

I-84 Danbury Project

Project Advisory Committee (PAC) Meeting No. 7

November 16, 2021



Welcome / Providing Feedback

Presenters



Yolanda Antoniak
CTDOT
Project Engineer



Sharat K. Kalluri
CDM Smith
Project Manager



Jeanine Armstrong Gouin
SLR Consulting
Environmental Documentation



Andy Fesenmeyer
CTDOT
Project Manager

Moderator



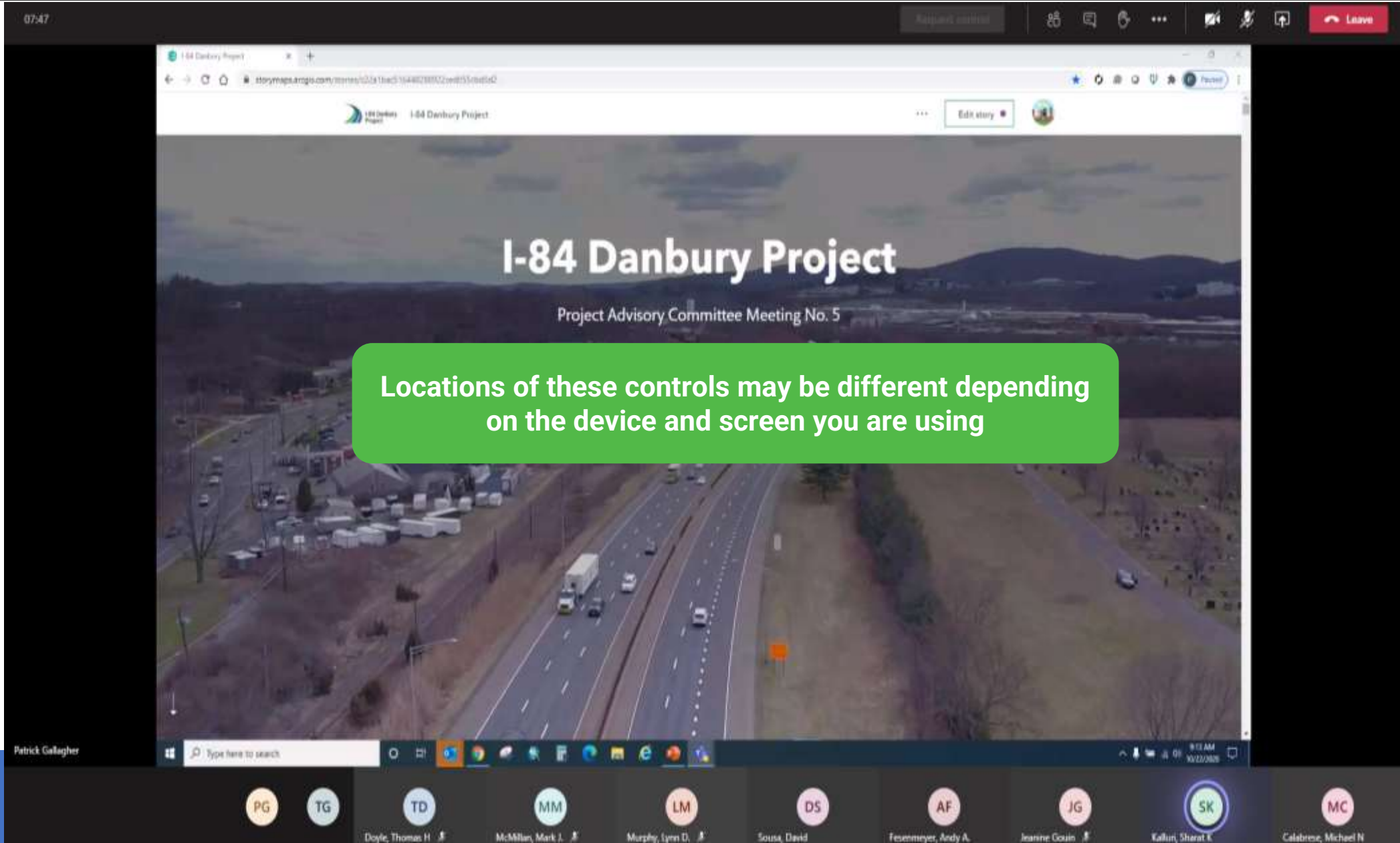
Marcy Miller, AICP (FHI)

Housekeeping Items

- Meeting is live and recorded
- Meeting presentation is posted to the project website at http://www.i84danbury.com/course_cat/public-advisory-committee/
- Participants can video conference in or call in via phone and follow along to presentation posted on web
- Participants should mute themselves when not speaking
- At select times during meeting, moderator will read questions / comments out loud for speaker to answer or will ask interested participants to unmute and provide comments
- Meeting recording will be posted to project website after meeting



Providing Feedback





Video on / off

Mic on / off

Request control

055cbd0d2

Project

Edit story

Locations of these controls may be different depending on the device and screen you are using

I-84 Danbury Project



07:47

Request control

Turn on participant list

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K. Calabrese, Michael N.



I-84 Danbury
Project

Providing Feedback



08:39

request controls

Turn on participant list

I-84 Danbury Project
Project Advisory Committee Meeting No. 5
November 16, 2020

Participants

Invite someone or dial a number

In this meeting (11)

Mute all

- Marcy Miller
- Calabrese, Michael N
Outside your organization
- Doyle, Thomas H
Outside your organization
- Fesenmeyer, Andy A.
Outside your organization
- Gaffey, Timothy J.
Outside your organization
- Jeanine Gouin
Outside your organization
- Kalluri, Sharat K
Organizer
Outside your organization
- McMillan, Mark J.
Outside your organization
- Murphy, Lynn D.
Outside your organization
- Patrick Gallagher
Outside your organization
- Sousa, David
Outside your organization

PG TG TD MM LM DS AF JG SK MC

Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K Calabrese, Michael N

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9:08 AM 10/22/2020



07:47

Request control

Turn on chat pane

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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07:47 Request control

Turn on chat pane

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

November 16, 2020

Type your question/comment here

Submit here

That's a really great comment!

Patrick Gallagher

Type here to search

PG TG TD MM LM DS AF JG SK MC

Doyle, Thomas H. J. McMillan, Mark J. J. Murphy, Lynn D. J. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin J. Kalluri, Sharat K. Calabrese, Michael N.

ing chat

Stephanie Dyer-Carroll joined the meeting.

Marcy Miller renamed the meeting to NCR project test.

11:39 AM Meeting started

Leave



07:47

Request control

Raise your hand

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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Providing Feedback



10:24

Request control

...

Leave

storymaps.arcgis.com/stories/c22a1ba5164482881922c9d055c9d0d2

I-84 Danbury Project

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Edit story

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Project Advisory Committee Meeting No. 5

November 16, 2020

Patrick Gallagher

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Raise your hand



07:47

Request control

Other functions

I-84 Danbury Project

Project Advisory Committee Meeting No. 5

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I-84 Danbury
Project

Providing Feedback



10:24

Request control

Other functions

I-84 Danbury Project

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Patrick Gallagher

PG TG TD MM LM DS AF JG SK MC

Murphy, Lynn D. Sousa, David Fesenmeyer, Andy A. Jeanine Gouin Kalluri, Sharat K Calabrese, Michael N.

9:15 AM 10/22/2020

Device settings Meeting details Gallery Large gallery (Preview) Together mode (Preview) Focus Full screen Call me Apply background effects Turn on live captions Start recording Dial pad Turn off incoming video



Questions

Agenda

- PAC Update
- Concept Evaluation
 - Concepts #3 and #13 – Hospital Access
 - Concept #4 – Non-Highway Concept
- Next Steps
- Discussion / Questions



PAC Update

Since Our Last Meeting

- Attended meeting with Danbury mayor
- Published Summer 2021 newsletter
- Added more concepts to website
- Updated FAQs section on website
- Attended pop-up events in Danbury
- Continue to create social media content



www.i84danbury.com



I-84 Danbury Project



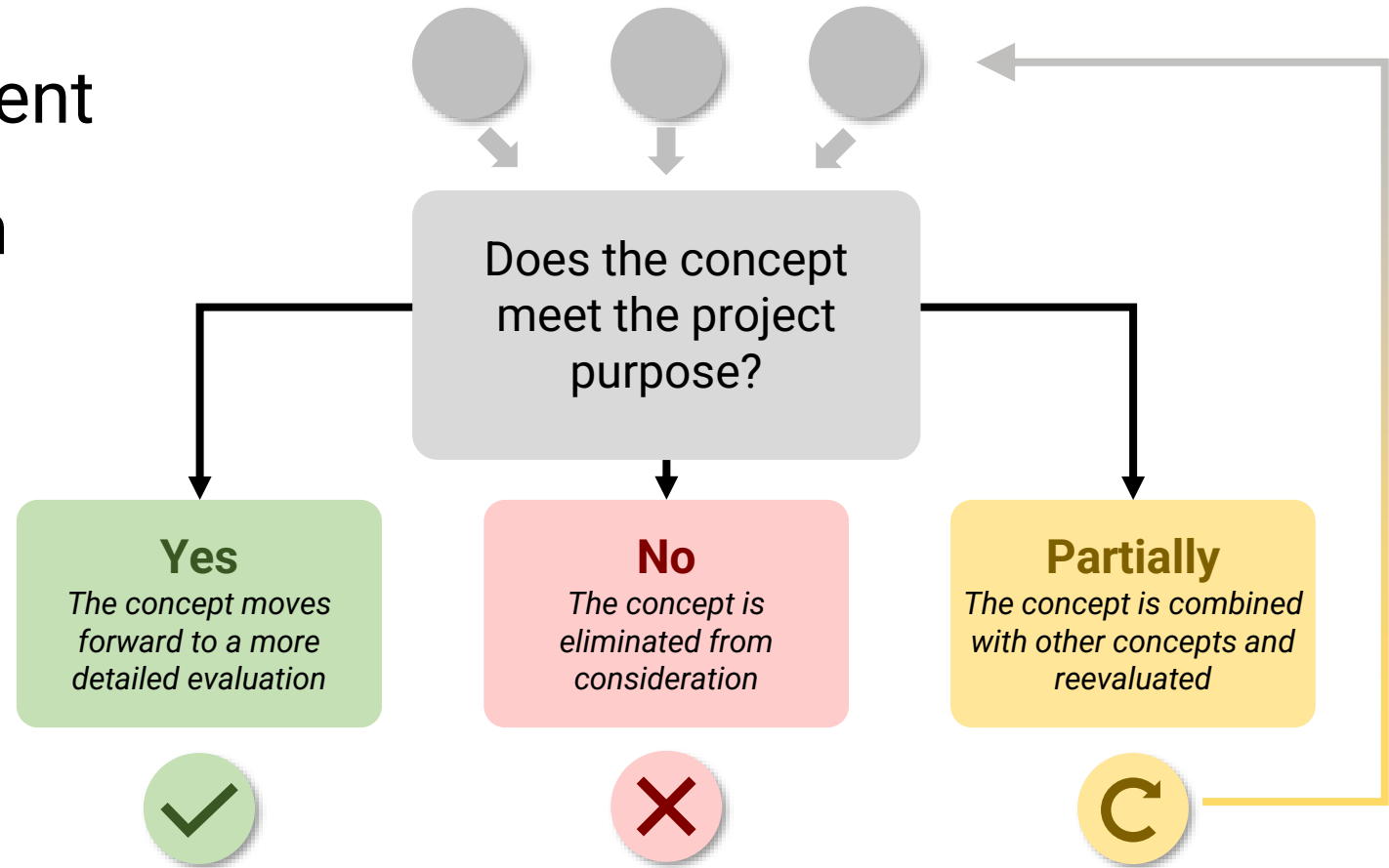
@i84danbury

Draft Purpose Statement

The purpose of the I-84 Danbury Project is to reduce **congestion** and improve the **mobility** of people and goods in the I-84 corridor in greater Danbury.

How will the project Purpose Statement be used?

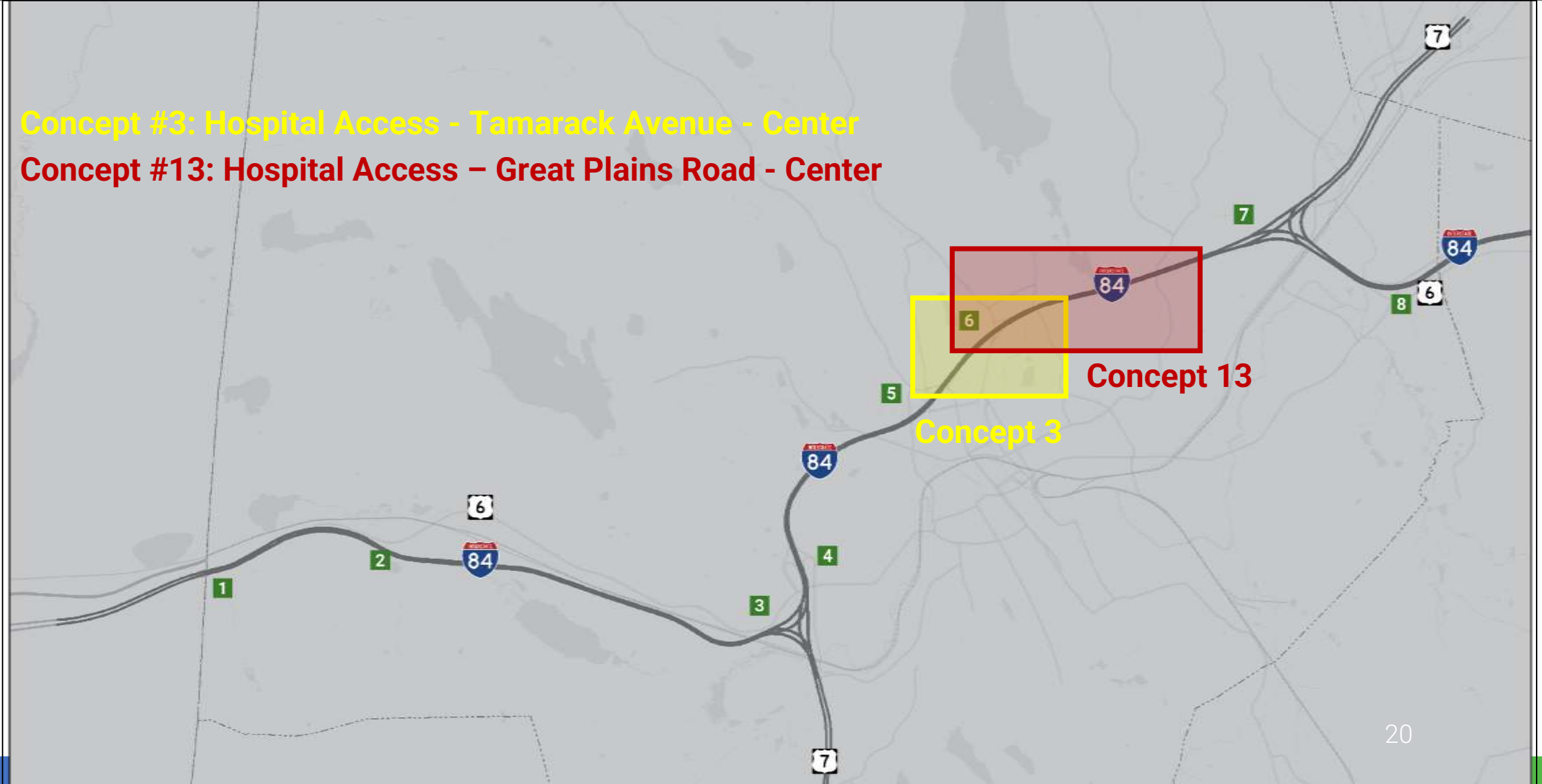
1. Concept development
2. Concept evaluation





Concept #3: Hospital Access - Tamarack Avenue - Center

Concept #13: Hospital Access – Great Plains Road - Center





Concept 4: Non-Highway Option





Concept Evaluation

Evaluating the Concept

- Traffic operations
- Effects to mainline I-84
- Key constructability elements
- Environmental resource analysis
- Construction cost estimate



Concepts 3 and 13: Hospital Access Concepts

Access to Danbury Hospital is Important

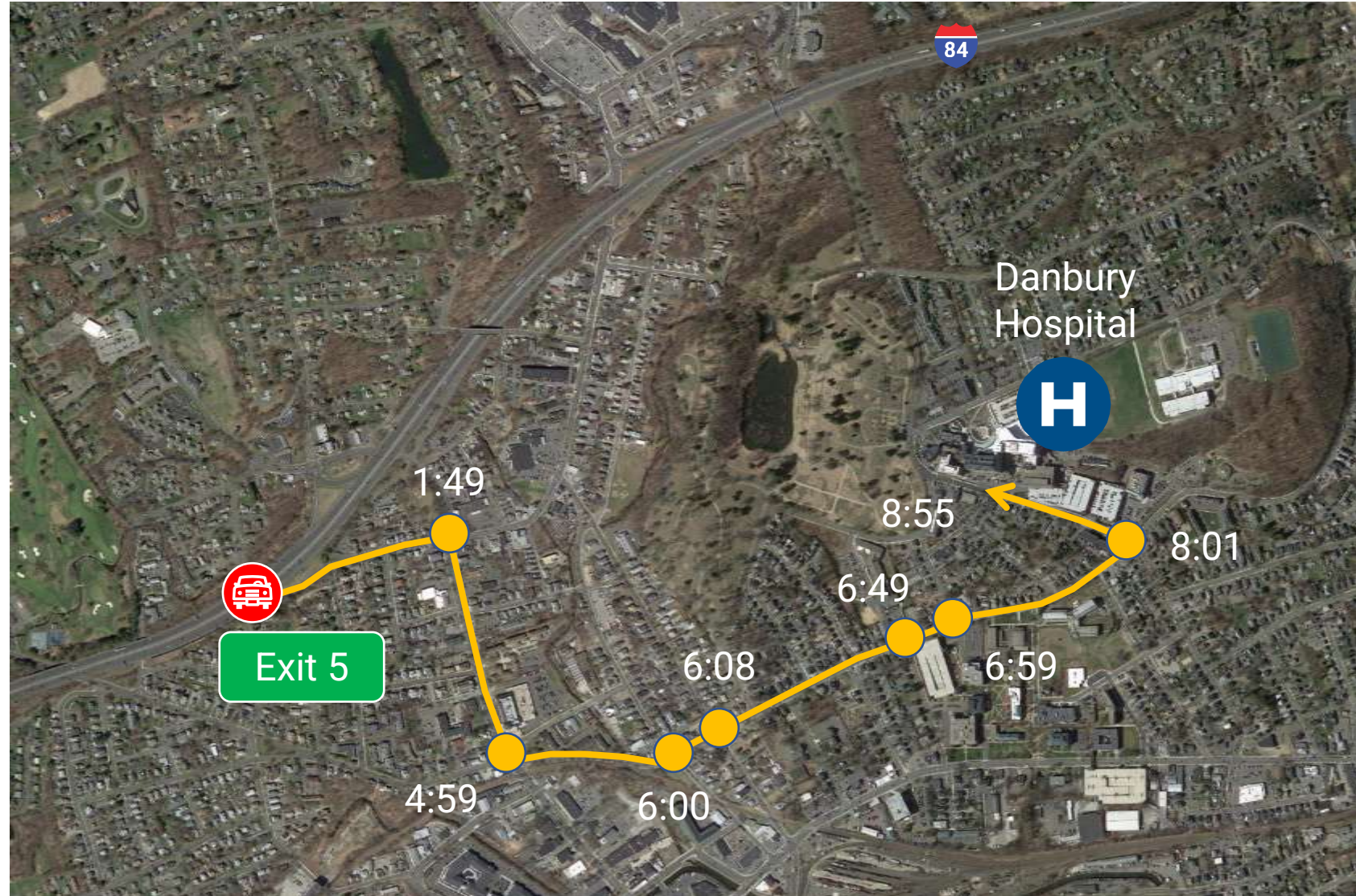
- Serves as region's only trauma center
- Provides emergency medical services to points north (e.g., New Milford)
- No direct access from I-84
- Main St provides access to / from west
- North St provides access to / from east



Travel Time

I-84 Exit 5 to Danbury Hospital

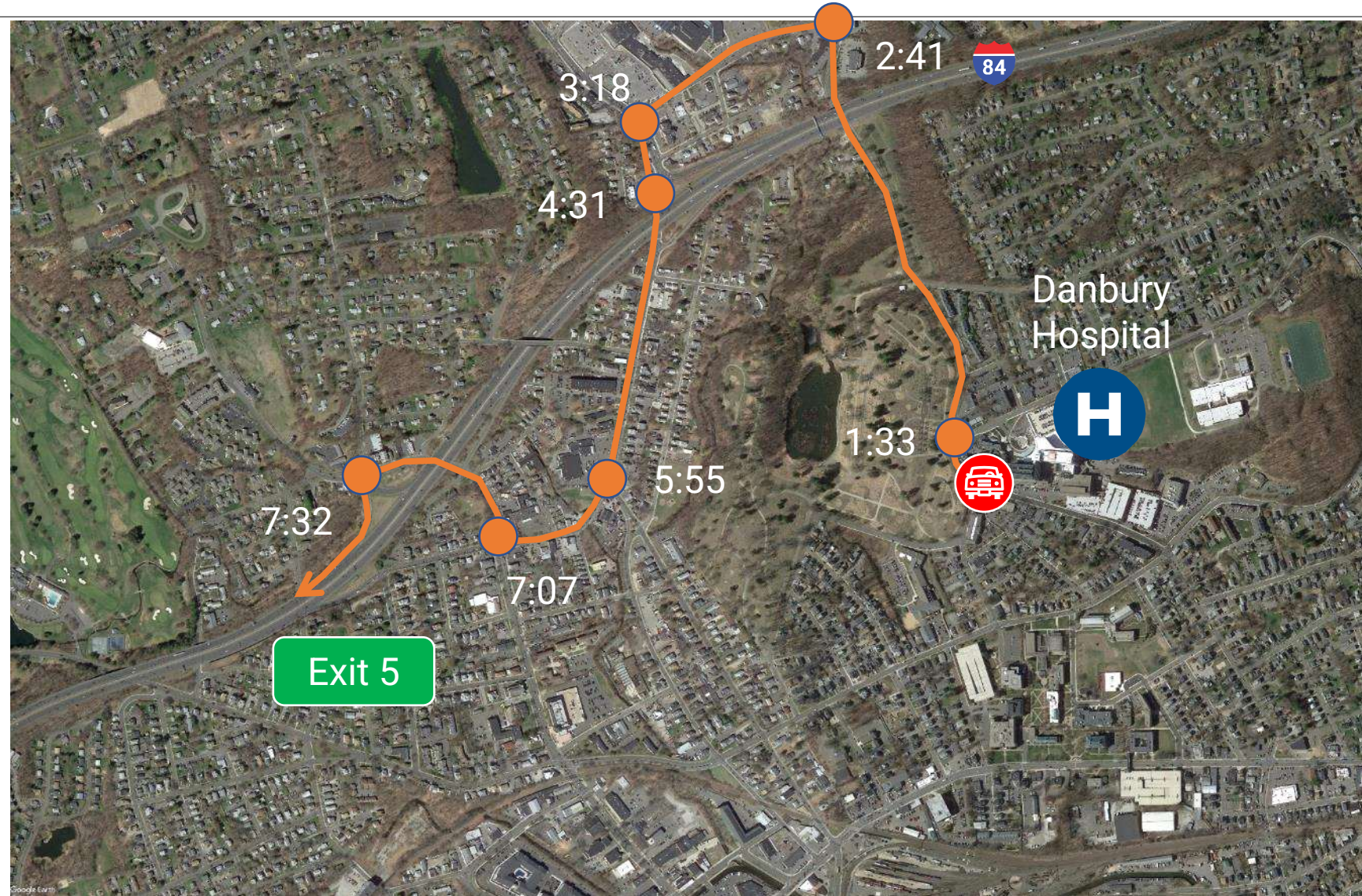
**8:55
minutes**



Travel Time

Danbury Hospital to I-84

**7:32
minutes**

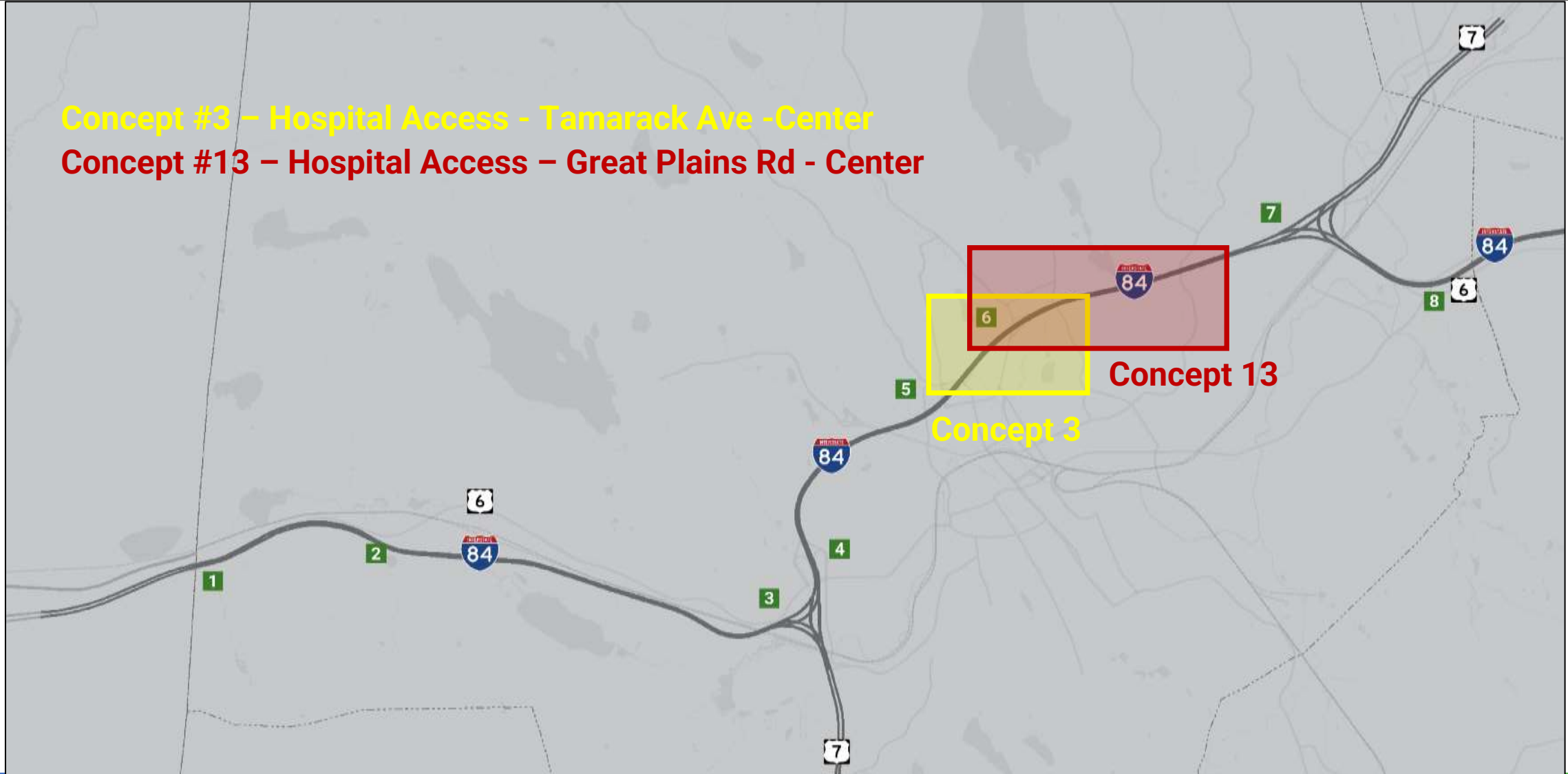




Hospital Access Concepts



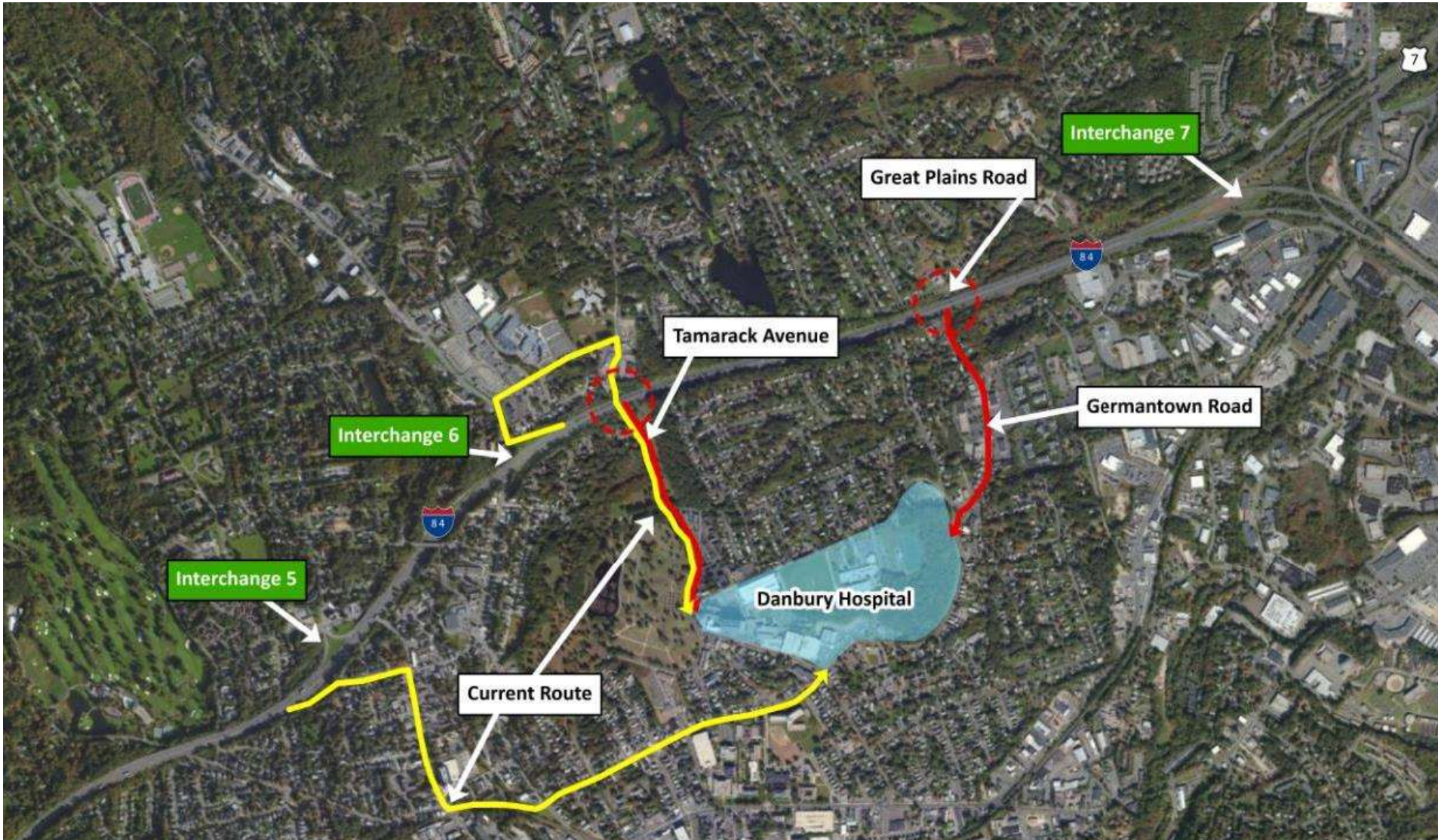
Concept #3 – Hospital Access - Tamarack Ave -Center
Concept #13 – Hospital Access – Great Plains Rd - Center





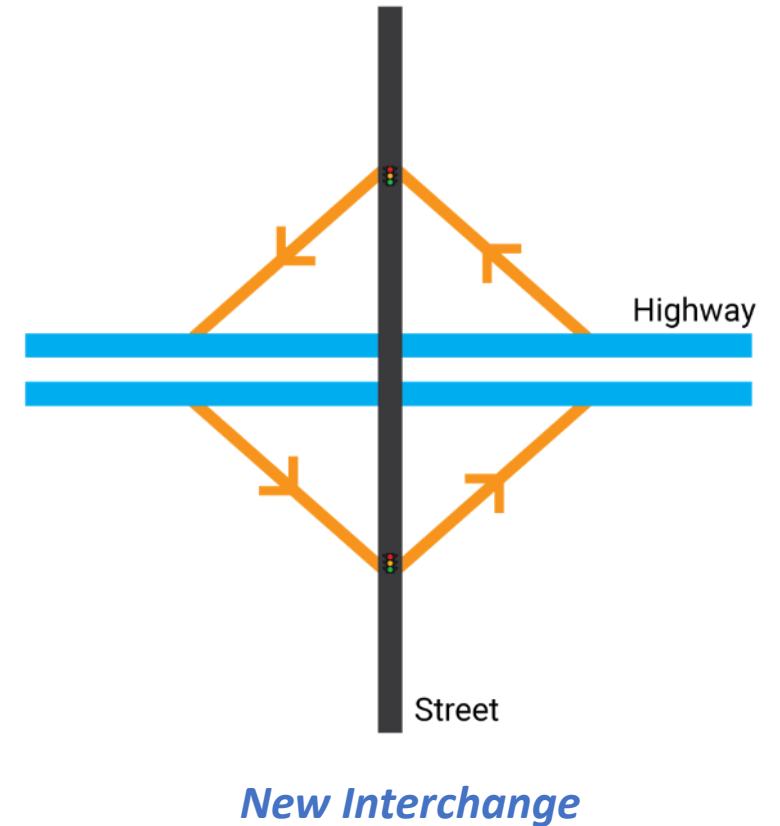
I-84 Danbury
Project

Hospital Access Concepts



Concept 3 Overview

- Hospital access provided via Tamarack Ave
- Full access to / from I-84
- North St interchange eliminated
- Access to downtown points
- Opportunities to enhance pedestrian and bicycle use



General Conditions

- Tamarack Avenue is **constrained on both sides**
- On the east by the Immanuel Lutheran Cemetery
- On the west by single family residential homes and
- An extensive floodplain and floodway



Cemetery Constraints / Potential Impacts

- Established, active cemetery for over 100 years
- Burial sites near Tamarack Ave



Potential Neighborhood Impacts

- Homes located near roadway
- Widening will further encroach on properties
- Ford Ave neighborhood is an Environmental Justice Community



Alignment Alternatives

- Iterations aimed at reducing impacts
- Shifting to the east impacts the burial plots
- Shifting to the west impacts residential, commercial, and other properties
- Current alignment minimizes property impacts on the west, with no impact on burial plots



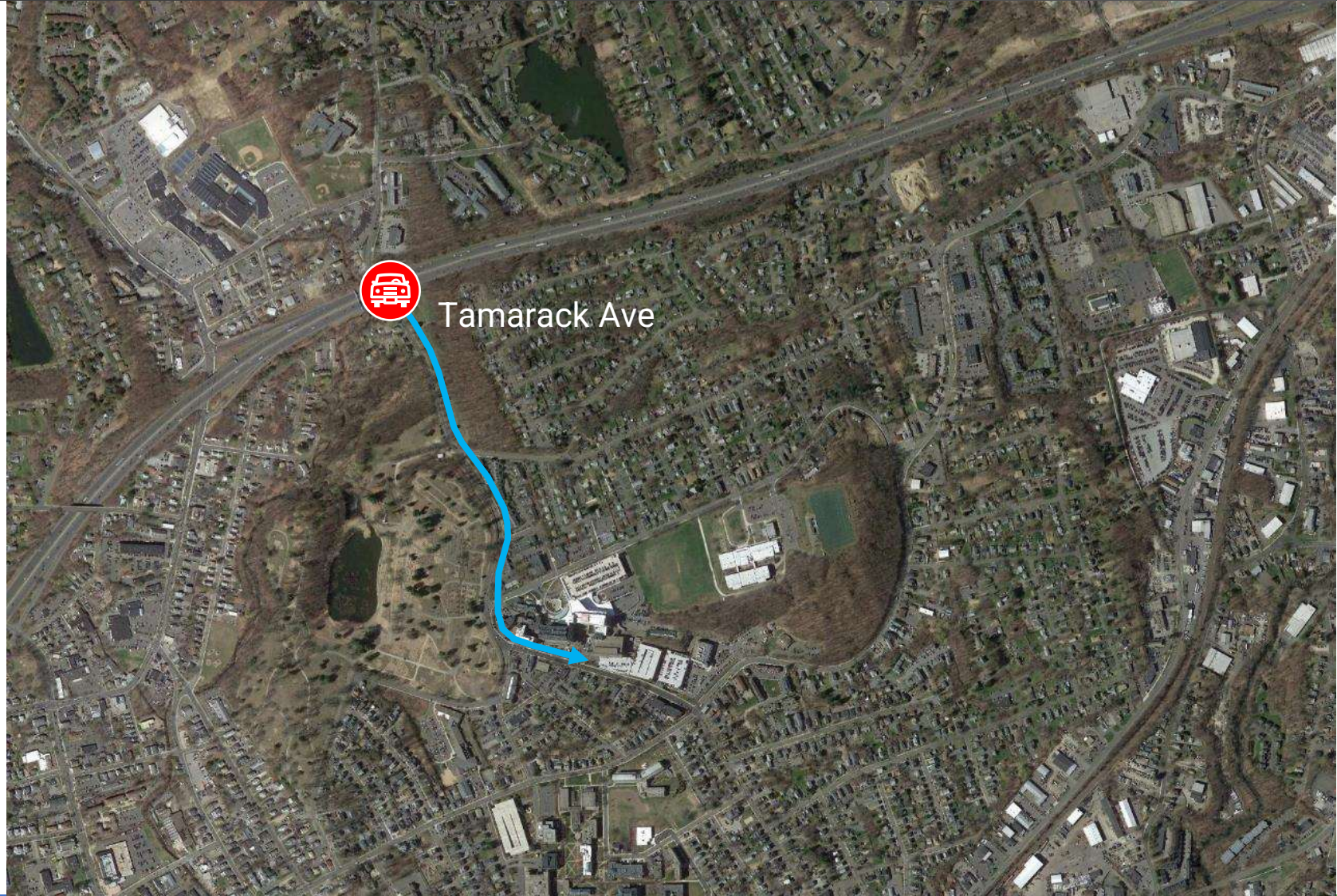
Image shows an iterative process of optimizing the Tamarack Avenue alignment



Travel Time

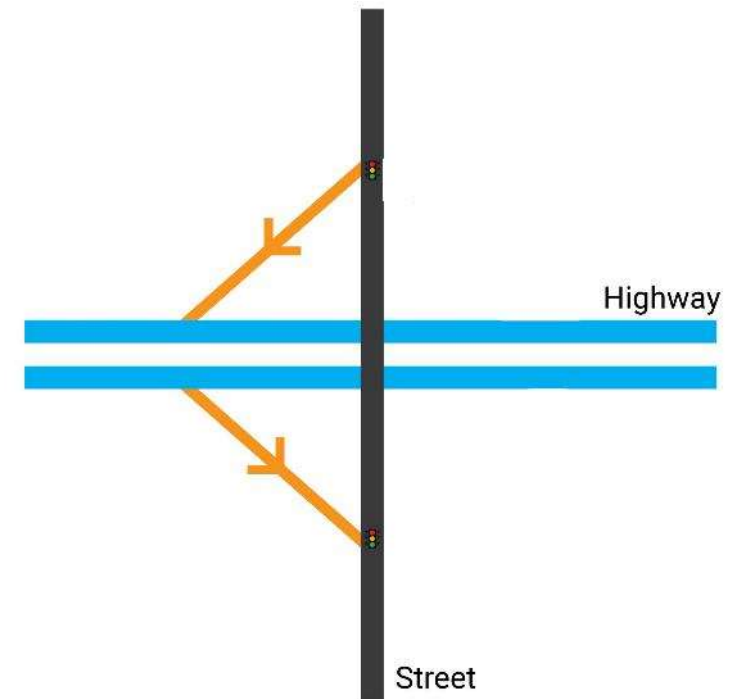
*I-84 to Danbury Hospital
via Tamarack Ave*

**2:00
minutes**

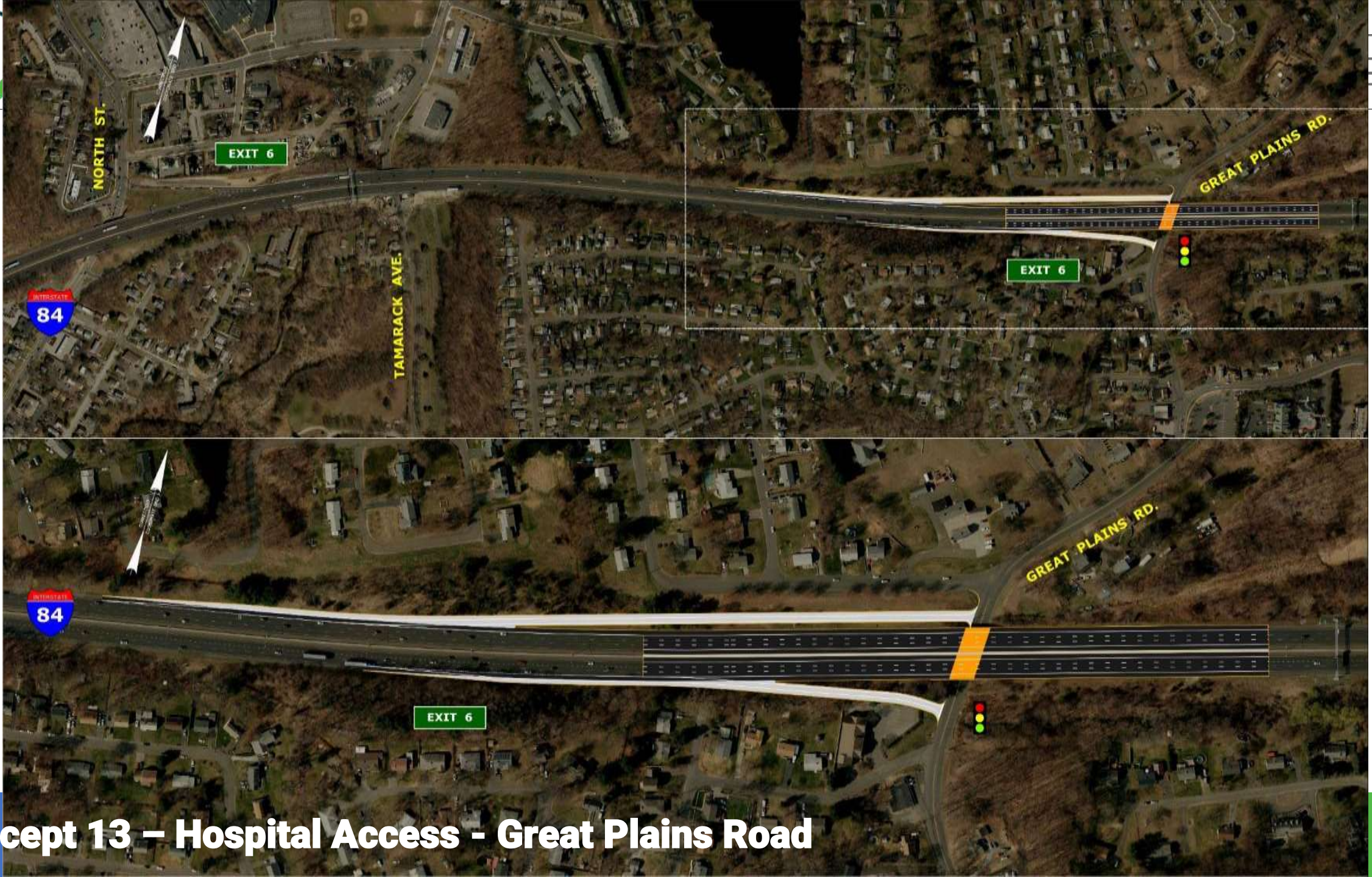


Concept 13 Overview

- Hospital access provided via Great Plains Rd
- Access to / from the west on I-84
- North St interchange remains
- Access to downtown points
- Opportunities to enhance pedestrian and bicycle use



New Interchange

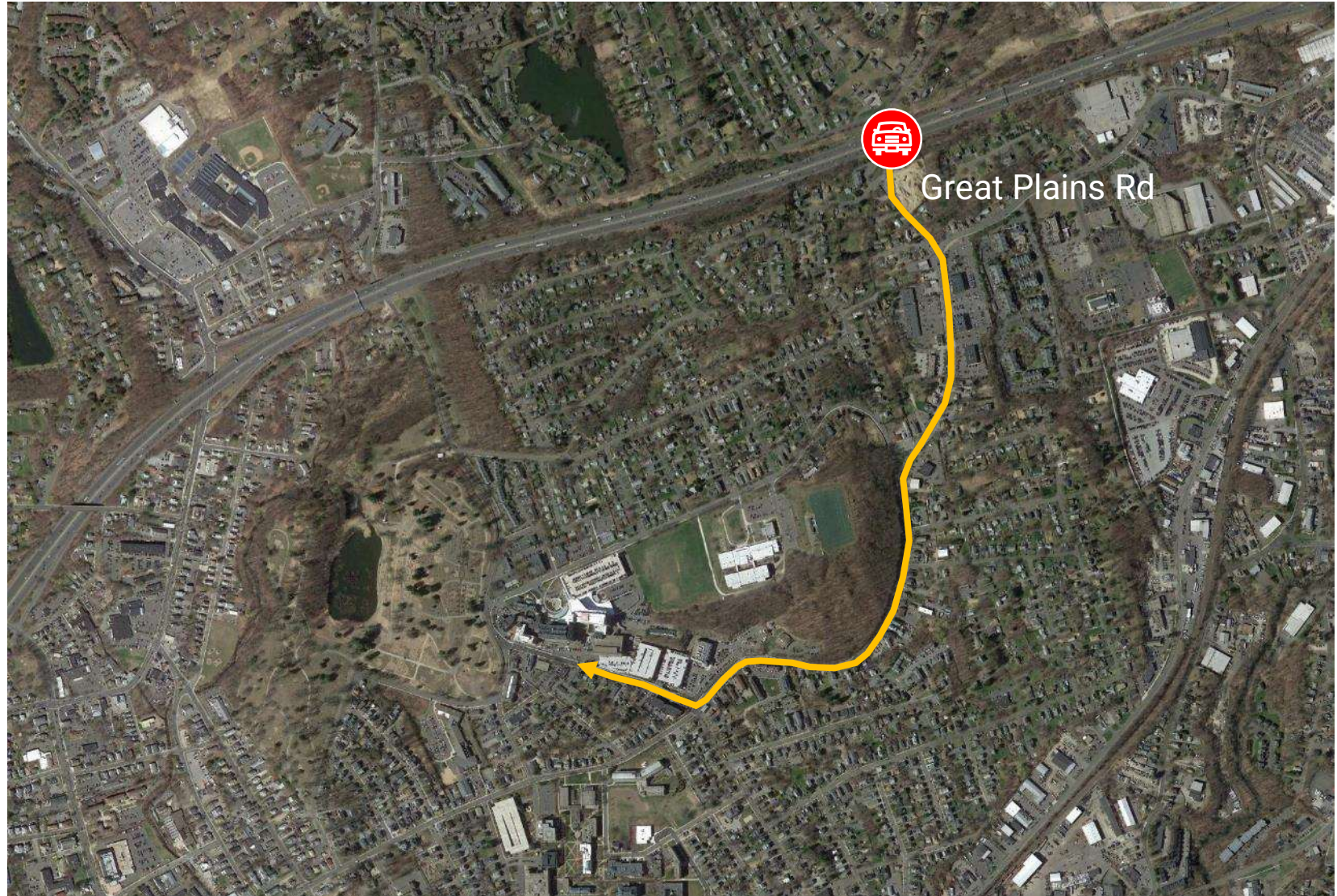


Concept 13 – Hospital Access - Great Plains Road

Travel Time

*I-84 to Danbury Hospital
via Great Plains Rd*

**3:00
minutes**



Pros and Cons

Description	Concept 3	Concept 13
Improves connection to Danbury Hospital and downtown	●	●
Enables typical construction methods (<i>easier to build</i>)	●	●
Meets driver expectation (<i>full highway access at one location</i>)	●	○
Minimizes number of property impacts	○	●
North St ramps remain (<i>access to businesses</i>)	○	●
Reduces congestion and improves mobility on I-84 and Rt 7	○	○

● = Concept has positive effect (pro)
○ = Concept has negative effect (con)



Construction Cost Estimate*

Cost Range	Rating
Less than \$0.5 billion	\$
\$0.5 billion to \$1 billion	\$\$
\$1 billion to \$3 billion	\$\$\$
\$3 billion to \$5 billion	\$\$\$\$
Greater than \$5 billion	\$\$\$\$\$

*Inflated to mid-point of construction, not including right-of-way and engineering costs

Recommendation

These concepts have merit for improving access to the hospital and should be combined with a concept that addresses congestion and mobility on highway.



Discussion / Questions



Concept 4: Non-highway Options

Why consider non-highway options?

- **Reduce vehicular congestion on highway and local roads**
- **Improve mobility along the corridor and in the region**
- Provide better access to work for transit dependent communities
- Complement existing transit services
- Support economic and transit-oriented development opportunities



Travel Demand Management

Purpose of High-Level Transit Analysis

- Identify potential transit improvements after studying regional demand
- Define modes, routes, and other service factors
- Potential ridership levels and impact on traffic
- High-level benefit, cost, and impact analysis

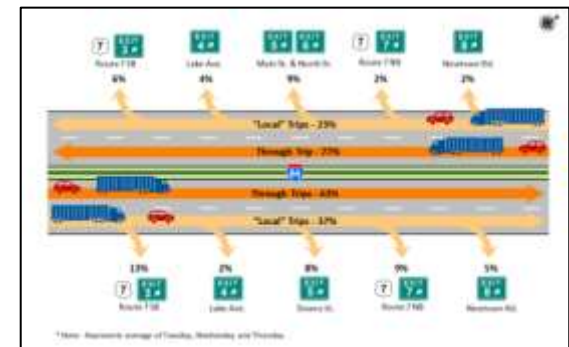
Transit Modes Considered

- ✓ *Express bus*
- ✓ *Shuttle / micro-shuttle*
- ✓ *Local bus*
- ✓ *Commuter rail / rail shuttle*



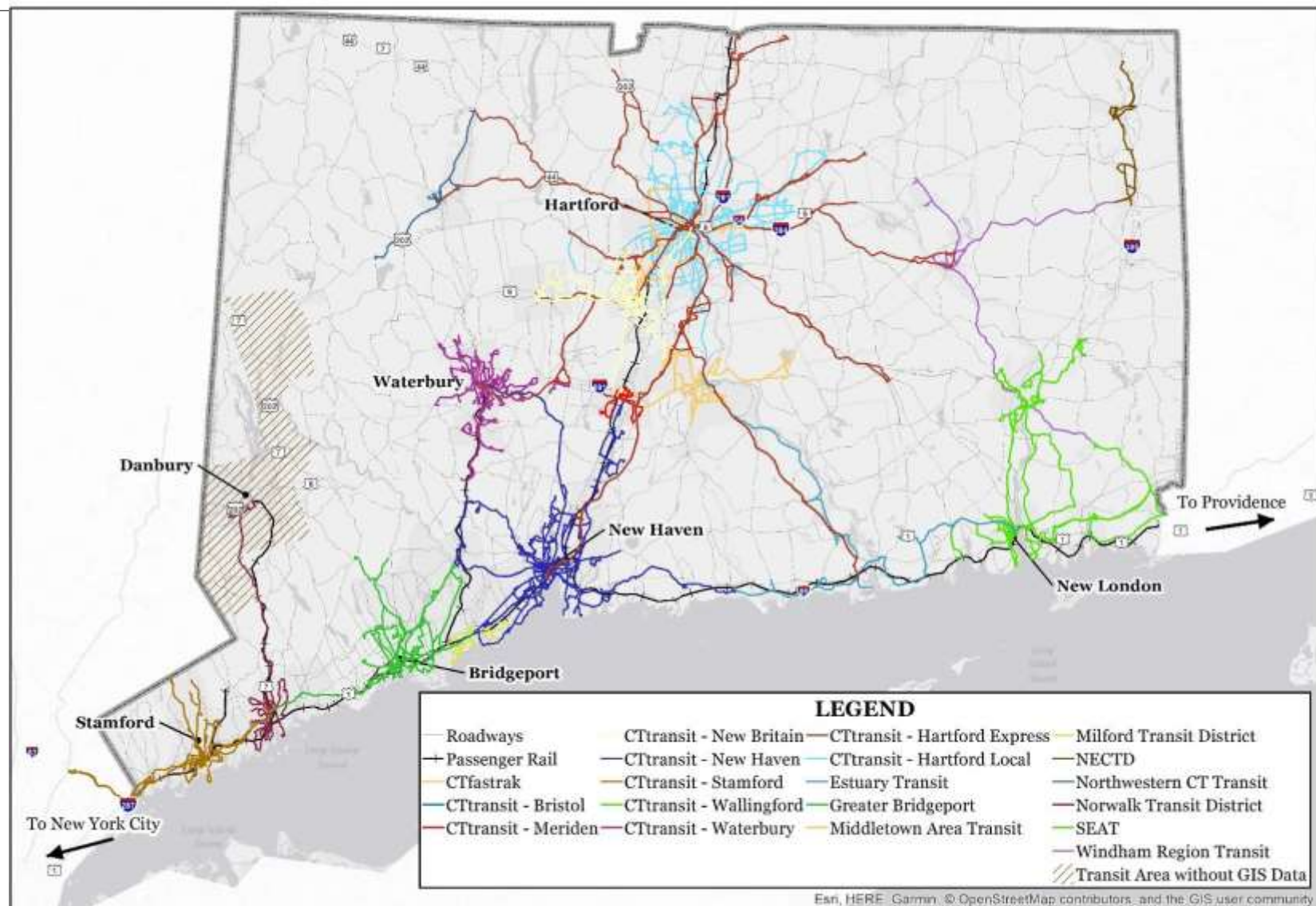
Data Sources

- U.S. Census data
- HART & Metro North service and ridership
- CTDOT travel demand model
- Origin-destination survey
- GIS data
- Previous transit studies and sources



Existing Transit Services

Danbury and Beyond

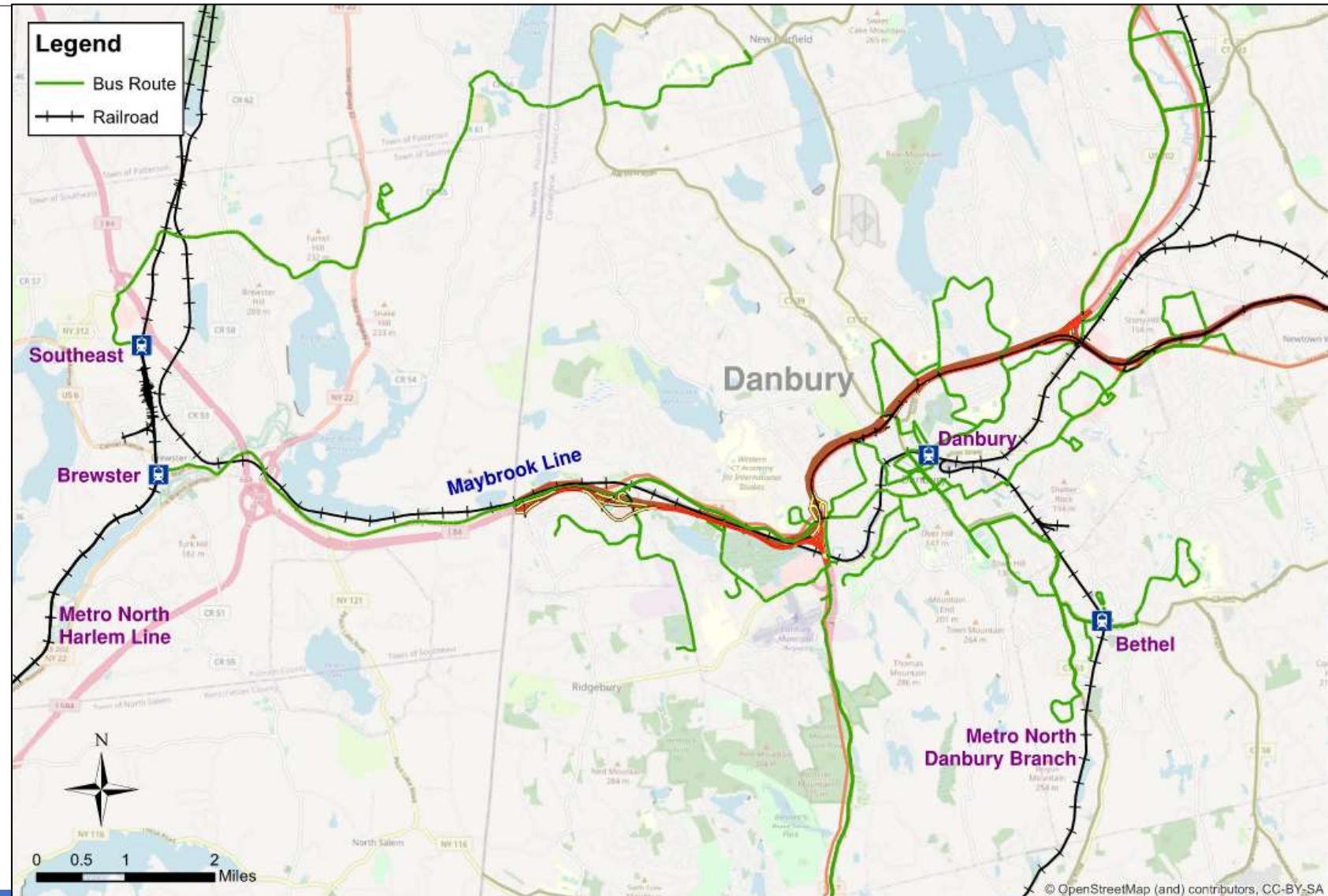


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Existing Transit Services

Danbury and Beyond

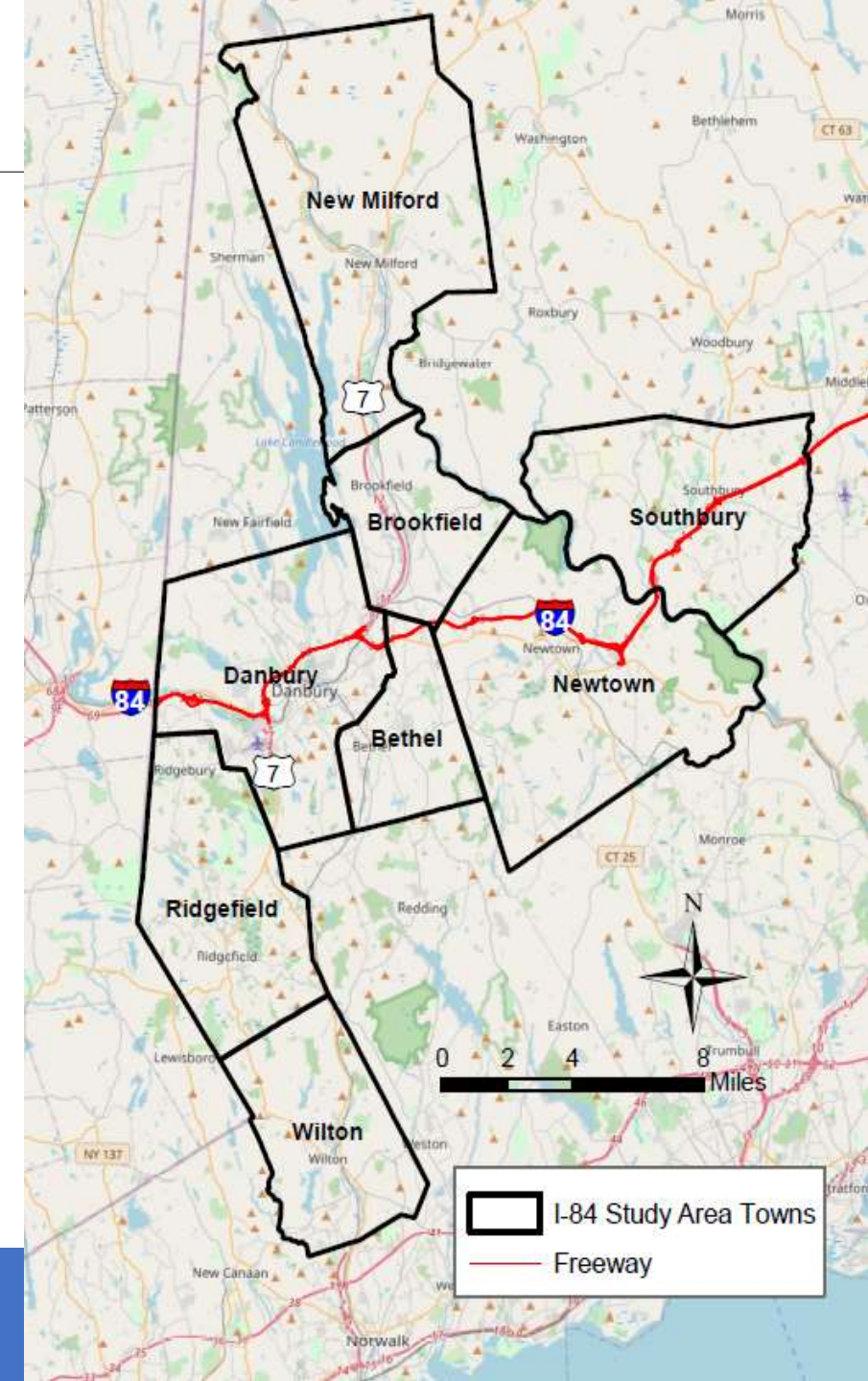
- HART - local bus service
- Metro North Railroad - Danbury Branch and Harlem Line



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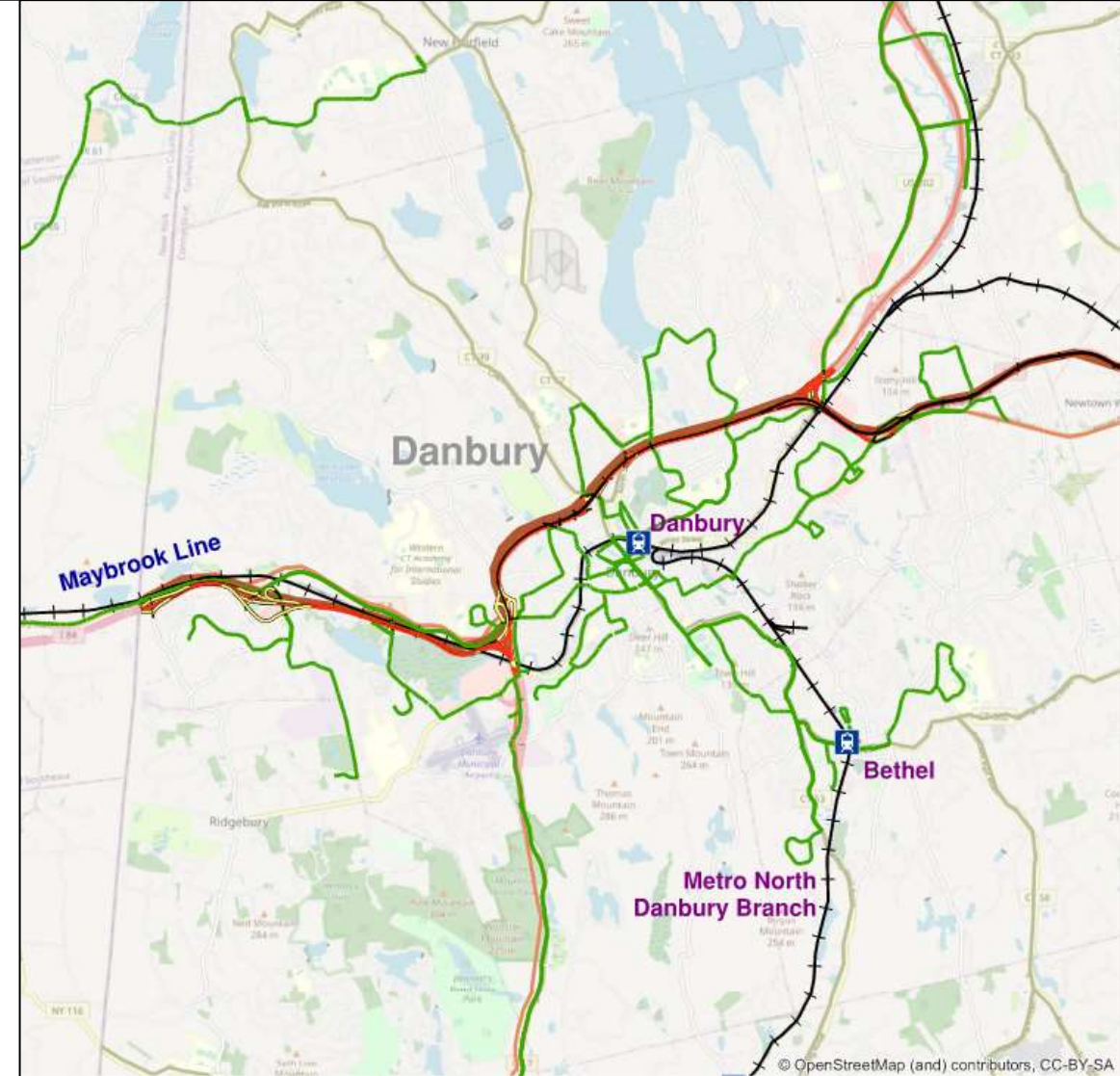
Travel in the Danbury Area

- Most people traveling within 8-town region use I-84 and Route 7
- Trips affect traffic congestion on I-84, Route 7, and local roads in Danbury
- Improved regional transit service could provide mobility options to meet travel needs
- ~10% trips made to / from all New York counties
- ~ 3% trips made to / from NYC



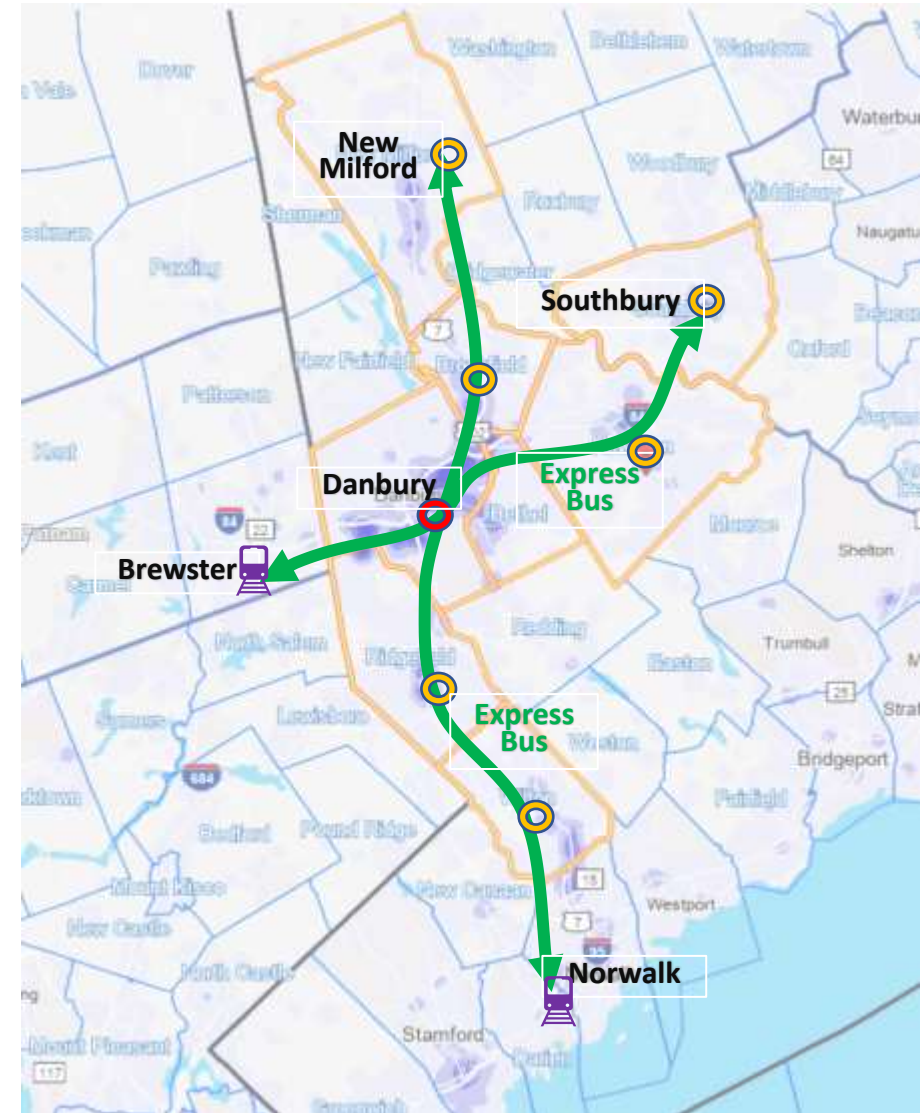
Auto Ownership

- Danbury has most zero- /one-car households in study area
- Zero- / one-car households more likely to be transit dependent
- Improved regional and local transit could provide mobility options for users



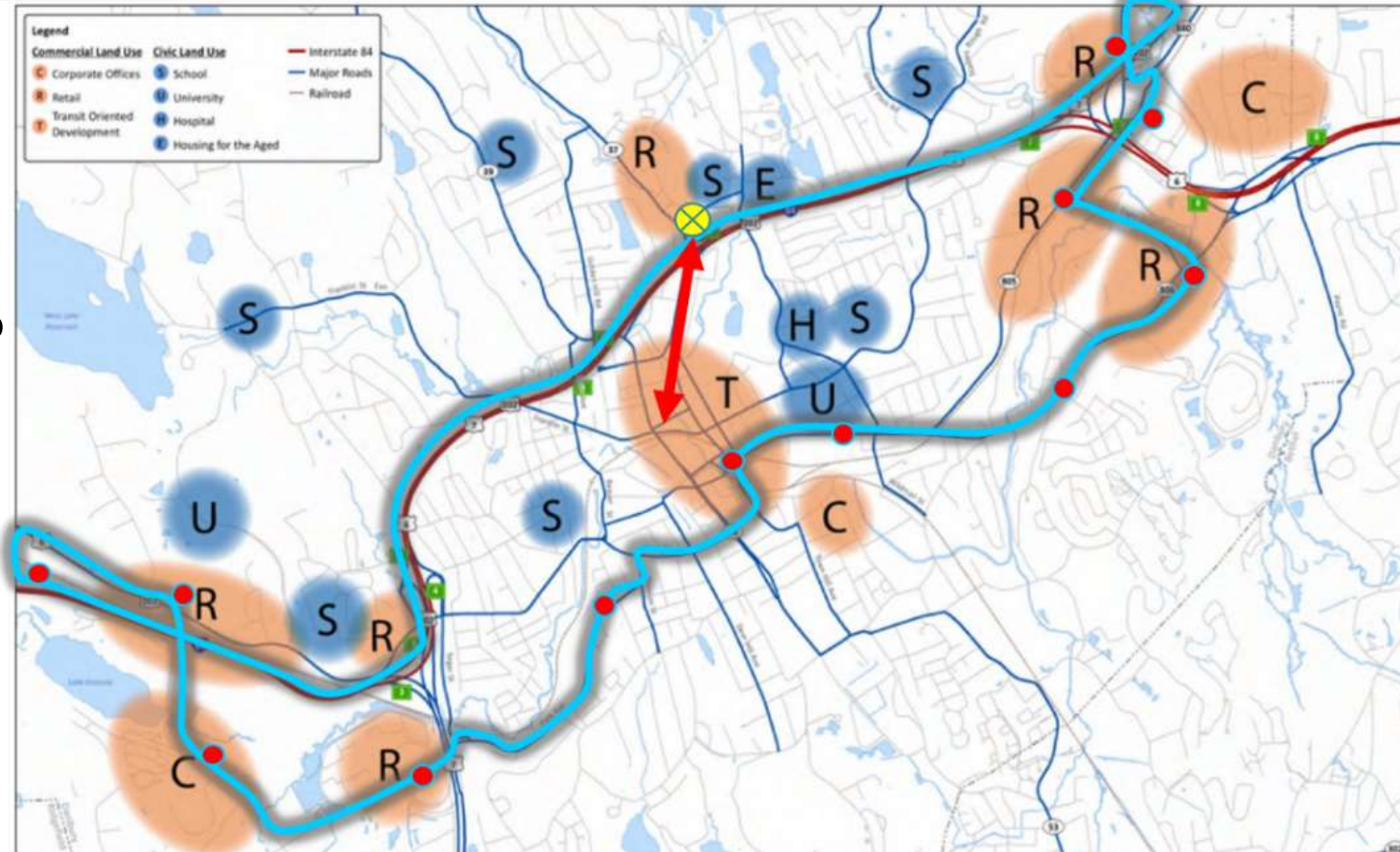
Potential Regional Transit Service

- New express bus routes could provide regional connectivity through Danbury
- Improved express bus routes could provide better regional access to commuter rail stations



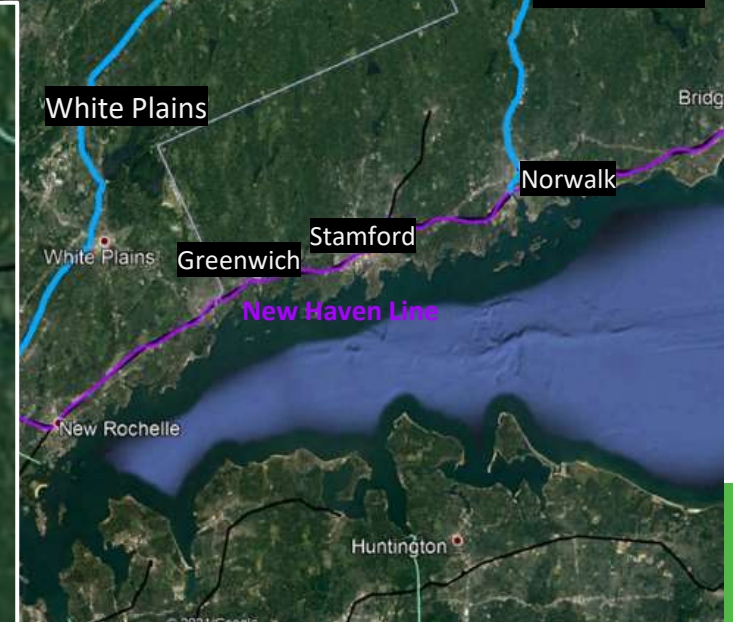
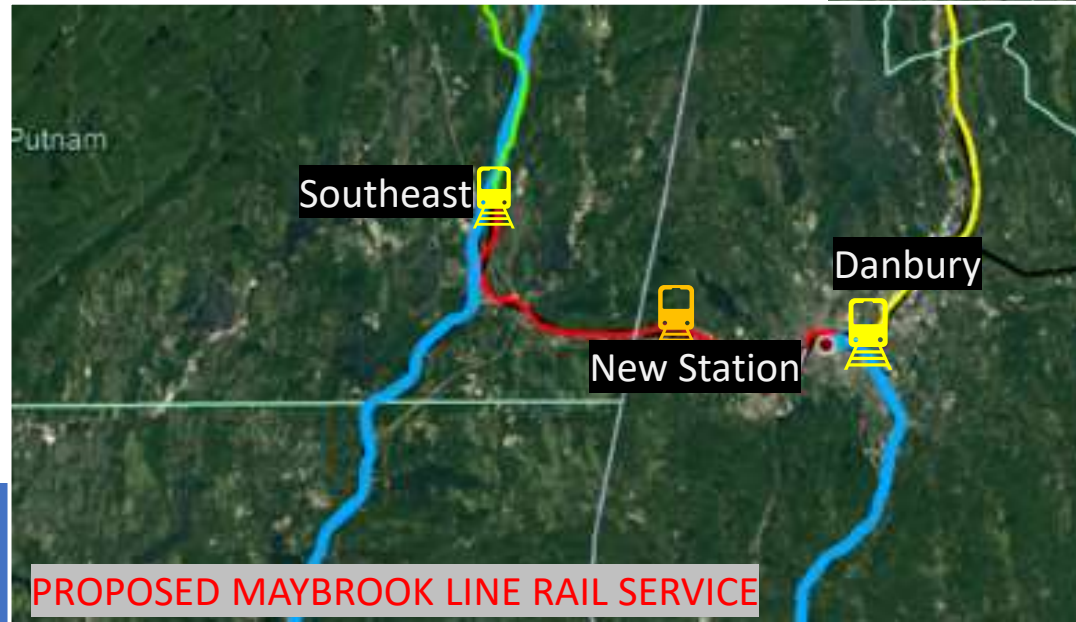
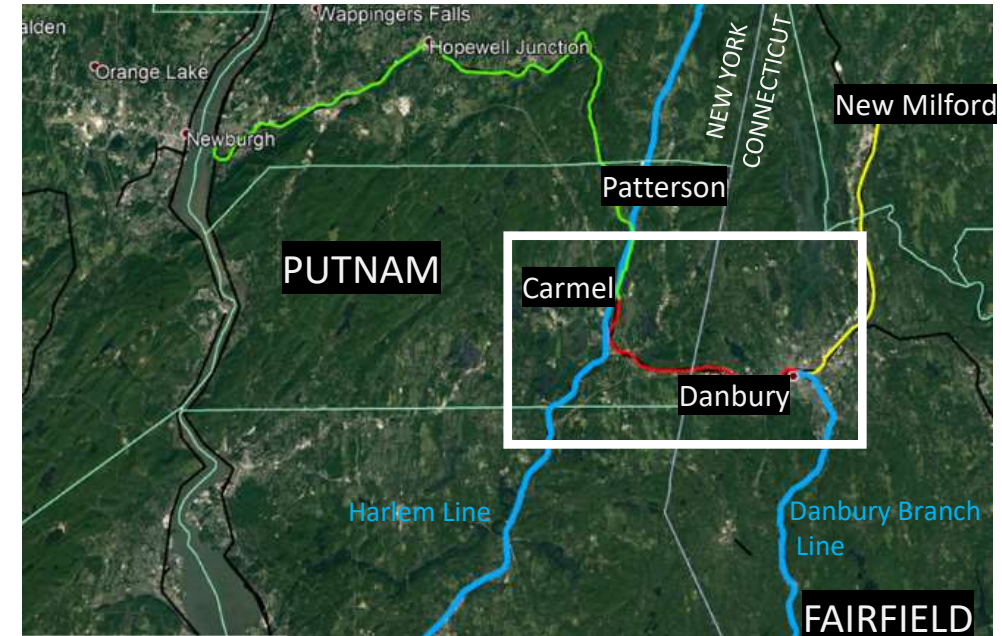
Potential Local Circulator / Connector Service

- New circulator route could enhance access to work and shopping destinations
- New circulator route could provide transfers between HART and the new express services



Rail Transit Analysis

- Proposed Maybrook Line rail service
- Analysis assumptions:
 - New station
 - One-way travel time of **20** minutes between Danbury and Southeast stations
 - Peak service only



Effect of Bus & Rail Ridership on Highway Traffic

- There are 7,000 auto trips on I-84 during the peak hour
- About 410 or 6 percent of the auto trips on I-84 could be shifted to transit during peak hour
- **Bus and Rail options alone do not significantly improve congestion levels on the highways**



Draft Purpose Statement

The purpose of the I-84 Danbury Project is to reduce **congestion** and improve the **mobility** of people and goods in the I-84 corridor in greater Danbury.

Findings and Conclusions

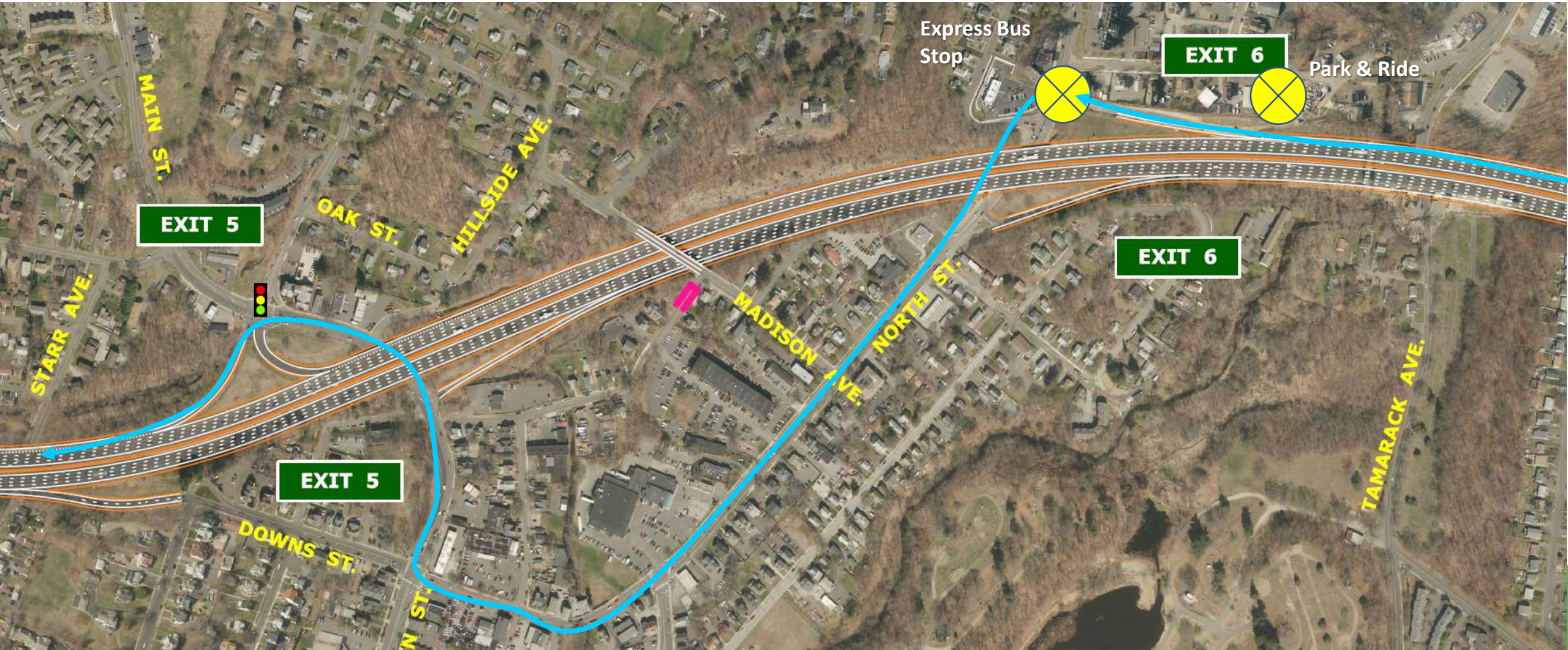
Non-highway options:

- Would not significantly reduce the congestion on highway
- Could provide benefits to improve regional and local mobility
- Could address needs of transit dependent users
- Could complement any highway option; not a standalone solution



Working with Highway Concepts

Highway Concept 1: Lane Add - Mainline





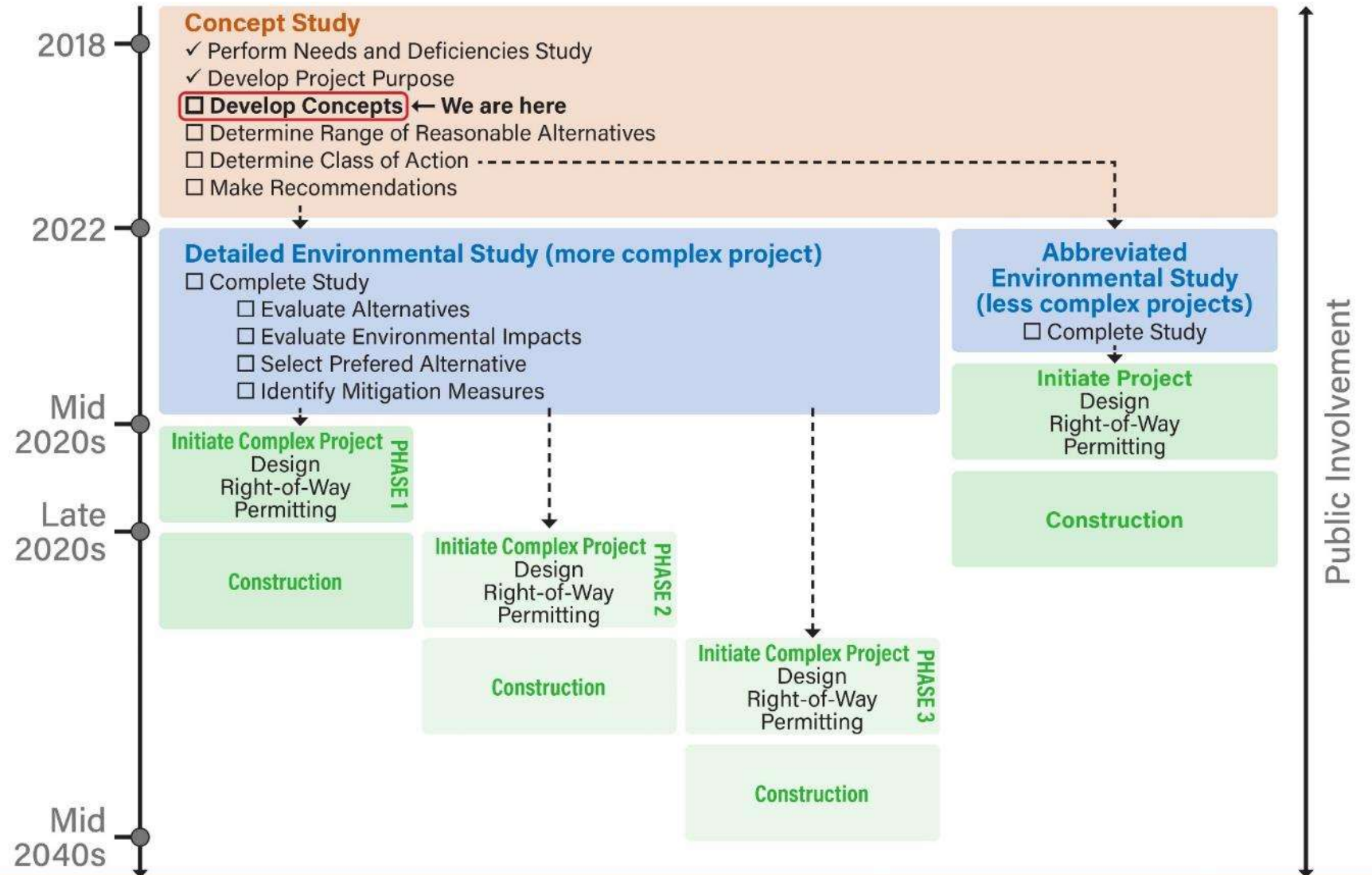
Discussion / Questions



Next Steps



Process and Timeline



Next Steps

- Complete concept development end of 2021
- Begin combining concepts
- Establish screening criteria and performance measures
- Next PAC Meeting – Winter 2021-22
 - ☐ Concept 14
 - ☐ Transportation System Management and Operations (TSMO)
- Develop a range of reasonable alternatives to move forward into the environmental study phase



Discussion / Questions

Project Contacts

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Thank You!