



Appendix I Concept Figures

I-84 Danbury PEL Study

Prepared for: The Connecticut Department of Transportation

August 2025

Appendix I

Concept Descriptions and Figures

Appendix I presents detailed concept descriptions for Concept 1 through Concept 26, followed by a drawing which presents conceptual layouts and highlights of each concept.

Concept 1 – Lane Continuity (Mainline)

Concept 1 (Figure I-1) creates improved lane continuity, eliminates left-hand ramps, and, where possible, improves horizontal curvature and vertical geometry along the mainline section of I-84 within the PEL Study Area. This concept proposes to maintain the current alignment of I-84 and stay within the existing ROW to the greatest extent possible. The primary component of this concept is the addition of eastbound and westbound travel lanes to provide at least three lanes of travel in each direction. Improvements are proposed at interchanges 3, 4, and 7 on I-84. No interchange improvements are proposed at the remaining interchanges on I-84.

Concept 2 – Collector Distributor Road (Center)

Concept 2 (Figure I-2) proposes eastbound and westbound collector distributor (CD) roads in the center section of I-84 within the PEL Study Area. The CD roads would improve local access to both downtown and the Danbury Hospital, and would remove local traffic from I-84, thus improving congestion on the mainline. This concept eliminates the existing interchanges at Main Street and North Street, with the CD Road connecting to Main Street, North Street, Madison Avenue, and Tamarack Avenue.

Concept 3 – Hospital Access – Tamarack Avenue (Center)

Concept 3 (Figure I-3) provides a full interchange at Tamarack Avenue (i.e., ramps connect to and from I-84 in both directions with Tamarack Avenue). This interchange would improve access to Danbury Hospital and Downtown in the center section of the PEL Study Area.

Concept 4 – Transit Option (Mainline)

Concept 4 (Figure I-4) identifies potential transit options that would improve mobility and increase transportation options for the traveling public in the I-84/US-7 corridor in Danbury and neighboring towns. These options reduce congestion on the highway and local roads, improve mobility along the corridor and in the region, provide better access for transit-dependent communities, complement existing transit services, and support economic and transit-oriented development opportunities. After studying travel and auto-ownership in the Danbury Region, the following regional and local transit options were identified:

1. New Milford – Danbury Park-and-Ride (P&R)-Norwalk Express Bus – Provides a north-south regional peak express service.
2. Southbury – Danbury P&R - Brewster Rail Station Shuttle Bus – Provides an east-west inter-town express service and access to the Metro North Harlem Line.
3. Danbury Circulator Shuttle Bus – Provides a local circulator shuttle route offering regional bus/shuttle riders access to major attractions in Danbury.
4. Danbury P&R/Express Connector – Provides a connection between the new Express Bus stop/P&R and the existing Pulse Point, which allows access to more locations in Danbury. Minor changes to the Hillsborough Area Regional Transit Authority (HARTtransit) Route 1 headways could be required.
5. Maybrook Line Rail Shuttle – The Maybrook Line is an unutilized railroad ROW between Danbury and Metro-North's Southeast Station in Brewster, New York. As part of the evaluation of this option, a new station in Danbury is proposed between Southeast and the existing Danbury rail

station. This option would provide a connection between Danbury and Metro-North's Southeast Station in Brewster, New York using the unutilized railroad.

These transit options could complement several of the highway options being considered.

Concept 5 – Left to Right Hand Ramps (Mainline)

Concept 5 (Figure I-5) replaces left hand ramps with right hand ramps at the I-84 and US-7 interchanges. This concept maintains the current alignment of I-84 and stays within the existing ROW to the greatest extent possible. A total of nine (9) new bridges, two (2) bridge replacements, and five (5) bridge removals are part of this concept.

Concept 6 – Interchanges 3 and 4 - Segar Street Eastbound (West)

Concept 6 (Figure I-6) proposes a new off-ramp from eastbound I-84 to Segar Street. In this concept, a median barrier would be installed to prohibit I-84 eastbound traffic from using the Lake Avenue exit (Interchange 4). This eliminates the current weaving condition between I-84 eastbound traffic using the Lake Avenue exit ramp and US-7 northbound traffic merging onto I-84 eastbound.

Concept 7 – Tunnel (West)

Concept 7 (Figure I-7) proposes a tunnel and open-cut section on the west side of the PEL Study Area within the vicinity of Interchanges 2 and 4. This concept straightens the current horizontal alignment on I-84 to achieve a consistent travel speed in the corridor and reduce the slowdowns caused by sharp curves. The proposed new alignment of I-84 would have two lanes of travel in each direction. The existing portion of I-84 referred to as the I-84 spur would remain to serve US-7 and Lake Avenue.

Concept 8 – I-84 under Collector Distributor Road (Mainline)

Concept 8 (Figure I-8) lowers I-84 below grade between Interchanges 2 and 8. I-84 would have no local access between Interchanges 3 and 7. All local traffic travelling towards Interchanges 4, 5, and 6 would use a CD Road. At Interchanges 3 and 7, there would be connections between I-84, US-7, and the CD Road. The feasibility of lowering I-84 was explored using the following methods of construction:

1. Open Cut
2. Cut and Cover
3. Mined Tunnel
4. Bored Tunnel

Concept 9 – U.S. 7 Median (Mainline)

Concept 9 (Figure I-9) creates lane continuity, eliminates left-hand ramps, and, where possible, improves horizontal curvature in the mainline section of I-84 within the PEL Study Area. This concept maintains the current alignment of I-84 and separates US-7 vehicles from those on I-84. The primary component of this concept is that US-7 would be shifted into the median section of I-84 and would be an express facility with no local connections between Interchanges 3 and 7. Improvements are only proposed at I-84 Interchanges 3, 4, 7, and 8. No improvements are proposed at the remaining interchanges on I-84.

Concept 10 – U.S. 7 Ramp-Westbound (East)

Concept 10 (Figure I-10) provides a new two-lane on-ramp from US-7 southbound to I-84 westbound at the vicinity of Interchange 7, replacing the current single lane on-ramp. Prior to the US-7 southbound merge with I-84 westbound, the on-ramp from Federal Road merges with the US-7 southbound ramp and creates a lane drop condition in a very short distance. The proposed improvement addresses this lane drop condition through minor widening along the US-7 southbound on-ramp increasing the on-ramp from one to two lanes. The improvement would result in changing the ramp configuration for the US-7 southbound on-ramp to eastbound I-84, specifically by changing from an exit-only ramp to an exit ramp.

Concept 11 – Collector Distributor Road Grade Separated (Center)

Concept 11 (Figure I-11) proposes a CD road, similar to Concept 2, to improve local connectivity and reduce mainline congestion. The existing interchanges at Main Street and North Street are eliminated and the CD Road provides connection to Main Street, North Street, and Tamarack Avenue.

Concept 12 – Interchanges 3 and 4 Collector Distributor Road (West)

Concept 12 (Figure I-12), proposes a CD Road along I-84 eastbound, starting at the merge of the Lake Avenue off-ramp and the US-7 northbound on-ramp at Interchange 3 and ending at the merge with I-84 eastbound at Interchange 4 (about 1,200 feet in length). In this concept, the off-ramp to Lake Avenue will be on the CD Road and a median barrier (about 1,500 feet in length) would be installed to prohibit I-84 eastbound traffic from using the Lake Avenue exit ramp. This would eliminate the current weaving condition between I-84 eastbound traffic with the US-7 northbound traffic that merges onto I-84 eastbound.

Concept 13 – Great Plain Road (Center)

Concept 13 (Figure I-13) proposes a new partial interchange on I-84 at Great Plain Road in the center section of the corridor. The Great Plain Road interchange would improve access between I-84, the Danbury Hospital, and points west of the Hospital.

Concept 14 – Collector Distributor Road Eastbound (East)

Concept 14 (Figure I-14) creates lane continuity, eliminates left-hand ramps, and, where possible, improves horizontal curvature. A CD Road is provided in the eastbound direction between Interchanges 7 and 8 to eliminate the weaving condition. In the westbound direction, the weave would remain between Interchanges 7 and 8. Under this concept, no improvements are proposed at the remaining interchanges on I-84.

Concept 15 – Collector Distributor Road (East)

Concept 15 (Figure I-15) creates lane continuity, eliminates left-hand ramps, and, where possible, improves horizontal curvature. CD roads are provided in each direction between Interchanges 7 and 8. Improvements are only proposed at I-84 Interchanges 7 and 8. Under this concept, no improvements are proposed at the remaining interchanges on I-84.

Concept 16 – Interchange 6 – Collector Distributor Road (Center)

Concept 16, (Figure I-16) proposes CD roads between North Street and Tamarack Avenue on the north and south sides of I-84. This concept eliminates the existing North Street interchange (Interchange 6) and replaces it with ramps from I-84 connected to CD roads using J-shaped ramps in each direction.

Concept 17 – I-84 Realigned with Collector Distributor Road (Center)

Concept 17 (Figure I-17) proposes CD roads in each direction between west of Franklin Street Extension and east of Tamarack Avenue. This concept realigns I-84 to improve horizontal curvature, which maintains a more consistent design speed in the corridor. The Main Street interchange (Interchange 5) would be shifted north to meet the new I-84 alignment. The existing North Street interchange (Interchange 6) would be eliminated and replaced with a new interchange at Tamarack Avenue.

Concept 18 – I-84 Realigned with Collector Distributor Road Eastbound (East)

Concept 18 (Figure I-18) proposes a CD road in the eastbound direction between Interchanges 7 and 8 to eliminate the weaving condition. This concept does not address the weave in the westbound direction between these interchanges. Existing left-hand ramps between I-84 and US-7 at Interchange 7 would be replaced with right-hand ramps. This concept realigns I-84 in the east section to improve the horizontal curvature, which maintains a more consistent design speed in the corridor. The US-7 interchange

(Interchange 7) would be shifted to the south and the US-6/Newtown Road interchange (Interchange 8) would be shifted north to meet design standards for horizontal curvature.

Concept 19 – I-84 Realigned with Collector Distributor Road (East)

Concept 19 (Figure I-19) proposes CD roads in each direction between Interchanges 7 and 8 to eliminate the weaving condition. Existing left-hand ramps between I-84 and US-7 at Interchange 7 would be replaced with right-hand ramps. This concept realigns I-84 in the east section to improve the horizontal curvature, which maintains a more consistent design speed. The US-7 interchange (Interchange 7) would be shifted slightly to the south and the US-6/Newtown Road interchange (Interchange 8) would be shifted farther north to meet design standards for horizontal curvature.

Concept 20 – Interchange 8 with White Turkey Road Connection (East)

Concept 20 (Figure I-20) proposes a new Interchange 8 with a north-south connection to White Turkey Road Extension. This concept provides access to US-7 via White Turkey Connector for automobile traffic on Newtown Road and US-6 without getting on I-84.

Concept 21 – I-84 with Collector Distributor Road to Great Plain Road (East)

Concept 21 (Figure I-21) proposes a CD road in both directions between Great Plain Road and Newtown Road (Interchange 8). This concept shifts I-84 slightly to the south to maintain a more consistent design speed in the corridor. Existing left-hand ramps between I-84 and US-7 at Interchange 7 would be replaced with right-hand ramps.

Concept 22 – I-84 Expressway (Mainline)

Concept 22 (Figure I-22) creates lane continuity, eliminates left-hand ramps, and, where possible, improves horizontal curvature in the mainline section of I-84 within the PEL Study Area, while maintaining its current alignment. This concept proposes express lanes in both directions in the median section between Interchanges 3 and 8. A barrier would separate the median express lanes of I-84 from US-7 to its right, therefore, prohibiting direct access between these roadways and between I-84 and the local interchanges along the express segment. This concept provides access from I-84 to US-7 with the introduction of two exit ramps: one in the eastbound direction, located on I-84 west of Interchange 3 and the other in the westbound direction, located east of Interchange 8. US-7 would then provide connections to the local interchanges.

Concept 23 – Transportation System Management and Operations (Mainline)

Concept 23 (Figure I-23) is comprised of a set of strategies focused on operational improvements to increase mobility and reduce congestion with minimal modifications to the existing roadway. A variety of TSMO strategies were evaluated, including dynamic lane use, traffic incident management, arterial management, and travel demand management (TDM) (see Appendix L, CDM Smith, Concept 23: TSMO Strategies, Engineering White Paper, November 2022). These strategies have the potential to reduce congestion and improve mobility on I-84. The dynamic lane use strategy was shown to be effective and could be implemented in a short time frame (0-5 years). This strategy involves reallocating road space in response to changes in demand and uses existing infrastructure more efficiently. In this case the existing inside shoulder, next to the median of I-84, would be used as an additional travel lane during the peak traffic demand. As this peak demand is directional, the westbound dynamic lane would only be open in the morning, while the eastbound dynamic lane would only be open in the afternoon.

Concept 24 – Starr Avenue - Interchange 5 (Center)

Concept 24 (Figure I-24) improves local access to downtown and improves congestion on I-84 by providing an alternative for local traffic use instead of the interstate. Concept 24 proposes a CD road in the eastbound direction between Main Street (existing Interchange 5) and North Street (existing

Interchange 6). In the westbound direction, the existing westbound ramps at Interchange 5 (Main Street) are eliminated and a new, full Interchange 5 is proposed on Starr Avenue. Additionally, a new on-ramp is introduced at North Street in the westbound direction, which makes Interchange 6 on North Street a full interchange.

Concept 25 – Three Lane Collector Distributor Road (Center)

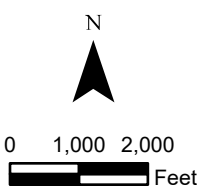
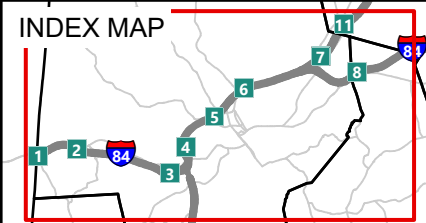
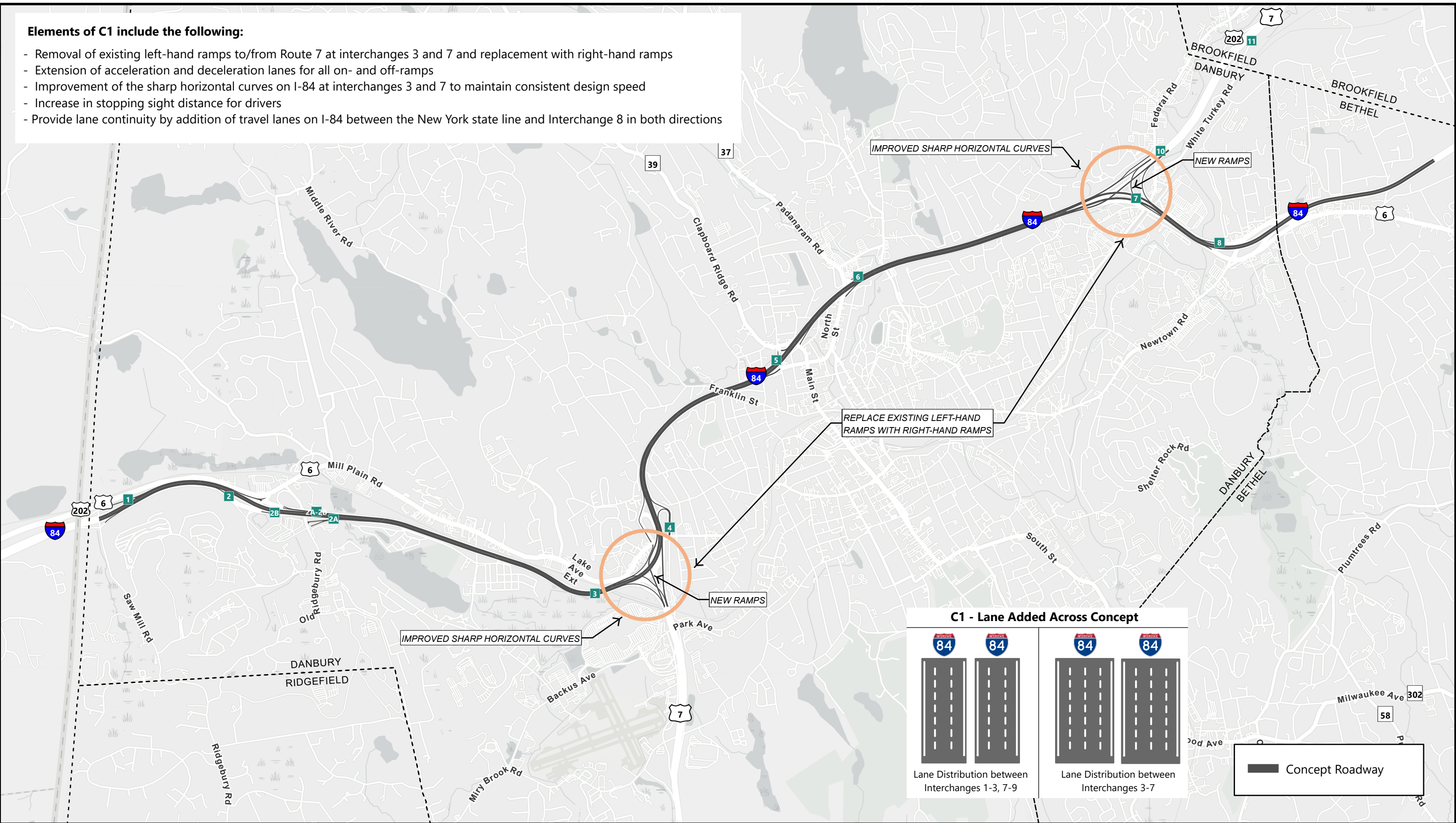
Concept 25 (Figure I-25) proposes a 3-lane CD road improving local access to both downtown and the Danbury Hospital and improving congestion on I-84 by providing an alternative for local traffic use instead of the interstate. This concept eliminates the existing interchanges at Main Street and North Street and the CD road provides connection to Main Street, North Street, Madison Avenue, and Tamarack Avenue.

Concept 26 – North Street On-Ramp Interchange 6 (Center)

Concept 26 (Figure I-26) improves local access to downtown and improves congestion on I-84 by providing an alternative for local traffic use instead of the interstate. Concept 26 proposes a one-way, two-travel lane CD Road in the eastbound direction between Main Street (Interchange 5) and North Street (Interchange 6). This concept adds an auxiliary lane on I-84 westbound between the North Street on-ramp and Main Street off-ramp. The existing westbound ramps at Interchange 5 (Main Street) would remain and a new on-ramp would be introduced to North Street, giving it full access to I-84.

Elements of C1 include the following:

- Removal of existing left-hand ramps to/from Route 7 at interchanges 3 and 7 and replacement with right-hand ramps
- Extension of acceleration and deceleration lanes for all on- and off-ramps
- Improvement of the sharp horizontal curves on I-84 at interchanges 3 and 7 to maintain consistent design speed
- Increase in stopping sight distance for drivers
- Provide lane continuity by addition of travel lanes on I-84 between the New York state line and Interchange 8 in both directions



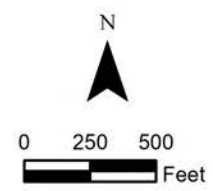
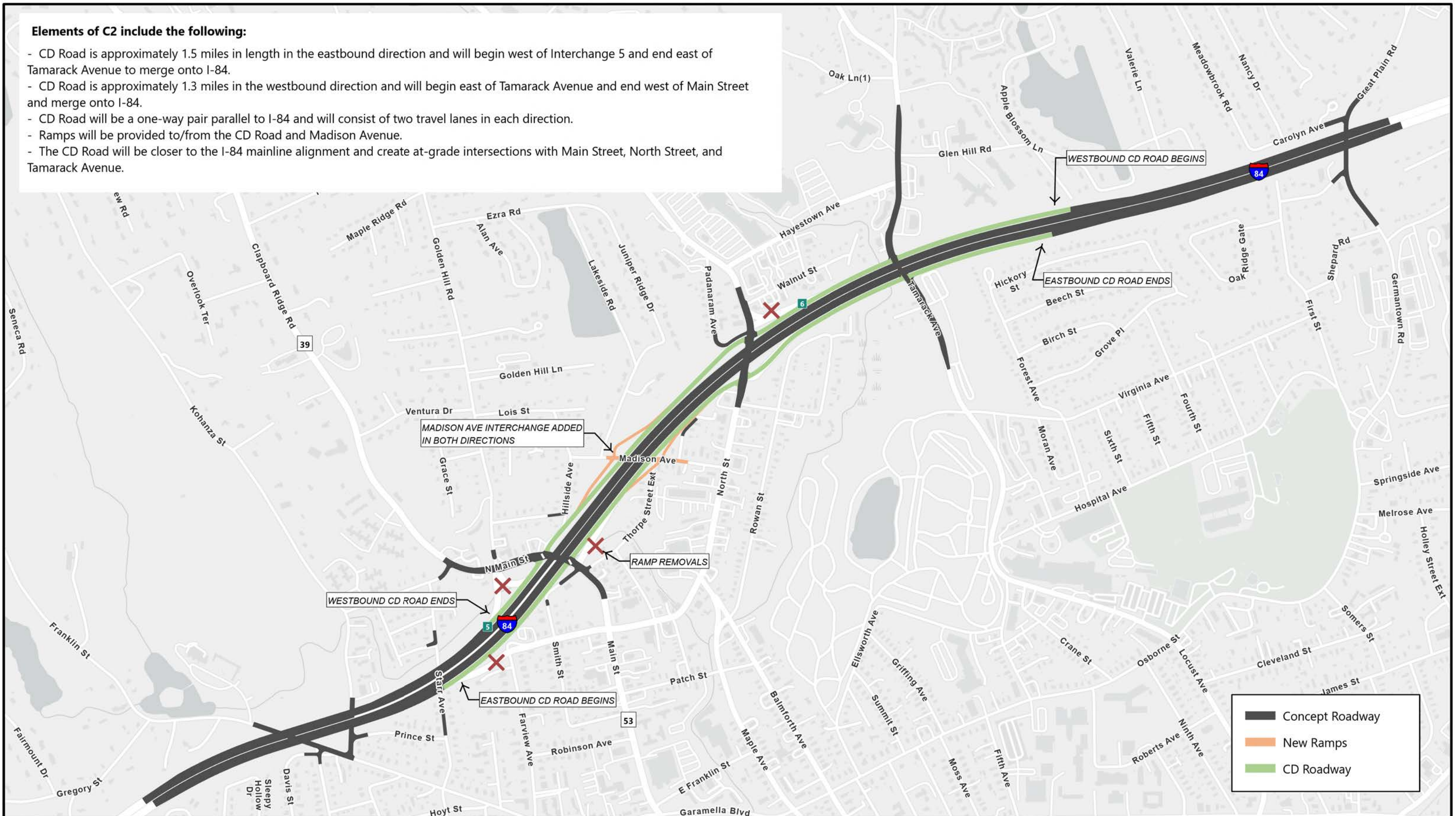
I-84 Danbury PEL Study
C1 - Lane Continuity - Mainline

FIGURE I-1



Elements of C2 include the following:

- CD Road is approximately 1.5 miles in length in the eastbound direction and will begin west of Interchange 5 and end east of Tamarack Avenue to merge onto I-84.
- CD Road is approximately 1.3 miles in the westbound direction and will begin east of Tamarack Avenue and end west of Main Street and merge onto I-84.
- CD Road will be a one-way pair parallel to I-84 and will consist of two travel lanes in each direction.
- Ramps will be provided to/from the CD Road and Madison Avenue.
- The CD Road will be closer to the I-84 mainline alignment and create at-grade intersections with Main Street, North Street, and Tamarack Avenue.



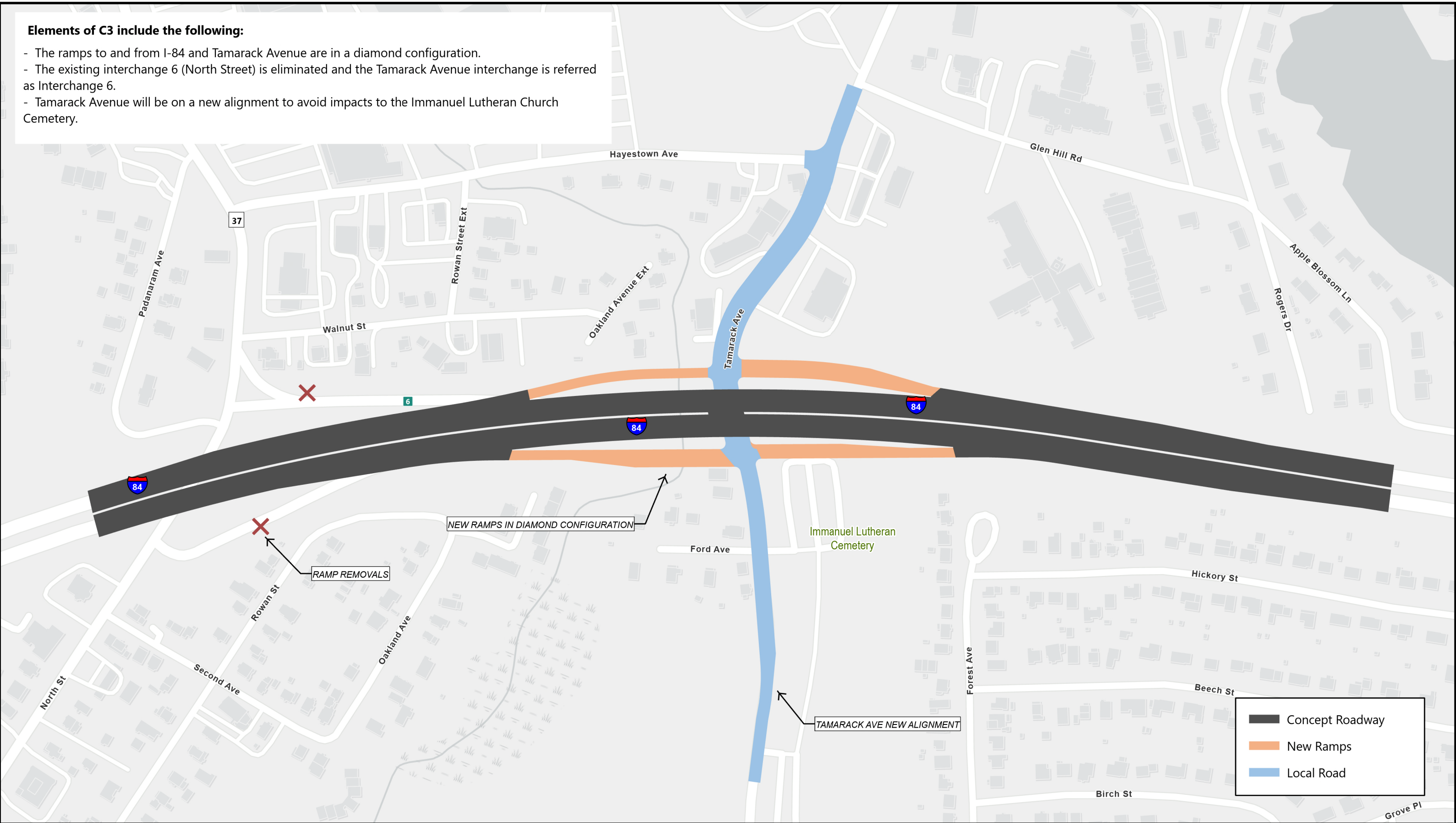
I-84 Danbury PEL Study
C2 - Collector Distributor Road - Center

FIGURE I-2



Elements of C3 include the following:

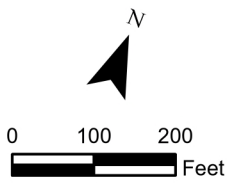
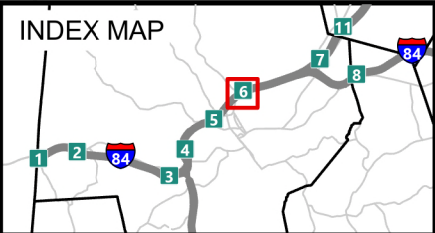
- The ramps to and from I-84 and Tamarack Avenue are in a diamond configuration.
- The existing interchange 6 (North Street) is eliminated and the Tamarack Avenue interchange is referred as Interchange 6.
- Tamarack Avenue will be on a new alignment to avoid impacts to the Immanuel Lutheran Church Cemetery.



Concept Roadway

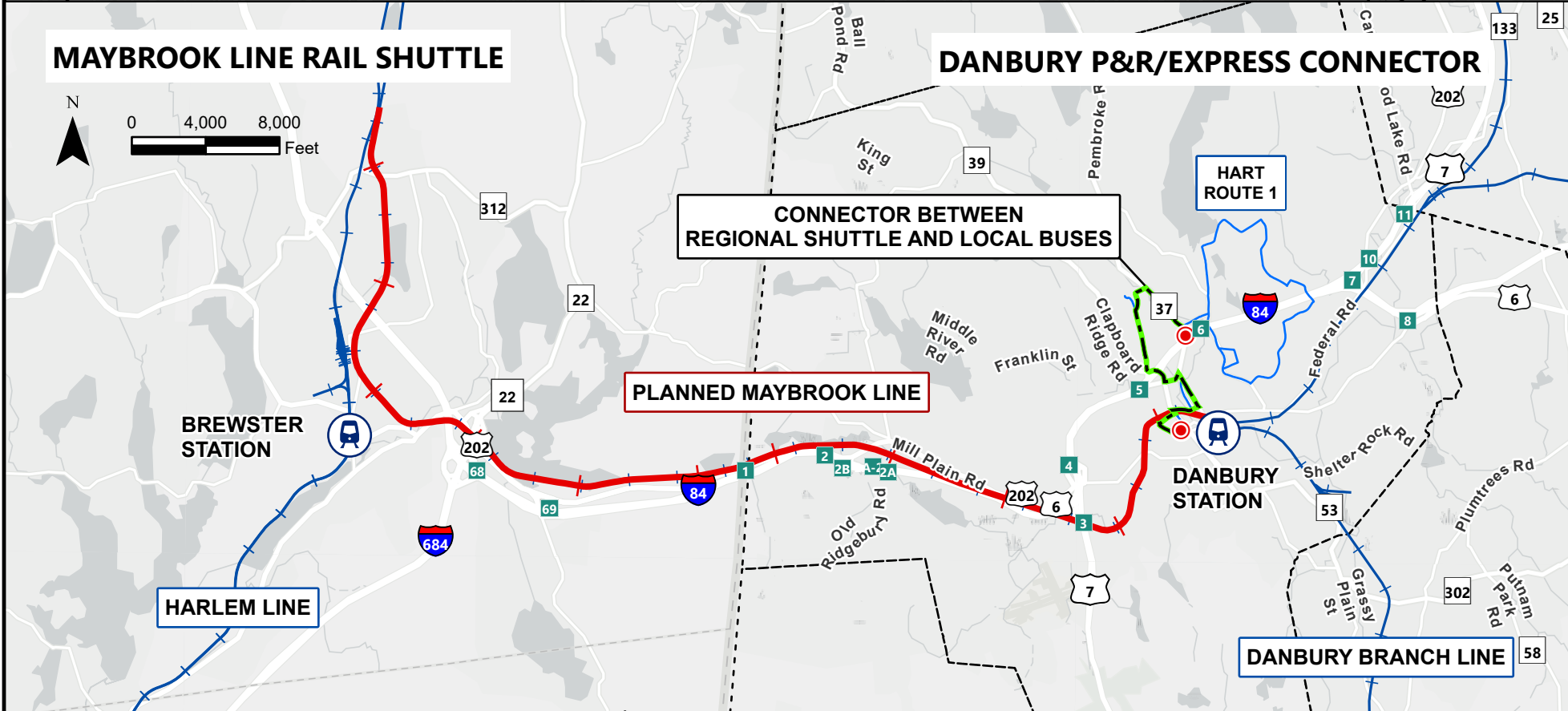
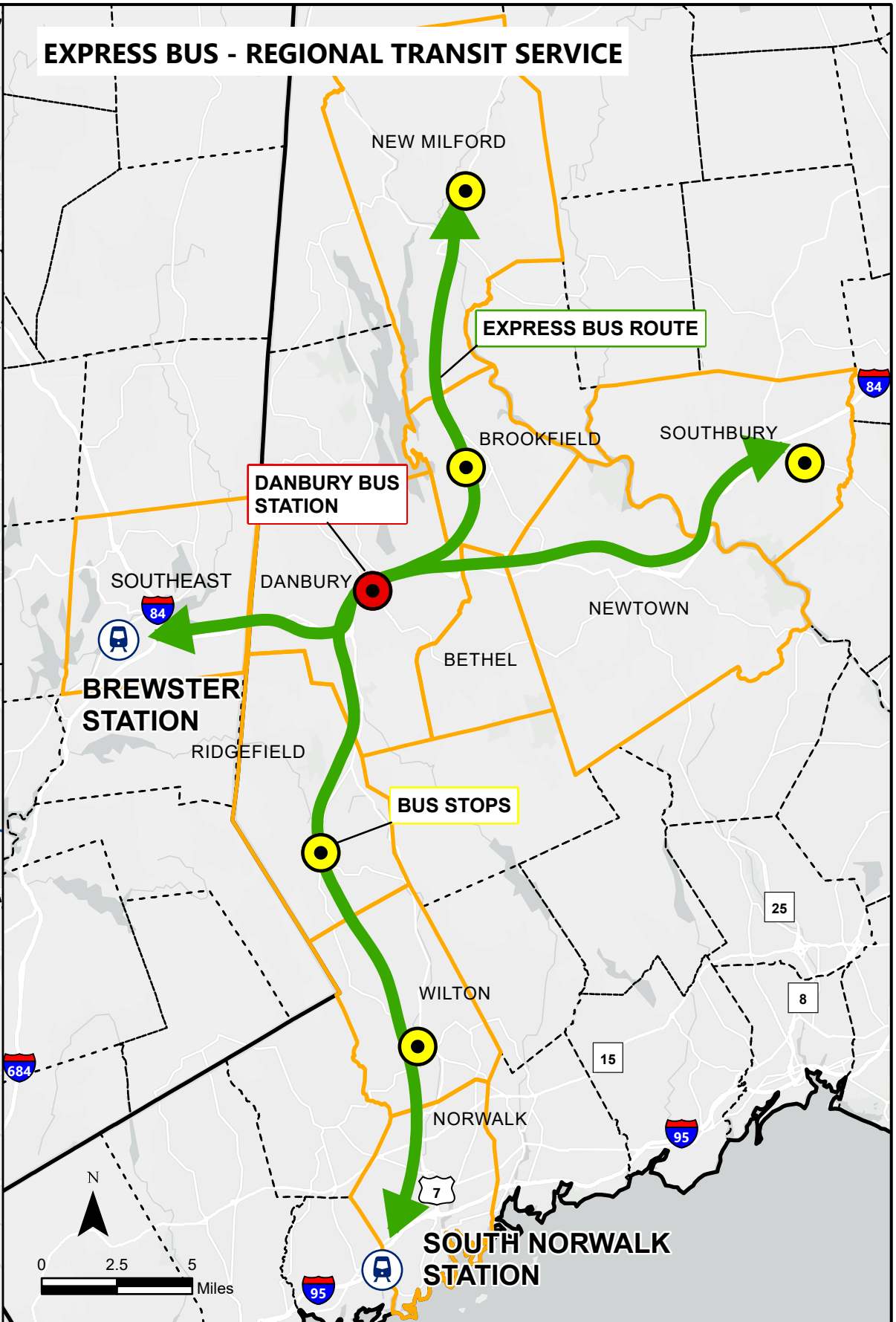
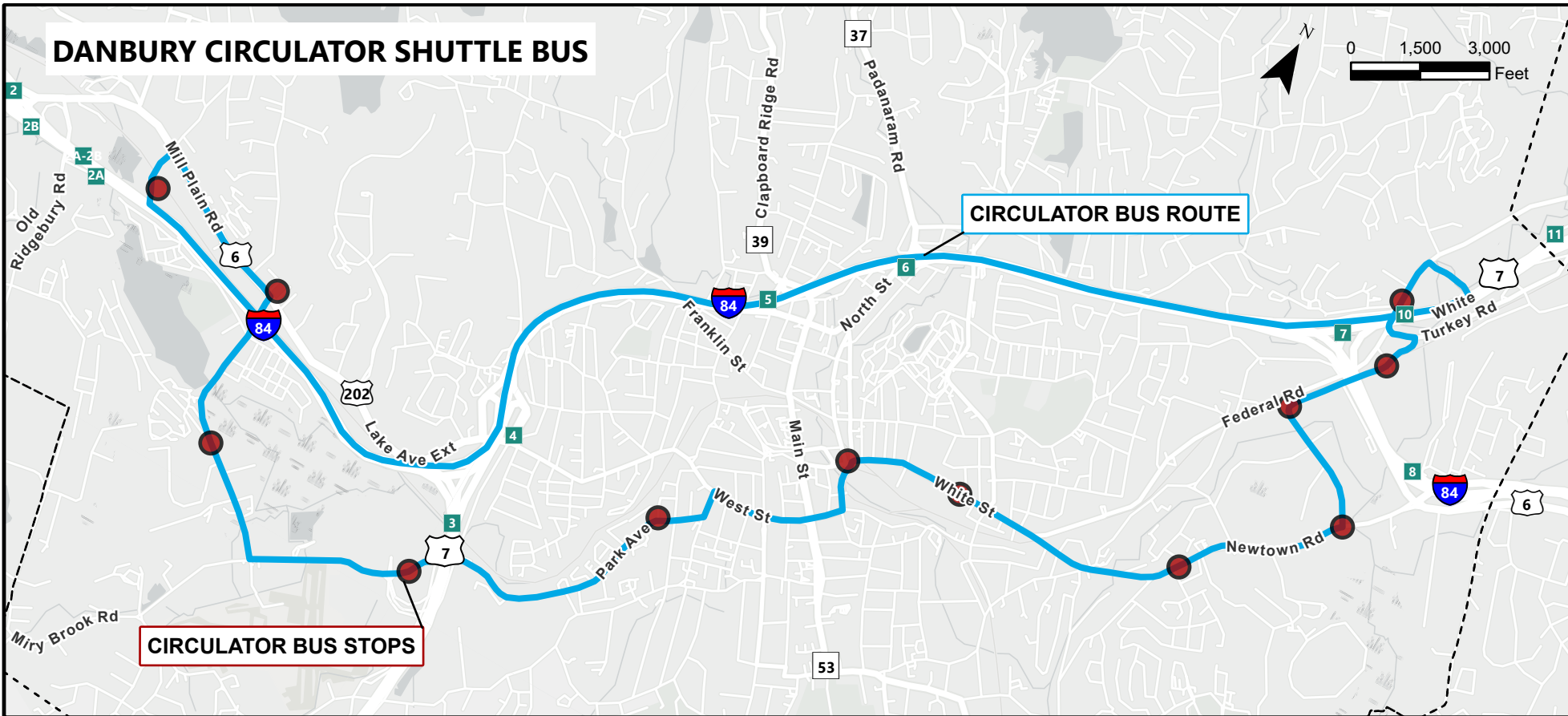
New Ramps

Local Road



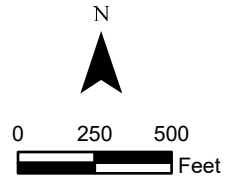
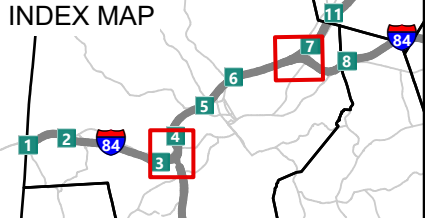
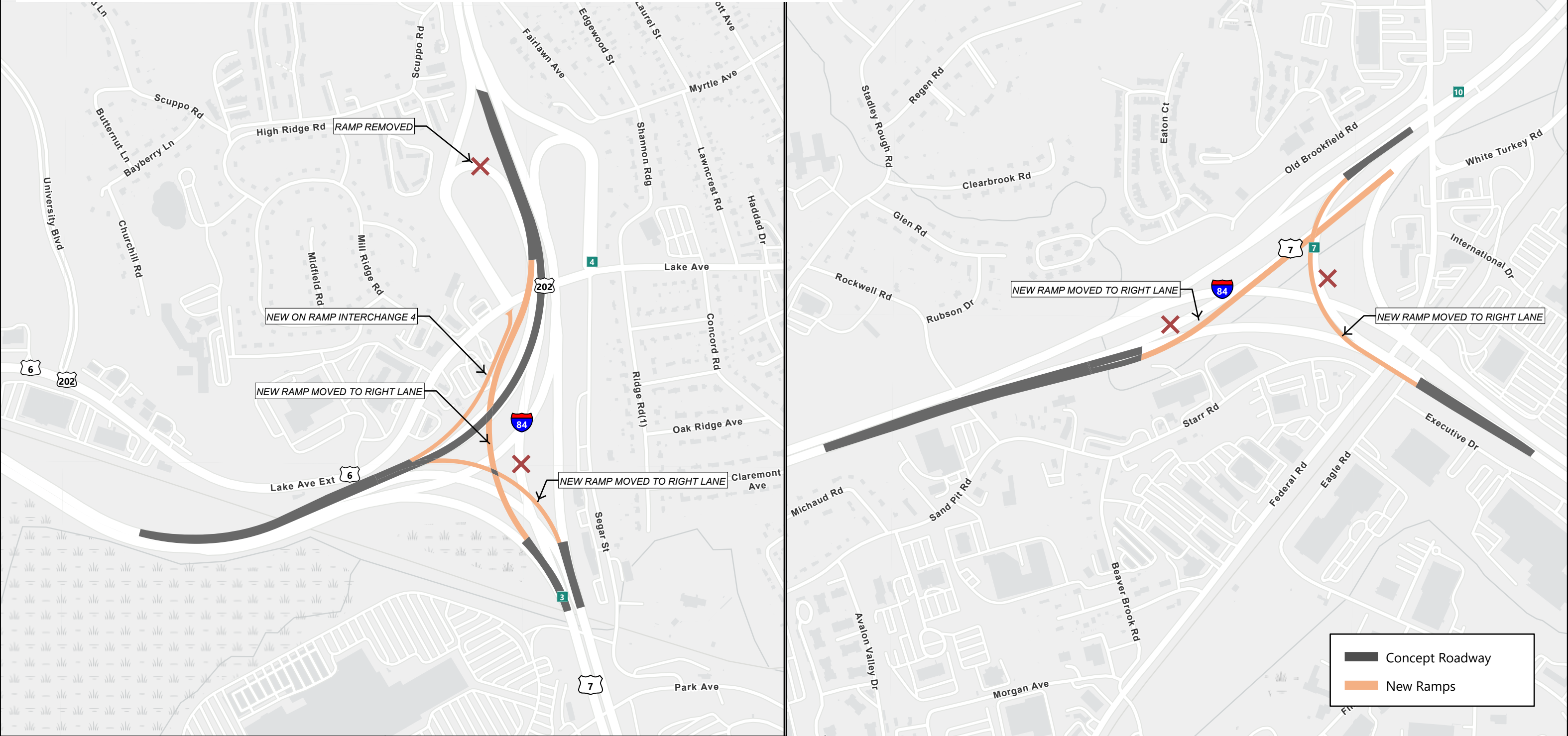
I-84 Danbury PEL Study
C3 - Hospital Access; Tamarack Avenue;
Center
FIGURE I-3





Elements of C5 include the following:

- Left-hand exit ramp to Route 7 southbound from I-84 westbound changed to a right-hand exit ramp at Exit 3.
- Left-hand entrance ramp to I-84 westbound from Route 7 northbound changed to a right-hand entrance ramp at Exit 3.
- Left-hand exit ramp to Route 7 northbound from I-84 eastbound changed to a right-hand exit ramp at Exit 7.
- Left-hand entrance ramp to I-84 eastbound from Route 7 southbound changed to a right-hand exit ramp at Exit 7.



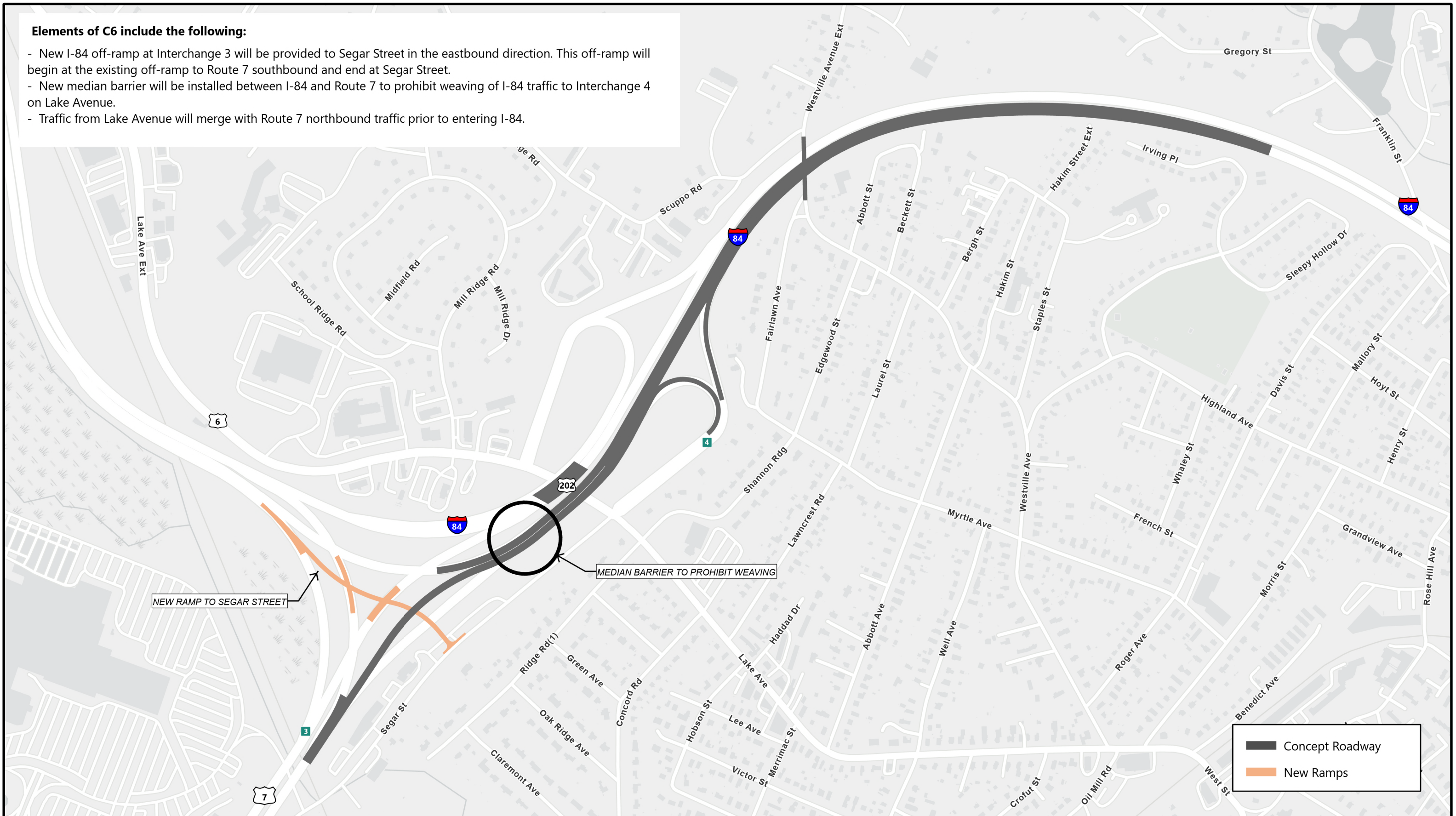
I-84 Danbury PEL Study
C5 - Left to Right Hand Ramps - Mainline

FIGURE I-5



Elements of C6 include the following:

- New I-84 off-ramp at Interchange 3 will be provided to Segar Street in the eastbound direction. This off-ramp will begin at the existing off-ramp to Route 7 southbound and end at Segar Street.
- New median barrier will be installed between I-84 and Route 7 to prohibit weaving of I-84 traffic to Interchange 4 on Lake Avenue.
- Traffic from Lake Avenue will merge with Route 7 northbound traffic prior to entering I-84.

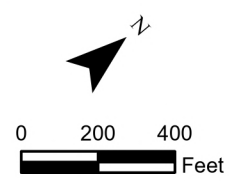
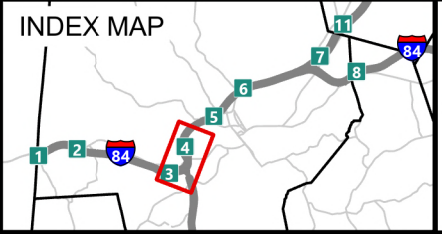


NEW RAMP TO SEGAR STREET

MEDIAN BARRIER TO PROHIBIT WEAVING

Concept Roadway

New Ramps



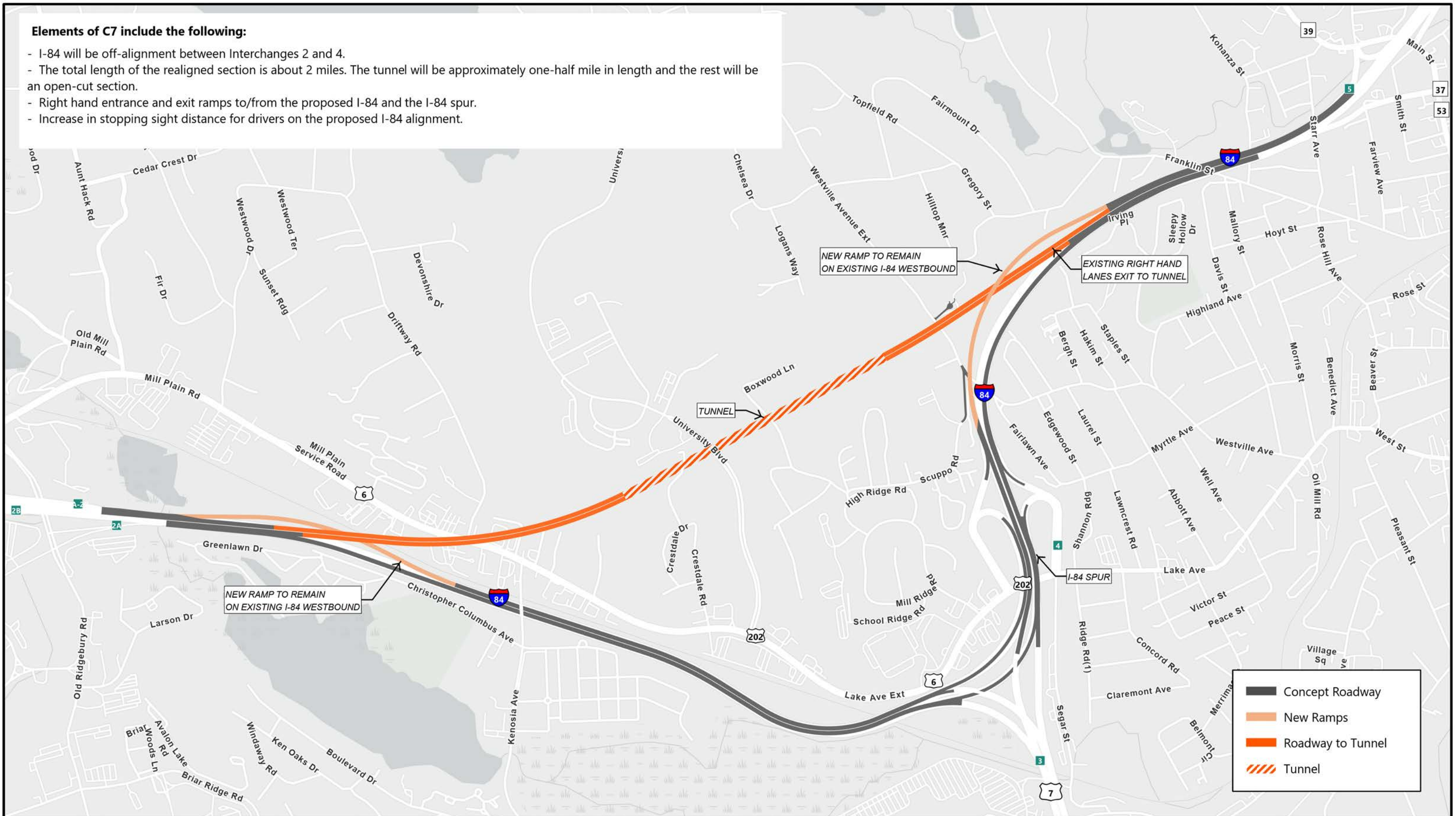
I-84 Danbury PEL Study
C6 - Interchanges 3 and 4; Segar Street Ramp; Eastbound - West

FIGURE I-6



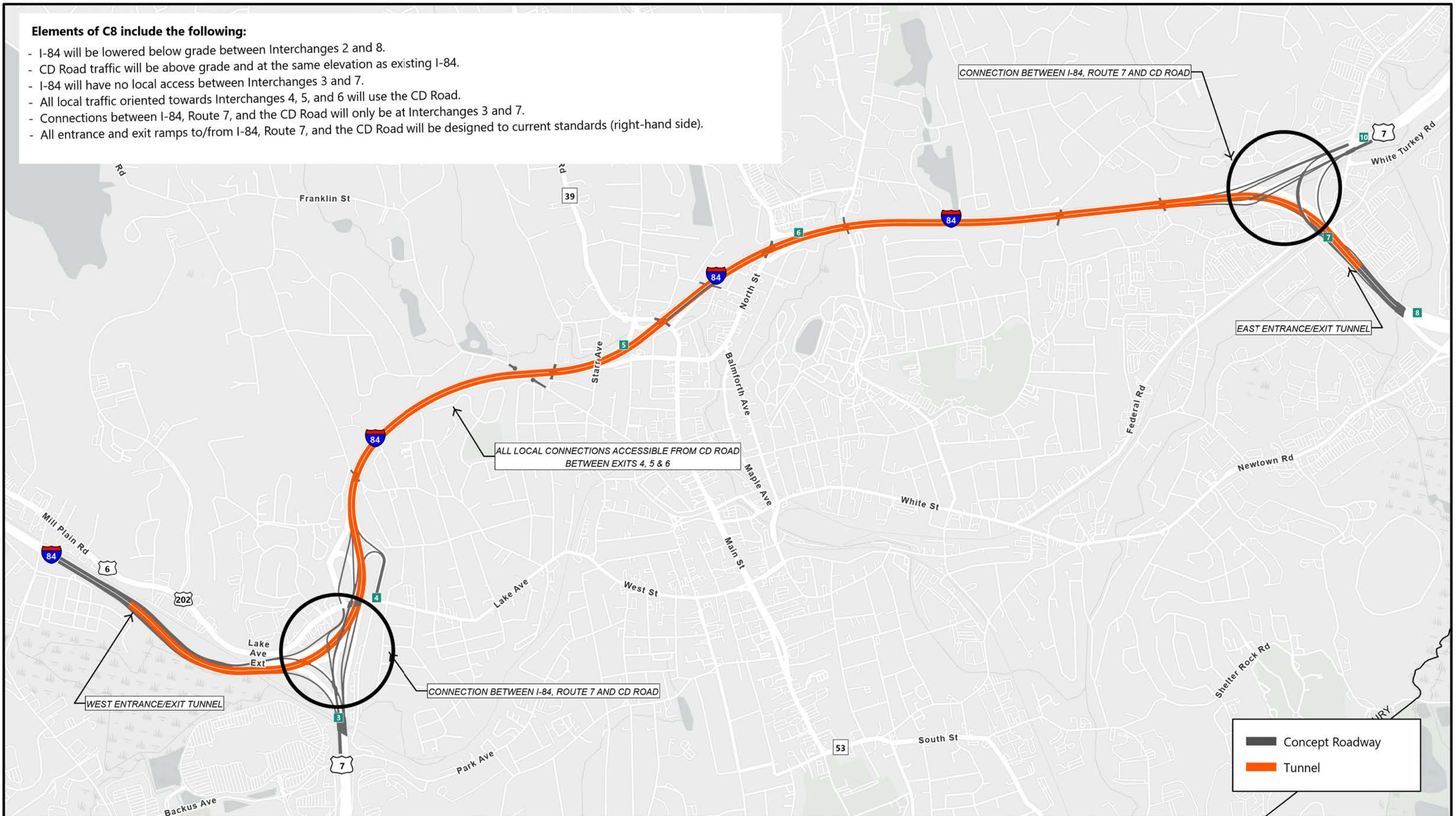
Elements of C7 include the following:

- I-84 will be off-alignment between Interchanges 2 and 4.
- The total length of the realigned section is about 2 miles. The tunnel will be approximately one-half mile in length and the rest will be an open-cut section.
- Right hand entrance and exit ramps to/from the proposed I-84 and the I-84 spur.
- Increase in stopping sight distance for drivers on the proposed I-84 alignment.



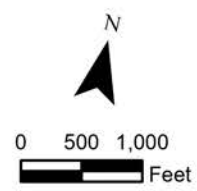
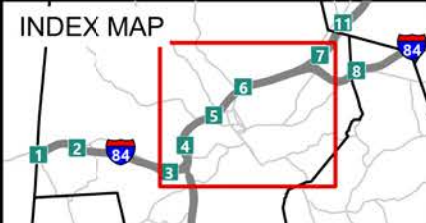
Elements of C8 include the following:

- I-84 will be lowered below grade between Interchanges 2 and 8.
- CD Road traffic will be above grade and at the same elevation as existing I-84.
- I-84 will have no local access between Interchanges 3 and 7.
- All local traffic oriented towards Interchanges 4, 5, and 6 will use the CD Road.
- Connections between I-84, Route 7, and the CD Road will only be at Interchanges 3 and 7.
- All entrance and exit ramps to/from I-84, Route 7, and the CD Road will be designed to current standards (right-hand side).



Concept Roadway

Tunnel



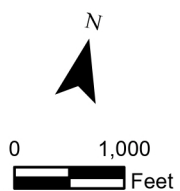
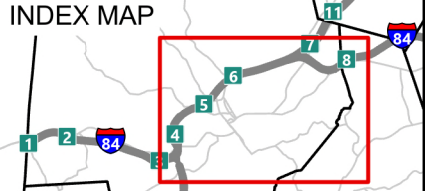
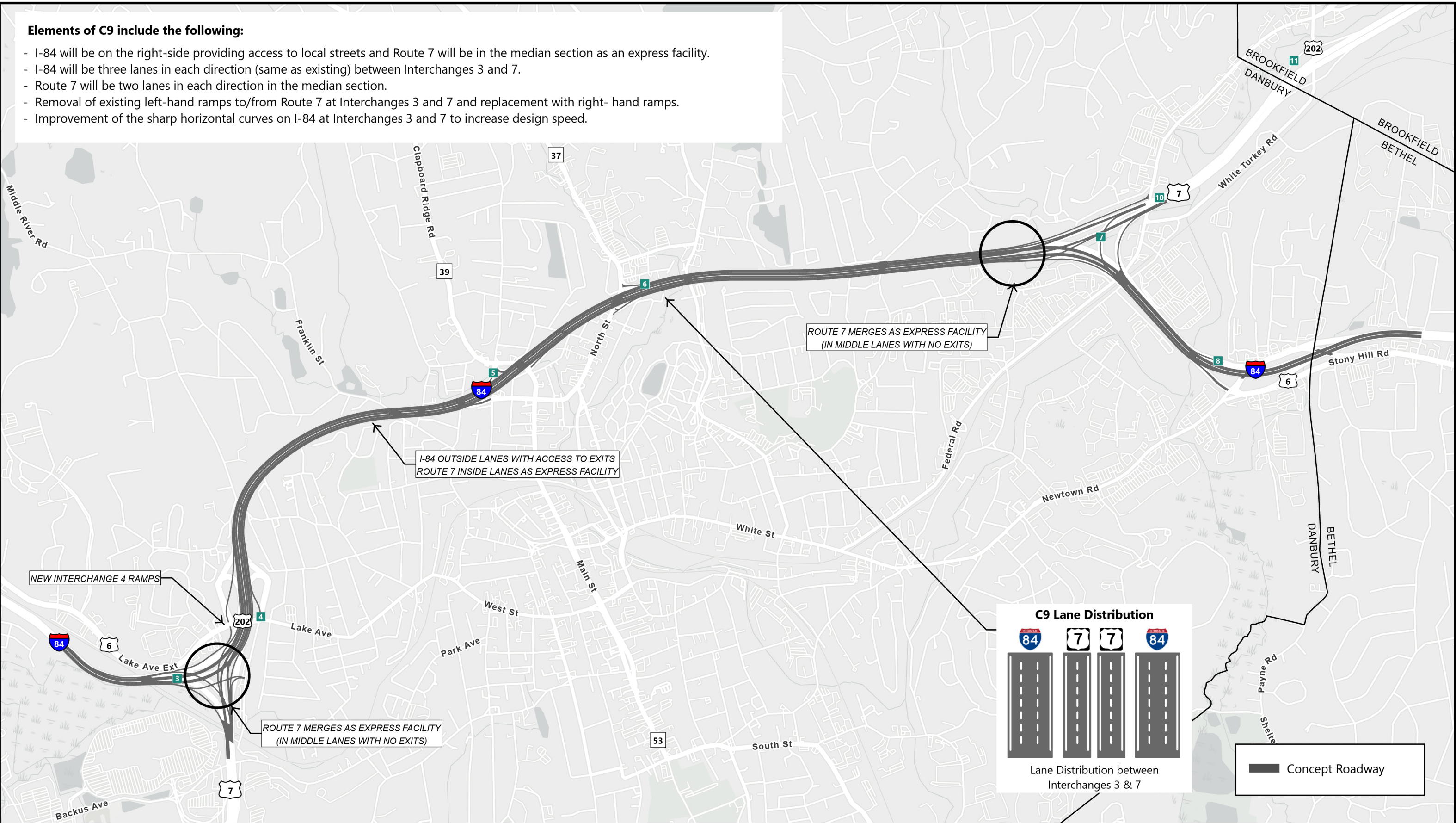
I-84 Danbury PEL Study
C8 - I-84 Under CD Road - Mainline

FIGURE I-8



Elements of C9 include the following:

- I-84 will be on the right-side providing access to local streets and Route 7 will be in the median section as an express facility.
- I-84 will be three lanes in each direction (same as existing) between Interchanges 3 and 7.
- Route 7 will be two lanes in each direction in the median section.
- Removal of existing left-hand ramps to/from Route 7 at Interchanges 3 and 7 and replacement with right- hand ramps.
- Improvement of the sharp horizontal curves on I-84 at Interchanges 3 and 7 to increase design speed.



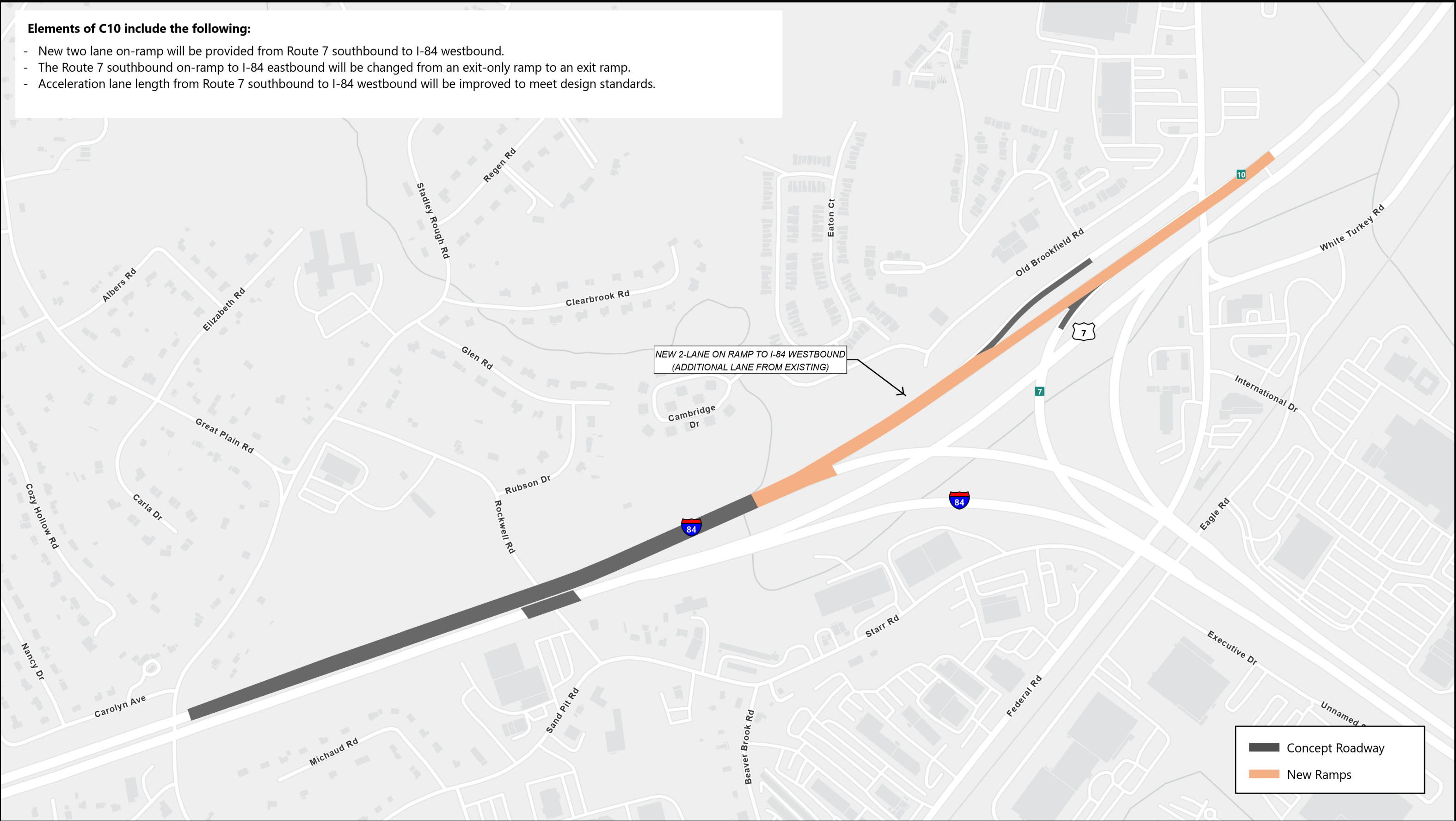
I-84 Danbury PEL Study
C9 - US 7 Median - Mainline

FIGURE I-9



Elements of C10 include the following:

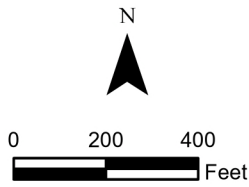
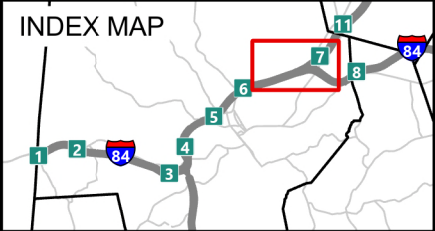
- New two lane on-ramp will be provided from Route 7 southbound to I-84 westbound.
- The Route 7 southbound on-ramp to I-84 eastbound will be changed from an exit-only ramp to an exit ramp.
- Acceleration lane length from Route 7 southbound to I-84 westbound will be improved to meet design standards.



NEW 2-LANE ON RAMP TO I-84 WESTBOUND
(ADDITIONAL LANE FROM EXISTING)

Concept Roadway

New Ramps



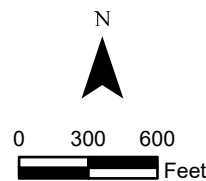
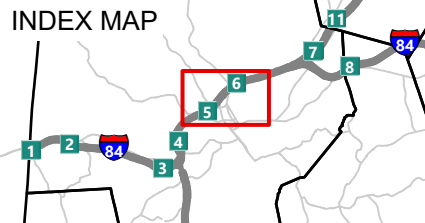
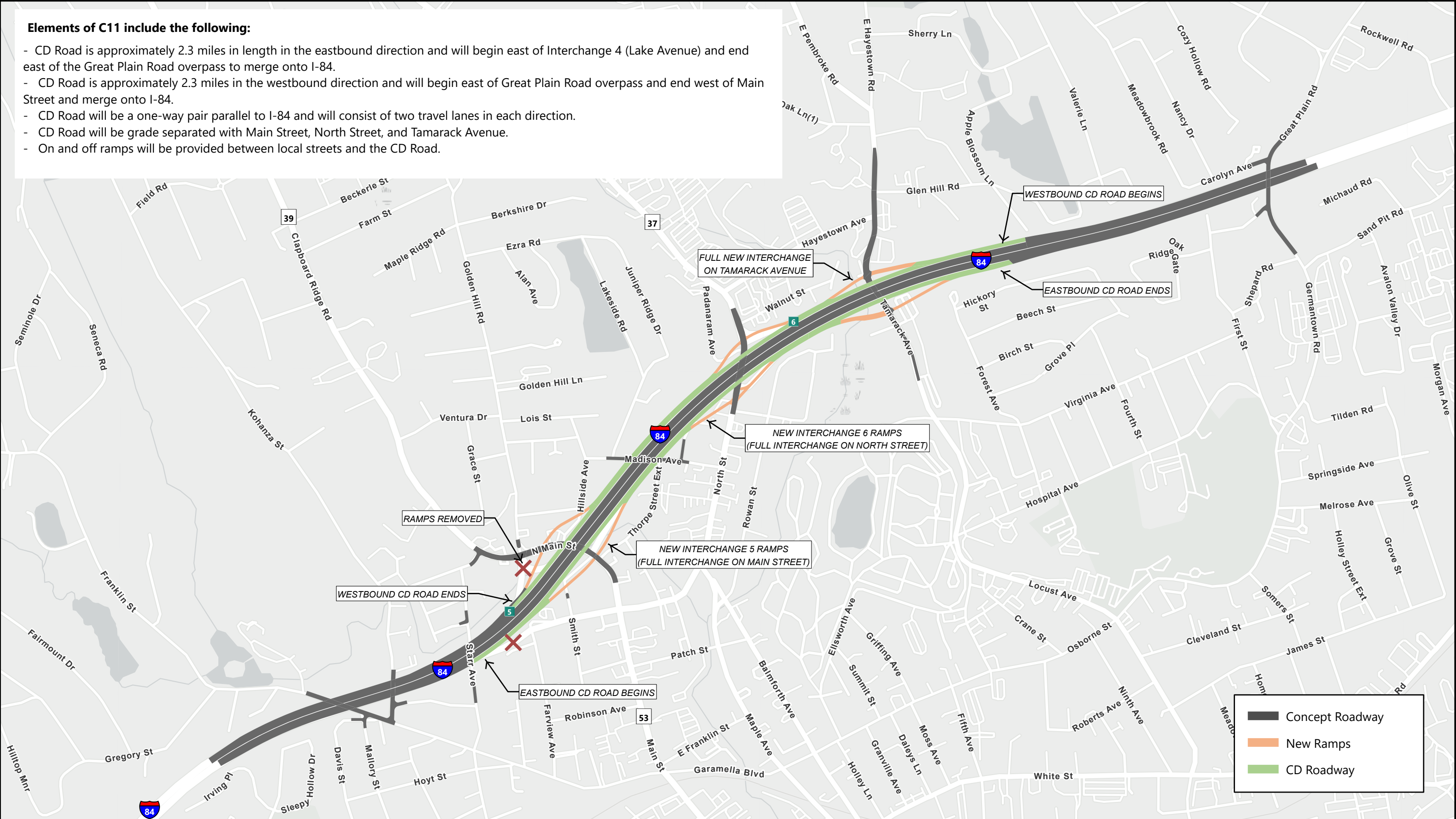
I-84 Danbury PEL Study
C10 - US 7 Ramp; Westbound - East

FIGURE I-10



Elements of C11 include the following:

- 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 Plain Road overpass to merge onto I-84.
- CD Road is approximately 2.3 miles in the westbound direction and will begin east of Great Plain Road overpass and end west of Main Street and merge onto I-84.
- 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 with Main Street, North Street, and Tamarack Avenue.
- On and off ramps will be provided between local streets and the CD Road.



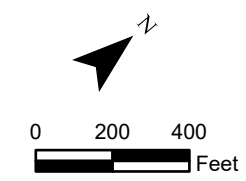
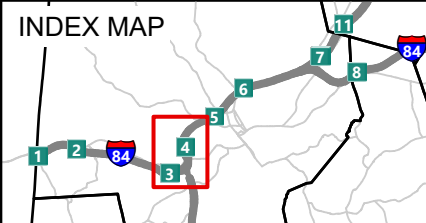
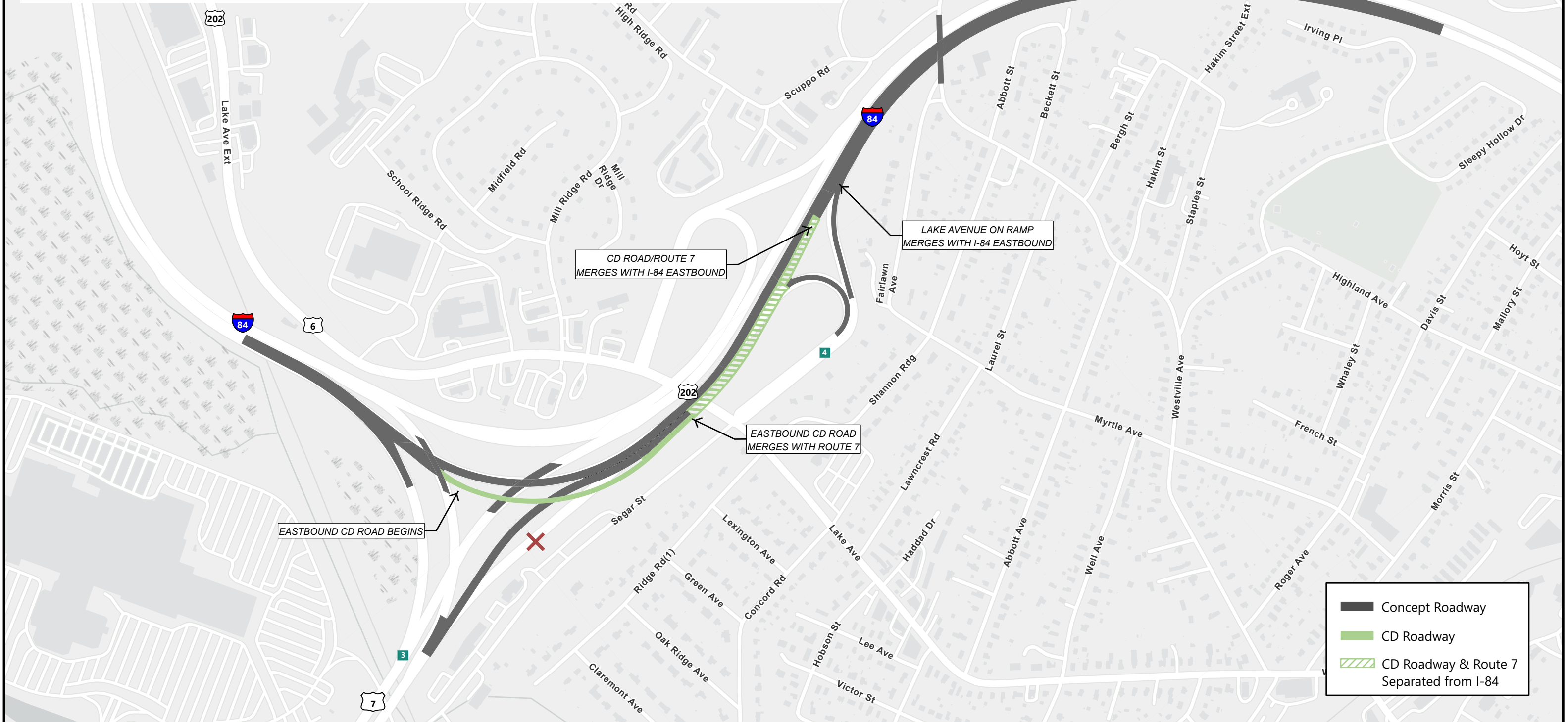
I-84 Danbury PEL Study
C11 - CD Road Grade Separated - Center

FIGURE I-11



Elements of C12 include the following:

- New I-84 eastbound off-ramp to Lake Avenue which will become a CD Road at the merge with the Route 7 northbound traffic. This off-ramp will begin just east of the existing off-ramp to Route 7 southbound (Interchange 3).
- New median barrier will be installed between I-84 eastbound and Route 7 northbound to prohibit I-84 eastbound traffic from using the Lake Avenue off-ramp.
- Lake Avenue on-ramp traffic will merge with I-84 eastbound, beyond the CD Road merge.



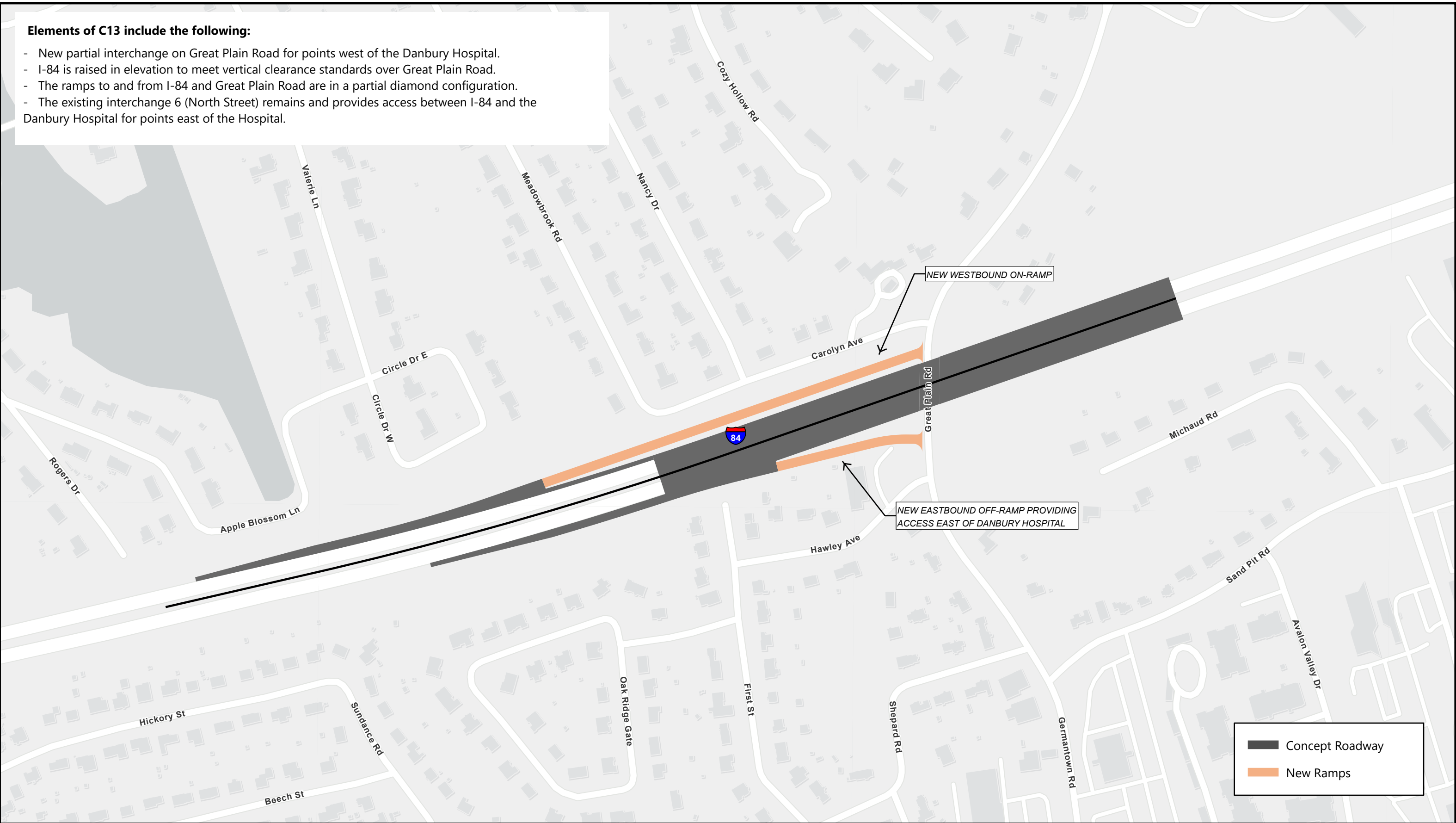
I-84 Danbury PEL Study
C12 - Interchanges 3 and 4 CD Road - West

FIGURE I-12

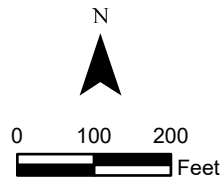
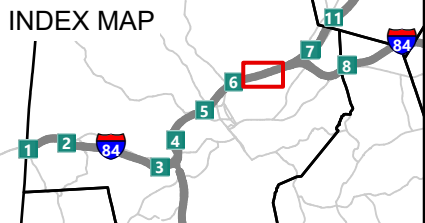


Elements of C13 include the following:

- New partial interchange on Great Plain Road for points west of the Danbury Hospital.
- I-84 is raised in elevation to meet vertical clearance standards over Great Plain Road.
- The ramps to and from I-84 and Great Plain Road are in a partial diamond configuration.
- The existing interchange 6 (North Street) remains and provides access between I-84 and the Danbury Hospital for points east of the Hospital.



Concept Roadway
New Ramps



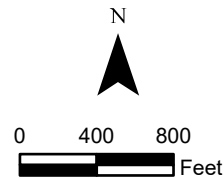
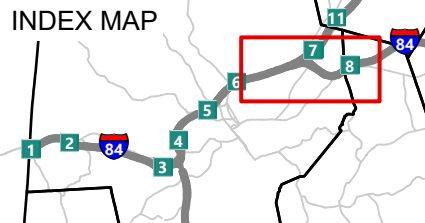
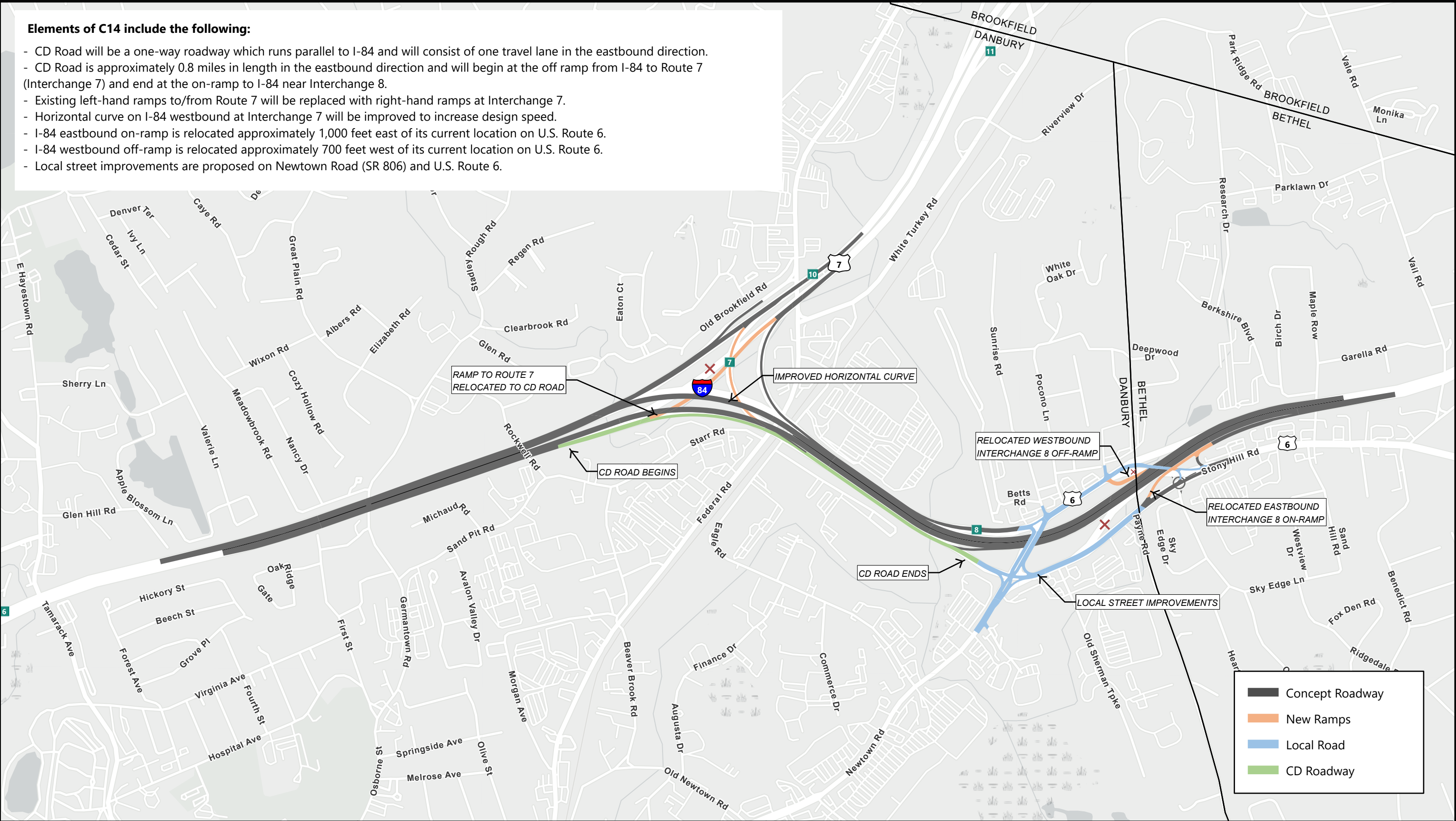
I-84 Danbury PEL Study
C13 - Great Plain Road - Center

FIGURE I-13



Elements of C14 include the following:

- CD Road will be a one-way roadway which runs parallel to I-84 and will consist of one travel lane in the eastbound direction.
- CD Road is approximately 0.8 miles in length in the eastbound direction and will begin at the off ramp from I-84 to Route 7 (Interchange 7) and end at the on-ramp to I-84 near Interchange 8.
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- Horizontal curve on I-84 westbound at Interchange 7 will be improved to increase design speed.
- I-84 eastbound on-ramp is relocated approximately 1,000 feet east of its current location on U.S. Route 6.
- I-84 westbound off-ramp is relocated approximately 700 feet west of its current location on U.S. Route 6.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6.



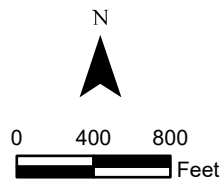
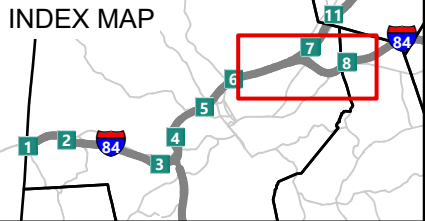
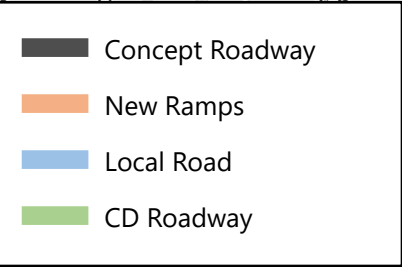
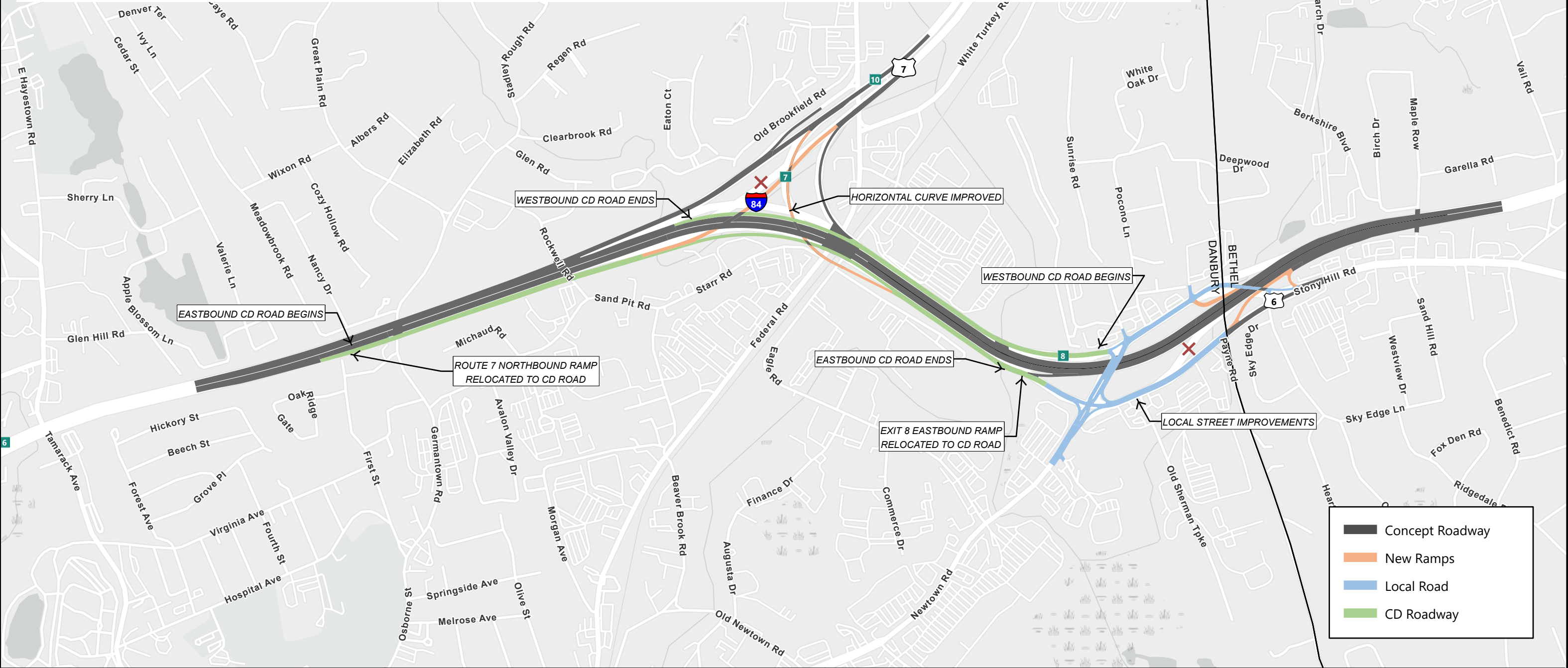
I-84 Danbury PEL Study
C14 - CD Road Eastbound - East

FIGURE I-14



Elements of C15 include the following:

- CD Road will be a one-way pair parallel to I-84 and will consist of two travel lanes in each direction.
- CD Road is approximately 0.8 miles in length in the eastbound direction and will begin at the off ramp from I-84 to Route 7 (Interchange 7) and end at the on-ramp to I-84 near Interchange 8.
- CD Road is approximately 1.0 mile in length in the westbound direction and will begin at the Newtown Road (SR 806) on-ramp (Interchange 8) and end at the merge with I-84 near Interchange 7.
- Route 7 northbound does not have direct access from I-84 westbound and access is provided via the CD Road in the westbound direction.
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- Horizontal curve on I-84 westbound at Interchange 7 will be improved to increase design speed.
- I-84 eastbound on-ramp will be relocated approximately 1,000 feet east of its current location on U.S. Route 6.
- I-84 westbound off-ramp will be relocated approximately 700 feet west of its current location on U.S. Route 6.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6.



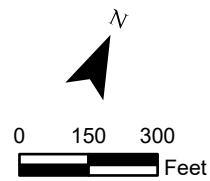
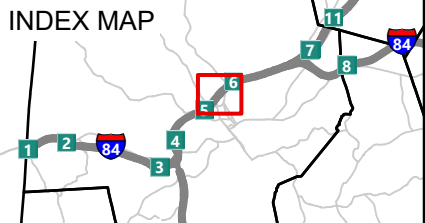
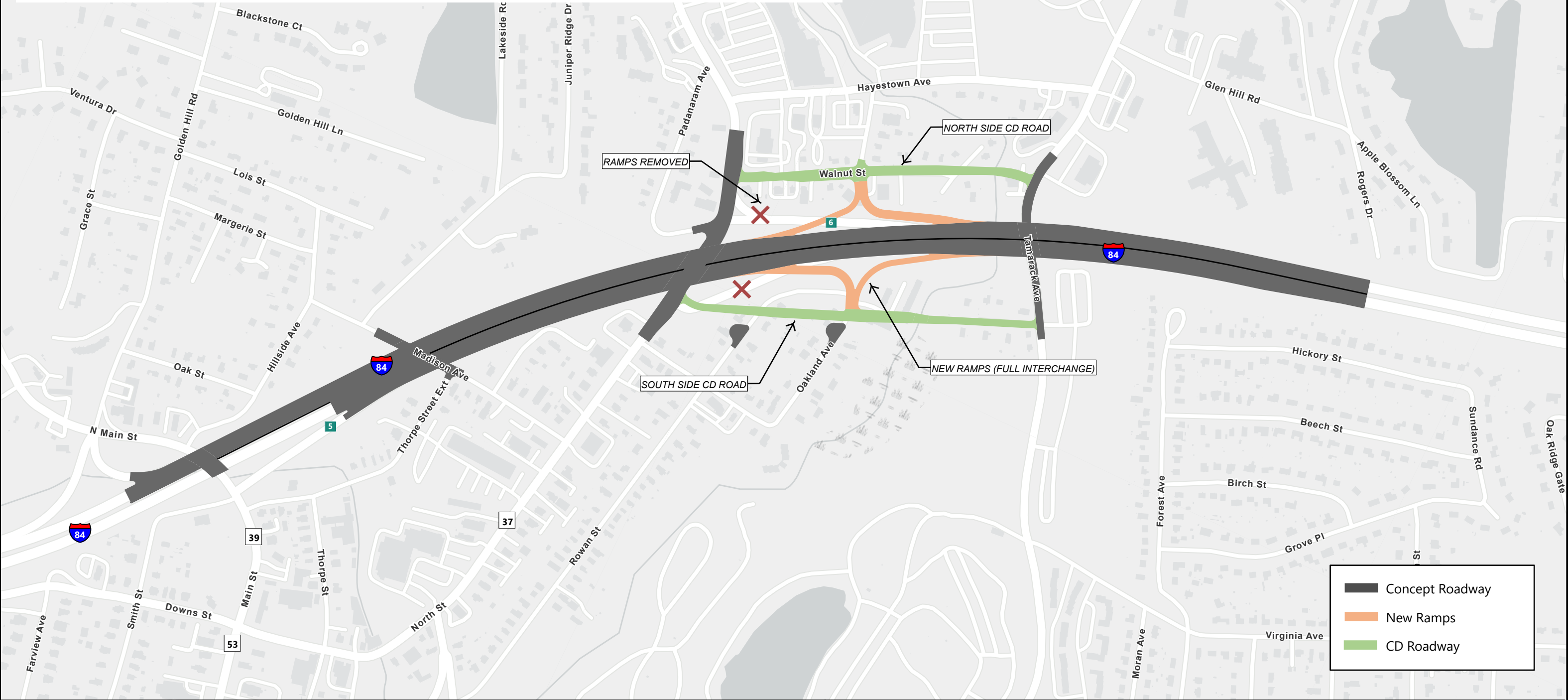
I-84 Danbury PEL Study
C15 - CD Road - East

FIGURE I-15



Elements of C16 include the following:

- On the north side of I-84, the CD Road is approximately 1,300 feet in length and will replace Walnut Street.
- On the south side of I-84, the CD Road is approximately 1,600 feet in length.
- CD Roads will be constructed parallel to I-84 between North Street and Tamarack Avenue.
- CD Roads are bidirectional and will consist of one travel lane in each direction and turn lanes at intersections
- I-84 will be connected to CD Roads using button-hook ramps in each direction. This interchange will be referred as Interchange 6.
- I-84 will have four lanes in each direction between the Main Street interchange (Interchange 5) and the button-hook ramps (Interchange 6). This provides an auxiliary lane on I-84 to allow entrance and exit ramp movements between the two interchanges.



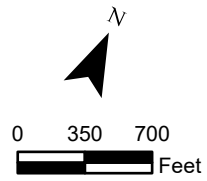
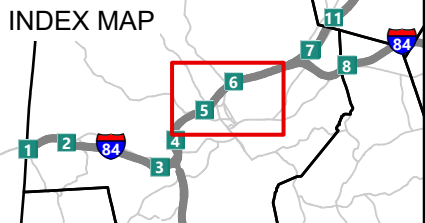
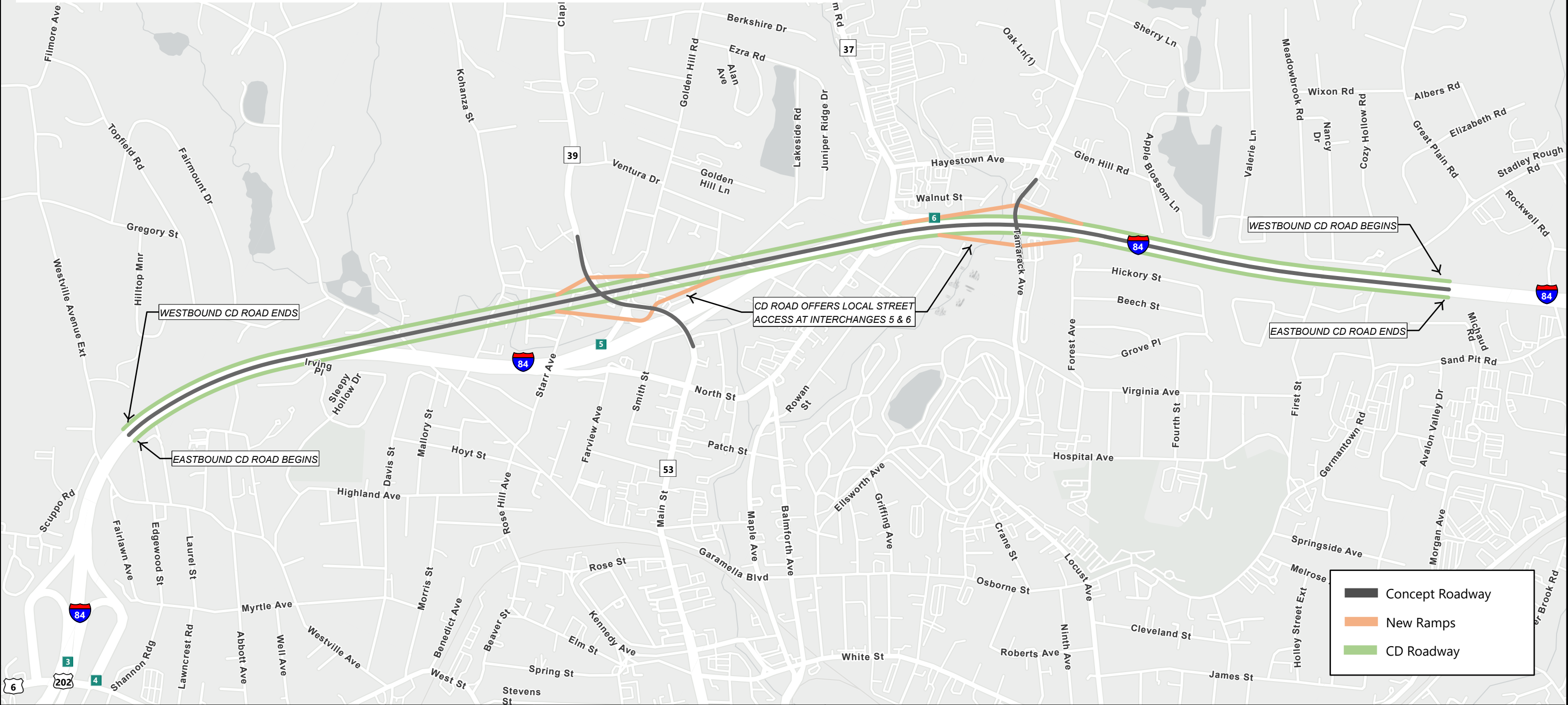
I-84 Danbury PEL Study
C16 - Interchange 6; CD Road - Center

FIGURE I-16



Elements of C17 include the following:

- CD Road is approximately 2.0 miles in length in the eastbound direction and will begin east of Interchange 4 (Lake Avenue) and end east of Tamarack Avenue.
- CD Road is approximately 2.0 miles in length in the westbound direction and will begin east of Tamarack Avenue 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 in the center section with local streets and have ramps serving Main Street and Tamarack Avenue.
- I-84 is realigned in the center section to improve the horizontal curvature.



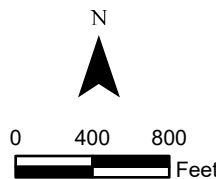
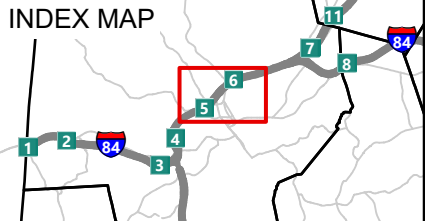
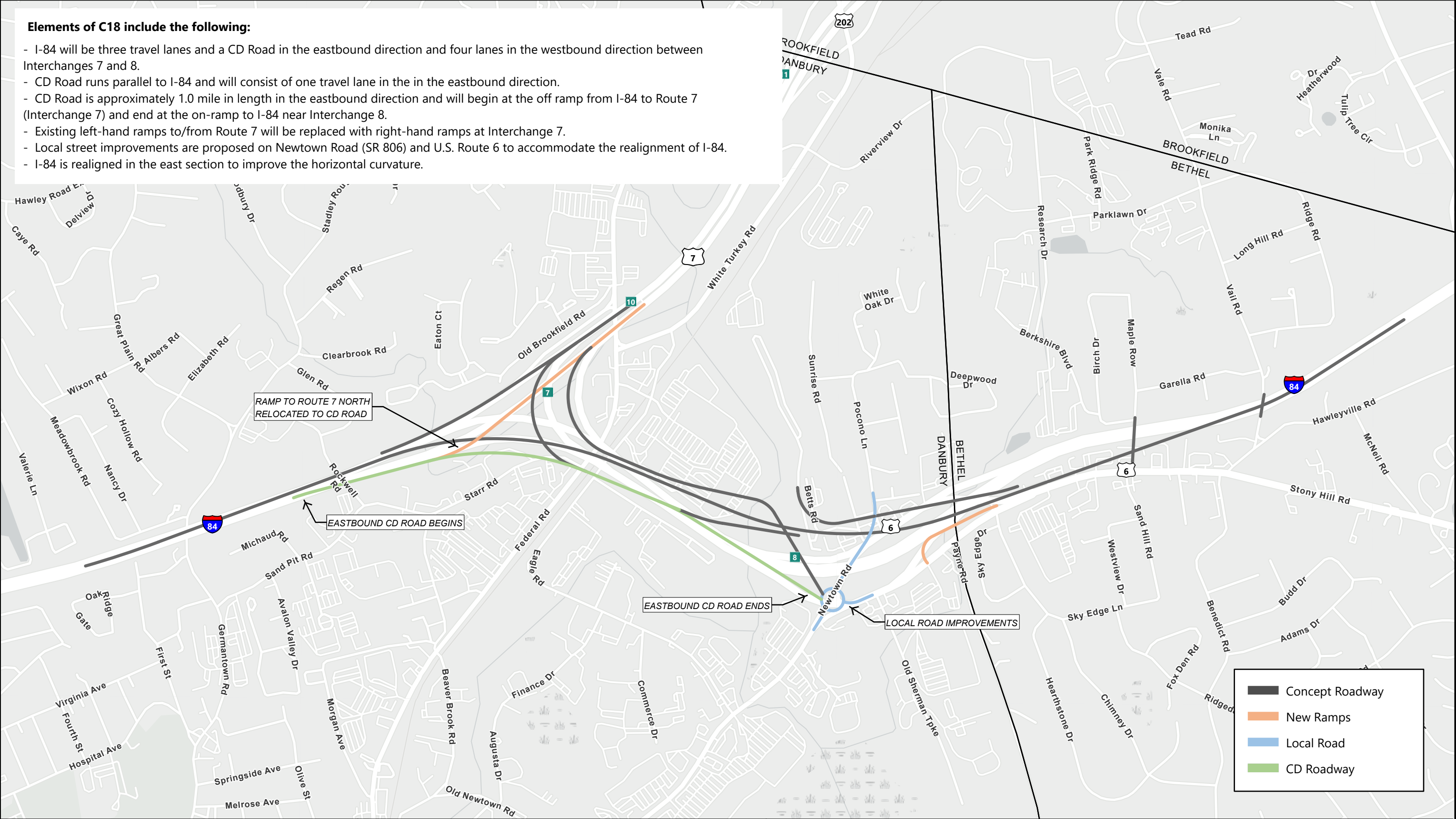
I-84 Danbury PEL Study
C17 - I-84 Realigned with CD Road - Center

FIGURE I-17



Elements of C18 include the following:

- I-84 will be three travel lanes and a CD Road in the eastbound direction and four lanes in the westbound direction between Interchanges 7 and 8.
- CD Road runs parallel to I-84 and will consist of one travel lane in the in the eastbound direction.
- CD Road is approximately 1.0 mile in length in the eastbound direction and will begin at the off ramp from I-84 to Route 7 (Interchange 7) and end at the on-ramp to I-84 near Interchange 8.
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6 to accommodate the realignment of I-84.
- I-84 is realigned in the east section to improve the horizontal curvature.



I-84 Danbury PEL Study

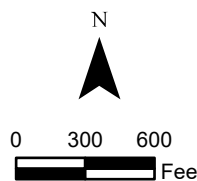
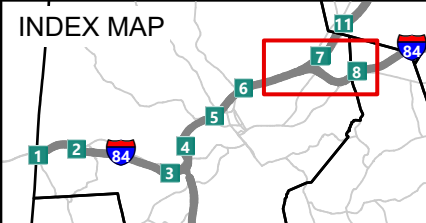
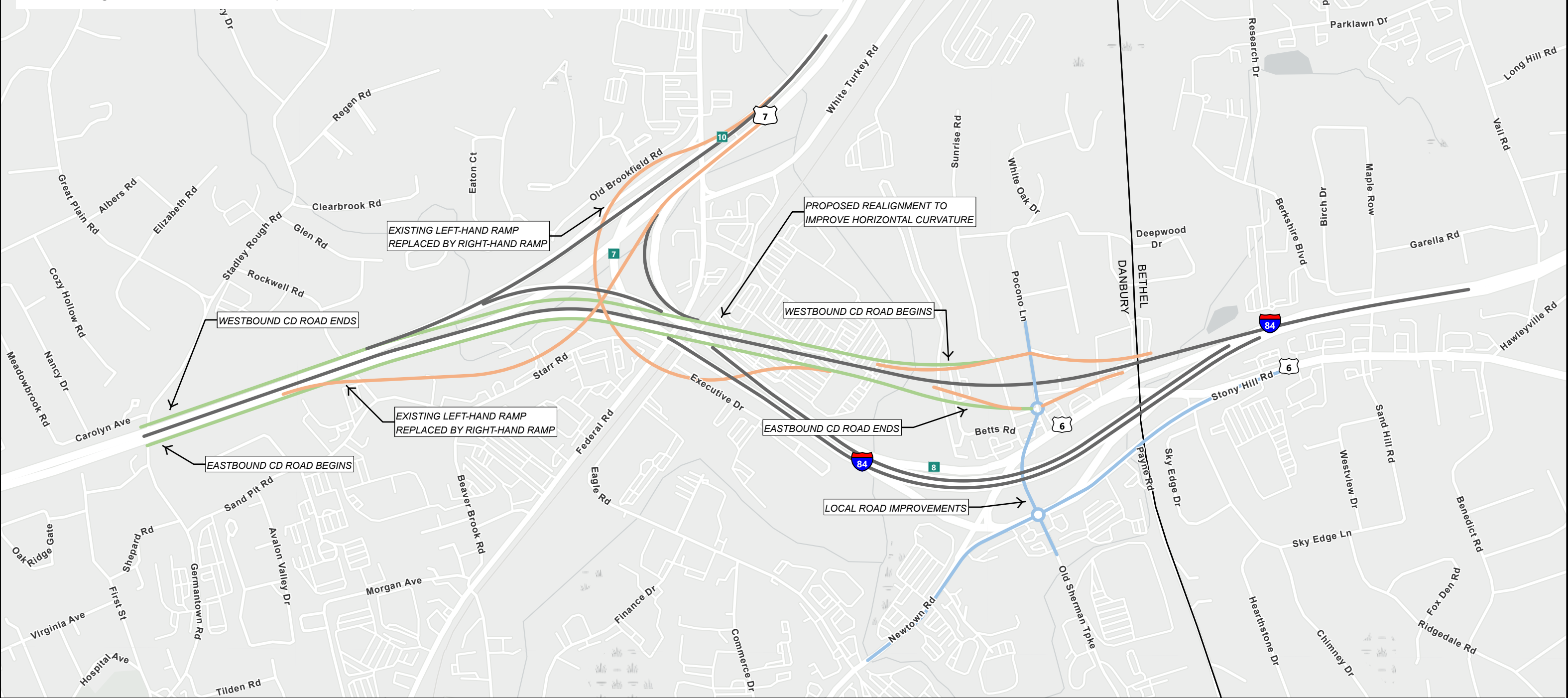
C18 - I-84 Realigned with CD Road Eastbound - East

FIGURE I-18



Elements of C19 include the following:

- CD Road will be a one-way pair parallel to I-84 and will consist of one travel lane in each direction between the Route 7 eastbound off-ramp and the Route 7 southbound on-ramp to I-84 eastbound.
- CD Road is approximately 1.5 miles in length between Route 7 (Interchange 7) and the Newtown Road interchange (Interchange 8).
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- The Newtown Road interchange (Interchange 8) is proposed as a diamond interchange.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6 including construction of two roundabouts along Newtown Road.
- I-84 is realigned in the east section to improve the horizontal curvature.



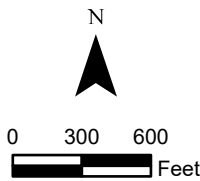
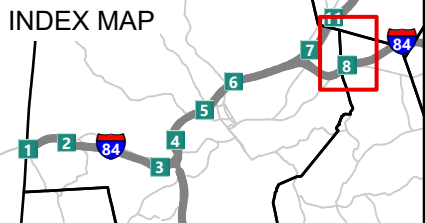
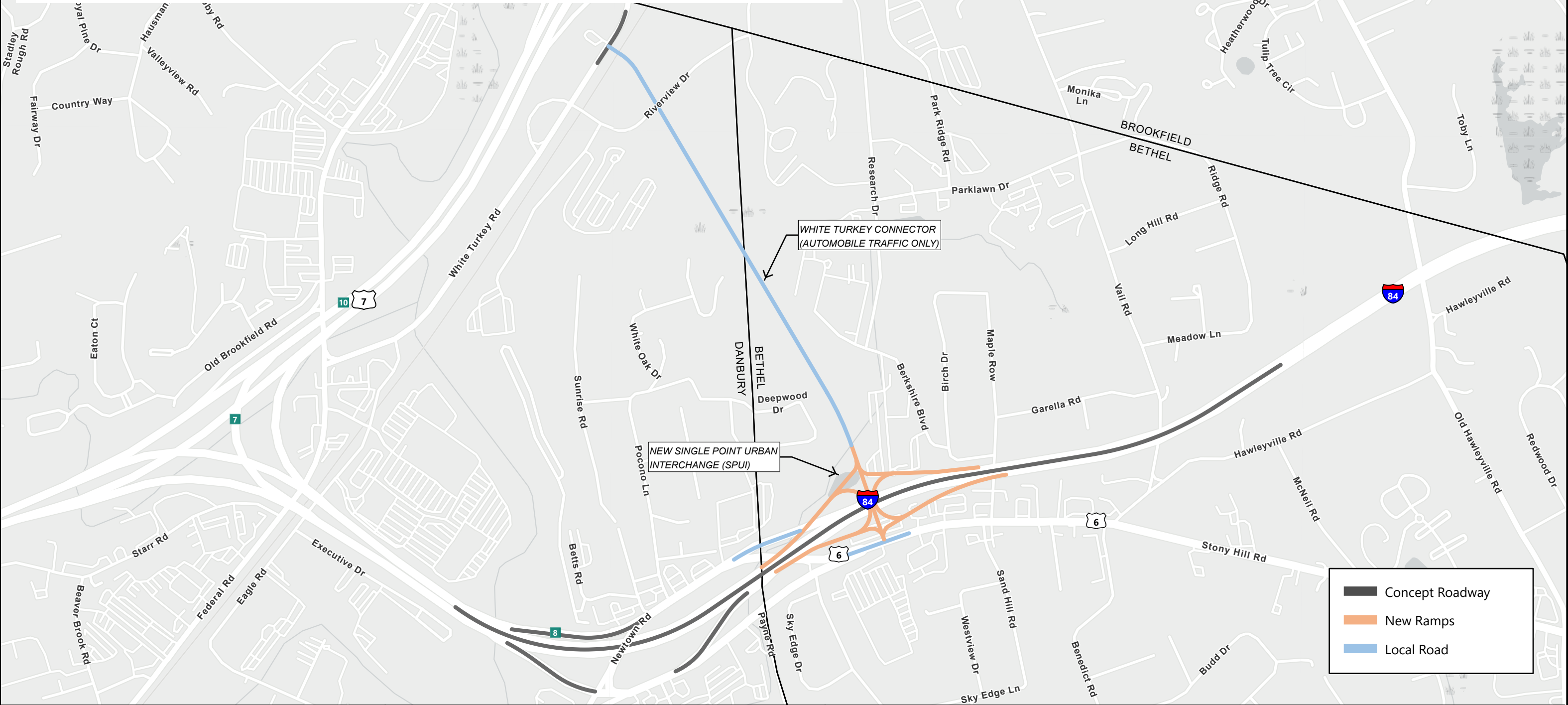
I-84 Danbury PEL Study
C19 - I-84 Realigned with CD Road - East

FIGURE I-19



Elements of C20 include the following:

- The new interchange at Interchange 8 is proposed as a Single Point Urban Interchange (SPUI).
- The proposed north-south roadway (referred as White Turkey Connector) is approximately 1.0 mile in length and will consist of one travel lane in each direction between Interchange 8 and White Turkey Road Extension.
- Automobile traffic to/from points east of Interchange 8 can use Interchange 7 or 8 and connect with Route 7 towards Brookfield and New Milford.
- Truck traffic will be directed towards Interchange 7 due to the steep grade on the north-south roadway.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6.



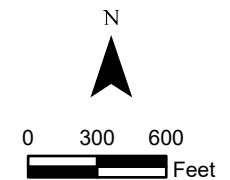
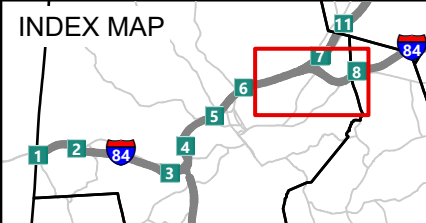
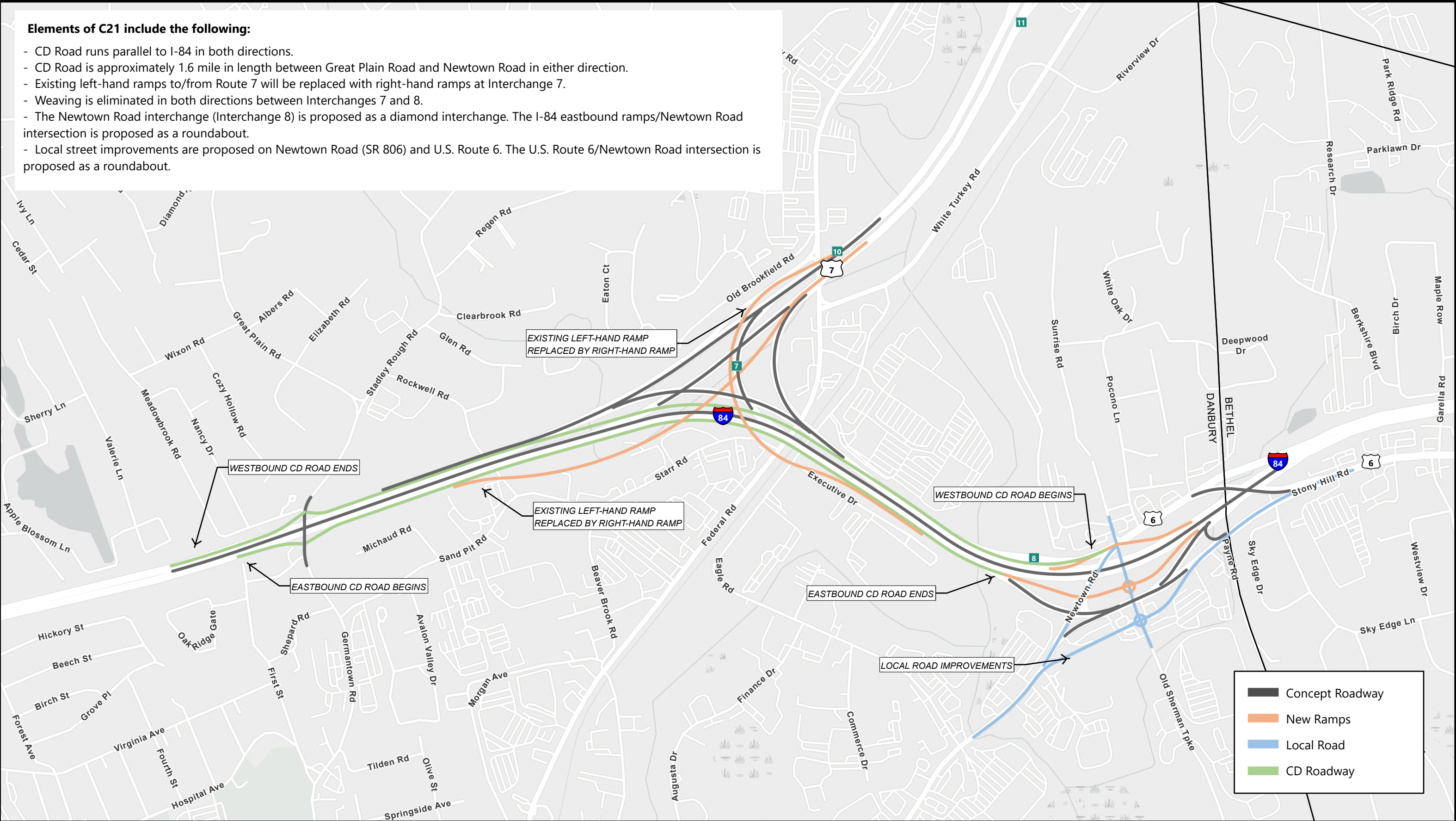
I-84 Danbury PEL Study
C20 - Interchange 8 with White Turkey Road Connection - East

FIGURE I-20



Elements of C21 include the following:

- CD Road runs parallel to I-84 in both directions.
- CD Road is approximately 1.6 mile in length between Great Plain Road and Newtown Road in either direction.
- Existing left-hand ramps to/from Route 7 will be replaced with right-hand ramps at Interchange 7.
- Weaving is eliminated in both directions between Interchanges 7 and 8.
- The Newtown Road interchange (Interchange 8) is proposed as a diamond interchange. The I-84 eastbound ramps/Newtown Road intersection is proposed as a roundabout.
- Local street improvements are proposed on Newtown Road (SR 806) and U.S. Route 6. The U.S. Route 6/Newtown Road intersection is proposed as a roundabout.

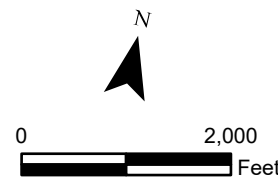
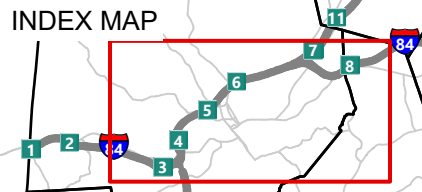
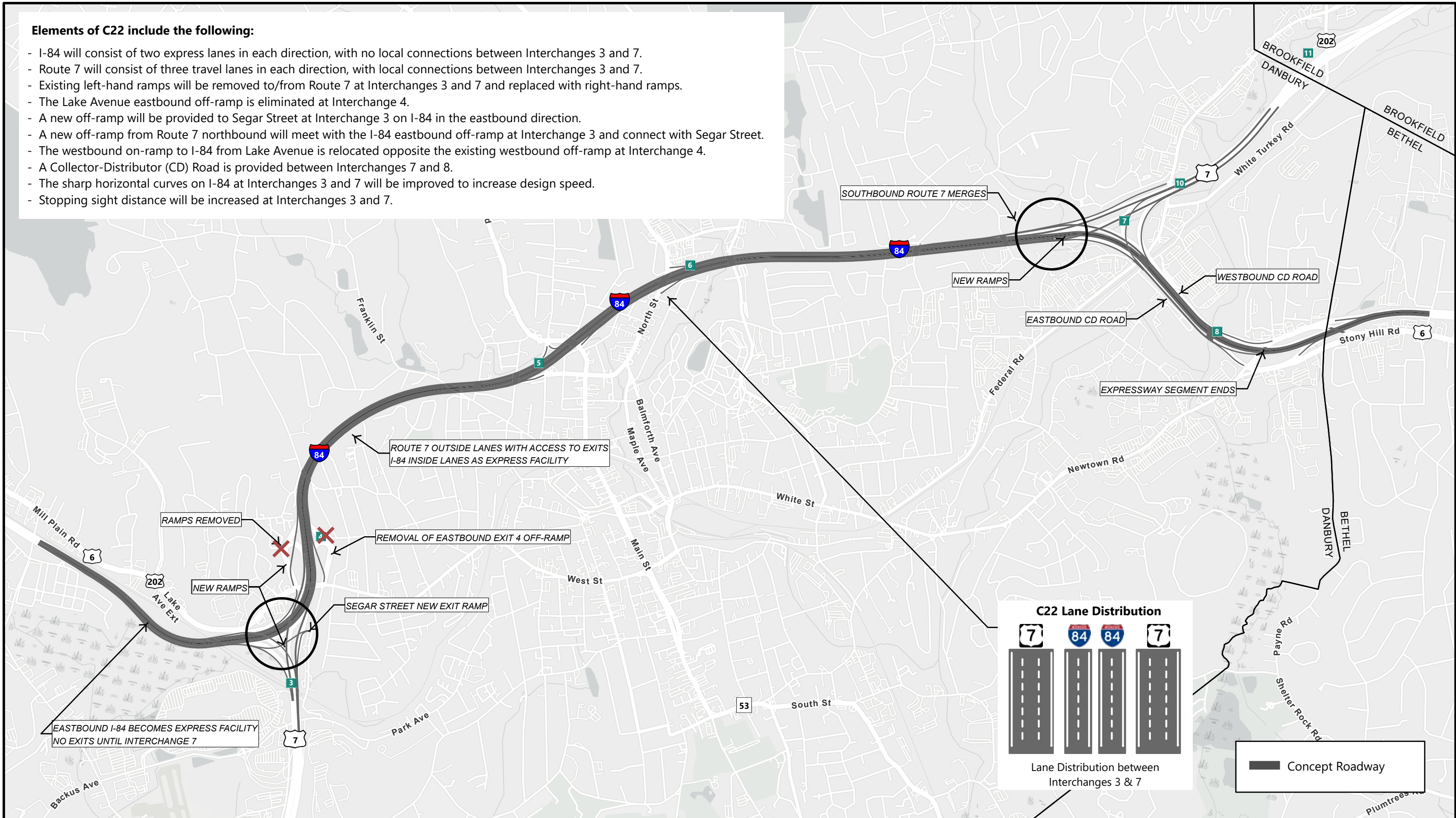


I-84 Danbury PEL Study
C21 - I-84 CD Road to Great Plain Road - East
FIGURE I-21



Elements of C22 include the following:

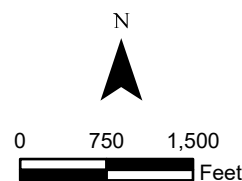
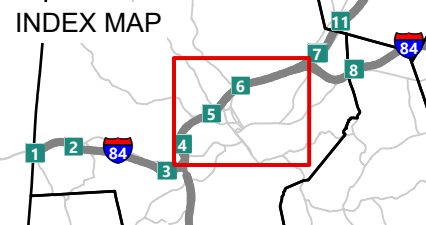
- I-84 will consist of two express lanes in each direction, with no local connections between Interchanges 3 and 7.
- Route 7 will consist of three travel lanes in each direction, with local connections between Interchanges 3 and 7.
- Existing left-hand ramps will be removed to/from Route 7 at Interchanges 3 and 7 and replaced with right-hand ramps.
- The Lake Avenue eastbound off-ramp is eliminated at Interchange 4.
- A new off-ramp will be provided to Segar Street at Interchange 3 on I-84 in the eastbound direction.
- A new off-ramp from Route 7 northbound will meet with the I-84 eastbound off-ramp at Interchange 3 and connect with Segar Street.
- The westbound on-ramp to I-84 from Lake Avenue is relocated opposite the existing westbound off-ramp at Interchange 4.
- A Collector-Distributor (CD) Road is provided between Interchanges 7 and 8.
- The sharp horizontal curves on I-84 at Interchanges 3 and 7 will be improved to increase design speed.
- Stopping sight distance will be increased at Interchanges 3 and 7.



I-84 Danbury PEL Study
C22 - I-84 Expressway - Mainline

FIGURE I-22





I-84 Danbury PEL Study
C23 - Transportation System Management and Operations - Mainline

FIGURE I-23



- CD Road is approximately 0.9 miles in length in the eastbound direction and will begin at the Starr Avenue underpass and end east of North Street to merge onto I-84.
- CD Road will be a one-way roadway parallel to I-84 and will consist of two travel lanes in the eastbound direction.
- CD Road will have at-grade intersections with Main Street and North Street in the eastbound direction.
- In the westbound direction, a new on-ramp is introduced at North Street.
- North Street will have full access to I-84.
- The westbound on and off ramps will intersect with Starr Avenue at a new signalized intersection. A bypass off-ramp is provided for the Main Street traffic headed towards downtown.
- Starr Avenue will have two lanes in each direction between the Main Street intersection and the I-84 overpass.
- I-84 will be reconstructed and have four lanes in each direction between the Starr Avenue underpass and Tamarack Avenue.

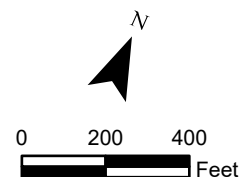
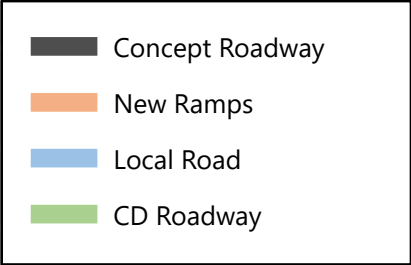
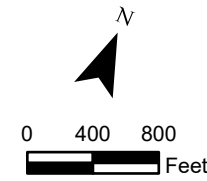
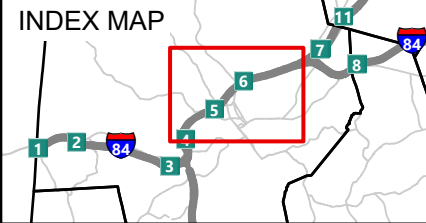
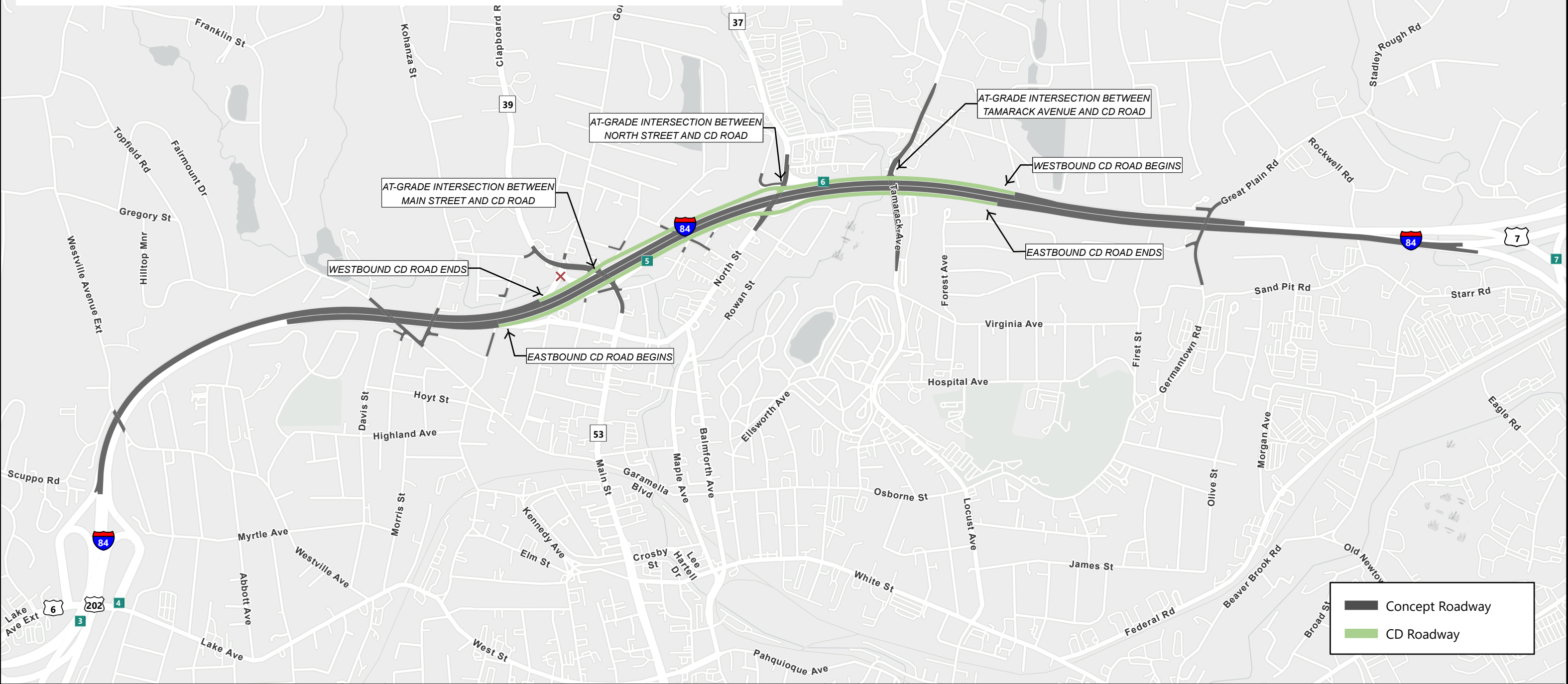


FIGURE I-24



Elements of C25 include the following:

- CD Road is approximately 1.5 miles in length in the eastbound direction and will begin east of Interchange 4 (Lake Avenue) and end east of Tamarack Avenue to merge onto I-84.
- CD Road is approximately 1.3 miles in length in the westbound direction and will begin east of Tamarack Avenue and end west of Main Street and merge onto I-84.
- CD Road will be a one-way pair parallel to I-84 and will consist of three travel lanes in each direction.
- CD Road will be closer to the I-84 mainline alignment, referred to as Collector Distributor Road Concept-Spaced.
- CD Road will have at-grade intersections with Main Street, North Street, and Tamarack Avenue.



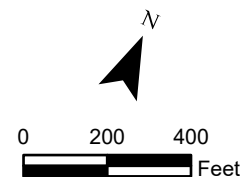
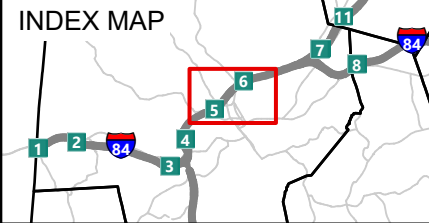
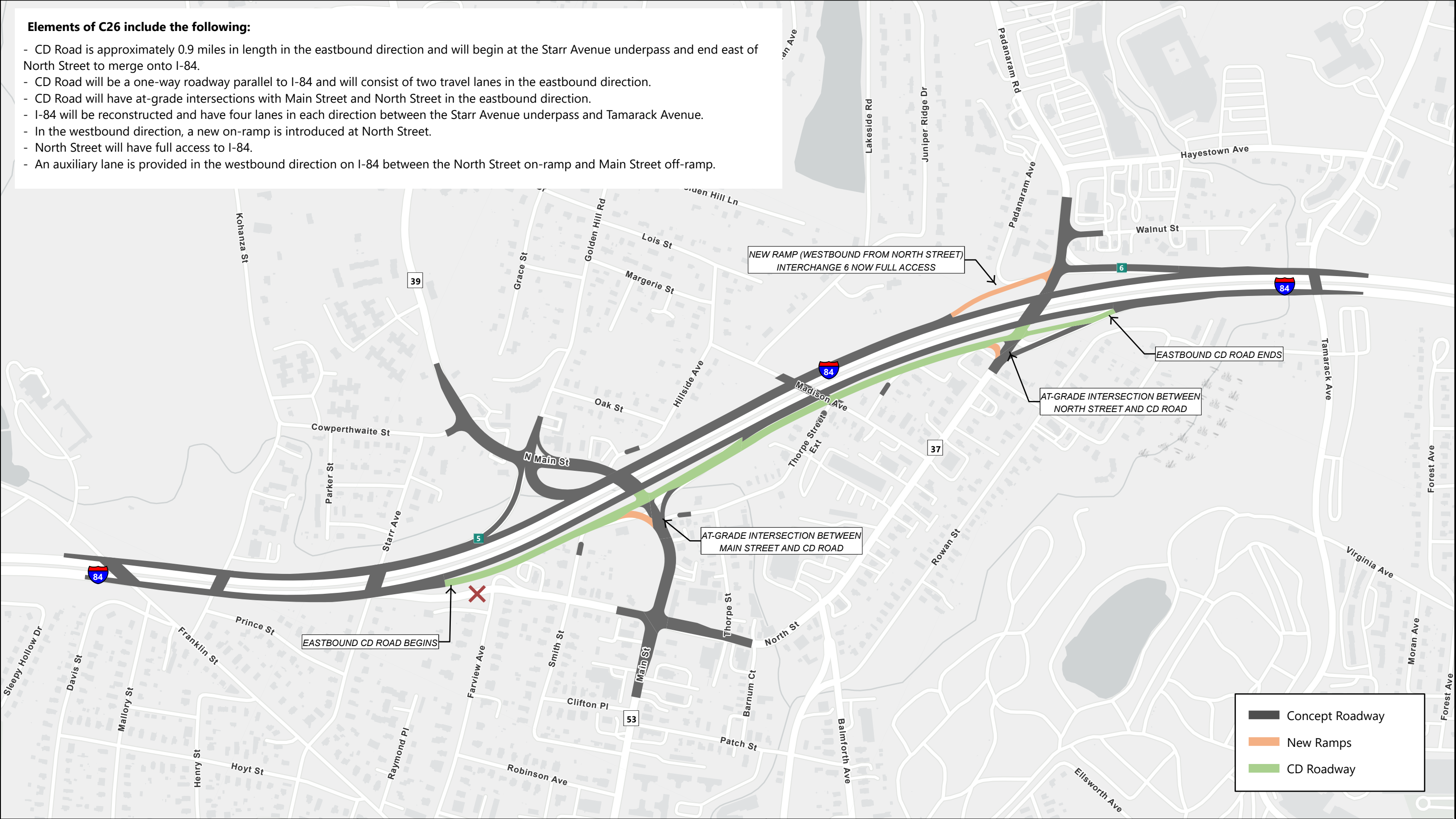
I-84 Danbury PEL Study
C25 - Three Lane CD Road - Center

FIGURE I-25



Elements of C26 include the following:

- CD Road is approximately 0.9 miles in length in the eastbound direction and will begin at the Starr Avenue underpass and end east of North Street to merge onto I-84.
- CD Road will be a one-way roadway parallel to I-84 and will consist of two travel lanes in the eastbound direction.
- CD Road will have at-grade intersections with Main Street and North Street in the eastbound direction.
- I-84 will be reconstructed and have four lanes in each direction between the Starr Avenue underpass and Tamarack Avenue.
- In the westbound direction, a new on-ramp is introduced at North Street.
- North Street will have full access to I-84.
- An auxiliary lane is provided in the westbound direction on I-84 between the North Street on-ramp and Main Street off-ramp.



I-84 Danbury PEL Study
C26 - North Street On-Ramp
Interchange 6 - Center
FIGURE I-26

