

South Central Region Metropolitan Transportation Plan 2023-2050

FRAMING THE REGION'S TRANSPORTATION
PROGRAMS AND INVESTMENTS

SCRCOG
SOUTH CENTRAL REGIONAL
COUNCIL OF GOVERNMENTS

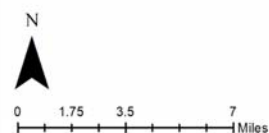


DRAFT



South Central Region Transportation Infrastructure

-  Port of New Haven
-  Airports
-  Train Stations
-  Interstates
-  State Highways
-  Local Roads
-  Railroads



DATA SOURCE:
ConnDOT Transportation Infrastructure
SCRCOG Centerline, 2015

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Introduction

The South Central Region of Connecticut (the Region) is an economically diverse region of fifteen municipalities with a total population of approximately 570,000. The fifteen municipalities are: Bethany, Branford, East Haven, Guilford, Hamden, Madison, Meriden, Milford, New Haven, North Branford, North Haven, Orange, Wallingford, West Haven, and Woodbridge.



In early 2020, the entire nation experienced a period of disruptive change beginning with the onset of the COVID-19 Pandemic. Transportation systems throughout Connecticut were forced to accommodate these changes as the demand for a safe, efficient, and reliable transportation system became essential.

In November 2021, The Bipartisan Infrastructure Law (BIL) took effect and under this new legislation Connecticut expects to receive about \$1.3 billion over the next five years. In the first year, this represents about a 39% increase over 2021 FAST Act formula funding levels.

The South Central Regional Metropolitan Transportation Plan (the Plan) addresses broad goals for the transportation needs of the Region and outlines the ways the Region plans to invest in the transportation system through 2050. Per the federal regulations [23 CFR 450.324(b)], the plan includes both long-range and short-range program strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. Using procedures outline in 23 CFR 450.324(c) SCRCOG may revise the Plan without the need to extend the horizon year (2050).

The Plan provides direction for the Region on major policy issues on all modes of transportation. The Plan reviews, updates and extends the timeline of the previous plan, *Framing the Region's Transportation Programs and Investments*. Completed in 2019, that Plan and is available on the South Central Regional Council of Governments (SCRCOG) website.

The Plan supports a performance-based approach to planning and the use of performance measures to document expectations for future performance. Using this approach, SCRCOG will work with its member municipalities, the Connecticut Department of Transportation, federal transportation agencies, and other state agencies, to set priorities which are reinforced and expanded by the Plan.

This plan is fiscally constrained. SCRCOG, in conjunction with its member municipalities, state and federal governments, cooperatively utilizes existing and any additional funding sources to prioritize and accomplish the transportation goals and initiatives outlined within the Plan.

This Plan is prepared by SCRCOG in cooperation with the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and the Connecticut Department of Transportation (CTDOT). The opinions, findings and conclusions expressed in this report are those of the South Central Regional Council of Governments and do not necessarily reflect the official views or policies of other government organizations.

Median Household Income By Municipality (2021)				
Bethany	Branford	East Haven	Guilford	Hamden
\$136,667	\$87,738	\$74,238	\$115,171	\$80,779
Madison	Meriden	Milford	New Haven	North Branford
\$140,990	\$59,792	\$97,785	\$48,973	\$101,463
North Haven	Orange	Wallingford	West Haven	Woodbridge
\$110,009	\$128,171	\$88,573	\$66,868	\$171,652

Source: U.S. Census Data American Community Survey 5-Year Estimates 2021 (Table B19013)

Population by Race/Ethnicity (2021)									
Total Population	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of Any Race)	
Bethany	5,331	4,862 (91.2%)	76 (1.4%)	0 (0.0%)	282 (5.3%)	0 (0.0%)	111 (2.1%)	109 (2.0%)	
Branford	28,230	24,814 (87.9%)	818 (2.9%)	19 (0.1%)	998 (3.5%)	0 (0.0%)	902 (3.2%)	1,695 (6.0%)	
East Haven	28,054	21,579 (76.9%)	1,731 (6.2%)	0 (0.0%)	970 (3.5%)	12 (0.0%)	2,119 (7.6%)	1,643 (5.9%)	5,334 (18.3%)
Guilford	22,113	19,960 (90.3%)	541 (2.4%)	0 (0.0%)	930 (4.2%)	0 (0.0%)	119 (0.5%)	563 (2.5%)	1,147 (5.2%)
Hamden	61,160	34,137 (55.8%)	17,146 (28.0%)	145 (0.2%)	3,022 (4.9%)	0 (0.0%)	3,688 (6.0%)	7,835 (12.8%)	
Madison	17,742	16,306 (91.9%)	88 (0.5%)	40 (0.2%)	531 (3.0%)	0 (0.0%)	102 (0.6%)	675 (3.8%)	488 (2.8%)
Meriden	60,790	41,245 (67.8%)	5,783 (9.5%)	303 (0.5%)	1,575 (2.6%)	19 (0.0%)	4,181 (6.9%)	7,684 (12.6%)	21,647 (35.6%)
Milford	52,308	44,430 (84.9%)	1,191 (2.3%)	38 (0.1%)	3,215 (6.1%)	0 (0.0%)	659 (1.3%)	2,775 (5.3%)	4,050 (7.7%)
New Haven	133,874	53,745 (40.1%)	45,322 (33.9%)	334 (0.2%)	6,917 (5.2%)	0 (0.0%)	17,835 (13.3%)	9,721 (7.3%)	40,607 (30.3%)
North Branford	13,643	12,812 (93.9%)	63 (0.5%)	0 (0.0%)	167 (1.2%)	0 (0.0%)	61 (0.4%)	540 (4.0%)	349 (2.6%)
North Haven	24,217	19,957 (82.4%)	1,172 (4.8%)	0 (0.0%)	1,596 (6.6%)	0 (0.0%)	592 (2.4%)	900 (3.70%)	1,566 (6.5%)
Orange	14,225	11,177 (78.6%)	887 (6.2%)	0 (0.0%)	1,683 (11.8%)	0 (0.0%)	154 (1.1%)	324 (2.3%)	429 (3.0%)
Wallingford	44,428	37,558 (84.5%)	551 (1.2%)	0 (0.0%)	2,106 (4.7%)	0 (0.0%)	2,501 (5.6%)	1,712 (3.9%)	5,753 (12.9%)
West Haven	55,518	31,653 (57.0%)	10,819 (19.5%)	219 (0.4%)	2,819 (5.1%)	196 (0.4%)	5,682 (10.2%)	4,130 (7.4%)	14,032 (25.3%)
Woodbridge	9,073	7,516 (82.8%)	213 (2.3%)	0 (0.0%)	674 (7.4%)	0 (0.0%)	164 (1.8%)	506 (5.6%)	662 (7.3%)

Source: U.S. Census Bureau American Community Survey 5-Year Estimates 2021 (Table DP05)

Population by Age (2021)							
	Total Population	Median Age	Under 18 Years	18 to 24 Years	25 to 44 Years	45 to 64 Years	65 Years and Over
Bethany	5,331	42	1,052 (19.7%)	582 (10.9%)	1,240 (23.2%)	1,515 (28.4%)	943 (17.7%)
Branford	28,230	51	4,361 (15.4%)	1,679 (5.9%)	5,730 (20.4%)	9,509 (33.7%)	6,951 (24.6%)
East Haven	28,054	43	4,970 (17.7%)	2,570 (9.2%)	6,854 (24.5%)	8,173 (29.1%)	5,487 (19.6%)
Guilford	22,113	49	4,700 (21.3%)	1,362 (6.2%)	4,010 (18.1%)	6,543 (29.6%)	5,298 (24.9%)
Hamden	61,160	37	11,178 (18.3%)	9,590 (15.7%)	15,711 (25.7%)	14,787 (24.1%)	9,894 (16.2%)
Madison	17,742	51	3,387 (19.1%)	1,324 (7.5%)	2,663 (15.0%)	6,241 (35.2%)	4,127 (23.3%)
Meriden	60,790	40	12,376 (20.4%)	5,444 (9.0%)	16,685 (27.5%)	17,106 (28.1%)	9,179 (15.1%)
Milford	52,308	46	9,145 (17.5%)	3,808 (7.3%)	12,584 (24.1%)	16,376 (31.4%)	10,395 (19.9%)
New Haven	133,874	31	29,931 (22.4%)	20,137 (15.0%)	43,411 (32.5%)	26,320 (19.7%)	14,075 (10.5%)
North Branford	13,643	48	2,518 (18.5%)	1,267 (9.3%)	2,572 (18.8%)	4,488 (32.9%)	2,798 (20.5%)
North Haven	24,217	46	4,707 (19.4%)	1,509 (6.2%)	5,538 (22.9%)	6,682 (27.5%)	5,781 (23.9%)
Orange	14,225	45	3,204 (22.5%)	1,167 (8.2%)	2,769 (19.5%)	3,838 (27.0%)	3,247 (22.8%)
Wallingford	44,428	44	7,632 (17.2%)	2,922 (6.6%)	12,111 (27.4%)	12,453 (28.0%)	9,310 (21.0%)
West Haven	55,518	36	11,440 (20.6%)	7,435 (13.4%)	15,052 (27.1%)	13,926 (25.1%)	7,665 (13.8%)
Woodbridge	9,073	46	2,272 (25.0%)	280 (3.1%)	1,792 (19.9%)	2,751 (30.3%)	1,978 (21.8%)

Source: U.S. Census Bureau American Community Survey 5-Year Estimates 2021 (Table S0101)

Chapter 1: Major Goals of the Plan

Travel Options

The Region possesses the elements of a functional, multi-modal, and first-class transportation system. Highways, rail, bus, water, and air modes are all operational in the Region. Enhancement and interconnection of these modes to provide additional better travel and movement of freight and goods will be necessary to ensure the continued quality of life in the Region. The Plan identifies existing and anticipated needs for additional transportation services, which would improve travel options.

Transportation Funding

With the Bipartisan Infrastructure Law (BIL), Connecticut expects to receive about a 39% increase over 2021 FAST Act formula funding levels. Now more than ever, the wise use of available funding to bring the most return on investment for the Region is critical. The Region works closely with state and federal agencies to address the transportation needs. The goals of the Plan can only be implemented with the cooperation of our transportation partners.

Policy Guidance

The adoption of this Plan reaffirms and expands the major policy guidance as outlined in subsequent chapters. All transportation issues must be framed and reviewed within the context of the Plan to ensure meeting of the goals noted. Previous study efforts by SCRCOG have produced effective guidelines for the implementation of transportation strategies and solutions.

Regional Solutions

Transportation issues and opportunities can

best be addressed by regional solutions. SCRCOG, supported by its Transportation Committee and Transportation Technical Committee, considers, reviews, and prioritizes proposed projects to promote regional benefits. SCRCOG will stress the importance on interagency communication and cooperation through monthly meetings and updates to its member municipalities and state and federal agencies.

Linking Land Use with Transportation

Local land use regulations and decisions have an inseparable link with the regional transportation system and its needs. Land use decisions can dramatically change the impacts on segments of the Region's transportation system. Consultation and cooperation with the local land use agencies will be required to manage sprawl and increase travel options by working to locate development in those portions of the Region where the transportation infrastructure already exists, or can be enhanced to, support the additional demand.

To connect with the region's land use boards, SCRCOG coordinates the Regional Planning Commission (RPC), which has representation from each of the municipalities in the Region.

Responsibilities of the RPC include review of statutory referrals for which advisory comments are prepared and forwarded to applicable municipalities. Statutory Referrals may include amendments to Zoning Regulations, Subdivision Applications, and Municipal Plans of Conservation and Development. Additional items which are reviewed during the RPC meetings are Open Space Grant Applications and Small Cities Community Development Block Grant Applications.

Aging Infrastructure

Portions of the Region's infrastructure were constructed many years ago. Improvements

have been made to the infrastructure but needs for modernization and enhancements remain. The Region must ensure that its infrastructure is maintained, upgraded, and enhanced as appropriate. The minimum standard must be a state of good repair for all portions of the infrastructure. Local and state governments are responsible for these maintenance activities. The federal government provides substantial funding. Numerous regional needs exist for improvement of infrastructure for all modes of transportation. The Plan identifies these needs.

Economic Vitality

The Region's economic health depends upon the efficiency and extent of the Region's transportation system. SCRCOG is committed to policies and solutions that improve the Region's economic outlook. Investment in the policies and improvements outlined in the Plan will be crucial to the Region during the timeline of the Plan and beyond. The current federal transportation act - The Bipartisan Infrastructure Law (BIL) - defines economic vitality to include the promoting of consistency between transportation improvements and local, regional, or state planned growth and economic development. Investment in Transportation will improve the economic vitality of the region and strengthen supply chains by making long overdue infrastructure improvements. Regional coordinated efforts will be critical to maintain continued economic vitality. SCRCOG partners with the South-Central CT Regional Economic Development Corporation (aka REX Development) which serves as the federally designated Economic Development District for the region. REX Development maintains the Comprehensive Economic Strategy (CEDS) and provides oversight on the progress towards the stated goals and objectives of the CEDS.

Congestion Management Process

BIL requires that a congestion management process be a key element of the Plan. Highway congestion is a continuing impediment to the free flow of movement of people and goods throughout the Region due to continued dependency on the automobile and trucks. Increased highway capacity within the fiscal constraints of the Plan can address only some of the Region's congestion locations. Transportation mode shifts and increased utilization and efficiency of existing regional transportation resources will be necessary as part of the process to address congestion issues. SCRCOG must utilize a congestion management process in framing transportation decisions, which may include both transportation demand management (TDM) and transportation supply management (TSM) initiatives. Managing congestion is a key factor in maintaining regional economic vitality and the attractiveness of the Region to residents and businesses while improving overall environmental quality.

Preservation of Existing Transportation Resources

The Region has many options and transportation modes to meet transportation needs. Each of these modes plays an important role in the overall transportation system. The Plan sets goals to maintain all current transportation resources, recognizing the importance of each current mode and service option. The Region can ill afford to lose any service and move backwards. The preservation of the various resources will allow opportunities for the future as regional needs evolve. Transportation needs have not diminished since the preparation of the last Plan update and the importance of maintaining existing transportation resources cannot be ignored. The fiscal

constraint will be needed to guarantee full preservation and continued operation of the current transportation operations and infrastructure.

Climate Change

The Region is mindful of the impacts of transportation on the environment and the environment on transportation. As noted elsewhere in the Plan, the Region encourages transportation decisions that reduce emissions of greenhouse gasses and improve coastal resiliency, while providing improved transportation choices throughout the Region. These decisions will reflect the varying character of the Region and will involve different solutions for densely populated and rural sections.

Performance-Based Planning and Programming

The Plan supports a performance-based approach to planning and the use of performance measures to document expectations for future performance. Performance management and performance-based planning and programming increases the accountability and transparency of the Federal-aid Program and offers a framework to support improved investment decision-making by focusing on performance outcomes for national transportation goals.

modal solutions will be required to meet the Region's needs over the timeline of the Plan.

OVERARCHING GOALS:

1. Explore opportunities to increase travel options.
2. Maximize access to funding through the BIL.
3. Connect transportation policy and planning decisions to strategies approved in the RPOCD.
4. Strengthen partnerships with state and federal transportation agencies.
5. Effectively coordinate and communicate with land use agencies within the region.



Highway improvements can only address a portion of the transportation needs. Multi-

Chapter 2: Major Policy Directions

Transportation planning policies guide all reviews and decisions made in the Region. Policies adopted in the past by SCRCOG have shaped the decisions while moving the Region closer to its transportation goals. The policies outlined below are specifically noted as necessary to meet the goals previously outlined and the needs of the Region over the timeline of the Plan.

Increase Accessibility and Mobility

The movement of people and goods is critical to the Region. Individual activities and business successes rely on the ability to access transportation and move about the Region and beyond. Current transportation patterns rely primarily on the highway system to move people and goods.

Continued highway congestion in the Region indicates that this reliance on one primary mode of transportation is not in the best interest of the Region. While highway improvement projects can address some of the congestion, increased accessibility and mobility for both people and goods can only be accomplished by greater utilization of other modes of transportation. Service must be conveniently located, highly reliable, reasonably priced, scheduled to provide timely service and routed to cover the identified corridors of the Region to be responsive to transportation needs and goals. Information technology can increase awareness and provide easy access to transportation system information, providing information on transportation options. Transportation decisions must be framed with these important criteria to increase accessibility and mobility.

Safety – The region supports policies and programs that promote safety. In recent years, changes in driver behavior have challenged efforts to improve safety in the region. During the initial phase of the COVID-19 pandemic, traffic volumes and the total number of crashes and serious injuries decreased, but the number of fatalities increased. In 2021, as traffic volumes returned closer to the 2019 levels, the increase in fatalities continued. An update of the South Central Regional Transportation Safety Plan will be completed in 2023. This plan provides guidance and strategies to the region and the fifteen municipalities to collaborate with the state to reduce fatalities and injuries and increase safety awareness.

Complete Streets

Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient. Complete Streets approaches address a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. A complete streets approach can reduce motor vehicle-related crashes and improve bicyclist and pedestrian safety. Providing safer places to walk and bike promotes a healthier lifestyle and opportunities to

achieve physical activity through transportation.

Enhance Modal Integration

Major advances have been made in the Region in improved connections for the integration of rail, pedestrian, and highway modes for the movement of people in the last decade. All CTTRANSIT buses are equipped with bicycle racks and bicycles are allowed on rail lines in the region. Bicycle storage facilities are also available at several rail stations. With the construction of new platforms, The Shore Line East and the Hartford Line trains now offer connections at the New Haven State Street and Union Train Stations. These stations provide convenient downtown pedestrian access to many work destinations. As new station construction and parking expansions for both rail lines progress, modal integration continues to be a priority. The Region needs to build on these successes by promoting and implementing additional opportunities and projects which improve the movement of people and goods utilizing integrated modes of transportation. Interconnections between modes, such as rail-water and water-highway for freight, and rail-bus for people, are key components in avoiding regional gridlock and reducing ongoing congestion.

Support Economic Vitality

The economic vitality of the Region benefits all the residents of the Region and Connecticut. The economic impacts of transportation decisions are critical factors in transportation planning, especially in times of increased transportation funding. Business retention and expansion decisions are strongly influenced by the transportation systems available and planned for the Region. The Region must look to ensure that

all transportation decisions promote economic vitality throughout the Region and are consistent with local and regional plans of conservation and development.

Performance Measures and Performance Targets

The Moving Ahead for Progress in the 21st Century Act (MAP-21) introduced the establishment of federal performance goals and performance management measures and BIL continues these efforts. Every year the State DOT establishes a specific performance “target” for each performance measure. This approach not only sets goals, but also requires an evaluation of the transportation system in meeting those goals and performance measures. The plan fully supports both the performance measures and the targets set by CTDOT.

System Preservation

The goal of preservation of all transportation resources in the Region can only be accomplished with the support of local, state, and federal governments, as well as the input of the public and private operators which service the Region. Special attention should be paid to the input of these operators to ensure that issues which negatively impact the existing service are addressed. Close communication between the operators, all levels of government and the SCRCOG is critical for the future of the transportation system.

Promote System Efficiencies

The major infrastructure investment noted in the Plan only meets some of the identified needs for all modes of transportation. It is therefore critical that the available transportation resources are utilized to their highest potential. Regional emphasis must

focus on strategies to improve performance and mobility. Funding agencies and public and private operators are encouraged to review their services and work with the Region to identify opportunities. Studies may identify opportunities that can be implemented at minimal cost. Some will be governed by fiscal constraint, requiring further study, demonstration of demand for improvements, identification of funding sources, and strategies to fund the identified needs.

Protect the Environment

Connecticut has a long tradition of environmental protection and required mitigation of the impacts of transportation activities on the environment. BIL requires the Region to look at different types of environmental mitigation activities. This overview will identify opportunities for the restoration and maintenance of environmental functions, which could be affected by the components of the Plan. While the environmental permitting for transportation activities remains primarily at the state level, the review by the Region and its municipalities will provide the potential for local input to the state permitting process, working toward the goal of a better environmental outcome for every transportation project.

OVERARCHING GOALS:

1. Increase programming for highway safety projects.
2. Enhance modal integration.
3. Support economic vitality through transportation planning.
4. Preserve and maintain existing structure.
5. Promote system efficiencies.
6. Protect the environment.

Chapter 3: Linking Land Use and Transportation

The South Central Region Council of Governments recognizes the linkage between land use planning and transportation investments. The coordination among the transportation and land use policies is an important factor in achieving a sustainable, balanced and connected transportation network in the Region. The economic competitiveness of the region can be enhanced by the coordination of the transportation investments as it provides an opportunity to influence the location, intensity, and type of new and expanding development. The Region's transportation systems are primarily concentrated in the I-95 and I-91 corridors, where the infrastructure, work destinations, and population densities support these systems. The transportation network is accessible through multiple modes, such as, automobile, transit (bus/rail), and bike.

The Conservation and Development Policies: The Plan for Connecticut 2018-2028 (State C&D Plan) establishes six growth management principles.

1. Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure.
2. Expand Housing Opportunities and Design Choices to Accommodate a Variety of Household Types and Needs.
3. Concentrate Development Around Transportation Nodes and Along Major Transportation Corridors to Support the Viability of Transportation Options.
4. Conserve and Restore the Natural Environment, Cultural and Historical

Resources, and Traditional Rural Lands.

5. Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety.
6. Promote Integrated Planning across all Levels of Government to Address Issues on a Statewide, Regional, and Local Basis.

These principles define the geographies where the associated conservation and development policies may be applicable. These includes defining areas that have further need for transportation investment and incorporating policies that support coordination of transportation and land use planning. State Agency Plans and Actions must be consistent with the State C&D Plan, which has incorporated policy statements within each of the six growth management principals to assess consistency. Regional and Local Plans of conservation and Development are required to identify any inconsistencies with the State C&D Plan.

Coordination with Regional Plan of Conservation and Development

The South Central Region: Plan of Conservation and Development 2018-2028 (Regional POCD) was adopted in the summer of 2018 and was determined by the Office of Policy and Management (OPM) to be consistent with the State C&D Plan. Opportunities to participate in the development of the plan involved Focus Group meetings, Regional Planning Commission meetings, and a public/municipal survey. Through this outreach, SCRCOG was able to involve State and Local agencies responsible for land use management, natural resources, environmental protection, conservation, historic preservation, economic development, transportation, emergency management, and hazard mitigation. A

complete listing of meeting presentations is available on the SCRCOG website.

The Regional POCD established policies, goals, and strategies around the Human, Natural and Built environments. The Regional Municipal Plans of Conservation and Development are reviewed by SCRCOG for consistency with policies established in the Regional POCD and the State C&D Plan. The outreach, coordination and the established planning process involved with the State, Regional and Local Plans of Conservation and Development have resulted in greater consistency among the POCDs. The process ensures that investment in transportation improvements is consistent among the POCDs, which lead to increased travel options, better transportation systems, increased economic vitality and containment of urban sprawl.

Interdisciplinary Objectives

There are several challenges facing the region, including housing affordability, traffic congestion, climate vulnerability, economic development, and social inequity. These challenges are rooted in transportation and the built environment and must be addressed on several fronts. Alternative strategies to address issues revolve around promotion and support of sustainability concepts.

The Regional POCD supports interdisciplinary solutions and recognizes that land use planning and transportation investments significantly influence the economic health of the Region by influencing the location, intensity, and type of development. The policies that are incorporated within the Regional POCD and this Plan are furthered through the encouragement of redevelopment and infill development in the Region's strong central corridors. In addition, a balanced

transportation system that promotes connectivity through alternative transportation choices will facilitate economic development, promote public health, and help to protect the natural environment. Emphasis on consistency between the Regional Plan of Conservation and Development and transportation planning will ensure that those transportation decisions lead to preferred regional growth patterns and continued economic vitality.

Sustainable Communities

The Region has participated in the New York-Connecticut Sustainable Communities Consortium, which developed an implementation Plan for Regional Sustainable Development on May 30, 2014. The effort brought together cities, counties, and regional organizations in New York City, Long Island, the Hudson Valley, and southern Connecticut. The Consortium was made possible through the U.S. Department of Housing and Urban Development (HUD) Sustainable Communities Regional Planning Grant. The goal of the grant program was to support local and regional planning that leverages the region's robust transit network and promotes economic opportunity.

The projects that occurred through the Consortium were aligned with the Livability Principles defined by the federal Partnership for Sustainable Communities:

- **Provide more transportation choices.** Develop safe, reliable, and economical transportation choices to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.

- **Promote equitable, affordable housing.** Expand location-and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- **Enhance economic competitiveness.** Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services, and other basic needs by workers, as well as expanded business access to markets.
- **Support existing communities.** Target Federal funding toward existing communities—through strategies like transit oriented, mixed-use development, and land recycling—to increase community revitalization and the efficiency of public works investments and safeguard rural landscapes.
- **Coordinate and leverage Federal policies and investment.** Align Federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.
- **Value communities and neighborhoods.** Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods—rural, urban, or suburban.

The above Livability Principles have been incorporated as components of both the Plan and the Region’s annual Unified Planning Work Program. In addition, the coordination that began with the New York-Connecticut Sustainable Communities Consortium has continued through the Metropolitan Area Planning (MAP) Forum. As a participating member in the MAP Forum SCRCOG can work with NYMTC and surrounding MPOs and councils of government in New York, Connecticut, New Jersey, and Pennsylvania to better coordinate planning activities in the multi-state metropolitan region.

The development of this Plan and the Region transportation investments support and consider the following livability strategies identified and supported by FHWA

(<https://www.fhwa.dot.gov/livability/>):

- Enhance integration of multimodal transportation infrastructure and facilities.
- Expand opportunities for economic development and revitalization.
- Provide safe and adequate accommodations for all users.
- Increase community connectivity and cohesion.
- Capitalize on the value of existing (context sensitive) community amenities.
- Enhance access to jobs, schools, and other services.
- Integrate mobility services and automation to help improve overall quality of life.
- Decrease overall cost of moving people, goods, and services.
- Capture more short trips by walking and biking and improve health.

Transit Oriented Development (TOD)

Past development in the Region has often resulted in sprawl with population densities which are low and cannot sustain further transit opportunities. Fiscal constraint causes transit providers to strive for significant sustained ridership on all transit services for wise and efficient utilization of limited funding. Regional growth that includes transit-oriented development will allow for siting of new developments along existing transit routes, thereby allowing better travel options for the residents while allowing for expansion of the ridership of the current services. The potential construction of new bus hubs and the completed and planned construction of new railroad stations on the New Haven/Hartford/Springfield line (**Hartford Line**) within the Region provide opportunities for new TOD projects. TOD can provide the Region with new economic activity while minimizing the impacts of this activity on highway congestion.

TOD must be planned through local planning and zoning with input from the Region and transit providers to ensure successful development which does not overburden existing facilities or service, or the TOD development will have to provide transportation enhancements necessary to meet the needs of the project. Communication, cooperation, and coordination at all levels of government are necessary to address all the impacts of TOD and provide the benefits to the Region.

Trail Oriented Development

There is an extensive network of trails throughout the SCRCOG region. There are miles of trails through parks, beaches, forests and urban/suburban centers. Whether people use them for recreation and entertainment or as an alternate mode of travel to employment, the trails provide a

unique opportunity for economic development.

Trail-oriented development makes the boundary between trails and nearby properties porous by creating and expanding adjacent amenities. Wayfinding infrastructure will lead trail users to food, drink, and entertainment along the trail. By creating connections from a trail to adjacent properties, trail-oriented development strategies give residents and visitors more reasons to walk, jog, bike or roll around town. Replacing automobile trips with these modes of transportation reduces greenhouse gas emissions from private vehicles and improves air quality.

The plan recognizes the need for a regional study to identify and develop strategies for Trail-Oriented Development. The study should consider the unique qualities of each trail and municipality and categorize strategies into low, moderate, and high investment projects.

Housing Options & Availability

Housing and transportation in the region are intrinsically linked, as most citizens in the SCRCOG region live in urban and suburban areas along the I-91/I-95 corridor. SCRCOG has been assisting its municipalities with developing Affordable Housing Plans, which provide analysis on how and where each participating municipality can address its housing needs. The Affordable Housing Plans are compliant with Connecticut General Statute 8-30j and adhere to the process outlined in the “Planning for Affordability in Connecticut: Affordable Housing Plan and Process Guidebook” developed by CT Department of Housing and the Regional Plan Association. A strategy outlined in the Regional POCD states the region should “Promote housing densification in TOD areas, Urban Town

and Village Centers, and commercial corridors with existing employment, transportation and utility infrastructure.”

Context-Sensitive Transportation Solutions

Transportation solutions must not be out of scale or character and must be appropriate for the location. The Region’s infrastructure and land use patterns have evolved over many decades. Design of new transportation infrastructure cannot detract from existing development patterns and must integrate with communities to encourage continued beneficial quality of life and the addressing of community concerns. Solutions which meet these goals provide stronger communities and better long range transportation solutions for the Region.

Context-sensitive transportation solutions address these concerns as part of the planning and design process. Public Outreach provides an opportunity for the issues surrounding a specific transportation proposal to be raised. Coordination with the municipality and the Region provide other means to understand the potential impacts of the transportation improvement. Community needs and other site-specific issues are considered and addressed to mitigate any adverse impacts of the proposed transportation improvements. Context-sensitive solutions work with site specifics such as limited available land and existing surrounding development and other limitations to allow transportation improvements to be in scale with the area. When utilized in conjunction with Sustainable Communities and congestion management process initiatives, context sensitive transportation solutions provide substantial benefits to the residents near the transportation project and to the Region in general.

Priority Funding Areas

Broad identification of areas of the Region which are suggested for future development are noted in the State Plan of Conservation and Development 2018-2023. Priority Funding areas are Census Blocks that include two or more of the following criteria: (1) designation as an Urban Area or Urban Cluster in the 2010 Census; (2) are within a ½ mile buffer surrounding existing or planned mass transit stations (rail and busway); (3) existing or planned sewer service (4) existing or planned water service; and (5) contain a local bus route that provides bus service not less than 7 days a week. These criteria support the reuse of existing developed sites, expansion of underutilized sites and availability of transportation options for both people and freight, which are all goals that are echoed in the South Central Region: Plan of Conservation and Development 2018-2028. Once identified, specific sites in Priority Funding Areas can be added to the Plan and will be carefully considered in future transportation decisions.

The Region supports sustainable transportation investments that preserve open space, prime farmland, focus development in the Region’s strong central corridors, promote compact mixed use development with access to services, support complete streets, a healthy, safe pedestrian environment, and multi-modal travel options. A balanced transportation system must include transit and rail to reduce dependence on auto usage and reduce highway and road congestion. Micro transit services like Uber and Lyft offer another option and some public transit providers have begun to offer these on-demand type services. An emphasis on pedestrian travel as one of those travel options is critical to the goals of quality of

life and sense of community. A viable pedestrian network must be included in these initiatives. The areas of the Region suitable for Sustainability/Livability concepts should be identified by each municipality and provisions should be made in local zoning to accommodate this type of development. The success of these initiatives rests upon the communication, cooperation, and coordination of all levels of government to provide transportation resources, which serve these communities and become an integral part of the regional transportation system. The coordination of sustainable land use and transportation practices is vital to enhancing the economic vitality and competitiveness of the Region.

OVERARCHING GOALS:

1. Complete a study on Trail Oriented Development
2. Advocate for the creation of housing in areas with existing multi-modal transportation infrastructure

Chapter 4: Public Outreach

SCRCOG has adopted Public Participation Guidelines and a public outreach process to insure public input into transportation decisions and the Plan. During the 45-day comment period, The Plan is available on the SCRCOG website. In addition, at least one public meeting is held to solicit input from stakeholders in the region. This outreach ensures that the Plan reflects the transportation needs and goals of the South Central Region. Public comments, offered in writing or summarized by staff, are shared with committees, and elected officials and included in the Plan as Appendix C.

Public Participation Guidelines

The Region’s “Public Participation Guidelines for Transportation Planning, December 6, 2005” were adopted by SCRCOG on November 16, 2005. Periodic updates to the guidelines have occurred since, the last being January 2021. The Guidelines outline the many avenues utilized to insure public participation and input. Dissemination of information is accomplished monthly to various stakeholders and parties in the Region and State through the distribution of agendas for the monthly meetings. Regular public attendance at monthly Transportation Committee and SCRCOG meetings demonstrates the success of the outreach.

SCRCOG Website

Outreach through the internet has the greatest potential to provide information and receive input from the various sources within the Region. SCRCOG maintains reports, agendas, data, regional links, and other information for website visitors. Communication through the website enhances the ability to transmit information

to the SCRCOG members, municipal staff, and the public. This important link will grow in importance over the timeframe of the Plan.

Municipal Chief Elected Official and Staff outreach

Monthly activities of SCRCOG allow for interaction and outreach to all the municipalities in the Region. Transportation Committee and Transportation Technical Committee (consisting of municipal staff) joint meetings review and recommend action on SCRCOG agenda items before full SCRCOG consideration. All meetings are hybrid allowing for both in-person and virtual participation.

Metropolitan Transportation Plan Update

SCRCOG staff outreach to municipalities for this update included two preliminary meetings. One virtual and one in-person to gather input. There was also a survey posted online that received over 90 responses. Specific outreach to chief elected officials and municipal staff to occurred regularly scheduled meetings in February, March and April. A public meeting was held on March 8, 2023. These efforts ensure that all aspects of the regional transportation system were considered and addressed. Responses have been included to ensure that the Plan reflects the specific goals and needs of each municipality.

An Informal public meeting was conducted on March 8, 2022

The draft was recommended to SCRCOG for approval on April 12, 2023

The Plan was adopted by the SCRCOG on April 26, 2023

OVERARCHING GOALS:

1. Update Public Participation Guidelines
2. Enhance SCRCOG website.
3. Strengthen communication with Chief Elected Officials and Staff of member municipalities.

Chapter 5: Environmental Justice

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people, regardless of race, ethnicity, income, national origin, or educational level with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. SCRCOG works with CTDOT and others to ensure a fast, safe, efficient, accessible, and convenient transportation system for all communities within the region. Environmental Justice (EJ) considerations are incorporated in all the transportation programs, policies, and activities in the Plan.

When projects get initiated and are going through the Environmental Review process, CTDOT conducts a benefit and burden analysis on each project before they are included into the TIP and MTP. This data collection and analysis is consistent in its consideration of all groups under Title VI and not limited to minority individuals. Title VI protected classes include persons of any race, color, and national origin by ensuring opportunities for minority and low-income communities to influence the transportation planning and decision-making processes through enhanced engagement and meaningful input, the Department actively prevents disproportionately high and adverse effects of transportation projects on minority and low-income communities.

US DOT is in the process of implementing the Justice40 Initiative created by Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. Justice40 is an all of government approach that sets a goal of

40% of the benefits of certain federal investments flowing to disadvantaged communities. It is one of many initiatives US DOT is implementing to advance equity.

US DOT is implementing J40 across 39 Covered Programs. The 7 areas of Federal investments covered by Justice40 are:

- Climate Change
- Clean Energy & energy efficiency
- Clean Transit
- Affordable & sustainable housing
- Remediation & reduction of legacy pollution
- Clean water & wastewater infrastructure
- Training & workforce development

SCRCOG prepared a report concerning environmental justice, “Environmental Justice Briefing Package, Transportation Planning: 2003-2004 Goals and Outreach,” which has been utilized as guidance to address Environmental Justice (EJ) issues. This guidance continues to frame transportation decisions which impact EJ areas. Additionally, SCRCOG maintains a Title VI Policy/Plan and Limited English Proficiency Plan. The following areas are important to ensuring the transportation planning process addresses EJ concerns.

Accesses to Jobs

Opportunities for accessible employment are critical for EJ areas. The Plan encourages initiatives to expand employment opportunities and recognizes the importance of consideration of EJ concerns during the transportation planning process.

Transit Service

A higher percentage of residents in EJ identified areas do not have a car available for their use. Transit service, therefore, is critical for access to employment and for

meeting other transportation needs of these residents of the Region. The Plan must address the need for maintenance of existing transit services and provide opportunities to seek out additional transit needs and work to meet them. Opportunities for additional capacity at minimal cost, such as the utilization of larger, articulated busses, must be considered.

Clean Buses

As diesel exhaust has been determined to have a negative health impact on many residents of EJ areas, the utilization of “clean buses”, with reduced diesel emissions, must be a part of the Plan. Electrification of Transit Buses is a key focus of the Connecticut Electric Bus Initiative, a partnership between CTDOT, CT Department of Energy and Environment Protection (DEEP) and bus transit providers that showcases Connecticut’s commitment to providing a reliable, safe, sustainable, clean energy transportation system. Incorporating electric transit buses into a bus fleet transitions bus operations away from fossil fuels, reduces air pollution caused by diesel combustion, and creates a brighter tomorrow for all of Connecticut’s residents., especially benefiting EJ areas.

Truck Routing

Many EJ areas are adjacent to industrial areas and have the burden of significant truck traffic. Regional and local efforts should be continued to ensure that the routing of trucks, with the attendant diesel emissions, are minimized through EJ and other residential areas in the Region. Working with the major operators, local police, municipal staff, and neighborhood representatives, revised truck routes can be identified to minimize neighborhood impacts.

Pedestrian and Bicycle Connections

Access to non-motorized transportation opportunities is especially important as

access to autos is not available to many residents of EJ areas. Normal sidewalk networks are often in place and each transportation project should be reviewed carefully to insure maintenance of the existing sidewalk network. The review should also identify and promote any opportunities for improvements or enhancements of the sidewalk network. Bicycle connections are also important but must be reviewed in accord with a regional plan. SCRCOG undertook a regional bicycle and pedestrian study leading to a final Regional Bicycle and Pedestrian Plan in 2017. Implementation of the recommendations of the completed Regional Bicycle and Pedestrian Plan will further the achievement of EJ goals by providing additional opportunities for non-motorized transportation modes serving these and other portions of the Region.

Air Quality

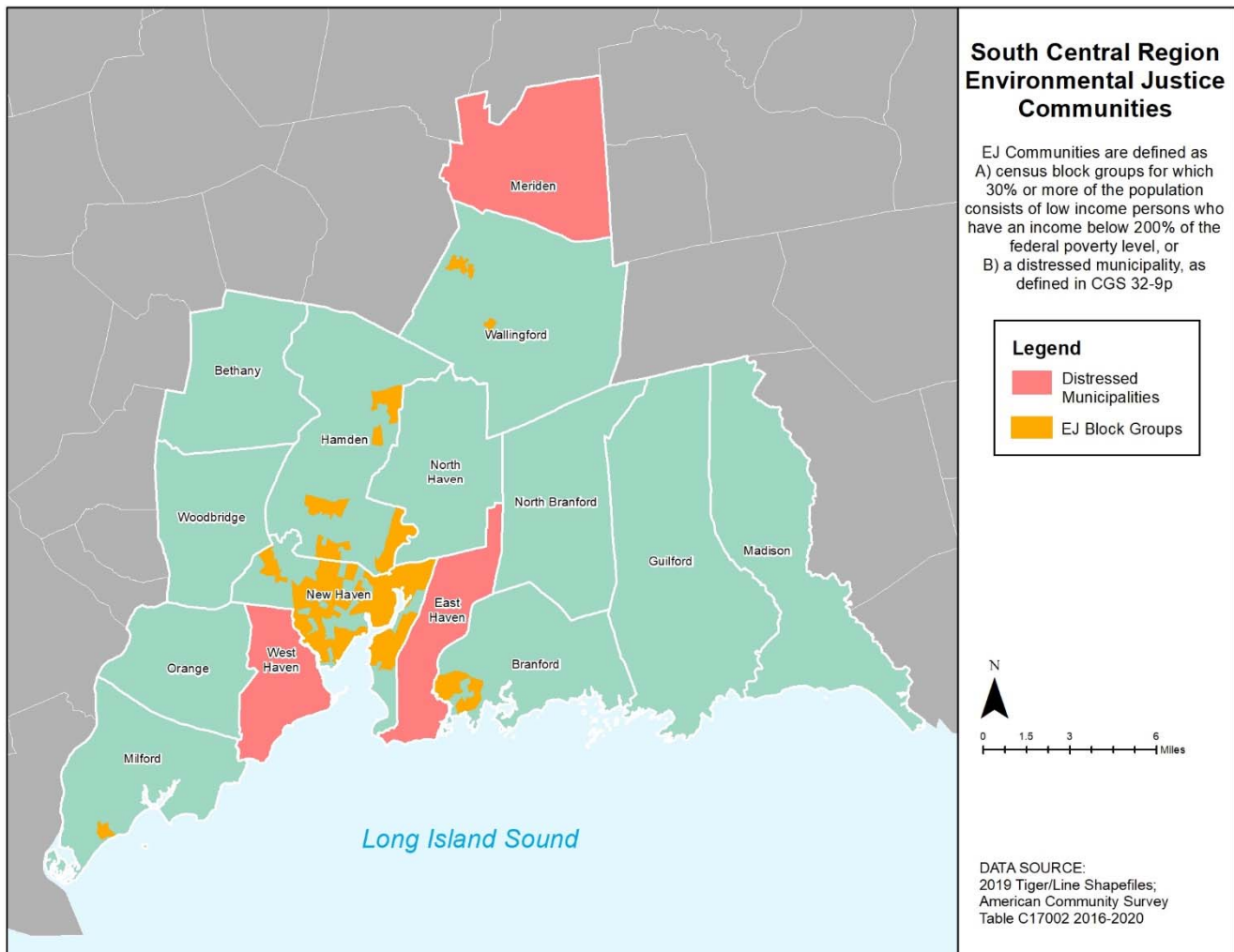
Air quality issues are especially important in EJ areas due to high population densities and congested conditions. Two opportunities for reduced emissions are encouraged by the Connecticut Department of Energy and Environmental Protection (DEEP).

- For large construction projects in urban areas, the use of construction equipment with air pollution control devices is encouraged. The use of particulate filters or “clean fuels” will help to provide the reduction. Contract specifications requiring the use of these pollution reduction measures should be promoted, as they have been in the Pearl Harbor Memorial Bridge improvements.
- DEEP regulations limit the idling of mobile sources to three minutes. However, these regulations are only enforceable by DEEP. It is suggested that all contract provisions for

- construction include anti-idling restrictions to allow enforcement by the project, thereby improving air quality for the construction area.

OVERARCHING GOALS:

1. Continue to support Justice 40 initiatives to advance equity.
2. Ensure that the transportation planning process addresses EJ concerns.
3. Encourage efforts to reduce air quality issues in EJ areas.



Chapter 6: Performance Measures and Targets

Performance Measures and Performance Targets

MAP-21 introduced a multi-level performance-based approach to transportation decision making and development of transportation plans. This approach not only sets goals but requires an evaluation of the transportation system in meeting those goals and performance measures. MAP-21 required the establishment of federal performance goals and performance management measures.

Following approval of the FAST Act, FHWA and FTA established the national performance measures and in 2018, CTDOT, in coordination with the MPO's established the Performance targets that were endorsed by the MPO that same year. The plan fully supports both the performance measures and the targets set by CTDOT.

Performance Measures

FHWA and FTA established the following seven national performance measures for Safety, Transit, Pavement and Bridge Condition, System Reliability, Freight Movement and Air Quality. SCRCOG included the following language in the Transportation Improvement Program (TIP).

Safety

Highway Safety is determined by the interaction between drivers, their behavior, and the highway infrastructure. The five (5) performance measures for Highway Safety include:

- 1) The number of fatalities
- 2) The rate of fatalities
- 3) The number of serious injuries
- 4) The rate of serious injuries; and
- 5) The number of non-motorized fatalities and serious injuries

Pavement and Bridge Condition

The four performance measures for Pavement condition are:

- 1) The percent of the Interstate system in Good condition
- 2) The percent of the Interstate system in Poor condition
- 3) The percent of the non-Interstate National Highway System (NHS) in Good condition
- 4) The percent of the non-Interstate National Highway System (NHS) in Poor condition.

The two performance measures for Bridge condition include:

- 1) the percent of NHS Bridges in Good condition.
- 2) the percent of NHS Bridges in Poor condition

System 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. Although there is not a specific system reliability program, reducing congestion and improving system reliability are key factors considered when regional decisions about investments in the transportation system are made.

Freight Movement

This measure considers factors that are unique to the trucking industry. The unusual characteristics of truck freight include:

- 1) The use of the highway/roadway transportation system during all hours of the day
- 2) The high percentage of travel in off-peak periods
- 3) The need for shippers and receivers to factor in more ‘buffer’ time into their logistics planning for on-time arrivals. [23 CFR 490.607].

Air Quality

US DOT requires that states and MPO’s assess the impact of their transportation systems on air quality and specifically the impacts vehicle exhaust emissions. Their performance measure for air quality is based on an assessment of projects selected for funding under the Congestion Mitigation and Air Quality Improvement (CMAQ) program.

Performance Targets

During the first half of 2018, SCRCOG coordinated with CTDOT in establishing statewide performance targets. This plan fully supports the Performance targets set by CTDOT.

These performance targets are:

- 1) The Percentage of pavements of the Interstate System in Good condition,
- 2) The Percentage of pavements of the Interstate System in Poor condition
- 3) The Percentage of pavements of the non-Interstate NHS (National Highway System) in Good condition
- 4) The Percentage of pavements of the non-Interstate NHS in Poor condition
- 5) The Percentage of National Highway System Bridges Classified as in Good condition.
- 6) The Percentage of National Highway System Bridges Classified as in Poor condition.
- 7) The Percentage of Person-Miles Traveled on the Interstate that are reliable.
- 8) The Percentage of person-miles traveled on the non-Interstate NHS that are reliable.
- 9) The Truck Travel Time Reliability Index
- 10) The Total Emissions Reduction

Transit Asset Management Plan (TAMP) The CTDOT is the sponsoring agency for the development of the Transit Asset Management Group Plans (TAMP) for Tier II transit providers. The TAMP documents asset management processes and policies for Tier II transit providers in Connecticut, summarizes the inventory and condition of transit assets, and prioritizes state of good repair investments. The TAMP is designed to meet FTA’s TAM requirements and builds on past practices and accomplishments in maintaining Connecticut’s transportation infrastructure

while also emphasizing the importance of implementing a plan to maintain our infrastructure today and in the future. The full TAMP document is available on the SCRCOG Website and fully integrated into the MTP.

Performance Measures and Targets Used for Transit Asset Management

Rolling Stock: The performance measure for rolling stock is the percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark (ULB).

Current Performance and Targets for Bus Rolling Stock for each Asset Class of vehicle

Asset Class	% Vehicles Below ULB	% Vehicles Met or Exceeded	Performance Target
Transit Bus	76%	24%	14%
Cutaway	54%	46%	17%
Minivan	100%	0%	17%

Equipment: The performance measure for non-revenue, support- service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their ULB.

Current Performance and Targets for Equipment for each Asset Class of vehicle

Asset Class	% Vehicles Below ULB	% Vehicles Met or Exceeded	Performance Target
Performance			
Rubber Tire Vehicle (Truck)	68%	32%	7%
Automobile	0%	100%	17%
Sport Utility Vehicle	71%	29%	17%
Van	60%	40%	17%

Facilities: The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the FTA Transit Economic Requirements Model (TERM) scale

Current Performance and Targets for Bus Facilities

Asset Class	% Facilities Rated 3 or Above	% Facilities Rated Below 3	Target for Facilities Below 3
Administrative/Maintenance	100%	0%	0%
Passenger	100%	0%	0%

Chapter 7: Public Transportation Services

In 2020, the COVID 19 pandemic had a huge impact on public transit services throughout the Region. During the shutdown ridership numbers on all modes of transit dropped dramatically. Commuter rail services saw the biggest drop while ridership on the fixed-route buses reduced by half. With the expansion of CTTRANSIT services and continued investments in commuter rail, ridership numbers are on the rise. Transit opportunities are critical to maintaining a functioning and efficient transportation system. Just as clearly, the opportunities over the timeline of the Plan are significant and critical to the Region. Efficient movement of people is a vital component of the long-term economic health and vitality of the Region.

Over the last twenty years, SCRCOG has completed several studies regarding Public Transit Services. In 2004 and 2005, the SCRCOG undertook a Regional Transit Development Strategies Study to conduct a comprehensive overview of the transit system for the Region. Subsequent input revised the original recommendation concerning a West Haven or Orange Railroad Station to now recommend construction of stations at both locations. An additional study of Public Transit Services was undertaken in 2007 and 2008. This study focused on specific recommendations from the previous study and outlined changes to the system and necessary steps for their implementation.

In 2017, an Alternative Analysis study that focused on developing and evaluating alternative actions to improve the Regions' transit system. The Move New Haven study was conducted through a partnership with

SCRCOG, the City of New Haven, CTDOT, the Greater New Haven Transit District (GNHTD) and the FTA. The study identified service enhancements that will improve efficiency and enhance rider experience. Among these recommendations is bus stop consolidation and improved passenger facilities. A new cross-town bus route and the development of bus hubs to improve east-west connections across the system. The study also recommended new Bus Rapid Transit (BRT) routes along the busiest routes. BRT routes are being developed that will provide better connections between Hamden, New Haven, and West Haven.

Another BRT study was completed in 2017. The “Route 1 Bus Rapid Transit Feasibility Study” identified the Route 1 corridor from Milford to New Haven as an area where Bus Rapid Transit (BRT) could be successful. The plan identified BRT enhancements and their locations through the corridor. The plan supports the development of BRT services in the region to improve access to employment opportunities.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) required the development of Coordinated Public Transit - Human Service Transportation Plans and in 2007, SCRCOG partnered with the Lower CT River Valley Council of Governments (RiverCOG) to develop the South Central Urbanized Area's Locally Coordinated Public Transit Human Service Transportation Plan (LOCHSTP). LOCHSTP identified gaps in services and recommended strategies to improve access to transportation services for the elderly and persons with disabilities. In 2021 SCRCOG was involved with a CTDOT led effort to update this plan.

SCRCOG continues to support and promote improved coordination between the various providers of public transportation in our region. The Plan supports this effort to promote intermodal opportunities, improved transportation options, increased mobility, and regional economic vitality

Major Capital Investments

The FAST Act required that all transit major capital investments be evaluated utilizing several criteria. As funding for most initiatives comes from sources outside the Region, it is important that regional decisions meet the criteria of the federal legislation. The criteria are discussed below.

Alternatives Analysis

All decisions must include an analysis of alternatives. Viability of alternatives must be evaluated through the weighing of many factors, including existing infrastructure capacity, environmental impacts, overall cost, necessary infrastructure improvements, input received during public outreach, intermodal connections, right of way issues and numerous other factors. The Plan envisions that this analysis will have active participation by the Region in the process and a decision on the preferred alternative by the SCRCOG.

Justification of the Project

Once the needs have been identified, and the alternatives analysis undertaken, sufficient information and data will be available to document the justification for the project. Formal approval action by the SCRCOG will be necessary for the project to proceed.

Local Financial Commitment

Transit activities are primarily funded by State and Federal funds. Any project undertaken will be funded by these sources. Endorsement by the SCRCOG will indicate the Region's desire for the project to

proceed. Once funded by these sources, adoption into the Region's Transportation Improvement Program (TIP) will indicate concurrence with the financial commitment by the SCRCOG.

Economic Development Potential

Each regional transit program has an impact on the economic vitality of the Region. Major capital investments will most likely have an impact on the economic development potential of the portions of the Region served by the transit service proposed for major capital investment. SCRCOG staff meets regularly with organizations in the Region concerned with economic vitality, development, and job preservation and growth, such as Regional Economic Xcelleration (REX) Development, regional and local Chambers of Commerce, and municipal economic development staff members. Regular monthly SCRCOG meetings include reports from many of these organizations, as well as agenda distribution to all. Economic impact information can easily be obtained from these sources to insure consideration of the economic factors in the decision-making process.

Reliability of Ridership and Cost Forecasts

Major capital investments must be evaluated utilizing many factors to determine the long term viability of the proposed major capital project. CTDOT, in consultation with AMTRAK and other regional service providers, can provide the information necessary to address reliability of ridership and cost forecasts. SCRCOG staff will participate in the planning process and review CTDOT reports. The SCRCOG will review the information provided by CTDOT as part of the consideration for adoption of the project into the Region's TIP, a

necessary step in the actual implementation of the major capital investment.

Connecticut Transit

CTTRANSIT New Haven operates over 22 local routes throughout our region. Many routes operate 7 days a week, connecting with other state-owned or subsidized bus services in Meriden, Waterbury, Wallingford, Milford, and the lower Naugatuck Valley areas, as well as with the New Haven Line, the Hartford Line, and the Shoreline East rail services.

CTTRANSIT maintains existing service and seeks opportunities to improve service to meet the growing needs of the region. Several years back, CTTRANSIT acquired articulated buses, which allow for increased capacity, with minimal additional operating costs. CTRANSIT has improved bus stop signage, added GPS tracking for all buses, and replaced fare boxes to allow for more payment options. In 2021, the fixed route bus schedule was expanded to include later run times during the week and increased weekend service. More recently the New Haven Division received 10 Battery Electric Buses along with 10 Chargers and began a 100% Facility Electrification electrical design. A new Bus Rapid Transit (BRT) route is planned for New Haven to provide improved connections to Hamden and West Haven. There is also a new Crosstown route proposed in New Haven.

Ridership on CTTRANSIT varies as economic conditions and fuel prices fluctuate. Increased ridership has strained the capacity of several routes in the Region. Throughout the pandemic, bus ridership remained steady and with the implementation of free fares ridership numbers have surpassed pre-pandemic levels. Like most transit operations, the fares generated do not fully cover the costs of operations. However popular, the system

cannot continue to operate “fare free” without a substantial increase in operational subsidy. It is anticipated that bus fares will be reinstated before the end of FY23.

CTTRANSIT works continuously to improve service delivery while staying within their appropriation. During Service Review Committee meetings, CTRANSIT works with CTDOT to evaluate Rider requests for service changes. SCRCOG participates in the Service Review Committee meetings. As needs are identified, CTTRANSIT, in consultation with the CTDOT, the municipalities served, SCRCOG and local elected representatives of the Connecticut Legislature, must work to make the proposed improvements a reality.



CTTRANSIT bus service provides route options for this transportation mode. Existing service is vital for many residents of the Region. Enhanced service will help address regional highway congestion, while providing more travel options for riders.

The headways between busses on several routes have been discussed. Headways of ten minutes or less on the major bus lines in the Region have been recommended to provide good service, reduce crowding and encourage mode shifts to transit for reducing highway congestion. Reliable and timely service is a critical component of the attractiveness of bus utilization for potential riders.



CTTRANSIT can only accomplish these goals with the proper facilities and equipment. A new garage and maintenance facility in Hamden opened for New Haven Division use in 2010. This facility provides modern facilities critical for the maintenance of service during the timeline of the Plan. This investment by CTDOT emphasizes the commitment to the health and viability of the regional transit system.

Intermodal connections should be encouraged. All CTTRANSIT buses have bike racks and can carry a maximum of two bikes. Bicycle transportation facilities should continue to be part of the overall CTTRANSIT planning and service as noted below.

Ongoing fleet replacement is necessary to ensure reliable and desirable service. Additional equipment may be necessary to meet the reduction desired in headway or to provide additional route capacity. Likewise, bus shelter improvements and replacements are required to provide suitable protection for riders in all weather conditions. These amenities are important to retain riders in all types of weather and reduce highway congestion and weather related delays.



Greater New Haven Transit District

Greater New Haven Transit District (GNHTD) provides paratransit services in the Region. Most trips provided are federally mandated, complementary paratransit trips within a $\frac{3}{4}$ mile parameter of the CTTRANSIT fixed route system. These trips are provided to individuals with a disability that precludes them from using the fixed route system as defined under the Americans with Disabilities Act (ADA).

GNHTD also provides a regional, integrated service for elderly and/or disabled residents of eleven towns participating in the Regional Rides program. This service is funded through several mechanisms including a Municipal Grant Program and Dial-A-Ride funding provided by the state as well as municipal town dues contributions. The district also contracts with municipalities to provide contracted transportation service for seniors in the local community.

GNHTD partners with a local taxi service to utilize New Freedom funding to provide a 50% cost share voucher program that expands mobility for ADA certified riders beyond normal service hours/days/times. Interagency ADA trips are also coordinated with other transit districts to allow ADA riders access to travel to other areas of the State.

Future demographic trends reflect an increase in elderly and disabled populations and will place a continuously increased demand on GNHTD's services.

Collaboration efforts must continue in the Region to ensure that adequate operating and capital funding is in place to ensure the continuance of safe, reliable and efficient paratransit service provision through the district. This critically important transportation service provides elderly and disabled residents access to jobs, health care, social services and other locations that vastly improve quality of life.

GNHTD also serves as a conduit for federal and state transportation infrastructure funding such as bus shelters and other passenger amenities and is a direct FTA recipient.

Efforts are constantly underway to improve service delivery efficiencies and customer service. To provide the highest quality service, GNHTD must have the proper facilities and equipment. The agency has purchased property in North Haven for a state-of-the-art Maintenance and Operations facility. The Region supports this project to ensure GNHTD has the resources necessary to provide services to the elderly and disabled members of the community. Ongoing fleet replacement and support equipment upgrades are also critical to safety and maintaining assets in a state of good repair.

Milford Transit District

Milford Transit District provides transportation services for the western portion of the Region. Fixed route service, and ADA service, as well as "dial-a-ride" service, are provided for their service area.

Middletown Area Transit District and Estuary Transit District

Middletown Area Transit District and Estuary Transit District provide service in their Region east of the South Central Region. Connections are provided to the CTTRANSIT 201 Route in Madison. The two districts are in the process of merging and will provide opportunities for greater service area connection between the SCRCOG and RiverCOG regions.

CTRIDES

Under a contract from CTDOT, CTRIDES provides travel alternatives to commuters in the Region that help reduce dependence on the single occupant vehicle. Carpool and vanpool formation, information on the ease of use and benefits of these options, customized work or travel trip planning, promotion of transit usage and other commute trip options are all available for the benefit of the Region's travelers. Commuter outreach efforts raise awareness of the full range of state-sponsored commute alternatives to driving to work alone. As congestion increases, CTRIDES's efforts will continue to be vital to ensure full utilization of all transportation modes, thereby increasing system efficiency, especially during daily peak travel hours.

CTRIDES provides employers and key traffic generators with technical expertise to help design customized Transportation Demand Management (TDM) programs for their employees. While employers can experience bottom-line benefits from adding policies supportive of transportation alternatives to their benefit package, they also help reduce traffic congestion and improve air quality in the Region. CTRIDES supports telecommuting to the worksite by providing design, development and implementation of a telecommute program to area employers. While telecommuting,

the employee can completely remove a work trip from the Region’s transportation system, reducing transportation related emissions, decreasing energy demands and improving air quality.

Section 5310 Enhanced Mobility for seniors and Persons with Disabilities

Since 1975, the State of Connecticut has received annual Federal Section 5310 funding for transportation of seniors and individuals with disabilities. Under FAST act, the cash grants for qualified recipients towards the purchase of wheelchair accessible vehicles were maintained, as Section 5310A. In addition, there are three new categories of project types that can now be funded: Section 5310 B, C & D. These categories provide mainly operating funds for programs that provide transportation service to the elderly and persons with disabilities. FAST Act funding is apportioned based on Transportation Management Area (TMA). The New Haven TMA includes the South Central Region and portions of the Lower Connecticut River Valley Council of Governments (RiverCOG).

On an annual basis, SCRCOG along with RiverCOG, reviews all applications for funding and based on criteria set by CTDOT, and prepares a funding priority list which is submitted to CTDOT. Through this process the Region has supported funding for vehicle purchases, service expansion, a subsidized Taxi Voucher program and the regional Mobility Manager program.

The Connecticut Electric Bus Initiative

The Connecticut Electric Bus Initiative is a partnership between CTDOT, CT Department of Energy and Environment Protection (DEEP) and bus transit providers that showcases Connecticut’s commitment to providing a reliable, safe, sustainable,

clean energy transportation system. Introducing electric transit buses into a bus fleet transitions bus operations away from fossil fuels, reduces air pollution caused by diesel combustion, and creates a brighter tomorrow for all of Connecticut’s residents.

Incorporating battery electric buses (BEB) into the State’s transit bus fleet is a lengthy process that requires substantial capital investments, dedicated planning efforts and The Plan fully supports these efforts. New BEB’s have been approved for CTRANSIT’s New Haven division and GNHTD. The Plan fully supports the continued investment in new vehicle technology.

Commuter Rail Services

The New Haven Line

Commuter Rail services west of New Haven are provided by Metro-North. The rail line is part of the Northeast Corridor which is considered the busiest rail line in the United States. Stations along this corridor are in Milford, West Haven, and New Haven. Continued capital investment in the service needs to do more than simply maintain a State of Good Repair. The Plan supports increased investment in track upgrades, signal system improvements and bridge repairs and replacement that will reduce travel times and increase system reliability. Three new express trains have recently been added during peak travel times. Ridership numbers continue to increase.

Shore Line East

Commuter rail services for municipalities east of New Haven experienced significant loss of ridership due to the pandemic in 2020. Since that time ridership has continued to improve with trains back to running a full schedule. Capital investments

made in 2022, replaced the Diesel-powered trains with new M8 Electric Multiple Units. These new trains reduce carbon emissions, are much quieter than the older models. They also provide a much better experience for the riders. Rail stations along the line have all been upgraded with, “up and over” access, with high-level platforms that allow for service on both tracks, and well-lit parking. One exception is the Madison Station which is still in need of upgrades to provide access to both tracks. Parking was a much greater concern before the pandemic, however as ridership continues to rebound so does the need for parking. Improved multimodal connections can help to alleviate the need for parking along with carpooling to some station locations. Connections at the destination end of the rail trip, by Commuter Connection buses and private shuttles, will increase the viability of using the train and should continue to be expanded. Service modifications which allow for riders to remain on the same train for service west of New Haven have been well-received. The success of the commuter service and the desire to provide additional rail travel options to reduce congestion and dependence upon the automobile have led to a discussion of extending the Shore Line East rail service from its current terminus in New London to Westerly, R.I. As noted below under Bicycle Transportation Facilities, provision should be made for



bicycle facilities both at the stations and on the passenger rail cars.



CTrail Service Enhancements and Expansion are major goals of the region.

The Hartford Line

Starting operations in 2018, expanded rail passenger service north of New Haven is provided with the Hartford Line. CTDOT has constructed improvements to the corridor infrastructure, including double tracking, capital equipment purchases, station upgrades, new station construction in Meriden, Wallingford and plans for a new station in North Haven. There are proposed additional station locations, as well as parking facility improvements.

Currently this service provides regular round-trip commuter trains on weekdays ending at Union station in Hartford, with some continuing north to Springfield Massachusetts. Amtrak also provides additional New Haven-Springfield round

trips. Service is also provided on weekends and holidays.

Union Station Improvements

Union Station in New Haven, has been a vital transportation hub in the region for over 100 years and as one of the busiest rail stations in Connecticut, serves over 400,000 passengers each year. This multi modal station provides connections to Metro North and Amtrak as well as the Shoreline East and the Hartford line. CTRANSIT provide bus connections to the station. And intercity bus providers with connections at Union Station include Greyhound, Peter Pan, and Megabus.

In the fall of 2021, an agreement was signed between CTDOT and the city of New Haven to provide for a major infrastructure improvement project for Union Station. Improvements include new retail space and passenger amenities for commuters, while improving vertical access (stairs, elevators, and escalators) to expand use of the upper station floors. In addition, the surface lots on the Union Station Campus will be redeveloped to include a new intermodal space for bike, transit, and additional parking in the form of a 450-space parking garage. This plan fully supports continued investment into this thriving transportation center.

Shore Line East Station Improvements for Madison

The Madison station opened in 1990, at the start of Shore Line East service. It remains as one of the only stations without a second platform. Madison station consists of one high-level side platform on the southbound side of the tracks and a mid-sized parking lot. With only one platform, service is severely limited to the station. There are plans to construct a second platform and three-story parking garage. In fact, the

second platform was mandated in the 2003 agreement between CTDOT and AMTRAK. However, the project was delayed in 2018 for lack of funding. There are environmental concerns that must be addressed before the project can be advanced. It is important that CTDOT, SCRCOG and the town of Madison work together to find a solution a develop a plan to fully upgrade this commuter rail station.

Shore Line East Connection to the Hartford Line

As commuter rail service is expanded and enhanced, the need for interconnection of these services will be important. In this Region, Shore Line East and Hartford Line service currently meet at Union Station in New Haven. As part of the Plan, an interconnection which bypasses this busy hub may be important in providing timely travel options from one commuter rail to another. Rail connections exist which would bypass New Haven and allow interconnections in North Haven at a new station, and either in Branford or East Haven, if a station is built there.

Tweed New Haven Airport

Tweed New Haven Airport has served as a regional airport for many years. Commercial carriers and general aviation users provide transportation services for the region. Connections are available for travelers to other portions of the country. Commercial carriers have changed as the industry and passenger demand has evolved. 2021, The Tweed New Haven Airport Authority approved a lease agreement with AVPORTS LLC and Avelo Airlines announced that their new East Coast hub would be located at Tweed. Since that time, service has improved, and the number of flights has increased. The existing passenger service provides air travel options for the Region

and is an important component of the regional transportation system.

The region looks to continue the important role of the Tween New Haven Airport in the region in the meeting both the transportation needs and maintaining and improving economic vitality.



OVERARCHING GOALS:

1. Fully implement projects identified in the MOVE New Haven study.
2. Improve Public Transit opportunities in the region in cooperation with service providers.
3. Encourage continued investment in Public Transportation facilities.
4. Create a safe and reliable multimodal transit system that serves all communities.

Chapter 8: Interstates and Limited Access Highways

The final work on the I-95 Central Corridor Expansion projects has been accomplished. These improvements will serve the Region well beyond the timeframe of this plan. Major capacity expansions are completed for I-95 from Exit 54 Cedar Street in Branford, on the north (east) end to Exit 45 on the south (west) end. The expansion included the replacement of the Pearl Harbor Memorial Bridge (Q Bridge) with a new structure and the complete rebuilding of the I-95, I-91, and Route 34 interchange.



Pearl Harbor Memorial Bridge in New Haven

Over the last few years, the Region has seen an increased funding for transportation infrastructure improvement. In November 2021, The Bipartisan Infrastructure Law (BIL) took effect and under this new legislation Connecticut expects to receive

about \$1.3 billion over the next five years. In the first year, this represents about a 39% increase over 2021 FAST Act formula funding levels. Before that, the state has proposed increased funding for rail improvements as well as highways project and transit improvements through the Let's Go CT initiative. New funding means new opportunities to address capacity deficiencies. But also new challenges to move projects from design to construction in a timely manner.

I-95 North (East) of Exit 53

The CTDOT has investigated the conditions of I-95 from Exit 54 in Branford to the Rhode Island state line. The Southeast Corridor Study concluded that additional capacity was needed and that a third lane should be constructed in each direction for the entire length. In 2022 CTDOT launched the **I-95 Eastern CT Planning and Environmental Linkages (PEL) Study** to evaluate existing and future transportation demands for the I-95 corridor from Exit 53 in Branford to the Rhode Island state line. SCRCOG supports this effort and has identified opportunities for interchange improvements within the study area. The interchange opportunities are outlined below.

Exit 53 – Current configuration allows for movements oriented to or from the south (west) direction. Potential reconfiguration of the connection of Exit 53 to Route 1 has led to conceptual plans for a connection to allow for a full interchange in both directions. These additional movements will allow better access to that area of Branford, reduce congestion, and improve safety.

Exit 59 – The Study proposed near term improvements to allow for safe connection with I-95 and Route 1 at Goose Lane. The concept raises additional concerns as it

severely impacts the current CTDOT maintenance facility. Regional growth will further deteriorate the traffic level of service at this interchange and, whether the current concept or another, solutions are necessary. Improvements to Exit 60 as noted below may partially address this issue.

Exit 60 – Due to its proximity to the former Madison toll station on I-95, Exit 60 was only constructed to have movements to or from the north (east) direction. Original plans called for the south (west) movement to be made from Wildwood Avenue. In fact, these ramps were rough graded but never constructed when the Connecticut Turnpike, the original name for this section of I-95, was built. The Study identified these never completed ramps as a possible near-term improvement.

I-95 South (west) of Exit 45

CTDOT completed a study of I-95 from New Haven to the New York state line several years ago and continues to consider options for the corridor. The Legislature recognized the difficulty of constructing additional capacity on I-95 due to limited current right of way and intense adjacent development. The solution mandated by the legislative action was to analyze the transportation needs and develop a plan to reduce the base levels of highway demand by 5% within five years.

Actions of CTDOT included the reduction of highway demand by increasing utilization of other means of transportation. These included increased rail usage, increased ridesharing/carpool usage, increased vanpool usage, increased full and part-time telecommuting, and increased use of alternative work schedules, and increased inter-regional bus ridership. Results reported by CTDOT include success in some of these areas and below goal reductions in others.

Any additional actions within the Southwest Corridor are anticipated to address transportation demand and not provide increased highway capacity.

I-91 Interchange Improvements

The interchange issues on I-91 are less significant as the design standards were more stringent for I-91, which was constructed a decade or more after the Connecticut Turnpike (I-95). However, changes in traffic patterns and volumes due to adjacent development cause increased interchange usage, resulting in unsatisfactory interchange operations.

Downtown Crossing Route 34 Phase IV – New Haven

This infrastructure project will rebuild the former Route 34 expressway into a system of urban boulevards and reestablishes the urban street grid by reconnecting the city streets, to reclaim portions of land that had long been unavailable for development due to the expressway right-of-way. The project was broken into 4 phases with construction on the first phase started in 2013.

I-91/I-691/ Route 15 Interchange Improvements in Meriden

The previous Plan identified improvements to the Chamberlain Highway interchange as desirable for the efficiency of the local highway network. A SCRCOG sponsored study was completed in 2008 and a further study in 2014 expanded the review and recommended improvements to interchanges 5, 6, and 7 and circulation on adjacent highways. In 2022, three projects were introduced to reduce congestion and improve safety on Route 15 and I-91 within the I-91, I-691, and Route 15 Interchange in Meriden and Middletown, CT.

Wilbur Cross Parkway

The Wilbur Cross Parkway, Connecticut Route 15, is the only non-interstate limited access highway in the Region. Constructed in the 1930's, the Parkway was constructed for passenger vehicles only and, together with the Merritt Parkway, provides a connection from the New York state line to Hartford. Distinctive and unique designs were used for the bridge structures. The design kept many trees and continues to provide a scenic roadway for travel through the state. Minor improvements have been made since the original construction, but many interchanges have changed little since initial construction. As traffic volumes and speeds have increased, and safety standards have evolved, many of these interchanges require study for improved safety while entering and exiting the parkway.

SCRCOG sponsored Wilbur Cross Parkway Interchange Needs Assessment Study in 2009 and focused on seven interchanges and two service areas on the Wilbur Cross Parkway (Route 15) between Milford and Meriden. In close consultation with CTDOT and the involved municipalities, recommendations were made for near, mid, and long term improvements to these interchanges.

The scenic character of the parkway is a feature which is valued by the residents and motorists and must be maintained. The challenge is to ensure safety while maintaining the character of the parkway. The Region remains concerned that the traffic speeds, which currently greatly exceed the posted speed limit in many sections of the parkway, are potentially requiring more substantial improvements than would be required for design speeds reflecting the posted limits. The increased improvements potentially will not only impact the character of the parkway, but also

utilize additional limited funding, thereby decreasing the number of improvements undertaken. Speed limit enforcement needs to be a significant portion of the solution to the safety issues. The Region encourages CTDOT to advance the recommendations in the Study on the interchange issues and provide context sensitive solutions to the identified operational and safety issues.

Rest Area Improvements

In 2009, CTDOT entered a long term contract with a single statewide operator for improvements and upgrades at service plazas along I-95. The Region notes that the improvements provide more traveler-friendly facilities, with better food choices and improved facilities. The improved rest areas help to promote a better image of Connecticut to the traveling public. In 2022# CTDOT announced plans to provide level three electric vehicle (EV) fast chargers at the Interstate 95 service plazas. The first such charger was installed at the Southbound service plaza in Madison.

Park and Ride Lots

For many decades, CTDOT has constructed and maintained Park and Ride Lots adjacent to the Region's interstates and limited access highways. Most of these lots have been constructed within the land acquired for the construction of the interstates at interchanges. Most of these lots are well utilized and serve as both informal and formal staging areas for car, van and bus usage. Each lot removes cars from the highway and is an important component of congestion reduction initiatives.

For over 30 years, SCRCOG has conducted quarterly capacity counts for the Region's commuter parking lots. These counts are posted on the SCRCOG website and distributed to stakeholders throughout the Region. These counts have shown that

highway improvement and expansion projects often affect these well-utilized lots. The Plan encourages CTDOT to work with the Region to provide additional capacity where needs are identified as part of the regional transportation system.



Park and Ride Lots reduce single occupant vehicle usage, reduce highway congestion, and when suitably located, provide intermodal connections.

Incident Management/Traffic Management

Congestion is evident on certain portions of the interstate system daily. Incidents on the interstates can cause congestion to increase dramatically. Any significant congestion has an adverse impact on local roads, whether through diversion routes or by drivers attempting to avoid delays. CTDOT has

installed and maintains infrastructure for video surveillance and communication on the interstates in the Region. These facilities allow for real-time information to be available to CTDOT traffic operations facilities.



Variable Message Signs and Highway Advisory Radio provide important travel information for reducing congestion and travel delays due to highway incidents.

Diversion Plans for I-91 and I-95 provide guidance for CTDOT, Connecticut State Police, local police, local emergency responders, local public works, and other departments to utilize in the event of a major event on the interstate. These major events displace traffic from the slowed or stopped interstate to local, parallel routes. Diversion Plans provide a mechanism to minimize the impacts of the diverted traffic in each municipality by providing prior assessment and planning.

CTDOT is currently updating these plans that were developed back in 1998. SCRCOG along with each municipality that contains a portion of I-91 or I-95 has participated in this process.

Unified Response Manual

SCRCOG, in cooperation with federal and state agencies, coordinated the preparation of a comprehensive, National Incident Management System (NIMS) compliant, multi-disciplined Highway Incident Unified Response Manual (URM) for Connecticut. The Connecticut Transportation Strategy Board (TSB), in 2003, established a Statewide Incident Management Task Force (SIMTF) which was charged with developing recommendations for improving the efficiency, coordination, and management of the response to and clearance of incidents on the state's highways. In October 2003, the SIMTF presented a White Paper detailing recommendations to the TSB. A high priority recommendation was to develop a URM for statewide use.

In FY 2007, SCRCOG engaged a consultant for the URM preparation. SIMTF assisted SCRCOG in the review of the consultant draft and administration of the consultant contract. Utilization of the URM will allow for better and improved response to incidents on the highways of the state.

OVERARCHING GOALS:

1. Maintain existing transportation infrastructure in a good state of repair.
2. Improve safety for all users.
3. Reduce congestion and improve system reliability.
4. Improve project delivery by finding new ways to move projects from design to construction in a timely manner.

Chapter 9: Arterial System

Arterial highways of the Region are key components of the highway system and serve predominantly regional and local traffic. Congestion and operational inefficiencies are immediately observable to the residents of the Region as they regularly utilize this portion of the highway system. Opportunities exist on the arterials of the Region for both large- and small-scale improvement projects which can provide substantial operational enhancement in the immediate area of the project.

Arterial Goals

The Plan recognizes that the arterials in the Region must function efficiently for the free flow of traffic and goods throughout the Region. Arterial improvement projects and land use patterns must be advanced which offer improvement in the following areas: **access and performance, continuity, traffic signal updates, good design implementation, and safety.**

Access and Performance

It has been shown that access issues and policies can substantially impact the performance of the arterial. Zoning Regulations which allow multiple curb cuts and little or no required separation contribute to increased turning movements and lowered arterial performance. Crossing and turning traffic increases conflicting movements which, in turn, decreases overall vehicle speed and lane volumes.

Continuity

Optimal operation of arterials requires a consistent lane configuration. Motorists should expect to maintain traffic flow at all intersections and not have turning movements stop the flow of traffic in a

travel lane. The opportunities for additional capacity outlined in the table below would address turning movements, providing improved motorist safety and increased arterial capacity with investment of limited available funding.

Traffic Signal Upgrades

Traffic signal control technology has advanced substantially in the past decade. State of the art equipment and control can allow extended section of arterials to be managed and coordinated to give through movement priority while insuring satisfactory side street access without significant delays. Signal upgrades on the CTDOT system have addressed some coordination along arterial sections in the Region. Many more opportunities for coordination and improved efficiency of the regional arterials exist. Locally maintained and controlled traffic signal systems also have opportunities, though often not addressed due to limited local funding. While beyond the fiscal constraint of the Plan, equipment and control upgrades are a critical part of the congestion management process. Additional funding must be a regional priority.

Good Design Implementation

Many of the arterials in the Region have undergone various improvements which have not addressed underlying conditions such as offset intersections, poorly spaced intersections and similar design considerations. While the addressing of these issues is often complicated due to right of way concerns and other limiting factors, improvement projects must address these design considerations to provide long term solutions which optimize performance of the Region's arterials.

Safety

All of the above considerations must address the underlying principle of highway safety. Arterial projects must be considered with emphasis on the potential for improved highway and pedestrian safety. Regional arterials serve many functions, providing connections throughout the Region and supporting adjacent economic activity which is vital to the regional economy. Access to adjoining properties and businesses must be provided without compromises to vehicular safety. High volume arterials have additional safety considerations. Raised medians can be utilized to improve safety on arterials with numerous curb cuts, eliminating crossing traffic and directing crossing movements to adequately spaced “U-turn” opportunities. Pedestrian movements must be evaluated to provide cross walks and signal timing that promotes both pedestrian movements and pedestrian safety. Raised medians may also be utilized to provide pedestrian refuge areas.

Corridor Studies

Corridor studies undertaken by the Region allow for study of the options available to address near and long range solutions for congested portions of the regional arterial roadway network. Recent studies have been undertaken by the Region through its annual Unified Planning Work Program (UPWP) which utilizes federal and state planning funds available to the Region. Corridor studies undertaken for Route 68 in Wallingford, Route 10 in New Haven and Hamden, Route 34 in New Haven, and Route 162 in West Haven and Orange have provided options for addressing congestion on these routes.

The corridor study will provide the basis for future action on corridor improvements. Discussions involving representatives of the municipality, CTDOT and the Region will be the next step in prioritizing and

implementing the recommendations contained in the corridor study. The implementation could be considered a “system improvement” within the fiscal constraint of the Plan. The corridor study is a necessary first step in framing the transportation solution for these arterial corridors.

OVERARCHING GOALS:

1. Improve access and performance of arterial connections.
2. Create and maintain consistent lane configuration.
3. Upgrade signal control technologies
4. Use good design practices to improve safety.
5. Conduct corridor studies.

Chapter 10: Local Roads and Bridges

Local roads comprise most of the mileage of the highway system in the Region. Traffic volumes can approach those noted on state maintained arterials, with the maintenance needs increasing as traffic volumes rise. Municipal budgets are the main source of funding for roadway maintenance and improvement projects. The many competing demands for the utilization of municipal tax dollars often leads to substantially less money appropriated for local highways and bridges than is needed to provide sufficient funding for proper maintenance, structure preservation, and required improvements.

Several state programs are available which provide limited funding to municipalities for maintenance and improvements of highways and bridges. These are outlined below:

Local Bridge Program

This program provides funding to municipalities based upon a formula which includes the relative wealth of the municipality and the overall condition rating of the bridge structure. Funding ranges from a minimum of 10% to a maximum of 30% of eligible costs. The funding for this program should be a priority of the Legislature and Governor. The program aids municipalities and the Region by providing another funding source for municipalities to address local bridge needs.

Town Aid for Roads (TAR)

The TAR program has been in existence for many years, providing funding for highway activities, including maintenance, materials, equipment, and salaries. Unfortunately, the amount of funding allocated has varied substantially and this fluctuation has caused municipalities to reduce the maintenance

and preservation activities which were previously supported. The program will better allow for local road activities by raising and stabilizing the funding level and providing annual adjustments for increased costs of materials and services. This program is well utilized and must be continued.

Local Capital Improvements Program (LOCIP)

LOCIP provides funding based upon a statutory formula for projects identified on a Capital Improvements Program Plan approved by each municipality. The local priorities are determined in the Plan over at least a five-year period. While the program allows for the utilization of LOCIP funds for any capital improvement, many municipalities utilize LOCIP for highway improvements, including repaving. Projects undertaken from the approved Plan are eligible for reimbursement funding under the annual LOCIP allocation. As in the TAR program, the amount of funding has varied substantially, depending upon legislative action. Uncertainty over funding through the minimum period of five years covered by the Capital Plan leads municipalities to be cautious, often delaying needed activities. The program will better serve the municipalities and the Region with an increased and stable funding level with annual adjustments for increased costs of materials and services.

STP Urban

Funding is provided for highway improvements in urbanized areas as identified by the most recent census. These federal funds are part of an overall funding formula which provides for project costs. These funds have in the past provided needed improvements for eligible roads in the Region. The Region works with CTDOT to advance a collaborative program for the

use of the funds. This approach is essential for the advancement of appropriate projects to benefit the Region and wisely utilize the federal funding.

Local Capital Transportation Improvement Program (LOTICIP)

The LOTICIP provides State funds to urbanized area municipal governments in lieu of Federal funds otherwise available through Federal transportation legislation. The LOTICIP is established with substantially fewer constraints and requirements than currently exist when using federal funds. Program guidelines have been established and a regional process is in place to provide access to these funds. LOTICIP has been successfully utilized by many of our member municipalities. SCRCOG looks forward to legislative action to continue the program with steady funding.

Transportation Rural Improvement Program (TRIP)

The TRIP provides state funds to municipal governments for infrastructure improvements in Rural and Small Towns. Activities may include transportation capital projects such as construction, modernization, or major repair of infrastructure. Currently, only municipalities with greater than or equal to fifty percent of their population living in rural areas are eligible to apply for this funding.

Transportation Alternatives Program (TAP)

The BIL continues the Transportation Alternatives set-aside from the Surface Transportation Block Grant (STBG) program. This TA Set-Aside provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for

improving non-driver access to public transportation and enhanced mobility, community improvement activities such as historic preservation and vegetation management, and environmental mitigation related to storm water and habitat connectivity; recreational trail projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former divided highways.

Community Connectivity Grant Program

Administered by CTDOT, this grant program provides construction funding directly to municipalities for infrastructure improvements that are aligned with the overall program goals, to make conditions safer for people of all ages to walk, bike, and take transit.

Municipal Funding

The major source of funding for local highway projects remains the annual local budget. This is often supplemented by special bonded appropriations for specific improvements, especially large reconstructions, or bridge projects. Statewide surveys have been conducted in the past identifying the unmet needs for infrastructure maintenance and preservation, with very little new funding made available upon completion of the survey. Each municipality prioritizes and funds their maintenance and improvement plan as each budget allows. This results in differing levels of maintenance and improvement, depending upon the relative financial ability and competing needs in each municipality.

Department of Transportation advances a collaborative program for the use of the funds. This approach is essential for the advancement of appropriate projects to benefit the Region and wisely utilize the limited federal funding.

Aging infrastructure and increasing traffic volumes throughout the Region compound the funding problem. The challenges must be met at all levels of government to ensure a first-class transportation system with adequate funding for system maintenance, preservation and improvement as needed.

The Plan is a policy-level regional plan and, as such, will not list or identify each contemplated local project. The examples are shown to emphasize the diversity and range of local projects which are necessary and to emphasize the need to improve local and regional transportation resources. Local roads are critical to a well-functioning regional transportation system. The funding needs remain significantly, and solutions must be found to the funding of local road needs over the timeline of the Plan to address not only the currently identified needs but also those which will be identified during the remainder of the time covered by the Plan. Many portions of the Region are not served by other transportation modes and the maintenance, preservation, and improvement of the primary transportation system of local roads in these areas is vital to the residents and regional economic vitality.

OVERARCHING GOALS:

1. Provide technical assistance for local road projects.
2. Promote funding programs for local road projects.

Chapter 11: Active Transportation

Bicycling and walking are not only enjoyable forms of exercise, but also efficient and environmentally friendly modes of transportation. Throughout the region there is a growing recognition that supporting active transportation modes reduces travel costs, congestion, and pollution while creating a more multi-modal and connected transportation network overall. This recognition is evident in the steadily increasing demand for bicycling and walking facilities on roads and trails in the SCRCOG region in recent years. The plan fully supports increased investment into programs that support active transportation.

Safety is always a primary concern and consideration within all of communities for any a Bicycle and Pedestrian program. The Plan supports a “complete streets” approach to planning, designing, building, operating, and maintaining streets to enable safe access for all people who use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Whenever possible bike lanes and walking paths should be protected and separate from the vehicles and travel lanes.

Some of the valuable benefits of active transportation and its associated infrastructure include:

Healthy Living

Walking and bicycling promote good health. The U.S. Department of Health and Human Services recommends 10,000 steps per day to achieve better health and fitness. Bicycling is a low-impact exercise that improves overall balance and coordination.

Both activities increase the health of the heart and cardiovascular systems and can improve resistance to obesity related health problems such as strokes, diabetes, and cancer.

Accessibility & Choice

Access to a comprehensive network of facilities such as sidewalks, crosswalks, and bike lanes allows people to exercise greater independence in choosing how they want to travel. Without these facilities, people will resort to traveling by personal vehicle or engaging in unsafe walking and biking practices. Limited transportation options are not only an inconvenience but also present an issue of social equity for those who do not have the option to drive.

Strong Communities

Pedestrians and bicyclists enhance the sense of community in small towns and big cities worldwide. Pedestrians move at a slow speed and have face-to-face interaction with other pedestrians. Bicyclists, likewise, must communicate with other travelers with eye contact, audible means (such as verbal signals, bells, and horns) and hand signals. Providing safe and convenient pedestrian and bicycle facilities improves access to and connection between community events, schools, parks, places of worship, and small businesses.

Cost Effective

The cost of building sidewalks and bicycle travel facilities is significantly less than building roads and parking facilities for motor vehicles and buses, or rail lines and stations for trains. In addition, there are a wide variety of low-cost measures that can be implemented without construction and the associated costs and delays, from painted bike lanes to strategically placed planters.

Funds spent to build and maintain bicycle and pedestrian facilities can stretch further than those spent on other modes.

Better for the Environment

Motor vehicles create a substantial amount of air pollution. According to the EPA, transportation is responsible for nearly 80 percent of carbon monoxide and 55 percent of nitrogen oxide emissions in the U.S.

Greenways in the Region

Several greenways are located the SCRCOG region. A greenway is a linear open space separated from road traffic, set aside for recreation and active transportation. Most greenways are paved and can be used for walking, running, biking, inline skating, and wheelchair travel. Because of this variety of users, greenways are also referred to as multi-use trails. Some of the region's greenways traverse multiple municipalities and / or cross into neighboring regions. The trails are in various stages of planning and completion, with the goal of closing gaps and improving local connections to the trails.

East Coast Greenway

This trail is planned to span approximately 3,000 miles from Maine to Florida. It is almost entirely on public right of-way, incorporating waterfront esplanades, park paths, abandoned railroad corridors, and canal towpaths. The East Coast Greenway runs through portions of the Farmington Canal Trail, Savin Rock Trail, Long Wharf Nature Preserve Trail, and Silver Sands State Park Path in the SCRCOG region municipalities of Hamden, New Haven, West Haven, and Milford.

Farmington Canal Trail

The Farmington Canal trail is planned to extend from New Haven, Connecticut to

Northampton, Massachusetts. Within the SCRCOG region of Connecticut, the trail runs through the municipalities of New Haven and Hamden. It runs along a former canal and rail line. The finished trail is a smooth 10-foot wide paved swath.

Shoreline Greenway Trail

This trail is planned to traverse 25 miles from Lighthouse Point in New Haven to Hammonasset Beach in Madison. To date, approximately 4.7 miles of trail have been completed in three towns, with another three miles under construction. There are 1.3 miles shovel ready/under bid, 6.8 miles, under development, planning or review or in proposal. When completed, the trail will pass through the SCRCOG region municipalities of New Haven, East Haven, Branford, Guilford, and Madison. Much of the trail is planned to be a crushed granite, packed stone surface that's accessible for all.

Regional Bicycle and Pedestrian Plan

As part of the UPWP for FY 2017, SCRCOG engaged a consultant to update this plan. The consultant built upon the 2007 Plan and the 2006 trail mapping project and provided a conceptual framework for increasing the attractiveness and effectiveness of bicycle and pedestrian transportation on a region-wide basis.

As part of its work program in 2023 and 2024, SCRCOG intends to develop a new Bicycle and Pedestrian Plan. Current studies include:

City of Meriden CT Loop Trail

CT Loop Trail Connection study from Broad Street to the Middletown line in the vicinity of Westfield Road.

City of West Haven Bicycle-Pedestrian Plan

Creation of a City-wide Bicycle Pedestrian

Plan coordinated with other City Plans and with emphasis on intermodal connections and addressing all areas of the city.

Town of Hamden Canal Trail Crossings Evaluations

Evaluation, concept design safety improvements and recommendations with cost estimates for 21 at grade crossings on the Farmington Canal Heritage Trail between Goodrich Street and Mt. Sanford Road.

Town of Branford Walkability/Sidewalk Study

Study to improve and expand the sidewalk transportation system within the Town to improve pedestrian safety and walkability, complete connections to key areas of Town and address ADA noncompliance areas.

Town of Madison Bicycle-Pedestrian Safety Improvements Study

Prepare concept plan and preliminary cost estimate for sidewalks, shared use paths and other bicycle-pedestrian safety improvements along Route 1, West Wharf Road, and Surf Club Road between downtown and Surf Club.

Bicycle Transportation Facilities

As part of the intermodal goals of FAST Act, utilization of various modes of transportation by travelers is encouraged. To that end, provisions are encouraged for travelers utilizing bicycles for a portion of their travel and then utilizing another mode. Accommodations are necessary to allow intermodal utilization. These accommodations could include:

Bicycle Racks - Locations to store bicycles for utilization upon the traveler's return are one method of accommodating and encouraging bicycle use. Unfortunately, the

value of the bicycle and the relatively poor security often afforded by bicycle racks can lead to underutilization and potential undervaluing of the investment. The conditions vary by location. These factors should be studied and discussions undertaken with bicycle riders prior to the installation of these facilities.

Transit Capabilities – If bicycle racks are not appropriate or utilized, then provisions must be made for the transporting of bicycles on transit modes. The capability to transport bicycles should exist on both rail and bus and progress has been made. The operators and CTDOT are encouraged to continue to include these provisions in both planning and service modifications.

Bike Lockers – Bike lockers have proved successful in other areas of the country. Monthly rental insures availability for regular bicycle users. Provision of bike lockers should be considered in appropriate intermodal locations.

OVERARCHING GOALS:

1. Promote cost-effective and environmentally friendly, active transportation programming to promote healthy living and strong communities.
2. Improve safety for pedestrians and bicyclists.
3. Encourage expanding protected bike lanes and walking paths to separate users from the vehicles and travel lanes.

Chapter 12: Freight Movement System

Freight movement in the Region is a vital part of the transportation system and a key component of regional economic health. For most of the twentieth century, rail was the predominant mode of freight transportation. As the interstate system was completed, freight movement transitioned to delivery predominantly by truck. Congestion on the interstates and stabilization of the rail industry is starting to once again make rail a viable option for the movement of freight and goods.

In 2022, CTDOT completed an update of the Connecticut Statewide Freight Plan and the Region participated in that process to provide regional input to bolster the success of the plan. As the statewide plan is advanced, the Region will work with the Department to provide data and other information relevant to assist in the addressing of regional and statewide freight issues. These issues could include movements of freight within urban environments, freight bottlenecks, height/weight restrictions, truck parking issues, intermodal connections, agricultural commodity freight movement, and other issues critical to freight movement that enhances the economic vitality of the Region and state.

As noted previously, the Region has many modes of freight transportation available. **Rail**, **water**, and **truck**, all contribute to the vital movement of freight.

Rail

As passenger rail traffic increases, the capacity for freight movements on the existing rail network decreases. The positive news is that the existing rail freight network

has underutilized capacity which could be utilized with minimal investment, even with some additional passenger service. Many former rail connections have been lost due to the previous instability of the rail industry. Freight movement predominantly by truck has resulted in less operating revenue for infrastructure maintenance, exacerbating prior poor connections to the national rail network. Opportunities exist for increased rail freight movements which require operator and rail bed owner cooperation and marketing. Increased use of existing rail sidings and the construction of new sidings will reduce truck utilization and potentially increase regional economic activity. Feeder Barge Service could also provide additional rail freight. The Plan encourages increased rail freight utilization as a means of reducing congestion on regional highways and improving air quality in the region.

Water

The Port of New Haven provides opportunities for substantial movement of goods. Petroleum products are important to the regional economy. Other freight movements provide world-wide water connections to the global marketplace. Feeder Barge Service would increase the movement of freight by water with minimal infrastructure investment.

Truck

As the predominant method of moving freight, trucks contribute to the regional economy, but also to regional highway congestion. Truck routing can also have adverse impacts on neighborhoods and Environmental Justice (EJ) portions of the Region. State and local legislative changes may be required to address congestion, routing, delivery timing, and truck parking and idling concerns. A balance must be sought which allows for the movement of

goods but does not cause congestion which negatively impacts the economic vitality of the Region.

The marketplace governs the selection of the mode of transportation utilized for goods. Infrastructure improvements can help influence these choices and improve the efficiency of the freight transportation systems. Marketing and operator actions can influence the means of goods transportation. The Plan encourages freight movement by underutilized modes wherever possible to optimize the economic health of the Region by the utilization of all modes of freight transportation.



Freight movement is a critical component of the regional transportation system. Increased rail utilization will remove trucks from the Region's highways and help reduce highway congestion

Port of New Haven

The Region has a substantial asset in the Port of New Haven which contributes to the needs and demands of the regional transportation system. The Port of New Haven is the busiest and largest deep-water port in the State of Connecticut. With a

federally authorized channel depth of 35 feet and a width of 400 to 800 feet, New Haven Harbor can accommodate ships ranging from 20,000 to 40,000 deadweight tons. The 366-acre port district includes eight privately owned terminals and 10 berths. Port facilities primarily handle petroleum products, general bulk, cargo, scrap metal, metallic products, cement, sand, stone, salt, break bulk and project cargo.

This significant deep-water port, with its intermodal connections, is an important component in the movement of goods and materials to and from the Region. The New Haven Port Authority was established in 2003 and today serves to enhance the economic competitiveness of the greater New Haven region and all of Connecticut through waterborne traffic. The terminals are privately owned and operated. The individual operators work with the Port Authority to demonstrate their needs and work toward coordinated efforts for the benefit of port operations.

Highway Access

The operations of the Port have long been intertwined with the surrounding neighborhoods and highway access to the Port is primarily via US I-95, US I-91 and CT RT 15, all of which are heavily utilized, and may be congested. The reconstruction of the Pearl Harbor Memorial Bridge (Q-Bridge) provided improved access to the Port area. Access and ramps allow re-oriented and dedicated access to the Port area. The Plan supports efforts that will improve access to the Port.

Rail Access

Rail connections have always been a key component of the movement of goods to and from the Port. With the Tomlinson Bridge construction project, rail connections to the mainline service in New Haven were

restored. New rail spurs could provide better access to the waterfront. The Plan endorses increased rail utilization for freight movement as a means of addressing regional highway congestion.



Rail Service across New Haven Harbor has been restored on the Tomlinson Bridge

Feeder Barge Service

There have been numerous discussions over the possibility of a feeder barge service utilizing the Port of New Haven. The Port of New Haven is uniquely situated to have a feeder barge service that would accomplish several regional benefits:

Removal of truck traffic from I-95 west of New Haven

Significant truck traffic exists in the corridor west of New Haven. Feeder barge service would remove portions of this truck traffic, thereby reducing congestion and improving interstate highway efficiency from New Haven to New York.

Rail Connections

As noted above, rail connections to the Port provide shippers with rail options for freight movements. The rail operator, Providence and Worcester, a division of Genesee and Wyoming, has indicated a desire to increase rail movements to the Port. Connections primarily exist in north and east directions

for increased rail freight movement due to out of state limitation in the rail network.

Utilization of I-91 North or I-95 east

The junction of two interstates at New Haven gives shippers highway options for the movement of goods.

Increased Economic Activity

Increased utilization of the Port is good for the economic vitality of the Region. Additional support businesses are anticipated if the Feeder Barge Service is established. Container content breakdown and distribution could be an additional activity for the Region if the service comes to fruition.

Channel Improvements/Dredging – The viability of the Port depends upon the maintenance of the federally defined and maintained channel. The Army Corps of Engineers is responsible for maintenance and is dependent upon Congressional appropriations for the funding of dredging projects. Funding levels have not been sufficient to meet all needs in a timely fashion in recent years.



SCRCOG endorses the proper maintenance of the New Haven Harbor and channel to maintain the viability of the Port as an important contribution to the regional transportation system, as well as the continued economic vitality of the Region.

OVERARCHING GOALS:

1. Increase rail freight utilization as a means of reducing congestion on regional highways and improving air quality in the region.
2. Consider creating a feeder barge system to increase the movement of freight by water.
3. Seek efficiencies and legislative changes that allow for the movement of goods via truck but not to the detriment of the environment, EJ communities and system optimal performance.
4. Support the Port authority's efforts to improve operations in the port of New Haven.
5. Expanded rail connections in the port.

Chapter 14: Security and Safety

Increased threats to the security and safety of the United States have led to increased emphasis on the potential threats to regional transportation systems. Planning is underway at all levels of government and in the private sector to address these concerns. The FAST act requires increased focus on both security and safety.

Transportation Security refers to both personal and homeland security, with the latter reflecting attention to vulnerability to intentional attack or natural disasters, and the associated evacuation procedures. Safety refers to reducing the number of crashes and accidental deaths or injuries associated with the operation of surface modes.

Security

Security issues can be best addressed after a comprehensive review of the vulnerability of regional transportation systems. Each transportation mode has two vulnerable security components – the operating conveyance and the infrastructure on which it operates. Responsibility may rest with two different entities for each component who must exchange information to adequately address the threats. Issues associated with each mode for consideration are as follows: **air**, **rail**, **water**, and **highway**.

Air

Security on airplanes is under the jurisdiction of the federal government and the operators. Security for the Airport is shared by the operators, Tweed New Haven

Regional Airport Authority and the federal government.

Rail

Passenger rail security is handled by AMTRAK and Metro North. AMTRAK, Metro North, CTDOT, and other rail bed owners handle infrastructure security. The operators that serve the Region handle freight security.

Water

Security for the Port is handled by the New Haven Port Authority, the port operators, the vessel operators, and the United States Coast Guard.

Highway

Depending upon the control of the highway, security is handled by the Connecticut State Police, CTDOT, local police, or municipal government.

For many years, each municipality in the Region has prepared its own emergency plan, normally administered by the Emergency Management Director and other municipal staff. Terrorist attacks on targets at home and abroad have focused attention at all levels of government on expanded security planning for homeland security and the threats from both intentional attack and natural disaster. The Connecticut Division of Emergency Management and Homeland Security (DEMHS) is responsible for the coordination of local efforts and those of state agencies to respond to these threats. Several initiatives are underway to address coordination and full and efficient utilization of available resources. One initiative is the preparation of the Statewide Evacuation and Shelter Plan.

Evacuation and Shelter Plan

DEMHS has divided the State into regions for homeland security and emergency

management. SCRCOG municipalities have been placed in DEMHS Region 2. Each DEMHS region is staffed by a minimum of a Regional Coordinator and an Emergency Preparedness Program Specialist. These positions are augmented by others when needed to address threats. DEMHS Region 2 has prepared a draft Evacuation and Shelter Plan which guides the evacuation and sheltering of the residents of the DEMHS 2 Region when such measures are necessary.

When fully implemented, the Evacuation and Shelter Plan will outline the coordinated evacuation procedures, traffic control, utilization of transit resources and other facets necessary to assist and protect the residents of DEMHS Region 2 if evacuation and sheltering are deemed necessary by the Governor of the State of Connecticut.

Safety

Reduction in crashes and related injury is the goal of operators of all transportation systems, whether car, bus, truck, ship, or rail. Each operator is responsible for safe operation and prevention of injury. Each mode operates under specific statutory requirements which impose varying requirements.

Safety issues can most be impacted and addressed in highway projects in the Region.

Highway Safety

The FAST Act required the Region to conform to the Connecticut Strategic Highway Safety Plan (SHSP). The SHSP, prepared by CTDOT and updated with annual safety plans, lists several goals and strategies, all related to improving highway safety and reducing personal injuries and fatalities. The SHSP addresses the following data driven emphasis areas:

- Traffic Reports and Information

- Roadway Departure
- Pedestrians and Bicycles
- Work Zones
- Driver Behavior (Alcohol, Occupant Protection, Speeding)
- Motorcycle Safety
- Commercial Vehicles
- Incident Management

In general, each category outlines the pertinent issues, specific strategies, and goals to enhance CTDOT's safety program by ensuring roadway systems are as safe as possible through the 4Es – Education, Engineering, Enforcement, and Emergency Medical Services.

Implementation of the goals and strategies of the SHSP will improve safety of all residents of the Region. The Plan encourages CTDOT to work cooperatively with the municipalities and the Region to meet these goals.

Local Accident Reduction Program

CTDOT provides limited funding for highway improvements which will reduce accidents through this program. This program has provided funding for the correction of numerous safety concerns statewide. Proposals are solicited as funds are available for ranking by CTDOT based upon several criteria, including the frequency of accidents at the location. The continuation of this program is important to the Region.

OVERARCHING GOALS:

1. Reduce accidents and improve safety.
2. Develop an Evacuation and Shelter plans
3. Assist with Implementation of the goals and strategies of the SHSP

Chapter 15: Special Policies and Programs

BIL requires several special policies which have been considered in the preparation of the Plan. These special policies address coordination and integration with other initiatives and legislative priorities.

Metropolitan Planning Organization (MPO) Coordination

SCRCOG is one of seven MPOs in the State. Inter-regional cooperation is critical in a State the size of Connecticut. Many projects and issues extend beyond the boundaries of the Region and must be addressed together with other regions. The Plan reaffirms the importance of communication and inter-regional cooperation in improving accessibility, mobility and travel options for the Region and the State.

Travel Forecast Model

Maintaining and updating, as appropriate, the Region's travel forecast model will continue to be a necessary planning activity. The travel forecast model is a tool which estimates the regional travel needs in the future. Coordination with the efforts of the CTDOT in this area is key. Current travel data is entered into the model which then estimates future travel demands on the regional roadway system. CTDOT air quality conformity determinations will govern transportation decisions during the timeframe of the Plan. The travel forecast model can help frame those decisions. As opportunities for transportation mode shifts occur, the travel forecast model can estimate potential benefits and help frame decisions to increase accessibility and mobility, while increasing the potential for environmental benefits.

Air Quality Conformity

The Region is part of the New York-New Jersey-Long Island NY-NJ-CT Ozone and PM_{2.5} (Fine Particulate Matter)

Nonattainment Area. Transportation Conformity is the process established by the USDOT and United States Environmental Protection Agency (USEPA) to ensure that transportation improvements will contribute to improved air quality in areas where concentrations of certain pollutants exceed national air quality standards. CTDOT undertakes the analysis for air quality conformity for Connecticut.

The transportation investments outlined within the fiscal constraint of this Plan have been reviewed by CTDOT. The following documents, prepared by CTDOT, outline the air quality conformity for the Region:

- Connecticut Department of Transportation – PM 2.5 Air Quality Conformity Determination of the 2023 Regional Transportation Plans and the FY 2021-2024 Transportation Improvement Programs for the Connecticut portion of the NY-NJ-CT PM 2.5 Nonattainment Area, March 2023.
- Connecticut Department of Transportation – Ozone Air Quality Conformity Determination of the 2023 Regional Transportation Plans and the FY 2021-2024 Transportation Improvement Programs for the Connecticut portion of the NY-NJ-CT Ozone Nonattainment Area and the Greater Connecticut Ozone Nonattainment Area, March 2023.

Additional programs established by the Department of Energy and Environmental Protection (DEEP) will help improve air quality in the Region. The Anti-idling

initiative, which seeks to reduce idling through the enforcement of DEEP's 3 minute anti-idling limit regulation, will reduce ozone and particulate matter. DEEP's diesel retrofit program seeks to reduce diesel emissions through the retrofitting of emission controls on diesel truck and bus fleets. The utilization of these and other programs to improve air quality will be important to the health of the residents of the Region.

Congestion Management Process

Highway congestion impacts many locations within the Region. The numerous negative impacts of congestion noted within the various components of the Plan and FAST Act require a process for the management of congestion.

The Congestion Management Process for the regional transportation system must include consideration of congestion issues in each transportation decision made for the Region. Municipal and SCRCOG staff have reviewed the impacts on congestion as part of the normal review process. The Plan endorses this review and suggests that it is a critical for consideration of funding priorities, project timing, project scope, and legislative requests for transportation funding of any mode.

Recent SCRCOG congestion-related activities concentrate on providing data for monitoring congestion. Regional congestion chokepoints were identified and associated morning and afternoon peak hour related average speeds were documented. Congestion choke points were classified by interstate, arterial and core congestion impacts. Volume and operational impacts are key components of the observed congestion. Goals were established for minimum speeds in the congested sections based upon the roadway classification. As

performance measures are adopted, goals for reduced congestion will be determined.



Congestion adversely impacts the Region's economic vitality.

The worst performing portions of the corridors are those associated with the I-95. The Pearl Harbor Memorial Bridge projects and West River Bridge replacement addressed many segments of that congested corridor. In addition to those areas of the Interstate system noted in previous section of the Plan, the portion of I-91 from North Haven to the intersection with I-95 in New Haven can experience significant congestion during morning and afternoon peak travel times. Similarly, the I-95 corridor in the vicinity of Exit 54 to 56 in Branford now experiences significant congestion during the peak travel times on a regular basis. Short to medium term improvements may be necessary to address these issues. Other corridors have been or are programmed for corridor studies under the annual Unified Planning Work Program (UPWP) undertaken by SCRCOG. The corridor studies will identify opportunities for congestion mitigation within the corridor.

Corridor studies represent the first step of framing potential solutions to congestion. The study process involves public outreach, a key step to a successful and viable study recommendation. Public participation allows

input into the planning process which often leads to a recommendation which is more closely aligned with the goals of safety, context-sensitive design, livable communities, and regional economic vitality.

Updates of the Congestion Management System Report will be undertaken periodically to provide a current framework for the prioritization of congestion solutions.

Demand Management Policy

Regional congestion can be addressed either with supply-side tactics or demand-side tactics. It is important to note that neither of these tactics necessarily envisions reducing the number of trips undertaken in the Region. On a policy level, supply-side tactics include increasing roadway capacity, increasing transit capacity, and better managing highway incidents and accidents. Demand-side tactics are designed to reduce or manage the number of persons or vehicles traveling during peak periods or change the mode or length of the trip. These include flexible employer work schedules, telecommuting, pricing and market-oriented strategies, land use policies and local growth management policies.

SCRCOG recognizes that congestion is best addressed through both supply-side and demand-side tactics. Supply-side efforts include additional highway capacity projects programmed through the SCRCOG TIP approval process, the Regional Transit Study, regional planning recommendations, and SCRCOG-led Unified Response Manual (URM) preparation to improve incident and accident response. Demand-side efforts include CTRIDES' efforts to reduce dependence upon the single occupant vehicle, the pursuit of housing strategies which reduce trip generation, and the update of the Regional Plan of Conservation and

Development (POCD), with an emphasis on land use policies which encourage livable communities, control of sprawl, and the preservation of open space.

Intelligent Transportation System (ITS) Policy and Opportunities

The Region's *Intelligent Transportation System Strategic Deployment Plan, New Haven Meriden Metropolitan Area (1999)* frames ITS policy. While primarily identified with highways, ITS is a useful tool for the major modes of transit, highway, and pedestrian travel. Transit ITS opportunities include:

- *Improved information on available parking* – Monitoring of parking in high demand areas can make available information on currently unoccupied parking.
- *Improved on-time performance* – Additional data collected on operations and adherence to schedule can be utilized to implement adjustments to route, timing, or schedules to improve on-time performance, making transit options more reliable for riders.
- *Improved coordination of transit services* – The ability to readily obtain information on various transit options in the Region is limited. Coordinated information would provide options to the traveler in the event of delays and missed connections to other providers.
- *Improved planning of transit services* – Coordination of schedules among the various providers is hampered by the number of operating agencies. Additional coordination would enhance the interconnection of the various transit options.
- *Improved information availability* – Better interchange of information

from the operators will enhance the traveler’s experience with a goal of increasing ridership and service utilization.

- *Real-time information* – Information available to the traveler could be enhanced with real-time information on each route or service.
- *Cost effective transit* – Through the use of ITS strategies, a review of the various services could be undertaken to optimize service, while minimizing the costs of providing the service.

Consultation with Other Agencies

The FAST Act requires better coordination and communication with other agencies, specifically regarding environmental protection, tribal government, wildlife management, land management, and historic preservation. The Act looks to establish a minimum level of contact with these other agencies. In Connecticut, we are fortunate that the existing permitting process has many of these coordination processes in place. Opportunities for improved coordination and communication always exist and the Plan recognizes the need for a high level of coordination and communication. In cooperation with FHWA, CTDOT, FTA, and other necessary agencies, SCRCOG will seek input from other agencies to provide the Region with better transportation projects.

Environmental Mitigation

The FAST Act requires review for the restoration and maintenance of environmental functions that could be impacted by the activities in the Plan. The Connecticut Department of Energy and Environmental Protection (DEEP) permitting requirements are met as part of the design, review, approval, and construction process. Transportation projects

and services must address environmental impacts and mitigation has been utilized in numerous instances to address unavoidable project impacts while reducing or eliminating overall long-term adverse environmental impacts.

Opportunities for environmental mitigation could include:

- Inland or tidal wetland restoration
- Wetland creation
- Stormwater control facilities
- Stormwater quality facilities
- Alternate pavement treatments
- Streambed or channel restoration
- Pollution remediation
- Clean fuel for construction equipment improving air quality.

Each project is evaluated to address the environmental impacts and assess the opportunities for environmental mitigation, considering the specifics of the project and proximity to environmental resources. Specific mitigation activities are then proposed or evaluated and, as pertinent, incorporated into the design. SCRCOG encourages the continuation of this important environmental review.

Tourist and Visitor Welcome Centers and Information Access

Tourism is an important component of the economic vitality of the Region. Transportation alternatives and information are vital to the promotion of the Region as a destination, and the reduction of transportation trips through the Region to other destinations. Strategically placed facilities, in locations such as Union Station, New Haven, Tweed –New Haven Airport, and at the I-95-I-91 interchange, can provide regional attraction and travel information which will benefit travelers and regional economic vitality.

Chapter 16: Financial Plan

The Plan is required by federal guidelines to be fiscally constrained. As a metropolitan transportation plan, the fiscal constraint must be based upon the estimates of the available revenue for transportation needs over the timeframe of the Plan.

CTDOT's Office of STIP, Coordination and Modeling allocated estimated funds to the South Central Region for the period 2023-2050 as follows:

1. CTDOT calculated the total estimated funds for Connecticut (\$53,570,365,877) for the period 2023-2050 by compounding the estimated federal and state funds for FFY 2023 \$ 1,600,000,000 at 1.5% for 28 years.
2. Funding for transportation projects was divided among two project categories:
 - **System Preservation** projects: projects such as repaving roadways, bridge repair or replacement, and any other form of reconstruction in place.
 - **System Improvement** projects: projects that enhance safety, improve mobility, increase system productivity or promote economic growth.
3. Of the total estimated funds (\$53,570,365,877), Major Projects of Statewide Significance culled from the State's Long-Range Plan (\$17,632,713,000) were deducted.
4. Of the balance of the total estimated funds (\$35,937,652,877), 60% was allocated for System Preservation (\$21,562,591,726), and forty percent (40%) was allocated for System Improvement (\$14,375,061,151).
5. Five percent (5%) of the System Preservation funds were distributed equally to each of the MPO/RCOGs and 3.8% of the System Improvement funds were distributed equally to each of the MPO/RCOGs. This provided each of the 10 MPO/RCOGs with a minimum allocation of funds.
6. CTDOT used weighted variables to distribute the remainder of the System Improvement and System Preservation funds. The variables used were Vehicle Miles of Travel (VMT), Average Travel Time Index (AVR TTI), and Lane Miles (LM).
7. The amounts allocated to these variables (VMT, AVR TTI and LM) for each category (System Preservation and System Improvement) were then distributed to each MPO/RCOGs in proportion to its respective percentage to the total of the variables.

Weighing Factors		
Distribution	System Improvements	System Preservation
	Weights	
Vehicle Miles Traveled	0.25	0.25
Average Travel Time Index	0.75	0
Lane Miles	0	0.75

The amount estimated for System Improvement for each MPO/RCOGs is the initial minimum allocation (3.8%), plus the amount allocated from the VMT and AVR TTI calculation. The amount estimated for System Preservation for each MPO/RCOG is the initial minimum allocation (5.0%), plus the amount allocated from the VMT and LM calculation. The estimated amount available to each MPO/RCOG for planning proposes, over the next twenty-eight years, is the sum of the MPO/RCOG's total allocation for System Improvements plus its total allocation for System Preservation and total of identified Major Project in that MPO/RCOG.

The estimated funding allocation for the South Central Region for the period 2023-2050 is:

Allocation of Anticipated FWA Funds (2023 - 2050)	
System Improvements	\$1,711,170,302
System Preservation	\$2,761,695,013
Major Projects of Statewide Significance	\$2,658,825,254
Total	\$7,131,690,570

In addition, CTDOT has prepared a five-year capital plan.

The lists of projects in this plan are not a complete list of projects and priorities of concern to the Region. The Region continually reviews the regional priorities for transportation improvements.

FTA Funds

Maintaining the transit system in a state of good repair will require most of the transit funds available. It is estimated that there could be approximately \$17 billion of federal and state funds available over the next 28 years. This number is based on a yearly total of federal and state funds of approximately \$500 million with a yearly increase of 1.5%. The breakout of Rail vs Bus generally equates to a 70/30 split, therefore approximately \$12 billion could be available for Rail projects and \$5 billion available for Bus projects.

Non-highway revenue for other modes of transportation is required for operating costs, system improvements and system preservation. Funding is available for rail and bus operations and capital is programmed by CTDOT and, per CTDOT guidance, is sufficient to maintain existing service and for system preservation during the timeline of the Plan. Maintaining the transit

system in a state of good repair and the implementation of the TAM plan will require the use of all transit funds for the timeframe of the Plan.

EXPECTED REVENUE FOR RAIL TRANSIT PROJECTS PER MPO				
FEDERAL FUNDS AND STATE SHARE				STATE FUNDED ONLY
MPO	total anticipated funding	FTA share	state share	state funded
SCRCOG	\$1,200,000,000	\$960,000,000	\$240,000,000	\$168,500,000
EXPECTED FEDERAL REVENUE FOR RAIL TRANSIT PROJECTS - MULTIREGIONAL				
FEDERAL FUNDS AND STATE SHARE				STATE FUNDED ONLY
MPO	total anticipated funding	FTA share	state share	
NEW HAVEN LINE - ML (MPOS 1,7,8)	\$85,000,000	\$68,000,000	\$17,000,000	\$9,000,000
NEW HAVEN LINE - SYSTEMWIDE (MPOS 1,2,5,7,8)	\$1,150,000,000	\$920,000,000	\$230,000,000	\$719,000,000
SHORELINE EAST (MPOS 11,13)				\$5,000,000
HARTFORD LINE - VARIOUS				\$186,000,000
METROCOG,SCRCOG - NHLine	\$2,300,000,000	\$1,840,000,000	\$460,000,000	
EXPECTED FEDERAL REVENUE FOR TRANSIT PROJECTS - TRANSIT DISTRICTS				
FEDERAL FUNDS AND STATE SHARE				STATE FUNDED ONLY
TRANSIT DISTRICT	total anticipated funding	FTA share	state share	
CTtransit - New Haven	\$387,380,000	\$309,904,000	\$77,476,000	
Greater New Haven Transit District	\$70,968,750	\$56,775,000	\$14,193,750	
Milford Transit District	\$855,000	\$684,000	\$171,000	
various	\$56,734,000	\$45,387,200	\$11,346,800	

Near Term (2021-2024) Fiscally Constrained Projects

The Transportation Improvement Program (TIP) lists all near term (2021-2024) projects that have funding programmed for both highways and transit. These projects and are included within the fiscal constraint of this Plan and are noted in **Appendix A**.

Increased funding has helped advance several projects. It is expected that costs will increase modestly. CTDOT current policy on estimating addresses these increases to the estimated time of construction. While always an inexact method of estimating, this has led to increased confidence that adequate funding is programmed for the projects. Fiscal constraint always requires the adjustment of anticipated project schedules into future funding allocations. The Region responds to the funding adjustments with the appropriate amendments to the TIP and looks forward to reprogramming any available funds to help implement the long list of projects.

Mid to Long Term Projects

Mid to long term projects (2023-2050) are outlined in **Appendix B**.

The chart provides Project numbers as available or noted as to be determined (TBD) if not. Project route numbers and a brief description are also included. Projects will be funded as they are prioritized in the future and may utilize highway system improvement funds noted above or additional revenue provided in the future. As such, these needed improvements can be utilized to program the system improvement funds. Subsequent plans and revisions will frame evolving needs and priorities, while meeting the requirements of fiscal constraint.

Near Term Projects
2022-2024
Appendix A

Project #	Town	Project Description	Year	Phase	Funding Source	Total Cost	Federal	Non-Federal
0014-0189	Branford	REPLACE COMPUTERIZED TRAFFIC SIGNAL SYSTEM	2023	PD	NHPP	\$655.00	\$524.00	\$131.00
0014-0189	Branford	REPLACE COMPUTERIZED TRAFFIC SIGNAL SYSTEM	2024	FD	NHPP	\$234.00	\$187.00	\$47.00
0014-0189	Branford	REPLACE COMPUTERIZED TRAFFIC SIGNAL SYSTEM	2024	ROW	NHPP	\$50.00	\$40.00	\$10.00
0014-0189	Branford	REPLACE COMPUTERIZED TRAFFIC SIGNAL SYSTEM	2025	CON	NHPP	\$5,251.00	\$4,201.00	\$1,050.00
0043-0129	East Haven	Bike/Ped East Haven Shoreline Greenway Trail	2022	CON	HPP	\$904.00	\$723.00	\$181.00
0043-0129	East Haven	Bike/Ped East Haven Shoreline Greenway Trail	2022	CON	STPT	\$145.00	\$116.00	\$29.00
0043-0132	East Haven	REHAB BR 02166 o/ MORRIS CREEK	2023	CON	STPNH	\$1,500.00	\$1,200.00	\$300.00
0059-0168	Guilford	Pedestrian Sidewalk Improvements	2022	CON	TAPNH	\$625.00	\$500.00	\$125.00
0061-0154	Hamden	FARMINGTON CANAL TRAIL CROSSING IMPRVMENTS	2024	CON	TAPNH	\$1,300.00	\$1,040.00	\$260.00
0061-0155	Hamden	TRAFFIC SIGNAL MODERNIZATION AT VARIOUS LOCATIONS	2023	PD	CMAQ	\$350.00	\$350.00	
0061-0155	Hamden	TRAFFIC SIGNAL MODERNIZATION AT VARIOUS LOCATIONS	2024	FD	CMAQ	\$332.00	\$332.00	
0061-0155	Hamden	TRAFFIC SIGNAL MODERNIZATION AT VARIOUS LOCATIONS	2025	CON	CMAQ	\$3,407.00	\$3,407.00	
007-0265	Regional	Traffic Signal Control Rte 15 Berlin-Meriden	2022	OTH	NHPP	\$1,110.00	\$888.00	\$222.00
0075-0135	Madison	REPLACE BR 04852 o/ HAMMONASSET RIVER	2022	CON	STPNH	\$2,500.00	\$2,000.00	\$500.00
0075-0136	Madison	REPLACE BR 04857 o/ CAMP LAURELWOOD BROOK	2022	CON	STPNH	\$1,875.00	\$1,500.00	\$375.00
0079-0212	Meriden	Rehab Br# 04185 Center St o/Harbor Brook	2023	CON	HPP	\$5,350.00	\$1,067.00	\$4,283.00
0079-0240	Meriden	Interchange Improvements I-91SB,I-691EB, Rte 15 SB	2024	CON	NHPP	\$6,250.00	\$5,000.00	\$1,250.00
0079-0240	Meriden	Interchange Improvements I-91SB,I-691EB, Rte 15 SB	2025	CON	NHPP	\$147,750.00	\$118,200.00	\$29,550.00
0079-0240	Meriden	Interchange Improvements I-91SB,I-691EB, Rte 15 SB	2025	CON	STPNH	\$15,000.00	\$12,000.00	\$3,000.00
0079-0245	Meriden	INTERCHANGE IMPROVEMENTS - I-691 EB to I-91 NB	2023	CON	STATE	\$85,000.00		\$85,000.00
0079-0246	Meriden	Interchange Improvements I-91NB,I-691WB, Rte 15 NB	2023	CON	NHPP	\$6,250.00	\$5,000.00	\$1,250.00
0079-0246	Meriden	Interchange Improvements I-91NB,I-691WB, Rte 15 NB	2024	CON	NFRP	\$21,765.00	\$17,412.00	\$4,353.00
0079-0246	Meriden	Interchange Improvements I-91NB,I-691WB, Rte 15 NB	2024	CON	NHPP	\$25,000.00	\$20,000.00	\$5,000.00
0079-0246	Meriden	Interchange Improvements I-91NB,I-691WB, Rte 15 NB	2025	CON	NFRP	\$108,824.00	\$87,059.00	\$21,765.00
0079-0246	Meriden	Interchange Improvements I-91NB,I-691WB, Rte 15 NB	2025	CON	NHPP	\$53,162.00	\$42,530.00	\$10,632.00
0079-0247	Meriden	Multi-Use Path frm E Main to Wallingford town line	2023	FD	TAPNH	\$189.00	\$151.00	\$38.00
0079-0247	Meriden	Multi-Use Path frm E Main to Wallingford town line	2024	CON	TAPNH	\$1,900.00	\$1,520.00	\$380.00
0079-0248	Meriden	3D Model for Digital As-Builts	2022	OTH	RTAP	\$106.00	\$85.00	\$21.00
0083-0271	Regional	Replace Highway Signs and Supports Rte 15	2023	CON	NHPP	\$11,100.00	\$11,100.00	
0083-0272	Milford	EXTEND DECELERATION LN FOR SB OFF-RAMP AT EXIT 38	2022	PD	NHPP	\$900.00	\$810.00	\$90.00
0083-0272	Milford	EXTEND DECELERATION LN FOR SB OFF-RAMP AT EXIT 38	2025	CON	NHPP	\$4,500.00	\$4,050.00	\$450.00
0083-0272	Milford	EXTEND DECELERATION LN FOR SB OFF-RAMP AT EXIT 38	2025	FD	NHPP	\$600.00	\$540.00	\$60.00
0083-0272	Milford	EXTEND DECELERATION LN FOR SB OFF-RAMP AT EXIT 38	2025	ROW	NHPP	\$50.00	\$45.00	\$5.00
0083-0273	Milford	SIGNING & PAVEMENT MARKING CHANGES	2022	PD	NHPP	\$700.00	\$560.00	\$140.00
0083-0273	Milford	SIGNING & PAVEMENT MARKING CHANGES	2025	CON	NHPP	\$3,100.00	\$2,480.00	\$620.00
0083-0273	Milford	SIGNING & PAVEMENT MARKING CHANGES	2025	FD	NHPP	\$300.00	\$240.00	\$60.00
0083-0275	Milford	DRAINAGE & OPERATIONAL IMPROVEMENTS	2023	PD	NHPP	\$850.00	\$680.00	\$170.00

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0083-0275	Milford	DRAINAGE & OPERATIONAL IMPROVEMENTS	2024	FD	NHPP	\$750.00	\$600.00	\$150.00
0083-0275	Milford	DRAINAGE & OPERATIONAL IMPROVEMENTS	2024	ROW	NHPP	\$50.00	\$40.00	\$10.00
0083-0275	Milford	DRAINAGE & OPERATIONAL IMPROVEMENTS	2025	CON	NHPP	\$5,970.00	\$4,776.00	\$1,194.00
0092-0681	New Haven	Intersection Improvement @ SR 745 and Kimberly Ave	2024	CON	STPNH	\$4,400.00	\$3,520.00	\$880.00
0092-0682	New Haven	Traffic Signal Modernization at Various Locations	2023	CON	CMAQ	\$2,402.00	\$1,537.00	\$865.00
0092-0686	New Haven	install MASH metal beam rail	2022	CON	NHPP	\$1,826.00	\$1,461.00	\$365.00
0092-0686	New Haven	install MASH metal beam rail	2022	CON	REP	\$204.00	\$163.00	\$41.00
0092-0686	New Haven	install MASH metal beam rail	2022	FD	NHPP	\$285.00	\$228.00	\$57.00
0092-0687	New Haven	Rehab Movable Br 00337 o/ Quinnipiac River	2023	FD	NHPP-BRX	\$1,300.00	\$1,040.00	\$260.00
0092-0689	New Haven	Intercahnge 59 / Route 69 improvements Phase 2	2021	PD	NHPP	\$2,161.00	\$1,729.00	\$432.00
0092-0689	New Haven	Intercahnge 59 / Route 69 improvements Phase 2	2024	FD	NHPP	\$2,000.00	\$1,600.00	\$400.00
0092-0689	New Haven	Intercahnge 59 / Route 69 improvements Phase 2	2024	ROW	NHPP	\$1,760.00	\$1,408.00	\$352.00
0092-0689	New Haven	Intercahnge 59 / Route 69 improvements Phase 2	2025	CON	NHPP	\$33,021.00	\$26,417.00	\$6,604.00
0092-0694	New Haven	I-91 Camera Upgrade/Expansion	2022	PD	CMAQ	\$1,262.00	\$1,136.00	\$126.00
0092-0694	New Haven	I-91 Camera Upgrade/Expansion	2023	FD	CMAQ	\$938.00	\$844.00	\$94.00
0092-0694	New Haven	I-91 Camera Upgrade/Expansion	2024	CON	CMAQ	\$22,000.00	\$19,800.00	\$2,200.00
0092-0695	New Haven	REHAB BRS 03015A & 03015B	2022	PD	NHPP-BRX	\$926.00	\$833.00	\$93.00
0092-0695	New Haven	REHAB BRS 03015A & 03015B	2024	FD	NHPP-BRX	\$670.00	\$603.00	\$67.00
0092-0695	New Haven	REHAB BRS 03015A & 03015B	2024	ROW	NHPP-BRX	\$50.00	\$45.00	\$5.00
0092-0695	New Haven	REHAB BRS 03015A & 03015B	2025	CON	NHPP-BRX	\$13,000.00	\$11,700.00	\$1,300.00
0092-0696	New Haven	Rehab Bridge #00333 rte34 o/ rte 1 and MNRR	2022	PD	NHPP-BRX	\$1,105.00	\$884.00	\$221.00
0092-0696	New Haven	Rehab Bridge #00333 rte34 o/ rte 1 and MNRR	2024	FD	NHPP-BRX	\$814.00	\$651.00	\$163.00
0092-0696	New Haven	Rehab Bridge #00333 rte34 o/ rte 1 and MNRR	2024	ROW	NHPP-BRX	\$50.00	\$40.00	\$10.00
0092-0696	New Haven	Rehab Bridge #00333 rte34 o/ rte 1 and MNRR	2025	CON	BRFP	\$16,600.00	\$13,280.00	\$3,320.00
0092-EM01	New Haven	Downtown Crossing Phase 4- Temple Street Crossing	2025	FD	EM21	\$25,000.00	\$20,000.00	\$5,000.00
0100-0180	North Haven	REPLACE HIGHWAY SIGNS & SUPPORTS	2022	CON	STPNH	\$7,796.00	\$7,796.00	
0100-0182	North Haven	CT 15 Exit 62 NB Ramps Reconfiguration	2024	FD	STPNH	\$1,925.00	\$1,540.00	\$385.00
0100-0182	North Haven	CT 15 Exit 62 NB Ramps Reconfiguration	2024	ROW	STPNH	\$50.00	\$40.00	\$10.00
0106-0108	Orange	US 1: Milford City Line to Rt 114 Widening	2023	CON	STPNH	\$15,000.00	\$12,000.00	\$3,000.00
0106-0108	Orange	US 1: Milford City Line to Rt 114 Widening	2024	CON	STPNH	\$5,000.00	\$4,000.00	\$1,000.00
0148-0212	Wallingford	REHAB BR 03225 o/ BROOK	2022	CON	STPNH	\$3,375.00	\$2,700.00	\$675.00
0156-0178	West Haven	Sidewalk and Bike Path Streetscape	2023	CON	HPP	\$724.00	\$724.00	
0156-0181	West Haven	Replace Br #00162 Design-Build	2022	CON	NHPP-BRX	\$94,444.00	\$85,000.00	\$9,444.00
0156-0181	West Haven	Replace Br #00162 Design-Build	2023	CON	NHPP-BRX	\$10,556.00	\$9,500.00	\$1,056.00
0167-0108	Woodbridge	Tunnel Improvement on Route 15	2025	CON	NHPP-BRX	\$200,000.00	\$160,000.00	\$40,000.00
0170-0BRX	Statewide	On/Off Systems Bridge Improvements (Bridge Report)	2022	ALL	NHPP-BRX	\$50,000.00	\$40,000.00	\$10,000.00
0170-0BRX	Statewide	On/Off Systems Bridge Improvements (Bridge Report)	2023	ALL	NHPP-BRX	\$50,000.00	\$40,000.00	\$10,000.00

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0170-0BRX	Statewide	On/Off Systems Bridge Improvements (Bridge Report)	2024	ALL	NHPP-BRX	\$440,000.00	\$40,000.00	\$400,000.00
0170-3403	Statewide	Transit Capital Planning FY21	2021	OTH	5307C	\$450.00	\$360.00	\$90.00
0170-3417	Statewide	Mast Arm & Span Pole Insp Statewide	2022	OTH	STPA	\$750.00	\$600.00	\$150.00
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2022	FD	NHPP-BRX	\$550.00	\$495.00	\$55.00
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2022	FD	NHPP-BRX State	\$0.00		
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2022	ROW	NHPP-BRX	\$50.00	\$45.00	\$5.00
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2022	ROW	NHPP-BRX State	\$0.00		
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2023	CON	NHPP-BRX	\$16,600.00	\$14,940.00	\$1,660.00
0170-3548	Statewide	PIN & HANGER ASSEMBLIES FOR FRACTURE CRITICAL Brgd	2023	CON	NHPP-BRX State	\$0.00		
0170-3551	Statewide	MINOR REHAB - NHS NBI BRIDGES w/ PIN & HANGER	2022	CON	NHPP-BRX	\$9,100.00	\$7,280.00	\$1,820.00
0170-3551	Statewide	MINOR REHAB - NHS NBI BRIDGES w/ PIN & HANGER	2022	CON	NHPP-BRX State	\$0.00		
0170-3577	Statewide	Line Striping and Pavement Markings (1 of 4)	2022	CON	STPA	\$2,000.00	\$2,000.00	
0170-3577	Statewide	Line Striping and Pavement Markings (1 of 4)	2023	CON	STPA	\$2,000.00	\$2,000.00	
0170-3578	Statewide	Line Striping and Pavement Markings (1 of 4)	2022	CON	STPA	\$2,000.00	\$2,000.00	
0170-3578	Statewide	Line Striping and Pavement Markings (1 of 4)	2023	CON	STPA	\$2,000.00	\$2,000.00	
0170-3579	Statewide	Line Striping and Pavement Markings (1 of 4)	2022	CON	STPA	\$2,000.00	\$2,000.00	
0170-3579	Statewide	Line Striping and Pavement Markings (1 of 4)	2023	CON	STPA	\$2,000.00	\$2,000.00	
0170-3580	Statewide	Line Striping and Pavement Markings (1 of 4)	2022	CON	STPA	\$2,000.00	\$2,000.00	
0170-3580	Statewide	Line Striping and Pavement Markings (1 of 4)	2023	CON	STPA	\$2,000.00	\$2,000.00	
0170-3625	Statewide	Statewide TDM (NY-NJ-CT)	2022	OTH	CMAQ	\$2,465.00	\$1,972.00	\$493.00
0170-3629	Statewide	INSTALL EV CHARGERS AT CTDOT D2, 3 & 4 HQS	2023	CON	CMAQ	\$1,340.00	\$1,072.00	\$268.00
0170-3633	Statewide	Asset Management Group (AMG)	2023	PL	STPA	\$3,140.00	\$2,512.00	\$628.00
0170-3635	Statewide	Bridge Management Group (BMG)	2023	PL	STPA-BRX	\$2,400.00	\$1,920.00	\$480.00
0170-3636	Statewide	Pavement Management Group PMG	2023	PL	STPA	\$2,400.00	\$1,920.00	\$480.00
0170-3639	Statewide	COMPUTERIZED TRAFFIC SIGNAL SYSTEMS OPS IMPROVMNT	2023	CON	STPA	\$0.00	\$0.00	
0170-3639	Statewide	COMPUTERIZED TRAFFIC SIGNAL SYSTEMS OPS IMPROVMNT	2023	OTH	STPA	\$3,920.00	\$3,136.00	\$784.00
0170-3639	Statewide	COMPUTERIZED TRAFFIC SIGNAL SYSTEMS OPS IMPROVMNT	2024	OTH	STPA	\$4,360.00	\$3,488.00	\$872.00
0170-3639	Statewide	COMPUTERIZED TRAFFIC SIGNAL SYSTEMS OPS IMPROVMNT	2025	OTH	STPA	\$11,430.00	\$9,144.00	\$2,286.00
0170-5031	Statewide	I-95 Bridges Concrete Sealing	2022	CON	BRFP	\$10,880.00	\$8,704.00	\$2,176.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPB	\$106.00	\$106.00	
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAP-FLEX	\$301.00	\$301.00	
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPH	\$140.00	\$112.00	\$28.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPNH	\$85.00	\$68.00	\$17.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPNL	\$29.00	\$23.00	\$6.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPS	\$14.00	\$11.00	\$3.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2023	ENG	TAPW	\$4.00	\$3.00	\$1.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPB	\$133.00	\$106.00	\$27.00

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0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAP-FLEX	\$376.00	\$301.00	\$75.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPH	\$157.00	\$112.00	\$45.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPNH	\$68.00	\$68.00	
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPNL	\$29.00	\$23.00	\$6.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPS	\$14.00	\$11.00	\$3.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2024	ENG	TAPW	\$4.00	\$3.00	\$1.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPB	\$399.00	\$319.00	\$80.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAP-FLEX	\$1,128.00	\$902.00	\$226.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPH	\$471.00	\$336.00	\$135.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPNH	\$204.00	\$204.00	
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPNL	\$85.00	\$68.00	\$17.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPS	\$41.00	\$33.00	\$8.00
0170-5032	Statewide	TA PROGRAM- Consulting Engineer PE Activities	2025	ENG	TAPW	\$12.00	\$10.00	\$2.00
0170-BSIP	Statewide	STATEWIDE BUS SHELTER IMPROVEMENT PROGRAM	2021	OTH	5307C	\$1,500.00	\$1,200.00	\$300.00
0170-BSIP	Statewide	STATEWIDE BUS SHELTER IMPROVEMENT PROGRAM	2022	OTH	5307C	\$1,500.00	\$1,200.00	\$300.00
0170-BSIP	Statewide	STATEWIDE BUS SHELTER IMPROVEMENT PROGRAM	2023	OTH	5307C	\$1,500.00	\$1,200.00	\$300.00
0170-BSIP	Statewide	STATEWIDE BUS SHELTER IMPROVEMENT PROGRAM	2024	OTH	5307C	\$1,500.00	\$1,200.00	\$300.00
0170-SFTY	Statewide	Safety Program, HSIP rural and other	2022	ALL	HSIP	\$48,831.00	\$43,948.00	\$4,883.00
0170-SFTY	Statewide	Safety Program, HSIP rural and other	2023	ALL	HSIP	\$22,222.00	\$20,000.00	\$2,222.00
0170-SFTY	Statewide	Safety Program, HSIP rural and other	2024	ALL	HSIP	\$22,222.00	\$20,000.00	\$2,222.00
0170-TCP	Statewide	Transit Capital Planning	2021	OTH	5307C	\$450.00	\$360.00	\$90.00
0170-TCP	Statewide	Transit Capital Planning	2022	OTH	5307C	\$450.00	\$360.00	\$90.00
0170-TCP	Statewide	Transit Capital Planning	2023	OTH	5307C	\$450.00	\$360.00	\$90.00
0170-TCP	Statewide	Transit Capital Planning	2024	OTH	5307C	\$450.00	\$360.00	\$90.00
0170-XXXX	Regional	5310 ENHANCED MOBILITY OF SENIORS/DISABLED	2022	OTH	5310E	\$931.00	\$531.00	\$400.00
0170-XXXX	Regional	5310 ENHANCED MOBILITY OF SENIORS/DISABLED	2022	OTH	5310P	\$1,068.00	\$1,068.00	
0170-XXXX	Regional	5310 ENHANCED MOBILITY OF SENIORS/DISABLED	2023	OTH	5310E	\$684.00	\$547.00	\$137.00
0170-XXXX	Regional	5310 ENHANCED MOBILITY OF SENIORS/DISABLED	2024	OTH	5310E	\$704.00	\$563.00	\$141.00
0170-XXXX10	Statewide	SECTION 5311 PROG ADMIN & RTAP PROG	2022	OTH	5311T	\$500.00	\$500.00	
0170-XXXX10	Statewide	SECTION 5311 PROG ADMIN & RTAP PROG	2023	OTH	5311T	\$500.00	\$500.00	
0170-XXXX10	Statewide	SECTION 5311 PROG ADMIN & RTAP PROG	2024	OTH	5311T	\$500.00	\$500.00	
0171-0471	District 1	Replace Traffic Signals @ Various Locations Dist 1	2022	PD	STPA	\$631.00	\$631.00	
0171-0471	District 1	Replace Traffic Signals @ Various Locations Dist 1	2023	FD	STPA	\$517.00	\$517.00	
0171-0471	District 1	Replace Traffic Signals @ Various Locations Dist 1	2023	ROW	STPA	\$140.00	\$140.00	
0171-0484	District 1	UHPC Beam End Repairs on Various Bridges	2022	CON	BRFP	\$32,600.00	\$26,080.00	\$6,520.00
0173-0500	District 3	TRAFFIC SIGNAL SAFETY IMPROVEMENTS PROJ #1	2023	CON	SIPH	\$6,100.00	\$5,490.00	\$610.00
0173-0501	District 3	TRAFFIC SIGNAL SAFETY IMPROVEMENTS PROJ #2	2023	CON	SIPH	\$6,100.00	\$5,490.00	\$610.00

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0173-0510	District 3	Replace Traffic Signals @Various Locations Dist 3	2022	FD	STPA State	\$406.00		\$406.00
0173-0510	District 3	Replace Traffic Signals @Various Locations Dist 3	2022	ROW	STPA State	\$110.00		\$110.00
0173-0512	Statewide	REPLACE TRAFFIC SIGNAL LED LAMPS/VARIOUS LOC	2022	CON	STPA	\$1,700.00	\$1,360.00	\$340.00
0173-0512	Statewide	REPLACE TRAFFIC SIGNAL LED LAMPS/VARIOUS LOC	2022	FD	STPA	\$166.00	\$133.00	\$33.00
0173-0519	District 3	Traffic Signal Upgrades at Various Locations	2022	PD	STPA	\$640.00	\$640.00	
0173-0519	District 3	Traffic Signal Upgrades at Various Locations	2023	FD	STPA	\$563.00	\$563.00	
0173-0519	District 3	Traffic Signal Upgrades at Various Locations	2023	ROW	STPA	\$130.00	\$130.00	
0173-0526	District 3	Traffic Signal LED Relamp	2022	CON	STPA	\$2,245.00	\$1,796.00	\$449.00
0173-0531	District 3	REPLACE TRAFFIC SIGNALS AT VARIOUS LOCATIONS	2023	PD	STPA	\$631.00	\$631.00	
0173-0531	District 3	REPLACE TRAFFIC SIGNALS AT VARIOUS LOCATIONS	2024	FD	STPA	\$542.00	\$542.00	
0173-0531	District 3	REPLACE TRAFFIC SIGNALS AT VARIOUS LOCATIONS	2024	ROW	STPA	\$140.00	\$140.00	
0173-0532	District 3	Replace Traffic Signal Controllers & Cabinets	2023	CON	STPA	\$6,400.00	\$6,400.00	
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2022	CON	5307C	\$8,125.00	\$6,500.00	\$1,625.00
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2022	CON	5337	\$15,000.00	\$12,000.00	\$3,000.00
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2023	CON	5307C	\$5,625.00	\$4,500.00	\$1,125.00
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2023	CON	5337	\$10,000.00	\$8,000.00	\$2,000.00
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2024	CON	5307C	\$5,625.00	\$4,500.00	\$1,125.00
0300-XXXX	New Haven	NEW HAVEN LINE TRACK PROGRAM	2024	CON	5337	\$15,000.00	\$12,000.00	\$3,000.00
0300-XXXX2	Statewide	NHL-STATION IMPROVEMENT PROGRAM	2022	PD	5307C	\$16,875.00	\$13,500.00	\$3,375.00
0300-XXXX2	Statewide	NHL-STATION IMPROVEMENT PROGRAM	2024	CON	5307C	\$52,500.00	\$42,000.00	\$10,500.00
0300-XXXX3	Statewide	NHL-SIGNAL SYSTEM REPLACEMENT	2022	CON	5307C	\$17,500.00	\$14,000.00	\$3,500.00
0300-XXXX3	Statewide	NHL-SIGNAL SYSTEM REPLACEMENT	2022	CON	5337	\$25,000.00	\$20,000.00	\$5,000.00
0300-XXXX4	Statewide	NETWORK INFRASTRUCTURE UPGRADE PHASE 4	2024	CON	5337	\$25,000.00	\$20,000.00	\$5,000.00
0300-XXXX6	Statewide	NEW HAVEN LINE TRACK PROGRAM FY 22	2022	CON	5337	\$25,000.00	\$20,000.00	\$5,000.00
0301-0154	Statewide	NHL-SIGNAL SYSTEM REPLACEMENT	2023	CON	5337	\$25,000.00	\$20,000.00	\$5,000.00
0301-0168	Statewide	NHL-DEVON MOVABLE BRIDGE ADDITIONAL PE	2022	PD	5307C	\$15,000.00	\$12,000.00	\$3,000.00
0301-0168	Statewide	NHL-DEVON MOVABLE BRIDGE ADDITIONAL PE	2023	PD	5307C	\$15,000.00	\$12,000.00	\$3,000.00
0400-XXXX	Statewide	CTTRANSIT FACILITY IMPROVEMENT/MISC ADMIN CAPITAL	2022	OTH	5307C	\$1,000.00	\$800.00	\$200.00
0400-XXXX	Statewide	CTTRANSIT FACILITY IMPROVEMENT/MISC ADMIN CAPITAL	2023	OTH	5307C	\$1,000.00	\$800.00	\$200.00
0400-XXXX	Statewide	CTTRANSIT FACILITY IMPROVEMENT/MISC ADMIN CAPITAL	2024	OTH	5307C	\$1,000.00	\$800.00	\$200.00
0400-XXXX1	Statewide	CTTRANSIT SYSTEMWIDE BUS REPLACEMENTS	2022	OTH	5307C	\$10,000.00	\$8,000.00	\$2,000.00
0400-XXXX1	Statewide	CTTRANSIT SYSTEMWIDE BUS REPLACEMENTS	2022	OTH	5339	\$938.00	\$750.00	\$188.00
0400-XXXX1	Statewide	CTTRANSIT SYSTEMWIDE BUS REPLACEMENTS	2023	OTH	5339	\$4,938.00	\$3,950.00	\$988.00
0400-XXXX1	Statewide	CTTRANSIT SYSTEMWIDE BUS REPLACEMENTS	2024	OTH	5307C	\$21,250.00	\$17,000.00	\$4,250.00
0400-XXXX1	Statewide	CTTRANSIT SYSTEMWIDE BUS REPLACEMENTS	2024	OTH	5339	\$938.00	\$750.00	\$188.00
0400-XXXX2	Statewide	CTTRANSIT FACILITY IMPROVEMENTS (HRTFD/STMFRD)	2022	ALL	5307C	\$11,368.00	\$9,094.00	\$2,274.00
0400-XXXX2	Statewide	CTTRANSIT FACILITY IMPROVEMENTS (HRTFD/STMFRD)	2024	ALL	5307C	\$35,000.00	\$28,000.00	\$7,000.00

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2022-2024
Appendix A

Project #	Town	Project Description	Year	Phase	Funding Source	Total Cost	Federal	Non-Federal
0400-XXXX3	Statewide	CTTRANSIT FACILITY IMPROVEMENTS	2022	ALL	5339	\$4,938.00	\$3,950.00	\$988.00
0400-XXXX3	Statewide	CTTRANSIT FACILITY IMPROVEMENTS	2023	ALL	5339	\$938.00	\$750.00	\$188.00
0400-XXXX3	Statewide	CTTRANSIT FACILITY IMPROVEMENTS	2024	ALL	5339	\$4,938.00	\$3,950.00	\$988.00
0400-XXXX5	Statewide	STATEWIDE BUS REPLACEMENTS FY19, 20, 21	2022	OTH	5339P	\$30,000.00	\$24,000.00	\$6,000.00
0400-XXXX6	Statewide	SYSWD ADMIN CAP/MISC SPT/FAC IMPROV FY19 20 21	2022	OTH	5339P	\$1,539.00	\$1,231.00	\$308.00
0400-XXXX7	Statewide	CT ZERO EMISSION BUS PROGRAM	2022	OTH	5339Q	\$14,309.00	\$11,447.00	\$2,862.00
0402-XXXX	Statewide	CTTRANSIT NH bus service expansion- FHWA - FTA5307	2022	OTH	5307S	\$7,311.00	\$5,849.00	\$1,462.00
0402-XXXX	Statewide	CTTRANSIT NH bus service expansion- FHWA - FTA5307	2023	OTH	5307S	\$5,849.00	\$4,679.00	\$1,170.00
0402-XXXX	Statewide	CTTRANSIT NH bus service expansion- FHWA - FTA5307	2024	OTH	5307S	\$4,386.00	\$3,509.00	\$877.00
0424-XXXX	Milford	MILFORD TD ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2023	OTH	5307C	\$400.00	\$320.00	\$80.00
0424-XXXX	Milford	MILFORD TD ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2023	OTH	5307P	\$545.00	\$436.00	\$109.00
0424-XXXX	Milford	MILFORD TD ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2024	OTH	5307C	\$400.00	\$320.00	\$80.00
0424-XXXX1	Milford	MILFORD TD PARATRANSIT VEHICLES	2023	OTH	5307P	\$250.00	\$200.00	\$50.00
0424-XXXX2	Milford	MILFORD TD- FACILITY IMPROVEMENTS	2023	CON	5307C	\$75.00	\$60.00	\$15.00
0424-XXXX2	Milford	MILFORD TD- FACILITY IMPROVEMENTS	2023	CON	5307P	\$75.00	\$60.00	\$15.00
0424-XXXX2	Milford	MILFORD TD- FACILITY IMPROVEMENTS	2024	CON	5307C	\$100.00	\$80.00	\$20.00
0424-XXXX3	Milford	MILFORD TD - BUS REPLACEMENT FUNDING FY 22	2023	ALL	5307P	\$120.00	\$96.00	\$24.00
0426-XXXX	Regional	GHTD/GNHTD - ELECTRIC VEHICLE PILOT PROGRAM FY22	2023	ALL	5307P	\$1,200.00	\$960.00	\$240.00
0427-XXXX	Hamden	GNHTD- ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2023	OTH	5307C	\$500.00	\$400.00	\$100.00
0427-XXXX	Hamden	GNHTD- ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2023	OTH	5307P	\$25.00	\$20.00	\$5.00
0427-XXXX	Hamden	GNHTD- ADMIN CAPITAL/SUPPORT EQUIP/SCV PROGRAM	2024	OTH	5307C	\$500.00	\$400.00	\$100.00
0427-XXXX1	Hamden	GNHTD- REPLACE PARATRANSIT VEHICLES	2023	OTH	5307C	\$1,500.00	\$1,200.00	\$300.00
0427-XXXX1	Hamden	GNHTD- REPLACE PARATRANSIT VEHICLES	2024	OTH	5307C	\$1,800.00	\$1,440.00	\$360.00
0427-XXXX2	Hamden	CTDOT NEW BUS ADMIN/MAINTENANCE FACILITY-GNHTD	2025	CON	5307C	\$25,000.00	\$20,000.00	\$5,000.00
0427-XXXX3	Hamden	GNHTD - FACILITY IMPROVEMENTS/REPAIRS FY22	2023	ALL	5307P	\$175.00	\$140.00	\$35.00
170C-ENHS	Statewide	CE BRIDGE INSPECTION - NHS ROADS, NBI BRIDGES ONLY	2022	OTH	NHPP-BRX	\$15,000.00	\$12,000.00	\$3,000.00
170C-ENHS	Statewide	CE BRIDGE INSPECTION - NHS ROADS, NBI BRIDGES ONLY	2023	OTH	NHPP-BRX	\$15,000.00	\$12,000.00	\$3,000.00
170C-ENHS	Statewide	CE BRIDGE INSPECTION - NHS ROADS, NBI BRIDGES ONLY	2024	OTH	NHPP-BRX	\$15,000.00	\$12,000.00	\$3,000.00
170C-ENHS	Statewide	CE BRIDGE INSPECTION - NHS ROADS, NBI BRIDGES ONLY	2025	OTH	NHPP-BRX	\$15,000.00	\$12,000.00	\$3,000.00
170C-ENON	Statewide	CE BRIDGE INSPECTION - NON-NHS ROADS	2022	OTH	STPA-BRX	\$8,000.00	\$6,400.00	\$1,600.00
170C-ENON	Statewide	CE BRIDGE INSPECTION - NON-NHS ROADS	2023	OTH	STPA-BRX	\$8,000.00	\$6,400.00	\$1,600.00
170C-ENON	Statewide	CE BRIDGE INSPECTION - NON-NHS ROADS	2024	OTH	STPA-BRX	\$8,000.00	\$6,400.00	\$1,600.00
170C-ENON	Statewide	CE BRIDGE INSPECTION - NON-NHS ROADS	2025	OTH	STPA-BRX	\$8,000.00	\$6,400.00	\$1,600.00
170S-FNHS	Statewide	SF BRIDGE INSPECTION - NHS ROADS	2022	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
170S-FNHS	Statewide	SF BRIDGE INSPECTION - NHS ROADS	2023	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
170S-FNHS	Statewide	SF BRIDGE INSPECTION - NHS ROADS	2024	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
170S-FNHS	Statewide	SF BRIDGE INSPECTION - NHS ROADS	2025	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00

Near Term Projects
2022-2024
Appendix A

Project #	Town	Project Description	Year	Phase	Funding Source	Total Cost	Federal	Non-Federal
1705-FNON	Statewide	SF BRIDGE INSPECTION - NON-NHS ROADS	2022	OTH	STPA-BRX	\$2,500.00	\$2,000.00	\$500.00
1705-FNON	Statewide	SF BRIDGE INSPECTION - NON-NHS ROADS	2023	OTH	STPA-BRX	\$2,500.00	\$2,000.00	\$500.00
1705-FNON	Statewide	SF BRIDGE INSPECTION - NON-NHS ROADS	2024	OTH	STPA-BRX	\$2,500.00	\$2,000.00	\$500.00
1705-FNON	Statewide	SF BRIDGE INSPECTION - NON-NHS ROADS	2025	OTH	STPA-BRX	\$2,500.00	\$2,000.00	\$500.00
1705-SNHS	Statewide	CE SIGN SUPPORT INSPECTION - NHS ROADS	2022	OTH	NHPP	\$2,250.00	\$1,800.00	\$450.00
1705-SNHS	Statewide	CE SIGN SUPPORT INSPECTION - NHS ROADS	2023	OTH	NHPP	\$2,250.00	\$1,800.00	\$450.00
1705-SNHS	Statewide	CE SIGN SUPPORT INSPECTION - NHS ROADS	2024	OTH	NHPP	\$2,250.00	\$1,800.00	\$450.00
1705-SNHS	Statewide	CE SIGN SUPPORT INSPECTION - NHS ROADS	2025	OTH	NHPP	\$2,250.00	\$1,800.00	\$450.00
1705-SNON	Statewide	CE SIGN SUPPORT INSPECTION - NON NHS ROADS	2022	OTH	STPA	\$500.00	\$400.00	\$100.00
1705-SNON	Statewide	CE SIGN SUPPORT INSPECTION - NON NHS ROADS	2023	OTH	STPA	\$500.00	\$400.00	\$100.00
1705-SNON	Statewide	CE SIGN SUPPORT INSPECTION - NON NHS ROADS	2024	OTH	STPA	\$500.00	\$400.00	\$100.00
1705-SNON	Statewide	CE SIGN SUPPORT INSPECTION - NON NHS ROADS	2025	OTH	STPA	\$500.00	\$400.00	\$100.00
BRDG-LRNH	Statewide	LOAD RATINGS FOR BRIDGES - NHS ROADS	2022	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
BRDG-LRNH	Statewide	LOAD RATINGS FOR BRIDGES - NHS ROADS	2023	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
BRDG-LRNH	Statewide	LOAD RATINGS FOR BRIDGES - NHS ROADS	2024	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
BRDG-LRNH	Statewide	LOAD RATINGS FOR BRIDGES - NHS ROADS	2025	OTH	NHPP-BRX	\$2,000.00	\$1,600.00	\$400.00
BRDG-LRNO	Statewide	LOAD RATINGS FOR BRIDGES - NON-NHS ROADS	2022	OTH	STPA-BRX	\$1,000.00	\$800.00	\$200.00
BRDG-LRNO	Statewide	LOAD RATINGS FOR BRIDGES - NON-NHS ROADS	2023	OTH	STPA-BRX	\$1,000.00	\$800.00	\$200.00
BRDG-LRNO	Statewide	LOAD RATINGS FOR BRIDGES - NON-NHS ROADS	2024	OTH	STPA-BRX	\$1,000.00	\$800.00	\$200.00
BRDG-LRNO	Statewide	LOAD RATINGS FOR BRIDGES - NON-NHS ROADS	2025	OTH	STPA-BRX	\$1,000.00	\$800.00	\$200.00
CHMP-XXXX	Statewide	CHAMP SAFETY SERVICE PATROL	2022	OTH	HSIP	\$4,537.00	\$4,083.00	\$454.00
CHMP-XXXX	Statewide	CHAMP SAFETY SERVICE PATROL	2023	OTH	HSIP	\$4,537.00	\$4,083.00	\$454.00
CHMP-XXXX	Statewide	CHAMP SAFETY SERVICE PATROL	2024	OTH	HSIP	\$4,537.00	\$4,083.00	\$454.00
MA SP-INSP	Statewide	MAST ARM & SPAN POLE INSPECTIONS	2024	OTH	STPA	\$700.00	\$560.00	\$140.00
MA SP-INSP	Statewide	MAST ARM & SPAN POLE INSPECTIONS	2024	OTH	STPA State	\$826,912.00		826912

Mild to Long Term Projects
2023-2050
Appendix B

Project Number	Town(s)	MPO	Route/Street/Sys	Brief Project Description		Funding Source	est cost	Air Quality Code
TBD	Wallingford	8	Route 5	ADDITIONAL LANE		TBD	TBD	NM
TBD	Brantford	8	I-95 Exit 53	Interchange reconstruction		TBD	TBD	NM
TBD	Brantford	8	Route 146	Roundabout		TBD	TBD	X7
092-EM01	New Haven	8	RT 34/Temple St	Downtown Crossing Phase 4 - Temple Street Crossing		TBD	\$28,800,000	NM
TBD	HAMDEN	8	CT-15	Interchange Improvements - Exit 60		TBD	\$20,000,000	X7
TBD	HAMDEN	8	CT-15	Interchange Improvements - Exit 61		TBD	\$10,000,000	X7
TBD	NORTH HAVEN	8	CT-15	Interchange Improvements - Exit 63		TBD	\$65,000,000	X7
TBD	VARIOUS	8	CT-15	Interchange Improvements - Removal of Stop-Controlled On-Ramps		TBD		X7
0167-0109	WDBRG/NHVN	8	CT-15	Improve Heroes Tunnel under West Rock Ridge - B/O from 167-108		TBD	\$25,000,000	X6
TBD	MERIDEN	8	I-691	RBC - Pavement Improvements on I-691 - ~MP 0-1.91		TBD	\$40,000,000	X6
0079-0246	MERIDEN	8	I-91 / I-691 / RT 15	I-91 / I-691 / Rt. 15 - Interchange Improvements - NB & NB to WB (B/O from 79-240)		TBD	\$215,000,000	X6
0079-0245	MERIDEN	8	I-91 / I-691 / RT 15	I-91 / I-691 / Rt. 15 - Interchange Improvs - EB to NB (B/O from 79-240) - (Design-Build)		TBD	\$62,000,000	CC
TBD	WEST HAVEN	8	I-95	I-95 Operational Improvements - Exits 43 to 44		TBD	\$40,000,000	CC
TBD	VARIOUS	8	I-95	I-95 Bridgeport to New Haven - Hot Spot Interchange Improvements		TBD		X7
TBD	VARIOUS	8	I-95	I-95 Capacity and Safety Improvements - Brantford to RI State Line (I-95 East PEL Recommendations)		TBD	\$1,500,000,000	PD
0059-0157	MILFORD	8	US 1	Drainage and Roadway Improvements - Vicinity of Milvon Substation		TBD	\$8,000,000	X6
0100-0179	NORTH HAVEN	8	CT 146	Replace Br 02677 of Stream		TBD	\$14,000,000	X6
TBD	MILFORD	8	CT 40	NHS - Rehab/Replace Br 03410 & 03411 of Antrak		TBD	\$11,600,000	X6
TBD	MILFORD	8	I-95	I-95 Ramp Reconfiguration at Exit 38 (Milford Connector)		TBD	\$80,000,000	X7
TBD	MILFORD	8	I-95	I-95 Interchange Reconfiguration Between Exits 39 and 40		TBD	\$60,000,000	X7
0106-0108	ORANGE	8	RT 1	Operational Lane from Milford to CT 114		TBD	\$13,150,000	CC
0079-0244	MERIDEN/SOUTHBURY	8	I-691	I-691 RBC Project - Meriden/Southbury - MP 1.9 to MP 4.85		TBD	\$63,475,254	X6
0079-0240	MERIDEN	8	I-91 / I-691 / RT 15	I-91 / I-691 / Rt. 15 Operational Improvements		TBD	\$169,000,000	CC
0167-0108	WDBRG/NHVN	8	RT 15	Heroes Tunnel Improvement under West Rock Ridge		TBD	\$210,600,000	X7
0092-0689	WDBRG/NHVN	8	RT 15	Rt. 15 Reconstruction and Reconfiguration of Exit 59		TBD	\$52,000,000	X7
TBD	VARIOUS	70	Expressways	Noise Wall Replacement Program (TAM) - Replace existing poor condition noise walls		TBD		X6
TBD	VARIOUS	70	VARIOUS	Culvert Replacement Program (TAM) - Replace existing poor condition culverts		TBD		X6
TBD	VARIOUS	70	VARIOUS	Retaining Wall Program (TAM) - Replace or Repair existing poor condition retaining walls		TBD		X6

Mild to Long Term Projects
2023-2050
Appendix B

Project Number	Town(s)	MPO	Route/Street/Sys	Brief Project Description	Funding Source	est cost	Air Quality Code
301-0522	New Haven	SCRCOG	New Haven	301-0522CN - New Haven Union Station Platform Replacement	State/Fed	370,000,000	X6
320-0005PE (Station) / 320-0008PE (Track)	New Haven	SCRCOG	New Haven	310-0076CN - State Street Station New Track G Platform-Ped Bridge Demo	State	30,000,000	X6
310-0048PE	North Haven	SCRCOG	North Haven (HL)	320-0012CN - The Hartford Line North Haven Station	State	52,000,000	X6
310-0048PE	Guilford	SCRCOG	Guilford (SLE)	310-0039CN - Guilford Railroad Station - Supplemental Parking	State	1,500,000	X6
310-0048PE	Madison	SCRCOG	Madison (SLE)	310-0058CN - Madison RR Station Ped. Bridge & North Platform	State	25,000,000	X6
310-0048PE	Madison	SCRCOG	Madison (SLE)	310-0060CN - Madison RR Station Parking Garage	State	35,000,000	X6
300-0191CN	New Haven Line	78	Various	Station State of Good Repair Program	State	10,000,000	X6
Various	New Haven Line	SCRCOG	New Haven	Additional EV Charging Stations at CCO	State	5,000,000	X6
Various	New Haven Line	78	Various	CSI	State	10,000,000	X6
Various	Milford	SCRCOG	Milford	Indian River Bridge Replacement	State	10,000,000	X6
Various	New Haven Line / HL	78	H Branch Lines & NHL	Concept-Level Electrification Study for CT Rail System	State	2,000,000	X6
TBD	New Haven Line	SCRCOG	Stratford\Milford	Track Improvement Mobility Enhancement (TIME) - Project #3 (E. Main St. Bridge, New CP259, modify CP261)	State/Fed	300,000,000	X6
300-0196	New Haven Line	77	Various	Scour Rehabilitation Project-(Cos Cob M.P. 29.9), (Five Mile River M.P. 39.02), (Norwalk River DB M.P. 9.42),	State	9,000,000	X6
301-0530	Milford	SCRCOG	Milford	Indian River Bridge Replacement (Bridge #8086R, M.P. 64.59)	State	10,000,000	X6
301-0168	Stratford\Milford	7,8	Stratford\Milford	Devon Movable Bridge Rehabilitation	State/Fed	2,000,000,000	X6
300-0097	Railroad Right-of-way	78	Various	Railroad Bridge Inspection Program	State	56,000,000	X6
170-2010	Railroad Right-of-way	78	Various	Off-System Railroad Bridge Inspection Program	State	56,000,000	X6
300-175PE & 300-213CN	New Haven Line	78	Various	S-Program - Metro-North Bridge Repairs Program	State	224,000,000	X6
300-175PE & 170-3368CN	New Haven Line	78	Various	F-Program - Freight Bridge Repairs Program for Freight Line Bridges	State	112,000,000	X6
Various	New Haven Line	78	Various	C-Program (Capital Track Program)	State/Fed	980,000,000	X6
Various	New Haven Line	78	Various	Bridge Timber Program	State	224,000,000	X6
TBD	Railroad Right-of-way	78	Various	5G Program	State	25,000,000	X6
310-0072	SLE / Hartford Line	80	Various	PDS, Connectivity and Improvements to SLE and the Hartford Line	State	5,000,000	X6
300-0202	New Haven Line	78	Various	Upgrade to Network Infrastructure - Phase 3	State/Fed	30,000,000	X6
300-0215	New Haven Line	78	Various	Upgrade to Network Infrastructure - Phase 4	State/Fed	30,000,000	X6
300-0199	New Haven Line	78	Various	Customer Service Initiatives (CSI)	State/Fed	10,000,000	X6
301-0519	New Haven Line	78	Various	New Haven Line - Signal Replacement Program CP244,245,255,257,261 & 266 - Sections 2 & 3	State/Fed	60,000,000	X6
301-0154	New Canaan Line	78	Various	New Haven Line Signal System Replacement Section 4 (New Canaan Branch-Springdale to New Canaan Station)	State/Fed	40,000,000	X6
New Haven Line	New Haven Line	77	Cos Cob / Fair Street	Power Substation Program - Phase 1	State/Fed	35,000,000	X6
301-0520	New Haven Line	77	b Creek/ East Portch	Power Substation Program - Phase 2	State/Fed	30,000,000	X6
New Haven Line	New Haven Line	77	Devon / Cos Cob	Power Substation Program - Phase 3	State/Fed	20,000,000	X6
TBD	CTtransit - NHVN			Infrastructure improvements to accomodate electric vehicles and bring facility up tp state of good repair	State/Fed	156,480,000	X6
TBD	GNHTD			Infrastructure improvements to accomodate electric vehicles and bring facility up tp state of good repair	State/Fed	70,968,750	X6
TBD	MTD			Infrastructure improvements to accomodate electric vehicles and bring facility up tp state of good repair	State/Fed	855,000	X6
TBD	CTtransit - NHVN			Fixed bus replacement - battery electric buses	State/Fed	130,900,000	X6
TBD	various			Park & Ride Lot Repairs & Improvements	State/Fed	56,500,000	X6
TBD	various			Park & Ride Lot Shelter Replacement	State/Fed	234,000	X6
TBD	CTtransit - NHVN			Move New Haven BRT	State/Fed	100,000,000	X6