

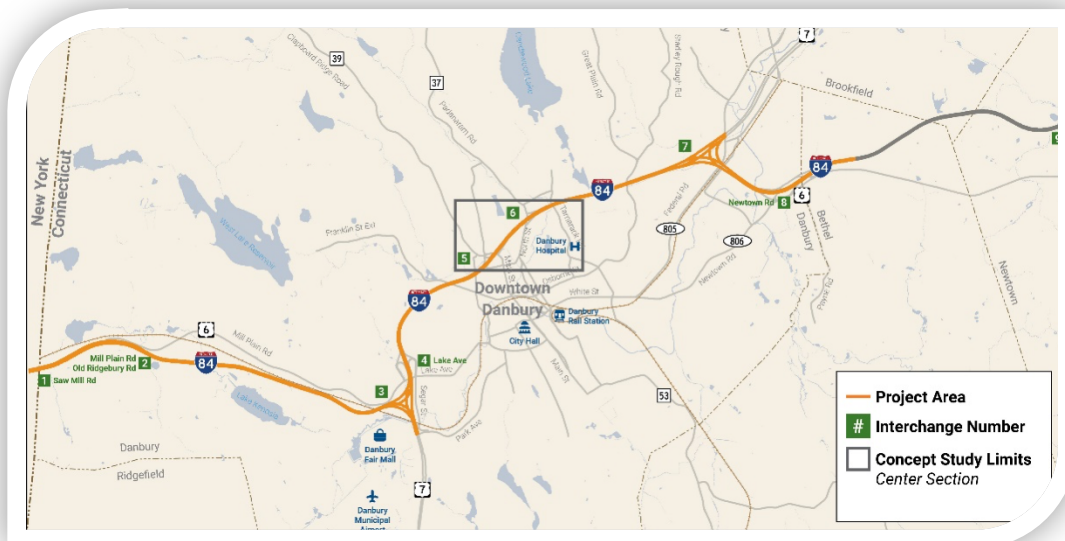
# Concept 11 Summary: Collector Distributor (CD) Road Grade Separated - Center

## DESCRIPTION

Concept 11 seeks to provide improvements to the center section of I-84 within the project corridor. The CD Road will be at the same elevation as I-84. Based on a survey of current travel patterns, it was noted that about a third of the traffic which uses I-84 is local in Danbury. Due to poor connections to downtown and the Danbury Hospital, the existing interchanges (Interchanges 5 and 6) in the center section of I-84 experience congestion. Therefore, a concept for a CD Road was developed to establish local connectivity and access to key destinations in downtown. The existing interchanges at Main Street and North Street are eliminated and the CD Road provides connections to Main Street, North Street, and Tamarack Avenue.

Elements of Concept 11 include:

- CD Road is approximately 2.3 miles in length in the eastbound direction and will begin east of Interchange 4 (Lake Avenue) and end east of the Great Plains Road overpass.
- CD Road is approximately 2.3 miles in the westbound direction and will begin east of Great Plains Road overpass and end west of Main Street.
- CD Road will be a one-way pair parallel to I-84 and will consist of two travel lanes in each direction.
- CD Road will be grade separated at Main Street, North Street, and Tamarack Avenue.
- On and off ramps will be provided to local streets and the CD Road.
- I-84 will remain at its current location and have three lanes in each direction.
- Existing I-84 will be reconstructed (with new pavement) and will be widened on both sides to provide shoulders which meet current design standards.
- Acceleration and deceleration lane lengths will be provided to meet design standards at the CD Road interchanges with I-84.
- 7 existing bridges will be replaced and 1 bridge will be removed.



## PROS

- Peak hour delay will be reduced on I-84 and Route 7 within the limits of the concept.
- CD Road does not experience congestion and delay since it's grade separated.
- Improves connection to the Danbury Hospital.
- Improves connection to downtown.
- North Street and Tamarack Avenue have full access to/from I-84 via the CD Road.
- Provides an opportunity to enhance public transit use.
- There are no impacts to known historical resources.

## CONS

- Results in increased congestion on I-84 westbound beyond Interchange 5 during the weekday A.M. peak hour.
- Ramp entrances and exits on the CD Road are closely spaced and will not meet design standards.
- Does not address pedestrian and bicycle accommodations on the CD Road.
- Does not address lane continuity on I-84.
- Does not address the left-hand entrance and exit ramps in the I-84 corridor.
- Lacks consistent design speed throughout the I-84 corridor.

## CONS (CONTINUED)

- Does not propose changes to the existing interfaces to local streets at interchanges 1, 2, 3, 4, 7, and 8.
- Multiple stages of construction will be required involving closures to local streets.
- Construction will occur within a tight corridor.
- Significant property impacts, many of which would occur in designated Environmental Justice communities.
- High probability of impacting burial plots at the Old North Main Street cemetery and cemetery property located at 19 Tamarack Avenue.
- Improvements are located near the natural gas transmission pipeline between Interchange 6 and Interchange 7, with potential conflicts.
- Modest increases in noise levels at some adjacent properties would be anticipated.
- The highway would be closer to certain residential properties as compared to existing conditions, thus impacting aesthetics.
- Would result in disturbance to the FEMA 100-year floodplain associated with Boggs Pond Brook and Padanaram Brook.
- Community cohesion would be disrupted by dead-ending several local streets and increasing the crossing distance between the north and south side of the highway.

## RECOMMENDATION

This concept reduces congestion and improves mobility within the extent of improvements but does not address congestion or mobility outside the limits of the concept. The ramp entrances and exits on the CD Road are very close to each other and do not meet design standards. This concept will have constructability challenges and will impact multiple properties. Anticipated environmental impacts are expected to be moderate with numerous mitigation alternatives available to offset most impacts. Given the potential for this concept to impact multiple properties, including active burial sites, additional analysis is necessary to fully evaluate the potential to cause significant and/or irreparable harm to the human environment.

As a result of the screening process, it is recommended that this concept be dismissed for further consideration.