWA) recognized process
- Early start on technical studies, outreach, and public involvement
- Connect transportation planning and environmental/community concerns
- Identify key issues and risks associated with transportation projects
- Informs the National Environmental Policy Act (NEPA) Process

PEL Study= Pre-NEPA Process





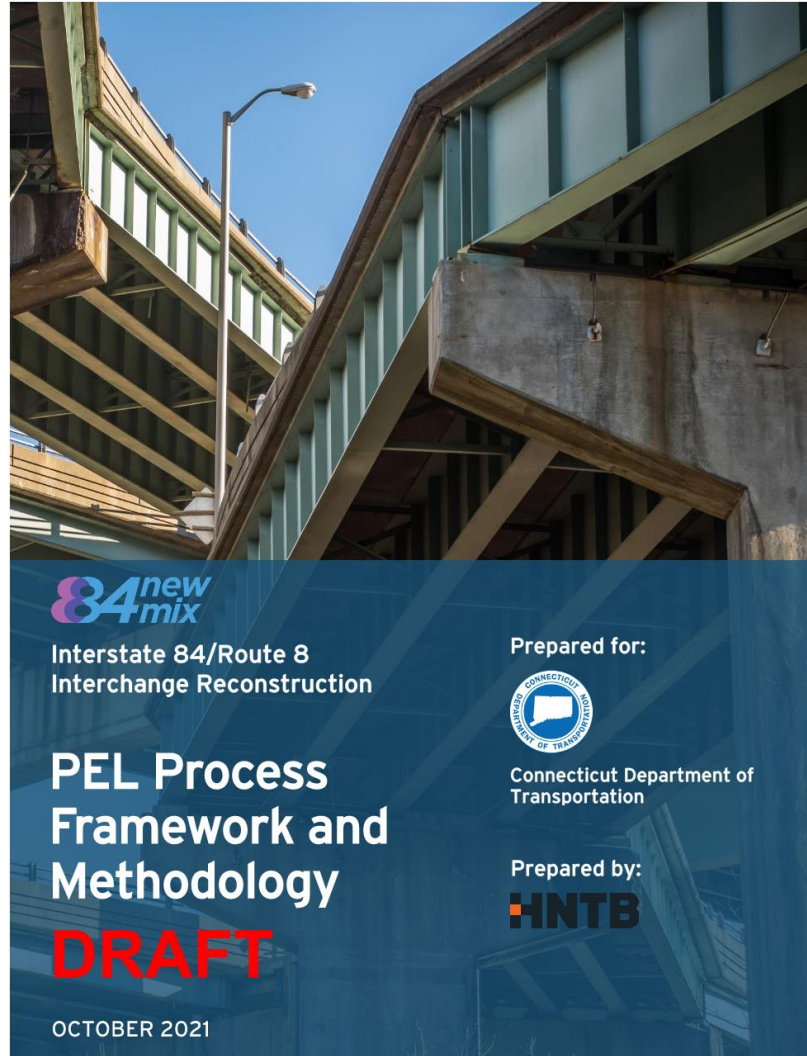
# PEL Process Framework and Methodology

Identify  
Transportation Needs  
and Deficiencies

Develop Purpose &  
Need and Goals &  
Objectives

Develop Evaluation  
Criteria and  
Conceptual  
Alternatives

Public Involvement and Outreach  
throughout the PEL Study

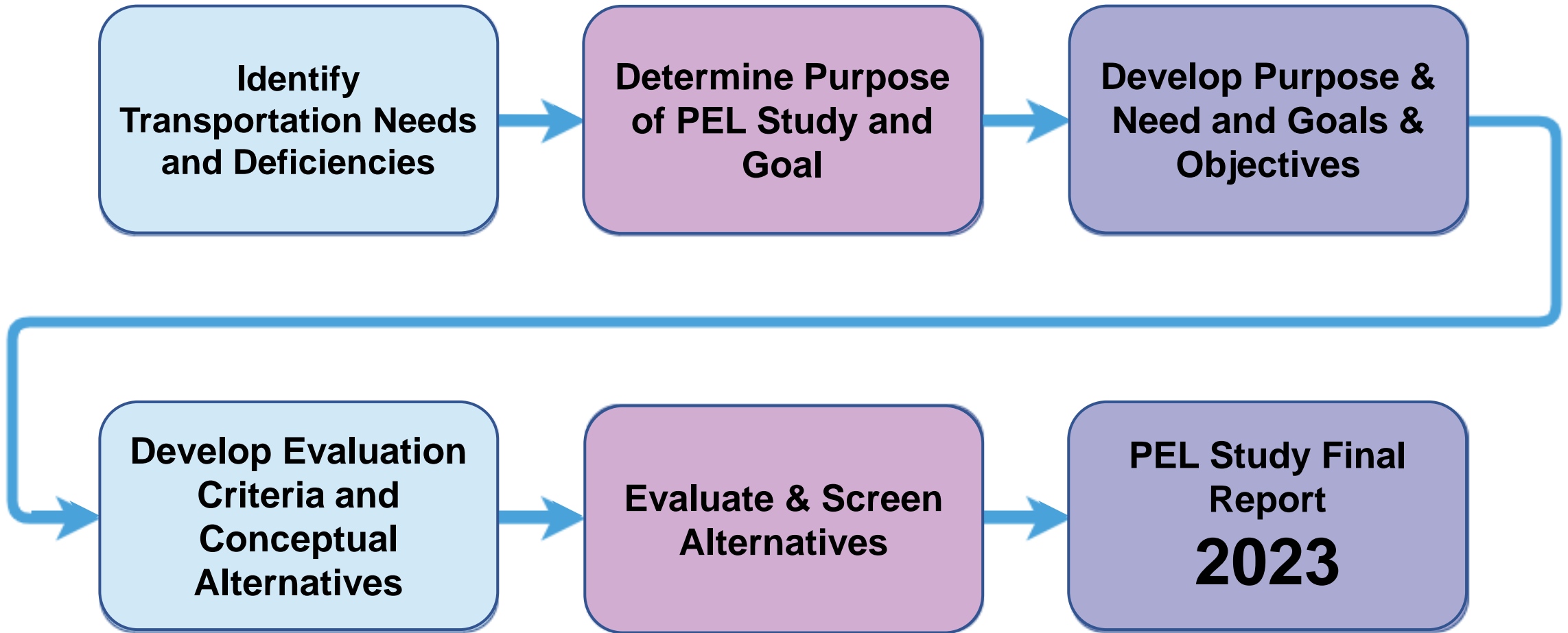


PEL Study Final  
Report  
**2023**

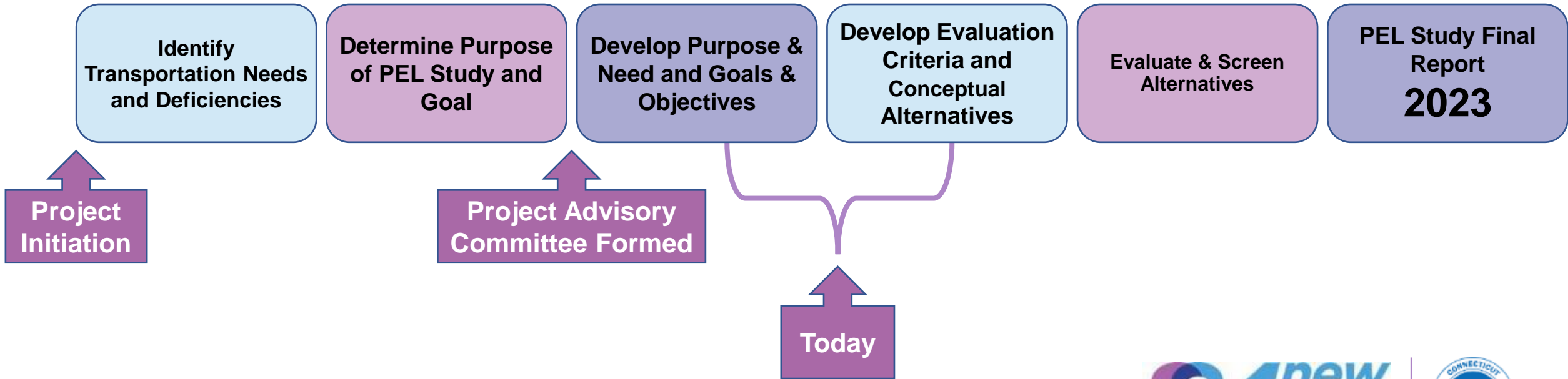


# PEL Study Progress

# *The New Mix* PEL Study Progress



# *The New Mix* PEL Study Progress



**Identify  
Transportation Needs  
and Deficiencies**

**Determine Purpose  
of PEL Study and  
Goal**

**Develop Purpose &  
Need and Goals &  
Objectives**

Defining the problem that we're trying to solve:

- Transportation issues, a.k.a. needs and deficiencies
- Investigations, data collection, analyzing existing and future traffic
- Multimodal, community and environmental context features
- Documenting in a detailed report





**Identify  
Transportation Needs  
and Deficiencies**

**Determine Purpose  
of PEL Study and  
Goal**

**Develop Purpose &  
Need and Goals &  
Objectives**

- Transportation issues, a.k.a. needs and deficiencies
  - Structural
  - Geometric
  - Operational

**60% of bridges in poor condition (pre-rehab)**

**Current rehab extends bridge life through 2045**

**I-84 bridge deck needs**

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Transportation Needs  
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Identify  
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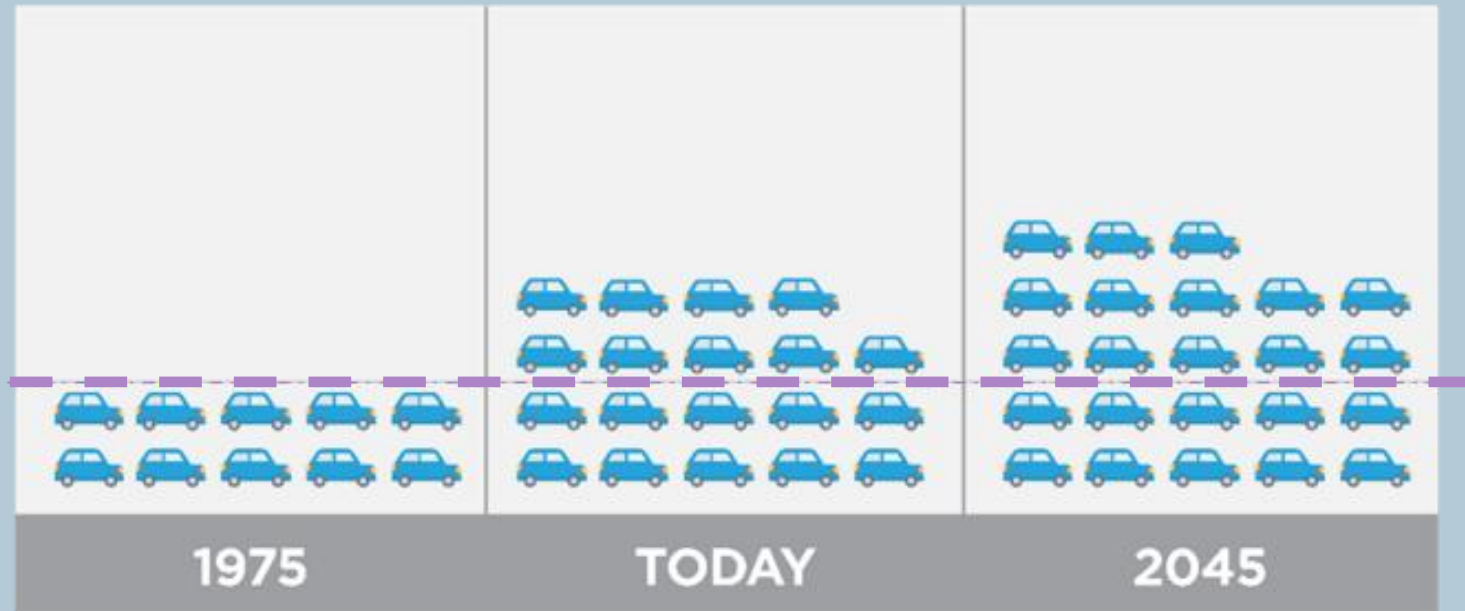
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Roadway  
Capacity



=10,000 CARS

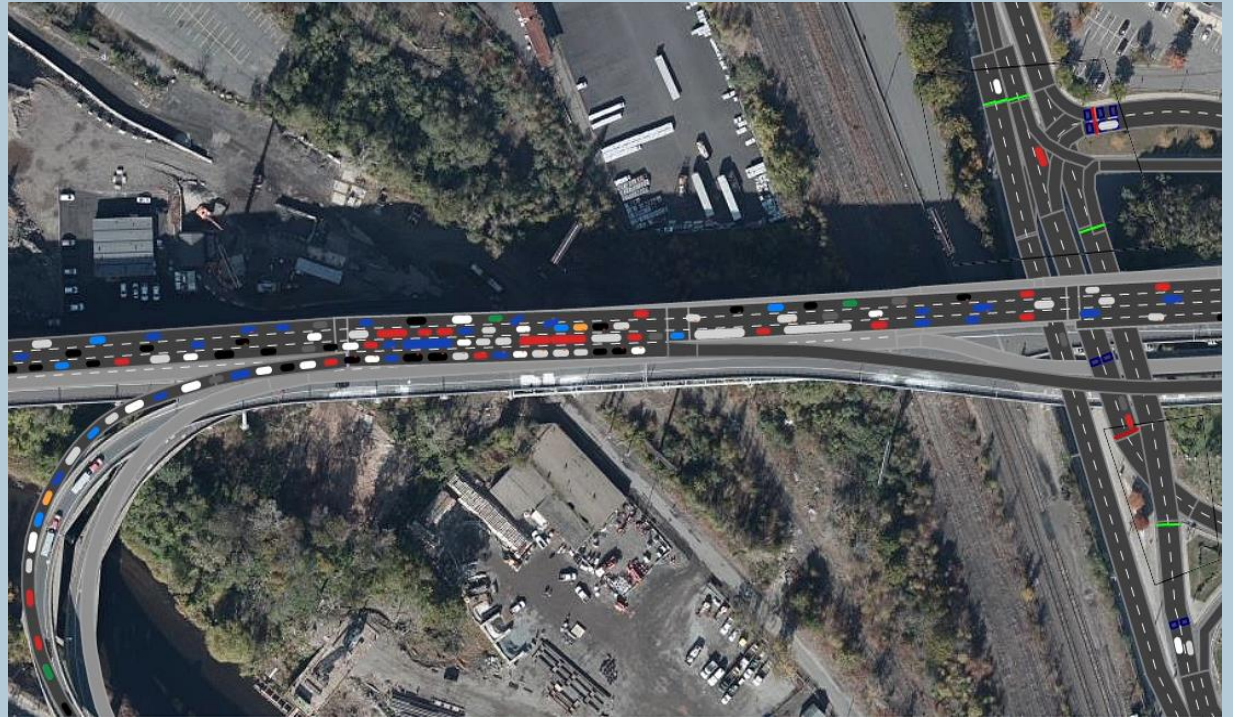


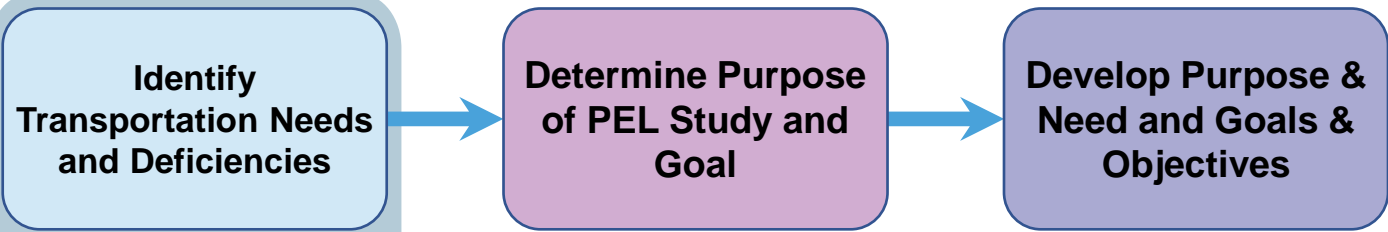
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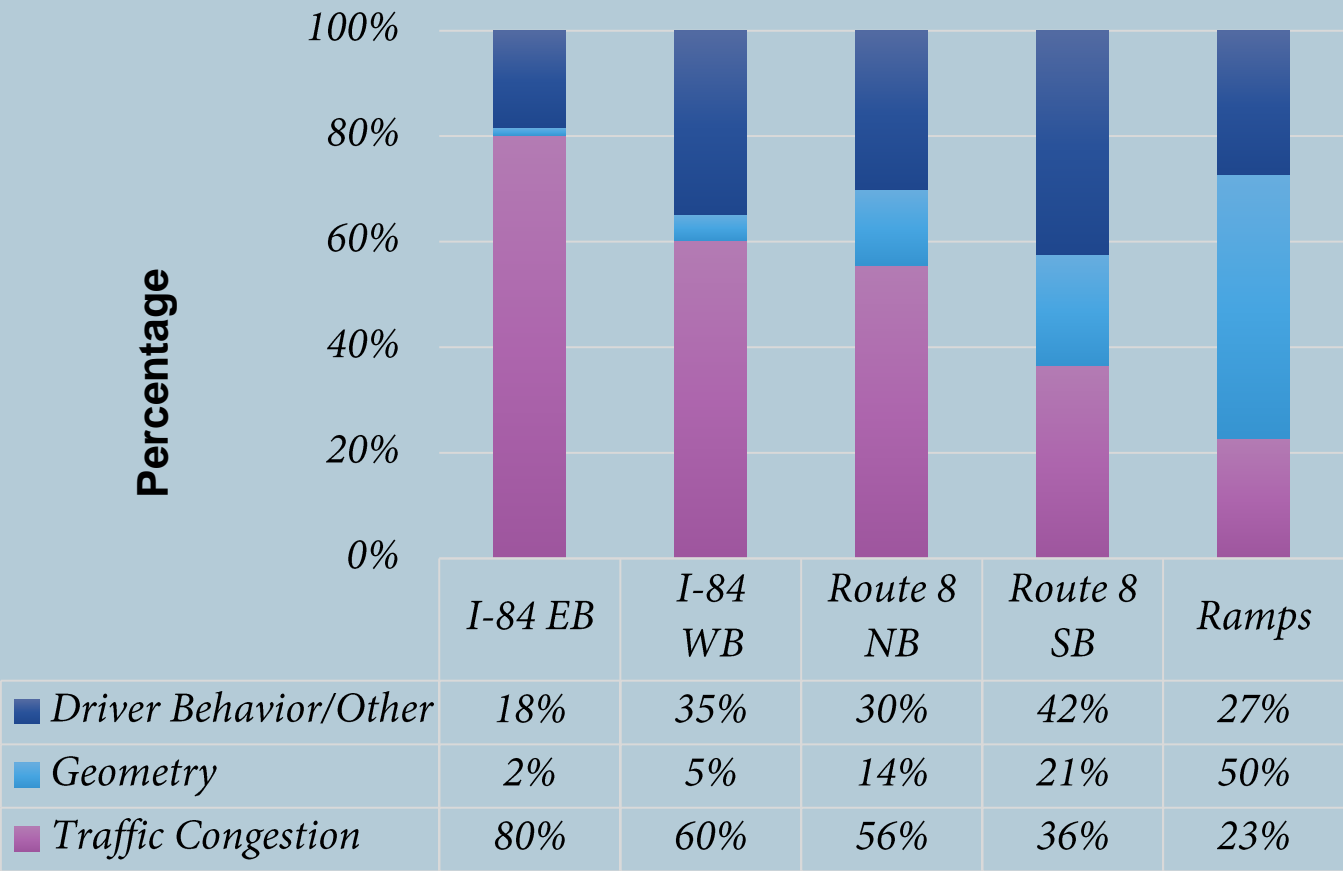
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- Transportation issues, a.k.a. needs and deficiencies
  - Structural
  - Geometric
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**Freeway Crash Contributing Factors**





Identify  
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Determine Purpose  
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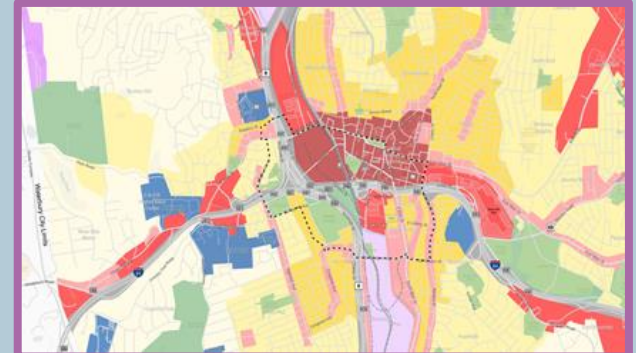
Develop Purpose &  
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- Transportation issues, a.k.a. needs and deficiencies

- Structural
- Geometric
- Operational

- Multimodal, community and environmental context features

- The built environment
- The natural environment



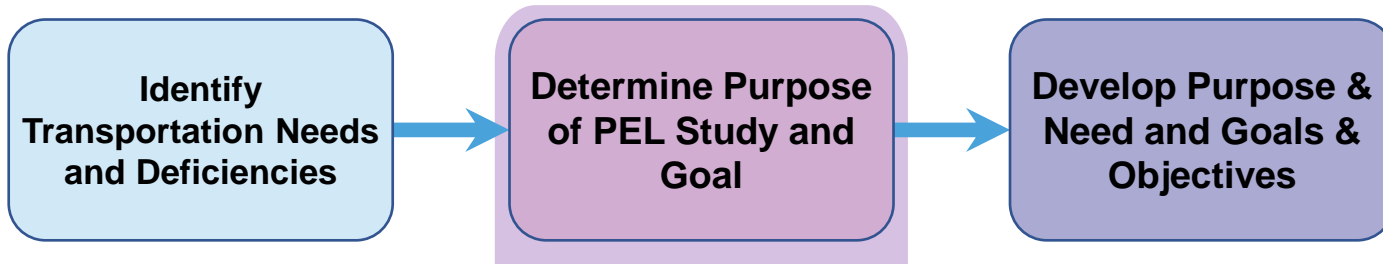
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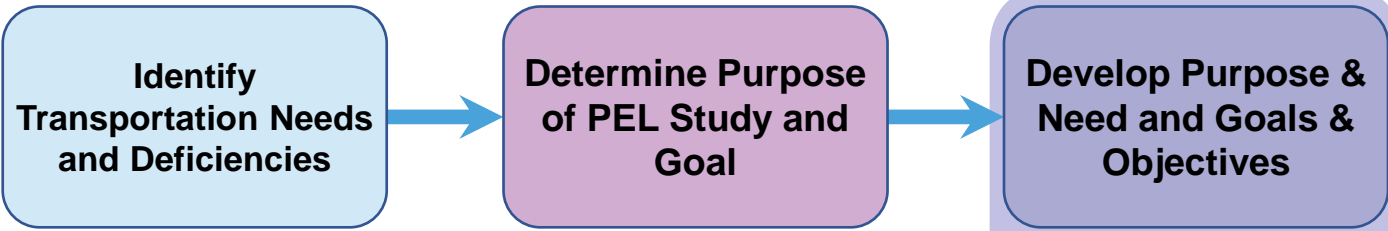




***CTDOT desires to establish a vision, or master plan, for the interchange that is articulated as a prioritized plan for the phased implementation of improvements.***

The overarching goal of the PEL Study is to develop a clear and supported plan of action for addressing deficiencies at the I-84/Route 8 Interchange and study area





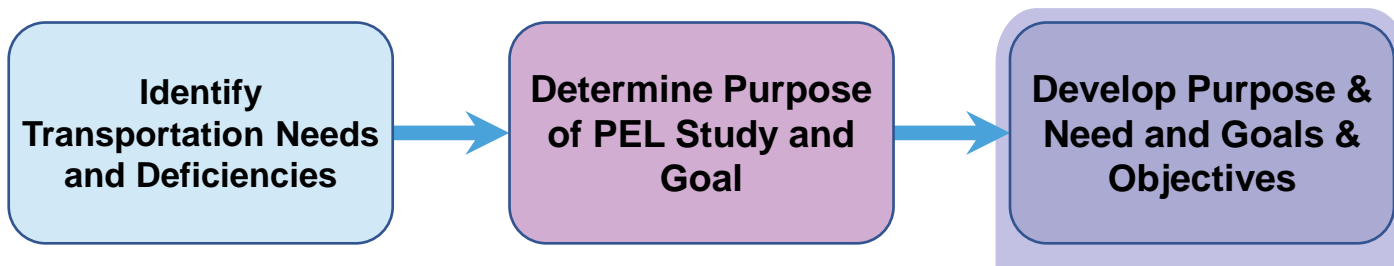
- Purpose and Need Statement

- What transportation issues and problems need to be addressed.
- Why the project is being proposed, identifying transportation solutions.
- Describes the intended/desired outcome(s) of the project.
- Establishes a basis for a range of reasonable alternatives to be evaluated in the environmental document and to move forward into NEPA.

Draft Preliminary Purpose and Need Statement Report







NEEDS (problems)	PURPOSE (solutions)
Structural Deficiencies	To improve I-84/Route 8 bridge conditions.
Geometric Deficiencies	To improve I-84/Route 8 roadway conditions.
Operational (Traffic) Deficiencies (including congestion)	To improve the level of service of I-84/Route 8 and associated local road network.
GOALS & OBJECTIVES (Intended Outcomes)	
<ul style="list-style-type: none"> <li>• Improve system performance;</li> <li>• Reduce congestion;</li> <li>• Reduce crash rates;</li> <li>• Maintain critical system linkages in Connecticut and the Northeast;</li> <li>• Facilitate connectivity with Waterbury through the local road network including multimodal travel;</li> <li>• Provide connections to the Naugatuck River and Greenway;</li> <li>• Improve the local roadway network;</li> <li>• Reduce interchange complexity;</li> </ul>	<ul style="list-style-type: none"> <li>• Enhance mobility equity and safety for bicyclists and pedestrians;</li> <li>• Integrate the Project with ongoing City projects;</li> <li>• Improve access to Downtown and key destinations;</li> <li>• Strengthen surrounding neighborhoods as gateways to the City's Central Business District (CBD);</li> <li>• Support City revitalizing goals of the CBD;</li> <li>• Support opportunities to improve equitable access to multimodal facilities;</li> <li>• Avoid, minimize or mitigate potential Project consequences to the environment;</li> </ul>

***May be further refined to incorporate issues and data identified during stakeholder and public involvement processes including coordination with project partners and the public.***

# Next Steps

# Public Feedback Due

Comments / Input Due: June 30, 2022  
Send in your comments through the website

June						
S	M	T	W	TH	F	S
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

CTDOT wants to hear from you! Share your thoughts on issues related to the Mixmaster. [Take our survey >](#)

Select Language ▼

**84newmix** I-84/ROUTE 8 INTERCHANGE REPLACEMENT

Project Information Public Involvement Document Library Contact Us

Search

### Contact Us

Whether you're looking for more information, have comments and questions, or just want to stay informed on the New Mix as the program progresses, use the links below to get in touch.

### Stay Connected

Join our mailing list to receive project news and updates, including notice of public meetings where you can learn more about the project.


[Join our mailing list](#)

Have a comment or question? Ask us here!

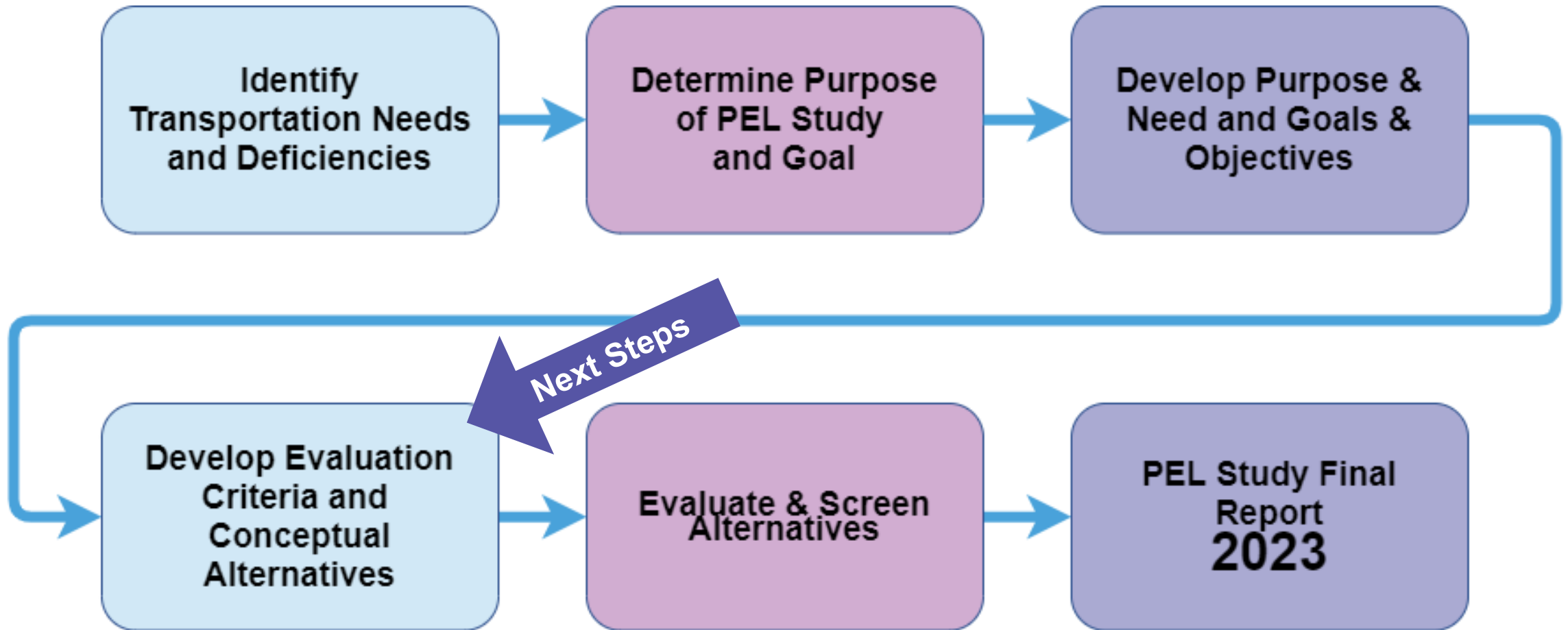
[Contact Us](#)

#### Tweets by @NewMixWaterbury

**The New Mix**  
@NewMixWaterbury  
#CTDOT is in the process of assessing the current state of the I-84/Rt 8 interchange and planning for its long-term future. Join us on June 16th at noon or 6 pm to learn more about the project and make your voice heard! Register at [NewMixWaterbury.com](#). #NewMixWaterbury

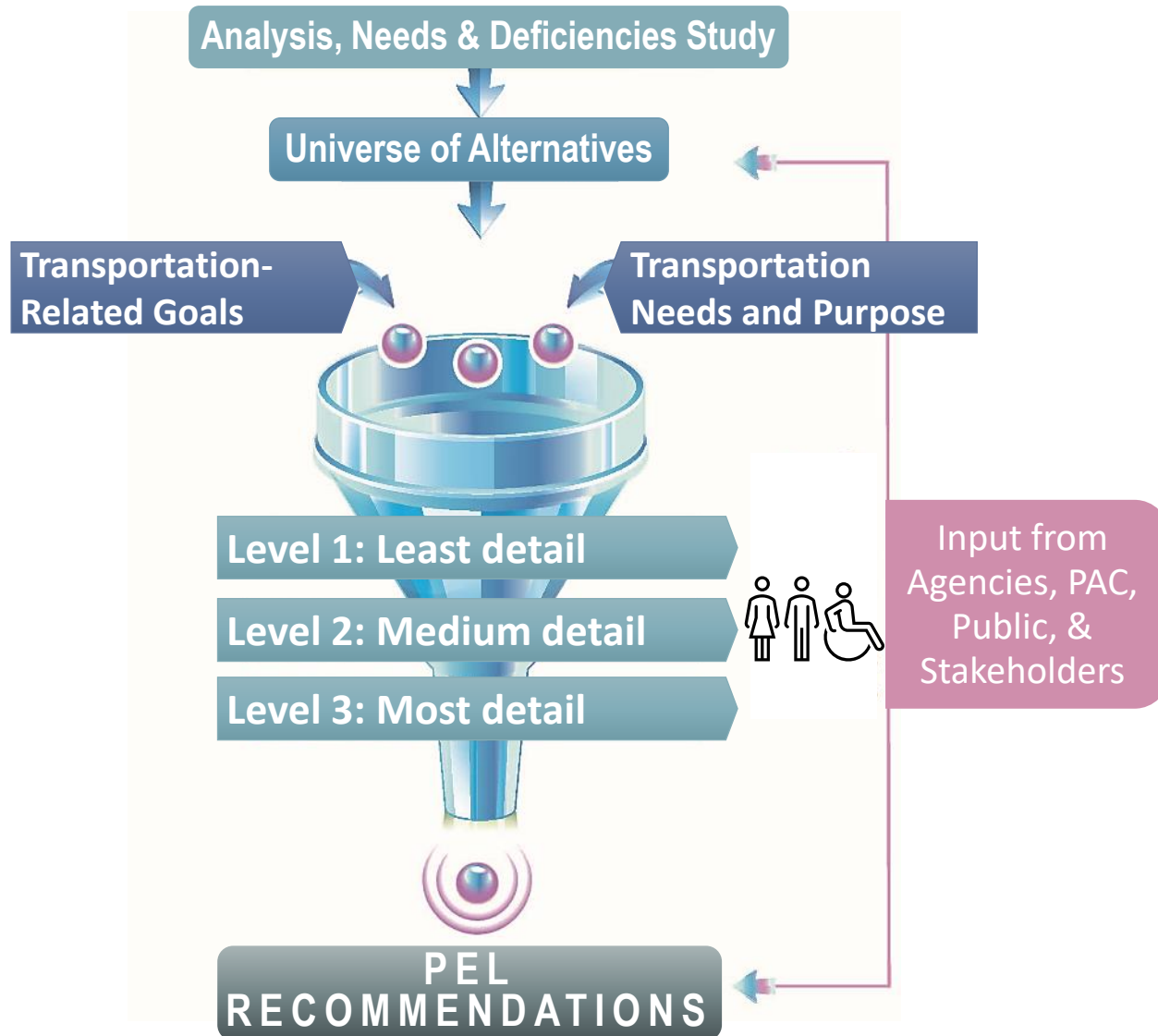


# New Mix PEL Study: Overview of Schedule





# New Mix PEL Study Screening Process



**✗ Not Advancing**



**Advancing**



# Upcoming Public Meetings

## Public Mtg #2 Late Summer 2022

### Where:

Anticipated Virtual via Zoom

### Topics:

Finalize Preliminary Purpose & Need Statement  
Present Conceptual Alternatives and Level 1  
Evaluation Criteria, and Obtain Input from  
public

## Public Mtg #3 Fall 2022

### Where:

Anticipated Hybrid: Virtual via Zoom/In-  
person  
Location TBD

### Topics:

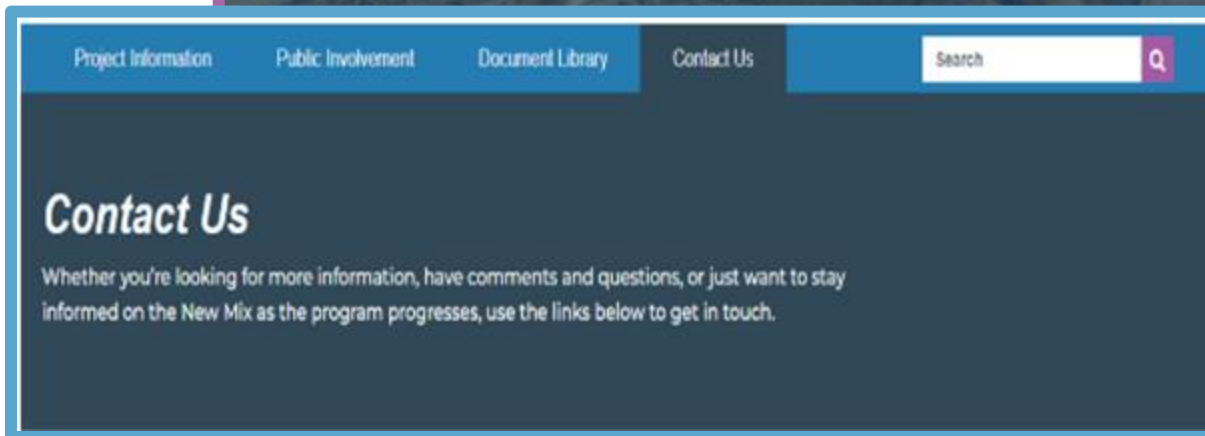
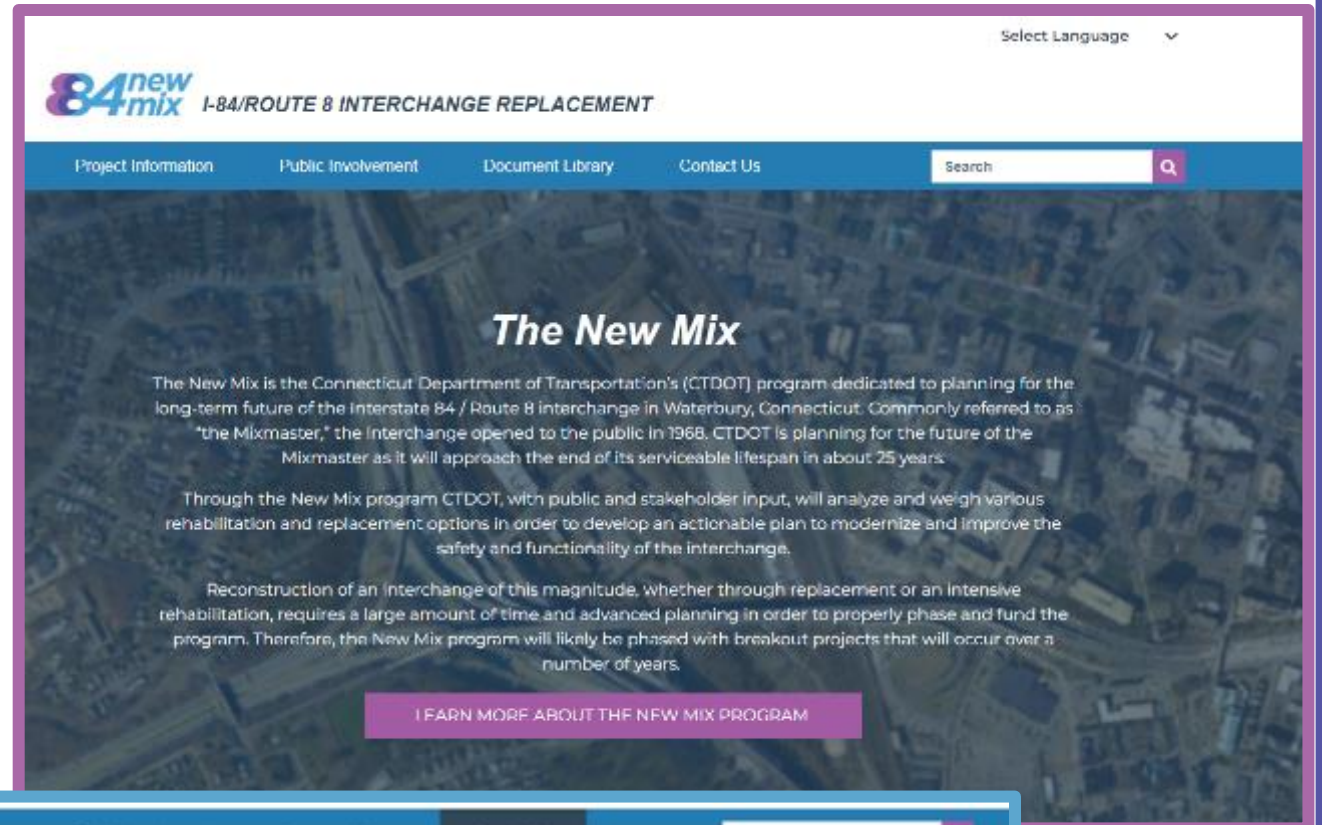
Present Level 1 Screening Results, Level 2  
Evaluation Criteria, and Obtain Input from  
public

# The *New Mix* Website

Please check out The New Mix website!

**NEWMIXWATERBURY.COM**

- Access Project History, FAQ, and more
- Subscribe to New Mix news and updates
- Ask us any questions or provide comments you may still have!



# Send Us Your Thoughts...

NEEDS (problems)	PURPOSE (solutions)
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***May be further refined to incorporate issues and data identified during stakeholder and public involvement processes including coordination with project partners and the public.***



# Questions & Comments



# The *New Mix* Project: Question & Answer Session

State Project # 151-331

Provide feedback through the following...



Project Email:  
[thenewmixwaterbury@gmail.com](mailto:thenewmixwaterbury@gmail.com)



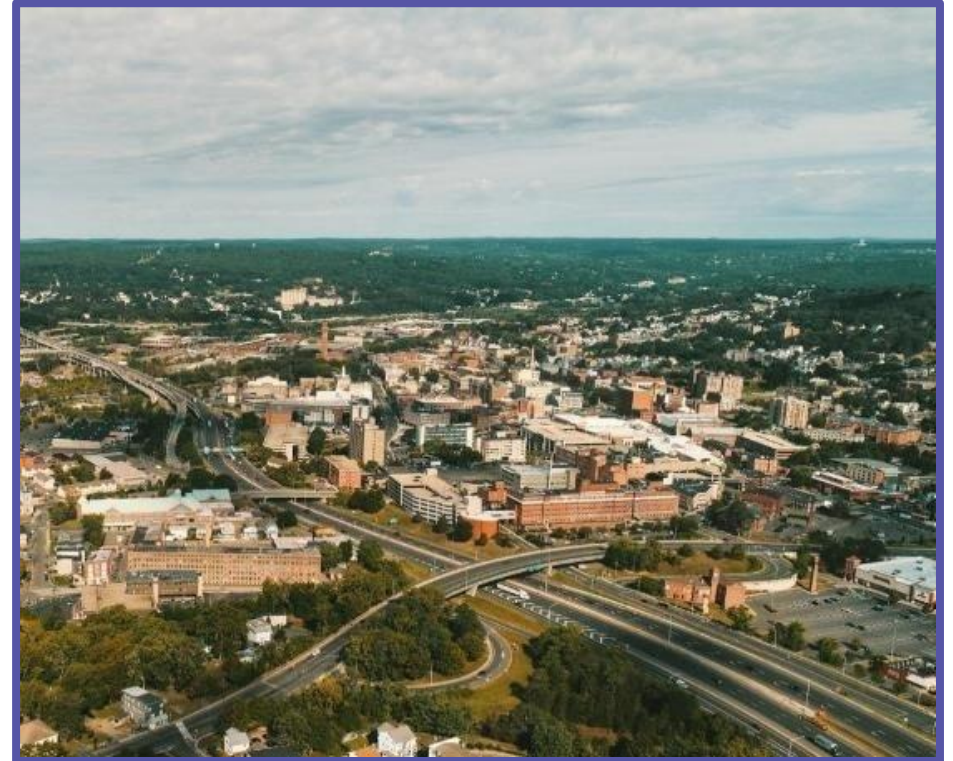
Chat: using the Zoom chat  
function during the live event.



Webpage:  
[newmixwaterbury.com](http://newmixwaterbury.com)



Survey:  
<https://bit.ly/NewMixSurvey1>



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A recording of this presentation will be made available on the project website.

# Thank you.



# Potential Timing & Breakout Project Schedule

