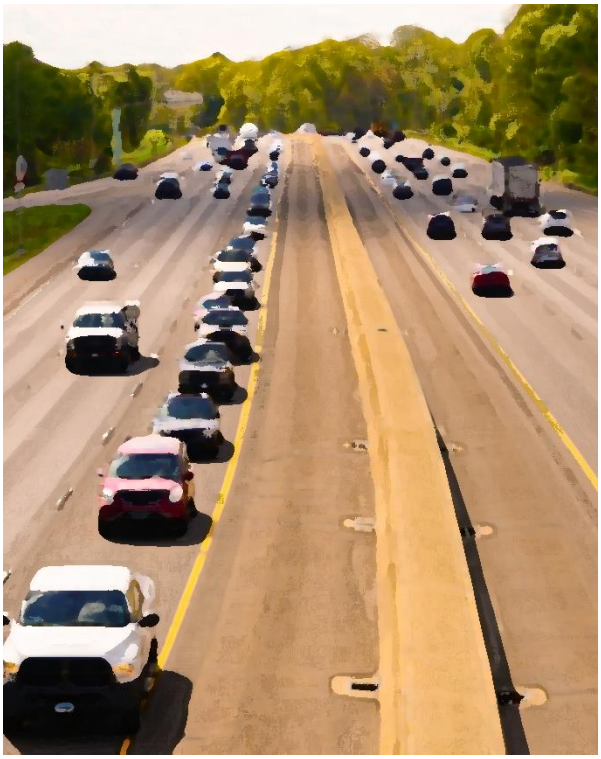

CONGESTION MANAGEMENT PROCESS

2024 Monitoring Report

ABSTRACT

The Congestion Management Process (CMP) is a data driven approach for managing congestion that utilizes current data, including performance measures, to assess alternative strategies for congestion management. This Monitoring Report provides a summary of congestion data from 2022 and 2023 as well as progress on the recommended strategies.

Bridgeport-Stamford, CT-NY Urbanized Area Transportation Management Area

July 2, 2024

WESTCOG NVCOG METROCOG Connecticut Metropolitan Council of Governments

Contents

Introduction

A Congestion Management Process (CMP) is required for any Metropolitan Planning Organization (MPO) that includes an urbanized area exceeding 200,000 known as a Transportation Management Area (TMAs). The CMP covers the Bridgeport-Stamford TMA and was developed cooperatively by the MPOs within the TMA. The CMP is a data driven approach for managing congestion that utilizes current data, including performance measures, to assess alternative strategies for congestion management. In 2023, the Bridgeport-Stamford TMA developed a joint **CMP report** using data and methodology for analyzing congestion that is consistent with guidance from FHWA regarding Transportation Performance Management.

The 2023 CMP report focused on road segments that are included in the FHWA National Performance Management Research Data Set (NPMRDS). This dataset encompassed all segments in the enhanced National Highway System along with some additional intersection road segments. The analysis was based on data from 2017 to 2021 and focused on the following performance measures:

- Non-Single Occupancy Vehicle (SOV) travel
- Level of Travel Time Reliability
- Truck Travel Time Reliability
- Peak Hour Excessive Delay

The full methodology for each of these performance measures can be viewed in the 2023 CMP report. Based on this analysis, the report identified a series of strategies to improve congestion through demand management, traffic operations, public transportation, and road capacity improvements.

This 2024 Monitoring Report provides an interim update on the four performance measures for 2022 and 2023 and progress on the recommended strategies.

Data Analysis Update

Non-SOV Travel

The Non-SOV measure was calculated to assess the use of other modes of transportation besides single occupancy vehicle travel in the Bridgeport--Stamford, CT--NY TMA. These other modes include transit, bicycle, or pedestrian travel.

Results:

In the Bridgeport--Stamford, CT--NY TMA the Non-SOV measure was 34.93% in 2022. Since 2017, Non- SOV travel has increased 6.57 percentage points. This means a higher percentage of the total workforce are utilizing transit or carpooling options. (Table 1 and Figure 1).

Table 1. Percent Non-Single Occupancy Vehicle in the Bridgeport-Stamford TMA

Year	Total Workforce	Drove alone	Non SOV	%NON SOV
2017 ACS 5 yr	462,878	331,627	131,251	28.36%
2018 ACS 5 yr	464,586	335,351	129,235	27.82%
2019 ACS 5 yr	466,800	336,220	130,580	27.97%
2020 ACS 5 yr	467,159	325,013	142,146	30.43%
2021 ACS 5 yr	473,213	317,363	155,850	32.93%
2022 ACS 5 yr	456,586	297,089	159,497	34.93%

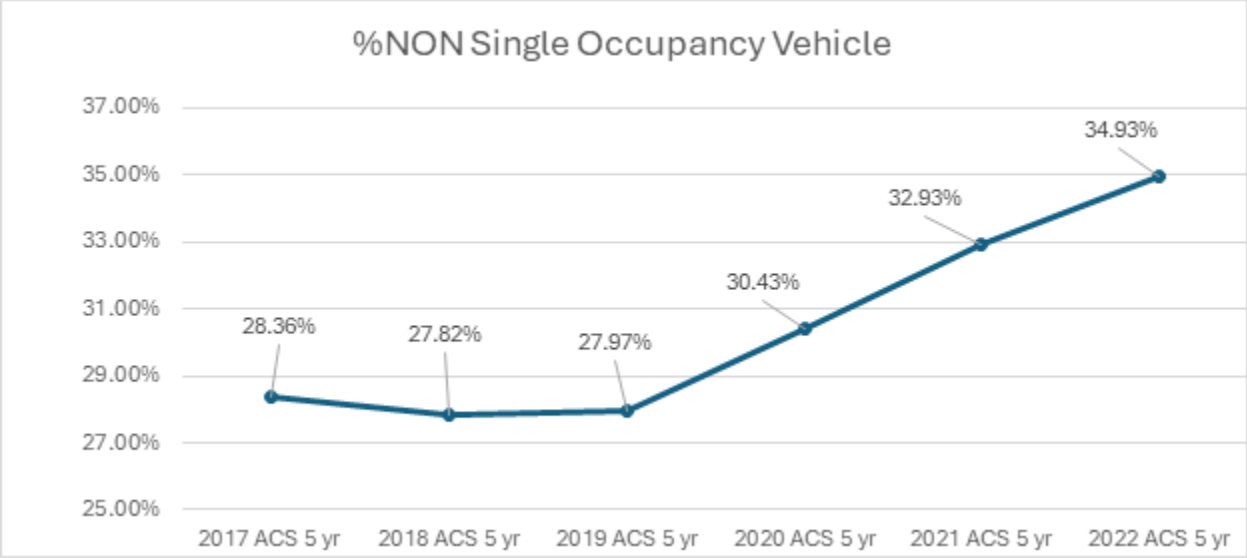

Figure 1. Percent Non-Single Occupancy Vehicle in Bridgeport-Stamford TMA

Level of Travel Time Reliability

Highway travel time reliability is closely related to congestion and is greatly influenced by the complex interactions of traffic demand, physical capacity, and roadway "events." Travel time reliability is a significant aspect of transportation system performance.

Operational-improvement, capacity-expansion, and to a certain degree highway road and bridge condition improvement projects, impact both congestion and system reliability. Demand-management initiatives also impact system reliability.

Results:

The LOTTR (Level of Travel Time Reliability) measure for the region was 63.98% over the 2023 year. That is, 63.98% of the NHS person miles traveled were reliable. This is a decrease from past years. The map below shows the NHS segments that were calculated as reliable or unreliable (Figure 2 and Figure 3).

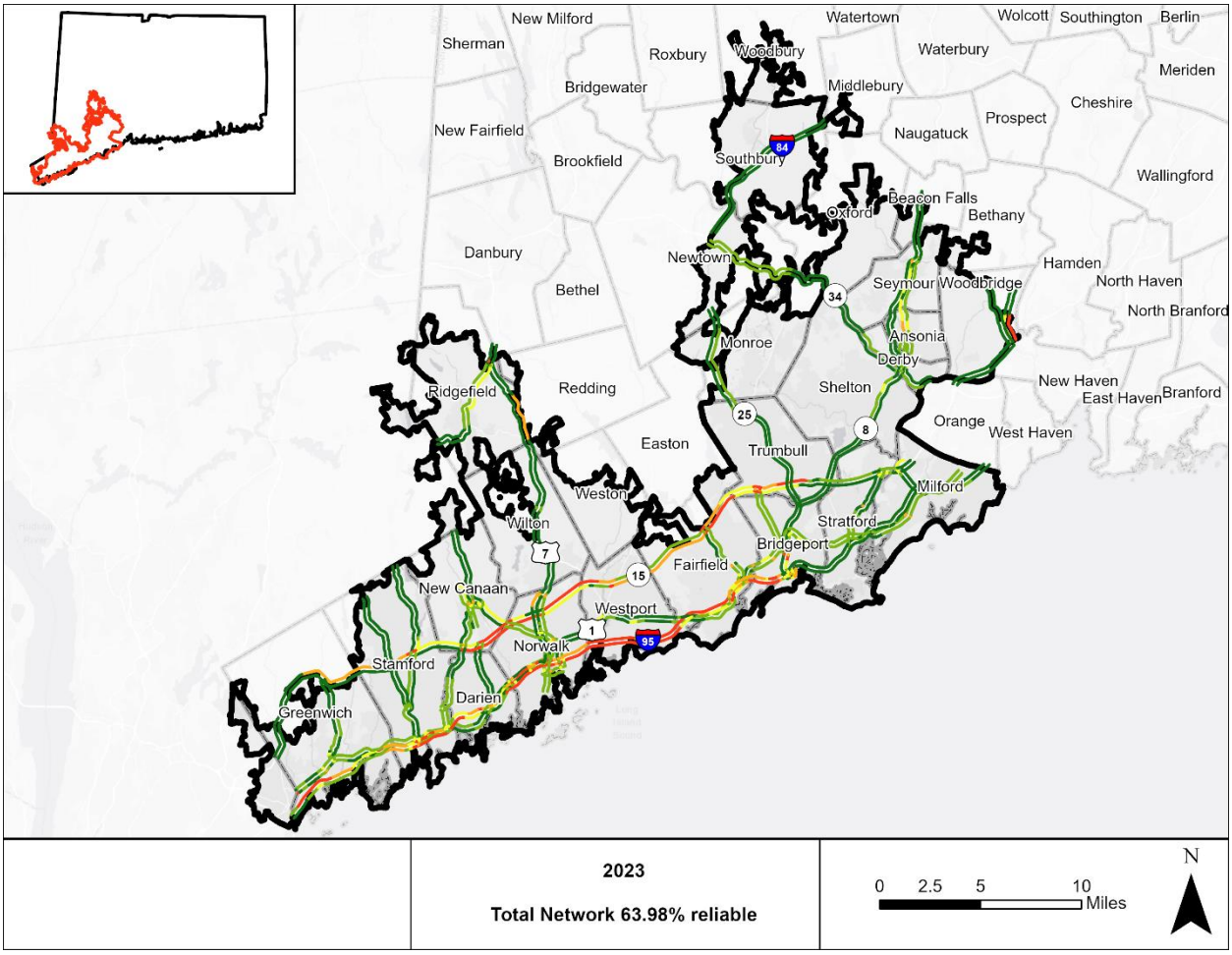

Figure 2. Level of Travel Time Reliability for 2022

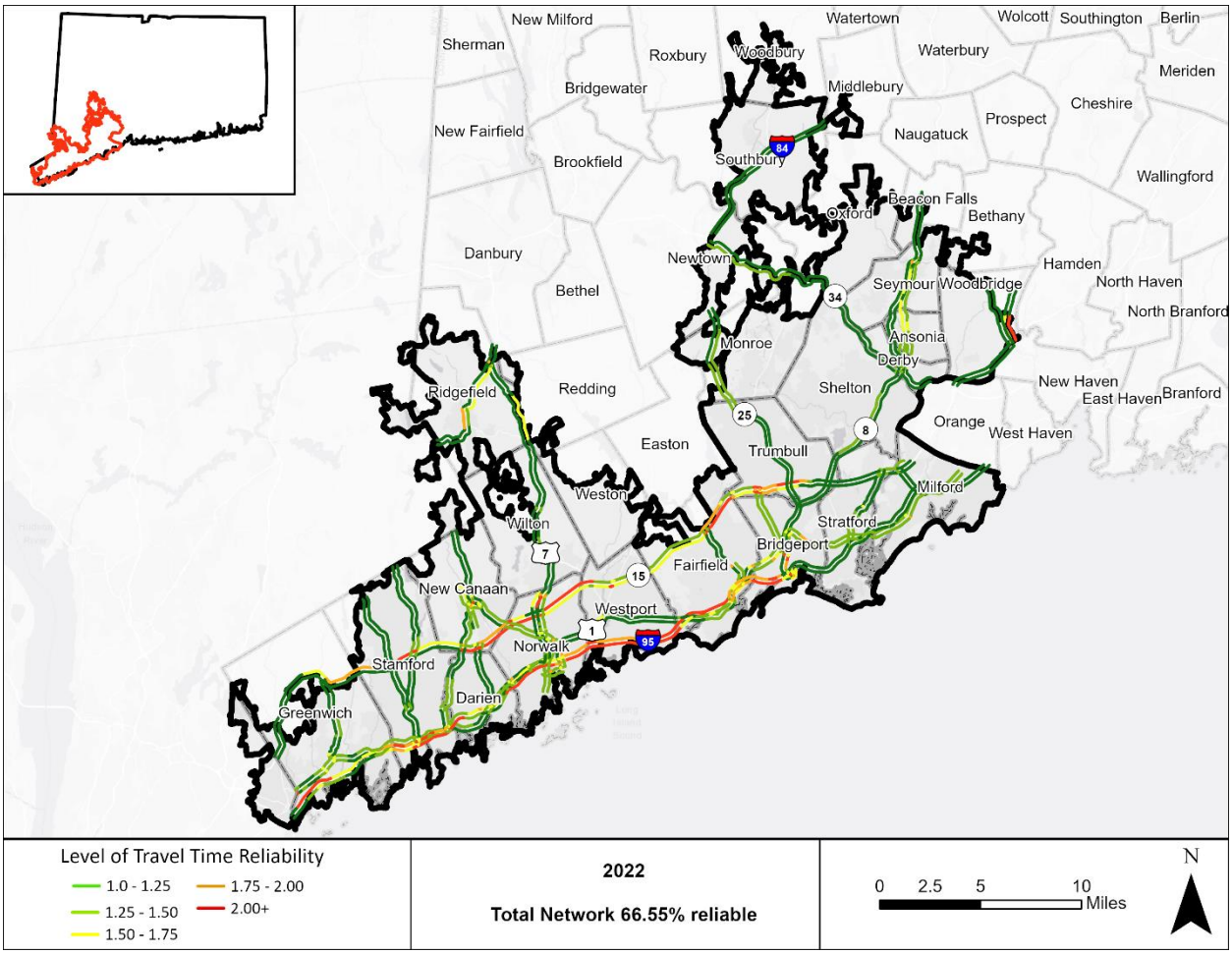

Figure 3. Level of Travel Time Reliability for 2023

Most of the unreliable person miles in the region are confined to I-95 and Route 15. This can be attributed to the high volume of traffic on these two roadways. These coastal routes consist of the highest count of roadway miles. The unreliable segments for I-95 appear south of the intersection with Route 8 in Bridgeport both on the northbound and southbound route. Southbound on I-95 has more unreliable person miles during the AM peak of 6am-10am. The northbound side has higher unreliable miles during the PM peak 4pm-8pm.Route 15 shows unreliable segments in Fairfield, south of the route 8 and route 25 interchange through Stamford where route 15 crosses route 104.

The measured reliability for 2022 was 66.55%. This is a low score for the NHS. Social distancing and the pandemic lowered the number of person miles traveled on the NHS during the years following the COVID-19 pandemic. Since then, people have started traviling more. Person miles have increased, and reliability has decreased through 2022 and 2023. 2023 has the lowest reliability score since 2017. The NHS saw the highest increase of unreliable miles on the I-95 North corridor.

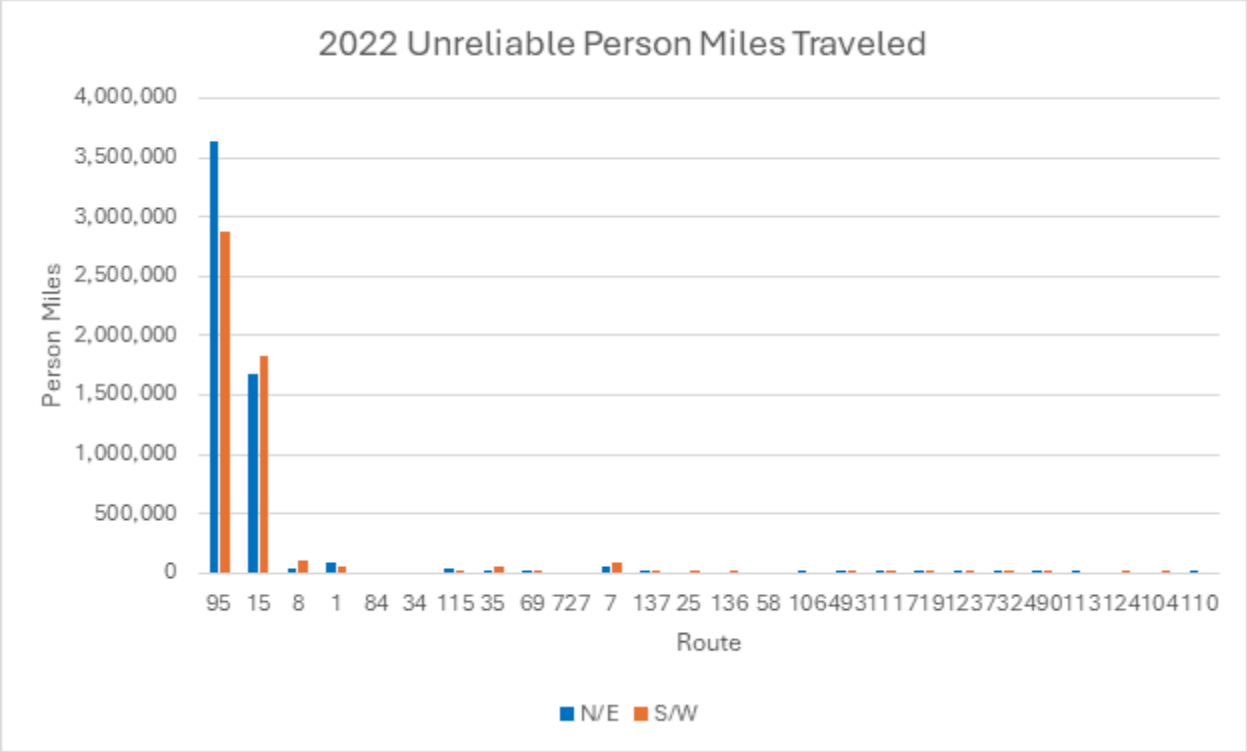

Figure 4. Unreliable Person Miles Traveled for 2022

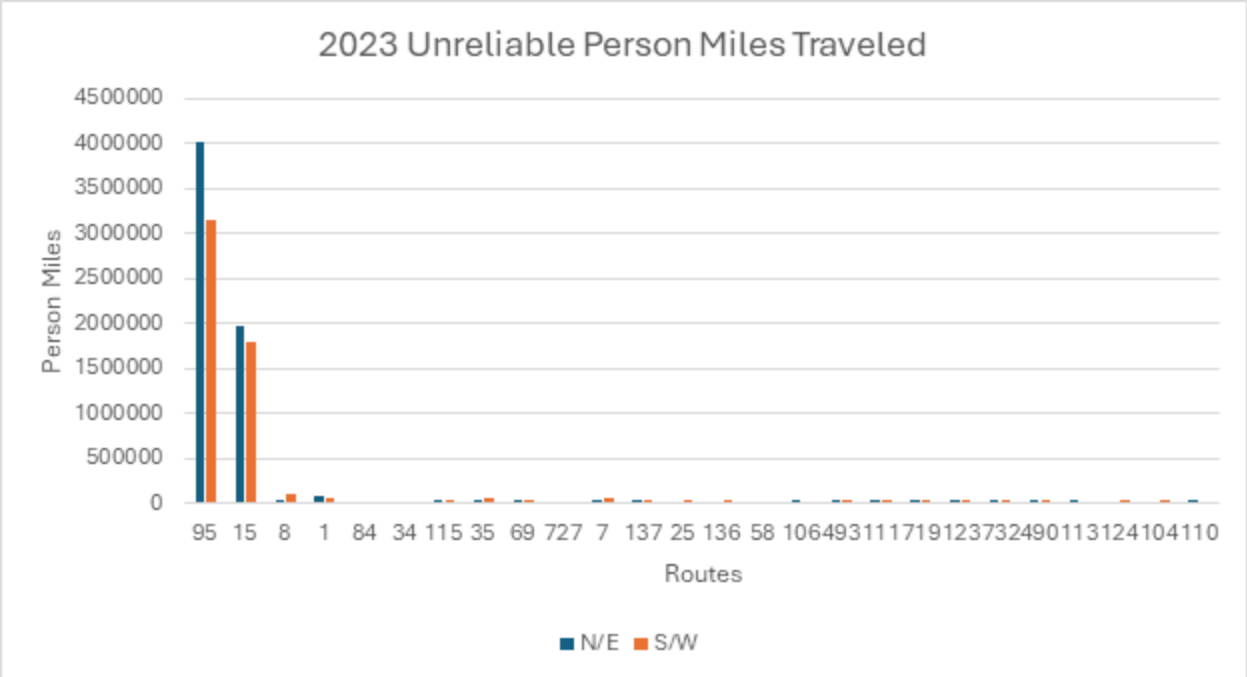

Figure 5. Unreliable Person Miles Traveled for 2023

Truck Travel Time Reliability

Freight movement is assessed by the Truck Travel Time Reliability (TTTR) index. The Truck Travel Time Reliability metric is the ratio of long travel times (95th percentile) to a normal travel time (50th percentile). This measure considers factors that are unique to the trucking industry.

Results:

The truck travel time reliability index for the region in 2022 was 2.4. A score of 1.5 or lower represents reliable travel time.

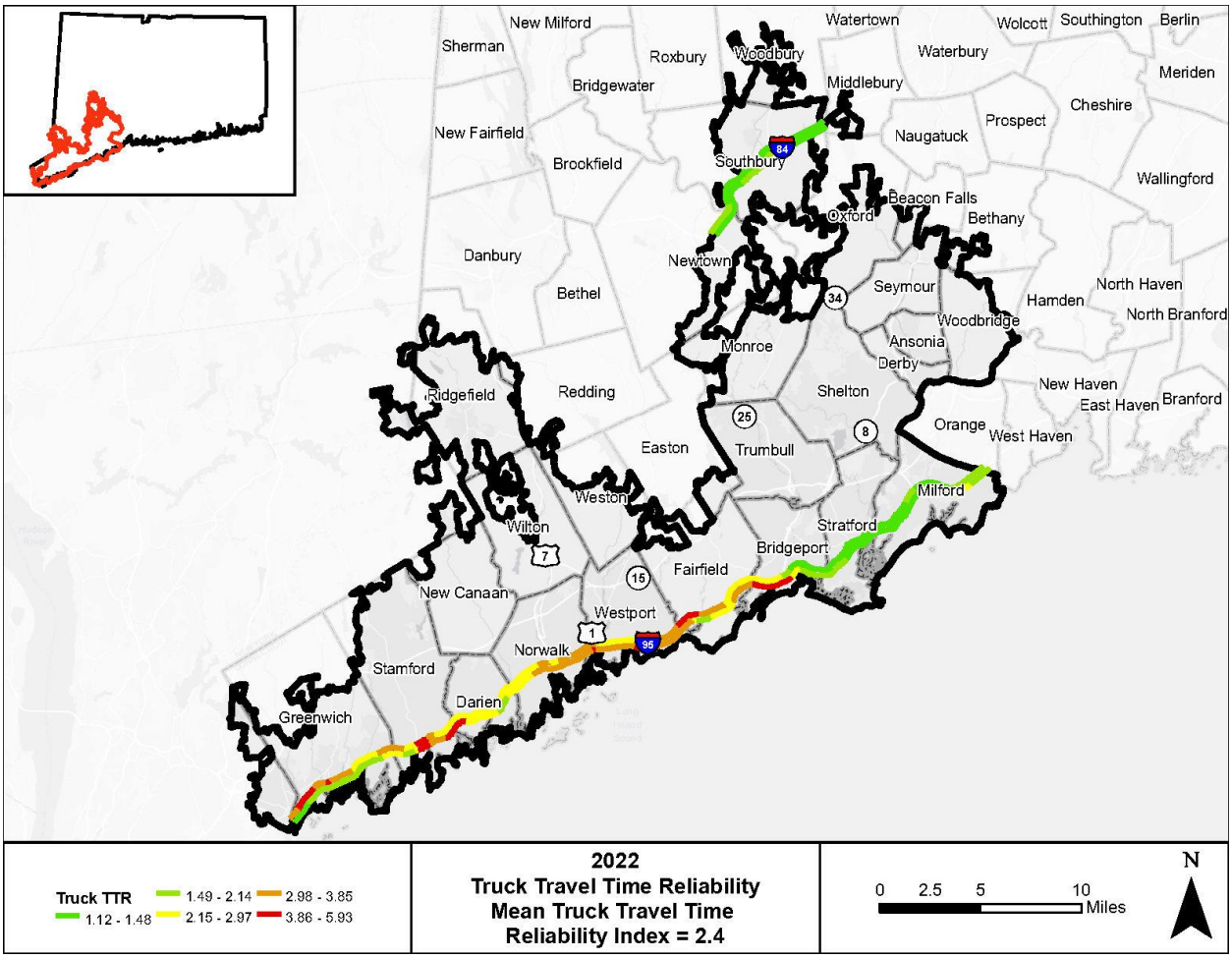

Figure 6. Truck Travel Time Reliability for 2022

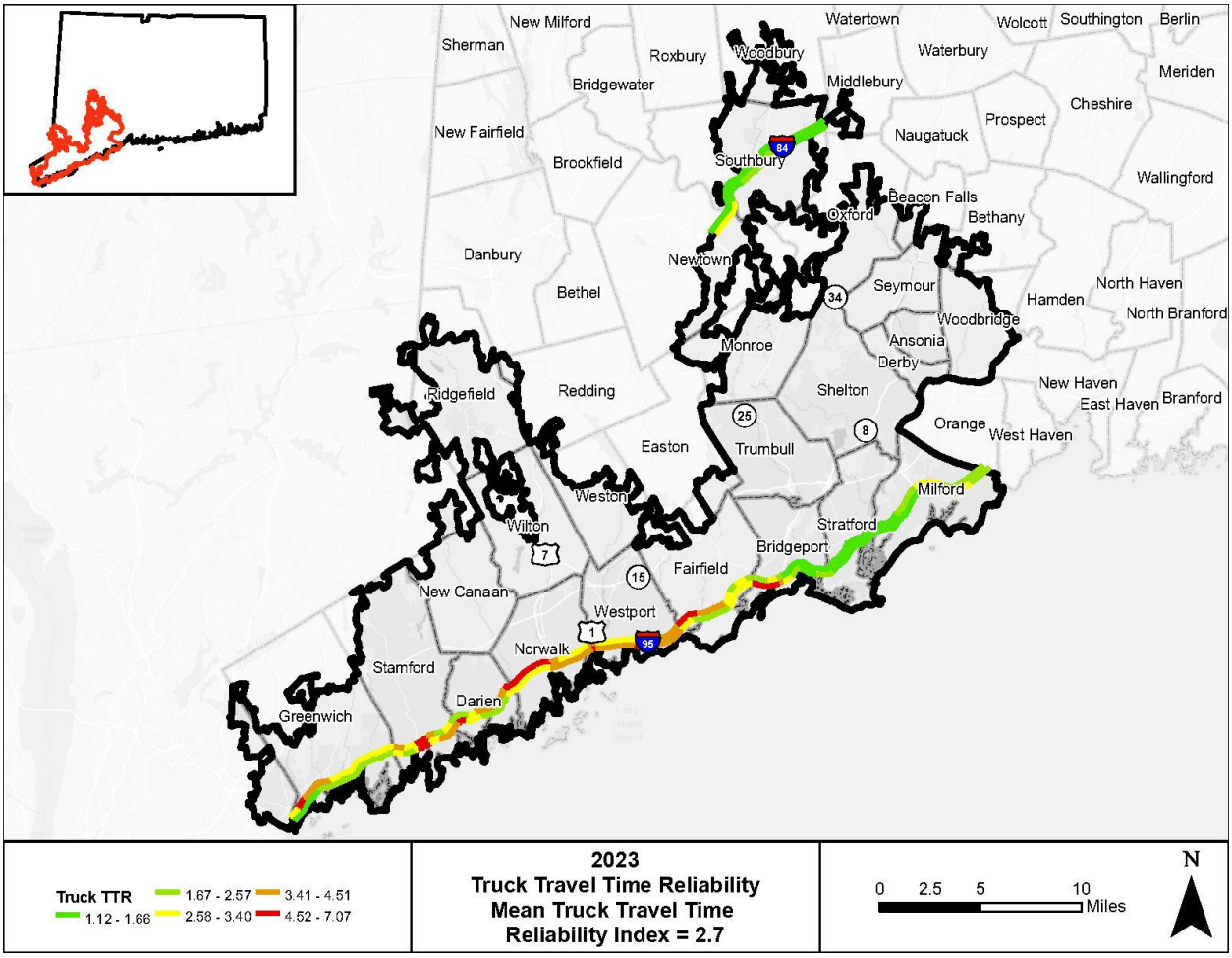

Figure 7. Truck Travel Time Reliability for 2023

For 2023, the truck travel time reliability index increased to 2.7, meaning less reliability for freight operators. This represents a return to pre-covid levels, with the 2019 TTTR index also being 2.7. Across the urban area, previous patterns have continued, with Interstate 84 having high levels of reliability and Interstate 95 having lower reliability, particularly in the western portion of the region.

Peak Hour Excessive Delay

The Peak Hour Excessive Delay measure was calculated to assess recurring congestion during commuting hours in the Bridgeport-Stamford TMA.

Results:

The annual hours of peak hour excessive delay per capita for the region for 2022 was 13.1. The annual hours of peak hour excessive delay per capita for the region for 2023 was 13.9.

High excessive delay occurred in some of the same areas that had high LOTTR and TTTR values such as I-95 and Route 15 south of Bridgeport. This indicates that these roadways experience both recurring and non-recurring events that delay travel over time (Figure 8 and Figure 9).

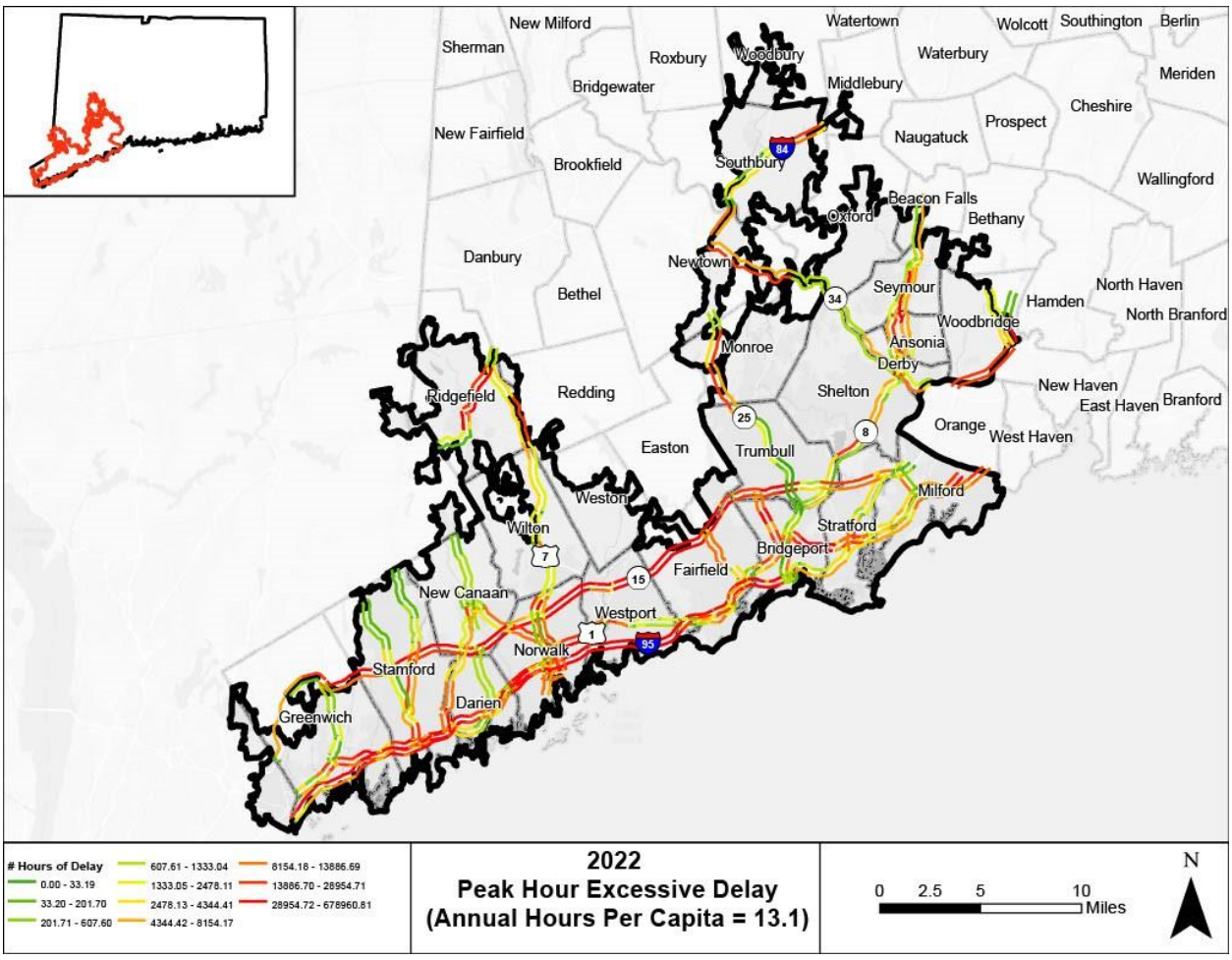

Figure 8. Peak Hour Excessive Delay for 2022

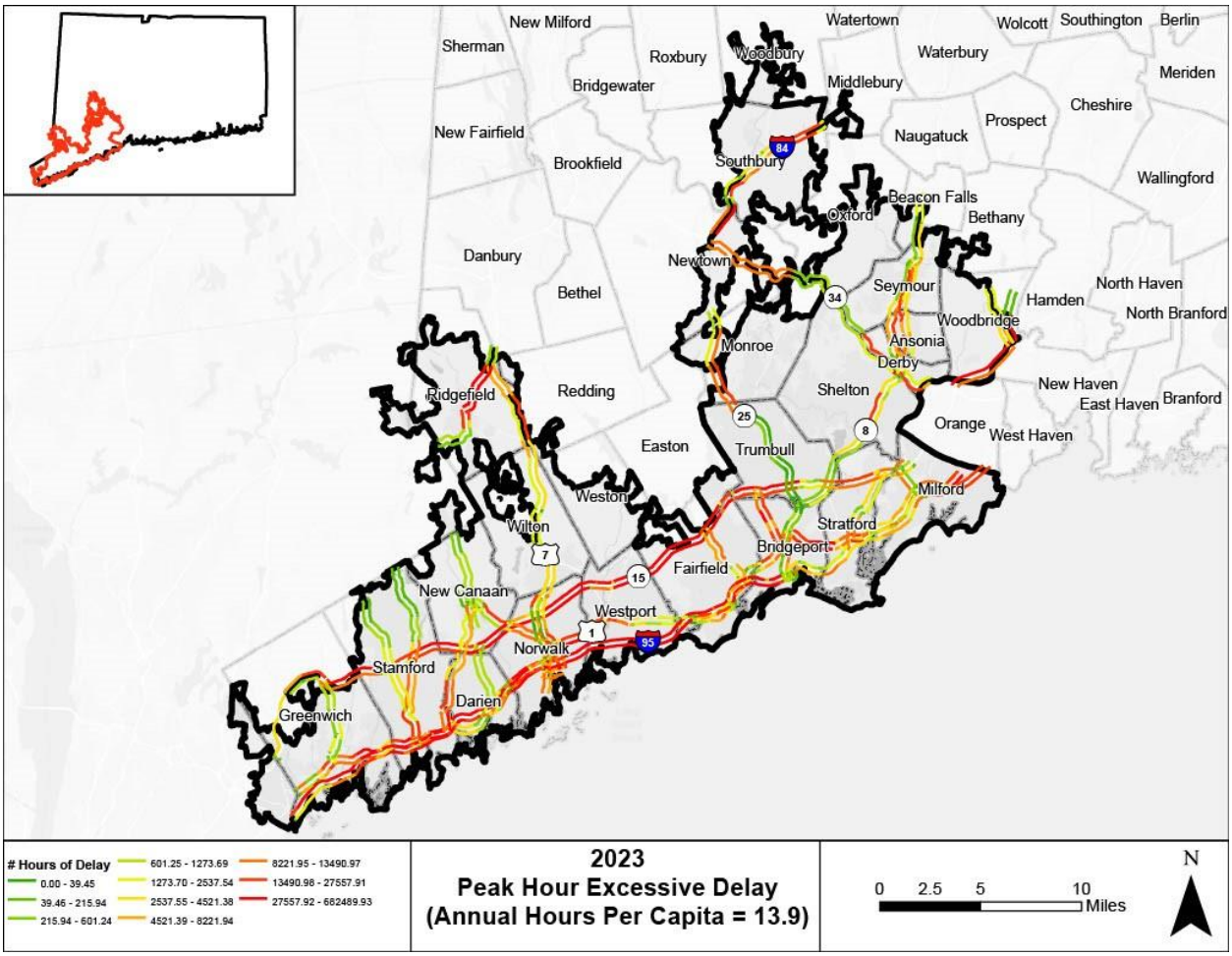

Figure 9. Peak Hour Excessive Delay for 2023

In 2022, I-95 accounted for 5,883 ,635 hours of delay, 46.9% of delay in the TMA. Route 1 was next highest, with 2,184,607 hours of delay (17.4%) followed by Route 15, 1,927,844 hours(15.4%). The other 20.4% of delay in the TMA were spread out over the remaining NHS segments (Figure 10).

In 2023, I-95 had 7,113,584 hours of delay (53.7%), continuing to be the most delayed route. Route 15, was the next highest with 2,110,265 hours of delay (15.9%) followed by Route 1, 1,848,801 hours (14.0%). The other 16.3% of delay in the TMA were spread out over the remaining NHS segments. (Figure 11).

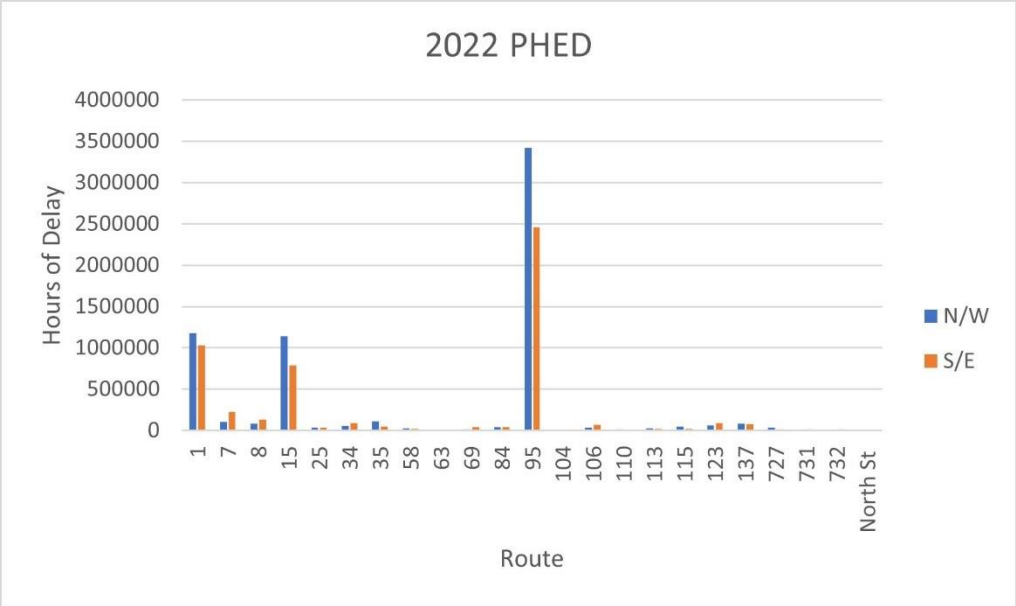

Figure 10. Peak Hour Excessive Delay by Route for 2022

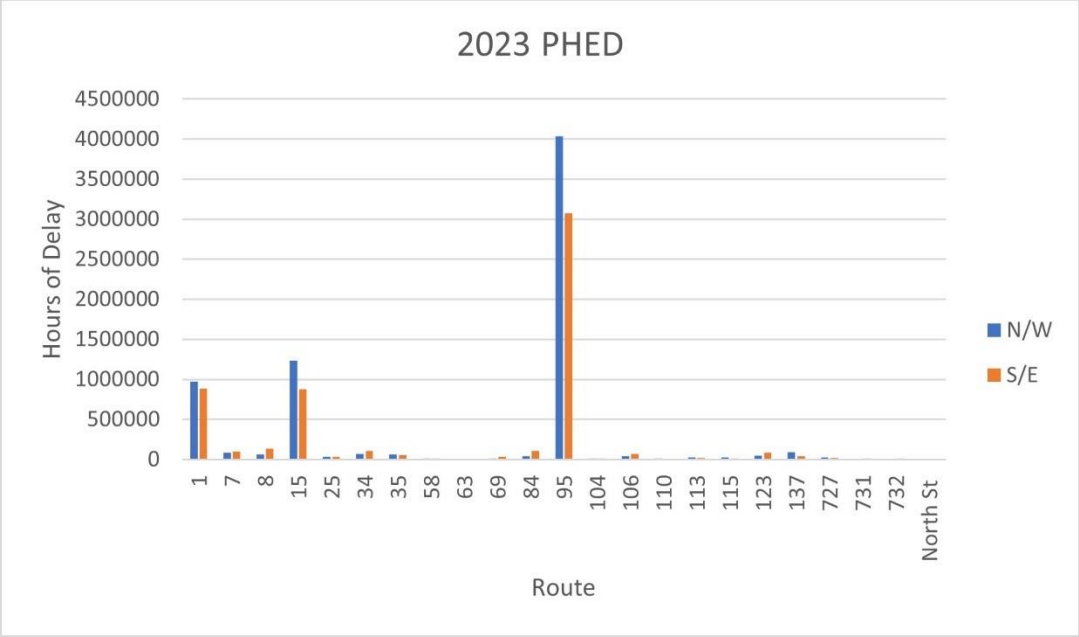

Figure 11. Peak Hour Excessive Delay by Route for 2023

PHED was calculated annually from 2017 – 2023. 2022 and 2023 continued the upward trend but PHED still remained below pre-pandemic levels (Figure 12).

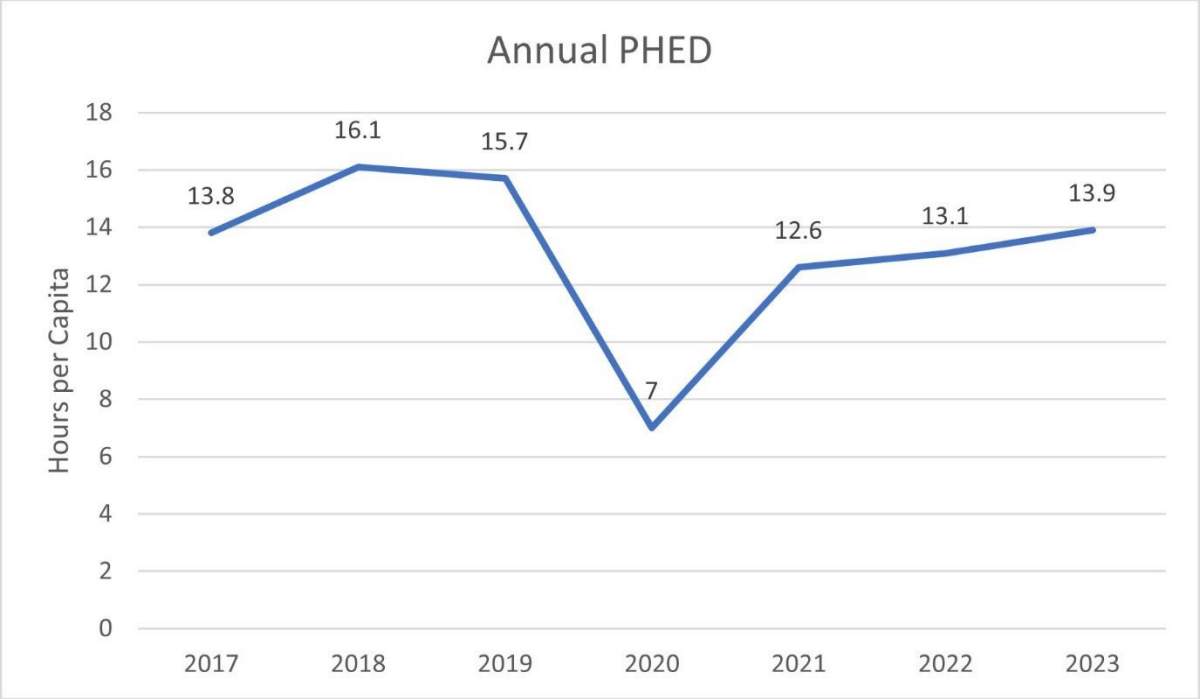

Figure 12. Peak Hour Excessive Delay from 2017-2023

Strategy Updates

The 2023 CMP report outlined a series of strategies to mitigate congestion in the region focused on demand management, public transportation, traffic operations, and road capacity. Below is a summary of the progress of those strategies as well as an introduction to new projects since the last report.

Demand Management Strategies

- Norwalk River Valley Trail –
    - In 2023, WestCOG was awarded a Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant to complete planning and engineering work for numerous sections of an approximately 55-mile multi-use trail between Norwalk, Wilton, Redding, Ridgefield, Danbury, Brookfield, and New Milford. ***(Previous)***
- WestCOG Traffic Calming and Complete Streets Best Practices Toolbox –
    - WestCOG is developing a Toolbox of planning practices for neighborhood streets that will be based on the consideration of safety and mobility of all users, environmental sustainability, economy of construction and maintenance, community cohesion, land use, and utility accommodations. ***(New)***
- Weston – Implement pedestrian improvements
    - In September 2023, Weston celebrated the completion of approximately 5,550 linear feet of new sidewalk construction funded through CTDOT's Community Connectivity Grant Program. ***(Previous/Completed)***

Bridgeport:

- Park Ave South Streetscapes Phase I and II (Transportation Alternatives projects): The Park Avenue streetscape project will provide the city with protected travel lanes for bicyclists along one of the key throughfares. Plans include extending this protected bike lane corridor throughout Park Avenue, with planning studies having been conducted along the northern portion of Park Avenue. By linking these individual segments together, the city will be able to make a significant advancement in its overall biking infrastructure, linking the northernmost and southernmost areas of the city with what will eventually be an uninterrupted protected bike path and helping to encourage healthier, safer, and more sustainable modes of travel in Bridgeport. ***(New)***

- Ash Creek Pedestrian Bridge (LOTCIP): This project will construct a pedestrian bridge from Fox Street in Bridgeport, across Ash Creek and to an existing trail in Fairfield which leads to the Fairfield Black Rock station. ***(Previous/Ongoing)***

- Building Resilient Interconnected Development as a Gateway to the East End study (Reconnecting Communities planning grant): The study will analyze improvements for the portion of I-95 that bifurcates the East End Neighborhood and isolates it from Downtown Bridgeport, Bridgeport Harbor, and Steel pointe. The study area is a racially diverse neighborhood and has experienced disproportionate economic, social, and environmental burdens due to the current location of the I-95 Exit 29 Interchange, as well as rail and water pollution control infrastructure. The study will review concepts for the entrance and exit ramps, including alternatives to remove or reduce the physical barriers in certain locations to ensure

the network provides safe, reliable mobility options and access to economic opportunities. The study will better align the transportation infrastructure with the goals and needs of the East End and the City of Bridgeport focusing on pedestrian and bicycle improvements. ***(New)***

- SS4A FY 2024, Planning and Demonstration: The City of Bridgeport was awarded $2,538,400 in Planning and Demonstration funding under the Safe Streets and Roads for All program to advance its community-driven Complete & Safe Streets Design Manual, create an Action Plan for its implementation, and conduct numerous demonstration activities to inform the Action Plan. ***(New)***

Fairfield:

- King's Highway Streetscape Improvements: improvements along King's Highway have been jointly funded through LOTCIP and federal funds. Located within 3/4 of a mile of the Fairfield Metro Rail Station, improvements were completed to the poor sidewalk facilities along Kings Highway East, including sidewalk replacement, new concrete curbing and ADA ramps, enhancement of center medians, pedestrian signal improvements and street and bicycle amenities. An extension is planned for Villa Avenue to the Bridgeport city line. ***(Previous/Ongoing)***
- Grasmere neighborhood/Post Road: Improvements include pedestrian/bicycle access, safety and streetscape enhancements along Post Road, Grasmere Avenue, Kings Highway East and the Post Road "jughandle." ***(Previous/Ongoing)***
- Fairfield SS4A FY 2024, Planning and Demonstration: The Town of Fairfield was awarded $350,000 in Planning and Demonstration funding under the Safe Streets and Roads for All program to develop a new comprehensive municipal Safety Action Plan as well as the creation of a Complete Streets Plan focused on creating context specific roadway typologies. ***(New)***

Monroe:

- Pequonnock River Trail Extension (LOTCIP): This project will fill a gap in the Pequonnock River Trail network by connecting to completed sections of the trail in a local park. Currently, users connect to the trail via local roads and the park entrance/exit drive, which can be dangerous and confusing as the lack of wayfinding, bicycle, and pedestrian amenities are nonexistent. ***(Previous-Ongoing)***

Stratford:

- Complete Streets (Phase 1 & Phase 2): The Town is currently utilizing both their Complete Streets Policy and Plan to provide a wide range of transportation safety improvements that accommodates walking, cycling, and transit use. Enhancements to the Town's roadway infrastructure encourages travelers to utilize more active transportation options and improves connections to bus & train stations, public parks, and the waterfront. Phase I is a mile long project from Harvey Place to Barnum Avenue. The project incorporates infrastructure improvements such as enhancements to the sidewalk network, installation of decorative crosswalks, pedestrian push buttons & amenities, transit stop upgrades, painted & separated bike lanes, and signage upgrades. Phase II is currently in design and will continue bicycle, pedestrian, transit, and place making improvements from Barnum Avenue, north to Windsor

Avenue. The second phase improves connections from Stratford Center to a historic district, commercial and recreation area. Phase II introduces added infrastructure improvements like road diets, bump outs, Rectangular Rapid Flashing Beacon's (RRFBs), and signal upgrades, and improvements that further support multimodal options. ***(Previous- Ongoing)***

Trumbull

- Pequonnock River Trail connector (Transportation Alternatives): This project will connect the state-owned commuter parking lot on White Plains Road (Route 127) to the existing Pequonnock River Trail located at the intersection of the Route 15/Merritt Parkway exit ramp (exit 50) by constructing a sidewalk. The connection to the existing PRT would come by way of the sidewalk on the eastern side of White Plains Road (Rt. 127). Access off Route 15 also supports usage of the trail system as an alternative transportation route to a school, work, shops, restaurants and other amenities in the nearby commercial areas of Trumbull. Users can travel north from the commuter lot and connect either to the southbound trailhead toward Bridgeport or the northbound trailhead at the Veteran's Memorial Park and through Trumbull into Monroe. ***(Previous/Ongoing)***
- Route 111 Pequonnock River Trail crossing: The Pequonnock River Trail meets state Route 111 adjacent to Old Mine Road in the northern section of the Town. At this location, trail users must cross 4 lanes of traffic in order to continue on the multiuse trail. Funds to improve safety at this location were programmed through LOTCIP. Upgrades are expected to shift the trail crossing just north to align with a new traffic signal at the shopping plaza entrance. Improvements include new traffic signals with pedestrian actuated push buttons, crosswalks, and expansion of the trail pavement network that accounts for several types of trail users, especially those with mobility impairments through ADA enhancements. ***(Previous/Complete)***
- Whitney Avenue improvements (LOTCIP): This project will install sidewalks along Whitney Avenue to provide a continuous connection of sidewalks from the Long Hill Green neighborhood to the Pequonnock River Trail Extension. The project is one of several phases in a larger neighborhood capacity and safety improvement project to improve pedestrian safety and comfort while reducing traffic congestion. ***(Previous/Ongoing)***

Public Transportation Strategies

- CTODT Microtransit grants - New microtransit services will begin in various communities throughout Connecticut between March 26, 2024, and July 30, 2024. Microtransit service is an accessible, on-demand mode of transportation that allows customers to use a smartphone app or telephone number to request and schedule a ride within designated service areas. The pilot program will last for two years with the possibility of two one-year extensions exercisable by CTDOT, based on performance and ridership. ***(New)***
    - <u>Began March 26, 2024</u>
        - **Norwalk Transit District**: Serving Norwalk.
    - <u>Began April 1, 2024</u>
        - **Valley Transit District**: Serving the Ansonia Train Station, Derby, and Shelton.
    - <u>Began April 8, 2024</u>
        - **Milford Transit**: Serving Milford.
    - <u>Began April 22, 2024</u>
        - **Greater Bridgeport Transit**: Serving Trumbull.
    - <u>Starting July 1, 2024</u>
        - **City of Stamford**: Serving a five-mile boundary within the city.
- WestCOG RCN Award – Regional Transit Study
    - In February 2024 WestCOG was awarded $1,000,000 in grant funds through the USDOT Reconnecting Communities and Neighborhoods Grant Program to develop a Regional Transit Study. The Study will bring together WestCOG, in partnership with the CTtransit Stamford Division, Norwalk Transit District, and Housatonic Area Regional Transit, to evaluate regional travel needs, identify barriers and opportunities, and develop a plan for the future of the region's transit system. In addition to these partners, the Study will also consider intermodal transfers between bus service and Metro-North's New Haven Line, Danbury Line, and New Canaan Line and connections with the Westchester County Bee-Line Bus, Greater Bridgeport Regional Transit, and the CTtransit Waterbury Division, with the goal of providing safe, efficient, and affordable access across the region and beyond to employment, education, healthcare, services, and recreation. ***(New)***
- Install new bus shelter or upgrade existing shelters:
    - CTDOT Bus Shelter Enhancement Project – Announced in early 2024, CTDOT will be allocating up to $20 million to a new bus shelter improvement program. The program, expected to launch this spring, provides funding to communities to install shelters, providing protection from the elements and improved access for people using mobility aids. ***(Previous)***
    - The NVCOG has similarly been designing and intends to install 13 new shelters under an FTA Capital Improvement Grant within the Lower Naugatuck Valley towns of Ansonia, Derby, and Seymour. (Previous)
- Fixed bus replacements – battery electric buses:
    - Stamford – In 2023, the Federal Transit Administration awarded approximately $26 million for transit facility upgrades and 20 electric buses for the CTtransit Stamford Division. ***(Previous)***

- New Canaan Branch – Implement at-grade crossing improvements –
    - WestCOG is continuing coordination with Stamford, Darien, New Canaan, FRA, CTDOT, and Metro-North to develop safety improvements at the at-grade rail crossings. A Diagnostic Team Meeting was held in March 2023 and draft recommendations will be presented to the public in spring 2024. The study is expected to be finished in summer 2024. ***(Previous)***
- Greater Bridgeport Transit, FTA Areas of Persistent Poverty grant: This transit planning grant will focus on minimizing impacts and maximizing the benefits of transit in Areas of Persistent Poverty(AoPPs)/Historically Disadvantaged Communities (HDCs) neighborhoods in Bridgeport. The scope includes a quantitative analysis of census tracts within the City of Bridgeport, a granular evaluation of existing transit operations, the development of policies related to transit investment, the development of a fleet, facility, and bus deployment plan to transition the fleet to zero emission propulsion systems, and the creation of an educational program for residents related to available mobility options. ***(New)***
- Waterbury Line Station Replacements
    - CTDOT was awarded funds through the FTA's All Stations Accessibility Program, in coordination with a RAISE award and state funds, which will upgrade all stations along the Waterbury Branch of the New Haven Line to fully ADA accessible, high-level platforms. ***(New)***

Road Capacity Strategies

- Newtown Interstate 84 Exit 11 project –
    - Completed in fall 2023, this project involved intersection improvements on Wasserman Way (Route 490) and Berkshire Road (Route 34), reconfiguration of the off-ramp with an additional turn lane, and a new on-ramp from Berkshire Road. ***(New/Completed)***
- Route 7/15 Interchange –
    - In 2023, CTDOT released the Environmental Assessment/Draft 4(f) Evaluation and Environmental Impact Evaluation (EA/EIE) to address the missing connections at the interchange and improve mobility. Additionally, improvements to the Route 15 and Main Avenue ramps will address the substandard acceleration lanes, steep changes in grade, sharp curves, and limited sight distance. The project will also include upgrades to expand mobility in the surrounding area for pedestrians, bicyclists, transit users, and motorists on Main Avenue, Glover Avenue, and Creeping Hemlock Drive. The upgrades will include installing bicycle facilities and adequate shoulder widths, where there are none currently. Sidewalks, curb ramps, and crosswalks will be installed in compliance with the U.S. Americans with Disabilities Act (ADA). ***(New)***
- Fairfield, Post Road Circle: MetroCOG is working with CTDOT to evaluate opportunities to improve traffic patterns, bicycle/pedestrian access, and safety for all modes in this area. A recent corridor study recommended a modern roundabout at the intersection of Route 1 and Route 130 to slow vehicle speeds, reduce vehicle queues and provide safer pedestrian crossings. More information on the study can be found at https://bit.ly/post-road ***(Previous/Ongoing)***